Canadian Natural Resources Limited GENERAL PRESSURE VESSEL INFORMATION Job 10.112838											
District: Fort St.	Skid No.										
Facility: Daiber Compressor Station					Location (LSD): c-76-D/94-B-16						
	uipment Number: Glycol Co	ntactor					-				
	* *										
Orientation: Ver	tical										
Status: In S	Regulatory Inspection										
		PRESSURE VES	SSEL NA	AME	PLATE DATA						
"A" or "G" or "S" (Sask.) or BC Registration Number. A2573913					CRN Number: F 9192.1						
Vessel serial num	nber: 89C-4199-01			Size: 24in x 28ft							
Shell thickness: 28.5 mm					Shell material: SA 516 70N						
Head thickness: 27.3 mm					Head material: SA 516 70N						
Tube wall thickne	ess:			Tube material:							
Tube diameter:					Tube length:						
Channel thickness:					annel material:		.				
Design pressure	Shell: 1415 PSI	Operating pressure			Shell:						
	Tubes:				Tubes:						
Design Temp.	Shell: 100 °F	Shell: 100 °F					Shell:				
	Tubes:	Tubes:					Tubes:				
X-ray: RT-1	Heat treatment: HT										
Code parameters: ASME VIII, Div 1					Coated: No						
Manufacturer: Alco Gas And Oil					Year built: 1989						
Corrosion allowance: 3.1 mm PRESSURE SAFETY VALV					Manway: No						
	PRE	SSURE SAFETY	(VALV	E NA	MEPLATE DA	АТА					
PSV Tag #	Manufacture / Model / Serial	Set Pressure (PSI / kPa)	Capacity (scfm)		Size		lock alve	Location	Service by Date		
7645F	Farris / 26FA-13-120 / 461041-A10	1415 PSI	916	8	1.5 x 2	No		Mid Shell	Unified 10/2009		
	SERVIC	CE CONDITION	IS-INDI	CAT	E ALL THAT	APPL	Y				
Sweet	Sour X		Oil				Gas X		Water X		
Amine LPG Co		Cond	ndensate X			Air		Glycol X			
Other (Describe):	<u> </u>										
Inspection Inter	val			PSV	Service Interv	al					

_Date_____

(Determined by MIC in conjunction with Chief Inspector following guidelines of CNRL's Owner-User Inspection Program) Reports reviewed and accepted by:

Mechanical Integrity Coordinator_____

Fill out all forms as completely as possible. <u>All information</u> is important! Use back of sheets to record additional information or sketch if required. Copy of report to be filed by MIC at site, and copy sent to Chief Inspector

External Inspection Items	G	F	Р	N/A	Comments
Insulation Verify sealed around manways, nozzles, no damage present, and there is no egress of moisture.	x				Vessel partially insulated – no open or torn section – sealed around nozzles – no egress of moisture
External Condition Assess paint condition, areas peeling, record any corrosion, damage, etc (record location, size and depth of corrosion or damage)	X				Paint in good overall condition – no corrosion – no damage
Leakage Record any leakage at flanges, threaded joints, weep holes on repads, etc.	X				No leaks observed
Saddle/skirt Assess condition of paint, fire protection, and concrete. Look for corrosion, buckling, dents, etc. Look at vessel surface area near supports. Verify no signs of leakage at attachment to vessel and attachment welds are acceptable. Ground wire attached?	x				Skirt in good overall condition: bolted directly to skid floor – no corrosion – no buckling or dents - no sign of leaking – ground wire attached to skid
Anchor Bolts Hammer tap to ensure secure. Look for cracking in treads or signs of deformation.	X				Vessel is securely bolted to skid floor – no sign of deformation
Concrete foundation Check for cracks, spalling, etc.				X	None
Ladder / Platform Describe general condition, ensure support is secure to vessel, and describe any hazards.	X				Ladder and cage in good overall condition – secured directly to vessel shell – no loose or missing sections
Nozzle Assess paint, look for leakage, and ensure stud threads are fully engaged. Record any damage, deflection, etc. Are nozzles gusseted?	X				Nozzle paint in good condition – missing paint to less than 10% - no corrosion – all stud threads fully engaged – no leaks – no damage or deflection – nozzles are not gusseted
Gauges Ensure gauges are visible, working, no leakage, and suitable for range of MAWP/ Temp.	X				Gauges clean and functional – within range for service: 0 – 2000 PSI and -40 – 160 $^\circ F$
External Piping Ensure pipe is well supported. All clamps, supports, shoes, etc. in place. Look for evidence of structural overload, deflection, etc. Paint condition, external corrosion?	X				Piping is well supported – all clamps in place – no evidence of structural overload – no deflection – paint in good condition – no corrosion
Valving Ensure no leaks are visible. Valves are properly supported and chained if necessary.	X				Valves properly supported – no sign of leaking
PSV Ensure PSV is set at pressure at or below that of vessel.	x				PSV is set at MAWP – seal intact – no block valve – PSV discharge piping does not reduce form PSV discharge orifice size
NDE methods Was UT/ MPI done on vessel	X				Ultrasonic corrosion survey carried out, no metal thickness detected below nominal minus corrosion allowance.

Recommendations or corrective actions : Vessel is Fit for Service or describe corrective actions required) (MIC to review corrective actions with Operations, discuss with Chief Inspector where necessary, and get remedial action implemented)

Recommendations:

Summary: This vessel is in good condition, visual external and ultrasonic thickness inspection carried out – no metal thickness detected below nominal minus corrosion allowance.

Vessel is fit for service.



