Project Name:	Soils of the L	ower Macqu	arie Valley,	New South Wales	
Project Code: Agency Name:	Macquarie CSIRO Divisio	Site ID: on of Soils (/	508 ACT)	Observation ID:	1
		<b>·</b>	- /		

Site Information	<u>n</u>					
Desc. By:	N.J. Mcl	Kenzie	Locality:			
Date Desc.:	01/12/85	5	Elevation: No Data			
Map Ref.:	Sheet N	lo. : 8434 1:10000	Rainfall:	No Data		
Northing/Long.:	6472933	3 AMG zone: 55	Runoff:	Very slow	1	
Easting/Lat.:	577633	Datum: AGD66	Drainage:	Imperfect	ly draine	d
Geology						
ExposureType:	Soil pit		Conf. Sub. is Pare	nt. Mat.:	No Data	9
Geol. Ref.:	No Data	a	Substrate Material		No Data	
		_		-		-
Land Form			<b>.</b>			
Rel/Slope Class:		a	Pattern Type:	No Data		
Morph. Type:	Flat	_	Relief:	No Data		
Elem. Type:	No Data	a	Slope Category:	No Data		
Slope:	%		Aspect:	No Data		
Surface Soil Co	ondition	(dry): Cracking, Self-mu	ulching			
Erosion:						
Soil Classificat	ion					
		4 a.m.	Manuli			
Australian Soil C	lassificat	tion:	марри	ng Unit:		
N/A					_	BACKPLAIN
			•	oal Profile		Ug5.24
ASC Confidence			Great	Soil Group	):	N/A
Confidence level i	not specif	fied				
Site Disturbanc	ce: Cultiv	vation. Rainfed				
Vegetation:						
Vegetation:	Tall	Strata - Tussock grass. 0.5	1-1m. Sparse. *Spec	ies include	s - None	Recorded
		Strata - Tussock grass, 0.5 <sup>.</sup>	1-1m, Sparse. *Spec	ies include	s - None	Recorded
Surface Coarse	e Fragm	0	1-1m, Sparse. *Spec	ies include	s - None	Recorded
Surface Coarse Profile Morphol	e Fragmo logy	ents:				
Surface Coarse	e Fragmo logy	<u>ents:</u> Dark greyish brown (10YR4/	/2-Moist); ; Medium h	neavy clay;	Weak gi	ade of structure, 10-20 mm,
Surface Coarse Profile Morphol	e Fragmo logy	<u>ents:</u> Dark greyish brown (10YR4/ Subangular blocky; Rough-	/2-Moist); ; Medium h ped fabric; Common	neavy clay; (1-5 per 1	Weak gi 00mm2)	ade of structure, 10-20 mm, Very fine (0.075-1mm)
Surface Coarse Profile Morphol	e Fragmo logy D D	ents: Dark greyish brown (10YR4/ Subangular blocky; Rough- nacropores, Common (1-5 p	/2-Moist); ; Medium h ped fabric; Common per 100mm2) Fine (1	neavy clay; (1-5 per 1 -2mm) ma	Weak gi 00mm2) cropores	ade of structure, 10-20mm, Very fine (0.075-1mm) , Moist; Weak consistence;
Surface Coarse Profile Morphol	e Fragmo logy D D	<u>ents:</u> Dark greyish brown (10YR4/ Subangular blocky; Rough-	/2-Moist); ; Medium h ped fabric; Common per 100mm2) Fine (1	neavy clay; (1-5 per 1 -2mm) ma	Weak gi 00mm2) cropores	ade of structure, 10-20mm, Very fine (0.075-1mm) , Moist; Weak consistence;
Surface Coarse Profile Morphol A1p 0 - 0.1 m	e Fragm logy D D n F	ents: Dark greyish brown (10YR4/ Subangular blocky; Rough- nacropores, Common (1-5 p rield pH 8.5 (Raupach); Cor	/2-Moist); ; Medium h ped fabric; Common per 100mm2) Fine (1 nmon, very fine (0-1)	neavy clay; (1-5 per 1 -2mm) ma mm) roots;	Weak gi 00mm2) cropores Abrupt,	rade of structure, 10-20mm, Very fine (0.075-1mm) , Moist; Weak consistence; Smooth change to -
Surface Coarse Profile Morphol	<b>Fragm</b> Iogy D D D D D D D D D D D D	ents: Dark greyish brown (10YR4/ Subangular blocky; Rough- nacropores, Common (1-5 p Field pH 8.5 (Raupach); Cor Dark grey (10YR4/1-Moist);	/2-Moist); ; Medium h ped fabric; Common per 100mm2) Fine (1 nmon, very fine (0-1) ; Heavy clay; Strong	neavy clay; (1-5 per 1 -2mm) ma mm) roots; grade of s	Weak gi 00mm2) cropores Abrupt, tructure,	ade of structure, 10-20mm, Very fine (0.075-1mm) , Moist; Weak consistence; Smooth change to - 50-100mm, Polyhedral;
Surface Coarse Profile Morphol A1p 0 - 0.1 m	<b>Fragm</b> Iogy D C M F 5 m C S S	ents: Dark greyish brown (10YR4/ Subangular blocky; Rough- nacropores, Common (1-5 p Field pH 8.5 (Raupach); Cor Dark grey (10YR4/1-Moist); Smooth-ped fabric; Fine, (0	/2-Moist); ; Medium h ped fabric; Common ber 100mm2) Fine (1 nmon, very fine (0-1 ; Heavy clay; Strong - 5) mm crack; Few (	neavy clay; (1-5 per 1 -2mm) ma mm) roots; grade of s <1 per 100	Weak gi 00mm2) cropores Abrupt, tructure, 0mm2) Ve	rade of structure, 10-20 mm, Very fine (0.075-1mm) , Moist; Weak consistence; Smooth change to - 50-100 mm, Polyhedral; ery fine (0.075-1mm)
Surface Coarse Profile Morphol A1p 0 - 0.1 m	<b>Fragm</b> logy n C 5 m C S m C s n	ents: Dark greyish brown (10YR4/ Subangular blocky; Rough- nacropores, Common (1-5 p Field pH 8.5 (Raupach); Cor Dark grey (10YR4/1-Moist); Smooth-ped fabric; Fine, (0 nacropores, Moist; Firm cor	/2-Moist); ; Medium h ped fabric; Common per 100mm2) Fine (1 nmon, very fine (0-1) ; Heavy clay; Strong - 5) mm crack; Few ( hsistence; Many cuta	neavy clay; (1-5 per 1 -2mm) ma mm) roots; grade of s <1 per 100 ns, >50%	Weak gr 00mm2) cropores Abrupt, tructure, 0mm2) Vo of ped fa	rade of structure, 10-20 mm, Very fine (0.075-1mm) , Moist; Weak consistence; Smooth change to - 50-100 mm, Polyhedral; ery fine (0.075-1mm) ces or walls coated; Very
Surface Coarse Profile Morphol A1p 0 - 0.1 m	<mark>e Fragmanne logy</mark> n 5 m ⊑ 5 m ⊑ s n f€	ents: Dark greyish brown (10YR4/ Subangular blocky; Rough- nacropores, Common (1-5 p Field pH 8.5 (Raupach); Cor Dark grey (10YR4/1-Moist); Smooth-ped fabric; Fine, (0 nacropores, Moist; Firm cor ew (0 - 2 %), Calcareous, M	/2-Moist); ; Medium h ped fabric; Common per 100mm2) Fine (1 nmon, very fine (0-1) ; Heavy clay; Strong - 5) mm crack; Few ( hsistence; Many cuta ledium (2 -6 mm), No	neavy clay; (1-5 per 1 -2mm) ma mm) roots; grade of s <1 per 100 ns, >50%	Weak gr 00mm2) cropores Abrupt, tructure, 0mm2) Vo of ped fa	rade of structure, 10-20 mm, Very fine (0.075-1mm) , Moist; Weak consistence; Smooth change to - 50-100 mm, Polyhedral; ery fine (0.075-1mm)
Surface Coarse Profile Morphol A1p 0 - 0.1 m	<mark>e Fragmanne logy</mark> n 5 m ⊑ 5 m ⊑ s n f€	ents: Dark greyish brown (10YR4/ Subangular blocky; Rough- nacropores, Common (1-5 p Field pH 8.5 (Raupach); Cor Dark grey (10YR4/1-Moist); Smooth-ped fabric; Fine, (0 nacropores, Moist; Firm cor	/2-Moist); ; Medium h ped fabric; Common per 100mm2) Fine (1 nmon, very fine (0-1) ; Heavy clay; Strong - 5) mm crack; Few ( hsistence; Many cuta ledium (2 -6 mm), No	neavy clay; (1-5 per 1 -2mm) ma mm) roots; grade of s <1 per 100 ns, >50%	Weak gr 00mm2) cropores Abrupt, tructure, 0mm2) Vo of ped fa	rade of structure, 10-20 mm, Very fine (0.075-1mm) , Moist; Weak consistence; Smooth change to - 50-100 mm, Polyhedral; ery fine (0.075-1mm) ces or walls coated; Very
Surface Coarse Profile Morphol A1p 0 - 0.1 m	<b>Fragm</b> logy 5 m C 5 m S n fe	ents: Dark greyish brown (10YR4/ Subangular blocky; Rough- nacropores, Common (1-5 p Field pH 8.5 (Raupach); Cor Dark grey (10YR4/1-Moist); Smooth-ped fabric; Fine, (0 nacropores, Moist; Firm cor ew (0 - 2 %), Calcareous, M	/2-Moist); ; Medium h ped fabric; Common per 100mm2) Fine (1 nmon, very fine (0-1) ; Heavy clay; Strong - 5) mm crack; Few ( nsistence; Many cuta fedium (2 -6 mm), No ooth change to -	neavy clay; (1-5 per 1 -2mm) ma mm) roots; grade of s <1 per 100 ns, >50% odules; Fie	Weak gi 00mm2) cropores Abrupt, tructure, mm2) Vi of ped fa Id pH 8.5	rade of structure, 10-20 mm, Very fine (0.075-1mm) , Moist; Weak consistence; Smooth change to - 50-100 mm, Polyhedral; ery fine (0.075-1mm) ces or walls coated; Very i (Raupach); Few, very fine
Surface CoarseProfile MorpholA1p0 - 0.1 mB210.1 - 0.55	Fragmin           logy           Image: Image of the system of the	ents: Dark greyish brown (10YR4/ Subangular blocky; Rough- nacropores, Common (1-5 p Field pH 8.5 (Raupach); Cor Dark grey (10YR4/1-Moist); Smooth-ped fabric; Fine, (0 nacropores, Moist; Firm cor ew (0 - 2 %), Calcareous, M 0-1mm) roots; Gradual, Sm Dark greyish brown (10YR4/	/2-Moist); ; Medium h ped fabric; Common per 100mm2) Fine (1 nmon, very fine (0-1) ; Heavy clay; Strong - 5) mm crack; Few ( nsistence; Many cuta ledium (2 -6 mm), No ooth change to - /2-Moist); ; Heavy cla	neavy clay; (1-5 per 1 -2mm) ma mm) roots; grade of s <1 per 100 ns, >50% odules; Fie	Weak gi 00mm2) cropores Abrupt, tructure, mm2) Vi of ped fa Id pH 8.5 grade of	rade of structure, 10-20 mm, Very fine (0.075-1mm) , Moist; Weak consistence; Smooth change to - 50-100 mm, Polyhedral; ery fine (0.075-1mm) ces or walls coated; Very 5 (Raupach); Few, very fine structure, 50-100 mm,
Surface CoarseProfile MorpholA1p0 - 0.1 mB210.1 - 0.55	Fragm:           logy           0	ents: Dark greyish brown (10YR4/ Subangular blocky; Rough- nacropores, Common (1-5 p ield pH 8.5 (Raupach); Cor Dark grey (10YR4/1-Moist); Smooth-ped fabric; Fine, (0 nacropores, Moist; Firm cor ew (0 - 2 %), Calcareous, M 0-1mm) roots; Gradual, Sm Dark greyish brown (10YR4/ Polyhedral; Smooth-ped fab	/2-Moist); ; Medium h ped fabric; Common per 100mm2) Fine (1 nmon, very fine (0-1) ; Heavy clay; Strong - 5) mm crack; Few ( sistence; Many cuta ledium (2 -6 mm), No ooth change to - /2-Moist); ; Heavy cla ric; Fine, (0 - 5) mm	neavy clay; (1-5 per 1 -2mm) ma mm) roots; grade of s <1 per 100 ns, >50% ( bdules; Fie ay; Strong ( crack; Few	Weak gi 00mm2) cropores Abrupt, tructure, mm2) Vo of ped fai Id pH 8.5 grade of : (<1 per	rade of structure, 10-20 mm, Very fine (0.075-1mm) , Moist; Weak consistence; Smooth change to - 50-100 mm, Polyhedral; ery fine (0.075-1mm) ces or walls coated; Very i (Raupach); Few, very fine structure, 50-100 mm, 100mm2) Very fine (0.075-
Surface CoarseProfile MorpholA1p0 - 0.1 mB210.1 - 0.55	Fragm:           logy           0           0           0           5           5           6           7           6           7           6           7           7           8           9           10           11	ents: Dark greyish brown (10YR4/ Subangular blocky; Rough- nacropores, Common (1-5 p Field pH 8.5 (Raupach); Cor Dark grey (10YR4/1-Moist); Smooth-ped fabric; Fine, (0 nacropores, Moist; Firm cor ew (0 - 2 %), Calcareous, M 0-1mm) roots; Gradual, Sm Dark greyish brown (10YR4/	/2-Moist); ; Medium h ped fabric; Common per 100mm2) Fine (1 nmon, very fine (0-1) ; Heavy clay; Strong - 5) mm crack; Few ( sistence; Many cuta ledium (2 -6 mm), No ooth change to - /2-Moist); ; Heavy cla ric; Fine, (0 - 5) mm ely moist; Very firm c	neavy clay; (1-5 per 1 -2mm) ma mm) roots; grade of s <1 per 100 ns, >50% ( bdules; Fie ay; Strong ( crack; Few consistence	Weak gi 00mm2) cropores Abrupt, tructure, mm2) Vo of ped fai ld pH 8.5 grade of (<1 per e; Many c	rade of structure, 10-20 mm, Very fine (0.075-1mm) , Moist; Weak consistence; Smooth change to - 50-100 mm, Polyhedral; ery fine (0.075-1mm) ces or walls coated; Very 5 (Raupach); Few, very fine structure, 50-100 mm, 100mm2) Very fine (0.075- cutans, >50% of ped faces
Surface CoarseProfile MorpholA1p0 - 0.1 mB210.1 - 0.55	Fragm:           logy           0           0           0           5           5           7           5           7           6           7           7           7           8           7           8           10           10           10	ents: Dark greyish brown (10YR4/ Subangular blocky; Rough- nacropores, Common (1-5 p Field pH 8.5 (Raupach); Cor Dark grey (10YR4/1-Moist); Smooth-ped fabric; Fine, (0 nacropores, Moist; Firm cor ew (0 - 2 %), Calcareous, M 0-1mm) roots; Gradual, Sm Dark greyish brown (10YR4/ Polyhedral; Smooth-ped fab mm) macropores, Moderato or walls coated; Few (2 - 10	/2-Moist); ; Medium h ped fabric; Common per 100mm2) Fine (1 nmon, very fine (0-1) ; Heavy clay; Strong - 5) mm crack; Few ( nsistence; Many cuta ledium (2 -6 mm), No ooth change to - /2-Moist); ; Heavy cla ric; Fine, (0 - 5) mm ely moist; Very firm c %), Calcareous, Med	neavy clay; (1-5 per 1 -2mm) ma mm) roots; grade of s <1 per 100 ns, >50% odules; Fie ay; Strong g crack; Few consistence dium (2 -6	Weak gi 00mm2) cropores Abrupt, tructure, 0mm2) Vi of ped fai ld pH 8.5 grade of (<1 per s; Many c mm), No	rade of structure, 10-20 mm, Very fine (0.075-1mm) , Moist; Weak consistence; Smooth change to - 50-100 mm, Polyhedral; ery fine (0.075-1mm) ces or walls coated; Very 5 (Raupach); Few, very fine structure, 50-100 mm, 100mm2) Very fine (0.075- cutans, >50% of ped faces dules; Few (2 - 10 %),
Surface CoarseProfile MorpholA1p0 - 0.1 mB210.1 - 0.55	Fragm:           logy           0           0           0           5           5           7           5           7           6           7           7           7           8           7           8           10           10           10           10           10           10	ents: Dark greyish brown (10YR4/ Subangular blocky; Rough- nacropores, Common (1-5 p ield pH 8.5 (Raupach); Cor Dark grey (10YR4/1-Moist); Smooth-ped fabric; Fine, (0 nacropores, Moist; Firm cor ew (0 - 2 %), Calcareous, M 0-1mm) roots; Gradual, Sm Dark greyish brown (10YR4/ Polyhedral; Smooth-ped fab mm) macropores, Moderati	/2-Moist); ; Medium h ped fabric; Common per 100mm2) Fine (1 nmon, very fine (0-1) ; Heavy clay; Strong - 5) mm crack; Few ( sistence; Many cuta ledium (2 -6 mm), No ooth change to - /2-Moist); ; Heavy cla ric; Fine, (0 - 5) mm ely moist; Very firm c %), Calcareous, Med im), Soft segregation	neavy clay; (1-5 per 1 -2mm) ma mm) roots; grade of s <1 per 100 ns, >50% odules; Fie ay; Strong g crack; Few consistence dium (2 -6	Weak gi 00mm2) cropores Abrupt, tructure, 0mm2) Vi of ped fai ld pH 8.5 grade of (<1 per s; Many c mm), No	rade of structure, 10-20 mm, Very fine (0.075-1mm) , Moist; Weak consistence; Smooth change to - 50-100 mm, Polyhedral; ery fine (0.075-1mm) ces or walls coated; Very 5 (Raupach); Few, very fine structure, 50-100 mm, 100mm2) Very fine (0.075- cutans, >50% of ped faces dules; Few (2 - 10 %),
Surface Coarse           Profile Morphol           A1p         0 - 0.1 m           B21         0.1 - 0.55           B22         0.55 - 1.2	2 m C 2 m C 2 m C 2 m C 2 m C 1 0 0 0 0 0 0 0 0 0 0 0 0 0	ents: Dark greyish brown (10YR4/ Subangular blocky; Rough- nacropores, Common (1-5 p Field pH 8.5 (Raupach); Cor Dark grey (10YR4/1-Moist); Smooth-ped fabric; Fine, (0 nacropores, Moist; Firm cor ew (0 - 2 %), Calcareous, M 0-1mm) roots; Gradual, Sm Dark greyish brown (10YR4/ Polyhedral; Smooth-ped fab mm) macropores, Moderator valls coated; Few (2 - 10 Calcareous, Medium (2 -6 m mm) roots; Gradual, Smooth	/2-Moist); ; Medium h ped fabric; Common per 100mm2) Fine (1 nmon, very fine (0-1) ; Heavy clay; Strong - 5) mm crack; Few ( nsistence; Many cuta fedium (2 -6 mm), No ooth change to - /2-Moist); ; Heavy cla ric; Fine, (0 - 5) mm ely moist; Very firm c %), Calcareous, Mea m), Soft segregation th change to -	neavy clay; (1-5 per 1 -2mm) ma mm) roots; grade of s <1 per 100 ns, >50% odules; Fie ay; Strong g crack; Few consistence dium (2 -6 is; Field ph	Weak gr 00mm2) cropores Abrupt, tructure, 0mm2) Vo of ped fa ld pH 8.5 grade of (<1 per e; Many c mm), No I 9 (Raup	rade of structure, 10-20 mm, Very fine (0.075-1mm) , Moist; Weak consistence; Smooth change to - 50-100 mm, Polyhedral; ery fine (0.075-1mm) ces or walls coated; Very 5 (Raupach); Few, very fine structure, 50-100 mm, 100mm2) Very fine (0.075- cutans, >50% of ped faces dules; Few (2 - 10 %), pach); Few, very fine (0-
Surface CoarseProfile MorpholA1p0 - 0.1 mB210.1 - 0.55	2 Fragma logy 1 C 5 m C 5 m C 5 m C 2 m C 1 0 0 1 5 m B	ents: Dark greyish brown (10YR4/ Subangular blocky; Rough- nacropores, Common (1-5 p Field pH 8.5 (Raupach); Cor Dark grey (10YR4/1-Moist); Smooth-ped fabric; Fine, (0 nacropores, Moist; Firm cor ew (0 - 2 %), Calcareous, M 0-1mm) roots; Gradual, Sm Dark greyish brown (10YR4/ Polyhedral; Smooth-ped fab mm) macropores, Moderation r walls coated; Few (2 - 10 Calcareous, Medium (2 -6 m mm) roots; Gradual, Smooth Brown (7.5YR5/3-Moist); , 7	/2-Moist); ; Medium h ped fabric; Common per 100mm2) Fine (1 nmon, very fine (0-1) ; Heavy clay; Strong - 5) mm crack; Few ( nsistence; Many cuta ledium (2 -6 mm), No ooth change to - /2-Moist); ; Heavy cla ric; Fine, (0 - 5) mm ely moist; Very firm c %), Calcareous, Mea im), Soft segregation th change to - .5YR63, 2-10% , 15-	neavy clay; (1-5 per 1 -2mm) ma mm) roots; grade of s <1 per 100 ns, >50% o odules; Fie ay; Strong g crack; Few consistence dium (2 -6 is; Field ph 30mm, Dis	Weak gr 00mm2) cropores Abrupt, tructure, 0mm2) Vi of ped fai ld pH 8.5 grade of (<1 per s; Many c mm), No I 9 (Raup tinct; Heat	rade of structure, 10-20 mm, Very fine (0.075-1mm) , Moist; Weak consistence; Smooth change to - 50-100 mm, Polyhedral; ery fine (0.075-1mm) ces or walls coated; Very is (Raupach); Few, very fine structure, 50-100 mm, 100mm2) Very fine (0.075- sutans, >50% of ped faces dules; Few (2 - 10 %), bach); Few, very fine (0-
Surface Coarse           Profile Morphol           A1p         0 - 0.1 m           B21         0.1 - 0.55           B22         0.55 - 1.2	2 Fragmi logy 1 C 5 m C 5 m C 2 m C 2 m C 1 0 0 1 5 m B s	ents: Dark greyish brown (10YR4/ Subangular blocky; Rough- nacropores, Common (1-5 p Field pH 8.5 (Raupach); Cor Dark grey (10YR4/1-Moist); Smooth-ped fabric; Fine, (0 nacropores, Moist; Firm cor ew (0 - 2 %), Calcareous, M 0-1mm) roots; Gradual, Sm Dark greyish brown (10YR4/ Polyhedral; Smooth-ped fab mm) macropores, Moderation r walls coated; Few (2 - 10 Calcareous, Medium (2 -6 m mm) roots; Gradual, Smooth Prown (7.5YR5/3-Moist); , 7. tructure, 20-50 mm, Lenticu	<ul> <li>/2-Moist); ; Medium h ped fabric; Common ber 100mm2) Fine (1 nmon, very fine (0-1)</li> <li>; Heavy clay; Strong</li> <li>- 5) mm crack; Few ( nsistence; Many cuta ledium (2 -6 mm), No ooth change to -</li> <li>/2-Moist); ; Heavy cla ric; Fine, (0 - 5) mm ely moist; Very firm c %), Calcareous, Men m), Soft segregation th change to -</li> <li>.5YR63, 2-10% , 15- ular; Smooth-ped fab</li> </ul>	neavy clay; (1-5 per 1 -2mm) ma mm) roots; grade of s <1 per 100 ns, >50% odules; Fie ay; Strong g crack; Few consistence dium (2 -6 hs; Field ph 30mm, Dis ric; Modera	Weak gi 00mm2) cropores Abrupt, tructure, mm2) Vi of ped fai ld pH 8.5 grade of (<1 per s; Many c mm), No i 9 (Raup tinct; Hei ately moi	rade of structure, 10-20 mm, Very fine (0.075-1mm) , Moist; Weak consistence; Smooth change to - 50-100 mm, Polyhedral; ery fine (0.075-1mm) ces or walls coated; Very 6 (Raupach); Few, very fine structure, 50-100 mm, 100mm2) Very fine (0.075- putans, >50% of ped faces dules; Few (2 - 10 %), pach); Few, very fine (0- avy clay; Moderate grade of st; Very firm consistence;
Surface Coarse           Profile Morphol           A1p         0 - 0.1 m           B21         0.1 - 0.55           B22         0.55 - 1.2	2 Fragmi logy 5 m C 5 m C 5 m C 2 m C 1 5 m C 5 m S N 5 m S N	ents: Dark greyish brown (10YR4/ Subangular blocky; Rough- nacropores, Common (1-5 p Field pH 8.5 (Raupach); Cor Dark grey (10YR4/1-Moist); Smooth-ped fabric; Fine, (0 nacropores, Moist; Firm cor ew (0 - 2 %), Calcareous, M 0-1mm) roots; Gradual, Sm Dark greyish brown (10YR4/ Polyhedral; Smooth-ped fab mm) macropores, Moderator walls coated; Few (2 - 10 Calcareous, Medium (2 -6 m mm) roots; Gradual, Smooth Srown (7.5YR5/3-Moist); , 7 tructure, 20-50 mm, Lenticu Many cutans, >50% of ped f	/2-Moist); ; Medium h ped fabric; Common per 100mm2) Fine (1 nmon, very fine (0-1) ; Heavy clay; Strong - 5) mm crack; Few ( sistence; Many cuta ledium (2 -6 mm), No ooth change to - /2-Moist); ; Heavy cla ric; Fine, (0 - 5) mm ely moist; Very firm c %), Calcareous, Med m), Soft segregation th change to - .5YR63, 2-10% , 15- ular; Smooth-ped fab aces or walls coated	neavy clay; (1-5 per 1 -2mm) ma mm) roots; grade of s <1 per 100 ns, >50% odules; Fie ay; Strong g crack; Few consistence dium (2 -6 hs; Field ph 30mm, Dis ric; Modera	Weak gi 00mm2) cropores Abrupt, tructure, mm2) Vi of ped fai ld pH 8.5 grade of (<1 per s; Many c mm), No i 9 (Raup tinct; Hei ately moi	rade of structure, 10-20 mm, Very fine (0.075-1mm) , Moist; Weak consistence; Smooth change to - 50-100 mm, Polyhedral; ery fine (0.075-1mm) ces or walls coated; Very 6 (Raupach); Few, very fine structure, 50-100 mm, 100mm2) Very fine (0.075- putans, >50% of ped faces dules; Few (2 - 10 %), pach); Few, very fine (0- avy clay; Moderate grade of st; Very firm consistence;
Surface Coarse           Profile Morphol           A1p         0 - 0.1 m           B21         0.1 - 0.55           B22         0.55 - 1.2	2 Fragmi logy 5 m C 5 m C 5 m C 2 m C 1 5 m C 5 m S N 5 m S N	ents: Dark greyish brown (10YR4/ Subangular blocky; Rough- nacropores, Common (1-5 p Field pH 8.5 (Raupach); Cor Dark grey (10YR4/1-Moist); Smooth-ped fabric; Fine, (0 nacropores, Moist; Firm cor ew (0 - 2 %), Calcareous, M 0-1mm) roots; Gradual, Sm Dark greyish brown (10YR4/ Polyhedral; Smooth-ped fab mm) macropores, Moderation r walls coated; Few (2 - 10 Calcareous, Medium (2 -6 m mm) roots; Gradual, Smooth Prown (7.5YR5/3-Moist); , 7. tructure, 20-50 mm, Lenticu	/2-Moist); ; Medium h ped fabric; Common per 100mm2) Fine (1 nmon, very fine (0-1) ; Heavy clay; Strong - 5) mm crack; Few ( sistence; Many cuta ledium (2 -6 mm), No ooth change to - /2-Moist); ; Heavy cla ric; Fine, (0 - 5) mm ely moist; Very firm c %), Calcareous, Med m), Soft segregation th change to - .5YR63, 2-10% , 15- ular; Smooth-ped fab aces or walls coated	neavy clay; (1-5 per 1 -2mm) ma mm) roots; grade of s <1 per 100 ns, >50% odules; Fie ay; Strong g crack; Few consistence dium (2 -6 hs; Field ph 30mm, Dis ric; Modera	Weak gi 00mm2) cropores Abrupt, tructure, mm2) Vi of ped fai ld pH 8.5 grade of (<1 per s; Many c mm), No i 9 (Raup tinct; Hei ately moi	rade of structure, 10-20 mm, Very fine (0.075-1mm) , Moist; Weak consistence; Smooth change to - 50-100 mm, Polyhedral; ery fine (0.075-1mm) ces or walls coated; Very 6 (Raupach); Few, very fine structure, 50-100 mm, 100mm2) Very fine (0.075- putans, >50% of ped faces dules; Few (2 - 10 %), pach); Few, very fine (0- avy clay; Moderate grade of st; Very firm consistence;
Surface Coarse           Profile Morphol           A1p         0 - 0.1 m           B21         0.1 - 0.55           B22         0.55 - 1.2           B23         1.2 - 1.35	Fragmin           logy           0           0           0           5           5           2           1           0           2           1           0           0           1           0           0           1           0 <tr tr=""></tr>	ents: Dark greyish brown (10YR4/ Subangular blocky; Rough- nacropores, Common (1-5 p Field pH 8.5 (Raupach); Cor Dark grey (10YR4/1-Moist); Smooth-ped fabric; Fine, (0 nacropores, Moist; Firm cor ew (0 - 2 %), Calcareous, M 0-1mm) roots; Gradual, Sm Dark greyish brown (10YR4/ Polyhedral; Smooth-ped fab mm) macropores, Moderator walls coated; Few (2 - 10 Calcareous, Medium (2 -6 m mm) roots; Gradual, Smooth Srown (7.5YR5/3-Moist); , 7 tructure, 20-50 mm, Lenticu Many cutans, >50% of ped f	/2-Moist); ; Medium h ped fabric; Common per 100mm2) Fine (1 nmon, very fine (0-1) ; Heavy clay; Strong - 5) mm crack; Few ( sistence; Many cuta ledium (2 -6 mm), No ooth change to - /2-Moist); ; Heavy cla ric; Fine, (0 - 5) mm ely moist; Very firm c %), Calcareous, Med m), Soft segregation th change to - .5YR63, 2-10% , 15- ular; Smooth-ped fab aces or walls coated	neavy clay; (1-5 per 1 -2mm) ma mm) roots; grade of s <1 per 100 ns, >50% odules; Fie ay; Strong g crack; Few consistence dium (2 -6 hs; Field ph 30mm, Dis ric; Modera	Weak gi 00mm2) cropores Abrupt, tructure, mm2) Vi of ped fai ld pH 8.5 grade of (<1 per s; Many c mm), No i 9 (Raup tinct; Hei ately moi	rade of structure, 10-20 mm, Very fine (0.075-1mm) , Moist; Weak consistence; Smooth change to - 50-100 mm, Polyhedral; ery fine (0.075-1mm) ces or walls coated; Very 6 (Raupach); Few, very fine structure, 50-100 mm, 100mm2) Very fine (0.075- putans, >50% of ped faces dules; Few (2 - 10 %), pach); Few, very fine (0- avy clay; Moderate grade of st; Very firm consistence;
Surface Coarse           Profile Morphol           A1p         0 - 0.1 m           B21         0.1 - 0.55           B22         0.55 - 1.2	Fragm:           logy           Iogy           Image: Straight of Straigh	ents: Dark greyish brown (10YR4/ Subangular blocky; Rough- nacropores, Common (1-5 p Field pH 8.5 (Raupach); Cor Dark grey (10YR4/1-Moist); Smooth-ped fabric; Fine, (0 nacropores, Moist; Firm cor ew (0 - 2 %), Calcareous, M 0-1mm) roots; Gradual, Sm Dark greyish brown (10YR4/ Polyhedral; Smooth-ped fab mm) macropores, Moderator walls coated; Few (2 - 10 Calcareous, Medium (2 -6 m mm) roots; Gradual, Smooth Srown (7.5YR5/3-Moist); , 7 tructure, 20-50 mm, Lenticu Many cutans, >50% of ped f	<ul> <li>/2-Moist); ; Medium h ped fabric; Common per 100mm2) Fine (1 nmon, very fine (0-1) ; Heavy clay; Strong - 5) mm crack; Few ( sistence; Many cuta ledium (2 -6 mm), No ooth change to -</li> <li>/2-Moist); ; Heavy cla ric; Fine, (0 - 5) mm of ely moist; Very firm co %), Calcareous, Med m), Soft segregation th change to -</li> <li>.5YR63, 2-10% , 15- ular; Smooth-ped fab aces or walls coated (Raupach);</li> </ul>	neavy clay; (1-5 per 1 -2mm) ma mm) roots; grade of s <1 per 100 ns, >50% odules; Fie ay; Strong g crack; Few consistence dium (2 -6 is; Field ph 30mm, Dis ric; Modera ; Very few	Weak gi 00mm2) cropores Abrupt, tructure, 0mm2) Vi of ped fai ld pH 8.5 grade of 1 (<1 per e; Many c mm), No I 9 (Raup tinct; Hei ately moi (0 - 2 %)	rade of structure, 10-20 mm, Very fine (0.075-1mm) , Moist; Weak consistence; Smooth change to - 50-100 mm, Polyhedral; ery fine (0.075-1mm) ces or walls coated; Very 6 (Raupach); Few, very fine structure, 50-100 mm, 100mm2) Very fine (0.075- putans, >50% of ped faces dules; Few (2 - 10 %), pach); Few, very fine (0- avy clay; Moderate grade of st; Very firm consistence;

**Observation Notes** Mullah Soil Profile Class, Grey Phase, Oats

Site Notes

Project Name:	Soils of the Lov	ver Macqua	rie Valley, New	South Wales	
Project Code: Agency Name:	Macquarie CSIRO Division	Site ID: of Soils (A	508 CT)	Observation ID:	1

## Laboratory Test Results:

Depth	рН	1:5 EC		hangeable Mg	Cations K	E: Na	xchangeable Acidity	CEC	E	CEC	ESP	
m		dS/m	0a	ing	ĸ	Cmol (+)/					%	
0.1 - 0.15 0.3 - 0.35	8.9A 9.2A	0.156A 0.242A		7.4	0.6	1			28	8.8D		
0.7 - 0.75 1.3 - 1.35	9.3A 9.1A	0.613A 0.93A	10E	12.7	0.8	7.5			3	31D		
Depth m	CaCO3 %	Organic C %	Avail. P mg/kg	Total P %	Total N %	Total K %	Bulk Density Mg/m3	Pa GV		Size FS %	Analysis Silt Clay	
0.1 - 0.15 0.3 - 0.35							1.38 1.41		7A	26	13.6 53.	
0.7 - 0.75 1.3 - 1.35							1.33 1.30		6.3A	24	14.7 55	5
Depth	COLE	Sat.	Grav 0.05 Bar	vimetric/Vo 0.1 Bar	olumetric V 0.5 Bar	/ater Conte 1 Bar		Bar	K sat		K unsat	

m	341.	g/g - m3/m3	i Dai 5 Dai 13 Dai	mm/h mm/h
0.1 - 0.15	0.082A	0.29G	0.2D	
0.3 - 0.35	0.105A	0.31G	0.22D	
0.7 - 0.75	0.129A	0.34G	0.23D	
1.3 - 1.35	0.145A	0.37G	0.22D	

## Project Name:Soils of the Lower Macquarie Valley, New South WalesProject Code:MacquarieSite ID: 508Observation ID: 1Agency Name:CSIRO Division of Soils (ACT)

## Laboratory Analyses Completed for this profile

15C1_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_K	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_MG	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_NA	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15J_BASES	Sum of Bases
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
P10_CF_C	Clay (%) - Coventry and Fett pipette method
P10_CF_CS	Coarse sand (%) - Coventry and Fett pipette method
P10_CF_FS	Fine sand (%) - Coventry and Fett pipette method
P10_CF_Z	Silt (%) - Coventry and Fett pipette method
P3A1	Bulk density - g/cm3
P3B1GV_15	15 BAR Moisture g/g - Gravimetric of ground sample (<2mm) using pressure plate
P3B4GV_01	0.1 BAR Moisture g/g - Gravimetric of soil clods (Soil Survey Staff,1967)
P5_COLE	Coefficient of Linear Extensibility (Grossman et al. 1968)