Canadian Natural Resources Limited
GENERAL PRESSURE VESSEL INFORMATION **Job # 10.111289**

District: **Ft. St. John**	Skid No.
Facility: **Helmet South Gas Plant**	Location (LSD): **c-40-G/094-P-07**
Vessel Name Equipment Number: **Sour Glycol Contactor**	
Orientation: **Vertical**	
Status: **Out of Service**	**Regulatory Inspection**

PRESSURE VESSEL NAMEPLATE DATA

"A" or "G" or "S" (Sask.) or BC Registration Number. **A 2900171**		CRN Number: **H-4602-1**	
Vessel serial number: 93C-4945-07		Size: 24.0 in x 28 '	
Shell thickness: 28.58 mm		Shell material: SA-516-70N	
Head thickness: 27.48 mm		Head material: SA-516-70N	
Tube wall thickness:		Tube material:	
Tube diameter:		Tube length:	
Channel thickness:		Channel material:	
Design pressure	Shell: 9758 Kpa	Operating pressure	Shell:
	Tubes:		Tubes:
Design Temp.	Shell: 66 C	Operating temperature	Shell:
	Tubes:		Tubes:
X-ray: RT-1		Heat treatment: Yes	
Code parameters: ASME VIII, Div 1		Coated: No	
Manufacturer: ALCO Gas & Oil Production Equipment		Year built: 1993	
Corrosion allowance: 1.6 mm		Manway: No	

PRESSURE SAFETY VALVE NAMEPLATE DATA

PSV Tag Shell	Manufacturer / Model / Serial	Set Pressure (PSI)	Capacity (scfm / usgpm)	Size	Block Valve	Location	Service By / Date
138	Consolidated / 1996C/SG / B130950X-1	8033 Kpa	5706 scfm	1" X 1.5"	No	Outlet Piping	Muskwa 6/10/20
PSV Tag Tube	Manufacturer / Model / Serial	Set Pressure (PSI)	Capacity (scfm / usgpm)	Size	Block Valve	Location	Service By / Date

SERVICE CONDITIONS-INDICATE ALL THAT APPLY

Sweet	Sour X	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 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**	
External Condition Assess paint condition, areas peeling, record any corrosion, damage, etc (record location, size and depth of corrosion or damage)	**X**				**No signs of damage or distortion._ Surface paint in Good condition with no scratches or blistering present.**
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 shell._ No signs of cracking on leaking from welds._ No signs of buckling.** **Vessel is grounded through skid pilings.**
Anchor Bolts Hammer tap to ensure secure. Look for cracking in treads or signs of deformation.	**X**				**Anchor bolts are secure to base and are all in place.**
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.**
Gauges Ensure gauges are visible, working, no leakage, and suitable for range of MAWP/ Temp.	**X**				**Temperature: -20 to 120 C _ Pressure Gauge: 0-1000 Psi_ 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.**
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 Outlet piping and is set below the vessel MAWP_ No block valves.**
NDE methods Was UT/ MPI /PT conducted on vessel – identify areas. (MI coordinator to review results)				**X**	**None 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: None at time of inspection.
Summary: Vessel is in overall good condition, visual external carried out.

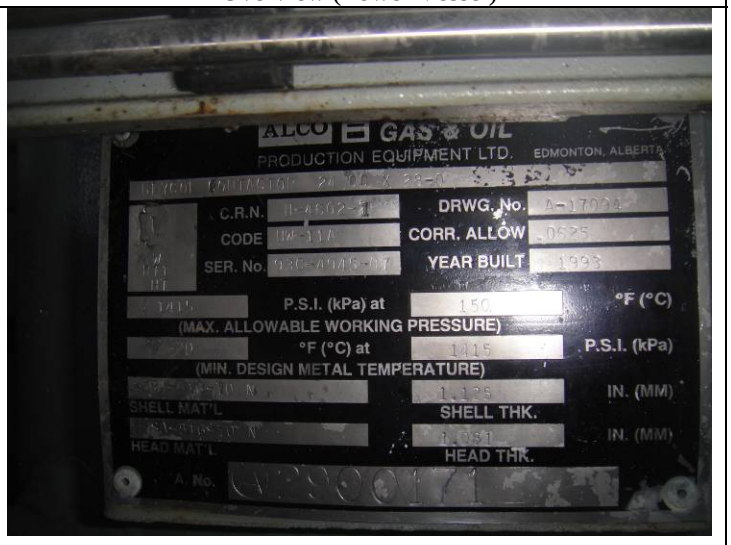
Vessel is out of service.

Inspected By: Jerald Zaderey **Date:** January 20, 2012

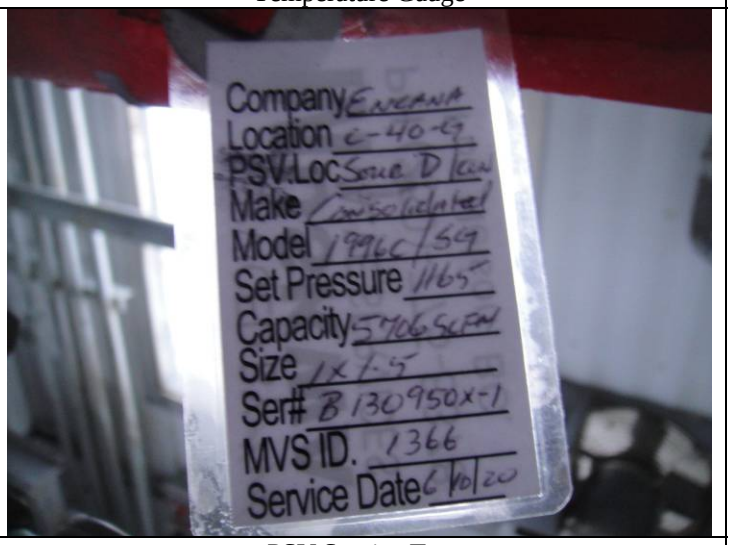
LSD

Overview (Lower Vessel)

Upper Tower



Data Plate

	
Pressure Gauge	Temperature Gauge
	
PSV	PSV Service Tag