NWB 2 BOR.

Nunavummi Qaujisaqtulirijikkut /Nunavut Research Institute
Box 1720, Iqaluit, NT XOA OHO phone: (819) 979-4108 fax: (819) 979-4681 email: slcnri@nunanet.com

Reviewer Recommendation Form: Land &/or Water based Research

Applicant Name:	**Elizabeth Turner**
Project Name:	**Borden Basin Project- NRI**

Review Panel Name:	**Executive Director, NWB**
Region:	**North Baffin**

Research Discipline:

Panel Comments:

Requested Terms or Conditions:

Recommend Approve ☐ Recommend Reject ☐	Annual ☐ or Multi-year ☐	Signature	Title:	Date

4/26/2004

DISTRIBUTION

Please find enclosed a copy of an application for a *Science Research License* from **Elizabeth Turner , Canada-Nunavut Geoscience Office.**

Elizabeth Turner's research is titled ***"Borden Basin Project"*** and is proposed to take place from June 13, 2004 to Aug 15, 2004.

As per the **Scientists' Act** of Nunavut, community consultation is required before a Science Research Licence can be issued. The documentation is provided for your information and review. A ***Reviewer Recommendation Form*** is enclosed for your response by **June 7 2004.**

Thank you for your continued assistance. Please contact our office if you have any questions or concerns regarding the above.

Renee Malcom

per Mary Ellen Thomas
Manager, Research Liaison

encl.

cc: Environmental Assessment Screener, NIRB
Lands Administrator QIA
Executive Director, NWB
Director of Wildlife Management, NWMB
Mayor/SAO Pond Inlet
Chairperson HTO Pond Inlet
Mayor/SAO Clyde River
Chairperson HTO Clyde River
Mayor SAO Arctic Bat
Chariperson HTO Arctic Bay
Mayor SAO Resolute Bay
Chariperson HTO Resolute Bay
Executive Director NPC

P.O. Box 1720, Iqaluit, NU X0A 0H0. Tel: (867) 979-6734, Fax: (867) 979-4681, Internet: iqrcnri@nunanet.com
ᑎᑎᖅᑲᓂᐊᕐᕕᖓ ᐳᔅᑲ 1720, ᐃᖃᓗᐃᑦ, ᓄᓇᕗᑦ X0A 0H0. ᐅᖄᓚᐅᑦ: (867) 979-6734, ᐲᑦᔪᑦ: (867) 979-4681. ᖃᕆᑕᐅᔭᒃᑯᑦ: iqrcnri@nunanet.com
ᖃᕆᑕᐅᔭᒃᑯᑦ / Web site: www.nunanet.com/~research

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email: slcnri@nunanet.com
www.nunanet.com/~research

SCIENTIFIC RESEARCH LICENCE APPLICATION
(Land, Freshwater & Marine Based Research)

SECTION 1: APPLICANT INFORMATION

1. Applicant Information	
Applicant's full name, title, and mailing address:	Dr. Elizabeth Turner Canada-Nunavut Geoscience Office P.O. Box 2319 Iqaluit NU X0A 0H0
Fax:	867-979-0708
Phone:	867-979-3539 x28
Email:	eturner@nrcan.gc.ca
2. Supervisor Information	
Field Supervisor (address, if different from above)	-
Phone: (radio or otherwise)	-
3. Other Personnel	
List name and position:	one volunteer assistant (name as yet unknown)
Total # of personnel:	2
Total # of person days:	120

SECTION 2: AUTHORIZATION NEEDED

4. Authorization Contacts	

List the organizations you will contact for necessary authorizations associated with the project:	NWB; QIA

5. Authorization	
List the active permits, licences, or rights related to the project and their expiry date:	NRI licence 0202403N-M expired Dec 31, 2003. I have filled out this form because 2004 camp locations will be different from those used in 2003 (all other aspects of the project remain the same).

SECTION 3: PROJECT PROPOSAL DESCRIPTION

6. Project Duration:	
Period of operation:	June 13, 2004 - Aug 15, 2004
Proposed term of permit:	June 10, 2004 - Aug 20, 2004
Project Title:	Borden Basin Stratigraphy, Structural Geology and Metallogeny

7. Location(s) of data collection:

Location Name	Region	Latitude	Longitude	NTS Map	Land Status
see list	-	-	-	-	-
to be delivered by hand	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-

NON-TECHNICAL PROJECT PROPOSAL SUMMARY

8. Non-Technical Project Proposal Summary	

SECTION 4: MATERIAL USE

9. List equipment (including drills, pumps, aircrafts, etc.)

Equipment Type and Number	Size-dimensions	Proposed Use
helicopter	206L	intermittent (to move camp only)
backpacking tent (2)	-	-
-	-	-
-	-	-
-	-	-
-	-	-

10. Detail fuel and hazardous materials use

Fuels	Number of Containers	Capacity (gal/litres)
Diesel	-	-
Gasoline	-	-
Aviation Fuel	-	-
Propane	-	-
Other	naphtha	5 litres
Hazardous Materials	**Number of Containers**	**Capacity (gal/litres)**
-	-	-
-	-	-
-	-	-
Describe method of fuel transfer	Fuel will be transferred into cooking stove using a fuel funnel.	

11. Spill Contingency Plan

Describe any procedures and materials in place to handle accidental spills. Please fax or mail your spill contingency plan and other appropriate information about the hazardous materials associated with the proposed project.	Spilled fuel will be absorbed with absorbent paper, which will then be burned.

SECTION 5: WASTE DISPOSAL AND TREATMENT FACILITIES

12. Describe amount and methods of disposal:

Type of Waste	Projected Amount Generated	Method of Disposal	Additional Treatment Procedures
Sewage	1 litre/day	burial	-
Grey Water	10 litres/day	burial	-
Garbage	1 small bag/week	transport to municipal landfill by helicopter	-
Overburden	-	-	-
Hazardous Waste	-	-	-
Other	-	-	-

SECTION 6: RESTORATION AND ABANDONMENT PLANS

13. Site Restoration

Describe the proposed procedure for site restoration upon abandonment of any area associated with the project.	With each camp move, all materials used will be removed and each site returned to the condition in which it was found.

SECTION 7. ENVIRONMENTAL IMPACT

14.

Indicate and describe the components of the environment that are near the project area, as applicable. Fax or mail any relevant maps or information.

Type of Species		Important Habitat Area	Critical Time Periods
Fish:	n/a	-	-
Caribou:	n/a	-	-
Muskox:	n/a	-	-
Raptor:	n/a	-	-

Migratory Birds:	n/a	-	-
Waterfowl:	n/a	-	-
Seals:	n/a	-	-
Whales:	n/a	-	-
Narwhals:	n/a	-	-
Canid Family:	n/a	-	-
Bears:	n/a	-	-
Eskers::	n/a	-	-
Communities:	Arctic Bay	-	-
Sites:	n/a	-	-

15.

Indicate and describe other known uses of the area such as local development, traditional use (hunting/fishing/spiritual), outfitting, tourism, mineral development, research, etc.	Five of the proposed sites have no known previous use (camps 2,6,7,8,9). Two have been used by previous scientists (camps 3,10), and one has evidence of previous use by DFO (camp 4). Camp 1 has been used or visited by mineral explorationists. Camp 10 has an airstrip and considerable evidence of recent use.

16.

Describe the impact of the proposed project activity on the environmental components and uses, in the area listed above.	Minimal to no impact is anticipated.

17.

What are some suggested mitigation measures for these impacts?	-

SECTION 8: COMMUNITY INVOLVEMENT AND REGIONAL BENEFITS

18.
Community Representatives

List the community representives that you have contacted about this proposed project.

Community	Name	Organization	Date contacted	Means	Telephone	Fax

Arctic Bay	J. Akumalik	mayor	2004/02	post	-	-
Arctic Bay	-	HTO	2004/02	post	-	-
Pond Inlet	P. Aglak	mayor	2004/02	post	-	-
Pond Inlet	-	HTO	2004/02	post	-	-
Resolute Bay	A. Kheraz	mayor	2004/02	post	-	-
Resolute Bay	-	HTO	2004/02	post	-	-

10. Local Involvement	
Describe the level of involvement that the residents of Nunant have had with respect to the proposed project. Elaborate on local employment opportunity, local benefits, training programs (if applicable)	

11. Community Support	
Describe, and fax or mail documentation regarding community concerns or support for the proposed project.	Spilled fuel will be absorbed with absorbent paper, which will then be burned.

12. Traditional Knowledge	
Is there a Traditional Knowledge (TK) component to this research project?	

TURNER 2004 - BORDEN BASIN PROJECT - NRI

Purpose: This is the second year of work in the Borden Basin, which is the geologic name for the rocks in the broad area between Arctic Bay and Pond Inlet. Its primary goals are: 1) investigating the properties of the rocks in the region, and what they can tell us about the geologic history of the area; and 2) understanding how zinc and lead were transported to the area and deposited there, and what factors control where they are found in the region.

Proposed duration of field work: The 2004 field season is proposed for June 13 - August 15.

Study area: Parts of NTS 37G, 48A,B,C, 47H, 38B, and 58C.

Activities: The work will be accomplished by 2 people travelling on foot on the land from small base camps. Rocks will be described, mapped, measured, and sampled (fist-sized pieces or smaller) using a rock hammer.

Base camps: A series of 10 small base camps is proposed over approximately 2 months (mid-June to mid-August). Each will consist of 2 tents, which will be removed each time the 2 researchers move camp.

Transportation: Camp moves will be done using a helicopter based in either Pond Inlet or Resolute Bay. All transportation on the ground will be by foot.

Fuel: We will use approximately 5 litres of camping fuel for cooking at each camp location.

Remediation: Sewage and grey water will be buried, and garbage taken to a municipal landfill by helicopter each time the camp is moved. All other material used or collected will be removed from each site with each camp move.

Ↄσ 2004_ᒥᕆᑎᒪᑕᓂᐅᐸ ᐊᓕᒪↄ ᐃᵇᐱᐊᕆᓪᓚᐸ ᐊdᵐσᵑᒐσ ᓯᓂᓗᐊᵑᒍᓴᖅ ᒥᓪᒍᒍᓄᐊᑐᓗᐊᑐᓗᐊᕐᓂᕆᑐᑐᓄᑦ ᓇᐃᖅᓂᑎᖅᓯᒪᓪᓚᐸ

ᐱᵇᓪᑕᐅᐅᓪᖅ: ᐅᓇ ᐊᕆᕐᒍσ ᒪᑭσᵇ ↄᑕᓯᕐᐧᒍᓯᒪᓂᑐᵇ ᐊᕆᕐᒍᓇᑦ ᐱᐧᒐᓯᓇᑦ ᓯᓂᓗᐊᕆᒍᑦ Hᓂᑭᕆdᕆᑭᓴ Hᐧᒍᐅσᔪᒥ, ᑕᐧᓇ ᐊᑎᐅᓗᐅᑦᓂσ ᐅᐅᖅᑲᓇᑦ ᐊdᵐσᵑᒐσ ᐃᵇᐱᐊᕆᓪᓚᐸ ᐊᓕᒪↄ ᒥᕆᑎᒪᑕᓂᐅᑦ. ↄᕆᒐᑦↄᐊᑕᐧᑭᑦ ᐅdᐊ: 1) ᖃᐅᐅᑦᓯᕆᖅ ᐃↄᓂᐧᑭᓂᕆᑲ ᐅᐅᕆᐃᑦ, ᐊᓕᒪↄ ᓯᓇσᵇ ↄᑭᓯᒍᑎᒍᓂᐧᓇᕐᒐᓯᔪᐧᒐᓯᑎᒍ ᓇᓇᐅᑦ ᐱᐅᓯᓗᓯᒪᐅᐧᒐᓯᒐᓯσᵇ; ᐊᓕᒪↄ 2) ↄᑭᓯᓇᓯᐊᕆᓂᖅ ᖃᓇᖅ ᔅᐧᵇ ᐊᓕᒪↄ ᐊᕆᐅᑦᑕᐅᒃ ᓇᑎᕆᓂᕆᒍᓯᔪᐧᒐᓯᖅ ᑕᒪᐅᐧᒐ ᖃᑭᒪᑦᑕᐅᑦↄσ, ᐊᓕᒪↄ ᓯᓇᐃᑦ ᐃↄᓂᓗᒪᔪᐧᒐᓯᑎᑦ ᓇσᔅᐅᐅᐧᒐᓯᑕ.

ᐊᑭσᐅσᓗσᐊᖅᑕᐧᒐᓯ ᖃᐅᐅᑦᓯᕆᐅᐅᑦ ᓇᓇᒥ: 2004ᒧᑦ ᖃᐅᐅᑦᓯᕆᖅ ᓇᓇᒥ ᐊᔪↄᑎᒍᓂᕆᑦᓯᐊᖅᑭᒪᓪᓚᖅ ᔪᓯσ 13ᒥᑦ _ᐊᐅᑲᒍᓯ 15ᒧᑦ.

ᖃᐅᐅᑦᓯᕆᖅᑕᐅᐧᐅᐅᑦ ᐃσᐧᒐᑲ: ᐃᓕᐧᒐᑲ ᓇᐧᐧᑭᑭ> 37G, 48A, B, C, 47H, 38B, ᐊᓕᒪↄ 58C.

ᐊᐅᓕσᐅᐅᓪᑦ: ᑕᒪᐧᓇ ᐱᓕᓗᐊᐧᒐᒍσᐊᖅᑕᐧᖅ ᒪᔪᔪᑭᐧᓇᑦ ᐃᑯᐧᓇᑦ ᐱᓯᖅᑦᑕᔪↄᑎᐅᖅ ᓇᓇᑎᒍᑦ ᓇᓇᓕᓪᓕᔪↄᑎᑕᑭᐧᒐᓂᖅ. ᐅᐸᕆᐃᑦ ᓇↄᓇᐃᐸᖅᑕᐅσᐊᖅᑕᑦ, ᓇᓇᐧᒐᒍᐊᓪᓴᖅᑕᐅↄᑎᐅᖅ, ᔪᐅᑎᕆᖅᑕᐅↄᑎᐅᖅ (ᑎᒍᒥᐊᖅᔪↄᑎᑦᓪↄᐊᑦ ᐅᑭᔪᐧᓇᑦ ᒥᑭσᖅᓴᐃᑦ ᐊↄᔪↄᑎᐅᖅ ᑲᐅᑦᑕᐅᖅ ᐅᐸᕆᓯᐅᐸᒥᑦᐅᖅ.

ᓇᓇᓕᐧᒐᑦ: 10_σᵇ ᓇᓇᓕᓪᓕᔪↄᑎᑕᖅᑎσᐊᖅᑕᐧᖅ ᑕᖅᔪᑭᵇ ᒪᔪↄᑭᵇ ᐃↄᐊσ (<ᓴσᐅᐸ ᖃᑎᐧᒐᓂσᵇ ᐊᐅᑦᒍᓯᐅᐸ ᖃᑎᐧᒐᓂᓇᑦ). ᐊↄσᑦ ᒪᔪↄᑭᐧᓇᵇ ↄᐱᖅᑎᑦσᐊᖅↄᑦ, ↄᖅᑭᖅᑎᔪᐧᓇσᐊᖅᓯᑎᵇ ᓇᑦᑎᓕↄᐊᕆᐊᐃᒍᑎᵇ ᒪᔪↄᑭᵇ ᖃᐅᐅᑦᓯᕆᖅᑎᵇ.

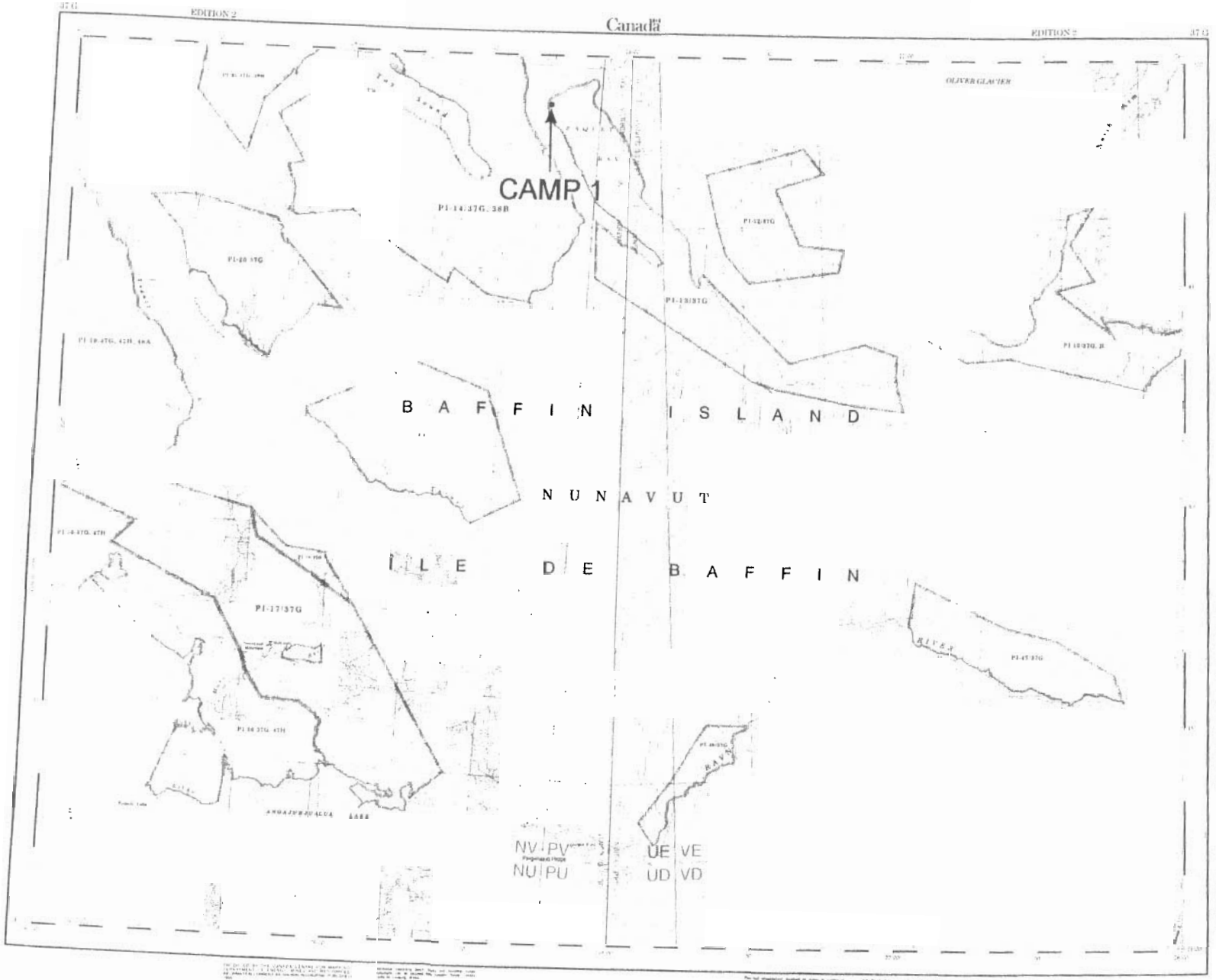
ᐃᐧᑭᑦᐊᖅᓴᒥᑦ: ᓇᓇᓕᒥᓂᵇ ᓇᑦᑎᖅᑕᑦᓯσᐊᖅᑕᐧᑦ ᐊↄᔪↄᑎᑦ ᖃdᑦᒍᓯᓕᒥᑭᵇ ᒥᑦᑎᒪᑕᓕᒥᒥ ↄᑦᑕᔪᐧᒐᖅᑕᐧᒥᵇ ᖃᐅᓯᐃᐊᑦↄᒥᔪᓴᐧᓇᖅ. ᐃᐧᑭᑦᖃσᓕᑦᑕ ᓇᓇᒥ ᐱᓯᐧᓇσᵇdᑦσᐊᖅᑕᐧᑦ. ᐃᐧᑭᑦᖃσᓕᑦᑕ ᓇᓇᒥ ᐱᓯᐧᓇσᵇdᑦσᐊᖅᑕᐧᑦ.

ᐅᖅᓯᐊᓗᑦ: ᐊↄᔪσᐊᖅᑕᐧᒍᓯᑦ ᑕᔪᓕᒪσᵇ ᖃᑦᓗᑎσᵇ ᓯ>><ᔪᖅᓯᐅᑎσᵇ ᐊↄσᑦ ᓇᓇᓕᑭᔪᑦᑎᐧᓇσ.

ᓯᑭᐃᑦ ᓴσᑦᓗ: ᑭᓇᓗᐃᑦ ᐊᓕᒪↄ ᐅᐊᓴᑎᑦᓗdᒥσᑦ ᓴᐅᐅᔪᑦᑭᐧᒐᓂᕆᑦᑕᐧᒐᑦᑕᐧᖅᑕᐧᑦ, ᓴσᑦ ᐅᓯᔪᐅᖅᑭᐧᒐᓂᕆᑦᑕᐧᒐᑦᑕᐧᖅᑕᐧᑦ ᓇᓇᓂᑦ ᐊᑦᑕᔪᐧᒐᖅᓯᐧᓇᑦ ᖃdᑦᒍᓯᓕᒥᑭᵇdᑦ ᐊᐅᑦᓂᓯᑐↄᐊᖅᑕᐃᑦᐸᑕ ᓇᓇᓂᑦ. ᐊᓯᓕᓂᖅᑦ ᓇᐊᑕᐅᔪᑦ ᐊↄᖅᑕᐅᔪᑦᓗᑐᓂᑦ ᑉᑕᐅᖅᑭᐧᒐᓂᕆᑦᑕᐧᒐᑦᑕᐧᖅᑕᐧᑦ ᓇᓇᓕᒥᑎᓂᵇ ᐊᐅᑦᓂᓯᑐↄᐊᖅᑕᐃᑦᐸᑕ.

CAMP #	NAME	MAP	NTS	LAT	LONG	DATES (approx)	land status
1	Paquet Bay	1	37G	71°56.5'	78°17.0'	June 13-16	PI-13/37G surface
2	White Bay 1	2	38B	72°12.75'	79°18.5'	June 17-20	PI-21/37G,38B surface
3	White Bay 2	2	38B	72°22.15'	79°42.5'	June 21-24	crown
4	Tremblay Sound	3	48A	72°24.6'	80°52.7'	June 25-28	PI-33/48A surface
5	(Nanisivik)	4	48C	73°02.5'	84°34'	June 29-July 6	crown
6	Red Rock Valley	5	48B	72°58.2'	84°11.2'	July 16-23	AB-05/48A,B subsurface
7	Adams River	3	48A	72°43.3'	83°00.0'	July 24-27	crown
8	Alpha River	3	48A	72°35.0'	82°02.3'	July 28-Aug 1	PI-38/48A surface
9	Bellevue Mountain	3	48A	72°25.0'	81°23.8'	Aug. 2-9	PI-34/48A subsurface
10	Hunting River	6	58C	73°38.5'	94°47.0'	Aug 10-13	crown

TURNER MAP 1



ICEBOUND LAKES
37G

ICEBOUND LAKES
DISTRICT OF FRANKLIN DISTRICT DE FRANKLIN
NORTHWEST TERRITORIES TERRITOIRES DU NORD-OUEST

Scale 1:250 000 Echelle

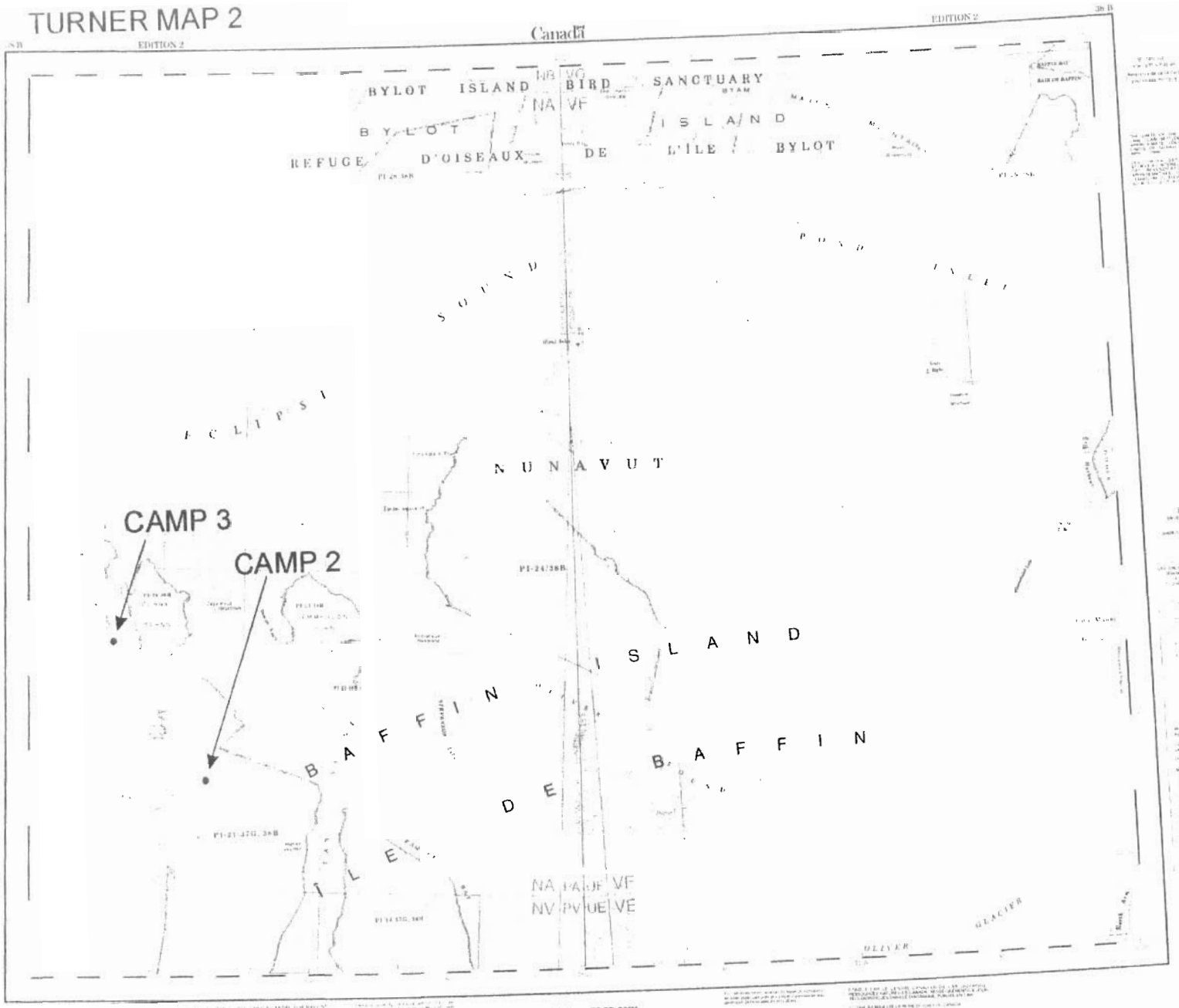
CONVERSION SCALE FOR ELEVATIONS ÉCHELLE DE CONVERSION DES ALTITUDES

ONE THOUSAND METRE ZONES 17 & 18 DIX MILLE MÈTRES

ICEBOUND LAKES
37G

Energy, Mines and Resources Canada | Énergie, Mines et Ressources Canada

TURNER MAP 2

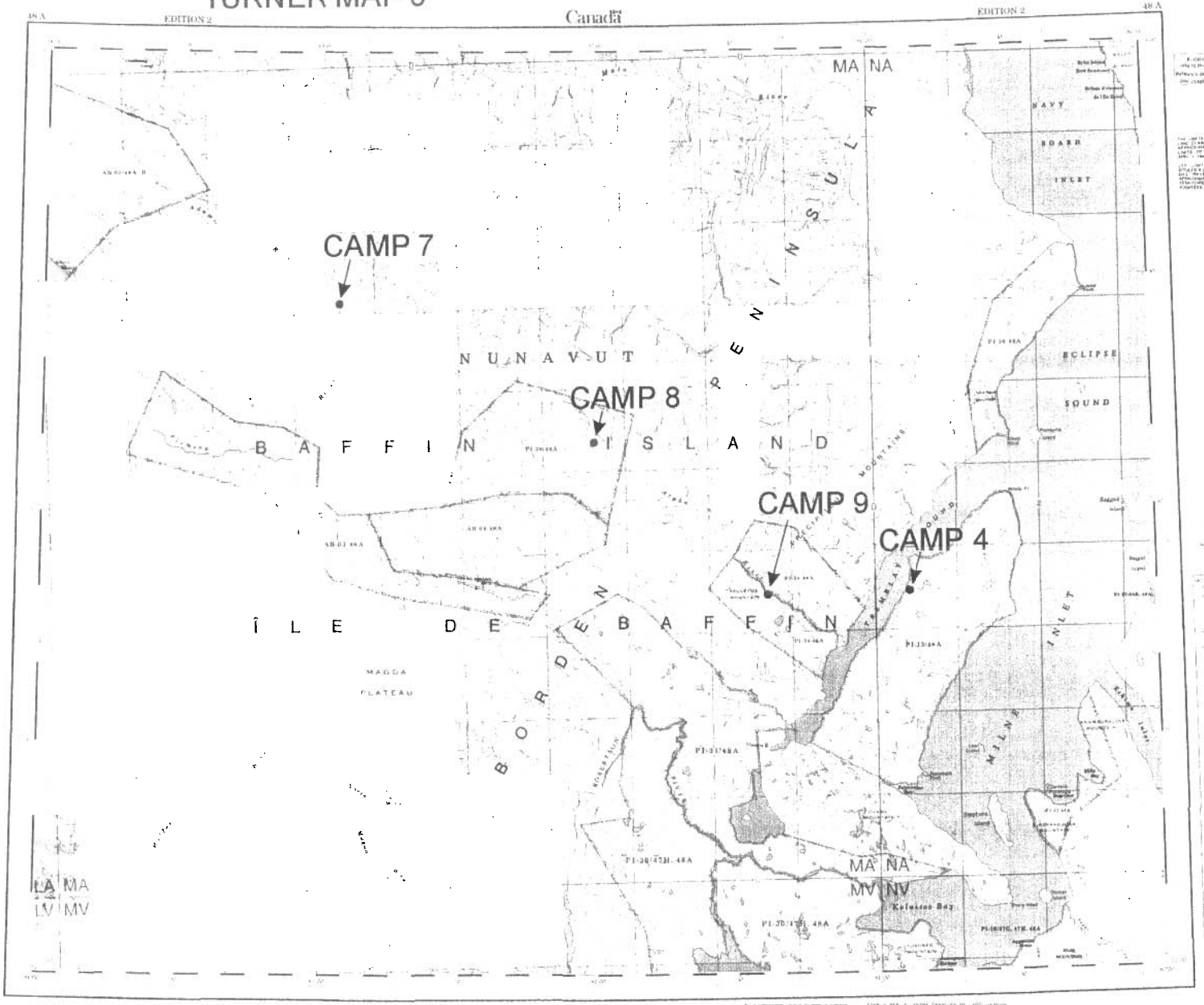


POND INLET
DISTRICT OF FRANKLIN - DISTRICT DE FRANKLIN
NUNAVUT

Scale 1:250 000 Échelle

Natural Resources Canada | Ressources naturelles Canada

TURNER MAP 3

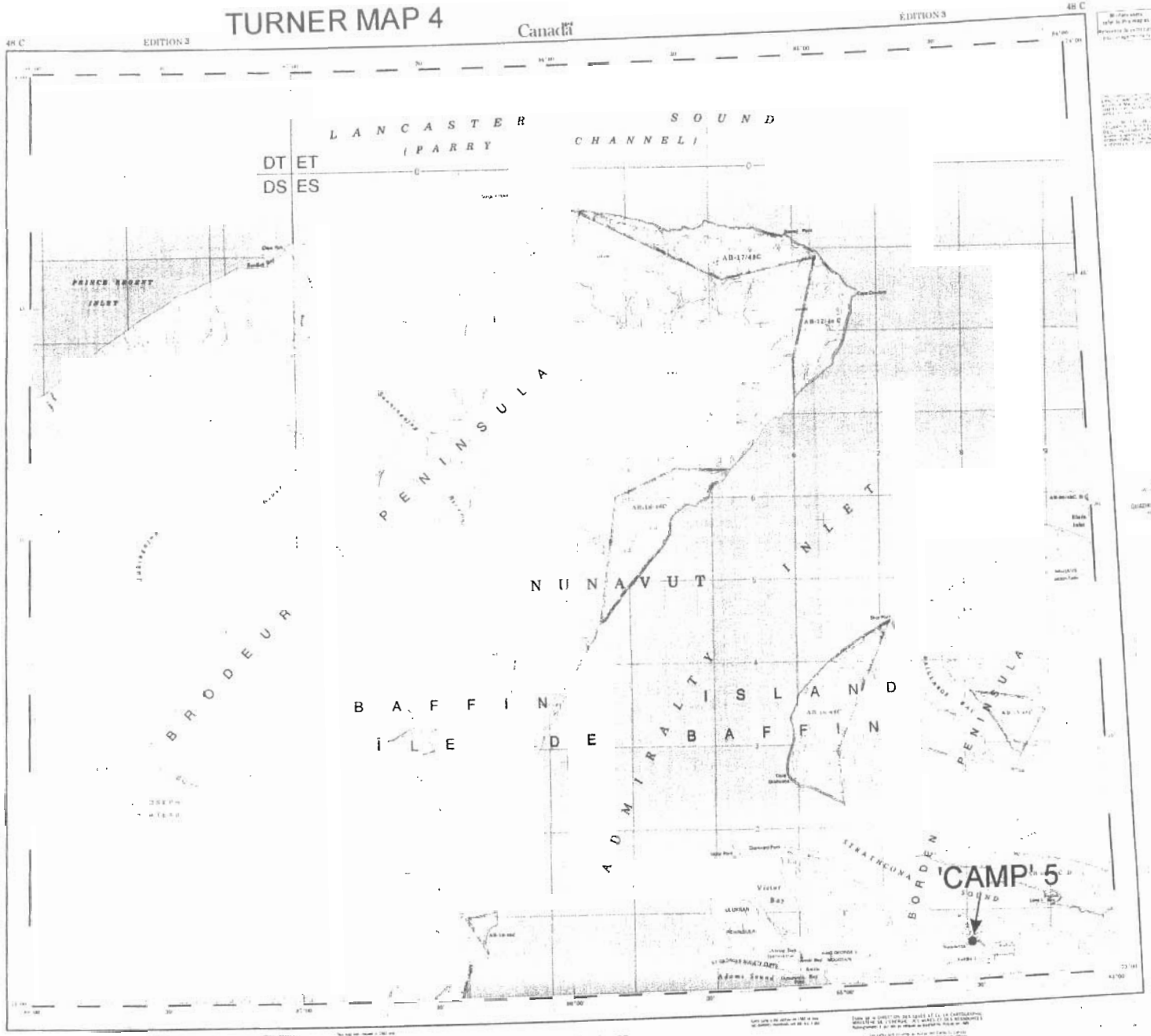


MILNE INLET
DISTRICT OF FRANKLIN DISTRICT DE FRANKLIN
NORTHWEST TERRITORIES TERRITOIRES DU NORD-OUEST

Scale 1:250 000 Échelle

Energy, Mines and Resources Canada Énergie, Mines et Ressources Canada

TURNER MAP 4



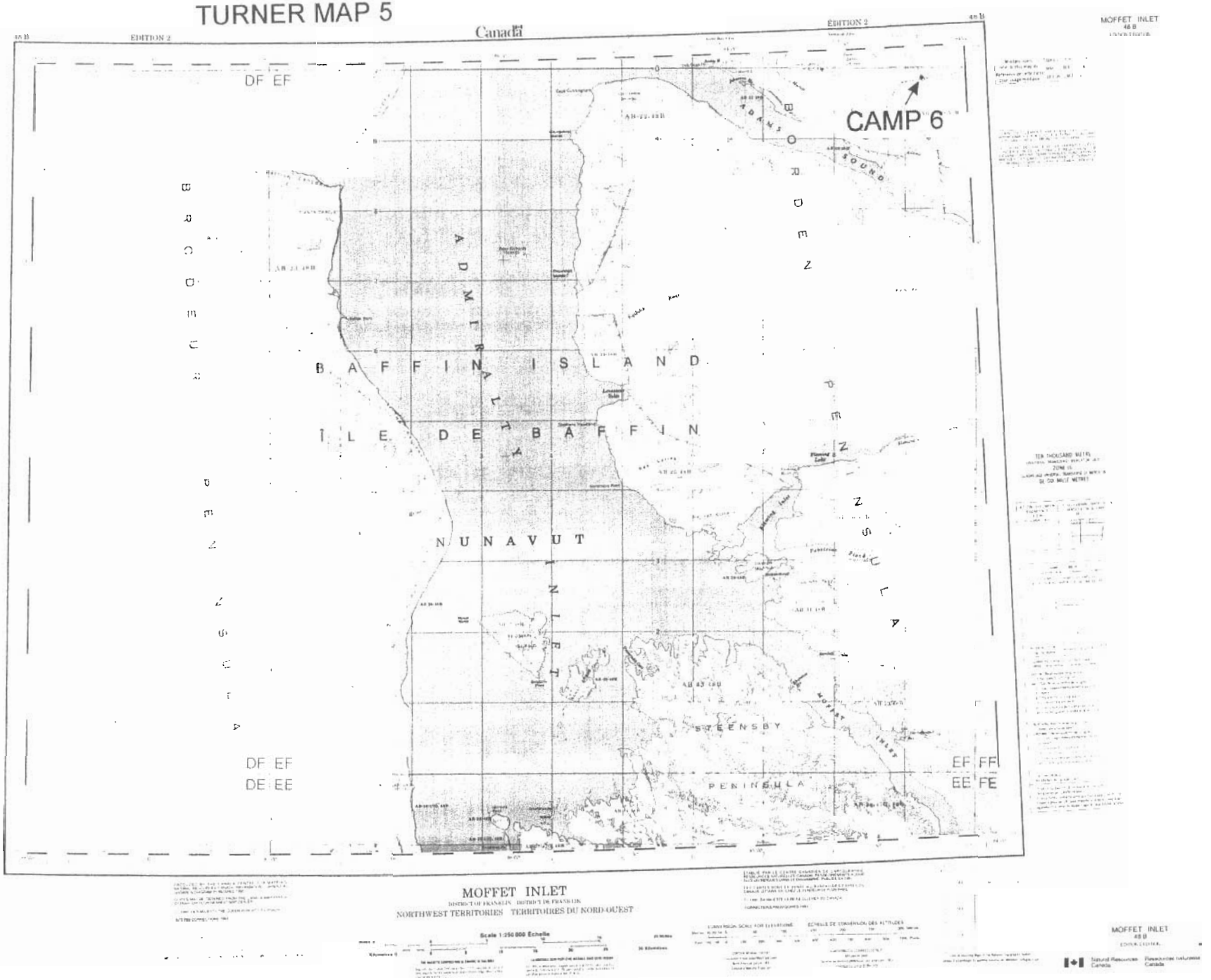
ARCTIC BAY
DISTRICT OF FRANKLIN DISTRICT DE FRANKLIN
NORTHWEST TERRITORIES TERRITOIRES DU NORD-OUEST

Scale 1:250 000 Échelle

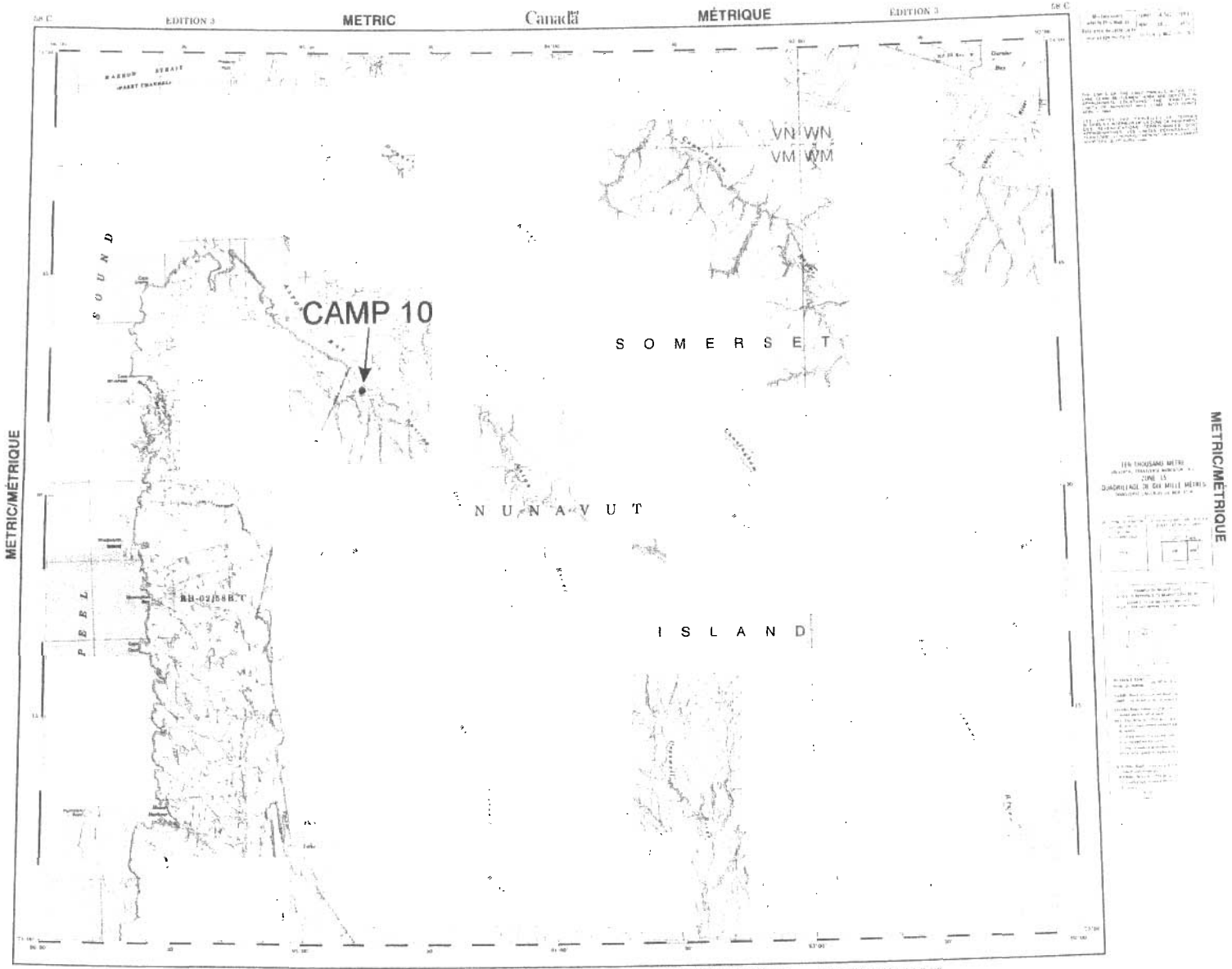
ARCTIC BAY
48 C

Energy, Mines and Resources Canada Énergie, Mines et Ressources Canada

TURNER MAP 5


Canada
EDITION 2
MOFFET INLET
48 B
CAMP 6
ADAMS SOUND
BAFFIN ISLAND
ILE DE BAFFIN
NUNAVUT
STEENSBY
PENINSULA
DF EF
DE EE
EF FF
EE FE
MOFFET INLET
DISTRICT OF FRANKLIN DISTRICT DE FRANKLIN
NORTHWEST TERRITORIES TERRITOIRES DU NORD-OUEST
Scale 1:250 000 Echelle
Natural Resources Canada Ressources naturelles Canada

TURNER MAP 6


METRIC
Canada
MÉTRIQUE
EDITION 3
58 C
METRIC/MÉTRIQUE
CAMP 10
SOMERSET
NUNAVUT
ISLAND
VN WN
VM WM
SOUND
PEEL
SOMERSET ISLAND
DISTRICT OF FRANKLIN DISTRICT DE FRANKLIN
NORTHWEST TERRITORIES TERRITOIRES DU NORD-OUEST
Scale 1:250 000 Échelle
Energy, Mines and Resources Canada
Énergie, Mines et Ressources Canada