

ULTRASONIC EXAMINATION REPORT (Tank)

REPORT No.: **UT - 2-2865 - 01 - AAC**

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Client: Enerplus Corporation
 District: Shallow Gas: Shackleton LSD: 12-26-021-20W3M
 Facility: Lancer
 Item(s) Examined: 750 BBL Tank Internal Corrosion Survey
 Acceptance Criteria: For Client Review Rev. / Date: N/A
 Procedure No.: ITS UT 02 Rev. / Date: Rev. 1 / Oct. 2011
 Technique No.: 2 Rev. / Date: Rev. 1 / Oct. 2011

ITS Job No.: 2-2865
 Date: August 12, 2014
 Time: 16:00
 W.O. No.: N/A
 P.O. No.: N/A
 Cost Code: N/A
 AFE: N/A
 Other: N/A

Equipment Data:

PRN: (A) N/S Serial No.: 7439 Equip. No.: E48766 CRN: N/S
 Material: N/S Thickness: See Below Other: N/A

Surface Condition:

Base Metal Machined Shot Blasted Wire Wheeled As Ground As Welded Painted Coated Other: N/A
 < 0°C (32°F) 0°C (32°F) to 54°C (130°F) 55°C (131°F) to 100°C (212°F) > 100°C (212°F)

Ultrasonic Equipment:

Instrument: OLYMPUS Model: EPOCH LTC Serial No.: 110219702 Cal. Due Date: 17-Mar-15
 Cal. Block: Metric Step Wedge 2.5mm to 12.5mm Carbon Steel Serial No.: 12 3168 Couplant: UTX
 Cal. Block: Metric Step Wedge 6.5mm to 25 mm Carbon Steel Serial No.: 12 2370
 Transducer Cable(s); Type: BNC to Microdot Length: 6'

Transducer:

Serial No.:	Angle (X°):	Frequency (MHz):	Size (mm):	Type		Primary Reference (db) (%FSH):	Scanning Sensitivity (db):	Transfer Value (db):	Range (mm):
				Single	Dual				
13K021C2	0	5	6.35	<input type="checkbox"/>	<input checked="" type="checkbox"/>	53dB at 80% FSH	≥6dB, maintain 80%FSH	N/A	25 - 50
				<input type="checkbox"/>	<input type="checkbox"/>				
				<input type="checkbox"/>	<input type="checkbox"/>				
				<input type="checkbox"/>	<input type="checkbox"/>				

Examination Details:

Reference MFL REPORT No.: **MFL - N/A - -**

SCOPE: To perform a ultrasonic corrosion survey on various sections of Tank SN#7439 in the Lancer area looking for corrosion and wall thinning.

Ultrasonic thickness readings taken on the tank wall and bottom floor sections.

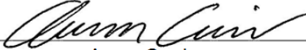
RESULTS:

Thickness readings provided for clients review.

CONCLUSION:

Client Representative: _____ Sign: _____ Date: _____

Technician(s):

Sign: 
 Print: Aaron Cowie
 Level: CGSB SNT ACCP/ASNT
 Certification No.: 11597
 1st Technician

Level: CGSB SNT ACCP/ASNT
 Certification No.: _____
 2nd Technician / Assistant

Report Review: 
 Initial

Scope of Services
 The agreement of Integrity Testing Services Inc. to perform services extends only to those services provided for in writing. Under no circumstances shall such services extend beyond the performance of the requested inspection of specific equipment provided for in writing and the preparation of reports or similar documents reflecting the inspection data obtained or the opinion formulated on the basis of such inspection. It is expressly understood that all descriptions, comments and expressions of opinion reflect the opinion or observations of the examiner and are not intended nor can they be construed as representations or warranties as to the actual circumstances. ITS is not assuming any responsibilities of the owner/operator, and the owner/operator retains complete responsibility for the engineering, repair and use decisions as a result of the inspection data or other information provided by ITS. In no event shall ITS's liability in respect of the services referred to herein exceed the amount paid for such services.
 Standard of Care
 In performing the services provided, Integrity Testing Services 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 ITS.

CONTINUATION EXAMINATION REPORT (Tank)

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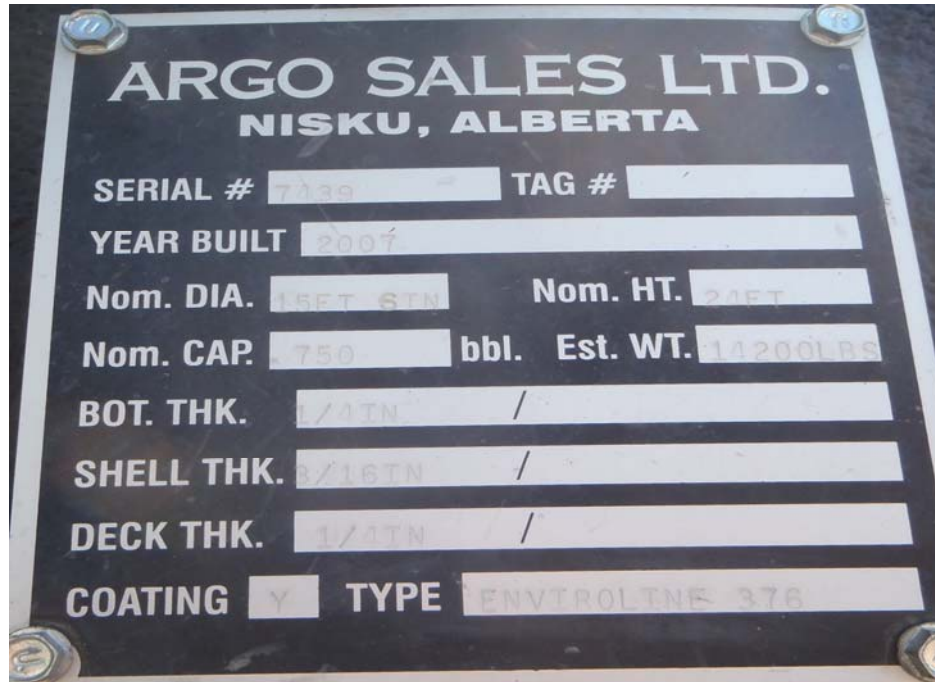
Client: Enerplus Corporation

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Date: August 12, 2014

PHOTOS



NAME PLATE



OVERALL VIEW

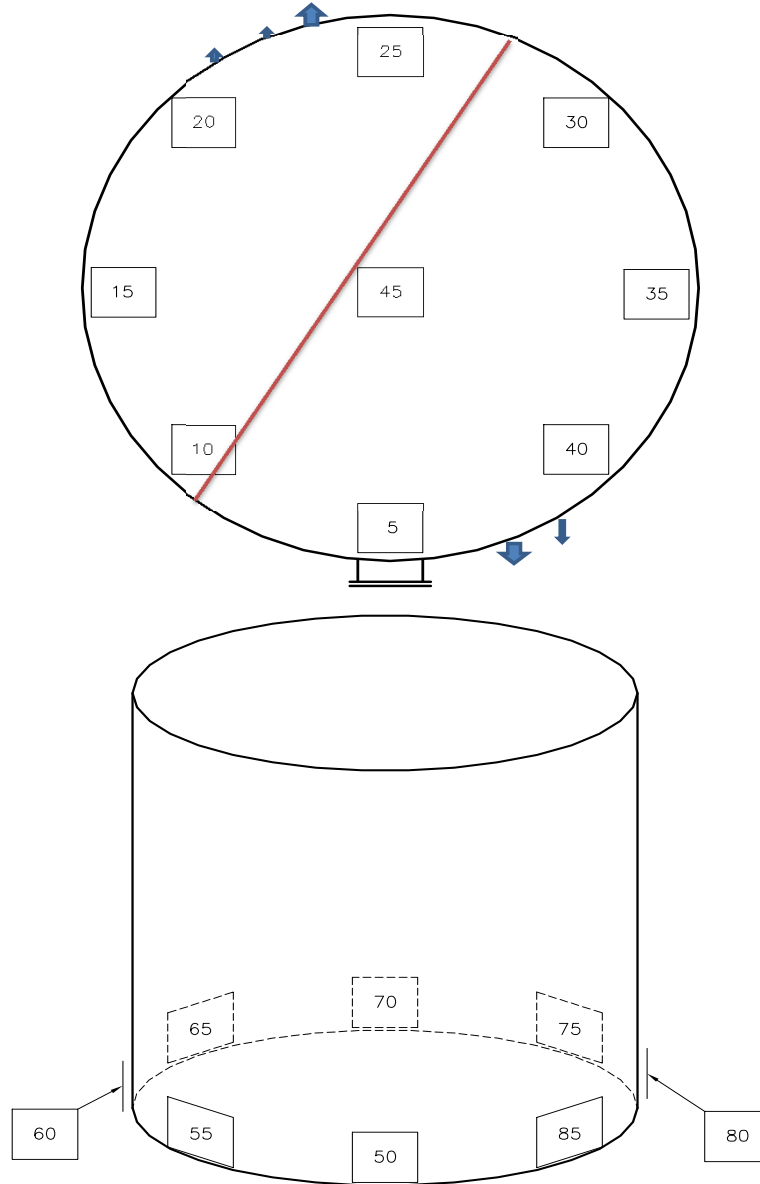
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Note: Indicate floor welds, number of shell courses, Manway location(s), Nozzle locations and Internal components. Indicate concern areas and provide measurements to said areas.

TANK DATA

Equip. No.:	E48766	Serial No.:	7439	Year Built:	2007	Corr. Allow:	N/S	Insulated:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Height:	609.6 mm	Diameter:	4724.4 mm	Floor Thick.:	6.35 mm	Roof Thick.:	4.76 mm	Manway:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Capacity:	750 bbl	No. of Courses:	4	Shell Thick.:	4.76 mm	Internal Coating:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Internal Lining:	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N
Tank Mat'l:	Steel	Foundation Type:	Skid						

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UT DATA

FLOOR

Floor Location	05	10	15	20	25	30	35	40
Minimum	7.1	7.2	6.9	6.9	7.2	7.9	7.1	7.2
Average	7.3	7.3	67.2	7.1	7.4	8.2	7.4	7.4

Floor Location	45							
Minimum	7.2							
Average	7.6							

Floor Comments:

SHELL

Shell Course Location	50	55	60	65	70	75	80	85
Minimum	5.8	5.8	5.8	5.7	6.8	5.9	5.7	5.8
Average	6.2	6.1	6.1	5.9	7.2	6.1	5.9	6.0

Shell Course Location								
Minimum								
Average								

Shell Comments: Corroded area is around nozzle welds down to 4.3 mm.

ROOF

Roof Location								
Minimum								
Average								

Roof Location								
Minimum								
Average								

Roof Comments:

NOZZLES

TML Number								
TML Description								
Direction:								
Flange Rating:								
Pipe Schedule:								
Nominal Thickness:								
Corr. Allowance:								
Minimum Thickness:								
Readings	1)							
	2)							
	3)							
	4)							

Nozzle Comments: