and line heaters. Cessco also builds large custom equipment and machinery for general industry. Skilled tradesmen for field construction and maintenance can be provided by the company's Field Services Division.

CH2M Hill Engineering Ltd.

1100, 815 - 8th Avenue S.W. Calgary, Alberta Canada T2P 3P2

Telephone: (403) 237-9300 Facsimile: (403) 237-7715 Contact: Steven L. Lackey, President

CH2M Hill Engineering Ltd. is a consulting engineering company. Founded in 1978, the company has received numerous awards for innovative engineering. It provides conceptual design studies, detailed designs and construction management services related to heavy oil projects, oil production, produced water treatment and disposal, and natural gas productions. All facets of project design are provided in-house, including water sourcing, gathering systems and pipeline networks, gas sweetening and sulphur removal, and environmental assessment. The company is a recognized leader in the technology related to the treatment of produced water for reuse as steam generator feedwater in heavy oil projects.

Challenger International Services Ltd.

1000, 715 - 5th Avenue S.W. Calgary, Alberta Canada T2P 2X6

Telephone: (403) 269-3121 Facsimile: (403) 265-9296

Telex: 03-825576

Answer Back: chal cgy
Contact: Ken W. McInnis, Director

of Marketing

Established in 1929, Challenger International Services Ltd. has developed into a major international onshore and offshore drilling and well servicing contractor. It has drilled daytime work, footage and turnkey contracts, both onshore and offshore, on five continents. The company is supported by a fleet of 40 drilling rigs with depth capacities from 2 000 to 7 500 m (6 500 to 24 500 ft.), 59

service rigs with depth capacities to 5 500 m (18 000 ft.) and a complete fleet of support vehicles and equipment. The company also provides training and management, supervisory and labour contracting services, as well as specialty drilling for the mining and construction industries.

Challenger Surveys & Services Ltd.

200, 6011 - 1A Street S.W. Calgary, Alberta Canada T2H 0G5

Telephone: (403) 253-8101
Facsimile: (403) 253-1985
Contact: J. Tom Lockhart, Manager,
International Business

Challenger Surveys & Services Ltd. is a multidisciplinary survey firm, offering a diverse range of survey services, including offshore surveys. The company has operating experience more than 20 countries. The range of professional services offered includes tegal and Cadastral surveys, control surveys, oit field surveys, construction surveys, seismic surveys, hydrographic surveys, offshore surface and subsurface positioning and navigation, geohazard surveys, engineering surveys. gravity and magnetic surveys, software and hardware system design, drafting services, satellite control surveys (Transit and GPS), and research and development.

Chambers Engineering Ltd.

17319 - 108th Avenue Edmonton, Alberta Canada T5S 1G2

Telephone: (403) 484-4447 Facsimile: (403) 484-4581

Chambers Engineering Ltd. specializes in oil field and oil well production optimization, using the *C.E. 1000* dynamometer and company developed software. The company also offers training courses and production engineering studies and is available for foreign and domestic operations. It provides full service and supplies for these instruments. The *C.E. 1000* is a microcomputer-driven instrument; it is field rugged and can store data for 40 well surveys. The company has developed an advanced library of related software

covering all phases of pumping oil well analysis. The company's dynamometer service evaluates all aspects of the pumping system from pump intake pressure through mechanical condition of the pump and tubing anchor, stresses in the sucker rod string, loading on the gear box, and beam and power requirement.

Chase Manufacturing Inc.

Box 12, Site 5, RR 5 Calgary, Alberta Canada T2P 2G6

Telephone: (403) 279-2809 Facsimile: (403) 236-1328 Contact: Robert G. Herron, President

Chase Manufacturing Inc. produce and supply casing and tubing couplings to the worldwide oil industry. Advanced computer numeric controlled lathes are operated by skilled technicians, producing threads to exacting standards and close dimensional tolerances. Licensed by the American Petroleum Institute since 1985, the company has produced couplings in both round and buttress thread form and in diameters from 2 % to 13 % in.

Chimo Equipment Ltd.

100, 909 - 7th Avenue S.W. Calgary, Alberta Canada T2P 1A6

Telephone: (403) 264-2245 Facsimile: (403) 264-8848 Contact: Robert W. Logan, President

Chimo Equipment Ltd., established in 1973, manufactures the *WATCHDOG* line of electronic drilling instrumentation. The *WATCHDOG* Model 303IS PVT Plus System is a microprocessor-based monitoring system which is designed to operate safely in all climatic conditions within a temperature range of -40° C to +70° C and to withstand the toughest oil field conditions.