

# ATMOSPHERIC STORAGE TANK INSPECTION FORM



An Integrity Focused Inspection Company

P.O. Box 3278, Wainwright, AB T9W 1T2

Phone 780 842-6264 Fax 780 842 6248

Date 2020-06-12  
CLIENT Calroc Industries

Brias Job Number 2530  
LSD Calroc Industires Yard RR 14 Lloydminster

## ATMOSPHERIC STORAGE TANK STATIC INFORMATION

Manufacturer	<u>Universal Industries</u>	Serial Number	<u>97 05</u>
Capacity	<u>750 BBL</u>	Year Built	<u>1997</u>
Code	<u>API</u>	Edition	<u>1993</u>
Diameter	<u>15' 3"</u>	Height	<u>24'</u>
Bottom Thickness	<u>0.250"</u>	Roof Thickness	<u>0.188"</u>
Shell Course 1	<u>0.188"</u>	Shell Course 2 & Up	<u>0.188"</u>

At Time of Inspection tank was ☐ In Service ☒ Out of Service

Tank going back into service after inspection ☒ No

Surplus ☒ Yes ☐ No

Construction ☒ Steel ☐ Fiberglass ☐ Plastic ☒ Seal Welded ☐ Bolted ☐ Riveted ☐ Double Wall

## INSPECTION SUMMARY

- A VE, VI and Spot UT was performed on tank only. Tank was found to be acceptable
- Inspection was performed on what was visible and not covered in oil and debris
- Ladder / Platforms are disconnected
- Holidays in coating on shell, tank bottom and nozzles
- Previous repairs evident
- 4 dents evident in shell

## RECOMMENDATIONS


- Clean tank thoroughly before placing into service
- Patch coat holidays in coating
- Continue to monitor dents in shell

## INSPECTION TYPE PERFORMED, INTERVAL AND SIGN OFF

Inspection Type ☒ VE ☒ VI ☐ LFET ☐ MFL ☒ UT ☐ MT ☐ HOLIDAY EXAM

Inspection Interval 5 Years Next Inspection Due June 2025

Next Inspection Type ☒ VE ☒ VI ☐ LFET ☒ MFL ☒ UT ☐ MT ☐ HOLIDAY EXAM

Inspector: Derek Pfisterer 653 Cert # 58760 Sign off  Date 2020-06-12

Report Reviewed By: \_\_\_\_\_ Sign off \_\_\_\_\_ Date \_\_\_\_\_

## EXTERNAL TANK

### Nameplate

(API 650 10.1)

Nameplate is Legible and Readily Accessible

As New	Acceptable				NA	Comments
	In-Service Condition	Continue to Monitor	Requires Repair			

### Double Wall Tank

(AER G55 5.3.3)

Interstitial Leak Detection

As New	Acceptable				NA	Comments
	In-Service Condition	Continue to Monitor	Requires Repair			

## EXTERNAL ATTACHMENTS

### Appurtenances

Gauge Board  
Envirovault  
Ladder and Platforms

As New	Acceptable				NA	Comments
	In-Service Condition	Continue to Monitor	Requires Repair			

## EXTERNAL SHELL

### Shell

(API 653 4.3)

Dents or Other Physical Defects  
Corrosion Evident  
Coating Condition  
Percent of Shell that is Insulated  
Condition of Spray on Insulation  
Condition of Clad Insulation  
Condition Around Openings and Manway  
Floor Plate Extends Past Shell  
Manway Condition  
Manway Door Removed for Inspection

As New	Acceptable				NA	Comments
	In-Service Condition	Continue to Monitor	Requires Repair			

☒ Yes

☐ No

## INTERNAL INSPECTION

### Roof Internal

#### Roof

(API 653 4.2)

	As New	Acceptable In-Service Condition	Continue to Monitor	Requires Repair	NA	Comments
General Corrosion, Holes, Other Damage						No corrosion evident
Scaling Evident						
Rafters and Girders						
Internal Supports						
Inspection Performed from Tank Floor	Yes					

### Shell Internal

#### Shell

(API 653 4.3)

	As New	Acceptable In-Service Condition	Continue to Monitor	Requires Repair	NA	Comments
Internal Manway Condition						
Floor to Shell Interface						
General Corrosion Evident						No corrosion evident
Pitting Corrosion Evident						
Dents or Other Mechanical Defects						
Weld Seams - Corrosion, Weld Quality						
Nozzles Back Welded						
Internal Attachments (Supports, Baffles)						
Nozzle Inspection						Holidays in coating
Internal Coating Condition						Holidays in coating
Internal Piping (Bolting, Supports)						
Internal Float						No guide wires
Envirovault						
Portion of Tank Clean for Internal Inspection						
Bottom Course						

### Bottom Internal

#### Bottom

(API 653 4.4)

	As New	Acceptable In-Service Condition	Continue to Monitor	Requires Repair	NA	Comments
General Corrosion						No corrosion evident
Pitting Corrosion						
Welds						
Internal Coating Condition						Holidays in coating
UT Results						Spot UT performed

### Burner Tube

Tube Cleaned for Inspection

☐ Yes ☐ No ☒ NA

Tube Removed During Inspection

☒ NA

#### Burner Tube

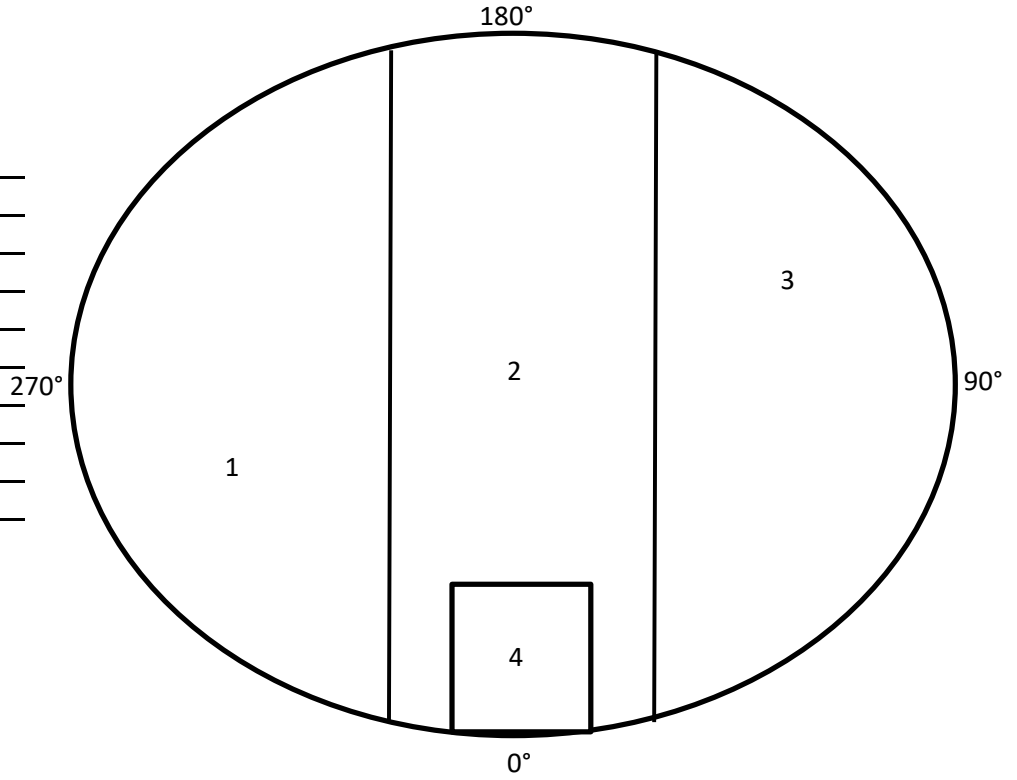
	As New	Acceptable In-Service Condition	Continue to Monitor	Requires Repair	NA	Comments
Condition						
Burner Tube Throat						
Burner Tube Supports						

## INTERNAL INSPECTION

### Bottom Details/ Comments

#### Comments

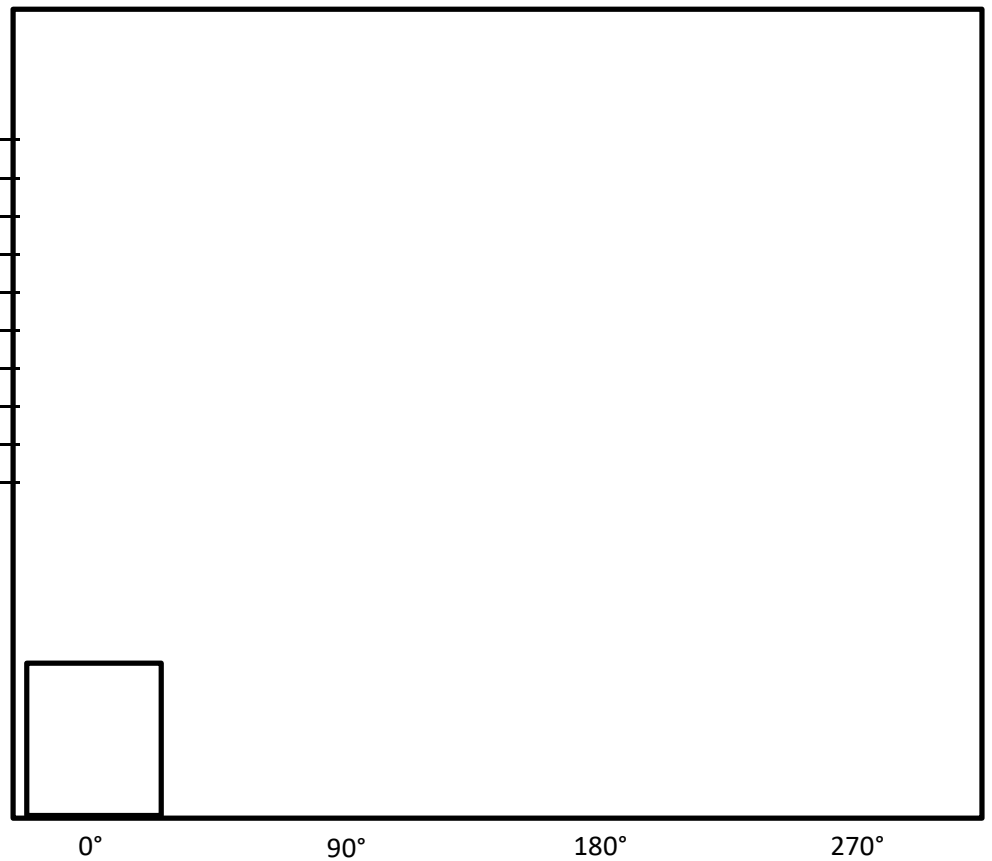
- 1 Plate 1
- 2 Plate 2
- 3 Plate 3
- 4 Manway
- 5
- 6
- 7
- 8
- 9
- 10



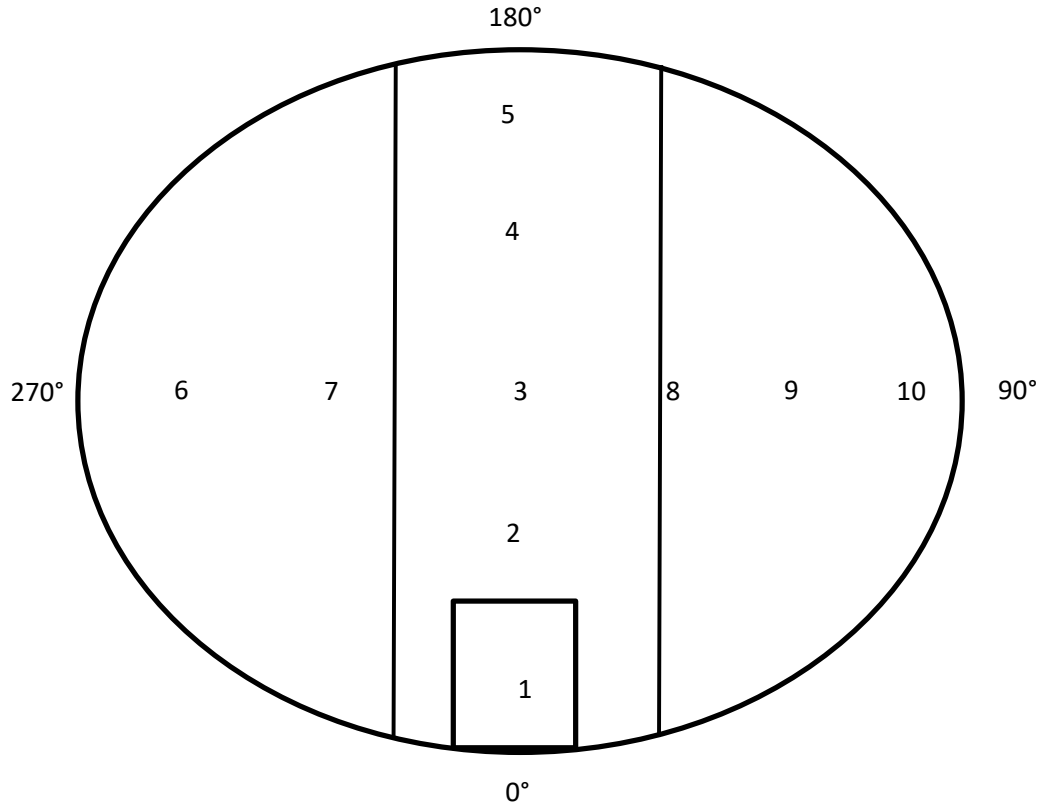
### Shell Details/ Comments

#### Comments

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10



## Bottom UT CORROSION SURVEY

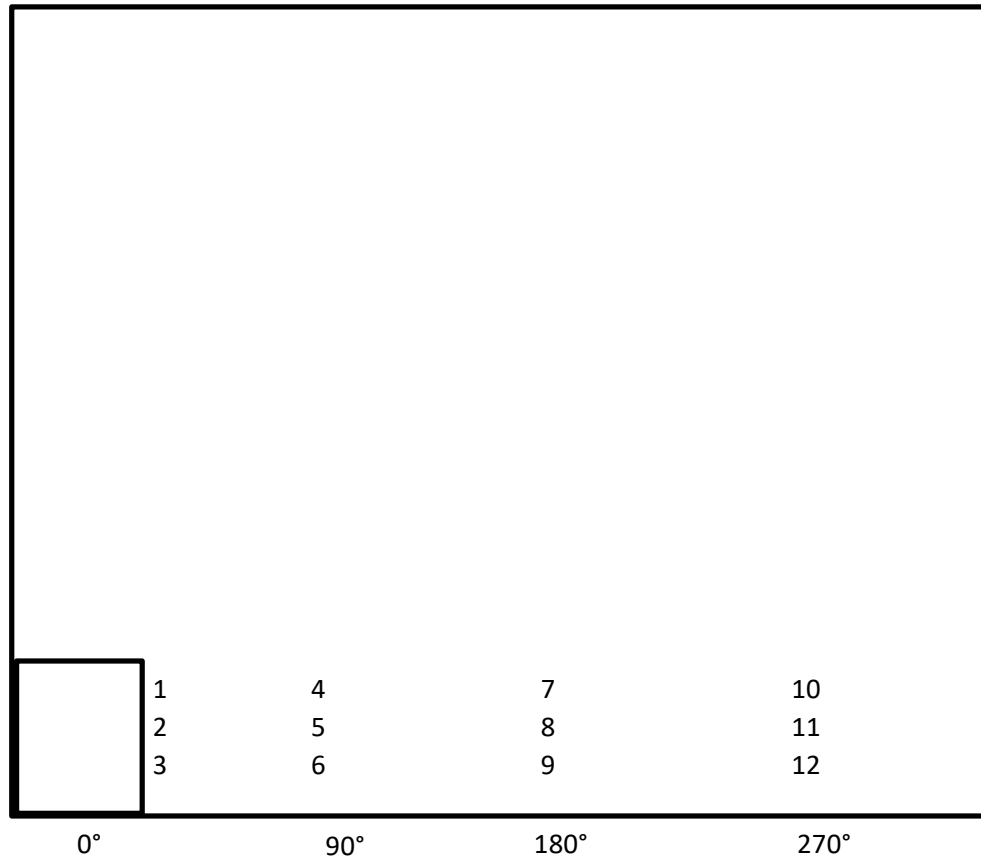


TML #	First Survey Thickness	First Survey Date	Previous Survey Thickness	Previous Survey Date	Last Survey Thickness	Last Survey Date	Corrosion Rate (Inches/Years)	Remaining Life of Bottom(Years)
1	0.250	1997	NA	NA	0.246	2020	0.0002	839.50
2	0.250	1997	NA	NA	0.243	2020	0.0003	469.86
3	0.250	1997	NA	NA	0.247	2020	0.0001	1127.00
4	0.250	1997	NA	NA	0.241	2020	0.0004	360.33
5	0.250	1997	NA	NA	0.246	2020	0.0002	839.50
6	0.250	1997	NA	NA	0.248	2020	0.0001	1702.00
7	0.250	1997	NA	NA	0.245	2020	0.0002	667.00
8	0.250	1997	NA	NA	0.244	2020	0.0003	552.00
9	0.250	1997	NA	NA	0.244	2020	0.0003	552.00
10	0.250	1997	NA	NA	0.248	2020	0.0001	1702.00

**API 653 - Table 4.4 - Bottom Plate Minimum Thickness**

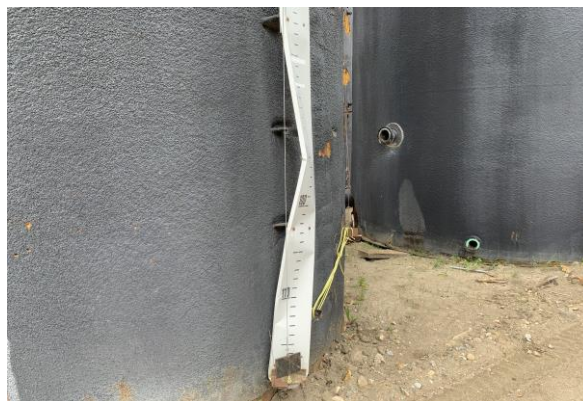
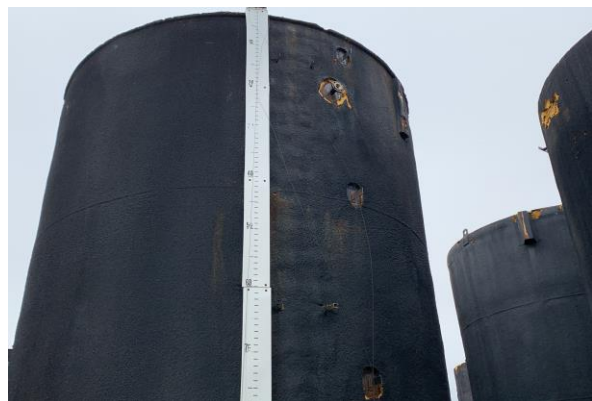
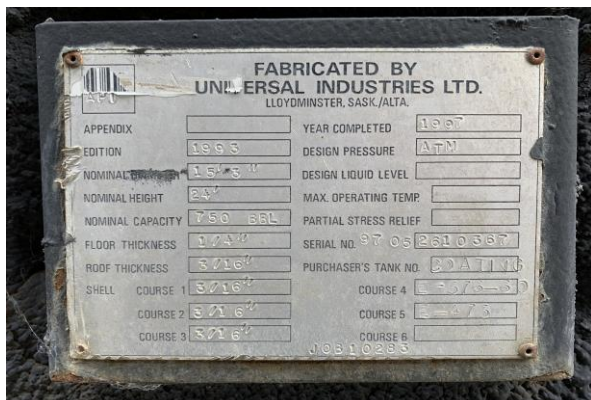
Minimum Bottom Plate Thickness at Next Inspection (in.)	Tank Bottom/ Foundation Design
0.1	Tank bottom/foundation design with no means for detection and containment of a bottom leak.

## SHELL UT CORROSION SURVEY

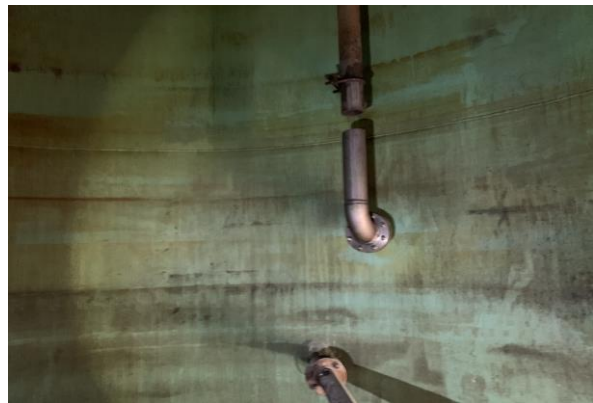


TML #	First Survey Thickness	First Survey Date	Previous Survey Thickness	Previous Survey Date	Last Survey Thickness	Last Survey Date	Corrosion Rate (In./Years)	Remaining Life of Shell(Years)
1	0.188	1997	NA	NA	0.186	2020	0.0001	2139.00
2	0.188	1997	NA	NA	0.183	2020	0.0002	841.80
3	0.188	1997	NA	NA	0.184	2020	0.0002	1058.00
4	0.188	1997	NA	NA	0.187	2020	0.0000	4301.00
5	0.188	1997	NA	NA	0.187	2020	0.0000	4301.00
6	0.188	1997	NA	NA	0.186	2020	0.0001	2139.00
7	0.188	1997	NA	NA	0.185	2020	0.0001	1418.33
8	0.188	1997	NA	NA	0.187	2020	0.0000	4301.00
9	0.188	1997	NA	NA	0.183	2020	0.0002	841.80
10	0.188	1997	NA	NA	0.186	2020	0.0001	2139.00
11	0.188	1997	NA	NA	0.187	2020	0.0000	4301.00
12	0.188	1997	NA	NA	0.184	2020	0.0002	1058.00

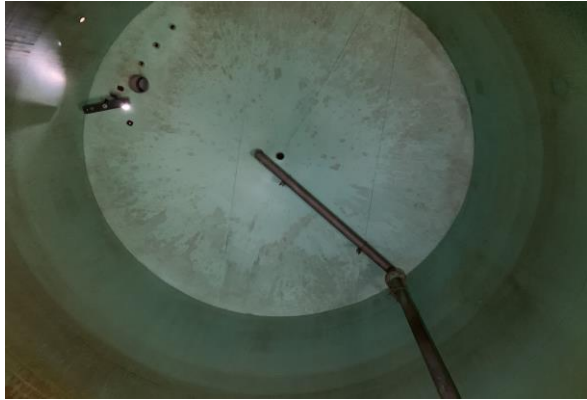
## PICTURES











### **Scope of Services**

The agreement of Brias Inc. to perform services extends only to those services provided for in writing. Under no circumstance shall such services extend beyond the performance of the requested services. It is expressly understood that all descriptions, comments and expressions of opinion reflect the opinions or observations of Brias Inc. based on information and assumptions supplied by the owner/operator and are not intended nor can they be construed as representations or warranties. Brias Inc. is not assuming any responsibilities of the owner/operator and the owner/operator retains complete responsibility for the engineering, manufacture, repair and use decisions as a result of the data or other information provided by Brias Inc. In no event shall, Brias Inc., liability in respect of the services referred to herein exceed the amount paid for such services.

### **Standard of Care**

In performing the services provided, Brias Inc. uses the degree, care and skill ordinarily exercised under similar circumstances by others performing such services in the same or similar locality. No other warranty, expressed or implied, is made or intended by Brias Inc.