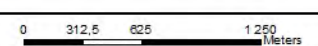


Kranspan MRA Project

Legend

- Haul Road
 - Opencast Area
 - Mine Infrastructure
 - 100m GN704 Buffer
 - 500m C&I Buffer
 - R36 100m Buffer
 - Secondary Road 100m Buffer
 - Proposed Kranspan MRA
 - Farm Portions
- CRITICAL BIODIVERSITY ASSESSMENT**
- Critical Biodiversity Area
 - Ecological Support Area
 - Heavily or moderately modified
 - Other Natural Areas
- ROAD NETWORK**
- Main Road
 - Secondary Road
 - Railway Line
- RIVERS & STREAMS**
- Non-perennial
 - Perennial
 - Wetlands

SENSITIVITY



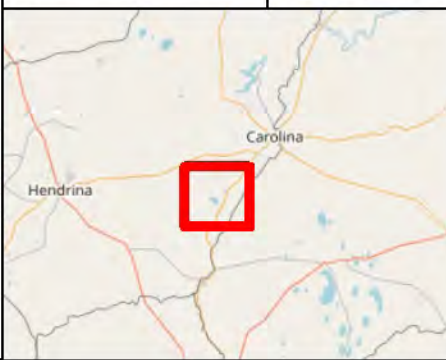
Reviewed: P. Furniss, Environmental Scientist
 Drawn by: NH Cele, GIS Specialist

Coordinate System: GCS WGS 1984
 Datum: WGS 1984

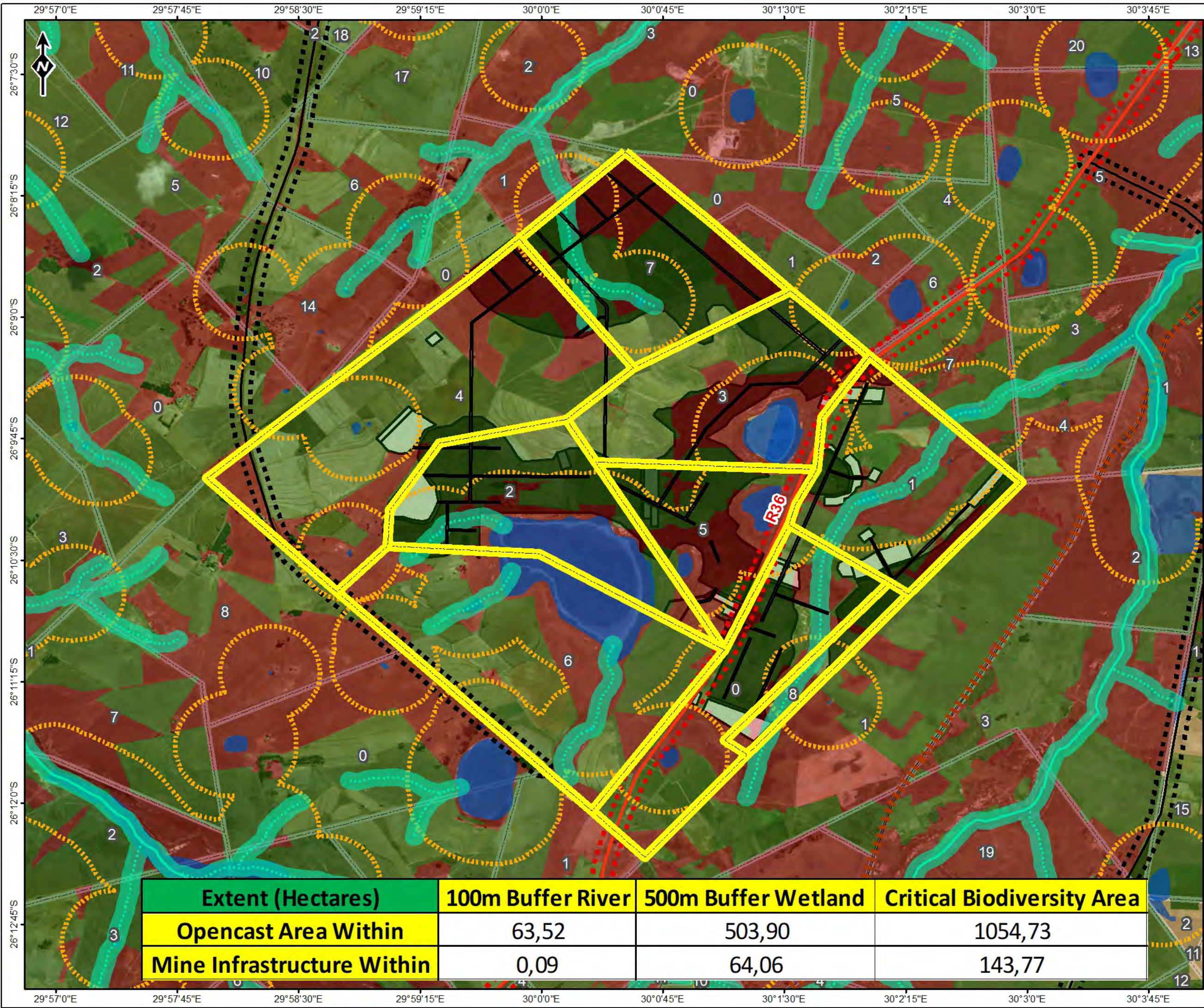
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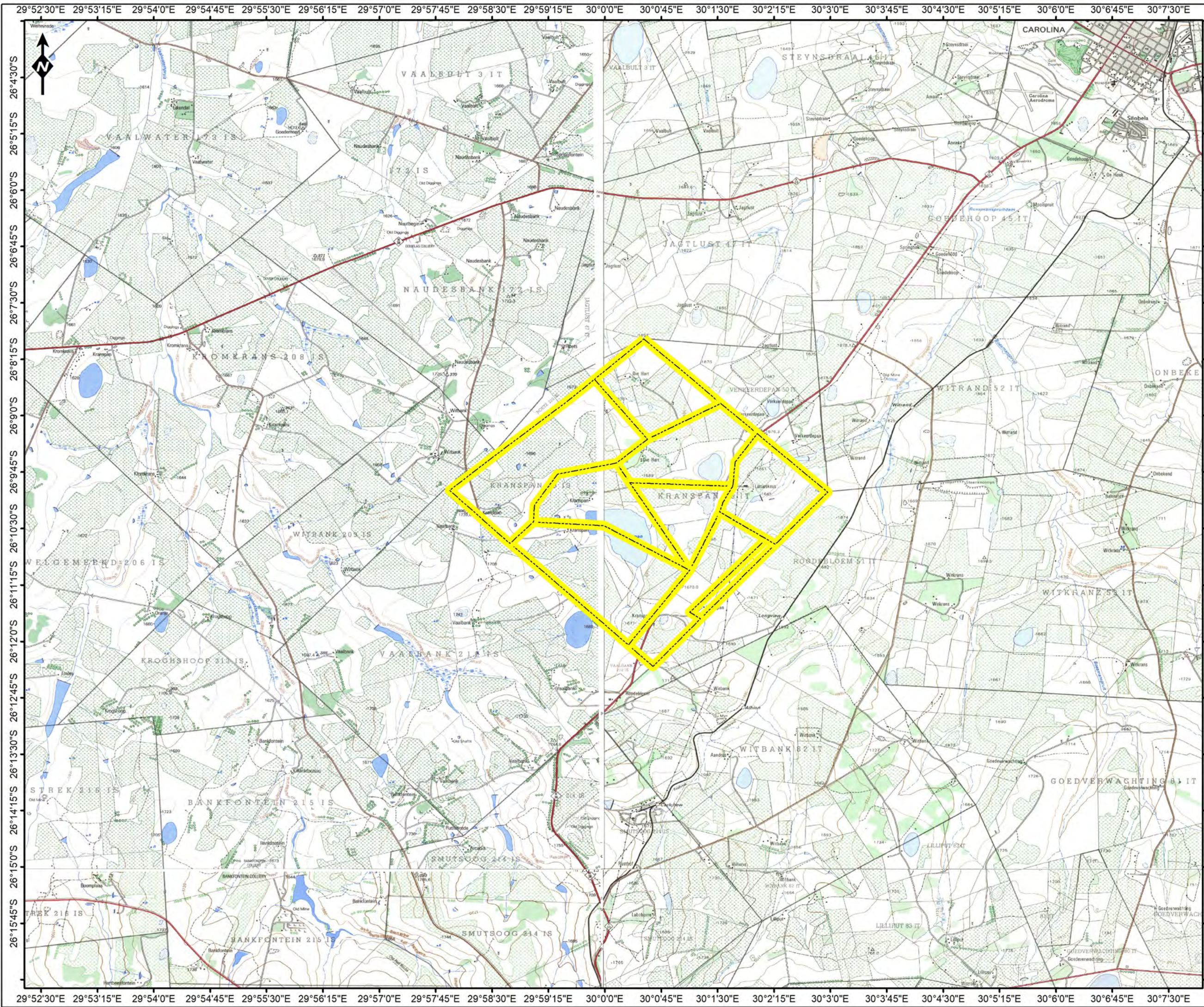
Version: Final

Date: 2018/10/25




Extent (Hectares)	100m Buffer River	500m Buffer Wetland	Critical Biodiversity Area
Opencast Area Within	63,52	503,90	1054,73
Mine Infrastructure Within	0,09	64,06	143,77



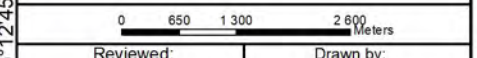


Kranspan MRA Project

Legend

 Proposed Kranspan MRA

1: 50 000 TOPOGRAPHICAL MAP



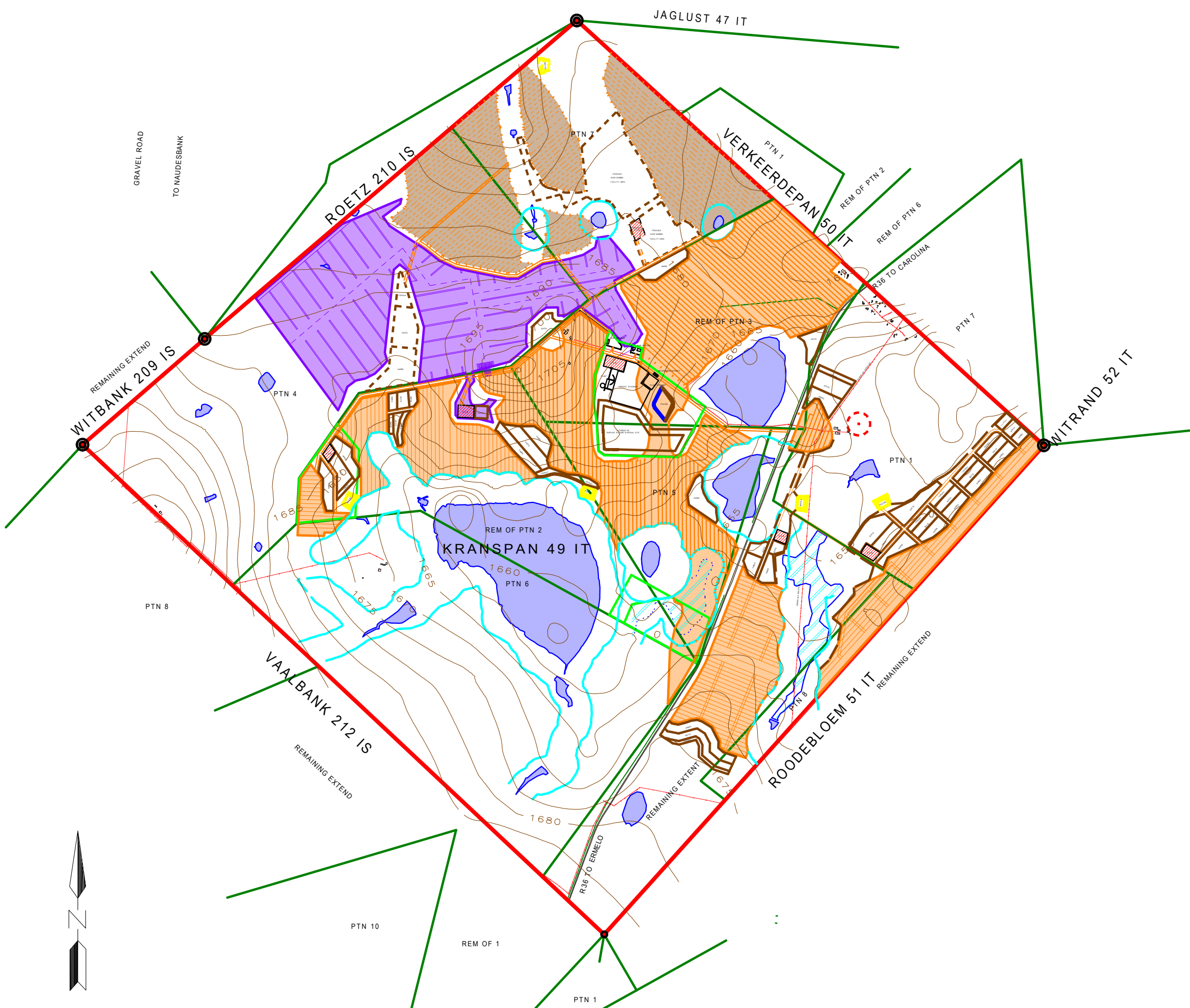
Reviewed: P. Furniss Environmental Scientist	Drawn by: NH Cele GIS Specialist
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Datum: WGS 1984

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	Version: Final
	Date: 2018/10/23



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APPLICANT
ILIMA COAL COMPANY (PTY) LTD

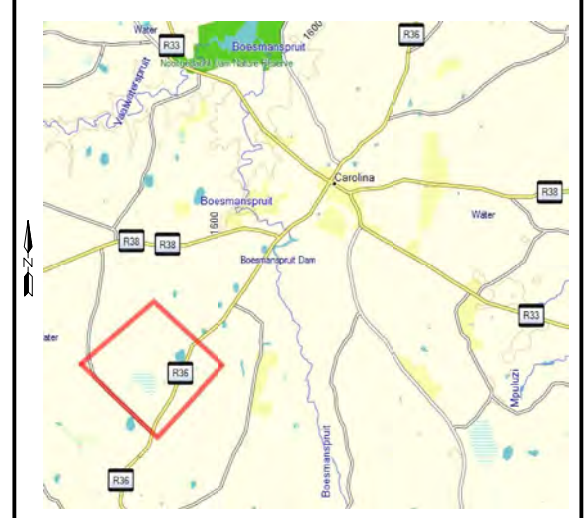
SITE
KRAMSPAN COLLIERY

PLAN
CONCEPTUAL CONCEPTUAL

PLAN REFERENCE
 REF. No.
 CENTRAL MERIDIAN: 31

DATE
 DATE :20/11/2018

SCALE
 SCALE 1: 35000



- LEGEND**
- Prospecting Right Boundary
 - Wetland 100m Buffer
 - Cadastral Boundaries
 - Water Course
 - Roads
 - Topsoil & Overburden Facilities
 - Heritage Site
 - Future Opencast Mining Area - E Seam Occurrence
 - Future Opencast Mining Area - E Seam
 - Future Underground Mining Area - E Seam
 - Wetland Area
 - Pan / Dam
 - Alternative Plant & Yard Area
 - ROM PAD



Kranspan MRA Project

Legend

- Opencast Mining Area
 - Underground Mining Area
 - Proposed Kranspan MRA
 - Farm Portions
- MINE INFRASTRUCTURE**
- PCD
 - ROM
 - Surface Discard Disposal
 - Topsoil & Overburden Facilities
 - Preferred Plant Area
 - Alternative Plant Area
- NETWORK INFRASTRUCTURE**
- Main Road
 - Secondary Road
 - Railway Line
 - Power Line

SITE LAYOUT

0 250 500 1000 Meters

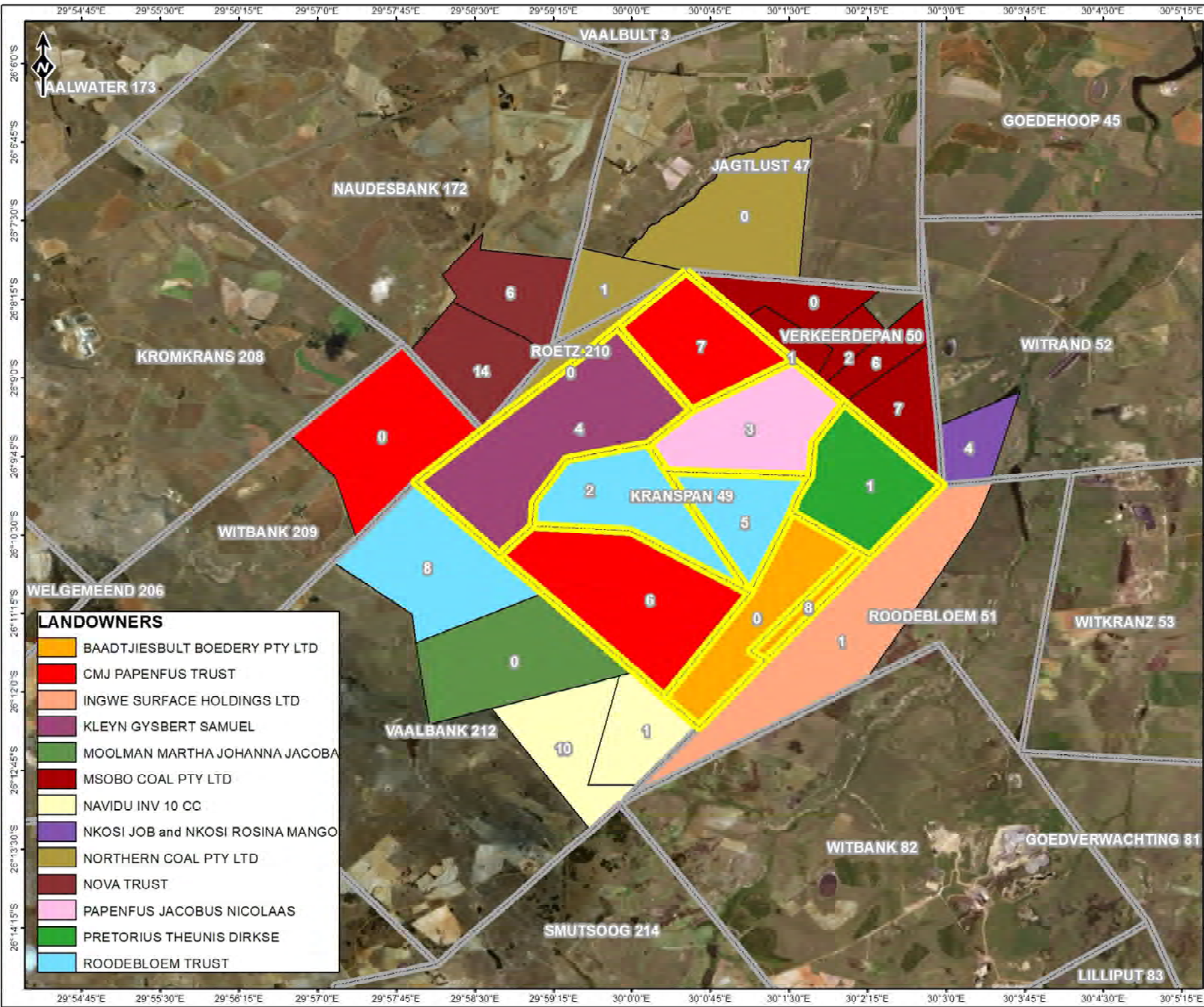
Reviewed: P Furniss Environmental Scientist	Drawn by: NH Cole GIS Specialist
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Kranspan MRA Project

Legend

- Farm Boundaries
- Proposed Kranspan MRA

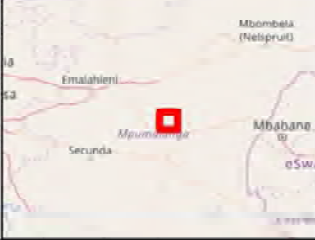
LANDOWNERS

	BAADTJIESBULT BOEDERY PTY LTD
	CMJ PAPANFUS TRUST
	INGWE SURFACE HOLDINGS LTD
	KLEYN GYSBERT SAMUEL
	MOOLMAN MARTHA JOHANNA JACOBA
	MSOBO COAL PTY LTD
	NAVIDU INV 10 CC
	NKOSI JOB and NKOSI ROSINA MANGO
	NORTHERN COAL PTY LTD
	NOVA TRUST
	PAPANFUS JACOBUS NICOLAAS
	PRETORIUS THEUNIS DIRKSE
	ROODEBLOEM TRUST

LANDOWNERS





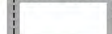

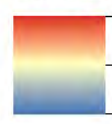


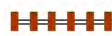



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	Date: 2010/10/24

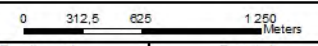


Kranspan MRA Project

Legend

-  Haul Road
 -  Contours
 -  Opencast Area
 -  Mine Infrastructure
 -  Farm Portions
 -  Proposed Kranspan MRA
- ELEVATION (m)**
-  High : 1737
 - Low : 0
- ROAD NETWORK**
-  Main Road
 -  Secondary Road
 -  Railway Line
- RIVERS & STREAMS**
-  Non-perennial
 -  Perennial
 -  Wetlands

TOPOGRAPHY



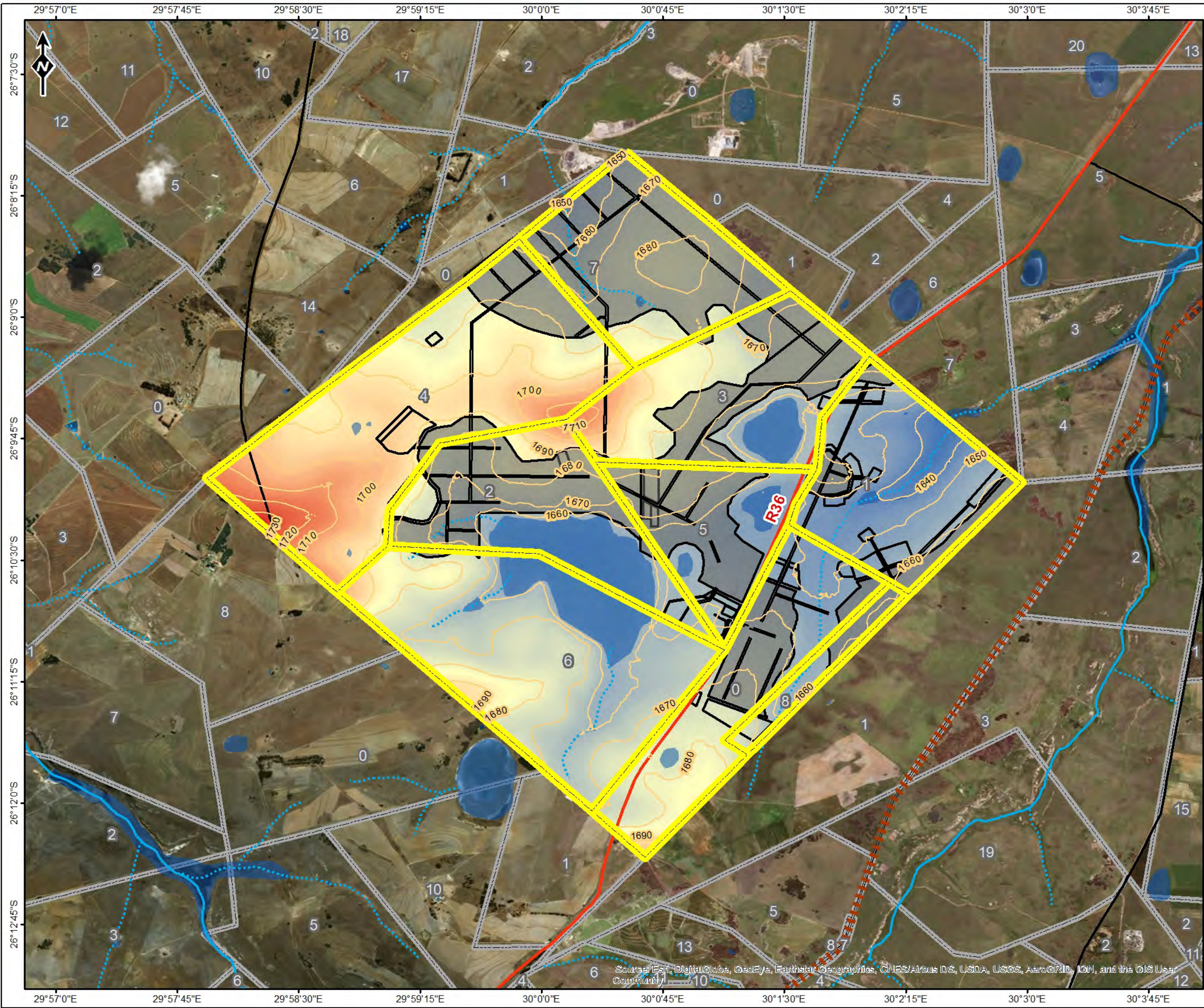
Reviewed: P. Furniss Environmental Scientist	Drawn by: NH Cele GIS Specialist
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Datum: WGS 1984

	Scale: 1:40 000
	Version: Final
	Date: 2018/10/24



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Kranspan MRA Project

Legend

- Haul Road
- Opencast Area
- Mine Infrastructure
- Proposed Kranspan MRA
- Farm Portions

ROAD NETWORK

- Main Road
- Secondary Road
- Railway Line

RIVERS & STREAMS

- Non-Perennial River
- Perennial River
- Wetlands

SOIL CHARACTERISTICS

- Avg Soil Depth**
- Clay % Top Soils**

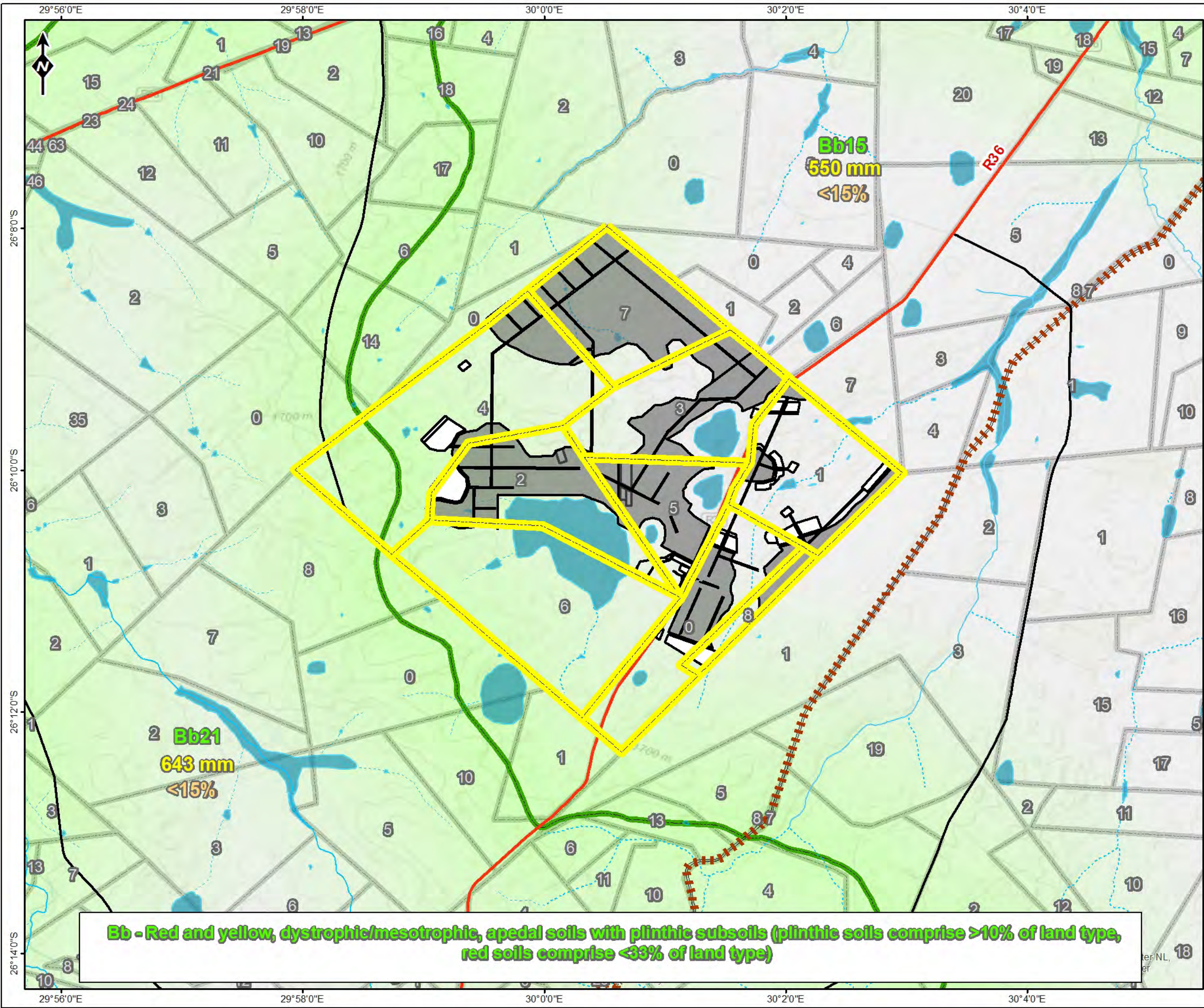
SOILS

0 420 840 1 680 Meters

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Coordinate System: GCS WGS 1984 Datum: WGS 1984	

	Scale: 1:53 625
	Version: Final
	Date: 2018/10/24






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Bb - Red and yellow, dystrophic/mesotrophic, apedal soils with plinthic subsoils (plinthic soils comprise >10% of land type, red soils comprise <33% of land type)

Kranspan MRA Project

Legend

-  Haul Road
-  Opencast Area
-  Mine Infrastructure
-  Proposed Kranspan MRA
-  Farm Portions



VEGETATION

-  Eastern Highveld Grassland
-  Eastern Temperate Freshwater Wetlands

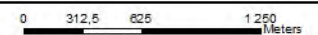
ROAD NETWORK

-  Main Road
-  Secondary Road
-  Railway Line

RIVERS & STREAMS

-  Non-perennial
-  Perennial

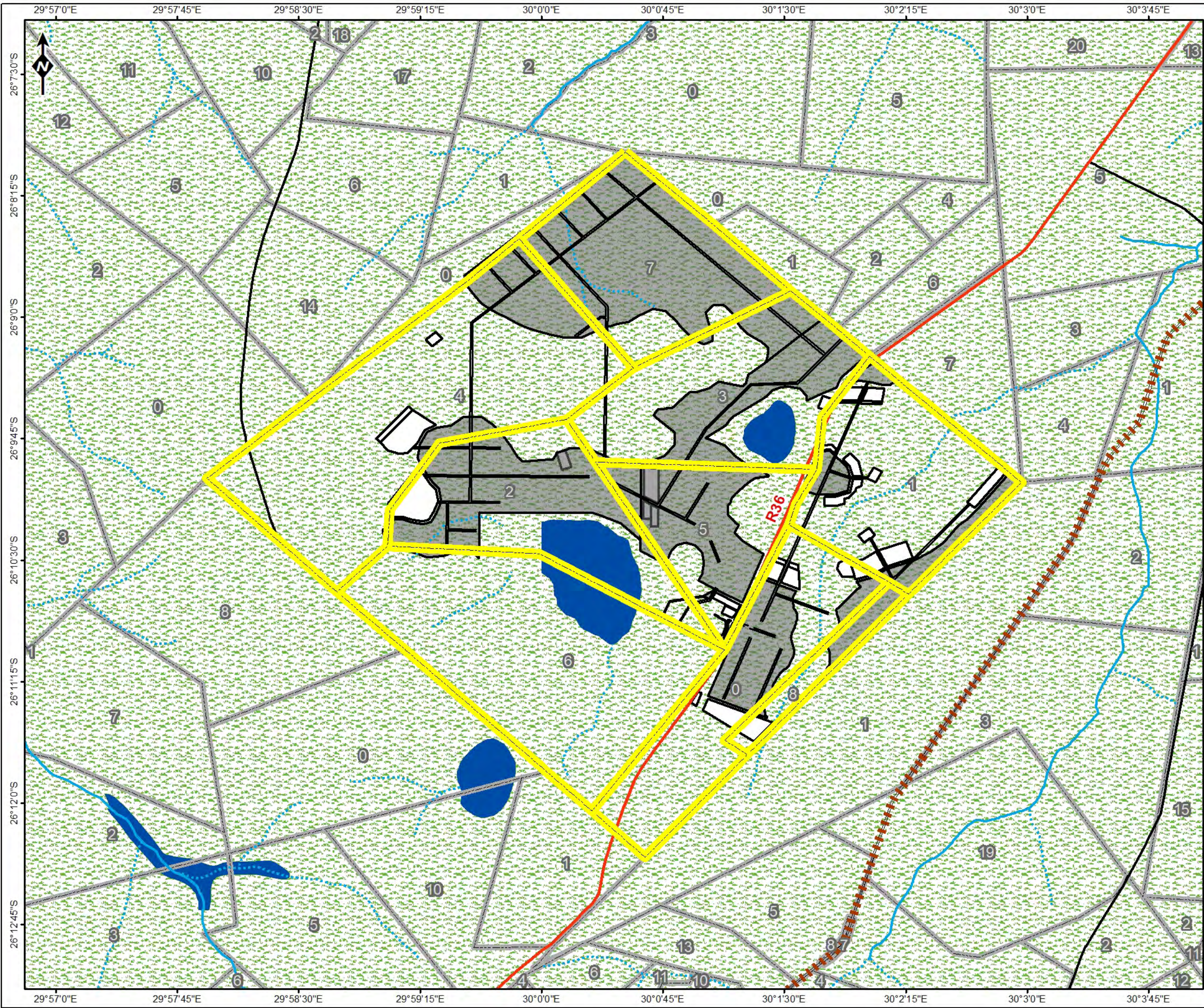
VEGETATION

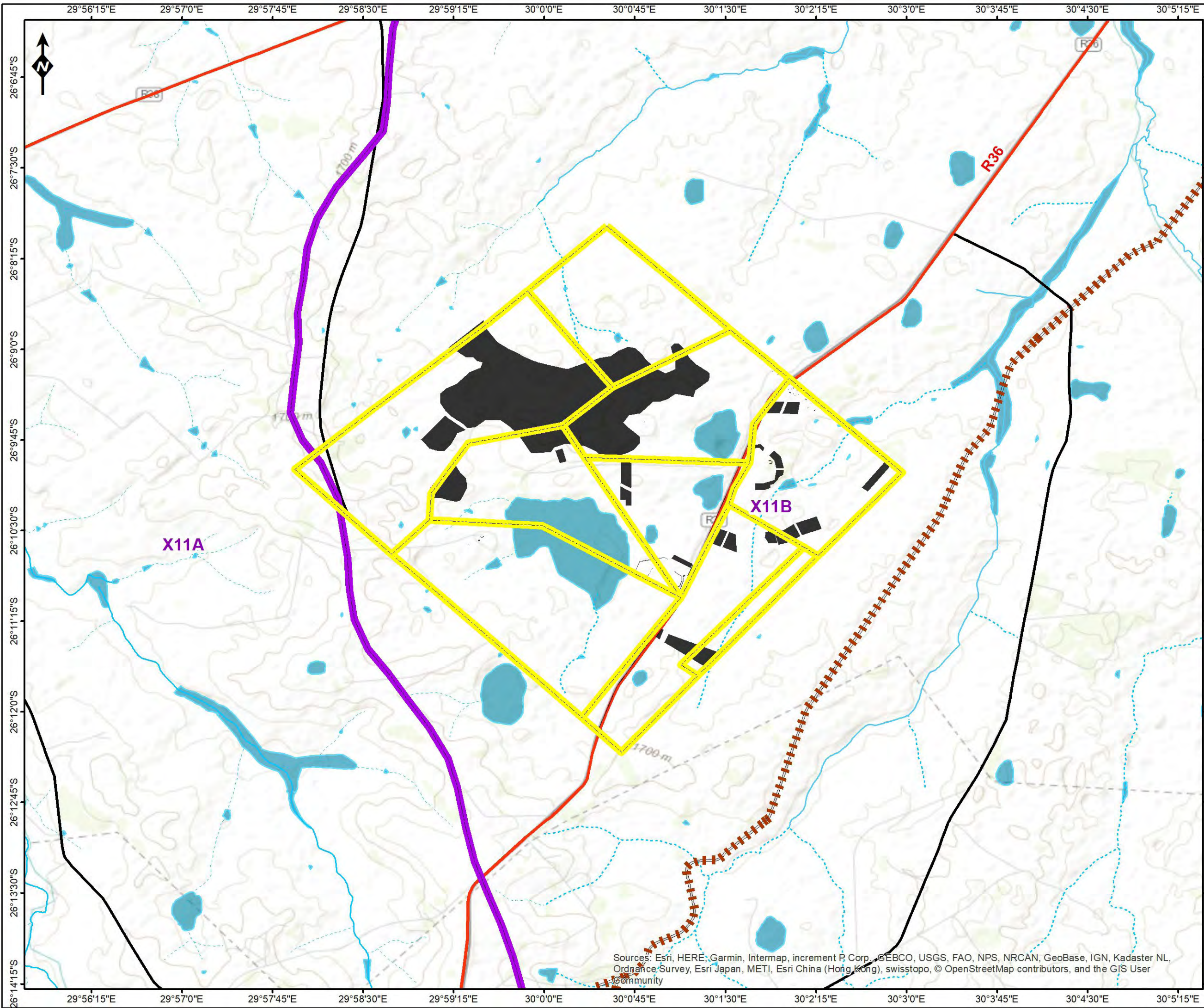


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Datum: WGS 1984



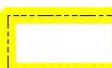


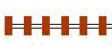



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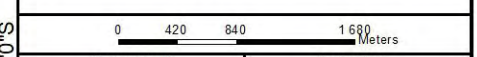


Kranspan MRA Project

Legend

-  Infrastructure
-  Quarternary Catchment
-  Proposed Kranspan MRA
- ROAD NETWORK**
-  Main Road
-  Secondary Road
-  Railway Line
- RIVERS & STREAMS**
-  Non-Perennial River
-  Perennial River
-  Wetlands

QUARTERNARY CATCHMENTS



Reviewed: P. Furniss Environmental Scientist	Drawn by: NH Cele GIS Specialist
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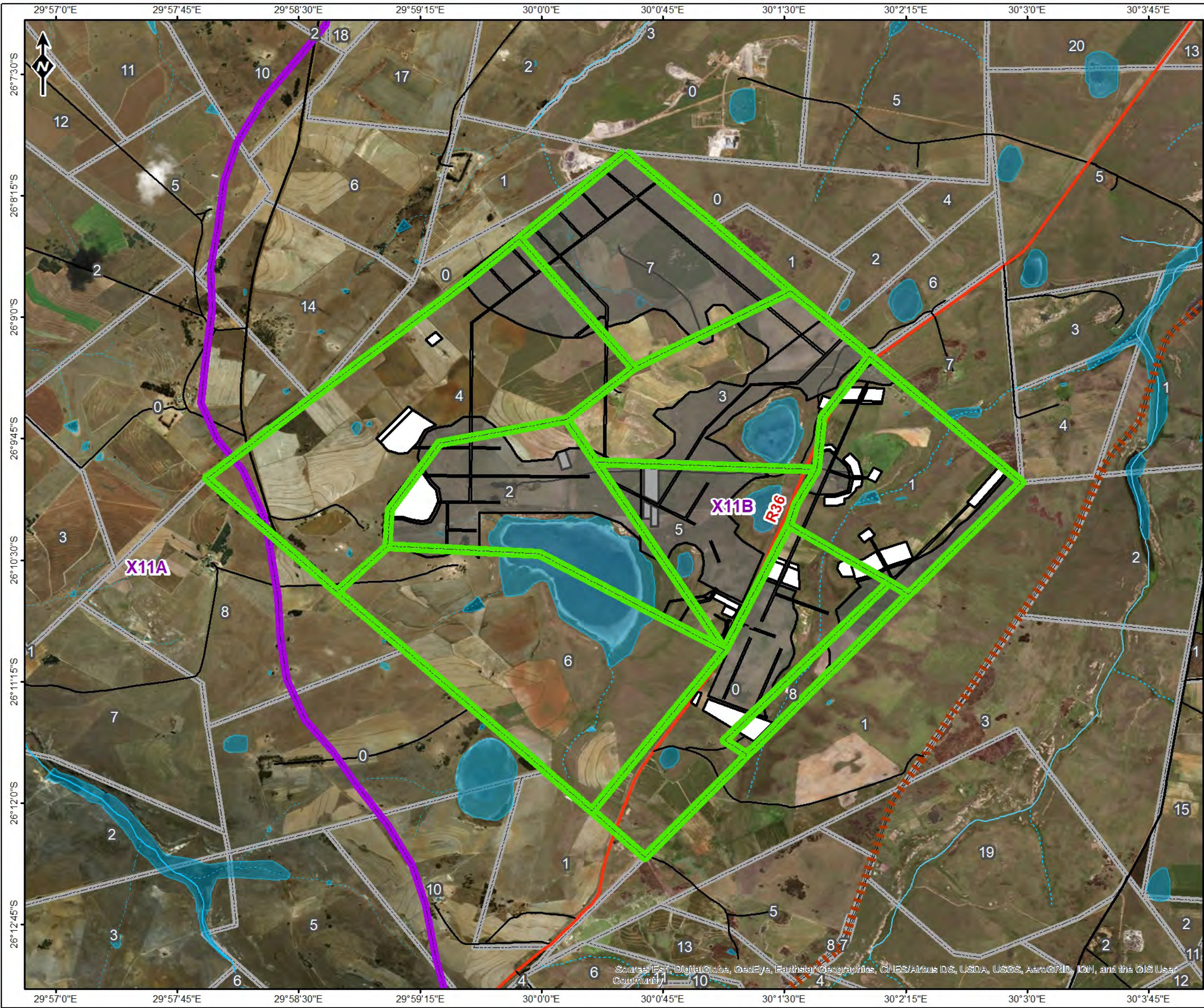
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Kranspan MRA Project

Legend

- Haul Road
 - Opencast Area
 - Mine Infrastructure
 - Quarternary Catchment
 - Proposed Kranspan MRA
 - Farm Portions
- ROAD NETWORK**
- Main Road
 - Secondary Road
 - Other Access
 - Railway Line
- RIVERS & STREAMS**
- Non-Perennial River
 - Perennial River
 - Wetlands

HYDROLOGY



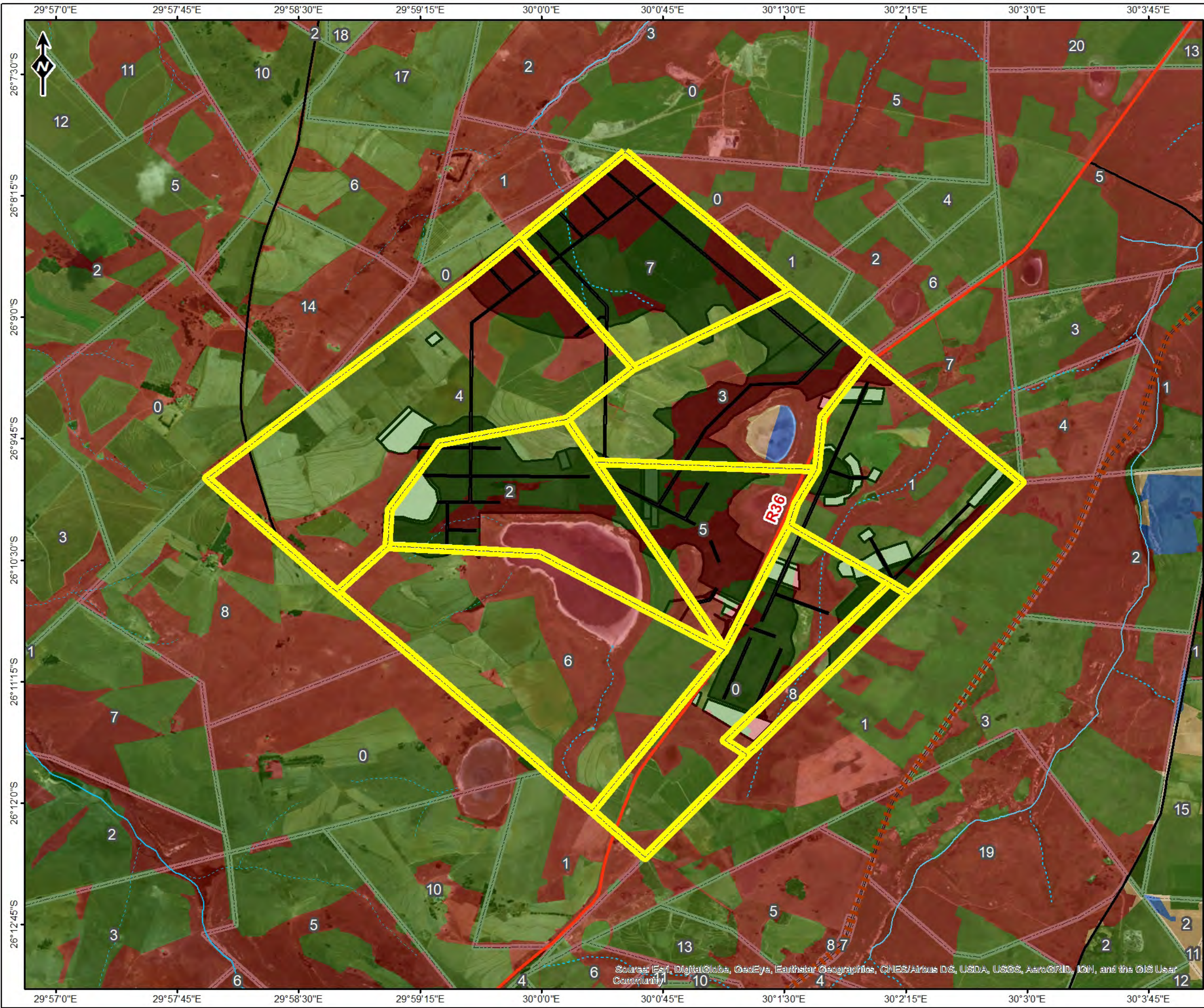
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Datum: WGS 1984

	Scale: 1:40 000
	Version: Final
	Date: 2018/10/24



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Kranspan MRA Project

Legend

- Haul Road
- Opencast
- Mine Infrastructure
- Proposed Kranspan MRA
- Farm Portions

CRITICAL BIODIVERSITY ASSESSMENT

- Critical Biodiversity Area
- Ecological Support Area
- Heavily or moderately modified
- Other Natural

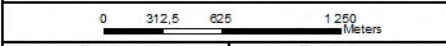
ROAD NETWORK

- Main Road
- Secondary Road
- Railway Line

RIVERS & STREAMS

- Non-Perennial River
- Perennial River

MP CRITICAL BIODIVERSITY AREAS



Reviewed: P. Furniss, Environmental Scientist
 Drawn by: NH Cele, GIS Specialist

Coordinate System: GCS WGS 1984
 Datum: WGS 1984

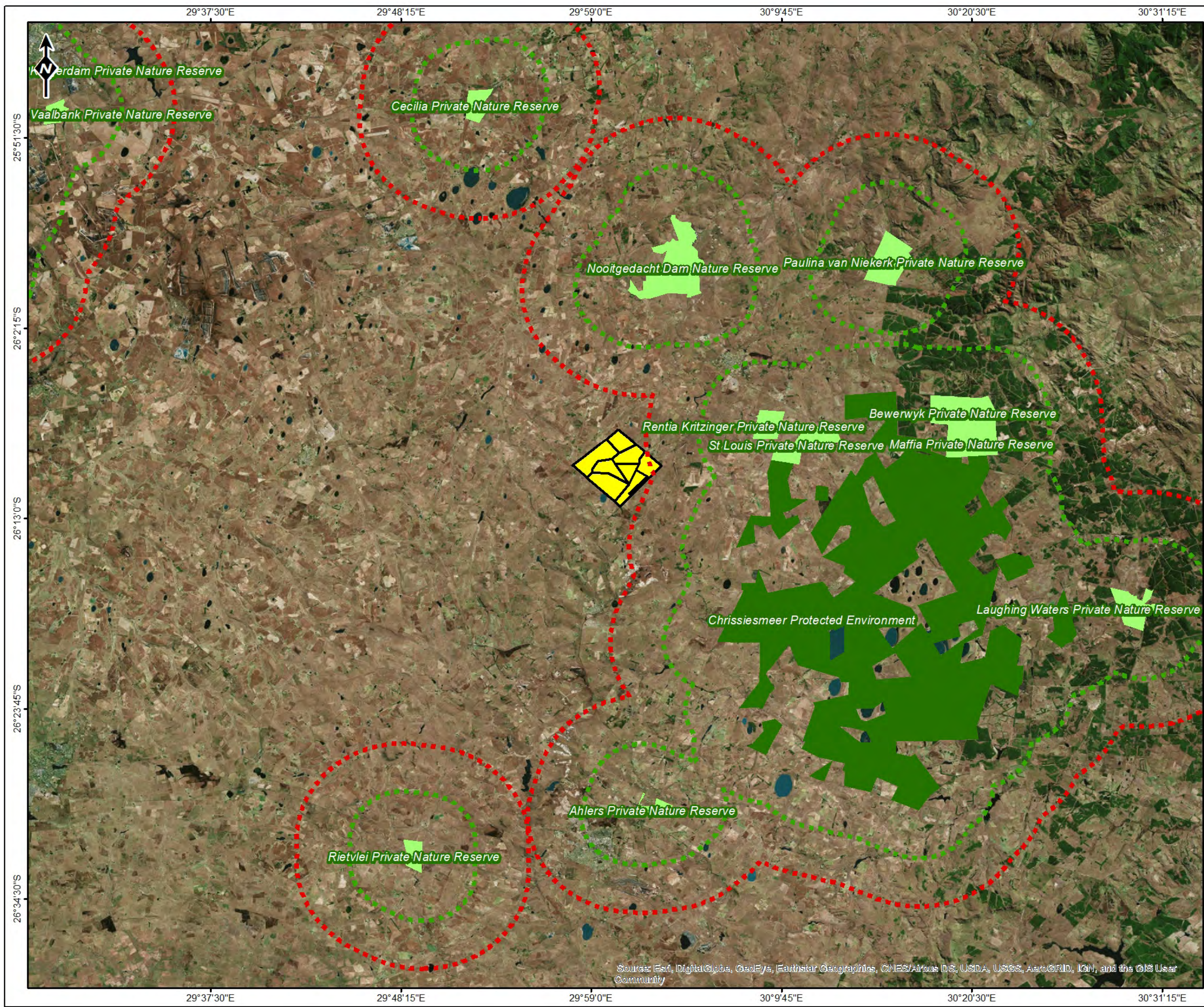
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Date: 2018/10/24








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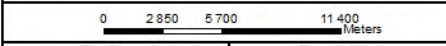


Kranspan MRA Project

Legend

-  5km Buffer
-  10km Buffer
-  Proposed Kranspan MRA
- PROTECTED AREAS**
-  Nature Reserve
-  Protected Environment

PROTECTED AREAS



Reviewed: P. Furniss Environmental Scientist	Drawn by: NH Cele GIS Specialist
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Coordinate System: GCS WGS 1984
Datum: WGS 1984

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















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Kranspan MRA Project

Legend

-  Haul Road
 -  Opencast
 -  Mine Infrastructure
 -  Farm Portions
 -  Proposed Kranspan MRA
- ROAD NETWORK**
-  Main Road
 -  Secondary Road
 -  Railway Line
- RIVERS & STREAMS**
-  Non-perennial
 -  Perennial
- LANDUSE**
-  Bare none vegetated
 -  Cultivated Fields
 -  Grassland
 -  Low shrubland
 -  Plantations
 -  Thicket /Dense bush
 -  Water Bodies
 -  Woodland/Open bush

LANDUSE

0 312.5 625 1250 Meters

Reviewed: P. Furniss Environmental Scientist	Drawn by: NH Cele GIS Specialist
Coordinate System: GCS WGS 1984 Datum: WGS 1984	

	Scale: 1:40 000
	Version: Final
	Date: 2018/10/24

