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## Oil and gas wells, California, 2025

All Wells Dataset, GIS Mapping, (2025). California Department of Conservation, California Geologic Energy Management Division (CalGEM).

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File name: oil\_and\_gas\_wells\_plss\_033125.shp

### Spatial Reference

Geographic Coordinate System	NAD 1983	Projected Coordinate System	NAD 1983 (Teale) Albers (Meters)
WKID	4269	Projection	3310
Authority	EPSG	Authority	EPSG
Angular Unit	Degree (0.0174532925199433)	Linear Unit	Meters (1.0)
Prime Meridian	Greenwich (0.0)	False Easting	0.00
Datum	D North American 1983	False Northing	-4000000.0
Spheroid	GRS 1980	Central Meridian	-120.0
Semimajor Axis	6378137.0	Standard Parallel 1	34.0
Semiminor Axis	6356752.314140356	Standard Parallel 2	40.5
Inverse Flattening	298.257222101	Latitude of Origin	0.0

### Description

This shapefile contains 1,409 polygons corresponding to Public Land Survey System (PLSS) sections, which are approximately 1x1 mile grid squares. PLSS sections in this layer contain a total of 56,637 active oil and gas wells in California.

### Methods

We accessed a Statewide dataset of oil and gas wells from the California Department of Conservation, California Geologic Energy Management Division (CalGEM).<sup>1</sup> We selected oil and gas operations in California between 1898 and 2025 (n=241,935) and sub-selected active wells (n=57,929). We intersected oil and gas well point locations with the Public Land Survey System (PLSS) grid<sup>2</sup> and dissolved by meridian, township, range, section (MTRS) field in ArcGIS (n=1,409). Oil and gas wells located off the coast of California were not joined to PLSS sections (n=1,292).

### Attribute Table

Field Heading	Field Description
FID	ESRI generated field
Shape	Polygon – ESRI Generated Field
MTRS	PLSS section identifier; Meridian (M), Township (T), Range (R), Section (S)
Shape_Leng	Shape length in meters
Shape_Area	Shape area in square meters
og_well_n	Count of active oil and gas wells per PLSS section.

### Acknowledgements

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## References

1. All Wells Dataset, GIS Mapping, (2025). California Department of Conservation, California Geologic Energy Management Division (CalGEM). Accessed March 28, 2025. <https://www.conservation.ca.gov/calgem/maps/Pages/GISMapping2.aspx>.
2. Public Land Survey System (PLSS): Sections - California Open Data. Accessed September 20, 2022. <https://data.ca.gov/dataset/public-land-survey-system-plss-sections>.