

APPLUS-RTD
 EDMONTON, ALBERTA,
 CANADA T6P 1N5
 TEL: (780) 440-6600 FAX: (780) 440-2538

GENERAL NDE REPORT

A-3141304_06_21
 2013_MT-Report-b

Date June 20, 2013 Page 1 of 4
 RTD Job #: 10-113249
 RTD Dep. #: G/P

Client: C.N.R.L
 Address: ClearHills Gas Plant (AB)
 W.O.#: _____
 Client Rep.: Craig Liba

LSD: L.S.D. 16-11-88-13 W6M
 Location: ClearHills Gas Plant
 Procedure: RTD-MT- 003
 Code: Asme VIII Div 1

Description: MPI Inspection on all internal tee intersections, nozzles, Inlet diffuser, demister support cage to shell and manway weld to shell in the (High Pressure Inlet Separator) (A-3141304).

Surface Condition: Weldment Machined Painted
 Ground Sandblasted Other Surface Temp (C°): < 5 > 5 x < 60 > 60

MAGNETIC PARTICLE INSPECTION

Equipment Type: Yoke Bench Asset No.: 2227 Calibration Due Date: 07-21-13
 Blacklight: Intensity Check: 2080 $\mu\text{W}/\text{cm}^2$ Asset No.: 12754 Calibration Due Date: 08-21-13
 Method: A/C D/C Type: Continuous Residual Power Supply: 120 V Battery Natural
 Type: Dry Powder: Colour: _____ Wet: Black and White Fluorescent
 Product Manufacturer: Magna Flux Product Identification Code: 14 AM

LIQUID PENETRANT INSPECTION

Type: I-Fluorescent II-Visible Dye Method: A (Water Wash) B (P.E. Lipophilic) C (Solvent Removable) D (P.E. Hydrophilic)
 Blacklight: Asset No.; _____ Calibration Due Date; _____ Blacklight Intensity; _____ $\mu\text{W}/\text{cm}^2$
 Dwell Times: Penetrant; _____ Minutes Developer; _____ Minutes Product Manufacturer: _____

ULTRASONIC THICKNESS MEASUREMENT

Method: P/E Dual T/T Other Type: Longitudinal Shear Wave
 Instrumentation: Manufacturer; _____ RTD Asset No.; _____ Calibration Date; _____
 Cal. Block(s): Type; _____ RTD Asset No.; _____ Serial No.; _____
 Couplant: Manufacturer; _____ Type; _____

Probe Type	Angle	Frequency	Size	Reference Level (dB)	Scanning Level (dB)	Range	Skip Value	Beam Travel	Transfer Value (dB)

INSPECTION DETAILS

Scope: **Carry out Magnetic Particle Inspection on all internal tee intersections, nozzles, Inlet diffuser welds to shell, demister support cage to shell and manway weld to shell in the (High Pressure Inlet Separator- A-3141304).**

- Results:
- (1) At East shell tee intersection the circumferential weld had (9) cracks ¼” to ½” in length running circumferentially.
 - (2) All (8) lower Cracks were removed with light remedial grinding with 80Grit flapper, with substantial weld cap remaining.
 - (3) The top crack at ½” length above tee intersection was removed with light remedial grinding with 80grit flapper flush with shell.
 - (4) All were re-inspected and found acceptable.

Technician: Jerry Hrynkiw CGSB /ASNT/SNT Level: II Start Time: _____ Stop Time: _____ ST _____ OT _____
 Signature: _____ Method: MT #5709 Unit: _____ Km: _____ Travel Time: _____
 Assistant: _____ CGSB /ASNT/SNT Level: _____ Subsistence required OT Meal
 Client Signature: _____ Consumables: _____

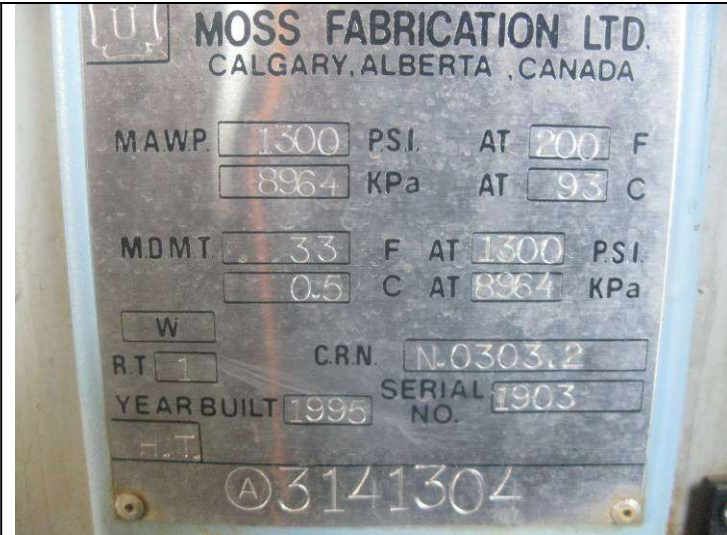
*Results are an interpretation of the inspection method, not a guarantee. Client signature indicates acceptance of report, results and applicable charges.

APPLUS-RTD
EDMONTON, ALBERTA,
CANADA T6P 1N5
TEL: (780) 440-6600 FAX: (780) 440-2538

GENERAL NDE REPORT

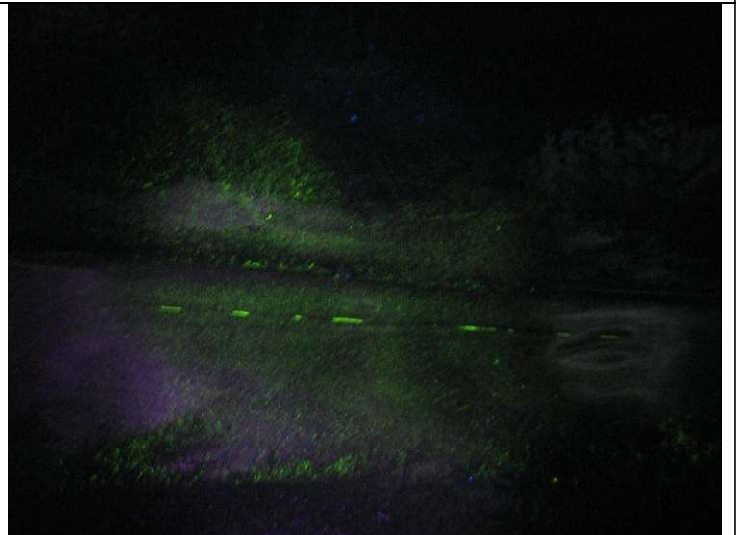
A-3141304_21-06-2013 MT-Report-b

Date June 21, 2013 Page 2 of 4
RTD Job #: 10-113249
RTD Dep. #: G/P



Vessel Data Plate (A#3141304)

Tee Intersection



Crack found on circumferential weld

Crack found on circumferential weld 2nd View

APPLUS-RTD
EDMONTON, ALBERTA,
CANADA T6P 1N5
TEL: (780) 440-6600 FAX: (780) 440-2538

GENERAL NDE REPORT

**A-3141304_21-06-
2013_MT-Report-b**

Date June 21, 2013 Page 3 of 4
RTD Job #: 10-113249
RTD Dep. #: G/P



View of crack above tee intersection



Over all view of location and area of cracks found



Bottom nozzles



Demister pad weld to shell

APPLUS-RTD
EDMONTON, ALBERTA,
CANADA T6P 1N5
TEL: (780) 440-6600 FAX: (780) 440-2538

GENERAL NDE REPORT

**A-3141304_21-06-
2013 MT-Report-b**

Date June 21, 2013 Page 4 of 4
RTD Job #: 10-113249
RTD Dep. #: G / P



Nozzle by Demister pad support weld to Shell



Inlet Diffuser Box



**Final view of circ weld after cracks removed with
weld cap intact.**



**Final view above tee intersection after crack
removed flush with shell**