

ENGINEERING GEOLOGICAL INVESTIGATION OF
PROPOSED CEMETERY SITE AT MELTON

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ABSTRACT

An engineering geological investigation was carried out to assess the suitability of land at Melton for development as a regional cemetery. The works included extensive drilling, trial excavations and some soil testing.

Large areas of the site have good potential for development as a cemetery. Some portions have been designated as marginal due to a higher probability of encountering excavational difficulties. Two areas are regarded as unsuitable; the south-east section has insufficient depth of soil, and the north-west corner is not topographically or geologically suitable.

The major impediment for development of the site as a cemetery is the expansive nature of the soil. This will cause similar problems to those currently observed at the existing Melton cemetery. Some recommendations are made to minimize the severity and the extent of the problem.

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INTRODUCTION

Following a request by the Health Commission of Victoria, Public Health Division, (13-1-84) investigational works were carried out at the proposed cemetery site at Melton, Victoria.

The area examined is property under the control of the Urban Land Authority (ULA) and is located to the north-west of the City of Melton. The property was inspected on February 16, 1984 with Mr A Joseph of the Health Commission and a site with suitable terrain for a regional cemetery was selected.

Extensive drilling and trial excavations were carried out in order to determine the suitability of the site for burial purposes. Subsequent to the study of early results, the investigation was broadened to include a larger area of the ULA land to the north of the initial site.

SITE LOCATION AND TERRAIN

The site is situated approximately 40km WNW of Melbourne in the parish of Djerrivarrh. It is bounded by Bulmans Rd to the east, Harkness Rd to the west and lies 700 metres south of Porteous Rd. The area is included within the boundaries of the Melton development corridor.

The site covers approximately 265 Ha and is mostly flat land used for crop farming. The western branch of Arnold's Creek bisects the southern portion of the site and this, together with a small drainage line in the south-east corner, provides the only drainage.

In the north-west corner, depressions up to one metre deep and 3 to 10 metres across occur. This area has been designated as the "sink-hole plain" by the Soil Conservation Authority (SCA), and is largely uncleared. It is regarded both topographically and geologically unsuitable for development as a cemetery.

In general, the site is treeless apart from the sink-hole plain, parts of the central watercourse and the driveway to an abandoned

house at the east. The southern part of the site has been prepared for crop farming, with the northern areas being used for sheep grazing. Presumably the recent history of the site would show similar agricultural use.

Site details are shown in figs 1 & 4.

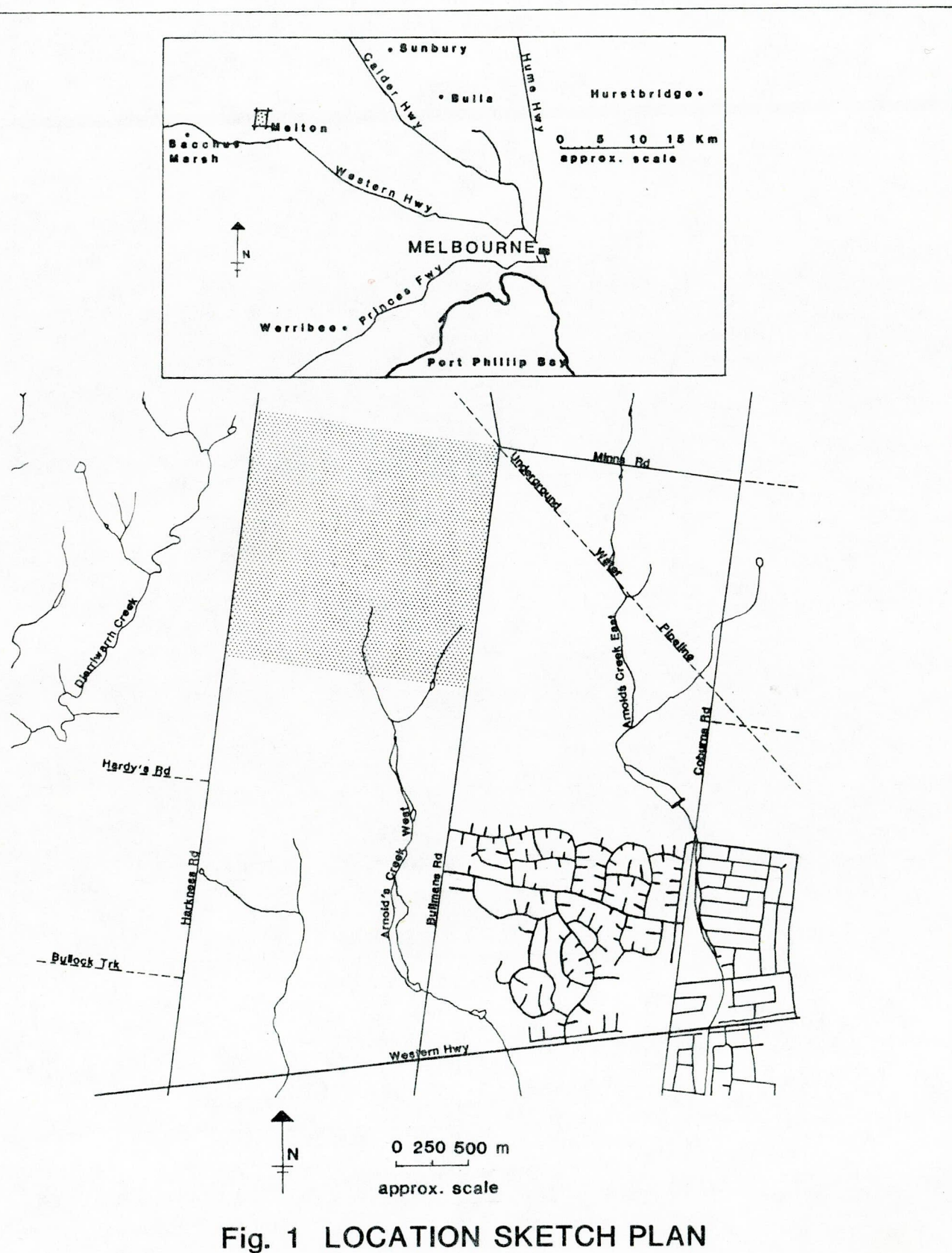


Fig. 1 LOCATION SKETCH PLAN

GEOLOGY

The surface geology of the site comprises the following two units:-

Quaternary Newer Basalt

Basalt formed by volcanic activity during the Quaternary Geological Period constitutes the bedrock of the site. This material has been weathered to a highly plastic, clayey soil which exhibits considerable shrink-swell properties. Differential weathering along joints in the rock mass has left boulders (commonly termed "floaters") scattered throughout the soil profile and these vary in size from 20cm to several metres. This form of weathering has caused an undulating rock-soil interface, thus making the depth of soil difficult to predict to within a metre.

Quaternary Gravel

A thin cover of gravels, sands and silts has been deposited over the basalt and the residual basalt soil. The probable source of this material is the Comadai Fault scarp, which forms the Gisborne Highlands approximately 3 kilometres north of the site. Material eroded from the scarp was probably washed over the plain in sheet floods, especially before the development of Djerriwarrh Creek.

These deposits are visible as surface material in the north-west section of the site and are generally absent on the eastern side.

PEDOLOGY

Soil development over the past million years or so has produced some characteristic features in the soil profile, which reflect the physical and chemical processes involved.

The normal chemical decomposition of the basalt rock has produced a soil chiefly composed of montmorillinite clay. This clay is noted for its volumetric response to changes in moisture content and subsequently exhibits considerable variation in its seasonal behaviour. This is expressed on the surface as hard, dry, brittle soil with deep shrinkage cracks in summer and soft, wet, sticky soil in winter.

The shrink-swell nature of the soil causes a micro-relief of broad, gently undulations or "gilgai" which are observed at the site by almost imperceptible depressions several metres across and only 200cm or so deep. In ploughed paddocks these are readily visible as darker patches and are often waterlogged in winter.

The physical process responsible for the formation of the gilgai has also allowed the outwash sands and gravels to mix with the residual soils. This is often shown in the soil profile as sand filled fissures, sand lenses and horizons of sandy and gravelly clay.

Rainwater percolating through the soil has leached some of the minerals originally present in the basalt and deposited these as calcareous nodules at lower depths. These are typically soft, crumbly, white nodules up to 15cm across generally occurring in a layer. They delineate the depth of penetration of the winter rain and are usually found at depths between 0.5 and 1.5 metres.

Ironstone gravels, commonly referred to as "buckshot", also occur in the profile. These gravels are formed in the soil due to intermittent waterlogging and largely consist of black, subrounded sands and gravels dispersed throughout the soil profile.

On the sink-hole plain in the north-western quarter of the site, the soil surface is affected by apparent subsidence. Although the mechanism of the subsidence remains unknown, it has been observed to be still active. Since early 1983 several new "sink-holes" have been observed to subside in the treed area and in the road reserve. Several theories have been suggested to account for their origin, however none provide a complete explanation. The most likely interpretation is that they are an extension of the gilgai process. These features are shown in plates 1 & 2.

The soils covering the site show a generally uniform profile as follows:-

- Surface soils: Red-brown or dark brown silty clays or clayey silts, low to moderate plasticity with a blocky or friable texture.
- Subsoil : Yellow-brown, grey or mottled clays or sandy clays, highly plastic, stiff, fissured with occasional basalt floaters and calcareous nodules throughout.



Plate 1 Recent Subsidence in the 'Sinkhole Plain'



Plate 2 Old Subsidence features in the sinkhole plain



Plate 3 Typical soil profile exposed in a test pit



Plate 4 Slickenslide surface in the clay

INVESTIGATION PROGRAMME

Drilling

A drilling programme aimed at investigating the soil depth and type was carried out during May, June and July 1984.

Three types of drilling rigs were used, depending on their availability and the type of information required. The rigs are owned and operated by the Department of Minerals and Energy.

. A Gemco 210B rotary rig, equipped with modified hollow-flight augers was used to obtain continuous soil cores. This provided information on soil type and profile as well as an indication of depth to rock.

. A Gemco HS7 rotary rig, equipped with solid flight augers was used to obtain general soil depths and types.

. A Minuteman rotary rig, equipped with solid-flight augers was used to check the soil depth in areas where anomalous depths were obtained.

Fifty-eight bores were drilled in total, to an average depth of 3.1 metres. The location of these bores is shown in figure 4.

The first 30 bore locations were selected on a grid basis with the remaining ones being randomly chosen to provide coverage of selected areas. This approach reflects the change in the objectives of the investigation programme as outlined in the introduction.

Trial Excavations

A total of 32 pits were excavated using a Case 580C backhoe, with 60cm bucket. The backhoe was operated by the private contractor who usually excavates the grave-pits at the existing Melton cemetery.

The first fifteen test pits were located on a grid with the remainder randomly located to explore specific areas (figure 4). Each pit was examined carefully to assess ease of excavation and evaluate any potential problems associated with burial.

Soil Testing

Six samples were selected for testing as typical examples of the soil type found at the depth of burial. Two samples of topsoil were also selected to determine the variation in the properties of the surface material.

Index tests were carried out to determine the degree of soil plasticity which broadly indicates the potential extent for seasonal movement.

RESULTS AND DISCUSSION

Drilling

The soil core recovered by the Gemco 210 drilling rig is described in the borehole logs included as Appendix 1. The depth of soil indicated by the drilling is strictly taken as a "depth to auger refusal", since the auger penetration may stop on a cobble sized floater rather than the bedrock. Four anomalous depths were checked using the small "Minuteman" rig which showed that the anomalies were probably due to auger refusal occurring on a floater.

However, the depths generally concur with those found within the limits of the trial excavations, which was a maximum of 3 metres for this machine. The results indicate sufficient depth of soil for the burial of three or four coffins over a substantial area of the site.

Trial Excavations

The trial excavations showed that the backhoe was easily able to excavate to three metres in 14 locations and to the minimum required depth (1.4 metres) in 25 locations. This is shown graphically in figure 2, which indicates that 89% of the test pits reached the minimum depth requirement for the burial of one coffin.

Soils observed in the test pits at the depth of burial were clays, silty clays and sandy clays of high plasticity (Appendix 2). These are often jointed, sometimes fissured, with slickenslided fracture surfaces very common (Plate 4). The slickenslides are caused by shear failure and movement of the soil due to swelling

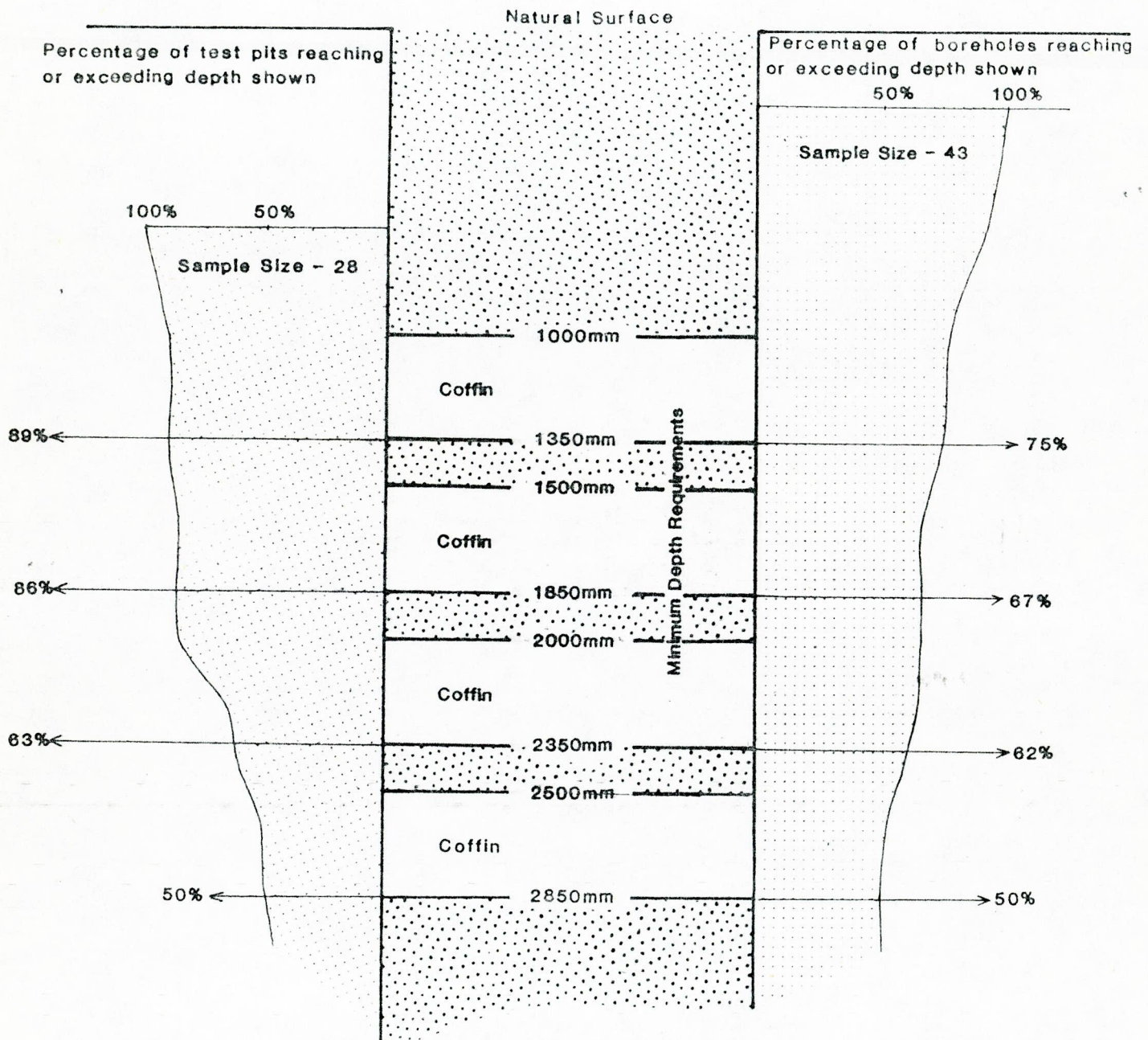


FIGURE 2. Minimum Requirements for Burial and percentage of test sites achieving the depths shown.

pressures developed in expansive clays. Some fissures are infilled with very fine quartz sand, which is presumably windblown sand deposited in surface dessication cracks formed in drier seasons. The subsequent swelling of the clays not only caused shear failure, but the assimilation of the quartz sand into the basaltic clay soil. This mechanism also causes the broad gilgai relief on the surface (figure 3).

Additional exploratory excavations were carried out in the treed area (the "sinkhole plain") in order to confirm the unsuitability of that area as a cemetery site. Unfortunately the excavations provided little insight into the subsidence mechanism. The most plausible explanation is that the sinkholes originate as gilgai-type developments amplified by the degree of dessication caused by the trees. Besides being topographically unsuited and difficult to develop, the area is not regarded as geologically stable enough for cemetery development.

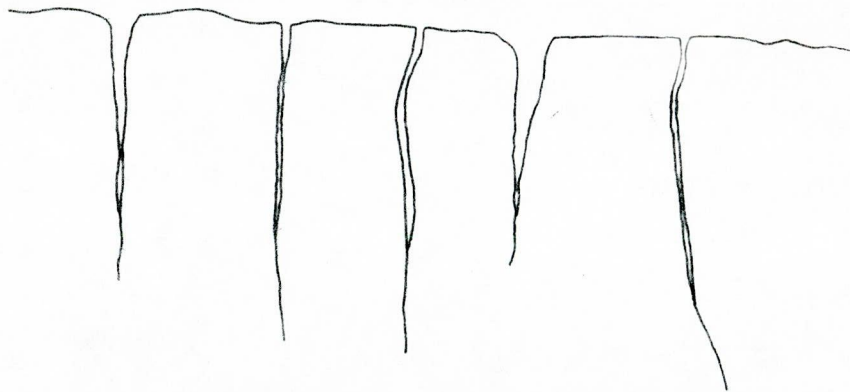
Soil Testing

The results of the soil tests are tabulated below:

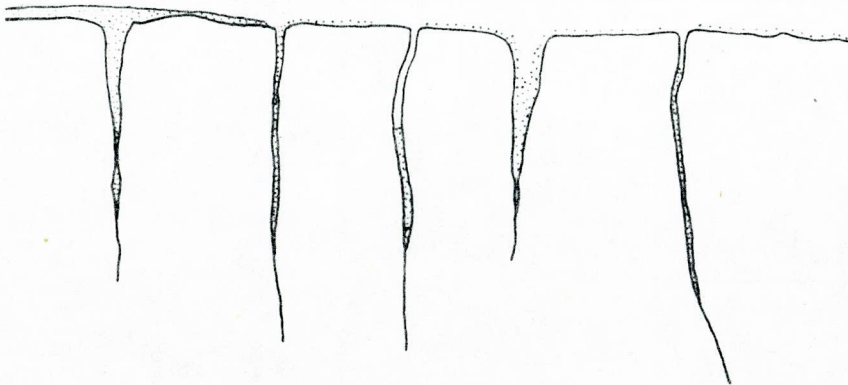
Bore								
Djerriwarrh:	128	155	168	168	168	168	170	174
Depth (m) :	1.5-1.6	1.5-1.6	0.3-0.4	1.5-1.6	2.0-2.1	2.5-2.6	1.5-1.6	0.3-0.4
Liquid Limit	78	67	30	73	72	80	N.A.	93
Plastic Limit	19	16	12	18	18	19	16	28
Plasticity Index	59	51	18	55	54	61	N.A.	65
Linear Shrinkage	22	20	6	18	20	19	17	22
Free Swell (%)	300	180	180	370	340	330	300	160
Particle Density	2.60	2.55	2.51	2.55	2.55	2.57	2.73	2.45
Sand (%)	15	22	49	28	32	25	43	9
Silt (%)	27	29	26	18	17	17	25	22
Clay (%)	58	49	25	54	51	58	32	69

Table 1: Soil Test Results

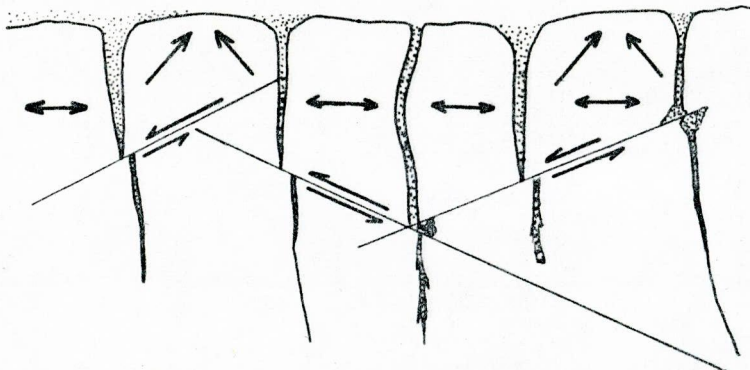
FIGURE 3. Steps in the development of the soil profile of the site.



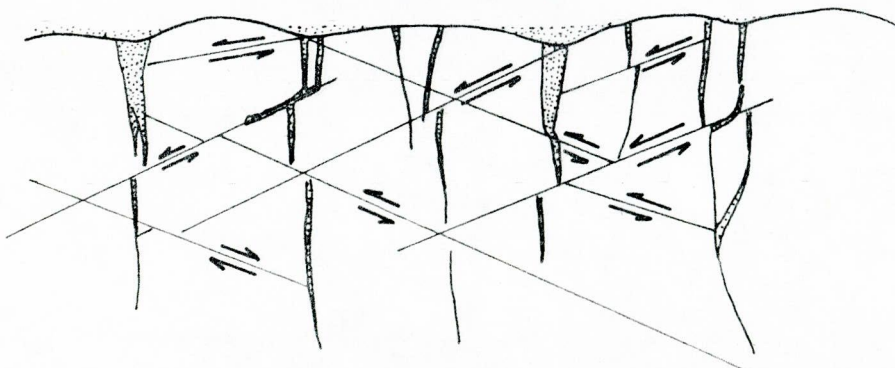
Step 1 : Dessication of soil causes deep shrinkage cracks.



Step 2 : Infilling of shrinkage cracks by wind-blown or sheet-wash sands and silts.



Step 3 : Wetting up and swelling causes shear failure (slickensiding) , sand contamination of clay and surface buckling.



Step 4 : Cyclic repetition of shrinkage and swelling produces fissures , joints , sand contamination and surface undulation .

These results have been plotted on the chart below and show the degree of plasticity at the depth of burial (1.5m-2.6m) to be high to very high.

The results of the tests on the near surface soils (0.3m-0.4m) show a marked contrast between the plasticity of the residual clay compared to the outwash sand.

The high values for the liquid limit, plasticity index, linear shrinkage and free swell indicate that the soil is highly expansive and responsive to seasonal variations in moisture.

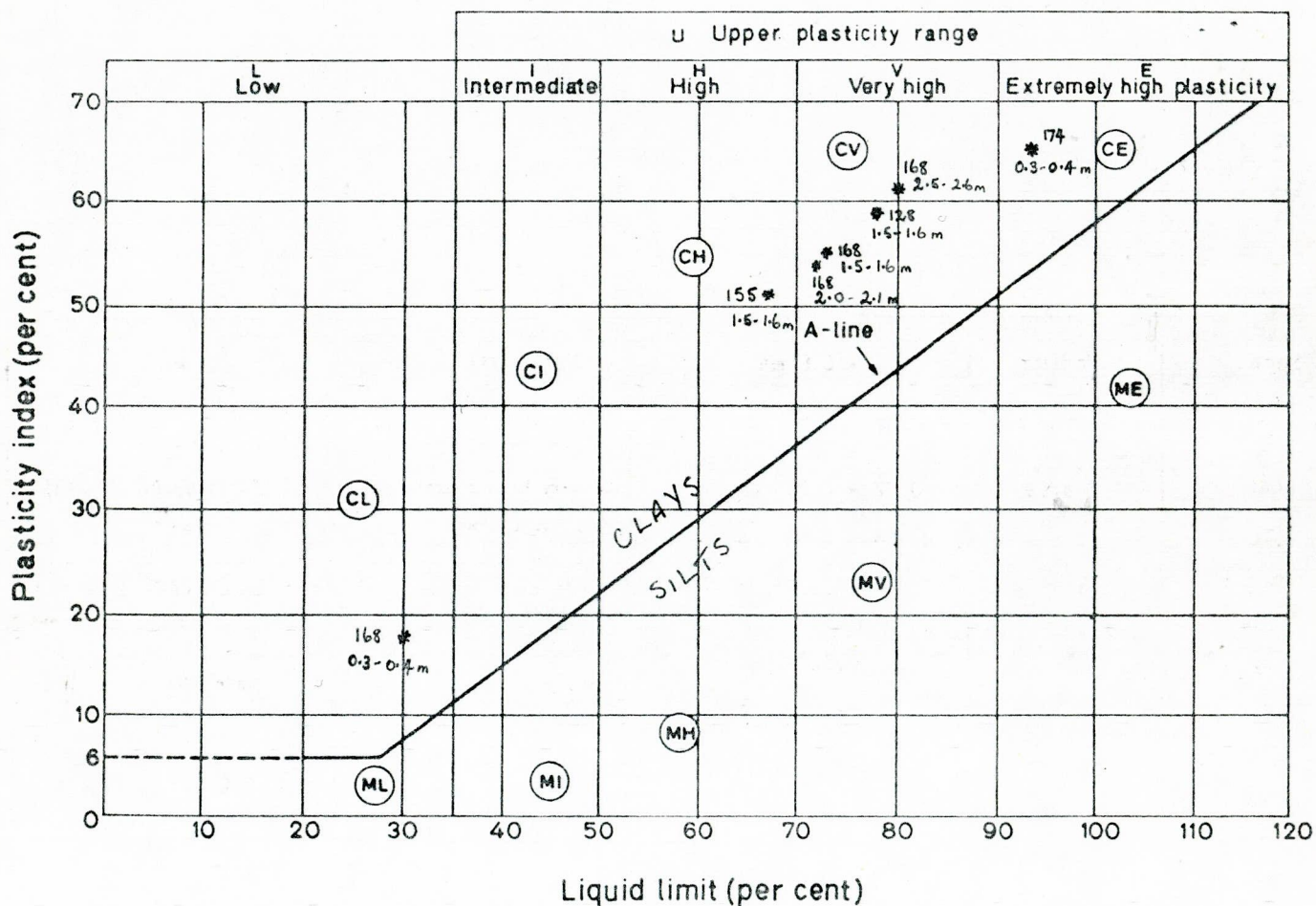


Fig 5 The plasticity chart for the classification of soils: (From: Bulletin of the International Association of Engineering Geology - No. 24, 1981 based on the Unified Soil Classification System).

CONCLUSIONS AND RECOMMENDATIONS

Depth of soil

The Health Commission's requirement for burial is that there be a minimum of one metre between the top of the coffin and the natural surface of the ground. Often two or three (four is rare) coffins may be buried in the same grave, provided that at least 15cm separate each. Assuming an average thickness of 35cm for each coffin, the maximum depth required for burial would be 2.85 metres.

The soil cover in the south-east corner of the site is generally insufficient to meet the minimum requirements for burial. Over the remainder of the site, the soil was consistently found to be thick enough to provide adequate burial of at least two coffins and frequently thick enough for the burial of four coffins. Nevertheless some of these areas have been conservatively designated as marginal because the drilling and trial excavations encountered undulations in the rock surface (see excavation logs for pit nos. Djerriwarrah 179 & 182) and the presence of floaters. In these areas there is a higher probability of encountering problems which would require alternative excavation techniques. These areas are shown in figure 4.

Discussion with the backhoe operator disclosed that the most prevalent problem with excavations at the existing Melton cemetery is the unpredictable depth of soil. The presence of shallow rock has occasionally meant that grave pits have had to be excavated by blasting. This is not only costly but has caused some embarrassing delays at funerals.

Characteristics of Excavation

Problems that may be encountered in grave digging include:

- a wall collapse between the grave being excavated and the adjacent existing grave;
- b fetid groundwater seepage into the excavation, from adjacent graves;
- c having to timber the sides of the grave due to lack of soil cohesion;

- d excavating a neat grave pit;
- e problems associated with a high water-table; and
- f layers in the soil profile that are difficult to penetrate.

The trial excavations indicated little likelihood of serious problems being encountered when grave-digging on this site. The trial pits were generally very easy to excavate with the only exception being those where floaters larger than 60cm were found. During the drier months, when the soil is much harder, some minor difficulty may be experienced in creating a neat hole due to large soil clods being plucked out in the top metre or so.

None of the trial pits suffered from wall collapse, mainly due to the high cohesion of the clay soil. Although sand lenses and gravelly clays were encountered, they were in insufficient quantities to cause any instability.

Shallow groundwater was not found, and would not be expected to be encountered, since the regional groundwater bores show the depth to the water table to be approximately 40 metres. Local pooling of surface water occurs during times of heavy rainfall, especially in the gilgai depressions, since site drainage is fairly poor. Surface water may quickly percolate into the backfill and pool in the graves during times of heavy rains, since the permeability of the undisturbed soil is very low. This could lead to difficulties with fetid seepage along fissures into neighbouring excavations, especially during unusually wet years.

Soil Characteristics

A major problem facing the development of the site as a cemetery is the expansive nature of the soils. The perpetual seasonal cycle of shrink and swell sustains the mechanism which is thought to be responsible for the subsidence in the sinkhole plain. Similarly, this also seems the most likely explanation for the observed tilting of the monuments at the existing Melton cemetery (Plates 5 & 6). After a grave is backfilled with clay, the lower density of the backfill allows easier ingress of air and water, which amplifies the seasonal movement at depth. This combined with the selfmulching nature of the clay, provides a plausible explanation of

the observed subsidence over the graves and the dramatic tilting of the tombstones. (Plates 5 & 6)

The following recommendations will lessen the severity of the potential problems:

- * Efficient drainage should be installed to prevent the pooling of surface water. Lawn cemetery would be best located over the areas with inadequate drainage.
- * Where large or high monuments are erected the sites should be levelled (by filling where necessary) and compacted. A suitably designed, wide concrete footing would help prevent the severe tilting.
- * Where roads and pavements are constructed the clay sub-base should be lime stabilized to minimize distress and ultimate failure of the road surfaces. Good drainage is essential to prevent sub-grade failure since the clay soils have little strength when wet.
- * All buildings should be constructed on rigid concrete slabs, with an impervious apron (such as a concrete path) at least one metre wide surrounding the structure.
- * Trees will quickly dessicate the soil and should not be planted within 10 metres of any structure, including the monuments. Where this is unavoidable regular watering should be carried out, especially in dry seasons in order to minimize the damage caused by soil shrinkage.



Plates 5 & 6 Tilting of Monuments at Melton Cemetery

APPENDIX 1

Borehole Logs

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton, Vic.		R.L. GROUND 162.20		DJERRIWARAH 120
		AMG REF 5828614.0		283166.0
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	WEATHERING U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS			ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL
0.1	SILT, dry, friable, brown.	CH		
0.2	CLAY, silty, moist, stiff, dark red-brown.			
0.3				
0.4				
0.5				
0.6	CLAY, slightly silty, moist, stiff, fissured, grey.			
0.7				
0.8	some calcareous sand at 1.2m			
0.9				
1.0				
1.1				
1.2				
1.3				
1.4				
1.5				
1.6				
1.7				
1.8				
1.9				
DRILL TYPE	Gemco 210	DRILLER	J. Fisher	NOTES
CORE BARREL TYPE	Hollow Flight Auger	LOGGED	P. Dalibon	
DATE	24.5.84	DATE	30.8.84	
CHECKED		APPROVED		
DRAWN		DRAWN		
110		SHEET 1 OF 2		DRAWING No MC 7 33-84-17

SEP: 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton, Vic.		R.L. GROUND 162.20		DJERRIWARAH 120
		AMG REF 5828614.0		283166.0
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	WEATHERING U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS			ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL
2.1	CLAY, moist, stiff, fissured, grey.	CH		
2.2				
2.3	becomes slightly mottled with yellow-brown.			
2.4				
2.5	shaken-sided fissure at 2.7m and 3.8m			
2.6				
2.7				
2.8				
2.9				
3.0				
3.1				
3.2				
3.3				
3.4				
3.5				
3.6				
3.7				
3.8				
3.9	SCORIA, brick-red, soft			
	End of Hole at 4.1 m			
DRILL TYPE	Gemco 210	DRILLER	J. Fisher	NOTES
CORE BARREL TYPE	Hollow Flight Auger	LOGGED	P. Dalibon	
DATE	24.5.84	DATE	30.8.84	
CHECKED		APPROVED		
DRAWN		DRAWN		
110		SHEET 2 OF 2		DRAWING No MC 7 33-84-17

SEP: 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No <u>DJERRIWARAH 121</u>	
LOCATION <u>Proposed Cemetery at Melton, Vic.</u>				AMG REF <u>5828622.0</u> <u>283066.0</u>	
R.L. GROUND <u>163.09</u>					
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	WEATHERING U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS	
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING U.S.C. SYMBOL		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL	
0-1	CLAYEY SILT, dry, friable dark brown.	ML			
0-2	SILTY CLAY moist, stiff				
0-3	red-brown.				
0-4					
0-5					
0-6					
0-7					
0-8	CLAY, silty moist, stiff, grey.	CH			
0-9	some calcareous nodules at 0.9m				
1-0					
1-1					
1-2					
1-3					
1-4					
1-5					
1-6					
1-7					
1-8					
1-9					
DRILL TYPE <u>Genco 210</u>		DRILLER <u>J. Fisher</u>	NOTES		
CORE BARREL TYPE <u>Hollow Flight</u>		LOGGED <u>P. Dahlmann</u>			
DATE <u>24.5.84</u>		CHECKED			
APPROVED		DRAWN			
VERTICAL SCALE 1:10		SHEET 1 OF 2	DRAWING No MC 8 / 33.84.16		

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No <u>DJERRIWARAH 121</u>	
LOCATION <u>Proposed Cemetery at Melton, Vic.</u>				AMG REF <u>5828622.0</u> <u>283066.0</u>	
R.L. GROUND <u>163.09</u>					
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	WEATHERING U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS	
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING U.S.C. SYMBOL		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL	
2-1	CLAY, silty moist, stiff, fissured,				
2-2	grey.				
2-3	occasional gravel-size basalt pieces.				
2-4					
2-5		CH			
2-6					
2-7					
2-8					
2-9					
3-0					
3-1					
3-2					
3-3	Auger refusal.				
3-4					
3-5					
3-6					
3-7					
3-8					
3-9					
DRILL TYPE <u>Genco 210</u>		DRILLER <u>J. Fisher</u>	NOTES		
CORE BARREL TYPE <u>Hollow Flight</u>		LOGGED <u>P. Dahlmann</u>			
DATE <u>24.5.84</u>		CHECKED			
APPROVED		DRAWN			
VERTICAL SCALE 1:10		SHEET 2 OF 2	DRAWING No MC 8 / 33.84.16		

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton, Vic.		R.L. GROUND 164.00		HOLE No DJERRIWARAH 123
		AMG REF 5828650.0		282863.0
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATINGS/FILL
0.1	SILT, clayey, dry, friable, pale brown.			
0.2				
0.3	SILTY CLAY, moist, firm, layered yellow-brown and dark brown.			
0.4	some sand and 'buckshot'			
0.5				
0.6	CLAY, silty, moist, firm, grey-brown.	CH		
0.7	some sand and 'buckshot'			
0.8				
0.9				
1.0				
1.1				
1.2	SANDY CLAY, moist, friable, mottled yellow-brown and grey.			
1.3	occasional quartz gravel.			
1.4				
1.5		SC		
1.6				
1.7				
1.8				
1.9				
DRILL TYPE Genco 210		DRILLER J. Fisher	NOTES	
CORE BARREL Hollow Flight		LOGGED P. Dalibhaus		
DATE 8/5/84		CHECKED 15.5.84		
APPROVED		DRAWN		
COMPLETED 8/5/84				
DRAWING No 110		SHEET 1 OF 2	DRAWING BY MC/9/1	

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton, Vic.		R.L. GROUND 164.00		HOLE No DJERRIWARAH 123
		AMG REF 5828650.0		282863.0
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATINGS/FILL
2.1	SANDY CLAY, moist, friable, mottled yellow-brown and grey.			
2.2	occasional quartz gravel pieces.			
2.3				
2.4				
2.5		SC		
2.6				
2.7				
2.8				
2.9				
3.0				
3.1				
3.2	Basalt, E.W.			
3.3	Auger refusal - Basalt.			
3.4				
3.5				
3.6				
3.7				
3.8				
3.9				
DRILL TYPE Genco 210		DRILLER J. Fisher	NOTES	
CORE BARREL Hollow Flight		LOGGED P. Dalibhaus		
DATE 8/5/84		CHECKED 15.5.84		
APPROVED		DRAWN		
COMPLETED 8.5.84				
DRAWING No 110		SHEET 2 OF 2	DRAWING BY MC/9/2	

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No. DJERRIWARAH 124	
LOCATION Proposed Cemetery at Melton, Vic.		AMG REF. 5828664.0		RL GROUND 164.50	
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	WEATHERING U.S.C. SYMBOL GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS		
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/INFILL		
0.1	CLAYEY SILT, dry, friable, grey-brown.	ML			
0.2	SILTY CLAY, moist, stiff, dark grey.				
0.3					
0.4	CLAY, silty, moist, stiff, grey-brown.				
0.5					
0.6					
0.7	CLAY, moist, stiff, fissured grey.	CH			
0.8					
0.9					
1.0					
1.1					
1.2					
1.3					
1.4					
1.5					
1.6					
1.7					
1.8					
1.9					
DRILL TYPE Genco 210 CORE BARREL TYPE Hollow Flight Auger COMMENCED 7 5 84 COMPLETED 7 5 84		DRILLER J. Fisher LOGGED P. Dahlhaus DATE 15.5.84 CHECKED APPROVED DRAWN	NOTES		
VERTICAL SCALE 1:10		SHEET 1 OF 3		DRAWING No. MC/10/1	

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No. DJERRIWARAH 124	
LOCATION Proposed Cemetery at Melton, Vic.		AMG REF. 5828664.0		RL GROUND 164.50	
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	WEATHERING U.S.C. SYMBOL GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS		
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/INFILL		
2.1	CLAY, moist, stiff, fissured, grey, slight mottle of orange-brown.				
2.2					
2.3					
2.4					
2.5					
2.6					
2.7					
2.8		CH			
2.9					
3.0					
3.1					
3.2					
3.3					
3.4					
3.5					
3.6					
3.7					
3.8					
3.9					
DRILL TYPE Genco 210 CORE BARREL TYPE Hollow Flight Auger COMMENCED 7 6 84 COMPLETED 7 5 84		DRILLER J. Fisher LOGGED P. Dahlhaus DATE 15.5.84 CHECKED APPROVED DRAWN	NOTES		
VERTICAL SCALE 1:10		SHEET 2 OF 3		DRAWING No. MC/10/2	

SEP 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No DJERRIWARAH 124	
LOCATION Proposed Cemetery at Melton, Vic.		R.L. GROUND 164.50		AMG REF. 5828664.0 282766.0	
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE PLASTICITY, PARTICLE CHARACTERISTIC COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOLS #	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS	
	ROCK DESCRIPTION TYPE TEXTURE COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS			WEATHERING #	ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL
4.1	CLAY, moist, stiff, fissured, slight mottled yellow-brown, grey.	CH			
4.2					
4.3					
4.4					
4.5					
4.6					
4.7	Auger refusal.				
4.8					
4.9					
5.0					

DRILL TYPE Gemco 210	DRILLER J. Fisher	NOTES
LOG BARREL TYPE Hollow Flight auger	LOGGED P. Doherty	
DATE 7 5 84	DATE 15. 5. 84	
CHECKED 7 5 84	CHECKED	
APPROVED 7 5 84	APPROVED	
DRAWN	DRAWN	

SCALE 1:10 SHEET 3 OF 3 DRAWING - MC/10/3

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton, Vic.		R.L. GROUND 164.70		DJERRIWARAH 126
		AMG REF 5828690.0		282570.0
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	WEATHERING U.S.C. SYMBOLS E	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS			ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL
0.1	SILTY CLAY, moist, friable, very stiff, brown.	CH		
0.2				
0.3	CLAY, silty, moist, firm, yellow-brown.			
0.4				
0.5	CLAY, silty, moist, firm, grey-brown			
0.6	occasional lens of			
0.7	fine quartz sand.			
0.8				
0.9				
1.0	CLAY, moist, stiff, grey			
1.1	grey			
1.2	some calcareous sand throughout.			
1.3	some quartz sand throughout, with a			
1.4	distinct layer at 1.9m			
1.5				
1.6				
1.7				
1.8				
1.9				
DRILL TYPE	Genco 210	DRILLER	J. Fisher	NOTES
CORE BARREL TYPE	Hollow Flight Auger	LOGGED	P. Dalkeim	
DATE	7.5.84	DATE	15.5.84	
CHECKED		CHECKED		
APPROVED		APPROVED		
DRAWN		DRAWN		
VERTICAL SCALE	1:10	SHEET	1 OF 2	DRAWING No MC/11/1

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton, Vic.		R.L. GROUND 164.70		DJERRIWARAH 126
		AMG REF 5828690.0		282570.0
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	WEATHERING U.S.C. SYMBOLS E	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS			ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL
2.1	CLAY, sandy moist, very stiff.	SC		
2.2	slightly mottled yellow-			
2.3	brown and grey,			
2.4	distinct sand layer (quartz) at 2.6m.			
2.5				
2.6				
2.7				
2.8				
2.9				
3.0				
3.1				
3.2				
3.3				
3.4	Basalt, E.W.			
3.5	Auger refusal. - Basalt.			
3.6				
3.7				
3.8				
3.9				
DRILL TYPE	Genco 210	DRILLER	J. Fisher	NOTES
CORE BARREL TYPE	Hollow Flight Auger	LOGGED	P. Dalkeim	
DATE	7.5.84	DATE	15.5.84	
CHECKED		CHECKED		
APPROVED		APPROVED		
DRAWN		DRAWN		
VERTICAL SCALE	1:10	SHEET	2 OF 2	DRAWING No MC/11/2

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No. DJERRIWARAH 127	
LOCATION Proposed Cemetery at Melton. Vic.		AMG REF. 5828776.0		AMG REF. 282688.0	
R.L. GROUND 164.90					
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, NECESSARY MATERIAL	U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS	
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL	
0.1	CLAYEY SILT, dry. friable, dark brown	ML			
0.2	SILTY CLAY, moist, stiff, dark brown.				
0.3	some yellow-brown layering				
0.4					
0.5	CLAY, silty, moist, stiff, yellow-brown				
0.6					
0.7	CLAY, moist, stiff, fissured, grey.	CH			
0.8	occasional 'backshot'				
0.9					
1.0					
1.1					
1.2					
1.3					
1.4					
1.5					
1.6					
1.7					
1.8					
1.9					
DRILL TYPE Genmo 210 CORE BATH Hollow Flight DRILLER Anger LOGGERS 8 5 84 CHECKED 8 5 84 APPROVED DRAWN		DRILLER J. Fisher LOGGERS P. Dalhousie DATE 15.5.84 CHECKED APPROVED DRAWN	NOTES		
SHEET 1 OF 2		DRAWING No. MC/13/1		VERTICAL SCALE 1:10	

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No. DJERRIWARAH 127	
LOCATION Proposed Cemetery at Melton. Vic.		AMG REF. 5828776.0		AMG REF. 282688.0	
R.L. GROUND 164.90					
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS	
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL	
2.1	CLAY, moist, very stiff, fissured,				
2.2	mottled yellow-brown and grey.				
2.3	trace of quartz sand throughout				
2.4					
2.5		CH			
2.6					
2.7					
2.8					
2.9					
3.0					
3.1					
3.2					
3.3					
3.4	Auger Rehabil - H.W. Basalt				
3.5					
DRILL TYPE Genmo 210 CORE BATH Hollow Flight DRILLER Anger LOGGERS 8 5 84 CHECKED 8 5 84 APPROVED DRAWN		DRILLER J. Fisher LOGGERS P. Dalhousie DATE CHECKED APPROVED DRAWN	NOTES		
SHEET 2 OF 2		DRAWING No. MC/13/2		VERTICAL SCALE 1:10	

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton Vc.		R.L. GROUND 164.40		DJERRIWARH 128
		AMG REF. 5828736.0		282980.0
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	WEATHERING U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS			ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL
0.1	SILTY CLAY, moist, friable, dark brown	CH		
0.2	SILTY CLAY, moist, friable, stiff, mottled dark-brown and yellow-brown.			
0.3				
0.4				
0.5				
0.6				
0.7	CLAY, silty, moist, stiff, brown-grey.			
0.8	some calcareous sand at 1m.			
0.9				
1.0				
1.1				
1.2	CLAY, moist, stiff, slightly mottled yellow- brown and grey.			
1.3	some quartz sand visible.			
1.4				
1.5				
1.6				
1.7				
1.8				
1.9				
		Liquid Limit 78 Linear Shrinkage 22 % Sand 15 Plastic Limit 19 Free Swell 300 % Silt 27 Plasticity Index 59 S.G. 2.6 % Clay 58		
DRILL TYPE	Gemo 210	DRILLER	J. Fisher	NOTES
LOGGING TYPE	Howell Flight	LOGGED	P. Dakin	
DATE	15.5.84	CHECKED		
APPROVED		DRAWN		
COMPLETED	9.5.84			
VERTICAL SCALE	1:10	SHEET	1 OF 2	DRAWING No
				MC/19/1

SEPT 84

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton Vc.		R.L. GROUND 164.40		DJERRIWARH 128
		AMG REF. 5828736.0		282980.0
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	WEATHERING U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS			ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL
2.1	CLAY, moist, stiff, slightly mottled yellow- brown and grey.	CH		
2.2	some sand visible.			
2.3				
2.4				
2.5				
2.6				
2.7				
2.8				
2.9				
3.0				
3.1				
3.2				
3.3	CLAYEY SAND, moist, friable, pale grey.			SC
3.4				
3.5	CLAY, moist, stiff, grey, slightly sandy.			CH
3.6				
3.7	Basalt. E.W.			E.W.
3.8	Auger refusal. Basalt.			
3.9				
		Liquid Limit 78 Linear Shrinkage 22 % Sand 15 Plastic Limit 19 Free Swell 300 % Silt 27 Plasticity Index 59 S.G. 2.6 % Clay 58		
DRILL TYPE	Gemo 210	DRILLER	J. Fisher	NOTES
LOGGING TYPE	Howell Flight	LOGGED	P. Dakin	
DATE	15.5.84	CHECKED		
APPROVED		DRAWN		
COMPLETED	9.5.84			
VERTICAL SCALE	1:10	SHEET	2 OF 2	DRAWING No
				MC/19/2


SEPT 84

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton Vic.		R.L. GROUND 161.50		DJERRIWARAH 129
		AMG REF. 5828700.0		283278.0
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	WEATHERING U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS			ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL
0.1	CLAYEY SILT, dry, friable, pale brown.	ML		
0.2	SILTY CLAY, moist friable, dark red-brown.			
0.3				
0.4	CLAY, silty, moist, firm, red-brown.			
0.5				
0.6				
0.7	CLAY, silty, moist, firm, grey-brown.	CH		
0.8				
0.9				
1.0	CLAY, moist, stiff, grey.			
1.1	Some calcareous sand at around 1m.			
1.2	occasional basalt piece.			
1.3				
1.4				
1.5				
1.6				
1.7				
1.8				
1.9				
DRILL TYPE Genco 210 CORE BARREL TYPE Hollow Flight auger COMMENCED 4.5.84 COMPLETED 9.5.84		DRILLER J. Fisher LOGGED P. Dalrymple DATE 15.5.84 CHECKED APPROVED DRAWN	NOTES	
1:10		SHEET 1 OF 2		DRAWING MC/20/1

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton Vic.		R.L. GROUND 161.50		DJERRIWARAH 129
		AMG REF. 5828700.0		283278.0
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	WEATHERING U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS			ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL
2.1	CLAY, moist, stiff.			
2.2	grey.			
2.3	occasional basalt piece.			
2.4				
2.5				
2.6				
2.7		CH		
2.8				
2.9				
3.0				
3.1				
3.2				
3.3				
3.4				
3.5				
3.6				
3.7				
3.8	Auger refusal - H.W. Basalt.			
3.9				
DRILL TYPE Genco 210 CORE BARREL TYPE Hollow Flight auger COMMENCED 4.5.84 COMPLETED 9.5.84		DRILLER J. Fisher LOGGED P. Dalrymple DATE 15.5.84 CHECKED APPROVED DRAWN	NOTES	
1:10		SHEET 2 OF 2		DRAWING MC/20/2

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton, V.C.			DERRIWARAH 131	
R.L. GROUND 157.0			AMG REF 5828616.0 283874.0	
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	WEATHERING U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS			ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL
0.25	Not Sampled.			
0.5				
0.75	CLAY, silty, grey.	CH		
1.0				
1.25	Auger refusal			
1.5				
1.75				
2.0				

DRILLER Genco H57	DRILLER K. Pearce	NOTES Described from Auger cuttings collected by driller.
LOGGED Solid Flight	LOGGED P. Johnson	
DATE Auger	DATE 26.6.84	
CHECKED	CHECKED	
APPROVED	APPROVED	
SCALE 18.5.84 18.5.84	DRAWN	
1:25	SHEET 1 OF 1	DRAWING No MC 28/

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton, Vic.				DJERRIWARRA 137
R.L. GROUND 165.46				AMG REF 5829002.0 282704.0
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/INFILL
0-1	SILTY CLAY, moist, friable, dark brown.		CH	
0-2	some organic matter.			
0-3				
0-4	SILTY CLAY, moist, very stiff, streaky yellow-brown and dark-brown.			
0-5				
0-6	CLAY, moist, stiff.			
0-7	brown-grey			
0-8				
0-9				
1-0				
1-1				
1-2				
1-3				
1-4				
1-5				
1-6				
1-7				
1-8				
1-9				
DRILL TYPE	Genco 210	DRILLER	J. Fisher	NOTES
CORE BARREL TYPE	Hollow Flight	LOGGED	P. Dahlmann	
DATE	26.6.84	CHECKED		
APPROVED		APPROVED		
DRAWN		DRAWN		
COMMENCED	28.5.84	APPROVED		
COMPLETED	28.5.84	DRAWN		
VERTICAL SCALE	1:10	SHEET	1 OF 2	DRAWING No
				MC 14 33.84.20

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton, Vic.				DJERRIWARRA 137
R.L. GROUND 165.46				AMG REF 5829002.0 282704.0
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/INFILL
2-1	CLAY, moist, stiff to very stiff,		CH	
2-2	mottled yellow-brown and grey.			
2-3				
2-4				
2-5				
2-6				
2-7				
2-8				
2-9				
3-0	becomes pressured from 3.0 m			
3-1				
3-2				
3-3				
3-4				
3-5				
3-6				
3-7				
3-8				
3-9	Hegec Reveal on H.W. Basalt			
DRILL TYPE	Genco 210	DRILLER	J. Fisher	NOTES
CORE BARREL TYPE	Hollow Flight	LOGGED	P. Dahlmann	
DATE	26.6.84	CHECKED		
APPROVED		APPROVED		
DRAWN		DRAWN		
COMMENCED	28.5.84	APPROVED		
COMPLETED	28.5.84	DRAWN		
VERTICAL SCALE	1:10	SHEET	2 OF 2	DRAWING No
				MC 14 33.84.20

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton, Vic.		RL GROUND 165.30		DJERRIWARAH 138
AMG REF 58 28934.0		28 3014.0		
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	WEATHERING U.S.C. SYMBOL #	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING #		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/INFILL
0-1	SILT, clayey, dry, friable, pale brown.	ML		
0-2	CLAY, silty moist stiff, red brown.			
0-3				
0-4				
0-5	becomes grey-brown			
0-6				
0-7				
0-8	CLAY, moist stiff, dark grey, calcareous nodule @ 0.7 to 0.9	CH		
0-9				
1-0	CLAY, moist, stiff, brown-grey.			
1-1	occasional 'buckshot', quartz sand or calcareous sand pieces.			
1-2				
1-3				
1-4				
1-5				
1-6				
1-7				
1-8				
1-9				
DRILL TYPE Gemo 210		DRILLER J. Fisher	NOTES	
CORE BARREL TYPE Hollow Flight		LOGGED P. Dabkowski		
COMMENCED 24.5.84		DATE 26.6.84		
COMPLETED 24.5.84		CHECKED		
DRAWN		APPROVED		
1:10		SHEET 1 OF 2	DRAWING - MC 18 33-84-15	

SEPT 84

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton, Vic.		RL GROUND 165.30		DJERRIWARAH 138
AMG REF 58 28934.0		28 3014.0		
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	WEATHERING U.S.C. SYMBOL #	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING #		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/INFILL
2-1	CLAY, moist, very stiff.			
2-2	mottled yellow-brown and grey.			
2-3	some fissures filled with quartz sand.	CH		
2-4				
2-5				
2-6				
2-7	Auger Retrieval - H.W. Barrel			
2-8				
2-9				
3-0				
3-1				
3-2				
3-3				
3-4				
3-5				
3-6				
3-7				
3-8				
3-9				
DRILL TYPE Gemo 210		DRILLER J. Fisher	NOTES	
CORE BARREL TYPE Hollow Flight		LOGGED P. Dabkowski		
COMMENCED 24.5.84		DATE 26.6.84		
COMPLETED 24.5.84		CHECKED		
DRAWN		APPROVED		
1:10		SHEET 2 OF 2	DRAWING - MC 18 33-84-15	

SEPT 84

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No <i>Djerriwarrh 139</i>	
LOCATION <i>Proposed Cemetery at Melton, Vic.</i>		AMG REF <i>5828900.0</i>		R.L. GROUND <i>162.70</i>	
R.L. GROUND <i>162.70</i>		AMG REF <i>5828900.0</i>		R.L. GROUND <i>162.70</i>	
DEPTH	SOIL DESCRIPTION	WEATHERING	GRAPHIC LOG	SOIL	
R.L.	TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL		ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS	
(m)	ROCK DESCRIPTION	E		ROCK MASS DEFECTS	
	TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS			TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL	
0-1	CLAYEY SILT moist, friable, red-brown	ML			
0-2	SILTY CLAY, moist, stiff, red-brown				
0-3					
0-4					
0-5					
0-6					
0-7					
0-8					
0-9					
1-0		CH			
1-1	CLAY, silty moist, stiff, mottled yellow-brown and grey.				
1-2					
1-3	some calcareous sand at 1.0 m				
1-4					
1-5					
1-6					
1-7					
1-8					
1-9					
DRILL TYPE	<i>Genius 210</i>	DRILLER	<i>J. Fisher</i>	NOTES	
CORE BARREL TYPE	<i>Hollow Flight</i>	LOGGED	<i>P. Dalkeim</i>		
DATE	<i>10.5.84</i>	CHECKED	<i>3.7.84</i>		
APPROVED		APPROVED			
COMPLETED	<i>10.5.84</i>	DRAWN			
VERTICAL SCALE	<i>1:10</i>	SHEET	<i>1</i>	OF	<i>2</i>
DRAWING No <i>MC 21 / 33 84-13</i>					

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No <i>Djerriwarrh 139</i>	
LOCATION <i>Proposed Cemetery at Melton, Vic.</i>		AMG REF <i>5828900.0</i>		R.L. GROUND <i>162.70</i>	
R.L. GROUND <i>162.70</i>		AMG REF <i>5828900.0</i>		R.L. GROUND <i>162.70</i>	
DEPTH	SOIL DESCRIPTION	WEATHERING	GRAPHIC LOG	SOIL	
R.L.	TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL		ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS	
(m)	ROCK DESCRIPTION	E		ROCK MASS DEFECTS	
	TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS			TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL	
2-1	CLAY, moist, stiff, fissured				
2-2	grey.				
2-3	slightly mottled with yellow-brown.				
2-4					
2-5		CH			
2-6					
2-7					
2-8					
2-9					
3-0	Auger Refusal.				
3-1					
3-2					
3-3					
3-4					
3-5					
3-6					
3-7					
3-8					
3-9					
DRILL TYPE	<i>Genius 210</i>	DRILLER	<i>J. Fisher</i>	NOTES	
CORE BARREL TYPE	<i>Hollow Flight</i>	LOGGED	<i>P. Dalkeim</i>		
DATE	<i>10.5.84</i>	CHECKED	<i>3.7.84</i>		
APPROVED		APPROVED			
COMPLETED	<i>10.5.84</i>	DRAWN			
VERTICAL SCALE	<i>1:10</i>	SHEET	<i>2</i>	OF	<i>2</i>
DRAWING No <i>MC 21 / 33 84-13</i>					

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton, Vic.		HOLE No		DJERRIWARRH 142
R.L. GROUND 162.10		AMG REF		5828905.0 284048.0
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL
0.25	Not Sampled.			
0.5				
0.75				
1.0				
1.25		SILTY CLAY, slightly sandy dark brown	CH	
1.5	CLAY mottled yellow-brown and grey	CH		
1.75				
2.0	SILTY CLAY, slightly sandy dark grey	CH		
2.25	CLAY, slightly sandy dark grey	CH		
2.5				
2.75	CLAY, slightly sandy dark grey	CH		
3.0				
3.25	CLAY, slightly sandy dark grey	CH		
3.5				

DRILL TYPE	Gemco HS7	DRILLER	K. Pearce	NOTES
CORE BARREL TYPE	Solid Flight	LOGGED	P. Dakshana	
COMMENCED	18.5.84	DATE	26.6.84	
COMPLETED	18.5.84	CHECKED		
		APPROVED		
		DRAWN		
SCALE	1:25	NO. OF SHEETS	1 OF 1	DRAWING NO. MC 32/

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton, Vic.				DJERRIWARAH 144
R.L. GROUND 162.20				AMG REF 5828930.0 283850.0
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE PLASTICITY PARTICLE CHARACTERISTICS COLOUR ACCESSORY MATERIAL	WEATHERING U.S.C. SYMBOL X	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS DEFECTS TEST RESULTS
	ROCK DESCRIPTION TYPE TEXTURE COLOUR PRIMARY STRUCTURE MINOR COMPONENTS			ROCK MASS DEFECTS TYPE INCLINATION THICKNESS ROUGHNESS COATINGS/FILL
0.25				
0.5	Not Sampled			
0.75				
1.0				
1.25	SILTY CLAY, grey-brown	CH		
1.5				
1.75	CLAY, mottled yellow-brown and grey	CH		
2.0				
2.25	CLAY, mottled yellow brown and grey	CH		
2.5				
2.75	CLAY, mottled yellow-brown and grey	CH		
3.0				
3.25	SILTY CLAY, dark grey brown-grey	CH		
3.5	Auger Refusal.			
DRILL TYPE Geco HS7		DRILLER K. Pearce	NOTES Described from Auger cuttings submitted by driller	
DRILL BIT Solid Flight		LOGGED P. Daskalunas		
DRILLER'S NAME ange		DATE 26.6.84		
START TIME 18.5.84		CHECKED		
STOP TIME 18.5.84		APPROVED		
DRILLER'S SIGNATURE		DRAWN		
SCALE 1:25		SHEET 1 OF 1	DRAWING NO MC 31	

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION		Proposed Cemetery at Melton, Vic.		DJERRIWARRH 147
R.L. GROUND		161.30		AMG REF. 5828986.0 283426.0
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL a	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING k		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL
0.25	Not Sampled			
0.5				
0.75	CLAY, slightly sandy, slightly silty, brown-grey.	CH		
1.0				
1.25	SILTY CLAY, brown-grey.	CH		
1.5				
1.75	CLAY, silty dark brown. basalt chips throughout	CH		
2.0				
2.25	Auger Refusal.			
2.5				
2.75				
3.0				

DRILL TYPE	Gemo HS 7	DRILLER	K. Pearce	NOTES Described from Auger cuttings submitted by the driller.
LOG SHEET	Solid Flight Auger	LOGGED	P. Dahlhaus	
DATE	18.5.84	DATE	26.6.84	
CHECKED	18.5.84	CHECKED		
APPROVED	18.5.84	APPROVED		
DRAWN		DRAWN		
SHEET	1	OF	1	DRAWING No. MC 24 /

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE NO. <i>DJERRIWARRH 149</i>	
LOCATION <i>Proposed Cemetery at Melton, Vic.</i>		AMG REF <i>58 28960.1</i>		R.L. GROUND <i>164.20</i>	
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	WEATHERING U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS	
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING U.S.C. SYMBOL	GRAPHIC LOG	ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/INFILL	
0-1	CLAYEY SILT, dry, blocky, crumbly, pale brown	ML			
0-2	SILTY CLAY, sandy, moist, very stiff	CH			
0-3	layered dark brown and yellow brown.				
0-4	CLAY, silty, moist, stiff, yellow-brown.	SC			
0-5	SANDY CLAY, moist, stiff, dark grey.				
0-6	sand component is mostly fine quartz sand, which often occurs as a fissure infilling, generally sandier with depth.	SC			
0-7	Occasional gravel sized basalt piece.				
0-8					
0-9					
1-0					
1-1					
1-2					
1-3					
1-4					
1-5					
1-6					
1-7					
1-8					
1-9					
DRILL TYPE <i>Genco 210</i> CORE BARREL TYPE <i>Hollow Flight Auger</i>		DRILLER <i>J. Fisher</i> LOGGED <i>P. Dahlhaus</i> DATE <i>9.7.84</i>	NOTES		
CHECKED _____ APPROVED _____ DRAWN _____					
VERTICAL SCALE <i>1:10</i>		SHEET <i>1</i> OF <i>2</i>		DRAWING NO. <i>MC 23 33-54-19</i>	

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DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE NO. <i>DJERRIWARRH 149</i>	
LOCATION <i>Proposed Cemetery at Melton, Vic.</i>		AMG REF <i>58 28960.0</i>		R.L. GROUND <i>164.20</i>	
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	WEATHERING U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS	
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING U.S.C. SYMBOL	GRAPHIC LOG	ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/INFILL	
2-1	SANDY CLAY, moist, stiff, dark grey.	SC			
2-2	becomes sandier with depth.				
2-3					
2-4					
2-5					
2-6					
2-7					
2-8					
2-9					
3-0	CLAYEY SAND moist, firm, mottled yellow-brown, whitish (pale grey) and grey. fine quartz sand. Clay decreases with depth.	E.W			
3-1					
3-2					
3-3					
3-4					
3-5	BASALT, completely weathered same E.W. gravel but mostly dark grey clay.	E.W			
3-6					
3-7					
3-8					
3-9					
Auger refused at 4.05 m.					
DRILL TYPE <i>Genco 210</i> CORE BARREL TYPE <i>Hollow Flight Auger</i>		DRILLER <i>J. Fisher</i> LOGGED <i>P. Dahlhaus</i> DATE _____ CHECKED _____ APPROVED _____ DRAWN _____	NOTES		
VERTICAL SCALE <i>1:10</i>		SHEET <i>2</i> OF <i>2</i>		DRAWING NO. <i>MC 23 33-54-19</i>	

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No. DJERRIWARH 150	
LOCATION Proposed Cemetery at Melton, Vic.		RL GROUND 165.40		AMG REF. 5829018.0 283130.0	
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE PLASTICITY PARTICLE CHARACTERISTICS COLOUR ACCESSORY MATERIAL	U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS DEFECTS, TEST RESULTS	
	ROCK DESCRIPTION TYPE TEXTURE COLOUR PRIMARY STRUCTURE MINOR COMPONENTS	WEATHERING		ROCK MASS DEFECTS TYPE, INCLINATION THICKNESS, ROUGHNESS COATING/FILL	
0.1	CLAYEY SILT, moist, dark brown	ML		<p>Depth checked with 'Minuteman' drill.</p> <p>Check bore 2.19m 10m bore 150 1.45m N</p>	
0.2	CLAY, silty, moist, firm, red-brown.				
0.3					
0.4					
0.5	CLAY, silty moist firm, grey	CH			
0.6					
0.7	some calcareous sand at 0.7m				
0.8					
0.9					
1.0					
1.1	GRAVELLY CLAY, Basalt m.w. pieces and grey clay.	GC			
1.2					
1.3					
1.4					
1.5	Anger Refused.				
1.6					
1.7					
1.8					
1.9					

DRILL TYPE Genco 210	DRILLER J. Fisher	LOGGED P. Dalrymple	NOTES
DRILL TYPE Hollow Flight	DATE 5.7.84	CHECKED	
DATE 28.5.84	APPROVED	DRAWN	
DATE 28.5.84			
DRAWING No. MC 22 / 33-84-19		SHEET 1 OF 1	

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No. DJERRIWARH 152	
LOCATION Proposed Cemetery at Melton, Vic.		AMG REF. 5829046.0		282930.0	
R.L. GROUND 165.70					
DEPTH	SOIL DESCRIPTION	WEATHERING	GRAPHIC LOG	SOIL	ADDITIONAL OBSERVATIONS
R.L.	TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	A		DEFECTS, TEST RESULTS	
(m)	ROCK DESCRIPTION	B		ROCK MASS DEFECTS	
	TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS			TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL	
0.1	SILT, clayey moist, friable, dark grey	ML			
0.2	SILTY CLAY, sandy moist, firm, dark grey	CL			
0.3	SILTY CLAY moist, firm, brown grey.				
0.4					
0.5					
0.6		CH			
0.7					
0.8	CLAY, silty moist, sh. fl. yellow-brown				
0.9					
1.0					
1.1					
1.2	SANDY CLAY to CLAYEY SAND moist, firm, fissured, grey slightly mottled yellow-brown.	SC			
1.3					
1.4					
1.5					
1.6	sand is very fine white quartz in pockets, lenses and fissure linings.				
1.7					
1.8					
1.9					
DRILL TYPE Genco 210 CORE BARREL TYPE Hollow Flight auger COMMENCED 28 5 '83 COMPLETED 28 5 '83		DRILLER J. Fisher LOGGED P. Dahlmann DATE 9.7.84 CHECKED APPROVED DRAWN	NOTES		
VERTICAL SCALE 1:10		SHEET 1 OF 2		DRAWING MC 17 33 54 21	

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No. DJERRIWARH 152	
LOCATION Proposed Cemetery at Melton, Vic.		AMG REF. 5829046.0		282930.0	
R.L. GROUND 165.70					
DEPTH	SOIL DESCRIPTION	WEATHERING	GRAPHIC LOG	SOIL	ADDITIONAL OBSERVATIONS
R.L.	TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	A		DEFECTS, TEST RESULTS	
(m)	ROCK DESCRIPTION	B		ROCK MASS DEFECTS	
	TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS			TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL	
2.1	SANDY CLAY				
2.2	to CLAYEY SAND				
2.3	moist, firm, fissured grey.				
2.4	slightly mottled with yellow-brown.	SC			
2.5					
2.6					
2.7					
2.8					
2.9					
3.0					
3.1	BASALT, E.W. clayey.	E.W.			
3.2	soft, crumbly, dark grey				
3.3	Auger refusal.				
3.4					
3.5					
3.6					
3.7					
3.8					
3.9					
DRILL TYPE Genco 210 CORE BARREL TYPE Hollow Flight auger COMMENCED 28 5 '83 COMPLETED 28 5 '83		DRILLER J. Fisher LOGGED P. Dahlmann DATE 9.7.84 CHECKED APPROVED DRAWN	NOTES		
VERTICAL SCALE 1:10		SHEET 2 OF 2		DRAWING MC 17 33 54 21	

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton, Vic.				DJERRIWARRH 153
R.L. GROUND 165.70				AMG REF. 5829062.0 282830.0
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL A WEATHERING E	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS			ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL
0.1	CLAYEY SILT dry, friable, dark grey.	ML		
0.2	SILTY CLAY moist, firm, dark grey	CH		
0.3	CLAY, silty moist, firm,			
0.4	yellow-grey			
0.5				
0.6				
0.7				
0.8	CLAY, moist, firm, grey			
0.9				
1.0	some calcareous sand at 1.1m			
1.1				
1.2				
1.3				
1.4				
1.5				
1.6				
1.7				
1.8				
1.9				
DRILL TYPE	Gemco 210	DRILLER	J. Fisher	NOTES
LOGGING		LOGGERS	P. Mathews	
DATE		DATE	3.7.84	
CHECKED		CHECKED		
APPROVED		APPROVED		
DATE	29.5.84	DATE		
VERTICAL SCALE	1:10	SHEET	1 OF 2	DRAWING - MC 16 / 33.84.22

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton, Vic.				DJERRIWARRH 153
R.L. GROUND 165.70				AMG REF. 5829062.0 282830.0
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL A WEATHERING E	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS			ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL
2.1	CLAY, moist, firm, grey.	CH		
2.2	slightly mottled with yellow-brown.			
2.3				
2.4	CLAY, sandy moist, firm,	SC		
2.5	mottled yellow-brown and grey.			
2.6				
2.7				
2.8				
2.9				
3.0				
3.1	Reveal - Basalt. E.W.			
3.2				
3.3				
3.4				
3.5				
3.6				
3.7				
3.8				
3.9				
DRILL TYPE	Gemco 210	DRILLER	J. Fisher	NOTES
LOGGING		LOGGERS	P. Mathews	
DATE		DATE	3.7.84	
CHECKED		CHECKED		
APPROVED		APPROVED		
DATE	29.5.84	DATE		
VERTICAL SCALE	1:10	SHEET	2 OF 2	DRAWING - MC 16 / 33.84.22

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No <u>DJERRIWARRH 155</u>	
LOCATION <u>Proposed Cemetery at Melton, Vic.</u>		AMG REF. <u>5829080.0</u> <u>282654.0</u>			
R.L. GROUND <u>165.90</u>					
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	WEATHERING U.S.C. SYMBOL # E	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS DEFECTS, TEST RESULTS	
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS			ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/INFILL	
0.1	SILT, clayey, dry, friable, brown.	CH			
0.2	CLAY, silty, moist, stiff, red-brown.				
0.3					
0.4					
0.5					
0.6	CLAY, silty, moist, stiff, fissured, grey.				
0.7					
0.8	occasional sand- size calcareous particles.				
0.9					
1.0					
1.1	becomes slightly mottled with yellow-brown				
1.2					
1.3					
1.4					
1.5					
1.6					
1.7					
1.8					
1.9					
				Liquid Limit 67 Linear Shrinkage 20 % Sand 22 Plastic Limit 16 Free Swell 180 % Silt 29 Plasticity Index 51 S.G. 2.55 % Clay 49	
DRILL TYPE <u>Genies 210</u>		DRILLER <u>J. Fisher</u>	NOTES		
CORE BARREL TYPE <u>Hollow Flight</u>		LOGGED <u>P. Daltry</u>			
EQUIPMENT <u>Auger</u>		DATE <u>30.8.84</u>			
COMMENCED <u>29.5.84</u>		CHECKED			
COMPLETED <u>29.5.84</u>		APPROVED			
DRAWN		DRAWN			
SCALE 1:10		SHEET 1 OF 2	DRAWING No MC 12 33 84 23		

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No <u>DJERRIWARRH 155</u>	
LOCATION <u>Proposed Cemetery at Melton, Vic.</u>		AMG REF. <u>5829080.0</u> <u>282654.0</u>			
R.L. GROUND <u>165.90</u>					
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	WEATHERING U.S.C. SYMBOL # E	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS DEFECTS, TEST RESULTS	
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS			ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/INFILL	
2.1	CLAY, silty, moist, stiff, fissured mottled yellow-brown and grey.	CH			
2.2					
2.3					
2.4					
2.5					
2.6					
2.7					
2.8					
2.9					
3.0					
3.1					
3.2					
3.3					
3.4					
3.5					
3.6					
3.7					
3.8					
3.9	Auger refusal at 4.1 m on Basalt.				
DRILL TYPE <u>Genies 210</u>		DRILLER <u>J. Fisher</u>	NOTES		
CORE BARREL TYPE <u>Hollow Flight</u>		LOGGED <u>P. Daltry</u>			
EQUIPMENT <u>Auger</u>		DATE <u>30.8.84</u>			
COMMENCED <u>29.5.84</u>		CHECKED			
COMPLETED <u>29.5.84</u>		APPROVED			
DRAWN		DRAWN			
SCALE 1:10		SHEET 2 OF 2	DRAWING No MC 12 33 84 23		

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton, Vic.		HOLE No		DJERRIWARREN 156
R.L. GROUND 171.20		AMG REF 5830229.9		283158.0
DEPTH R.L. (m)	SOIL DESCRIPTION	U.S.C. SYMBOL	GRAPHIC LOG	SOIL
	TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL			ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS
DEPTH R.L. (m)	ROCK DESCRIPTION	WEATHERING	GRAPHIC LOG	ROCK MASS DEFECTS
	TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS			TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL
0-1	SILT, clayey moist, friable, pale brown.	CH		
0-2	SILTY CLAY, moist, stiff, yellow-brown.			
0-3				
0-4				
0-5				
0-6	CLAY, silty, moist, stiff, red-brown.			
0-7				
0-8	becomes grey-brown.			
0-9				
1-0				
1-1	CLAY, silty, moist, stiff, fissured brown-grey.			
1-2				
1-3	some fissures lined with fine quartz sand.			
1-4				
1-5	sand lenses occur at 2m.			
1-6				
1-7				
1-8				
1-9				
DRILL TYPE: Geneco 210 CORE BARREL TYPE: Hollow Flight Auger DATE: 30.5.84 CHECKED: J. Fisher APPROVED: P. Dahlhaus DRAWN: 31.5.84		DRILLER: J. Fisher LOGGERS: P. Dahlhaus DATE: 31.8.84		NOTES:
SHEET 1		OF 5		DRAWING: MC 24 33.84.24

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton, Vic.		HOLE No		DJERRIWARREN 156
R.L. GROUND 171.20		AMG REF 5830229.9		283158.0
DEPTH R.L. (m)	SOIL DESCRIPTION	U.S.C. SYMBOL	GRAPHIC LOG	SOIL
	TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL			ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS
DEPTH R.L. (m)	ROCK DESCRIPTION	WEATHERING	GRAPHIC LOG	ROCK MASS DEFECTS
	TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS			TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL
2-1	CLAY, silty, moist, stiff, fissured brown-grey.	CH		
2-2				
2-3	some fissures lined with fine quartz sand			
2-4				
2-5	sand lenses at 2.1m, 2.2m & 2.5m			
2-6				
2-7				
2-8	SANDY CLAY, moist, firm, brown-grey.			
2-9	sand lens at 2.8m.			
2-10	occasional subangular quartz gravel, 'backshot' gravel & E.W. Basalt gravel throughout.			SC
2-11				
2-12	CLAYEY SAND, moist, firm, mottled yellow-brown & grey.			
2-13				
2-14	SANDY CLAY, moist, firm, brown-grey.			
2-15	some gravel throughout.			
2-16	some mottling evident.			
2-17				
2-18				
2-19				
DRILL TYPE: Geneco 210 CORE BARREL TYPE: Hollow Flight Auger DATE: 20.5.84 CHECKED: J. Fisher APPROVED: P. Dahlhaus DRAWN: 31.5.84		DRILLER: J. Fisher LOGGERS: P. Dahlhaus DATE: 30.8.84		Note Core run 3.34m → 4.10m was only 75% recovered.
SHEET 2		OF 5		DRAWING: MC 24 33.84.24

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton, Vic.		R.L. GROUND 171.20		DJERRIWARAH 156
		AMG REF 5830229.9		283158.0
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	WEATHERING U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING U.S.C. SYMBOL	GRAPHIC LOG	ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/INFILL
4.1	SANDY CLAY, moist, firm,	SC		
4.2	mottled yellow-brown, grey and brick-red.			
4.3	Some subangular quartz gravel,			
4.4	'buckshot' gravel and			
4.5	E.W. Basalt gravel.			
4.6		CH		
4.7				
4.8				
4.9				
5.0				
5.1	CLAY, silty, moist, stiff,			
5.2	mottled yellow-brown and grey.			
5.3				
5.4				
5.5				
5.6				
5.7				
5.8	becomes fissured.			
5.9				
DRILLER	GENCO 210	LOGGERS	J. Fisher P. Dalshaw	NOTES
CURE BARREL	Hollow Flight Auger	DATE	31.8.84	
COMMENCED	30.5.84	CHECKED		
COMPLETED	31.5.84	APPROVED		
VERTICAL SCALE	1:10	DRAWN		
SHEET 3		OF 5		DRAWING No MC 24 33.84.24

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton, Vic.		R.L. GROUND 171.20		DJERRIWARAH 156
		AMG REF 5830229.9		283158.0
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	WEATHERING U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING U.S.C. SYMBOL	GRAPHIC LOG	ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/INFILL
6.1	CLAY, silty, moist, stiff, fissured,	CH		
6.2	mottled yellow-brown & grey.			
6.3				
6.4	some fissures sand lined.			
6.5				
6.6				
6.7				
6.8				
6.9				
7.0				
7.1				
7.2				
7.3				
7.4				
7.5				
7.6				
7.7				
7.8				
7.9				
DRILLER	GENCO 210	LOGGERS	J. Fisher P. Dalshaw	NOTES
CURE BARREL	Hollow Flight Auger	DATE	31.5.84	
COMMENCED	30.5.84	CHECKED		
COMPLETED	31.5.84	APPROVED		
VERTICAL SCALE	1:10	DRAWN		
SHEET 4		OF 5		DRAWING No MC 24 33.84.24

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No DJERRIWARAH 156	
LOCATION Proposed Cemetery at Melton, Vic.				AMG REF 58 30229.9	
R.L. GROUND 171.20				R.L. 283158.0	
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	WEATHERING U.S.C. SYMBOL R	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS	
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS			ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL	
8.1	CLAY, silty, moist, stiff, fissured	CH			
8.2	mottled yellow-brown and grey				
8.3	some fissures are sand filled.				
8.4	one good slickenside at 8.8m.				
8.5					
8.6					
8.7					
8.8					
8.9					
9.0					
9.1	Ext. Basalt pieces at 9.5m & 9.6m				
9.2					
9.3					
9.4					
9.5					
9.6					
9.7					
9.8	Anger Rehabil. Basalt.				
9.9					

DRILL TYPE	Borema 210	DRILLER	J. Fisher	NOTES
LOGGERS	Hollow Point auge	LOGGED	P. Dalrymple	
DATE	30.5.84	DATE	31.8.84	
CHECKED	31.5.84	CHECKED		
DRAWN		DRAWN		

1-10

SHEET 5 OF 5

DRAWING MC 24 33-84-24

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton Vc.		RL GROUND 171.63		DJERRIWARAH 157
		AMG REF 5830272.2		282884.9
DEPTH RL (m)	SOIL DESCRIPTION TYPE PLASTICITY PARTICLE CHARACTERISTICS COLOUR ACCESSORY MATERIAL	WEATHERING U.S.C. SYMBOL GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS DEFECTS, TEST RESULTS	
	ROCK DESCRIPTION TYPE TEXTURE COLOUR PRIMARY STRUCTURE MINOR COMPONENTS		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL	
0.1	SILT, dry, friable, brown SILTY CLAY, dry, blocky.	CH		
0.2	CLAY, silty moist, very stiff, fissured yellow-brown			
0.3				
0.4	some sand lenses at 0.7m			
0.5				
0.6	some rock at 0.9m			
0.7				
0.8				
0.9				
1.0				
1.1				
1.2	CLAY, silty moist, very stiff, fissured mottled yellow-brown & grey.			
1.3				
1.4				
1.5	sand filled fissures throughout.			
1.6				
1.7				
1.8				
1.9				
DRILL TYPE	Gemco 210	DRILLER	J. Fisher	NOTES
CORE BARREL TYPE	Hollow Flight auger	LOGGED	P. Daltry	
DATE	31.5.84	DATE	30.8.84	
CHECKED		CHECKED		
APPROVED		APPROVED		
COMPLETED	1.6.84	DRAWN		
SHEET	1	OF	5	DRAWING No MC 25 33.84.25

SEPT 84

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton Vc.		RL GROUND 171.63		DJERRIWARAH 157
		AMG REF 5830272.2		282884.9
DEPTH RL (m)	SOIL DESCRIPTION TYPE PLASTICITY PARTICLE CHARACTERISTICS COLOUR ACCESSORY MATERIAL	WEATHERING U.S.C. SYMBOL GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS DEFECTS, TEST RESULTS	
	ROCK DESCRIPTION TYPE TEXTURE COLOUR PRIMARY STRUCTURE MINOR COMPONENTS		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL	
2.1	CLAY, silty moist, very stiff, fissured	CH		
2.2	mottled yellow-brown & grey.			
2.3				
2.4	sand filled fissures throughout.			
2.5				
2.6				
2.7				
2.8				
2.9				
3.0				
3.1				
3.2				
3.3				
3.4				
3.5				
3.6				
3.7				
3.8				
3.9				
DRILL TYPE	Gemco 210	DRILLER	J. Fisher	NOTES
CORE BARREL TYPE	Hollow Flight auger	LOGGED	P. Daltry	
DATE	31.5.84	DATE	30.8.84	
CHECKED		CHECKED		
APPROVED		APPROVED		
COMPLETED	1.6.84	DRAWN		
SHEET	2	OF	5	DRAWING No MC 25 33.84.25

SEPT 84

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton, Vic.		R.L. GROUND 171.63		DJERRIWARAH 157
		AMG REF 5830272.2		282884.9
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE PLASTICITY PARTICLE CHARACTERISTICS COLOUR ACCESSORY MATERIAL	U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE TEXTURE COLOUR PRIMARY STRUCTURE MINOR COMPONENTS	WEATHERING		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL
4.1	CLAY, silty, moist very stiff fissured mottled yellow-brown & grey.		CH	
4.2				
4.3	CLAY, silty, moist, stiff, fissured.			
4.4	mottled yellow-brown, grey and red.			
4.5				
4.6				
4.7				
4.8				
4.9				
5.0				
5.1	CLAY, silty, moist, stiff, fissured mottled yellow brown & grey.			
5.2				
5.3				
5.4	occasional sand filled fissure.			
5.5				
5.6				
5.7				
5.8				
5.9				
DRILL TYPE Gemco 210		DRILLER J. Fisher	NOTES	
CORE BARREL TYPE Hollow Flight Auger		LOGGED P. Dakinham		
DATE 31.5.84		DATE 30.8.84		
DRAWN 1.6.84		APPROVED		
VERTICAL SCALE 1:10		SHEET 3	OF 5	DRAWING No MC 25 33.84.25

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton, Vic.		R.L. GROUND 171.63		DJERRIWARAH 157
		AMG REF 5830272.2		282884.9
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE PLASTICITY PARTICLE CHARACTERISTICS COLOUR ACCESSORY MATERIAL	U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE TEXTURE COLOUR PRIMARY STRUCTURE MINOR COMPONENTS	WEATHERING		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL
6.1	CLAY, silty, moist, stiff, fissured mottled yellow-brown & grey.		CH	
6.2				
6.3				
6.4				
6.5	some fissures are filled with fine quartz sand.			
6.6				
6.7				
6.8				
6.9				
7.0				
7.1				
7.2				
7.3				
7.4				
7.5				
7.6				
7.7				
7.8				
7.9				
DRILL TYPE Gemco 210		DRILLER J. Fisher	NOTES	
CORE BARREL TYPE Hollow Flight Auger		LOGGED P. Dakinham		
DATE 31.5.84		DATE 30.8.84		
DRAWN 1.6.84		APPROVED		
VERTICAL SCALE 1:10		SHEET 4	OF 5	DRAWING No MC 25 33.84.25

SEP 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No. <i>DJERRIWARRH 157</i>	
LOCATION <i>Proposed Cemetery at Melton, Vic.</i>				AMG REF. <i>5830272.2</i> <i>282884.9</i>	
R.L. GROUND <i>171.63</i>					
DEPTH # L (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.G. STANDARD	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS	
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL	
8.1	CLAY, silty moist, stiff, fissured mottled yellow-brown & grey.	CH			
8.2					
8.3					
8.4					
8.5					
8.6	CLAY, silty. moist, stiff, fissured mottled dark yellow- brown and grey.	CH			
8.7					
8.8					
8.9					
9.0					
9.1	Angular Reddish Basalt.				
9.2					
9.3					
9.4					
9.5					
9.6					
9.7					
9.8					
9.9					

DRILLER	<i>J. Fisher</i>	NOTES
LOGGED	<i>P. Dahlmann</i>	
DATE	<i>30. 8 '84</i>	
CHECKED		
APPROVED		
DRAWN		

DRILL TYPE *Genco 210*
 DRILLER *Hollow Flight*
 DRILLER *anger*
 DATE *31. 8 '84*
 DATE *1. 6 '84*
 SCALE *1:10*

SHEET *5* OF *5* DRAWING No. *MC 25 33.84.25*

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No. DJERRIWARAH 158	
LOCATION Proposed Cemetery at Melton, Vic.				AMG REF. 583012.1.3 283080.8	
R.L. GROUND 170.44					
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS	
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL	
0.1	SILT, clayey, dry, friable, brown.	ML			
0.2	some organic matter and gravel.				
0.3					
0.4	SILTY CLAY, dry to moist, friable, blocky.	CH			
0.5	dark grey				
0.6	some sand and gravel throughout.				
0.7					
0.8					
0.9					
1.0					
1.1					
1.2					
1.3					
1.4					
1.5					
1.6	GRAVELLY CLAY, sandy, moist stiff, grey.	GC			
1.7	gravel w subangular quartz				
1.8					
1.9					
DRILL TYPE Gemo 210		DRILLER J. Fisher	NOTES		
CORE BARREL TYPE Hollow Flight Auger		LOGGED P. Dakinham			
DATE 5 6 84		DATE 31. 8. 84			
CHECKED		CHECKED			
APPROVED		APPROVED			
DRAWN		DRAWN			
VERTICAL SCALE 1:10		SHEET 1 OF 3	DRAWING NO. MC 26 33 84 26		

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No. DJERRIWARAH 158	
LOCATION Proposed Cemetery at Melton, Vic.				AMG REF. 583012.1.3 283080.8	
R.L. GROUND 170.44					
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS	
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL	
2.1	GRAVELLY CLAY, sandy, moist, stiff, grey.	GC			
2.2					
2.3	gravel is subangular quartz.				
2.4					
2.5					
2.6					
2.7					
2.8					
2.9					
3.0					
3.1					
3.2					
3.3					
3.4					
3.5					
3.6					
3.7					
3.8					
3.9					
DRILL TYPE Gemo 210		DRILLER J. Fisher	NOTES		
CORE BARREL TYPE Hollow Flight Auger		LOGGED P. Dakinham			
DATE 5 6 84		DATE 31. 8. 84			
CHECKED		CHECKED			
APPROVED		APPROVED			
DRAWN		DRAWN			
VERTICAL SCALE 1:10		SHEET 2 OF 3	DRAWING NO. MC 26 33 84 26		

SEP 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE NO. <i>DJERRIWARREN 158</i>	
LOCATION <i>Proposed cemetery at Melton, Vic.</i>		AMG REF. <i>5830121.3</i> <i>283080.8</i>			
R.L. GROUND <i>170.44</i>					
DEPTH RL (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	WEATHERING U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS	
	ROCK DESCRIPTION TYPE, FEATURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS			ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATINGS/FILL	
4.1	<i>GRAVELLY CLAY, sandy, moist, stiff, grey. gravel is subangular quartz.</i>	<i>GC</i>			
4.2					
4.3					
4.4					
4.5					
4.6					
4.7					
4.8					
4.9	<i>BASALT, extremely weathered. silty in patches, sandy in patches. soil with basalt texture retained. bright mottled yellow- brown and grey. friable grey clay (with slickensided fractures) layered throughout.</i>	<i>EW</i>			
5.0					
5.1					
5.2					
5.3					
5.4					
5.5					
5.6					
5.7					
5.8					
5.9					
<i>Auger Re-logged 6.0m</i>					
DRILL TYPE	<i>Genco 210</i>	DRILLER	<i>J. Fisher</i>	NOTES	
LINE BARREL	<i>Hollow Flight</i>	LOGGED	<i>P. Doherty</i>		
DATE	<i>31.8.84</i>	CHECKED			
APPROVED		DRAWN			
SCALE	<i>1:10</i>	SHEET	<i>3</i>	OF	<i>3</i>
		DRAWING NO.		<i>MC 26 - 33.84.26</i>	

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton, Vic.		HOLE No		DJERRIWARAH 159
R.L. GROUND 169.47		AMG REF 5829972.2		282830.1
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	WEATHERING U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS			ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/INFILL
0-1	SILTY CLAY, dry, blocky, dark brown	CL		
0-2	SILTY CLAY, moist stiff, friable, yellow-brown			
0-3				
0-4				
0-5				
0-6	CLAY, silty, moist, stiff, yellowish brown-grey.			
0-7				
0-8				
0-9				
1-0				
1-1	CLAY, moist, stiff, brown grey	CH		
1-2	some calcareous sand around 1.5m			
1-3				
1-4				
1-5	becomes slightly mottled yellow-brown & grey around 1.8m			
1-6				
1-7				
1-8				
1-9				
DRILL TYPE	Gemco 210	DRILLER	J. Fisher	NOTES
CORE BARREL TYPE	Hollow Flight Auger	LOGGED	P. Dahlmann	
		DATE	28.6.84	
		CHECKED		
		APPROVED		
		DRAWN		
VERTICAL SCALE	1:10	SHEET	1	OF 4
		DRAWING No	MC 27	33 84 27

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton, Vic.		HOLE No		DJERRIWARAH 159
R.L. GROUND 169.47		AMG REF 5829972.2		282830.1
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	WEATHERING U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS			ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/INFILL
2-1	CLAY, moist, stiff, fissured	CH		
2-2	mottled yellow-brown and grey			
2-3	mottling becomes more apparent with depth.			
2-4				
2-5	occasional small plant root. (1/2 cm root at 4 m)			
2-6				
2-7	some fissures are sand lined. (quartz)			
2-8				
2-9				
3-0				
3-1				
3-2				
3-3				
3-4				
3-5				
3-6				
3-7				
3-8				
3-9	becomes silty at around 3.9 m			
DRILL TYPE	Gemco 210	DRILLER	J. Fisher	NOTES
CORE BARREL TYPE	Hollow Flight Auger	LOGGED	P. Dahlmann	
		DATE	28.6.84	
		CHECKED		
		APPROVED		
		DRAWN		
VERTICAL SCALE	1:10	SHEET	2	OF 4
		DRAWING No	MC 27	33 84 27

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton, Vic.		AMG REF 5829972.2		DJERRIWARAH 159
R.L. GROUND 169.47		AMG REF 282830.1		
DEPTH R.L.	SOIL DESCRIPTION	WEATHERING	GRAPHIC LOG	SOIL
	TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL			ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS
(m)	ROCK DESCRIPTION	WEATHERING	GRAPHIC LOG	ROCK MASS DEFECTS
	TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS			TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL
4.1	SILT, clayey	MH		
4.2	dry, friable, brittle			
4.3	mottled yellow brown and grey			
4.4	some very fine quartz sand visible.			
4.5	becomes mottled with brick red also.			
4.6				
4.7				
4.8				
4.9				
5.0	CLAY, silty	CH		
5.1	dry, very stiff, fissured, grey			
5.2	roots along the fissure surfaces.			
5.3	occasional quartz sand lined fissure.			
5.4	becomes mottled with brick-red from 5.5m.			
5.5				
5.6				
5.7				
5.8				
5.9				
DRILL TYPE	Gemco 210	DRILLER	J. Fisher	NOTES
CORE BARREL TYPE	Hollow Flight Auger	LOGGED	P. Dahlhaus	
		DATE	28.6.84	
		CHECKED		
		APPROVED		
VERTICAL SCALE	1:10	SHEET	3	OF
			4	
DRAWING No	MC 27		33.84.27	

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton, Vic.		AMG REF 5829972.2		DJERRIWARAH 159
R.L. GROUND 169.47		AMG REF 282830.1		
DEPTH R.L.	SOIL DESCRIPTION	WEATHERING	GRAPHIC LOG	SOIL
	TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL			ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS
(m)	ROCK DESCRIPTION	WEATHERING	GRAPHIC LOG	ROCK MASS DEFECTS
	TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS			TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL
6.1	CLAY, silty	CH		
6.2	moist, very stiff, fissured			
6.3	mottled brick-red and grey			
6.4	small roots along fissures.			
6.5	root mat lining one fissure at 6.6m.			
6.6	occasional quartz sand visible.			
6.7				
6.8				
6.9				
7.0	Auger Refusal - H.W. Basalt.			
7.1				
7.2				
7.3				
7.4				
7.5				
7.6				
7.7				
7.8				
7.9				
DRILL TYPE	Gemco 210	DRILLER	J. Fisher	NOTES
CORE BARREL TYPE	Hollow Flight Auger	LOGGED	P. Dahlhaus	
		DATE	28.6.84	
		CHECKED		
		APPROVED		
VERTICAL SCALE	1:10	SHEET	4	OF
			4	
DRAWING No	MC 27		33.84.27	





SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton, Vic.		R.L. GROUND 168.56		DJERRIWARAH 160
				AMG REF. 5829844.9
				283132.0
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/INFILL
0-1	CLAYEY SILT, sandy, moist, friable, dark brown.	ML		
0-2				
0-3				
0-4	CLAY, silty, moist, stiff, yellow-brown.			
0-5				
0-6	some calcareous sand and small nodules at 1m and 1.1m			
0-7				
0-8		CH		
0-9				
1-0				
1-1				
1-2				
1-3				
1-4				
1-5				
1-6	becomes sandy toward the base.			
1-7				
1-8				
1-9	GRAVELLY CLAY, sandy, moist, stiff, mottled yellow-brown & grey.	GC		
DRILL TYPE	Gemco 210	DRILLER	J. Fisher	NOTES
CORE BARREL TYPE	Hollow Flight auger	LOGGED	P. Dahlmann	
DATE	6.6.84	DATE	31.8.84	
CHECKED		CHECKED		
APPROVED		APPROVED		
DRAWN		DRAWN		
VERTICAL SCALE	1:10	SHEET	1 OF 3	DRAWING No MC 28 33.84.28

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton, Vic.		R.L. GROUND 168.56		DJERRIWARAH 160
				AMG REF. 5829844.9
				283132.0
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/INFILL
2-1	GRAVELLY CLAY, sandy, moist, stiff, mottled yellow-brown and grey.			
2-2				
2-3	gravel is mostly sub-angular quartz and increases in quantity with depth.	GC		
2-4				
2-5				
2-6				
2-7	SANDY CLAY, moist, stiff, mottled yellow-brown and grey.			
2-8				
2-9	one distinct sand lens at 3.5 m			
3-0				
3-1	occasional remnant tree root.	SC		
3-2				
3-3				
3-4				
3-5				
3-6				
3-7				
3-8				
3-9				
DRILL TYPE	Gemco 210	DRILLER	J. Fisher	NOTES
CORE BARREL TYPE	Hollow Flight auger	LOGGED	P. Dahlmann	
DATE	6.6.84	DATE	31.8.84	
CHECKED		CHECKED		
APPROVED		APPROVED		
DRAWN		DRAWN		
VERTICAL SCALE	1:10	SHEET	2 OF 3	DRAWING No MC 28 33.84.28

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE NO. <i>DJERRIWARAH 160</i>	
LOCATION <i>Proposed Cemetery at Melton, Vic.</i>		R.L. GROUND <i>168.56</i>		AMG REF. <i>5829844.9</i> <i>283132.0</i>	
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	M.S.C. SYMBOL A B C D E	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS	
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS			ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL	
4.1	<i>SANDY CLAY moist, stiff, mottled yellow-brown & grey</i>	<i>SC</i>			
4.2	<i>BASALT, E.W.</i>				
4.3		<i>EW</i>			
4.4	<i>Auger Rehabil. - Basalt.</i>				
4.5					
4.6					
4.7					
4.8					
4.9					
5.0					

DRILLER <i>Gemo 210</i>	DRILLER <i>J. Fisher</i>	NOTES
LOGGED <i>Hollow Flight</i>	LOGGED <i>P. Dakinano</i>	
DATE <i>Auger</i>	DATE <i>31.8.84</i>	
CHECKED	CHECKED	
APPROVED	APPROVED	
DRAWN	DRAWN	
SCALE <i>1:10</i>	SHEET <i>3</i>	OF <i>3</i>
DRAWING NO. <i>MC 28</i>		<i>33.84.28</i>

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE NO
LOCATION Proposed Cemetery at Melton, Vic.		R.L. GROUND 161.79		DJERRIWARAH 161
		AMG REF 5829738.9		282865.6
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	WEATHERING U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING U.S.C. SYMBOL		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL
0.1	SILTY CLAY, dry, blocky, dark brown.	CL		
0.2	CLAY, silty, moist, stiff, crumbly, yellow brown.			
0.3	CLAY, silty, moist, stiff, pale yellow brown.			
0.4				
0.5				
0.6	CLAY, silty, moist, stiff, fissured			
0.7	grey.	CH		
0.8	slightly mottled at depth.			
0.9				
1.0				
1.1				
1.2				
1.3				
1.4				
1.5				
1.6				
1.7				
1.8				
1.9				
DRILL TYPE	Geneco 210	DRILLER	J. Fisher	NOTES
LOGGED	Hollow Flight	LOGGED	P. Dahlhaus	
DATE	7.6.84	DATE	31.8.84	
CHECKED	anger	CHECKED		
APPROVED		APPROVED		
DRAWN		DRAWN		
110		SHEET 1 OF 2		DRAWING NO MC 29 33.84.29

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE NO
LOCATION Proposed Cemetery at Melton, Vic.		R.L. GROUND 161.79		DJERRIWARAH 161
		AMG REF 5829738.9		282865.6
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	WEATHERING U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING U.S.C. SYMBOL		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL
2.1	CLAY, silty			
2.2	moist, stiff, fissured			
2.3	mottled yellow-brown and grey.			
2.4	1/2 cm root at 2.8m	CH		
2.5				
2.6				
2.7				
2.8				
2.9				
3.0				
3.1	E.W. Basalt			VV
3.2	bright mottled grey and yellow-brown clay with basalt pieces.	EW		V
3.3				VV
3.4				
3.5				
3.6				
3.7				
3.8				
3.9				
DRILL TYPE	Geneco 210	DRILLER	J. Fisher	NOTES
LOGGED	Hollow Flight	LOGGED	P. Dahlhaus	
DATE	7.6.84	DATE	31.8.84	
CHECKED	anger	CHECKED		
APPROVED		APPROVED		
DRAWN		DRAWN		
110		SHEET 2 OF 2		DRAWING NO MC 29 33.84.29

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No. <i>DJERRIWARAH 162</i>	
LOCATION <i>Proposed Cemetery at Melton Vic.</i>		R.L. GROUND <i>166.60</i>		AMG REF. <i>5829466.6</i> <i>282925.5</i>	
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	WEATHERING U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS DEFECTS, TEST RESULTS	
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS			ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/INFILL	
0.1	<i>SILTY CLAY, moist, friable, dark brown, organic</i>	CH			
0.2	<i>CLAY, silty, moist, stiff, streaky dark brown and red brown</i>				
0.3	<i>CLAY, moist, stiff, red-brown</i>				
0.4	<i>CLAY, moist, stiff, greyish yellow-brown</i>				
0.5	<i>CLAY, moist, stiff, grey</i>				
0.6	<i>CLAY, moist, stiff, grey</i>				
0.7	<i>CLAY, moist, stiff, mottled yellow-brown & grey</i>				
0.8					
0.9					
1.0	<i>CLAY, moist, stiff, grey</i>				
1.1					
1.2					
1.3					
1.4					
1.5					
1.6	<i>CLAY, moist, stiff, mottled yellow-brown & grey</i>				
1.7					
1.8					
1.9					
DRILL TYPE <i>Gemco 210</i> CORE BARREL TYPE <i> Hollow Flight auger</i>		DRILLER <i>J. Fisher</i> LOGGED <i>P. Danthaus</i> DATE <i>27.6.84</i> CHECKED APPROVED DRAWN	NOTES		
SHEET <i>1</i> OF <i>2</i>		DRAWING No. <i>MC 30 33 84 30</i>		SEPT 83	

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No. <i>DJERRIWARAH 162</i>	
LOCATION <i>Proposed Cemetery at Melton Vic.</i>		R.L. GROUND <i>166.60</i>		AMG REF. <i>5829466.6</i> <i>282925.5</i>	
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	WEATHERING U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS DEFECTS, TEST RESULTS	
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS			ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/INFILL	
2.1	<i>CLAY, moist, stiff, mottled yellow-brown & grey</i>	CH			
2.2					
2.3					
2.4					
2.5					
2.6	<i>CLAY, moist, stiff, fissured, grey, slightly mottled with yellow-brown</i>				
2.7	<i>CLAY, moist, stiff, fissured, grey, slightly mottled with yellow-brown</i>				
2.8	<i>CLAY, moist, stiff, fissured, grey, slightly mottled with yellow-brown</i>				
2.9	<i>some roots at 2.8 m</i>				
3.0					
3.1					
3.2	<i>Auger Refusal - H.W. Baumt</i>				
3.3					
3.4					
3.5					
3.6					
3.7					
3.8					
3.9					
DRILL TYPE <i>Gemco 210</i> CORE BARREL TYPE <i> Hollow Flight auger</i>		DRILLER <i>J. Fisher</i> LOGGED <i>P. Danthaus</i> DATE <i>27.6.84</i> CHECKED APPROVED DRAWN	NOTES		
VERTICAL SCALE <i>1:10</i>		SHEET <i>2</i> OF <i>2</i>		DRAWING No. <i>MC 30 33 84 30</i>	
				SEPT 83	

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton, Vic.		R.L. GROUND 165.70		DJERRIWARAH 163
AMG REF. 5829122.9		282740.2		
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/INFILL
0-1	CLAYEY SILT, dry, friable, dark grey.	ML		
0-2	SILTY CLAY, moist stiff, grey-brown.			
0-3				
0-4				
0-5	CLAY, moist, stiff, grey.			
0-6				
0-7	some calcareous sand at 0.7m & 1.0m			
0-8	sand filled fissure at 1.9m (quartz sand)	CH		
0-9	becomes slightly mottled yellow-brown and grey from 1.9m.			
1-0				
1-1				
1-2				
1-3				
1-4				
1-5				
1-6				
1-7				
1-8				
1-9				
DRILL TYPE	Gemo 210	DRILLER	J. Fisher	NOTES
LOGGED		LOGGED	P. Dahlmann	
DATE	9.7.84	DATE	9.7.84	
CHECKED		CHECKED		
APPROVED		APPROVED		
DRAWN		DRAWN		
SHEET	1	OF	2	DRAWING No MC 31(50) 33.84.31

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton, Vic.		R.L. GROUND 165.70		DJERRIWARAH 163
AMG REF. 5829122.9		282740.2		
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/INFILL
2-1	CLAY, moist, stiff, fissured mottled yellow-brown & grey.	CH		
2-2				
2-3				
2-4	Anger refusal - Basalt. Hm			
2-5				
2-6				
2-7				
2-8				
2-9				
3-0				
Depth checked by 'Minuteman'				
				<ul style="list-style-type: none"> ○ Bore 163 2.4m ● Check 1 2.8m ● Check 2 3.7m ● Check 3 3.0m
				□ Test Pit 154 3.5m
DRILL TYPE	Gemo 210	DRILLER	J. Fisher	NOTES
LOGGED		LOGGED	P. Dahlmann	
DATE	9.7.84	DATE	9.7.84	
CHECKED		CHECKED		
APPROVED		APPROVED		
DRAWN		DRAWN		
SHEET	2	OF	2	DRAWING No MC 31(50) 33.84.31

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No. DJERRIWARRH 164	
LOCATION Proposed cemetery at Melton, Vic.			AMG REF 5829447.0 282772.0		
R.L. GROUND 166.50					
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS DEFECTS, TEST RESULTS	
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS			ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/INFILL	
0.1	SILTY CLAY, moist friable, dark grey.	CH			
0.2	SANDY CLAY, moist friable, pale grey	CL			
0.3	SILTY CLAY, moist, stiff, pale red brown	CH			
0.6	CLAY, moist, stiff to very stiff, mottled yellow brown and grey				
0.4					
0.5					
0.7					
0.8					
0.9					
1.0					
1.1					
1.2					
1.3					
1.4					
1.5					
1.6					
1.7					
1.8					
1.9					
DRILL TYPE Gemo 210		DRILLER J. Fisher	NOTES		
CORE BARREL TYPE Hollow Flight Auger		LOGGED P. Dahlhaus			
		DATE 4.7.84			
		CHECKED			
		APPROVED			
		DRAWN			
VERTICAL SCALE 1:10		SHEET 2 OF 2	DRAWING MC 32(51) 33 84 32		

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No. DJERRIWARRH 164	
LOCATION Proposed Cemetery at Melton, Vic.			AMG REF 5829447.0 282772.0		
R.L. GROUND 166.50					
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS DEFECTS, TEST RESULTS	
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS			ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/INFILL	
2.1	CLAY, moist, stiff, fissured				
2.2	mottled yellow brown and grey.				
2.3	strongly fissured from				
2.4	2.6 to 3.2 m. some	CH			
2.5	slickenside surfaces.				
2.6	small roots at 3.1m				
2.7					
2.8					
2.9					
3.0					
3.1					
3.2					
3.3	Auger reheat.				
3.4					
3.5					
3.6					
3.7					
3.8					
3.9					
DRILL TYPE Gemo 210		DRILLER J. Fisher	NOTES		
CORE BARREL TYPE Hollow Flight Auger		LOGGED P. Dahlhaus			
		DATE 4.7.84			
		CHECKED			
		APPROVED			
		DRAWN			
VERTICAL SCALE 1:10		SHEET 2 OF 2	DRAWING MC 32(51) 33 84 32		

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No. DJERRIWARAH 165	
LOCATION Proposed Cemetery at Melton Vic.		R.L. GROUND 166.80		AMG REF 5829377.0 283084.0	
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS	
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL	
0.1	SIETY CLAY, dry blocky dark grey	CL			
0.2	CLAY, silty moist stiff, red-brown	CH			
0.3	CLAY moist, stiff, grey.				
0.4					
0.5					
0.6					
0.7					
0.8					
0.9					
1.0					
1.1					
1.2					
1.3					
1.4					
1.5					
1.6					
1.7					
1.8					
1.9					
DRILL TYPE Gemo 210		DRILLER J. Fisher	NOTES Very uniform grey clay.		
CORE SAMPLE TYPE Hollow Flight Auger		LOGGED P. Danks			
		DATE 4.7.84			
		CHECKED			
		APPROVED			
		DRAWN			
DRAWING No. MC 33(52) 33-8+33		SHEET 1 OF 2			

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No. DJERRIWARAH 165	
LOCATION Proposed Cemetery at Melton Vic.		R.L. GROUND 166.80		AMG REF 5829377.0 283084.0	
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS	
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL	
2.1	CLAY, moist, stiff, grey.				
2.2	becomes slightly mottled with yellow-brown				
2.3	from 2.3m				
2.4	becomes fissured from 2.5m	CH			
2.5					
2.6					
2.7					
2.8					
2.9					
3.0					
3.1					
3.2	Auger refusal.				
3.3					
3.4					
3.5					
3.6					
3.7					
3.8					
3.9					
DRILL TYPE Gemo 210		DRILLER J. Fisher	NOTES		
CORE SAMPLE TYPE Hollow Flight Auger		LOGGED P. Danks			
		DATE 4.7.84			
		CHECKED			
		APPROVED			
		DRAWN			
DRAWING No. MC 33(52) 33-8+33		SHEET 2 OF 2			

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE NO
LOCATION Proposed Cemetery at Melton Vic.		R.L. GROUND 166.10		HOLE NO DJERRIWARAH 166
				AMG REF 5829138.8 283045.5
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/INFILL
0.1	CLAYEY SILT dry, friable, dark grey.	ML		
0.2	SILTY CLAY moist, stiff, yellow-brown	CH		
0.3				
0.4				
0.5				
0.6	CLAY, silty moist, stiff, grey.			
0.7				
0.8	some calcareous sand at 0.7m and 1.1m			
0.9				
1.0				
1.1				
1.2				
1.3				
1.4	CLAYEY SAND moist, friable, pale grey fine quartz sand layered in grey sandy clay	SC		
1.5				
1.6				
1.7				
1.8				
1.9				
DRILL TYPE	Gemco 210	DRILLER	J. Fisher	NOTES
CORE BARREL TYPE	Hollow Flight Auger	LOGGED	P. Dalshaw	
		DATE	4.7.84	
		CHECKED		
		APPROVED		
VERTICAL SCALE	1:10	SHEET	1 OF 2	DRAWING NO
				MC 34(53) 33.84.34

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE NO
LOCATION Proposed Cemetery at Melton Vic.		R.L. GROUND 166.10		HOLE NO DJERRIWARAH 166
				AMG REF 5829138.8 283045.5
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/INFILL
2.1	CLAYEY SAND moist, friable, pale grey some fissures.	SC		
2.2				
2.3	Auger refusal, E.W. Basalt.			
2.4				
2.5				
DRILL TYPE	Gemco 210	DRILLER	J. Fisher	NOTES
CORE BARREL TYPE	Hollow Flight Auger	LOGGED	P. Dalshaw	
		DATE	4.7.84	
		CHECKED		
		APPROVED		
VERTICAL SCALE	1:10	SHEET	2 OF 2	DRAWING NO
				MC 34(53) 33.84.34

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE NO. <i>DERRIWARRH 167</i>
LOCATION <i>Proposed Cemetery at Melton, Vic.</i>		AMG REF. <i>5829072.0</i> <i>283340.8</i>		
RL GROUND <i>163.51</i>				
DEPTH RL (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR ACCESSORY MATERIAL	WEATHERING U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR PRIMARY STRUCTURE MINOR COMPONENTS			ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS COATING/INFILL
0-1	<i>CLAYEY SILT, dry, friable, brown</i>	<i>ML</i>		
0-2	<i>SILTY CLAY moist, stiff, dark brown.</i>	<i>CH</i>		
0-3	<i>some calcareous sand at 0.4m</i>			
0-4				
0-5	<i>SILTY CLAY moist, stiff, dark grey</i>			
0-6	<i>some calcareous sand throughout</i>			
0-7				
0-8				
0-9	<i>BASALT, M.W. some grey clay</i>			
1-0	<i>Auger refusal.</i>			
1-1				
1-2				
1-3				
1-4				
1-5				
1-6				
1-7				
1-8				
1-9				

Depth checked with 'Minteman' drill.

↑ North

• Check bore 2.19m
35m
• Bore 167 0.95m
10m
• Check bore 2.80m

DRILLER <i>Gemo 210</i>	LOGGED <i>J. Fisher</i>	NOTES
OPERATOR <i>Hollow Flight</i>	DATE <i>4.7.84</i>	
CHECKED <i>Auger</i>		
APPROVED		
DRAWN		

SHEET 1 OF 1 DRAWING MC 35 (54) 33-84-35

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No. DJERRIWARAH 168	
LOCATION Proposed Cemetery at Melton Vic.			AMG REF 5829363.0 283396.0		
R.L. GROUND 164.70					
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL	SOIL ADDITIONAL OBSERVATIONS DEFECTS, TEST RESULTS		
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING	ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL		
0-1	SILT, clayey moist, loose, brown.	ML			
0-2	SILTY CLAY, sandy moist, stiff, dark brown				
0-3	CLAYEY SAND, silty moist, stiff, pale yellow-brown.		Liquid Limit 30 Plastic Limit 12 Plasticity Index 18	Linear Shrinkage 6 Free Swell 180 S.G. 2.61	% Sand 49 % Silt 26 % Clay 25
0-4					
0-5					
0-6	CLAY, sandy, silty moist, stiff, pale brown-grey.	CH			
0-7					
0-8					
0-9					
1-0					
1-1	CLAY, sandy, silty, moist to wet, firm				
1-2	mottled yellow-brown and grey.				
1-3					
1-4					
1-5			Liquid Limit 73 Plastic Limit 18 Plasticity Index 55	Linear Shrinkage 18 Free Swell 370 S.G. 2.55	% Sand 28 % Silt 18 % Clay 54
1-6					
1-7					
1-8					
1-9					
DRILL TYPE Genmo 210 CORE BARREL TYPE Hollow Flight WAGER		DRILLER J. Fisher LOGGED P. Dakin DATE 9.7.84 CHECKED APPROVED DRAWN	NOTES		
VERTICAL SCALE 1:10		SHEET 1	OF 5	DRAWING - MC 36(55) 33-84-36	

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No. DJERRIWARAH 168	
LOCATION Proposed Cemetery at Melton Vic.			AMG REF 5829363.0 283396.0		
R.L. GROUND 164.70					
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL	SOIL ADDITIONAL OBSERVATIONS DEFECTS, TEST RESULTS		
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING	ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL		
2-1	SILTY CLAY, sandy, moist to wet, firm, mottled yellow-brown and grey.		Liquid Limit 72 Plastic Limit 18 Plasticity Index 54	Linear Shrinkage 20 Free Swell 340 S.G. 2.55	% Sand 32 % Silt 17 % Clay 51
2-2					
2-3					
2-4					
2-5			Liquid Limit 80 Plastic Limit 19 Plasticity Index 61	Linear Shrinkage 19 Free Swell 330 S.G. 2.57	% Sand 25 % Silt 17 % Clay 58
2-6					
2-7					
2-8					
2-9					
3-0	becomes fissured from 3.0m.				
3-1					
3-2					
3-3					
3-4					
3-5					
3-6					
3-7					
3-8					
3-9					
DRILL TYPE Genmo 210 CORE BARREL TYPE Hollow Flight WAGER		DRILLER J. Fisher LOGGED P. Dakin DATE 9.7.84 CHECKED APPROVED DRAWN	NOTES		
VERTICAL SCALE 1:10		SHEET 2	OF 5	DRAWING - MC 36(55) 33-84-36	


SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton, Vic.		R.L. GROUND 164.70		DJERRIWARAH 168
		AMG REF 5829363.0		283396.0
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL WEATHERING	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS			ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL
4.1	SILTY CLAY,	CH		
4.2	moist to wet,			
4.3	firm, fissured			
4.4	mottled yellow-brown			
4.5	and grey.			
4.6	grey increasing			
4.7	with depth.			
4.8				
4.9				
5.0				
5.1				
5.2				
5.3				
5.4				
5.5				
5.6				
5.7				
5.8				
5.9				
6.0				
6.1				
6.2				
6.3				
6.4				
6.5				
6.6				
6.7				
6.8				
6.9				
7.0				
7.1				
7.2				
7.3				
7.4				
7.5				
7.6				
7.7				
7.8				
7.9				
8.0				
8.1				
8.2				
8.3				
8.4				
8.5				
8.6				
8.7				
8.8				
8.9				
9.0				
9.1				
9.2				
9.3				
9.4				
9.5				
9.6				
9.7				
9.8				
9.9				
10.0				
DRILL TYPE	Gemo 210	DRILLER	J. Fisher	NOTES
CORE BARREL TYPE	Hollow Flight auger	LOGGED	P. Dakin	
DATE	9.7.84	CHECKED		
APPROVED		DRAWN		
VERTICAL SCALE	1:10	SHEET	3 OF 5	
DRAWING - MC 36(55) 33.84.36				

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton, Vic.		R.L. GROUND 164.70		DJERRIWARAH 168
		AMG REF 5829363.0		283396.0
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL WEATHERING	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS			ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL
6.1	SILTY CLAY,	CH		
6.2	moist,			
6.3	stiff, fissured,			
6.4	mottled yellow-brown			
6.5	and grey.			
6.6	grey increasing			
6.7	with depth.			
6.8				
6.9				
7.0				
7.1				
7.2				
7.3				
7.4				
7.5				
7.6				
7.7				
7.8				
7.9				
8.0				
8.1				
8.2				
8.3				
8.4				
8.5				
8.6				
8.7				
8.8				
8.9				
9.0				
9.1				
9.2				
9.3				
9.4				
9.5				
9.6				
9.7				
9.8				
9.9				
10.0				
DRILL TYPE	Gemo 210	DRILLER	J. Fisher	NOTES
CORE BARREL TYPE	Hollow Flight auger	LOGGED	P. Dakin	
DATE	9.7.84	CHECKED		
APPROVED		DRAWN		
VERTICAL SCALE	1:10	SHEET	4 OF 5	
DRAWING - MC 36(55) 33.84.36				

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No. <i>DJERKINRRH 168</i>
LOCATION <i>Proposed Cemetery at Melton, Vic.</i>			AMG REF. <i>5829363.0</i> <i>283396.0</i>	
R.L. GROUND <i>164.70</i>				
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	WEATHERING U.S.C. NUMBER	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS			ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL
8.1	<i>SILTY CLAY, mass, stiff, fissured, mottled yellow-brown and grey.</i>	<i>CH</i>		
8.2				
8.3				
8.4				
8.5				
8.6				
8.7				
8.8				
8.9				
9.0				
9.1				
9.2				
9.3				
9.4				
9.5	<i>Auger Refusal - H.W. Basalt.</i>			
9.6				
9.7				
9.8				
9.9				

DRILL TYPE <i>Cemo 210</i>	DRILLER <i>J. Fisher</i>	NOTES
DRILL SPEED <i>Below Flight</i>	LOGGED <i>P. Ballhans</i>	
DRILL BIT <i>Auger</i>	DATE <i>9.7.84</i>	
LOGGERS	CHECKED	
DRIVER	APPROVED	
SCALE 1:10	SHEET <i>5</i> OF <i>5</i>	DRAWING No. <i>MC 86(55) 33.84.36</i>

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton, Vic.		R.L. GROUND 165.88		DJERRIWARRH 169
		AMG REF. 5829499.1 283501.4		
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/INFILL
0.1	SILTY CLAY, moist, stiff, dark brown	CL		
0.2				
0.3	CLAY, silty, moist, stiff, brown.			
0.4				
0.5				
0.6		CH		
0.7	CLAY, moist, stiff, grey-brown & CALCAREOUS SAND			
0.8				
0.9				
1.0				
1.1	CLAY, silty, moist, stiff, fissured brown grey.			
1.2				
1.3				
1.4				
1.5				
1.6				
1.7				
1.8				
1.9				
DRILL TYPE	Genco 210	DRILLER	J. Fisher	NOTES
CORE BARREL TYPE	Hollow Flight Auger	LOGGED	P. Dahlmann	
DATE	5.7.84	CHECKED	30.8.84	
APPROVED	5.7.84	APPROVED		
DATE	5.7.84	DRAWN		
VERTICAL SCALE	1:10	SHEET	1 OF 2	DRAWING No MC 37 (56) 33.84.37

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton, Vic.		R.L. GROUND 165.88		DJERRIWARRH 169
		AMG REF. 5829499.1 283501.4		
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/INFILL
2.1	CLAY, silty, moist, stiff, fissured brown-grey.	CH		
2.2				
2.3				
2.4				
2.5	BASALT. H.W.	H.W.		
2.6				
2.7				
2.8				
2.9				
3.0				
DRILL TYPE	Genco 210	DRILLER	J. Fisher	NOTES
CORE BARREL TYPE	Hollow Flight Auger	LOGGED	P. Dahlmann	
DATE	5.7.84	CHECKED	30.8.84	
APPROVED	5.7.84	APPROVED		
DATE	5.7.84	DRAWN		
VERTICAL SCALE	1:10	SHEET	2 OF 2	DRAWING No MC 37 (56) 33.84.37

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton Vic.				DJERRIWARRH 171
R.L. GROUND 170.52				AMG REF 5829835.3 283544.8
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL
0.1	SILTY CLAY, moist, stiff, dark brown, some sand.	CL		
0.2				
0.3	CLAY, silty, moist, stiff, red-brown.			
0.4				
0.5				
0.6				
0.7	CLAY, silty, moist, stiff, fissured, mottled yellow-brown and grey.	CH		
0.8				
0.9				
1.0				
1.1				
1.2				
1.3				
1.4				
1.5				
1.6				
1.7				
1.8				
1.9				
DRILL TYPE Genco 210 CORE BARREL Hollow Flight AUGER auger		DRILLER J. Fisher LOGGED P. Dakkane DATE 30.8.84 CHECKED APPROVED DRAWN	NOTES	
VERTICAL SCALE 1:10		SHEET 1 OF 2		DRAWING MC 39 33.54.39

SEPT 84

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton Vic.				DJERRIWARRH 171
R.L. GROUND 170.52				AMG REF 5829835.3 283544.8
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS DEFECTS, TEST RESULTS
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL
2.1	CLAY, silty, moist, stiff, fissured, mottled yellow-brown and grey.	CH		
2.2				
2.3				
2.4				
2.5	Auger refusal.			
2.6				
2.7				
2.8				
2.9				
3.0				
DRILL TYPE Genco 210 CORE BARREL Hollow Flight AUGER auger		DRILLER J. Fisher LOGGED P. Dakkane DATE 30.8.84 CHECKED APPROVED DRAWN		NOTES
VERTICAL SCALE 1:10		SHEET 2 OF 2		DRAWING MC 39 (SE) 33.54.39

SEPT 84

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton Vic.		HOLE No		DJERRIWARRH 172
R.L. GROUND 172.88		AMG REF		5830039.0 283571.5
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	WEATHERING U.S.C. SYMBOL GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS	
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL	
0.1	CLAY, silty moist, stiff. dark red-brown.	CH		
0.2				
0.3				
0.4				
0.5	CLAY, silty moist, stiff. pale red-brown.			
0.6				
0.7	CLAY, silty. moist, stiff. pale grey-brown			
0.8				
0.9	Some calcareous sand at 0.6 m			
1.0				
1.1	CLAY, silty moist, stiff. brown-grey.			
1.2				
1.3				
1.4				
1.5				
1.6				
1.7				
1.8				
1.9				
DRILL TYPE	Gemco 210	DRILLER	J. Fisher	NOTES
LOGGERS	Hollow Flight Auger	LOGGED	P. Dahlhaus	
DATE		DATE	30.8.84	
CHECKED		CHECKED		
DRAWN		DRAWN		
VERTICAL SCALE	1:10	SHEET	1 OF 2	DRAWING No
				MC 40 (59) 33.84.40

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No
LOCATION Proposed Cemetery at Melton Vic.		HOLE No		DJERRIWARRH 172
R.L. GROUND 172.88		AMG REF		5830039.0 283571.5
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	WEATHERING U.S.C. SYMBOL GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS	
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL	
2.1	CLAY, silty. moist, stiff, fissured mottled yellow brown & grey.	CH		
2.2				
2.3				
2.4				
2.5				
2.6				
2.7				
2.8				
2.9				
3.0	Auger refusal. Basalt.			
DRILL TYPE	Gemco 210	DRILLER	J. Fisher	NOTES
LOGGERS	Hollow Flight Auger	LOGGED	P. Dahlhaus	
DATE		DATE	30.8.84	
CHECKED		CHECKED		
DRAWN		DRAWN		
VERTICAL SCALE	1:10	SHEET	2 OF 2	DRAWING No
				MC 40 (59) 33.84.40

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No <u>DJERRIWARAH 173</u>		
LOCATION <u>Proposed Cemetery at Melton, Vic.</u>		R.L. GROUND <u>171.94</u>		AMG REF. <u>5830027.4</u> <u>283723.2</u>		
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	A U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS		
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	E REMARKS		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL		
0.1	SILT, dry, friable, brown	ML				
	SILTY CLAY, moist, firm, brown					
0.2	CLAY, silty					
	moist, firm, yellow-brown					
0.3						
0.4						
0.5	CLAY, silty					
	moist, firm,					
0.6	dark grey.					
0.7		CH				
0.8						
0.9	CLAY, silty,					
	moist, stiff, fissured,					
1.0	grey					
	occasional basalt piece.					
1.1						
1.2						
1.3						
1.4						
1.5						
1.6						
1.7						
1.8	CALCAREOUS NODULE					
	white, soft.					
1.9	BASALT, E.W.	E.W.				
	scoriaceous					
	clay bands throughout					
DRILL TYPE <u>Genies 210</u> DRILLER <u>J. Fisher</u> NOTES CORE BARREL TYPE <u>Hollow Flight</u> LOADED <u>P. Doolham</u> DATE <u>23.7.84</u> CHECKED APPROVED DRAWN		SHEET <u>1</u> OF <u>2</u> DRAWING NO. <u>MC 41 33.84.41</u>				

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No <u>DJERRIWARAH 173</u>		
LOCATION <u>Proposed Cemetery at Melton, Vic.</u>		R.L. GROUND <u>171.94</u>		AMG REF. <u>5830027.4</u> <u>283723.2</u>		
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	A U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS		
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	E REMARKS		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/FILL		
2.1	BASALT, E.W.					
	scoriaceous					
2.2	clay bands throughout					
2.3		E.W.				
2.4						
2.5						
2.6	Auger Refusal - Basalt.					
2.7						
2.8						
2.9						
3.0						
DRILL TYPE <u>Genies 210</u> DRILLER <u>J. Fisher</u> NOTES CORE BARREL TYPE <u>Hollow Flight</u> LOADED <u>P. Doolham</u> DATE <u>23.7.84</u> CHECKED APPROVED DRAWN		SHEET <u>2</u> OF <u>2</u> DRAWING NO. <u>MC 41 33.84.41</u>				

SEPT 83

DEPARTMENT OF MINERALS AND ENERGY		GEOLOGICAL LOG OF DRILL HOLE		HOLE No DJERRIWARRH 174	
LOCATION Proposed Cemetery at Melton, Vic.		AMG REF 5830004.3 284001.0			
R.L. GROUND 173.41					
DEPTH R.L. (m)	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL	GRAPHIC LOG	SOIL ADDITIONAL OBSERVATIONS, DEFECTS, TEST RESULTS	
	ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING		ROCK MASS DEFECTS TYPE, INCLINATION, THICKNESS, ROUGHNESS, COATING/INFILL	
0-1	SILT, dry, friable, brown.	ML			
0-2	SILTY CLAY, moist, friable, dark brown.	CL to CH			
0-3			Liquid limit 93 Linear Shrinkage 22 % Sand 9 Plastic limit 28 Free swell 160 % Silt 22 Plasticity Index 65 S.G. 2.48 % Clay 69		
0-4	SILTY CLAY moist, stiff, yellow-brown.	CH			
0-5	CLAY, silty, moist, stiff, grey-brown				
0-6					
0-7		GC			
0-8	Basalt, E.W. to H.W. pieces, dense, altered, blue-black & red-brown				
0-9	CLAY, silty, moist, stiff, grey				
1-0	Calcareous sand, white, soft, friable				
1-1					
1-2					
1-3					
1-4					
1-5					
1-6	Auger Refusal - Basalt.				
1-7					
1-8					
1-9					

DRILL TYPE Genco 210	DRILLER J. Fisher	NOTES
CORE BARREL TYPE Hydram Right	LOGGED P. Dalibon	
DOWNHOLE TIME 12.7.84	DATE 23.7.84	
CHECKED DATE 12.7.84	APPROVED	
DRAWN PD		
VERTICAL SCALE 1:10	SHEET 1 OF 1	DRAWING No MC 42 33-84-42

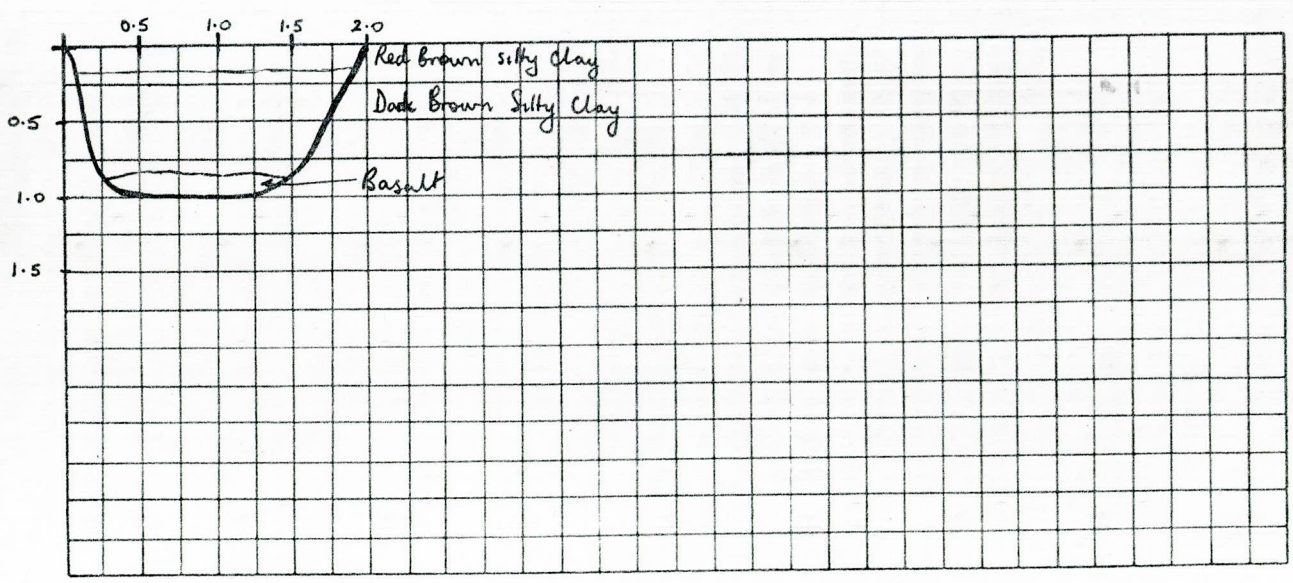
APPENDIX 2

Excavation Logs

PROJECT Proposed Cemetery at Melton. Vic. LOCATION R.L. GROUND 155.20 AMG. REF. 5828514.0
283844.0

EQUIPMENT TYPE AND MODEL Case 580 C ; 600mm bucket. EXCAVATION DIMENSIONS 2.0 m LONG 0.65m WIDE

METHOD	EASE OF EXCAVATION	DEPTH m	SOIL DESCRIPTION	SOIL	GRAPHIC LOG.	WATER
			TYPE PLASTICITY PARTICLE CHARACTERISTICS COLOUR ACCESSORY MATERIAL	U.S.G. SYMBOL		
			ROCK DESCRIPTION	ROCK WEATHERING		
			TYPE TEXTURE COLOUR PRIMARY STRUCTURE MINOR COMPONENTS			
BACKHOE	L	0.5	SILTY CLAY, moist, friable, red-brown	CL		
		0.5 - 1.0	SILTY CLAY, moist, very stiff, dark brown. calcareous nodules at 800mm	CH		
		1.0	BASALT, E.W. and H.W. floaters.	E.W. H.W.		
		1.0 - 3.5	Backhoe Refusal.			



Logged	P.G. Dahlhaus	Notes Insufficient Depth for Burial.
Date	7.5. '84	
Checked		
Approved		
Vertical Scale	1:50	Sheet no. 1 of 1
		Drawing no. MCP/1

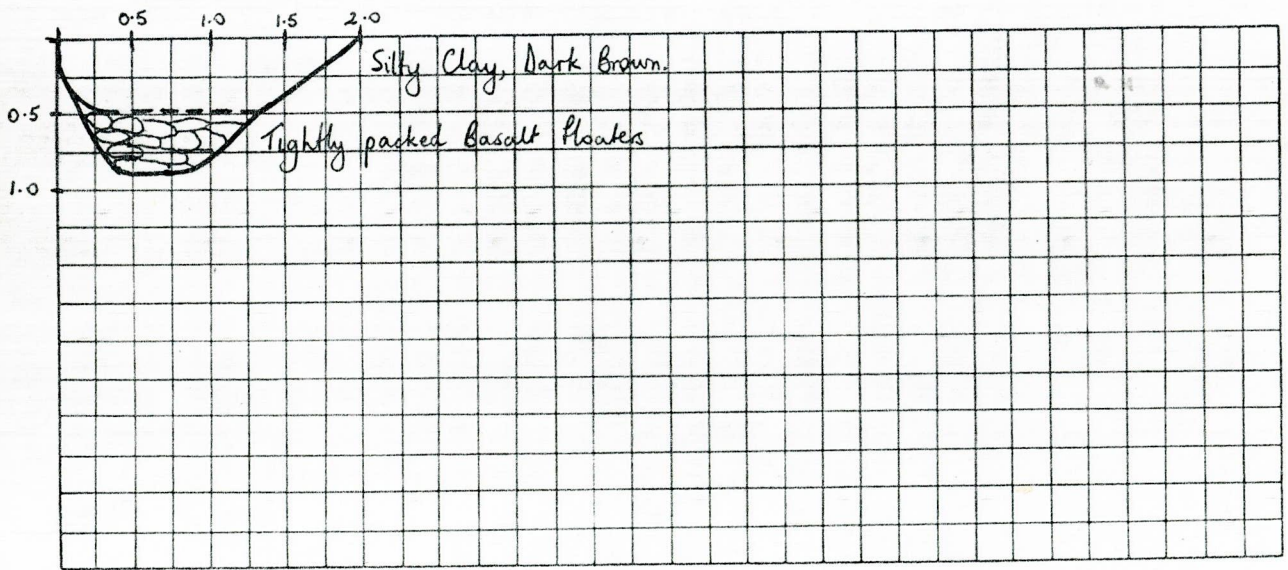
DEPARTMENT OF MINERALS AND ENERGY EXCAVATION LOG. PIT No. DJERRIWARRH 116

PROJECT Proposed Cemetery at Melton. Vic. LOCATION R.L. GROUND 158.70 58 28 556.0
AMG. REF. 28 3560.0

EQUIPMENT TYPE AND MODEL Case 580C 600mm Bucket

EXCAVATION DIMENSIONS 2.0 m LONG 0.65 m WIDE

METHOD	EASE OF EXCAVATION	DEPTH m	SOIL DESCRIPTION	SOIL	GRAPHIC LOG.	WATER	5 HAND PENETRO METER APP.
			TYPE PLASTICITY PARTICLE CHARACTERISTICS COLOUR ACCESSORY MATERIAL	U.S.C. SYMBOL			R. STRENGTH
			ROCK DESCRIPTION	ROCK WEATHERING	POINT LOAD		
			TYPE TEXTURE COLOUR PRIMARY STRUCTURE MINOR COMPONENTS				
BACKHOE		0.5	SILTY CLAY, moist, friable, Dark brown.	CH			
		0.5 - 1.0	BASALT, flatters, tightly packed CALcareous NODULES.	H.W.			
		1.0 - 1.5	Backhoe refusal.				



Logged	P.G. Dakthans	Notes	Insufficient Depth for Burial		
Date	7.5.84.				
Checked					
Approved					
Vertical Scale	1:50	Sheet no.	1 of 1	Drawing no.	MCP 2

PROJECT Proposed Cemetery at Melton, Vic.

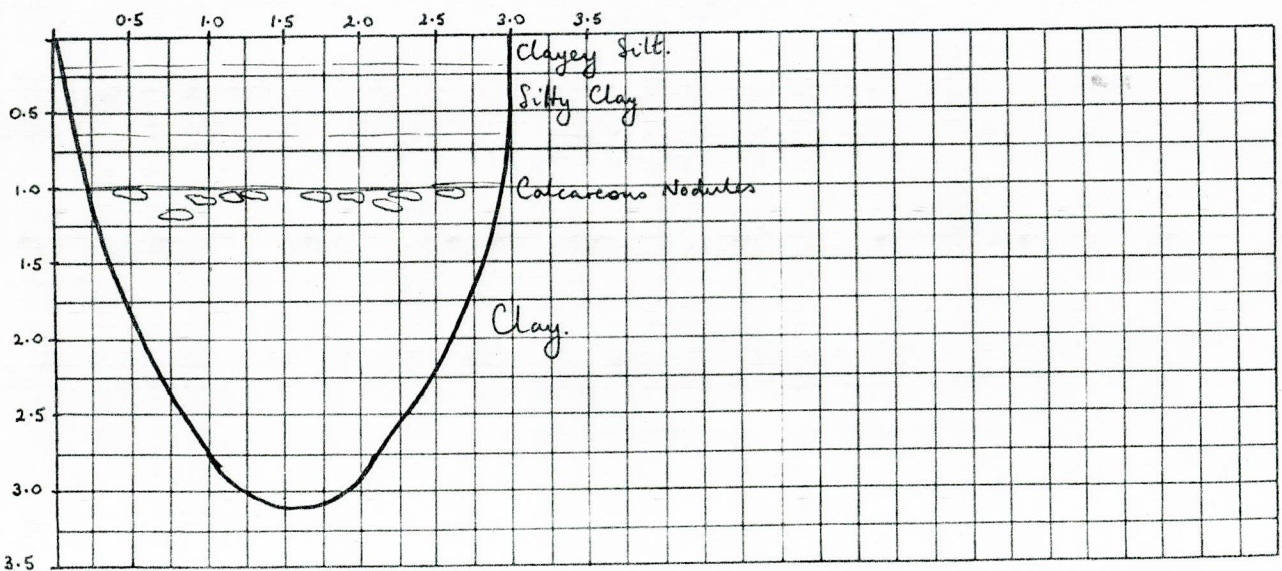
LOCATION R.L. GROUND 161.10

5828598.0
AMG. REF.
283260.0

EQUIPMENT TYPE AND MODEL Case 580C 600 mm Bucket.

EXCAVATION DIMENSIONS 3.0 m LONG 0.6 m WIDE

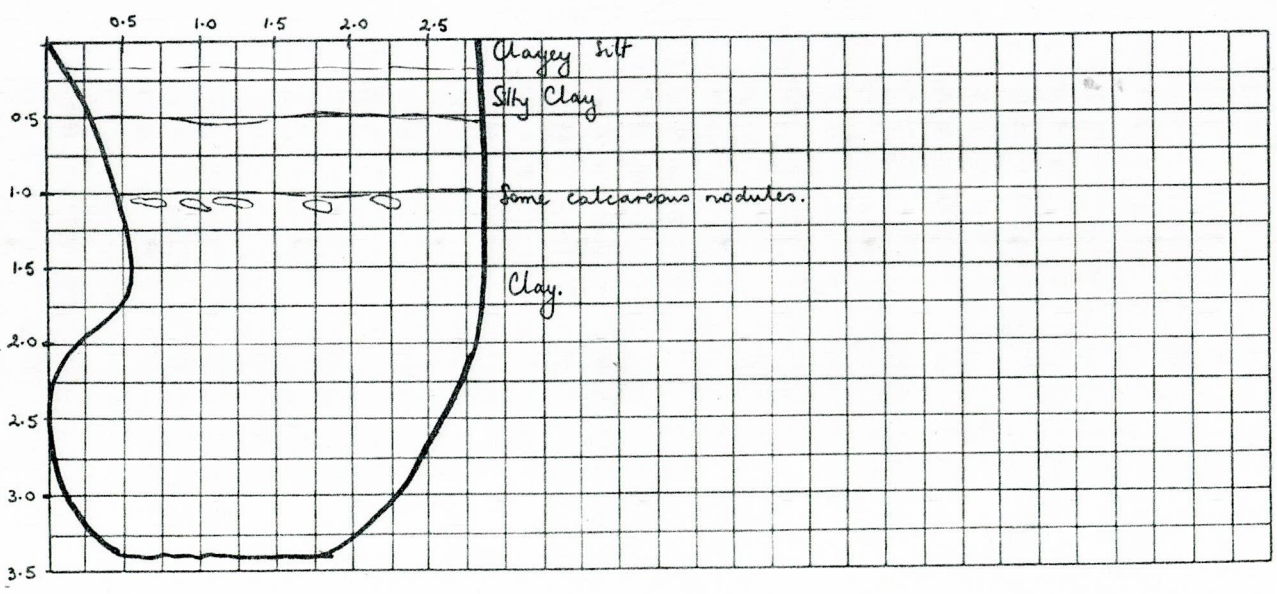
METHOD	EASE OF EXCAVATION	DEPTH m	SOIL DESCRIPTION	SOIL	GRAPHIC LOG.	WATER	S. HAND
			TYPE PLASTICITY PARTICLE CHARACTERISTICS COLOUR ACCESSORY MATERIAL	U.S.C. SYMBOL			PENETRO
			ROCK DESCRIPTION	ROCK			
			TYPE TEXTURE COLOUR PRIMARY STRUCTURE MINOR COMPONENTS	WEATHERING			
						R. STRENGTH	POINT LOAD
BACKHOE		0.0 - 0.5	CLAYEY SILT, dry, friable, red-brown	ML	[Symbol]		
		0.5 - 1.0	SILTY CLAY, moist, stiff, dark red-brown	CL	[Symbol]		
		1.0 - 1.5	SILTY CLAY, moist, stiff, grey-brown	CH	[Symbol]		
		1.5 - 2.5	CLAY, moist, stiff, fissured, grey, slightly mottled with orange-brown	CH	[Symbol]		
		2.5 - 3.0	black coatings (dendrite-like) on fissure surfaces. slickensides Calcareous nodules around 1.0 m		[Symbol]		
	3.0 - 3.5	End of pit.					



Logged	P. Dakthaus	Notes Very easily excavated. A "clean" smooth-sided pit.
Date	7.5. '84	
Checked		
Approved		

DEPARTMENT OF MINERALS AND ENERGY EXCAVATION LOG. PIT No. DJERRIWARH 122
 PROJECT Proposed Cemetery at Melton, Vic. LOCATION R.L. GROUND 163.70 5828638.0
 EQUIPMENT TYPE AND MODEL Case 580 c 600 mm Bucket AMG. REF. 282966.0
 EXCAVATION DIMENSIONS 2.7 m LONG 0.6 m WIDE

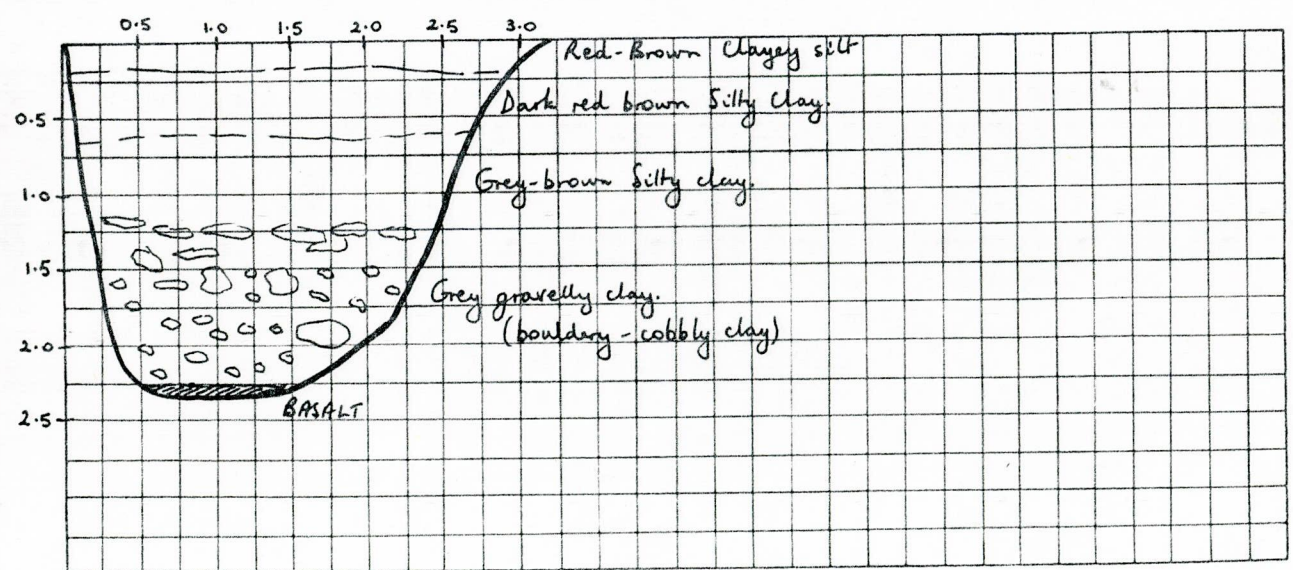
METHOD	EASE OF EXCAVATION	DEPTH M	SOIL DESCRIPTION	SOIL	GRAPHIC LOG.	WATER
			TYPE PLASTICITY PARTICLE CHARACTERISTICS COLOUR ACCESSORY MATERIAL	U.S.C. SYMBOL		
			ROCK DESCRIPTION	ROCK		
			TYPE TEXTURE COLOUR PRIMARY STRUCTURE MINOR COMPONENTS	WEATHERING		
BACKHOE	[Shaded]	0.0	CLAYEY SILT, dry, friable, red-brown	ML	[Graphic Log]	[Water Table]
		0.5	SILTY CLAY, moist, stiff, dark red-brown	CL		
		1.0	CLAY, silty, moist, stiff grey-brown some carbonate nodules around 1.0m	CH		
		1.5	CLAY, moist, stiff, fissured.			
		2.0	grey with occasional yellow-brown mottling.			
		2.5	slickensides on fissure surfaces obvious.	CH		
		3.5	End of pit.			
		4.0				



Logged	P. Dahlhaus	Notes	
Date	7. 5. '84		
Checked			
Approved			
Vertical Scale	1:50	Sheet no. 1 of 1	Drawing no. MCP 4

DEPARTMENT OF MINERALS AND ENERGY EXCAVATION LOG. PIT NO. DJERRIWARRH 125
 PROJECT Proposed Cemetery at Melton. Vic LOCATION R.L. GROUND 164.70 5828674.0
 EQUIPMENT TYPE AND MODEL Case 580 C 600 mm Bucket AMG. REF. 282670.0
 EXCAVATION DIMENSIONS 2.8 m LONG 0.65 m WIDE

METHOD	EASE OF EXCAVATION	DEPTH m	SOIL DESCRIPTION	SOIL	GRAPHIC LOG.	WATER	5 HAND PENETRO METER APP.
			TYPE PLASTICITY PARTICLE CHARACTERISTICS COLOUR. ACCESSORY MATERIAL	USE SYMBOLS			R STRENGTH
			ROCK DESCRIPTION	ROCK			POINT LOAD
			TYPE TEXTURE COLOUR PRIMARY STRUCTURE MINOR COMPONENTS	WEATHERING			
BACK HOE	█	0.5	CLAYEY SILT, sandy. red-brown	ML	[Symbol]		
			SILTY CLAY, moist, stiff, dark red-brown.	CL	[Symbol]		
		1.0	SILTY CLAY moist, stiff, grey-brown	CH	[Symbol]		
		1.5	As above, with many CALCAREOUS NODULES, BASALT, 70mm cobbles, three or four pieces up to around 200mm size.	G.C.	[Symbol]		
		2.0	Extremely weathered BASALT	E.W.	[Symbol]		
		2.5	Backhoe Refusal.				
		3.0					



Logged	P. Dakthans	Notes Reasonably smooth-sided hole, some areas rough where floaters were plucked out.
Date	7.5.84	
Checked		
Approved		
Vertical Scale	1:50	Sheet no. 1 of 1
		Drawing no. MCP 5

DEPARTMENT OF MINERALS AND ENERGY

EXCAVATION LOG.

PIT No. DJERRIWARRH 132

PROJECT Proposed Cemetery at Melton. Vic.

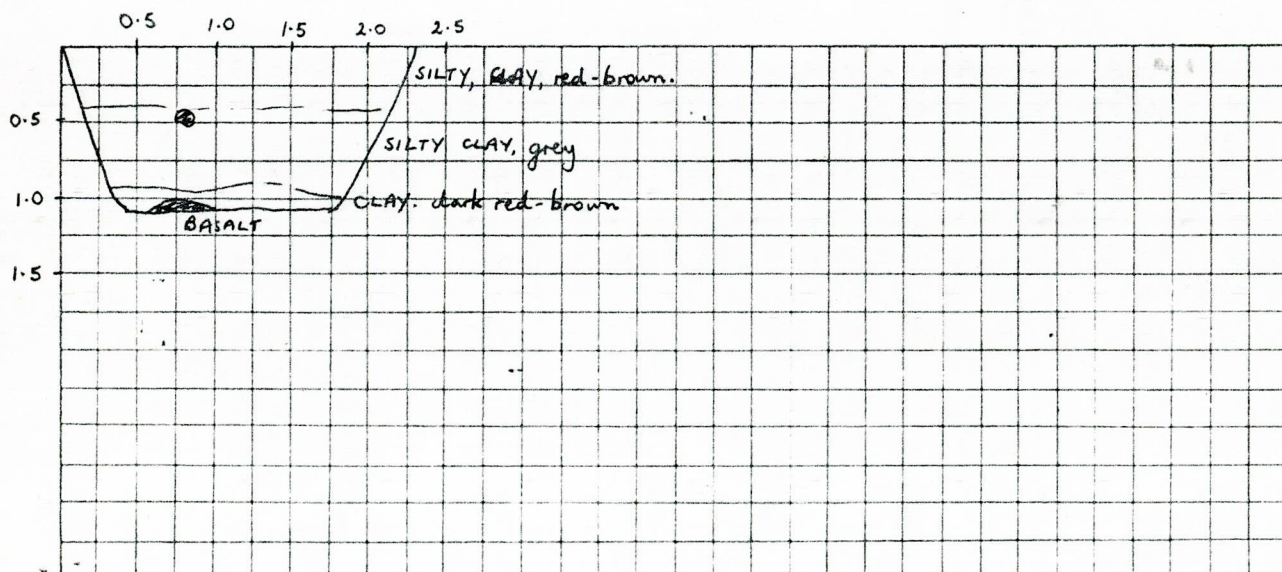
LOCATION R.L. GROUND 158.9

5828718.0
AMG. REF. 283898.0

EQUIPMENT TYPE AND MODEL Case 580 C 600 mm bucket

EXCAVATION DIMENSIONS 2.3 m LONG 0.65 m WIDE

METHOD	PHASE OF EXCAVATION	DEPTH m	SOIL DESCRIPTION	SOIL SYMBOL	GRAPHIC LOG.	WATER	5 HAND PENETROMETER SPT
			TYPE PLASTICITY PARTICLE CHARACTERISTICS COLOUR ACCESSORY MATERIAL				ROCK DESCRIPTION
			TYPE TEXTURE COLOUR PRIMARY STRUCTURE MINOR COMPONENTS	ROCK WEATHERING			
BACKHOE	[Diagram showing excavation profile]	0.0 - 0.5	SILTY CLAY, dark red-brown	CL	[Symbol]		
		0.5 - 1.0	SILTY CLAY, mottled yellow-brown & grey. calcareous material at 0.8m numerous basalt floaters	CH	[Symbol]		
		1.0 - 1.5	CLAY, dark red-brown		[Symbol]		
		1.5 - 2.0	Backhoe Refusal - Basalt.				
		2.0 - 2.5					
		2.5 - 3.0					



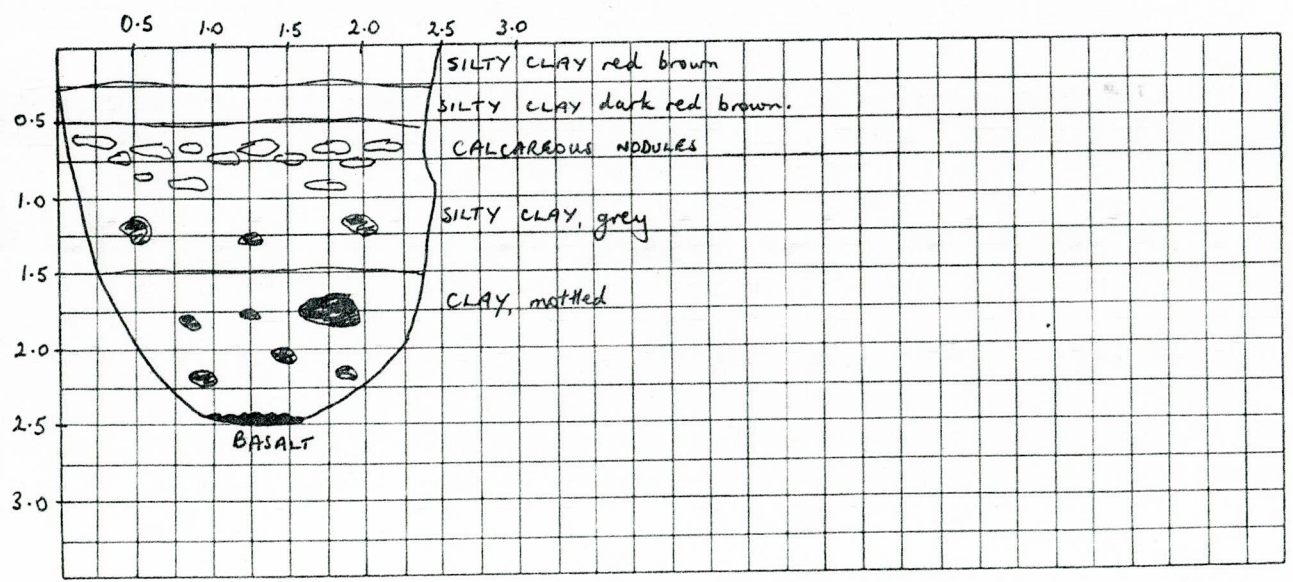
Logged J. Gredl
Date 10.5.84
Checked P. Dahlhaus
Approved

Notes Too shallow to meet requirements for Burial.

PROJECT Proposed Cemetery at Melton Vic. LOCATION R.L. GROUND 162.70
 5828758.0
 AMG. REF. 283594.0

EQUIPMENT TYPE AND MODEL Case 580 C 600mm bucket
 EXCAVATION DIMENSIONS 2.5 m LONG 0.65 m WIDE

METHOD	DEPTH OF EXCAVATION	DEPTH m	SOIL DESCRIPTION	SOIL	GRAPHIC LOG.	WATER
			TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL			
			ROCK DESCRIPTION	ROCK		
			TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING		
BACKHOLE	2.5	0.0 - 0.5	SILTY CLAY, moist, friable, red-brown SILTY CLAY, moist, friable, dark red-brown	CL	[Hand-drawn soil profile with horizontal lines and circles representing nodules]	[Vertical scale with horizontal lines]
		0.5 - 1.0	SILTY CLAY, moist, stiff, grey. calcareous nodules at 0.5-1.0m Basalt floaters throughout	CH		
		1.0 - 2.0	CLAY, silty, moist, stiff, mottled yellow-brown & grey. Basalt floaters throughout from 40mm to 400mm size.			
		2.0 - 2.5	Backhoe Refusal, Basalt "floater"			
		2.5 - 3.0				



Logged P. Dahlhaus
 Date 7.5.84
 Checked
 Approved

Notes A rough hole as many floaters have been plucked from the sides.

DEPARTMENT OF MINERALS AND ENERGY

EXCAVATION LOG.

PIT No. DJERRIWARAH 134

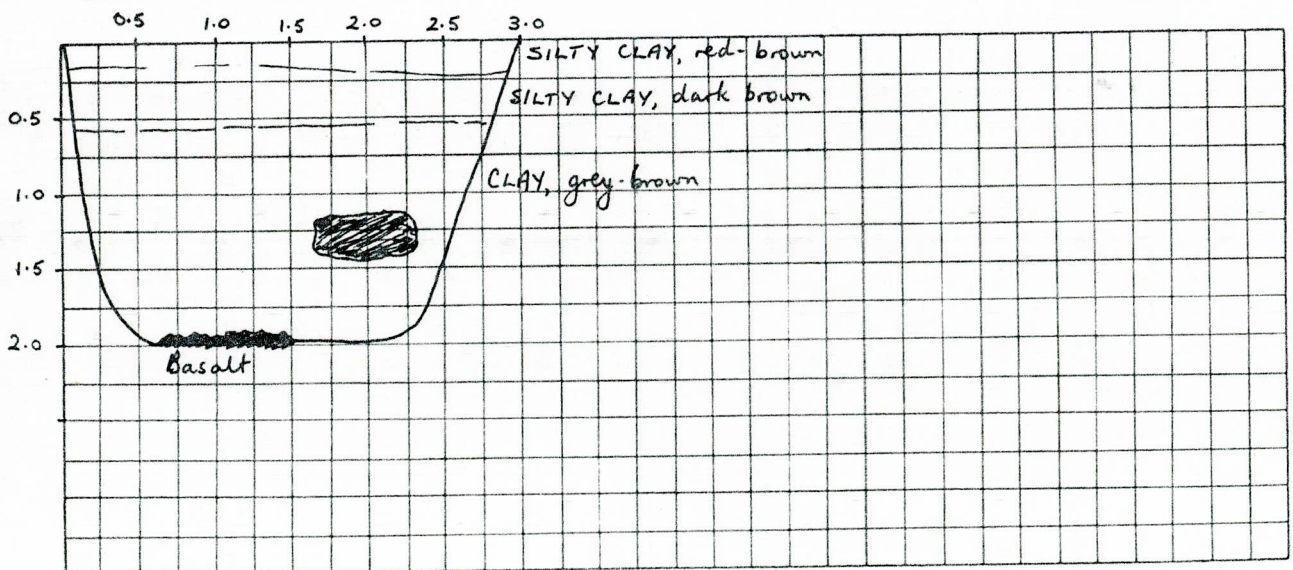
PROJECT Proposed Cemetery at Melton, Vic. LOCATION R.L. GROUND 161.80

5828746.0
AMG. REF.
283296.0

EQUIPMENT TYPE AND MODEL Case 580 C 600 mm

EXCAVATION DIMENSIONS 3.0 m LONG 0.65 m WIDE

METHOD	EASE OF EXCAVATION	DEPTH m	SOIL DESCRIPTION	SOIL	GRAPHIC LOG.	WATER
			TYPE PLASTICITY PARTICLE CHARACTERISTICS COLOUR ACCESSORY MATERIAL	U.S.C. SYMBOL		
			ROCK DESCRIPTION	ROCK WEATHERING		
			TYPE TEXTURE COLOUR PRIMARY STRUCTURE MINOR COMPONENTS			
BACKHOE	[Diagram showing excavation depth from 0 to 1.5m]	0.5	SILTY CLAY, moist, friable, red-brown SILTY CLAY, moist, stiff, dark brown some basalt "floaters" to cobble size	CL	[Graphic log showing soil layers and water table]	[Water level indicator]
		1.0	CLAY, silty, moist, stiff, grey brown.	CH to GC		
		1.5	calcareous nodules 650mm to 850mm "floaters" throughout cobble size. One 600mm x 400mm at 1.2m.			
		2.0	Refusal on large floater.			
		2.5				
		3.0				
		3.5				



Logged	P. Dahlhaus	Notes	
Date	7. 5. '84		
Checked			
Approved			
Vertical Scale	1:50	Sheet no. 1 of 1	Drawing no. MCP 11

PROJECT Proposed Cemetery at Melton. Vic.

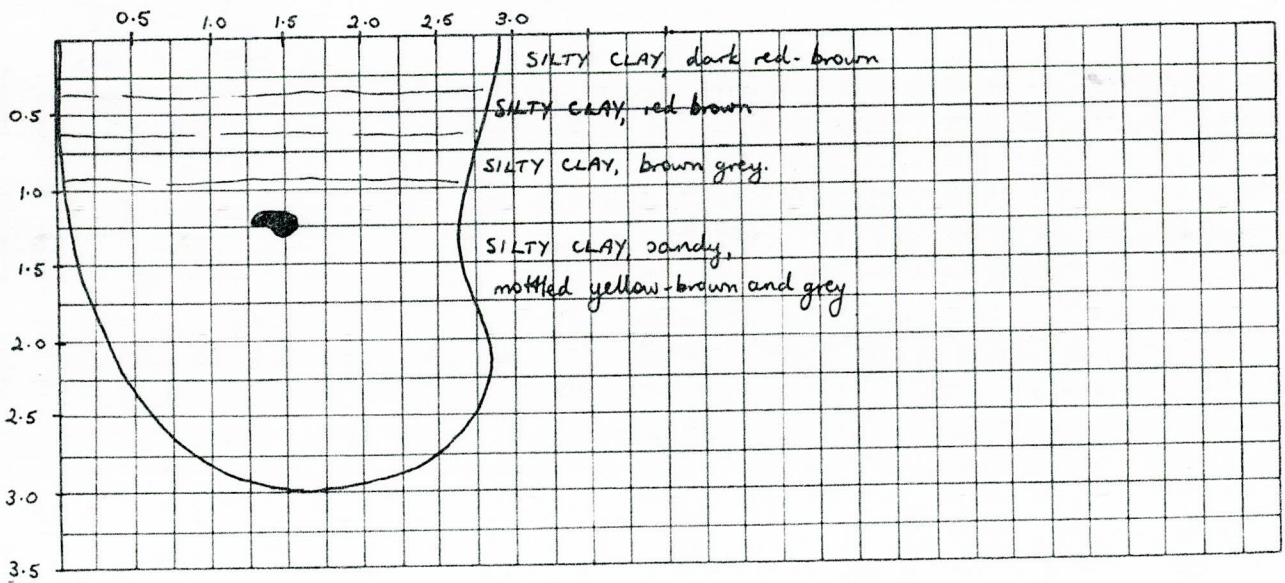
LOCATION R.L. GROUND 165.00

5828834.0
AMG. REF.
222998.0

EQUIPMENT TYPE AND MODEL Case 580 c 600 mm bucket

EXCAVATION DIMENSIONS 2.9 m LONG 0.65 m WIDE

METHOD	EASE OF EXCAVATION	DEPTH M	SOIL DESCRIPTION	SOIL	GRAPHIC LOG.	WATER	S HAND
			TYPE PLASTICITY PARTICLE CHARACTERISTICS COLOUR ACCESSORY MATERIAL	U.S.C. SYMBOL			PENETRO
			ROCK DESCRIPTION	ROCK	POINT LOAD		
			TYPE TEXTURE COLOUR PRIMARY STRUCTURE MINOR COMPONENTS	W.I.A. (HARD)			
BACKHOLE	[Shaded bar]	0.5	SILTY CLAY, moist, stiff, dark red-brown	CL	[Graphic log symbol]		
			SILTY CLAY, moist, stiff, red-brown		[Graphic log symbol]		
		1.0	SILTY CLAY, moist, stiff, brown-grey some calcareous sand.		[Graphic log symbol]		
		1.5	SILTY CLAY, sandy, moist, stiff, mottled yellow-brown and grey.	CH	[Graphic log symbol]		
		2.0	sand mainly quartz, some 'buckshot' Basalt gravel to 60 mm throughout one basalt floater 200mm at 1.2m		[Graphic log symbol]		
		2.5					
		3.0					
		3.5					

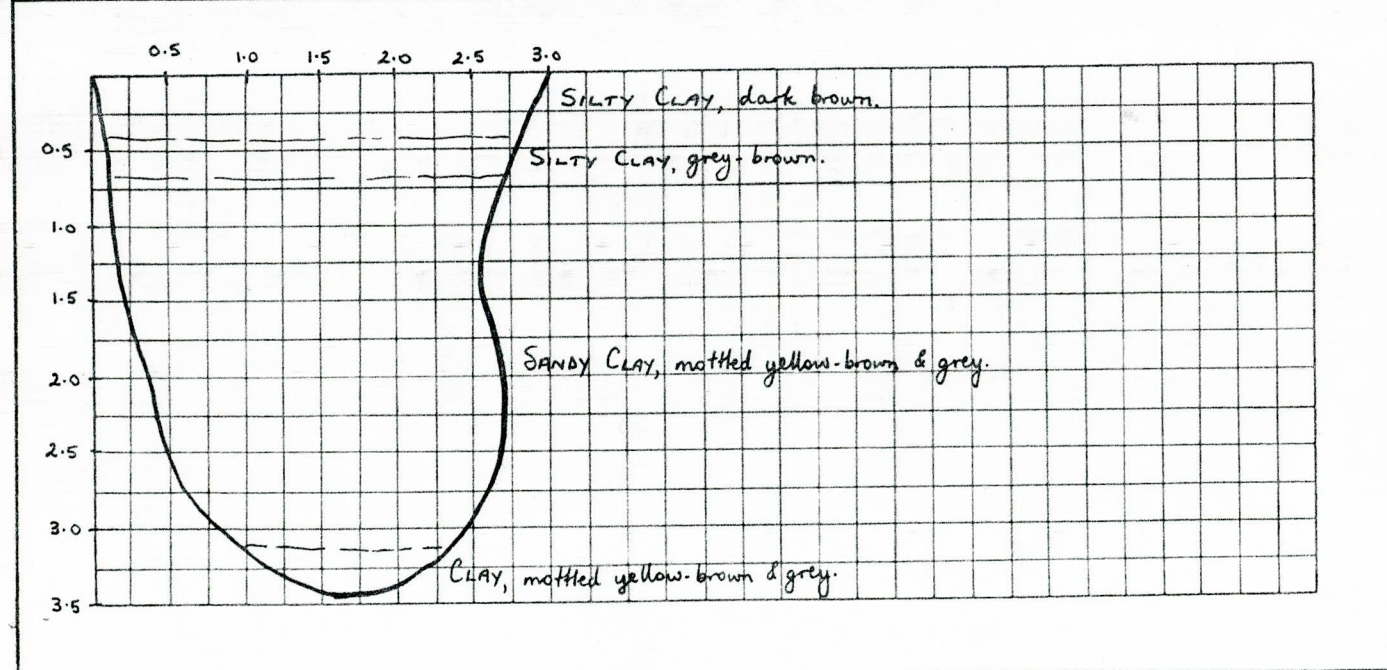


Logged	P. Dahlhaus	Notes Smooth-sided hole. Very easily excavated.
Date	7. 5. '84	
Checked		
Approved		
Vertical Scale	1:50	Sheet no. 1 of 1
		Drawing no. MCP 10

PROJECT Proposed Cemetery at Melton. Vic. LOCATION R.L. GROUND 165.30 5828876.0 AMG. REF. 282702.0

EQUIPMENT TYPE AND MODEL Case 580 C. 600mm. Bucket. EXCAVATION DIMENSIONS 3.1 m LONG 0.65 m WIDE

METHOD	EASE OF EXCAVATION	DEPTH M	SOIL DESCRIPTION	SOIL	GRAPHIC LOG.	WATER	S HAND
			TYPE PLASTICITY PARTICLE CHARACTERISTICS COLOUR ACCESSORY MATERIAL	U.S.C. SYMBOL			PENETRI
			ROCK DESCRIPTION	ROCK			R STRENGTH
			TYPE TEXTURE COLOUR PRIMARY STRUCTURE MINOR COMPONENTS	WEATHERING			POINT LOAD
BACKHOE	[Vertical bar with depth markings]	0.0 - 0.5	SILTY CLAY, moist, stiff, dark brown	CL	[Graphic log symbols]		
		0.5 - 0.7	SILTY CLAY, moist, stiff, grey-brown calcareous nodules around 0.7m		[Graphic log symbols]		
		0.7 - 1.0	SANDY CLAY, silty, moist, stiff, fissured.		[Graphic log symbols]		
		1.0 - 3.0	mottled yellow-brown and grey sand fraction is fine white quartz.	CH	[Graphic log symbols]		
		3.0 - 3.5	CLAY, silty, moist, stiff, mottled yellow-brown and grey.		[Graphic log symbols]		
		4.0					



Logged	P. Dahlhaus	Notes Very easily excavated to 3 m.
Date	7. 5. '84.	
Checked		
Approved		
Vertical Scale	1: 50	Sheet no. 1 of 1
		Drawing no. MCP 7

DEPARTMENT OF MINERALS AND ENERGY

EXCAVATION LOG.

PIT NO. DJERRIWARRH 143

PROJECT Proposed Cemetery at Melton. Vic.

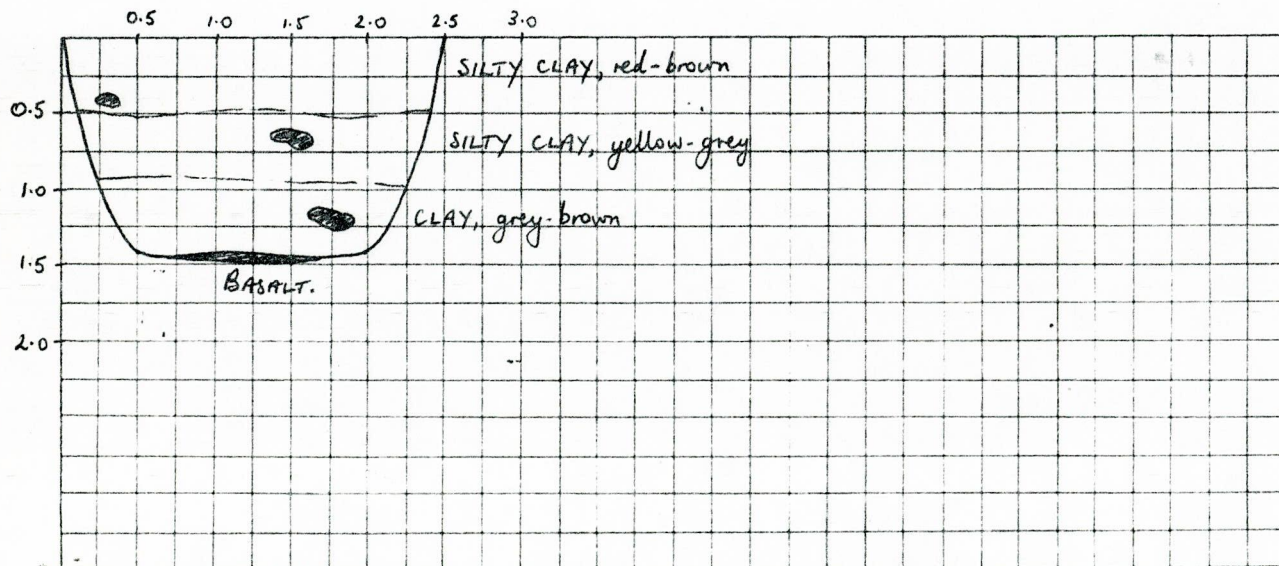
LOCATION R.L. GROUND 162.10

5828914.0
AMB. REF.
283948.0

EQUIPMENT TYPE AND MODEL Case 580C 600mm bucket.

EXCAVATION DIMENSIONS 2.5 m LONG 0.65 m WIDE

METHOD	EASE OF EXCAVATION	DEPTH m	SOIL DESCRIPTION	SOIL	GRAPHIC LOG.	WATER	5 HAND PENETRO METER kPa
			TYPE PLASTICITY PARTICLE CHARACTERISTICS COLOUR ACCESSORY MATERIAL	TYPE TEXTURE COLOUR PRIMARY STRUCTURE MINOR COMPONENTS			ROCK
BACKHOE	[Diagram showing excavation depth]	0.5	SILTY CLAY, red-brown	CL	[Symbol]		
		1.0	SILTY CLAY, mottled light yellow grey calcareous zone at around 0.7m CLAY, grey-brown. some basalt floaters.	CH	[Symbol]		
		1.5	Backhoe refusal.				
		2.0					



Logged

J. Giedl

Notes

Borderline excavation for burial of one coffin.
(Minimum requirement is 1350 mm)

Date

10. 5. '84.

Checked

P. Dahlhaus

Approved

Vertical Scale

1:50

Sheet no.

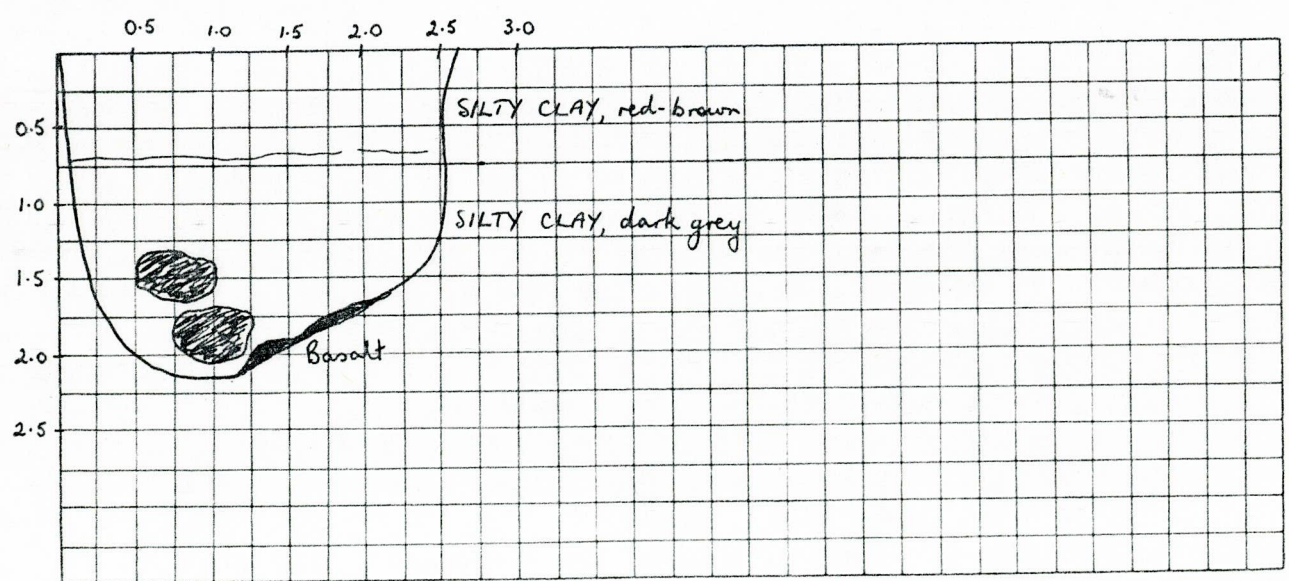
1 of 1

Drawing no. MCP 16

PROJECT Proposed Cemetery at Melton, Vic. LOCATION R.L. GROUND 164.30
 5828458.0
 AMG. REF. 283624.0

EQUIPMENT TYPE AND MODEL Case 580C 600mm bucket
 EXCAVATION DIMENSIONS 2.6 m LONG 0.65 m WIDE

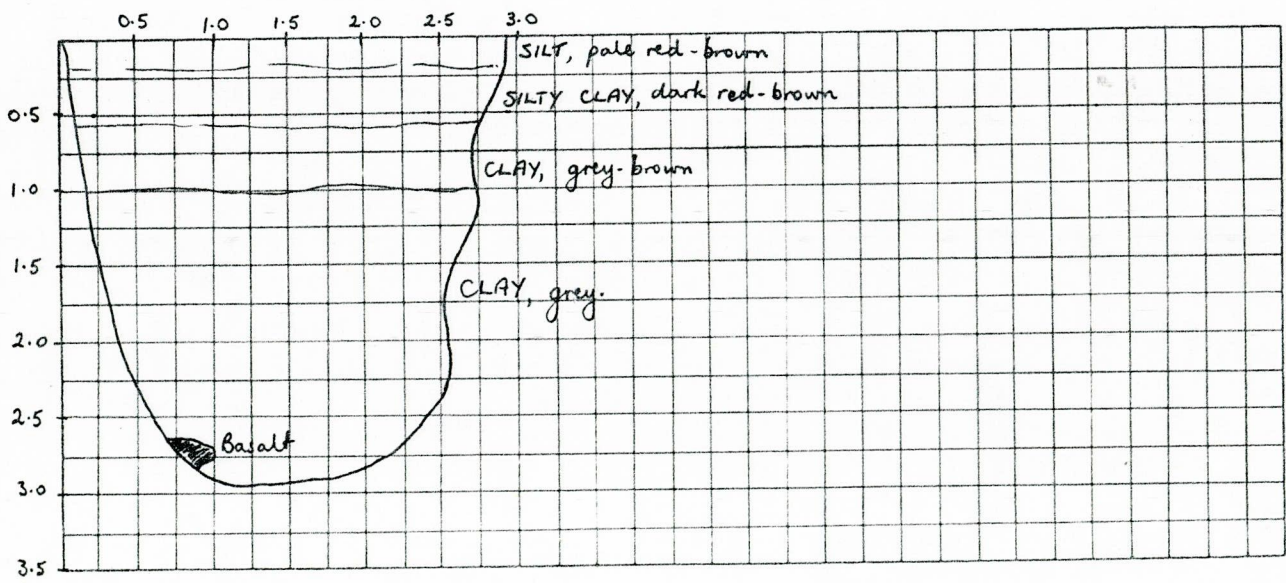
METHOD OF EXCAVATION	DEPTH m	SOIL DESCRIPTION	SOIL NO. & WEATHERING	GRAPHIC LOG.	WATER	STANDARD PENETROMETER
		TYPE PLASTICITY PARTICLE CHARACTERISTICS COLOUR ACCESSORY MATERIAL				POINT LOAD
BACKHOE	0.5	SILTY CLAY, moist, blocky, very stiff. dark red-brown	CL	[Symbol]		
	1.0	SILTY CLAY moist, friable, stiff. dark grey.	CH	[Symbol]		
	1.5	calcareous nodules at 800mm Basalt "floaters" throughout.		[Symbol]		
	2.0	500mm size floaters at 1.5 & 1.8 m		[Symbol]		
	2.5	Refusal on Basalt "floater"				
	3.0					



Logged	P. Dahlhaus	Notes Backhoe refusal on large Basalt "floater". (presumed)
Date	7. 5. '84	
Checked		
Approved		
Vertical Scale	1:50	Sheet no. 1 of 1
		Drawing no. MCP13

DEPARTMENT OF MINERALS AND ENERGY EXCAVATION LOG. PIT NO. DJERRIWARH 148
 PROJECT Proposed Cemetery at Melton. Vic. R.L. GROUND 163.40 LOCATION 5828997.0
 EQUIPMENT TYPE AND MODEL Case 580 C 600mm bucket. AMG. REF. 293328.0
 EXCAVATION DIMENSIONS 2.9 m LONG 0.65 m WIDE

METHOD	CASE OF EXCAVATION	DEPTH M	SOIL DESCRIPTION	SOIL	GRAPHIC LOG.	WATER	STANDARD
			TYPE PLASTICITY PARTICLE CHARACTERISTICS COLOUR ACCESSORY MATERIAL	SYMBOL			PENETRA
			ROCK DESCRIPTION	ROCK			
			TYPE TEXTURE COLOUR PRIMARY STRUCTURE MINOR COMPONENTS	WEATHERING			
BACKHOLE		0.5	SILT, clayey dry friable pale red brown	ML	[Hand-drawn soil profile with horizontal lines and dots representing soil layers]		
			SILTY CLAY, moist, stiff, dark red-brown	CL			
		1.0	CLAY, silty, moist, stiff, grey-brown Some calcareous nodules.	CH			
		1.5	CLAY, moist, stiff, fissured, grey slightly mottled with orange-brown.				
		2.0	fissures show slickensided surfaces, some black staining (like dendrites)				
		2.5	Basalt "floaters" 200mm to 300mm size at 2.7m.	CH			
		3.0					
		3.5					



Logged	P. Dathhaus	Notes Extremely easy digging to over 2.0 m
Date	7. 5. '84	
Checked		
Approved		
Vertical Scale	1:50	Sheet no. 1 of 1
		Drawing no. MCP 12

PROJECT Proposed Cemetery at Melton, Vic.

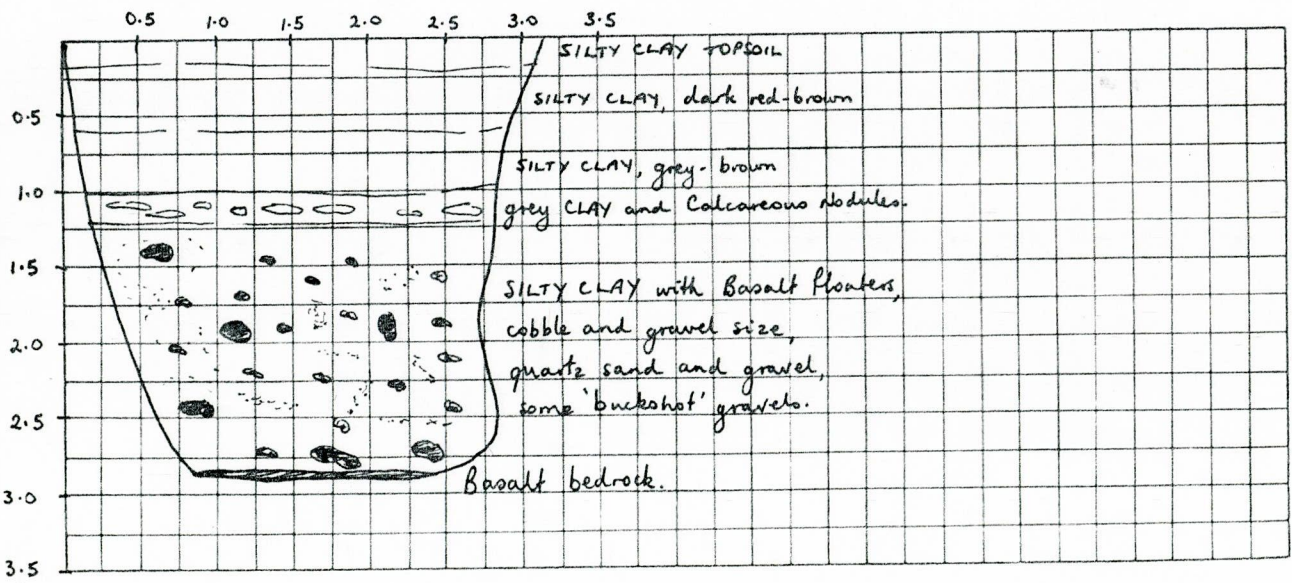
LOCATION R.L. GROUND 165.10

5829034-0
AMG. REF. 283026.0

EQUIPMENT TYPE AND MODEL Case 580 C 600mm bucket

EXCAVATION DIMENSIONS 3.3 m LONG 0.65m WIDE

METHOD	EASE OF EXCAVATION	DEPTH M	SOIL DESCRIPTION	SOIL CLASSIFICATION	GRAPHIC LOG.	WATER	5. HAND PENETRO METER (kPa)
			TYPE PLASTICITY PARTICLE CHARACTERISTICS COLOUR ACCESSORY MATERIAL.				4. STRENGTH
			ROCK DESCRIPTION	ROCK CLASSIFICATION			
			TYPE TEXTURE COLOUR PRIMARY STRUCTURE MINOR COMPONENTS		POINT LOAD		
BACKHOE	█	0.5	SILTY CLAY, moist, friable, red-brown	CL			
			SILTY CLAY, moist, stiff, dark red-brown				
		1.0	SILTY CLAY, moist, stiff, grey-brown.	CH			
			CLAY, silty, grey. CALCAREOUS NODULES.				
		1.5	SILTY CLAY, sandy, gravelly, moist, stiff,				
		2.0	grey, pockets of sand throughout. qtz sand appearing occasionally layered.	CH or GC			
2.5	gravel mix of qtz, basalt, "buckshot"	GC	Basalt "floaters" up to 150 mm from 1.2m. Soil open-textured in sandier parts with remnant root tracks.				
		3.0	Backhoe refusal - Basalt				
		3.5					



Logged	P. Dahlhaus	Notes
Date	7.5.'84	
Checked		
Approved		
Vertical Scale	1:50	Sheet no. 1 of 1
		Drawing no. MCP 9

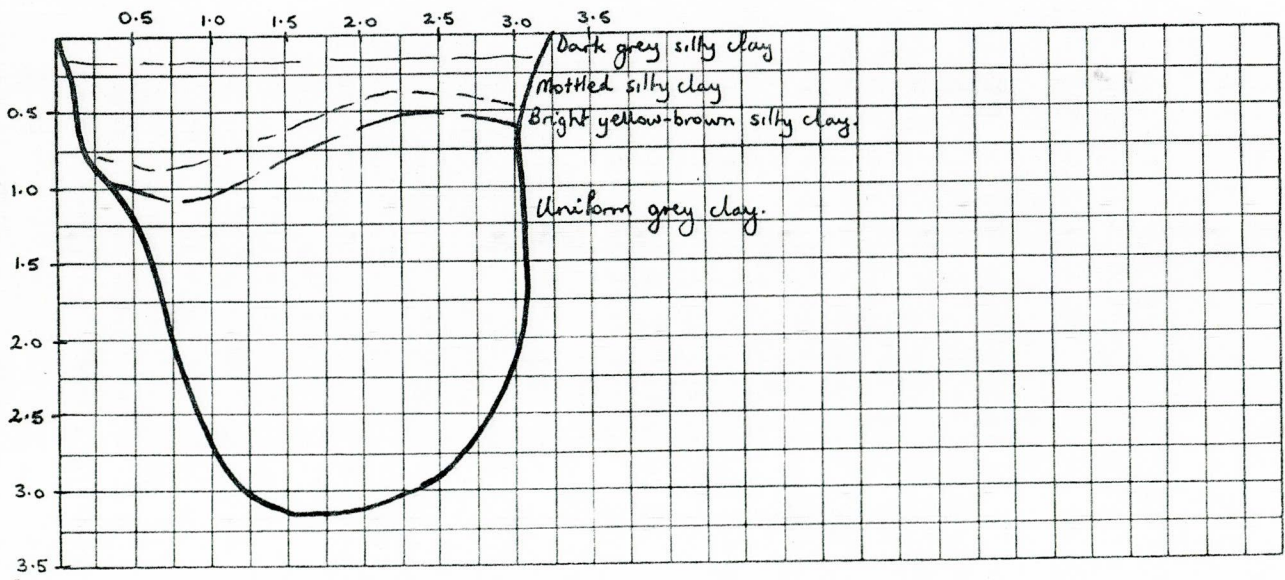
PROJECT Proposed Cemetery at Melton. Vic. LOCATION R.L. GROUND 165.80

5829074.0
AMG. REF.
282736.0

EQUIPMENT TYPE AND MODEL Case 580 C 600 mm Bucket.

EXCAVATION DIMENSIONS 3.5 m LONG 0.65 m WIDE

METHOD	EASE OF EXCAVATION	DEPTH m	SOIL DESCRIPTION	SOIL U.S.C. SYMBOL	GRAPHIC LOG.	WATER	SOIL HAND
			TYPE PLASTICITY PARTICLE CHARACTERISTICS COLOUR ACCESSORY MATERIAL				ROCK DESCRIPTION
			ROCK DESCRIPTION				R STRENGTH
			TYPE TEXTURE COLOUR PRIMARY STRUCTURE MINOR COMPONENTS				POINT LOAD
BACKHOE		0.5	SILTY CLAY, moist, stiff, dark grey.	CH			
			SILTY CLAY, moist, stiff mottled yellow-brown & grey	CH			
		1.0	SILTY CLAY, moist, stiff, bright yellow brown				
		1.5	CLAY, moist, stiff, fissured, grey.	CH			
		2.0					
		2.5					
		3.0					
		3.5					



Logged P. Dahlhaus
Date 7. 5. '84
Checked
Approved

Notes Extremely easy to excavate. Smooth-sided pit. Soil horizons form an obvious catenary boundary.

PROJECT Proposed Cemetery at Melton Vic. R.L. GROUND 169.88

LOCATION

5830010.7
AMG. REF.
282879.3

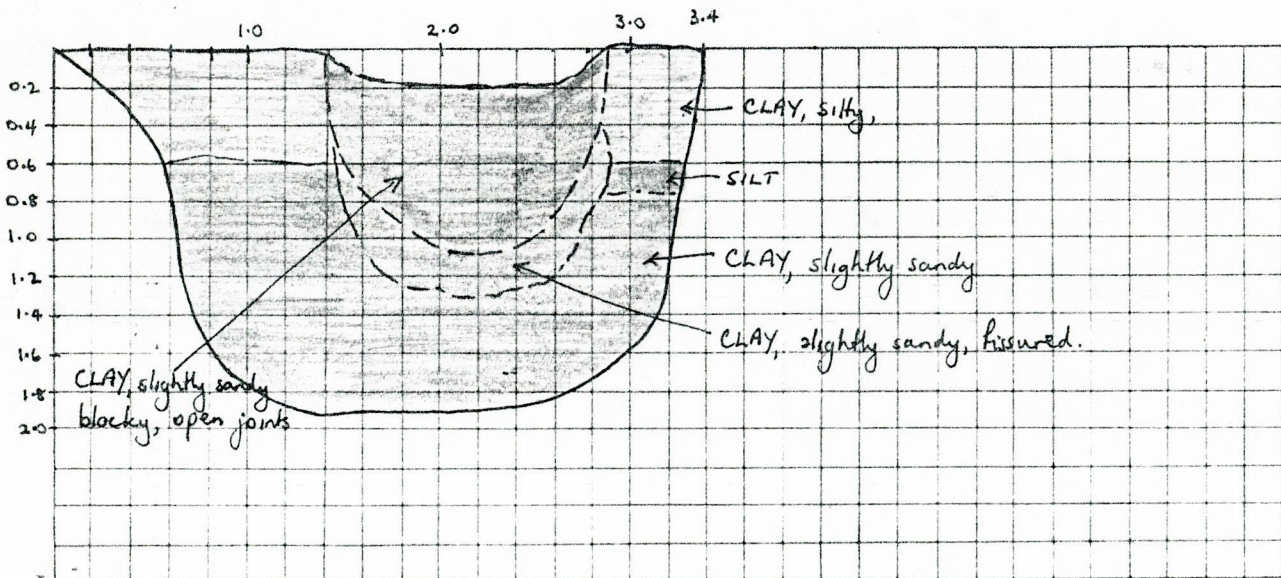
EQUIPMENT TYPE AND MODEL

EXCAVATION DIMENSIONS

m LONG

m WIDE

METHOD	EASE OF EXCAVATION	DEPTH m	SOIL DESCRIPTION	SOIL NO. & SYMBOL	GRAPHIC LOG.	WATER	S HAND
			TYPE PLASTICITY PARTICLE CHARACTERISTICS COLOUR ACCESSORY MATERIAL				PENETRO METER
			ROCK DESCRIPTION	NO. & SYMBOL			P. STRENGTH
			TYPE TEXTURE COLOUR PRIMARY STRUCTURE UNDR COMPONENTS				POINT LOAD
		0.2	CLAY, silty moist, friable, stiff, fissured brown.		Material in Subsided portion. CLAY, slightly sandy. dry to moist, blocky, brown. open jointed, some 20mm wide, many tree roots. CLAY, slightly sandy. fissured. moist, stiff, yellow-brown. very open textured. some firm to soft areas.		
		0.4	many tree roots.				
		0.6	SILT, clayey fine calcareous material throughout.				
		0.8	CLAY, slightly sandy.				
		1.0	moist, stiff. yellow brown.				
		1.2	becomes mottled yellow-brown				
		1.4	and grey around 1.3m.				
		1.6					
		1.8					



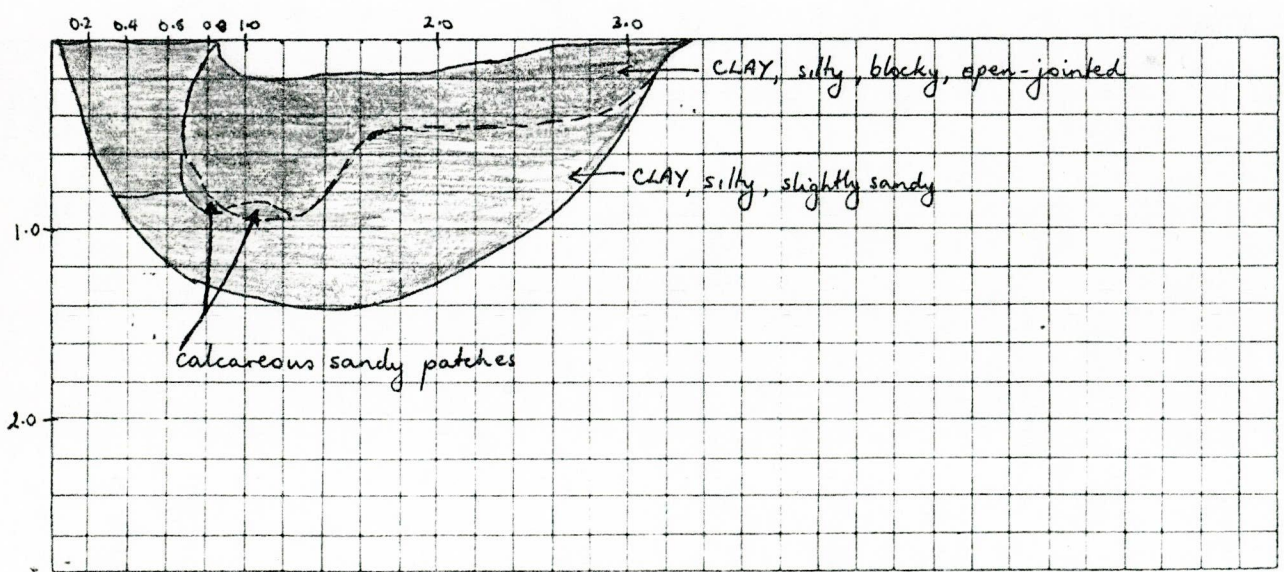
Logged P. Dahlhaus
Date 10. 5. '84
Checked
Approved

Notes
Sheet no. 1 of 1 Drawing no. Sbs No. 1.

PROJECT Proposed Cemetery at Melton Vic. A.L. GROUND 169.88 LOCATION 5830010.7
 REF. 282879.3

EQUIPMENT TYPE AND MODEL EXCAVATION DIMENSIONS m LONG m WIDE

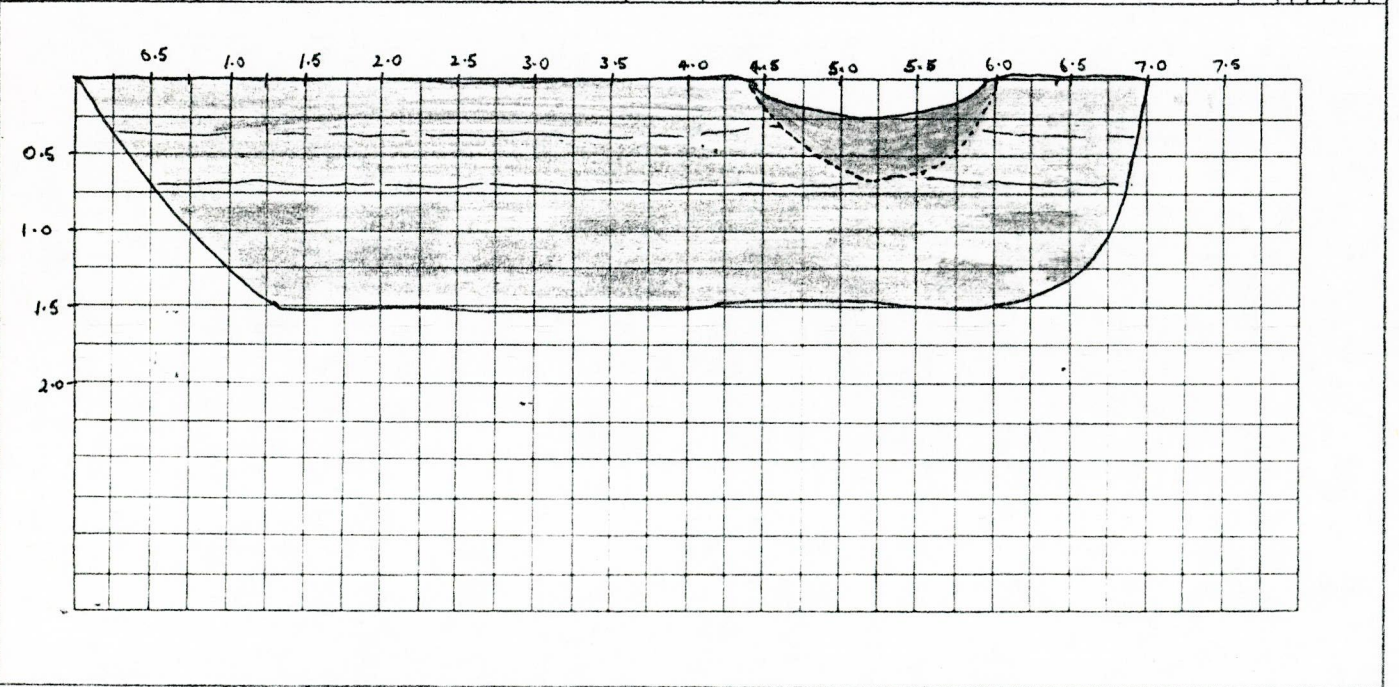
METHOD	EASE OF EXCAVATION	DEPTH m	SOIL DESCRIPTION	SOIL TYPE SYMBOL	GRAPHIC LOG.	WATER	SHAND
			TYPE PLASTICITY PARTICLE CHARACTERISTICS COLOUR ACCESSORY MATERIAL				PENETRO
			ROCK DESCRIPTION				
			TYPE TEXTURE COLOUR PRIMARY STRUCTURE MINOR COMPONENTS				
BACKHOE		0.2	CLAY, silty. moist, stiff, friable. dark yellow-brown.		Material in Subsided patch. CLAY, silty. moist (near dry) very stiff, blocky. brown. open jointed. some calcareous patches (sandy) at the base.		
		0.4					
		0.6					
		0.8					
		1.0	CLAY, silty. moist, stiff, greenish-yellow brown.				
	1.2	slightly sandy.					
	1.4						
		1.6					
		1.8					



Logged	P. Dahlhaus	Notes
Date	10.5.84	
Checked		
Approved		
Vertical Scale	1:20	Sheet no. 1 of 1
		Drawing no. Subs. No. 2

EQUIPMENT TYPE AND MODEL
EXCAVATION DIMENSIONS m LONG m WIDE

METHOD OF EXCAVATION	DEPTH m	SOIL DESCRIPTION	GRAPHIC LOG.	WATER
		TYPE PLASTICITY PARTICLE CHARACTERISTICS COLOUR ACCESSORY MATERIAL		
BACKHOE	0.2	SILTY CLAY, sandy, gravelly, moist, very stiff, friable, fissured yellow-brown.	Material in Subsided section. CLAY, silty, sandy. Dry, blocky, open jointed peds. dark yellow-brown. some organic material.	
	0.4	CLAY, silty, moist, stiff, yellow-brown		
	0.6			
	0.8	CLAY, silty, moist, stiff, mottled yellow-brown & grey.		
	1.0	slightly sandy.		
	1.2			
	1.4			
	1.6			
	1.8			



Logged	P. Dahlhaus	Notes
Date	10.5.84	
Checked		
Approved		
Vertical Scale	1:20	Sheet no. of Drawing no. Sbs No. 3

DEPARTMENT OF MINERALS AND ENERGY

EXCAVATION LOG.

PIT NO. DJERRIWARH 178

PROJECT Proposed Cemetery at Melton Vic. R.L. GROUND 168.95

5824972.0
AMG. REF.
282839.3

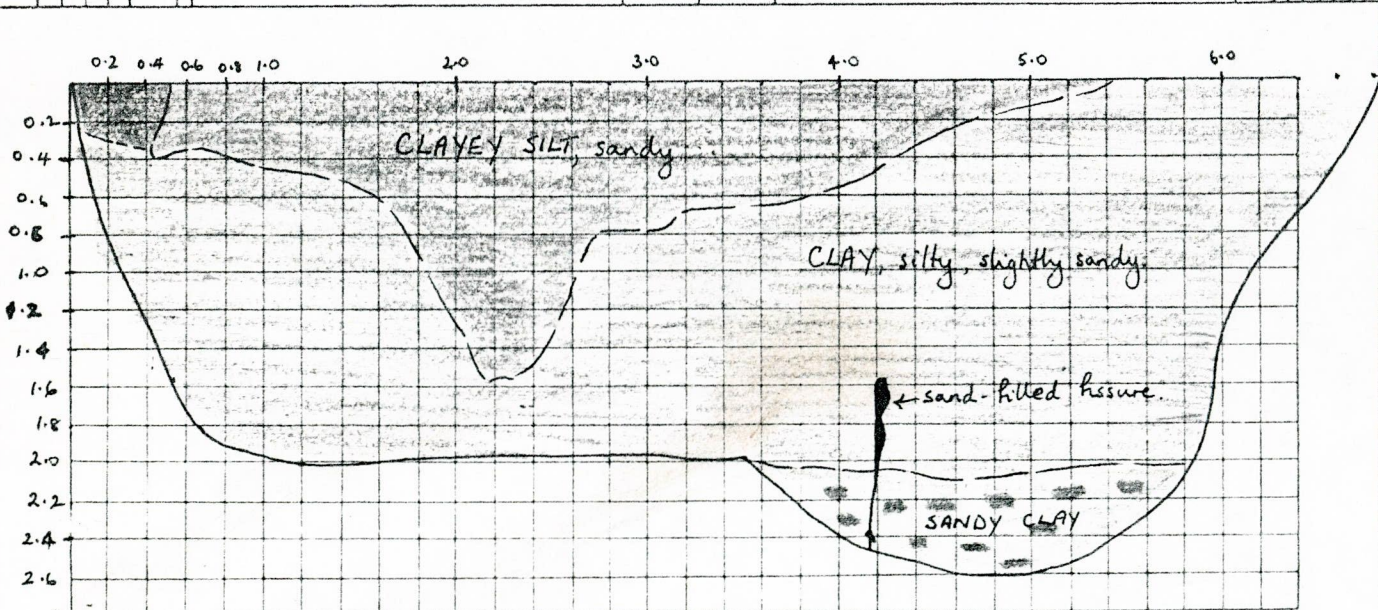
EQUIPMENT TYPE AND MODEL

EXCAVATION DIMENSIONS

m LONG

m WIDE

METHOD	EASE OF EXCAVATION	DEPTH m	SOIL DESCRIPTION	SOIL TYPE	GRAPHIC LOG.	WATER	5 HAND PENETROMETER
			TYPE PLASTICITY PARTICLE CHARACTERISTICS COLOUR ACCESSORY MATERIAL				POINT LOAD
BACKHOLE	PATCHY - 1 to 3.	0.5	CLAYEY SILT, sandy. fissured in part, moist friable dark grey. DEPTH VARIES				
		1.0	CLAY, silty, moist, stiff, fissured greenish-brown.				
		1.5	slightly sandy.				
		2.0	SANDY CLAY, moist, very stiff, mottled brick-red and grey.				
		2.5					
		3.0					



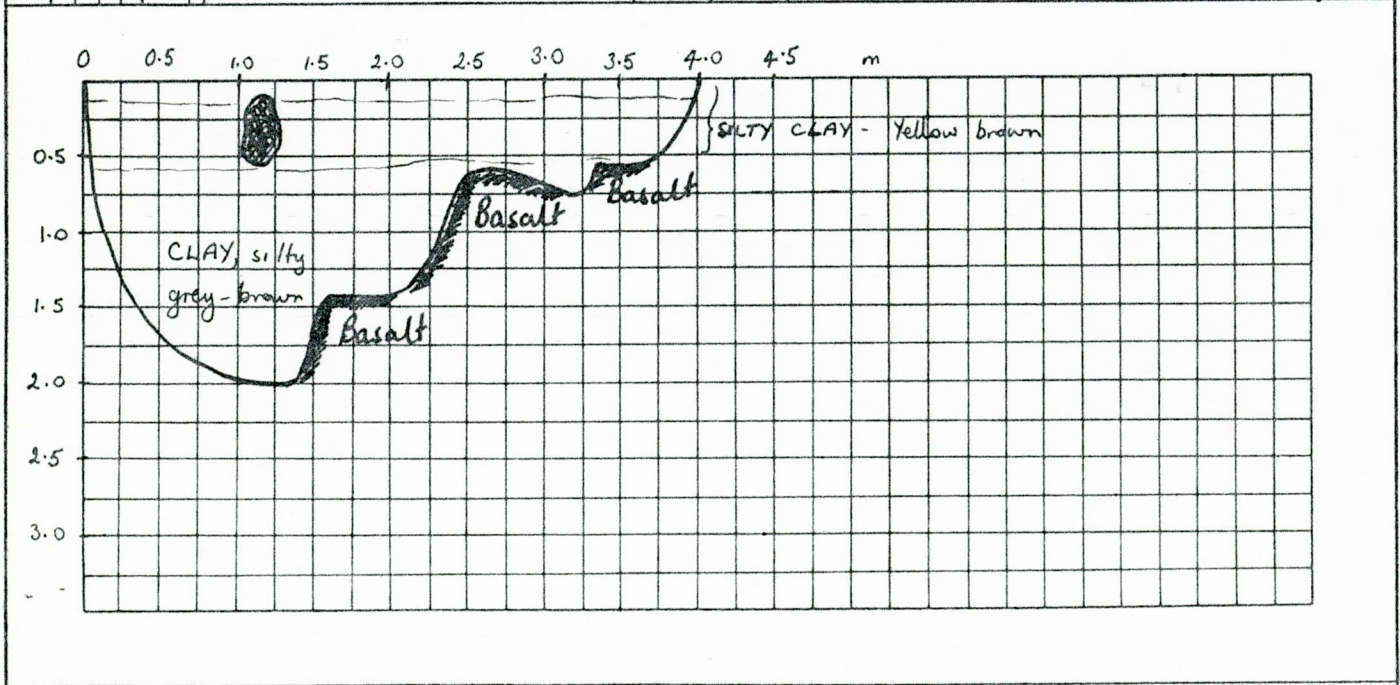
Logged P. Dahlhaus
Date 10.5.84
Checked
Approved

Notes

Vertical Scale 1:50 Sheet no. Drawing no. Subs. No. 4

DEPARTMENT OF MINERALS AND ENERGY	EXCAVATION LOG.	PIT No. <i>DJERRIWARRH 179</i>
PROJECT <i>Proposed Cemetery at Melton.</i>	LOCATION R.L. GROUND <i>173.98</i>	5830203.2 AMG. REF. 283421.7
EQUIPMENT TYPE AND MODEL EXCAVATION DIMENSIONS	<i>Case 580C ; 600 mm Bucket</i> 4.0 m LONG 0.65 m WIDE	

METHOD	EASE OF EXCAVATION	DEPTH m	SOIL DESCRIPTION	SOIL	GRAPHIC LOG.	WATER	S HAND	
			TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL			PENETRO-METER (kPa)	
			ROCK DESCRIPTION	ROCK WEATHERING				
			TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS					
								R STRENGTH
								POINT LOAD
BACK HOE		0.5	SILTY CLAY, moist, stiff, red-brown SILTY CLAY, moist, stiff, yellow brown sandy and gravelly ('buckshot')	CL CH				
		1.0	CLAY, silty, moist, stiff, grey-brown					
		1.5	some 'buckshot.'					
		2.0	Large basalt 'floaters.'					
		2.5	Difficult Excavation due to 'floaters'					
		3.0						

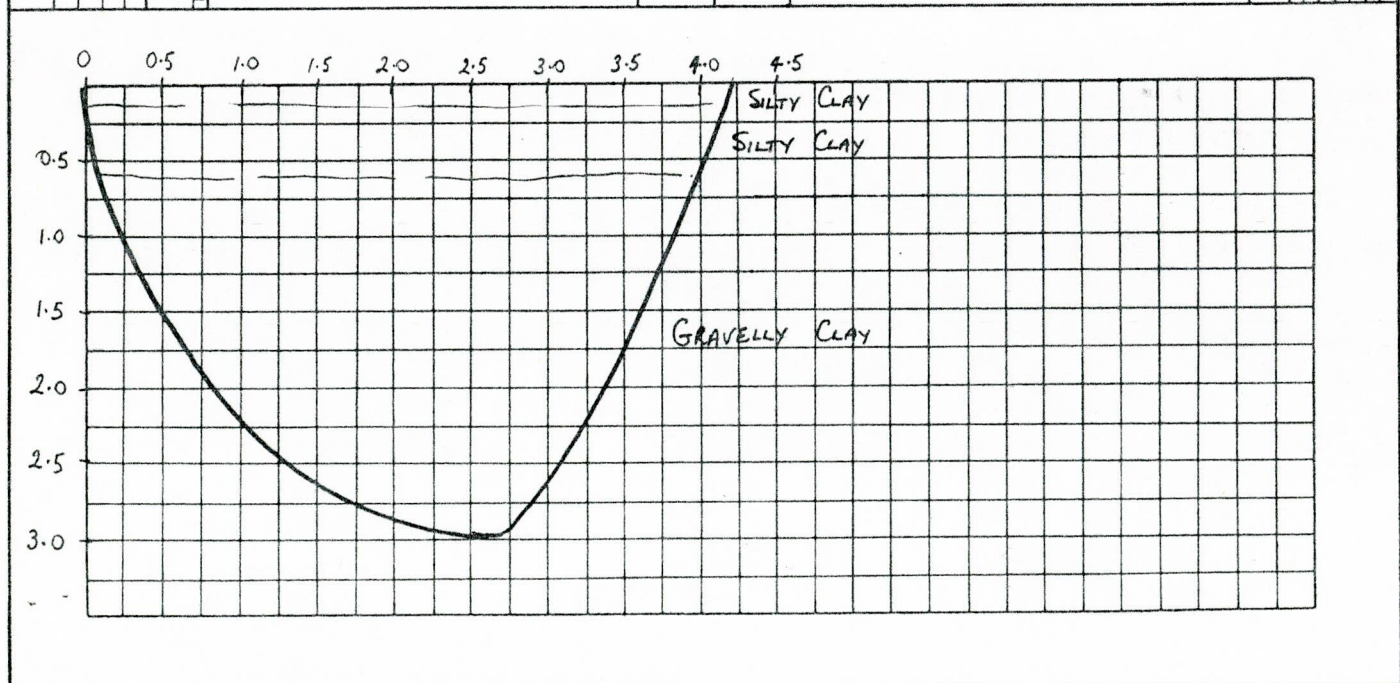


Logged	<i>Peter Dahlhaus</i>	Notes <i>Not Suitable for Burial because of Basalt 'floaters'</i>
Date	<i>12. 7. '84</i>	
Checked		
Approved		
Vertical Scale	<i>1:50</i>	Sheet no. <i>1</i> of <i>1</i> Drawing no. <i>MCP5 - 1</i>

PROJECT Proposed Cemetery at Melton, Vic. LOCATION R.L. GROUND 171.67
 582495.1
 AMG. REF. 283380.9

EQUIPMENT TYPE AND MODEL Case 580 C; 600 mm Bucket
 EXCAVATION DIMENSIONS 4.2 m LONG 0.65 m WIDE

METHOD	EASE OF EXCAVATION	DEPTH m	SOIL DESCRIPTION	SOIL	GRAPHIC LOG.	WATER	SAND
			TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL			PENETROMETER (kPa)
			ROCK DESCRIPTION	ROCK			STRENGTH
			TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING			POINT LOAD
BACKHOE		0.0 - 0.5	SILTY CLAY, moist, friable, dark grey.	CL			
		0.5 - 1.0	SILTY CLAY, moist, stiff, red-brown	CH			
		1.0 - 3.0	GRAVELLY CLAY, sandy moist, stiff, fissured, grey. calcareous nodules at 0.7m	GC			
		3.0	End of Excavation.				

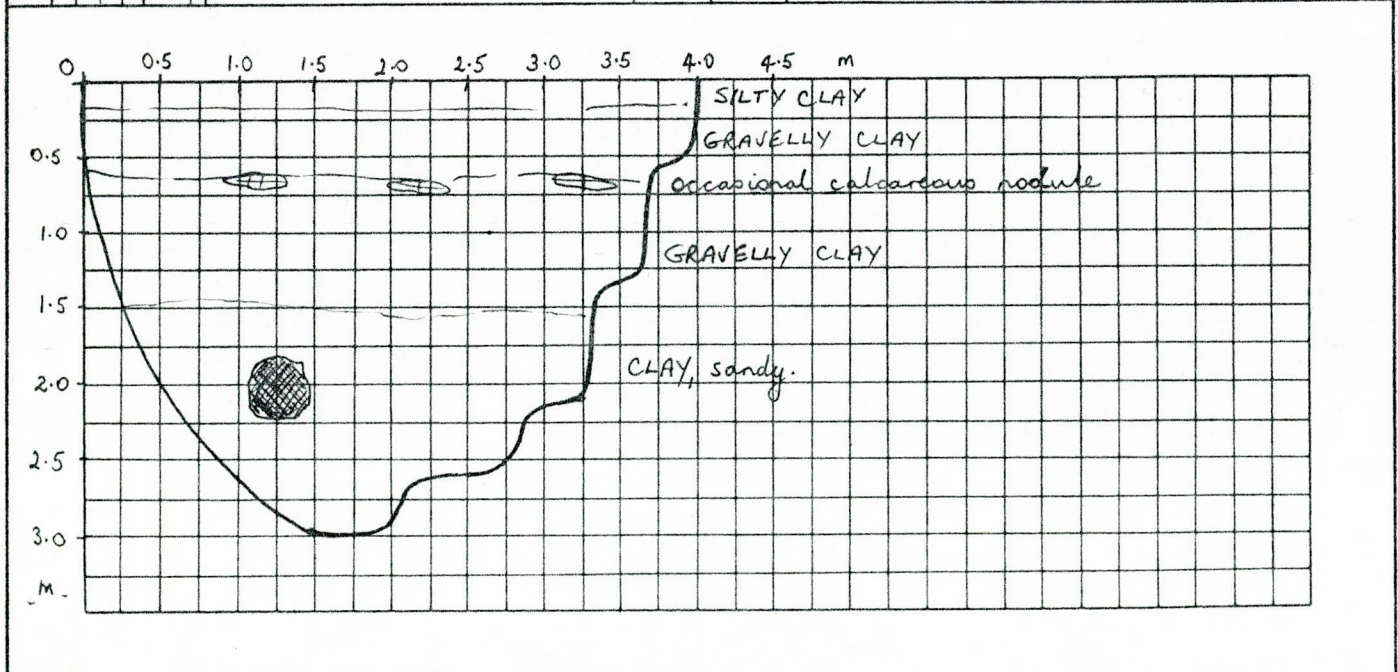


Logged Peter Dahlhaus
 Date 12.7.84
 Checked
 Approved

PROJECT Proposed Cemetery at Melton. LOCATION R.L. GROUND 169.52 AMG. REF. 5829773.6 283344.7

EQUIPMENT TYPE AND MODEL Case 580C; 600 mm Bucket EXCAVATION DIMENSIONS 4 m LONG 0.63 m WIDE

METHOD	EASE OF EXCAVATION	DEPTH m	SOIL DESCRIPTION	SOIL	GRAPHIC LOG.	WATER	S HAND PENETROMETER kPa	
			TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.G. SYMBOL				
			ROCK DESCRIPTION	ROCK WEATHERING				
			TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS					
BACKHOE		1.0	SILTY CLAY, dry, blocky, dark brown GRAVELLY CLAY, moist, stiff, red-brown some 'buckshot' sands.	CL GC				
		2.0	GRAVELLY CLAY, moist, stiff, fissured, grey. occasional Basalt cobble.					- gravel is mostly 'ironstone' types. some quartz.
		3.0	CLAY, sandy. moist, stiff, fissured. mottled yellow-brown & grey. some 'buckshot' and quartz gravel some roots and remnant roots. some sand lenses.	CH				- one Basalt cobble (400mm x 400mm) at 2.0 m
		3.0	End of Excavation.					



Logged	Peter Dahlhaus	Notes
Date	12. 7. '84	
Checked		
Approved		
Vertical Scale	1:50	Sheet no. 1 of 1
		Drawing no. MCPS - 3

DEPARTMENT OF MINERALS AND ENERGY

EXCAVATION LOG.

PIT No. DJERRIWARRH 182

PROJECT Proposed Cemetery at Melton, Vic.

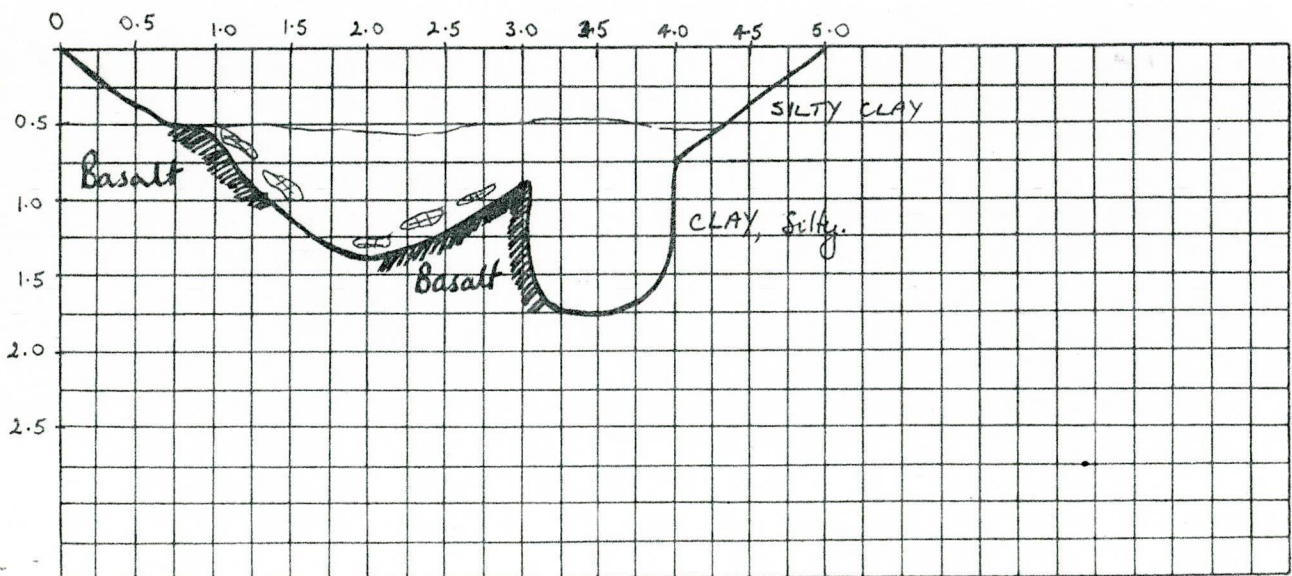
LOCATION R.L. GROUND 169.44

AMG. REF. 5829759.7
283581.7

EQUIPMENT TYPE AND MODEL Case 580C; 600mm Bucket.

EXCAVATION DIMENSIONS 5 m LONG 0.65 m WIDE

METHOD	EASE OF EXCAVATION	DEPTH m	SOIL DESCRIPTION	SOIL	GRAPHIC LOG.	WATER	S HAND
			TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL			PENETRO-METER kPa
			ROCK DESCRIPTION	ROCK WEATHERING			
			TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS				
						R STRENGTH	
						POINT LOAD	
ROCKHOLE	[Shaded area]	0.5	SILTY CLAY, moist, stiff, red-brown.		[Graphic log symbols]		
		1.0	CLAY, silty, moist, stiff, mottled yellow-brown & grey.	CH			
		1.5	occasional 'buckshot'				
		2.0	Basalt floaters too large to excavate				- calcareous nodules in part of the excavation, just above the Basalt 'floaters'
		2.5	Part refusal on Basalt.				
		3.0					



Logged Peter Dahlham
Date 12. 7. '84
Checked
Approved

Notes Not suitable for Cemetery purposes because of Basalt 'floaters' too large to excavate.

Vertical Scale 1:50

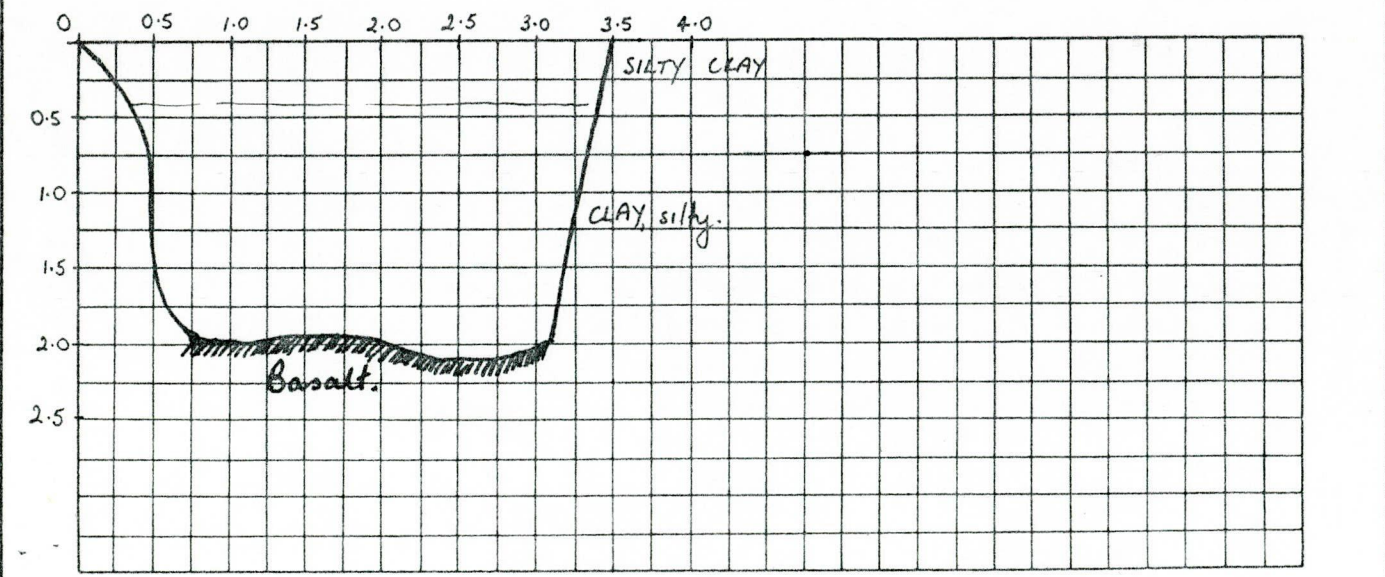
Sheet no. 1 of 1 Drawing no. MCPS - 4

DEPARTMENT OF MINERALS AND ENERGY EXCAVATION LOG. PIT No. DJERRIWARRH 183

PROJECT Proposed Cemetery at Melton. Vic. LOCATION R.L. GROUND 165.91 AMG. REF. 5829502.6
283479.4

EQUIPMENT TYPE AND MODEL Case 580C; 600mm Bucket
EXCAVATION DIMENSIONS 3 m LONG 0.65 m WIDE

METHOD	EASE OF EXCAVATION	DEPTH m	SOIL DESCRIPTION	SOIL	GRAPHIC LOG.	WATER
			TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL		
			ROCK DESCRIPTION	ROCK WEATHERING		
			TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS			
BACKHOE	[Diagram of backhoe bucket]	0.5	SILTY CLAY, moist, friable, dark red brown	CH	[Graphic log symbols]	
		1.0	CLAY, silty, moist, stiff, fissured grey. some root remnants.			
		2.0	Backhoe Refusal. - Basalt.			
		2.5				



Logged	Peter Dahlhaus	Notes
Date	12. 7. '84	
Checked		
Approved		

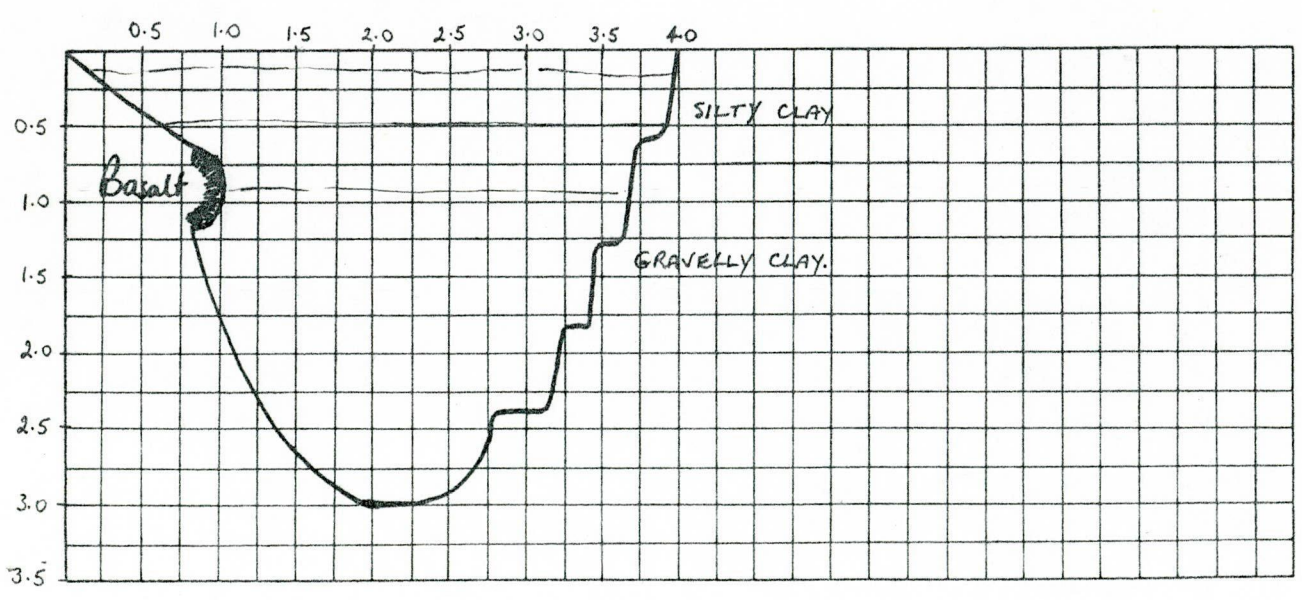
DEPARTMENT OF MINERALS AND ENERGY EXCAVATION LOG. PIT No. *DJERRIWARRII 184*

PROJECT *Proposed Cemetery at Melton. Vic.* LOCATION *R.L. GROUND 172.00* 5824980.9
 AMG. REF. 283625.1

EQUIPMENT TYPE AND MODEL *Case 580C; 600 Bucket*

EXCAVATION DIMENSIONS 4 m LONG 0.65 m WIDE

METHOD EASE OF EXCAVATION	DEPTH M	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	SOIL U.S.C. SYMBOL	GRAPHIC LOG.	WATER	SOIL HAND PENETRO- METER V.P.
		ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	ROCK WEATHERING			ROCK STRENGTH POINT LOAD
BACKHOE	0.5	CLAY, Silty, Dry, blocky, brown SILTY CLAY, moist friable, red-brown	CH	<p>- gravel is mixed 'ironstone' and quartz. The sand is almost all fine quartz. Charcoal pieces are probably remnant roots.</p>		
	1.0	SILTY CLAY, gravelly, moist, firm, grey. Basalt floater at 0.7m				
	1.5	GRAVELLY CLAY, sandy, moist, firm, grey.	GC			
	2.0	becomes mottled with yellow-brown occasional charcoal piece.				
	2.5					
	3.0					
	3.5	End of excavation.				

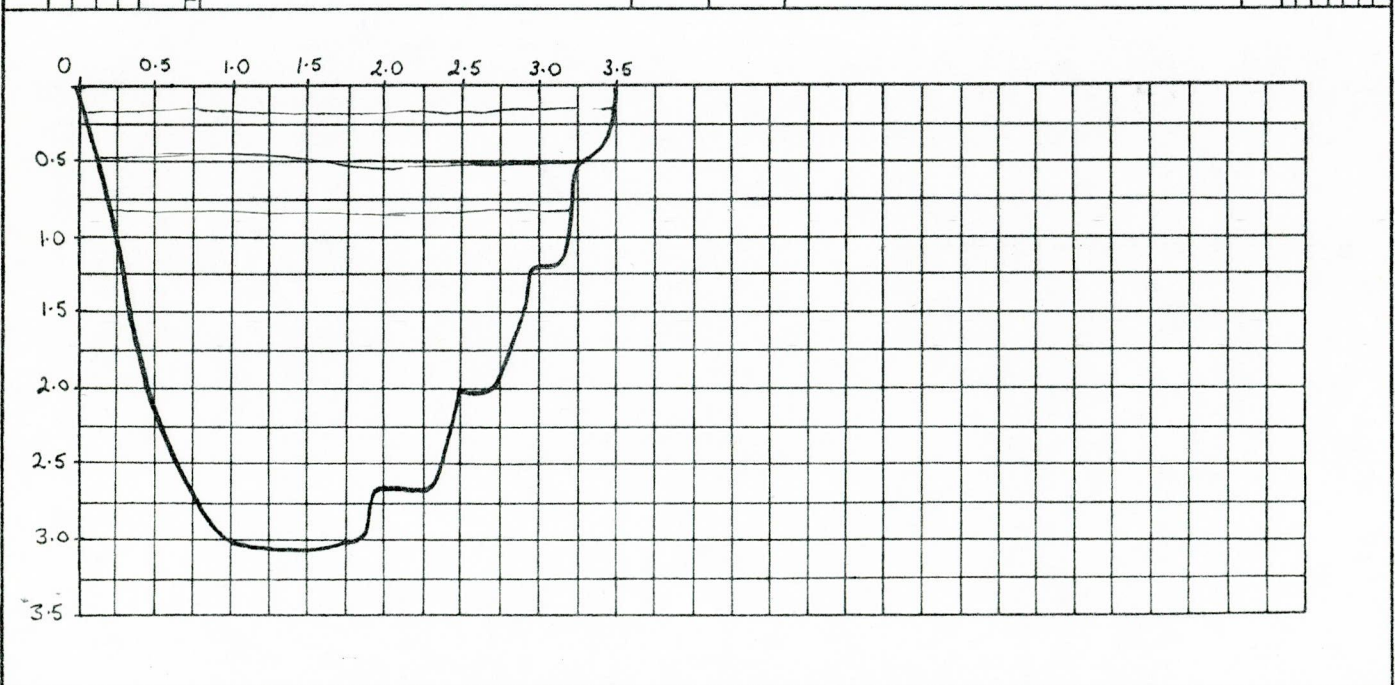


Logged	<i>Peter Dahlhaus</i>	Notes
Date	<i>12. 7. '84</i>	
Checked		
Approved		
Vertical Scale	<i>1:50</i>	Sheet no. <i>1</i> of <i>1</i> Drawing no. <i>MCPS-6</i>

PROJECT Proposed Cemetery at Melton. Vic. LOCATION R.L. GROUND 166.75 AMG. REF. 5829536.2
283163.8

EQUIPMENT TYPE AND MODEL Case 580 C ; 600mm Bucket
 EXCAVATION DIMENSIONS 3.5 m LONG 0.65 m WIDE

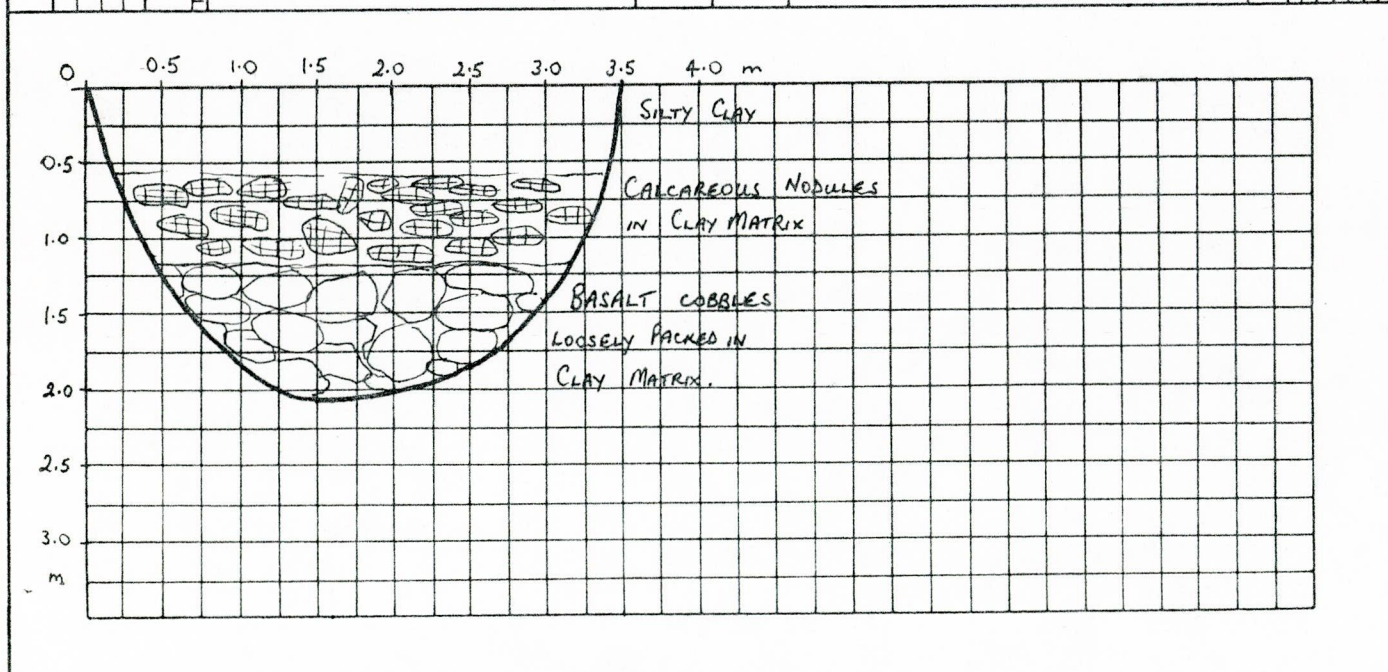
METHOD	EASE OF EXCAVATION	DEPTH m	SOIL DESCRIPTION	SOIL	GRAPHIC LOG.	WATER	S HAND
			TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL			PENETRO-METER (kPa)
			ROCK DESCRIPTION	ROCK			R STRENGTH
			TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING			POINT LOAD
BACKHOE		0.5	SILTY CLAY, dry blocky, friable, brown CLAY, silty, moist, firm, grey-brown.	CL	[Hand-drawn graphic log showing soil texture and moisture changes]		
		1.0	SILTY CLAY, moist, firm, friable, yellow-brown				
		1.5	CLAY, sandy. moist, firm, fissured.	CH			
		2.0	mottled yellow-brown and grey. rare root remnant.				
		2.5	very uniform consistency; extremely easy to excavate.				
		3.0					
		3.5	End of excavation.				



Logged	<u>Peter Dahlhaus</u>	Notes
Date	<u>12. 7. '84</u>	
Checked		
Approved		

EQUIPMENT TYPE AND MODEL Case 580C; 600 mm Bucket.
 EXCAVATION DIMENSIONS 3.5 m LONG 0.65 m WIDE

METHOD OF EXCAVATION	DEPTH M	SOIL DESCRIPTION	SOIL U.S.C. SYMBOL	GRAPHIC LOG.	WATER	SOIL PENETROMETER (SPT)	
		ROCK DESCRIPTION	ROCK WEATHERING			POINT LOAD	
BACKHOE	0.0 - 0.5	SILTY CLAY, moist, friable, red-brown.	CL	[Hand-drawn graphic log showing soil layers: silty clay, calcareous nodules, and basalt cobbles]			
	0.5 - 1.0	CALCAREOUS NODULES, soft, white and CLAY, grey-brown, matrix.	CH				} caliche.
	1.0 - 1.5	BASALT, H.W. cobbles, loosely packed. and CLAY, moist, stiff, grey.	E.W. Rock				
	1.5 - 2.0	some calcareous sand.					
	2.0 - 2.5	Backhoe Refusal - Basalt.					
	2.5 - 3.0						
	3.0 - 3.5						



Logged	Peter Dahlhaus	Notes Rough sided hole. Basalt cobbles tend to be plucked out rather than broken out.
Date	12.7.'84	
Checked		
Approved		

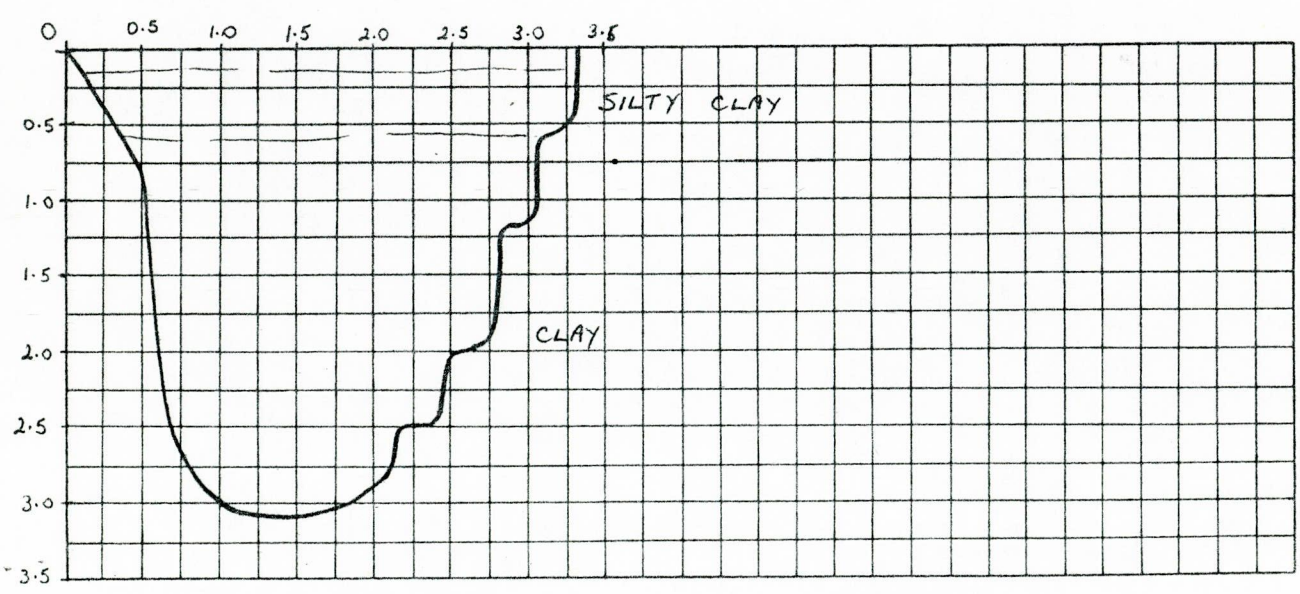
DEPARTMENT OF MINERALS AND ENERGY EXCAVATION LOG. PIT No. DJERRIWARRH 187

PROJECT Proposed Cemetery at Melton, Vic. LOCATION R.L. GROUND 165.73 5829418.7
 283204.4
 AMG. REF.

EQUIPMENT TYPE AND MODEL Case 580C; 600mm bucket

EXCAVATION DIMENSIONS 3.3 m LONG 0.65 m WIDE

METHOD	EASE OF EXCAVATION	DEPTH M	SOIL DESCRIPTION	SOIL	GRAPHIC LOG.	WATER	S HAND
			TYPE PLASTICITY PARTICLE CHARACTERISTICS COLOUR. ACCESSORY MATERIAL	U.S.C. SYMBOL			PENETRO-METER (APA)
			ROCK DESCRIPTION	ROCK			
			TYPE TEXTURE COLOUR. PRIMARY STRUCTURE. MINOR COMPONENTS	WEATHERING			
						R STRENGTH	POINT LOAD
BACKHOE		0.5	SILTY CLAY, dry, blocky, dark grey.	CL			
			SILTY CLAY, moist, friable, yellow-brown - slightly sandy.				
		1.0	CLAY, silty moist, stiff, grey.	CH			
		1.5	occasional fissure.				
		2.0	CLAY, silty, moist, stiff, mottled yellow-brown and grey.				
2.5	occasional fissure, some filled with fine quartz sand.						
		3.0	End of excavation.				
		3.5					



Logged	<u>Peter Dahlhaus</u>	Notes
Date	<u>12. 7. '84</u>	
Checked		
Approved		
Vertical Scale	<u>1:50</u>	Sheet no. of Drawing no. <u>MCPS-9</u>

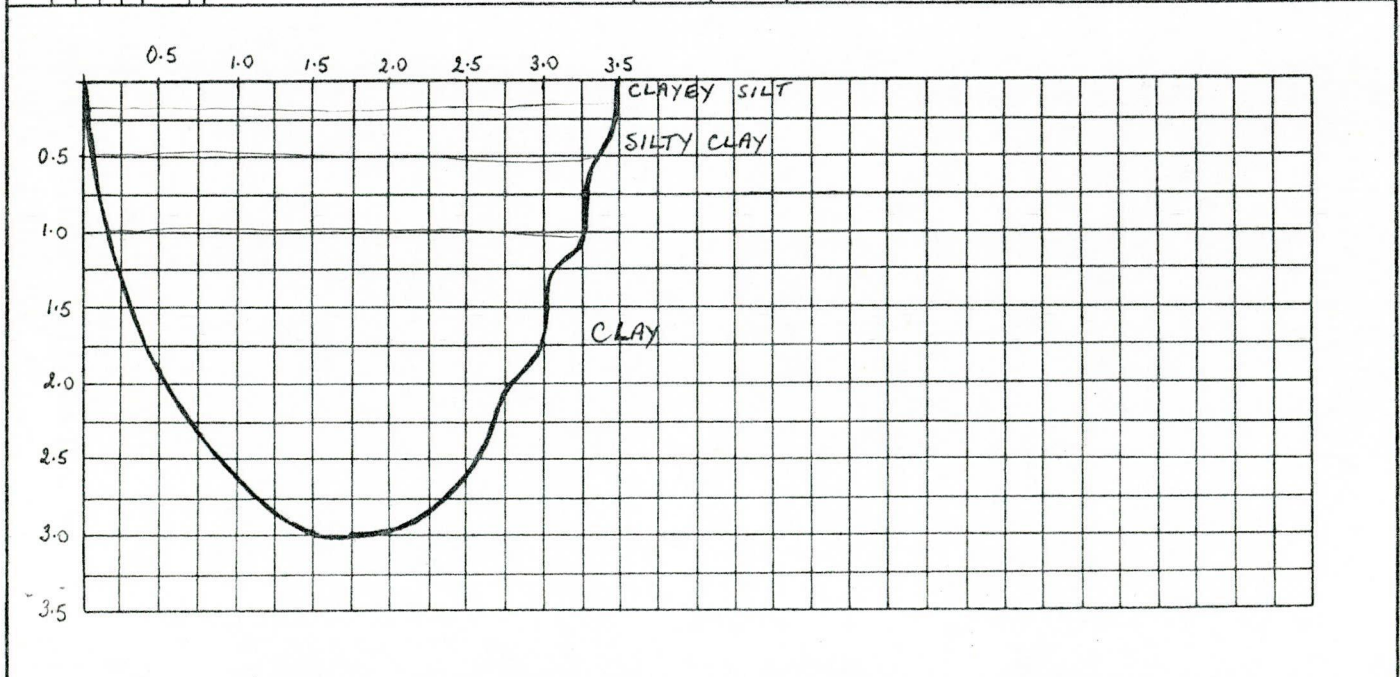
DEPARTMENT OF MINERALS AND ENERGY EXCAVATION LOG. PIT No. *DJERRIWARRH 188*

PROJECT *Proposed Cemetery at Melton. Vic.* LOCATION *5829201.8*
R.L. GROUND 163.26 AMG. REF. *283402.3*

EQUIPMENT TYPE AND MODEL *Case 580C; 600mm Bucket*

EXCAVATION DIMENSIONS *3.5 m LONG 0.65 m WIDE*

METHOD	EASE OF EXCAVATION	DEPTH m	SOIL DESCRIPTION	SOIL	GRAPHIC LOG.	WATER
			TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL		
			ROCK DESCRIPTION	ROCK		
			TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	WEATHERING		
BACKHOLE		0.5	CLAYEY SILT, dry, friable, brown. SILTY CLAY, moist, friable, pale grey root casts and roots throughout	ML CL		S HAND PENETRO- METER xPa R STRENGTH POINT LOAD
		1.0	SILTY CLAY, moist, friable, yellow-brown some root casts.			
		1.5	CLAY, moist, stiff, grey.	CH		
		2.0	CLAY, moist, stiff, fissured, mottled yellow-brown & grey.			
		2.5	some sand filled fissures some roots.			
	3.0	End of excavation.				
		3.5				

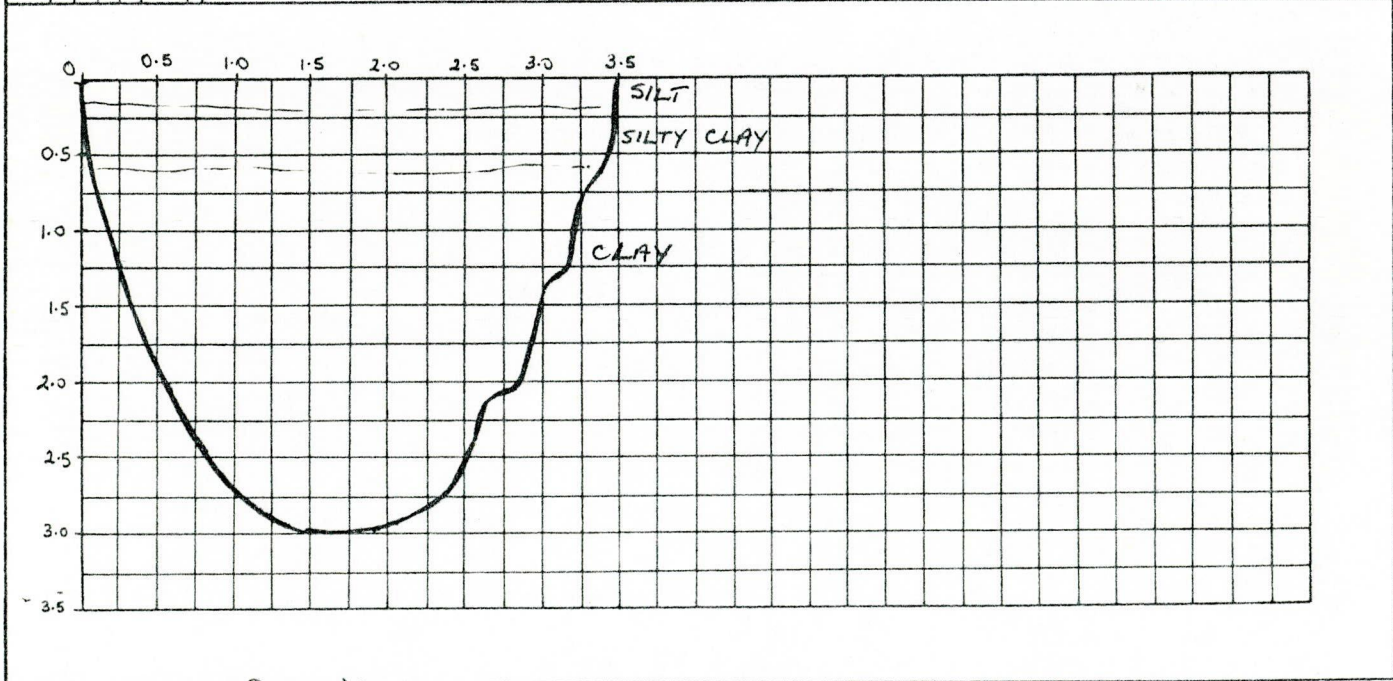


Logged	<i>Peter Dahlhaus</i>	Notes
Date	<i>12. 7. '84</i>	
Checked		
Approved		

PROJECT Proposed Cemetery at Melton. Vic. R.L. GROUND 166.78 LOCATION 5829547.1
 AMG. REF. 283602.9

EQUIPMENT TYPE AND MODEL Case 580 C ; 600 mm Bucket. EXCAVATION DIMENSIONS 3.5 m LONG 0.65 m WIDE

METHOD	EASE OF EXCAVATION	DEPTH m	SOIL DESCRIPTION	SOIL	GRAPHIC LOG.	WATER	5 HAND PENETRO-METER 100
			TYPE, PLASTICITY, PARTICLE CHARACTERISTICS COLOUR, ACCESSORY MATERIAL	U.S.C. SYMBOL			R STRENGTH
			ROCK DESCRIPTION	ROCK WEATHERING	POINT LOAD		
			TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS				
DRAPE HOE		0.5	SILT, clayey, dry, friable, brown. SILTY CLAY, moist, friable red-brown some calcareous nodules at 0.6m CLAY, silty, moist stiff, fissured, grey.	CL	[Hand-drawn soil profile with horizontal lines and dots]		
		1.0					
		1.5	CLAY, moist, stiff, abundant fissures. mottled yellow-brown and grey.	CH			
		2.0	rare basalt cobble.				
		2.5	fissures often stained black.				
		3.0					
		3.5	End of excavation.				



Logged	Peter Dahlhaus	Notes
Date	12.7. '84	
Checked		
Approved		
Vertical Scale	1:50	Sheet no. 1 of 1
		Drawing no. MCPS-11

DEPARTMENT OF MINERALS AND ENERGY

EXCAVATION LOG.

PIT No. DJERRIWARRH 190

PROJECT Proposed Cemetery at Melton

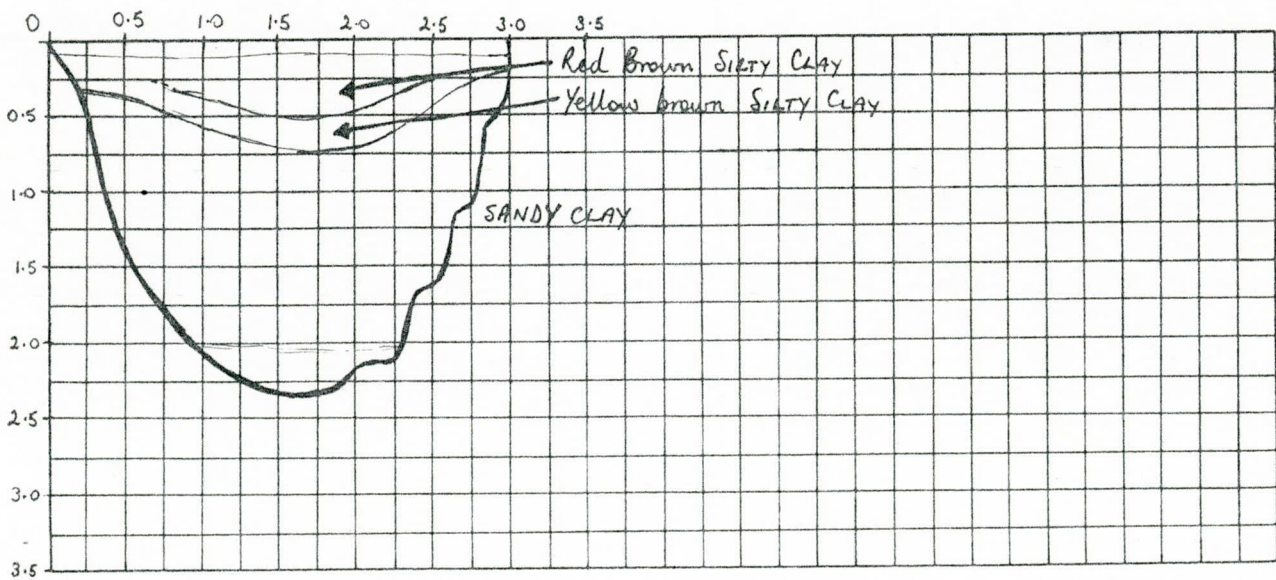
LOCATION R.L. GROUND 174.05

5830137.0
AMG. REF.
283729.6

EQUIPMENT TYPE AND MODEL Case 580C ; 600mm Bucket

EXCAVATION DIMENSIONS 3 m LONG 0.65 m WIDE

METHOD	EASE OF EXCAVATION	DEPTH m	SOIL DESCRIPTION	SOIL U.S.C. SYMBOL	GRAPHIC LOG.	WATER	S HAND	
			TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	ROCK WEATHERING			PENETRO-METER 42	
			ROCK DESCRIPTION				R STRENGTH	
			TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS				POINT LOAD	
BACK HOE	█	0-0.5	SLTY CLAY, dry blocky, friable, dark red-brown	CL	} catenary profile.	█	█	
		0.5-1.0	SILTY CLAY, moist, friable, red-brown	CH				
		1.0-1.5	as above, bright yellow-brown.					
		1.5-2.0	SANDY CLAY, moist, stiff, fissured, grey. some gravel. some fissures are sand filled.	SC				- gravel is a mixture of 'iron stones' and quartz.
		2.0-2.5	CLAY, sandy, moist, stiff, fissured, mottled yellow-brown & grey.	CH				
		2.5	End of Excavation.					
		3.0						
		3.5						



Logged	Peter Dahlhaus	Notes
Date	12.7.'84	
Checked		
Approved		
Vertical Scale	1:50	Sheet no. 1 of 1
		Drawing no. MCPS-12

DEPARTMENT OF MINERALS AND ENERGY

EXCAVATION LOG.

PIT No. DJERRIWARRA 191

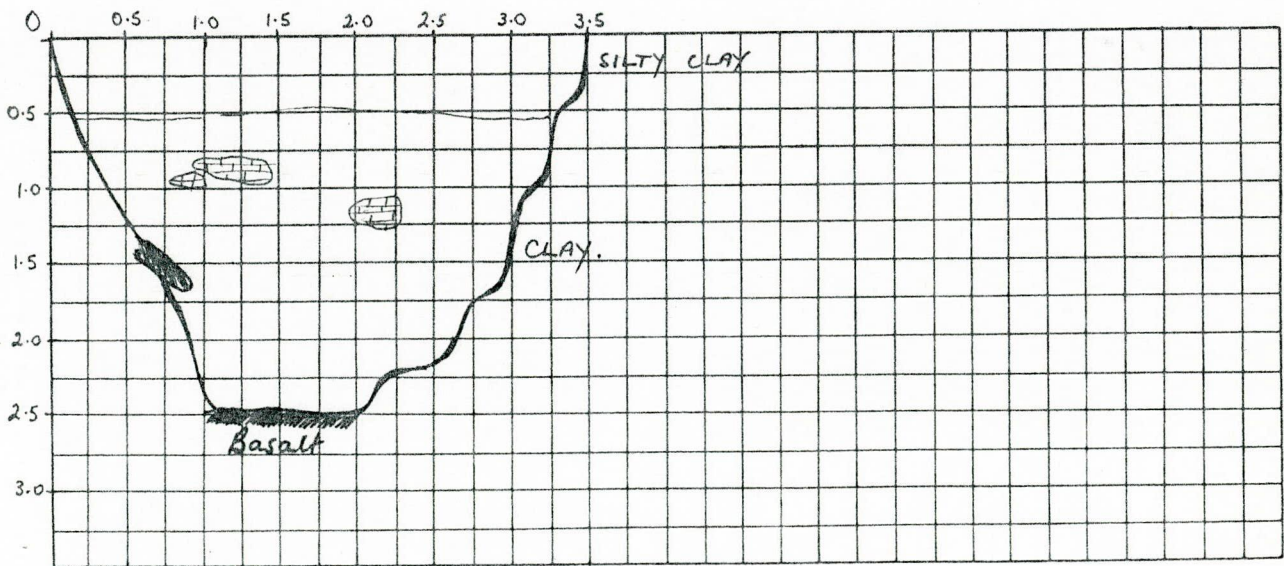
PROJECT Proposed Cemetery at Melton, Vic. R.L. GROUND 173.08

5830041.2
AMG. REF.
283528.4

EQUIPMENT TYPE AND MODEL Case 580 C; 600mm Bucket

EXCAVATION DIMENSIONS 3.5 m LONG 0.65 m WIDE

METHOD	EASE OF EXCAVATION	DEPTH m	SOIL DESCRIPTION TYPE, PLASTICITY, PARTICLE CHARACTERISTICS, COLOUR, ACCESSORY MATERIAL	SOIL U.S.C. SYMBOL	GRAPHIC LOG.	WATER	S HAND PENETROMETER MPa	
			ROCK DESCRIPTION TYPE, TEXTURE, COLOUR, PRIMARY STRUCTURE, MINOR COMPONENTS	ROCK WEATHERING			R STRENGTH	POINT LOAD
BACKHOE		0.0 - 0.5	SILTY CLAY, dry, blocky, brown.	CL				
		0.5 - 1.0	SILTY CLAY, moist, friable, red-brown.				Calcareous nodules, soft, white, sandy.	
		1.0 - 1.5	CLAY, silty, moist, stiff, fissured, grey. some root remnants. Some calcareous nodules at 0.9 & 1.1m	CH			Basalt 'floaters' in side of excavation around 1.5m.	
		1.5 - 2.5	CLAY, silty, moist, stiff, fissured, mottled yellow brown & grey.					
		2.5 - 3.0	Backhoe Refusal - Basalt					
		3.0 - 3.5						



Logged

Peter Dahlhaus

Notes

Date

12.7.'84

Checked

Approved

Vertical Scale

1:50

Sheet no.

1 of 1

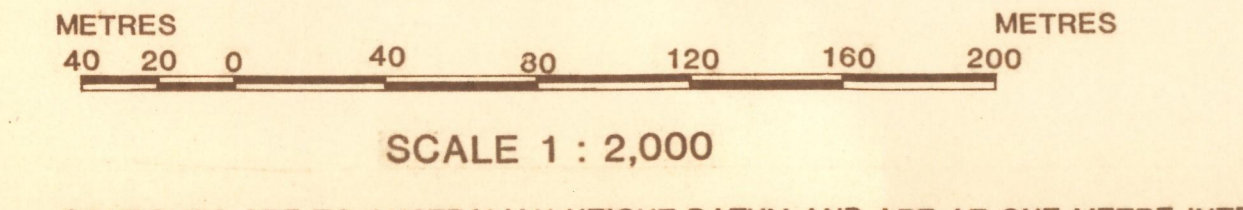
Drawing no.

MCPS-13

LEGEND

- Contours
- Subsidence Feature
- Trees
- Dam
- Test Pit
- Title Peg
- Fence
- Borehole:
 - Exact location
 - Approx. location
- Core recovered
- No core recovered
- Area most suited to cemetery development
- Area marginally suited to cemetery development
- Area unsuitable for cemetery development

Figure 4 SITE OF PROPOSED CEMETERY AT MELTON
Parish of Djerriwarrh - Shire of Melton



CONTOURS ARE TO AUSTRALIAN HEIGHT DATUM AND ARE AT ONE METRE INTERVALS
Compiled from Ministry of Housing 1 : 500 Feature and Contour plans, of Melton Estate.
Drawn by S. Sabitovic, Engineering Geology Section; GEOLOGICAL SURVEY OF VICTORIA.

