

Depth interval (feet) and description	Depth interval (feet) and description		
	<p>0–20: Sand (S); fine to medium sand with trace gravel <9 mm; well sorted; subangular to subrounded.</p>		<p>150–170: Sand (S); very fine to fine sand; very well sorted; subangular to subrounded; dark gray (2.5Y 4/1); <i>abundant shell fragments</i>.</p>
	<p>20–40: Sand (S); fine to coarse sand; moderately sorted; subangular to subrounded.</p>		<p>170–180: <i>Cores 3 and 4.</i></p>
	<p>40–60: Sand (S); very fine sand with trace gravel <6 mm; well sorted; subangular to subrounded; brown (10YR 5/3).</p>		<p>180–190: Sand (S); very fine to fine; well sorted; subangular to subrounded; dark gray (2.5Y 4/1); <i>abundant shell fragments</i>.</p>
	<p>60–80: Sand (S); fine to medium sand with minor coarse sand; moderately sorted; subangular to rounded; yellowish brown (10YR 5/8).</p>		<p>190–210: Clayey silty sand (mS); very fine to fine sand, silt, and clay; well sorted; subangular to rounded; dark gray (2.5Y 4/1); <i>abundant shell fragments</i>.</p>
	<p>80–100: Sand (S); fine to medium sand with trace coarse to very coarse sand and gravel <10 mm; poorly sorted; subangular to subrounded; dark gray (2.5Y 4/1); <i>abundant shell fragments</i>.</p>		<p>210–230: Clayey silty sand (mS); very fine to medium sand, silt, and trace gravel <11 mm; poorly sorted; subangular to rounded; dark gray (2.5Y 4/1); <i>shell fragments</i>.</p>
	<p>100–110: <i>Cores 1 and 2.</i></p>		<p>230–250: Clayey silty sand (mS); very fine to fine sand, silt, and clay; well sorted; subangular to subrounded; dark gray (2.5Y 4/1); <i>minor shell fragments</i>.</p>
	<p>110–130: Clayey silt (M); silt with clay and very fine sand; well sorted; dark gray (2.5Y 4/1); <i>shell fragments</i>.</p>		<p>250–270: Clayey silty sand (mS); very fine to fine sand, silt, and clay; well sorted; subangular to subrounded; <i>minor shell fragments</i>.</p>
	<p>130–150: Sand (S); very fine; well sorted; subangular to subrounded; dark gray (2.5Y 4/1); <i>shell fragments</i>.</p>		<p>270–280: Clayey silty sand (mS); very fine to fine sand, silt and clay; well sorted; subangular to subrounded; <i>minor shell fragments</i>.</p>
			<p>280–300: <i>Cores 5, 6, 7, and 8.</i></p>

Figure 18N. 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.

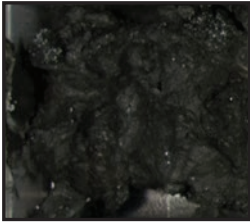
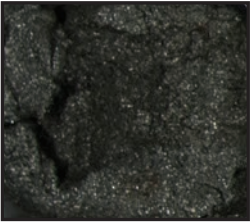
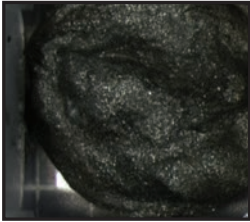
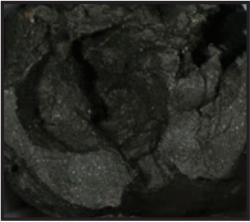


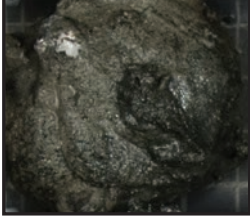


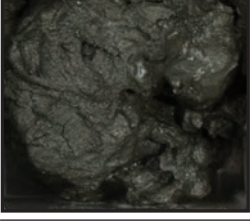
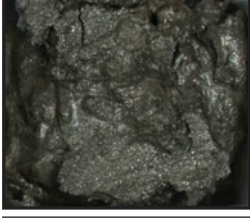
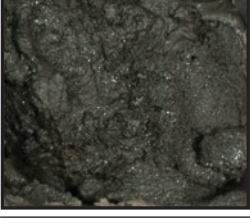


Depth interval (feet) and description	Depth interval (feet) and description		
	<p>300–310: Silty clay (M); clay with silt; very well sorted; dark gray (2.5Y 4/1); <i>shell fragments</i>.</p> <p>310–320: <i>Cores 9 and 10.</i></p>		<p>430–450: Silty sand (zS); very fine sand and silt with minor clay; well sorted; subangular to subrounded; dark gray (2.5Y 4/1); <i>shell fragments</i>.</p>
	<p>320–330: Sandy clayey silt (sM); silt and clay with very fine to fine sand; well sorted; dark gray (2.5Y 4/1); <i>shell fragments</i>.</p>		<p>450–470: Sandy clayey silt (sM); silt and clay with very fine sand; well sorted; dark gray (2.5Y 4/1); <i>shell fragments</i>.</p>
	<p>330–350: Sandy clayey silt (sM); silt and clay with very fine to fine sand; well sorted; dark gray (2.5Y 4/1); <i>shell fragments</i>.</p>		<p>470–490: Sandy clayey silt (sM); silt and clay with very fine sand; well sorted; dark gray (2.5Y 4/1); <i>shell fragments</i>.</p>
	<p>350–370: Sandy clayey silt (sM); silt and clay with very fine sand; well sorted; dark gray (2.5Y 4/1); <i>shell fragments</i>.</p>		<p>490–510: Sandy clayey silt (sM); silt and clay with very fine sand; well sorted; dark gray (2.5Y 4/1); <i>shell fragments</i>.</p>
	<p>370–390: Sandy clayey silt (sM); silt and clay with very fine sand; well sorted; dark gray (2.5Y 4/1); <i>shell fragments</i>.</p>		<p>510–530: Sandy clayey silt (sM); silt and clay with very fine sand; well sorted; dark gray (2.5Y 4/1); <i>shell fragments</i>.</p>
	<p>390–410: Sandy clayey silt (sM); silt and clay with very fine sand; well sorted; dark gray (2.5Y 4/1); <i>shell fragments</i>.</p>		<p>530–550: Silty sand (zS); very fine to fine sand, silt and clay; well sorted; subangular to subrounded; <i>shell fragments</i>.</p>
	<p>410–430: Sandy clayey silt (sM); silt and clay with very fine sand; well sorted; dark gray (2.5Y 4/1); <i>shell fragments</i>.</p>		<p>550–570: Silty clayey sand (mS); fine to medium sand with clay and silt; moderately sorted; subangular to subrounded; dark gray (2.5Y 4/1); <i>shell fragments</i>.</p>

Figure 18N. 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.

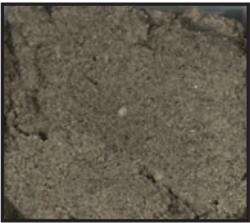

Depth interval (feet) and description	Depth interval (feet) and description
	
570–575: No sieve sample collected.	710–730: Sand (S); very fine to fine with minor clay; well sorted; subangular to subrounded; grayish brown (2.5Y 5/2).
575–580: <i>Core 11</i> .	
580–590: Sandy clay (sC); clay with very fine to fine sand; well sorted; light brownish gray (2.5Y 6/2).	
	
590–610: Clayey sand (cS); very fine to fine sand with minor medium sand and clay; well to moderately sorted; subangular to subrounded; light brownish gray (2.5Y 6/2).	730–750: Sandy clay (sC); clay with very fine to fine sand; well sorted; grayish brown (2.5Y 5/2).
	
610–630: Sandy clay (sC); clay with very fine to coarse sand; poorly sorted; light brownish gray (2.5Y 6/2).	750–770: Sand (S); very fine to fine sand; very well sorted; subangular to subrounded; grayish brown (2.5Y 5/2).
	
630–650: Sandy clay (sC); clay with very fine to coarse sand; poorly sorted; light brownish gray (2.5Y 6/2).	770–790: Sand (S); fine sand; very well sorted; subangular to subrounded; grayish brown (2.5Y 5/2).
	
650–670: Silty clay (M); clay with silt; very well sorted; light brownish gray (2.5Y 6/2).	790–810: Sand (S); fine sand; very well sorted; subangular to subrounded; grayish brown (2.5Y 5/2).
	
670–690: Silty sand (zS); very fine sand with silt; well sorted; subangular to subrounded; light brownish gray (2.5Y 6/2).	810–820: Sand (S); fine sand; very well sorted; subangular to subrounded; grayish brown (2.5Y 5/2).
	
690–710: Sand (S); very fine to fine sand with minor clay ball; well sorted; subangular to subrounded; grayish brown (2.5Y 5/2).	820–825: <i>Core 12</i> .
	825–830: Sand (S); very fine to fine sand with minor clay; well sorted; subangular to subrounded; grayish brown (2.5Y 5/2).

Figure 18N. 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.

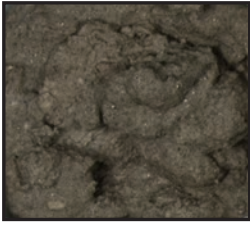

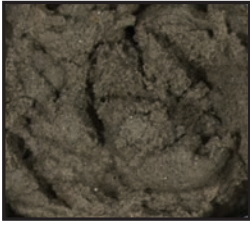
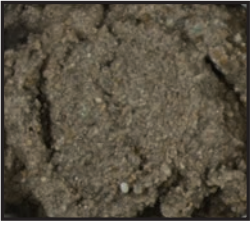

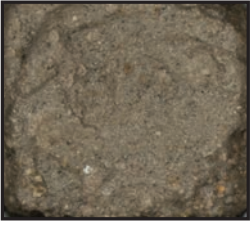
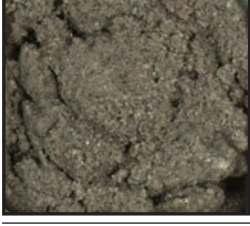



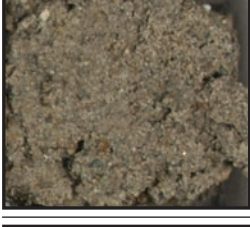



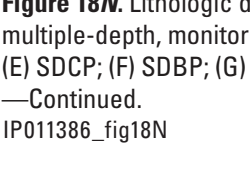
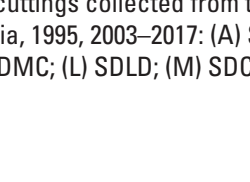
Depth interval (feet) and description	Depth interval (feet) and description		
	<p>830–850: Sand (S); very fine to fine sand with minor clay; well sorted; subangular to subrounded; grayish brown (2.5Y 5/2).</p>		<p>970–990: Sand (S); fine to medium sand with minor coarse to very coarse sand; moderately sorted; subangular to subrounded; light olive brown (2.5Y 5/3).</p>
	<p>850–870: Sand (S); very fine to fine sand with minor clay; well sorted; subangular to subrounded; grayish brown (2.5Y 5/2).</p>		<p>990–1,000: Sand (S); fine to medium sand with minor coarse to very coarse sand; moderately sorted; subangular to subrounded; light olive brown (2.5Y 5/3).</p>
	<p>870–890: Sand (S); very fine to fine sand with minor clay; well sorted; subangular to subrounded; grayish brown (2.5Y 5/2).</p>		<p>1,000–1,010: Sand (S); fine to medium sand with minor coarse sand; moderately sorted; subangular to subrounded; light olive brown (2.5Y 5/3).</p>
	<p>890–896: <i>Core 13</i>.</p>		<p>1,010–1,030: Sand (S); fine to medium sand with minor coarse sand and clay; moderately sorted; subangular to subrounded; light olive brown (2.5Y 5/3).</p>
	<p>896–910: Sand (S); fine to medium sand with minor very fine sand; moderately to well sorted; subangular to rounded; grayish brown (2.5Y 5/2).</p>		<p>1,030–1,040: Sand (S); fine to medium sand with minor coarse and with trace very coarse sand; moderately sorted; subangular to rounded; light olive brown (2.5Y 5/3).</p>
	<p>910–930: Sand (S); fine to medium sand with minor very fine sand; moderately sorted; subangular to rounded; grayish brown (2.5Y 5/2).</p>		<p>1,040–1,060: Sand (S); fine to medium sand with minor coarse sand; well sorted; subangular to subrounded; light olive brown (2.5Y 5/3).</p>
	<p>934–950: Sand (S); fine to medium sand with minor very fine to very coarse sand; poorly to moderately sorted; subangular to rounded; light olive brown (2.5Y 5/3).</p>		<p>1,060–1,080: Sand (S); fine sand with minor very fine to coarse sand; moderately sorted; subangular to subrounded; light olive brown (2.5Y 5/3).</p>
	<p>950–970: Sand (S); fine to medium sand with minor very fine to very coarse sand and gravel <31 mm; poorly sorted; subangular to rounded; light olive brown (2.5Y 5/3).</p>		<p>1,080–1,100: Sand (S); fine to medium sand with minor coarse sand; moderately sorted; subangular to subrounded; light olive brown (2.5Y 5/3).</p>

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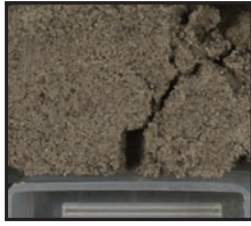
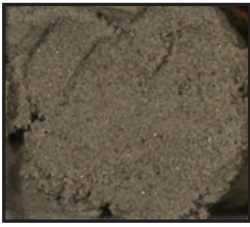
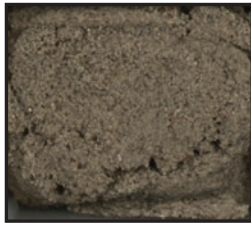
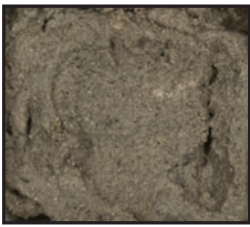







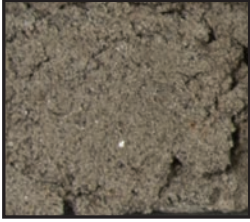




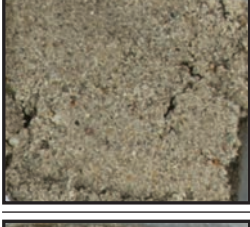

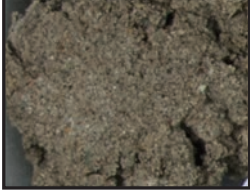
Depth interval (feet) and description	Depth interval (feet) and description	Depth interval (feet) and description	Depth interval (feet) and description
	<p>1,080–1,100: Sand (S); fine to medium sand with minor coarse sand; moderately sorted; subangular to subrounded; light olive brown (2.5Y 5/3).</p>		<p>1,220–1,240: Sand (S); fine to medium sand; well to moderately sorted; subangular to subrounded; light olive brown (2.5Y 5/3).</p>
	<p>1,100–1,120: Sand (S); fine to medium sand with minor coarse sand; moderately sorted; subangular to subrounded; light olive brown (2.5Y 5/3).</p>		<p>1,240–1,260: Sand (S); fine to medium sand; well to moderately sorted; subangular to subrounded; light olive brown (2.5Y 5/3).</p>
	<p>1,120–1,140: Sand (S); fine to medium sand with minor coarse sand; moderately sorted; subangular to subrounded; light olive brown (2.5Y 5/3).</p>		<p>1,260–1,280: Sand (S); fine to medium sand; well to moderately sorted; subangular to subrounded; light olive brown (2.5Y 5/3).</p>
	<p>1,140–1,160: Sand (S); fine to medium sand with minor coarse sand; moderately sorted; subangular to subrounded; light olive brown (2.5Y 5/3).</p>		<p>1,280–1,300: Sand (S); fine to medium sand; well to moderately sorted; subangular to subrounded; light olive brown (2.5Y 5/3).</p>
	<p>1,160–1,180: Sand (S); fine to medium sand; well to moderately sorted; subangular to subrounded; light olive brown (2.5Y 5/3).</p>		<p>1,300–1,320: Sand (S); fine to medium sand; well to moderately sorted; subangular to subrounded; light olive brown (2.5Y 5/3).</p>
	<p>1,180–1,200: Sand (S); fine to medium sand; well to moderately sorted; subangular to subrounded; light olive brown (2.5Y 5/3).</p>		<p>1,320–1,340: Sand (S); fine to medium sand; well to moderately sorted; subangular to subrounded; light olive brown (2.5Y 5/3).</p>
	<p>1,200–1,220: Sand (S); fine to medium sand; well to moderately sorted; subangular to subrounded; light olive brown (2.5Y 5/3).</p>		<p>1,340–1,360: Sand (S); fine to medium sand; well to moderately sorted; subangular to subrounded; light olive brown (2.5Y 5/3).</p>

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Depth interval (feet) and description	
	1,360–1,380: Sand (S); fine to medium sand; well to moderately sorted; subangular to subrounded; light olive brown (2.5Y 5/3).
	1,380–1,400: Sand (S); fine to medium sand and minor coarse to very coarse sand; moderately sorted; subangular to subrounded; light olive brown (2.5Y 5/3).
	1,400–1,420: Sand (S); fine to medium sand with minor coarse sand; well sorted; subangular to subrounded; light olive brown (2.5Y 5/3).
	1,420–1,440: Sand (S); fine to medium sand with minor coarse sand; well sorted; subangular to subrounded; light olive brown (2.5Y 5/3).
	1,440–1,460: Sand (S); fine to medium sand with minor coarse sand; well sorted; subangular to subrounded; light olive brown (2.5Y 5/3).
	1,460–1,472: Sand (S); fine sand with medium and coarse sand; well sorted; subangular to subrounded; light olive brown (2.5Y 5/3).

Depth interval (feet) and description

Figure 18N. 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; (**IN**) **SDOR**; (O) SDOT; and (P) SDBW. —Continued.