

GEOTHERMAL RESOURCES of BRITISH COLUMBIA

HOT SPRINGS

SPRING NAME	LATITUDE	LONGITUDE	TEMP	FLOW	DISCHARGE	PH
101 TATLASHAN	50° 32' N	127° 47' W	47	10	200	7.2
102 MOSES CREEK	50° 32' N	127° 47' W	47	10	200	7.2
103 MOSES CREEK	50° 32' N	127° 47' W	47	10	200	7.2
104 PORTER BASIN	50° 32' N	127° 47' W	47	10	200	7.2
105 PORTER BASIN	50° 32' N	127° 47' W	47	10	200	7.2
106 LILLOOET	50° 32' N	127° 47' W	47	10	200	7.2
107 LILLOOET	50° 32' N	127° 47' W	47	10	200	7.2
108 LILLOOET	50° 32' N	127° 47' W	47	10	200	7.2
109 LILLOOET	50° 32' N	127° 47' W	47	10	200	7.2
110 LILLOOET	50° 32' N	127° 47' W	47	10	200	7.2

BOREHOLES

WELL NAME	SITE	LATITUDE	LONGITUDE	DEPTH	HEAT FLOW	PH
801 W. MOUNTAIN	50° 32' N	127° 47' W	47	10	200	7.2
802 W. MOUNTAIN	50° 32' N	127° 47' W	47	10	200	7.2
803 W. MOUNTAIN	50° 32' N	127° 47' W	47	10	200	7.2
804 W. MOUNTAIN	50° 32' N	127° 47' W	47	10	200	7.2
805 W. MOUNTAIN	50° 32' N	127° 47' W	47	10	200	7.2

STIKINE VOLCANIC BELT

The Stikine Volcanic Belt is a broad north-south trending belt of dominantly Quaternary volcanic rocks. It extends from the north coast of British Columbia southward to the Pacific coast. The belt is bounded to the west by a collapsed rift valley, the rifting results from shearing between the continent and the Pacific crust.

LAND RIVER AREA

An area potential for moderate temperature geothermal resources is the Land River area. It is characterized by a high temperature gradient of 4.0°C per 100 m. The area is underlain by a thick sequence of volcanic rocks with temperatures up to 48°C and flow of 3 to 70 litres per second. The geothermal resources are located in the volcanic rocks that are high level magmas and the alkali volcanic dykes.

NORTHEAST B.C. THERMAL ANOMALY

The Northeastern B.C. Thermal Anomaly represents a potential low temperature geothermal resource. It is characterized by a high temperature gradient of 4.0°C per 100 m. The area is underlain by a thick sequence of volcanic rocks with temperatures up to 48°C and flow of 3 to 70 litres per second. The geothermal resources are located in the volcanic rocks that are high level magmas and the alkali volcanic dykes.

MOUNT EDZIZA AREA

Geothermal resources of the Stikine Volcanic Belt are located in the Mount Edziza area. The area is characterized by a high temperature gradient of 4.0°C per 100 m. The area is underlain by a thick sequence of volcanic rocks with temperatures up to 48°C and flow of 3 to 70 litres per second. The geothermal resources are located in the volcanic rocks that are high level magmas and the alkali volcanic dykes.

LAKEVIEW LAKE

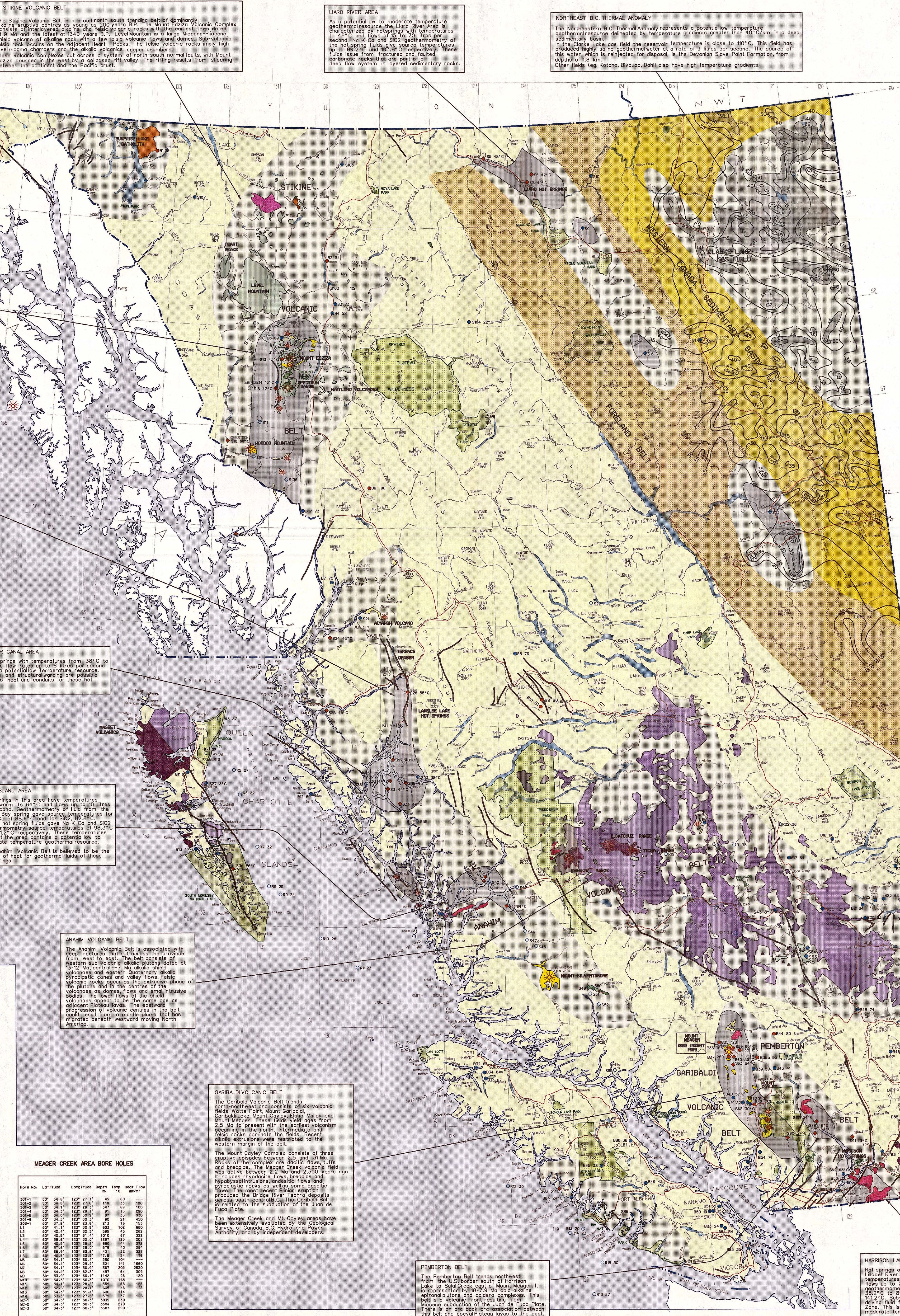
Geothermal resources of the Stikine Volcanic Belt are located in the Lakeview Lake area. The area is characterized by a high temperature gradient of 4.0°C per 100 m. The area is underlain by a thick sequence of volcanic rocks with temperatures up to 48°C and flow of 3 to 70 litres per second. The geothermal resources are located in the volcanic rocks that are high level magmas and the alkali volcanic dykes.

MEAGER CREEK GEOTHERMAL AREA

The Meager Creek area is a geothermal resource area. It is characterized by a high temperature gradient of 4.0°C per 100 m. The area is underlain by a thick sequence of volcanic rocks with temperatures up to 48°C and flow of 3 to 70 litres per second. The geothermal resources are located in the volcanic rocks that are high level magmas and the alkali volcanic dykes.

MEAGER CREEK AREA BORE HOLES

WELL NAME	LATITUDE	LONGITUDE	DEPTH	HEAT FLOW	PH	
901 MEAGER CREEK	50° 32' N	127° 47' W	47	10	200	7.2
902 MEAGER CREEK	50° 32' N	127° 47' W	47	10	200	7.2
903 MEAGER CREEK	50° 32' N	127° 47' W	47	10	200	7.2
904 MEAGER CREEK	50° 32' N	127° 47' W	47	10	200	7.2
905 MEAGER CREEK	50° 32' N	127° 47' W	47	10	200	7.2



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LEGEND

GEOLGY

- Quaternary: Felsic volcanic complex, Mafic volcanic flow, Pyroclastic cone, pit crater.
- Tertiary: Pliocene to Pleistocene: Felsic volcanic complex, Mafic volcanic flow; Miocene to Pliocene: Felsic volcanic complex, Mafic volcanic flow; Miocene: Mafic plug; Intraive; Fault with Tertiary or more recent movement.

GEOTHERMAL

- Hot Springs: < 40°C, 40°C to 40°C, > 40°C; Located, temperature known; Located, temperature unknown; Unconfirmed spring location, temperature unknown.
- Bore Holes: < 80, 80 to 80, > 80; Shallow percussion or diamond drill hole, heat flow mW/m²; Rotary drill hole, temperature gradient °C/m; Thermal Gradient N.E. British Columbia.
- Zones of Radiogenic Heat Generation: Heat generation from tested plutons > 4 µW/m²; > 5 µW/m².
- Sedimentary basins: Tertiary sedimentary basins in the Okanagan area having geothermal potential; Western Canada Sedimentary Basin having deep basin gradient heat geothermal potential; Foreland Belt characterized by thrust faulting and folded basin stratigraphy.
- Geothermal Potential: Characteristics of a geothermal environment: deep seated faults, deep sedimentary basins, radiogenic plutons, late Tertiary to recent volcanic complexes and flows, and hot springs; Moderate geothermal potential, region containing some characteristics of a potential geothermal resource; High geothermal potential, localized area containing multiple characteristics of a potential geothermal resource.

UPPER ARROW LAKE AREA

Hot springs in this area have temperatures up to 50°C and flow to 5 litres per second. The area is underlain by a thick sequence of volcanic rocks with temperatures up to 48°C and flow of 3 to 70 litres per second. The geothermal resources are located in the volcanic rocks that are high level magmas and the alkali volcanic dykes.

SOUTHERN ROCKY MOUNTAIN TRENCH

Hot springs occur on either side of the Southern Rocky Mountain Trench between Elio and Kamloops. They include the Hudson, Kamin, and Lillooet hot springs. The hot springs are located in the volcanic rocks that are high level magmas and the alkali volcanic dykes.

KOOTENAY LAKE AREA

Hot springs near Kootenay Lake have produced for flows from 10 to 100 litres per second. The area is underlain by a thick sequence of volcanic rocks with temperatures up to 48°C and flow of 3 to 70 litres per second. The geothermal resources are located in the volcanic rocks that are high level magmas and the alkali volcanic dykes.

DUNSMITH VALLEY

The Tertiary Okanagan and Pentecost outcrops and volcanic basins have varying geothermal potential. The area is underlain by a thick sequence of volcanic rocks with temperatures up to 48°C and flow of 3 to 70 litres per second. The geothermal resources are located in the volcanic rocks that are high level magmas and the alkali volcanic dykes.

LOWER ARROW LAKE AREA

The Lower Arrow Lake area is a geothermal resource area. It is characterized by a high temperature gradient of 4.0°C per 100 m. The area is underlain by a thick sequence of volcanic rocks with temperatures up to 48°C and flow of 3 to 70 litres per second. The geothermal resources are located in the volcanic rocks that are high level magmas and the alkali volcanic dykes.

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