

1 Supplement 1: Year since erosion initiation near the polygons (if applicable), polygons size and
 2 detailed sensors layout. A complete gully erosion map model was presented in ((Godin and
 3 Fortier, 2012b), Figure 3). Size was obtained by measuring the length and the width of each
 4 polygon by calculating the distance from the surrounding ridges highest point, near their
 5 troughs. In the table, loggers^a model UTBI-001 and H21-002 and connected sensors were built
 6 by Onset and the CR1000 by Campbell Scientific. Temperature sensors^b TC Type-T refer to
 7 thermocouples wires Type-T. Moisture loggers^c and sensors^d built by Decagon were monitoring
 8 the near surface (top 10 cm) at TDR location in Figures 3 and 4. Temperature sensors were
 9 installed in boreholes identified as BH in Figures 3 and 4.

ID	Eroded since	Size (m)	Loggers ^a	Temp. sensors ^b	Temp. sensor depth (m)	Moisture loggers ^c	Moisture sensors ^d
331	1999 – 2000	20 x 12	UTBI-001		0.05	Em5b	5 x EC-5
			CR1000	107-L	0.2		
			CR1000	TC Type-T	0.5, 0.92		
333	1999 – 2000	11 x 11	UTBI-001		0.05	Em5b	5 x EC-5
			CR1000	107-L	0.2		
			CR1000	TC Type-T	0.5, 0.82		
563	1999 – 2000	20 x 20	H21-002	S-TMB-M006	0.05, 0.25, 0.5, 0.95	Em5b	4 x EC-5
573	Intact	11 x 11	UTBI-001		0.05	Em5b	5 x EC-5
			CR1000	107-L	0.2		
			CR1000	TC Type-T	0.5, 0.9		

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