

AI TAKAMUL COMPANY FOR ENGINEERING TESTS AND PROFESSIONAL SAFETY LIMITED

Basra, North Rumaila, Quality Control Yard - Iraq

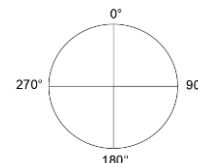
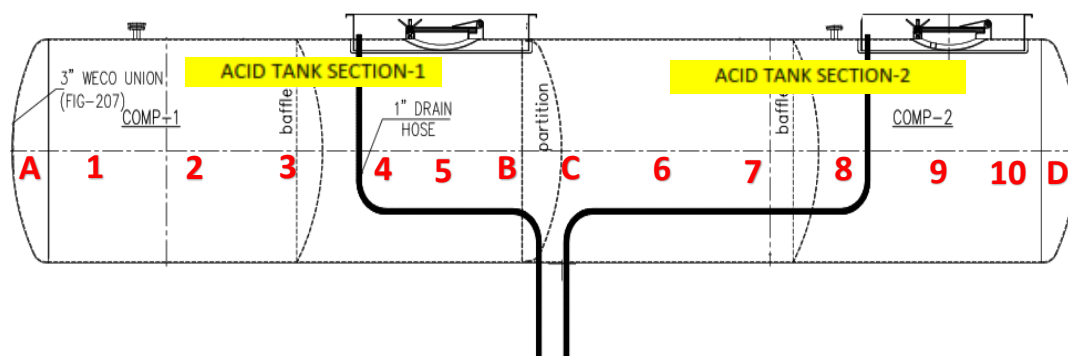


CERTIFICATE OF QUALIFICATION VISUAL INSPECTION, LEAK TEST, LINING THICKNESS AND SPARK TESTING

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

CLIENT:	HALLIBURTON	REPORT No.:	QC-TRANSPORT- ACID-24-MAY-001
LOCATION:	HPS HALLIBURTON YARD BASRA IRAQ	specification	WM-GL-HAL-PE-STIM-202
INSPECTION DATE:	Thursday, May 9, 2024	Due Date	Thursday, May 8, 2025
TYPE OF INSPECTION:	*VISUAL TESTING (EXTERNAL & INTERNAL) *LEAK TESTING *LINING THICKNESS * SPARK TESTING		
DESCRIPTION:	6200 USG (2 COMP) ACID TANK	ACID TANK SAP NO:	11873941
MANUFACTURE :	AL SHIRAWI EQUIPMENT COMPANY	LINING COATING MATERIAL:	TIP TOP LINING 74 S
SPARK TESTER SR NO:	07155	CAL DUE DATE:	16-Oct-2024
MODEL:	PCWI DC30	TEST VOLTAGE:	0.70 KV
COATING THICKNESS INSTRUMENT SR.NO	373291	CAL DUE DATE:	15-Oct-2024

INSPECTION DETAILS



SAP. NO:	POSITION	ACID TANK SECTION-1 LINING THICKNESS MEASUREMENTS IN MM							MINIMUM LINING THICKNESS IN MM
		HEAD A	BODY POINT 1	BODY POINT 2	BODY POINT 3	BODY POINT 4	BODY POINT 5	HEAD B	
11873941	0°	3.92	3.94	4.16	4.14	3.83	3.76	3.96	2.7 MM TO 3 MM
	90°	4.01	3.89	3.80	3.74	3.76	3.82	4.14	
	180°	4.04	3.74	3.85	3.92	3.94	3.85	3.97	
	270°	3.86	3.77	3.81	3.84	3.85	3.84	3.86	
SAP. NO:	POSITION	ACID TANK SECTION-2 LINING THICKNESS MEASUREMENTS IN MM							MINIMUM LINING THICKNESS IN MM
		HEAD C	BODY POINT 6	BODY POINT 7	BODY POINT 8	BODY POINT 9	BODY POINT 10	HEAD D	
11873941	0°	3.88	3.90	4.14	4.12	3.79	3.72	3.81	2.7 MM TO 3 MM
	90°	3.97	3.85	3.76	3.70	3.72	3.78	4.10	
	180°	4.09	3.79	3.81	3.88	3.90	3.81	3.93	
	270°	3.82	3.73	3.77	3.80	3.81	3.80	3.82	

INSPECTION RESULT

SPARK TESTING-The Above Item Was Found Acceptable As Per Manufacture Acceptance Criteria.

LINING THICKNESS-The Above Item Was Found Acceptable As Per Manufacture Acceptance Criteria.

LEAK TESTING-The Above Item Was Found Acceptable As Per Manufacture Acceptance Criteria.

PERSONNEL DETAILS		REVIEW BY			
INSPECTOR NAME:	M. Shanzad Ahmed	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT NAME:	
QUALIFICATION:	ASNT Level 3	INSPECTION SUPERVISOR:	HANI ALI	DATE:	
STAMP & SIGNATURE:				SIGNATURE:	

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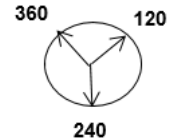
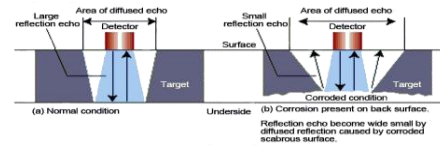
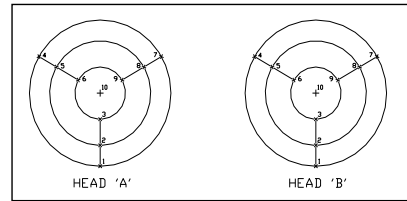
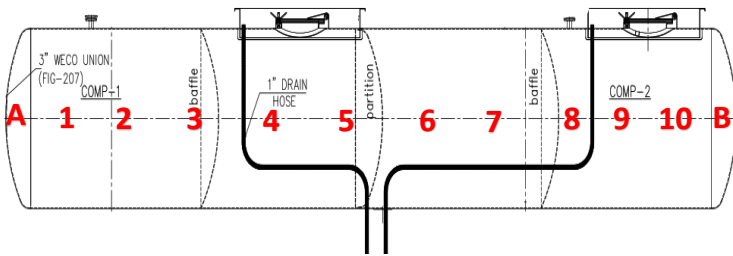


CERTIFICATE OF QUALIFICATION VISUAL INSPECTION & ULTRASONIC WALL THICKNESS MEASUREMENT

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

CLIENT:	HALLIBURTON	REPORT No.:	QC-TRANSPORT- ACID-24-MAY-002
LOCATION:	HPS HALLIBURTON YARD BASRA IRAQ	specification	WM-GL-HAL-PE-STIM-202
INSPECTION DATE:	Thursday, May 9, 2024	Due Date	Friday, May 8, 2026
TYPE OF INSPECTION:	ULTRASONIC WALL THICKNESS MEASUREMENT		
DESCRIPTION:	6200 USG (2 COMP) ACID TANK		
MANUFACTURE :	AL SHIRAWI EQUIPMENT COMPANY	ACID TANK SAP NO:	11873941
ULTRASONIC THICKNESS GAUGE S.NO:	5500391	CAL DUE DATE:	14-Oct-2024
UT Test Block S/N:	NoBo5087	CAL DUE DATE:	15-Oct-2024

INSPECTION DETAILS



SAP NO:	POSITION	THICKNESS AT POSITION			MINIMUM WALL THICKNESS
		120°	180°	240°	
11873941	HEAD A1	0.335	0.344	0.351	4 MM 0.157 INCH
	HEAD A2	0.331	0.329	0.336	
	HEAD B1	0.333	0.331	0.350	
	HEAD B2	0.339	0.344	0.346	
	SHELL 1	0.259	0.267	0.257	
	SHELL 2	0.261	0.272	0.266	
	SHELL 3	0.257	0.249	0.259	
	SHELL 4	0.265	0.272	0.274	
	SHELL 5	0.268	0.273	0.270	
	SHELL 6	0.252	0.264	0.254	
	SHELL 7	0.271	0.278	0.266	
	SHELL 8	0.274	0.277	0.275	
	SHELL 9	0.260	0.272	0.278	
	SHELL 10	0.267	0.270	0.273	

INSPECTION RESULT

ACID TANK WAS FOUND ACCEPTABLE WALL THICKNESS AS PER MANUFACTURE ACCEPTANCE CRITERIA.

PERSONNEL DETAILS		REVIEW BY			
INSPECTOR NAME:	M.Shahzad Ahmed	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT NAME:	
QUALIFICATION:	ASNT NDT Level II	INSPECTION SUPERVISOR:	HANI ALI	DATE:	
STAMP & SIGNATURE:				SIGNATURE:	

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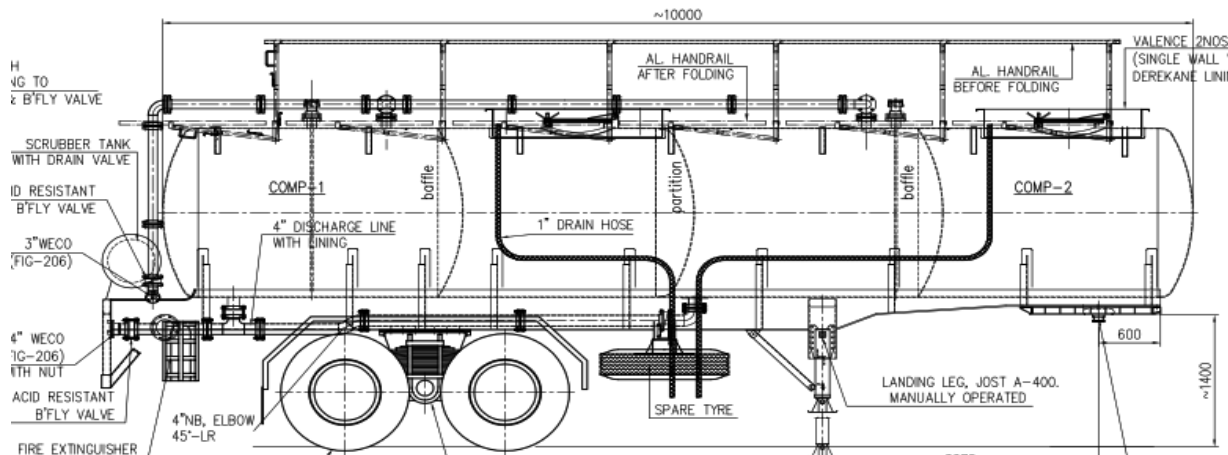
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CERTIFICATE OF QUALIFICATION HYDROSTATIC PRESSURE TEST WITNESS

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

CLIENT:	HALLIBURTON	REPORT No.:	QC-TRANSPORT- ACID-24-MAY-003
LOCATION:	HPS HALLIBURTON YARD BASRA IRAQ	specification	WM-GL-HAL-PE-STIM-202
INSPECTION DATE:	Thursday, May 9, 2024	NEXT INSPECTION DATE:	Tuesday, May 8, 2029
TYPE OF INSPECTION:	HYDROSTATIC PRESSURE TEST WITNESS		
DESCRIPTION:	6200 USG (2 COMP) ACID TANK		
ACID TANK SAP NO:	11873941		
MANUFACTURE :	AL SHIRAWI EQUIPMENT COMPANY		
HOLDING TIME:	05 MINUTES		
WORKING PRESSURE	10 PSI		
TEST PRESSURE	15 PSI		
PRESSURE TEST:	Hydrostatic Pressure Test carried out on 1.5 time of the Working Pressure with holding time 05 minutes.		



FINAL RESULT

We hereby certify that the above equipment had been tested to the test pressure indicated above in a constant temperature and found satisfactory where no visible leak or pressure drop observed during the pressure test. Witness By QC Inspector.

PERSONNEL DETAILS		REVIEW BY		
INSPECTOR NAME:	M. Shafiq Ahmed	SENIOR INSPECTOR:	NAVEED HUSSAIN	CLIENT NAME:
QUALIFICATION:	Level 1 W.T.P. Ins. v.	INSPECTION SUPERVISOR:	HANI ALI	DATE:
STAMP & SIGNATURE:				SIGNATURE:

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