

Number: Page: 100039617.0.1 4/6 Date: June 08, 2018

MAVERICK TUBE CORPORATION Hickman Plant 5020 N COUNTY RD 967 BLYTHEVILLE, AR 72315 (870) 776-5000 tel (870) 776-5008 fax

				- ato, Jane 00, 2010		4
Customer:			Customer's Order Item: 31214115/SO/10	Customer's Reference: 646443	Manufacturer	s Works Order N°:
Manufacturing Process: HFW		Product Type: Line Pipe			Surface: Bare	
Standard or Specification: API 5L 45TH EDITION	A CONTRACTOR OF THE CONTRACTOR		Steel Grade X52M PSI		Ends: Plain End Be	velled
Dimensions: 12.750 x 0.375 in	Schedule: N/A	Length: Double Random	Quantity: 2: 896 FT	1 PCS 44082 LB	Nominal Weig	ht:

#### **FLATTENING TEST**

Standard:				Standard:			
Heat N°	Lot N°	Sample N°	Result	Heat N°	Lot N°	Sample N°	Result
1178014	1178014	131393	Good	1278161	1278161	131401	Good

#### HYDROSTATIC TEST

Press	ure	Time	Results					
Unit	Value	Seconds						
psi	2,610		Satisfactory					

#### SUPPLEMENTARY INFORMATION

### Supplementary Information

This material has been manufactured, sampled, tested and inspected in accordance with this specification and has been found to meet the requirements called for by the above order.

This product is silicon and/or aluminum fully killed.

NDT OK UT with ID/OD N-10 Notches verified by 1/8" FDH

INSPECTION CERTIFICATION 3.1 IN ACCORDANCE WITH EN 10204-2004

Supplementary Information

COMPLIANT TO ASTM A53-12 GRADE B AND ASME SA53-13 GRADE B

Material meets the maximum hardness requirement of section A.2.1.2 of NACE MRO 175

BODY TENSILE SOURCED 180° FROM WELD LINE; CVN SAMPLES SOURCED 90° FROM WELD LINE, CVN SAMPLES TESTED BY 8mm STRIKER



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MAVERICK TUBE CORPORATION Hickman Plant 5020 N COUNTY RD 967 BLYTHEVILLE, AR 72315 (870) 776-5000 tel (870) 776-5008 fax

				Date: June 00, 2010	i i	
ustomer:			Customer's Order Item: 31214115/SO/10	Customer's Reference:	Manufacturer's Works Order N°:	
			31214113/30/10	646443	N/A	
anufacturing Process:		Product Type:			Surface:	
FW		Line Pipe			Bare	1
						1
andard or Specification:			Steel Grade		Ends:	
PI 5L 45TH EDITION			X52M PSL	2	Plain End Bevelled	1
mensions:	Schedule:	Length:	Quantity: 21	PCS	Nominal Weight:	
.750 x 0.375 in	N/A	Double Random	896 FT	44082 LB	49.61 LB/FT	1

#### TENSILE TEST

				S	Specimen condition		on	Specimen dimensions	Test	Y.S.	U.T.S.	Elor	ngation	
Heat N°	Sample N°	Zone	Lot N°						temp	.5% EUL	Req.			adaya.
				Ls	Sc	Туре	Ori	Size	1	Min: 52 200	Min: 66 700	Lo	Min.	Obt.
		1								Max: 76 900	Max: 110 200			Elega.
								in	F	psi	psi	in	%	%
1178014	131393	E1	1178014	В	AM	Ss	T	1.500	RT	59 035	69 302	2.0	25.0	41.8
1278161	131401	E1	1278161	В	AM	Ss	T	1.500	RT	61 779	71 713	2.0	25.0	40.1

AM: As manufactured	Ls: Location of sample	Ori: Orientation	Ss: Strip specimen
B: Body	Max: Maximum	Req: Required	T: Transversal
E1 / E2: Ends of Sampling	Min: Minimum	RT: Room temperature	U.T.S: Ultimate tensile strength
Lo: Initial length	Obt: Obtained	Sc: Specimen condition	Y.S: Yield strength

Heat N°	Heat N° Sample N° Zo		Lot N°	S	pecimen	conditi	on:	Specimen dimensions	Test temp	U.T.S. Req.	
			i de fa	Ls	Sc	Туре	Ori	Size		Min: 66 700 Max: 110 200	
. 4								ji ji ayar <b>in</b> kayatan aysaya	F	psi	
1178014	131393	E1	1178014	W	AM	Ss	T	1.500	RT	74.541	
1278161	131401	E1	1278161	W	AM	Ss	Т	1.500	RT	73 690	

		5 24 5 1 4 5 1 4 5 1 4 5 1 5 1 5 1 5 1 5 1	*1 * \$1.00 Pet 1.00 P	그리고 아이는 그리고 그 아이에도 아내려가 얼마 하고 있는 그들이 가지만 나는 사람들이 되었다.
AM: As manufactured	Min: Minimum	Sc: Specimen condition	W: Weld	
E1 / E2: Ends of Sampling	Ori: Orientation	Ss: Strip specimen		
Ls: Location of sample	Req: Required	T: Transversal		



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MAVERICK TUBE CORPORATION Hickman Plant 5020 N COUNTY RD 967 BLYTHEVILLE, AR 72315 (870) 776-5000 tel (870) 776-5008 fax

						Date: June 08, 2018		(870) 776-5008 fax
Customer:			Customer's Order Item: 31214115/SO/10		Susta 464	omer's Reference: 43	Manufacturer's N/A	Works Order N°:
Manufacturing Process:  Product Type:  Line Pipe					Surface: Bare			
Standard or Specification: API 5L 45TH EDITION			i	Steel Grade: X52M PSL 2			Ends: Plain End Beve	illed
Dimensions: Schedule: Length: 12.750 x 0.375 in N/A Double Random				Quantity: 21 PCS 896 FT		44082 LB	Nominal Weight 49.61 LB/FT	:

#### **TENSILE TEST**

Max: Maximum RT: Room temperature

U.T.S: Ultimate tensile strength

### CHEMICAL COMPOSITION

							-					. (	Compo	sition 9	6						***************************************	
						X1																
					С	Mn	Р	\$	Si	Cui	Ni	Cr	Мо	Al	Sn	Nb	V	Ti	Ca	В	N	E-Pcr
							0.005	0.015														
				H Max	0.22	1.4	0.025	0.015	0.45	0.5	0.3	0.3	0.15			-			*	0.001	1	0.25
,				Min				<u>,</u> 1 —	:					, i <b>—</b> , j, i	ga ••• ()	::-	,, <b></b>	-	•	80 <b>-</b> . (	1	-
Heat N°	Sample N°	Lot N°	Ls	P Max	0.22	1.4	0.025	0.015	0.45	0.5	0.3	0.3	0.15	Z-39	, . <del></del> . ;		·		95 <b>-</b> -4	0.001		0.25
12.0				Min	-	į		<b></b> 2	•			1	-	', ( <b></b> .,	25 25			86 <b>-</b> 88	.es.==51	, ej .== ja.		g <b>-</b>
1178014	3956600	1178014	B.M.	H	0.04	1.07	0.006	0 -	0.19	0.14	0.04	. 0.05	0.01	0.03	0	0.032	0.004	0.011	0.002	. 0	0.007	0.111
1278161	3956558	1278161	B.M.	H	0.04	1.09	0.006	0	0.2	0.13	0.04	0.06	0.01	0.02	0	0.032	0.004	0.01	0.002	0	0.007	0.112
1178014	130945	1178014	B.M.	P	0.059	1.13	0.018	0.001	0.21	0.13	0.03	0.05	0.01	0.023	0.01	0.029	0.002	0.013	0.001	0.001	0.005	0.138
1178014	130946	1178014	B.M.	Р	0.045	1.09	0.014	0.001	0.22	0.14	0.04	0.04	0.01	0.026	0.01	0.029	0.003	0.013	0.002	0.001	0.015	0.122
1278161	131351	1278161	B.M.	P	0.044	1.1	0.013	0	0.2	0.14	0.03	0.04	0.01	0.027	0.01	0.028	0.003	0.014	0.002	0.001		0.121
1278161	131352	1278161	B.M.	P	0.045	1.1	0.014	0	0.2	0.14	0.03	0.04	0.01	0.027	0.01	0.029	0.003	0.015	0.002	0.001	0.002	0.122

B.M: Base metal	H: Heat	Max: Maximum	D. Dan dan d	
	and the second s	IVIAN, IVIANIIIIUIII	P: Product	
lann ann				
CE-Pcm: CE-Pcm	Ls: Location of sample	Min: Minimum		
		TANK C. TANK MILITARE		그는 이 사람들이 나는 사람들이 살아 있다면 그 살아 있다면 하는데 없었다.



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MAVERICK TUBE CORPORATION Hickman Plant 5020 N COUNTY RD 967 BLYTHEVILLE, AR 72315 (870) 776-5000 tel (870) 776-5008 fax

			Date: June 08, 2018		(870) 776-5008 fax
ustomer:		Customer's Order Item: 31214115/SO/10	Customer's Reference; 646443	•	s Works Order N°:
anufacturing Process:	Product Type: Line Pipe	31214113/30/10	0+0++3	N/A Surface: Bare	
tandard or Specification: PI SL 45TH EDITION		Steel Grade: X52M PSL 2	The state of the s	Ends: Plain End Bev	relled
imensions: Schedul N/A N/A	Length: Double Random	Quantity: 21 PCS 896 FT	44082 LB	Nominal Weigh 49.61 LB/FT	nt:

### THROUGH WALL HARDNESS

	Required v	alues		Individuals		Average			Hardness type:HR	BW	
			Min: -	Max: 91.0	Var:	Min:	Max: -	Var:			
Heat N°	Sample N°	Zone	Lot N°	Pipe N°		Specime	n condition		Quad.	Scale Avg.	-
L					L	Ls		Sc	1		
1178014	131393		1178014	-	I	В		AM	-	HRBW 86.2	
1278161	131401	-	1278161	-	I	В		AM		HRBW 85.9	

AM: As manufactured

Avg: Average

Max: Maximum

Sc: Specimen condition

Var: Variation

#### **IMPACT TEST**

Type: Charpy V			A,4 :	Or	ientation	n: Torres especialists	A Substance	Un	it: ft.lb	etivero en el en el	Shear area %				
Position:	. 14 4 4 4 14.		Temp: 3	2		Unit: F	Ind Min Red	q: <b>11</b>	Req.Min.A	vg: <b>15</b>	Ind.Min.Re	q: <b>-</b>	Req.Min.A	vg: -	
Heat N°	Sample N°	Lot N°		1000	T.T	Size	340000	R	esults	r Sv. Sújerce	1,478,527,50	Res	sults	44.25	
	1, 441,4	120 72	Ls	Sc	F	• 1 . 7	1,1,500	2	3	Avg.	:::::1	.: 2	3	Avg.	
1178014	131393	1178014	В	AM	-22	3/4	194	199	205	199	100	100	100	100	
1278161	131401	1278161	В	AM	-22	3/4	223	221	219	221	100	100	100	100	

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



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MAVERICK TUBE CORPORATION Hickman Plant 5020 N COUNTY RD 967 BLYTHEVILLE, AR 72315 (870) 776-5000 tel (870) 776-5008 fax

	<u> </u>		Date: June 08, 2018	,	(0:0) / 10-3000 lax
Customer:		Customer's Order Item: 31214115/SO/10	Customer's Reference: 646443	Manufacturer's N/A	s Works Order N°:
Manufacturing Process: HFW	Product Type: Line Pipe		•	Surface: Bare	
Standard or Specification: API 5L 45TH EDITION		Steel Grade: X52M PSL 2		Ends: Plain End Beve	elled
Dimensions:         Sched           12.750 x 0.375 in         N/A	dule: Length: Double Random	Quantity: 21 PCS 896 FT	44082 LB	Nominal Weight 49.61 LB/FT	t:
				1	

### SUPPLEMENTARY INFORMATION

Heat Treatment
The minimum weld seam heat treatment temperature is 1650F.

Steel Vendor Name and Manufactured

1278161,NUCOR STEEL HICKMAN,ARMOREL,AR,Melted and Manufactured in USA

Steel Vendor Name and Manufactured

1178014,NUCOR STEEL HICKMAN,ARMOREL,AR,Melted and Manufactured in USA

### SUMMARY REPORT

Heat N°	Quantity	Length	Weight
			e pelot pelot
	(Pieces)	FT	LB
1178014	18	781.099	38,424.031

Heat N°	Quantity	Length	Weight
	(Pieces)	FT	LB
1278161	3	115	5,658.005



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MAVERICK TUBE CORPORATION Hickman Plant 50kman Plant 50kman Plant 80kman Plant 870) 776-5000 tel 870) 776-5008 fax

						Γ	Date: June 08, 2018		(870) 776-5008 fax			
Customer:				Customer's Order Item: 31214115/SO/10		Custo 6464	omer's Reference:	Manufacturer's N/A	Works Order N°:			
Manufacturing Process: HFW			Product Type: Line Pipe					Surface: Bare				
Standard or Specification: API 5L 45TH EDITION					Steel Grade: X52M PSL 2			Ends: Plain End Beve	lled			
Dimensions: 12.750 x 0.375 in	Sched N/A	ule:	Length: Double Random		Quantity: 21 PCS 896 FT		44082 LB	Nominal Weight 49.61 LB/FT				
This is to certify that the produ- purchaser order requirements.	ct described here h This certificate is r	not a declaration of orig	gin nor may it be used as	a declaration of origin.								
		<u>C</u>	USTOMER.	THIRD PARTY	<u></u>	E	NARIS QUALITY DE	<u>PARTME</u>	NT SIGNATURE			
			INSPECTION COMPAÑÍA DE Company N Employee N	e inspección Name: N/A	•		nicol	Nola	JP-			
			Employee P	Name: IN/A			CERTIFICATION DEPT.  COR MICK Billy	C.F	IEF OF QUALITY CERTIFICATION DEPT.			



Ls: Location of sample

#### MILL TEST CERTIFICATE

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MAVERICK TUBE CORPORATION Hickman Plant 5020 N COUNTY RD 967 5020 N COUNTY RD 967 870) 776-5000 tel (870) 776-5008 fax

					I	Date: December 19, 2017		(870) 776-5008 fax			
ustomer: ( lanufacturing Process:		Product Type: Line Pipe	Customer's Order Item: Custs 31198405/SO/10 6214			,	Manufacturer's Works Order N°: N/A Surface: Bare				
tandard or Specification; PI SL 4STH EDITION	1949 1 - 1949 1 - 1949 1 - 1949 1 - 1949 1 - 1949 1 - 1949 1 - 1949 1 - 1949 1 - 1949 1 - 1949 1 - 1949 1 - 19			Steel Grade: X52M PSL 2			Ends: Plain End Bevel	lled			
		Length: Double Random		Quantity: 20 PCS 863 FT			Nominal Weight: 49.61 LB/FT				

#### **TENSILE TEST**

		_		S	Specimen condition		n	Specimen dimensions	Test	Y.S.	U.T.S.	Elongation			
Heat N°	Sample N°	Zone	Lot N°		Is So Type Ori				temp	.5% EUL	Req.		1		
				Ls Sc Type Ori		Ori	Size	7	Min: 52 200	Min: 66 700	Lo	Min.	Obt.		
									Max: 76 900	Max: 110 200			的收益		
								in	F	psi	psi	in	%	%	
1276750	126928	E1	1276750	B AM Ss T		T	1.500	RT	59 804	70 353	2.0	25.0	38.9		

AM: As manufactured Ls: Location of sample Ori: Orientation Ss: Strip specimen B: Body Max: Maximum Req: Required T: Transversal E1 / E2: Ends of Sampling Min: Minimum RT: Room temperature U.T.S: Ultimate tensile strength Lo: Initial length Obt: Obtained Sc: Specimen condition Y.S: Yield strength

T: Transversal

Heat N°	Sample N°	Zone	Lot N°	S	pecimen	conditi	on	Specimen dimensions	Test temp	U.T.S. Reg.
				Ls	Sc	Туре	Ori	Size	1	Min: 66 700 Max: 110 200
4.274			+ 20 4 12	15 64	Art A Till			ergen a <b>in</b> gas at an a seco	F	psi
1276750	126928	E1	1276750	W	AM	Ss	T	1.500	RT	73 934

AM: As manufactured Min: Minimum Sc: Specimen condition W: Weld
E1 / E2: Ends of Sampling Ori: Orientation Ss: Strip specimen

Max: Maximum RT: Room temperature U.T.S: Ultimate tensile strength

Reg: Required



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MAVERICK TUBE CORPORATION Hickman Plant 5020 N COUNTY RD 967 BLYTHEVILLE, AR 72315 (870) 776-5000 tel (870) 776-5008 fax

	k				Date: December 19, 2017		()
Customer:			Customer's Order Item: 31198405/SO/10		44.4	Manufacturer's N/A	Works Order N°:
Manufacturing Process: -HFW		Product Type: Line Pipe				Surface: Bare	
Standard or Specification: API 5L 45TH EDITION				Steel Grade: X52M PSL 2		Ends: Plain End Beve	elled
·		Length: Double Random	1	Quantity: 20 PCS 863 FT		Nominal Weight 49.61 LB/FT	t

#### CHEMICAL COMPOSITION

												Z-1111100000000000000000000000000000000	P. SHOPPING STATEMENT	100000042040200	(MARKAGA NASARA)	2000/04/20/2002	400 to 1985 to 198	s, democratic address.	ANGEL BUILD	NAMES OF TAXABLE PARTY.		PROCESSOR
													Compo	sition %	6							
													Σ	(1				***************************************				
					С	Mn	Р	S	Şi	Cu	Ni	Cr	Мо	Al	Sn	Nb	V	Ti	Ca	В	N	CE-Pcr
							<u> </u>				·							1				100
				H Max	0.22	1.4	0.025	0.015	0.45	0.5	0,3	0,3	0.15			_		-		0,001		0.25
				Min		-			-	-		-		-		-		_		<del>  _</del>		
Heat N°	Sample N°	Lot N°	Ls	P Max	0.22	1.4	0.025	0.015	0.45	0.5	0.3	0.3	0.15	-		_		_	-	0.001	_	0.25
				Min				-	-		-			_		-		_		-		0.23
1276750	3953983	1276750	B.M.	H	0.04	1.07	0.009	0	0.19	0.12	0.04	0.05	0.01	0.03	0	0.032	0.003	0.013	0.002	Λ	0.008	0.11
1276750	126463	1276750	B.M.	P	0.052	1.08	0.012	0.002	0.2	0.14	0.04	0.05		0.025	0.01							0.11
1276750	126464	1276750	B.M.	P	0.046	1.08	0.011	0.002		0.13	0.04											0.129

 B.M: Base metal
 H: Heat
 Max: Maximum
 P: Product

 CE-Pcm: CE-Pcm
 Ls: Location of sample
 Min: Minimum

### THROUGH WALL HARDNESS

	Required va	alues		Individuals		25. 34. 3.	Average		Hardness type:HRB\	N/	
			Min: -	Max: 91.0	Var: -	Min: -	Max: -	Var:			
Heat N°	Sample N°	Zone	Lot N°	Pipe N°	in a superficient	Specime	n condition		Quad.	Scale	Δνα
3,51					. , <u></u> L	s	er samme ve a	Sc			Avg.
1276750	126928	-	1276750	-	E	3		- AM	August and a grant to the control of	HRBW	85.9

AM: As manufactured Ls: Location of sample Quad: Quadrant

Avg: Average Max: Maximum Sc: Specimen condition



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age: 3 / 5 MAVERICK TUBE CORPORATION Hickman Plant 5020 N COUNTY RD 967 BLYTHEVILLE, AR 72315 (870) 776-5000 tel (870) 776-5008 fax

Manufacturing Process:  Manufacturer's Works Order N°: N/A  HFW  Standard or Specification: API 5L 45TH EDITION  Steel Grade: X52M PSL 2  Manufacturer's Works Order N°: N/A  Steel Grade: X52M PSL 2  Plain End Bevelled	Customer:		VA.17-21-2	Customer's Order Item:		Date: December 19, 2017	7	(870) 776-5008 fax
Stendard or Specification:  API 5L 45TH EDITION  Steel Grade:  X52M PSL 2  Plain End Bevelled  Plain End Bevelled  12.750 x 0.375 in  N/A  Double Random  863 FT  10.0000  Nominal Weight:	Manufacturing Process:		1			1	N/A Surface:	Works Order N°:
12.750 x 0.375 in N/A Double Random 863 FT ACCESTS  Nominal Weight:	API 5L 45TH EDITION						Ends:	elled
		1	i -		1	42636 LB		t:

### THROUGH WALL HARDNESS

B: Body Min: Minimum Var: Variation

#### **IMPACT TEST**

Type: Charpy \	/			0	rientation	T	T	11	. 64.11		7			
Position:					Temp: 32 Unit: F			Onit ea: <b>11</b>	: ft.lb				area %	
Heat N°	Sample N°	Lot N°			T.T	Size	11.0.1VIII.1.1XE		Req.Min.A sults	vg: 15	Ind.Min.Re	7.	Req.Min.A	vg: -
1276750	126928	100/000	Ls	Sc	F	-	1	2	3	Avg.	1	2	3	Ava
12/0/30	120928	1276750	В	AM	-22	3/4	218	212	220	217	100	100	100	Avg. 100

AM: As manufactured
Avg: Average

B: Body

Ind, Min. Req: Individual Minimum Required

Sc: Specimen condition

Ls: Location of sample

T.T: Test temperature

Req. Min. Avg: Required minimum average

Temp: Temperature

## FLATTENING TEST

Standard:			
Heat N°	Lot N°	Sample N°	Result
	ta vije	1 1	
1276750	1276750	126928	Good



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Hickman Plant 5020 N COUNTY RD 967 BLYTHEVILLE, AR 72315 {870} 776-5000 tel

MAVERICK TUBE CORPORATION

Date: December 19, 2017

					Date: December 19, 2017		()
Customer:			Customer's Order Item: 31198405/SO/10	1	stomer's Reference:	Manufacturer's N/A	Works Order N°:
Manufacturing Process: HFW		Product Type: Line Pipe				Surface: Bare	
Standard or Specification: API 5L 45TH EDITION				Steel Grade: X52M PSL 2		Ends: Plain End Beve	illed
	Schedule: N/A	Length: Double Random		Quantity: 20 PCS 863 FT		Nominal Weight 49.61 LB/FT	

#### HYDROSTATIC TEST

Pres	sure	Time	Results
Unit	Value	Seconds	
psi	2,610	5	Satisfactory

### SUPPLEMENTARY INFORMATION

#### Supplementary Information

This material has been manufactured, sampled, tested and inspected in accordance with this specification and has been found to meet the requirements called for by the above order.

This product is silicon and/or aluminum fully killed.

NDT OK UT with ID/OD N-10 Notches verified by 1/8" FDH

INSPECTION CERTIFICATION 3.1 IN ACCORDANCE WITH EN 10204-2004

Heat Treatment

The minimum weld seam heat treatment temperature is 1650F.

Steel Vendor Name and Manufactured

1276750, NUCOR STEEL HICKMAN, ARMOREL, AR, Melted and Manufactured in USA

Supplementary Information

COMPLIANT TO ASTM A53-12 GRADE B AND ASME SA53-13 GRADE B

Material meets the maximum hardness requirement of section A.2.1.2 of NACE MRO 175

BODY TENSILE SOURCED 180° FROM WELD LINE; CVN SAMPLES SOURCED 90° FROM WELD LINE; CVN SAMPLES TESTED BY 8mm STRIKER



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Hickman Plant 5020 N COUNTY RD 967 BLYTHEVILLE, AR 72315 (870) 776-5000 tel (870) 776-5008 fax

MAVERICK TUBE CORPORATION

Date: December 19, 2017 Customer Customer's Order Item: Customer's Reference: Manufacturer's Works Order N°: 31198405/SO/10 621477 N/A Manufacturing Process: Product Type: Surface: HFW Line Pipe Ваге Standard or Specification: Steel Grade: Ends: API 5L 45TH EDITION X52M PSL 2 Plain End Bevelled Dimensions: Schedule: Length: Quantity: 20 PCS Nominal Weight: 12.750 x 0.375 in N/A Double Random 863 FT 42636 LB 49.61 LB/FT

### **SUMMARY REPORT**

Heat N°	Quantity	Length	Weight
	(Pieces)	FT	LB
1276750	20	863.999	42,636.034

This is to certify that the product described here has been ma purchaser order requirements. This certificate is not a declara				
	CUSTOMER . THIRD PAR	TY	TENARIS QUALITY DE	PARTMENT SIGNATURE
	INSPECTION COMPANY COMPAÑÍA DE INSPECCIÓN Company Name: N/A Employee Name: N/A		QUALITY CERTIFICATION DEPT.  MCCORMICK Billy	CHIEF OF QUALITY CERTIFICATION DEPT.  DOVER Michael



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MAVERICK TUBE CORPORATION Hickman Plant 5020 N COUNTY RD 967 BLYTHEVILLE, AR 72315 (870) 776-5006 tel (870) 776-5096 fax

	 			Date: June 08, 2018		(010)110-3006 IBX
Customer:		Customer's Order Item: 31214115/SO/10				Works Order N°:
fanufacturing Process: HFW	 Product Type: Line Pipe		Maria de la companya		N/A Surface: Bare	
tandard or Specification: .PI 5L 45TH EDITION			Steel Grade: X52M PSL 2		Ends: Plain End Beve	elled
	 Length: Double Random		Quantity: 21 PCS 896 FT	44082 LB	Nominal Weight 49.61 LB/FT	:

#### **TENSILE TEST**

Heat N°	0	,		S	pecimen	conditi	on	Specimen dimensions	Test	Y.S.	U.T.S.	Eloi	ngation	
neat N	Sample N°	Zone	Lot N°						temp	.5% EUL	Req.			
				Ls	Sc	Туре	Ori	Size	1	Min: 52 200	Min: 66 700	Lo	Min.	Obt.
									ļ.	Max: 76 900	Max: 110 200			
								in	F	psi	psi	in	%	%
1178014	131393	E1	1178014	В	AM	Ss	Т	1.500	RT	59 035	69 302	2.0	25.0	41.8
1278161	131401	E1	1278161	В	AM	Ss	T	1.500	RT	61 779	71 713	2.0	25.0	40.1

AM: As manufactured Ls: Location of sample Ori: Orientation Ss: Strip specimen B: Body Max: Maximum Req: Required T: Transversal E1 / E2: Ends of Sampling Min: Minimum RT: Room temperature U.T.S: Ultimate tensile strength Lo: Initial length Obt: Obtained Sc: Specimen condition Y.S: Yield strength

Heat N°	Sample N°	Zone	Lot N°	S	pecimen	conditi	on	Specimen dimensions	Test temp	U.T.S. Req.
			71-4. 12-4.	Ls	Sc	Type	Ori	Size		Min: 66 700 Max: 110 200
								in	F	psi
1178014	131393	E1	1178014	W	AM	Ss	Т	1.500	RT	74 541
1278161	131401	E1	1278161	W	AM	Ss	Т	1.500	RT	73 690

AM: As manufactured Min: Minimum Sc: Specimen condition W: Weld

E1 / E2: Ends of Sampling Ori: Orientation Ss: Strip specimen

Ls: Location of sample Req: Required T: Transversal



Number: Page: 2 / 6

Hickman Plant 5020 N COUNTY RD 967 BLYTHEVILLE, AR 72315 (870) 776-5000 tel (870) 776-5008 fax

MAVERICK TUBE CORPORATION

Date: June 08, 2018

er's Order Item: Customer's Reference: Manufactur

Customer		Customer's Order Item: 31214115/SO/10	Customer's Reference: 646443	Manufacturer's Works Order N°: N/A
Manufacturing Process: HFW	Product Type: Line Pipe			Surface: Bare
Standard or Specification: API SL 4STH EDITION		Steel Grade: X52M PSL 2		Ends: Plain End Bevelled
Dimensions:         Sche           12.750 x 0.375 in         N/A	Length: Double Random	Quantity: 21 PCS 896 FT	44082 LB	Nominal Weight: 49.61 LB/FT

#### TENSILE TEST

Max: Maximum RT: Room temperature U.T.S: Ultimate tensile strength

#### CHEMICAL COMPOSITION

						Composition %																
						X1																
					С	Mn	Р	S	Si	Cu	Ni	Cr	Мо	Al	Sn	Nb	V	Ti	Ca	В	N	E-Pcr
																						1 1
				H Max	0.22	1.4	0.025	0.015	0.45	0.5	0.3	0.3	0.15	1	•	-	-	-	-	0.001		0.25
				Min							-	1		-		-						
Heat N°	Sample N°	Lot N°	Ls	P Max	0.22	1.4	0.025	0.015	0.45	0.5	0.3	0.3	0.15	<b>7</b> - 1	S , , ,					0.001		0.25
				Min		-		1		Ī		-			J		-	-	5			
1178014	3956600	1178014	B.M.	Н	0.04	1.07	0.006	0	0.19	0.14	0.04	0.05	0.01	0.03	0	0.032	0.004	0.011	0.002	. 0	0.007	0.111
1278161	3956558	1278161	В.М.	H	0.04	1.09	0.006	0	0.2	0.13	0.04	0.06	0.01	0.02	0	0.032	0.004	0.01	0.002	0	0.007	0.112
1178014	130945	1178014	B.M.	P	0.059	1.13	0.018	0.001	0.21	0.13	0.03	0.05	0.01	0.023	0.01	0.029	0.002	0.013	0.001			0.138
1178014	130946	1178014	B.M.	P	0.045	1.09	0.014	0.001	0.22	0.14	0.04	0.04	0.01	0.026	0.01			1.00				0.122
1278161	131351	1278161	B,M.	P	0.044	1.1	0.013	0	0.2	0.14	0.03	0.04	0.01	0.027					0.002			0.121
1278161	131352	1278161	B.M.	P	0.045	1.1	0.014	0	0.2	0.14	0.03	0.04	0.01	0.027	0.01	1.0					0.002	0.122

B.M: Base metal	H. Heat	Max: Maximum	P: Product	
CE-Pcm: CE-Pcm	Ls: Location of sample	Min: Minimum		



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Hickman Plant 5020 N COUNTY RD 967 BLYTHEVILE, AR 72315 (870) 776-5000 tel (870) 776-5008 fax

MAVERICK TUBE CORPORATION

Date: June 08, 2018

Customer: (  Manufacturing Process:	Manufacturing Process: Product Type:				Customer's Reference: 646443	Manufacturer's Works Order N°: N/A
HFW Standard or Specification:		Line Pipe	PORTER A CONTRACTOR OF THE PORTER A CONTRACTOR O	Io.		Surface: Bare
API 5L 45TH EDITION  Dimensions:	Schedule:	Length:		Steel Grade: X52M PSL 2		Ends: Plain End Bevelled
I		Double Random		Quantity: 21 PCS 896 FT	44082 LB	Nominal Weight: 49.61 LB/FT

#### THROUGH WALL HARDNESS

	Required v	alues		Individuals		Average			Hardness type:HR	RW I	
			Min: -	Max: 91,0	Var:	Min:	Max:	Var: -	γραιτι.		
Heat N°	Sample N°	Zone	Lot N°	Pipe N°		Specime	n condition	<del></del>	Quad,	Scale	T Ava
					Ł	s		Sc	7	, with a first of	Avg.
1178014	131393	-	1178014	-	1	В		AM	-	HRBW	963
1278161	131401	-	1278161	-	1	В	1	AM		HRBW	86.2 85.9

AM: As manufactured Ls: Location of sample Quad: Quadrant

Avg: Average Max: Maximum Sc: Specimen condition

B: Body Min: Minimum Var: Variation

#### **IMPACT TEST**

Type: Charpy	V			Orientation: T				Unit	ft.lb				area %	
Position:			Temp: 3.	2	the second of th				Reg.Min.Avg: -					
Heat N°	Sample N°	Lot N°		1.5	T.T	Size		Res	sults				sults	• 9
			Ls	Sc	F	•	.1 .	. 2	3	Avg.	1	2	3	Avg.
1178014	131393	1178014	В	AM	-22	3/4	194	199	205	199	100	100	100	100
1278161	131401	1278161	В	AM	-22	3/4	223	221	219	221	100	100	100	100

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



Number: Page: 100039617.0.1 4/6 MAVERICK TUBE CORPORATION Hickman Plant 5020 N COUNTY RD 967 BLYTHEVILLE, AR 72315 (870) 776-5000 tel (870) 776-5008 fax

£					, ,	Date: June 08, 2018	,	(515) 115-5050 IEX
Customer:  Manufacturing Process:	anufacturing Process: Product Type:		Customer's Order Item: 31214115/SO/10	1			Manufacturer's N/A	s Works Order N°:
HFW		Line Pipe					Surface: Bare	
Standard or Specification:		···········		Steel Grade:			<del> </del>	
API SL 45TH EDITION				X52M PSL 2			Ends: Plain End Beve	relled
Dimensions:	Schedule:	Length:		Quantity: 21 PCS			to the same of the	
12.750 x 0.375 in	N/A	Double Random		896 FT			Nominal Weight	dt:
			1	076 F1		44082 LB	49.61 LB/FT	

#### FLATTENING TEST

Standard:				Standard:	Standard:							
Heat N°	Lot N°	Sample N°	Result	Heat N°	Lot N°	Sample N°	Result					
1178014	1178014	131393	Good	1278161	1278161	131401	Good					

#### HYDROSTATIC TEST

Pressu	ıre	Time	Results				
Unit	Value	Seconds					
psi	2,610		Satisfactory				

### SUPPLEMENTARY INFORMATION

#### Supplementary Information

This material has been manufactured, sampled, tested and inspected in accordance with this specification and has been found to meet the requirements called for by the above order.

This product is silicon and/or aluminum fully killed.

NDT OK UT with ID/OD N-10 Notches verified by 1/8" FDH

INSPECTION CERTIFICATION 3.1 IN ACCORDANCE WITH EN 10204-2004

Supplementary Information

COMPLIANT TO ASTM A53-12 GRADE B AND ASME SA53-13 GRADE B

Material meets the maximum hardness requirement of section A.2.1.2 of NACE MRO 175

BODY TENSILE SOURCED 180° FROM WELD LINE; CVN SAMPLES SOURCED 90° FROM WELD LINE; CVN SAMPLES

TESTED BY 8mm STRIKER

This certificate is issued by a computerized system and it is valid with electronic signature. On the original certificate the trade-mark groups are the computerized system and it is valid with electronic signature.	oon colored
	sen colored
"Tenaris" is stamped in case the owner of the original continues would release a serve of the owner of the original continues to the owner of the owner of the original continues to the owner of the owner of the original continues to the owner of the owner	
"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.
unon himself the reconneithlity for any unlawful or not allowed use the second side of th	
upon himself the responsibility for any unlawful or not allowed use. Any alteration and/or falsification will be subjected to the law.	



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MAVERICK TUBE CORPORATION Hickman Plant 5020 N COUNTY RD 967 BLYTHEVILLE, AR 72315 (870) 776-5008 fax

Customer:						Date: <b>June 08, 2018</b>		(870) 776-5008 fax	
anufacturing Process:  FW Product Type:  Line Pipe		Product Type:	10404444440444		646443		Manufacturer's Works Order N°: N/A Surface: Bare		
Standard or Specification: API 5L 45TH EDITION Dimensions:	Schedule:	Il coath:		Steel Grade: X52M PSL 2			Ends: Plain End Bevel	elled	
	L I	Length: Double Random		Quantity: 21 PCS 896 FT			Nominal Weight: 49.61 LB/FT	t:	

### SUPPLEMENTARY INFORMATION

Heat	at Treatment	
The minimum weld seam heat treatment temperature is 1650F.		

Steel Vendor Name and Manufactured

1278161,NUCOR STEEL HICKMAN,ARMOREL,AR,Melted and Manufactured in USA

Steel Vendor Name and Manufactured

1178014,NUCOR STEEL HICKMAN,ARMOREL,AR,Melted and Manufactured in USA

### SUMMARY REPORT

Heat N°	Quantity	Length	Weight	1	Heat N°	Quantity	Length	Weight
	(Pieces)	FT	LB	1		(Pieces)	FT	LB
1178014	18	781.099	38,424.031	1	1278161	3	115	5,658.005
								<del></del>



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MAVERICK TUBE CORPORATION Hickman Plant 5020 N COUNTY RD 967 BLYTHEVILLE, AR 72315

							100039617.0.1	6/	6	BLYTHEVILLE, AR 72315
Customer							Date: June 08, 2018			(870) 776-5000 tel (870) 776-5008 fax
				Customer's Order Item: 31214115/SO/10			tomer's Reference:		Manufacturer'	s Works Order N°:
anufacturing Process:			Product Type:	[5121+115/50/10	· · · · · · · · · · · · · · · · · · ·	646	443		N/A	order re-
IFW			Line Pipe						Surface:	
tandard or Specification:									Bare	
PI 5L 45TH EDITION					Steel Grade:	··········				
					X52M PSL 2				Ends:	
imensions:	Schedule		Il anoth.						Plain End Be	velled
2.750 x 0.375 in	N/A	•	Length:		Quantity: 21 PCS				Nominal Weigl	
	1		Double Random		896 FT		44082 LB		49.61 LB/FT	it.
					1.				12.01 LB/F1	
nis is to certify that the product urchaser order requirements. T	described here has	been manufactured	, sampled, tested, and i	nspected in accordance wit	h I					
urchaser order requirements. To	nis certificate is not a	a declaration of orig	in nor may it be used as	a declaration of origin.	'`					
			ICTOMES -	**************************************						
		<u> </u>	JSTUWER.	THIRD PARTY		TE	NARIS QUALIT	Y DE	APTME	NT SIGNATURE
			INSPECTION	COMPANY				<u> </u>	MIXITALE	INT SIGNATURE
			COMPAÑÍA DE		163 /		nical		1	
					1 70	}	0	1	1 //	
			Company N	Name: N/A			w Jours		Mill	4/
		- 1	Employee N			\174 X 2724	OTTO COMPANY	_	10 00	<i>y</i>
		-	. ,			ZUALITY	CERTIFICATION DEPT.	j	CI	HIEF OF QUALITY CERTIFICATION DEPT.
<u> </u>						MC	CORMICK Billy	j		
						-11.0	COMMICK BIN			DOVER Michael



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MAVERICK TUBE CORPORATION Hickman Plant 5020 N COUNTY RD 967 BLYTHEVILLE, AR 72315 (870) 776-5000 tel (870) 776-5008 fax

					Date: June 00, 2010		, ,
Customer: (		-	Customer's Order Item: 31214115/SO/10		Customer's Reference: 646443	Manufacturer's	Works Order N°:
Manufacturing Process: HFW		Product Type: Line Pipe			010110	Surface: Bare	
Standard or Specification: API 5L 45TH EDITION		Manager 1		Steel Grade: X52M PSL 2		Ends: Plain End Beve	elled
Dimensions: 12.750 x 0.375 in	Schedule: N/A	Length: Double Random		Quantity: 21 PCS 912 FT	44870 LB	Nominal Weigh 49.61 LB/FT	t:

### **TENSILE TEST**

Ī					S	Specimen condition		on	Specimen dimensions	Test	Y.S.	U.T.S.	Elongation		
Hea	.t N°	Sample N°	Zone	Lot N°						temp	.5% EUL	Req.			200
		, '		, '	Ls	Sc	Туре	Ori	Size	1	Min: 52 200	Min: 66 700	Lo	Min.	Obt.
		, '		, '	1 '	1		i '		1	Max: 76 900	Max: 110 200	1 '		8,4439
		·			'		$ldsymbol{ld}}}}}}}}}$	'	in	F	psi	psi	in	%	%
	8009	131395	E1	1178009	В	AM	Ss	Т	1.500	RT	61 054	70 573	2.0	25.0	40.5
1178	3014	131393	E1	1178014	В	AM	Ss	Т	1.500	RT	59 035	69 302	2.0	25.0	41.8

AM: As manufactured	Ls: Location of sample	Ori: Orientation	Ss: Strip specimen
B: Body	Max: Maximum	Reg: Required	T: Transversal
E1 / E2: Ends of Sampling	Min; Minimum	RT: Room temperature	U.T.S: Ultimate tensile strength
Lo: Initial length	Obt: Obtained	Sc: Specimen condition	Y.S: Yield strenath

Heat N°	eat N° Sample N° Zone Lo		Lot N°	S	pecimen	condition	on	Specimen dimensions	Test temp	U.T.S. Req.
				Ls	Sc	Туре	Ori	Size		Min: 66 700 Max: 110 200
	1 S. 1							, <b>in</b> ,,,,,,,,,,,,,	F	psi
1178009	131395	E1	1178009	W	AM	Ss	T	1.500	RT	75 808
1178014	131393	E1	1178014	W	AM.	Ss	T	1.500	RT	74 541

		The state of the s	TARREST MADE NO SERVICE	
AM: As manufactured	a ta garage yang pa <b>Min: Minimum</b> pada paga pada bagai pada	Sc: Specimen condition	W: Weld	
E1 / E2: Ends of Sampling	Ori: Orientation	Ss: Strip specimen		
Ls: Location of sample	Req: Required	T: Transversal		



Number: Page: 2 / 6

MAVERICK TUBE CORPORATION Hickman Plant 5020 N COUNTY RD 967 BLYTHEVILLE, AR 72315 (870) 776-5000 tel (870) 776-5008 fax

	l l					~		(870) 776-5008 fax
						Date: June 08, 2018		(610) 110-3008 IBX
Customer:			Customer's Order Item: 31214115/SO/10		usto 4 <b>64</b> 4		Manufacturer's N/A	Works Order N°:
Manufacturing Process: HFW		Product Type: Line Pipe					Surface: Bare	
Standard or Specification: API 5L 45TH EDITION			i	Steel Grade: X52M PSL 2			Ends: Plain End Beve	lled
		Length: Double Random	1	Quantity: 21 PCS 912 FT			Nominal Weight: 49.61 LB/FT	

#### **TENSILE TEST**

Max: Maximum RT: Room temperature U.T.S: Ultimate tensile strength

### CHEMICAL COMPOSITION

						Composition %																
													У	1								
					С	C Mn P S Si Cu Ni Cr Mo Al Sn Nb V Ti Ca B N E											E-Pcr					
				H Max	0.22	1.4	0.025	0.015	0.45	0,5	0.3	0.3	0.15	-				-		0.001		0.25
				Min		-	, <b></b>			-				1	Ç., .== `>	.: / <b>-</b> . /:	g: <b></b>	-	-	0 -2		,
Heat N°	Sample N°	Lot N°	Ls	P Max	0.22	1.4	0.025	0.015	0.45	0.5	0.3	0.3	0.15	j		, , , <del></del> 2,1	: ••	(1)	20-12	0.001		0.25
				Min		-					,					<del></del>	<del></del> ,	J.) - 197	-			
1178009	3956601	1178009	B.M.	Н	0.035	1.09	0.006	0	0.21	0.13	0.04	0.05	0.01	0.03	0	0.036	0.004	0.011	0.003	. 0	0.008	0.107
1178014	3956600	1178014	B.M.	Н	0.04	1.07	0.006	0	0.19	0.14	0.04	0.05	0.01	0.03	0	0.032	0.004	0.011	0.002	0		0.111
1178009	130914	1178009	B.M.	P	0.045	1.08	0.018	0.001	0.22	0.14	0.04	0.04	0.01	0.027	0.01	4 4 4 4	100000	100	10.00	Friday, Ann.		0.122
1178009	130915	1178009	B.M.	P	0.05	1.08	0.018	0.001	0.22	0.14	0.04	0.05	0.01	0.026	40000	2.00	and the state of	1.00	A		0.002	
1178014	130945	1178014	B.M.	P	0.059	1.13	0.018	0.001	0.21	0.13	0.03	0.05	0.01	0.023	0.01		2.00				0.005	
1178014	130946	1178014	B.M.	P	0.045	1.09	0.014	0.001	0.22	0.14	0.04	0.04	0.01	0.026								0.122

		and the second of the second o	at a se distribution of	
B.M. Base metal	H: Heat	Max: Maximum	P: Product	
CE-Pcm: CE-Pcm	Ls: Location of sample	Min: Minimum		



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Hickman Plant 5020 N COUNTY RD 967 BLYTHEVILLE, AR 72315 (870) 776-5000 tel (870) 776-5008 fax

MAVERICK TUBE CORPORATION

Date: June 08, 2018

Customer: Customer's Order Item: Customer's Reference: Manufacturer's Works Order N°: 31214115/SO/10 646443 N/A Manufacturing Process: Product Type: Surface: Line Pipe Bare Standard or Specification: Steel Grade: Ends: API 5L 45TH EDITION X52M PSL 2 Plain End Bevelled Dimensions: Schedule: Length: Quantity: 21 PCS Nominal Weight: 12.750 x 0.375 in N/A Double Random 912 FT 44870 LB 49.61 LB/FT

### THROUGH WALL HARDNESS

	Required va	alues		Individuals		***************************************	Average	1	Hardness type:HR	RM T	 
			Min: -	Max: 91.0	Var:	Min:	Max:	Var:	riaranoo type.rii	5.63	
Heat N°	Sample N°	Zone	Lot N°	Pipe N°		Specime	n condition	· · · · · · · · · · · · · · · · · · ·	Quad,	Scale	 A
1153000					L	s		Sc		Coale	Avg.
1178009	131395	-	1178009		T I	3		AM	-	HRBW	87.2
1178014	131393	-	1178014	-	F	3		AM	-	HRBW	86.2

AM: As manufactured Ls: Location of sample Quad: Quadrant

Avg: Average Max: Maximum Sc: Specimen condition

B: Body Min: Minimum Var: Variation

#### **IMPACT TEST**

Type: Charpy V		1.42		0	rientatio	n: T			Jnit: ft.lb	Visit Committee		Shear	area %	
Position:	٠.		Temp: 3	2	***************************************	Unit: F	Ind.Min.Re	q: 11	Rea.Mi	n.Avg: 15	Ind.Min.Re		Reg.Min.A	va.
Heat N°	Sample N°	Lot N°		. a . 2411	T.T	Size	et and	. 1. 1	Results			1,000,000	sults	wg
			Ls	Sc	F	-	. 1	2	3	Avg.	. 1	2	3	Avg.
1178009 1178014	13139 <i>5</i> 131393	1178009 1178014	B B	AM AM	-22 -22	3/4 3/4	213 194	208 199		210 199	100 100	100 100	100 100	100 100

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



Number: Page: 4 / 6

MAVERICK TUBE CORPORATION Hickman Plant 5020 N COUNTY RD 967 BLYTHEVILLE, AR 72315 (870) 776-5000 tel (870) 776-5008 fax

						Date: June 08, 2018		(870) 776-5008 fax
Customer: (  Manufacturing Process:	A A A A STANLEY AND A STANLEY		Customer's Order Item: 31214115/SO/10	1	ustor 4644		Manufacturer's N/A	Works Order N°:
HFW  Standard or Specification:		Product Type: Line Pipe		In			Surface: Bare	
API 5L 45TH EDITION	Tobadda	T.		Steel Grade: X52M PSL 2		1	Ends: Plain End Beve	elled
§	1 .	Length: Double Random	i	Quantity: 21 PCS 912 FT			Nominal Weight: 49.61 LB/FT	

#### **FLATTENING TEST**

Standard:				Standard:				
Heat N°	Lot N°	Sample N°	Result	Heat N°	Lot N°	Sample N°	Result	
1178009	1178009	131395	Good	1178014	1178014	131393	Good	

#### HYDROSTATIC TEST

Press	ure	Time	Results			
Unit	Value	Seconds				
psi	2,610	e	Satisfactory	No. 11 and 15 and		

#### SUPPLEMENTARY INFORMATION

<u>i na sana kaominina mpikambana kaominina mpikambana kaominina mpikambana kaominina mpikambana kaominina mpika</u>		
This material has been manufactured, sampled, teste	ed and inspected in accordance with this	
specification and has been found to meet the require	ements called for by the above order.	
This product is silicon and/or aluminum fully killed.	. 그 그는 그는 그 그들은 물리를 하고 하고 있는데 하는 그	
NDT OK UT with ID/OD N-10 Notches verified by	y 1/8" FDH	
INSPECTION CERTIFICATION 3.1 IN ACCORD	DANCE WITH EN 10204-2004	

Supplementary Information

Supplementary Information

COMPLIANT TO ASTM AS3-12 GRADE B AND ASME SA53-13 GRADE B

Material meets the maximum hardness requirement of section A.2.1.2 of NACE MRO 175

BODY TENSILE SOURCED 180° FROM WELD LINE; CVN SAMPLES SOURCED 90° FROM WELD LINE; CVN SAMPLES

TESTED BY 8mm STRIKER



Number: Page: 100039616.0.1 5 / 6

Date: June 08, 2018

MAVERICK TUBE CORPORATION Hickman Plant 5020 N COUNTY RD 967 BLYTHEVILLE, AR 72315 (870) 776-5000 tel (870) 775-5008 fax

Customer:		-	Customer's Order Item:		Customer's Reference:		_
			31214115/SO/10		646443	Manufacturer's Works Order N°:	
Manufacturing Process:		Product Type:	01211113/00/10		10-10-1-13	N/A	_
HFW		1				Surface:	-
111· W		Line Pipe				Bare	
Standard or Specification:	····			T			
'				Steel Grade:		Ends:	$\neg$
API 5L 45TH EDITION				X52M PSL 2		Plain End Bevelled	
Dimensions:	Schedule:	Length:		Quantity: 21 PCS			_
12.750 x 0.375 in		1 7		1		Nominal Weight:	
12./30 x 0.3/3 in	N/A	Double Random		912 FT	44870 LB	49.61 LB/FT	
The second secon	SECULOS ACCUMENTATION OF THE SECULOS ASSESSMENTS	control than postellos in a constructivo como establica a constructivo					_

#### SUPPLEMENTARY INFORMATION

Heat Treatment	
he minimum weld seam heat treatment temperature is 1650F.	

Steel Vendor Name and Manufactured

1178014,NUCOR STEEL HICKMAN,ARMOREL,AR,Melted and Manufactured in USA

Steel Vendor Name and Manufactured

1178009,NUCOR STEEL HICKMAN,ARMOREL,AR,Melted and Manufactured in USA

### SUMMARY REPORT

Heat N°	Quantity	Length	Weight	Heat N°	Quantity	Length	Weight
							A Park San
1997	(Pieces)	FT	LB		(Pieces)	FTale plan	LB
1178009	. 3	129.199	6,364.006	1178014	. 18	783.1	38,506.032



Number: Page: 100039616.0.1 6 / 6

5020 N COUN BLYTHEVILLE (870) 776-500

MAVERICK TUBE CORPORATION Hickman Plant 5020 N COUNTY RD 967 BLYTHEVILLE, AR 72315 (870) 776-5000 tel (870) 776-5008 fax

		<u> </u>				Date: June 08, 2018	1	,
Customer:			Custon	ner's Order Item:		Customer's Reference:	Manufacturer's \	Norks Order N°:
				115/SO/10		i46443	N/A	
Manufacturing Process:			Product Type:				Surface:	
HFW			Line Pipe				Bare	
Standard or Specification:			1		Steel Grade:		Ends:	
API 5L 45TH EDITION					X52M PSL 2		Plain End Beve	lled
Dimensions:	Sched	dule:	Length:		Quantity: 21 PCS		Nominal Weight:	
12.750 x 0.375 in	N/A		Double Random		912 FT	44870 LB	49.61 LB/FT	
	<b>.</b>							
This is to certify that the produc	ct described here I	has been manufactured,	sampled, tested, and inspected	d in accordance with	n			
purchaser order requirements.	This certificate is	not a declaration of origin	n nor may it be used as a decla	ration of origin.				
		CL	STOMER. THIF	D PARTY		<b>ENARIS QUALITY DE</b>	PARTME	NT SIGNATURE
			INSPECTION COMPA COMPAÑÍA DE INSPEC	CIÓN	Bi		Nelo	12
			Company Name: N Employee Name: N		QUA	LITY CERTIFICATION DEPT.	СН	IEF OF QUALITY CERTIFICATION DEPT.
			<u> </u>			MCCORMICK Billy		DOVER Michael



#### TEST CERTIFICATE - EAR CONTROLLED DATA

Element Materials Technology 14805 Yorktown Plaza Dr. Houston, TX 77040

REF No

T: 713 692 9151 F: 713 696 6307 M: 888 786 7555

O137238

info.houston@element.com element.com

: Issue

JD Fields & Company 55 Waugh Drive, Suite 1250 HOUSTON TX UNITED

77007

Attn: To

12.75"OD x 0.375"Wall Grade X52, Tenaris, Item

Heat #1178009

- Con Ed G-8107-16 App A Specification

igh Drive, Suite 1250 ON	Page Ord No	1 of 1 61-68712
O STATES	Date Reported	03/03/21
om Biggs		

Charpy Test - ASTM A3	370								
	Position	Dimensions [mm]	Temp [ <sup>0</sup> F]	Energy Abs. [ft.lbs]	Avg. ft.1bs	% shear	Lat. E [mi	xpans 1s1	ion
001:Weld Metal 002:HAZ 003:Transverse	Seam Weld Seam Weld Pipe Body	10x7 . 5x2V 10x7 . 5x2V 10x7 . 5x2V	-15.0 -15.0 -15.0	165, 93, 69 184, 182, 194 216, 209, 189	109 187 205	100, 40, 40 100, 100, 100 100, 100, 100	73, 68, 79,	70, 72, 86,	74 65 68
Specification Minimum Specification Maximum					15				

**Heather Diaz** 

Dather Villian

**Production Manager** For and on authority of

**Element Materials Technology** 





#### TEST CERTIFICATE - EAR CONTROLLED DATA

Element Materials Technology 14805 Yorktown Plaza Dr. Houston, TX 77040 T: 713 692 9151 F: 713 696 6307 M: 888 786 7555

info.houston@element.com element.com

: Issue

JD Fields & Company 55 Waugh Drive, Suite 1250 HOUSTON TX

UNITED STATES 77007

Attn: Tom Biggs

Item - 12.75"OD x 0.375"Wall Grade X52, Tenaris,

Heat #1178014

Specification - Con Ed G-8107-16 App A

REF No	O137239
Page Ord No	1 of 1 61-68712
Date Reported	03/03/21

Charpy Test - ASTM	A370							
	Position	Dimensions [mm]	Temp [ <sup>O</sup> F]	Energy Abs. [ft.lbs]	Avg. ft.lbs	% shear	Lat. Expan [mils]	sion
001:Weld Metal 002:HAZ 003:Transverse	Seam Weld Seam Weld Pipe Body	10x7.5x2V 10x7.5x2V 10x7.5x2V	-15.0 -15.0 -15.0	219, 70, 211 209, 216, 210 212, 213, 210	167 212 212	100, 40, 100 100, 100, 100 100, 100, 100	84, 72, 81, 76, 76, 81,	82 78 80
Specification Minimum Specification Maximum					15			

Heather Diaz

Duther Vilias

Production Manager
For and on authority of

Element Materials Technology

