

AI TAKAMUL COMPANY FOR ENGINEERING TESTS AND PROFESSIONAL SAFETY LIMITED

Basra, North Rumaila, Quality Control Yard - Iraq

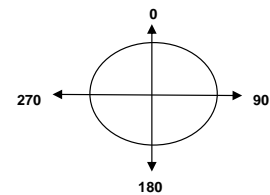
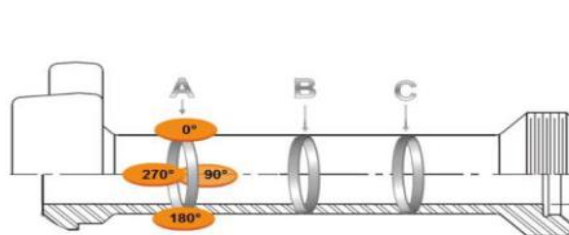


CERTIFICATE OF QUALIFICATION VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING INSPECTION & WITNESS PRESSURE TEST

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

| | | | |
|---------------------|--|-----------------------|--|
| CLIENT: | HALLIBURTON | REPORT NO.: | QC-24-05-TSS-NDT-008 |
| LOCATION: | TSS YARD | STANDARD: | ASTM E709 & ASTM E797 & ASME B31.1 |
| WORK ORDER # | ***** | HALLIBURTON DOC | Halliburton Acceptance Criteria WM-GL-HAL-SWT-501 |
| DATE OF INSPECTION: | Saturday, May 25, 2024 | NEXT INSPECTION DATE: | Saturday, May 24, 2025 |
| TYPE OF INSPECTION: | VISUAL INSPECTION AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING & WITNESS PRESSURE TEST | | |

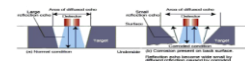
| | | | |
|--------------|---|--------------------|------------------------------------|
| DESCRIPTION: | 3" STRAIGHT JOINT 5FT H2S 3" 1502 WING X THREAD | SERIAL NO: | 485112 |
| Pump NO: | 13119220 CAL DUE DATE 27.AUG.2024 | Pressure Gauge NO: | 486066 CAL DUE DATE 02.AUG.2024 |



* ALL READINGS IN INCHS
**MINIMUM THICKNESS PROVIDED BY CUSTOMER



ONLINE TRACEABILITY



| THICKNESS POINTS AREA | WALL THICKNESS RESULT | | | | MINIMUM THICKNESS |
|-----------------------|-----------------------|-------|-------|-------|-------------------|
| | 0° | 90° | 180° | 270° | IN INCHES |
| A | 0.551 | 0.559 | 0.542 | 0.533 | 0.345 INCH |
| B | 0.543 | 0.531 | 0.537 | 0.529 | |
| C | 0.536 | 0.535 | 0.548 | 0.551 | |

INSPECTION RESULT

| | | |
|----------|----------|--|
| VT & MPI | Accepted | According to ASTM E709 |
| UT | Accepted | According to ASTM E 797 & Halliburton Procedure WM-GL-SWT-501 |
| BODY | Accepted | *** These Are The Actual Readings Need To Follow The Halliburton Procedure |

Inspection Evaluation

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

Note:MPI Wet Fluorescent inspection Thread With UltraViolet Light

Magnetic Particle Inspection With A/C Hand Yoke Available Areas

U.T-The Above Item Was Found Acceptable As Per ASTM E797 & Halliburton Procedure WM-GL-SWT-501

Pressure TestWitness-The Above Item was Pressure Tested up to 300 PSI A low Pressure Hold for 5 min And Maximum Working pressure 10.000 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: | 201504048 | 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 14HF | MANUFACTURE | BATCH NO | EXPIRE DATE |
| DC COIL: | 22650 | CAL DUE DATE | 15-Oct-24 | | Magnaflux | 220306 | March.2025 |
| UV BLACK LIGHT: | 1898977 | CAL DUE DATE | 14-Oct-24 | Concentration of 14HF: | | 0.1 to 0.4 ml/100 ml | |
| WHITE LIGHT INTENSITY: | 3620 lux | UV BLACK LIGHT INTENSITY: | 3140 μ w/cm ² | Concentration of 7HF: | | 1.2 to 2.4 ml/100 ml | |

| PERSON DETAILS | | REVIEW BY | | | |
|--------------------|-----------------|------------------------|----------------|---------|--|
| INSPECTOR NAME: | M.Shahrad Ahmed | SENIOR INSPECTOR: | NAVEED HUSSAIN | CLIENT: | |
| QUALIFICATION: | UT II | INSPECTION SUPERVISOR: | HANI ALI | HR&SIGN | |
| SIGNATURE & STAMP: | | | | DATE: | |

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

