

November 30, 2000

Ms. Lily Lau-Porta Reservoir Engineering Advisor ISH Energy Ltd. 2450 Canterra Tower 400 - 3rd Avenue SW CALGARY, AB T2P 4H2 OGC-000276

Ish Project (02)

Ish Waterflood Project (03)

3410-7600-59240-09

Dear Ms. Lau-Porta:

RE: PRESSURE MAINTENANCE APPROVAL; AMENDMENT #4
DESAN PEKISKO POOL

This refers to your application dated November 3, 2000 wherein you requested an amendment to the waterflood pressure maintenance approval in the subject oil pool.

Attached is Approval 96-09-003 (Amendment #4) for the application, granted under section 100 of the <u>Petroleum and Natural Gas Act</u> (previously section 116).

Approval is granted to alter two additional wells, d-24-D and d-26-D/94-P-7, to water injection service. This should aid in oil recovery from the pool. With this addition of injectors and expansion of the approval area, this waterflood is considered to be operating under a full-scale pressure maintenance scheme.

Please note that the Good Engineering Practice (GEP) Approval 96-06-001 granted on April 24, 1996 for the Desan Pekisko Pools has been amended by excluding the area which now forms the full-scale pressure maintenance scheme area of Approval 96-09-003 (Amendment #4). Accordingly, attached also is the GEP Approval 96-06-001 (Amendment #1) granted under Part 8, Division 6, section 101 of the Drilling and Production Regulation.

Yours sincerely,

Casing Sill	Approval Letters to Industry GEP, SWD, CONCURRENT PROD, PRESSURE MAINTENANCE, WATERFLOOD, ETC.
Craig Gibson, P. Eng. Manager	Copy 9 Wellfile (originals) 59240
Reservoir Engineering and Geology	Daily Resource Revenue
Attachments	S. Chicorelli R. Stefik
ENGINEERING AND GEOLOGY BRA PO Box 9329 Stn Prov Gov't, Victoria BC V8W 9N3 Tel: (250) 98 Location: 6 <sup>th</sup> Flr 1810 Blanshard St. Victor	G. Farr P. Attariwala D. Krezanoski

Headquarters: #200, 10003 110<sup>th</sup> Ave, Fort St. John BC V1J 6M7 Tel: (250) 261-572§

## APPROVAL 96-09-003 (Amendment # 4)

## THE PROVINCE OF BRITISH COLUMBIA PETROLEUM AND NATURAL GAS ACT OIL AND GAS COMISSION

IN THE MATTER of a pressure maintenance scheme of ISH Energy Ltd. (ISH) for waterflood recovery of oil by water injection into the Desan Pekisko Pool.

The approval granted pursuant to Section 100 of the <u>Petroleum and Natural Gas Act</u>, R.S.B.C. 1996, c.361 is hereby amended as follows:

The pressure maintenance scheme of ISH for waterflood recovery of oil from the Desan Pekisko Pool as described in the applications from ISH dated April 9, 1996, April 4, 1997, October 16, 1997 and November 3, 2000 is hereby amended, subject to the terms herein contained.

- 1. The pressure maintenance scheme area shall be delineated by units 65, 74 76, 84 87, 94 98 of Block L/94-P-2 and units 4 8, 14 17 and 24 27 of Block D/94-P-7.
- 2. Water may be injected into the Desan Pekisko Pool through the wells d-74-L, d-76-L, d-85-L, d-87-L, d-96-L/94-P-2 and d-5-D, d-24-D and d-26-D/94-P-7.
- 3. The injection pressure measured at the sandface must not exceed the formation fracture pressure.
- 4. An oil well may be drilled anywhere within the scheme area provided that it is not nearer than 100 m to the sides of the scheme area.
- 5. Progress reports shall be filed as stipulated in Section 8 of the *Petroleum and Natural Gas General Regulation*.
- 6. The operations of the pressure maintenance scheme will be subject to periodic review and modification to the approval may be ordered, if deemed appropriate.

Craig Gibson

Manager

Reservoir Engineering and Geology

DATED AT the City of Victoria, in the Province of British Columbia, this 30th day of November, 2000.

## **APPROVAL 96-06-001 (Amendment #1)**

## THE PROVINCE OF BRITISH COLUMBIA PETROLEUM AND NATURAL GAS ACT DRILLING AND PRODUCTION REGULATION OIL AND GAS COMMISSION

IN THE MATTER of a Good Engineering Practice (GEP) scheme of ISH Energy Ltd. (ISH) for producing the Desan Pekisko Pools with a project oil allowable.

NOW, THEREFORE, the Commission, pursuant to Part 8, Division 6, section 101 (previously section 104) of the *Drilling and Production Regulation*, hereby amends the GEP scheme of ISH for oil production with a project allowable, as such scheme is described in

an Application from ISH Energy Ltd. dated March 21, 1996, and related submission.

This scheme is approved, subject to the conditions herein contained and, in particular:

- The area of the scheme shall consist of units 78 80, 88 90, 98 100 of Block K, units 52 54, 62 64, 71 73, 81 83, 91 93, 99, 100 of Block L/94-P-2, unit 91 of Block L/94-P-3, unit 1 of Block A/94-P-6, units 8 10, 18 20, 30, 60, 68 70, 78 80, 88 90, 96 100 of Block C, units 1 3, 9 13, 21 23, 31 39, 41 49, 51, 52, 54 57, 61 67, 71 77, 81 87, 91 97 of Block D, units 1 7, 11 17, 21 27, 31, 34 39, 41, 44 49 of Block E and units 6 10, 18 20, 28 30, 38 40, 48 50, 59, 60, 69, 70 of Block F/94-P-7.
- 2. The scheme daily oil allowable is waived.
- 3. An oil well may be drilled anywhere within the project area provided that it is not nearer than 100 m to the sides of the approved area.
- 4. This approval may be modified or rescinded at a later date if deemed appropriate.

Craig Gibson

Manager

Reservoir Engineering and Geology

DATED AT the City of Victoria, in the Province of British Columbia, this 30th day of November, 2000.