



## CAREER PROFILE

# Field Engineer

### JOB OUTLOOK<sup>1</sup>

Overall employment of field engineers is projected to grow at about the average rate for all occupations. The employment outlook for field engineers will depend on oil and natural gas price fluctuations. When oil and natural gas prices are higher, companies invest in new on- and offshore drilling facilities staffed by field engineers and other experts.

### SALARY RANGE<sup>1</sup>

\$117,150 – \$137,210

### WHO ARE THEY?<sup>1,2</sup>

Field engineers are multi-tasking, problem-solving, leadership-oriented professionals who have knowledge in multiple fields of science and math related to extracting oil and natural gas reserves from underground deposits, or reservoirs. They provide onsite leadership at oil and natural gas drilling sites to maximize their production and efficiency. Field engineers are comfortable implementing complex production plans, but also possess analytical minds for troubleshooting and making adjustments to drilling operations. They are able to collaborate with colleagues representing diverse areas of expertise within the petroleum and gas industries. Field engineers are approachable and easy to work with, but always willing to raise difficult questions to resolve issues. Successful field engineers maximize the utility of oil and natural gas reserves and ensure resources are produced safely, on-time and at-cost.

### WHAT DO THEY DO?<sup>1,2</sup>

Field engineers work onsite at oil and natural gas wells to implement drilling and extraction plans. They assist in designing equipment for extracting oil and natural gas from underground deposits located beneath onshore and offshore well locations. They collaborate with experts to formulate detailed procedures for drilling oil and natural gas fields, and then oversee implementation of these plans. Field engineers ensure that well equipment is installed, used, and maintained correctly. They formulate solutions for maximizing the potential of drilling locations, and conduct tests to collect data to evaluate well production.



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## EDUCATION/ TRAINING

- Bachelor's degree in petroleum, mechanical, civil, or chemical engineering.
- Participation in a cooperative-education program working in the oil and natural gas industry.
- Although not required for entry level positions, field engineers may wish to pass the exam to obtain Professional Engineering licenses.

## HOW DO I BECOME ONE?<sup>1,2</sup>

Field engineers will need at a bachelor's degree in petroleum, mechanical, civil, or chemical engineering. Employers in this field value hands-on experience, so candidate participation in a cooperative-education program is valuable. These programs provide students with opportunities to gain practical experience as they earn their degrees. Field engineers also need analytical skills for processing large amounts of information; interpersonal skills for collaborating with colleagues representing different areas of expertise; problem-solving skills for identifying and correcting issues; and math skills for conducting measurements and analyzing data.

<sup>1</sup> "Occupational Outlook Handbook." U.S. Bureau of Labor Statistics. <https://www.bls.gov/ooh/architecture-and-engineering/petroleum-engineers.htm#tab-2>.

<sup>2</sup> Field Engineer for Chevron [Telephone interview]. (2020, September).