



ULTRASONIC CORROSION SURVEY

Survey Name: CNRL

LSD: 02-22-074-11W6	Dwg: 156	Vessel Number: A0421438	Manufacturer: OPSCO	Survey Date: 2/01/11
District Unit: WEST COUNTY		Vessel Name: LINE HEATER - PIPING	Serial Number: HC.42.2000.2554.AZ.B2	Inspector: RAJ KHAN
Location: VALHALLA		Year Built: 1996	Shell MAWP PSI: 3130 MAWT F: 250	Process: SOUR
Skid: SKD0242		Tag Number: -	Tube MAWP PSI: 1480 MAWT F: 250	Project #: C70099
		CRN: N0291.2/N0292.2	Vessel CA: 0.0000	

Band	Description		Readings						Year	Avg Inches	Min Inches	Nominal	CA	TMIN	Recommended Next Inspection	Recommended Retirement Date
			1	2	3	4	5	6								
156-05	Piping	Baseline	0.681	0.649	0.636	0.638	0.644	0.655	2006	0.651	0.636	0.4380	0.0548	0.2540	2012	2014
Shape	90° Elbow	Shell Side	Previous	0.681	0.649	0.636	0.638	0.644	0.655	2006	0.651	0.636	Comments-->			
OD	3.5		Current	0.422	0.397	0.392	0.391	0.400	0.397	2011	0.400	0.391				
Spec.	B31.3			ST Loss MPY						0.049	OK					
Material	A 234 - WPB			LT Loss MPY						0.049						
156-10	Piping	Baseline	0.392	0.392	0.387	0.387	0.386	0.397	2006	0.390	0.386	0.4380	0.0548	0.2540	2012	2031
Shape	90° Elbow	Shell Side	Previous	0.392	0.392	0.387	0.387	0.386	0.397	2006	0.390	0.386	Comments-->			
OD	3.5		Current	0.392	0.392	0.387	0.387	0.386	0.397	2011	0.390	0.386				
Spec.	B31.3			ST Loss MPY						0.000	OK					
Material	A 234 - WPB			LT Loss MPY						0.000						
156-15	Piping	Baseline	0.416	0.407	0.393	0.384	0.385	0.393	2006	0.396	0.384	0.4380	0.0548	0.2540	2012	2031
Shape	90° Elbow	Shell Side	Previous	0.416	0.407	0.393	0.384	0.385	0.393	2006	0.396	0.384	Comments-->			
OD	3.5		Current	0.412	0.402	0.392	0.384	0.385	0.386	2011	0.394	0.384				
Spec.	B31.3			ST Loss MPY						0.000	OK					
Material	A 234 - WPB			LT Loss MPY						0.000						
156-20	Piping	Baseline	0.406	0.409	0.410	0.408	0.407	0.407	2006	0.408	0.406	0.4380	0.0548	0.2540	2012	2031
Shape	Cylindrical	Shell Side	Previous	0.406	0.409	0.410	0.408	0.407	0.407	2006	0.408	0.406	Comments-->			
OD	3.5		Current	0.406	0.409	0.410	0.408	0.407	0.407	2011	0.408	0.406				
Spec.	B31.3			ST Loss MPY						0.000	OK					
Material	A 106 - B			LT Loss MPY						0.000						



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				1	2	3	4	5	6								
156-25	Piping	Baseline	0.294	0.273	0.268	0.267	0.266	0.271	2006	0.273	0.266	0.3430	0.0429	0.0847	2012	2031	
Shape	90° Elbow	Tube Side	Previous	0.294	0.273	0.268	0.267	0.266	2006	0.273	0.266	Comments-->					
OD	2.375		Current	0.294	0.273	0.268	0.267	0.266	2011	0.273	0.266						
Spec.	B31.3									ST Loss MPY	0.000	Caution					
Material	A 234 - WPB									LT Loss MPY	0.000						
156-30	Piping	Baseline	0.257	0.248	0.242	0.244	0.248	0.249	2006	0.248	0.242	0.3000	0.0375	0.1249	2012	2031	
Shape	90° Elbow	Tube Side	Previous	0.257	0.248	0.242	0.244	0.248	2006	0.248	0.242	Comments-->					
OD	3.5		Current	0.257	0.248	0.242	0.244	0.248	2011	0.248	0.242						
Spec.	B31.3									ST Loss MPY	0.000	Caution					
Material	A 234 - WPB									LT Loss MPY	0.000						
156-35	Piping	Baseline	0.309	0.300	0.296	0.299	0.301	0.304	2006	0.302	0.296	0.3000	0.0375	0.1249	2012	2031	
Shape	90° Elbow	Tube Side	Previous	0.309	0.300	0.296	0.299	0.301	2006	0.302	0.296	Comments-->					
OD	3.5		Current	0.309	0.300	0.296	0.299	0.301	2011	0.301	0.296						
Spec.	B31.3									ST Loss MPY	0.000	OK					
Material	A 234 - WPB									LT Loss MPY	0.000						
156-40	Piping	Baseline	0.286	0.287	0.283	0.283	0.288	0.287	2006	0.286	0.283	0.3000	0.0375	0.1249	2012	2031	
Shape	Cylindrical	Tube Side	Previous	0.286	0.287	0.283	0.283	0.288	2006	0.286	0.283	Comments-->					
OD	3.5		Current	0.286	0.287	0.283	0.283	0.288	2011	0.286	0.283						
Spec.	B31.3									ST Loss MPY	0.000	OK					
Material	A 106 - B									LT Loss MPY	0.000						



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			1	2	3	4	5	6								
156-45	Piping	Baseline	0.284	0.280	0.278	0.279	0.280	0.286	2006	0.281	0.278	0.3000	0.0375	0.1249	2012	2031
Shape	90° Elbow	Tube Side	Previous	0.284	0.280	0.278	0.279	0.280	0.286	2006	0.281	0.278	Comments-->			
OD	3.5		Current	0.284	0.280	0.278	0.279	0.280	0.286	2011	0.281	0.278				
Spec.	B31.3			ST Loss MPY						0.000	OK					
Material	A 234 - WPB			LT Loss MPY						0.000						
156-50	Piping	Baseline	0.341	0.333	0.330	0.324	0.324	0.320	2006	0.329	0.320	0.3000	0.0375	0.1249	2012	2031
Shape	90° Elbow	Tube Side	Previous	0.341	0.333	0.330	0.324	0.324	0.320	2006	0.329	0.320	Comments-->			
OD	3.5		Current	0.341	0.333	0.330	0.324	0.324	0.320	2011	0.329	0.320				
Spec.	B31.3			ST Loss MPY						0.000	OK					
Material	A 234 - WPB			LT Loss MPY						0.000						