



Geologic Energy Management Division

Idle Well Program Report

IDLE & LONG-TERM IDLE WELLS IN CALIFORNIA

Reporting Period: January 1, 2019 to December 31, 2019

Prepared Pursuant to Assembly Bill 2729 (Ch. 272, Stats. of 2016)

March 2021

Gavin Newsom, Governor, State of California
David Shabazian, Director, Department of Conservation
Uduak-Joe Ntuk, State Oil & Gas Supervisor

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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 idle well legislative report. This is the second annual report submitted in response to the legislative report requirements of Assembly Bill 2729 (AB 2729) (Williams, Ch. 272, Statutes of 2016) regarding the status of idle and long-term idle wells (LTIW) in the California.



In our first report (2018), CalGEM (then DOGGR) reported that in 2018 calendar year there were 29,292 idle wells of which 17,576 were long-term idle well. Throughout 2018, 1,346 idle wells were plugged and abandoned, and operators with approved idle well management plans (IWMPs) eliminated 988 long-term idle wells. In this report (2019), a total of 37,095 wells met the definition of an idle well of which 17,560 were long-term idle wells during the 2019 calendar year. 1,927 idle wells were plugged and abandoned, and 690 idle wells were returned to active use. Under the approved IWMPs, a total of 543 long-term idle wells were eliminated either by plugging and abandonment or returning to use.

The increases in the number of idle wells, number of idle wells plugged, and the number of idle wells returned to use demonstrate CalGEM's continued progress in identifying idle wells, eliminating long-term idle wells and meeting the intent of the legislation in spite of many challenges. In 2019, CalGEM issued more plug and abandonment permits than any other type of permit due to our focus on statewide idle well management.

Going forward, CalGEM is committed to advance Governor Newsom's Executive Order N-79-20 to hold operators responsible for the proper closure and remediation of their sites. The Idle Well program is one of our most powerful tools to that end. For more information about idle wells, please visit: https://www.conservation.ca.gov/calgem/idle_well

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 the oil, natural gas, and geothermal operations in California. To do that, CalGEM uses 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 regulatory duties include witnessing tests, inspections, and operations.

When CalGEM was established in 1915 (then known as the Division of Oil and Gas), 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 have evolved and come to include 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

CalGEM operates out of four districts to best serve the needs of the State: Northern, Coastal, Inland, and Southern. Each district has its own offices where staff are available to assist the public and stakeholders. For more information about CalGEM, visit our website at <https://www.conservation.ca.gov/calgem>.



EXECUTIVE SUMMARY

The Department of Conservation (DOC) submits this report to satisfy the legislative report requirements of Assembly Bill 2729 (AB 2729) (Williams, Ch. 272, Statutes of 2016) regarding the status of idle and long-term idle wells (LTIW) for the 2019 calendar year. This report spans the period between January 1, 2019 and December 31, 2019.

Oil and gas wells that are not operated and maintained on a regular basis present several hazards to the environment as well as public health and safety. Deteriorating wells can create a conduit for contaminants such as hydrocarbons, lead, salt and sulfates to enter freshwater aquifers and pose potential risks to surface water, air quality, soils and vegetation.

Idle wells also present a liability risk to California. Operators with a large inventory of idle wells may be postponing the cost to permanently plug and abandon the wells for financial reasons. If the operator becomes insolvent, the costs associated with plugging the wells falls to two funds managed by CalGEM and funded through the payment of assessments and idle well fees, and the State may inherit liability to plug those idle wells

Because of the risk and potential liability posed by idle wells in the State, DOC sponsored AB 2729 to discourage operators from leaving their wells in an idle state. AB 2729 established new definitions for "idle well" and "long-term idle well," updated fees assessed on idle wells, revised parameters for plans for the management and elimination of long-term idle wells (LTIW), and mandated the review, evaluation, and update of CalGEM idle well regulations. The reporting period addressed in this report reflects CalGEM's second year implementing these revised statutory requirements. CalGEM has invested significant resources to implement the new requirements, including implementing new idle well regulations, continuing to identify idle wells, calculating idle well fee invoices, tracking fee payments, facilitating Idle Well Management Plan (IWMP) requirements, and monitoring compliance with both the statutory and regulatory idle well requirements.

In 2019, CalGEM collected \$4,199,550.00 in idle well fees for all wells that met the definition of idle well in the preceding calendar year. Idle well fees are deposited into the Hazardous Idle Deserted Well Abatement Fund (HIDWAF). The balance of the HIDWAF on December 31, 2019 was \$10,565,000. CalGEM also oversaw the implementation of 61 approved



IWMPs, resulting in the elimination of 543 LTIWs. An additional three IWMPs were submitted, but after reviewing one IWMP, CalGEM determined that the operator was not eligible to submit an IWMP, because the operator was not in possession of a LTIW on January 1, 2019 and for the remaining two IWMPs, the operators decided to pay fees before CalGEM could approve their IWMPs. The difference in the numbers of LTIWs expected to be eliminated and the number of LTIWs eliminated is a combination of those operators who cancelled their IWMPs and paid fees, and operators who used credits for LTIWs they eliminated last year. These numbers represent a substantial increase in revenue available to remediate hazardous wells to protect public health and the environment, and a dramatic increase in the rate of plugging LTIWs.

The Requirements for Idle Well Testing and Management regulations developed by CalGEM took effect on April 1, 2019. The requirements include testing requirements for idle wells that operators plan to return to use, a testing waiver plan that allows operators to forego testing an idle well if the operator commits to plugging and abandoning the well, an idle well inventory and evaluation that operators of idle wells must submit, engineering analysis for idle wells idle for 15 years or longer, filing requirements for idle well management plans, and monitoring requirements for inaccessible idle wells. These idle well regulations provide for the most rigorous testing standards for idle wells in the country and prevent damage to life, health, property, and natural resources. CalGEM anticipates that the new rules will further accelerate plugging of idle wells and LTIWs.

The following key facts are included in this report:

- 37,095 wells met the definition of idle well and 17,560 of those met the definition of long-term idle well at some point during the reporting period.
- During the reporting period, the status of 1,927 idle wells changed from idle to plugged.
- During the reporting period, the status of 690 idle wells changed from idle to active.
- 61 operators submitted IWMPs that CalGEM approved.
 - 50 operators were found to be in compliance with the terms of their approved IWMPs at the conclusion of CalGEM's annual review.
 - Five operators voluntarily voided their 2019 IWMP and filed idle well fees, totaling \$30,150, to remain in compliance with Public Resources Code section 3206.



- Six operators had their IWMPs canceled by CalGEM due to failure to comply with the terms of their approved IWMPs. Two of the operators paid the idle well fees owed, and CalGEM is pursuing enforcement action against the remaining three operators. A fourth operator also failed to pay the required idle well fees, however, that operator is currently in bankruptcy. CalGEM filed a Proof of Claim with the bankruptcy court for the outstanding idle well fees. Two other operators received a Notice of Cancellation from CalGEM and appealed the cancellation, but in each of those cases the issues were resolved. Those two operators are included in the 50 operators found to be in compliance.
- Based upon the terms of the approved IWMPs, operators were expected to eliminate a minimum of 572 LTIWs across the State in 2019.
 - Operators eliminated 543 LTIWs. Operators eliminated fewer LTIWs than was expected because operators eliminated excess LTIWs in 2018 and applied the credits they received for eliminating those excess wells towards their 2019 IWMP elimination requirements.
 - 18 operators eliminated more LTIWs than was required by their approved IWMP, resulting in those operators earning 57 elimination credits, which can be used for IWMP compliance for up to two years.
- The Requirements for Idle Well Testing and Management regulations took effect on April 1, 2019.

In sum, this report demonstrates that CalGEM has continued to make significant progress to identify idle wells, increase funds to address wells that have not been appropriately plugged, and work with operators to reduce the inventory of idle wells.

This report is divided into two parts: Part 1 summarizes the objective and scope of this report and Part 2 fulfills the legislative reporting requirements prescribed in Public Resources Code section 3206.3. The appendices provide the most current lists of idle wells, references and sources of the data, and a glossary of terms.



INTRODUCTION

Objective & Scope of Report

This report provides a comprehensive accounting of the idle well population to the California Legislature and the public. This report covers the idle well counts, orphan well counts, and IWMP statistics in California from January 1, 2019 through December 31, 2019.

A primary concern with idle wells is the risk they pose as potential conduits for contaminants. Deteriorating idle wells pose risks to underground sources of drinking water because the wellbore may penetrate a fresh water resource. Similarly, poorly maintained idle wells may become sources of hydrocarbon emissions and methane and hydrogen sulfide leaks. Additionally, a large inventory of idle wells poses an increased risk that wells will become deserted when operators become financially insolvent, leaving the management of environmental remediation to the State.

To address these problems, DOC sponsored AB 2729 to increase bonding requirements, require operators to maintain bonds for the life of the well, increase idle well fees, reauthorize the use of idle well management plans, and direct CalGEM to promulgate regulations to better protect public health, safety, natural resources, and the environment from risks associated with idle wells.

The Requirements for Idle Well Testing and Management regulations took effect on April 1, 2019. The requirements include testing requirements for idle wells that operators plan to return to use, a testing waiver plan that allows operators to forego testing an idle well if the operator commits to plugging and abandoning the well, an idle well inventory and evaluation that operators of idle wells must submit, engineering analysis for idle wells idle for 15 years or longer, filing requirements for IWMPs, and monitoring requirements for inaccessible idle wells. In response to the newly adopted regulations, in 2019, CalGEM received and has overseen the implementation of 73 Testing Compliance Work Plans and 20 Testing Waiver Plans.

This report presents idle well information drawn from operator records submitted to CalGEM. These records include monthly volumetric reporting, IWMPs, and well histories required for permits to abandon wells. In the 2018 Idle Well Report, CalGEM identified



29,292 wells that met the definition of idle well. In this report, CalGEM identified 37,095 wells that met the definition of idle well. This increase in the idle well inventory can, in large part, be attributed to CalGEM's transition to utilizing WellSTAR (Well Statewide Tracking & Reporting at https://www.conservation.ca.gov/calgem/for_operators/Pages/WellSTAR.aspx) for all data management. During this transition, a number of operators have failed to report their production in a timely manner. As such, when WellSTAR calculates the number of wells idle each month, those wells that operators have failed to submit production reporting are included in the idle well count, even though the wells may not in fact be idle. CalGEM is continuing to work with operators who are experiencing challenges with WellSTAR and will take enforcement action when necessary against those operators who continue to fail to submit production reporting.

Public Resources Code section 3206.3, subdivision (a)(1) requires that this report address the following:

1. A list of all idle and long-term idle wells in the State by American Petroleum Institute identification number, operator, field, and pool.
2. A list of all wells whose idle or long-term idle status changed in the preceding year by American Petroleum Institute identification number with the disposition and current status of each well.
3. A list of orphan wells remaining, the estimated costs to abandon those orphan wells, and a timeline for future orphan well abandonment with a specific schedule of goals. Idle and LTIWs that have become orphan wells shall be identified in the list. For the purposes of this report, an orphan well is a well that has no party responsible for it, leaving the State to plug it.
4. A list of all operators with plans filed with the Supervisor for the management and elimination of all long-term idle wells and the status of those plans.
5. Any additional relevant information as determined by the Supervisor.

Contact Information

For more information about the Idle Well Program, visit the program webpage:

https://www.conservation.ca.gov/calgem/idle_well

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



Acronyms & Abbreviations

TERM	DESCRIPTION
CalGEM	California Geologic Energy Management Division
IWMP	Idle Well Management Plan
LTIW	Long-term idle well
NTO	Notice to Operators
PY	Personnel Year
WellSTAR	Well Statewide Tracking and Reporting



IDLE & LONG-TERM IDLE WELLS IN CALIFORNIA

1. Idle & Long-Term Idle Wells

Public Resources Code section 3206.3, subdivision (a)(1)(A): A list of all idle and long-term idle wells in the state by American Petroleum Institute identification number and indicating the operator, field, and pool.

Public Resources Code section 3206.3, subdivision (a)(1)(B): A list of all wells whose idle or long-term idle status changed in the preceding year by American Petroleum Institute identification number with the disposition and current status of each well.

See [Appendix A-1](#) for the list of all wells that met the definition of idle well at any point in the 2019 calendar year.

See [Appendix A-2](#) for the list of all wells that had a status change from idle to long-term idle in the 2019 calendar year.

See [Appendix A-3](#) for the list of all wells that had a status change from idle well to plugged.

See [Appendix A-4](#) for the list of wells that had a status change from idle well to active.

1.1 Idle & Long-Term Idle Wells in the State

In alignment with the 2017 Renewal Plan, CalGEM remains committed to improving its data management through the adoption and development of the WellSTAR application. (for more information please see the updated renewal plan at: <https://www.conservation.ca.gov/calgem/Pages/RenewalPlan.aspx>)

At the end of this reporting period, a known 37,095 wells met the definition of idle well at some point during the 2019 calendar year. Of the total idle well population, 17,560 idle wells had been idle for eight or more years at any point during the 2019 calendar year and thus meet the statutory definition of LTIW.



1.2 Idle & Long-Term Idle Wells That Changed Status in 2019

During 2019, 37,095 wells met the definition of idle well. A total of 1,849 idle wells changed status to LTIW during the calendar year.

During the 2019 reporting period a total of 2,617 wells no longer met the definition of idle well. A total of 1,927 idle wells changed status from idle to plugged as they were plugged in accordance with Public Resources Code section 3208. A total of 690 idle wells are known to have changed status from idle to active. These wells returned to active status as a result of maintaining production of oil or natural gas, maintaining production of water used in production stimulation, or being used for enhanced oil recovery, reservoir pressure management, or injection for six continuous months within the year. (Pub. Resources Code, § 3008, subd.(d).)

2. Orphan Wells

Public Resources Code section 3206.3, subdivision (a)(1)(C): A list of orphan wells remaining, the estimated costs of abandoning those orphan wells, and a timeline for future orphan well abandonment with a specific schedule of goals. Idle and long-term idle wells that have become orphan wells shall be identified in the list. For the purposes of this report, an orphan well is a well that has no party responsible for it, leaving the state to plug and abandon it.

See [Appendix A-6](#) for the list of idle wells determined to be orphan.

2.1 Orphan Well Process

For purposes of this report, an orphan well has been defined as “a well that has no party responsible for it, leaving the State to plug and abandon it.” (Pub. Resources Code, § 3206.3, subd. (a)(1)(C).) CalGEM's determination that a well is orphaned is a multi-step process that requires CalGEM to determine whether the well has been deserted by the operator and whether there is a solvent entity responsible to plug the well. Therefore, the number of orphan wells identified in this report only reflects those orphan wells for which CalGEM has gathered sufficient information to issue a finding of desertion, and for which CalGEM has completed a financial solvency test.



Before issuing an order to plug a well, CalGEM must gather sufficient evidence to demonstrate the well has been deserted. CalGEM also conducts a financial solvency test to decide if the well should be declared orphan. The financial solvency test is a factual inquiry into the solvency of the current operator and any other party responsible for plugging the well under Public Resources Code section 3237. If CalGEM determines the current operator does not have the financial resources to fully cover the cost to plug the well, previous operators that made a valid transfer after January 1, 1996, may be held responsible for the cost to plug the well. (Pub. Resources Code, § 3206.3, subds. (c)(1) & (2).) The statute does not allow CalGEM to hold a mineral interest owner responsible to plug the well unless the mineral interest owner retained a right to control the well operations that exceeds the scope of an interest customarily reserved in the lease. (Pub. Resources Code, § 3237, subd. (c)(3).) If, after researching the financial solvency for all potentially responsible parties, CalGEM determines there is no party with the financial resources to fully cover the cost to plug the well, the well can be declared an orphan. (Pub. Resources Code, §§ 3237, subd. (c)(1), 3251, subds. (b) & (e), 3206.3, subd. (a)(1)(C).)

CalGEM is continuing to gather evidence of desertion and conduct financial solvency tests for wells that are likely orphaned. The statutory changes implemented under AB 2729 have provided CalGEM the ability to more easily identify the wells that are likely orphan. Failure to comply with the new idle well requirements is conclusive evidence of desertion of the well. (Pub. Resources Code, § 3206.1.) CalGEM's comprehensive efforts to implement and enforce these new requirements are facilitating systematic identification of each deserted well for which there is no solvent responsible party. (Pub. Resources Code, § 3206, subd. (c).)

The orphan well process can include multiple wells associated with the same operator and takes approximately 4-6 months to complete per order. Completion of the orphan process may result in the determination that the well is orphaned or identification of a solvent responsible party.

In November of 2018, the California Council on Science and Technology issued a report citing 5,540 wells in California that may already be orphan or be at a high risk of becoming orphaned in the near future. The report also listed an additional 69,425 "economically marginal" and idle wells that were also identified at risk of becoming orphaned as production declines or the wells are acquired by financially weaker operators. Because



the report utilized a different standard for identifying potentially orphan wells, the numbers in the report issued by the California Council on Science and Technology differs from the numbers of deserted and orphan wells reported by CalGEM.

2.2 Orphan Well Inventory

CalGEM's Idle Well Program, Enforcement Unit, and Districts are actively working to identify idle wells that have been deserted and for which there is no solvent responsible party and can therefore be considered orphaned. During the 2019 reporting period, CalGEM issued orders to plug wells to ten operators for a total of 19 idle wells. Nine operators failed to respond to the plugging orders resulting in the identification of 18 deserted wells. One operator has appealed the plugging and abandonment order associated with one well. Of the remaining 18 wells, 8 wells have been identified as deserted and 10 wells have been declared orphan.

The solvent entity research has been conducted on a total of 24 deserted wells, including the eight deserted wells referenced above, during this reporting period, with 24 wells being declared orphaned on or before December 31, 2019. CalGEM estimates there are approximately 2,500 idle wells belonging to 943 operators that may be deserted and require orders to plug wells and initiate the orphan well process. An analysis of prior transfers and financial responsibility will require sustained effort from multiple programs.

2.3 Potentially Deserted and Deserted Well Inventory

In the 2018 reporting period, CalGEM reported 35 wells as deserted. CalGEM limited the reporting to these 35 wells because CalGEM had issued orders to plug and abandon them since the operators had failed to pay idle well fees. CalGEM did not report wells that met the definition of deserted for failure to pay idle wells but for which an order to plug and abandon had not been issued. Under Public Resources Code section 3206, subd. (c), failure to pay idle well fees is conclusive evidence of desertion permitting CalGEM to order the well abandoned pursuant to Public Resources Code section 3237. (For a full version of Public Resources Code sections 3206 and 3237 please see [Appendices A-8](#) and [A-9](#).)

CalGEM has identified 2,927 wells as potentially deserted in 2018 for failure to pay idle well fees and 3,265 wells as potentially deserted in 2019 because the operator failed to pay idle well fees for the associated wells. There is overlap in these two numbers. Of these wells,



2,854 were identified as potentially deserted in both 2018 and 2019 because the operator failed to pay idle well fees in both years. CalGEM has not, however, issued orders to plug and abandon all of these wells. In 2019, eight have been formally found to be deserted in an order to plug and abandon the well. Those eight wells are included in the list of potentially deserted and deserted wells. (See [Appendix A-5](#) for a list of potentially deserted and deserted wells.)

It is worth noting, that failure to pay idle well fees is not the only evidence of desertion that CalGEM may rely upon in ordering a well plugged and abandoned. Under Public Resources Code section 3237, credible evidence of desertion may also include, but is not limited to: the operational history of the well or production facility, the response or lack of response of the operator to inquiries and requests from CalGEM, the extent of compliance by the operator with the requirements, and other actions. Similarly, a rebuttable presumption of desertion arises if: a well has not been completed to production or injection and the drilling machinery has been removed from the well site for at least six months; the well's production or injection equipment has been removed from the well site for at least two years; the operator has failed to comply with an order of the supervisor within the time provided by an order or has failed to comply with an order on a timely basis; an operator fails to designate an agent; an operator acquiring a well or production facility fails to comply with transfer requirements; or an operator fails to maintain the access road to a well or production facility. As such, the list of wells provided in [Appendix A-5](#) may under-report the number of deserted wells because the list only includes those wells that are deserted due to the operator's failure to pay idle well fees.

2.4 Cost of Abandonment

Plugging costs of orphan wells are highly variable and, in many cases, difficult to predict. When an operator plugs one of their own wells, they are generally aware of the conditions of the well including problems with obstructions that they may encounter. When CalGEM plugs an orphan well, it lacks critical information about the condition of the well. For example, the well could be as old as 100 years, CalGEM may not know if the previous operator attempted to plug the well in the past, what material may have been emplaced in the well, if the casing is intact, and other information that is critical to understanding potential cost drivers in a plugging job. Costs can range from as low as \$11/foot in a well in Kern County if the project goes smoothly to well over \$200/foot in an urbanized area with high ancillary costs, such as temporarily moving utility lines, higher staging and



mobilization costs, and where “junk” obstructs downhole operations and leads to delays and cost overruns.

Using 2019 data, the table below indicates the average cost to abandon a well in each CalGEM District. Please note that these cost figures are averages and the actual costs to abandon any specific well can vary.

Table 2.4-1 Average Cost to Abandon Any Well (Orphan or Otherwise)

CALGEM DISTRICT	AVERAGE ABANDONMENT COST
Coastal	\$87,075
Inland	\$86,983
Northern	\$98,423
Southern	\$231,052

The table below shows CalGEM payments for state abandonments and the number of wells abandoned under each contract. Because the State pays for the abandonment of wells that have no responsible, solvent operator, the data in the table provides an appropriate representation of the cost to abandon orphan wells.



Table 2.4-2 CalGEM Well Abandonment Contract Payments FY2017-2019

Contract Number	Contractor	Number of Wells	Total Payments
2017-001	C. Case Company, Inc.	6	\$378,921.76
2017-002	Paul Graham Drilling	7	\$599,983.00
2017-016	Snow's Oil Field Service, Inc.	6	\$390,335.10
2017-019	Snow's Oil Field Service, Inc.	5	\$570,665.38
2017-020	Rival Well Services, Inc.	3	\$983,161.00
2018-020	Driltek, Inc.	2	\$147,826.00
2018-027	Driltek, Inc.	2	\$1,304,734.98
2019-001	Driltek, Inc.	3	\$470,961.77
2019-002	South Valley Companies, Inc.	1	\$--*
2019-003	South Valley Companies, Inc.	2	\$--*
2019-004	Driltek, Inc.	1	\$--*
2019-008	Driltek, Inc.	9	\$1,644,018.00
2018-009	Driltek, Inc.	1	\$171,080.00
2019-010	Paul Graham Drilling and Service Company	6	\$501,650.00
Total		54	\$7,163,336.99

*Active contracts for which payments have not yet been made.

2.5 Timeline of Future Orphan Well Abandonment

CalGEM is appropriated funds annually to plug wells that have been declared orphan. Senate Bill 724 (SB 724) (Lara, Chapter 652, Statutes of 2017) temporarily increased the annual appropriation for orphan well abandonment from \$1 million to \$3 million per fiscal year commencing on July 1, 2018. (Pub. Resources Code, § 3258, subdiv. (a)(1).) This appropriation will revert to \$1 million per fiscal year commencing with the 2022-2023 fiscal year. CalGEM intends to utilize the full amount of these funds annually to plug orphan wells.

Based on the cost range provided above, it is estimated that 23 to 100 wells may be plugged and abandoned for fiscal years 2018-2019 through 2021-2022. For fiscal year 2022-2023 and beyond, an estimated 7 to 33 wells may be plugged and abandoned annually. These annual benchmarks will fluctuate depending on the cost to plug each



orphan well. Many of the costs to plug wells are driven by conditions downhole that remain unknown until projects commence work. The prioritization of orphan wells to be plugged each year will be based upon the prioritization factors for idle wells described in California Code of Regulations Title 14 section 1772.4, which includes economic efficiencies associated with grouping wells by location.

The identification of wells requiring the orphan well process will be an ongoing effort. The two most common means by which these wells may be identified are: 1) failure to file annual idle well fees; and, 2) identification at the CalGEM district level based on finding of desertion under Public Resources Code section 3237. CalGEM is continuing to work to streamline both the orphan well determination and contracting processes and build a queue of orphan wells for subsequent fiscal years.

3. Plans for the Management & Elimination of Long-Term Idle Wells

Public Resources Code section 3206.3(a)(1)(D): A list of all operators with plans filed with the supervisor for the management and elimination of all long-term idle wells and the status of those plans.

See [Appendix A-7](#) for the list of operators with 2019 IWMPs and their status.

3.1 Idle Well Management Plans

Under Public Resources Code section 3206, subdivision (a)(2), operators may, in lieu of paying annual idle well fees, file an IWMP that provides for the management and elimination of all the operator's LTIWs. An operator may eliminate a LTIW by either properly plugging and abandoning the well in accordance with the requirements of Public Resources Code section 3208 or demonstrating to CalGEM's satisfaction that the well has maintained production of oil or gas or been used for injection for a continuous six-month period.

IWMPs must commit operators to eliminating a minimum percentage of their LTIWs each calendar year. The required rate of elimination of LTIWs is based on the total number of statewide idle wells in the operator's possession on January 1 of each year. Unless and until the operator has no LTIWs, the operator must eliminate the required rate of wells annually.



The required elimination rates are as follows:

- Operators with 250 or fewer idle wells must eliminate at least 4% of their LTIWs annually.
- Operators with 251 to 1,250 idle wells must eliminate at least 5% of their LTIWs annually.
- Operators with more than 1,205 idle wells must eliminate at least 6% of their LTIWs annually.

Public Resources Code section 3206(a)(2)(B)(iii) affords operators the opportunity to receive credits for eliminating greater than the minimum required number of LTIWs. These credits may be applied to future minimum elimination requirements in the operator's IWMP but expire after two years.

In this reporting period, CalGEM received and approved IWMPs from 61 oil and gas operators. An additional three IWMPs were submitted but, after reviewing the IWMPs, CalGEM determined that the operator was either not eligible to submit an IWMP, because the operator was not in possession of a LTIW on January 1, 2019, or the operator decided to pay fees before CalGEM approved their IWMP.

Based upon the terms of the approved IWMPs, operators were expected to eliminate a minimum of 572 LTIWs. Operators eliminated 543 LTIWs. The difference in these numbers is a combination of those operators who cancelled their IWMPs and paid fees instead and by the fact that a number of operators used credits that they earned last year.

Eighteen operators eliminated more LTIWs than was required by their approved IWMP, resulting in those operators earning 57 elimination credits, which can be used for IWMP compliance for up to two years. On January 1, 2020, the Supervisor conducted an annual review of each 2019 IWMP which yielded the following results:

- 50 operators were found to be in compliance with the terms of their approved IWMPs.
- 543 LTIWs were eliminated in 2019 as part of approved IWMPs.
- Three operators eliminated all their LTIWs in the State.
- Five operators voluntarily voided their 2019 IWMPs and filed idle well fees instead, totaling \$30,150 to remain in compliance with Public Resources Code section 3206.



- Six operators had their IWMPs canceled by CalGEM due to failure to comply with the terms of their approved IWMPs. Two of the operators paid the idle well fees owed, and CalGEM is pursuing enforcement action against the remaining three operators. A fourth operator also failed to pay the required idle well fees, however, the operator is currently in bankruptcy. CalGEM filed a Proof of Claim with the bankruptcy court for the outstanding idle well fees. Two other operators received a Notice of Cancellation from CalGEM and appealed the cancellation, but in each of those cases the issues were resolved. Those two operators are included in the 50 operators found to be in compliance.

3.2 Non-Compliant Idle Well Management Plans

If an operator fails to comply with their approved IWMP, then the IWMP for that operator is revoked and the operator is not eligible to propose a new IWMP for any of its idle wells for the next five years. An operator may appeal to DOC's Director regarding the Supervisor's determination of non-compliance. If the Supervisor's determination that the operator failed to comply with the IWMP is not timely appealed, or if the Director upholds the Supervisor's determination upon appeal, then the operator is required to immediately file the idle well fees due for each year that the operator failed to comply with the IWMP.

Furthermore, failure to file the idle well fee due for any well is conclusive evidence of desertion, permitting the Supervisor to order the well abandoned pursuant to Public Resources Code section 3237.

CalGEM issued Notices of Cancellation to seven operators for failing to comply with the requirements of the IWMPs submitted in 2019. One operator appealed the Notice of Cancellation and provided the required documentation to demonstrate compliance resulting in rescission of the Notice of Cancellation. One operator appealed the Notice of Cancellation and a settlement agreement was reached. Five operators had their IWMPs revoked as they failed to appeal the cancellation of their IWMPs.

3.2.1 Notice of Cancellation – Rescinded

CalGEM rescinded one Notice of Cancellation after the operator provided the necessary documentation to demonstrate compliance. This operator is eligible to propose an IWMP for the 2020 calendar year.



- **Naftex Operating Co., Operator Code N0097**

3.2.2 Notice of Cancellation – Settlement Agreements

CalGEM reached a settlement agreement with one operator that appealed the Notice of Cancellation. The Operator failed to eliminate the LTIW required under their 2019 IWMP but eliminated seven other LTIWs. The terms of the settlement require the Operator to eliminate the LTIW identified in the operator's IWMP.

- **Atlantic Oil Company, Operator Code A4400**

3.2.3 Notice of Cancellation – IWMP Revoked

CalGEM revoked the IWMPs for five operators that failed to appeal the cancellation of their plan. These operators will be prohibited from submitting an IWMP for five years, regardless of whether the operator pays the required fees in future years.

Two operators filed the idle well fees due in response to the Notice of Cancellation.

- **Premier Resource Management, Operator Code 10382**
- **Thompco Inc., Operator Code T2425**

Three operators have failed to pay the required idle well fees. CalGEM is pursuing enforcement action against these operators in 2020 and will provide the results in the 2021 annual report.

- **Thompson Oil Co., Operator Code T2305**
- **Havens Oil Co., Operator Code H2370**
- **Sherman Havens, Operator Code H2375**

A fourth operator also failed to pay the required idle well fees, however, the operator is currently in bankruptcy. CalGEM filed a Proof of Claim with the bankruptcy court for the outstanding idle well fees.

- **HVI Cat Canyon, Operator Code G3515**

4. CalGEM Enforcement

CalGEM's Idle Well Program and Enforcement Unit work closely together to pursue enforcement actions against operators that fail to comply with idle well statutory and



regulatory requirements. During this reporting period, CalGEM's Idle Well program focused primarily on failure to file idle well fees and comply with IWMPs. Failure to file the annual idle well fee prescribed in Public Resources Code section 3206, subdivision (a) is conclusive evidence of desertion. This permits the Supervisor to order that the well be plugged pursuant to Public Resources Code section 3237.

Idle well fees are assessed annually for the preceding calendar year. During this reporting period, idle well fees were assessed based on the idle well inventory for the 2018 calendar year. In this effort, CalGEM collected \$4,199,550 in idle well fees in 2019. Idle well fees are deposited into the Hazardous Idle Deserted Well Abatement Fund (HIDWAF). The balance of the HIDWAF on December 31, 2019 was \$10,565,000.

Of the 279 operators to whom CalGEM sent idle well fee invoices, CalGEM identified 176 operators that failed to file idle well fees for 1057 idle wells in 2019. Within the reporting period, CalGEM will be pursuing enforcement action against those operators. There is also a backlog of pending orders for 943 operators to plug a total of 2,500 idle wells.

These enforcement efforts support the orphan well process as described in section 2.1 of this report. Future enforcement efforts will expand the focus to comply with new idle well regulations in addition to statutory requirements.

In the 2019 Idle Well Program Report, CalGEM committed to providing the results of enforcement actions against the six operators who failed to comply with the terms of their IWMP and then failed to pay the idle well fees required.

Two operators paid the required idle well fees.

- **R.J. Bellevue, Inc., Operator Code B3079**
- **Jaco Production Company, Operator Code J0700**

CalGEM issued orders to plug and abandon the operator's idle wells, pay idle well fees, and pay a civil penalty to the following operators:

- **Citadel Exploration Inc., Operator Code C5845**
- **H20-CH4, LLC, Operator Code C1380**
- **Valid Energy Group Inc., Operator Code V0175**
- **Caltico Oil Corp., Operator Code C1380**



APPENDIX A – IDLE WELL LISTS

A-1 2019 Calendar Year Idle Well Inventory

List of all wells that met the definition of idle well at any point in the 2019 reporting period. The list includes the API number and designation of the well, well type, operator, field, district, county, pool, and LTIW status identified for each well.

A-2 Idle Wells That Changed Status from Idle to Long-Term Idle Well

List of all idle wells that met the definition of LTIW for the first time in the 2019 reporting period. The list includes the API number and designation of the well, well type, operator, field, district, county, and pool.

A-3 Idle Wells That Changed Status from Idle to Plugged

List of all idle wells that changed status to plugged in the 2019 reporting period. The list includes the API number and designation of the well, well type, operator, field, district, county, pool, and LTIW status identified for each well.

A-4 Idle Wells That Changed Status from Idle to Active

List of all idle wells that changed status to active in the 2019 reporting period. The list includes the API number and designation of the well, well type, operator, field, district, county, pool, and LTIW status identified for each well.

A-5 Idle Wells Determined to be Deserted or Potentially Deserted

List of all idle wells that have been determined to be potentially deserted because the operator failed to pay idle well fees in 2018, 2019, or both 2018 and 2019 but for which an order to plug and abandon has not been issued and a list of idle wells that have been determined to be deserted because an order to plug and abandon the wells has been issued. The list includes the API number, the operator name, well type, field name, District, county, pool name, year potentially deserted, and order to plug and abandon number, if applicable.

A-6 Idle Wells Declared to be Orphan

List of all idle wells that have been determined to be orphaned. The list includes the API number and designation of the well, last known operator, field, district, county, pool, and order number and date declared orphan for each well.



A-7 Operators with 2019 IWMPs & Current Status

List of all operators with IWMPs submitted in 2019 and the status of each IWMP as of the annual review, including the minimum number of LTIWs required to be eliminated, the actual number of LTIWs eliminated, credits applied, and credits earned for LTIWs eliminated in excess of the minimum requirement.

A-8 Public Resources Code section 3206

Public Resources Code section 3206 (as of January 2020)

(a) The operator of any idle well shall do either of the following:

- (1) No later than May 1 of each year, for each idle well that was an idle well at any time in the last calendar year, file with the supervisor an annual fee equal to the sum of the following amounts:
 - (A) One hundred fifty dollars (\$150) for each idle well that has been an idle well for three years or longer, but less than eight years.
 - (B) Three hundred dollars (\$300) for each idle well that has been an idle well for eight years or longer, but less than 15 years.
 - (C) Seven hundred fifty dollars (\$750) for each idle well that has been an idle well for 15 years or longer, but less than 20 years.
 - (D) One thousand five hundred dollars (\$1,500) for each idle well that has been an idle well for 20 years or longer.
- (2) File a plan with the supervisor to provide for the management and elimination of all long-term idle wells
 - (A) For the purposes of the plan required by this paragraph, elimination of an idle well shall be accomplished when the well has been properly abandoned in accordance with Section 3208, or it has been shown to the division's satisfaction that, since the well became an idle well, the well has maintained production of oil or gas or been used for injection for a continuous six-month period.
 - (B) A plan filed pursuant to this paragraph shall meet all of the following requirements and conditions:
 - (i) The plan shall specify the time period that it covers. The plan and any renewal of the plan shall cover a time period of no more than five years and shall be subject to approval by the supervisor who may prioritize the



order in which idle wells are addressed.

- (ii) The plan shall be reviewed for performance annually by the supervisor, and be subject to amendment by the supervisor, or by the operator with the approval of the supervisor.
- (iii) The required rate of long-term idle well elimination shall be based upon the number of idle wells under the control of an operator on January 1 of each year, as specified in clause (iv). If the operator has eliminated more wells than required in the prior two years, the supervisor may deduct from the new requirement the net total of long-term idle wells eliminated in excess of those previously required. In addition, the supervisor may require additional well testing requirements as part of the plan.
- (iv) Unless and until the operator has no long-term idle wells, the plan shall require that operators with 250 or fewer idle wells eliminate at least 4 percent of their long-term idle wells each year, and, in no case, less than one long-term idle well; operators with 251 to 1,250, inclusive, idle wells eliminate at least 5 percent of their long-term idle wells each year, and, in no case, less than one long-term idle well; and operators with more than 1,250 idle wells eliminate at least 6 percent of their long-term idle wells each year, and, in no case, less than one long-term idle well.
- (v) An operator who fails to comply with the plan, as determined by the supervisor after the annual performance review, is not eligible to use the requirements of this paragraph, for purposes of compliance with this section, for any of its idle wells. That operator may not propose a new idle well plan for the next five years. An operator may appeal to the director pursuant to Article 6 (commencing with Section 3350) regarding the supervisor's rejection of a plan and plan amendments and the supervisor's determination of the operator's failure to comply with a plan. If the supervisor's determination that the operator failed to comply with the plan is not timely appealed, or if the director upholds the supervisor's determination upon appeal, then the operator shall immediately file the fees required under paragraph (1) for each year that the operator failed to comply with the plan.

(b) All fees received under this section shall be deposited in the Hazardous and Idle Deserted Well Abatement Fund, which is hereby created in the State Treasury. Notwithstanding Section 13340 of the Government Code, the moneys in the



Hazardous and Idle-Deserted Well Abatement Fund are hereby continuously appropriated to the department for expenditure without regard to fiscal year, to mitigate a hazardous or potentially hazardous condition, by well plugging and abandonment, decommissioning the production facilities, or both, at a well of an operator subject to the requirements of this section.

- (c) Failure to file, for any well, the fee required under this section shall be conclusive evidence of desertion of the well, permitting the supervisor to order the well abandoned pursuant to Section 3237.
- (d) Nothing in this section prohibits a local agency from collecting a fee for regulation of wells.
- (e) This section shall become operative on January 1, 2018.

(Amended by Stats. 2018, Ch. 742, Sec. 3. (SB 1493) Effective January 1, 2019.)

Public Resources Code section 3206.1 (as of January 2020)

- (a) By June 1, 2018, the division shall review, evaluate, and update its regulations pertaining to idle wells. The update shall include idle well testing and management requirements that, at a minimum, include all of the following:
 - (1) Appropriate testing, as determined by the supervisor, to determine whether the fluid level is above the base of an underground source of drinking water.
 - (2) Appropriate testing, as determined by the supervisor, to verify the mechanical integrity of the well.
 - (3) Appropriate remediation, as determined by the supervisor, of idle wells if there is an indication of a lack of mechanical integrity.
 - (4) For a well that has been an idle well for 15 years or more, an engineering analysis demonstrating to the division's satisfaction that it is viable to return the idle well to operation in the future.
- (b) If the operator demonstrates to the division's satisfaction that the well is not within one-half mile of an underground source of drinking water, testing required under the regulations implementing this section shall not be required until at least two years after the well becomes an idle well. This subdivision shall not be construed to prohibit or limit any other testing required under this chapter.
- (c) At the discretion of the supervisor, the regulations implementing this section may provide an option for temporary or partial well abandonment in lieu of compliance



with the requirements of the regulations implementing this section.

- (d) If the operator does not remediate an idle well as required by the regulations implementing this section, or the operator does not demonstrate that an idle well is economically viable as required by the regulations implementing this section, then the operator shall plug and abandon the idle well in accordance with Section 3208.
- (e) Failure to file to comply with the requirements of the regulations implementing this section shall be conclusive evidence of desertion of the well, permitting the supervisor to order the well abandoned pursuant to Section 3237.
- (f) For purposes of this section, an “underground source of drinking water” has the same meaning as in the federal Safe Drinking Water Act (42 U.S.C. Sec. 300f).

(Added by Stats. 2016, Ch. 272, Sec. 11. Effective January 1, 2017.)

Public Resources Code section 3206.2 (as of January 2020)

- (a) (1) The division, in consultation with the State Air Resources Board, shall initiate a study to be conducted by independent experts of fugitive emissions from idle, idle-deserted, and abandoned wells in the state. The independent experts selected shall have experience measuring and documenting emissions from multiple idle and abandoned wells and well sites, preferably at multiple locations within the state.
- (2) In developing the parameters of the study, the division shall seek input from researchers with expertise in fugitive emissions, oil and gas operators, and people with relevant experience in nongovernmental organizations. The parameters of the study shall (A) be conducted based on a total well sample not to exceed 500 wells, (B) utilize existing information and technology tools that allow data collection without disruption to a well site, (C) limit surface disturbance associated with any emissions sampling, and (D) limit the total cost of the study to a maximum of one million dollars (\$1,000,000).
- (3) In implementing the study, the division shall seek to minimize costs to operators, and the testing conducted pursuant to this section shall not conflict with a scheduled routine maintenance operation of the well or associated equipment.
- (4) The study shall be conducted to measure emissions of air pollutants, including, but not limited to, greenhouse gases, toxic air contaminants, and volatile organic compounds, from idle wells, idle-deserted wells, and abandoned wells that can contribute to climate change or endanger occupational and public health and



safety through their toxicological properties.

- (5) The division shall work with the independent experts, oil and gas operators, and nongovernmental organizations to identify a stratified random sample of wells, and set of pollutants to be measured, from which measurement data can be used to extrapolate to the total number of idle, idle-deserted, and abandoned wells in the state. To the maximum extent possible, the sample shall include emissions data already collected from wells in the state.
 - (6) The sample of wells shall include idle-deserted wells identified by the division, previously abandoned wells, and idle wells that are ordered or permitted to be plugged and abandoned by the division.
 - (7) For purposes of undertaking the study, for a well that is selected for measurement as part of the sample but which is also scheduled to be plugged, abandoned, or reabandoned, before the initiation of physical work to plug, abandon, or reabandon the well the division or the contracted independent experts, with oversight from the division, shall have testing performed for leaks on the well and associated equipment either (A) in accordance with the United States Environmental Protection Agency Reference Method 21, as set forth in Appendix A-7 to Part 60 of Title 40 of the Code of Federal Regulations, as it read on January 1, 2019, (B) by using an optical gas imaging instrument that is operated by a technician with a certification or training in infrared theory, infrared inspections, and heat transfer principles, or (C) in accordance with an alternative methodology developed for the purposes of this study.
 - (8) If, pursuant to paragraph (7), a well is found to emit hydrocarbons in observable quantities using an optical imaging device or in concentrations greater than 1 percent by volume using a United States Environmental Protection Agency Reference Method 21 instrument when tested before the initiation of physical work, the division or the contracted independent experts shall ensure additional testing is performed using a direct measurement method consisting of high volume sampling, bagging, or a calibrated flow measuring instrument to determine the flow rate of atmospheric emissions of total and speciated hydrocarbon pollutants before the initiation of physical work.
- (b) Oil and gas operators with wells selected for purposes of sampling under this section shall make reasonable efforts to permit access to the wells to the division and the independent experts contracted to undertake the study if adequate notice is provided to the operator to ensure appropriate safety precautions are taken at the



well site. All oil and gas operators with wells selected for sampling shall submit to the division a certification stating that no action was taken to reduce emissions from the sampling site within 72 hours of the sampling taking place so as to reduce the value of measurements taken.

- (c) On or before January 1, 2022, the department shall post all results of testing conducted pursuant to subdivision (a) on the department's internet website in a machine-readable format. On or before January 1, 2021, the department shall produce and post to the department's internet website an interim progress report describing the status of the study conducted pursuant to this section, including, but not limited to, the number of wells where testing has been completed, the number of wells remaining to be tested, study costs, and any preliminary testing results, as available and subject to the requirement described in paragraph (2) of subdivision (d).
- (d) (1) On or before July 1, 2022, the independent experts contracted to undertake the study shall complete a written document that includes an executive summary of the findings, a description of the results, the findings, and an estimate of hydrocarbon emissions from the state's idle, idle-deserted, and abandoned wells. (2) Before public release pursuant to subdivision (e), the written document shall be provided for peer review and comments, to the operators whose wells were included in the sample, and to a group of independent experts and nongovernmental organizations selected by the division.
- (e) On or before January 1, 2023, the division shall make the results of the study, as per the written document required pursuant to subdivision (d), available on its internet website.
- (f) This section shall remain in effect only until January 1, 2024, and as of that date is repealed.

(Added by Stats. 2019, Ch. 772. Repealed as of January 1, 2024 by its own provisions.)

Public Resources Code section 3206.3 (as of January 2020)

- (a) (1) Notwithstanding Section 10231.5 of the Government Code, on or before July 1, 2019, and annually thereafter until July 1, 2026, the supervisor shall, in compliance with Section 9795 of the Government Code, prepare and transmit to the Legislature a comprehensive report on the status of idle and long-term idle wells for the preceding calendar year. The report shall include all of the following:



- (A) A list of all idle and long-term idle wells in the state by American Petroleum Institute identification number and indicating the operator, field, and pool.
- (B) A list of all wells whose idle or long-term idle status changed in the preceding year by American Petroleum Institute identification number with the disposition and current status of each well.
- (C) A list of orphan wells remaining, the estimated costs of abandoning those orphan wells, and a timeline for future orphan well abandonment with a specific schedule of goals. Idle and long-term idle wells that have become orphan wells shall be identified in the list. For the purposes of this report, an orphan well is a well that has no party responsible for it, leaving the state to plug and abandon it.
- (D) A list of all operators with plans filed with the supervisor for the management and elimination of all long-term idle wells and the status of those plans.
- (E) Any additional relevant information as determined by the supervisor. (2) The report shall be made publicly available and an electronic version shall be available on the division's internet website. (b) For the report due on or before July 1, 2021, and each report thereafter, the division shall conduct inspections of production facilities attendant to long-term idle wells to ensure compliance with the requirements of this chapter. Information summarizing violations and pertinent findings in these inspections shall be included in the applicable report required to be prepared and transmitted pursuant to subdivision (a). (c) Information on how to access the plans described in subparagraph (D) of paragraph (1) of subdivision (a) shall be on the division's internet website. (d) After July 1, 2026, the division shall continue to regularly provide updated information describing idle and long-term idle wells on the division's internet website.

(Amended by Stats. 2019, Ch. 774.)

Public Resources Code section 3206.4 (as of January 2020)

- (a) Any city or county may request from the supervisor a list of all idle wells, as defined in subdivision (d) of Section 3008, within its jurisdiction.
- (b) After receiving the list from the supervisor, the city or county may identify idle wells identified pursuant to subdivision (a) within its jurisdiction which it has determined,



based on a competent, professional evaluation, have no reasonable expectation of being reactivated, and formally request the supervisor to make a determination whether the wells should be plugged and abandoned.

- (c) Upon receiving the written request of a city or county, as specified in subdivision (b):
- (1) The supervisor may, within 60 days of receiving a written request from a city or county, require the operator or operators to file a statement for each well outlining those reasons why the wells should not be plugged and abandoned.
 - (2) The supervisor shall, within 120 days of receiving a written request, make a determination as to whether any of these wells should be plugged and abandoned, pursuant to the criteria contained in this chapter.
- (d) Failure of the operator to file, for any well, the statement required under this section shall be conclusive evidence of desertion of the well, thereby permitting the supervisor to order the well abandoned.

(Amended by Stats. 2017, Ch. 652, Sec. 3. (SB 724) Effective January 1, 2018.)

A-9 Public Resources Code section 3237

Public Resources Code section 3237 (as of January 2020)

- (a) (1) The supervisor or district deputy may order the plugging and abandonment of a well or the decommissioning of a production facility that has been deserted whether or not any damage is occurring or threatened by reason of that deserted well or production facility. The supervisor or district deputy shall determine from credible evidence whether a well or production facility is deserted.
- (2) For purposes of paragraph (1), "credible evidence" includes, but is not limited to, the operational history of the well or production facility, the response or lack of response of the operator to inquiries and requests from the supervisor or district deputy, the extent of compliance by the operator with the requirements of this chapter, and other actions of the operator with regard to the well or production facility.
- (3) A rebuttable presumption of desertion arises in any of the following situations: (A) If a well has not been completed to production or injection and drilling machinery have been removed from the well site for at least six months. (B) If a well's production facilities or injection equipment has been removed from the well site for at least two years. (C) If an operator has failed to comply with an order of the supervisor within the time provided by the order or has failed to challenge the



order on a timely basis. (D) If an operator fails to designate an agent as required by Section 3200. (E) If a person who is to acquire a well or production facility that is subject to a purchase, transfer, assignment, conveyance, exchange, or other disposition fails to comply with Section 3202. (F) If an operator has failed to maintain the access road to a well or production facility site passable to oilfield and emergency vehicles.

- (4) The operator may rebut the presumptions of desertion set forth in paragraph (3) by demonstrating with credible evidence compliance with this division and that the well or production facility has the potential for commercial production, including specific and detailed plans for future operations, and by providing a reasonable timetable for putting those plans into effect. The operator may rebut the presumption set forth in subparagraph (F) of paragraph (3) by repairing the access road.
- (b) An order to plug and abandon a deserted well or to decommission a production facility may be appealed to the director pursuant to the procedures specified in Article 6 (commencing with Section 3350).
- (c) (1) The current operator, as determined by the records of the supervisor, of a deserted well that produced oil, gas, or other hydrocarbons or was used for injection is responsible for the proper plugging and abandonment of the well or the decommissioning of deserted production facilities. If the supervisor determines that the current operator does not have the financial resources to fully cover the cost of plugging and abandoning the well or the decommissioning of deserted production facilities, the immediately preceding operator shall be responsible for the cost of plugging and abandoning the well or the decommissioning of deserted production facilities.
- (2) The supervisor may continue to look seriatim to previous operators until an operator is found that the supervisor determines has the financial resources to cover the cost of plugging and abandoning the well or decommissioning deserted production facilities. However, the supervisor may not hold an operator responsible that made a valid transfer of ownership of the well prior to January 1, 1996.
- (3) For purposes of this subdivision, "operator" includes a mineral interest owner who shall be held jointly liable for the well and attendant production facilities if the mineral interest owner has or had leased or otherwise conveyed the working interest in the well to another person, if in the lease or other conveyance, the



mineral interest owner retained a right to control the well operations that exceeds the scope of an interest customarily reserved in a lease or other conveyance in the event of a default.

- (4) No prior operator is liable for any of the costs of plugging and abandoning a well or decommissioning deserted production facilities by a subsequent operator if those costs are necessitated by the subsequent operator's illegal operation of a well or production facility.
 - (5) If the supervisor is unable to determine that an operator who acquired ownership of a well after January 1, 1996, has the financial resources to fully cover the costs of plugging and abandonment of the well or decommissioning deserted production facilities, the supervisor may undertake plugging and abandonment of the well or decommissioning deserted production facilities pursuant to Article 4.2 (commencing with Section 3250).
- (d) (1) Notwithstanding any other provision of this chapter, the supervisor or district deputy, at his or her sole discretion, may determine that a well that has been idle for 25 years or more and that fails to meet either of the following conditions is conclusive evidence of desertion, and may order the well abandoned:
- (A) The operator is operating in compliance with a valid idle well management plan that is on file with the supervisor pursuant to paragraph (2) of subdivision (a) of Section 3206 or is covered by an indemnity bond provided under Section 3204, subdivision (a) of Section 3205, or subdivision (a) of Section 3205.2.
 - (B) The well meets the relevant testing standards for idle wells required under the regulations implementing this chapter.
- (2) The supervisor or district deputy shall provide the operator a 90-day notice of warning once a determination has been reached pursuant to this subdivision that a well has been deserted. An operator may rebut the determination, made pursuant to paragraph (1), of the supervisor or district deputy by demonstrating compliance with subparagraphs (A) and (B) of paragraph (1).
 - (3) An order to plug and abandon a deserted well under this section due to the supervisor's or district deputy's determination of an operator's noncompliance with either subparagraph (A) or (B) of paragraph (1) may be appealed to the director pursuant to the procedures specified in Article 6 (commencing with Section 3350).

(Amended by Stats. 2017, Ch. 652, Sec. 4. Effective January 1, 2018.)



APPENDIX B – REFERENCES & DATA SOURCES

The following were used as references for this report:

- California Public Resources Code
- Title 14 of the California Code of Regulations
- Notice to Operators 2018-03: WellSTAR Release 2.0 – New and updated forms, e-permitting, and electronic reporting (CalGEM, March 7, 2018).
- Notice to Operators 2018-14: WellSTAR – New and updated forms, and electronic reporting (CalGEM, December 7, 2018).
- Notice to Operators 2019-01: WellSTAR – New and updated forms, and electronic reporting (CalGEM, January 15, 2019).
- Renewal Plan for Oil and Gas Regulation: Changing past practices to usher in a new era of oil and gas regulation (CalGEM, October 2015).
- Orphan Wells in California: An Initial Assessment of the State's Potential Liabilities to Plug and Decommission Orphan Oil and Gas Wells (California Council on Science and Technology, November 2018).

The following were used as data sources for this report:

- IWMP documents submitted by operators.
- WellSTAR: [Well Statewide Tracking and Reporting](#), an electronic database used to maintain, monitor, and track well information.



APPENDIX C – GLOSSARY

TERM	DESCRIPTION
<p>AB 2729</p>	<p>AB 2729 (Williams, Ch. 272, Statutes of 2016) redefined an idle well and a long-term idle well; removed the option for a large operator to secure an escrow account or post a “super blanket bond” to avoid paying idle well fees; allowed an operator to implement an IWMP in lieu of paying idle well fees; and provided a means through which a person who acquires land with one or more wells on it to re-plug and abandon the well(s). It also required the Supervisor, on or before July 1, 2019, and annually thereafter until July 1, 2026, to submit to the Legislature a comprehensive report on the status of idle and LTIWs for the preceding calendar year.</p>
<p>Idle Well</p>	<p>Public Resources Code section 3008, subdivision (d): “Idle well” means any well that for a period of 24 consecutive months has not either produced oil or natural gas, produced water to be used in production stimulation, or been used for enhanced oil recovery, reservoir pressure management, or injection. For the purpose of determining whether a well is an idle well, production or injection is subject to verification by the division. An idle well continues to be an idle well until it has been properly abandoned in accordance with Section 3208 or it has been shown to the division’s satisfaction that, since the well became an idle well, the well has for a continuous six-month period either maintained production of oil or natural gas, maintained production of water used in production stimulation, or been used for enhanced oil recovery, reservoir pressure management, or injection. An idle well does not include an active observation well.</p>



TERM	DESCRIPTION
<p>Idle Well Fees</p>	<p>Public Resources Code section 3206, subdivision (a)(1): No later than May 1 of each year, for each idle well that was an idle well at any time in the last calendar year, file with the Supervisor an annual fee equal to the sum of the following amounts: (A) One hundred fifty dollars (\$150) for each idle well that has been an idle well for three years or longer, but less than eight years. (B) Three hundred dollars (\$300) for each idle well that has been an idle well for eight years or longer, but less than 15 years. (C) Seven hundred fifty dollars (\$750) for each idle well that has been an idle well for 15 years or longer, but less than 20 years. (D) One thousand five hundred dollars (\$1,500) for each idle well that has been an idle well for 20 years or longer.</p>
<p>Idle Well Management Plan (IWMP)</p>	<p>Public Resources Code section 3206, subdivision (a)(2): File a plan with the Supervisor to provide for the management and elimination of all LTIW. (A) For the purposes of the plan required by this paragraph, elimination of an idle well shall be accomplished when the well has been properly abandoned in accordance with Section 3208, or it has been shown to the division's satisfaction that, since the well became an idle well, the well has maintained production of oil or gas or been used for injection for a continuous six-month period.</p>
<p>Long-Term Idle Well (LTIW)</p>	<p>Public Resources Code section 3008, subdivision (e): "Long-term idle well" means any well that has been an idle well for eight or more years.</p>
<p>Measured Depth</p>	<p>The length of the wellbore measured along the path of the well.</p>



TERM	DESCRIPTION
<p>Plug and Abandon</p>	<p>Public Resources Code section 3208, subdivision (a): For the purposes of Sections 3206 and 3207, a well is properly abandoned when it has been shown, to the satisfaction of the Supervisor, that all proper steps have been taken to isolate all oil-bearing or gas-bearing strata encountered in the well, and to protect underground or surface water suitable for irrigation or farm or domestic purposes from the infiltration or addition of any detrimental substance and to prevent subsequent damage to life, health, property, and other resources. For purposes of this subdivision, proper steps include the plugging of the well, decommissioning the attendant production facilities of the well, or both, if determined necessary by the Supervisor.</p>
<p>SB 724</p>	<p>SB 724 (Lara, Ch. 652, Statutes of 2017) temporarily increased funding dedicated to plug and remediate deserted oil and gas wells and oil field facilities from \$1 million to \$3 million. It required the Division to establish criteria to prioritize deserted wells and facilities for remediation. This bill made several technical and conforming changes to the Public Resources Code related to time lines for permitting and idling of oil wells. This bill clarified existing law to specify that the Division, as a part of an order requiring the plugging and abandonment of a deserted well, may also require the operator to address the adjacent production equipment associated with the well and conduct site remediation if necessary.</p>



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