

## PRESSURE VESSEL & COLUMN INSPECTION REPORT

LSD: 06-22-057-20W5

Date: 20-Jan-2017

SAP Equipment ID: 66172229

VESSEL STATIC DATA									
Plant: Foothills & BC			Op Unit Kaybob			System			
Prov. Insp. # 455864			CRN P0928.213			Equip Tag #			
Equipment Description			FILTER, 2 CHAMBER 1ST & 2ND STG INLET			Serial # 29697-01			
Manufacturer			ENERFLEX			Vessel Class Pressure Vessel			
Internal Access: Yes			Description: Removable 20" blind flange allows for torso in inspection of			Year Built 2000			
MAWP 740			Psi @ 100			MDMT -20 °F			
CODE : U			RT : 1			PWHT : Yes			
Diameter		Length		OAL		mm / in			
Shell	Mat'l	516-70N		Thickness	.625	In		Corr Allowance	.125 in
Head	Mat'l	SA-105/516-70N		Thickness	Left – 2.56	In		Corr Allowance	.125 in
					Right - .5625				
					Internal – 2.75				
Nozzle	Mat'l	106-B/105N		Thickness	Various	mm / in		Corr Allowance	NS mm / in
Internal Coating: NO			Internal Clad : NO			Capacity 2.86 Ft3			
Manway : No			Inspection Port : YES			Support: Custom Clamp			
Nozzle Rating	900	lb. ANSI		Painted : YES			Insulated No		
PROCESS DATA									
Product Description						Sour			
Operating Pressure				kPa / PSI		Operating Temperature °C / °F			
PSV STATIC DATA									
Serial No.	Location	Inlet	Size Outlet	Set Pressure	Capacity SCFM / Lbs/Hr. / GPM	Manufacturer	Model / Type	Service Date	
92108	Piping	1 in	1 in	1595	1306 scfm	Mercer	9118D1 11711N	25-May-2017	
Pentair ID SN A71432 – W37934,									
NDE Equipment records									
Procedure#	Description	Manufacturer	Model#	Serial#	Due Date				

### INSPECTION SUMMARY

The **external** visual inspection of the equipment revealed: January 2017

- No relevant indications of in-service corrosion/erosion/mechanical defects or damage
- No non-conformances
- No inspection deficiencies

Inspection report completed post May Turnaround to included updated PSV data

The **internal** visual inspection of the equipment revealed: May 2017

- No relevant indications of in-service corrosion/erosion/mechanical defects or damage in 'A' chamber. 'B' chamber cannot be accessed
- No non-conformances
- No inspection deficiencies
- No requirements for inspection interval change

### RECOMMENDATIONS

None

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### NONCONFORMANCES / INSPECTION DEFICIENCIES

None

### INSPECTION PLANNING

Inspection Strategy _____	Availability _____	Inspection Interval _____
Inspection Date _____	Date of Last Inspect _____	Date of Next Inspect _____

### 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.

Inspected by Keith Courneyea  Date 20-Jan-2017

Reviewed and Approved by \_\_\_\_\_ Date \_\_\_\_\_

Criticality Assessment Rerun \_\_\_\_\_ Inspection Planning Rerun \_\_\_\_\_

Assessed Next Inspection Date \_\_\_\_\_

### DETAILED INSPECTION VISUAL EXTERNAL

ID	Description	Condition	Location	NCR	Comments
V1	General Other (Please Explain)	Good			
V2	General Corrosion	None			
V3	General Leaks	None			
V4	Vibration	None			
V5	Dissimilar Flange Rating	None			
V6	Ladder/Stairway	NA			
V7	Heads	Good			
V8	Guy Wires				
V9	Electrical Ground	Good			
V10	Painted Inactive Corrosion	None			
V11	Coating/Painting	Good			
V12	Expansion Joint or Bellows	NA			
V13	Gauge/Site Glass	Good			
V14	Shell	Good			
V15	Jacket	NA			
V21	Support Other (Please explain)	NA			
V22	Foundation	Good			Steel skid
V23	Anchor Bolts	Good			
V24	Saddle/Skirt	Good			
V25	Davit	Good			
V26	Fireproofing	NA			
V31	Connections Other (Please explain)	NA			
V32	Small Branches	Good			
V33	Nozzles	Good			
V34	Manways	NA			
V35	Reinforcing Pads	Good			
V36	Inadequate Thread Engagement	None			
V37	Bolting	Good			
V38	Flanges	Good			
V39	Leak Clamps	None			
V41	Insulation Other (Please explain)	NA			
V42	Damage	NA			
V43	Penetrations	NA			
V44	Insulation Jacket	NA			
V45	Banding	NA			
V46	Seals/Joints	NA			
V51	Relief Devices Other (Please	Good			Updated from may turnaround data

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	explain)				
V52	Corrosion	None			
V53	Leaks	None			
V54	Restricted Inlet/Outlet	None			
V55	Manual Operation Lever	NA			

### DETAILED INSPECTION VISUAL INTERNAL

ID	Description	Condition	Location	NCR	Comments
V1	General Other (Please Explain)	NA			
V2	Corrosion (depth, length, width)	None			
V3	Erosion	None			
V4	Distortion	None			
V5	Blisters	None			
V6	Deposits	Yes			Minor product residue which was easily brushed away
V7	Heads	Good			
V8	Welds	Good			
V9	Nozzles	Good			
V10	Shell	Good			
V11	Gasket Surfaces	Good			
V21	Internals Other (Please explain)	Good			Visible areas of water boot and filter(s) supporting hardware showed no relevant indications of corrosion/erosion/mechanical defects.
V22	Demister	NA			
V23	Baffle/Wier	NA			
V24	Sparger	NA			
V25	Thermowells	NA			
V26	Metallic Linings	NA			
V27	Nonmetallic Linings	NA			
V28	Trays	NA			
V29	Tray Rings	NA			
V30	Other Welded Attachments	NA			

### DETAILED INSPECTION OTHER TECHNIQUES

ID	Location	Observation/Measurement	Acceptance Criteria	NCR	Comments
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

### DETAILED INSPECTION UT THICKNESS

CML	Nom. Thk	Current Reading	Short Term Corr Rate	Long Term Corr Rate	Remaining Life	Comments

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### PHOTOS



Location



Building overview



Nameplate



Overview



Inlet piping



Outlet piping



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PSV overview – location on inlet to slug catcher



PSV service tag from May 2017 turnaround



Skid grounding



Internal – Access opening showing sealing surface, portions of shell and filter mounting hardware



Internal – Access opening cover flange



Overview of 'A' chamber shell and filter mounting hardware. 'B' chamber not accessible

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