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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

1. Manufactured and certified by HEMPHILL CORPORATION 3515 DAWSON ROAD TULSA OKLAHOMA 74115
(Name and address of manufacturer)
2. Manufactured for PANCANADIAN EMERGY, C/O GEMINI ENG. INC., 700,5940 MACLEOD TRAIL S.W., CALGARY, ALBERTA, CANADA T2H 2G4
(Name and address of purchaser)
3. Location of installation UNKNOWN
(Name and address)
4. Type: HORIZ.H.EXCHANGER 8116.1 P8944.2 28031-8116 AC R1 380 2002
(Horiz. or vert. tank) (Mfr's serial No.) (CRN) (Drawing no.) (Natl Bd. No.) (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 NO
Addenda (Date)
6. Shell: TUBE&PLUG SA516 70N FR 1 3/8", BK 1 3/8" .0625" FR 6 9/16", BK 6 9/16" 3' 11 1/2"
(Matl. (Spec No., Grade)) (Nom. Thk. (in.)) (Corr. Allow (in.)) (Diam. I.D. (ft. & in.)) (Length (overall) (ft. & in.))
7. Seams: CORNER JOINT API-661 1.00 1150 1 API-661 2"
(Long. (Welded, Dbl., Sngl., Lap, Butt)) (R.T. (Spot or Full)) (Efl. (%) (H.T. Temp (F)) (Time (hr)) (Girth (Welded, Dbl., Sngl., Lap, Butt)) (R.T. (Spot, Partial, or Full)) (No. of Courses)
8. Heads: (a) Matl. WRAPPERS: SA-516 GR 70N (b) Matl. ENDS: SA-516 Gr 70N
(Spec No., Grade) (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)	WRAPPERS	3/4"	.0625"						**	FLAT
(b)	ENDS	3/4"	.0625"						***	FLAT

If removable, bolts used (describe other fastenings)

(Matl., Spec. No., Gr., Size, No.)

9. MAWP 1415 psi at max. temp. 150 °F
Min. design metal temp. -40 °F at 1415 psi. Hydro. test pressure 1840 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/OUTLET	2	4"	PIPE	SA-333 GR 6	S/160	NONE	UW-16(a)	HEADER
VENT	3	1"	CPLG	SA-350 LF2	6000#	NONE	UW-16(a)	HEADER
PLUGS	244	3/4-16	UNF 3B	SA-350 LF2				HEADER

11. Supports: Skirt Lugs Legs Other STRUCTURE Attached BOLTED
(Yes or no) (No.) (No.) (Describe) (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, Mfr's name and identifying stamp)

* 2 HEADERS ONE AT EACH END. **WRAPPERS FLAT DIAMETER 3 5/8" x 47 1/2". ***ENDS FLAT DIAMETER 3 5/8" x 5 1/16".

122 TUBES SA-179 STL 5/8" O.D. .060" MIN. 8' LG.

IMPACTS EXEMPT PER UCS-66(a) CURVE D. PRESSURE RELIEF DEVICE BY OTHERS. CONSTRUCTED IN ACCORDANCE WITH APPENDIX 28.

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 conform to the ASME Code for Pressure Vessels, Section VIII, Division 1. "U" Certificate of Authorization No. 32,772 expires 08/29 2004
Date 5/24/02 Co. Name HEMPHILL CORPORATION Signed Steve Sils
(Manufacturer) (Representative)

CERTIFICATE OF SHOP INSPECTION

Vessel constructed by HEMPHILL CORPORATION at 3515 DAWSON ROAD TULSA, OK 74115
I, the undersigned, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and the State or Province of OKLAHOMA and employed by HEARTLAND LLOYDS INSURANCE COMPANY have inspected the component described in this Manufacturer's Data Report on 5-23-2002 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 loss of any kind arising from or connected with this inspection.
Date 5-24-02 Signed [Signature] Commissions NR24614 OK883
(Authorized Inspector) (Natl Board, (incl. endorsements) State, Prov. and No.)

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