



The U.S. Department of Energy's Office of Fossil Energy (FE) supports research and development of technologies that can reduce the volume of natural gas (e.g., methane) flared or vented (released) into the atmosphere during crude oil and natural gas exploration, production, processing, transportation, and storage operations. This fact sheet was created by FE to inform stakeholders on state-level production and regulatory activity regarding natural gas flaring and venting. FE's research portfolio includes efforts to reduce methane (and other hydrocarbon) flaring through the application of improved technologies to capture and utilize small volumes of natural gas at remote locations, as well as technologies to reduce (primarily) methane release during midstream gas processing and transportation. Intermittent flaring that occurs as a result of routine well testing, production facility process shutdowns, or facility and pipeline infrastructure maintenance, are normal aspects of safe oil and natural gas production. Increases in domestic oil and natural gas production have resulted in significant infrastructure buildouts, however, natural gas pipeline capacity constraints have led to regional increases in the flaring of associated gas in some unconventional plays (e.g., Permian Basin in Texas and New Mexico and Bakken Shale in North Dakota) in order to enable oil production.

Mississippi Producing Plays and Basins

Mississippi oil and gas production splits between the Black Warrior Basin in the northeast and the Mississippi Interior Salt Basin in the southwest (Figure 1) with much of the historical production coming from the lower half of the state. Unconventional gas shale formations in northern Mississippi include the Floyd-Neal and Floyd-Chattanooga formations located within the Black Warrior Basin, which extends across the Mississippi-Alabama border. The [U.S. Geological Survey](#) has assessed the Floyd Shale in the Black Warrior Basin as having an estimated 1.4 trillion cubic feet (Tcf) of gas, 7.6 million barrels of natural

gas liquids, and 5.9 million barrels of oil. Despite these numbers, it is not an economic target. The Tuscaloosa Marine Shale play extends into the southwest corner of Mississippi, and development of this play in Mississippi has centered in Amite, Pike, and Wilkinson Counties. The 2014 oil price drop resulted in a rapid decline in the pace of development. Only about five companies were operating in the play as of 2016, although the formation is believed to have the potential to produce 7 billion barrels of light crude oil. Per the U.S. Energy Information Administration (EIA), the total proved reserves in Mississippi are estimated at [124 million barrels of oil](#) and [0.35 Tcf of natural gas](#).

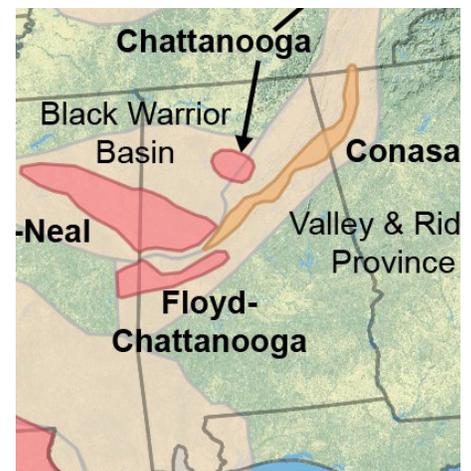


Figure 1: Mississippi basins and emerging unconventional oil and gas producing areas outlined
Source: EIA

Mississippi Oil and Natural Gas Statistics (EIA)

	2013	2014	2015	2016	2017	2018
Crude Oil Production (Average Thousand Barrels/Day)	67	67	68	56	49	48
Natural Gas Gross Withdrawals and Production (Average MMcf/Day)	162	149	159	133	105	96 *
Natural Gas Gross Withdrawals and Production (Vented and Flared) (MMcf/Day) *	3.9	3.3	5.5	5.8	4.6	N/A
Natural Gas Gross Withdrawals and Production (Oil Wells) (MMcf/Day)	19.9	19.6	13.2	25.2	15.1	N/A
Natural Gas and Gas Producing Oil Wells (Thousands)	2.2	2.1	2.1	2.0	1.9	N/A

MMcf – million cubic feet

*Information provided by the Mississippi State Oil and Gas Board

2017 ranking among 32 U.S. oil and natural gas producing states — Oil: 14 Natural Gas: 21

Mississippi Key Regulations Associated with Flaring and Venting

The Mississippi Oil and Gas Board ([MSOGB](#)) promulgates and enforces rules and regulations for oil and gas drilling, production, and storage, as well as the environmentally safe disposal of nonhazardous oil field waste in a manner that is consistent with federal and state regulations. The Mississippi Department of Environmental Quality (MDEQ) and its [Air Division](#) are responsible for controlling, preventing, and abating air pollution to comply with air emission regulations.

Mississippi does not have specific regulations related to flaring and venting of associated gas captured during oil production. However, according to [Rule 62](#) of the Mississippi Statewide Rules and Regulations, *Storage Tanks, Sour Crude Oil*, operators must recover all fumes and vapor in such tanks in a vapor recovery unit or flare it to the atmosphere. If operators opt to flare fumes and vapor, then they must utilize a flare stack with a permanent pilot attached so that the emissions do not exceed applicable air quality standards. If operators use vapor recovery units,

then standby facilities must be available for flaring fumes and vapors in case of a malfunction.

Mississippi State Points of Contact

Mississippi Oil and Gas Board

Contact MSOGB for more information about the oil and gas production and associated regulations in the state.

Website: <http://www.ogb.state.ms.us/> and <http://gis.ogb.state.ms.us/MSOGBOnline/>

Email: jnew@ogb.state.ms.us

Phone: 601-576-4920

Mississippi Department of Environmental Quality

Contact MDEQ for information about air permitting.

Website: <https://www.mdeq.ms.gov/air/>

Email: jbland@mdeq.ms.gov

Phone: 601-961-5112 or 601-961-5171

Visit energy.gov/fe/state-natural-gas-flaring-and-venting-regulations for a digital version of this fact sheet that includes hyperlinks to information sources.