

Appendix 1

One dimensional heat flow models

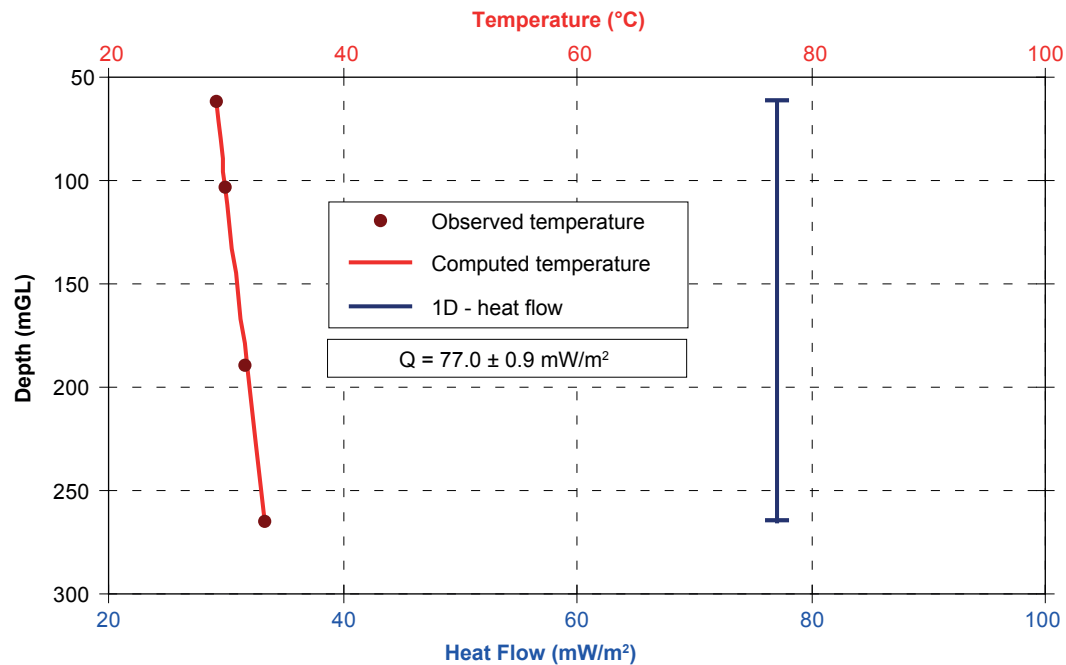
GSQ Mossman 2-3R

Lat: -16.51797; Long: 145.03100 (GDA 94, Zone 55)
 Total depth: 339.7 m
 Precision temperature log: 0 - 264.99 m

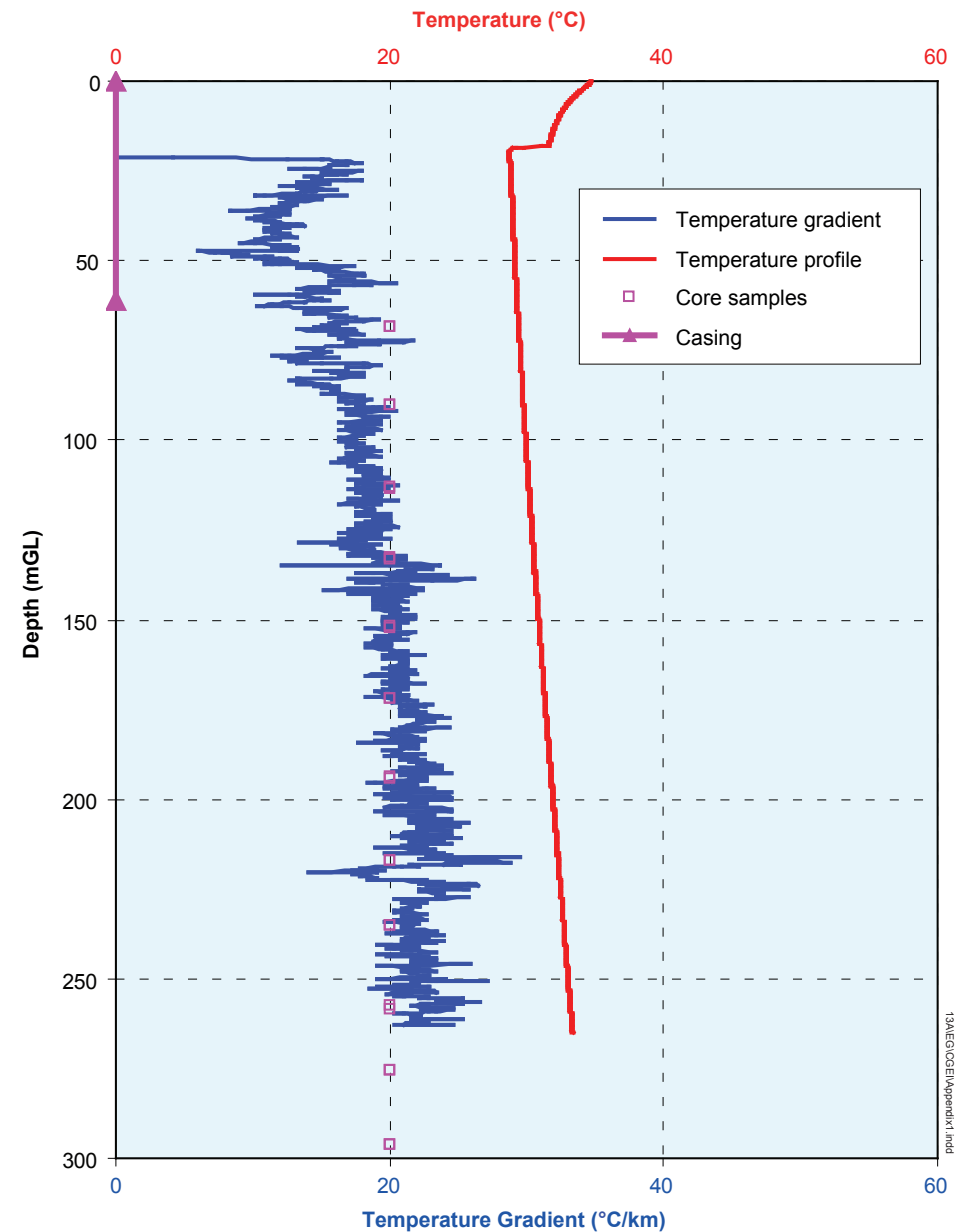
GSQ Mossman 2-3R		Depth to top of modelled interval (m): 62.00			
Heat Flow: 77.0 ± 0.9 mW/m ²		Depth to base of modelled interval (m): 264.99			
Lithology	Top (m)	Conductivity @ 25°C (W/mK)*	Uncertainty (W/mK)	Obs. T (°C)	Comp. T (°C)
Sandstone, siltstone	62.00	4.54	0.15	29.27	29.27
Sandstone, siltstone	103.13	3.79	0.06	29.95	29.98
Sandstone, mudstone	189.45	3.89	0.07	31.66	31.76
	264.99			33.33	33.28

* For detailed description of thermal conductivity profile, refer to Queensland Geological Record 2012/15.

1D - Heat Flow Model



Precision Temperature and Gradient Plot



GSQ Georgetown 8-9R

Lat: -18.40500; Long: 143.14150 (GDA 94, Zone 54)

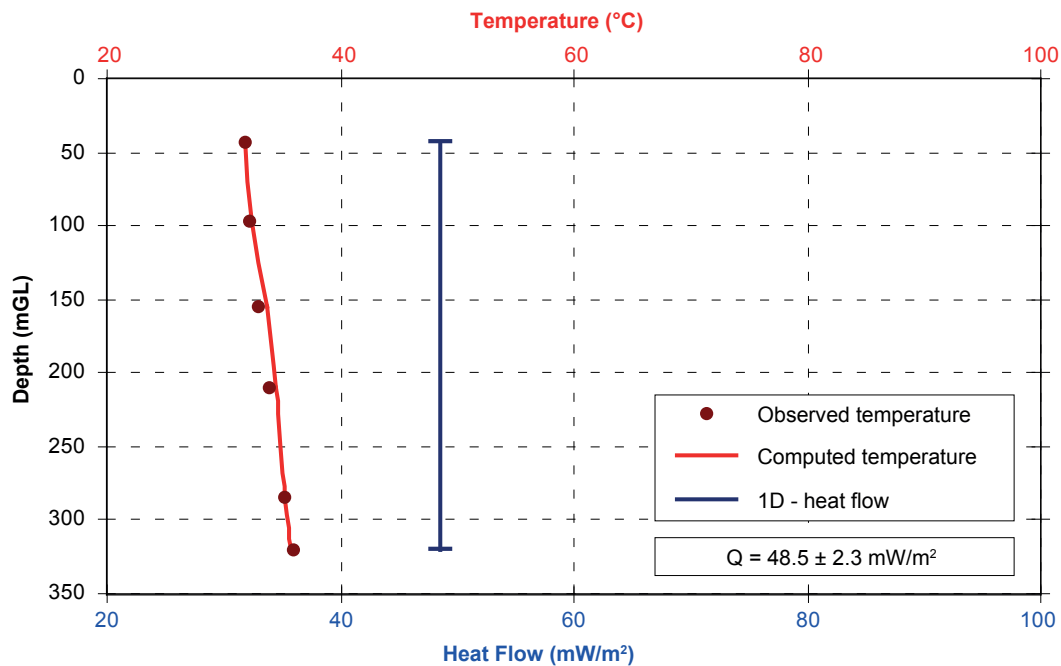
Total depth: 320.15 m

Precision temperature log: 0 - 330.42 m (GSQ Georgetown 9R)

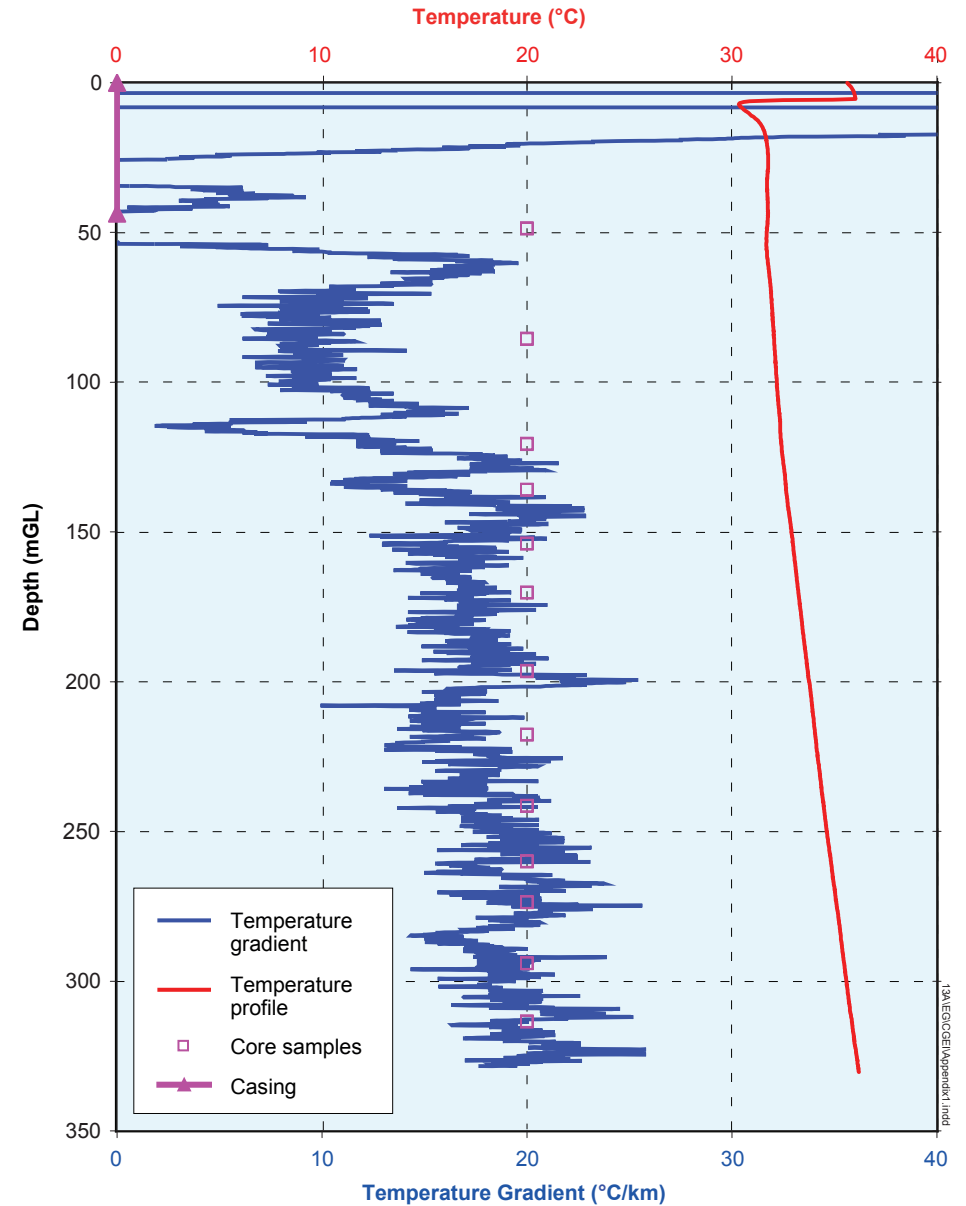
GSQ Georgetown 8-9R		Depth to top of modelled interval (m): 43.60			
Heat Flow: 48.5 ± 2.3 mW/m ²		Depth to base of modelled interval (m): 320.15			
Lithology	Top (m)	Conductivity @ 25°C (W/mK)*	Uncertainty (W/mK)	Obs. T (°C)	Comp. T (°C)
Sandstone, mudstone, siltstone	43.60	3.67	0.17	31.76	31.76
Sandstone, siltstone, mudstone	97.30	2.33	0.26	32.15	32.48
Sandstone, siltstone	154.37	4.07	0.19	32.99	33.69
Sandstone, siltstone, mudstone	209.85	4.21	0.58	33.93	34.37
Sandstone, siltstone	283.94	3.94	0.12	35.29	35.24
	320.15			35.98	35.71

* For detailed description of thermal conductivity profile, refer to Queensland Geological Record 2012/16.

1D - Heat Flow Model



Precision Temperature and Gradient Plot



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GSQ Bowen 1

Lat: -20.28725; Long: 148.46589 (GDA 94, Zone 55)

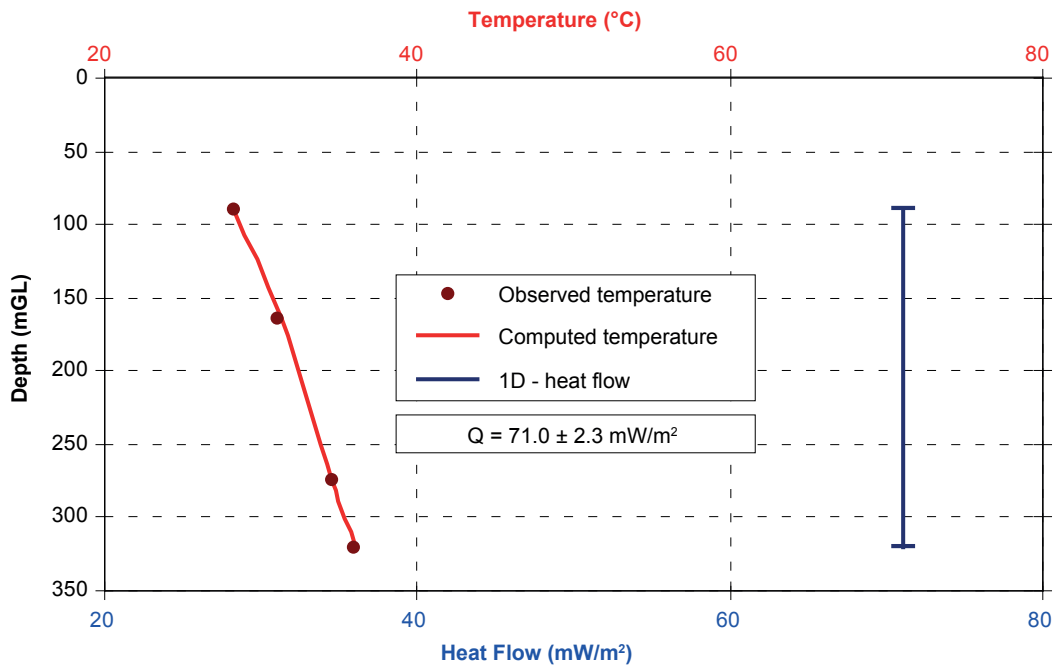
Total depth: 321 m

Precision temperature log: 0 - 321.00 m

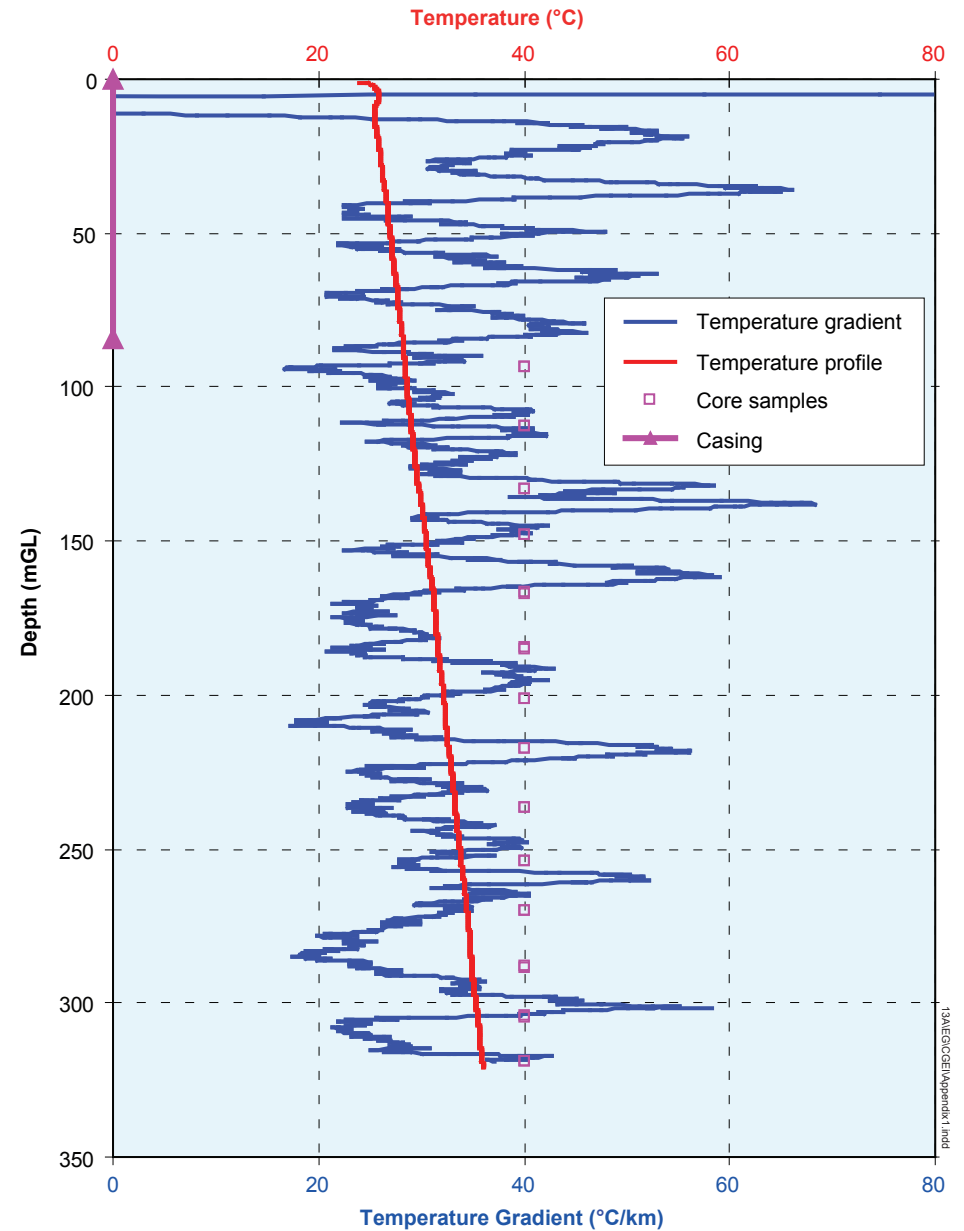
GSQ Bowen 1		Depth to top of modelled interval (m): 89.00			
Heat Flow: $71.0 \pm 2.3 \text{ mW/m}^2$		Depth to base of modelled interval (m): 320.71			
Lithology	Top (m)	Conductivity @ 25°C (W/mK)*	Uncertainty (W/mK)	Obs. T (°C)	Comp. T (°C)
Mudstone, siltstone, sandstone, coal	89.00	1.80	0.07	28.27	28.27
Mudstone, sandstone, siltstone	164.19	2.45	0.15	31.04	31.26
Sandstone, mudstone, siltstone	274.19	2.13	0.14	34.56	34.50
	320.71			35.94	36.08

* For detailed description of thermal conductivity profile, refer to Queensland Geological Record 2012/08.

1D - Heat Flow Model



Precision Temperature and Gradient Plot



GSQ St Lawrence 1

Lat: -22.64077; Long: 149.66777 (GDA 94, Zone 55)

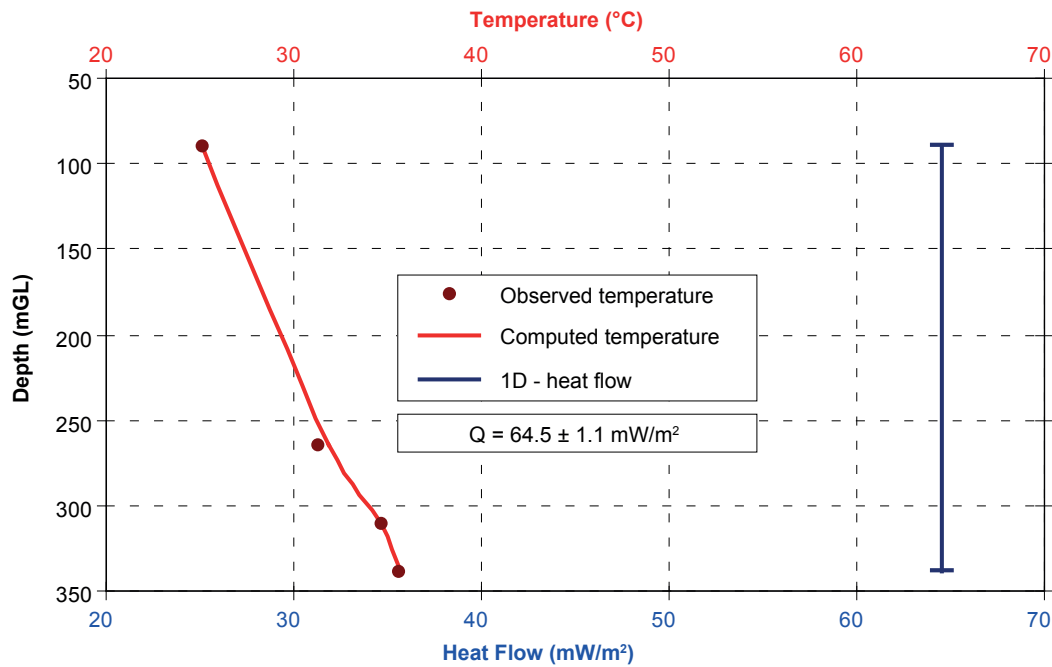
Total depth: 340 m

Precision temperature log: 0 - 337.95 m

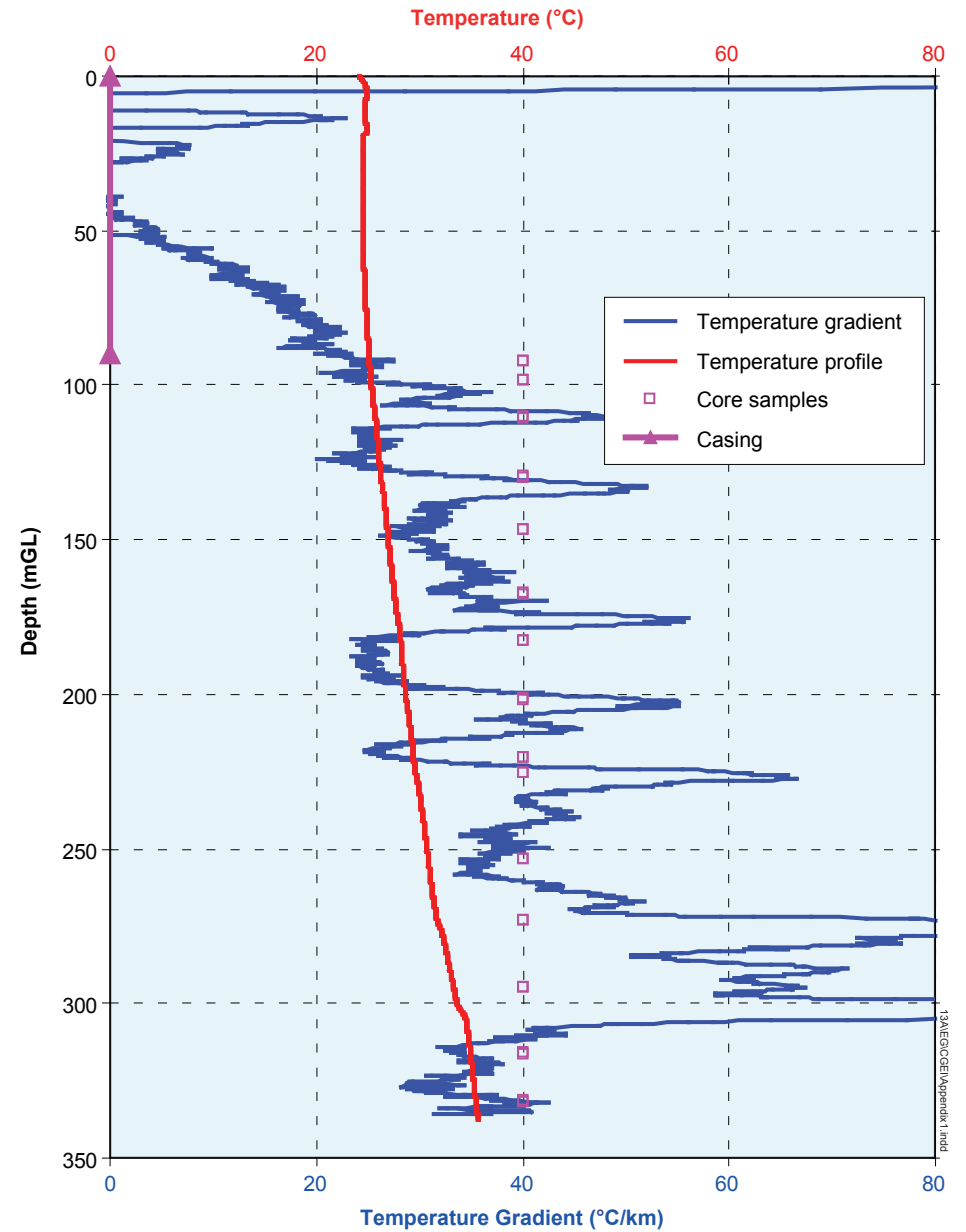
GSQ St Lawrence 1		Depth to top of modelled interval (m): 90.15			
Heat Flow: 64.5 ± 1.1 mW/m ²		Depth to base of modelled interval (m): 337.95			
Lithology	Top (m)	Conductivity @ 25°C (W/mK)*	Uncertainty (W/mK)	Obs. T (°C)	Comp. T (°C)
Sandstone, mudstone, coal	90.15	1.65	0.03	25.07	25.07
Sandstone, mudstone, coal	264.50	1.08	0.03	31.23	31.89
Sandstone, mudstone	310.77	1.73	0.19	34.69	34.65
	337.95			35.63	35.68

* For detailed description of thermal conductivity profile, refer to Queensland Geological Record 2012/11.

1D - Heat Flow Model



Precision Temperature and Gradient Plot



GSQ Maryborough 16

Lat: -25.84517; Long: 152.44472 (GDA 94, Zone 56)

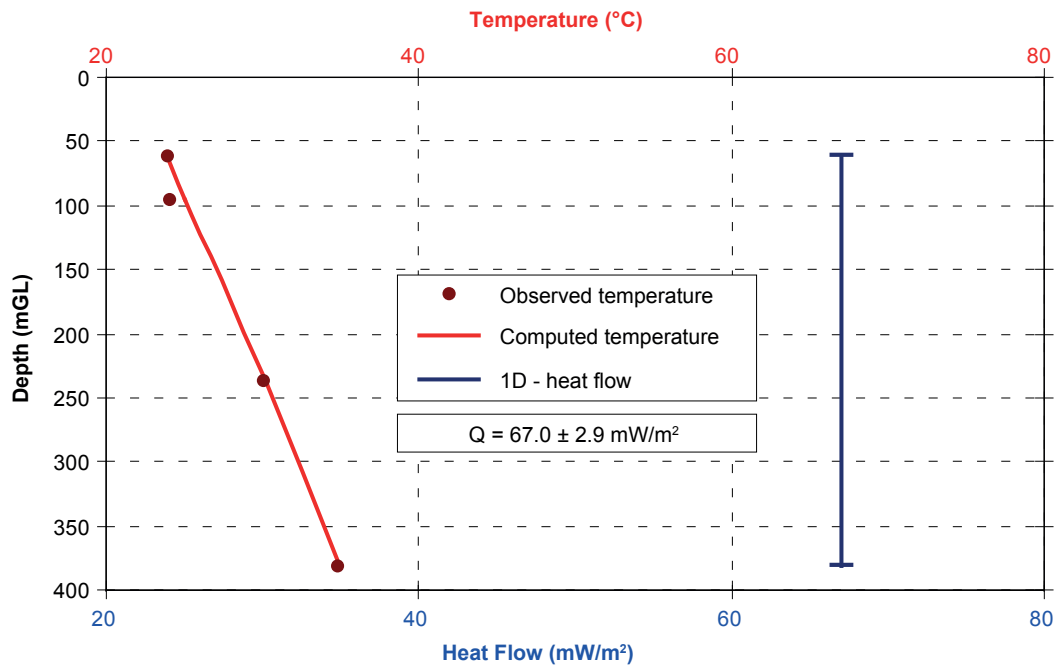
Total depth: 387.4 m

Precision temperature log: 0 - 380.50 m

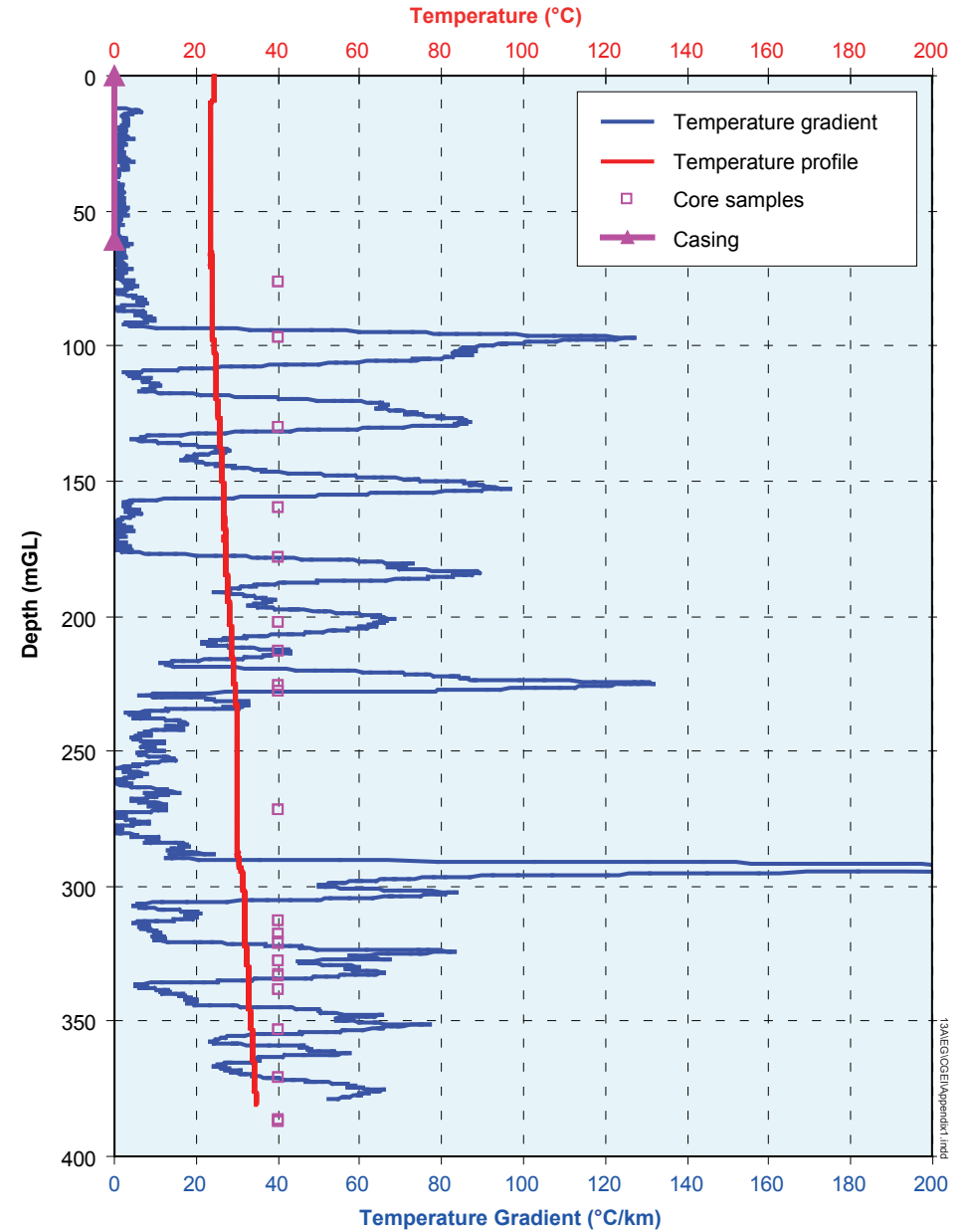
GSQ Maryborough 16		Depth to top of modelled interval (m): 61.20			
Heat Flow: 67 ± 2.9 mW/m ²		Depth to base of modelled interval (m): 380.50			
Lithology	Top (m)	Conductivity @ 25°C (W/mK)*	Uncertainty (W/mK)	Obs. T (°C)	Comp. T (°C)
Sandstone, mudstone	61.20	2.20	0.24	23.96	23.96
Sandstone, mudstone, coal	95.14	1.82	0.14	23.99	24.99
Sandstone, mudstone	236.36	2.08	0.10	30.11	30.18
	380.50			34.86	34.87

* For detailed description of thermal conductivity profile, refer to Queensland Geological Record 2012/01.

1D - Heat Flow Model



Precision Temperature and Gradient Plot



GSQ Gympie 7

Lat: -26.69179; Long: 151.86641 (GDA 94, Zone 56)

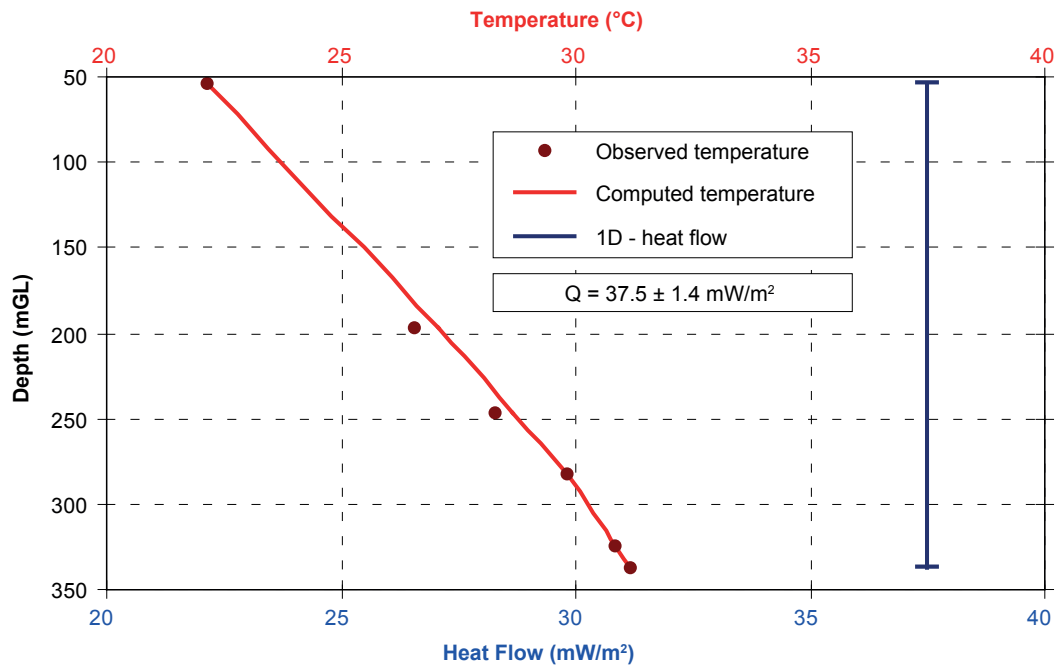
Total depth: 338.6 m

Precision temperature log: 0 - 337.75 m

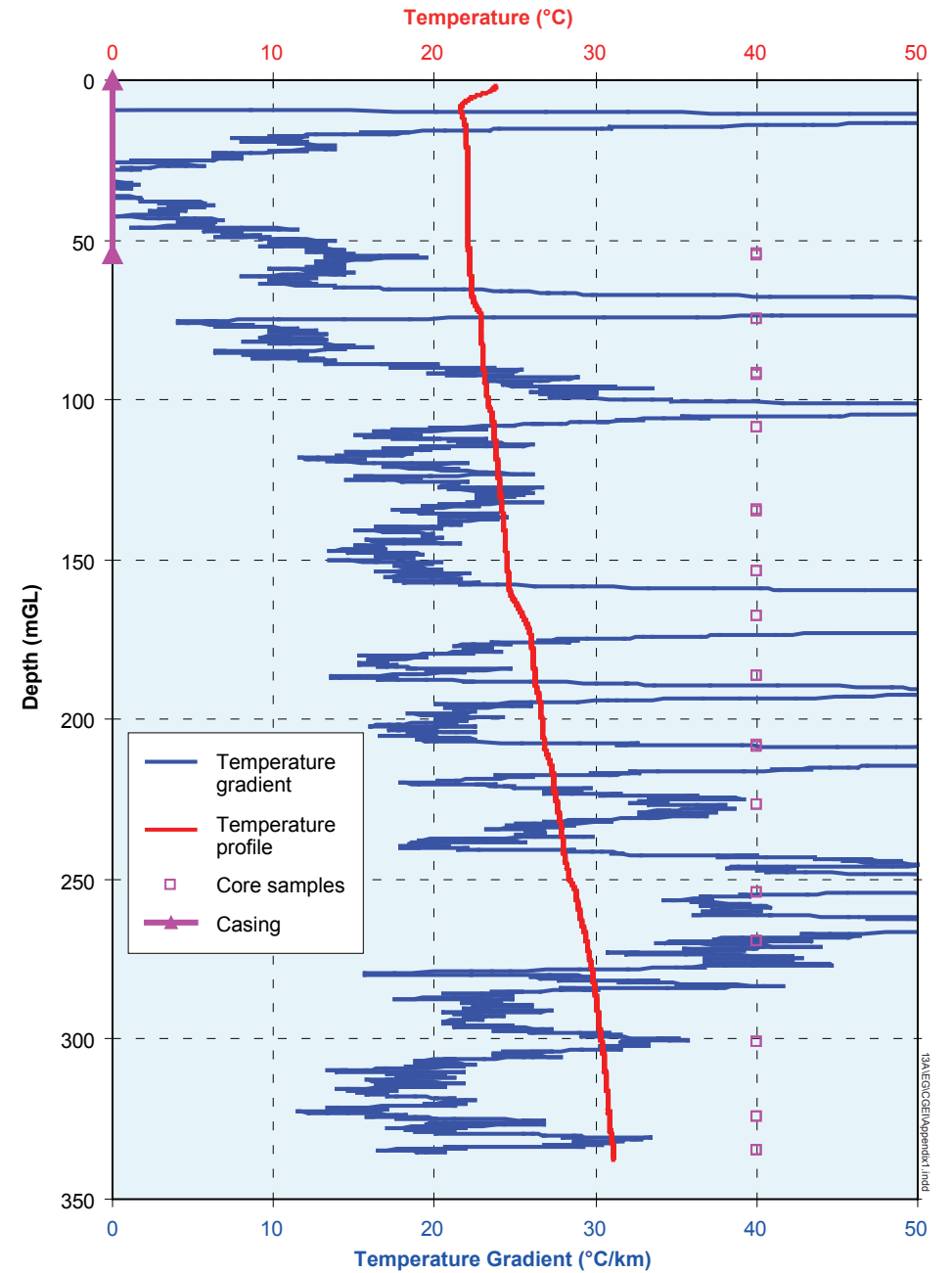
GSQ Gympie 7		Depth to top of modelled interval (m): 54.10			
Heat Flow: 37.5 ± 1.4 mW/m ²		Depth to base of modelled interval (m): 337.75			
Lithology	Top (m)	Conductivity @ 25°C (W/mK)*	Uncertainty (W/mK)	Obs. T (°C)	Comp. T (°C)
Sandstone, mudstone, coal, tuff	54.10	1.08	0.05	22.12	22.12
Mudstone, sandstone, siltstone, tuff, coal	196.57	1.21	0.06	26.57	27.07
Mudstone, sandstone, coal, tuff	247.12	1.11	0.07	28.26	28.63
Mudstone, sandstone, conglomerate, tuff	281.86	1.55	0.38	29.83	29.81
Sandstone, mudstone, conglomerate, tuff	324.14	1.65	0.07	30.83	30.84
	337.75			31.14	31.15

* For detailed description of thermal conductivity profile, refer to Queensland Geological Record 2012/12.

1D - Heat Flow Model



Precision Temperature and Gradient Plot



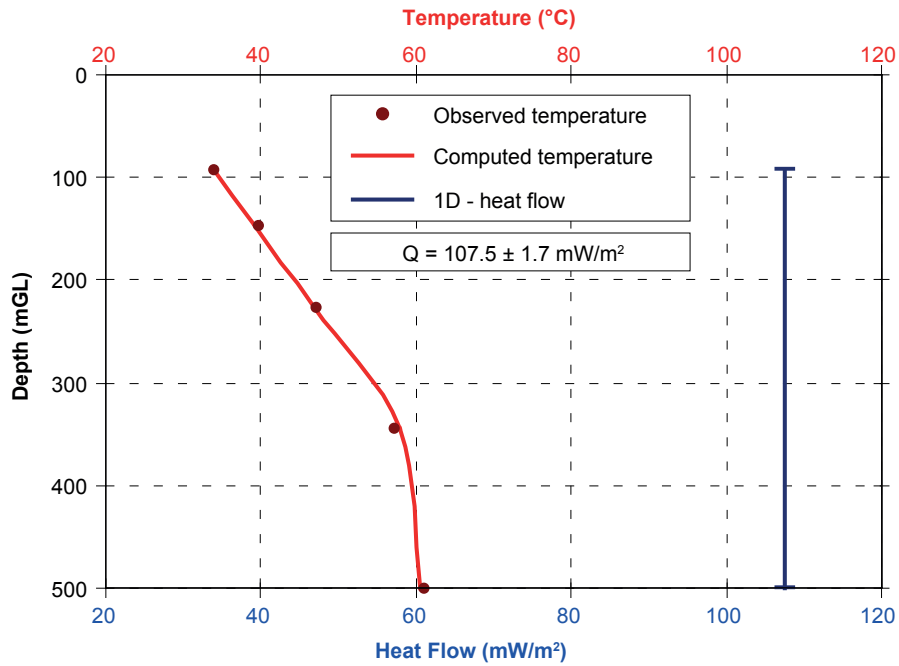
GSQ Dobbyn 2

Lat: -19.54532; Long: 140.88399 (GDA 94, Zone 54)
 Total depth: 500.04 m
 Precision temperature log: 0 - 500.04 m

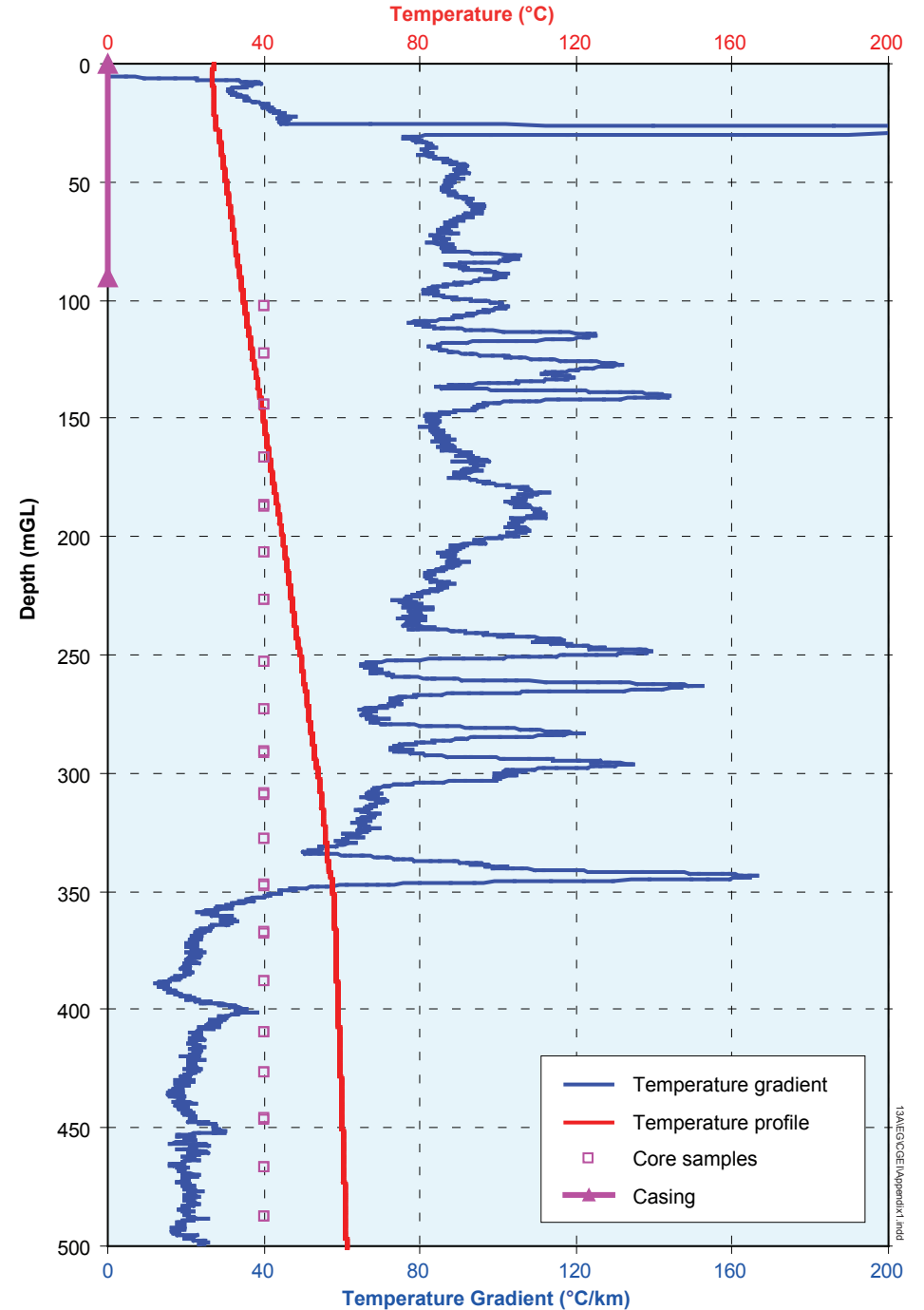
GSQ Dobbyn 2		Depth to top of modelled interval (m): 90.52			
Heat Flow: 107.5 ± 1.7 mW/m ²		Depth to base of modelled interval (m): 500.04			
Lithology	Top (m)	Conductivity @ 25°C (W/mK)*	Uncertainty (W/mK)	Obs. T (°C)	Comp. T (°C)
Mudstone, sandstone	90.52	1.14	0.02	34.00	34.00
Mudstone, calc mudstone, sandstone	146.60	1.14	0.02	39.59	39.30
Mudstone, sandstone	226.50	1.16	0.04	47.00	46.87
Sandstone, siltstone	344.40	6.64	0.18	57.24	57.89
	500.04			61.07	60.69

* For detailed description of thermal conductivity profile, refer to Queensland Geological Record 2012/04.

1D - Heat Flow Model



Precision Temperature and Gradient Plot



GSQ Longreach 2

Lat: -23.35250; Long: 145.23220 (GDA 94, Zone 55)

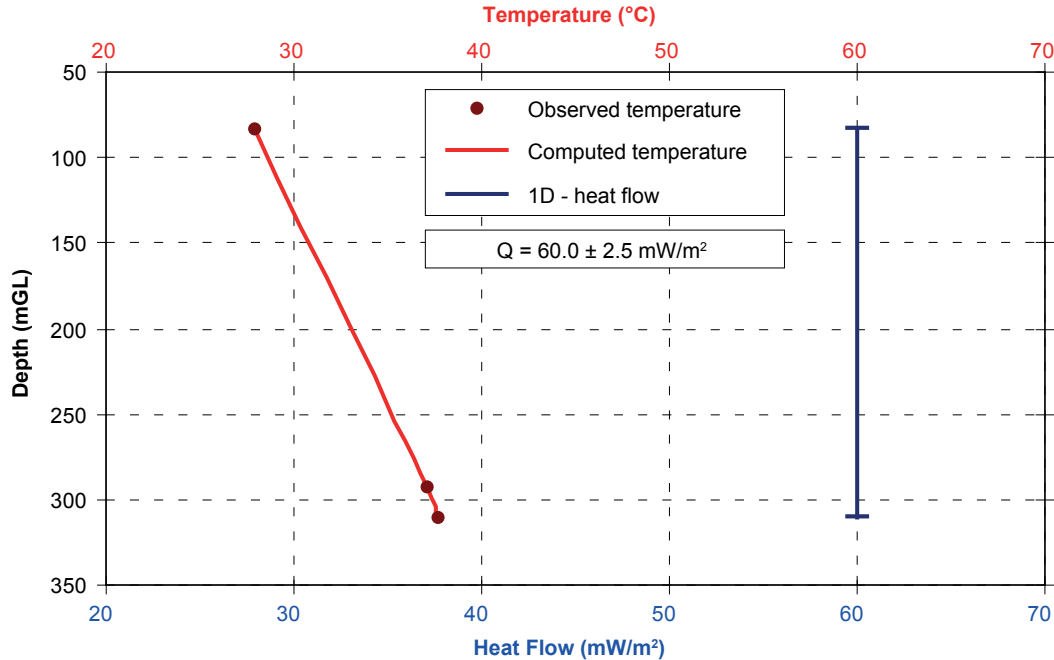
Total depth: 330.0 m

Precision temperature log: 0 - 309.80 m

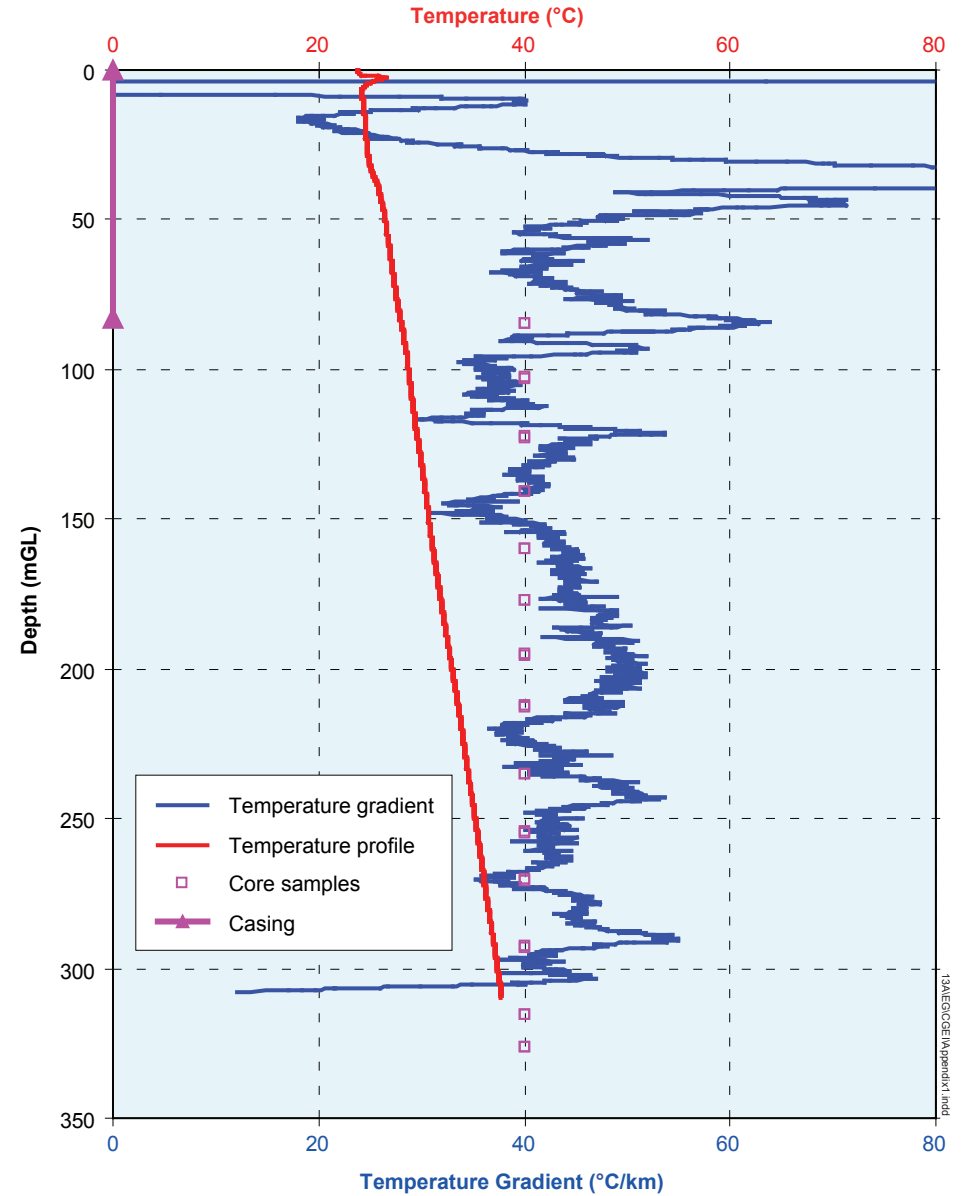
GSQ Longreach 2		Depth to top of modelled interval (m): 83.80			
Heat Flow: 60.0 ± 2.5 mW/m ²		Depth to base of modelled interval (m): 309.65			
Lithology	Top (m)	Conductivity @ 25°C (W/mK)*	Uncertainty (W/mK)	Obs. T (°C)	Comp. T (°C)
Mudstone, sandstone	83.80	1.37	0.06	27.94	27.95
Sandstone, mudstone	292.28	2.02	0.11	37.05	37.10
	309.65			37.67	37.63

* For detailed description of thermal conductivity profile, refer to Queensland Geological Record 2012/10.

1D - Heat Flow Model



Precision Temperature and Gradient Plot



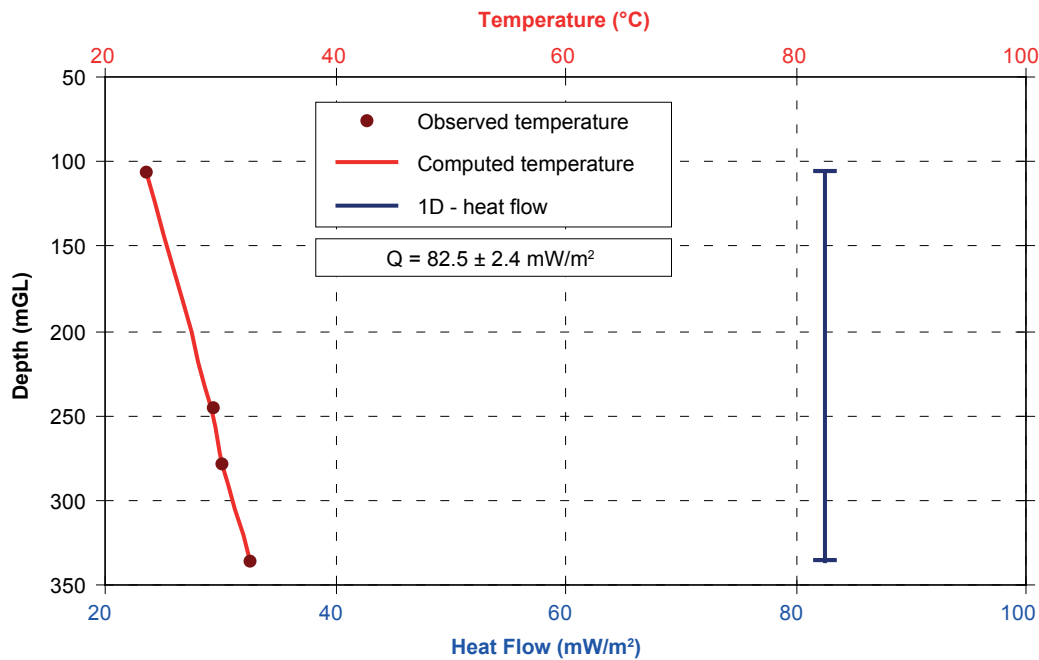
GSQ Roma 9-10R

Lat: -26.38598; Long: 148.97115 (GDA 94, Zone 55)
 Total depth: 335.9 m
 Precision temperature log: 0 - 335.90 m (GSQ Roma 10R)

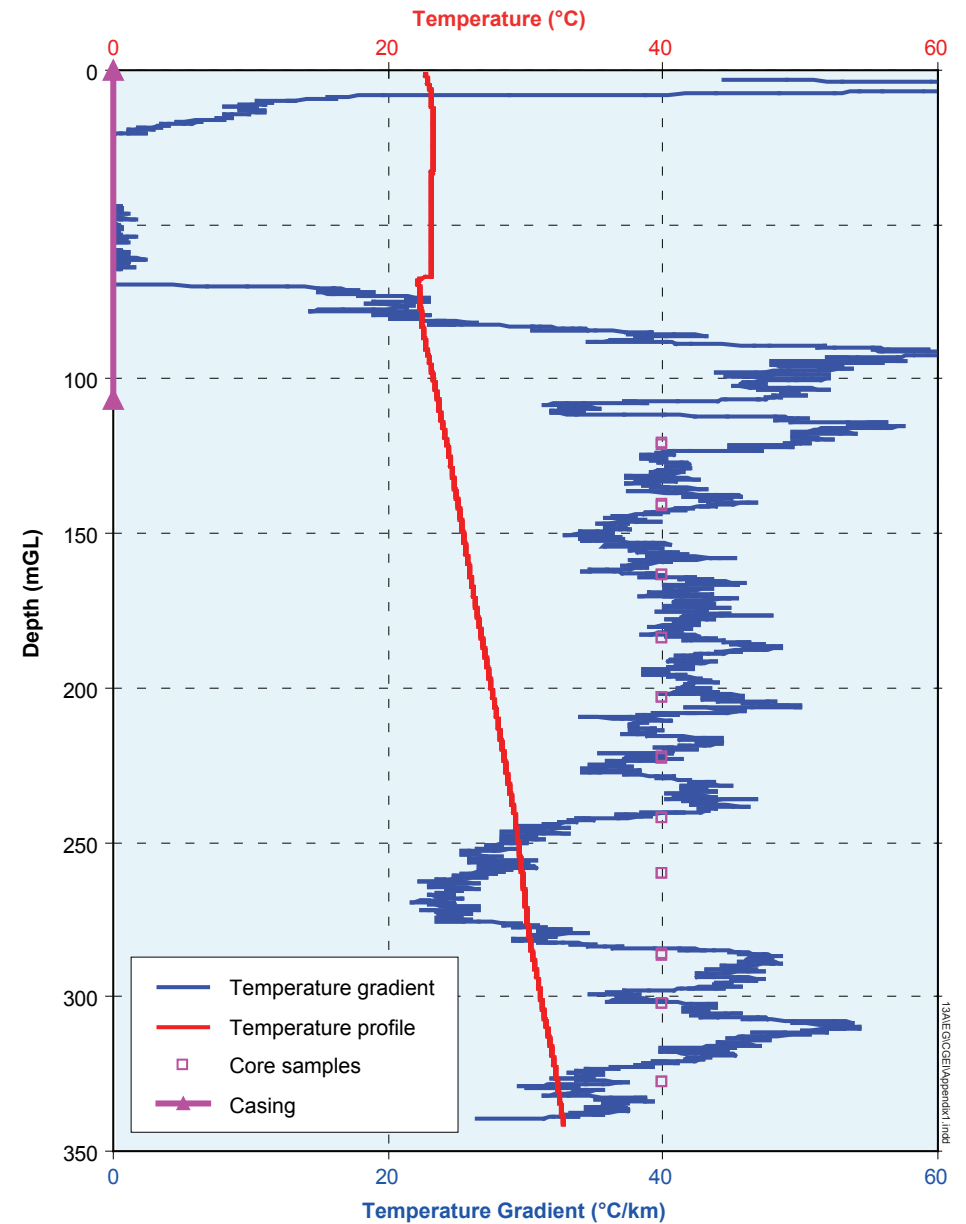
GSQ Roma 9-10R		Depth to top of modelled interval (m): 106.50			
Heat Flow: 82.5 ± 2.4 mW/m ²		Depth to base of modelled interval (m): 335.90			
Lithology	Top (m)	Conductivity @ 25°C (W/mK)*	Uncertainty (W/mK)	Obs. T (°C)	Comp. T (°C)
Sandstone, mudstone	106.50	2.06	0.08	23.60	23.60
Sandstone	245.57	2.58	0.17	29.32	29.15
Mudstone, sandstone, siltstone	278.36	2.02	0.11	30.20	30.21
	335.90			32.56	32.59

* For detailed description of thermal conductivity profile, refer to Queensland Geological Record 2012/09.

1D - Heat Flow Model



Precision Temperature and Gradient Plot



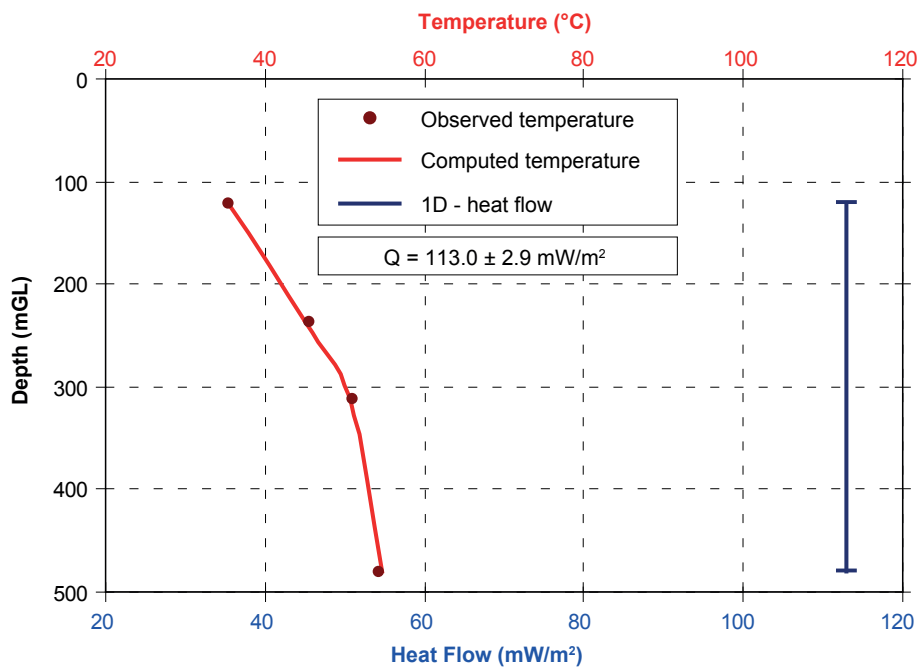
GSQ Julia Creek 1

Lat: -20.90445; Long: 141.47260 (GDA 94, Zone 54)
 Total depth: 500.02 m
 Precision temperature log: 0 - 480.44 m

GSQ Julia Creek 1		Depth to top of modelled interval (m): 120.10			
Heat Flow: 113.0 ± 2.9 mW/m ²		Depth to base of modelled interval (m): 480.44			
Lithology	Top (m)	Conductivity @ 25°C (W/mK)*	Uncertainty (W/mK)	Obs. T (°C)	Comp. T (°C)
Mudstone, sandstone	120.10	1.37	0.06	35.26	35.26
Mudstone, sandstone	235.85	1.53	0.05	45.55	44.90
Quartzite, sandstone, clay	310.49	5.43	0.16	50.93	50.55
	480.44			54.29	54.40

* For detailed description of thermal conductivity profile, refer to Queensland Geological Record 2012/05.

1D - Heat Flow Model



Precision Temperature and Gradient Plot

