



**LAND USE PERMIT AND
WATER LICENCE APPLICATION**
for
**NOGHA/TUNAGO SETTLEMENT LANDS
PROPOSED 2003/2004 DRILLING PROGRAM**
Nogha B-23, West Nogha K-14, North Tunago E-44 Locations

October, 2003

Prepared for:

**Apache Canada Ltd.
100, 700 – 9 Avenue SW
Calgary, Alberta T2P 3V4**

For Submission to the Sahtu Land and Water Board



Prepared by:

**Northern EnviroSearch Ltd.
330, 703 6 Avenue SW
Calgary, Alberta T2P 0T9
Phone: 403-543-5353 Fax: 403-533-2513**



TABLE OF CONTENTS

- 1.0 Introductory Letter
- 2.0 Area Map
- 3.0 Land Use Permit Application
- 4.0 Water Licence Application

APPENDICES

- Appendix 1 Environmental Protection Plan
 - Appendix 1-A Photographs
 - Appendix 1-B Maps
 - Appendix 1-C Water Source Information
 - Appendix 1-D Pre-Disturbance Assessments
 - Appendix 1-E Mineral Oil-Based Drilling Fluid Information
 - Appendix 1-F Consultation Notices and Attendee Lists
- Appendix 2 Survey Plans
- Appendix 3 Operating Licence and Other Permits
- Appendix 4 Access and Benefits Agreement – Assignment and Consent
- Appendix 5 Emergency Response Plan and Spill Contingency Plan
- Appendix 6 Anticipated Equipment Lists



1.0 Introductory Letter





(403) 261-1200
FAX (403) 261-1208

October 16, 2003

Sahtu Land and Water Board
P.O. Box #1
Fort Good Hope, NT
X0E 0H0



Attention: **George Govier, Executive Director**

Dear George:

Re: Land Use Permit and Water Licence Applications for Apache Canada Ltd. Nogha, West Nogha and North Tunago Settlement Lands Drilling Project

Please find enclosed applications and supporting documentation for a Land Use Permit and Water Licence for the Apache Canada Limited (Apache) Nogha, West Nogha and North Tunago drilling program that is proposed for the 2003/04 winter drilling season. Three exploratory wells will be drilled to test the hydrocarbon potential of features identified from seismic programs conducted over Blocks M-16, M-17 and M-20 that are designated as "Settlement Lands".

The drilling program includes three wells located south of the Community of Colville Lake. The well locations are as follows:

- West Nogha K-14 (66°33', 126°03')**
- Nogha B-23 (66°32', 125°49')**
- North Tunago E-44 (66°23', 125°54')**

The project includes the development of approximately 131km of access using existing cutlines, the construction of three sumps and a campsite.

Two cheques made out to the Receiver General of Canada in the amounts of \$6,985.50 and \$30.00 are enclosed to cover land use permit and water licence application fees.

We understand that the water use fee will be calculated by the Sahtu Land and Water Board after the first year of work. Please contact David Calvert by phone (403) 303-1826 or by email david.calvert@apachecorp.com if you have any questions regarding this submission.

Sincerely,
APACHE CANADA LTD.


David Calvert
Coordinator Surface Land
Aboriginal and Community Relations

Encl.
Attach.

2.0 Area Map





**DRILLING
LOCATION MAP
NOGHA / TUNAGO
SETTLEMENT LANDS**

LEGEND

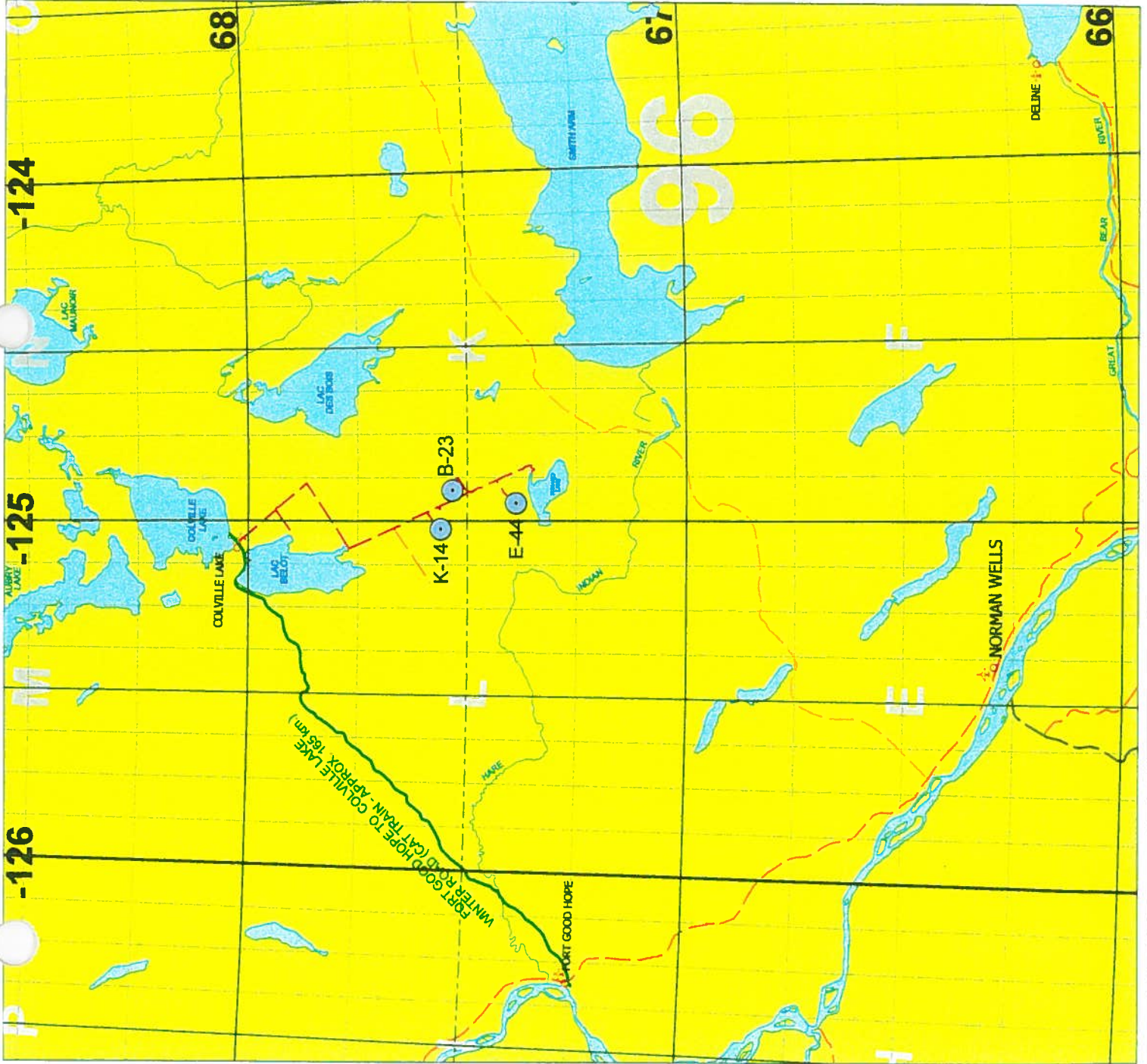
PROPOSED DRILLING LOCATION



WINTER AIRSTRIP



TRAILS/CUTLINES
PUBLIC ACCESS
PRIMARY ACCESS
EXISTING CUTLINES



Mapping provided by:



divestco.com

GIS Mapping & Digital Data • RIM
Oil & Gas Exploration Software & Services
Online Land Services • Seismic Data Brokerage

3.0 Land Use Permit Application





SAHTU Land and Water Board Land Use Permit Application



Mackenzie Valley Land Use Regulations SCHEDULE 2

Information In Support of an Application for a Land Use Permit

New Application

Amendment

1. Applicant's name and mailing address Apache Canada Ltd. 1000, 700 - 9 Ave. S.W. Calgary, AB T2P 3V4 Attention: David Calvert		Fax no. (403) 261-1208
		Telephone no. (403) 303-1208
2. Head office address As above		Fax no. (403) 261-1208
Field Supervisor Construction - to be determined Drilling - to be determined		Telephone no. (403) 261-1208
		Radiotelephone no. Sat. Ph.
3. Other personnel (subcontractor, contractors, company staff etc.)		
Winter road construction	Colville Lake/Arctic Circle	
Access and lease construction	to be determined	
Drilling Rig move	to be determined	
Drilling contractor	Nabors Drilling and Akita/Sahtu Drilling	
Drilling fluids	Baker Intec	
Cementing services	Schlumberger	
Open hole logging	Schlumberger	
Camp/catering	to be determined	
Service Rig	to be determined	
Total number of persons on site		
Seventy (70)		
4. Eligibility (Refer to section 18 of the Mackenzie Valley Land Use Regulations.)		
(a)(i) <input type="checkbox"/>	(a)(ii) <input checked="" type="checkbox"/>	(a)(iii) <input type="checkbox"/>
(b)(i) <input type="checkbox"/>	(b)(ii) <input type="checkbox"/>	

5. a) Summary of operation (describe purpose, nature and location of all activities)
(Refer to paragraph 19(3)(b) of the Mackenzie Valley Land Use Regulations.)

The Nogha/Tunago Settlement Lands drilling program is proposed to assess the hydrocarbon potential of the Settlement Lands south of Colville Lake. The proposed project includes the preparation of three drilling sites and associated access roads, the drilling of three exploratory wells and testing using a service rig.

b) Indicate if a camp is to be set up. (Provide details on a separate page, if necessary.)
A portable 25-man mobile camp will be used by the road construction crew. A camp (50-man) will be used to accommodate drilling personnel and a 65 man camp will be required for the service rig (see EPP).

6. Summary of potential environmental and resource impacts (describe the effects of the proposed land-use operation on land, water, flora & fauna and related socio-economic impacts). (Use separate page if necessary.)

See the Environmental Protection Plan (EPP - Appendix 1) included with this application. The program uses existing trails for access. Winter construction will limit impact to land and water. Consultations with community members and traditional land users revealed no significant concerns with the proposed project. Apache has held discussions with the communities on employment and business opportunities associated with the project.

7. Proposed restoration plans (use a separate page if necessary)

See attached EPP. Drilling waste and blackwater sumps will be closed and covered upon completion of the project. Slash cleared on access will be windrowed to permit access by community members. Access and wellsites will be inspected after breakup.

8. Other rights, licences or permits related to this permit application (mineral rights, timber permits, water licences, etc.)

NEB Operating Licence No. 1039 (see Appendix 3)

Concurrent NEB Well Authorization

Concurrent Sahtu Land & Water Board Water Licence Application

Access and Benefits Agreement

GNWT Department of Transportation - Temporary Access to a Public Highway (see Appendix 3)

Roads: N Is this to be a pioneered road?

The access will follow existing cutlines and previously developed access.

Y Has the route been laid out or ground truthed?

9. Proposed disposal methods

See EPP in Appendix 1.

a) Garbage:

Combustible garbage will be incinerated at the rig and camp. Non-combustible waste will be contained in an approved bin and transported to Norman Wells and/or another approved disposal site

b) Sewage (Sanitary & Grey Water):
Rig camp sewage will be contained in a sump and backfilled upon completion. Sleigh camp sewage will be spread on surface.

c) Brush & trees:

Any cut brush/trees will be windrowed on access with breaks left every 300m to reduce fire hazard and allow wildlife access.

d) Overburden (Organic soils, waste material, etc.):
Lines to be cleared leaving a snow-cover to protect organic layer. Bulldozers will be equipped with shoes on the blades to prevent gouging and ripping.

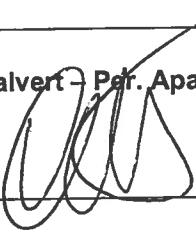
10. Equipment (includes drills, pumps, etc.) (Use separate page if necessary.)

Type & number	Size - Dimensions	Proposed use
Access and lease construction equipment.	See attached equipment list in Appendix 6.	
Drilling equipment	See attached equipment list in Appendix 6.	
Service Rig equipment	See attached equipment list in Appendix 6.	

11. Fuels	(√)	Number of containers	Capacity of containers	Location
Diesel	√	11	3 x 64m ³ 1 x 22m ³ 1 x 15.3m ³ 2 x 12m ³ 4 x 2.27m ³	Drill Rigs/leases Camp Service Rig Construction fuel sloop
Gasoline				
Aviation Fuel				
Propane				
Other				

12. Containment fuel spill contingency plans (attach separate contingency plan if necessary)
See attached spill response plan (Appendix 5).

13. Methods of fuel transfer (to other tanks, vehicles, etc.)
See attached EPP (Appendix 1)

14. Period of operation (includes time to cover all phases of project work applied for, including restoration) For first year activities - December 1, 2003 to April 30, 2004		
15. Period of permit (up to five years, with maximum of two years of extension)	Start Date December 1, 2003	Completion Date November 30, 2008
16. Location of activities by map co-ordinates (attach maps and sketches) See maps and survey plans included with this application (Appendix 1-B and Appendix 2 respectively). Proposed locations are subject to re-survey.		
	Latitude	Longitude
West Nogha K-14	66° 33' 39.5"	126° 03' 09.9"
Nogha B-23	66° 32' 06.1"	125° 49' 40.3"
North Tunago E-44	66° 23' 19.7"	125° 54' 07.4"
Minimum latitude (degree, minute) N 66° 20'		Maximum latitude (degree, minute) N 67° 05'
Minimum longitude (degree, minute) W 125° 30'		Maximum longitude (degree, minute) W 126° 15'
Map Sheet no. 96K/L/M		
17. Applicant (Print name in full) David Calvert - Per. Apache Canada Ltd.		
Signature		Date Oct 16, 2003
18. Fees <input checked="" type="checkbox"/> Type A - \$150.00 <input type="checkbox"/> Type B - \$150.00		
Land Use Fees: <u>136.71</u> hectares @ \$50.00/hectare \$6,835.50		
<input type="checkbox"/> Assignment fee \$50.00 \$		
Total application and land use fees \$6,985.50		

Apache
CANADA LTD.

1000, 700 - 9th Avenue S.W.
Calgary, Alberta, Canada T2P 3V4

ROYAL BANK OF CANADA
MAIN BRANCH
339 - 8th Ave. S.W.
Calgary AB T2P 2N4

Control #: SL 003811

Cheque No.: 2003

Date: October 16, 2003

Amount: \$ 6985.50

9700

PAY Six Thousand Nine Hundred Eighty Five

NOT TO EXCEED \$15,000

APACHE CANADA LTD.

Receiver General For Canada
c/o Saulte Land + Water Board
Fort Good Hope, NWT

Per: *[Signature]*
Northern Enviro Search

Name of Consulting Firm:

Reason for Issuing: Land Use Permit App.

ACL File No.

Land Description: Colville Lake, NWT

AFE/IGL: NWT-03-0730

Payee's Signature

X By Courier

Acknowledges Receipt

⑈003811⑈ ⑆0000900031⑆

⑆7004270051⑈

4.0 Water Licence Application





SAHTU Land and Water Board Water Licence Application

Northwest Territories Waters Regulation SCHEDULE III
(Subsection 6(1))

APPLICATION FOR LICENCE, AMENDMENT OF LICENCE, OR RENEWAL OF LICENCE

APPLICATION/LICENCE NO: (amendment
or renewal only)

1. NAME AND MAILING ADDRESS OF
APPLICANT

Apache Canada Ltd.
1000, 700 - 9 Ave. S.W.
Calgary, AB T2P 3V4
Attention: David Calvert

2. ADDRESS OF HEAD OFFICE IN
CANADA IF INCORPORATED

Same as Applicant.

TELEPHONE: (403) 303-1826

FAX: (403) 261-1208

TELEPHONE: (403) 261-1200

FAX: (403) 261-1208

3. LOCATION OF UNDERTAKING (describe and attach a map, indicating watercourses and location of any proposed waste deposits)

The Nogha/Tunago Settlement Lands drilling program is located S of the community of Colville Lake, SSE of Lac Belot and N of Tunago Lake. Water sources for access and lease construction, camp water and drilling have been identified at four (4) unnamed lakes, and three (3) named lakes: Lac Belot, Tweed Lake, and Tunago Lake (see Program Map in Appendix 1-B of this application). During access construction, sewage from the mobile camp will be spread on surface. One sewage sump is proposed at the camp and three sumps adjacent to the leases are proposed for freshwater Gel-chem drilling waste.

4. DESCRIPTION OF UNDERTAKING (describe and attach plans)

The Nogha/Tunago Settlement Lands drilling program involves the construction of access and leases for three proposed wells (see maps in Appendix 1-B and survey plans in Appendix 2 of this application) S of the community of Colville Lake using temporary, winter construction practices. The access is on existing cut lines and trails. The duration of the project, from access construction through to demobilization, is expected to take approximately 4 months (early December to early April). The depths of the three proposed gas wells will be approximately 1400m.

5. TYPE OF UNDERTAKING

- 1. Industrial
- 2. Mining and milling
- 3. Municipal
- 8. Miscellaneous

- 4. Power
- 5. Agriculture

- 6. Conservation
- 7. Recreation

(describe)

6. WATER USE

To obtain water	<u>X</u>	Flood control	___
To cross a watercourse	<u>X</u>	To divert water	___
To modify the bed or bank of a watercourse	___	To alter the flow of, or store, water	___
Other (describe)			<input type="checkbox"/>

7. QUANTITY OF WATER INVOLVED (litres per second, litres per day or cubic metres per year, including both quantity to be used and quality to be returned to source)

Access and lease construction will utilize water from seven lakes (including from 2 points on Lac Belot) along the access routes. Access and lease construction will require approximately 13,671m³

Drilling and Testing Operations – 1,500m³ will be required for drilling fluid and boiler operation. Water will be drawn from the nearest lake to each well location (Lake 15 for K-14, Lake 16 for B-23 and Lakes 16&17 for E-44).

Camp – The camps are expected to use 5m³/day per well, or a total of approximately 900m³ from Lake 16 which is the nearest lake to the camp location.

8. WASTE DEPOSITED (quantity, quality, treatment and disposal)

Drilling waste

- Freshwater gel-chem drilling waste and rock cuttings will be mixed, buried and covered in sumps adjacent to the leases.
- Salt- or mineral oil-containing drilling waste will be stabilized and hauled to Alberta.

Blackwater/Greywater

- Rig and service camps –contained and buried in sump at camp.
 - Wellsites - contained and hauled to camp sump.
 - Portable sleigh camp- spread on ground. Sleigh camp will be moving with access construction crew and will not be sited in one place for any length of time.
-

9. OTHER PERSONS OR PROPERTIES AFFECTED BY THIS UNDERTAKING (give name, mailing address and location; attach list if necessary)

The project is located in the Sahtu Region within the K'asho Got'ine District. The communities of Colville Lake and Fort Good Hope will be most affected by this project. Please refer to the Environmental Protection Plan (EPP - Appendix 1) for information regarding Traditional Environmental Knowledge and community consultations.

10. PREDICTED ENVIRONMENTAL IMPACTS OF UNDERTAKING AND PROPOSED MITIGATION

See attached EPP (Appendix 1).

11. CONTRACTOR AND SUB-CONTRACTORS (names, addresses and functions)

Winter road construction	Colville Lake/Arctic Circle
Access and lease construction	to be determined
Drilling Rig move	to be determined
Drilling contractor	Nabors Drilling and Akita/Sahtu Drilling
Drilling fluids	Baker Intec
Cementing services	Schlumberger
Open hole logging	Schlumberger
Camp/catering	Akita/Sahtu (camp)/to be determined (catering)
Service Rig	to be determined

12. STUDIES UNDERTAKEN TO DATE (attach list if necessary)

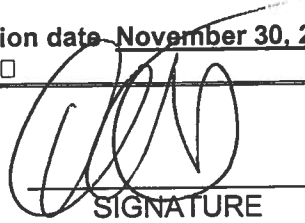
Traditional Environmental Knowledge Consultation
Environmental Assessment
Site Reconnaissance
Selection and Assessment of Water Supply
Wellsite Pre-Disturbance Assessments
(see EPP - Appendix 1 for details)

13. PROPOSED TIME SCHEDULE

Access and Lease Construction – December 2003 to January 2004
Drilling and testing– January to March 2004
Clean up and reclamation – April 2004
Start date December 1, 2003 Completion date November 30, 2008
(activities may re-commence in subsequent years)

David Calvert
NAME (Print)

Coordinator Surface Land
TITLE (Print)


SIGNATURE

Oct 16, 2003
DATE

FOR OFFICE USE ONLY

APPLICATION FEE	Amount: \$ _____	Receipt No.: _____
WATER USE DEPOSIT	Amount: \$ _____	Receipt No.: _____

Apache
CANADA LTD.

1000, 700 - 9th Avenue S.W.
Calgary, Alberta, Canada T2P 3V4

ROYAL BANK OF CANADA
MAIN BRANCH
339 - 8th Ave. S.W.
Calgary AB T2P 2N4

Control #: SL 003812

Cheque No.:

Date: October 16, 2003

Amount: \$ 30,000

Thirty

NOT TO EXCEED \$15,000

APACHE CANADA LTD.

TO THE ORDER OF

Receiver General for Canada
c/o Saktu Land & Water Board
Fort Good Hope, NWT

Per:

Northern Enviro Search

Name of Consulting Firm:

Reason for issuing: Water License App.

ACL File No. Colville Lake, NWT

Payer's Signature

X By Courier

Acknowledges Receipt

AFEGL: MT-03-0730

Land Description:

1170042705

003812 000090031