

**Soil and Land Suitability Assessment  
for Irrigated Agriculture**  
**TENNANT CREEK WEST AREA**  
 Map 2 of 3  
**GENERAL LAND CAPABILITY  
of the  
TENNANT CREEK WEST AREA**

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 Web: http://nrmmaps.nt.gov.au Map Reference: Tennant-Ck-West\_Land-Capability\_Map-2

GENERAL LAND CAPABILITY	
<b>Class 1</b>	<b>HIGH - Land with negligible limitations.</b> Highly productive and requires only simple management practices. (0-1% slope; low wind erosion hazard; no surface rock; >1.0 m soil depth; rapid to well-drained soil; and flood free) <b>472 km<sup>2</sup></b>
<b>Class 2</b>	<b>MODERATE - Land with minor to moderate limitations.</b> productive but requires more than the simple management practices of Class 1. (1-2% slope; and/or moderate wind erosion hazard; and/or 0-2% surface rock; and/or 0.5-1.0 m soil depth; and/or moderately drained soil; and/or extremely rare flooding) <b>73.2 km<sup>2</sup></b>
<b>Class 3</b>	<b>MARGINAL - Land with severe limitations.</b> Marginally productive and requires major management practices. (2-3% slope; and/or high wind erosion hazard; and/or 2-10% surface rock; and/or 0.25-0.5 m soil depth; and/or imperfectly drained soil; and/or rare flooding) <b>12.2 km<sup>2</sup></b>
<b>Class 4</b>	<b>Land not suitable for agriculture.</b> Limitations cannot be overcome with practical or cost effective management practices. (>3% slope; and/or very high to extreme wind erosion hazard; and/or >10% surface rock; and/or <0.25 m soil depth; and/or poor to very poorly drained soil; and/or regular to permanent flooding) <b>21.1 km<sup>2</sup></b>

Map unit boundaries were derived using satellite imagery in association with digital elevation model, geological and topographic data. Landform, soil and vegetation field assessments conform to national standards and support mapping at a scale of 1:50 000. When assessing specific areas within the mapping it is recommended a site inspection be undertaken to establish unmapped variation and confirm mapping accuracy on the ground.  
 This map does not indicate, imply or ascertain the likelihood of groundwater availability or the granting of appropriate water extraction licensing needed to satisfy the irrigation requirements of the potential agricultural development options indicated.

**BIBLIOGRAPHIC REFERENCE:**  
 Carnavas M, Grealish G and Burley P  
 SOIL AND LAND SUITABILITY ASSESSMENT FOR IRRIGATED AGRICULTURE in the TENNANT CREEK WEST AREA  
 Northern Territory Nov 2016 DENR Technical Report 10/2016D Land Assessment Branch  
 Rangelands Division, Department of Environment and Natural Resources, Palmerston, Northern Territory.

**TECHNICAL REFERENCES:**  
 National Committee on Soil and Terrain (2009).  
 AUSTRALIAN SOIL AND LAND SURVEY FIELD HANDBOOK, 3rd Edition.  
 Canberra, Australian Collaborative Land Evaluation Program. CSIRO Publishing, Melbourne.  
 Isbell, RF (2002). THE AUSTRALIAN SOIL CLASSIFICATION.  
 CSIRO Publishing, Melbourne.  
 Executive Steering Committee for Australian Vegetation Information (ESCAVI) (2003).  
 AUSTRALIAN VEGETATION ATTRIBUTE MANUAL NATIONAL VEGETATION INFORMATION SYSTEM, VERSION 6  
 Department of Environment and Heritage, Canberra.



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 This map was produced on the Geocentric Datum of Australia 1994 (GDA 94)

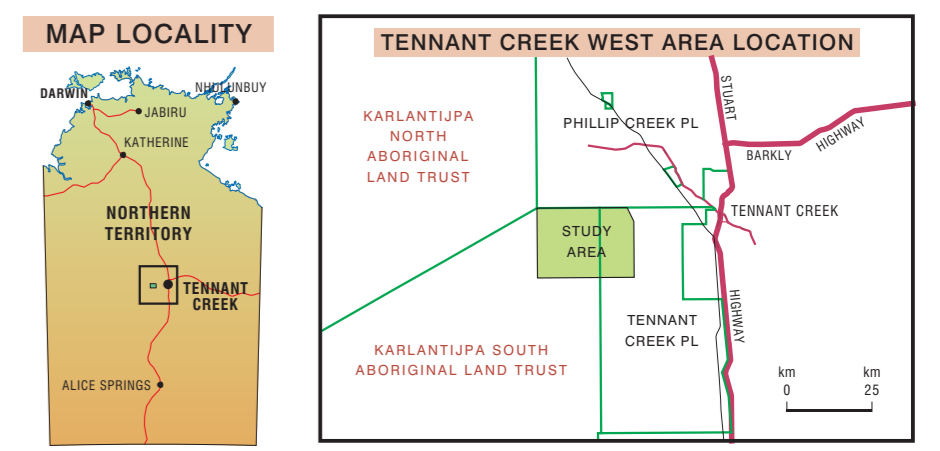
**TENNANT CREEK WEST AREA MAP SERIES**

Map	Map Title
1	LAND RESOURCES of the TENNANT CREEK WEST AREA
2	GENERAL LAND CAPABILITY of the TENNANT CREEK WEST AREA
3	LAND SUITABILITY for IRRIGATED CROP GROUPS 1 - 7 of the TENNANT CREEK WEST AREA

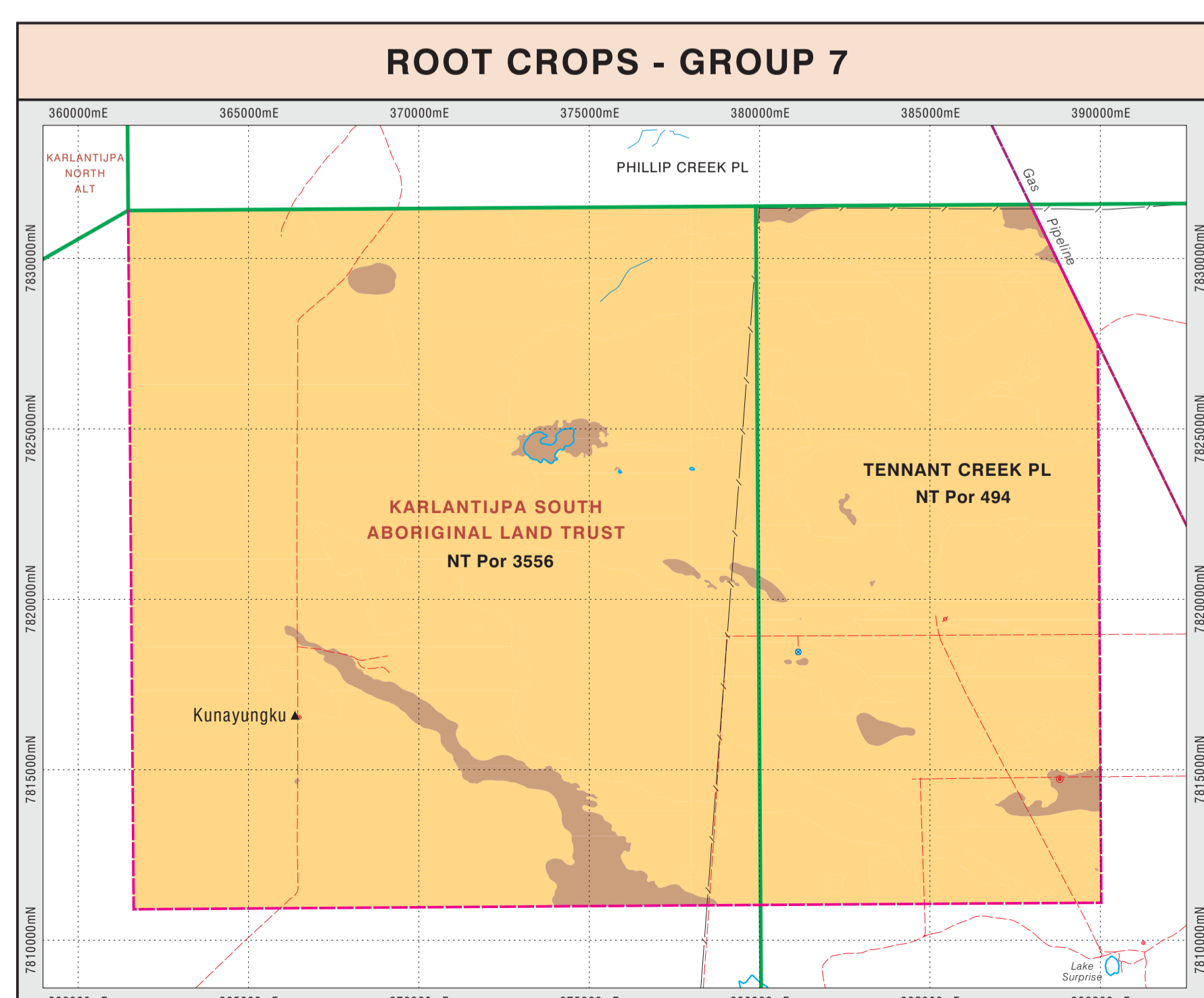
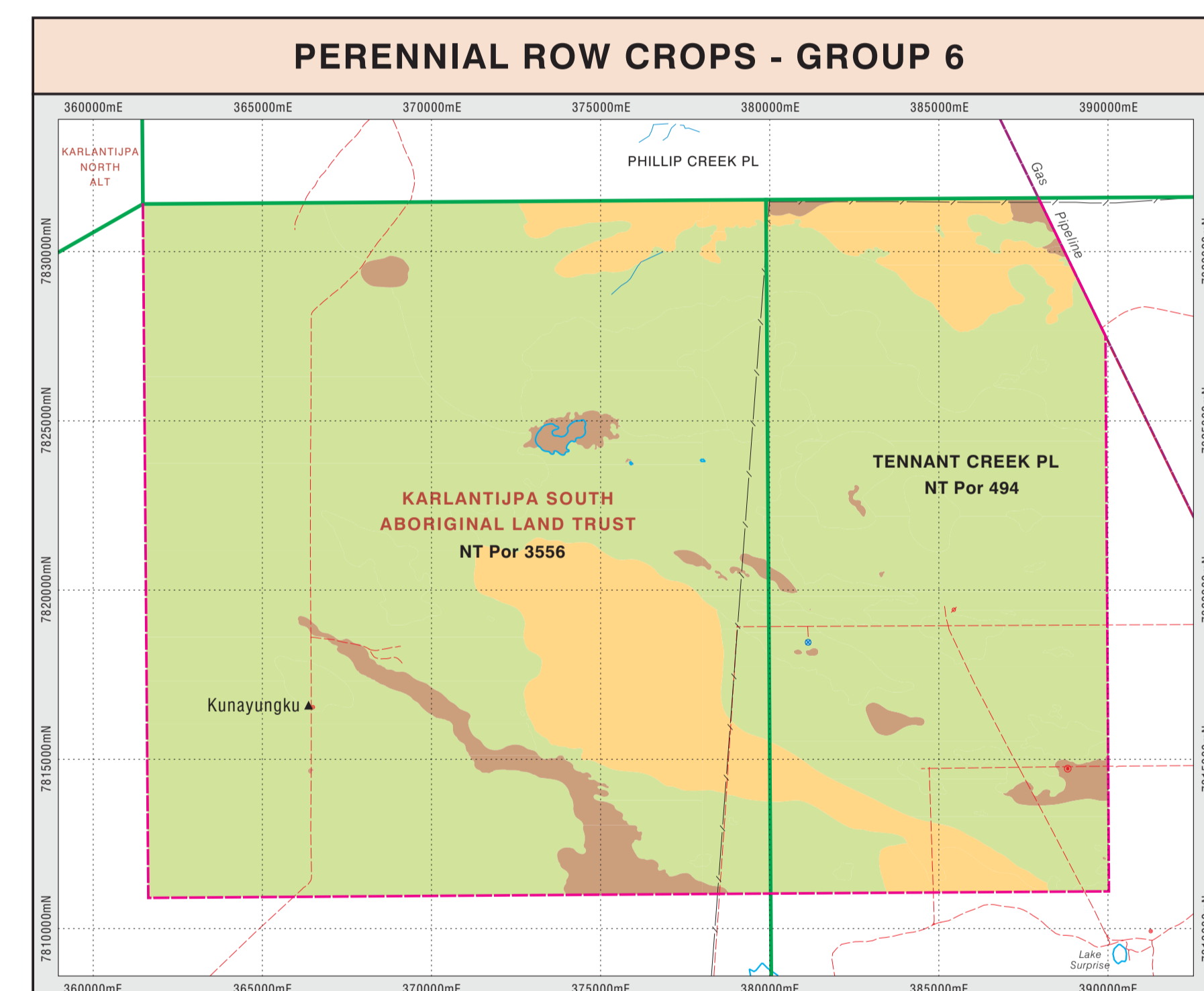
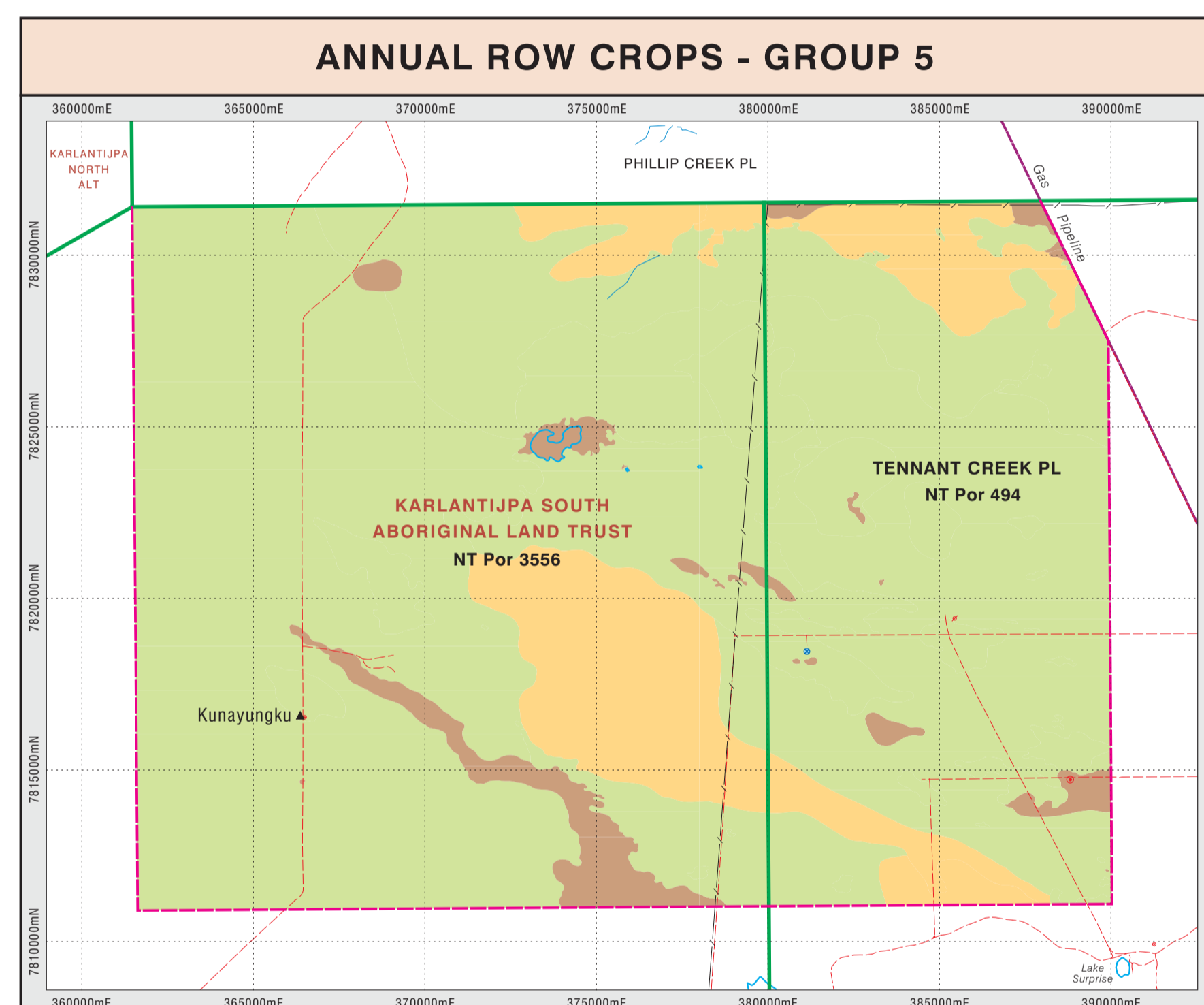
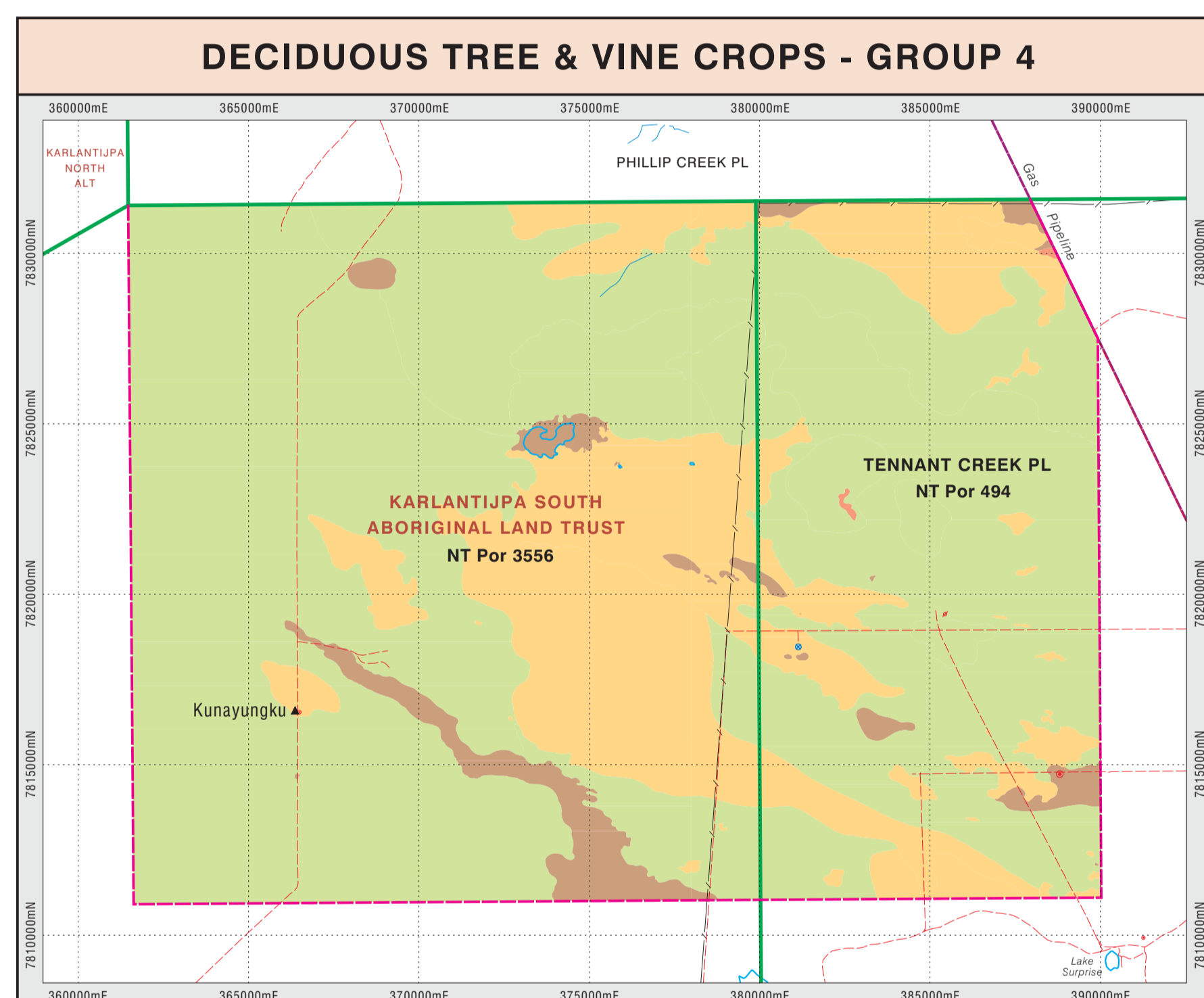
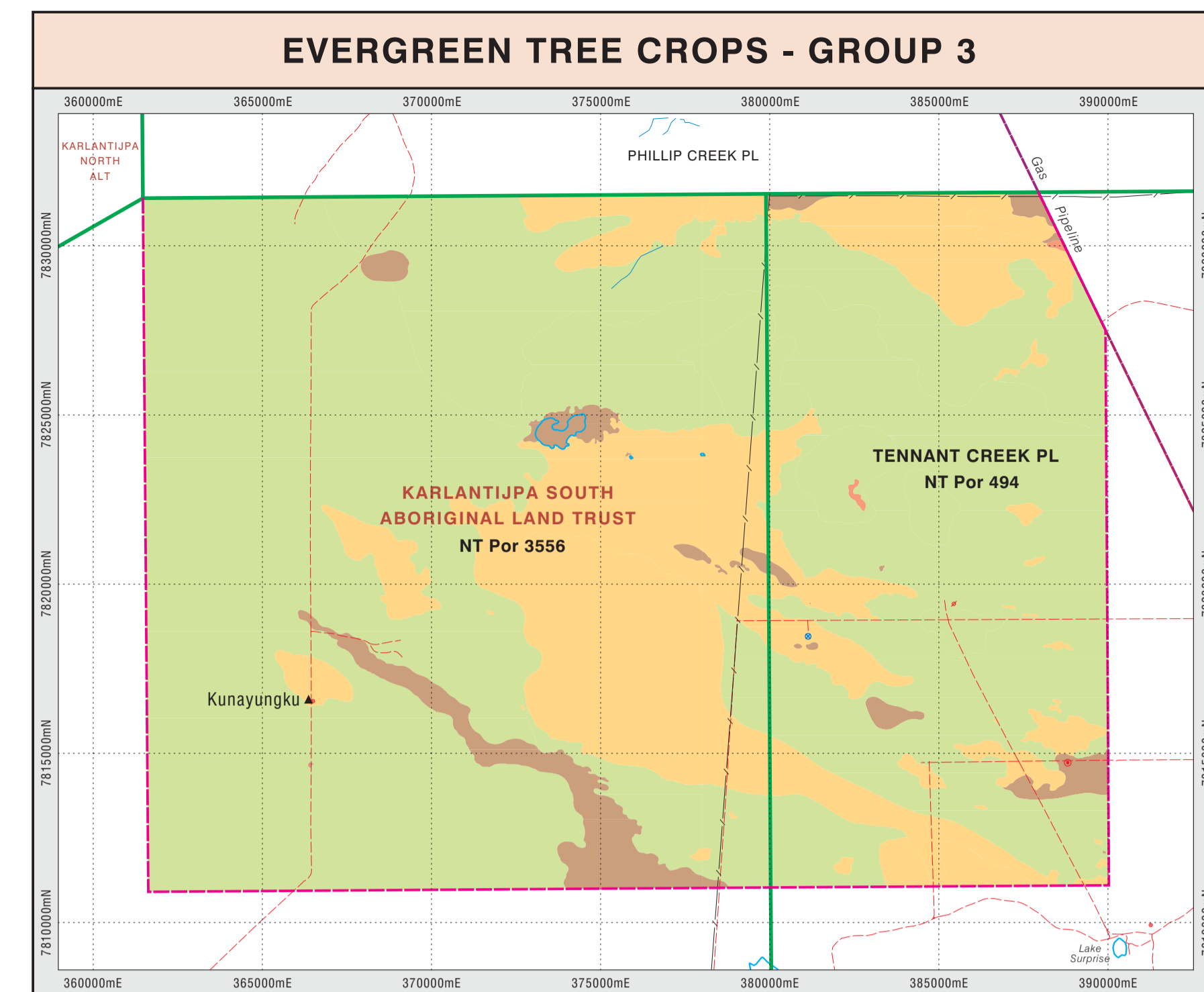
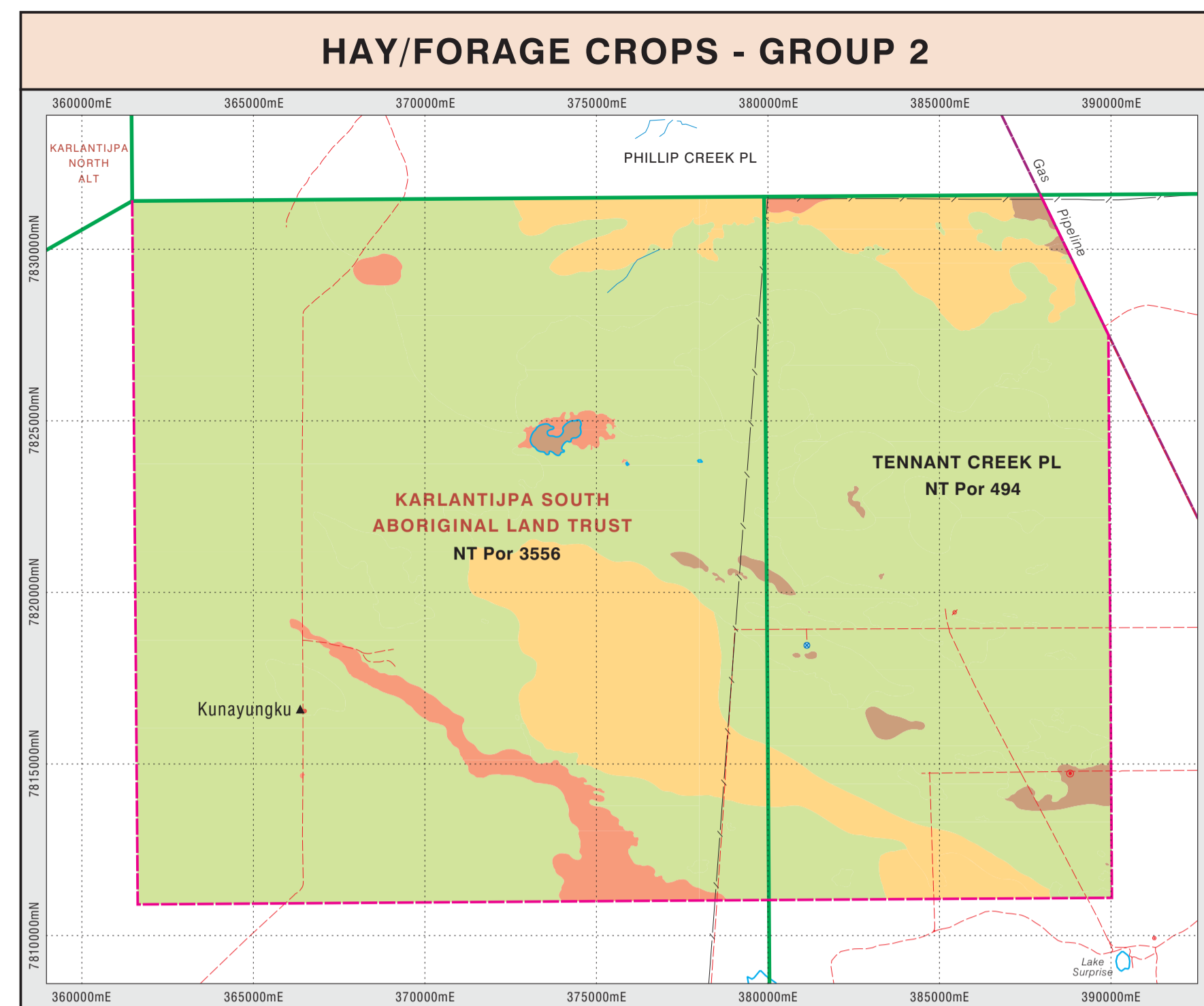
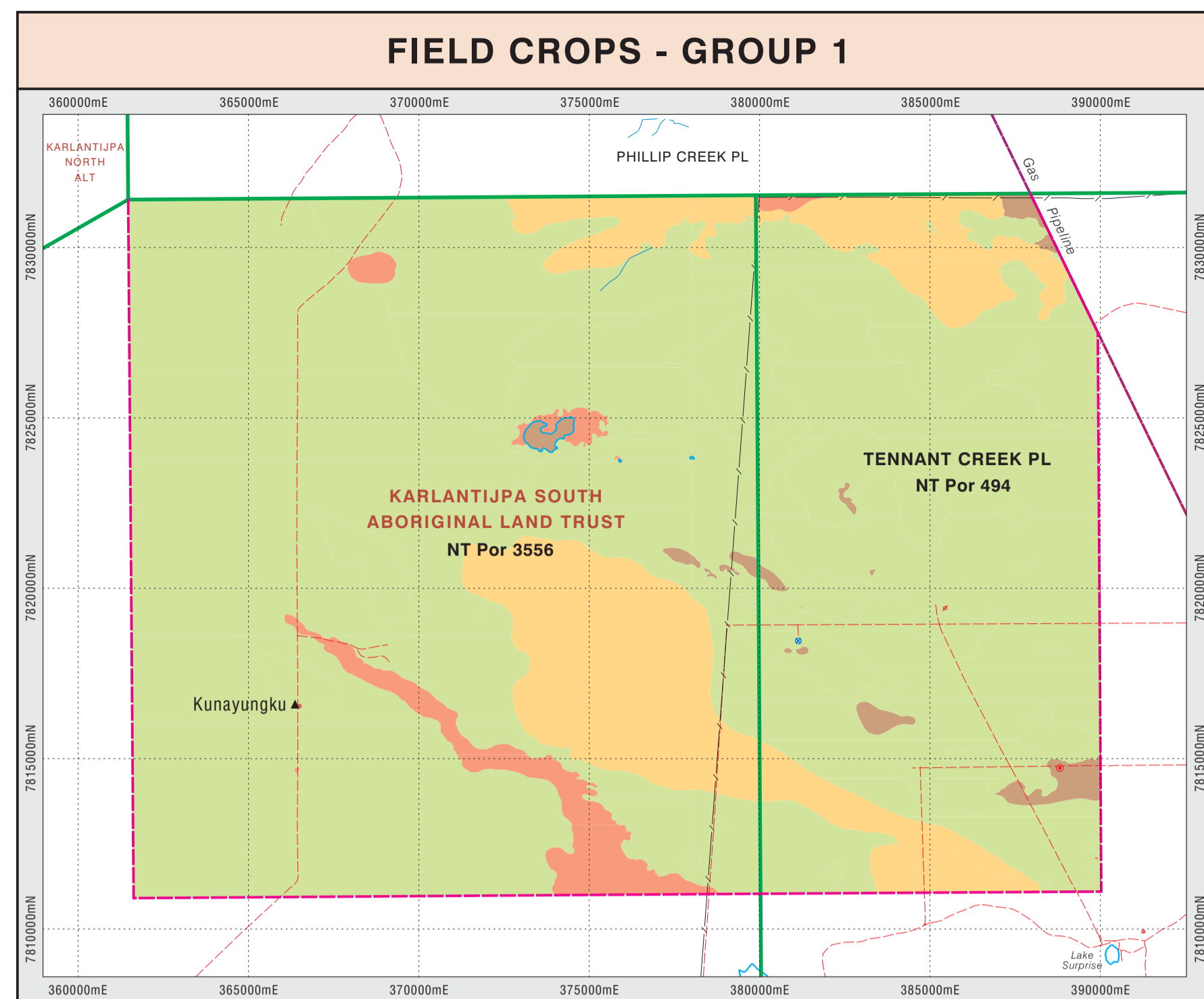
**GENERAL FEATURES**

.....	Limit of mapping	.....	Fence
.....	Property boundary	.....	Water bore
.....	Local road / track	.....	Water tank
.....	Family outstation	.....	Drainage line
.....	Gas pipeline	.....	Spot height (m AHD)

Cartography by L. Fritz & R. Lim, Spatial Data and Mapping, Water Resources, Department of Environment and Natural Resources, Northern Territory of Australia  
 NOVEMBER 2016



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**GENERAL FEATURES**

Limit of mapping	Fence
Property boundary	Water bore
Local road / track	Water tank
Kunayungku	Family outstation
	Gas pipeline
	Drainage line

**MAP LOCALITY**

**TENNANT CREEK WEST AREA LOCATION**

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Cartography by L. Fritz & R. Lim,  
Spatial Data and Mapping,  
Water Resources,  
Department of  
Environment and Natural Resources,  
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**NOVEMBER 2016**

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2	GENERAL LAND CAPABILITY of the TENNANT CREEK WEST AREA

**Potential Irrigated Agricultural Crops**

Map	Map Title / Crop Group	Individual Crops Assessed
3	LAND SUITABILITY for IRRIGATED TREE CROPS - GROUP 1	Chia, quinoa
	LAND SUITABILITY for IRRIGATED HAY/FORAGE CROPS - GROUP 2	Grass hay - rhodes grass, panics, sorghum, oats, barley Forage legumes - lucerne, peanut
	LAND SUITABILITY for IRRIGATED EVERGREEN TREE CROPS - GROUP 3	Citrus - lime, lemon, mandarin, orange, grapefruit, tangelo, Mango, avocado, longan, lychee
	LAND SUITABILITY for IRRIGATED DECIDUOUS TREE & VINE CROPS - GROUP 4	Fig, pomegranate, low chill stone fruit, table grape
	LAND SUITABILITY for IRRIGATED ANNUAL ROW CROPS - GROUP 5	Cucurbits - watermelon, hami melon, honeydew melon, rock melon, pumpkin, zucchini, squash Salad vegetables - lettuce, baby spinach, rocket Asian greens Summer vegetables - Solanaceae (capsicum, chilli, eggplant, tomato), sweet corn, beans, snow peas, brassicas
	LAND SUITABILITY for IRRIGATED PERENNIAL ROW CROPS - GROUP 6	Asparagus
	LAND SUITABILITY for IRRIGATED ROOT CROPS - GROUP 7	Garlic, onion, potato, sweet potato

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kilometres 0 1 2 3 4 5 kilometres

Black numbered lines are 5000 metre intervals of the Map Grid of Australia (MGA) Zone 53 Transverse Mercator Projection. Horizontal Datum: GDA 94. Vertical Datum: AHD (metres)

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GDA This map was produced on the Geocentric Datum of Australia 1994 (GDA 94)

**LAND SUITABILITY CLASSES**

<b>Class 1</b>	<b>SUITABLE LAND WITH NEGLIGIBLE LIMITATIONS</b> Highly productive land requiring only simple management practices to maintain sustainable production.
<b>Class 2</b>	<b>SUITABLE LAND WITH MINOR LIMITATIONS</b> Land with minor limitations that either constrain production or require more than the simple management practices of Class 1 land to maintain sustainable production.
<b>Class 3</b>	<b>SUITABLE LAND WITH MODERATE LIMITATIONS</b> Land with moderate limitations that further constrain production or require more than the management practices of Class 2 land to maintain sustainable production.
<b>Class 4</b>	<b>UNSUITABLE LAND WITH SEVERE LIMITATIONS</b> Currently unsuitable land with severe limitations that preclude successful or sustained use under existing conditions. Future changes in knowledge, economics or technology may alter this.
<b>Class 5</b>	<b>UNSUITABLE LAND WITH EXTREME LIMITATIONS</b> Land with extreme limitations that preclude any possibility of successful or sustained use, either now or in the future.

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**NORTHERN TERRITORY GOVERNMENT**

**Soil and Land Suitability Assessment for Irrigated Agriculture**  
**TENNANT CREEK WEST AREA**  
Map 3 of 3  
**LAND SUITABILITY for IRRIGATED CROP GROUPS of the TENNANT CREEK WEST AREA**

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