BY-LAW NUMBER 1

A by-law relating generally to the transaction of the business and affairs of the Corporation.

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BE IT ENACTED as a by-law of **CATHEDRAL ENERGY SERVICES LTD.** (hereinafter called the "Corporation") as follows:

SECTION ONE

INTERPRETATION

- 1.01 DEFINITIONS. In the by-laws and all resolutions of the Corporation, unless the context otherwise requires:
 - (a) "Act" means the *Business Corporations Act* (Alberta), and any statute that may be substituted therefor, as from time to time amended;
 - (b) "appoint" includes "elect" and vice versa;
 - (c) "articles" means the original or restated articles of incorporation, articles of amendment, articles of amalgamation, articles of continuance, articles of reorganization, articles of arrangement, articles of dissolution and articles of revival and includes an amendment to any of them;
 - (d) "board" means the board of directors of the Corporation;
 - (e) "by-laws" means this by-law and all other by-laws of the Corporation from time to time in force and effect;
 - (f) "corporation" means a body corporate incorporated or continued under the Act and not discontinued under the Act;
 - (g) "meeting of shareholders" means an annual meeting of shareholders and a special meeting of shareholders;
 - (h) "non-business day" means Saturday, Sunday and any other day that is a holiday as defined in the *Interpretation Act* (Alberta) or the *Interpretation Act* (Canada);
 - (i) "ordinary resolution" means a resolution
 - (i) passed by a majority of the votes cast by the shareholders who voted in respect of that resolution, or
 - (ii) signed by all the shareholders entitled to vote on that resolution;
 - (j) "recorded address" means, in the case of a shareholder, his address as recorded in the Securities Register of the Corporation; and, in the case of joint shareholders, the address appearing in the Securities Register of the Corporation in respect of such joint holding or the first address so appearing if there are more than one; and, in the case of a director, officer, auditor or member of a committee of the board, his latest address as recorded in the records of the Corporation;
 - (k) "resident Canadian" means an individual who is
 - (i) a Canadian citizen ordinarily resident in Canada,
 - (ii) a Canadian citizen not ordinarily resident in Canada who is a member of a prescribed class of persons, or
 - (iii) a permanent resident within the meaning of the *Immigration Act 1976* (Canada) and ordinarily resident in Canada, except a permanent resident who has been

ordinarily resident in Canada for more than 1 year after the time at which he first became eligible to apply for Canadian citizenship;

- (l) "signing officer" means, in relation to any instrument, any person authorized to sign the same on behalf of the Corporation by Clause 2.04 or by a resolution passed pursuant thereto:
- (m) "special business" means all business transacted at a special meeting of shareholders and all business transacted at an annual meeting of shareholders, except consideration of the financial statements and auditor's report, fixing the number of directors for the following year, election of directors and reappointment of the incumbent auditor;
- (n) "special meeting of shareholders" means a meeting, other than an annual meeting, of shareholders entitled to vote at an annual meeting of shareholders, and includes a meeting of any class or classes of shareholders acting separately from any other class or classes of shareholders;
- (o) "special resolution" means a resolution passed by a majority of not less than 2/3 of the votes cast by the shareholders who voted in respect of that resolution or signed by all the shareholders entitled to vote on that resolution;
- (p) "unanimous shareholder agreement" means
 - (i) a written agreement to which all the shareholders of a corporation are or are deemed to be parties, whether or not any other person is also a party, or
 - (ii) a written declaration by a person who is the beneficial owner of all the issued shares of a corporation, that provides for any of the matters enumerated in section 146(1) of the Act,

Save as aforesaid, words and expressions defined in the Act have the same meanings when used herein; and words importing the singular number include the plural and vice versa; words importing gender include the masculine, feminine and neuter genders; and words importing persons include individuals, bodies corporate, partnerships, trusts and unincorporated organizations.

SECTION TWO

ADMINISTRATION

- 2.01 REGISTERED OFFICE, RECORDS OFFICE AND ADDRESS FOR SERVICE. Until changed in accordance with the Act, the registered office of the Corporation, the designated records office (if separate from the registered office) of the Corporation and the post office box (if any) designated as the address for service upon the Corporation by mail shall initially be at the address or addresses in Alberta specified in the notice thereof filed with the articles and thereafter as the board may from time to time determine.
- 2.02 CORPORATE SEAL. The corporate seal of the Corporation shall be in the form as determined by the board from time to time.
- 2.03 FINANCIAL YEAR. The financial year of the Corporation shall be determined by the board from time to time.
- 2.04 EXECUTION OF INSTRUMENTS. Any officer or any director may sign certificates and similar instruments (other than share certificates) on the Corporation's behalf with respect to any

factual matters relating to the Corporation's business and affairs, including certificates certifying copies of the articles, by-laws, resolutions and minutes of meetings of the Corporation. Subject to the foregoing:

- (a) Deeds, transfers, assignments, contracts, obligations, and other instruments shall be signed on behalf of the Corporation by one or more persons who hold the office of director, chairman of the board, president, managing director, vice-president, secretary, treasurer, assistant secretary or assistant treasurer or any other office created by by-law or by resolution of the board. When there is only one director and that director is the only officer of the Corporation, deeds, transfers, assignments, contracts, obligations and other instruments may be signed by that person alone, as director or officer, on behalf of the Corporation;
- (b) Security certificates (including share certificates) shall be signed by at least one director or officer of the Corporation or by or on behalf of a registrar, transfer agent or branch transfer agent of the Corporation or by a trustee who certifies it in accordance with a trust indenture. Any signatures required on a security certificate (including share certificates) may be printed or otherwise mechanically reproduced on it.

In addition, the board may from time to time direct the person or persons by whom any particular instrument or class of instruments may or shall be signed. Any signing officer or director may affix the corporate seal to any instrument requiring the same.

Any resolutions of the directors or shareholders of the Corporation and any documents and other instruments in writing requiring execution on behalf of the Corporation may be executed in separate counterparts, and all such executed counterparts when taken together shall constitute one resolution, document or other instrument in writing as the case may be. The Corporation and the directors and shareholders shall be entitled to rely on delivery of a facsimile copy of any executed resolution of the directors or shareholders of the Corporation or any executed document or other instrument in writing and such facsimile copy shall be legally effective to create a valid and binding resolution, document or other instrument in writing as the case may be.

- 2.05 BANKING ARRANGEMENTS. The banking business of the Corporation including, without limitation, the borrowing of money and the giving of security therefor, shall be transacted with such banks, trust companies or other bodies corporate or organizations as may from time to time be designated by or under the authority of the board. Such banking business or any part thereof shall be transacted under such agreements, instructions and delegations of powers as the board may from time to time prescribe or authorize.
- 2.06 VOTING RIGHTS IN OTHER BODIES CORPORATE. The signing officers of the Corporation may execute and deliver proxies and arrange for the issuance of voting certificates or other evidence of the right to exercise the voting rights attaching to any securities held by the Corporation. Such instruments, certificates or other evidence shall be in favour of such person or persons as may be determined by the officers executing such proxies or arranging for the issuance of voting certificates or such other evidence of the right to exercise such voting rights. In addition, the board, or failing the board, the signing officers of the Corporation, may from time to time direct the manner in which and the person or persons by whom any particular voting rights or class of voting rights may or shall be exercised.

SECTION THREE

BORROWING AND SECURITIES

3.01 BORROWING POWER. Without limiting the borrowing powers of the Corporation as set forth in the Act, but subject to the articles or any unanimous shareholders agreement, the board may from time to time on behalf of the Corporation, without authorization of the shareholders:

- (a) borrow money upon the credit of the Corporation in such amounts and on such terms as may be deemed expedient by obtaining loans or advances or by way of overdraft or otherwise:
- (b) issue, reissue, sell or pledge bonds, debentures, notes or other evidences of indebtedness or guarantee of the Corporation, whether secured or unsecured for such sums and at such prices as may be deemed expedient;
- (c) to the extent permitted by the Act, give a guarantee on behalf of the Corporation to secure performance of any present or future indebtedness, liability or obligation of any person;
- (d) charge, mortgage, hypothecate, pledge or otherwise create a security interest in all or any present and future property, real and personal, immoveable and moveable, of the Corporation, including its undertakings and rights, to secure any bonds, debentures, notes or other evidences of indebtedness or guarantee or any other indebtedness, liability or obligation of the Corporation, present or future; and
- (e) delegate to a committee of the board, a director or an officer of the Corporation all or any of the powers conferred aforesaid or by the Act to such extent and in such manner as the directors may determine.

Nothing in this section limits or restricts the borrowing of money by the Corporation on bills of exchange or promissory notes made, drawn, accepted or endorsed by or on behalf of the Corporation.

3.02 DELEGATION. The board may from time to time delegate to such one or more of the directors and officers of the Corporation as may be designated by the board all or any of the powers conferred on the board by Clause 3.01 or by the Act to such extent and in such manner as the board shall determine at the time of each such delegation.

SECTION FOUR

DIRECTORS

- NUMBER OF DIRECTORS AND QUORUM. Until changed in accordance with the Act, the board shall consist of not fewer than the minimum number and not more than the maximum number of directors provided in the articles. Subject to Clause 4.08, the quorum for the transaction of business at any meeting of the board shall consist of a majority of the Board of Directors of the Corporation or such greater or lesser number of directors as the board may from time to time determine. If a quorum is present at the opening of any meeting of directors, the directors present may proceed with the business of the meeting notwithstanding that a quorum is not present throughout the meeting. If a quorum is not present at the opening of any meeting of directors, the directors present may adjourn the meeting to a fixed time and place but may not transact any other business other than as provided in these by-laws or in the Act until a quorum is present.
- 4.02 QUALIFICATION. The following persons are disqualified from being a director of the Corporation:
 - (a) anyone who is less than 18 years of age;
 - (b) anyone who
 - (i) is a dependent adult as defined in *The Dependent Adults Act* (Alberta) or is the subject of a certificate of incapacity under that Act,

- (ii) is a formal patient as defined in The Mental Health Act, 1972,
- (iii) is the subject of an order under *The Mentally Incapacitated Persons Act* appointing a committee of his person or estate or both, or
- (iv) has been found to be a person of unsound mind by a court elsewhere than in Alberta;
- (c) a person who is not an individual;
- (d) a person who has the status of bankrupt.

A director need not be a shareholder. At least half of the directors shall be resident Canadians.

4.03 CONSENT TO ACT. A person who is elected or appointed a director is not a director unless:

- (a) he was present at the meeting when he was elected or appointed and did not refuse to act as a director, or
- (b) if he was not present at the meeting when he was elected or appointed, he consented to act as a director in writing before his election or appointment or within 10 days after it, or he has acted as a director pursuant to the election or appointment.
- 4.04 ELECTION AND TERM. Shareholders of the Corporation shall, by ordinary resolution at the first meeting of shareholders and at each succeeding annual meeting at which an election of directors is required, elect directors to hold office for a term expiring not later than the close of the annual meeting of shareholders following the election. At each annual meeting of shareholders, all directors whose term of office has expired or then expires shall retire but, if qualified, shall be eligible for re-election. A director not elected for an expressly stated term ceases to hold office at the close of the first annual meeting of shareholders following his election. Notwithstanding the foregoing, if directors are not elected at a meeting of shareholders, the incumbent directors continue in office until their successors are elected. The number of directors to be elected at any such meeting shall be the number of directors whose term of office has expired or then expires unless the directors or the shareholders otherwise determine. It is not necessary that all directors elected at a meeting of shareholders hold office for the same term. If the articles so provide, the directors may, between annual meetings of shareholders, appoint one or more additional directors of the Corporation to serve until the next annual meeting of shareholders, but the number of additional directors shall not at any time exceed one-third of the number of directors who held office at the expiration of the last annual meeting of the Corporation.
- 4.05 REMOVAL OF DIRECTORS. Subject to the Act, the shareholders may, by ordinary resolution passed at a special meeting, remove any director from office and the vacancy created by such removal may be filled at the meeting of the shareholders at which the director was removed or, if not so filled, may be filled by the directors.
- 4.06 CEASING TO HOLD OFFICE. A director ceases to hold office when he dies, when he is removed from office by the shareholders, when he ceases to be qualified for election as a director, or when his written resignation is sent or delivered to the Corporation, or if a time is specified in such resignation, at the time so specified, whichever is later. Provided always that, subject to the Act, the shareholders of the Corporation may by ordinary resolution at a special meeting remove any director or directors from office.
- 4.07 VACANCIES. Subject to the Act, a quorum of the board may fill a vacancy in the board. In the absence of a quorum of the board, the board shall forthwith call a special meeting of the

shareholders to fill the vacancy. If the board fails to call such meeting or if there are no such directors then in office, any shareholder may call the meeting.

- 4.08 ACTION BY THE BOARD. Subject to any unanimous shareholder agreement, the board shall manage the business and affairs of the Corporation. Subject to Clauses 4.09 and 4.10, the powers of the board may be exercised by a meeting at which the quorum is present or by resolution in writing signed by all the directors entitled to vote on that resolution at a meeting of the board. Where there is a vacancy in the board, the remaining directors may exercise all the powers of the board so long as a quorum remains in office. Where the Corporation has only one director, that director may constitute a meeting.
- 4.09 CANADIAN REPRESENTATION. Subject to the Act, the board shall not transact business at a meeting, other than filling a vacancy in the board, unless at least one-half of the directors present are resident Canadians, except where:
 - (a) a resident Canadian director who is unable to be present approves in writing or by telephone or other communications facilities the business transacted at the meeting; and
 - (b) the number of resident Canadian directors present at the meeting, together with any resident Canadian director who gives his approval under clause (a), totals at least half of the directors present at the meeting.
- 4.10 PARTICIPATION BY TELEPHONE. A director may participate in a meeting of the board or of a committee of the board by means of such telephone or other communications facilities as permits all persons participating in the meeting to hear each other, and a director participating in such a meeting by such means is deemed to be present at the meeting.
- 4.11 PLACE OF MEETINGS. Subject to the Articles, meetings of the board may be held at any place in or outside Canada.
- 4.12 CALLING OF MEETINGS. Meetings of the board shall be held from time to time at such time and at such place as the board, the chairman of the board, the managing director, the president or any two directors may determine. Provided always that should more than one of the above named call a meeting at or for substantially the same time there shall be held only one meeting and such meeting shall occur at the time and place determined by, in order of priority, the board, the chairman or the president.
- 4.13 NOTICE OF MEETING. Notice of the time and place of each meeting of the board shall be given in the manner provided in Clause 13.01 to each director not less than forty-eight hours before the time when the meeting is to be held. A notice of a meeting of directors need not specify the purpose of or the business to be transacted at the meeting, except where the Act requires such purpose or business to be specified, including any proposal to:
 - (a) submit to the shareholders any question or matter requiring approval of the shareholders;
 - (b) fill a vacancy among the directors or in the office of auditor;
 - (c) issue securities;
 - (d) declare dividends;
 - (e) purchase, redeem, or otherwise acquire shares of the Corporation;
 - (f) pay a commission for the sale of shares;

- (g) approve a management proxy circular;
- (h) approve any annual financial statements; or
- (i) adopt, amend or repeal by-laws.

A director may, in any manner, waive notice of or otherwise consent to a meeting of the board; and attendance of a director at a meeting of directors is a waiver of notice of the meeting, except when a director attends a meeting for the express purpose of objecting to the transaction of business on the grounds that the meeting is not lawfully called.

- 4.14 FIRST MEETING OF NEW BOARD. Provided a quorum of directors is present, each newly elected board may, without notice, hold its first meeting immediately following the meeting of shareholders at which such board is elected.
- 4.15 ADJOURNED MEETING. Notice of an adjourned meeting of the board is not required if the time and place of the adjourned meeting is announced at the original meeting.
- 4.16 REGULAR MEETINGS. The board may appoint a day or days in any month or months for regular meetings of the board at a place and hour to be named. A copy of any resolution of the board fixing the place and time of such regular meetings shall be sent to each director forthwith after being passed, but no other notice shall be required for any such regular meeting except where the Act requires the purpose thereof or the business to be transacted thereat to be specified.
- 4.17 CHAIRMAN AND SECRETARY. The chairman of the board, or, in his absence, the president, or in his absence, a vice-president shall be chairman of any meeting of the board. If none of the said officers are present, the directors present shall choose one of their number to be chairman. The secretary of the Corporation shall act as secretary at any meeting of the board, and if the secretary of the Corporation be absent, the chairman of the meeting shall appoint a person, who need not be a director, to act as secretary of the meeting.
- 4.18 CASTING VOTES. At all meetings of the board every question shall be decided by a majority of the votes cast on the question. In case of an equality of votes the chairman of the meeting shall not be entitled to a second or casting vote.
- 4.19 CONFLICT OF INTEREST. A director or officer shall not be disqualified by his office, or be required to vacate his office, by reason only that he is a party to, or is a director or officer of or has a material interest in any person who is party to, a material contract or material transaction or proposed material contract or material transaction with the Corporation or subsidiary thereof. Such a director or officer shall, however, disclose the nature and extent of his interest in the contract or transaction at the time and in the manner provided by the Act. Any such contract or transaction or proposed contract or transaction shall be referred to the board or shareholders for approval even if such contract or transaction is one that in the ordinary course of the Corporation's business would not require approval by the board or shareholders. Subject to the provisions of the Act, a director or officer shall not by reason only of his office be accountable to the Corporation or to its shareholders for any profit or gain realized from such a contract or transaction, and such contract or transaction shall not be void or voidable by reason only of the director's or officer's interest therein, provided that the required declaration and disclosure of interest is properly made, the contract or transaction is approved by the directors or shareholders, and it is fair and reasonable to the Corporation at the time it was approved and, if the required by the Act, the director refrains from voting as a director on the contract or transaction at the directors' meeting at which the contract is authorized or approved by the directors, except attendance for the purpose of being counted in the quorum.
- 4.20 REMUNERATION AND EXPENSES. The directors shall be paid such remuneration for their services as the board may from time to time determine. The directors shall also be entitled to be

reimbursed for traveling and other expenses properly incurred by them in attending meetings of the board or any committee thereof. Nothing herein contained shall preclude any director from serving the Corporation in any other capacity and receiving remuneration therefor.

SECTION FIVE

COMMITTEES

- 5.01 COMMITTEE OF DIRECTORS. The board may appoint a committee of directors, however designated, or a managing director, who must be a resident Canadian, and delegate to such committee or managing director any of the powers of the board except those which, under the Act, a committee of directors or managing director has no authority to exercise. At least half of the members of such committee shall be resident Canadians. A committee may be comprised of one director.
- 5.02 TRANSACTION OF BUSINESS. Subject to the provisions of these by-laws relating to participation by telephone, the powers of a committee of directors may be exercised by a meeting at which a quorum is present or by resolution in writing signed by all the members of such committee who would have been entitled to vote on that resolution at a meeting of the committee. Meetings of such committee may be held at any place in or outside Canada and may be called by any one member of the committee giving notice in accordance with the by-laws governing the calling of directors' meetings.
- 5.03 PROCEDURE. Unless otherwise determined herein or by the board, each committee shall have the power to fix its quorum at not less than a majority of its members, to elect its chairman and to regulate its procedure.

SECTION SIX

OFFICERS

- APPOINTMENT OF OFFICERS. Subject to any unanimous shareholder agreement, the board may from time to time appoint a chairman of the board, a managing director (who shall be a resident Canadian), a president, one or more vice-presidents, a secretary, a treasurer and such other officers as the board may determine, including one or more assistants to any of the officers so appointed. The board may specify the duties of and, in accordance with this by-law and subject to the provisions of the Act, delegate to such officers powers to manage the business and affairs of the Corporation. Except for a managing director and a chairman of the board, an officer may but need not be a director and one person may hold more than one office. The president or such other officer as the board may designate, shall be the chief executive officer of the Corporation.
- CHAIRMAN OF THE BOARD. The board may from time to time appoint a chairman of the board who shall be a director. If appointed, the board may assign to him any of the powers and duties that are by any provisions of this by-law assigned to the managing director or to the president; and he shall, subject to the provisions of the Act, have such other powers and duties as the board may specify. He shall preside at all meetings of the shareholders at which he is present. During the absence or disability of the chairman of the board, his duties shall be performed and his powers exercised by the managing director, if any, or by the president if there is no managing director.
- MANAGING DIRECTOR. The board may from time to time appoint a managing director who shall be a resident Canadian and a director. If appointed, he shall have, subject to the authority of the board, general supervision of the business and affairs of the Corporation; and he shall, subject to the provisions of the Act, have such other powers and duties as the board may specify. During the absence or disability of the president, or if no president has been appointed, the managing director shall also have the powers and duties of that office.

- PRESIDENT. If appointed, the president shall, subject to the discretion of the board, be the chief executive officer, and, subject to the authority of the board, shall have general supervision of the business of the Corporation; and he shall have such other powers and duties as the board may specify. During the absence or disability of the managing director, or if no managing director has been appointed, the president shall also have the powers and duties of that office.
- 6.05 VICE-PRESIDENT. A vice-president, if appointed, shall have such powers and duties as the board or the chief executive officer may specify.
- 6.06 SECRETARY. The secretary, if appointed, shall attend and be the secretary of all meetings of the board, shareholders and committees of the board and shall enter or cause to be entered in records kept for that purpose minutes of all proceedings thereat; he shall give or cause to be given, as and when instructed, all notices to shareholders, directors, officers, auditors and members of committees of the board; he shall be the custodian of the stamp or mechanical device generally used for affixing the corporate seal of the Corporation and of all books, papers, records, documents and instruments belonging to the Corporation, except when some other officer or agent has been appointed for that purpose; and he shall have such other powers and duties as the board or the chief executive officer may specify.
- 6.07 TREASURER. The treasurer, if appointed, shall keep proper accounting records in compliance with the Act and shall be responsible for the deposit of money, the safekeeping of securities and the disbursement of the funds of the Corporation; he shall render to the board, whenever required, an account of all his transactions as treasurer and of the financial position of the Corporation; and he shall have such other powers and duties as the board or the chief executive officer may specify.
- 6.08 POWERS AND DUTIES OF OTHER OFFICERS. The powers and duties of all other officers shall be such as the terms of their engagement call for or as the board or the chief executive officer may specify. Any of the powers and duties of an officer to whom an assistant has been appointed may be exercised and performed by such assistant, unless the board or the chief executive officer otherwise directs.
- 6.09 VARIATION OF POWERS AND DUTIES. The board may from time to time and subject to the provisions of the Act, vary, add to or limit the powers and duties of any officer.
- 6.10 TERM OF OFFICE. The board, in its discretion, may remove any officer of the Corporation, without prejudice to such officer's rights under any employment contract. Otherwise each officer appointed by the board shall hold office until his successor is appointed.
- 6.11 TERMS OF EMPLOYMENT AND REMUNERATION. The terms of employment and the remuneration of officers appointed by the board shall be settled by it from time to time. The fact that any officer is a director or shareholder of the Corporation shall not disqualify him from receiving such remuneration as an officer as may be determined.
- 6.12 CONFLICT OF INTEREST. An officer shall disclose his interest in any material contract or proposed material contract with the Corporation in accordance with Clause 4.19.
- 6.13 AGENTS AND ATTORNEYS. The board shall have power from time to time to appoint agents or attorneys for the Corporation in or outside Canada with such powers of management or otherwise (including the power to sub-delegate) as may be thought fit.
- 6.14 FIDELITY BONDS. The board may require such officers, employees and agents of the Corporation as the board deems advisable to furnish bonds for the faithful discharge of their powers and duties, in such forms and with such surety as the board may from time to time determine.

SECTION SEVEN

PROTECTION OF DIRECTORS, OFFICERS AND OTHERS

7.01 LIMITATION OF LIABILITY. Every director and officer of the Corporation in exercising his powers and discharging his duties shall act honestly and in good faith with a view to the best interests of the Corporation and exercise the care, diligence and skill that a reasonably prudent person would exercise in comparable circumstances. Subject to the foregoing, no director or officer shall be liable for the acts, receipts, neglects or defaults of any other director or officer or employee, or for joining in any receipt or other act for conformity, or for any loss, damage or expense happening to the Corporation through the insufficiency or deficiency of title to any property acquired for or on behalf of the Corporation, or for the insufficiency or deficiency of any security in or upon which any of the moneys of the Corporation shall be invested, or for any loss or damage arising from the bankruptcy, insolvency or tortious acts of any person with whom any of the moneys, securities or effects of the Corporation shall be deposited, or for any loss occasioned by any error of judgment or oversight on his part, or for any other loss, damage or misfortune whatsoever which shall happen in the execution of the duties of his office or in relation thereto, unless the same are occasioned by his own wilful neglect or default; provided that nothing herein shall relieve any director or officer from the duty to act in accordance with the Act and the regulations thereunder or from liability for any breach thereof.

No act or proceeding of any director or officer or the board shall be deemed invalid or ineffective by reason of the subsequent ascertainment of any irregularity in regard to such act or proceeding or the qualification of such director or officer or board.

Directors may rely upon the accuracy of any statement or report prepared by the Corporation's auditors, internal accountants or other responsible officials and shall not be responsible or held liable for any loss or damage resulting from the paying of any dividends or otherwise acting upon such statement or report.

- 7.02 INDEMNITY. Subject to the limitations contained in the Act, the Corporation shall indemnify a director or officer, a former director or officer, or a person who acts or acted at the Corporation's request as a director or officer of a body corporate of which the Corporation is or was a shareholder or creditor (or a person who undertakes or has undertaken any liability on behalf of the Corporation or any such body corporate) and his heirs and legal representatives, against all costs, charges and expenses, including an amount paid to settle an action or satisfy a judgment, reasonably incurred by him in respect of any civil, criminal or administrative action or proceeding to which he is made a party by reason of being or having been a director or officer of the Corporation or such body corporate, if:
 - (a) he acted honestly and in good faith with a view to the best interests of the Corporation; and
 - (b) in the case of a criminal or administrative action or proceeding that is enforced by a monetary penalty, he had reasonable grounds for believing that his conduct was lawful.
- 7.03 INSURANCE. Subject to the limitations contained in the Act, the Corporation may purchase and maintain such insurance for the benefit of any person referred to in section 7.02 against any liability incurred by him, as the board may from time to time determine.

SECTION EIGHT

SHARES

8.01 ALLOTMENT AND ISSUE. The board may, from time to time, allot, or grant options to purchase the whole or any part of the authorized and unissued shares of the Corporation at such times and to such persons and for such consideration as the board shall determine, provided that no share shall

be issued until it is fully paid as prescribed by the Act. Subject to the articles, no holder of any class of share of the capital of the Corporation shall be entitled as of right to subscribe for, purchase or receive any part of any new or additional issue of shares of any class, whether now or hereafter authorized or any bonds, debentures or other securities convertible into shares of any class.

- 8.02 COMMISSIONS. The board may from time to time authorize the Corporation to pay a commission to any person in consideration of his purchasing or agreeing to purchase shares of the Corporation, whether from the Corporation or from any other person, or procuring or agreeing to procure purchasers for any such shares.
- 8.03 SECURITIES REGISTER. The Corporation shall maintain a securities register in which it records the securities issued by it in registered form, showing with respect to each class or series of securities:
 - (a) the names, alphabetically arranged, and the latest known address of each person who is or has been a security holder,
 - (b) the number of securities held by each security holder, and
 - (c) the date and particulars of the issue and transfer of each security.

The Corporation shall keep the information entered in the securities register for the period of time prescribed in the regulations to the Act.

- RANSFER AGENTS AND REGISTRARS. The board may from time to time appoint one or more trust companies registered under *The Trust Companies Act* (Alberta) as its agent or agents to maintain the central securities register or registers, and an agent or agents to maintain branch securities registers. Such a person may be designated as transfer agent or registrar according to his functions and one person may be appointed both registrar and transfer agent. The board may at any time terminate such appointment.
- 8.05 REGISTRATION OF TRANSFER. Subject to the Act, no transfer of shares shall be registered in a securities register except upon presentation of the certificate representing such shares with a transfer endorsed thereon or delivered therewith duly executed by the registered holder or by his attorney or successor duly appointed, together with such reasonable assurance or evidence of signature, identification and authority to transfer as the board may from time to time prescribe, upon payment of all applicable taxes and any fees prescribed by the board; upon compliance with such restrictions on transfer as are authorized by the articles and upon satisfaction of any lien referred to in Clause 8.06.
- 8.06 LIEN FOR INDEBTEDNESS. If the articles provide that the Corporation shall have a lien on shares registered in the name of a shareholder indebted to the Corporation, such lien may be enforced, subject to any other provision of the articles and to any unanimous shareholder agreement, by the sale of the shares thereby affected, or by the cancellation by the Corporation of the shares thereby affected and the appropriate corresponding reduction of the stated capital account for said shares, or by any other action, suit, remedy or proceeding authorized or permitted by law or by equity and, pending such enforcement, may refuse to register a transfer of the whole or any part of such shares.
- 8.07 NON-RECOGNITION OF TRUSTS. Subject to the provisions of the Act, the Corporation shall treat as absolute owner of any share the person in whose name the share is registered in the securities register as if that person had full legal capacity and authority to exercise all rights of ownership irrespective of any indication to the contrary through knowledge or notice or description in the Corporation's records or on the share certificate.
- 8.08 SHARE CERTIFICATES. Every holder of one or more shares of the Corporation shall be entitled, at his option, to a share certificate, or to a non-transferable written acknowledgement of his

right to obtain a share certificate, stating the name of the person to whom the certificate or acknowledgment was issued, and the number and class or series of shares held by him as shown on the securities register. Share certificates and acknowledgments of a shareholder's right to a share certificate, shall, subject to the Act, be in such form as the board shall from time to time approve. Any share certificate shall be signed in accordance with Clause 2.04 and need not be under the corporate seal; provided that, unless the board otherwise determines, certificates representing shares in respect of which a transfer agent and/or registrar has been appointed shall not be valid unless countersigned by or on behalf of such transfer agent and/or registrar. The signature of one of the signing officers or, in the case of share certificates which are not valid unless countersigned by or on behalf of a transfer agent and/or registrar, the signatures of both signing officers may be printed or mechanically reproduced in facsimile upon share certificates and every such facsimile signature shall for all purposes be deemed to be the signature of the officer whose signature it reproduces and shall be binding upon the Corporation. A share certificate executed as aforesaid shall be valid notwithstanding that one or both of the officers whose facsimile signature appears thereon no longer holds office at the date of issue of the certificate.

- 8.09 REPLACEMENT OF SHARE CERTIFICATES. The board or any officer or agent designated by the board may in its or his discretion direct the issue of a new share certificate in lieu of and upon cancellation of a share certificate that has been mutilated or in substitution for a share certificate claimed to have been lost, destroyed or wrongfully taken on payment of such fee, not exceeding the maximum amount prescribed in the regulations to the Act for a share certificate issued in respect of a transfer, and on such terms as to indemnity, reimbursement of expenses and evidence of loss and of title as the board may from time to time prescribe, whether generally or in any particular case.
- 8.10 JOINT SHAREHOLDERS. If two or more persons are registered as joint holders of any share, the Corporation shall not be bound to issue more than one certificate in respect thereof, and delivery of such certificate to one of such persons shall be sufficient delivery to all of them. Any one of such persons may give effectual receipts for the certificates issued in respect thereof or for any dividend, bonus, return of capital or other money payable or warrant issuable in respect of such shares.
- 8.11 DECEASED SHAREHOLDERS. In the event of the death of a holder, or one of the joint holders, of any share, the Corporation shall not be required to make any entry in the register of shareholders in respect thereof except on production of all such documents as may be required by law and upon compliance with the reasonable requirements of the Corporation and its transfer agents.

SECTION NINE

DIVIDENDS AND RIGHTS

- 9.01 DIVIDENDS. Subject to the provisions of the Act, the board may, from time to time, declare dividends payable to the shareholders according to their respective rights and interest in the Corporation. Dividends may be paid in money or property or by issuing fully paid shares of the Corporation.
- 9.02 DIVIDEND CHEQUES. A dividend payable in cash shall be paid by cheque drawn on the Corporation's bankers or one of them to the order of each registered holder of shares of the class or series in respect of which it has been declared and mailed by prepaid ordinary mail to such registered holder at his recorded address, unless such holder otherwise directs. In the case of joint holders the cheque shall, unless such joint holders otherwise direct, be made payable to the order of all such joint holders and mailed to them at their recorded address. The mailing of such cheque as aforesaid, unless the same is not paid on due presentation, shall satisfy and discharge the liability for the dividend to the extent of the sum represented thereby plus the amount of any tax which the Corporation is required to and does withhold.
- 9.03 NON-RECEIPT OF CHEQUES. In the event of non-receipt of any dividend cheque by the person to whom it is sent as aforesaid, the Corporation shall issue to such person a replacement

cheque for a like amount on such terms as to indemnity, reimbursement of expenses and evidence of non-receipt and of title as the board may from time to time prescribe, whether generally or in any particular case.

9.04 RECORD DATE FOR DIVIDENDS AND RIGHTS. The board may fix in advance a date, preceding by not more than 50 days the date for the payment of any dividend or the date for the issue of any warrant or other evidence of right to subscribe for securities of the Corporation, as a record date for the determination of the persons entitled to receive payment of such dividend or to receive the right to subscribe for such securities, provided that if the Corporation is a distributing corporation, notice of any such record date is given, not less than 7 days before such record date, in the manner provided in the Act. Where no record date is fixed in advance as aforesaid, the record date for the determination of the persons entitled to receive payment of any dividend or to receive the right to subscribe for securities of the Corporation shall be at the close of business on the day on which the resolution relating to such dividend or right to subscribe is passed by the board.

9.05 UNCLAIMED DIVIDENDS. Any dividend unclaimed after a period of six years from the date on which the same has been declared to be payable shall be forfeited and shall revert to the Corporation.

SECTION TEN

MEETINGS OF SHAREHOLDERS

10.01 ANNUAL MEETINGS. The annual meeting of shareholders shall be held at such time in each year and, subject to the Act and to Clause 10.04, at such place as the board, the chairman of the board, the managing director or the president may from time to time determine, for the purpose of considering the financial statements and reports required by the Act to be placed before the annual meeting, electing directors, appointing auditors and for the transaction of such other business as may properly be brought before the meeting.

10.02 SPECIAL MEETINGS. The board, the chairman of the board, the managing director or the president shall have power to call a special meeting of shareholders at any time.

10.03 SPECIAL BUSINESS. All business transacted at a special meeting of shareholders and all business transacted at an annual meeting of shareholders, except consideration of the financial statements and auditor's report, fixing the number of directors for the following year, election of directors and reappointment of the incumbent auditors, is deemed to be special business.

10.04 PLACE OF MEETINGS. Meetings of shareholders shall be held at the registered office of the Corporation or elsewhere in the municipality in which the registered office is situate or, if the board shall so determine, at some other place in Alberta or, if all the shareholders entitled to vote at the meeting so agree, at some place outside Alberta. Notwithstanding the foregoing, if the articles of the Corporation so provide, meetings of shareholders may be held outside Alberta at one or more places specified in the articles.

NOTICE OF MEETINGS. Notice of the time and place of each meeting of shareholders shall be given in the manner provided in Clause 13.01 not less than 21 days nor more than 50 days before the date of the meeting to each director, to the auditor and to each shareholder who at the close of business on the record date for notice is entered in the securities register as the holder of one or more shares carrying the right to vote at the meeting. Notice of a meeting of shareholders called for any purpose other than consideration of the financial statements and auditor's report, election of directors and re-appointment of the incumbent auditor shall state the nature of such business in sufficient detail to permit the shareholder to form a reasoned judgment thereon and shall state the text of any special resolution to be submitted to the meeting. A shareholder may in any manner waive notice of or otherwise consent to a meeting of shareholders.

10.06 RECORD DATE FOR NOTICE. The board may fix in advance a date, preceding the date of any meeting of shareholders by not more than 50 days and not less than 21 days, as a record date for the determination of the shareholders entitled to notice of the meeting, provided that if the Corporation is a distributing corporation, notice of any such record date shall be given not less than 7 days before such record date in the manner provided in the Act. If no such record date is so fixed, the record date for the determination of the shareholders entitled to receive notice of the meeting shall be at the close of business on the date immediately preceding the day on which the notice is sent or, if no notice is sent, shall be the day on which the meeting is held.

LISTS OF SHAREHOLDERS ENTITLED TO NOTICE. If the Corporation has more than 15 shareholders entitled to vote at a meeting of shareholders, the Corporation shall prepare a list of shareholders entitled to receive notice of the meeting, arranged in alphabetical order and showing the number of shares held by each shareholder. If a record date for the meeting is fixed pursuant to Clause 10.06, the shareholders listed shall be those registered at the close of business on such record date. If no record date is fixed, the shareholders listed shall be those registered at the close of business on the day immediately preceding the day on which notice of the meeting is given, or where no such notice is given, on the day on which the meeting is held. The list shall be available for examination by any shareholder during usual business hours at the records office of the Corporation or at the place where the central securities register is maintained and at the meeting for which the list was prepared.

10.08 MEETINGS WITHOUT NOTICE. A meeting of shareholders may be held without notice at any time and place permitted by the Act:

- (a) if all the shareholders entitled to vote thereat are present in person or represented by proxy or if those not present or represented by proxy, waive notice of or otherwise consent to such meeting being held, and
- (b) if the auditors and the directors are present or waive notice of or otherwise consent to such meeting being held;

so long as such shareholders, auditors or directors present are not attending for the express purpose of objecting to the transaction of any business on the grounds that the meeting is not lawfully called. At such a meeting any business may be transacted which the Corporation at a meeting of shareholders may transact. If the meeting is held at a place outside Alberta, shareholders not present or represented by proxy, but who have waived notice of or otherwise consented to such meeting, shall also be deemed to have consented to the meeting being held at such place.

- 10.09 CHAIRMAN AND SECRETARY. The chairman of any meeting of shareholders shall be the chairman, or in his absence, the president, or in his absence, a vice-president who is a shareholder. If no such officer is present within fifteen minutes from the time fixed for holding the meeting, the persons present and entitled to vote shall choose one of their number to be chairman. If the secretary of the Corporation is absent, the chairman shall appoint some person, who need not be a shareholder, to act as secretary of the meeting.
- 10.10 PERSONS ENTITLED TO BE PRESENT. The only persons entitled to be present at a meeting of shareholders shall be those entitled to vote thereat, the directors and auditors of the Corporation and others who, although not entitled to vote, are entitled or required under any provision of the Act or the articles or by-laws to be present at the meeting. Any other person may be admitted only on the invitation of the chairman of the meeting or with the consent of the meeting.
- 10.11 QUORUM. A quorum for the transaction of business at any meeting of shareholders shall be at least one person present in person, being a shareholder entitled to vote thereat or a duly appointed proxy or representative for an absent shareholder so entitled and representing in the aggregate not less than five percent (5%) of the outstanding shares of the Corporation carrying voting rights at the meeting. If a quorum is present at the opening of any meeting of shareholders, the shareholder(s) present

or represented may proceed with the business of the meeting notwithstanding that a quorum is not present throughout the meeting. If a quorum is not present at the opening of any meeting of shareholders, the shareholder(s) present or represented may adjourn the meeting to a fixed time and place but may not transact any other business other than as provided in these By-laws or in the Act until a quorum is present.

- 10.12 RIGHT TO VOTE. Every person named in the list referred to in Clause 10.07 shall be entitled to vote the shares shown thereon opposite his name at the meeting to which such list relates, except to the extent that:
 - (a) where the Corporation has fixed a record date in respect of such meeting, such person has transferred any of his shares after such record date or, where the Corporation has not fixed a record date in respect of such meeting, such person has transferred any of his shares after the date on which such list is prepared, and
 - (b) the transferee, having produced properly endorsed certificates evidencing such shares or having otherwise established that he owns such shares, has demanded not later than 10 days before the meeting that his name be included in such list.

In any such excepted case, the transferee shall be entitled to vote the transferred shares at such meeting. . If the Corporation is not required to prepare a list under Clause 10.07, subject to the provisions of the Act and this by-law as to proxies and representatives, at any meeting of shareholders, every person shall be entitled to vote at the meeting who at the time is entered in the securities register as the holder of one or more shares carrying the right to vote at such meeting.

- 10.13 PROXIES AND REPRESENTATIVES. Every shareholder entitled to vote at a meeting of shareholders may appoint a proxyholder, or one or more alternate proxyholders, who need not be shareholders, to attend and act at the meeting in the manner and to the extent authorized and with the authority conferred by the proxy. A proxy shall be in writing executed by the shareholder or his attorney and shall conform with the requirements of the Act. Alternatively, every such shareholder which is a body corporate or association may authorize, by resolution of its directors or governing body, an individual, who need not be a shareholder, to represent it at a meeting of shareholders and such individual may exercise on the shareholder's behalf all the powers it could exercise if it were an individual shareholder. The authority of such an individual shall be established by depositing with the Corporation a certified copy of such resolution, or in such other manner as may be satisfactory to the secretary of the Corporation or the chairman of the meeting.
- 10.14 TIME FOR DEPOSIT OF PROXIES. The board may specify in a notice calling a meeting of shareholders a time, preceding the time of such meeting or an adjournment thereof by not more than 48 hours, exclusive of non-business days, before which proxies to be used at such meeting must be deposited. A proxy shall be acted upon only if, prior to the time so specified, it shall have been deposited with the Corporation or an agent thereof specified in such notice or, if no such time is specified in such notice, it has been received by the secretary of the Corporation or by the chairman of the meeting or any adjournment thereof prior to the time of voting.
- 10.15 JOINT SHAREHOLDERS. If two or more persons hold shares jointly, any one of them present in person or represented at a meeting of shareholders may, in the absence of the other or others vote the shares; but if two or more of those persons are present in person or represented and vote, they shall vote as one on the shares jointly held by them.
- 10.16 VOTES TO GOVERN. At any meeting of shareholders every question shall, unless otherwise required by the articles or by-laws or by law, be determined by the majority of the votes cast on the question. In case of an equality of votes either upon a show of hands or upon a poll, the chairman of the meeting shall not be entitled to a second or casting vote.

- SHOW OF HANDS. Subject to the provisions of the Act, any question at a meeting of shareholders shall be decided by a show of hands, unless a ballot thereon is required or demanded as hereinafter provided. Upon a show of hands every person who is present and entitled to vote shall have one vote. Whenever a vote by a show of hands shall have been taken upon a question, unless a ballot thereon is so required or demanded, a declaration by the chairman of the meeting that the vote upon the question has been carried or carried by a particular majority or not carried and an entry to that effect in the minutes of the meeting shall be prima facie evidence of the fact without proof of the number or proportion of the votes recorded in favour of or against any resolution or other proceeding in respect of the said question, and the result of the vote so taken shall be the decision of the shareholders upon the said question.
- 10.18 BALLOTS. On any question proposed for consideration at a meeting of shareholders, any shareholder or proxyholder entitled to vote at the meeting may require or demand a ballot, either before or on the declaration of the result of any vote by show of hands. A ballot so required or demanded shall be taken in such manner as the chairman shall direct. A requirement or demand for a ballot may be withdrawn at any time prior to the taking of the ballot. If a ballot is taken, each person present shall be entitled, in respect of the shares which he is entitled to vote at the meeting upon the question, to that number of votes provided by the Act or the articles, and the result of the ballot so taken shall be the decision of the shareholders upon the said question.
- 10.19 ADMISSION OR REJECTION OF A VOTE. In case of any dispute as to the admission or rejection of a vote, the chairman shall determine the same and such determination made in good faith shall be final and conclusive.
- ADJOURNMENT. If a meeting of the shareholders is adjourned by one or more adjournments for an aggregate of less than thirty days, it shall not be necessary to give notice of the adjourned meeting, other than by announcement at the time of an adjournment. If a meeting of shareholders is adjourned by one or more adjournments for an aggregate of thirty days or more, notice of the adjourned meeting shall be given as for an original meeting.
- MEETINGS BY TELEPHONE. A shareholder or any other person entitled to attend a meeting of shareholders may participate in the meeting by means of telephone or other communication facilities that permit all persons participating in the meeting to hear each other, and a person participating in such a meeting by those means is deemed to be present at the meeting.
- 10.22 RESOLUTION IN WRITING. A resolution in writing signed by all the shareholders entitled to vote on that resolution at a meeting of shareholders is as valid as if it had been passed at a meeting of the shareholders.
- 10.23 ONLY ONE SHAREHOLDER. Where the Corporation has only one shareholder or only one holder of any class or series of shares, the shareholder present in person or by proxy constitutes a meeting.

SECTION ELEVEN

DIVISIONS AND DEPARTMENTS

11.01 CREATION AND CONSOLIDATION OF DIVISIONS. The board may cause the business and operations of the Corporation or any part thereof to be divided or to be segregated into one or more divisions upon such basis, including without limitation, character or type of operation, geographical territory, product manufactured or service rendered, as the board may consider appropriate in each case. The board may also cause the business and operations of any such division to be further divided into sub-units and the business and operations of any such divisions or sub-units shall be consolidated upon such basis as the board may consider appropriate in each case.

- 11.02 NAME OF DIVISION. Subject to law, any division or its sub-units may be designated by such name as the board may from time to time determine and may transact business, enter into contracts, sign cheques and other documents of any kind and do all acts and things under such name. Any such contract, cheque or document shall be binding upon the Corporation as if it had been entered into or signed in the name of the Corporation.
- 11.03 OFFICERS OF DIVISIONS. From time to time the board or, if authorized by the board, the chief executive officer, may appoint one or more officers for any division, prescribe their powers and duties and settle their terms of employment and remuneration. The board or, if authorized by the board, the chief executive officer, may remove at its or his pleasure any officer so appointed without prejudice to such officer's rights under any employment contract. Officers of divisions or their sub-units shall not, as such, be officers of the Corporation.

SECTION TWELVE

INFORMATION AVAILABLE TO SHAREHOLDERS

- 12.01 Except as provided by the Act, no shareholder shall be entitled to discovery of any information respecting any details or conduct of the Corporation's business which in the opinion of the directors would be inexpedient in the interests of the Corporation to communicate to the public.
- 12.02 The directors may, from time to time, subject to the rights conferred by the Act, determine whether and to what extent and at what time and place and under what circumstances or regulations the documents, books and registers and accounting records of the Corporation or any of them shall be open to inspection of shareholders and no shareholder shall have any right to inspect any document or book or register or accounting records of the Corporation except as conferred by statute or authorized by the board of directors or by a resolution of the shareholders.

SECTION THIRTEEN

NOTICES

- 13.01 METHOD OF GIVING NOTICES. Any notice (which term includes any communication or document) to be given (which term includes sent, delivered or served) pursuant to the Act, the regulations thereunder, the articles, the by-laws or otherwise to a shareholder, director, officer, auditor or member of a committee of the board shall be sufficiently given if delivered personally to the person to whom it is to be given or if delivered to his recorded address or if mailed to him at his recorded address by prepaid ordinary or air mail or if sent to him at his recorded address by any means of prepaid transmitted or recorded communication. A notice so delivered shall be deemed to have been given when it is delivered personally or to the recorded address as aforesaid; a notice so mailed shall be deemed to have been given when deposited in a post office or public letter box; and a notice so sent by any means of transmitted or recorded communication shall be deemed to have been given when dispatched or delivered to the appropriate communication company or agency or its representative for dispatch. The secretary may change or cause to be changed the recorded address of any shareholder, director, officer, auditor or member of a committee of the board in accordance with any information believed by him to be reliable.
- 13.02 NOTICE TO JOINT SHAREHOLDERS. If two or more persons are registered as joint holders of any share, any notice shall be addressed to all of such joint holders but notice to one of such persons shall be sufficient notice to all of them.
- 13.03 COMPUTATION OF TIME. In computing the date when notice must be given under any provision requiring a specified number of days' notice of any meeting or other event, the date of giving the notice shall be excluded and the date of the meeting or other event shall be included.

- 13.04 UNDELIVERED NOTICES. If notices given to a shareholder pursuant to Clause 13.01 are returned on three consecutive occasions because he cannot be found, the Corporation shall not be required to give any further notices to such shareholder until he informs the Corporation in writing of his new address.
- 13.05 OMISSIONS AND ERRORS. The accidental omission to give any notice to any shareholder, director, officer, auditor or member of a committee of the board or the non-receipt of any notice by any such person or any error in any notice not affecting the substance thereof shall not invalidate any action taken at any meeting held pursuant to such notice or otherwise founded thereon.
- 13.06 PERSONS ENTITLED BY DEATH OR OPERATION OF LAW. Every person who, by operation of law, transfer, death of a shareholder or any other means whatsoever, shall become entitled to any share, shall be bound by every notice in respect of such share which shall have been duly given to the shareholder from whom he derives his title to such share prior to his name and address being entered on the securities register (whether such notice was given before or after the happening of the event upon which be became so entitled) and prior to his furnishing to the Corporation the proof of authority or evidence of his entitlement prescribed by the Act.
- 13.07 WAIVER OF NOTICE. Any shareholder (or his duly appointed proxyholder), director, officer, auditor or member of a committee of the board may at any time waive any notice, or waive or abridge the time for any notice, required to be given to him under any provision of the Act, the regulations thereunder, the articles, the by-laws or otherwise and such waiver or abridgement shall cure any default in the giving or in the time of such notice, as the case may be. Any such waiver or abridgement shall be in writing except a waiver of notice of a meeting of shareholders or of the board which may be given in any manner.

SECTION FOURTEEN

EFFECTIVE DATE (AND REPEAL)

- 14.01 EFFECTIVE DATE. This by-law shall come into force when made by the board in accordance with the Act.
- 14.02 REPEAL. All previous by-laws of the Corporation are repealed as of the coming into force of this by-law. Such repeal shall not affect the previous operation of any by-law so repealed or affect the validity of any act done or right, privilege, obligation or liability acquired or incurred under, or the validity of any contract or agreement made pursuant to, or the validity of any articles (as defined in the Act) or predecessor charter documents of the Corporation obtained pursuant to, any such by-law prior to its repeal. All officers and persons acting under any by-law so repealed shall continue to act as if appointed under the provisions of this by-law and all resolutions of the shareholders or the board or a committee of the board with continuing effect passed under any repealed by-law shall continue to be good and valid except to the extent inconsistent with this by-law and until amended or repealed.

ENACTED the 18th day of December, 2009 pursuant to the amalgamation of Cathedral Energy Services Ltd., SemBioSys Genetics Inc. and Advance Wireline Inc. effected in accordance with the terms of the Plan of Arrangement filed with the Registrar of Corporations on the 18th day of December, 2009.

(signed) "Mark L. Bentsen"