



ULTRASONIC CORROSION SURVEY

Survey Name: **BARRICK ENERGY INC.**

Survey Date: 2/8/2010

LSD: 14-24-068-22W5 Dwg: 64 Vessel Number: A0103737 Manufacturer: WESTERN Inspector: MWS
 District Unit: FIELD Vessel Name: HORIZONTAL SEPARATOR Serial Number: 2848 Process: SOUR
 Location: STURGEON LAKE SOUTH Year Built: 1972 Shell MAWP PSI: 1100 MAWT F: 550
 Skid: SKD0001 Tag Number: - Tube MAWP PSI: 0 MAWT F: 0
 CRN: B5682.2 Vessel CA: 0.0630

Band	Description		Baseline	Previous			Current			Next Inspection	Nominal	TMIN	ST Loss	LT Loss	Recommended		
									Material	CA		MPY	MPY	Retirement	Date		
#Name?	Top	Head	Baseline	2.449	2.505	2.564	2.623	2.637	2.670	2006	2.575	2.449	2.2500	0.0630	2.1348	2011	2030
Shape	Ellipsoidal	Shell Side	Previous	2.449	2.505	2.564	2.623	2.637	2.670	2006	2.575	2.449	Comments-->				
OD	72		Current	2.449	2.505	2.564	2.623	2.637	2.670	2010	2.575	2.449					
Spec.	VIII Div 1										ST Loss MPY	0.000	OK				
Material	SA 516 - 70										LT Loss MPY	0.000					
#Name?	Upper	Shell	Baseline	2.387	2.414	2.414	2.414	2.412	2.406	2006	2.408	2.387	2.3750	0.0630	2.1964	2011	2030
Shape	Cylindrical	Shell Side	Previous	2.387	2.414	2.414	2.414	2.412	2.406	2006	2.408	2.387	Comments-->				
OD	72		Current	2.387	2.414	2.414	2.414	2.412	2.406	2010	2.408	2.387					
Spec.	VIII Div 1										ST Loss MPY	0.000	OK				
Material	SA 516 - 70										LT Loss MPY	0.000					
#Name?	Lower	Shell	Baseline	2.383	2.390	2.369	2.379	2.368	2.394	2006	2.381	2.368	2.3750	0.0630	2.1964	2011	2030
Shape	Cylindrical	Shell Side	Previous	2.383	2.390	2.369	2.379	2.368	2.394	2006	2.381	2.368	Comments-->				
OD	72		Current	2.383	2.390	2.369	2.379	2.368	2.394	2010	2.381	2.368					
Spec.	VIII Div 1										ST Loss MPY	0.000	OK				
Material	SA 516 - 70										LT Loss MPY	0.000					
#Name?		Shell	Baseline	2.452	2.453	2.454	2.455	2.457	2.458	2010	2.455	2.452	2.3750	0.0630	2.1964	2011	2030
Shape	Cylindrical	Shell Side	Previous									Comments-->					
OD	72		Current	2.452	2.453	2.454	2.455	2.457	2.458	2010	2.455	2.452					
Spec.	VIII Div 1										ST Loss MPY		OK				
Material	SA 516 - 70										LT Loss MPY	0.000					



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 Skid: SKD0001 Tag Number: - Tube MAWP PSI: 0 MAWT F: 0
 CRN: B5682.2 Vessel CA: 0.0630

Band	Description		Baseline	Previous			Current			Next Inspection	Nominal	TMIN	ST Loss	LT Loss	Recommended Retirement		
									Material	CA		MPY	MPY	Date	Date		
#Name?	Shell		Baseline	2.454	2.454	2.457	2.468	2.471	2.458	2010	2.460	2.454	2.3750	0.0630	2.1964	2011	2030
Shape	Cylindrical	Shell Side	Previous	Comments-->													
OD	72		Current	2.454	2.454	2.457	2.468	2.471	2.458	2010	2.460	2.454					
Spec.	VIII Div 1									ST Loss MPY		OK					
Material	SA 516 - 70									LT Loss MPY		0.000					
#Name?	Bottom	Head	Baseline	2.489	2.536	2.615	2.652	2.627	2.674	2006	2.599	2.489	2.2500	0.0630	2.1348	2011	2030
Shape	Ellipsoidal	Shell Side	Previous	Comments-->													
OD	72		Current	2.489	2.536	2.615	2.476	2.627	2.674	2010	2.570	2.476					
Spec.	VIII Div 1									ST Loss MPY		0.003					
Material	SA 516 - 70									LT Loss MPY		0.003					
#Name?		Head	Baseline	2.502	2.498	2.483	2.487	2.489	2.476	2010	2.489	2.476	2.2500	0.0630	2.1348	2011	2030
Shape	Ellipsoidal	Shell Side	Previous	Comments-->													
OD	72		Current	2.502	2.498	2.483	2.487	2.489	2.476	2010	2.489	2.476					
Spec.	VIII Div 1									ST Loss MPY		OK					
Material	SA 516 - 70									LT Loss MPY		0.000					
#Name?	Boot	Shell	Baseline	0.930	0.937	0.917	0.924	0.918	0.913	2006	0.923	0.913	0.8750	0.0630	0.7018	2011	2030
Shape	Cylindrical	Shell Side	Previous	Comments-->													
OD	20		Current	0.930	0.937	0.917	0.924	0.918	0.913	2010	0.923	0.913	NOMINAL & MATERIAL ASSUMED				
Spec.	VIII Div 1									ST Loss MPY		0.000					
Material	SA 106 - B									LT Loss MPY		0.000					



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Band	Description		Baseline	Previous			Current			Next Inspection	Nominal	TMIN	ST Loss	LT Loss	Recommended		
									Material	CA		MPY	MPY	Retirement	Date		
#Name?	Boot	Head	Baseline	0.833	0.732	0.667	0.649	0.669	0.686	2006	0.706	0.649	0.7500	0.0630	0.5851	2011	2030
Shape	Ellipsoidal	Shell Side	Previous	0.833	0.732	0.667	0.649	0.669	0.686	2006	0.706	0.649	Comments-->				
OD	20		Current	0.789	0.715	0.649	0.649	0.669	0.686	2010	0.693	0.649	NOMINAL & MATERIAL ASSUMED MINOR LOSS				
Spec.	VIII Div 1								ST Loss MPY	0.000		Caution					
Material	SA 516 - 70								LT Loss MPY	0.000							
#Name?		Piping	Baseline	0.205	0.198	0.200	0.204	0.213	0.214	2006	0.206	0.198	0.2000	0.0250	0.0509	2011	2027
Shape	90° Elbow	Shell Side	Previous	0.205	0.198	0.200	0.204	0.213	0.214	2006	0.206	0.198	Comments-->				
OD	1.9		Current	0.189	0.180	0.170	0.195	0.192	0.196	2010	0.187	0.170					
Spec.	B31.3								ST Loss MPY	0.007		Caution					
Material	A 234 - WPB								LT Loss MPY	0.007							
#Name?		Piping	Baseline	0.301	0.290	0.292	0.292	0.293	0.290	2010	0.293	0.290	0.3000	0.0375	0.0937	2011	2030
Shape	90° Elbow	Shell Side	Previous									Comments-->					
OD	3.5		Current	0.301	0.290	0.292	0.292	0.293	0.290	2010	0.293	0.290					
Spec.	B31.3								ST Loss MPY			OK					
Material	A 234 - WPB								LT Loss MPY	0.000							
#Name?		Piping	Baseline	0.213	0.217	0.210	0.210	0.211	0.211	2006	0.212	0.210	0.2180	0.0272	0.0636	2011	2030
Shape	90° Elbow	Shell Side	Previous	0.213	0.217	0.210	0.210	0.211	0.211	2006	0.212	0.210	Comments-->				
OD	2.375		Current	0.210	0.214	0.209	0.210	0.211	0.207	2010	0.210	0.207					
Spec.	B31.3								ST Loss MPY	0.001		OK					
Material	A 234 - WPB								LT Loss MPY	0.001							



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Band	Description	Baseline	Previous	Current	Next Inspection	Nominal	TMIN	ST Loss MPY	LT Loss MPY	Recommended Retirement Date						
#Name?	Piping	Baseline	0.317	0.307	0.308	0.306	0.308	0.311	2010	0.310	0.306	0.3000	0.0375	0.0937	2011	2030
Shape	90° Elbow	Shell Side	Previous	Comments-->												
OD	3.5	Current	0.317	0.307	0.308	0.306	0.308	0.311	2010	0.310	0.306					
Spec.	B31.3							ST Loss MPY				OK				
Material	A 234 - WPB							LT Loss MPY		0.000						
#Name?	Piping	Baseline	0.305	0.300	0.301	0.298	0.298	0.309	2010	0.302	0.298	0.3000	0.0375	0.0937	2011	2030
Shape	90° Elbow	Shell Side	Previous	Comments-->												
OD	3.5	Current	0.305	0.300	0.301	0.298	0.298	0.309	2010	0.302	0.298					
Spec.	B31.3							ST Loss MPY				OK				
Material	A 234 - WPB							LT Loss MPY		0.000						
#Name?	Piping	Baseline	0.304	0.289	0.283	0.294	0.293	0.304	2006	0.295	0.283	0.3000	0.0375	0.0937	2011	2030
Shape	90° Elbow	Shell Side	Previous	Comments-->												
OD	3.5	Current	0.296	0.287	0.283	0.289	0.292	0.295	2010	0.290	0.283					
Spec.	B31.3							ST Loss MPY		0.000		OK				
Material	A 234 - WPB							LT Loss MPY		0.000						
#Name?	Piping	Baseline	0.224	0.226	0.220	0.229	0.231	0.221	2010	0.225	0.220	0.2180	0.0272	0.0636	2011	2030
Shape	90° Elbow	Shell Side	Previous	Comments-->												
OD	2.375	Current	0.224	0.226	0.220	0.229	0.231	0.221	2010	0.225	0.220					
Spec.	B31.3							ST Loss MPY				OK				
Material	A 234 - WPB							LT Loss MPY		0.000						



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Band	Description	Baseline	Previous	Current	Next Inspection	Nominal	TMIN	ST Loss MPY	LT Loss MPY	Recommended Retirement Date						
#Name?	Piping	Baseline	0.199	0.194	0.201	0.210	0.216	0.218	2010	0.206	0.194	0.2180	0.0272	0.0636	2011	2030
Shape	90° Elbow	Shell Side	Previous	Comments-->												
OD	2.375	Current	0.199	0.194	0.201	0.210	0.216	0.218	2010	0.206	0.194					
Spec.	B31.3							ST Loss MPY			OK					
Material	A 234 - WPB							LT Loss MPY	0.000							
#Name?	Piping	Baseline	0.305	0.287	0.282	0.283	0.290	0.298	2010	0.291	0.282	0.3000	0.0375	0.0937	2011	2030
Shape	90° Elbow	Shell Side	Previous	Comments-->												
OD	3.5	Current	0.305	0.287	0.282	0.283	0.290	0.298	2010	0.291	0.282					
Spec.	B31.3							ST Loss MPY			OK					
Material	A 234 - WPB							LT Loss MPY	0.000							
#Name?	Piping	Baseline	0.306	0.300	0.299	0.299	0.298	0.305	2010	0.301	0.298	0.3000	0.0375	0.0937	2011	2030
Shape	90° Elbow	Shell Side	Previous	Comments-->												
OD	3.5	Current	0.306	0.300	0.299	0.299	0.298	0.305	2010	0.301	0.298					
Spec.	B31.3							ST Loss MPY			OK					
Material	A 234 - WPB							LT Loss MPY	0.000							