An Improved Contaminant Resistant Clay for Environmental Clay Liner Applications

Laura S. Kajita[†]

Colloid Environmental Technologies Company, 1350 W. Shure Drive, Arlington Heights, Illinois 60004

[†] Present address: PO Box 1337, St. Charles, Illinois 60174.

Abstract: Testing shows that many of the present commercially available bentonite products used for clay liner/soil sealant applications may be susceptible to chemical degradation by certain contaminants. Testing also confirms that a recently developed contaminant resistant clay (CRC) is resistant to various contaminants that would otherwise attack and degrade the present commercially available products. The tests that were used to determine its effectiveness were American Petroleum Institute (API) fluid loss, rigid wall hydraulic conductivity, flexible wall hydraulic conductivity and a newly developed top loading filter press (TLFP) test (LSK method).

Key Words: API Fluid Loss • Bentonite • Chemical Degradation • Contaminant Resistance • Exchangeable Cations • Flexible Wall Permeability • Flocculation • Geosynthetic Clay Liner • Hydraulic Conductivity • Pre-hydration • Rigid Wall Permeability

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