Canadian Natural Resources Limited
GENERAL PRESSURE VESSEL INFORMATION **Job# 10.111395**

District: **Fort St. John, BC**	Skid No.
Facility: **Umbach Compressor**	Location (LSD): **c-37-F/94-H-03**
Vessel Name Equipment Number**: L.P. Flare Knock Out Drum**	
Orientation: **Horizontal**	
Status: **In Service**	**Regulatory Inspection**

PRESSURE VESSEL NAMEPLATE DATA

"A" or "G" or "S" (Sask.) or BC Registration Number. **C47878**		CRN Number: Non Code	
Vessel serial number: 12189		Size: 72 in x 160 in.	
Shell thickness: 4.8 mm		Shell material: SA 36	
Head thickness: 4.8 mm		Head material: SA 36	
Tube wall thickness:		Tube material:	
Tube diameter:		Tube length:	
Channel thickness:		Channel material:	
Design pressure	Shell: Atmospheric	Operating pressure	Shell:
	Tubes:		Tubes:
Design Temp.	Shell: 100 F	Operating temperature	Shell:
	Tubes:		Tubes:
X-ray: RT 1		Heat treatment: HT	
Code parameters: Non Code		Coated: No	
Manufacturer: BILTON		Year built: 2001	
Corrosion allowance: 3.2 mm		Manway: No	

PRESSURE SAFETY VALVE NAMEPLATE DATA

PSV Tag Shell	Manufacture // Model // Serial	Set Pressure (PSI / kPa)	Capacity (scfm / usgpm)	Block Valve	Size	Location	Service by / Date
19691F	Wellmark / W139ZV-S / 1BT04562-45	69 KPA	N/S	No	2 x 2	Top shell	Unified 01/12
PSV Tag Tube	Manufacture // Model // Serial	Set Pressure (PSI / kPa)	Capacity (scfm / usgpm)	Block Valve	Size	Location	Service by / Date

SERVICE CONDITIONS-INDICATE ALL THAT APPLY

Sweet	Sour X	Oil	Gas X	Water X
Amine	LPG	Condensate X	Air	Glycol
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. <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**	**Tin cladding over insulation – no damage present – sealed around nozzles and manway**
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 overall condition – No exposed metal – no corrosion.**
Leakage Record any leakage at flanges, threaded joints, weep holes on repads, etc.	**X**				**No leaks observed at this time**
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**				**Saddle is welded to skid - No corrosion at attachment welds to vessel - No leaks - No signs of deformation** **Skid grounded through pilings**
Anchor Bolts Hammer tap to ensure secure. Look for cracking in treads or signs of deformation.				**X**	**Firmly welded to skid pilings.**
Concrete foundation Check for cracks, spalling, etc.				**X**	**None.**
Ladder / Platform Describe general condition, ensure support is secure to vessel, 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 gusseted?	**X**				**Paint in good condition – no leaks - Stud threads are fully engaged to nuts - No damage or deflections observed – no leaks.** **Nozzles are not gusseted.**
Gauges Ensure gauges are visible, working, no leakage, and suitable for range of MAWP/ Temp.				**X**	**No Pressure gauge.** **No Temp 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**				**Piping is well supported - No signs of structural overload, all clamps and supports are in place.** **Paint in good condition – no exposed metal.**
Valving Ensure no leaks are visible. Valves are properly supported and chained if necessary.	**X**				**No leaks are visible.** **Valves are properly supported.**
PSV Ensure PSV is set at pressure at or below that of vessel.	**X**				**Located on top shell – set at 69 kpa. Seal is intact – discharges to outlet piping.**
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**

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
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: Andrew Neis / D. Wiedman **Date: March 12, 2012**

Photo Table

	
Data Plate	**Overview**
	
Overview	**Overview**