

AI TAKAMUL COMPANY FOR ENGINEERING TESTS AND PROFESSIONAL SAFETY LIMITED

Basra, North Rumaila, Quality Control Yard - Iraq

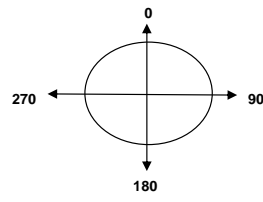
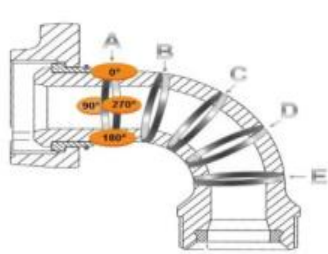


CERTIFICATE OF QUALIFICATION VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING INSPECTION & WITNESS PRESSURE TEST

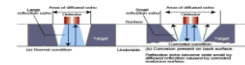
THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

CLIENT:	HALLIBURTON	REPORT NO.:	QC-24-01-TSS-NDT-002
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:	4" 90 DEGREE ELBOW H2S 4" 206 WING X THREAD	SERIAL NO.:	377119
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



THICKNESS POINTS AREA	WALL THICKNESS RESULT				MINIMUM THICKNESS IN INCHES
	0°	90°	180°	270°	
A	0.308	0.320	0.306	0.299	0.218 INCH
B	0.310	0.298	0.304	0.305	
C	0.307	0.302	0.318	0.323	
D	0.302	0.300	0.296	0.303	
E	0.314	0.317	0.311	0.304	

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 Test/Witness-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:	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/cm ²	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/PI/077 Rev.00 DATED 07.NOV. 2021

