

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

Basra, North Rumaila, Quality Control Yard - Iraq



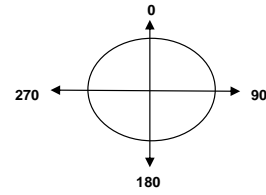
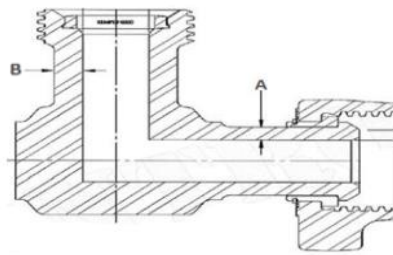
**CERTIFICATE OF QUALIFICATION VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING INSPECTION & WITNESS PRESSURE TEST**

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

CLIENT:	<b>HALLIBURTON</b>	REPORT NO.:	QC-24-01-TSS-NDT-007
LOCATION:	TSS YARD	STANDARD:	ASTM E709 & ASTM E797 & ASME B31.1
WORK ORDER #	*****	HALLIBURTON DOC	Halliburton Acceptance Criteria WM-GL-HAL-SWT-501
DATE OF INSPECTION:	Thursday, January 25, 2024	NEXT INSPECTION DATE:	Friday, January 24, 2025

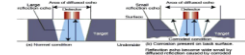
**TYPE OF INSPECTION: VISUAL INSPECTION AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING & WITNESS PRESSURE TEST**

DESCRIPTION:	3" ELBOW JOINT H2S 3" 1502 WING X THREAD	SERIAL NO:	80828VAS24-1
Pump NO:	13119220 CAL DUE DATE 27.AUG.2024	Pressure Gauge NO:	486066 CAL DUE DATE 02.AUG.2024



ONLINE TRACEABILITY

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



THICKNESS POINTS AREA	WALL THICKNESS RESULT				MINIMUM THICKNESS IN INCHES
	0°	90°	180°	270°	
A	0.554	0.548	0.551	0.552	0.345 INCH
B	0.563	0.559	0.562	0.568	

**INSPECTION RESULT**

VT & MPI	Accepted	According to ASTM E709
UT	Accepted	According to ASTM E 797 & 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  
 Note:MPI Wet Fluorescent inspection Thread With UltraViolet Light  
 Magnetic Particle Inspection With A/C Hand Yoke Available Areas  
 U.T-The Above Item Was Found Acceptable As Per ASTM E797 & Halliburton Procedure WM-GL-SWT-501  
 Pressure TestWitness-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:	201504052	CAL DUE DATE	14-Feb-24	White Contrast WCP-2	MANUFACTURE	BATCH NO	EXPIRE DATE
Digital Lux Meter WHITE LIGHT	2722003	CAL DUE DATE	16-Feb-24		Magnaflux	220602	JUN 2025
UT THICKNESS GAUGE:	3997	CAL DUE DATE	16-Feb-24	Black Magnetic Ink 7HF	MANUFACTURE	BATCH NO	EXPIRE DATE
UT TEST BLOCK:	NoBo5088	CAL DUE DATE	16-Feb-24		Magnaflux	220605	JULY 2025
ASTM Test Block:	1657	CAL DUE DATE	14-Feb-24	Fluorescent Magnetic Ink 14HF	MANUFACTURE	BATCH NO	EXPIRE DATE
DC COIL:	22650	CAL DUE DATE	14-Feb-24		Magnaflux	220306	March.2025
UV BLACK LIGHT:	1932401	CAL DUE DATE	14-Feb-24	Concentration of 14HF:	0.1 to 0.4 ml/100 ml		
WHITE LIGHT INTENSITY:	3540 lux	UV BLACK LIGHT INTENSITY:	3080 μw/cm²	Concentration of 7HF:	1.2 to 2.4 ml/100 ml		

PERSON DETAILS		REVIEW BY		
INSPECTOR NAME:	M. Shabrad Ahmed	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:
QUALIFICATION:	UT 1, MPI 1, T 1	INSPECTION SUPERVISOR:	HANI ALI	HB&SIGN
SIGNATURE & STAMP:				DATE:

Original - Client Files Copy - Area-Office QC/FN/PT/077 Rev.00 DATED 07.NOV. 2021

