25-PLANETARY GEOLOGY FEATURES

DEE NO		NETARY GEOLOGY SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USACE*
REF NO	DESCRIPTION	3 Y IVIBUL		NOTES ON USAGE*
25.1	Contact, planetary—Location accurate		lineweight .15 mm	
25.2	Contact, planetary—Location approximate		3.5 mm →	
25.3	Contact, planetary—Location inferred		1.5 mm → ← → ← → ← 75 mm	
25.4	Contact, planetary—Location concealed		.5 mm → ← .75 mm	
25.5	Fault, planetary, sense of offset unspecified — Location accurate		lineweight .375 mm	
25.6	Fault, planetary, sense of offset unspecified — Location approximate		3.5 mm ≯	
25.7	Fault, planetary, sense of offset unspecified— Location inferred		.1.5 mm ⇒	
25.8	Fault, planetary, sense of offset unspecified— Location concealed		.5 mm 	
25.9	Normal fault, planetary—Location accurate. Ball and bar on downthrown block		lineweight .375 mm diameter	
25.10	Normal fault, planetary—Location approximate. Ball and bar on downthrown block		3.5 mm →	
25.11	Normal fault, planetary—Location inferred. Ball and bar on downthrown block	1	1.5 mm • → ★ ← -> ← -75 mm	
25.12	Normal fault, planetary—Location concealed. Ball and bar on downthrown block	1	.5 mm ⇒ < ⇒ - .75 mm	
25.13	Strike-slip fault, planetary, right-lateral offset— Location accurate. Arrows show relative motion		lineweight 375 mm 1.75 mm arrow lineweight 5.0 mm k .2 mm	
25.14	Strike-slip fault, planetary, right-lateral offset — Location approximate. Arrows show relative mo- tion	 =	3.5 mm →	
25.15	Strike-slip fault, planetary, right-lateral offset— Location inferred. Arrows show relative motion	-=	1.5 mm 	
25.16	Strike-slip fault, planetary, right-lateral offset— Location concealed. Arrows show relative motion		.5 mm ⇒ < → → ∴75 mm	
25.17	Strike-slip fault, planetary, left-lateral offset— Location accurate. Arrows show relative motion		lineweight 375 mm → 25° arrow lineweight 5.0 mm → 25° lineweight 22° arrow 22° lineweight 2.2 mm	
25.18	Strike-slip fault, planetary, left-lateral offset— Location approximate. Arrows show relative mo- tion	<u>=</u>	3.5 mm ⇒ k	
25.19	Strike-slip fault, planetary, left-lateral offset— Location inferred. Arrows show relative motion		1.5 mm → ← → ← ∴ 75 mm	
25.20	Strike-slip fault, planetary, left-lateral offset— Location concealed. Arrows show relative motion	<u>:</u>	.5 mm → - → - .75 mm	
25.21	Thrust fault, planetary—Location accurate. Sawteeth on upper plate		sawtooth height 1.5 mm lineweight 7	
25.22	Thrust fault, planetary—Location approximate. Sawteeth on upper plate		3.5 mm ⇒ ← ⇒ ← .75 mm	
25.23	Thrust fault, planetary—Location inferred. Sawteeth on upper plate		1.5 mm 2.5 mm →	
25.24	Thrust fault, planetary—Location concealed. Sawteeth on upper plate		.5 mm 2.5 mm ⇒ ← ⇒ ← .75 mm	

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REF NO		SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*
25.25	Graben trace, planetary (shown as single line where bounding normal faults cannot be mapped separately)—Location accurate		lineweight .375 mm dot diameter 1.375 mm	
25.26	Graben trace, planetary (shown as single line where bounding normal faults cannot be mapped separately)—Location approximate		3.5 mm ⇒	
25.27	Graben trace, planetary (shown as single line where bounding normal faults cannot be mapped separately)—Location inferred		1.5 mm	
25.28	Graben trace, planetary (shown as single line where bounding normal faults cannot be mapped separately)—Location concealed		.5 mm ⇒ k- .75 mm	
25.29	Regional fracture, planetary		lineweight .3 mm	
25.30	Partly buried regional fracture, planetary		1.5 mm ⇒ k → k 75 mm	
25.31	Arcuate fracture, planetary		lineweight .2 mm color 100% purple	
25.32	Partly buried arcuate fracture, planetary		1.5 mm → ← → ← .75 mm	
25.33	Radial fracture, planetary (associated with coronae)		lineweight .325 mm color 100% purple	
25.34	Concentric fracture, planetary (associated with coronae)		lineweight .25 mm	
25.35	Fold crest, planetary		color 100% violet lineweight .3 mm color 100% red	
25.36	Broad warp, planetary		lineweight .635 mm 75 mm	
25.37	Wrinkle ridge, planetary		lineweight .25 mm	
25.38	Ribbon trends, planetary		color 100% magenta lineweight .25 mm	
25.39	Ridge belt, planetary		color 100% green all lineweights .25 mm	
25.40	Broad ridge crest, planetary (generally associated with coronae)		color 100% red lineweight .635 mm	
25.41	Ridge crest, planetary (1st option)	—	3.0 mm	
25.42	Ridge crest, planetary (2nd option)		all lineweights	
25.43	Ridge crest, planetary (1st option)—Arrowhead shows abrupt termination of ridge	+	65°> ← → ← 1.375 mm	
25.44	Ridge crest, planetary (2nd option)—Arrowhead shows abrupt termination of ridge	← →	← ◇	
25.45	Ridge crest (possible dike), planetary	— X	70°/ all lineweights .25 mm	
25.46	Corona annulus ridge, planetary—Showing axial trace and plunge. Short arrow indicates steeper limb or scarp bounding corona trough		3.75 mm	

^{*}For more information, see general guidelines on pages A-i to A-v.

REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*
25.47	Groove (generic), planetary		lineweight .25 mm	
25.48	Sharp groove, planetary	— н	all lineweights .25 mm H	•
25.49	Subdued groove, planetary	+	all lineweights .25 mm $\frac{1.5}{\uparrow}$ mm	
25.50	Radially grooved ejecta (schematic), planetary		75 mm .75 mm .25 mm 	
25.51	Furrow, planetary		lineweight .25 mm 1.75 mm	
25.52	Trough or narrow depression, planetary	X	lineweight .25 mm \65°/	
25.53	Depression (mapped to scale), planetary		all lineweights .25 mm hachure height .875 mm; spacing 3.5 mm	
25.54	Large depression (mapped to scale), planetary		all lineweights .25 mm hachure height .625 mm; spacing 3.5 mm	
25.55	Shallow, linear depression or valley, or narrow channel, planetary		lineweight .25 mm color 100% cyan	
25.56	Channel (canali), planetary		lineweight .25 mm long dash 2.5 mm; short dash .5 mm; spacing .5 mm	
25.57	Channel (canali), planetary—Two short dashes where structureless or indefinite		lineweight .25 mm long dash 2.5 mm; short dashes .5 mm; spacing .5 mm	
25.58	Narrow channel (possible lava channel), planetary —Arrows point in direction of flow	->>>	all lineweights .175 mm 4.0 -	
25.59	Erosional boundary, planetary—Erosion increases in direction of arrows	******	2.5 mm 1.0 mm 1.0 mm 1.175 mm 1.20° 1.5 mm	
25.60	Angular unconformity, planetary—Hachures indicate truncated beds	тттт	lineweight .3 mm lineweight .2 mm hachure height 1.75 mm; spacing 2.5 mm	
25.61	Angular unconformity, planetary—Uncertain. Ha- chures indicate truncated beds	тттттт	2.25 mm	
25.62	Layer, planetary		1.125 mm → k- lineweight .2 mm .75 mm → k-	
25.63	Lineament, planetary		lineweight .3 mm	
25.64	Layering in canyon wall, planetary	11/1	all lineweights lengths and spacing will vary	
25.65	Fabric of short radar-bright lineaments (schematic), planetary	15-	all lineweights lengths and spacing will vary	
25.66	Penetrative lineations, within tessera terrain, planetary		all lineweights .125 mm lengths and spacing will vary	
25.67	Flow direction, planetary	>	$\begin{array}{c c} lineweight .175 \ mm \\ \hline \\ length \ may \ vary \\ \end{array} \begin{array}{c} 3.0 \\ mm \\ \hline \end{array} \hspace{-0.2cm} \hspace{-0.2cm} \stackrel{\checkmark}{\longrightarrow} 1.5$	
25.68	Wind streaks, planetary—Arrow points in inferred wind direction		all lineweights 3.5 \rightarrow k 1.875 \rightarrow mm length may vary	
25.69	Area of channelized erosion and scouring, planetary—Arrow points in direction of interpreted flow	-	Iineweight → ← 6.0 mm 375 mm → 30°	
25.70	Area of eolian transport, planetary—Arrow points in direction of air flow	->	all lineweights .375 mm	

25-PLANETARY GEOLOGY FEATURES (continued)						
REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*		
25.71	Scarp, planetary—Hachures point downscarp	- 	all lineweights .25 mm $ \frac{1}{3} \frac{1}{mm} = \frac{1}{\sqrt{1.0}} \frac{1}{\sqrt{1.0}}$			
25.72	Lobate scarp, planetary—Hachures point down- scarp		all lineweights .25 mm $\frac{1}{2.0 \text{ mm}} \Rightarrow \frac{1}{1.0 \text{ mm}}$			
25.73	Basal scarp, planetary—Hachures point downscarp		all lineweights .25 mm $\frac{1}{3.0 \text{ mm}} \neq \frac{\sqrt[4]{1.25 \text{ mm}}}{\sqrt[4]{1.25 \text{ mm}}}$			
25.74	Base of scarp, planetary—Barb points downscarp		lineweight .25 mm			
25.75	Dome, edifice, or circular scarp, planetary (mapped to scale)—Hachures point downscarp	***	all lineweights .25 mm hachure height 1.25 mm; spacing 1.25 mm			
25.76	Very small shield, dome, or volcanic construct, planetary (not mapped to scale)	+	all lineweights .4 mm $ \begin{array}{c} & \frac{4}{1.5 \text{ mm}} \\ & \frac{1}{1.5 \text{ mm}} \end{array} $			
25.77	Small shield, dome, or volcanic construct, planetary (not mapped to scale)	+	all lineweights .6 mm → → ← ↑ 2.5 mm			
25.78	Large, steep-sided shield, dome, or volcanic construct, planetary (not mapped to scale)	- ф-	all lineweights circle diameter .375 mm — → 1.625 mm → 1.625 mm			
25.79	Mesa, planetary (not mapped to scale)	\(\)	all lineweights .375 mm circle diameter 4.0 mm			
25.80	Large shield, dome, or volcanic construct, planetary (mapped to scale)—Hachures point downscarp	\Diamond	all lineweights .3 mm hachure height 1.25 mm; spacing 3.75 mm			
25.81	Large cone, planetary (mapped to scale)— Hachures point downscarp	\bigcirc	all lineweights .25 mm hachure height .75 mm; spacing 3.5 mm			
25.82	Knob or central peak, planetary (not mapped to scale)	-	all lineweights .25 mm circle diameter 2.0 mm 1.65 mm →			
25.83	Knob, planetary (mapped to scale)—Bar and ball indicate apical fissure. Hachures point downscarp		dot diameter 1.25 mm All lineweights .25 mm Aschure height 9 mm; spacing \$\delta 3.5 mm 2.0 mm			
25.84	Elevated plateau, planetary (mapped to scale)— Hachures point downscarp	\bigcirc	all lineweights .25 mm hachure height .625 mm, spacing 3.75 mm			
25.85	Steep-sided edifice, planetary (not mapped to scale)		2.0 mm all lineweights .25 mm 2.5 mm 2.5 mm			
25.86	Steep-sided edifice, planetary (not mapped to scale) — Dotted where concealed or buried	-{;-	short dashes .5 mm; spacing .5 mm			
25.87	Large edifice, planetary (not mapped to scale)		all lineweights .25 mm 15.0 mm			
25.88	Very small tholi, planetary (not mapped to scale)	+	lineweight .25 mm +			
25.89	Small tholi, planetary (not mapped to scale)	⊕	all lineweights .25 mm circle diameter 3.0 mm			
25.90	Small tholi, planetary (mapped to scale)	+	all lineweights .25 mm			
25.91	Corona, planetary		lineweight .25 mm dash length 1.5 mm; spacing .75 mm			
25.92	Nova, planetary		lineweight .5 mm dash length 2.25 mm; spacing .75 mm			
25.93	Palimpsest ring, planetary		dot diameter. 875 mm; spacing .375 mm			

*For more information, see general guidelines on pages A-i to A-v.

	25—PLANETART GEOLOGT FEATURES (Continued)						
REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*			
25.94	Raised rim of larger impact crater, planetary— Hachures point into crater		all lineweights .3 mm hachure height .75 mm; spacing of hachure pairs .5 mm				
25.95	Raised rim of smaller impact crater, planetary	\bigcirc	lineweight .3 mm				
25.96	Raised rim of impact crater, planetary—Showing visible ejecta blanket		lineweight .15 mm				
25.97	Degraded impact crater rim, planetary (1st option)	\bigcirc	lineweight .3 mm dash length 1.0 mm; spacing .5 mm				
25.98	Rimless impact crater, subdued impact crater rim, degraded impact crater rim (2nd option), or buried impact crater rim, planetary	\bigcirc	lineweight .3 mm long dash 4.0 mm; short dashes .2 mm; spacing .5 mm				
25.99	Secondary impact crater chain and cluster, planetary	\bigcirc	lineweight .25 mm dash length 1.5 mm; spacing .5 mm				
25.100	Basin ring, planetary		lineweight .375 mm dash length .75 mm; spacing .75 mm				
25.101	Central peak of impact crater, planetary (1st option)	-\$-	ellipse width 1.875 mm; height 2.625 mm $+$ $+$ $+$ $+$ $+$ $+$ 1.5 mm all lineweights .2 mm				
25.102	Central peak of impact crater, planetary (2nd option)	+	2.375 mm $\frac{\psi}{\uparrow}$ + all lineweights .2 mm				
25.103	Pit of impact crater floor, planetary (1st option)	0	O lineweight .2 mm				
25.104	Pit of impact crater floor, planetary (2nd option)	•	ot diameter .875 mm				
25.105	Pit-crater chain (mapped to scale), planetary	~~~~	lineweight .2 mm				
25.106	Small endogenic crater, planetary	•	dot diameter 1.0 mm				
25.107	Small endogenic crater (mapped to scale), planetary	0	lineweight .25 mm				
25.108	Medium-sized endogenic crater (mapped to scale), planetary	•	lineweight .25 mm dot diameter 1.0 mm				
25.109	Large endogenic crater (mapped to scale), planetary	\bigcirc	all lineweights .25 mm hachure height 1.25 mm; spacing 3.175 mm				
25.110	Chain craters or collapsed lava tube (mapped to scale), planetary	∞	lineweight .2 mm				
25.111	Caldera, planetary	0	all lineweights hachure height .25 mm .625 mm; spacing .875 mm				
25.112	Volcano, planetary, having summit crater	0	lineweight .15 mm				
25.113	Volcano, planetary, without summit crater—Queried if origin is conjectural	v?	V?- H-8				
25.114	Flow front, planetary—Arrow indicates flow direction		1.375 \(\psi \)				
25.115	Mountain (rugged), planetary—Origin uncertain		lineweight .2 mm line color 50% black				
25.116	Channel bars, planetary—May be erosional or depositional	0	lineweight .2 mm line color 30% black				
25.117	Slide or slump material, planetary—Arrow indicates direction of movement		lineweight 3.5 mm arrow lineweight 2.5 mm 2.5 mm 2.5 mm				

REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*
25.118	Dark-colored ejecta, planetary		pattern 428-K	May also be shown in red or other colors.
25.119	Light-colored ejecta, planetary		pattern 429-K	
25.120	Terrace deposits, planetary		pattern 427-K	
25.121	Dark-colored mantling material, planetary		pattern 214-K (at 45°)	
25.122	Secondary crater field, planetary		pattern 102-R	May also be shown in black or other colors.
25.123	Diffuse highland-lowland boundary scarp, planetary		pattern 134-R	
25.124	Joint or fracture pattern, planetary		pattern 430-K	May also be shown in red or other colors.
25.125	Area of reticulate grooves, planetary—Showing trend	+ + + + + + + + + + + + + + + + + + +	pattern + + + + + + + + + + + + + + + + + + +	
25.126	Detached lobe, planetary—Arrow points in direction of interpreted landslide or debris flow		pattern lineweight 116-K 3 mm; length 1.75 mm 60° 4.5 mm	
25.127	Low albedo smooth material, planetary— Interpreted as eolian material		pattern 136-K	
25.128	Airburst spot		pattern 434-K	
25.129	Mantling material, planetary—Light-colored		pattern 435-K in 50% black	
25.130	Splotch, planetary—Circular, radar-bright halo on surface		pattern 116-K	
25.131	Reticulate pattern on plains, planetary		pattern 119-K	
25.132	Fracture zone, planetary		pattern 137-K	
25.133	Superficial crater material having weak radar back- scatter coefficient, planetary		pattern 436-K	
25.134	Crater-associated ejecta halo, planetary		pattern 429-K	
25.135	Halo without associated crater, planetary		pattern 429-C	

*For more information, see general guidelines on pages A-i to A-v.