

**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-24-05-TSS-NDT-002
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	STANDARD:	ASTM E709 & ASTM E797 & ASME B31.1
WORK ORDER #	326589885		
DATE OF INSP:	Wednesday, May 29, 2024	INSP. DUE DATE:	<b>Wednesday, May 28, 2025</b>
TYPE OF INSPECTION:	VISUAL INSPECTION AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING & WITNESS PRESSURE TEST		

DESCRIPTION:	GATE VALVE 3 1/16" 15K	CHOKE MANIFOLD #	11483766
MANUFACTURER:	WORD WIDE OIL FIELD	SERIAL NO:	106294-1-1-2
<b>INSPECTION DETAILS</b>			
Max. Working Pressure:	15,000 PSI	Holding Time:	15 Min
Low pressure:	300 PSI	Holding Time:	05 Min
Pump S.N.:	13119220 Cal DUE. AUG.2024	Pressure Gauge NO.:	218230280019 Cal DUE. MARCH.2025

ONLINE TRACEABILITY

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

ANGLE	THICKNESS POINTS AREA				MINIMUM THICKNESS INCHES		
	SECTION-1 A	SECTION-1 B	SECTION-2	SECTION-3	SECTION-1	SECTION-2	SECTION-3
0°	1.415	1.451	2.936	2.904	1.290	2.650	2.460
90°	1.427	1.441	2.914	2.882	1.290	2.650	2.460
180°	1.434	1.452	2.874	2.823	1.290	2.650	2.460
270°	1.438	1.454	2.913	2.942	1.290	2.650	2.460

<b>INSPECTION RESULT</b>		
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 Accordance To ASTM E709

U.T-The Above Item Was Found Acceptable As Per ASTM E 797

Pressure Test-The Above Item was Pressure Tested up to 300 PSI a low Pressure Hold for 5 min And Maximum Working pressure 15.000 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-Oct-24	White Contrast WCP-2	MANUFACTURER	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	MANUFACTURER	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 7HF	1.2 to 2.4 ml/100 ml		
WHITE LIGHT INTENSITY:	3680 lux						

PERSON DETAILS		REVIEW BY		
INSPECTOR NAME:	M.Sherif	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:
QUALIFICATION:	ASNT LEVEL II MT, PT, UT, VT,	INSPECTION SUPERVISOR:	HANI ALI	HR&SIGN
SIGNATURE & STAMP:				DATE:

**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-24-05-TSS-NDT-003
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	STANDARD:	ASTM E709 & ASTM E797 & ASME B31.1
WORK ORDER #	326589885		
DATE OF INSP:	Wednesday, May 29, 2024	INSP. DUE DATE:	<b>Wednesday, May 28, 2025</b>
TYPE OF INSPECTION:	VISUAL INSPECTION AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING & WITNESS PRESSURE TEST		

DESCRIPTION:	GATE VALVE 3 1/16" 15K	CHOKE MANIFOLD #	11483766
MANUFACTURER:	WORD WIDE OIL FIELD	SERIAL NO:	106294-1-1-3

**INSPECTION DETAILS**

Max. Working Pressure:	15,000 PSI	Holding Time:	15 Min
Low pressure:	300 PSI	Holding Time:	05 Min
Pump S.N.:	13119220 Cal DUE. AUG.2024	Pressure Gauge NO.:	218230280019 Cal DUE. MARCH.2025

ONLINE TRACEABILITY

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

THICKNESS POINTS AREA	THICKNESS POINTS AREA				MINIMUM THICKNESS INCHES		
	SECTION-1 A	SECTION-1 B	SECTION-2	SECTION-3	SECTION-1	SECTION-2	SECTION-3
0°	1.432	1.460	2.945	2.884	1.290	2.650	2.460
90°	1.444	1.458	2.931	2.899	1.290	2.650	2.460
180°	1.451	1.469	2.883	2.841	1.290	2.650	2.460
270°	1.455	1.461	2.920	2.934	1.290	2.650	2.460

**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 Accordance To ASTM E709

U.T-The Above Item Was Found Acceptable As Per ASTM E 797

Pressure Test-The Above Item was Pressure Tested up to 300 PSI a low Pressure Hold for 5 min And Maximum Working pressure 15.000 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-Oct-24	White Contrast WCP-2	MANUFACTURER	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	MANUFACTURER	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 7HF	1.2 to 2.4 ml/100 ml		
WHITE LIGHT INTENSITY:	3680 lux						

**PERSON DETAILS**

**REVIEW BY**

INSPECTOR NAME:	M.Shahzad Ahmad	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:	
QUALIFICATION:	ASNT CP UT, VT	INSPECTION SUPERVISOR:	HANI ALI	HR&SIGN	
SIGNATURE & STAMP:				DATE:	



**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-24-05-TSS-NDT-004
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	STANDARD:	ASTM E709 & ASTM E797 & ASME B31.1
WORK ORDER #	326589885		
DATE OF INSP:	Wednesday, May 29, 2024	INSP. DUE DATE:	<b>Wednesday, May 28, 2025</b>
TYPE OF INSPECTION:	VISUAL INSPECTION AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING & WITNESS PRESSURE TEST		

DESCRIPTION:	GATE VALVE 3 1/16" 15K	CHOKE MANIFOLD #	11483766
MANUFACTURER:	WORD WIDE OIL FIELD	SERIAL NO:	106294-1-1-4

**INSPECTION DETAILS**

Max. Working Pressure:	15,000 PSI	Holding Time:	15 Min
Low pressure:	300 PSI	Holding Time:	05 Min
Pump S.N.:	13119220 Cal DUE. AUG.2024	Pressure Gauge NO.:	218230280019 Cal DUE. MARCH.2025

(a) Normal condition  
(b) Corrosion present on back surface. Reflection echo become wide small by diffused reflection caused by corroded scabrous surface.

ONLINE TRACEABILITY

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

ANGLE	THICKNESS POINTS AREA				MINIMUM THICKNESS INCHES		
	SECTION-1 A	SECTION-1 B	SECTION-2	SECTION-3	SECTION-1	SECTION-2	SECTION-3
0°	1.416	1.444	2.915	2.854	1.290	2.650	2.460
90°	1.428	1.442	2.906	2.874	1.290	2.650	2.460
180°	1.435	1.453	2.888	2.846	1.290	2.650	2.460
270°	1.439	1.445	2.904	2.916	1.290	2.650	2.460

**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 Accordance To ASTM E709

U.T-The Above Item Was Found Acceptable As Per ASTM E 797

Pressure Test-The Above Item was Pressure Tested up to 300 PSI a low Pressure Hold for 5 min And Maximum Working pressure 15.000 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-Oct-24	White Contrast WCP-2	MANUFACTURER	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	MANUFACTURER	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 7HF	1.2 to 2.4 ml/100 ml		
WHITE LIGHT INTENSITY:	3680 lux						

**PERSON DETAILS**

**REVIEW BY**

INSPECTOR NAME:	M. Shabir Ali	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:	
QUALIFICATION:	ASNT Level II MT, PT, UT, VT	INSPECTION SUPERVISOR:	HANI ALI	HR&SIGN	
SIGNATURE & STAMP:				DATE:	



**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-24-05-TSS-NDT-005
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	STANDARD:	ASTM E709 & ASTM E797 & ASME B31.1
WORK ORDER #	326589885		
DATE OF INSP:	Wednesday, May 29, 2024	INSP. DUE DATE:	<b>Wednesday, May 28, 2025</b>
TYPE OF INSPECTION:	VISUAL INSPECTION AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING & WITNESS PRESSURE TEST		

DESCRIPTION:	GATE VALVE 3 1/16" 15K	CHOKE MANIFOLD #	11483766
MANUFACTURER:	WORD WIDE OIL FIELD	SERIAL NO:	106294-1-1-5

**INSPECTION DETAILS**

Max. Working Pressure:	15,000 PSI	Holding Time:	15 Min
Low pressure:	300 PSI	Holding Time:	05 Min
Pump S.N.:	13119220 Cal DUE. AUG.2024	Pressure Gauge NO.:	218230280019 Cal DUE. MARCH.2025

ONLINE TRACEABILITY

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

ANGLE	THICKNESS POINTS AREA				MINIMUM THICKNESS INCHES		
	SECTION-1 A	SECTION-1 B	SECTION-2	SECTION-3	SECTION-1	SECTION-2	SECTION-3
0°	1.443	1.471	2.942	2.881	1.290	2.650	2.460
90°	1.455	1.469	2.933	2.901	1.290	2.650	2.460
180°	1.462	1.480	2.915	2.873	1.290	2.650	2.460
270°	1.466	1.472	2.931	2.943	1.290	2.650	2.460

**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 Accordance To ASTM E709

U.T-The Above Item Was Found Acceptable As Per ASTM E 797

Pressure Test-The Above Item was Pressure Tested up to 300 PSI a low Pressure Hold for 5 min And Maximum Working pressure 15.000 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-Oct-24	White Contrast WCP-2	MANUFACTURER	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	MANUFACTURER	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 7HF	1.2 to 2.4 ml/100 ml		
WHITE LIGHT INTENSITY:	3680 lux						

**PERSON DETAILS**

**REVIEW BY**

INSPECTOR NAME:	M. Shahzad Ali	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:	
QUALIFICATION:	SI, UT, MPI, PT, UT, VT	INSPECTION SUPERVISOR:	HANI ALI	HR&SIGN	
SIGNATURE & STAMP:				DATE:	



**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-24-05-TSS-NDT-006
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	STANDARD:	ASTM E709 & ASTM E797 & ASME B31.1
WORK ORDER #	326589885		
DATE OF INSP:	Wednesday, May 29, 2024	INSP. DUE DATE:	<b>Wednesday, May 28, 2025</b>
TYPE OF INSPECTION:	VISUAL INSPECTION AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING & WITNESS PRESSURE TEST		

DESCRIPTION:	GATE VALVE 3 1/16" 15K	CHOKE MANIFOLD #	11483766
MANUFACTURER:	WORD WIDE OIL FIELD	SERIAL NO:	106294-1-1-6

**INSPECTION DETAILS**

Max. Working Pressure:	15,000 PSI	Holding Time:	15 Min
Low pressure:	300 PSI	Holding Time:	05 Min
Pump S.N.:	13119220 Cal DUE. AUG.2024	Pressure Gauge NO.:	218230280019 Cal DUE. MARCH.2025

Area of diffused echo  
Large reflection echo  
Small reflection echo  
Surface  
Target  
Corroded condition  
Underwire  
Reflection echo become wide small by diffused reflection caused by corroded scabrous surface.

SECTION-1  
SECTION-2  
SECTION-3

ONLINE TRACEABILITY

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

ANGLE	THICKNESS POINTS AREA				MINIMUM THICKNESS INCHES		
	SECTION-1 A	SECTION-1 B	SECTION-2	SECTION-3	SECTION-1	SECTION-2	SECTION-3
0°	1.436	1.453	2.924	2.863	1.290	2.650	2.460
90°	1.450	1.462	2.926	2.894	1.290	2.650	2.460
180°	1.457	1.472	2.897	2.854	1.290	2.650	2.460
270°	1.448	1.455	2.914	2.925	1.290	2.650	2.460

**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 Accordance To ASTM E709

U.T-The Above Item Was Found Acceptable As Per ASTM E 797

Pressure Test-The Above Item was Pressure Tested up to 300 PSI a low Pressure Hold for 5 min And Maximum Working pressure 15.000 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-Oct-24	White Contrast WCP-2	MANUFACTURER	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	MANUFACTURER	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 7HF	1.2 to 2.4 ml/100 ml		
WHITE LIGHT INTENSITY:	3680 lux						

**PERSON DETAILS**

**REVIEW BY**

INSPECTOR NAME:	M. Saheeb Ahmad	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:	
QUALIFICATION:	UT, VT, MPI	INSPECTION SUPERVISOR:	HANI ALI	HR&SIGN	
SIGNATURE & STAMP:				DATE:	



**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-24-05-TSS-NDT-007
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	STANDARD:	ASTM E709 & ASTM E797 & ASME B31.1
WORK ORDER #	326589885		
DATE OF INSP:	Wednesday, May 29, 2024	INSP. DUE DATE:	<b>Wednesday, May 28, 2025</b>
TYPE OF INSPECTION:	VISUAL INSPECTION AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING & WITNESS PRESSURE TEST		

DESCRIPTION:	GATE VALVE 3 1/16" 15K	CHOKE MANIFOLD #	11483766
MANUFACTURER:	WORD WIDE OIL FIELD	SERIAL NO:	106294-1-1-7

**INSPECTION DETAILS**

Max. Working Pressure:	15,000 PSI	Holding Time:	15 Min
Low pressure:	300 PSI	Holding Time:	05 Min
Pump S.N.:	13119220 Cal DUE. AUG.2024	Pressure Gauge NO.:	218230280019 Cal DUE. MARCH.2025

(a) Normal condition  
Large reflection echo  
Small reflection echo  
Target

(b) Corrosion present on back surface.  
Reflection echo become wide small by diffused reflection caused by corroded scabrous surface.

SECTION-1  
SECTION-2  
SECTION-3

ONLINE TRACEABILITY

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

ANGLE	THICKNESS POINTS AREA				MINIMUM THICKNESS INCHES		
	SECTION-1 A	SECTION-1 B	SECTION-2	SECTION-3	SECTION-1	SECTION-2	SECTION-3
0°	1.424	1.443	2.914	2.856	1.290	2.650	2.460
90°	1.438	1.450	2.914	2.882	1.290	2.650	2.460
180°	1.445	1.460	2.887	2.844	1.290	2.650	2.460
270°	1.436	1.443	2.902	2.913	1.290	2.650	2.460

**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 Accordance To ASTM E709

U.T-The Above Item Was Found Acceptable As Per ASTM E 797

Pressure Test-The Above Item was Pressure Tested up to 300 PSI a low Pressure Hold for 5 min And Maximum Working pressure 15.000 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-Oct-24	White Contrast WCP-2	MANUFACTURER	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	MANUFACTURER	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 7HF	1.2 to 2.4 ml/100 ml		
WHITE LIGHT INTENSITY:	3680 lux						

**PERSON DETAILS**

**REVIEW BY**

INSPECTOR NAME:	M.Shahzad Ahmed	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:	
QUALIFICATION:	ASNT LEVEL II MPI, UT	INSPECTION SUPERVISOR:	HANI ALI	HR&SIGN	
SIGNATURE & STAMP:				DATE:	

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



**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-24-05-TSS-NDT-008
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	STANDARD:	ASTM E709 & ASTM E797 & ASME B31.1
WORK ORDER #	326589885		
DATE OF INSP:	Wednesday, May 29, 2024	INSP. DUE DATE:	<b>Wednesday, May 28, 2025</b>
TYPE OF INSPECTION:	VISUAL INSPECTION AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING & WITNESS PRESSURE TEST		

DESCRIPTION:	GATE VALVE 3 1/16" 15K	CHOKE MANIFOLD #	11483766
MANUFACTURER:	WORD WIDE OIL FIELD	SERIAL NO:	106294-1-1-8

**INSPECTION DETAILS**

Max. Working Pressure:	15,000 PSI	Holding Time:	15 Min
Low pressure:	300 PSI	Holding Time:	05 Min
Pump S.N.:	13119220 Cal DUE. AUG.2024	Pressure Gauge NO.:	218230280019 Cal DUE. MARCH.2025

(a) Normal condition  
Large reflection echo  
Area of diffused echo  
Detector  
Target

(b) Corrosion present on back surface.  
Underline  
Small reflection echo  
Area of diffused echo  
Detector  
Target  
Corroded condition  
Reflection echo become wide small by diffused reflection caused by corroded scabrous surface.

SECTION-1  
SECTION-2  
SECTION-3

ONLINE TRACEABILITY

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

ANGLE	THICKNESS POINTS AREA				MINIMUM THICKNESS INCHES		
	SECTION-1 A	SECTION-1 B	SECTION-2	SECTION-3	SECTION-1	SECTION-2	SECTION-3
0°	1.438	1.458	2.870	2.838	1.290	2.650	2.460
90°	1.452	1.464	2.928	2.896	1.290	2.650	2.460
180°	1.463	1.475	2.902	2.859	1.290	2.650	2.460
270°	1.452	1.461	2.920	2.931	1.290	2.650	2.460

**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 Accordance To ASTM E709

U.T-The Above Item Was Found Acceptable As Per ASTM E 797

Pressure Test-The Above Item was Pressure Tested up to 300 PSI a low Pressure Hold for 5 min And Maximum Working pressure 15.000 psi Hold 15 min no Leak was Realized while testing & Pressure Was Stable Accordance To Chart Recorder Attached

**INSPECTION EQUIPMENT DETAILS**

**TECHNICAL DETAILS**

INSPECTION EQUIPMENT DETAILS				TECHNICAL DETAILS			
AC YOKE S.N:	201504052	CAL DUE DATE	14-Oct-24	White Contrast WCP-2	MANUFACTURER	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	MANUFACTURER	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 7HF	1.2 to 2.4 ml/100 ml		
WHITE LIGHT INTENSITY:	3680 lux						

**PERSON DETAILS**

**REVIEW BY**

INSPECTOR NAME:	M. Shahad Abbar	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:	
QUALIFICATION:	ASNT CP 1, UT, VT	INSPECTION SUPERVISOR:	HANI ALI	HR&SIGN	
SIGNATURE & STAMP:				DATE:	



**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-24-05-TSS-NDT-009
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	STANDARD:	ASTM E709 & ASTM E797 & ASME B31.1
WORK ORDER #	326589885		
DATE OF INSP:	Wednesday, May 29, 2024	INSP. DUE DATE:	<b>Wednesday, May 28, 2025</b>
TYPE OF INSPECTION:	VISUAL INSPECTION AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING & WITNESS PRESSURE TEST		

DESCRIPTION:	BLOCK 3 1/16" 15K	CHOKE MANIFOLD #	11483766
MANUFACTURER:	WORD WIDE OIL FIELD	SERIAL NO:	106294-1-2-1

**INSPECTION DETAILS**

Max. Working Pressure:	15,000 PSI	Holding Time:	15 Min
Low pressure:	300 PSI	Holding Time:	05 Min
Pump S.N.:	13119220 Cal DUE. AUG.2024	Pressure Gauge NO.:	218230280019 Cal DUE. MARCH.2025

(a) Normal condition: Large reflection echo, Area of diffused echo, Target, Surface.  
(b) Corrosion present on back surface: Small reflection echo, Area of diffused echo, Target, Corroded condition. Reflection echo become wide small by diffused reflection caused by corroded back surface.

ONLINE TRACEABILITY

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

ANGLE	THICKNESS POINTS AREA			MINIMUM THICKNESS INCHES
	A	B	C	
0°	4.882	4.950	4.963	4.720
90°	4.889	4.892	4.893	
180°	4.903	4.926	4.983	
270°	4.921	4.929	4.938	

**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 Accordance To ASTM E709

U.T-The Above Item Was Found Acceptable As Per ASTM E 797

Pressure Test-The Above Item was Pressure Tested up to 300 PSI A low Pressure Hold for 5 min And Maximum Working pressure 15.000 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-Oct-24	White Contrast WCP-2	MANUFACTURER	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 7HF	1.2 to 2.4 ml/100 ml		
WHITE LIGHT INTENSITY:	3680 lux						

**PERSON DETAILS**

**REVIEW BY**

INSPECTOR NAME:	M Shabhad Ahmad	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:	
QUALIFICATION:	ASNT CP, UT, VT, PT	INSPECTION SUPERVISOR:	HANI ALI	HBSIGN	
SIGNATURE & STAMP:				DATE:	

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**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-24-05-TSS-NDT-010
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	STANDARD:	ASTM E709 & ASTM E797 & ASME B31.1
WORK ORDER #	326589885		
DATE OF INSP:	Wednesday, May 29, 2024	INSP. DUE DATE:	<b>Wednesday, May 28, 2025</b>
TYPE OF INSPECTION:	VISUAL INSPECTION AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING & WITNESS PRESSURE TEST		

DESCRIPTION:	BLOCK 3 1/16" 15K	CHOKER MANIFOLD #	11483766
MANUFACTURER:	WORD WIDE OIL FIELD	SERIAL NO:	106294-1-9-2

**INSPECTION DETAILS**

Max. Working Pressure:	15,000 PSI	Holding Time:	15 Min
Low pressure:	300 PSI	Holding Time:	05 Min
Pump S.N.:	13119220 Cal DUE. AUG.2024	Pressure Gauge NO.:	218230280019 Cal DUE. MARCH.2025

(a) Normal condition  
Large reflection echo  
Area of diffused echo  
Target

(b) Corrosion present on back surface  
Small reflection echo  
Surface  
Area of diffused echo  
Target

(c) Corroded condition  
Reflection echo become wide small by diffused reflection caused by corroded surface.

ONLINE TRACEABILITY

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

ANGLE	THICKNESS POINTS AREA			MINIMUM THICKNESS INCHES
	A	B	C	
0°	4.878	4.923	4.936	4.720
90°	4.890	4.893	4.894	
180°	4.904	4.927	4.956	
270°	4.897	4.905	4.914	

**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 Accordance To ASTM E709

U.T-The Above Item Was Found Acceptable As Per ASTM E 797

Pressure Test-The Above Item was Pressure Tested up to 300 PSI A low Pressure Hold for 5 min And Maximum Working pressure 15.000 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-Oct-24	White Contrast WCP-2	MANUFACTURER	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	MANUFACTURER	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 7HF	1.2 to 2.4 ml/100 ml		
WHITE LIGHT INTENSITY:	3680 lux						

**PERSON DETAILS**

**REVIEW BY**

INSPECTOR NAME:	M Shabhad Ahmad	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:	
QUALIFICATION:	ASNT CP, UT, VT, PT	INSPECTION SUPERVISOR:	HANI ALI	HR SIGN:	
SIGNATURE & STAMP:				DATE:	

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**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-24-05-TSS-NDT-011
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	STANDARD:	ASTM E709 & ASTM E797 & ASME B31.1
WORK ORDER #	326589885		
DATE OF INSP:	Wednesday, May 29, 2024	INSP. DUE DATE:	<b>Wednesday, May 28, 2025</b>
TYPE OF INSPECTION:	VISUAL INSPECTION AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING & WITNESS PRESSURE TEST		

DESCRIPTION:	BLOCK 3 1/16" 15K	CHOKE MANIFOLD #	11483766
MANUFACTURER:	WORD WIDE OIL FIELD	SERIAL NO:	106294-1-7-1

**INSPECTION DETAILS**

Max. Working Pressure:	15,000 PSI	Holding Time:	15 Min
Low pressure:	300 PSI	Holding Time:	05 Min
Pump S.N.:	13119220 Cal DUE. AUG.2024	Pressure Gauge NO.:	218230280019 Cal DUE. MARCH.2025

(a) Normal condition  
Large reflection echo  
Area of diffused echo  
Target  
Surface

(b) Corrosion present on back surface  
Small reflection echo  
Area of diffused echo  
Target  
Corroded condition  
Reflection echo become wide small by diffused reflection caused by corroded back surface.

ONLINE TRACEABILITY

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

ANGLE	THICKNESS POINTS AREA			MINIMUM THICKNESS INCHES
	A	B	C	
0°	4.858	4.926	4.939	4.720
90°	4.870	4.873	4.874	
180°	4.884	4.907	4.959	
270°	4.886	4.894	4.903	

**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 Accordance To ASTM E709

U.T-The Above Item Was Found Acceptable As Per ASTM E 797

Pressure Test-The Above Item was Pressure Tested up to 300 PSI A low Pressure Hold for 5 min And Maximum Working pressure 15.000 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-Oct-24	White Contrast WCP-2	MANUFACTURER	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 7HF	1.2 to 2.4 ml/100 ml		
WHITE LIGHT INTENSITY:	3680 lux						

**PERSON DETAILS**

**REVIEW BY**

INSPECTOR NAME:	M Shabhad Ahmad	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:	
QUALIFICATION:	ASNT CP, UT, VT, PT	INSPECTION SUPERVISOR:	HANI ALI	HR SIGN	
SIGNATURE & STAMP:				DATE:	

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**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-24-05-TSS-NDT-012
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	STANDARD:	ASTM E709 & ASTM E797 & ASME B31.1
WORK ORDER #	326589885		
DATE OF INSP:	Wednesday, May 29, 2024	INSP. DUE DATE:	<b>Wednesday, May 28, 2025</b>
TYPE OF INSPECTION:	VISUAL INSPECTION AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING & WITNESS PRESSURE TEST		

DESCRIPTION:	BLOCK 3 1/16" 15K	CHOKER MANIFOLD #	11483766
MANUFACTURER:	WORD WIDE OIL FIELD	SERIAL NO:	106294-1-9-1

**INSPECTION DETAILS**

Max. Working Pressure:	15,000 PSI	Holding Time:	15 Min
Low pressure:	300 PSI	Holding Time:	05 Min
Pump S.N.:	13119220 Cal DUE. AUG.2024	Pressure Gauge NO.:	218230280019 Cal DUE. MARCH.2025

(a) Normal condition: Large reflection echo, Area of diffused echo, Target, Distance.

(b) Corrosion present on back surface: Small reflection echo, Area of diffused echo, Target, Distance. Reflection echo become wide small by diffused reflection caused by corroded back surface.

ONLINE TRACEABILITY

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

ANGLE	THICKNESS POINTS AREA			MINIMUM THICKNESS INCHES
	A	B	C	
0°	4.854	4.922	4.935	4.720
90°	4.861	4.864	4.865	
180°	4.875	4.898	4.955	
270°	4.893	4.901	4.910	

**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 Accordance To ASTM E709

U.T-The Above Item Was Found Acceptable As Per ASTM E 797

Pressure Test-The Above Item was Pressure Tested up to 300 PSI A low Pressure Hold for 5 min And Maximum Working pressure 15.000 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-Oct-24	White Contrast WCP-2	MANUFACTURER	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	MANUFACTURER	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 7HF	1.2 to 2.4 ml/100 ml		
WHITE LIGHT INTENSITY:	3680 lux						

**PERSON DETAILS**

**REVIEW BY**

INSPECTOR NAME:	M Shabhad Ahmad	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:	
QUALIFICATION:	ASNT CP, UT, VT, PT	INSPECTION SUPERVISOR:	HANI ALI	HR SIGN:	
SIGNATURE & STAMP:				DATE:	

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**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

<b>CLIENT:</b>	<b>HALLIBURTON</b>	<b>REPORT No.:</b>	QC-24-05-TSS-NDT-013
<b>LOCATION:</b>	<b>TSS WORKSHOP &amp; INSPECTION TEST AREA</b>	<b>STANDARD:</b>	ASTM E709 & ASTM E797 & ASME B31.1
<b>WORK ORDER #</b>	326589885		
<b>DATE OF INSP:</b>	Wednesday, May 29, 2024	<b>INSP. DUE DATE:</b>	<b>Wednesday, May 28, 2025</b>
<b>TYPE OF INSPECTION:</b>	<b>VISUAL INSPECTION AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING &amp; WITNESS PRESSURE TEST</b>		

<b>DESCRIPTION:</b>	<b>POSITIVE CHOKE 3 1/16" 15K</b>	<b>CHOKE MANIFOLD #</b>	<b>11483766</b>
<b>MANUFACTURER:</b>	<b>WORD WIDE OIL FIELD</b>	<b>SERIAL NO:</b>	<b>106294-1-5-1</b>
<b>INSPECTION DETAILS</b>			
<b>Max. Working Pressure:</b>	<b>15,000 PSI</b>	<b>Holding Time:</b>	<b>15 Min</b>
<b>Low pressure:</b>	<b>300 PSI</b>	<b>Holding Time:</b>	<b>05 Min</b>
<b>Pump S.N.:</b>	<b>13119220 Cal DUE. AUG.2024</b>	<b>Pressure Gauge NO.:</b>	<b>218230280019 Cal DUE. MARCH.2025</b>

(a) Normal condition  
Underside  
Reflection echo become wide small by diffraction reflection caused by corroded anomalous surface.

**ONLINE TRACEABILITY**

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

ANGLE	THICKNESS POINTS AREA		MINIMUM THICKNESS INCHES	
	SECTION 1	SECTION 2	SECTION 1	SECTION 2
0°	1.567	1.618	1.360 INCH	1.360 INCH
90°	1.579	1.610		
180°	1.593	1.605		
270°	1.585	1.597		

<b>INSPECTION RESULT</b>			
<b>VT &amp; MPI</b>	Accepted	* ACCORDING TO ASTM E709	
<b>UT</b>	Accepted	According to ASTM E 797	
<b>BODY</b>	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 Accordance To ASTM E709

**U.T-**The Above Item Was Found Acceptable As Per ASTM E 797

**Pressure Test-**The Above Item was Pressure Tested up to 300 PSI A low Pressure Hold for 5 min And Maximum Working pressure 15.000 psi Hold 15 min no Leak was Realized while testing & Pressure Was Stable Accordance To Chart Recorder Attached

INSPECTION EQUIPMENT DETAILS				TECHNICAL DETAILS			
<b>AC YOKE S.N:</b>	201504052	<b>CAL DUE DATE</b>	14-Oct-24	<b>White Contrast</b> WCP-2	<b>MANUFACTURER</b>	<b>BATCH NO</b>	<b>EXPIRE DATE</b>
<b>Digital Lux Meter</b> <b>WHITE LIGHT</b>	2722003	<b>CAL DUE DATE</b>	16-Oct-24		Magnaflux	220602	JUN,2025
<b>UT THICKNESS GAUGE:</b>	3997	<b>CAL DUE DATE</b>	14-Oct-24	<b>Black Magnetic</b> Ink 7HF	<b>MANUFACTURER</b>	<b>BATCH NO</b>	<b>EXPIRE DATE</b>
<b>UT TEST BLOCK:</b>	NoBo5087	<b>CAL DUE DATE</b>	15-Oct-24		Magnaflux	220605	JULY,2025
<b>ASTM Test Block:</b>	1657	<b>CAL DUE DATE</b>	14-Oct-24	<b>Fluorescent Magnetic Ink</b> 7HF	<b>1.2 to 2.4 ml/100 ml</b>		
<b>WHITE LIGHT INTENSITY:</b>	3680 lux						

PERSON DETAILS		REVIEW BY			
<b>INSPECTOR NAME:</b>	M. Shahzad Ahmed	<b>SENIOR INSPECTOR:</b>	NAVEED HUSSAIN	<b>CLIENT:</b>	
<b>QUALIFICATION:</b>	AI TAKAMUL COMPANY FOR ENGINEERING TESTS AND PROFESSIONAL SAFETY LIMITED	<b>INSPECTION SUPERVISOR:</b>	HANI ALI	<b>HBASIGN</b>	
<b>SIGNATURE &amp; STAMP:</b>				<b>DATE:</b>	



**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

<b>CLIENT:</b>	<b>HALLIBURTON</b>	<b>REPORT No.:</b>	QC-24-05-TSS-NDT-014
<b>LOCATION:</b>	<b>TSS WORKSHOP &amp; INSPECTION TEST AREA</b>	<b>STANDARD:</b>	ASTM E709 & ASTM E797 & ASME B31.1
<b>WORK ORDER #</b>	326589885		
<b>DATE OF INSP:</b>	Wednesday, May 29, 2024	<b>INSP. DUE DATE:</b>	<b>Wednesday, May 28, 2025</b>
<b>TYPE OF INSPECTION:</b>	<b>VISUAL INSPECTION AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING &amp; WITNESS PRESSURE TEST</b>		

<b>DESCRIPTION:</b>	<b>ADJUSTABLE CHOKE 3 1/16" 15K</b>	<b>CHOKE MANIFOLD #</b>	<b>11483766</b>
<b>MANUFACTURER:</b>	<b>WORD WIDE OIL FIELD</b>	<b>SERIAL NO:</b>	<b>106294-1-4-1</b>
<b>INSPECTION DETAILS</b>			
<b>Max. Working Pressure:</b>	<b>15,000 PSI</b>	<b>Holding Time:</b>	<b>15 Min</b>
<b>Low pressure:</b>	<b>300 PSI</b>	<b>Holding Time:</b>	<b>05 Min</b>
<b>Pump S.N.:</b>	<b>13119220 Cal DUE. AUG.2024</b>	<b>Pressure Gauge NO.:</b>	<b>218230280019 Cal DUE. MARCH.2025</b>

(a) Normal condition  
(b) Corrosion present on back surface.  
Reflection echo become wide small by diffused reflection caused by corroded irregular surface.

**ONLINE TRACEABILITY**

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

ANGLE	THICKNESS POINTS AREA		MINIMUM THICKNESS INCHES	
	SECTION 1	SECTION 2	SECTION 1	SECTION 2
0°	1.552	1.603	1.360 INCH	1.360 INCH
90°	1.564	1.595		
180°	1.578	1.590		
270°	1.570	1.582		

<b>INSPECTION RESULT</b>		
<b>VT &amp; MPI</b>	Accepted	* ACCORDING TO ASTM E709
<b>UT</b>	Accepted	According to ASTM E 797
<b>BODY</b>	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 Accordance To ASTM E709

**U.T**-The Above Item Was Found Acceptable As Per ASTM E 797

**Pressure Test**-The Above Item was Pressure Tested up to 300 PSI a low Pressure Hold for 5 min And Maximum Working pressure 15.000 psi Hold 15 min no Leak was Realized while testing & Pressure Was Stable Accordance To Chart Recorder Attached

INSPECTION EQUIPMENT DETAILS				TECHNICAL DETAILS			
<b>AC YOKE S.N.:</b>	201504052	<b>CAL DUE DATE</b>	14-Oct-24	<b>White Contrast</b> WCP-2	<b>MANUFACTURER</b>	<b>BATCH NO</b>	<b>EXPIRE DATE</b>
<b>Digital Lux Meter WHITE LIGHT</b>	2722003	<b>CAL DUE DATE</b>	16-Oct-24		Magnaflux	220602	JUN.2025
<b>UT THICKNESS GAUGE:</b>	3997	<b>CAL DUE DATE</b>	14-Oct-24	<b>Black Magnetic Ink 7HF</b>	<b>MANUFACTURER</b>	<b>BATCH NO</b>	<b>EXPIRE DATE</b>
<b>UT TEST BLOCK:</b>	NoBo5087	<b>CAL DUE DATE</b>	15-Oct-24		Magnaflux	220605	JULY.2025
<b>ASTM Test Block:</b>	1657	<b>CAL DUE DATE</b>	14-Oct-24	<b>Fluorescent Magnetic Ink 7HF</b>	1.2 to 2.4 ml/100 ml		
<b>WHITE LIGHT INTENSITY:</b>	3680 lux						

PERSON DETAILS		REVIEW BY			
<b>INSPECTOR NAME:</b>	M. Shanzad Ahmed	<b>SENIOR INSPECTOR:</b>	NAVEED HUSSAIN	<b>CLIENT:</b>	
<b>QUALIFICATION:</b>	AI L. 10117-1-1-2024-VT	<b>INSPECTION SUPERVISOR:</b>	HANI ALI	<b>HR&amp;SIGN</b>	
<b>SIGNATURE &amp; STAMP:</b>				<b>DATE:</b>	



**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-24-05-TSS-NDT-015
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	STANDARD:	ASTM E709 & ASTM E797 & ASME B31.1
WORK ORDER #	326589885		
DATE OF INSP:	Wednesday, May 29, 2024	INSP. DUE DATE:	<b>Wednesday, May 28, 2025</b>
TYPE OF INSPECTION:	VISUAL INSPECTION AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING & WITNESS PRESSURE TEST		

DESCRIPTION:	SPOOL 3 1/16" 15K	CHOKE MANIFOLD #	11483766
MANUFACTURER:	WORD WIDE OIL FIELD	SERIAL NO:	22051-1

**INSPECTION DETAILS**

Max. Working Pressure:	15,000 PSI	Holding Time:	15 Min
Low pressure:	300 PSI	Holding Time:	05 Min
Pump S.N.:	13119220 Cal DUE. AUG.2024	Pressure Gauge NO.:	218230280019 Cal DUE. MARCH.2025

**ONLINE TRACEABILITY**

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

ANGLE	THICKNESS POINTS AREA			MINIMUM THICKNESS
	A	B	C	
0°	1.781	1.808	1.821	1.425 INCH
90°	1.788	1.791	1.792	
180°	1.802	1.807	1.790	
270°	1.820	1.808	1.817	

**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 Accordance To ASTM E709  
 U.T-The Above Item Was Found Acceptable As Per ASTM E 797  
**Pressure Test**-The Above Item was Pressure Tested up to 300 PSI A low Pressure Hold for 5 min And Maximum Working pressure 15.000 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-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 7HF	1.2 to 2.4 ml/100 ml		
WHITE LIGHT INTENSITY:	3680 lux						

**PERSON DETAILS**

**REVIEW BY**

INSPECTOR NAME:	M. Shanzad Ahmed	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:	
QUALIFICATION:	AI TAKAMUL COMPANY FOR ENGINEERING TESTS AND PROFESSIONAL SAFETY LIMITED	INSPECTION SUPERVISOR:	HANI ALI	HB&SIGN	
SIGNATURE & STAMP:				DATE:	



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

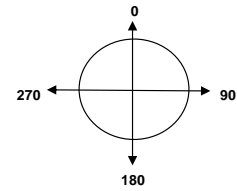
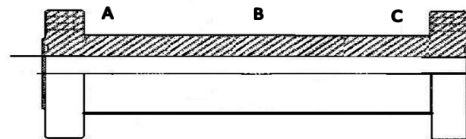
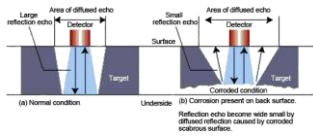
THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

CLIENT:	<b>HALLIBURTON</b>	REPORT No.:	QC-24-05-TSS-NDT-016
LOCATION:	TSS WORKSHOP & INSPECTION TEST AREA	STANDARD:	ASTM E709 & ASTM E797 & ASME B31.1
WORK ORDER #	326589885		
DATE OF INSP:	Wednesday, May 29, 2024	INSP. DUE DATE:	<b>Wednesday, May 28, 2025</b>
TYPE OF INSPECTION:	VISUAL INSPECTION AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING & WITNESS PRESSURE TEST		

DESCRIPTION:	SPOOL 3 1/16" 15K	CHOKE MANIFOLD #	11483766
MANUFACTURER:	WORD WIDE OIL FIELD	SERIAL NO:	M36031-1

**INSPECTION DETAILS**

Max. Working Pressure:	15,000 PSI	Holding Time:	15 Min
Low pressure:	300 PSI	Holding Time:	05 Min
Pump S.N.:	13119220 Cal DUE. AUG.2024	Pressure Gauge NO.:	218230280019 Cal DUE. MARCH.2025



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

ANGLE	THICKNESS POINTS AREA			MINIMUM THICKNESS INCHES
	A	B	C	
0°	1.772	1.794	1.805	1.425 INCH
90°	1.779	1.782	1.783	
180°	1.793	1.798	1.776	
270°	1.811	1.797	1.806	

**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 Accordance To ASTM E709  
 U.T-The Above Item Was Found Acceptable As Per ASTM E 797  
 Pressure Test-The Above Item was Pressure Tested up to 300 PSI A low Pressure Hold for 5 min And Maximum Working pressure 15.000 psi Hold 15 min no Leak was Realized while testing & Pressure Was Stable Accordance To Chart Recorder Attached

**INSPECTION EQUIPMENT DETAILS**

**TECHNICAL DETAILS**

INSPECTION EQUIPMENT DETAILS				TECHNICAL DETAILS			
AC YOKE S.N:	201504052	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 7HF	1.2 to 2.4 ml/100 ml		
WHITE LIGHT INTENSITY:	3680 lux						




**PERSON DETAILS**

**REVIEW BY**

INSPECTOR NAME:	M. Shanzad Ahmed	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT:	
QUALIFICATION:	AIIB/PT/077	INSPECTION SUPERVISOR:	HANI ALI	HB&SIGN	
SIGNATURE & STAMP:				DATE:	



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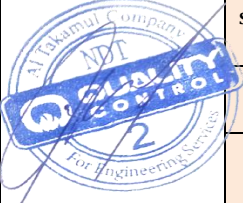


CERTIFICATION OF VISUAL, THOROUGH EXAMINATION & MAGNETIC PARTICLE INSPECTION											
<b>Client:</b>		HALLIBURTON (TSS)			<b>Report No:</b>		QC-24-05-TSS-NDT-017				
<b>Location:</b>		TSS WORKSHOP & INSPECTION TEST AREA			<b>WORK ORDER</b>		326589885				
<b>Inspection Date:</b>		Wednesday, May 29, 2024			<b>Next Inspection Date:</b>		Wednesday, May 28, 2025				
<b>Type Of Inspection:</b>		VISUAL , THOROUGH EXAMINATION & MAGNETIC PARTICLE INSPECTION			<b>Specification:</b>		ASTM E709 & ASTM E 1444 (2016) ASME V Article 7 (2019) & API 6A				
				<b>UNIT DESCRIPTION:</b>		BLIND FLANGE 3 1/16" 15K					
				<b>UNIT S/N:</b>		M33867-10					
				<b>CHOKE MANIFOLD S/N:</b>		11483766					
				<b>INSPECTION RESULT :</b>							
				<b>VISUAL , THOROUGH EXAMINATION</b>		VISUAL & MAGNETIC PARTICLE INSPECTION ( M.P.I. ) HAD BEEN DONE ON THE AVAILABLE AREAS FOR THE ABOVE DESCRIPTION					
				<b>MAGNETIC PARTICLE INSPECTION</b>		Available critical areas inspected and found free from cracks and other defects					
				<b>FINAL RESULTS</b>		THE ABOVE INSPECTED AREAS WAS ACCEPTED					
<b>COMMENT:</b>											
Magnetic Particle Inspection With A/C Hand Yoke , Black & White Contrast											
EQUIPMENT DETAILS					PERSON DETAILS			REVIEW BY			
<b>Equipment:</b>	AC-Yoke Test Block	<b>Equipment:</b>	Digital Lux Meter	<b>Equipment:</b>	AC/DC Yoke	<b>INSPECTOR NAME:</b>		<b>SENIOR INSPECTOR:</b>	NAVEED HUSSAIN		
<b>S.No:</b>	1657	<b>S.No:</b>	2722003	<b>S.No:</b>	201504052			<b>QUALIFICATION</b>	<b>SUPERVISOR:</b>	HANI ALI	
<b>Cal Due Date:</b>	14-Oct-24	<b>Cal Due Date:</b>	16-Oct-24	<b>Cal Due Date:</b>	14-Oct-24	ASNT LEVEL II MT & PT & VT		<b>CLIENT:</b>			
<b>Black Magnetic Ink Manufacture:</b>	Magnaflux	<b>Batch No:</b>	220605	<b>Expiry Date:</b>	JULY.2025	<b>STAMP &amp; SIGNATURE:</b>					
<b>White Contrast Paint Manufacture:</b>	Magnaflux	<b>Batch No:</b>	220602	<b>Expiry Date:</b>	JUN,2025						
<b>Technical Details:</b>	<b>Magnetic Partical Concentration</b>		<b>Method</b>		<b>WMPT Light Intensity</b>						
	1.2 to 2.4 ml/100 ml		Wet Magnetic Particle Testing (WMPT)		3680 Lux						




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### CERTIFICATION OF VISUAL, THOROUGH EXAMINATION & MAGNETIC PARTICLE INSPECTION

<b>Client:</b>	HALLIBURTON (TSS)	<b>Report No:</b>	QC-24-05-TSS-NDT-018
<b>Location:</b>	TSS WORKSHOP & INSPECTION TEST AREA	<b>WORK ORDER</b>	326589885
<b>Inspection Date:</b>	Wednesday, May 29, 2024	<b>Next Inspection Date:</b>	Wednesday, May 28, 2025
<b>Type Of Inspection:</b>	VISUAL, THOROUGH EXAMINATION & MAGNETIC PARTICLE INSPECTION	<b>Specification:</b>	ASTM E709 & ASTM E 1444 (2016) ASME V Article 7 (2019) & API 6A
		<b>UNIT DESCRIPTION:</b>	BLIND FLANGE 3 1/16" 15K
		<b>UNIT S/N:</b>	M33867-7
		<b>CHOKE MANIFOLD S/N:</b>	11483766
		<b>INSPECTION RESULT :</b>	
		<b>VISUAL , THOROUGH EXAMINATION</b>	VISUAL & MAGNETIC PARTICLE INSPECTION ( M.P.I. ) HAD BEEN DONE ON THE AVAILABLE AREAS FOR THE ABOVE DESCRIPTION
		<b>MAGNETIC PARTICLE INSPECTION</b>	Available critical areas inspected and found free from cracks and other defects
		<b>FINAL RESULTS</b>	THE ABOVE INSPECTED AREAS WAS ACCEPTED
<b>COMMENT:</b>			
Magnetic Particle Inspection With A/C Hand Yoke , Black & White Contrast			

EQUIPMENT DETAILS						PERSON DETAILS		REVIEW BY	
<b>Equipment:</b>	AC-Yoke Test Block	<b>Equipment:</b>	Digital Lux Meter	<b>Equipment:</b>	AC/DC Yoke	<b>INSPECTOR NAME:</b> M.Shahzad Ahmed		<b>SENIOR INSPECTOR:</b>	NAVEED HUSSAIN
<b>S.No:</b>	1657	<b>S.No:</b>	2722003	<b>S.No:</b>	201504052			<b>QUALIFICATION</b> ASNT LEVEL II MT & PT & VT	<b>SUPERVISOR:</b>
<b>Cal Due Date:</b>	14-Oct-24	<b>Cal Due Date:</b>	16-Oct-24	<b>Cal Due Date:</b>	14-Oct-24	<b>STAMP &amp; SIGNATURE:</b>	<b>CLIENT:</b>		
<b>Black Magnetic Ink Manufacture:</b>	Magnaflux	<b>Batch No:</b>	220605	<b>Expiry Date:</b>	JULY,2025				
<b>White Contrast Paint Manufacture:</b>	Magnaflux	<b>Batch No:</b>	220602	<b>Expiry Date:</b>	JUN,2025				
<b>Technical Details:</b>	<b>Magnetic Partical Concentration</b>		<b>Method</b>		<b>WMPT Light Intensity</b>				
	1.2 to 2.4 ml/100 ml		Wet Magnetic Particle Testing (WMPT)		3680 Lux				

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CERTIFICATION OF VISUAL, THOROUGH EXAMINATION & MAGNETIC PARTICLE INSPECTION									
<b>Client:</b>		HALLIBURTON (TSS)			<b>Report No:</b>		QC-24-05-TSS-NDT-019		
<b>Location:</b>		TSS WORKSHOP & INSPECTION TEST AREA			<b>WORK ORDER</b>		326589885		
<b>Inspection Date:</b>		Wednesday, May 29, 2024			<b>Next Inspection Date:</b>		Wednesday, May 28, 2025		
<b>Type Of Inspection:</b>		VISUAL , THOROUGH EXAMINATION & MAGNETIC PARTICLE INSPECTION			<b>Specification:</b>		ASTM E709 & ASTM E 1444 (2016) ASME V Article 7 (2019) & API 6A		
					<b>UNIT DESCRIPTION:</b>		BLIND FLANGE 3 1/16" 15K		
					<b>UNIT S/N:</b>		M33867-1		
					<b>CHOKE MANIFOLD S/N:</b>		11483766		
					<b>INSPECTION RESULT :</b>				
					<b>VISUAL , THOROUGH EXAMINATION</b>		VISUAL & MAGNETIC PARTICLE INSPECTION ( M.P.I. ) HAD BEEN DONE ON THE AVAILABLE AREAS FOR THE ABOVE DESCRIPTION		
					<b>MAGNETIC PARTICLE INSPECTION</b>		Available critical areas inspected and found free from cracks and other defects		
					<b>FINAL RESULTS</b>		THE ABOVE INSPECTED AREAS WAS ACCEPTED		
<b>COMMENT:</b>						Magnetic Particle Inspection With A/C Hand Yoke , Black & White Contrast			
EQUIPMENT DETAILS						PERSON DETAILS		REVIEW BY	
<b>Equipment:</b>	AC-Yoke Test Block	<b>Equipment:</b>	Digital Lux Meter	<b>Equipment:</b>	AC/DC Yoke	<b>INSPECTOR NAME:</b>		<b>SENIOR INSPECTOR:</b>	NAVEED HUSSAIN
<b>S.No:</b>	1657	<b>S.No:</b>	2722003	<b>S.No:</b>	201504052			<b>QUALIFICATION</b>	<b>SUPERVISOR:</b>
<b>Cal Due Date:</b>	14-Oct-24	<b>Cal Due Date:</b>	16-Oct-24	<b>Cal Due Date:</b>	14-Oct-24	<b>ASNT LEVEL II</b>		<b>CLIENT:</b>	
<b>Black Magnetic Ink Manufacture:</b>	Magnaflux	<b>Batch No:</b>	220605	<b>Expiry Date:</b>	JULY.2025				<b>MT &amp; PT &amp; VT</b>
<b>Whie Contrast Paint Manufacture:</b>	Magnaflux	<b>Batch No:</b>	220602	<b>Expiry Date:</b>	JUN,2025				
<b>Technical Details:</b>	<b>Magnetic Partical Concentration</b>		<b>Method</b>		<b>WMPT Light Intensity</b>	<b>STAMP &amp; SIGNATURE:</b>			
	1.2 to 2.4 ml/100 ml		Wet Magnetic Particle Testing (WMPT)		3680 Lux				

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**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

<b>CLIENT:</b>	<b>HALLIBURTON</b>	<b>REPORT No.:</b>	QC-24-05-TSS-NDT-020
<b>LOCATION:</b>	TSS WORKSHOP & INSPECTION TEST AREA	<b>STANDARD:</b>	ASTM E709 & ASTM E797 & ASME B31.1
<b>WORK ORDER #</b>	326589886		
<b>DATE OF INSP:</b>	Wednesday, May 29, 2024	<b>INSP. DUE DATE:</b>	Wednesday, May 28, 2025
<b>TYPE OF INSPECTION:</b>	VISUAL INSPECTION AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING & WITNESS PRESSURE TEST		

<b>DESCRIPTION:</b>	DATA HEADER 3 1/16" 15K	<b>SAP NO:</b>	11483044
<b>MANUFACTURER:</b>	WORD WIDE OIL FIELD	<b>SERIAL NO:</b>	101869560

**INSPECTION DETAILS**

<b>Max. Working Pressure:</b>	15,000 PSI	<b>Holding Time:</b>	15 Min
<b>Low pressure:</b>	300 PSI	<b>Holding Time:</b>	05 Min
<b>Pump S.N.:</b>	13119220 Cal DUE. AUG.2024	<b>Pressure Gauge NO.:</b>	218230280019 Cal DUE. MARCH.2025

(a) Normal condition: Large reflection echo, Area of diffused echo, Detector, Target.

(b) Corroded condition: Small reflection echo, Surface, Area of diffused echo, Corroded condition, Detector, Target. Reflection echo become wide small by diffused reflection caused by corroded surface.

ONLINE TRACEABILITY

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

ANGLE	THICKNESS POINTS AREA			MINIMUM THICKNESS
	A	B	C	
0°	1.623	1.674	1.793	1.425 INCH
90°	1.630	1.633	1.732	
180°	1.644	1.667	1.781	
270°	1.662	1.670	1.772	

**INSPECTION RESULT**

<b>VT &amp; MPI</b>	Accepted	* ACCORDING TO ASTM E709
<b>UT</b>	Accepted	According to ASTM E 797
<b>BODY</b>	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 Accordance To ASTM E709

**U.T-**The Above Item Was Found Acceptable As Per ASTM E 797

**Pressure Test-**The Above Item was Pressure Tested up to 300 PSI A low Pressure Hold for 5 min And Maximum Working pressure 15.000 psi Hold 15 min no Leak was Realized while testing & Pressure Was Stable Accordance To Chart Recorder Attached

**INSPECTION EQUIPMENT DETAILS**

**TECHNICAL DETAILS**

INSPECTION EQUIPMENT DETAILS				TECHNICAL DETAILS			
AC YOKE S.N:	201504052	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 7HF	1.2 to 2.4 ml/100 ml		
WHITE LIGHT INTENSITY:	3680 lux						

**PERSON DETAILS**

**REVIEW BY**

<b>INSPECTOR NAME:</b>	M. Shanzad Ahmed	<b>SENIOR INSPECTOR:</b>	NAVEED HUSSAIN	<b>CLIENT:</b>	
<b>QUALIFICATION:</b>	AI TAKAMUL COMPANY FOR ENGINEERING TESTS AND PROFESSIONAL SAFETY LIMITED	<b>INSPECTION SUPERVISOR:</b>	HANI ALI	<b>HS&amp;SIGN</b>	
<b>SIGNATURE &amp; STAMP:</b>				<b>DATE:</b>	

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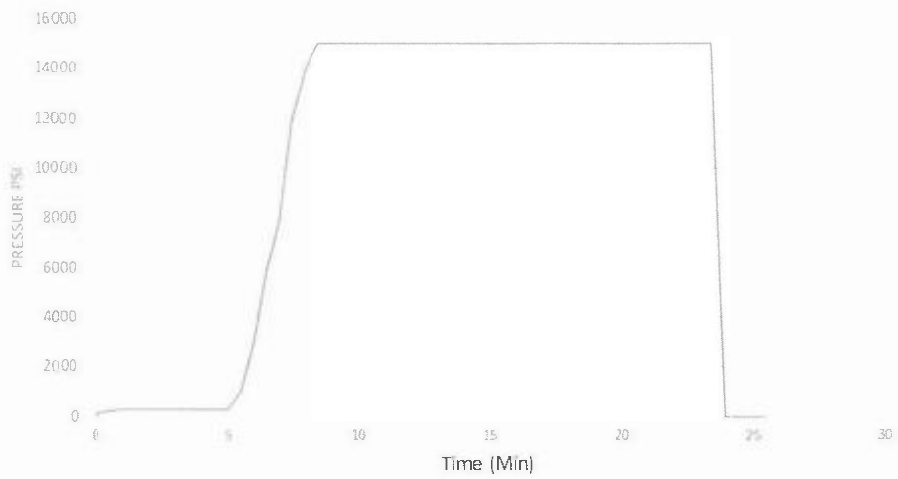


# Data Collection Report

Gauge Information	
Serial Number	218230280019
Model	ADT680W-25-GP30K-PSI-AM
Message Store	TSS test area
Units	PSI
SCALE	30000 PSI

Run Info	
Start Time	10:00 AM
Stop Time	10:24 AM
Test Date	30-May-24
EQ NUMBER	11483766
LAST CALIB	7-Mar-24

## READING



TESTED BY: Feras Abbas  
APPROVED BY: Hassan Kamel  
COMMENTS: Body Test



SIGN:

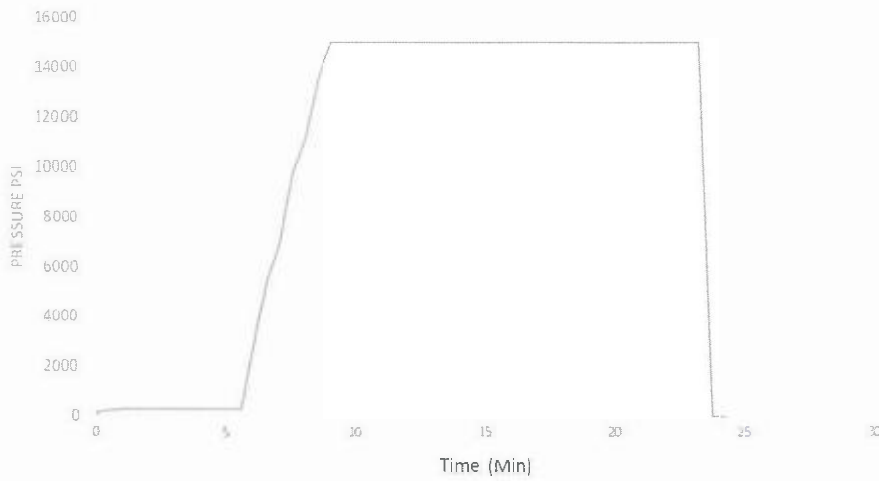
SIGN:

# Data Collection Report

Gauge Information	
Serial Number	218230280019
Model	ADT680W-25-GP30K-PSI-AM
Message Store	TSS test area
Units	PSI
SCALE	30000 PSI

Run Info	
Start Time	10:30 AM
Stop Time	10:54 AM
Test Date	30-May-24
EQ NUMBER	11483766
LAST CALIB	7-Mar-24

## READING



TESTED BY: Feras Abbas  
APPROVED BY: Hassan Kamel  
COMMENTS: Upstream

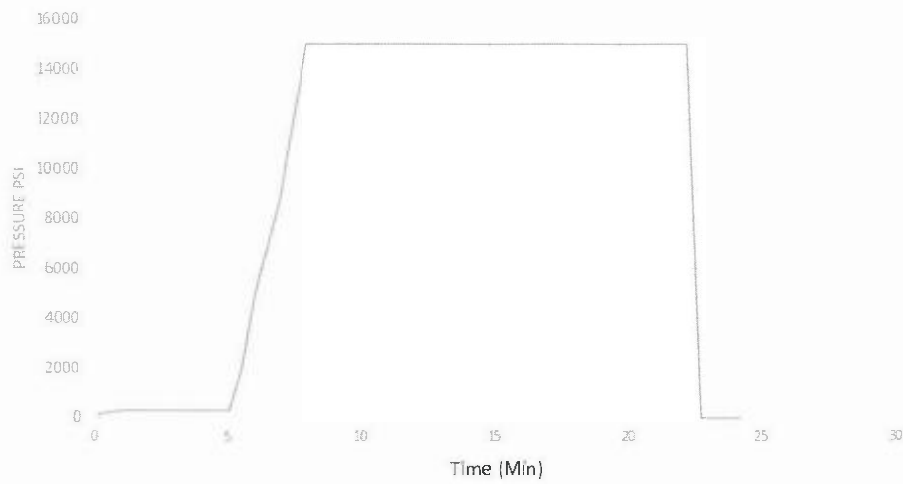


## Data Collection Report

Gauge Information	
Serial Number	218230280019
Model	ADT680W-25-GP30K-PSI-AM
Message Store	TSS test area
Units	PSI
SCALE	30000 PSI

Run Info	
Start Time	11:00 AM
Stop Time	11:24 AM
Test Date	30-May-24
EQ NUMBER	11483766
LASTCALIB	7-Mar-24

### READING



TESTED BY: Feras Abbas  
APPROVED BY: Hassan Kamel  
COMMENTS: Downstream

SIGN:

SIGN: *H. Kamel*

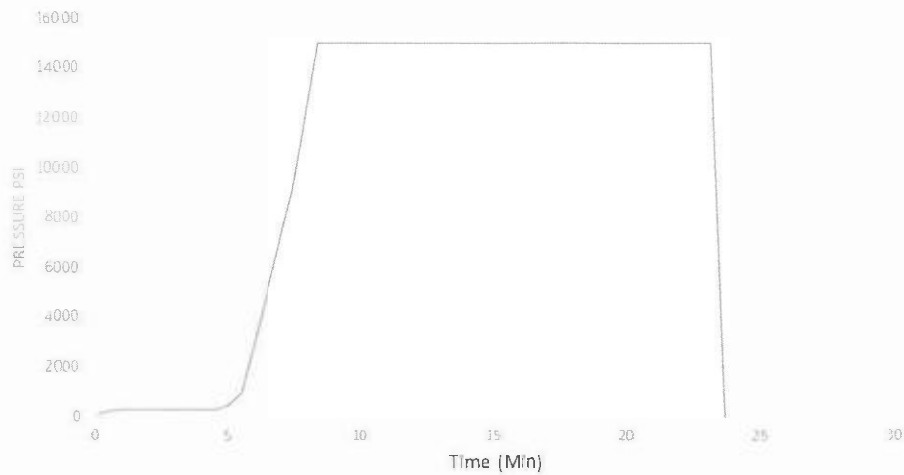


## Data Collection Report

Gauge Information	
Serial Number	218230280019
Model	ADT680W-25-GP30K-PSI-AM
Message Store	TSS test area
Units	PSI
SCALE	30000 PSI

Run Info	
Start Time	11:30 AM
Stop Time	11:54 AM
Test Date	30-May-24
EQ NUMBER	11483766
LASTCALIB	7-Mar-24

### READING



TESTED BY: Feras Abbas  
APPROVED BY: Hassan Kamel  
COMMENTS: Downstream stream valve from Upstream

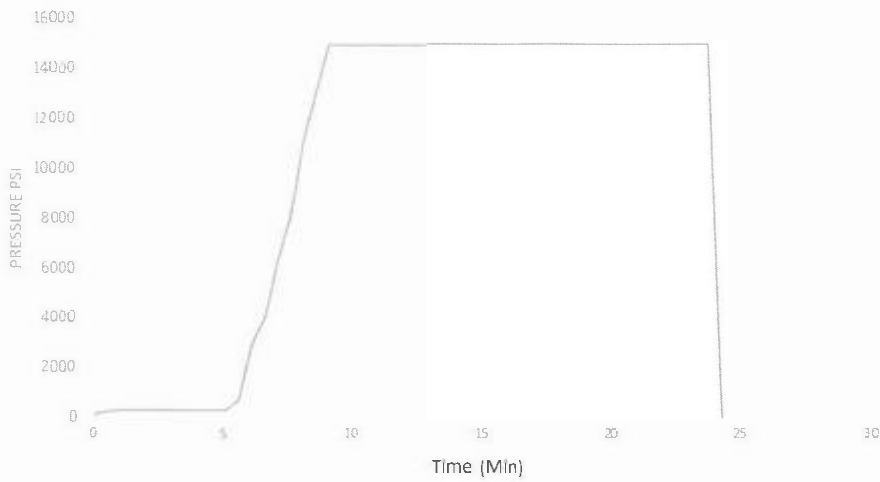


# Data Collection Report

Gauge Information	
Serial Number	218230280019
Model	ADT680W-25-GP30K-PSI-AM
Message Store	TSS test area
Units	PSI
SCALE	30000 PSI

Run Info	
Start Time	12:00 AM
Stop Time	12:24 AM
Test Date	30-May-24
EQ NUMBER	11483766
LAST CALIB	7-Mar-24

## READING



TESTED BY : Feras Abbas  
APPROVED BY: Hassan Kamel  
COMMENTS: Upstream valve from Downstream

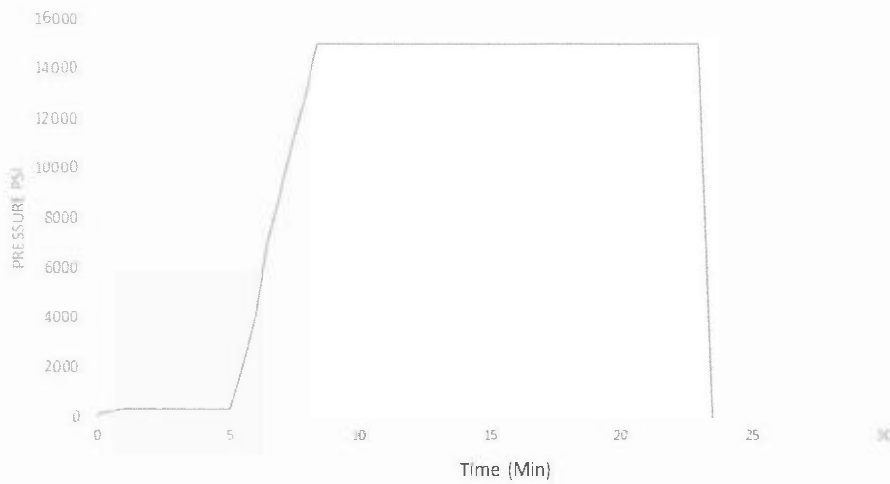


# Data Collection Report

Gauge Information	
Serial Number	218230280019
Model	ADT680W-25-GP30K-PSI-AM
Message Store	TSS test area
Units	PSI
SCALE	30000 PSI

Run Info	
Start Time	12:30 AM
Stop Time	12:54 AM
Test Date	30-May-24
EQ NUMBER	11483044
LAST CALIB	7-Mar-24

## READING



TESTED BY: Feras Abbas  
APPROVED BY: Hassan Kamel  
COMMENTS: Data Header test

