

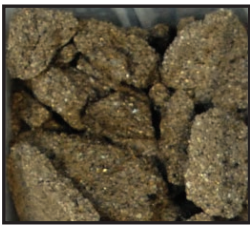
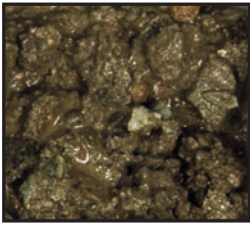
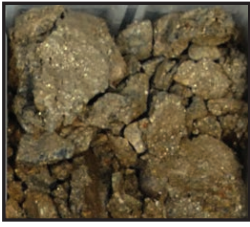
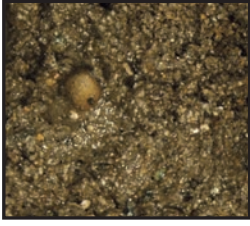
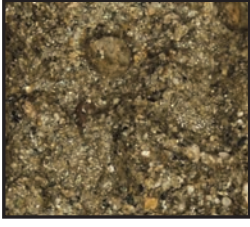
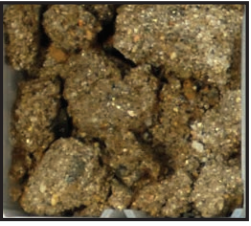
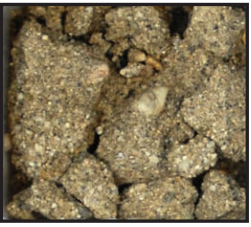
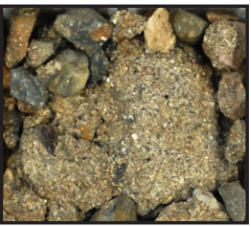
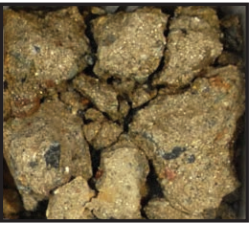





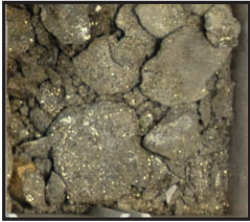













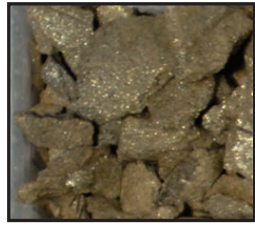
Depth interval (feet) and description	Depth interval (feet) and description
	<p>0–20: Sandy silt (sZ); silt and very fine to very coarse sand and minor silt; moderately sorted; angular to subangular; olive gray (5Y 5/2); <i>abundant organic debris, 2–30 mm.</i></p>
	<p>20–40: Silty sand (zS); very fine to medium sand and silt; well sorted; angular to subangular; olive gray (5Y 5/2).</p>
	<p>40–60: Silty sand (zS); very fine to medium sand, silt, and trace pebbles; poorly sorted; angular to subrounded; olive gray (5Y 5/2).</p>
	<p>60–80: Sandy gravel (sG); very fine to very coarse sand and granules to large pebbles; very poorly sorted; angular to subangular; olive gray (5Y 5/2).</p>
	<p>80–100: Slightly gravelly sand ((g)S); fine to very coarse sand with granules to small pebbles; moderately to poorly sorted; angular to subrounded; olive gray (5Y 5/2).</p>
	<p>100–120: Slightly gravelly sand ((g)S); fine to very coarse sand with granules to small pebbles; moderately to poorly sorted; angular to subrounded; olive (5Y 5/6).</p>
	<p>120–140: Slightly gravelly sand ((g)S); fine to very coarse sand with granules to small pebbles; moderately to poorly sorted; angular to subrounded; olive (5Y 5/6).</p>
	<p>140–160: Sand (S); fine to very coarse sand; well sorted; angular to subrounded; olive (5Y 5/6).</p>
	<p>160–180: Sand (S); very fine to medium sand with minor silt and trace granules to small pebbles; well to moderately sorted; angular to subrounded; pale olive (5Y 6/4).</p>
	<p>180–200: Slightly gravelly sand ((g)S); fine to very coarse sand with granules to small pebbles; moderately to poorly sorted; angular to subrounded; pale olive (5Y 6/4).</p>
	<p>200–220: Sand (S); very fine to coarse sand and minor silt; poorly sorted; angular to subrounded; pale olive (5Y 6/4).</p>
	<p>220–240: Sand (S); fine to very coarse sand and minor granules; poorly sorted; angular to subrounded; olive gray (5Y 5/2).</p>
	<p>240–260: Sand (S); very fine to very coarse sand; moderately sorted; angular to subangular; olive gray (5Y 5/2).</p>
	<p>260–280: Sand (S); very fine to very coarse sand; moderately sorted; angular to subangular; grayish olive (10Y 4/2).</p>

**Figure 18P.** Lithologic descriptions and photographs of **sieve** drill cuttings collected from the borehole at 16 USGS multiple-depth, monitoring-well sites in San Diego County, California, 1995, 2003–2017: (A) SDCD; (B) SDSY; (C) SDLH; (D) SDAQ; (E) SDPC; (F) SDBP; (G) SDHF; (H) SDEP; (I) SDNB; (J) SDSW; (K) SDMC; (L) SDLD; (M) SDCC; (N) SDOR; (O) SDOT; and **(P) SDBW**.

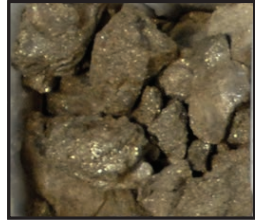
Depth interval (feet) and description	Depth interval (feet) and description		
	<p>280–300: Silty sand (zS); very fine to medium sand, silt, and trace granules; moderately sorted; angular to subangular; grayish olive (10Y 4/2).</p>		<p>420–440: Sandy silt (sZ); silt and very fine sand with trace clay; very well sorted; olive gray (5Y 3/2).</p>
	<p>300–320: Sandy silt (sZ); silt, very fine to fine sand with trace granules, and clay; well sorted; olive gray (5Y 3/2).</p>		<p>440–460: Sandy silt (sZ); silt, very fine to fine sand, and minor clay; well sorted; olive gray (5Y 3/2).</p>
	<p>320–340: Sandy silt (sZ); silt, very fine to fine sand, and trace granules; well sorted; olive gray (5Y 3/2).</p>		<p>460–480: Sandy silt (sZ); silt, very fine to fine sand, and minor clay; well sorted; olive gray (5Y 3/2).</p>
	<p>340–360: Sand (S); very fine to very coarse sand and minor silt; poorly sorted; angular to subangular; grayish olive (10Y 4/2).</p>		<p>480–500: Sandy silt (sZ); silt, very fine to fine sand, minor clay, and trace granules; well sorted; olive gray (5Y 3/2).</p>
	<p>360–380: Silty sand (zS); very fine to fine sand, silt, and trace granules; well sorted; angular to subrounded; grayish olive (10Y 4/2).</p>		<p>500–520: Sandy silt (sZ); silt, very fine sand, and minor clay; well sorted; olive gray (5Y 3/2).</p>
	<p>380–400: Sandy silt (sZ); silt, very fine to fine sand, and trace granules; well sorted; olive gray (5Y 3/2).</p>		<p>520–540: Sandy silt (sZ); silt, very fine sand, and minor clay; well sorted; olive gray (5Y 3/2).</p>
	<p>400–420: Silty sand (zS); silt, very fine to fine sand, silt, and trace pebbles; well sorted; angular to subangular; grayish olive (10Y 4/2).</p>		<p>540–560: Sandy silt (sZ); silt, very fine sand, and minor clay; well sorted; olive gray (5Y 3/2).</p>

**Figure 18P.** Lithologic descriptions and photographs of **sieve** drill cuttings collected from the borehole at 16 USGS multiple-depth, monitoring-well sites in San Diego County, California, 1995, 2003–2017: (A) SDCD; (B) SDSY; (C) SDLH; (D) SDAQ; (E) SDPC; (F) SDBP; (G) SDHF; (H) SDEP; (I) SDNB; (J) SDSW; (K) SDMC; (L) SDLD; (M) SDCC; (N) SDOR; (O) SDOT; and **(P) SDBW**.  
—Continued.

Depth interval (feet) and description



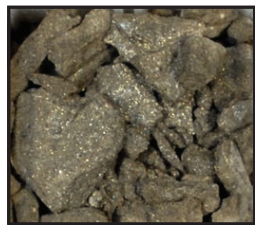
560–580: Sandy silt (sZ); silt, very fine sand, and minor clay; well sorted; olive gray (5Y 3/2).



580–600: Sandy silt (sZ); silt, very fine sand, and minor clay; well sorted; olive gray (5Y 3/2).



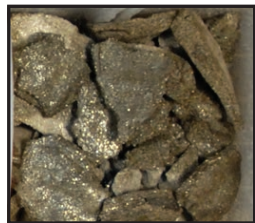
600–620: Sandy silt (sZ); silt, very fine sand, and minor clay; well sorted; olive gray (5Y 3/2).



620–640: Sandy silt (sZ); silt, very fine sand, and minor clay; well sorted; olive gray (5Y 3/2).



640–660: Sandy silt (sZ); silt, very fine sand, and minor clay; well sorted; olive gray (5Y 3/2).

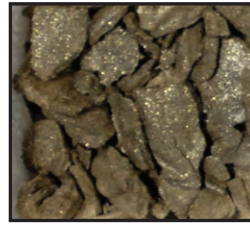


660–680: Sandy silt (sZ); silt, very fine sand, and minor clay; well sorted; olive gray (5Y 3/2).



680–700: Sandy silt (sZ); silt, very fine sand, and minor clay; well sorted; olive gray (5Y 3/2).

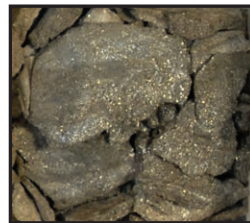
Depth interval (feet) and description



700–720: Sandy silt (sZ); silt, very fine sand, and minor clay; well sorted; olive gray (5Y 3/2).



720–740: Sandy silt (sZ); silt, very fine sand, and minor clay; well sorted; olive gray (5Y 3/2).



740–760: Sandy silt (sZ); silt, very fine sand, and minor clay; well sorted; olive gray (5Y 3/2).



760–780: Sandy silt (sZ); silt, very fine sand, and minor clay; well sorted; olive gray (5Y 3/2).



780–800: Sandy silt (sZ); silt, very fine sand, and minor clay; well sorted; olive gray (5Y 3/2).

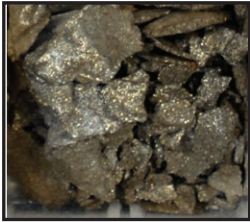



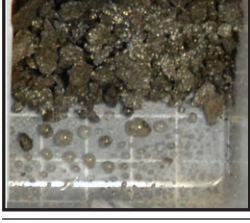


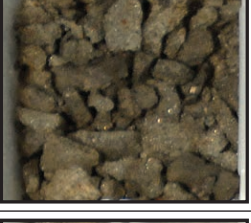


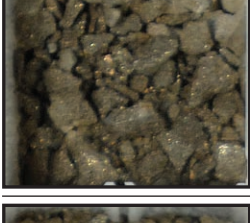
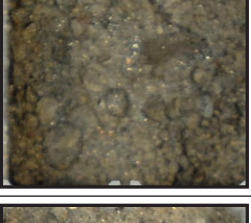
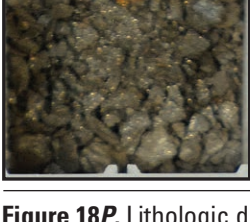
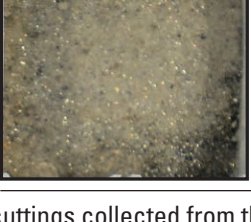


800–820: Sandy silt (sZ); silt, very fine sand, and minor clay; well sorted; olive gray (5Y 3/2).



820–840: Sandy silt (sZ); silt, very fine sand, and minor clay; well sorted; olive gray (5Y 3/2).

**Figure 18P.** Lithologic descriptions and photographs of **sieve** drill cuttings collected from the borehole at 16 USGS multiple-depth, monitoring-well sites in San Diego County, California, 1995, 2003–2017: (A) SDCD; (B) SDSY; (C) SDLH; (D) SDAQ; (E) SDPC; (F) SDBP; (G) SDHF; (H) SDEP; (I) SDNB; (J) SDSW; (K) SDMC; (L) SLDL; (M) SDCC; (N) SDOR; (O) SDOT; and **(P) SDBW**. —Continued.

Depth interval (feet) and description	Depth interval (feet) and description		
	<p>840–860: Sandy silt (sZ); silt, very fine sand, and minor clay; well sorted; olive gray (5Y 3/2).</p>		<p>980–1,000: Silty sand (zS); very fine to medium sand and silt; well sorted; grayish olive green (5GY 3/2).</p>
	<p>860–880: Sandy silt (sZ); silt, very fine sand, and minor clay; well sorted; olive gray (5Y 3/2).</p>		<p>1,000–1,030: Silty sand (zS); very fine to medium sand and silt; well sorted; angular to subrounded; grayish olive green (5GY 3/2).</p>
	<p>880–900: Sandy silt (sZ); silt, very fine sand, and minor clay; well sorted; olive gray (5Y 3/2).</p>		<p>1,030–1,050: Silty sand (zS); very fine to fine sand, well sorted; angular to subangular; olive gray (5Y 3/2).</p>
	<p>900–920: Sandy silt (sZ); silt, very fine sand, minor clay, and trace granules; well sorted; olive gray (5Y 3/2).</p>		<p>1,050–1,070: Silty sand (zS); very fine to medium sand and silt; well sorted; angular to subrounded; olive gray (5Y 3/2).</p>
	<p>920–940: Sandy silt (sZ); silt, very fine sand, and minor clay; well sorted; olive gray (5Y 3/2).</p>		<p>1,070–1,090: Silty sand (zS); very fine to medium sand and silt; well sorted; angular to subrounded; grayish olive green (5GY 3/2).</p>
	<p>940–960: Sandy silt (sZ); silt, very fine sand, and minor clay; well sorted; olive gray (5Y 3/2).</p>		<p>1,090–1,110: Sand (S); some silt, very fine to medium sand; well sorted; angular to subrounded; grayish olive green (5GY 3/2).</p>
	<p>960–980: Sandy silt (sZ); silt, very fine sand, and minor clay; well sorted; olive gray (5Y 3/2).</p>		<p>1,110–1,130: Sand (S); very fine to medium sand; well sorted; angular to subrounded; grayish green (5G 5/2).</p>

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—Continued.

Depth interval (feet) and description	Depth interval (feet) and description		
	<p>1,130–1,150: Sand (S); very fine to medium sand; well sorted; angular to subrounded; grayish green (5G 5/2).</p>		<p>1,270–1,290: Sand (S); very fine to fine sand; very well sorted; angular to subrounded; grayish green (5G 5/2).</p>
	<p>1,150–1,170: Sand (S); very fine to medium sand; well sorted; angular to subrounded; grayish green (5G 5/2).</p>		<p>1,290–1,310: Sand (S); very fine to medium sand; well sorted; angular to subrounded; grayish green (10G 4/2).</p>
	<p>1,170–1,190: Sand (S); very fine to medium sand; well sorted; angular to subrounded; grayish green (5G 5/2).</p>		<p>1,310–1,330: Sand (S); very fine to medium sand; well sorted; angular to subrounded; grayish green (10G 4/2).</p>
	<p>1,190–1,210: Sand (S); very fine to coarse sand; moderately sorted; angular to subrounded; grayish green (5G 5/2).</p>		<p>1,330–1,350: Sand (S); very fine to medium sand; well sorted; angular to subrounded; grayish green (10G 4/2).</p>
	<p>1,210–1,230: Sand (S); very fine to coarse sand; moderately to poorly sorted; angular to subrounded; grayish green (5G 5/2).</p>		<p>1,350–1,370: Sand (S); very fine to fine sand; very well sorted; angular to subrounded; grayish green (5G 5/2).</p>
	<p>1,230–1,250: Sand (S); very fine to fine sand; very well sorted; angular to subrounded; grayish green (5G 5/2).</p>		<p>1,370–1,390: Sand (S); very fine to medium sand; well sorted; angular to subrounded; grayish green (5G 6/2).</p>
	<p>1,250–1,270: Sand (S); very fine to fine sand; very well sorted; angular to subrounded; grayish green (5G 5/2).</p>		<p>1,390–1,410: Silty sand (zS); very fine to coarse sand, silt, and minor clay; moderately to poorly sorted; angular to subrounded; dusky green (5G 3/2).</p>

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Depth interval (feet) and description



1,410–1,430: Silty sand (zS); very fine to coarse sand, silt, and minor clay; moderately to poorly sorted; angular to subrounded; dusky green (5G 3/2).

*Note: the lithologic descriptions and photographs for site SDBW were compiled from sieve drill cuttings that were collected from two adjacent boreholes; refer text for more explanation.*

**Figure 18P.** Lithologic descriptions and photographs of **sieve** drill cuttings collected from the borehole at 16 USGS multiple-depth, monitoring-well sites in San Diego County, California, 1995, 2003–2017: (A) SDCD; (B) SDSY; (C) SDLH; (D) SDAQ; (E) SDCP; (F) SDBP; (G) SDHF; (H) SDEP; (I) SDNB; (J) SDSW; (K) SDMC; (L) SDLD; (M) SDCC; (N) SDOR; (O) SDOT; and **(P) SDBW**.  
—Continued.