

**MANUFACTURER'S DATA REPORT
FOR PRESSURE VESSEL**
**DÉCLARATION DE CONFORMITÉ DU CONSTRUCTEUR
D'APPAREILS SOUS PRESSION**

Partial/Partiel

Upon shipment of a pressure vessel, this form fully and correctly filled in must be mailed to the office of the Chief Inspector in the province of installation in accordance with the regulations under the Act, governing the construction and installation of pressure vessels.

Au moment de l'expédition d'un appareil sous pression, ce formulaire complété correctement, doit être envoyé au bureau de l'inspecteur en chef de la province d'installation tel que prévu dans les règlements de la loi sur les appareils sous pression.

Manufactured by Construit par	<i>Name and address of Manufacturer/Nom et adresse du constructeur</i> Bronley Mechanical Services (1985) Ltd., Box 404, 773 - 16 ST SW Medicine Hat, AB T1A 7G2
Manufactured for Construit pour	<i>Name and address of Purchaser or Consignee/Nom et adresse du client ou de son représentant</i> Orban Industries Ltd., 5470 - 53 ST SE, Calgary, AB T2C 4B6
Ultimate owner Utilisateur	<i>Name and address/Nom et adresse</i> Canadian Natural Resources Ltd., 2000, 425 - 1st ST SW, Calgary, AB T2P 3L8
Location of Installation Lieu d'installation	<i>Address/Adresse</i> Stock

Pressure vessel/Appareil			
<i>Type/Gentre</i> Separator	<i>Serial No./N° de série</i> 45918, 45919	<i>Year built/Année de fabrication</i> 1994	<i>Overall Length/Long. totale</i> 13'
<i>Provincial Registration No. - C.R.N./ N° d'enregistrement provincial - N.E.C.</i> M 5100.2	<i>National Board No./N° National Board</i>	<i>Drawing No./N° de dessin</i> 36 - 720	<i>Diameter/Diamètre</i> 36"

The chemical and physical properties of all parts meet the requirements of material specifications of the A.S.M.E. Code.

Les propriétés chimiques et physiques de toutes les composantes respectent les exigences des spécifications de matériaux de code ASME.

<i>The design, construction and workmanship conform to CSA B51.</i> La conception, la construction et la façon sont conformes à ACNOR B51.	<i>ASME</i> Sec VIII	<i>Division</i> 1	<i>Addenda/ Supplément</i> 1993	<i>Code case No. N° de cas</i> -
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Manufacturers' partial data reports properly identified and signed by authorized inspectors have been furnished for the following items of the report, and attached to this report:

Les rapports partiels du constructeur adéquatement identifiés et signés par les inspecteurs autorisés ont été produits pour les items suivants du rapport, et attachés à ce rapport:

<i>Names of parts/Nom de la composante</i>	<i>Item No./N° d'item</i>	<i>Manufacturer's Name/Nom du constructeur</i>	<i>Identifying Stamp/Estampe d'identification</i>

Shell/Virole													
<i>Description</i>	<i>Material Matériau</i>	<i>Thickness Épaisseur</i>	<i>Corr. Allow. Surépais. de corr.</i>	<i>Diameter Diamètre</i>	<i>Overall Length Long. totale</i>	<i>Number of courses Nombre de sections</i>	<i>Girth Joints Joints de circonférence</i>		<i>Longitudinal Joints Joints longitudinaux</i>			<i>P.W.H.T. Traitement therm.</i>	
							<i>Type</i>	<i>R.T. Radiog.</i>	<i>Type</i>	<i>R.T. Radiog.</i>	<i>Efficiency Efficacité</i>	<i>Temp.</i>	<i>Time Durée</i>
Shell	SA516-70	1"	0.125	36"	10'	1	1	Full	1	Full	1	1150 F	60 min.

Heads/Tetes											
<i>Description</i>	<i>Material Matériau</i>	<i>Min. Thickn. Épals. minim.</i>	<i>Corr. Allow. Surép. corr.</i>	<i>Crown. Radius Rayon couron.</i>	<i>Knuckle Radius Petit rayon</i>	<i>Ellipse Ratio Rapp. ellipse</i>	<i>Conical Apex Angle Angle conique</i>	<i>Hemisp. Radius Ray. Hémisp.</i>	<i>Flat Diameter Diam. plat</i>	<i>Side to pressure Côte sous pression</i>	
Heads	SA516-70	.990	0.125			2:1				Concave	

<i>Removable bolts used (describe other fastenings) Boulons amovibles utilisés (décrire tout autre attache)</i>	<i>Mat'l Spec./Spéc. du mat.</i>	<i>Grade</i>	<i>Size/Dimension</i>
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Pressure - Temperature/Pression - température			
<i>Pressure Vessel Part Partie de l'appareil</i>	<i>Constructed for max. allowable working pressure Construit pour une pression maximale de marche permise</i>	<i>At max. temp. A une temp. max.</i>	<i>Min. Temp. (when less than 29°C) Temp. min. (inférieure à 29°C)</i>
Vessel	720 psi / 4964 kPa	100 F/38	-20 F / -29
		<i>Test pressure (hydro-pneumatic or combination) Pression d'épreuve (hydro-pneumatique ou combinaison)</i>	
		1080 psi / 7446 kPa	

Tube Section/Faisceau tubulaire					
Tube sheet/Plaque tubulaire	Material/Matériau	Diameter/Diamètre	Nominal Thickness Épaisseur nominale	Corr. Allow. Surépais. corrosion	Attachment Mode d'attachement
Tube material/Matériau des tubes	Diameter/Diamètre	Nominal Thickness (gauge) Épaisseur nominale (calibre)	Number/Nbre	Type (Straight or U) Type (Droit ou U)	Heating Surface Surface de chauffe

Jacket/Chemise				
Type of jacket/Genre de chemise	Jacket closure Fermeture de chemise	Proof Test Pression d'épreuve	Heating Surface Surface de chauffe	Sketch/Schéma

Safety Valve Outlets/Soupapes de sûreté		
Number/Nombre	Dimension	Location/Endroit
1	2"	Shell

Nozzles and Openings/Tubulures et ouvertures								
Purpose/But	Number Nombre	Dimension	Type	Material Matériau	Nominal Thickness Épaisseur nominale	Reinforcement material Matériau de renfort	How attached Genre d'attaches	Location/Endroit
Inlet, Outlet	2	6"	Nozzle	SA106B	.864	—	weld	Top Head / Shell
Drain, PSV, PI, TI, Gauge, Cond. Out,	10	2"	Nozzle	SA106B	.344		weld	Shell / Bottom Head
Water Out Inspect	2	3"	Nozzle	SA106B	.600		weld	Shell
Cond. LLC, Inter LLC, LSH	3	4"	Nozzle	SA106B	.674		weld	Shell

Supports/Supports				
Skirt/Jupe	Lugs/Oreilles No./Nbre	Legs/Pieds No./Nbre	Other/Autres (Description)	Attached/Attaches (Where and How/Méthode et endroit)
Yes/Oui <input checked="" type="checkbox"/> No/Non <input type="checkbox"/>				Bottom Head / Weld

Remarks/Observations (Cubical capacity/Volume)

Volume = 78 cu. ft. or 2.208 m
M.D.M.T. = 720 psi at 100 F
C.A. = 0.125
Impact testing not mandatory per UG 20

Certificate of Compliance/Certificat de conformité

We certify that the statements made in this data report are correct and that the said vessel has been constructed in accordance with the Provincial Registered design below and the requirements of standard CSA B51.

Nous certifions que les données de la déclaration de conformité sont correctes et que l'appareil a été construit en accord avec l'enregistrement provincial ci-dessous et les exigences de la norme ACNOR B51.

Provincial Registered Design M 5100.2
Enregistrement provincial _____

Manufacturer Bronley Mechanical Services (1985) Ltd.
Constructeur _____

Signature [Signature] Date Dec 9/04

Certificate of Shop Inspection/Certificat d'inspection en usine

I, the undersigned, a duly authorized Boiler and Pressure Vessel Inspector Je, soussigné, inspecteur autorisé de chaudières et appareil sous pression employed by _____ Province
of _____ Alberta

have inspected the above vessel and state that to the best of my knowledge and belief, the manufacturer has constructed the vessel in accordance with the Provincial registration CRN M 5100.2 and the requirements of standard CSA B51.

ai inspecté l'appareil précité et autant que je sache, crois que le constructeur a construit l'appareil en accord avec l'enregistrement provincial NEC _____ et les exigences de la norme ACNOR B51.

Inspector's Name Alfred E. Roy
Nom de l'inspecteur _____

Signature [Signature] Date Dec 9/04

Certificate of Compliance / Certificat de conformité Field Work / Installation au chantier

We certify that the field installation of all parts of the vessel conforms with the requirements of Provincial Regulations.

Nous certifions que l'installation au chantier de toutes les composantes de l'appareil est conforme aux règlements provinciaux.

Installer's Name _____
Nom de l'installateur _____

Signature _____

Certificate of Field Inspection / Certificat d'inspection Installation au chantier

I, the undersigned, a duly authorized Boiler and Pressure Vessel Inspector Je, soussigné, inspecteur autorisé de chaudières et appareil sous pression employed by _____
have inspected the items not covered by the Shop Inspection Certificate and the installation of the items and state that to the best of my knowledge and belief the construction and assembly of the items are in accordance with the Provincial Regulations.

ai inspecté les composantes non couvertes par le certificat d'inspection en usine et l'installation de l'appareil et, autant que je sache, la construction et l'assemblage de l'appareil sont conformes aux règlements provinciaux.

Inspector's Name _____
Nom de l'inspecteur _____

Signature _____ Date _____

1994 12 09

Bromley Mechanical Services (1991) Ltd
773 - 16th Street SW
Medicine Hat, AB T1A 7G2

Attention: Mr. Merle Kanewischer

Dear Sir:

The drawings, specifications and/or information submitted on 1994-09-20, 1994-09-22, 1994-10-31, 1994-11-09, 1994-11-14, 1994-11-17, 1994-12-02 and 1994-12-07 are accepted for registration as follows:

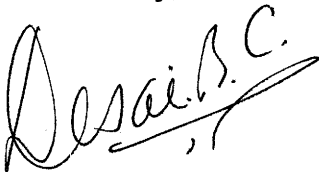
Reg. No.	Drawing No.	Design Pressure	Design Temperature	Fee
M-5100.2	36-720 Lethal R6	4964 kPa	-29/38°C	\$220.00

Please note the corrections on the drawings per our discussion of Dec. 8/94.

Enclosed are stamped prints for your reference.

An Invoice covering survey and registration fees will be forwarded from our Accounts Department.

Yours truly,



B.C. Desai, P.Eng.
Design Survey Engineer

BCD/bp
Encl.



Province of
British Columbia

Ministry of
Municipal Affairs
BOILER AND ELEVATOR SAFETY BRANCH
BOILER AND PRESSURE VESSEL SAFETY

Safety Engineering
Services Division
Third Floor
750 Pacific Boulevard South
Unit 300
Vancouver, British Columbia
V6B 5E7
Telephone: (604) 660-6250
Fax: (604) 775-2345

H6177
Account # 23587

TO: BROMLEY MECHANICAL SERVICES
(1985) LTD.
773 - 16TH ST., S.W.
BOX 404
MEDICINE HAT, ALTA.
T1A 7G2

Date: 94.12.22
Jnl #: 11126

Attn: DENNIS TROLLOPE

DESIGN REGISTRATION

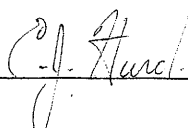
Drawings/documents	Description	Purpose
36-720 R.1	36" OD LETHAL SEPARATOR Registered for: 720 psig @ 100' f MDMT: -20° F	Design Registration: B.C. File: H6177 C.R.N: M5100.21 REGISTERED

Remarks: This design has been registered as noted above. An invoice for survey will follow in the amount of \$ 93.00

Your design calculations include a 20" manway however your drawing does not show a manway. Is this vessel equipped with a manway? If it is please submit calculations for the requirements of App. 1-7 and design details / calculations for the manway cover.

Please submit completed calculations listing formulas or reference code formulas used in addition to the summary of the calculation results.

Yours truly,


E. Hurd
Design Surveyor

EH/st
Encl:
cc:

Saskatchewan



Saskatchewan
Municipal
Government

Municipal Services Division

Protection Services Branch
Boiler & Pressure Vessel Safety
1870 Albert Street
Regina, Saskatchewan
S4P 3V7

APPROVAL AND INVOICE

(306)787-4490
FAX: (306)787-9273

PLEASE DO NOT SEND REMITTANCE
WITHOUT A COPY OF THIS INVOICE
WHICH IS DUE WITHIN 30 DAYS

February 23, 1995

BROMLEY MECHANICAL SERVICES (1985) LTD.
773 - 16TH STREET S.W.
BOX 404
MEDICINE HAT, ALBERTA
T1A 7G2

#327 Reg. of Design
Our File 22348

ATTENTION: Merle Kanewischer

With reference to your submission respecting the registration of **Lethal Separator, Drawing 36-720 Lethal R6** for legal use in the province, please note we have surveyed, approved and registered this design and allotted the same registration number **CRN M5100.23**.

We wish to point out that every vessel must be constructed strictly in accordance with the registered design.

The registration fee is **\$95.00**. This amount should be submitted in **CANADIAN FUNDS ONLY** at your earliest convenience. Please return one copy of this letter with your remittance.

In addition to stamping every vessel with the registration number given above and as required in C.S.A. Code B51, a Manufacturer's Data Report must be forwarded to this office immediately at the time any vessel is shipped. Such forms may be obtained upon request.

Sincerely,

John Gosselink
Design and Registration