

English for Oil & Gas

2

Vocational English
Course Book

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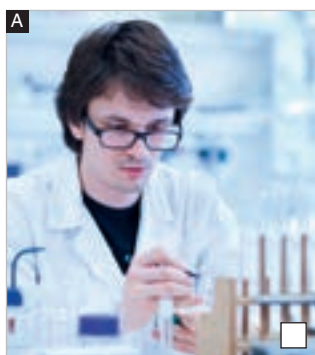
People and jobs

- talk about roles and responsibilities
- explain an oil rig's organisation
- describe work routines
- discuss transportation

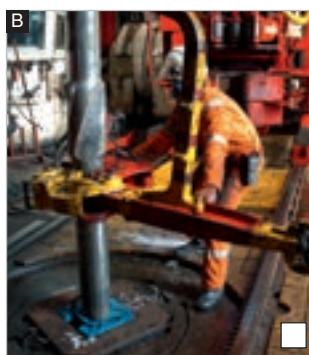
Roles and responsibilities

Reading 1 Read the information and match words 1–4 to photos A–D.

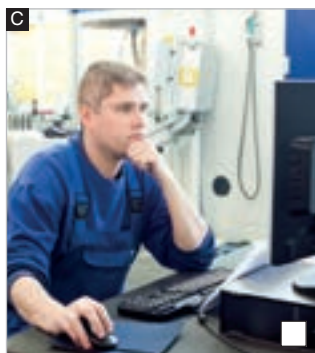
1 geophysicist 2 lab technician 3 production engineer 4 roughneck



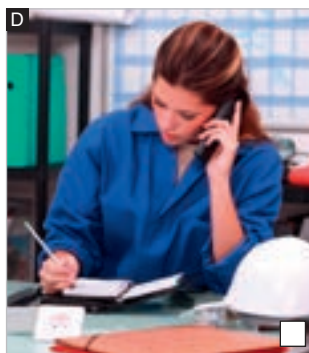
I work in the downstream sector of the industry, in a refinery. We manufacture a wide range of products for domestic and industrial uses, such as lubricants, bitumen, liquefied petroleum gas (LPG) and petrochemicals.



I work on an offshore oil rig. I spend a lot of my time tripping drill pipe in and out of the hole, and operating the tongs to make or break connections. I also do other jobs around the rig, such as looking after equipment.



I look at seismic data and help the company make decisions about where to drill. At the moment we are looking at a shale gas reservoir in the USA. Shale gas is natural gas found in shale formations.



I work for an E&P independent. I'm part of the team of people responsible for the operation, production and maintenance of different facilities in this area. My main job is to find the best way to bring the oil to the surface.

Vocabulary 2 Match words 1–6 to definitions a–f.

- | | |
|---------------------|--|
| 1 downstream sector | a) put a pipe in/pull a pipe out of a drill hole |
| 2 LPG | b) activities to do with refining, transportation, sales and marketing |
| 3 trip in/out | c) connected with earth vibration |
| 4 E&P independent | d) independent exploration and production company |
| 5 seismic | e) liquefied petroleum gas |
| 6 shale gas | f) natural gas found in a type of sedimentary rock |

Listening 3 02 Listen to four conversations. Are these statements *true* (T) or *false* (F)?

lube oil =
lubricating oil

Conversation 1

- 1 Lab technicians mix oils and additives. (T / F)
- 2 Customers come to the refinery and pump oil from the storage tanks. (T / F)

Conversation 2

- 3 Roustabouts don't work in the rain. (T / F)
- 4 Roustabouts work alone. (T / F)

Conversation 3

- 5 Production engineers work in offices all day. (T / F)
- 6 Production engineers have to follow health and safety procedures. (T / F)

Conversation 4

- 7 The layers of rock reflect shock waves. (T / F)
- 8 Geophysicists analyse seismic data. (T / F)

4 Answer these questions. Then listen again and check your answers.

- 1 What does the lab technician optimise?
- 2 Does a roustabout clean and paint?
- 3 Is production engineering a technical job?
- 4 What do vibrator trucks do?

Language

Present simple

We use the present simple to talk about facts, repeated actions and habits.	Geophysicists analyse seismic data. We manufacture a wide range of products. Roustabouts don't work alone.
Yes/No questions	Do you work in a crew? Is it an easy job?
Wh- questions	What do you do ? Where do you work ? Who does she work for ?



5 Put this conversation in the correct order.

- ☐ B: Yes, I do. I stand on the monkey board at the top of the derrick. I guide the drill pipe when we trip out or in. I'm also responsible for the fluid pumps and the circulation system.
- ☐ B: Yes, it is. But I know what I'm doing and I'm careful.
- ☐ A: A derrickhand? So do you work high up?
- ☒ 1 A: What do you do, Adel?
- ☐ B: I'm a derrickhand on an oil rig.
- ☐ A: Isn't that dangerous?

6 Read the conversation in 5 again. Write a paragraph about Adel.

Adel is a derrickhand on an oil rig. He ...

Speaking 7 Work in pairs. Choose an oil industry job you are familiar with. Explain the job to your partner.

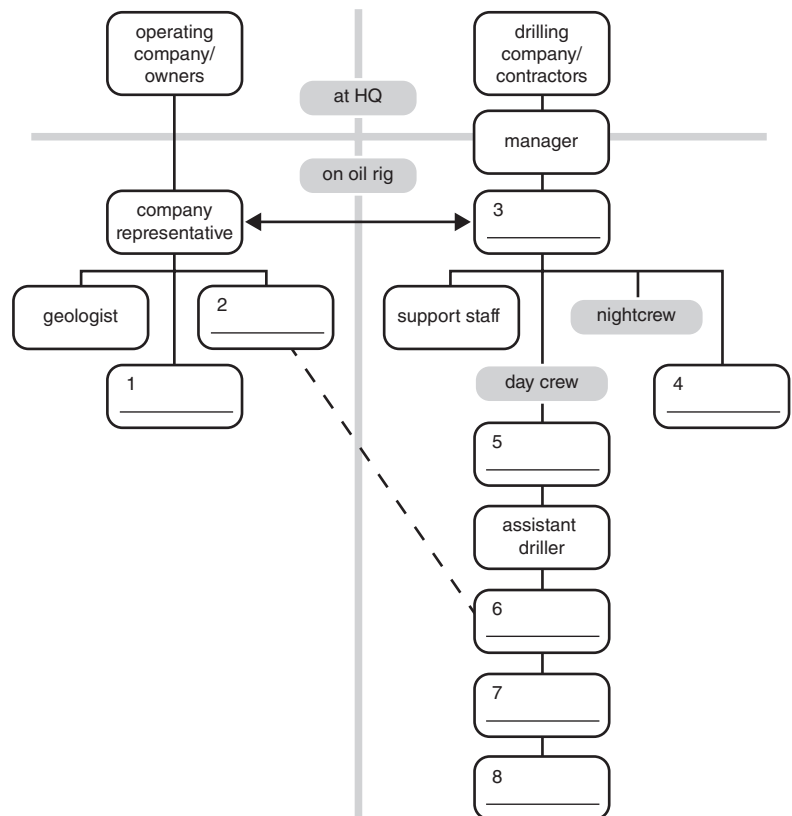
Roustabouts work on oil rigs. They do jobs like cleaning ...

The organisation

Reading 1 Read the text and complete this organisation chart with the job titles in the box.

hand = a crew member who does physical work

derrickhand driller drilling engineer motorhand
mud engineer roughnecks roustabouts toolpusher



A guide to jobs on an oil rig

Employees of the exploration or operating company

- **Company representative:** Works for the operating or exploration company. Can give instructions to the toolpusher but does not directly supervise the toolpusher or the drilling crews.

- **Drilling engineer:** Specialises in the technical aspects of drilling. Reports to the company representative.
- **Mud/Drilling fluids engineer:** Responsible for the drilling fluid. Reports to the company representative.

Employees of the drilling company contractors

- **Toolpusher:** Manages the drilling crews on the rig and the support staff. Can receive instructions from the company representative but reports to the manager of the drilling contractor company.
- **Driller:** Supervises a drilling crew. Controls the rig's machinery during the drilling operation. Has an assistant driller.
- **Derrickhand:** Handles the top of the drill string when the crew are tripping it in or out of the well hole. Also responsible for the flow of drilling fluid into and out of the well hole. Reports to the assistant driller and works closely with the mud engineer.
- **Roughnecks:** Skilled workers on the floor of the rig. Operate the tongs to make up and break out drill strings. Also trip pipe in and out of the well hole. Report to the derrickhand.
- **Roustabouts:** Semi-skilled workers. Do most of the painting and cleaning jobs on the rig. Report to the roughnecks.
- **Motorhand:** Responsible for the maintenance and operation of drilling engines and motors. Acts as a mechanic and an electrician. Reports to the toolpusher.

2 Look at the organisation chart and text in 1 again. Answer these questions.


- 1 Who is responsible for the drilling fluid?
- 2 Who looks after the engines?
- 3 Who represents the operating or exploration company?
- 4 Who does the painting and cleaning jobs?
- 5 Who reports to the manager of the drilling contractor company?
- 6 Who supervises the drilling crew?
- 7 Who operates the tongs?

Vocabulary 3 Complete this table with words from the text in 1. Which nouns refer to people?

Noun	Verb
1 _____	maintain
supervisor	2 _____
3 _____	instruct
operation	4 _____
5 _____	drill
6 _____	assist
manager	7 _____
8 _____	represent
9 _____	explore

4 Complete these sentences with the correct form of words from 3.

- 1 The company _____ works for the _____ company.
- 2 As a motorhand, I'm responsible for the _____ and _____ of all the engines.
- 3 My job is to support the driller. I'm his _____.
- 4 Each driller _____ one of the crews.
- 5 In some places the toolpusher is called the rig _____.

Listening 5  **03** Listen to Abdul as he introduces Harish to the rig crew. What is Harish's job and where will he work?

6 Listen again. Match the names to the job titles.

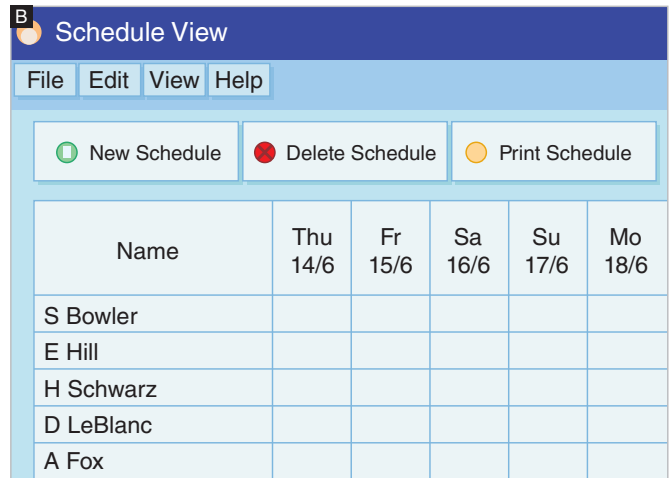
- | | |
|------------|---------------------------------|
| 1 Mr J | a) motorhand |
| 2 John | b) driller |
| 3 Mohammed | c) toolpusher |
| 4 Ali | d) drilling engineer |
| 5 Samir | e) company representative |
| 6 Abdul | f) mud/drilling fluids engineer |

Speaking 7 Work in pairs. Choose and complete one of the following tasks.

- 1 Draw an organisation chart for your own school or organisation. Explain it to your partner.
- 2 Make a list of different job titles in your school or organisation. Explain the jobs to your partner.

Work routines

Speaking 1 Work in pairs. What is the app in photo A for? What about the software in photo B? Discuss with a partner.



Listening 2 Listen to three conversations and answer these questions.

- 1 Where do the speakers in conversation 1 work?
- 2 Where does the woman in conversation 2 work?
- 3 Where does the man in conversation 3 work?

3 Complete these sentences with the words in the box. Then listen again and check your answers.

call clock downtime reschedule routine set shifts straight

- 1 On this rig, workers are on the job for 12 hours a day for seven _____ days.
- 2 The night _____ were the worst.
- 3 For _____ tests, we take samples at specific times from specific locations, according to a _____ schedule.
- 4 Last week we had a problem with some of the crude inflow, so we had to _____ all our tests.
- 5 I'm on _____ 24 hours a day.
- 6 Everything had to be planned properly to minimise _____.
- 7 We had to work around the _____ to complete the job.

Vocabulary 4 Match phrases 1–7 to definitions a–g.

- | | |
|-----------------------|-----------------------------------|
| 1 out of the ordinary | a) available for work |
| 2 week-long break | b) unexpected or non-routine |
| 3 around the clock | c) seven days off work |
| 4 reschedule | d) day and night without stopping |
| 5 on call | e) make a new timetable/schedule |
| 6 seven days on | f) working from sunset to sunrise |
| 7 the night shift | g) working for a week |

Past simple

	Regular verbs	Irregular verbs
We use the past simple to talk about a completed action in the past.	He called me an hour ago. He didn't call me. Did he call you? When did he call you?	They had a problem yesterday. They didn't have a problem yesterday. Did they have a problem yesterday? What kind of problem did they have yesterday?

5 Complete this conversation with the past simple form of the verbs in the box.

finish use want you/have you/see

Ahmed: Ahmed Bin Mohammed.

Kevin: Hi, Ahmed. It's Kevin.

Ahmed: Hi, Kevin. What's up?

Kevin: I just wanted to say that we (1) _____ the repairs an hour ago.

Ahmed: That's excellent news. (2) _____ any problems?

Kevin: No, not really. We (3) _____ some of the off-shift crew for a couple of hours.

Ahmed: OK. (4) _____ Joe yesterday? He (5) _____ to give you some documents.

Kevin: No, I didn't. I'll catch him tomorrow in the office.

Ahmed: Sounds good. OK. Thanks for calling.

Kevin: You're welcome. Bye, Ahmed.

Ahmed: Bye.

Reading 6 Read this text about a refinery shutdown and answer the questions.



Normally, the refinery runs 24 hours a day, seven days a week but last week was different. The refinery was on a scheduled shutdown in order to inspect, upgrade and clean our equipment. We also replaced one of the coke coolers. Over a thousand extra contractors came in to do this maintenance work, so we had a lot of extra traffic, especially during shift changes. This sort of turnaround maintenance takes place every four to five years.

- 1 Why was the refinery shut down last week?
- 2 Was the shutdown planned?
- 3 What type of equipment was changed?
- 4 Why was there extra traffic?
- 5 How often does the refinery shut down for turnaround maintenance?

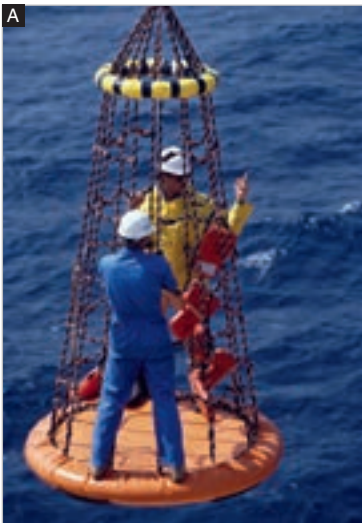
Speaking 7 Work in pairs. Explain what you typically do each week over a period of one month.

A couple of weeks ago was very typical. I was on night shift the whole week, so I started work at ...

Transport to site

Vocabulary 1 Label these photos with the words in the box.

helicopter low loader tracked vehicle transfer basket



Reading 2 Read these comments by oil workers and underline the words for forms of transport. Which comments refer to the types of transport in 1?

- 1 'The rig camp is in the middle of the Omani desert. It takes several hours to get to the location. First, a taxi to the airport. Then, an early flight to the oil industry base at Fahud, normally in a propeller aircraft. And then two hours by crew bus.'
- 2 'I'm a driller on an exploration platform in the Campos basin, which is a large oil field off Rio de Janeiro. Every day approximately 2,000 workers fly by helicopter from the mainland to the platforms in the area, so it's very busy. Sometimes there are delays due to bad weather but normally the total travel time from hotel to rig is about four hours.'
- 3 'I'm a roustabout on a production rig which is quite close to the shore, so we travel by crew boat. The total distance is only about 600 m. When we get to the rig, the operator lowers the transfer basket and hoists us up.'
- 4 'I work on pipeline repairs. We use different vehicles to get to the work site, depending on the type of ground we have to cover. Our fleet has both wheeled and tracked vehicles, with payload capacities up to 40 tons. For long distances we use low loaders to transport the vehicles.'
- 5 'I'm a chemist in a refinery just outside the town where I live. It takes me 20 minutes by bicycle to get from my home to my office. On rainy days I take my car. The refinery is at the mouth of the river, on the south bank. You often see oil tankers there.'

Vocabulary 3 Match 1–5 to a–e to make forms of transport.

- | | |
|-------------|-------------|
| 1 low | a) vehicle |
| 2 crew | b) loader |
| 3 tracked | c) tanker |
| 4 propeller | d) bus |
| 5 oil | e) aircraft |

Language

Describing location

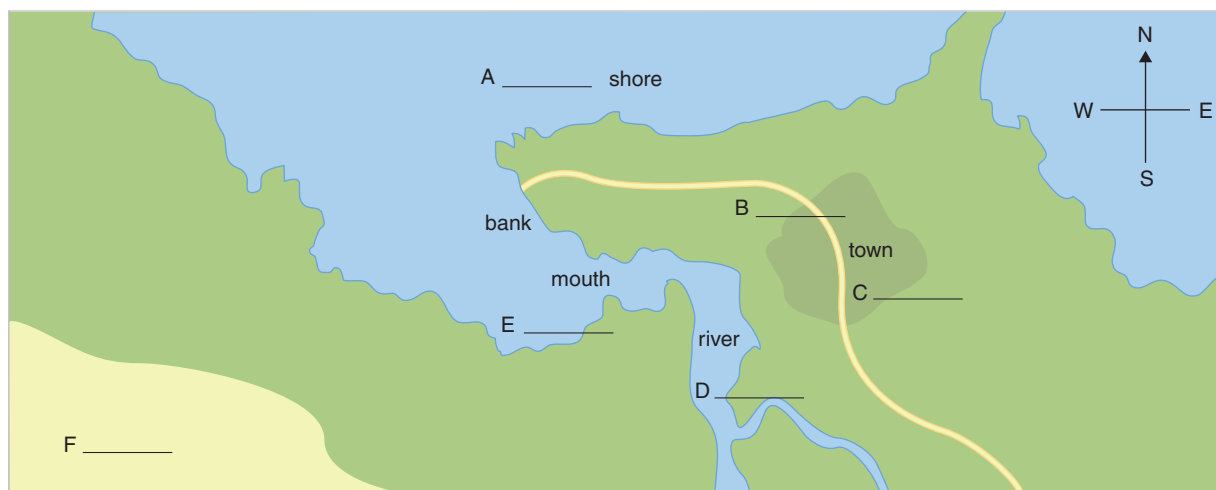
We use a number of different phrases to describe short distances. The meaning is similar.

The refinery is **just outside/quite close to** the town.
My office is **quite close to** Main Street.
The oil field is **just off** the coast.

We can use different phrases to say where things are.

The airport is **in the middle of** the desert.
The jetty is **on the south bank of** the river.
The rig is **at the mouth of** the river.

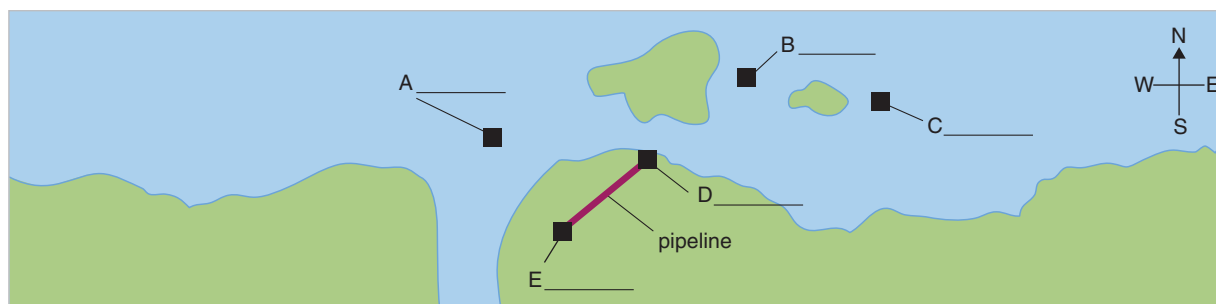
- 4 Read the sentences in the Language box and write the names of the places for A–F on this map.



- 5 Match 1–7 to a–g to make sentences.

- | | |
|----------------------------------|-----------------------------|
| 1 The oil field is in the middle | a) the mouth of the river. |
| 2 The oil field is | b) to the shore. |
| 3 The distance is | c) of the desert. |
| 4 The rig is close | d) off Rio de Janeiro. |
| 5 The refinery is just outside | e) the town. |
| 6 The refinery is at | f) south bank of the river. |
| 7 The refinery is on the | g) about 600 m. |

- Listening 6  05 Look at this map. Then listen to a conversation and label the rigs, the harbour and the refinery.



- Speaking 7 Work in pairs. Discuss the different types of transport you use to get to your place of work/study.