

PRESSURE VESSEL & COLUMN INSPECTION REPORT

Date: Mar. 4, 2016

Report # : IR160304GENj

Plant	Jackfish Creek	Op Unit	EC-NO	System / LSD:	04-26-065-05w4
Asset #	66041478	Equipment ID	-	Asset Type	Separator
Description	2 Phase Separator	Prov. Insp. #	A 2792929	Serial #	2079
Manufacturer	RJV Gasfield Service	CRN	H3897.2	Year Built	1992
MAWP	4965	KPag	@ 38 °C	MDMT	-29 °C
Code	ASME VIII	Fluid Service	Natural Gas	Sweet	PWHT No
Internal Access	No	Insulated	No	Internal Coating	No
Operating Pressure	-	KPag		Operating Temp	- °C

PSV DATA

Separator				Fuel Gas Scrubber			
Serial Number:		011110-102		Serial Number:		011110-79	
Manufacturer:		Taylor		Manufacturer:		Taylor	
Model:		T-8200-1		Model:		T-8200-1	
Set Pressure	Kpa	4965		Set Pressure	Kpa	1035	
Capacity	SCFM	2614		Capacity	SCFM	582	
Inlet Size	mm	25		Inlet Size	mm	25	
Outlet Size	mm	25		Outlet Size	mm	25	
Service Date:	mm/yyyy	06/2011		Service Date:		06/2011	
Location:	On the Side of the Separator			Location:	On the Side of the Fuel Gas Scrubber		

INSPECTION SUMMARY**External:**

A visual external inspection performed to the applicable standards did not identify any concerns with the pressure boundary of this equipment, there were no significant deficiencies noted.

This equipment was in service at the time of inspection.

A thorough inspection to verify the equipment's integrity was done by VE and UT.

The nameplate is intact and legible.

There are no recommendations to be made at this time.

No NCR's were issued at this time.

The Fuel Gas Scrubber with CRN OH-0102.23 is in fair condition, the UT performed was within acceptable limits.

Internal:

There was no internal inspection or NDE performed at this time, the scope of work was for an external inspection only.

NDE:


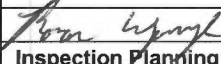
The UT readings are within acceptable limits and within the corrosion allowance: see the UT readings below.

RECOMMENDATIONS**NONCONFORMANCES / INSPECTION DEFICIENCIES****INSPECTION PLANNING**

Inspection Strategy	Availability	Inspection Interval	10 yrs
Inspection Date	03/2016	Date of Last Inspection	Date of Next Inspection
			03/2026

REPORT CERTIFICATION

The signatures below certify that inspections/tests have been completed in accordance with the identified inspection strategy and that the specified equipment is considered fit for service until the date of next inspection.

VE Inspected by / Certification #	Guy Normand	API 510# 23041		Date	Mar. 4, 2016
VI Inspected by / Certification #				Date	
Reviewed and Approved by	Roman Wynyk			Date	March 7/16
Criticality Assessment Rerun			Inspection Planning Rerun		
Assessed Next Inspection Date					

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DETAILED INSPECTION VISUAL EXTERNAL

ID	Description	Condition	Location	NCR / IDR	Comments
V1	General Other (Explain)	Good			This equipment was found to be acceptable for continued service. Any deficiencies are noted below. The nameplate is intact and legible. Covered in duct tape.
V2	General Corrosion	Good			There is no corrosion present in the areas that were visibly accessible.
V3	General Leaks	Good			No leaks were noted.
V4	Vibration	N/A			
V5	Dissimilar Flange Rating	Good			There are no dissimilar flange ratings noted on the components that are visible.
V6	Ladder/Stairway	N/A			
V7	Heads	Good			The heads are in good mechanical condition.
V8	Guy Wires	N/A			
V9	Electrical Ground	Good			The equipment is grounded through the skid package.
V10	Painted Inactive Corrosion	N/A			
V11	Coating/Painting	Good			The paint is in fair condition.
V12	Expansion Joint or Bellows	N/A			
V13	Gauge/Site Glass	Good			The gauges are legible and appear to be functioning properly.
V14	Shell	Good			The shell is in good mechanical condition.
V15	Jacket	N/A			
V21	Support Other (Explain)	N/A			
V22	Foundation	N/A			
V23	Anchor Bolts	N/A			
V24	Saddle/Skirt	Good			The skirt is in good mechanical condition.
V25	Davit	N/A			
V26	Fireproofing	N/A			
V31	Connections Other (Explain)	Good			All piping connections to the vessel are secure.
V32	Small Branches	Good			The instrumentation tubing is acceptable, no signs of leakage noted.
V33	Nozzles	Good			All visible nozzles are straight with no mechanical deficiencies noted.
V34	Manways	N/A			
V35	Reinforcing Pads	N/A			
V36	Inadequate Thread Engagement	Good			The thread engagement is adequate.
V37	Bolting	Good			The studs / nuts are secure.
V38	Flanges	Good			All flanges are intact with no defects noted.
V39	Leak Clamps	N/A			
V41	Insulation Other (Explain)	N/A			
V42	Damage	N/A			
V43	Penetrations	N/A			
V44	Insulation Jacket	N/A			
V45	Banding	N/A			
V46	Seals/Joints	N/A			
V51	Relief Devices Other (Explain)	Good			The PSV is set to the proper pop pressure and has been serviced within an acceptable time frame.
V52	Relief Devices Corrosion	N/A			
V53	Relief Devices Leaks	N/A			
V54	Restricted Inlet/Outlet	N/A			
V55	Manual Operation Lever	N/A			

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DETAILED INSPECTION VISUAL INTERNAL

ID	Description	Condition	Location	NCR / IDR	Comments
V1	General Other (Explain)				
V2	Corrosion (depth, length, width)				
V3	Erosion				
V4	Distortion				
V5	Blisters				
V6	Deposits				
V7	Heads				
V8	Welds				
V9	Nozzles				
V10	Shell				
V11	Gasket Surfaces				
V21	Internals Other(Explain)				
V22	Demister				
V23	Baffle/Weir				
V24	Sparger				
V25	Thermowells				
V26	Metallic Linings				
V27	Nonmetallic Linings				
V28	Trays				
V29	Tray Rings				
V30	Other: Welded Attachments				

DETAILED INSPECTION OTHER TECHNIQUES

ID	Location	Observation/Measurement	Acceptance Criteria	NCR / IDR	Comments
1					
2					
3					
4					
5					

DETAILED INSPECTION UT THICKNESS

CML	Nom. Thk mm	Current Reading mm	Short Term Corr Rate	Long Term Corr Rate	Remaining Life	Comments
005	11.1	11.1				3" Inlet nozzle
010	11.1	12.7				Top Head
015	12.7	12.8				Upper Shell
020	12.7	12.7				Lower shell at liquid level
025	11.1	12.8				Bottom Head
030	11.1	12.5				Bottom Head Scan
035	11.1	12.1				2" Drain nozzle 90° elbow
040	11.1	11.2				3" Outlet nozzle

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PHOTOS



Nameplate



Overall View



Fuel Gas Scrubber