

STAMP ?
VENDOR DOCUMENT **IOVAL STAMP**

☒ A - PROCEED ☐ I/O - DATA ACCEPTED FOR INFORMATION ONLY

☐ B - PROCEED, CHANGE AS NOTED AND RESUBMIT BY: ☐ C - DO NOT PROCEED, CHANGE AS NOTED AND RESUBMIT BY:

RESUBMIT DATE FOR STATUS B: RESUBMIT DATE FOR STATUS C:

SIGN: N. N. N. DATE SIGNED: Feb. 15, 2019

VDDR CODE(S): RM13

AUTHORIZATION TO PROCEED DOES NOT WAIVE SUPPLIER'S RESPONSIBILITY OR LIABILITY UNDER THE CONTRACT PURCHASE ORDER FOR COMPLIANCE WITH THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS

Tenaris

MILL TEST CERTIFICATE

Number:
0000004299
Date: July 21, 2014

Page:
1 / 5

Prudential Steel ULC
8919 Barlow Trail S.E.
Calgary, Alberta, T2C 2N7, Canada
(403) 279-4401 tel
(403) 236-0179 fax

Customer: GATEWAY TUBULARS LTD.		Customer's Order Item: 31101102 Item: 20		Customer's Reference: GTP1422		Manufacturer's Works Order N°: N/A	
Manufacturing Process: HFI-EW		Product Type: Line Pipe				Surface: Bare	
Standard or Specification: CSA Z245.1-07				Steel Grade: G359 C2 Sour Service		Ends: Bevel	
Dimensions: 10.752 X .28 in 273.1 X 7.1 mm		Schedule: N/A		Length: 19.32 M 63.38 FT		Quantity: 98 pcs 6211.61 FT 1893.3 M	
						Nominal Weight: lb/ft kg/M	

TENSILE TEST

Heat N°	Sample N°	Zone	Lot N°	Pipe N°	Specimen condition				Specimen dimensions		Y.S.	Y.S.	U.T.S.	U.T.S.	Y.S./U.T.S.	Elongation	
					Ls	Sc	Type	Ori	Size	Area	Req.	Req.	Req.	Req.	Req. Max.	Min.	Obl.
									mm	mm ²	Min: 359 Max: 530	Min: 52 069 Max: 76 870	Min: 455 Max: 600	Min: 65 992 Max: 87 023	—	%	%
106952	54LT	A	N/A	#02B	B	AM	Ss	T	6.99 X 40.4	284.000	421	61 046	509	73 806	0.83	24.0	38.0
106953	64LT	A	N/A	#02B	B	AM	Ss	T	7.01 X 40.2	282.000	426	61 771	522	75 691	0.81	24.0	38.7

AM: As manufactured Min: Minimum Req: Required U.T.S: Ultimate tensile strength
 B: Body Obt: Obtained Sc: Specimen condition Y.S: Yield strength
 Ls: Location of sample Ori: Orientation Ss: Strip specimen
 Max: Maximum Req. Max: Required maximum T: Transversal

Heat N°	Sample N°	Zone	Lot N°	Pipe N°	Specimen condition				Specimen dimensions		Y.S.	Y.S.	U.T.S.	U.T.S.	Y.S./U.T.S.	Elongation	
					Ls	Sc	Type	Ori	Size	Area	Req.	Req.	Req.	Req.	Req. Max.	Min.	Obl.
									mm	mm ²	Min: — Max: —	Min: — Max: —	Min: 455 Max: 760	Min: 65 992 Max: 110 229	—	%	%
106952	54LT	A	N/A	#02W	W	N	Ss	T	6.97 X 40.3	282.000	486	70 471	550	79 751	0.88	N/A	24.8
106953	64LT	A	N/A	#02W	W	N	Ss	T	7 X 40.2	282.000	457	66 266	550	79 751	0.83	N/A	36.4

Ls: Location of sample Obt: Obtained Sc: Specimen condition W: Weld
 Max: Maximum Ori: Orientation Ss: Strip specimen Y.S: Yield strength
 Min: Minimum Req. Max: Required maximum T: Transversal

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.

FOR03171



MILL TEST CERTIFICATE

Number:
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Date: July 21, 2014

Page:
2 / 5

Prudential Steel ULC
8019 Barlow Trail S.E.
Calgary, Alberta, T2C 2N7, Canada
(403) 278-4401 tel
(403) 236-0179 fax

Customer: GATEWAY TUBULARS LTD.			Customer's Order Item: 31101102 Item: 20		Date: July 21, 2014		Customer's Reference: GTP1422		Manufacturer's Works Order N°: N/A		
Manufacturing Process: HFI-EW			Product Type: Line Pipe						Surface: Bare		
Standard or Specification: CSA Z245.1-07					Steel Grade: G359 C2 Sour Service			Ends: Bevel			
Dimensions: 10.752 X .28 in 273.1 X 7.1 mm		Schedule: N/A		Length: 19.32 M 63.38 FT		Quantity: 98 pcs 6211.61 FT 1893.3 M			Nominal Weight: lb/ft kg/M		

TENSILE TEST

N: Normalized Req: Required U.T.S: Ultimate tensile strength

CHEMICAL COMPOSITION

				Composition %																			
				X 1	X 100								X 1000								X 10000		
				Ce	C	Mn	Si	Ni	Cr	Cu	Mo	S	P	Al	Sn	Nb	V	Ti	Cs	N	B		
Heat N°	Sample N°	Lot N°	Pipe N°	H	Max	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
				Min	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
				P	0.35	15	115	45	40	20	50	10	10	20	80	50	60	10	30	—	150	8	—
				Min	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	—	—		
106952		N/A		H	0.18	6.5	88.1	19.2	4.2	7.7	12.4	1.5	3.1	7.5	37.9	6.4	25	3.1	17.6	24	N/A	2	
106952	54LT	N/A	#01	P	0.15	5.3	87.3	17.4	4.3	7.5	12.6	1.4	3.2	7.1	34.8	5.2	23.4	4.5	17.2	23.2	N/A	1.8	
106952	54LT	N/A	#01	P	0.15	5.3	88.2	17.8	4.3	7.8	12.2	1.4	2.7	7	34.4	5.3	23.9	4.7	17.5	21.9	N/A	1.9	
106953		N/A		H	0.17	6	91.5	19.2	4.4	8.4	12.1	1.5	2.6	10.2	52.3	6.5	27.4	3	15.9	20	N/A	2	
106953	64LT	N/A	#01	P	0.17	6.1	91.4	17.7	4.6	8.4	12.1	1.5	2.8	9.9	48.7	5.2	26.7	4.5	15.6	28.3	N/A	2	
106953	64LT	N/A	#01	P	0.17	6.1	91.2	17.7	4.6	8.4	12	1.5	2.7	9.5	47.2	5.2	26.2	4.6	15.4	25.4	N/A	1.9	

Ce: Carbon equivalent Max: Maximum P: Product
H: Heat Min: Minimum

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Page:
3 / 5

Prudential Steel ULC
6919 Berlow Trail S.E.
Calgary, Alberta, T2C 2N7, Canada
(403) 279-4401 tel
(403) 236-0179 fax

Customer: GATEWAY TUBULARS LTD.		Customer's Order Item: 31101102 Item: 20		Customer's Reference: GTP1422		Manufacturer's Works Order N°: N/A	
Manufacturing Process: HFI-EW		Product Type: Line Pipe				Surface: Bare	
Standard or Specification: CSA Z245.1-07				Steel Grade: G359 C2 Sour Service		Ends: Bevel	
Dimensions: 10.752 X .28 in 273.1 X 7.1 mm		Schedule: N/A		Length: 19.32 M 63.38 FT		Quantity: 98 pcs 6211.61 FT 1893.3 M	
						Nominal Weight: lb/ft kg/M	

THROUGHWALL HARDNESS

Required values			Individuals			Average			Hardness type : HV500										Formula applied			
Heat N°	Sample N°	Lot N°	Min: --	Max: 238.0	Var: --	Min: --	Max: --	Var: --	Minimum mantelste : (%): --													
			Pipe N°	Specimen condition			Scale		OD					ID					Max.	Min.	Avg.	Var.
				Ls	Sc				1	2	3	4	5	1	2	3	4	5				
106952	54LT	N/A	#01	W	N			HV	203.0	207.0	210.0	208.0	188.0	202.0	195.0	204.0	203.0	183.0	210.0	188.0	201.3	22.0
106953	64LT	N/A	#01	W	N			HV	194.0	207.0	204.0	207.0	196.0	208.0	197.0	204.0	200.0	204.0	207.0	194.0	201.9	13.0

Avg: Average
ID: Internal diameter
Ls: Location of sample
Max: Maximum
Min: Minimum
N: Normalized
OD: Outside diameter
Sc: Specimen condition
Var: Variation
W: Weld

Required values			Individuals			Average			Hardness type : HRBW										Formula applied		
			Min: --	Max: 99.0	Var: --	Min: ---	Max: --	Var: --	Minimum mantelito : (%): --												
Heat N°	Sample N°	Lot N°	Pipe N°	Specimen condition		Scale	MW					Max.	Min.	Avg.	Var.						
				Ls	Sc		1	2	3	4	5										
106952	54LT	N/A	#01	W	N	HRBW	85.0	89.0	91.0	81.0	88.0	91.0	85.0	88.4	6.0						
106953	64LT	N/A	#01	W	N	HRBW	88.0	85.0	87.0	88.0	88.0	89.0	85.0	88.4	3.0						

Avg: Average
Ls: Location of sample
Max: Maximum
Min: Minimum
MW: Middle wall
N: Normalized
Sc: Specimen condition
Var: Variation
W: Weld

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MILL TEST CERTIFICATE

Number:
0000004299

Page:
4 / 5

Date: July 21, 2014

Prudential Steel ULC
8919 Barlow Trail S.E.
Calgary, Alberta, T2C 2N7, Canada
(403) 279-4401 tel
(403) 238-0179 fax

Customer: GATEWAY TUBULARS LTD.		Customer's Order Item: 31101102 Item: 20		Customer's Reference: GTP1422		Manufacturer's Works Order N°: N/A	
Manufacturing Process: HFI-EW		Product Type: Line Pipe				Surface: Bare	
Standard or Specification: CSA Z245.1-07				Steel Grade: G359 C2 Sour Service		Ends: Bevel	
Dimensions: 10.752 X .28 in 273.1 X 7.1 mm		Schedule: N/A		Length: 19.32 M 63.38 FT		Quantity: 98 pcs 8211.61 FT 1693.3 M	
						Nominal Weight: lb/ft kg/M	

IMPACT TEST

Type: Charpy V				Orientation: Transverse			Unit: J				Shear area %					
Position: Non-Flattened				Temp: -45		Unit: celsius		Ind.Min.Req: --		Req.Min.Avg: 27		Ind.Min.Req: 50		Req.Min.Avg: 60		
Heat N°	Sample N°	Lot N°	Pipe N°	Ls	Sc	T.T	Size		Results				Results			
							mm		1	2	3	Avg.	1	2	3	Avg.
106952	54LT	N/A	#01	B	AM	-45	5x10		91	114	98	101	100	100	100	100
106953	64LT	N/A	#01	B	AM	-45	5x10		92	98	99	96	100	100	100	100

AM: As manufactured
Avg: Average
B: Body

Ind. Min. Req: Individual Minimum Required
Ls: Location of sample
Req. Min. Avg: Required minimum average

Sc: Specimen condition
T.T: Test temperature
Temp: Temperature

Type: Charpy V				Orientation: Transverse				Unit: J				Shear area %				
Position: Non-Flattened				Temp: -45		Unit: celsius		Ind.Min.Req: -		Req.Min.Avg: 18		Ind.Min.Req: -		Req.Min.Avg: -		
Heat N°	Sample N°	Lot N°	Pipe N°	Ls	Sc	T.T	Size		Results				Results			
							mm		1	2	3	Avg.	1	2	3	Avg.
106952	54LT	N/A	#01	W	N	-45	5x10		95	114	92	100	80	100	80	87
106953	64LT	N/A	#01	W	N	-45	5x10		141	108	118	122	100	100	100	100

Avg: Average
Ind. Min. Req: Individual Minimum Required
Ls: Location of sample

N: Normalized
Req. Min. Avg: Required minimum average
Sc: Specimen condition

T.T: Test temperature
Temp: Temperature
W: Weld

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Number:

0000004299

Page:

5 / 5

Date: July 21, 2014

Prudential Steel ULC
6919 Barlow Trail S.E.
Calgary, Alberta, T2C 2N7, Canada
(403) 278-4451 tel
(403) 236-0179 fax

Customer: GATEWAY TUBULARS LTD.		Customer's Order Item: 31101102 Item: 20		Customer's Reference: GTP1422		Manufacturer's Works Order N°: N/A	
Manufacturing Process: HFI-EW		Product Type: Line Pipe				Surface: Bare	
Standard or Specification: CSA Z245.1-07				Steel Grade: G359 C2 Sour Service		Ends: Bevel	
Dimensions: 10.752 X .28 in 273.1 X 7.1 mm		Schedule: N/A		Length: 19.32 M 63.38 FT		Quantity: 98 pcs 6211.61 FT 1893.3 M	
						Nominal Weight: lb/ft kg/M	

SUPPLEMENTARY INFORMATION

Supplementary Information

Hydrostatic Pres: 17700 KPa Hydrostatic Time: 5 Sec Normalizing Temp: 1086 C Mill Speed: 21.9 M/min
RGB and Flattening tests successfully performed in accordance with clause 7.5.2 and 7.3 of CSA Z245.1-07
NDE Inspection performed in accordance with clause 12.5 and 12.6.2 of CSA Z245.1-07
Weld zone metallographic examinations performed in accordance with and met the requirements of clause 5.4.4 of CSA Z245.1-07

This is to certify that the product described here has been manufactured, sampled, tested and inspected in accordance with the referenced standard and/or specification.
Manufactured by Tenaris Prudential.

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.

CUSTOMER / THIRD PARTY

INSPECTION COMPANY
COMPAÑIA DE INSPECCIÓN

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

TENARIS QUALITY DEPARTMENT SIGNATURE

Quality Local Manager

MC SHANE Gregory

Laboratory Coordinator

ALBERT Daniel TS.ca

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ST
VENDOR DOCUMENT

EC
APPROVAL STAMP

☒ A - PROCEED
☐ B - PROCEED, CHANGE AS NOTED AND RESUBMIT BY:

☐ I/O - DATA ACCEPTED FOR INFORMATION ONLY
☐ C - DO NOT PROCEED, CHANGE AS NOTED AND RESUBMIT BY:

TERMINAL/CASE INFORMATION: Feb 15, 2019
SIGN: [Signature] DATE SIGNED: Feb 15, 2019

VDDR CODE(S): RM13

AUTHORIZATION TO PROCEED DOES NOT WAIVE SUPPLIER'S RESPONSIBILITY OR LIABILITY UNDER THE CONTRACT/PURCHASE ORDER FOR COMPLIANCE WITH THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS



MILL TEST CERTIFICATE

Number:
0000004289
Date: July 18, 2014

Page:
1 / 5

Prudential Steel ULC
8919 Barlow Trail S.E.
Calgary, Alberta, T2C 2N7, Canada
(403) 279-4401 tld
(403) 238-0179 fax

Customer: GATEWAY TUBULARS LTD.		Customer's Order Item: 31101102 Item: 10		Customer's Reference: GTP1422		Manufacturer's Works Order N°: N/A	
Manufacturing Process: HFI-EW		Product Type: Line Pipe				Surface: Bare	
Standard or Specification: CSA Z245.1-07				Steel Grade: G359 C2 Sour Service		Ends: Bevel	
Dimensions: 10.752 X .28 in 273.1 X 7.1 mm		Schedule: N/A		Length: 18.78 M 61.63 FT		Quantity: 17 pcs 1047.67 FT 319.33 M	
						Nominal Weight: lb/ft kg/M	

TENSILE TEST

Heat N°	Sample N°	Zone	Lot N°	Pipe N°	Specimen condition				Specimen dimensions		Y.S.	Y.S.	U.T.S.	U.T.S.	Y.S./U.T.S.	Elongation	
					Ls	Sc	Type	Ori	Size	Area	Req.	Req.	Req.	Req.	Req. Max.	Min.	Obt.
111824	80LT	B	N/A	#02B	B	AM	Ss	T	7.01 X 40.3	283.000	Min: 359 Max: 530	Min: 52 069 Max: 76 870	Min: 455 Max: 600	Min: 65 992 Max: 87 023	-	%	%
111826	77LT	B	N/A	#02B	B	AM	Ss	T	7 X 40.5	283.000	455	65 976	533	77 286	0.85	24.0	34.1
											443	64 236	529	76 706	0.84	24.0	39.6

AM: As manufactured
B: Body
Ls: Location of sample
Max: Maximum

Min: Minimum
Obt: Obtained
Ori: Orientation
Req. Max: Required maximum

Req: Required
Sc: Specimen condition
Ss: Strip specimen
T: Transversal

U.T.S: Ultimate tensile strength
Y.S: Yield strength

Heat N°	Sample N°	Zone	Lot N°	Pipe N°	Specimen condition				Specimen dimensions		Y.S.	Y.S.	U.T.S.	U.T.S.	Y.S./U.T.S.	Elongation	
					Ls	Sc	Type	Ori	Size	Area	Req.	Req.	Req.	Req.	Req. Max.	Min.	Obt.
111824	80LT	B	N/A	#02W	W	N	Ss	T	7.02 X 40.5	284.000	Min: - Max: -	Min: - Max: -	Min: 455 Max: 760	Min: 65 982 Max: 110 229	-	%	%
111826	77LT	B	N/A	#02W	W	N	Ss	T	7 X 40.4	283.000	499	72 356	550	79 751	0.91	N/A	34.2
											479	69 456	548	79 461	0.87	N/A	32.3

Ls: Location of sample
Max: Maximum
Min: Minimum

Obt: Obtained
Ori: Orientation
Req. Max: Required maximum

Sc: Specimen condition
Ss: Strip specimen
T: Transversal

W: Weld
Y.S: Yield strength

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Page:
2 / 5

Prudential Steel ULC
8919 Barlow Trail S.E.
Calgary, Alberta, T2C 2N7, Canada
(403) 279-4401 tel
(403) 236-0179 fax

Customer: GATEWAY TUBULARS LTD.			Customer's Order Item: 31101102 Item: 10		Customer's Reference: GTP1422		Date: July 18, 2014		Manufacturer's Works Order N°: N/A		
Manufacturing Process: HFI-EW			Product Type: Line Pipe						Surface: Bare		
Standard or Specification: CSA Z245.1-07					Steel Grade: G359 C2 Sour Service			Ends: Bevel			
Dimensions: 10.752 X .28 in 273.1 X 7.1 mm		Schedule: N/A		Length: 18.78 M 61.63 FT		Quantity: 17 pcs 1047.67 FT 319.33 M			Nominal Weight: lb/ft kg/M		

TENSILE TEST

N: Normalized Req: Required U.T.S: Ultimate tensile strength

CHEMICAL COMPOSITION

				Composition %																			
				X 1	X 100								X 1000								X 10000		
				Ce	C	Mn	Si	Ni	Cr	Cu	Mo	S	P	Al	Sn	Nb	V	Ti	Ca	N	B		
Heat N°	Sample N°	Lot N°	Pipe N°	H	Max	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
				Min	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
				Max	0.35	15	115	45	40	20	50	10	10	20	80	50	60	10	30	--	150	8	--
Heat N°	Sample N°	Lot N°	Pipe N°	P	Min	--	--	--	--	--	--	--	--	--	--	--	--	--	5	--	--	--	
				Max	0.16	5.7	87.3	20.6	7.7	9.1	16.4	2.3	2.1	10.9	26.2	7.3	28.3	4.2	15.6	29	N/A	2	2.3
				Min	0.16	5.6	86.2	18.6	8	9	17	2.3	2	10.8	24.3	6	26.5	5.5	14.6	29.3	N/A	2	2.5
Heat N°	Sample N°	Lot N°	Pipe N°	P	Max	0.16	5.5	85.9	18.7	7.9	8.9	16.5	2.2	1.7	10.4	24	6.8	26	5.4	14.7	27	N/A	2
				Min	0.16	5.7	87.5	21.1	6.3	7.3	14.5	1.9	1.1	10	24.4	7.4	27.5	4.1	16.5	29	N/A	2	2.5
				Max	0.16	5.5	86.7	19.3	6.7	7.2	14.6	1.8	0.8	9.4	22.3	6.7	25.8	5.5	15.7	24.6	N/A	2.4	2.5
Heat N°	Sample N°	Lot N°	Pipe N°	P	Min	0.16	5.6	86.9	19.2	6.8	7.2	14.9	1.8	0.8	9.7	22.1	6.6	25.9	5.4	15.8	23.3	N/A	2.4
				Max	0.16	5.7	87.3	20.6	7.7	9.1	16.4	2.3	2.1	10.9	26.2	7.3	28.3	4.2	15.6	29	N/A	2	2.3
				Min	0.16	5.6	86.2	18.6	8	9	17	2.3	2	10.8	24.3	6	26.5	5.5	14.6	29.3	N/A	2	2.5

Ce: Carbon equivalent Max: Maximum P: Product
H: Heat Min: Minimum

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Page:
3 / 5

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Calgary, Alberta, T2C 2N7, Canada
(403) 278-4401 tel
(403) 236-0179 fax

Customer: GATEWAY TUBULARS LTD.			Customer's Order Item: 31101102 Item: 10		Customer's Reference: GTP1422		Manufacturer's Works Order N°: N/A	
Manufacturing Process: HFI-EW			Product Type: Line Pipe			Surface: Bare		
Standard or Specification: CSA Z245.1-07					Steel Grade: G359 C2 Sour Service		Ends: Bevel	
Dimensions: 10.752 X .28 in 273.1 X 7.1 mm		Schedule: N/A	Length: 18.78 M 61.63 FT		Quantity: 17 pcs 1047.67 FT 318.33 M		Nominal Weight: lb/ft kg/M	

THROUGH WALL HARDNESS

Required values			Individuals			Average			Hardness type : HV500										Formula applied			
			Min: --	Max: 238.0	Var: --	Min: --	Max: --	Var: --	Minimum mantelito : (%) --													
Heat N°	Sample N°	Lot N°	Pipe N°	Specimen condition		Scale	OD					ID					Max.	Min.	Avg.	Var.		
				Ls	Sc		1	2	3	4	5	1	2	3	4	5						
111824	80LT	N/A	#01	W	N	HV	186.0	198.0	213.0	204.0	202.0	184.0	196.0	194.0	197.0	200.0	213.0	194.0	199.4	19.0		
111826	77LT	N/A	#01	W	N	HV	184.0	204.0	202.0	210.0	187.0	199.0	199.0	201.0	199.0	198.0	210.0	194.0	200.1	16.0		

Avg: Average		Max: Maximum		OD: Outside diameter		W: Weld	
ID: Internal diameter		Min: Minimum		Sc: Specimen condition			
Ls: Location of sample		N: Normalized		Var: Variation			

Required values				Individuals			Average			Hardness type : HRBW										Formula applied			
				Min: --	Max: 89.0	Var: --	Min: --	Max: --	Var: --	Minimum mantelito : (%) --													
Heat N°	Sample N°	Lot N°	Pipe N°	Specimen condition						Scale	MW					Max.					Min.	Avg.	Var.
				Ls		Sc					1	2	3	4	5								
111824	80LT	N/A	#01	W		N				HRBW	85.0	86.0	88.0	87.0	87.0	88.0					85.0	86.6	3.0
111826	77LT	N/A	#01	W		N				HRBW	87.0	86.0	89.0	87.0	87.0	89.0					86.0	87.2	3.0

Avg: Average		Min: Minimum		Sc: Specimen condition			
Ls: Location of sample		MW: Middle wall		Var: Variation			
Max: Maximum		N: Normalized		W: Weld			

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MILL TEST CERTIFICATE

Number:
0000004289

Page:
4 / 5

Date: July 18, 2014

Prudential Steel ULC
8919 Barlow Trail S.E.
Calgary, Alberta, T2C 2N7, Canada
(403) 279-4401 tel
(403) 238-0179 fax

Customer: GATEWAY TUBULARS LTD.			Customer's Order Item: 31101102 Item: 10		Customer's Reference: GTP1422		Manufacturer's Works Order N°: N/A		
Manufacturing Process: HFI-EW			Product Type: Line Pipe			Surface: Bare			
Standard or Specification: CSA Z245.1-07					Steel Grade: G359 C2 Sour Service		Ends: Bevel		
Dimensions: 10.752 X .28 in 273.1 X 7.1 mm		Schedule: N/A		Length: 18.78 M 61.63 FT		Quantity: 17 pcs 1047.67 FT 319.33 M		Nominal Weight: lb/ft kg/M	

IMPACT TEST

Type: Charpy V				Orientation: Transverse				Unit: J				Shear area %			
Position: Non-Flattened				Temp: -45				Unit: celcius				Ind.Min.Req: -- Req.Min.Avg: 27			
Heat N°	Sample N°	Lot N°	Pipe N°	Temp	Size	Ind.Min.Req	Req.Min.Avg	Results	Avg	Ind.Min.Req	Req.Min.Avg	Results	Avg		
				Ls	Sc	T.T	mm	1	2	3	Avg	1	2	3	Avg
111824	80LT	N/A	#01	B	AM	-45	5x10	81	83	88	87	80	80	80	83
111826	77LT	N/A	#01	B	AM	-45	5x10	84	94	102	93	100	90	100	97

AM: As manufactured				Ind. Min. Req: Individual Minimum Required				Sc: Specimen condition			
Avg: Average				Ls: Location of sample				T.T: Test temperature			
B: Body				Req. Min. Avg: Required minimum average				Temp: Temperature			

Type: Charpy V				Orientation: Transverse				Unit: J				Shear area %			
Position: Non-Flattened				Temp: -45				Unit: celcius				Ind.Min.Req: -- Req.Min.Avg: 18			
Heat N°	Sample N°	Lot N°	Pipe N°	Temp	Size	Ind.Min.Req	Req.Min.Avg	Results	Avg	Ind.Min.Req	Req.Min.Avg	Results	Avg		
				Ls	Sc	T.T	mm	1	2	3	Avg	1	2	3	Avg
111824	80LT	N/A	#01	W	N	-45	5x10	115	60	113	98	100	50	100	83
111826	77LT	N/A	#01	W	N	-45	5x10	127	113	110	117	100	100	100	100

Avg: Average				N: Normalized				T.T: Test temperature			
Ind. Min. Req: Individual Minimum Required				Req. Min. Avg: Required minimum average				Temp: Temperature			
Ls: Location of sample				Sc: Specimen condition				W: Weld			

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FOR03171

**MILL TEST CERTIFICATE**Number:
0000004289Page:
5 / 5

Date: July 18, 2014

Prudential Steel ULC
8919 Barlow Trail S.E.
Calgary, Alberta, T2C 2N7, Canada
(403) 279-4401 tel
(403) 238-0179 fax

Customer: GATEWAY TUBULARS LTD.		Customer's Order Item: 31101102 Item: 10		Customer's Reference: GTP1422		Manufacturer's Works Order N°: N/A	
Manufacturing Process: HFI-EW		Product Type: Line Pipe				Surface: Bare	
Standard or Specification: CSA Z245.1-07				Steel Grade: G359 C2 Sour Service		Ends: Bevel	
Dimensions: 10.752 X .28 in 273.1 X 7.1 mm		Schedule: N/A		Length: 18.78 M 61.63 FT		Quantity: 17 pcs 1047.67 FT 319.33 M	
						Nominal Weight: lb/ft kg/M	

SUPPLEMENTARY INFORMATION

Supplementary Information

Hydrostatic Pres: 17700 KPa Hydrostatic Time: 5 Sec Normalizing Temp: 1088 C Mill Speed: 21.9 M min
ROB and Flattening tests successfully performed in accordance with clause 7.5.2 and 7.3 of CSA
Z245.1-07
NDE Inspection performed in accordance with clause 12.5 and 12.6.2 of CSA Z245.1-07
Weld zone metallographic examinations performed in accordance with and met the requirements of
clause 5.4.4 of CSA Z245.1-07

This is to certify that the product described here has been manufactured, sampled, tested and
inspected in accordance with the referenced standard and/or specification.
Manufactured by Tenaris Prudential.

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.

CUSTOMER, THIRD PARTY

INSPECTION COMPANY
COMPAÑIA DE INSPECCIÓN

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

TENARIS QUALITY DEPARTMENT SIGNATURE

Quality Local Manager

MC SHANE Gregory

Laboratory Coordinator

ALBERT Daniel TS.ca

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"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
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