

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

Job # 10.111270

District: Ft. St. John	Skid No.
Facility: Helmet North Gas Plant	Location (LSD): a-67-K / 94-P-07
Vessel Name Equipment Number: Glycol Contactor	
Orientation: Vertical	
Status: Not in Service	Regulatory Inspection

PRESSURE VESSEL NAMEPLATE DATA

"A" or "G" or "S" (Sask.) or BC Registration Number. A 443834		CRN Number: L 5028.21	
Vessel serial number: 99C 6099 01		Size: 24.0 in x 28.0 ft	
Shell thickness: 28.5 mm		Shell material: SA 516 70N	
Head thickness: 27.1 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: 125 deg F	Operating temperature	Shell:
	Tubes:		Tubes:
X-ray: RT-1		Heat treatment: Yes	
Code parameters: ASME VIII, Div 1		Coated: No	
Manufacturer: ALCO Oil & Gas		Year built: 1999	
Corrosion allowance: 3.2 mm		Manway: No	

PRESSURE SAFETY VALVE NAMEPLATE DATA

PSV Tag	Manufacturer / Model / Serial	Set Pressure (PSI)	Capacity (scfm / usgpm)	Size	Block Valve	Location	Service By / Date
MVS 676	Taylor/ 82G665311 / 30665-573	1170	8854 scfm	1 1/2 x 2	No	Lower shell	Muskwa 02/03/2009
PSV Tag	Manufacturer / Model / Serial	Set Pressure (PSI)	Capacity (scfm / usgpm)	Size	Block Valve	Location	Service By / Date

SERVICE CONDITIONS-INDICATE ALL THAT APPLY

Sweet <input checked="" type="checkbox"/> X	Sour	Oil	Gas <input checked="" type="checkbox"/> X	Water <input checked="" type="checkbox"/> X
Amine	LPG	Condensate	Air	Glycol <input checked="" type="checkbox"/> X

Other (Describe):

Inspection Interval _____ **PSV Service Interval** _____

(Determined by MIC in conjunction with Chief Inspector following guidelines of CNRL Owner-User Inspection Program)

Reports reviewed and accepted by:

Mechanical Integrity Coordinator _____ **Date** _____

External Inspection Items	G	F	P	N/A	Comments
Insulation Verify sealed around manways, nozzles, no damage present, and there is no egress of moisture.				X	Not insulated
External Condition Assess paint condition, areas peeling, record any corrosion, damage, etc (record location, size and depth of corrosion or damage)	X				Paint is in good condition. No signs of damage or distortion.
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 is firmly welded to lower head. No signs of cracking on leaking from welds. No signs of buckling. Surface corrosion. Vessel is grounded through skid pilings.
Anchor Bolts Hammer tap to ensure secure. Look for cracking in treads or signs of deformation.				X	Skirt is bolted to skid floor.
Concrete foundation Check for cracks, spalling, etc.				X	Steel skid
Ladder / Platform Describe general condition, ensure support is secure to vessel, and describe any hazards.				X	No ladder or platform attached.
Nozzle Assess paint, look for leakage, and ensure stud threads are fully engaged. Record any damage, deflection, etc. Are nozzles gusseted?	X				Studs are fully engaged to nuts – no short bolts. Nozzles are not gusseted. No damage. No deflections. Surface corrosion
Gauges Ensure gauges are visible, working, no leakage, and suitable for range of MAWP/ Temp.	X				Pressure: 0 – 1500 PSI. Suitable for range of operation. Temperature: 0 to 250 F. Suitable for range of operation.
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, supports and shoes are in place. No structural overloads or deflections noted. Surface corrosion
Valving Ensure no leaks are visible. Valves are properly supported and chained if necessary.	X				Valves are properly supported. No leaks.
PSV Ensure PSV is set at pressure at or below that of vessel. Seal is intact? Supported properly? Discharges to closed header or atmosphere?	X				PSV is located on lower shell Set pressure is below MAWP. Seal intact. No block valves.
NDE methods Was UT/ MPI /PT conducted on vessel – identify areas. (MI coordinator to review results)				X	Not at this time.
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: Remove surface corrosion and paint. Summary: Vessel is in overall good condition, visual external inspection carried out. Short term corrosion rate based on 2008 UT Readings greatest thickness loss (head) 0.050mm per year. Retirement Date to “T”min is year 2096. Vessel is out of service.					

Inspected By: Mike Dutcher

Date: January 17, 2012



LSD



Overview



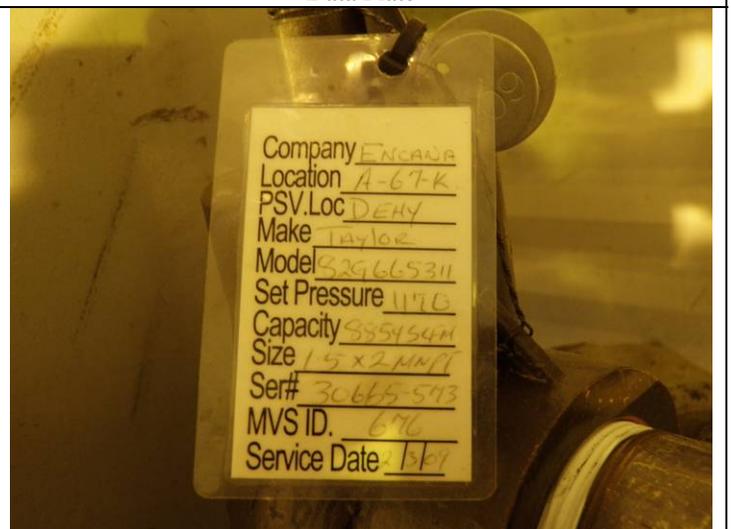
Overview



Data Plate



PSV



PSV Data Tag



PSV Service Tag



PSV Tag



Skirt - Surface corrosion