

## APPENDIX

**Table A1. Descriptive Statistics and Bivariate Correlations**

	<b>Variables</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
<b>1</b>	Carbon dioxide injection projects	0.226	1.486	1						
<b>2</b>	Association affiliation	0.010	0.122	0.159	1					
<b>3</b>	Press releases	0.010	0.148	0.116	0.493	1				
<b>4</b>	Activist witnesses at hearings	7.185	11.460	0.059	0.049	0.021	1			
<b>5</b>	Firm protests	0.117	1.776	0.125	0.362	0.387	0.079	1		
<b>6</b>	Democrat control	0.547	0.048	-0.036	-0.055	-0.063	0.191	-0.037	1	
<b>7</b>	UN Framework Convention on Climate Change	0.427	0.495	0.063	0.070	0.066	0.187	0.074	-0.669	1
<b>8</b>	EOR technology efficiency	2574	1191	0.059	0.074	0.074	0.209	0.071	-0.645	0.870
<b>9</b>	EPA complaints	0.001	0.033	0.022	-0.004	-0.002	-0.002	-0.002	0.023	-0.030
<b>10</b>	Major industrial accidents	0.002	0.042	0.173	0.085	0.061	0.012	0.079	0.020	-0.018
<b>11</b>	Total congressional witnesses	63.072	82.502	0.044	0.083	0.044	0.328	0.051	-0.041	0.320
<b>12</b>	General EOR incentives	0.628	0.751	0.319	0.242	0.189	0.176	0.201	-0.421	0.704
<b>13</b>	CO2-specific EOR incentives	0.027	0.175	0.374	0.217	0.187	0.108	0.273	-0.117	0.193
<b>14</b>	Total EOR projects	0.682	3.977	0.462	0.251	0.133	-0.001	0.230	0.011	-0.021
<b>15</b>	Joint venture EOR projects	0.099	1.512	0.226	0.328	0.244	0.016	0.407	-0.063	0.062
<b>16</b>	Return on assets	3.269	71.916	-0.006	-0.004	-0.003	-0.017	-0.003	0.018	-0.019
<b>17</b>	Research and Development to sales	2.425	62.109	-0.011	-0.007	-0.005	-0.029	-0.005	0.028	-0.041
<b>18</b>	U.S. liquid oil reserves percentage	0.909	0.224	-0.206	-0.204	-0.150	0.010	-0.175	0.077	-0.066
<b>19</b>	U.S. liquid oil to gas production ratio	0.119	1.717	-0.002	-0.004	-0.003	-0.008	-0.003	-0.029	0.019
<b>20</b>	Firm revenues	3344695	23200000	0.318	0.240	0.173	0.130	0.192	-0.158	0.202
<b>21</b>	Crude oil to natural gas price ratio	2.076	0.544	0.017	0.002	-0.009	0.701	0.039	0.386	-0.228

	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>
<b>8</b>	1												
<b>9</b>	-0.033	1											
<b>10</b>	-0.023	0.175	1										
<b>11</b>	0.434	-0.026	-0.013	1									
<b>12</b>	0.759	-0.018	0.014	0.465	1								
<b>13</b>	0.173	-0.006	0.051	0.043	0.551	1							
<b>14</b>	-0.025	0.028	0.246	-0.010	0.203	0.254	1						
<b>15</b>	0.063	0.014	0.028	0.029	0.225	0.285	0.430	1					
<b>16</b>	-0.028	-0.001	-0.002	-0.020	-0.022	-0.005	-0.007	-0.003	1				
<b>17</b>	-0.054	-0.002	-0.003	-0.033	-0.041	-0.011	-0.012	-0.005	0.280	1			
<b>18</b>	-0.073	-0.052	-0.100	-0.004	-0.277	-0.316	-0.238	-0.149	0.013	0.012	1		
<b>19</b>	0.020	-0.002	-0.002	0.005	0.008	-0.003	-0.005	-0.003	-0.001	-0.002	0.012	1	
<b>20</b>	0.185	0.061	0.110	0.091	0.401	0.337	0.363	0.178	-0.065	-0.111	-0.446	0.002	1
<b>21</b>	-0.175	0.006	0.008	0.038	-0.118	0.025	-0.008	-0.021	-0.008	-0.001	0.026	-0.007	0.072

**Table A2. First Stage of Heckman Two-stage Regression of CO<sub>2</sub>-EOR Injection**

<b>Variables</b>	<b>Model 1</b>
Firm revenues (logged)	0.301*** (0.021)
Crude oil to natural gas price ratio	-0.265+ (0.142)
Activist witnesses at hearings	0.012* (0.005)
Firm protests	0.003 (0.033)
General EOR incentives	1.057*** (0.116)
CO <sub>2</sub> -specific EOR incentives	-0.281 (0.233)
Democrat control	-2.233 (1.457)
UN Framework Convention on Climate Change	-0.545** (0.211)
EOR technology efficiency	-0.000*** (0.000)
EPA complaints	-0.219 (0.782)
Major industrial accidents	1.001 (0.725)
Total congressional witnesses	-0.003*** (0.001)
Return on assets	-0.005 (0.025)
Research and development to sales	-0.065 (0.060)
U.S. liquid oil reserves percentage	0.290 (0.187)
U.S. oil to gas production ratio	0.012 (0.016)
Firm fixed effects	Yes
Constant	-2.839** (1.011)
LR Chi squared	1010.25***
No. of Observations	3310

Standard errors in parentheses  
\*\*\* p<0.001, \*\* p<0.01, \* p<0.05, + p<0.10

**Table A3. Logit Analysis of CO<sub>2</sub>-EOR Injection at the EOR-project Level**

<b>Variables</b>	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>
Activist witnesses at hearings		0.026** (0.009)	0.026** (0.009)
General EOR incentives	0.539* (0.251)	0.775** (0.263)	0.775* (0.372)
CO <sub>2</sub> -specific EOR incentives	0.164 (0.570)	-0.209 (0.577)	-0.209 (0.640)
EOR project age	-0.113*** (0.018)	-0.124*** (0.018)	-0.124*** (0.025)
Reservoir Porosity	-0.060** (0.021)	-0.059** (0.021)	-0.059 (0.054)
Reservoir Permeability	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)
Reservoir Depth (feet, logged)	1.708*** (0.320)	1.795*** (0.324)	1.795** (0.622)
Oil Gravity °API	-0.018 (0.018)	-0.019 (0.018)	-0.019 (0.029)
Oil viscosity (in centipoise)	-0.002* (0.001)	-0.002* (0.001)	-0.002 (0.002)
Oil temperature	-0.008* (0.004)	-0.009* (0.004)	-0.009 (0.007)
EOR project size (acres, logged)	0.067 (0.061)	0.071 (0.062)	0.071 (0.124)
Number of producing wells	0.001*** (0.000)	0.001*** (0.000)	0.001 (0.001)
Percent of wells injected	0.202 (0.134)	0.205 (0.139)	0.205 (0.197)
Previous production was primary	1.068*** (0.257)	1.048*** (0.259)	1.048 (0.664)
Project joint venture (binary)	0.179 (0.919)	0.288 (0.932)	0.288 (1.601)
State natural gas processing capacity	0.131*** (0.024)	0.132*** (0.025)	0.132* (0.063)
State population (logged)	-0.043 (0.162)	-0.053 (0.165)	-0.053 (0.482)
State gross product per capita	-93.406*** (21.909)	-105.268*** (22.463)	-105.268* (41.947)
Democrat control	-1.665 (3.162)	-6.273+ (3.506)	-6.273* (2.876)
UN Framework Convention on Climate Change	-0.257 (0.488)	-0.232 (0.485)	-0.232 (0.474)
EOR technology efficiency	0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)
Total congressional witnesses	-0.003 (0.002)	-0.004+ (0.002)	-0.004 (0.002)
Constant	-14.121** (4.411)	-11.520* (4.524)	-11.520 (9.996)
Geological formation controls	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes
Firm cluster	No	No	Yes
LR chi squared (Wald chi 2 for cluster analysis)	1863.13***	1872.81***	434.73***

No. of Observations	2311	2311	2311
Standard errors in parentheses			
*** p<0.001, ** p<0.01, * p<0.05, + p<0.10			

**Table A4. Logit Analysis of EOR Project Profitability (1=yes, 0=no)**

Variable	Model 1	Model 2
CO <sub>2</sub> injection		-1.353*** (0.204)
EOR project age	0.140*** (0.015)	0.135*** (0.015)
General EOR incentives	-0.234 (0.229)	0.021 (0.240)
CO <sub>2</sub> -specific EOR incentives	0.474 (0.520)	0.559 (0.512)
Reservoir porosity	0.038** (0.013)	0.038** (0.013)
Reservoir permeability	-0.000 (0.000)	-0.000 (0.000)
Reservoir depth (feet, logged)	-0.016 (0.110)	0.180 (0.116)
Oil gravity °API	-0.026** (0.008)	-0.020* (0.009)
Oil viscosity (in centipoise)	-0.000 (0.000)	-0.000 (0.000)
Oil temperature	-0.000 (0.001)	-0.000 (0.001)
EOR project size (acres, logged)	0.290*** (0.048)	0.267*** (0.050)
Number of producing wells	0.000 (0.001)	0.001 (0.001)
Percent of wells injected	0.019 (0.112)	0.094 (0.161)
Previous production was primary	-0.320* (0.136)	-0.355* (0.140)
Geological formation controls	Yes	Yes
Year fixed effects	Yes	Yes
Constant	-1.129 (0.913)	-2.702** (0.975)
LR chi-squared	543.72***	589.72***
No. of observations	2424	2424
Standard errors in parentheses		
*** p<0.001, ** p<0.01, * p<0.05, + p<0.10		

**Table A5. Linear Regression of Activists' Influence on Firm Lobbying (via political contributions)**

Variables	Model 1	Model 2	Model 3
Activist witnesses at hearings		0.008 (0.008)	0.001 (0.006)
Firm protests			0.353*** (0.019)
General EOR incentives	-0.086 (0.165)	-0.120 (0.168)	-0.039 (0.140)
CO2-specific EOR incentives	-0.330 (0.218)	-0.349 (0.218)	-0.477** (0.182)
Democrat control	4.646** (1.452)	1.063 (3.597)	2.435 (2.995)
UN Framework Convention on Climate Change	Dropped	Dropped	Dropped
EOR technology efficiency	0.000 (0.000)	0.000 (0.000)	-0.000 (0.000)
EPA complaints	Dropped	Dropped	Dropped
Major industrial accidents	2.325+ (1.240)	2.301+ (1.240)	0.611 (1.036)
Total congressional witnesses	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)
Firm revenues (logged)	0.036 (0.049)	0.018 (0.051)	0.038 (0.043)
Joint venture EOR projects	-0.139*** (0.031)	-0.140*** (0.031)	0.080** (0.028)
Return on assets	0.023 (0.400)	0.017 (0.400)	0.021 (0.333)
Research and development to sales	1.450 (3.374)	1.595 (3.376)	1.016 (2.810)
U.S. liquid oil reserves percentage	0.439 (0.359)	0.425 (0.359)	0.042 (0.300)
U.S. liquid oil to gas production ratio	0.002 (0.015)	0.002 (0.015)	0.001 (0.013)
Firm fixed effects	Yes	Yes	Yes
Constant	-2.916** (1.095)	-1.251 (1.880)	-1.427 (1.565)
F statistic	4.82***	4.55***	30.49***
No. of Observations	1055	1055	1055

Standard errors in parentheses  
\*\*\* p<0.001, \*\* p<0.01, \* p<0.05, + p<0.10

**Table A6. Linear Regression of Activists' Influence on Firm Lobbying (via congressional witnesses)**

Variables	Model 1	Model 2	Model 3
Activist witnesses at hearings		0.001*** (0.000)	0.001*** (0.000)
Firm protests			0.014*** (0.001)
General EOR incentives	0.028*** (0.007)	0.036*** (0.007)	0.034*** (0.007)
CO2-specific EOR incentives	0.093*** (0.014)	0.079*** (0.014)	0.062*** (0.014)
Democrat control	-0.323*** (0.061)	-0.486*** (0.068)	-0.484*** (0.066)
UN Framework Convention on Climate Change	0.046*** (0.010)	0.042*** (0.010)	0.043*** (0.010)
EOR technology efficiency	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)
EPA complaints	-0.031 (0.058)	-0.033 (0.057)	-0.035 (0.056)
Major industrial accidents	0.194*** (0.041)	0.195*** (0.041)	0.179*** (0.040)
Total congressional witnesses	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)
Firm revenues (logged)	0.003+ (0.002)	0.000 (0.002)	-0.000 (0.002)
Joint venture EOR projects	0.012*** (0.002)	0.012*** (0.002)	0.008*** (0.002)
Return on assets	0.001 (0.003)	0.001 (0.003)	0.001 (0.003)
Research and development to sales	0.004 (0.008)	0.002 (0.008)	0.002 (0.008)
U.S. liquid oil reserves percentage	-0.018 (0.018)	-0.020 (0.018)	-0.013 (0.018)
U.S. liquid oil to gas production ratio	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)
Firm fixed effects	Yes	Yes	Yes
Constant	0.215*** (0.046)	0.340*** (0.052)	0.342*** (0.051)
F statistic	32.55***	32.64***	38.29***
No. of Observations	3449	3449	3449
Standard errors in parentheses			
*** p<0.001, ** p<0.01, * p<0.05, + p<0.10			

**Figure A1: Activist Witnesses and Wells Injected with CO<sub>2</sub>-EOR**

