Basra, North Rumaila, Quality Control Yard - Iraq

Tel: +9647810009138 / +9647834964657

Email: OP@qualitycontrol-iraq.com / hany.akafi@qualitycontrol-iraq.com





### **CERTIFICATE OF THOROUGH EXAMINATION & NDT**

This Certificate complies with the requirements of the ASTM & Lifting Equipment Operations and Lifting Equipment Regulations

Client Name:	HALLIBURTON	Location:	HPS YARD	Report No:	QC/24/HALL-0206A-01	
Date of Examination:	02/06/2024	<b>Due Date:</b>	01/12/2024	Job Number:	020624	
Serial No:	Item Description			Final Remarks		
ISA01	A	Satisfactory				
Type of Inspection	Visual & Magnetic Particle Inspection					
Reference Standard	ASTM	ASTM E709 & ASTM E 1444 (2016) ASME V Article 7 (2019)				



L							
П	VISUAL THOROUGH I	AL, THOROUGH EXAMINATION		The above-mentioned equipment is visually Inspected and Found Free from			
	VISOAL, ITIOROGGITE	LAAMINATION		Defori	mations, Corrosion, A	And Other Defects	5.
Ш	MAGNETIC PARTICLE	LNICDECTION	M.P.I Ha	as Been Done on Av	ailable Critical Areas	and Found Free f	rom Cracks and Other
Ш	IVIAGNETIC PARTICLE	INSPECTION			Defects.		
П	FINIAL DECL	II TC	As Pe	er the Client Specific	cation, the Inspected	Areas Was Accep	oted at The Time of
	FINAL RESU	JLIS		·	Inspection Use	eable.	
	NDT Equipment Details						
П	Equipment	AC YOKE		Serial No:	201504048	Cal Due Date	14-Oct-2024
П	Equipment	Digital Lux M	eter	Serial No:	2722003	Cal Due Date	16-Oct-204
П	Equipment	AC-Yoke Test	Block	Serial No:	1657	Cal Due Date	14-Oct-2024
	White Contrast WCP-2	Magnaflu	х	Batch No:	220602	<b>Expiry Date:</b>	JUN,2025
	Black Ink 7HF	Magnaflu	x	Batch No:	220605	<b>Expiry Date:</b>	JULY.2025
White Light Intensity: 3630 lux			Magnetic Partical Concentration 7HF 1.2 to 2.4 ml/100 ml		2.4 ml/100 ml		
I٠							
	ASNT Level II / LEEA Inspector Name:	Reviewed B NDT LEVEL	•	Signature & Stamp		Client Signature 8	Stamp

Asiaz Farhat

Naveed Hussein

Signature & Stamp

Client Signature & Stamp

Client Signature & Stamp





















Basra, North Rumaila, Quality Control Yard - Iraq

Tel: +9647810009138 / +9647834964657

Email: OP@qualitycontrol-iraq.com / hany.akafi@qualitycontrol-iraq.com





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This Certificate complies with the requirements of the ASTM & Lifting Equipment Operations and Lifting Equipment Regulations

Client Name:	HALLIBURTON	Location:	HPS YARD	Report No:	QC/24/HALL-0206A-02
Date of Examination:	02/06/2024	<b>Due Date:</b>	01/12/2024	Job Number:	020624
Serial No:	Item Description			Final Remarks	
ISA02	ADJUSTABLE ADOPTER				Satisfactory
Type of Inspection	Visual & Magnetic Particle Inspection				
Reference Standard	ASTM E709 & ASTM E 1444 (2016) ASME V Article 7 (2019)				



VISUAL, THOROUGH EXAMINATION	The above-mentioned equipment is visually Inspected and Found Free from Deformations, Corrosion, And Other Defects.
MAGNETIC PARTICLE INSPECTION	M.P.I Has Been Done on Available Critical Areas and Found Free from Cracks and Other Defects.
FINAL RESULTS	As Per the Client Specification, the Inspected Areas Was Accepted at The Time of Inspection Useable.

NDT Equipment Details							
Equipment	AC YOKE	Serial No:	201504048	Cal Due Date	14-Oct-2024		
Equipment	Digital Lux Meter	Serial No:	2722003	Cal Due Date	16-Oct-204		
Equipment	AC-Yoke Test Block	Serial No:	1657	Cal Due Date	14-Oct-2024		
White Contrast WCP-2	Magnaflux	Batch No:	220602	Expiry Date:	JUN,2025		
Black Ink 7HF	Magnaflux	Batch No:	220605	Expiry Date:	JULY.2025		
White Light Intensity:	3630 lux	Magnetic Partical	Magnetic Partical Concentration 7HF 1.2 to 2.4 ml/100 ml				

ASNT Level II / LEEA Inspector Name:	Reviewed By: NDT LEVEL II	Signature & Stamp	Client Signature & Stamp
Aizaz Farhat	Naveed Hussein	CONTINUE CON	





















Basra, North Rumaila, Quality Control Yard - Iraq

Tel: +9647810009138 / +9647834964657

Email: OP@qualitycontrol-iraq.com / hany.akafi@qualitycontrol-iraq.com





## **CERTIFICATE OF THOROUGH EXAMINATION**

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Client	HALLIBURTON	Report No:	QC/24/HALL-0206A-03
<b>Item Description</b>	TRAILAR	Job No:	020624
General Scope of Activity	Coiled Tubing Unit-5 Trailar Structure	Date of Inspection	02/06/2024
Place of Inspection	HPS Yard	Valid Until:	01/12/2024

This is to certify that the undersigned did at the request of Halliburton, Al Burjesia Base attend their facilities at HPS Department on 02-06-2024 in order to carry out the scope of services as described below.

# 1.0 Scope of Activity:

- 1.1) Visual Inspection of Coil Tubing Unit Trailar Structure
- 1.2) Functional Test of vehicle.
- 1.3) Review of maintenance records and Previous reports
- 1.4) Issue of Report.

### 2.0 Summary of Inspection:

- 2.1) Thorough visual inspection of Coil Tubing Unit- **TRAILAR STRUCTURE**, **SAP No- 12534581** was carried out and found satisfactory.
- 2.2) Functional Test of Vehicle.
- 2.3) The maintenance record of the vehicle was reviewed.

# 3.0 Identification of item(s) verified & Details of Inspection:

### **A) TRAILAR STRUCTURE**

SAP No:	12534581
Location:	Coiled Tubing Unit - CTU 05





















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Tel: +9647810009138 / +9647834964657

Email: OP@qualitycontrol-iraq.com / hany.akafi@qualitycontrol-iraq.com





## **CERTIFICATE OF THOROUGH EXAMINATION**

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### 3.1) Visual Inspection:

- The visual Inspection of the **TRAILAR STRUCTURE** was carried out as follows:
- The Structure welds of the TRAILAR were inspected and NO visible damages observed
- No visual damages on **Painting** were observed on the external surfaces.

FINAL RESULT: PASS

### 3.2) Functional Test:

The Function test of the TRUCK HEAD was carried out as follow:

- Movement.
- Breaks.
- Electricals
- Hydraulics
- Indicators

**FINAL RESULT: PASS** 

### 3.3) Review of maintenance Record:

The maintenance records and test reports accessories were reviewed and found satisfactory

**FINAL RESULT: PASS** 

### 4.0 CONCLUSION:

The above **TRAILAR** was found to be in satisfactory condition after carrying out necessary inspection and tests subjected to proper maintenance according to manufacturer recommendation.





















Basra, North Rumaila, Quality Control Yard - Iraq

Tel: +9647810009138 / +9647834964657

Email: OP@qualitycontrol-iraq.com / hany.akafi@qualitycontrol-iraq.com





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# **Photographs Of Activity**



	INSPECTED & PREPARED BY	REVIEWED & APPROVED BY	CLIENT SIGNATURE & STAMP
NAME:	Aizaz Farhat LEEA NDT LEVEL II	Ashraf Elsaid LEEA NDT LEVEL II	
DESIGNATION	Inspector	Supervisor	
SIGNATURE & SEAL	LIF COMPROL	Tor Ingineering	
DEV.01 DATED: 20 IIIA	IE 2022		

REV:01 DATED: 20 JUNE 2022





















Basra, North Rumaila, Quality Control Yard - Iraq

Tel: +9647810009138 / +9647834964657

Email: OP@qualitycontrol-iraq.com / hany.akafi@qualitycontrol-iraq.com



## **CERTIFICATE OF THOROUGH EXAMINATION**

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Client	HALLIBURTON	Report No:	QC/24/HALL-0206A-04
<b>Item Description</b>	TRUCK HEAD	Job No:	020624
General Scope of Activity	Coiled Tubing Unit-05 Truck Head Structure	Date of Inspection	02/06/2024
Place of Inspection	HPS Yard	Valid Until:	01/12/2024

This is to certify that the undersigned did at the request of Halliburton, Al Burjesia Base attend their facilities at HPS Department on 02-06-2024 in order to carry out the scope of services as described below.

## 1.0 Scope of Activity:

- 1.1) Visual Inspection of Coil Tubing Unit Truck Head Structure
- 1.2) Functional Test of vehicle.
- 1.3) Review of maintenance records and Previous reports
- 1.4) Issue of Report.

### 2.0 Summary of Inspection:

- 2.1) Thorough visual inspection of Coil Tubing Unit- TRUCK HEAD STRUCTURE, SAP No- 11404830 was carried out and found satisfactory.
- 2.2) Functional Test of Vehicle.
- 2.3) The maintenance record of the vehicle was reviewed.

# 3.0 Identification of item(s) verified & Details of Inspection:

## A) TRUCK HEAD STRUCTURE

SAP No:	11404830
REG No:	1895- BASRA
Location:	Coiled Tubing Unit - CTU 05





















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Tel: +9647810009138 / +9647834964657

Email: OP@qualitycontrol-iraq.com / hany.akafi@qualitycontrol-iraq.com



## **CERTIFICATE OF THOROUGH EXAMINATION**

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### 3.1) Visual Inspection:

- The visual Inspection of the **TRUCK HEAD STRUCTURE** was carried out as follows:
- The Structure welds of the TRUCK HEAD were inspected and NO visible damages observed
- No visual damages on **Painting** were observed on the external surfaces.

**FINAL RESULT: PASS** 

### 3.2) Functional Test:

The Function test of the TRUCK HEAD was carried out as follow:

- Movement.
- · Breaks.
- Electricals
- Hydraulics
- Indicators
- Head Lights

**FINAL RESULT: PASS** 

### 3.3) Review of maintenance Record:

The maintenance records and test reports accessories were reviewed and found satisfactory

**FINAL RESULT: PASS** 

#### 4.0 CONCLUSION:

The above **TRUCK HEAD** was found to be in satisfactory condition after carrying out necessary inspection and tests subjected to proper maintenance according to manufacturer recommendation.





















Basra, North Rumaila, Quality Control Yard - Iraq

Tel: +9647810009138 / +9647834964657

Email: OP@qualitycontrol-iraq.com / hany.akafi@qualitycontrol-iraq.com



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# **Photographs Of Activity**



	INSPECTED & PREPARED BY	REVIEWED & APPROVED BY	CLIENT SIGNATURE & STAMP
NAME:	Aizaz Farhat LEEA NDT LEVEL II	Ashraf Elsaid LEEA NDT LEVEL II	
DESIGNATION	Inspector	Supervisor	
SIGNATURE & SEAL	COMING OF STREET	tor Ingineering	
DEVIOL DATED: 20 IIIA	IE 2022		

**REV:01 DATED: 20 JUNE 2022** 





















Basra, North Rumaila, Quality Control Yard - Iraq

Tel: +9647810009138 / +9647834964657

Email: OP@qualitycontrol-iraq.com / hany.akafi@qualitycontrol-iraq.com



## **CERTIFICATE OF THOROUGH EXAMINATION**

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Client	HALLIBURTON	LLIBURTON Report No:	
<b>Item Description</b>	CABIN	Job No:	020624
General Scope of Activity	Coiled Tubing Unit-05 Cabin Structure	Date of Inspection	02/06/2024
Place of Inspection	HPS Yard	Valid Until:	01/12/2024

This is to certify that the undersigned did at the request of Halliburton, Al Burjesia Base attend their facilities at HPS Department on 02-06-2024 in order to carry out the scope of services as described below.

## 1.0 Scope of Activity:

- 1.1) Visual Inspection of Coil Tubing Unit CABIN Structure
- 1.2) Functional Test of Hydraulic Jacks.
- 1.3) Review of maintenance records and Previous reports
- 1.4) Issue of Report.

### 2.0 Summary of Inspection:

- 2.1) Thorough visual inspection of Coil Tubing Unit- CABIN STRUCTURE, SAP No- 12534583 was carried out and found satisfactory.
- 2.2) Functional Test of Hydraulic Jacks.
- 2.3) The maintenance record of the vehicle was reviewed.

# 3.0 Identification of item(s) verified & Details of Inspection:

### **A) CABIN STRUCTURE**

SAP No:	12534583
Location:	Coiled Tubing Unit - CTU 05





















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Email: OP@qualitycontrol-iraq.com / hany.akafi@qualitycontrol-iraq.com





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### 3.1) Visual Inspection:

- The visual Inspection of the Coil Tubing Unit- CABIN STRUCTURE was carried out as follows:
- The Structure welds of the CABIN were inspected and NO visible damages observed
- No visual damages on **Painting** were observed on the external surfaces.

FINAL RESULT: PASS

### 3.2) Functional Test:

 The Function test of the Coil Tubing Unit- CABIN STRUCTURE Hydraulic jacks was done and found satisfctoy

**FINAL RESULT: PASS** 

### 3.3) Review of maintenance Record:

The maintenance records and test reports accessories were reviewed and found satisfactory

**FINAL RESULT: PASS** 

#### 4.0 CONCLUSION:

The above Coil Tubing Unit- **CABIN STRUCTURE** was found to be in satisfactory condition after carrying out necessary inspection and tests subjected to proper maintenance according to manufacturer recommendation.





















Basra, North Rumaila, Quality Control Yard - Iraq

Tel: +9647810009138 / +9647834964657

Email: OP@qualitycontrol-iraq.com / hany.akafi@qualitycontrol-iraq.com





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# **Photographs Of Activity**





	INSPECTED & PREPARED BY	REVIEWED & APPROVED BY	CLIENT SIGNATURE & STAMP
NAME:	Aizaz Farhat LEEA NDT LEVEL II	Ashraf Elsaid LEEA NDT LEVEL II	
DESIGNATION	Inspector	Supervisor	
SIGNATURE & SEAL	LIF COMPROL	for Ingineering	
REV:01 DATED: 20 IUN	JF 2022		_

REV:01 DATED: 20 JUNE 2022





















Basra, North Rumaila, Quality Control Yard - Iraq

Tel: +9647810009138 / +9647834964657

Email: OP@qualitycontrol-iraq.com / hany.akafi@qualitycontrol-iraq.com



### CERTIFICATE OF THOROUGH EXAMINATION & NDT

This Certificate complies with the requirements of the ASTM & Lifting Equipment Operations and Lifting Equipment Regulations

Client Name:	<b>HALLIBURTON</b>	Location:	HPS YARD	Report No:	QC/24/HALL-0206A-06
Date of Examination:	02/06/2024	<b>Due Date:</b>	01/12/2024	Job Number:	020624
Serial No:	Item Description				Final Remarks
ST-CTU-05	INJECTOR HEAD STAND				Satisfactory
Type of Inspection	Visual & Magnetic Particle Inspection				
Reference Standard	ASTM E709 & ASTM E 1444 (2016) ASME V Article 7 (2019)				







VISUAL, THOROUGH EXAMINATION	The above-mentioned equipment is visually Inspected and Found Free from Deformations, Corrosion, And Other Defects.				
MAGNETIC PARTICLE INSPECTION	M.P.I Has Been Done on Available Critical Areas and Found Free from Cracks and Other Defects.				
FINAL RESULTS	As Per the Client Specification, the Inspected Areas Was Accepted at The Time of Inspection Useable.				

NDT Equipment Details							
Equipment	AC YOKE	Serial No:	Serial No:         201504048         Cal Due Date         14-Oct-2024				
Equipment	Digital Lux Meter	Serial No:	2722003	Cal Due Date	16-Oct-204		
Equipment	AC-Yoke Test Block	Serial No:	1657	Cal Due Date	14-Oct-2024		
White Contrast WCP-2	Magnaflux	Batch No:	220602	Expiry Date:	JUN,2025		
Black Ink 7HF	Magnaflux	Batch No:	220605	Expiry Date:	JULY.2025		
White Light Intensity:	3630 lux	Magnetic Partical Concentration 7HF		1.2 to	2.4 ml/100 ml		

ASNT Level II / LEEA Inspector Name:	Reviewed By: LEEA, NDT LEVEL II	Signature & Stamp	Client Signature & Stamp
Aizaz Farhat	Ashraf Elsaid	LIF GOVERNO	





















Basra, North Rumaila, Quality Control Yard - Iraq

Tel: +9647810009138 / +9647834964657

Email: OP@qualitycontrol-iraq.com / hany.akafi@qualitycontrol-iraq.com



### CERTIFICATE OF THOROUGH EXAMINATION & NDT

This Certificate complies with the requirements of the ASTM & Lifting Equipment Operations and Lifting Equipment Regulations

Client	HALLIBURTON	Report No:	QC/24/HALL-0206A-07		
<b>Item Description</b>	REEL	Job No:	020624		
General Scope of Activity	Coiled Tubing Unit-5 Reel Structure	Date of Inspection	02/06/2024		
Place of Inspection	HPS Yard Valid Until: 01/12/2024				
Reference Standards:	ASTM E709 & ASTM E 1444 (2016) ASME V Article 7 (2019)				

This is to certify that the undersigned did at the request of Halliburton, Al Burjesia Base attend their facilities at HPS Department on 02-06-2024 in order to carry out the scope of services as described below.

### 1.0 Scope of Activity:

- 1.1) Visual Inspection of Coil Tubing Unit Reel Structure
- 1.2) Magnetic Particle Inspection (MPI).
- 1.3) Review of maintenance records and Previous reports
- 1.4) Issue of Report.

## 2.0 Summary of Inspection:

- 2.1) Thorough visual inspection of Coil Tubing Unit- **REEL STRUCTURE**, **ID No- 12534586** and accessories including structure was carried out and found satisfactory.
- 2.2) MPI was performed on accessible **Structure welds**, **Pad eyes and its associated welds**. The result was found satisfactory.
- 2.3) Dimensions of pad eyes were taken. The result was found satisfactory.
- 2.4) The maintenance record of the vehicle was reviewed.

# 3.0 Identification of item(s) verified & Details of Inspection:

### A) REEL STRUCTURE

ID No	12534586	
Location:	Coiled Tubing Unit – CTU-05	





















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Tel: +9647810009138 / +9647834964657

Email: OP@qualitycontrol-iraq.com / hany.akafi@qualitycontrol-iraq.com



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This Certificate complies with the requirements of the ASTM & Lifting Equipment Operations and Lifting Equipment Regulations

### 3.1) Visual Inspection:

- The visual Inspection of the Coil Tubing Unit- **REEL STRUCTURE** was carried out as follows:
- The Structure welds of the Unit were inspected and NO visible damages observed
- The visual Inspection of **Pad Eyes** was done and found satisfactory.
- No visual damages on **Painting** were observed on the external surfaces.

**FINAL RESULT: PASS** 

### 3.2) Magnetic Particle Inspection (MPI):

Magnetic particle Inspection was performed on the following components.:

- Accessible Structure Welds
- Pad Eyes and its Associated welds

**FINAL RESULT: PASS** 

### 3.3) Review of maintenance Record:

The maintenance records and test reports accessories were reviewed and found satisfactory

FINAL RESULT: PASS

#### 4.0 CONCLUSION:

The above Coil Tubing Unit- **REEL STRUCTURE** was found to be in satisfactory condition after carrying out necessary inspection and tests subjected to proper maintenance according to manufacturer recommendation.





















Basra, North Rumaila, Quality Control Yard - Iraq

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Email: OP@qualitycontrol-iraq.com / hany.akafi@qualitycontrol-iraq.com



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# **Photographs Of Activity**







PAD EYE DIMENSION					
Serial N	PE-01,	PE-01,PE-02			
THICK.	. HOLE HEIGHT WIDTH				
14 mm	17 mn	58 mm	114 mm	2 TON	

























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PAD EYE DIMENSION					
Serial No:	Serial No: PE-03, PE-04				
THICK.	HOLE	SWL			
51 mm	78 mm	162 mm	255mm	55 TON	

PAD EYE DIMENSION					
Serial No:	No: RPE-01, RPE-02				
THICK.	HOLE	HEIGHT	WIDTH	SWL	
51 mm	78 mm	162 mm	255mm	55 TON	









NDT Equipment Details							
Equipment AC YOKE Serial No: 201504048 Cal Due Date 14-Oct-2024							
Equipment	ACTORE	Serial No.	201304040	Cai Due Date	14-001-2024		
Equipment	Digital Lux Meter	Serial No:	2722003	Cal Due Date	16-Oct-204		
Equipment	AC-Yoke Test Block	Serial No:	1657	Cal Due Date	14-Oct-2024		
		_					
White Contrast WCP-2	Magnaflux	Batch No:	220602	Expiry Date:	JUN,2025		
Black Ink 7HF	Magnaflux	Batch No:	220605	Expiry Date:	JULY.2025		
White Light Intensity:	3630 lux	Magnetic Partical Concentration 7HF		1.2 to 2	2.4 ml/100 ml		

	INSPECTED & PREPARED BY	REVIEWED & APPROVED BY	CLIENT SIGNATURE & STAMP
NAME:	Aizaz Farhat LEEA NDT LEVEL II	Ashraf Elsaid LEEA NDT LEVEL II	
DESIGNATION	Inspector	Supervisor	
SIGNATURE & SEAL	D OLIC ITY	Q 200 11 10 1	
REV:01 DATED: 20 JU	INE 2022	or Ingineering	





















Basra, North Rumaila, Quality Control Yard - Iraq

Tel: +9647810009138 / +9647834964657

Email: OP@qualitycontrol-iraq.com / hany.akafi@qualitycontrol-iraq.com





### **CERTIFICATE OF THOROUGH EXAMINATION & NDT**

This Certificate complies with the requirements of the ASTM & Lifting Equipment Operations and Lifting Equipment Regulations

Client	HALLIBURTON	Report No:	QC/24/HALL-0206A-08	
<b>Item Description</b>	REEL	Job No:	020624	
General Scope of Activity	Coiled Tubing Unit-5 Reel Structure	Date of Inspection	02/06/2024	
Place of Inspection	HPS Yard	Valid Until:	01/12/2024	
Reference Standards:	ASTM E709 & ASTM E 1444 (2016) ASME V Article 7 (2019)			

This is to certify that the undersigned did at the request of Halliburton, Al Burjesia Base attend their facilities at HPS Department on 02/06/2024 in order to carry out the scope of services as described below.

### 1.0 Scope of Activity:

- 1.1) Visual Inspection of Coil Tubing Unit Hose Reels & Associated Pad Eyes
- 1.2) Magnetic Particle Inspection (MPI).
- 1.3) Review of maintenance records and Previous reports
- 1.4) Issue of Report.

## 2.0 Summary of Inspection:

- 2.1) Thorough visual inspection of Coil Tubing Unit- **Hose Reels**, **Identification No- 331144**, **331143** and accessories including structure was carried out and found satisfactory.
- 2.2) MPI was performed on accessible Pad eyes and its associated welds. The result was found satisfactory.
- 2.3) Dimensions of pad eyes were taken. The result was found satisfactory.
- 2.4) The maintenance record of the vehicle was reviewed.

# **3.0** Identification of item(s) verified & Details of Inspection:

### A) Hose Reels

Iden No	331144, 331143
Location:	Coiled Tubing Unit – CTU-05





















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Tel: +9647810009138 / +9647834964657

Email: OP@qualitycontrol-iraq.com / hany.akafi@qualitycontrol-iraq.com





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This Certificate complies with the requirements of the ASTM & Lifting Equipment Operations and Lifting Equipment Regulations

### 3.1) Visual Inspection:

- The visual Inspection of the Coil Tubing Unit- Hose Reels were carried out as follows:
- The **Lifting Accessories associated with Hose Reels** were inspected for any visual damages, dents, cracks to the extent of accessibility. The results were satisfactory.
- The visual Inspection of **Pad Eyes** was done and found satisfactory.
- No visual damages on Painting were observed on the external surfaces.

**FINAL RESULT: PASS** 

### 3.2) Magnetic Particle Inspection (MPI):

Magnetic particle Inspection was performed on the following components.:

Pad Eyes and its Associated welds

**FINAL RESULT: PASS** 

#### 3.3) Review of maintenance Record:

The maintenance records and test reports accessories were reviewed and found satisfactory

FINAL RESULT: PASS

### 4.0 CONCLUSION:

The above Coil Tubing Unit- **Hose Reels** was found to be in satisfactory condition after carrying out necessary inspection and tests subjected to proper maintenance according to manufacturer recommendation.





















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Email: OP@qualitycontrol-iraq.com / hany.akafi@qualitycontrol-iraq.com





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# **Photographs Of Activity**

























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Tel: +9647810009138 / +9647834964657

Email: OP@qualitycontrol-iraq.com / hany.akafi@qualitycontrol-iraq.com



### CERTIFICATE OF THOROUGH EXAMINATION & NDT

This Certificate complies with the requirements of the ASTM & Lifting Equipment Operations and Lifting Equipment Regulations

PAD EYE DIMENSION						
Serial No:	PE-01			SWL		
THICK.	HOLE HEIGHT WIDTH			SVVL		
40 mm	32 mm	94 mm	168mm	8.5 TON		

	PAD EYE DIMENSION						
Serial N	PE-01, P	PE04	SWL				
THICK.	HOLE	DLE HEIGHT WIDTH					
21 mm	20mm	120 mm	90 mm	3.25 TON			







	NDT Equipment Details							
Equipment	AC YOKE	Serial No:	201504048	Cal Due Date	14-Oct-2024			
Equipment	Digital Lux Meter	Serial No:	2722003	Cal Due Date	16-Oct-204			
Equipment	AC-Yoke Test Block	Serial No:	1657	Cal Due Date	14-Oct-2024			
White Contrast WCP-2	Magnaflux	Batch No:	220602	Expiry Date:	JUN,2025			
Black Ink 7HF	Magnaflux	<b>Batch No:</b> 220605		Expiry Date:	JULY.2025			
White Light Intensity:	3630 lux	Magnetic Partical Concentration 7HF		1.2 to 2.4	ml/100 ml			

	INSPECTED & PREPARED BY	REVIEWED & APPROVED BY	CLIENT SIGNATURE & STAMP
NAME:	Aizaz Farhat LEEA NDT LEVEL II	Ashraf Elsaid LEEA NDT LEVEL II	
DESIGNATION	Inspector Gakamul County	Supervisor	
SIGNATURE & SEAL	COMIROL S	O Thomas Tool	
REV:01 DATED: 20 JUN	NE 2022	7	





















Basra, North Rumaila, Quality Control Yard - Iraq

Tel: +9647810009138 / +9647834964657

Email: OP@qualitycontrol-iraq.com / hany.akafi@qualitycontrol-iraq.com





### CERTIFICATE OF THOROUGH EXAMINATION & NDT

This Certificate complies with the requirements of the ASTM & Lifting Equipment Operations and Lifting Equipment Regulations

Client	HALLIBURTON	Report No:	QC/24/HALL-0206A-09	
<b>Item Description</b>	Injector Head	Job No:	020624	
General Scope of Activity	Coil Tubing Unit-5 Injector Head	Date of Inspection	02/06/2024	
Place of Inspection	HPS Yard	Valid Until:	01/12/2024	
Reference Standards:	ASTM E709 & ASTM E 1444 (2016) ASME V Article 7 (2019)			

This is to certify that the undersigned did at the request of Halliburton, Al Burjesia Base attend their facilities at HPS Department on 02/06/2024 in order to carry out the scope of services as described below.

### 1.0 Scope of Activity:

- 1.1) Visual Inspection of Coil Tubing Unit Injector head and Accessories
- 1.2) Magnetic Particle Inspection (MPI).
- 1.3) Review of maintenance records and Previous reports
- 1.4) Issue of Report.

## 2.0 Summary of Inspection:

- 2.1) Thorough visual inspection of Coil Tubing Unit-Injector head, SAP No- 12534584 and accessories including structure was carried out and found satisfactory.
- 2.2) MPI was performed on accessible structure welds, pad eyes and its associated welds. The result was found satisfactory.
- 2.3) Dimensions of pad eyes were taken. The result was found satisfactory.
- 2.4) The maintenance record of the vehicle was reviewed.

# 3.0 Identification of item(s) verified & Details of Inspection:

### A) Injector Head

SAP NO:	12534584
MANUFACTURER	HYDRA RIG
YEAR OF MFG.	12-2014
UNIT:	CTU-05





















Basra, North Rumaila, Quality Control Yard - Iraq

Tel: +9647810009138 / +9647834964657

Email: OP@qualitycontrol-iraq.com / hany.akafi@qualitycontrol-iraq.com





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### 3.1) Visual Inspection:

- The visual Inspection of the Coil Tubing Unit- **Injector Head and accessories** were carried out as follows:
- The **Accessories** were inspected for any visual damages, dents, cracks to the extent of accessibility. The results were satisfactory.
- The Structure welds of the Unit were inspected and NO visible damages observed
- The visual Inspection of **Stripper** was done and found satisfactory.
- No visual damages on Painting were observed on the external surfaces.

**FINAL RESULT: PASS** 

### 3.2) Magnetic Particle Inspection (MPI):

Magnetic particle Inspection was performed on the following components.:

- Accessible Structure Welds
- Pad Eyes and its Associated welds
- Stripper face
- Fall Arrestor Pole

**FINAL RESULT: PASS** 

### 3.3) Review of maintenance Record:

The maintenance records and test reports accessories were reviewed and found satisfactory

**FINAL RESULT: PASS** 

#### 4.0 CONCLUSION:

The above Coil Tubing Unit- **Injector Head** was found to be in satisfactory condition after carrying out necessary inspection and tests subjected to proper maintenance according to manufacturer recommendation.





















Basra, North Rumaila, Quality Control Yard - Iraq

Tel: +9647810009138 / +9647834964657

Email: OP@qualitycontrol-iraq.com / hany.akafi@qualitycontrol-iraq.com





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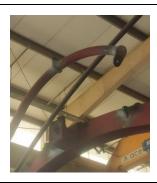
# **Photographs Of Activity**







PAD EYE DIMENSION					
Serial No: PE-01, PE-02 SWL					
THICK.	HOLE	SVVL			
14 mm	17 mm	2 TON			























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Tel: +9647810009138 / +9647834964657

Email: OP@qualitycontrol-iraq.com / hany.akafi@qualitycontrol-iraq.com





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PAD EYE DIMENSION						
Serial No:	Serial No: 42133A, 42133B, 42133C, 42133D					
THICK.	HOLE	HEIGHT	WIDTH	SWL		
24 mm	26 mm	65 mm	75 mm	17 TON		

PAD EYE DIMENSION						
Serial No:	36013A, 36013B					
THICK.	HOLE	HOLE HEIGHT WIDTH				
24 mm	26 mm	26 mm 65 mm 75 mm				









NDT Equipment Details							
Equipment	AC YOKE	Serial No:	201504048	Cal Due Date	14-Oct-2024		
Equipment	Digital Lux Meter	Serial No:	2722003	Cal Due Date	16-Oct-204		
Equipment	AC-Yoke Test Block	Serial No:	1657	Cal Due Date	14-Oct-2024		
White Contrast WCP-2	Magnaflux	Batch No:	220602	Expiry Date:	JUN,2025		
Black Ink 7HF	Magnaflux	Batch No:	220605	Expiry Date:	JULY.2025		
White Light Intensity:	3630 lux	Magnetic Partical Concentration 7HF 1.2 to 2.4 ml/100 ml					

	INSPECTED & PREPARED BY	REVIEWED & APPROVED BY	CLIENT SIGNATURE & STAMP
NAME:	Aizaz Farhat LEEA NDT LEVEL II	Ashraf Elsaid LEEA NDT LEVEL II	
DESIGNATION	Inspector	Supervisor	\ \
SIGNATURE & SEAL	C COMIT OF	Tor Ingineering	
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Basra, North Rumaila, Quality Control Yard - Iraq

Tel: +9647810009138 / +9647834964657

Email: OP@qualitycontrol-iraq.com / hany.akafi@qualitycontrol-iraq.com



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Client	HALLIBURTON	Report No:	QC/24/HALL-0206A-10		
<b>Item Description</b>	GOOSE NECK	Job No:	020624		
General Scope of Activity	Coiled Tubing Unit-5 Goose Neck	Date of Inspection	02/06/2024		
Place of Inspection	HPS Yard	Valid Until:	01/12/2024		
Reference Standards:	ASTM E709 & ASTM E 1444 (2016) ASME V Article 7 (2019)				

This is to certify that the undersigned did at the request of Halliburton, Al Burjesia Base attend their facilities at HPS Department on 02/06/2024 in order to carry out the scope of services as described below.

### 1.0 Scope of Activity:

- 1.1) Visual Inspection of Coil Tubing Unit Goose Neck, Associated Pad Eyes & Lifting Accessories
- 1.2) Magnetic Particle Inspection (MPI).
- 1.3) Review of maintenance records and Previous reports
- 1.4) Issue of Report.

# 2.0 Summary of Inspection:

- 2.1) Thorough visual inspection of Coil Tubing Unit- Goose Neck, SAP No- 12534582 and accessories including structure was carried out and found satisfactory.
- 2.2) MPI was performed on accessible structure welds, pad eyes and its associated welds. The result was found satisfactory.
- 2.3) Dimensions of pad eyes were taken. The result was found satisfactory.
- 2.4) The maintenance record of the vehicle was reviewed.

# 3.0 Identification of item(s) verified & Details of Inspection:

#### A) Goose Neck

SAP No	12534582
Location:	Coiled Tubing Unit – CTU-05





















Basra, North Rumaila, Quality Control Yard - Iraq

Tel: +9647810009138 / +9647834964657

Email: OP@qualitycontrol-iraq.com / hany.akafi@qualitycontrol-iraq.com



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### 3.1) Visual Inspection:

- The visual Inspection of the Coil Tubing Unit- Goose Neck were carried out as follows:
- The **Lifting Accessories associated with Goose Neck** were inspected for any visual damages, dents, cracks to the extent of accessibility. The results were satisfactory.
- The Structure welds of the Unit were inspected and NO visible damages observed
- The visual Inspection of **Pad Eyes** was done and found satisfactory.
- No visual damages on Painting were observed on the external surfaces.

FINAL RESULT: PASS

### 3.2) Magnetic Particle Inspection (MPI):

Magnetic particle Inspection was performed on the following components.:

- Accessible Structure Welds
- Pad Eyes and its Associated welds

**FINAL RESULT: PASS** 

### 3.3) Review of maintenance Record:

The maintenance records and test reports accessories were reviewed and found satisfactory

**FINAL RESULT: PASS** 

#### 4.0 CONCLUSION:

The above Coil Tubing Unit- **Goose Neck** was found to be in satisfactory condition after carrying out necessary inspection and tests subjected to proper maintenance according to manufacturer recommendation.



















Basra, North Rumaila, Quality Control Yard - Iraq

Tel: +9647810009138 / +9647834964657

Email: OP@qualitycontrol-iraq.com / hany.akafi@qualitycontrol-iraq.com



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# **Photographs Of Activity**





























Basra, North Rumaila, Quality Control Yard - Iraq

Tel: +9647810009138 / +9647834964657

Email: OP@qualitycontrol-iraq.com / hany.akafi@qualitycontrol-iraq.com



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PAD EYE DIMENSION						
Serial N	erial N PE-01, PE-02					
THICK.	HOLE	HOLE HEIGHT WIDTH				
2Emm	27mm	110mm	126mm	4.75		
25/11/11	2/111111	118mm	170111111	TON		

PAD EYE DIMENSION							
Serial No:	Serial No: 332937A, 332937B, 332937C, 332937D						
THICK.	HOLE	HOLE HEIGHT WIDTH SWL					
19mm	22mm	43 mm	77 mm	4.75 TON			













NDT Equipment Details							
Equipment AC YOKE Serial No: 201504048 Cal Due Date 14-Oct-2024							
Equipment	Digital Lux Meter	Serial No:	<b>Serial No:</b> 2722003		16-Oct-204		
Equipment	AC-Yoke Test Block	Serial No:	Serial No: 1657		14-Oct-2024		
White Contrast WCP-2	Magnaflux	Batch No:	<b>Batch No:</b> 220602		JUN,2025		
Black Ink 7HF	Magnaflux	Batch No: 220605 Expiry Date: JULY.2025					
White Light Intensity:	3630 lux	Magnetic Partical Concentration 7HF		1.2 to 2.4 ml/100 ml			

	INSPECTED & PREPARED BY	REVIEWED & APPROVED BY	CLIENT SIGNATURE & STAMP
NAME:	Aizaz Farhat LEEA NDT LEVEL II	Ashraf Elsaid LEEA NDT LEVEL II	
DESIGNATION	Inspector Garage Constitution of the Constitut	Supervisor	λ
SIGNATURE & SEAL	LIF COMING	Tor Ingineerors	

**REV:01 DATED: 20 JUNE 2022** 





















Basra, North Rumaila, Quality Control Yard - Iraq

Tel: +9647810009138 / +9647834964657

Email: OP@qualitycontrol-iraq.com / hany.akafi@qualitycontrol-iraq.com





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Client	HALLIBURTON	Report No:	QC-24-06/HALL-HPS-CTU-05-11		
<b>Item Description</b>	WET KIT	Job No:	QC-24-06/HALL-HPS-01		
General Scope of Activity	Coiled Tubing Unit-CTU-05 WET KIT STRUCTURE, ACCUMULATOR UTT	Date of Inspection	02-JUNE-2024		
Place of Inspection	HPS Yard	Valid Until:	1-DECEMBER-2024		
Reference Standards:	ASTM E797 & ASTM E709 & ASTM E 1444 (2016) ASME V Article 7 (2019)				

This is to certify that the undersigned did at the request of Halliburton, Al Burjesia Base attend their facilities at HPS Department on 02-June-2024 in order to carry out the scope of services as described below.

# 1.0 Scope of Activity:

- 1.1) Visual Inspection of Coil Tubing Unit WET KIT STRUCTURE
- 1.2) Magnetic Particle Inspection (MPI).
- 1.3) Ultrasonic Thickness Testing (UTT)
- 1.4) Review of maintenance records and Previous reports
- 1.5) Issue of Report.

### 2.0 Summary of Inspection:

- 2.1) Thorough visual inspection of Coil Tubing Unit- **WET KIT STRUCTURE**, **SAP No- 12534586** was carried out and found satisfactory.
- 2.2) MPI was performed on accessible **Structure welds, Pad eyes and its associated welds**. The result was found satisfactory.
- 2.3) Ultrasonic Thickness Testing was carried out on **Accumulator**. The result was found satisfactory.
- 2.4) The maintenance record of the vehicle was reviewed.

# 3.0 Identification of item(s) verified & Details of Inspection:

### A) WET KIT STRUCTURE

SAP No	12534629
ACCUMULATOR MFG	HYDRAGIC
Location:	Coiled Tubing Unit - 05





















Basra, North Rumaila, Quality Control Yard - Iraq

Tel: +9647810009138 / +9647834964657

Email: OP@qualitycontrol-iraq.com / hany.akafi@qualitycontrol-iraq.com





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### 3.1) Visual Inspection:

- The visual Inspection of the Coil Tubing Unit- WET KIT STRUCTURE was carried out as follows:
- The Structure welds of the Unit were inspected and NO visible damages observed
- The visual Inspection of **Pad Eyes** was done and found satisfactory.
- The visual Inspection of **Accumulator & Hoses** was done and found satisfactory.
- No visual damages on **Painting** were observed on the external surfaces.

**FINAL RESULT: PASS** 

### 3.2) Magnetic Particle Inspection (MPI):

Magnetic particle Inspection was performed on the following components.:

- Accessible Structure Welds
- Pad Eyes and its Associated welds

**FINAL RESULT: PASS** 

### 3.3) ULTRASONIC THICKNESS TESTING (UTT):

Ultrasonic Thickness Testing was performed on the following components.:

15 GALLON ACCUMULATOR BOTTLES (BDY BP MAWP 3000 PSI A 200°F APP 22V15G)

**FINAL RESULT: PASS** 

### 3.4) Review of maintenance Record:

The maintenance records and test reports accessories were reviewed and found satisfactory

**FINAL RESULT: PASS** 

#### 4.0 CONCLUSION:

The above Coil Tubing Unit- **WET KIT STRUCTURE & UTT of ACCUMULATORS** was found to be in satisfactory condition after carrying out necessary inspection and tests subjected to proper maintenance according to manufacturer recommendation.





















Basra, North Rumaila, Quality Control Yard - Iraq

Tel: +9647810009138 / +9647834964657

Email: OP@qualitycontrol-iraq.com / hany.akafi@qualitycontrol-iraq.com





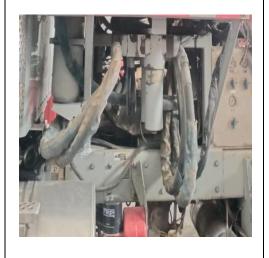
### **CERTIFICATE OF THOROUGH EXAMINATION & NDT**

This Certificate complies with the requirements of the ASTM & Lifting Equipment Operations and Lifting Equipment Regulations

# **Photographs Of Activity**

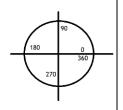






Ultrasonic Thickness Test of Accumulator Bottle				Serial No:	3901060	
SECTION	0*	90*	180*	270*	OEM Min	Result
TOP NECK	0.618	0.578	0.597	0.606	0.500	ACCEPTED
MIDDLE	0.458	0.432	0.422	0.449	0.300	ACCEPTED
BOTTOM NECK	0.621	0.607	0.634	0.613	0.500	ACCEPTED





Area of diffused echo
reflection echo
Detector

Surface

Area of diffused echo
reflection echo
Detector

Tarpet
Comoded condition
(a) Normal condition
Underside (b) Corrosion present on bask surface.

flection echo become wide small by used reflection caused by corroded brous surface.





















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Email: OP@qualitycontrol-iraq.com / hany.akafi@qualitycontrol-iraq.com





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22 Detail Z	U
Detail Y 31	
1	
2	
Detail X	

Ultrasonic Thickness Test of Accumulator  Bottle					Serial No:		390106	
	SECTION	0*	90*	180*	270*	OEM Min	Result	
1	TOP NECK	0.630	0.599	0.651	0.656	0.500	ACCEPTED	
	2 MIDDLE	0.452	0.464	0.449	0.465		ACCEPTED	
2		0.454	0.452	0.427	0.441	0.300	ACCEPTED	
		0.457	0.456	0.453	0.450		ACCEPTED	
3	BOTTOM NECK	0.657	0.617	0.662	0.587	0.500	ACCEPTED	

Ultrasonic Thickness Test of Accumulator  Bottle				Serial No:		390088	
	SECTION	0*	90*	180*	270*	OEM Min	Result
1	TOP NECK	0.586	0.616	0.615	0.602	0.500	ACCEPTED
		0.441	0.453	0.446	0.443		ACCEPTED
2	MIDDLE	0.449	0.439	0.438	0.448	0.300	ACCEPTED
		0.442	0.448	0.453	0.433		ACCEPTED
3	BOTTOM NECK	0.619	0.612	0.597	0.579	0.500	ACCEPTED

	Ultrasonic Thickness Test of Accumulator  Bottle					Serial No:		39007	
		SECTION	0*	90*	180*	270*	OEM Min	Result	
	1	TOP NECK	0.640	0.602	0.615	0.596	0.500	ACCEPTED	
		2 MIDDLE	0.459	0.426	0.434	0.451		ACCEPTED	
	2		0.438	0.435	0.448	0.443	0.300	ACCEPTED	
			0.443	0.458	0.462	0.437		ACCEPTED	
	3	BOTTOM NECK	0.629	0.589	0.604	0.596	0.500	ACCEPTED	

	Ultrasonic Thickness Test of Bottle	Serial No:		390060			
	SECTION	0*	90*	180*	270*	OEM Min	Result
1	TOP NECK	0.591	0.601	0.607	0.617	0.500	ACCEPTED
		0.428	0.417	0.448	0.432		ACCEPTED
2	MIDDLE	0.453	0.419	0.457	0.426	0.300	ACCEPTED
		0.415	0.442	0.447	0.431		ACCEPTED
3	BOTTOM NECK	0.622	0.612	0.582	0.588	0.500	ACCEPTED
		All Meas	suremer	nt in Inch	nes		





















Basra, North Rumaila, Quality Control Yard - Iraq

Tel: +9647810009138 / +9647834964657

Email: OP@qualitycontrol-iraq.com / hany.akafi@qualitycontrol-iraq.com





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This Certificate complies with the requirements of the ASTM & Lifting Equipment Operations and Lifting Equipment Regulations

	NDT Equipment Details											
Equipment	AC YOKE	Serial No:	<b>Serial No:</b> 201504048		14-Oct-2024							
Equipment	Digital Lux Meter	Serial No:	2722003	Cal Due Date	16-Oct-204							
Equipment	AC-Yoke Test Block	Serial No:	1657	Cal Due Date	14-Oct-2024							
Equipment	UT Thickness Gauge	Serial No:	5500391	Cal Due Date	14-Oct-2024							
Equipment	UT TEST BLOCK	Serial No:	NOBO5087	Cal Due Date	15-Oct-2024							
White Contrast WCP-2	Magnaflux	Batch No:	220602	Expiry Date:	JUN,2025							
Black Ink 7HF	Magnaflux	Batch No:	220605	Expiry Date:	JULY.2025							
White Light Intensity:	3630 lux	Magnetic Partical	Concentration 7HF	1.2 to 2.4 ml/100 ml								

	INSPECTED & PREPARED BY	REVIEWED & APPROVED BY	CLIENT SIGNATURE & STAMP
NAME:	Aizaz Farhat LEEA NDT LEVEL II	Ashraf Elsaid LEEA NDT LEVEL II	
DESIGNATION	Inspector (akamul Com	Supervisor	
SIGNATURE & SEAL	CO PURCLING OF THE PROPERTY OF	Tor Ingineering	

REV: 01 Dated: 20 June 2022





















Basra, North Rumaila, Quality Control Yard - Iraq

Tel: +9647810009138 / +9647834964657

Email: OP@qualitycontrol-irag.com / hany.akafi@qualitycontrol-irag.com





### CERTIFICATE OF THOROUGH EXAMINATION & NDT

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Client	HALLIBURTON	Report No:	QC-24-06/HALL-HPS-CTU- 05-12			
<b>Item Description</b>	AIR TANKS	Job No:	QC-24-06/HALL-HPS-01			
General Scope of Activity	Coiled Tubing Unit-5 AIR TANKS STRUCTURE, TANKS UTT	Date of Inspection	02-JUNE-2024			
Place of Inspection	HPS Yard	01-DECEMBER-2024				
Reference Standards:	ASTM E797 & ASTM E709 & ASTM E 1444 (2016) ASME V Article 7 (2019)					

This is to certify that the undersigned did at the request of Halliburton, Al Burjesia Base attend their facilities at HPS Department on 02-June-2024 in order to carry out the scope of services as described below.

### 1.0 Scope of Activity:

- 1.1) Visual Inspection of Coil Tubing Unit AIR TANKS STRUCTURE
- 1.2) Magnetic Particle Inspection (MPI).
- 1.3) Ultrasonic Thickness Testing (UTT)
- 1.4) Review of maintenance records and Previous reports
- 1.5) Issue of Report.

### 2.0 Summary of Inspection:

- 2.1) Thorough visual inspection of Coil Tubing Unit- AIR TANKS, was carried out and found satisfactory.
- 2.2) MPI was performed on accessible Structure welds. The result was found satisfactory.
- 2.3) Ultrasonic Thickness Testing was carried out on LEFT SIDE, BOADY & RIGHT SIDE. The result was found satisfactory.
- 2.4) The maintenance record of the vehicle was reviewed.

# 3.0 Identification of item(s) verified & Details of Inspection:

#### A) AIR TANKS

ID No	26241, 26242,26243, 26244, 26245, 348280
Location:	Coiled Tubing Unit – CTU-05





















Basra, North Rumaila, Quality Control Yard - Iraq

Tel: +9647810009138 / +9647834964657

Email: OP@qualitycontrol-iraq.com / hany.akafi@qualitycontrol-iraq.com





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### 3.1) Visual Inspection:

- The visual Inspection of the Coil Tubing Unit- AIR TANKS STRUCTURE was carried out as follows:
- The Structure welds of the Unit were inspected and NO visible damages observed
- No visual damages on **Painting** were observed on the external surfaces.

FINAL RESULT: PASS

### 3.2) Magnetic Particle Inspection (MPI):

Magnetic particle Inspection was performed on the following components.:

Accessible Structure Welds

**FINAL RESULT: PASS** 

### 3.3) ULTRASONIC THICKNESS TESTING (UTT):

Ultrasonic Thickness Testing was performed on the following components.:

- Left Side plate
- Middle Body
- Right Side plate

**FINAL RESULT: PASS** 

### 3.4) Review of maintenance Record:

The maintenance records and test reports accessories were reviewed and found satisfactory

**FINAL RESULT: PASS** 

### 4.0 CONCLUSION:

The above Coil Tubing Unit- **AIR TANKS** was found to be in satisfactory condition after carrying out necessary inspection and tests subjected to proper maintenance according to manufacturer recommendation.





















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Tel: +9647810009138 / +9647834964657

Email: OP@qualitycontrol-iraq.com / hany.akafi@qualitycontrol-iraq.com





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Ul	Ultrasonic Thickness Test of Air Tank Inches				Serial No:		5241
	SECTION	0*	90*	180*	270*	Mini Thickness	Result
1	LEFT SIDE NECK	0.129	0.118	0.121	0.132	0.095	ACCEPTED
2	. MIDDLE	0.125	0.113	0.105	0.114	0.005	ACCEPTED
2		0.115	0.127	0.113	0.117	0.095	ACCEPTED
3	RIGHT SIDE NECK	0.121	0.127	0.115	0.129	0.095	ACCEPTED

	Ultrasonic Thickness Test of Air Tank Inches					Serial No:		26242	
		SECTION	0*	90*	180*	270*	Mini Thickness	Result	
	1	LEFT SIDE NECK	0.119	0.133	0.127	0.118	0.095	ACCEPTED	
	2	2 MIDDLE	0.108	0.112	0.107	0.115	0.095	ACCEPTED	
	2		0.113	0.125	0.123	0.117	0.095	ACCEPTED	
	3	RIGHT SIDE NECK	0.132	0.128	0.138	0.126	0.095	ACCEPTED	

Serial No: 26243
* 180* 270* Mini Thickness Result
29 0.124 0.134 0.095 ACCEPTED
06 0.115 0.103 0.095 ACCEPTED
09 0.111 0.116 0.093 ACCEPTED
22 0.134 0.112 0.095 ACCEPTED

Ultrasonic Thickness Test of Air Tank Inches			Seria	al No: 26244		5244	
	SECTION	0*	90*	180*	270*	Mini Thickness	Result
1	LEFT SIDE NECK	0.132	0.135	0.128	0.131	0.095	ACCEPTED
2	MIDDLE	0.109	0.111	0.113	0.105	0.095	ACCEPTED
2	IVIIDDLE	0.112	0.115	0.107	0.117		ACCEPTED
3	RIGHT SIDE NECK	0.134	0.136	0.128	0.127	0.095	ACCEPTED

Ultrasonic Thickness Test of Air Tank Inches			Seria	al No:		6245
SECTION	0*	90*	180*	270*	Mini Thickness	Result
LEFT SIDE NECK	0.136	0.127	0.132	0.126	0.095	ACCEPTED
MIDDLE	0.112	0.107	0.119	0.110	0.005	ACCEPTED
MIDDLE	0.104	0.113	0.117	0.109	0.095	ACCEPTED
RIGHT SIDE NECK	0.137	0.131	0.130	0.129	0.095	ACCEPTED

All Measurement in Inches





















Basra, North Rumaila, Quality Control Yard - Iraq

Tel: +9647810009138 / +9647834964657

Email: OP@qualitycontrol-iraq.com / hany.akafi@qualitycontrol-iraq.com





### **CERTIFICATE OF THOROUGH EXAMINATION & NDT**

This Certificate complies with the requirements of the ASTM & Lifting Equipment Operations and Lifting Equipment Regulations



Ultrasonic Thickness Test of Air Tank Inches				l No:	348280	
SECTION	0*	90*	180*	270*	Mini Thickness	Result
LEFT SIDE NECK	0.128	0.129	0.133	0.127	0.095	ACCEPTED
MIDDLE	0.117	0.139	0.121	0.112	0.095	ACCEPTED
MIDDLE	0.123	0.129	0.117	0.127		ACCEPTED
RIGHT SIDE NECK	0.138	0.132	0.138	0.136	0.095	ACCEPTED

NDT Equipment Details							
Equipment	AC YOKE	Serial No:	201504048	Cal Due Date	14-Oct-2024		
Equipment	Digital Lux Meter	Serial No:	2722003	Cal Due Date	16-Oct-204		
Equipment	AC-Yoke Test Block	Serial No:	1657	Cal Due Date	14-Oct-2024		
Equipment	UT Thickness Gauge	Serial No:	5500391	Cal Due Date	14-Oct-2024		
Equipment	UT TEST BLOCK	Serial No:	NOBO5087	Cal Due Date	15-Oct-2024		
White Contrast WCP-2	Magnaflux	Batch No:	220602	Expiry Date:	JUN,2025		
Black Ink 7HF	Magnaflux	Batch No:	220605	Expiry Date:	JULY.2025		
White Light Intensity:	3630 lux	Magnetic Partical Concentration 7HF		1.2 to 2.4 ml/100 ml			

	INSPECTED & PREPARED BY	REVIEWED & APPROVED BY	CLIENT SIGNATURE & STAMP
NAME:	Aizaz Farhat LEEA NDT LEVEL II	Ashraf Elsaid LEEA NDT LEVEL II	
DESIGNATION	Inspector (akamul Com	Supervisor	
SIGNATURE & SEAL	COMIROL TROP	Tor Ingineering	

REV: 01 Dated: 20 June 2022



















