|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **PHASED ARRAY ULTRASONIC TESTING REPORT** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **JOB DETAILS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Client: | | | **NCOC N.V.** | | | | Project: | | | | **ESKENE WEST KARABATAN** | | | | | | | | | | Work Location: | | | | **Work shop (KIB)** | | | |
| **JOB DESCRIPTION** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brief Description of Job: | | | | | | | **Phased Array weld inspection of piping butt weld.** | | | | | | | | | | | | | | | | | | | | | |
| Line No.: | | | | | | | **A1-5200-UW-141-6”-A21-WN** | | | | | | | | | Location: | | | | | **Work shop (KIB)** | | | | | | | |
| Material: | | | | | | | **Carbon steel** | | | | | | | | | Surface Condition: | | | | | **smooth** | | | | | | | |
| Nominal thickness | | | | | | | **7.11 mm** | | | | | | | | | Diameter | | | | | **6 inch** | | | | | | | |
| Part temperature | | | | | | | **20 °C** | | | | | | | | |  | | | | |  | | | | | | | |
| **INSPECTION PROCEDURE** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Procedure No: | | | | | **QP-11-PAUT-CM-Q01 REV 01** | | | | | | | In accordance with: | | | | | | **ASME sec V Art 4** | | | | In accordance with: | | | | | **ASME B31.3 Para 344.6.2** | |
| **INSPECTION EQUIPMENT** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S. No | Equipment/  Material Name | | | | | | Manufacturer | | | | | | | Serial No | | | | | Calibration certificate No | | | | | Calibration Expiry date | | | | |
|  | OmniScan MX2 | | | | | | Olympus | | | | | | | 103704 | | | | | BK-01-01672 | | | | | 12.09.2019 | | | | |
|  | NAVSHIP CYLINDRICAL REFLECTOR BLOCK | | | | | | Olympus | | | | | | | 0157 16 | | | | | - | | | | | - | | | | |
| **EQIPMENT PARAMETERS** | | | | | | | | | | | | | | | | | | | | | **CALIBRATION BLOCK DETAILS** | | | | | | | |
| Mode | | | | N/A | | | | Filter | | 5MHz | | | Points quant'y | | | | | 640 | | | Cal block | | | | | Navship Cal block | | |
| Frequency | | | | 5 MHz | | | | Rectifier | | FW | | | Sum gain | | | | | Auto | | | Material | | | | | CS | | |
| Energy | | | | 40v | | | | Video filter | | Off | | | Ref sensitivity | | | | | 33.7dB | | | Thickness Range | | | | | 75mm | | |
| Pulse width | | | | Auto | | | | Averaging | | 1 | | | Scan sensit'ty | | | | | 6 dB | | | temperature | | | | | Room temperature | | |
| PRF | | | | Optimum | | | | Focus depth | | 20 | | | Ref sensit'ty | | | | | 1.5 mm SDH | | | Correction Factors | | | | | N/A | | |
| Probe | | | | Ambient | | | | Couplant | | Gel | | | - | | | | | **-** | | | - | | | | | **-** | | |
| **SCAN PLAN** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Test Ref | | Scan type | | | | Beam type | | | Index offset | | | | | | Start element | | Active elements | | | Minimum angle | | | Maximum  angle | | | | | Angle Step |
|  | | Sectorial | | | | Angle | | | -11 | | | | | | 49 | | 16 | | | 40 | | | 70 | | | | | 1 |

|  |
| --- |
| **CALIBRATION DETAILS** |
| Calibration on Navships Block using 6.35mm depth hole:    Phased array weld inspection has been carried out on Joint no: SBW-02(ø6” × 7.11mm) piping butt weld (Pipe to Elbow).  **A1-5200-UW-141-6”-A21-WN**    SBW-02 |
| **SCAN PLAN** |
|  |
| |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | Line No | Joint No. | Indication  No | Type of Indication | Location (mm) | | Length (mm) | Depth (mm) | | Height (mm) | Surface/ Sub surface Flaw | Results | Scanned length (mm) | | Start | End | Start | End | | **A1-5200-UW-141-6”-A21-WN** | SBW-02 | - | NSD | - | - | - | - | - | - | - | Accept | 0-550 |   **RESULTS**  **Note:**   * NSD : No Significant Defect * ID : Inner Diameter or Surface * OD : Outer Diameter or Surface * Datum ‘0’ of the weld has taken on top dead center and scanned in clock wise direction.   **SCAN IMAGE**  **SBW-02**     |  |  |  |  | | --- | --- | --- | --- | | Examined by  UT Level III cert. No 300400  PA-UT Level II cert. No. 319659 | Name: Kishore kumar.P  expiry date: 30.03.2023  expiry date: 13.09.2020 | Signature: ...................... | Date: 08 Jan 2019 | | Approved by  UT Level III cert. No 2B189/16  PA-UT Level II cert. No. 1A 110/16 | Name: Klindukhou Viachaslau  expiry date: 31.05.2021  expiry date: 31.12.2020 | Signature: ...................... | Date: 08 Jan 2019 | | Client Representative: | ………………………….…. | Signature: ...................... | Date: .................. | |