

Indian Standard

**SUBSURFACE EXPLORATION FOR CANALS AND
CROSS DRAINAGE WORKS — CODE OF PRACTICE**

(First Revision)

1 SCOPE

This standard provides guidance on the type, extent and details of subsurface explorations needed in connection with the following items of work:

- a) *Canals* — Stability of banks and bed in:
 - 1) cutting, and
 - 2) tilling.
- b) *Canals* — Water loss due to seepage and water logging in the command area.
- c) *Canals* — Selection of lining with reference to the characteristics of bed material, permeability, subsoil water table and salinity.
- d) *Cross drainage structures* — Design and construction of the foundation for head regulators, cross-regulators, drops or falls, super passages, syphons, aqueducts, level crossings and bridges.
- e) Borrow area investigations for the suitability of material to be used for canal embankments and necessary compaction procedure.

2 REFERENCES

The standards listed below contain provisions which through reference in this text constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreements based on these standards are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below :

<i>IS No.</i>	<i>Title</i>
1498 : 1970	Classification and identification of soils for general engineering purposes (<i>first revision</i>)
1892 : 1979	Code of practice for subsurface investigations for foundations (<i>first revision</i>)
1888 : 1982	Method of load test on soils
2131 : 1981	Method for standard penetration test for soils (<i>first revision</i>)
2720 (Part 1) : 1983	Method test for soils: Preparation of dry soil samples for various tests (<i>second revision</i>)
(Part 2) : 1973	Determination of water content (<i>second revision</i>)
(Part 5) : 1985	Determination of liquid and plastic limit (<i>second revision</i>)

(Part 7) : 1980	Determination of water content dry density relation using light compaction (<i>second revision</i>)
(Part 13) : 1986	Direct shear test (<i>second revision</i>)
(Part 14) : 1983	Determination of density index (relative density) of cohesionless soils (<i>first revision</i>)
(Part 21) : 1977	Determination of total soluble solids (<i>first revision</i>)
(Part 28) : 1974	Determination of dry density of soils in place, by the sand replacement method (<i>first revision</i>)
4078 : 1980	Code of practice for indexing and storage of drill cores (<i>first revision</i>)
4434 : 1978	Code of practice for <i>in-situ</i> vane shear test for soils (<i>second revision</i>)
4453 : 1980	Code of practice for subsurface exploration by pits, trenches, drifts and shafts (<i>first revision</i>)
4464 : 1985	Code of practice for presentation of drilling information and core description in foundation investigation (<i>first revision</i>)
4968 (Part 1) : 1976	Method for subsurface sounding for soils : Dynamic method using 50 mm cone without betonity slurry (<i>first revision</i>)
(Part 2) : 1976	Dynamic method using cone and bentonite slurry (<i>first revision</i>)
(Part 3) : 1976	Static one penetration test (<i>first revision</i>)
5529 (Part 1) : 1985	Code of practice or in-situ permeability test: Test in overburden (<i>first revision</i>)
(Part 2) : 2006	Tests in bedrock (<i>second revision</i>)
6403 : 1981	Code of practice for determination of bearing capacity of shallow foundations (<i>first revision</i>)
6926 : 1996	Diamond core drilling — Site investigation for river valley projects — Code of practice (<i>first revision</i>)
7422 (Part 1) : 1974	Symbols and abbreviations for use in geological maps, sections and subsurface exploratory logs: Abbreviations
(Part 2) : 1974	Igneous rocks
(Part 3) : 1974	Sedimentary rocks
(Part 4) : 1985	Metamorphic rocks
(Part 5) : 1992	Line symbols for formation contacts and structural features
9214 : 1979	Method for determination of modules of subgrade reaction (k-value) of soils in the field
15662 : 2006	Recommendations for preparation of geological and geotechnical maps for river valley projects
15686 : 2006	Recommendations for preparation of geological and geotechnical maps for river valley projects