

26—GEOHYDROLOGIC FEATURES

REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*
26.1—Water wells				
26.1.1	Water well, type unspecified	○	lineweight .15 mm ○ diameter 1.75 mm	May also be shown in cyan or other colors.
26.1.2	Unused water well	∅	bar lineweight .3 mm ∅ 3.725 mm circle lineweight .2 mm	
26.1.3	Capped water well	⊖	1.235 mm ⊖ 1.125 mm all lineweights .2 mm	
26.1.4	Shut-in water well	⊖	1.125 mm ⊖ 1.235 mm all lineweights .2 mm	
26.1.5	Dry hole used for water exploration	⊖	1.0 mm ⊖ 1.0 mm all lineweights .2 mm	
26.1.6	Well used for collection of water data	⊖	1.0 mm ⊖ all lineweights .2 mm	
26.1.7	Well used for domestic-water supply	●	● diameter 1.75 mm	
26.1.8	Flowing artesian well used for domestic-water supply	▲	2.0 mm ▲ 1.25 mm arrow lineweight .15 mm	
26.1.9	Nonflowing artesian well used for domestic-water supply	⊖	1.375 mm ⊖ radius .3125 mm lineweight .175 mm	
26.1.10	Recharge or waste-injection well, once used for domestic-water supply	▼	2.0 mm ▼ 1.25 mm arrow lineweight .15 mm	
26.1.11	Observation well used for domestic-water supply	⊖	bar lineweight .3 mm ⊖ 3.725 mm 45°	
26.1.12	Observation well used for domestic-water supply—Equipped with a recorder	⊖ ^R	⊖ ^R ← H-6	
26.1.13	Dry well, once used for domestic-water supply	⊖	bar lineweight .2 mm ⊖ 3.725 mm 45°	
26.1.14	Destroyed well, once used for domestic-water supply	⊖	bar lineweights .2 mm ⊖ 3.725 mm 90° 3.725 mm	
26.1.15	Test hole for well used for domestic-water supply	⊖	.6 mm ⊖ 2.75 mm bar lineweights .15 mm	
26.1.16	Well used for stock-water supply	○	○ diameter 1.75 mm	
26.1.17	Flowing artesian well used for stock-water supply	▲	2.0 mm ▲ 1.25 mm arrow lineweight .15 mm	
26.1.18	Nonflowing artesian well used for stock-water supply	⊖	1.375 mm ⊖ radius .3125 mm lineweight .175 mm	
26.1.19	Recharge or waste-injection well, once used for stock-water supply	▼	2.0 mm ▼ 1.25 mm arrow lineweight .15 mm	
26.1.20	Observation well used for stock-water supply	⊖	bar lineweight .3 mm ⊖ 3.725 mm 45°	
26.1.21	Observation well used for stock-water supply—Equipped with a recorder	⊖ ^R	⊖ ^R ← H-6	
26.1.22	Dry well, once used for stock-water supply	⊖	bar lineweight .2 mm ⊖ 3.725 mm 45°	
26.1.23	Destroyed well, once used for stock-water supply	⊖	bar lineweights .2 mm ⊖ 3.725 mm 90° 3.725 mm	
26.1.24	Test hole for well used for stock-water supply	⊖	.6 mm ⊖ 2.75 mm bar lineweights .15 mm	

26—GEOHYDROLOGIC FEATURES (continued)

REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*
26.1—Water wells (continued)				
26.1.25	Well used for irrigation-water supply		outer circle diameter 2.0 mm; lineweight .2 mm inner circle diameter 1.125 mm; lineweight .15 mm	May also be shown in cyan or other colors.
26.1.26	Flowing artesian well used for irrigation-water supply		2.0 mm 1.25 mm arrow lineweight .15 mm	
26.1.27	Nonflowing artesian well used for irrigation-water supply		1.375 mm radius .3125 mm lineweight .175 mm	
26.1.28	Recharge or waste-injection well, once used for irrigation-water supply		2.0 mm 1.25 mm arrow lineweight .15 mm	
26.1.29	Observation well used for irrigation-water supply		bar lineweight .3 mm 3.725 mm 45°	
26.1.30	Observation well used for irrigation-water supply—Equipped with a recorder		R ← H-6	
26.1.31	Dry well, once used for irrigation-water supply		bar lineweight .2 mm 45° 3.725 mm	
26.1.32	Destroyed well, once used for irrigation-water supply		bar lineweights .2 mm 90° 3.725 mm	
26.1.33	Test hole for well used for irrigation-water supply		.6 mm 2.75 mm bar lineweights .15 mm	
26.1.34	Well used for industrial-water supply		outer circle diameter 2.0 mm; lineweight .2 mm inner dot diameter 1.125 mm	
26.1.35	Flowing artesian well used for industrial-water supply		2.0 mm 1.25 mm arrow lineweight .15 mm	
26.1.36	Nonflowing artesian well used for industrial-water supply		1.375 mm radius .3125 mm lineweight .175 mm	
26.1.37	Recharge or waste-injection well, once used for industrial-water supply		2.0 mm 1.25 mm arrow lineweight .15 mm	
26.1.38	Observation well used for industrial-water supply		bar lineweight .3 mm 3.725 mm 45°	
26.1.39	Observation well used for industrial-water supply—Equipped with a recorder		R ← H-6	
26.1.40	Dry well, once used for industrial-water supply		bar lineweight .2 mm 45° 3.725 mm	
26.1.41	Destroyed well, once used for industrial-water supply		bar lineweights .2 mm 90° 3.725 mm	
26.1.42	Test hole for well used for industrial-water supply		.6 mm 2.75 mm bar lineweights .15 mm	

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

26—GEOHYDROLOGIC FEATURES (continued)

REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*
26.1—Water wells (continued)				
26.1.43	Well used for public-water supply	○	line weight .375 mm ○ diameter 2.0 mm	May also be shown in cyan or other colors.
26.1.44	Flowing artesian well used for public-water supply	⤴	2.0 mm ⤴ 1.25 mm arrow line weight .15 mm	
26.1.45	Nonflowing artesian well used for public-water supply	⊕	1.375 mm ⊕ radius .3125 mm line weight .175 mm	
26.1.46	Recharge or waste-injection well, once used for public-water supply	⤵	2.0 mm ⤵ 1.25 mm arrow line weight .15 mm	
26.1.47	Observation well used for public-water supply	⊗	bar line weight .3 mm ⊗ 3.725 mm 45°	
26.1.48	Observation well used for public-water supply— Equipped with a recorder	⊗ ^R	⊗ ^R ← H-6	
26.1.49	Dry well, once used for public-water supply	∅	bar line weight .2 mm ∅ 45° 3.725 mm	
26.1.50	Destroyed well, once used for public-water supply	⊗	bar line weights .2 mm 90° ⊗ 3.725 mm	
26.1.51	Test hole for well used for public-water supply	⊕	.6 mm ⊕ bar line weights .15 mm 2.75 mm	

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

26—GEOHYDROLOGIC FEATURES (continued)

REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*
26.2—Springs				
26.2.1	Spring, type of use unspecified		all lineweights .15 mm draft "tail" as shown circle diameter 1.75 mm	Rotate "tail" to point in direction of flow. May also be shown in cyan, red, or other colors.
26.2.2	Unused spring		bar lineweight .3 mm circle and "tail" lineweight .2 mm 3.725 mm	
26.2.3	Spring used for collection of water-quality data		circle and "tail" lineweight .2 mm dot diameter .375 mm	
26.2.4	Spring used for domestic-water supply		"tail" lineweight .2 mm draft "tail" as shown dot diameter 1.75 mm	
26.2.5	Thermal spring used for domestic-water supply		H-6 →	
26.2.6	Mineral spring used for domestic-water supply		H-6 →	
26.2.7	Extinct spring, once used for domestic-water supply		3.725 mm bar lineweight .2 mm	
26.2.8	Spring used for stock-water supply		"tail" lineweight .2 mm draft "tail" as shown circle diameter 1.75 mm; lineweight .25 mm	
26.2.9	Thermal spring used for stock-water supply		H-6 →	
26.2.10	Mineral spring used for stock-water supply		H-6 →	
26.2.11	Extinct spring, once used for stock-water supply		3.725 mm bar lineweight .2 mm	
26.2.12	Spring used for irrigation-water supply		inner circle diameter 1.125 mm; lineweight .15 mm draft "tail" as shown "tail" lineweight .2 mm outer circle diameter 1.75 mm; lineweight .2 mm	
26.2.13	Thermal spring used for irrigation-water supply		H-6 →	
26.2.14	Mineral spring used for irrigation-water supply		H-6 →	
26.2.15	Extinct spring, once used for irrigation-water supply		3.725 mm bar lineweight .2 mm	
26.2.16	Spring used for industrial-water supply		inner dot diameter 1.125 mm draft "tail" as shown "tail" lineweight .2 mm outer circle diameter 1.75 mm; lineweight .2 mm	
26.2.17	Thermal spring used for industrial-water supply		H-6 →	
26.2.18	Mineral spring used for industrial-water supply		H-6 →	
26.2.19	Extinct spring, once used for industrial-water supply		3.725 mm bar lineweight .2 mm	
26.2.20	Spring used for public-water supply		"tail" lineweight .2 mm draft "tail" as shown circle diameter 2.0 mm; lineweight .375 mm	
26.2.21	Thermal spring used for public-water supply		H-6 →	
26.2.22	Mineral spring used for public-water supply		H-6 →	
26.2.23	Extinct spring, once used for public-water supply		3.725 mm bar lineweight .2 mm	

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

26—GEOHYDROLOGIC FEATURES (continued)

REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*
26.3—Water gaging stations				
26.3.1	Water gaging station, type of measurement unspecified		2.25 mm $\backslash / 60^\circ$ lineweight .15 mm	May also be shown in cyan or other colors.
26.3.2	Discontinued water gaging station		bar lineweight .3 mm triangle lineweight .2 mm 	
26.3.3	Continuous-record water gaging station		2.25 mm $\backslash / 60^\circ$	
26.3.4	Continuous-record water gaging station—Equipped with a telephone or radio		1.25 mm $\backslash / 60^\circ$ "antenna" lineweight .175 mm .875 mm \rightarrow	
26.3.5	Continuous-record peak-flow measurement water gaging station		2.0 mm \rightarrow $\backslash / 25^\circ$ arrow lineweight .15 mm	
26.3.6	Continuous-record low-flow measurement water gaging station		2.0 mm \rightarrow $\backslash / 25^\circ$ arrow lineweight .15 mm	
26.3.7	Continuous-record stage-measurement water gaging station		3.0 mm \rightarrow $\backslash / 1.125$ bar lineweight .2 mm	
26.3.8	Partial-record water gaging station (floods)		2.25 mm $\backslash / 60^\circ$ [same angle for both triangles] outer triangle lineweight .175 mm 1.25 mm \rightarrow	
26.3.9	Partial-record water gaging station (floods)—Equipped with a telephone or radio		1.25 mm $\backslash / 60^\circ$ "antenna" lineweight .175 mm .875 mm \rightarrow	
26.3.10	Partial-record peak-flow measurement water gaging station (floods)		2.0 mm \rightarrow $\backslash / 25^\circ$ arrow lineweight .15 mm	
26.3.11	Partial-record low-flow measurement water gaging station (floods)		2.0 mm \rightarrow $\backslash / 25^\circ$ arrow lineweight .15 mm	
26.3.12	Partial-record stage-measurement water gaging station (floods)		3.0 mm \rightarrow $\backslash / 1.125$ bar lineweight .2 mm	
26.3.13	Measurement site without a gage		2.25 mm $\backslash / 60^\circ$ lineweight .25 mm	
26.3.14	Measurement site without a gage—Equipped with a telephone or radio		1.25 mm $\backslash / 60^\circ$ "antenna" lineweight .175 mm .875 mm \rightarrow	
26.3.15	Peak-flow measurement site without a gage		2.0 mm \rightarrow $\backslash / 25^\circ$ arrow lineweight .15 mm	
26.3.16	Low-flow measurement site without a gage		2.0 mm \rightarrow $\backslash / 25^\circ$ arrow lineweight .15 mm	
26.3.17	Stage-measurement site without a gage		3.0 mm \rightarrow $\backslash / 1.125$ bar lineweight .2 mm	

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

26—GEOHYDROLOGIC FEATURES (continued)

REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*
26.4—Quality-of-water sites				
26.4.1	Quality-of-water site, type of measurement unspecified		<i>lineweight .15 mm</i> 2.25 mm 60°	May also be shown in cyan or other colors.
26.4.2	Inactive quality-of-water site		triangle lineweight .2 mm 3.75 mm bar lineweight .3 mm	
26.4.3	Active quality-of-water site		2.25 mm 60°	
26.4.4	Active quality-of-water site, chemical measurement		1.25 mm bar lineweight .25 mm	
26.4.5	Active quality-of-water site, temperature measurement		1.25 mm bar lineweight .25 mm	
26.4.6	Active quality-of-water site, biological measurement		1.25 mm bar lineweight .25 mm	
26.4.7	Active quality-of-water site, sediment measurement		1.25 mm bar lineweight .25 mm	
26.4.8	Active quality-of-water site—Equipped with a monitor		<i>lineweight .375 mm</i> 2.25 mm 60°	
26.4.9	Active quality-of-water site, chemical measurement—Equipped with a monitor		1.25 mm bar lineweight .25 mm	
26.4.10	Active quality-of-water site, temperature measurement—Equipped with a monitor		1.25 mm bar lineweight .25 mm	
26.4.11	Active quality-of-water site, biological measurement—Equipped with a monitor		1.25 mm bar lineweight .25 mm	
26.4.12	Active quality-of-water site, sediment measurement—Equipped with a monitor		1.25 mm bar lineweight .25 mm	

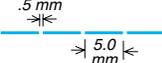
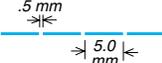
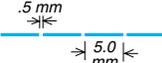
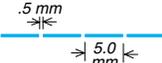
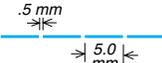
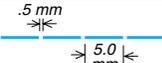
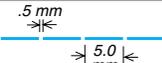
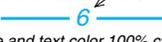
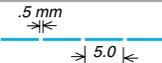
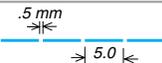
*For more information, see general guidelines on pages A-i to A-v.

26—GEOHYDROLOGIC FEATURES (continued)

REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*
26.5—Geohydrologic contours				
26.5.1	Structure contour (index), as shown on hydrologic maps, showing altitude of top or base of, or horizon within, stratigraphic unit, aquifer, or confining bed—Accurately located		lineweight .375 mm <i>line and text color 100% red</i>	On most maps, every fourth or fifth contour is an index contour, and usually only index contours are labeled. May be shown in black or other colors.
26.5.2	Structure contour (index), as shown on hydrologic maps, showing altitude of top or base of, or horizon within, stratigraphic unit, aquifer, or confining bed—Approximately located		.5 mm 5.0 mm	
26.5.3	Structure contour (intermediate), as shown on hydrologic maps, showing altitude of top or base of, or horizon within, stratigraphic unit, aquifer, or confining bed—Accurately located		lineweight .275 mm <i>line color 100% red</i>	
26.5.4	Structure contour (intermediate), as shown on hydrologic maps, showing altitude of top or base of, or horizon within, stratigraphic unit, aquifer, or confining bed—Approximately located		.5 mm 5.0 mm	
26.5.5	Bedrock contour (index), as shown on hydrologic maps, showing altitude of bedrock surface—Accurately located		lineweight .375 mm <i>line and text color 100% violet</i>	On most maps, every fourth or fifth contour is an index contour, and usually only index contours are labeled. May be shown in black or other colors.
26.5.6	Bedrock contour (index), as shown on hydrologic maps, showing altitude of bedrock surface—Approximately located		.5 mm 5.0 mm	
26.5.7	Bedrock contour (intermediate), as shown on hydrologic maps, showing altitude of bedrock surface—Accurately located		lineweight .275 mm <i>line color 100% violet</i>	
26.5.8	Bedrock contour (intermediate), as shown on hydrologic maps, showing altitude of bedrock surface—Approximately located		.5 mm 5.0 mm	
26.5.9	Water-table contour (index), showing altitude of unconfined water table [date]—Accurately located		lineweight .375 mm <i>line and text color 100% cyan</i>	Use only in reference to unconfined (water-table) conditions. On most maps, every fourth or fifth contour is an index contour, and usually only index contours are labeled. May be shown in black or other colors.
26.5.10	Water-table contour (index), showing altitude of unconfined water table [date]—Approximately located		.5 mm 5.0 mm	
26.5.11	Water-table contour (intermediate), showing altitude of unconfined water table [date]—Accurately located		lineweight .275 mm <i>line color 100% cyan</i>	
26.5.12	Water-table contour (intermediate), showing altitude of unconfined water table [date]—Approximately located		.5 mm 5.0 mm	
26.5.13	Potentiometric or water-level contour (index), showing altitude at which water level would have stood in tightly cased wells [date]—Accurately located		lineweight .375 mm <i>line and text color 100% cyan</i>	Use in reference to either confined (artesian) or unconfined conditions, when they are not differentiated on map.
26.5.14	Potentiometric or water-level contour (index), showing altitude at which water level would have stood in tightly cased wells [date]—Approximately located		.5 mm 5.0 mm	
26.5.15	Potentiometric or water-level contour (intermediate), showing altitude at which water level would have stood in tightly cased wells [date]—Accurately located		lineweight .275 mm <i>line color 100% cyan</i>	On most maps, every fourth or fifth contour is an index contour, and usually only index contours are labeled. May be shown in black or other colors.
26.5.16	Potentiometric or water-level contour (intermediate), showing altitude at which water level would have stood in tightly cased wells [date]—Approximately located		.5 mm 5.0 mm	
26.5.17	Water-quality-zone contour (index), showing altitude of top or base of, or horizon within, [type of] water-quality zone or water in aquifer [date]—Accurately located		lineweight .375 mm <i>line and text color 100% green</i>	On most maps, every fourth or fifth contour is an index contour, and usually only index contours are labeled. May be shown in black or other colors.
26.5.18	Water-quality-zone contour (index), showing altitude of top or base of, or horizon within, [type of] water-quality zone or water in aquifer [date]—Approximately located		.5 mm 5.0 mm	
26.5.19	Water-quality-zone contour (intermediate), showing altitude of top or base of, or horizon within, [type of] water-quality zone or water in aquifer [date]—Accurately located		lineweight .275 mm <i>line color 100% green</i>	
26.5.20	Water-quality-zone contour (intermediate), showing altitude of top or base of, or horizon within, [type of] water-quality zone or water in aquifer [date]—Approximately located		.5 mm 5.0 mm	

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

26—GEOHYDROLOGIC FEATURES (continued)

REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*
26.6—Geohydrologic lines				
26.6.1	Line of equal, average, mean, or median (etc.) annual, monthly, or daily (etc.) precipitation [date]—Accurately located	— 24 —	lineweight .375 mm  line and text color 100% cyan HI-9	Negative values must be preceded by a minus (-) sign. Date needed only for parameters that vary with time. May be shown in black or other colors.
26.6.2	Line of equal, average, mean, or median (etc.) annual, monthly, or daily (etc.) precipitation [date]—Approximately located	- - - - -	.5 mm  5.0 mm	
26.6.3	Line of equal depth to geologic formation, bedrock, aquifer, or water (etc.) [date]—Accurately located	— 100 —	lineweight .375 mm  line and text color 100% cyan HI-9	
26.6.4	Line of equal depth to geologic formation, bedrock, aquifer, or water (etc.) [date]—Approximately located	- - - - -	.5 mm  5.0 mm	
26.6.5	Line of equal thickness of geologic formation, aquifer, confining bed, or saturated material (etc.) [date]—Accurately located	— 50 —	lineweight .375 mm  line and text color 100% cyan HI-9	
26.6.6	Line of equal thickness of geologic formation, aquifer, confining bed, or saturated material (etc.) [date]—Approximately located	- - - - -	.5 mm  5.0 mm	
26.6.7	Line of equal water temperature [date]—Accurately located	— 10 —	lineweight .375 mm  line and text color 100% cyan HI-9	
26.6.8	Line of equal water temperature [date]—Approximately located	- - - - -	.5 mm  5.0 mm	
26.6.9	Line of equal specific conductance [date]—Accurately located	— 2000 —	lineweight .375 mm  line and text color 100% cyan HI-9	
26.6.10	Line of equal specific conductance [date]—Approximately located	- - - - -	.5 mm  5.0 mm	
26.6.11	Line of equal dissolved-solids concentration, hardness, or chemical-constituent concentration [date]—Accurately located	— 500 —	lineweight .375 mm  line and text color 100% cyan HI-9	
26.6.12	Line of equal dissolved-solids concentration, hardness, or chemical-constituent concentration [date]—Approximately located	- - - - -	.5 mm  5.0 mm	
26.6.13	Line of equal water-level change, rise, or decline [date]—Accurately located	— 20 —	lineweight .375 mm  line and text color 100% cyan HI-9	
26.6.14	Line of equal water-level change, rise, or decline [date]—Approximately located	- - - - -	.5 mm  5.0 mm	
26.6.15	Line of equal runoff [date]—Accurately located	— 6 —	lineweight .375 mm  line and text color 100% cyan HI-9	
26.6.16	Line of equal runoff [date]—Approximately located	- - - - -	.5 mm  5.0 mm	
26.6.17	Line of equal transmissivity, hydraulic conductivity, or porosity (etc.)—Accurately located	— 10,000 —	lineweight .375 mm  line and text color 100% cyan HI-9	
26.6.18	Line of equal transmissivity, hydraulic conductivity, or porosity (etc.)—Approximately located	- - - - -	.5 mm  5.0 mm	

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

26—GEOHYDROLOGIC FEATURES (continued)

REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*
26.7—Miscellaneous geohydrologic features				
26.7.1	Watershed basin boundary, drainage divide, or surface-water basin boundary		lineweight .6 mm dash length 7.5 mm 	May also be shown in cyan or other colors.
26.7.2	Watershed subbasin boundary, drainage subdivide, or surface-water subbasin boundary		lineweight .425 mm dash length 5.0 mm 	
26.7.3	Ground-water divide—Accurately located			
26.7.4	Ground-water divide—Approximately located		lineweight .15 mm 	
26.7.5	Ground-water barrier (geologic)—Accurately located		lineweight .175 mm 	
26.7.6	Ground-water barrier (geologic)—Approximately located		lineweight .175 mm 	
26.7.7	Infiltration gallery		all lineweights .15 mm 	
26.7.8	Direction of ground-water flow (1st option)—Accurately located			
26.7.9	Direction of ground-water flow (2nd option)—Accurately located		lineweight .15 mm 	
26.7.10	Direction of ground-water flow (1st option)—Approximately located			
26.7.11	Direction of ground-water flow (2nd option)—Approximately located		dash 1.5 mm; space .5 mm 	

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