

Draft 0.2

This is a draft update to CPPSIS6041 Compile mine survey plans:
<https://training.gov.au/Training/Details/CPPSIS6041>.

Code changed to CPPSSI6041.

Changed PCs to active voice.

Changed 'person' to 'candidate' in PE.

Range of Conditions added to Knowledge Evidence.

Unit of Competency

CPPSI6041 Compile mine survey plans

Modification history

Release	Comments
1	Replaces superseded equivalent CPPSI6041A Compile mine survey plan. This version first released with CPP Property Services Training Package Version 3.
	Replaces superseded equivalent CPPSI6041 Compile mine survey plans

Application

This unit specifies the skills and knowledge required to compile a mine survey plan using computer-aided design (CAD) programs to produce mine drawings. The unit covers organising work processes; checking and validating essential surveying information; planning for risks and contingencies; and creating a survey database, file structures and conventions and metadata. The unit includes the use of specialist surveying tools and techniques to measure, reduce and validate spatial data and create mine plans, cross-sections and plots.

This unit is suitable for surveyors operating at this level who will use broad theoretical and technical knowledge to analyse information as well as interpret and transmit solutions to unpredictable and sometimes complex surveying/spatial information problems.

All work must be carried out to comply with workplace procedures, in accordance with relevant State/Territory regulations that govern surveying work as well as work health and safety, regulations and legislation that apply to the workplace. The unit supports those who work in a technical management role in a mining environment.

Cadastral surveying must be undertaken under the supervision of a registered surveyor. Users must check with the relevant regulatory state/territory authority before delivery.

Licensing, legislative, regulatory or certification requirements apply to this unit in some states where mining surveying must be undertaken under the supervision of a registered surveyor. Relevant state and territory regulatory authorities should be consulted to confirm those requirements.

Prerequisite Unit

None

Unit Sector

Surveying and Spatial Information Services

Elements and Performance Criteria

1. Organise work processes.	1.1 Define and document project deliverables, constraints and activities. 1.2 Access and interpret design information to identify spatial data requirements and components to be measured and monitored. 1.3 Check essential surveying information for currency and validity. 1.4 Create survey database, file structures and conventions, and metadata according to project specifications. 1.5 Schedule, measure, record and report progress of activities in relation to agreed timeframes and plans. 1.6 Follow risk management and contingency strategies to ensure project complies with legal, statutory and enterprise requirements.
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	1.7 Implement and maintain agreed communication processes between client and other appropriate persons.
2. Standardise mine survey plan requirements.	2.1 Identify requirements for lodging plan according to enterprise requirements. 2.2 Research and summarise mine plan drawing and plotting requirements to meet project specifications. 2.3 Manage contingencies and constraints and resolve problems to ensure plans meet specifications.
3. Produce mine survey plans.	3.1 Identify and comply with plan lodgement requirements, standard drawing requirements and plotting specifications. 3.2 Check mine grid coordinate systems and requirements for data processing for currency and validity. 3.3 Create metadata, database, file structures and conventions as the basis for design work. 3.4 Reduce measured spatial data to project reference system. 3.5 Validate and record measurements according to project specifications. 3.6 Check mine plans for compliance with project specifications and enterprise requirements.
4. Finalise mine survey plans.	4.1 Assess plan for compliance with relevant standards and task requirements. 4.2 Finalise mine survey plans and notify relevant personnel of results according to enterprise requirements. 4.3 Complete documentation and archive spatial data according to statutory, legal and enterprise requirements for completing records and reporting, mine drawings, and protocols for saving and formatting drawing.

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

Supersedes and is equivalent to CPPSIS6041

Links

The Companion Volume Implementation Guide for the CPP Property Services Training Package is available at <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6f3f9672-30e8-4835-b348-205dfcf13d9b>

Assessment Requirements for CPPSSI6041 Compile mine survey plans

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Performance Evidence

To demonstrate competency, a candidate must meet the elements and performance criteria of this unit by using computer-aided design (CAD) software to develop two mine surveys plan that meet technical project specifications.

Each mine survey plan must incorporate:

- grid convergence
- long and cross-section plot requirements
- map legends
- plot symbols
- sheet surround.

Knowledge Evidence

To be competent in this unit a candidate must demonstrate knowledge of:

- types of mine plans:
 - accident plans
 - emergency plans
 - open cut mine plans
 - surface infrastructure plans
 - underground level plans
 - ventilation plans.
- Australian drawing standards, data formats and precision and accuracy requirements for preparing mine drawings using CAD
- height, depth, dimension and position and actual operational activity and virtual representation
- graphical information in cross-sections and plans
- calibration of specialist surveying equipment precision and accuracy required for measurements, tolerances and design
- CAD principles, capabilities and uses in relation to mine design
- metadata:
 - availability
 - conditions of use
 - coordinate system
 - currency
 - custodian
 - data accuracy
 - data description
 - date of acquisition

- licence
- quality
- source
- spatial data acquisition methodologies
- version control.
- data reduction and manipulation techniques
- standard engineering and mining plan design and presentation conventions
- industry-accepted standards for mine survey plans
- statutory, legal and organisational requirements for mine survey plans
- methods for validating measurements to identify errors
- key features of mine grid coordinate systems

Assessment Conditions

Assessors must meet the requirements for assessors contained in the Standards for Registered Training Organisations.

Assessment must be conducted in the workplace or a simulated workplace using realistic conditions, materials, activities, responsibilities, procedures, safety requirements and environmental considerations.

Candidates must have access to:

- computer and CAD software

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