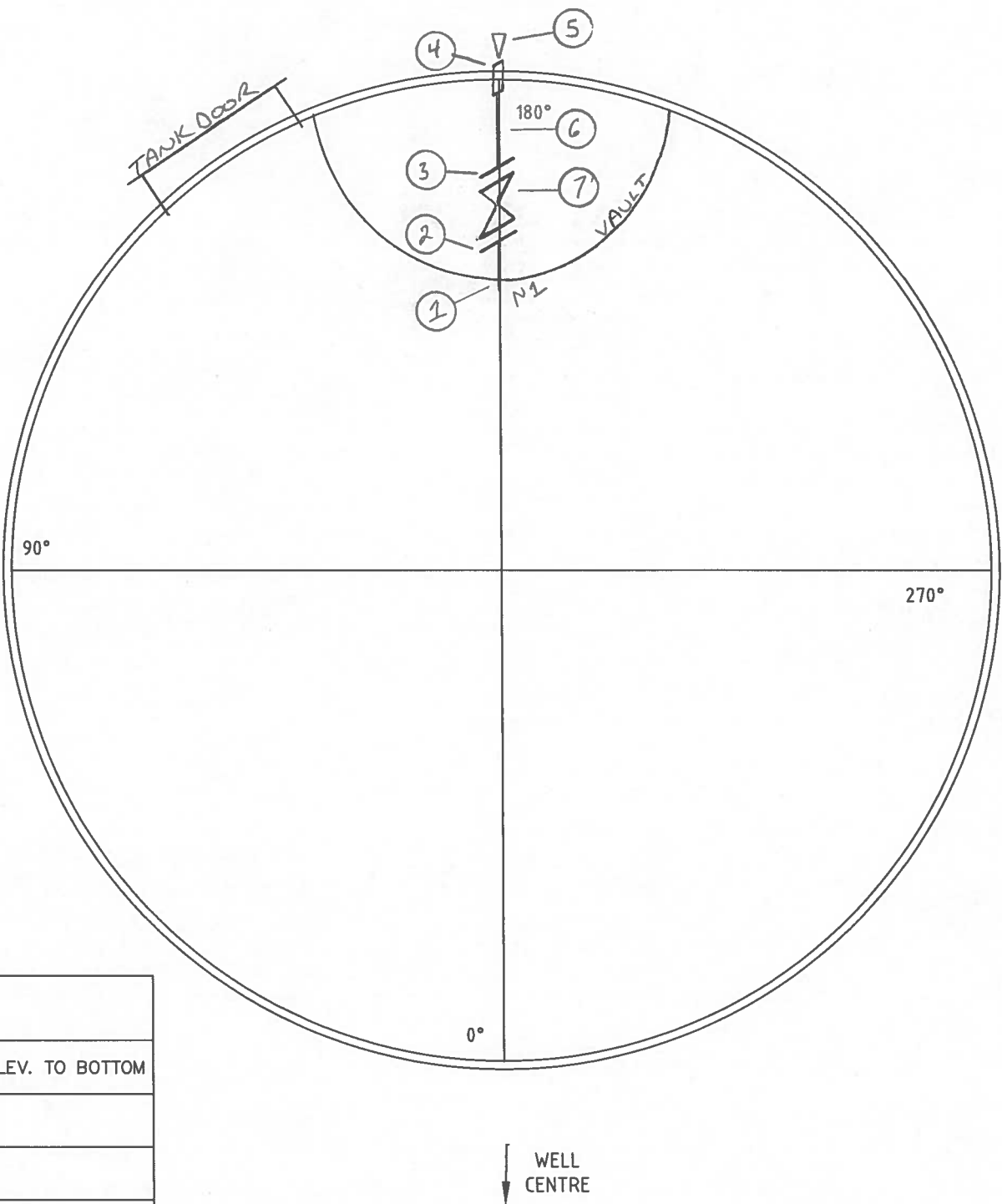


WELDERS

NAME	WELD ID
BRAD ANDREWS	BA
ROOGER DAREN	RD

x WELD PROCEDURE - L&L 15



PATCHES

ID	SIZE	THK	LOCATION	ELEV. TO BOTTOM
A				
B				
C				
D				

DESCRIPTION OF RE-PAIRS:

* REPLACE THE VAULT STENG NOZZLE + ASSMBLY.

BILL OF MATERIALS

ID	SCH	DESCRIPTION	HEAT
1	160	4" PIPE	11493
2		4" 150 RF SO	718995
3		4" 150 RF THD	12/72470
4		4" COLLAR	ACRX
5		4" PLUG, BULL	630
6	160	4" X 12" PIPE, NIPPLE	49799
7		4" 150 GATE VALVE	-
8			
9			
10			

NOZZLES

ID	LOCATION	ELEVATION
N1	VAULT, STENG	6"
N2		
N3		
N4		
N5		
N6		

COMPANY NAME:

HUSKY ENERGY W.O# 81422568

LSD:

100/08-36-048-01W4/00

MANUFACTURE AND SERIAL NUMBER:

UNEV 15282-21

JOB NUMBER:

266

AREA:

SCALE:

N.T.S.

UNIT:

Unit

SHEET:

SH of TL

TYPE:

REV.

REV

REV.

DESCRIPTION

Date

DATE

DRAWN

CHKD

APPD

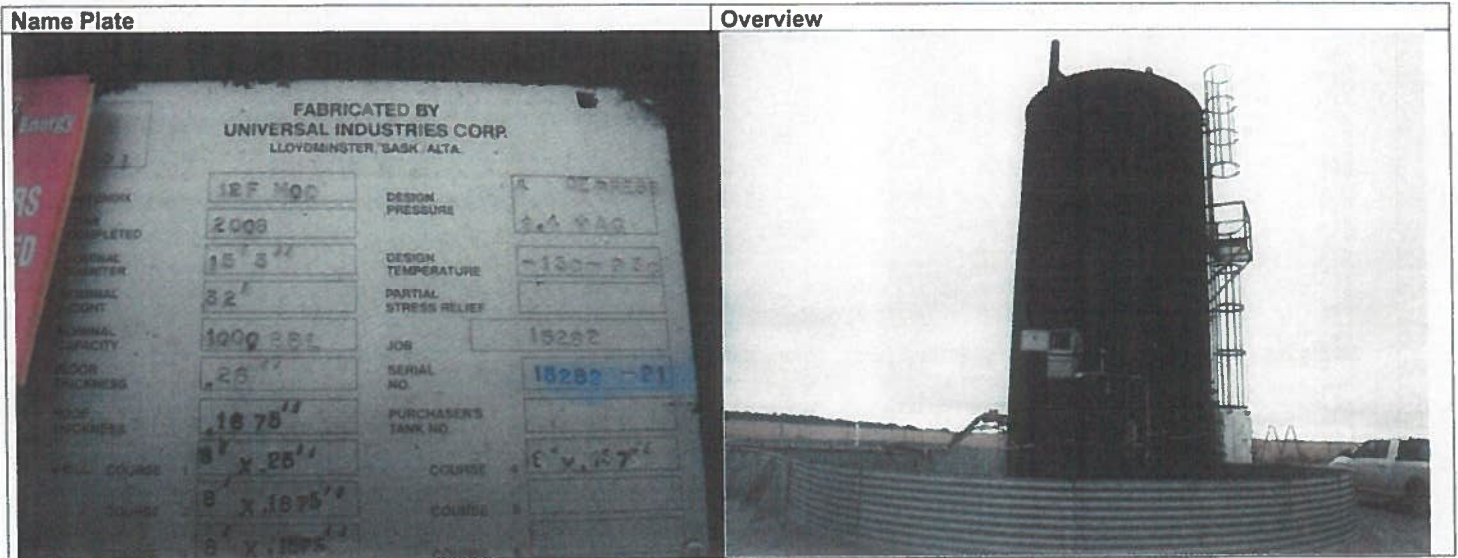
CAD DRAWING: DO NOT CHANGE MANUALLY.

Type of Inspection: UT/Vis	Rev: N/A	Client: HUSKY OIL OPERATIONS	Date: 2019-Sep-09
Test Technique: o-deg		IRISNDT #: LYN1901500	WO #: 81422568
Equipment: DMS2 /Flashlight		Location: 100/8-36-48-1W4M	PO #: 8401358779
Code/Standard: Client Information		Item Inspected: Production tank	Appr# 2Z-02020575

Inspection Results: Appr: Scott Stafford

Requisitioner: Randy Chuirka

A Visual examination and UT thickness check was carried out on the following 1000Bbl tank for the purpose of determining tank condition and inspection interval. See attached pages for UT thickness readings and observations.



INSPECTION RESULTS:

Blow out and re-inspect fireube

Clean or replace vault risers

Repair Gauge Board

Replace vault sting nozzle

Note Spot UT thickness readings give a General overall condition of the tank and are not a 100% Scan Method.

Inspection Limitation(s): First course access only

Unit#: 1039 Kilometers: 0 In: _____ Out: _____ Hrs: _____ In: _____ Out: _____ Hrs: _____ Personnel: Tristan Sommerfeld Steve White	Consumables: min	Interpretation by: Tristan Sommerfeld (Print) (Sign) Client Representative: I am in full agreement with report contents (Sign)	SNT-TC-1A: API-653 (Level) CERT #: 98310
--	----------------------------	---	---

5311 - 86 Street NW, Edmonton, Alberta T6E 5T8 Phone (780) 437-4747 Fax (780) 436-4873
 Calgary (403) 279-6121 Cold Lake (780) 826-6105
 Lloydminster (780) 875-6455 Fort McMurray (780) 743-1536
 Barrhead (780) 674-3018 Red Deer (403) 347-1742
 Nisku (780) 955-7616

www.irisndt.com

Engineering, Calgary (403) 217-9884
 Engineering, Edmonton (780) 437-2022
 Rope Access Services (780) 437-2022
 Offices also located in USA and UK



Tank Inspection Report

Location: 100/8-36-48-1W4M

Tank Type: Production

Date: 9-Sept-19

Mfg: Universal

Year blt: 2008

S/N. 15282-21

CAP: 1000 bbl

Floor Thk: 1/4"

Shell Thk: 1/4" X 3/16"

Roof Thk. 3/16"

Requisitioned by: Randy Chuirka

Approver: **Scott Stafford**

Approver Code: 2Z-02020575

WO #: 81422568

PO#: 8401358779

CC:

SAP # _____

EXTERNAL INSPECTION:

ID	Item	Yes	Good	N/A	See Notes
	GENERAL				
T1	Other (Please Explain)			x	
T2	Corrosion			x	
T3	Leaks			x	
T4	Vibration			x	
T5	Dissimilar Flange Rating			x	
T6	Ladder/Stairway	x	x		
T7	Platform	x	x		
T8	Electrical Ground	x	x		
T9	Cathodic Protection			x	
T10	Painted Inactive Corrosion			x	
T11	Coating/Painting	x	x		
T12	Level Gauge	x			1
T13	Bottom	x	x		
T14	Secondary Containment	x	x		
T15	Shell	x	x		
T16	Roof	x	x		
T17	Agitator/ Mixer			x	
	SUPPORTS				
T31	Other (Please Explain)			x	
T32	Foundation	x	x		2
T33	Anchor Bolts			x	
T34	Windgirders			x	
	CONNECTIONS				
T41	Other (Please explain)				
T42	Small Branches			x	
T43	Nozzles	x	x		
T44	Pipe Manifolds			x	
T45	Swing Lines			x	
T46	Manways/Hatches	x	x		
T47	Reinforcing Pads	x	x		
T48	Inadequate Thread Engagement			x	
T49	Bolting	x	x		
T50	Flanges			x	
T51	Leak Clamps			x	
	INSULATION				
T61	Other (Please explain)			x	
T62	Damage			x	
T63	Penetrations	x	x		
T64	Jacket			x	
T65	Banding			x	
T66	Seals/Joints			x	
	RELIEF DEVICE				
T71	Other (Please explain)			x	
T72	Corrosion			x	
T73	Leaks			x	
T74	Restricted Inlet/Outlet			x	
T75	Manual Operation Lever			x	

INTERNAL INSPECTION:

ID	Item	Yes	Good	N/A	See Notes
	GENERAL				
T1	Other (Please Explain)			x	
T2	Corrosion			x	
T3	Erosion			x	
T4	Distortion			x	
T5	Blisters			x	
T6	Deposits	x			3
T7	Welds	x	x		
T8	Nozzles	x			4
T9	Shell	x	x		
T10	Roof	x	x		
T11	Floor	x	x		
	GENERAL				
T21	Other - Firetube	x	x		5
T21	Other - Anodes			x	
T22	Annular Ring			x	
T23	Sump			x	
T24	Roof Supports			x	
T25	Thermowells	x	x		
T26	Metallic Linings			x	
T27	Non Metallic Linings			x	
T28	Internal Steam Coil / other Piping	x			6
T29	Level Gauge	x	x		
T30	Other Welded Attachements	x	x		
	Backwelding Req'd			x	

[illegible]

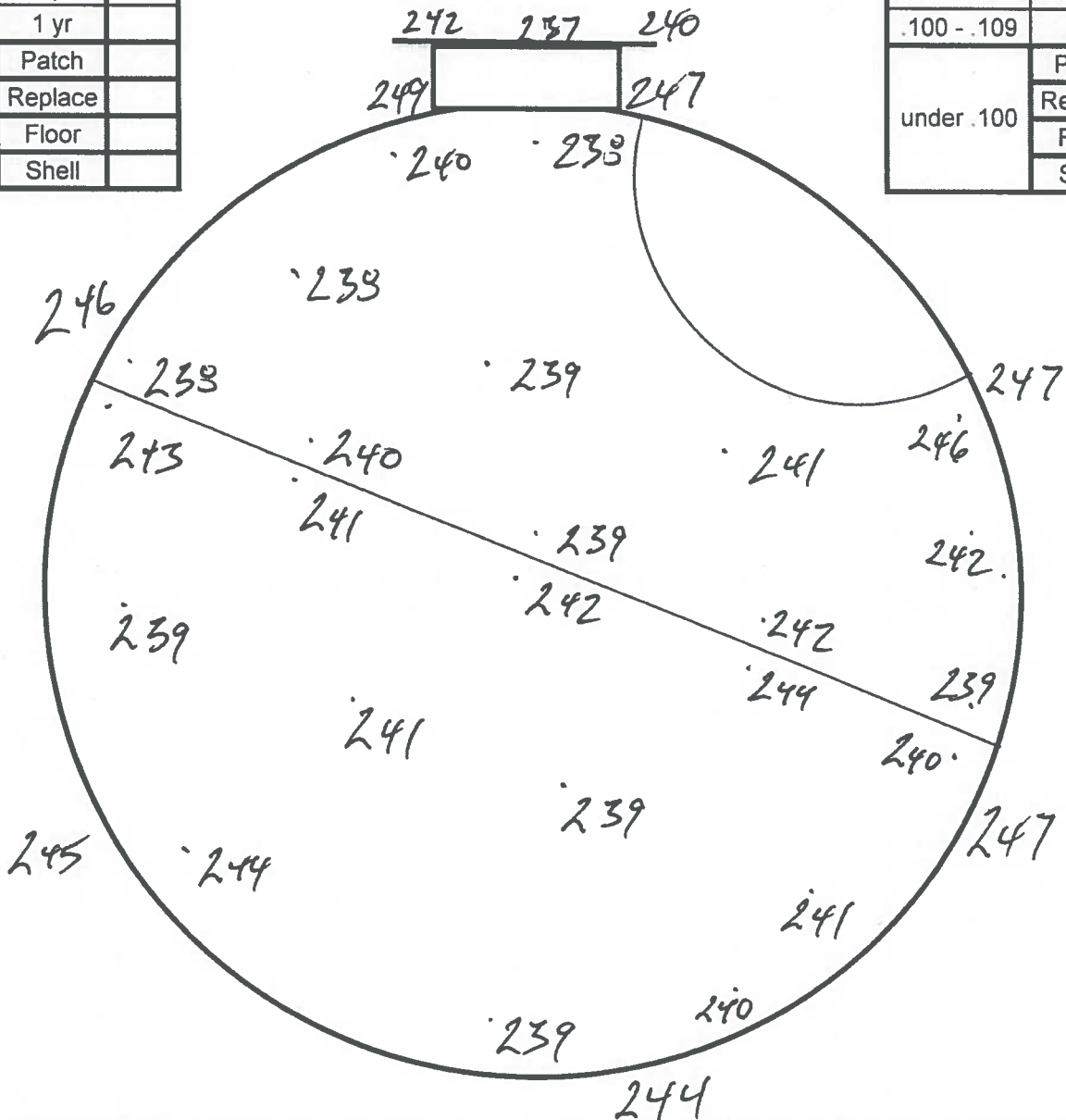


Without MFE		
.170 - up	5 yr	☒
.160 - .169	4 yr	☐
.150 - .159	3 yr	☐
.140 - .149	2 yr	☐
.130 - .139	1 yr	☐
under .130	Patch	☐
	Replace	☐
	Floor	☐
	Shell	☐

S/N: 15282-21

Location: 100/8-36-48-1W4M

With MFE		
.140 - .150	5 yr	☐
.130 - .139	4 yr	☐
.120 - .129	3 yr	☐
.110 - .119	2 yr	☐
.100 - .109	1 yr	☐
under .100	Patch	☐
	Replace	☐
	Floor	☐
	Shell	☐



Comments:

Repair Gauge board

clean or replace vault risers

Blow out firetube and re-inspect

Replace Vault sting nozzle

Inspected by: I. Foster S.

Date: 9-Sept-19.

Husky Inspector: _____

Date: _____



INSPECTION CERTIFICATE 3.1
CERTIFICADO DE INSPECCIÓN 3.1
(EN 10204 3.1:2004-ISO 10474 3.1:2013)

Tubos de Acero de Mexico S.A.
Carretera México Veracruz Km 433.7 SN
Delino Villanueva Tejeria, Veracruz Veracruz
C.P. 81087 MEXICO
(52) 229 989 1100 Int.
(52) 229 989 1600 Int.

Page / Página:
1 / 6

Number / Número:
18017537

Date / Día: March 30, 2018

Customer / Cliente: MBC CANADA ULC		Customer's Order Item / Orden Cliente - Item: S759326356 ITEM 41		Customer's Reference / Ref. del Cliente: N/A		Manufacturer's Works Order N° / Confirmación de Venta: 253291/20	
Manufacturing Process / Proceso de Manufactura: SEAMLESS HOT ROLLED		Product Type / Tipo de Producto: SEAMLESS LINE PIPE		Surface / Superficie: VARNISHED		Ends / Extremos: NORMAL REVEL	
Laminado en caliente sin costura		CONDUCCION SIN COSTURA		Steel Grade / Grado de acero: GR. B/250		Nominal Weight / Peso Nominal: 22.53 LB/FT	
Standard or Specification / Normas o Especificaciones: CSA Z245.1-14/MARCH 2014, CATTI SS, ASTM A106/15, ASME SA106/2017		Length / Longitud: 18.04 / 21.98 FT		Quantity / Cantidad: 56 Pcs/Pz		33.54 KG/M	
Dimensions / Dimensiones: 4.500 X 0.531 INCH		Schedule / Cédula: SCH 160		Quantity / Cantidad: 56 Pcs/Pz		24616.536 LB	
1143 X 13.5 MM		5.50 / 6.70 MTS		327.890 MTS		11166.000 KG	

TENSILE TEST / ENSAYO DE TENSION

Heat N° Colada N°	Sample N° Muestra N°	Specimen condition Condición de la probeta	Specimen dimensions Dimensiones de la probeta	Test Temp. ensayo	Y.S. Bald.0.0 %	U.T.S. Req.	Elongation / Alargamiento	
							Lo	Obt.
11493 12049	27230 27228	B B	S S	L L	25.53 X 13.46 25.6 X 13.29	R.T R.T	0.63 0.64	2 2

AM: As manufactured / Según proceso de fabricación	Lo: Location of sample / Ubicación de la muestra	Ori: Orientation / Orientación	Sc: Specimen condition / Condición de la probeta
B: Body / Cuerpo	Max: Maximum / Máximo	Req. Max: Required maximum / Máximo requerido	Ss: Strip specimen / Muestra rectangular
L: Longitudinal / Longitudinal	Min: Minimum / Mínimo	Req. Required / Requerido	U.T.S: Ultimate tensile strength / Resistencia
Lo: Initial length / Longitud inicial	Obt: Obtained / Obtenido	RT: Room temperature / Temperatura ambiente	Y.S: Yield strength / Fluencia

		Composition % / Composición %																										
		X 100						X 1000										X 10000						X 100				
		C	Mn	Si	Mo	Cr	P	S	V	Nb	NI	Cu	Sn	Al	Ti	As	B	Ca	N	Co	2 Col.	1 Col.	2 Col.	1 Col.	2 Col.	1 Col.	2 Col.	
Heat N° Colada N°	Sample N° Muestra N°	H	Max	25	135	50	15	40	30	35	80	110	400	400	—	110	—	10	—	—	—	40	—	—	—	99.99	—	—
		Min	—	219	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Heat N° Colada N°	Sample N° Muestra N°	P	Max	25	135	50	15	40	30	35	80	110	400	400	—	110	—	10	—	—	—	40	—	—	—	99.99	—	—
		Min	—	219	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
11493	00001	H		21	91	21	0.7	4	2	1	0	50	80	5	20	0	1	0	11	56	39	433.33	17.8	—	—	—	—	

This certificate is issued by a computerized system and it is valid with electronic signatures. On the original certificate the trade mark green colored "Tenaris" is stamped. In case the original certificate would release a copy of it, the user must attest its conformity to the original one taking upon himself the responsibility for any unlawful or not allowed use. Any alteration and/or falsification will be subjected to the law.

Este certificado se emite mediante sistema computarizado y es válido con firma electrónica. El certificado original posee impreso el logo "Tenaris" color verde. En caso de que el poseedor del certificado emita una copia, deberá garantizar la conformidad con el original haciéndose responsable por cualquier uso ilegal o no autorizado. Cualquier alteración por falsificación estará sujeta a la ley.



INSPECTION CERTIFICATE 3.1
CERTIFICADO DE INSPECCIÓN 3.1
(EN 10204 3.1:2004-ISO 10474 3.1:2013)

Tubos de Acero de Mexico, S.A.
Carretera México Veracruz KM 433.7 SN
Df. México Veracruz Veracruz, Veracruz
C.P. 91487 JEX-MCO
(52) 228 888 1100 Int.
(52) 228 888 1000 Ext.

Number / Número:
18017537

Page / Páginas:
3 / 6

Date / Día: **March 30, 2018**

Customer / Cliente: MRC CANADA ULC	Customer's Order Item / Orden Cliente - Item: 5759326336 ITEM 41	Customer's Reference / Ref. del Cliente: N/A	Manufacturer's Works Order N° / Confirmación de Venta: 253281/20
Manufacturing Process / Proceso de Manufactura: SEAMLESS HOT ROLLED	Product Type / Tipo de Producto: SEAMLESS LINE PIPE	Surface / Superficie: VARNISHED	
LAMINADO EN CALIENTE SIN COSTURA	CONDUCCION SIN COSTURA	BARNIZADO	
Standard or Specification / Normas o Especificaciones: CSA Z245.1-14/MABCH 2014, CATTI SS, ASTM A106/15, ASME SA106/2017	Steel Grade / Grado de acero: GR. B/250	Ends / Extremos: NORMAL REVEL	
		RESELADO NORMAL	
Dimensions / Dimensiones: 4.500 X 0.531 INCH 114.3 X 13.5 MM	Schedule / Cédula: SCH 160	Quantity / Cantidad: 56 Pcs/Pz 1075.755 FT 327.890 MTS	Nominal Weight / Peso Nominal: 22.53 LB/FT 33.54 KG/M

INSPECTION WILL VALIDATE / PUEDE EN LA ESPESOR

AM: As manufactured / Según proceso de fabricación	ID: Internal diameter / Diámetro interno	Min: Minimum / Mínimo	Quad: Quadrant / Cuadrante
Avg: Average / Promedio	Ls: Location of sample / Ubicación de la muestra	MM: Middle wall / Centro	Sc: Specimen condition / Condición de la probeta
B: Body / Cuerpo	Max: Maximum / Máximo	OD: Outside diameter / Diámetro externo	Var: Variation / Variación

INSPECTION TEST / ENSAYO DE ACUERDO A LA NORMA

Standard / Norma: /			
Heat N°	Sample N°	Sc	Result
Cóida N°	Muestra N°		Resultado
11483	27230	B	AM
			Good / Bueno

AM: As manufactured / Según proceso de fabricación	B: Body / Cuerpo	Ls: Location of sample / Ubicación de la muestra	Sc: Specimen condition / Condición de la probeta
--	------------------	--	--

INSPECTION TEST / ENSAYO DE ACUERDO A LA NORMA

Pressure / Presión		Time / Tiempo		Results / Resultado	
Unit / Unidad	Value / Valor	Seconds / Segundos			
mpa	207	5			Satisfactory / Satisfactorio

This certificate is issued by a computerized system and it is valid with electronic signature. On the original certificate the trade-mark, green colored "Tenaris" is stamped. In case the owner of the original certificate would release a copy of it, he must attest its conformity to the original one taking upon himself the responsibility for any unlawful or not allowed use. Any alteration and/or falsification will be subjected to the law.

Este certificado se emite mediante sistema computarizado y es válido con firma electrónica. El certificado original posee impreso el logo Tenaris color verde. En caso de que el poseedor del certificado entregue una copia, deberá garantizar la conformidad con el original haciéndose responsable por cualquier uso ilegal o no permitido. Cualquier alteración y/o falsificación estará sujeta a la ley.



INSPECTION CERTIFICATE 3.1
CERTIFICADO DE INSPECCIÓN 3.1
(EN 10204 3.1:2004-ISO 10474 3.1:2013)

Tubos de Acero de Mexico S.A.
Carretera México Veracruz KM 433 7 SN
Defiño Vaquería Tepic Veracruz, Veracruz
C.P. 91697 MÉXICO
(52) 228 988 1100 Int.
(52) 228 988 1600 Int.

Customer / Cliente: MRC CANADA ULC		Customer's Order Item / Orden Cliente - Item: 57992636 ITEM 41		Customer's Reference / Ref. del Cliente: N/A		Manufacturer's Works Order N° / Confirmación de Venta: 25328120	
Manufacturing Process / Proceso de Manufactura: SEAMLESS HOT ROLLED				Surface / Superficie: VARNISHED			
LAMINADO EN CALIENTE SIN COSTURA				BARNIZADO			
Standard or Specification / Normas o Especificaciones: CSA Z245.1-14/MARCH 2014, CANITIS, ASTM A106/15, ASME SA106/2017				Ends / Extremos: NORMAL REVEL			
Dimensions / Dimensiones: 4.500 X 0.531 INCH 114.3 X 13.5 MM				Nominal Weight / Peso Nominal: 22.53 LB/FT 33.54 KG/M			
Schedule / Cédula: SCH 160		Length / Longitud: 18.04 / 21.98 FT 5.50 / 6.70 MTS		Quantity / Cantidad: 24516.845 LB 11166.000 KG		Steel Grade / Grado de acero: GR. B/290	

HEAT TREATMENT / TRATAMIENTO TÉRMICO

Heat treatment / Tratamiento térmico: Pipe / Tubo	
Quench media of heat treatment process / Medio de enfriamiento del tratamiento térmico: n/a	
Temperature Scale / Escala de Temperatura: n/a	
Type Tipo	
As Rolled	

Supplementary Information Información Suplementaria	
MANUFACTURED BY TENARIS TAMSA - MEXICO STEEL MAKING PROCESS ELECTRIC ARC FURNACE-LADLE FURNACE-CONTINUOUS CASTING MACHINE. ALUMINIUM FULLY KILLED STEEL, FINE GRAIN PRACTICE THE LADLE FURNACE PRACTICE INCLUDES ARGON RINSE AND FINAL INJECTION OF CALCIUM SILICIDE WIRE FOR MICROINCLUSION SHAPE CONTROL MANUFACTURING PROCESS OF PIPE: SEAMLESS HOT ROLLED NOT REPAIRED BY WELDING NON DESTRUCTIVE TEST (NDT)-SATISFACTORY INSPECTION METHOD: EMI - MPI VISUAL INSPECTION	FABRICADO POR TENARIS TAMSA - MÉXICO FABRICACIÓN DEL ACERO: HORNO DE ARCO ELÉCTRICO-HORNO DE AFINACIÓN-MÁQUINA DE COLADA CONTINUA ACERO CALMADO CON ALUMINIO, PRÁCTICA DE GRANO FINO LA PRÁCTICA EN EL HORNO DE AFINACIÓN INCLUYE AGITACIÓN POR ARGÓN E INYECCIÓN FINAL DE SILICIO DE DE CALCIO PARA OBTENER UNA FORMA GLOBULAR DE EVENTUALES MICROINCLUSIONES FABRICACIÓN DEL TUBO: LAMINADO EN CALIENTE SIN COSTURA NO REPARADO POR SOLDADURA ENSAYO DE CONTROL NO DESTRUCTIVO (CND)-SATISFACTORIO MÉTODO DE INSPECCIÓN: EMI - MPI INSPECCIÓN VISUAL

This certificate is issued by a computerized system and it is valid with electronic signature. On the original certificate the trade-mark green colored "Tenaris" is stamped. In case the owner of the original certificate would release a copy of it, he must attest its conformity to the original one taking upon himself the responsibility for any unlawfulness or not allowed use. Any alteration and/or falsification will be subjected to the law.

Este certificado se emite mediante sistema computarizado y es válido con firma electrónica. El certificado original posee impreso el logo Tenaris color verde. En caso de que el poseedor del certificado entregue una copia, deberá garantizar la conformidad con el original haciéndose responsable por cualquier uso ilegal o no permitido. Cualquier alteración y/o falsificación estará sujeta a la ley.



INSPECTION CERTIFICATE 3.1
CERTIFICADO DE INSPECCIÓN 3.1
(EN 10204 3.1:2004-ISO 10474 3.1:2013)

Tubos de Acero de Mexico S.A.
Carretera México Veracruz KM 433 7 SN
Defensa Veracruz Veracruz Veracruz
C.P. 91970 MEXICO
(52) 228 888 1100 Int.
(52) 228 888 1000 fax

Number / Número:
18017537

Page / Páginas:
5 / 6

Date / Día: March 30, 2018

Customer / Cliente: MRC CANADA ULC	Customer's Order Item / Orden Cliente - Item: S759326356 ITEM 41	Customer's Reference / Ref. del Cliente: N/A	Manufacturer's Works Order N° / Confirmación de Venta: 253291/20
Manufacturing Process / Proceso de Manufactura: SEAMLESS HOT ROLLED	Product Type / Tipo de Producto: SEAMLESS LINE PIPE	Surface / Superficie: VARNISHED	
LAMINADO EN CALIENTE SIN COSTURA	CONDUCCION SIN COSTURA	BARNIZADO	
Standard or Specification / Normas o Especificaciones: CSA Z245.1-14/MARCH 2014, CAT 1 SS, ASTM A106/15, ASME SA106/2017	Steel Grade / Grado de acero: GR B/250	Ends / Extremos: NORMAL REVEL	
		BISELADO NORMAL	
Dimensions / Dimensiones: 4.500 X 0.531 INCH 114.3 X 13.5 MM	Schedule / Cédula: SCH 160	Quantity / Cantidad: 56 Pcs/Pz	Nominal Weight / Peso Nominal: 22.53 LB/FT 33.54 KG/M
	Length / Longitud: 18.04 / 21.98 FT 5.50 / 6.70 MTS	24616.86 LB	
		327.890 MTS	11166.000 KG

SUPPLEMENTARY INFORMATION / INFORMACIÓN SUPLEMENTARIA

DIMENSIONAL INSPECTION	INSPECCIÓN DIMENSIONAL
VERIFICACION DE LAMINACIONES POR UT	VERIFICACION DE LAMINACIONES POR UT
MATERIAL ACCORDING TO ANSINACE MB0175/ISO 15156-2:2015 AND ANSINACE MB0103/ISO 17945:2015	MATERIAL DE ACUERDO A ANSINACE MB0175/ISO 15156-2:2015 Y ANSINACE MB0103/ISO 17945:2015
ONLY FOR HARDNESS 22 HRC MAX.	SOLO DUREZA MAX. 22 HRC
ULTRASONIC TESTING - 10% O.D. & I.D. LONG. & TRANSV.	PRUEBA DE ULTRASONIDO - 10% O.D. & I.D. LONG. & TRANSV.
TAMSA REF: 19353	TAMSA REF: 19353

MARKING / MARCACIÓN

PIPE STENCIL:	MARCABILLA DE TUBO ESTARCIDO:
#N°-----TENARIS TM ASTM A106/ASME SA106 / CSA Z245.1 #PE1 114.3 13.54 SCH 160 GR B/250	#N°-----TENARIS TM ASTM A106/ASME SA106 / CSA Z245.1 #PE1 114.3 13.54 SCH 160 GR B/250
CAT 1 SS TESTED 20.7 MPA / NDE #M°--- MT #K°--- KG HEAT #C°--- O.P°----- / #N°-----	CAT 1 SS TESTED 20.7 MPA / NDE #M°--- MT #K°--- KG HEAT #C°--- O.P°----- / #N°-----
POS759326356/CS118950-10 MADE IN MEXICO	POS759326356/CS118950-10 MADE IN MEXICO
WHERE:	DONDE:
Production Order O.P°-----	Orden de Producción O.P°-----
Heat number #C°---	Numero de coque #C°---
Manufacturing Date #PE1:	Fecha de Fabricación #PE1:
Net weight of pipe in Kgs #K°---	Peso neto de tubo en Kgs #K°---
Length Mts #M°---	Longitud del tubo en Mts #M°---
Pipe number #N°---	Numero de secuencia #N°---

This certificate is issued by a computerized system and it is valid with electronic signature. On the original certificate the trade-mark given colored "Tenaris" is stamped. In case the owner of the original certificate would release a copy of it, he must attest its conformity to the original one taking upon himself the responsibility for any unlawful or not allowed use. Any alteration and/or falsification will be subjected to the law.

Este certificado se emite mediante sistema computarizado y es válido con firma electrónica. El certificado original posee impreso el logo "Tenaris" en color. En caso de que el poseedor del certificado entregue una copia, deberá garantizar la conformidad con el original haciéndose responsable por cualquier uso ilegal o no autorizado. Cualquier alteración por falsificación estará sujeta a la ley.



INSPECTION CERTIFICATE 3.1
CERTIFICADO DE INSPECCIÓN 3.1
(EN 10204 3.1:2004-ISO 10474 3.1:2013)

Tubos de Acero de México, S.A.
Carretera México Veracruz KM 423.7 SM
Carretera Veracruz Toluca Veracruz, Veracruz
C.P. 91687 MEXICO
(52) 229 989 1100 Int.
(52) 229 989 1000 fax

Customer / Cliente: MRC CANADA ULC		Customer's Order Item / Orden Cliente - Item: 57593636 ITEM 41		Customer's Reference / Ref. del Cliente: N/A		Manufacturer's Works Order N° / Confirmación de Venta: 25328120	
Manufacturing Process / Proceso de Manufactura: SEAMLESS HOT ROLLED		Product Type / Tipo de Producto: SEAMLESS LINE PIPE		Surface / Superficie: VARNISHED		Ends / Extremos: NORMAL BEVEL	
Laminado en caliente sin costura		CONDUCCION SIN COSTURA		Steel Grade / Grado de acero: GR. B720		BISelado NORMAL	
Standard or Specification / Normas o Especificaciones: CSA Z245.1-14/MARCH 2014, CATTI SS, ASTM A106/15, ASME SA106/2017		Length / Longitud: 18.04 / 21.98 FT		Quantity / Cantidad: 36 Pcs/Pz		Nominal Weight / Peso Nominal: 22.53 LB/FT	
Dimensions / Dimensiones: 4.500 X 0.531 INCH		Schedule / Cédula: SCH 160		327.890 MTS		33.54 KG/M	
1143 X 13.5 MM							

SUMMARY TABLE

Heat N° Colada N°	Quantity Cantidad (Pieces)	Length Longitud (ft)	Weight Peso (Tons)
11493	22	422.01	128.63
			4.378

Average length per pipe Longitud promedio por tubo (ft)	Nominal weight per pipe Peso nominal por tubo (lb/ft)	Weight Peso (kg/m)
19.21	5.855	22.883
		34.054

This is to certify that the product described here has been manufactured, sampled, tested, and inspected in accordance with purchaser order requirements. This certificate is not a declaration of origin nor may it be used as a declaration of origin.

Por el presente certificamos que el material aquí descrito ha sido fabricado, muestreado, ensayado e inspeccionado de acuerdo a los requisitos de su orden de compra. Este certificado no es, ni puede ser usado, como una declaración de origen.

CUSTOMER - THIRD PARTY		TENARIS QUALITY DEPARTMENT SIGNATURE	
INSPECTION COMPANY COMPAÑIA DE INSPECCION NO APLICA Employee Name: N/A		QUALITY CERTIFICATION DEPT. DEPTO. DE CERTIFICACIÓN DE CALIDAD Héctor Manuel Romero Cadenas	
		CHIEF OF QUALITY CERTIFICATION DEPT. RESPONSABLE DEL DEPTO. DE CERTIFICACIÓN DE CALIDAD Angel César Alemán Gil	

This certificate is issued by a computerized system and it is valid with electronic signatures. On the original certificate the trade-mark, green colored "Tenaris" is stamped. In case the owner of the original certificate would release a copy of it, he must attest its conformity to the original one taking upon himself the responsibility for any unlawful or not allowed use. Any alteration or falsification will be subjected to the law.

Este certificado se emite mediante sistema computarizado y es válido con firma electrónica. El certificado original posee impreso el logo "Tenaris" color verde. En caso de que el poseedor del certificado entregue una copia, deberá garantizar la conformidad con el original haciendo responsable por cualquier uso ilegal o indebido. Cualquier alteración y/o falsificación estará sujeta a la ley.



SAN ENG STEEL FORGING CO LTD
311, Jen Hsin Road, Jen Wu District
Kaohsiung, Taiwan, R.O.C.
TEL:07-3724249 ; FAX:07-3712923
URL: www.saneng.com.tw
e-mail: saneng@ksts.seed.net.tw

MILL TEST CERTIFICATE

EN10204-3.1
Customer: SEYBOLD INTERNATIONAL CORP.
Order No.: 7015125(11)-MRC GLOBAL

Certificate No.: SE15125K
Date: 01/10/2019
Page: 5 OF 5

PRODUCT			MATERIAL SPECIFICATIONS										DIMENSIONAL SPECIFICATIONS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
FORGED CARBON STEEL FLANGES			ASTM A105-14/ASME SA105-2017										ASME B16.5-13 CSA Z245.12																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
Item No.	CODE NO	DESCRIPTION	QUANTITY	CHEMICAL COMPOSITION (%)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
				C	Si	Mn	P	S	Cu	Cr	Ni	Mo	V	Nb	N	Ti	B																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
			Min Max																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			</



Manager of Quality Assurance Dept

INSPECTION CERTIFICATE

Certificato d'ispezione



REPORT N. Rapporto N.		TC-021036-17-0002		Issued on 26/03/2018		Customer TRANS AM PIPING PRODUCTS LTD.		Job n. / Com. n. 21036		Page n. / Pagina n. 1 of 4	
Revision Revisone		0		According to In accordo a		Type Tipo		9335 ENDEAVOR DRIVE S.E. CALGARY, ALBERTA T3S 0A1 - CANADA		Purchase order and project/Ordine e progetto CI-17-740 REV.8	
Test Prova	Item Pos.	Qty Q.tà	Customer code Codice cliente	Material Materiale	Heat Colita	DESCRIPTION / DESCRIZIONE					
KXTL	7			A/SA105-14	186126	CROSS S. 2000 NPT A/SA105N 1/4					
SDUL	10			A/SA105-14	P4131341246	45 DEG. ELBOW S. 3000 NPT A/SA105N 2.1/2					
ZUAC	10			A/SA105-14	15/777183	45 DEG. ELBOW S. 3000 NPT A/SA105N 2.1/2					
ACRX	18			A/SA105-14	14512	COUPLING S. 3000 NPT A/SA105N 4					
YASD	18			A/SA105-14	116407	COUPLING S. 3000 NPT A/SA105N 4					
HEAT TREATMENT DATA Dettagli di trattamento termico						COUNTRY OF MELT Provenienza					
KXTL						RAW AND FORGING MATERIAL CERTIFICATES Certificati di acciaieria/forgia					
SDUL						CERT 397/1 EVAS/554662 MEGA					
ZUAC						CERT FC-004515-13-0008.MEGA/CERT.950.MEGA*					
ACRX						CERT FC-005494-15-0007.MEGA/CERT.3098.MEGA*					
YASD						CERT E17652 ART ROM					
TENSILE TEST AT ROOM TEMPERATURE / Trazione a temperatura ambiente						CVN (KV) / Prova di resilienza					
Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test
Prova	Prova	Prova	Prova	Prova	Prova	Prova	Prova	Prova	Prova	Prova	Prova
loc.	loc.	loc.	loc.	loc.	loc.	loc.	loc.	loc.	loc.	loc.	loc.
Preso a	Preso a	Preso a	Preso a	Preso a	Preso a	Preso a	Preso a	Preso a	Preso a	Preso a	Preso a
Shape	Shape	Shape	Shape	Shape	Shape	Shape	Shape	Shape	Shape	Shape	Shape
Forma	Forma	Forma	Forma	Forma	Forma	Forma	Forma	Forma	Forma	Forma	Forma
Round	Round	Round	Round	Round	Round	Round	Round	Round	Round	Round	Round
30.600	30.600	30.600	30.600	30.600	30.600	30.600	30.600	30.600	30.600	30.600	30.600
25.000	25.000	25.000	25.000	25.000	25.000	25.000	25.000	25.000	25.000	25.000	25.000
323.000	323.000	323.000	323.000	323.000	323.000	323.000	323.000	323.000	323.000	323.000	323.000
539.000	539.000	539.000	539.000	539.000	539.000	539.000	539.000	539.000	539.000	539.000	539.000
29.300	29.300	29.300	29.300	29.300	29.300	29.300	29.300	29.300	29.300	29.300	29.300
65.900	65.900	65.900	65.900	65.900	65.900	65.900	65.900	65.900	65.900	65.900	65.900
68.500	68.500	68.500	68.500	68.500	68.500	68.500	68.500	68.500	68.500	68.500	68.500
64.100	64.100	64.100	64.100	64.100	64.100	64.100	64.100	64.100	64.100	64.100	64.100
72.800	72.800	72.800	72.800	72.800	72.800	72.800	72.800	72.800	72.800	72.800	72.800
63.900	63.900	63.900	63.900	63.900	63.900	63.900	63.900	63.900	63.900	63.900	63.900
10x10x55	10x10x55	10x10x55	10x10x55	10x10x55	10x10x55	10x10x55	10x10x55	10x10x55	10x10x55	10x10x55	10x10x55
0	0	0	0	0	0	0	0	0	0	0	0
52-54-60	52-54-60	52-54-60	52-54-60	52-54-60	52-54-60	52-54-60	52-54-60	52-54-60	52-54-60	52-54-60	52-54-60
172-178-128	172-178-128	172-178-128	172-178-128	172-178-128	172-178-128	172-178-128	172-178-128	172-178-128	172-178-128	172-178-128	172-178-128
44-51-43	44-51-43	44-51-43	44-51-43	44-51-43	44-51-43	44-51-43	44-51-43	44-51-43	44-51-43	44-51-43	44-51-43
135-145-137	135-145-137	135-145-137	135-145-137	135-145-137	135-145-137	135-145-137	135-145-137	135-145-137	135-145-137	135-145-137	135-145-137
69-123-84	69-123-84	69-123-84	69-123-84	69-123-84	69-123-84	69-123-84	69-123-84	69-123-84	69-123-84	69-123-84	69-123-84
0.3829	0.3829	0.3829	0.3829	0.3829	0.3829	0.3829	0.3829	0.3829	0.3829	0.3829	0.3829
0.3957	0.3957	0.3957	0.3957	0.3957	0.3957	0.3957	0.3957	0.3957	0.3957	0.3957	0.3957
0.4062	0.4062	0.4062	0.4062	0.4062	0.4062	0.4062	0.4062	0.4062	0.4062	0.4062	0.4062
0.4097	0.4097	0.4097	0.4097	0.4097	0.4097	0.4097	0.4097	0.4097	0.4097	0.4097	0.4097
0.3635	0.3635	0.3635	0.3635	0.3635	0.3635	0.3635	0.3635	0.3635	0.3635	0.3635	0.3635
REMARKS / Note						Additional elements:					
1: MATERIAL ACCORDING TO NACE MR0175/ISO 15156-1-2-3 Ed.2015. MATERIAL ACCORDING TO NACE MR0103 Ed.2015.						A: CE = C + Mn/6 + (Cr+Mo+V)/5 + (Cu+Ni)/15 B: PREN = Cr + 3.3Mo + 16N					
2: MATERIAL ACCORDING TO ASME Sect. II Part A 2017 Edition.						C: X factor = (10P + 55B+45n+As)/100 - elements expressed in ppm					
						D: J factor = ((Mn + Si) (P + Sn)) x 10E4					
						Riccardo Scopetti					
						Ispezioni controllo qualità					



REPORT N. Rapporto N.	TC-021036-17-0002	Issued on Revised on	26/03/2018	Customer Cliente	TRANS AM PIPING PRODUCTS LTD.	Job n. / Com. n.	21036	Page n. / Pagina n.	4 of 4
Revision Revisione	0	According to In accordo a	EN 10204:2004 UNI EN 10204:2005	Type Tipo	3.1	Purchase order and project/Ordine e progetto	CI-17-740 REV.8		

We hereby certify that all items supplied for the above purchase orders meet all the requirements of the applicable specification of manufacture, the purchase item descriptions, purchase specifications and purchase order requirements. Visual, dimensional and marking check of items supplied has been carried out by our internal inspectors with satisfactory results.

The chemical and mechanical values shown on the EN 10204 certificate are true copy of the mill test certificate issued by the steel mill, or by the laboratory that determined it. All material is certified to be mercury free and free from radioactivity contamination. No weld repair was performed. Marking was performed by low stress stamps in accordance with MSS SP25 Ed. 2008

Manufacturing standards:

- 45° and 90° elbows, tees, crosses, full and half couplings; caps, square, hexagonal and round plugs; hexagonal and flush bushings, welding bosses are manufactured in accordance with ASMEB.16.11 Ed. 2016; threads in accordance with ANSI/ASME B1.20.1 Ed. 2013

- Outlet branches are manufactured in accordance with: ASME B.31.1 Ed. 2016, B.31.3 Ed. 2016 and MSS-SP-97 Ed. 2012

- Seamless swage nipples are manufactured in accordance with: BS3799-74 or MSS SP95 Ed. 2014

- Seamless pipe nipples are manufactured in accordance with: B36.10 Ed. 2015 or B36.19 Ed. 2004

- Flanged outlet branches are manufactured in accordance with: ASME B.31.1 Ed. 2016, B.31.3 Ed. 2016 and B.16.5 Ed. 2013

- Unions are manufactured in accordance with: BS 3799-74 or MSS SP-83 Ed. 2014

When the length of flanged nipple is not specified in the description, it is 150 mm.

The material is according to ASTM and ASME Boiler and Pressure Vessel Code Section II.

When the Edition/Revision of the listed standards is not mentioned, it is assumed to be the latest.

Yield strength detected by 0.2% off-set method

Austenitic and duplex stainless steels have been pickled and passivated. Machined surfaces do not require pickling and passivation.

M.E.G.A. is approved with certificate 75/2002/MUC by T.U.V. (certification Body N.0036) to issue certificate of specific product control in accordance with the Pressure Equipment Directive 2014/68/EU (PED) Annex 1, Section 4.3.

Testing equipment used:

- Tensile test machine Galdabini Quasar 250 serial No. VAOG – Procedure MAC-03 Rev. 3
- Impact test Cermac JB-W500 serial No. 04031 – Procedure MAC-04 Rev. 3
- Brinell and Vickers Hardness test Wolpert Dia Testor 2RC serial No. 8900298/0001 – Procedure MAC-05 Rev. 3 (HBW); MAC-09 Rev.0 (HV10)
- Rockwell Hardness test EMCO Test DJ10 Serial No. 255 - Procedure MAC-06 Rev. 3
- Chemical analysis spectrometer Baird DV4 serial No. P017 (ASTM E415 and E1086) – Procedure QC-07 Rev. 0

Alloy N08020: Material from forgings according to ASTM B462; Material from bars according to ASTM B473; both grades ASTM B462 and ASTM B473 conform also ASTM B366

Alloy N10276: Material from forgings according to ASTM B564; Material from bars according to ASTM B574; both grades ASTM B564 and ASTM B574 conform also ASTM B366

Alloy N06625: material from forgings according to ASTM B564; material from bars according to ASTM B446; material from pipes according to ASTM B444; all grades ASTM B564, ASTM B446 and ASTM B444 conform also ASTM B366

Alloy N08825: Material from forgings according to ASTM B564; Material from bars according to ASTM B425; both grades ASTM B564 and ASTM B425 conform also ASTM B366

The product are manufactured in Italy.

Riccardo Scorsetti

Quality inspector representative

Ispettore controllo qualità

This certificate is issued by a computerized system and it is valid with electronic signature. On the original certificate the trademark M.E.G.A. is printed in green color.

Form QC-01-01 Rev. 0 2013-03-15

M.E.G.A. S.p.A. - Via Dalla Chiesa, 3 - 24020 Scanzorosciate (Bergamo) - Italy - VAT IT 00210060166 - Ph. +39 035 661280 / 661199 - Fax +39 035 665535 - E-mail inspection@mega-fittings.com

DIE00039

INSPECTION CERTIFICATE (MILL TEST REPORT)										DATE: JUN.23, 2014	
PURCHASER: CCTX FLOW PRODUCTS INC										ORDER NO.: 000027-CAN-G	
STANDARD: A234 WPB										WORK NO.: YKGMC&C1405119	
DIMENSION: MSS SP-95										MTR NO.: GMIC-119	
6442 Roper Road, Edmonton, AB Canada, T6B 3P9										PAGE: 14/15	
TEL: 780-466-3024 FAX: 780-466-3461										SPECIFICATION FOR FORGED PIPE FITTINGS	
PRODUCT										SPECIFICATION FOR MATERIAL	
FORGED PIPE FITTINGS										A234 WPB	
MSS SP-95										MSS SP-95	
CHEMICAL COMPOSITION%											
C										Cu	
0.30										0.40	
MAX										MAX	
S										V	
0.050										0.06	
MAX										MAX	
P										Mo	
0.050										0.15	
MAX										MAX	
Mn										Cr	
0.29										0.40	
1.06										MAX	
0.43										0.14	
0.008										0.08	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21										0.04	
0.29										0.04	
0.43										0.04	
0.008										0.04	
0.016										0.04	
0.18										0.04	
0.21											



INSPECTION CERTIFICATE

(BS EN 10204 3.1: 2004 - ISO 10474 3.1: 2013)

Siderca S.A.C.
Dr. Jorge A. Sironi 250
10200JHA - Campana
Buenos Aires, Argentina
(54) 3488 433 (0 tel)

Page / Página:
3 / 5

Number / Número:
878486

Date / Día: July 20, 2018

Customer / Cliente: VAN LEEUWEN PIPE & TUBE (CANADA) INC.		Customer's Order Item / Orden Cliente - Item: 45001915-00002		Customer's Reference / Ref. del Cliente: N/A		Manufacturer's Works Order Nº / Confirmación de Venta: 5491702	
Manufacturing Process / Proceso de Manufactura: SEAMLESS HOT ROLLED		Product Type / Tipo de Producto: SEAMLESS CARBON STEEL PIPES		Surface / Superficie: INT BARE / EXT VARNISHED			
Standard or Specification / Normas o Especificaciones: ASTM/ASME A5A106+CSA Z245.1-14 CAT.1 SSFSP00373+NACE MR01750103+IPRO LP-006		Steel Grade / Grado de acero: B290 CAT 1 SS		Ends / Extremos: BEVELLED AT 30 DEG. ASTM			
Dimensions / Dimensiones: 4 1/2 X 0.531 INCH 114.30 X 13.49 MM		Schedule / Cédula: 160		Quantity / Cantidad: 27 Pcs/pz 1039.76 FT 316.92 MTS		Normal Weight / Peso Nominal: 22.51 LB/FT 33.54 KG/M	
Length / Longitud: 11.0/11.8 m							

THROUGH WALL HARDNESS / DUREZA EN EL ESPESOR

E1 / E2: Ends of Sampling / Extremos de Muestra	Max: Maximum / Máximo	QD: Outside diameter / Diámetro externo
---	-----------------------	---

HYDROSTATIC TEST / PRUEBA HIDRAULICA

Pressure / Presión		Time / Tiempo	Results / Resultado
Unit / Unidad	Value / Valor	Seconds / Segundos	
psi	1,100	5	Satisfactory / Satisfactorio

SPECIAL REQUIREMENTS / REQUERIMIENTOS ESPECIALES

Condition / Condición	Description / Descripción
Pipe residual magnetism / Magnetismo remanente de tubo	30 GAUSS
End protectors / Protector de extremo	NON LIFTABLE CLOSED PLASTIC PROTECTOR FOR FLAT / BEVELED PIPE. SUPPLIER METALCENTRO.

SUPPLEMENTARY INFORMATION / INFORMACIÓN SUPLEMENTARIA

Supplementary Information / Información Suplementaria	
MELTED AND MANUFACTURED BY TENARIS SIDERCA - ARGENTINA	*FUNDIDO Y FABRICADO POR TENARIS SIDERCA - ARGENTINA*
ACIERAGE PROCESS	*PROCESO DE ACERACIÓN*
STEEL MAKING PROCESS: E.A.F.A.F. AND CONTINUOUS CASTING - FULL ALUMINIUM KILLED AND FINE GRAIN PRACTICE.	FABRICACIÓN DE ACERO: FUNDICIÓN POR ARCO ELÉCTRICO Y COLADO CONTINUO - ACERO CALMADO AL ALUMINIO Y PRÁCTICA DE GRANO FINO

This certificate is issued by a computerized system and it is valid with electronic signature. On the original certificate the trace-man is green colored. "Tenaris" is stamped. In case the owner of the original certificate would release a copy of it, he must attest its conformity to the original one taking upon himself the responsibility for any unlawful or not allowed use. Any alteration and/or falsification will be subjected to the law.

Este certificado se emite mediante sistema computarizado y es válido con firma electrónica. El certificado original posee impreso el logo "Tenaris" en color verde. En caso de que el poseedor del certificado entregue una copia, deberá garantizar la conformidad con el original haciéndose responsable por cualquier uso ilegal o indebido. Cualquier alteración y/o falsificación estará sujeta a la ley.



INSPECTION CERTIFICATE

(BS EN 10204 3.1: 2004 - ISO 10474 3.1: 2013)

Customer / Cliente: VAN LIEUWEN PIPE & TUBE (CANADA) INC.		Customer's Order Item / Orden Cliente - Item: 45001915-00002		Number / Número: 878486	Page / Página: 4 / 5
Manufacturing Process / Proceso de Manufactura: SEAMLESS HOT ROLLED		Product Type / Tipo de Producto: SEAMLESS CARBON STEEL PIPES		Date / Día: July 20, 2018	
Standard or Specification / Normas o Especificaciones: ASTM/ASME A/S106+CSA Z245.1-14 CAT.1 SEPS00373+NACE MR01750103+IPRO LP-006		Steel Grade / Grado de acero: B/290 CAT 1 SS		Manufacturer's Works Order N° / Confirmación de Venta: 54917/02	
Dimensions / Dimensiones: 4 1/2 X 0.531 INCH 114.30 X 13.49 MM		Schedule / Cédula: 160		Surface / Superficie: INT BARE /EXT VARNISHED	
Length / Longitud: 11.0/11.8 m		Quantity / Cantidad: 27 Pcs/pzs 1039.76 FT 316.92 MTS		Ends / Extremos: REVELLED AT 30 DEG. ASTM	
		Nominal Weight / Peso Nominal: 22.51 LB/FT 33.54 KG/M			

Siderca S.A.I.C.
Dr. Jorge A. Simini 250
(B2804MHA) Campana
Buenos Aires, Argentina
(54) 3489 433100 tel

SUPPLEMENTARY INFORMATION / INFORMACIÓN SUPLEMENTARIA

Supplementary Information / Información Suplementaria	
THE LP PRACTICE INCLUDES ARGON RINSE AND A FINAL INJECTION OF CALCIUM SILICIDE WIRE FOR MICROINCLUSION SHAPE CONTROL.	LA PRÁCTICA DE AFINO EN EL HORNO - CUCHARA INCLUYE AGITACIÓN POR ARGON Y UNA INYECCIÓN FINAL DE UNA VARILLA DE SILICIO DE CALCIO PARA OBTENER UNA FORMA GLOBULAR DE EVENTUALES MICROINCLUSIONES.
MATERIAL FREE FROM MERCURY CONTAMINATION.	MATERIAL LIBRE DE CONTAMINACIÓN DE MERCURIO.
ROLLING PROCESS	*PROCESO DE LAMINACIÓN*
MANUFACTURING PROCESS SEAMLESS HOT ROLLED.	FABRICACIÓN DE TUBO: LAMINADO EN CALIENTE Y SIN COSTURA.
CONTROLS	*CONTROLES*
VISUAL AND DIMENSIONAL INSPECTION: SATISFACTORY.	CONTROL VISUAL Y DIMENSIONAL: SATISFACTORIO.
POSITIVE INDICATION OF MATERIAL (STEEL GRADE): SATISFACTORY	INDICACIÓN POSITIVA DE MATERIAL (GRADO ACERO): SATISFACTORIO.
MATERIAL CONDITIONS	*CONDICIONES DEL MATERIAL*
NOT REPAIRED BY WELDING.	NO REPARADO POR SOLDADURA.
STANDARDS	*NORMAS*
EDITION OF REGULATION: ASTM A 106/A 106M-2018	EDICIÓN DE LA NORMA: ASTM A106/A 106M - 2018
EDITION REGULATION: ASME SA 106/2017	EDICIÓN DE LA NORMA: ASME SA 106/2017
EDITION OF REGULATION: NACE MR-01-03 EDITION 2015.	EDICIÓN DE LA NORMA: NACE MR-01-03 EDITION 2015
EDITION OF REGULATION: NACE MR 01-75-2015 - ISO 15156-2 : 2015	EDICIÓN DE LA NORMA: NACE MR 01-75 : 2015 - ISO 15156-2 : 2015
EDITION OF REGULATION: CSA Z245.1 - 14	EDICIÓN DE LA NORMA: CSA Z245.1 - 14
Additional Information / Información Adicional	
NON DESTRUCTIVE TEST: SATISFACTORY.	
Additional Information / Información Adicional	
INSPECTION METHODS: UT, LONGITUDINAL, EXT/INT NOTCH 10 %.	

This certificate is issued by a computerized system and it is valid with electronic signature. On the original certificate the trade-mark "green coated" "Tenaris" is stamped. In case the owner of the original certificate would release a copy of it, he must attest its conformity to the original one taking upon himself the responsibility for any unlawful or not allowed use. Any alteration and/or falsification will be subjected to the law.

Este certificado se emite mediante sistema computarizado y es válido con firma electrónica. El certificado original posee impreso el logo "Tenaris" en color verde. En caso de que el poseedor del certificado entregue una copia, deberá garantizar la conformidad con el original haciéndose responsable por cualquier uso ilegal o no autorizado. Cualquier alteración y/o falsificación estará sujeta a la ley.



INSPECTION CERTIFICATE

(BS EN 10204 3.1: 2004 - ISO 10474 3.1: 2013)

Referencia S.A.I.C.
Dr. Jorge A. Gimen 250
182904MIA) Compañía
Buenos Aires, Argentina
(54) 3489 433100 1a

Number / Número:
878486

Page / Página:
5 / 5

Date / Día: **July 20, 2018**

Manufacturer's Works Order N° / Confirmación de Venta:
54917802

Customer's Order Item / Orden Cliente - Item:
45001915-00002

Customer / Cliente: **VAN LEEUWEN PIPE & TUBE (CANADA) INC.**

Manufacturing Process / Proceso de Manufactura:
SEAMLESS HOT ROLLED

Product Type / Tipo de Producto:
SEAMLESS CARBON STEEL PIPES

Surface / Superficie:
INT BARE / EXT VARNISHED

Standard or Specification / Normas o Especificaciones:
ASTM/ASME A/SA106+CSA Z245.1-14 CAT 1 SSPSR00373+NACE MR0175/0103+IPRO LP-006

Steel Grade / Grado de acero:
B790 CAT 1 SS

Ends / Extremos:
BEVELLED AT 30 DEG. ASTM

Dimensions / Dimensiones:
**4 1/2 X 0.531 INCH
114.30 X 13.49 MM**

Schedule / Cálculo:
160

Quantity / Cantidad: **27 Pcs/ps**

Normal Weight / Peso Nominal:
**22.51 LB/FT
33.54 KG/M**

Ends / Extremos:
BEVELLED AT 30 DEG. ASTM

MARKING / MARCACION

- & = Monogram / Monogram SIDERCA
- NNNNN = Número de tubo / Size of pipe
- LLL = Longitud / length
- PPP = Peso / Weight

Marking
Marcación

- @ = Monogram / Monogram API
- MM.YY = Mes / Año Month / Year
- YY = Año / Trimestre Year / Quarter
- HR-XXXXX = Calada / Heat

Marking
Marcación

Stencilling (Pipe)
Estarcido (Tubo)

Stencilling (Pipe)
Estarcido (Tubo)

TENARIS 50 MM.YY CSA Z245.1-14 114.3 13.49 B790 CAT 1 SS ASTM/ASME A/SA 106 NDB/ 20.7A/PA 4 SCH

160 F041001915/ISO1210144-20 HRXXXXX NNNNN LLLL MADE IN ARGENTINA

This is to certify that the product described here has been manufactured, sampled, tested, and inspected in accordance with purchaser order requirements. This certificate is not a declaration of origin nor may it be used as a declaration of origin.

Por el presente certificamos que el material aquí descrito ha sido fabricado, muestreado, ensayado e inspeccionado de acuerdo a los requisitos de su orden de compra. Este certificado no es, ni puede ser usado, como una declaración de origen.

CUSTOMER - THIRD PARTY

TENARIS QUALITY DEPARTMENT SIGNATURE

INSPECTION COMPANY
COMPAÑIA DE INSPECCION

Company Name: N/A
Employee Name: N/A

QUALITY CERTIFICATION DEPT.
DEPTO. DE CERTIFICACIÓN DE CALIDAD

CADELAGO Romina

CHIEF OF QUALITY CERTIFICATION DEPT.
RESPONSABLE DEL DEPTO. DE CERTIFICACIÓN DE CALIDAD

PAOLINA Soledad

This certificate is issued by a computerized system and it is valid with electronic signature. On the original certificate the trademark green colored "Tenaris" is stamped. In case the owner of the original certificate would release a copy of it, he must attest its conformity to the original one, making upon himself the responsibility for any unlawful or not allowed use. Any alteration and/or falsification will be subjected to the law.

Este certificado se emite mediante sistema computarizado y es válido con firma electrónica. En el certificado original posee impreso el logo "Tenaris" color verde. En caso de que el poseedor del certificado entregue una copia, deberá garantizar la conformidad con el original haciéndose responsable por cualquier uso ilegítimo o indebido. Cualquier alteración y/o falsificación estará sujeta a la ley.

WELDING PROCEDURE SPECIFICATION NO.: _____ L & L-15 (Rev.1)

WELDING PROCEDURE QUALIFICATION RECORD NO.(S): _____ WPS NO. L & L-15

QUALIFIED FOR

Base Metal (Typical): _____ P1 to P1 (SA 36, SA 106 Gr.B, SA 105, SA 516 Gr.70 etc.)
Process(es): _____ SMAW Weld Types: _____ GROOVE & FILLET
Position: _____ ALL POSITIONS Diameter: _____ ALL DIAMETERS
Filler Metal: _____ E6010, E7018-1

BASE METAL CONDITIONS & GROOVE THICKNESS RANGE QUALIFIED:

STANDARD APPLICATIONS AS WELDED

BASE METAL THICKNESS RANGE _____ 4.8 to 38.1 mm (0.188 to 1.50 in.) inclusive

COMBINED DEPOSITED WELD METAL THICKNESS

ASME B31.1	_____ 19.1 mm (0.750 in.) maximum
ASME B31.3	_____ 19.1 mm (0.750 in.) maximum
ASME SECTION VIII, DIVISION 1	_____ 38.1 mm (1.50 in.) maximum

SAFETY CODES ACT - PROVINCE OF ALBERTA
WELDING PROCEDURE

Reg. No. WP _____ 1914.2
Spec. No. _____ L+L-15 (Rev.1)
Weld Process _____ SMAW
Mati. Gr. P No. _____ 1 to P No. _____ 1
Elec. Gr. F No. _____ 3+4 A No. _____ 1
Th. Qual. For _____ 38.1mm P.W.H.T. _____ NO

Yr. 10, Mo. 01, Day 14 Signed _____
R. ROSEBERG, P.ENG.
WELDING SPECIALIST

PROVINCIAL REGISTRATION

Ministry of Corrections, Public Safety and Policing
Boiler & P.V. Safety Unit
Province of Saskatchewan
Welding Procedure & Qualification

Reg. No. WP _____ 580.3
Spec. No. _____ L+L-15 (Rev.1)
Weld Process _____ SMAW
Mati. Gr. P No. _____ 1 to P No. _____ 1
Elec. Gr. F No. _____ 3+4 A No. _____ 1+1
Th. Qual. _____ (4.8-38.1)mm P.W.H.T. _____ NO

CVN Th. Qual. _____ at _____

Remarks _____ Supporting R2P signed and dated 23/8/1999
Date _____ 6 April 2010
Approved _____ J. Chahrean



Lakeland College

AOQP NO. 7105

WELDER PERFORMANCE QUALIFICATION CARD

Name Bradley Andrews **ABSA File No. W** 34154

This card is issued pursuant to the Safety Codes Act and the Pressure Welders Regulation. The performance qualification is in accordance with Section IX of the ASME Code and subject to the limitations on the reverse side.

18-Mar-19

Date of Test

Signature of Welder

Clint Zimmerman

Welding Examiner

6246

Card No.

PERFORMANCE QUALIFICATION

Card No.: 6246

Process(es)	SMAW	SMAW	(P.No.) Materials	P1-15F
Filler Metal Group (F.No)	F3	F4		
Max. Deposited Weld Metal	5.36mm	MAX	Min. Outside Diameter	25.4mm
Backing	w/wo	w	Position(s) Qualified	all
Progression	uphill	uphill	Backing Gas	n/a

18-Mar-21

P.Q. Expiry Date


Welding Examiner Signature

E 00461

Examiner File No.



Issued On: **Mar 29, 2019**

This pressure welder's licence authorizes to weld on pressure equipment within the Province of Saskatchewan and is a record that the holder has been tested in accordance with ASME Section IX. This licence may be revoked at any time by the request of the Inspector or if the holder has not welded with a process during a period of 6 months or more.

Out-of-Province Transfer

ID No. : **6246**

Welder's Licence

No : **030708**

Pipe Tested Groove Weld
Ticket Class : **M**

Bradley Andrews

Chief Inspector

Name: **Bradley Andrews**

Weld Symbol : **BJA**

Process(es) QW350-357 (QW416):	SMAW	SMAW	Material P No. QW403.18 and QW423.1:	P1-15F P34,P4x
Filler Metal F No. QW404.15 and QW433:	F3	F4	Minimum Pipe O.D. QW303 / 403.16:	25 mm
Max Deposited Weld Metal(mm) QW404.30:	5.36	MAX	Weld Progression QW405.3:	Upward
Backing QW- 408.8 or QW402.4:	None	Metal	Positions Qualified QW461.9:	
			Groove	Fillet
Current Type / Polarity QW409.4:	ANY	ANY	ALL	ALL

SK ID No. : **006230**

Expires On: **18-Mar-2021**



Lakeland College

AOQP NO. 7105 (C)

WELDER PERFORMANCE QUALIFICATION CARD

Name **Rodger Daren** ABSA File No. W **15823**

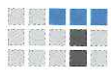
This card is issued pursuant to the Safety Codes Act and the Pressure Welders Regulation. The performance qualification is in accordance with Section IX of the ASME Code and subject to the limitations on the reverse side.

18-Jun-18
Date of Test
Signature of WelderSteve Dunn
Welding Examiner**6054**
Card No.

PERFORMANCE QUALIFICATION

Card No.: 6054

Process(es)	SMAW		SMAW	(P.No.)	P1 - 15F
Filler Metal Group (F.No)	F3	F4		Materials	
Max. Deposited Weld Metal	4.8mm	17.2mm	Min. Outside Diameter		25.4mm
Backing	w/wo	w	Position(s) Qualified		all
Progression	uphill	uphill	Backing Gas		n/a
18-Jun-20				E 00569	
P.Q. Expiry Date	Welding Examiner Signature			Examiner File No.	



**Technical
Safety Authority
of Saskatchewan**

Welder's Licence

No : **029453**

Pipe Tested Class : **M**
Groove Weld
Ticket

Issued On: **Jun 20, 2018**

This pressure welder's licence authorizes to weld on pressure equipment within the Province of Saskatchewan and is a record that the holder has been tested in accordance with ASME Section IX. This licence may be revoked at any time by the request of the Inspector or if the holder has not welded with a process during a period of 6 months or more.

Rodger Daren

Out-of-Province Transfer

ID No. : **6054**

Chief Inspector

Name: **Rodger Daren**

Weld Symbol : **RWD**

Process(es) QW350-357 (QW416):	SMAW	SMAW	Material P No. QW403.18 and QW423.1:	P1-15F P34,P4x
Filler Metal F No. QW404.15 and QW433:	F3	F4	Minimum Pipe O.D. QW303 / 403.16:	25 mm
Max Deposited Weld Metal(mm) QW404.30:	4.8	17.2	Weld Progression QW405.3:	Upward
Backing QW- 408.8 or QW402.4:	None	Metal	Positions Qualified QW461.9:	
			Groove	Fillet
Current Type / Polarity QW409.4:	ANY	ANY	ALL	ALL

SK ID No. : **000501**

Expires On: **18-Jun-2020**

Welders name	Province	Welder	Process	Weld procedure	P#	F#	Position	Max Dep Weld Metal T	Min Pipe D	Expiry Date	Date Left	Return Date	Comments
Phil Jezowski	AB,SK	PJ	GMAW/SMAW	L&L 17 Rev 0	P1-P15F/P34,P4x	F6-F4	All	2.79 mm / 17.1mm	25 mm	Nov 5/2020			
Troy Ferguson	AB,SK	TF	SMAW	L&L 15/LLOCL-1/L&L WH-1,2,3/L&L CC-1/L&L 17,16	P1-P15F/P34,P4x	F3-F4	All	4.8 mm/ 17.4 mm	25 mm	Feb 12 / 20			
Jeff Hansen	AB,SK	JH	SMAW	L&L 15/LLOCL-1/L&L WH-1,2,3/L&L CC-1/L&L 17,16	P1-P15F/P34,P4x	F3-F4	All	6.35 mm / Max	25 mm	Mar 2/21			
Mike Lantz	AB,SK	ML	SMAW	L&L 15/LLOCL-1/L&L WH-1,2,3/L&L CC-1/L&L 17,16	P1-P11	F3-F4	All	6.34 mm / 15.79mm	25 mm	Aug 31/21			
Phil Jezowski	AB,SK	PJ	SMAW	L&L 15/LLOCL-1/L&L WH-1,2,3/L&L CC-1/L&L 17,16	P1-P15F/P34,P4x	F3-F4	All	5.36mm / MAX mm	25mm	Aug 29/20			
Rodger Darren	AB,SK	RD	SMAW	L&L 15/LLOCL-1/L&L WH-1,2,3/L&L CC-1/L&L 17,16	P1-P15F/P34,P4x	F3-F4	All	4.8 mm / 17.4 mm	25 mm	June 20/20			
Steve Royan	AB,SK	CN	SMAW	L&L 15/LLOCL-1/L&L WH-1,2,3/L&L CC-1/L&L 17,16	P1-P15F/P34,P4x	F3-F4	All	6 mm/Max	25 mm	April 9/20			
Steve Royan	AB,SK	CN	GTAW/SMAW	L&L 17	P1-P15F/P34,P4x	F6-F5	All	2.79 mm / 17.1 mm	25 mm	Feb 13/20			
Waylon Marshall	AB,SK	WM	SMAW	L&L 15/LLOCL-1/L&L WH-1,2,3/L&L CC-1/L&L 17,16	P1-P15F/P34,P4x	F3-F4	All	5mm / 17 mm	25 mm	Mar 27/20			
Rodger Darren	AB,SK	RD	GMAW/SMAW	L&L 17 Rev 0	P1-P15F/P34,P4x	F6-F4	All	2.79 mm / 17.1mm	25 mm	Feb 7/21			
Shawn Rhinehart	AB,SK	SR	SMAW	L&L 15 / L&L 16 / L&L 17 / LLOCL-1	P1-P15F/P34,P4x	F6-F5	All	5.36mm / MAX mm	25 mm	Sept 20/20			
Colby Field	AB,SK	CF	SMAW	L&L 15/LLOCL-1/L&L WH-1,2,3/L&L CC-1/L&L 17,16	P1-P15F/P34,P4x	F3-F4	ALL	6.35 mm / 15.79mm	25 mm	April 10/20			
Devon Falk	AB,SK	DF	GMAW/SMAW	L&L 17	P1-P15F/P34,P4x	F6-F4	F (1F)	2.79mm / 16.92 mm	25 mm	May 28/20			
Devon Falk	AB,SK	DF	SMAW/SMAW	L&L 15/LLOCL-1/L&L WH-1,2,3/L&L CC-1/L&L 17,16	P1-P15F/P34,P4x	F3-F4	ALL	5.36 mm / Max	25 mm	Feb 26/20			
Devon Falk	AB,SK	DF	GTAW/SMAW	L&L 18	P8-P8	F6-F5	All	5.03 mm / 17.1 mm	25.4 mm	May 28/20			
Jamie Elliott	AB,SK	JE	SMAW	L&L 15/LLOCL-1/L&L WH-1,2,3/L&L CC-1/L&L 17,16	P1-P15F/P34,P4x	F3-F4	All	6 mm/Max	25 mm	June 6/20			
Waylon Marshall	AB,SK	WM	GMAW/SMAW	L&L 17 Rev 0	P1-P15F/P34,P4x	F6-F4	All	2.79 mm / 17.1 mm	25 mm	Feb 13/20			
Michael Lantz	AB,SK	ML	GMAW/SMAW	L&L 17 Rev 0	P1-P15F/P34,P4x	F6-F4	All	2.79 mm / 17.1 mm	25 mm	Feb 13/20			
Steve Royan	AB,SK	CN	SMAW	L&L 18 Rev 0	P1-P15F/P34,P4x	F5	All	Max	25 mm	April 9/20			
Shawn Rhinehart	AB,SK	SR	GMAW/SMAW	L&L 17 Rev 0	P1-P15F/P34,P4x	F6-F4	F(1G)	2.79mm / 16.92 mm	25 mm	Oct 15/20			
Randy Flint	AB,SK	RF	GMAW/SMAW	L&L 17 Rev 0	P1-P15F/P34,P4x	F6-F4	All	2.79 mm / 17.1 mm	25 mm	Feb 13/20			
Randy Flint	AB,SK	RF	SMAW	L&L 15/LLOCL-1/L&L WH-1,2,3/L&L CC-1/L&L 17,16	P1-P15F/P34,P4x	F3-F4	All	4.8 mm / 17.4 mm	25mm	Feb 15/21			
Kevin Wilson	AB,SK	KW	GMAW/SMAW	L&L 17 Rev 0	P1-P15F/P34,P4x	F6-F4	All	2.79mm / 17.1 mm	25mm	Jun 25/21			Tested On June 20, 2019
Robert Johnston	AB,SK	RJ	SMAW	L&L 15/LLOCL-1/L&L WH-1,2,3/L&L CC-1/L&L 17,16	P1-P15F/P34,P4x	F3-F4	All	5.36 mm / Max	25.4 mm	May 30/20			
Robert Johnston	AB,SK	RJ	GMAW/SMAW	L&L 17 Rev 0	P1-P15F/P34,P4x	F6-F4	All	2.79 mm / 16.92 mm	25.4 mm	May 30/20			
Brad Andrews	AB,SK	BA	GMAW/SMAW	L&L 17 Rev 0	P1-P15F/P34,P4x	F6-F4	All	2.79mm / 16.92 mm	25 mm	May 28/20			
Brad Andrews	AB,SK	BA	SMAW	L&L 15/LLOCL-1/L&L WH-1,2,3/L&L CC-1/L&L 17,16	P1-P15F/P34,P4x	F3-F4	All	5.36 mm/Max	25 mm	Mar 31/21			
Christopher Flath	AB,SK	CFF	SMAW	L&L 15/LLOCL-1/L&L WH-1,2,3/L&L CC-1/L&L 17,16	P1-P15F/P34,P4x	F3-F4	All	6 mm/ 16mm	25 mm	Sept 27/18	Dec 7,2018		
Christopher Flath	AB,SK	CFF	GMAW/SMAW	L&L 17 Rev 0	P1-P15F/P34,P4x	F6-F4	All	2.79mm / Max	25.4 mm	May 30/20	Dec 7,2018		
Kevin Wilson	AB,SK	KW	SMAW	L&L 15/LLOCL-1/L&L WH-1,2,3/L&L CC-1/L&L 17,16	P1-P15F/P34,P4x	F3-F4	All	6.35 mm / Max	25 mm	Mar 20/20			Tested On June 20, 2019

L&L Oilfield Construction 1990 Ltd.

Quality Control Manual

Revision: 0

Date: 03/06/07

Section: 13

Page:3 of 4

Exhibit 12.1

Certifying Statement

Acceptance of Procedures Manual

L&L Oilfield Construction 1990 Ltd. has reviewed the written practices, procedures records and certification of:

TRIQUEST
#8, 3716-56 Ave. Calgary, AB
T2C 2B5

In our opinion, they comply in all respects with the requirements of:

CGSB/SNT

(CGSB/SNT)

L&L Oilfield Construction hereby appoints the aforementioned NDE Company to perform the following:

RT, UT, MT, PT

(RT, UT, PT, MT, ET, VT and/or LT)

For
L&L Oilfield Construction 1990 Ltd.
6107-49 Ave
Lloydminster Saskatchewan
S9V 2G2

CURTIS SZEMAN

Quality Control Manager

Client: L & L Oilfield		Material: Carbon Steel		Date: Aug 22, 2019
Location: L&L Shop Lloydminster		Codes: ASME B31.3		Dispatch #: 22445
Job#: -, PO#: 50391, AFE#: Curtis Szeman		Item(s): Nozzles		Report Page #: 1 of 1
Surface Cond.: Weldment		Thickness: STD	Heat Treatment: N/A	Procedure: MT-GEN-001-TQ-R3 MT2
Black Light Serial #:	Mfg:	Cal. Due Date:	Verification Per ASME V ART 7 T.777.2: N/A	
Magnetizing Equipment: Yoke	Serial #: 8558	Mfg: Parker Research	Cal. Due Date: 2019-11-20	
White Light: Battery Powered Min. 3V	Method of Magnetization: AC, Continuous		Lift Test Verification per ASME V Art 7 T-762: Yes	
Magnetic Particles: Wet, Black	Batch #: L-100344-001	Mfg: SREM	Type: FLUXO-3	
Background: Yes	Batch #: L-100352-003	Mfg: SREM	Type: FLUXO-4	

Testing Results:

A Magnetic Particle Inspection was Performed as Follows:

Scope:

- **Black & White MPI Inspection on Requested New Welds:**
100% of New Welds

Nozzle Inside and Out(12)



-ACCEPT

Conclusion:

- The inspected welds noted above are acceptable to the criteria given in code ASME B31.3

Testing Limitations: No			Continuance Report: PDF Attachment(s)		
Unit # 9	KMs n/a	Consumables (Item x Qty)	Interpreter: Kyle Hope (Sign):  KH — APPLIED ON 2019-08-22 CGSB #: 18830 CGSB Level 2 SNT-TC-1A Level 2 I am in full agreement with the contents and charges applicable to this report.		
Reg 1.00	OT1 0.00	0.25 cans x Fluxo 4; 0.25 cans x Fluxo 3;			
OT2 0.00	Shift 0.00				
LOA No			Client (Print):		
Personnel: Bret Wells, Kyle Hope			Client (Sign):		
			Date: Aug 22, 2019		



Natural Resources
Canada

Ressources naturelles
Canada



Name: **Kyle Hope**

Idem: **18830**

Reg. No. /
No. matricule: **2016/08/28**

Issue Date /
Date d'émission

This card does not identify the actual holder as he or she is an employee or representative of Natural Resources Canada. Government of Canada.
Cetle carte n'identifie pas l'individu d'être un employé ou un représentant de Ressources naturelles Canada, Gouvernement du Canada.

Corrective Issues for [] Item [] An vision: []

Verres correctifs pour la vision de [] près [] distance.

Signature: 





Natural Resources
Canada

Ressources naturelles
Canada

Certified to / Certifié selon: CAN / CCS-45 9713

18830

Method /
Méthode: **NT**

Level /
Niveau: **2**

Sector /
Secteur: **EMC**

Cert. Date /
Date cert.: **20160815**

Date recent /
Date recent: **20210215**

Expires /
Expiration: **20210215**

For verification of certification status, address and / or telephone, visit website:
Pour la vérification de l'état de certification, de l'adresse et / ou du numéro de téléphone, visitez le site web: <http://natural.gc.ca/>

Manager, Certifying Agency
Gestionnaire, Organisme de certification

Employee Name: <u>Kyle Hope</u>	Expiry Date: <u>March 31, 2020</u>	
VISION EXAMINATION OF NDT PERSONNEL		
☐ INITIAL EXAMINATION	☒ RENEWAL	
VISION REQUIREMENTS		
In accordance with the current and/or accepted ASME Code Section(s), Mandatory Appendices on nondestructive testing personnel certification as per current and/or accepted SNT-TC-1A, CGSB 48.9712 and TriQuest NDT's Quality Assurance Manual.		
NEAR VISION		
Uncorrected	RE <u>✓</u>	LE <u>✓</u>
Corrected	RE _____	LE _____
Colour Vision:	<u>24/24</u>	
Shades of Grey:	<u>25/25</u>	
Examiner:	<u>Steve Garvey</u> Print	<u>Steve Garvey</u> Signature
		<u>March 31, 2019</u> Date of Examination
Employee:	<u>Kyle Hope</u> Print	<u>KH</u> Signature
		<u>March 31, 2019</u> Date of Examination
REQUIREMENTS		
1) NEAR VISION – The examination shall assure natural or corrected near-distance acuity in at least one eye such that the applicant is capable of reading a minimum of Jaeger Number 2 or equivalent type and size letter at a distance of not less than 30 cm (12 inches) on a standard Jaeger test chart. The ability to perceive an Ortho-Rater minimum of 10 or similar test patterns is also acceptable. This test shall be administered annually. 2) COLOUR VISION – The examination, by use of Ishihara plates, or other similar method, shall demonstrate the capability of distinguishing contrast among colours used in nondestructive testing. All 14 Ishihara plates shall be used in the assessment and the individual must correctly identify 13 out of 14 plates. Successful completion of a practical test in the applicable method shall be accepted as demonstrating acceptable color contrast differentiation. This test shall be administered annually. 3) SHADES OF GREY – An examination, by use of a calibrated step tablet or other similar method, shall demonstrate the capability of distinguishing contrast among shades of grey used in nondestructive testing. The individual must correctly identify all the steps presented. Successful completion of a practical test in the applicable method shall be accepted as demonstrating acceptable differentiation in shades of grey. This test shall be administered upon initial certification and at no greater interval than three-years thereafter.		

Exhibit 12.1

Certifying Statement

Acceptance of Procedures Manual

L&L Oilfield Construction 1990 Ltd. has reviewed the written practices, procedures records and certification of:

IRIS NDT

5311-86ST.EDM.AB

T6E-5T8

In our opinion, they comply in all respects with the requirements of:

CGSB/ASNT

(CGSB/ASNT)

L&L Oilfield Construction hereby appoints the aforementioned NDE company to perform the following:

RT,UT,MT,PT

(RT,UT,PT,MT,ET,VT and/orLT)

For
L&L Oilfield Construction 1990 Ltd.
Box 313
Marshall, SK
S0M 1R0

CURTIS SZEMAN

Quality Control Manager

Procedure: 5.0 Technique: MT-2V Code/Standard: API 650 - Sect 8.2.4 Other: N/A	Rev: 3.0 Client: HUSKY OIL OPERATIONS IRISNDT #: LYN1901517 Location: LSD: 8-36-48-1W4M Item Inspected: Tank Upgrades	Date: 2019-Sep-11 WO #: 81422568 PO #: 8401358779 Appr# 2Z-2020575
---	--	---

Requisitioner Ryan Waldorf /RandyChuirka	Approver Scott Stafford
Specification: N/A	Standard: N/A

Surface Condition: Buffed	Material: Carbon Steel	Thickness: > 3/16"	Heat Treatment: Not Applicable
Magnetizing Equipment: Yoke	Method of Magnetization: AC Continuous	Asset #: 40123	Mfg: Contour probe
Verification Date: 2019-Sep-11	Verification Weight: ☒ 10 lb. ☐ 40 lb.	Asset #: 49037	Verification per ASME V Art 7 T-762

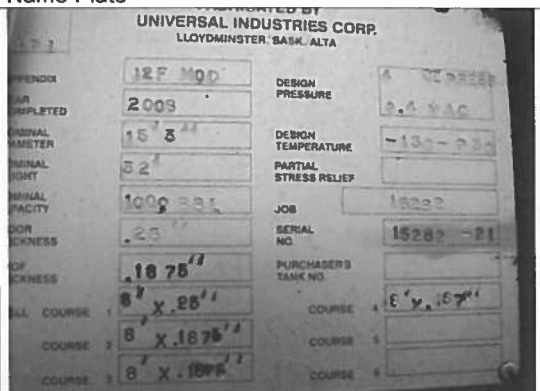
Magnetic Particles: Dry ☐ Wet ☒ Batch #: 65050117	Red ☐ Grey ☐ Black ☒ Fluorescent ☐ Manufacture: Ardrex	Type: 8032
---	---	-------------------

☒ Background		
Batch #: 65041718	Manufacture: Ardrex	Type: 8901W

☐ Blacklight (N/A)		
Asset #:	Blacklight meter: Asset #:	Cal Due Date:

☒ Whitelight	
Lighting Equipment: Yoke Light (10W)	Verification per ASME V Art 7 T-777.1

Inspection Scope: To perform a wet black on white magnetic particle inspection on the following Upgraded tank item(s)
--

Name Plate 	New Vault sting nozzle 
---	---

Welder ID: RD

Inspection Results: Acceptable to Code

Inspection Limitation(s): N/A

Unit# 1039 Kilometers _____ In: _____ Out: _____ Hrs: _____ In: _____ Out: _____ Hrs: _____ Personnel: Tristan Sommerfeld	Consumables Min _____	Interpretation by Tristan Sommerfeld (Print) _____ (Sign) _____ Client Representative: _____ (Print) _____ I am in full agreement with report contents (Sign) _____	SNT-TC-1A II C G S B: II (Level) C G S B # 7829
--	--	---	---



Natural Resources
Canada

Ressources naturelles
Canada



Name/
Nom **Tristan D. Sommerfeld**
Reg. No. /
No. matricule **7829**
Issue Date/
Date d'émission **2016/12/02**

This card does not identify the stated individual to be an employee or representative of Natural Resources Canada, Government of Canada.
Cette carte n'identifie pas l'individu d'être un employé ou un représentant de Ressources naturelles Canada, Gouvernement du Canada

Corrective lenses for [] near [X] far vision.
Verres correctifs pour la vision de [] près [X] distance.

Signature [

Canada

[Signature]

[Signature]



Natural Resources
Canada

Ressources naturelles
Canada

Certified to/ Certifié selon : CAN/CGSB-48.9712

7829

Method Méthode	Level Niveau	Sector Secteur	Cert. Date Date cert.	Date recert. Date recert.	Expires Expiration
MT	2	EMC	2000/09/08		2021/09/15
PT	2	EMC	2000/09/08		2021/09/15
RT	2	EMC	2004/01/29		2021/09/15

For verification of certification status, policies and definitions, visit website:
<http://ndt.nrcan.gc.ca/> Pour la vérification de la certification, les politiques, et les définitions,
visitez le site web: <http://ndt.nrcan.gc.ca/>

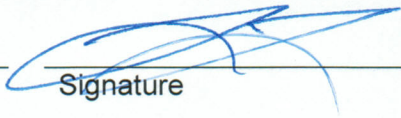
Manager, Certifying Agency
Gestionnaire, Organisme de certification

[Signature]

NAME: Tristan Sommerfeld

NEAR VISION:

uncorrected RE _____ LE _____

corrected RE J1 LE J1COLOUR VISION: 14/14 Pass SHADES OF GREY: 17/17 PassDATE OF EXAM: 2-Jan-19 DATE OF EXPIRY: 2-Jan-20EXAMINER: Sheldon Trachuk
Print
Signature

REQUIREMENTS:

- 1) NEAR-VISION - The examination shall assure natural or corrected near-distance acuity in at least one eye such that the applicant is capable of reading a minimum of Jaeger Number 2 or equivalent type and size letter at a distance of not less than 30 cm (12 inches) on a standard Jaeger test chart. The ability to perceive an Ortho-Rater minimum of 10 or similar test patterns is also acceptable. This test shall be administered annually.
- 2) COLOUR-VISION - The examination, by use of Ishihara plates, or other similar method, shall demonstrate the capability of distinguishing contrast among colours used in non-destructive examination. All 14 Ishihara plates shall be used in the assessment and the individual must correctly identify 13 out of 14 plates. Successful completion of a practical test in the applicable method shall be accepted as demonstrating acceptable colour contrast differentiation. This test shall be administered annually.
- 3) SHADES OF GREY - An examination, by use of a calibrated step tablet or other similar method, shall demonstrate the capability of distinguishing contrast among shades of grey used in non-destructive examination. The individual must correctly identify all the steps presented. Successful completion of a practical test in the applicable method shall be accepted as demonstrating acceptable differentiation in shades of grey. This test shall be administered annually..