Publicly available data from the Colorado Oil and Gas Conservation Commission (COGCC) indicates there were 509 spills in 2016, more than one per day. The number of spills last year marked a decline from the 615 reported spills and incidents in 2015, reflecting the decrease in drilling activity.

As drilling and production increase in Colorado—which is expected as the price of oil and gas may increase in the coming years—we also expect to see spills increase. Monitoring these incidents help to inform Coloradans about the impacts of oil and gas development within the state.

Who are Colorado’s top oil and gas spillers?

Colorado’s top five spillers were responsible for 48.5 percent of all oil and gas related spills in 2016.

1. Noble Energy 15.7%
2. Kerr McGee 13.6%
3. Pioneer Natural Resources 7.5%
4. Chevron USA 6.1%
5. PDC Energy 5.7%

By Jesse Prentice-Dunn
The Center for Western Priorities
In 2016, operators reported 257 spills of “produced water,” salty wastewater often laden with toxic chemicals, along with 115 spills involving oil and 60 spills of condensate. Noble Energy reported the most spills, followed by Kerr McGee and Pioneer Natural Resources. Combined, the five companies reporting the most spills accounted for nearly half of all incident reports.

The vast majority of spills reported, 82 percent, took place on private land. Nearly half of all spills took place in Weld County.

**WHAT’S IN A SPILL?**

Of spills reported in 2016, **only 115 contained oil**.

Here’s what else spilled.*

*Some incident reports did not specify a quantity of material spilled.

**WHERE DO OIL AND GAS SPILLS HAPPEN?**

In 2016, the **vast majority of oil and gas related spills** were reported on private land in Colorado. Here’s the breakdown.

- **81.7 percent** of spills occurred on **private land**
- **8.8 percent** of spills occurred on **federal land**
- **7.3 percent** of spills occurred on **“other” land**
- **2.2 percent** of spills occurred on **state land**
In 2016, Weld County outstripped other Colorado counties with **246 oil and gas related spills** — which is 195 more than Las Animas, the county with the next highest number of spills.

Here’s where we know spills occured in 2016.

**COLORADO SPILLS KEY:**

- Light gray: no spills
- Light orange: 1 – 5 spills
- Orange: 6 – 10 spills
- Dark orange: 11 – 15 spills
- Very dark orange: 16 – 20 spills
- Red: 21 – 100 spills
- Dark red: > 100 spills
In reporting oil and gas spills, Colorado requires companies to disclose the distance from livestock, wetlands and occupied buildings, something not required by neighboring states, such as New Mexico and Wyoming.

**HOW DO OIL AND GAS SPILLS IMPACT WATER?**

Of Colorado’s oil and gas related spills, **58 impacted groundwater** and **4 impacted surface water** in 2016.

<table>
<thead>
<tr>
<th>DEPTH TO GROUNDWATER</th>
<th>number</th>
<th>percent of spills</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 10</td>
<td>88 spills</td>
<td>17.3%</td>
</tr>
<tr>
<td>11 to 20</td>
<td>50 spills</td>
<td>9.8%</td>
</tr>
<tr>
<td>21 to 50</td>
<td>82 spills</td>
<td>16.1%</td>
</tr>
<tr>
<td>more than 50</td>
<td>138 spills</td>
<td>27.1%</td>
</tr>
<tr>
<td>did not report</td>
<td>151 spills</td>
<td>29.7%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DISTANCE FROM SURFACE WATER</th>
<th>number</th>
<th>percent of spills</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 500</td>
<td>89 spills</td>
<td>17.5%</td>
</tr>
<tr>
<td>501 to 1,000</td>
<td>73 spills</td>
<td>14.3%</td>
</tr>
<tr>
<td>1,001 to 5,000</td>
<td>119 spills</td>
<td>23.4%</td>
</tr>
<tr>
<td>more than 5,001</td>
<td>3 spills</td>
<td>0.6%</td>
</tr>
<tr>
<td>did not report</td>
<td>225 spills</td>
<td>44.2%</td>
</tr>
</tbody>
</table>

Nearly 32 percent of all spills occurred within 1,500 feet of an occupied building, including 50 incidents that occurred less than 500 feet from an occupied building. 58 incidents reported impacts to groundwater and 200 incidents occurred within 1,500 feet of a water well.

**HOW CLOSE DO OIL AND GAS SPILLS GET?**

Colorado oil and gas companies report the distance between spills and the closest occupied building. However, **no distance was reported** for **52.3 percent** of spills.

Here’s where we know spills occurred in 2016.
The Center for Western Priorities analyzed spill/incident reports that were filed with the Colorado Oil and Gas Conservation Commission with spill dates listed between January 1 and December 31, 2016. Data from COGCC’s online database was accessed on January 25, 2017.