#233478

"VOLZHSKY PIPE PLANT"
OJSC

404119 Avtodoroga 7-6, Volzhsky, Volgograd region, Russia

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VOLZHSKY TRUBNY

MILL TEST CERTIFICATE

MANUFACTURER:

VOLZHSKY PIPE PLANT OJSC
404119, VOLZHSKY
VOLGOGRAD REGION
RUSSIA

Spec PI-002/72-117223/Customer PO#PI2760/ZAKKII REQ# NR83328
DESCRIPTION OF GOODS:
Carbon steel seamless pipes according to API Spec 5L PSL2 (45th edition/2012) X420, BO/ASTM A106/A106M (2011) GR. B/C/ /ASTM A53/A 53M (2012) Gr.B/ASME SA106 (2010)Gr.B/C/ASME SA53 (2011) Gr.B/ANSI/NACE MR0175/ISO15156-2(2009), NACE MR-0103 (2012), bevelled ends.
8.625" x 0.875" (219.1 x 22.23 mm)

"AMERICAN PIPING PRODUCTS, INC."
11403 NORTH HOUSTON ROSSLYN ROAD, HOUSTON, TX 77088.
USA

CERTIFICATE # 1532 DATE OF ISSUE 25.09.2013

CONTRACT # PI-002/72-117223

SIZE	HEAT NO: HEAT TREAT-MENT LOT NO	LOT NO	QUAN-TITY, PIPES	LENGTH, FEET	NET WEIGHT TONS	CHEMICAL COMPOSITION, % C x100	Si x100	Mn x100	P x1000	S x1000	Cr x100	Ni x100	Cu x100	Mo x100	Ti x100	V x100	MILL CONTROL PROT. NO	ORI-EN-TA-TI-ON	TENSILE TEST SPE-CI-MEN	YS psi	UTS psi	EL. %	HARD-NESS TEST	IMPACT TEST ORI-ENTA-TION	NO-TCH	SI-ZE	TEST TEMP °F	IMPACT VALUE ft-lb	FRAC-TURE %	HEAT TRE-AT-MENT	N D T	HYDROSTATIC TEST DURA-TION (SE-CONDS)	PRES-SURE PSI	NOTE
						*1 18	10	29	25	15	30	30	40	15	41	5		* 2	* 3	* 4	min 42100 max 71800	min 70000 max 95000	min 20.0		* 5	* 6	* 7	-50	min 20.00	MIN 1.00	* 8	* 9 *(10)	min 5	min 6410	
						1max	min 45 max	min 106 max	max	max	max	max	max	max	max	max																			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
219.1x22.23 MM 8.625x 0.875" API SPEC 5L 45 EDITION GRADE X420/ BO PSL 2	233478	13-1740	58	2270.78	74.747	H 16	22	66	12	3	16	11	21	1	0	0	4969		L	H						T	V	F					O&T	M 4 EM1 6 UT (12)	C	C	ASTM A106/ A106M - 11. ASME SA-106/ SA-106M - 10. GR. B/C ASTM A53/ A53M - 12. ASME SA-53/ SA-53M - 11. GR. B ANSI/NACE MR0175/ISO 15156-2:2009 NACE MR0103-2012 LENGTH:80% = 38-41 FEET 20%= 36-38 FEET
						F 17	22	66	13	5	19	11	20	1	0	0	4909																		
						H 17	22	66	12	5	19	10	20	1	0	0	4909																		
	11																6728	L										-50	A	117.7	65					
																														B	117.3	65				
																															106.9	60				
																															128.9	70				
	11																6728	L			55700	76755	47.6												

DESCRIPTION OF TESTS	VISUAL AND DIMENSIONS	BEVELING INSPECTION	END'S PROTECTORS	NONDESTRUCTIVE INSPECTION	COATING	FLATTENING TEST	MARKING: STENCILING	
	G	G	G	G	G	G	G	STEEL IS MANUFACTURED IN THE ELECTRIC FURNACE, FULLY KILLED AND PRODUCED AGAINST THE FINE GRAIN PRACTICE

NOTES:
G: GOOD
*1: H: HEAT ANALYSIS, P: PRODUCT ANALYSIS, C: CONTROL ANALYSIS, R: RECHECK ANALYSIS
*2: L: LOT TEST, H: HEAT CONTROL TEST, A: ADDITION TEST, R: RECHECK TEST
*3: L: LONGITUDINAL, T: TRANSVERSE
*4: STRIP G: 1/2 in, H: RING 1/2 in, N: 1 in, K: 1 1/2 in, S: 12 mm.
*5: V: V (CVN)
*6: F: 10x10mm, 7: 10x7.5mm, 6: 10x6.7mm, 5: 10x5mm, 3: 10x3.3mm, 2: 10x2.5mm
*7: E - EACH VALUE, A - AVERAGE VALUE
*8: HEAT TREATMENT, Q&T: QUENCHED & TEMPERED, N - normalization
*9: M: WET FLUORESCENT MAGNETIC PARTICLE TEST, EMI: ELECTROMAGNETIC TEST,UT: ULTRASONIC TEST
UTB: PIPE BODY UT FOR LAMINATION, UTE: PIPE ENDS UT FOR LAMINATION
UTS: PIPE WALL THICKNESS UT
*10: 5 - NOTCH 5t, 12 - NOTCH 12.5t

TOTAL: QUANTITY OF PIPES 58 PCS NET WEIGHT 74.747 T LENGTH 2270.78 FT

1 PIPES BY WORKSHOP PIPE ROLLING MILL #3 HEAD OF MILL PHILIN D.A. CHIEF OF OCD AREA LITVINOVICH I.A.

MATERIAL HARDNESS CONFORMS TO NACE MR 0175/MR 0103. WE CONFIRM THAT PIPES HAS NO CONTAMINATION BY MERCURY AND NO REPAIR BY WELDING HAS BEEN CARRIED OUT. MTC COMPLY WITH THE STANDARD EN 10204 3.1. COUNTRY OF MELT IS RUSSIA

INSPECTOR - RYZHOVA A.N.
VOLZHSKY PIPE PLANT
DATE: 26.09.2013

CHEMICAL COMPOSITION, %

	Nb	Nb+V+Ti	Nb+V	Cr+Cu+Mo+Ni+V	CEIIW	CEpcm
	x 100	x 100	x 100	x 10	x 100	x 100
	5 max	15 max	6 max	18 max	43 max	25 max
1HI	0	0	0	4	31	-
1PI	0	0	0	4	32	-
1PI	0	0	0	4	32	-

HARDNESS TEST. MAX 22HRC

PIPE NO.	MILL CONTROL PROT. No.		QUADRANT No 1			
8	6728	OD	1	1	1	1
		AD	1	1	1	1
		ID	1	1	1	1

OD-OUTSIDE DIAMETER
AD-AVERAGE DIAMETER
ID-INSIDE DIAMETER

Temperature at the exit of Quenching furnace: 1634 F - 1706 F

Temperature at the exit of Tempering furnace: 1166 F - 1220 F

ACTUAL HYDROSTATIC TEST PRESSURE: 6540 PSI

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