



California
Department of Conservation

Geologic Energy Management Division

SB 854 Report

PERFORMED & WITNESSED OIL & GAS OPERATIONS

Reporting Period: January 1, 2020 to December 31, 2020

Prepared Pursuant to Senate Bill 854 (Ch. 51, Stats. of 2018)

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David Shabazian, Director, Department of Conservation
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MESSAGE FROM THE STATE OIL AND GAS SUPERVISOR

Dear California State Legislators,

It's my pleasure to present the California Geologic Energy Management (CalGEM) Division's annual report on performed and witnessed oil and gas operations. This is the second annual report submitted in response to the legislative report requirements of Senate Bill 854 (SB 854) (Ch. 51, Statutes of 2018) providing information relating to operations that are required or authorized to be witnessed by the CalGEM in the California.



Senate Bill 854 (SB 854 – Committee on Budget and Fiscal Review) was signed into law June 27, 2018 in response to approval of funding for new field regulatory positions and requires “the division to annually prepare and transmit to the Legislature a report of specified information relating to operations performed, Statewide and by district, that are required or authorized to be witnessed by the division”. The Division requested this funding to close a gap between workload and resources that was increasing as a result of increased operations and new regulations that introduced new testing and witnessing requirements.

This report is intended to install fiscal effectiveness oversight of the Division for the critical function of field inspections and operations witnessing. Statute and Regulation specify that certain field operations “Shall” be witnessed while others “May” be witnessed, and the Division places additional emphasis on “Critical Wells” which are wells and operations in the vicinity of sensitive receptors.

This report provides information on “Shall” and “May” witnessing operations for all wells by District and Statewide, and also specifically for “Critical Wells” for the calendar year 2020. In 2020, CalGEM staff witnessed 93 percent of the total shall-witness operations—an increase from 77 percent in 2019—and 34 percent of the may-witness operations, which represents a 39 percent increase in may-witness volume compared to 2019.

Uduak-Joe Ntuk is the 17th California State Oil and Gas Supervisor responsible for managing the California Geologic Energy Management (CalGEM) Division. He was appointed by Governor Newsom in October 2019. Ntuk directs a statewide regulatory, technical, and field operations organization designed to emphasize the safe development of oil and natural gas conservation, which includes protecting public health and safety, environmental quality, and the reduction and mitigation of greenhouse gas emissions associated with the development of hydrocarbon and geothermal resources in a manner that meets the energy needs of the state.



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ABOUT THE CALIFORNIA GEOLOGIC ENERGY MANAGEMENT DIVISION

The California Geologic Energy Management Division (CalGEM) prioritizes the protection of public health, safety, and the environment in its oversight of oil, natural gas, and geothermal operations in California. To do that, CalGEM uses data, science and sound engineering practices to regulate the drilling, operation, and permanent closure of energy resource wells. CalGEM also regulates certain pipelines and facilities associated with production and injection. These duties include witnessing tests, inspections, and operations that CalGEM is both authorized (“May”) and required to (“Shall”) perform.

When CalGEM was established in 1915, the initial focus of regulation was the protection of oil and gas resources in the State from production practices that could harm the ultimate level of hydrocarbon recovery. Early CalGEM regulations included well spacing requirements and authority to limit production rates. However, those regulations and the focus of CalGEM evolved and came to emphasize the protection of public health, safety, and the environment.

CalGEM has grown significantly since it was established in 1915 and has taken major steps to ensure it will be able to handle challenges in a manner consistent with public expectations for a modern, efficient, collaborative, and science-driven regulatory agency.

In 2019, the mission of CalGEM changed to include protecting public health and safety, environmental quality, and the reduction and mitigation of greenhouse gas emissions associated with the development of hydrocarbon and geothermal resources in a manner that meets the energy needs of the state.

CalGEM Districts

In 2020, CalGEM operated five offices in four districts to best serve the needs of the State: Northern, Coastal, Inland, and Southern.¹ Each district has its own offices where staff are available to assist the public and stakeholders with any requests.



¹ In 2021, CalGEM reorganized to three districts – Northern, Inland, and Southern – while maintaining all five offices across the state. The change provides greater efficiency and improved consistency in oversight of our oil & gas fields, geothermal wells, and underground gas storage facilities.



INTRODUCTION

Objective & Scope of Report

This is an annual report on the number of oil and gas operations that occurred and those that were witnessed by CalGEM in the State from January 1, 2020, to December 31, 2020, as required by Senate Bill 854 (Committee on Budget and Fiscal Review, Ch. 51, Statutes of 2018).

Public Resources Code section 3113(a) requires that this report include the following information statewide and by district:

1. The number of shall-witness and may-witness operations performed.
2. The number of shall-witness and may-witness operations performed that were witnessed by CalGEM.
3. The number of shall-witness and may-witness operations performed on critical wells.
4. The number of shall-witness and may-witness operations performed on critical wells that were witnessed by CalGEM.

Note: In 2019, CalGEM migrated from a legacy database system to the newly completed WellSTAR electronic database. Due to differences in these databases, there may be some artifacts in the comparison to the prior reporting year. The report in 2020 will be a direct comparison from the same database year on year.

Contact Information

For more information about CalGEM visit:

<https://www.conservation.ca.gov/calgem>

For questions regarding the content of this report, please contact DOC's Public Affairs Office at pao@conservation.ca.gov.



OIL & GAS OPERATIONS IN CALIFORNIA

1. All Oil & Gas Wells

1.1 Public Resources Code section 3113(a)(1): The number of shall-witness and may-witness operations performed.

During the reporting period, 41,656 shall-witness and 18,359 may-witness operations for a total of 60,015 operations were performed. This is an 7% decrease in volume in total operations, 26% decrease in shall-witness and 132% increase in may-witness relative to 2019.

Table 1. 2020 Shall-Witness and May-Witness Operations Performed in CalGEM Districts

	Performed Shall	Performed May	District Total
Northern District	2,802	306	3,108
Coastal District	7,296	2,372	9,668
Inland District	21,837	11,493	33,330
Southern District	9,721	4,188	13,909
STATEWIDE TOTAL	41,656	18,359	60,015
% Change from 2019	-26%	+132%	-7%

Table 1A. 2019 Shall-Witness and May-Witness Operations Performed in CalGEM Districts

	Performed Shall	Performed May	District Total
Northern District	2,205	342	2,547
Coastal District	7,354	1,476	8,830
Inland District	38,607	3,975	42,582
Southern District	8,503	2,132	10,635
STATEWIDE TOTAL	56,669	7,925	64,594

1.2 Public Resources Code section 3113(a)(2): The number of shall-witness and may-witness operations performed that were witnessed by CalGEM.

During the reporting period, CalGEM staff witnessed 38,948 of the shall-witness operations (93% of total) and 6,190 of the may-witness operations performed (34% of total). This is a 6% decrease in total witnessed operations, 10% decrease in the shall-witness volume and a 39% increase in may-witness volume compared to 2019. CalGEM witnessed 77% of shall-witness operations



and 56% of may-witness operations in 2019.

Table 2. 2020 Shall-Witness and May-Witness Operations Witnessed by CalGEM Districts

	Witnessed Shall	Witnessed May	District Total
Northern District	2,788	204	2,992
Coastal District	7,111	629	7,740
Inland District	19,679	3,507	23,186
Southern District	9,370	1,850	11,220
STATEWIDE TOTAL	38,948	6,190	45,138
% Change from 2019	-10%	39%	-6%

Table 2A. 2019 Shall-Witness and May-Witness Operations Witnessed by CalGEM Districts

	Witnessed Shall	Witnessed May	District Total
Northern District	2,157	263	2,420
Coastal District	6,497	737	7,234
Inland District	27,165	1,659	28,824
Southern District	7,657	1,809	9,466
STATEWIDE TOTAL	43,476	4,468	47,944

2. Critical Wells

2.1 Public Resources Code section 3113(a)(3): The number of shall-witness and may-witness operations performed on critical wells.

During the reporting period, 6,306 shall-witness and 2,968 may-witness operations were performed on critical wells. This is a 37% growth in total critical well operations, a 31% increase for shall-witness operations and a 52% increase for may-witness relative to 2019.

Table 3. 2020 Operations Performed on Critical Wells in CalGEM Districts

	Performed Shall	Performed May	District Total
Northern District	33	5	38
Coastal District	330	222	552
Inland District	433	253	686
Southern District	5,510	2,488	7,998
STATEWIDE TOTAL	6,306	2,968	9,274
% Change from 2019	+31%	+52%	+37%



Table 3A. 2019 Operations Performed on Critical Wells in CalGEM Districts

	Performed Shall	Performed May	District Total
Northern District	277	37	314
Coastal District	148	58	206
Inland District	542	376	918
Southern District	3,856	1,481	5,337
STATEWIDE TOTAL	4,823	1,952	6,775

2.2 Public Resources Code section 3113(a)(4): The number of shall-witness and may-witness operations performed on critical wells that were witnessed by CalGEM.

During the reporting period, CalGEM staff witnessed 6,075 of the shall-witness operations (96% of total) and 1,221 of the may-witness operations (41% of total) performed on critical wells. This is a 25% increase in total witnessing operations, 42% increase in shall-witness and 26% decrease in may-witness operations relative to 2019.



Table 4. 2020 Critical Well Operations Witnessed by CalGEM Districts

	Witnessed Shall	Witnessed May	District Total
Northern District	33	2	35
Coastal District	304	99	403
Inland District	310	130	440
Southern District	5,428	990	6,418
STATEWIDE TOTAL	6,075	1,221	7,296
% Change from 2019	+42%	-26%	+25%

Table 4A. 2019 Critical Well Operations Witnessed by CalGEM Districts

	Witnessed Shall	Witnessed May	District Total
Northern District	272	27	299
Coastal District	136	39	175
Inland District	349	183	532
Southern District	3,528	1,287	4,815
STATEWIDE TOTAL	4,285	1,536	5,821



APPENDIX A – REFERENCES & DATA SOURCES

- California CalGEM Statutes and Regulations (January 2020):
<https://www.conservation.ca.gov/index/Documents/CALGEM-SR-1%20Web%20Copy.pdf>
- Well Statewide Tracking and Reporting System (WellSTAR), an electronic database used to maintain, monitor, and track well information:
https://www.conservation.ca.gov/calgem/for_operators/Pages/WellSTAR.aspx



APPENDIX B – GLOSSARY

TERM: “Critical Well”

Critical well has the same meaning as in section 1720 of title 14 of the California Code of Regulations, or a successor regulation [*Public Resources Code section 3113(b)(1)*].

(a) “Critical well” means a well within:

(1) 300 feet of the following:

(A) Any building intended for human occupancy that is not necessary to the operation of the well; or

(B) Any airport runway.

(2) 100 feet of the following:

(A) Any dedicated public street, highway, or nearest rail of an operating railway that is in general use;

(B) Any navigable body of water or watercourse perennially covered by water;

(C) Any public recreational facility such as a golf course, amusement park, picnic ground, campground, or any other area of periodic high-density population; or

(D) Any officially recognized wildlife preserve.

Exceptions or additions to this definition may be established by the Supervisor upon his or her own judgment or upon written request of an operator. This written request shall contain justification for such as exception.

TERM: “May-witness”

An operation performed that by law CalGEM is authorized to witness [*Public Resources Code section 3113(b)(2)*].

Examples of may-witness operations:

- CalGEM may witness mudding operations to determine that proper mudding conditions are met [*California Code of Regulations, title 14, section 1723.7(c)*].
- CalGEM may witness the pressure testing conducted prior to hydraulic fracturing operations [*California Code of Regulations, title 14, section 1784.1(b)*].



TERM: "Operations"

Any one or all of the activities of an operator covered by Division 3 of the Public Resources Code [*California Code of Regulations, title 14, section 1720(f)*].

TERM: "Shall-witness"

Any operation performed that by law CalGEM is required to witness [*Public Resources Code section 3113(b)(3)*].

Examples of shall-witness operations:

- CalGEM shall witness zonal cavity shot operations and retainer squeeze operations [*California Code of Regulations, title 14, section 1723.7(b) and 1723.7(d)(3)*].
- CalGEM shall witness and inspect safety and pollution control systems at the time production is commenced and at 90-day intervals thereafter [*California Code of Regulations, title 14, section 1747.10*].



APPENDIX C – PUBLIC RESOURCES CODE SECTION 3113

State of California PUBLIC RESOURCES CODE

3113. (a) Notwithstanding Section 10231.5 of the Government Code, the division shall, in compliance with Section 9795 of the Government Code, annually prepare and transmit to the Legislature a report of all of the following information statewide and by district:

- (1) The number of shall-witness and may-witness operations performed.
 - (2) The number of shall-witness and may-witness operations performed that were witnessed by the division.
 - (3) The number of shall-witness and may-witness operations performed on critical wells.
 - (4) The number of shall-witness and may-witness operations performed on critical wells that were witnessed by the division.
- (b) For purposes of this section, the following terms have the following meanings:
- (1) "Critical well" has the same meaning as in Section 1720 of Title 14 of the California Code of Regulations, or a successor regulation.
 - (2) "May-witness" means an operation performed that by law the division is authorized to witness.
 - (3) "Shall-witness" means an operation performed that by law the division is required to witness.

(Added by Stats. 2018, Ch. 51, Sec. 18. (SB 854) Effective June 27, 2018.)





Contact

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Orcutt Office

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Ventura Office

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