

## INDEX

abbreviations for samplers	4-7
acetone test	1-19
acid test	1-19
aerial photographs	6-2
age, geologic	1-16
Atterberg limits	<u>1-8</u> , <u>1-25</u>
arc hyperbolic sines	2-28 (table 2-2), 2-36 (table 2-6)
attitude	1-17
augers	2-6, 2-61, fig. 2-20
bailey	fig. 2-24
barrel rack	2-68, fig. 2-25
bearing values	7-5, 7-8 (table 7-2)
benzidine test	1-20
bits	2-15, fig. 2-16, 2-50, 2-52, fig. 2-17, fig. 2-18, 2-55 (table 2-10), 2-56, fig. 2-19, 2-61, fig. 2-20, fig. 2-21, fig. 2-22
bit clearance	2-42
bit pressure	2-58
bit speed	2-50
blanketing	3-3
blasting	i, 1-15
blow count	4-3, 5-2
bore holes	(see test holes)
boring	2-6
borrow	3-2, 7-9
box samples	2-2, fig. 2-3
bucket augers	fig. 2-20
casing	2-6, 2-24, 2-74
caverns	1-14
cementation	1-13
channels	<u>1-3</u> (table 1-10), 7-10
chopping bits	2-62
chunk samples	fig. 2-2
classification, of dam sites	5-3
clay	1-2
clay minerals	ii, 1-2, <u>1-5</u> , fig. 1-2, 3-2
clean-out tools	2-68, fig. 2-24
coefficient of, curvature	1-23, fig. 1-4, 1-26 (table 1-5)
permeability	<u>1-9</u> , 2-17
uniformity	1-23, fig. 1-4, 1-26 (table 1-5)
cohesiveness	1-8
color of materials	1-15

1/ underlining indicates definition or most important reference

## INDEX (Cont'd.)

- composition, mineral 1-5  
 consistency 1-8, 1-23, 1-25  
**consolidation** 1-11, 1-14  
 contracting 7-2  
 core barrel 2-47  
 core boxes 3-6  
 core recovery 2-59, 4-7  
 core size 3-5  
 correlation 1-16, 4-3  
 cribbing 11, 2-2  
 cylinder samples fig. 2-1
- dam sites 5-3  
 denison barrels 2-47, fig. 2-16  
 density 1-9  
 depth of boring 5-4, 7-5  
 detailed site  
 investigation 5-2, chapter 7  
 diamond bits 2-56, fig. 2-19  
 dilatancy 1-25, 1-28 (table 1-7), fig. 1-5  
 dip 1-14  
 displacement boring 2-7  
 disturbed samples (see sample disturbed)  
 double-tube sampler 2-47, fig. 2-16  
 drilling 2-7, 2-60  
 drilling equipment 2-15  
 drilling fluids 2-58, 2-74, 2-76 (table 2-11)  
 drill rods 2-66  
 drill rigs 2-69, fig. 2-27, 7-11  
 drive hammer 2-47, 2-66, fig. 2-23  
 drive sampling 2-38, 2-43 (table 2-9)  
 dye tracers ii, 7-13
- earth materials iv  
 ease of excavation 1-15  
 electrical resistivity 2-11, 2-13, fig. 2-6  
 embankments iv, 1-33 (table 1-9)  
 emergency spillway 3-2, 7-6  
 equipment 2-2, 2-15, 2-66, 7-1  
 excavation of material 1-15, 5-5  
 expanding packer 3-5, fig. 3-1  
 exploration chapter 2  
 exploration, subsur-  
 face 2-6  
 explosives i  
 exposures 2-1
- faults 1-18

## INDEX (Cont'd.)

- field classification 1-19, fig 1-5, 1-27 (table 1-6), 1-28  
                           (table 1-7)  
 field notes 3-5, 4-1  
 field study 6-3  
 field tests 1-19, 1-25, fig. 1-5  
 fish tail bits 2-62, fig. 2-22  
 folds 1-17  
 forms  
     SCS-35a, b, c 1-17, 3-3, 4-1, 6-4, 7-2  
     SCS-315 7-3  
     SCS-353 fig. 1-4  
     SCS-356 3-3, 3-11  
     SCS-375 3-4  
     SCS-376a, b, c 7-13  
     SCS-533 3-9, 3-11, 6-4  
     SCS-533a 4-6  
     SCS-534 3-3, 3-9, 3-11  
 foundations 1-14, 1-34 (table 1-10), 2-1, 3-1, 3-3, 7-10  
 foundation sampling 3-1, 7-1, 7-4  
  
 geologic profiles 4-4, fig. 4-1  
 geologic  
     reconnaissance 1-17  
     geologic report 6-4, 7-13  
     geologic symbols fig. 1-3  
     geophysics 2-8, fig. 2-4, fig. 2-5, fig. 2-6  
     gradation 1-2, 1-11, 1-23  
     grade scale 1-3 (table 1-1)  
     grain 1-2  
     grain size 1-23, fig. 1-4  
     graphic logs 4-3  
     ground water 7-12  
     gypsum, test for 1-19  
  
 hand auger 2-6  
 hardness 1-6  
 hole cleaning 2-59  
  
 joints 1-18  
  
 labeling 3-10  
 liquid limit 1-8  
 loading values 7-5, 7-7 (table 7-1), 7-8 (table 7-2)  
 logging chapter 4  
  
 mapping 6-4  
 mass characteristics 1-8  
 materials iv, chapter 1  
 mineral composition 1-5

## INDEX (Cont'd.)

- mineral hardness 1-6  
 mines 1-14  
moisture content 1-9  
  
 natural log table 2-28 (table 2-3)  
 numbering of holes 4-1, 7-4  
  
 open-drive samples 2-38, fig. 2-14  
 outcrops 2-1  
  
 packaging of samples 3-5  
 packer 3-6  
 packer test 2-25, fig. 2-12  
 paleontology 1-18  
 particle characteristics 1-2, 1-5  
 particle shape 1-2, 1-5, fig. 1-1  
 particle size 1-2  
 penetration test 2-13, 2-15 (table 2-1), 2-47  
 percussion drilling 2-7  
 permeability 1-9, 1-10 (table 1-2), 2-17, fig. 2-9, 3-3, 7-13  
     conversion factors 1-10 (table 1-2)  
 physical properties of materials 1-8  
 piston samplers 2-38, fig. 2-15  
 plasticity index 1-8  
 plastic limit 1-8  
 power auger 2-6  
 pressure tests 2-19, fig. 2-9, fig. 2-10, 5-5  
 principal spillway 3-2, 7-6  
 pump tests 2-22  
 photo-interpretation 6-2  
  
 reference data,  
     geologic 6-1  
 relief wells 3-3, 7-10  
 reports (see geologic reports)  
 resistivity 2-11, fig. 2-6  
 rock 1-1, 1-14  
 rock core barrel 2-52, fig. 2-17, fig. 2-18  
 rock core samples 3-2, 3-5  
 rock excavation 1-14, 5-5, 7-9  
 rock properties 1-2, 1-11  
 rock strength 1-11  
 rock structure 1-11  
 rock workability 1-15  
 roller bits 2-62, fig. 2-22  
 rotary drilling 2-8, fig. 2-27

## INDEX (Cont'd.)

- safety i.  
 sample catch pan 2-68  
 sample containers 3-10  
 sample, disturbed 3-1, 3-7  
 sample holes 7-11  
 sample labeling 3-6, 3-10  
 sample needs 3-1, 3-7  
 sample recovery ratio 4-7  
 sample shipping 3-10  
 sample size requirements 3-4, 3-7  
 sample storing 3-6  
 sample, undisturbed fig. 2-1, fig. 2-2, fig. 2-3, 3-1, 3-2, 3-4  
 samplers, abbreviation 4-7  
 samples chapter 3  
 sampling requirements 3-1, 5-6, 7-11  
 sampling tools 2-15, 2-38, 2-39 (table 2-7), 2-40 (table 2-8), 2-43 (table 2-9), 2-52, fig. 2-17, fig. 2-18, 2-55 (table 2-10), 7-3  
 scale 4-4  
 sealing 3-3  
 seismic refraction 2-9, fig. 2-4, fig. 2-5  
 shape of particles (see particle shape)  
 shearing strength 1-11, 1-14  
 Shelby tube sampler 2-38, 2-40 (table 2-8), fig. 2-14, 2-43 (table 2-9)  
 shine test 1-19  
 shrinkage limit 1-8  
 silt 1-2  
 site investigation chapters 5, 6, 7  
 size distribution 1-23  
 slush pits 2-68  
 soils 1-2, 1-21  
 soil mechanics 3-4, 3-7  
 soil properties 1-22 (table 1-4)  
 spillways iv, 3-2, 5-5, 7-6  
 split-barrel sampler fig. 2-7, 2-38, 2-46, 7-3  
 stabilizing bore holes 2-74  
 standard penetration (see penetration test)  
 test 1-15  
 stratigraphy 1-11  
 strength of rocks 7-7 (table 7-1)  
 stress values 1-17  
 structure, geologic 1-11  
 structure of rocks 7-1  
 subsurface investigation fig. 1-3  
 symbols, geologic

## INDEX (Cont'd.)

- test,  
   calcium carbonate      1-19  
   chemical analysis of  
     water                5-7  
   clay mineral            1-20  
   dilatancy             1-25, 1-27 (table 1-6), 1-28 (table 1-7), fig. 1-5  
   dry strength          1-25, 1-27 (table 1-6), 1-28 (table 1-7), fig. 1-5  
   field penetration     2-13, 2-15  
   gypsum                1-19  
   organic material      1-19  
   permeability          2-17, fig. 2-9, fig. 2-10, fig. 2-11, fig. 2-12,  
     fig. 2-13, 3-5  
   pressure              2-19, fig. 2-9, fig. 2-10  
   pumping-in           2-22, fig. 2-11  
   toughness             1-25, 1-27 (table 1-6), 1-28 (table 1-7), fig. 1-5  
   triaxial-shear       3-5  
   vane-shear            2-17, fig. 2-8  
   well permeameter     2-29, fig. 2-13, 2-32 (table 2-4) 2-34 (table 2-5)  
   test holes            ii, 1-16, 2-6, 2-7<sup>4</sup>, 5-2, 7-4  
   test hole numbering  
     system             4-1, 7-4  
   test pit             ii, 2-1  
   texture              1-11  
   thin-wall drive  
     sampler            fig. 2-14, 7-3  
   tracers, dye        ii, 7-13  
   trenches            ii, 2-1  
  
   undisturbed sample  
   unified soil classi-  
     fication           (see sample, undisturbed)  
  
   vane shear           2-17, fig. 2-8  
  
   wash boring           2-7  
   water, chemical  
     analysis           3-4, 5-7  
   water table          4-3, 7-12  
   water trucks         2-69  
   wax seal for samples 3-6  
   weathering           1-13  
   well permeameter     (see under test)  
   workability of rock   1-15  
   written logs         4-6

