

APPENDIX L

TASK 7 – SLEEVE FILLET WELDS – WATER BACKING

SLEEVE FILLET WELDS

SLEEVE FILLET WELDS														Weld Data										Back Surface Data										
Weld	Thickness	Process	Dia	Electrode	Position	Gas	WFS	Amps	Volts	TRIM	Arc Control	ESO	TS ipm	HI kJ/mm	Cooling Rate										Cooling Rate									
															Max. T	Time to Max T	Time to 1000C	Time to 800C	Time to 500C	Time to 100C	ΔT 8/5	ΔT 1000-100 C	ΔT Peak- 100C	Slope at 540C	Max. T	Time to Max T	Time to 800C	Time to 500C	Time to 100C	ΔT 8/5	ΔT Peak- 100C	Slope at 540C		
SW1	6.4	SMAW	2.4	718MC	2F	NA	NA	90	21	NA	NA	NA	8.50	0.53	1251.7	75.12	76.52	78.16	81.72	119.64	3.6	43.12	44.52	-63.3	535.6	81.44	0	83.52	120.28	83.52	38.84	0		
SW2	6.4	SMAW	2.4	718MC	3F-UP	NA	NA	90	21	NA	NA	NA	3.50	1.29	1255.4	109.8	112.96	115.56	121.84	161.2	6.3	48.24	51.4	-37.3	573.7	120.16	0	124.48	162.4	124.48	42.24	-30		
SW3	6.4	SMAW	3.2	718MC	2F	NA	NA	110	20.5	NA	NA	NA	6.00	0.90	1252.9	59.04	60.92	62.72	66.2	82.4	3.5	21.48	23.36	-92.5	581.4	65.72	0	68.28	83.36	68.28	17.64	-40		
SW4	6.4	SMAW	3.2	718MC	3F-UP	NA	NA	105	20.5	NA	NA	NA	4.00	1.29	1250.8	40.4	41.44	42.36	46.36	59.92	4.0	18.48	19.52	-64.5	444.7	46.4	0	0	76.32	0	29.92	0		
SW5	8	SMAW	3.2	718MC	2F	NA	NA	120	22	NA	NA	NA	7.00	0.90	1253.8	76.75	78.05	79.65	83.9	125.55	4.3	47.5	48.8	-42.6	505.2	84.55	0	85.5	125.55	85.5	41	0		
SW6	8	SMAW	3.2	718MC	3F-UP	NA	NA	120	22	NA	NA	NA	4.00	1.56	1253.8	132.4	135.45	138.45	145.45	196.4	7.0	60.95	64	-32.8	523.6	145.5	0	148.95	194.85	148.95	49.35	0		
SW7	11	SMAW	3.2	Filarc 108MP	3F-DWN	NA	NA	160	23.5	NA	NA	NA	10.00	0.90	1256	47.65	48.9	51.65	55.9	103.45	4.3	54.55	55.8	-53.3	361.8	56.05	0	0	103.7	0	47.65	0		
SW8	11	SMAW	3.2	Filarc 108MP	2F	NA	NA	160	23.5	NA	NA	NA	7.00	1.29	1262	72.95	74.05	76.9	83.9	145.25	7.0	71.2	72.3	-30.2	442.4	85.5	0	0	143.65	0	58.15	0		
SW13	6.4	P-GMAW	0.9	K-NOVA	3F-UP	C10	200	100	20.5	51	45	13	9.00	0.53	1254.6	125.36	126.76	128.68	134.92	175.8	6.2	49.04	50.44	-43.5	548.2	133.8	0	136.44	176	136.44	42.2	-37		
SW14	6.4	P-GMAW	0.9	K-NOVA	2F	C10	200	100	20.5	51	45	13	3.75	1.29	1254.6	145.92	147.08	150.08	155.88	212.2	5.8	65.12	66.28	-40.2	488.2	156.56	0	0	212.8	0	56.24	0		
SW15	8	P-GMAW	0.9	K-NOVA	3F-UP	C10	200	100	20.5	51	45	13	9.00	0.53	1252.9	97.8	98.95	101	104.35	127.15	3.3	28.2	29.35	-68.9	427.5	104.95	0	0	139.8	0	34.85	0		
SW16	8	P-GMAW	0.9	K-NOVA	2F	C10	200	100	20.5	51	45	13	3.75	1.29	1252.9	111.55	113.65	115.3	119.45	191.2	4.2	77.55	79.65	-50.8	449.4	122.15	0	0	193.15	0	71	0		
SW17	11	P-GMAW	0.9	ER70XTi	3F-UP	C10	200	100	20.5	51	45	13	9.00	0.53	1262.4	112.4	113.8	114.7	116.7	148.3	2.0	34.5	35.9	-115.1	237.7	122.05	0	0	150.9	0	28.85	0		
SW18	11	P-GMAW	0.9	ER70XTi	2F	C10	200	100	20.5	51	45	13	3.75	1.29	1262.4	68.15	68.9	71.4	75.25	137.4	3.8	68.5	69.25	-68.3	277	79.5	0	0	141.55	0	62.05	0		
SW33	6.4	GS-FCAW	1.2	DS II 71T-12	3F-UP	C25	325	200	25.5	NA	NA	19	6.00	1.99	1252.3	22.52	23.36	29.28	39.36	85.92	10.1	62.6	63.4	-23.1	744.3	31.24	0	42.64	87.36	42.64	56.12	-21		
SW34	6.4	GS-FCAW	1.2	DS II 71T-12	2F	C25	360	220	26.5	NA	NA	19	10.75	1.29	1254.8	22.48	23.56	26.76	30.6	66.24	3.8	42.7	43.8	-50.0	672.7	28.12	0	35.76	69.2	35.76	41.08	-15		
SW35	8	GS-FCAW	1.2	DS II 71T-12	3F-UP	C25	325	200	25.5	NA	NA	19	6.00	1.99	1253	136.8	142.3	147.5	158.1	180.9	10.6	38.6	44.1	-25.7	624.5	145.6	0	153.65	182.95	153.65	37.35	-34		
SW36	8	GS-FCAW	1.2	DS II 71T-12	2F	C25	360	220	26.5	NA	NA	19	10.75	1.29	1252.8	32.75	35	37.65	43.5	67.2	5.9	32.2	34.5	-32.6	480.9	40.95	0	0	72.95	0	32	0		
SW37	11	GS-FCAW	1.2	DSII 80T1-Ni1	3F-UP	C25	325	200	25.5	NA	NA	19	6.00	1.99	1256.5	142.55	144	145.6	149.95	207.75	4.3	63.8	65.2	-22.7	393.7	152.05	0	0	203.4	0	51.35	0		
SW38	11	GS-FCAW	1.2	DSII 80T1-Ni1	2F	C25	360	220	26.5	NA	NA	19	10.75	1.29	1257.7	66.9	68	67.2	75	166	7.8	98.0	99.1	-33.3	371.4	78.3	0	0	159.4	0	81.1	0		
SW43	6.4	MCAW	1.2	MC70	3F-UP	C10	160	110	17.5	43	35	13	8.50	0.53	1254.9	27.76	29.4	31.16	34.2	49.76	3.0	20.4	22.0	-90.9	522.1	34.4	0	36.16	49.92	36.16	15.52	0		
SW44	6.4	MCAW	1.2	MC70	2F	C10	235	165	23	43	35	13	7.00	1.29	1254.8	76.68	79.32	80.64	86.44	129.08	5.8	49.8	52.4	-28.6	612.2	83.56	0	88.64	125.56	88.64	42	0		
SW45	8	MCAW	1.2	MC70	3F-UP	C10	160	110	17.5	43	35	13	8.50	0.53	1253.7	87.15	88.6	89.6	92.8	128.7	3.2	40.1	41.6	-76.3	382.6	93.9	0	0	128.25	0	34.35	0		
SW46	8	MCAW	1.2	MC70	2F	C10	235	165	23	43	35	13	7.00	1.29	1253.7	101.9	103.85	105.9	111.6	140	5.7	36.2	38.1	-40.0	498.3	110.55	0	0	143.4	0	32.85	0		
SW47	11	MCAW	1.2	MC100	3F-UP	C10	160	110	17.5	43	35	13	8.50	0.53	1184.3	108.95	109.95	112	116	162	4.0	52.1	53.1	-62.5	289.7	121.7	0	0	167.45	0	45.75	0		
SW48	11	MCAW	1.2	MC100	2F	C10	235	165	23	43	35	13	7.00	1.29	1262.3	79.3	81.5	83.9	88.4	155.55	4.5	74.1	76.3	-50.4	327.9	91.15	0	0	154.55	0	63.4	0		
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