

**AI TAKAMUL COMPANY FOR ENGINEERING TESTS AND PROFESSIONAL SAFETY LIMITED**

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**ULTRASONIC FLAW DETECTION DYE PENETRANT INSPECTION CERTIFICATE 8" HOS#S-001**

<b>Client Name:</b>	ZHONGMAN PETROLEUM ENGINEERING TECHNOLOGY(HONG KONG) CO LIMITED IRAQ	<b>Report No.:</b>	ZPEC-16-QC-24-08-RS-007
<b>Acceptance criteria:</b>	DS-1 Fifth Edition, Volume 3 CAT 3-5	<b>Date of Inspection:</b>	06.AUG.2024
<b>Work Location:</b>	PO-64	<b>Rig Name:</b>	ZPEC-16(DD)
<b>TEST EQUIPMENT &amp; CONSUMABLE DETAILS</b>			
<b>EQ. Manufacturer/ Model:</b>	Sonatest/ D-50	<b>EQ. Serial No:</b>	I017374
<b>Calibration Due Date:</b>	15.OCT.2024	<b>Couplant:</b>	UT Gel
<b>Calibration Block Type:</b>	V1 (SR # 506233)	<b>Calibration Due Date:</b>	15.OCT.2024
<b>Transducer Angle:</b>	90 DEG, 60 DEG, 45 DEG	<b>Transducer Frequency:</b>	4 MHz/ SR. 13737
<b>Range:</b>	100 mm	<b>Reference dB:</b>	42 dB
<b>Area Scanned:</b>	Connections	<b>Material Velocity:</b>	3250 m/s, 5900 m/s
<b>PENETRANT SKL-WP2</b>	Batch #:220511 Exp: May,2025 Manufacture: Magnaflux	<b>TECHNIQUE 2</b>	TYPE II VISIBLE, METHOD 'A' WATER - WASHABLE
<b>DEVELOPER SKD-S2</b>	Batch #:220302 Exp. March,2025 Manufacture: Magnaflux	<b>DEVELOPER DWELL TIME:</b>	15 Minutes
<b>PENETRANT DWELL TIME:</b>	30 Minutes	<b>Test Part Temperature:</b>	115 °F
<b>INFRARED THERMOMETER</b>	SR#201704125 Cal Due 13.AUG.2024	<b>COMPARATOR BLOCK</b>	SR#11223 CAL.Date. 17. APRIL.2024 CAL.Due Date. 16. OCT .2024
<b>LEAD GAGE</b>	SR#AH07KF0027 GAEMAKER LG-5003 Cal. 13.FEB.2024 Cal Due 12.AUG.2024	<b>THREAD PROFILE GAGE</b>	SR#21336 Cal. 13.FEB.2024 Cal Due 12.AUG.2024 SR#21335 Cal. 15.FEB.2024 Cal Due 14.AUG.2024
<b>Digital Lux Meter</b>	SR#2722003 Cal Due 16.OCT.2024	<b>WMPT Light Intensity:</b>	3500 Lux
<b>Methodology:</b>	<ul style="list-style-type: none"> <li>• Through Visual inspection</li> <li>• Dimensional 3</li> <li>• UltraSonic Flaw Detection</li> <li>• Dye Penetrant Inspection</li> </ul>		
<b>CONNECTION</b>	6 5/8" Reg	<b>SIZE</b>	8"

Serial No.	Description	Connection		Result Inspection			Dimensional 3 Inspection												
		Pin	Box	Pin	Box	Body	Pin					Box					Body		
							OD(In)	ID(In)	SRG φ(In)	SRG λ(In)	Pin λ(In)	Bevel φ(In)	OD(In)	CB φ(In)	CB δ(In)	BB φ(In)		BB δ(In)	Bevel φ(In)
S-001	8" HOS	6 5/8 REG	6 5/8 REG	Acc.	Acc.	Acc.	8"	3 1/2"	5 3/8"	3/4"	5"	7/5/8"	8"	6 2/32	5/8	-	-	7/5/8"	33 3/4"
<b>Conclusion:</b>		<p><b>8" HOS above were found "Acceptable". At the time of Inspection (Ready for Use).</b></p>																	

**Abbreviations :**

<b>OD</b> Outside Diameter	<b>ID</b> Inside Diameter	<b>SRG</b> Stress Relief Groove	<b>CB</b> Counter Bore	<b>BB</b> Bore Back	<b>FB</b> Float Bore
<b>φ</b> Diameter	<b>λ</b> Length	<b>w</b> Width	<b>δ</b> Depth	<b>NP.</b> Not Present	<b>NA.</b> Not Applicable
<b>EGR</b> Elevator Groove Recess	<b>SGR</b> Slip Groove Recess	<b>CR</b> Crack	<b>B</b> Bent	<b>PC</b> Premium Class	<b>RF</b> Reface
<b>GT</b> Galled Thread	<b>TP</b> Thread Pitting	<b>SP</b> Seal Pitting	<b>TD</b> Thread Damage	<b>SD</b> Seal Damage	<b>M</b> Mashed
<b>1</b> 100 % Coating	<b>2</b> 99-71 % Coating	<b>3</b> 70-40 % Coating	<b>4</b> Up to 40 %	<b>5</b> Nil	<b>WT</b> Wall Thickness
<b>Colors Code:</b>					
	No Defects	<b>Red</b> Crack or Extreme Damage.	<b>Blue</b> Damage	<b>Green</b> Seal Damage	<b>Yellow</b> ACFM

<b>Inspector Name:</b>	<b>Review By</b>				
<b>Qualification:</b>	<b>Senior Inspector:</b>	M.USMAN	<b>Supervisor:</b>	M.SARWAR	<b>Customer Name:</b>
<b>Signature:</b>					<b>Customer Signature:</b>

Original - Client Files Copy - Area Office QC/FN/DPI/006 Rev.00 Dated: 07 Nov 2021

