



Our Ref. : NT/103133/18-06

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Report No: BFTT/RT-13/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	Bukit Fraser Thermal Technology Sdn Bhd	Procedure No:	NT/RT/ASME Rev 6.0
Project :	Frames Separation Technologies B.V / SBM	IQI type :	ASTM 1B
	Offshore - Liza Destiny - FPSO EPCI	Film Manufacturer/Type :	FUJI 100/class II
Job No:	BFTT 17-638	Density :	2.0 - 4.0
Material:	SA 240 UNS S31803	Sensitivity:	0.33mm(5 wires visible)
Welding Process :	SMAW / SAW	Source to Object Distance :	400mm
Examination Code :	ASME V	Source Side of Object to Film Distance:	(15+3)mm
Acceptance Code:	ASME Sect. VIII Div.1 2015 Ed.	No of Radiograph(exposure) :	Single Exposure
		No. of Film Each Cassette :	1 Film
Examination Date:	09 March 2018	Radiographic Technique :	SWSI
		Film Viewing Technique :	Single Wall Viewing
		Source Type/Size :	Iridium192 (3.2mm)
		Location Markers :	Film Side

Radiographic Examination Result

Weld Reference (Welder No)	WT (mm)	RT (mm)	Pipe Diameter (mm)	Material Thickness (mm)	Film Position	Film Interpretation	Result	Remarks
124-VESE-0210								
LS - 1A RS (WN-005/008)	18	3	-	15	0 - 1	NRI	Accept	
					2 - 3	Sur / Por	Accept	
					3 - 4	Por	Accept	
					4 - 5	Por	Accept	
					6 - 7	Por	Accept	

End Of Report

Legend:

TI : Tungsten Inclusion	NRI : No Relevant Indication	Uc : Undercut	Por : Porosity	WT : Weld Thickness
SI : Slag Inclusion	LP : Lack of Penetration	Con : Concavity	BT : Burn Through	RT : Reinforcement Thickness
LF : Lack of Fusion	EP : Excess Penetration	AR : Artifact	Sur : Surface	

Personnel Particulars

Radiographer : Emirsham - NDT Lev. II

Interpreted & Evaluated By: Amat Hamidi - NDT Lev. II

Date: 10 March 2018



Client Representative:

Name:
Date:



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Report No: BFTT/RT-14/18

RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	Bukit Fraser Thermal Technology Sdn Bhd	Procedure No:	NT/RT/ASME Rev 6.0
Project :	Frames Separation Technologies B.V / SBM Offshore - Liza Destiny - FPSO EPCI	IQI type :	ASTM 1B
Job No:	BFTT 17-638	Film Manufacturer/Type :	FUJI 100/class II
Material:	SA 240 UNS S31803	Density :	2.0 - 4.0
Welding Process :	SMAW	Sensitivity:	0.33mm(5 wires visible)
Examination Code :	ASME V	Source to Object Distance :	400mm
Acceptance Code:	ASME Sect. VIII Div.1 2015 Ed.	Source Side of Object to Film Distance:	(15+3)mm
Examination Date:	09 March 2018	No of Radiograph(exposure) :	Single Exposure
		No. of Film Each Cassette :	1 Film
		Radiographic Technique :	SWSI
		Film Viewing Technique :	Single Wall Viewing
		Source Type/Size :	Iridium192 (3.2mm)
		Location Markers :	Film Side

Radiographic Examination Result

Weld Reference (Welder No)	WT (mm)	RT (mm)	Pipe Diameter (mm)	Material Thickness (mm)	Film Position	Film Interpretation	Result	Remarks
124-VESE-0210								
LS - 2A R1 (WN-005)	18	3	-	15	1 - 2 6 - 7	NRI NRI	Accept Accept	

End Of Report

Legend:

TI: Tungsten Inclusion	NRI: No Relevant Indication	Uc: Undercut	Por: Porosity	WT: Weld Thickness
SI: Slag Inclusion	LP: Lack of Penetration	Con: Concavity	BT: Burn Through	RT: Reinforcement Thickness
LF: Lack of Fusion	EP: Excess Penetration	AR: Artifact	Sur: Surface	

Personnel Particulars

Radiographer : Emirsham - NDT Lev. II

Interpreted & Evaluated By: Amat Hamidi - NDT Lev.II

Date: 10 March 2018



Client Representative:

Name:

Date:



NUSANTARA TECHNOLOGIES SDN. BHD. (187753-D)

No. 5, Jalan Anggerik Mokara 31/45, Seksyen 31, Kota Kemuning, 40460 Shah Alam, Selangor Darul Ehsan, Malaysia.

Tel: 03-5122 9766/7/8 Fax: 03-5122 8766/7 E-mail: info@nusatek.com

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RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	Bukit Fraser Thermal Technology Sdn Bhd	Procedure No:	NT/RT/ASME Rev 6.0
Project :	Frames Separation Technologies B.V / SBM	IQI type :	ASTM 1B
Job No:	Offshore - Liza Destiny - FPSO EPCI	Film Manufacturer/Type :	FUJI 100/class II
Material:	BFTT 17-638	Density :	2.0 - 4.0
	SA 240 UNS S31803	Sensitivity:	0.33mm(5 wires visible)
Welding Process :	SMAW	Source to Object Distance :	400mm
Examination Code :	ASME V	Source Side of Object to Film Distance:	(15+3)mm
Acceptance Code:	ASME Sect. VIII Div.1 2015 Ed.	No. of Radiograph(exposure) :	Single Exposure
		No. of Film Each Cassette :	1 Film
Examination Date:	09 March 2018	Radiographic Technique :	SWSI
		Film Viewing Technique :	Single Wall Viewing
		Source Type/Size :	Iridium192 (3.2mm)
		Location Markers :	Film Side

Radiographic Examination Result

Weld Reference (Welder No)	WT (mm)	RT (mm)	Pipe Diameter (mm)	Material Thickness (mm)	Film Position	Film Interpretation	Result	Remarks
124-VESE-0210								
LS - 4B R1 (WN-009)	18	3	-	15	1 - 2 6 - 7	NRI NRI	Accept Accept	

End Of Report

Legend:

TI: Tungsten Inclusion	NRI: No Relevant Indication	Uc: Undercut	Por: Porosity	WT: Weld Thickness
SI: Slag Inclusion	LP: Lack of Penetration	Con: Concavity	BT: Burn Through	RT: Reinforcement Thickness
LF: Lack of Fusion	EP: Excess Penetration	AR: Artifact	Sur: Surface	

Personnel Particulars

Radiographer : Emirsham - NDT Lev. II

Interpreted & Evaluated By: Amat Hamidi - NDT Lev. II

Date: 10 March 2018



Client Representative:

Name:

Date:



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RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	Bukit Fraser Thermal Technology Sdn Bhd	Procedure No:	NT/RT/ASME Rev 6.0
Project :	Frames Separation Technologies B.V / SBM Offshore - Liza Destiny - FPSO EPCI	IQI type :	ASTM 1B
Job No:	BFTT 17-638	Film Manufacturer/Type :	FUJI 100/class II
Material:	SA 240 UNS S31803	Density :	2.0 - 4.0
Welding Process :	SMAW	Sensitivity:	0.33mm(5 wires visible)
Examination Code :	ASME V	Source to Object Distance :	400mm
Acceptance Code:	ASME Sect. VIII Div.1 2015 Ed.	Source Side of Object to Film Distance:	(15+3)mm
Examination Date:	09 March 2018	No. of Radiograph(exposure) :	Single Exposure
		No. of Film Each Cassette :	1 Film
		Radiographic Technique :	SWSI
		Film Viewing Technique :	Single Wall Viewing
		Source Type/Size :	Iridium192 (3.2mm)
		Location Markers :	Film Side

Radiographic Examination Result

Weld Reference (Welder No)	WT (mm)	RT (mm)	Pipe Diameter (mm)	Material Thickness (mm)	Film Position	Film Interpretation	Result	Remarks
124-VESE-0210								
LS - 2B R1 (WN-009)	18	3	-	15	6 - 7	SI	Reject	

End Of Report

Legend:

TI: Tungsten Inclusion	NRI: No Relevant Indication	Uc: Undercut	Por: Porosity	WT: Weld Thickness
SI: Slag Inclusion	LP: Lack of Penetration	Con: Concavity	BT: Burn Through	RT: Reinforcement Thickness
LF: Lack of Fusion	EP: Excess Penetration	AR: Artifact	Sur: Surface	

Personnel Particulars

Radiographer : Emirsham - NDT Lev. II

Client Representative:

Interpreted & Evaluated By: Amat Hamidi - NDT Lev. II

Name:

Date: 10 March 2018

Date:





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RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	Bukit Fraser Thermal Technology Sdn Bhd	Procedure No:	NT/RT/ASME Rev 6.0
Project :	Frames Separation Technologies B.V / SBM Offshore - Liza Destiny - FPSO EPCI	IQI type :	ASTM 1B
Job No:	BFTT 17-638	Film Manufacturer/Type :	FUJI 100/class II
Material:	SA 240 UNS S31803	Density :	2.0 - 4.0
Welding Process :	SMAW / SAW	Sensitivity:	0.33mm(5 wires visible)
Examination Code :	ASME V	Source to Object Distance :	400mm
Acceptance Code:	ASME Sect. VIII Div.1 2015 Ed.	Source Side of Object to Film Distance:	(15+3)mm
Examination Date:	09 March 2018	No of Radiograph(exposure) :	Single Exposure
		No. of Film Each Cassette :	1 Film
		Radiographic Technique :	SWSI
		Film Viewing Technique :	Single Wall Viewing
		Source Type/Size :	Iridium192 (3.2mm)
		Location Markers :	Film Side

Radiographic Examination Result

Weld Reference (Welder No)	WT (mm)	RT (mm)	Pipe Diameter (mm)	Material Thickness (mm)	Film Position	Film Interpretation	Result	Remarks
124-VESE-0210								
LS - 2B RS (WN-009/216)	18	3	-	15	0 - 1	Por	Accept	

End Of Report

Legend:

TI : Tungsten Inclusion	NRI : No Relevant Indication	Uc : Undercut	Por : Porosity	WT : Weld Thickness
SI : Slag Inclusion	LP : Lack of Penetration	Con : Concavity	BT : Burn Through	RT : Reinforcement Thickness
LF : Lack of Fusion	EP : Excess Penetration	AR : Artifact	Sur : Surface	

Personnel Particulars

Radiographer : Emirsham - NDT Lev. II

Client Representative:

Interpreted & Evaluated By: Amat Hamidi - NDT Lev. II

Name:

Date: 10 March 2018

Date:





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RADIOGRAPHIC EXAMINATION REPORT

Client and Testing Particulars

Client :	Bukit Fraser Thermal Technology Sdn Bhd	Procedure No:	NT/RT/ASME Rev 6.0
Project :	Frames Separation Technologies B.V / SBM Offshore - Liza Destiny - FPSO EPCI	IQI type :	ASTM 1B
Job No:	BFTT 17-638	Film Manufacturer/Type :	FUJI 100/class II
Material:	SA 240 UNS S31803	Density :	2.0 - 4.0
Welding Process :	SMAW	Sensitivity:	0.33mm(5 wires visible)
Examination Code :	ASME V	Source to Object Distance :	400mm
Acceptance Code:	ASME Sect. VIII Div.1 2015 Ed.	Source Side of Object to Film Distance:	(13+3)mm
Examination Date:	09 March 2018	No of Radiograph(exposure) :	Single Exposure
		No. of Film Each Cassette :	1 Film
		Radiographic Technique :	SWSI
		Film Viewing Technique :	Single Wall Viewing
		Source Type/Size :	Iridium192 (3.2mm)
		Location Markers :	Film Side

Radiographic Examination Result

Weld Reference (Welder No)	WT (mm)	RT (mm)	Pipe Diameter (mm)	Material Thickness (mm)	Film Position	Film Interpretation	Result	Remarks
124-CPHY-0110								
LS - 1 RS (WN-007)	16	3	-	13	0 - 1	Por	Accept	

_____ End Of Report _____

Legend:

Ti: Tungsten Inclusion	NRI: No Relevant Indication	Uc: Undercut	Por: Porosity	WT: Weld Thickness
Sl: Slag Inclusion	LP: Lack of Penetration	Con: Concavity	BT: Burn Through	RT: Reinforcement Thickness
LF: Lack of Fusion	EP: Excess Penetration	AR: Artifact	Sur: Surface	

Personnel Particulars

Radiographer : Emirsham - NDT Lev. II
 Interpreted & Evaluated By: Amat Hamidi - NDT Lev.II
 Date: 10 March 2018



Client Representative:
 Name:
 Date: