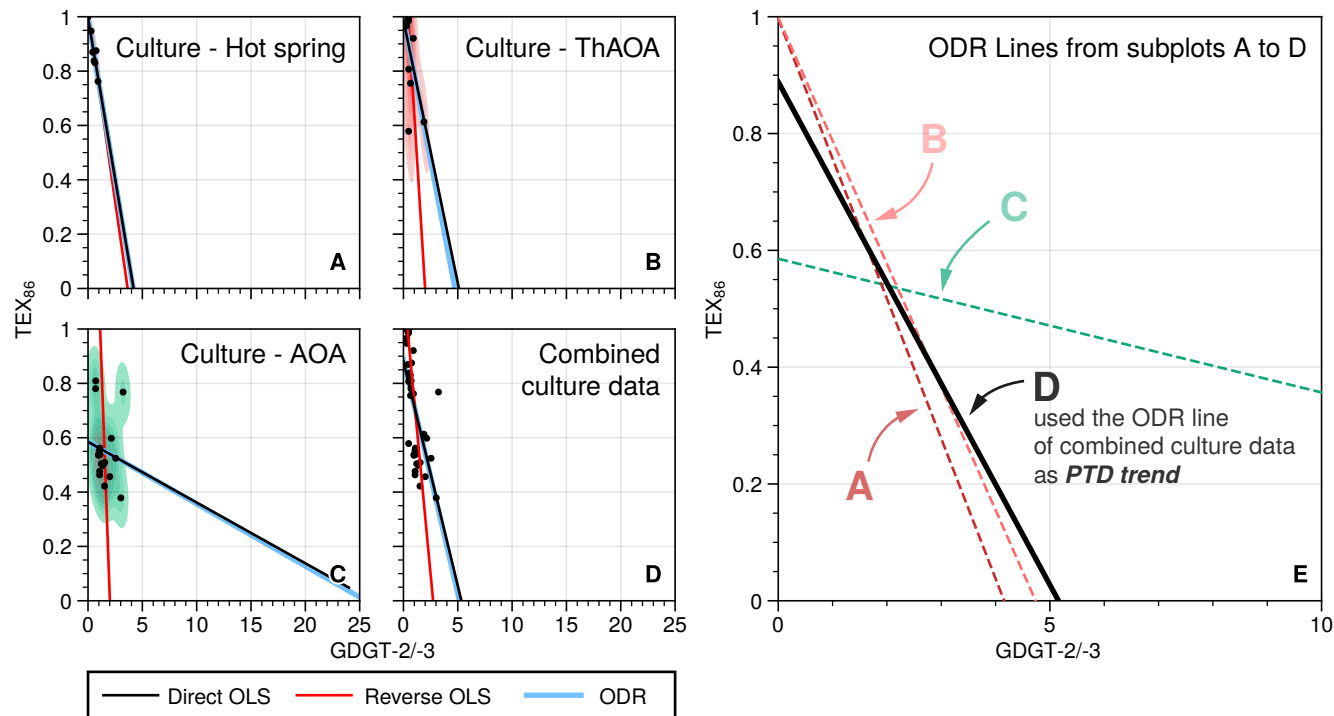


## Linear regressions comparison for establishing PTD trend



## F. Summary of Linear Regression Techniques

Subplot	Dataset	Dataset	Regression equation Expressed as $Y = mX + c$ where $m$ = slope, $c$ = y-intercept	$r^2$	p-value
A	Culture - Hot spring	Direct Ordinary Least Square (OLS)	$y = -0.238x + 0.996$	0.852	3.030e-03
		Reverse OLS	$y = -0.279x + 1.017$	0.852	3.030e-03
		Orthogonal Distance Regression (ODR)	$y = -0.240x + 0.997$	0.866	2.916e-03
B	Culture - ThAOA	Direct OLS (TEX <sub>86</sub> on GDGT-2/-3)	$y = -0.193x + 0.987$	0.301	1.006e-01
		Reverse OLS (GDGT-2/-3 on TEX <sub>86</sub> )	$y = -0.642x + 1.281$	0.301	1.006e-01
		ODR	$y = -0.211x + 0.999$	0.357	7.841e-02
C	Culture - AOA	Direct OLS	$y = -0.022x + 0.585$	0.020	5.753e-01
		Reverse OLS	$y = -1.115x + 2.245$	0.020	5.753e-01
		ODR	$y = -0.021x + 0.586$	0.021	5.659e-01
D	Combined culture data	Direct OLS	$y = -0.165x + 0.881$	0.389	6.236e-05
		Reverse OLS	$y = -2.357x + 2.730$	0.389	6.236e-05
		ODR	$y = -0.172x + 0.888$	0.423	2.916e-03