

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

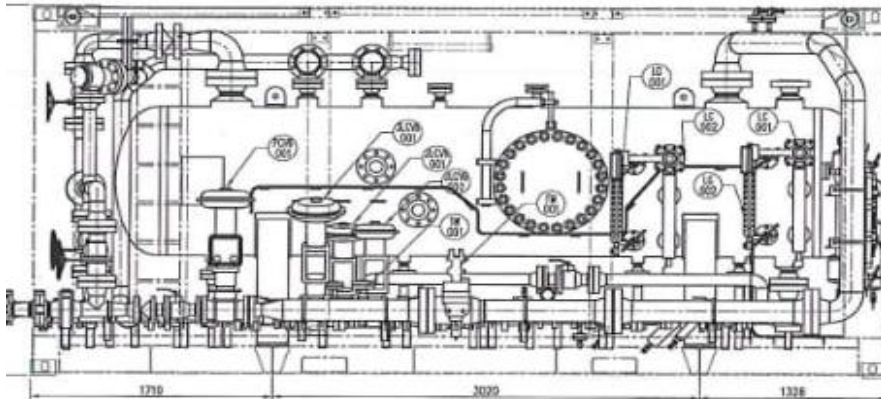
Basra, North Rumaila, Quality Control Yard - Iraq



**CERTIFICATE OF QUALIFICATION VISUAL AND WITNESS PRESSURE TEST**

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIEREMENTS

CLIENT:	<b>HALLIBURTON</b>	REPORT No.:	QC-25-01-TSS-HALL-NDT-001
LOCATION:	<b>TSS WORKSHOP &amp; INSPECTION TEST AREA</b>	JOB NO :	140125
WORK ORDER #	327513387	SPECIFICATION:	ASME B31.1-2024 LATEST EDITION / CUSTOMER SPECIFICATION
DATE OF INSPECTION :	Thursday, January 30, 2025		
TYPE OF INSPECTION:	<b>VISUAL INSPECTION AND WITNESS PRESSURE TEST</b>		
DESCRIPTION:	<b>SEPARATOR VESSEL 1440PSI</b>	SAP .NO	<b>12483222</b>
Pump NO.:	EQ NO:13119220	CAL DUE DATE:	19.AUG.2025
Pressure Gauge NO.:	218230280019	CAL DUE DATE:	06.MAR.2025



ONLINE TRACEABILITY

**PRESSURE TEST WITNESS RESULT**

BODY PRESSURE TEST 1:	The Above Item was Pressure Tested up to 100 Psi A low Pressure Hold for 5 Minutes And Maximum Working pressure 1440 Psi Hold 15 Minutes no Leak was Realized while testing & Pressure Was Stable Accordance To Chart Recorder Attached
PRESSURE TEST 2:	The Above Item was Pressure Tested up to 100 Psi A low Pressure Hold for 5 Minutes And Maximum Working pressure 1440 Psi Hold 15 Minutes no Leak was Realized while testing & Pressure Was Stable Accordance To Chart Recorder Attached
PRESSURE TEST 3:	The Above Item was Pressure Tested up to 100 Psi A low Pressure Hold for 5 Minutes And Maximum Working pressure 1440 Psi Hold 15 Minutes no Leak was Realized while testing & Pressure Was Stable Accordance To Chart Recorder Attached
PRESSURE TEST 4:	The Above Item was Pressure Tested up to 100 Psi A low Pressure Hold for 5 Minutes And Maximum Working pressure 1440 Psi Hold 15 Minutes no Leak was Realized while testing & Pressure Was Stable Accordance To Chart Recorder Attached
PRESSURE TEST 5:	The Above Item was Pressure Tested up to 100 Psi A low Pressure Hold for 5 Minutes And Maximum Working pressure 1440 Psi Hold 15 Minutes no Leak was Realized while testing & Pressure Was Stable Accordance To Chart Recorder Attached
PRESSURE TEST 6:	The Above Item was Pressure Tested up to 100 Psi A low Pressure Hold for 5 Minutes And Maximum Working pressure 1440 Psi Hold 15 Minutes no Leak was Realized while testing & Pressure Was Stable Accordance To Chart Recorder Attached
BODY TEST WITH PRV SET POINT PRESSURE TEST 7:	The Above Item was Pressure Tested up to 100 Psi A low Pressure Hold for 5 Minutes And Maximum Working pressure 1296 Psi Hold 15 Minutes no Leak was Realized while testing & Pressure Was Stable Accordance To Chart Recorder Attached

**PERSON DETAILS**

**REVIEW BY**

INSPECTOR NAME:	<b>M. SHAHZAD AHMAD</b>	SENIOR INSPECTOR:	<b>NAVEED HUSSAIN</b>	CLIENT:	
QUALIFICATION:	<b>ASNT CPVT, NDT, UT, VT</b>	INSPECTION SUPERVISOR:	<b>HANI ALI</b>	HB&SIGN	
SIGNATURE & STAMP:				DATE:	

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

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

<b>CLIENT:</b>	<b>HALLIBURTON</b>	<b>REPORT No.:</b>	QC-25-01-TSS-HALL-NDT-002
<b>LOCATION:</b>	TSS WORKSHOP & INSPECTION TEST AREA	<b>JOB NO :</b>	140125
<b>WORK ORDER #</b>	327513387	<b>SPECIFICATION:</b>	ASTM E709-21 & ASTM E 797-21
<b>INSPECTION DATE:</b>	Wednesday, January 29, 2025	<b>INSPECTION. DUE DATE:</b>	<b>Wednesday, January 28, 2026</b>
<b>TYPE OF INSPECTION:</b>	VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING		
<b>DESCRIPTION:</b>	SEPARATOR VESSEL 1440PSI	<b>SAP NO:</b>	12483222
<b>MANUFACTURER:</b>	SPECIALIST SERVICES	<b>MANUFACTURER SERIAL NO:</b>	OIL 190
<b>LEFT SIDE &amp; RIGHT SIDE MINIMUM THICKNESS</b>	44.5 MM	<b>LEFT SIDE &amp; RIGHT SIDE CORROSION ALLOWANCE</b>	3 MM
<b>SHELL NOMINAL THICKNESS</b>	50 MM	<b>SHELL CORROSION ALLOWANCE</b>	3 MM

**INSPECTION DETAILS**

THICKNESS POINTS	THICKNESS AT POSITION			MINIMUM THICKNESS	CORROSION ALLOWANCE	FINAL REMARKS		
	120°	240°	360°					
LEFT SIDE A1	50.93	51.19	51.27	44.5 MM	3 MM	SATISFACTORY		
LEFT SIDE A2	51.48	50.18	51.90					
LEFT SIDE A3	51.71	51.85	51.20					
RIGHT SIDE B1	50.93	51.69	50.49					
RIGHT SIDE B2	51.49	51.50	50.17					
RIGHT SIDE B3	51.85	51.84	51.80					
THICKNESS POINTS	THICKNESS AT POSITION			NOMINAL THICKNESS				
SHELL C	51.14	50.09	50.04	50 MM				
SHELL D	50.12	50.13	50.20					
SHELL E	50.90	51.72	50.61					
SHELL F	51.14	51.15	51.23					
SHELL G	50.13	50.14	50.13					
SHELL H	50.26	50.25	50.34					
SHELL I	51.04	51.03	50.94					

**INSPECTION RESULT**

<b>VT &amp; MPI</b>	Accepted	ACCORDING TO ASTM E709-21
<b>UT</b>	Accepted	ACCORDING TO ASTM E 797-21 & Manufacturing Date Book
<b>BODY</b>	Accepted	*** These Are The Actual Readings Need To Follow As Per Manufacturing Date Book

**Inspection Evaluation**

(MPI) The Above Item Has No Significant Discontinuous At The Time Of Inspection And Found Acceptable According To ASTM E709-21  
U.T-The Above Item Was Found Acceptable As Per ASTM E 797-21 & Manufacturing Date Book

**INSPECTION EQUIPMENT DETAILS**

**TECHNICAL DETAILS**

<b>AC YOKE S.N:</b>	201504048	<b>CAL DUE DATE</b>	11-Apr-25	White Contrast WCP-2	<b>MANUFACTURE</b>	<b>BATCH NO</b>	<b>EXPIRE DATE</b>
<b>Digital Lux Meter WHITE LIGHT</b>	2722003	<b>CAL DUE DATE</b>	13-Apr-25		Magnaflux	220602	JUN.2025
<b>UT THICKNESS GAUGE:</b>	3997	<b>CAL DUE DATE</b>	11-Apr-25	Black Magnetic Ink 7HF	<b>MANUFACTURE</b>	<b>BATCH NO</b>	<b>EXPIRE DATE</b>
<b>UT TEST BLOCK:</b>	NoBo5088	<b>CAL DUE DATE</b>	12-Apr-25		Magnaflux	220605	JULY.2025
<b>ASTM Test Block:</b>	1657	<b>CAL DUE DATE</b>	11-Apr-25	Fluorescent Magnetic Ink 7HF	1.2 to 2.4 ml/100 ml		
<b>WHITE LIGHT INTENSITY:</b>	3630 lux						

**PERSON DETAILS**

**REVIEW BY**

<b>INSPECTOR NAME:</b>	M.SHAHZAD AHMED	<b>SENIOR INSPECTOR:</b>	NAVEED HUSSAIN	<b>CLIENT:</b>	
<b>QUALIFICATION:</b>	ASNT CP-105	<b>INSPECTION SUPERVISOR:</b>	HANI ALI	<b>DESIGN:</b>	
<b>SIGNATURE &amp; STAMP:</b>				<b>DATE:</b>	

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

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

CLIENT:	<b>HALLIBURTON</b>	REPORT No.:	QC-25-01-TSS-HALL-NDT-003
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	JOB NO :	140125
WORK ORDER #	327513387	SPECIFICATION:	ASTM E709-21 & ASTM E 797-21
INSPECTION DATE:	Wednesday, January 29, 2025	INSPECTION. DUE DATE:	<b>Wednesday, January 28, 2026</b>
TYPE OF INSPECTION:	<b>VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING</b>		
DESCRIPTION:	SEPARATOR GAS OUT LINE	SAP NO:	12483222
MANUFACTURER:	SPECIALIST SERVICES	MANUFACTURER SERIAL NO:	OIL 190

**INSPECTION DETAILS**

THICKNESS POINTS	THICKNESS AT POSITION				CORROSION ALLOWANCE	FINAL REMARKS
	0°	90°	180°	270°		
A	12.27	12.40	12.14	12.31	3 MM	SATISFACTORY
B	11.84	12.14	11.96	12.01		
C	12.12	12.20	12.47	12.35		
D	12.24	12.33	12.36	12.29		
E	12.19	12.27	12.19	12.26		
F	12.21	12.27	12.23	12.35		
G	12.31	12.35	12.47	12.38		
H	12.44	12.56	12.63	12.56		
I	10.08	10.20	10.27	10.15		
J	10.11	10.13	10.17	10.10		

**INSPECTION RESULT**

VT & MPI	Accepted	ACCORDING TO ASTM E709-21
UT	Accepted	ACCORDING TO ASTM E 797-21 & Manufacturing Date Book
BODY	Accepted	*** These Are The Actual Readings Need To Follow As Per Manufacturing Date Book

**Inspection Evaluation**

(MPI) The Above Item Has No Significant Discontinuous At The Time Of Inspection And Found Acceptable According To ASTM E709-21

U.T-The Above Item Was Found Acceptable As Per ASTM E 797-21 & Manufacturing Date Book

**INSPECTION EQUIPMENT DETAILS**

**TECHNICAL DETAILS**

AC YOKE S.N:	201504048	CAL DUE DATE	11-Apr-25	White Contrast WCP-2	MANUFACTURE	BATCH NO	EXPIRE DATE
Digital Lux Meter WHITE LIGHT	2722003	CAL DUE DATE	13-Apr-25		Magnaflux	220602	JUN,2025
UT THICKNESS GAUGE:	3997	CAL DUE DATE	11-Apr-25	Black Magnetic Ink 7HF	MANUFACTURE	BATCH NO	EXPIRE DATE
UT TEST BLOCK:	NoBo5088	CAL DUE DATE	12-Apr-25		Magnaflux	220605	JULY,2025
ASTM Test Block:	1657	CAL DUE DATE	11-Apr-25	Fluorescent Magnetic Ink 7HF	1.2 to 2.4 ml/100 ml		
WHITE LIGHT INTENSITY:	3630 lux						

**PERSON DETAILS**

**REVIEW BY**

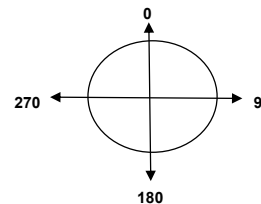
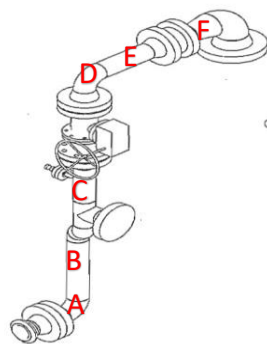
INSPECTOR NAME:	M.SLAHZAD AHMED	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:	
QUALIFICATION:		INSPECTION SUPERVISOR:	HANI ALI	HB&SIGN	
SIGNATURE & STAMP:				DATE:	

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

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

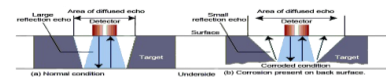
CLIENT:	<b>HALLIBURTON</b>	REPORT No.:	QC-25-01-TSS-HALL-NDT-004
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	JOB NO :	140125
WORK ORDER #	327513387	SPECIFICATION:	ASTM E709-21 & ASTM E 797-21
INSPECTION DATE:	Wednesday, January 29, 2025	INSPECTION. DUE DATE:	<b>Wednesday, January 28, 2026</b>
TYPE OF INSPECTION:	<b>VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING</b>		
DESCRIPTION:	SEPARATOR INLET LINE	SAP NO:	12483222
MANUFACTURER:	SPECIALIST SERVICES	MANUFACTURER SERIAL NO:	OIL 190

**INSPECTION DETAILS**



ONLINE TRACEABILITY

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



THICKNESS POINTS	THICKNESS AT POSITION				CORROSION ALLOWANCE	FINAL REMARKS
	0°	90°	180°	270°		
A	9.16	9.23	9.11	9.13	3 MM	SATISFACTORY
B	9.10	9.22	9.04	9.55		
C	8.84	9.01	8.96	9.02		
D	9.28	9.40	9.29	9.17		
E	9.50	9.62	9.08	9.20		
F	9.73	9.79	9.67	9.69		

**INSPECTION RESULT**

VT & MPI	Accepted	ACCORDING TO ASTM E709-21
UT	Accepted	ACCORDING TO ASTM E 797-21 & Manufacturing Date Book
BODY	Accepted	*** These Are The Actual Readings Need To Follow As Per Manufacturing Date Book

**Inspection Evaluation**

(MPI) The Above Item Has No Significant Discontinuous At The Time Of Inspection And Found Acceptable According To ASTM E709-21

U.T-The Above Item Was Found Acceptable As Per ASTM E 797-21 & Manufacturing Date Book

**INSPECTION EQUIPMENT DETAILS**

**TECHNICAL DETAILS**

AC YOKER S.N:	201504048	CAL DUE DATE	11-Apr-25	White Contrast WCP-2	MANUFACTURE	BATCH NO	EXPIRE DATE
Digital Lux Meter WHITE LIGHT	2722003	CAL DUE DATE	13-Apr-25		Magnaflux	220602	JUN.2025
UT THICKNESS GAUGE:	3997	CAL DUE DATE	11-Apr-25	Black Magnetic Ink 7HF	MANUFACTURE	BATCH NO	EXPIRE DATE
UT TEST BLOCK:	NoBo5088	CAL DUE DATE	12-Apr-25		Magnaflux	220605	JULY.2025
ASTM Test Block:	1657	CAL DUE DATE	11-Apr-25	Fluorescent Magnetic Ink 7HF	1.2 to 2.4 ml/100 ml		
WHITE LIGHT INTENSITY:	3630 lux						

**PERSON DETAILS**

**REVIEW BY**

INSPECTOR NAME:	M.SHAHZAD AHMED	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:	
QUALIFICATION:	S.A.I. & S.P.P.T.V.	INSPECTION SUPERVISOR:	HANI ALI	HB&SIGN	
SIGNATURE & STAMP:				DATE:	

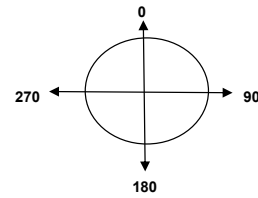
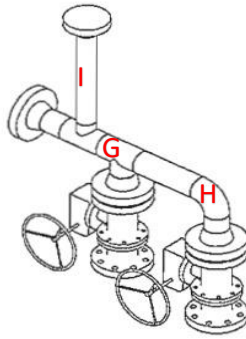
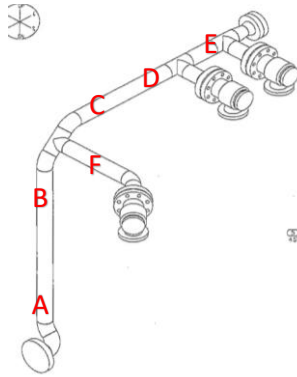
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**CERTIFICATE OF QUALIFICATION VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING INSPECTION**

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

CLIENT:	<b>HALLIBURTON</b>	REPORT No.:	QC-25-01-TSS-HALL-NDT-005
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	JOB NO :	140125
WORK ORDER #	327513387	SPECIFICATION:	ASTM E709-21 & ASTM E 797-21
INSPECTION DATE:	Wednesday, January 29, 2025	INSPECTION. DUE DATE:	<b>Wednesday, January 28, 2026</b>
TYPE OF INSPECTION:	<b>VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING</b>		
DESCRIPTION:	SEPARATOR RELIEF LINE	SAP NO:	12483222
MANUFACTURER:	SPECIALIST SERVICES	MANUFACTURER SERIAL NO:	OIL 190

**INSPECTION DETAILS**



ONLINE TRACEABILITY

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



THICKNESS POINTS	THICKNESS AT POSITION				CORROSION ALLOWANCE	FINAL REMARKS
	0°	90°	180°	270°		
A	9.07	9.16	9.04	9.06	3 MM	SATISFACTORY
B	8.75	9.05	8.87	8.92		
C	8.92	9.00	9.23	9.11		
D	8.93	9.02	9.05	8.98		
E	8.88	8.96	9.10	9.17		
F	9.05	9.13	9.09	8.97		
G	8.88	8.97	9.00	8.93		
H	9.05	9.13	9.20	9.08		
I	8.30	8.29	8.24	8.06		

**INSPECTION RESULT**

VT & MPI	Accepted	ACCORDING TO ASTM E709-21
UT	Accepted	ACCORDING TO ASTM E 797-21 & Manufacturing Date Book
BODY	Accepted	*** These Are The Actual Readings Need To Follow As Per Manufacturing Date Book

**Inspection Evaluation**

(MPI) The Above Item Has No Significant Discontinuous At The Time Of Inspection And Found Acceptable According To ASTM E709-21

U.T-The Above Item Was Found Acceptable As Per ASTM E 797-21 & Manufacturing Date Book

**INSPECTION EQUIPMENT DETAILS**

**TECHNICAL DETAILS**

INSPECTION EQUIPMENT DETAILS				TECHNICAL DETAILS			
AC YOKE S.N:	201504048	CAL DUE DATE	11-Apr-25	White Contrast WCP-2	MANUFACTURE	BATCH NO	EXPIRE DATE
Digital Lux Meter WHITE LIGHT	2722003	CAL DUE DATE	13-Apr-25		Magnaflux	220602	JUN.2025
UT THICKNESS GAUGE:	3997	CAL DUE DATE	11-Apr-25	Black Magnetic Ink 7HF	MANUFACTURE	BATCH NO	EXPIRE DATE
UT TEST BLOCK:	NoBo5088	CAL DUE DATE	12-Apr-25		Magnaflux	220605	JULY.2025
ASTM Test Block:	1657	CAL DUE DATE	11-Apr-25	Fluorescent Magnetic Ink 7HF		1.2 to 2.4 ml/100 ml	
WHITE LIGHT INTENSITY:	3630 lux						

**PERSON DETAILS**

**REVIEW BY**

INSPECTOR NAME:	M.SHAHZAD AHMED	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:	
QUALIFICATION:		INSPECTION SUPERVISOR:	HANI ALI	HB&SIGN	
SIGNATURE & STAMP:				DATE:	

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

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

CLIENT:	<b>HALLIBURTON</b>	REPORT No.:	QC-25-01-TSS-HALL-NDT-006
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	JOB NO :	140125
WORK ORDER #	327513387	SPECIFICATION:	ASTM E709-21 & ASTM E 797-21
INSPECTION DATE:	Wednesday, January 29, 2025	INSPECTION DUE DATE:	<b>Wednesday, January 28, 2026</b>
TYPE OF INSPECTION:	<b>VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING</b>		
DESCRIPTION:	SEPARATOR DRAIN LINE	SAP NO:	12483222
MANUFACTURER:	SPECIALIST SERVICES	MANUFACTURER SERIAL NO:	OIL 190

**INSPECTION DETAILS**

\* ALL READINGS IN MM  
\*\*MINIMUM THICKNESS PROVIDED BY CUSTMER

THICKNESS POINTS	THICKNESS AT POSITION				CORROSION ALLOWANCE	FINAL REMARKS
	0°	90°	180°	270°		
A	7.27	7.36	7.24	7.26	3 MM	SATISFACTORY
B	7.21	7.51	7.33	7.38		
C	7.38	7.46	7.43	7.31		
D	7.13	7.80	7.83	7.76		
E	7.34	7.42	7.56	7.63		
F	7.51	7.59	7.87	7.75		
G	8.00	8.09	8.12	8.05		
H	8.17	8.25	7.66	7.54		
I	7.37	7.46	7.49	7.42		
J	8.13	8.21	8.14	8.21		
K	8.30	8.38	7.53	7.41		
L	8.10	8.19	8.22	8.15		
M	7.66	7.74	7.97	7.68		

**INSPECTION RESULT**

VT & MPI	Accepted	ACCORDING TO ASTM E709-21
UT	Accepted	ACCORDING TO ASTM E 797-21 & Manufacturing Date Book
BODY	Accepted	*** These Are The Actual Readings Need To Follow As Per Manufacturing Date Book

**Inspection Evaluation**

(MPI) The Above Item Has No Significant Discontinuous At The Time Of Inspection And Found Acceptable According To ASTM E709-21

U.T-The Above Item Was Found Acceptable As Per ASTM E 797-21 & Manufacturing Date Book

INSPECTION EQUIPMENT DETAILS				TECHNICAL DETAILS			
AC YOKE S.N:	201504048	CAL DUE DATE	11-Apr-25	White Contrast WCP-2	MANUFACTURE	BATCH NO	EXPIRE DATE
Digital Lux Meter WHITE LIGHT	2722003	CAL DUE DATE	13-Apr-25		Magnaflux	220602	JUN,2025
UT THICKNESS GAUGE:	3997	CAL DUE DATE	11-Apr-25	Black Magnetic Ink 7HF	MANUFACTURE	BATCH NO	EXPIRE DATE
UT TEST BLOCK:	NoBo5088	CAL DUE DATE	12-Apr-25		Magnaflux	220605	JULY.2025
ASTM Test Block:	1657	CAL DUE DATE	11-Apr-25	Fluorescent Magnetic Ink 7HF		1.2 to 2.4 ml/100 ml	
WHITE LIGHT INTENSITY:	3630 lux						

**PERSON DETAILS**

**REVIEW BY**

INSPECTOR NAME:	M.SHAHZAD AHMED	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:	
QUALIFICATION:	NDT PT	INSPECTION SUPERVISOR:	HANI ALI	HB&SIGN	
SIGNATURE & STAMP:				DATE:	

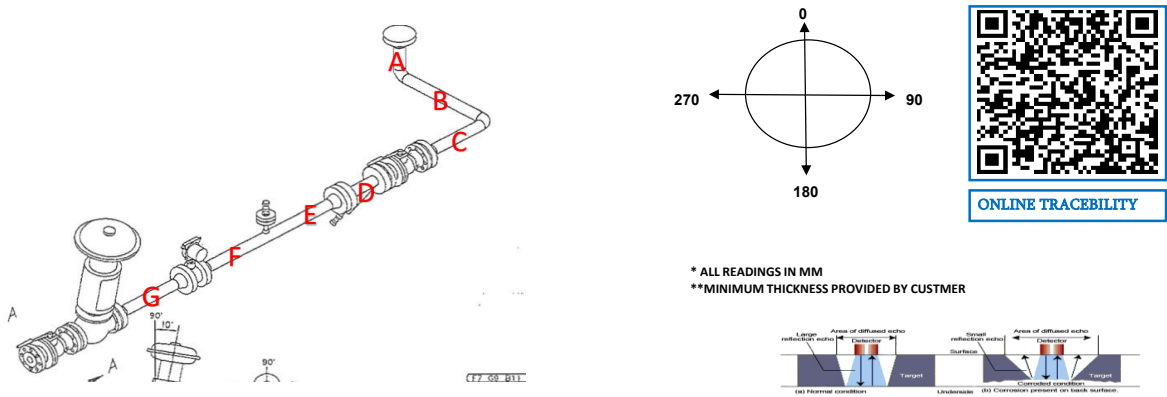
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**CERTIFICATE OF QUALIFICATION VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING INSPECTION**

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

CLIENT:	<b>HALLIBURTON</b>	REPORT No.:	QC-25-01-TSS-HALL-NDT-007
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	JOB NO :	140125
WORK ORDER #	327513387	SPECIFICATION:	ASTM E709-21 & ASTM E 797-21
INSPECTION DATE:	Wednesday, January 29, 2025	INSPECTION. DUE DATE:	<b>Wednesday, January 28, 2026</b>
TYPE OF INSPECTION:	VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING		
DESCRIPTION:	SEPARATOR WATER OUTLET LINE	SAP NO:	12483222
MANUFACTURER:	SPECIALIST SERVICES	MANUFACTURER SERIAL NO:	OIL 190



THICKNESS POINTS	THICKNESS AT POSITION				CORROSION ALLOWANCE	FINAL REMARKS
	0°	90°	180°	270°		
A	7.03	7.07	7.00	7.02	3 MM	SATISFACTORY
B	7.35	7.65	7.47	7.52		
C	7.29	7.41	7.23	7.74		
D	6.97	7.09	7.04	6.92		
E	7.41	7.53	7.48	7.36		
F	7.63	7.75	7.21	7.33		
G	7.16	7.28	7.60	7.48		
H	7.33	7.41	7.82	7.70		

**INSPECTION RESULT**

VT & MPI	Accepted	ACCORDING TO ASTM E709-21
UT	Accepted	ACCORDING TO ASTM E 797-21 & Manufacturing Date Book
BODY	Accepted	*** These Are The Actual Readings Need To Follow As Per Manufacturing Date Book

**Inspection Evaluation**

(MPI) The Above Item Has No Significant Discontinuous At The Time Of Inspection And Found Acceptable According To ASTM E709-21

U.T-The Above Item Was Found Acceptable As Per ASTM E 797-21 & Manufacturing Date Book

INSPECTION EQUIPMENT DETAILS				TECHNICAL DETAILS			
AC YOKE S.N:	201504048	CAL DUE DATE	11-Apr-25	White Contrast WCP-2	MANUFACTURE	BATCH NO	EXPIRE DATE
Digital Lux Meter WHITE LIGHT	2722003	CAL DUE DATE	13-Apr-25		Magnaflux	220602	JUN,2025
UT THICKNESS GAUGE:	3997	CAL DUE DATE	11-Apr-25	Black Magnetic Ink 7HF	MANUFACTURE	BATCH NO	EXPIRE DATE
UT TEST BLOCK:	NoBo5088	CAL DUE DATE	12-Apr-25		Magnaflux	220605	JULY,2025
ASTM Test Block:	1657	CAL DUE DATE	11-Apr-25	Fluorescent Magnetic Ink 7HF		1.2 to 2.4 ml/100 ml	
WHITE LIGHT INTENSITY:	3630 lux						

**PERSON DETAILS**

**REVIEW BY**

INSPECTOR NAME:	M.SHAHZAD AHMED	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:	
QUALIFICATION:	NDT LEVEL 1 MAGNETIC PARTICLE TEST	INSPECTION SUPERVISOR:	HANI ALI	HB&SIGN	
SIGNATURE & STAMP:				DATE:	

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

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

CLIENT:	<b>HALLIBURTON</b>	REPORT No.:	QC-25-01-TSS-HALL-NDT-008
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	JOB NO :	140125
WORK ORDER #	327513387	SPECIFICATION:	ASTM E709-21 & ASTM E 797-21
INSPECTION DATE:	Wednesday, January 29, 2025	INSPECTION. DUE DATE:	<b>Wednesday, January 28, 2026</b>
TYPE OF INSPECTION:	<b>VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING</b>		
DESCRIPTION:	SEPARATOR OIL OUT LINE	SAP NO:	12483222
MANUFACTURER:	SPECIALIST SERVICES	MANUFACTURER SERIAL NO:	OIL 190

**INSPECTION DETAILS**

**\* ALL READINGS IN MM**  
**\*\*MINIMUM THICKNESS PROVIDED BY CUSTMER**

THICKNESS POINTS	THICKNESS AT POSITION				CORROSION ALLOWANCE	FINAL REMARKS
	0°	90°	180°	270°		
A	8.67	8.76	8.59	8.62	3 MM	<b>SATISFACTORY</b>
B	8.60	8.67	8.69	8.74		
C	8.66	8.74	8.83	8.71		
D	8.71	8.80	8.83	8.76		
E	8.73	8.81	8.72	8.79		
F	8.69	8.75	8.71	8.83		
G	8.78	8.82	8.94	8.85		
H	8.84	8.96	9.03	8.96		

**INSPECTION RESULT**

VT & MPI	Accepted	ACCORDING TO ASTM E709-21
UT	Accepted	ACCORDING TO ASTM E 797-21 & Manufacturing Date Book
BODY	Accepted	*** These Are The Actual Readings Need To Follow As Per Manufacturing Date Book

**Inspection Evaluation**

(MPI) The Above Item Has No Significant Discontinuous At The Time Of Inspection And Found Acceptable According To ASTM E709-21

U.T-The Above Item Was Found Acceptable As Per ASTM E 797-21 & Manufacturing Date Book

INSPECTION EQUIPMENT DETAILS				TECHNICAL DETAILS			
AC YOKE S.N:	201504048	CAL DUE DATE	11-Apr-25	White Contrast WCP-2	MANUFACTURE	BATCH NO	EXPIRE DATE
Digital Lux Meter WHITE LIGHT	2722003	CAL DUE DATE	13-Apr-25		Magnaflux	220602	JUN,2025
UT THICKNESS GAUGE:	3997	CAL DUE DATE	11-Apr-25	Black Magnetic Ink 7HF	MANUFACTURE	BATCH NO	EXPIRE DATE
UT TEST BLOCK:	NoBo5088	CAL DUE DATE	12-Apr-25		Magnaflux	220605	JULY,2025
ASTM Test Block:	1657	CAL DUE DATE	11-Apr-25	Fluorescent Magnetic Ink 7HF		1.2 to 2.4 ml/100 ml	
WHITE LIGHT INTENSITY:	3630 lux						

**PERSON DETAILS**

**REVIEW BY**

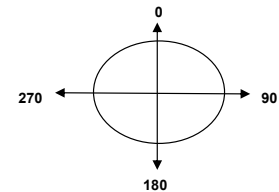
INSPECTOR NAME:	M.SH AHZAD AHMED	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:	
QUALIFICATION:		INSPECTION SUPERVISOR:	HANI ALI	HB&SIGN	
SIGNATURE & STAMP:				DATE:	

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

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

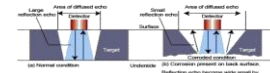
CLIENT:	<b>HALLIBURTON</b>	REPORT NO.:	QC-25-01-TSS-HALL-NDT-009
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	JOB NO :	140125
WORK ORDER #	327513387	SPECIFICATION:	ASTM E709-21 & ASTM E 79-21
DATE OF INSPECTION:	Wednesday, January 29, 2025	INSPECTION. DUE DATE:	<b>Wednesday, January 28, 2026</b>
TYPE OF INSPECTION:	<b>VISUAL INSPECTION AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING</b>		

DESCRIPTION:	BALON VALVE 4" 600 CL	SEPARATOR SAP.NO:	12483222
		SERIAL NO:	3FMS



ONLINE TRACEABILITY

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



ANGLE	THICKNESS AT POSITION		MINIMUM THICKNESS IN MM
	A	B	
0°	13.72	13.96	6.5 MM
90°	13.49	13.54	
180°	13.77	13.84	
270°	13.89	13.70	

**INSPECTION RESULT**

VT & MPI	Accepted	According to ASTM E709-21
UT	Accepted	According to ASTM E 797-21

**Inspection Evaluation**

(MPI) The Above Item Has No Significant Discontinuous At The Time Of Inspection And Found Acceptable According to ASTM E709-21

U.T-The Above Item Was Found Acceptable As Per ASTM E797-21

INSPECTION EQUIPMENT DETAILS				TECHNICAL DETAILS			
AC YOKE S.N:	201504048	CAL DUE DATE	11-Apr-25	White Contrast WCP-2	MANUFACTURE	BATCH NO	EXPIRE DATE
Digital Lux Meter WHITE LIGHT	2722003	CAL DUE DATE	13-Apr-25		Magnaflux	220602	JUN.2025
UT THICKNESS GAUGE:	3997	CAL DUE DATE	11-Apr-25	Black Magnetic Ink 7HF	MANUFACTURE	BATCH NO	EXPIRE DATE
UT TEST BLOCK:	NoBo5087	CAL DUE DATE	12-Apr-25		Magnaflux	220605	JULY.2025
ASTM Test Block:	1657	CAL DUE DATE	11-Apr-25	Concentration of 7HF:		1.2 to2.4 ml/100 ml	
WHITE LIGHT INTENSITY:	3630 lux						

**PERSON DETAILS**

**REVIEW BY**

INSPECTOR NAME:	M. Shalwan Ahmed	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:	
QUALIFICATION:		INSPECTION SUPERVISOR:	HANI ALI	HB&SIGN	
SIGNATURE & STAMP:				DATE:	

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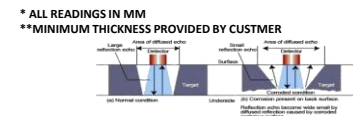
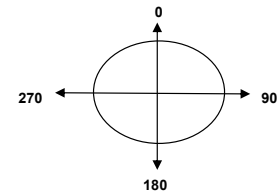


**CERTIFICATE OF QUALIFICATION VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING INSPECTION**

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

CLIENT:	<b>HALLIBURTON</b>	REPORT NO.:	QC-25-01-TSS-HALL-NDT-010
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	JOB NO :	140125
WORK ORDER #	327513387	SPECIFICATION:	ASTM E709-21 & ASTM E 79-21
DATE OF INSPECTION:	Wednesday, January 29, 2025	INSPECTION. DUE DATE:	<b>Wednesday, January 28, 2026</b>
TYPE OF INSPECTION:	<b>VISUAL INSPECTION AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING</b>		

DESCRIPTION:	BALON VALVE 4" 600 CL	SEPARATOR SAP.NO:	12483222
		SERIAL NO:	0270US



ANGLE	THICKNESS AT POSITION		MINIMUM THICKNESS IN MM
	A	B	
0°	13.93	14.06	6.5 MM
90°	13.90	13.95	
180°	13.97	13.94	
270°	14.10	13.90	

INSPECTION RESULT		
VT & MPI	Accepted	According to ASTM E709-21
UT	Accepted	According to ASTM E 797-21

**Inspection Evaluation**

(MPI) The Above Item Has No Significant Discontinuous At The Time Of Inspection And Found Acceptable According to ASTM E709-21  
U.T-The Above Item Was Found Acceptable As Per ASTM E797-21

INSPECTION EQUIPMENT DETAILS				TECHNICAL DETAILS			
AC YOKE S.N:	201504048	CAL DUE DATE	11-Apr-25	White Contrast WCP-2	MANUFACTURE	BATCH NO	EXPIRE DATE
Digital Lux Meter WHITE LIGHT	2722003	CAL DUE DATE	13-Apr-25		Magnaflux	220602	JUN.2025
UT THICKNESS GAUGE:	3997	CAL DUE DATE	11-Apr-25	Black Magnetic Ink 7HF	MANUFACTURE	BATCH NO	EXPIRE DATE
UT TEST BLOCK:	NoBo5087	CAL DUE DATE	12-Apr-25		Magnaflux	220605	JULY.2025
ASTM Test Block:	1657	CAL DUE DATE	11-Apr-25	Concentration of 7HF:		1.2 to 2.4 ml/100 ml	
WHITE LIGHT INTENSITY:	3630 lux						

PERSON DETAILS		REVIEW BY		
INSPECTOR NAME:	M. Shalwan Ahmed	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:
QUALIFICATION:	NDT Level 2	INSPECTION SUPERVISOR:	HANI ALI	HS&SIGN
SIGNATURE & STAMP:				DATE:

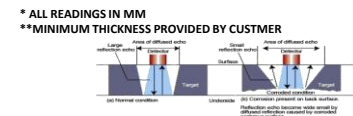
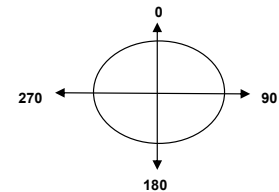


**CERTIFICATE OF QUALIFICATION VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING INSPECTION**

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

CLIENT:	<b>HALLIBURTON</b>	REPORT NO.:	QC-25-01-TSS-HALL-NDT-011
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	JOB NO :	140125
WORK ORDER #	327513387	SPECIFICATION:	ASTM E709-21 & ASTM E 79-21
DATE OF INSPECTION:	Wednesday, January 29, 2025	INSPECTION. DUE DATE:	<b>Wednesday, January 28, 2026</b>
TYPE OF INSPECTION:	<b>VISUAL INSPECTION AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING</b>		

DESCRIPTION:	BALON VALVE 4" 600 CL	SEPARATOR SAP.NO:	12483222
		SERIAL NO:	9QUM



ANGLE	THICKNESS AT POSITION		MINIMUM THICKNESS IN MM
	A	B	
0°	13.86	13.90	6.5 MM
90°	13.94	14.02	
180°	13.82	13.78	
270°	13.92	13.75	

INSPECTION RESULT		
VT & MPI	Accepted	According to ASTM E709-21
UT	Accepted	According to ASTM E 797-21

**Inspection Evaluation**  
(MPI) The Above Item Has No Significant Discontinuous At The Time Of Inspection And Found Acceptable According to ASTM E709-21  
U.T-The Above Item Was Found Acceptable As Per ASTM E797-21

INSPECTION EQUIPMENT DETAILS				TECHNICAL DETAILS			
AC YOKE S.N:	201504048	CAL DUE DATE	11-Apr-25	White Contrast WCP-2	MANUFACTURE	BATCH NO	EXPIRE DATE
Digital Lux Meter WHITE LIGHT	2722003	CAL DUE DATE	13-Apr-25		Magnaflux	220602	JUN.2025
UT THICKNESS GAUGE:	3997	CAL DUE DATE	11-Apr-25	Black Magnetic Ink 7HF	MANUFACTURE	BATCH NO	EXPIRE DATE
UT TEST BLOCK:	NoBo5087	CAL DUE DATE	12-Apr-25		Magnaflux	220605	JULY.2025
ASTM Test Block:	1657	CAL DUE DATE	11-Apr-25	Concentration of 7HF:		1.2 to2.4 ml/100 ml	
WHITE LIGHT INTENSITY:	3630 lux						

PERSON DETAILS		REVIEW BY		
INSPECTOR NAME:	M. Shalwan Ahmed	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:
QUALIFICATION:		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

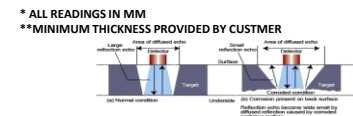
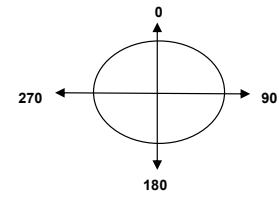


**CERTIFICATE OF QUALIFICATION VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING INSPECTION**

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

CLIENT:	<b>HALLIBURTON</b>	REPORT NO.:	QC-25-01-TSS-HALL-NDT-012
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	JOB NO :	140125
WORK ORDER #	327513387	SPECIFICATION:	ASTM E709-21 & ASTM E 79-21
DATE OF INSPECTION:	Wednesday, January 29, 2025	INSPECTION. DUE DATE:	<b>Wednesday, January 28, 2026</b>
TYPE OF INSPECTION:	<b>VISUAL INSPECTION AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING</b>		

DESCRIPTION:	BALON VALVE 3" 600 CL	SEPARATOR SAP.NO:	12483222
		SERIAL NO:	F-F6N RF



ANGLE	THICKNESS AT POSITION		MINIMUM THICKNESS IN MM
	A	B	
0°	12.17	12.21	5.61 MM
90°	12.25	12.33	
180°	12.13	12.09	
270°	12.23	12.06	

INSPECTION RESULT		
VT & MPI	Accepted	According to ASTM E709-21
UT	Accepted	According to ASTM E 797-21

**Inspection Evaluation**

(MPI) The Above Item Has No Significant Discontinuous At The Time Of Inspection And Found Acceptable According to ASTM E709-21  
U.T-The Above Item Was Found Acceptable As Per ASTM E797-21

INSPECTION EQUIPMENT DETAILS				TECHNICAL DETAILS			
AC YOKE S.N:	201504048	CAL DUE DATE	11-Apr-25	White Contrast WCP-2	MANUFACTURE	BATCH NO	EXPIRE DATE
Digital Lux Meter WHITE LIGHT	2722003	CAL DUE DATE	13-Apr-25		Magnaflux	220602	JUN.2025
UT THICKNESS GAUGE:	3997	CAL DUE DATE	11-Apr-25	Black Magnetic Ink 7HF	MANUFACTURE	BATCH NO	EXPIRE DATE
UT TEST BLOCK:	NoBo5087	CAL DUE DATE	12-Apr-25		Magnaflux	220605	JULY.2025
ASTM Test Block:	1657	CAL DUE DATE	11-Apr-25	Concentration of 7HF:		1.2 to 2.4 ml/100 ml	
WHITE LIGHT INTENSITY:	3630 lux						

PERSON DETAILS		REVIEW BY			
INSPECTOR NAME:	M. Shalwan Ahmed	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:	
QUALIFICATION:		INSPECTION SUPERVISOR:	HANI ALI	HB&SIGN	
SIGNATURE & STAMP:				DATE:	

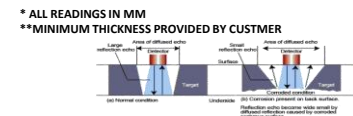
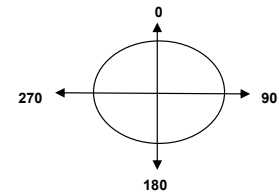


**CERTIFICATE OF QUALIFICATION VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING INSPECTION**

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

CLIENT:	<b>HALLIBURTON</b>	REPORT NO.:	QC-25-01-TSS-HALL-NDT-013
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	JOB NO :	140125
WORK ORDER #	327513387	SPECIFICATION:	ASTM E709-21 & ASTM E 79-21
DATE OF INSPECTION:	Wednesday, January 29, 2025	INSPECTION. DUE DATE:	<b>Wednesday, January 28, 2026</b>
TYPE OF INSPECTION:	<b>VISUAL INSPECTION AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING</b>		

DESCRIPTION:	BALON VALVE 3" 600 CL	SEPARATOR SAP.NO:	12483222
		SERIAL NO:	03DJ5



ANGLE	THICKNESS AT POSITION		MINIMUM THICKNESS IN MM
	A	B	
0°	12.62	12.75	5.61 MM
90°	12.46	12.54	
180°	12.59	12.63	
270°	12.70	12.52	

INSPECTION RESULT		
VT & MPI	Accepted	According to ASTM E709-21
UT	Accepted	According to ASTM E 797-21

**Inspection Evaluation**  
(MPI) The Above Item Has No Significant Discontinuous At The Time Of Inspection And Found Acceptable According to ASTM E709-21  
U.T-The Above Item Was Found Acceptable As Per ASTM E797-21

INSPECTION EQUIPMENT DETAILS				TECHNICAL DETAILS			
AC YOKE S.N:	201504048	CAL DUE DATE	11-Apr-25	White Contrast WCP-2	MANUFACTURE	BATCH NO	EXPIRE DATE
Digital Lux Meter WHITE LIGHT	2722003	CAL DUE DATE	13-Apr-25		Magnaflux	220602	JUN.2025
UT THICKNESS GAUGE:	3997	CAL DUE DATE	11-Apr-25	Black Magnetic Ink 7HF	MANUFACTURE	BATCH NO	EXPIRE DATE
UT TEST BLOCK:	NoBo5087	CAL DUE DATE	12-Apr-25		Magnaflux	220605	JULY.2025
ASTM Test Block:	1657	CAL DUE DATE	11-Apr-25	Concentration of 7HF:		1.2 to 2.4 ml/100 ml	
WHITE LIGHT INTENSITY:	3630 lux						

PERSON DETAILS		REVIEW BY			
INSPECTOR NAME:	M. Shalwan Ahmed	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:	
QUALIFICATION:		INSPECTION SUPERVISOR:	HANI ALI	HB&SIGN	
SIGNATURE & STAMP:				DATE:	

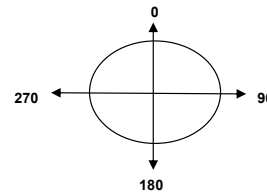


**CERTIFICATE OF QUALIFICATION VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING INSPECTION**

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

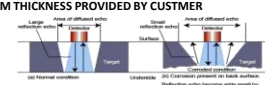
CLIENT:	<b>HALLIBURTON</b>	REPORT NO.:	QC-25-01-TSS-HALL-NDT-014
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	JOB NO :	140125
WORK ORDER #	327513387	SPECIFICATION:	ASTM E709-21 & ASTM E 79-21
DATE OF INSPECTION:	Wednesday, January 29, 2025	INSPECTION. DUE DATE:	<b>Wednesday, January 28, 2026</b>
TYPE OF INSPECTION:	<b>VISUAL INSPECTION AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING</b>		

DESCRIPTION:	BALON VALVE 3" 600 CL	SEPARATOR SAP.NO:	12483222
		SERIAL NO:	2XKH



ONLINE TRACEABILITY

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



ANGLE	THICKNESS AT POSITION		MINIMUM THICKNESS IN MM
	A	B	
0°	12.87	12.96	5.61 MM
90°	12.80	12.92	
180°	12.68	12.84	
270°	12.95	12.61	

**INSPECTION RESULT**

VT & MPI	Accepted	According to ASTM E709-21
UT	Accepted	According to ASTM E 797-21

**Inspection Evaluation**

(MPI) The Above Item Has No Significant Discontinuous At The Time Of Inspection And Found Acceptable According to ASTM E709-21

U.T-The Above Item Was Found Acceptable As Per ASTM E797-21

INSPECTION EQUIPMENT DETAILS				TECHNICAL DETAILS			
AC YOKE S.N:	201504048	CAL DUE DATE	11-Apr-25	White Contrast WCP-2	MANUFACTURE	BATCH NO	EXPIRE DATE
Digital Lux Meter WHITE LIGHT	2722003	CAL DUE DATE	13-Apr-25		Magnaflux	220602	JUN.2025
UT THICKNESS GAUGE:	3997	CAL DUE DATE	11-Apr-25	Black Magnetic Ink 7HF	MANUFACTURE	BATCH NO	EXPIRE DATE
UT TEST BLOCK:	NoBo5087	CAL DUE DATE	12-Apr-25		Magnaflux	220605	JULY.2025
ASTM Test Block:	1657	CAL DUE DATE	11-Apr-25	Concentration of 7HF:		1.2 to2.4 ml/100 ml	
WHITE LIGHT INTENSITY:	3630 lux						

**PERSON DETAILS**

**REVIEW BY**

INSPECTOR NAME:	M. Shalwan Ahmed	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:	
QUALIFICATION:	NDT Level 2	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

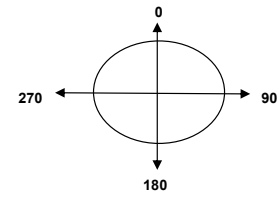


**CERTIFICATE OF QUALIFICATION VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING INSPECTION**

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

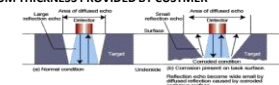
CLIENT:	<b>HALLIBURTON</b>	REPORT NO.:	QC-25-01-TSS-HALL-NDT-015
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	JOB NO :	140125
WORK ORDER #	327513387	SPECIFICATION:	ASTM E709-21 & ASTM E 79-21
DATE OF INSPECTION:	Wednesday, January 29, 2025	INSPECTION. DUE DATE:	<b>Wednesday, January 28, 2026</b>
TYPE OF INSPECTION:	<b>VISUAL INSPECTION AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING</b>		

DESCRIPTION:	BALON VALVE 3" 600 CL	SEPARATOR SAP.NO:	12483222
		SERIAL NO:	8VQK



ONLINE TRACEABILITY

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



ANGLE	THICKNESS AT POSITION		MINIMUM THICKNESS IN MM
	A	B	
0°	13.13	13.25	5.61 MM
90°	12.95	13.07	
180°	13.20	13.13	
270°	13.21	13.13	

INSPECTION RESULT		
VT & MPI	Accepted	According to ASTM E709-21
UT	Accepted	According to ASTM E 797-21

**Inspection Evaluation**

(MPI) The Above Item Has No Significant Discontinuous At The Time Of Inspection And Found Acceptable According to ASTM E709-21  
U.T-The Above Item Was Found Acceptable As Per ASTM E797-21

INSPECTION EQUIPMENT DETAILS				TECHNICAL DETAILS			
AC YOKE S.N:	201504048	CAL DUE DATE	11-Apr-25	White Contrast WCP-2	MANUFACTURE	BATCH NO	EXPIRE DATE
Digital Lux Meter WHITE LIGHT	2722003	CAL DUE DATE	13-Apr-25		Magnaflux	220602	JUN.2025
UT THICKNESS GAUGE:	3997	CAL DUE DATE	11-Apr-25	Black Magnetic Ink 7HF	MANUFACTURE	BATCH NO	EXPIRE DATE
UT TEST BLOCK:	NoBo5087	CAL DUE DATE	12-Apr-25		Magnaflux	220605	JULY.2025
ASTM Test Block:	1657	CAL DUE DATE	11-Apr-25	Concentration of 7HF:		1.2 to 2.4 ml/100 ml	
WHITE LIGHT INTENSITY:	3630 lux						

PERSON DETAILS		REVIEW BY			
INSPECTOR NAME:	M. Shalwan Ahmed	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:	
QUALIFICATION:		INSPECTION SUPERVISOR:	HANI ALI	HB&SIGN	
SIGNATURE & STAMP:				DATE:	

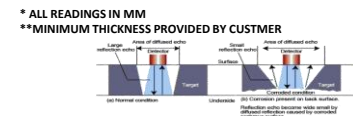
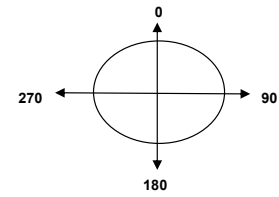


**CERTIFICATE OF QUALIFICATION VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING INSPECTION**

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

CLIENT:	<b>HALLIBURTON</b>	REPORT NO.:	QC-25-01-TSS-HALL-NDT-016
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	JOB NO :	140125
WORK ORDER #	327513387	SPECIFICATION:	ASTM E709-21 & ASTM E 79-21
DATE OF INSPECTION:	Wednesday, January 29, 2025	INSPECTION. DUE DATE:	<b>Wednesday, January 28, 2026</b>
TYPE OF INSPECTION:	<b>VISUAL INSPECTION AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING</b>		

DESCRIPTION:	BALON VALVE 3" 600 CL	SEPARATOR SAP.NO:	12483222
		SERIAL NO:	IQEE



ANGLE	THICKNESS AT POSITION		MINIMUM THICKNESS IN MM
	A	B	
0°	12.65	12.89	5.61 MM
90°	12.42	12.47	
180°	12.70	12.77	
270°	12.82	12.63	

INSPECTION RESULT		
VT & MPI	Accepted	According to ASTM E709-21
UT	Accepted	According to ASTM E 797-21

**Inspection Evaluation**

(MPI) The Above Item Has No Significant Discontinuous At The Time Of Inspection And Found Acceptable According to ASTM E709-21  
U.T-The Above Item Was Found Acceptable As Per ASTM E797-21

INSPECTION EQUIPMENT DETAILS				TECHNICAL DETAILS			
AC YOKE S.N:	201504048	CAL DUE DATE	11-Apr-25	White Contrast WCP-2	MANUFACTURE	BATCH NO	EXPIRE DATE
Digital Lux Meter WHITE LIGHT	2722003	CAL DUE DATE	13-Apr-25		Magnaflux	220602	JUN.2025
UT THICKNESS GAUGE:	3997	CAL DUE DATE	11-Apr-25	Black Magnetic Ink 7HF	MANUFACTURE	BATCH NO	EXPIRE DATE
UT TEST BLOCK:	NoBo5087	CAL DUE DATE	12-Apr-25		Magnaflux	220605	JULY.2025
ASTM Test Block:	1657	CAL DUE DATE	11-Apr-25	Concentration of 7HF:		1.2 to 2.4 ml/100 ml	
WHITE LIGHT INTENSITY:	3630 lux						

PERSON DETAILS		REVIEW BY		
INSPECTOR NAME:	M. Shalwan Ahmed	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:
QUALIFICATION:		INSPECTION SUPERVISOR:	HANI ALI	HB&SIGN
SIGNATURE & STAMP:				DATE:

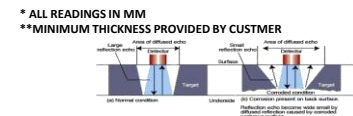
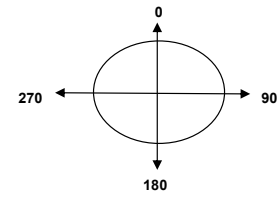


**CERTIFICATE OF QUALIFICATION VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING INSPECTION**

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

CLIENT:	<b>HALLIBURTON</b>	REPORT NO.:	QC-25-01-TSS-HALL-NDT-017
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	JOB NO :	140125
WORK ORDER #	327513387	SPECIFICATION:	ASTM E709-21 & ASTM E 79-21
DATE OF INSPECTION:	Wednesday, January 29, 2025	INSPECTION. DUE DATE:	<b>Wednesday, January 28, 2026</b>
TYPE OF INSPECTION:	<b>VISUAL INSPECTION AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING</b>		

DESCRIPTION:	BALON VALVE 2" 600 CL	SEPARATOR SAP.NO:	12483222
		SERIAL NO:	OFMF



ANGLE	THICKNESS AT POSITION		MINIMUM THICKNESS IN MM
	A	B	
0°	9.76	9.80	4.61 MM
90°	9.53	9.58	
180°	9.81	9.68	
270°	9.93	9.74	

INSPECTION RESULT		
VT & MPI	Accepted	According to ASTM E709-21
UT	Accepted	According to ASTM E 797-21

**Inspection Evaluation**

(MPI) The Above Item Has No Significant Discontinuous At The Time Of Inspection And Found Acceptable According to ASTM E709-21  
U.T-The Above Item Was Found Acceptable As Per ASTM E797-21

INSPECTION EQUIPMENT DETAILS				TECHNICAL DETAILS			
AC YOKE S.N:	201504048	CAL DUE DATE	11-Apr-25	White Contrast WCP-2	MANUFACTURE	BATCH NO	EXPIRE DATE
Digital Lux Meter WHITE LIGHT	2722003	CAL DUE DATE	13-Apr-25		Magnaflux	220602	JUN.2025
UT THICKNESS GAUGE:	3997	CAL DUE DATE	11-Apr-25	Black Magnetic Ink 7HF	MANUFACTURE	BATCH NO	EXPIRE DATE
UT TEST BLOCK:	NoBo5087	CAL DUE DATE	12-Apr-25		Magnaflux	220605	JULY.2025
ASTM Test Block:	1657	CAL DUE DATE	11-Apr-25	Concentration of 7HF:		1.2 to 2.4 ml/100 ml	
WHITE LIGHT INTENSITY:	3630 lux						

PERSON DETAILS		REVIEW BY			
INSPECTOR NAME:	M. Shalwan Ahmed	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:	
QUALIFICATION:		INSPECTION SUPERVISOR:	HANI ALI	HB&SIGN	
SIGNATURE & STAMP:				DATE:	

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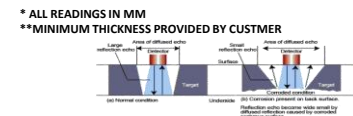
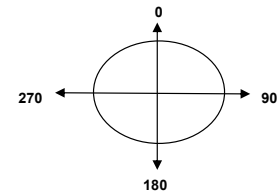


**CERTIFICATE OF QUALIFICATION VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING INSPECTION**

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

CLIENT:	<b>HALLIBURTON</b>	REPORT NO.:	QC-25-01-TSS-HALL-NDT-018
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	JOB NO :	140125
WORK ORDER #	327513387	SPECIFICATION:	ASTM E709-21 & ASTM E 79-21
DATE OF INSPECTION:	Wednesday, January 29, 2025	INSPECTION. DUE DATE:	<b>Wednesday, January 28, 2026</b>
TYPE OF INSPECTION:	<b>VISUAL INSPECTION AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING</b>		

DESCRIPTION:	BALON VALVE 2" 600 CL	SEPARATOR SAP.NO:	12483222
		SERIAL NO:	F63M



ANGLE	THICKNESS AT POSITION		MINIMUM THICKNESS IN MM
	A	B	
0°	9.67	9.79	4.61 MM
90°	9.53	9.58	
180°	9.56	9.72	
270°	9.84	9.49	

INSPECTION RESULT		
VT & MPI	Accepted	According to ASTM E709-21
UT	Accepted	According to ASTM E 797-21

**Inspection Evaluation**

(MPI) The Above Item Has No Significant Discontinuous At The Time Of Inspection And Found Acceptable According to ASTM E709-21  
U.T-The Above Item Was Found Acceptable As Per ASTM E797-21

INSPECTION EQUIPMENT DETAILS				TECHNICAL DETAILS			
AC YOKE S.N:	201504048	CAL DUE DATE	11-Apr-25	White Contrast WCP-2	MANUFACTURE	BATCH NO	EXPIRE DATE
Digital Lux Meter WHITE LIGHT	2722003	CAL DUE DATE	13-Apr-25		Magnaflux	220602	JUN.2025
UT THICKNESS GAUGE:	3997	CAL DUE DATE	11-Apr-25	Black Magnetic Ink 7HF	MANUFACTURE	BATCH NO	EXPIRE DATE
UT TEST BLOCK:	NoBo5087	CAL DUE DATE	12-Apr-25		Magnaflux	220605	JULY.2025
ASTM Test Block:	1657	CAL DUE DATE	11-Apr-25	Concentration of 7HF:		1.2 to 2.4 ml/100 ml	
WHITE LIGHT INTENSITY:	3630 lux						

PERSON DETAILS		REVIEW BY		
INSPECTOR NAME:	M. Shalwan Ahmed	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:
QUALIFICATION:		INSPECTION SUPERVISOR:	HANI ALI	HB&SIGN
SIGNATURE & STAMP:				DATE:

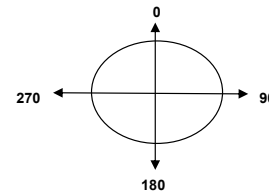


**CERTIFICATE OF QUALIFICATION VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING INSPECTION**

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

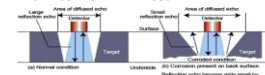
CLIENT:	<b>HALLIBURTON</b>	REPORT NO.:	QC-25-01-TSS-HALL-NDT-019
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	JOB NO :	140125
WORK ORDER #	327513387	SPECIFICATION:	ASTM E709-21 & ASTM E 79-21
DATE OF INSPECTION:	Wednesday, January 29, 2025	INSPECTION. DUE DATE:	<b>Wednesday, January 28, 2026</b>
TYPE OF INSPECTION:	<b>VISUAL INSPECTION AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING</b>		

DESCRIPTION:	BALON VALVE 2" 600 CL	SEPARATOR SAP.NO:	12483222
		SERIAL NO:	03RMA



ONLINE TRACEABILITY

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



ANGLE	THICKNESS AT POSITION		MINIMUM THICKNESS IN MM
	A	B	
0°	9.87	9.93	4.61 MM
90°	9.69	9.76	
180°	9.72	9.86	
270°	9.93	9.65	

**INSPECTION RESULT**

VT & MPI	Accepted	According to ASTM E709-21
UT	Accepted	According to ASTM E 797-21

**Inspection Evaluation**

(MPI) The Above Item Has No Significant Discontinuous At The Time Of Inspection And Found Acceptable According to ASTM E709-21

U.T-The Above Item Was Found Acceptable As Per ASTM E797-21

INSPECTION EQUIPMENT DETAILS				TECHNICAL DETAILS			
AC YOKE S.N:	201504048	CAL DUE DATE	11-Apr-25	White Contrast WCP-2	MANUFACTURE	BATCH NO	EXPIRE DATE
Digital Lux Meter WHITE LIGHT	2722003	CAL DUE DATE	13-Apr-25		Magnaflux	220602	JUN.2025
UT THICKNESS GAUGE:	3997	CAL DUE DATE	11-Apr-25	Black Magnetic Ink 7HF	MANUFACTURE	BATCH NO	EXPIRE DATE
UT TEST BLOCK:	NoBo5087	CAL DUE DATE	12-Apr-25		Magnaflux	220605	JULY.2025
ASTM Test Block:	1657	CAL DUE DATE	11-Apr-25	Concentration of 7HF:		1.2 to 2.4 ml/100 ml	
WHITE LIGHT INTENSITY:	3630 lux						

**PERSON DETAILS**

**REVIEW BY**

INSPECTOR NAME:	M. Shalwan Ahmed	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:	
QUALIFICATION:	NDT Level 2	INSPECTION SUPERVISOR:	HANI ALI	HS&SIGN	
SIGNATURE & STAMP:				DATE:	

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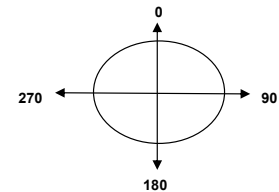


**CERTIFICATE OF QUALIFICATION VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING INSPECTION**

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

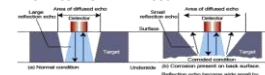
CLIENT:	<b>HALLIBURTON</b>	REPORT NO.:	QC-25-01-TSS-HALL-NDT-020
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	JOB NO :	140125
WORK ORDER #	327513387	SPECIFICATION:	ASTM E709-21 & ASTM E 79-21
DATE OF INSPECTION:	Wednesday, January 29, 2025	INSPECTION. DUE DATE:	<b>Wednesday, January 28, 2026</b>
TYPE OF INSPECTION:	<b>VISUAL INSPECTION AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING</b>		

DESCRIPTION:	BALON VALVE 2" 600 CL	SEPARATOR SAP.NO:	12483222
		SERIAL NO:	033SL



ONLINE TRACEABILITY

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



ANGLE	THICKNESS AT POSITION		MINIMUM THICKNESS IN MM
	A	B	
0°	9.72	9.56	4.61 MM
90°	9.53	9.60	
180°	9.75	9.49	
270°	9.60	9.68	

**INSPECTION RESULT**

VT & MPI	Accepted	According to ASTM E709-21
UT	Accepted	According to ASTM E 797-21

**Inspection Evaluation**

(MPI) The Above Item Has No Significant Discontinuous At The Time Of Inspection And Found Acceptable According to ASTM E709-21

U.T-The Above Item Was Found Acceptable As Per ASTM E797-21

INSPECTION EQUIPMENT DETAILS				TECHNICAL DETAILS			
AC YOKE S.N:	201504048	CAL DUE DATE	11-Apr-25	White Contrast WCP-2	MANUFACTURE	BATCH NO	EXPIRE DATE
Digital Lux Meter WHITE LIGHT	2722003	CAL DUE DATE	13-Apr-25		Magnaflux	220602	JUN.2025
UT THICKNESS GAUGE:	3997	CAL DUE DATE	11-Apr-25	Black Magnetic Ink 7HF	MANUFACTURE	BATCH NO	EXPIRE DATE
UT TEST BLOCK:	NoBo5087	CAL DUE DATE	12-Apr-25		Magnaflux	220605	JULY.2025
ASTM Test Block:	1657	CAL DUE DATE	11-Apr-25	Concentration of 7HF:		1.2 to2.4 ml/100 ml	
WHITE LIGHT INTENSITY:	3630 lux						

**PERSON DETAILS**

**REVIEW BY**

INSPECTOR NAME:	M. Shalwan Ahmed	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:	
QUALIFICATION:		INSPECTION SUPERVISOR:	HANI ALI	HB&SIGN	
SIGNATURE & STAMP:				DATE:	

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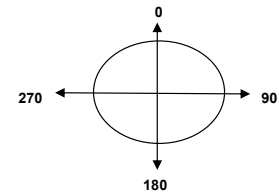


**CERTIFICATE OF QUALIFICATION VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING INSPECTION**

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

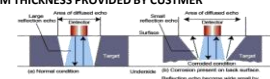
CLIENT:	<b>HALLIBURTON</b>	REPORT NO.:	QC-25-01-TSS-HALL-NDT-021
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	JOB NO :	140125
WORK ORDER #	327513387	SPECIFICATION:	ASTM E709-21 & ASTM E 79-21
DATE OF INSPECTION:	Wednesday, January 29, 2025	INSPECTION. DUE DATE:	<b>Wednesday, January 28, 2026</b>
TYPE OF INSPECTION:	<b>VISUAL INSPECTION AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING</b>		

DESCRIPTION:	BALON VALVE 2" 600 CL	SEPARATOR SAP.NO:	12483222
		SERIAL NO:	8FMJ



ONLINE TRACEABILITY

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



ANGLE	THICKNESS AT POSITION		MINIMUM THICKNESS IN MM
	A	B	
0°	9.57	9.52	4.61 MM
90°	9.50	9.59	
180°	9.43	9.45	
270°	9.53	9.36	

**INSPECTION RESULT**

VT & MPI	Accepted	According to ASTM E709-21
UT	Accepted	According to ASTM E 797-21

**Inspection Evaluation**

(MPI) The Above Item Has No Significant Discontinuous At The Time Of Inspection And Found Acceptable According to ASTM E709-21

U.T-The Above Item Was Found Acceptable As Per ASTM E797-21

INSPECTION EQUIPMENT DETAILS				TECHNICAL DETAILS			
AC YOKE S.N:	201504048	CAL DUE DATE	11-Apr-25	White Contrast WCP-2	MANUFACTURE	BATCH NO	EXPIRE DATE
Digital Lux Meter WHITE LIGHT	2722003	CAL DUE DATE	13-Apr-25		Magnaflux	220602	JUN.2025
UT THICKNESS GAUGE:	3997	CAL DUE DATE	11-Apr-25	Black Magnetic Ink 7HF	MANUFACTURE	BATCH NO	EXPIRE DATE
UT TEST BLOCK:	NoBo5087	CAL DUE DATE	12-Apr-25		Magnaflux	220605	JULY.2025
ASTM Test Block:	1657	CAL DUE DATE	11-Apr-25	Concentration of 7HF:		1.2 to 2.4 ml/100 ml	
WHITE LIGHT INTENSITY:	3630 lux						

**PERSON DETAILS**

**REVIEW BY**

INSPECTOR NAME:	M. Shalwan Ahmed	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:	
QUALIFICATION:		INSPECTION SUPERVISOR:	HANI ALI	HB&SIGN	
SIGNATURE & STAMP:				DATE:	

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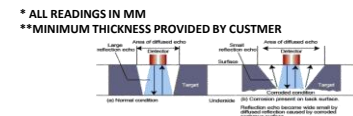
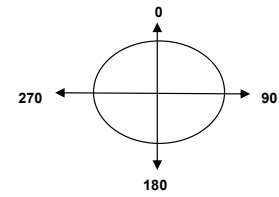


**CERTIFICATE OF QUALIFICATION VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING INSPECTION**

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

CLIENT:	<b>HALLIBURTON</b>	REPORT NO.:	QC-25-01-TSS-HALL-NDT-022
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	JOB NO :	140125
WORK ORDER #	327513387	SPECIFICATION:	ASTM E709-21 & ASTM E 79-21
DATE OF INSPECTION:	Wednesday, January 29, 2025	INSPECTION. DUE DATE:	<b>Wednesday, January 28, 2026</b>
TYPE OF INSPECTION:	<b>VISUAL INSPECTION AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING</b>		

DESCRIPTION:	BALON VALVE 2" 600 CL	SEPARATOR SAP.NO:	12483222
		SERIAL NO:	F63M



ANGLE	THICKNESS AT POSITION		MINIMUM THICKNESS IN MM
	A	B	
0°	9.83	9.90	4.61 MM
90°	9.95	9.83	
180°	9.77	9.81	
270°	9.74	9.70	

INSPECTION RESULT		
VT & MPI	Accepted	According to ASTM E709-21
UT	Accepted	According to ASTM E 797-21

**Inspection Evaluation**

(MPI) The Above Item Has No Significant Discontinuous At The Time Of Inspection And Found Acceptable According to ASTM E709-21  
U.T-The Above Item Was Found Acceptable As Per ASTM E797-21

INSPECTION EQUIPMENT DETAILS				TECHNICAL DETAILS			
AC YOKE S.N:	201504048	CAL DUE DATE	11-Apr-25	White Contrast WCP-2	MANUFACTURE	BATCH NO	EXPIRE DATE
Digital Lux Meter WHITE LIGHT	2722003	CAL DUE DATE	13-Apr-25		Magnaflux	220602	JUN.2025
UT THICKNESS GAUGE:	3997	CAL DUE DATE	11-Apr-25	Black Magnetic Ink 7HF	MANUFACTURE	BATCH NO	EXPIRE DATE
UT TEST BLOCK:	NoBo5087	CAL DUE DATE	12-Apr-25		Magnaflux	220605	JULY.2025
ASTM Test Block:	1657	CAL DUE DATE	11-Apr-25	Concentration of 7HF:		1.2 to 2.4 ml/100 ml	
WHITE LIGHT INTENSITY:	3630 lux						

PERSON DETAILS		REVIEW BY		
INSPECTOR NAME:	M. Shalwan Ahmed	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:
QUALIFICATION:		INSPECTION SUPERVISOR:	HANI ALI	HB&SIGN
SIGNATURE & STAMP:				DATE:

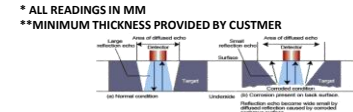
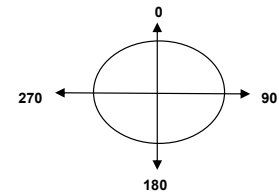


**CERTIFICATE OF QUALIFICATION VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING INSPECTION**

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

CLIENT:	<b>HALLIBURTON</b>	REPORT NO.:	QC-25-01-TSS-HALL-NDT-023
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	JOB NO :	140125
WORK ORDER #	327513387	SPECIFICATION:	ASTM E709-21 & ASTM E 79-21
DATE OF INSPECTION:	Wednesday, January 29, 2025	INSPECTION. DUE DATE:	<b>Wednesday, January 28, 2026</b>
TYPE OF INSPECTION:	<b>VISUAL INSPECTION AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING</b>		

DESCRIPTION:	BALON VALVE 2" 600 CL	SEPARATOR SAP.NO:	12483222
		SERIAL NO:	F63N-RF



ANGLE	THICKNESS AT POSITION		MINIMUM THICKNESS IN MM
	A	B	
0°	9.67	9.80	4.61 MM
90°	9.54	9.42	
180°	9.61	9.71	
270°	9.33	9.54	

INSPECTION RESULT		
VT & MPI	Accepted	According to ASTM E709-21
UT	Accepted	According to ASTM E 797-21

**Inspection Evaluation**  
(MPI) The Above Item Has No Significant Discontinuous At The Time Of Inspection And Found Acceptable According to ASTM E709-21  
U.T-The Above Item Was Found Acceptable As Per ASTM E797-21

INSPECTION EQUIPMENT DETAILS				TECHNICAL DETAILS			
AC YOKE S.N:	201504048	CAL DUE DATE	11-Apr-25	White Contrast WCP-2	MANUFACTURE	BATCH NO	EXPIRE DATE
Digital Lux Meter WHITE LIGHT	2722003	CAL DUE DATE	13-Apr-25		Magnaflux	220602	JUN.2025
UT THICKNESS GAUGE:	3997	CAL DUE DATE	11-Apr-25	Black Magnetic Ink 7HF	MANUFACTURE	BATCH NO	EXPIRE DATE
UT TEST BLOCK:	NoBo5087	CAL DUE DATE	12-Apr-25		Magnaflux	220605	JULY.2025
ASTM Test Block:	1657	CAL DUE DATE	11-Apr-25	Concentration of 7HF:		1.2 to 2.4 ml/100 ml	
WHITE LIGHT INTENSITY:	3630 lux						

PERSON DETAILS		REVIEW BY		
INSPECTOR NAME:	M. Shalwan Ahmed	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:
QUALIFICATION:		INSPECTION SUPERVISOR:	HANI ALI	HB&SIGN
SIGNATURE & STAMP:				DATE:

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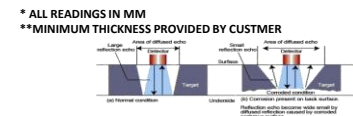
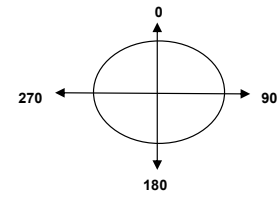


**CERTIFICATE OF QUALIFICATION VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING INSPECTION**

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

CLIENT:	<b>HALLIBURTON</b>	REPORT NO.:	QC-25-01-TSS-HALL-NDT-024
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	JOB NO :	140125
WORK ORDER #	327513387	SPECIFICATION:	ASTM E709-21 & ASTM E 79-21
DATE OF INSPECTION:	Wednesday, January 29, 2025	INSPECTION. DUE DATE:	<b>Wednesday, January 28, 2026</b>
TYPE OF INSPECTION:	<b>VISUAL INSPECTION AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING</b>		

DESCRIPTION:	BALON VALVE 2" 600 CL	SEPARATOR SAP.NO:	12483222
		SERIAL NO:	AY5279



ANGLE	THICKNESS AT POSITION		MINIMUM THICKNESS IN MM
	A	B	
0°	9.92	9.84	4.61 MM
90°	9.88	9.76	
180°	9.86	9.75	
270°	9.81	9.79	

INSPECTION RESULT		
VT & MPI	Accepted	According to ASTM E709-21
UT	Accepted	According to ASTM E 797-21

**Inspection Evaluation**

(MPI) The Above Item Has No Significant Discontinuous At The Time Of Inspection And Found Acceptable According to ASTM E709-21  
U.T-The Above Item Was Found Acceptable As Per ASTM E797-21

INSPECTION EQUIPMENT DETAILS				TECHNICAL DETAILS			
AC YOKE S.N:	201504048	CAL DUE DATE	11-Apr-25	White Contrast WCP-2	MANUFACTURE	BATCH NO	EXPIRE DATE
Digital Lux Meter WHITE LIGHT	2722003	CAL DUE DATE	13-Apr-25		Magnaflux	220602	JUN.2025
UT THICKNESS GAUGE:	3997	CAL DUE DATE	11-Apr-25	Black Magnetic Ink 7HF	MANUFACTURE	BATCH NO	EXPIRE DATE
UT TEST BLOCK:	NoBo5087	CAL DUE DATE	12-Apr-25		Magnaflux	220605	JULY.2025
ASTM Test Block:	1657	CAL DUE DATE	11-Apr-25	Concentration of 7HF:		1.2 to 2.4 ml/100 ml	
WHITE LIGHT INTENSITY:	3630 lux						

PERSON DETAILS		REVIEW BY		
INSPECTOR NAME:	M. Shalwan Ahmed	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:
QUALIFICATION:		INSPECTION SUPERVISOR:	HANI ALI	HB&SIGN
SIGNATURE & STAMP:				DATE:

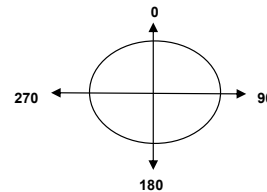


**CERTIFICATE OF QUALIFICATION VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING INSPECTION**

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

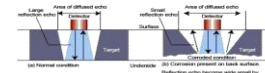
CLIENT:	<b>HALLIBURTON</b>	REPORT NO.:	QC-25-01-TSS-HALL-NDT-025
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	JOB NO :	140125
WORK ORDER #	327513387	SPECIFICATION:	ASTM E709-21 & ASTM E 79-21
DATE OF INSPECTION:	Wednesday, January 29, 2025	INSPECTION. DUE DATE:	<b>Wednesday, January 28, 2026</b>
TYPE OF INSPECTION:	<b>VISUAL INSPECTION AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING</b>		

DESCRIPTION:	BALON VALVE 2" 600 CL	SEPARATOR SAP.NO:	12483222
		SERIAL NO:	AY5281



ONLINE TRACEABILITY

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



ANGLE	THICKNESS AT POSITION		MINIMUM THICKNESS IN MM
	A	B	
0°	9.84	9.81	4.61 MM
90°	9.93	9.87	
180°	9.78	9.72	
270°	9.81	9.71	

**INSPECTION RESULT**

VT & MPI	Accepted	According to ASTM E709-21
UT	Accepted	According to ASTM E 797-21

**Inspection Evaluation**

(MPI) The Above Item Has No Significant Discontinuous At The Time Of Inspection And Found Acceptable According to ASTM E709-21

U.T-The Above Item Was Found Acceptable As Per ASTM E797-21

INSPECTION EQUIPMENT DETAILS				TECHNICAL DETAILS			
AC YOKE S.N:	201504048	CAL DUE DATE	11-Apr-25	White Contrast WCP-2	MANUFACTURE	BATCH NO	EXPIRE DATE
Digital Lux Meter WHITE LIGHT	2722003	CAL DUE DATE	13-Apr-25		Magnaflux	220602	JUN.2025
UT THICKNESS GAUGE:	3997	CAL DUE DATE	11-Apr-25	Black Magnetic Ink 7HF	MANUFACTURE	BATCH NO	EXPIRE DATE
UT TEST BLOCK:	NoBo5087	CAL DUE DATE	12-Apr-25		Magnaflux	220605	JULY.2025
ASTM Test Block:	1657	CAL DUE DATE	11-Apr-25	Concentration of 7HF:		1.2 to2.4 ml/100 ml	
WHITE LIGHT INTENSITY:	3630 lux						

**PERSON DETAILS**

**REVIEW BY**

INSPECTOR NAME:	M. Shalwan Ahmed	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:	
QUALIFICATION:		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

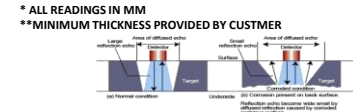
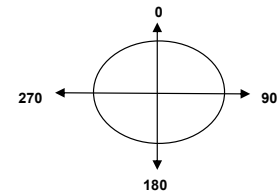


**CERTIFICATE OF QUALIFICATION VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING INSPECTION**

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

CLIENT:	<b>HALLIBURTON</b>	REPORT NO.:	QC-25-01-TSS-HALL-NDT-026
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	JOB NO :	140125
WORK ORDER #	327513387	SPECIFICATION:	ASTM E709-21 & ASTM E 79-21
DATE OF INSPECTION:	Wednesday, January 29, 2025	INSPECTION. DUE DATE:	<b>Wednesday, January 28, 2026</b>
TYPE OF INSPECTION:	<b>VISUAL INSPECTION AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING</b>		

DESCRIPTION:	BALON VALVE 2" 600 CL	SEPARATOR SAP.NO:	12483222
		SERIAL NO:	AY5283



ANGLE	THICKNESS AT POSITION		MINIMUM THICKNESS IN MM
	A	B	
0°	9.89	9.96	4.61 MM
90°	9.82	9.70	
180°	9.94	9.87	
270°	9.74	9.78	

INSPECTION RESULT		
VT & MPI	Accepted	According to ASTM E709-21
UT	Accepted	According to ASTM E 797-21

**Inspection Evaluation**  
(MPI) The Above Item Has No Significant Discontinuous At The Time Of Inspection And Found Acceptable According to ASTM E709-21  
U.T-The Above Item Was Found Acceptable As Per ASTM E797-21

INSPECTION EQUIPMENT DETAILS				TECHNICAL DETAILS			
AC YOKE S.N:	201504048	CAL DUE DATE	11-Apr-25	White Contrast WCP-2	MANUFACTURE	BATCH NO	EXPIRE DATE
Digital Lux Meter WHITE LIGHT	2722003	CAL DUE DATE	13-Apr-25		Magnaflux	220602	JUN.2025
UT THICKNESS GAUGE:	3997	CAL DUE DATE	11-Apr-25	Black Magnetic Ink 7HF	MANUFACTURE	BATCH NO	EXPIRE DATE
UT TEST BLOCK:	NoBo5087	CAL DUE DATE	12-Apr-25		Magnaflux	220605	JULY.2025
ASTM Test Block:	1657	CAL DUE DATE	11-Apr-25	Concentration of 7HF:		1.2 to 2.4 ml/100 ml	
WHITE LIGHT INTENSITY:	3630 lux						

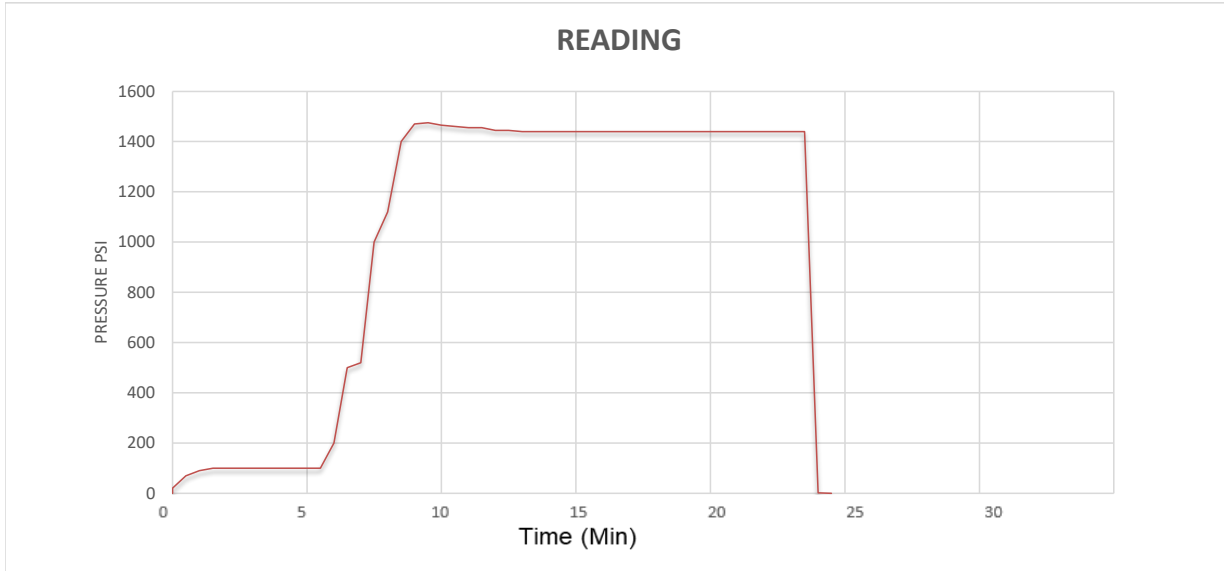
PERSON DETAILS		REVIEW BY			
INSPECTOR NAME:	M. Shalwan Ahmed	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:	
QUALIFICATION:		INSPECTION SUPERVISOR:	HANI ALI	HB&SIGN	
SIGNATURE & STAMP:				DATE:	



# Data Collection Report

Gauge Information	
Serial Number	218230280019
Model	ADT680W-25-GP30K-PSI-AM
Calibration Date	7-Mar-24
Range	30000 PSI

Run Info	
Start Time	10:35 AM
Stop Time	11:00 AM
Test Date	30-Jan-25
EQ NUMBER	12483222



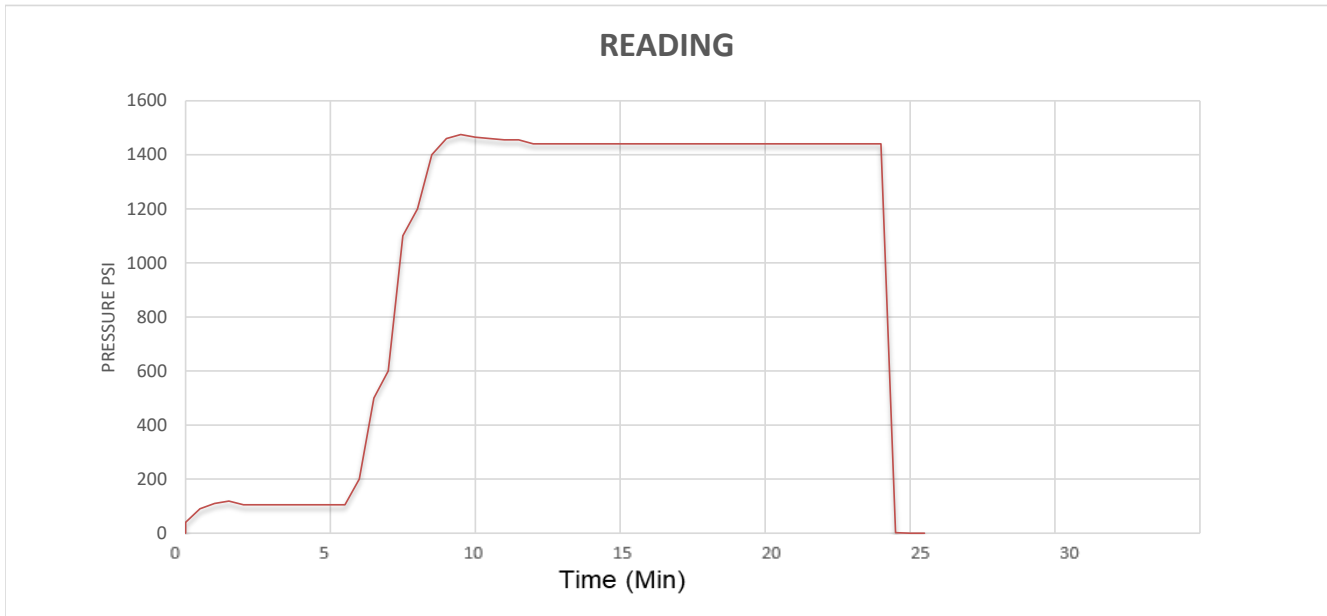
TESTED BY :      Khaldoon Asad  
APPROVED BY:    Ali Khalid  
COMMENTS:      Body/ Shell Test

SIGN:    
SIGN:  

# Data Collection Report

Gauge Information	
Serial Number	218230280019
Model	ADT680W-25-GP30K-PSI-AM
Calibration Date	7-Mar-24
Range	30000 PSI

Run Info	
Start Time	11:05 AM
Stop Time	11:30 AM
Test Date	30-Jan-25
EQ NUMBER	12483222



TESTED BY : Khaldoon Asad

APPROVED BY: Ali Khalid

COMMENTS: Against downstream valves, close gas, oil, and water outlet valves

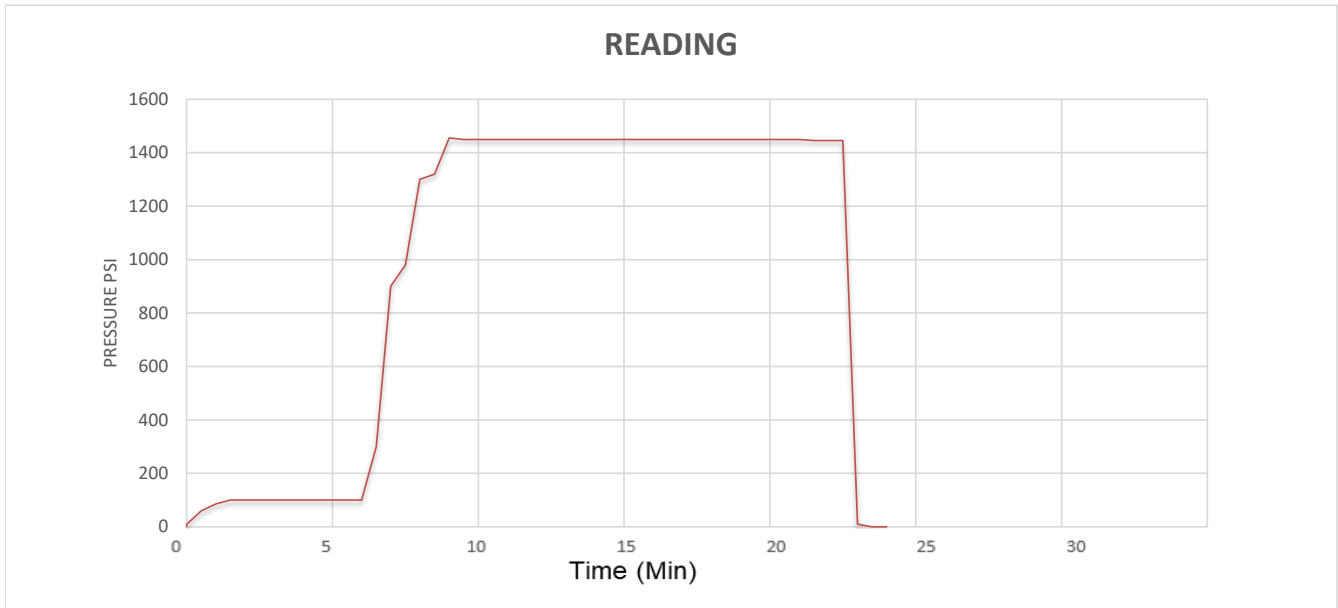
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SIGN:  

# Data Collection Report

Gauge Information	
Serial Number	218230280019
Model	ADT680W-25-GP30K-PSI-AM
Calibration Date	7-Mar-24
Range	30000 PSI

Run Info	
Start Time	11:35 AM
Stop Time	12:00 PM
Test Date	30-Jan-25
EQ NUMBER	12483222



TESTED BY : Khaldoon Asad

APPROVED BY: Ali Khalid

COMMENTS: Test against inlet check valve and water bypass, close oil/ water bypass valve, gas, oil, and water outlet valves

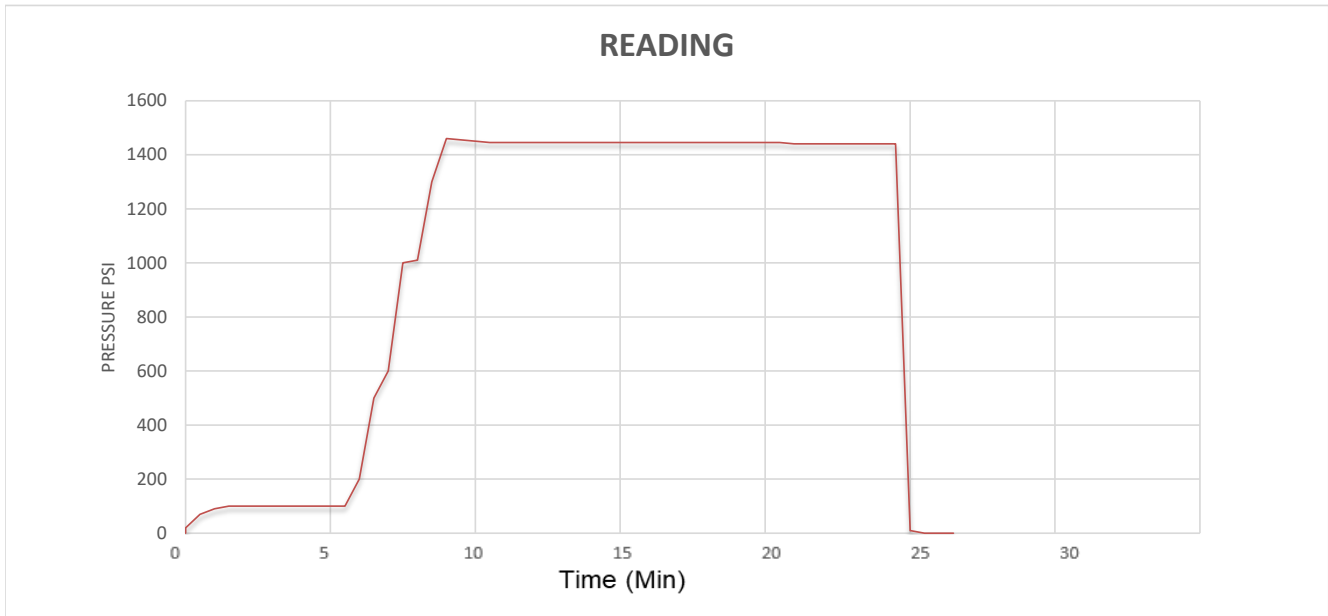
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# Data Collection Report

Gauge Information	
Serial Number	218230280019
Model	ADT680W-25-GP30K-PSI-AM
Calibration Date	7-Mar-24
Range	30000 PSI

Run Info	
Start Time	12:05 PM
Stop Time	12:30 PM
Test Date	30-Jan-25
EQ NUMBER	12483222



TESTED BY : Khaldoon Asad

APPROVED BY: Ali Khalid

COMMENTS: Against downstream valves

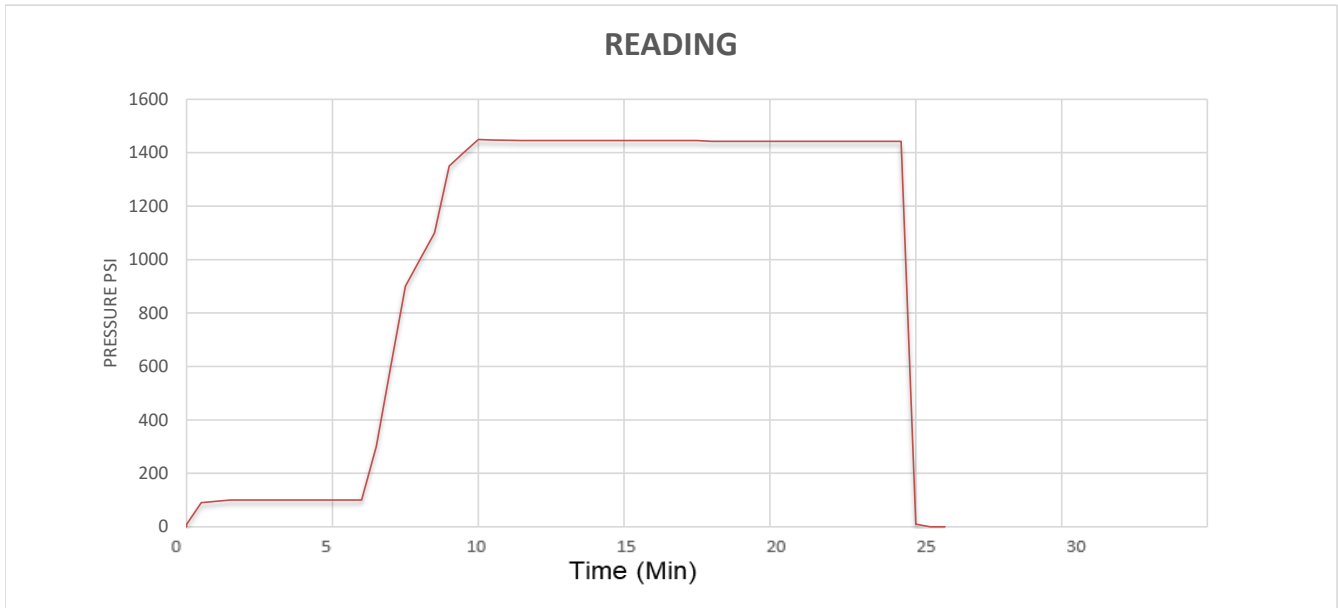
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# Data Collection Report

Gauge Information	
Serial Number	218230280019
Model	ADT680W-25-GP30K-PSI-AM
Calibration Date	7-Mar-24
Range	30000 PSI

Run Info	
Start Time	12:35 PM
Stop Time	1:00 PM
Test Date	30-Jan-25
EQ NUMBER	12483222



TESTED BY : Khaldoon Asad

APPROVED BY: Ali Khalid

COMMENTS: Close inlet valve, oil Bypass and Gas bypass Valve Test

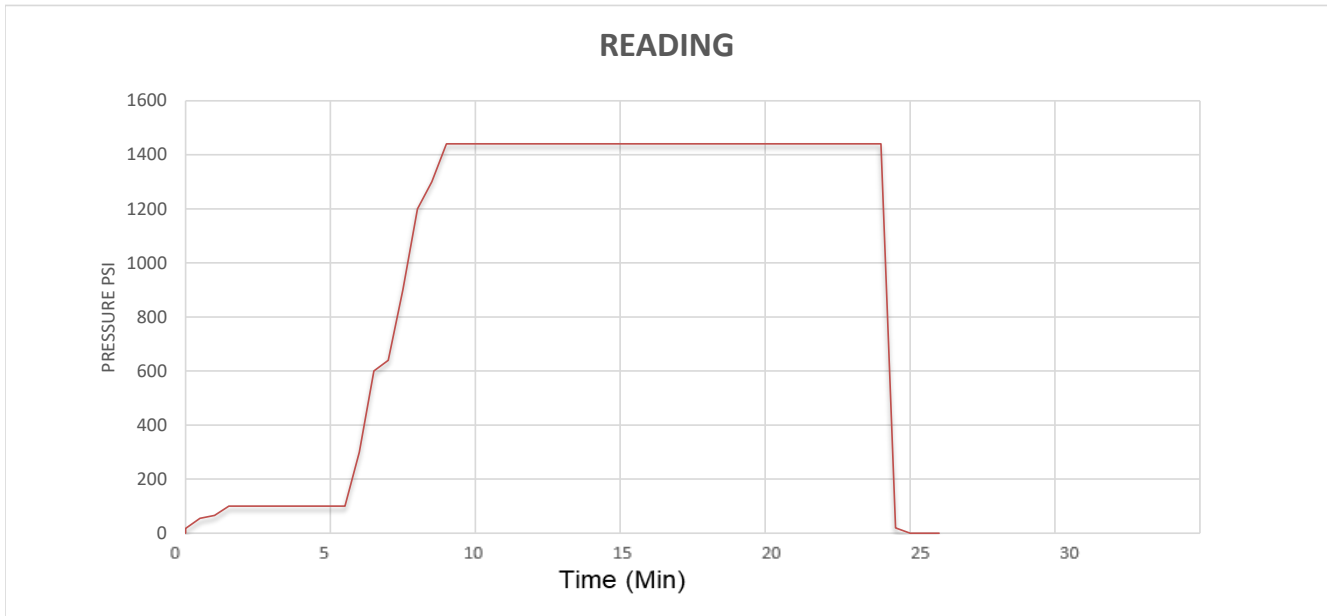
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# Data Collection Report

Gauge Information	
Serial Number	218230280019
Model	ADT680W-25-GP30K-PSI-AM
Calibration Date	7-Mar-24
Range	30000 PSI

Run Info	
Start Time	1:05 PM
Stop Time	1:30 PM
Test Date	30-Jan-25
EQ NUMBER	12483222



TESTED BY : Khaldoon Asad

APPROVED BY: Ali Khalid

COMMENTS: Inlet, Gas, Oil and Water Check Valve Test

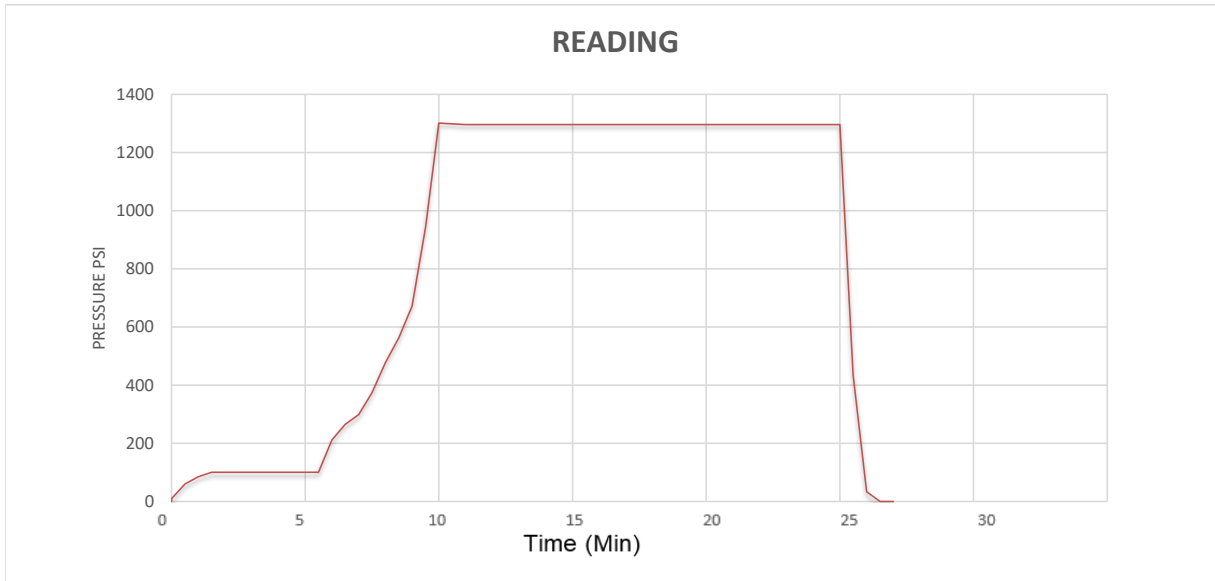
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# Data Collection Report

Gauge Information	
Serial Number	218230280019
Model	ADT680W-25-GP30K-PSI-AM
Calibration Date	7-Mar-24
Range	30000 PSI

Run Info	
Start Time	2:00 PM
Stop Time	2:25 PM
Test Date	30-Jan-25
EQ NUMBER	12483222



TESTED BY : Khaldoon Asad

APPROVED BY: Ali Khalid

COMMENTS: Body Shell Test @90% of PRV Set Point

SIGN: 

SIGN: 

