



APPLUS RTD QUALITY SERVICES INC.
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GENERAL NDE REPORT

NANCY
No. 002

Date Feb 20 2020 Page 1 of 2

RTD Job #: 4016382

RTD Dep. #: Asset Grande Prairie

Client: Canadian Natural Resources Limited

Address: 6744 airport road Fort St. John V1J-4M6

P.O.#: _____

Client Rep.: Mandy Nelson

LSD: d-65-H/94-A-15

Location: Nancy Battery

Procedure: RTD: MT 005, Rev 4

Code: ASME VIII, DIV1

Description: Magnetic Particle/ Ultrasonic thickness inspection on Treater firetubes 8B5953BC

Surface Condition: Weldment Machined Painted
 Ground Sandblasted Other

Surface Temp (C°): < 5 > 5 • < 60 > 60

MAGNETIC PARTICLE INSPECTION

Equipment Type: Yoke Bench Asset No.: 12112 Calibration Due Date: 07/05/2020

Blacklight: Intensity Check: _____ $\mu\text{W}/\text{cm}^2$ Asset No.: _____ Calibration Due Date: _____

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: Magnaflux Product Identification Code: WCP-2/ 7HF

ULTRASONIC THICKNESS MEASUREMENT

Method: P/E Dual T/T Other Type: Longitudinal Shear Wave

Instrumentation: Manufacturer: Olympus RTD Asset No.; 13759 Calibration Date; 2/20/2020

Cal. Block(s): Type: IIW RTD Asset No.; _____ Serial No.; 17-4383

Couplant: Manufacturer: Magnaflux Type: Sonotech

Probe Type	Angle	Frequency	Size	Reference Level (dB)	Scanning Level (dB)	Range	Skip Value	Beam Travel	Transfer Value (dB)
Olympus	0°	5mhz	1/2"	80%		25mm			

INSPECTION DETAILS

Scope: Carry out Magnetic Particle on firetubes for Treater 8B5953BC size of firetubes 18inches X 12FT
 Carry out Ultrasonic thickness inspection on firetubes for Treater 8B5953BC

Ref: 8B5953BC

Results: Ultrasonic thickness inspection carried out on firetube number 1 minium thickness found 9.8/10.2mm
 Ultrasonic thickness inspection carried out on firetube number 2 minium thickness found 9.2/9.5
 Magnetic Particle inspection carried out on firetube number 1 no cracking found at time of inspection
 Magnetic Particle inspection carried out on firetube number 2 1 no cracking found at time of inspection

Technician: Chris Betthel CGSB /SNT TC1A Level: 2

Signature: [Signature] Method: MT

Assistant: _____ CGSB /SNT TC1A Level: _____

Client Signature: _____

Start Time: _____ Stop Time: _____ ST _____ OT _____

Unit: _____ Km: _____ Travel Time: _____

Subsistence required OT Meal

Consumables: _____

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



LSD

BC Number



Data Plate

Overview of vessel



Overview firetube number 1

Overview of firetube number 2