

**PRESSURE VESSEL & COLUMN INSPECTION REPORT**

LSD 6-16-47-13 W5M

Date July 13, 2021

SAP Equipment ID 66097894

Report #

VESSEL STATIC DATA									
Plant				Op Unit			System		
Prov. Insp. # 0525121 NB#				CRN T 3040.231			Equip Tag #		
Equipment Description Line Heater							Serial # 009977-210		
Manufacturer NUSCO							Vessel Class		
Internal Access YES NO Description							Year Built 2005		
MAWP atmospheric kPa / PSI @ 200 F °C / °F X							MDMT -50 F °C / °F		
CODE UM U U2				RT 1 2 3 4 100 %			PWHT		
Diameter 48"		Length (T/T) 378" mm/inX		OAL mm / in		Vertical		Horizontal X	
Shell Mat'l		Thickness		mm / in		Corr Allowance 0.125"		mm / in	
Head Mat'l		Thickness		mm / in		Corr Allowance		mm / in	
Nozzle Mat'l		Thickness		mm / in		Corr Allowance		mm / in	
Internal Coating: YES NO				Internal Clad YES NO X			Capacity m <sup>3</sup>		
Manway YES NO				Inspection Port YES NO NA			Skirt Legs Saddle X		
Nozzle Rating 900/2500 lb ANSI				Painted YES NO			Insulated YES NO		
PROCESS DATA									
Product Description						Sweet Sour			
Operating Pressure kPa / psi						Operating Temperature °C / °F			
PROTECTED BY PRD or OPPSD									
PRD STATIC DATA									
Serial No.	Location	Set Pressure	Capacity SCFM / Lbs/Hr / GPM	Manufacturer	Model / Type	Last Service Date & Company			
PRD DETAILS									
	Type (Thread/Flange)	ANSI Rating			Size (mm)				
PRD Inlet									
PRD Outlet									

**INSPECTION SUMMARY**

Vessel appears to be in good condition.

**RECOMMENDATIONS**

**NONCONFORMANCES / INSPECTION DEFICIENCIES**

**INSPECTION PLANNING**

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

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**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	<u>Warren Gill</u>		Date	<u>July 13, 2021</u>
Company	<u></u>	PESL #	<u></u>	API # <u></u>
Reviewed and Approved by	<u></u>		Date	<u></u>
	<u></u>	PESL #	<u></u>	API # <u></u>
Criticality Assessment Rerun	<u></u>	Inspection Planning Rerun	<u></u>	
Optional Rule Group Confirmed		Assessed Next Inspection Date		

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#### DETAILED INSPECTION VISUAL EXTERNAL

ID	Description	Condition	Location	NCR	Comments
V1	General Other (Please Explain)	good			No issues noted
V2	General Corrosion	good			None noted
V3	General Leaks	good			None noted
V4	Vibration	Good			Site shut in
V5	Dissimilar Flange Rating	good			None noted
V6	Ladder/Stairway/ <u>Platforms</u>	Good			
V7	Heads	Good			
V8	Guy Wires	N/A			
V9	Electrical Ground	good			grounded
V10	Painted Inactive Corrosion	good			None noted
V11	Coating/Painting	good			
V12	Expansion Joint or Bellows	N/A			
V13	Gauge/Site Glass	N/A			
V14	Shell	good			
V15	Jacket	N/A			
V21	Support Other (Please explain)	good			
V22	Foundation	good			skid on pilings
V23	Anchor Bolts	good			secure
V24	Saddle/Skirt	N/A			
V25	Davit	good			
V26	Fireproofing	N/A			
V31	Connections Other (Please explain)				
V32	Small Branches	N/A			
V33	Nozzles	good			
V34	Manways	N/A			
V35	Reinforcing Pads				
V36	Inadequate Thread Engagement	good			None noted
V37	Bolting	good			
V38	Flanges	good			
V39	Leak Clamps	N/A			
V41	Insulation Other (Please explain)	N/A			
V42	Damage	N/A			
V43	Penetrations	N/A			
V44	Insulation Jacket	N/A			
V45	Banding				
V46	Seals/Joints				
V51	Relief Devices Other (Please explain)				
V52	Corrosion	Good			None noted
V53	Leaks	good			None noted
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	Comments
V1	General Other (Please 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 (Please 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				

**Magnetic Particle Equipment records**

Procedure #	Description			
Manufacturer	Model	Serial #	Current Type	Mag Part Type
Lighting	Material + Grade	Thickness	Cal Block SN	Cal Due Date

**Liquid Penetrant Equipment records**

Procedure #	Description				
Penetrant	Solvent	Developer	Cleaner	Lighting	Material Grade + Thickness

**DETAILED INSPECTION OTHER TECHNIQUES**

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

**Ultrasonic Equipment records**

Procedure #	Description			
Test Unit	Instrument Mfr	Model #	Serial #	Cal Due Date
Probe	Frequency	Probe SN	Probe Diameter	Couplant
Cal Block	Cal Block Size	Cal Block SN	Cal Block Mtl	

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**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**



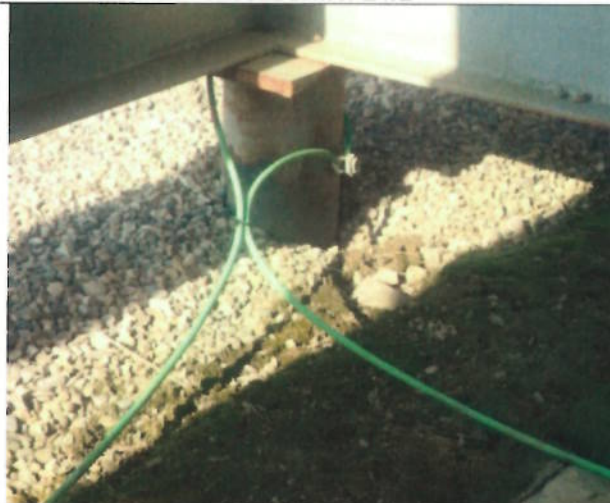
LSD SIGN



VESSEL DATA PLATE



VESSEL OVERVIEW



GROUND WIRE INTACT