

Field Engineering and Technology**Review of *Drilling Industry* standards**

Subfield	Domain	ID
Drilling Industry	Drilling - Non-hydrocarbon	22456-22502, 22504
	Drilling - Hydrocarbon	23171-23222

The NZ Motor Industry Training Organisation (Inc) (MITO) has completed the review of the standards listed above.

Date new versions published

November 2014

Planned review date

December 2019

Summary

As part of the development of new qualifications for the drilling industry, MITO's Drilling Governance and Working Group reviewed the standards listed above.

The Australia-based National Industry Skills Council (SkillsDMC) reviews of the drilling industry units of competency have affected the complementary standards listed on the New Zealand Directory of Assessment Standards (DAS). The DRT03 Drilling Training Package, which included these Australian units of competency, was superseded by the RII09 Resources and Infrastructure Industry Training Package.

As part of the Targeted Review of Qualifications, the New Zealand review of *Drilling Industry* standards was undertaken during the development stage of the proposed drilling qualifications. The review aligned the New Zealand unit standards with the Australian units of competency and made corresponding changes to titles, purpose statements, and explanatory notes.

Levels

When the standards were listed, the qualification level indicated by the ID of the Australian unit of competency was used as the level of the standard in New Zealand. For example, units of competency from the Australian Certificate II were listed as Level 2 standards in New Zealand. The Governance and Working Group reconsidered the levels of the standards, and found that many did not align with the New Zealand Qualifications Framework Level Descriptors. Where the review found that skills and knowledge were not aligned, the levels were changed.

Classification

It was also determined that the classification system required expansion to include a *Drilling - General* domain. This aligns with the structure used in Australia for units of competency common to hydrocarbon and non-hydrocarbon drilling.

Main changes

- Titles, purpose statements, and explanatory notes were updated to match changes to the Australian units of competency.
- Thirty standards were designated expiring because the Australian units of competency have expired, because they were no longer fit for purpose in New Zealand, or because they duplicated existing standards.
- Thirty-five additional Australian units of competency were listed as unit standards on the DAS.
- Levels and credits were adjusted.
- The domain *Drilling - General* was registered, and standards common to hydrocarbon and non-hydrocarbon drilling were moved from *Drilling – Hydrocarbon* and *Drilling – Non-hydrocarbon* to *Drilling - General*.

The last date for assessment of superseded versions of the reviewed standards is 31 December 2018. Results will not be accepted where the assessment date is after the last date for assessment of superseded versions of the standard.

Impact on existing organisations with consent to assess

Current consent for			Consent extended to		
Nature of consent	Classification or ID	Level	Nature of consent	Classification or ID	Level
Domain	Drilling - Hydrocarbon	6	Domain	Drilling - General	6

Category C and D unit standards will expire at the end of December 2018

Impact on Consent and Moderation Requirements (CMR)

None.

Detailed list of unit standards – classification, title, level, and credits

All changes are in **bold**.

Key to review category	
A	Dates changed, but no other changes are made - the new version of the standard carries the same ID and a new version number
B	Changes made, but the overall outcome remains the same - the new version of the standard carries the same ID and a new version number
C	Major changes that necessitate the registration of a replacement standard with a new ID
D	Standard will expire and not be replaced

Engineering and Technology > Drilling Industry

ID	Domain	Title	Level	Credit	Review Category
22456	Drilling – Non-hydrocarbon	Follow workplace health, safety and environmental procedures for non-hydrocarbon drilling	2	3	C
23171	Drilling – Hydrocarbon	Assist with workplace health and safety in a hydrocarbon drilling environment	2	5	C
23172	Drilling – Hydrocarbon	Assist in maintaining rig safety and emergency procedures in a hydrocarbon drilling environment	2	7	C
28311	Drilling - General	Assist in maintaining rig safety and emergency procedures in a drilling environment	3	5	

Engineering and Technology > Drilling Industry > Drilling - General

ID	Title	Level	Credit	Review Category
28313	Identify and minimise environmental hazards in a drilling environment	3	5	New
28314	Identify and assess environmental and heritage concerns in a drilling environment	3	5	New
28315	Respond to local emergencies and incidents in a drilling environment	4	5	New
28316	Conduct underground in-seam directional drilling	4	10	New
28317	Install underground in-seam directional drilling standpipes	4	5	New
28318	Conduct horizontal directional drilling	4	20	New
28319	Carry out grouting or cementing operations in a drilling environment	4	10	New
28320	Set up and prepare for open-cut drilling operations	4	5	New
28321	Implement and maintain environmental management plan in a drilling environment	5	5	New
28322	Apply a quality management system on site in a drilling environment	5	10	New
28323	Manage major incidents and emergencies in a drilling environment	5	5	New
28324	Apply and monitor surface operations emergency preparedness and response systems in a drilling environment	5	5	New
28325	Supervise surface directional drilling operations	5	10	New
28326	Supervise underground in-seam directional drilling operations	5	40	New
28327	Apply site plant, equipment, and infrastructure maintenance plan in a drilling environment	5	5	New
28328	Assist underground in-seam directional drilling	3	4	New

ID	Title	Level	Credit	Review Category
28329	Assist grouting or cementing operations in a drilling environment	3	4	New
28330	Support blow out prevention operations in a drilling environment	3	5	New
28331	Assist with coal seam gas control in a drilling environment	3	5	New
28332	Apply effective coal seam gas control practices in a drilling environment	4	5	New
28333	Apply blow out prevention operational procedures in a drilling environment	4	5	New

Engineering and Technology > Drilling Industry > Drilling - Hydrocarbon

ID	Title	Level	Credit	Review Category
23173	Establish and maintain effective working relationships in a hydrocarbon drilling environment	2	4	D
23174	Carry out equipment and basic rig maintenance in a hydrocarbon drilling environment	2	7	B
23175	Contribute to workplace health and safety in a hydrocarbon drilling environment	2	4	D
23177	Establish and maintain effective working relationships as a floorman in a hydrocarbon drilling environment	3	6	D
23179	Perform rig floor operations in a hydrocarbon drilling environment	2 3	18 15	B
23180	Apply occupational health and safety in a hydrocarbon drilling workplace	3	15	D
23181	Control emergencies and critical situations in a hydrocarbon drilling environment	4	5	B
23182	Create, maintain and enhance productive working relationships in a hydrocarbon drilling environment	3	6	D
23183	Operate and maintain ancillary equipment in a hydrocarbon drilling environment	3 4	7	B
23184	Conduct and maintain derrick operations in a hydrocarbon drilling environment	3 4	17	B
23185	Trip casing in a hydrocarbon drilling environment	3 4	4	B
23186	Trip pipe in a hydrocarbon drilling environment	3 4	4	B
23187	Maintain standard procedures and safe working practices in a hydrocarbon drilling environment	4 5	3 5	B

ID	Title	Level	Credit	Review Category
23188	Rig up in a hydrocarbon drilling environment	3	7	C
23189	Conduct pre-spud operations in a hydrocarbon drilling environment	3	6	C
23191	Perform drilling calculations and reporting in a hydrocarbon drilling environment	4	7	C
28334	Rig up, conduct pre-spud operations, and rig down in a hydrocarbon drilling environment	5	15	
23192	Carry out well control and blowout prevention in a hydrocarbon drilling environment	4 5	10	B
23193	Shut down rig in a hydrocarbon drilling environment	4	3	B
23194	Participate in nipping-up and pressure test in a hydrocarbon drilling environment	4 5	5	B
23195	Maintain drilling rig communications systems in a hydrocarbon drilling environment	4	4	D
23196	Manage equipment maintenance in a hydrocarbon drilling environment Manage oil and gas drilling equipment maintenance in a hydrocarbon drilling environment	4 5	4 5	B
23197	Maintain personnel management systems in a hydrocarbon drilling environment	4	8	D
23198	Coordinate air drilling operations in a hydrocarbon drilling environment	4 5	7	B
23199	Participate in, lead and facilitate work teams in a hydrocarbon drilling environment	4	10	D
23200	Manage rig operations in a hydrocarbon drilling environment	5	7	B
23201	Plan and evaluate rig operations in a hydrocarbon drilling environment	5	9	B
23202	Oversee drilling operations in a hydrocarbon drilling environment	5	12	B
23203	Manage drilling operations in a hydrocarbon drilling environment	5	12	B
23205	Organise rig move and camp move in a hydrocarbon drilling environment Manage rig move and camp move in a hydrocarbon drilling environment	5	6	B
23206	Manage and monitor rig-up and rig-up to spud operations in a hydrocarbon drilling environment	5	10	B
23207	Manage well completion and abandonment in a hydrocarbon drilling environment	5	6	B

ID	Title	Level	Credit	Review Category
23208	Implement and maintain statutory/legal compliance system in a hydrocarbon drilling environment Identify, implement, and maintain legal compliance system in a hydrocarbon drilling environment	6 5	18 15	B
23210	Manage multiple drilling operations in a hydrocarbon drilling environment	6	12	B
23211	Carry out deck operations in a hydrocarbon drilling environment	2 3	11 10	B
23214	Monitor, operate and maintain mud pumps and equipment in a hydrocarbon drilling environment	3	3	D
23215	Operate drilling fluids and mud pits in a hydrocarbon drilling environment	3 4	8	B
23216	Carry out rig lease operations in a hydrocarbon drilling environment	2 3	7	B
23217	Move loads in a hydrocarbon drilling environment	2	10	D
23218	Manage subordinates and equipment in a hydrocarbon drilling environment	4	11	D
23219	Prepare and operate drilling fluid systems as a derrickman in a hydrocarbon drilling environment	3	9	D
23221	Operate mud pumps in a hydrocarbon drilling environment	3 4	4	B
23222	Operate mud systems in a hydrocarbon drilling environment	3 4	6	B
28335	Monitor, operate, and maintain mud pits and equipment in a hydrocarbon drilling environment	4	10	New
28336	Carry out operational maintenance in a hydrocarbon drilling environment	3	10	New
28337	Contribute to the control of offshore emergencies in a hydrocarbon drilling environment	3	5	New
28338	Carry out the risk management process in a hydrocarbon drilling environment	5	5	New

Engineering and Technology > Drilling Industry > Drilling – Hydrocarbon
Engineering and Technology > Drilling Industry > Drilling - General

ID	Title	Level	Credit	Review Category
23176	Contribute to the control of emergencies and critical situations in a hydrocarbon drilling environment Contribute to the control of emergencies and critical situations in a drilling environment	2 3	11 10	B
23178	Prepare and operate drilling fluid systems as a floorman in a hydrocarbon drilling environment Prepare and operate drilling fluid systems	2 3	9 5	B
23190	Conduct drilling operations in a hydrocarbon drilling environment Conduct drilling operations	4 5	15	B
23204	Manage drilling induction and orientation in a hydrocarbon drilling environment Manage drilling induction and orientation	5	6	B
23209	Implement and maintain health and safety and environmental risk in a hydrocarbon drilling workplace Implement and maintain management systems to control risk in a drilling workplace	6 5	15 10	B
23212	Handle and store cargo in a hydrocarbon drilling environment Handle and store cargo in a drilling environment	2 3	7 5	B
23213	Assist in the transfer of passengers and freight during helicopter operations in a hydrocarbon drilling environment Assist in the transfer of passengers and freight during helicopter operations in a drilling environment	2 3	6 5	B
23220	Maintain services and operations to meet quality standards in a hydrocarbon drilling environment Maintain and monitor site quality standards in a drilling environment	3	5	B

Engineering and Technology > Drilling Industry > Drilling - Non-hydrocarbon

ID	Title	Level	Credit	Review Category
22457	Follow underground health and safety procedures for non-hydrocarbon drilling	2	3	D
22458	Work effectively in the non-hydrocarbon drilling industry	2	2	D
22459	Work in a drilling team in a non-hydrocarbon drilling environment	2	3	D

ID	Title	Level	Credit	Review Category
22466	Assist conventional core drilling in a non-hydrocarbon drilling environment	2	4	D
22471	Assist raiseboring in a non-hydrocarbon drilling environment	2	4	D
22473	Assist down hole hammer drilling in a non-hydrocarbon drilling environment	2	4	D
22474	Assist top hole hammer drilling in a non-hydrocarbon drilling environment	2	4	D
22477	Carry out operational maintenance in a non-hydrocarbon drilling environment Carry out drilling industry operational maintenance in a non-hydrocarbon drilling environment	3	15	B
22478	Carry out informal on the job training in a non-hydrocarbon drilling environment	3	8	D
22499	Construct artesian (flowing) aquifer production bores in a non-hydrocarbon drilling environment	4 5	40 20	B
22500	Construct geothermal wells in a non-hydrocarbon drilling environment	4	40	D
22501	Maintain effective team and crew operations in a non-hydrocarbon drilling environment	5	40	D
22502	Manage equipment maintenance in a non-hydrocarbon drilling environment	5	40	D
22504	Plan drilling in a non-hydrocarbon drilling environment	5	40	D
28339	Supervise mineral exploration drilling operations in a non-hydrocarbon drilling environment	5	10	New
28340	Supervise geotechnical drilling operations in a non-hydrocarbon drilling environment	5	10	New
28341	Supervise seismic drilling operations in a non-hydrocarbon drilling environment	5	10	New
28342	Supervise water well drilling operations in a non-hydrocarbon drilling environment	5	10	New
28343	Supervise foundation drilling operations in a non-hydrocarbon drilling environment	5	10	New
28344	Supervise horizontal directional drilling operations in a non-hydrocarbon drilling environment	5	10	New
28345	Supervise environmental drilling operations in a non-hydrocarbon drilling environment	5	10	New
28346	Supervise mineral production and development drilling in a non-hydrocarbon drilling environment	5	10	New

Engineering and Technology > Drilling Industry > Drilling - Non-hydrocarbon
Engineering and Technology > Drilling Industry > Drilling - General

ID	Title	Level	Credit	Review Category
22460	Mobilise equipment and materials in a non-hydrocarbon drilling environment Load, secure, and unload drilling equipment and materials	2 3	4	B
22461	Set up and pack up a drill site in a non-hydrocarbon drilling environment Set up and pack up a drill site	2 3	4 3	B
22462	Support drilling process in a non-hydrocarbon drilling environment Support drilling process	2 3	3 4	B
22463	Assist air drilling in a non-hydrocarbon drilling environment Assist with air drilling	2 3	4	B
22464	Assist continuous flight auger drilling in a non-hydrocarbon drilling environment Assist continuous flight auger drilling	2 3	4	B
22465	Assist large diameter auger drilling in a non-hydrocarbon drilling environment Assist large diameter auger drilling	2 3	4	B
22467	Assist wireline core drilling in a non-hydrocarbon drilling environment Assist diamond core drilling	2 3	4	B
22468	Assist guided boring in a non-hydrocarbon drilling environment Assist guided boring	2 3	4	B
22469	Assist directional drilling in a non-hydrocarbon drilling environment Assist surface directional drilling	2 3	4	B
22470	Assist mud rotary drilling in a non-hydrocarbon drilling environment Assist mud rotary drilling	2 3	4	B
22472	Assist cable tool drilling in a non-hydrocarbon drilling environment Assist cable tool drilling	2 3	4	B
22475	Set up and prepare for drilling operations in a non-hydrocarbon drilling environment Set up and prepare for drilling operations	3 4	15 10	B
22476	Run on site operations in a non-hydrocarbon drilling environment Run on-site operations in a drilling environment	3 4	15 20	B
22479	Construct monitoring bores in a non-hydrocarbon drilling environment Construct monitoring bores (instrumentation)	3 4	15 20	B

ID	Title	Level	Credit	Review Category
22480	Construct single aquifer production bores in a non-hydrocarbon drilling environment Construct and complete single aquifer production bores	3 4	20	B
22481	Construct multiple aquifer production bores in a non-hydrocarbon drilling environment Construct multiple aquifer production bores	3 4	20	B
22482	Conduct air drilling in a non-hydrocarbon drilling environment Conduct air drilling	3 4	20	B
22483	Conduct continuous flight auger drilling in a non-hydrocarbon drilling environment Conduct continuous flight auger drilling	3 4	20	B
22484	Conduct large diameter auger drilling in a non-hydrocarbon drilling environment Conduct large diameter auger drilling	3 4	20	B
22485	Conduct conventional core drilling in a non-hydrocarbon drilling environment Conduct conventional core drilling	3 4	20	B
22486	Conduct wireline core drilling in a non-hydrocarbon drilling environment Conduct wireline core drilling	3 4	20	B
22487	Conduct guided boring in a non-hydrocarbon drilling environment Conduct guided boring	3 4	20	B
22488	Conduct directional drilling in a non-hydrocarbon drilling environment Conduct surface directional drilling	3 4	20	B
22489	Conduct reaming in a non-hydrocarbon drilling environment Conduct reaming	3 4	20	B
22490	Install product pipe in a non-hydrocarbon drilling environment Install product pipe in a drilling environment	3 4	20	B
22491	Conduct mud rotary drilling in a non-hydrocarbon drilling environment Conduct mud rotary drilling	3 4	20	B
22492	Conduct raiseboring in a non-hydrocarbon drilling environment Conduct raise boring	3 4	20	B
22493	Conduct cable tool drilling in a non-hydrocarbon drilling environment Conduct cable tool drilling	3 4	20	B
22494	Conduct down hole hammer drilling in a non-hydrocarbon drilling environment Conduct down-hole hammer drilling	3 4	20	B

ID	Title	Level	Credit	Review Category
22495	Conduct top hole hammer drilling in a non-hydrocarbon drilling environment Conduct top-hole hammer drilling	3 4	20	B
22496	Manage non-routine, complex technical situations in a non-hydrocarbon drilling environment Manage non-routine, complex, technical situations in a drilling environment	4 5	35 15	B
22497	Manage mobilisation of equipment and materials in a non-hydrocarbon drilling environment Plan and supervise the mobilisation of equipment, crew, and materials in a drilling environment	4 5	35 15	B
22498	Manage on-site operations in a non-hydrocarbon drilling environment Supervise on-site operations in a drilling environment	4 5	35 15	B