

**Map key for digitizing of geologic maps  
for the National Surveys and Analysis project**

Shadeset = GEOLOGY.SHD

Lineset = GEOLOGY.LIN

ARC lookup table = GEOLINE.LUT

POLYGON lookup tables = NSAKEY.LUT, NSAKEYO.LUT,  
NSAKEYAL.LUT, NSAKEYHF.LUT

Coverage	UTM zone	Abbrev.
Anchorage	6	AN
Big Delta	6	BD
Circle	6	CI
Fairbanks	6	FB
Gulkana	6	GU
Healy	6	HE
Iditarod	4	ID
Kantishna River	5	KH
Kateel River	4	KT
Lime Hills	5	LH
Livengood	6	LG
McGrath	5	MG
Medfra	5	MD
Melozitna	5	MZ
Mount Hayes	6	MH
Mount McKinley	5	MM
Nulato	4	NL
Ophir	4	OP
Ruby	5	RB
Sleetmute	4	SM
Talkeetna	5	TL
Talkeetna Mountains	6	TK
Tanana	5	TN
Tyonek	5	TY
Valdez	6	VA

AAT Item structure for coverages (in addition to standard AAT items):

<u>Item name</u>	<u>Alt.name</u>	<u>Width</u>	<u>Output</u>	<u>Type</u>
ARC-CODE		3	3	I
ARC-PARA1		3	3	I
ARC-PARA2		3	3	I
SOURCE		6	8	C

In the table below, "symbol code" refers to the symbol number in the symbol set "geology.lin", "Arc code" refers to the AAT item "ARC-CODE", and "Line code" refers to the "CODE" in GSMAP. ARC-CODE designates the line or arc type. The AAT item ARC-PARA1 is used for "decorated" lines where additional information is needed (see second table below. ARC-PARA2 is presently a "scratch" field for use of the editor/digitizer. SOURCE is a coded reference citation, indicating the manuscript or other source for the information. The format for source is XX###, where XX is the two letter quadrangle code (CAPITAL letters) and ### is a three digit number (uses leading zeros) to indicate a specific reference.

0	0	Hidden lines
1	1	Stratigraphic contact, certain
6	2	Stratigraphic contact, approximate
11	3	Stratigraphic contact, inferred, queried
5	4	Normal fault, certain, digitized with upthrown side on the right (code of 1 added to ARC-PARA1 where U/D is designated in source)
10	5	Normal fault, approximate, digitized with upthrown side on the right (code of 1 added to ARC-PARA1 where U/D is designated in source)
15	6	Normal fault, inferred, queried, digitized with upthrown side on the right (code of 1 added to ARC-PARA1 where U/D is designated in source)
3	7	Shoreline or riverbank
0	9	Boundary of altered zone or hornfels
16	10	Thrust fault, certain, teeth on right from origin (angle of thrusting added to ARC-PARA1 where designated in source)
19	11	Thrust fault, approx., teeth on right from origin (angle of thrusting added to ARC-PARA1 where designated in source)
21	12	Thrust fault, inferred, queried, teeth on right from origin (angle of thrusting added to ARC-PARA1 where designated in source)
7	13	Moraine or till margin (scour) on bedrock
35	14	Caldera or crater rim
37	15	Ice contact (glacier limit)
0	16	Thrust fault, having left lateral oblique slip (angle of thrusting added to ARC-PARA1 where designated in source)
0	17	Thrust fault, having right lateral oblique slip (angle of thrusting added to ARC-PARA1 where designated in source)
4	18	Internal contact
8	19	Internal contact having tics on right from origin
2	21	Syncline, certain, digitized in direction of plunge
12	22	Syncline, approx., digitized in direction of plunge
9	23	Syncline, inferred, queried, digitized in direction of plunge
2	24	Anticline, certain, digitized in direction of plunge
12	25	Anticline, approx., digitized in direction of plunge
9	26	Anticline, inferred, queried, digitized in direction of plunge
5	30	Fault, unknown offset, certain location
10	31	Fault, unknown offset, approximate location
15	32	Fault, unknown offset, inferred location
20	35	High-angle reverse fault, certain, teeth on right from origin (angle of thrusting added to ARC-PARA1 where designated in source)
22	36	High-angle reverse fault, approximate location, teeth on right from origin (angle of thrusting added to ARC-PARA1 where designated in source)
23	37	High-angle reverse fault, inferred location, teeth on right from origin (angle of thrusting added to ARC-PARA1 where designated in source)
2	41	Syncline, overturned, certain, digitized in direction of plunge.
12	42	Syncline, overturned, approx., digitized in direction of plunge.

9	43	Syncline, overturned, inferred, queried, digitized in direction of plunge.
2	44	Anticline, overturned, certain, digitized in direction of plunge.
12	45	Anticline, overturned, approx., digitized in direction of plunge.
9	46	Anticline, overturned, inferred, queried, digitized in direction of plunge.
45	50	Dikes and sills, drawn in heavy red line.
51	51	Concealed contact
52	52	Concealed normal fault
53	53	Concealed thrust fault
54	54	Concealed high-angle reverse fault
52	55	Concealed normal fault, having right lateral oblique slip.
52	56	Concealed normal fault, having left lateral oblique slip.
52	57	Concealed right lateral fault
52	58	Concealed left lateral fault
2	61	Syncline, certain, no plunge.
12	62	Syncline, approx., no plunge.
9	63	Syncline, inferred, queried, no plunge.
2	64	Anticline, certain, no plunge.
12	65	Anticline, approx., no plunge.
9	66	Anticline, inferred, queried, no plunge.
5	71	Normal fault, certain, having right lateral oblique slip.
10	72	Normal fault, approx., having right lateral oblique slip.
5	73	Normal fault, certain, having left lateral oblique slip.
10	74	Normal fault, approx., having left lateral oblique slip.
15	75	Normal fault, inferred, queried, having left lateral oblique slip.
15	76	Normal fault, inferred, queried, having right lateral oblique slip.
5	77	Fault, certain, having no known movement.
15	78	Fault, inferred, queried, having no known movement.
15	79	Fault, approx., having no known movement.
2	81	Syncline, overturned, certain, no plunge.
12	82	Syncline, overturned, approx., no plunge.
9	83	Syncline, overturned, inferred, queried, no plunge.
2	84	Anticline, overturned, certain, no plunge.
12	85	Anticline, overturned, approx., no plunge.
9	86	Anticline, overturned, inferred, queried, no plunge.
5	87	Right lateral fault, certain
10	88	Right lateral fault, approximate
15	89	Right lateral fault, inferred, queried.
5	90	Left lateral fault, certain.
10	91	Left lateral fault, approximate.
15	92	Left lateral fault, inferred, queried
93	93	Lineament
49	94	Shear zone, certain
--	95	Shear zone, approximate
--	96	Shear zone, inferred
0	99	Bounding line (neatline) of coverage"
8		Black dashed line, using long dashes
60		Red solid line

**Symbol  
code**    **Arc  
code**

**Line types**

4

61    Green solid line

62    Blue solid line

Presently defined uses of ARC-PARA1 are:

Thrust and high-angle reverse faults: Dip of fault plane where known, negative number to indicate overturned

Normal faults: A code of "1" to indicate upthrown side is known and indicated on the source

POLYGONS

PAT Item structure for coverages (in addition to standard PAT items):

<u>Item name</u>	<u>Alt.name</u>	<u>Width</u>	<u>Output</u>	<u>Type</u>
CLASS	NUMUNIT	4	5	B
LITH1		4	5	B
LITH2		4	5	B
SOURCE		6	8	C
NSACCLASS	NSA	4	5	B

In the table below, "symbol code" refers to the symbol number in the symbol set "geology.shd" and "Polygon code" refers to the PAT item "NSACCLASS." NSACCLASS is used to indicate the geologic unit that the polygon represents. LITH1 and LITH2 are to be used to indicate major and minor lithologies contained in the polygon, however no polygons in these coverages have been coded. SOURCE is a coded reference citation, indicating the manuscript or other source for the information. The format for source is XX###, where XX is the two letter quadrangle code (CAPITAL letters) and ### is a three digit number (uses leading zeros) to indicate a specific reference (see pamphlet).

The coding scheme for NSACCLASS is shown in the file cakunits.htm and applied in the supplied ARC lookup tables.