



# NUSANTARA TECHNOLOGIES SDN. BHD. (187753-D)

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

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Our Ref.: NT/103606/18-08

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Report No: NDT/RT/180485-05/18

## RADIOGRAPHIC EXAMINATION REPORT

### Client and Testing Particulars

Client :	Seremban Engineering Berhad	Procedure No:	NT/RT/ASME REV 7.0
Project :	18/01669PCYC Premium Vegetable Oils Sdn.Bhd.	IQI type :	ASTM 1A
Material:	SA 240 Gr.304/304L	Film Manufacturer/Type :	FUJI 100(class II)
Welding Process :	FCAW	Density :	2.0-3.5
Examination Code :	ASME V	Sensitivity:	0.20mm(2 wires visible)
Acceptance Code:	ASME Sect. VIII Div.1 : 2017 Ed.	Source to Object Distance :	400mm
Examination Date:	27 April 2018	Source Side of Object to Film Distance:	(6+3)mm
		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
7.11								
CS JT3 R1 (WN-31)	9	3	-	6	5 - 6	NR!	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: 28 April 2018

Date:





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## RADIOGRAPHIC EXAMINATION REPORT

### Client and Testing Particulars

Client :	Seremban Engineering Berhad	Procedure No:	NT/RT/ASME REV 7.0
Project :	18/01668PCYC Premium Vegetable Oils Sdn.Bhd.	IQI type :	ASTM 1A
Material:	SA 240 Gr.304/304L	Film Manufacturer/Type :	FUJI 100(class II)
Welding Process :	FCAW	Density :	2.0-3.5
Examination Code :	ASME V	Sensitivity:	0.20mm(2 wires visible)
Acceptance Code:	ASME Sect. VIII Div.1 : 2017 Ed.	Source to Object Distance :	400mm
Examination Date:	27 April 2018	Source Side of Object to Film Distance:	(6+3)mm
		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
(07.29.01)								
LS JT1 R1 (WN-200)	9	3	-	6	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  
 Interpreted & Evaluated By: Amat Hamidi - NDT Lev.II  
 Date: 28 April 2018



Client Representative:  
 Name:  
 Date:



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Report No: NDT/RT/180485-02/18

## RADIOGRAPHIC EXAMINATION REPORT

### Client and Testing Particulars

Client : Seremban Engineering Berhad  
 Project : 18/01728PCYC  
 Sludge Filter No.2 (222/001/2)  
 Venator (Tank 2)  
 Material: S 275 JR  
 Welding Process : FCAW  
 Examination Code : ASME V  
 Acceptance Code: ASME Sect. VIII Div.1 : 2017 Ed.  
 Examination Date: 26 April 2018

Procedure No: NT/RT/ASME REV 7.0  
 IQI type : ASTM 1A  
 Film Manufacturer/Type : FUJI 100(class II)  
 Density : 2.0-3.5  
 Sensitivity: 0.20mm(2 wires visible)  
 Source to Object Distance : 400mm  
 Source Side of Object to Film Distance: (6+3)mm  
 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
Sludge Filter No.2 (222/001/2)								
JT3 R2/RS (WN-199/202)	9	3	-	6	2-3	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: 27 April 2018



Client Representative:

Name:  
Date:



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## RADIOGRAPHIC EXAMINATION REPORT

### Client and Testing Particulars

Client :	Seremban Engineering Berhad	Procedure No:	NT/RT/ASME REV 7.0
Project :	18/01728PCYC	IQI type :	ASTM 1A
	Sludge Filter No.2 (222/001/2)	Film Manufacturer/Type :	FUJI 100(class II)
	Venator (Tank 2)	Density :	2.0-3.5
Material:	S 275 JR	Sensitivity:	0.20mm(2 wires visible)
		Source to Object Distance :	400mm
Welding Process :	FCAW	Source Side of Object to Film Distance:	(6+3)mm
Examination Code :	ASME V	No of Radiograph(exposure) :	Single Exposure
Acceptance Code:	ASME Sect. VIII Div.1 : 2017 Ed.	No. of Film Each Cassette :	1 Film
		Radiographic Technique :	SWSI
Examination Date:	26 April 2018	Film Viewing Technique :	Single Wall Viewing
		Source Type/Size :	Iridium192 (3.2mm)
		Location Markers :	Film Side

### Radiographic Examination Result

Weld Reference (Welder No)	WT	RT	Pipe Diameter	Material Thickness	Film Position	Film Interpretation	Result	Remarks
	(mm)	(mm)	(mm)	(mm)				
Sludge Filter No.2 (222/001/2)								
JT3 R1 (WN-199/202)	9	3	-	6	13 - 14	NRI	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: 27 April 2018



Client Representative:

Name:  
Date:



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## RADIOGRAPHIC EXAMINATION REPORT

### Client and Testing Particulars

Client :	Seremban Engineering Berhad	Procedure No:	NT/RT/ASME REV 7.0
Project :	17/01485POYL E-7201 Catalystcooler	IQI type :	ASTM 1C
Material:	Shell L-1 SA 516 GR 65	Film Manufacturer/Type :	FUJI 50(class I)
Welding Process :	GTAW / SMAW	Density :	2.0-3.5
Examination Code :	ASME V	Sensitivity:	0.81mm(6 wires visible)
Acceptance Code:	ASME Sect. VIII Div.1 : 2017 Ed.	Source to Object Distance :	400mm
Examination Date:	27 April 2018	Source Side of Object to Film Distance:	(56+3)mm
		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
E-7201								
L-1 R1 (WN-75/50)	59	3	-	56	1-2	NRI	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: 28 April 2018



Client Representative:

Name:  
Date:



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## RADIOGRAPHIC EXAMINATION REPORT

### Client and Testing Particulars

Client :	Seremban Engineering Berhad	Procedure No:	NT/RT/ASME REV 7.0
Project :	18/01669PCYC Premium Vegetable Oils Sdn.Bhd.	IQI type :	ASTM 1A
Material:	SA 240 Gr.304/304L	Film Manufacturer/Type :	FUJI 100(class II)
Welding Process :	FCAW	Density :	2.0-3.5
Examination Code :	ASME V	Sensitivity:	0.20mm(2 wires visible)
Acceptance Code:	ASME Sect. VIII Div.1 : 2017 Ed.	Source to Object Distance :	400mm
Examination Date:	27 April 2018	Source Side of Object to Film Distance:	(6+3)mm
		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
7.11								
CS JT4 R1 (WN-31)	9	3	-	6	2-3	NRI	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: 28 April 2018



Client Representative:  
 Name:  
 Date:



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## RADIOGRAPHIC EXAMINATION REPORT

### Client and Testing Particulars

Client :	Seremban Engineering Berhad	Procedure No:	NT/RT/ASME REV 7.0
Project :	18/01669PCYC Premium Vegetable Oils Sdn.Bhd.	IQI type :	ASTM 1A
Material:	SA 240 Gr.304/304L	Film Manufacturer/Type :	FUJI 100(class II)
Welding Process :	FCAW	Density :	2.0-3.5
Examination Code :	ASME V	Sensitivity:	0.20mm(2 wires visible)
Acceptance Code:	ASME Sect. VIII Div.1 : 2017 Ed.	Source to Object Distance :	400mm
Examination Date:	27 April 2018	Source Side of Object to Film Distance:	(6+3)mm
		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
7.11								
LS 1 (WN-031)	9	3	-	6	0 - 1	NRI	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: 28 April 2018



Client Representative:

Name:  
Date:



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## RADIOGRAPHIC EXAMINATION REPORT

### Client and Testing Particulars

Client : Seremban Engineering Berhad  
 Project : 18/01669PCYC  
 Premium Vegetable Oils Sdn.Bhd.  
 Material: SA 240 Gr.304/304L  
 Welding Process : FCAW  
 Examination Code : ASME V  
 Acceptance Code: ASME Sect. VIII Div.1 : 2017 Ed.

Procedure No: NT/RT/ASME REV 7.0  
 IQI type : ASTM 1A  
 Film Manufacturer/Type : FUJI 100(class II)  
 Density : 2.0-3.5  
 Sensitivity: 0.20mm(2 wires visible)  
 Source to Object Distance : 219.1mm  
 Source Side of Object to Film Distance: (6+3)mm  
 No of Radiograph(exposure) : Single Exposure  
 No. of Film Each Cassette : 1 Film  
 Radiographic Technique : DWSI  
 Film Viewing Technique : Single Wall Viewing  
 Source Type/Size : Iridium192 (3.2mm)  
 Location Markers : Film Side

Examination Date: 27 April 2018

### Radiographic Examination Result

Weld Reference (Welder No)	WT (mm)	RT (mm)	Pipe Diameter (mm)	Material Thickness (mm)	Film Position	Film Interpretation	Result	Remarks
7.11								
CS 1 (WN-200)	9	3	219.1	6	0 - 1 1 - 2 2 - 0	Uc NRI NRI	Accept Accept Accept	AR

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: 28 April 2018



Client Representative:

Name:  
Date: