

430 Hamilton Rd Bossier City, LA 71111

MATERIAL TEST REPORT

Product:	CA 5.500 0.304 17.00 P110HC LTC R3 SMLS CENT PRIME	Thread Type:	LTC	Sales Order:	SO0001414
Heat:	YR517050	Lot:	YR517050-465	Purchase Order:	SBB-0062
Specification: API 5CT Latest Edition					

-----Sold To -----


SB NAVITAS
480, 435 - 4TH AVE SW
CALGARY AB
Calgary , CA

CHEMICAL ANALYSIS

	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	AL	V	B	Cb	Ti	Ca	N	O	CEQ	DI	PrM
HEAT	0.25	1.41	0.009	0.005	0.23	0.09	0.06	0.39	0.01		0.037	0.009	0.0016		0.027				0.577		
CHECK	0.254	1.386	0.008	-0.001	0.199	0.072	0.053	0.390	0.018	0.004	0.033	0.007	0.0009		0.046	0.0005			0.576		
CHECK	0.256	1.405	0.007	-0.001	0.204	0.072	0.053	0.393	0.018	0.004	0.035	0.007	0.0013		0.048	0.0005			0.582		

MECHANICAL PROPERTIES

4E10721P T	Type Strip	Size 1"	Orient Long.	Yield KSI 123.16	Tensile KSI 132.66	Elong in 2" 22.25	Y/T Ratio 0.9284	Collapse, PSI 12200		Hydrotest, PSI 11600							
								Flattening OK	Hold Time: 5 SEC								
				Impact Tests			Hardness										
Test	Loc	Size	Temp	Notch	Energy (AVG)	%Shear	Scale	Lat Exp.	I.D.	M.W.	O.D.	Mean #	Scale	I.D.	M.W.	O.D.	Mean #
	L	3/4	32		87	90		HRC				27.63					

Inspections Performed							Remarks					From the office of:				
<u>Test</u>	<u>Type</u>	<u>Pass</u>	<u>Cal.</u>	<u>Test</u>	<u>Type</u>	<u>Pass</u>	Release # SO0001414 Processor: BMG W/O #: 4611-010 Rolled material supplied by: BMG									
												This is to certify that the product described with was manufactured, supplied, tested, and/or inspected in accordance with the specification and the order, and fulfills the requirements in such respect.				