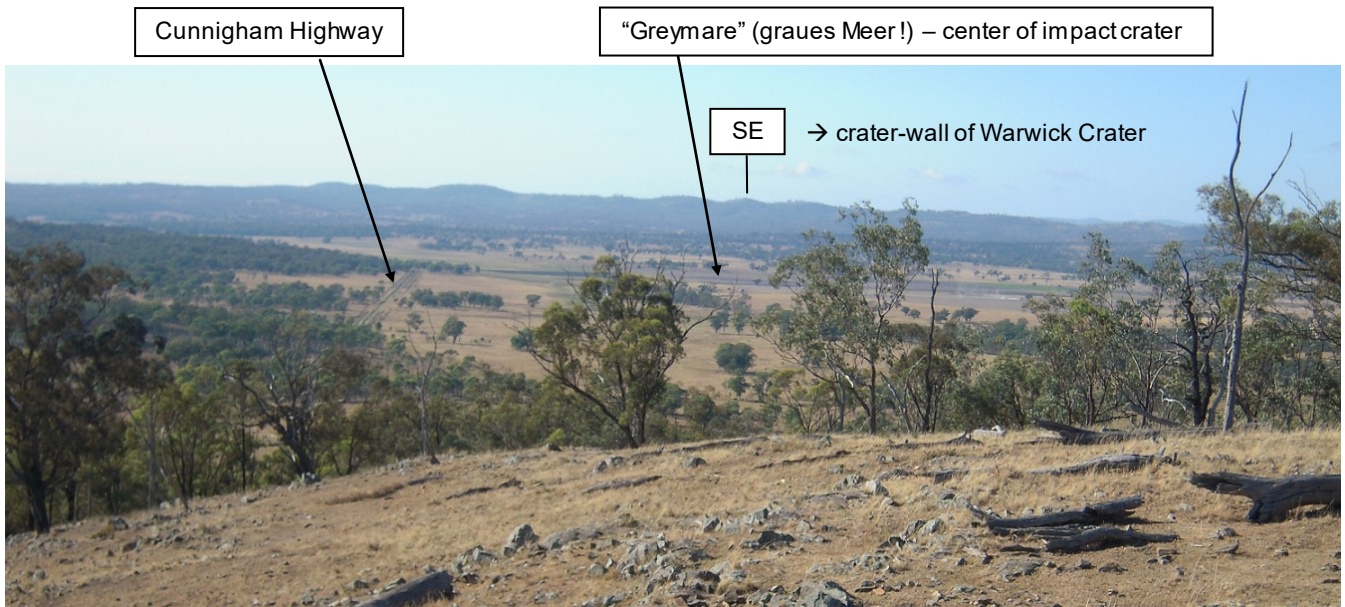


Possible Ø 8x7km elliptical Impact Crater near Warwick (QLD / Australia)

View Point 1 :

- Information document prepared by Harry K. Hahn , 23.08.2012 -

(→ location see satellite view)

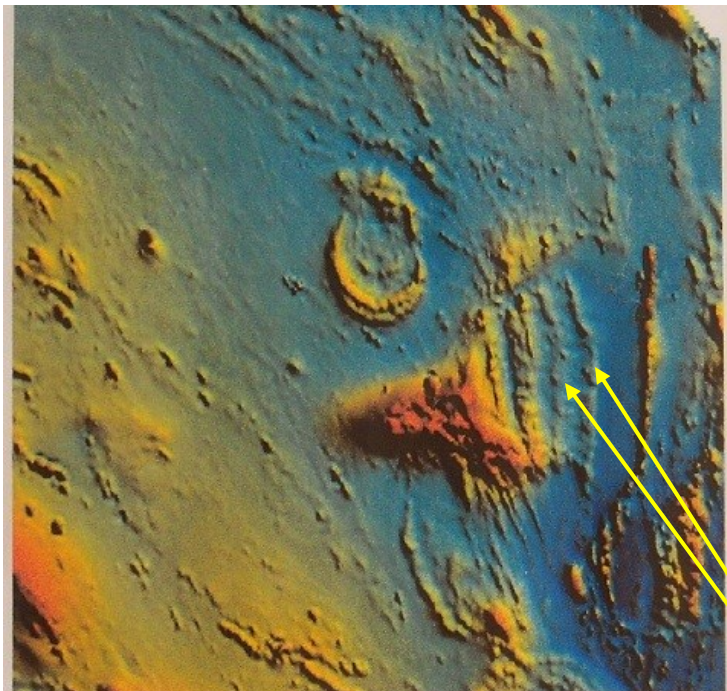


View Point 2 : → location on the remaining (intact) section of the elliptical crater-wall

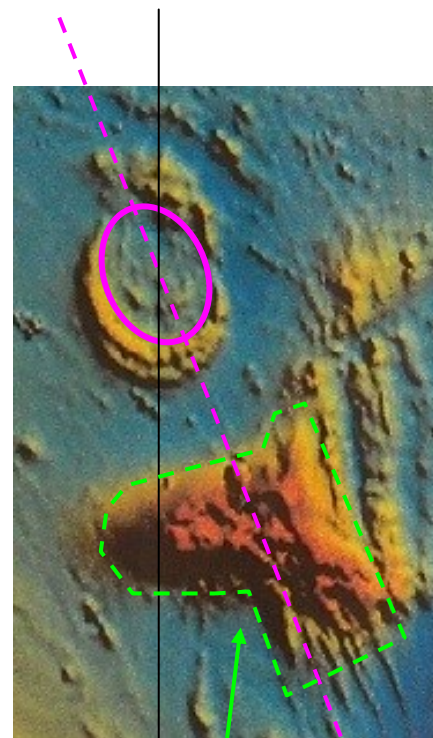


Magnetic Image of impact structure

(→ from a geological map of the Warwick area which I bought)



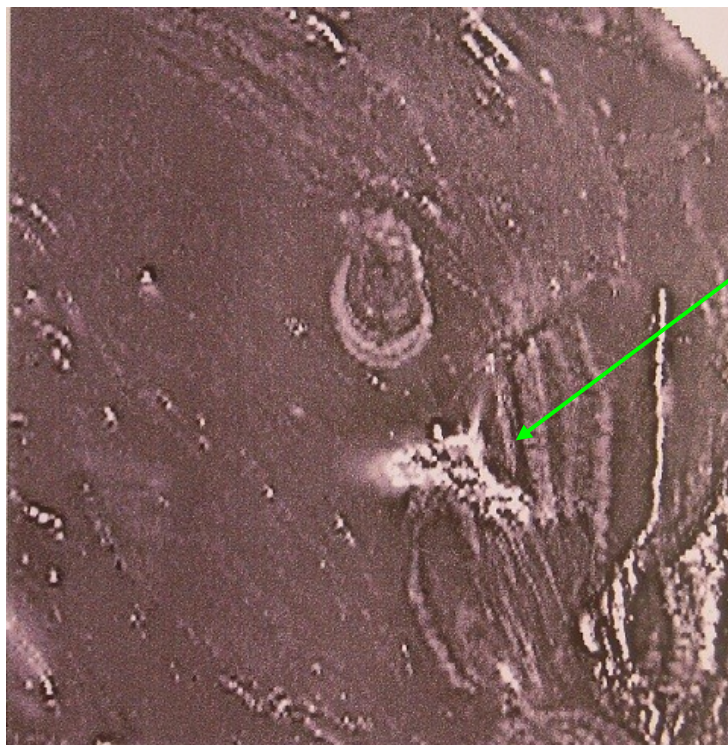
The total magnetic intensity image shows variations in the Earth's magnetic field caused by differences in the magnetic properties of rock units in the upper crust. The magnetic response of rocks is directly related to the content of magnetic minerals, and is depicted by means of a rainbow colour scale from red (strongly magnetic), through yellow (moderately magnetic), to blue (weakly to non-magnetic). The structure has been enhanced by draping the coloured image over a grey-scale version of the same data to which a NE sun-angle has been applied.



cracks probably caused by the shear-stress that was caused by the impacting ejecta material on the surface of Earth which rotates towards East.

main impact direction
(trajectory of impactor)

magnetic signature of ejected material

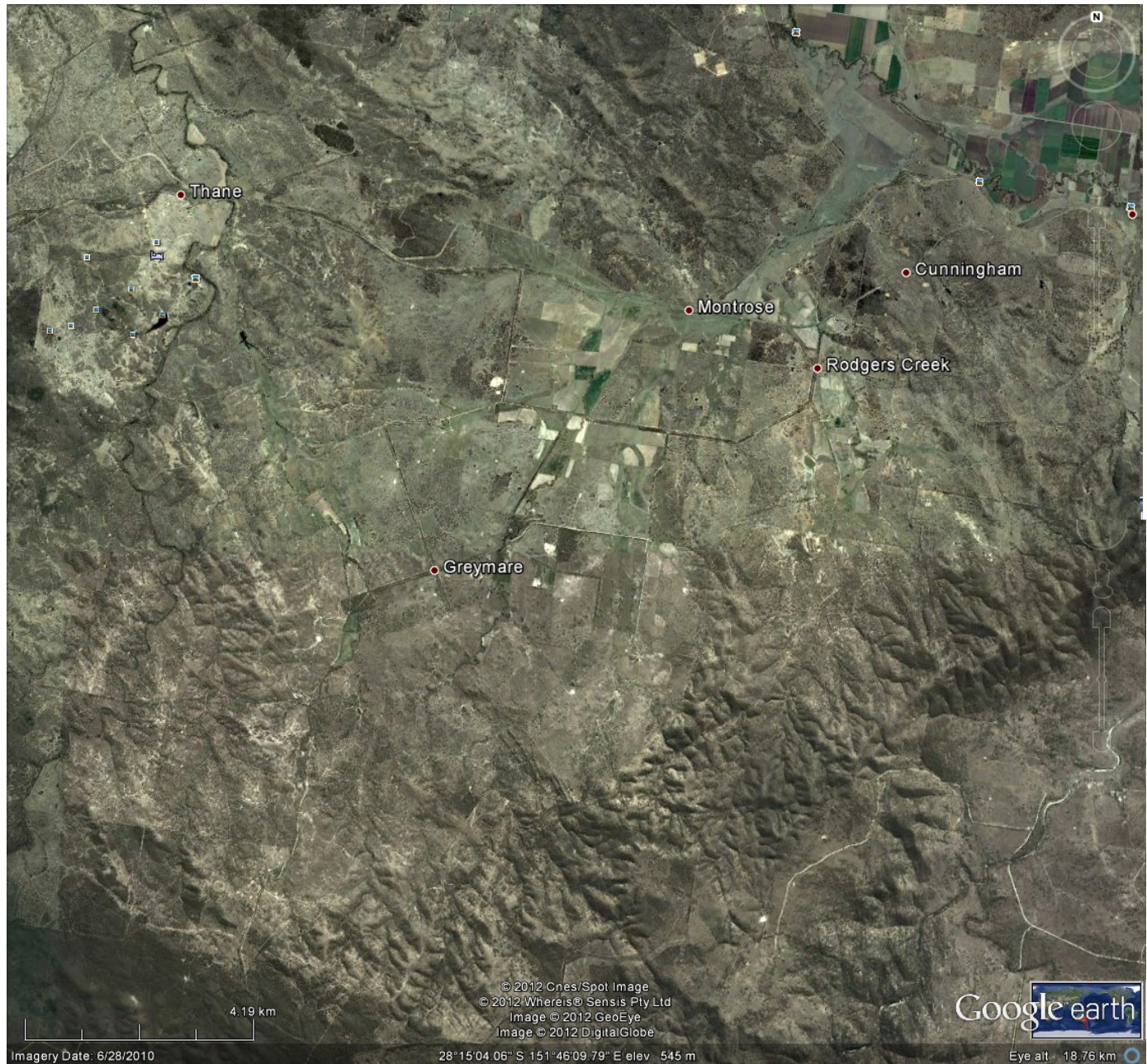


The first vertical derivative of the total magnetic intensity data enhances short-wavelength magnetic features relative to those with long wavelengths. This image emphasises the high gradients around the edges of magnetic bodies, and in particular highlights narrow linear magnetic features such as dykes.

Satellite View of impact structure (from Google Earth)

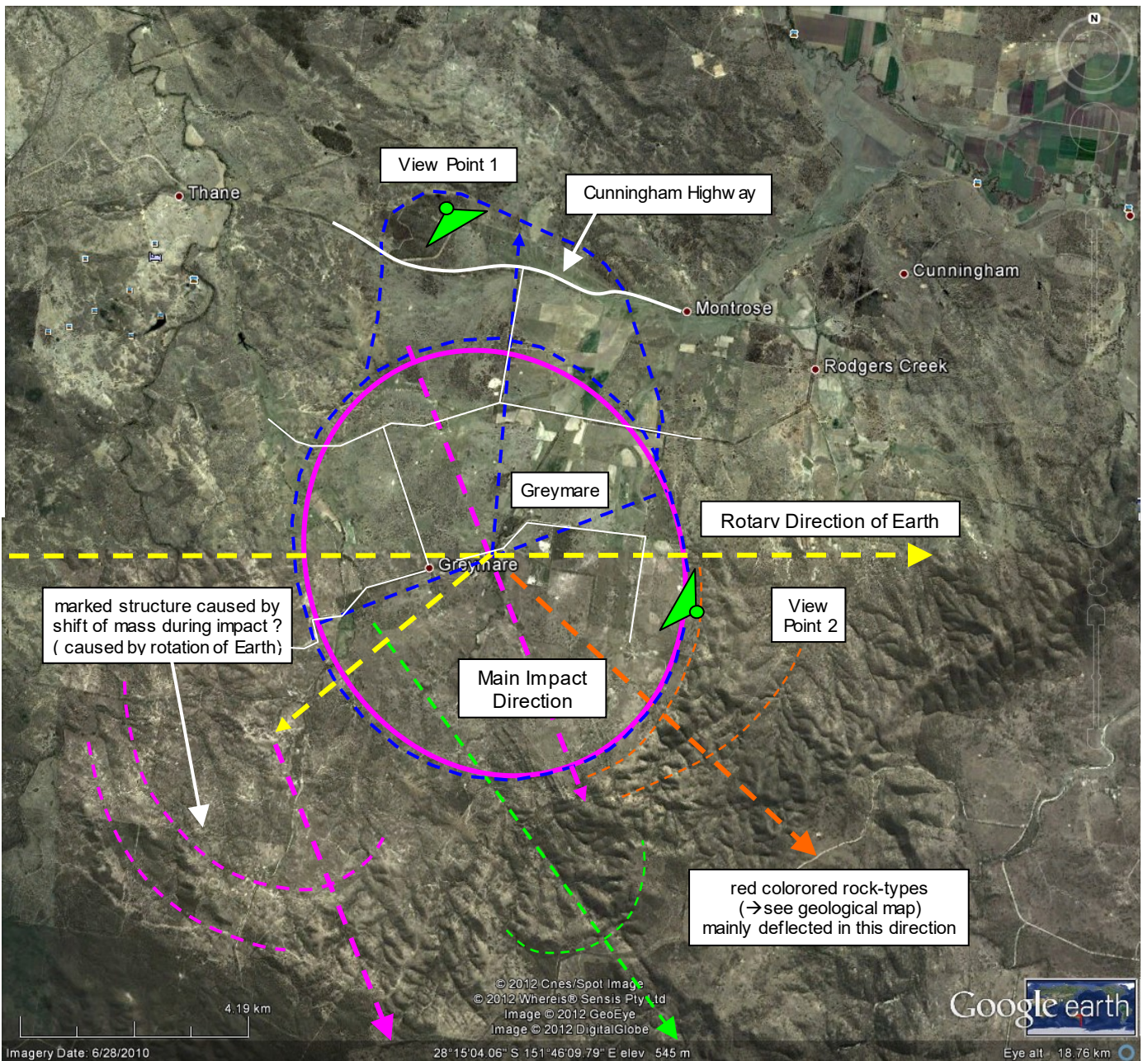
→ Coordinates of the assumed center of the elliptical impact :

28° 13' 21.65" S - 151° 44'33.03" E

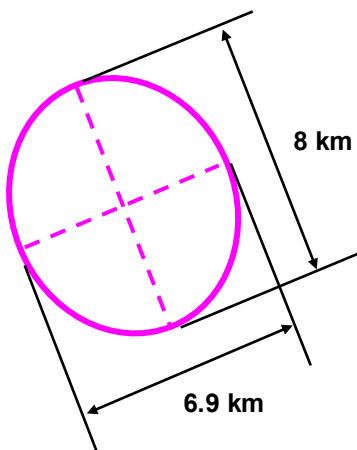


Satellite View of impact structure (from Google Earth)

→ Here my first try to interpret the topology of the assumed elliptical impact structure



approx. dimensions of main impact area :



Half of ejected mass mainly deflected in this direction (main impact direction)

Center Line between the two ejected mass halves

Oblique impact structure near Warwick (QLD/Australia)

For Comparison : (image from NASA)
A double oblique impact crater on Mars

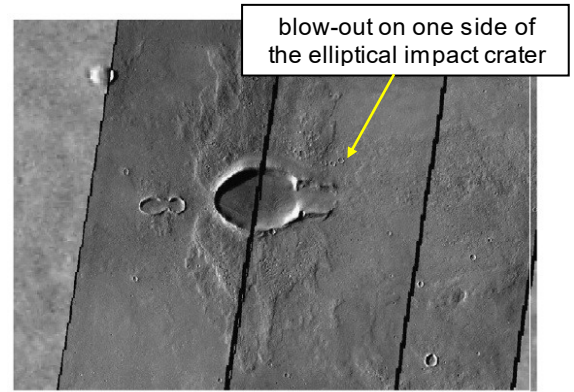
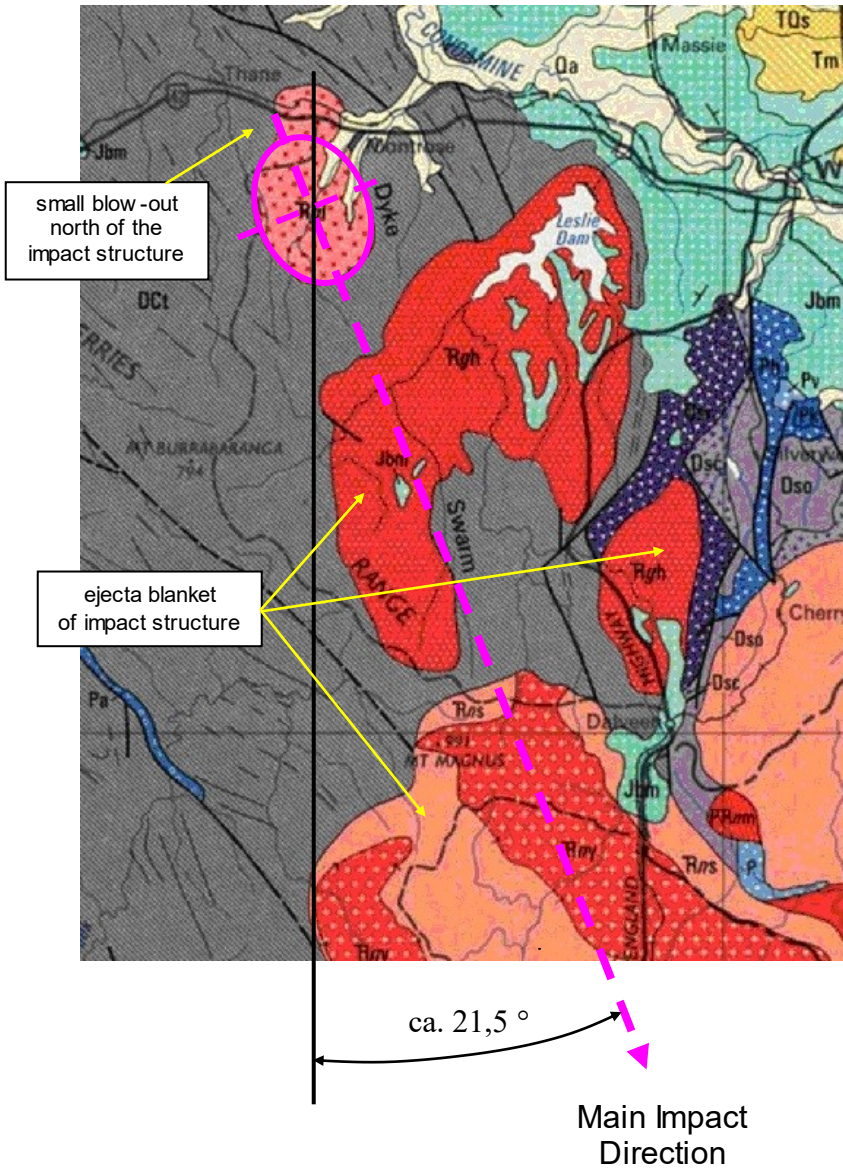


Fig. 1. A large (7.5 × 10.0 km) elliptical crater with a smaller elliptical crater (2.0 × 3.0 km) lying 12.5 km directly uprange (to the left). 'Butterfly'-pattern ejecta occur around both craters. (Mosaic of THEMIS daytime IR images.) North is up.

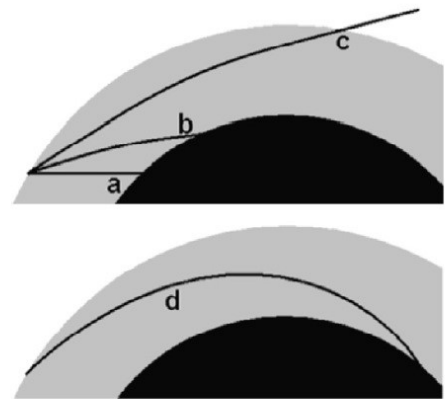


Fig. 2. Atmospheric flight trajectories for asteroids (top) and a moonlet (bottom) in the martian atmosphere, as discussed in the text. Both are radially exaggerated.

On the origin of a double, oblique impact on Mars

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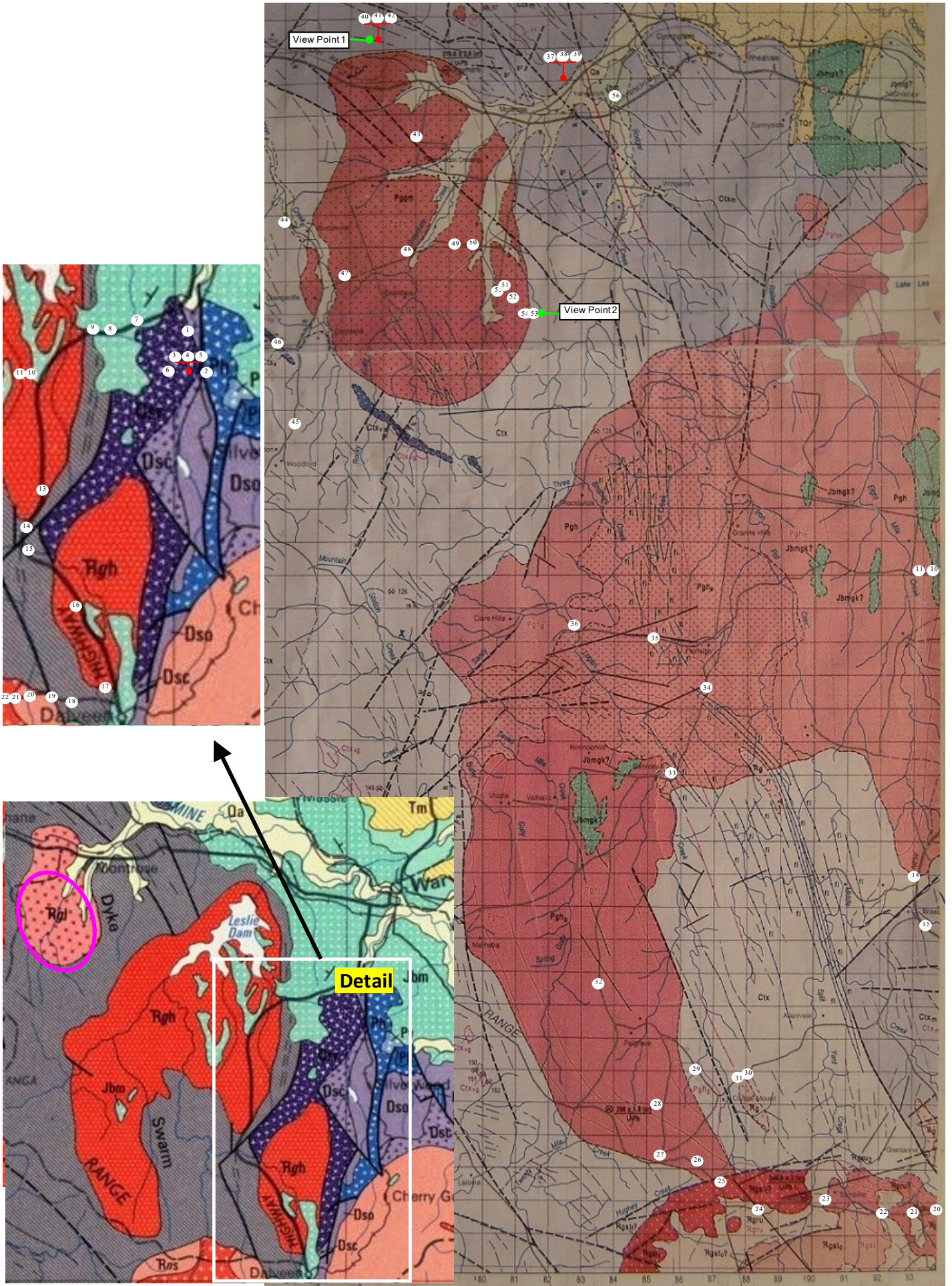
Keywords:
 Mars
 Mars, satellites
 Impact processes

ABSTRACT

A double, oblique impact feature north of Olympus Mons provides a unique opportunity to investigate the event that formed it. The sizes of the craters, their ellipticity, shapes of ejecta blankets, separation from each other, and positions relative to each other, all give us information about the event. Coupling this information with an existing model of meteoritic flight through an atmosphere allows us to test several possible scenarios for the event (object type and origin, pre-entry trajectory, atmospheric trajectory, prevailing atmospheric density). We find it highly improbable that the impactor was simply an extramartian asteroid or comet. We also find that it is unlikely to have been a double-asteroid or a tidally fractured one, but is more likely to have been a Mars-orbiting moonlet whose orbit tidally decayed, and that denser atmospheric conditions than today's may have prevailed when it impacted.

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Geological Map of surrounding area of impact structure with the exact locations where rock samples were collected :



The surrounding area of the elliptical impact structure shows further geological structures which also seem to be Impact Structures.

This image shows the geological map of the wider surrounding area of the assumed Impact Crater near the town „Warwick“.

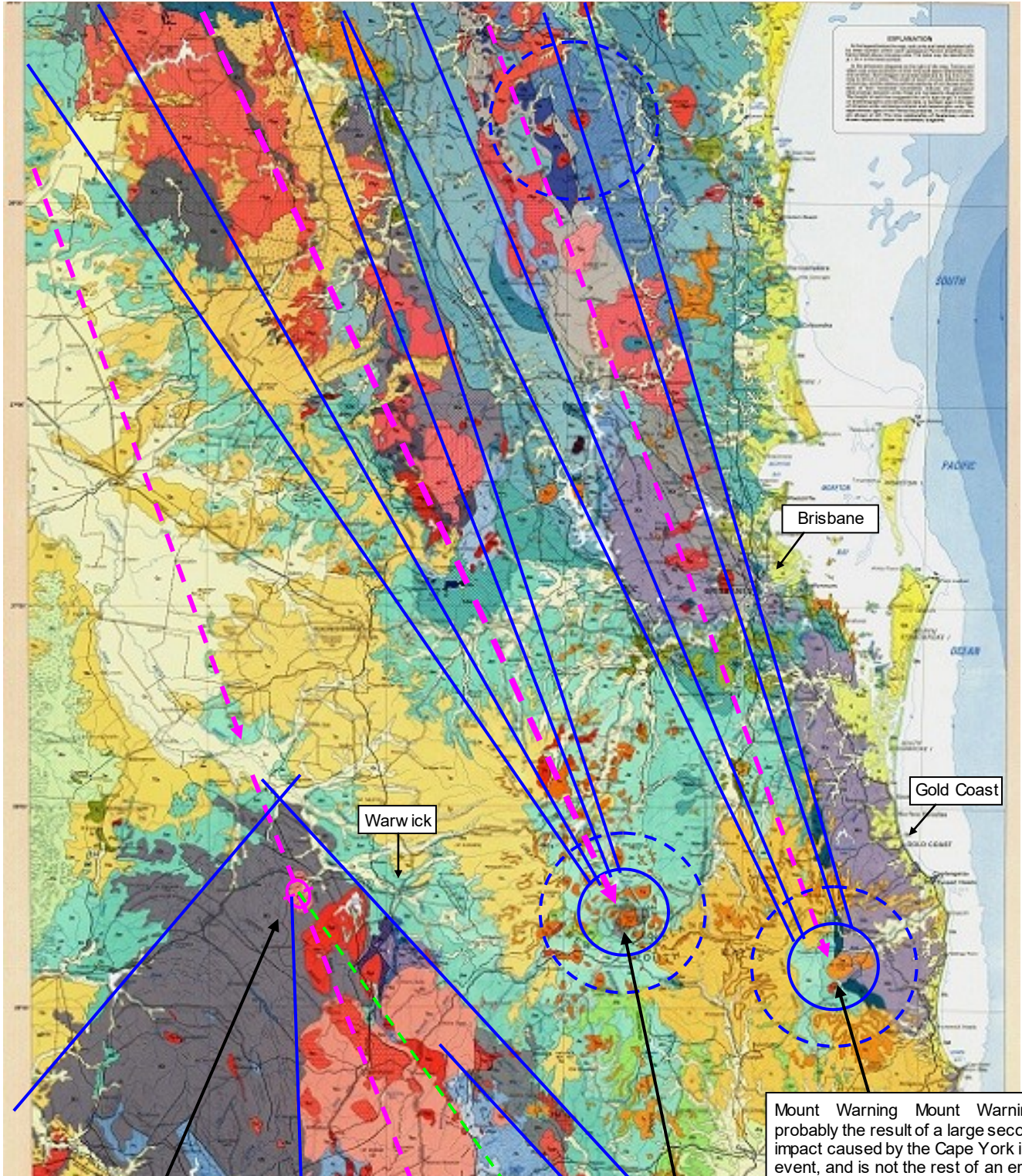
Beside the cone-shaped distribution of the different rock types south of the elliptical Impact Structure there is also a striking stripe-like (or ray-like) distribution visible of similar colored rock types (red, pink, orange, blue), parallel to the main impact direction.

Here the main impact direction corresponds to the direction of the rays marked in blue shown on the images on the next page.

And at the end of the two visible “stripe-like (or ray-like) ejecta blankets there are circular (volcanic) geological structures notable.

With a high probability these circular geological structures are also the remains of secondary craters which were caused by the ejected material thrown out of the primary impact , the Cape York Crater, further North !

In the following I want to deal with one of these circular structures a bit closer. This geological structure is named “Mount Warning”.



This is the assumed elliptical Impact Structure near Warwick, which I noted first on the Magnetic Intensity Map. With a high probability this elliptical impact crater was caused by ejecta coming from the big impact in the North.

The orientation of the ellipse and the “scattering cone” of the ejected material clearly indicate the main impact direction.

By following this main impact direction you will automatically come across the big impact in the North

Probably also this circular structure is the remain of a secondary impact caused by the 300 km diameter impact crater near Cape York.

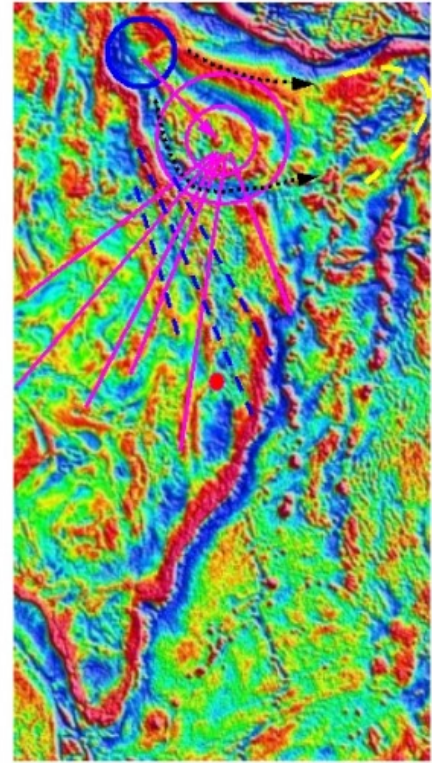
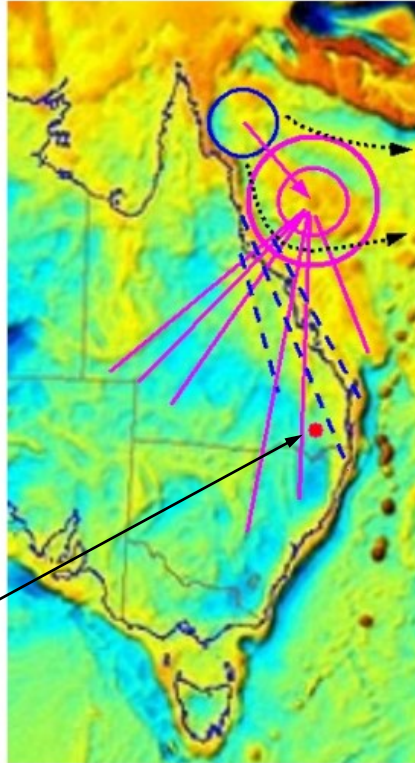
Mount Warning Mount Warning is probably the result of a large secondary impact caused by the Cape York impact event, and is not the rest of an eroded shield-vulcano as currently believed. Therefore the age of the Mt Warning crater must also be ≈ 253 Ma.

On the gravity anomaly maps there are traces visible from a massive impact in the North of Australia.

→ For example there are rays visible which come from the main impact location (marked in blue) and rays which come another crater or from the location where the ejecta of this large impact hit the surface (pink circles). The black arrows indicate the material flow caused by the impact and the ejecta, and the yellow bow-shaped line indicates where some of the material probably solidified.

anomalous gravitational field map 1

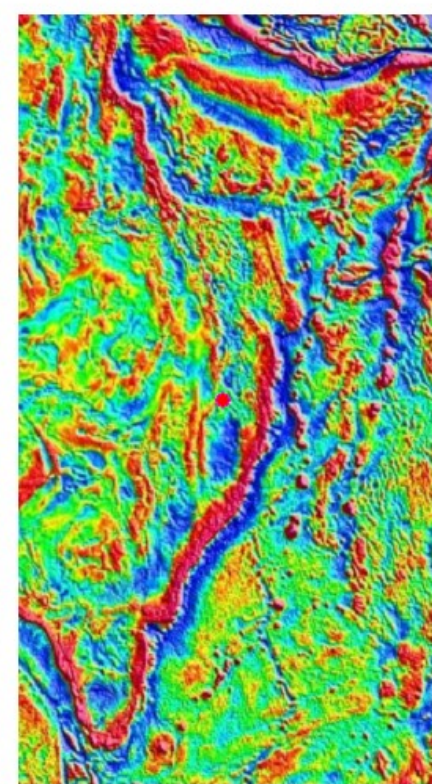
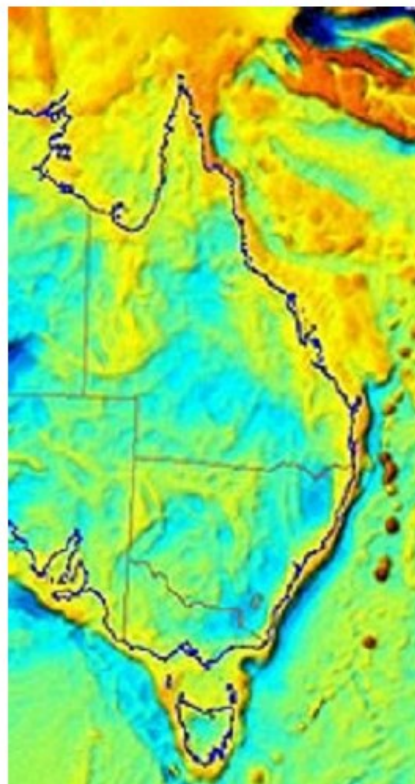
anomalous gravitational field map 2



The red point indicates
The position of the found
Elliptical Impact Structure
(the "8 x 7 km Warwick Crater")

anomalous gravitational field map 1

anomalous gravitational field map 2



On many areas around and also inside the assumed Warwick Crater accumulations of large rock boulders can be observed.

- this may be an indication that the whole area is composed of ejecta material which was ejected by the large Cape York Crater in the North
- Another indication for this assumption is the fact that in many locations very different types of rock are completely mixed like in a rubble dump !



Sample Site **23a**



Sample Site **24a**



Sample Site **51f**



Sample Site **54b**

Rock Samples

Around 50 rock samples were collected (along yellow marked route)
(→ previous page)

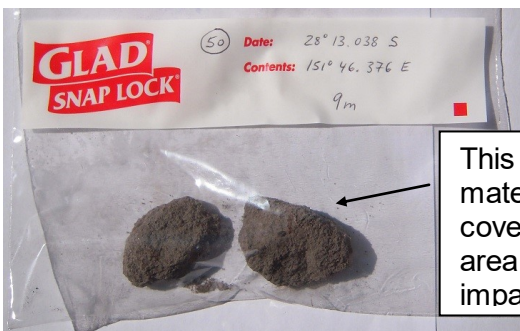
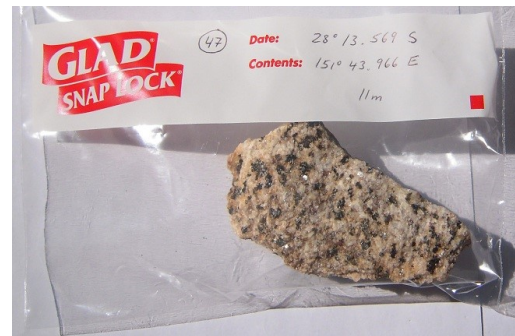
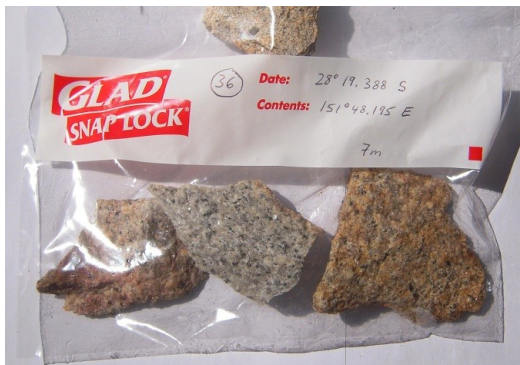
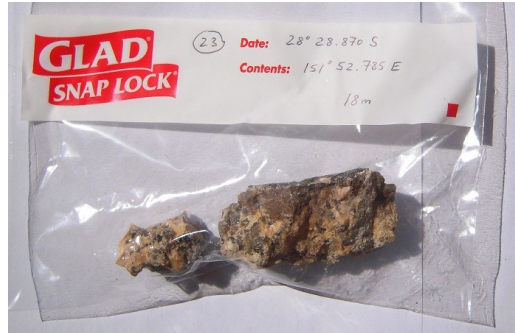
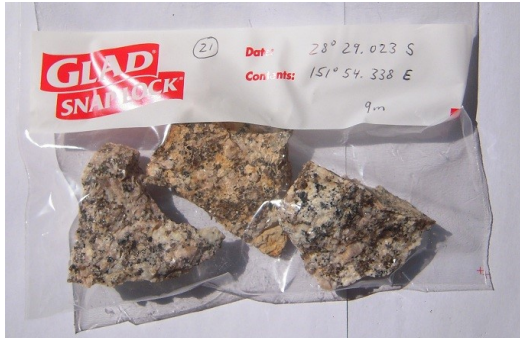
All rock samples have the GPS datas attached (on plastic bag)



→ see some close-up photos of some of the rock samples on the next page !

Cose-ups of some selected rock samples :

The first two images are from rock samples collected in the ejecta area further away from the impact crater. And the other six samples are from the crater area.



This is the grey material which covers the center area of the impact crater

