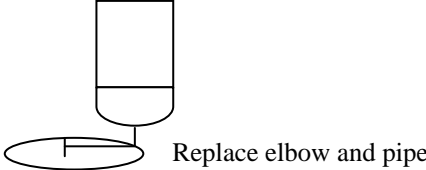

	<b>RTD QUALITY SERVICES INC.</b> <b>GRANDE PRAIRIE OPERATIONS</b> <b>PH: 1-780-814-7227</b> <b>CELL: 1-780-518-0812</b> <b>Fax: 1-780-402-3030</b>		<b>GENERAL NDE REPORT</b>			<b>Wembley 2011-001</b>			
	Date	Oct 15 - 2011	Page	1	of	3			
RTD Job #:	10.110899								
RTD Dep. #:	Asset Grande Prairie								
Client:	Canadian Natural Resources Limited		Lot #:	LSD 14-31-73-09-W6M					
Address:	Grande Prairie, AB		Location:	Wembley Gas Gathering					
P.O.#:			Procedure:	(RTD) UT.001					
Client Rep.:	Terry Aickelin / Aj Khan		Code:	ASME VIII, Div 1					
Description:	A0231047 / 3 Phase Separator / Ser 1582-V400D								
Surface Condition:	<input type="checkbox"/> Weldment	<input type="checkbox"/> Machined	<input checked="" type="checkbox"/> Painted	Surface Temp (C°):		<input type="checkbox"/> < 5	<input checked="" type="checkbox"/> > 5	<input type="checkbox"/> < 60	<input type="checkbox"/> > 60
	<input type="checkbox"/> Ground	<input type="checkbox"/> Sandblasted	<input type="checkbox"/> Other						
<b>MAGNETIC PARTICLE INSPECTION</b>									
Equipment Type:	<input type="checkbox"/> Yoke	<input type="checkbox"/> Bench	Asset No.:			Calibration Due Date:			
Blacklight:	Intensity Check:	$\mu\text{W}/\text{cm}^2$	Asset No.:			Calibration Due Date:			
Method:	<input type="checkbox"/> A/C	<input type="checkbox"/> D/C	Type:	<input type="checkbox"/> Continuous	<input type="checkbox"/> Residual	Power Supply:	<input type="checkbox"/> 120 V	<input type="checkbox"/> Battery	<input type="checkbox"/> Natural
Type:	<input type="checkbox"/> Dry Powder:	Colour:	Wet:	Black and White		Fluorescent			
Product Manufacturer:	Product Identification Code:								
<b>LIQUID PENETRANT INSPECTION</b>									
Type:	<input type="checkbox"/> I-Fluorescent	<input type="checkbox"/> II-Visible Dye	Method:	<input type="checkbox"/> A (Water Wash)	<input type="checkbox"/> B (P.E. Lipophilic)	<input type="checkbox"/> C (Solvent Removable)	<input type="checkbox"/> D (P.E. Hydrophilic)		
Blacklight:	Asset No.:	Calibration Due Date:	Blacklight Intensity:			$\mu\text{W}/\text{cm}^2$			
Dwell Times:	Penetrant:	Minutes	Developer:	Minutes	Product Manufacturer:				
<b>ULTRASONIC THICKNESS MEASUREMENT / SHEAR WAVE INSPECTION</b>									
Method:	<input type="checkbox"/> P/E	<input checked="" type="checkbox"/> Dual	<input type="checkbox"/> T/T	<input type="checkbox"/> Other	Type:	<input checked="" type="checkbox"/> Longitudinal	<input type="checkbox"/> Shear Wave		
Instrumentation:	Manufacturer:	Kraut Kramer		RTD Asset No.:	7093	Calibration Due Date:	Mar 2012		
Cal. Block(s):	Type:	2 - 20 mm Step		RTD Asset No.:	1179	Serial No.:			
Couplant:	Manufacturer:	Sonotec		Type:	UTX				
Probe Type	Angle	Frequency	Size	Reference Level (dB)	Scanning Level (dB)	Range	Skip Value	Beam Travel	Transfer Value (dB)
Stesstel	0 deg	5 mhz	.250 in	56 db	56 db	20 mm	0 mm	20 mm	0 db
<b>INSPECTION DETAILS</b>									
Scope:	1. Carry out Ultrasonic thickness inspection on Vertical 3 Phase Separator to determine condition of bottom head and drain nozzle / piping.								
Ref:	Ultrasonic thickness inspection carried out by Hunt Inspections revealed corrosion in the drain piping.								
Results:	<p>1. Ultrasonic thickness inspection carried out:</p> <p>a. The 2 inch drain nozzle min thickness detected at 8.8 mm / built at 8.7 mm. (This is the 4 inch long stub from the head to the elbow.)</p> <p>b. The 2 inch drain elbow aft of the 2 inch nozzle is corroded to 3.8 mm remaining wall / nominal thickness was 8.7 mm.</p> <p>Recommendations: Replace the 2 inch elbow and pipe stub to the flange.</p>								
									
Technician:	Dellas Wiedman	CGSB / ASNT / SNT Level:	2	Start Time:		Stop Time:		ST	OT
Signature:		Method:	ET/PT/UT/MT/RT	Unit:		Km:		Travel Time:	
Assistant:		CGSB / ASNT / SNT Level:	2	<input type="checkbox"/> Subsistence required		<input type="checkbox"/> OT Meal			
Client Signature:				Consumables:					
*Results are an interpretation of the inspection method, not a guarantee. Client signature indicates acceptance of report, results and applicable charges.									



Data Plate

The short 2 inch from the head to the elbow is in good condition – the 2 inch elbow to the flange has corrosion – min thickness on the elbow was 3.8 mm – nominal thickness is 8.7 mm.



Over view.



Surface corrosion on gasket seating face – max depth is .020 inches.



Gas outlet nozzle.



Outlet nozzle – view of mesh pad.