

OCCUPATIONAL QUALIFICATION STANDARD

Mining Technician, EstQF Level 5

An occupational qualification standard is a document which describes the set of skills, knowledge and attitudes, i.e. competence requirements, needed to successfully accomplish duties. Occupational qualification standards are used for compiling curricula and awarding qualifications.

Occupational title	Level of Estonian Qualifications Framework (EstQF)
Mining Technician, EstQF Level 5	5

Part A DESCRIPTION OF WORK

A.1 Description of work
<p>Mining Technician, Level 5 coordinates and leads the mining operations carried out by the mine workers in a quarry (see p A.8), mountain station, mining plant or other production unit. A mining technician monitors and inspects compliance with quality, occupational safety and environmental requirements during mining operations. The aim of a mining technician's activities is to support mining engineers in the opencast mining and processing of mineral resources.</p> <p>A mining technician works independently in difficult and unpredictable situations and is responsible for their own performance and that of the production unit and the dangerous situations and environmental damage caused by their activities.</p>
A.2 Tasks
<p>A.2.1 Organisation of mining work</p> <p>A.2.2 Operational management of production unit</p> <p>A.2.3 Inspection of mining environment</p>
A.3 Work environment and specific nature of work
<p>The work takes place in the open pits of a quarry and its service area. On the site and its area of influence they may be exposed to risks associated with the collapse and subsidence of rocks, extracted mineral matter and sediments and changes in water levels.</p>
A.4 Tools
<p>Measuring and communication equipment and a motor vehicle.</p>
A.5 Personal qualities required for work: abilities and characteristics
<p>The work requires precision, analytical skills, decisiveness and adaptability, willingness to cooperate and communicate, quick reactions, spatial awareness, prudence and knowledge of natural processes.</p>
A.6 Professional preparation
<p>A mining technician has acquired at least vocational education in technical areas. They have professional work experience and have completed further professional training.</p>
A.7 Most common occupational titles
<p>Mining master, mining manager, specialist responsible for mining, supervisor.</p>
A.8 Regulations governing profession
<p>Having a Mining Technician, Level 5 certificate entitles you to work as a specialist responsible for mining a sand, gravel and clay quarry, a limestone quarry, a peat extraction area and in a company mining mud, lake lime and other similar types of sediment. Basis: Earth's Crust Act.</p>

Part B COMPETENCY REQUIREMENTS

B.1 Structure of occupation

To obtain the qualification of Mining Technician, all competences (B.2.1-B.2.4) must be certified.

B.2 Competences

MANDATORY COMPETENCES

B.2.1 Organisation of mining work	EstQF Level 5
<p>Performance indicators:</p> <ol style="list-style-type: none"> 1. conducts a workplace survey and assesses the compliance of workplaces with safety requirements; 2. determines the devices and tools necessary for each task based on the mining project; 3. prepares an action plan and plans the resources according to the task; 4. organises the inspection and delivery of equipment and machinery to the workplace based on technological documentation; 5. organises the extraction, loading and transfer of the material covering mineral resources and extracted mineral matter and the primary processing of the extracted mineral matter (sorting, crushing and enrichment) in accordance with the requirements of mineral resources and technological documentation; 6. monitors the compliance of the delivered extracted mineral matter with the requirements 7. organises the removal of products according to technological maps, transport schemes and e-passports 8. assesses the suitability of the means of transport selected for the removal of the products, their compatibility with the characteristics of the extracted mineral matter and the state of roads 9. organises the maintenance of the mined areas according to the requirements of maintaining mined land. 	
B.2.2 Operational management of production unit	EstQF Level 5
<p>Performance indicators:</p> <ol style="list-style-type: none"> 1. plans the activities of workers: determines the work and danger zones and safe distances and distributes tasks taking into account the competences of the workers and the specific nature of operations; 2. assesses the condition of the equipment (opencast mining extraction machines etc.) when performing tasks, consulting specialists, if necessary 3. monitors the fulfilment by workers of safety and environmental requirements during the work process, if necessary taking measures to eliminate hazards or suspends work; 4. participates in the preparation of the company's work organisation documents (internal rules etc.), risk mapping and the development of preventive measures; 5. passes on professional skills and knowledge and coordinates the work of those supervised; 6. assesses the performance of the production unit and that of the employees and those being supervised, directing the employees to use methods that ensure quality; 7. prevents risks from collapsing rocks and sediment caused by mining by employing safety measures; 8. prevents mining and environmental impact from exceeding the limits specified in the mining permit. 	
B.2.3 Inspection of mining environment	EstQF Level 5
<p>Performance indicators:</p> <ol style="list-style-type: none"> 1. measures and monitors the environmental impact of mining and the maintenance of the mined area taking into account the principles of environmental conservation; 2. keeps the volumes and areas of extracted and transferred material within the limits specified by the mining permit and mining facility projects; 3. monitors groundwater levels in the quarry and the area of influence of mining in bodies of water and observation wells following established requirements; 4. keeps noise, dust and other disruptive elements within acceptable limits. 	

RECURRING COMPETENCES

B.2.4 Recurring competences of Mining Technician, Level 5	EstQF Level 5
Performance indicators: 1. complies with regulatory safety requirements and occupational safety and working environment requirements, including the ability to respond appropriately in emergency situations; 2. takes into account potential hazards in the working and surrounding environment (risk of collapse); 3. uses the company's resources and those extracted from the Earth's crust appropriately; 4. operates in an environmentally friendly manner and manages the environmental impact of mining; 5. perceives their role in the activities of the company, navigates work situations quickly and resolves conflict; 6. performs several tasks simultaneously, prioritises their activities and works effectively even in stressful situations; 7. provides information clearly, logically and in a manner understandable to the target audience; 8. prepares documents correctly and clearly, following the principles of drawing up technical documents; 9. uses a computer in their work according to the base modules (see Annex 2 'Computer skills').	

Part C GENERAL INFORMATION AND ANNEXES

C.1 Information concerning compilation and certification of occupational qualification standard and reference to classification of occupations	
1. ID of occupational qualification standard in register of occupational qualifications	07-26042017-2.1/2k
2. Occupational qualification standard compiled by:	Allan Viil, Enefit Heini Viilup, Lemminkäinen Eesti AS Ole Sein, OÜ Inseneribüroo STEIGER Allan Koger, OÜ Inseneribüroo STEIGER Jaan Viru, OÜ Viru Markšeideribüroo Jaan Kallandi, Eesti Geodeetide Ühing Margus Kukk, Mäebüroo Nord OÜ Enno Reinsalu, TTÜ Geoloogia instituut Arno Paikles, Tehnilise Järelevalve Amet Arvi Hamburg, Eesti Inseneride Liit Andrus Stimmer, Eesti Mäeselts
3. Occupational qualification standard approved by:	Energy, Mining and Chemical Industry
4. No. of decision of Sectoral Council	6
5. Date of decision of Sectoral Council	26.04.2017
6. Occupational qualification standard valid until	19.04.2022
7. Occupational qualification standard version no.	2
8. Reference to International Standard Classification of Occupations (ISCO 08)	3117 Mining and Metallurgical Technicians
9. Reference to European Qualifications Framework (EQF)	5
C.2 Occupational title in foreign language	
English:	Mining Technician, EstQF Level 5
English:	Shift foreman, level 5
German:	der Schichtsteiger
Russian:	горный мастер
C.3 Annexes	
Lisa 1 Mining Engineer's Code of Ethics	

Lisa 2 [Computer Skills](#)