PETROLUM ENGINEER

1. Word and expressions.

1. to meet the task - выполнять задачу
2. to produce - добывать
3. to consume - потреблять
4. challenge - задача
5. to provide - обеспечивать, снабжать
6. rate - темп, скорость
7. at least - по крайней мере
8. to be concerned with - иметь дело с ……
9. to create - созидать, создавать
10. to evaluate - оценивать
11. to oversee - наблюдать
12. activity - деятельность, работа
13. to implement - внедрять
14. to simulate - моделировать
15. to own - владеть
16. to recover - извлекать, добывать
17. to device - разрабатывать, изобретать
18. to enhance recovery - увеличивать нефтеотдачу
19. to inject - закачивать
20. combustion - горение, сгорание, воспламенение
21. to treat - обрабатывать, очищать
22. to release - освобождать, разъединять, выключать

23. opportunity - возможность

24. facility - средство, оборудование (зд.)

25. to apply - применять

26. oil shale - горючий сланец

27. tar sand - битумный песчаник

28. conventional - нормальный, обычный

29. to release - освобождать

30. tray - ловушка

31. pore - пора

What does a Engineer do?

Meeting the task of producing oil and gas other resources from the earth is the primary challenge of the petroleum engineer. Petroleum provides over 70% of world energy compaction. It is likely to continue at this rate for at least another 50 years, probably 100 years. No other branch of engineering is more concerned with our everyday lives. Economic and environmentally safe production of petroleum resources requires creative application of a wide spectrum of knowledge, ranging from the basic sciences of mathematics, physics, geology and chemistry to almost all engineering disciplines (mechanical, chemical, electrical, ect.).

The petroleum engineer evaluates potential producing reservoirs, oversees drilling activities, selects and implements recovery schemes and designs surface collection and treatment facilities. The petroleum engineer is increasingly concerned with the application of computers in these functions, not only in exploration data analysis and simulation of reservoir behavior, but also in automation of oilfield production and drilling operations. Most of the world's supercomputers are owned by petroleum companies.

Petroleum engineers have a future full of challenges and opportunities. They must develop and apply new technology to recover hydrocarbons from oil

shale, tar sands, and offshore oil and gas fields. Petroleum engineers must also devise now techniques to recover oil left in the ground after application of conventional producing techniques. Examples of these «enhanced» recovery methods are steam injection, underground combustion and

Injection of chemically treated water to release oil trapped in the pores of rock. Sins conventional producing methods will recover only an average of 25 % of oil in place, these new methods are aimed at recovering petroleum from know reservoirs. Techniques development for the recovery of petroleum will increasingly be applied to the extraction of other important minerals.

Since many petroleum companies conduct worldwide operations, the petroleum engineer may have the opportunity for assignments all over the world.

2. Translate into Russian:

to produce - production- producer

to consume - consumption

to create - creation

to evaluate - evaluation

to act - active - activity

to implement - implementation

to simulate - simulation

to recover - recovery - reservoir recovery

to inject - injection

to treat - treatment

to apply- application

3. Read the text and find English equivalents to the following worlds and expressions in the text. Remember them.

1. оценивать потенциал месторождения;
2. следить за буровыми работами;
3. схема добычи;
4. оборудование для сбора и очистки нефти на поверхности;
5. шире используют …..;
6. автоматизация процессов добычи нефти и бурения;
7. обычные технологии добычи;
8. увеличенная нефтеотдача;
9. новые методы направленные на …;
10. в среднем 25% первоначального количества нефти;
11. примеры технологий повышения нефтеотдачи;
12. закачка пара;
13. химически очищенная вода;
14. обычные способы добычи;
15. новые способы, направленные на …;
16. добыча других полезных ископаемых.

4.Read and translates the text and answer the questions.

1. What is your future speciality ?
2. What is the primary challenge of the petroleum engineer ?
3. Is there any other branch of engineering which is more concerned with our everyday live ?
4. What must the petroleum engineer know is ensure economic and environmentally safe production of petroleum resources ?
5. What subjects do you study now ?
6. Are you taught evaluates potential producing reservoirs ?
7. Will you be able to drilling activities, select and recovery schemes ?
8. Who designs surface collection and treatment facilities ?
9. Will you be able to apple computers in automation of oilfield production ?
10. Who can devise and apply new technology to recover oil left in the ground ?
11. Can you give examples of «enhanced» recovery methods ? What are they?
12. What are new enhanced methods aimed at ?
13. Are the new methods of petroleum recover applied to the extraction of other important minerals ?
14. What opportunities have the petroleum engineers and why ?
15. Do you like your future speciality ?

Say in English:

Инженер- нефтяник, добывать нефть, запасы нефти, другие полезные ископаемые, отрасль промышленности, творческое применение, буровые работы, схема добычи, разрабатывать новые технологии, обычные

способы добычи, повышение нефтеотдачи, применять новую технологию, широкий спектр знаний, морские месторождения нефти и газа.

1. Fill in the blanks with suitable word:

1. Meeting the …… of producing oil is the primary ….. of the petroleum engineer.
2. Petroleum provides over 70% of world energy …… .
3. No other branch of ….. is more concerned with our everyday ….. .
4. Economic and environmentally safe ……. requires application of a wide spectrum of knowledge/
5. The petroleum engineer evaluates potential …… .
6. Petroleum engineers have a future full of challenges and …… .
7. Examples of these ……. recovery methods are steam injection and underground …… .
8. These new methods are aimed at recovering …… petroleum from know …… .
9. Techniques development for the recovery of petroleum will be applied to the …… of other important minerals.
10…….. many petroleum companies conduct worldwide operations, the petroleum engineer may have an …….. for assignments all over the world.

7. Translate into English.

1. Моя будущая профессия – инженер-нефтяник.
2. Она очень важна, т.к. нефть является основным источником энергии в настоящее время.
3. Добыча нефти будет расти в течение ближайших 100 лет.
4. 4.Сейчас нефть покрывает 70% потребления энергии в мире.
5. 5.Инженер-нефтянник должен уметь извлекать нефть, оставшуюся в земле после применения обычных технологий добычи.
6. 6.Новые технологии добычи нефти могут быть использованы и в добыче других полезных ископаемых.
7. Инженер-нефтянник может получить работу в любой нефтяной компании мира.