

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

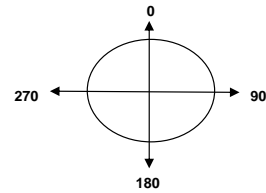
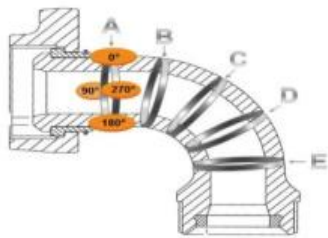
Basra, North Rumaila, Quality Control Yard - Iraq



**CERTIFICATE OF QUALIFICATION VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING INSPECTION & WITNESS PRESSURE TEST**

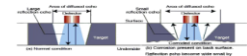
THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

CLIENT:	<b>HALLIBURTON</b>	REPORT NO.:	QC-25-05-TSS-NDT-015
LOCATION:	TSS YARD	STANDARD:	ASTM E709-21 & ASTM E797-21 & ASME B31.1:2024
WORK ORDER #	****	HALLIBURTON DOC	Halliburton Acceptance Criteria WM-GL-HAL-SWT-501
DATE OF INSPECTION:	Sunday, May 4, 2025	NEXT INSPECTION DATE:	<b>Sunday, May 3, 2026</b>
TYPE OF INSPECTION:	<b>VISUAL INSPECTION AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING &amp; WITNESS PRESSURE TEST</b>		
DESCRIPTION:	3" 90 DEGREE ELBOW H2S 3" 1502 WING X THREAD	SERIAL NO:	24-0883
Pump NO:	13119220 CAL DUE DATE 19.AUG.2025	Pressure Gauge NO:	218230280019 CAL DUE DATE 28.FEB.2026



ONLINE TRACEABILITY

\* ALL READINGS IN INCHS  
\*\*MINIMUM THICKNESS PROVIDED BY CUSTOMER



THICKNESS POINTS AREA	WALL THICKNESS RESULT				MINIMUM THICKNESS IN INCHES
	0°	90°	180°	270°	
A	0.528	0.533	0.526	0.526	0.345 INCH
B	0.525	0.521	0.519	0.523	
C	0.531	0.533	0.538	0.536	
D	0.529	0.524	0.526	0.522	
E	0.523	0.526	0.532	0.536	

**INSPECTION RESULT**

VT & MPI	Accepted	According to ASTM E709-21
UT	Accepted	According to ASTM E 797-21 & Halliburton Procedure WM-GL-SWT-501
BODY	Accepted	*** These Are The Actual Readings Need To Follow The Halliburton Procedure

**Inspection Evaluation**

MPI -The Above Item Has No Significant Discontinuous At The Time Of Inspection And Found Acceptable According to ASTM E709-21  
 Note:MPI Wet Fluorescent inspection Thread With UltraViolet Light  
 Magnetic Particle Inspection With A/C Hand Yoke Welds & Available Areas  
 U.T-The Above Item Was Found Acceptable As Per ASTM E797-21 & Halliburton Procedure WM-GL-SWT-501  
 Pressure Test Witness-The Above Item was Pressure Tested up to 300 PSI A low Pressure Hold for 5 min And Maximum Working pressure 10,000 psi Hold 15 min no Leak was Realized while testing & Pressure Was Stable Accordance To Chart Recorder Attached

INSPECTION EQUIPMENT DETAILS				TECHNICAL DETAILS			
AC YOKE S.N:	201504048	CAL DUE DATE	7-Oct-25	White Contrast WCP-2	MANUFACTURE	BATCH NO	EXPIRE DATE
Digital Lux Meter WHITE LIGHT	2722003	CAL DUE DATE	9-Oct-25		Magnaflux	230408	APRIL,2026
UT THICKNESS GAUGE:	5500391	CAL DUE DATE	7-Oct-25	Black Magnetic Ink 7HF	MANUFACTURE	BATCH NO	EXPIRE DATE
UT TEST BLOCK:	NoBo5087	CAL DUE DATE	8-Oct-25		Magnaflux	230604	JUNE, 2026
ASTM Test Block:	1657	CAL DUE DATE	7-Oct-25	Fluorescent Magnetic Ink 14HF	MANUFACTURE	BATCH NO	EXPIRE DATE
DC COIL:	22650	CAL DUE DATE	8-Oct-25		Magnaflux	230503	MAY.2026
UV BLACK LIGHT:	87521	CAL DUE DATE	9-Oct-25	Concentration of 14HF:		0.1 to 0.4 ml/100 ml	
WHITE LIGHT INTENSITY:	3670 lux	UV BLACK LIGHT INTENSITY:	3190 µw/cm²	Concentration of 7HF:		1.2 to 2.4 ml/100 ml	

**PERSON DETAILS**

**REVIEW BY**

INSPECTOR NAME:	M.Shahzad Ahmed	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:	
QUALIFICATION:	ASNT LEVEL II MT	INSPECTION SUPERVISOR:	HANI ALI	HB&SIGN	
SIGNATURE & STAMP:				DATE:	

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