NORTHWEST TERRITORIES WATER BOARD

ONSHORE OIL AND GAS EXPLORATION DRILLING QUESTIONNAIRE

FOR

WATER LICENCE APPLICATIONS

Prepared by:
Department of Indian Affairs and Northern Development
Water Resources Division
August 1999
Version 5.07

Introduction

The purpose of this questionnaire is to solicit supplemental information from an applicant to support their application for a water licence (or renewal). It is anticipated that the completion of this questionnaire will reduce delays arising from the Northwest Territories Water Board having to solicit additional information after an application has already been submitted. This information will also be useful during the environmental assessment and screening of your application, which must be undertaken prior to development and approval of a water licence.

The applicant should complete the questionnaire to the best of his/her ability, recognizing that some questions may not be relevant to the project under consideration. For questions that do not relate to his/her operation, the applicant is requested to indicate "N/A" (Not Applicable).

If any questions arise while completing the questionnaire, the applicant may wish to contact the Northwest Territories Water Board at (867) 669-2772. If your question is that of a technical nature please contact the Regulatory Approvals Section of the Water Resources Division, Department of Indian Affairs and Northern Development (INAC), at (867) 669-2651.

Chairman,
Northwest Territories Water Board

TABLE OF CONTENTS

If space is insufficient for any of the responses on this questionnaire, use the back of the sheet or attachments.

List attachments in Appendix 1.

Print or type your responses.

SECTION 1:

PRELIMINARY SITE ASSESSMENT

DATE: August 22, 2000

1.1 APPLICANT

COMPANY NAME: AEC West Ltd.

ADDRESS: 3700, 707 –8th Ave. SW

Calgary, AB

T2P 1H5

PROPERTY NAME/EXPLORTION LIC. #: EL384, EL385

CLOSEST COMMUNITY: Tuktoyaktuk (22 km) and Inuvik (42 km)

LATITUDE/LONGITUDE OF WELL CENTRE (Degrees, minutes, seconds): N/A

1.2 PRIMARY COMPANY CONTACT:

NAME: John Duckett

TITLE: Senior Engineer, Western Region. New Ventures Business Unit

CONTACT NUMBER: 403-261-2569

ALTERNATE CONTACT NUMBERS:

1.3 FIELD CONTACT:

NAME (If known): Wayne Ross

TITLE (If known): Seismic Operations Manager

CONTACT NUMBER: Calgary: 403-256-6700 Inuvik: 867-777-3493

1.4 INDICATE THE STATUS OF THIS APPLICATION:

NEW APPLICATION [X] RENEWAL [ ]

IF RENEWAL, INCLUDE LICENCE NUMBER: N/A

1.5 SITE HISTORY

INDICATE IF THIS SITE CONTAINS ANY KNOWN:

FORMER WELL SITES	Yes
WASTE DUMPS	N/A
FUEL AND CHEMICAL STORAGE AREAS	N/A
SUMP AREAS	N/A
WASTE WATER DISCHARGE LOCTIONS	N/A

DESCRIBE SITES AND REFERENCE THEM ON THE MAP IN QUESTION 1.6

Abandoned oil and gas wells not connected to this project.

1.6 ATTACH MAPS DRAWN TO SCALE SHOWING LOCATIONS OF EXISITNG AND PROPOSED:

CAMP FACILITIES,	On map
WELL SITE(S),	N/A
SUMPS,	N/A
WATER SOURCES,	TBD
FUEL AND CHEMICAL STORAGE FACILITIES,	Portable on sleigh camps
DRILLING MUD STORAGE FACILITIES,	N/A
DRAINAGE CONTROLS,	N/A
TRANSPORATION ROUTES (SEASONAL AND ALL WEATHER)*,	On map, ice roads and seismic lines
ELEVATION CONTOURS,	On map
LOCATIONS OF WATERBODIES	On map
DRAINAGE PATTERNS FOR WELL AND CAMP SITES.	On map

*** Clearly identify crossings over water courses greater than 5 m at ordinary high water mark.**

See attached Project Description for watercourse crossing details.

1.7 DESCRIBE THE PROPOSED OR CURRENT METHOD OF FRESHWATER WITHDRAWL, THE TYPE AND OPERATING CAPACITY OF THE PUMPS USED AND THE INTAKE SCREEN SIZE.

Water will be obtained from the Mackenzie River, local lakes and supply vessels using a pump and 6" line. Intakes used for withdrawing water will be screened with 1.3 cm (0.5") wire mesh to avoid impingement or entrainment of fish.

1.8 **ESTIMATE MAXIMUM DRAW DOWN AND RECHARGE CAPABILITY OF THE RIVER OR LAKE FROM WHICH FRESH WATER WILL BE DRAWN. QUOTE DRAW DOWN IN CENTIMETRES, OR, STATE PERCENTAGE OF FLOW WITHDRAWN.**

Should it be necessary to pump water, it would be pumped from the channels of the or a lake as per DFO recommendations. The draw down could be considered as insignificant or less than 1%.

1.9 **INDICATE IF PERMAFROST IS EXPECTED TO BE ENCOUNTERED UNDER:**

CAMP FACILITIES	X
WELL SITE	N/A
ACCESS ROUTES	X
SUMPS	N/A
OTHER	N/A

1.10 **INDICATE ANY POTENTIAL FOR ENCOUNTERING ARTESIAN AQUIFERS OR LOST CIRCULATION WITHIN THE SURFACE HOLE (TO CASING DEPTH)**

N/A

1.11 **ATTACH A DESCRIPTION OF THE SURFICIAL GEOLOGIC AND HYDRO-GEOLOGIC CONDITIONS IN THE IMMEDIATE VICINITY OF THE WELLSITE**

N/A

SECTION 2:

WATER USE AND WASTE DISPOSAL

2.1 OUTLINE ALL WATER USAGE IN THE DRILL PROGRAM, CAMP FACILITIES, AND ROAD CONSTRUCTION. INDICATE THE SOURCE AND VOLUME OF WATER FOR EACH USE.

	Source	Use	Average Volume (m^3/day)
1.	Nearby lakes	Camp facilities/roads	Up to 16m^3/day
2.	Mackenzie River	Camp facilities/roads	Up to 16m^3/day
3.			

TOTAL: 16 m^3/day

Note: Applicant is currently proposing to use a snow melter to obtain water. Additional water required for ice thickening procedures may utilize water withdrawal amount as indicated above.

2.2 WILL DRILLING WASTES CONTAIN DETRIMENTAL SUBSTANCES INCLUDING, BUT NOT LIMITED TO, OIL BASED OR INVERT MUDS AND HIGH SALINITY FLUIDS?

YES ____ NO ____

IF YES, INDICATE SUBSTANCES:

N/A

2.3 INDICATE THE TOTAL ESTIMATED VOLUME OF DRILLING WASTES

N/A CUBIC METRES

2.4 INDICATE METHODS FOR DISPOSAL OF DRILLING WASTES.

N/A SUMP

N/A DOWN HOLE (REQUIRES NEB APPROVAL)

N/A ON-SITE TREATMENT (PROVIDE PLAN)

N/A OFF-SITE (GIVE LOCATION AND METHOD OF DISPOSAL)

2.5 IF A SUMP IS BEING USED, ATTACH THE FOLLOWING INFORMATION

SCALE DRAWINGS AND DESIGN OF SUMPS, N/A
CAPACTIY IN CUBIC METRES,
BERM EROSION PROTECTION,
SOIL PERMEABILITY AND TYPE
RECYCLING/RECLAIMING WATERS,
SURFACE DRAINAGE CONTROLS,
ABANDONMENT PROCEDURES.

2.6 **WILL A CAMP BE PROVIDED?**

YES [X] NO [ ]

2.7 **IF YES, THEN INDICATE THE CAPACITY AND THE EXPECTED MAXIMUM NUMBER OF PERSONS THAT WILL BE ACCOMMODATED.**

CAPACITY 75 PERSONS

MAXIMUM ACCOMMODATED 75 PERSONS

SECTION 3:

CONTINGENCY, ABANDONMENT AND RESTORATION PLANNING

3.1 **ATTACH THE PROPOSED OR EXISTING CONTINGENCY PLAN WHICH DESCRIBES COURSE OF ACTION, MITIGATIVE MEASURES AND EQUIPMENT AVAILABLE FOR USE IN THE EVENT OF SYSTEM FAILURES AND SPILLS OF HAZARDOUS MATERIALS (IN COMPLIANCE WITH NWT WATER BOARD GUIDELINES FOR CONTINGENCY PLANNING, 1987).**

See attached Project Description.

3.2 **ATTACH AN INVENTORY OF HAZARDOUS MATERIALS ON THE PROPERTY (AS DEFINED UNDER TRANSPORTATION OF DANGEROUS GOOD REGULATIONS).**

N/A

3.3 **ATTACH AN OUTLINE OF PLANNED ABANDONMENT AND RESTORATION PROCEDURES.**

See attached Project Description.

SECTION 4:

ENVIRONMENTAL ASSESSMENT AND SCREENING

Your application and other project details, such as this questionnaire, will be sent out for review by local aboriginal and public groups as well as territorial and federal government agencies. Their comments regarding the significance of project impacts are considered before a decision is made to allow the project to proceed. Because formal assessment and screening of water licences was only initiated in about 1989, applicants will find that this process may be required even if the project has been built and in operation for several years. However, if your project has been previously screened a further assessment may not be required, or a more limited process may be used. This will depend on individual circumstances, including the stage of the project. Some projects may need a higher level of review or submission of more information before being screened.

4.1 HAS THIS PROJECT EVER UNDERGONE AN INITIAL ENVIRONMENTAL ASSESSMENT, INCLUDING PREVIOUS OWNERS?

YES [X] NO [ ]

IF YES, BY WHOM / WHEN: Submitted by Inuvialuit Environmental Inc. – August 2000

4.2 HAS BASELINE DATA BEEN COLLECTED FOR THE MAIN WATER BODIES IN THE AREA?

YES [X] NO [ ]

IF YES, ATTACH DATA.
EA completed by Inuvialuit Environmental Inc. - see attached Project Description.

4.3 HAS BASELINE DATA BEEN COLLECTED AND EVALUATED WITH RESPECT TO THE BIOPHYSICAL COMPONENTS OF THE ENVIRONMENT POTENTIALLY AFFECTED BY THE PROJECT (WILDLIFE, SOILS, AIR QUALITY).

YES [X] NO [ ]

IF YES, ATTACH DATA.
See attached Project Description.

4.4 ATTACH A DESCRIPTION OF ALL PROPOSED AND EXISTING ENVIRONMENTAL MONITORING PROGRAMS.
N/A

4.5 HAS A COMMUNITY CONSULTATION PROGRAM BEEN INITIATED?

YES [X] NO [ ]

IF YES, PROVIDE DETAILS OF THE PROGRAM. See attached Project Description