

## Resource Potential of the San Joaquin Basin: Results of the USGS Assessment

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Two categories of future additions to reserves were evaluated by the USGS during its recently completed assessment of the San Joaquin Basin: 1) Undiscovered resources in discrete accumulations, and 2) Future growth of reserves in existing accumulations. Undiscovered resources are reported for the ten assessment units, within which undiscovered oil resources are estimated to range from 7 million barrels to about 125 million barrels, for a total of ~400 million barrels. Although the possibility exists for significant undiscovered accumulations in every assessment unit, the greatest potential for accumulations larger than 10 million barrels is probably in Miocene and Eocene-aged reservoirs of the west side and in the deep basin south of the Bakersfield Arch, and in stratigraphic and diagenetic traps in siliceous rocks of the central San Joaquin basin. In our view, it is very unlikely that single oil fields larger than 100 million barrels remain to be discovered in the San Joaquin Basin. However, opportunities for large gas accumulations remain. Undiscovered nonassociated gas resources are estimated to range from 29 BCFG to more than 1 TCFG, with the greatest opportunity for large gas accumulations in deep reservoirs of the west side below 14,000 ft. The possibility exists for the discovery of a gas accumulation larger than 1.5 TCFG. Although undiscovered resources are significant, the greatest potential for future additions to reserves is in known fields. We estimate that future additions to reserves in existing fields will be at least 4 billion barrels, indicating that the San Joaquin Basin will remain one of the most important petroleum provinces in the United States for decades.