



REPORTE DE CALIDAD DE TUBERIA  
(Quality Report)

Cod: FPD-PR-01-06

Edición : 0      Revisión : 3

Fecha de Rev: 12 Noviembre 2012

SISTEMA DE GESTION DE LA CALIDAD

Numero de Planta(Facility No.)

Forza Steel Salinas Victoria NL

Tipo de Producto (Type of Pipe/Delivery Condition):

HSS (Hollow Structural Steel)

REPORTE FS(Report No.)

13/06/2013 -22

Epesor (Thickness)	0.188		ulg ( ft )	4.775	mm
Longitud (Length)	40.026	HSS	pies ( ft )	12.2	metros
Dímetro (Diameter) / Tamaño (Size)		8 X 4	ulg ( in )	0.192	metros
Peso (mass)	592.339		lbs. (pound)	268.680	kg.
Peso Lineal (Mass per meter)	14.799		lbs. X pie (pound/ft)	22.023	kg. X metro
Tubería (line pipe):	Grado B				

Orden Interna de Fabricación ( Work Order )

289

ESTE CERTIFICADO AMPARA 510 PIEZAS EN LARGOS NOMINALES DE 12.20 / TUBO DE 8 X 4 X .188 DE ESPESOR ASTM A-500 Gr.B

NUMEROS DE TUBO QUE PERTENECEN A ESTA COLADA.289-9-2\_289-12-11\_289-9-3\_289-12-12\_289-9-4\_289-12-13\_289-9-5\_289-12-14\_289-9-6\_289-12-15\_289-9-7\_289-12-16\_289-9-8\_289-12-17\_289-9-9\_289-12-18\_289-9-10\_289-12-19\_289-9-11\_289-12-20\_289-9-12\_289-12-21\_289-9-13\_289-12-22\_289-9-14\_289-12-23\_289-9-15\_289-12-24\_289-9-16\_289-12-25\_289-9-17\_289-12-26\_289-9-18\_289-12-27\_289-9-19\_289-12-28\_289-9-20\_289-12-29\_289-9-21\_289-12-30\_289-9-22\_289-12-31\_289-9-23\_289-12-32\_289-9-24\_289-12-33\_289-9-25\_289-12-34\_289-9-26\_289-12-35\_289-9-27\_289-12-36\_289-9-28\_289-12-37\_289-9-29\_289-12-38\_289-9-30\_289-12-39\_289-9-31\_289-9-32\_289-9-33\_289-9-34\_289-9-35\_289-9-36\_289-9-37\_289-9-38\_289-10-2\_289-10-3\_289-10-4\_289-10-5\_289-10-6\_289-10-7\_289-10-8\_289-10-9\_289-10-10\_289-10-11\_289-10-12\_289-10-13\_289-10-14\_289-10-15\_289-10-16\_289-10-17\_289-10-18\_289-10-19\_289-10-20\_289-10-21\_289-10-22\_289-10-23\_289-10-24\_289-10-25\_289-10-26\_289-10-27\_289-10-28\_289-10-29\_289-10-30\_289-10-31\_289-10-32\_289-10-33\_289-10-34\_289-10-35\_289-10-36\_289-10-37\_289-10-38\_289-11-2\_289-11-3\_289-11-4\_289-11-5\_289-11-6\_289-11-7\_289-11-8\_289-11-9\_289-11-10\_289-11-11\_289-11-12\_289-11-13\_289-11-14\_289-11-15\_289-11-16\_289-11-17\_289-11-18\_289-11-19\_289-11-20\_289-11-21\_289-11-22\_289-11-23\_289-11-24\_289-11-25\_289-11-26\_289-11-27\_289-11-28\_289-11-29\_289-11-30\_289-11-31\_289-11-32\_289-11-33\_289-11-34\_289-11-35\_289-11-36\_289-11-37\_289-11-38\_289-11-39\_289-12-3\_289-12-4\_289-12-5\_289-12-6\_289-12-7\_289-12-8\_289-12-9\_289-12-10\_289-12-11\_289-12-12\_289-12-13\_289-12-14\_289-12-15\_289-12-16\_289-12-17\_289-12-18\_289-12-19\_289-12-20\_289-12-21\_289-12-22\_289-12-23\_289-12-24\_289-12-25\_289-12-26\_289-12-27\_289-12-28\_289-12-29\_289-12-30\_289-12-31\_289-12-32\_289-12-33\_289-12-34\_289-12-35\_289-12-36\_289-12-37\_289-12-38\_289-12-39\_289-12-40\_289-12-41\_289-12-42\_289-12-43\_289-12-44\_289-12-45\_289-12-46\_289-12-47\_289-12-48\_289-12-49\_289-12-50\_289-12-51\_289-12-52\_289-12-53\_289-12-54\_289-12-55\_289-12-56\_289-12-57\_289-12-58\_289-12-59\_289-12-60\_289-12-61\_289-12-62\_289-12-63\_289-12-64\_289-12-65\_289-12-66\_289-12-67\_289-12-68\_289-12-69\_289-12-70\_289-12-71\_289-12-72\_289-12-73\_289-12-74\_289-12-75\_289-12-76\_289-12-77\_289-12-78\_289-12-79\_289-12-80\_289-12-81\_289-12-82\_289-12-83\_289-12-84\_289-12-85\_289-12-86\_289-12-87\_289-12-88\_289-12-89\_289-12-90\_289-12-91\_289-12-92\_289-12-93\_289-12-94\_289-12-95\_289-12-96\_289-12-97\_289-12-98\_289-12-99\_289-13-1\_289-13-2\_289-13-3\_289-13-4\_289-13-5\_289-13-6\_289-13-7\_289-13-8\_289-13-9\_289-13-10\_289-13-11\_289-13-12\_289-13-13\_289-13-14\_289-13-15\_289-13-16\_289-13-17\_289-13-18\_289-13-19\_289-13-20\_289-13-21\_289-13-22\_289-13-23\_289-13-24\_289-13-25\_289-13-26\_289-13-27\_289-13-28\_289-13-29\_289-13-30\_289-13-31\_289-13-32\_289-13-33\_289-13-34\_289-13-35\_289-13-36\_289-13-37\_289-13-38\_289-13-39\_289-13-40\_289-13-41\_289-13-42\_289-13-43\_289-13-44\_289-13-45\_289-13-46\_289-13-47\_289-13-48\_289-13-49\_289-13-50\_289-13-51\_289-13-52\_289-13-53\_289-13-54\_289-13-55\_289-13-56\_289-13-57\_289-13-58\_289-13-59\_289-13-60\_289-13-61\_289-13-62\_289-13-63\_289-13-64\_289-13-65\_289-13-66\_289-13-67\_289-13-68\_289-13-69\_289-13-70\_289-13-71\_289-13-72\_289-13-73\_289-13-74\_289-13-75\_289-13-76\_289-13-77\_289-13-78\_289-13-79\_289-13-80\_289-13-81\_289-13-82\_289-13-83\_289-13-84\_289-13-85\_289-13-86\_289-13-87\_289-13-88\_289-13-89\_289-13-90\_289-13-91\_289-13-92\_289-13-93\_289-13-94\_289-13-95\_289-13-96\_289-13-97\_289-13-98\_289-13-99\_289-14-1\_289-14-2\_289-14-3\_289-14-4\_289-14-5\_289-14-6\_289-14-7\_289-14-8\_289-14-9\_289-14-10\_289-14-11\_289-14-12\_289-14-13\_289-14-14\_289-14-15\_289-14-16\_289-14-17\_289-14-18\_289-14-19\_289-14-20\_289-14-21\_289-14-22\_289-14-23\_289-14-24\_289-14-25\_289-14-26\_289-14-27\_289-14-28\_289-14-29\_289-14-30\_289-14-31\_289-14-32\_289-14-33\_289-14-34\_289-14-35\_289-14-36\_289-14-37\_289-14-38\_289-14-39\_289-14-40\_289-14-41\_289-14-42\_289-14-43\_289-14-44\_289-14-45\_289-14-46\_289-14-47\_289-14-48\_289-14-49\_289-14-50\_289-14-51\_289-14-52\_289-14-53\_289-14-54\_289-14-55\_289-14-56\_289-14-57\_289-14-58\_289-14-59\_289-14-60\_289-14-61\_289-14-62\_289-14-63\_289-14-64\_289-14-65\_289-14-66\_289-14-67\_289-14-68\_289-14-69\_289-14-70\_289-14-71\_289-14-72\_289-14-73\_289-14-74\_289-14-75\_289-14-76\_289-14-77\_289-14-78\_289-14-79\_289-14-80\_289-14-81\_289-14-82\_289-14-83\_289-14-84\_289-14-85\_289-14-86\_289-14-87\_289-14-88\_289-14-89\_289-14-90\_289-14-91\_289-14-92\_289-14-93\_289-14-94\_289-14-95\_289-14-96\_289-14-97\_289-14-98\_289-14-99\_289-15-1\_289-15-2\_289-15-3\_289-15-4\_289-15-5\_289-15-6\_289-15-7\_289-15-8\_289-15-9\_289-15-10\_289-15-11\_289-15-12\_289-15-13\_289-15-14\_289-15-15\_289-15-16\_289-15-17\_289-15-18\_289-15-19\_289-15-20\_289-15-21\_289-15-22\_289-15-23\_289-15-24\_289-15-25\_289-15-26\_289-15-27\_289-15-28\_289-15-29\_289-15-30\_289-15-31\_289-15-32\_289-15-33\_289-15-34\_289-15-35\_289-15-36\_289-15-37\_289-15-38\_289-15-39\_289-16-2\_289-16-3\_289-16-4\_289-16-5\_289-16-6\_289-16-7\_289-16-8\_289-16-9.

# colada (Heat)	Composición Química del Acero (Steel Chemical Composition)											Límite Tracción (Tensile Strength) KSI (MPA)			Límite Elástico (Yield Point) KSI (MPA)		% Elongación (Elongation)		
	C	Si	Mn	P	S	V	B	Cr	Cu	Ni	Mo	CiW	L	T	W	L	T	L	T
	233978	0.128	0.0075	0.585	0.019	0.009	0.002	0	0.023	0.017	0.014	0.006	0.160333	67.43(463.74)	N/A	N/A	61.20(420.89)	N/A	45

NUMEROS DE TUBO QUE PERTENECEN A ESTA COLADA.289-2-31\_289-6-22\_289-2-32\_289-6-23\_289-2-33\_289-6-24\_289-3-2\_289-6-25\_289-3-4\_289-6-26\_289-3-5\_289-6-27\_289-3-7\_289-6-28\_289-3-8\_289-6-29\_289-3-9\_289-6-30\_289-3-10\_289-6-31\_289-3-11\_289-6-32\_289-3-12\_289-6-33\_289-3-13\_289-6-34\_289-3-14\_289-6-35\_289-3-15\_289-6-36\_289-3-16\_289-6-37\_289-3-17\_289-6-38\_289-3-18\_289-7-3\_289-3-19\_289-7-4\_289-3-20\_289-7-5\_289-3-21\_289-7-6\_289-3-22\_289-7-7\_289-3-23\_289-7-8\_289-3-24\_289-7-9\_289-3-25\_289-7-10\_289-3-26\_289-7-11\_289-3-27\_289-7-12\_289-3-28\_289-7-13\_289-3-29\_289-7-14\_289-3-30\_289-7-15\_289-3-31\_289-7-16\_289-3-32\_289-7-17\_289-3-33\_289-7-18\_289-3-34\_289-7-19\_289-7-20\_289-7-21\_289-7-22\_289-7-23\_289-7-24\_289-7-25\_289-7-26\_289-7-27\_289-7-28\_289-7-29\_289-7-30\_289-7-31\_289-7-32\_289-7-33\_289-7-34\_289-7-35\_289-7-36\_289-7-37\_289-7-38\_289-7-39\_289-7-40\_289-7-41\_289-7-42\_289-7-43\_289-7-44\_289-7-45\_289-7-46\_289-7-47\_289-7-48\_289-7-49\_289-7-50\_289-7-51\_289-7-52\_289-7-53\_289-7-54\_289-7-55\_289-7-56\_289-7-57\_289-7-58\_289-7-59\_289-7-60\_289-7-61\_289-7-62\_289-7-63\_289-7-64\_289-7-65\_289-7-66\_289-7-67\_289-7-68\_289-7-69\_289-7-70\_289-7-71\_289-7-72\_289-7-73\_289-7-74\_289-7-75\_289-7-76\_289-7-77\_289-7-78\_289-7-79\_289-7-80\_289-7-81\_289-7-82\_289-7-83\_289-7-84\_289-7-85\_289-7-86\_289-7-87\_289-7-88\_289-7-89\_289-7-90\_289-7-91\_289-7-92\_289-7-93\_289-7-94\_289-7-95\_289-7-96\_289-7-97\_289-7-98\_289-7-99\_289-8-1\_289-8-2\_289-8-3\_289-8-4\_289-8-5\_289-8-6\_289-8-7\_289-8-8\_289-8-9\_289-8-10\_289-8-11\_289-8-12\_289-8-13\_289-8-14\_289-8-15\_289-8-16\_289-8-17\_289-8-18\_289-8-19\_289-8-20\_289-8-21\_289-8-22\_289-8-23\_289-8-24\_289-8-25\_289-8-26\_289-8-27\_289-8-28\_289-8-29\_289-8-30\_289-8-31\_289-8-32\_289-8-33\_289-8-34\_289-8-35\_289-8-36\_289-8-37\_289-8-38\_289-8-39\_289-8-40\_289-8-41\_289-8-42\_289-8-43\_289-8-44\_289-8-45\_289-8-46\_289-8-47\_289-8-48\_289-8-49\_289-8-50\_289-8-51\_289-8-52\_289-8-53\_289-8-54\_289-8-55\_289-8-56\_289-8-57\_289-8-58\_289-8-59\_289-8-60\_289-8-61\_289-8-62\_289-8-63\_289-8-64\_289-8-65\_289-8-66\_289-8-67\_289-8-68\_289-8-69\_289-8-70\_289-8-71\_289-8-72\_289-8-73\_289-8-74\_289-8-75\_289-8-76\_289-8-77\_289-8-78\_289-8-79\_289-8-80\_289-8-81\_289-8-82\_289-8-83\_289-8-84\_289-8-85\_289-8-86\_289-8-87\_289-8-88\_289-8-89\_289-8-90\_289-8-91\_289-8-92\_289-8-93\_289-8-94\_289-8-95\_289-8-96\_289-8-97\_289-8-98\_289-8-99\_289-9-1\_289-9-2\_289-9-3\_289-9-4\_289-9-5\_289-9-6\_289-9-7\_289-9-8\_289-9-9\_289-9-10\_289-9-11\_289-9-12\_289-9-13\_289-9-14\_289-9-15\_289-9-16\_289-9-17\_289-9-18\_289-9-19\_289-9-20\_289-9-21\_289-9-22\_289-9-23\_289-9-24\_289-9-25\_289-9-26\_289-9-27\_289-9-28\_289-9-29\_289-9-30\_289-9-31\_289-9-32\_289-9-33\_289-9-34\_289-9-35\_289-9-36\_289-9-37\_289-9-38\_289-9-39\_289-9-40\_289-9-41\_289-9-42\_289-9-43\_289-9-44\_289-9-45\_289-9-46\_289-9-47\_289-9-48\_289-9-49\_289-9-50\_289-9-51\_289-9-52\_289-9-53\_289-9-54\_289-9-55\_289-9-56\_289-9-57\_289-9-58\_289-9-59\_289-9-60\_289-9-61\_289-9-62\_289-9-63\_289-9-64\_289-9-65\_289-9-66\_289-9-67\_289-9-68\_289-9-69\_289-9-70\_289-9-71\_289-9-72\_289-9-73\_289-9-74\_289-9-75\_289-9-76\_289-9-77\_289-9-78\_289-9-79\_289-9-80\_289-9-81\_289-9-82\_289-9-83\_289-9-84\_289-9-85\_289-9-86\_289-9-87\_289-9-88\_289-9-89\_289-9-90\_289-9-91\_289-9-92\_289-9-93\_289-9-94\_289-9-95\_289-9-96\_289-9-97\_289-9-98\_289-9-99\_290-1-1\_290-1-2\_290-1-3\_290-1-4\_290-1-5\_290-1-6\_290-1-7\_290-1-8\_290-1-9\_290-1-10\_290-1-11\_290-1-12\_290-1-13\_290-1-14\_290-1-15\_290-1-16\_290-1-17\_290-1-18\_290-1-19\_290-1-20\_290-1-21\_290-1-22\_290-1-23\_290-1-24\_290-1-25\_290-1-26\_290-1-27\_290-1-28\_290-1-29\_290-1-30\_290-1-31\_290-1-32\_290-1-33\_290-1-34\_290-1-35\_290-1-36\_290-1-37\_290-1-38\_290-1-39\_290-1-40\_290-1-41\_290-1-42\_290-1-43\_290-1-44\_290-1-45\_290-1-46\_290-1-47\_290-1-48\_290-1-49\_290-1-50\_290-1-51\_290-1-52\_290-1-53\_290-1-54\_290-1-55\_290-1-56\_290-1-57\_290-1-58\_290-1-59\_290-1-60\_290-1-61\_290-1-62\_290-1-63\_290-1-64\_290-1-65\_290-1-66\_290-1-67\_290-1-68\_290-1-69\_290-1-70\_290-1-71\_290-1-72\_290-1-73\_290-1-74\_290-1-75\_290-1-76\_290-1-77\_290-1-78\_290-1-79\_290-1-80\_290-1-81\_290-1-82\_290-1-83\_290-1-84\_290-1-85\_290-1-86\_290-1-87\_290-1-88\_290-1-89\_290-1-90\_290-1-91\_290-1-92\_290-1-93\_290-1-94\_290-1-95\_290-1-96\_290-1-97\_290-1-98\_290-1-99\_290-2-1\_290-2-2\_290-2-3\_290-2-4\_290-2-5\_290-2-6\_290-2-7\_290-2-8\_290-2-9\_290-2-10\_290-2-11\_290-2-12\_290-2-13\_290-2-14\_290-2-15\_290-2-16\_290-2-17\_290-2-18\_290-2-19\_290-2-20\_290-2-21\_290-2-22\_290-2-23\_290-2-24\_290-2-25\_290-2-26\_290-2-27\_290-2-28\_290-2-29\_290-2-30\_290-2-31\_290-2-32\_290-2-33\_290-2-34\_290-2-35\_290-2-36\_290-2-37\_290-2-38\_290-2-39\_290-2-40\_290-2-41\_290-2-42\_290-2-43\_290-2-44\_290-2-45\_290-2-46\_290-2-47\_290-2-48\_290-2-49\_290-2-50\_290-2-51\_290-2-52\_290-2-53\_290-2-54\_290-2-55\_290-2-56\_290-2-57\_290-2-58\_290-2-59\_290-2-60\_290-2-61\_290-2-62\_290-2-63\_290-2-64\_290-2-65\_290-2-66\_290-2-67\_290-2-68\_290-2-69\_290-2-70\_290-2-71\_290-2-72\_290-2-73\_290-2-74\_290-2-75\_290-2-76\_290-2-77\_290-2-78\_290-2-79\_290-2-80\_290-2-81\_290-2-82\_290-2-83\_290-2-84\_290-2-85\_290-2-86\_290-2-87\_290-2-88\_290-2-89\_290-2-90\_290-2-91\_290-2-92\_290-2-93\_290-2-94\_290-2-95\_290-2-96\_290-2-97\_290-2-98\_290-2-99\_290-3-1\_290-3-2\_290-3-3\_290-3-4\_290-3-5\_290-3-6\_290-3-7\_290-3-8\_290-3-9\_290-3-10\_290-3-11\_290-3-12\_290-3-13\_290-3-14\_290-3-15\_290-3-16\_290-3-17\_290-3-18\_290-3-19\_290-3-20\_290-3-21\_290-3-22\_290-3-23\_290-3-24\_290-3-25\_290-3-26\_290-3-27\_290-3-28\_290-3-29\_290-3-30\_290-3-31\_290-3-32\_290-3-33\_290-3-34\_290-3-35\_290-3-36\_290-3-37\_290-3-38\_290-3-39\_290-3-40\_290-3-41\_290-3-42\_290-3-43\_290-3-44\_290-3-45\_290-3-46\_290-3-47\_290-3-48\_290-3-49\_290-3-50\_290-3-51\_290-3-52\_290-3-53\_290-3-54\_290-3-55\_290-3-56\_290-3-57\_290-3-58\_290-3-59\_290-3-60\_290-3-61\_290-3-62\_290-3-63\_290-3-64\_290-3-65\_290-3-66\_290-3-67\_290-3-68\_290-3-69\_290-3-70\_290-3-71\_290-3-72\_290-3-73\_290-3-74\_290-3-75\_290-3-76\_290-3-77\_290-3-78\_290-3-79\_290-3-80\_290-3-81\_290-3-82\_290-3-83\_290-3-84\_290-3-85\_290-3-86\_290-3-87\_290-3-88\_290-3-89\_290-3-90\_290-3-91\_290-3-92\_290-3-93\_290-3-94\_290-3-95\_290-3-96\_290-3-97\_290-3-98\_290-3-99\_290-4-1\_290-4-2\_290-4-3\_290-4-4\_290-4-5\_290-4-6\_290-4-7\_290-4-8\_290-4-9\_290-4-10\_290-4-11\_290-4-12\_290-4-13\_290-4-14\_290-4-15\_290-4-16\_290-4-17\_290-4-18\_290-4-19\_290-4-20\_290-4-21\_290-4-22\_290-4-23\_290-4-24\_290-4-25\_290-4-26



REPORTE DE CALIDAD DE TUBERIA  
(Quality Report)

Cod: FPD-PR-01-06

Edición: 0 Revisión: 3

SISTEMA DE GESTION DE LA CALIDAD

Fecha de Rev: 12 Noviembre 2012

Numero de Planta(Facility No.):

Forza Steel Salinas Victoria NL

Tipo de Producto(Type of Pipe/Delivery Condition):

HSS (Hollow Structural Steel)

REPORTE FS(Report No.)

13/06/2013 -25

Espeor (Thickness)	0.250		pulg ( ft )	6.350	mm
Longitud (Length)	40.026	HSS	pies ( ft )	12.2	metros
Díámetro (Diameter) / Tamaño (Size)		8 X 4	pulg ( in )	0.190	metros
Peso (mass)	773.673		lbs. (pound)	350.932	kg.
Peso Lineal (Mass per meter)	19.329		lbs. X pie (pound/ft)	28.765	kg. X metro
Tubería (line pipe):	Grado B				

Orden Interna de Fabricación ( Work Order )

290

ESTE CERTIFICADO AMPARA 107 PIEZAS EN LARGOS NOMINALES DE 12.20 / TUBO DE 8 X 4 X .250 DE ESPESOR ASTM A-500 Gr.B

NUMEROS DE TUBO QUE PERTENECEN A ESTA COLADA 290-13-2\_290-13-3\_290-13-4\_290-13-5\_290-13-6\_290-13-7\_290-13-8\_290-13-9\_290-13-10\_290-13-11\_290-13-12\_290-13-14\_290-13-15\_290-13-19\_290-13-20\_290-13-21\_290-13-22\_290-13-23\_290-13-24\_290-13-25\_290-13-26\_290-13-27\_290-13-28\_290-13-29\_290-14-2\_290-14-3\_290-14-4\_290-14-5\_290-14-6\_290-14-7\_290-14-8\_290-14-9\_290-14-10\_290-14-11\_290-14-12\_290-14-13\_290-14-14\_290-14-15\_290-14-16\_290-14-17\_290-14-18\_290-14-19\_290-14-20\_290-14-21\_290-14-22\_290-14-23\_290-14-24\_290-14-25\_290-14-26\_290-14-27\_290-14-28\_290-14-29.

# colada (Heat)	Composición Química del Acero (Steel Chemical Composition).												Propiedades mecánicas del Acero de la Tubería (Steel Mechanical's Properties).						
	C	Si	Mn	P	S	V	B	Cr	Cu	Ni	Mo	Cilw	Limite Tracción (Tensile Strength) KSI (MPA)			Limite Elastico (Yield Point) KSI (MPA)		% Elongación (Elongation)	
													L	T	W	L	T	L	T
134008	0.165	0.1286	0.84	0.016	0.006	0	0	0.028	0.041	0.026	0.012	0.21597	73.33(504.31)	N/A	N/A	56.72(390.08)	N/A	47	N/A

NUMEROS DE TUBO QUE PERTENECEN A ESTA COLADA 290-15-2\_290-15-3\_290-15-4\_290-15-5\_290-15-6\_290-15-7\_290-15-8\_290-15-9\_290-15-10\_290-15-11\_290-15-12\_290-15-13\_290-15-14\_290-15-15\_290-15-16\_290-15-17\_290-15-18\_290-15-19\_290-15-20\_290-15-21\_290-15-22\_290-15-23\_290-15-24\_290-15-25\_290-15-26\_290-15-27\_290-15-28\_290-16-2\_290-16-3\_290-16-4\_290-16-5\_290-16-6\_290-16-7\_290-16-8\_290-16-9\_290-16-10\_290-16-11\_290-16-12\_290-16-13\_290-16-14\_290-16-15\_290-16-16\_290-16-17\_290-16-18\_290-16-19\_290-16-20\_290-16-21\_290-16-22\_290-16-23\_290-16-24\_290-16-25\_290-16-26\_290-16-27\_290-16-28\_290-16-29.

# colada (Heat)	Composición Química del Acero (Steel Chemical Composition).												Propiedades mecánicas del Acero de la Tubería (Steel Mechanical's Properties).						
	C	Si	Mn	P	S	V	B	Cr	Cu	Ni	Mo	Cilw	Limite Tracción (Tensile Strength) KSI (MPA)			Limite Elastico (Yield Point) KSI (MPA)		% Elongación (Elongation)	
													L	T	W	L	T	L	T
134009	0.164	0.1234	0.821	0.026	0.005	0	0	0.024	0.04	0.02	0.011	0.21343	73.19(503.35)	N/A	N/A	57.87(397.99)	N/A	40	N/A

Prueba Hidros. (PSI) (Hydrostatic Test).		Tratamiento Térmico (Heat Treatment).			Pruebas de Laboratorio Propiedades Mecánicas (Mechanical Test Results)						
Presión (Pressure).	Duración (Time).	Tipo (Type).	T°C min. (Temp).	Metalografía	Método de Inspección No-Destructiva (Non destructive Test Method).	Indicadores de Referencia (Reference Indicator)	Resultado de Macrografía (Macrographic Test Result)	Prueba de Aplastamiento (Flattening Test)	Resultado de Prueba de Impacto (Charpy Test) Metal Base (Base Metal). Prom(Average).	Temperatura de Prueba de Impacto (Charpy Test Temperature).	Doblez Guiado ( Bending Test ) (QW-160)
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Este certificado ampara los numeros de serie de los tubos manifestados, los cuales fueron fabricados, inspeccionados y aceptados de acuerdo a los requerimientos de las especificacion arriba mencionada; FORZA STEEL no garantiza el producto que sea utilizado inapropiadamente

*[Handwritten Signature]*  
13/06/2013

Ing. Leticia Botello Elizondo  
Aseguramiento de Calidad  
(Quality Assurance Chief)

FORZA STEEL SA DE CV  
FST 020821 MJ1  
Carretera Salinas Victoria Km. 2 S/N, Salinas Victoria N.L. C.P. 65500