

Title	Maintenance – Coiled Tubing Equipment						
Target Population	Field Engineers, Field Specialists & Equipment Operators						
This requirement is applicable to:	✓	JFE	✓	FST	✓	EOT	
	✓	FE1	✓	FS1	✓	EO1	
		FE2		FS2	✓	EO2	
				FS3	✓	EO3	
					✓	GEO	

Objective:

The objective of this task is to evaluate and verify the employee's competency in performing basic maintenance on Coil Tubing Unit under supervision including:

Description		JFE	FE1	FST	FS1	EOT	EO1	EO2	EO3	GEO
1	Batch Mixer	✓		✓		✓	✓			✓
2	Fluid Pumping Unit	✓		✓			✓	✓		✓
3	Nitrogen Converter	✓	✓		✓			✓	✓	✓
4	Coiled Tubing Unit including:	✓	✓		✓				✓	✓
	Power Pack									
	Control Cabin									
	CT Reel									
	Injector Head									
	Pressure Control Equipment				✓					
5	Basic BHA Components	✓	✓	✓				✓	✓	✓

The employee should be able to identify the components of CT equipment including those found in hydraulic circuits, explain their functions, ratings and maintenance procedures. This include filling out the EMC 1 form.

He should have basic knowledge of hydraulics including the various components and principles of operations.

Tasks:

The employee will be assigned under an experienced mechanic / electrician or a mentor in the base to guide him in performing the maintenance tasks. This include tracing of the hydraulic lines by referring to Operation and Maintenance Manual.

1. Identify the main components and functions of CTU (i.e. injector head, CT reel, stripper, BOP etc.)
2. Identify main components and functions of basic BHA
3. Physically check the CTU components and fill out the EMC 1 form.
4. Assist in assembly and disassembly of the following components (whenever possible):
 - Injector head conversion. Identify each parts.

- Reel swivel maintenance. Identify each parts.
- Stripper (replace inserts/brass bushing). Identify each parts.
- BOP conversion/replacing inserts including function and pressure testing. Identify each parts.
- Downhole tools (connectors, check valves, nozzles)

5. Show and explain the hydraulics system of the CT unit.

6. Prepare a report for the activities and explain it to the assigned mentor

IMPORTANT NOTE: The assigned Assessor must conduct the required evaluation to evaluate employee's competency and provide feedback through the respective Task Evaluation Forms PRIOR TO completing this Task Sheet.

This task is deemed INCOMPLETE without the Task Evaluation Forms

Brief summary of employee's learning outcome (to be completed by Assessor):

Have a knowledge . knowledge
about Emc1. To be learn for Emc2

Assessor's Comments & Recommendation:

Good Team work .

Signature		Assessment Date	19/01/2025
Name	Asmar Abd Razzaq	Position	EM/ Mechanic

FSM / OM Comments & Recommendation:

Task completed

Signature		Assessment Date	20/1/25
Name	Rizwan Aslam	Position	PSM

TASK EVALUATION FOR BASIC MAINTENANCE

(ref. CTS-FORM-93 BASIC MAINTENANCE)

NAME	AHMAD SHAFIEER BIN MOHAMAD
EMPLOYMENT DATE	1/2/2023
PERFORMANCE CRITERIA	<ol style="list-style-type: none"> Equipment design, technical specification, components and functions: Know and understand equipment design, technical specifications, components and functions Equipment operation: Able to operate the equipment Equipment maintenance / care: Able to perform equipment recommended care / maintenance Equipment maintenance report: Able to track on all required equipment data prior to plan for next maintenance Maintenance analysis: Able to analyse equipment problem based on problem report and EMC. Hence, to identify root cause and best practice to avoid the same problem from happen

ASSESSMENT RESULT SUMMARY

Element of Competency	Score	Assessed By	Assessment Date
1. Batch Mixer	90%	Tan FiQ Iman L	23/1/2025
2. Fluid Pumping Unit			
3. Nitrogen Converter			
4. Coiled Tubing Unit			
4.1 Power Pack			
4.2 Control Cabin			
4.3 CT Reel			
4.4 Injector Head			
4.5.1 Pressure Control Equipment (Stripper)			
4.5.2 Pressure Control Equipment (SBOP)			
4.5.3 Pressure Control Equipment (Combi BOP)			
5. Maintenance Reporting		N/A	

Important Note: The minimum passing score is 80%. If the score falls below the minimum passing score, the employee must repeat the assessment

DIMENSION BID

1. BATCH MIXER

THEORY	COMMENT
1. Identify the Batch Mixer and explain its functions	Done
2. Show where the following components of Batch Mixer Power Pack and explain the function <ul style="list-style-type: none"> i. Engine component ii. Hydraulic line iii. Parameter on control panel iv. Zone 2 system 	✓ ✓ ✓ ✓
3. Show where the following components of Batch Mixer Tank and explain the function <ul style="list-style-type: none"> i. C-Pump ii. Agitator iii. Actuator Valve iv. Butterfly Valve v. Volute vi. Jetting 	✓ ✓ ✓ ✓ ✓ ✓
4. How did you rig up hydraulic hose from BMX Power Pack to Tank?	Done
5. How did you rig up 4" line?	Done
6. What should you check BEFORE start the Batch Mixer Power Pack?	Done
7. What should you check and monitor during operating the Batch Mixer Power Pack?	Done
8. What is the safety precaution during operating the Batch Mixer Power Pack?	Done
9. What should you check BEFORE stop the Batch Mixer Power Pack?	Done
10. What should you check BEFORE start the Batch Mixer Tank?	Done
11. What should you check and monitor during operating the Batch Mixer Tank?	Done
12. What is the safety precaution during operating the Batch Mixer Power Pack?	Done
13. What should you check BEFORE stop the Batch Mixer Tank?	Done
PRACTICAL	
1. Show how to carry out following basic maintenance <ul style="list-style-type: none"> i. Check coolant level ✓ ii. Replace fan and alternator belt ✓ iii. Replace engine oil filter ✓ iv. Check battery voltage ✓ v. Clean crankcase vent breather ✓ vi. Clean exhaust cooler (pyroban) ✓ vii. Change transmission oil ✓ viii. Change fuel filter ✓ ix. Replace air filter ✓ x. Clean flame trap ✓ xi. Grease bearing ✓ xii. Redress c-pump ✓ 	Done

OVERALL SCORE	STRONG			ADEQUATE			IMPROVEMENT NEEDED		
	10	9	8	7	6	5	4	3	2

DIMENSION BID

Assessor's Comments & Recommendation (COMPULSORY):

Able to operate 8mm unit standalone without supervision
Recommend him to break out from EOT to EO1

Signature		Assessment Date	23/1/2025
Name	Tufiq Ismail	Position	CT supervisor