

## *Curriculum Vitae*

### **JOHN PATRICK HARRIS**

Texas A&M University, Ph.D., Geology, 1997

University of Arkansas, M.S., Geology, 1991

University of Arkansas, B.S., Geology, 1988

### **Select Refereed Papers**

**Harris, P.**, Harvey, O., #Jackson, L., #DePugh, M., and Puppala, A. (2014) Killing the Ettringite Reaction in Sulfate-Bearing Soils: *Transportation Research Record* 2462, p. 109-116.

Talluri, N., Puppala, A., Chittoori, B.C.S., Gaily, A.H., and **Harris, P.** (2013) Stabilization of High Sulfate Soils by Extended Mellowing: *Transportation Research Record* 2363, p. 96-104.

**Harris, P.**, Harvey, O., and Sebesta, S. (2012) Avoiding Sulfate Heave in Subgrades with a Little Help from Precision Agriculture: *Transportation Research Record* 2310, p. 93-102.

Saride, S., Chikyala, S.R., Puppala, A., and **Harris, P.** (2010) Effects of Organics on Stabilized Expansive Subgrade Soils: *Ground Improvement and Geosynthetics*, Geotechnical Special Publication No. 207, A.J. Puppala, J. Huang, J. Han, and L.R. Hoyos eds., ASCE, Reston, Virginia. P. 155-164.

\*Harvey, O., **Harris, J.P.**, Herbert, B., #Stiffler, E., and #Haney, S. (2010) Natural Organic Matter and the Formation of Calcium Silicate Hydrate in Lime-Stabilized Smectites: A Thermal Analysis Study: *Thermochimica Acta*, Vol. 505, p. 106-113. <http://dx.doi.org/10.1016/j.tca.2010.04.007>

Rezaei, A., Masad, E., Chowdhury, A., and **Harris, P.** (2009) A Method for Predicting Asphalt Mixture Skid Resistance by Aggregate Characteristics and Gradation: *Transportation Research Record* 2104, p 24-33.

\*Harvey, O.R., Herbert, B.E., **Harris, J.P.**, #Stiffler, E.A., and #Crenwelge, J.A. (2009) A New Spectrophotometric Method for Rapid Determination of Soil Organic Carbon: *Soil Science Society of America Journal*, Vol. 73, No. 3, p. 822-830.

**Harris, J.P.**, and Scullion, T. (2009) Stabilizer Diffusion in Swelling Soils: *Contemporary Topics in Ground Modification, Problem Soils, and Geo-Support*, Geotechnical Special Publication No. 187, M. Iskander, D.F. Laefer, and M.H. Hussein, eds., ASCE, Reston, Virginia. p. 566-573.

**Harris, P.**, von Holdt, J., Sebesta, S., and Scullion, T. (2007) Effective Stabilization of Gypsum Bearing Soils in Texas: *Texas Section- ASCE Proceedings*, p. 39 (Abstract); full text on accompanying CD, 15p.

**Harris, P.**, von Holdt, J., Sebesta, S., and Scullion, T. (2006) Recommendations for Stabilization of High Sulfate Soils in Texas: *Transportation Research Record* 1952, p. 71-79.

Chen, D., **Harris, P.**, Scullion, T., and Bilyeu, J. (2005) Forensic Investigation of a Sulfate-Heaved Project in Texas: *Journal of Performance of Constructed Facilities*, Vol. 19, p. 324-330.

**Harris, P.**, Sebesta, S., and von Holdt, J. (2005) Sulfate Heave on Texas Highways: Reducing the Odds of Pavement Failure: *Proceedings 2<sup>nd</sup> International Symposium TREMTI*, Paris, France, October 2005; full text on accompanying CD, 10p.

**Harris, P.**, Sebesta, S., and von Holdt, J. (2004) Exploding Roads in Texas: an Ounce of Prevention is Worth a Pound of Cure: *Proceedings 55<sup>th</sup> Highway Geology Symposium*, Kansas City Missouri, September 2004. p. 236-251.

**Harris, J.P.**, Sebesta, S., and Scullion, T. (2004) Hydrated Lime Stabilization of Sulfate-Bearing Vertisols in Texas: *Transportation Research Record 1868*, p. 31-39.

**Harris, J.P.**, Scullion, T., Sebesta, S., and Claros, G. (2003) Measuring Sulfate in Subgrade Soil- Difficulties and Triumphs: *Transportation Research Record 1837*, p.3-11.

## Select Funded Research Projects

Implementation of Technology for Rapid Detection of Sulfate and Organic Content in Soils, Texas Department of Transportation Project #5-6362-01, **\$98,235**, 2/11-12/11, P. Harris (Principal Investigator)

Full Coverage Conductivity Survey on US 82 Using the Veris 3150, Texas Department of Transportation Project #409082, **\$15,000**, 9/10-12/10, P. Harris (Principal Investigator)

Mitigation of High Sulfate Soils in Texas, Texas Department of Transportation Project #06618, **\$381,359**, 9/10-8/13, A. Puppala, UT Arlington (Principal Investigator), P. Harris, Texas Transportation Institute (Co-Principal Investigator).

Treatments for Clays in Aggregates used to Produce Cement Concrete, Bituminous Materials, and Chip Seals, Texas Department of Transportation Project # 464449, **\$390,755**, 9/09-8/12, J.P. Harris (Principal Investigator).

Implementation of the UV-Vis Method to Measure Organic Content in Clay Soils, Texas Department of Transportation Project # 455409, **\$155,000**, 2/09-8/10, J.P. Harris (Principal Investigator).

Rapid Field Detection of Sulfate and Organic Content in Soils, Texas Department of Transportation Project # 463628, **\$221,911**, 9/08-8/10, J.P. Harris (Principal Investigator).

Development of Procedures to Evaluate Cement Stabilization of Difficult Soils, Portland Cement Association Index # 07-02, **\$145,000**, 1/07-12/09, J.P. Harris and T. Scullion (co-Principal Investigators).

Mitigating the Effects of Organics in Stabilized Soils, Texas Department of Transportation Project # 455407, **\$255,738**, 9/06-8/08, J.P. Harris (Principal Investigator).

Develop Guidelines and Procedures for Stabilization of Sulfate Soils, Texas Department of Transportation Project # 442402, **\$363,435**, 3/01-6/04, J.P. Harris and T. Scullion (co-Principal Investigators), three students were supported.

Basinal Variations in Diagenesis and Hydrocarbon Production – The Permian Delaware Mountain Group of West Texas, Dupont (Conoco) Research Fellowship, **\$10,000**, 6/95-12/95.