Bulletin of seismic activity in Oklahoma for the month of April 2022

This bulletin details earthquake activity as analyzed by the Oklahoma Geological Survey for April 2022. During April, a total of 177 earthquakes including 22 quarry blasts (Figure 1), were detected and reviewed. That represents a decrease of 4 earthquakes as compared with the previous month, March 2022, during which 181 earthquakes were detected and reviewed. The cumulative number of

Legend Earthquakes by magnitude

1

2

QuarryApr2022

Seismic Stations
Counties

earthquakes from January through April 2022 is 836.

During April 2022, Pittsburg county recorded the most seismic activity with 47 earthquakes, followed by Canadian county with 32 earthquakes. 25 out of 77 counties within the state have experienced at least 1 earthquake in April 2022 (Table 1).

The earthquake depths range from 0 to 21 km while the magnitudes fluctuate from 0.4 $M_{\rm L}$ to 2.7 $M_{\rm L}$ (Table 2). Excluding the quarry blasts that have a depth of 0, the average depth during this month is 7.01 km.

Figure 1. Epicenter Map of Earthquakes in Oklahoma during April 2022.

Earthquakes per Counties						
County	Earthquakes	County	Earthquakes	County	Earthquakes	
Alfalfa	2	Huges	5	Pawnee	12	
Atoka	1	Kingfisher	3	Payne	3	
Canadian	32	Lincoln	6	Pittsburg	47	
Cherokee	1	Love	1	Seminole	1	
Comanche	1	Major	11	Tulsa	5	
Creek	1	McIntosh	1	Woods	4	
Garfield	2	Murray	8	Woodward	9	
Garvin	3	Muskogee	2			
Grant	10	Noble	6			

Table 1. Table of earthquakes per county in Oklahoma during April 2022.

Number of Earthquakes per Magnitude range					
Magnitude range	Number of Earthquakes	Earthquake Effects			
0 – 0.9	22	Usually not felt.			
1 – 1.9	135	Usually not felt.			
2 – 2.9	20	Often felt.			

The largest earthquake that was recorded during April 2022 was in Alfalfa county and had a magnitude of $2.7~M_{\rm L}$.

Table 2. Number of earthquakes per magnitude in Oklahoma during April 2022.

For the most current information on earthquakes and other OGS-related news, visit: https://www.ou.edu/ogs.