Redbank Operations Pty. Ltd.

Redbank Exploration Project NT
25k Geological Map Series

RKP-Redbank Prospect

Geographic Information Systems

A geographic information system (GIS) is a computer system for capturing, storing, checking, and displaying data related to positions on Earth's surface.

RKP-Redbank Prospect
1,632.99 km2

Geological mapping is fundamental to any exploration project.
Effective mineral exploration requires an in-depth understanding of the lithological and structural controls of mineralisation.
These insights must be gained through geological mapping at the early stages of the exploration program.
Mapping is a cost-effective exploration tool and a project-generative process that delivers tangible benefits to all exploration programs.
A good geological map not only provides focus to an exploration program, it also clearly communicates the economic potential of a project to stake holders.
Geologists strive to know the composition and structure of Earth matter and depict information in GIS format.
This provides basis for comparisons and facilitates analysis to offer results that can benefit our future.

The Redbank GIS team are currently focused around the area of Digital Mapping.
We understand that at the heart of any Geographical Information System (GIS) is the map database.
The efficiency of the GIS is therefore related to the accuracy and reliability of the related map data.

MAP DIGITALGIS.com
Cartographic GIS Excellence

SCP
Spring Creek
Prospect

RNP
Robinson North
Prospect

CNP
Calvert North
Prospect

RBP
Redbank North
Prospect

CRP
Crown
Prospect

RSP
Robinson South
Prospect

RKP
Redbank
Prospect

CSP
Calvert South
Prospect

WGP
Wollogorang
Prospect

**RKP
Redbank Prospect**

Redbank Operations Pty. Ltd.
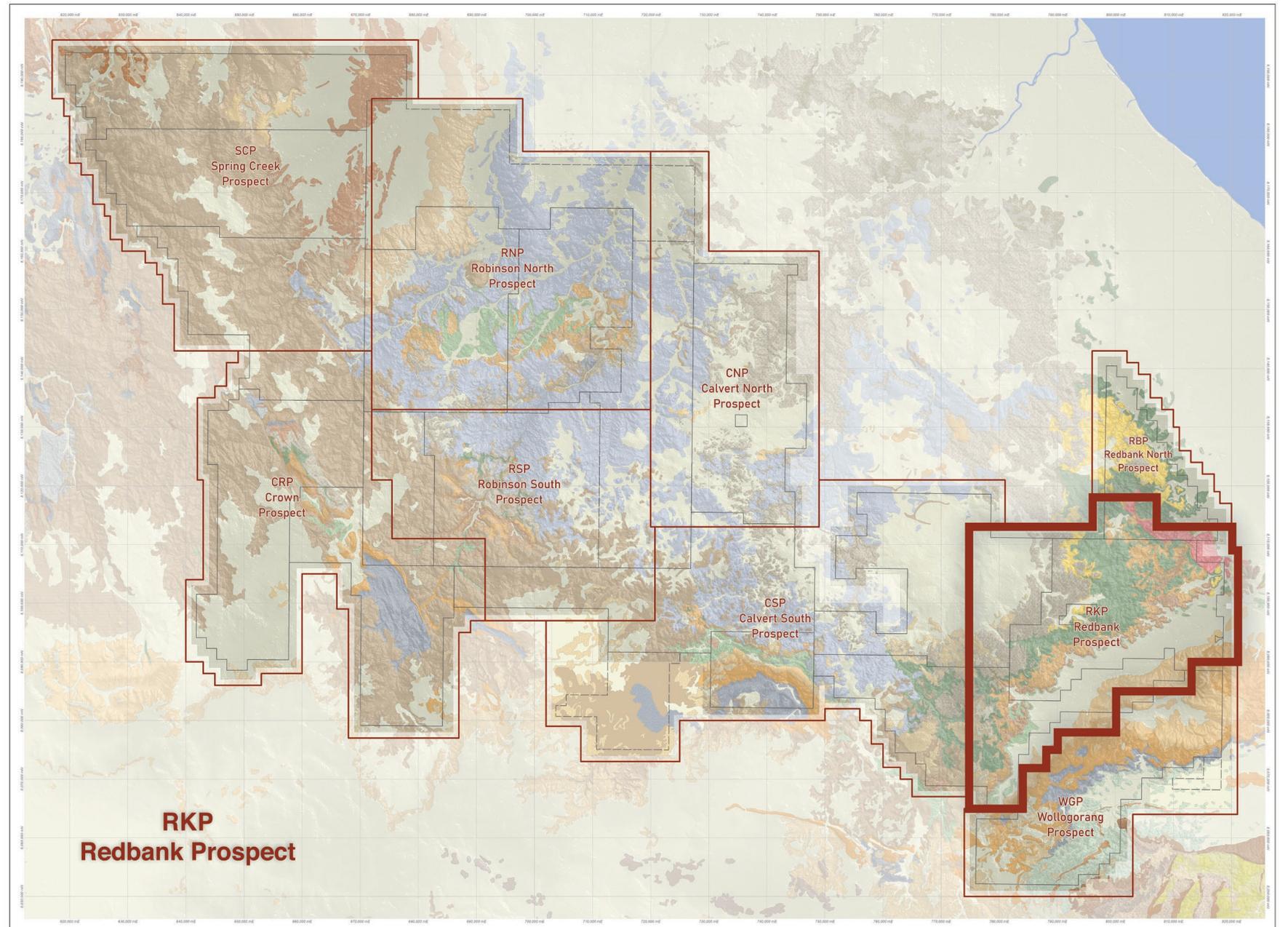
Redbank Exploration Project NT
25k Geological Map Series
RKP-Redbank Prospect
Contents – GIS Layers & Images

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Datamine
MapInfo Pro
Discover

Redbank Operations Pty. Ltd.

Redbank Exploration Project NT
25k Geological Map Series
RKP-Redbank Prospect
Exploration Licences

The RKP-Redbank Prospect covers several exploration licences, the mapping has included a 2km buffer zone around the RKP-Exploration Licence area

- Granted
- Production
- Application

RKP
Redbank Prospect

MAP DIGITAL GIS.com
Cartographic GIS Excellence

EL24654

EL32323

EL32715

EL32325

EL32324

EL32807
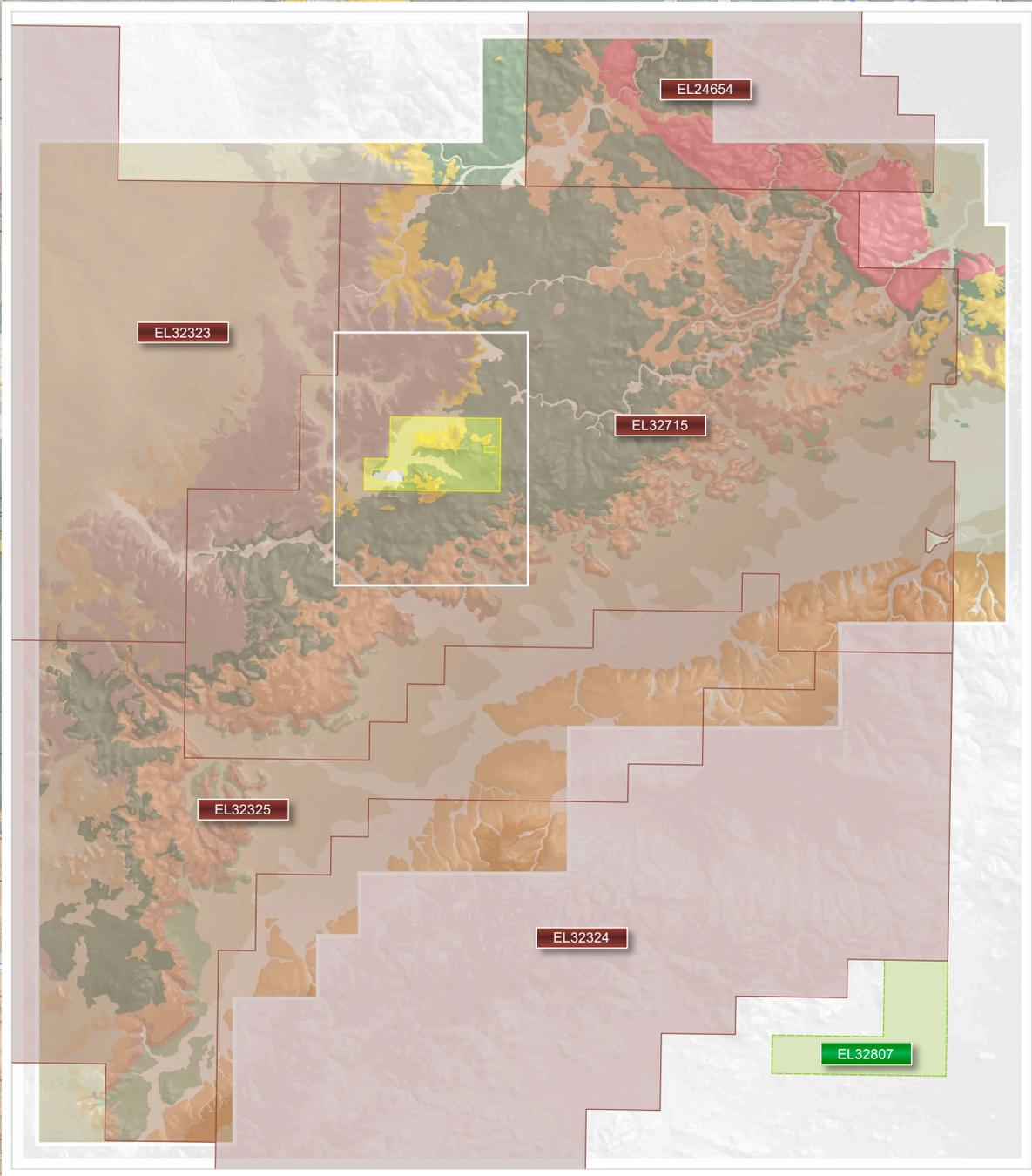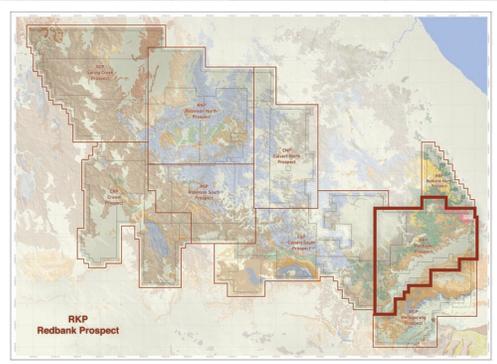
25k-Geological Map Series
Exploration Licences

Insert Map

MLN634

MLN635

Sandy Flat

ELR94

Datamine
MapInfo Pro
Discover

Redbank Operations Pty. Ltd.
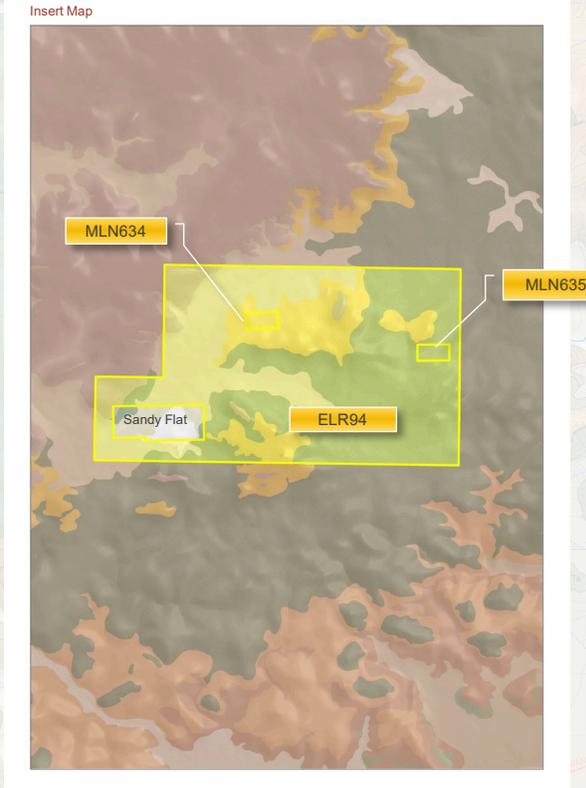
Redbank Exploration Project NT
25k Geological Map Series
RKP-Redbank Prospect
Geological Map

The RKP-Redbank Prospect has now been totally digitised and has been placed on our server.
This map has a very high level of detail including Geology, Satellite Imagery, Hydrology, Topography and DEM.

RKP
Redbank Prospect

MAP DIGITALGIS.com
Cartographic GIS Excellence
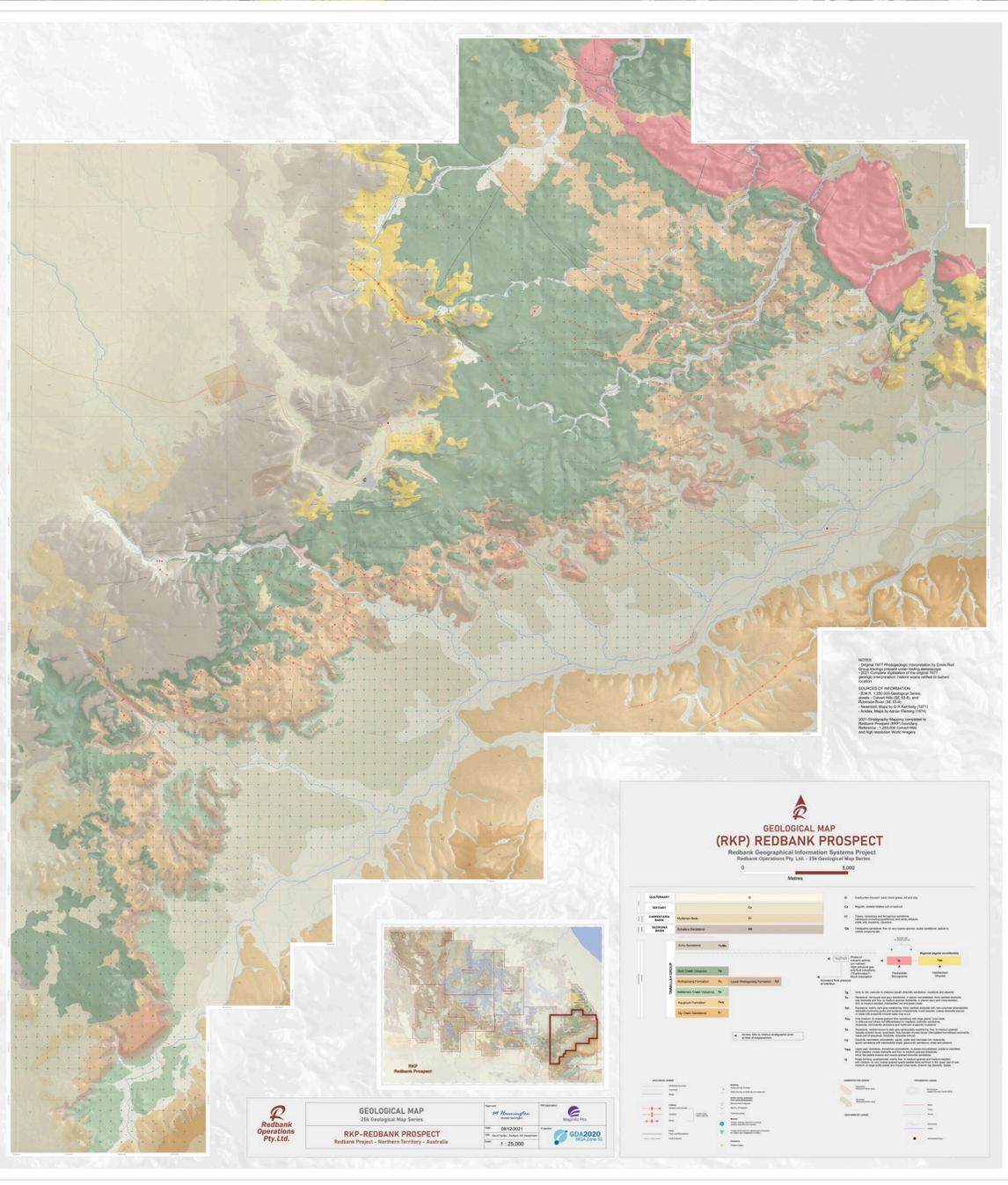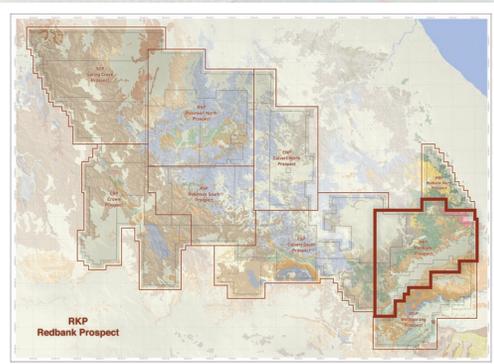
25k-Geological Map Series
Redbank Formations

GEOLOGICAL MAP
(RKP) REDBANK PROSPECT
Redbank Geographical Information Systems Project
Redbank Operations Pty. Ltd. - 25k Geological Map Series
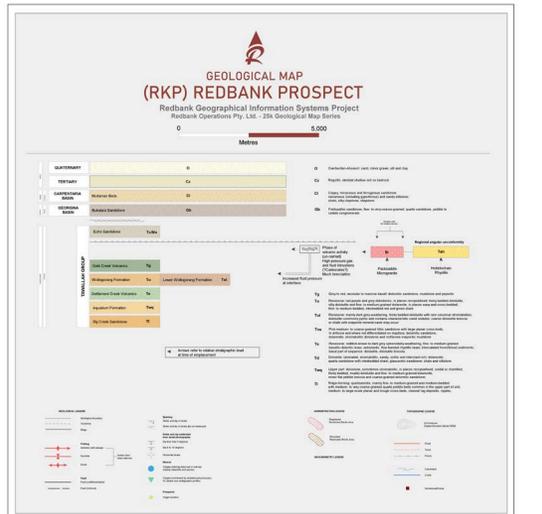
Geological units have been fully attributed in all individual layers, there is also a combined Geology layer with our Redbank codes and hydrocarbon classifications
Contact boundaries are approximate
and will be updated as field data becomes available.

GEOLOGICAL MAP
(RKP) REDBANK PROSPECT
Redbank Geographical Information Systems Project
Redbank Operations Pty. Ltd. - 25k Geological Map Series

RKP
Redbank Prospect

Redbank Operations Pty.Ltd.

GEOLOGICAL MAP
25k Geological Map Series
RKP-REDBANK PROSPECT
Redbank Project - Northern Territory - Australia
1 : 25,000
GDA2020
MGA Zone 53

Datamine MapInfo Pro Discover

Redbank Operations Pty. Ltd.

Redbank Exploration Project NT
25k Geological Map Series
RKP-Redbank Prospect
Hydrocarbon Map

Hydrocarbon classifications have been completed by John Beeson, these layers are fully attributed and available on our server for further investigations.

RKP
Redbank Prospect

MAP DIGITALGIS.com
Cartographic GIS Excellence
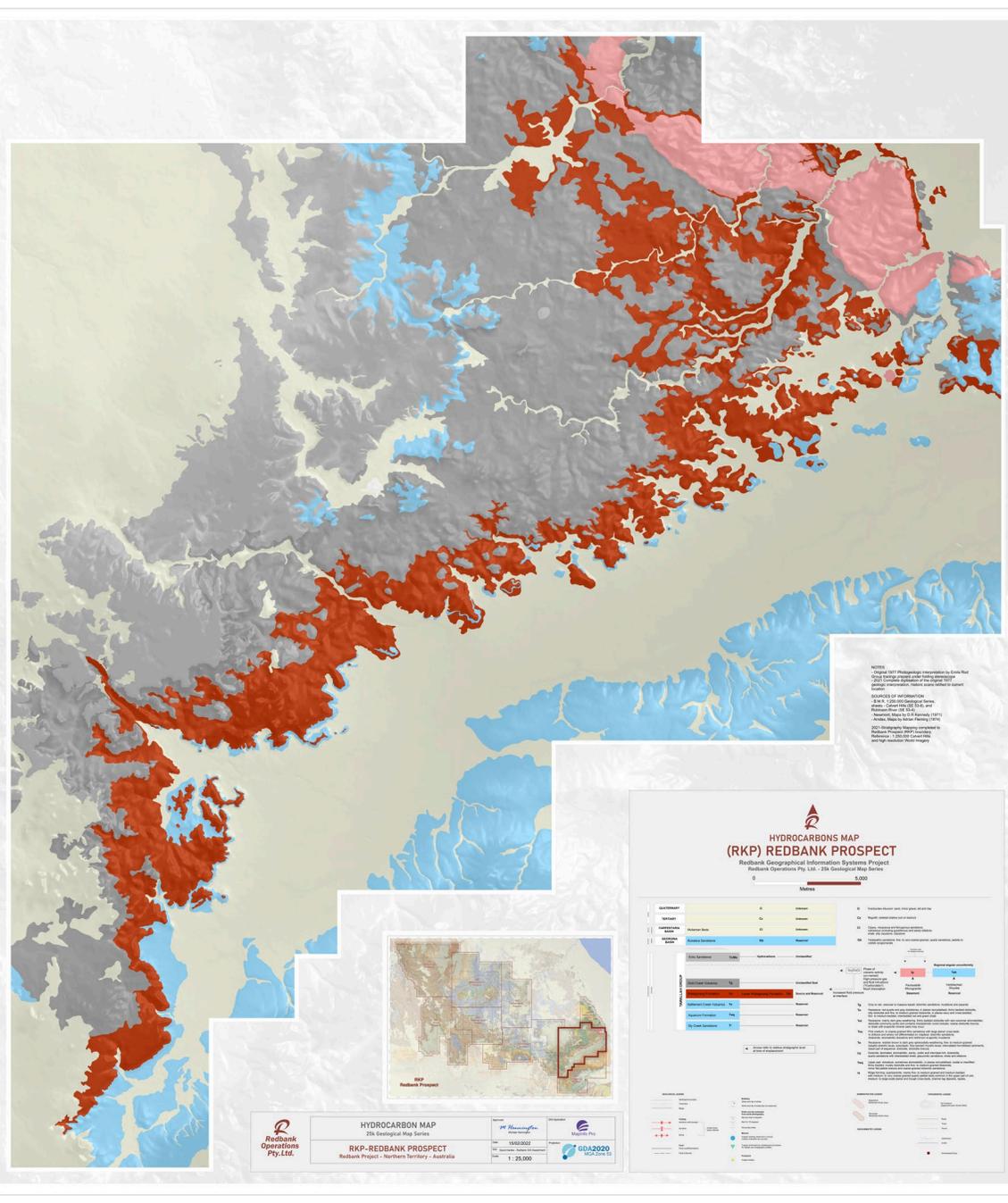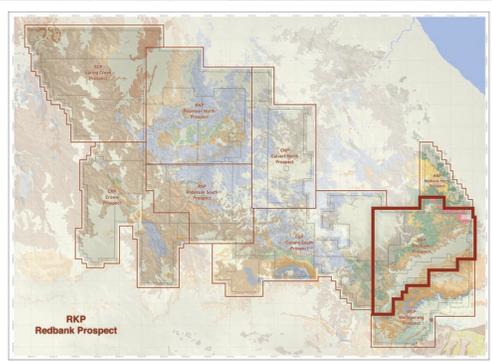
25k-Geological Map Series
Hydrocarbons Map

HYDROCARBONS MAP
(RKP) REDBANK PROSPECT
Redbank Geographical Information Systems Project
Redbank Operations Pty. Ltd. - 25k Geological Map Series

0   5,000
Metres
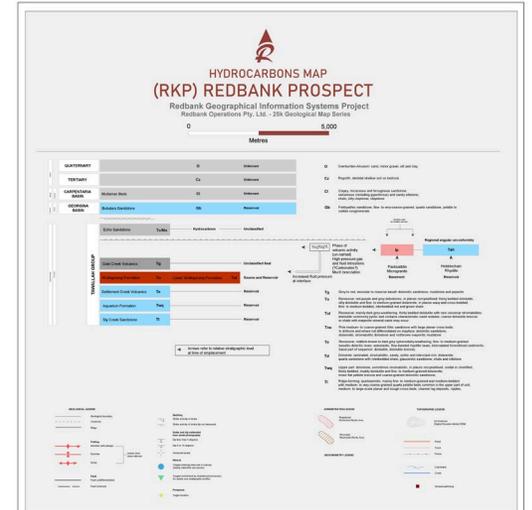
Hydrocarbon units have been fully attributed in all individual layers, there is also a combined Geology layer with our Redbank codes and hydrocarbon classifications

HYDROCARBON MAP
25k Geological Map Series
RKP-REDBANK PROSPECT
Redbank Project – Northern Territory – Australia
1 : 25,000

GDA2020
MGA Zone 53

Datamine
MapInfo Pro
Discover

Redbank Operations Pty. Ltd.

Redbank Exploration Project NT
25k Geological Map Series
RKP-Redbank Prospect
Satellite Imagery

The highest quality satellite imagery has been clipped to RKP boundary and available on our server.

RKP
Redbank Prospect

MAP DIGITALGIS.com
Cartographic GIS Excellence
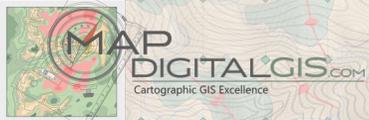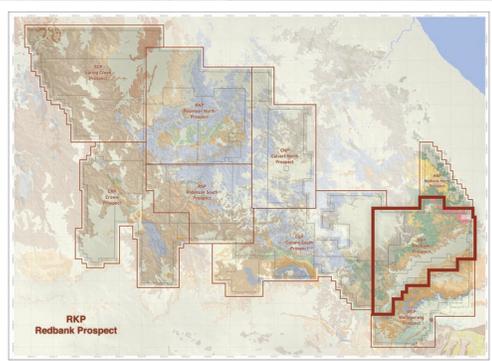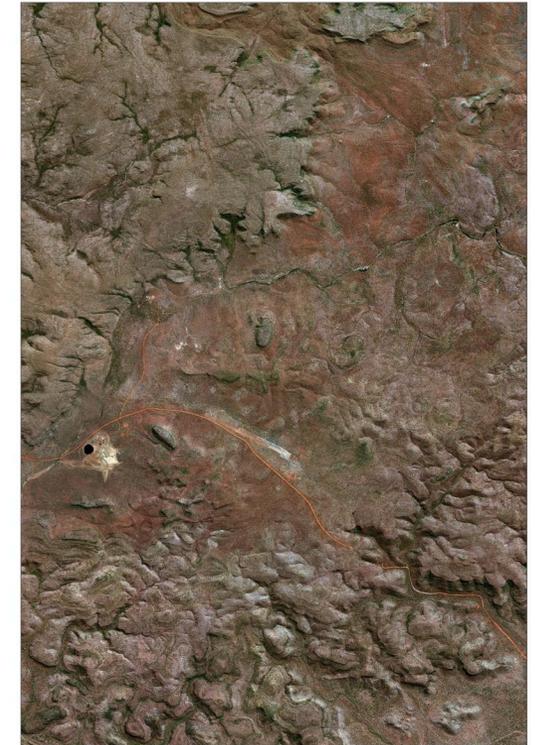
RKP-Imagery has been extracted from the pix50cm World Imagery tiles, these super high resolution imagery tiles have been extracted to the RKP and then merged into one layer, this layer has then been clipped to the RKP prospect boundary and available on our server, this process is supplied in a MapInfo .mrr file, which is super efficient and a processor friendly system for workflow.

Datamine
MapInfo Pro
Discover

Redbank Operations Pty. Ltd.

Redbank Exploration Project NT
25k Geological Map Series
RKP-Redbank Prospect
Digital Elevation Model

This DEM is available in the workspace, there has been a contour layer extracted at 5m intervals, this DEM is also available for the "Discover 3D" module within MapInfo.

RKP
Redbank Prospect

MAP DIGITALGIS.com
Cartographic GIS Excellence
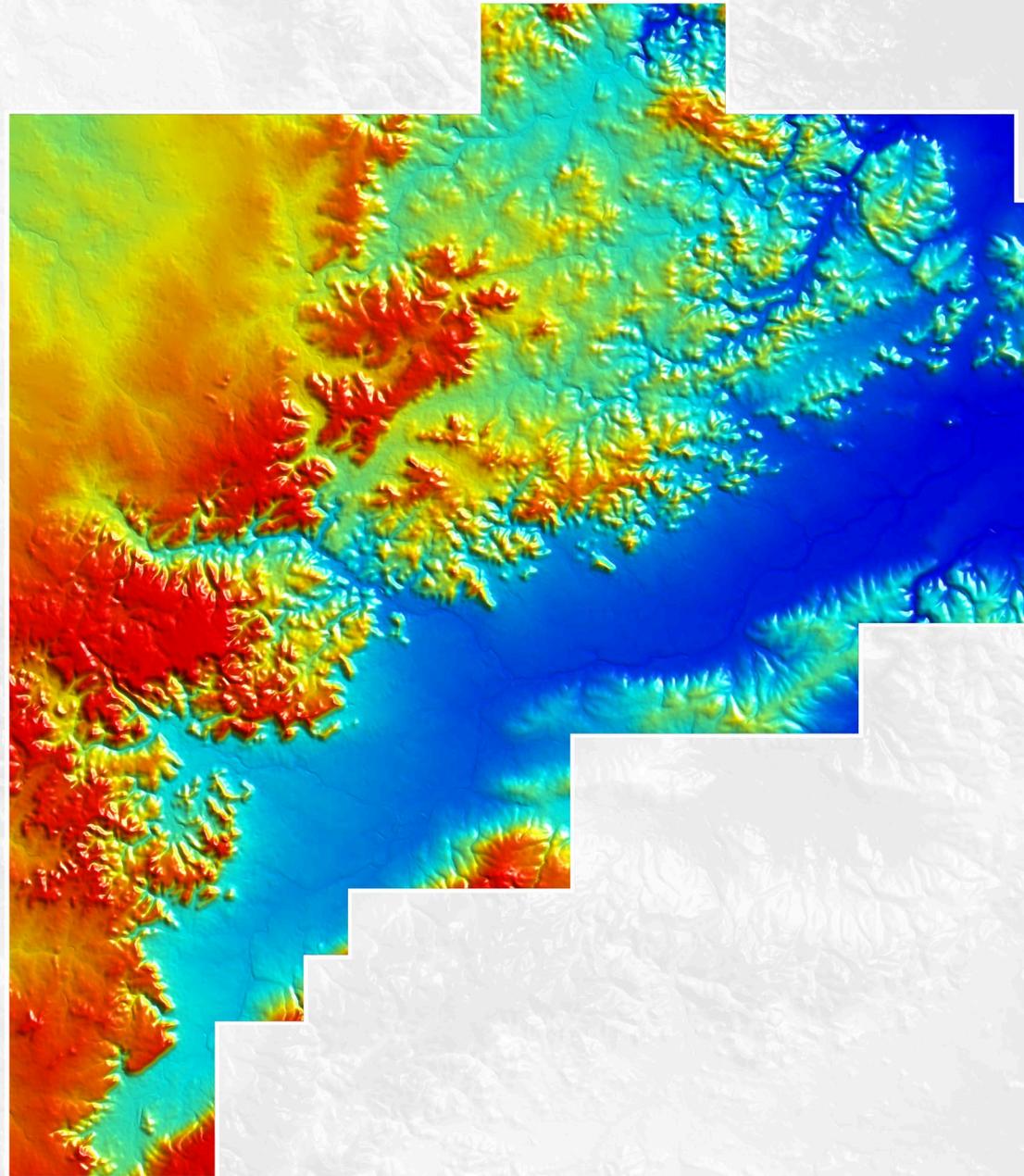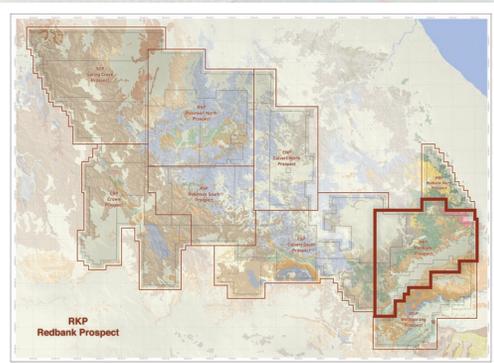
25k-Geological Map Series
DEM-Digital Elevation Model
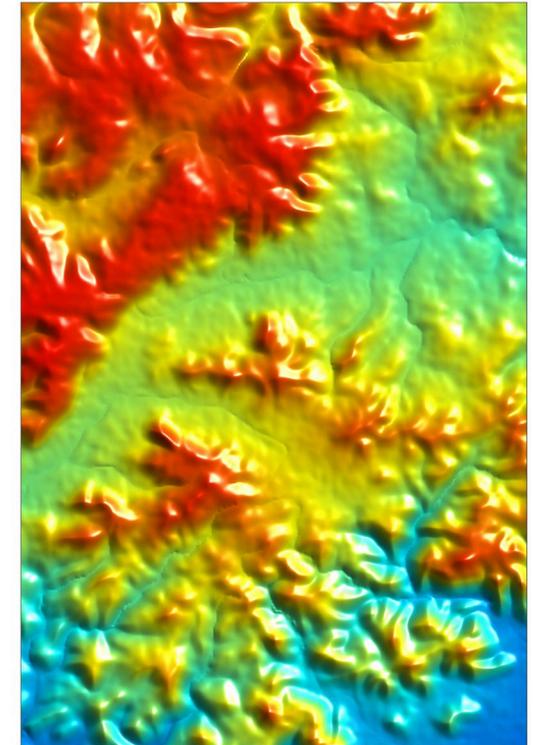
The 1 second SRTM derived DEM-H Version 1.0 is a 1 arc second (~30 m) gridded digital elevation model (DEM) that has been hydrologically conditioned and drainage enforced. The DEM-H captures flow paths based on SRTM elevations and mapped stream lines, and supports delineation of catchments and related hydrological attributes

Datamine
MapInfo Pro
Discover

Redbank Operations Pty. Ltd.

Redbank Exploration Project NT
25k Geological Map Series
RKP-Redbank Prospect
Hydrology

Detailed hydrology layers are available in the workspace.
Rivers, Creeks and Catchment layers are fully attributed and
these layers have been supplied as individual catchment areas,
as well as a combined hydrology layer.

RKP
Redbank Prospect

MAP DIGITALGIS.com
Cartographic GIS Excellence
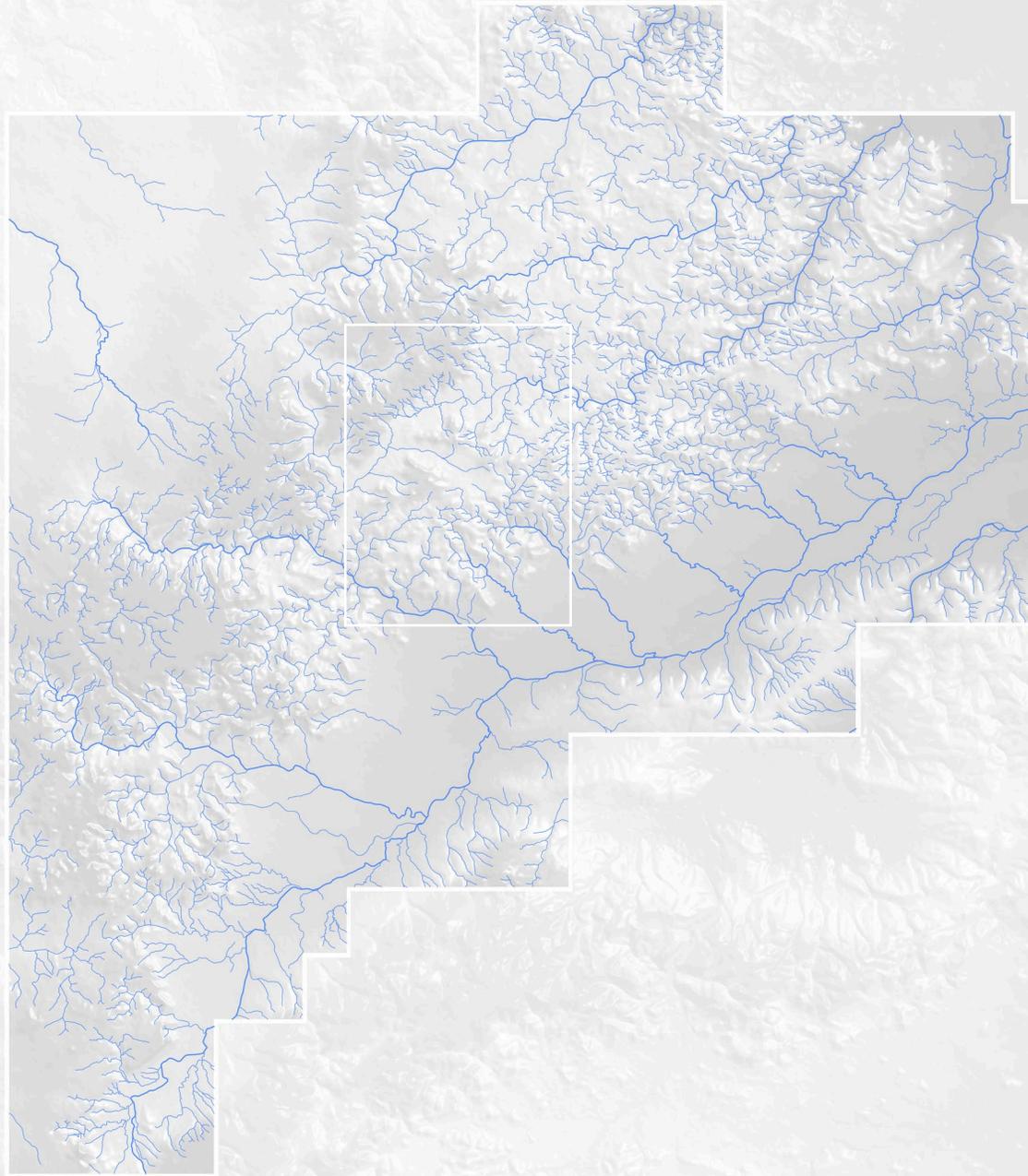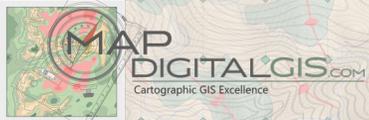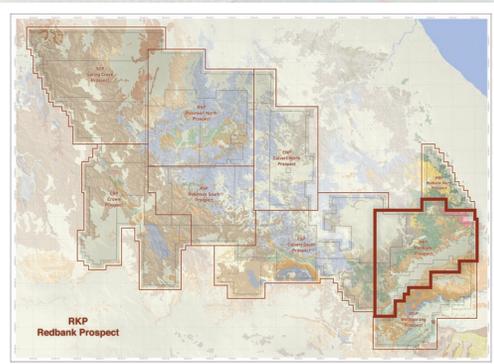
25k-Geological Map Series
Hydrology

Insert Map
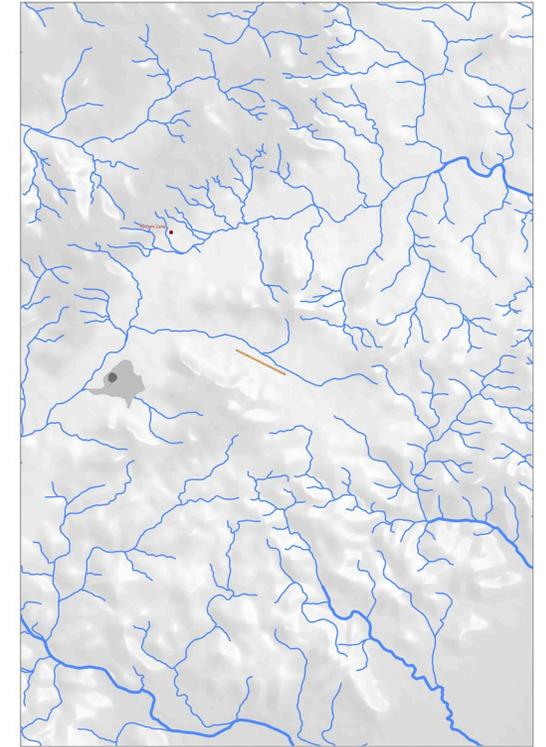
Rivers, Creeks and the catchments for these watercourses
have been meticulously digitised and have been fully
attributed in the database.
As our prospects have high rainfall and erosion these
watercourse catchments could be valuable for investigation
& detection from soil & stream samples

Datamine
MapInfo Pro
Discover

Redbank Operations Pty. Ltd.

Redbank Exploration Project NT
25k Geological Map Series

RKP-Redbank Prospect

2021-Soil Samples

2452 Soil Sample locations

Heatmap created showing 2452 soil sample locations with the highest @ 4,760.0Cu-ppm

25k-Geological Map Series
Soil Sample Locations (Heatmap Cu-ppm)

Insert Map A

2021 Soil Sample 4,520.0ppm (Cu)

2021 Soil Sample 4,760.0ppm (Cu)

2021 Soil Sample 3,610.0ppm (Cu)

2021 Soil Sample 4,520.0ppm (Cu)

2021 Soil Sample 3,211.1ppm (Cu)

2021 Soil Sample 4,692.7ppm (Cu)

Insert Map

2021 Soil Sample 4,760.0ppm (Cu)

Insert Map A

2021 Soil Sample 743.6ppm (Cu)

RKP
Redbank Prospect

MAP DIGITALGIS.com
Cartographic GIS Excellence

Insert Map - 100m Soil Sample Locations

2021 Soil Sample 3,211.1ppm (Cu)

Bluff
Double Bluff
DB1
DB2
DB3
DB4
DB5

2021 Soil Sample 4,692.7ppm (Cu)

Soil Samples
100m

Datamine
MapInfo Pro
Discover

Redbank Operations Pty. Ltd.

Redbank Exploration Project NT
25k Geological Map Series
RKP-Redbank Prospect
2021-Stream Samples
8 Stream Sample locations

Heatmap created showing 8 stream sample locations

RKP
Redbank Prospect

MAP DIGITALGIS.com
Cartographic GIS Excellence
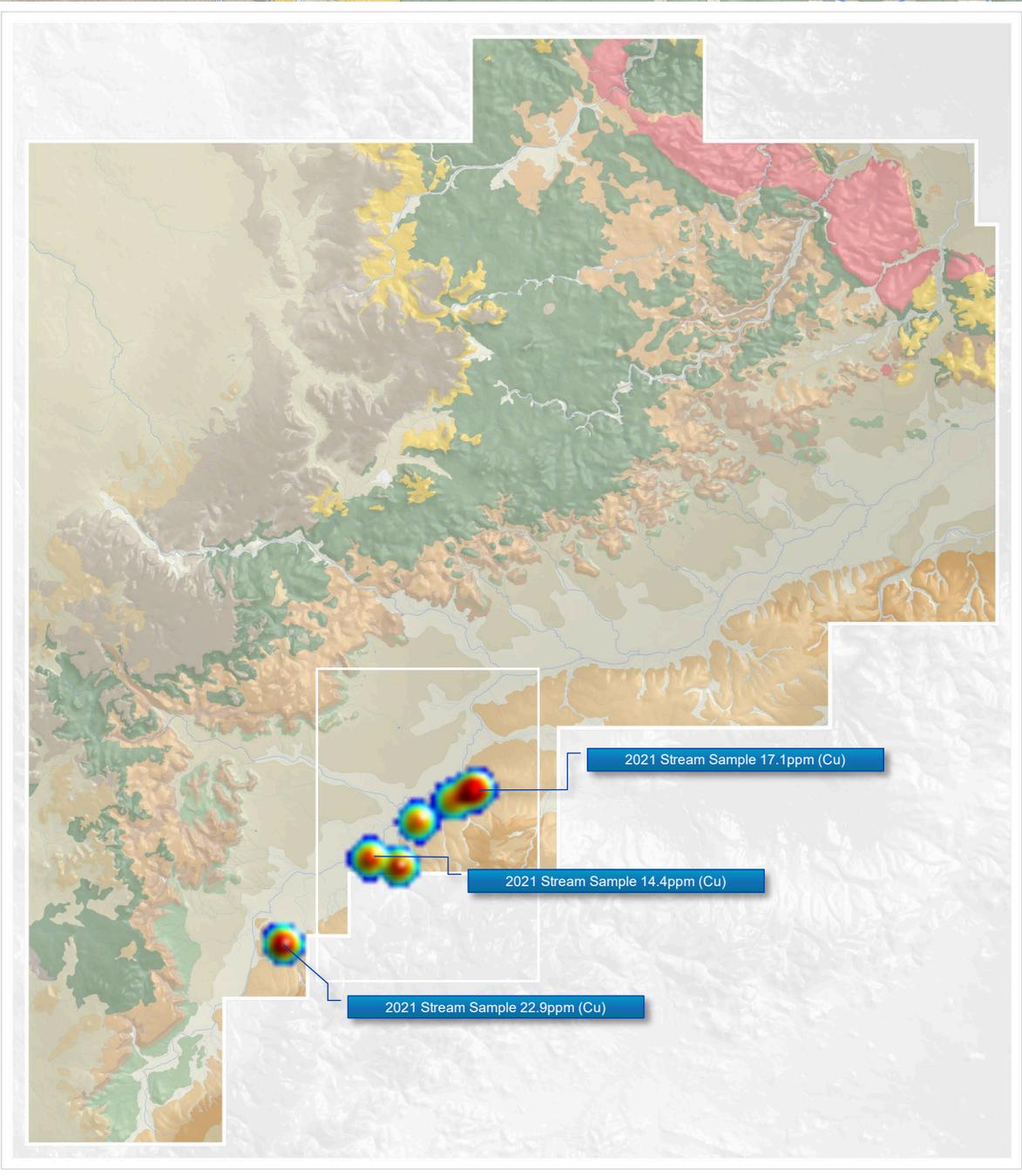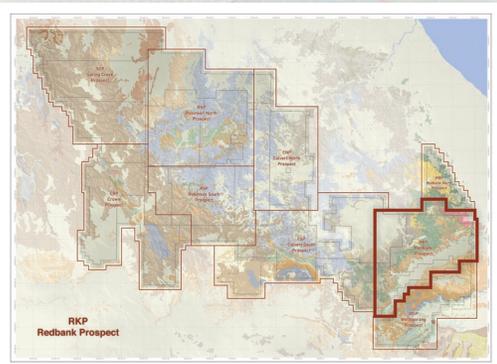
25k-Geological Map Series
Stream Sample Locations (Heatmap Cu-ppm)

Insert Map

2021 Stream Sample 17.1ppm (Cu)

2021 Stream Sample 14.4ppm (Cu)

2021 Stream Sample 17.1ppm (Cu)

2021 Stream Sample 14.4ppm (Cu)

2021 Stream Sample 22.9ppm (Cu)

Datamine
MapInfo Pro
Discover

Redbank Operations Pty. Ltd.
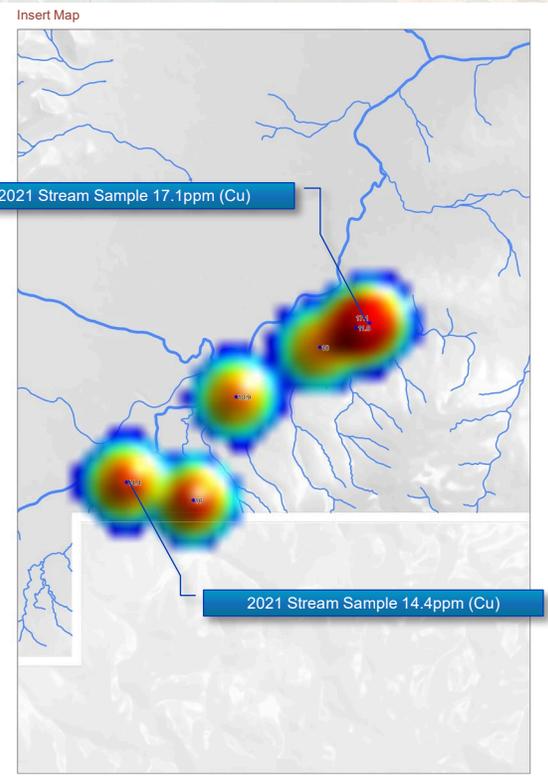
Redbank Exploration Project NT
25k Geological Map Series
RKP-Redbank Prospect
2021-Rock Samples
165 Rock Sample locations

Heatmap created showing 165 Rock sample locations

RKP
Redbank Prospect

MAP DIGITALGIS.com
Cartographic GIS Excellence

2021 Rock Sample
55,100.0ppm (Cu)
19RBR028 **Packsaddle**

2021 Rock Sample
105,500.0ppm (Cu)
19RBR005 **Green Rock**

2021 Rock Sample
22,845.0ppm (Cu)
21RRX0103
GC2

2021 Rock Sample
82,200.0ppm (Cu)
19RBR031 **Twelve Mile**
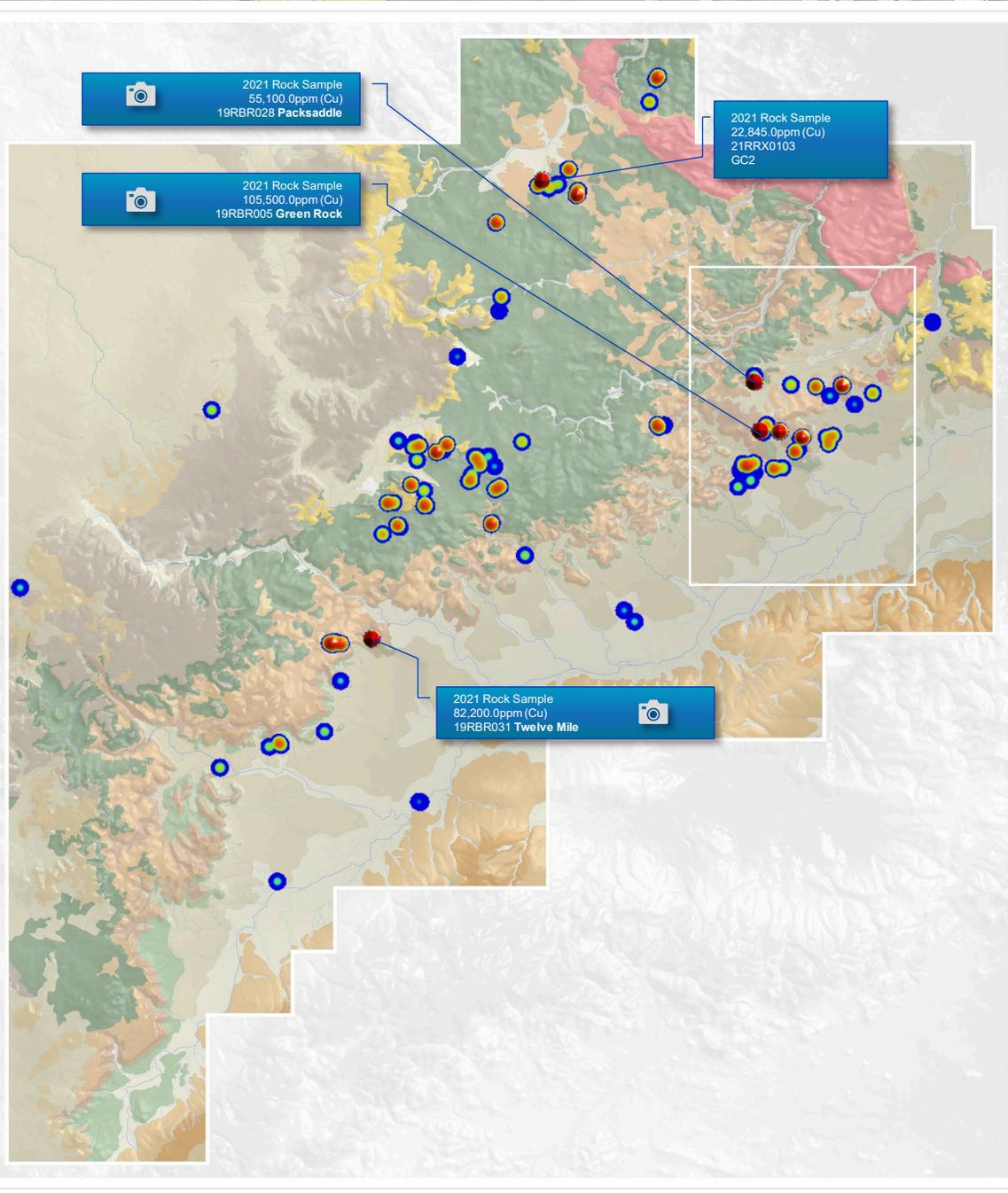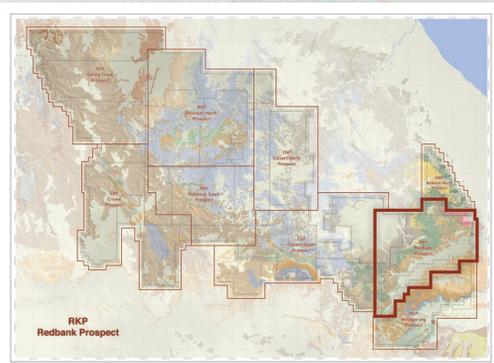
25k-Geological Map Series
Rock Sample Locations (Heatmap Cu-ppm)

Insert Map

2021 Rock Sample 55,100.0ppm (Cu)

2021 Rock Sample 105,500.0ppm (Cu)

Packsaddle

CRAE Cu show

Green Rock

TH1 CW6 CW5
CW4
CW3 CW2 China Wor
Dingo Rock

Hoopsa

Tom Creek

Datamine
MapInfo Pro
Discover

Redbank Operations Pty. Ltd.
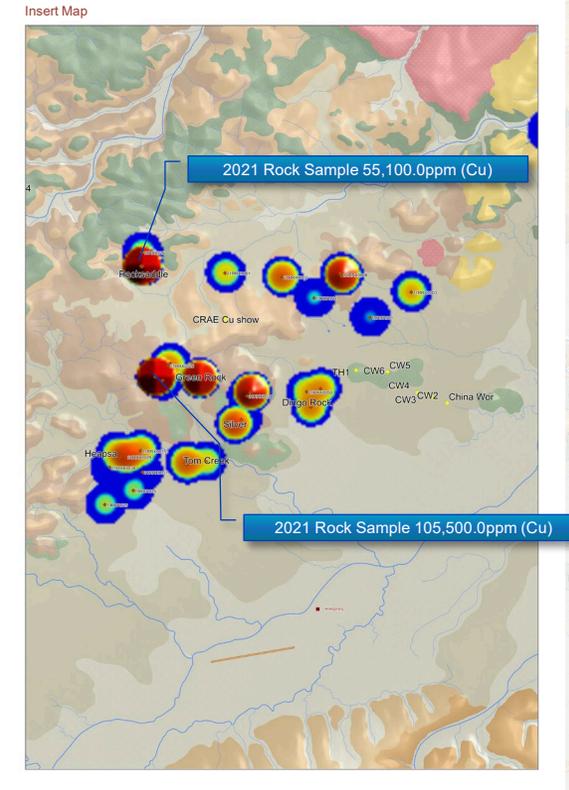
Redbank Exploration Project NT
25k Geological Map Series
RKP-Redbank Prospect
NTGS-Stream Sediments
90+ppm-Cu Heatmap

There are 61 Stream Sediment sample points in the RKP that have 90+ppm of Cu.

RKP
Redbank Prospect

MAP DIGITALGIS.COM
Cartographic GIS Excellence
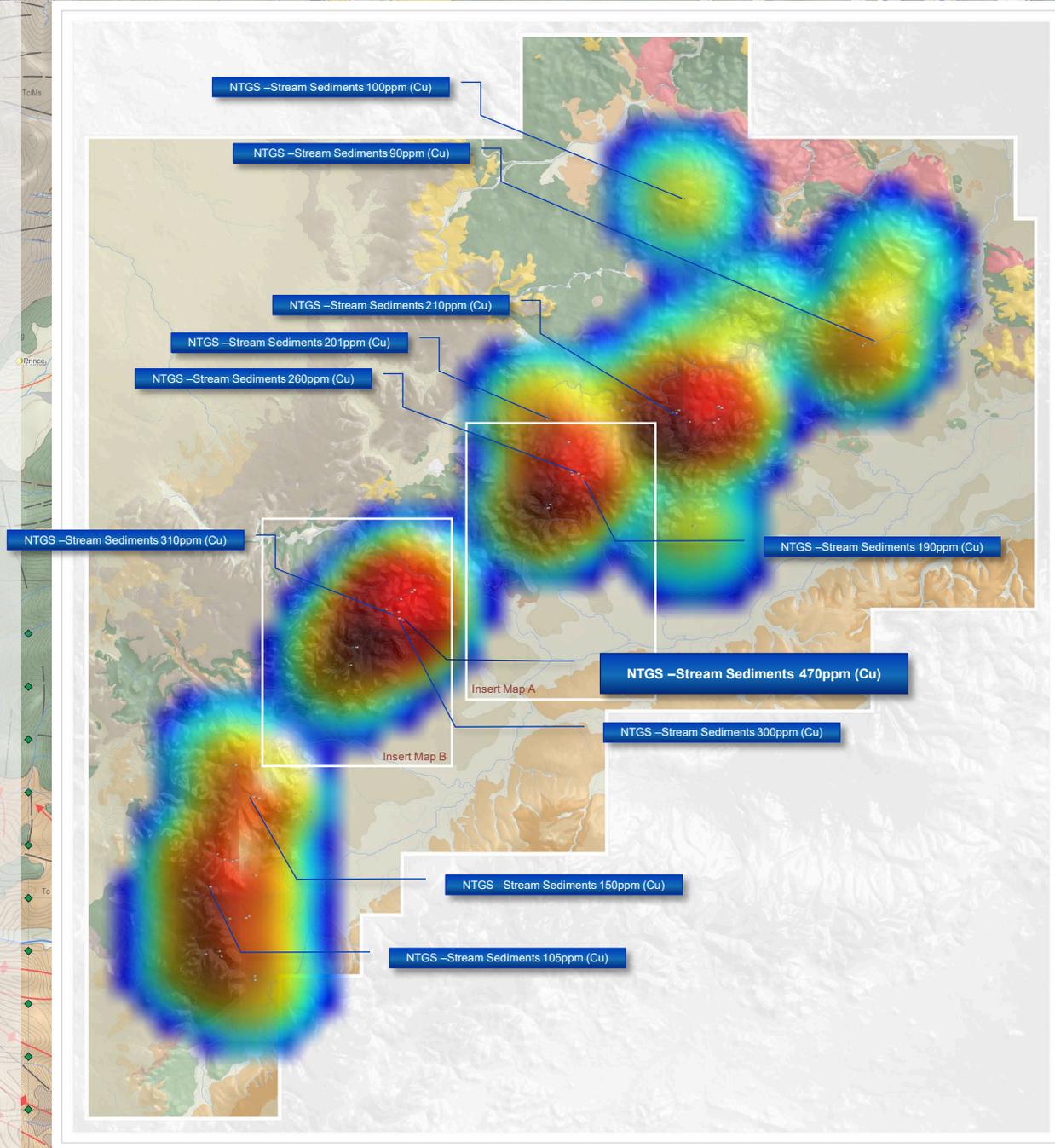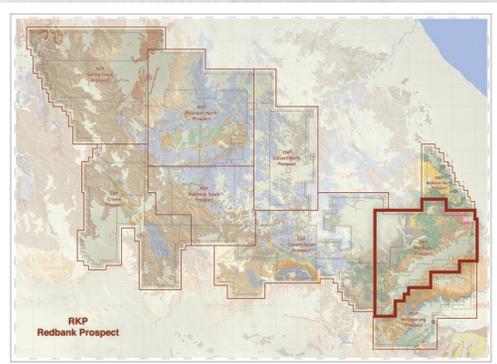
25k-Geological Map Series
90+ppm – Cu Heatmap

Insert Map A

Insert Map B

NTGS –Stream Sediments 100ppm (Cu)
NTGS –Stream Sediments 90ppm (Cu)
NTGS –Stream Sediments 210ppm (Cu)
NTGS –Stream Sediments 201ppm (Cu)
NTGS –Stream Sediments 260ppm (Cu)
NTGS –Stream Sediments 310ppm (Cu)
NTGS –Stream Sediments 190ppm (Cu)
NTGS –Stream Sediments 470ppm (Cu)
NTGS –Stream Sediments 300ppm (Cu)
NTGS –Stream Sediments 150ppm (Cu)
NTGS –Stream Sediments 105ppm (Cu)
Insert Map A
Insert Map B
NTGS –Stream Sediments 260ppm (Cu)
NTGS –Stream Sediments 470ppm (Cu)

Redbank Operations
Pty. Ltd.

Redbank Exploration Project NT
25k Geological Map Series
RKP-Redbank Prospect
Drillholes (Historical)
973 Historical Drillhole locations

The historical database has 973 Drillholes

RKP
Redbank Prospect

MAP DIGITALGIS.com
Cartographic GIS Excellence
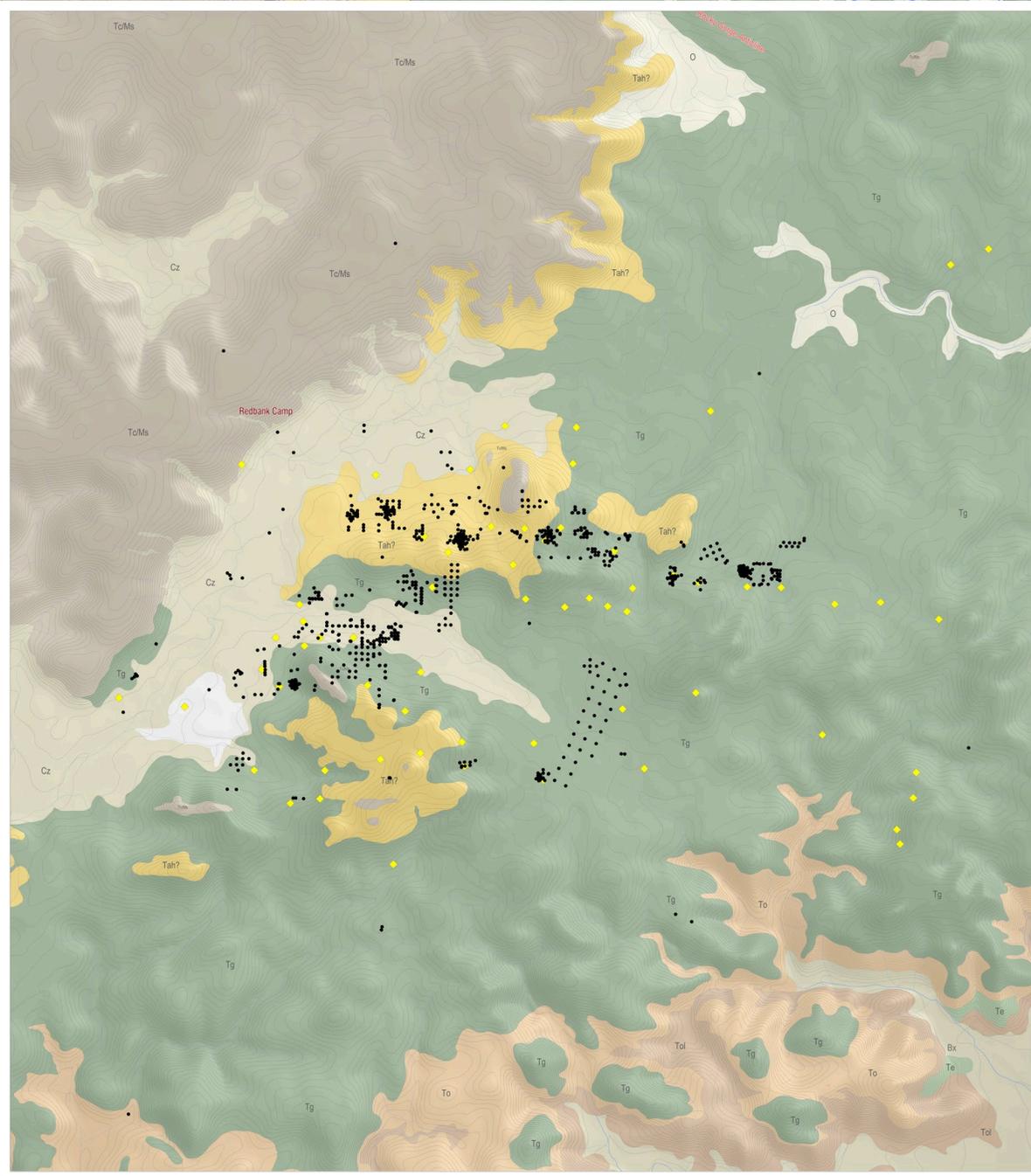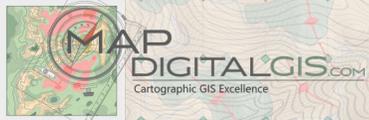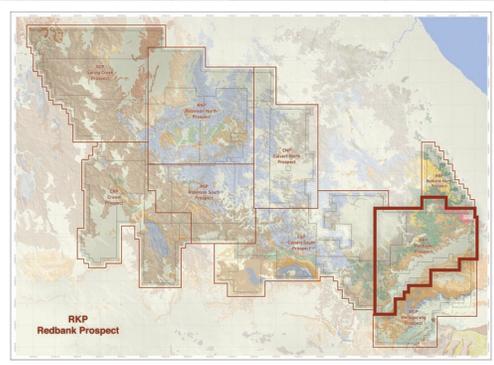
25k-Geological Map Series
Drillholes (Historical)

Overview Map

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MapInfo Pro
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Redbank Exploration Project NT
25k Geological Map Series
RKP-Redbank Prospect

Drillholes (2021)

30 Drillhole locations – 1 Stratigraphic Drillhole

30 Drillhole collar locations completed in 2021
1 Stratigraphic Drillhole completed in 2021

Targets

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Stratigraphic Drillhole

Redbank Camp

South Quartzite

Bluff

Double Bluff

DB1

DB2

DB5

AN06d

DB4

DB3

25k-Geological Map Series
Drillhole Collar Locations (2021)

Overview Map

Attribute Table

Datamine MapInfo Pro Discover

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Redbank Exploration Project NT
25k Geological Map Series
RKP-Redbank Prospect

Geophysics Images
Derived from NTGS Government Aeromagnetic Surveys
Total magnetic intensity (TMI) - reduced to pole
Tilt filter

RKP
Redbank Prospect

MAP DIGITALGIS.com
Cartographic GIS Excellence
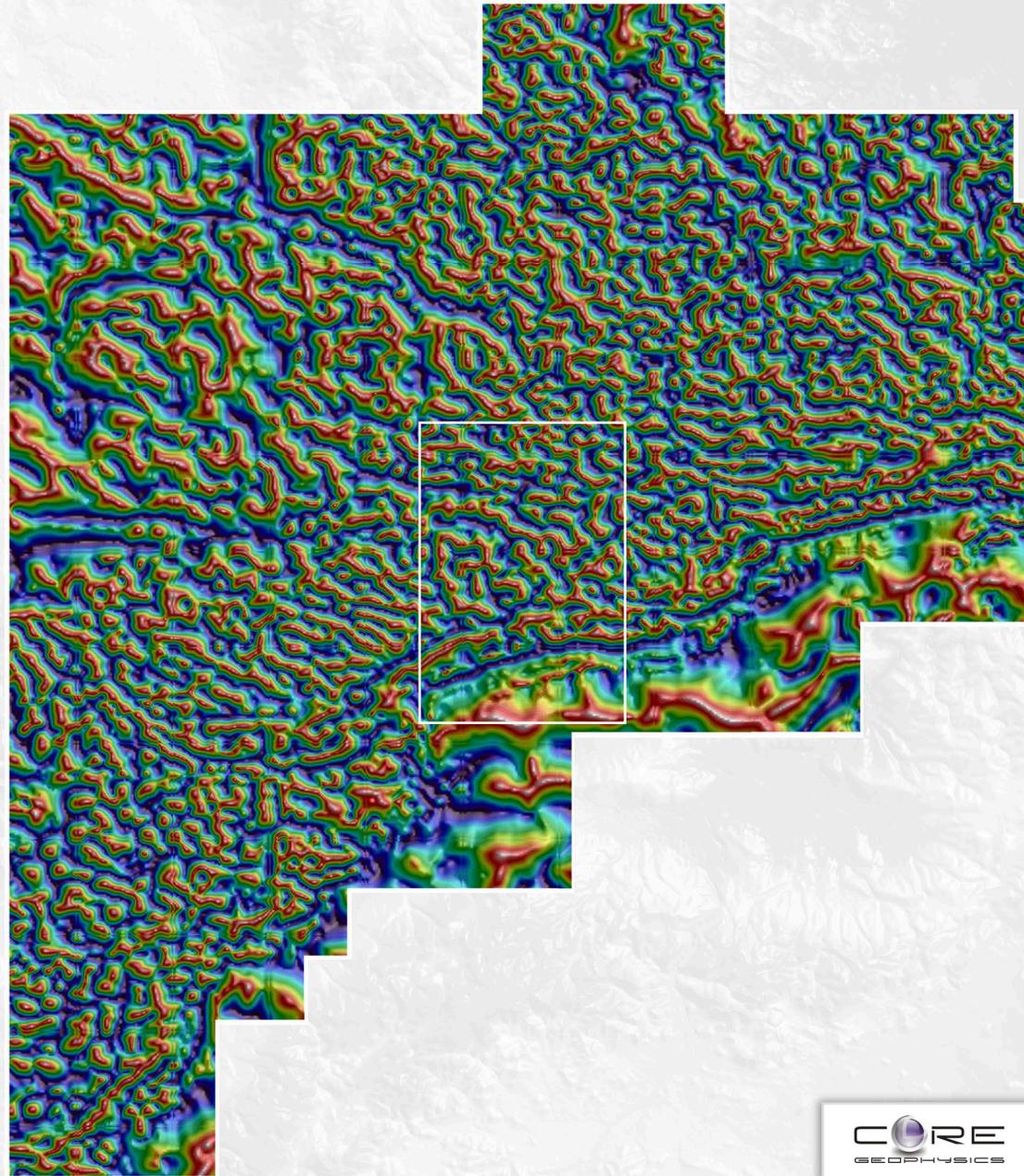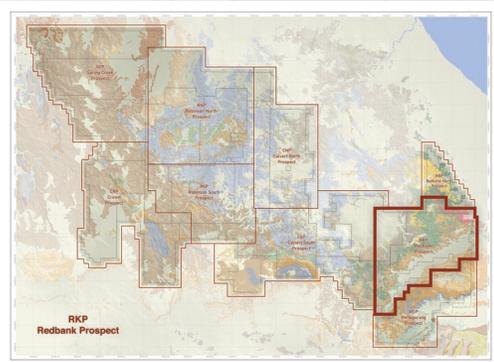
25k-Geological Map Series
TMIRTP-Tilt-nesun 99 wet

Insert Map
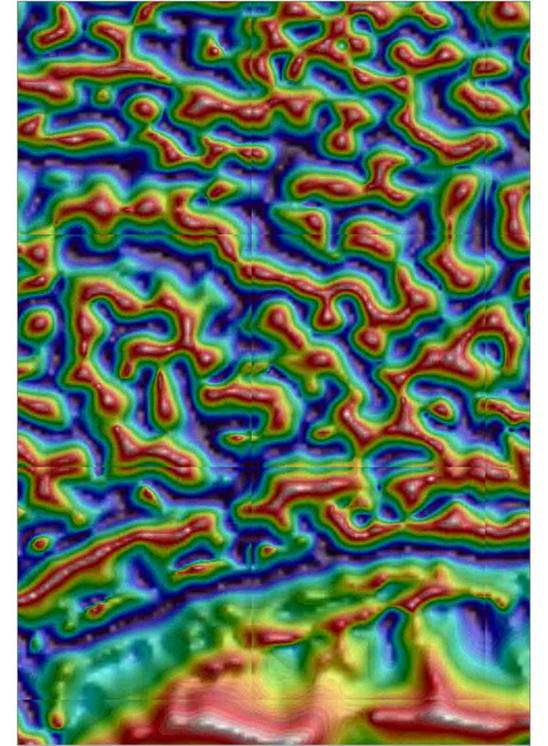
CORE GEOPHYSICS

Datamine
MapInfo Pro
Discover

Redbank Operations Pty. Ltd.

Redbank Exploration Project NT
25k Geological Map Series

RKP-Redbank Prospect

Geophysics Images

Derived from NTGS Government Aeromagnetic Surveys
Total magnetic intensity (TMI) - reduced to pole

RKP
Redbank Prospect

MAP DIGITALGIS.com
Cartographic GIS Excellence
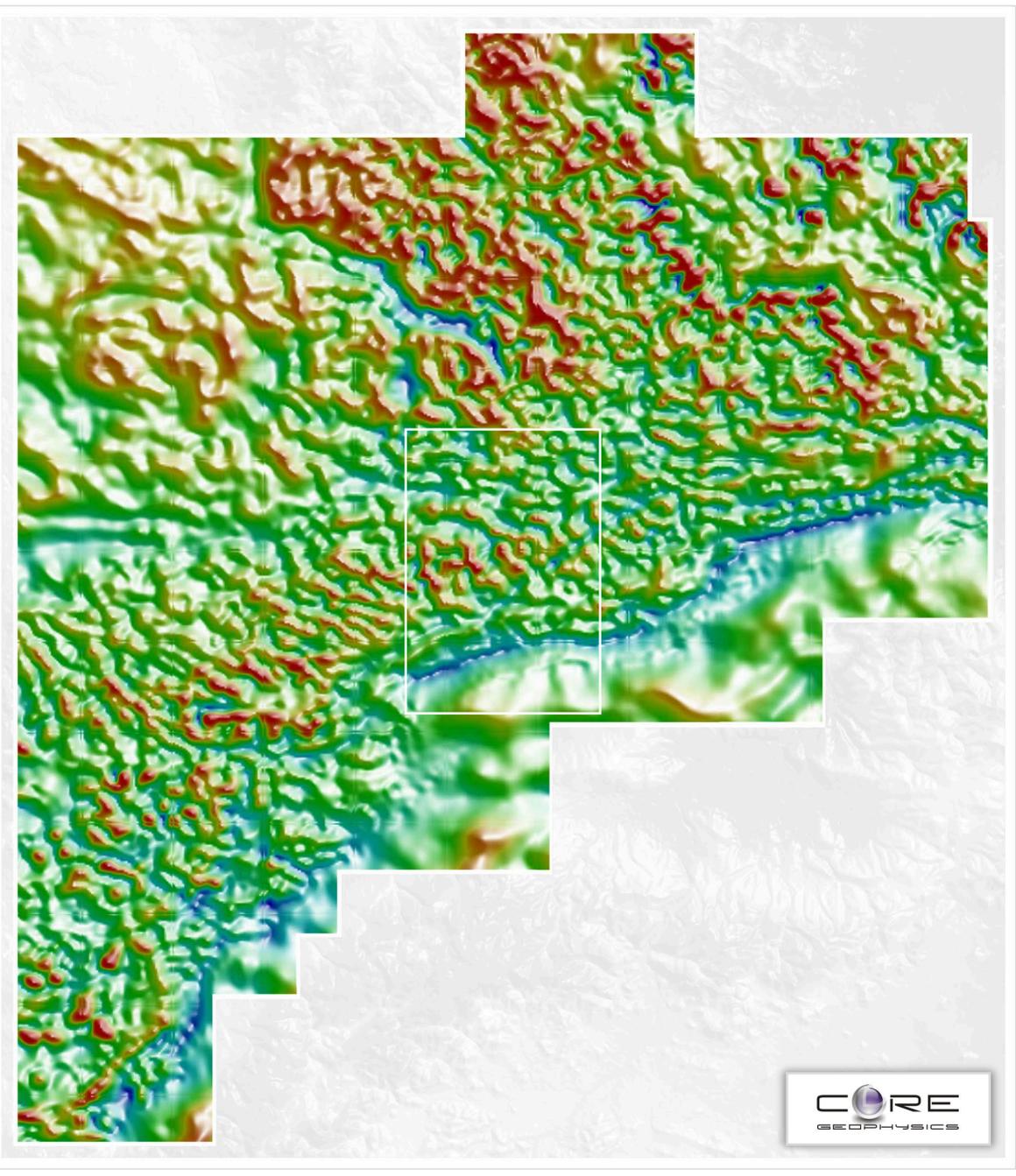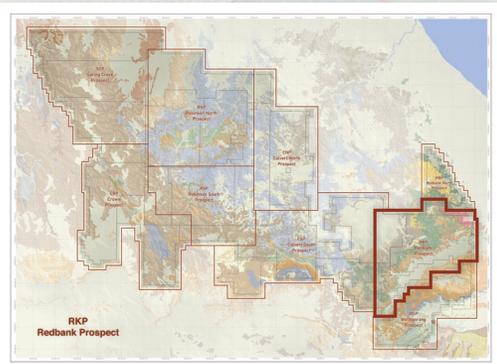
25k-Geological Map Series
TMIRTP-nesun 99 wet
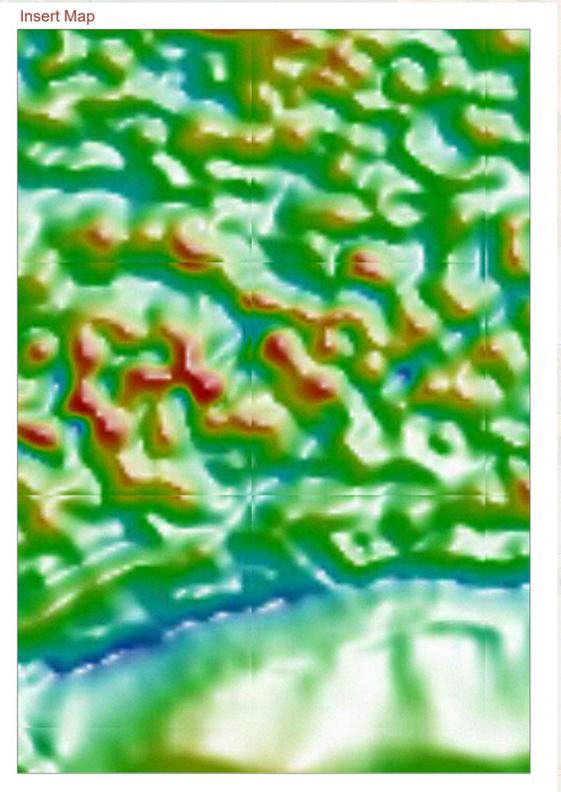
Insert Map

CORE GEOPHYSICS

Datamine
MapInfo Pro
Discover

Redbank Operations
Pty. Ltd.

Redbank Exploration Project NT
25k Geological Map Series
RKP-Redbank Prospect
Geophysics Images
Derived from NTGS Government Aeromagnetic Surveys
Total magnetic intensity (TMI) - reduced to pole
First vertical derivative

RKP
Redbank Prospect

MAP DIGITALGIS.com
Cartographic GIS Excellence
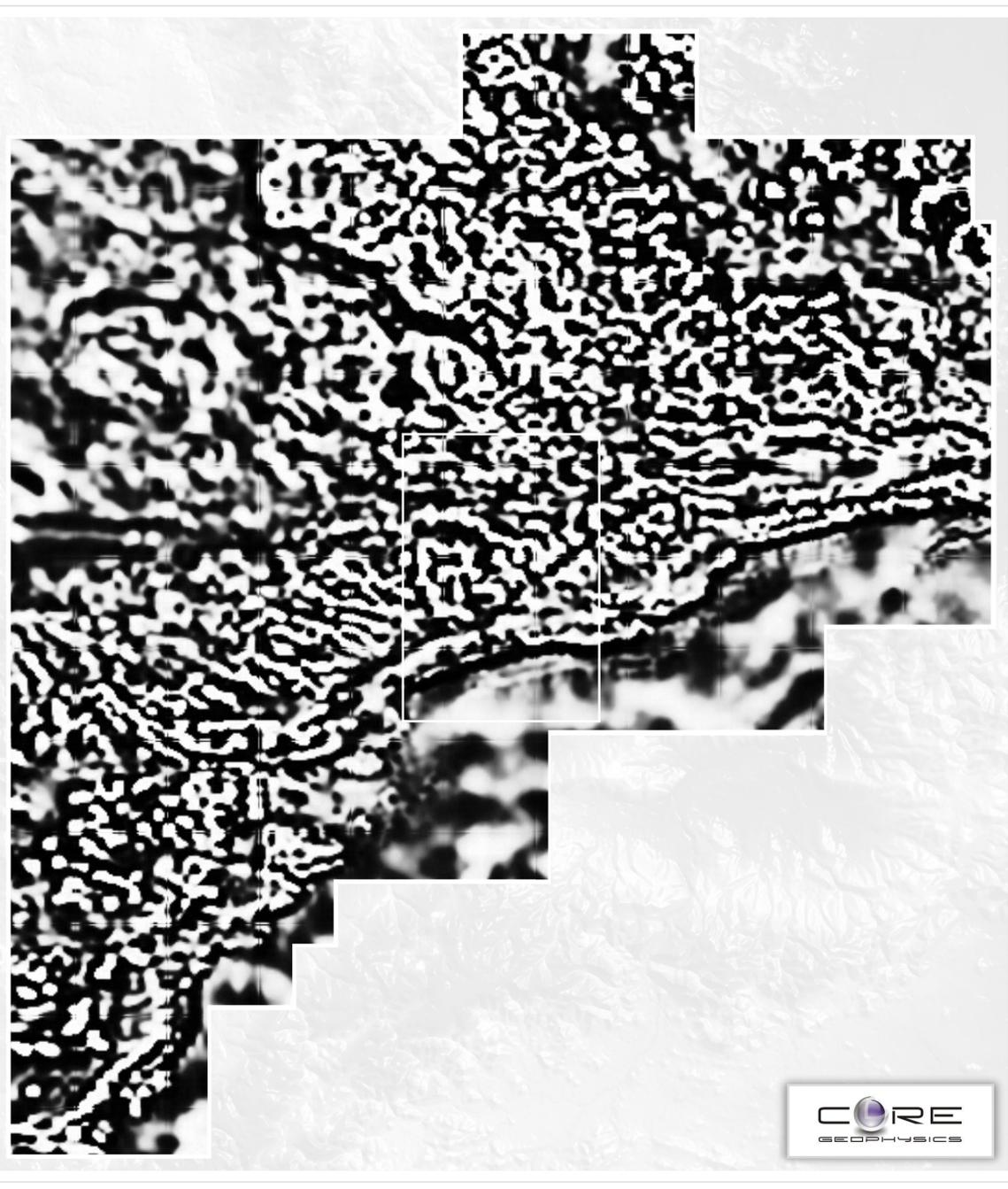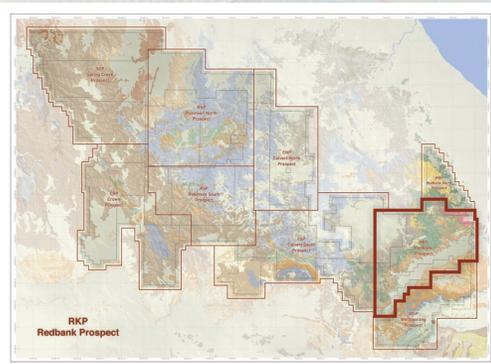
25k-Geological Map Series
TMIRTP-1VD-he-g

Insert Map

CORE GEOPHYSICS

Datamine MapInfo Pro Discover

Redbank Operations
Pty. Ltd.

Redbank Exploration Project NT
25k Geological Map Series
RKP-Redbank Prospect
Geophysics Images

Derived from NTGS Government Aeromagnetic Surveys Ternary radioelement potassium(K)-thorium(Th)-uranium(U) channel data. The image is a red-green-blue (RGB) composite using a histogram-equalised colour-stretch for each of the three channels.

RKP
Redbank Prospect
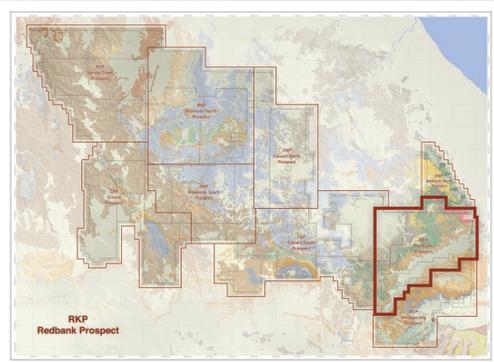
25k-Geological Map Series
KThUr-Ternary-he-rgb

Insert Map

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CORE GEOPHYSICS

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Redbank Exploration Project NT
25k Geological Map Series

RKP-Redbank Prospect

Areas of Interest (AOI)

AOI's available in the workspace include
- Airborne Electromagnetics (Mat Cooper)
- Geophysical AOI (Mike Hannington)
- NTGS Stream Sediments (90+ppm Anomalies)

RKP
Redbank Prospect

MAP DIGITALGIS.com
Cartographic GIS Excellence
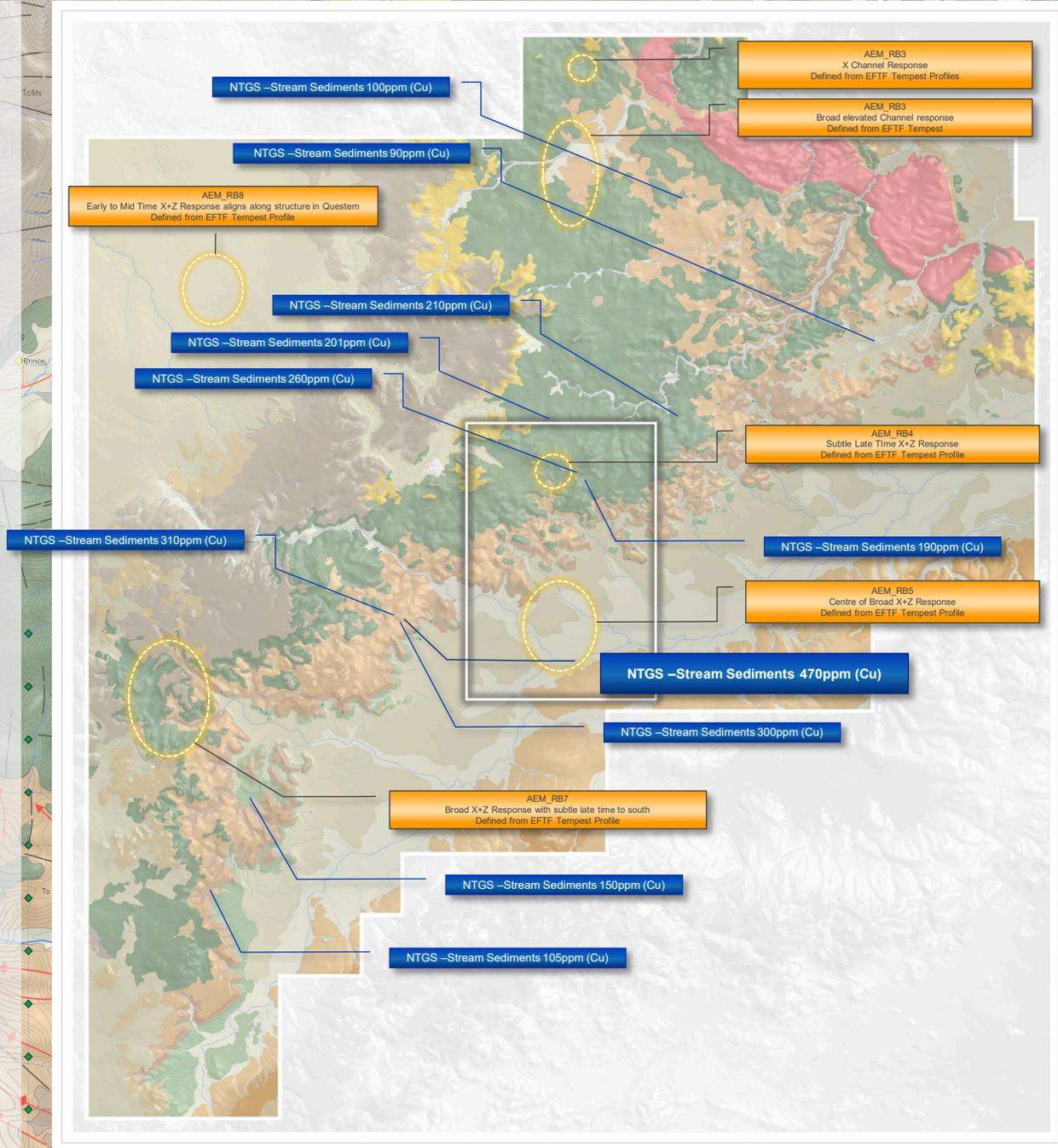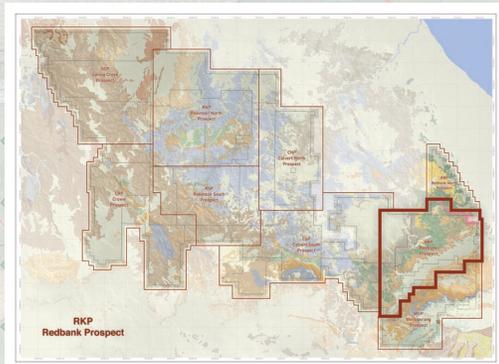
25k-Geological Map Series
Areas of Interest

Insert Map

AEM_RB3
X Channel Response
Defined from EFTF Tempest Profiles

AEM_RB3
Broad elevated Channel response
Defined from EFTF Tempest

NTGS –Stream Sediments 100ppm (Cu)

NTGS –Stream Sediments 90ppm (Cu)

AEM_RB8
Early to Mid Time X+Z Response aligns along structure in Questem
Defined from EFTF Tempest Profile

NTGS –Stream Sediments 210ppm (Cu)

NTGS –Stream Sediments 201ppm (Cu)

NTGS –Stream Sediments 260ppm (Cu)

AEM_RB4
Subtle Late Time X+Z Response
Defined from EFTF Tempest Profile

NTGS –Stream Sediments 310ppm (Cu)

NTGS –Stream Sediments 190ppm (Cu)

AEM_RB5
Centre of Broad X+Z Response
Defined from EFTF Tempest Profile

NTGS –Stream Sediments 470ppm (Cu)

NTGS –Stream Sediments 300ppm (Cu)

AEM_RB7
Broad X+Z Response with subtle late time to south
Defined from EFTF Tempest Profile

NTGS –Stream Sediments 150ppm (Cu)

NTGS –Stream Sediments 105ppm (Cu)

NTGS –Stream Sediments 260ppm (Cu)

AEM_RB4
Subtle Late Time X+Z Response
Defined from EFTF Tempest Profile

AEM_RB5
Centre of Broad X+Z Response
Defined from EFTF Tempest Profile

Datamine
MapInfo Pro
Discover

Redbank Operations Pty. Ltd.

Redbank Exploration Project NT
25k Geological Map Series
RKP-Redbank Prospect
Areas of Interest (AOI)
Regional Government and Historical Open
File Airborne Electromagnetic (AEM)
Early Time Channel AEM Composite (ET)
Time Domain Surveys Only

RKP
Redbank Prospect

MAP DIGITALGIS.com
Cartographic GIS Excellence
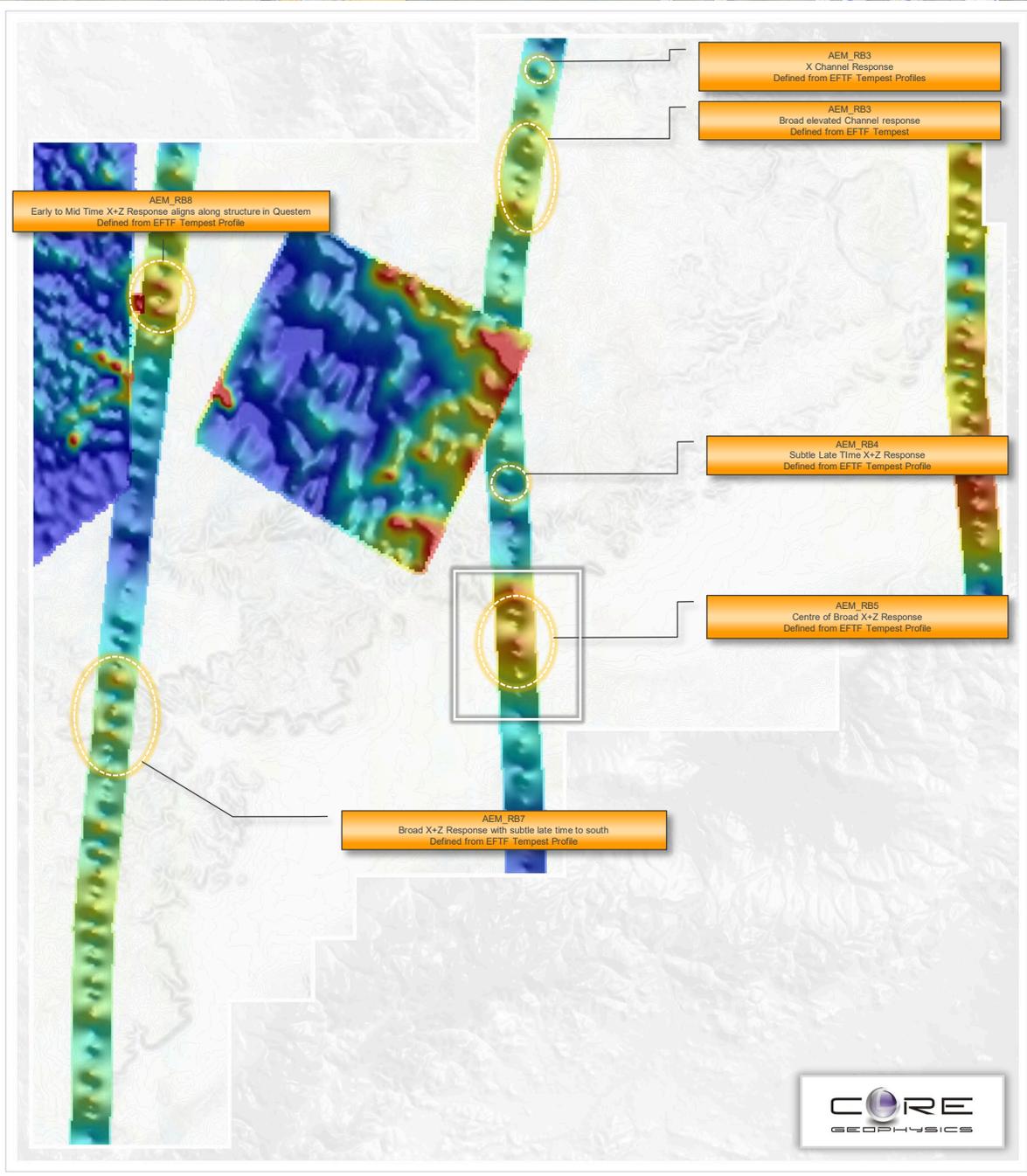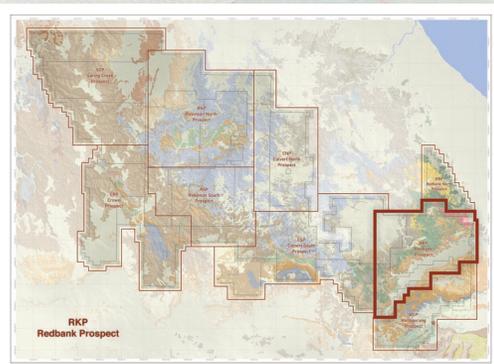
25k-Geological Map Series
Early Time Channel AEM (ET)

Insert Map

AEM_RB3
X Channel Response
Defined from EFTF Tempest Profiles

AEM_RB3
Broad elevated Channel response
Defined from EFTF Tempest

AEM_RB8
Early to Mid Time X+Z Response aligns along structure in Questem
Defined from EFTF Tempest Profile

AEM_RB4
Subtle Late Time X+Z Response
Defined from EFTF Tempest Profile

AEM_RB5
Centre of Broad X+Z Response
Defined from EFTF Tempest Profile

AEM_RB7
Broad X+Z Response with subtle late time to south
Defined from EFTF Tempest Profile

AEM_RB5
Centre of Broad X+Z Response
Defined from EFTF Tempest Profile

CORE GEOPHYSICS

Datamine MapInfo Pro Discover

Redbank Operations Pty. Ltd.

Redbank Exploration Project NT
25k Geological Map Series
**RKP-Redbank Prospect**
Areas of Interest (AOI)
Regional Government and Historical Open
File Airborne Electromagnetic (AEM)
Middle Time Channel AEM Composite (MT)
Time Domain Surveys Only

RKP
Redbank Prospect

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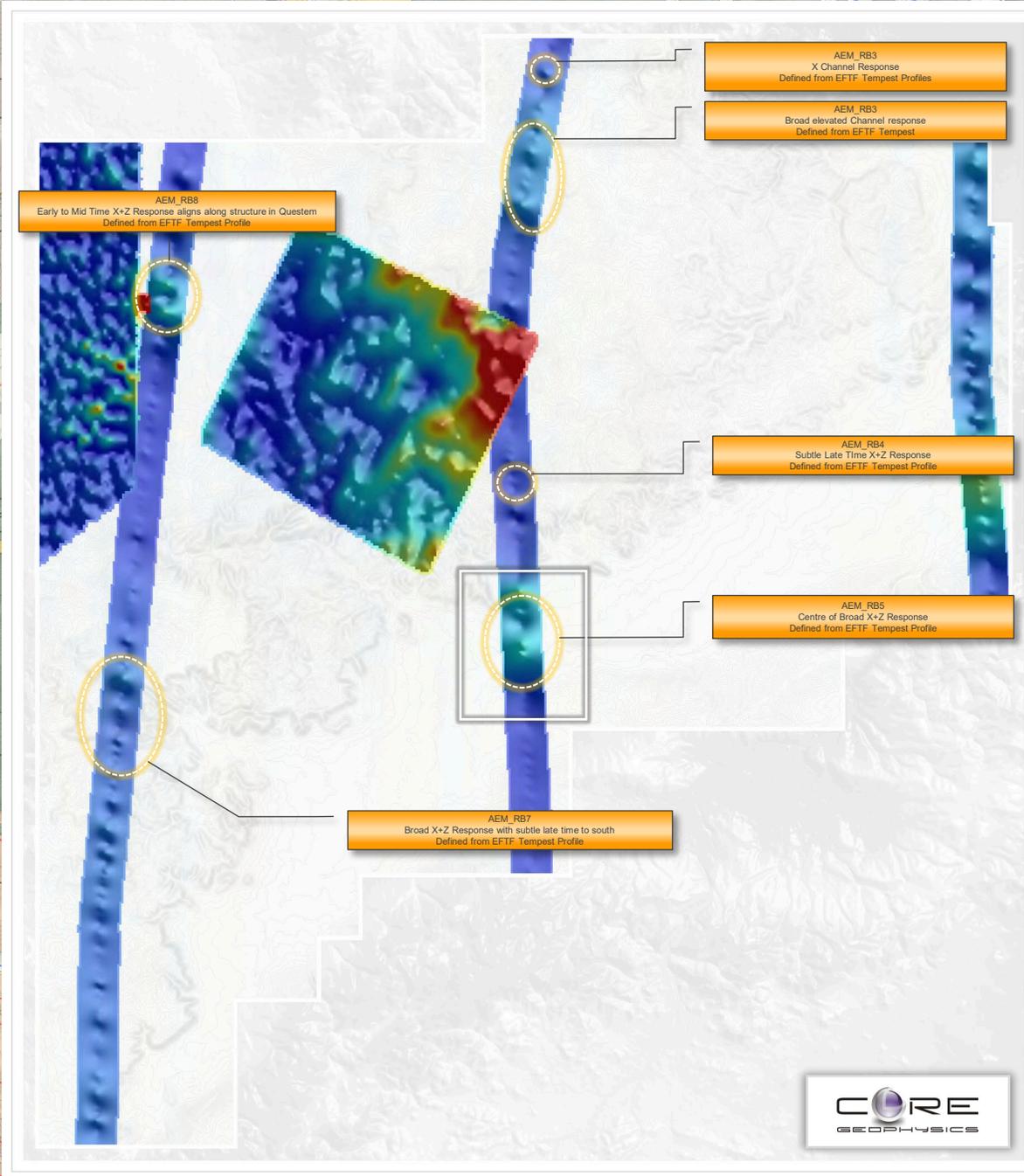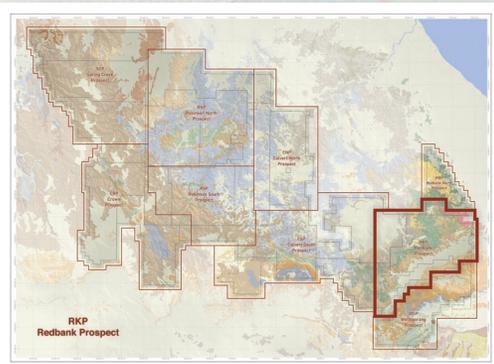
25k-Geological Map Series
Middle Time Channel AEM (MT)

Insert Map

AEM_RB3
X Channel Response
Defined from EFTF Tempest Profiles

AEM_RB3
Broad elevated Channel response
Defined from EFTF Tempest

AEM_RB8
Early to Mid Time X+Z Response aligns along structure in Questem
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AEM_RB5
Centre of Broad X+Z Response
Defined from EFTF Tempest Profile

CORE GEOPHYSICS

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Discover

Redbank Operations Pty. Ltd.

Redbank Exploration Project NT
25k Geological Map Series
RKP-Redbank Prospect
**Areas of Interest (AOI)**
Airborne Electromagnetic (AEM)
Late Time Channel AEM (LT) - (Mat Cooper)

RKP
Redbank Prospect

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Cartographic GIS Excellence
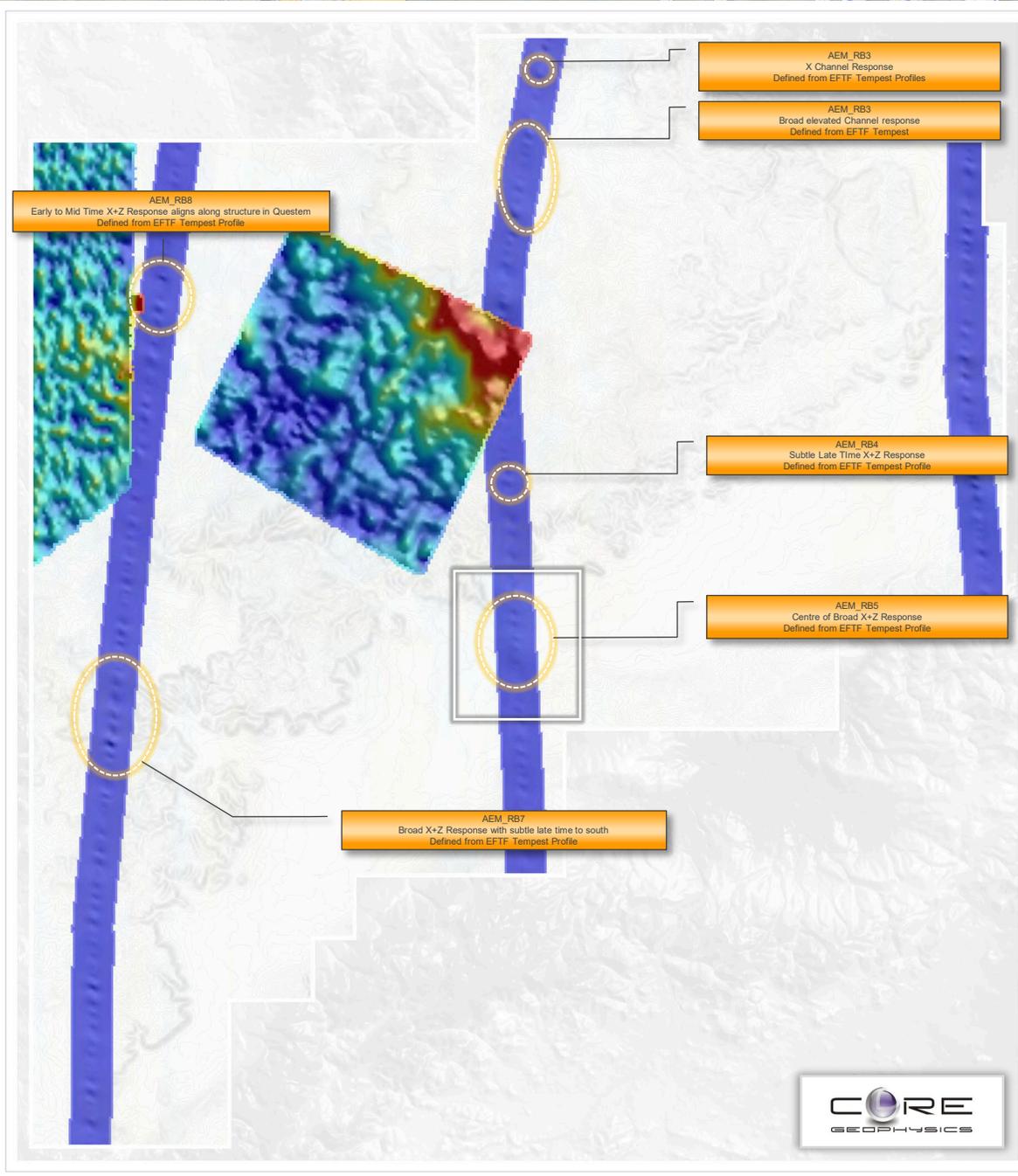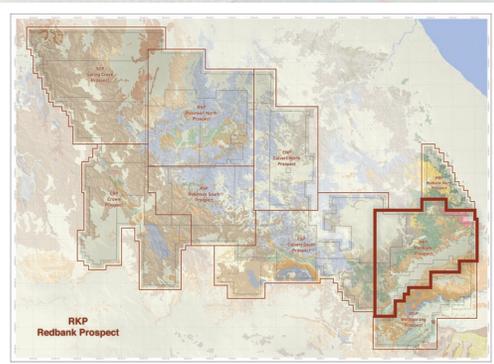
25k-Geological Map Series
Late Time Channel AEM (LT)

Insert Map

AEM_RB3
X Channel Response
Defined from EFTF Tempest Profiles

AEM_RB3
Broad elevated Channel response
Defined from EFTF Tempest

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CORE GEOPHYSICS

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Redbank Exploration Project NT
25k Geological Map Series
RKP-Redbank Prospect

MapInfo Workspace

The RKP MapInfo Workspace has been set-up and available in the RBK-Exploration Folder, this workspace is our base dataset for the RKP

RKP
Redbank Prospect

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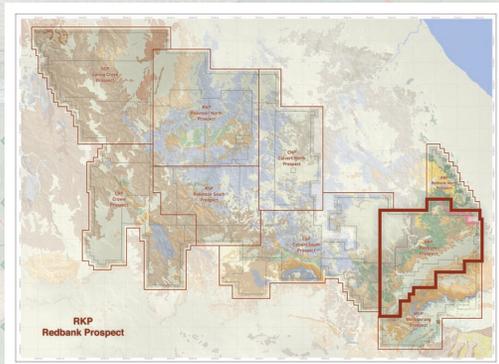
25k-Geological Map Series
MapInfo Workspace Location

Network > per-fp1.rc.local > GROUPS > GIS > GIS-NT-Northern Territory > RBO-GIS-Redbank Operations > RBK-Redbank Project > RBK-Exploration > RKP-Redbank Prospect > RKP-25k-WorkPro

Name	Type	Size
RKP-25k-Geology Map-Workspace.WOR	MapInfo Workspace	42 KB
RKP-25k-Geology Map-Workspace.wox	MapInfo Workspace Docking File	4 KB

Datamine
MapInfo Pro
Discover