

## SUPPORTING INFORMATION

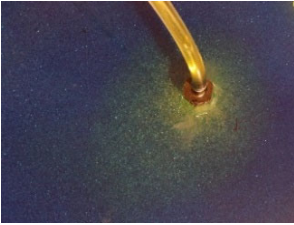
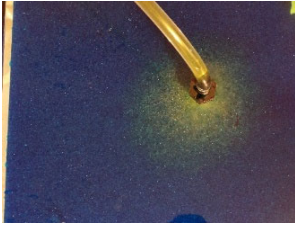
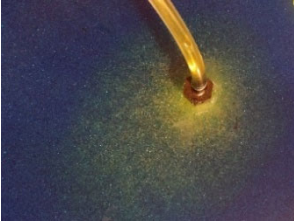
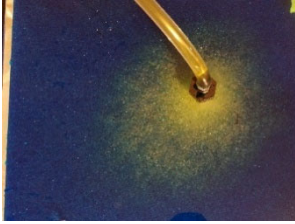
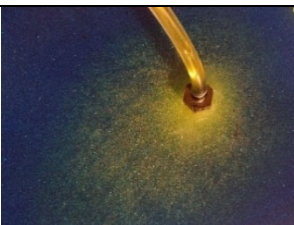
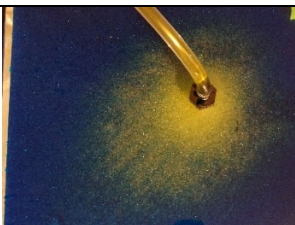
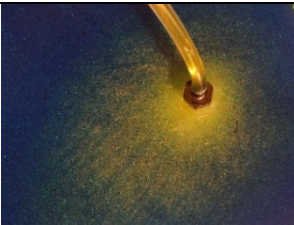

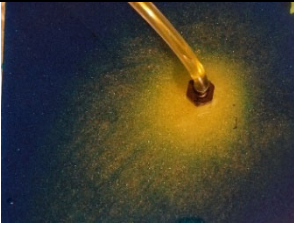
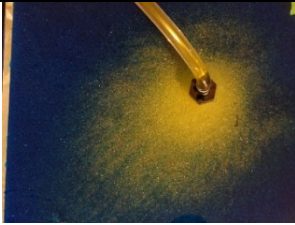
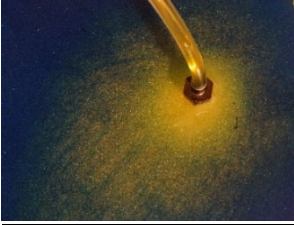

### **Thermally Enhanced Spreading of Miscible Plumes in Porous Media**

Ryan G. Tigera, Whitney L. Benson, and David C. Mays

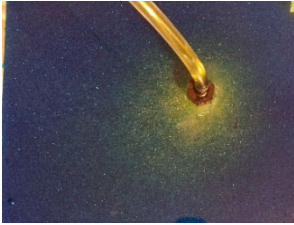
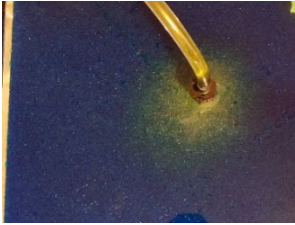
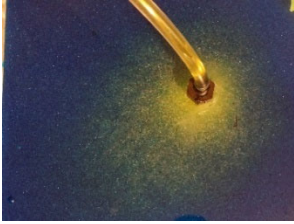

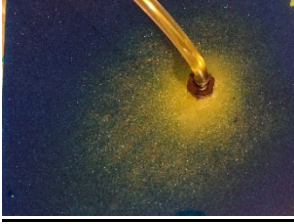

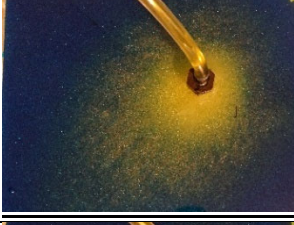
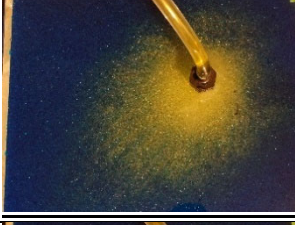
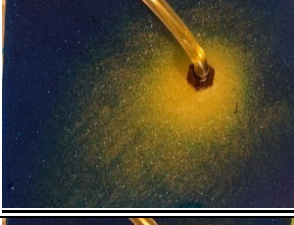

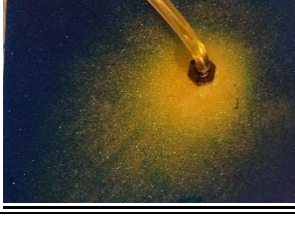
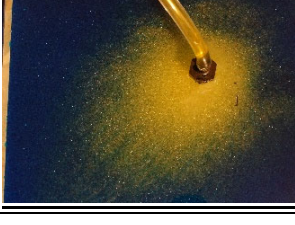
26 March 2023

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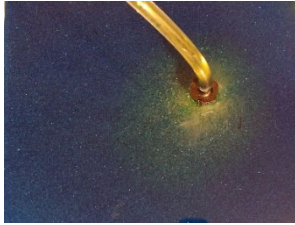
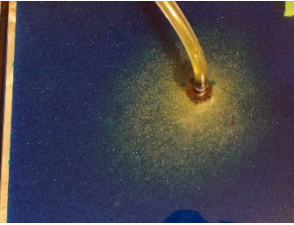
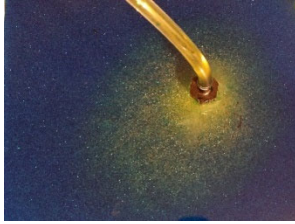
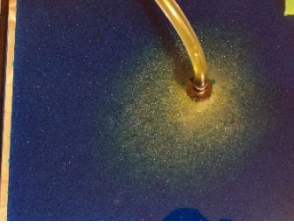
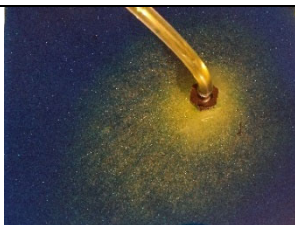
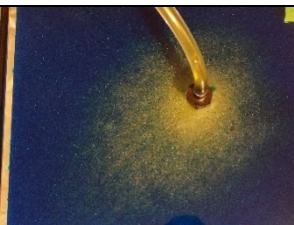
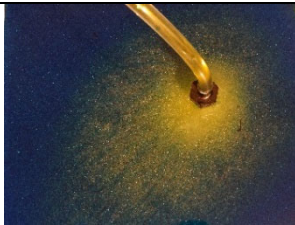
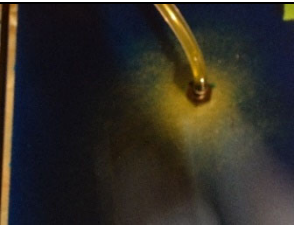
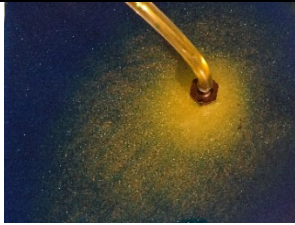
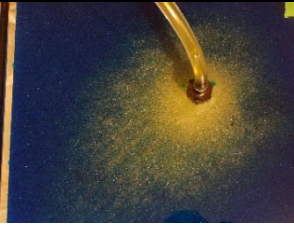
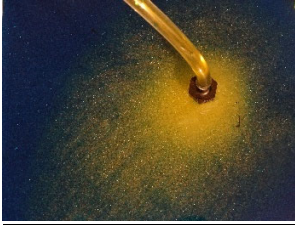
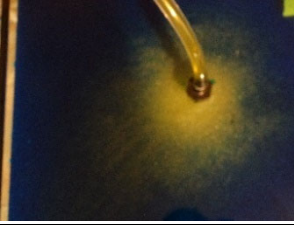
Volume	Control	Thermally enhanced
$V = 10 \text{ mL}$		
$V = 20 \text{ mL}$		
$V = 30 \text{ mL}$		
$V = 40 \text{ mL}$		
$V = 50 \text{ mL}$		
$V = 60 \text{ mL}$		

**Figure S1:** Results for experiment 1 with  $Pe = 320$  for cumulative injection volume  $10 \text{ mL} \leq V \leq 60 \text{ mL}$ . The isothermal control at left has mobility ratio  $R = 0$ . The thermally enhanced test at right has mobility ratio  $R = 1.2$ .

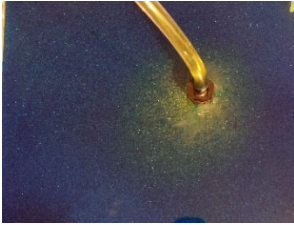
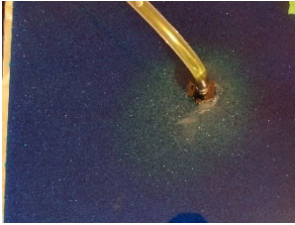

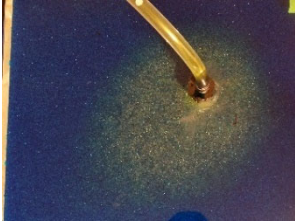
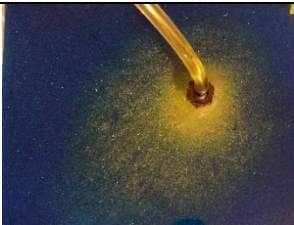
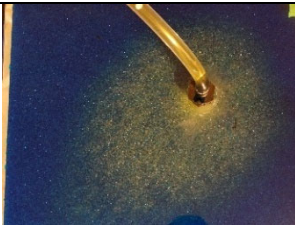




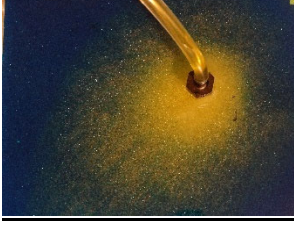

Volume	Control	Thermally enhanced
$V = 10 \text{ mL}$		
$V = 20 \text{ mL}$		
$V = 30 \text{ mL}$		
$V = 40 \text{ mL}$		
$V = 50 \text{ mL}$		
$V = 60 \text{ mL}$		

**Figure S2:** Results for experiment 2 with  $Pe = 160$  for cumulative injection volume  $10 \text{ mL} \leq V \leq 60 \text{ mL}$ . The isothermal control at left has mobility ratio  $R = 0$ . The thermally enhanced test at right has mobility ratio  $R = 1.2$ .



Volume	Control	Thermally-enhanced
$V = 10 \text{ mL}$		
$V = 20 \text{ mL}$		
$V = 30 \text{ mL}$		
$V = 40 \text{ mL}$		
$V = 50 \text{ mL}$		
$V = 60 \text{ mL}$		

**Figure S3:** Results for experiment 3 with  $Pe = 80$  for cumulative injection volume  $10 \text{ mL} \leq V \leq 60 \text{ mL}$ . The isothermal control at left has mobility ratio  $R = 0$ . The thermally enhanced test at right has mobility ratio  $R = 1.2$ .

Volume	Control	Thermally enhanced
$V = 10 \text{ mL}$		
$V = 20 \text{ mL}$		
$V = 30 \text{ mL}$		
$V = 40 \text{ mL}$		
$V = 50 \text{ mL}$		
$V = 60 \text{ mL}$		

**Figure S4:** Results for experiment 4 with  $Pe = 40$  for cumulative injection volume  $10 \text{ mL} \leq V \leq 60 \text{ mL}$ . The isothermal control at left has mobility ratio  $R = 0$ . The thermally enhanced test at right has mobility ratio  $R = 1.2$ .