



CERTIFICATE OF TESTING

ALBERTA TUBULAR PRODUCTS LTD

Diameter: **273.1 mm**

Gage: **9.300 mm**

Grade: **GR.359-2SG**

Ref. No:

Certificate ID: **183608**

Mill Order No: **WA 054627**

Monday, January 8, 2018, 07:56:21

Customer PO: **3818**

Specification: **CSA Z245.1-14 GRADE 359 CAT II M45C SS**

All of the information in the '.... Report' sections is locked for editing and cannot be modified.

And the '.... Data' sections are added as modifiable information and have NO direct link to the report sections.




Vendor Document Review


- ☒ **1 - REVIEWED** Manufacturing may proceed without changes
- ☐ **2 - REVIEWED** Correct & resubmit - May proceed subject to including change
- ☐ **3 - REVIEWED** Manufacturing may not proceed
- ☐ **4 - REVIEWED** Information / Record purposes only / Certified As Built


SIGNED: Brian Jewer DATE: January 12, 2018


The review of this document does not in any way relieve the vendor of responsibility for design or from compliance with the purchase order or contract documents.

VEN-P068-RM05-0001

 Camrose ERW		EVRAZ Camrose CERTIFICATE OF TESTING Tensile & Chemistry																				Monday, January 8, 2018, 07:56:21					
		Customer: ALBERTA TUBULAR PRODUCTS LTD										Diameter: 273.1 mm Wall Thickness: 9.300 mm Grade: GR.359-2SG Specification: CSA Z245.1-14 GRADE 359 CAT II M45C SS										Certificate ID: 183608-4 Customer PO: 3818 Mill Order No: WA 054627					
Supplier - Heat		Product ID		Test Type			Orientation				Width (mm)		YS (MPa)		UTS (MPa)		Elong% (50mm)		Y/T								
				Wgt (%)	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	Al	V	Cb	N2	Ti	B	CEQ	Ca	Ce	SoAl			
EVRAZ Regina - 408045		AE-129B	1059-T	MILL CONTROL			PIPE TPA				37.981		449		497		39.4		0.90								
		AE-129B	1059-T	MILL CONTROL			PIPE TWA				37.930				538		0.0		0.00								
		AE-129B	1249-M	APPLY / TEST			PIPE TPA				37.800		436		493		45.6		0.88								
		Heat:			0.04	0.67	0.009	0.001	0.17	0.28	0.09	0.09	0.026	0.011	0.041	0.002	0.046	0.008	0.01	0.0001	0.13	0.0021	0.000	0.040			
		Product:			0.03	0.68	0.009	0.001	0.18	0.28	0.09	0.09	0.027	0.010	0.045	0.003	0.045	0.008	0.02	0.0002	0.13	0.0019	0.000	0.043			
EVRAZ Regina - 408046		AE-129B	B0094	Product:			0.03	0.69	0.009	0.001	0.18	0.28	0.09	0.09	0.027	0.010	0.045	0.003	0.046	0.008	0.02	0.0002	0.13	0.0019	0.000	0.043	
		AE-129B	B0095	MILL CONTROL			PIPE TPA				37.889		413		486		44.0		0.85								
		AE-129B	1073-L	MILL CONTROL			PIPE TWA				38.039				527		0.0		0.00								
		Heat:			0.03	0.70	0.010	0.003	0.19	0.28	0.08	0.07	0.028	0.011	0.038	0.002	0.046	0.008	0.02	0.0001	0.13	0.0026	0.000	0.037			
		Product:			0.04	0.71	0.009	0.002	0.20	0.28	0.08	0.07	0.030	0.010	0.044	0.003	0.046	0.008	0.02	0.0002	0.13	0.0025	0.000	0.042			
EVRAZ Regina - 408047		AE-129B	B0102	Product:			0.04	0.71	0.010	0.002	0.20	0.28	0.08	0.07	0.030	0.011	0.044	0.003	0.046	0.008	0.02	0.0002	0.13	0.0022	0.000	0.042	
		AE-129B	1006-N	MILL CONTROL			PIPE TPA				37.889		441		501		39.8		0.88								
		AE-129B	1006-N	MILL CONTROL			PIPE TWA				37.889				545		0.0		0.00								
		Heat:			0.04	0.69	0.010	0.003	0.18	0.30	0.09	0.10	0.054	0.011	0.033	0.002	0.046	0.009	0.01	0.0001	0.14	0.0018	0.000	0.032			
		Product:			0.04	0.68	0.009	0.001	0.18	0.29	0.09	0.11	0.062	0.011	0.038	0.003	0.045	0.007	0.02	0.0002	0.14	0.0014	0.000	0.036			
EVRAZ Regina - 527186		AE-129B	B0107	Product:			0.04	0.69	0.009	0.001	0.19	0.29	0.09	0.11	0.063	0.011	0.038	0.003	0.047	0.008	0.02	0.0002	0.14	0.0016	0.000	0.036	
		AE-129B	1026-T	MILL CONTROL			PIPE TPA				37.869		436		488		45.3		0.89								
		AE-129B	1026-T	MILL CONTROL			PIPE TWA				37.950				525		0.0		0.00								
		Heat:			0.05	0.85	0.008	0.002	0.15	0.37	0.10	0.07	0.036	0.011	0.042	0.003	0.023	0.009	0.02	0.0002	0.15	0.0047	0.000	0.042			
		Product:			0.04	0.86	0.008	0.002	0.16	0.37	0.10	0.07	0.038	0.012	0.049	0.004	0.023	0.008	0.02	0.0002	0.15	0.0024	0.000	0.047			
EVRAZ Regina - 527191		AE-129B	B0051	Product:			0.04	0.86	0.008	0.002	0.16	0.37	0.10	0.07	0.039	0.011	0.049	0.004	0.023	0.008	0.02	0.0002	0.15	0.0024	0.000	0.047	
		AE-129B	1088-M	MILL CONTROL			PIPE TPA				37.981		426		483		43.0		0.88								
		AE-129B	1088-M	MILL CONTROL			PIPE TWA				37.991				521		0.0		0.00								
		Heat:			0.03	0.66	0.009	0.002	0.18	0.26	0.09	0.08	0.028	0.011	0.039	0.002	0.047	0.008	0.01	0.0002	0.12	0.0017	0.001	0.037			
		Product:			0.03	0.66	0.010	0.002	0.18	0.26	0.09	0.09	0.028	0.010	0.041	0.003	0.046	0.008	0.01	0.0002	0.13	0.0018	0.000	0.035			
EVRAZ Regina - 527192		AE-129B	545	Product:			0.04	0.68	0.010	0.002	0.19	0.26	0.09	0.08	0.029	0.010	0.041	0.003	0.045	0.008	0.02	0.0002	0.13	0.0015	0.000	0.035	
		AE-129B	1041-M	MILL CONTROL			PIPE TPA				37.981		453		502		40.0		0.90								
		AE-129B	1041-M	MILL CONTROL			PIPE TWA				38.021				543		0.0		0.00								
		AE-129B	1266-M	APPLY / TEST			PIPE TPA				38.029		452		505		41.6		0.89								
		AE-129B	1538-M	APPLY / TEST			PIPE TPA				37.899		448		504		41.8		0.89								
		Heat:			0.03	0.68	0.012	0.003	0.21	0.27	0.08	0.10	0.026	0.011	0.038	0.003	0.049	0.007	0.02	0.0002	0.13	0.0019	0.000	0.037			
		Product:			0.03	0.69	0.011	0.003	0.22	0.27	0.08	0.10	0.027	0.011	0.042	0.003	0.049	0.006	0.02	0.0002	0.13	0.0014	0.000	0.040			
		Product:			0.03	0.69	0.012	0.002	0.23	0.26	0.08	0.10	0.027	0.011	0.042	0.003	0.049	0.007	0.02	0.0002	0.13	0.0014	0.000	0.040			
<p>TPA - Transverse Pipe Axis LPA - Longitudinal Pipe Axis TWA - Transverse Weld Axis FST - Full Section Testing FBN - Full Body Normalized Q&T - Quenched and Tempered SR - Stress Relieve AQ - As Quenched</p>		<p>Flattening Test Acceptable High Frequency Electric Welded Minimum Weld Seam Heat Treatment Temperature: 900 (C) Decoxidation Practice: Aluminum Fully Killed Root Guides Bend Test Acceptable UT Cat. to 1/8" Drilled Hole and/or N10 ID/OD Notches Ultrasonic Weld Line Inspection Acceptable FLVI - Full length Visual Melted & Manufactured in Canada Yield Strength: 0.5% EUL 20700 KPA for 5 secs</p>																				We certify that the product described above has been manufactured, sampled, inspected, and tested in accordance to the referenced specification. The product has been found to be in compliance with all requirements.					

<div>EVRAZ</div> <div>Camrose ERW</div> <div><div>EVRAZ Camrose</div><div>CERTIFICATE OF TESTING</div><div>Charpy</div></div>														Monday, January 8, 2018, 07:56:21					
														Certificate ID: 183608-1					
														Customer PO: 3818					
														Mill Order No: WA 054627					
Customer: ALBERTA TUBULAR PRODUCTS LTD						Diameter: 273.1 mm		Wall Thickness: 9.300 mm				Grade: GR.359-2SG							
						Specification: CSA Z245.1-14 GRADE 359 CAT II M45C SS													
Supplier - Heat		Product ID		Test Type	Orientation	Temp C	Energy (Joules)				Percent Shear				Test Position	Size	Flat		
							#1	#2	#3	Avg	#1	#2	#3	Avg					
EVRAZ Regina - 408045		AE-129B	CG511 1059-T	MILL CONTROL	PIPE TPA	-45	248	251	251	250	100	100	100	100	90	2/3			
		AE-129B	CG511 1059-T	MILL CONTROL	PIPE TWA	-45	245	255	259	253	100	100	100	100	WMZ	2/3			
EVRAZ Regina - 408046		AE-129B	CG512 1073-L	MILL CONTROL	PIPE TPA	-45	255	257	259	257	100	100	100	100	90	2/3			
		AE-129B	CG512 1073-L	MILL CONTROL	PIPE TWA	-45	250	251	250	250	100	100	100	100	WMZ	2/3			
EVRAZ Regina - 408047		AE-129B	CG508 1006-N	MILL CONTROL	PIPE TPA	-45	264	262	265	264	100	100	100	100	90	2/3			
		AE-129B	CG508 1006-N	MILL CONTROL	PIPE TWA	-45	248	245	239	244	100	100	100	100	WMZ	2/3			
EVRAZ Regina - 527186		AE-129B	CG509 1026-T	MILL CONTROL	PIPE TPA	-45	258	259	262	260	100	100	100	100	90	2/3			
		AE-129B	CG509 1026-T	MILL CONTROL	PIPE TWA	-45	259	241	255	252	100	100	100	100	WMZ	2/3			
EVRAZ Regina - 527191		AE-129B	CG513 1088-H	MILL CONTROL	PIPE TPA	-45	265	266	261	264	100	100	100	100	90	2/3			
		AE-129B	CG513 1088-H	MILL CONTROL	PIPE TWA	-45	259	259	241	253	100	100	100	100	WMZ	2/3			
EVRAZ Regina - 527192		AE-129B	CG510 1041-M	MILL CONTROL	PIPE TPA	-45	266	268	271	268	100	100	100	100	90	2/3			
		AE-129B	CG510 1041-M	MILL CONTROL	PIPE TWA	-45	255	255	251	254	100	100	100	100	WMZ	2/3			
TPA - Transverse Pipe Axis LPA - Longitudinal Pipe Axis TWA - Transverse Weld Axis FST - Full Section Testing FBN - Full Body Normalized Q&T - Quenched and Tempered SR - Stress Relieve AQ - As Quenched FS - Full Size		FSE Acceptance Criteria: Body: 27 WMZ: 27 HAZ: 0 Minimum Weld Seam Heat Treatment Temperature: 900 (C) Flattening Test Acceptable High Frequency Electric Welded Deoxidization Practice: Aluminum Fully Killed Root Guided Bend Test Acceptable UT Cal. to 1/8" Drilled Hole and/or N10 ID/OD Notches Ultrasonic Weld Line Inspection Acceptable FLV1 - Full length Visual Melted & Manufactured in Canada Yield Strength: 0.5% EUL 20700 KPA for 5 secs									We certify that the product described above has been manufactured, sampled, inspected, and tested in accordance to the referenced specification. The product has been found to be in compliance with all requirements.								

 Camrose ERW		EVRAZ Camrose CERTIFICATE OF TESTING Macro Hardness																		Monday, January 8, 2018, 07:56:21												
		Customer: ALBERTA TUBULAR PRODUCTS LTD																		Certificate ID: 183608-2												
																				Customer PO: 3818												
																				Mill Order No: WA 054627												
Supplier - Heat		Product ID		Test Type		Scale		Diameter: 273.1 mm Wall Thickness: 9.300 mm Grade: GR.359-2SG												Specification: CSA Z245.1-14 GRADE 359 CAT II M45C SS												
								MS		Location		PM			HAZ			WMZ				HAZ			PM			AVERAGES				
EVRAZ Regina - 408045		AE-129B	CG511 1059-T	MILL CONTROL	Rockwell A	OK	OD	52.9	0.0	0.0	53.2	0.0	0.0	53.1	0.0	0.0	0.0	51.2	0.0	0.0	51.8	0.0	0.0	52.4	52.2	53.1						
		AE-129B	CG511 1059-T	MILL CONTROL	Rockwell A	OK	ID	51.2	0.0	0.0	49.1	0.0	0.0	51.4	0.0	0.0	0.0	49.4	0.0	0.0	52.5	0.0	0.0	51.9	49.3	51.4						
EVRAZ Regina - 408046		AE-129B	CG512 1073-L	MILL CONTROL	Rockwell A	OK	OD	53.1	0.0	0.0	52.1	0.0	0.0	53.0	0.0	0.0	0.0	51.6	0.0	0.0	52.3	0.0	0.0	52.7	51.9	53.0						
		AE-129B	CG512 1073-L	MILL CONTROL	Rockwell A	OK	ID	52.3	0.0	0.0	49.3	0.0	0.0	50.8	0.0	0.0	0.0	49.6	0.0	0.0	53.0	0.0	0.0	52.7	49.5	50.8						
EVRAZ Regina - 408047		AE-129B	CG508 1006-N	MILL CONTROL	Rockwell A	OK	OD	47.0	0.0	0.0	46.9	0.0	0.0	52.7	0.0	0.0	0.0	50.2	0.0	0.0	41.1	0.0	0.0	44.1	48.6	52.7						
		AE-129B	CG508 1006-N	MILL CONTROL	Rockwell A	OK	ID	48.8	0.0	0.0	48.2	0.0	0.0	49.9	0.0	0.0	0.0	49.4	0.0	0.0	50.5	0.0	0.0	49.7	48.8	49.9						
		AE-129B	CG516 1128-K	SHIFT CONTROL	Rockwell A	OK	OD	52.2	0.0	0.0	53.3	0.0	0.0	53.5	0.0	0.0	0.0	51.5	0.0	0.0	53.5	0.0	0.0	52.9	52.4	53.5						
		AE-129B	CG516 1128-K	SHIFT CONTROL	Rockwell A	OK	ID	53.0	0.0	0.0	50.7	0.0	0.0	52.0	0.0	0.0	0.0	52.2	0.0	0.0	53.4	0.0	0.0	53.2	51.5	52.0						
EVRAZ Regina - 527186		AE-129B	CG509 1026-T	MILL CONTROL	Rockwell A	OK	OD	51.8	0.0	0.0	52.3	0.0	0.0	53.2	0.0	0.0	0.0	52.3	0.0	0.0	52.2	0.0	0.0	52.0	52.3	53.2						
		AE-129B	CG509 1026-T	MILL CONTROL	Rockwell A	OK	ID	51.9	0.0	0.0	49.5	0.0	0.0	50.3	0.0	0.0	0.0	50.4	0.0	0.0	52.0	0.0	0.0	52.0	50.0	50.3						
		AE-129B	CG537 1444-N	SHIFT CONTROL	Rockwell A	OK	OD	51.2	0.0	0.0	49.5	0.0	0.0	51.9	0.0	0.0	0.0	50.8	0.0	0.0	49.0	0.0	0.0	50.1	50.2	51.9						
		AE-129B	CG537 1444-N	SHIFT CONTROL	Rockwell A	OK	ID	45.6	0.0	0.0	46.8	0.0	0.0	51.0	0.0	0.0	0.0	51.6	0.0	0.0	52.3	0.0	0.0	49.0	49.2	51.0						
EVRAZ Regina - 527191		AE-129B	CG513 1088-H	MILL CONTROL	Rockwell A	OK	OD	51.1	0.0	0.0	51.0	0.0	0.0	52.6	0.0	0.0	0.0	51.3	0.0	0.0	51.8	0.0	0.0	51.5	51.2	52.6						
		AE-129B	CG513 1088-H	MILL CONTROL	Rockwell A	OK	ID	50.7	0.0	0.0	48.3	0.0	0.0	49.8	0.0	0.0	0.0	47.8	0.0	0.0	52.0	0.0	0.0	51.4	48.1	49.8						
EVRAZ Regina - 527192		AE-129B	CG510 1041-M	MILL CONTROL	Rockwell A	OK	OD	52.5	0.0	0.0	53.4	0.0	0.0	54.4	0.0	0.0	0.0	56.8	0.0	0.0	53.3	0.0	0.0	52.9	55.1	54.4						
		AE-129B	CG510 1041-M	MILL CONTROL	Rockwell A	OK	ID	52.9	0.0	0.0	50.1	0.0	0.0	51.2	0.0	0.0	0.0	50.5	0.0	0.0	52.4	0.0	0.0	52.7	50.3	51.2						
MS - Micro Structure FBN - Full Body Normalized Q&T - Quenched and Tempered SR - Stress Relieve AQ - As Quenched		Flattening Test Acceptable High Frequency Electric Welded Deoxidization Practice: Aluminum Fully Killed Root Guided Bend Test Acceptable UT Cal. to 1/8" Drilled Hole and/or N10 ID/OD Notches Ultrasonic Weld Line Inspection Acceptable FLVI - Full length Visual Melted & Manufactured in Canada Yield Strength: 0.5% EUL 20700 KPA for 5 secs												Minimum Weld Seam Heat Treatment Temperature: 900 (C)												We certify that the product described above has been manufactured, sampled, inspected, and tested in accordance to the referenced specification. The product has been found to be in compliance with all requirements.						

	EVRAZ Camrose																Monday, January 8, 2018, 07:56:21																												
	CERTIFICATE OF TESTING																	Certificate ID: 183608-3																											
																		Customer PO: 3818																											
	Camrose ERW																	Mill Order No: WA 054627																											
Customer: ALBERTA TUBULAR PRODUCTS LTD					Diameter: 273.1 mm																	Wall Thickness: 9.300 mm												Grade: GR.359-2SG											
					Specification: CSA Z245.1-14 GRADE 359 CAT II M45C SS																																								
Supplier - Heat		Product ID		Test Type	Scale	MS	Location	PM			HAZ			WMZ			HAZ			PM			AVERAGES																						
EVRAZ Regina - 408045		AE-129B	CG511 1059-T	MILL CONTROL	Vickers HV 500g	OK	OD	183	0	0	179	0	0	190	0	0	0	177	0	0	188	0	0	185.5	178	190																			
		AE-129B	CG511 1059-T	MILL CONTROL	Vickers HV 500g	OK	MID_ID	181	0	0	172	0	0	182	0	0	0	179	0	0	190	0	0	185.5	175.5	182																			
		AE-129B	CG511 1059-T	MILL CONTROL	Vickers HV 500g	OK	ID	184	0	0	172	0	0	186	0	0	0	172	0	0	193	0	0	188.5	172	186																			
EVRAZ Regina - 408046		AE-129B	CG512 1073-L	MILL CONTROL	Vickers HV 500g	OK	OD	197	0	0	198	0	0	213	0	0	0	185	0	0	233	0	0	215	191.5	213																			
		AE-129B	CG512 1073-L	MILL CONTROL	Vickers HV 500g	OK	MID_ID	187	0	0	173	0	0	193	0	0	0	188	0	0	179	0	0	183	180.5	193																			
		AE-129B	CG512 1073-L	MILL CONTROL	Vickers HV 500g	OK	ID	187	0	0	174	0	0	206	0	0	0	174	0	0	198	0	0	192.5	174	206																			
EVRAZ Regina - 408047		AE-129B	CG508 1006-N	MILL CONTROL	Vickers HV 500g	OK	OD	198	0	0	192	0	0	227	0	0	0	183	0	0	190	0	0	194	187.5	227																			
		AE-129B	CG508 1006-N	MILL CONTROL	Vickers HV 500g	OK	MID_ID	206	0	0	180	0	0	216	0	0	0	187	0	0	199	0	0	202.5	183.5	216																			
		AE-129B	CG508 1006-N	MILL CONTROL	Vickers HV 500g	OK	ID	204	0	0	202	0	0	205	0	0	0	176	0	0	202	0	0	203	189	205																			
		AE-129B	CG516 1128-K	SHIFT CONTROL	Vickers HV 500g	OK	OD	187	0	0	201	0	0	215	0	0	0	179	0	0	190	0	0	188.5	190	215																			
		AE-129B	CG516 1128-K	SHIFT CONTROL	Vickers HV 500g	OK	MID_ID	198	0	0	188	0	0	199	0	0	0	192	0	0	200	0	0	199	190	199																			
		AE-129B	CG516 1128-K	SHIFT CONTROL	Vickers HV 500g	OK	ID	208	0	0	193	0	0	224	0	0	0	186	0	0	198	0	0	203	189.5	224																			
EVRAZ Regina - 527186		AE-129B	CG509 1026-T	MILL CONTROL	Vickers HV 500g	OK	OD	189	0	0	198	0	0	198	0	0	0	184	0	0	182	0	0	185.5	191	198																			
		AE-129B	CG509 1026-T	MILL CONTROL	Vickers HV 500g	OK	MID_ID	185	0	0	193	0	0	181	0	0	0	173	0	0	190	0	0	187.5	183	181																			
		AE-129B	CG509 1026-T	MILL CONTROL	Vickers HV 500g	OK	ID	190	0	0	185	0	0	194	0	0	0	185	0	0	189	0	0	189.5	185	194																			
		AE-129B	CG537 1444-N	SHIFT CONTROL	Vickers HV 500g	OK	OD	189	0	0	187	0	0	193	0	0	0	200	0	0	193	0	0	191	193.5	193																			
		AE-129B	CG537 1444-N	SHIFT CONTROL	Vickers HV 500g	OK	MID_ID	196	0	0	188	0	0	207	0	0	0	194	0	0	205	0	0	200.5	191	207																			
		AE-129B	CG537 1444-N	SHIFT CONTROL	Vickers HV 500g	OK	ID	208	0	0	196	0	0	185	0	0	0	189	0	0	207	0	0	207.5	192.5	185																			
EVRAZ Regina - 527191		AE-129B	CG513 1088-H	MILL CONTROL	Vickers HV 500g	OK	OD	187	0	0	191	0	0	202	0	0	0	172	0	0	187	0	0	187	181.5	202																			
		AE-129B	CG513 1088-H	MILL CONTROL	Vickers HV 500g	OK	MID_ID	190	0	0	183	0	0	189	0	0	0	171	0	0	205	0	0	197.5	177	189																			
		AE-129B	CG513 1088-H	MILL CONTROL	Vickers HV 500g	OK	ID	197	0	0	194	0	0	216	0	0	0	190	0	0	203	0	0	200	192	216																			
EVRAZ Regina - 527192		AE-129B	CG510 1041-M	MILL CONTROL	Vickers HV 500g	OK	OD	194	0	0	200	0	0	219	0	0	0	202	0	0	189	0	0	191.5	201	219																			
		AE-129B	CG510 1041-M	MILL CONTROL	Vickers HV 500g	OK	MID_ID	198	0	0	187	0	0	207	0	0	0	181	0	0	196	0	0	197	184	207																			
		AE-129B	CG510 1041-M	MILL CONTROL	Vickers HV 500g	OK	ID	207	0	0	172	0	0	208	0	0	0	182	0	0	193	0	0	200	177	208																			
MS - Micro Structure FBN - Full Body Normalized Q&T - Quenched and Tempered SR - Stress Relieve AQ - As Quenched		Flattening Test Acceptable High Frequency Electric Welded Deoxidation Practice: Aluminum Fully Killed Root Guided Bend Test Acceptable UT Cal. to 1/8" Drilled Hole and/or N10 ID/OD Notches Ultrasonic Weld Line Inspection Acceptable FLVI - Full length Visual Melted & Manufactured in Canada Yield Strength: 0.5% EUL 20700 KPA for 5 secs										Minimum Weld Seam Heat Treatment Temperature: 900 (C)										We certify that the product described above has been manufactured, sampled, inspected, and tested in accordance to the referenced specification. The product has been found to be in compliance with all requirements.																							

Supplier - Heat	Chng	Prod ID	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	Al	V	Cb	N2	Ti	B	CEQ	Ca	Ce	SoAl
EVRAZ Regina - 408045			Heat:	0.04	0.67	0.009	0.001	0.17	0.28	0.09	0.09	0.026	0.011	0.041	0.002	0.046	0.008	0.01	0.0001	0.13	0.0021	0	0.04
EVRAZ Regina - 408045	AE-129B	B0094	Product:	0.03	0.68	0.009	0.001	0.18	0.28	0.09	0.09	0.027	0.01	0.045	0.003	0.045	0.008	0.02	0.0002	0.13	0.0019	0	0.043
EVRAZ Regina - 408045	AE-129B	B0095	Product:	0.03	0.69	0.009	0.001	0.18	0.28	0.09	0.09	0.027	0.01	0.045	0.003	0.046	0.008	0.02	0.0002	0.13	0.0019	0	0.043
EVRAZ Regina - 408046			Heat:	0.03	0.7	0.01	0.003	0.19	0.28	0.08	0.07	0.028	0.011	0.038	0.002	0.046	0.008	0.02	0.0001	0.13	0.0026	0	0.037
EVRAZ Regina - 408046	AE-129B	B0102	Product:	0.04	0.71	0.009	0.002	0.2	0.28	0.08	0.07	0.03	0.01	0.044	0.003	0.046	0.008	0.02	0.0002	0.13	0.0025	0	0.042
EVRAZ Regina - 408046	AE-129B	B0103	Product:	0.04	0.71	0.01	0.002	0.2	0.28	0.08	0.07	0.03	0.011	0.044	0.003	0.046	0.008	0.02	0.0002	0.13	0.0022	0	0.042
EVRAZ Regina - 408047			Heat:	0.04	0.69	0.01	0.003	0.18	0.3	0.09	0.1	0.054	0.011	0.033	0.002	0.046	0.009	0.01	0.0001	0.14	0.0018	0	0.032
EVRAZ Regina - 408047	AE-129B	B0106	Product:	0.04	0.68	0.009	0.001	0.18	0.29	0.09	0.11	0.062	0.011	0.038	0.003	0.045	0.007	0.02	0.0002	0.14	0.0014	0	0.036
EVRAZ Regina - 408047	AE-129B	B0107	Product:	0.04	0.69	0.009	0.001	0.19	0.29	0.09	0.11	0.063	0.011	0.038	0.003	0.047	0.008	0.02	0.0002	0.14	0.0016	0	0.036
EVRAZ Regina - 527186			Heat:	0.05	0.85	0.008	0.002	0.15	0.37	0.1	0.07	0.036	0.011	0.042	0.003	0.023	0.009	0.02	0.0002	0.15	0.0047	0	0.042
EVRAZ Regina - 527186	AE-129B	B0050	Product:	0.04	0.86	0.008	0.002	0.16	0.37	0.1	0.07	0.038	0.012	0.049	0.004	0.023	0.008	0.02	0.0002	0.15	0.0024	0	0.047
EVRAZ Regina - 527186	AE-129B	B0051	Product:	0.04	0.86	0.008	0.002	0.16	0.37	0.1	0.07	0.039	0.011	0.049	0.004	0.023	0.008	0.02	0.0002	0.15	0.0024	0	0.047
EVRAZ Regina - 527191			Heat:	0.03	0.66	0.009	0.002	0.18	0.26	0.09	0.08	0.028	0.011	0.039	0.002	0.047	0.008	0.01	0.0002	0.12	0.0017	0.001	0.037
EVRAZ Regina - 527191	AE-129B	513	Product:	0.03	0.66	0.01	0.002	0.18	0.26	0.09	0.09	0.028	0.01	0.041	0.003	0.046	0.008	0.01	0.0002	0.13	0.0018	0	0.035
EVRAZ Regina - 527191	AE-129B	545	Product:	0.04	0.68	0.01	0.002	0.19	0.26	0.09	0.08	0.029	0.01	0.041	0.003	0.045	0.008	0.02	0.0002	0.13	0.0015	0	0.035
EVRAZ Regina - 527192			Heat:	0.03	0.68	0.012	0.003	0.21	0.27	0.08	0.1	0.026	0.011	0.038	0.003	0.049	0.007	0.02	0.0002	0.13	0.0019	0	0.037
EVRAZ Regina - 527192	AE-129B	B0098	Product:	0.03	0.69	0.011	0.003	0.22	0.27	0.08	0.1	0.027	0.011	0.042	0.003	0.049	0.006	0.02	0.0002	0.13	0.0014	0	0.04
EVRAZ Regina - 527192	AE-129B	B0099	Product:	0.03	0.69	0.012	0.002	0.23	0.26	0.08	0.1	0.027	0.011	0.042	0.003	0.049	0.007	0.02	0.0002	0.13	0.0014	0	0.04

Supplier - Heat

	Chng	Prod ID	Test Type	Orientation	Width (mm)	YS (MPa)	UTS (MPa)	Elong% (50mm)	Y/T	Temperii
EVRAZ Regina - 408045	AE-129B	1059-T	MILL CONTROL	PIPE TPA	37.981	449	497	39.4	0.9	-18
EVRAZ Regina - 408045	AE-129B	1059-T	MILL CONTROL	PIPE TWA	37.93	0	538	0	0	-18
EVRAZ Regina - 408045	AE-129B	1249-M	APPLY / TEST	PIPE TPA	37.8	436	493	45.6	0.88	-18
EVRAZ Regina - 408046	AE-129B	1073-L	MILL CONTROL	PIPE TPA	37.889	413	486	44	0.85	-18
EVRAZ Regina - 408046	AE-129B	1073-L	MILL CONTROL	PIPE TWA	38.039	0	527	0	0	-18
EVRAZ Regina - 408047	AE-129B	1006-N	MILL CONTROL	PIPE TPA	37.889	441	501	39.8	0.88	-18
EVRAZ Regina - 408047	AE-129B	1006-N	MILL CONTROL	PIPE TWA	37.889	0	545	0	0	-18
EVRAZ Regina - 527186	AE-129B	1026-T	MILL CONTROL	PIPE TPA	37.869	436	488	45.3	0.89	-18
EVRAZ Regina - 527186	AE-129B	1026-T	MILL CONTROL	PIPE TWA	37.95	0	525	0	0	-18
EVRAZ Regina - 527191	AE-129B	1088-M	MILL CONTROL	PIPE TPA	37.981	426	483	43	0.88	-18
EVRAZ Regina - 527191	AE-129B	1088-M	MILL CONTROL	PIPE TWA	37.991	0	521	0	0	-18
EVRAZ Regina - 527192	AE-129B	1041-M	MILL CONTROL	PIPE TPA	37.981	453	502	40	0.9	-18
EVRAZ Regina - 527192	AE-129B	1041-M	MILL CONTROL	PIPE TWA	38.021	0	543	0	0	-18
EVRAZ Regina - 527192	AE-129B	1266-M	APPLY / TEST	PIPE TPA	38.029	452	505	41.6	0.89	-18
EVRAZ Regina - 527192	AE-129B	1538-M	APPLY / TEST	PIPE TPA	37.899	448	504	41.8	0.89	-18

Supplier - Heat	Chng	Prod ID	Test Type	Orientation	Temp C	Energy (Joules)				Avg	Percent Shear				Avg	Test Posi Size		Flat
						#1	#2	#3			#1	#2	#3					
EVRAZ Regina - 408045	AE-129B	CG511	10 MILL CONTROL	PIPE TPA	-45	248	251	251	250	250	100	100	100	100	100	90	2/3	
EVRAZ Regina - 408045	AE-129B	CG511	10 MILL CONTROL	PIPE TWA	-45	245	255	259	253	253	100	100	100	100	100	WMZ	2/3	
EVRAZ Regina - 408046	AE-129B	CG512	10 MILL CONTROL	PIPE TPA	-45	255	257	259	257	257	100	100	100	100	100	90	2/3	
EVRAZ Regina - 408046	AE-129B	CG512	10 MILL CONTROL	PIPE TWA	-45	250	251	250	250	250	100	100	100	100	100	WMZ	2/3	
EVRAZ Regina - 408047	AE-129B	CG508	10 MILL CONTROL	PIPE TPA	-45	264	262	265	264	264	100	100	100	100	100	90	2/3	
EVRAZ Regina - 408047	AE-129B	CG508	10 MILL CONTROL	PIPE TWA	-45	248	245	239	244	244	100	100	100	100	100	WMZ	2/3	
EVRAZ Regina - 527186	AE-129B	CG509	10 MILL CONTROL	PIPE TPA	-45	258	259	262	260	260	100	100	100	100	100	90	2/3	
EVRAZ Regina - 527186	AE-129B	CG509	10 MILL CONTROL	PIPE TWA	-45	259	241	255	252	252	100	100	100	100	100	WMZ	2/3	
EVRAZ Regina - 527191	AE-129B	CG513	10 MILL CONTROL	PIPE TPA	-45	265	266	261	264	264	100	100	100	100	100	90	2/3	
EVRAZ Regina - 527191	AE-129B	CG513	10 MILL CONTROL	PIPE TWA	-45	259	259	241	253	253	100	100	100	100	100	WMZ	2/3	
EVRAZ Regina - 527192	AE-129B	CG510	10 MILL CONTROL	PIPE TPA	-45	266	268	271	268	268	100	100	100	100	100	90	2/3	
EVRAZ Regina - 527192	AE-129B	CG510	10 MILL CONTROL	PIPE TWA	-45	255	255	251	254	254	100	100	100	100	100	WMZ	2/3	

Supplier - Heat	Chng	Prod ID	Test Type	Scale	MS	Location	PM			HAZ			WMZ			HAZ		PM		PMA' HAZ/	
EVRAZ Regina - 408045	AE-129B	CG511	10 MILL CONTROL	Rockwell A	OK	OD	52.9	0.0	0.0	53.2	0.0	0.0	53.1	0.0	0.0	51.2	0.0	0.0	51.8	0.0	0.0 52.4 52.2
EVRAZ Regina - 408045	AE-129B	CG511	10 MILL CONTROL	Rockwell A	OK	ID	51.2	0.0	0.0	49.1	0.0	0.0	51.4	0.0	0.0	49.4	0.0	0.0	52.5	0.0	0.0 51.9 49.3
EVRAZ Regina - 408046	AE-129B	CG512	10 MILL CONTROL	Rockwell A	OK	OD	53.1	0.0	0.0	52.1	0.0	0.0	53.0	0.0	0.0	51.6	0.0	0.0	52.3	0.0	0.0 52.7 51.9
EVRAZ Regina - 408046	AE-129B	CG512	10 MILL CONTROL	Rockwell A	OK	ID	52.3	0.0	0.0	49.3	0.0	0.0	50.8	0.0	0.0	49.6	0.0	0.0	53.0	0.0	0.0 52.7 49.5
EVRAZ Regina - 408047	AE-129B	CG508	10 MILL CONTROL	Rockwell A	OK	OD	47.0	0.0	0.0	46.9	0.0	0.0	52.7	0.0	0.0	50.2	0.0	0.0	41.1	0.0	0.0 44.1 48.6
EVRAZ Regina - 408047	AE-129B	CG508	10 MILL CONTROL	Rockwell A	OK	ID	48.8	0.0	0.0	48.2	0.0	0.0	49.9	0.0	0.0	49.4	0.0	0.0	50.5	0.0	0.0 49.7 48.8
EVRAZ Regina - 408047	AE-129B	CG516	11 SHIFT CONTROL	Rockwell A	OK	OD	52.2	0.0	0.0	53.3	0.0	0.0	53.5	0.0	0.0	51.5	0.0	0.0	53.5	0.0	0.0 52.9 52.4
EVRAZ Regina - 408047	AE-129B	CG516	11 SHIFT CONTROL	Rockwell A	OK	ID	53.0	0.0	0.0	50.7	0.0	0.0	52.0	0.0	0.0	52.2	0.0	0.0	53.4	0.0	0.0 53.2 51.5
EVRAZ Regina - 527186	AE-129B	CG509	10 MILL CONTROL	Rockwell A	OK	OD	51.8	0.0	0.0	52.3	0.0	0.0	53.2	0.0	0.0	52.3	0.0	0.0	52.2	0.0	0.0 52.0 52.3
EVRAZ Regina - 527186	AE-129B	CG509	10 MILL CONTROL	Rockwell A	OK	ID	51.9	0.0	0.0	49.5	0.0	0.0	50.3	0.0	0.0	50.4	0.0	0.0	52.0	0.0	0.0 52.0 50.0
EVRAZ Regina - 527186	AE-129B	CG537	14 SHIFT CONTROL	Rockwell A	OK	OD	51.2	0.0	0.0	49.5	0.0	0.0	51.9	0.0	0.0	50.8	0.0	0.0	49.0	0.0	0.0 50.1 50.2
EVRAZ Regina - 527186	AE-129B	CG537	14 SHIFT CONTROL	Rockwell A	OK	ID	45.6	0.0	0.0	46.8	0.0	0.0	51.0	0.0	0.0	51.6	0.0	0.0	52.3	0.0	0.0 49.0 49.2
EVRAZ Regina - 527191	AE-129B	CG513	10 MILL CONTROL	Rockwell A	OK	OD	51.1	0.0	0.0	51.0	0.0	0.0	52.6	0.0	0.0	51.3	0.0	0.0	51.8	0.0	0.0 51.5 51.2
EVRAZ Regina - 527191	AE-129B	CG513	10 MILL CONTROL	Rockwell A	OK	ID	50.7	0.0	0.0	48.3	0.0	0.0	49.8	0.0	0.0	47.8	0.0	0.0	52.0	0.0	0.0 51.4 48.1
EVRAZ Regina - 527192	AE-129B	CG510	10 MILL CONTROL	Rockwell A	OK	OD	52.5	0.0	0.0	53.4	0.0	0.0	54.4	0.0	0.0	56.8	0.0	0.0	53.3	0.0	0.0 52.9 55.1
EVRAZ Regina - 527192	AE-129B	CG510	10 MILL CONTROL	Rockwell A	OK	ID	52.9	0.0	0.0	50.1	0.0	0.0	51.2	0.0	0.0	50.5	0.0	0.0	52.4	0.0	0.0 52.7 50.3

Supplier - Heat	Chng	Prod ID	Test Type	Scale	MS	Location	PM	HAZ	WMZ	HAZ	PM	PMA' HAZ/
EVRAZ Regina - 408045	AE-129B	CG511	10 MILL CONTROL	Vickers HV 50C OK	OD	183	0	0 179	0 0 190	0 0 177	0 0 188	0 0 186 178
EVRAZ Regina - 408045	AE-129B	CG511	10 MILL CONTROL	Vickers HV 50C OK	MID_ID	181	0	0 172	0 0 182	0 0 179	0 0 190	0 0 186 176
EVRAZ Regina - 408045	AE-129B	CG511	10 MILL CONTROL	Vickers HV 50C OK	ID	184	0	0 172	0 0 186	0 0 172	0 0 193	0 0 189 172
EVRAZ Regina - 408046	AE-129B	CG512	10 MILL CONTROL	Vickers HV 50C OK	OD	197	0	0 198	0 0 213	0 0 185	0 0 233	0 0 215 192
EVRAZ Regina - 408046	AE-129B	CG512	10 MILL CONTROL	Vickers HV 50C OK	MID_ID	187	0	0 173	0 0 193	0 0 188	0 0 179	0 0 183 181
EVRAZ Regina - 408046	AE-129B	CG512	10 MILL CONTROL	Vickers HV 50C OK	ID	187	0	0 174	0 0 206	0 0 174	0 0 198	0 0 193 174
EVRAZ Regina - 408047	AE-129B	CG508	10 MILL CONTROL	Vickers HV 50C OK	OD	198	0	0 192	0 0 227	0 0 183	0 0 190	0 0 194 188
EVRAZ Regina - 408047	AE-129B	CG508	10 MILL CONTROL	Vickers HV 50C OK	MID_ID	206	0	0 180	0 0 216	0 0 187	0 0 199	0 0 203 184
EVRAZ Regina - 408047	AE-129B	CG508	10 MILL CONTROL	Vickers HV 50C OK	ID	204	0	0 202	0 0 205	0 0 176	0 0 202	0 0 203 189
EVRAZ Regina - 408047	AE-129B	CG516	11 SHIFT CONTROL	Vickers HV 50C OK	OD	187	0	0 201	0 0 215	0 0 179	0 0 190	0 0 189 190
EVRAZ Regina - 408047	AE-129B	CG516	11 SHIFT CONTROL	Vickers HV 50C OK	MID_ID	198	0	0 188	0 0 199	0 0 192	0 0 200	0 0 199 190
EVRAZ Regina - 408047	AE-129B	CG516	11 SHIFT CONTROL	Vickers HV 50C OK	ID	208	0	0 193	0 0 224	0 0 186	0 0 198	0 0 203 190
EVRAZ Regina - 527186	AE-129B	CG509	10 MILL CONTROL	Vickers HV 50C OK	OD	189	0	0 198	0 0 198	0 0 184	0 0 182	0 0 186 191
EVRAZ Regina - 527186	AE-129B	CG509	10 MILL CONTROL	Vickers HV 50C OK	MID_ID	185	0	0 193	0 0 181	0 0 173	0 0 190	0 0 188 183
EVRAZ Regina - 527186	AE-129B	CG509	10 MILL CONTROL	Vickers HV 50C OK	ID	190	0	0 185	0 0 194	0 0 185	0 0 189	0 0 190 185
EVRAZ Regina - 527186	AE-129B	CG537	14 SHIFT CONTROL	Vickers HV 50C OK	OD	189	0	0 187	0 0 193	0 0 200	0 0 193	0 0 191 194
EVRAZ Regina - 527186	AE-129B	CG537	14 SHIFT CONTROL	Vickers HV 50C OK	MID_ID	196	0	0 188	0 0 207	0 0 194	0 0 205	0 0 201 191
EVRAZ Regina - 527186	AE-129B	CG537	14 SHIFT CONTROL	Vickers HV 50C OK	ID	208	0	0 196	0 0 185	0 0 189	0 0 207	0 0 208 193
EVRAZ Regina - 527191	AE-129B	CG513	10 MILL CONTROL	Vickers HV 50C OK	OD	187	0	0 191	0 0 202	0 0 172	0 0 187	0 0 187 182
EVRAZ Regina - 527191	AE-129B	CG513	10 MILL CONTROL	Vickers HV 50C OK	MID_ID	190	0	0 183	0 0 189	0 0 171	0 0 205	0 0 198 177
EVRAZ Regina - 527191	AE-129B	CG513	10 MILL CONTROL	Vickers HV 50C OK	ID	197	0	0 194	0 0 216	0 0 190	0 0 203	0 0 200 192
EVRAZ Regina - 527192	AE-129B	CG510	10 MILL CONTROL	Vickers HV 50C OK	OD	194	0	0 200	0 0 219	0 0 202	0 0 189	0 0 192 201
EVRAZ Regina - 527192	AE-129B	CG510	10 MILL CONTROL	Vickers HV 50C OK	MID_ID	198	0	0 187	0 0 207	0 0 181	0 0 196	0 0 197 184
EVRAZ Regina - 527192	AE-129B	CG510	10 MILL CONTROL	Vickers HV 50C OK	ID	207	0	0 172	0 0 208	0 0 182	0 0 193	0 0 200 177