Canadian Natural Resources Limited GENERAL PRESSURE VESSEL INFORMATION Job # 05.001541												
District: Ft. St. Jo	hn B.C.		Skid No.	Skid No.								
	d Compressor Statio	n.		Location (LSD): a-17-J / 94-B-9								
Vessel Name Equipment Number: Heat Medium Heater												
Orientation: Horizontal												
Status: In Ser	vice		Regulatory	Regulatory Inspection								
PRESSURE VESSEL NAMEPLATE DATA												
"A" or "G" o	r "S" (Sask.) or BC R C 23440		CRN Number: N 3740.213									
Vessel serial number	r: 3367		Size:	Size: 28 in. x 117 in.								
Shell thickness: 6.4		Shell materia	Shell material: SA 36									
Head thickness: 6.4			Head materia	Head material: SA 36								
Tube wall thickness:			Tube materia	Tube material:								
Tube diameter:			Tube length:									
Channel thickness:			Channel mate	Channel material:								
Design pressure	Shell: 3377 psi	Operating pro	Operating pressure		Shell:							
	Tubes:					Tubes:						
Design Temp.	Shell: 250°F	Operating ter	Operating temperature		Shell:							
	Tubes:				Tubes:							
X-ray: RT-	1		Heat treatmen	Heat treatment: Nil								
Code parameters: A	SME Sec IV		Coated: No	Coated: No								
Manufacturer: Mo	ss Fabrication	Year built: 20	Year built: 2000									
Corrosion allowance	: Not Stated		Manway: N	Manway: No								
	PI	RESSURE SAFETY VA	LVE NAMEPLA	TE DATA								
PSV Tag #	Manufacture Model #		Serial #	Serial # Set Pre		Capacity	Set Date					
						(scfm)						
CRN#	Service By	Block Valve	Location	Size		Code Stamp						
	<u> </u> SERV	<u> </u>	NDICATE ALL T	HAT APPL	Y	<u> </u>						
Sweet X	Sour	Oil			X	Water						
Amine	LPG	Condensate	densate			Glycol X						
Other (Describe):												
Inspection Interval			PSV Service I	nterval								
(Determined by MIC in conjunction with Chief Inspector following guidelines of CNRL's Owner-User Inspection Program)												
				3								
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	P	N/A	Comments
Insulation Verify sealed around manways, nozzles, no damage present, and there is no egress of moisture.	X				Good condition, no open or torn sections.
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 condition – no exposed metal – no corrosion.
Leakage Record any leakage at flanges, threaded joints, weep holes on repads, etc.	X				No leakage noted.
Skirt: Assess condition of paint, fire protection, 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				Saddles – no distortion – no mechanical damage. No corrosion at saddle to shell attachments – no leaks.
Anchor Bolts Hammer tap to ensure secure. Look for cracking in treads or signs of deformation.	X				Firmly bolted to skid.
Concrete foundation Check for cracks, spalling, etc.				X	Steel skid.
Ladder / Platform Describe general condition, ensure support is secure to vessel, describe any hazards.				X	No ladders or platforms required.
Nozzle Assess paint, look for leakage, and ensure stud threads are fully engaged. Record any damage, deflection, etc. Are nozzles gusseted?	X				Threaded fittings – fully engaged. Flanged fittings have all studs engaged to nuts – no short bolts No deflection – no leaks. No gussets.
Gauges Ensure gauges are visible, working, no leakage, and suitable for range of MAWP/Temp.	X				Temperature gauge attached and within range listed on data plate.
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 in place. Paint is in good condition – no exposed metal.
Valving Ensure no leaks are visible. Valves are properly supported and chained if necessary.	X				All valves supported, no leaks noted. No chains required
PSV Ensure PSV is set at pressure at or below that of vessel.				X	No PSV for this vessel / piping combination.
NDE methods Was UT/ MPI done on vessel (MI coordinator to review results)	X				Ultrasonic thickness inspection carried out, no metal thickness detected below nominal – no pitting detected.

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

Recommendations: No recommendations at this time.

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

Vessel is fit for service.

implemented)

Inspected By: Dellas Wiedman **Date:** March 21 – 2008

