

Table 14: Proved reserves, reserves changes, and production of shale natural gas, 2021

billion cubic feet

State and subdivision	Published proved reserves 12/31/20	Changes in reserves during 2021						Estimated production (-)	Proved reserves 12/31/21
		Adjustments (+,-)	Revision increases (+)	Revision decreases (-)	Divestitures (-)	Acquisitions (+)	Extensions and discoveries (+)		
Alaska	0	0	0	0	0	0	0	0	0
Lower 48 States	317,756	-3,921	51,222	25,412	7,464	33,005	56,578	27,985	393,779
Arkansas	4,210	0	1,338	34	0	0	0	387	5,127
Colorado	1,331	-472	2,685	227	0	803	330	301	4,149
Kansas	0	0	0	0	0	0	0	0	0
Kentucky	0	0	0	0	0	0	0	0	0
Louisiana	28,533	-3,543	2,326	3,481	1,823	12,803	3,757	2,942	35,630
North	28,533	-3,543	2,326	3,481	1,823	12,803	3,757	2,942	35,630
South	0	0	0	0	0	0	0	0	0
Michigan	823	6	309	2	196	205	0	53	1,092
Mississippi	0	0	0	0	0	0	0	0	0
Montana	227	-1	93	12	43	0	5	15	254
New Mexico	14,667	-350	3,158	1,521	371	2,124	6,180	1,642	22,245
North Dakota	8,376	-331	2,284	94	500	561	1,902	1,052	11,146
Ohio	27,775	108	5,756	3,282	48	349	3,339	2,207	31,790
Oklahoma	15,483	571	3,862	976	269	924	2,394	1,239	20,750
Pennsylvania	96,699	-601	2,706	4,730	288	3,537	15,809	7,546	105,586
Texas	87,296	501	24,769	8,689	3,312	11,679	12,866	8,262	116,848
RRC District 1	6,517	289	3,523	604	33	225	525	652	9,790
RRC District 2 Onshore	4,290	233	1,718	603	87	231	575	582	5,775
RRC District 3 Onshore	135	32	19	17	0	13	13	18	177
RRC District 4 Onshore	11,396	239	2,233	842	0	240	1,577	608	14,235
RRC District 5	5,344	208	1,310	88	89	260	2	480	6,467
RRC District 6	16,224	-448	4,766	264	34	674	893	1,358	20,453
RRC District 7B	679	-79	309	55	61	351	0	77	1,067
RRC District 7C	7,688	1,286	1,766	589	343	1,626	1,651	803	12,282
RRC District 8	30,026	-908	6,761	5,053	2,595	7,855	7,587	3,339	40,334
RRC District 8A	141	-68	9	0	0	0	43	5	120
RRC District 9	4,856	-283	2,355	574	70	204	0	340	6,148
RRC District 10	0	0	0	0	0	0	0	0	0
Virginia	0	0	0	0	0	0	0	0	0
West Virginia	32,335	190	1,936	2,364	614	20	9,996	2,339	39,160
Wyoming	0	0	0	0	0	0	0	0	0
Federal Offshore	0	0	0	0	0	0	0	0	0
Other states ^a	2	0	0	0	0	0	0	0	2
U.S. total	317,756	-3,921	51,222	25,412	7,464	33,005	56,578	27,985	393,779

Data source: U.S. Energy Information Administration, Form EIA-23L, *Annual Report of Domestic Oil and Gas Proved Reserves*

Note: We based this table on proved reserves and production volumes of shale natural gas reported and imputed from data on Form EIA-23L, *Annual Report of Domestic Oil and Gas Reserves*. For certain reasons (e.g. incorrect or incomplete respondent submissions, respondent mis-identification of shale vs non-shale reservoirs) the actual proved reserves and production of natural gas from shales may be higher or lower. The production estimates are provided as an indicator of production trends and may differ slightly from official EIA production volumes listed elsewhere on our website.

Natural gas is measured at 60 degrees Fahrenheit and atmospheric pressure base of 14.73 pounds per square inch (psia)

^a *Other states* include California, Illinois, Indiana, Missouri, New York, South Dakota, Tennessee, and Utah. Individual state volumes are withheld for these states to avoid disclosure of operator-level reserves data or because of other statistical precision or data quality reasons.