# Al TAKAMUL COMPANY FOR ENGINEERING TESTS AND PROFESSIONAL SAFETY LIMITED



## Basra, North Rumaila, Quality Control Yard - Iraq

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

| Client:                         | Client: HALLIBURTON (HPS)                                    |                       | QC/24/HALL-HPS-APRIL-008A                              |
|---------------------------------|--|-----------------------|--|
| Location: HPS YARD              |  | Job Number:           | QC-24/HALL-HPS-001                                     |
| Date: Wednesday, April 17, 2024 |  | Next Inspection Date: | Wednesday, October 16, 2024                            |
| Type Of Inspection:             | VISUAL , THOROUGH EXAMINATION & MAGNETIC PARTICLE INSPECTION | Specification:        | ASTM E709 & ASTM E 1444 (2016) ASME V Article 7 (2019) |





| UNIT DESCRIPTION:             |                     | FRAC TANK LIFTING LUGS  |  |  |  |  |  |
|-------------------------------|---------------------|---|--|--|--|--|--|
| UNIT S/N:                     |                     | 13253285  |  |  |  |  |  |
| UNIT DIM:                     |                     | 13.50 M (L) X 2.60 M (W) X 3.65 M (H)   |  |  |  |  |  |
|                               | INSPECTION RESULT : |   |  |  |  |  |  |
| VISUAL , THOROUGH EXAMINATION |                     | unit fully inspected and found free from deforms, cracks, corrosion & mechanical damage |  |  |  |  |  |
| MAGNETIC PARTICLE INSPECTION  |                     | Welds & forgn areas inspected and found free from cracks and other defects              |  |  |  |  |  |
| FINAL RESULTS                 |                     | unit found satisfactory and free of defects at the time of inspection                   |  |  |  |  |  |
|                               |                     |   |  |  |  |  |  |

COMMENT:

Magnetic Particle Inspection With A/C Hand Yoke , Black & White Contrast

| EQUIPMENT DETAILS      |                 |                       |                |                   |                     | PERSON DETAILS |                               | REVIEW BY       |             |                   |               |
|------------------------|-----------------|-----------------------|----------------|-------------------|---------------------|----------------|-------------------------------|-----------------|-------------|-------------------|---------------|
| <b>Equipment:</b> AC-Y | Yoke Test Block | Equipment:            | Digital Lux Me | eter              | Equipment           | AC/DC Yoke     | INSPECTOR NAME: Usman Shabbir |                 | Somos /     | SENIOR INSPECTOR: | ASHRAF ELSAID |
| S.No:                  | 1657            | S.No:                 | 2722003        |                   | S.No:               | 201504052      |                               |                 |             |                   |               |
| Cal Due Date:          | 12-Aug-24       | Cal Due Date:         | 14-Aug-24      |                   | Cal Due Date        | 2: 12-Aug-24   | QUALIFICATION                 |                 | SUPERVISOR: | HANI ALI          |               |
| Black Magnetic Ink N   | Manufacture:    | Magnaflux             | Batch No:      | 22060             | 5 Expiry D          | JULY.2025      | ASNT LEVEL II                 | 0 1             |             |                   |               |
| Whie Contrast Paint N  | t Manufacture:  | Magnaflux             | Batch No:      | 22060             | 2 Expiry I          | JUN,2025       | MT & PT & VT                  |                 |             |                   |               |
| Tackwisel Dateil       |                 | tic Partical Concentr | ation          | Metho             | od WMPT Light Inter |                | STAMP &                       | For Ingineering | CLIENT:     |                   |               |
| Technical Details      |                 | 1.2 to 2.4 ml/100 ml  | Wet Mag        | netic Par<br>(WMP | ticle Testing<br>Γ) | 3630 Lux       | SIGNATURE:                    |                 |             |                   |               |

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QC/FN/MPI/065 Rev.00 DATED 07 Nov 2021



















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Basra, North Rumaila, Quality Control Yard - Iraq

|  | OF QUALIFICATION VISUAL 1 |               |                                       |  |  |  |  |
|--|---------------------------|---------------|---------------------------------------|--|--|--|--|
| THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIEREMENTS  CLIENT: HALLIBURTON (HPS)  |                           |               |                                       |  |  |  |  |
| LOCATION:  | HPS YARD                  | REPORT No.:   | QC-24-HALL-HPS-April- VT & LEAK -008B |  |  |  |  |
| STANDARD:  | CUSOMER SPECIFICATION     | JOB NO:       | QC-24/HALL-HPS-001                    |  |  |  |  |
| INSPECTION DATE:   | Tuesday, April 16, 2024   | Due Date      | Tuesday, October 15, 2024             |  |  |  |  |
| TYPE OF INSPECTION: *VISUAL TESTING AND *LEAK TESTING  |                           |               |                                       |  |  |  |  |
| DESCRIPTION:   | FRAC TANK                 | SAP NO:       | 13253285                              |  |  |  |  |
| MEDIUM USED:   | WATER                     | HOLDING TIME: | 15 MINUTES                            |  |  |  |  |
|  | PICTURES                  |               |                                       |  |  |  |  |
| 20' Standard manway  20' Stand |                           |               |                                       |  |  |  |  |

# INSPECTION RESULT

| VISUAL TESTING: | Visual Testing of Frac Tank did not found Deforms Mechanical Damage, Cracks and Corrosion. At time of Inspection. |  |  |  |  |
|-----------------|---|--|--|--|--|
| LEAK TESTING:   | Leak Testing of Frac Tank did not found any leakage during the holding time. At time of Inspection.               |  |  |  |  |

Inspection Evaluation

VISUAL TESTING-The above mentioned Frac Tank was found "Satisfactory" Fit for intended used.

**LEAK TESTING**- The above mentioned Frac Tank was found "Satisfactory" Fit for intended used.

|   | PERSONNEL DETAIL       | .s                | REVIEW BY         |               |               |  |
|---|------------------------|-------------------|-------------------|---------------|---------------|--|
| NAME:   | Usman Shabbir          | Sestion Company   | SENIOR INSPECTOR: | ASHRAF ELSAID | CUSTOMER NAME |  |
| QUALIFICATION:  | ASNT LEVEL II MT,PT,VT |                   | SUPERVISOR:       | HANI ALI      |               |  |
| STAMP & SIGNATURE:  |                        | For Ingineering 1 | DATE:             |               |               |  |
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