

**Canadian Natural Resources Limited  
GENERAL PRESSURE VESSEL INFORMATION**

**Job 10.112837**

District: <b>Fort St. John North</b>	Skid No.
Facility: <b>Chowade Compressor Station</b>	Location (LSD): c-29-L/94-B-09
Vessel Name Equipment Number: <b>Glycol Contactor</b>	
Orientation: <b>Vertical</b>	
Status: <b>In Service</b>	<b>Regulatory Inspection</b>

**PRESSURE VESSEL NAMEPLATE DATA**

"A" or "G" or "S" (Sask.) or BC Registration Number. <b>A2985086</b>		CRN Number: H 5750.1	
Vessel serial number: 94072-AA		Size: 20 in x 28 ft.	
Shell thickness: 25.4 mm		Shell material: SA 516 70N	
Head thickness: 25.4 mm		Head material: SA 516 70N	
Tube wall thickness:		Tube material:	
Tube diameter:		Tube length:	
Channel thickness:		Channel material:	
Design pressure	Shell: 1440 PSI	Operating pressure	Shell:
	Tubes:		Tubes:
Design Temp.	Shell: 151 °F	Operating temperature	Shell:
	Tubes:		Tubes:
X-ray: RT 1		Heat treatment: HT	
Code parameters: ASME VIII, Div 1		Coated: No	
Manufacturer: Propak Systems		Year built: 1994	
Corrosion allowance: N/S		Manway: No	

**PRESSURE SAFETY VALVE NAMEPLATE DATA**

PSV Tag #	Manufacture / Model / Serial	Set Pressure (PSI / kPa)	Capacity (scfm)	Size	Block Valve	Location	Service by Date
16655F	Consolidated / 1993C SG1 / 94C3573	1400 PSI	6865	1 x 1.5	No	Mid Shell	Unified 07/2010

**SERVICE CONDITIONS-INDICATE ALL THAT APPLY**

Sweet	Sour X	Oil	Gas X	Water X
Amine	LPG	Condensate X	Air	Glycol X

Other (Describe):

**Inspection Interval** \_\_\_\_\_ **PSV Service Interval** \_\_\_\_\_

(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** \_\_\_\_\_ **Date** \_\_\_\_\_

Fill out all forms as completely as possible. All information 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

<b>External Inspection Items</b>	G	F	P	N/A	<b>Comments</b>
<b>Insulation</b> Verify sealed around manways, nozzles, no damage present, and there is no egress of moisture.				X	<b>Vessel not insulated</b>
<b>External Condition</b> Assess paint condition, areas peeling, record any corrosion, damage, etc (record location, size and depth of corrosion or damage)	X				<b>Paint in good overall condition - no corrosion – no damage</b>
<b>Leakage</b> Record any leakage at flanges, threaded joints, weep holes on repads, etc.	X				<b>No leaks observed</b>
<b>Saddle/skirt</b> 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				<b>Skirt in good overall condition: bolted directly to skid floor – no buckling or dents - no corrosion or sign of leaking at attachment welds – ground wire attached to skid</b>
<b>Anchor Bolts</b> Hammer tap to ensure secure. Look for cracking in treads or signs of deformation.	X				<b>Vessel is securely bolted to skid floor – no sign of deformation</b>
<b>Concrete foundation</b> Check for cracks, spalling, etc.				X	<b>None</b>
<b>Ladder / Platform</b> Describe general condition, ensure support is secure to vessel, and describe any hazards.	X				<b>Ladder and cage in good overall condition – secured to vessel - no loose or missing sections</b>
<b>Nozzle</b> Assess paint, look for leakage, and ensure stud threads are fully engaged. Record any damage, deflection, etc. Are nozzles gusseted?	X				<b>Nozzle paint in good condition – all stud threads fully engaged – no leaks – no damage or deflection – nozzles are not gusseted</b>
<b>Gauges</b> Ensure gauges are visible, working, no leakage, and suitable for range of MAWP/ Temp.	X				<b>Gauges clean and functional – within range for service: 0 – 2000 PSI and 50 – 300 °F</b>
<b>External Piping</b> 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				<b>Piping is well supported – all clamps in place – no evidence of structural overload – no deflection – paint in good condition – no corrosion</b>
<b>Valving</b> Ensure no leaks are visible. Valves are properly supported and chained if necessary.	X				<b>Valves properly supported – no sign of leaking</b>
<b>PSV</b> Ensure PSV is set at pressure at or below that of vessel.	X				<b>PSV is set at MAWP – seal intact – no block valve – outlet piping does not reduce form PSV discharge orifice size</b>
<b>NDE methods</b> Was UT/ MPI done on vessel (MI coordinator to review results)	X				<b>Ultrasonic corrosion survey carried out, no metal thickness detected below nominal minus corrosion allowance.</b>
<b>Other</b>					
<p><b>Recommendations or corrective actions : Vessel is Fit for Service or describe corrective actions required)</b>  (MIC to review corrective actions with Operations, discuss with Chief Inspector where necessary, and get remedial action implemented)  <b>Recommendations:</b> No Recommendations at this time.  <b>Summary: This vessel is in good condition, visual external and ultrasonic thickness inspection carried out – no metal thickness detected below nominal minus corrosion allowance.</b>  <b>Short term corrosion rate based on greatest thickness loss (head) 0.325mm per year. Retirement Date to “T”min is year 2033.</b>  <b>Vessel is fit for service.</b></p>					

**Inspected By:** Andrew Neis / D. Wiedman

**Date:** February 28, 2013



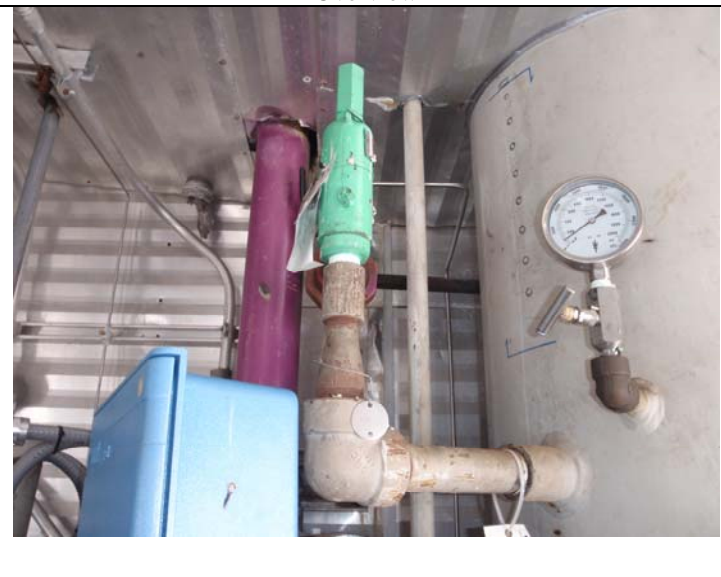
LSD



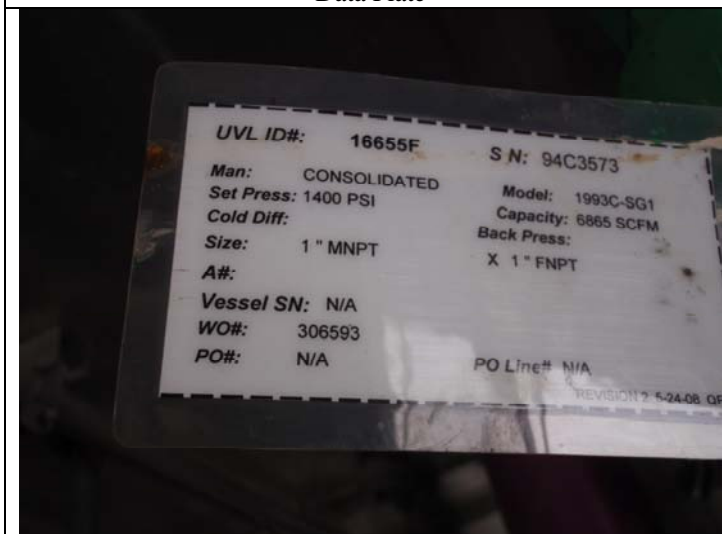
Overview



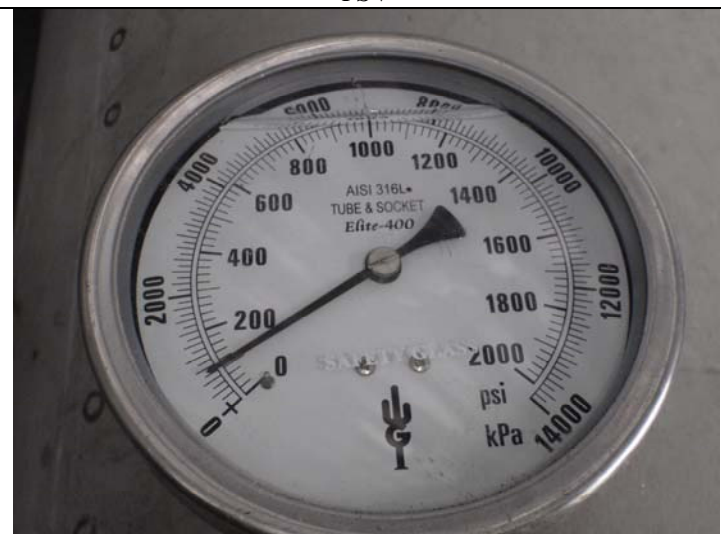
Data Plate



PSV



PSV Tag



Pressure Gauge



Overview