

AI TAKAMUL COMPANY FOR ENGINEERING TESTS AND PROFESSIONAL SAFETY LIMITED

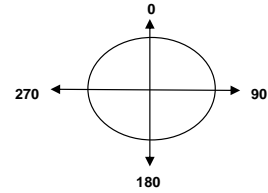
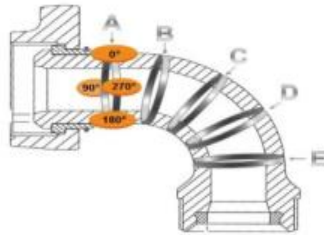
Basra, North Rumaila, Quality Control Yard - Iraq



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

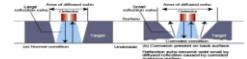
CLIENT:	HALLIBURTON	REPORT NO.:	QC-24-05-TSS-NDT-007
LOCATION:	TSS YARD	STANDARD:	ASTM E709 & ASTM E797 & ASME B31.1
WORK ORDER #	*****	HALLIBURTON DOC	Halliburton Acceptance Criteria WM-GL-HAL-SWT-501
DATE OF INSPECTION:	Saturday, May 25, 2024	NEXT INSPECTION DATE:	Saturday, May 24, 2025
TYPE OF INSPECTION:	VISUAL INSPECTION AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING & WITNESS PRESSURE TEST		
DESCRIPTION:	4" 90 DEGREE ELBOW H2S 4" 206 WING X THREAD	SERIAL NO:	379388
Pump NO:	13119220 CAL DUE DATE 27.AUG.2024	Pressure Gauge NO:	486066 CAL DUE DATE 02.AUG.2024



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



ONLINE TRACEABILITY



THICKNESS POINTS AREA	WALL THICKNESS RESULT				MINIMUM THICKNESS
	0°	90°	180°	270°	IN INCHES
A	0.317	0.329	0.315	0.314	0.218 INCH
B	0.321	0.318	0.315	0.320	
C	0.319	0.322	0.327	0.324	
D	0.326	0.314	0.320	0.316	
E	0.308	0.311	0.317	0.321	

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 Welds & 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 2.000 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	14-Oct-24	White Contrast WCP-2	MANUFACTURE	BATCH NO	EXPIRE DATE
Digital Lux Meter WHITE LIGHT	2722003	CAL DUE DATE	16-Oct-24		Magnaflux	220602	JUN.2025
UT THICKNESS GAUGE:	3997	CAL DUE DATE	14-Oct-24	Black Magnetic Ink 7HF	MANUFACTURE	BATCH NO	EXPIRE DATE
UT TEST BLOCK:	NoBo5087	CAL DUE DATE	15-Oct-24		Magnaflux	220605	JULY.2025
ASTM Test Block:	1657	CAL DUE DATE	14-Oct-24	Fluorescent Magnetic Ink 14HF	MANUFACTURE	BATCH NO	EXPIRE DATE
DC COIL:	22650	CAL DUE DATE	15-Oct-24		Magnaflux	220306	March.2025
UV BLACK LIGHT:	1898977	CAL DUE DATE	14-Oct-24	Concentration of 14HF:		0.1 to 0.4 ml/100 ml	
WHITE LIGHT INTENSITY:	3620 lux	UV BLACK LIGHT INTENSITY:	3140 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 NDT	INSPECTION SUPERVISOR:	HANI ALI	HR&SIGN	
SIGNATURE & STAMP:				DATE:	

Original - Client Files Copy - Area Office QC/EN/P1/077 Rev.00 DATED 07.NOV. 2021

