DEPARTMENT OF THE INTERIOR

U.S. GEOLOGICAL SURVEY

GEONAMES Data Base of Geologic Names of the United States through 1988

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GEONAMES Data Base of Geologic Names
of the United States Through 1988

The GEONAMES data base is an annotated index lexicon of formal geologic nomenclature of the United States, its territories and possessions. The data base was compiled by R. W. Swanson, M. L. Hubert, G. W. Luttrell, and V. M. Jussen and was published in 1981 as Geologic names of the United States through 1975: U.S. Geological Survey Bulletin 1535, 643 p. This version of GEONAMES has been updated based on information published through 1988, and it contains approximately 30,000 records relating to more than 18,000 names.

Data are entered in 10 fixed fields containing up to 123 characters of information for each record. The fields are: 1. location of unit; 2. geologic age; 3. name of unit; 4. USGS usage; 5. lithology; 6. geologic province; 7. thickness at type section; 8. location of type section; 9. lexicon reference; 10. unique identifier.

DEFINITION OF FIELDS. The formats and codes used in the fields are explained below. Fields 5, 6, 7, 8, and 9 are used only once for each unit as this information pertains to its type locality and original reference.

FIELD 1. LOCATION. The U.S. Postal Service 2-letter abbreviations are used to identify the State, territory, or possession in which the unit is located.

AL	Alabama	NH	New Hampshire
AK	Alaska	NJ	New Jersey
AZ	Arizona	NM	New Mexico
AR	Arkansas	NY	New York
CA	California	NC	North Carolina
CO	Colorado	ND	North Dakota
CT	Connecticut	OH	Ohio
DC	District of Columbia	OK	Oklahoma
DE	Delaware	OR	Oregon
FL	Florida	PA	Pennsylvania
GA	Georgia	RI	Rhode Island
HI	Hawaii	SC	South Carolina
ID	Idaho	SD	South Dakota
IL	Illinois	TN	Tennessee
IN	Indiana	TX	Texas
IA	Iowa	UT	Utah
KS	Kansas	VT	Vermont
KY	Kentucky	VA	Virginia
LA	Louisiana	WA	Washington
ME	Maine	WV	West Virginia
MD	Maryland	WI	Wisconsin
MA	Massachusetts	WY	Wyoming
MI	Michigan	CZ	Canal Zone
MN	Minnesota	CI	Caroline Islands
MS	Mississippi	GU	Guam
MO	Missouri	MR	Mariana Islands
MT	Montana	PR	Puerto Rico
NE	Nebraska	SA	Samoa
NV	Nevada	VI	Virgin Islands

FIELD 2. GEOLOGIC AGE. The geologic age at the time of the last update is represented, with minor modifications, by the 3-digit code devised by the AAPG Committee on Standard Stratigraphic Coding.

ERA	PERIOD	EPOCH OR PROVINCIAL SERIES	CODE
Cenozoic			100
late			101
middle			104
early			107
	Quaternary		110
		Holocene	111
		Pleistocene	112
	Tertiary		120
		Pliocene	121
		Miocene	122
		Oligocene	123
		Eocene	124
		Paleocene	125
Mesozoic			200
late			201
middle			204
early			207
	Cretaceous		210
		Late	211
		Gulfian	212
		Comanchean	213
		Early	217
		Comanchean	218
		Coahuilan	219
	Jurassic		220
		Late	221
		Middle	224
		Early	227
	Triassic		230
		Late	231
		Middle	234
		Early	237
Paleozoic			300
late			301
middle			304
early			307
	Permian		310
		Late	311
		Ochoan	312
		Guadalupian	313
		Early	317
		Leonardian	318
		Wolfcampian	319

ERA	PERIOD	EPOCH OR PROVINCIAL SERIES	CODE
	Pennsylvanian		320
		Late	321
		Virgilian	322
		Missourian	323
		Middle	324
		Des Moinesian	325
		Atokan	326
		Early	327
		Morrowan	328
	Mississippian		330
		Late	331
		Chesterian	332
		Meramecian	333
		Early	337
		Osagean	338
		Kinderhookian	339
	Devonian		340
		Late	341
		Middle	344
		Early	347
	Silurian		350
		Late	351
		Middle	354
		Early	357
	Ordovician		360
		Late	361
		Middle	364
		Early	367
	Cambrian		370
		Late	371
		Middle	374
		Early	377

TIME	EON	ERA	CODE
Precambrian			400
	Proterozoic		401
		Late	410
		Middle	420
		Early	430
	Archean		404
		Late	440
		Middle	450
		Early	460
	pre-Archean		407

FIELD 3. NAME. The geologic name consists of a geographic name combined with a rank or descriptive term. A comma separates the two parts of the name. If a unit is part of a higher ranking unit, the name of that unit follows in parentheses. A slash (/) preceding a name indicates a violation of the North American Stratigraphic Code (for instance, a name may have been used previously in the same area, or a rank term may have been used improperly or may have been omitted).

FIELD 4. USGS USAGE. A "U" is entered in this field if the line entry is based on usage in a USGS report.

FIELD 5. LITHOLOGY. The principal lithology of the unit at the type section is given. If lithology is indicated by the unit name, the lithology column may be blank.

AGL	agglomerate	GNS	greenstone	NVC	novaculite
ALV	alluvium	GR	granite	OBS	obsidian
AMP	amphibolite	GRD	granodiorite	OOL	oolite
AND	andesite	GRNL	granulite	PCL	pyroclastics
ANH	anhydrite	GVL	gravel	PHL	phyllite
ANR	anorthosite	GYK	graywacke	PHS	phosphate
ARG	argillite	GYP	gypsum	PMC	pumice
ARK	arkose	HNF	hornfels	POR	porphyry
ASP	asphalt	IG	igneous rock	QZ	quartz
BAS	basalt	IGNM	ignimbrite	QZD	quartz diorite
BAUX	bauxite	INTR	intrusive rock	QZM	quartz monzonite
BNT	bentonite	LAT	latite	RDBD	redbed
BRC	breccia	LOS	loess	RHY	rhyolite
CH	chert	LV	lava	SCH	schist
CL	clay	MBL	marble	SD	sand
CLS	claystone	MBNT	metabentonite	SED	sedimentary rock
CST	clastic rock	MCK	muck	SL	slate
DAC	dacite	MD	mud	SRP	serpentinite
DBS	diabase	MET	metamorphic rock	ST	silt
DRT	diorite	MGM	migmatite	SYN	syenite
DRF	drift	MGYK	metagraywacke	TF	tuff
DTM	diatomite	MIG	metaigneous rock	TL	till
EVP	evaporite	MRL	marl	TRC	trachyte
FE	iron-formation	MS	mudstone	ULTM	ultramafic rock
GAB	gabbro	MSED	metasedim. rock	VOL	volcanic rock
GLC	glauconite	MSTS	metasiltstone	VSED	volcanic sed.
GN	gneiss	MVOL	metavolcanic rock		

FIELD 6. GEOLOGIC PROVINCE. The 3-digit geologic province code devised by the AAPG Committee on Statistics of Drilling is used.

100	New England province
110	Adirondack uplift
120	Atlantic Coast basin
130	South Georgia-North Florida sedimentary province
140	South Florida province
150	Piedmont-Blue Ridge province
160	Appalachian basin
200	Warrior basin
210	Mid-Gulf Coast basin
220	Gulf Coast basin
230	Arkla basin

240	Desha basin
250	Upper Mississippi embayment
260	East Texas basin
300	Cincinnati arch
305	Michigan basin
310	Wisconsin arch
315	Illinois basin
320	Sioux uplift
325	Iowa shelf
330	Lincoln anticline
335	Forest City basin
340	Ozark uplift
345	Arkoma basin
350	South Oklahoma folded belt province
355	Chautauqua platform
360	Anadarko basin
365	Cherokee basin
370	Nemaha anticline
375	Sedgwick basin
380	Salina basin
385	Central Kansas uplift
390	Chadron arch
395	Williston basin
400	Ouachita tectonic belt province
405	Kerr basin
410	Llano uplift
415	Strawn basin
420	Fort Worth syncline
425	Bend arch
430	Permian basin
435	Palo Duro basin
440	Amarillo arch
445	Sierra Grande uplift
450	Las Animas arch
455	Las Vegas-Raton basin
460	Estancia basin
465	Orogrande basin
470	Pedregosa basin
475	Basin-and-Range province
500	Sweetgrass arch
505	Montana folded belt province
510	Central Montana uplift
515	Powder River basin
520	Big Horn basin
525	Yellowstone province
530	Wind River basin
535	Green River basin
540	Denver basin
545	North Park basin
550	South Park basin
555	Eagle basin
560	San Luis basin
565	San Juan Mountain province
570	Uinta uplift
575	Uinta basin
580	San Juan basin
585	Paradox basin
590	Black Mesa basin

595 Piceance basin
600 Northern Cascade Range-Okanagan province
605 Eastern Columbia basin
610 Idaho Mountains province
615 Snake River basin
620 Southern Oregon basin
625 Great Basin province
630 Wasatch uplift
635 Plateau sedimentary province
640 Mojave basin
645 Salton basin
650 Sierra Nevada province
700 Bellingham basin
705 Puget Sound province
710 Western Columbia basin
715 Klamath Mountains province
720 Eel River basin
725 Northern Coast Range province
730 Sacramento basin
735 Santa Cruz basin
740 Coastal basins
745 San Joaquin basin
750 Santa Maria basin
755 Ventura basin
760 Los Angeles basin
765 Capistrano basin
800 Heceta Island area
805 Keku Islands area
810 Gulf of Alaska basin
815 Copper River basin
820 Cook Inlet basin
830 Kandik province
835 Kobuk province
840 Koyukuk province
845 Bristol Bay basin
846 Aleutians Islands
850 Bethel basin
855 Norton basin
860 Selawik basin
863 Yukon Flats basin
865 Lower Tanana basin
867 Middle Tanana basin
870 Upper Tanana basin
873 Galena basin
875 Innoko basin
877 Minchumina basin
880 Holitna basin
885 Arctic Foothills province
890 Arctic Slope basin

FIELD 7. THICKNESS. Thickness at the type section, in meters, rounded to the second significant figure is shown. Where this information is unavailable, the maximum thickness is given, if known.

FIELD 8. TYPE LOCALITY. One of nine parts of the State in which the type section, locality, or area of a unit is located. Each State is divided into nine parts, designated NW, NC, NE, WC, C, EC, SW, SC, SE, by dividing its maximum latitudinal and longitudinal dimensions by three. Canada and Mexico are designated by CAN AND MEX.

FIELD 9. REFERENCE. The letters A through H refer to the volume of the lexicon of Geologic Names in which a name was first described:

A. Wilmarth, M. G., 1938, Lexicon of geologic names of the United States: U.S. Geol. Survey Bull. 896, 2 v.
B. Wilson, Druid, and others, 1957, Geologic names of North America introduced in 1936-1955: U.S. Geol. Survey Bull. 1056-A, 405 p.
C. Keroher, G. C., and others, 1966, Lexicon of geologic names of the United States for 1936-1960: U.S. Geol. Survey Bull. 1200, 3 v.
D. Keroher, G. C., 1970, Lexicon of geologic names of the United States for 1961-1967: U.S. Geol. Survey Bull. 1350, 848 p.
E. Luttrell, G. W., Hubert, M. L., Wright, W. B., Jussen, V. M., and Swanson, R. W., 1981, Lexicon of geologic names of the United States for 1968-1975: U.S. Geol. Survey Bull. 1520, 342 p.
F. Luttrell, G. W., Hubert, M. L., and Jussen, V. M., 1986, Lexicon of new formal geologic names of the United States 1976-1980: U.S. Geol. Survey Bull. 1564, 191 p.
G. Luttrell, G. W., Hubert, M. L., and Murdock, C. R., (in press), Lexicon of new formal geologic names of the United States 1981-1985: U.S. Geol. Survey Bull. 1565.
H. Geologic names introduced after 1985. (No publication available.)

FIELD 10. UNIQUE IDENTIFIER. A unique identifier consisting of a four-letter mnemonic plus a two-digit number is assigned to each record. It is used for recalling records for updating and for sorting. The mnemonic is derived from the geographic part of the name using a method devised by the AAPG Committee on Standard Stratigraphic Coding. English articles and prepositions are deleted first; those in foreign languages are retained. The first letter of each remaining word is retained. Names beginning with Mc, O', De, or Van are treated as two words. Letters are then deleted, from right to left, in the following order until four remain: a, e, i, o, u, w, h, y, one of each double, t, n, s, r, l, d, c, m, f, g, p, k, b, v, x, j, q, z. All the records for each name have the same mnemonic but different numbers.

DATA RETRIEVAL

GEONAMES is now available on IBM-compatible 5 1/4-in diskettes from Open File Services. The files were first sorted by state and then downloaded onto 16 diskettes, each one generally containing data for two or more adjacent states. Users may purchase one or more diskettes, combine the states, or use them individually, depending upon their specific needs and computer equipment. These state files can be loaded into and manipulated with almost any database management software. (Records are loaded into dBase, for instance, using the command "append from [file name] sdf.") In setting up fields, use the following parameters.

FIELD NAME	SIZE
[State]	[4]
[Age]	[4]
[Slash]	[1]
[Name]	[62]
[Use]	[5]
[Lith]	[14]
[Prov]	[6]
[Thick]	[10]
[TypLoc]	[6]
[Ref]	[4]
[ID]	[7]

The slash has been placed in a separate field in order to simplify sorting.

GEONAMES is also available on 8-track magnetic tape from NTIS. Units for the entire nation are listed alphabetically on the tape. This media may be more suitable for users interested in geologic names of the United States as a whole.

Following is a breakdown by diskette, showing the states, number of records, and the approximate size of the files. An asterisk indicates states included in more than one geographic grouping. Each diskette also contains the document, Geointro, a users guide to GEONAMES.

CHAPTER	DISK #	STATE	RECORDS	KBYTES
A	1	ME	436	55
		NH	246	31
		VT	592	74
		MA	353	44
		CT	316	40
		RI	61	8
			2004	252
B	2	NY	1260	158
		PA	1143	143
			2403	301
C	3	NJ	263	33
		MD	484	61
		DE	73	9
		DC	34	4
		VA*	881	110
		WV	597	75
			2332	292
D	4	KY	575	72
		TN	637	80
		MS	218	27
		AL	517	65
			1947	244
E	5	VA*	881	110
		NC	348	44
		SC	166	21
		GA	591	74
		FL	229	29
			2215	278
F	6	OH	547	69
		IN	502	63
		IL	743	93
		WI	413	52
		MI	408	51
			2613	328
G	7	MN	304	38
		ND	326	41
		SD	295	37
		NE	476	60
		IA	542	68
			1943	244

CHAPTER	DISK #	STATE	RECORDS	KBYTES
H	8	OK	1098	137
		KS	658	82
		MO	740	93
			2496	312
I	9	TX	1653	207
		LA	270	34
		AR	268	34
			2191	275
J	10	MT	809	101
		WY	855	107
		ID*	693	87
			2357	295
K	11	CO	881	110
		NM	1151	144
			2032	254
L	12	AZ	892	112
		UT*	1191	149
			2083	261
M	13	WA	694	87
		OR	557	70
		ID*	693	87
			1944	244
N	14	NV	1110	139
		UT*	1191	149
			2301	288
O	15	CA	2050	234
P	16	AK	813	102
		HI	90	12
		CI	45	6
		MR	43	6
		SA	34	5
		GU	33	4
		PR	261	33
		VI	31	4
			1350	172