รายการอ้างอิง

ภาษาไทย

สถาพร คูวิจิตรจารุ. 2541. ทดลองปฐพีกลศาสตร์. กรุงเทพฯ : ไลบรารี่ นาย.

สุรฉัตร สัมพันธารักษ์. 2540. วิศวกรรมปฐพี. กรุงเทพฯ : วิศวกรรมสถานแห่งประเทศไทย.

ภาษาอังกฤษ

ASTM Standard. Standard Test Method for One Dimensional Properties of Soils Testing Controlled-Strain Loading. Annual Book of ASTM Standards. Designation: D4186-89. 04.08 (1991) : 565-569.

ASTM Standard. Standard Test Method for 1-D Consolidation Properties of Soils. Annual Book of ASTM Standards. Designation: D2435-80. 04.08 (1980) : 378-384.

Barron, R. A. Consolidation of Fine-grained Soils by Drain Wells. Trans. ASCE. 113 (1948) : 718-754.

Brand, E. W. and Tsai, C. T. Dissipation of Pore Pressure During One Dimensional Consolidation on an Artificial Marine Clay. AIT Research Report No. 40, 1973.

Burland, J. B. On the Compressibility and Shear Strength Natural Soils. Geotechnique 40, 3 (1990) : 329-378.

Casangrande, A. The Determination of the Preconsolidation Load and its Practical Significance. Proceeding of the 1st International Conference on Soil Mechanics and Foundation Engineering. 3, 60-64, Cambridge, MA,1936.

Chakrabarti, S. and Horvath, R.G. On the Importance of Rate of Strain in the Consolidation Test. Canadian Geotechnical Journal 22 (1985) : 254-258.

Crawford, C.B. On the Importance of Rate of Strain in the Consolidation Test. Geotechnical Testing Journal 11, 1 (1988) : 60-62.

Das, B.J Principles of Foundation Engineering. 4th Edition. U.S.A : Brooks/Cole Publishing, 1999

Fearon, R. E. and Coop, M. R. Reconstituted: What Makes an Appropriate Reference Material ? Geotechnique 50, 4 (2000) : 471-477.

Fox, P. J. and Baxter, C. D. P. Consolidation Properties of Soil Slurries from Hydraulic Consolidation Test. Journal of Geotechnical and Geoenvironmental Engineering (August 1997) : 770-776.

Gonzalez, J. H. Experimental and Theoretical Investigation of Constant Rate of Strain Consolidation. Master Thesis, School of Civil Engineering, Massachusetts Institute of Technology, 2000.

Gorman C. T., Hopkins T. C., Deen R. C. and Drnevinch V. P. Constant Rate of Strain and Controlled Gradient Consolidation Testing. Geotechnical Testing Journal. 1, 1 (1978) : 3-15.

Harmilton, J. J. and Crawford, C. B. Improved Determination of Preconsolidation Pressure of a Sensitive Clay. ASTM Special Technical Publication. 254 (1959) : 254-270.

Hassan, S. I. Consolidation Behavior of Bangkok Clay Using a Constant Rate of Strain Consolidometer. No. GT-93-3, Master Thesis, School of Geotechnical Engineering, Asian Institute of Technology, 1993.

Imai, G. Development of a New Consolidation Test Procedure Using Seepage Force. Soils and Found. Tokyo, Japan, 19(3) (1979) : 45–60.

Jamiolkowski, M.; Ladd, C.C.; Germaine, J.T.; and Lancellotta, R. Now Developments in Field and Laboratory Testing of Soils. Proc. 11th International Conf. On Soil Mechanics and Foundation Engineering. pp.57-153. San Francisco, 1985

Janbu, N. and Senneset, K. Interpretation Procedures for Obtaining Soil Deformation Parameters. Proc. 7th ESCMFE. 1, 185-188, Brighton, 1979.

Keshian, B., Ladd, C. C. and Olson, R. E. Sedimentation-Consolidation Behaviour of Phosphatic Clays. Proceedings of the Conference on Geotechnical Practice for Disposal of Solid Waste Materials. 188-209, The U. of Michigan, Ann Arbor,1977.

Kim, S.K. Pore Pressure Development During One-Dimensional Consolidation of Soft Bangkok Clay. M.Eng Thesis AIT, 1970

Kumbasar, V. and Ozaydin, I. K. Consolidation Characteristics of Polluted Sea Bottom Sediments. Proceedings of the Eleventh International Conference on Soil Mechanics and Foundation Engineering. 1159-1162, 1985.

Lambe, T.W.; and Whitman, R.W. Soil Mechanics. New York : Willey, 1969

Lee, K., Choa, V., Lee, S. H. and Quek, S. H. Constant Rate of Strain Consolidation of Singapore Marine Clay. Geotechnique 43, 3 (1993) : 471-488.

Leroueil, S. Recent Developments in Consolidation of Natural Clays. Tenth Canadian Geotechnical Colloquium, Canadian Geotechnical Journal. 25 (1988) : 85-107.

Liu, M. D. and Carter, J. P. Modelling the Destructuring of Soils during Virgin Compression. Geotechnique 50, 4 (2000) : 479-483.

Mathew, P. K. and Rao, S. N. Influence of Cations on Compressibility Behavior of a Marine Clay. Journal of Geotechnical and Environment Engineering (1997) : 1071-1073.

Matsui, K. On the Effect of Diagenesis on Compressibility of Osaka Bay Clays. Master's Thesis Kyoto University, 1994

Mesri, G.; and Godlewski, P.M. Time-and Stress-Compressibility interrelationship Journal of the Geotechnical Engineering. ASCE. 103, GT 5 (1977): 417-430

Mesri, G.; and Choi, Y.K. The Uniqueness of the end of Primary (EOP) Void Ratio Effective Stress relationship. Proc. 9th ICSMFE. 2 pp.587-590. , 1985 a

Mesri, G.; and Choi, Y.K. Settlement Analysis of Embankment on Soft Clays. Journal of the Geotechnical Engineering. ASCE. 111, GT 4 (1985 b): 441-464

Mesri, G.; Terzaghi, K.; and Peck, R.B. Soil Mechanics in Engineering Practice. New York : John Wiley & Sons, 1996

Mitchell, J.K. Fundamental of Soil Behavior. 2nd Edition. U.S.A : John Wiley & Sons,1993

Reinmanorom, S. One-Dimensional Consolidation Characteristics of Soft Nong Ngoo Hao Clay. M.Eng Thesis AIT, 1974

Rowe, P. W. and Barden, L. A New Consolidation Cell. Geotechnique 16, 2 (1966) : 162-170.

Sallfors, G. Preconsolidation Pressure of Soft Highly Plastic Clay. Chalmers University of Technology, Goteburg, Sweden, 1975.

Schmertmann, J. M. The Undisturbed Consolidation of Clay. Trans. ASCE. 120 (1955) : 1201-1233.

Seah, T. H. Anisotropy of Resedimented Boston Blue Clay. Sc.D Thesis, Department of Civil Engineering, Massachusetts Institute of Technology, 1990.

Seah, T. H. Anisotropic Consolidation Behavior of Soft Bangkok Clay. Geotechnical

Testing Journal. ASTM, (Accepted for Publication in Sep, 2003).

Seah, T. H. Constant Rate of Strain Consolidation with Radial Drainage. Geotechnical Testing Journal. ASTM, (Accepted for Publication in Dec, 2003).

Sheahan, T. C. and Watters, P. J. Experimental Verification of CRS Consolidation Theory. Journal of Geotechnical and Geoenvironmental Engineering. ASCE. 123, 5 (1997) : 430-437.

Sinat, K. Consolidation Characteristics of Soft Bangkok Clay Using Constant Rate Strain Consolidometers. No. GT-97-14, Master Thesis, School of Geotechnical Engineering, Asian Institute of Technology, 1997.

Smith, R. E. and Wahls, H. E. Consolidation Under Constant Rate of Strain. Journal of Soil Mechanics and Foundation Division. ASCE. 95, SM2 (1969) : 519-539.

Taesiri, Y. Consolidation Characteristics of Rangsit Clay. M.Eng Thesis AIT, 1976

Taylor, D.W. Fundamental of Soil Mechanics. New York : John Wiley and Sons, 1948

Teerawut, J. Constant Rate of Strain Consolidation Test with Radial Drainage. No. GT-95-14, Master Thesis, School of Geotechnical Engineering, Asian Institute of Technology, 1995.

Terzaghi, K. Erdbaumechanik auf. Boden-physicalischen Grundlagen. Deuticke, Vienna, 1925.

Tsushida, T. Unified Model of e-log p Relationship of Clay and the Interpretation of Natural Water Content of Marine Deposits. Characterization of Soft Marine Clays, Tsuchida & Nakase (eds). pp.185-202. Balkema, Rotterdam, 1999

Tsushida, T. Settlement of Pleistocence clay layer in coastal area, the reason, prediction and measure Proc. Of Soft Soil Engineering. pp.67-94. Hongkong, 2001

Wissa, A. E. Z., Christian, J. T.,Davis, E. H. and Heiburg, S. Consolidation at Constant Rate of Strain. Journal of Soil Mechanics and Foundation Division. ASCE. 97, SM10 (1971) : 1393-1409.

Znidarcic, D., Schiffman, R. L., Pane, V., Croce, P., Ko, H. Y. and Olsen, H. W. Constant Rate of Deformation Testing and Analysis. Geotechnique 36, 2 (1986) : 227-237.

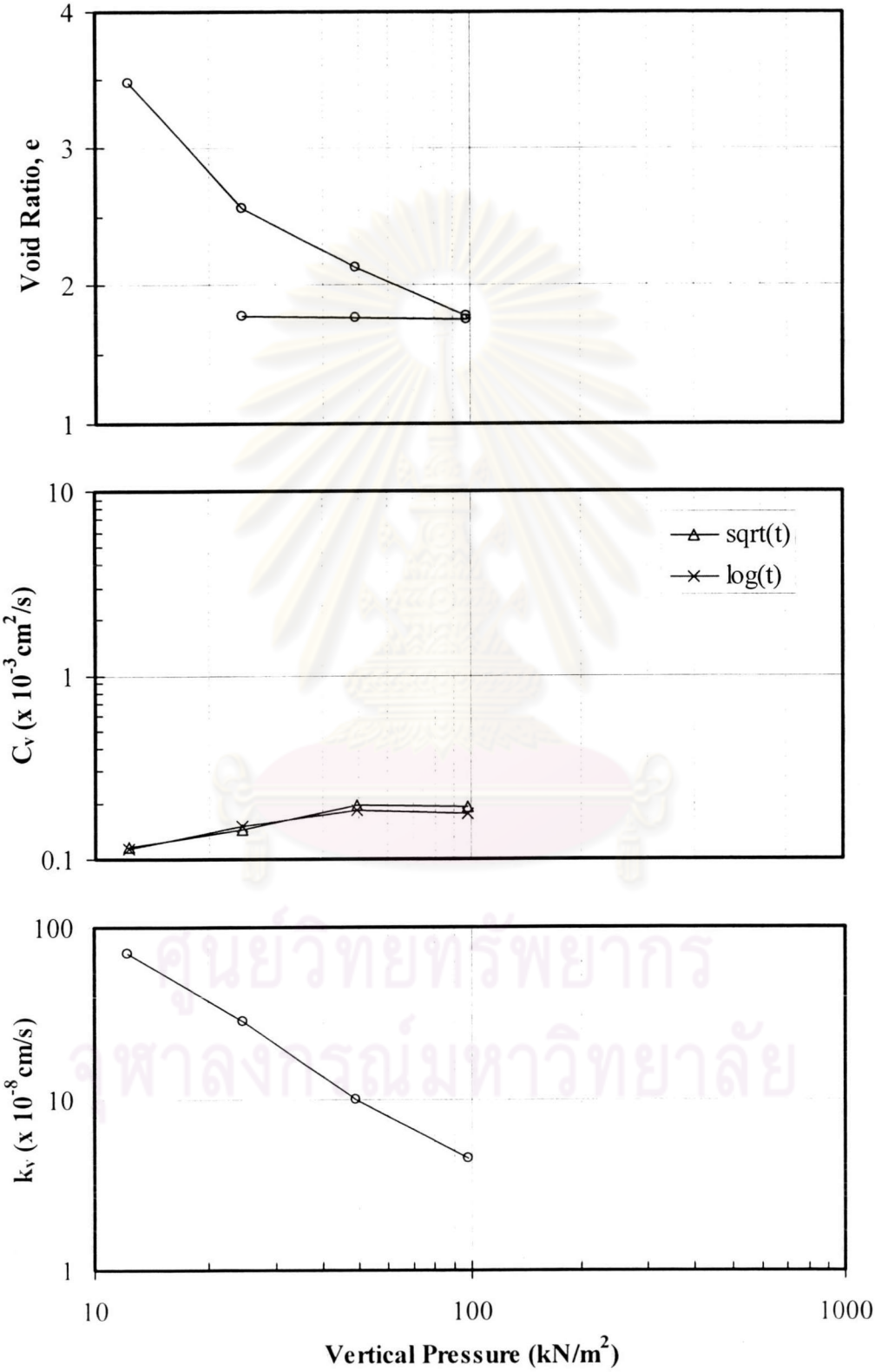
ภาคผนวก

ภาคผนวก ก.

ผลการทดสอบ Reconstituted Consolidation Test

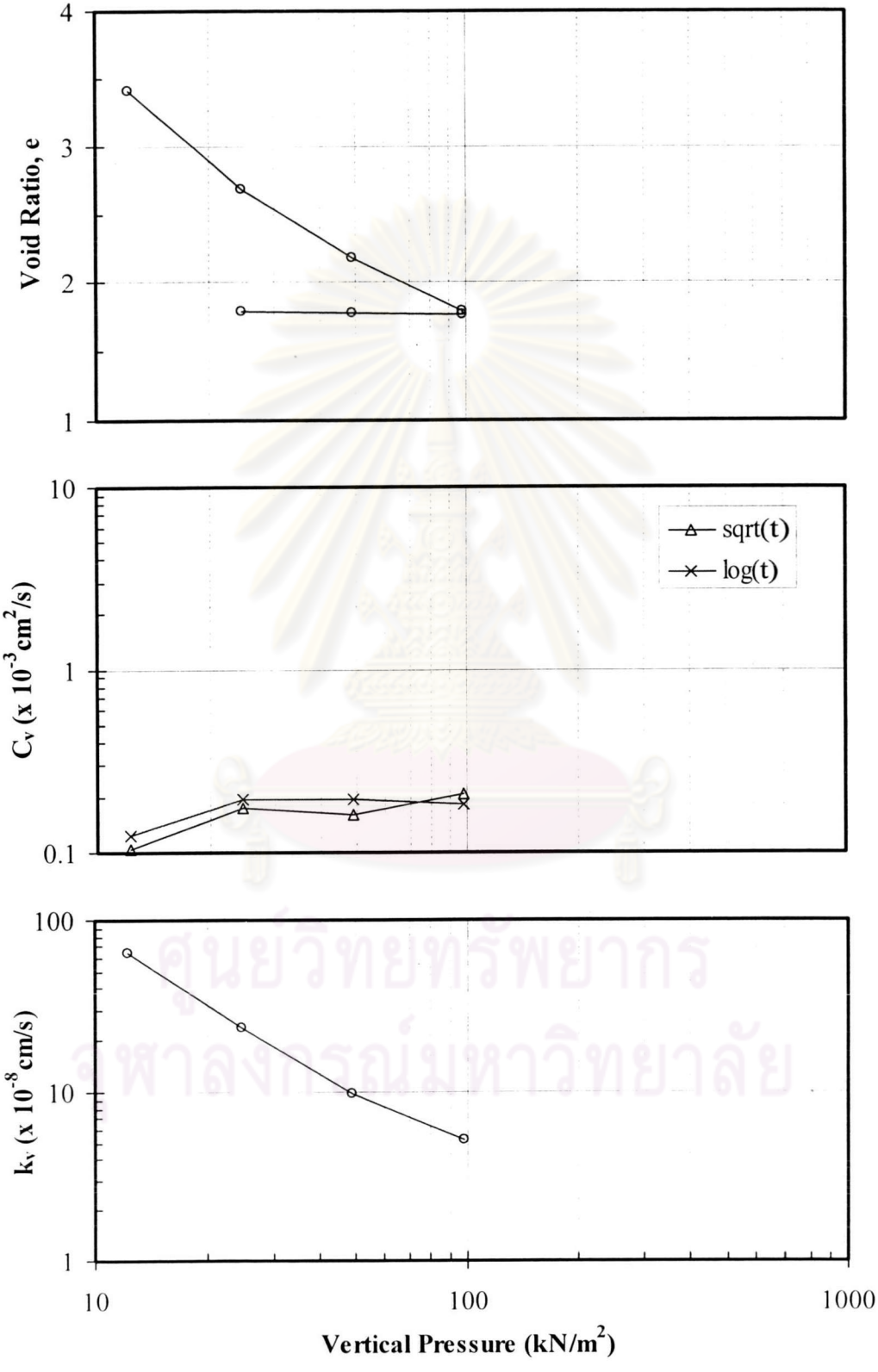
Reconstituted Consolidation Test

Sample No.: Batch2 Boring No.: BH-3 Depth : 5-8 m Date : 3 Sep 02



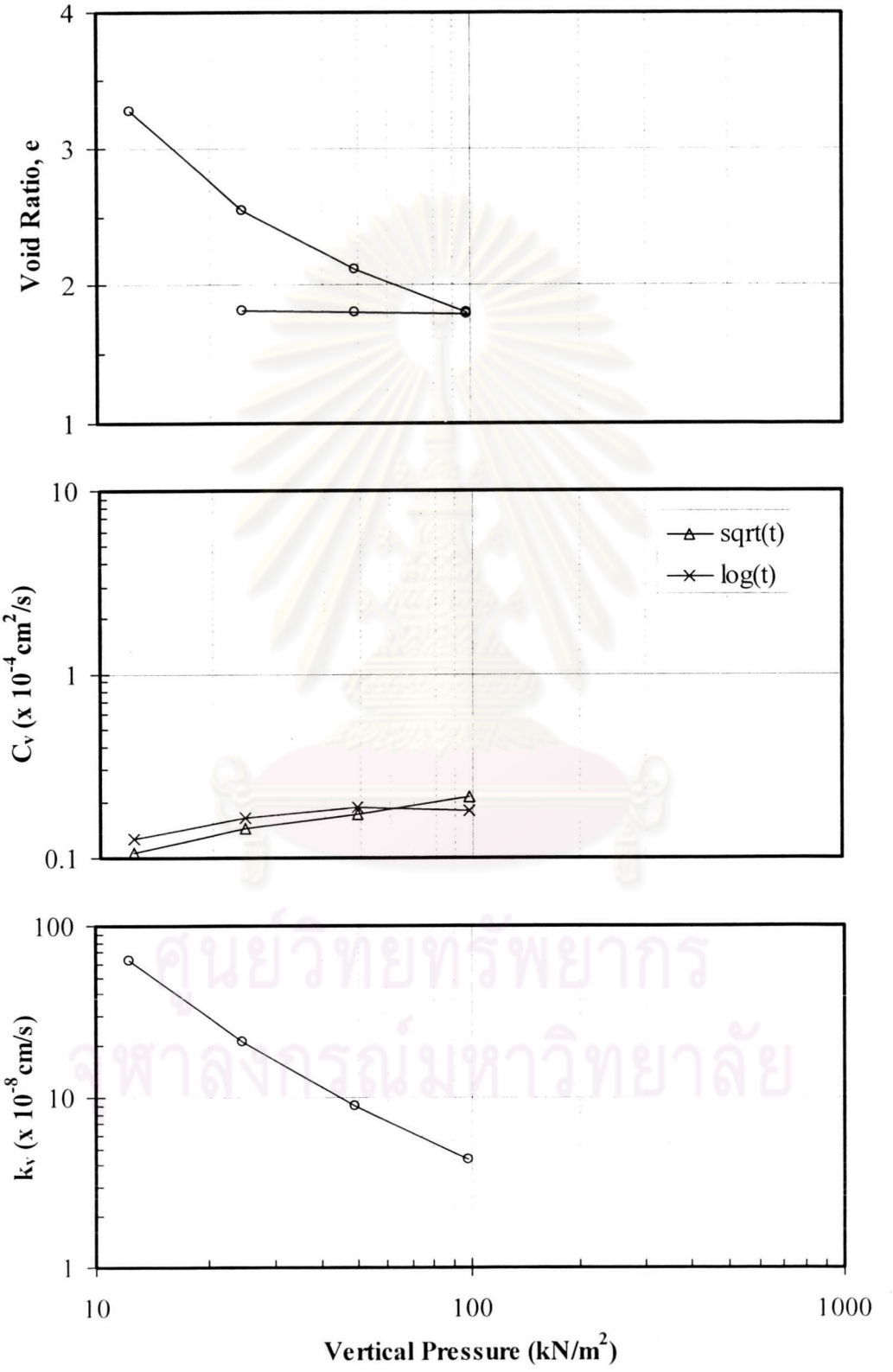
Reconstituted Consolidation Test

Sample No.: Batch3 Boring No.: BH-3 Depth : 5-8 m Date : 26 Sep 02



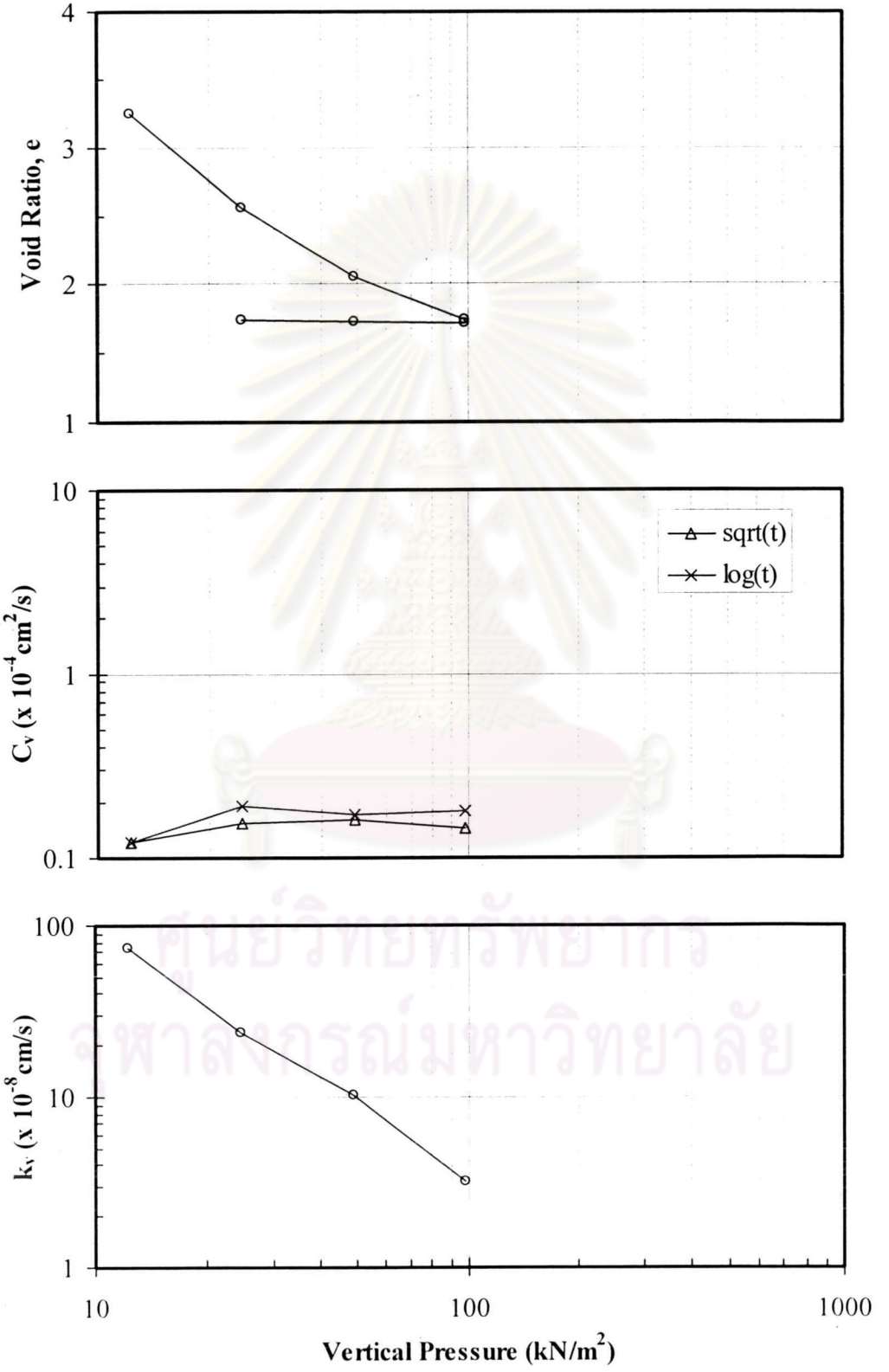
Reconstituted Consolidation Test

Sample No.: Batch4	Boring No.: BH-2	Depth : 5-8 m	Date : 21 Nov 02



Reconstituted Consolidation Test

Sample No.: Batch5 Boring No.: BH-2 Depth : 5-8 m Date : 8 Jan 03

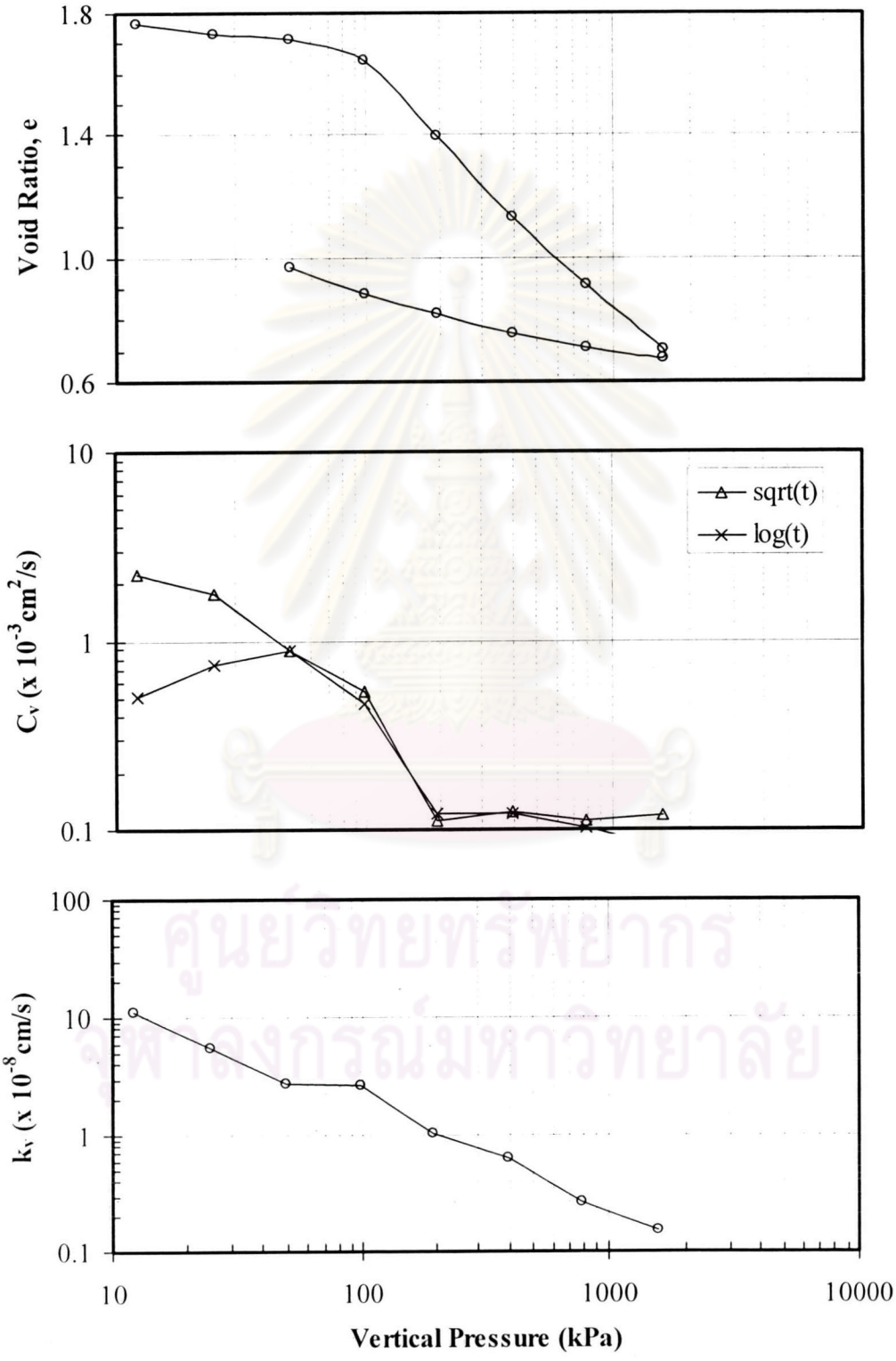


ภาคผนวก ข.

ผลการทดสอบอัดตัวคายน้ำ 1 มิติ ของตัวอย่างดินเหนียวสร้างใหม่ ด้วยเครื่องมือ Conventional Oedometer, CRS-V และ CRS-R

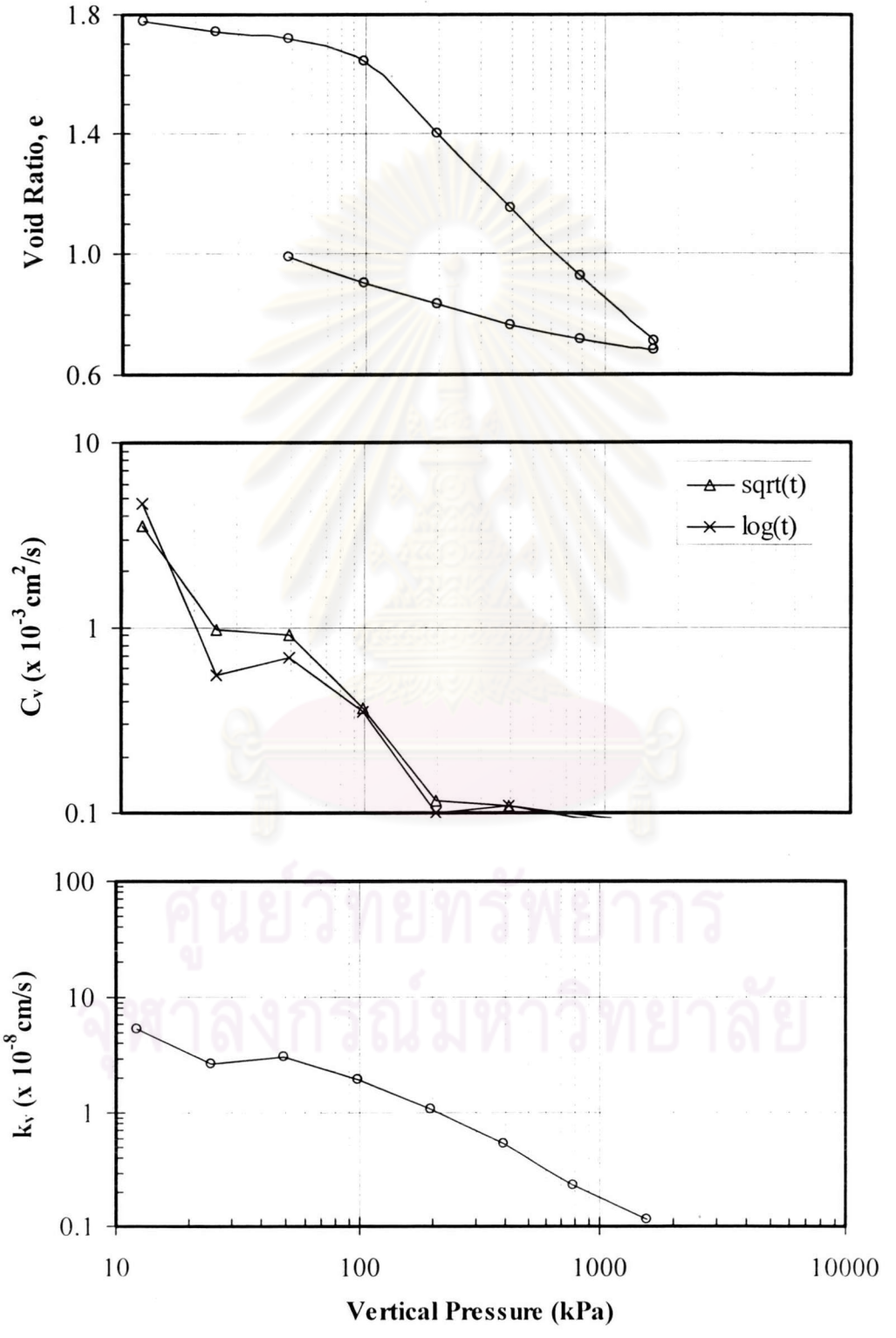
Conventional Oedometer Test on Reconstituted Clay

Sample No.: RCS31T | Batch No.: 3 | Date : 15 Feb 03



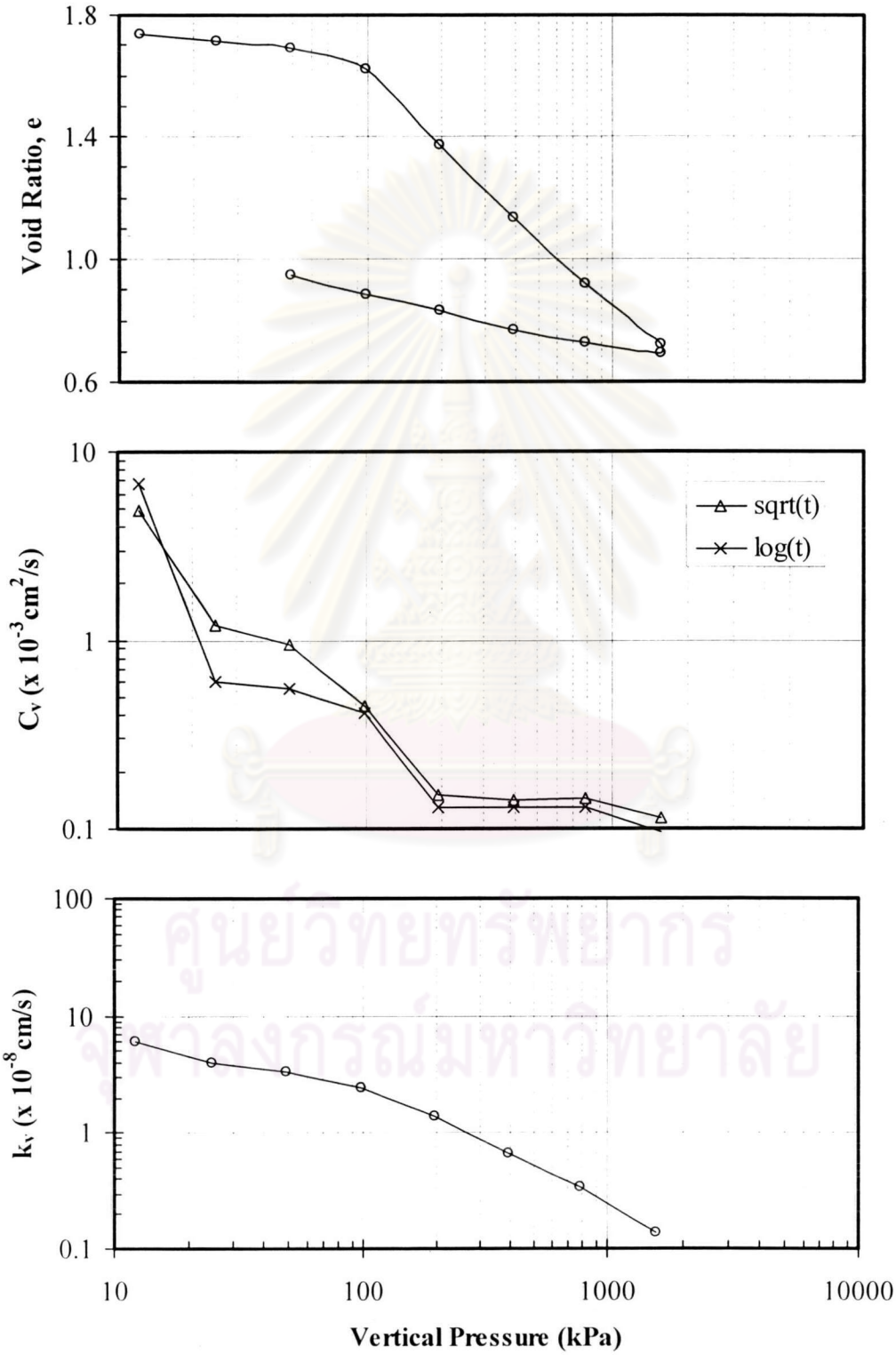
Conventional Oedometer Test on Reconstituted Clay

Sample No.: RCS32B | Batch No.: 3 | Date : 15 Feb 03



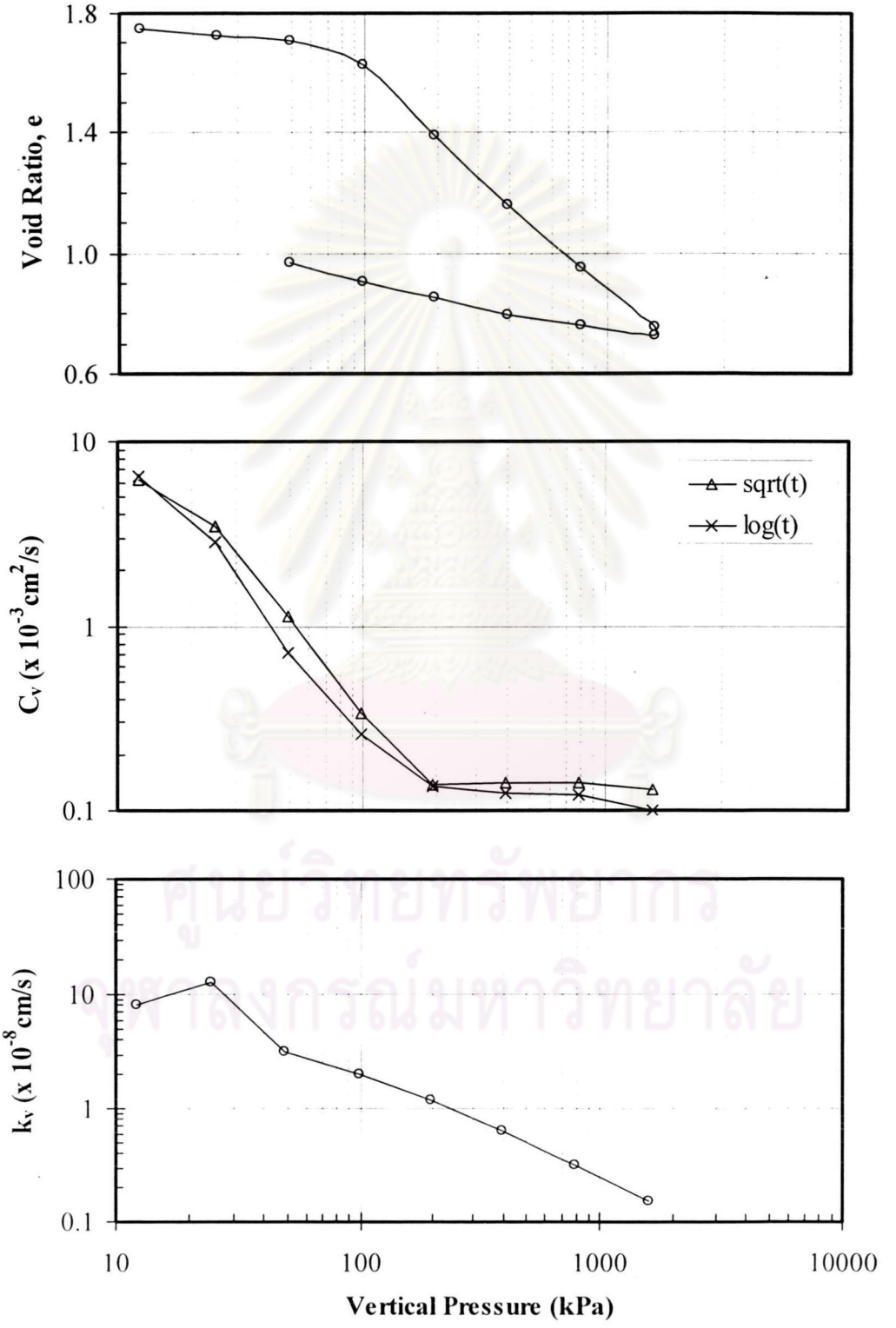
Conventional Oedometer Test on Reconstituted Clay

Sample No.: RCS51T | Batch No.: 5 | Date : 14 Feb 03



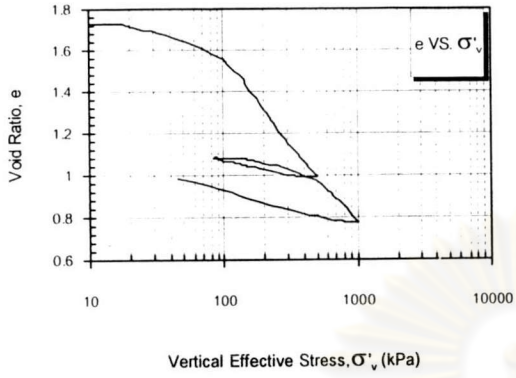
Conventional Oedometer Test on Reconstituted Clay

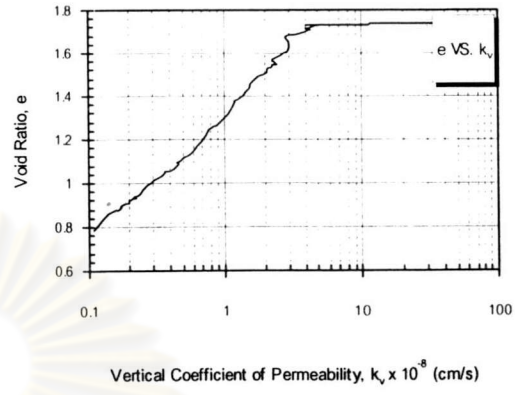
Sample No.: RCS52B | Batch No.: 5 | Date : 14 Feb 03

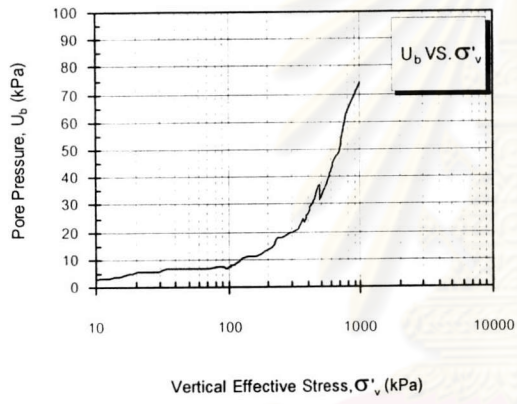


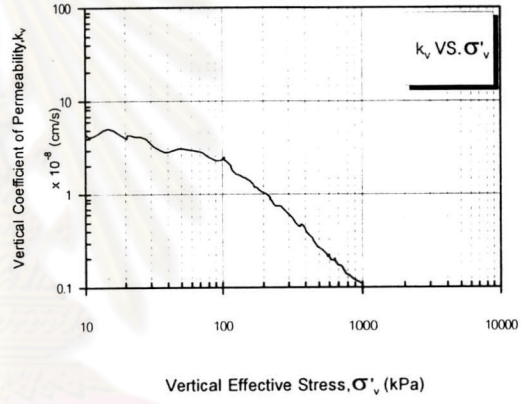
CRS-V Consolidation Test on Reconstituted Clay

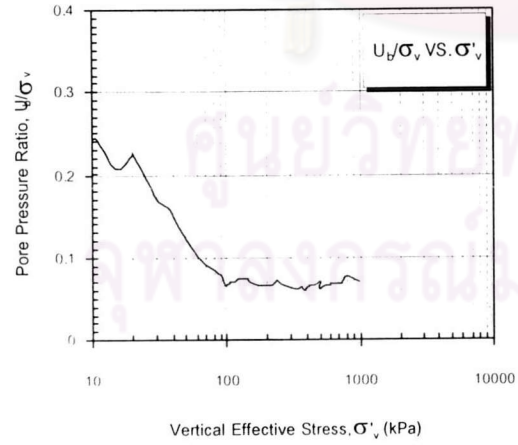
Sample No.: RCS23B **Batch No.:** 2 **Location :** Bottom

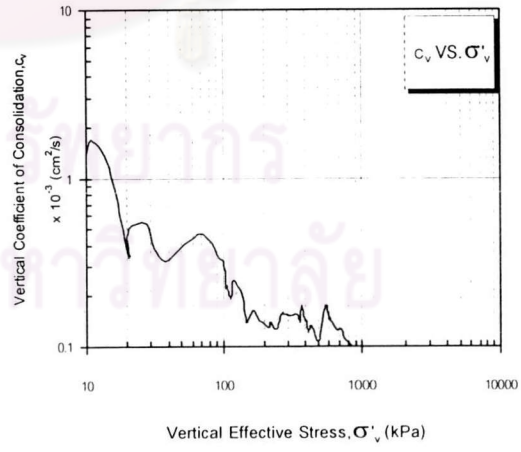






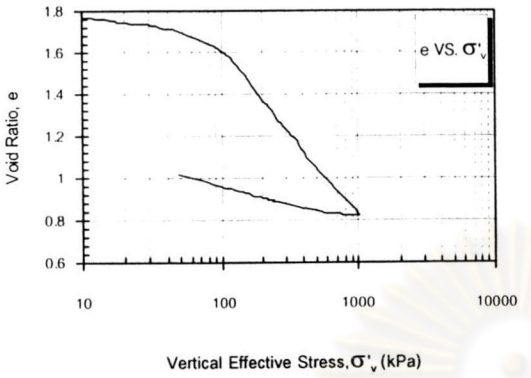


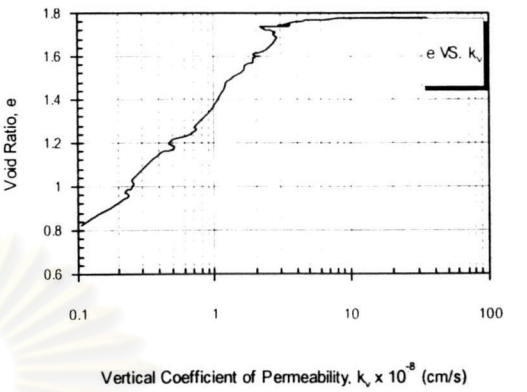


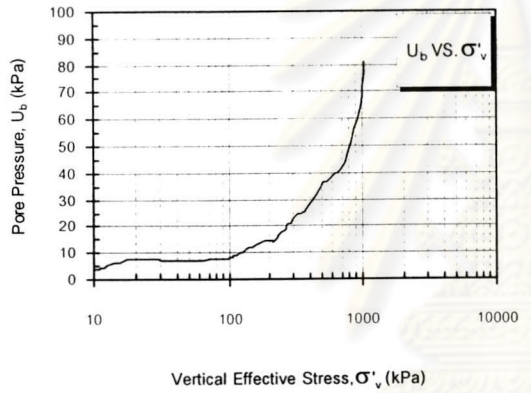


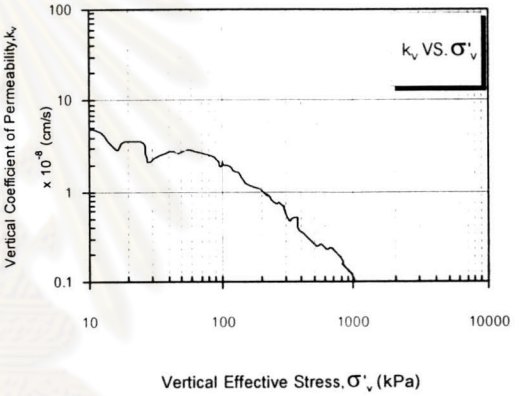
CRS-V Consolidation Test on Reconstituted Clay

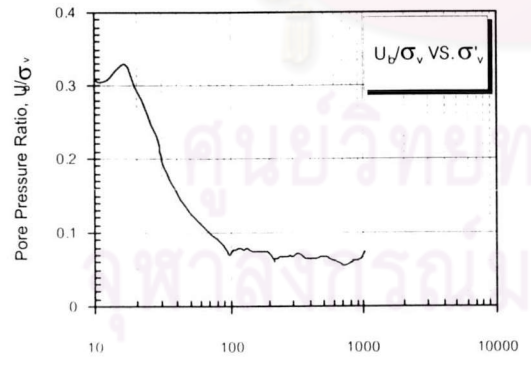
Sample No.: RCS35B **Batch No.:** 3 **Location :** Bottom

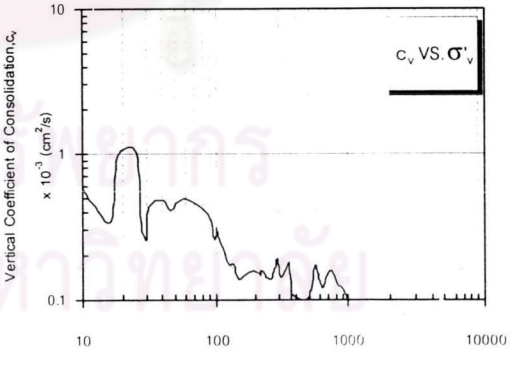






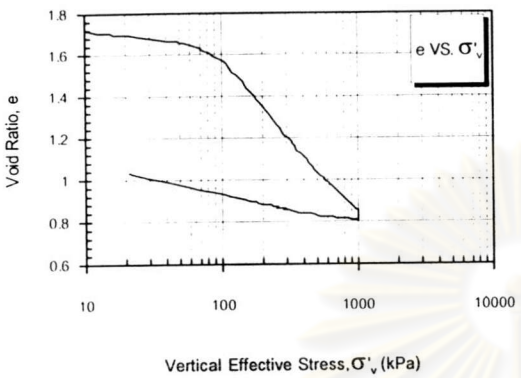


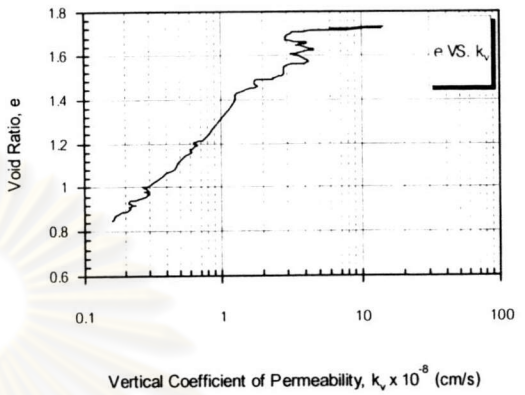


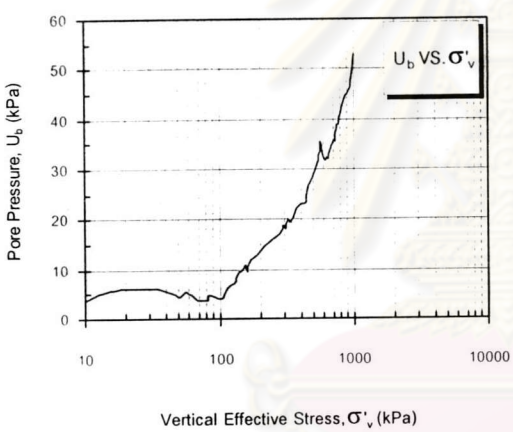


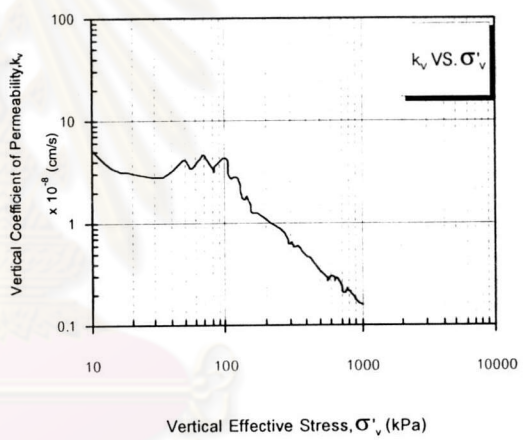
CRS-V Consolidation Test on Reconstituted Clay

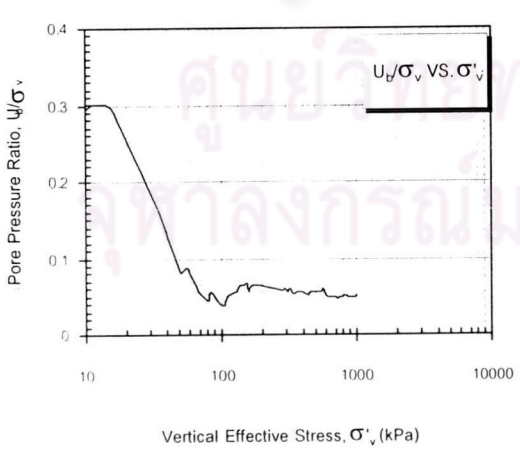
Sample No.: RCS41T Batch No.: 4 Location : Top

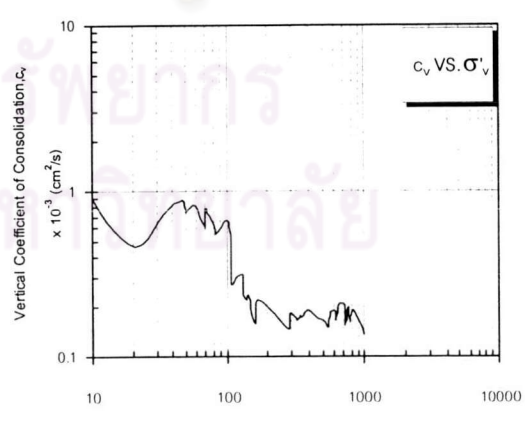






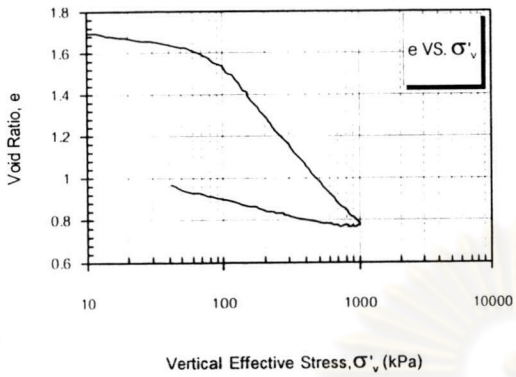


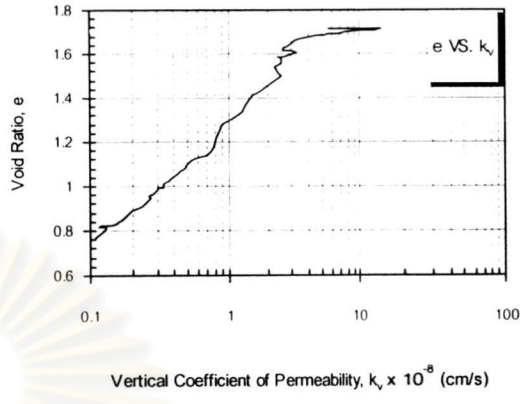


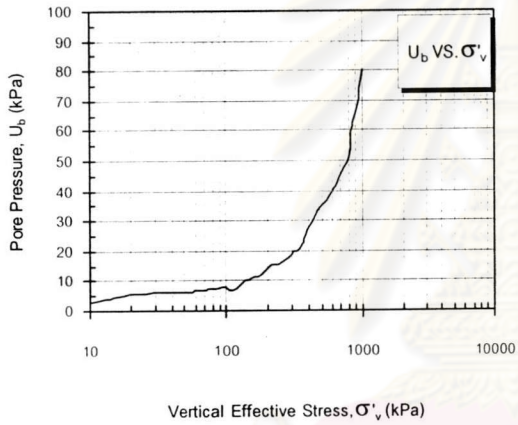


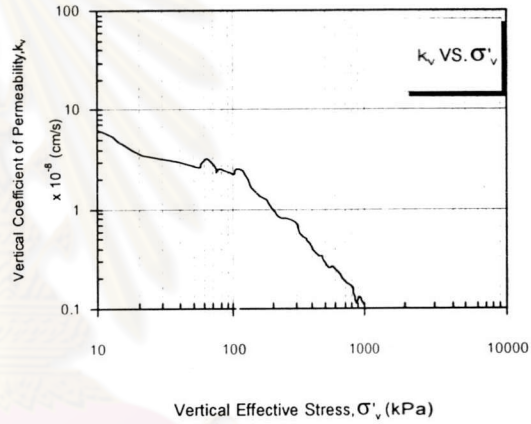
CRS-V Consolidation Test on Reconstituted Clay

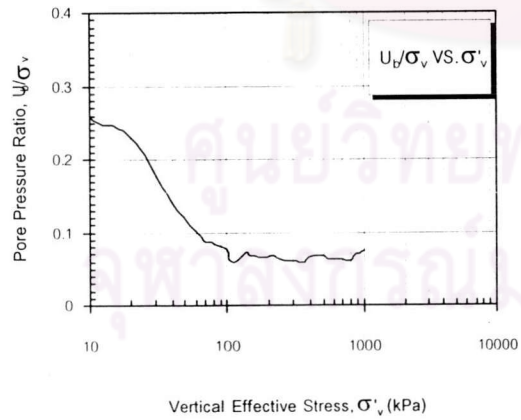
Sample No.: RCS53T Batch No.: 5 Location : Top

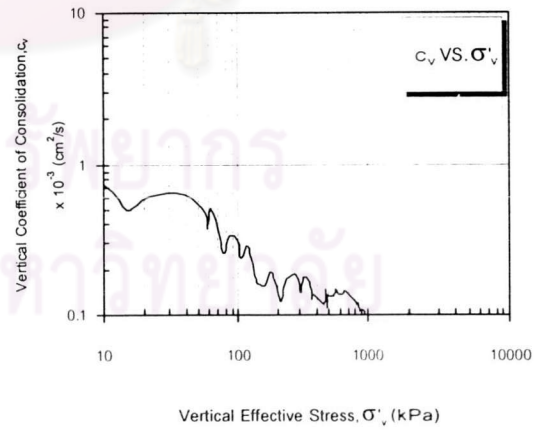






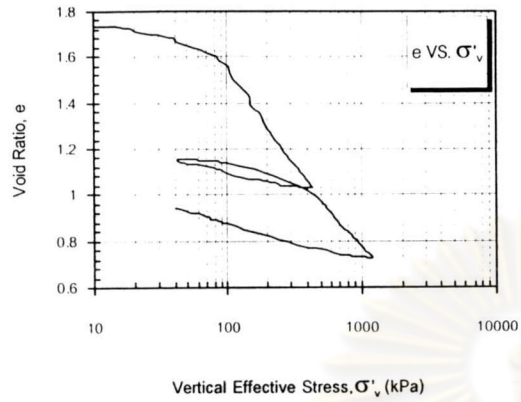


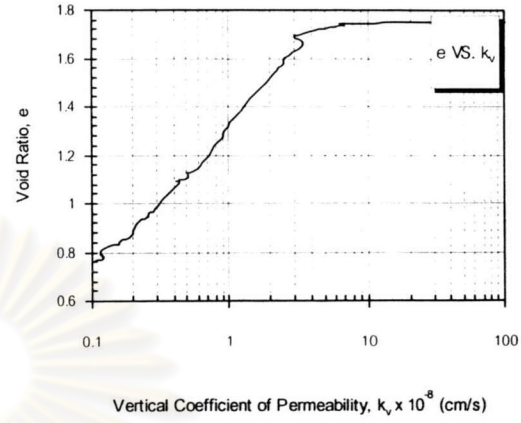


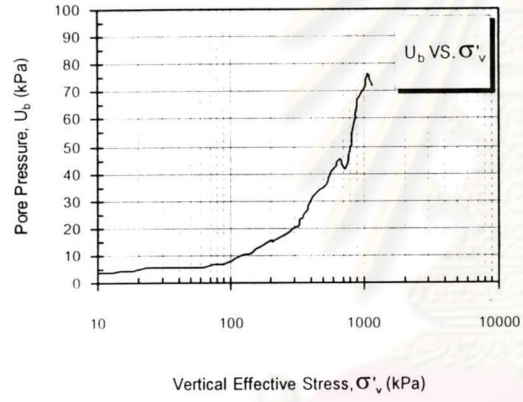


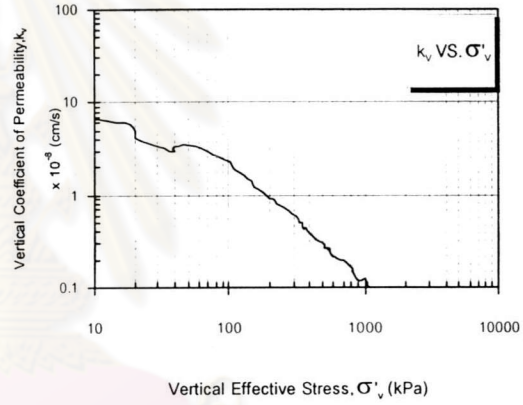
CRS-V Consolidation Test on Reconstituted Clay

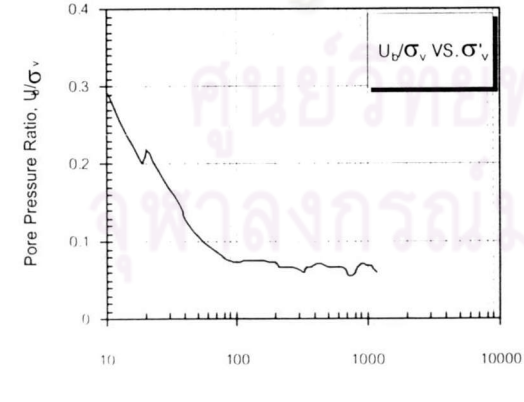
Sample No.: RCS55T **Batch No.:** 5 **Location :** Top

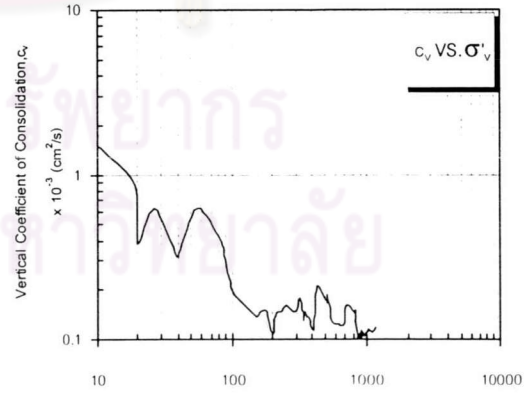






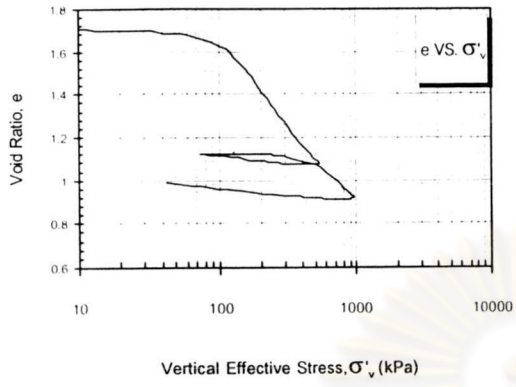


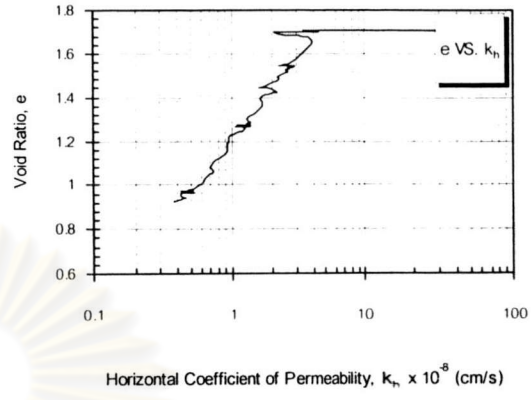


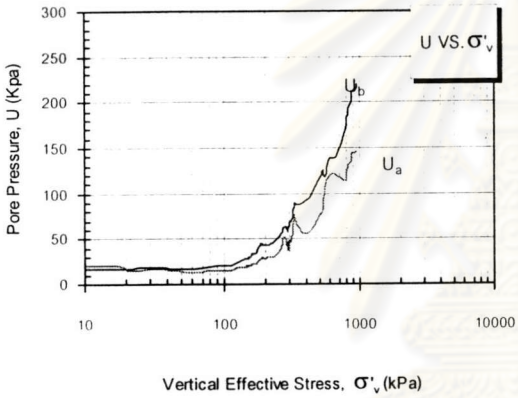


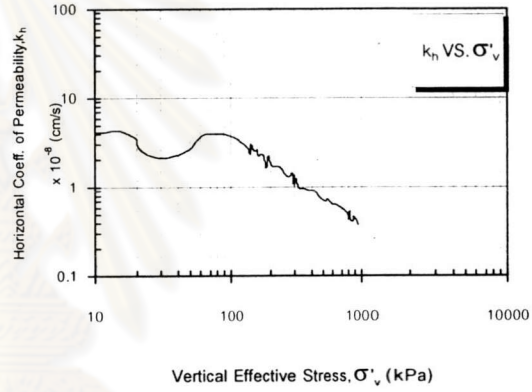
CRS-R Consolidation Test on Reconstituted Clay

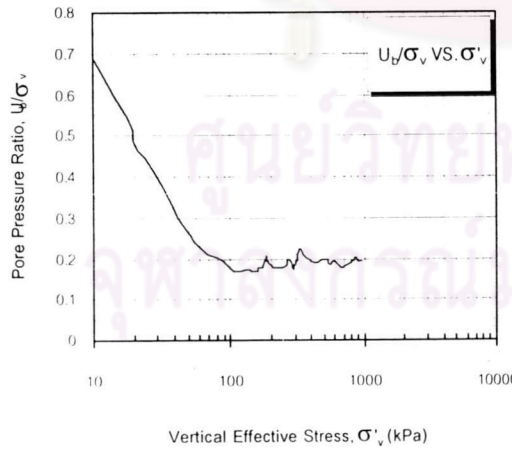
Sample No.: RCS24T Batch No.: 2 Location : Top

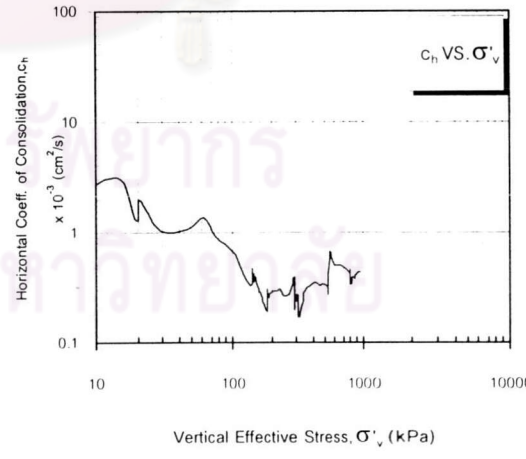






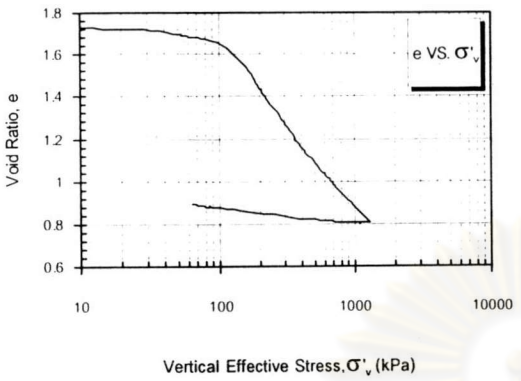


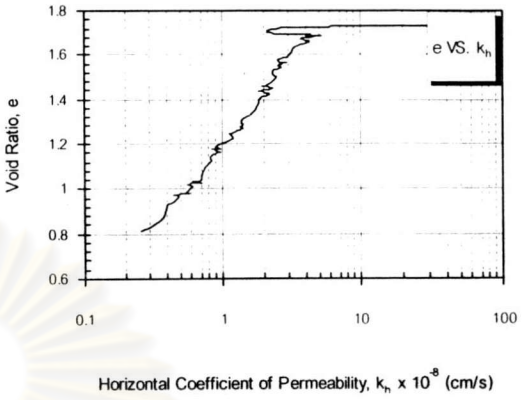


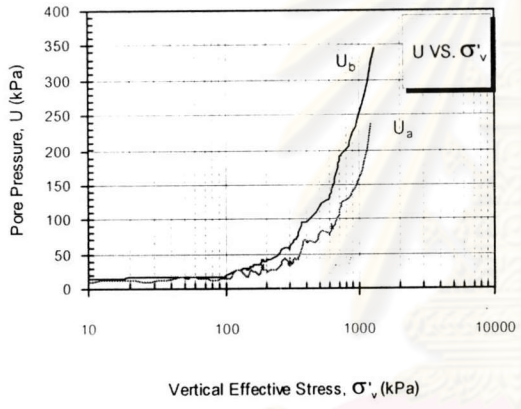


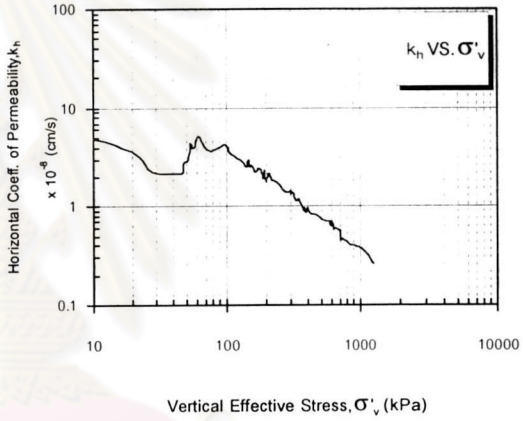
CRS-R Consolidation Test on Reconstituted Clay

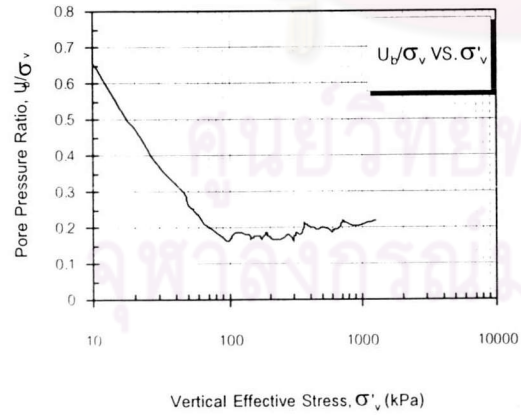
Sample No.: RCS36T **Batch No.:** 3 **Location :** Top

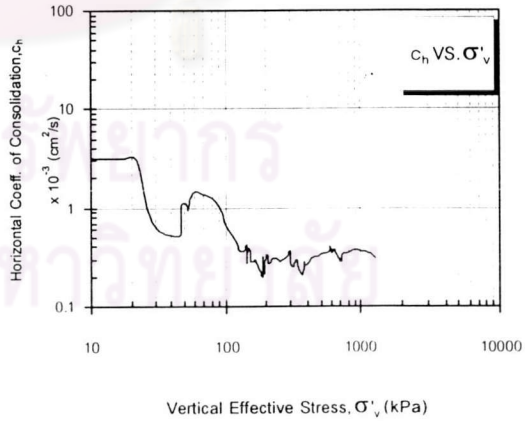






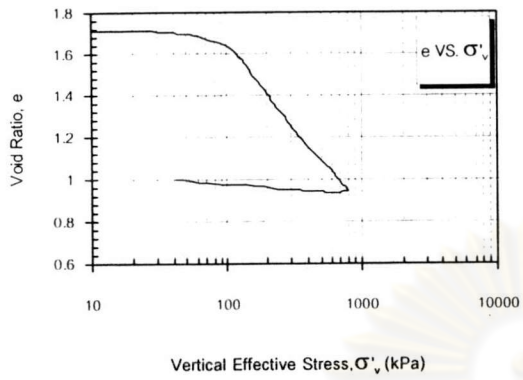


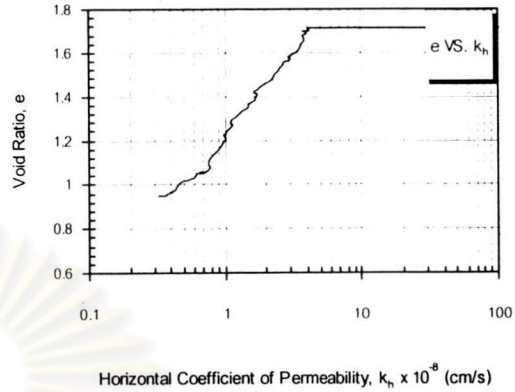


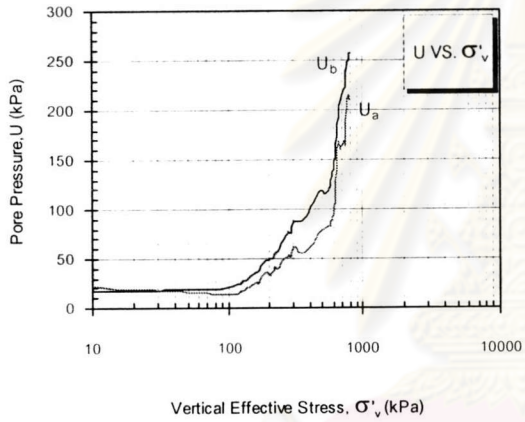


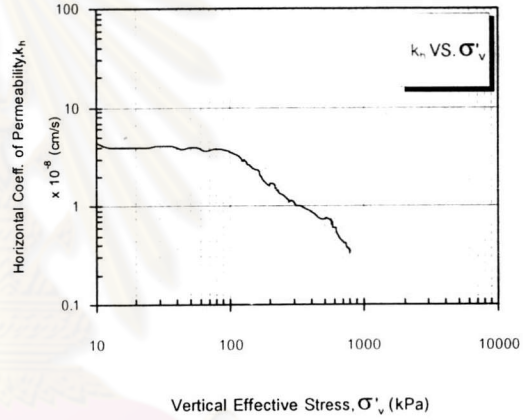
CRS-R Consolidation Test on Reconstituted Clay

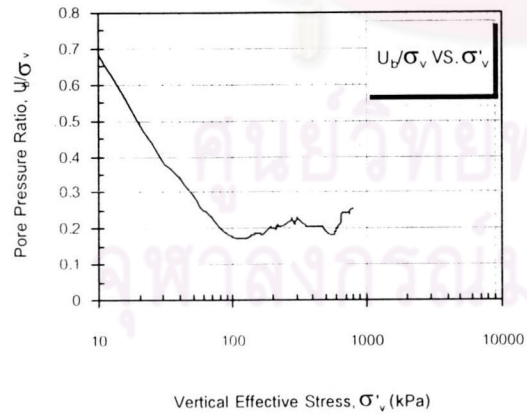
Sample No.: RCS43B Batch No.: 4 Location : Bottom

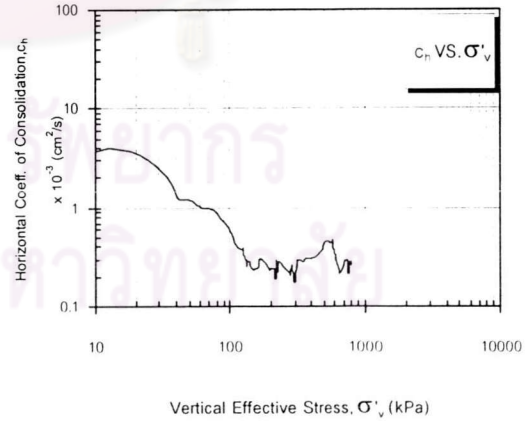






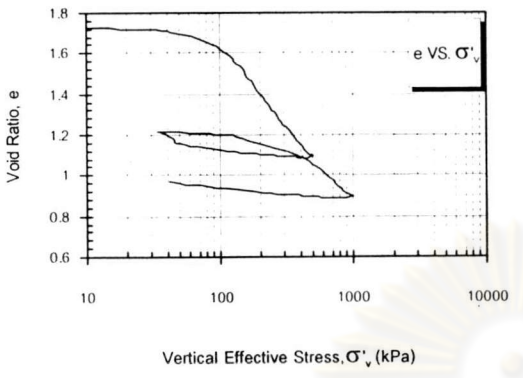


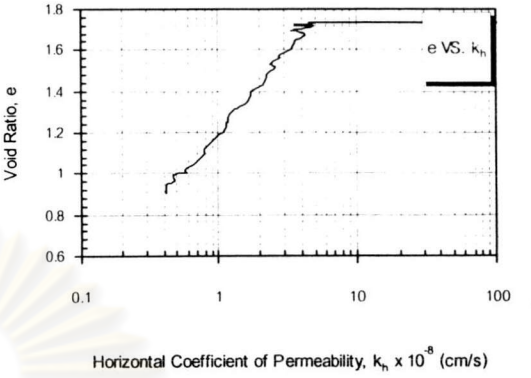


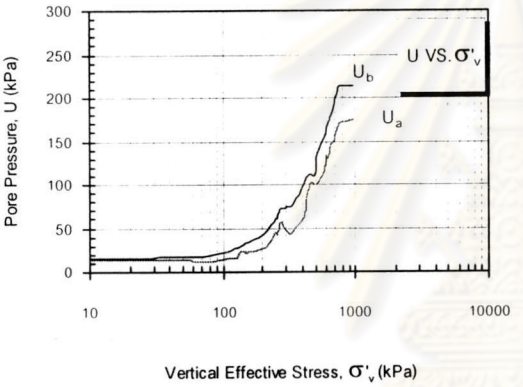


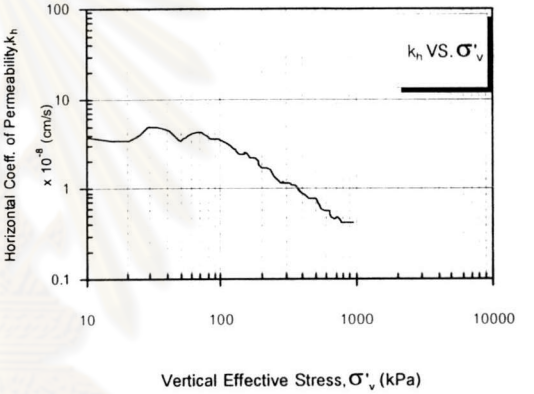
CRS-R Consolidation Test on Reconstituted Clay

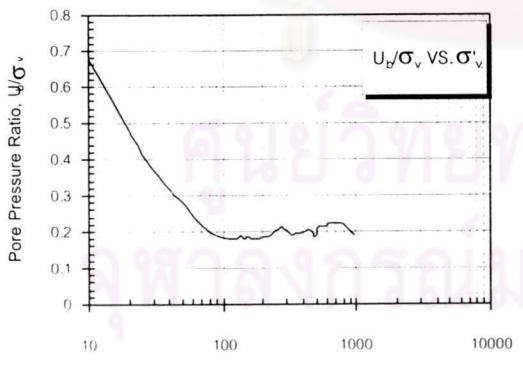
Sample No.: RCS56B **Batch No.:** 5 **Location :** Bottom

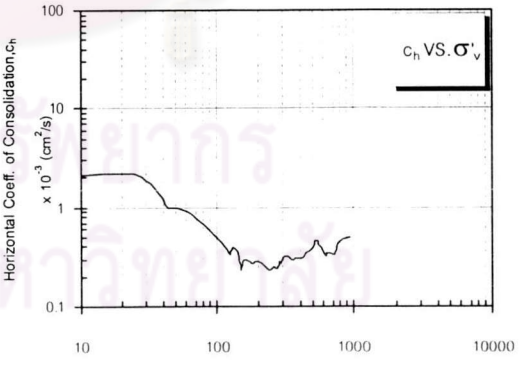










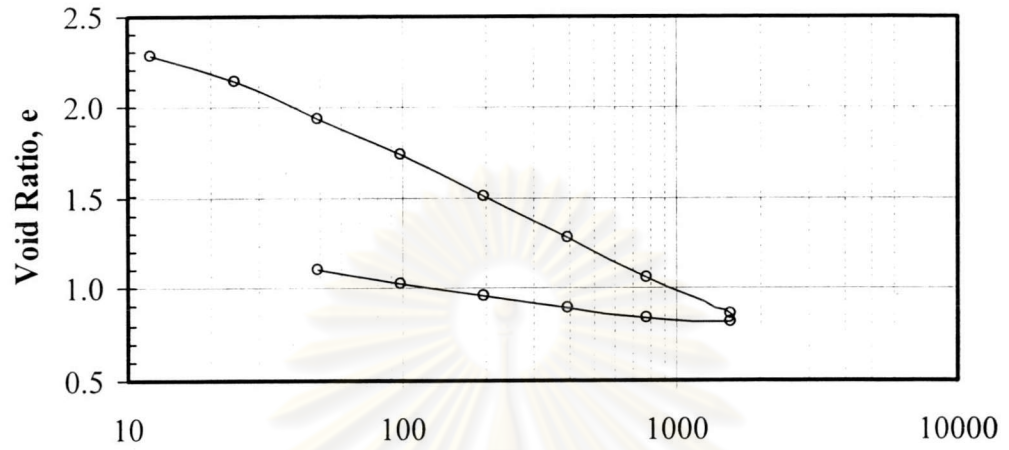


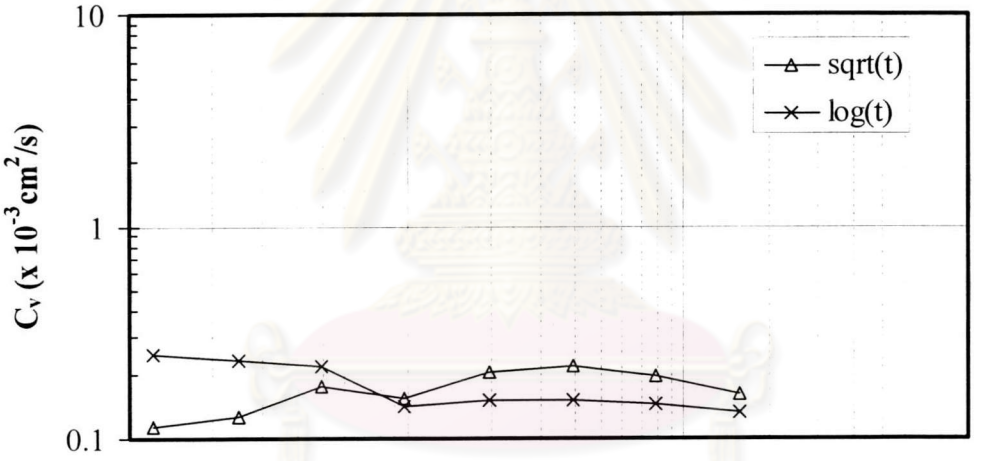
ภาคผนวก ค.

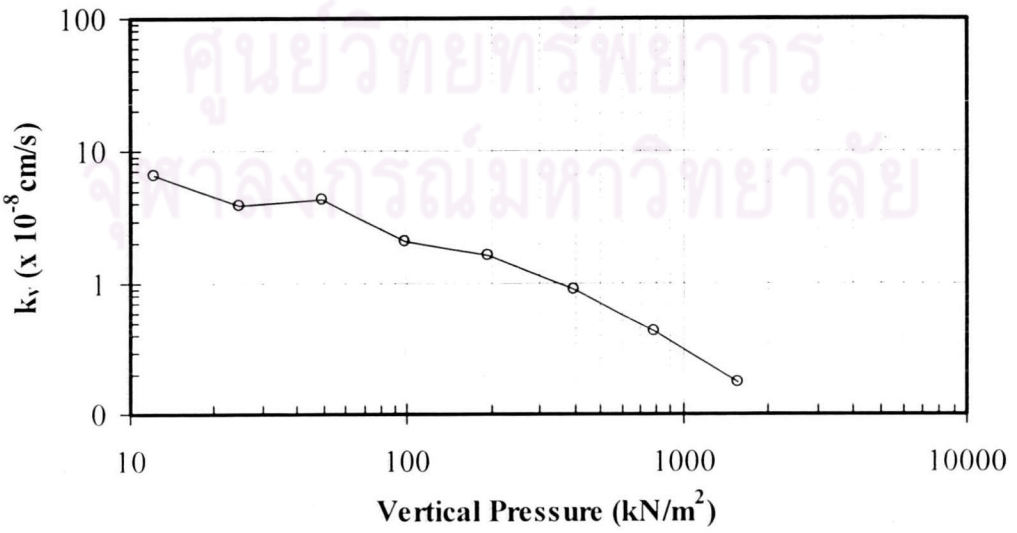
ผลการทดสอบอัดตัวคายน้ำ 1 มิติ ของตัวอย่างดินเหนียวธรรมชาติ ด้วยเครื่องมือ Conventional Oedometer, CRS-V และ CRS-R

Conventional Oedometer Test on Natural Clay

Sample No.: NCS1 Boring No.: BH-4 Depth : 5 m Date : 1 Aug 03

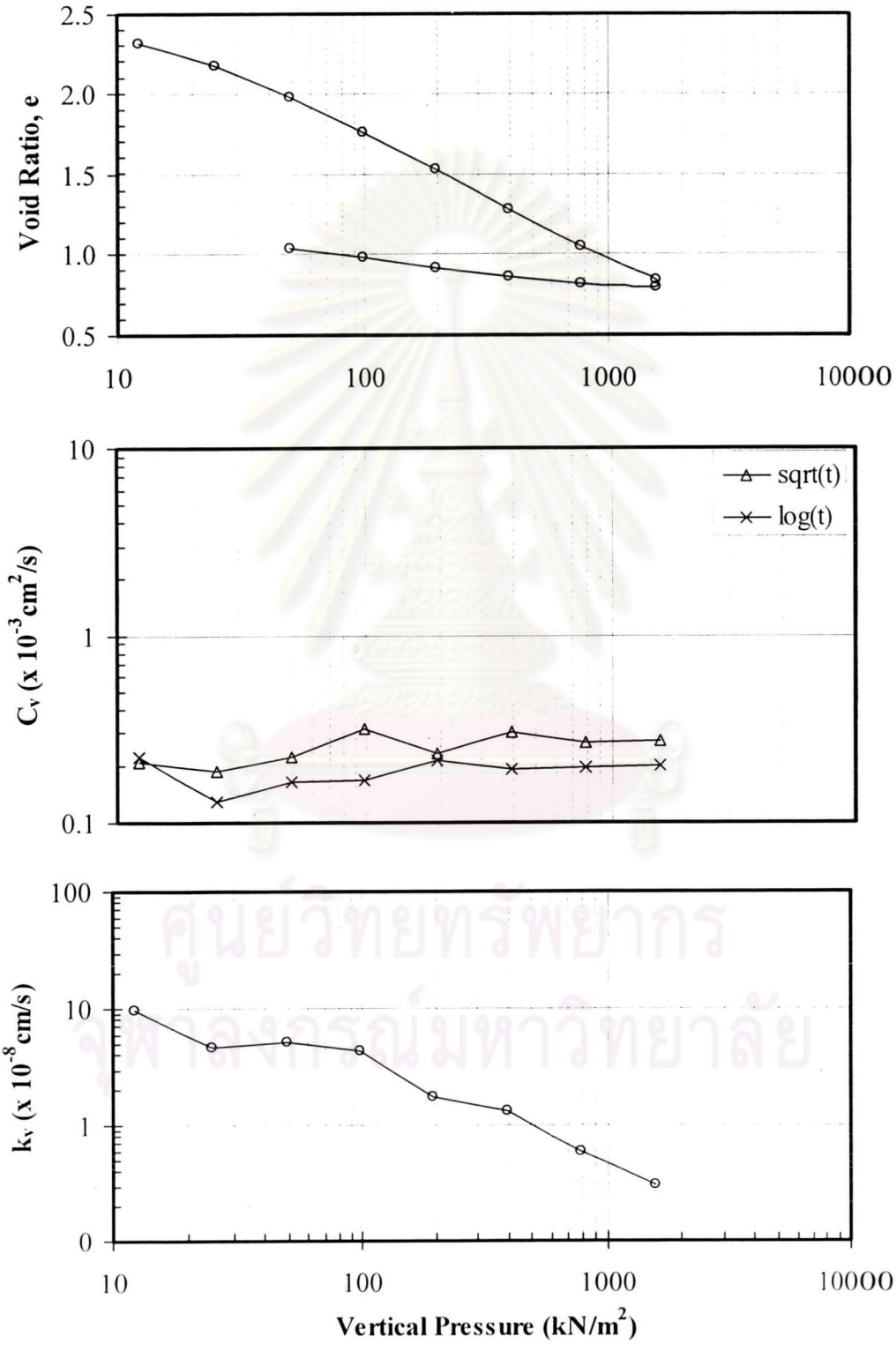






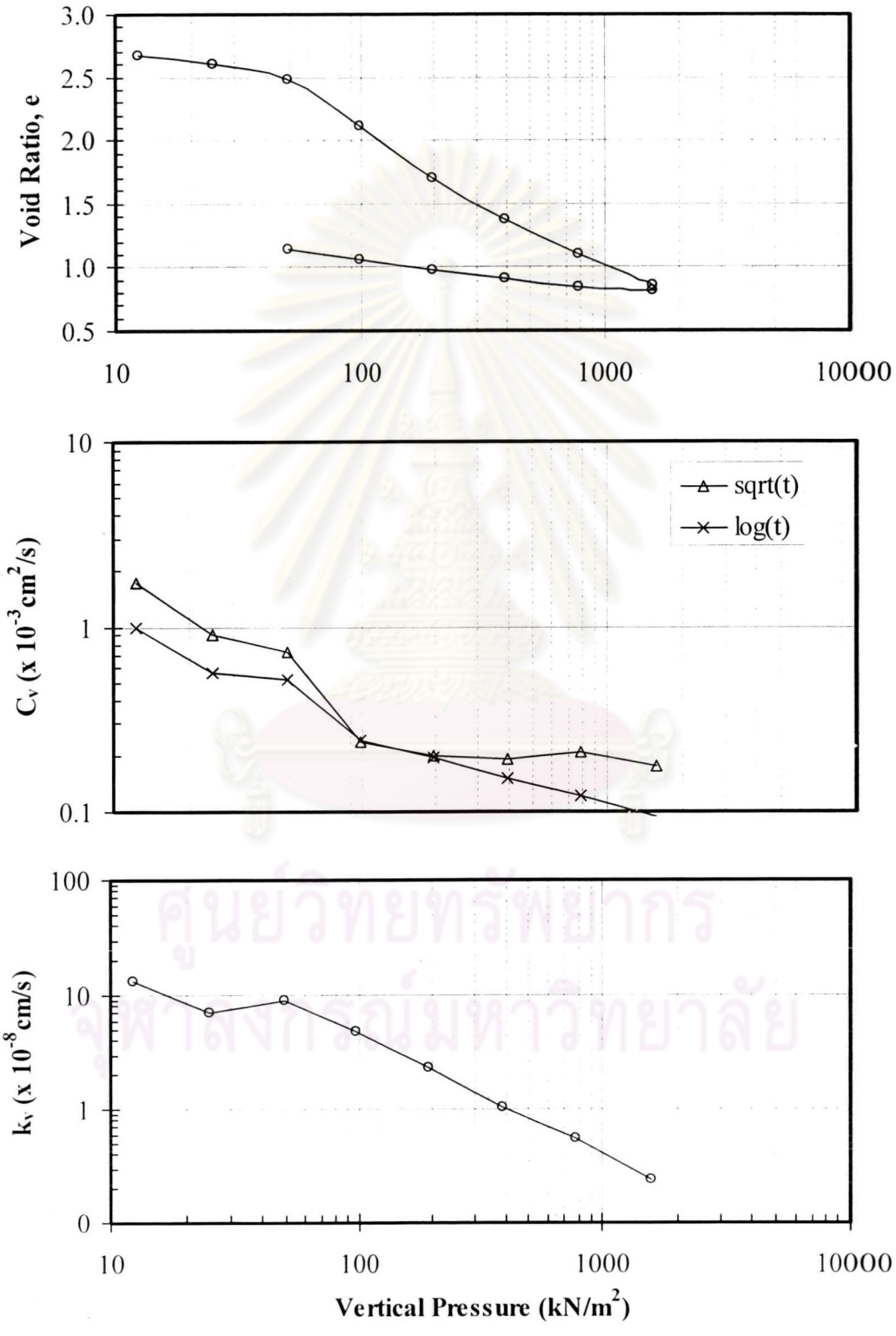
Conventional Oedometer Test on Natural Clay

Sample No.: NCS2 Boring No.: BH-4 Depth : 5.5 m Date : 1 Aug 03



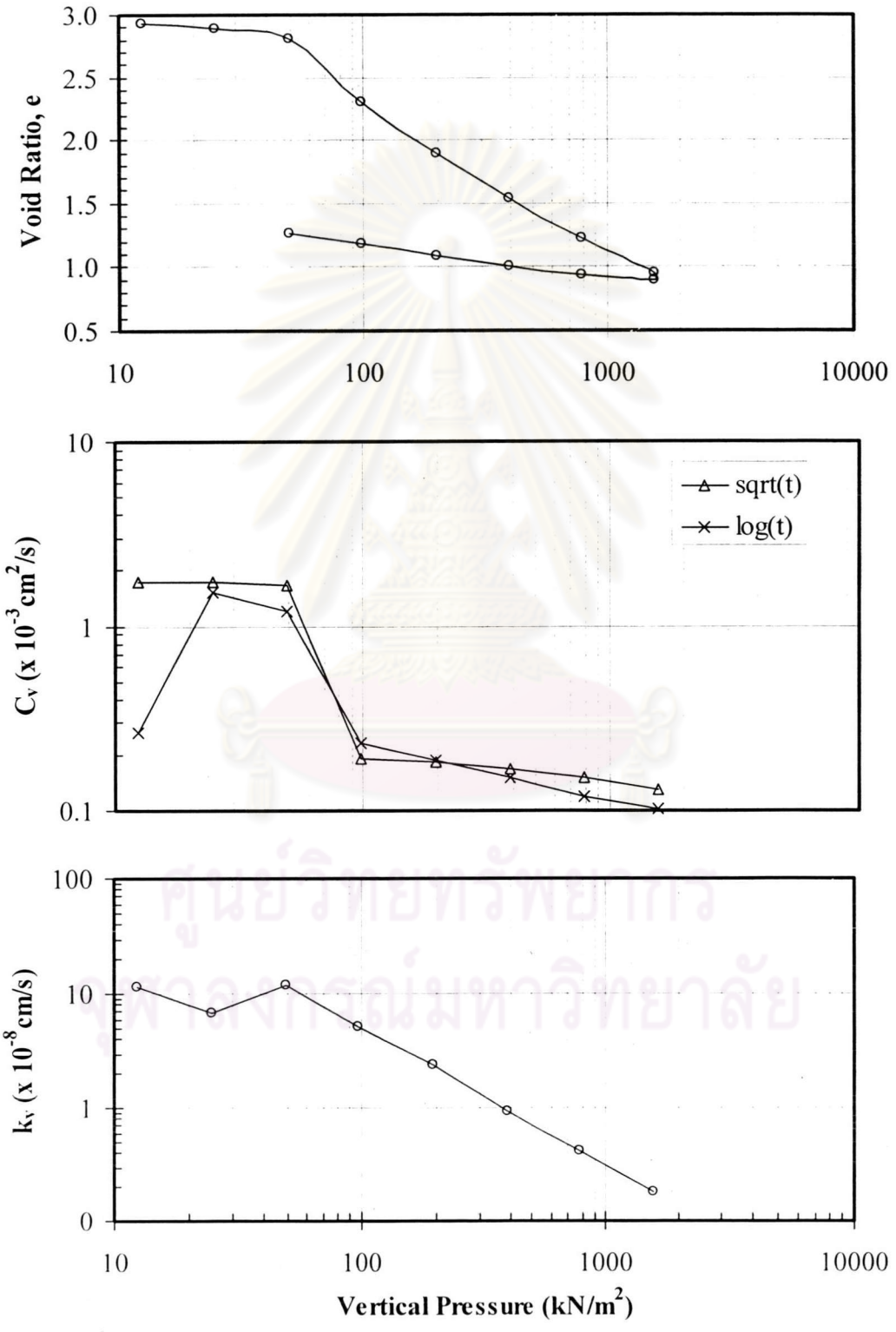
Conventional Oedometer Test on Natural Clay

Sample No.: NCS3 Boring No.: BH-4 Depth : 6.5 m Date : 1 Aug 03



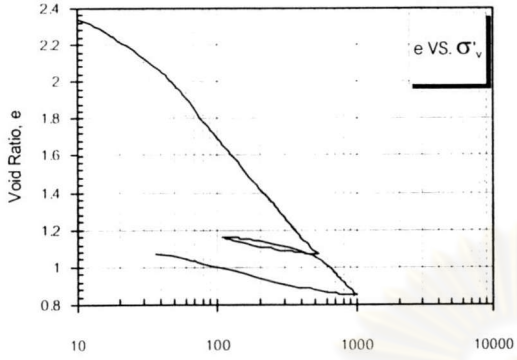
Conventional Oedometer Test on Natural Clay

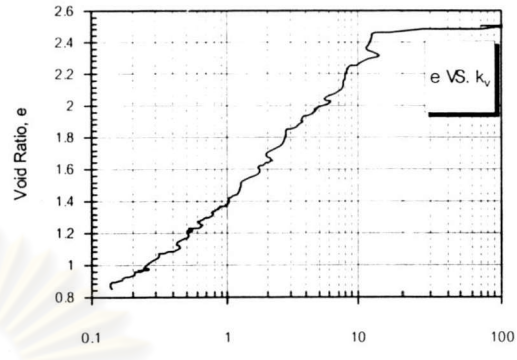
Sample No.: NCS4 Boring No.: BH-4 Depth : 7.5 m Date : 1 Aug 03

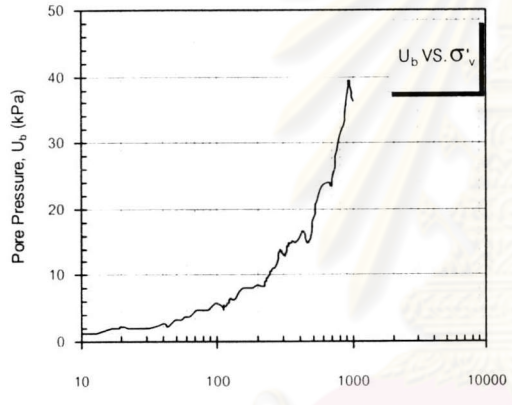


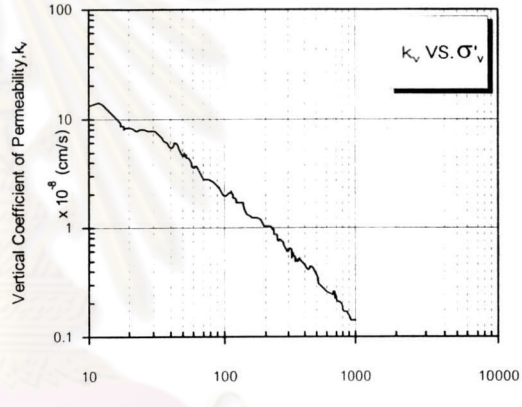
CRS-V Consolidation Test on Natural Clay

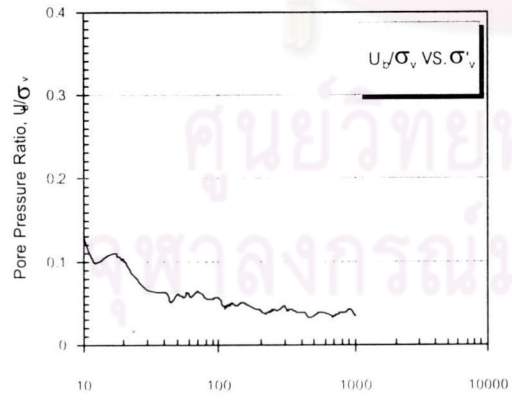
Sample No.: NCS5 Borehole No.: BH-4 Depth : 5.5 m

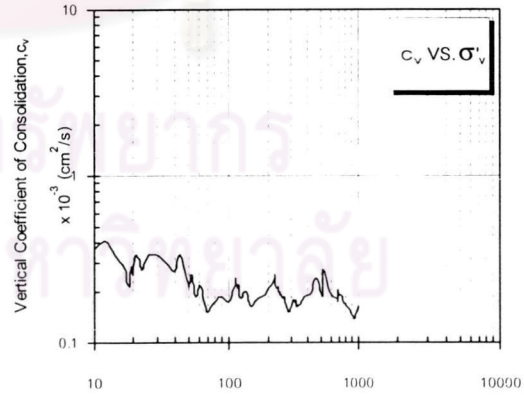






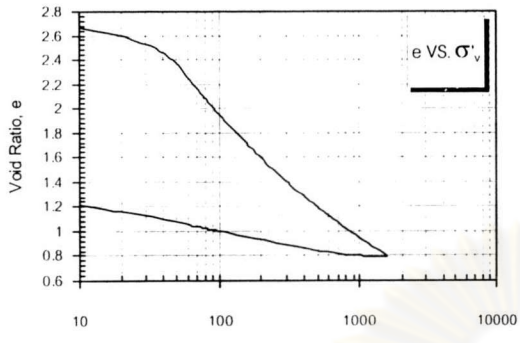


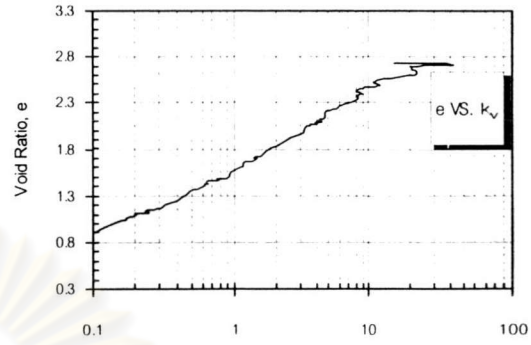


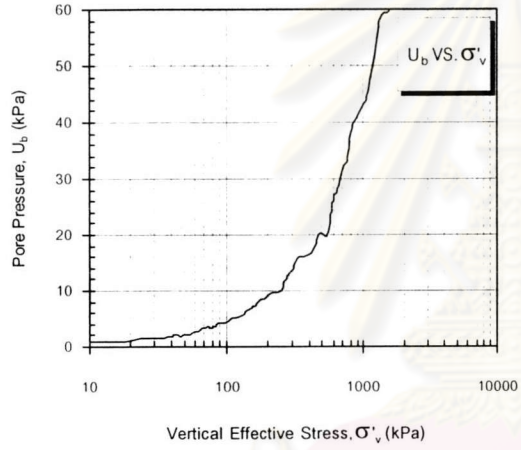


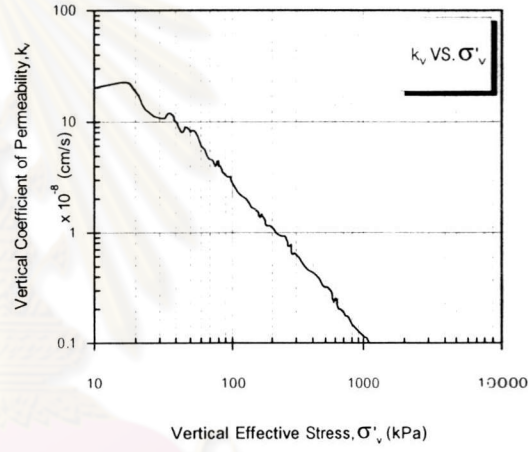
CRS-V Consolidation Test on Natural Clay

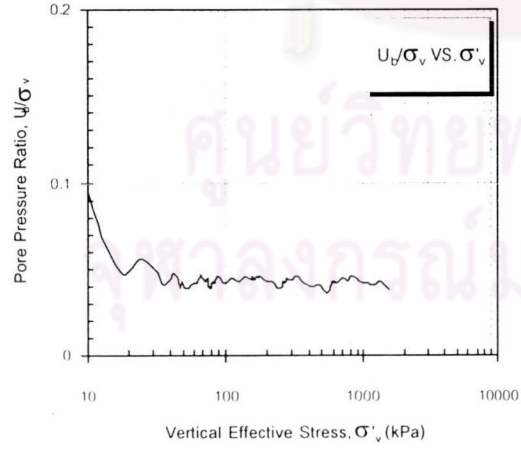
Sample No.: NCS6 Borehole No.: BH-4 Depth : 6.5 m

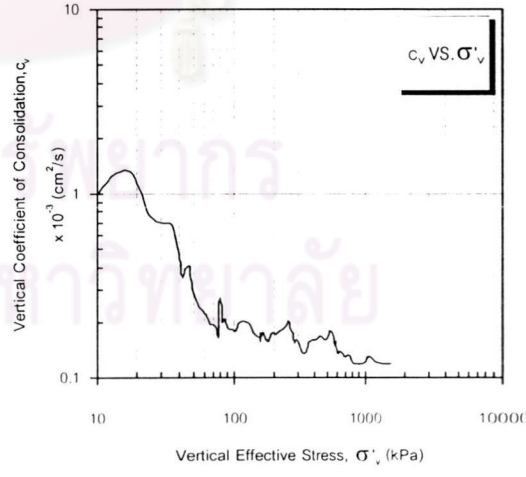






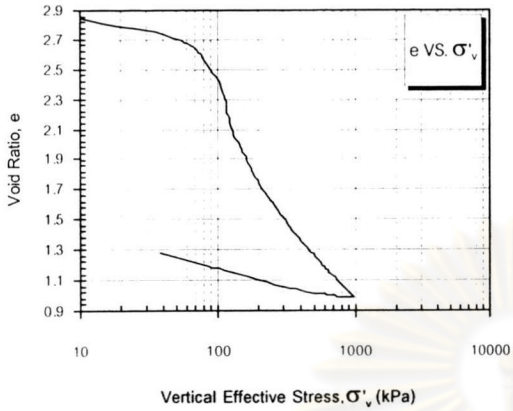


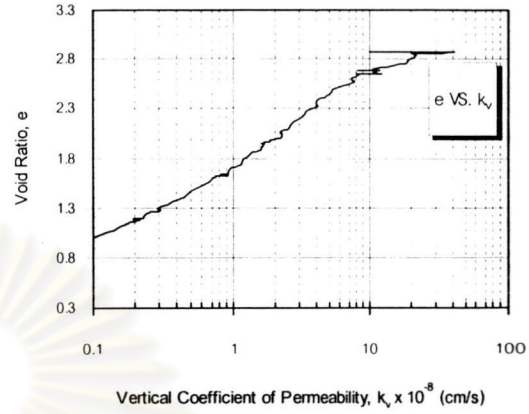


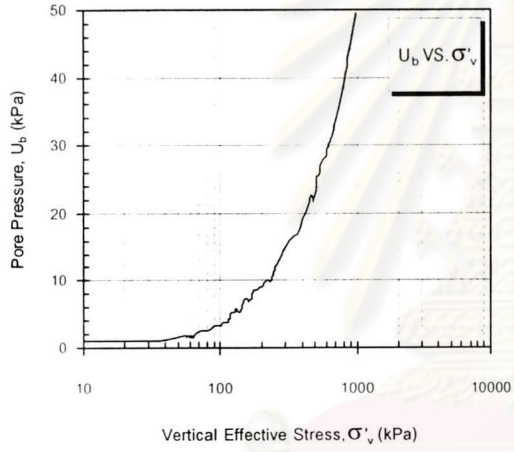


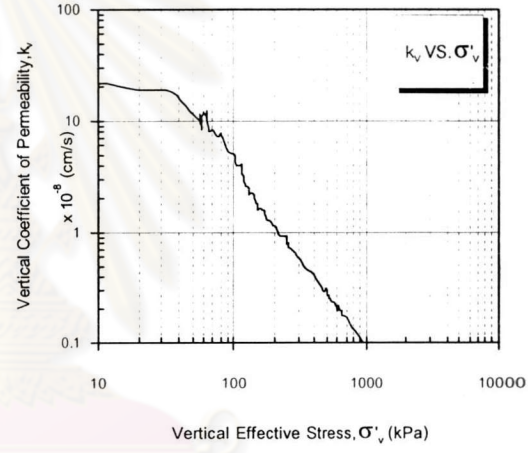
CRS-V Consolidation Test on Natural Clay

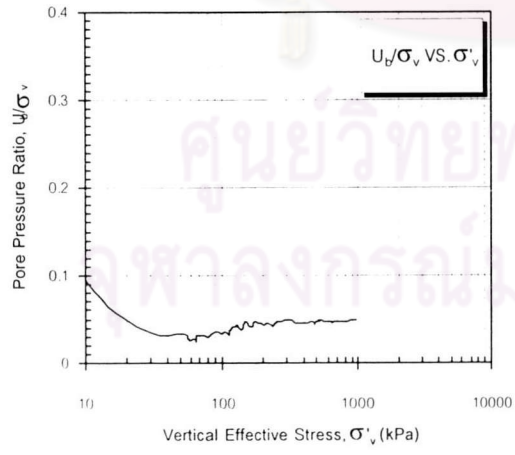
Sample No.: NCS7 Borehole No.: BH-4 Depth : 7.5 m

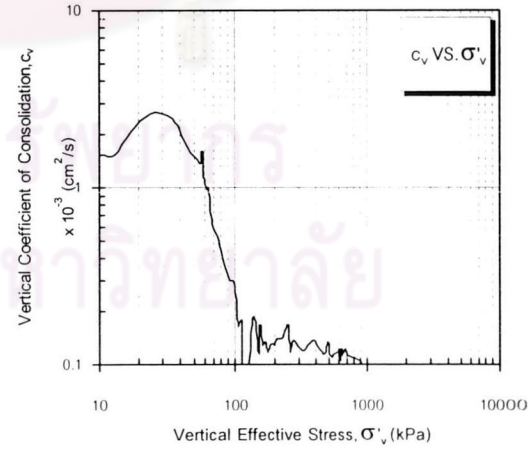






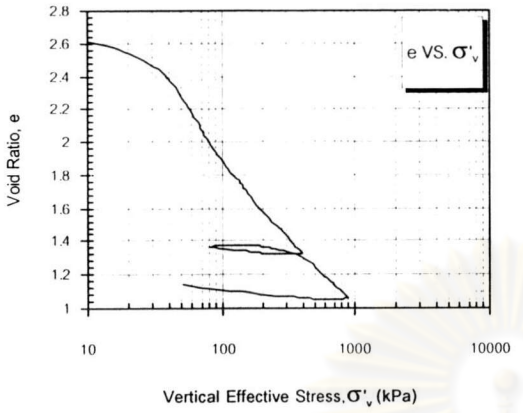


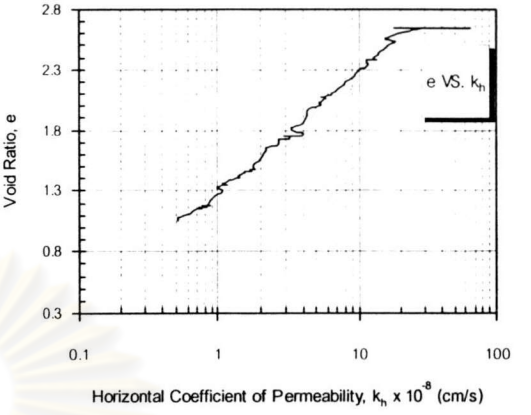


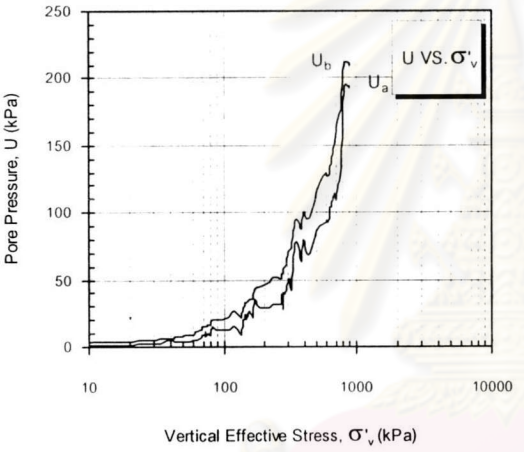


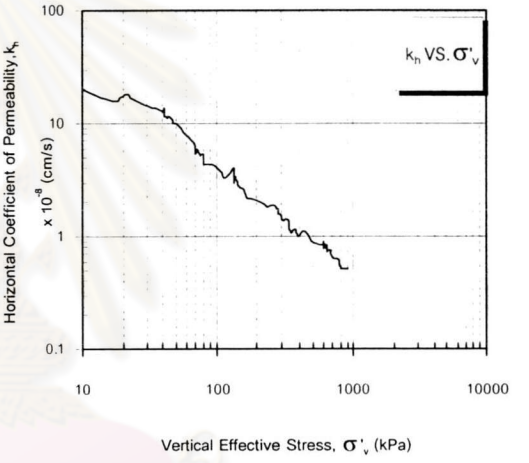
CRS-R Consolidation Test on Natural Clay

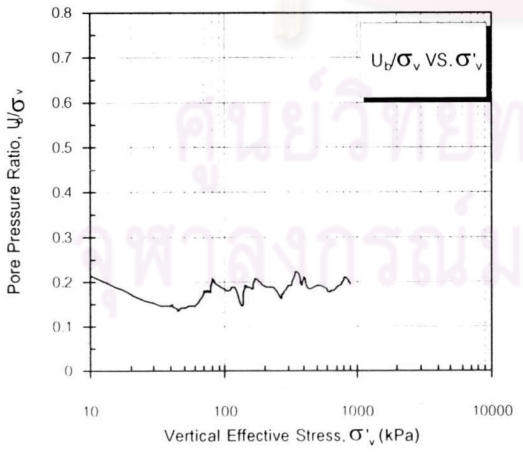
Sample No.: NCS8 Borehole No.: BH-4 Depth : 5.5 m

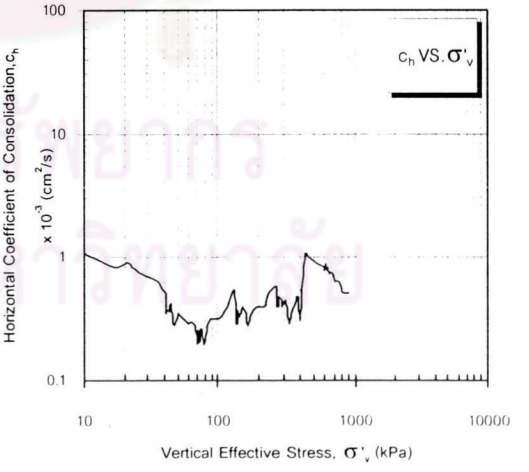






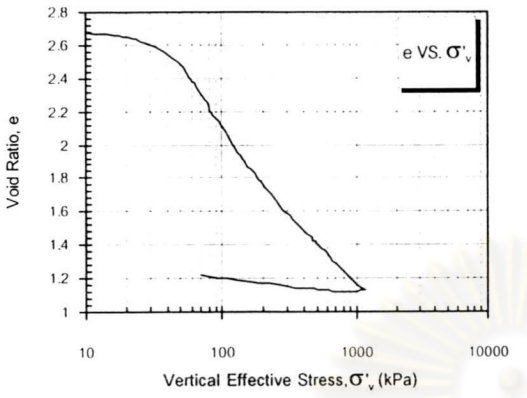


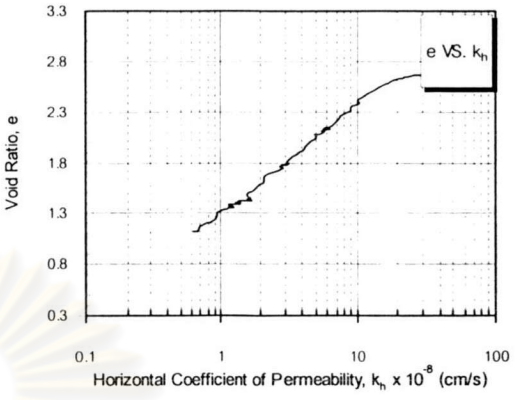


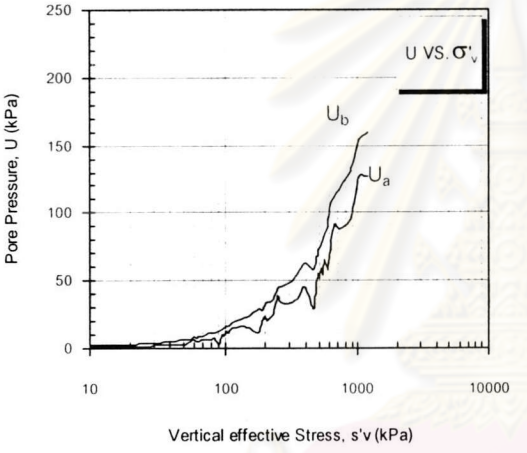


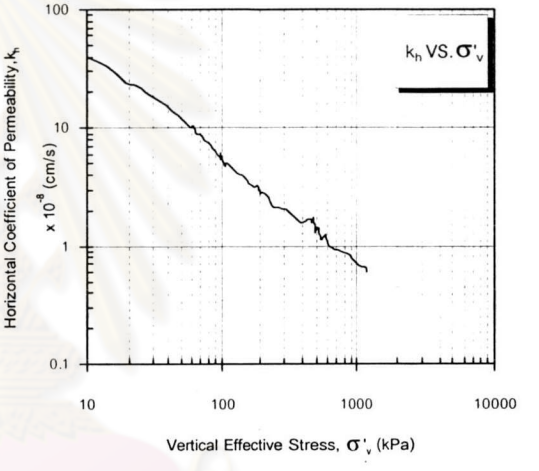
CRS-R Consolidation Test on Natural Clay

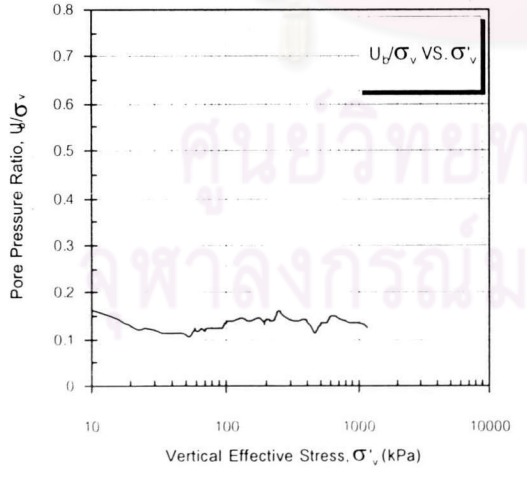
Sample No.: NCS9 Borehole No.: BH-4 Depth : 6.5 m

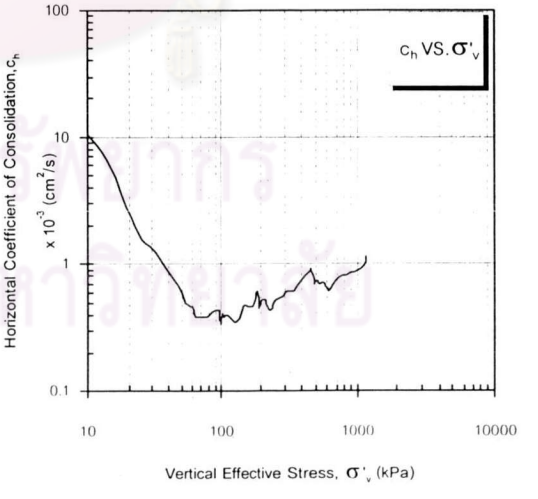






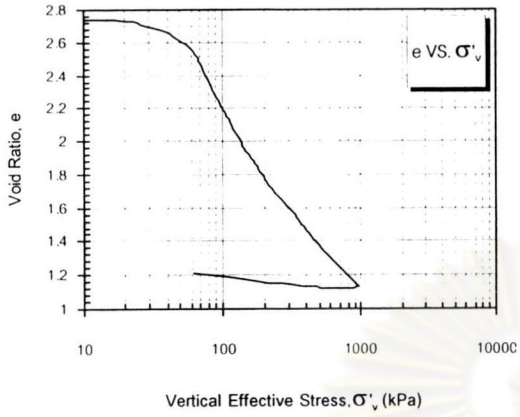


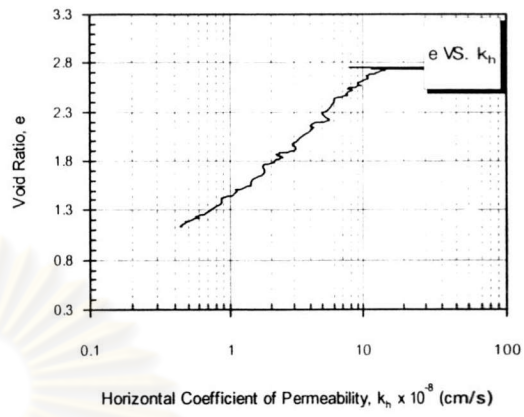


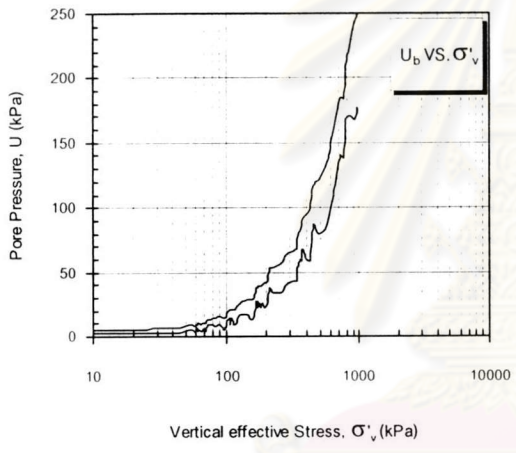


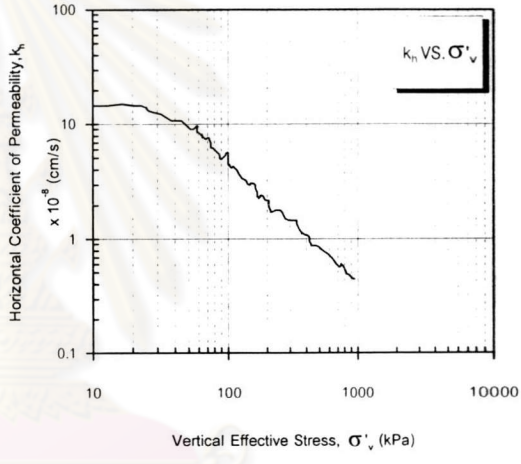
CRS-R Consolidation Test on Natural Clay

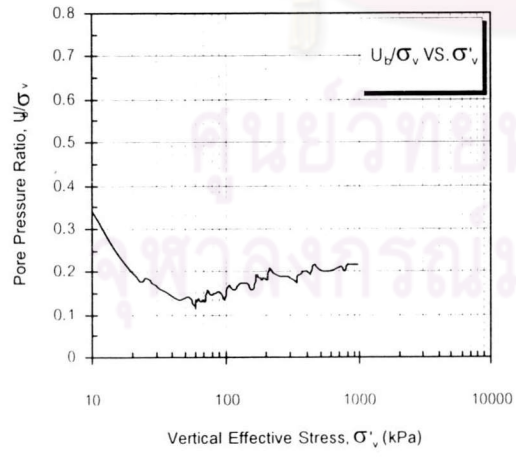
Sample No.: NCS10 Borehole No.: BH-4 Depth : 7.5 m

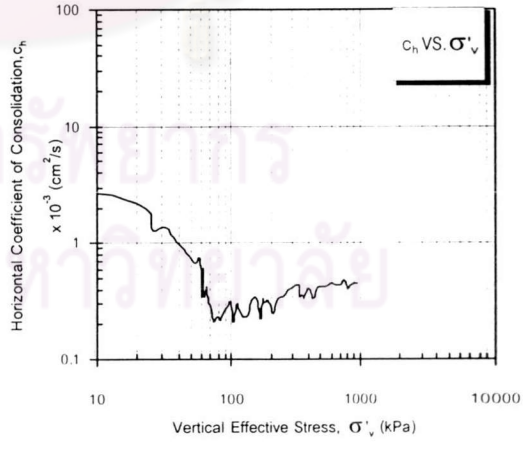












ประวัติผู้วิจัย

นาย วิโรจน์ บุศยพลากร เกิดวันที่ 4 ตุลาคม พ.ศ. 2516 สำเร็จการศึกษาระดับปริญญาตรี วิศวกรรมศาสตรบัณฑิต ภาควิชาวิศวกรรมโยธา คณะวิศวกรรมศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย เมื่อปีการศึกษา 2538 และเข้าศึกษาต่อในหลักสูตรวิศวกรรมศาสตรมหาบัณฑิตที่จุฬาลงกรณ์มหาวิทยาลัย เมื่อ พ.ศ. 2544