

Qualifications

National Certificate: Mining Operations for Underground Hard Rock NQF Level 2

Introduction: This qualification will provide qualifying learners with the necessary knowledge, understanding and competence to work as a first line mining supervisor in underground hard rock mines. The mining supervisor plays a critical role in the mining industry. Mining activities are often conducted under hazardous and difficult conditions, which have to be managed appropriately in order to preserve the lives of those working in the industry, and ensure operational efficiency.

While the title "supervisor" implies supervisory, management and leadership competencies, these competencies are applied in conjunction with technical and operational competencies. The mining supervisor is directly responsible for the lives of his team and not only for merely achieving production targets. People credited with this qualification are able to:

- Communicate and solve problems in a variety of ways.
- Adhere to occupational safety, health, environmental and legislative requirements.
- Extract rock/minerals in accordance with production, occupational health and safety, quality and environmental requirements.
- Supervise the activities of mining teams.

Qualifying learners will obtain the National Certificate in Mining Operations for Underground Hard Rock NQF Level 2 which will enable them to directly supervise the teams involved in the safe breaking, removal and support of rock or mineral.

Depending on their learning path and work experience before engaging in learning towards this qualification, a period of practical work may be required before commencing with the National Certificate in Rock Breaking NQF Level 3.

SAQA Qualification ID: 58739

Target group: New employees and or existing employees.	Certification: If competent a competence certificate will be issued by MQA	Duration: 118 Days Days can be reduced depending on RPL
Entry Level Requirements: <ul style="list-style-type: none">▪ Minimum Literacy and Numeracy ABET 2 or NQF 1 or RPL, Grade		

Fundamental: (Could be RPL'd ±2 days per unit standard)

- All 37 credits must be achieved.

Core:

- All 63 credits from the list of Core Unit Standards must be achieved.

Elective: (Could be RPL'd ±2 days per unit standard)

- A minimum of 30 credits at level 2 or above must be selected from the list of elective unit standards.

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LEVEL	TYPE	CREDITS	U/S	Description
Level 1	Core	5	14656	Demonstrate an understanding of sexuality and sexually transmitted infections including HIV/AIDS
Level 1	Core	4	244431	Demonstrate an understanding of typical basic underground hard rock mining services, processes and layouts
Level 1	Core	1	244448	Extinguish a fire by means of a portable fire extinguisher
Level 1	Core	5	119567	Perform basic life support and first aid procedures
Level 2	Core	2	115087	Conduct a preliminary incident investigation into workplace health, safety and environmental incidents
Level 2	Core	2	244383	Conduct continuous hazard identification and risk assessment within a workplace
Level 2	Core	5	244453	Demonstrate an understanding of the identification of and dealing with rock strata conditions
Level 2	Core	2	244429	Demonstrate knowledge and understanding of blasting products and their usage in an underground hard rock environment
Level 2	Core	3	244400	Describe the basic environmental factors of ventilating an underground working place to ensure a safe and healthy working environment
Level 2	Core	2	244405	Determine environment thermal conditions in an underground workplace by means of a whirling hygrometer and take appropriate action
Level 2	Core	1	244368	Determine velocity of air in a workplace by means of the tape method and take appropriate action
Level 2	Core	5	244445	Follow basic health and safety practices underground
Level 2	Core	3	244408	Install and remove pipes and accessories
Level 2	Core	3	244416	Make safe a workplace by means of barring
Level 2	Core	2	244433	Test for flammable gas in a mining environment by means of a hand held electronic instrument and take appropriate action
Level 3	Core	4	244403	Analyse and solve problems
Level 3	Core	4	244422	Demonstrate knowledge of the most common harmful gases and vapours
Level 3	Core	10	244449	Plan, organise, lead and control activities
Below Level 1	Fundamental	4	119363	Apply concepts of shape, space and measurement to make decisions relative to the world around us
Below Level 1	Fundamental	4	119376	Demonstrate an understanding and use of data handling and probability concepts
Below Level 1	Fundamental	6	119637	Engage in a range of speaking/signing and listening interactions
Below Level 1	Fundamental	8	119632	Use reading/viewing skills to respond to defined texts
Below Level 1	Fundamental	5	119367	Work with numbers; operations with numbers and relationships between numbers
Below Level 1	Fundamental	4	119375	Work with patterns, functions and algebra in different contexts
Below Level 1	Fundamental	6	119639	Write/sign defined texts
Level 1	Elective	4	9654	Acquire an appreciation for the role of rock engineering in the mining process
Level 1	Elective	1	244413	Construct a concrete winch bed
Level 1	Elective	2	244447	Extend tracks by means of jump-sets and sliding rails
Level 1	Elective	2	244446	Install a blocking barricade

Level 1	Elective	1	244402	Install a dust-allaying device
Level 1	Elective	1	244382	Load a battery onto and remove it from a locomotive
Level 1	Elective	2	244393	Transport explosives and accessories by means of rolling stock
Level 1	Elective	1	244442	Transport persons by means of a locomotive and carriage
Level 2	Elective	7	244417	Assemble and maintain scraper cleaning equipment and rigging
Level 2	Elective	1	244419	Assemble Oxy-acetylene equipment
Level 2	Elective	6	244414	Bar and break big rocks with a mobile scaler
Level 2	Elective	7	244369	Break big rocks by means of drilling and blasting with a secondary breaker
Level 2	Elective	3	244387	Break big rocks with a secondary breaker
Level 2	Elective	5	244443	Charge shot holes with primed explosives
Level 2	Elective	2	244401	Charge shot holes with propellant based cartridges and accessories
Level 2	Elective	2	244411	Construct an underground ladder-way
Level 2	Elective	1	244410	Construct and install platform
Level 2	Elective	3	244376	Cut mild steel by means of an Oxy-acetylene cutting torch
Level 2	Elective	6	244377	Doze material using a track dozer in an underground mine
Level 2	Elective	6	244409	Doze material using a Tyre Dozer in an underground mine
Level 2	Elective	4	244415	Drill holes by means of a hand-held rock drill
Level 2	Elective	4	244381	Drill holes by means of a stope drill-rig
Level 2	Elective	4	244363	Install a mono rope system
Level 2	Elective	2	244398	Install a set of rails in an underground workplace
Level 2	Elective	5	244426	Install a stope box front and chute
Level 2	Elective	3	244430	Install a stope grizzly
Level 2	Elective	2	244367	Install a straining wire cable support system
Level 2	Elective	3	244451	Install an electrical cable
Level 2	Elective	3	244434	Install and remove ventilation columns and accessories
Level 2	Elective	2	244390	Install and remove ventilation columns, service columns and accessories by utilizing a scissor lift
Level 2	Elective	3	244425	Install underground workplace ventilation controls
Level 2	Elective	3	244365	Lift and move material and equipment by means of a forklift
Level 2	Elective	4	244361	Mark service holes underground
Level 2	Elective	3	244432	Measure, plot and interpret area measurements within an underground workplace
Level 2	Elective	6	244406	Move material by means of a mobilift in an underground mine
Level 2	Elective	6	244392	Operate a locomotive underground
Level 2	Elective	4	244404	Operate a monorail system
Level 2	Elective	3	244388	Re-rail a track bound unit
Level 2	Elective	2	244378	Receive, handle, store and issue explosives and accessories at a workplace
Level 2	Elective	1	244364	Remove an accumulation of water from an ore pass
Level 2	Elective	3	244394	Remove an obstruction from a draw point with a water canon

Level 2	Elective	3	244427	Remove broken rock by means of a high-pressure water jet unit
Level 2	Elective	4	244360	Remove broken rock by means of a scraper winch in an underground workplace
Level 2	Elective	3	244366	Remove broken rock by means of a suction unit
Level 2	Elective	5	244444	Remove broken rock by means of a track- bound mechanical loader
Level 2	Elective	2	10741	Replace an in - line ventilation fan in an underground environment
Level 2	Elective	3	244374	Shunt and tow material cars by means of a diesel powered tractor
Level 2	Elective	5	244450	Support an underground working place by means of anchors placed into drilled holes
Level 2	Elective	8	244370	Support an underground working place by means of area coverage of the rock surface
Level 2	Elective	4	244391	Support an underground working place by means of backfilling
Level 2	Elective	4	244385	Support an underground working place by means of elongated support units that are hydraulically stressed
Level 2	Elective	5	244420	Support an underground working place by means of packs
Level 2	Elective	3	244380	Support an underground working place by means of temporary support units
Level 2	Elective	6	244439	Support an underground workplace with support straps
Level 2	Elective	2	244373	Suppress dust in an underground mine using a water- bowzer
Level 2	Elective	3	244441	Take charge of and drive a non-articulating vehicle underground
Level 2	Elective	4	254577	Take charge of and drive a trackless mobile machine in an underground mine
Level 2	Elective	3	244421	Time a blasting round or circuit on a face where conventional fuses are used
Level 2	Elective	3	244424	Time a blasting round or circuit on a face where electric/electronic delay detonators are used
Level 2	Elective	3	244384	Time a blasting round or circuit on a face where shock tubes are used
Level 2	Elective	3	244384	Time a blasting round or circuit on a face where shock tubes are used
Level 2	Elective	2	244371	Transfer material using a Rigid Body Rear Dumper in an underground mine
Level 2	Elective	3	244399	Transport broken rock by means of a diesel-powered dump truck in an underground mine
Level 2	Elective	3	244440	Transport explosives and accessories by means of a Self Propelled mobile machine
Level 2	Elective	3	244386	Transport material and equipment by means of a mono rope system
Level 2	Elective	4	244375	Transport materials by means of a skid steer loader in an underground workplace
Level 2	Elective	2	244362	Transport persons, material and equipment by means of a diesel powered quadro cycle in an underground mine
Level 2	Elective	5	244395	Transport persons, material and equipment by means of a fixed saddle utility vehicle in an underground mine
Level 2	Elective	2	244412	Transport persons, material and equipment by means of a light delivery vehicle (LDV) in an underground mine
Level 2	Elective	2	244452	Transport persons, material and equipment by means of an interchangeable-saddle utility vehicle

				in an underground mine
Level 2	Elective	3	244359	Transport rock, material and equipment by means of rolling stock
Level 3	Elective	4	115093	Control workplace hazardous substances
Level 3	Elective	2	115750	Demonstrate a basic understanding of the causes of falls of ground
Level 3	Elective	8	244423	Grade roadways by means of a motor grader in an underground mine
Level 3	Elective	7	244407	Lift and move a load using mechanical lifting equipment
Level 3	Elective	5	244428	Replace an electric motor
Level 3	Elective	5	244418	Support an underground working place by means of a concrete-spraying utility vehicle
Level 3	Elective	5	244372	Support an underground workplace by means of a hydraulic roof bolter
Level 3	Elective	4	244397	Take charge of and operate a remote controlled vehicle underground
Level 3	Elective	5	244396	Transport and load explosives into blast holes using a mixer-placer truck in an underground mine