

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

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

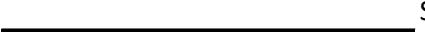
INSPECTION TYPE PERFORMED, INTERVAL AND SIGN OFF

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 2020-06-12

EXTERNAL TANK

Nameplate (API 650 10.1)

Nameplate is Legible and Readily Accessible

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

Double Wall Tank (AER G55 5.3.3)

Interstitial Leak Detection

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

EXTERNAL ATTACHMENTS

Appurtenances

Gauge Board

Envirovault

Ladder and Platforms

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

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

	Acceptable In-Service Condition	Continue to Monitor	Requires Repair	NA	Comments
As New					Tank is insulated
					100% insulated
					Insulation is damaged

Yes

No

INTERNAL INSPECTION

Roof Internal

Roof (API 653 4.2)	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)	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					
Envirovault					No guide wires
Portion of Tank Clean for Internal Inspection					

Bottom Course

Bottom Internal

Bottom (API 653 4.4)	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	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	Tube Removed During Inspection	<input checked="" type="checkbox"/> NA
Burner Tube	Acceptable In-Service Condition	As New	Continue to Monitor	Requires Repair	NA
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

270°

180°

3

2

4

90°

0°

Shell Details/ Comments

Comments

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

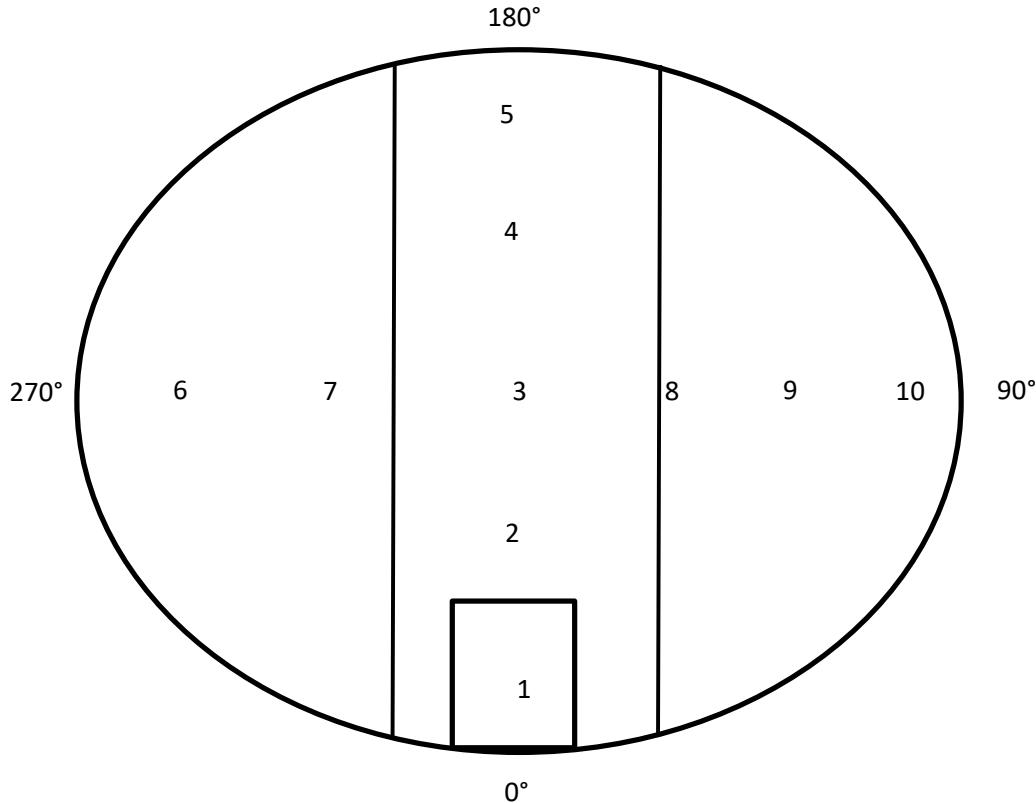
0°

90°

180°

270°

Bottom UT CORROSION SURVEY

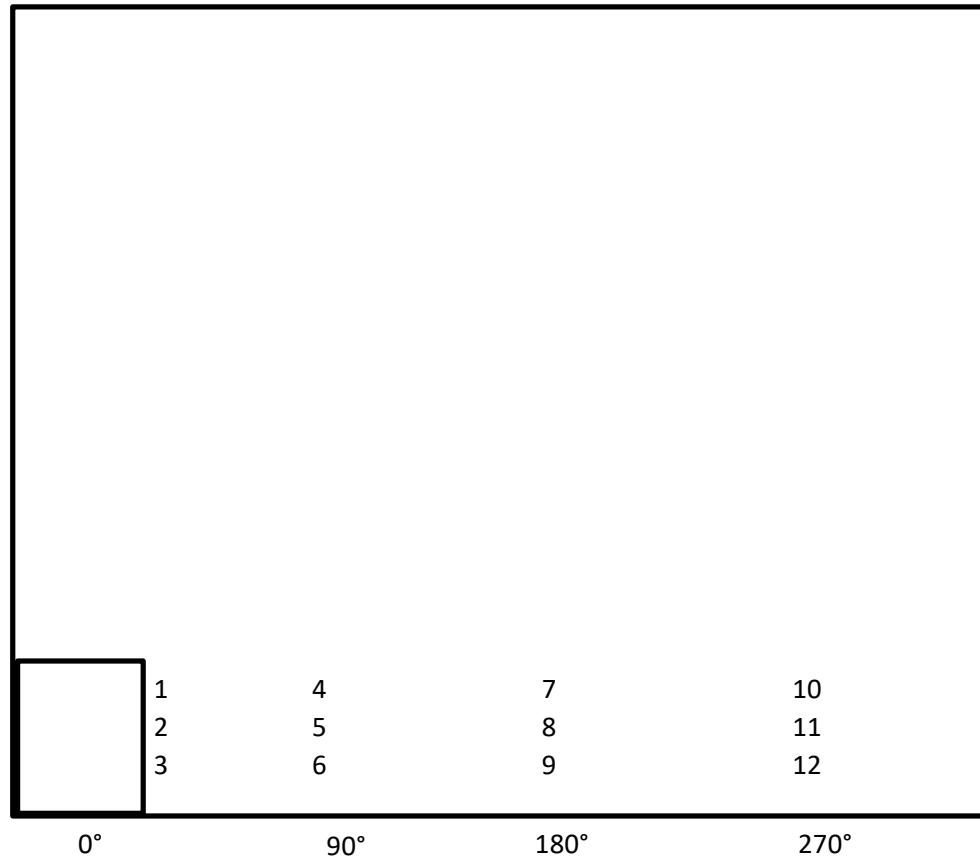


TML #	Previous			Corrosion				Remaining Life of Bottom (Years)
	First Survey Thickness	First Survey Date	Survey Thickness	Previous Survey Date	Last Survey Thickness	Last Survey Date	Rate (Inches/Years)	
1	0.250	1997	NA	NA	0.246	2020	0.0002	839.50
2	0.250	1997	NA	NA	0.243	2020	0.0003	469.86
3	0.250	1997	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

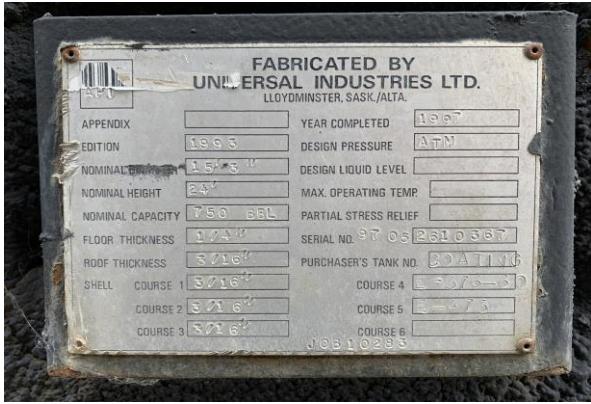
Minimum Bottom Plate Thickness at Next Inspection (in.)	Tank Bottom/ Foundation Design
0.1	Tank bottom/foundation design with no means for detection and containment of a bottom leak.

SHELL UT CORROSION SURVEY

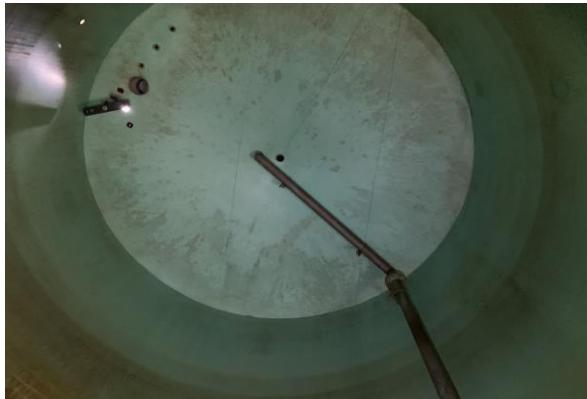


TML #	First Survey		Previous Survey		Last Survey		Corrosion Rate (In./Years)		Remaining Life of Shell (Years)
	Thickness	Date	Thickness	Survey Date	Thickness	Date	(In./Years)		
1	0.188	1997	NA	NA	0.186	2020	0.0001	2139.00	
2	0.188	1997	NA	NA	0.183	2020	0.0002	841.80	
3	0.188	1997	NA	NA	0.184	2020	0.0002	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.