

LGP Baseline Measurements 07/08 Season

General Site Description

Site Name: Lake Wellman and Surrounding Areas



Moist soils observed

Old Lake beds and streams sites found

Geographical coordinates	795512.34441 S / 1565525.96534 E	GPS
Elevation	852.690 masl (Lake)	GPS
Slope	Gentle	Estimated
Date (s) visited 02.12.2007 – 23.12.2007		
Aspect NE Facing		
Samples taken? Yes – for cosmogenic dating and soil chemical and microbial analysis		
Photos taken? Yes		
Aerial Photos available? Yes		
Notes taken by: Mette Riger-Kusk (University of Canterbury), Malcolm McLeod (Landcare Research), Mark Stevens (Waikato University)		

Soil Parameters

Geomorphological characteristics	<input type="checkbox"/> Nival - Chionophilous <input checked="" type="checkbox"/> Periglacial <input type="checkbox"/> Fluvial <input type="checkbox"/> Coastal <input type="checkbox"/> Fell-Field	<input checked="" type="checkbox"/> Slope <input type="checkbox"/> Plateau <input type="checkbox"/> Valley <input type="checkbox"/> Landslide <input type="checkbox"/> Scree slope <input type="checkbox"/> Rock wall <input type="checkbox"/> Other
Rock Lithology	<input checked="" type="checkbox"/> Siliceous rock <input type="checkbox"/> Calcareous rock	Rock type: Mixed lithologies, Sandstone, granite, dolerite
Soil Typology	<input type="checkbox"/> Soil Absence <input checked="" type="checkbox"/> Soil Presence	<input checked="" type="checkbox"/> Mineral soil <input type="checkbox"/> Organic soil <input type="checkbox"/> Other
Surface Lithology	<input type="checkbox"/> Outcropping Rock <input checked="" type="checkbox"/> Loose Material <input checked="" type="checkbox"/> Glacial <input type="checkbox"/> Fluvial <input type="checkbox"/> Eolic <input type="checkbox"/> Coastal <input type="checkbox"/> Scree Slope, Debris	
Surface Texture Varies – this is from a site close to the lake	50% Blocks ($\varnothing > 25\text{cm}$) 25% Pebbles ($5\text{cm} < \varnothing < 25\text{cm}$) 13% Gravel ($0.2\text{cm} < \varnothing < 5\text{cm}$) 12% Sand and finer material ($\varnothing < 0.2\text{cm}$)	

Vegetation

Plants and Lichens	Lichens present throughout region
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Fauna

Mammals	None
Birds	None
Invertebrates	Tardigrades and Rotifers found at one site near a small glacier protruding into Valley from the Midnight Plateau

Glacial

N/A

Aquatic Non-Marine Systems

Type of water body	Lake Wellman was completely frozen > 3m of ice
Size and depth	Estimate or actual Size is as shown on map We have no idea of depth
Inflows and outflows (for non running systems) – size, discharge estimate (l/s), duration of flow: None when we were there although there was evidence of surface flow from the glacier in previous seasons in previous	
Duration and spatial distribution of free water: None	
Evidence of water level variation? If so, what is the evidence and by how much? None	
Isolated habitat or part of a connected network? Isolates	
Proximity to other aquatic systems: None	
Any sign of salt or vegetation accumulation around margins? No	
Range of levels over season (peg or otherwise reference the margin): No info	
Water sources	<ul style="list-style-type: none"> - 100% Snow?? - % Glacier - % Non-glacial Ice - % Other
Catchment:	<ul style="list-style-type: none"> - Size ? - Vegetation: None - Geology (see Soils section) - Geomorphology (see Soils section) - Animal influence: None - Snow and Ice
Ice cover: December	<ul style="list-style-type: none"> - permanent ice – year-round - % of coverage 100% - Thickness > 3m of ice - transparency Opaque
Water properties. N/A	<ul style="list-style-type: none"> - Clarity (measured or estimated) - Colour (measured or estimated) - Foams (e.g. none, slight, abundant) - Conductivity (measured) - Temperature (measured)
Bed characteristics	N/A
Others	Animal observations - None
Sample collection and preservation	None

Aquatic Marine Systems

N/A

Environmental (AWS)

20 days of meteorological data from camp at Lake Wellman. See LGP website under Darwin Data Products at: <http://www.lgp.aq/article/6341.html#8809>