

**FORM U-1A MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS**  
 (Alternative Form for Single Chamber, Completely Shop or Field Fabricated Vessels Only)  
 As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

1. Manufactured and certified by BROMLEY MECHANICAL SERVICES (1985) LTD. 925 - 23 STREET S.W. MEDICINE HAT, ALBERTA CANADA T1A 8R1  
 (Name and address of manufacturer)

2. Manufactured for Endaleo Energy Corporation c/o Thunder Industries Ltd. 210, 221 - 62 Avenue SE, Calgary AB, T2H 0R5  
 (Name and address of purchaser)

3. Location of installation For Resale  
 (Name and address) ① 544768

4. Type: Horizontal Vessel 523766 T4840.231 32078-REG Rev.0 2005  
 (Horiz. or vert. tank) (Mfr's serial No.) (CRN) (Drawing no.) (Nat'l 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 2004  
 Year  
 to 2004 n/a n/a  
 Addenda (Date) Code Case Nos. Special Service per UG 120(d)

6. Shell: SA516-70N 2.00" 0.125" 48"od 16'-0"s/s  
 Matl. (Spec. No., Grade) Nom. Thk. (in.) Corr. Allow. (in.) Diam. I.D. (ft. & in.) Length (overall) (ft. & in.)

7. Seams: Single (Type 1) Full 100% 1150°F 120 min Single (Type 1) Full 2  
 Long. (Welded, Dbl., Sngl., Lap, Butt) R.T. (Spot or Full) Eff. (%) 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. SA516-70N (b) Matl. SA516-70N  
 (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)	Left	1.8750"	0.125"	n/a	n/a	2:1	n/a	n/a	n/a	Concave
(b)	Right	1.8750"	0.125"	n/a	n/a	2:1	n/a	n/a	n/a	Concave

If removable, bolts used (describe other fastenings) \_\_\_\_\_  
 (Matl., Spec. No., Gr., Size, No.)

9. MAWP 1440 psi at max. temp. 100°F °F  
 Min. design metal temp. -20 °F at 1440 psi. Hydro. ~~test pressure~~ test pressure 1872 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
Manway	1	20"	CL600RFHBN	SA105N	2.970"	-	UW16.1(e)	Datum Head
Inlet, Outlet	2	6"	CL600RFLWN	SA105N	1.3750"	-	UW16.1(e)	Shell
Spare, Dump, Drain	3	3"	CL600RFWN	SA106B, SA105N	0.600"	SA516-70N	UW16.1(e)	Shell
Dump, Drain, Bridle(4)	6	3"	CL600RFWN	SA106B, SA105N, SA234WPB	0.344"	-	UW16.1(e)	Shell
PSV, TI, PI	3	2"	CL600RFWN	SA106B, SA105N	0.344"	-	UW16.1(e)	Shell
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-

11. Supports: Skirt No Lugs 2 Legs 2 Other n/a Attached Shell/Weld  
 (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)

Volume: 181.85 cu ft or 5.15 cu m PSV Supplied by Other per UG125  
 CA: 0.125" Shells & Heads Impact Tested Temp -20°F Min. Energy 15-12ft-lb. Cat. A & B Welds Production Impact Testing Per UG84(i)  
 Nozzles Impact Testing Exempt Per UCS66(a)(b) Construction Drawing Cad No. 32078 Rev. 0

**CERTIFICATE OF SHOP / FIELD 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. 30634 expires 10/26/2007  
 Date Jan 19/06 Co. Name BROMLEY MECHANICAL SERVICES (1985) LTD. Signed [Signature]  
 (Manufacturer) (Representative)

**CERTIFICATE OF SHOP / FIELD INSPECTION**

Vessel constructed by BROMLEY MECHANICAL SERVICES (1985) LTD. at 925 - 23 STREET S.W. MEDICINE HAT, ALBERTA CANADA T1A 8R1  
 I, the undersigned, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and 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 Jan 19/06, 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 Jan 19/06 Signed [Signature] Commissions AB 260A  
 (Authorized Inspector) (Nat'l Board. (incl. endorsements) State, Prov. and No.)