REPORT OF CHEMICAL/PHYSICAL TESTS

Evraz Orogon Steel 14400 N. Rivergate Blvd., P	Evraz Oregon Steel 14400 N. Rivergate Bivd., Portland, Oregon 97203		in the or allement/Lulainest 16010	**************************************	F	TRANSFO WAT)) !
•						MILL ORDER NO.	DATE TOTAL
S	SAMUEL SON & COMPANY		SAMUEL ME	SAMUEL METAL SERVICE	LID. *	307962	
120 021 °	2360 DIXIE ROAD		701 15TH AVENUE	AVENUS		CUSTOMER ORDER NO.	
	MISSISSAUGA, ON LAY 127		NISKU, AB	T9E 7L5		U 02349	
Co. A. TEPRODUCE T	CANADA	***	CANADA			JOBREO NO.	
-	AND THE REAL PROPERTY OF THE P					SHIPPING NO. 1542560	DATE 03/09/2017
CARBON STEEL PRE	THIS MATERIAL HAS BEEN MANUFACTURED, TESTED AND FOUND TO MEET THE SPECIFICATIONS AND PURCHASE ORDER REQUIREMENTS CARBON STEEL PRESSURE VESSEL QUALITY PLATE ASTM A516-15 GRADE 70 ASME SA516	THE SPECIFICATION ASTM A516-1	S AND PURCHASE (ASME SA516	ents	CARRIER PACIFIC	
GRADE 70 2015 PL	- 24	ROM NORMALIZ	ED PLATE NO	NO WELD REPAIR.	*	CARTHUCK NO.	
PRESSURE VESSEL QUALITY.	QUALITY. KILLED FINE GRAIN PRACTICE.	PRACTICE.	4	(continued)	ed)	TTPX805195BL	
		PHYSICAL	AL PROPERTIES	TIES			
	DESCRIPTION HEAT NO.	SLAB	PSIX 100 PSIX 100 8	% ELONG RAA H	HARDNESS BEND BHN TEST	IMPACTS	
A COMPLIANT COMPLIANT	TO WACE WE OIGH-	200 MAX BEN (P).		NACE MR0[175] P.2 ANNEX	NEX		
3 0.4600 X 96.000 SCHEDULE B:720	96.000ME X 226.000 B:7208.51.00.93						
	^ N12822	A37	550 795 24			1433	# # !\
MOTTO ZHI	FOLLOWING PLATES WERE NORMALIZED AT	AT 1660 DEGS	FOR 19	OTES AN	''		i
7 AC	2830 LBS 17B3243 ^ N12822	322 A37			150		
THE FOLLOW	FOLLOWING PLATES WERE NORMALIZED AT	AT 1660 DEGS	FOR 19	MENUTES AND		Ü	
1 70	2830 KBS 17B3244 N12822				146		
	: N12824	A23	545 795 27	77 77 77 78			
MOTTOS EEL	FOILOWING PLATES WERE NORMALIZED AT	AT 1660 DEGS	F FOR 19	A	-77		1
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N12824 20 1.32	-017 .003 30 .01 .05	025 .000	0 .032 .03	.00 .003	0000		_
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HEATS INDICAT	INDICATED WITH (+) WERE MELTED & M	& MANUFACTURED IN THE USA.	ASD BELL NI	HEATS	INDICATED WITH	H (^) WERE ROLLED IN THE	V THE USA.
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REPORT OF CHEMICAL/PHYSICAL TESTS

WILL ORDER NO.	1542560	CERTIFICATE NO. DATE
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	INDICATED WITH		1		FOLLOWING PLATES	2830	FOLLOWING PLATES	2830	FOLLOWING PLATES	2830	WING	2830	X 96.000ME X 226.000	L'I	אי	DESCRIPTION	QUAL	2015 PLATE NORMALIZED TESTS	ESSUR	ANUFA			g	Ħ	23	SA	DO 14. CANO	I EVRAZINC NA
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	(^) WERE ROLLED IN																TTPX8051953L	CARTIFUCK NO.	UNION PACIFIC	CARRIER	1542560	SHIPPING MA	Joeireo, No.	T 02349	CUSTOMER ORDER NO.	307962	MIL DESERVO	TOWNSTAND.
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	ored 1	.000	3G	CHEMICAL ANALYSIS	DEGS	DEGS		Seac	···		<u>∺</u> (च) •	B PSIX 100	Ω	BZIJA	16-15	_					***	-
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	кош							155.0				IMPACTS	TTPX805195BL	8 5.	UNION PACIFIC	1542560	NO.	.	U 02349	CUSTOMER ORDER NO.	on in	<u> </u>
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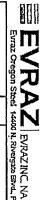
	HEAT NO.			A COMP	COLUMN		PRESSURE	CARBON STEEL PRESSURE VESSEL QUALITY PLATE ASTM A516-15 GRADE 70 ASME SA516	THIS MATER	TAXE PRODUCT	REGISTEREO	.006 OSI		Evraz
. END	C		10 PCS	' AVG @			20 VE	STEEL	HAS I	ZODLEG	ERE O	901		Oregon St
OF RE	Mn		. 1	COMP1	D	Date	(A) 1	ESE.	A LONG	.o⊣	٥	-0	(n	eel 1440
REPORT .	ס־		28300 L	COMPLIANT COMPLIANT TO NACE MR 0103-2012.	DESCRIPTION	Amount Coontri.	VESSEL OUTLING FILLE IESIS CUI FROM NORMALIZED PLATE NO WELD	CARBON STEEL PRESSUR VESSEL QUALITY PLATE ASTM A516-15 GRADE	NIEACTIO		CANADA	2360	SAMUE	EVraz Oregon Steel 14400 N. Rivergate Biva., Portand, Oregon 97203
	S		LBS TOTALS	16 FT.	¥			ESSEL			CANADA	2360 DIXIE ROAD	SAMUEL SON :	Blvd., Portland
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	Wo SIS	****		0175	S ELONG	TIES (c	GIEM	ASME				AVENO	TAL S	
	11			F.2 ANNEX	% PA	(continued) S	REPAIR.	70 ASME SA516			T9E 7L5	Ħ	ERVIC	
	D.			MINEX	HARDNESS	ued)	IR.	MENTS					SAMUEL METAL SERVICE LTD	
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	S.					昌	CARATA	CARRIEN	15	SHIPPING NO.	U 023	CUSTO	, ME	15
					ik.	PX805	CARTRUCK NO.	I MOI	1,542560	NG NO.	U 02349	CUSTOMER OFIDER NO.	MALL ORDER NO.	1542560
					IMPACTS	TTPX805195BL		UNION PACIFIC				R NO.		Mar
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	Mochand San								03/09/2017					2017
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certify the above to be correct as contained in the records of EVRAZ INC. NA By _

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	ATS INDICATED WITH (+) WERE MELTED &	HEAT NO. C Mn P S SI CU NE	1 PC 2830 LBS 17B3247 ^ N12822	1 PC 2830 LBS 17B3246 ^ NI2822 THE FOLLOWING PLATES WERE NORWALLZED AT	1 PC 2830 LBS 17B3245 ^ N12822 THE FOLLOWING PLATES WERE NORMALIZED AT	THE FOLLOWING PLATES WERE NORMALIZED AT	3 0.4600 X 96.000ME X 226.000 SCHEDULE B:7208.51.00.93 ^ N12822	A COMPLIANT COMPLIANT TO NACE MR 0103-2012.	DESCRIPTION	PRESSURE VESSEL QUALITY. KILLED FINE GRAIN PRACTICE.	THS MAIERAL HAS BEEN MANUFACTURED, TESTED AND FOUND TO MEET THE SPECIFICATIONS AND PURCHASE ORDER REQUIREMENTS CARBON STEEL PRESSURE VESSEL QUALITY PLATE ASTM A516-15 GRADE 70 ASME SA516 GRADE 70 2015 PLATE NORMALIZED TESTS CUT FROM NORMALIZED PLATE NO WELL REPAIR.	O		OAD	AMEGRACI S AND TELLINES	EVITAZ Oregon Steel 14400 N. Rivergate Bivd., Portland, Oregon 57203
1. 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	B USA.	CHEMICAL ANALYSIS CB AI C MO TI B	b.	22 A37 151 151 ATR 1660 DEGS F FOR 19 MINUTES AND AIR COOLED	148 PEGS F FOR 19 MINUTES AND AIR COOKED	1660 DEGS F FOR 13 MENUTES AND AIR CO	A37 550 795 24	200 MAX BHN (P). NACE MR0175 F.2 ANNEX 112.	SLAB PSIX 100	LCVN 20 (co	DIO MEETTHE SPECIFICATIONS AND PURCHASE ORDER REQUIREMENTS PLATE ASTM A516-15 GRADE 70 ASME SA516 CUT FROM NORMALIZED PLATE NO WELL REPAIR.		NISKU, AB T9E 7L5 CANADA	701 15TH AVENUE		REPORT OF CHEMICAL/PHYSICAL TESTS
	TH (^) WERE ROLLED IN THE USA.	V Ca CE McCanadi fra		,EED	תפ.	TKV TI3 63 / TVV-/ IC:TDI			IMPACTS	TTPX805195NO	CARREN CA	SHIPPING NO. DATE 1542562 03/09/2017	U 02349	CUSTOMEN ORDER NO.	DATE	1542552 Mar 09, 2017 1

certify the above to be correct as contained in the records of EVRAZ INC, NA By _



CERTIFICATE NO. DATE

HEAT NO. N12824 ω THIS MATERIAL HAS BEEN MANUFACTURED, TESTED AND FOUND TO MEET THE SPECIFICATIONS AND PURCHASE ORDER REQUIREMENTS CARBON STEEL PRESSURE VESSEL QUALITY PLATE ASTM A516-15 GRADE 70 ASME SA516 PRESSURE VESSEL QUALITY. KILLED FINE GRAIN PRACTICE. LCVN 20 GRADE 70 2015 PLATE NORMALIZED TESTS CUT FROM NORMALIZED PLATE NO WELD REPAIR. Co. A. A. TE PROMUCE COMPLIANT COMPLIANT TO MACE MR 0103-2012. EVRAZ | EVRAZ INC. NA

From Street 14400 N. Rivergate Blvd., Portland, Gregon 57203 0.4600 x 96.000ME x 226.000 LLBF AVG @ -50 F (P) BEATS THE FOLLOWING PLATES WERE NORWALTZED AT THE FOLLOWING PLATES WERE NORMALIZED AT INDICATED WITH (+) WERE MELITED & MANUFACTURED IN THE USA. HEATS INDICATED WITH (^) WERE ROLLED IN THE USA. FOLLOWING PLATES WERE NORMALIZED AT 0000 **0**H DESCRIPTION 2830 LBS 2830 LBS .017 MISSISSAUGA, ON 14º 127 2360 DIXIE ROAD SAMUEL SON & COMPANY CANADA -003 16 FT.LBF MIN. 0E. 17B3248 ^ 17B3242 ^ 다 다 N12824 N12824 N12824 200 MAX BHN (P). HEAT NO. . 05 N 1025 1660 1660 1660 SLAB PSIX 100 PSIX 100 8" 2" A37 A23 A37 A23 PHYSICAL PROPERTIES CHEMICAL ANALYSIS DEGS F FOR 19 MINUTES AND AIR COOLED .000 dr sos a sosd DEGS F FOR 19 MINUTES AND AIR COOLED 545 REPORT OF CHEMICAL/PHYSICAL TESTS .038 NISKU, AB 701 15TH AVENUE SAMUEL METAL SERVICE LTD. NACE 795 27 795 27 . १०२ MR0175 P.2 AMMEX MICHOTES AND AIR - 00 Mo T9E 7L5 (continued) % P2 Ti B HARDNESS BEND BHN TEST 150 152 COOLED 79 100 101 / 93.3 1² 123 119 / 121.7 ြင 307962 CUSTOMEN ORDER ND. WILL DRIDER NO. SHIPPING NO. CARVINUCK NO. JOB/REQ. NO. υ 02349 UNION PACIFIC 1542562 1542562 TTPX805195NO IMPACTS Mar ft.1bf ft.Ibf , 60 뎚 H 03/09/2017 Я 2017 Moound that N

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Evraz Oregon Steel 14400 N. Rivergate Blvd., Portland, Oregon 97203	eel 14400	N. Rivergate 6	Sivd., Pontand	Oregon 9720	ជ										1:	1542562	Mar		2017 3
															- MICL	MILL ORDER NO.			
	n	SAMUE	SAMUEL SON	& COMPANY	ZWZ			SA	SAMUEL 1	Teres	METAL SERVICE	CE LED	¥		ω	307962	_		
100 DON	00	2360		ROAD				70	701 15TH AVENUE	i ave	ED				CUSTO	CUSTOMER ORDER NO.	NO.		
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SEGISTERED	- C	CANADA	Ā					g	CANADA						SHOC	Jobred No.			
TATE PROPE	0-														SKIIPP LI	1542562		DATE 03/0	DATE 03/09/2017
THIS MATERIAL HAS BEEN MANUFACTURED, TESTED AND FOUND TO MEET THE SPECIFICATIONS AND PURCHASE ORDER REQUIREMENTS CARRON STEEL PRESSURE VESSEL OUALITY PLATE ASTM AS16-15 GRADE 70 ASME SA516	SEEN M	NUFACIUR SSURE V	ESSEL	OUAL, I'I'	ND TO ME	ETTHE SPE	AS16-	NS AND	PURCHA:	SE ORDE	RREQUIRES	9 SINEMENTS			CARRIER	KION E	MICN PACIFIC	14	
GRADE 70 2015 PLATE NORWALIZED TESTS CUT FROM NORMALIZED PLATE NO WELL REPAIR.	15 PL	ATE NOF	MALIZE	D TESTS	CON	FROM N	LIAMSO	a cez	LATE	NO WE	LD REI	AIR.			CART	CARTRUCK NO.			
PRESSURE VE	SSEL	VESSEL QUALITY.	. Kil	KILLED FINE GRAIN PRACTICE.	NE GRA	IN PRA	CTICE.	TCV	LCVN 20		(continued)	nued)			17	PX805	TTPX805195NO		
							PHYSICAL PROPERTIES	CAL	ROP	FILE	(A)								
CANED	-	DESCRIPTION	D N			HEAT NO.	SLAB PS	X 100	PSIX 100 PSIX 100	% ELONG 8" 2"	% RA	HARDNES	N TEST			2	IMPACTS		
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A COMPLIANT COMPLIANT TO NACE	COMP	LIANT 3	O NACE	MR 0103-2012.	03-201	,						,							
3 0-4600 X	96.00	X 96.000ME X 226.000	26.000			•		•••											
D4 T	11	2830 LBS	Ñ	17B3250	>	N12824	A37					156	9,	•					
मुस्य स्थ	MOTIC	FOLLOWING PLATES		WERE NORMALIZED AT	AZITEN		1660 PE	DEGS F	FOR 19		MINUTES 1	AND AIR		COLED					
1 PC	()	2830 LBS		1783251	<u> </u>	N12824	A37					154							
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				1783252	2 > X1			1						,					
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	C	2830 LBS		1783253	NI S														
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CEHTIFICATE NO. 1542562 ,60

				MICH ORDER NO.	2211
•	ח	SAMUEL SON & COMPANY	SAMUEL METAL SERVICE LID. *	307962	
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CARBON STEEL	PRI	CARBON STEEL PRESSURE VESSEL QUALITY PLATE ASTM A516-15 GRADE 70 ASME SA516	15 GRADE 70 ASME SA516	UNION PACIFIC	(a
GRADE 70 201	땅	GRADE 70 2015 PLATE NORMALIZED TESTS CUT FROM NORMALIZED PLATE NO WELD REPAIR.	ED FLATE NO WELD REPAIR.	CARTRUCK NO.	
PRESSURE VES	SEL	PRESSURE VESSEL OUALITY. KILLED FINE GRAIN PRACTICE. LCVN 20	LCVN 20 (continued)	TTPX805195NO	

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ω N13501 THIS MATERIAL HAS BEEN MANUFACTURED, TESTED AND FOUND TO MEET THE SPECIFICATIONS AND PURCHASE ORDER REQUIREMENTS HEAT NO. REGISTERED GRADE 70 2015 PLATE NORMALIZED TESTS CUT FROM NORMALIZED PLATE NO WELD REPAIR. C. PAIR PRODUCE PRESSURE VESSEL QUALITY. KILLED FINE GRAIN PRACTICE. CAREON STEEL PRESSURE VESSEL QUALITY PLATE ASTM A516-15 GRADE 70 ASME SA516 F.LBF AVG @ -50 F (F) COMPLIANT COMPLIANT TO NACE MR 0103-2012. 0.4600 X 96.000ME X 226.000 EVRAZ | EVRAZ INC. NA
EVRAZ Oregon Steel 14400 N. Rivergans Bivat, Fordand, Okeyon 57203 HEATS THE FOLLOWING PLATES WERE NORMALIZED AT THE FOLLOWING PLATES WERE NORMALIZED AT 1 PC 2830 LBS 17B3232 AN13501 THE FOLLOWING PLATES WERE NORMALIZED AT n 19 μ INDICATED WITH (+) WERE WELTED 1.35 Mn 0-1 000V 2830 LBS DESCRIPTION 2830 LBS 2830 LBS -014 MISSISSAUGA, ON L4Y 127 2360 DIXIE ROAD SAMUEL SON & COMPANY CANADA 16 FI. IBF MIN. .004 S 17B3229 ^ N13501 17B3228 ^{N13501 34 1783233 ^ δ 70° N13501 HEAT NO. a manufactifica in the .05 F 200 MAK BHN (P)-026 1660 < 1660 1660 A25 A25 SLAB PSIX 100 PSIX 100 8 2 A24 A25 A24 PHYSICAL PROPERTIES CHEMICAL ANALYSIS .000 Spad DEGS DEGS F FOR 19 535 LCVN 20 REPORT OF CHEMICAL/PHYSICAL TESTS ৸ 构 .040 NISKU, AB 701 15TH AVENUE CANADA SAMUEL METAL SERVICE LTD. NACE MR0175 P.2 ANNEX FOR 19 FOR 19 TCAN 6 790 28 . 인간 USA. MINUTES AND AIR COOKED -80 **þ**ਛਫ ਝ MENUTES MINUTES AND . OO T9E 7L5 HEATS INDICATED (continued) % FA ----.004 .0005 AND AIR SARDNESS BEND TEST 10.0mm AIR 149 145 146 139 COOLEI COOCED 56 126 141 / 107.7 HILL z (^) wire котпер ष्ठ CUSTOMER ORDER NO. CARTIFUCK NO. SHIPPING NO. JOB/REQ. NO. WILL CROSEN NO. U 02349 307962 TTPX805195NO UNION PACIFIC 1542562 1542562 IMPACTS Mar ft.lbf Ħ 09, H THE USA. 03/09/2017 CE MODESCEN 2017 ເກ

I certify the above to be correct as contained in the records of EVRAZ INC. NA

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Quality Coordinator

REPORT OF CHEMICAL/PHYSICAL TESTS

DFO0 MISSISSAUGA, ON LAY 127 2360 DIXIS ROAD SAMUEL SON & COMPANY CANADA NISKU, AB TSE 71.5 701 15TH AVENUE SAMUEL METAL SERVICE LTD. + U 02349 CUSTOMER DRIDER NO. WILL ORDER NO. CERTIFICATE NO. DATE 307962 1542562 Mar 09, DATE 2017 PAGE

CANADA

THIS MATERIAL HAS BEEN MANUFACTURED, TESTED AND FOUND TO MEET THE SPECIFICATIONS AND PURCHASE ORDER REQUIREMENTS CARBON STEEL PRESSURE VESSEL QUALITY PLATE ASTM A516-15 GRADE 70 ASME SA516

SHIPPING NO.

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03/09/2017

1542562

CARRIER

S. A. A. T. P. CO. CO.

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REPORT OF CHEMICAL/PHYSICAL T

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I certify the above to be correct as contained in the records of EVRAZING, NA By __