Project Name: FLI

Project Code: FLI Site ID: H59 Observation ID: 1

Agency Name: CSIRO Division of Soils (TAS)

**Site Information** 

Desc. By: K.D. Nicholls Locality: 14.6km ENE of Lughrata 8.9km SSE of Wingaroo.

Easting/Lat.: -39.916666666667 Drainage: Moderately well drained

<u>Geology</u>

ExposureType: Soil pit Conf. Sub. is Parent. Mat.: No Data

Geol. Ref.: No Data Substrate Material: Calcareous sand

**Land Form** 

Rel/Slope Class:Undulating rises 9-30m 3-10%Pattern Type:RisesMorph. Type:No DataRelief:No DataElem. Type:No DataSlope Category:Gently inclinedSlope:0 %Aspect:0 degrees

Surface Soil Condition (dry):

**Erosion:** 

**Soil Classification** 

Australian Soil Classification:Mapping Unit:N/ABleached-Mottled Petroclcic Grey KandosolPrincipal Profile Form:Db4.63ASC Confidence:Great Soil Group:Solodic soil

All necessary analytical data are available.

Site Disturbance: No effective disturbance. Natural

**Vegetation:** Low Strata - Forb, 0.26-0.5m, Very sparse. \*Species includes - None recorded

Tall Strata - Tree, 1.01-3m, Sparse. \*Species includes - Xanthorrhoea australis, Banksia marginata

Surface Coarse Fragments: 10-20%, fine gravelly, 2-6mm, rounded, Quartz

**Profile Morphology** 

A1  $0 - 0.1 \, \text{m}$ Very dark grey (10YR3/1-Moist); ; Loamy sand; Massive grade of structure; Moist; Weak consistence; 0-2%, fine gravelly, 2-6mm, rounded, Quartz, coarse fragments; ManyDiffuse change to -Greyish brown (10YR5/2-Moist); ; Loamy sand; Massive grade of structure; Moderately moist; A1/A2 0.1 - 0.23 m Very weak consistence; 0-2%, fine gravelly, 2-6mm, rounded, Quartz, coarse fragments; CommonSharp change to -A2 0.23 - 0.36 m Light brownish grey (10YR6/2-Moist); ; Sand; Single grain grade of structure; Moderately moist; Loose consistence; 2-10%, fine gravelly, 2-6mm, rounded, Quartz, coarse fragments; Sharp change to -B1 0.36 - 0.48 m Greyish brown (10YR5/2-Moist); , 10YR33; , 10YR56; Sand; Single grain grade of structure; Moderately moist; 10-20%, fine gravelly, 2-6mm, rounded, Quartz, coarse fragments; Diffuse change to -

0.49 - 0.58 m Greyish brown (10YR5/2-Moist); , 10YR56; Sandy medium clay; Massive grade of structure; 2-10%, fine gravelly, 2-6mm, rounded, Quartz, coarse fragments; Few (2 - 10 %), Calcareous,

Coarse (6 - 20 mm), Soft segregations; Diffuse change to -

0.61 - 0.63 m ; Calcrete, Very strongly cemented, Continuous, Massive;

0.91 - 1.02 m Brownish yellow (10YR6/6-Moist); , 10YR64; Sand; Loose consistence; 10-20%, Substrate

material, coarse fragments;

1.68 - 1.78 m Light bluish grey (5B7/1-Moist); , 10YR64; Sand; Loose consistence; 10-20%, Shells, coarse

fragments;

### **Morphological Notes**

## **Observation Notes**

>63CM CALCIFIED SAND:58-61CM MAT OF ROOTS ON LIMESTONE LAYER:61-63CM SOLID LIMESTONE:

### **Site Notes**

MEMANA

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# **Laboratory Test Results:**

Danith			F		0-4:			050	_	050		-00
Depth	рН	1:5 EC		nangeable /lg	K	Na	Exchangeable Acidity	CEC	E	CEC		ESP
m		dS/m	ou i	9		Cmol (+)/kg						%
0 - 0.1	4.9A		8.8H	4	0.4	1.1	16.1H 22.3E					
0.1 - 0.23	5.5A						22.02	15.40	С			
0.23 - 0.36	5.9A							4.30				
0.36 - 0.48	6.8A		7.3H	2.3	0.5	2.2						
0.49 - 0.58	8.6A											
0.91 - 1.02	9.1A											
1.68 - 1.78	9.5A											
Depth	CaCO3	Organic	Avail.	Total	Total	Total			rticle S		-	
m	%	C %	P mg/kg	P %	N %	K %	Density Mg/m3	GV		FS %	Silt	Clay
	,,	,,,		,,	,,,	,,	9			,,		
0 - 0.1		5.9D		0.001D	0.27	76A		1	54B	29	3	6
0.1 - 0.23		1.8D			0.07	74A						
0.23 - 0.36		0.24D										
0.36 - 0.48		0.43D			0.02	26A						
0.49 - 0.58	10A	1.47D		0.003D	)			16	53B	16	<1	19
0.91 - 1.02	38A											
1.68 - 1.78	56A											
Domth	COLE								V 004		V	
Depth	COLE Gravimetric/Volumetric Water Contents Sat. 0.05 Bar 0.1 Bar 0.5 Bar 1 Bar 5 Bar 1							Bar	K sat		K unsa	Į.
m		Jui.	0.00 Dai		g - m3/m		0 50, 10		mm/h		mm/h	
0 - 0 1												

0 - 0.1 0.1 - 0.23 0.23 - 0.36 0.36 - 0.48 0.49 - 0.58 0.91 - 1.02 1.68 - 1.78

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### **Laboratory Analyses Completed for this profile**

15D1\_CEC CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; manual leach

15E1\_CA

Exchangeable bases (Ca2+,Mg2+,Na+,K+) by compulsive exchange, no pretreatment for soluble 15E1\_K

Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts

Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts

Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts

15G\_C\_H1 Exchangeable hydrogen - meq per 100g of soil - Hydrogen By back titration of A or B Hydrogen Cation - meq per 100g of soil - 1M KCl Exch. Acidity By titration to pH 8.0

19A1 Carbonates - rapid titration
2\_LOI Loss on Ignition (%)
2A1 Air-dry moisture content
4A1 pH of 1:5 soil/water suspension

5A2 Chloride - 1:5 soil/water extract, automated colour

6A1\_UC Organic carbon (%) - Uncorrected Walkley and Black method Total nitrogen - semimicro Kjeldahl , automated colour

9A\_HCL Total element - P(%) - By boiling HCl

P10\_GRAV Gravel (%) P10A1\_C Clay (%) - Pipette

P10A1\_CS Coarse sand (%) - Pipette
P10A1\_FS Fine sand (%) - Pipette
P10A1\_Z Silt (%) - Pipette