Supplemental Material:

Ordinary Least Squares Regression and Spearman's ρ Results

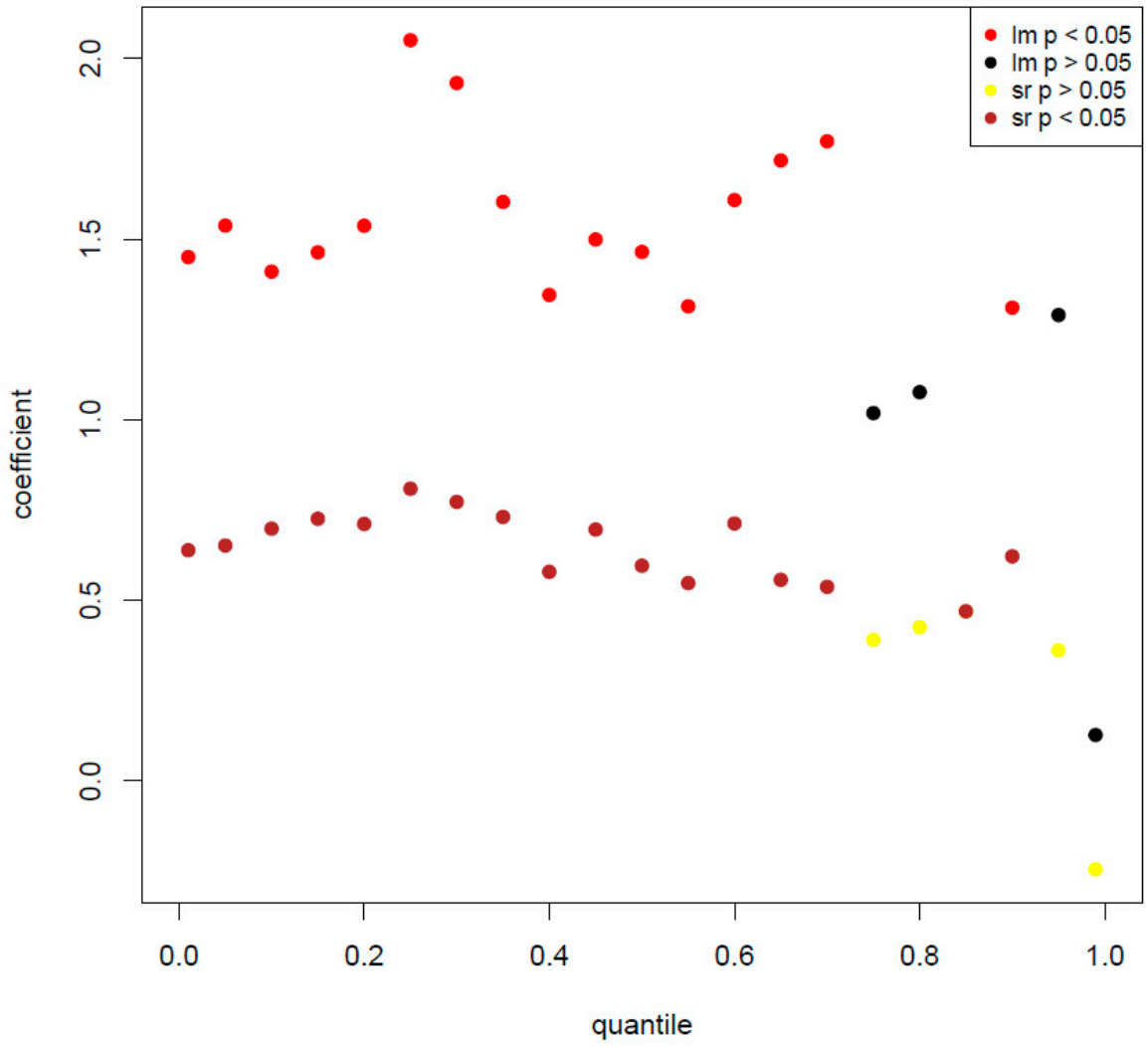

Figure S1. Trend and correlation significance between confinement ratio and top width error for the 1% AEP flow at Bronx Wash. "lm" indicates the ordinary least squares regression and "sr" indicates Spearman's ρ.

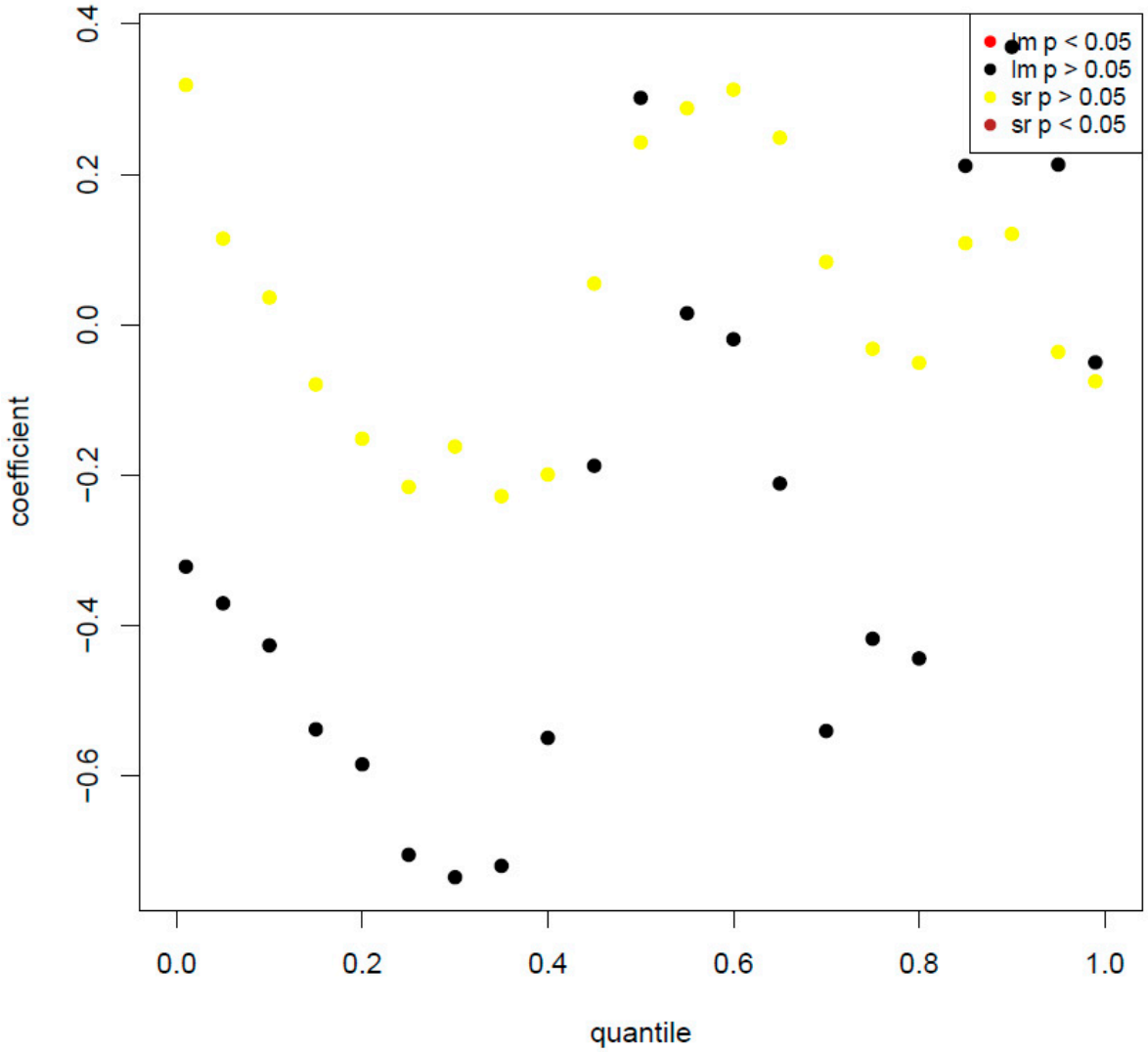

Figure S2. Trend and correlation significance between friction slope and top width error for the 1% AEP flow at Bronx Wash. "lm" indicates the ordinary least squares regression and "sr" indicates Spearman's ρ.

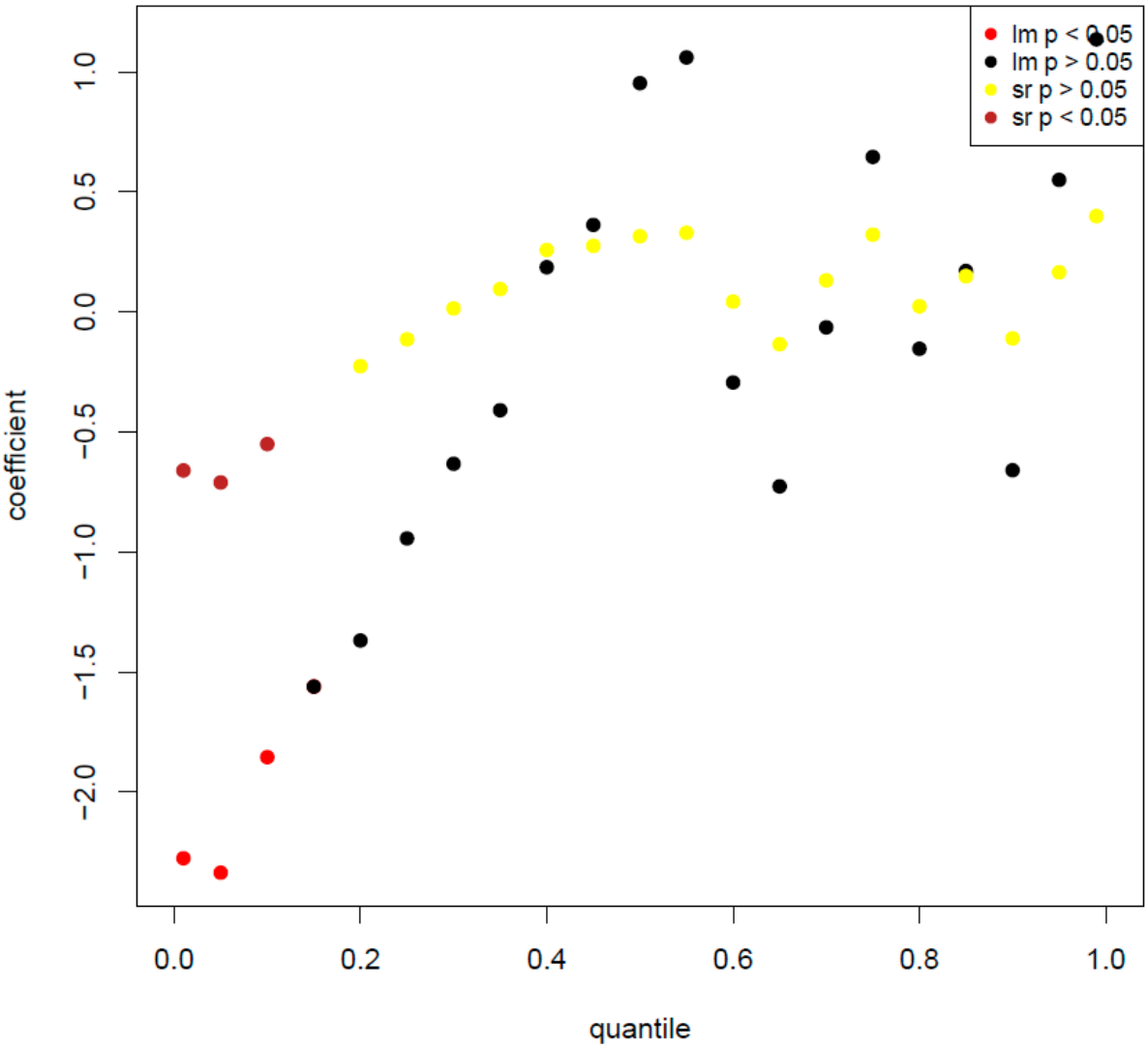

Figure S3. Trend and correlation significance between Froude number and top width error for the 1% AEP flow at Bronx Wash. "lm" indicates the ordinary least squares regression and "sr" indicates Spearman's ρ.

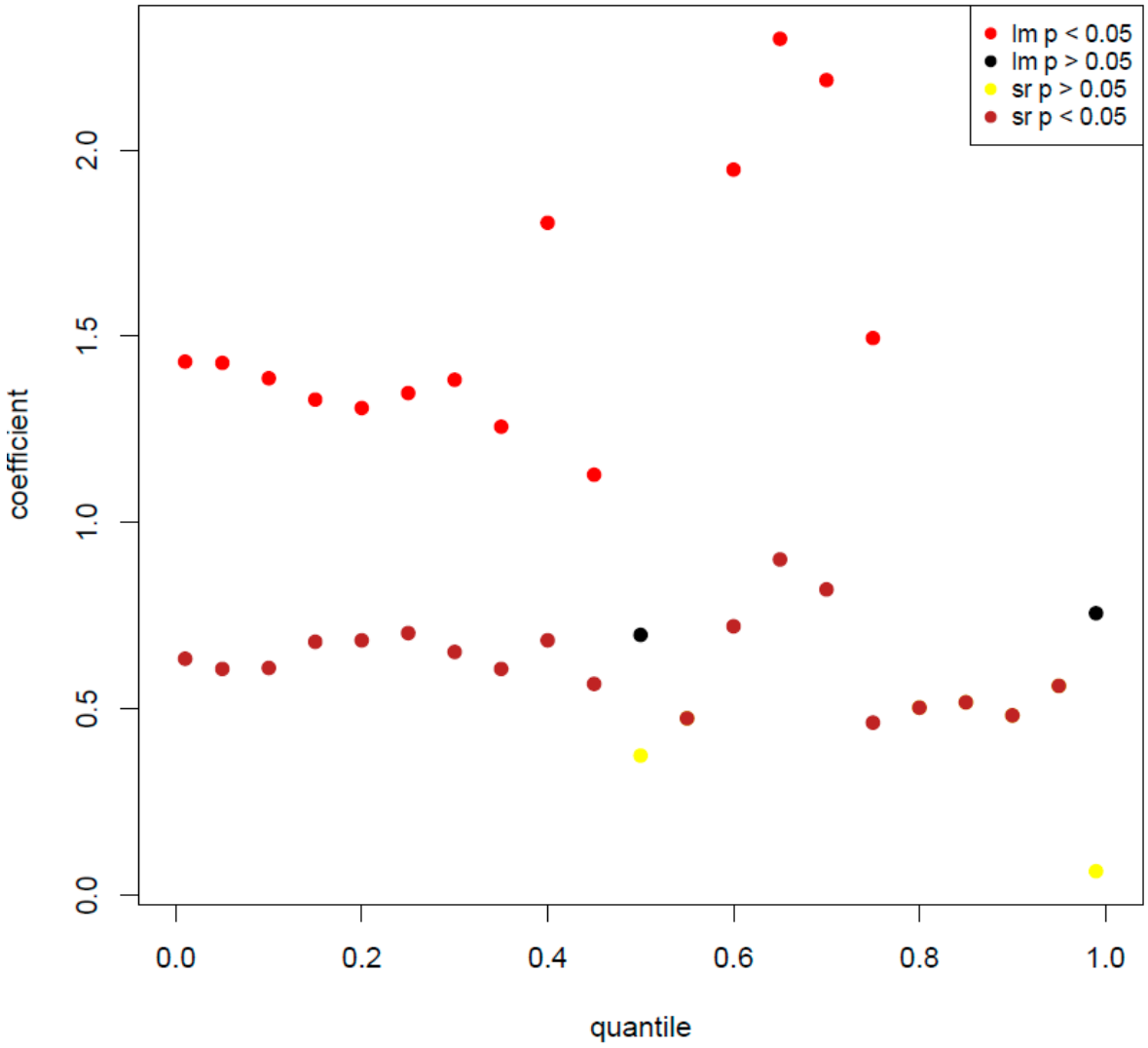

Figure S4. Trend and correlation significance between confinement ratio and top width error for the 2% AEP flow at Bronx Wash. "lm" indicates the ordinary least squares regression and "sr" indicates Spearman's ρ.

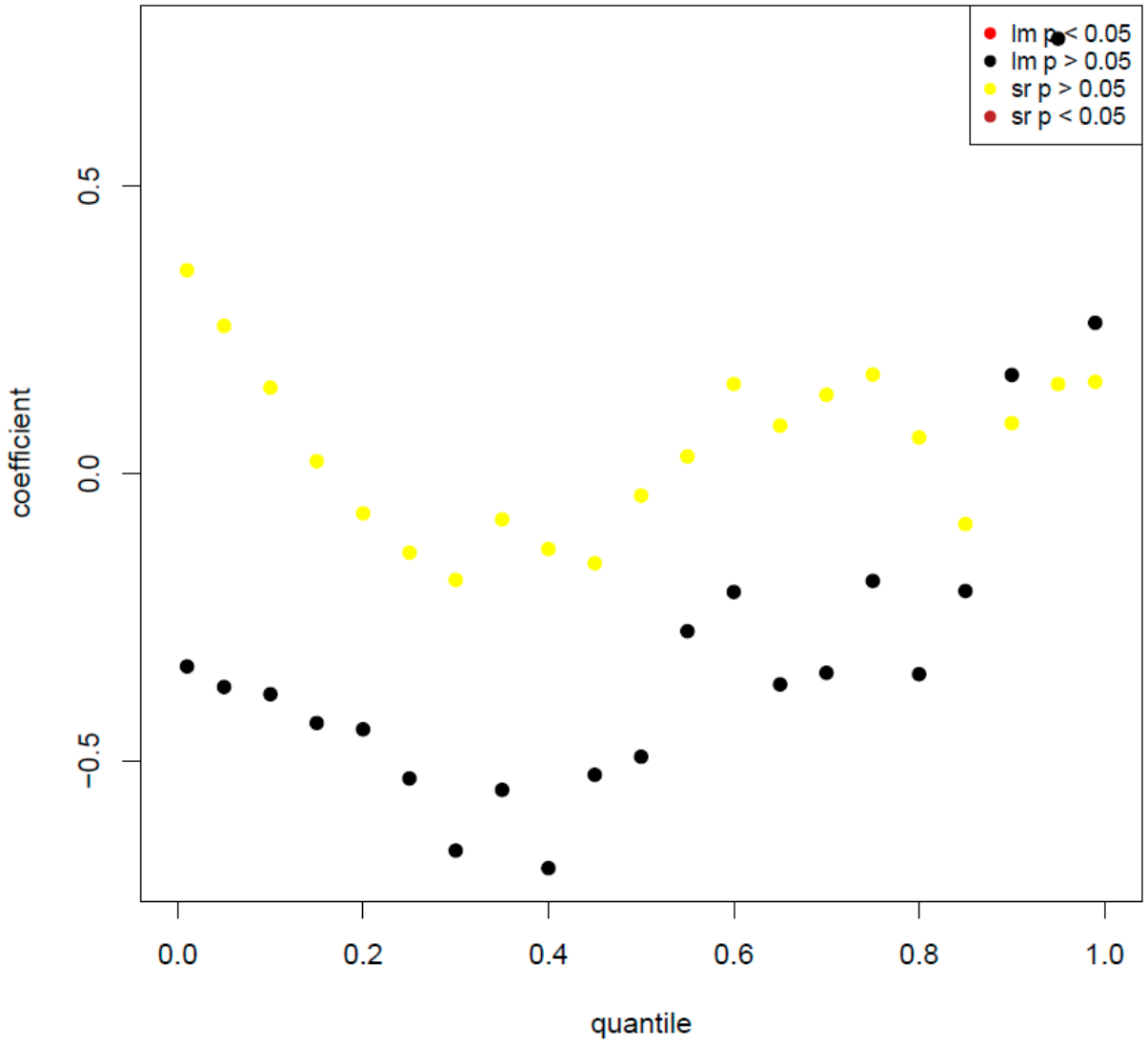

Figure S5. Trend and correlation significance between friction slope and top width error for the 2% AEP flow at Bronx Wash. "lm" indicates the ordinary least squares regression and "sr" indicates Spearman's ρ.

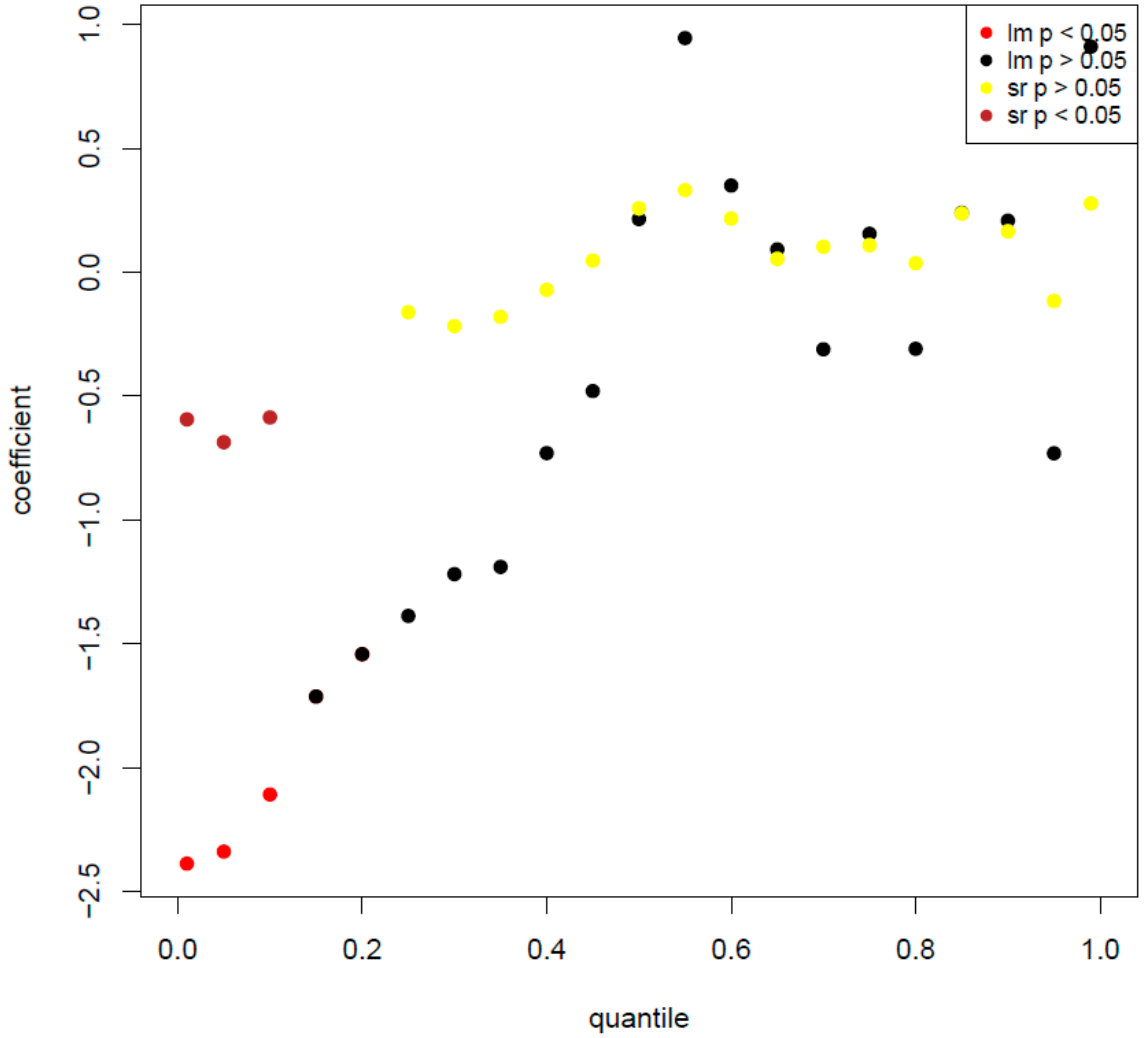

Figure S6. Trend and correlation significance between Froude number and top width error for the 2% AEP flow at Bronx Wash. "lm" indicates the ordinary least squares regression and "sr" indicates Spearman's ρ.

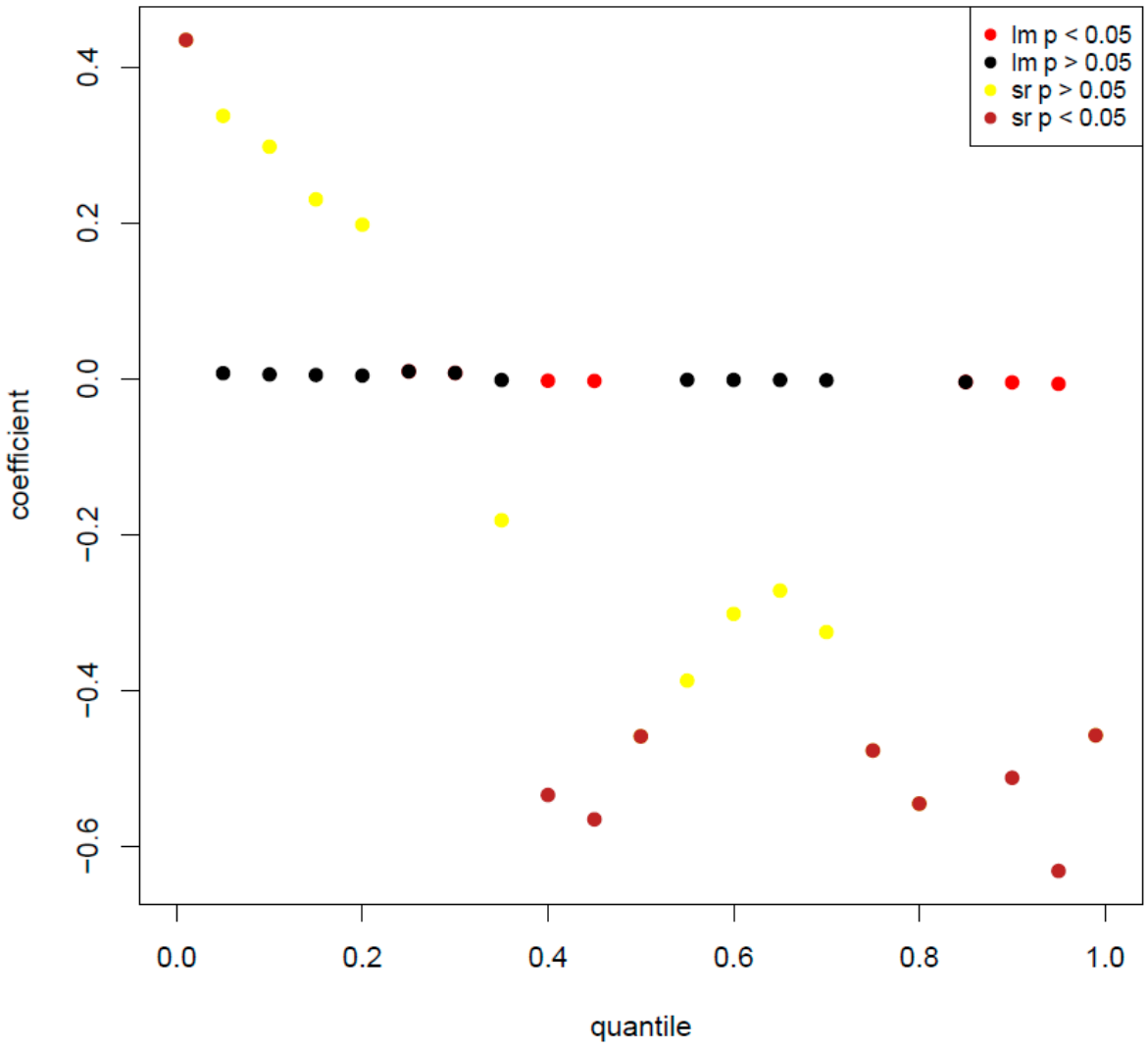

Figure S7. Trend and correlation significance between confinement ratio and depth error for the 1% AEP flow at Bronx Wash. "lm" indicates the ordinary least squares regression and "sr" indicates Spearman's ρ.

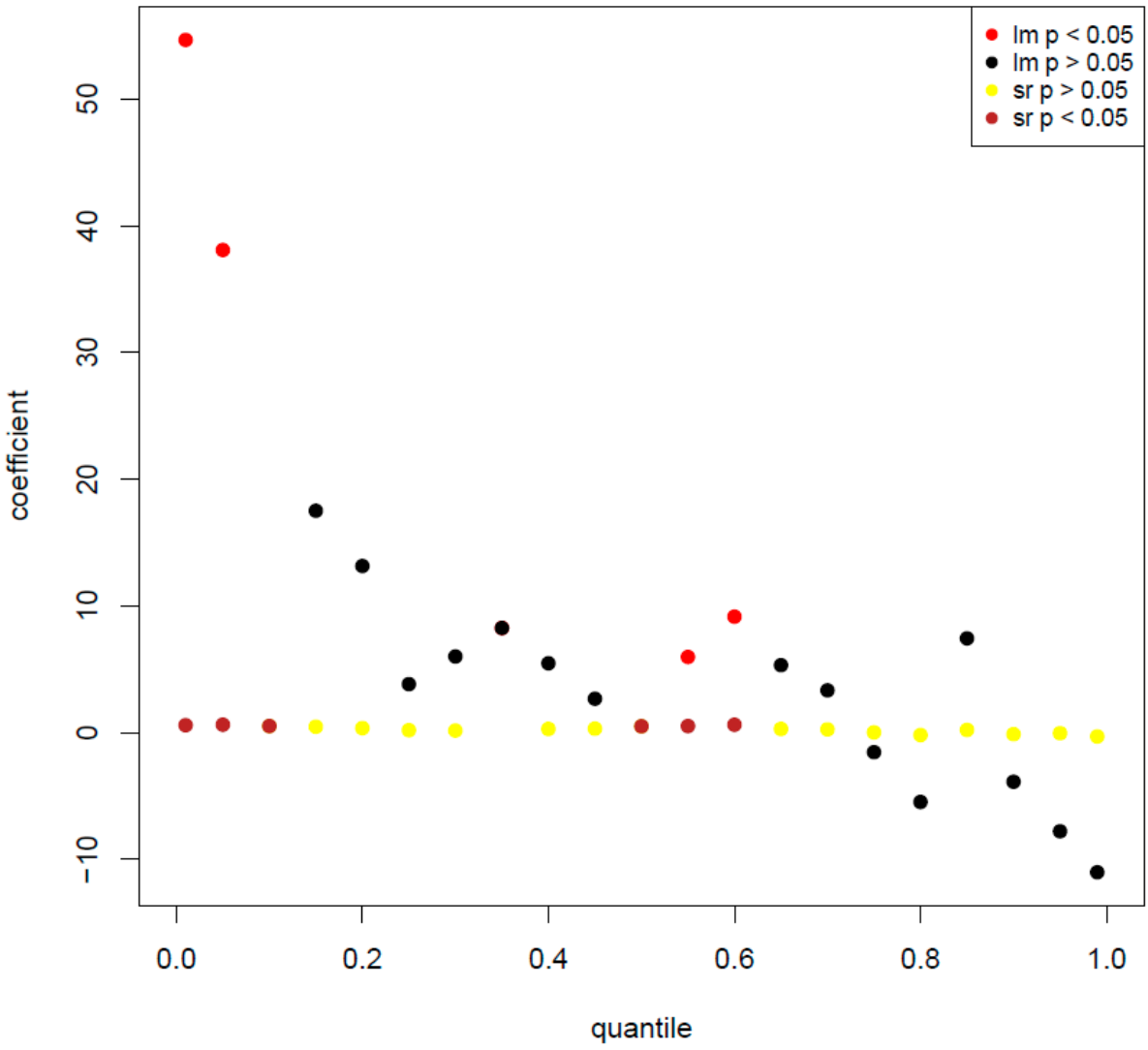

Figure S8. Trend and correlation significance between friction slope and depth error for the 1% AEP flow at Bronx Wash. "lm" indicates the ordinary least squares regression and "sr" indicates Spearman's ρ.

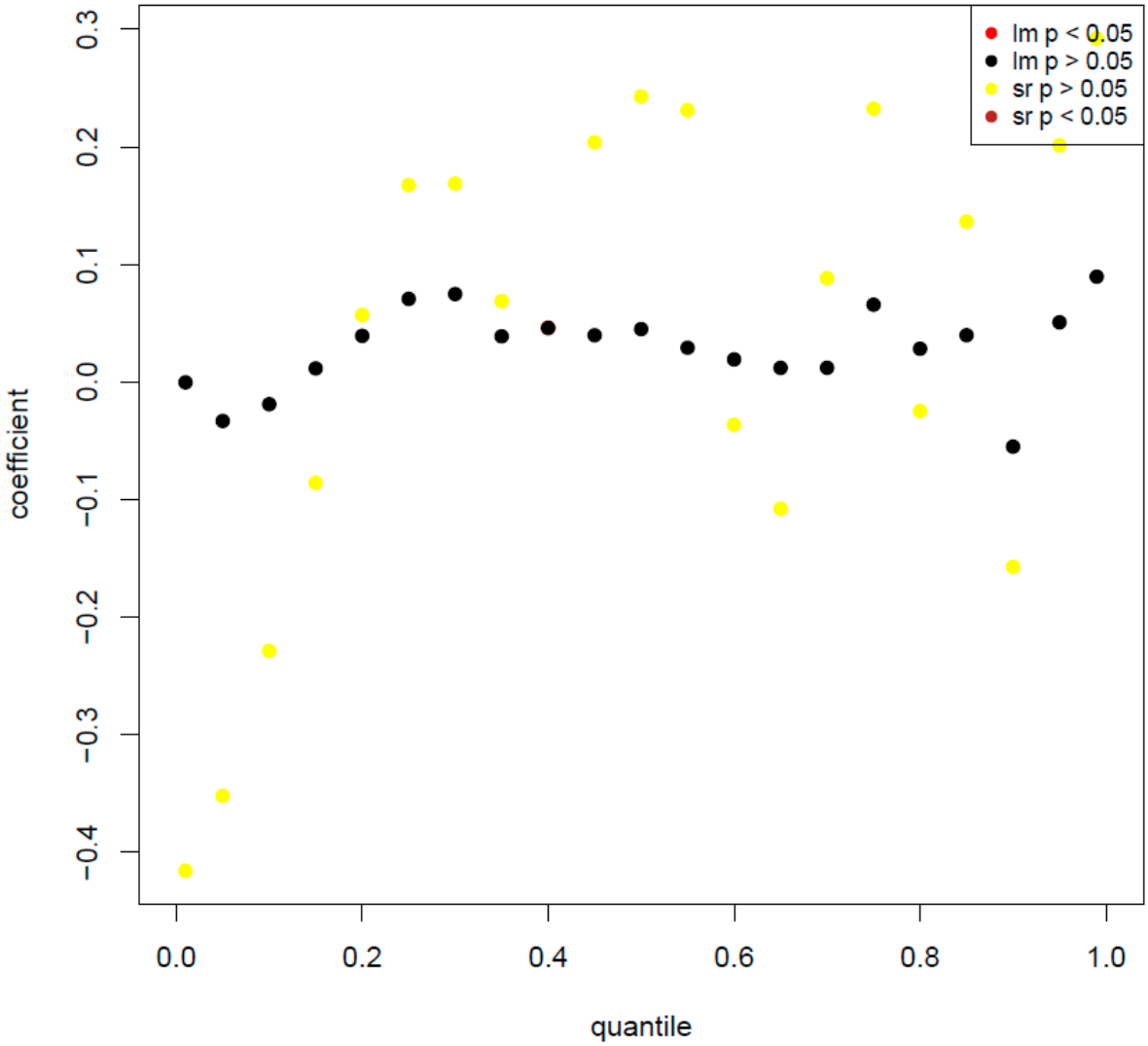

Figure S9. Trend and correlation significance between Froude number and depth error for the 1% AEP flow at Bronx Wash. "lm" indicates the ordinary least squares regression and "sr" indicates Spearman's ρ.

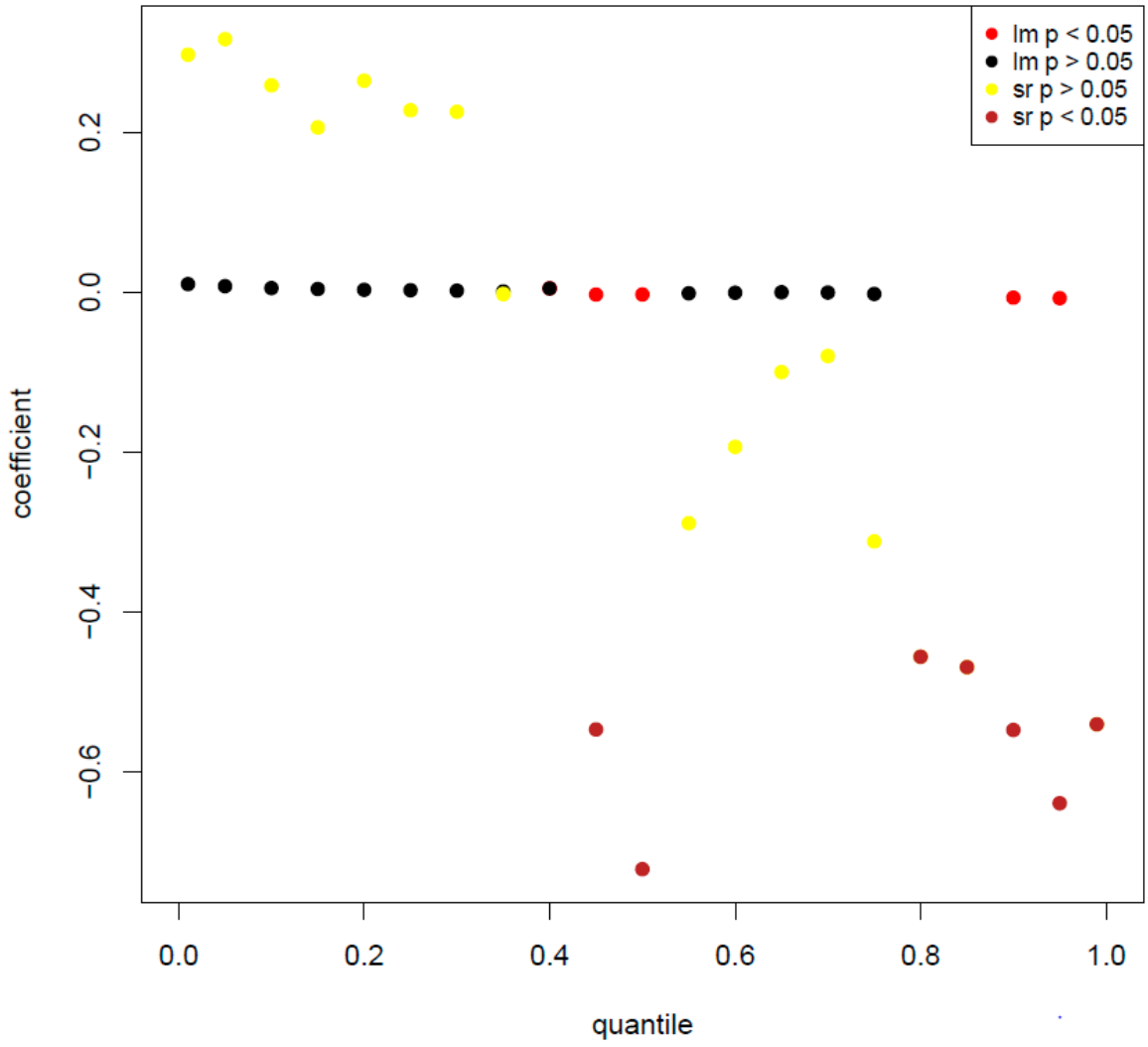

Figure S10. Trend and correlation significance between confinement ratio and depth error for the 2% AEP flow at Bronx Wash. "lm" indicates the ordinary least squares regression and "sr" indicates Spearman's ρ.

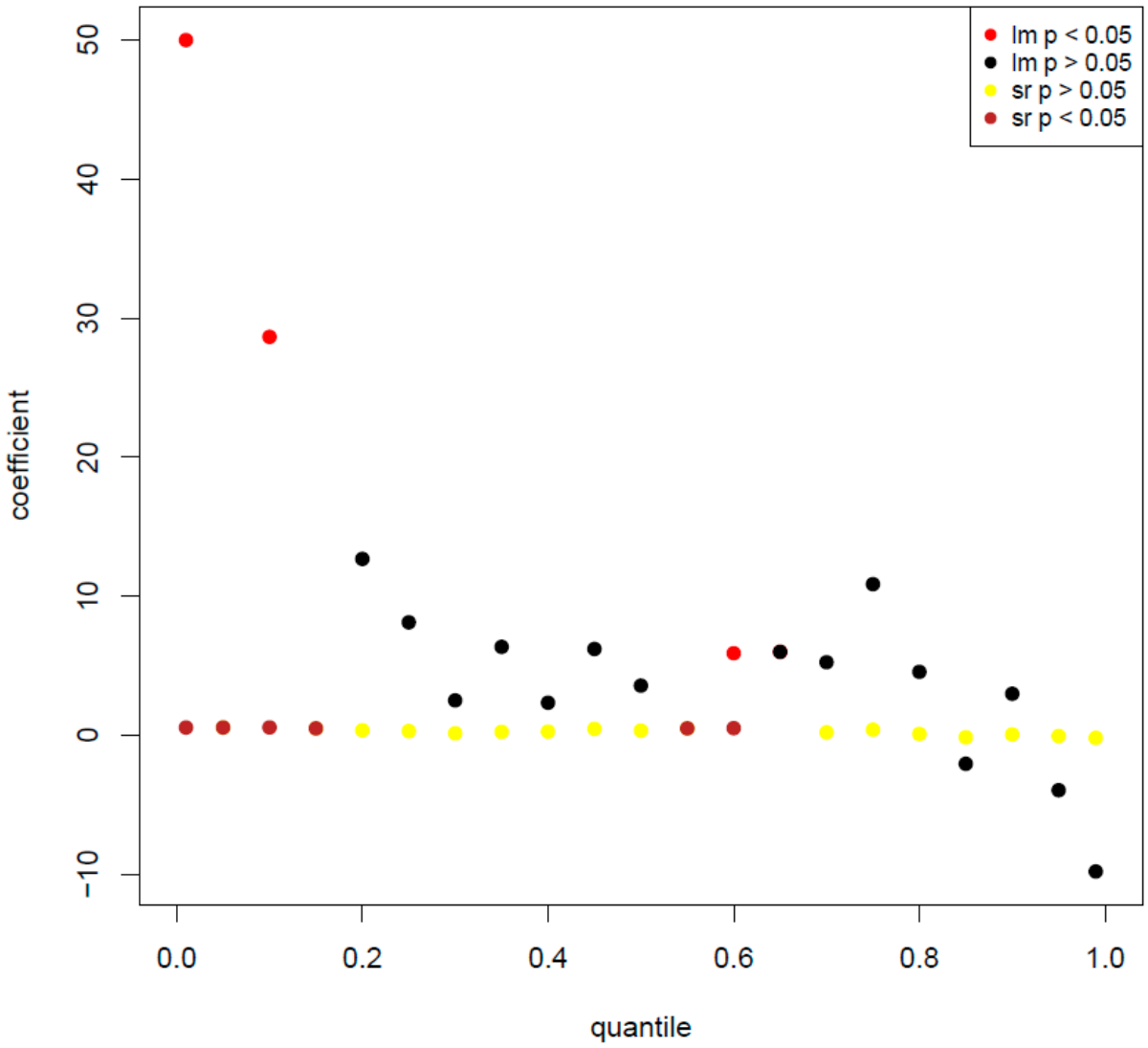

Figure S11. Trend and correlation significance between friction slope and depth error for the 2% AEP flow at Bronx Wash. "lm" indicates the ordinary least squares regression and "sr" indicates Spearman's ρ.

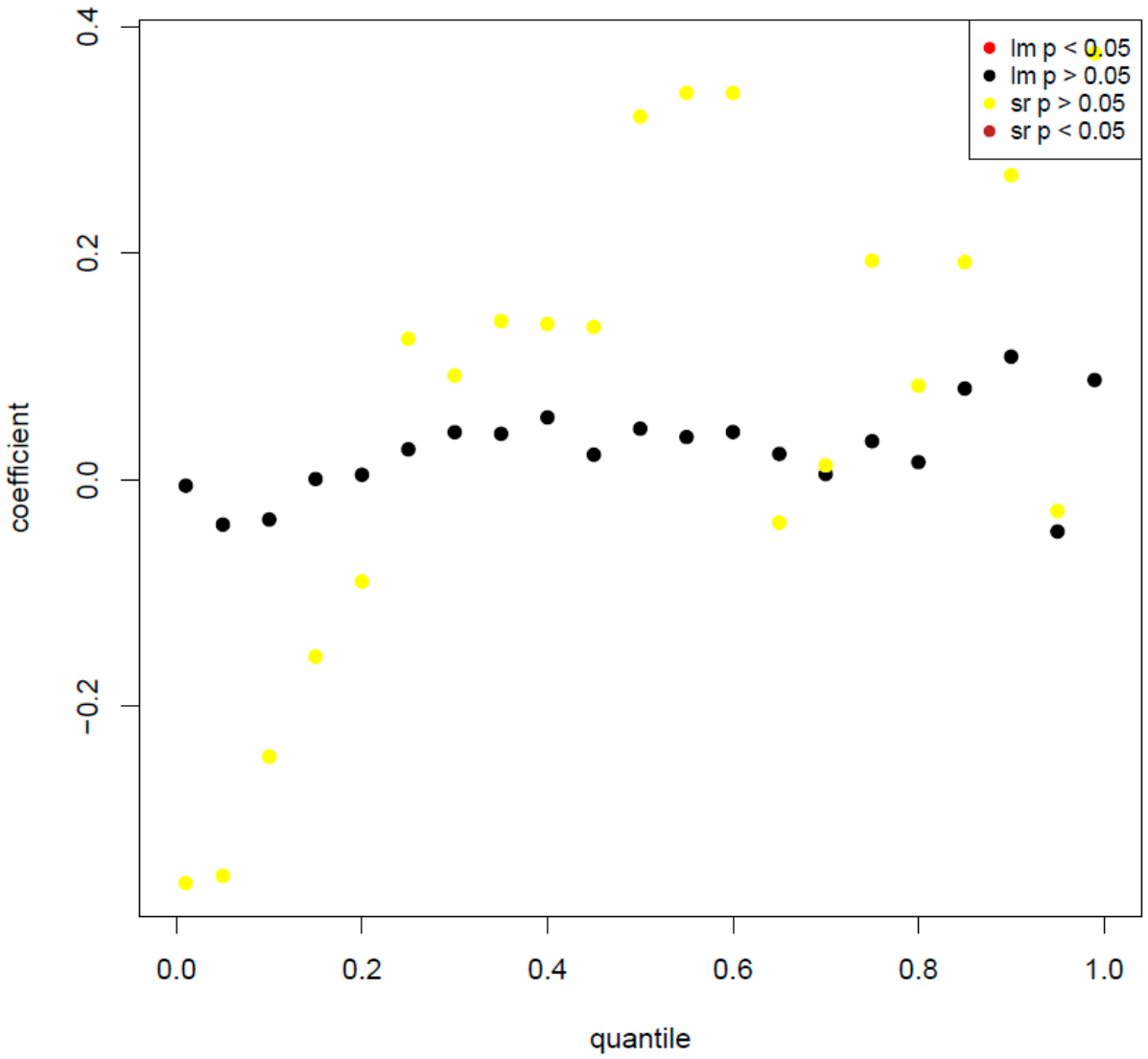

Figure S12. Trend and correlation significance between Froude number and depth error for the 2% AEP flow at Bronx Wash. "lm" indicates the ordinary least squares regression and "sr" indicates Spearman's ρ.

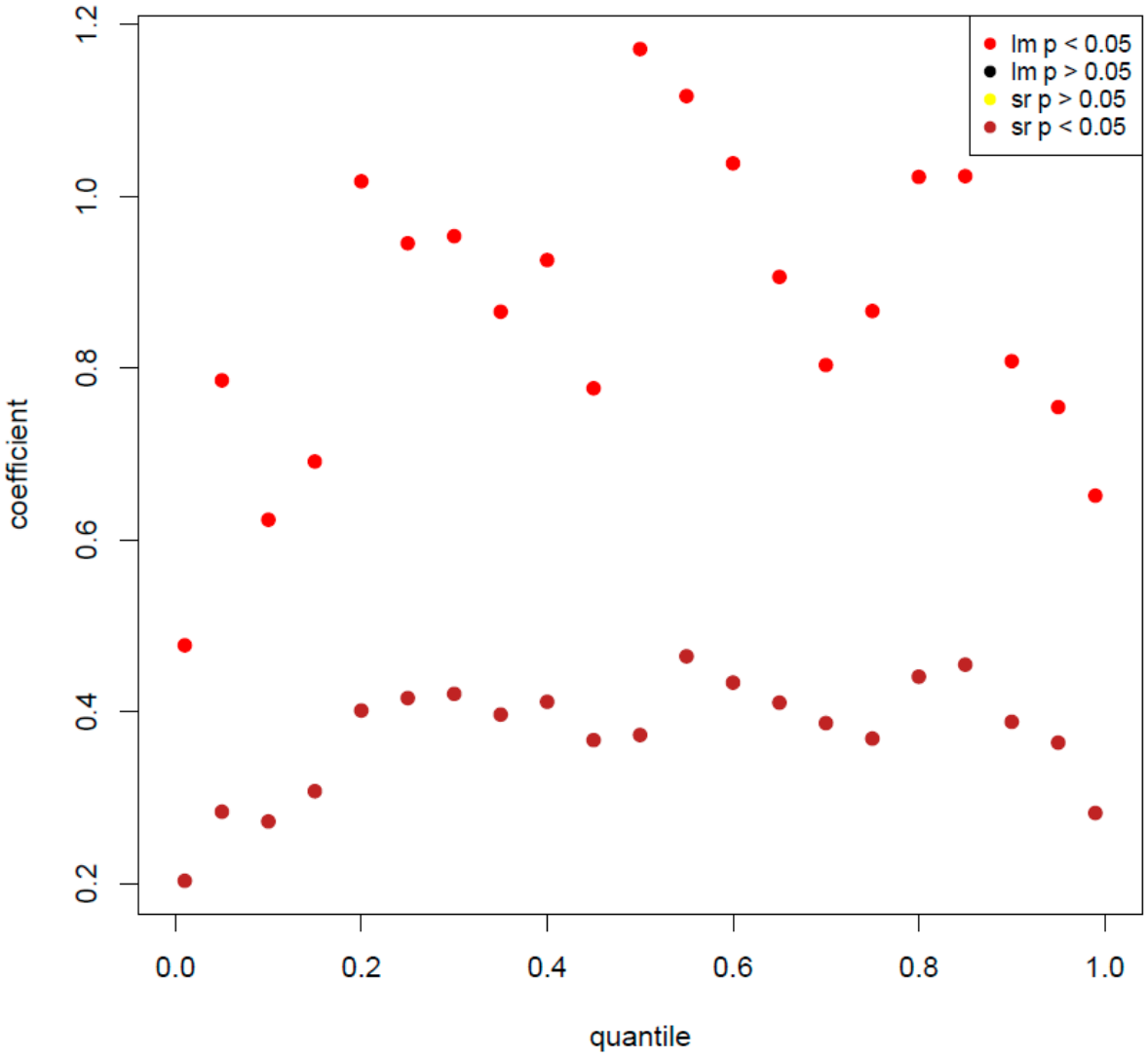

Figure S13. Trend and correlation significance between confinement ratio and top width error for the 1% AEP flow at Proctor Creek. "lm" indicates the ordinary least squares regression and "sr" indicates Spearman's ρ.

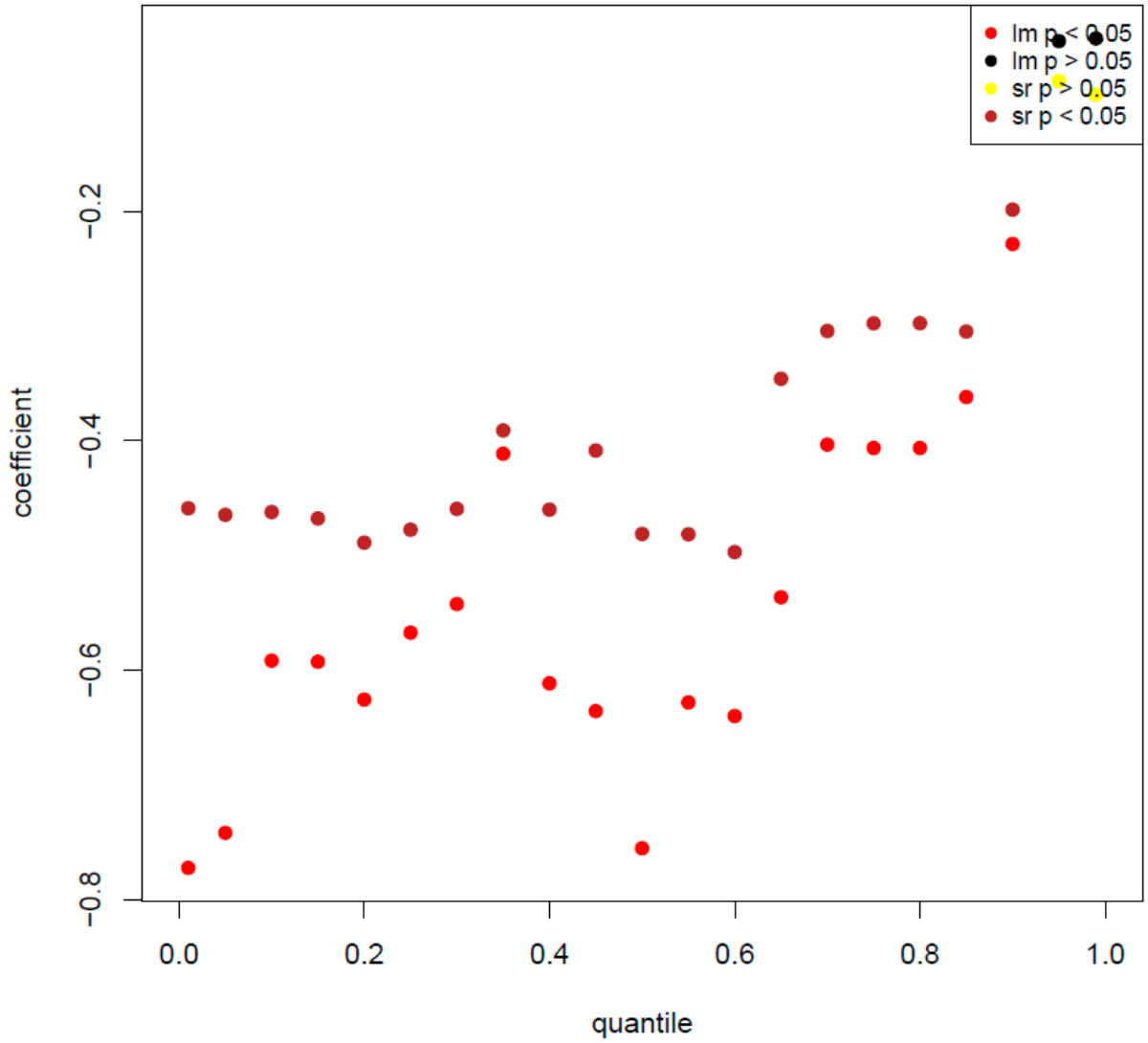

Figure S14. Trend and correlation significance between friction slope and top width error for the 1% AEP flow at Proctor Creek. "lm" indicates the ordinary least squares regression and "sr" indicates Spearman's ρ.

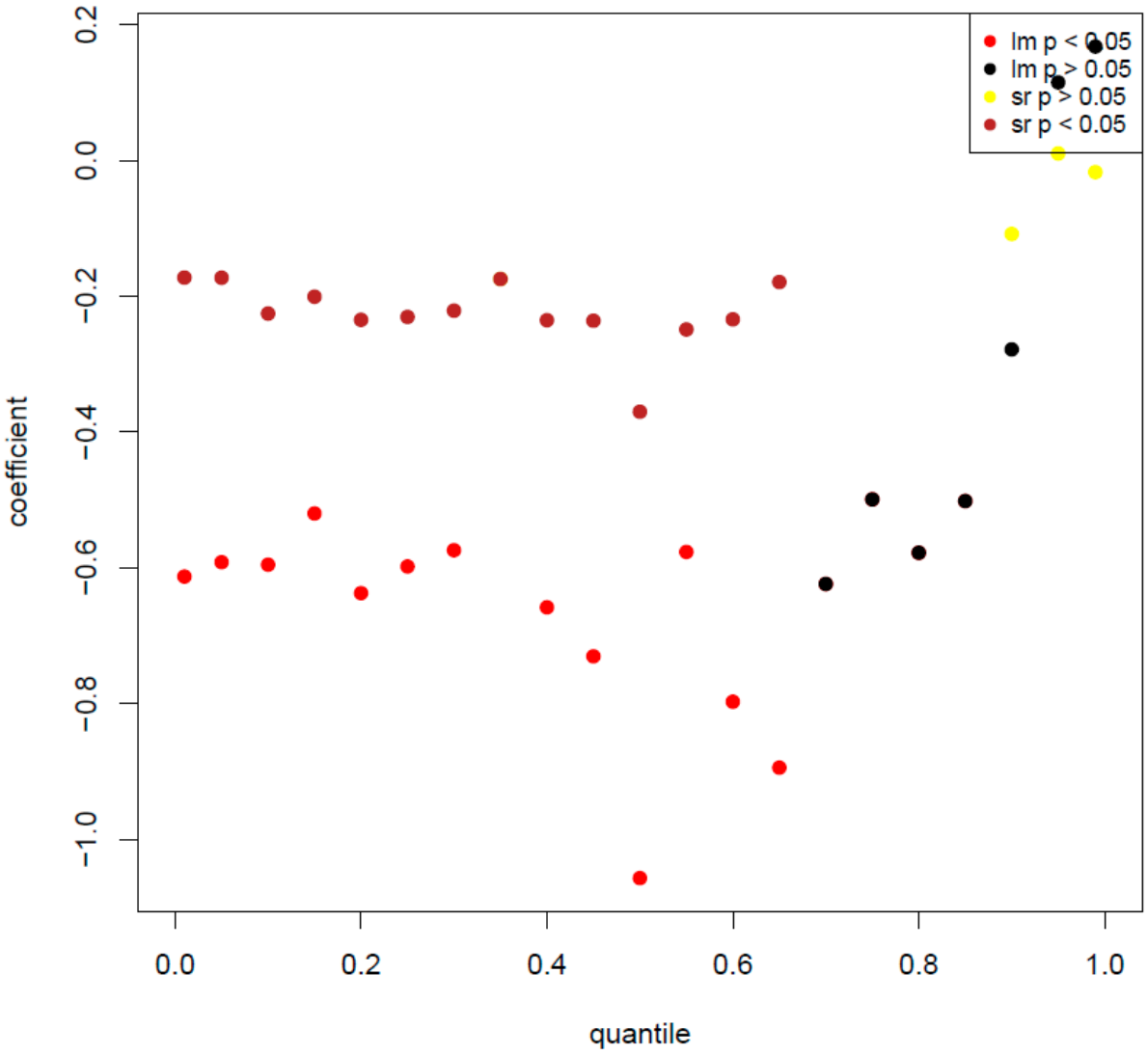

Figure S15. Trend and correlation significance between Froude number and top width error for the 1% AEP flow at Proctor Creek. "lm" indicates the ordinary least squares regression and "sr" indicates Spearman's ρ.

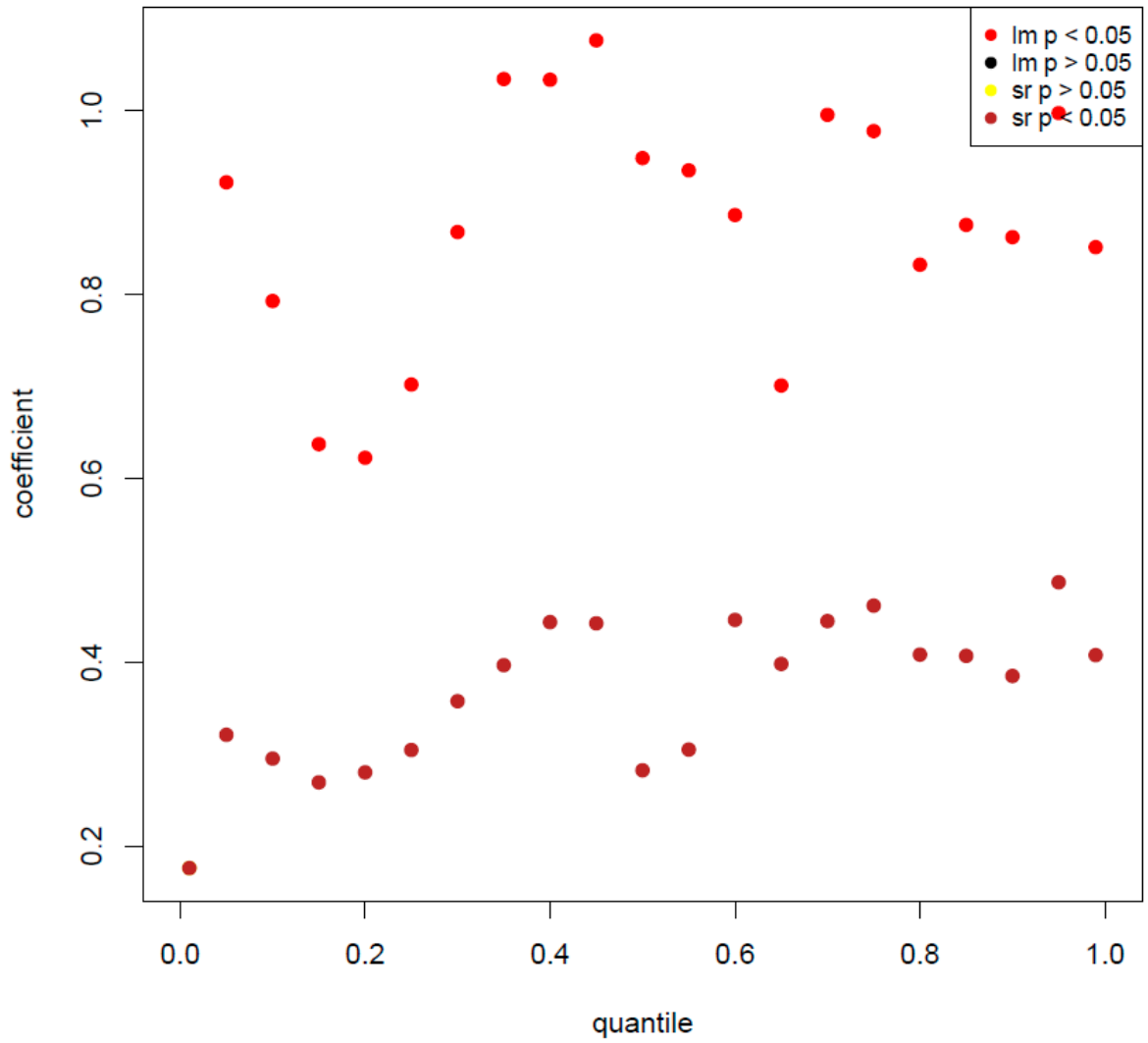

Figure S16. Trend and correlation significance between confinement ratio and top width error for the 2% AEP flow at Proctor Creek. "lm" indicates the ordinary least squares regression and "sr" indicates Spearman's ρ.

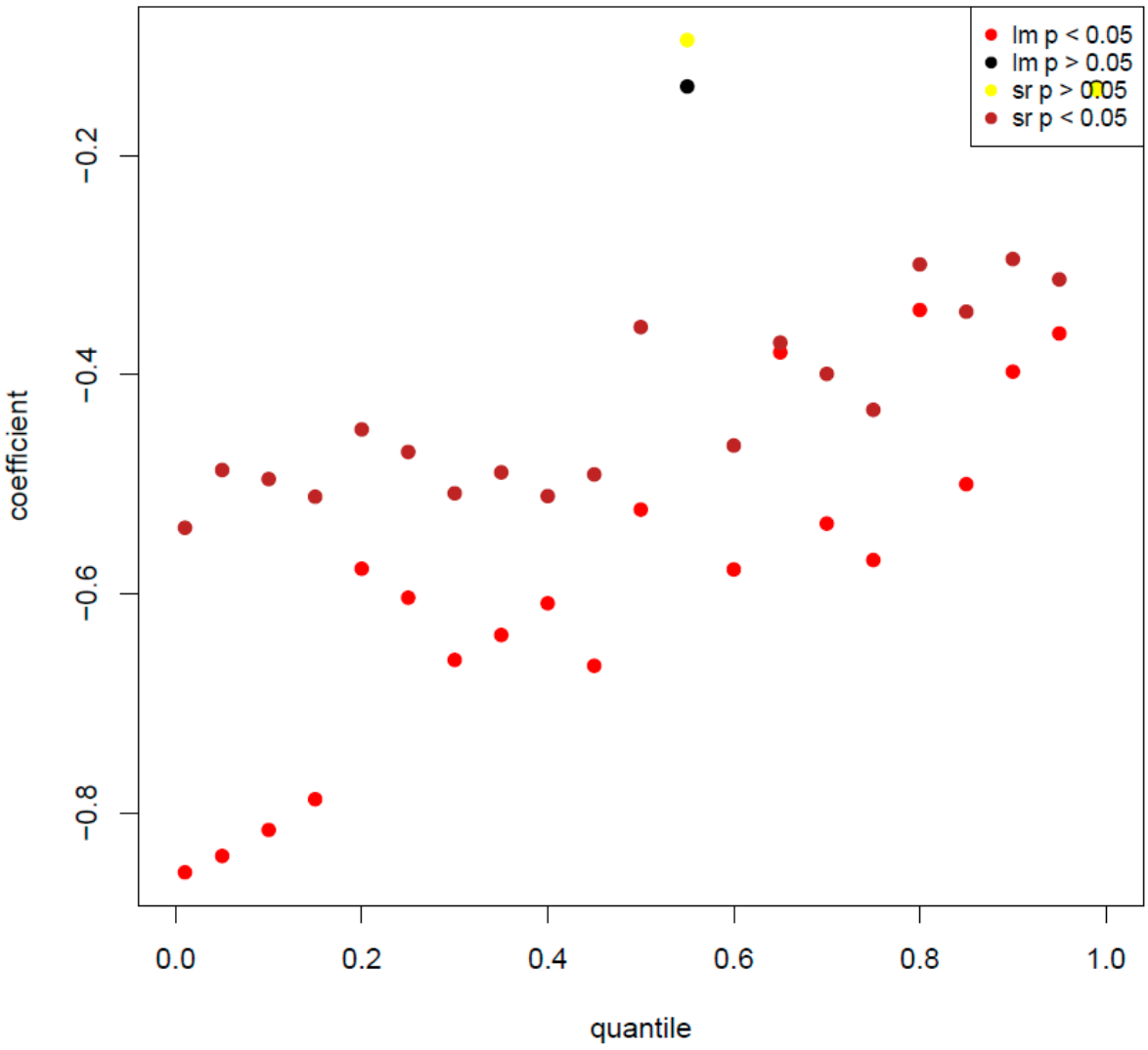

Figure S17. Trend and correlation significance between friction slope and top width error for the 2% AEP flow at Proctor Creek. "lm" indicates the ordinary least squares regression and "sr" indicates Spearman's ρ.

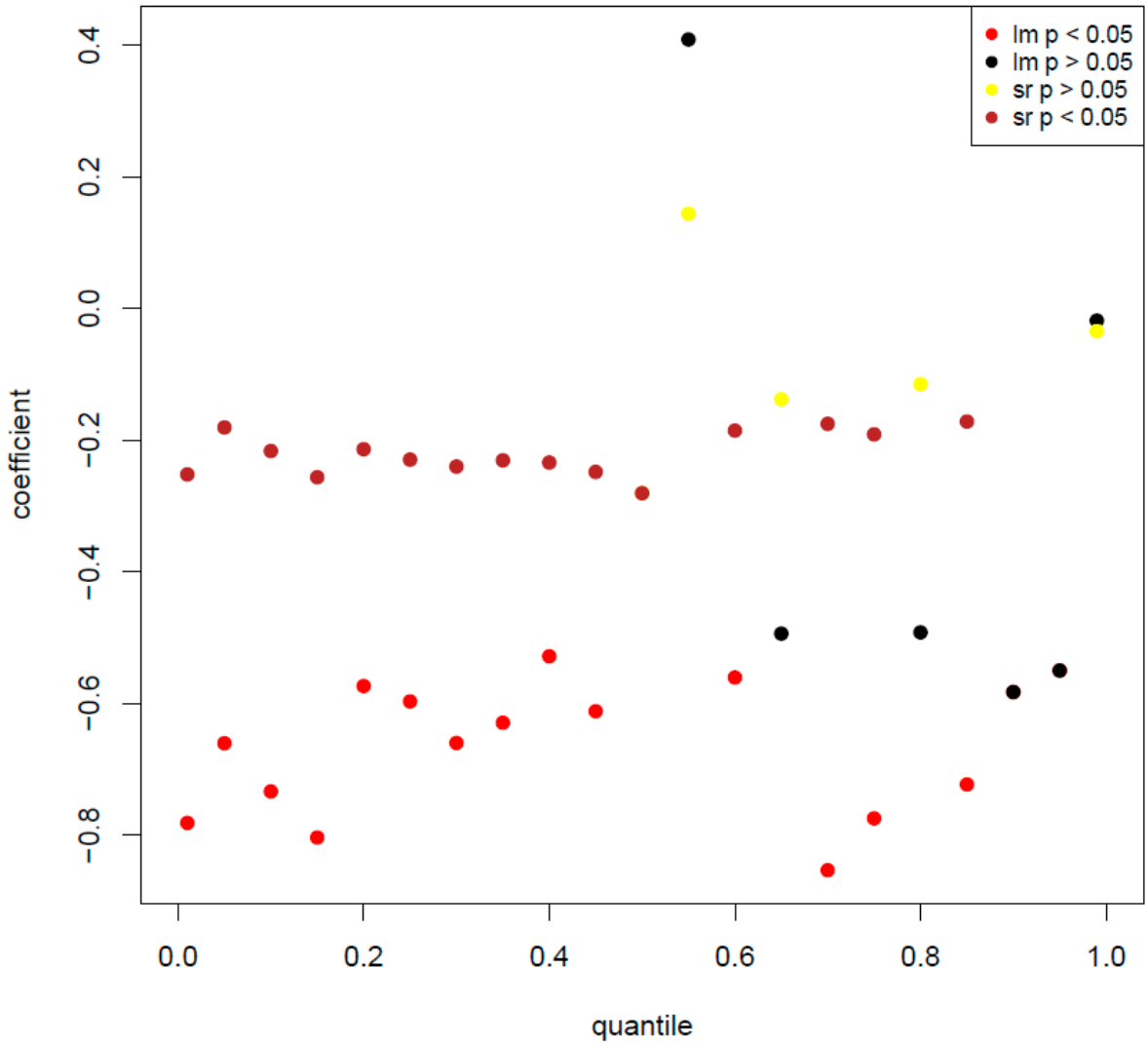

Figure S18. Trend and correlation significance between Froude number and top width error for the 2% AEP flow at Bronx Wash. "lm" indicates the ordinary least squares regression and "sr" indicates Spearman's ρ.

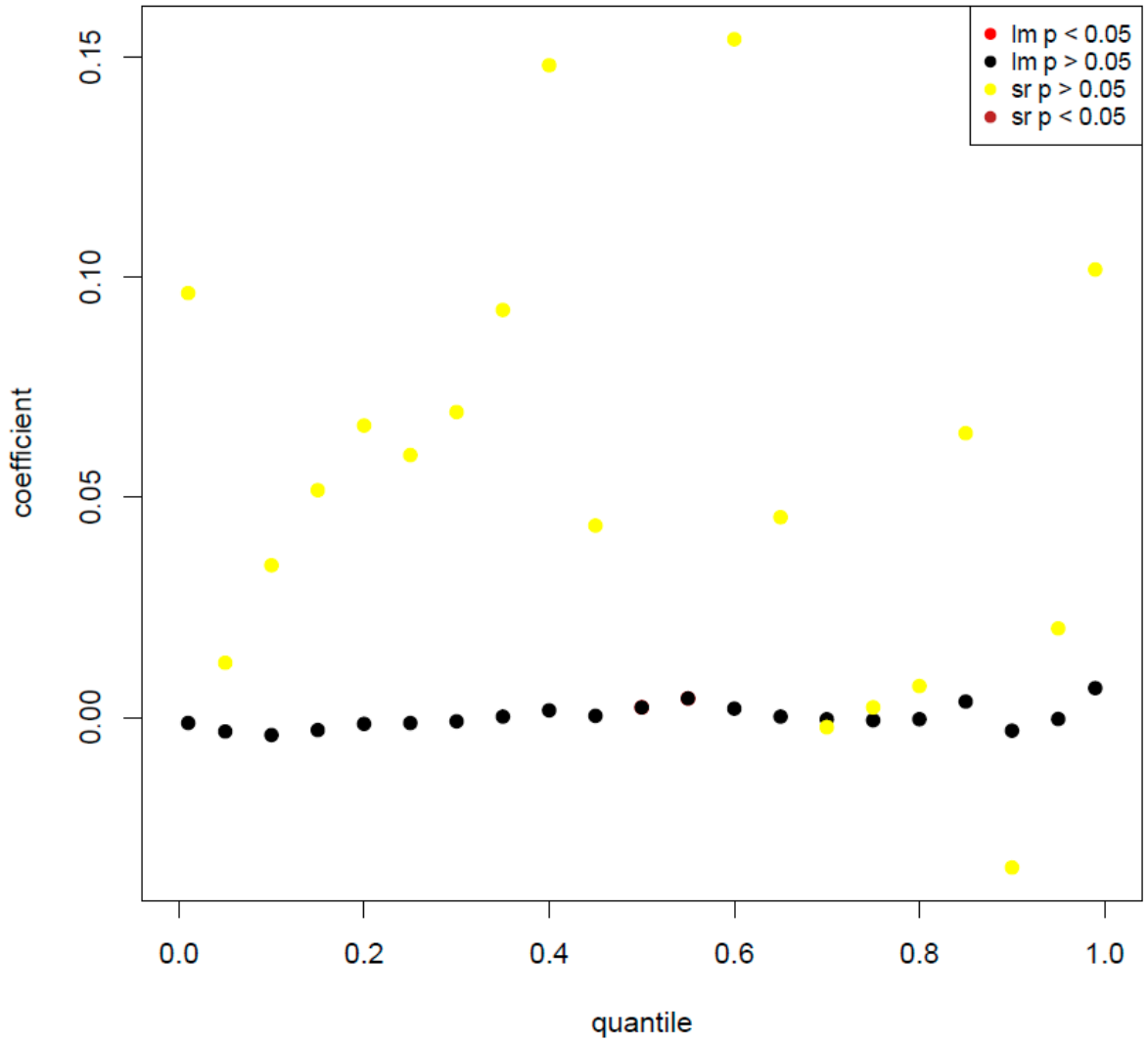

Figure S19. Trend and correlation significance between confinement ratio and depth error for the 1% AEP flow at Proctor Creek. "lm" indicates the ordinary least squares regression and "sr" indicates Spearman's ρ.

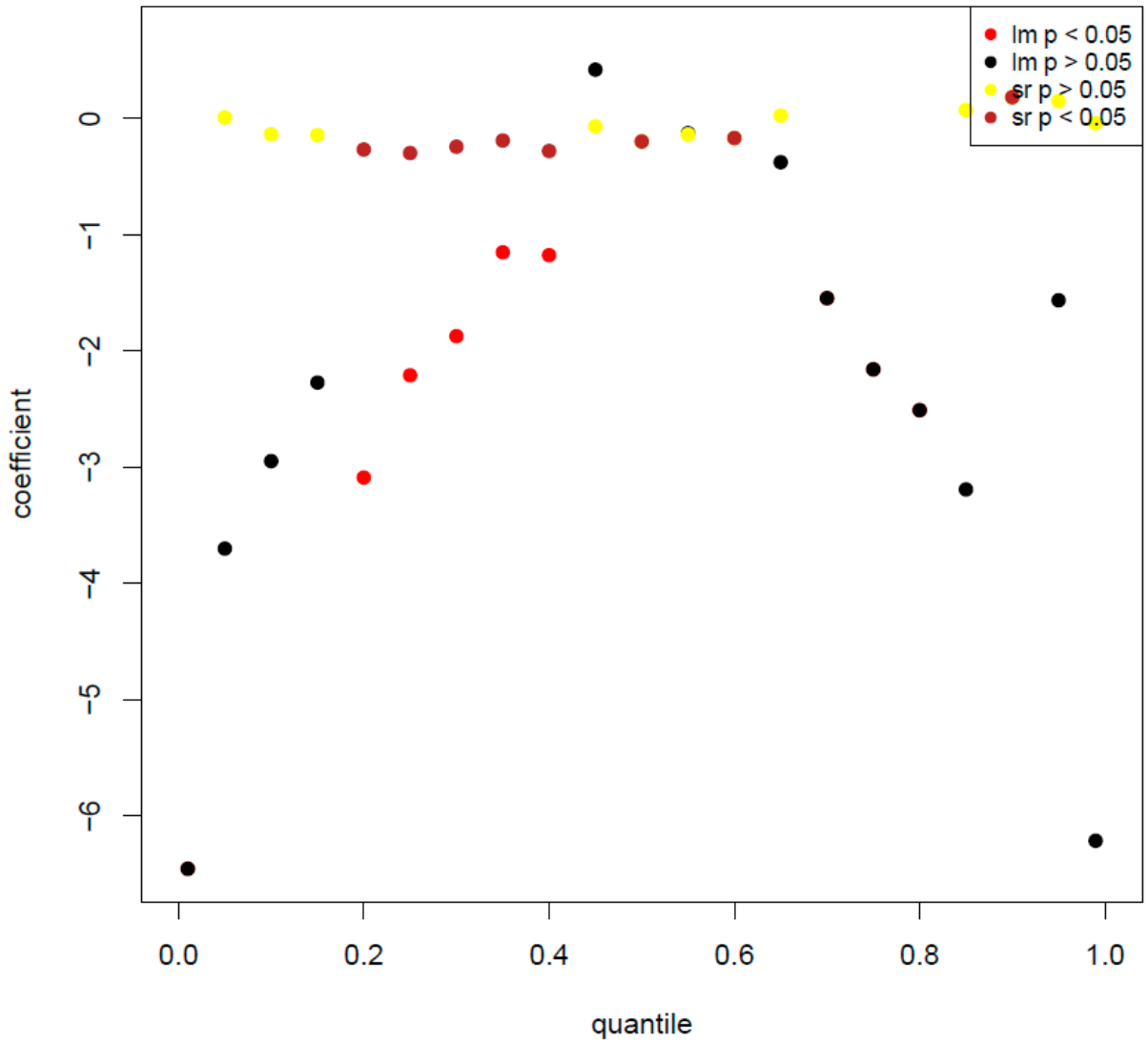

Figure S20. Trend and correlation significance between friction slope and depth error for the 1% AEP flow at Proctor Creek. "lm" indicates the ordinary least squares regression and "sr" indicates Spearman's ρ.

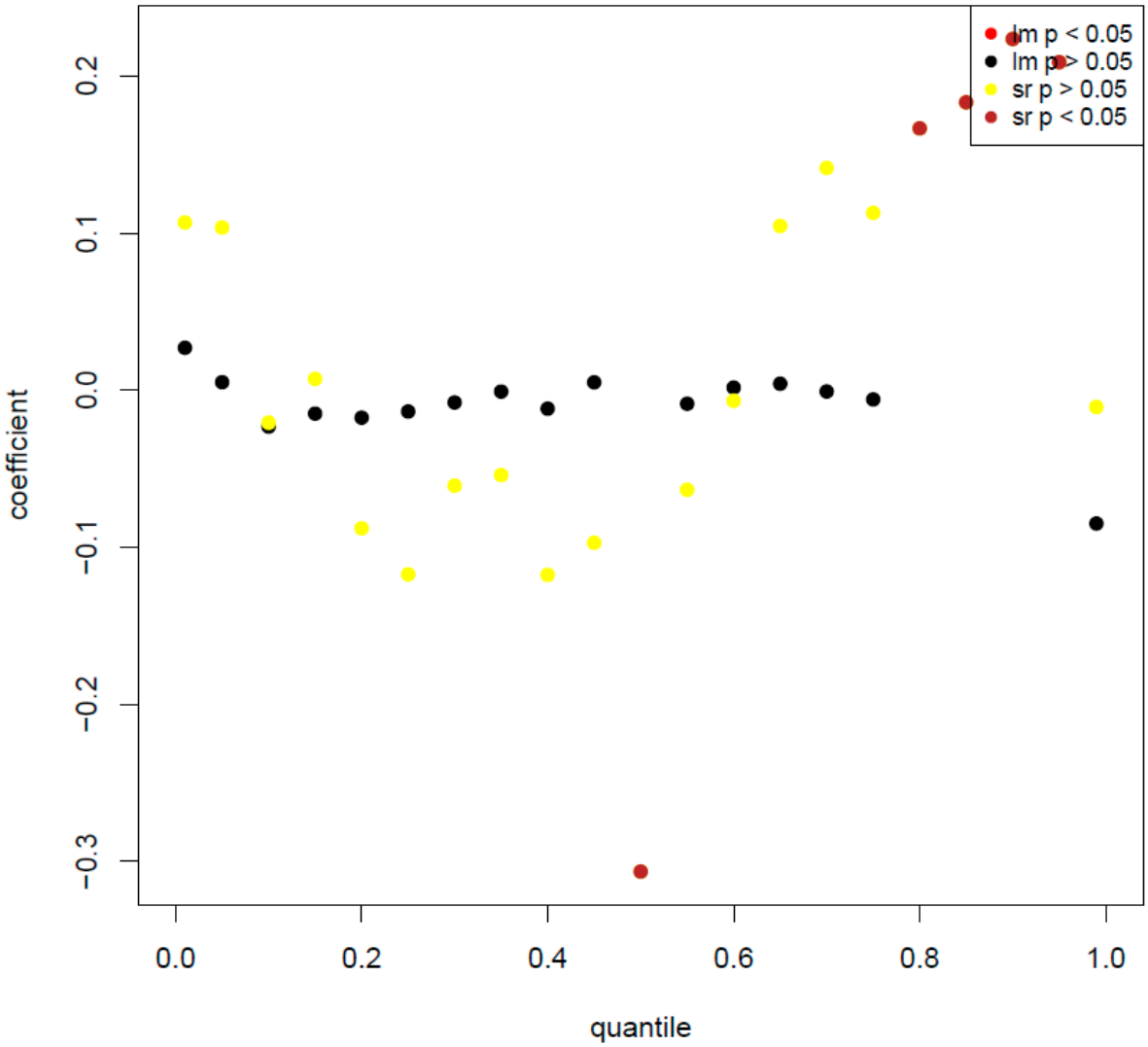

Figure S21. Trend and correlation significance between Froude number and depth error for the 1% AEP flow at Proctor Creek. "lm" indicates the ordinary least squares regression and "sr" indicates Spearman's ρ.

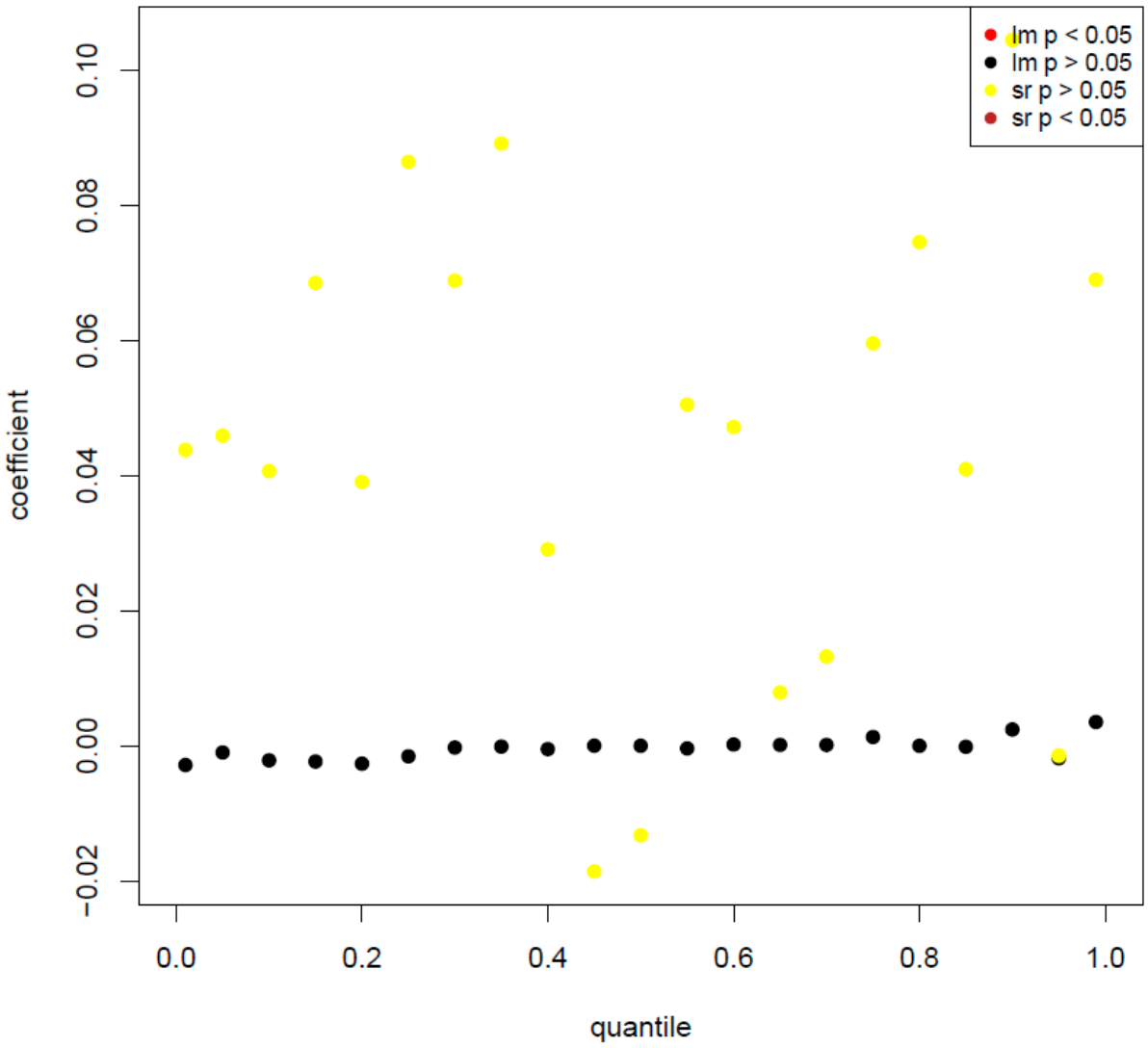

Figure S22. Trend and correlation significance between confinement ratio and depth error for the 2% AEP flow at Proctor Creek. "lm" indicates the ordinary least squares regression and "sr" indicates Spearman's ρ.

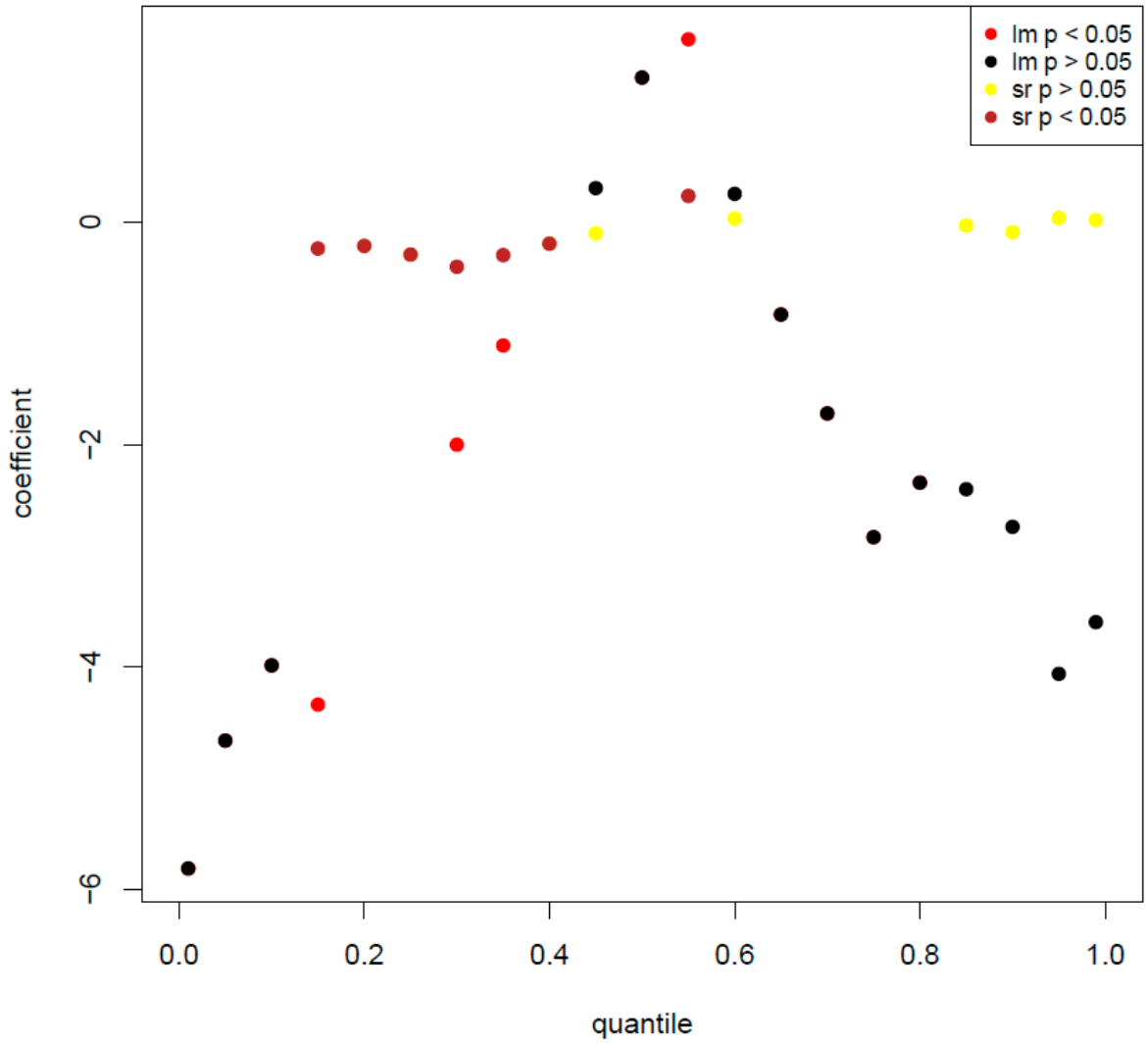

Figure S23. Trend and correlation significance between friction slope and depth error for the 2% AEP flow at Proctor Creek. "lm" indicates the ordinary least squares regression and "sr" indicates Spearman's ρ.

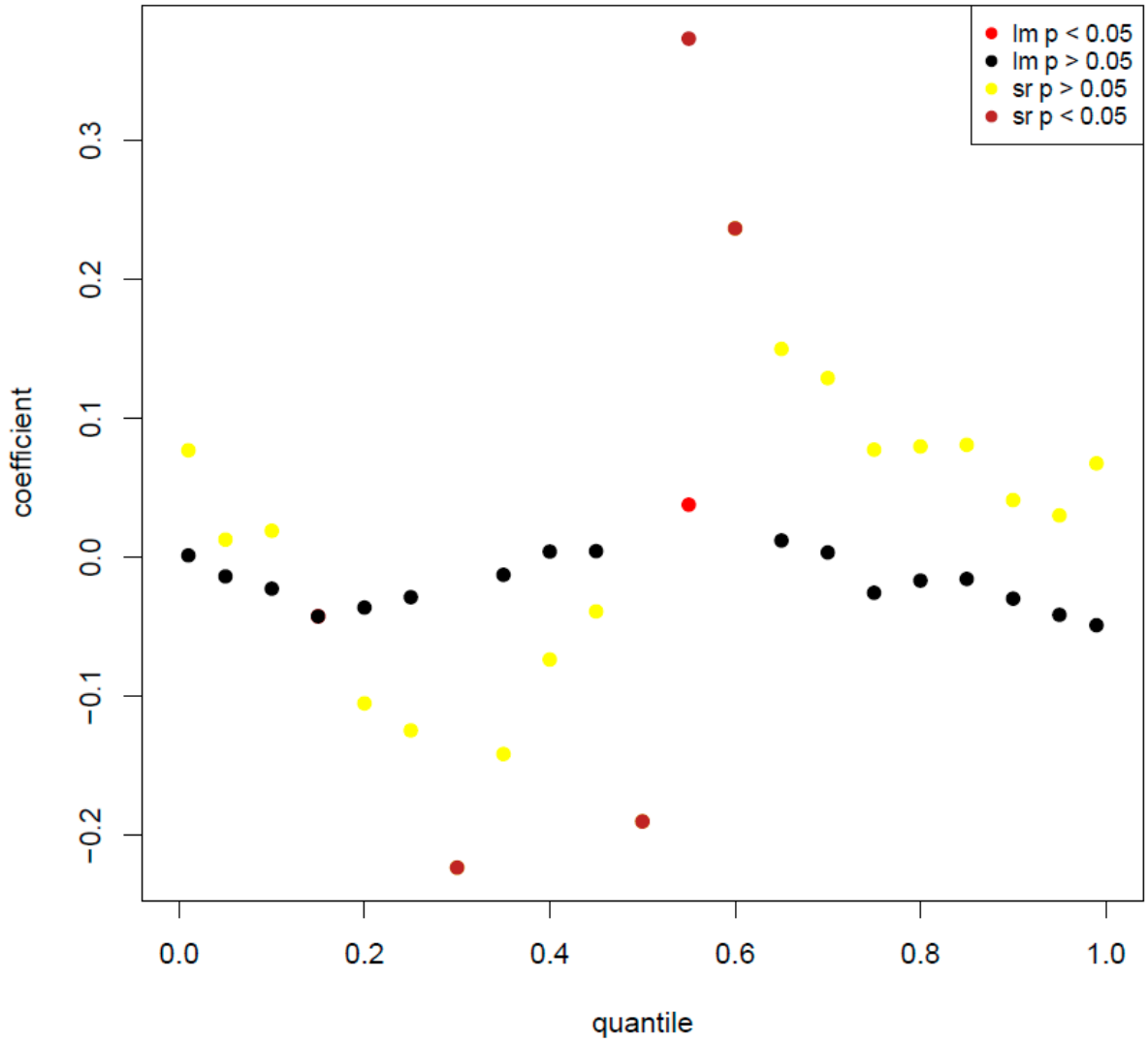

Figure S24. Trend and correlation significance between Froude number and depth error for the 2% AEP flow at Proctor Creek. "lm" indicates the ordinary least squares regression and "sr" indicates Spearman's ρ.