Canadian Natural Resources Limited GENERAL PRESSURE VESSEL INFORMATION Job# 10.113785														
District: Fort St John, BC					Skid No.									
Facility: West Blueberry Battery					Location (LSD): 12–29–88–25–W6M									
Vessel Name Equ	ipment Number: Flare Kno	ock out Drum												
Orientation: Hor	izontal													
Status: Sus	ended from Service		Regulatory Inspection											
PRESSURE VESSEL NAMEPLATE DATA														
"A" or "G" or "S" (Sask.) or BC Registration Number. C23407					CRN Number: Non Code									
Vessel serial number: 98120-001					Size: 36 in. x 10 ft.									
Shell thickness: 6														
Head thickness: 6	Head material: SA 36													
Tube wall thickne	ess:			Tube material:										
Tube diameter:	eter: Tube length:													
Channel thicknes	channel material:													
Design pressure			Operating pressure		Shell:									
	Tubes:			Tubes:										
Design Temp.	Shell: N/S		Operating temperature			Shell:								
Design remp.	Tubes:		Operating temperature Tubes:											
X-ray: none			Heat treatment: no											
Code parameters: Non Code					Coated: no									
Corrosion allowa	on allowance: Not stated Manway: yes													
	PRES	SSURE SAFETY	VALV	E NA	MEPLATE DA	ATA								
PSV Tag #	Manufacture / Model / Serial	Set Pressure (PSI / kPa)			Size	Block Valve		Location	Service Date					
	SERVIC	& Bryson Year built: 1998   Manway: yes Manway: yes   PRESSURE SAFETY VALVE NAMEPLATE DATA   cture / Model / Set Pressure (PSI / kPa) Capacity (scfm) Size Block Valve Location Service Date   Service CONDITIONS-INDICATE ALL THAT APPLY Service Valve Service Valve Service Valve Service Valve												
Sweet	veet Sour X			Oil			Gas X		Water X					
Amine	LPG		Cond	lensat	e X		Air		Glycol					
Other (Describe):														

Date

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\_\_\_\_\_

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	Р	N/A	Comments
<b>Insulation</b> Verify sealed around manways,					No damage present- no egress of moisture
nozzles, no damage present, and there is no	X				Sealed at man way and nozzles
egress of moisture.					
External Condition Assess paint condition,					Paint in good overall condition – No exposed metal
reas peeling, record any corrosion, damage,	X				
tc (record location, size and depth of	Λ				
corrosion or damage)					
Leakage Record any leakage at flanges,	X				No leaks observed
threaded joints, weep holes on repads, etc.					
addle/skirt Assess condition of paint, fire					Saddle: Welded directly to skid frame – no buckling or
rotection, and concrete. Look for corrosion,					dents.
buckling, dents, etc. Look at vessel surface	X				No corrosion at attachment welds to vessel – no leaks.
rea near supports. Verify no signs of leakage	Λ				Ground wire attached to skid
t attachment to vessel and attachment welds					
re acceptable. Ground wire attached?					
Anchor Bolts Hammer tap to ensure secure.					Saddle welded to skid frame.
Look for cracking in treads or signs of	Χ				
leformation.					
Concrete foundation Check for cracks,				v	
palling, etc.				X	
Ladder / Platform Describe general					
condition, ensure support is secure to vessel,				Χ	
and describe any hazards.					
Nozzle Assess paint, look for leakage, and					Stud threads are fully engaged to nuts.
ensure stud threads are fully engaged. Record					No leaks observed.
any damage, deflection, etc. Are nozzles	X				No damage or deflections.
gusseted?					Nozzles are not gusseted
Gauges Ensure gauges are visible, working,					No gauges
no leakage, and suitable for range of MAWP/	X				
Femp.					
External Piping Ensure pipe is well					Piping is well supported – all clamps, supports and shoes
supported. All clamps, supports, shoes, etc. in					are in place.
blace. Look for evidence of structural	X				No structural overloads or deflections.
overload, deflection, etc. Paint condition,	21				Piping is insulated no damage present.
external corrosion?					r iping is insulated no damage present.
Valving Ensure no leaks are visible. Valves	+				No valves
are properly supported and chained if	X				110 101103
necessary.	Δ				
<b>PSV</b> Ensure PSV is set at pressure at or below	-				No PSV – vent to flare
that of vessel.					
NDE methods was UT/ MPI done on vessel	x		1		Ultrasonic thickness survey carried out – no metal
(MI coordinator to review results)	Λ				thickness detected below nominal.
Other					
		• •	1		

**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.No Recommendations at this time

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

Vessel is fit for service.

## Photo Table

