











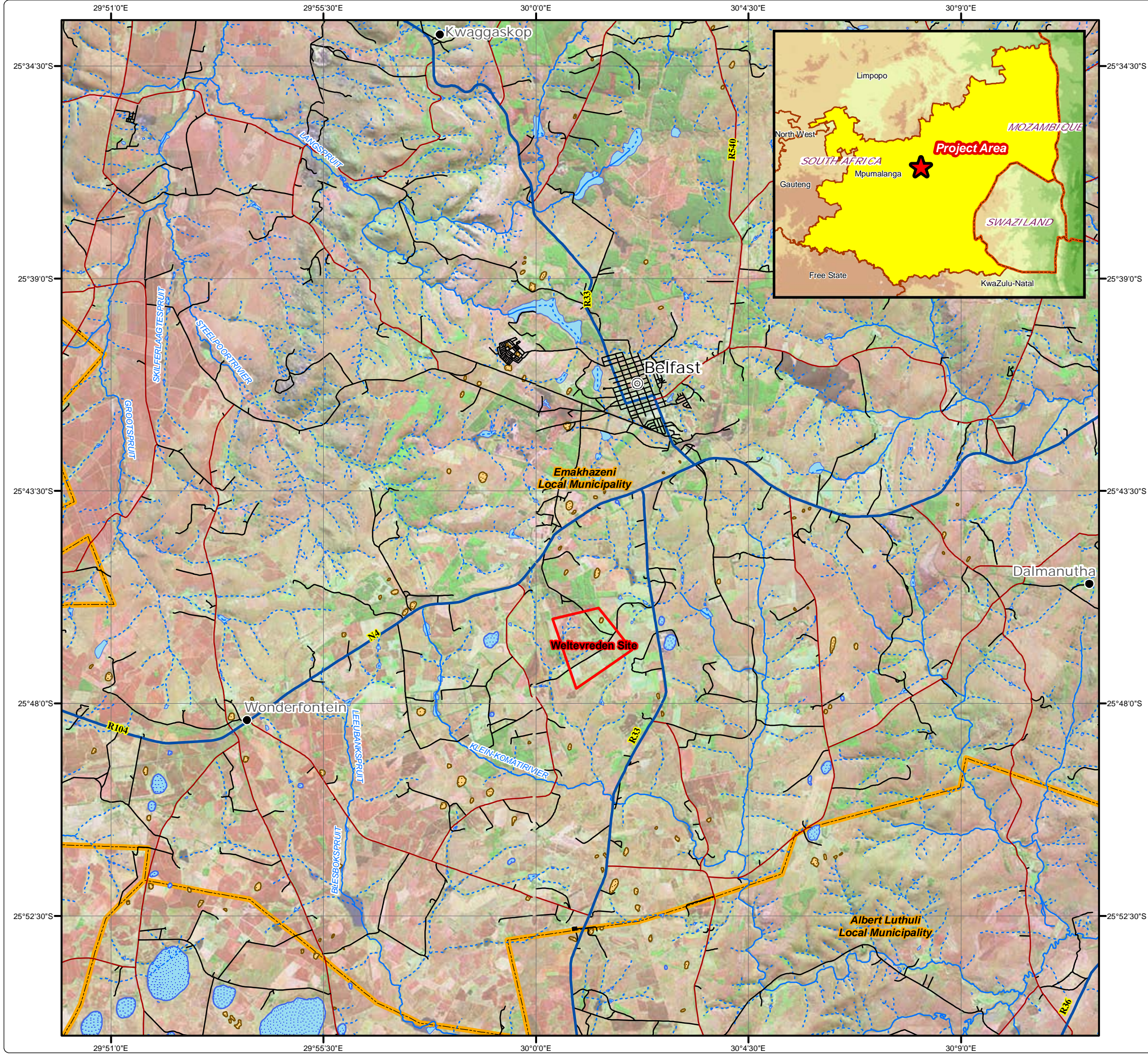


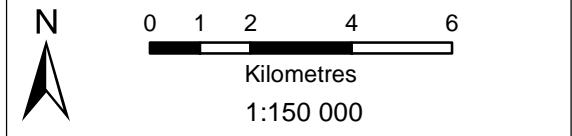
Northern Coal Weltevreden Regional Setting

Legend

-  Weltevreden Site
-  Secondary Town
-  Settlement
-  Arterial / National Route
-  Main Road
-  Minor Road
-  Perennial River
-  Non-Perennial River
-  Dam / Lake
-  Perennial Pan
-  Non-Perennial Pan
-  Local Municipal Boundary



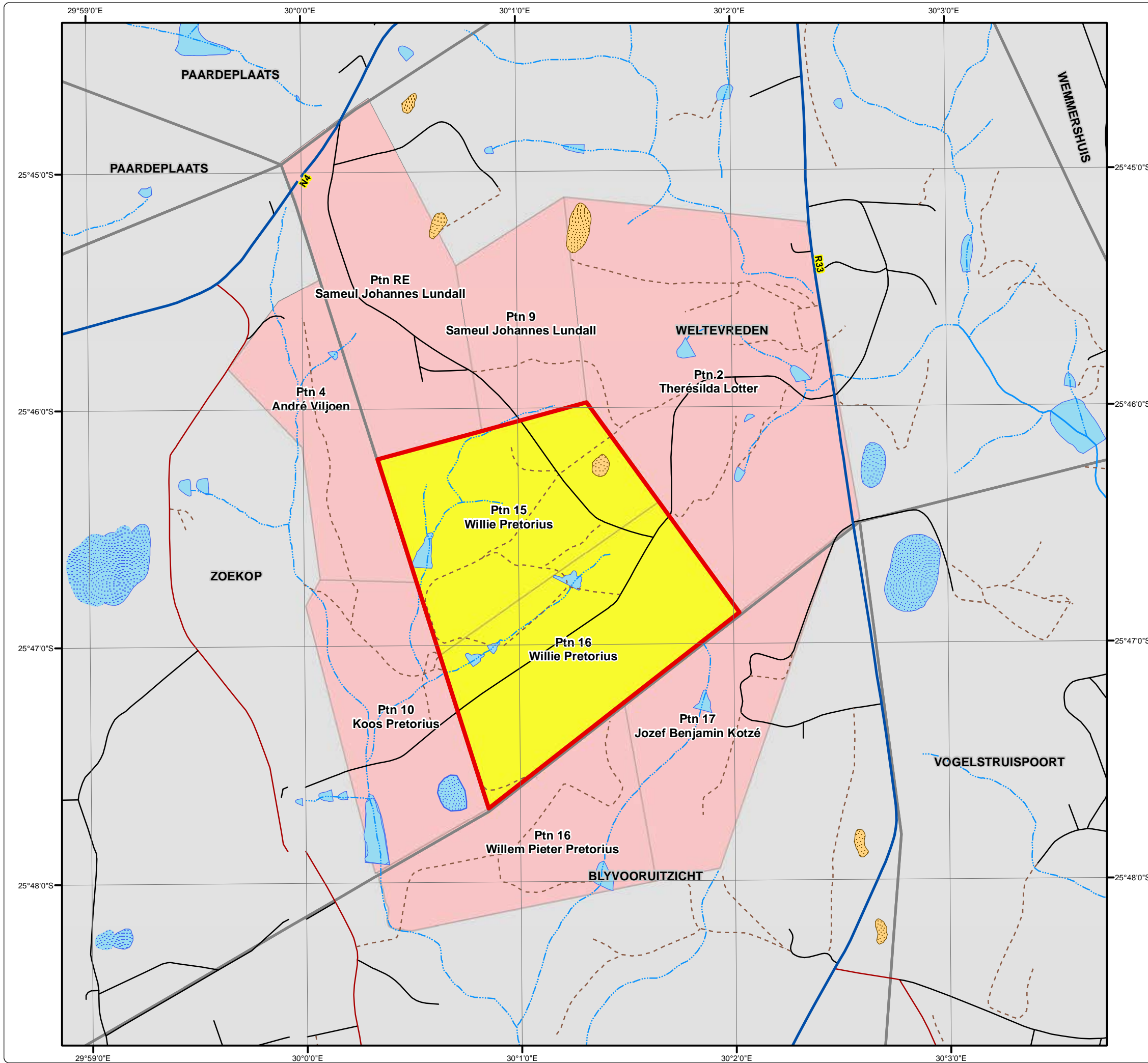
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 Ref #: mpi.NOR1982.201402.023
 Revision Number: 1
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Northern Coal Weltevreden Land Tenure

Legend

- Weltevreden Site
- Arterial / National Route
- Main Road
- Minor Road
- Tracks
- Perennial River
- Non-Perennial River
- Dam
- Perennial Pan
- Non-Perennial Pan
- Directly Affected Farm Portions
- Indirectly Affected Farm Portions
- Farm Boundary



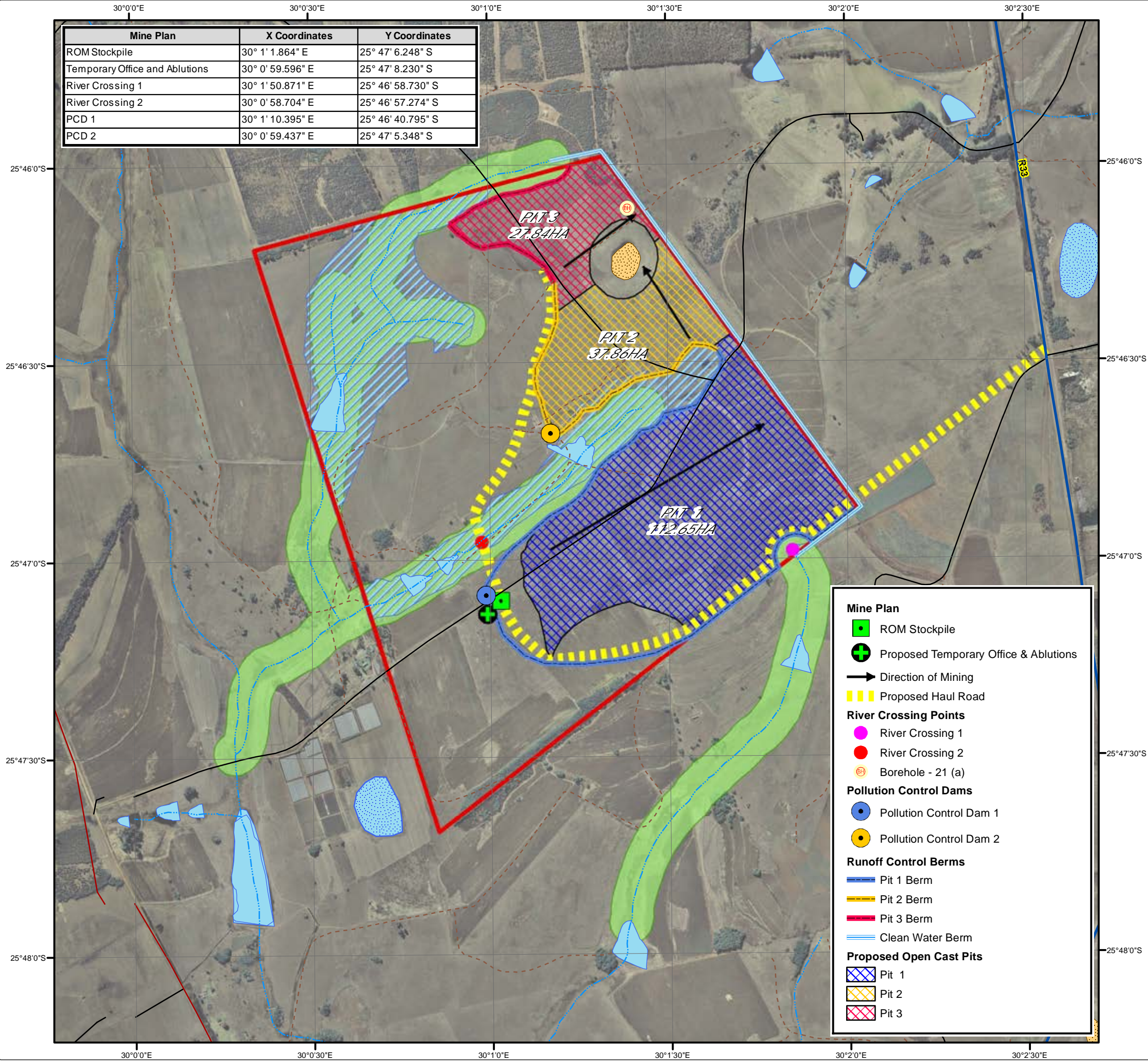
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Projection: Transverse Mercator Ref #: idp.NOR1982.201408.101
 Datum: WGS84 Revision Number: 1
 Central Meridian: 31°E Date: 20/08/2014



Northern Coal Weltevreden Conceptual Mine Plan


Mine Plan	X Coordinates	Y Coordinates
ROM Stockpile	30° 1' 1.864" E	25° 47' 6.248" S
Temporary Office and Ablutions	30° 0' 59.596" E	25° 47' 8.230" S
River Crossing 1	30° 1' 50.871" E	25° 46' 58.730" S
River Crossing 2	30° 0' 58.704" E	25° 46' 57.274" S
PCD 1	30° 1' 10.395" E	25° 46' 40.795" S
PCD 2	30° 0' 59.437" E	25° 47' 5.348" S



Legend

- Weltevreden Site
- Arterial / National Route
- Main Road
- Minor Road
- Tracks
- Perennial River
- Non-Perennial River
- Dam
- Perennial Pan
- Non-Perennial Pan
- 100m Buffer around Streams
- Approximate Floodplain


- ### Mine Plan
- ROM Stockpile
 - + Proposed Temporary Office & Ablutions
 - Direction of Mining
 - Proposed Haul Road
- ### River Crossing Points
- River Crossing 1
 - River Crossing 2
 - ⊕ Borehole - 21 (a)
- ### Pollution Control Dams
- Pollution Control Dam 1
 - Pollution Control Dam 2
- ### Runoff Control Berms
- Pit 1 Berm
 - Pit 2 Berm
 - Pit 3 Berm
 - Clean Water Berm
- ### Proposed Open Cast Pits
- Pit 1
 - Pit 2
 - Pit 3



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0 0.25 0.5 1

Kilometres

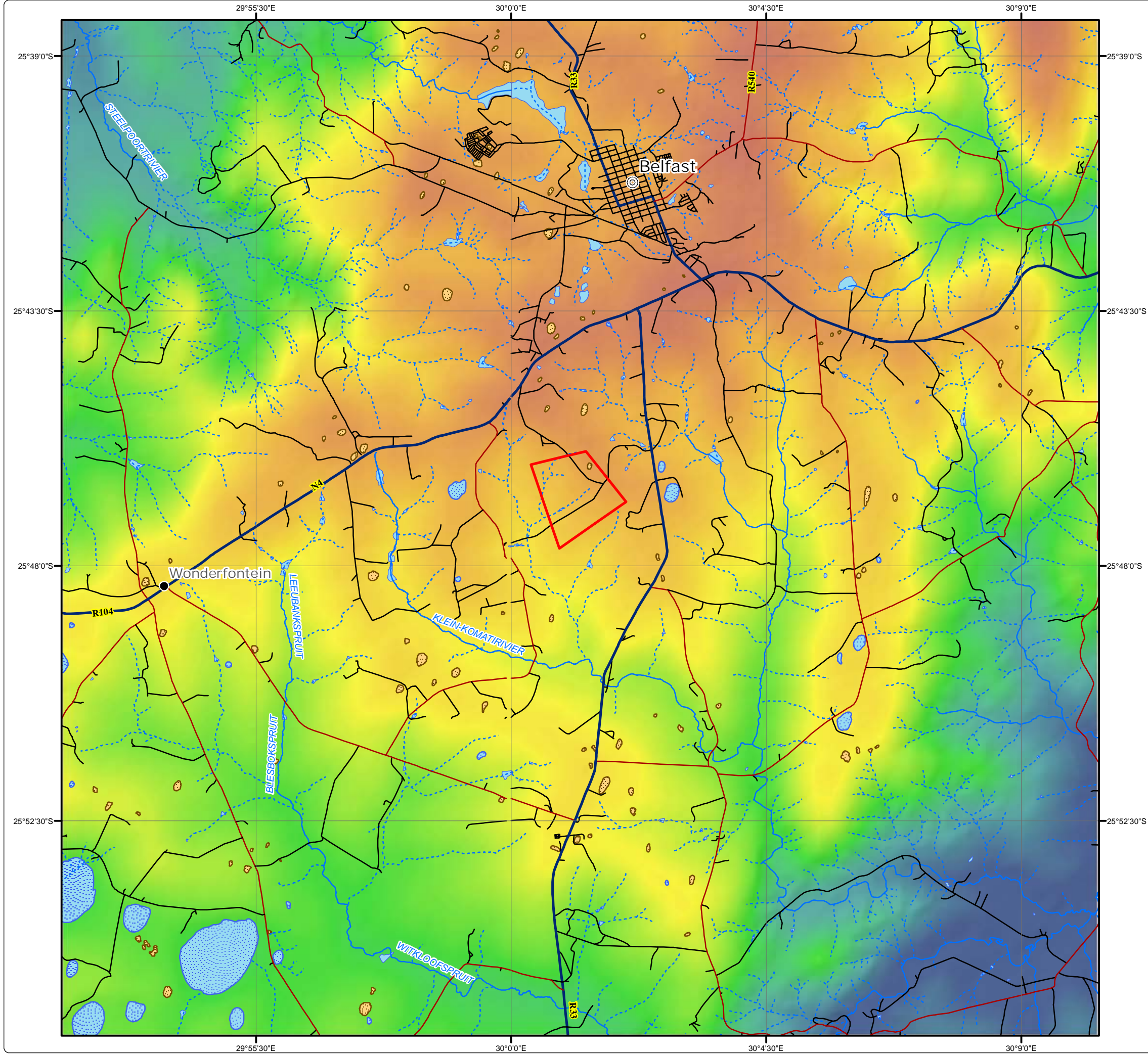
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Northern Coal Weltevreden Topography Model

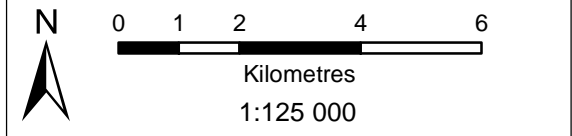
Legend

- Weltevreden Site
 - Secondary Town
 - Settlement
 - Arterial / National Route
 - Main Road
 - Minor Road
 - Perennial River
 - Non-Perennial River
 - Dam / Lake
 - Perennial Pan
 - Non-Perennial Pan
- Elevation Model (m.a.m.s.l)**
- High : 1940
- 
- Low : 1469



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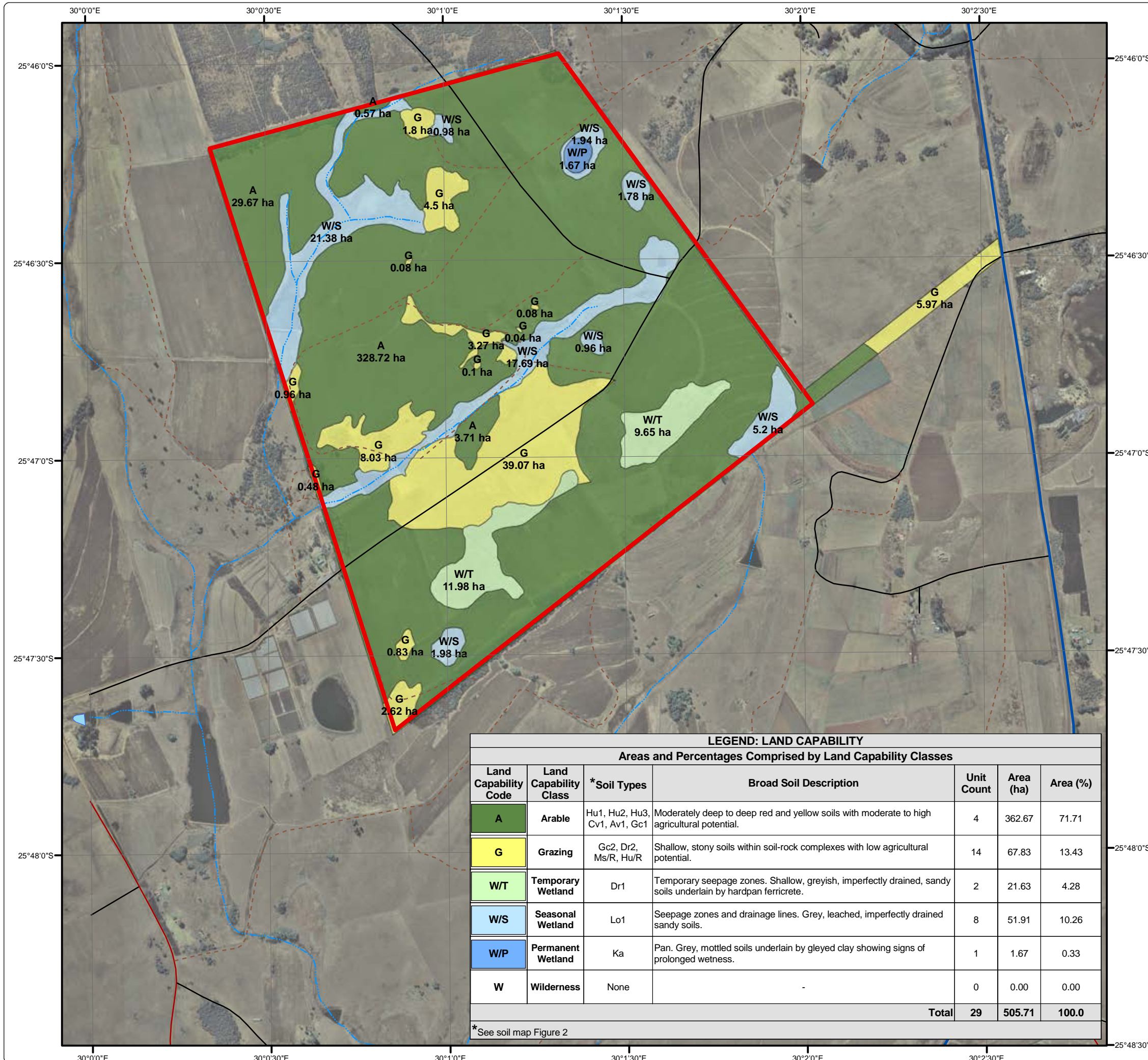
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Northern Coal Weltevreden Land Capability

Legend

- Weltevreden Site
- Arterial / National Route
- Main Road
- Minor Road
- Tracks
- Perennial River
- Non-Perennial River



LEGEND: LAND CAPABILITY

Areas and Percentages Comprised by Land Capability Classes

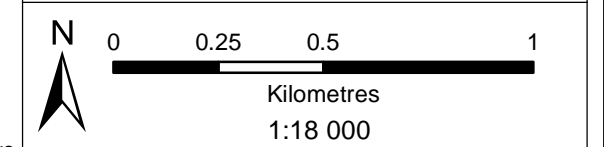
Land Capability Code	Land Capability Class	*Soil Types	Broad Soil Description	Unit Count	Area (ha)	Area (%)
A	Arable	Hu1, Hu2, Hu3, Cv1, Av1, Gc1	Moderately deep to deep red and yellow soils with moderate to high agricultural potential.	4	362.67	71.71
G	Grazing	Gc2, Dr2, Ms/R, Hu/R	Shallow, stony soils within soil-rock complexes with low agricultural potential.	14	67.83	13.43
W/T	Temporary Wetland	Dr1	Temporary seepage zones. Shallow, greyish, imperfectly drained, sandy soils underlain by hardpan ferricrete.	2	21.63	4.28
W/S	Seasonal Wetland	Lo1	Seepage zones and drainage lines. Grey, leached, imperfectly drained sandy soils.	8	51.91	10.26
W/P	Permanent Wetland	Ka	Pan. Grey, mottled soils underlain by gleyed clay showing signs of prolonged wetness.	1	1.67	0.33
W	Wilderness	None	-	0	0.00	0.00
Total				29	505.71	100.0

*See soil map Figure 2



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Northern Coal Weltevreden Vegetation Types



Legend

- Weltevreden Site
- Arterial / National Route
- Main Road
- Minor Road
- Tracks
- Perennial River
- Non-Perennial River
- Dam
- Perennial Pan
- Non-Perennial Pan

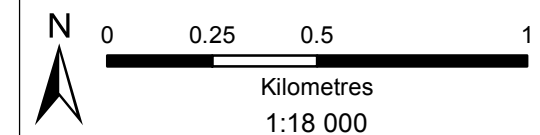
Vegetation Delineation

- Agricultural Area
- Agrostis - Imperata Seep
- Eucalyptus - Pinus Alien Woodland
- Hydromorphic Grassland
- Hyparrhenia – Tristachya Grassland
- Juncus Effusus Pan / Depression
- Themeda Triandra Rocky Grassland













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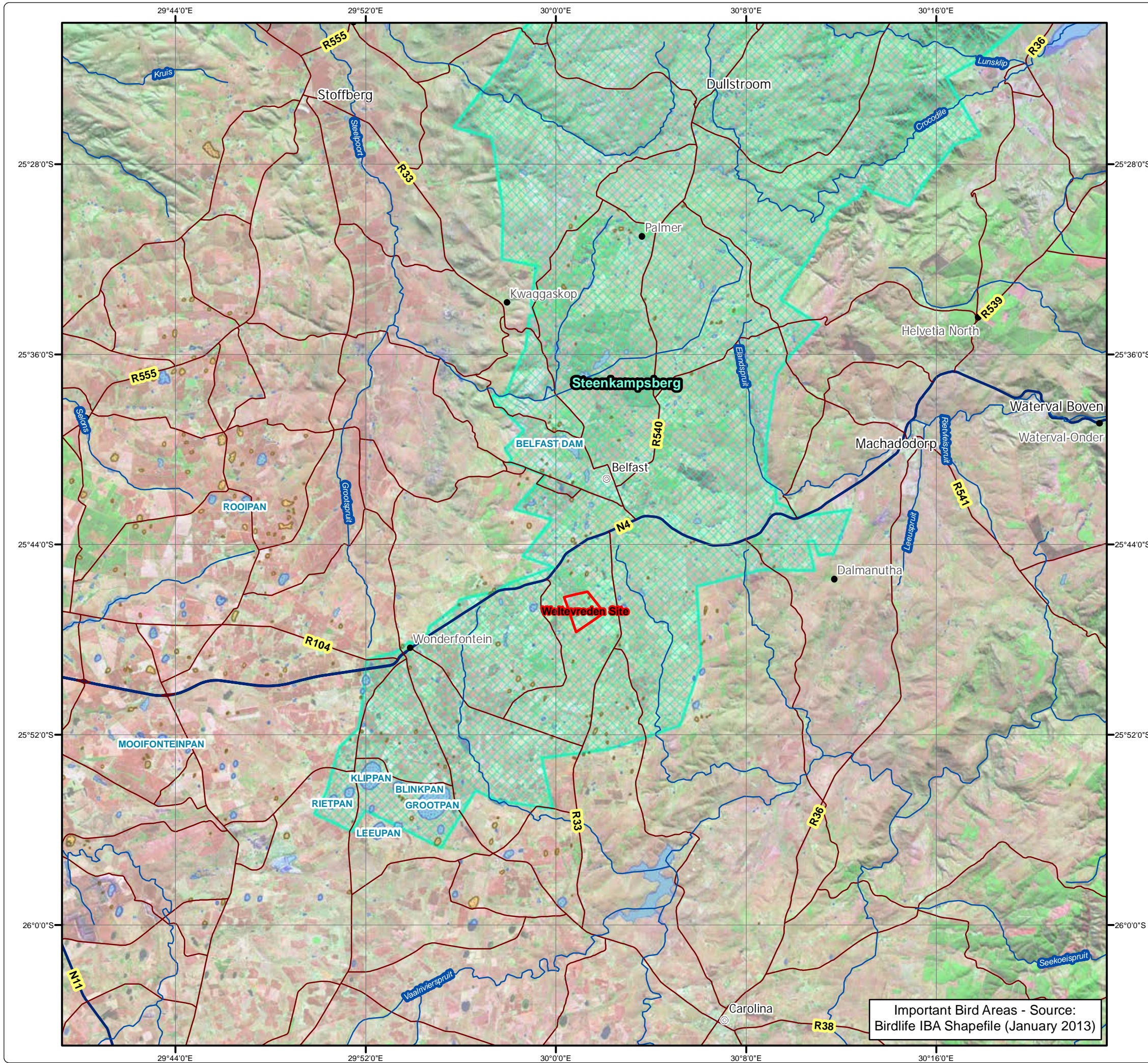
Projection: Transverse Mercator Ref #.idp.NOR1982.201408.105
 Datum: WGS84 Revision Number: 1
 Central Meridian: 31°E Date: 20/08/2014



Northern Coal Weltevreden Important Bird Areas

Legend

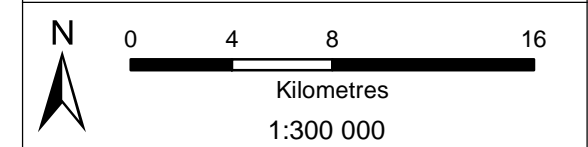
-  Weltevreden Site
-  Secondary Town
-  Settlement
-  Main Roads
-  National Roads
-  Rivers
-  Dam / Lake
-  Perennial Pan
-  Non-Perennial Pan
-  Important Bird Areas



Important Bird Areas - Source:
Birdlife IBA Shapefile (January 2013)













Projection: Geographic Datum: WGS84
 Ref #.idp.NOR1982.201408.105
 Revision Number: 1
 Date: 20/08/2014




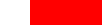


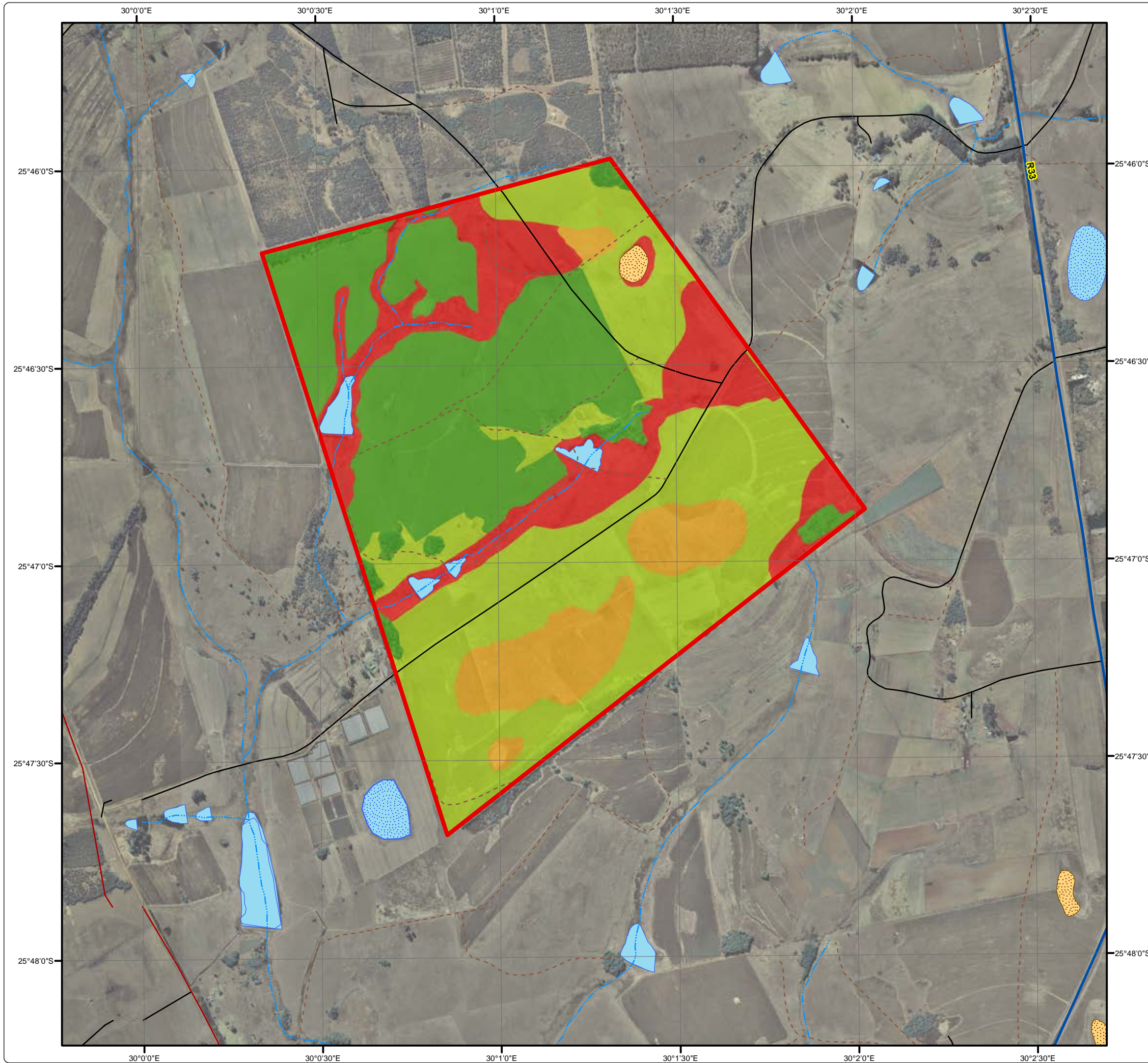
Northern Coal Weltevreden Habitat Sensitivity

Legend

-  Weltevreden Site
-  Arterial / National Route
-  Main Road
-  Minor Road
-  Tracks
-  Perennial River
-  Non-Perennial River
-  Dam
-  Perennial Pan
-  Non-Perennial Pan

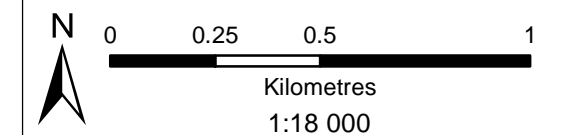
Habitat Sensitivity

-  Low
-  Medium
-  High
-  Very High

















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 Datum: WGS84 Revision Number: 1
 Central Meridian: 31°E Date: 20/08/2014



Northern Coal Weltevreden Quaternary Catchment and Water Users

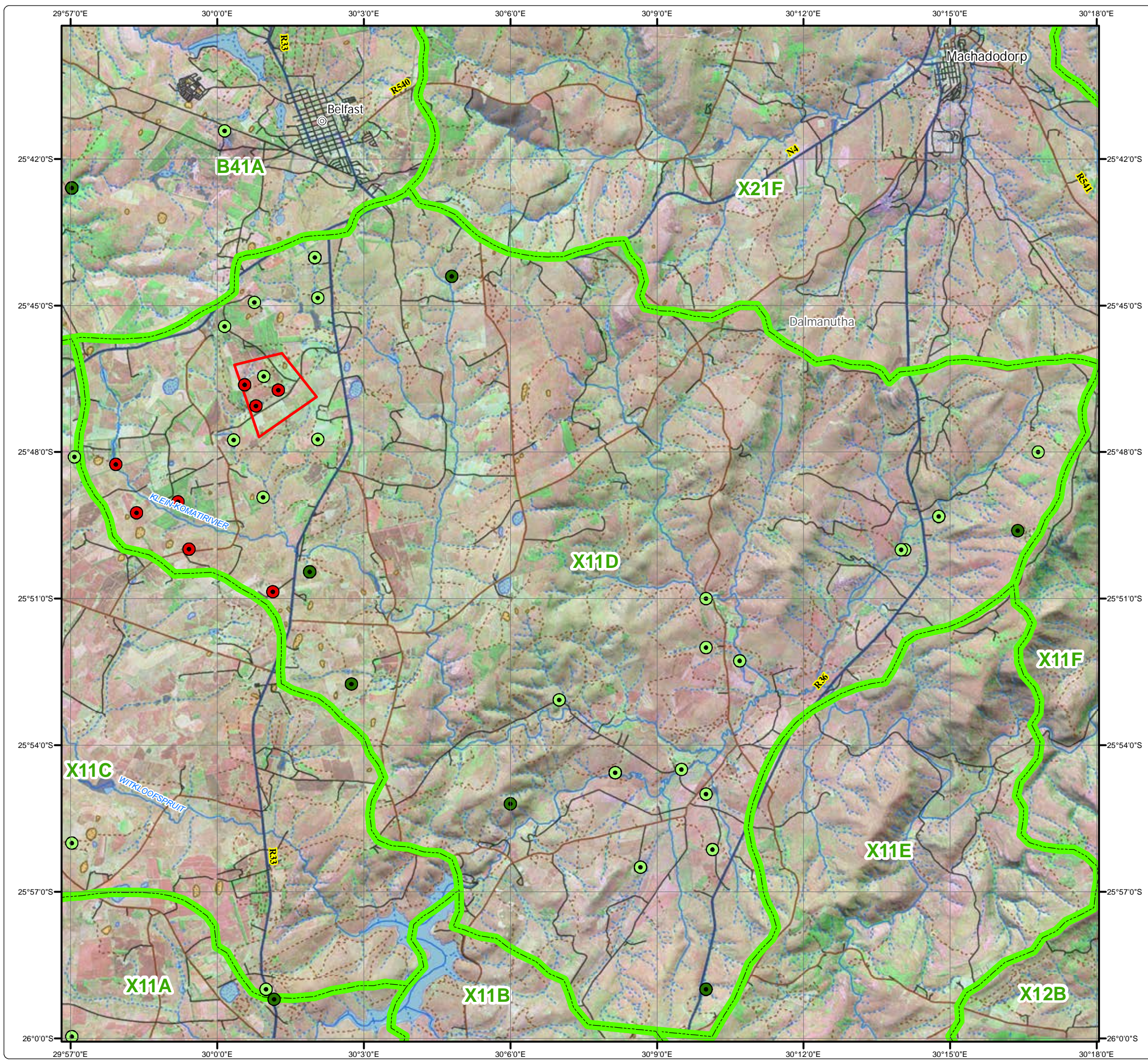
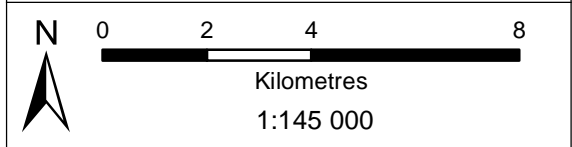
Legend

-  Weltevreden Site
 -  Secondary Town
 -  Arterial / National Route
 -  Main Road
 -  Minor Road
 -  Tracks
 -  Perennial River
 -  Non-Perennial River
 -  Dam / Lake
 -  Perennial Pan
 -  Non-Perennial Pan
- Water Users**
-  Agriculture: Irrigation
 -  Agriculture: Watering Livestock
 -  Mining



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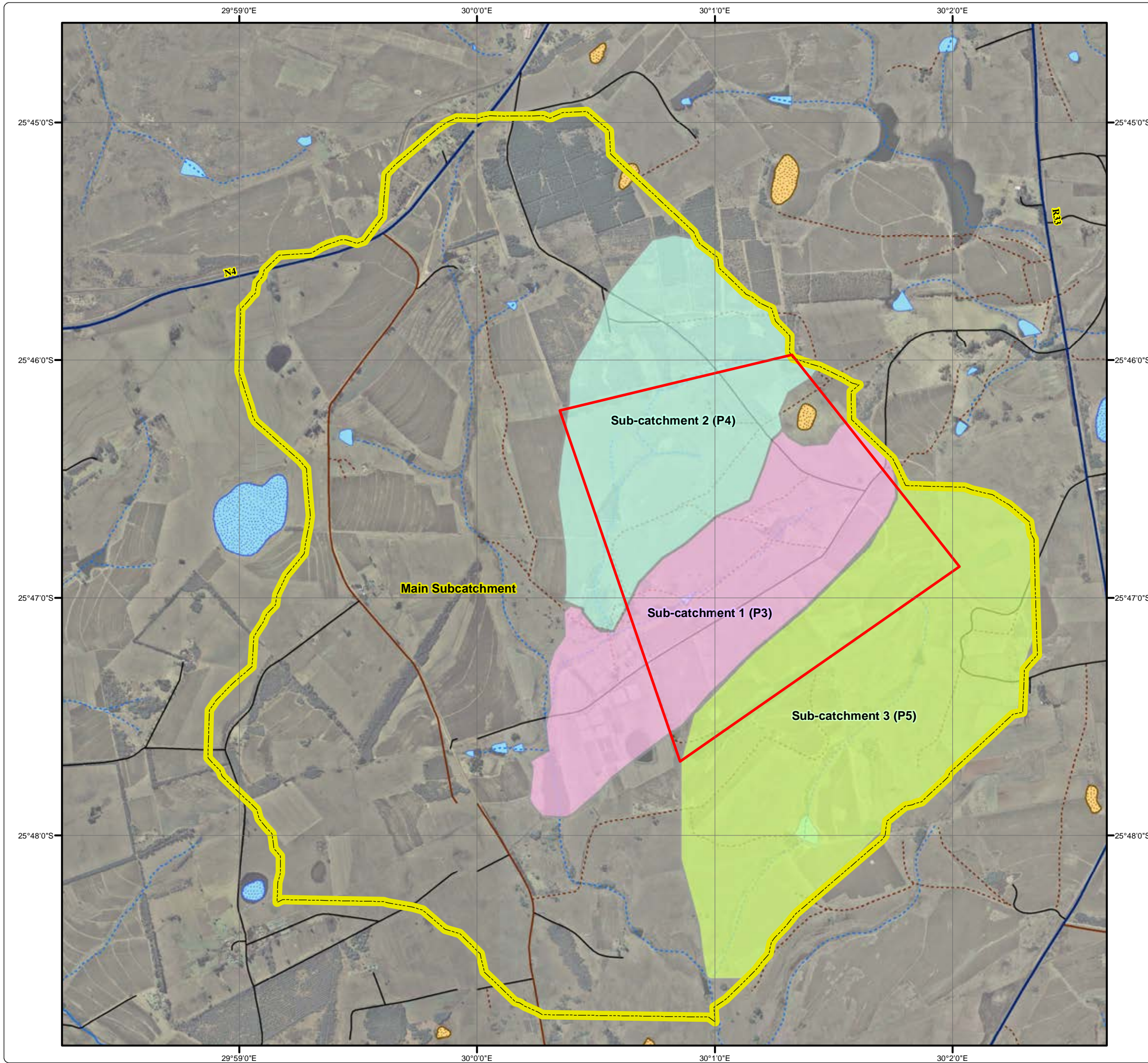
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Northern Coal Weltevreden Project Sub-Catchments

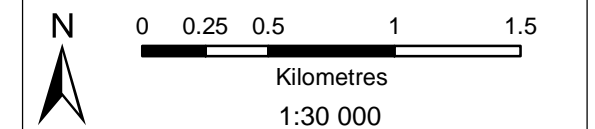
Legend

- ⊙ Secondary Town
- Weltevreden Site
- Arterial / National Route
- Main Road
- Minor Road
- Tracks
- Perennial River
- Non-Perennial River
- Dam / Lake
- Perennial Pan
- Non-Perennial Pan
- Main Subcatchment
- Sub-catchment 1 (P3)
- Sub-catchment 2 (P4)
- Sub-catchment 3 (P5)



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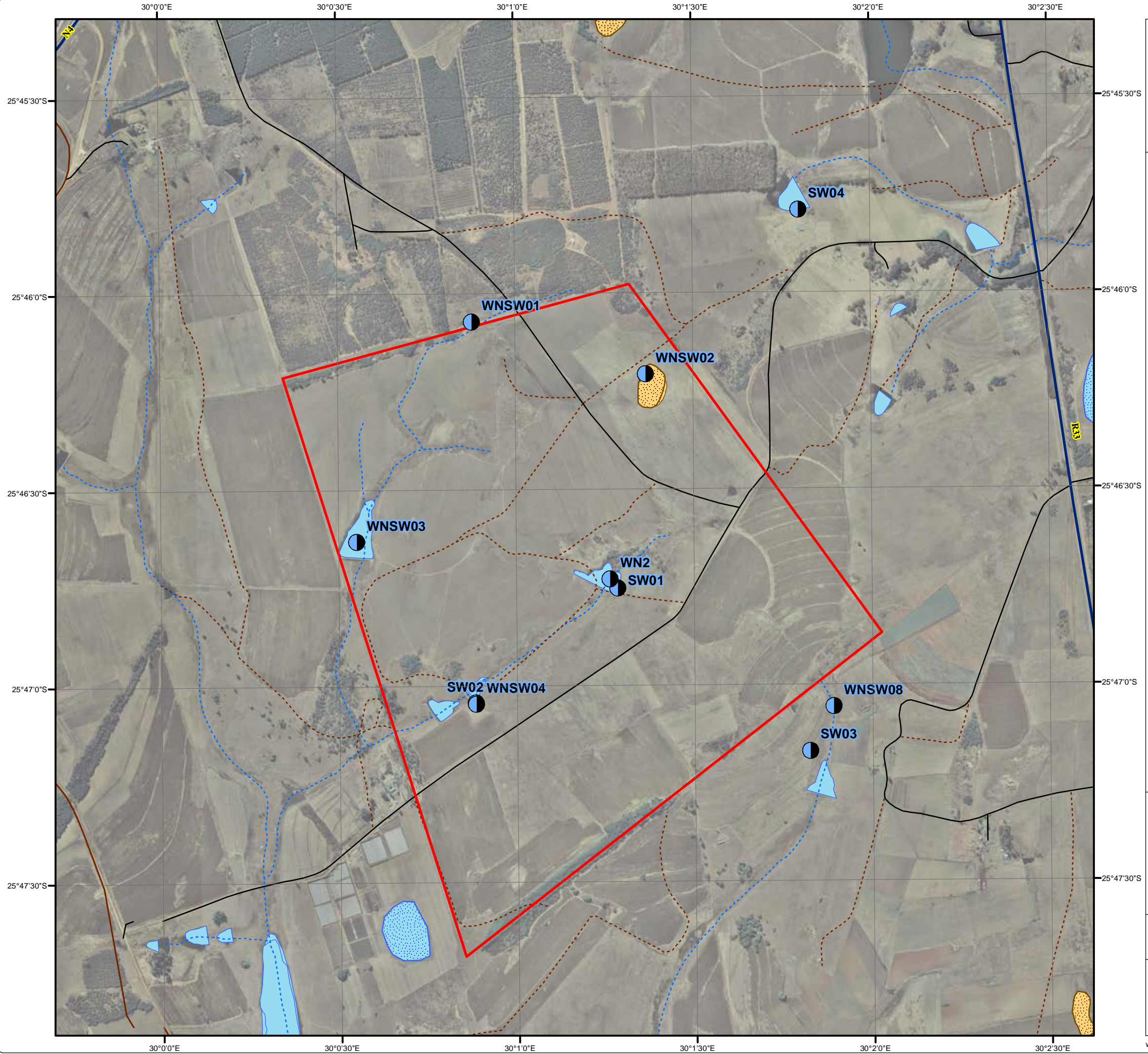
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Datum: WGS84	Revision Number: 1
Central Meridian: 31°E	Date: 23/07/2014



Northern Coal Weltevreden Surface Water Sampling Locations

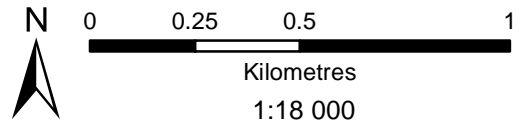
Legend

- Weltevreden Site
- Surface Water Sampling Points
- Secondary Town
- Arterial / National Route
- Main Road
- Minor Road
- Tracks
- Perennial River
- Non-Perennial River
- Dam / Lake
- Perennial Pan
- Non-Perennial Pan
















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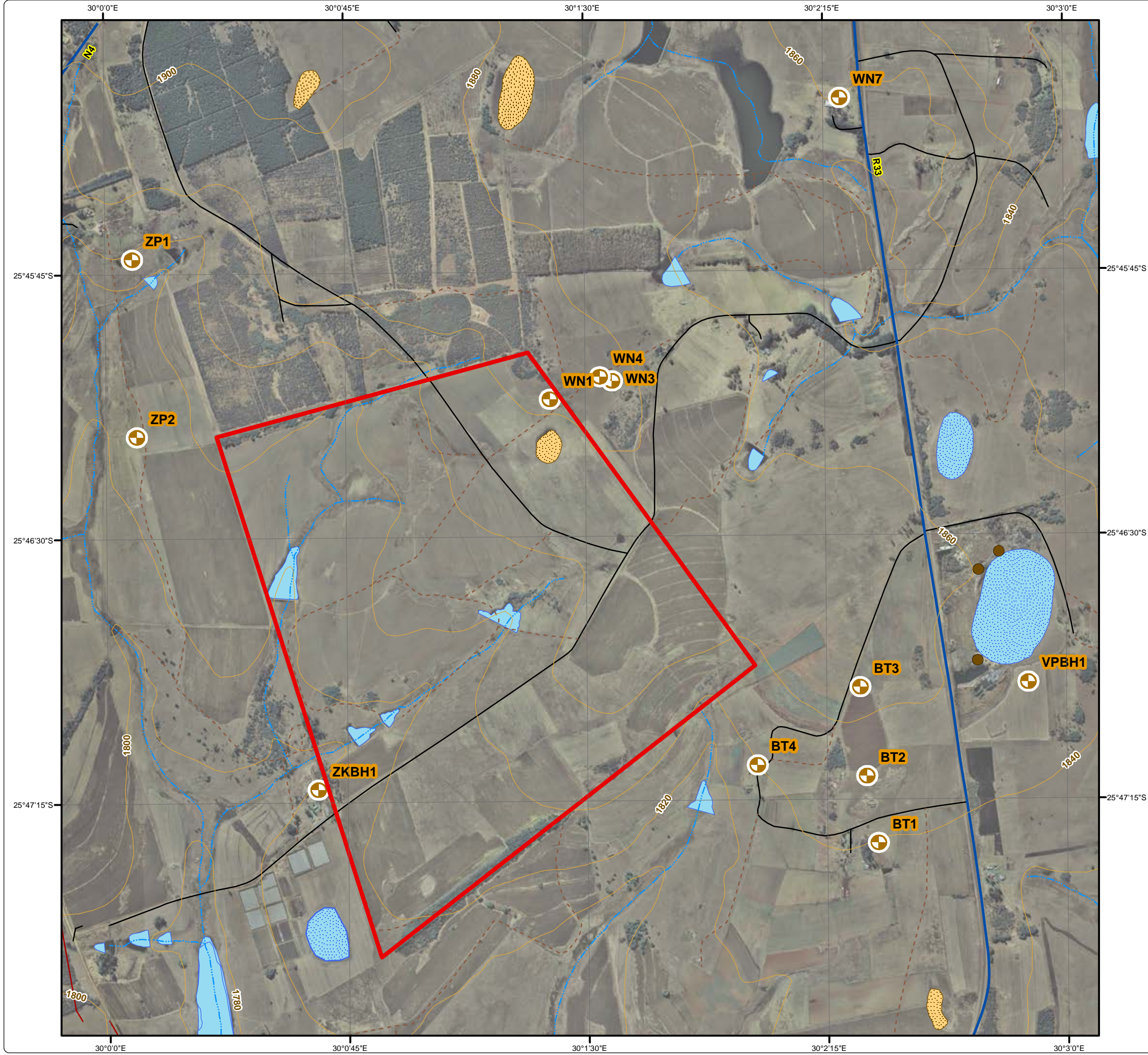
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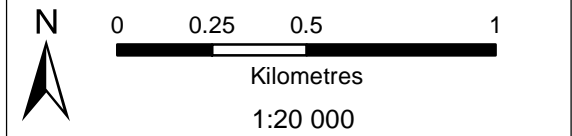
Northern Coal Weltevreden Hydrocensus Borehole

Legend

-  Weltevreden Site
-  Soil Sampling
-  Hydrocensus Borehole Location
-  Contours 20m
-  Arterial / National Route
-  Main Road
-  Minor Road
-  Tracks
-  Perennial River
-  Non-Perennial River
-  Dam
-  Perennial Pan
-  Non-Perennial Pan




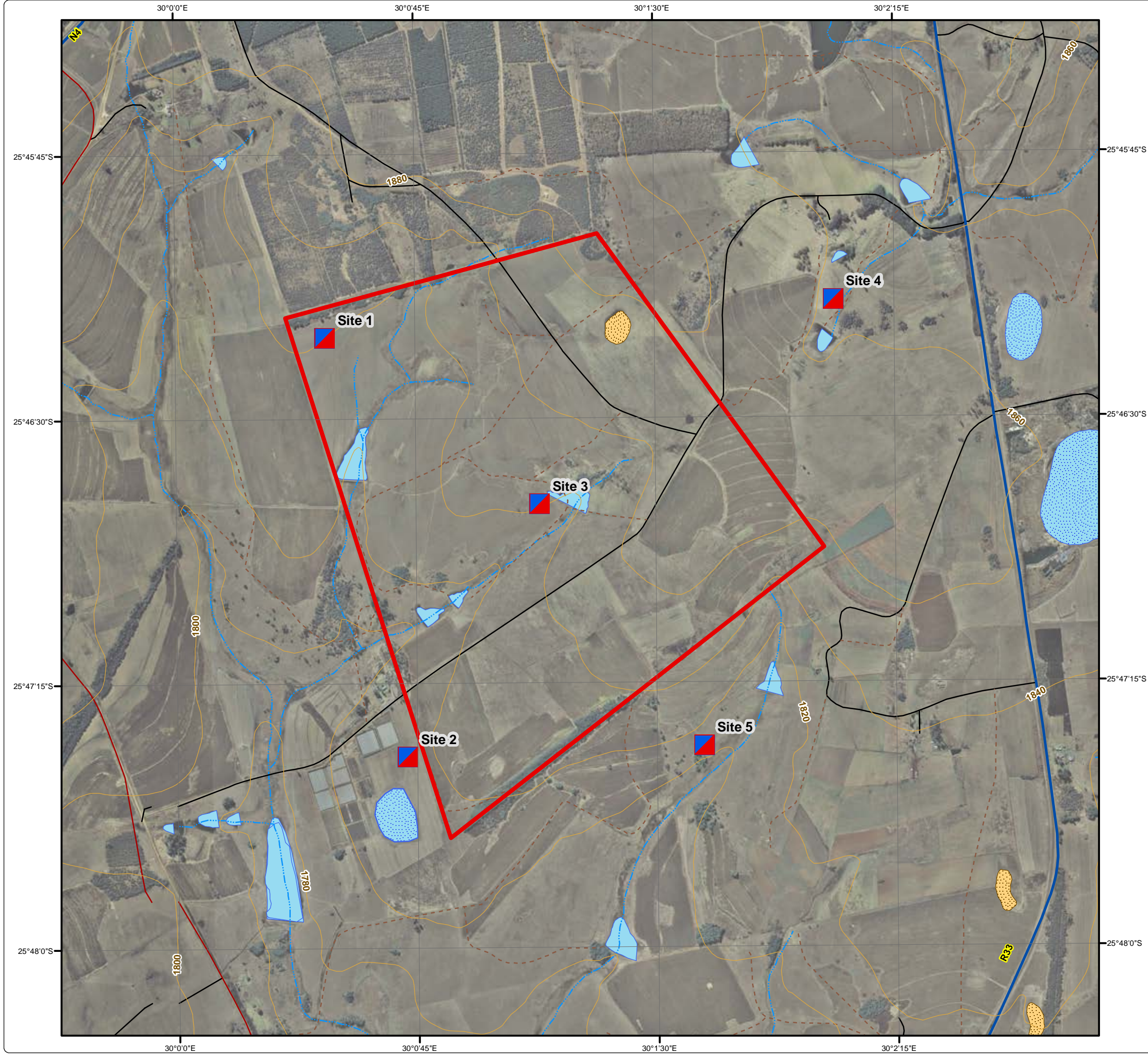
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Northern Coal Weltevreden Dust Monitoring

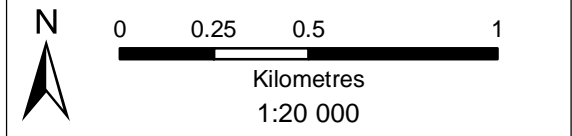
Legend

-  Weltevreden Site
-  Dust Monitoring Locations
-  Contours 20m
-  Arterial / National Route
-  Main Road
-  Minor Road
-  Tracks
-  Perennial River
-  Non-Perennial River
-  Dam
-  Perennial Pan
-  Non-Perennial Pan















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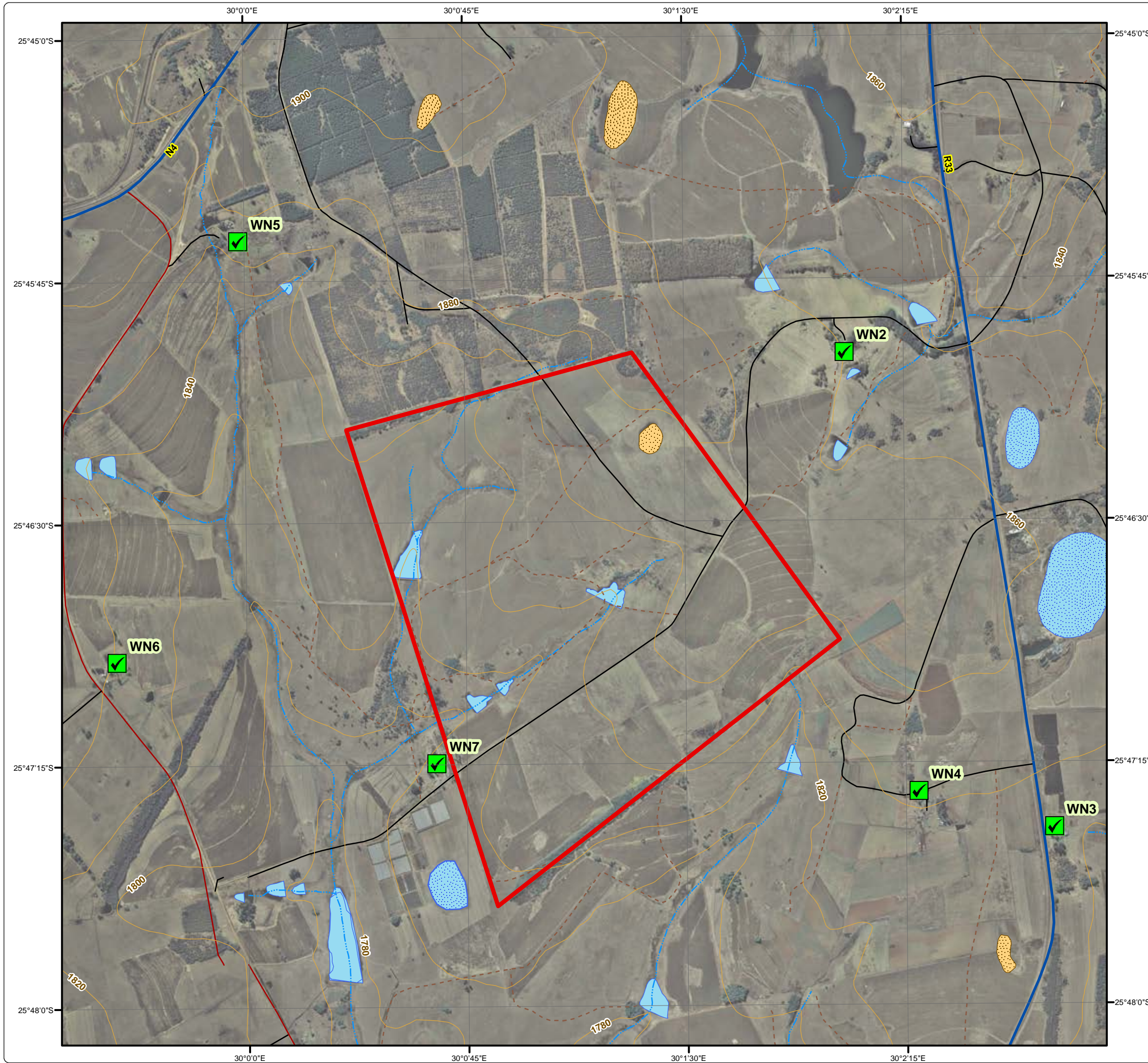
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Northern Coal Weltevreden Noise Sampling Locations

Legend

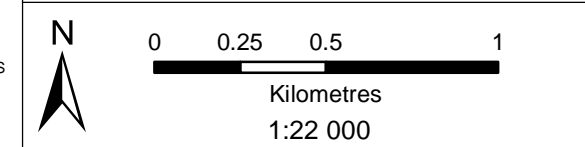
-  Weltevreden Site
-  Noise Sampling Locations
-  Contours 20m
-  Arterial / National Route
-  Main Road
-  Minor Road
-  Tracks
-  Perennial River
-  Non-Perennial River
-  Dam
-  Perennial Pan
-  Non-Perennial Pan




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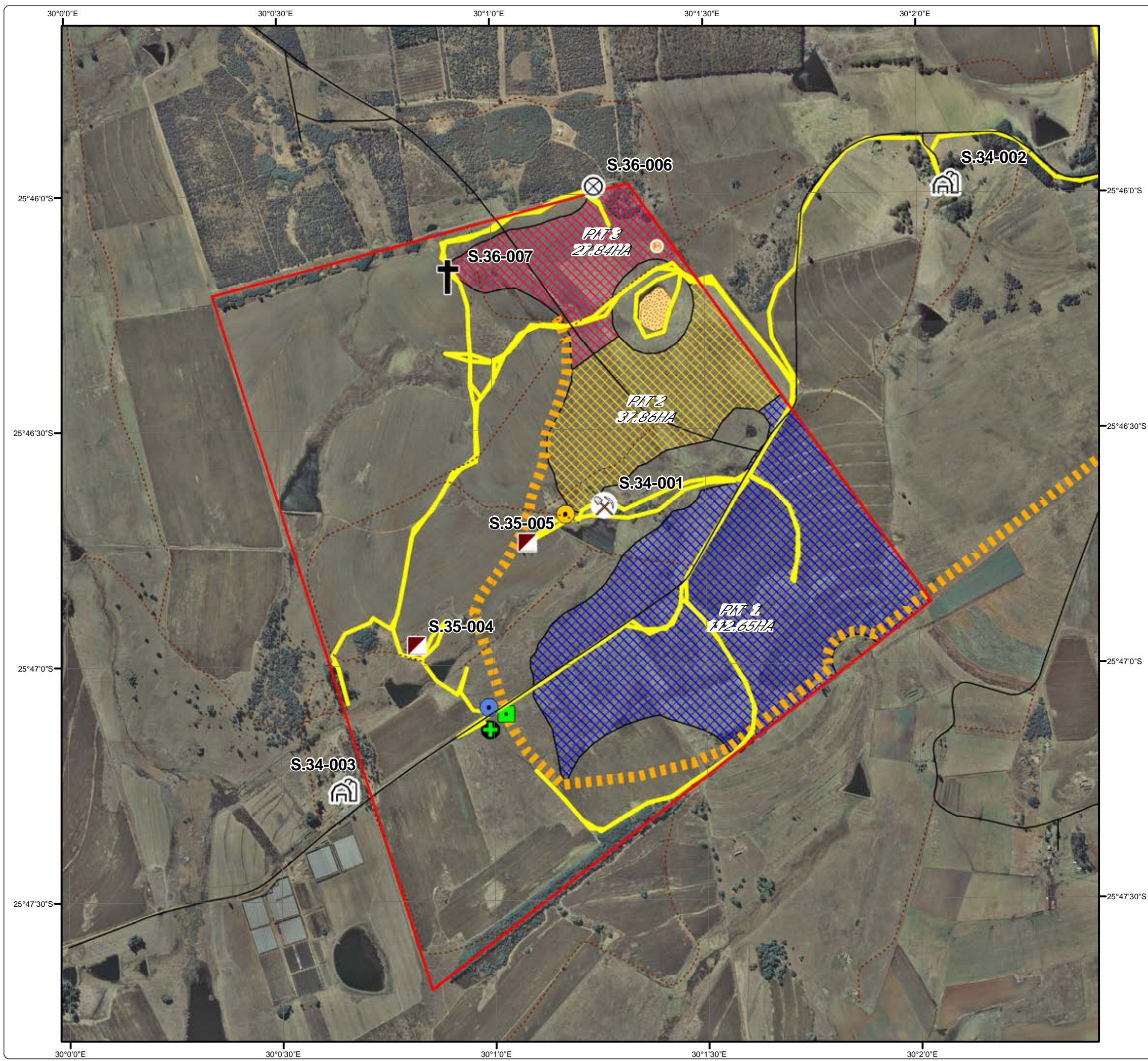
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 Central Meridian: 31°E Date: 21/08/2014



Northern Coal Weltevreden Identified Heritage Resources

Legend

- Weltevreden Site
- Main Road
- Minor Road
- Tracks
- Dam / Lake
- Perennial Pan
- Non-Perennial Pan
- Mine Plan**
 - Pollution Control Dam 1
 - Pollution Control Dam 2
 - Borehole - 21 (a)
 - ROM Stockpile
 - Proposed Temporary Office & Ablutions
 - Proposed Haul Road
 - Pit 1
 - Pit 2
 - Pit 3
- Identified Heritage Resources**
 - Burial Ground
 - Historical Farmstead
 - Historical Mine Shaft
 - Potential Grave
 - Stone Walled Enclosure
 - Site Visit Tracks



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