

The Canadian Geothermal Data Compilation

Description of sites

1001 Ottawa

Drilled in 1962 on the site of the Dominion Observatory, on the Experimental Farm, Carling Avenue, in the City of Ottawa. The collar is about 10 m from the Geodetic Survey building, now known as the Seismology building. Carling Avenue, a four-lane divided road runs close by in a cutting, and the collar is about 5 m from the edge of the cutting. The collar is shaded on the east and south by trees.

2001 Halifax

Drilled in 1963 on the campus of Dalhousie University. The drillers failed to keep the hole vertical, and it deviated significantly. The site was destroyed by a major new building before 1970.

3001 Penticton

Drilled in 1963, on the approach to the Dominion Astrophysical Observatory. The collar is a few metres from an unpaved road and has hills of several hundred metres on each side. The hole has a small water flow from the upper 300 m, which has created a wet area that is appreciated by the local cattle. The casing is probably still there, but is probably severely corroded.

4001 London

Drilled in 1963 on the campus of the University of Western Ontario, near the Geophysics building. All measurements were done by the Department of Geophysics of the university, and data has been lost.

5001 St. Jerome

Drilled in 1964, in the grounds of a Jesuit seminary north of the town of St. Jerome. The collar is at the base of a mostly wooded hill of about 200 m.

6001 Roberval

Drilled in 1964, in an outcrop of Precambrian rock on the approach to Roberval Airport. The surrounding area is mainly free of trees, but buildings have been erected nearby since 1964. In 1990 the collar was still visible, but had been damaged and the hole was not open. It may be possible to repair the casing to gain access to the hole.

7001 Winnipeg

Drilled in 1964, on the campus of the University of Manitoba, very close to the old Geology building. The hole penetrates a layer of unconsolidated sand, which shows temperature evidence of water movement. This zone was logged repeatedly by means of a fixed cable for a period of six months, but showed no variation of temperature. Precambrian rocks were entered at about 200 m. The hole is still accessible for measurement.

8001 Dease Lake

Drilled in 1966, in forest on the east side of Dease Lake, about 2 km from the shore. The area was burned about 20 years before the drilling. The hole was last logged in about 1995 and is probably still accessible for logging.

9001 Hotailuh

Drilled in 1966, in a lightly forested area. There is evidence of a small water flow from low in the hole to near the collar. The condition of the hole is not known.

10001 Buckley Lake

Drilled in 1966, near the shore of a small lake. Access is by aircraft to Buckley Lake, about 2 km away. The condition of the hole is not known.

11001 Cochrane

Drilled in late 1967, north of the town of Cochrane. The collar is in a wooded area, on a bank above a creek, and about 10 m from an unpaved road. The hole is cased with EX casing. The hole was logged in 1985 and again in 2001. It was last seen in 2003 and is still accessible for logging.

12001 Kapuskasing

Drilled in late 1967, to the east of the town of Kapuskasing. It was drilled on a small outcrop near a trail through dense bush. It could not be found in 1985, 2001, or 2003, but the bush is dense and there has been no activity likely to destroy it. It would probably be still accessible for logging if it could be found.

13001 Hearst

Drilled in early 1968, to the east of the town of Hearst. The collar is in an area of light bush, on the top of a gentle hill above wet lands. The hole is cased with EX casing. The hole was logged in 1985 and again in 2001. It was last seen in 2003 and is still accessible for logging.

14001 Jackfish

Drilled in 1968, north of the Trans-Canada Highway. The collar is in a small clearing, about 200 m from the highway. The clearing has been used as a dumping ground for old appliances and other junk, and the collar has been buried since at least 1980.

15001 Otokwin River

Drilled in late 1968, north of the bridge over the Otokwin River. The collar was in a small clearing in forest, about 100 m from an unpaved road. The hole was logged in 1985 but could not be found in 2001 or 2003. There has been no activity likely to destroy it, and it may be still accessible for logging if it could be found.

16001 Minchin Lake

Drilled in 1968, to the east of Minchin Lake and about 200 m from the shore. The collar is in forested land, about 100 m from an unpaved road. The hole is cased with EX casing. The hole was logged in 1985 and again in 2001. It was last seen in 2003 and is still accessible for logging.

17001 English River

Drilled in 1968 in an area of replanted forest, about 300 to 400 m from an unpaved road. Some time before 1985 an electrical transmission corridor was cut through the regrown forest. The collar could not be found in 1985, and it is believed that it has been destroyed..

18001 Wedgeport

Drilled for scientific purposes and for test of geothermal potential in a granitic pluton.

51001 Franktown

Drilled in 1962 in the search for impact structures. It was shown that the area was not an impact structure. The collar is in farmland, in a low, marshy area. The site has not been visited since 1962, and its condition is unknown.

52001 Nielsen Island

Drilled in 1962 in the search for impact structures. It was shown that the area was not an impact structure. The collar is on an island on the east side of Hudson Bay. The collar is about 100 m from the sea, and the island is about 2 km from the mainland. Access was by canoe from the town of Great Whale River, now known as The site has not been visited since 1965, and its condition is unknown.

53001 to 53075 Lac Dufault

This site comprises over 80 boreholes that were drilled about 1964 and were logged by the University of Western Ontario as part of two graduate student projects. The area was generally

bare of forest cover, and was on a rocky ridge above lower lands and a lake. The holes were all properly capped. Most of the holes that were logged were beyond the area of mining activity and may still be accessible for logging.

54001 Oldham

Drilled by the Nova Scotia Department of Mines in 1963, in the search for gold deposits. The site is situated to the north of Halifax Airport, in generally forested country. The hole was logged in 1967, and its present condition is not known.

55001 Resolute Bay

This well was one of the first to be drilled for hydrocarbon exploration in the Arctic Islands. It was situated on the side of a hill across the bay from the settlement of Resolute. The ground is in permafrost and the upper 600 m of the well was preserved for logging by displacing the drilling mud with fuel oil, but an imperfectly fitting cap allowed water to gain access, which ran down the inside until it froze and blocked the well. Several attempts were made to clear it, but with only partial success.

57001 Picton

Drilled by the geological Survey of Canada on a peninsula on the north side of Lake Ontario.

58001 Russell

Drilled by the geological Survey of Canada on a road allowance near the small town of Russell, south of Ottawa

59001 Mica Creek

Drilled during foundation testing for the Mica Dam on the Columbia River and was preserved for logging. The collar was accidentally destroyed before any logging could be done.

60001 West Hawke Lake

Drilled from the ice into the bottom of West Hawke Lake. A fixed cable with a floating recovery device was planned, but it could not be installed.

62001 North Cath B-62

An early northern hydrocarbon exploration well, equipped with a fixed thermistor cable. In permafrost, in a valley. Exploration operations had probably cleared the surrounding area. Trees were sparse, but the site is below the tree-line.

63001 Reindeer D-27

An early northern hydrocarbon exploration well, equipped with a fixed thermistor cable. In gravels, with grass and occasional low bush. Lots of small ponds. An ice lens below the collar eventually melted, due to exposure and thermal disturbance from the exploration.

64001 Antigonish

Drilled in farmland. Only shallow logging was possible because of blockage.

65001 Wallace

Drilled for hydrocarbon exploration in the middle of an open field.

66001 Yellowknife

Drilled for gold exploration in an area very unlikely to produce gold. It was sited on a peninsula of a lake to the west of Yellowknife and was accessible only by air.

67001 Sudbury - Moose Lake

This hole was part of the exploration program of Falconbridge Mines. It was sited near a lake.

67002 Sudbury - Onaping

This hole was part of the exploration program of Falconbridge Mines.

67003 Sudbury - Windy Lake

This hole was part of the exploration program of Falconbridge Mines. It was sited very close to the shore of a lake.

67004 Sudbury - Worthington

This hole was part of the exploration program of International Nickle Corp. It was situated in an open area..

67005 Sudbury - Victoria

This hole was part of the exploration program of International Nickle Corp. It was situated in an open area..

67006 Sudbury - Murray

This hole was part of the exploration program of International Nickle Corp. It was situated in an open area that had been used as a waste rock dump.

67008 Sudbury - Rayside

This hole was part of the exploration program of Falconbridge Mines. It was situated in a swampy area in the centre of the Sudbury Structure.

67009 Sudbury - Moose Lake

This hole was part of the exploration program of Falconbridge Mines. It was sited near a lake.

68xxx Tasu

Drilled on a steep hillside on the Queen Charlotte Islands as a mineral exploration program. The very large tree cover of the hillside had been cut down but not removed.

70001 Providence A-47

An early northern hydrocarbon exploration well.

71001 Sable Island C-67

An early hydrocarbon exploration well on the eastern continental shelf. This well was situated on Sable Island, a long narrow sand bank.

74001 Bluebell

An inclined hole near the Bluebell mine. The hole was collared on the edge of a parking lot.

76001 Kugaluk N0-02

A hydrocarbon exploration well on the northern mainland.

77001 Horton River G-02

A hydrocarbon exploration well on the northern mainland.

78001 to 78006 Schaft Creek

A series of shallow, inclined mining exploration holes on a steep hillside. Many of the holes were affected by water movement.

80001 to 80002 McLeese Lake

Mining exploration holes in wooded terrain.

81001 to 81006 Mt Polley

Mining exploration holes in wooded terrain

83001 Red Lake

A mining exploration hole in wooded terrain

84001 to 8407 Manitouwadge

A line of mining exploration holes in wooded terrain, spaced at about 200 m, except for 84002, which was a few km away.

85001 to 85015 Cambridge Bay

A series of shallow holes in Arctic tundra terrain.

86001 Hoodoo Dome H-37

A hydrocarbon exploration well in the Arctic Islands.

87001 Wilkins E-60

A hydrocarbon exploration well in the Arctic Islands.

88001 to 88007 Norman Wells

A set of hydrocarbon exploration wells on the northern mainland.

89001 Beaverhouse Creek H-13

A hydrocarbon exploration well on the northern mainland.

90001 Amund Central

A hydrocarbon exploration well in the Arctic Islands.

91001 Jameson Bay C-31

A hydrocarbon exploration well in the Arctic Islands.

92001 Garnier O-21

A hydrocarbon exploration well in the Arctic Islands.

93001 Cornwallis

A hydrocarbon exploration well in the Arctic Islands.

94001 Dahadinni M-43A

A hydrocarbon exploration well on the northern mainland.

95001 Rowley Island M04

A hydrocarbon exploration well in the Arctic Islands.

96001 Sunnybank

A hydrocarbon exploration well in Quebec.

97001 Fosheim N-27

A hydrocarbon exploration well in the Arctic Islands.

98001 Storkerson Bay A-15

A hydrocarbon exploration well in the Arctic Islands.

99001 Devon Island E-45

A hydrocarbon exploration well in the Arctic Islands.

100001 Hume River D-53

A hydrocarbon exploration well on the northern mainland.

101001 Bralorne Mine

A series of measurements in horizontal holes drilled from different levels in the mine. Thermometers were inserted far enough to avoid disturbance by ventilation.

103001 to 103006 Murdochville

A series of holes with collars underground and drilled vertically from the mine floor.

104001 to 104016 Sullivan

A series of mining exploration holes over an area of several kilometres.

109001 Granduc tunnel

Temperature measurements in the tunnel by Univ. British Columbia. Conductivity measurements by Earth Physics Branch.

127001m to 127009 Chalk River

A series of holes drilled for experiments related to research into disposal of highly radioactive waste.

128001 to 128006 Whiteshell

A series of holes drilled for experiments related to research into disposal of highly radioactive waste.

133001 to 133006 Atikokan

A series of holes drilled for experiments related to research into disposal of highly radioactive waste.

135001 Regina West

Drilled for disposal of fluids. Temperatures in porous aquifers highly disturbed by fluid injection.

140001 Molus River

141001 Mortimer

142001 Little Forks

143001 to 143002 Fredericton

144001 Tracy

Drilled in the Province of New Brunswick coal exploration program. Some of them highly disturbed by water flow.

145001 to 145016 Lac du Bonnet

A series of holes drilled for experiments related to research into disposal of highly radioactive waste.

152001 to 152003 Baie Verte

A series of holes drilled for mining exploration, in thinly wooded terrain.

156001 Launay

A mining exploration hole, drilled in swampy terrain cleared of trees.

158001 Brock I-20

A hydrocarbon exploration well in the Arctic Islands.

160001 to 160003 Gnat Lake

A series of holes for mining exploration in thinly wooded terrain.

163001 to 163002 Myra Creek

A series of holes for mining exploration in wooded terrain.

164001 Parke

.
A hydrocarbon exploration well in Quebec.

165001 Kilagmiotak F-48

A hydrocarbon exploration well in the Mackenzie Delta.

166001 Mokka A-02

A hydrocarbon exploration well in the Arctic Islands

167001 Unipkat I-22

A hydrocarbon exploration well in the Mackenzie Delta.

168001 Dundas C-80

A hydrocarbon exploration well in the Arctic Islands

169001 Louise Bay O-25

A hydrocarbon exploration well in the Arctic Islands

170001 Thor P-38

A hydrocarbon exploration well in the Arctic Islands

171001 Dome Bay P-36

A hydrocarbon exploration well in the Arctic Islands

172001 Drake B-44

A hydrocarbon exploration well in the Arctic Islands.

173001 Niglintgak H-30

A hydrocarbon exploration well in the Mackenzie Delta.

175001 Gemini E-10

A hydrocarbon exploration well in the Mackenzie Delta.

176001 Ya Ya P-53

A hydrocarbon exploration well in the Mackenzie Delta.

177001 Titalik K-26

A hydrocarbon exploration well in the Mackenzie Delta.

178001 Parsons N-10

A hydrocarbon exploration well in the Mackenzie Delta.

179001 Reindeer F-36

A hydrocarbon exploration well in the Mackenzie Delta.

193001 Ikhil I-37

A hydrocarbon exploration well in the Mackenzie Delta.

194001 Atigi O-48

A hydrocarbon exploration well in the Mackenzie Delta.

195001 Linkens Island P-46

A hydrocarbon exploration well in the Arctic Islands.

196001 Bent Horn N-72

A hydrocarbon exploration well in the Arctic Islands.

197001 Neil D-68

A hydrocarbon exploration well in the Arctic Islands.

198001 Drake D-68

A hydrocarbon exploration well in the Arctic Islands.

199001 Drake E-78

A hydrocarbon exploration well in the Arctic Islands.

200001 Hecla I-69

A hydrocarbon exploration well in the Arctic Islands.

224001 to 224081 Illisarvik

A long series of shallow holes drilled in the bed of a drained lake in the Mackenzie Delta to monitor temperature changes and freezing in the years after draining.

235001 to 235005 Ottawa

A series of holes drilled on the campus of Carleton University for exploitation of groundwater for feed to heat pumps. Temperatures highly disturbed by artesian flow.

253001 Tedji Lake K-24

A hydrocarbon exploration well in the Mackenzie Delta.

254001 Ya Ya A-28

A hydrocarbon exploration well in the Mackenzie Delta.

255001 Adgo P-25

A hydrocarbon exploration well in the Mackenzie Delta.

256001 Sutherland O-23

A hydrocarbon exploration well in the Arctic Islands.

257001 Pedder Point D-49

A hydrocarbon exploration well in the Arctic Islands.

258001 Pat Bay A-72

A hydrocarbon exploration well in the Arctic Islands.

259001 Drake D-73

A hydrocarbon exploration well in the Arctic Islands.

260001 Red Fox P-21

A hydrocarbon exploration well in the Mackenzie Delta.

261001 Kimik D-29

A hydrocarbon exploration well in the Mackenzie Delta.

262001 Atertak E-41

A hydrocarbon exploration well in the Mackenzie Delta.

263001 Pikiolik M-26

A hydrocarbon exploration well in the Mackenzie Delta.

264001 Pikiolik E-54

A hydrocarbon exploration well in the Mackenzie Delta.

265001 Mallik A-06

A hydrocarbon exploration well in the Mackenzie Delta.

266001 Ivik J-26

A hydrocarbon exploration well in the Mackenzie Delta.

267001 Taglu C-42

A hydrocarbon exploration well in the Mackenzie Delta.

268001 Taglu D-43

A hydrocarbon exploration well in the Mackenzie Delta.

269001 Taglu D-55

A hydrocarbon exploration well in the Mackenzie Delta.

270001 Niglintgak M-19

A hydrocarbon exploration well in the Mackenzie Delta.

271001 North Ellice J-23

A hydrocarbon exploration well in the Mackenzie Delta.

272001 Parsons L-43

A hydrocarbon exploration well in the Mackenzie Delta.

273001 Kamik D-48

A hydrocarbon exploration well in the Mackenzie Delta.

274001 Siku C-11

A hydrocarbon exploration well in the Mackenzie Delta.

275001 Parsons -17

A hydrocarbon exploration well in the Mackenzie Delta.

276001 Ulu A-35

A hydrocarbon exploration well in the Mackenzie Delta.

277001 Siku A-12

A hydrocarbon exploration well in the Mackenzie Delta.

278001 Niglintgak B-19

A hydrocarbon exploration well in the Mackenzie Delta.

279001 Parsons L-37

A hydrocarbon exploration well in the Mackenzie Delta.

280001 Kumak E-58

A hydrocarbon exploration well in the Mackenzie Delta.

281001 Sadene D-02

A hydrocarbon exploration well in the Mackenzie Delta.

282001 Taglu –43

A hydrocarbon exploration well in the Mackenzie Delta.

284001 Siku E-21

A hydrocarbon exploration well in the Mackenzie Delta.

285001 Parsons D-20

A hydrocarbon exploration well in the Mackenzie Delta.

286001 Bent Horn F-72A

A hydrocarbon exploration well in the Arctic Islands.

287001 Taglu H-54

A hydrocarbon exploration well in the Mackenzie Delta.

288001 Garry P-04

A hydrocarbon exploration well in the Mackenzie Delta.

291001 Cornwall O-30

A hydrocarbon exploration well in the Arctic Islands.

293001 Cameron B-13

A hydrocarbon exploration well in the Northwest Territories.

299001 Marryat K-71

A hydrocarbon exploration well in the Northwest Territories.

300xxx East Bull Lake

A series of holes drilled for experiments related to research into disposal of highly radioactive waste.

301001 Meager Creek

Shallow hole drilled in the hot spring area.. Hole penetrated cemented gravels before entering zone of flowing hot water.

301002 Meager Creek

Shallow hole drilled to the side of the hot spring area.

301003 - 301006 Meager Creek

Drilled to trace the source of hot water of the Meager Creek hot springs.

303001 to 303002 Lillooet

Drilled to measure temperature gradients around the Meager Creek Volcanic Complex.

304001 to 304002 Squamish Valley

Drilled to measure temperature gradients around the Mount Cayley Volcanic Complex.

305001 to 305002 Granby River

Drilled to measure temperature gradients around the Mount Cayley Volcanic Complex.

306001 to 306008 Lillooet Valley

Drilled for geothermal exploration on the north side of the Mount Meager Volcanic Complex

307001 to 307013 Meager Creek

Drilled for geothermal exploration on the south side of the Mount Meager Volcanic Complex, in the Meager Creek valley. Some of these holes encountered very high temperatures.

308001 Regina

Drilled for geothermal water on the campus of the University of Regina. Later used for hydrofracturing experiments. Never used for its original purpose despite very good resource assessment.

309001 to 309002 Mount Cayley

Drilled to measure temperature gradients around the Mount Cayley Volcanic Complex.

319001 McAdam

Drilled to investigate the hot-dry rock potential of granitic plutons in the Maritime Provinces.

320001 Welsford

Drilled to investigate the hot-dry rock potential of granitic plutons in the Maritime Provinces

341001 Charlottetown

Drilled to investigate the geothermal potential of the sediments of Prince Edward Island.

346001 to 346015 North Vancouver Island

A series of shallow (100 m) holes drilled for heat flow reconnaissance .

402001 - 420001 Various sites in the Maritime Provinces

Drilled by various exploration companies and logged under contract for the Geothermal Program.

427001 Cape Allison

An oil exploration well in the Arctic Islands, drilled offshore and fitted with a permanent thermistor cable, with data recovered by a recorder installed on the sea ice.

428001 - 430001 Various sites in the Maritime Provinces

Drilled by various exploration companies and logged under contract for the Geothermal Program.

442001 to 442023 Riverhurst

A series of holes originally drilled for monitoring of water levels as Diefenbaker Lake was filled. The surviving holes were logged for temperature many years later.

443001 Instow

A suspended oil exploration well.

495001 Summerland

Drilled to explore for warm water in the Summerland Caldera. Good temperature but no water found.

496001 Moose Jaw

Well drilled for hot water for municipal baths.

651001 to 651005 Warburg

A set of shallow peizometer observation holes, very close together, each one sampling a different aquifer. Whole temperature log is a composite of the set.

652001 - 653001 Vanscoy area

Potash exploration wells.

654001 Lac des Arcs

An oil exploration well in the Rocky Mountains.

706001 Kimberley

Temperatures provided by Cominco. Conductivities measured at Pacific Geoscience Centre.

708001 Mills Lake

Oil exploration well. Temperatures taken from log headings. Conductivities measured at Pacific Geoscience Centre.

70900 Mills Lake

Oil exploration well. Temperatures taken from log headings. Conductivities measured at Pacific Geoscience Centre.

751001 - 792001 Various places in Alberta

Shallow piezometer observation holes similar to 651001 to 651005

10001001 - 10037001 Various university groups

Data recovered from publications of various university groups. For details of the sites the only information available is in the publications.

10101001 - 10268001 University of Quebec at Montreal

Data provided by the University of Quebec at Montreal. For details of sites information is in the publications

20001001 - 20043001 Under-water measurements

Data from underwater sites of various university groups. . For details of the sites the only information available is in the publications.

20101001 - 20115001 Eastern offshore sites

A selection of sites from early oil and gas drilling on the eastern continental shelf. Temperature data are from log-headings and conductivities were estimated by the net-rock method.