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Ultrasonic Inspection Report

UT_A 0638376_mar2026

Client: Fuelled	Facility: GP Yard	Date: Mar 3, 2026
LSD: n/a	Item(s) Inspected: 4in Coils	Job #: 15338
Material: Carbon Steel / Stainless Steel	Thickness Range: 0 to 75mm	WO #: n/a
Procedure: UT-01 Rev. 10	Ref. Code: ASME VIII & ASME B31.3	Surf. Temp: -20° to 20° C Surf. Prep: Painted
UT Equipment: Asset# FD-18	Olympus Epoch XT	Serial Number: 060021909 Cal. Due: Aug. 1, 2026
Transducer 1: Asset# T-282	Technisonic Research 0° Dual 5MHz	Diam. 6.35mm Serial #37325
Transducer 2: Asset# T-221	Olympus Pulse Echo 0° 5MHz	Diameter 12.7mm Serial Number: 1376830
Transducer 3: Asset# T-168	Olympus D790-SM Hot Probe 0° 5MHz	Diam. 6.35mm Serial #1196677
Cal. Block 1: Asset# CB-81 (1018)	Carbon Steel 6-step wedge	Serial Number: 64289
Cal. Block 2: Asset# CB-60	Stainless Steel Step Wedge	2.5mm to 12.5mm Serial Number: 18-1715
Couplant: Magnaflux UTX	Cable 1: 2m Dual BNC to Microdot	Cable 2: 2m Single BNC to Microdot

Job Scope: To perform a baseline ultrasonic thickness survey on the requested coils, A 0638376 located at the Kinetic Energies GP Yard.

Results: See attached UTS drawing and data sheets for all point locations and recorded thickness measurements.

Client Representative: Will Van Weelden
Technician(s): Kevin Wedler (CGSB UT-2, MT-2 #24491) (SNT-TC-1A UT-II, MT-II)
Assistant(s):
Reviewed and Approved By: Lance Smith (CGSB MT-2, UT-2, PT-2, RT-1 #8052) (SNT-TC-1A MT-II, UT-II, PT-II)

This document is a short excerpt from the Lance Inspections NDT Procedures and Techniques Manual, revision 10, sections 2 and 3. A copy of the Lance Inspections NDT manual is available by request to sutz@lanceinspections.com.

Lance Inspections completes two typical types of a UTS: a baseline and a resurvey.

A **baseline** is when Lance Inspections has not completed a previous thickness survey on the pressure equipment requiring testing. The equipment is to be drawn isometrically; the static data is to be recorded; the UT scan locations (CMLs) are to be chosen, scanned, and the thickness readings are to be recorded.

A **resurvey** is when pressure equipment has had a previous UTS completed by Lance Inspections. All the equipment has already been drawn, the data has already been recorded, and the UT CML locations have already been chosen. For this inspection, UT is to be completed on the existing CMLs, and the thickness readings are to be recorded for comparison purposes.

Condition Monitoring Locations (CMLs)

CMLs are the locations where UT will be conducted. In-depth instruction on where CMLs should be placed is not possible because of the different vessel types, processes, damage mechanisms, and piping configurations.

Lance Inspections has a general guideline for selecting CML test points on pressure equipment, which can be found in the Lance Inspections NDT Procedure and Techniques Manual (Rev. 10, Section 3). Additional CML placement is based on the Technician's experience, knowledge of the process, initial findings, or client request. All CML locations are identified on a drawing that is in the UTS report.

Lance Inspections identifies each CML on the pressure vessel or piping with a numbered metal tag and marks the scan area with a paint marker. This is for the client's knowledge and to assist Lance Inspections technicians with UTS resurveys. It is essential to accurately locate and scan the same CML areas as in previous inspections for trendability.

At Lance Inspections, the horizontal and vertical CMLs for UTS scanning are typically 3 inches wide x 16 inches long. These bands are primarily used for vertical and horizontal pressure vessel shells and heads. Circular CMLs on piping are typically 3 inches wide x 360°. The average scan location on a fitting is a 3" wide band at critical areas as accessible, such as the outside radius of elbows, neck of tees, the back of tees, or any other areas of concern.

Low-Thickness Readings Identification

Thickness readings that are less than a predetermined thickness (referred to as a flag thickness) are marked in blue on the CML identification drawings in the UTS report. Lance Inspections does not deem CMLs acceptable or rejectable. Flagged CMLs in the report are for client review purposes.

Lance inspections determines the flag thicknesses for each CML by the following methods:

A pressure vessel's flag thickness is determined by subtracting the given designed corrosion allowance from the nominal thickness. If there is no stated corrosion allowance available, then Lance Inspections uses a Thickness Reduction Flag (TRF) value for vessel and nozzle CMLs. This value is 1.5mm (0.059") less than the known nominal thickness. Without a known nominal, the flag thickness for vessel and nozzle CMLs will be 1.5mm (0.059") from the initial minimum thickness reading.

A flag thickness for piping is determined by subtracting 12.5% (mill tolerance) from the pipe nominal thickness. The 12.5% is considered the corrosion allowance on the UTS report. Piping and fitting points without a known nominal thickness will have a 1.5mm corrosion allowance taken from the initial minimum thickness reading for the flag.

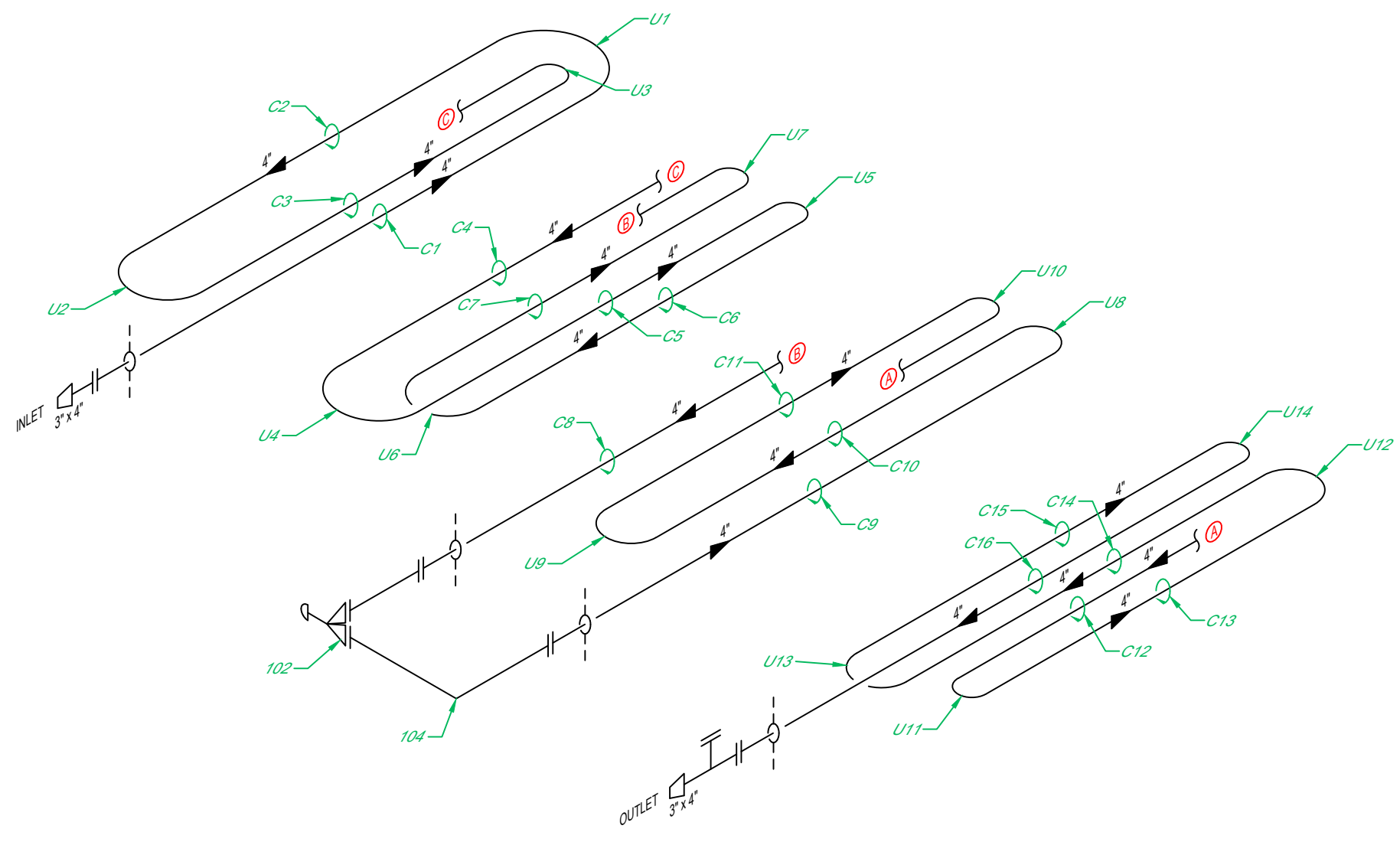
Sincerely,




Lance Smith,
Owner/General Manager
Lance Inspections Inc.



Steve Utz
NDT Level 3/Quality Control Manager
Lance Inspections Inc.



NOTE: LOCATED AT KINETIC ENERGY'S GP YARD.

	Customer: <u>FUELLED</u>	Description: <u>4IN COIL</u>
	Facility: <u>GP YARD</u>	Location: <u>PORTABLE</u>
CRN #: <u>W04129.2</u>	Reg A#: <u>0638376</u>	Serial #: <u>12-035-CB</u> Drawing#: <u>1</u>
	Manufacturer: <u>KOOTENAY</u>	Unit #: <u>N/S</u> Year Built: <u>2014</u>
Shell MAWP: _____	Shell MAWT: _____	Shell Material: _____ Nominal: _____ CA: _____
Tube "A" MAWP: <u>34612 kPa</u>	Tube "A" MAWT: <u>93°C</u>	Head Material: _____ Nominal: _____ CA: _____
Tube "B" MAWP: <u>34612 kPa</u>	Tube "B" MAWT: <u>93°C</u>	Tube Material: <u>N/S</u> Nominal: <u>17.1mm</u> CA: <u>2.1mm</u>
Size: <u>4in</u>	Manway: <u>NO</u> MDMT: <u>N/S</u>	Boot Shell Mat: _____ Nominal: _____ CA: _____
Insulated: <u>NO</u>	C Stamp: <u>N/S</u> RT: <u>100% PWHT: YES</u>	Boot Head Mat: _____ Nominal: _____ CA: _____

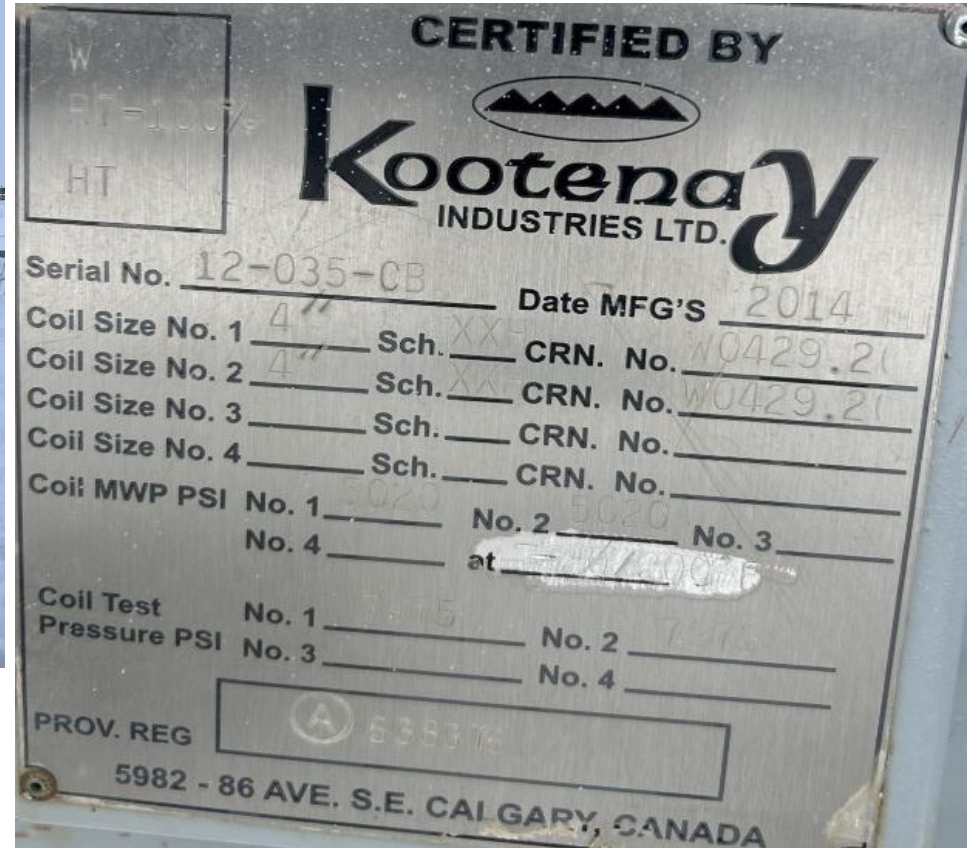


Client: **Fuelled**
 Unit #: **n/s**
 Equip Description: **4in Coil**
 Reg A#: **0638376**
 Drawing #: **1**

Vessel Overview



Data Plate





UTS Data Sheet

Client: **Fuelled**
 Unit #: **n/s**
 Equip Description: **4in Coil**
 Reg A#: **0638376**
 Drawing #: **1**

	Nominal Thickness (mm)	Corrosion Allowance (mm)	Flag Thickness (mm)
102 Description: 4" Choke Body (SN: F001732928) Date: Mar. 3, 26 Minimum: 18.2 Average: 19.0 Comments:	17.1	2.1	15.0

104 Description: 4" 90° Elbow Date: Mar. 3, 26 Minimum: 16.5 Average: 17.9 Comments:	17.1	2.1	15.0
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Date: **Mar. 3, 26**

Point Location	Description	Minimum Thickness (mm)	Comments
C1	Circ on 4" Pipe	17.1	
C2	Circ on 4" Pipe	16.7	
C3	Circ on 4" Pipe	16.6	
C4	Circ on 4" Pipe	16.2	
C5	Circ on 4" Pipe	16.7	
C6	Circ on 4" Pipe	16.4	
C7	Circ on 4" Pipe	16.9	
C8	Circ on 4" Pipe	16.9	
C9	Circ on 4" Pipe	16.1	
C10	Circ on 4" Pipe	16.3	
C11	Circ on 4" Pipe	16.7	
C12	Circ on 4" Pipe	16.6	
C13	Circ on 4" Pipe	16.5	
C14	Circ on 4" Pipe	16.7	
C15	Circ on 4" Pipe	16.7	
C16	Circ on 4" Pipe	17.0	
U1	4" 180° Elbow	18.1	
U2	4" 180° Elbow	18.1	
U3	4" 180° Elbow	17.8	
U4	4" 180° Elbow	18.7	
U5	4" 180° Elbow	18.3	
U6	4" 180° Elbow	17.8	
U7	4" 180° Elbow	18.3	
U8	4" 180° Elbow	17.6	
U9	4" 180° Elbow	18.3	
U10	4" 180° Elbow	17.9	
U11	4" 180° Elbow	17.9	
U12	4" 180° Elbow	17.8	
U13	4" 180° Elbow	18.1	
U14	4" 180° Elbow	17.2	