



2698238

**Field Inspection Report**

Vessel # 2698238

<b>Client</b>	Canadian Natural Resources Ltd.		<b>Inspection Date</b>	2003/09/10	
<b>Prov. Reg.#</b>	2698238		<b>Insp. Type</b>	VENI/UT	
<b>Equipment</b>	Free Water Knock Out Drum		<b>Location</b>	Grand Forks	
<b>Tag/Equip. #</b>			<b>LSD</b>	7-32-12-13W4	
<b>Vessel Status</b>	In Service		<b>Comp./Unit</b>		
<b>Manufacturer</b>	Process Industries	<b>Serial #</b>	P900038A	<b>MAWP/Temp</b>	75 psi 200 F
<b>CRN #</b>	K3252.2	<b>Shell Material</b>	SA-516-70	<b>Shell Thick.</b>	0.375 in
<b>Corrosion All.</b>	0.062 in	<b>Head Material</b>	SA-516-70	<b>Head Thick.</b>	0.607 in
<b>Manway</b>	Yes	<b>Head Material 2</b>		<b>Head Thick. 2</b>	in
<b>Coating</b>	Yes	<b>Channel Material</b>		<b>Channel Thick.</b>	in
<b>Diameter</b>	160 in	<b>Length</b>	480 in	<b>RT</b>	2
<b>Year Built</b>	1991	<b>Next Inspection</b>	2006	<b>Next Insp. Type</b>	VENI/UT
<b>Service</b>	Sour			<b>Job #</b>	03-430

<b>PSV #.</b>	CE35351A11				
<b>Mfg.</b>	Farris	<b>Serial #</b>	CE35351A11	<b>Set Pressure</b>	75 psi
<b>Type/Model</b>	260B10120S6	<b>Capacity</b>	18720 SCFM	<b>Size</b>	6.000 in
<b>Date of Service</b>	2003/09/10	<b>Next Service</b>	2006	<b>Service Co.</b>	Remtronic

**Observations:**

**External**

Outside the building is fully clad. Cladding in good condition. Inside is not insulated and well painted, no sign of corrosion at all at surface. Vessel is properly mounted on the skid. Instrument, level bridle, gauges appeared okay.

**Internal**

Clear, no sign of coat blisters. Nozzles inside condition at the bottom side of the vessel found no sign of erosion corrosion. Sacrificial anode is around 5% consumed (4 nos.). One is not properly wired. Coating damage on South manway bottom side, with coat blisters near the outer lip of the manway neck (9 to 4-o'clock position). One opened blisters found no corrosion attack at the metal. Manway cover shows no sign of coating damage. Generally, internal is in good shape.

**RAE Engineering and Inspection Ltd.**

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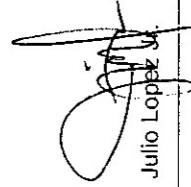
**Field Inspection Report**

Vessel # 2698238

UT  
None at this time

**Recommendations:**

No concern at this moment.



Inspector: Julio Lopez



Reviewed by:

AB-40 to be attached

**Field Inspection Report**

Vessel # 2698238

<b>Client</b>	Canadian Natural Resources Ltd.			<b>Inspection Date</b>	May 16, 2001		
<b>Prov. Reg.#</b>	2698238			<b>Location</b>	Grand Forks		
<b>Equipment</b>	Free Water K.O Drum			<b>LSD</b>	7-32-12-13W4		
<b>Tag/Equip. #</b>				<b>Comp./Unit #</b>			
<b>Vessel Status</b>	In Operation			<b>Job #</b>	01-295		
<b>Manufacturer</b>	Process Industries	<b>Serial #</b>	P900038A		<b>MAWP/Temp</b>	75 psi	200 ° F
<b>CRN#</b>	K3252.2	<b>Shell Material</b>	SA-516-70		<b>Shell Thickness</b>	0.375 in	
<b>Corrosion All.</b>	0.062 in	<b>Head Material</b>	SA-516-70		<b>Head Thickness</b>	0.607 in	
		<b>Head Material 2</b>			<b>Head Thickness 2</b>	in	
		<b>Channel Material</b>			<b>Channel Thickness</b>	in	
<b>Diameter</b>	120 in	<b>Length</b>	540 in	<b>Height</b>	in	RT	2 HT
<b>Year Built</b>	1991	<b>Next Inspection</b>	2003		<b>Inspection Type</b>	VE/UT/VI	
<b>Service</b>	Sour	<b>Manway</b>	No		<b>Coating</b>	No	

<b>PSV #.</b>	PSV2698238						
<b>Mfg.</b>	Farris	<b>Serial #</b>			<b>Set Pressure</b>	75 psi	
<b>Type/Model</b>	260B10/120-S6	<b>Capacity</b>	18720 SCFM		<b>Size</b>	6.000 in	
<b>Date of Service</b>	1997/06/01	<b>Next Service</b>	2002		<b>Service Co.</b>	SVS	

**Field Inspection Report**

Vessel # 2698238

**Observations:**

**External**

Outside building 60% insulated and clad, good condition. Inside building painted, dusty top section, water stains noted. Saddles and legs painted, solid bolted to skid floor. No active corrosion noted at this time.

**Internal**

**Fully Coated**

The head, shell and welds are in good condition. The coating is in good shape except for solid blisters in group 4 about 0.03125" diameter at 5 o'clock position looking north. The desand piping, vortex plate (bolted) are in good shape. Four sacrificial anodes on this section in a set of 3. Anode material consumed about 10-15%. The wier plate is in good shape.

Manway - About 5 chips on coating (to be repaired through shutdown).

Northside of Wier plate - The head shell circumferential welds are in good condition. The coating is in good shape. The vortex plate bolted to the floor is intact and is in good shape.

**Note**

~~Ref to FIR# 17878 for external~~

**UT Inspection**

Measurement in inches

Heads insulated and clad

Top Shell - 0.403, 0.404, 0.405, 0.404

Side Shell - 0.393, 0.393, 0.399, 0.400

Bottom Shell - 0.409, 0.410, 0.412, 0.414

**Recommendations:**

No concerns noted at this time.

**Inspector:** Jim Longstreet/Rex Sadaba

**Reviewed by:**



AB-40 to be attached