AI TAKAMUL COMPANY FOR ENGINEERING TESTS AND PROFESSIONAL SAFETY LIMITED

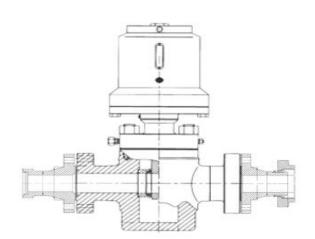
Basra, North Rumaila, Quality Control Yard - Iraq



CERTIFICATE OF QUALIFICATION VISUAL AND WITNESS PRESSURE TEST

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIEREMENTS

CLIENT:	HALLIBURTON	REPORT No.:	QC-24-05-TSS-NDT-SSV-001		
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	SPECIFICATION:			
WORK ORDER #	325817395	SPECIFICATION:	ASME B31.1 / CUSTOMER SPECIFICATION		
DATE OF INSPECTION :	Wednesday, May 8, 2024	INSP. DUE DATE:	Wednesday, May 7, 2025		
TYPE OF INSPECTION:	VISUAL INSPEC	TION AND WITNESS PRESSURE TEST			
DESCRIPTION:	SSV 3 1/8" 5K	SAP NO:	12011975		
LOW PRESSURE TEST	300 psi	HOLDING TIM	IE: 05 MINUTES		
MAXIMUM WORKING PRESSURE TEST	5000 Psi	HOLDING TIM	15 MINUTES		
Pump NO.::	EQ NO:13119220	CAL DUE DAT	TE: 27.AUG.2024		
Pressure Gauge NO.:	468066	CAL DUE DAT	01.AUG.2024		





ONLINE TRACEBILITY

	PRESSURE TEST WITNESS RESULT
BODY PRESSURE TEST	The Above Item was Pressure Tested up to 300 PSI A low Pressure Hold for 5 min And Maximum Working pressure 5.000 psi Hold 15 min no Leak was Realized while testing & Pressure Was Stable Accordance To Chart Recorder Attached
DOWNSTREAM PRESSURE TEST	The Above Item was Pressure Tested up to 300 PSI A low Pressure Hold for 5 min And Maximum Working pressure 5.000 psi Hold 15 min no Leak was Realized while testing & Pressure Was Stable Accordance To Chart Recorder Attached

The Above Item was Pressure Tested up to 300 PSI A low Pressure Hold for 5 min And Maximum Working pressure 5.000 psi Hold 15 min no Leak was Realized while testing & Pressure Was Stable Accordance To Chart Recorder Attached

PERSON D	DETAILS	REVIEW BY			
INSPECTOR NAME:	M.Shahzad Ahmed	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:	
QUALIFICATION:		INSPECTION SUPERVISOR:	HANI ALI	HB&SIGN	
SIGNATURE & STAMP:	12/3//			DATE:	
0 1	OCC OCCUPATION D	OO DAMED OF NOV. DODA			



















AI TAKAMUL COMPANY FOR ENGINEERING TESTS AND PROFESSIONAL SAFETY LIMITED

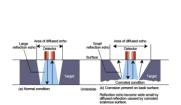
Basra, North Rumaila, Quality Control Yard - Iraq

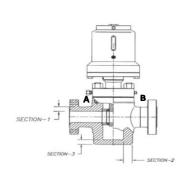


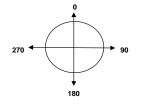
CERTIFICATE OF QUALIFICATION VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING INSPECTION

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIEREMENTS

CLIENT:	HALLIBURTON	REPORT NO.:	QC-24-05-TSS-NDT-SSV-002		
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	STANDARD:	ASTM E709 & ASTM E797 & API 6A		
WORK ORDER #	325817395	SIANDARD.	ASTIVI E705 & ASTIVI E757 & APT DA		
DATE OF INSPECTION:	Tuesday, May 7, 2024	INSPECTION. DUE DATE:	Tuesday, May 6, 2025		
TYPE OF INSPECTION:	VISUAL INSPECTION AND MAGNETIC PAR	TICLE INSPECTION AND ULTI	RASONIC THICKNESS GAUGING		
DESCRIPTION:	SURFACE SAFETY VALVE 3 1/8" 5K	SSV SAP NO :	12011975		
MANUFACTURER:	MCM OIL TOOLS	SERIAL NO:	028974		









* ALL READINGS IN INCH
**MINIMUM THICKNESS PROVIDED BY CUSTMER

POINTS		THICKNESS A	T POSITION			MINIMUM THICKNESS IF	NINCHES
FOREIS	SECTION-1 A	SECTION-1 B	SECTION-2	SECTION-3	SECTION-1	SECTION-2	SECTION-3
0°	1.165	1.198	1.680	1.767	0.310	0.940	1.060
90°	1.179	1.171	1.654	1.759	0.310	0.940	1.060
180°	1.211	1.229	1.630	1.762	0.310	0.940	1.060
270°	1.188	1.204	1.646	1.744	0.310	0.940	1.060

INSPECTION RESULT

VT & MPI	Accepted	According to ASTM E709
UT	Accepted	According to ASTM E 797
BODY	Accepted	*** These Are The Actual Readings Need To Follow As Per Halliburton Acceptance Criteria

Inspection Evaluation

(MPI) The Above Item Has No Significant Discontinuous At The Time Of Inspection And Found Acceptable According to ASTM E709

U.T-The Above Item Was Found Acceptable As Per ASTM E797

INSPECTION EQUIPMENT DETAILS TECHNICAL DETAILS							
AC YOKE S.N:	201504048	CAL DUE DATE	14-Oct-24	White Contrast	MANUFACTURE	BATCH NO	EXPIRE DATE
Digital Lux Meter WHITE LIGHT	2722003	CAL DUE DATE	16-Oct-24	WCP-2	Magnaflux	220602	JUN,2025
UT THICKNESS GAUGE:	3997	CAL DUE DATE	14-Oct-24	Black Magnetic	MANUFACT URE	BATCH NO	EXPIRE DATE
UT TEST BLOCK:	NoBo5087	CAL DUE DATE	15-Oct-24	Ink 7HF	Magnaflux	220605	JULY.2025
ASTM Test Block:	1657	CAL DUE DATE	14-Oct-24	Fluorescent M	lagnetic Ink	1.2	to 2.4 ml/100 ml
WHITE LIGHT INTENSITY:	3620 lux			7H	F	1.2	to 2.4 mi/100 mi
		DEDCOM DETA	пе				

PERSON DETAILS

INSPECTOR NAME:	M.Shanzad Ahmed	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:	
QUALIFICATION:	ACM, Eyel, Il Marie O.	INSPECTION SUPERVISOR:	HANI ALI	HB&SIGN	
SIGNATURE & STAMP:				DATE:	l























Al TAKAMUL COMPANY FOR ENGINEERING TESTS AND PROFESSIONAL SAFETY LIMITED



Basra, North Rumaila, Quality Control Yard - Iraq

CEI	RTIFICA	TION OF	VISUAl,	THO	ORO	UGH	EXA	MINATON	8 MA	GNETIC	PARTICLE	INSPECTION
Clien	nt:		HALLIBURTO	N			R	Report No:		(QC-24-05-TSS-NDT-SSV	7-003
Locati	on:	TSS WORI	SHOP & INSPECT	TON TEST	ΓAREA			WO NO: 325817395				
Inspection	n Date:		Tuesday, May 7,	2024			Next I	nspection Date:			Tuesday, May 6, 202	5
Type Of Ins	spection:	VISUAL , THOROUGH E	XAMINATION & MAC	GNETIC PA	IC PARTICLE INSPECTION		Sp	ecification:		ASTM E709 & ASTM	I E 1444 (2016) ASME V A	Article 7 (2019) & API 6A
							UNIT	DESCRIPTION:		FLANGI	E 3 1/8" 5 K X 3" 150	2 THREAD
				1	UNIT S/N:			HAH 20900-1-3				
				SS	SV SAP N:O			12011975				
			TONIA							INSPECTION	RESULT :	
							VISU	UAL , THOROUGH EXAM	MINATION			TION (M.P.I.) HAD BEEN DONEON THE HE ABOVE DESCRIPTION
							AGNETIC PARTICLE INS	PECTION		Thread & critical and found free from cra	•	
			XIIIII					FINAL RESULTS		1	THE ABOVE INSPECTED A	AREAS WAS ACCEPTED
							`	: uorescent inspection Th netic Particle Inspection		0 /	nite Contrast	
		EQUIPM	ENT DETAILS					PE	RSON DETAI	LS		REVIEW BY
EQUIPMENT:	AC/DC HAND Yok	ke EQUIPMENT:	Shooting Coil DC	EQUIF	PMENT:		K LIGHT: ıw/cm²	INSPECTOR NAME: M.SHAHZAD AHMED			SENIOR INSPECTOR:	NAVEED HUSSAIN
S.NO:	201504048	S.NO:	22650	S.	NO:	189	8977		(State	ompani		
Cal Due Date:	14.0CT.2024	Cal Due Date:	15.0CT.2024	Cal Di	ue Date:	14.00	T.2024	QUALIFICATION	1/3/	MAT	CAMPADANCOL	**************************************
FLUORE	SCENT 14HF	Magnaflux	Batch No:	220306	EXPIRE D.	ATE: M.	ARCH,2025	ASNT LEVEL II MT & PT & VT			SUPERVISOR:	HANI ALI
Whie Contrast	Paint Manufacture:	Magnaflux	Batch No:	220602	EXPIRE D.	ATE:	JUN,2025			12/18/1		
Digital Lux I WHITE LIGHT IN		TECH	NICAL DETAILS	S			gnetic Ink ture:7HF	STAMP & SIGNATU	RE:	or Ingineering	CLIENT:	

Original - Client Files

3620 Lux/S.NO:2722003

Cal Due Date:16.0CT.2024

Black Magnetic Ink Concentration 7 HF Copy - Area Office

Wet FLUORESCENT Particle Concentration 14 HF

DATED 07 NOV 2021

Batch No:220605

Jul-25













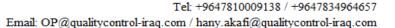
0.1 to 0.4 ml/100 ml

1.2 to 2.4 ml/100 ml





EXPIRE DATE:



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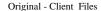
Rocks North Rumaila Ouality Control Vard - Iraa

basra, morti	n Rumana, Quanty Control Tard - I	raq		
CERTIFIC	CATION OF VISUAI, THOROUGH	EXAMINATON	l & MA	GNETIC PARTICLE INSPECTION
Client:	HALLIBURTON	Report No:		QC-24-05-TSS-NDT-SSV-004
Location:	TSS WORKSHOP & INSPECTION TEST AREA	WO NO:		325817395
Inspection Date:	Tuesday, May 7, 2024	Next Inspection Date:		Tuesday, May 6, 2025
Type Of Inspection:	VISUAL , THOROUGH EXAMINATION & MAGNETIC PARTICLE INSPECTION	Specification:	ASTM E709 & ASTM E 1444 (2016) ASME V Article 7 (2019) & API 6A	
		UNIT DESCRIPTION:		FLANGE 3 1/8" 5 K X 3" 1502 WING
	V//2	UNIT S/N:		PETROFAC-1251-1-1
		SSV SAP N:O		12011975
Į į				INSPECTION RESULT :
		VISUAL , THOROUGH EXA	MINATION	VISUAL & MAGNETIC PARTICLE INSPECTION (M.P.I.) HAD BEEN DONEON THE AVAILABLE AREAS FOR THE ABOVE DESCRIPTION
		MAGNETIC PARTICLE INS	PECTION	Thread & critical areas inspected and found free from cracks and other defects
		FINAL RESULTS		THE ABOVE INSPECTED AREAS WAS ACCEPTED
2		COMMENT:		

EQUIPMENT DETAILS							PERSON	DETAILS		REVIEW BY	
EQUIPMENT:	AC/DC HAND Yok	EQUIPMENT:	Shooting Coil	DC EQ	UIPMENT :		BLACK LIGHT: 140 μw/cm²	INSPECTOR NAME: M.SHAHZAD AHMED	A COURT	SENIOR INSPECTOR:	NAVEED HUSSAIN
S.NO:	201504048	S.NO:	22650		S.NO:		1898977				
Cal Due Date:	14.0CT.2024	Cal Due Date:	15.0CT.202	Ca	Due Date:	1	14.0CT.2024	QUALIFICATION: ASNT LEVEL II		SUPERVISOR:	HANI ALI
FLUORE	SCENT 14HF	Magnaflux	Batch No:	22030	5 EXPIRE	DATE:	MARCH,2025	MT & PT & VT		JOI ERVISOR.	IIAW ALI
Whie Contrast	Paint Manufacture:	Magnaflux	Batch No:	22060	<u>EXPIRE</u>	DATE:	JUN,2025	X	12/18/1		
Digital Lux ! WHITE LIGHT IN		TECH	INICAL DETA	AILS			ack Magnetic Ink Ianufacture:7HF	STAMP & SIGNATURE:	for Ingineering	CLIENT:	
3620 Lux/S.NO	:2722003 We	et FLUORESCENT Particle Concent	ration 14 HF	0.1 to 0.4 ml	100 ml	Bate	ch No:220605				
Cal Due Date:16	6.0CT.2024	Black Magnetic Ink Concentrati	ion 7 HF	1.2 to 2.4 ml	100 ml	EXPIRE I	DATE: Jul-25				

(MPI Wet Fluorescent inspection Thread With UltraViolet Light)

Magnetic Particle Inspection With A/C Hand Yoke, Black & White Contrast



Copy - Area Office

OC/FN/MPI/065 Rev.00 DATED 07 NOV 2021















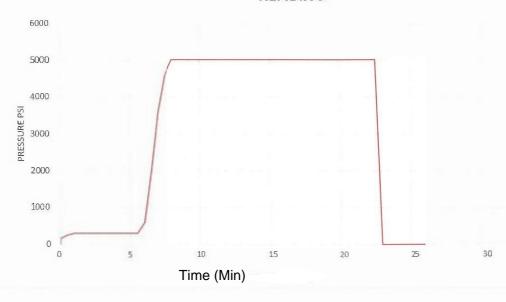


Data Collection Report

Gauge Information						
Serial Number	468066					
Modei	XP2I					
Message Store	TSS test area					
Units	PSI					
SCALE	15000 PSI					

Run Info	
Start Time	9:25 AM
Stop Time	9:48 AM
Test Date	8-MAY-24
EQ NUMBER	12011975
LASTCALIB	2.Aug.2023

READING



TESTED BY:

Haider Emad

APPROVED BY:

Hassan Kamel

COMMENTS:

Downstream

SIGN

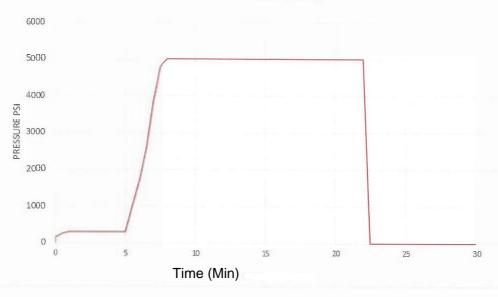


Data Collection Report

Gauge Information	
Serial Number	468066
Model	XP2I
Message Store	TSS test area
Units	PSI
SCALE	15000 PSI

Run Info	
Start Time	8:30 AM
Stop Time	8: 5 2A M
Test Date	8-MAY-24
EQ NUMBER	12011975
LAST CALIB	2.Aug.2023

READING



TESTED BY:

Haider Emad

APPROVED BY:

Hassan Kamel

COMMENTS:

Body Test

SIGN: H-Kama1

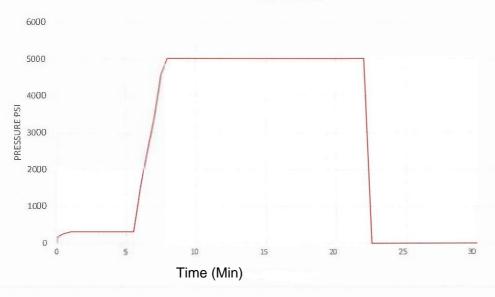


Data Collection Report

Gauge Information	
Serial Number	468066
Model	XP2I
Message Store	TSS test area
Units	PSI
SCALE	15000 PSI

Run info	
Start Time	8:57 AM
Stop Time	9:19 AM
Test Date	8-MAY-24
EQ NUMBER	12011975
LASTCALIB	2.Aug.2023

READING



TESTED BY:

Tarek Bekhit

APPROVED BY:

Hassan Kamel

COMMENTS:

Upstream

SIGNI

SIGN: H-Kamel

