



GY 13 (DH 184731) drillhole report

Sedimentary Copper Mineral Systems of the Stuart Shelf
GSSA-CSIRO project

C Krapf, A Fabris, M Bockmann, G Gordon,
S Schmid, V Crombez and M Kunzmann



Government
of South Australia

Department for
Energy and Mining



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² CSIRO (*now FMG)

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Report Book 2023/00008



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Acknowledgement of Country

As guests on Aboriginal land, the Department for Energy and Mining (DEM) acknowledges everything this department does impacts on Aboriginal country, the sea, the sky, its people, and the spiritual and cultural connections which have existed since the first sunrise. Our responsibility is to share our collective knowledge, recognise a difficult history, respect the relationships made over time, and create a stronger future. We are ready to walk, learn and work together.

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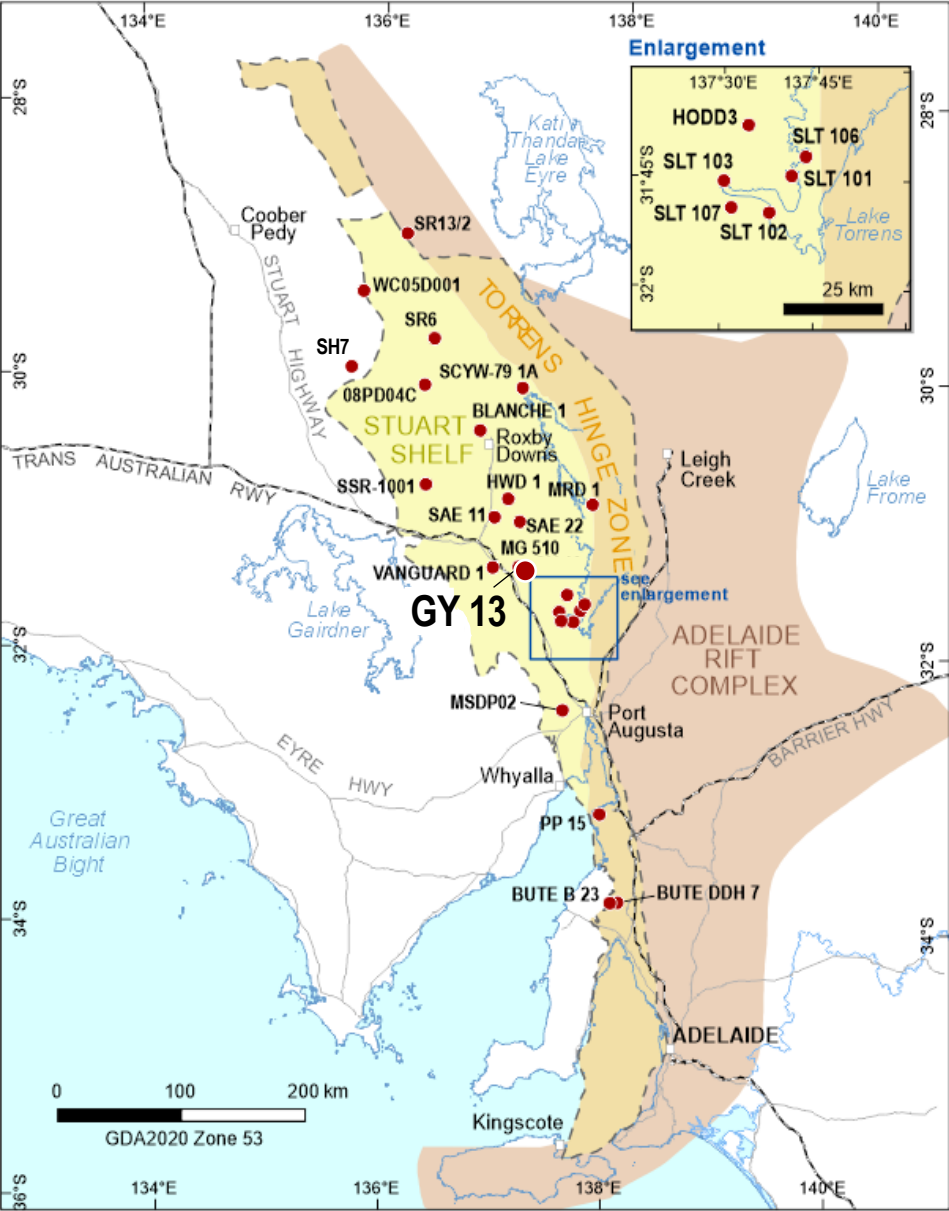
Drillhole information

Drillhole name	GY 13	
Drillhole number	184731	
Tenement	EL 81	
Location	137.1817286 Long -31.4454134 Lat	707329.66E 6518973.46N GDA2020, Zone 53
Date drilled	08/03/1975	
Drillhole depth	53 m	
Cored interval	53 m	
Azimuth/Dip	0	-90
Reference	ENV06628	
Comment	Mount Gunson – Gully area	

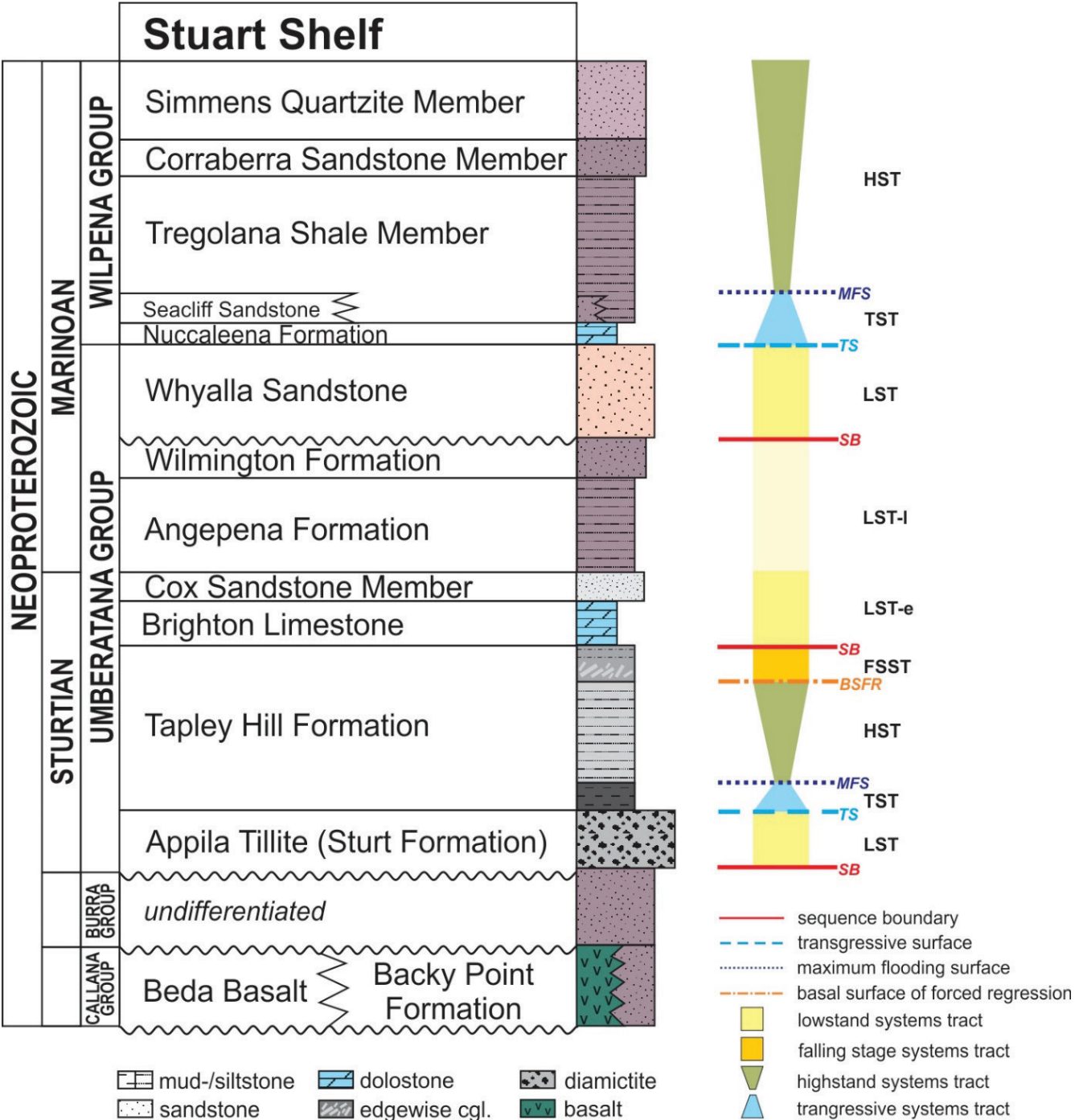
This drillhole report provides a summary of new logging and data collection undertaken as part of the Sedimentary Copper Mineral Systems of the Stuart Shelf GSSA-CSIRO project.

Associated newly collected handheld gamma, portable XRF and HyLogger™ data are available for download via the [blue hyperlinks](#) in this report.

Drillhole location



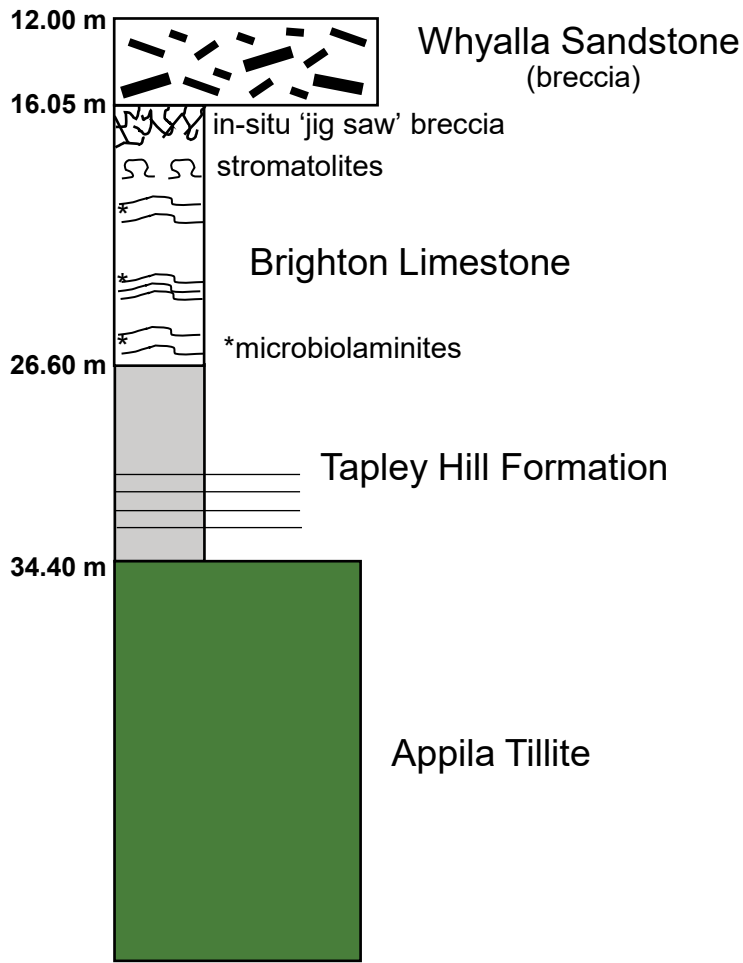
Generalised stratigraphy and sequence stratigraphy of the Stuart Shelf*



*Note: not all stratigraphic units were deposited or preserved throughout the Stuart Shelf

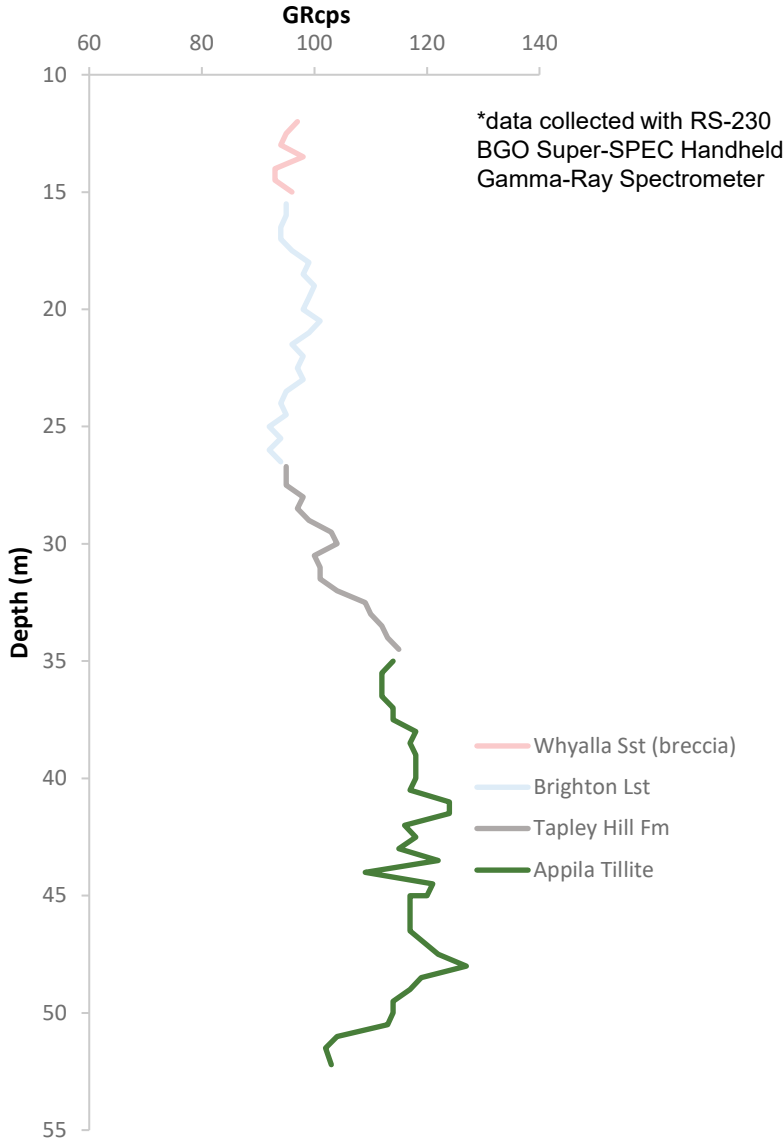
GY 13

generalised stratigraphic log
(depth interval 12 – 53 m)



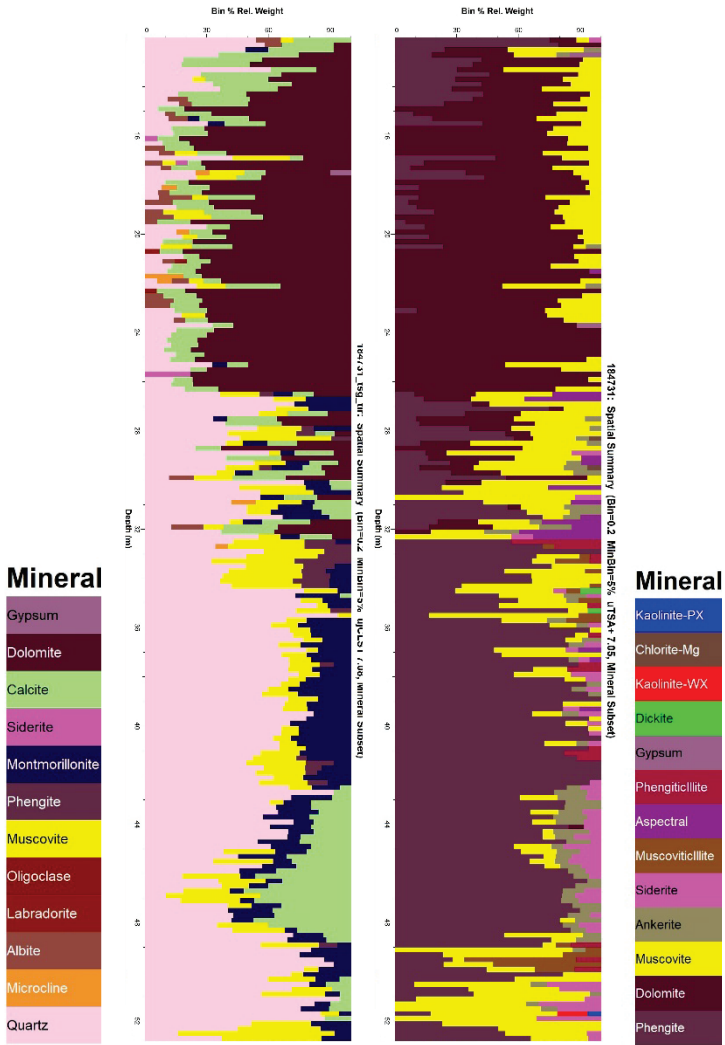
Handheld gamma*

[Download gamma data](#)



HyLogger™

[Download HyLogger™ data](#)

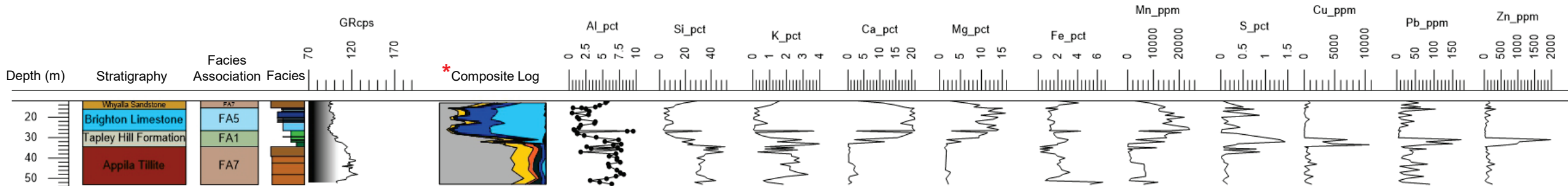


Combined STRATER log (stratigraphy, facies, gamma and handheld pXRF* - corrected)

GY 13 (depth interval 12 – 53 m)



[Download pXRF data](#)



Facies Association (FA)

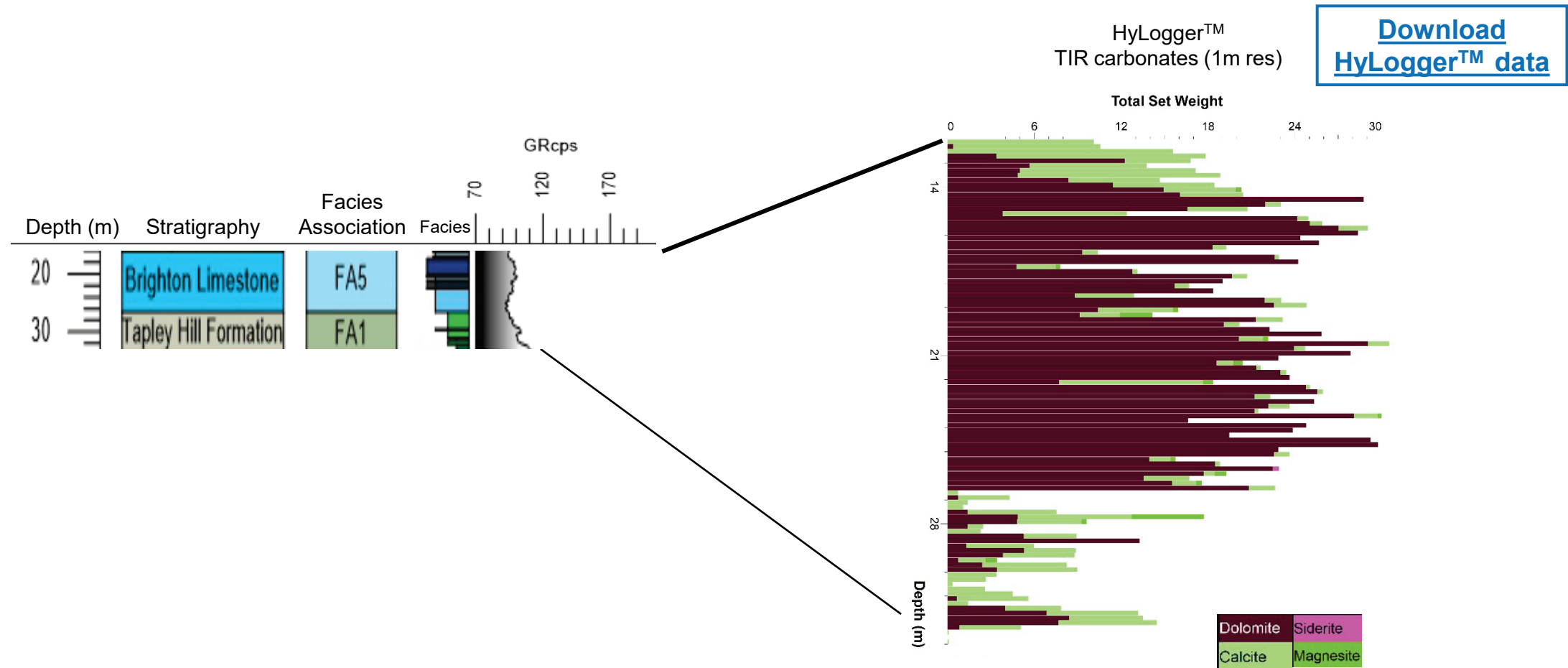
- FA1: offshore
- FA2: offshore transition
- FA3: lower shoreface - prodelta
- FA4: shoreface to delta front
- FA5: shallow subtidal to subtidal
- FA6: intertidal to supratidal
- FA7: glacial to fluvio-glacial

- * Mg_pct
- Al_pct
- Si_pct
- S_pct
- K_pct
- Ca_pct
- Fe_pct
- Cu_ppm
- Pb_ppm
- Zn_ppm

*data collected with Vanta™ Handheld XRF

GY 13 Carbonate Content

Tapley Hill Formation and Brighton Limestone interval (6 – 34.4 m)



- Facies Association (FA)**
- FA1: offshore
 - FA2: offshore transition
 - FA3: lower shoreface - prodelta
 - FA4: shoreface to delta front
 - FA5: shallow subtidal to subtidal
 - FA6: intertidal to supratidal
 - FA7: glacial to fluvio-glacial

GY 13 (all core trays, depth 12 – 53 m)



Appila Tillite (depth 34.4 – 53 m)

sandstones – massive



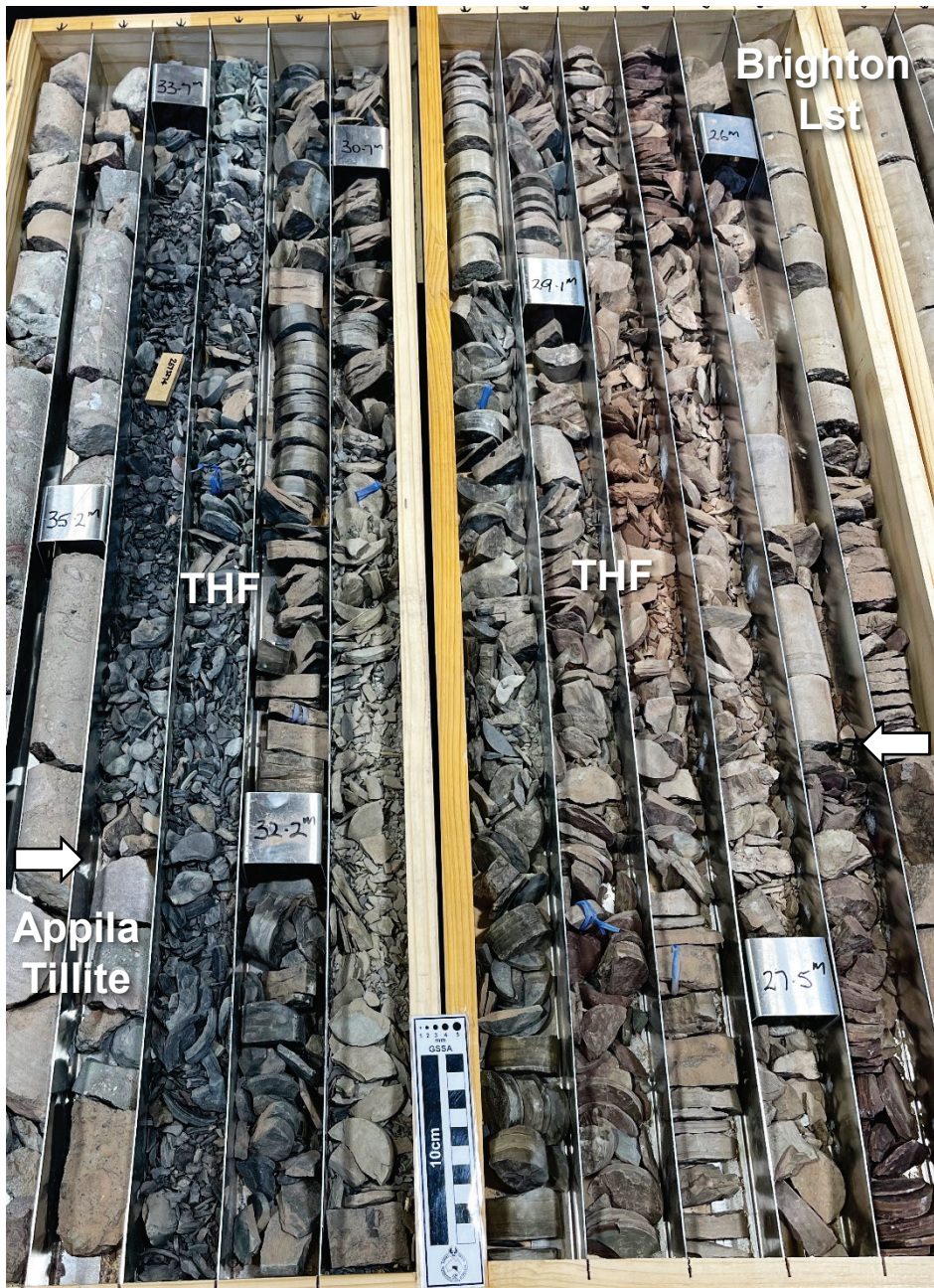
sandstones (pebbly to diamictic)



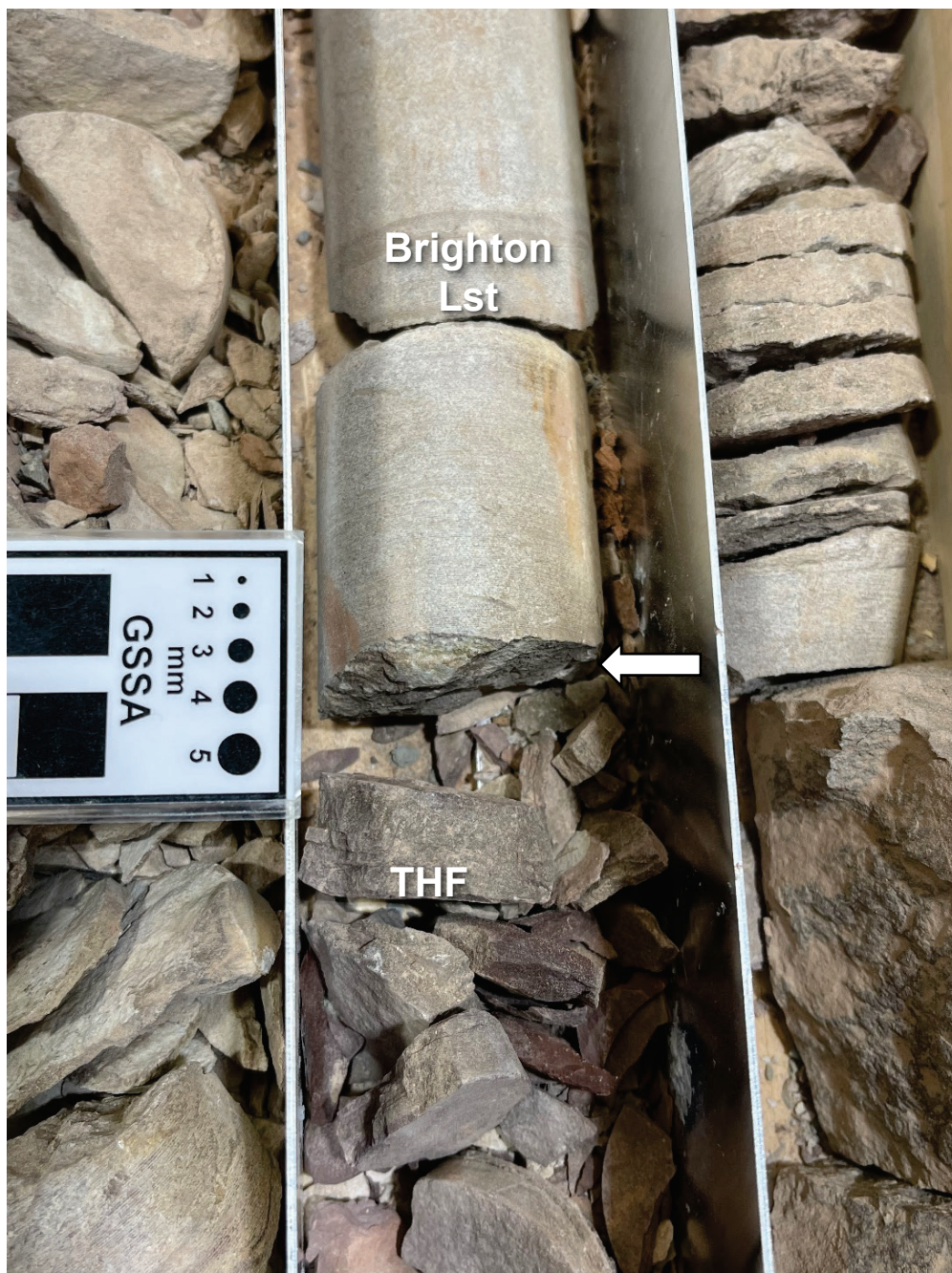
diamictite



Tapley Hill Formation (THF) (depth 26.6 – 34.4 m)



Transition Tapley Hill Formation – Brighton Limestone



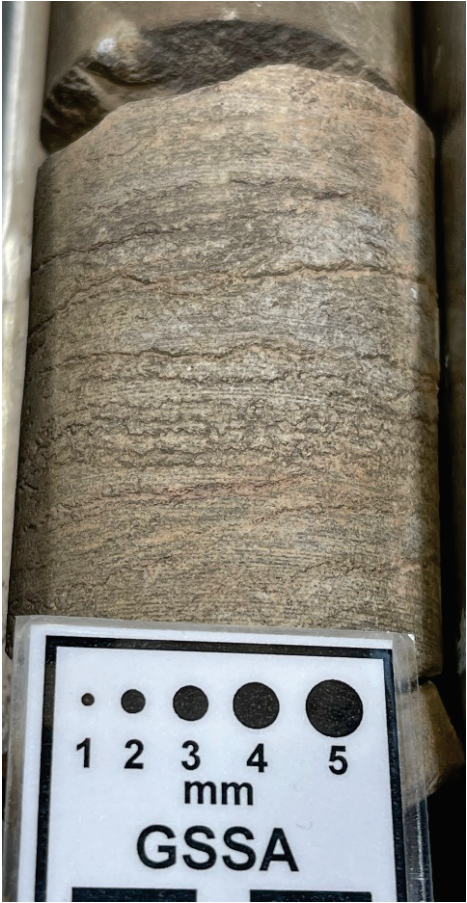
Brighton Limestone (depth 16.05 – 26.6 m)



massive dolomite



microbiolaminite



stromatolite



Whyalla Sandstone (6 – 16.05 m)

breccia

'in-situ' jig saw breccia



dark grey matrix potentially reworked Tapley Hill Fm

