

**Please read the following notes before starting the exercise**

1. Choose on a random basis a 'well model' that you have developed that is at least equivalent to 'IWCF – Model Well (Data Sheet) No.2.
2. The Practical Assessment Exercise must be conducted as a single non-stop exercise from beginning to end.
3. Select on a **random** basis, from the options below, **one failure problem for each candidate in this exercise**, and tick the appropriate boxes below.

**DRILLER**

Problem N° 1	Total pump failure	<input type="checkbox"/>
Problem N° 2	One bit nozzle plugged	<input type="checkbox"/>
Problem N° 3	Choke washout (or cut-out)	<input type="checkbox"/>
Problem N° 4	Choke plugged	<input type="checkbox"/>
Problem N° 5	BOP Failure	<input type="checkbox"/>

**SUPERVISOR**

Problem N° 1	Total pump failure	<input type="checkbox"/>
Problem N° 2	One bit nozzle plugged	<input type="checkbox"/>
Problem N° 3	Choke washout (or cut-out)	<input type="checkbox"/>
Problem N° 4	Choke plugged	<input type="checkbox"/>

4. Give the Supervisor candidate a 'Pre-kick Data Sheet' completed with the current closing values at the handover of shift (equivalent to Page.1 of a completed IWCF Kill Sheet).
5. The Supervisor candidate will decide on the 'Shut-in' procedure and explain the reason for the choice.
6. The Supervisor candidate will decide on the 'Kill Method' and explain the reason for the choice.
7. Use the 'Range Statements' given in the Assessor Guidance Notes – SURFACE BOP STACK (QA-RD4C).
8. Real-time will be maintained on the simulator from the beginning of 'control' until after completion of the 'problem incident'.  
A 'snapshot', or acceleration factor not exceeding 10 X, may be used for the remainder of the exercise 'in accordance with' the candidate's ability.  
Real-time must be reinstated at least 120 strokes before gas reaches the BOP.

**FOOTNOTES: -**

- Note 1. The Minimum pass mark is 70 % (rounded up), taking into account the total of the points from the selected failure problem.
- Note 2. Candidates are allowed to use a safety margin during the circulation of the kick if it has been clearly indicated by the candidate on the Kill Sheet.
- Note 3. 'The Driller fails this assessment exercise' if the well is not shut in, or is shut in with the pumps running.
- Note 4. 'The Supervisor fails this assessment exercise' if a usable kill sheet is not completed within 15 minutes from collecting the Kick data.
- a. On the request of the candidate, an additional 5 minutes may be granted to the candidate to correct errors on the kill sheet that the candidate has noted prior to submitting the kill sheet to the Assessor.
  - b. Accurate calculation of ICP, FCP, and Kill Mud Density between the value exactly balancing pore pressure and the value taking into consideration the safety margin that may be used. Supervisor candidates must complete a Kill graph or Step-down table, regardless of the kill method chosen for the exercise.
- Note 5. 'The Supervisor fails this assessment' if formation breakdown occurs during kill; end of Supervisor's test - unless fault is created outside the Supervisor's control.
- Note.6. 'The Supervisor fails this assessment' if the cumulative additional influx volume at formation pressure taken during the kill operation (between Steps 8 through 10) exceeds 1280 litres (8 bbl) based on bottom hole conditions.
- Note 7. **The IWCF Well Model Number and the chosen IWCF Problem number must be entered in the spaces provided on the Candidate Registration Form (QA-RDF).**

Assessment Centre \_\_\_\_\_ Location \_\_\_\_\_

Candidate Names (Driller) \_\_\_\_\_ (Supervisor) \_\_\_\_\_ Date \_\_\_\_\_

Pts.	DRILLER	0	1	2	3	4	5	Score	Pts.	SUPERVISOR	0	1	2	3	4	5	Score	
(4)	<b>1. Prepare drill floor</b>									<b>Not on drill floor</b>								
1	• Line up stand pipe manifold.	<input type="checkbox"/>	<input type="checkbox"/>															
1	• Line up choke manifold.	<input type="checkbox"/>	<input type="checkbox"/>															
2	• Set up BOP panel (including all gauges).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>														
									(3)	<b>1. Check drill floor set-up</b>								
									1	• Choke manifold.	<input type="checkbox"/>	<input type="checkbox"/>						
									1	• BOP panel - Position of BOPs and valves.	<input type="checkbox"/>	<input type="checkbox"/>						
									1	- All gauges.	<input type="checkbox"/>	<input type="checkbox"/>						
(1)	<b>2. Set choke position</b>								(10)	<b>2. Instructions</b>								
1	• Set remote or manually operated choke in accordance with instructions.	<input type="checkbox"/>	<input type="checkbox"/>						4	• Procedures to follow to shut the well in, and check choke position.	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>			
									2	• Reason for choice of shut-in procedure.	<input type="checkbox"/>		<input type="checkbox"/>					
									4	• Action to take in case of a drilling break and/or influx detection.	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>			
(2)	<b>3. Prepare to drill</b>								(4)	<b>3. Instruct Driller to record kill rate circulating pressure at given pump speeds</b>								
2	• Record kill rate circulating pressures as requested by Supervisor or on Driller's own initiative.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						• Pump n° 1								
									1	• 1st kill rate circulating pressure.	<input type="checkbox"/>	<input type="checkbox"/>						
									1	• 2nd kill rate circulating pressure.	<input type="checkbox"/>	<input type="checkbox"/>						
										• Pump n° 2								
									1	• 1st kill rate circulating pressure.	<input type="checkbox"/>	<input type="checkbox"/>						
									1	• 2nd kill rate circulating pressure.	<input type="checkbox"/>	<input type="checkbox"/>						
7	<b>PAGE TOTAL</b>								17	<b>PAGE TOTAL</b>								

Pts.	DRILLER	0	1	2	3	4	5	Score	Pts.	SUPERVISOR	0	1	2	3	4	5	Score
(6)	<b>4. Set alarms</b>								(2)	<b>4. Check alarm settings</b>							
3	• Adjust and activate flow indicator alarms.	<input type="checkbox"/>			<input type="checkbox"/>				1	• Give Driller alarm settings.	<input type="checkbox"/>	<input type="checkbox"/>					
3	• Adjust and activate PVT alarms.	<input type="checkbox"/>			<input type="checkbox"/>				1	• Check Driller has set alarms accurately.	<input type="checkbox"/>	<input type="checkbox"/>					
	<b>Drill ahead</b>																
(13)	<b>5. Drilling break</b>								<b>Not on drill floor</b>								
5	• Recognise drilling break.	<input type="checkbox"/>					<input type="checkbox"/>										
5	• Take correct action.	<input type="checkbox"/>		<input type="checkbox"/>			<input type="checkbox"/>										
3	• Reset flow alarms.	<input type="checkbox"/>			<input type="checkbox"/>												
(12)	<b>6. Kick detection and Well Shut In</b>																
5	• Follow correct procedure before shutting the well in.	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>										
5	• Shut the well in ( <u>see footnote 3, page 1</u> ).	<b>F</b>		<input type="checkbox"/>			<input type="checkbox"/>										
2	• Inform Supervisor immediately.	<input type="checkbox"/>		<input type="checkbox"/>													
(5)	<b>Problem.5 - BOP failure</b>																
3	• Recognise BOP does not seal.	<input type="checkbox"/>			<input type="checkbox"/>												
2	• Activate another BOP and inform Supervisor.	<input type="checkbox"/>		<input type="checkbox"/>													
(4)	<b>7. Collect shut in data</b>								(8)	<b>5. Collect shut in data from Driller and physically check it</b>							
3	• Correctly record pressure readings.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>				2	• Hole depth.	<input type="checkbox"/>		<input type="checkbox"/>				
1	• Correctly record gain.	<input type="checkbox"/>	<input type="checkbox"/>						2	• SIDPP.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
									2	• SICP.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
									2	• Gain.	<input type="checkbox"/>		<input type="checkbox"/>				
(3)	<b>8. Monitor bottom hole pressure</b>								(8)	<b>6. Monitor bottom hole pressure</b>							
3	• Monitor surface pressures and report to Supervisor.	<input type="checkbox"/>			<input type="checkbox"/>				5	• Instruct Driller to monitor pressure changes and to inform supervisor.	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>	
									3	• Complete a usable kill sheet within 15 minutes ( <u>see Footnote 4, page 1</u> ).	<b>F</b>			<input type="checkbox"/>			
<b>38/43</b>	<b>PAGE TOTAL</b>								<b>18</b>	<b>PAGE TOTAL</b>							

Pts.	DRILLER	0	1	2	3	4	5	Score	Pts.	SUPERVISOR	0	1	2	3	4	5	Score
									(14)	<b>7. Well Control instructions</b>							
									2	• Kill method and specific instructions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
									2	• Prepare kill mud.	<input type="checkbox"/>		<input type="checkbox"/>				
									2	• Start-up procedure.	<input type="checkbox"/>		<input type="checkbox"/>				
									2	• Pump follow up (constant flow rate).	<input type="checkbox"/>		<input type="checkbox"/>				
									2	• Driller to monitor the pit gain during circulation.	<input type="checkbox"/>		<input type="checkbox"/>				
									2	• Instruct Driller to record pressures on a regular basis.	<input type="checkbox"/>		<input type="checkbox"/>				
									2	• Reset stroke counters and start time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
(7)	<b>9. Start kill procedure</b>								(15)	<b>8. Kill procedure</b>							
3	• Line up circulating system.	<input type="checkbox"/>			<input type="checkbox"/>				3	• Check circulating system.	<input type="checkbox"/>			<input type="checkbox"/>			
3	• Co-ordinate pump start up with Supervisor (e.g. informing Supervisor every 5 strokes).	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>				3	• When starting up pump, co-ordinate with Driller .	<input type="checkbox"/>			<input type="checkbox"/>			
1	• Inform Supervisor when kill rate has been reached.	<input type="checkbox"/>	<input type="checkbox"/>						5	• Maintain correct casing pressure when starting up.	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>	
									4	• Make allowance for time delay between action on the choke and reading on the standpipe gauge.	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		
(5)	<b>Problem.1 – Total pump failure</b>								(7)	<b>Problem.1 – Total pump failure</b>							
3	• Inform Supervisor. When instructed, shut down the pump and line up another pump.	<input type="checkbox"/>			<input type="checkbox"/>				5	• Take correct action.	<input type="checkbox"/>		<input type="checkbox"/>			<input type="checkbox"/>	
2	• Co-ordinate restart of operations with Supervisor.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					2	• Give appropriate instructions and co-ordinate restart of operations with Driller.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
7/12	<b>PAGE TOTAL</b>								29/36	<b>PAGE TOTAL</b>							

Pts.	DRILLER	0	1	2	3	4	5	Score	Pts.	SUPERVISOR	0	1	2	3	4	5	Score
<b>(5)</b>	<b>Problem.2 - One bit nozzle plugged</b>								<b>(7)</b>	<b>Problem.2 - One bit nozzle plugged</b>							
2	<ul style="list-style-type: none"> <li>• Recognise sudden change in pump pressure and notify Supervisor (if not detected by Supervisor).</li> </ul>	<input type="checkbox"/>		<input type="checkbox"/>					5	<ul style="list-style-type: none"> <li>• Identify the problem and take correct action.</li> </ul>	<input type="checkbox"/>		<input type="checkbox"/>				
3	<ul style="list-style-type: none"> <li>• Stop pump as requested by Supervisor and coordinate restart of operations with Supervisor.</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>				2	<ul style="list-style-type: none"> <li>• Give appropriate instructions and co-ordinate restart of operations with Driller</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
<b>N.B.</b>	<b><u>If Supervisor does not stop, deduct 3 points from maximum possible total.</u></b>																
<b>(5)</b>	<b>Problem.3 - Choke washout (or cut-out)</b>								<b>(7)</b>	<b>Problem.3 - Choke washout (or cut-out)</b>							
2	<ul style="list-style-type: none"> <li>• Stop pump when requested by Supervisor and line up for another choke according to instructions received.</li> </ul>	<input type="checkbox"/>		<input type="checkbox"/>					5	<ul style="list-style-type: none"> <li>• Identify the problem and take correct action.</li> </ul>	<input type="checkbox"/>		<input type="checkbox"/>				
3	<ul style="list-style-type: none"> <li>• Co-ordinate restart of operations with Supervisor.</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>				2	<ul style="list-style-type: none"> <li>• Give appropriate instructions and co-ordinate restart of operations with Driller.</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
<b>(5)</b>	<b>Problem.4 - Choke plugged</b>								<b>(7)</b>	<b>Problem.4 - Choke plugged</b>							
2	<ul style="list-style-type: none"> <li>• Stop pump when requested by Supervisor and line up for another choke according to instructions received.</li> </ul>	<input type="checkbox"/>		<input type="checkbox"/>					5	<ul style="list-style-type: none"> <li>• Identify the problem and take correct action.</li> </ul>	<input type="checkbox"/>		<input type="checkbox"/>				
3	<ul style="list-style-type: none"> <li>• Co-ordinate restart of operations with Supervisor.</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>				2	<ul style="list-style-type: none"> <li>• Give appropriate instructions and co-ordinate restart of operations with Driller.</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
<b>0/5</b>	<b>PAGE TOTAL</b>								<b>0/7</b>	<b>PAGE TOTAL</b>							

**DRILLER'S METHOD**

Pts.	DRILLER	0	1	2	3	4	5	Score	Pts.	SUPERVISOR	0	1	2	3	4	5	Score
<b>(8)</b>	<b>10. Monitor circulation</b>								<b>(5)</b>	<b>9. BHP control since start-up and evacuation of initial influx</b>							
4	• Maintain kill pump rate, record pressures and monitor pit level.	<input type="checkbox"/>				<input type="checkbox"/>			5	• Maintain correct bottom hole pressure before and while evacuating the influx until mud returns are re-established.	<input type="checkbox"/>		<input type="checkbox"/>				<input type="checkbox"/>
4	• Advise Supervisor regularly during circulation.	<input type="checkbox"/>				<input type="checkbox"/>											
<b>(4)</b>	<b>11. After evacuation of gas</b>								<b>(10)</b>	<b>10. After evacuation of initial influx</b>							
3	• Stop pump while shutting the well in, in co-ordination with Supervisor.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>				3	• Shut the well in, in co-ordination with Driller maintaining BHP constant.	<input type="checkbox"/>			<input type="checkbox"/>			
1	• Inform Supervisor when pump is stopped.	<input type="checkbox"/>	<input type="checkbox"/>						2	• Check pressure and interpretation of gauge readings.	<input type="checkbox"/>		<input type="checkbox"/>				
									5	• Explain how to continue with the circulation.	<input type="checkbox"/>						<input type="checkbox"/>
									<b>(5)</b>	<b>11. Overall influx</b>	<b>F</b>						
									5	• Check that <u>cumulative additional influx volume</u> does not exceed allowed volumes. <u>Refer Footnote 6, page 1:</u> - “ <u>Supervisor fails the assessment if the cumulative additional influx volume at formation pressure exceeds 1280 litres (8 bbl)</u> ”.							<input type="checkbox"/>
<b>12</b>	<b>PAGE TOTAL</b>								<b>20</b>	<b>PAGE TOTAL</b>							
<b>69</b>	<b>EXERCISE TOTAL</b>								<b>91</b>	<b>EXERCISE TOTAL</b>							

<b>Candidates marks</b> =	TOTAL POINTS SCORED	_____	x 100 =	<input style="width: 40px; height: 20px;" type="text"/>	<b>DRILLER</b>	_____	x 100 =	<input style="width: 40px; height: 20px;" type="text"/>	<b>SUPERVISOR</b>
	-----					69 (or 66)			
	MAXIMUM POINTS								

Assessor's Name: \_\_\_\_\_ Signature: \_\_\_\_\_

**WAIT AND WEIGHT METHOD**

Pts.	DRILLER	0	1	2	3	4	5	Score	Pts.	SUPERVISOR	0	1	2	3	4	5	Score
(8)	<b>10. Monitor circulation</b>								(5)	<b>9. Follow up of Stand pipe pressure</b>							
4	• Maintain kill pump rate, record pressures and monitor pit level.	<input type="checkbox"/>				<input type="checkbox"/>			5	• Maintain correct bottom hole pressure while pumping kill mud to the bit.	<input type="checkbox"/>		<input type="checkbox"/>				<input type="checkbox"/>
4	• Advise Supervisor regularly during circulation.	<input type="checkbox"/>				<input type="checkbox"/>											
(4)	<b>11. When kill mud is at bit</b>								(5)	<b>10. When kill mud is at bit</b>							
4	• Inform Supervisor when final circulating pressure is reached	<input type="checkbox"/>				<input type="checkbox"/>			5	• Maintain correct bottom hole pressure before and while evacuating the influx until mud returns are re-established.	<input type="checkbox"/>						<input type="checkbox"/>
(4)	<b>12. After evacuation of gas</b>								(5)	<b>11. After evacuation of initial influx</b>							
3	• Stop pump while shutting the well in, in co-ordination with Supervisor.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>				3	• Shut the well in, in co-ordination with Driller, maintaining BHP constant.	<input type="checkbox"/>			<input type="checkbox"/>			
1	• Inform Supervisor when pump is stopped.	<input type="checkbox"/>	<input type="checkbox"/>						2	• Check pressures and interpretation of gauge readings.	<input type="checkbox"/>		<input type="checkbox"/>				
									(5)	<b>12. Overall influx</b>							
									5	• Check that <u>cumulative additional influx volume</u> does not exceed allowed volumes.	<b>F</b>						<input type="checkbox"/>
										Refer Footnote 6, page 1: - "Supervisor fails the assessment if the <u>cumulative additional influx volume</u> at formation pressure exceeds 1280 litres (8 bbl)".							
<b>16</b>	<b>PAGE TOTAL</b>								<b>20</b>	<b>PAGE TOTAL</b>							
<b>73</b>	<b>EXERCISE TOTAL</b>								<b>91</b>	<b>EXERCISE TOTAL</b>							

<b>Candidates marks</b> =	TOTAL POINTS SCORED ----- MAXIMUM POINTS	<b>DRILLER</b>	_____ x 100 = <input style="width: 50px; height: 20px;" type="text"/>	<b>SUPERVISOR</b>	_____ x 100 = <input style="width: 50px; height: 20px;" type="text"/>
		73 (or 70)		91	

Assessor's Name: \_\_\_\_\_ Signature: \_\_\_\_\_