NC **Project Name:** 

C462 Observation ID: 1 **Project Code:** NC Site ID:

**CSIRO Division of Soils (NSW) Agency Name:** 

**Site Information** 

Desc. By: P.H. Walker Locality: ~200M west of Xmas Creek drain on

Kempsey/Frederickton Road

Date Desc.: 10/04/61 Elevation: 2 metres Sheet No.: 9435 1:100000 Map Ref.: Rainfall: 1200 Northing/Long.: 152.8583333333333 Runoff: Slow

Easting/Lat.: -31.04583333333333 Drainage: Imperfectly drained

Geology

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

Geol. Ref.: No Data **Substrate Material:** Porous, Unconsolidated material

(unidentified)

**Land Form** 

Rel/Slope Class: Gently undulating plains <9m Pattern Type: Flood plain

1-3%

Morph. Type: Flat Relief: No Data

Very gently sloped Elem. Type: Plain Slope Category:

Aspect: No Data

2 % Surface Soil Condition (dry): Firm

**Erosion:** 

Slope:

**Soil Classification** 

**Australian Soil Classification:** N/A **Mapping Unit: Principal Profile Form:** Acidic Tenosolic Redoxic Hydrosol N/A

**ASC Confidence: Great Soil Group:** No suitable group

No analytical data are available but confidence is fair.

Site Disturbance: Complete clearing. Pasture, native or improved, cultivated at some stage

**Vegetation:** Low Strata - Sod grass, <0.25m, Closed or dense. \*Species includes - Pennisetum clandestinum

Surface Coarse Fragments: No surface coarse fragments

**Profile Morphology** 

Dark grey (10YR4/1-Moist); , 10YR51, 20-50%; , 20-50%; Light clay (Light); Strong grade of 0 - 0.13 m

structure, 20-50 mm, Granular; Firm consistence; Few (2 - 10 %), Ferruginous, , Soft

segregations; Field pH 5.6 (pH meter); Common

0.15 - 0.3 m Dark grey (10YR4/1-Moist); , 2.5YR36, 20-50%; , 20-50%; Silty light clay; Massive grade of

structure; Firm consistence; Few (2 - 10 %), Ferruginous, , Soft segregations; Field pH 5.5 (pH

meter); Common

0.3 - 0.41 m Dark grey (10YR4/1-Moist); , 10R31, 20-50%; , 5YR44, 20-50%; Silty light clay; Massive grade

of structure; Firm consistence; Very few (0 - 2 %), Ferruginous, , Soft segregations; Field pH 5.4

(pH meter): Common

Dark grey (10YR4/1-Moist); , 10R31, 20-50%; , 5YR44, 20-50%; Sandy light clay; Massive grade 0.46 - 0.66 m

of structure; Firm consistence; Very few (0 - 2 %), Ferruginous, , Soft segregations; Field pH 5.3

(pH meter): Common

0.76 - 0.91 m Dark grey (10YR4/1-Moist); , 2.5YR34, 10-20%; , 10-20%; Light clay; Very weak consistence;

Moderately plastic; Very few (0 - 2 %), Ferruginous, , Soft segregations; Field pH 5.2 (pH meter);

Grey (10YR6/1-Moist); , 5YR34, 10-20%; , 10-20%; Light medium clay; Very weak consistence; 1.12 - 1.37 m

Moderately plastic; Very few (0 - 2 %), Ferruginous, , Soft segregations; Field pH 5.3 (pH meter);

1.73 - 2.03 m Grey (10YR6/1-Moist); , 5YR34, 10-20%; , 10-20%; Light medium clay; Very weak consistence;

Moderately plastic; Very few (0 - 2 %), Ferruginous, , Soft segregations; Field pH 4.6 (pH meter);

2.31 - 2.62 m Grey (10YR5/1-Moist); , 5YR34, 2-10%; , 2.5Y84, 2-10%; Sandy light clay; Very weak

consistence; Moderately plastic; Very few (0 - 2 %), Ferruginous, , Tubules; Field pH 3.9 (pH

meter). Few

2.69 - 2.87 m Dark grey (10YR4/0-Moist); ; Light medium clay; Very weak consistence; Moderately plastic;

## **Morphological Notes**

Project Name: NC
Project Code: NC Site ID: C46
Agency Name: CSIRO Division of Soils (NSW) Site ID: C462 Observation ID: 1

FINE GRAINED ALLUVIUM:K0 SHOWING DEPOSITIONAL LAYERING:HYDROMORPHIC SOIL (GLEY):LAYER 3 LAYERED:LAYER 9 ESTUARINE CLAY:

Site Notes

KEMPSEY

Project Name: NC
Project Code: NC Site ID: C46
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## **Laboratory Test Results:**

Depth	pН	1:5 EC	Ex a	changeable Mg	Cations K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m	, u	mg		Cmol	•			%
0 - 0.13	5.6A	0.11A	6.6K	4.8	0.35	0.52		16G		3.25
0.15 - 0.3	5.5A	0.143A								
0.3 - 0.41	5.4A	0.155A								
0.46 - 0.66	5.3A	0.15A								
0.76 - 0.91	5.2A	0.164A								
1.12 - 1.37	5.3A	0.158A								
1.73 - 2.03	4.6A	0.247A								
2.31 - 2.62	3.9A	0.071A								

Depth	CaCO3	Organic	Avail.	Total	Total	Total	Bulk		article		Analysi	
m	%	C %	P mg/kg	P %	N %	K %	Density Mg/m3	GV	CS	FS %	Silt	Clay
0 - 0.13 0.15 - 0.3		2.6F			0.202	B			1D	39	40	17
0.3 - 0.41 0.46 - 0.66 0.76 - 0.91 1.12 - 1.37		2.3F			0.189	В			1D 1D 1D	5 5 5	50 49 45	41
1.73 - 2.03 2.31 - 2.62									0D	36	6 41	23

Depth	COLE	Gravimetric/Volumetric Water Contents							K sat	K unsat
		Sat.	0.05 Bar	0.1 Bar	0.5 Bar	1 Bar	5 Bar	15 Bar		
m		g/g - m3/m3							mm/h	mm/h

0 - 0.13 0.15 - 0.3 0.3 - 0.41 0.46 - 0.66 0.76 - 0.91 1.12 - 1.37 1.73 - 2.03 2.31 - 2.62

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

15\_HSK\_CEC CEC - meq per 100g of soil - HOSK

15\_NR\_CAExch. basic cations (Ca++) - meq per 100g of soil - Not recorded15\_NR\_KExch. basic cations (K++) - meq per 100g of soil - Not recorded15\_NR\_MGExch. basic cations (Mg++) - meq per 100g of soil - Not recorded15\_NR\_NAExch. basic cations (Na++) - meq per 100g of soil - Not recorded

2\_LOI
2A1
Air-dry moisture content
3A1
EC of 1:5 soil/water extract
pH of 1:5 soil/water suspension

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

6\_DC Organic carbon (%) - Dry combustion
7\_NR Total nitrogen (%) - Not recorded
P10\_PB\_C Clay (%) - Plummet balance
P10\_PB\_CS Coarse sand (%) - Plummet balance
P10\_PB\_FS Fine sand (%) - Plummet balance
P10\_PB\_Z Silt (%) - Plummet balance