FORM U-1A MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS

(Alternative Form for Single Chamber, Completely Shop - Fabricated Vessels Only)
As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

(H) 49259

1. Manufactured and certified by **Moss Fabrication Ltd., 6619-86th Avenue S.E. Calgary, AB. T2C 2S4** (Name and address of manufacturer)
2. Manufactured for **Canwell Enviro-Industries Ltd. 1170, 800-6th Avenue S.W. Calgary, Alberta. T2P 3G3** (Name and address of purchaser)
3. Location of installation **LSD: 15-28-75-07 W6M** (Name and address)
4. Type **Vertical** (Horiz. or vert. tank) | **3202-1** (Mfgr's serial No.) | **R-2223.2** (CRN) | ***R3202-1 Rev. 0 (Drawing No.) | **n/a** (Nat'l Bd No.) | **2003** (Year built)
5. The chemical and physical properties of all parts meet the requirements of material specifications of the ASME BOILER AND PRESSURE VESSEL CODE. The design,construction, and workmanship conform to ASME Rules, Section VIII, Division 1 **2001** Year

to **2002** Addenda (date) | **n/a** Code Case Nos. | **n/a** Special Service per UG-120(d)

6. Shell: **SA-516-70N** Mat'l (Spec. No., Grade) | **2.500"** Nom. Thk. (in) | **0.125"** Corr. Allow. (in) | **5' 0"** Diam I.D. (ft. & in.) | **20' 0"** Length (overall) (ft. & in.)
7. Seams: **Type 1** Long. (Welded,Dbl., Sngl.,Lap,Butt) | ***Full** R.T. (Spot or Full) | **100%** Eff. (%) | **1150** H.T. Temp (deg F) | **2.5** Time (hr) | **Type 1** Girth (Welded,Dbl., Sngl.,Lap,Butt) | ***Full** R.T. (Spot, Partial, or Full) | **2** No. of Courses
8. Heads: (a) Matl. **SA-516-70N** (Spec. No. Grade) (b) Matl. **SA-516-70N** (Spec. No. Grade)

	Location (Top Bottom, Ends)	Minimum Thickness	Corrosion Allowance	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave)
(a)	**Top**	**2.375"**	**0.125"**	**n/a**	**n/a**	**2:1 SE**	**n/a**	**n/a**	**n/a**	**Concave**
(b)	**Bottom**	**2.375"**	**0.125"**	**n/a**	**n/a**	**2:1 SE**	**n/a**	**n/a**	**n/a**	**Concave**

If removable, bolts used (describe other fastenings) **n/a** (Matl., Spec. No., Gr.,Size, No.)

9. MAWP: **1415** psi at max. temp. **150** °F

Min.design metal temp. ***-20** °F at **1415** psi Hydro., pneu., or comb. test pressure **2122** psi

10. Nozzles, inspection and safety valve openings:

Purpose (Inlet, Outlet, Drain)	No.	Diam. or Size	Type	Matl.	Nom. Thk.	Reinforcement Matl.	How Attached	Location
Inlet	**1**	**6"**	**600# RFWN**	**SA-106 Gr. B / SA105N**	**0.864"**	**SA-516-70N**	**UW16.1e**	**Shell**
Outlet	**1**	**6"**	**600# RFWN**	**SA-106 Gr. B / SA105N**	**0.864"**	**SA-516-70N**	**UW16.1e**	**Head**
Chemical In	**1**	**1"**	**TOL**	**SA-105N**	**6000#**	**n/a**	**UW16.1a**	**Shell**
Drain	**1**	**2"**	**PIPE**	**SA-106 Gr. B**	**0.344"**	**n/a**	**UW16.1a**	**Head**
PI	**1**	**3/4"**	**TOL**	**SA-105N**	**6000#**	**n/a**	**UW16.1a**	**Shell**
TI	**1**	**3/4"**	**TOL**	**SA-105N**	**6000#**	**n/a**	**UW16.1a**	**Shell**
Manway	**1**	**20"**	**600# RFWN**	**SA-516-70N / SA-105N**	**0.875"**	**SA-516-70N**	**UW16.1e**	**Shell**

11. Supports: Skirt **Yes** (Yes or No) Lugs **4** (No.) Legs **n/a** (No.) Other **n/a** (Describe) Attached **Welded to Head/Shell** (Where and how)

12. Remarks: Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report: (Name of part, item number, Mfgr's name and identifying stamp)

VOLUME **432 cu ft.** WEIGHT **44,000 lbs.** DESCRIPTION **Contactor**

***Radiography as per UW-11(a)** *****Manufactured to Moss Fabrication drawing number: V3202-1 Rev. 2**

****Charpy impact testing required as per UG-84** **PSV installed on piping as per UG-125**

CERTIFICATE OF SHOP COMPLIANCE

We certify that the statements made in this report are correct and that all details of design, material, construction and workmanship of this vessel conforms to the ASME Code for Pressure Vessels, Section VIII, Division 1, "U" Certificate of Authorization No. **33,250** expires **April 26, 2005**

Date **Mar 17, 2003** Co. name **Moss Fabrication Ltd.** (Manufacturer) Signed (Representative)

CERTIFICATE OF SHOP INSPECTION

Vessel constructed by **Moss Fabrication Ltd.** at **Calgary, Alberta, Canada**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of **Alberta** and employed by **Alberta Boilers Safety Association** have inspected the component described in this Manufacturer's Data Report on **March 17** ,**2003** and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel in accordance with ASME Code, Section VIII, Division 1.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed, or implied, concerning the pressure vessel described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date **3/3/17** Signed (Authorized Inspector) Commissions **Alberta 5** (Nat'l Board (incl. endorsements), State, Prov. and No.)