

**Canadian Natural Resources Ltd.
GENERAL PRESSURE VESSEL INFORMATION**

Job# 105.00390

District: Fort St John, BC	Skid No.
Facility: Ladyfern Compressor	Location (LSD): b-17-I/94-H-01
Vessel Name Equipment Number: Glycol Contactor	
Orientation: Vertical	
Status: In Service	Regulatory Inspection

PRESSURE VESSEL NAMEPLATE DATA

"A" or "G" or "S" (Sask.) or BC Registration Number. RAE# 2967		CRN Number: P-2889.21	
Vessel serial number: 00-2123-2		Size: 34" X 33' approx	
Shell thickness: 50.8mm		Shell material: SA-516-70	
Head thickness: 44.7mm		Head material: SA-516-70	
Tube wall thickness:		Tube material:	
Tube diameter:		Tube length:	
Channel thickness:		Channel material:	
Design pressure	Shell: 14493 Kpa	Operating pressure	Shell: 6000 Kpa
	Tubes:		Tubes:
Design Temp.	Shell: 149 deg C	Operating temperature	Shell: 20 deg C.
	Tubes:		Tubes:
X-ray: RT-1		Heat treatment: Yes	
Code parameters: ASME Sec VIII		Coated: No	
Manufacturer: Wells Hall Manufacturing Ltd.		Year built: 2001	
Corrosion allowance: N/S		Manway: No	

PRESSURE SAFETY VALVE NAMEPLATE DATA

PSV Tag #	Manufacture	Model #	Serial #	Set Pressure (PSI)	Capacity (scfm)	Service Date
PSV-300	Farris	27DA33H-M20/SP	325015-34-KE	14500 Kpa	4680	12/3003
CRN #	Service By	Block Valve	Location	Size	Code Stamp	
0G0386.9C	Pimms	No	Inlet piping	1"X1"	UV/NB	

SERVICE CONDITIONS-INDICATE ALL THAT APPLY

Sweet X	Sour	Oil	Gas X	Water X
Amine	LPG	Condensate	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

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	Vessel is 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 overall condition – No chipped or exposed metal - no previous corrosion.
Leakage Record any leakage at flanges, threaded joints, weep holes on repads, etc.	X				No leaking detected.
Saddle 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				No distortion to skirt – no leaks at skirt to shell welds. No exposed metal – no corrosion. Ground cable attached to skid unit.
Anchor Bolts Hammer tap to ensure secure. Look for cracking in treads or signs of deformation.	X				Contactor is firmly bolted to skid floor - no signs 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	None.
Nozzle Assess paint, look for leakage, and ensure stud threads are fully engaged. Record any damage, deflection, etc. Are nozzles	X				All threads connections fully engaged. No deflection – no leaks. No gussets.
Gauges Ensure gauges are visible, working, no leakage, and suitable for range of MAWP/Temp.	X				Gauges are visible, appears to be functional, no leaks and suitable for range of MAWP/Temp. Pressure gauge: 0 - 20000 Kpa – 6000 Kpa @ gauge. Temperature gauge: 10 – 260 deg C – 20 deg C @ gauge.
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				Well supported – no deflection – all clamps and shoes in place. All piping is painted and in good condition – no exposed metal or surface corrosion found.
Valving Ensure no leaks are visible. Valves are properly supported and chained if necessary.	X				Well supported – no leaks.
PSV Ensure PSV is set at pressure at or below that of vessel.			X		Located on the gas inlet piping - set above the Contactors MAWP. PSV is over due for servicing, last serviced in 2003. Discharge piping is the same size as the inlet to PSV. No block valve present. Seal is intact. PSV vents to Flare.
NDE methods Was UT/ MPI done on vessel (MI coordinator to review results)	X				Ultrasonic thickness survey carried out-no metal thickness detected below nominal.
Other					
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: 1. The PSV for this contactor is set above its MAWP – it needs to be lowered to @ or below the vessels MAWP & it is over due for servicing. Summary: This vessel is in good over all condition, visual external and ultrasonic thickness survey carried out-no metal thickness detected below nominal. Vessel is fit for service.					

Inspected By: Joseph Holdstock

Date: June-03-2010.



LSD location



Site overview



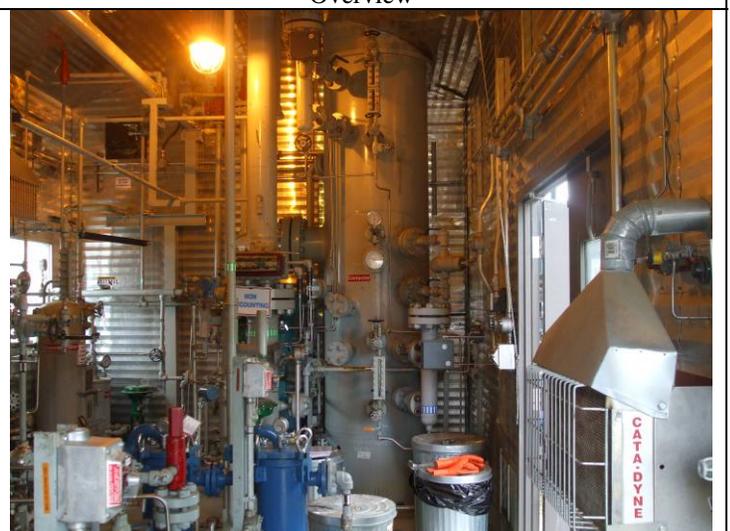
Data plate



Overview



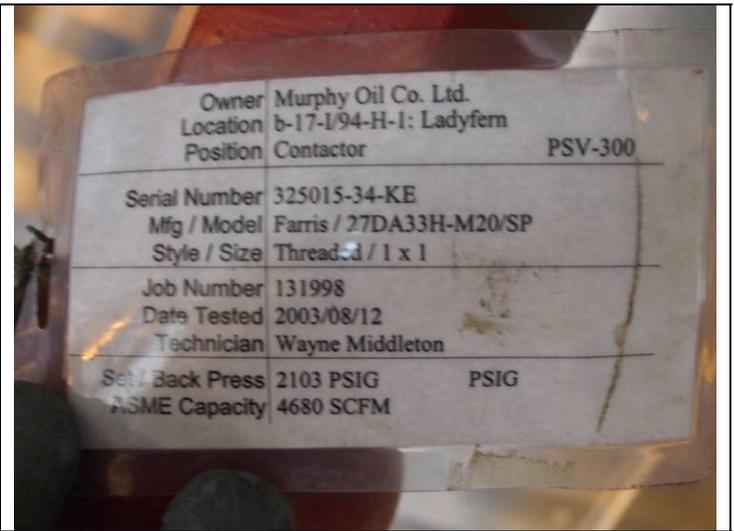
Pressure gauge



Overview



Temperature gauge



PSV service tag – last service was in 2003

Owner	Murphy Oil Co. Ltd.
Location	b-17-1/94-H-1: Ladyfern
Position	Contactora PSV-300
Serial Number	325015-34-KE
Mfg / Model	Farris / 27DA33H-M20/SP
Style / Size	Threaded / 1 x 1
Job Number	131998
Date Tested	2003/08/12
Technician	Wayne Middleton
Set Back Press	2103 PSIG PSIG
ASME Capacity	4680 SCFM