



Natural Resources
Canada

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CanVec

Product Distribution Formats

Edition 1.1.3

2011-11-10

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RELEASES HISTORY

Date	Edition	Description
2011-11-10	1.1.3	<p>Adding theme, Administrative limit</p> <ul style="list-style-type: none"> • Adding entities: Municipal Regional Area, Upper Municipality and Municipality. • Adding entity Aboriginal Lands: Other, Indian Reserve, Land Claim, Indian Land. <p>Entities Single line watercourse, Manmade hydrographic entity, Entities Hydrographic obstacle entity, Island, Waterbody, Named feature:</p> <ul style="list-style-type: none"> • Attributes English name (NAMEEN), French name (NAMEFR), Lake English name (LAKNAMEEN), Lake French name (LAKNAMEFR), River English Name (RIVNAMEEN), River French name (RIVNAMEFR), data type changes from change C(100) à C(254). <p>Entity Road segment</p> <ul style="list-style-type: none"> • New attributes: Road jurisdiction (JURIROAD), Speed restriction (SPEEDRESTR), Closing period (CLOSINGPER) and Traffic direction (TRAFFICDIR). <p>Entity Ferry connection segment</p> <ul style="list-style-type: none"> • New attribute Closing period (CLOSINGPER).
2011-07-04	1.1.2	<p>Added a file for the shapefile format.</p> <ul style="list-style-type: none"> • a new file with a .cpg extension has been added in the shapefile format to introduce the UTF-8 character-encoding schemes to be able to show French accents (section 4.2).
2011-04-18	1.1.1	<p>Geobase entities</p> <ul style="list-style-type: none"> • Attribute common removal: Source identifier. <p>Entities Hydrographic obstacle entity, Island, Manmade hydrographic entity, Named feature</p> <ul style="list-style-type: none"> • Attribute removal: NHN drainage area. • Attribute Geographical name database (GEONAMEDB) data type changes from C(20) to C(100). <p>Entity Single line watercourse</p> <ul style="list-style-type: none"> • Attributes removal: NHN drainage area, isolated. <p>Entity Waterbody</p> <ul style="list-style-type: none"> • Attribute removal: NHN drainage area. • Attributes Lake Geographical name database (LAKGEODB) and River Geographical name database (RIVGEODB) data type changes from C (20) to C (100). <p>Entity Permanent snow and ice</p>

		<ul style="list-style-type: none"> Attribute removal: Permanent snow and ice type.
2010-04-14	1.1.0	<p>New version distribution formats:</p> <ul style="list-style-type: none"> 3.1 GML (Geography Markup Language) version 3.1.1 <p>Adding FGDB distribution format (« File Geodatabase ») ESRI™:</p> <ul style="list-style-type: none"> 3.3 FGDB (File Geodatabase) <p>Restructuring of some document sections:</p> <ul style="list-style-type: none"> 4.1 GML file names <p>Adding sections:</p> <ul style="list-style-type: none"> 4.1.2 According Provincial/Territorial coverage 4.3 FGDB file names 4.6 List of distribution files names by Province / territory 4.7 List of distribution files names by Canada <p>Attribute data type:</p> <ul style="list-style-type: none"> 5 Attributes identification: the data type in GML format is now consistent with the data type defined for other formats (Shape, FGDB). <p>Entities Contour and Contour imperial:</p> <ul style="list-style-type: none"> Attribut removal: Geometric representation qualifier. <p>Entity Coastal water:</p> <ul style="list-style-type: none"> Entity removal: replace by Waterbody. Water definition: Ocean, non isolated.
2008-10-01	1.0.2	<p>Attributes common to all GeoBase entities:</p> <ul style="list-style-type: none"> Attribute removal: Standards version (STDVER). Attribute is moved to entities where applicable (Blocked passage, Ferry connection segment, Junction, Road segment and Toll point). <p>Entities Hydrographic obstacle entity, Island, Manmade hydrographic entity and Single line watercourse:</p> <ul style="list-style-type: none"> become GeoBase; new attributes (9): Acquisition technique (ACQTECH) and Source identifier (SOURCEID); English name (NAMEEN), French name (NAMEFR), Geographical name database (GEONAMEDB), Language (LANGUAGE), Name ID (NAMEID), NHN drainage area (NHNAREA) and Toponymic concise code (CONCISCODE). <p>Entity Named feature:</p> <ul style="list-style-type: none"> attribute removal: Aboriginal name (NAMEAB). <p>Entity Waterbody:</p> <ul style="list-style-type: none"> becomes GeoBase; new attributes (16): Acquisition technique (ACQTECH) and Source identifier (SOURCEID); Lake English name

		(LAKNAMEEN), Lake French name (LAKNAMEFR), Lake geographical name database (LAKGEODB), Lake language (LAKLANG), Lake name ID (LAKNAMEID), Lake toponymic concise code (LAKCONCOD), NHN drainage area (NHNAREA), River English name (RIVNAMEEN), River French name (RIVNAMEFR), River geographical name database (RIVGEODB), River language (RIVLANG), River name ID (RIVNAMEID) and River toponymic concise code (RIVCONCOD).
2008-03-01	1.0.1	<p>Attributes common to all entities (except those of GeoBase):</p> <ul style="list-style-type: none"> attribute Validity date (VALDATE) Shape data type changes from C(10) to C(8). <p>Attributes common to all GeoBase entities:</p> <ul style="list-style-type: none"> attribute Validity date (VALDATE) replaces Acquisition or revision date (ACQREVDATA) and Shape data type changes from C(7) to C(8). attribute Provider (PROVIDER) replaces Provider acquisition (ACQPROVDR). <p>Entity Blocked passage:</p> <ul style="list-style-type: none"> new attributes (3): Creation date (CREDATE), Province/territory code (CODEPROV) and Revision date (REVDATA). <p>Entity Ferry connection segment:</p> <ul style="list-style-type: none"> New attributes (3): Creation date (CREDATE), Province/territory code (CODEPROV) and Revision date (REVDATA). attribute Functional road class (ROADCLASS) replaces National road class (NATRDCLASS). <p>Entity Junction:</p> <ul style="list-style-type: none"> new attributes (7): Acquisition technique (ACQTECH), Creation date (CREDATE), Planimetric accuracy (ACCURACY), Provider (PROVIDER), Province/territory code (CODEPROV), Revision date (REVDATA) and Validity date (VALDATE). <p>Entity Named feature (replaces entity Toponym):</p> <ul style="list-style-type: none"> attributes Aboriginal name (NAMEAB), English name (NAMEEN) and French name (NAMEFR) replace Name (TOPONAME). attribute Name ID (NAMEID) replaces CGNDB Identifier (CGNDBID). attribute Toponymic concise code (CONCISCODE) replaces Toponym type (TYPE). new attributes (2): Geographical name database (GEONAMEDB) and Language (LANGUAGE). <p>Entity Road segment:</p>

		<ul style="list-style-type: none"> • attribute Functional road class (ROADCLASS) replaces National road class (NATRDCLASS). • new attributes (14): Address range NID (ADRANGENID), Creation date (CREFDATE), Digitizing direction flag left (L_ADDDIRRG), Digitizing direction flag right (R_ADDDIRRG), First house number left (L_HNUMF), First house number right (R_HNUMF), Last house number left (L_HNUML), Last house number right (R_HNUML), Official place name left (L_PLACENAM), Official place name right (R_PLACENAM), Official street name left (L_STNAME), Official street name right (R_STNAME), Province/territory code (CODEPROV) and Revision date (REVDATE). <p>Entity Toll point:</p> <ul style="list-style-type: none"> • new attributes (3): Creation date (CREFDATE), Province/territory code (CODEPROV) and Revision date (REVDATE).
2007-03-01	1.0	Original edition

TABLE OF CONTENTS

1 OVERVIEW	1
2 PRODUCT IDENTIFICATION	1
3 DISTRIBUTION FORMATS IDENTIFICATION	1
3.1 GML (GEOGRAPHY MARKUP LANGUAGE)	1
3.2 SHAPE.....	1
3.3 FGDB (FILE GEODATABASE).....	1
4 DISTRIBUTION FILES IDENTIFICATION	2
4.1 GML FILE NAMES	2
4.2 SHAPE FILE NAMES.....	3
4.3 FGDB FILE NAMES.....	4
4.4 METADATA FILES.....	4
4.5 LIST OF DISTRIBUTION FILES NAMES (BY ALPHABETICAL ORDER).....	6
4.6 LIST OF DISTRIBUTION FILES NAMES BY PROVINCE / TERRITORY	9
4.7 LIST OF DISTRIBUTION FILES NAMES BY CANADA	9
5 ATTRIBUTES IDENTIFICATION	10
5.1 ATTRIBUTES COMMON TO ALL ENTITIES (EXCEPT THOSE OF GEOBASE)	10
5.2 ATTRIBUTES COMMON TO ALL GEOBASE ENTITIES	11
5.3 ATTRIBUTES SPECIFIC TO ENTITIES.....	12
APPENDIX A: LIST OF DISTRIBUTION FILE NAMES (SORTED BY THEME)	19

1 OVERVIEW

Geospatial data of CanVec product are available in three distribution formats: GML, Shape and FGDB. This document provides only the name of the entities (or events), the name and the data type of the attributes and the file names for each distribution format. The CanVec Feature Catalogue describes in details the entities (or events), attributes, associations and relations between entities (or events).

2 PRODUCT IDENTIFICATION

Name: CanVec
Version: 1.1.1
Date: 2011-04-18
Standard: CanVec: Data product specifications - Edition 1.1 (2010-04-14)
Feature catalogue: CanVec: Feature catalogue - Edition 1.1.1 (2011-10-??)

3 DISTRIBUTION FORMATS IDENTIFICATION

3.1 GML (Geography Markup Language)

Name: GML
Version: 3.1.1
Date: 2004-02-07
Specifications: Geography Markup Language – GML –3.1.1, OpenGIS® Implementation Specifications, OGC Recommendation Paper, 2004-02-07, OGC Document Number 03-105r1 (http://portal.opengeospatial.org/files/?artifact_id=4700)

3.2 Shape

Name: Shape
Version: 01
Date: July 1998
Specifications: ESRI Shapefile, a Technical Description, on ESRI white paper (July 1998) (<http://www.esri.com/library/whitepapers/pdfs/shapefile.pdf>)

3.3 FGDB (File Geodatabase)

Nom: ESRI™ Geodatabase (File-based)
Version: Unknown (Outside the public domain)
Date: Not available. This format was launched with the ArcGIS (ESRI™) version 9.2 software

Specifications: Not applicable (Outside the public domain).

4 DISTRIBUTION FILES IDENTIFICATION

4.1 GML file names

4.1.1 According to NTS coverage

CanVec entities distributed in GML format are grouped into dataset files. The name of the GML file is described as follow:

`<identifier>_<edition>_<version>.gml`

- `<identifier> =` National Topographic System (NTS) identifier. The identifier format is 999a99.
- `<edition> =` Dataset edition number.
- `<version> =` Dataset version number.
- `.gml =` Extension of file name.

Example:

- `031g01_1_0.gml` (Entities of dataset 031g01, edition 1, version 0).

A XML schema (XSD file) is also delivered with GML data. This file defines, in a structure manner, the type of content, the syntax and the semantic of XML (and GML) documents. The name of this file is `<identifier>_<edition>_<version>.xsd` and is referenced by each GML file.

4.1.2 According Provincial/Territorial coverage

CanVec entities are grouped by CanVec theme under Provincial/Territorial coverage within a file. A maximum of 12 files (12 subjects) will be present for each province/territory (14). The GML file name is described as follow:

`<PROV CODE>_<THEME CODE >.gml`

- `<PROV CODE>=` Province/territory code written in uppercase. Possible codes are: AB, BC, MB, NB, NL, NS, NT, NU, ON, PE, QC, SK, YT, ET (territorial waters)
- `<THEME CODE >.=` Theme code written in uppercase. Possible codes are: BS, EN, FO, HD, IC, LA, LI, LX, SS, TO, TR, VE.
- `.gml =` File name extension.

Examples:

- `ON_BS.gml` (Ontario Province, Buildings and structure theme)
- `ON_EN.gml` (Ontario Province, Energy theme)

A XML schema (XSD file) is also delivered with GML data. This file defines, in a structure manner, the type of content, the syntax and the semantic of XML (and GML) documents. The name of this file is <PROV CODE>_<THEME CODE >.xsd and is referenced by each GML file.

4.2 Shape file names

The entities of the product distributed in Shape format are divided according to their geometric representation. The name of the Shape files is described as follow:

<identifier>_<edition>_<version>_<THEME CODE>_<generic code>_<geometry code>.shp

- <identifier> = National Topographic System (NTS) identifier. The identifier format is 999a99.
- <edition> = Dataset edition number.
- <version> = Dataset version number.
- <THEME CODE> = Theme code written in uppercase. Possible codes are: BS, EN, FO, HD, IC, LA, LI, LX, SS, TO, TR, VE.
- <generic code> = Generic code of 7 digits corresponding to each entity identified in Feature catalogue.
- <geometry code> = Code indicating the geometric representation of the entity. Possible values are: 0 (point), 1 (line), 2 (area).
- .shp = Extension of main geometry file name.

In Shape format, there are also four other files associated with the main geometry file of an entity:

- an attribute file (.dbf for dBASE® file);
- a spatial index file (.shx) containing offset (relative position) for each records of main geometry file;
- a projection file (.prj) storing information about the reference system used and the parameters of the cartographic projection;
- a character encoding file (.cpg) describing a set of characters for displaying text in shapefiles and also helps localize maps for specific languages.

Examples:

- 031g01_1_0_FO_1030009_1.shp (Entity Contour of theme Landform and is a line geometry for dataset 031g01, edition 1, version 0);
- 116b03_1_0_VE_1240009_2.shp (Entity Wooded area of theme Vegetation and is an area geometry for dataset 116b03, edition 1, version 0).

4.3 FGDB file names

4.3.1 According Provincial/Territorial coverage

CanVec entities distributed in FGDB format are grouped by CanVec themes and available under Provincial/Territorial coverage. A maximum of 12 files (12 themes) is available for each province/territory (14). The FGDB file name is described as follow:

<PROV CODE>_<THEME CODE >.gdb for Provincial/territorial coverage.

- <PROV CODE>= Province code or territory written in uppercase. Possible codes are: AB, BC, MB, NB, NL, NS, NT, NU, ON, PE, QC, SK, YT, ET (territorial waters)
- <THEME CODE > = Theme code written in uppercase. Possible codes are: BS, EN, FO, HD, IC, LA, LI, LX, SS, TO, TR, VE.
- .gdb = File name extension.

Examples: ON_BS.gdb (Ontario province, Buildings and structures theme)

ON_EN.gdb (Ontario province, Energy theme)

4.3.2 According to Canadian coverage

CanVec entities distributed in FGDB format are grouped by CanVec themes and available under Canadian coverage. A maximum of 11 files (11 themes) will be present. The FGDB file name is described as follow:

<CAN CODE>_<THEME CODE >.gdb for Canadian coverage.

- <CAN CODE > Canada code written in uppercase: CA
- <THEME CODE > = Theme code written in uppercase. Possible codes are: BS, EN, FO, HD, IC, LA, LI, LX, SS, TO, TR, VE.
- .gdb = File name extension.

Examples:

- CA_BS.gdb, (Canada, Buildings and structures theme)
- CA_EN.gdb (Canada, Energy theme)

4.4 Metadata files

4.4.1 According to NTS coverage

Five metadata files are distributed with each dataset of CanVec product. Two are delivered in FGDC/XML format (in English and in French), two others according to FGDC/HTML format and one according to PNA/XML format.. The name of the metadata is described as follow:

canvec_<identifier>_<edition>_<version>_fgdc_<code language>.<format>

- canvec = Fixed product acronym name.

- <identifier> = National Topographic System (NTS) identifier. The identifier format is 999a99.
- <edition> = Dataset edition number.
- <version> = Dataset version number.
- fgdc = Metadata file format according to CSDGM standard of the Federal Geographic Data Committee (FGDC).
- <code langue> = Metadata ISO code language written in lowercase: fr (French), en (English).
- <format> = Extension of file name (xml or html).

Examples:

- canvec_031g01_1_0_fgdc_en.xml (English metadata file for dataset 031g01, edition 1, version 0 in FGDC/XML format)
- canvec_031g01_1_0_fgdc_fr.html (French metadata file for dataset 031g01, edition 1, version 0 in FGDC/HTML format)
- canvec_031g01_1_0_pna.xml (Bilingual (English and French) metadata file for dataset 031g01, edition 1, version 0 in PNA/XML format)

Note: Data supplied by Provincial / Territorial and Canadian coverages does not have metadata files. The user should refer to metadata files distributed by NTS.

4.5 List of distribution files names (by alphabetical order)

The file name in Shape format is always preceded by: <identifier>_<edition>_<version>_. The extension of the file name depends directly of the distribution format. Furthermore, the name of each entity in the GML file format corresponds to the name of the Shape file indicated in the following table.

The following list is also sorted by theme (see Appendix A).

Feature catalogue Entity name	Theme	GML – Entity name Shape – File name	Geometry		
			Point	Line	Area
Aboriginal Lands ^[GeoBase]	LA	LA_1690009			_2
Amusement park	LX	LX_2260009			_2
Auto wrecker	IC	IC_2360009			_2
Blocked passage ^[GeoBase]	TR	TR_1780009	_0		
Botanical garden	LX	LX_2200009			_2
Building	BS	BS_2010009	_0		_2
Camp	LX	LX_2030009	_0		
Campground	LX	LX_2480009	_0		_2
Cemetery	LX	LX_1000039	_0		_2
Chimney	BS	BS_2060009	_0		
Contour	FO	FO_1030009		_1	
Contour imperial	FO	FO_2570009		_1	
Cross	BS	BS_2120009	_0		
Cut line	VE	VE_2290009		_1	
Designated area	LX	LX_1000059	_0	_1	_2
Domestic waste	IC	IC_1360019			_2
Drive-in theatre	LX	LX_2070009	_0		_2
Elevation point	FO	FO_1200009	_0		
Elevation point imperial	FO	FO_2610009	_0		
Esker	FO	FO_1080029		_1	
Exhibition ground	LX	LX_2510009			_2
Extraction area	IC	IC_1350039	_0		_2
Ferry connection segment ^[GeoBase]	TR	TR_1750009		_1	
Footbridge	LX	LX_2280009		_1	
Fort	LX	LX_1000049			_2
Gas and oil facilities	EN	EN_1360049	_0		_2
Glacial debris undifferentiated	FO	FO_1080039			_2
Golf course	LX	LX_1000089			_2
Golf driving range	LX	LX_2500009	_0		_2
Historical site/Point of interest	LX	LX_2220009	_0		
Hydrographic obstacle entity ^[GeoBase]	HD	HD_1460009	_0	_1	_2
Industrial and commercial area	IC	IC_1360039	_0		_2

Feature catalogue Entity name	Theme	GML – Entity name Shape – File name	Geometry		
			Point	Line	Area
Industrial solid waste	IC	IC_1360029	_0		_2
Island ^[GeoBase]	HD	HD_1490009			_2
Junction ^[GeoBase]	TR	TR_1770009	_0		
Landform	FO	FO_1080019			_2
Lookout	LX	LX_1000019	_0		_2
Lumber yard	IC	IC_2110009			_2
Manmade hydrographic entity ^[GeoBase]	HD	HD_1450009	_0	_1	_2
Marina	LX	LX_1000069	_0		
Mine	IC	IC_1350049	_0		_2
Mining area	IC	IC_2600009	_0		
Moraine	FO	FO_1080049			_2
Municipality ^[GeoBase]	LA	LA_1680039			_2
Municipality Regional area ^[GeoBase]	LA	LA_1680019			_2
Navigational aid	BS	BS_1250009	_0		
Named feature	TO	TO_1580009	_0	_1	_2
NTS50K boundary polygon	LI	LI_1210009			_2
Palsa bog	SS	SS_1320029			_2
Parabolic antenna	BS	BS_2000009	_0		
Park/sports field	LX	LX_2270009			_2
Peat cutting	IC	IC_1350059			_2
Permanent snow and ice	HD	HD_1140009			_2
Picnic site	LX	LX_2490009	_0		_2
Pingo	FO	FO_1080079	_0		
Pipeline	EN	EN_1180009		_1	
Pipeline (Sewage/liquid waste)	BS	BS_2310009		_1	
Pit	IC	IC_1350019			_2
Power transmission line	EN	EN_1120009		_1	
Quarry	IC	IC_1350029			_2
Railway	TR	TR_1020009		_1	
Residential area	BS	BS_1370009			_2
Road segment ^[GeoBase]	TR	TR_1760009		_1	
Ruins	LX	LX_2400009	_0		_2
Runway	TR	TR_1190009	_0		_2
Sand	FO	FO_1080059			_2
Saturated soil	SS	SS_1320039			_2
Shrine	LX	LX_2210009	_0		
Silo	BS	BS_2440009	_0		

Feature catalogue Entity name	Theme	GML – Entity name Shape – File name	Geometry		
			Point	Line	Area
Single line watercourse ^[GeoBase]	HD	HD_1470009		_1	
Ski centre	LX	LX_1000029	_0		
Sports track/Race track	LX	LX_1000079		_1	_2
Stadium	LX	LX_2460009			_2
String bog	SS	SS_1320059			_2
Tank	BS	BS_2080009	_0		_2
Toll point ^[GeoBase]	TR	TR_1790009	_0		
Tower	BS	BS_2530009	_0		
Trail	LX	LX_2420009		_1	
Transformer station	EN	EN_1360059	_0		_2
Transmission line	BS	BS_2230009		_1	
Tundra polygon	FO	FO_1080069			_2
Tundra pond	SS	SS_1320019			_2
Turntable	TR	TR_2320009	_0		
Underground reservoir	BS	BS_2380009	_0		_2
Upper Municipality ^[GeoBase]	LA	LA_1680029			_2
Valve	EN	EN_1340009	_0		
Wall/fence	BS	BS_2240009		_1	
Waterbody ^[GeoBase]	HD	HD_1480009			_2
Well	BS	BS_2350009	_0		
Wetland	SS	SS_1320049			_2
Wind-operated device	EN	EN_2170009	_0		
Wooded area	VE	VE_1240009			_2
Zoo	LX	LX_2560009			_2

4.6 List of distribution files names by Province / territory

The file name in GML and FGDB format is composed by: <PROV_CODE>_<THEME_CODE>. The filename extension depends on the distribution format. The files names are indicated in the following table.

Provincial/Territorial coverage	PROV_CODE	THEME_CODE	File name
Alberta	AB	BS	AB_BS
		EN	AB_EN
		FO	AB_FO
		HD	AB_HD
		IC	AB_IC
		LA	AB_LA
		LI	AB_LI
		LX	AB_LX
		SS	AB_SS
		TO	AB_TO
		TR	AB_TR
	VE	AB_VE	

Possible coverage's are:

- Alberta (AB)
- British Columbia (BC)
- Manitoba (MB)
- New Brunswick (NB)
- Newfoundland and Labrador (NL)
- Nova Scotia (NE)
- Northwest Territories (NT)
- Nunavut (NU)
- Ontario (ON)
- Prince Edward Island (PE)
- Quebec (QC)
- Saskatchewan (SK)
- Yukon (YT)

NOTE:

The layer names within the FGDB file are identical to those identified in Section 4.5 List of filenames distributions NTS.

4.7 List of distribution files names by Canada

The file name in FGDB format is composed by: <CAN_CODE> _ <THEME_CODE>. The file name extension depends on the distribution format. The files names are indicated in the following table.

Provincial/Territorial coverage	CAN_CODE	THEME_CODE	File name
Canada	CA	BS	CA_BS
		EN	CA_EN
		FO	CA_FO
		HD	CA_HD
		IC	CA_IC
		LA	CA_LA
		LI	CA_LI
		LX	CA_LX
		SS	CA_SS
		TO	CA_TO
		TR	CA_TR
	VE	CA_VE	

NOTE:

The layer names within the FGDB file are identical to those identified in Section 4.5 List of filenames distributions NTS

5 ATTRIBUTES IDENTIFICATION

Attributes common to all or a group of entities for CanVec product are identified in the first two tables. Attributes specific to each entity are presented in the following subsections.

The following formalism define the data representation for the Shape, GML and FGDB formats: C(c) for character or N(n,d) for number (c = number of characters, n = total number of digits, d = number of digits in decimal). This formalism does not specify the type of data while some change could occurs from one format to another.

Exemple :

Type Canvec	ArcSDE	GML	Fgdb	Shape (see note)
N(10,0)	Long Integer	Integer	Long Integer	Double
10 characters	11 characters	11 characters	11 characters	13 characters

Note :

The ESRI Shape format is based on the old dbase standard. This format can not store null values nor round up numbers, and it has a limitation of 10 characters for the field name definition. In addition, the Shape format stores the numerical values of attribute in characters which may lead to rounding errors.

For instance, for CanVec product, in recent data format versions as ESRI's FGDB, the integer value of the CODE (N10, 0) attribute is stored in a Long Integer, and in a ESRI's Shape file, the integer value of the CODE (N10, 0) attribute is stored in a Double.

5.1 Attributes common to all entities (except those of GeoBase)

Feature catalogue Entity name	Feature catalogue Attribute name	Formats Attribute name	Formats Data type
All entities except those identified in section 5.2.	Dataset name	DATANAME	C(10)
	Feature identifier	ID	C(64)
	Planimetric accuracy	ACCURACY	N(10,0)
	Provider	PROVIDER	N(3,0)
	Specification code	CODE	N(10,0)
	Theme	THEME	C(2)
	Validity date	VALIDATE	C(8)

5.2 Attributes common to all GeoBase entities

Feature catalogue Entity name	Feature catalogue Attribute name	Formats Attribute name	Formats Data type
<ul style="list-style-type: none"> • Aboriginal lands • Blocked passage • Ferry connection segment • Hydrographic obstacle entity • Island • Junction • Manmade hydrographic entity • Municipality • Municipality regional area • Road segment • Single line watercourse • Upper municipality • Toll point • Waterbody 	Acquisition technique	ACQTECH	N(3,0)
	Dataset name	DATANAME	C(10)
	Feature identifier	ID	C(64)
	Planimetric accuracy	ACCURACY	N(10,0)
	Provider	PROVIDER	N(3,0)
	Specification code	CODE	N(10,0)
	Theme	THEME	C(2)
	Validity date	VALIDATE	C(8)

5.3 Attributes specific to entities

Feature catalogue Entity name	Feature catalogue Attribute name	Formats Attribute name	Formats Data type
Aboriginal Land ^[GeoBase]	Aboriginal Land Type	TYPE	N(3,0)
	English name	NAMEEN	C(254)
	French name	NAMEFR	C(254)
	Aboriginal name	NAMEAB	C(254)
	Geographical name database	GEONAMEDB	C(100)
	Language	LANGUAGE	N(3,0)
	Name ID	NAMEID	C(32)
	Web reference	REFWEB	C(254)
	Territory 1	TERR1	C(2)
	Territory 2	TERR2	C(2)
	Territory 3	TERR3	C(2)
	Territory 4	TERR4	C(2)
Blocked passage ^[GeoBase]	Blocked passage type	TYPE	N(3,0)
	Creation date	CREDATE	C(8)
	Network linear element NID	ROADNID	C(32)
	Province/territory code	CODEPROV	C(2)
	Revision date	REVDATE	C(8)
	Standards version	STDVER	C(10)
Building	Building function	FUNCTION	N(3,0)
	Orientation	ORIENTATIO	N(31,8)
Contour	Altimetric accuracy	ALTIACCU	N(10,0)
	Contour generation	GENERATION	N(3,0)
	Contour type	TYPE	N(3,0)
	Hypsometric value	ELEVATION	N(10,0)
Contour imperial	Altimetric accuracy	ALTIACCU	N(10,0)
	Contour generation	GENERATION	N(3,0)
	Contour type	TYPE	N(3,0)
	Hypsometric value	ELEVATION	N(10,0)
Cut line	Cut line type	TYPE	N(3,0)
Drive-in theatre	Orientation	ORIENTATIO	N(31,8)
Elevation point	Altimetric accuracy	ALTIACCU	N(10,0)
	Elevation point type	TYPE	N(3,0)
	Hypsometric value	ELEVATION	N(10,0)
Elevation point imperial	Altimetric accuracy	ALTIACCU	N(10,0)
	Elevation point type	TYPE	N(3,0)
	Hypsometric value imperial	ELEVATION	N(10,0)

Feature catalogue Entity name	Feature catalogue Attribute name	Formats Attribute name	Formats Data type
Exhibition ground	Exhibition ground type	TYPE	N(3,0)
Ferry connection segment [GeoBase]	Closing period	CLOSINGPER	N(3,0)
	Creation date	CREDATE	C(8)
	Ferry connection segment ID	FERRYSEGID	N(10,0)
	Functional road class	ROADCLASS	N(3,0)
	Province/territory code	CODEPROV	C(2)
	Revision date	REVDATE	C(8)
	Route name English 1	RTENAME1EN	C(100)
	Route name English 2	RTENAME2EN	C(100)
	Route name English 3	RTENAME3EN	C(100)
	Route name English 4	RTENAME4EN	C(100)
	Route name French 1	RTENAME1FR	C(100)
	Route name French 2	RTENAME2FR	C(100)
	Route name French 3	RTENAME3FR	C(100)
	Route name French 4	RTENAME4FR	C(100)
	Route number 1	RTENUMBER1	C(10)
	Route number 2	RTENUMBER2	C(10)
	Route number 3	RTENUMBER3	C(10)
	Route number 4	RTENUMBER4	C(10)
	Route number 5	RTENUMBER5	C(10)
Standards version	STDVER	C(10)	
Hydrographic obstacle entity [GeoBase]	English name	NAMEEN	C(254)
	French name	NAMEFR	C(254)
	Geographical name database	GEONAMEDB	C(100)
	Language	LANGUAGE	N(3,0)
	Name ID	NAMEID	C(32)
	Obstacle type	TYPE	N(3,0)
	Toponymic concise code	CONCISCODE	N(10,0)
Island [GeoBase]	Coastal island	COASTAL	N(3,0)
	English name	NAMEEN	C(254)
	French name	NAMEFR	C(254)
	Geographical name database	GEONAMEDB	C(100)
	Language	LANGUAGE	N(3,0)
	Name ID	NAMEID	C(32)
	Sand island	SAND	N(3,0)
	Toponymic concise code	CONCISCODE	N(10,0)

Feature catalogue Entity name	Feature catalogue Attribute name	Formats Attribute name	Formats Data type
Junction ^[GeoBase]	Creation date	CREDATE	C(8)
	Exit number	EXITNO	C(10)
	Junction type	TYPE	N(3,0)
	Province/territory code	CODEPROV	C(2)
	Revision date	REVDATE	C(8)
	Standards version	STDVER	C(10)
Manmade hydrographic entity ^[GeoBase]	English name	NAMEEN	C(254)
	French name	NAMEFR	C(254)
	Geographical name database	GEONAMEDB	C(100)
	Language	LANGUAGE	N(3,0)
	Manmade status	STATUS	N(3,0)
	Manmade type	TYPE	N(3,0)
	Name ID	NAMEID	C(32)
	Toponymic concise code	CONCISCODE	N(10,0)
Mining area	Mining area nature	NATURE	N(3,0)
	Mining area status	STATUS	N(3,0)
	Mining area type	TYPE	N(3,0)
Municipality ^[GeoBase]	English name	NAMEEN	C(254)
	French name	NAMEFR	C(254)
	Geographical name database	GEONAMEDB	C(100)
	Legal geographical name database	GNAMEDBLG	C(100)
	Jurisdiction	JURIPROV	C(2)
	Language	LANGUAGE	N(3,0)
	Legal English name	LEGNAMEEN	C(254)
	Legal French name	LEGNAMEFR	C(254)
	Name ID	NAMEID	C(32)
	Official Boundary	STATUT	N(3,0)
	Web reference	REFWEB	C(254)

Feature catalogue Entity name	Feature catalogue Attribute name	Formats Attribute name	Formats Data type
Municipality Regional Area [GeoBase]	English name	NAMEEN	C(254)
	French name	NAMEFR	C(254)
	Geographical name database	GEONAMEDB	C(100)
	Legal geographical name database	GNAMEDBLG	C(100)
	Jurisdiction	JURIPROV	C(2)
	Language	LANGUAGE	N(3,0)
	Legal English name	LEGNAMEN	C(254)
	Legal French name	LEGNAMFR	C(254)
	Name ID	NAMEID	C(32)
	NID Municipal entity	MUNNID	C(32)
	Official Boundary	STATUT	N(3,0)
	Web reference	REFWEB	C(254)
Named feature	English name	NAMEEN	C(254)
	French name	NAMEFR	C(254)
	Geographical name database	GEONAMEDB	C(100)
	Language	LANGUAGE	N(3,0)
	Name ID	NAMEID	C(32)
	Toponymic concise code	CONCISCODE	N(10,0)
Navigational aid	Navigational aid type	TYPE	N(3,0)
NTS50K boundary polygon	Characteristic of the tiling polygon	TILING	N(3,0)
	Flooded polygon	FLOODED	N(3,0)
Parabolic antenna	Antenna type	TYPE	N(3,0)
Pipeline	Number of pipelines	NOPIPES	N(3,0)
	Pipeline product	PRODUCT	N(3,0)
	Pipeline relationship to ground	RELGROUND	N(3,0)
Pipeline (sewage/liquid waste)	Pipeline product	PRODUCT	N(3,0)
	Pipeline relationship to ground	RELGROUND	N(3,0)
Power transmission line	Number of power transmission line	NOLINES	N(3,0)
	Power transmission line type	TYPE	N(3,0)
Railway	Competence	COMPETENCE	N(3,0)
	Railway gauge	GAUGE	N(3,0)
	Railway status	STATUS	N(3,0)
	Railway support	SUPPORT	N(3,0)
	Railway type	TYPE	N(3,0)

Feature catalogue Entity name	Feature catalogue Attribute name	Formats Attribute name	Formats Data type
Road segment ^[GeoBase]	Address range NID	ADRANGENID	C(32)
	Closing period	CLOSINGPER	N(3,0)
	Creation date	CREDATE	C(8)
	Digitizing direction flag left	L_ADDDIRFG	N(3,0)
	Digitizing direction flag right	R_ADDDIRFG	N(3,0)
	Exit number	EXITNO	C(10)
	First house number left	L_HNUMF	N(10,0)
	First house number right	R_HNUMF	N(10,0)
	Functional road class	ROADCLASS	N(3,0)
	Last house number left	L_HNUML	N(10,0)
	Last house number right	R_HNUML	N(10,0)
	Number of lanes	NOLANES	N(3,0)
	Official place name left	L_PLACENAM	C(100)
	Official place name right	R_PLACENAM	C(100)
	Official street name left	L_STNAME	C(100)
	Official street name right	R_STNAME	C(100)
	Paved road surface type	PAVSURF	N(3,0)
	Pavement status	PAVSTATUS	N(3,0)
	Province/territory code	CODEPROV	C(2)
	Revision date	REVDATE	C(8)
	Road jurisdiction	JURIROAD	C(100)
	Road segment ID	ROADSEGID	N(10,0)
	Route name English 1	RTENAME1EN	C(100)
	Route name English 2	RTENAME2EN	C(100)
	Route name English 3	RTENAME3EN	C(100)
	Route name English 4	RTENAME4EN	C(100)
	Route name French 1	RTENAME1FR	C(100)
	Route name French 2	RTENAME2FR	C(100)
	Route name French 3	RTENAME3FR	C(100)
	Route name French 4	RTENAME4FR	C(100)
	Route number 1	RTENUMBER1	C(10)
	Route number 2	RTENUMBER2	C(10)
	Route number 3	RTENUMBER3	C(10)
Route number 4	RTENUMBER4	C(10)	
Route number 5	RTENUMBER5	C(10)	

Feature catalogue Entity name	Feature catalogue Attribute name	Formats Attribute name	Formats Data type
Road segment ^[GeoBase] continued	Speed restriction	SPEEDRESTR	N(10,0)
	Standards version	STDVER	C(10)
	Structure ID	STRUCID	C(32)
	Structure name English	STRUNAMEEN	C(100)
	Structure name French	STRUNAMEFR	C(100)
	Structure type	STRUCTYPE	N(3,0)
	Traffic direction	TRAFFICDIR	N(3,0)
	Unpaved road surface type	UNPAVSURF	N(3,0)
Ruins	Orientation	ORIENTATIO	N(31,8)
Runway	Runway status	STATUS	N(3,0)
	Runway type	TYPE	N(3,0)
Single line watercourse ^[GeoBase]	English name	NAMEEN	C(254)
	French name	NAMEFR	C(254)
	Geographical name database	GEONAMEDB	C(100)
	Language	LANGUAGE	N(3,0)
	Name ID	NAMEID	C(32)
	Permanency	PERMANENCY	N(3,0)
	Toponymic concise code	CONCISCODE	N(10,0)
	Water definition	DEFINITION	N(3,0)
Tank	Orientation	ORIENTATIO	N(31,8)
	Tank type	TYPE	N(3,0)
	Tank use	USE	N(3,0)
Toll point ^[GeoBase]	Creation date	CREDATE	C(8)
	Network linear element NID	ROADNID	C(32)
	Province/territory code	CODEPROV	C(2)
	Revision date	REVDATE	C(8)
	Standards version	STDVER	C(10)
	Toll point type	TYPE	N(3,0)
Tower	Tower function	FUNCTION	N(3,0)
Trail	Trail function	FUNCTION	N(3,0)
Transmission line	Number of transmission line	NOLINES	N(3,0)
	Transmission line function	FUNCTION	N(3,0)
	Transmission line location	LOCATION	N(3,0)

Feature catalogue Entity name	Feature catalogue Attribute name	Formats Attribute name	Formats Data type
Upper Municipality ^[GeoBase]	English name	NAMEEN	C(254)
	French name	NAMEFR	C(254)
	Geographical name database	GEONAMEDB	C(100)
	Legal geographical name database	GNAMEDBLG	C(100)
	Jurisdiction	JURIPROV	C(2)
	Language	LANGUAGE	N(3,0)
	Legal English name	LEGNAMEN	C(254)
	Legal French name	LEGNAMFR	C(254)
	Name ID	NAMEID	C(32)
	NID Municipal entity	MUNNID	C(32)
	Official Boundary	STATUT	N(3,0)
	Web reference	REFWEB	C(254)
Wall/Fence	Wall/Fence type	TYPE	N(3,0)
Waterbody ^[GeoBase]	Isolated	ISOLATED	N(3,0)
	Lake English name	LAKNAMEEN	C(254)
	Lake French name	LAKNAMEFR	C(254)
	Lake geographical name database	LAKGEODB	C(100)
	Lake language	LAKLANG	N(3,0)
	Lake name ID	LAKNAMEID	C(32)
	Lake toponymic concise code	LAKCONCOD	N(10,0)
	Permanency	PERMANENCY	N(3,0)
	River English name	RIVNAMEEN	C(254)
	River French name	RIVNAMEFR	C(254)
	River geographical name database	RIVGEODB	C(100)
	River language	RIVLANG	N(3,0)
	River name ID	RIVNAMEID	C(32)
	River toponymic concise code	RIVCONCOD	N(10,0)
	Waterbody definition	DEFINITION	N(3,0)
Well	Well type	TYPE	N(3,0)
Wooded area	Wooded area type	TYPE	N(3,0)

APPENDIX A: List of distribution file names (sorted by theme)

Feature catalogue Entity name	Theme	GML – Entity name Shape – File name	Geometry		
			Point	Line	Area
Navigational aid	BS	BS_1250009	_0		
Residential area	BS	BS_1370009			_2
Parabolic antenna	BS	BS_2000009	_0		
Building	BS	BS_2010009	_0		_2
Chimney	BS	BS_2060009	_0		
Tank	BS	BS_2080009	_0		_2
Cross	BS	BS_2120009	_0		
Transmission line	BS	BS_2230009		_1	
Wall/fence	BS	BS_2240009		_1	
Pipeline (Sewage/liquid waste)	BS	BS_2310009		_1	
Well	BS	BS_2350009	_0		
Underground reservoir	BS	BS_2380009	_0		_2
Silo	BS	BS_2440009	_0		
Tower	BS	BS_2530009	_0		
Power transmission line	EN	EN_1120009		_1	
Pipeline	EN	EN_1180009		_1	
Valve	EN	EN_1340009	_0		
Gas and oil facilities	EN	EN_1360049	_0		_2
Transformer station	EN	EN_1360059	_0		_2
Wind-operated device	EN	EN_2170009	_0		
Contour	FO	FO_1030009		_1	
Landform	FO	FO_1080019			_2
Esker	FO	FO_1080029		_1	
Glacial debris undifferentiated	FO	FO_1080039			_2
Moraine	FO	FO_1080049			_2
Sand	FO	FO_1080059			_2
Tundra polygon	FO	FO_1080069			_2
Pingo	FO	FO_1080079	_0		
Elevation point	FO	FO_1200009	_0		
Contour imperial	FO	FO_2570009		_1	
Elevation point imperial	FO	FO_2610009	_0		
Permanent snow and ice	HD	HD_1140009			_2
Manmade hydrographic entity ^[GeoBase]	HD	HD_1450009	_0	_1	_2
Hydrographic obstacle entity ^[GeoBase]	HD	HD_1460009	_0	_1	_2

Feature catalogue Entity name	Theme	GML – Entity name Shape – File name	Geometry		
			Point	Line	Area
Single line watercourse ^[GeoBase]	HD	HD_1470009		_1	
Waterbody ^[GeoBase]	HD	HD_1480009			_2
Island ^[GeoBase]	HD	HD_1490009			_2
Pit	IC	IC_1350019			_2
Quarry	IC	IC_1350029			_2
Extraction area	IC	IC_1350039	_0		_2
Mine	IC	IC_1350049	_0		_2
Peat cutting	IC	IC_1350059			_2
Domestic waste	IC	IC_1360019			_2
Industrial solid waste	IC	IC_1360029	_0		_2
Industrial and commercial area	IC	IC_1360039	_0		_2
Lumber yard	IC	IC_2110009			_2
Auto wrecker	IC	IC_2360009			_2
Mining area	IC	IC_2600009	_0		
Municipality Regional area ^[GeoBase]	LA	LA_1680019			_2
Upper Municipality ^[GeoBase]	LA	LA_1680029			_2
Municipality ^[GeoBase]	LA	LA_1680039			_2
Aboriginal Lands ^[GeoBase]	LA	LA_1690009			_2
NTS50K boundary polygon	LI	LI_1210009			_2
Lookout	LX	LX_1000019	_0		_2
Ski centre	LX	LX_1000029	_0		
Cemetery	LX	LX_1000039	_0		_2
Fort	LX	LX_1000049			_2
Designated area	LX	LX_1000059	_0	_1	_2
Marina	LX	LX_1000069	_0		
Sports track/Race track	LX	LX_1000079		_1	_2
Golf course	LX	LX_1000089			_2
Camp	LX	LX_2030009	_0		
Drive-in theatre	LX	LX_2070009	_0		_2
Botanical garden	LX	LX_2200009			_2
Shrine	LX	LX_2210009	_0		
Historical site/Point of interest	LX	LX_2220009	_0		
Amusement park	LX	LX_2260009			_2
Park/sports field	LX	LX_2270009			_2
Footbridge	LX	LX_2280009		_1	
Ruins	LX	LX_2400009	_0		_2
Trail	LX	LX_2420009		_1	

Feature catalogue Entity name	Theme	GML – Entity name Shape – File name	Geometry		
			Point	Line	Area
Stadium	LX	LX_2460009			_2
Campground	LX	LX_2480009	_0		_2
Picnic site	LX	LX_2490009	_0		_2
Golf driving range	LX	LX_2500009	_0		_2
Exhibition ground	LX	LX_2510009			_2
Zoo	LX	LX_2560009			_2
Tundra pond	SS	SS_1320019			_2
Palsa bog	SS	SS_1320029			_2
Saturated soil	SS	SS_1320039			_2
Wetland	SS	SS_1320049			_2
String bog	SS	SS_1320059			_2
Named feature	TO	TO_1580009	_0	_1	_2
Railway	TR	TR_1020009		_1	
Runway	TR	TR_1190009	_0		_2
Ferry connection segment ^[GeoBase]	TR	TR_1750009		_1	
Road segment ^[GeoBase]	TR	TR_1760009		_1	
Junction ^[GeoBase]	TR	TR_1770009	_0		
Blocked passage ^[GeoBase]	TR	TR_1780009	_0		
Toll point ^[GeoBase]	TR	TR_1790009	_0		
Turntable	TR	TR_2320009	_0		
Wooded area	VE	VE_1240009			_2
Cut line	VE	VE_2290009		_1	