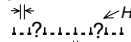
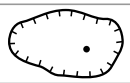
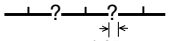
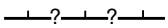
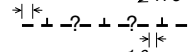
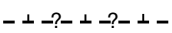
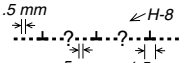
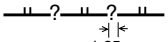
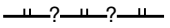
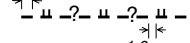
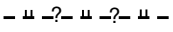
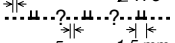
18—VOLCANIC FEATURES

REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS	NOTES ON USAGE
18.1	Rim of volcanic crater—Certain		*lineweight .3 mm* *hachure lineweight .2 mm; height .75 mm; spacing 1.75 mm*	Use to show outline of topographic wall. Hachures point into crater. Rim may not outline crater completely.
18.2	Rim of volcanic crater—Approximately located		*3.0 mm* *H-8* *1.0 mm*	
18.3	Rim of volcanic crater—Approximately located, queried			
18.4	Rim of volcanic crater—Concealed		*.5 mm* *H-8*  *.5 mm*	
18.5	Rim of volcanic crater—Concealed, queried			
18.6	Rim of volcanic crater—Showing low point of crater (dot)		*dot diameter .875 mm*	
18.7	Caldera margin 1—Certain		*lineweight .375 mm* *hachure lineweight .25 mm; height 1.0 mm; variable spacing, 7.125 to 7.5 mm*	Hachures point into caldera. May also be shown in red or other colors.
18.8	Caldera margin 1—Approximately located		*6.25 mm* *H-8*  *1.25 mm*	
18.9	Caldera margin 1—Approximately located, queried			
18.10	Caldera margin 1—Inferred		*1.5 mm* *H-8*  *1.0 mm*	
18.11	Caldera margin 1—Inferred, queried			
18.12	Caldera margin 1—Concealed		*.5 mm* *H-8*  *.5 mm* *1.5 mm*	
18.13	Caldera margin 1—Concealed, queried			
18.14	Caldera margin 2—Certain		*lineweight .375 mm* *.75 mm* *hachure lineweight .25 mm; height 1.0 mm* *variable spacing between hachure pairs, 6.375 to 6.75 mm*	Hachures point into caldera. May also be shown in red or other colors.
18.15	Caldera margin 2—Approximately located		*6.25 mm* *H-8*  *1.25 mm*	
18.16	Caldera margin 2—Approximately located, queried			
18.17	Caldera margin 2—Inferred		*1.5 mm* *H-8*  *1.0 mm*	
18.18	Caldera margin 2—Inferred, queried			
18.19	Caldera margin 2—Concealed		*.5 mm* *H-8*  *.5 mm* *1.5 mm*	
18.20	Caldera margin 2—Concealed, queried			

18—VOLCANIC FEATURES (continued)

REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS	NOTES ON USAGE
18.21	Outline of basalt-filled lava pond that is bounded by levees.		all lineweights .15 mm tick spacing 2.0 mm (at base) .875 mm 1.0 mm	T-shaped ticks point toward lava pond.
18.22	Crest line of pressure ridge or tumulus on lava flow		lineweight .15 mm 60° 60° 1.0 mm 5.5 mm	Draw on axis of ridge.
18.23	Pressure ridge on lava flow		lineweight .15 mm 60° 1.0 mm 5.5 mm	Form lines are normal to local flow directions.
18.24	Lava tube		all lineweights .15 mm 1.375 mm 25° circle diameter .75 mm; spacing will vary	Line shows position beneath surface; circles show skylights.
18.25	Volcanic fissure—Certain		lineweight .2 mm .375 mm 1.25 mm .5 mm .375 mm hachure lineweight .15 mm	
18.26	Volcanic fissure—Concealed			
18.27	Volcanic fissure—Hachures show location where lava was emitted			
18.28	Flow lobe—Certain		all lineweights .15 mm hachure height .75 mm; spacing 2.0 mm	Line follows foot of lobe of lava flow; hachures point into lobe.
18.29	Flow lobe—Approximately located		5.0 mm H-8 1.0 mm	
18.30	Flow lobe—Approximately located, queried			
18.31	Flow lobe—Concealed		.5 mm H-8 .5 mm	
18.32	Flow lobe—Concealed, queried			
18.33	Ice-contact flow margin—Certain		lineweight .15 mm box height .75 mm; width 2.0 mm; spacing 4.0 mm	Boxes on flow edge that shows ice-contact fabric.
18.34	Ice-contact flow margin—Approximately located		5.0 mm H-8 1.0 mm	
18.35	Ice-contact flow margin—Approximately located, queried			
18.36	Ice-contact flow margin—Concealed		.5 mm H-8 .5 mm	
18.37	Ice-contact flow margin—Concealed, queried			
18.38	Flow lines on lava flow		lineweights .15 mm stem lengths and spacing may vary 25° 2.0 mm	
18.39	Contact separating individual flows within map unit, erupted either from same vent or from different vents		lineweight .175 line color 100% red	May also be printed in magenta or other colors.
18.40	Cracks on surface of lava flow		lineweight .175 mm line color 100% red lengths and spacing may vary	
18.41	Rootless vent area on lava flow		line color 100% red lineweight .175 mm; dash 1.5 mm; space .5 mm pattern 328-R	
18.42	Thermal area		line color 100% red lineweight .175 mm; dash 1.5 mm; space .5 mm pattern 121-R in 30% red	

18—VOLCANIC FEATURES (continued)

REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS	NOTES ON USAGE
18.43	Flow direction at base of ash deposits formed in surges		1.5 mm; all lineweights .15 mm; 2.75 mm; 25°; half-circle radius 1.5 mm; dash .75 mm; space .375 mm; 5.0 mm	Identified from antidune bed forms.
18.44	Small cone, cinder cone, or spatter cone (hornito) on surface of lava flow		45°; lineweight .2 mm; 2.0 mm	May also be shown in red or other colors.
18.45	Recent volcano on small-scale maps		lineweight .175 mm; outer diameter 3.0 mm; inner diameter 1.375 mm; 22.5°	Usually reserved for maps at scales of 1:250,000 or smaller. May also be shown in red or other colors.
18.46	Active volcano on small-scale maps		lineweight .275 mm; 2.625 mm; 60°	
18.47	Inactive volcano on small-scale maps		90°; 2.5 mm; lineweight .275 mm	
18.48	Cinder cone on small-scale maps		circle diameter 1.375 mm; lineweight .15 mm	
18.49	Diatreme		dot diameter 1.375 mm	
18.50	Breccia pipe	B	dot diameter 1.375 mm; B; H-7	
18.51	Collapse structure—Indicating breccia pipe at depth	C	lineweight .15 mm; C; H-7; circle diameter 1.375 mm	
18.52	Thermal spring, type 1	T	H-7; T; lineweight .15 mm; dot diameter 1.5 mm; radius .5 mm; 2.0 mm	Rotate tail to point in downhill direction of flow. May also be shown in red or other colors.
18.53	Thermal spring, type 2	T	T; lineweight .2 mm; lineweight .15 mm	
18.54	Geyser		lineweight .2 mm; radius .5 mm; lineweight .375 mm; 2.75 mm; lineweight .2 mm; ellipse height 1.25 mm; width 2.5 mm	May also be shown in red or other colors.
18.55	Fumarole or steam vent		draft as shown; 2.5 mm; ellipse height 1.25 mm; width 2.5 mm; all lineweights .2 mm	