

Northern Affairs Program,
P.O. Box 150,
Fort Simpson, N.W.T.
XOE ONO

September 01, 1981

N80D248

Cadillac Explorations Limited,
Suite 920, Lancaster Building,
304 - 8th Avenue, S.W.,
Calgary, Alta
T2P 1C2

Attn: L.C. Morrisroe,
President

Dear Sir:

Re: Land Use Permit N80D248
Prairie Creek, N.W.T.

Enclosed is a copy of a land use inspection report completed on August 31, 1981. You will note from this inspection report that fuel storage has again been marked as unacceptable as a result of the lack of an impermeable dyke enclosing the fuel storage area as specified in your land use permit.

Please note further that the land use inspector has notified Cadillac Explorations that such a dyke shall be constructed as per conditions 36, 38 and 39 of land use permit N80D248 by September 15, 1981. Failure to do so may result in the land use inspector taking further action pursuant to section 41 (1) of the Territorial Land Use Regulations.

cont'd ...

.....(2)

There has already been a serious fuel spill from an improperly dyked fuel storage area at your Prairie Creek minesite, recently. In light of this, I hope that you understand the serious nature of this situation and complete construction of your fuel storage facilities immediately.

Sincerely,

W. Mawdsley,
Acting District Manager

cc: Chief, Land Use Inspector
Land Use Administrator

RP/fm

LAND USE INSPECTION REPORT / TERRITORIAL LAND USE REGULATIONS
 RAPPORT D'INSPECTION RELATIF À L'UTILISATION DES TERRES / RÈGLEMENT CONCERNANT L'UTILISATION DES TERRES TERRITORIALES

Permittee - Détenteur du permis: Cadillac Explorations Ltd.
 Location - Endroit: Prairie Creek minesite
 Contractor - Entrepreneur: ALTO Construction
 Sub-Contractors - Sous-traitants: Crown Caterers, Guhr
 Date operation commenced - Date du début des travaux: August 31/81
 Current stage of program - État des travaux: Construction
 Program modification Approved/Not Approved (Explain): Tailings pond 65% complete, other construction 15% complete
 Modifications apportées approuvées/non approuvées (Expliquer):
 Expiry Date - Date d'expiration du permis: April 13, 1982

Conditions	Staging Access	Access Route	Air Strip	Seismic Line	Camp site	Drilling site	
A - Acceptable	Accès aux échafaudages	Route d'accès	Piste d'atterrissage	Ligne de sondage	Emplacement de camp	Emplacement de forage	
A) BRUSH DISPOSAL / DESTRUCTION DES BUISSONS							Minesite
1 Windrowed / Formation d'andains			A				A
2 Lopped & Scattered / Élagage et dispersion			A				A
3 Walked Down / Foulage			N/A				N/A
4 Leaners Felled / Abattage			A		N/A		A
5 Burned / Brûlage			N/A				N/A
6 Buried / Enfouissement			A				A
B) EROSION CONTROL / CONTRÔLE DE L'ÉROSION							
1 Ground Disturbance / Perturbation du sol			A				A
2 Stream Approaches / Abords de ruisseaux			N/A		A		A
3 Stream Crossings / Gués de ruisseaux			N/A		A		A
4 Drainage Disruption / Perturbation du réseau de drainage			A		N/A		A
5 Backsloping - Contours / Surface structurale et relief			N/A		N/A		A
6 Shotholes Plugged / Obturation du trou de tir			N/A		N/A		A
C) POLLUTION PREVENTION / LUTTE CONTRE LA POLLUTION							
1 Removal Bldg. & Equip. / Enlèvement, bâtiments et matériel			N/A				N/A
2 Fuel Storage / Entreposage, combustible			A		N/A		N/A
3 Incineration (garbage, etc.) / Incinération, ordures etc.			N/A		U		U
4 Other wastes / Autres déchets			A		U		U
5 Sumps and Pits / Puisards et fosses			N/A		C		A
					A		N/A

Location and Remarks (include comments on other permit conditions, as necessary)
 Conditions et commentaires (mentionner toute autre condition du permis)
 C2 - Fuel Storage is still unacceptable
 Permittee is to complete impermeable dyke around Fuel storage tanks as per conditions 36, 38 and 39 of Land use permit N800248 by September 15, 1981. Failure to do so will result in further action being taken under the Territorial Land Use Regulations.
 See Attached page For Further Explanation

Operator's Representative - Représentant de l'exploitant: *[Signature]*
 Land Use Inspector - Inspecteur de l'utilisation des terres: R. Pelzman - 6257
 Area - Zone: Fort Simpson

Land Use Permit on hand / Permis d'utilisation des terres: Yes / Oui, No / Non
 Copies of initial and interim reports are subject to inspection during summer months unless otherwise stated in writing by the District Superintendent
 Copies des rapports initiaux et provisoires doivent faire l'objet d'une inspection finale au cours de l'été, à moins que le surintendant n'ait déclaré autrement et ne fasse, à ce sujet, une déclaration écrite.
 Checked by RMO / Vérification par l'agent régional de l'exploitation minière:
 Superintendent / Surintendant: *[Signature]*



Date August 31, 1981

Permit No. N80D248
No de permis

Explanation and Remarks (Continued) Cadillac Explorations
Explications et remarques (suite) Prairie Creek mine site

As of August 31, there is no dyke around the main fuel storage facilities at the mine site - computer. Fuel storage has been marked U - unacceptable on the land use inspection reports dated July 9, July 24 and August 5.

This is to notify Cadillac Explorations that an impermeable dyke shall be constructed around the main fuel storage area to comply with conditions 36, 38 and 39 of this land use permit, by September 15, 1981. Failure to do so may result in further action being taken pursuant to section 41 (1) of the Territorial Land Use Regulations. This action is being taken in light of the fact that there has already been one fuel spill at this mine site from a fuel storage area that has not been dyked as per the land use permit conditions.

C-3 - Incineration - Garbage - Unacceptable

All garbage is to be incinerated in the fuel fired incinerator. Any waste wood etc., that cannot fit into the incinerator is to be burned in the garbage pit.

C-4 - Other wastes

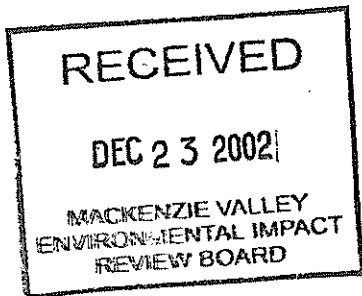
One pit at base of adit left with oil and water. This pit can readily be cleaned up when mine discharge water is diverted into settling pond.

R. Peltman
Land Use Inspector 625

Land Use Inspector - Inspecteur de l'utilisation des terres

Note: This form is to be used as necessary in conjunction with the Land Use Inspection Report Territorial Land Use Regulations, IAND 52-221 (10-72).

Au besoin, annexer la présente feuille au rapport d'inspection de l'utilisation des terres, Règlements sur l'utilisation des terres territoriales, MAINC 52-221 (10-72).



Northern Affairs Program,
P.O. Box 150,
Fort Simpson, N.W.T.
XOE ONO

September 28, 1981

Cadillac Explorations Ltd.,
Suite 920, Lancaster Building,
304 - 8th Avenue, S.W.,
Calgary, Alta

N80D248

Attn: L.C. Morrisroe,
President

Dear Sir:

Re: Land Use Permit N80D248
Prairie Creek, NWT

Enclosed please find copies of inspection reports made on
September 11 and September 24 on your operations.

Please note those items marked conditional and unacceptable.

We thank you for your co-operation in the improvements
requested.

Yours respectfully,

ORIGINAL SIGNED BY:
B. J. GAUTHIER

B. J. J. Gauthier,
District Manager

cc: Land Use, YK

BG/fm

LAND USE INSPECTION REPORT / RAPPORT D'INSPECTION RELATIVE À L'UTILISATION DES TERRES
 TERRITORIAL LAND USE REGULATIONS / RÉGLEMENT CONCERNANT L'UTILISATION DES TERRES TERRITORIAL

Permittee - Détenteur du permis: CADILLAC EXPLORATIONS LTD
 Location - Endroit: PRAIRIE CREEK NWT
 Contractor - Entrepreneur: ALTA CONSTRUCTION
 Date: SEP 11/81
 Permit No. - Permis n°: N 800248
 Previous Inspection Dates / Inspections antérieures (dates):
 Initial / Interim / Interim / Final: Initial, Interim, Interim, Final
 Date operation commenced - Date du début des travaux:
 Current stage of program - État des travaux: AT TIME OF INSPECTION WORK WAS CARRIED OUT ON FUEL DYKES, RIP RAPPING ON BLUFF AND CONSTRUCTION. HEAVY RAINS HAS DELAYED TAILINGS POND WORK.
 Expiry Date - Date d'expiration du permis: APRIL 13/82

Program modification Approved/Not Approved (Explain) / Modifications apportées approuvées/non approuvées (Expliquer):
 AREA REQUESTED FOR ADDITIONAL 40,000 cu yds of GRAVEL NOT APPROVED.

Conditions	Staging Access	Access Route	Air Strip	Seismic Line	Camp site	Drilling site
A - Acceptable, U - Unacceptable	Accès aux échafaudages	Route d'accès	Piste d'atterrissage	Ligne de sondage	Emplacement de camp	Emplacement de forage
A) BRUSH DISPOSAL / DESTRUCTION DES BUISSONS						
1 Windrowed / Formation d'andains					-	-
2 Lopped & Scattered / Élagage et dispersion					-	-
3 Walked Down / Foulage					-	-
4 Leaners Felled / Abattage					-	-
5 Burned / Brûlage					-	-
6 Buried / Enfouissement					-	-
7					-	-
B) EROSION CONTROL / CONTRÔLE DE L'ÉROSION						
1 Ground Disturbance / Perturbation du sol						
2 Stream Approaches / Abords de ruisseaux					A	A
3 Stream Crossings / Gués de ruisseaux					A	U*
4 Drainage Disruption / Perturbation du réseau de drainage			OK		A	-
5 Backsloping - Contours / Surface structurale et relief					NOTE 1	-
6 Shotholes Plugged / Obturation du trou de tir					-	-
					-	-
POLLUTION PREVENTION / LUTTE CONTRE LA POLLUTION						
Removal Bldg. & Equip. / Enlèvement, bâtiments et matériel						
Fuel Storage / Entreposage, combustible						
Incineration (garbage, etc.) / Incinération, ordures etc.					NOTE 2	-
Other wastes / Autres déchets					U	-
Sumps and Pits / Puisards et fosses					NOTE 3	-
					A	U*

Explanation and Remarks (include comments on other permit conditions, as necessary) / Explications et commentaires (mentionner toute autre condition du permis):
 NOTE 1 As the area is under construction drainages are disrupted at present
 2 Fuel dykes are not completed yet but are satisfactory to contain present volume of fuel now in tanks. Should be completed by Sep 15/81
 3 Area under construction and it is impossible to keep everything OK.
 C-3 Incinerator not operational, garbage is piling up and attracting Bears.
 U* Presently working on Blasting of Rip Rapp off Rock Bluff.

Operator's Representatives - Représentant de l'exploitant: [Signature]
 Land Use Inspector - Inspecteur de l'utilisation des terres: J.S.S. [Signature]
 Area - Zone: _____

Land Use Permit on hand / Permis d'utilisation des terres: Yes / Oui, No / Non
 Checked by RMO / Vérification par l'agent régional de l'exploitation minière:
 Initials of initial and interim reports are subject to final inspection during summer months unless otherwise stated in writing by the District Superintendent / Les conditions décrites dans les rapports initiaux et provisoires doivent faire l'objet d'une inspection finale au cours de l'été, à moins que le surintendant décide autrement et ne fasse, à ce sujet, une déclaration écrite.
 Superintendent / Surintendant: _____



LAND USE INSPECTION REPORT / RAPPORT D'INSPECTION RELATIF À L'UTILISATION DES TERRES
 TERRITORIAL LAND USE REGULATIONS / RÈGLEMENT CONCERNANT L'UTILISATION DES TERRES TERRITORIALES

Permittee - Détenteur du permis: Cadillac Explorations Ltd. Date: Sept. 24/81 Permit No. - Permis n° N8002.
 Location - Endroit: Prairie Creek, N.W.T. Previous Inspection Dates / Inspections antérieures (dates): Aug. 5, Sept. 1
 Contractor - Entrepreneur: ALTA Construction Initial / Interm / Interm / Interm / Final / Provisoire / Provisoire / Provisoire / Provisoire / Final / Finale
 Sub-Contractors - Sous-traitants: Expiry Date - Date d'expiration du permis: April 15/82

Fuel storage area dykes completed, Mill construction proceeding
 Program modification Approved/Not Approved (Explain) / Modifications apportées approuvées/non approuvées (Expliquer): Tailings pond 75% complete
 N/A - not applicable

Conditions	Staging Access	Access Route	Air Strip	Seismic Line	Camp site	Drilling site	
A - Acceptable, U - Unacceptable	Accès aux échafaudages	Route d'accès	Piste d'atterrissage	Ligne de sondage	Emplacement de camp	Emplacement de forage	Minesite
A) BRUSH DISPOSAL / DESTRUCTION DES BUISSONS							
1 Windrowed / Formation d'andains					N/A		A
2 Lopped & Scattered / Élagage et dispersion					N/A		A
3 Walked Down / Foulage					N/A		N/A
4 Leaners Felled / Abattage					N/A		A
5 Burned / Brûlage					N/A		N/A
6 Buried / Enfouissement					N/A		N/A
B) EROSION CONTROL / CONTRÔLE DE L'ÉROSION							
1 Ground Disturbance / Perturbation du sol					A		A
2 Stream Approaches / Abords de ruisseaux					A		A
3 Stream Crossings / Gués de ruisseaux					A		U
4 Drainage Disruption / Perturbation du réseau de drainage					A		A
5 Backsloping - Contours / Surface structurale et relief					N/A		A
6 Shotholes Plugged / Obturation du trou de tir					N/A		N/A
C) POLLUTION PREVENTION / LUTTE CONTRE LA POLLUTION							
Removal Bldg. & Equip. / Enlèvement, bâtiments et matériel					N/A		N/A
Fuel Storage / Entreposage, combustible					A		A
Incineration (garbage, etc.) / Incinération, ordures etc.					C		C
Other wastes / Autres déchets					A		A
Sumps and Pits / Puisards et fosses					A		A

Explanation and Remarks (include comments on other permit conditions, as necessary) / Explications et commentaires (mentionner toute autre condition du permis)
 - Minesite B-4 - Settling pond floodgate to be raised, and settling pond capacity utilized by removing berms. This will maximize settling capacity.
 Fuel storage is now acceptable, Good job of dyke construction
 Incineration conditional upon further cleanup around garbage pit - Improvement noted.

Operator's Representatives - Représentant de l'exploitant:
 Land Use Inspector - Inspecteur de l'utilisation des terres: R Pelham
 Signature: Area - Zone: Fort Simpson

Land Use Permit on hand / Permis d'utilisation des terres: Yes / No
 Checked by RMO / Vérification par l'agent régional de l'exploitation minière:
 Conditions of initial and interim reports are subject to final inspection during summer months unless otherwise stated in writing by the District Superintendent
 Conditions décrites dans les rapports initiaux et provisoires doivent faire l'objet d'une inspection finale au cours de l'été, à moins que le surintendant n'en décide autrement et ne fasse, à ce sujet, une déclaration écrite.

RECEIVED
DEC 23 2002
MACKENZIE VALLEY
ENVIRONMENTAL IMPACT
REVIEW BOARD

Northern Affairs Program,
P.O. Box 150,
Fort Simpson, N.W.T.
XOE 0N0

November 30, 1981

N60242

Cadillac Explorations Limited,
Suite 910, Lancaster Building,
301 - 4th Avenue, S.W.,
Calgary, Alta
T2P 1G2

Attn: I.C. Morrison,
President

Dear Sir:

Re: Land Use Permit N60242 - Minesite, Prairie Creek, NWT

Enclosed is a copy of a Land Use Inspection Report carried out
by Land Use Inspector, Mr. William Mandley on November 18, 1981.
The Inspector covered the above noted minesite and the various
operations nearby.

Mr. Mandley reports that at time of inspection, all Land Use
Permit operating conditions were acceptable and that the area
appeared relatively tidy. It gives me great pleasure in
congratulating your staff in keeping up with monitoring and
the enforcement of the various permit conditions. I trust
that these will continue to be maintained at a high standard.

Yours truly,

ORIGINAL SIGNED BY
B. J. GAUTHIER

B. J. J. Gauthier,
District Manager

Encl.

cc: Land Use, YK

BG/fm



Cadillac Explorations Ltd.

Land-Use Permits N80D248, N80F249

26 November 1981

Your file Votre référence

Our file Notre référence

Contacts: Earl Dolan, Alto Const
 Walter Behling, Cadillac

Present Work?

1. Tailings Pond: According to the operator, there remains approximately 40,000 tonnes to be moved from the site. Suitable material is being used to level the concentrate storage area, the remainder removed being hauled to the airstrip area. Approximately 10,000 cubic yards of gravel have been placed in the pond. At present, the contractor is sloping the mountain-side. The sealing work is yet to be done.
2. Mill Site: The contractors are working to complete enclosure of the mill to allow winter indoor work. From appearances the building is about 75% enclosed.
3. Fuel Storage: Fuel lines to the pumping station and to the mill are under construction. The three main tanks are now interconnected, and the flow lines partially installed. No fuel leakage or spillage was observed at the time of the inspection.
4. Quarry Site: Approximately 10,000 yards of material have been removed from the approved quarry area. The work appears to meet the requirements of the quarry permit in environmental concerns.

General Observations:

The mill and campsite appeared relatively neat and in accordance with the operating conditions. As the construction work progresses, it is expected that the site will improve in appearance.

Cadillac Explorations Ltd.
Land-Use Permits N80D248, N80F249
26 November 1981

-2-

General Observations Cont'd:

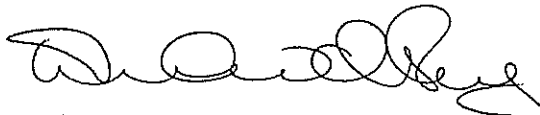
What water flow was observed flowing from the site appeared to have very little silt content, if any. The manager advised that mine flow was approaching minimum, as the area froze. Construction of the Harrison Creek erosion control structures is yet to be completed, but the contractor advises it will be finished prior to spring.

Waste disposal has improved since the last inspection. The contractor is looking at alternate sites for garbage pits as the present one is nearing capacity.

Access Road:

Most stream crossings in the foothills have open water indicating possible poor ice cover. Wildlife signs were minimal on or near the road.

At the time of the inspection, access was completed to the Mile 25 to remove fuel. Advised plans were to start road operations possibly in the first week of December (7-10).



William Mawdsley,
Resource Management Officer

LAND USE INSPECTION REPORT / RAPPORT D'INSPECTION RELATIF À L'UTILISATION DES TERRES
 TERRITORIAL LAND USE REGULATIONS / RÈGLEMENT CONCERNANT L'UTILISATION DES TERRES TERRITORIALES

Permittee - Détenteur du permis: CADILLAC EXPLORATIONS LTD.
 Location - Endroit: PRAIRIE CREEK OUT
 Contractor - Entrepreneur: ALTE CONST.
 Sub-Contractors - Sous-traitants: [Blank]
 Date: 26-11-81 Permit No. - Permis n°: 8807248
 Previous Inspection Dates / Inspections antérieures (dates): [Blank]
 Initial / Initiale: [Blank]
 Interim / Provisoire: 24-09-81
 Interim / Provisoire: [Blank] ✓
 Final / Finale: [Blank]
 Date operation commenced - Date du début des travaux: [Blank]
 Current stage of program - État des travaux: Hill Construction Ongoing, Tailings Pond incomplete - ~~the~~ quarry carried out - Still earth
 Program modification Approved/Not Approved (Explain) / Modifications apportées approuvées/non approuvées (Expliquer): to be removed

Conditions	A - Acceptable, U - Unacceptable	Staging Access	Access Route	Air Strip	Seismic Line	Camp site	Drilling site	
A - Acceptable, U - Unacceptable		Accès aux échafaudages	Route d'accès	Piste d'atterrissage	Ligne de sondage	Emplacement de camp	Emplacement de forage	
A) BRUSH DISPOSAL / DÉSTRUCTION DES BUISSONS								
1	Windrowed / Formation d'andains							Minesite
2	Lopped & Scattered / Élagage et dispersion							A
3	Walked Down / Foulage							A
4	Leaners Felled / Abattage					N/A		N/A
5	Burned / Brûlage							A
6	Buried / Enfouissement							N/A
7								N/A
B) EROSION CONTROL / CONTRÔLE DE L'ÉROSION								
1	Ground Disturbance / Perturbation du sol							
2	Stream Approaches / Abords de ruisseaux					A		A
3	Stream Crossings / Gués de ruisseaux					A		A
4	Drainage Disruption / Perturbation du réseau de drainage					A		A
5	Backsloping - Contours / Surface structurale et relief					A		Note
6	Shotholes Plugged / Obturation du trou de tir					N/A		A
7						N/A		N/A
C) POLLUTION PREVENTION / LUTTE CONTRE LA POLLUTION								
1	Removal Bldg. & Equip. / Enlèvement, bâtiments et matériel							
2	Fuel Storage / Entreposage, combustible					N/A		N/A
3	Incineration (garbage, etc.) / Incinération, ordures etc.					A		A
4	Other wastes / Autres déchets					A		A
5	Sumps and Pits / Puisards et fosses					A		A
6						A		A

Explanation and Remarks (include comments on other permit conditions, as necessary) / Explications et commentaires (mentionner toute autre condition du permis)
 Note: - Very little water flow observed - ground + creeks frozen.
 - Garbage incineration and pit acceptable at this time.

[Signature]
 Operator's Representatives - Représentant de l'exploitant

[Signature]
 Land Use Inspector - Inspecteur de l'utilisation des terres

Signature

[Signature]
 Area - Zone

Land Use Permit on hand / Permis d'utilisation des terres Yes / Oui No / Non

Checked by RMO / Vérification par l'agent régional de l'exploitation minière

Findings of initial and interim reports are subject to final inspection during summer months unless otherwise stated in writing by the District Superintendent. Les conditions décrites dans les rapports initiaux et provisoires doivent faire l'objet d'une inspection finale au cours de l'été, à moins que le surintendant ne décide autrement et ne fasse, à ce sujet, une déclaration écrite.

Superintendent / Surintendant *[Signature]*

RECEIVED

DEC 23 2002

MACKENZIE VALLEY
ENVIRONMENTAL IMPACT
REVIEW BOARD

Northern Affairs Program,
P.O. Box 150,
Fort Simpson, N.W.T.
XOE 0N0

January 1, 1982

N80D248, N80F249

Cadillac Exploration Ltd.,
Suite 920, Lancaster Building,
304 - 8th Avenue, S.W.,
Calgary, Alta
T2P 1C2

Attn: G.B. Hamilton,
President

Dear Sir:

Re: Land Use Permits N80D248, N80F249
Minesite, Access Road - Prairie Creek, NWT

Enclosed please find copies of Land Use Inspection
Reports as carried out by the undersigned on the
7th January, 1982.

As indicated by the remarks on the enclosed reports,
all items were found to be acceptable.

Thank you for your co-operation.

Yours truly,

ORIGINAL SIGNED BY

B. J. GAUTHIER

B.J.J. Gauthier,
District Manager

cc: Land Use, YK

6m

Report on Cadillac Exploration Ltd.
Land Use Permits N80D248, N80F249
Inspection of January 7, 1982

Minesite:

Very little work was carried out on the Tailings Pond construction since the last month or so and only one Cat and 2 Scrapers are working when weather conditions prevail. Extreme cold temperatures were experienced and this is the reason for the stoppage of work.

Some of the men from Alto Construction returned to Prairie Creek on January 5/82, and are engaged in the servicing and repair of equipment, general maintenance work and some carpentry work.

A build-up of ice occurred during the holiday season in the mineshaft and has prevented further mining operations until it is cleaned up. Miners are also involved with maintenance work and any jobs the project Superintendent can find for them.

The new office building complex and combination recreation room are not completed in full but are presently occupied. The old wash trailers are no longer used as is the old rec hall and office. Some men are involved in working on this building.

According to Walter Behling, no work will be done on the mine building until mid February or so. They presently have 34,000 gallons of fuel on hand and at present consumption of 1,000 gallons per day are good for a month or so.

Winter Road:

At time of inspection, Cadillac had 2 Cats, 2 Graders, 1 Loader, fuel truck and a pick-up committed to the opening of the winter road. The lead Cat was at mile 18 and was moving at a good pace. The plans are to get to mile 25 and mobilize the camp located there and with one cat and graders continue with the opening of the road. The other Cat would widen the road and return to camp.

N80D248, N80F249
Inspection January 7/82

-2-

The ice bridge on the Liard River will be starting soon and possibly another Cat once across the Liard, would start working west.

A separate report on Wildlife observation is attached.

B.J.J. Gauthier
B.J.J. Gauthier,
District Manager.

cc: Land Use, YK

LAND USE INSPECTION REPORT **RAPPORT D'INSPECTION RELATIF À L'UTILISATION DES TERRES**
TERRITORIAL LAND USE REGULATIONS **RÈGLEMENT CONCERNANT L'UTILISATION DES TERRES TERRITORIALES**

Permittee - Détenteur du permis <i>Adillon Exploration Ltd.</i>	Date <i>Jan 7/82</i>	Permit No. - Permis n° <i>N80D248</i>
Location - Endroit <i>Prairie Creek</i>	Previous Inspection Dates Inspections antérieures (dates)	
Contractor - Entrepreneur <i>Alta Construction</i>	Initial Initiale	
Sub-Contractors - Sous-traitants	Interim Provisoire	
Date operation commenced - Date du début des travaux	Interim Provisoire	✓
Current stage of program - État des travaux	Final Finale	
		Expiry Date - Date d'expiration du permis <i>April 13/82</i>
Program modification Approved/Non-Approved (Explain) Modifications apportées approuvées/non approuvées (Expliquer) <i>None</i> <i>new returned Jan 5/82 and about 50 men in camp carrying out maintenance work.</i>		

Conditions A - Acceptable, U - Unacceptable A - Acceptable, U - Inacceptable	Staging Access Accès aux échafaudages	Access Route Route d'accès	Air Strip Piste d'atterrissage	Seismic Line Ligne de sondage	Camp site Emplacement de camp	Drilling site Emplacement de forage
A) BRUSH DISPOSAL DESTRUCTION DES BUISSONS						
1 Windrowed Formation d'andains						
2 Lapped & Scattered Élagage et dispersion						
3 Walked Down Foulage						
4 Leaners Felled Abattage						
5 Burned Brûlage						
6 Buried Enfouissement						
7						
B) EROSION CONTROL CONTRÔLE DE L'ÉROSION						
1 Ground Disturbance Perturbation du sol						
2 Stream Approaches Abords de ruisseaux						
3 Stream Crossings Gues de ruisseaux						
4 Drainage Disruption Perturbation du réseau de drainage						
5 Backsloping - Contours Surface structurale et relief						
6 Shotholes Plugged Obturation du trou de tir						
7						
C) POLLUTION PREVENTION LUTTE CONTRE LA POLLUTION						
1 Removal Bldg. & Equip. Enlèvement, bâtiments et matériel						
2 Fuel Storage Entreposage, combustible						
3 Incineration (garbage, etc.) Incinération, ordures etc.						
4 Other wastes Autres déchets						
5 Sumps and Pits Puisards et fosses						
6						

Explanation and Remarks (include comments on other permit conditions, as necessary)
 Explications et commentaires (mentionner toute autre condition du permis)

Some ice problems encountered underground, very little work is presently carried out above ground. little work done on disposal pond, crews are mainly carrying out maintenance work, servicing of equipment and some carpentry work.

PROJECT SUPERINTENDENT

H. McKinnell

Operator's Representatives - Représentant de l'exploitant

B. J. J. Decker

Land Use Inspector - Inspecteur de l'utilisation des terres

Paul Simpson NW7

Area - Zone

Signature

Land Use Permit on hand Yes No
 Permis d'utilisation des terres Oui Non

Checked by RMO
 Vérification par l'agent régional de l'exploitation minière

Findings of initial and interim reports are subject to final inspection during summer months unless otherwise stated in writing by the District Superintendent
 Les conditions décrites dans les rapports initiaux et provisoires doivent faire l'objet d'une inspection finale au cours de l'été, à moins que le surintendant en décide autrement et ne fasse, à ce sujet, une déclaration écrite.

Superintendent
 Surintendant *B. J. J. Decker*

SUMMARY OF WATER LABORATORY DATA

LICENSEE <i>Cadillac</i>	LICENCE NUMBER <i>N3L3-0932</i>				LOCATION <i>Pravix Creek</i>				STATION NUMBER <i>112 932-1</i>			
DATE SAMPLED <i>1982</i>	<i>May 21</i>	<i>Apr 23</i>	<i>April 30</i>	<i>May 13</i>	<i>23/09</i>							
LABORATORY NUMBER	<i>20225</i>	<i>20179</i>	<i>20232</i>	<i>20236</i>	<i>21627</i>							

pH											
Sp Conductance											
Dissolved O ₂											
Turbidity											
Water Temperature											

pH (Units)	<i>7.2</i>	<i>7.4</i>	<i>7.5</i>	<i>7.8</i>							
Sp. Cond. (umho/cm)	<i>670</i>	<i>610</i>	<i>670</i>	<i>680</i>							
Dissolved Oxygen											
Turbidity (JTU)											
Colour (colour U.)											
Suspended Solids	<i>45</i>	<i>45</i>	<i>45</i>	<i>45</i>							
TDS, Residue		<i>400</i>									
Oil & Grease											
Phenols											

Calcium	<i>69.8</i>	<i>75</i>	<i>89</i>	<i>89</i>							
Magnesium	<i>92</i>	<i>26</i>	<i>30</i>	<i>30</i>							
Tot. Hardness (as CaCO ₃)	<i>550</i>	<i>270</i>	<i>350</i>	<i>350</i>							
Sodium		<i>2.2</i>									
Potassium		<i>0.7</i>									

Tot. Coliform (cnt)											
Faecal Coli. 100											
Faecal Strep. ml											

BOD ₅											
COD											
Carbon, IC											
Carbon, TOC											

Total Cyanide											
Chloride	<i>2.0</i>	<i>0.9</i>	<i>1.2</i>	<i>2.5</i>							
Sulphate	<i>40</i>	<i>140</i>	<i>120</i>	<i>120</i>							
Sulphide											

Ammonia Nitrogen (as N)					<i>4.05</i>						
Nitrate-Nitrite (as N)					<i>1.3</i>						
Total Kjeldahl N (as N)											
Phosphorus O-P (as P)											
Phosphorus Tot. (P)					<i>4.05</i>						
Silica Reac. as SiO ₂											

Arsenic	T	<i>40.01</i>	<i>4.01</i>	<i>2.01</i>	<i>4.01</i>						
	D										
Cadmium	T	<i>4.005</i>	<i>4.3</i>	<i>4.3</i>	<i>4.3</i>	<i>4.1</i>					
	E										
Copper	T	<i>2.2</i>	<i>8.0</i>	<i>15</i>	<i>7</i>	<i>1</i>					
	E										
Iron	T	<i>.11</i>	<i>80</i>	<i>210</i>	<i>110</i>						
	E										
Lead	T	<i>.05</i>	<i>30</i>	<i>30</i>	<i>30</i>	<i>2.2</i>					
	E										
Mercury	T (ug/l)				<i>.01/01</i>	<i>4.01</i>					
	E (ug/l)										
Nickel	T	<i>4.025</i>	<i>7.0</i>	<i>10</i>	<i>15</i>	<i>2</i>					
	E										
Zinc	T	<i>.091</i>	<i>50</i>	<i>70</i>	<i>230</i>	<i>.11</i>					
	E										

Chromium T	<i>40.01</i>	<i>45</i>	<i>45</i>	<i>45</i>							

WATER LAB SAMPLE RESULTS

All results are expressed in mg/l except as indicated in brackets (). O-P = ortho phosphate; TDS = total dissolved solids (it is filterable residue, dried at 105C); T = Total; E = Extractable; D = Dissolved; IC = Inorganic Carbon; TOC = Total Organic Carbon

SUMMARY OF WATER LABORATORY DATA

LICENSEE <i>Cadillac</i>	LICENCE NUMBER <i>N323-0932</i>			LOCATION <i>Pravie creek</i>				STATION NUMBER <i>WI 932-1</i>		
DATE SAMPLED 1982	<i>May 12</i>	<i>30/04</i>	<i>23/04</i>	<i>Apr 27</i>	<i>June 16</i>	<i>27/09</i>	<i>May 05/83</i>	<i>June 27/83</i>		
LABORATORY NUMBER					<i>20400</i>		<i>30260</i>	<i>30643</i>		

pH	<i>7.6</i>			<i>7.4</i>						
Sp Conductance	<i>630</i>									
Dissolved O ₂										
Turbidity										
Water Temperature										

pH (Units)	<i>7.6</i>	<i>7.6</i>	<i>7.2</i>	<i>7.4</i>	<i>7.5</i>	<i>7.5</i>	<i>7.8</i>	<i>7.6</i>		
Sp. Cond. (umho/cm)	<i>630</i>	<i>630</i>	<i>650</i>	<i>650</i>	<i>700</i>	<i>770</i>	<i>680</i>	<i>730</i>		
Dissolved Oxygen										
Turbidity (JTU)										
Colour (colour U.)										
Suspended Solids	<i><5</i>	<i><5</i>	<i><5</i>	<i><5</i>	<i>26</i>	<i><5</i>	<i><5</i>	<i><5</i>		
TDS, Residue			<i>430</i>							
Oil & Grease										
Phenols										

Calcium	<i>82</i>	<i>79</i>	<i>75.4</i>	<i>170</i>	<i>80</i>	<i>87</i>	<i>82.2</i>	<i>86.7</i>		
Magnesium	<i>28</i>	<i>28</i>	<i>26.2</i>	<i>36</i>	<i>24</i>	<i>47</i>	<i>32.8</i>	<i>39.9</i>		
Tot. Hardness (as CaCO ₃)	<i>320</i>	<i>310</i>	<i>300</i>	<i>580</i>	<i>310</i>	<i>410</i>	<i>340</i>	<i>380</i>		
Tot. Alkalinity (CaCO ₃)	<i>230</i>	<i>230</i>	<i>250</i>		<i>140</i>	<i>290</i>	<i>250</i>			
Sodium			<i>3.2</i>		<i>3.9</i>					
Potassium			<i>0.7</i>		<i>0.6</i>					

Tot. Coliform (cnt)										
Faecal Coli. 100										
Faecal Strep. ml										

BOD ₅										
COD										
Carbon, IC										
Carbon, TOC										

Total Cyanide							<i><.01</i>			
Chloride	<i>.7</i>	<i>.7</i>	<i>1.0</i>							
Sulphate	<i>120</i>	<i>103</i>	<i>120</i>							
Sulphide										

Ammonia Nitrogen (as N)					<i>2.03</i>	<i>2.05</i>	<i><.03</i>			
Nitrate-Nitrite					<i>.19</i>	<i>.21</i>	<i><.04</i>	<i>.27</i>		
Total Kjeldahl N										
Phosphorus O-P (as P)										
Phosphorus tot. P					<i><.005</i>	<i>2.05</i>	<i>2.05</i>	<i><.010</i>		
Silica Reac. as SiO ₂										

Arsenic	T	<i><.01</i>	<i><.01</i>	<i>.01</i>	<i><.01</i>	<i><.01</i>	<i>4.0</i>	<i>1.0</i>		
	D									
Cadmium	T (ug/l)	<i><3.0</i>	<i>2.0</i>	<i>2.3</i>	<i><.01</i>	<i><.01</i>	<i>2.0</i>	<i>1.0</i>	<i><.05</i>	
	E									
Copper	T	<i>5.0</i>	<i>5.0</i>	<i>10</i>	<i>0.04</i>	<i>.02</i>	<i>1</i>	<i>2.5</i>	<i>21.0</i>	
	E									
Iron	T	<i>80</i>	<i>50</i>	<i>40</i>	<i>0.10</i>	<i>.41</i>		<i>49.5</i>	<i>100</i>	
	E									
Lead	T	<i><30</i>	<i><30</i>	<i>30</i>	<i>0.15</i>	<i>2.05</i>	<i>2</i>	<i><.01</i>	<i><.02</i>	
	E									
Mercury	T (ug/l)	<i><.001</i>			<i><.01</i>		<i><.01</i>	<i><.01</i>		
	E (ug/l)									
Nickel	T	<i>7.0</i>	<i>5.0</i>	<i>7.0</i>	<i><.05</i>	<i>2.05</i>	<i>2.1</i>	<i>21.0</i>	<i>21.0</i>	
	E									
Zinc	T	<i>110</i>	<i>70</i>	<i>100</i>	<i>.06</i>	<i>2.6</i>	<i>60</i>	<i>23</i>	<i>2.5</i>	
	E									

Chromium	<i><5</i>	<i><5</i>	<i>45</i>	<i>2.02</i>			<i><.5</i>	<i><.05</i>		

All results are expressed in mg/l except as indicated in brackets (N, P, ortho-phosphate, TOC - total organic carbon)

SUMMARY OF WATER LABORATORY DATA

LICENSEE	LICENCE NUMBER				LOCATION				STATION NUMBER			
Cadillac	N343-0932				Prairie Creek				932-4 discharge from settling pond			
DATE SAMPLED 1982	May 12	June 6	27/08	July 27								
LABORATORY NUMBER	20238	20396	21628									

pH												
Sp Conductance												
Dissolved O ₂												
Turbidity												
Water Temperature												

pH (Units)	7.9	7.7	7.8	8.1								
Sp. Cond. (umho/cm)	970	510	570	570								
Dissolved Oxygen												
Turbidity (JTU)												
Colour (colour U.)												
Suspended Solids	77	22	85	<5								
TDS, Residue												
Oil & Grease				<4.0								
Phenols												

Calcium	120	57	72	65								
Magnesium	31	22	36	22								
Tot. Hardness (as CaCO ₃)	430	230	330	290								
Tot. Alkalinity (CaCO ₃)	130	150	210									
Sodium		1.6										
Potassium		0.9										

Tot. Coliform (cnt)												
Faecal Coli. (100)												
Faecal Strep. (ml)												

BOD ₅												
COD												
Carbon, IC												
Carbon, TOC												

Total Cyanide												
Chloride	34											
Sulphate	240											
Sulphide												

Ammonia Nitrogen (as N)	8.6	.44	.06	0.08								
Nitrate-Nitrite (as N)	17	1.2	.70	.52								
Total Kjeldahl N												
Phosphorus O-P (as P)												
Phosphorus Tot. (P)	0.15	2.05	4.05	4.10								
Silica Reac. as SiO ₂												

Arsenic	T	.02	4.01	4.1	1.1							
	D											
Cadmium	T	15 ug	4.01	4.01	.67							
	E											
Copper	T	68	<.01	<1	6.0							
	E											
Iron	T	3250	0.33		<5							
	E											
Lead	T	980	0.12	4	3.8							
	E											
Mercury	T (ug/l)	9.1/6.1	2.2	.01								
	E (ug/l)											
Nickel	T	25	2.05	21	21.0							
	E											
Zinc	T	1450	72	240	190							
	E											

analytical problems

Chromium (T)	<5			20.5								

All results are expressed in mg/l except as indicated in brackets (). O-P = ortho phos. phate. TDS = total dissolved solids

SUMMARY OF WATER LABORATORY DATA

LICENSEE	LICENCE NUMBER			LOCATION					STATION NUMBER			
Coolidge	N363 932			Prairie Ck.					932-6 Prairie Ck @ Salena Ck			
DATE SAMPLED	1982	May 21	May 12	June 16	27/08	Feb 22	May 05/83	June 25/83	June 27 83			
LABORATORY NUMBER	20275	20248	20397	21629			30250	30640	30641			

pH							8.4	8.6				
Sp Conductance							424	322				
Dissolved O ₂												
Turbidity												
Water Temperature												

pH (Units)	7.9	8.2	8.1	8.3	7.9	8.2	8		
Sp. Cond. (umho/cm)	180	370	270	370	500	450			
Dissolved Oxygen									
Turbidity (JTU)									
Colour (colour U.)							2.1	1.6	
Suspended Solids							5	5	
TDS, Residue	10.1	14	71	45	45	45	45	25	
Oil & Grease							190	180	
Phenols									

Calcium	23.6	47	35	32	6.5	57.6	46.0	46.5	
Magnesium	8.4	15	11	20	24	22.1	16.4	16.6	
Tot. Hardness (as CaCO ₃)	93.5	180	130	210	262	235	182	184	
Sodium	77	140	120	170	210	190	150	150	
Potassium			0.7		2.6	2.03	1.13	1.13	
			0.3		.41	0.46	0.37	0.39	

Tot. Coliform (cnt)	140/100								
Faecal Coli. 100	3/1						<1		
Faecal Strep. ml	15/11						<1		

BOD ₅									
COD									
Carbon, IC									
Carbon, TOC									

Total Cyanide		4.3							
Chloride	0.8						2.01		
Sulphate	131				10.5	0.5	<1.0	<1.0	
Sulphide					65.65	69	24	24	

Ammonia Nitrogen (as N)		<0.03	<0.03	2.05	2.04	2.03	2.03	<0.03	
Nitrate-Nitrite (as N)		.20	.14	.16	.22	2.04	0.12	0.12	
Total Kjeldahl N (as N)									
Phosphorus O-P (as P)		<0.05	2.05	2.05	2.05	2.05	<1.0	<1.0	
Phosphorus Tot. (P)									
Silica Reac. as SiO ₂									

Arsenic	T	20.61	0.007	2.01	<1	2.0	2.0	2.0	
	D								
Cadmium	T	2.005	23 ppb	2.01	2.1	2.1	2.3	<0.05	2.05
	E								
Copper	T	.02	45	2.01	2.1	2.05	2.5	<1.0	<1.0
	E								
Iron	T	2.335	480	89		28	17.8	26	20
	E								
Lead	T	.05	<30	2.05	2.2	2.5	2.1	2.02	2.02
	E								
Mercury	T (ug/l)		.09/.11		<0.01	.05/.03	2.02		
	E (ug/l)								
Nickel	T	<0.25	15	2.05	2.1	2.0	2.0	1.0	1.0
	E								
Zinc	T	.087	30	2.05	50	2.0	12.5	2.5	2.5
	E								

Chromium (T)	2.01	25		2.0	1.0	2.5	<0.5	2.5	

All results are expressed in mg/l except as indicated in brackets (). O-P - ortho phosphorus

SUMMARY OF WATER LABORATORY DATA

LICENSEE	LICENCE NUMBER			LOCATION				STATION NUMBER	
Cadillac	N3L3-0932			Prairie Creek				932-7	
DATE SAMPLED 1982	Apr 23	May 12	May 12	April 30	June 16	23/69	May 25 83	June 27/83	Prairie Creek upstream of airstrip
LABORATORY NUMBER	20150	20942	20243	2023	20398	21630	30259	30639	

pH							8.4	8.3	
Sp Conductance			upstream of		upstream of		412	310	
Dissolved O ₂			ground		ground				
Turbidity			wash		wash				
Water Temperature									

pH (Units)	8.1	8.1	8.1	8.1	8.2	8.3	8.3	
Sp. Cond. (umho/cm)	590	360	360	500	270	360	440	
Dissolved Oxygen								
Turbidity (JTU)								
Colour (colour U.)								<1
Suspended Solids	7.0	6.7	11	<5	<5	<5	<5	5
TDS, Residue	120							170
Oil & Grease								
Phenols								

Calcium	73	48	49	65	35.5	50	64.1	45.0
Magnesium	33	15	15	22	11.1	19	21.3	16.1
Tot. Hardness (as CaCO ₃)	320	180	180	250	130	200	225	181
Sodium	2.1				11.0	170	180	180
Potassium	0.6				0.7		2.46	1.13
					0.3		0.42	0.35

Tot. Coliform (cnt)			2/3					
Faecal Coli. 100			2/21					<1
Faecal Strep. ml			9/5					<1

BOD ₅								
COD								
Carbon, IC								
Carbon, TOC								

Total Cyanide								
Chloride	0.9			0.6			<0.1	
Sulphate	110			75			<0.5	1.6
Sulphide							66	22

Ammonia Nitrogen (as Nitrate-Nitrite)					<0.03	<0.05	<0.03	<0.03
Total Kjeldahl N (N)					0.12	0.15	<0.04	0.07
Phosphorus (O-P) (as P)								
Phosphorus Tot. (P)								
Silica React. as SiO ₂					<0.05	<0.05	<0.05	2.0

Arsenic	T	<0.01	<0.01	<0.01	<0.01	<0.01	<1 ppb	<1.0	<1.0
	D								
Cadmium	T	<3 ppb	<3	<3	<3	1.01	2.1	1.0	1.05
	E								
Copper	T	5	<5	<5	<5	<0.1	<1	<0.5	<1.0
	E								
Iron	T	200	250	350	120	25		16.4	<5
	E								
Lead	T	<30	<30	<30	<30	1.05	2.2	<0.1	<0.2
	E								
Mercury	T (ug/l)			0.03/0.02					
	E (ug/l)					1.01	1.01		
Nickel	T	5	7.0	7.0	5.0	<0.05	<10	<1.0	1.0
	E								
Zinc	T	15	10	30	20				
	E					20	11		<5

Chromium	<5	<5	<5	<5			40	10.5	0.7
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All results are expressed in mg/l except as indicated in brackets () N P = nitrate phosphorus

SUMMARY OF WATER LABORATORY DATA

932-9

LICENSEE <i>Cadillac</i>	LICENCE NUMBER <i>W313-0932</i>			LOCATION <i>Prarie Creek</i>				STATION NUMBER <i>sump from behind failings pond liner</i>			
DATE SAMPLED <i>1982</i>	<i>May 12</i>	<i>June 16</i>	<i>23/09</i>								
LABORATORY NUMBER	<i>20246</i>	<i>20399</i>	<i>21631</i>								

pH											
Sp Conductance											
Dissolved O ₂											
Turbidity											
Water Temperature											

pH (Units)	<i>7.8</i>	<i>7.4</i>	<i>8.1</i>								
Sp. Cond. (umho/cm)	<i>690</i>	<i>600</i>	<i>510</i>								
Dissolved Oxygen											
Turbidity (JTU)											
Colour (colour U.)											
Suspended Solids	<i>< 5</i>	<i>19</i>	<i>8.3</i>								
TDS, Residue											
Oil & Grease											
Phenols											

Calcium	<i>86</i>	<i>62</i>	<i>44</i>								
Magnesium	<i>29</i>	<i>26</i>	<i>38</i>								
Tot. Hardness (as CaCO ₃)	<i>330</i>	<i>260</i>	<i>270</i>								
Sodium	<i>2.30</i>	<i>170</i>	<i>120</i>								
Potassium		<i>5.2</i>	<i>1.9</i>								

Tot. Coliform (cnt)											
Faecal Coli. 100											
Faecal Strep. ml											

BOD ₅											
COD											
Carbon, IC											
Carbon, TOC											

Total Cyanide											
Chloride											
Sulphate											
Sulphide											

Ammonia Nitrogen (as N)	<i>3.9</i>	<i>2.7</i>	<i>0.18</i>								
Nitrate-Nitrite (N)	<i>1.4</i>	<i>0.60</i>	<i>0.18</i>								
Total Kjeldahl N											
Phosphorus O-P (as P)											
Phosphorus Tot. (P)	<i>1.0</i>	<i>0.41</i>	<i>0.10</i>								
Silica React. as SiO ₂											

Arsenic	T	<i>< 0.05</i>	<i>2.01</i>								
	D										
Cadmium	T	<i>< 3ppb</i>	<i>< 0.01</i>	<i>0.5ppb</i>							
	E										
Copper	T	<i>7</i>	<i>0.04</i>	<i>2</i>							
	E										
Iron	T	<i>83</i>	<i>0.41</i>								
	E										
Lead	T			<i>5</i>							
	E										
Mercury	T (ug/l)	<i>< 30</i>	<i>0.05</i>								
	E (ug/l)			<i>0.35</i>							
Nickel	T	<i>15</i>	<i>< 0.05</i>	<i>2</i>							
	E										
Zinc	T	<i>430</i>	<i>2.6</i>	<i>540</i>							
	E										

Chromium (T)	<i>< 5</i>										
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All results are expressed in mg/l except as indicated in brackets (). O-P = ortho phospho

SUMMARY OF WATER LABORATORY DATA

LICENSEE	LICENCE NUMBER	LOCATION	STATION NUMBER
Cadillac	W323-0932	Prairie Creek	Harris Creek
DATE SAMPLED 1982	May 12	June 16	
LABORATORY NUMBER	20240	20401	

pH									
Sp Conductance									
Dissolved O ₂									
Turbidity									
Water Temperature									

pH (Units)	8.1	8.2							
Sp. Cond. (umho/cm)	320	390							
Dissolved Oxygen									
Turbidity (JTU)									
Colour (colour U.)									
Suspended Solids	21	14							
TDS, Residue									
Oil & Grease									
Phenols									

Calcium	39	44.1							
Magnesium	16	18.9							
Tot. Hardness (as CaCO ₃)	160	190							
Sodium		0.5							
Potassium		0.5							

Tot. Coliform (cnt)									
Faecal Coli. (100)									
Faecal Strep. (ml)									

BOD ₅									
COD									
Carbon, IC									
Carbon, TOC									

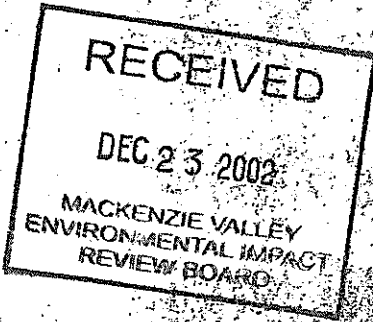
Total Cyanide									
Chloride									
Sulphate									
Sulphide									

Ammonia Nitrogen (as N)	<0.03	0.02							
Nitrate-Nitrite	.27	.27							
Total Kjeldahl N									
Phosphorus O-P (as P)									
Phosphorus tot. (P)	<0.05	<0.05							
Silica React. as SiO ₂									

Arsenic	T	<0.01	<0.01						
	D								
Cadmium	T	<3	2.0/ug/L						
	E								
Copper	T	5	.11						
	E								
Iron	T	1530	.24						
	E								
Lead	T	40	<0.05						
	E								
Mercury	T (ug/l)	.34/.35	<0.01						
	E (ug/l)								
Nickel	T	5.0	<0.05						
	E								
Zinc	T	100							
	E								

Chromium (T)	<5								

All results are expressed in mg/l except as indicated in brackets (). O-P = ortho phos-
phate; TDS = total dissolved solids (1st 2000)



Northern Affairs Program,
P.O. Box 150,
Port Simpson, N.W.T.
XOE ONO

February 5, 1982

N80D248
N80F249

Cadillac Explorations Ltd.,
Suite 920, Lancaster Building,
304 - 8th Avenue, S.W.,
Calgary, Alta
T2P 1C2

Attn: G.B. Hamilton,
President

Dear Sir:

Enclosed is a copy of my Inspection Report of February 2, 1982 and a report on a few of our discussions on that date. As both Land Use Operations were inspected at this time, I thought it would give you a better understanding of the situation from my point of view and it would give you a broader picture of the situation as it stands.

I have tried to explain to you in detail the way our system works and I hope that my message was clear.

The Land Use Permit operating conditions are clear and your application for these permits was to carry out only certain functions. If any changes are made without authorization, or unknown to us, this jeopardizes your whole operation.

If you have any problems understanding this, I would appreciate another meeting with you and some of our Yellowknife Staff. Possibly this could be arranged before the Water Board hearings.

I remain.....

Encl:

Yours truly,

B.J.J. Gauthier,
District Manager

cc: Land Use, YK

BG/fm

REPORT ON CADILLAC EXPLORATION LTD

LAND USE PERMITS N80D248, N80F249

INSPECTION OF FEBRUARY 2/82

=====

-1-

Minesite:

Tailings Pond: Some work was done since the last Inspection, hauling materials out from the bottom and working on the Perma-frost area.

A large slump on the South West end, inside the tailings pond, has todate, baffled the Engineers, and at this point, no logical explanation is given.

Cadillac has stated (Jerry Hamilton) that the tailings pond should be completed by mid May and water will be pumped inside to balance any anticipated high water levels.

The Rip Rap may be only 80% completed on the outside by this date, dependent among many factors.

Garbage Disposal:

The incineration of garbage and waste is not keeping up with use, and Company is burning in garbage pit. This is not a satisfactory situation and I mentioned same to Mr. Hamilton. Their proposed minesite plans show the incinerator located in camp, however I do not note where wastes will be disposed of. We are not satisfied with present location as the site is in a perma-frost area and water table is too high.

Fuel Storage: The monitoring of fuel supplies going in and coming out of the tanks is very difficult at this time; however the Company is doing their best to keep on top of the situation. Readings are taken and recorded on a routine basis. As explained to me, however, with Trucks coming in at irregular hours and at all hours of the night, it is difficult to maintain continuity.

At time of Inspection, Company had between 35-40,000 gallons of fuel on hand and had run out of Propane.

No leaks or any disorder was observed on Inspection and last tank was being constructed. The permanent electric remain to be hooked up.

Cadillac Explorations
N80D248, N80F249
February 2/82

-2-

Underground: It appears that an explosive cache is presently being constructed underground at the next level (where Propane tanks are stored) and waste rocks are dumped off the edge. I requested Mr. Hamilton to clear this with proper authorities as I am not familiar with this type of operation.

Questions: A large stockpile of materials which appear to be waste rock is located near the mill site and this was not noted in close detail at time of inspection. In talking with Water Resources Staff, if this stock pile is ore, Cadillac are carrying out another operation which is not authorized.

General: Mr. Earl Dolan advises that Alto has 117 men on site involved with:

- (a) Access road
- (b) Steel workers in mill
- (c) Setting up Generators
- (d) Construction: Carpenters working on Office Building, 1st Aid Station
- (e) All tradesmen, mechanics, Electricians, Plumbers, etc
- (f) Tailings Pond and associated facilities.

Cadillac have 48 workers, mostly miners working underground and on access road.

Proposed Amendments:

A proposal by Cadillac was submitted to our office on Feb 2/82 for an additional Rip Rap area. This location would be 1 mile downstream and would follow an existing access and would cross Prairie Creek twice on ice. This site would be used as an alternative to the site now approved for blasting of riprap.

Area was pre-inspected by myself, Game Officer, Doug of Water Resources, Earl Dolan and J. Brodie and discussed briefly with all concerned.

Winter Road:

The winter access road was cleared of snow on January 27 and the first trucks were through January 28, 1982.

The road followed existing clearing of last year's with no additional clearing required. Areas of severe erosion were filled in using side hill materials and snow. The access looks good and with the amount of snow available this year, crossings were easily constructed.

Cadillac Explorations
N80D248, N80F249
February 2, 1982

-3-

Winter Road Cont'd: With the amount of snow available this year, there was no need to put in culverts at creek one mile West of Grainger River Airstrip.

Severe overflow problems are re-occurring between Mile 3 and Mile 6 also along Prairie Creek to airstrip at minesite. These areas are a continuous problem and the solutions are not easy. A temporary measure is to dam the overflow on the upstream end with Cats and hope it holds for a few days, otherwise they have to bulldoze the stuff away or grade it off every day.

Camp:

A camp was set up at the Tetcela River without our approval. The camp is located on the flood wash of the River and will be re-located to another area as soon as possible. A letter is requested from Cadillac to indicate where this camp will be re-located, why the camp is required, waste disposal etc., etc.

Mr. Fast indicated that this camp will be used for emergency situations.

With this in mind, I have approved the idea, however disapprove of the method it was done.

Fuel Storage:

A request was made on February 1, 1982 to us to use an old borrow pit at Mile 62.5 of the Liard Highway for a fuel storage area. As this pit was used for this purpose before, and is presently used as a storage area for culverts, I approved the location verbally. There are 2 large tanks in this area that belong to General Enterprises. This location was requested as an alternative by myself, rather than on the banks of the Liard River near the ice crossing.


Cadillac will have 2 - 400 barrel fuel tanks and tanks will be so located that any leakages will drain into borrow area.

Beaver Enterprises fuel bladders, tank and wastes are still not cleaned up. I requested Mr. Hamilton to look into this and get it cleaned up while Cats were still in area.

Cadillac Explorations
N80D248, N80F249
February 2, 1982

-4-

There were at time of Inspections, several vehicles that appeared U/S along the access however I am sure that these will be taken out when time permits. A few drums were noted near overflow creek south of proposed airstrip on flood plains.


B.J.J. Gauthier,
District Manager

cc: Land Use, YK
Cadillac
Wildlife Officer, FS

BG/fm



LAND USE INSPECTION REPORT RAPPORT D'INSPECTION RELATIF À L'UTILISATION DES TERRITORIES
TERRITORIAL LAND USE REGULATIONS RÈGLEMENT CONCERNANT L'UTILISATION DES TERRES TERRITORIALES

Permittee - Détenteur du permis: CADILLAC EXPLORATION LTD Date: Feb 2/82 Permit No. - Permis n°: N80D248

Location - Endroit: PRAIRIE CREEK Previous Inspection Dates: Inspections antérieures (dates)

Contractor - Entrepreneur: ALTO Initial: Interim Provisoire: Interim Provisoire: Final: Final

Date operation commenced - Date du début des travaux: - Expiry Date - Date d'expiration du permis: April 13/82

Current stage of program - État des travaux: -

Program modification Approved/Not Approved (Explain) Modifications apportées approuvées/non approuvées (Expliquer) SEE LETTER OF JAN 31/82

Conditions	A - Acceptable, U - Unacceptable	Staging Access	Access Route	Air Strip	Seismic Line	Camp site	Drilling site
	Acceptable, Unacceptable	Accès aux échafaudages	Route d'accès	Piste d'atterrissage	Ligne de sondage	Emplacement de camp	Emplacement de forage
A) BRUSH DISPOSAL / DESTRUCTION DES BUISSONS							
1 Windrowed / Formation d'andains							
2 Lopped & Scattered / Élagage et dispersion							
3 Walked Down / Foulage							
4 Leaners Felled / Abattage							
5 Burned / Brûlage							
6 Buried / Enfouissement							
B) EROSION CONTROL / CONTRÔLE DE L'ÉROSION							
1 Ground Disturbance / Perturbation du sol							
2 Stream Approaches / Abords de ruisseaux						A	
3 Stream Crossings / Gués de ruisseaux							
4 Drainage Disruption / Perturbation du réseau de drainage							
5 Backslapping - Contours / Surface structurale et relief							
6 Shot holes Plugged / Obturation du trou de tir							
C) POLLUTION PREVENTION / LUTTE CONTRE LA POLLUTION							
1 Removal Bldg. & Equip. / Enlèvement, bâtiments et matériel							
2 Fuel Storage / Entreposage, combustible						A	
3 Incineration (garbage, etc.) / Incinération, ordures etc.						U	
4 Other wastes / Autres déchets						U	
5 Sumps and Pits / Puisards et fosses						U	
						NOTE 1	

Explanation and Remarks (include comments on other permit conditions, as necessary) Explications et commentaires (mentionner toute autre condition du permis)

3-3 Garbage not fully incinerated.

4-4 Site not as tidy as last inspection.

5-5 Tailings pond dumped on South side.

Operator's Representatives - Représentant de l'exploitant

[Signature]
Signature

[Signature]
Land Use Inspector - Inspecteur de l'utilisation des terres

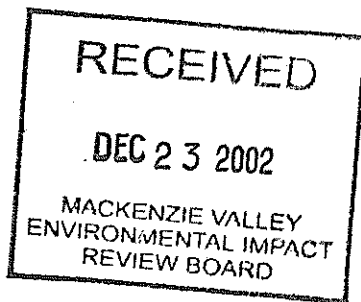
[Signature]
Area - Zone

Land Use Permit on hand / Permis d'utilisation des terres Yes / Oui No / Non

Checked by RMO / Vérification par l'agent régional de l'exploitation minière

Findings of Initial and interim reports are subject to final inspection during summer months unless otherwise stated in writing by the District Superintendent. Les conditions décrites dans les rapports initiaux et provisoires doivent faire l'objet d'une inspection finale au cours de l'été, à moins que le surintendant en décide autrement et ne fasse, à ce sujet, une déclaration écrite.

Superintendent / Surintendant *[Signature]*



Northern Affairs Program,
P.O. Box 150,
FORT SIMPSON, N.W.T.
XOE ONO

March 5, 1982

N80D248 ✓
N80F249

Cadillac Explorations Ltd.,
Suite 920, Lancaster Building,
304 - 8th Avenue, S.W.,
Calgary, Alta
T2P 1C2

Attn: G.B. Hamilton,
President

Dear Sir:

Re: Land Use Permit N80D248 Minesite and facilities
N80F249 Winter Access Road

Enclosed please find xerox copies of Inspection Reports carried out on March 2, 1982 by myself and Mr. Allan Nixon. The Inspections covered the activities carried out on the above noted Land Use Permits.

It is getting difficult for me to find the correct representative of Cadillac when carrying out these Inspections as it appears I have to track down these individuals and they are constantly changing. I am therefore requesting in writing a complete list of person or persons in charge of (A) the Minesite and associated construction facilities around this site, and (B) the access road and all restoration measures required prior to abandonment. This is required in accordance with condition no. 29 on Land Use Permit N80F249.

As you will note on the Inspection reports, garbage is not properly incinerated. I would appreciate prompt action on the proper incineration of all garbage and disposal of residue at an approved permanent site.

Cadillac Explorations Ltd.,
N80D248
N80F249
March 2, 1982

-2-

In order for everyone to meet the deadline date, the Engineer has declared March 31 as the deadline date for overland vehicle traffic. This means that restoration work has to commence at least 10 days prior to shutdown. Depending upon the road conditions, it would be possible that because of extreme warm conditions, the road could be closed prior to March 31 and it also holds true that the time could be extended.

Therefore it is very important that everyone is aware of this deadline. Mr. Fast indicated that March 20 is the date he is looking at, this meets with our approval. The Cats can then be walked out to Liard, cleaning up and removing creek crossings and carrying out erosion control measures as they go.

Yours truly,

ORIGINAL SIGNED BY:
B. J. GAUTHIER

B.J.J. Gauthier,
District Manager

cc: Land Use, YK
Jim Mueller, Prairie Creek

LAND USE INSPECTION REPORT / RAPPORT D'INSPECTION RELATIF À L'UTILISATION DES TERRES
 TERRITORIAL LAND USE REGULATIONS / RÉGLEMENT CONCERNANT L'UTILISATION DES TERRES TERRITORIALES

Permittee - Détenteur du permis CADILLAC EXPLORATION LTD	Date MARCH 2/82	Permit No. - Permis n° 12802248
Location - Endroit PRAIRIE CREEK	Previous Inspection Dates Inspections antérieures (dates)	
Contractor - Entrepreneur ALTO CONSTRUCTION	Initial Initiale	
Sub-Contractors - Sous-traitants	Interim Provisoire	
Date operation commenced - Date du début des travaux	Interim Provisoire	<input checked="" type="checkbox"/>
Current stage of program - État des travaux	Final Finale	
	Expiry Date - Date d'expiration du permis	APRIL 13/82

Program modification Approved/Not Approved (Explain)
 Modifications apportées approuvées/non approuvées (Expliquer)

Conditions A - Acceptable, U - Unacceptable A - Acceptable, U - Inacceptable	Staging Access Accès aux échafaudages	Access Route Route d'accès	Air Strip Piste d'atterrissage	Seismic Line Ligne de sondage	Camp site Emplacement de camp	Drilling site Emplacement de forage
RIP RAP						
A) BRUSH DISPOSAL DESTRUCTION DES BUISSONS						
1 Windrowed Formation d'andains					-	-
2 Lopped & Scattered Élagage et dispersion					-	-
3 Walked Down Foulage					-	-
4 Leaners Felled Abattage					-	-
5 Burned Brûlage					-	-
6 Buried Enfouissement					-	-
7						
B) EROSION CONTROL CONTRÔLE DE L'ÉROSION						
1 Ground Disturbance Perturbation du sol					A	A
2 Stream Approaches Abords de ruisseaux					A	-
3 Stream Crossings Gués de ruisseaux					A	NOTE
4 Drainage Disruption Perturbation du réseau de drainage					-	
5 Backsloping - Contours Surface structurale et relief					-	
6 Shotholes Plugged Obturation du trou de tir					-	
7						
C) POLLUTION PREVENTION LUTTE CONTRE LA POLLUTION						
1 Removal Bldg. & Equip. Enlèvement, bâtiments et matériel					-	
2 Fuel Storage Entreposage, combustible					A	
3 Incineration (garbage, etc.) Incinération, ordures etc.					NOTE	
4 Other wastes Autres déchets					NOTE	
5 Sumps and Pits Puisards et fosses					-	
6						

Explanation and Remarks (include comments on other permit conditions, as necessary)
 Explications et commentaires (mentionner toute autre condition du permis)

C-3+4 Garbage is not incinerated in incinerator but burnt in garbage pits. A lot of clean-up work required around camp, however as a lot of materials coming in by trucks it is difficult to keep-up.

B-3 Due to rock ledges and large boulders access could not be built on sidehill therefore route followed along prairie creek banks.

Operator's Representatives - Représentant de l'exploitant
J. A. Muller
 Signature

Land Use Inspector - Inspecteur de l'utilisation des terres
B. J. J. Smith
 Area - Zone

Land Use Permit on hand / Permis d'utilisation des terres
 Yes / Oui No / Non

Checked by RMO / Vérification par l'agent régional de l'exploitation minière

Findings of initial and interim reports are subject to final inspection during summer months unless otherwise stated in writing by the District Superintendent
 Les conditions décrites dans les rapports initiaux et provisoires doivent faire l'objet d'une inspection finale au cours de l'été, à moins que le surintendant n'en décide autrement et ne fasse, à ce sujet, une déclaration écrite.

Superintendent / Surintendant
J

REPORT ON CADILLAC EXPLORATION LTD.

LAND USE PERMITS N80D248, N80F249

INSPECTION OF MARCH 2, 1982

Minesite:

Tailings Pond: Work continues on the bottom, excavating to final depth. Liners placement on North East end of tailing pond wall is almost completed. Area of slump is completely restored and they were working on pump out area.

Drilling and blasting of North West corner appears the only method that works satisfactorily with frozen clay.

Garbage Disposal:

No change from last report.

Fuel Storage:

All tanks are completed, tested and now hold fuel. 1,123,000 gallons of fuel has been hauled and the balance of 400,000 should be completed by March 20, 1982. Permanent electricians remain to be installed and this will probably be carried out after break-up.

Harrison Creek Diversion:

Creek is excavated and the work is progressing quite well, with the leveling and preparation. Gabion baskets will be placed in area very shortly.

Camp Dyke:

Rip Rap materials are presently dumped near dyke on a snow and ice road built along dyke wall. Some rip rap materials have been placed in position on the Prairie Creek side of the dyke with a crane and loaders. Work is continuing on the build up of dyke with the placement of fines coming from the crushing of waste rocks and from excavation, of tailings pond. The large culverts are completed and will be installed in the dyke for Harrison Creek drainage very shortly.

Cadillac Exploration Ltd.,
N80D248, N80F249
March 2, 1982

-2-

Rip Rap Source: The access road to rip rap source is in and the Company were unable to build the road on side hill as very large boulders had frozen together and areas of bed rock were encountered. It was therefore decided to build up a snow fill road on the banks of Prairie Creek following creek contours.

A large switch back was constructed to obtain the maximum area of rip rap materials, about 400 feet and landings were made below this. The idea is to roll rip rap materials down to these landings and collect them there. The area would be back sloped and all excavations contoured.

The access is certainly the least of two evils as very little terrain damage occurred and will be easily restored. The switch back was the only alternative as Cats were unable to walk across these boulders.

Wash Plant Area: Gravel is stock piled on top of old culverts and the culverts are then filled with fire wood and lit to warm up the gravel for concrete in mill construction. Gravel is hauled to mill for batch plant on site.

Gravel Pit South of Wash Plant: Restoration work is carried out in areas exhausted of gravel materials and the work is progressing in a very satisfactory manner. The best gravel is found on South end of pit and so far they have gone down 12 feet before encountering water.

General: The campsite is in a very untidy state now with materials scattered all over the place. This however is hopefully a temporary situation. I understand the problems, trucks are coming in all the time and it is difficult to place everything in its right place as a lot of materials are used up on a daily basis.

Cadillac Explorations Ltd
N80D248, N80F249
March 2, 1982

- 3 -

Access Road: 24 tanker trucks and low boys were observed going on coming plus 3 graders, 1 cat and 1 A-frame truck on winter access road. This is not counting light vehicles hauling propane and servicing.

Approximately 350 loads were hauled to date on the winter road and Mr. Fast is advising everyone that March 15 is the deadline date. Mr. Fast is patrolling the road on a daily basis advising truckers of bad situations, maintaining road equipment, even turning back drivers with no mountain experience. The road is in very good condition with little overflow problems on day of Inspection.

The oil spill was checked and although severe attempts were made to burn it off, all failed. The fuel is saturated almost completely with crystalized snow. Several methods were discussed and these were talked over with Water Resources. No clear-cut method is approved to date; a discussion will be forthcoming very shortly. In the meantime however, the fuel saturated snow and soil will not go away and there is no problem of further contamination.

The clean-up and abandoning of the winter road was discussed and a joint inspection will be carried out prior to spring break up and all areas of erosion control will be covered.

B.J.J. Gauthier,
District Manager

cc: Land Use, YK
Water Resources, Andy Cullen
John McQueen

BG/6m

H. Simpson

Water Resources Division
P.O. Box 1500
Yellowknife, N.W.T.
X1A 2R3

DOUBLE REGISTERED

Cadillac Explorations Limited
920 Lancaster Building
394-8th Avenue S.W.
Calgary, Alberta

RECEIVED

February 11, 1982

File
N80D248
Minaik

DEC 23 2002

MACKENZIE VALLEY
ENVIRONMENTAL IMPACT
VIEW BOARD

Your file
Votre référence

Our file
Notre référence

Attention: Mr. G.B. Hamilton

RECEIVED

Northern Affairs Program

FEB 24 1982

D. L. A. N. D.

FORT SIMPSON, N.W.T.

Dear Sir:

RE: Report on Cadillac Exploration Ltd. Prairie
Creek Mine and Campsite Inspection by
Doug Stendahl on February 2, 1982.

Enclosed is a copy of the inspection report referred to
above. From the report you will note the inspection
has identified several areas of concern at the Prairie
Creek minesite.

A/10/82

With regards to mine development, your existing Authorization
N3A3-0872 requires under conditions 5 and 8 that all minewater
discharged must meet a specified effluent quality and that
disposal of sump fluids into waters or onto land must be
approved by the Controller. It was noted during the inspection
that minewater was being discharged onto the ground without
prior treatment or approval of the Controller. Similar
observations had been made during previous inspections and
concerns had been expressed regarding the quality of the
minewater. Analytical results have confirmed that the minewater
contains unacceptable levels of heavy metals. Treatment of
the minewater to meet the requirements in the Authorization is
needed or storage of the water in the tailings pond until a
treatment system is operational. This matter requires
immediate attention. Also, a plan of action is needed in the
event that the quality of water in the settling ponds is also
demonstrated to be unsuitable for discharge to Prairie Creek.

Regarding quality of the sewage treatment plant effluent, our
laboratory results appended to the inspection report indicate
that the treatment system in place is not producing an effluent
suitable for discharge. There is very little BOD removal or
disinfection occurring. Since no alternate system has been
installed to store sewage during periods of system malfunction,
corrective measures must be taken without delay to ensure adequate
treatment of the sewage.

At present, only one well has been approved by the Controller to supply water to the mine site. If any of the remaining four wells on-site are to be used to supply water, approval must be granted by the Controller as stipulated in your Authorization N3A4-0873.

There is a considerable amount of construction and preparatory work that must be completed prior to snow melt to protect the tailings impoundment and prevent erosion in the development area. Efforts should begin as soon as possible to install the runoff diversion ditches around the mine area, repair the slumping in the tailings pond, finish the rip-rap work on the outside of the tailings pond, install the gabions along Harrison Creek and prepare the bottom of the tailings pond.

We do not believe that any of these problems are insurmountable. We are confident that Cadillac Explorations can deal with these difficulties in short order with proper planning and management. Prompt attention to these matters is appreciated. Finally, I would like to thank your staff for their cooperation and assistance during my visit.

Yours truly,

Doug Stendahl

D.H. Stendahl
A/Regional Coordinator
Industrial

I N S P E C T I O N R E P O R T

ON

CADILLAC EXPLORATION LIMITED
PRAIRIE CREEK MINE SITE

FEBRUARY 2, 1982

BY

D.H. STENDAHL

INSPECTOR UNDER THE NORTHERN INLAND WATERS ACT

WATER RESOURCES DIVISION

NORTHERN AFFAIRS PROGRAM

DEPARTMENT OF INDIAN AFFAIRS & NORTHERN DEVELOPMENT

YELLOWKNIFE, N.W.T.

DATE: February 10, 1982

WATER REGISTER: N3L3-0932
N3A3-0872
N3A4-0873
N3A6-1093

INTRODUCTION

On February 2, 1982, Doug Stendahl, Acting Regional Coordinator of Industrial Projects and Art Dalton, Hydrological Technologist, both Inspectors Under the Northern Inland Waters Act and employees of Water Resources Division, DIAND conducted an inspection of the Cadillac Exploration mine and campsite on Prairie Creek to assess the status of on-site conditions and development work. At the mine site they met Mr. Earl Dolan, on-site superintendent for Alto Construction, contractor for Cadillac, and were introduced to Mr. Dennis Edwards, a Mining Engineer for Alto who accompanied the Inspectors during their visit. After touring the mine site the Inspectors met again with Mr. Earl Dolan and also Mr. Gerald Hamilton, President of Cadillac Exploration, to briefly discuss their findings this day and progress in general.

OBSERVATIONS AND DISCUSSION

Water Supply

There are five wells on the mine site but only one is being used to supply water. This well located in a small building near the Administration complex supplies the domestic needs of the 200 people presently on-site and an auxiliary pump for fighting fires. The other four wells are situated in the following locations:

- 1) 1 beside the tailings pond along the road into camp;
- 2) 2 near the mill/concentrator building; and
- 3) 1 between the mill and Harrison Creek.

At present, no water is being pumped into the mine or to the mill/concentrator building. ✓

Water samples were collected from the supply well for heavy metal and nutrient analysis. A map giving the location of the designated supply well is needed. The other four wells on-site could be useful in monitoring the quality of groundwater in the area of the mine (2848' portal), mill and tailings pond and baseline water samples should be collected from these wells.

Domestic Waste Treatment System

The septic tank and subsurface disposal system is no longer used for waste disposal and has been replaced by an enclosed extended aeration and UV sterilization treatment system. The effluent from the system is discharged from a pipe through the dyke onto the flood plain of Prairie Creek. Discharge from this line was not continuous but periodic and thus the rate of discharge could not be measured. However, samples of the influent and effluent water were collected for bacteriological, nutrient and BOD analysis to assess the

Inspection Report
Cadillac Exploration Limited
N3L3-0932
N3A3-0872✓
N3A4-0873✓
N3A6-1093
February 10, 1982

- 2 -

During the inspection, it was noted that the green, orange and red indicator lights on the UV unit were off but not burned out. According to the operator's manual, this indicates that the sterilization unit is not operating effectively and requires servicing. Apparently, high levels of suspended solids in the water were blocking passage of the UV radiation preventing effective disinfection of the waste and cutting out these operating lights. An alternate reservoir to store sewage at times when this planned system breaks down has not been installed.

Mine

Tunneling has advanced approximately 3000 feet from the mine entrance. Although no water is being pumped into the mine, minewater at a rate of 30-60 IGPM was flowing out of the mine and under the snow into the ground just outside the portal. Liming of this water at the sump inside the mine has not commenced. Minewater samples to be analyzed for heavy metals and blast residues were collected just inside the portal.

Ore extracted during tunneling is being stored uncovered on the ground near the proposed concentrate storage area. The possibility exists that heavy metals may leach from these piles and contaminate water in the settling ponds which discharge to Prairie Creek.

Mill Construction

The foundation cement work and 80% of the wall construction has been completed. During this visit the first pieces of equipment, four diesels, were being moved into place in the mill.

Harrison Creek Diversion Channel

Gabions must still be installed along the walls of the channel.

Inspection Report
Cadillac Exploration Limited
N3L3-0932
N3A4-0872
N3A4-0873
N3A6-1093
February 10, 1982

- 3 -

Cleanup of June 1981 Oil Spill

The oil laden material has been removed and placed over the clay liner in the tailings pond. The old oil tanks have been converted and are now used to store non-toxic materials and equipment. At the time of this inspection, tires, electrical, and plumbing materials were being stored in the tanks.

Fuel Storage Area

The berm and clay liner are installed at the oil tank farm. The fourth and final storage tank was being welded at the time of this inspection. The gasoline tank farm which holds two small storage tanks appeared in good order. There are no present concerns for this area.

Gravel Wash Operation

The Authorization (N3A3-1013) covering this operation expired on Aug. 31, 1981 and thus if more gravel is needed in the future, the company will have to re-apply to use the facility.

Tailings Pond

More work is needed to prepare the tailings pond. Some areas of the tailings pond bottom need further work, the rip rap work on the outside of the tailings pond along Prairie Creek is not finished and the run-off diversion ditches along the roadway must be constructed and measures taken to minimize erosion. On the inside East wall of the tailings pond, a 50 m long by 2 m deep section of the wall has slipped a distance of 6 m and must be repaired. This requires immediate attention.

Airstrip

Renovation and extension of the existing airstrip has been deferred pending approval of a new landing strip.

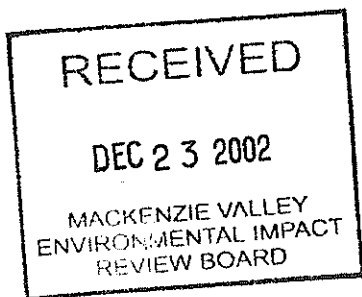
Winter Road

The road opened January 29, 1982 and since then 15-20 trucks have made trips to the mine. This road will certainly assist in getting equipment on-site to deal with the various construction and preparatory work that needs to be addressed.

Appendix to Inspection Report of February 2, 1982
Water Quality at Cadillac Exploration Ltd. Mine and Campsite

Parameter	Minewater (2828' portal)	Water Supply Well	Prairie-Creek at Galena Creek	Sewate-Treatment Plant Influent	Sewage Treatment Plant Effluent
pH	7.8	7.4	7.9	130	101
Conductivity	850	740	540	130	120
Alkalinity	260	270	220	450	460
Hardness	404	360	284	<1	<1
Suspended Solids	18	16	8.4	14	21
BOD				0.25	<0.04
COD				27	28
Oil and Grease				21,000,000/100ml	9,700,000/100ml
Total Ammonia	1.5		<0.03	8,000,000/100ml	770,000/100ml
Nitrate/nitrite	1.9		0.3	1/0.01ml	<1/0.01ml
Total Phosphorus					
Total Coliform			120/100ml		
Fecal Coliform			61/100ml		
Fecal Streptococci			15/100ml		
Arsenic	<0.01	<0.01	<0.01		
Cadmium	0.014	<0.005	<0.005		
Copper	0.06	<0.01	0.01		
Lead	0.13	<0.05	<0.05		
Mercury (ug/l)	0.27	<0.01	0.04		
Zinc	6.3	0.03	0.04		
Nickel	<0.02	<0.02	<0.02		
Chromium	<0.01	<0.01	<0.01		
Iron	0.07	0.5	<0.05		

Units as mg/l unless otherwise stated



Northern Affairs Program,
P.O. Box 150,
Fort Simpson, N.W.T.
XOE 0N0

March 24, 1982

N80D248, N80F249

Cadillac Explorations Ltd.,
Suite 920, Lancaster Bldg.,
304 - 8th Avenue, S.W.,
Calgary, Alta
Attn: G.B. Hamilton,
President

Dear Sir:

Re: Land Use Permits N80D248, N80F249

Enclosed are copies of the Inspection carried out by the undersigned on March 23, 1982. If you have any questions, on any subject matter, please feel free to contact me at any time.

Encls:

Yours truly,

ORIGINAL SIGNED BY:
B. J. GAUTHIER

B.J.J. Gauthier,
District Manager

cc: Land Use, YK

BG/fm



Your file Votre référence

Our file Notre référence N80D248, N80F249

REPORT ON CADILLAC EXPLORATION LTD.
LAND USE PERMITS N80D248 , N80F249
INSPECTION OF MARCH 23, 1982

Minesite:

Tailings Pond: Work progressing at a very fast pace on this section. Crews are working on pump out area, and the two layers of filter cloth are in, with liners all in place. The trenches are in, all around the liners for tie in purposes. The liners have yet to be welded together.

Drainage ditch above the tailings pond is constructed. Rip Rap materials are in place and other than a small section of extremely hard ground the balance of the outer walls are completed. This section will be completed as ground conditions permit.

Some finishing work is being carried out on Rip Rap sites, drainage channel, and removal of snow pack used as an access along toe of tailings dyke.

Company has estimated that most of the work will be completed by the end of March and that the water pump in will commence by March 29, 1982. Very little snow melt has occurred to date at the minesite.

Cadillac Exploration Ltd.

N80D248, N80F249

March 23, 1982

-2-

Garbage Disposal: The incinerator is re-located from the garbage pit to the minesite now, and incineration of wastes is carried out in a very satisfactory manner. The residue from the incineration is deposited at the garbage site. Company was requested to identify a new permanent site for garbage disposal. One month was mentioned as the time allocated to identify a new area. This was agreed to by myself.

Fuel Storage: All tanks are full and area appears quite satisfactory. The fuel that was spilled within the confines of the dyke has left quite an area of saturated snow and collected to a degree in the pump out area. It is estimated that 2,000 gallons were recovered.

As the snow and ice melt, it is expected that most of the fuel should be recovered from the pump out. At present, I think it is good judgement to leave it as is. Little can be accomplished by trying to remove saturated snow anywhere else.

Harrison Creek Diversion: Most of all ground work is completed. The area is excavated to total depth, the culverts are in place, and crews were working on Rip Rap materials at culvert ends. The Gabion baskets should be in place by April 5 and everything should be tidied up and ready for April 15, 1982. There was no sign of any water within the area of this creek on day of Inspection.

Cadillac Exploration Ltd.

N80D248, N80F249

March 23, 1982

-3-

Camp Dyke: The dyke is built up to maximum height and other than some finishing work on leveling, sloping, and Rip Rap placement, the project will be completed before any high water stages occur.

Rip Rap Source: All required materials were hauled out within two weeks, the site was restored and snow fill used as access removed. The area is backsloped, and a 5-foot berm was placed on toe of slope to prevent rocks from rolling into Prairie Creek. This is one of the best pieces of work I have seen at this location in a long time. Company is to be recommended for this and a very special thanks to Jim Mueller who carried out the supervision of the work and who did what he said he would do.

Wash Plant Area: Work is continuing on the gravel preparation for cement mixing. Company has requested to use site for possible future work. I have no objections to this, provided area restored completely when completed.

Gravel Pit South of Wash Plant: Area is almost completely restored and all excavated areas were rounded off and back sloped. Trees edge was cleaned up and the area was left in a very satisfactory manner. The site will be used to store explosives as per revised sketch received in our office March 23, 1982.

There should be no interactions with any future gravel requirements as the explosives should be sufficiently far away as to not create any potential hazards.

Cadillac Exploration Ltd

N80D248, N80F249

March 23, 1982

-4-

Ore Stockpile: I mentioned that a ditch will be required surrounding the ore stock pile and that the drainage should be directed towards the settling pond.

General:

Effluent from sewage treatment plant was pumped into tailings pond beginning March 12, 1982. Company is still awaiting results from lab on suspended waste samples that were taken. Results are expected any day now.

New drawings were submitted for the placement of new trailers to be incorporated within the campsite and for the construction of Lubrication Oil storage tanks and fuel oil day tanks as per drawings. Some clean-up work is beginning around the construction site and as projects terminate, clean-up work follows.

Access Road:

A total of 485 loads were hauled to date with an estimated 30 or 40 more loads left. March 31, 1982 is designated as the shut down date for overland travel to the minesite. Restoration work, such as creek crossing clearing, erosion control is to commence from the East and progress Westward on this date also.

The section East of Grainger Pass is becoming very soft and restricted to night travel only. West of the Pass is quite good, with areas exposed to the South becoming bare of snow.

Cadillac Exploration Ltd.
N80D248, N80F249
March 23, 1982

-5-

Access Road Cont'd:

Approval was given to the Company to store 3 - 16,000 gallon fuel tanks and culverts at the Grainger River airstrip and at the Floodplains near mile 25. Fuel dykes were satisfactorily constructed for the fuel tanks and culverts are to be installed in a tidy manner.

The Cat camp at the Tetcela River will be removed from there and taken to the original site at mile 25. The area will be cleaned up and all wastes will be incinerated and then buried in a pit.

The Oil Spill area was cleaned up by constructing a large pit and depositing all saturated snow and dirt into same. After snow melts, the area will be checked for eventual disposal.

Beaver Enterprises' barge landing site was cleaned up to some degree. The fuel bladder was burned up with its contents inside the pit and accumulated wastes were also burned. Due to the water accumulated within this pit, it was decided to leave it open and inspect it at some time for further disposal and restoration.

The small Cat which had gone through the ice on the Liard River was removed to the banks.


Cadillac Exploration Ltd.
N80D248, N80F249
March 23, 1982

-6-

Access Road Cont'd:

All phases of road abandonment were discussed with Mr. Fast, Mr. Mueller, and Mr. Bowman. This included all methods to be used for drainage, River and creek crossing removals, erosion control, and general clean-up of access road. Mr. Mueller will be responsible for all the above.

The fuel storage area in the burrow pit near the Liard Highway is to be totally cleaned up today, along with the barge landing site near the Liard River.


B.J.J. Gauthier,
District Manager

cc: Land Use, YK
John McQueen
Doug Stendall
Jerry Hamilton

LAND USE INSPECTION REPORT RAPPORT D'INSPECTION RELATIFEMENT À L'UTILISATION DES TERRES
 TERRITORIAL LAND USE REGULATIONS RÈGLEMENT CONCERNANT L'UTILISATION DES TERRES TERRITORIALES

Permittee - Détenteur du permis	CADILLAC EXPLORATION LTD	Date	March 23/82	Permit No. - Permis n°	N80D248
Location - Endroit	PRAIRIE CREEK	Previous Inspection Dates Inspections antérieures (dates)			
Contractor - Entrepreneur	ALTA CONSTRUCTION	Initial Initiale			
Sub-Contractors - Sous-traitants		Interim Provisoire			
Date operation commenced - Date du début des travaux		Interim Provisoire	✓		
Current stage of program - État des travaux		Final Finale			
		Expiry Date - Date d'expiration du permis	APRIL 13/82		

Program modification Approved/Not Approved (Explain)
 Modifications apportées approuvées/non approuvées (Expliquer)

Conditions	Staging Access	Access Route	Air Strip	Seismic Line	Camp site	Drilling site
A- Acceptable, U- Unacceptable	Accès aux échafaudages	Route d'accès	Piste d'atterrissage	Ligne de sondage	Emplacement de camp	Emplacement de forage
A) BRUSH DISPOSAL						
DESTRUCTION DES BUISSONS						
1 Windrowed Formation d'andains	A	A	A	A	-	-
2 Lopped & Scattered Élagage et dispersion					-	-
3 Walked Down Fouillage					-	-
4 Leaners Felled Abattage					-	-
5 Burned Brûlage					-	-
6 Buried Enfouissement					-	-
7						
B) EROSION CONTROL						
CONTRÔLE DE L'ÉROSION						
1 Ground Disturbance Perturbation du sol	A	A	A	A	A	A
2 Stream Approaches Abords de ruisseaux					A	A
3 Stream Crossings Gués de ruisseaux					A	A
4 Drainage Disruption Perturbation du réseau de drainage					-	A
5 Backsloping - Contours Surface structurale et relief					-	A
6 Shot-holes Plugged Obturation du trou de tir					-	A
7						
C) POLLUTION PREVENTION						
LUTTE CONTRE LA POLLUTION						
1 Removal Bldg. & Equip. Enlèvement, bâtiments et matériel	A	A	A	A	-	A
2 Fuel Storage Entreposage, combustible					A	-
3 Incineration (garbage, etc.) Incinération, ordures etc.					U	-
4 Other wastes Autres déchets					-	A
5 Sumps and Pits Puisards et fosses					-	-
6						

Explanation and Remarks (include comments on other permit conditions, as necessary)
 Explications et commentaires (mentionner toute autre condition du permis)

C-3 Incineration of garbage in camp satisfactory, however garbage site is not burned on a daily basis at wood plant. New location to be identified, soonest.

Pyz Rapp and gravel pit south of camp retained very satisfactory.

Wm. Bowman
 Operator's Representative - Représentant de l'exploitant
 Signature

B.S. Smith
 Land Use Inspector - Inspecteur de l'utilisation des terres
Pat Simpson, NW7
 Area - Zone

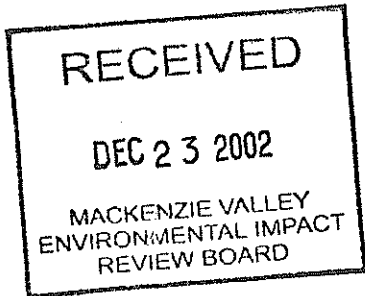
Land Use Permit on hand Yes / Permis d'utilisation des terres Oui

No / Non

Checked by RMO / Vérification par l'agent régional de l'exploitation minière

Findings of initial and interim reports are subject to final inspection during summer months unless otherwise stated in writing by the District Superintendent
 Les conditions décrites dans les rapports initiaux et provisoires doivent faire l'objet d'une inspection finale au cours de l'été, à moins que le surintendant n'en décide autrement et ne fasse, à ce sujet, une déclaration écrite.

Superintendent / Surintendant



Northern Affairs Program,
P.O. Box 150,
Fort Simpson, N.W.T.
XOE ONO

April 8, 1982

N80D248, N80F249

Cadillac Explorations,
Suite 630, Southland Plaza,
10201 Southport Road, S.W.,
Calgary, Alta

Attn: G.B. Hamilton,
President

Dear Sir:

Enclosed please find copies of inspection reports made on your operations in the Prairie Creek area.

Land Use Permit N80F249 - Access:

Restoration of stream crossings and erosion control measures have been satisfactorily completed. Cleanup of the camp and fuel storage at mile 23.4 (approximate) is incomplete. Your staff at Prairie Creek have been advised.

Land Use Permit N80D248 - Minesite:

Generally, the operation appears to meet the conditions of the land use permit. We require that debris be burned before dumping in the waste area as is noted on the report. In our inspection, we noted that a barrel of xanthate, in the chemical storage area, had a hole in the side and some bags of soda ash and lime were open. Should these chemicals be spilled, they must be reported, pursuant to paragraph 28 of the land use permit. We would appreciate a copy of your plans for secure storage of these chemicals at your earliest convenience.

Thank you for your co-operation.

Yours respectfully,
original signed by
W. Mawdsley

W. Mawdsley,
Land Use Inspector

Encls:

cc: Land Use, VK



Your file Votre référence

Our file Notre référence

Cadillac Explorations Ltd.,
Land Use Permits N80D248, N80F249
7 April 1982

Access Route:

The cleanup and restoration (erosion measures) on the route is complete. Cross ditching has been carried out on critical slopes and the snow piles have been broached along the route to allow drainage of meltwater. In the absence of expertise on soil erosion, we would say that the efforts are adequate. There remains some cleanup at the camp at mile 23.4, mainly garbage and debris. There is a fuel drip from the overflow line on one tank, but the fuel sump is collecting any spillage.

Minesite:

Tailings Pond:

The water level is being raised in the pond at a rate of approximately 700,000 gallons per day. Water from the pumphouse was flowing at about 500 gpm indicated. In addition, sewage effluent is being pumped into the pond. A total of 38 MM gallons is required for stabilization.

Ditching behind the bypass road is partially complete. The ditch at the road is being dug at this time. Completion should be timely for runoff.

Cadillac Explorations Ltd.,
Land Use Permits N80D248, N80F249
7 April 1982

-2-

Harrison Creek:

With the exception of two ramps to the bed of Prairie Creek, the rip rap is complete to design. Cleanup of the worksites on Prairie Creek is complete and very satisfactory. Approximately 1500 yards of rock will be stockpiled for touchup and work as required.

Gravel Pit/Explosive Storage:

Sloping of the gravel area is complete, and four storage areas have been installed. They consist of two earth berms at either end of trailers in four locations. The company intends to improve the access routes to the sites at a later date.

Camp and Mine:

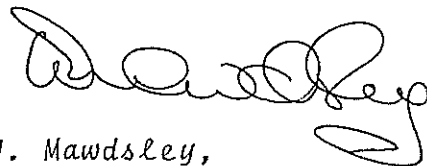
Camp garbage is satisfactorily handled now, but a permanent dump site is not yet identified. Debris from the operation is not being totally burned prior to disposal. The company has been advised.

The ore stockpiles have not been ditched as yet. The company will be carrying this out in the near future. Run-off does not seem to be a problem yet. There does not appear to be a quality control plan for outflow from the runoff sump.

Cadillac Explorations Ltd.,
Land Use Permits N80D248, N80F249
7 April 1982

-3-

Dry chemical storage plans are incomplete. While there has been no major spill, the storage methods are questionable. Several open bags of lime and soda ash, and a holed barrell of xanthate were noted. There does not appear to be work to ensure the integrity of containers. Future spills are probable.



W. Mawdsley,
Land Use Inspector

WM/fm

LAND USE INSPECTION REPORT / RAPPORT D'INSPECTION RELATIF À L'UTILISATION DES TERRES
 TERRITORIAL LAND USE REGULATIONS / RÈGLEMENT CONCERNANT L'UTILISATION DES TERRES TERRI

Permittee - Détenteur du permis: **CADILLAC EXPLORATIONS LTD.** Date: **7 APR 82** Permit No. - Permis no: **N80 D248**

Location - Endroit: **PRAIRIE CREEK** Previous Inspection Dates / Inspections antérieures (dates):

Contractor - Entrepreneur: **ALTO CONSTRUCTION** Initial / Initiale:

Sub-Contractors - Sous-traitants: Interim / Provisoire: **✓**

Date operation commenced - Date du début des travaux: Final / Finale:

Current stage of program - État des travaux: Expiry Date - Date d'expiration du permis: **13 APRIL 82**

Program modification Approved/Not Approved (Explain) / Modifications apportées approuvées/non approuvées (Expliquer)

Conditions	A - Acceptable / U - Unacceptable	Staging Access / Accès aux échafaudages	Access Route / Route d'accès	Air Strip / Piste d'atterrissage	Seismic Line / Ligne de sondage	Camp site / Emplacement de camp	Drilling site / Emplacement de forage	HARRISON CREEK
A) BRUSH DISPOSAL / DÉSTRUCTION DES BUISSONS								
1 Windrowed / Formation d'andains						-	-	
2 Lopped & Scattered / Élagage et dispersion						-	-	
3 Walked Down / Foulage						-	-	
4 Leaners Felled / Abattage						-	-	
5 Burned / Brûlage						-	-	
6 Buried / Enfouissement						-	-	
B) EROSION CONTROL / CONTRÔLE DE L'ÉROSION								
1 Ground Disturbance / Perturbation du sol						A	A	A
2 Stream Approaches / Abords de ruisseaux						A	A	-
3 Stream Crossings / Gués de ruisseaux						A	A	-
4 Drainage Disruption / Perturbation du réseau de drainage						-	A	-
5 Backsloping - Contours / Surface structurale et relief						-	A	-
6 Shotholes Plugged / Obturation du trou de tir						-	A	Note
C) POLLUTION PREVENTION / LUTTE CONTRE LA POLLUTION								
1 Removal Bldg. & Equip. / Enlèvement, bâtiments et matériel						-	A	-
2 Fuel Storage / Entreposage, combustible						A	-	-
3 Incineration (garbage, etc.) / Incinération, ordures etc.						U	-	-
4 Other wastes / Autres déchets						-	A	-
5 Sumps and Pits / Puisards et fosses						-	-	-

Explanation and Remarks (include comments on other permit conditions, as necessary) / Explications et commentaires (mentionner toute autre condition du permis)

C-3: Wastes in pit not being completely burned prior to disposal
 Note: Harrison Creek diversion underway 70% complete
 Gravel area sloping satisfactory - Explosive storage sites installed.

Operator's Representative / Représentant de l'exploitant

[Signature]
Signature

Land Use Inspector - Inspecteur de l'utilisation des terres

[Signature]
Fort Simpson
Area - Zone

Land Use Permit on hand / Permis d'utilisation des terres Yes / Oui No / Non

Checked by RMO / Vérification par l'agent régional de l'exploitation minière

Findings of initial and interim reports are subject to final inspection during summer months unless otherwise stated in writing by the District Superintendent / Les conditions décrites dans les rapports initiaux et provisoires doivent faire l'objet d'une inspection finale au cours de l'été, à moins que le surintendant n'en décide autrement et ne fasse, à ce sujet, une déclaration écrite.

Superintendent / Surintendant

new machine
D.C. have to be good.
- copy to A. (red)

Send to :

Alan Mac Donald
WRO
Fair Simpson, NWT

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
WATER RESOURCES DIVISION -- NORTHWEST TERRITORIES
REQUEST FOR AND RESULTS OF LABORATORY ANALYSIS

LICENSEE <i>Cadillac Ltd.</i>	LICENCE NO.	LOCATION <i>Mine Site</i>
DATE SAMPLED <i>April 23/82</i>	DATE RECEIVED <i>April 27/82</i>	DATE ANALYZED <i>May 20, 1982</i>

STATION NUMBER	<i>W1</i>	<i>W2</i>	<i>P-114</i>			
LABORATORY NUMBER	<i>20178</i>	<i>20179</i>	<i>20180</i>			
ANALYSIS REQUIRED	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

pH (units)	<input checked="" type="checkbox"/>	<i>7.2</i>	<input checked="" type="checkbox"/>	<i>7.4</i>	<input checked="" type="checkbox"/>	<i>8.1</i>			
Sp. Cond. (umho/cm)	<input checked="" type="checkbox"/>	<i>650</i>	<input checked="" type="checkbox"/>	<i>610</i>	<input checked="" type="checkbox"/>	<i>590</i>			
Dissolved Oxygen									
Turbidity (JTU)									
Colour (colour U.)									
Suspended Solids	<input checked="" type="checkbox"/>	<i><5</i>	<input checked="" type="checkbox"/>	<i><5</i>	<input checked="" type="checkbox"/>	<i>7.0</i>			
TDS; Residue	<input checked="" type="checkbox"/>	<i>430</i>	<input checked="" type="checkbox"/>	<i>400</i>	<input checked="" type="checkbox"/>	<i>170</i>			
Oil & Grease									
Phenols									

Calcium	<input checked="" type="checkbox"/>	<i>82</i>	<input checked="" type="checkbox"/>	<i>75</i>	<input checked="" type="checkbox"/>	<i>73</i>			
Magnesium	<input checked="" type="checkbox"/>	<i>29</i>	<input checked="" type="checkbox"/>	<i>26</i>	<input checked="" type="checkbox"/>	<i>33</i>			
Tot. Hardness [as]	<input checked="" type="checkbox"/>	<i>320</i>	<input checked="" type="checkbox"/>	<i>290</i>	<input checked="" type="checkbox"/>	<i>320</i>			
Tot. Alkalinity [CaCO ₃]	<input checked="" type="checkbox"/>	<i>250</i>	<input checked="" type="checkbox"/>	<i>230</i>	<input checked="" type="checkbox"/>	<i>240</i>			
Sodium	<input checked="" type="checkbox"/>	<i>3.2</i>	<input checked="" type="checkbox"/>	<i>2.2</i>	<input checked="" type="checkbox"/>	<i>2.1</i>			
Potassium	<input checked="" type="checkbox"/>	<i>0.7</i>	<input checked="" type="checkbox"/>	<i>0.7</i>	<input checked="" type="checkbox"/>	<i>0.6</i>			

Tot. Coliform [cnt/100]									
Faecal Coli. [100]									
Faecal Strep. [ml]									

BOD ₅									
COD									
Carbon, IC									
Carbon, TOC									

Total Cyanide									
Chloride	<input checked="" type="checkbox"/>	<i>1.0</i>	<input checked="" type="checkbox"/>	<i>0.9</i>	<input checked="" type="checkbox"/>	<i>0.9</i>			
Sulphate	<input checked="" type="checkbox"/>	<i>120</i>	<input checked="" type="checkbox"/>	<i>140</i>	<input checked="" type="checkbox"/>	<i>110</i>			
Sulphide									

Ammonia Nitrogen [as N]									
Nitrate-Nitrite									
Total Kjeldahl N									
Phosphorus O-P [as P]									
Phosphorus Tot. [P]									
Silica Reac. as SiO ₂									

Arsenic	T (mg/L)	<input checked="" type="checkbox"/>	<i>0.01</i>	<input checked="" type="checkbox"/>	<i><0.01</i>	<input checked="" type="checkbox"/>	<i><0.01</i>			
	D									
Cadmium	T (ug/L)	<input checked="" type="checkbox"/>	<i><3.0</i>	<input checked="" type="checkbox"/>	<i><3.0</i>	<input checked="" type="checkbox"/>	<i><3.0</i>			
	E									
Copper	T (ug/L)	<input checked="" type="checkbox"/>	<i>10.</i>	<input checked="" type="checkbox"/>	<i>8.0</i>	<input checked="" type="checkbox"/>	<i>5.0</i>			
	E									
Iron	T (ug/L)	<input checked="" type="checkbox"/>	<i>40.</i>	<input checked="" type="checkbox"/>	<i>80.</i>	<input checked="" type="checkbox"/>	<i>200.</i>			
	E									
Lead	T (ug/L)	<input checked="" type="checkbox"/>	<i>30.</i>	<input checked="" type="checkbox"/>	<i><30.</i>	<input checked="" type="checkbox"/>	<i><30.</i>			
	E									
Mercury	T (ug/l)									
	E (ug/l)									
Nickel	T (ug/L)	<input checked="" type="checkbox"/>	<i>7.0</i>	<input checked="" type="checkbox"/>	<i>7.0</i>	<input checked="" type="checkbox"/>	<i>5.0</i>			
	E									
Zinc	T (ug/L)	<input checked="" type="checkbox"/>	<i>60.</i>	<input checked="" type="checkbox"/>	<i>50.</i>	<input checked="" type="checkbox"/>	<i>15.</i>			
	E									

Fluoride (F) (ug/L)	<input checked="" type="checkbox"/>	<i><5.0</i>	<input checked="" type="checkbox"/>	<i><5.0</i>	<input checked="" type="checkbox"/>	<i><5.0</i>			
---------------------	-------------------------------------	----------------	-------------------------------------	----------------	-------------------------------------	----------------	--	--	--

All results are expressed in mg/l except as indicated in brackets ().
O-P = ortho phosphate; TDS = total dissolved solids and is the filterable residue, dried at 105°C; T = Total; E = Extractable; D = Dissolved;
IC = inorganic carbon; TOC = total organic carbon

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
 WATER RESOURCES DIVISION -- NORTHWEST TERRITORIES
 FIELD SAMPLING AND DATA

LICENSEE	LICENCE NO.	LOCATION
DATE SAMPLED	SAMPLED BY	

ANALYSIS REQUIRED	VOLUME TO BE COLLECTED	PRESERVATIVE TO BE USED	STATION NUMBER				BOTTLE NUMBER	
			<i>Water well #1</i>	<i>Water well #2</i>	<i>Water well #3</i>	<i>Water well #4</i>		
MISC. & ARSENIC	2 LITRES	NONE						
HEAVY METALS	1 LITRE	2ml HNO ₃						
CYANIDE	1 LITRE	2ml 50% NaOH Soln.						
MERCURY	250 ML	2ml HNO ₃ + 2ml 5% K ₂ Cr ₂ O ₇ Soln.						

Time of Day					
Wind Velocity					
Wind Direction					
Air Temperature					
Barometric Pressure					
Water Level					
Rate of Flow					
Ice Thickness					
Depth of Sampling					

pH					
Sp. Conductance					
Dissolved O ₂					
Turbidity					
Water Temperature c					

SAMPLE COLLECTION

WATER QUALITY

PHYSICAL

Sent to: Adrian MacDonald
WRO
Ferd Sumpson.

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
WATER RESOURCES DIVISION -- NORTHWEST TERRITORIES
REQUEST FOR AND RESULTS OF LABORATORY ANALYSIS

LICENSEE <i>Cadillac</i>	LICENCE NO. <i>M3L3-0432</i>	LOCATION <i>Mine site</i>
DATE SAMPLED <i>April 30/82</i>	DATE RECEIVED	DATE ANALYZED <i>MAY 20/82</i>

STATION NUMBER	#1 well	#2 well	#3 River well
LABORATORY NUMBER	<i>20231</i>	<i>20232</i>	<i>20233</i>
ANALYSIS REQUIRED	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

pH (units)	<input checked="" type="checkbox"/> 7.6	<input checked="" type="checkbox"/> 7.5	<input checked="" type="checkbox"/> 8.1
Sp. Cond. (umho/cm)	<input checked="" type="checkbox"/> 630	<input checked="" type="checkbox"/> 670	<input checked="" type="checkbox"/> 500
Dissolved Oxygen			
Turbidity (JTU)			
Colour (colour U.)			
Suspended Solids	<input checked="" type="checkbox"/> <5	<input checked="" type="checkbox"/> <5	<input checked="" type="checkbox"/> <5
TDS, Residue			
Oil & Grease			
Phenols			

Calcium	<input checked="" type="checkbox"/> 79	<input checked="" type="checkbox"/> 89	<input checked="" type="checkbox"/> 65
Magnesium	<input checked="" type="checkbox"/> 28	<input checked="" type="checkbox"/> 30	<input checked="" type="checkbox"/> 22
Tot. Hardness [as]	<input checked="" type="checkbox"/> 310	<input checked="" type="checkbox"/> 350	<input checked="" type="checkbox"/> 250
Tot. Alkalinity [CaCO ₃]	<input checked="" type="checkbox"/> 230	<input checked="" type="checkbox"/> 250	<input checked="" type="checkbox"/> 200
Sodium			
Potassium			

Pot. Coliform [ent/100]			
Faecal Coli. [100]			
Faecal Strep. [ml]			

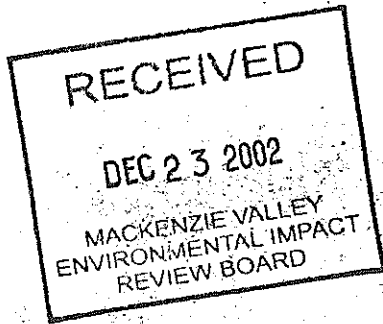
BOD ₅			
COD			
Carbon, IC			
Carbon, TOC			

Total Cyanide			
Chloride	<input checked="" type="checkbox"/> 0.7	<input checked="" type="checkbox"/> 1.2	<input checked="" type="checkbox"/> 0.6
Sulphate	<input checked="" type="checkbox"/> 103	<input checked="" type="checkbox"/> 120	<input checked="" type="checkbox"/> 75
Sulphide			

Ammonia Nitrogen [as N]			
Nitrate-Nitrite [N]			
Total Kjeldahl N [N]			
Phosphorus O-P [as P]			
Phosphorus Tot. [P]			
Silica Reac. as SiO ₂			

Arsenic	T (µg/L)	<input checked="" type="checkbox"/> 20.01	<input checked="" type="checkbox"/> 0.01	<input checked="" type="checkbox"/> <0.01
	D			
Cadmium	T (µg/L)	<input checked="" type="checkbox"/> <3.0	<input checked="" type="checkbox"/> <3.0	<input checked="" type="checkbox"/> <3.0
	E			
Copper	T (µg/L)	<input checked="" type="checkbox"/> <5.0	<input checked="" type="checkbox"/> 15.0	<input checked="" type="checkbox"/> <5.0
	E			
Iron	T (µg/L)	<input checked="" type="checkbox"/> 50	<input checked="" type="checkbox"/> 210	<input checked="" type="checkbox"/> 120
	E			
Lead	T (µg/L)	<input checked="" type="checkbox"/> <30	<input checked="" type="checkbox"/> 30	<input checked="" type="checkbox"/> <30
	E			
Mercury	T (µg/l)			
	E (µg/l)			
Nickel	T (µg/L)	<input checked="" type="checkbox"/> 5.0	<input checked="" type="checkbox"/> 10	<input checked="" type="checkbox"/> 5.0
	E			
Zinc	T (µg/L)	<input checked="" type="checkbox"/> 70	<input checked="" type="checkbox"/> 70	<input checked="" type="checkbox"/> 20
	E			
Chromium (T) (µg/L)	<input checked="" type="checkbox"/> <5.0	<input checked="" type="checkbox"/> <5.0	<input checked="" type="checkbox"/> <5.0	

All results are expressed in mg/l except as indicated in brackets ().
O-P = ortho phosphate; TDS = total dissolved solids and is the filterable residue, dried at 105°C; T = Total; E = Extractable; D = Dissolved;
IC = inorganic carbon; TOC = total organic carbon.



Northern Affairs Program
P.O. Box 150
Fort Simpson, N.W.T.
XOE 0N0

June 3, 1982

N80D248
N80F249

Cadillac Explorations Limited
Suite 630, Southland Plaza,
10201 Southport Road, S.W.
Calgary, Alta.
T2W 4X9

Dear Sir:

Re: Land Use Permit N80D248 - N80F249.

Winter road access - Minesite to Liard River, N.W.T.

Enclosed is a copy of an Inspection report carried out by the undersigned on May 12, 1982. The Inspection covered sections of the road only as a recent snowstorm covered most of the high ground.

A detailed inspection will be carried out this summer when all the snow is gone from the area and I will notify you of the results.

Campsite at Prairie Creek, N.W.T.

A separate report covering all aspects of the minesite will be forthcoming shortly and I will send you a copy.

Your request for a waste disposal site as covered in your letter of May 20, 1982, will be forwarded to Yellowknife for comments and recommendations. I remain.

Encls:

Yours truly,

ORIGINAL SIGNED BY:
B. J. GAUTHIER
B.J.J. Gauthier,
District Manager

cc: Land Use, YK

CG/vh



LAND USE INSPECTION REPORT RAPPORT D'INSPECTION RELATIF À L'UTILISATION DES TERRES
TERRITORIAL LAND USE REGULATIONS RÉGLEMENT CONCERNANT L'UTILISATION DES TERRES TERRITORIALES

Permittee - Détenteur du permis: CADILLAC EXPLORATION LTD Date: MAY 12/82 Permit No. - Permis n°: NRBD 248

Location - Endroit: MINESITE AT PRAIRIE CREEK Previous Inspection Dates: Inspections antérieures (dates)

Contractor - Entrepreneur: ALTO CONSTRUCTION Initial: Interim Provisoire: Interim Provisoire: Final: Final

Sub-Contractors - Sous-traitants: Expiry Date - Date d'expiration du permis: APRIL 13/83

Date operation commenced - Date du début des travaux

Current stage of program - État des travaux

Program modification Approved/Not Approved (Explain) Modifications apportées approuvées/non approuvées (Expliquer)

Conditions	Staging Access	Access Route	Air Strip	Seismic Line	Camp site	Drilling site
A - Acceptable, U - Unacceptable	Accès aux échafaudages	Route d'accès	Piste d'atterrissage	Ligne de sondage	Emplacement de camp	Emplacement de forage
A) BRUSH DISPOSAL						
DESTRUCTION DES BUISSONS						
1 Windrowed Formation d'andains					-	
2 Lapped & Scattered Élagage et dispersion					-	
3 Walked Down Foulage					-	
4 Leans Felled Abattage					-	
5 Burned Brûlage					-	
6 Buried Enfouissement					-	
7						
B) EROSION CONTROL						
CONTRÔLE DE L'ÉROSION						
1 Ground Disturbance Perturbation du sol					-	
2 Stream Approaches Abords de ruisseaux					-	
3 Stream Crossings Gués de ruisseaux					-	
4 Drainage Disruption Perturbation du réseau de drainage					-	
5 Backsloping - Contours Surface structurale et relief					-	
6 Shotholes Plugged Obturation du trou de tir					-	
7						
C) POLLUTION PREVENTION						
LUTTE CONTRE LA POLLUTION						
1 Removal Bldg. & Equip. Enlèvement, bâtiments et matériel					-	
2 Fuel Storage Entreposage, combustible					A	
3 Incineration (garbage, etc.) Incinération, ordures etc.					U	
4 Other wastes Autres déchets					-	
5 Sumps and Pits Puisards et fosses					-	
6						

Explanation and Remarks (include comments on other permit conditions, as necessary) Explications et commentaires (mentionner toute autre condition du permis)

C-3 GARBAGE AND ACCUMALATED WOODEN DEBRIS NOT PROPERLY INCENERATED. THE REST OF THE SITE APPEARS SATISFACTORY.

Operator's Representative - Représentant de l'exploitant
Signature: [Handwritten Signature]

Land Use Inspector - Inspecteur de l'utilisation des terres
[Handwritten Signature]
Area - Zone

Land Use Permit on hand / Permis d'utilisation des terres
 Yes / No
Oui / Non

Checked by RMO / Vérification par l'agent regional de l'exploitation minière

Findings of initial and interim reports are subject to final inspection during summer months unless otherwise stated in writing by the District Superintendent
-es conditions décrites dans les rapports initiaux et provisoires doivent faire l'objet d'une inspection finale au cours de l'été, à moins que le surintendant n'en décide autrement et ne fasse, à ce sujet, une déclaration écrite.

Superintendent / Surintendant

Sent to:
WRO/Fort Simpson
Adrian MacDonald

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
WATER RESOURCES DIVISION -- NORTHWEST TERRITORIES
REQUEST FOR AND RESULTS OF LABORATORY ANALYSIS

LICENSEE <i>Co. 11th. Exploration Ltd.</i>	LICENCE NO. <i>N34.3-0392</i>	LOCATION <i>Transect Creek</i>
DATE SAMPLED <i>May 21/82</i>	DATE RECEIVED	DATE ANALYZED

STATION NUMBER	932-1	932-6			
LABORATORY NUMBER	20275	20276			
ANALYSIS REQUIRED	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
pH (units)	<input checked="" type="checkbox"/> 7.2	<input checked="" type="checkbox"/> 7.9			
Sp. Cond. (umho/cm)	<input checked="" type="checkbox"/> 670	<input checked="" type="checkbox"/> 180			
Dissolved Oxygen					
Turbidity (JTU)					
Colour (colour U.)					
Suspended Solids	<input checked="" type="checkbox"/> <5	<input checked="" type="checkbox"/> 101			
TDS, Residue					
Oil & Grease					
Phenols					
Calcium	<input checked="" type="checkbox"/> 69.8	<input checked="" type="checkbox"/> 23.6			
Magnesium	<input checked="" type="checkbox"/> 92.0	<input checked="" type="checkbox"/> 8.4			
Tot. Hardness [as	<input checked="" type="checkbox"/> 550.	<input checked="" type="checkbox"/> 93.5			
Tot. Alkalinity CaCO ₃	<input checked="" type="checkbox"/> 240	<input checked="" type="checkbox"/> 77			
Sodium					
Potassium					
Tot. Coliform [cnt/					
Faecal Coll. 100					
Faecal Strep. ml					
BOD ₅					
COD					
Carbon, IC					
Carbon, TOC					
Total Cyanide					
Chloride	<input checked="" type="checkbox"/> 2.0	<input checked="" type="checkbox"/> 0.8			
Sulphate	<input checked="" type="checkbox"/> 40.	<input checked="" type="checkbox"/> 13.			
Sulphide					
Ammonia Nitrogen [as					
Nitrate-Nitrite [N					
Total Kjeldahl N [N					
Phosphorus O-P [as					
Phosphorus Tot. [P					
Silica Reac. as SiO ₂					
Arsenic	T <input checked="" type="checkbox"/> <0.01	<input checked="" type="checkbox"/> 0.01			
	D <input checked="" type="checkbox"/>				
Cadmium	T <input checked="" type="checkbox"/> <0.005	<input checked="" type="checkbox"/> <0.005			
	E <input checked="" type="checkbox"/>				
Copper	T <input checked="" type="checkbox"/> 0.02	<input checked="" type="checkbox"/> 0.02			
	E <input checked="" type="checkbox"/>				
Iron	T <input checked="" type="checkbox"/> 0.11	<input checked="" type="checkbox"/> 2.35			
	E <input checked="" type="checkbox"/>				
Lead	T <input checked="" type="checkbox"/> 0.05	<input checked="" type="checkbox"/> 0.05			
	E <input checked="" type="checkbox"/>				
Mercury	T (µg/l) <input checked="" type="checkbox"/>				
	E (µg/l) <input checked="" type="checkbox"/>				
Nickel	T <input checked="" type="checkbox"/> <0.025	<input checked="" type="checkbox"/> <0.025			
	E <input checked="" type="checkbox"/>				
Zinc	T <input checked="" type="checkbox"/> 0.091	<input checked="" type="checkbox"/> 0.087			
	E <input checked="" type="checkbox"/>				
Chromium (T)	<input checked="" type="checkbox"/> <0.01	<input checked="" type="checkbox"/> <0.01			

All results are expressed in mg/l except as indicated in brackets ().
O-P = ortho phosphate; TDS = total dissolved solids and is the filterable residue, dried at 105C; T = Total; E = Extractable; D = Dissolved;
IC = inorganic carbon; TOC = total organic carbon

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
 WATER RESOURCES DIVISION -- NORTHWEST TERRITORIES
 FIELD SAMPLING AND DATA

LICENSEE <i>Cardiff Exp. Ltd</i>	LICENCE NO. <i>N3L3-0392</i>	LOCATION <i>Prairie Creek</i>
DATE SAMPLED <i>May 21/82</i>	SAMPLED BY <i>NINE PERSONNEL</i>	

SAMPLE COLLECTION	ANALYSIS REQUIRED	VOLUME TO BE COLLECTED	PRESERVATIVE TO BE USED	STATION NUMBER			
				WATER WELL		Downstream Prairie Crk	
				<i>W2</i>		<i>932-6</i>	
				<i>932-1</i>	BOTTLE NUMBER		
	MISC. & ARSENIC	2 LITRES	NONE	<i>#2 well</i>		<i>Downstream</i>	
	HEAVY METALS	1 LITRE	2ml HNO ₃	<i>#2 well</i>		<i>Downstream</i>	
	CYANIDE	1 LITRE	2ml 50% NaOH Soln.				
	MERCURY	250 ML	2ml HNO ₃ + 2ml 5% K ₂ Cr ₂ O ₇ Soln.				

FIELD OBSERVATION	Time of Day	Wind Velocity	Wind Direction	Air Temperature	Barometric Pressure	Water Level	Rate of Flow	Ice Thickness	Depth of Sampling

FIELD ANALYSIS	pH	Sp. Conductance	Dissolved O ₂	Turbidity	Water Temperature c

*Last samples from Prairie Creek Valley Aquifer Testing program
 see river sample taken downstream of mine site rather than upstream*

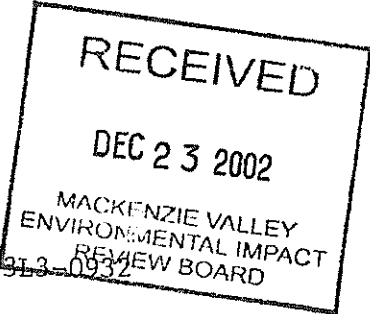


Northern Affairs Program
Water Resources Division
P.O. Box 1500
Yellowknife, N.W.T.
X1A 2R3

DOUBLE REGISTERED

Mr. Gerald Hamilton
President
Cadillac Exploration Limited
Suite 630, Southland Plaza
10201 Southport Road S.W.
Calgary, Alberta
T2W 4X9

June 7, 1982



Your file / Votre référence

Our file / Notre référence

NSL3-0932

Dear Mr. Hamilton:

RE: Inspection Report of Cadillac Exploration Limited
Prairie Creek, N.W.T., April 7, 1982

Enclosed is a copy of the inspection report prepared by Mr. Adrian MacDonald following his visit to your operation on April 27, 1982. Please review this inspection report carefully and direct any questions or comments to this office.

The cooperation of your staff extended to Mr. MacDonald during his visit is appreciated.

Yours truly,

David Milburn
David Milburn
Regional Coordinator
Industrial
Inland Waters

cc: Dist. List

TO
A

Water Resources,
Yellowknife, N.W.T.

Attn: A. Cullen
D. Stendahl

FROM
DE

Adrian MacDonald
Water Resources,
P.O. Box 150,
Fort Simpson, N.W.T. XOE ONO

SECURITY - CLASSIFICATION - DE SÉCURITÉ
OUR FILE - N/RÉFÉRENCE
YOUR FILE - V/RÉFÉRENCE
N3L3 - 0932
DATE

SUBJECT
OBJET

Attached is my inspection report of the Cadillac Minesite.
Concerns raised are:

1. Chemical Storage area: Plans for this area should be determined. The reagents here include soda ash, lime, cyanide, copper sulfate and xanthates. The mill foreman was unable to tell me what a lot of them were for and seemed to think they were ordered just in case they were needed. Is there information available to Cadillac regarding clean up techniques?
2. Sewage Treatment plant: From the look of the effluent alone, this plant is still not working.
3. Concentrate Stockpiling: This may consist of simply storing the concentrate in the open and unprotected. The area is now being ditched with a sump and pumping to the tailings pond proposed, but will this be enough? Is this not what is being done at Nanisivik and haven't they been having problems?

Bill Mawdsley and I were well received and given any assistance required throughout the inspection. Do you have any comments on what will happen if Cadillac's mill is ready for June 1, and the licence is not ready until August?

Adrian MacDonald,
Water Resource Officer

INSPECTION REPORT - CADILLAC EXPLORATION LIMITED
PRAIRIE CREEK MINE SITE

N3L3-0932

N3A3-0872

N3A3-0873

N3A3-1064

N3A3-1147

Introduction:

On April 7, 1982, Mr. Adrian MacDonald, Water Resources Officer, Fort Simpson, accompanied Mr. W. Mawdsley, Land Use Inspector, Fort Simpson, to the Cadillac Exploration Limited Mine Site on Prairie Creek. While on site, Mr. MacDonald met with Mr. Ron Emes, On-Site Manager, Mr. Barry Sharp, Mill Foreman, and briefly with Mr. Ed Morrisroe, Vice President, Cadillac to discuss water related activities of the operation. Mr. MacDonald and Mr. Sharp also toured the minesite.

Observations and Discussion:

Water Supply:

Of the five wells on site, two are currently in operation. Water well W1 situated between the administrative building and the propane tank farm is still being used to supply the domestic water needs of the camp.

Cadillac Exploration Ltd.
Prairie Creek Minesite

-2-

Water well W2 is situated south of the 2848' portal and next to the proposed concentrate storage area. This well is currently being used to conduct a ground water testing program. The program is an attempt to define the ability of the Prairie Creek Valley aquifer to provide the fresh water requirements of the operation. Presently water pumped from the well is being used to pre-fill the tailings pond.

Sample bottles had been requested for chemical analysis of the ground water and these bottles were provided. However, there was nobody on site who seemed to know anything about this program.

The water from W2 was sampled for miscellaneous parameters and heavy metals including mercury.

Domestic Wastewater:

We were informed the sewage treatment plant is operating more efficiently than in the past, but still not the way it should. The indicator lights mentioned in the inspection report of February 2, 1982 are still off. The small red lights on the panel were flashing constantly signalling the UV irradiation was being blocked. This, we were told, was an improvement as before the lights would flash only intermittently. Again, it appears that the level of solids is such that UV disinfection will be ineffective.

As of March 12, sewage has been passed through the treatment plant and into the tailings pond.

Cadillac Exploration Ltd.
Prairie Creek Minesite

-3-

Influent and effluent samples were taken for oil and grease, chemical oxygen demand, nutrients and miscellaneous parameters.

An operator's manual for the sewage disposal plant was requested and from it, we may be able to determine why this plant does not perform as it should. It should be determined if Cadillac has any intention of using this facility in the future for the sole treatment of its sewage as it has yet to demonstrate its effectiveness.

Mine:

The minewater, up until the week before this inspection, was being limed. The treatment consisted of adding 88 pounds of lime to the sump each day. The addition was carried out manually with all of the 88 pounds being added at one time. From the sump, the minewater was discharged just outside the portal.

Minewater is currently being discharged without treatment to the tailings pond at an approximate rate of 200 gal/day.

Tunnelling has advanced to 3551 feet from the portal. Most mining activity is being directed toward stope work. A stock pile of approximately 20,000 tons of ore now exists near the proposed concentrate storage area. A ditch is being constructed around this area with a sump and pumping to the tailings pond proposed.

Cadillac Exploration Ltd.
Prairie Creek Minesite

-4-

Minewater was sampled for miscellaneous parameters, heavy metals and blast residues.

Mill Construction:

We were informed construction is on schedule with a proposed completion date between May 20 and June 1.

Harrison Creek:

Gabions were being installed along the diversion and work was to be completed within three days.

Fuel Storage Area:

The fourth fuel storage tank has been completed. There is still a small amount of fuel still to be cleaned up in the storage area. This is to be done after spring thaw.

Tailings Pond:

The tailings pond looks to be in good condition with the liner installed from the west corner to half way along the east side. The portion of the wall that had slipped earlier has been repaired. The bottom has been smoothed out and the two remaining mounds that are there, we were informed, are only snow. Rip rap along the outside part of the pond adjacent to Prairie Creek has been installed. The diversion ditches along the roadway are complete.

Cadillac Exploration Ltd.

Prairie Creek Minesite

-5-

Chemical Storage Area:

During inspection, one punctured drum of xanthate was noticed along with several leaking bags of soda ash and lime. There are several different reagents on site and storage for these reagents in the future should be clarified.

Adrian MacDonald
Water Resources Officer

Adrian MacDonald
P.O. Box 150
Fint Simpson
NWT

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
WATER RESOURCES DIVISION -- NORTHWEST TERRITORIES
REQUEST FOR AND RESULTS OF LABORATORY ANALYSIS

LICENSEE CADILLAC EXPLOR.		LICENCE NO.			LOCATION PRAIRIE CREEK.		
DATE SAMPLED APRIL 7, 1982		DATE RECEIVED APRIL 8, 1982			DATE ANALYZED May 18, 1982		
STATION NUMBER	WELL (FROM AQUIFER)	MINE WATER	SEWAGE INF.	SEWAGE EFF.			
LABORATORY NUMBER	20143	20144	20145	20146			
ANALYSIS REQUIRED	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Oil (units)	<input checked="" type="checkbox"/> 7.4	<input checked="" type="checkbox"/> 7.9					
Sp. Cond. (umho/cm)	<input checked="" type="checkbox"/> 650	<input checked="" type="checkbox"/> 910					
Dissolved Oxygen							
Turbidity (JTU)							
Colour (color)							
Suspended Solids	<input checked="" type="checkbox"/> <5	<input checked="" type="checkbox"/> <5	<input checked="" type="checkbox"/> 330	<input checked="" type="checkbox"/> 110			
TDS, Residue							
Oil & Grease			<input checked="" type="checkbox"/> * 140	<input checked="" type="checkbox"/> 1.5			
Phenols							
Calcium	<input checked="" type="checkbox"/> 170	<input checked="" type="checkbox"/> 270					
Magnesium	<input checked="" type="checkbox"/> 36	<input checked="" type="checkbox"/> 48					
Total Hardness (as CaCO ₃)	<input checked="" type="checkbox"/> 580	<input checked="" type="checkbox"/> 860					
Sodium		<input checked="" type="checkbox"/> 260					
Potassium							
Total Coliform (cnt/100)							
Faecal Coli. (100)							
Faecal Strep. (ml)							
OD5							
OD							
Carbon, IC			<input checked="" type="checkbox"/> 1050	<input checked="" type="checkbox"/> 280			
Carbon, TOC							
Total Cyanide							
Fluoride							
Sulphate							
Sulphide							
Ammonia Nitrogen (as Nitrate-Nitrite)		<input checked="" type="checkbox"/> 1.7	<input checked="" type="checkbox"/> 18	<input checked="" type="checkbox"/> 17			
Total Kjeldahl N		<input checked="" type="checkbox"/> 2.0	<input checked="" type="checkbox"/> 0.48	<input checked="" type="checkbox"/> 0.04			
Phosphorus O-P (as)							
Phosphorus Tot. (P)							
Silica Reac. as SiO ₂							
Arsenic	T	<input checked="" type="checkbox"/> <0.01	<input checked="" type="checkbox"/> <0.01				
	D						
Cadmium	T	<input checked="" type="checkbox"/> <0.01	<input checked="" type="checkbox"/> 0.03				
	E						
Copper	T	<input checked="" type="checkbox"/> 0.04	<input checked="" type="checkbox"/> 0.04				
	E						
Iron	T	<input checked="" type="checkbox"/> 0.10	<input checked="" type="checkbox"/> 0.06				
	E						
Lead	T	<input checked="" type="checkbox"/> 0.15	<input checked="" type="checkbox"/> 0.05				
	E						
Mercury	T (µg/l)	<input checked="" type="checkbox"/> <0.01	<input checked="" type="checkbox"/> 1.6				
	E (µg/l)						
Nickel	T	<input checked="" type="checkbox"/> <0.05	<input checked="" type="checkbox"/> <0.05				
	E						
Zinc	T	<input checked="" type="checkbox"/> 0.06	<input checked="" type="checkbox"/> 3.7				
	E						
Chromium (T)		<input checked="" type="checkbox"/> <0.02	<input checked="" type="checkbox"/> <0.02				
				PREVIOUSLY NOT-DONE			

Results are expressed in mg/l except as indicated in brackets ().
P = ortho phosphate; TDS = total dissolved solids and is the filterable

DOUBLE REGISTERED

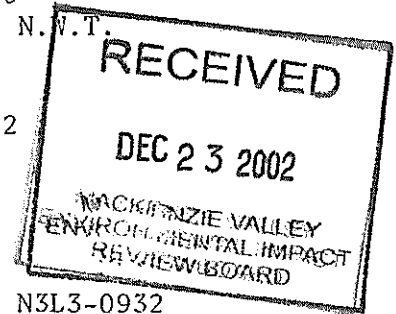
Mr. G. Hamilton
President
Cadillac Explorations Limited
Suite 630, Southland Plaza
10201 Southport Road, S.W.
Calgary, Alberta
T2W 4X9

Northern Affairs Program
Water Resources Division
P.O. Box 1500
Yellowknife, N.W.T.
X1A 2R3

June 10, 1982

Your file Votre référence

Our file Notre référence



N3L3-0932

Dear Mr. Hamilton:

RE: Inspection Report of Cadillac Explorations Limited
Prairie Creek, N.W.T. May 12, 1982

Enclosed is a copy of the inspection report prepared by Mr. Adrian MacDonald following his visit to your operation at Prairie Creek, N.W.T. on May 11, 1982. Please review this inspection report carefully and direct any questions or comments to this office.

While it appears that construction at the minesite is progressing rapidly, there still remain areas of concern with this operation that must be addressed to enable compliance with the Water Licence N3L3-0932, most notably, the sewage treatment plant, the diversion ditches and culvert along the north side of the tailings pond, and the settling pond for plant site runoff. With respect to the settling pond, it should be noted that the forthcoming Water Licence sets Effluent Quality requirements on the runoff from this pond, and as such, Cadillac Exploration Limited should assess their ability to meet these requirements and take appropriate action as required.

The cooperation of your staff extended to Mr. MacDonald and Mr. Stendahl of this Department during their visit is appreciated.

Yours truly,

David Milburn
David Milburn
Regional Coordinator
Industrial
Inland Waters

cc: Dist. List
DM/lf



TO
À

Water Resources,
Yellowknife, N.W.T.
Attn: Dave Milburn
Doug Stendahl

FROM
DE

Adrian MacDonald,
Water Resources Officer,
Fort Simpson, N.W.T.

SECURITY-CLASSIFICATION - DE SÉCURITÉ
OUR FILE - N/RÉFÉRENCE
YOUR FILE - V/RÉFÉRENCE
DATE May 26, 1982

SUBJECT
OBJET

Re: Cadillac Inspection

The May 19 inspection of the Cadillac minesite gave rise to the following concerns:

- 1) There are 12 piezometers on site and their locations should be known. Ron Emes suggested comparisons between piezometers around the tailings pond and other piezometers on site could be useful in monitoring seepage from the pond. Is this feasible?
- 2) Drawings for the collection system situated behind the liner on the north side of the Tailings Pond should be obtained. The use of water collected in this system should be approved.
- 3) A mill flow sheet should be obtained as soon as it is available.
- 4) The ditching around the stock pile is inadequate and from analytical results of the settling pond water it appears site drainage is going to be a problem. The settling pond is permeable so contaminated run off will find its way to ground water.

Adrian MacDonald
Adrian MacDonald,
Water Resources Officer

INSPECTION REPORT

ON

CADILLAC EXPLORATIONS LIMITED
PRAIRIE CREEK MINESITE

MAY 12, 1982

BY

ADRIAN MACDONALD
INSPECTOR UNDER THE NORTHERN INLAND WATERS ACT
NORTHERN AFFAIRS PROGRAM
DEPARTMENT OF INDIAN AFFAIRS & NORTHERN DEVELOPMENT
FORT SIMPSON, N.W.T.

DATE: MAY 25, 1982

WATER REGISTER: N3L3-0932
N3A3-0872
N3A3-0873
N3A3-1064
N3A3-1147

INSPECTION REPORT - CADILLAC EXPLORATION LIMITED
PRAIRIE CREEK MINESITE

N3L3 - 0932

N3A3 - 0872

N3A3 - 0873

N3A3 - 1064

N3A3 - 1147

INTRODUCTION:

On May 12, 1982 Adrian MacDonald, Water Resources Officer, Fort Simpson, and Doug Stendahl, Water Quality Officer, Yellowknife, both Inspectors under the Northern Inland Waters Act, accompanied Fernie Gauthier, District Manager, Northern Affairs Program, Fort Simpson to the Cadillac Explorations Limited minesite on Prairie Creek. While on site Mr. MacDonald and Mr. Stendahl met with Ron Emes, On-Site Manager, Klaus Meyer, Mill Superintendent, Walter Behling, Mine Superintendent, and Earl Dolan, Supervisor for Alto Construction, contractor for Cadillac, to discuss water related activities. Following the discussion, Mr. MacDonald and Mr. Stendahl conducted an inspection of the minesite.

DISCUSSION AND OBSERVATIONS:

Water Supply:

As noted during the last inspection of April 7, 1982, water well W1 is supplying the domestic needs of the camp and water well W2 is being used to conduct a draw down test on the Prairie Creek Valley aquifer. The water from W2 is still being used to pre-fill the tailings pond. Final results from the aquifer testing program were requested. After the testing program is completed, water well W1 is to be the designated supply well with W2 as a back up.

No fresh water is being used underground.

CADILLAC EXPLORATION LIMITED
PRAIRIE CREEK MINESITE
INSPECTION MAY 12, 1982

Sewage Treatment Plant:

The effluent of the sewage treatment plant is being directed to the tailings pond. The control panel indicated the system is still not operating as designed. There are currently 180 people on site and the plant is designed to treat the waste for up to 200 people.

Mine:

Tunneling has advanced to 975 metres on the upper level and 1100 metres on the lower level. Only limited mine work is being carried on as construction in front of the portal is restricting access.

Mine water is still being directed to the tailings pond at an approximate rate of 16 cubic metres per hour. When the treatment plant is in operation the mine water will be pumped directly to the plant. The industrial wastewater treatment plant is to be pre-assembled and brought onto the mine site.

Mill:

Construction of the mill is ongoing with the last week of June given as the completion date. Klaus Meyer indicated cyanide may be used in the mill at a rate of two pounds per ton which is twice the rate given in the Definitive Feasibility Study.

CADILLAC EXPLORATION LIMITED
PRAIRIE CREEK MINESITE
INSPECTION MAY 12, 1982

Tailings Containment Area:

There are currently 136,000 cubic metres of water in the tailings pond. Water from the aquifer pump test, mine water and sewage treatment plant effluent are all being directed to the tailings pond. The ground water from behind the liner on the north side of the tailings pond is collected and directed to an underground sump located in the northeast corner of the pond. From the sump, this water is being pumped around the liner and into the tailings pond. This flow was estimated to be 0.5 cubic metres per minute.

The diversion ditches along the north side of the pond are not rip rapped and the culvert illustrated in drawing "Plant Site Plan and Water Balance Figure 5" is not in place. It appears the water collected in the ditch will seep to the area behind the liner of the tailings pond.

Decanting from the tailings pond should not be necessary for the first two years of operation according to Mr. Emes and Mr. Volan.

Ore Stock Pile:

There are 36,000 to 40,000 tons of ore stock piled. There is a small ditch along the east side of the stock pile and no ditches or sump around the rest of the pile.

Containment Dyke:

Rip rapping along the containment dyke is complete and the work appears to be well done.

CADILLAC EXPLORATION LIMITED
PRAIRIE CREEK MINESITE
INSPECTION MAY 12, 1982

Chemical Storage Area:

A building is proposed to replace the area presently being used. The site will probably be near the mill but plans have not been finalized. An inventory of the reagents will be supplied when available.

Fuel Storage Area:

Fuel from the spill of April 25 remains on the surface of the water in this area. Three of the four 2200 cubic meter tanks have gauges all reading at the 39.5 foot level. The fourth tank has no gauge. The last fuel delivery to the site was March 23, 1982. Fuel delivery to the minesite is metered and Mr. Emes stated on-site metering of fuel distribution will take place.

Settling Pond:

Work is currently being carried out on construction of the settling pond. The culvert between the pond and Harrison Creek has a weir on the inside end and a floodgate on the other end. The settling pond is not clay lined and Mr. Emes and Mr. Dolan stated no liner or control gate is proposed for the pond. The necessary treatment for the settling pond water is being considered.

Harrison Creek:

Flow was observed in Harrison Creek. The gabion baskets are in place and the work seems very satisfactory. An oil sheen was observed on the creek downstream of the settling pond. The equipment working on the pond may be responsible for the oil sheen.

CADILLAC EXPLORATION LIMITED
PRAIRIE CREEK MINESITE
INSPECTION MAY 12, 1982

General Discussion:

The errors on page 14 of Cadillac's Contingency Plan were pointed out and copies of D.I.A.N.D.'s spill report forms were provided.

There are currently five On-Site Managers rotating weekly. The situation may change after production begins.

Access to the proposed dump site and the 3050' portal is required and the access road is to cross Harrison Creek. Mr. Emes was advised to submit the proposal to the Controller of Water Rights so the crossings can be addressed in the licence.

The inspectors mentioned Cadillac shall be required to monitor the daily flow of Prairie Creek and should contact Water Survey in Yellowknife or Fort Simpson so arrangements can be made to enable mine personnel to use the Water Survey hydrometric station on Prairie Creek.

There are 12 piezometers on site. The piezometers are situated at various locations on the mine site including the tailings impoundment dyke.

Samples:

Water Well W1

Water Well W2

Harrison Creek

Settling Pond Discharge

Discharge from sump behind tailings pond liner.

CADILLAC EXPLORATION LIMITED
PRAIRIE CREEK MINESITE
INSPECTION MAY 12, 1982

Samples (Cont'd)+

- Prairie Creek - upstream of gravel wash area
- upstream of airstrip
 - downstream of mine site near Galena Creek

Adrian MacDonald,
Water Resources Officer,
Fort Simpson

AM/gm

Clair MacBonnald
WRO
Fast Simpson

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
WATER RESOURCES DIVISION -- NORTHWEST TERRITORIES
REQUEST FOR AND RESULTS OF LABORATORY ANALYSIS

LICENSEE <i>Cadillac</i>	LICENCE NO.	LOCATION <i>Plant site and Prairie Creek</i>
DATE SAMPLED <i>May 12, 1992</i>	DATE RECEIVED <i>May 13, 1992</i>	DATE ANALYZED

STATION NUMBER	<i>Water Supply Well W1</i>	<i>Water Supply Well W2</i>	<i>Amateur Test Well W2</i>	<i>Water Supply Well W2</i>	<i>Water Supply Well W2</i>	<i>Water Supply Well W2</i>
LABORATORY NUMBER	1 20234	2 20235	1 20236	2 20237	1 20238	2 20239
ANALYSIS REQUIRED	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
pH (units)	<input checked="" type="checkbox"/> 7.6		<input checked="" type="checkbox"/> 7.8		<input checked="" type="checkbox"/> 7.9	
Sp. Cond. (umho/cm)	<input checked="" type="checkbox"/> 630		<input checked="" type="checkbox"/> 680		<input checked="" type="checkbox"/> 970	
Dissolved Oxygen						
Turbidity (JTU)						
Colour (colour U.)						
Suspended Solids	<input checked="" type="checkbox"/> <5		<input checked="" type="checkbox"/> <5		<input checked="" type="checkbox"/> 77	
TDS, Residue						
Oil & Grease						
Phenols						
Calcium	<input checked="" type="checkbox"/> 82		<input checked="" type="checkbox"/> 89		<input checked="" type="checkbox"/> 120	
Magnesium	<input checked="" type="checkbox"/> 28		<input checked="" type="checkbox"/> 30		<input checked="" type="checkbox"/> 31	
Pot. Hardness as	<input checked="" type="checkbox"/> 320		<input checked="" type="checkbox"/> 350		<input checked="" type="checkbox"/> 430	
Pot. Alkalinity CaCO ₃	<input checked="" type="checkbox"/> 230		<input checked="" type="checkbox"/> 240		<input checked="" type="checkbox"/> 130	
Sodium						
Potassium						
Pot. Coliform /cnt/						
Faecal Coli. 100						
Faecal Strep. ml						
BOD ₅						
COD						
Carbon, IC						
Carbon, TOC						
Total Cyanide						
Chloride	<input checked="" type="checkbox"/> 0.7		<input checked="" type="checkbox"/> 2.5		<input checked="" type="checkbox"/> 34	
Sulphate	<input checked="" type="checkbox"/> 120		<input checked="" type="checkbox"/> 120		<input checked="" type="checkbox"/> 240	
Sulphide						
Ammonia Nitrogen [as						
Nitrate-Nitrite N					<input checked="" type="checkbox"/> 8.6	
Total Kjeldahl N					<input checked="" type="checkbox"/> 17	
Phosphorus O-P [as						
Phosphorus Tot. [P						
Silica Reac. as SiO ₂					<input checked="" type="checkbox"/> 0.15	
Arsenic	T (µg/L) <input checked="" type="checkbox"/> 20.01		<input checked="" type="checkbox"/> 20.01		<input checked="" type="checkbox"/> 0.02	
	D					
Cadmium	T (µg/L) <input checked="" type="checkbox"/> <3.0		<input checked="" type="checkbox"/> <3.0		<input checked="" type="checkbox"/> 15.0	
	E					
Copper	T (µg/L) <input checked="" type="checkbox"/> 5.0		<input checked="" type="checkbox"/> 7.0		<input checked="" type="checkbox"/> 68.0	
	E					
Iron	T (µg/L) <input checked="" type="checkbox"/> 80		<input checked="" type="checkbox"/> 110		<input checked="" type="checkbox"/> 3,250	
	E					
Lead	T (µg/L) <input checked="" type="checkbox"/> <30		<input checked="" type="checkbox"/> <30		<input checked="" type="checkbox"/> 480	
	E					
Mercury	T (µg/l) <input checked="" type="checkbox"/> <0.01	<input checked="" type="checkbox"/> <0.01	<input checked="" type="checkbox"/> 0.01	<input checked="" type="checkbox"/> 0.01	<input checked="" type="checkbox"/> 9.1	<input checked="" type="checkbox"/> 0.1
	E (µg/l)					
Nickel	T (µg/L) <input checked="" type="checkbox"/> 7.0		<input checked="" type="checkbox"/> 15		<input checked="" type="checkbox"/> 25	
	E					
Zinc	T <input checked="" type="checkbox"/> 110		<input checked="" type="checkbox"/> 230		<input checked="" type="checkbox"/> 1,450	
	E					
Chloride (T)	<input checked="" type="checkbox"/> <5.0		<input checked="" type="checkbox"/> <5.0		<input checked="" type="checkbox"/> <5.0	
* Samples contained some solid material.						

All results are expressed in µg/l except as indicated in brackets ().
O-P = ortho phosphate; TDS = total dissolved solids and is the filterable residue, dried at 105°C; T = Total; E = Extractable; D = Dissolved;
IC = inorganic carbon; TOC = total organic carbon.

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
WATER RESOURCES DIVISION -- NORTHWEST TERRITORIES
FIELD SAMPLING AND DATA

LICENSEE <i>Caribic</i>	LICENCE NO.	LOCATION <i>1st and side</i>
DATE SAMPLED <i>May 12, 1972</i>	SAMPLED BY <i>D. Stenwall A. Macdonald</i>	

SAMPLE COLLECTION

ANALYSIS REQUIRED	VOLUME TO BE COLLECTED	PRESERVATIVE TO BE USED	STATION NUMBER					
			W1	W1	W2	W2	Sitting Pond Dwilling	Sitting Pond Dwilling
			BOTTLE NUMBER					
MISC. & ARSENIC	2 LITRES	NONE	✓		✓		✓	
HEAVY METALS	1 LITRE	2ml HNO ₃	✓		✓		✓	
CYANIDE	1 LITRE	2ml 50% NaOH Soln.					✓	
MERCURY	250 ML	2ml HNO ₃ + 2ml 5% K ₂ Cr ₂ O ₇ Soln.	✓	✓	✓	✓	✓	✓

Time of Day							
Wind Velocity							
Wind Direction							
Air Temperature		0°C					
Barometric Pressure							
Water Level							
Rate of Flow							
Ice Thickness							
Depth of Sampling		<i>just below ice shelf or from base of ice.</i>					

pH							
Sp. Conductance							
Dissolved O ₂							
Turbidity							
Water Temperature c							

*Temperature has been measured at 1st and side.
 Peoria creek location is quite turbid.
 Some runoff evident.*

RECEIVED
Northern Affairs Program
MAY 31 1992

Adrian Mac Donald
WRO, Buliso
Fort Simpson, NWT
695-2231

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
WATER RESOURCES DIVISION -- FORT SIMPSON, N.W.T. -- NORTHWEST TERRITORIES
REQUEST FOR AND RESULTS OF LABORATORY ANALYSIS

LICENSEE <i>Capitac</i>		LICENCE NO. <i>NAL3-0932</i>		LOCATION <i>Plant Site near Fort Simpson</i>	
DATE SAMPLED <i>May 12, 1992</i>		DATE RECEIVED <i>May 13, 1992</i>		DATE ANALYZED <i>MAY 21/92</i>	
STATION NUMBER	<i>Harrison Creek near Fort Simpson</i>				
LABORATORY NUMBER	<i>20240</i>	<i>20241</i>	<i>20242</i>	<i>20243</i>	<i>20244</i>
ANALYSIS REQUIRED	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
pH (units)	<input checked="" type="checkbox"/> 8.1		<input checked="" type="checkbox"/> 8.1	<input checked="" type="checkbox"/> 8.1	
Sp. Cond. (umho/cm)	<input checked="" type="checkbox"/> 320		<input checked="" type="checkbox"/> 360	<input checked="" type="checkbox"/> 360	
Dissolved Oxygen					
Turbidity (JTU)					
Colour (colour U.)					
Suspended Solids	<input checked="" type="checkbox"/> 21		<input checked="" type="checkbox"/> 6.7	<input checked="" type="checkbox"/> 11	
TDS, Residue					
Oil & Grease					
Phenols					
Calcium	<input checked="" type="checkbox"/> 39.		<input checked="" type="checkbox"/> 48.	<input checked="" type="checkbox"/> 48.	
Magnesium	<input checked="" type="checkbox"/> 16		<input checked="" type="checkbox"/> 15.	<input checked="" type="checkbox"/> 15.	
Hardness as CaCO ₃	<input checked="" type="checkbox"/> 160.		<input checked="" type="checkbox"/> 180.	<input checked="" type="checkbox"/> 180.	
Tot. Alkalinity CaCO ₃	<input checked="" type="checkbox"/> 110		<input checked="" type="checkbox"/> 140	<input checked="" type="checkbox"/> 140	
Sodium					
Potassium					
Tot. Coliform (ent/100)				<input checked="" type="checkbox"/> 2	<input checked="" type="checkbox"/> 3
Faecal Coli.				<input checked="" type="checkbox"/> <1	<input checked="" type="checkbox"/> <1
Faecal Strep.				<input checked="" type="checkbox"/> 9	<input checked="" type="checkbox"/> 5
BOD ₅					
COD					
Carbon					
Carbon, TOC					
Total Cyanide					
Chloride					
Sulphate					
Sulphide					
Ammonia Nitrogen [as N]	<input checked="" type="checkbox"/> <0.03				
Nitrate-Nitrite [N]	<input checked="" type="checkbox"/> 0.27				
Total Kjeldahl N					
Phosphorus O-P [as P]					
Phosphorus Tot. [P]	<input checked="" type="checkbox"/> <0.05				
Silica Reac. as SiO ₂					
Arsenic T (µg/L)	<input checked="" type="checkbox"/> <0.01		<input checked="" type="checkbox"/> <0.01	<input checked="" type="checkbox"/> <0.01	
Arsenic D					
Cadmium T (µg/L)	<input checked="" type="checkbox"/> <3.0		<input checked="" type="checkbox"/> <3.0	<input checked="" type="checkbox"/> <3.0	
Cadmium E					
Copper T (µg/L)	<input checked="" type="checkbox"/> 5.0		<input checked="" type="checkbox"/> <5.0	<input checked="" type="checkbox"/> <5.0	
Copper E					
Iron T (µg/L)	<input checked="" type="checkbox"/> 1530.		<input checked="" type="checkbox"/> 250.	<input checked="" type="checkbox"/> 330.	
Iron E					
Lead T (µg/L)	<input checked="" type="checkbox"/> 40.		<input checked="" type="checkbox"/> <30.	<input checked="" type="checkbox"/> <30.	
Lead E					
Mercury T (µg/l)	<input checked="" type="checkbox"/> 0.34	<input checked="" type="checkbox"/> 0.35		<input checked="" type="checkbox"/> 0.03	<input checked="" type="checkbox"/> 0.02
Mercury E (µg/l)					
Nickel T (µg/L)	<input checked="" type="checkbox"/> 5.0		<input checked="" type="checkbox"/> 7.0	<input checked="" type="checkbox"/> 7.0	
Nickel E					
Zinc T	<input checked="" type="checkbox"/> 100.		<input checked="" type="checkbox"/> 10.	<input checked="" type="checkbox"/> 30.	
Zinc E					
<i>Chromium (VI)</i>	<input checked="" type="checkbox"/> <5.0		<input checked="" type="checkbox"/> <5.0	<input checked="" type="checkbox"/> <5.0	

All results are expressed in mg/l except as indicated in brackets ().
 O-P = ortho phosphate; TDS = total dissolved solids and is the filterable residue, dried at 105°C; T = Total; E = Extractable; D = Dissolved;
 TOC = total organic carbon; TOC = total organic carbon

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
 WATER RESOURCES DIVISION -- NORTHWEST TERRITORIES
 FIELD SAMPLING AND DATA

LICENSEE <i>C. A. Little</i>	LICENCE NO.	LOCATION
DATE SAMPLED <i>May 12, 1982</i>	SAMPLED BY <i>D. Deegan S. Macdonald</i>	<i>Prairie Creek 0 Mile NW</i>

SAMPLE COLLECTION	ANALYSIS REQUIRED	VOLUME TO BE COLLECTED	PRESERVATIVE TO BE USED	STATION NUMBER				BOTTLE NUMBER
				<i>Station</i>	<i>Orbits</i>	<i>near</i>	<i>point</i>	
MISC. & ARSENIC	2 LITRES	NONE	✓	✓	✓	✓		
HEAVY METALS	1 LITRE	2ml HNO ₃	✓	✓	✓	✓	<i>plus dupl. cts</i>	
CYANIDE	1 LITRE	2ml 50% NaOH Soln.				✓	<i>Doct.</i>	
MERCURY	250 ML	2ml HNO ₃ + 2ml 5% K ₂ Cr ₂ O ₇ Soln.	✓	✓	✓	✓		

FIELD OBSERVATION	Time of Day	Wind Velocity	Wind Direction	Air Temperature	Barometric Pressure	Water Level	Rate of Flow	Ice Thickness	Depth of Sampling

FIELD ANALYSIS	pH	Sp. Conductance	Dissolved O ₂	Turbidity	Water Temperature c

Bacteriological sample collected May 12, 1982 1700

NOTES

Sends to: Adnan Macdonald
 WRO
 P.O. Box 150
 Fort Simpson

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
 WATER RESOURCES DIVISION -- NORTHWEST TERRITORIES
 REQUEST FOR AND RESULTS OF LABORATORY ANALYSIS

LICENSEE <i>Chinook</i>	LICENCE NO. N3L3-0932	LOCATION <i>1170 112</i>
DATE SAMPLED <i>May 12, 1982</i>	DATE RECEIVED <i>May 13, 1982</i>	DATE ANALYZED <i>MAY 21/82</i>

STATION NUMBER	<i>20245</i>	<i>20246</i>	<i>20247</i>	<i>20248</i>	<i>20249</i>
LABORATORY NUMBER					
ANALYSIS REQUIRED	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

pH (units)	<i>8.0</i>	<i>7.8</i>		<i>8.2</i>	
Sp. Cond. (umho/cm)	<i>370</i>	<i>690</i>		<i>370</i>	
Dissolved Oxygen					
Turbidity (JTU)					
Colour (colour U.)					
Suspended Solids	<i>10</i>	<i><5</i>		<i>17</i>	
TDS, Residue					
Oil & Grease					
Phenols					

Calcium	<i>45.</i>	<i>86.</i>		<i>47.</i>	<i>W</i>
Magnesium	<i>15.</i>	<i>29.</i>		<i>15.</i>	
Tot. Hardness [as]	<i>170.</i>	<i>330.</i>		<i>180.</i>	
Tot. Alkalinity [CaCO ₃]	<i>130</i>	<i>230</i>		<i>140</i>	
Sodium					
Potassium					

Tot. Coliform [ent/100]				<i>140</i>	<i>170</i>
Faecal Coli.				<i>3</i>	<i>1</i>
Faecal Strep. [ml]				<i>15</i>	<i>11</i>

BOD ₅					
COD					
Carbon, IC					
Carbon, TOC					

Total Cyanide					
Chloride					
Sulphate					
Sulphide					

Ammonia Nitrogen [as N]	<i><0.03</i>	<i>3.9</i>		<i><0.03</i>	
Nitrate-Nitrite	<i>1.6</i>	<i>1.4</i>		<i>0.20</i>	
Total Kjeldahl N					
Phosphorus O-P [as P]					
Phosphorus Tot. [P]	<i><0.05</i>	<i>1.0</i>		<i><0.05</i>	
Silica Reac. as SiO ₂					

Arsenic	T	<i><0.005</i>	<i>20.005</i>		<i>0.007</i>	
	D					
Cadmium	T (µg/L)	<i>10.0</i>	<i>23.0</i>		<i><3.0</i>	
	E					
Copper	T (µg/L)	<i>5.0</i>	<i>7.0</i>		<i><5.0</i>	
	E					
Iron	T (µg/L)	<i>650.</i>	<i>83.</i>		<i>480.</i>	
	E					
Lead	T (µg/L)	<i>30.</i>	<i><30.</i>		<i><30.</i>	
	E					
Mercury	T (µg/l)	<i>0.42</i>	<i>0.03</i>	<i>0.04</i>	<i>0.09</i>	<i>0.11</i>
	E (µg/l)					
Nickel	T (µg/L)	<i>15.</i>	<i>15.</i>		<i>15.</i>	
	E					
Zinc	T	<i>80.</i>	<i>430.</i>		<i>30.</i>	
	E					

	<i><5.0</i>	<i><5.0</i>		<i><5.0</i>	

All results are expressed in µg/l except as indicated in brackets ().
 O-P = ortho phosphate; TDS = Total dissolved solids and is the filterable residue, dried at 105°C; T = Total; E = Extractable; D = Dissolved.

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
 WATER RESOURCES DIVISION -- NORTHWEST TERRITORIES
 FIELD SAMPLING AND DATA

LICENSEE <i>C. Hillier</i>	LICENCE NO.	LOCATION <i>Prime site.</i>
DATE SAMPLED <i>May 12, 1972</i>	SAMPLED BY <i>S. J. ... P. Mac ...</i>	

ANALYSIS REQUIRED	VOLUME TO BE COLLECTED	PRESERVATIVE TO BE USED	STATION NUMBER				
			<i>Ditch below building post & chemical storage</i>	<i>Water in ... behind building post</i>	<i>...</i>	<i>Downstream ... above ... Creek</i>	<i>...</i>
MISC. & ARSENIC	2 LITRES	NONE	✓	✓		✓	
HEAVY METALS	1 LITRE	2ml HNO ₃	✓	✓		✓	
CYANIDE	1 LITRE	2ml 50% NaOH Soln.	✓	✓		✓	<i>plus depth ...</i>
MERCURY	250 ML	2ml HNO ₃ + 2ml 5% K ₂ Cr ₂ O ₇ Soln.	✓	✓	✓	✓	✓

FIELD OBSERVATION				
Time of Day				
Wind Velocity				
Wind Direction				
Air Temperature				
Barometric Pressure				
Water Level				
Rate of Flow				
Ice Thickness				
Depth of Sampling				

pH				
Sp. Conductance				
Dissolved O ₂				
Turbidity				
Water Temperature c				

*Water from ditch below ...
 ...
 Bacteriological samples collected May 12, 1972 - 172*

Sent to:
 WRC / Fisheries
 (unintelligible)

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
WATER RESOURCES DIVISION -- NORTHWEST TERRITORIES
REQUEST FOR AND RESULTS OF LABORATORY ANALYSIS

LICENSEE <i>C. L. H. Enterprises Ltd.</i>	LICENCE NO: <i>N343-6392</i>	LOCATION <i>Isaac Creek</i>
DATE SAMPLED <i>May 21/82</i>	DATE RECEIVED	DATE ANALYZED

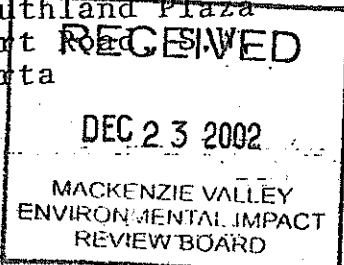
STATION NUMBER	932-1	932-6
LABORATORY NUMBER	20275	20276
ANALYSIS REQUIRED	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
pH (units)	✓ 7.2	✓ 7.9
Sp. Cond. (umho/cm)	✓ 670	✓ 180
Dissolved Oxygen		
Turbidity (JTU)		
Colour (colour U.)		
Suspended Solids	✓ 5	✓ 101
TDS, Residue		
Oil & Grease		
Phenols		
Calcium	✓ 69.8	✓ 23.6
Magnesium	✓ 92.0	✓ 8.4
Tot. Hardness [as]	✓ 550.	✓ 93.5
Tot. Alkalinity [CaCO ₃]	✓ 240	✓ 77
Sodium		
Potassium		
Tot. Coliform [ent/100 ml]		
Faecal Coli. [100 ml]		
Faecal Strep. [ml]		
BOD ₅		
COD		
Carbon, IC		
Carbon, TOC		
Total Cyanide		
Chloride	✓ 2.0	✓ 0.8
Sulphate	✓ 40.	✓ 13.
Sulphide		
Ammonia Nitrogen [as]		
Nitrate-Nitrite [N]		
Total Kjeldahl N [N]		
Phosphorus O-P [as]		
Phosphorus Tot. [P]		
Silica Reac. as SiO ₂		
Arsenic	T ✓ <0.01	✓ 0.01
	D ✓	
Cadmium	T ✓ <0.005	✓ <0.005
	E ✓	
Copper	T ✓ 0.02	✓ 0.02
	E ✓	
Iron	T ✓ 0.11	✓ 2.35
	E ✓	
Lead	T ✓ 0.05	✓ 0.05
	E ✓	
Mercury	T (µg/l)	
	E (µg/l)	
Nickel	T ✓ <0.025	✓ <0.025
	E ✓	
Zinc	T ✓ 0.091	✓ 0.087
	E ✓	
Chromium (T)	✓ <0.01	✓ <0.01

All results are expressed in mg/l except as indicated in brackets ().
 O-P = ortho phosphate; TDS = total dissolved solids and is the filterable residue, dried at 105C; T = Total; E = Extractable; D = Dissolved;

Northern Affairs Program
Water Resources Division
P.O. Box 1500
Yellowknife, N.W.T.
X1A 2R3

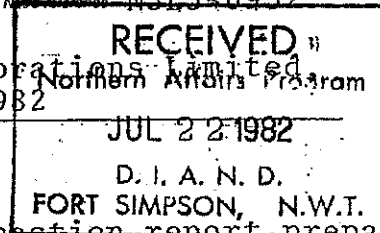
Mr. Gerry Hamilton
President
Cadillac Explorations Limited
Suite 630, Southland Plaza
10201 Southport Road
Calgary, Alberta
T2W 4X9

July 16, 1982



Your file / Votre référence

Our file / Notre numéro N313-0937



RE: Inspection Report on Cadillac Explorations Limited,
Prairie Creek, N.W.T. - June 16, 1982

Dear Mr. Hamilton:

I am in receipt of the above noted inspection report prepared
by Mr. Adrian MacDonald, Fort Simpson.

Upon review of Mr. MacDonald's report, it is apparent that
problems still exist with your operation at Prairie Creek,
namely:

- 1) the slumping of the tailings containment area;
- 2) the absence of drainage culvert at west end of diversion
ditch;
- 3) the condition of chemical storage area together with
subsequent delay in finalizing permanent storage facilities;
and
- 4) the permeability of the settling pond.

With respect to the slumping of the tailings containment area,
I have reviewed the report prepared by Golder Associates -
Tailings Pond Dykes - June 16, 1982. It is very encouraging to
see that Cadillac Explorations has solicited the advice of a
consulting firm to assess the integrity of the tailings pond.
The Golder Associates report recommends remedial action required
to assure that the integrity of this structure is maintained and
it is requested that you inform this office by letter of the
actions to be taken by Cadillac Explorations to implement the
recommendations contained in the report.

.../2

It is also requested that you advise this office in writing of action to be taken and proposed scheduling regarding the installation of the drainage culvert at the west end of the diversion ditch and the construction of a permanent chemical storage facility.


As noted in Mr. MacDonald's report, a water sample was collected at the discharge of the settling pond. The results of analysis reveal levels of zinc in this discharge that exceed effluent quality levels prescribed in the forthcoming Water Licence. Previous water sampling at the settling pond have also revealed elevated levels of lead and zinc. The permeability of the settling pond dykes will allow all water contained within to pass to Prairie Creek without impediment.

It is imperative that Cadillac Exploration take appropriate action to prevent settling pond effluent with elevated levels of lead and/or zinc from reaching Prairie Creek. It has been suggested that the settling pond should be drained and lined with an impermeable medium. Subsequent runoff to the settling pond, should be pumped to the tailings pond which would eliminate the present situation. Please advise this office in writing of action to be taken.

While Mr. MacDonald has raised areas of concern with this operation that require your immediate attention, he has also noted positive action taken by Cadillac Exploration to eliminate potential problems. Your attention to these matter is very encouraging.

If you require any additional information or have any comments concerning our requests, please do not hesitate to contact me by telephone at (403-920-8141). The cooperation of your staff extended to officials of this Department is appreciated.

Yours truly,


David Milburn
Regional Coordinator
Industrial
Inland Waters

cc: A. MacDonald

INSPECTION REPORT

ON

CADILLAC EXPLORATIONS LIMITED
PRAIRIE CREEK MINESITE

JUNE 16, 1982

BY

ADRIAN MACDONALD
INSPECTOR UNDER THE NORTHERN INLAND WATERS ACT
NORTHERN AFFAIRS PROGRAM
DEPARTMENT OF INDIAN AFFAIRS & NORTHERN DEVELOPMENT
FORT SIMPSON, N.W.T.

DATE: June 29, 1982

WATER REGISTER: N3L3-0932
N3A3-0872
N3A3-0873
N3A3-1147

INSPECTION REPORT - CADILLAC EXPLORATIONS LIMITED
PRAIRIE CREEK MINESITE

N3L3-0932
N3A3-0872
N3A3-0873
N3A3-1147

INTRODUCTION:

On June 16, 1982 Adrian MacDonald, Water Resource Officer, Fort Simpson, Scott Howarth, Administrator Inland Waters, Yellowknife and David Milburn, Regional Co-ordinator Industrial, Inland Waters, Yellowknife; all Inspectors under the Northern Inland Waters Act, conducted an inspection of the Prairie Creek mine-site of Cadillac Explorations Limited. The inspectors were accompanied by Kathy Fisher, a summer student with Water Resources, Yellowknife.

The inspectors met with Mr. Reuben Fast, Field Superintendent, Mr. Dale Ward, Mine Manager and Mr. Walter Behling, Mine Superintendent before and after the inspection of the minesite. Mr. Behling was present as the inspection was conducted.

DISCUSSION AND OBSERVATIONS:

General Discussion:

Because of financial problems, Cadillac has had to temporarily lay off most of their employees at the Prairie Creek minesite. At the time of this inspection, there were only 17 people on site.

INSPECTION REPORT - CADILLAC
PRAIRIE CREEK MINESITE
JUNE 16/82

Water Supply:

Water well W1, which supplies camp needs is the only well currently being used. Water well W2 which was being used to conduct a draw down test of the Prairie Creek aquifer is no longer in use and the line to the tailings pond has been disconnected. Results from the aquifer testing program will be forwarded to the Controller of Water Rights.

Sewage Treatment Plant:

As was the case with the previous three inspections, the control panel for the sewage treatment plant indicated the plant was not effectively sterilizing the effluent. The inspectors were informed the plant had recently been operating properly but problems arose during the temporary lay-off. The ability of the existing plant, which was designed to treat the waste for a 200 man camp, to handle the reduced load was discussed.

The tank behind the sewage treatment plant is being dismantled. It had been used to pump the effluent from the sewage treatment plant to the tailings pond. The effluent is now pumped directly to the pond.

A large volume tank marked "sewage sludge" was noticed adjacent to the sewage treatment plant. The inspectors were informed the tank is not going to be used.

Mine:

No mine work is being conducted because of the temporary layoff.

INSPECTION REPORT - CADILLAC
PRAIRIE CREEK MINESITE
JUNE 16, 1982

Ore Stock Pile:

There is presently 50,000 tons of ore stockpiled which is enough to supply the mill for approximately two months.

Ditching around the stock pile has been carried out since the last inspection. Ditches approximately 0.5 m. wide by 1 m. deep exist around three sides of the stockpile. The fourth side facing the machine shop has not been ditched.

Mill:

There are still a few weeks work remaining before the mill is ready for operation.

Cadillac has decided their concentrates are to be bagged and not stored in large stockpiles as had previously been considered.

Tailings Containment Area:

An estimated 30 m section of the inside south wall adjacent to Prairie Creek has slumped. The inspectors were also informed slumping had occurred on the opposite wall beneath the liner. Plastic sheets were noticed covering the top of the dykes along parts of the pond.

Mr. Fast informed the inspectors that only the gravel on top of the clay liner was slumping. It was not serious and would not affect the integrity of the pond, only shorten its life. The plastic sheets were an attempt to keep the dykes dry and prevent further slumping.

As noted in the inspection report of May 12, 1982, water from behind the liner of the tailings pond is collected and pumped around the liner and into the pond. Mssrs. Fast and Ward estimated the flow to be 0.7 cubic meters per minute.

INSPECTION REPORT - CADILLAC
PRAIRIE CREEK MINESITE
JUNE 16, 1982

The aquifer testing program is complete with 161,000 of the proposed 173,000 cubic meters of ground water pumped to the tailings pond.

Cadillac still intends to install a culvert at the west end of the diversion ditch. The absence of this culvert was noted in the inspection report of May 12, 1982.

Chemical Storage Area:

The chemical storage area is in the same condition as noted in the inspection report of April 07, 1982. The company has no plans finalized for permanent storage facilities.

Fuel Storage Area:

The fuel storage area was in the process of being cleaned up at the time of inspection. Fuel from the spill of April 25 was still visible. Discussion took place to determine what Cadillac should do to dispose of fuel contaminated water after the oil and water are separated. Discharging to the tailings pond was mentioned but Mr. Ward said this would cause problems in the mill.

A berm has been constructed behind the fuel storage area to prevent rock slides from entering and damaging tanks and lines.

A bridge crossing Harrisson Creek has been constructed. The bridge carries a line from the fuel tank to the mill and provides pedestrian access from the mill to the fuel storage area.

INSPECTION REPORT - CADILLAC
PRAIRIE CREEK MINESITE
JUNE 16, 1982

All four tanks now have gauges indicating fuel levels. The four gauges read 26.5 ft, 30.5 ft., 29.5 ft., and 29.5 ft.

An oily/water separator has been ordered but is not yet on site.

Settling Pond:

Construction of the settling pond is complete. As noted in the inspection report of May 12, 1982 the pond is not impermeable. A boom consisting of oil absorbing material fastened to 2 X 4 studs floats in front of the culvert that discharges to Harrison Creek. No oil sheen was noticed in Harrison Creek downstream of the culverts although there was some oil on the surface of the settling pond.

Environmental Laboratory:

The building that will house the environmental and assay laboratories is completed and sits behind the mill. Loring Laboratories has advised Cadillac on the equipment required for the environmental laboratory. The equipment is currently on site.

Samples:

932-1 Water well W1
932-4 Settling pond discharge
932-6 Prairie Creek at the confluence of Galena Creek
932-7 Prairie Creek upstream of gravel wash area
Harrison Creek upstream of culverts
Seepage from behind tailings pond liner.

Adrian MacDonald,
Water Resource Officer

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
WATER RESOURCES DIVISION -- NORTHWEST TERRITORIES
REQUEST FOR AND RESULTS OF LABORATORY ANALYSIS

LICENSEE <i>SARVENS EXPLORATIONS</i>	LICENCE NO. <i>MSL3 932</i>	LOCATION <i>BRAND SPRING</i>
DATE SAMPLED <i>JUNE 16, 1982</i>	DATE RECEIVED <i>June 16, 1982</i>	DATE ANALYZED <i>June 28, 1982</i>

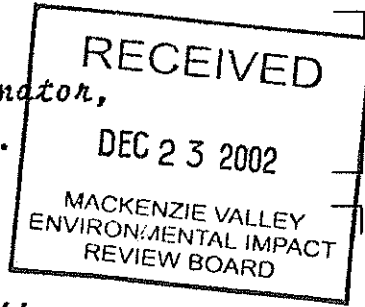
STATION NUMBER	932-4	932-6	932-7	932-8	932-1	932-11
LABORATORY NUMBER	20396	20397	20398	20399	20400	20401
TESTS REQUIRED	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
pH (units)	7.7	8.1	8.2	7.4	7.5	8.2
Sp. Cond. (umho/cm)	510	270	270	600	700	390
Dissolved Oxygen						
Turbidity (JTU)						
Colour (colour U.)						
Suspended Solids	22	71	45	19	26	14
TDS, Residue						
Oil & Grease						
Phenols						
Calcium	57.0	35.2	35.5	61.9	80.2	44.1
Magnesium	21.7	11.1	11.1	26.3	27.9	18.8
Tot. Hardness as CaCO ₃	230	130	130	260	310	190
Sodium	1.6	0.7	0.7	1.2	1.0	1.50
Potassium	0.9	0.3	0.3	1.9	0.6	0.5
Tot. Coliform (ent/100)						
Faecal Coli. (100)						
Faecal Strep (ml)						
BOD ₅						
COD						
Carbon, IC						
Carbon, TOC						
Total Cyanide						
Chloride						
Sulphate						
Sulphide						
Ammonia Nitrogen (as N)	0.48	<0.03	<0.03	2.2	<0.03	<0.03
Nitrite-Nitrate (as N)	1.2	0.14	0.12	0.60	0.19	0.27
Kjeldahl N						
Phosphorus O-P (as P)						
Phosphorus Tot. (P)	<0.05	<0.05	<0.05			
Silica Reac. as SiO ₂				0.41	<0.05	<0.05
Arsenic	T	<0.01	<0.01	<0.01	<0.01	<0.01
	D					
Cadmium	T	<0.01	<0.01	<0.01	<0.01	<0.01
	E					
Copper	T	0.01	<0.01	<0.01	0.01	0.11
	E					
Iron	T	0.33	0.39	0.25	0.26	0.41
	E					
Lead	T	0.12	<0.05	<0.05	<0.05	<0.05
	E					
Mercury	T (ug/l)	2.2				<0.01
	E (ug/l)					
Nickel	T	<0.05	<0.05	<0.05	<0.05	<0.05
	E					
	T	0.72	0.49	0.48	1.2	2.6
	E	<0.01	<0.01	<0.01		1.5

All results are expressed in mg/l except as indicated in brackets ()



TO
À

Dave Milburn,
Industrial Co-ordinator,
Yellowknife, N.W.T.



FROM
DE

Adrian MacDonald,
Water Resources Officer,
Fort Simpson, N.W.T.

SECURITY - CLASSIFICATION - DE SECURITE
OUR FILE/NOTRE REFERENCE
N3L3-0932
YOUR FILE/VOTRE REFERENCE
DATE
July 29, 1982

SUBJECT
OBJET

Re: Cadillac Inspection July 24, 1982

Please find enclosed my report for the inspection of Cadillac on July 24. The purpose of the trip was to pre-inspect Procan's exploration sites and access route. However, after landing at Cadillac, Reuben Fast wanted to show me a number of things and I decided to write a report. I was not prepared to do any sampling.

Slumping in the pond is more severe since the last inspection. It seems the two problems are the gravel fill sloughing off as its ice content melts and the liner is absorbing heat from direct sunshine and thawing the material underneath. With that liner stretched as it is and hollows underneath from the material slumping, will this section of panels be able to withstand the pressures to be exerted when the pond is filled?

As for the problem with the chemical storage area is it possible to get Cadillac to construct a building considering their financial shape? If Cadillac is to go into operation within the next year, and chances are good according to Mr. Fast, I would think twice about moving the reagents into the mill only to have them moved out again when construction begins. His idea of covering the area with tarps, etc. is less than ideal but considering the cyanide and xanthates are in drums and the $CuSO_4$ bagged and crated, it is a situation I could live with. The area would require barriers to restrict people and equipment. This all hinges



TO
A



FROM
DE

SECURITY - CLASSIFICATION - DE SÉCURITÉ
OUR FILE / NOTRE RÉFÉRENCE
YOUR FILE / VOTRE RÉFÉRENCE
DATE

SUBJECT
OBJET

Re: Cadillac Inspection July 24, 1982

must come up with something permanent within a specified period of time, regardless of the mine's future.

Regarding the stock pile, if Cadillac had the resources to put it through the mill, this would not be a problem in the first place. As for putting it in underground you could have problems with your minewater which is going to the pond and the pond may require draining to repair the liner. I would also like to hear the opinions of others, who know more of mining, on attempting to put the stockpile back in the ground.

Finally, Mr. Fast was under the impression that Cadillac had purchased their waste treatment plant. Have you had any information on that?

Regards,

Adrian MacDonal,
Water Resources Officer

INSPECTION REPORT

ON

CADILLAC EXPLORATIONS LIMITED
PRAIRIE CREEK MINESITE

JULY 24, 1982

BY

ADRIAN MACDONALD
INSPECTOR UNDER THE NORTHERN INLAND WATERS ACT
NORTHERN AFFAIRS PROGRAM
DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
FORT SIMPSON, N.W.T.

DATE: July 28, 1982

WATER REGISTER: N3L3-0932

INSPECTION REPORT - CADILLAC EXPLORATIONS LIMITED
PRAIRIE CREEK MINESITE

N3L3-0932

Introduction:

On July 24, 1982 Mr. Adrian MacDonald, Water Resource Officer, Fort Simpson and Inspector under the Northern Inland Waters Act accompanied Mr. Bernie Gauthier, District Manager Northern Affairs Program, Fort Simpson and Allan Nixon, Assistant Resource Management Officer, Fort Simpson to Prairie Creek to conduct a pre-inspection of ProCan Exploration Company's activities in the Prairie Creek area. Procan's base camp is at Cadillac's minesite and while there, Mr. MacDonald conducted an inspection of the minesite and met with Mr. Reuben Fast, Field Superintendent of Cadillac.

Discussion and Observations:

General Discussion

At the time of the inspection, there were 9 people on site, 4 Cadillac personnel and 5 Procan personnel. A general cleanup of the property is ongoing as well as preparation for winter. Approximately 3 weeks of clean-up activities remain.

Tailings Containment Area:

The inspector and Mr. Fast walked along the dykes of the tailings pond to observe any slumping that has occurred since the last inspection. The problem is now more extensive and most of the clay core section with gravel cover has experienced some degree of slumping. Work on this

CADILLAC EXPLORATIONS LIMITED
PRAIRIE CREEK MINESITE
N3L3-0932
JULY 24, 1982

section was attempted the previous day however the gravel material was still not dry and would not support the weight of heavy equipment.

The slumping beneath panel 'C' on the back slope of the pond was more evident than it had been at the time of the last inspection. The material that slumped has collected towards the bottom of the hypalon liner and has forced the liner to stretch. A toe berm has been placed at the base of the slumping area to prevent further movement and stretching of the liner. Access to this area was provided by constructing a berm from the west end of the tailings pond along the toe of panels 'A' and 'B'.

The problems with slumping and with the liner at panel 'E' were discussed. Mr. Fast felt this area was responsible for the majority of any seepage from the pond.

The problems with slumping was restricted to the inside walls of the dykes. The outside wall of the dyke exposed to Prairie-Creek remained intact.

Mr. Fast expressed concern over the future of the drainage system behind the liner on the back slope. If the system is not protected in some way it may be damaged by freezing temperatures this winter.

Some road work has been carried out above the existing road along the back slope. During this work, parts of the drainage ditch were filled in. Cadillac intends to repair the damage done to the drainage ditch.

CADILLAC EXPLORATIONS LIMITED
PRAIRIE CREEK MINESITE
N3L3-0932
JULY 24, 1982

Chemical Storage Area:

The future of this area was discussed. Cadillac feels the construction of a building for the storage of these milling reagents is not likely until the mine is ready to go back into operation. Their alternatives, they feel, are to store the reagents in the mill, or the present area can be cleaned up, covered, tied down, and barriers erected to restrict access. The fact that the reagents, if stored in the mill, would have to be moved again when the mine re-opens was mentioned as was the risk of moving these chemicals back and forth.

Settling Pond:

An oil sheen was noticed on the settling pond at the time of the inspection. There was no oil absorbent boom in place at the culvert discharging to Harrison Creek when the inspection began. Later in the day, a boom had been put in place.

The source of the oil in the pond was determined to be the powerhouse. The sump had been pumped the previous day and the oil contaminated water was discharged in front of the mill to a small spring fed stream that leads to the settling pond. There is a tank on site that shall be used in future to separate the oil from the water discharged from the powerhouse sump.

CADILLAC EXPLORATIONS LIMITED
PRAIRIE CREEK MINESITE
N3L3-0932
JULY 24, 1982

The oil absorbent boom that is usually in place in front of the culvert had been removed the previous day as it needed replacement. There are now to be two absorbent booms in front of the culvert so one can be replaced without oil escaping.

Adrian MacDonald,
Inspector under the Northern
Inland Waters Act

AM/fm

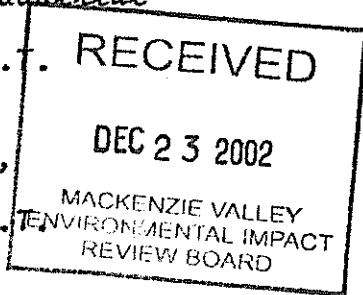


TO
À

Dave Milburn,
Co-ordinator, Industrial
Water Resources,
Yellowknife, N.W.T.

FROM
DE

Adrian MacDonald,
W.R.O.,
Fort Simpson, N.W.T.



SECURITY - CLASSIFICATION - DE SECURITE	
OUR FILE / NOTRE REFERENCE	
N3L3-0932	
YOUR FILE / VOTRE REFERENCE	
DATE	
Sept 1/82	

SUBJECT
OBJET

Re: Cadillac Inspection

As discussed with you August 31, 1982, my concerns raised during this inspection are:

1. Panel "E" - is the water escaping from behind the liner remaining in the pond?
2. Reuben Fast's comment that run off during a rainstorm will be too much for the sealed settling pond to handle.
3. According to W.S.C. staff here in Simpson, the Prairie Creek station is not operated from mid December to the end of March.
4. Is ice puncturing the hypalon liner a possibility?
5. I don't feel the sewage treatment plant will operate properly with 3 or 4 people on site. I am reluctant to accept the fact there will be that number of people this winter. If the road is given the O.K., there could be a construction crew in camp. If metal prices improve, crews could be moved in. The plant has yet to operate satisfactorily and meeting licence limits may be difficult.

Regards,

INSPECTION REPORT
ON
CADILLAC EXPLORATIONS LIMITED
PRAIRIE CREEK MINESITE

AUGUST 27, 1982

BY

ADRIAN MACDONALD
INSPECTOR UNDER THE NORTHERN INLAND WATERS ACT
NORTHERN AFFAIRS PROGRAM
DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
FORT SIMPSON, N.W.T.

DATE: SEPTEMBER 1, 1982

WATER REGISTER: N3L3-0932

INSPECTION REPORT - CADILLAC EXPLORATIONS LIMITED

PRAIRIE CREEK MINESITE

N3L3-0932

Introduction

On August 27, 1982, Mr. Adrian MacDonald, Water Resource Officer, Fort Simpson and Inspector under the Northern Inland Waters Act travelled to the Prairie Creek minesite of Cadillac Explorations Limited. Mr. MacDonald conducted an inspection of the minesite and met with Mr. Reuben Fast, Field Superintendent for Cadillac to discuss developments at Prairie Creek.

Discussion and Observations

General Discussion:

At the time of the inspection, there were 6 people on site. Work is continuing on preparing for winter.

Tailings Containment Area:

The Inspector discussed with Mr. Fast the work to be done on the tailings pond. Cadillac intends to follow the recommendations of Golder Associates as outlined in their letter to Cadillac dated July 27, 1982. At the west end of panel "C" the liner is to be cut, fill placed in the area where slumping has occurred and the liner then re-sealed. When questioned about the repairs required at panel "E", Mr. Fast stated he was under the impression that this dyke had a clay liner so water escaping behind the hypalon liner was not a problem. He also stated he was not on the property when that dyke was built so he was unable to say if the dyke was built as designed. Mr. Fast felt the work required to repair the pond could be completed early enough to avoid problems working with frozen fill.

Cadillac would like to fill the pond this fall to prevent frost damage to the backslope drainage pipe. They would also like to discontinue discharging the domestic camp waste to the tailings pond in order to avoid problems with freezing lines and ice build-up this winter.

It was noted if the tailings pond is to be filled this fall, Cadillac would require the industrial waste treatment system to be in operation soon after production commenced. Mr. Fast thought this would be no problem as the system to be used has been selected and could be in operation in time. The possibility of ice damage to the hypalon liner was also discussed.

Plastic which had been used above panel "E" to prevent water from entering the dyke is no longer in place. The plastic prevented the dyke from drying out and it was difficult to hold down under windy conditions. A ditch on the slope above the road has been constructed to divert water away from the backslope of the tailings pond. Pumping from the collection sump was continuing and the discharge was estimated to be 0.45 m^3 per minute (100 gpm). The condition of the embankment with the clay core remains as was noted during the inspection of July 24, 1982.

Settling Pond:

Samples taken during previous inspections have had levels of contaminants in excess of Cadillac's licence limits. The stockpile of ore has been suggested as the source of some of these contaminants. To determine if that is the case, samples of all waters discharging to the pond were taken.

Cadillac Exploration Limited

N3L3-0932

Discussing the permeability of the settling pond, Mr. Fast informed the inspector that the pond was situated on a bed of clay. However he was not sure whether the dykes had been constructed with a clay liner. It is noted in the inspection report of May 12, 1982 that the settling pond is not clay lined.

Mr. Fast commented that if the settling pond was to be made impermeable and run off pumped to the tailings pond, then the settling pond would be unable to accommodate run-off from heavy rainfalls.

The two oil absorbent booms as promised in the last inspection are now in place.

Chemical Storage Area:

Clean-up of the chemical storage has begun. Further clean up is planned. A re-inforced tarp has been ordered to cover this area. Cadillac understands this is a temporary solution and a permanent arrangement is required before production begins.

Minewater:

At the time of the inspection, minewater was flowing from the 2848' portal. The flow was estimated to be 0.1 m^3 per minute (20 gpm). Rainfall causes water levels in the mine to raise faster than it can be pumped to the tailings pond. The water leaving the portal joins a drainage ditch which leads to the settling pond.

Domestic Camp Waste:

As mentioned above, Cadillac would like to discharge their domestic camp waste to Prairie Creek this winter. There will be three or four people on site and the sewage will pass through the sewage treatment plant.

Piezometers:

Information on piezometer locations and depths was provided. The depths of the piezometers ranged from 34 to 42.5 feet. Mr. Fast determined piezometric water levels last month and found only one or two feet of water in each well. Because of the depths involved it will only be possible to sample these piezometers if the equipment for nitrogen lifting has been installed and the necessary sampling equipment is available. Piezometer number 6 has apparently filled with clay and is unserviceable. Mr. Fast was not certain a piezometer behind panel "E", as recommended by Golder Associates, is to be installed.

Aquifer Pumping Test:

The results of the aquifer test were requested to be forwarded to the Controller of Water Rights.

Fuel Storage Area:

The condition of the fuel storage area is now satisfactory.

Cadillac Explorations Limited

N3L3-0932

Samples:

932 - 1

932 - 4

932 - 6

932 - 7

932 - 9

Water Well W2

Minewater at portal 2848'

Tailings pond at reclaim line

Tailings pond at panel "C"

Tailings pond at west end

Harrisson Creek

Site drainage ditch

Seepage under mill

Adrian MacDonald

Inspector under the Northern

Inland Waters Act

Sent to
Adrian McDonald
WRO
Fut Simpson

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
WATER RESOURCES DIVISION -- NORTHWEST TERRITORIES
REQUEST FOR AND RESULTS OF LABORATORY ANALYSIS

LICENSEE <i>Cadillac Explor. Ltd.</i>		LICENCE NO. <i>11323-0932</i>			LOCATION <i>Peavie Creek</i>		
DATE SAMPLED <i>August 27/82</i>		DATE RECEIVED <i>Aug 30, 1982</i>			DATE ANALYZED <i>Sept. 23, '82</i>		
STATION NUMBER	T. Pond @ reclaim	T. pond @ panel 'c'	T. pond @ west end	Mine water @ portal	upstream Harrison Ch.	Site Drainage Ditch	
LABORATORY NUMBER	21632	21633	21634	21635	21636	21637	
ANALYSIS REQUIRED	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
pH (units)	<input checked="" type="checkbox"/> 8.4						
Sp. Cond. (umho/cm)	<input checked="" type="checkbox"/> 500			<input checked="" type="checkbox"/> 7.8			
Dissolved Oxygen				<input checked="" type="checkbox"/> 800			
Turbidity (JTU)							
Colour (colour U.)							
Suspended Solids	<input checked="" type="checkbox"/> 6.4						
TDS, Residue				<input checked="" type="checkbox"/> 15			
Oil & Grease							
Phenols							
Calcium	<input checked="" type="checkbox"/> 38.9				<input checked="" type="checkbox"/> 94.3		
Magnesium	<input checked="" type="checkbox"/> 33				<input checked="" type="checkbox"/> 49		
Tot. Hardness [as]	<input checked="" type="checkbox"/> 250				<input checked="" type="checkbox"/> 440		
Tot. Alkalinity [CaCO ₃]	<input checked="" type="checkbox"/> 110				<input checked="" type="checkbox"/> 250		
Sodium							
Potassium							
Tot. Coliform [cnt/100 ml]							
Faecal Coli. [100 ml]							
Faecal Strep. [ml]							
BOD ₅							
COD							
Carbon, IC							
Carbon, TOC							
Total Cyanide							
Chloride							
Sulphate							
Sulphide							
Ammonia Nitrogen [as N]	<input checked="" type="checkbox"/> <0.05	<input checked="" type="checkbox"/> <0.05	<input checked="" type="checkbox"/> <0.05	<input checked="" type="checkbox"/> 0.88		<input checked="" type="checkbox"/> 0.07	
Nitrate-Nitrite [N]	<input checked="" type="checkbox"/> 0.09	<input checked="" type="checkbox"/> 0.10	<input checked="" type="checkbox"/> 0.07	<input checked="" type="checkbox"/> 1.0		<input checked="" type="checkbox"/> 1.7	
Total Kjeldahl N [N]							
Phosphorus O-P [as P]							
Phosphorus Tot. [P]	<input checked="" type="checkbox"/> 0.12	<input checked="" type="checkbox"/> 0.08	<input checked="" type="checkbox"/> 0.08	<input checked="" type="checkbox"/> <0.05		<input checked="" type="checkbox"/> <0.05	
Silica React. as SiO ₂							
Arsenic	T						
	D						
Cadmium	T	<input checked="" type="checkbox"/> 0.0005	<input checked="" type="checkbox"/> 0.0005	<input checked="" type="checkbox"/> 0.0004	<input checked="" type="checkbox"/> 0.0980	<input checked="" type="checkbox"/> <0.0001	
	E					<input checked="" type="checkbox"/> <0.0001	
Copper	T	<input checked="" type="checkbox"/> 0.001	<input checked="" type="checkbox"/> 0.001	<input checked="" type="checkbox"/> 0.001	<input checked="" type="checkbox"/> 0.011	<input checked="" type="checkbox"/> <0.001	
	E					<input checked="" type="checkbox"/> <0.001	
Iron	T						
	E						
Lead	T	<input checked="" type="checkbox"/> <0.002	<input checked="" type="checkbox"/> <0.002	<input checked="" type="checkbox"/> <0.002	<input checked="" type="checkbox"/> 0.013	<input checked="" type="checkbox"/> <0.002	
	E					<input checked="" type="checkbox"/> 0.004	
Mercury	T (µg/l)	<input checked="" type="checkbox"/> 0.35	<input checked="" type="checkbox"/> 0.32	<input checked="" type="checkbox"/> 0.14	<input checked="" type="checkbox"/> 0.28	<input checked="" type="checkbox"/> <0.01	
	E (µg/l)					<input checked="" type="checkbox"/> 0.13	
Nickel	T	<input checked="" type="checkbox"/> 0.001	<input checked="" type="checkbox"/> 0.001	<input checked="" type="checkbox"/> 0.001	<input checked="" type="checkbox"/> 0.005	<input checked="" type="checkbox"/> <0.001	
	E					<input checked="" type="checkbox"/> 0.001	
Zinc	T	<input checked="" type="checkbox"/> 0.35	<input checked="" type="checkbox"/> 0.35	<input checked="" type="checkbox"/> 0.32	<input checked="" type="checkbox"/> 7.3	<input checked="" type="checkbox"/> 0.07	
	E					<input checked="" type="checkbox"/> 0.51	
Mercury (T) Dupl.				0.19	0.42		

All results are expressed in mg/l except as indicated in brackets ().
O-P = ortho phosphate; TDS = total dissolved solids and is the filterable residue; dried at 105°C; T = Total; E = Extractable; D = Dissolved;
IC = Inorganic carbon; TOC = total organic carbon.

Sent to:
 Adrian Mac Donald
 WRO
 Fort Simpson

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
WATER RESOURCES DIVISION -- NORTHWEST TERRITORIES
REQUEST FOR AND RESULTS OF LABORATORY ANALYSIS

LICENSEE <i>Cadillac Explor. Ltd.</i>	LICENCE NO. <i>N313-0932</i>	LOCATION <i>Prairie Creek</i>
DATE SAMPLED <i>August 27/82</i>	DATE RECEIVED <i>Aug 30, 1982</i>	DATE ANALYZED <i>Sept. 23, '82</i>

STATION NUMBER	<i>see page number mill</i>						
LABORATORY NUMBER	<i>21638</i>						
ANALYSIS REQUIRED	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

pH (units)							
Sp. Cond. (umho/cm)							
Dissolved Oxygen							
Turbidity (JTU)							
Colour (colour U.)							
Suspended Solids							
TDS, Residue							
Oil & Grease							
Phenols							

Calcium							
Magnesium							
Tot. Hardness [as							
Tot. Alkalinity CaCO3							
Sodium							
Potassium							

Tot. Coliform [cnt/							
Faecal Coli. 100							
Faecal Strep. ml							

BOD5							
COD							
Carbon, IC							
Carbon, TOC							

Total Cyanide							
Chloride							
Sulphate							
Sulphide							

Ammonia Nitrogen [as	<input checked="" type="checkbox"/>	<i><0.05</i>					
Nitrate-Nitrite [N	<input checked="" type="checkbox"/>	<i>0.43</i>					
Total Kjeldahl N							
Phosphorus O-P [as							
Phosphorus Tot. [P	<input checked="" type="checkbox"/>	<i><0.05</i>					
Silica React. as SiO2							

Arsenic	T						
	D						
Cadmium	T	<input checked="" type="checkbox"/>	<i>0.0001</i>				
	E						
Copper	T	<input checked="" type="checkbox"/>	<i>0.002</i>				
	E						
Iron	T						
	E						
Lead	T	<input checked="" type="checkbox"/>	<i>0.008</i>				
	E						
Mercury	T (ug/l)	<input checked="" type="checkbox"/>	<i>0.07</i>				
	E (ug/l)						
Nickel	T	<input checked="" type="checkbox"/>	<i><0.001</i>				
	E						
Zinc	T	<input checked="" type="checkbox"/>	<i>0.40</i>				
	E						

All results are expressed in mg/l except as indicated in brackets ().
 O-P = ortho phosphate; TDS = total dissolved solids and is the filterable residue, dried at 105C; T = Total; E = Extractable; D = Dissolved

Sent to:
 Adrian MacDonald
 WRO
 Fort Simpson

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
WATER RESOURCES DIVISION -- NORTHWEST TERRITORIES
REQUEST FOR AND RESULTS OF LABORATORY ANALYSIS

LICENSEE <i>Cadillac Explorations</i>	LICENCE NO. <i>N323-2432</i>	LOCATION <i>Prairie Creek</i>
DATE SAMPLED <i>August 27, 1982</i>	DATE RECEIVED <i>Aug 30, 1982</i>	DATE ANALYZED <i>Sept 23, '82</i>

STATION NUMBER	<i>932-1</i> ✓	<i>water well W2</i> ✓	<i>932-4</i> ✓	<i>932-6</i> ✓	<i>932-7</i> ✓	<i>932-9</i> ✓
LABORATORY NUMBER	<i>21626</i>	<i>21627</i>	<i>21628</i>	<i>21629</i>	<i>21630</i>	<i>21631</i>
ANALYSIS REQUIRED	✓	✓	✓	✓	✓	✓

pH (units)	✓ <i>7.5</i>		✓ <i>7.8</i>	✓ <i>8.3</i>	✓ <i>8.3</i>	✓ <i>8.1</i>
Sp. Cond. (umho/cm)	✓ <i>770</i>		✓ <i>570</i>	✓ <i>370</i>	✓ <i>360</i>	✓ <i>510</i>
Dissolved Oxygen						
Turbidity (JTU)						
Colour (colour U.)						
Suspended Solids	✓ <i><5</i>		✓ <i><5</i>	✓ <i><5</i>	✓ <i><5</i>	✓ <i>8.3</i>
TDS, Residue						
Oil & Grease						
Phenols						

Calcium	✓ <i>87.3</i>		✓ <i>72.4</i>	✓ <i>51.6</i>	✓ <i>50.4</i>	✓ <i>43.7</i>
Magnesium	✓ <i>47.</i>		✓ <i>36.</i>	✓ <i>20.</i>	✓ <i>19.</i>	✓ <i>38.</i>
Tot. Hardness [as CaCO ₃]	✓ <i>410.</i>		✓ <i>330.</i>	✓ <i>210.</i>	✓ <i>200.</i>	✓ <i>270.</i>
Sodium	✓ <i>290</i>		✓ <i>310</i>	✓ <i>170</i>	✓ <i>170</i>	✓ <i>120</i>
Potassium						

Tot. Coliform [cnt/100ml]						
Faecal Coli. [100ml]						
Faecal Strep. [ml]						

ROD5						
COD						
Carbon, IC						
Carbon, TOC						

Total Cyanide						
Chloride						
Sulphate						
Sulphide						

Ammonia Nitrogen [as N]	✓ <i><0.05</i>	✓ <i><0.05</i>	✓ <i>0.06.</i>	✓ <i><0.05</i>	✓ <i><0.05</i>	✓ <i>0.18.</i>
Nitrate-Nitrite [N]	✓ <i>0.21</i>	✓ <i>1.3</i>	✓ <i>0.70</i>	✓ <i>0.16</i>	✓ <i>0.15</i>	✓ <i>0.18.</i>
Total Kjeldahl N [N]						
Phosphorus O-P [as P]						
Phosphorus Tot. [P]	✓ <i><0.05</i>	✓ <i><0.05</i>	✓ <i><0.05</i>	✓ <i><0.05</i>	✓ <i><0.05</i>	✓ <i>0.10.</i>
Silica Reac. as SiO ₂						

Arsenic	T				✓ <i><0.001</i>	✓ <i><0.001</i>
	D					
Cadmium	T	✓ <i><0.0001</i>	✓ <i><0.0001</i>	✓ <i><0.0001</i>	✓ <i><0.0001</i>	✓ <i><0.0001</i>
	E					✓ <i>0.0005</i>
Copper	T	✓ <i><0.001</i>	✓ <i>0.001</i>	✓ <i><0.001</i>	✓ <i><0.001</i>	✓ <i><0.001</i>
	E					✓ <i>0.002</i>
Iron	T					
	E					
Lead	T	✓ <i><0.002</i>	✓ <i><0.002</i>	✓ <i>0.004</i>	✓ <i><0.002</i>	✓ <i><0.002</i>
	E					✓ <i>0.005</i>
Mercury	T (ug/l)	✓ <i><0.01</i>	✓ <i><0.01</i>	✓ <i>0.01</i>	✓ <i><0.01</i>	✓ <i><0.01</i>
	E (ug/l)					✓ <i>0.35</i>
Nickel	T	✓ <i><0.001</i>	✓ <i>0.002</i>	✓ <i><0.001</i>	✓ <i><0.001</i>	✓ <i><0.001</i>
	E					✓ <i>0.002</i>
Zinc	T	✓ <i>0.06</i>	✓ <i>0.11</i>	✓ <i>0.24</i>	✓ <i>0.05</i>	✓ <i>0.02</i>
	E					✓ <i>0.54</i>

Mercury (T) [ug/l]	<i><0.01</i>		<i><0.01</i>	<i><0.01</i>	<i><0.01</i>	

All results are expressed in mg/l except as indicated in brackets ().
 O-P = ortho phosphate; TDS = total dissolved solids and is the filterable residue, dried at 105C; T = Total; E = Extractable; D = Dissolved

MEMORANDUM NOTE DE SERVICE

TO: Adrian MacDonald
Water Resources Officer
D.I.A.N.D.
Fort Simpson, N.W.T.

FROM: David Milburn
Regional Coordinator
Inland Waters
Yellowknife, N.W.T.

RECEIVED
DEC 23 2002
MACKENZIE VALLEY
ENVIRONMENTAL IMPACT
REVIEW BOARD

SECURITY - CLASSIFICATION - DE SÉCURITÉ
OUR FILE -- N / RÉFÉRENCE
N3L3-0932
YOUR FILE -- N / RÉFÉRENCE
DATE
April 11, 1983

SUBJECT: Cadillac Explorations Limited, Prairie Creek, N.W.T.
OBJET

Thank you for your letter of March 25, 1983 outlining your findings at Cadillac on February 22, 1983. I concur with your decision not to file a formal inspection report considering that you were on site for only two hours. It appears from your letter, that the concerns of Water Resources expressed to the company in September 1982 have not been dealt with in an acceptable manner.

The attitude taken by the company is very discouraging and it appears as if they rely on "financial problems" as an excuse for not carrying out work of a preventative nature. With respect to your questions of non compliance of Part C, Item 5 (b), and the anticipated non compliance of Part C, Item 5 (c) and Part F, Section 1, I have recently reviewed a letter from the company to Scott ^{that} addresses the issued of non compliance. The company states that the licence is not valid until the security deposit is filed and as we are aware, it has been filed. I'll discuss this issue with Scott and Andy to determine a course of action to follow with the company. In the meantime, I suggest that you plan a rigorous inspection at Prairie Creek in the near future to fully document the present operations of Cadillac Explorations Limited. It would be appreciated if you could keep me advised of any further information regarding this matter.

Thanks

RECEIVED
Northern Affairs Program
APR 18 1983
D. I. A. N. D.
FORT SIMPSON, N.W.T.

David Milburn
David Milburn



TO
À

Dave Milburn
Regional Coordinator: Industrial
Water Resources
Yellowknife

FROM
DE

Adrian MacDonald
WRO
Fort Simpson

RECEIVED
DEC 23 2002
MACKENZIE VALLEY
ENVIRONMENTAL IMPACT
REVIEW BOARD

SECURITY - CLASSIFICATION - DE SÉCURITÉ
OUR FILE - N/RÉFÉRENCE N3L3-0932, N3L3-1196 YOUR FILE - V/RÉFÉRENCE
DATE March 25, 1983

SUBJECT
OBJET

Cadillac Inspection February 22, 1983

After completion of the February 22 inspection of Can Tung I travelled to Prairie Creek. Although I conducted an inspection of the Cadillac minesite I have decided not to file a formal report. I was ill-prepared for the Cadillac inspection as the trip to Tungsten and Prairie Creek was planned with little prior notice. Also I was able to spend only two hours at Cadillac after the Can Tung inspection. You may consider this a informal report.

A crew of three men have spent the winter months at Prairie Creek. It seems the only activity during winter has been maintenance.

Little or no additional water has been pumped to the tailings pond. Authorization N3L7-1196 was issued to Cadillac so the pond could be pre-filled and the backslope drainage system protected. Mr. John Vincent has been in charge of the camp since November when Reuban Fast left and was unable to explain why the pond was not filled.

The liner near the top of Panel 'C' appears to have torn. Snow cover prevented close examination. Perhaps the tear is the reason the pond was not filled.

Analytical results from the August 27 inspection confirm the collection basin behind the liner is collecting pond water and not groundwater. They also indicate the minewater, which is pumped to the tailings pond, is heavily contaminated with zinc (7.3 mg/L). During high periods of flow the pump cannot handle the volume of minewater and the excess finds its way to the settling pond. It would appear the minewater and not the stockpile is the major source of contaminants found in the settling pond.

The sewage line to the tailings pond has been disconnected and I was informed the sewage is being discharged to Prairie Creek after leaving the treatment plant. The plant is operated only a few minutes a day and only to prevent sludge build-up. I recall from an earlier inspection the line from the sewage plant was broken or buried when the dyke along Prairie Creek was ripped. ASSI did not inspect the plant I am uncertain of the exact discharge point. I also did not know if Cadillac had received approval from the board to discharge their sewage to the river.

The chemical storage area is in the same condition as noted in my inspection reports of July and August. The promised tarp and barriers are not in place.

No further work on the settling pond has been performed. There was no flow from the pond and no flow in Harrison Creek.



Government
of Canada

Gouvernement
du Canada

MEMORANDUM

NOTE DE SERVICE

TO
À **Dave Milburn**

FROM
DE **Adrian MacDonald**

SUBJECT
OBJET **Cadillac Inspection February 22, 1983**

SECURITY-CLASSIFICATION-DE SÉCURITÉ
OUR FILE - N/RÉFÉRENCE
W313-932, W347-1196
YOUR FILE - V/RÉFÉRENCE
DATE
March 25, 1983

What action is to be taken regarding Cadillac non-compliance with Part C section 5 (b) and expected non-compliance with Part C section 5(c) and Part F section 1 of their licence?

Adrian MacDonald
Water Resource Officer

RESULTS OF LABORATORY ANALYSIS

LICENSEE/ PROJECT <i>Cadillac</i>		LICENCE NUMBER <i>N343-0932</i>		LOCATION <i>Prairie Creek</i>	
DATE SAMPLED <i>Feb 22/83</i>		DATE RECEIVED <i>Feb 25, 1983</i>		DATE COMPLETED <i>March 10, 83</i>	
STATION NUMBER <i>932-6</i>					
LABORATORY NUMBER <i>30110</i>					
ANALYSIS REQUIRED		✓	✓	✓	✓
pH (units)	<i>7.9</i>				
Conductivity (µmho/cm)	<i>500</i>				
Dissolved Oxygen					
Turbidity (NTU)					
Colour (colour U.)					
Suspended Solids	<i><5.</i>				
TDS, Residue					
Calcium	<i>65.05</i>				
Magnesium	<i>24.18</i>				
Tot. Hardness (CaCO ₃)	<i>262.</i>				
Tot. Alkalinity (CaCO ₃)	<i>210.</i>				
Sodium	<i>2.58</i>				
Potassium	<i>0.41</i>				
Chloride	<i>0.5</i>				
Sulphate	<i>65.</i>				
Total Coliform (count)					
Fecal Coli. (100)					
Fecal Strep. (ml)					
Std. Plate Cnt (cnt/ml)					
BOD ₅					
COD					
Carbon. IC					
Carbon, TOC					
Ammonia Nitrogen (as N)	<i><0.04</i>				
Nitrate + Nitrite (N)	<i>0.22</i>				
Total Kjeldahl N					
Phosphorus O-P (as P)					
Phosphorus Tot (P)	<i><0.05</i>				
Silica Reac. (as SiO ₂)					
Total Cyanide					
Available Cyanide					
Sulphide					
Oil & Grease					
Phenols					
Arsenic	T (µg/L)	✓	<i><2.0</i>		
	D (µg/L)				
Cadmium	T (µg/L)	✓	<i><0.1</i>		
	D (µg/L)				
Copper	T (µg/L)	✓	<i><0.5</i>		
	D (µg/L)				
Iron	T (µg/L)	✓	<i>28.</i>		
	D (µg/L)				
Lead	T (µg/L)	✓	<i><0.5</i>		
	D (µg/L)				
Mercury	T (µg/L)	✓	<i>0.05</i>		
	D (µg/L) DUP	✓	<i>0.03</i>		
Nickel	T (µg/L)	✓	<i><1.0</i>		
	D (µg/L)				
Zinc	T (µg/L)	✓	<i><5.0</i>		
	D (µg/L)				
Chromium	T (µg/L)	✓	<i>1.0</i>		
	D (µg/L)				

RECEIVED
 Northern Affairs Program
 MAR 18 1983
 D. I. A. I.
 FORT - V.T.

Results are expressed in mg/L, except as indicated. T and D refer to

WATER RESOURCES DIVISION, YELLOWKNIFE, NORTHWEST TERRITORIES

FIELD SAMPLING AND DATA

LICENSEE/PROJECT <i>CADILLAC</i>	LICENCE NO. <i>N343-0932</i>	LOCATION <i>PRAIRIE CREEK</i>
DATE SAMPLED <i>FEB. 22/83</i>	SAMPLED BY <i>A. MacDonald</i>	

ANALYSIS	SAMPLE VOLUME	PRESERVATIVE	STATION NUMBER			
			BOTTLE NUMBER			

MISC. & ARSENIC	1 LITRE	NONE	<i>3</i>				
HEAVY METALS	500 ML	2 ML 1:1 HNO ₃	<i>1</i>				
CYANIDE	500 ML	About 6 pellets NaOH to pH 12					
MERCURY	250 ML	2 ML 1:1 HNO ₃ + 2 ML 5% K ₂ Cr ₂ O ₇	<i>2,9</i>				
NUTRIENTS	250 ML	NONE	<i>11</i>				
BACTERIA	500 ML	NONE					
OIL AND GREASE	1 LITRE (GLASS)	4 ML 1:1 H ₂ SO ₄					

Time of Sampling	<i>14:30</i>						
Air Temperature							
Water Temperature							
Rate of Flow							
Ice Thickness							
Depth of Sampling							
pH							
Conductivity							
Dissolved Oxygen							

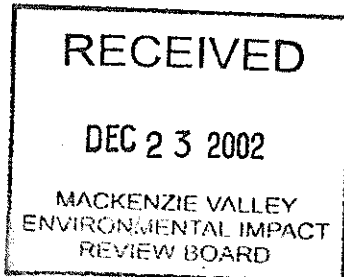


TO
A

Dave Milburn,
Regional Co-ordinator, Industrial,
Water Resources, Yellowknife

FROM
DE

Adrian MacDonald,
W.R.O.,
Fort Simpson, N.W.T.



SECURITY - CLASSIFICATION - DE SÉCURITÉ
OUR FILE/NOTRE RÉFÉRENCE N3L3-0932
YOUR FILE/VOTRE RÉFÉRENCE
DATE June 03, 1983

SUBJECT
OBJET

Re: Cadillac Inspection May 05, 1983

The following are problems at the Prairie Creek minesite that will require attention regardless of future mine activities:

1. Cadillac's authorization for camp use, N3A4-0873, expired December 10, 1982. Procan, if they take over the property, will require authorization.
2. The condition of the chemical storage area is unacceptable. A permanent solution must be found before next fall.
3. The minewater during periods of high, surface run-off will remain a problem. The sample I took last August was low in suspended solids yet contained zinc at 7.3 ppm.
4. The PCB spill will require further sampling. I shall need some direction, if I am to carry it out.
5. Sampling around the ore stock pile is necessary.

When and if the mine is to go into production, the numerous problems of the tailings pond will have to be addressed. The synthetic liner, as you know, is a disaster and the stability of the backslope requires monitoring. I also feel the existence and integrity of the 11 foot thick clay liner should not be taken for granted.

Regards,

Adrian

INSPECTION REPORT

ON

CADILLAC EXPLORATIONS LIMITED

PRAIRIE CREEK MINESITE

MAY 05, 1983

BY

ADRIAN MACDONALD

INSPECTOR UNDER THE NORTHERN INLAND WATERS ACT

NORTHERN AFFAIRS PROGRAM

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

FORT SIMPSON, N.W.T.

DATE: JUNE 03, 1983

WATER REGISTER: N3L3-0932

INSPECTION REPORT - CADILLAC EXPLORATIONS LIMITED
PRAIRIE CREEK MINESITE

N3L3-0932

INTRODUCTION:

On Thursday, May 5, 1983, Adrian MacDonald, Water Resource Officer, Fort Simpson, and Nick Galan, Resource Management Officer, Fort Simpson, conducted an inspection of the Cadillac Explorations Limited Minesite on Prairie Creek. While on site, Mssrs. MacDonald and Galan met with Mr. John Vincent and Mr. Stephen Fast. Mssrs. Vincent and Fast are caretakers employed by Cadillac.

GENERAL:

Cadillac Explorations Limited was placed in receivership in March of 1983. Terms of the receivership allowed the company to reach an agreement with their creditors. The week following the inspection, it was learned no agreement had been reached and Cadillac had been declared bankrupt.

A crew of two to four men have remained in camp during the winter. Activity has been minimal. The two caretakers are currently the only two people on site.

OBSERVATIONS & DISCUSSIONS

Fuel Storage Area (Photo 1):

The condition of the fuel storage area remains satisfactory. Meltwater collecting in the berm area is pumped directly to Harrison Creek. Only minor amounts of fuel were evident on the surface of the meltwater. Pumping is terminated before the fuel contaminated water is discharged.

...../2

Settling Pond (Photo 2):

No work has been carried out on the settling pond. At the time of the inspection, there was no discharge from the pond to Harrison Creek. The oil absorbent booms in front of the floodgate were in place. Mr. Fast agreed to changing the booms when ice conditions allow.

Minewater:

The minewater continues to be pumped to the tailings pond. As has been noted previously, the pump cannot accomodate all minewater during periods of high flow.

Ore Storage Area (Photo 2):

The promised reinforced polyethylene cover for the ore storage area is not in place.

Chemical Storage Area (Photos 3,4, & 5):

Little or no work has been performed at this site since the inspection of August 27, 1982. The promised barriers and protective covering have not been installed. Some of the metal drums have begun to corrode. There still exists numerous broken bags of soda ash and lime.

PCB Spill Site (Photo 6):

This site remains barricaded and covered with polyethylene. The inspectors informed Mssrs. Vincent and Fast that additional clean-up may be required and the site should remain barricaded and covered until further notice.

Domestic Camp Waste:

The line from the sewage treatment plant to the tailings pond froze last fall. Since that time, sewage has been discharged through the pipe leading to Prairie Creek. When the dyke adjacent to Prairie Creek was ripped, the end of this pipe was covered. Consequently, sewage trickles from the dyke into the river. There was no ice buildup at the point of discharge.

-3-

CADILLAC EXPLORATIONS

N3L3-0932

Domestic Camp Waste (Cont'd):

The sewage treatment plant is operated only for a few minutes each day and only to prevent sludge build-up.

Tailings Containment Area:

The problems associated with the tailings pond have deteriorated since the inspection of August 27, 1982. No apparent remedial measures have been taken to stabilize or improve the condition of the pond.

The liner at panel "E" has experienced further tearing. A portion has been removed and lies on top of the dyke. There is no additional piezometer on the dyke behind panel "E". This panel overlaps the clay core of the dyke. The material disturbed by the tearing of the liner contained clay, suggesting the clay liner may not be intact.

Panel "C" has a large tear above the area that slumped last summer (Photo 7). The undulating appearance of panels "C" and "D" indicate additional slumping (Photo 8).

Golder Associates' letter to Cadillac, dated July 27, 1982, mentions samples were taken of the water behind the liner at panel "C". These samples were taken in an effort to determine if the liner had been pulled from its anchor trench at the toe of the slope. Mr. Vincent was not familiar with the above correspondence or the attempt to determine if the liner was still properly anchored.

The gravel protection blanket on the inside of the clay lined dykes appears to have experienced little additional movement. Snow cover prevented close examination. The gravel protection blanket adjacent to panel "E", at the east end of the pond, had less snow cover and revealed significant movement of the gravel (Photo 9).

Tailings Containment Area (Cont'd):

The pump in the collection sump (station number 932-9) was removed last October. Mr. Vincent believed that the condition of the liner at panel "E" was such that the pump was only recirculating pond water.

Where snow cover allowed examination, cracks on top of the dykes could be seen (Photo 10). Golder Associates, in the above letter to Cadillac, recommended water should be prevented from entering any tension cracks. No measures are being taken to prevent the ingress of water. Mr. Vincent repeated what was explained in the August 27, 1982 inspection report. Attempts to prevent water from entering cracks along the crest of the dykes also prevented the dykes from drying out.

The water level in the pond is approximately the same as it was last summer. Cadillac, in an attempt to protect the backslope drainage pipe from frost damage, requested and received authorization N3A6-1196, which allowed the company to raise the elevation of the water in the pond. Mr. Vincent was unable to explain why Cadillac failed to add the necessary water.

The culvert promised for the west end of the drainage ditch is not in place. The drainage ditch, along the top of the backslope of the tailings pond is in poor shape. It remains unlined and has experienced localized slumping. There has been little or no further movement along the large crack that exists on the slope above the roadway (photos 11 + 12). The backslope had only recently begun to thaw.

Mr. Vincent explained some of the difficulties Cadillac has experienced attempting to prevent backslope surface run-off from seeping into the ground and behind the liner. Perma frost has been encountered and has led to stability problems. Blasting was required at the west end of the ditch. It was noted that blasting in this area led to fly rock tearing numerous holes in the tailings pond liner. Two ninety foot sections of the liner had to be replaced and 1000 patches were necessary.

CADILLAC EXPLORATIONS

N3L3-0932

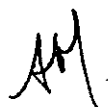
Samples:

932-1

932-6

932-7

Settling pond



Adrian MacDonald,
Inspector Under the Northern
Inlands Water Act

PHOTOGRAPHS OF CADILLAC MINESITE, MAY 5, 1983

Photo 1: Fuel Storage Area

The four large tanks contain diesel fuel, the two smaller tanks, gasoline.

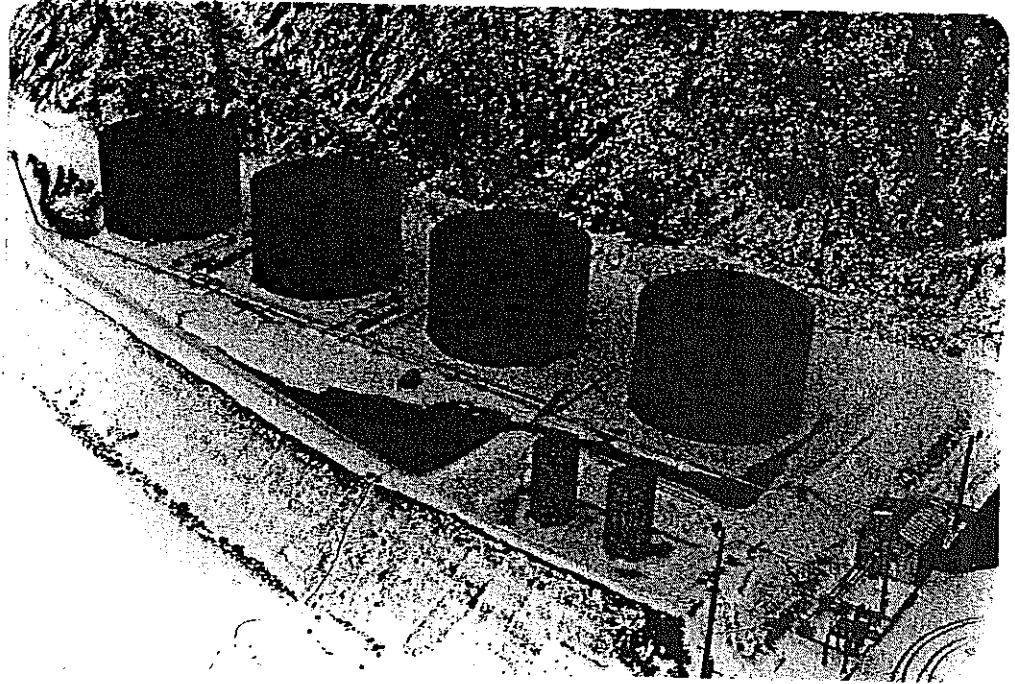


Photo 2: Ore Storage Area and Settling Pond

Note stockpile with diversion ditches on three sides and still frozen settling pond to the right.



Photo 3: Aerial view of Chemical Storage Area

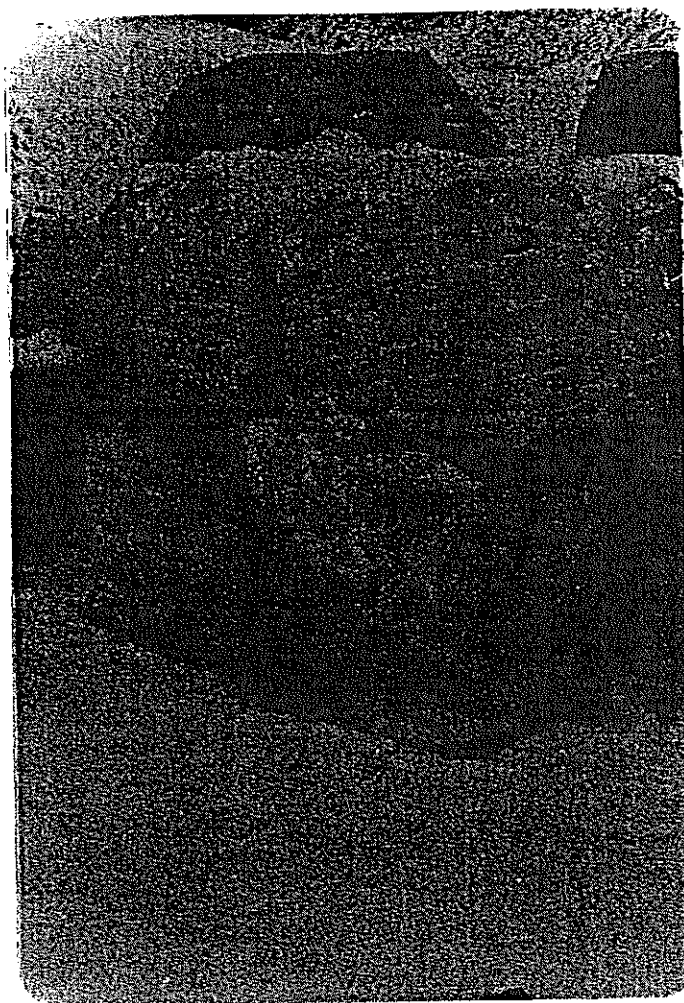


Photo 4: Chemical Storage Area

Cyanide drums showing signs of corrosion.



Photo 5: Chemical Storage Area



Broken bags of soda ash.

Photo 6: PCB spill site



Photo 7: Torn liner at Panel "C"



Photo 8: Panels "C" and "D".



Photo 9: Movement of Gravel Protection Blanket.



Dyke near the south-east corner of pond.

Photo 10: Tension cracks along crest of Dyke.

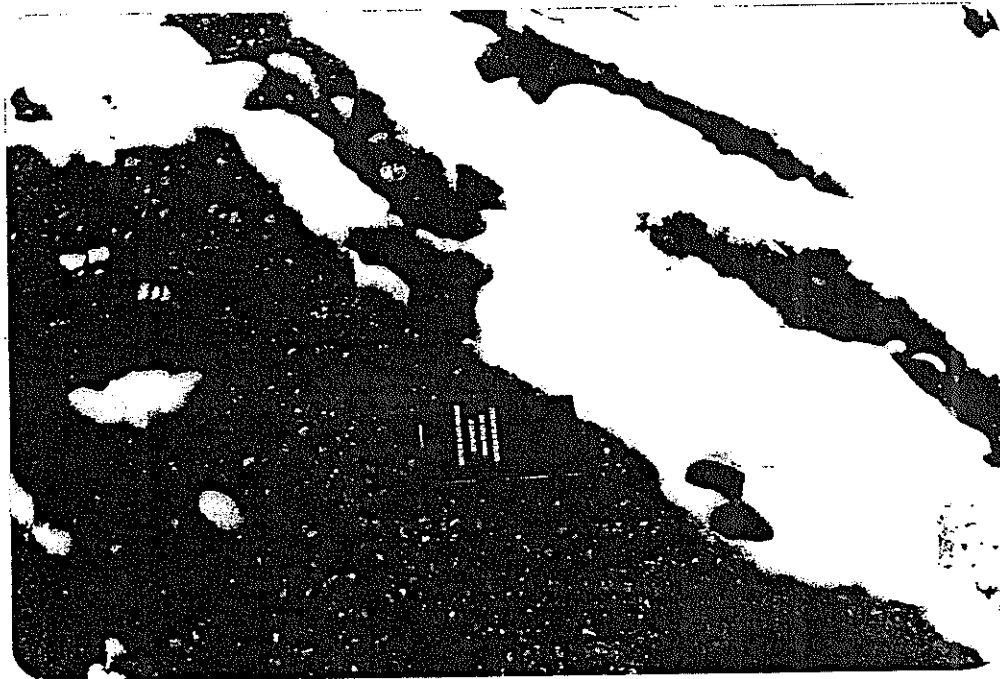


Photo 11: Cleared Backslope above Tailings Pond.

A large crack is visible running from halfway down the right side to the lower left corner.

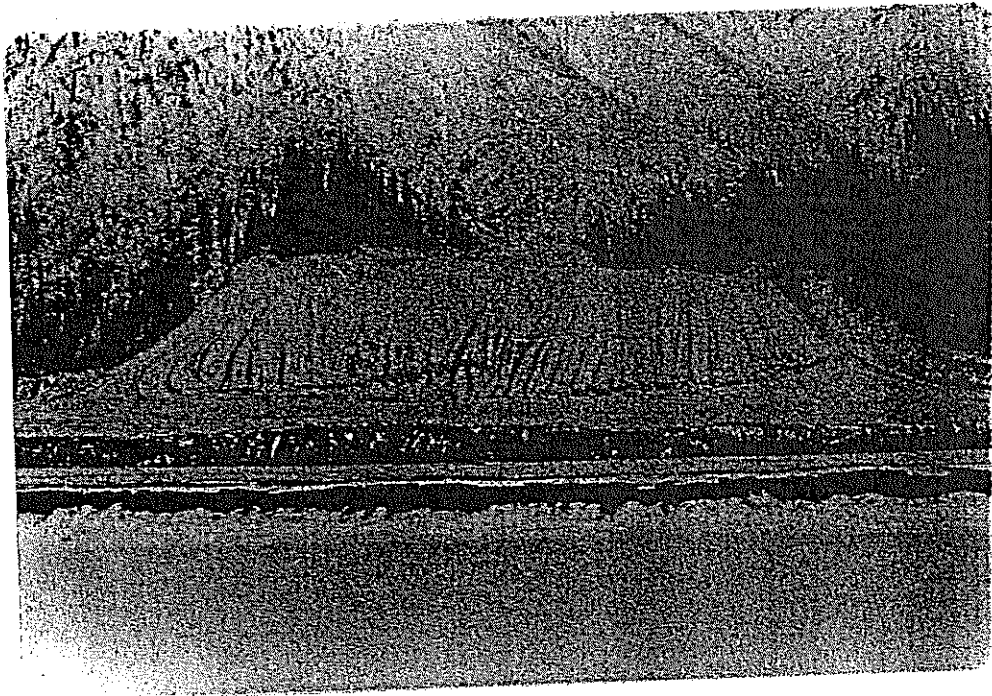
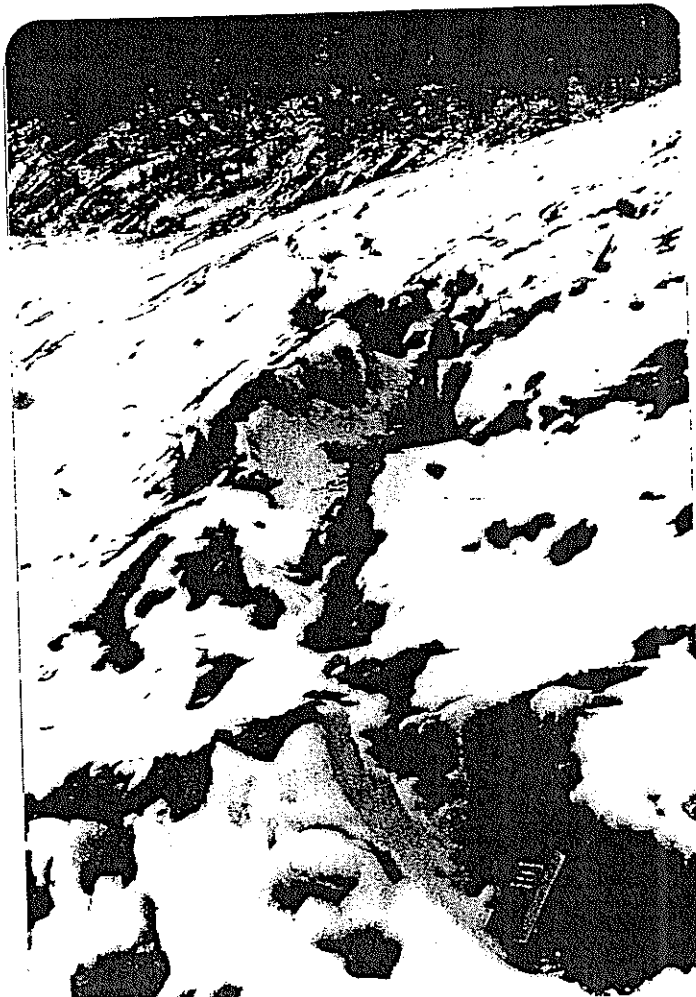


Photo 12: Size of crack along Backslope.



RESULTS OF LABORATORY ANALYSIS

LICENSEE/ PROJECT <i>Cadillac Explorations Ltd.</i>		LICENCE NUMBER <i>N3L3-0932</i>				LOCATION <i>Prarie Creek</i>	
DATE SAMPLED <i>May 05/83</i>		DATE RECEIVED <i>MAY 9/83</i>				DATE COMPLETED <i>JULY 11, 1983</i>	
STATION NUMBER	<i>Settling Pond</i>	<i>932-6</i>	<i>932-7</i> ✓	<i>932-1</i>	FIELD BLANK		
LABORATORY NUMBER	<i>30257</i>	<i>30258</i> ✓	<i>30259</i>	<i>30260</i>	<i>30261</i>		
ANALYSIS REQUIRED	✓	✓	✓	✓	✓	✓	
pH (units)	✓ 7.7	✓ 8.2	✓ 8.3	✓ 7.8			
Conductivity (umho/cm)	✓ 670.	✓ 450.	✓ 440.	✓ 680.			
Dissolved Oxygen							
Turbidity (NTU)							
Colour (colour U.)							
Suspended Solids	✓ <5.	✓ <5.	✓ <5.	✓ <5.			
TDS, Residue							
Calcium	✓ 82.6	✓ 57.6	✓ 54.1	✓ 82.2			
Magnesium	✓ 26.8	✓ 22.1	✓ 21.3	✓ 32.8			
Tot. Hardness (CaCO ₃)	✓ 316.	✓ 235.	✓ 223.	✓ 340.			
Tot. Alkalinity (CaCO ₃)	✓ 160.	✓ 190.	✓ 180.	✓ 250.			
Sodium		✓ 2.03	✓ 2.46				
Potassium		✓ 0.46	✓ 0.42				
Chloride		✓ 0.5	✓ <0.5				
Sulphate		✓ 69.	✓ 66.				
Total Coliform (count/100 ml)							
Fecal Coli.							
Fecal Strep.							
Std. Plate Cnt (cnt/ml)							
BOD ₅							
COD							
Carbon, IC							
Carbon, TOC							
Ammonia Nitrogen (as N)	✓ 0.68	✓ <0.03	✓ <0.03	✓ <0.03			
Nitrate + Nitrite (as N)	✓ 0.94	✓ <0.04	✓ <0.04	✓ <0.04			
Total Kjeldahl N							
Phosphorus O-P (as P)							
Phosphorus Tot (P)	✓ <0.05	✓ <0.05	✓ <0.05	✓ <0.05			
Silica Reac. (as SiO ₂)							
Total Cyanide		✓ <0.01	✓ <0.01	✓ <0.01	✓ <0.01	✓ <0.01	
Available Cyanide (r) dup.		✓ <0.01	✓ <0.01	✓ <0.01	✓ <0.01	✓ <0.01	
Sulphide							
Oil & Grease	✓ <1						
Phenols							
Arsenic	T (ug/L)	✓ 1.9	✓ <1.0	✓ <1.0	✓ 4.1	✓ <1.0	
	D ₉₀ (ug/L)	✓ 1.6	✓ <1.0	✓ <1.0	✓ 3.8	✓ <1.0	
Cadmium	T (ug/L)	✓ 8.8	✓ 1.1	✓ 1.0	✓ 1.0	✓ 1.8	
	D ₉₀ (ug/L)	✓ 9.3	✓ 1.5	✓ 1.1	✓ 1.1	✓ 2.3	
Copper	T (ug/L)	✓ 2.0	✓ <0.5	✓ <0.5	✓ <0.5	✓ 1.7	
	D ₉₀ (ug/L)	✓ 1.5	✓ <0.5	✓ <0.5	✓ <0.5	✓ 1.5	
Iron	T (ug/L)		✓ 18.1	✓ 11.7	✓ 50.0	✓ <1.0	
	D (ug/L)		✓ 17.4	✓ 21.0	✓ 49.0	✓ <1.0	
Lead	T (ug/L)	✓ 6.6	✓ <0.1	✓ <0.1	✓ <0.1	✓ <0.1	
	D ₉₀ (ug/L)	✓ 6.7	✓ <0.1	✓ <0.1	✓ <0.1	✓ 0.2	
Mercury	T (ug/L)	✓ 0.26	✓ 0.03	✓ <0.01	✓ <0.01	✓ <0.01	
	D ₉₀ (ug/L)	✓ 0.28	✓ <0.01	✓ <0.01	✓ <0.01	✓ <0.01	
Nickel	T (ug/L)	✓ 3.0	✓ <1.0	✓ <1.0	✓ <1.0	✓ <1.0	
	D ₉₀ (ug/L)	✓ 3.4	✓ <1.0	✓ <1.0	✓ <1.0	✓ <1.0	
Zinc	T (ug/L)	✓ 550.	✓ 12.	✓ 12.	✓ 25.	✓ <5.0	
	D ₉₀ (ug/L)	✓ 550.	✓ 13.	✓ 12.	✓ 25.	✓ <5.0	
Chromium	T (ug/L)		✓ <0.5	✓ <0.5	✓ <0.5	✓ <0.5	
	D ₉₀ (ug/L)		✓ <0.5	✓ <0.5	✓ <0.5	✓ <0.5	
all metals		collected in duplicate + analyzed in duplicate					

Results are expressed in mg/L, except as indicated. T and D refer to

WATER RESOURCES DIVISION, YELLOWKNIFE, NORTH WEST TERRITORIES
FIELD SAMPLING AND DATA

LICENSEE/PROJECT <i>Cadillac Explorations Ltd</i>	LICENCE NO. <i>11323-0932</i>	LOCATION <i>Prairie Creek</i>
DATE SAMPLED <i>May 05/83</i>	SAMPLED BY <i>A. Mac Donald</i>	

ANALYSIS	SAMPLE VOLUME	PRESERVATIVE	STATION NUMBER				
			Settling Pond	932-6	932-7	932-1	FIELD BLANK
			BOTTLE NUMBER				
MISC. & ARSENIC	1 LITRE	NONE	1	5	3	8	
HEAVY METALS	500 ML	2 ML 1:1 HNO ₃	14/9	4/7	4/5	1/2	8/12
CYANIDE	500 ML	About 6 pellets NaOH to pH 12		2	3	4	1
MERCURY	250 ML	2 ML 1:1 HNO ₃ + 2 ML 5% K ₂ Cr ₂ O ₇	9/14	10/13	4/7	3/8	2/12
NUTRIENTS	250 ML	NONE	1	3	7	6	
BACTERIA	500 ML	NONE					
OIL AND GREASE	1 LITRE (GLASS)	4 ML 1:1 H ₂ SO ₄	Settling Pond				
Time of Sampling			1330	1300	1530	1748	1845
Air Temperature			0°				
Water Temperature				0.2°C	0.5°C		
Rate of Flow							
Ice Thickness			2 cm				
Depth of Sampling							
pH				8.4	8.4		
Conductivity				235	230		
Dissolved Oxygen							
Conductivity at 25°C				424	412		

① NO FLOW FROM AT 932-4 (DISCHARGE FROM SETTLING POND), SO POND WAS SAMPLED

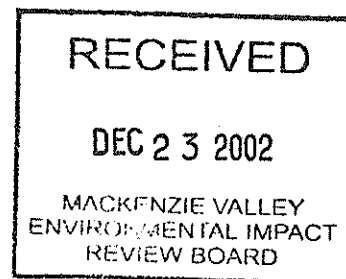
Northern Affairs Program,
P.O. Box 150,
Fort Simpson, N.W.T.
XOE ONO

July 12, 1983

DOUBLE REGISTERED

N3L3-0932
N80D248

Mr. Maurice de St. Horre,
Manager - Minerals Development,
880 Guinness House,
727 - 7th Avenue, S.W.,
Calgary, Alta T2P 0Z8



Dear Sir:

Re: Land Use Inspection June 27, 1983
Water Licence Inspection June 27, 1983

Please find enclosed the above inspection reports prepared by our District Water Resource Officer, Adrian MacDonald. Our Water Resources Division in Yellowknife will be in contact with your office to discuss those concerns that relate to water.

It is encouraging to note no land use concerns were noted with your campsite. Our office intends to conduct an inspection of last fall's road construction and expect to be on-site during the first two weeks of August.

The assistance offered Mr. MacDonald is appreciated.

Yours truly,

J. Umpherson,
District Manager

encls:

cc: Land Use, YK
Water Res, YK

AM/fcm



TO A [Dave Milburn,
Regional Co-ordinator - Industrial,
Water Resources,
Yellowknife, N.W.T.

FROM DE [Adrian MacDonald,
W.R.O.,
Fort Simpson, N.W.T.
XOE ONO

SECURITY - CLASSIFICATION - DE SECURITE
OUR FILE/NOTRE REFERENCE
N313-0932
YOUR FILE/VOTRE REFERENCE
DATE
July 7, 1983

SUBJECT Re: ProCan Inspection, June 27, 1983
OBJET

We may have some difficulty getting Procan to live up to the promises made by Cadillac. I can understand their reluctance to seal that settling pond. I do not believe we have enough data to suggest filling their tailings pond with surface run-off. The grab sample I took of settling pond water on May 05 was well above the maximum average concentration allowed for zinc. It should be borne in mind that the pond water was then stagnant. The results of the sample I took last week should be more useful in assessing the problem. Would you provide Procan with the data requested?

Procan's first choice for a chemical storage area would be my own as well. The site, however, may or may not be above the maximum probable flood. I do not know the elevation of that flood. Procan should provide us with the elevation of the site and perhaps Jesse can compare it with the flood level.

Their second choice is fine except for access. The road is rather steep and washes out in the spring. Culverts would be required if this site were to be chosen.

The third site also may not be above the required level. It is in an area that would receive a lot of traffic. I do not feel this is an appropriate site.

Storage of bagged lime and soda ash in the mill is a good idea even if it is a licence infringement.

Minewater continues to be a problem. I followed the minewater to determine where it joined site drainage. However it quickly disappears, seeping to groundwater. Consequently, the minewater may not be the major contributor to zinc levels in the settling pond.



TO
A

FROM
DE

SUBJECT
OBJET

SECURITY - CLASSIFICATION - DE SÉCURITÉ
OUR FILE/NOTRE RÉFÉRENCE
YOUR FILE/VOTRE RÉFÉRENCE
H3L3-0932
DATE

-2-

Re: Procan Inspection, June 27, 1983 Cont'd

I have included for your files the actual inventory list provided by Procan.

Regards,

P.S. Reuben Fast just telephoned me. He is back onsite as Cadillac's representative. Mr. Fast is of the opinion that the chemical reagents should not be moved from their present location unless it is to a permanent arrangement. He feels there is too much risk involved carting these reagents back and forth.

Mr. Fast assured me Cadillac will have solved their financial difficulties within a month. (sounds familiar). Procan's appeal of Cadillac's successful appeal of the recent court decision is to be heard in October and it seems to me this thing would be dragged out for a long time yet.

I would now suggest that considering the uncertainty surrounding the operation, Northern Affairs should not accept temporary storage of the mill reagents. A permanent structure is to be required, it might as well be built this summer.

cc: Floyd Adlem

INSPECTION REPORT

ON

PROCAN EXPLORATION COMPANY

PRAIRIE CREEK MINESITE

JUNE 27, 1983

BY

ADRIAN MACDONALD

INSPECTOR UNDER THE NORTHERN INLAND WATERS ACT

NORTHERN AFFAIRS PROGRAM

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

FORT SIMPSON, N.W.T.

DATE: JULY 07, 1983

WATER REGISTER: N3L3-0932

INSPECTION REPORT - PROCAN EXPLORATION COMPANY

PRAIRIE CREEK MINESITE

N3L3-0932

INTRODUCTION:

On June 27, 1983 Adrian MacDonald, Water Resource Officer, Fort Simpson, conducted an inspection of the Prairie Creek minesite. Procan Exploration Company have recently taken over as operators of the property. Mr. MacDonald met with Mr. Maurice de St. Jorre, Manager-Mineral Development, Procan to discuss the water related concerns that must be addressed if Cadillac Explorations Limited's Water Use Licence N3L3-0932 is to be assigned to Procan.

GENERAL:

Cadillac Explorations Limited is attempting to re-gain control of the Prairie Creek minesite. Judicial and bankruptcy court decisions will ultimately decide which company is to operate the property. Mr. de St. Jorre was of the opinion that regardless of the outcome, Procan will remain operators for the next two years.

Procan has no intention of resuming development work for at least one year. Until that time, a crew of two caretakers during the summer and three during the winter will remain on site. Larger crews may be brought on site for short periods of time to perform specific tasks. Hanvolt Expediting of Fort Nelson, B.C. has been contracted to provide caretaker maintenance.

The inspector provided Schedule II's to enable Procan to receive authorization to use water for camp use.

OBSERVATIONS & DISCUSSION:

Chemical Storage Area:

Procan realizes the present chemical storage site is unacceptable and would like to receive Water Board approval as soon as possible to store the bulk chemicals at some site above the maximum probable flood elevation.

Procan has identified three potential sites for bulk chemical storage. They are, in order of preference:

Powder Magasin - This site is located downstream of the camp, opposite Galena Creek. It is adjacent to Prairie Creek but well above the ordinary high water mark. Neither the inspector nor Mr. de St. Jorre were familiar with the elevation of the maximum probable flood in this area.

N3L3-0932

June 27/83

The powder magasin is also being used to store drilling additives. The site is in disorder with numerous broken bags of reagents. These reagents include sodium carboxymethyl cellulose, bentonite, Quickgel, Tannex and Cellex. The site had been covered by a tarp but it was lifted by the wind. Procan intends to clean up this area.

Upper Harrison Creek Valley - This site at an approximate elevation of 3,200 feet is well above the maximum probable flood. It is of adequate size to store all reagents. Harrison Creek must be twice forded to gain access.

Currently there is an assortment of heavy equipment, core boxes, cement and miscellaneous equipment and supplies occupying the site. Some of this equipment is to be moved and the area levelled if reagents are to be stored.

Lower Harrison Creek Valley - Located approximately 25 meters behind the mill, this site may be too small to accomodate all the mill reagents. Mr. de St. Jorre felt this site ideal if it was somewhat larger.

Seepage was visible on the lower portion of the site. This section is to be built up with gravel if the site is chosen.

Whichever site is chosen, Procan would like to line the area with clay. Use of clay, however, is conditional upon the workability of the clay stockpiled near the airstrip. Pallets of reagents are to be placed on timber and covered with polyethylene tarps. Hypalon liner may be used if it is available.

There is an empty storage bay, measuring approximately 15 X 7 meters, located in the mill. Procan intends to use it for storage of bagged lime and soda ash.

The inspector was provided with a recent inventory of the mill reagents on site. The list is provided in Appendix I attached to this report. The quantity of reagents is in excess of what Procan would require if they were to go into production. The mine would not be operating without allweather road access, so would require a maximum two month supply. Cadillac had stockpiled reagents to supply the mill when the property was supplied by winter road only.

N3L3-0932

June 27, 1983

Tailings Containment Area:

Golder Associates have been requested to prepare a report on the condition of the pond and what measures are necessary for rehabilitation. As Golder Associates are the original consultants and were engaged to design an acceptable tailings pond, Procan has requested the report be prepared bearing in mind Golder and not Procan will be responsible for all costs.

Procan has also commissioned Hardy and Associates to prepare their own report on the condition of the pond and the required rehabilitative measures. Hardy and Associates were in last fall to inspect the pond, Golder will be in July 08 for their inspection.

The pond's condition has experienced little change since the inspection of May 05, 1983. Although no measures were taken to prevent backslope drainage from collecting behind the liner, no problems with pressure build-up developed.

The depth of water in the piezometers surrounding the tailings pond were determined. Results are listed in Appendix II.

To monitor any surface movement along the crack in the backslope above the tailings pond a control station and elevation profile have been established. Mr. de St. Jorre remarked that no apparent movement along the crack has occurred this spring.

Diversion of North Creek:

The road upstream of the airstrip, having washed out in at least three places, prevented inspection of North Creek. Procan did have a helicopter on site earlier and inspected the road along the creek. Other than minor damage from drainage on the south side, the road has stood up well to spring runoff.

Ore Storage Area:

Mr. de St. Jorre was of the opinion that covering the ore stock pile with a tarp was a poor idea. He commented that a tarp of that size would be difficult to hold down and with the low precipitation in the area, leaching of metals from the ore would be minimal.

N3L3-0932

June 27, 1983

Settling Pond:

Procan would like to receive analytical data for station 932-4 before deciding what measures are necessary to ensure the discharge from the settling pond meets effluent quality requirements.

Minewater:

Minewater continues to be pumped to the tailings pond. At the time of the inspection, minewater was also discharging from the 2848' portal. The flow was estimated to be 0.5m³/minute. The minewater had completely percolated into the ground within 100 meters of the portal.

PCB Spill Site:

The inspector informed Mr. de St. Jorre to leave this site as is until further notice.

Prairie Creek Dyke:

The dyke between the minesite and Prairie Creek has experienced little or no damage from spring run-off.

Samples:

Stations 932-1
932-4
932-6
932-7
minewater leaving portal
diversion ditch around stockpile
site drainage

Adrian MacDonald,
Inspector Under the Northern Inland
Waters Act

AM/fcm

APPENDIX I: INVENTORY OF MILL REAGENTS

-
- | | |
|--------------------|--|
| 1. Sodium Cyanide: | 34 pallets, 4 - 45 gallon drums per pallet |
| | 96 pallets, 6 - 15 gallon per pallet |
| <hr/> | |
| 2. Xanthate: | 57 pallets of SIX K, 4 drums per pallet |
| | 3 pallets of Dowfroth 1012 |
| | 23 pallets of cyanimid 10 drums per pallet |
| 3. Copper Sulfate: | 207 sea crates 42 - 40 lb. bags per crate |
| 4. Soda Ash: | 117 pallets 42 bags per pallet |
| | 56 Sea crates 42 bags per sea crate |
| 5. Hydrated Lime: | 108 pallets 42 bags per pallet |
| | 71 sea crates 42 bags per sea crate |
-

Inventory taken on June 24, 1983

APPENDIX II: WATER DEPTHS IN TAILINGS POND PIEZOMETERS

Piezometer	Piezometer Depth (m)	Depth to Water in Piezometer (m)	Depth of Water in Piezometer (m)
1	10.36	9.1	1.26
2	11.13	9.7	1.43
3	11.58	dry at 11.4	-
4	11.28	dry at 11.3	-
5	12.65	12.3	0.35
6	12.95	13.0 dry	-
7	12.95	12.9	0.05

1. Piezometer Depth and Depth to Water in Piezometer measured from top of steel casing.
2. Piezometer '6' is believed to have been filled with clay.

LAND USE INSPECTION REPORT / RAPPORT D'INSPECTION RELATIF À L'UTILISATION DES TERRES
 TERRITORIAL LAND USE REGULATIONS / RÈGLEMENT CONCERNANT L'UTILISATION DES TERRES TERRITORIALES

Permittee - Détenteur du permis Cadillac Explorations Ltd	Date June 27/83	Permit No. - Permis n° N80 D 248
Location - Endroit Prairie Creek	Previous Inspection Dates Inspections antérieures (dates)	
Contractor - Entrepreneur	Initial Initiale	
Sub-Contractors - Sous-traitants	Interim Provisoire	
	Interim Provisoire	<input checked="" type="checkbox"/>
Date operation commenced - Date du début des travaux	Final Finale	
Current stage of program - État des travaux	Expiry Date - Date d'expiration du permis	April 14/84

Program modification Approved/Not Approved (Explain)
 Modifications apportées approuvées/non approuvées (Expliquer)

Conditions A - Acceptable, U - Unacceptable	Staging Access Accès aux échafaudages	Access Route Route d'accès	Air Strip Piste d'atterrissage	Seismic Line Ligne de sondage	Camp site Emplacement de camp	Drilling site Emplacement de forage
A) BRUSH DISPOSAL DESTRUCTION DES BUISSONS						
1 Windrowed Formation d'andains		*			-	
2 Lopped & Scattered Élagage et dispersion		-				
3 Walked Down Foulage		-				
4 Leaners Felled Abattage		-				
5 Burned Brûlage		-				
6 Buried Enfouissement		-				
7						
B) EROSION CONTROL CONTRÔLE DE L'ÉROSION						
1 Ground Disturbance Perturbation du sol					-	
2 Stream Approaches Abords de ruisseaux		-				
3 Stream Crossings Gués de ruisseaux		-				
4 Drainage Disruption Perturbation du réseau de drainage		-				
5 Backsloping - Contours Surface structurale et relief		-				
6 Shotholes Plugged Obturation du trou de tir		-				
7						
C) POLLUTION PREVENTION LUTTE CONTRE LA POLLUTION						
1 Removal Bldg. & Equip. Enlèvement, bâtiments et matériel					-	
2 Fuel Storage Entreposage, combustible		A				
3 Incineration (garbage, etc.) Incineration, ordures etc.		A				
4 Other wastes Autres déchets		-				
5 Sumps and Pits Puisards et fosses		A				
6						

Explanation and Remarks (include comments on other permit conditions, as necessary)
 Explications et commentaires (mentionner toute autre condition du permis)

Procan fulfilling Cadillac responsibilities.
** Access road washed out in three places during spring run-off.*
Unable to inspect road last fall's road in construction in P&ES area

M de St-Jorre Maurice de St-Jorre
 Operator's Representative - Représentant de l'exploitant
 Procan Exploration Co - Opérateur Prairie Creek J.V.

Adrian Mac Donald
 Land Use Inspector - Inspecteur de l'utilisation des terres

Fort Simpson NWT
 Area - Zone

Land Use Permit on hand Yes / Permis d'utilisation des terres Oui

No / Non

Checked by RMO / Vérification par l'agent régional de l'exploitation minière

Findings of Initial and Interim reports are subject to final inspection during summer months unless otherwise stated in writing by the District Superintendent
 Les conditions décrites dans les rapports initiaux et provisoires doivent faire l'objet d'une inspection finale au cours de l'été, à moins que le surintendant n'en décide autrement et ne fasse, à ce sujet, une déclaration écrite.

Superintendent / Surintendant
Jeri Umpherson

RESULTS OF LABORATORY ANALYSIS

LICENSEE/ PROJECT <i>Procan Exploration Co.</i>		LICENCE NUMBER <i>14363-0932</i>			LOCATION <i>Prairie Creek</i>		
DATE SAMPLED <i>27/06/83</i>		DATE RECEIVED <i>JUNE 29/83</i>			DATE COMPLETED <i>July 13, 1983</i>		
STATION NUMBER	SITE DRAINAGE	MINE WATER	BLANK				
LABORATORY NUMBER	<i>30646</i>	<i>30647</i>	<i>30648</i>				
ANALYSIS REQUIRED	✓	✓	✓	✓	✓	✓	✓
pH (units)	✓ <i>8.0</i>	✓ <i>8.0</i>					
Conductivity (umho/cm)	✓ <i>790</i>	✓ <i>850</i>					
Dissolved Oxygen							
Turbidity (NTU)							
Colour (colour U.)							
Suspended Solids	✓ <i>8</i>	✓ <i><5</i>					
TDS, Residue							
Calcium							
Magnesium							
Tot. Hardness (CaCO ₃)							
Tot. Alkalinity (CaCO ₃)							
Sodium				✓ <i>0.28</i>			
Potassium				✓ <i><0.05</i>			
Chloride				✓ <i><1.0</i>			
Sulphate				✓ <i>1.8</i>			
Total Coliform (count/)							
Fecal Coli. (100)							
Fecal Strep. (ml)							
Std. Plate Cnt (cnt/ml)							
BOD ₅							
COD							
Carbon. IC							
Carbon, TOC							
Ammonia Nitrogen (as N)		✓ <i>0.13</i>	✓ <i><0.03</i>				
Nitrate + Nitrite (N)		✓ <i>0.16</i>	✓ <i><0.04</i>				
Total Kjeldahl N							
Phosphorus O-P (as P)							
Phosphorus Tot (P)		✓ <i><0.10</i>	✓ <i><0.10</i>				
Silica Reac. (as SiO ₂)							
Total Cyanide							
Available Cyanide							
Sulphide							
Oil & Grease							
Phenols							
Arsenic	T (ug/L)	✓ <i><1.0</i>	✓ <i>2.5</i>	✓ <i><1.0</i>			
	D (ug/L)			✓			
Cadmium	T (ug/L)	✓ <i>0.07</i>	✓ <i>20.0</i>	<i><0.05</i>			
	D (ug/L)						
Copper	T (ug/L)	✓ <i><1.0</i>	✓ <i>50.</i>	✓ <i>4.8</i>			
	D (ug/L)						
Iron	T (ug/L)	<i><5.</i>	<i><5.</i>	✓ <i><5.</i>			
	D (ug/L)						
Lead	T (ug/L)	✓ <i>0.2</i>	✓ <i>7.5</i>	✓ <i><0.2</i>			
	D (ug/L)						
Mercury	T (ug/L)						
	D (ug/L)						
Nickel	T (ug/L)	✓ <i><1.0</i>	✓ <i>1.0</i>	✓ <i><1.0</i>			
	D (ug/L)						
Zinc	T (ug/L)	✓ <i>15.</i>	✓ <i>6,900.</i>	✓ <i><5.0</i>			
	D (ug/L)						
Chromium	T (ug/L)	✓ <i><0.5</i>	✓ <i>0.9</i>	✓ <i><0.5</i>			
	D (ug/L)						

Results are expressed in mg/L, except as indicated. T and D refer to

WATER RESOURCES DIVISION, YELLOWKNIFE, NORTH WEST TERRITORIES
 FIELD SAMPLING AND DATA

LICENSEE/PROJECT Procan		LICENCE NO. N363-0932			LOCATION Prairie Creek Minesite		
DATE SAMPLED 27/06/83		SAMPLED BY ADRIAN MACDONALD					
ANALYSIS	SAMPLE VOLUME	PRESERVATIVE	STATION NUMBER				
			SITE DRAINAGE	MINE WATER	BLANK		
			BOTTLE NUMBER				
MISC. & ARSENIC	1 LITRE	NONE	SITE DRAINAGE	MINE WATER	BL		
HEAVY METALS	500 ML	2 ML 1:1 HNO ₃	SITE DRAINAGE	MINE WATER	BL		
CYANIDE	500 ML	About 6 pellets NaOH to pH 12					
MERCURY	250 ML	2 ML 1:1 HNO ₃ + 2 ML 5% K ₂ Cr ₂ O ₇					
NUTRIENTS	250 ML	NONE		MINE WATER	BL		
BACTERIA	500 ML	NONE					
OIL AND GREASE	1 LITRE (GLASS)	4 ML 1:1 H ₂ SO ₄					
Time of Sampling			15:55	15:40	16:00		
Air Temperature							
Water Temperature							
Rate of Flow <i>m³/min estimate</i>			0.05 <i>m³/sec</i>	0.5 <i>m³/min</i>			
Ice Thickness							
Depth of Sampling							
pH							
Conductivity							
Dissolved Oxygen							

WATER RESOURCES DIVISION, YELLOWKNIFE, NORTHWEST TERRITORIES

RESULTS OF LABORATORY ANALYSIS

May

LICENSEE/ PROJECT DATE SAMPLED		LICENCE NUMBER DATE RECEIVED			LOCATION DATE COMPLETED		
Procan Exploration Co. 27/06/83		N3L3-0932 JUNE 29/83			Prairie Creek July 18, 1983		
STATION NUMBER	932-7	932-6	Duplicate 932-6	932-4	932-1	Diversion Ditch	
LABORATORY NUMBER	30639	30640	30641	30642	30643	30644	
ANALYSIS REQUIRED	✓	✓	✓	✓	✓	✓	
pH (units)				8.1	7.6	7.7	
Conductivity (umho/cm)				570	730	5100	
Dissolved Oxygen							
Turbidity (NTU)	✓ <1	✓ 2.1	✓ 1.6				
Colour (colour U.)	✓ 5	✓ 5	✓ 5				
Suspended Solids	✓ <5	✓ <5	✓ <5				
TDS, Residue	✓ 170	✓ 190	✓ 180	✓ <5	✓ <5	✓ <5	
Calcium	✓ 45.8	✓ 46.0	✓ 46.3	✓ 65.0	✓ 86.7		
Magnesium	✓ 16.1	✓ 16.4	✓ 16.6	✓ 32.2	✓ 39.9		
Tot. Hardness (CaCO ₃)	✓ 181.	✓ 182.	✓ 184.	✓ 290.	✓ 380.		
Tot. Alkalinity (CaCO ₃)	✓ 150.	✓ 150.	✓ 150.				
Sodium	✓ 1.13	✓ 1.13	✓ 1.13				
Potassium	✓ 0.35	✓ 0.37	✓ 0.39				
Chloride	✓ 1.6	✓ <1.0	✓ <1.0				
Sulphate	✓ 22.	✓ 24.	✓ 24.				
Total Coliform (count)	✓ <1	✓ <1					
Fecal Coli. (100)	✓ <1	✓ <1					
Fecal Strep. (ml)							
Std. Plate Cnt (cnt/ml)							
BOD ₅							
COD							
Carbon, IC							
Carbon, TOC							
Ammonia Nitrogen (as N)	✓ <0.03	✓ <0.03	✓ <0.03	✓ 0.08			
Nitrate + Nitrite (N)	✓ 0.07	✓ 0.10	✓ 0.12	✓ 0.52	✓ 0.27		
Total Kjeldahl N							
Phosphorus O-P (as P)							
Phosphorus Tot (P)	✓ <0.10	✓ <0.10	✓ <0.10	✓ <0.10	✓ <0.10		
Silica Reac. (as SiO ₂)							
Total Cyanide							
Available Cyanide							
Sulphide							
Oil & Grease				✓ <1.0			
Phenols							
Arsenic	T (ug/L)	✓ <1.0	✓ <1.0	✓ <1.0	✓ 1.1	✓ 1.0	✓ 8.9
	D (ug/L)						
Cadmium	T (ug/L)	✓ <0.05	✓ <0.05	✓ <0.05	✓ 0.67	✓ <0.05	✓ 5.7
	D (ug/L)						
Copper	T (ug/L)	✓ <1.0	✓ 1.0	✓ <1.0	✓ 6.0	✓ <1.0	✓ 11.
	D (ug/L)						
Iron	T (ug/L)	✓ <5.	✓ 26.	✓ 20.	✓ <5.	✓ 100	✓ 30.
	D (ug/L)						
Lead	T (ug/L)	✓ <0.2	✓ <0.2	✓ <0.2	✓ 3.8	✓ <0.2	✓ 7.7
	D (ug/L)						
Mercury	T (ug/L)						
	D (ug/L)						
Nickel	T (ug/L)	✓ 1.0	✓ 1.0	✓ 1.0	✓ <1.0	✓ <1.0	✓ 33.
	D (ug/L)						
Zinc	T (ug/L)	✓ <5.	✓ <5.	✓ <5.	✓ 190.	✓ <5.	✓ 9,000
	D (ug/L)						
Chromium	T (ug/L)	✓ 0.7	✓ <0.5	✓ <0.5	✓ <0.5	✓ <0.5	✓ 4.1
	D (ug/L)						

Results are expressed in mg/L, except as indicated. T and D refer to

WATER RESOURCES DIVISION, YELLOWKNIFE, NORTHWEST TERRITORIES

FIELD SAMPLING AND DATA

LICENSEE/PROJECT <i>Procan</i>		LICENCE NO. <i>N343-0932</i>			LOCATION <i>Prairie Creek Minesite</i>			
DATE SAMPLED <i>27/06/83</i>		SAMPLED BY <i>ADRIAN MACDONALD</i>						
ANALYSIS	SAMPLE VOLUME	PRESERVATIVE	STATION NUMBER					
			<i>932-7</i>	<i>932-6</i>	<i>Duplicate 932-6</i>	<i>932-4</i>	<i>932-1</i>	<i>Diversio Ditch</i>
			BOTTLE NUMBER					
MISC. & ARSENIC	1 LITRE	NONE	<i>932-7</i>	<i>932-6</i>	<i>932-6 D</i>	<i>932-4</i>	<i>932-1</i>	<i>DITCH</i>
HEAVY METALS	500 ML	2 ML 1:1 HNO ₃	<i>932-7</i>	<i>932-6</i>	<i>932-6 D</i>	<i>932-4</i>	<i>932-1</i>	<i>DITCH</i>
CYANIDE	500 ML	About 6 pellets NaOH to pH 12						
MERCURY	250 ML	2 ML 1:1 HNO ₃ + 2 ML 5% K ₂ Cr ₂ O ₇						
NUTRIENTS	250 ML	NONE	<i>932-7</i>	<i>932-6</i>	<i>932-6 D</i>	<i>932-4</i>	<i>932-1</i>	
BACTERIA	500 ML	NONE	<i>932-7</i>	<i>932-6</i>				
OIL AND GREASE	1 LITRE (GLASS)	4 ML 1:1 H ₂ SO ₄				<i>932-4</i>		
Time of Sampling <i>MDT</i>			<i>12:20</i>	<i>14:40</i>	<i>14:40</i>	<i>16:10</i>	<i>16:50</i>	<i>15:30</i>
Air Temperature °C			<i>25</i>					
Water Temperature °C			<i>11.5</i>	<i>13.5</i>				
Rate of Flow <i>m³/min (estimate)</i>						<i>3</i>		
Ice Thickness								
Depth of Sampling <i>surface</i>								
pH			<i>8.3</i>	<i>8.6</i>				
Conductivity			<i>232</i>	<i>253</i>				
Dissolved Oxygen								
Conductivity @ 25°C			<i>310</i>	<i>322</i>				

Ⓞ Diversion Ditch: ditch excavated around ore stock pile

RESULTS OF LABORATORY ANALYSIS

LICENSEE/ PROJECT <i>Cadillac Explorations Limited</i>		LICENCE NUMBER <i>N3L3-0932</i>			LOCATION <i>PRAIRIE CREEK MINE SITE</i>	
DATE SAMPLED <i>August 23, 1983</i>		DATE RECEIVED <i>AUG 25/83</i>			DATE COMPLETED <i>Sept. 21, 1983</i>	
STATION NUMBER	DUMP	DIVERSION DITCH	Tailings Pond	FIELD BLANK		
LABORATORY NUMBER.	31706	31707	31708	31709		
ANALYSIS REQUIRED	✓	✓	✓	✓	✓	✓
pH (units)	✓ 7.6		✓ 8.8			
Conductivity (µmho/cm)	✓ 3000		✓ 610			
Dissolved Oxygen						
Turbidity (NTU)	✓ 110.					
Colour (colour U.)	✓ 300					
Suspended Solids	✓ 38.		✓ <5			
TDS, Residue	✓ 2400					
Calcium	✓ 364.2		✓ 66.6			
Magnesium	✓ 63.9		✓ 35.1			
Tot. Hardness (CaCO ₃)	✓ 1172		✓ 311.			
Tot. Alkalinity (CaCO ₃)	✓ 670.					
Sodium	✓ 193.6			✓ 0.22		
Potassium	✓ 98.5			✓ <0.10		
Chloride	✓ 160			✓ 1.2		
Sulphate	✓ 860			✓ <1.0		
Total Coliform (count)						
Fecal Coli. (100 ml)						
Fecal Strep. (ml)						
Std. Plate Cnt (cnt/ml)						
BOD ₅						
COD						
Carbon, IC						
Carbon, TOC						
Ammonia Nitrogen (as N)			✓ <0.03	✓ <0.03		
Nitrate + Nitrite (as N)	✓ 0.06		✓ 0.07	✓ <0.04		
Total Kjeldahl N						
Phosphorus O-P (as P)						
Phosphorus Tot (P)	✓ <0.05		✓ <0.05	✓ <0.05		
Silica Reac. (as SiO ₂)						
Total Cyanide						
Available Cyanide						
Sulphide						
Oil & Grease						
Phenols						
Arsenic	T (µg/L)		✓ 2.0	✓ 3.7	✓ 2.5	
	D (µg/L)					
Cadmium	T (µg/L)	✓ <0.05	✓ 5.5	✓ 4.3	✓ <0.05	
	D (µg/L)					
Copper	T (µg/L)	✓ 14	✓ 5.5	✓ 2.5	✓ <0.5	
	D (µg/L)					
Iron	T (µg/L)		✓ 47.	✓ 27.	✓ <5	
	D (µg/L)					
Lead	T (µg/L)	✓ 0.6	✓ 13.	✓ 0.4	✓ <0.1	
	D (µg/L)					
Mercury	T (µg/L)	✓ 0.62	✓ 0.31	✓ 0.06	✓ 0.08	
	D (µg/L)					
Nickel	T (µg/L)	✓ 0.53	✓ 25.	✓ 2.6	✓ <1.0	
	D (µg/L)					
Zinc	T (µg/L)	✓ 870	✓ 7300	✓ 730	✓ <5.0	
	D (µg/L)					
Chromium	T (µg/L)		✓ 2.8	✓ 1.6	✓ <0.5	
	D (µg/L)					

RECEIVED
 DEC 23 2002
 MACKENZIE VALLEY
 ENVIRONMENTAL IMPACT
 REVIEW BOARD

Results are expressed in mg/L, except as indicated. T and D refer to

YUKON, ALBERTA, NORTHWEST TERRITORIES
 FIELD SAMPLING AND DATA

LICENSEE/PROJECT <i>Cadillac Explorations Limited</i>		LICENCE NO. <i>N3L3-0932</i>		LOCATION			
DATE SAMPLED <i>August 23, 1983</i>		SAMPLED BY <i>MORROWAY / AMPHERSON / JESMAN</i>		<i>PRINCE CREEK MINESITE</i>			
ANALYSIS	SAMPLE VOLUME	PRESERVATIVE	STATION NUMBER				
			DUMP	Diversion Ditch	Tailings Pond	Field BLANK	
			BOTTLE NUMBER				
MISC. & ARSENIC	1 LITRE	NONE	DUMP		Tailings Pond	BLANK	
HEAVY METALS	500 ML	2 ML 1:1 HNO ₃	DUMP	STOCK PILE DITCH	Tailings Pond	BLANK	
CYANIDE	500 ML	About 6 pellets NaOH to pH 12					
MERCURY	250 ML	2 ML 1:1 HNO ₃ + 2 ML 5% K ₂ Cr ₂ O ₇	DUMP	STOCK PILE DITCH	Tailings Pond	BLANK	
NUTRIENTS	250 ML	NONE	DUMP		Tailings Pond	BLANK	
BACTERIA	500 ML	NONE					
OIL AND GREASE	1 LITRE (GLASS)	4 ML 1:1 H ₂ SO ₄					

Time of Sampling	1240	1620	1540
Air Temperature			
Water Temperature			
Rate of Flow	< 1gpm		
Ice Thickness			
Depth of Sampling			
pH			
Conductivity			
Dissolved Oxygen			

dump:
 clear seepage enters dump, seepage leaving dump highly colored with slightly offensive odor

Diversion Ditch - ditch surrounding ore stock pile, sample clear, heavy rains during the past few days.

Tailings pond sampled at west end.

RESULTS OF LABORATORY ANALYSIS

SENSE/ OBJECT		LICENCE NUMBER		LOCATION		
Cadillac Explorations Ltd.		#323-0932		Prairie Creek		
DATE SAMPLED		DATE RECEIVED		DATE COMPLETED		
August 23, 1983		AUG 25/83		Sept. 21, '83		
ANALYSIS NUMBER	932-1	932-4	932-6	932-7	932-7D	Mine Water
LABORATORY NUMBER	31703	31701	31702	31703	31704	31705
ANALYSIS REQUIRED	✓	✓	✓	✓	✓	✓
Conductivity (umho/cm)	✓ 7.5	✓ 7.9	✓ 8.2	✓ 8.3	✓ 8.3	✓ 7.8
Dissolved Oxygen	✓ 720.	✓ 610.				✓ 900
Turbidity (NTU)						
Colour (colour U.)						
Suspended Solids	✓ 5.6	✓ <5.	✓ <5.	✓ <5.	✓ <5.	✓ <5.
Residue	✓ 480.					
Calcium	✓ 86.7	✓ 73.5	✓ 56.6	✓ 56.7	✓ 56.8	
Magnesium	✓ 40.7	✓ 32.9	✓ 19.1	✓ 18.7	✓ 18.5	
Water Hardness (CaCO ₃)	✓ 384.	✓ 319.	✓ 220.	✓ 219.	✓ 218.	
Alkalinity (CaCO ₃)			✓ 180.	✓ 170.	✓ 170.	
Sodium			✓ 1.00	✓ 1.03	✓ 1.26	
Potassium			✓ 0.40	✓ 0.44	✓ 0.39	
Chloride			✓ 1.0	✓ 1.1	✓ 1.7	
Sulphate			✓ 40.	✓ 43.	✓ 39.	
Total Coliform (count/100 ml)	* OIL + GREASE - ANALYZED OCT. 14, 1983 - PARAMETER NOT CHECKED ON SAMPLE SHEET BUT OIL + GREASE BOTTLE SUBMITTED					
Fecal Coli.						
Fecal Strep.						
Total Plate Cnt (cnt/ml)						
OD ₅						
OD						
Carbon. IC						
Carbon, TOC						
Ammonia Nitrogen (as N)	✓ <0.03	✓ 0.18	✓ <0.03	✓ <0.03	✓ <0.03	✓ 0.16
Nitrate + Nitrite (as N)	✓ 0.12	✓ 0.16	✓ 0.07	✓ 0.05	✓ <0.04	✓ 0.07
Total Kjeldahl N						
Phosphorus O-P (as P)	✓ <0.05	✓ <0.05	✓ <0.05	✓ <0.05	✓ <0.05	
Phosphorus Tot						
Silica Reac. (as SiO ₂)			✓ <0.01	✓ <0.01	✓ <0.01	
Total Cyanide						
Available Cyanide						
Sulphide						
Oil & Grease		* <1.				
Phenols						
Arsenic	T (ug/L)	✓ 5.1	✓ 1.5	✓ 1.5	✓ 1.5	✓ 1.3
	D (ug/L)					
Cadmium	T (ug/L)	✓ 0.26	✓ 1.4	✓ <0.05	✓ <0.05	✓ 0.30
	D (ug/L)					
Copper	T (ug/L)	✓ 11	✓ 1.7	✓ 0.6	✓ <0.5	✓ 1.3
	D (ug/L)					
Iron	T (ug/L)	✓ 220.	✓ 15.	✓ 13.	✓ 5.2	✓ 5.0
	D (ug/L)					
Lead	T (ug/L)	✓ 0.3	✓ 8.4	✓ <0.1	✓ <0.1	✓ <0.1
	D (ug/L)					
Mercury	T (ug/L)	✓ 0.02	✓ 0.06	✓ 0.03	✓ 0.02	✓ 0.04
	D (ug/L)					
Nickel	T (ug/L)	✓ 0.09	✓ 0.08	✓ 0.03	✓ 2.2	✓ 2.0
	D (ug/L)					
Zinc	T (ug/L)	✓ <1.0	✓ 4.0	✓ <1.0	✓ 2.2	✓ 2.0
	D (ug/L)					
Chromium	T (ug/L)	✓ 10	✓ 330	✓ <5.0	✓ <5.0	✓ <5.0
	D (ug/L)					
Chromium	T (ug/L)	✓ 1.5	✓ 6.1	✓ <0.5	✓ 0.4	✓ 1.0
	D (ug/L)					

LICENSEE/PROJECT

Creeks

LICENCE NO.

H323-0932

LOCATION

DATE SAMPLED

August 23, 1983

SAMPLED BY

MICHAEL J. AMPURSON / JESSIHAN

PRAIRIE CREEK MINES

ANALYSIS	SAMPLE VOLUME	PRESERVATIVE	STATION NUMBER					
			932-1	932-4	932-6	932-7	932-7	Mine Water Point
			BOTTLE NUMBER					
MISC. & ARSENIC	1 LITRE	NONE	932-1	932-4	932-6	932-7	932-7D	MINE WATER
HEAVY METALS	500 ML	2 ML 1:1 HNO ₃	932-1	932-4	932-6	932-7	932-7D	MINE WATER
CYANIDE	500 ML	About 6 pellets NaOH to pH 12			932-6	932-7	932-7D	
MERCURY	250 ML	2 ML 1:1 HNO ₃ + 2 ML 5% K ₂ Cr ₂ O ₇	932-1 932-1	932-4 932-4	932-6 932-6	932-7	932-7D	MINE WATER
NUTRIENTS	250 ML	NONE	932-1	932-4	932-6	932-7	932-7D	MINE WATER
BACTERIA	500 ML	NONE						
OIL AND GREASE	1 LITRE (GLASS)	4 ML 1:1 H ₂ SO ₄		932-4				
Time of Sampling			14 25	13 15	11 45	15 30	15 30	14 25
Air Temperature			18°C					
Water Temperature (°C)					8	9.5		
Rate of Flow estimate								0.11
Ice Thickness								
Depth of Sampling								
pH					8.2	*		
Conductivity					254	255		
Dissolved Oxygen								
Conductivity @ 25°C					370	358		

* pH meter problems

Northern Affairs Program,
P.O. Box 150,
Fort Simpson, N.W.T.
XOE ONO

October 11, 1983

Double Registered

N3L3-0932
N806248

Mr. L.C. Morrisroe,
Chairman of the Board,
Cadillac Explorations Limited,
Suite 630, Southland Plaza,
10201 Southport Road, S.W.,
Calgary, Alta
T2W 4X9

RECEIVED

DEC 23 2002

MACKENZIE VALLEY
ENVIRONMENTAL IMPACT
REVIEW BOARD

Dear Sir:

Re: Inspection Report on Cadillac Explorations Limited
Prairie Creek Minesite, N.W.T. September 28, 1983

Please find enclosed a copy of the land use inspection report and a water
licence inspection report.

Yours truly,

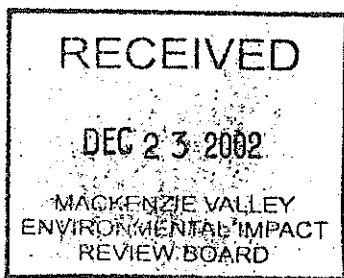
(Signature)

J.E. Umpherson,
District Manager

encls:

cc: Water Resources
Procan

AM/fcm



Northern Affairs Program,
P.O. Box 150,
Fort Simpson, N.W.T.
XOE ONO

October 11, 1983

N3L3-0932
N80D248

Mr. Maurice de St. Jorre,
Manager - Minerals Development,
880 Guinness House,
727 - 7th Avenue, S.W.,
Calgary, Alta
T2P 0Z8

Dear Sir:

Re: Inspection Reports on Cadillac Explorations Limited
Prairie Creek Minesite, September 28, 1983

Please find enclosed copies of a land use inspection report and water licence inspection report. The reports indicate your company has done a commendable job restoring the mill reagents.

I have requested our regional office in Yellowknife to provide some direction in your effort to dispose of the drilling mud additives.

Yours truly,

orig signed
by
J.E. Umpherson,
District Manager

Encls:

cc: Water Resources

AM/fcm

LAND USE INSPECTION REPORT / RAPPORT D'INSPECTION RELATIF À L'UTILISATION DES TERRES
 TERRITORIAL LAND USE REGULATIONS / RÈGLEMENT CONCERNANT L'UTILISATION DES TERRES TERRITORIALES

Permittee - Détenteur du permis <i>Cadillac Exploration Ltd.</i>	Date <i>Sept 28/83</i>	Permit No. / Permis n° <i>N80D248</i>
Location - Endroit <i>Prairie Creek</i>	Previous Inspection Dates / Inspections antérieures (dates)	
Contractor - Entrepreneur —	Initial / Initiale	
Sub-Contractors - Sous-traitants —	Interim / Provisoire	
	Interim / Provisoire	<input checked="" type="checkbox"/>
Date operation commenced - Date du début des travaux	Final / Finale	
Current stage of program - État des travaux	Expiry Date - Date d'expiration du permis <i>April 14/84.</i>	

Program modification Approved/Not Approved (Explain) / Modifications apportées approuvées/non approuvées (Expliquer) *as per file N80D248*

Conditions	Acceptable, U-Unacceptable	Staging Access	Access Route	Air Strip	Seismic Line	Camp site	Drilling site
A- Acceptable, U- Unacceptable	Acceptable, U- Unacceptable	Accès aux échafaudages	Route d'accès	Piste d'atterrissage	Ligne de sondage	Emplacement de camp	Emplacement de forage
A) BRUSH DISPOSAL / DESTRUCTION DES BUISSONS							
1 Windrowed / Formation d'andains						—	
2 Lopped & Scattered / Élagage et dispersion						—	
3 Walked Down / Foulage						—	
4 Leaners Felled / Abattage						—	
5 Burned / Brûlage			<i>N/A</i>			—	
6 Buried / Enfouissement			<i>*</i>			—	
7							
B) EROSION CONTROL / CONTRÔLE DE L'ÉROSION							
1 Ground Disturbance / Perturbation du sol						—	
2 Stream Approaches / Abords de ruisseaux						—	
3 Stream Crossings / Gués de ruisseaux						—	
4 Drainage Disruption / Perturbation du réseau de drainage						—	
5 Backsloping - Contours / Surface structurale et relief						—	
6 Shotholes Plugged / Obturation du trou de tir						—	
7							
C) POLLUTION PREVENTION / LUTTE CONTRE LA POLLUTION							
1 Removal Bldg. & Equip. / Enlèvement, bâtiments et matériel						—	
2 Fuel Storage / Entreposage, combustible						<i>A</i>	
3 Incineration (garbage, etc.) / Incineration, ordures etc.						<i>A</i>	
4 Other wastes / Autres déchets						—	
5 Sumps and Pits / Puisards et fosses						<i>A</i>	
6						—	

Explanation and Remarks (include comments on other permit conditions, as necessary) / Explications et commentaires (mentionner toute autre condition du permis)
** Unable to inspect due to road washouts. Procan Fullfilling Cadillac's responsibilities.*

Hanvold EXPEDITE, Ft Nelson / *David J. Jessiman*
 Operator's Representatives - Représentant de l'exploitant / Land Use Inspector - Inspecteur de l'utilisation des terres

Bryan Silbert / *Fort Simpson, N.W.T.*
 Signature / Area - Zone

Land Use Permit on hand / Permis d'utilisation des terres Yes / Oui No / Non

Checked by RMO / Vérification par l'agent régional de l'exploitation minière

Findings of initial and interim reports are subject to final inspection during summer months unless otherwise stated in writing by the District Superintendent / Les conditions décrites dans les rapports initiaux et provisoires doivent faire l'objet d'une inspection finale au cours de l'été, à moins que le surintendant n'en décide autrement et ne fasse, à ce sujet, une déclaration écrite.

Superintendent / Surintendant _____

REPORT OF LABORATORY ANALYSIS

Macdonald
WRO, Fort Simpson

CLIENT/PROJECT		LICENSE NUMBER				LOCATION	
CADDAC EXPLORATIONS LTD		N343-0932				PRAIRIE CREEK	
SITE		DATE RECEIVED				DATE COMPLETED	
MAY 24, 1984		MAY 29, 1984				JULY 2, 1984	
STATION NUMBER		932-4	932-6	932-6	932-7	MINE WATER	FIELD BLANK
LABORATORY NUMBER		40363	40364	40365	40366	40367	40368
ANALYSIS REQUIRED		✓	✓	✓	✓	✓	✓
pH (units)			✓ 8.3	✓ 8.3	✓ 8.4	✓ 8.3	
Conductivity (umho/cm)			✓ 300	✓ 300	✓ 290	✓ 940	
Dissolved Oxygen							
Turbidity (NTU)							
Colour (colour U.)							
Suspended Solids		✓	✓ 100.	✓ 88.	✓ 200.	✓ <5	
DS, Residue							
Calcium			✓ 34.8	✓ 34.9	✓ 33.5		
Magnesium			✓ 13.7	✓ 13.6	✓ 13.1		
Tot. Hardness (CaCO ₃)			✓ 143.3	✓ 143.1	✓ 137.6		
Tot. Alkalinity (CaCO ₃)			✓ 120	✓ 120	✓ 110		
Sodium			✓ 1.1	✓ 1.1	✓ 1.2		
Potassium			✓ 0.5	✓ 0.5	✓ 0.6		
Chloride			✓ 0.5	✓ <0.5	✓ <0.5		
Sulphate			✓ 27.	✓ 28.	✓ 27.	✓ 220.	
Total Coliform (count/100 ml)							
Fecal Coli.							
Fecal Strep.							
Std. Plate Cnt (cnt/ml)							
BOD ₅							
COD							
Carbon, IC							
Carbon, TOC							
Ammonia Nitrogen (as N)		✓ <0.03	✓ <0.03	✓ <0.03	✓ <0.03		
Nitrate + Nitrite (as N)		✓ 0.20	✓ <0.04	✓ <0.04	✓ <0.04		
Total Kjeldahl N							
Phosphorus O-P (as P)			✓ <0.05	✓ <0.05	✓ <0.05		
Phosphorus Tot (P)							
Silica Reac. (as SiO ₂)							
Total Cyanide			✓ 0.02	✓ 0.02	✓ 0.01		✓ <0.01
Available Cyanide							
Sulphide							
Oil & Grease		✓ <1	✓ **				
Phenols							
Arsenic	T (ug/L)	✓ <1.0	✓ <1.0	✓ <1.0	✓ <1.0	✓ 5.8	✓ <1.0
	D (ug/L)						
Cadmium	T (ug/L)	✓ 0.4	✓ <0.1	✓ <0.1	✓ <0.1	✓ 9.5	✓ <0.1
	D (ug/L)						
Copper	T (ug/L)	✓ 4.3	✓ 1.4	✓ 1.3	✓ 1.6	✓ 22.5	✓ 0.5
	D (ug/L)						
Iron	T (ug/L)	✓ 11.9	✓ 411	✓ 340	✓ 539	✓ 26.9	✓ 2.9
	D (ug/L)						
Lead	T (ug/L)	✓ 13.6	✓ 1.0	✓ 0.7	✓ 2.1	✓ 9.1	✓ <0.1
	D (ug/L)						
Mercury	T (ug/L)	✓ 0.04	✓ <0.01	✓ 0.02	✓ 0.02	✓ *	✓ 0.02
	D (ug/L)	✓ 0.02			✓ 0.02		
Nickel	T (ug/L)	✓ 1.4	✓ <1.0	✓ <1.0	✓ <1.0	✓ 11.1	✓ <1.0
	D (ug/L)						
Zinc	T (ug/L)	✓ 595	✓ 41	✓ 46	✓ 48	✓ 5,960	✓ 46
	D (ug/L)						
Chromium	T (ug/L)		✓ 2.3	✓ <0.5	✓ 1.1		
	D (ug/L)						

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DEC 23 2002
MACKENZIE VALLEY
ENVIRONMENTAL IMPACT
REVIEW BOARD

RECEIVED
Northern Affairs Program
JUL 12 1984
D. I. A. S. D.
FORT SIMPSON, N.W.T.

* NO OIL & GREASE SAMPLE
BOTTLE RECD. BB

* NO MERCURY SAMPLE
BOTTLE RECD. BB

* All values are in mg/L, except as indicated. T and D refer to Total and Dissolved respectively.

Carson Macamadd
 WRO
 Fred Simpson

RESULTS OF LABORATORY ANALYSIS

LEGAL SAMPLES

LICENSEE/ PROJECT <i>Cochellac Explorations Ltd</i>		LICENCE NUMBER <i>N363-0932</i>				LOCATION <i>Prarie Creek Mine</i>	
DATE SAMPLED <i>06/07/84</i>		DATE RECEIVED <i>07/07/84</i>				DATE COMPLETED <i>13/07/84</i>	
STATION NUMBER	<i>Mine Water ①</i>	<i>Mine Water ②</i>	<i>Mine Water ③</i>	<i>Mine Water ④</i>	<i>Mine Water ⑤</i>	<i>Mine Water ⑥</i>	
LABORATORY NUMBER	40587	40588	40589	40590	40591	40592	
ANALYSIS REQUIRED	✓	✓	✓	✓	✓	✓	
pH (units)	✓ 8.0	✓ 8.0	✓ 8.1	✓ 8.1	✓ 8.1	✓ 8.1	
Conductivity (umho/cm)							
Dissolved Oxygen							
Turbidity (NTU)	✓ 0.80	✓ 0.65	✓ 0.80	✓ 0.55	✓ 0.60	✓ 0.70	
Colour (colour U.)							
Suspended Solids	✓ <5	✓ <5	✓ <5	✓ <5	✓ <5	✓ <5	
TDS, Residue							
Calcium							
Magnesium							
Tot. Hardness (CaCO ₃)							
Tot. Alkalinity (CaCO ₃)							
Sodium							
Potassium							
Chloride							
Sulphate							
Total Coliform (count)							
Fecal Coli. (100)							
Fecal Strep. (ml)							
Std. Plate Cnt (cnt/ml)							
BOD ₅							
COD							
Carbon, IC							
Carbon, TOC							
Ammonia Nitrogen (as N)							
Nitrate + Nitrite (as N)							
Total Kjeldahl N							
Phosphorus O-P (as P)							
Phosphorus Tot (P)							
Silica Reac. (as SiO ₂)							
Total Cyanide							
Available Cyanide							
Sulphide							
Oil & Grease							
Phenols							
Arsenic	T (ug/L)						
	D (ug/L)						
Cadmium	T (ug/L)						
	D (ug/L)						
Copper	T (ug/L)						
	D (ug/L)						
Iron	T (ug/L)						
	D (ug/L)						
Lead	T (ug/L)	✓ 27.2	✓ 27.5	✓ 27.7	✓ 32.8	✓ 27.6	
	D (ug/L)						
Mercury	T (ug/L)						
	D (ug/L)						
Nickel	T (ug/L)						
	D (ug/L)						
Zinc	T (ug/L)	✓ 10,810	✓ 10,640	✓ 10,650	✓ 10,510	✓ 10,440	
	D (ug/L)						
Chromium	T (ug/L)						
	D (ug/L)						

RECEIVED
 DEC 23 2002
 BLACKTIE VALLEY
 ENVIRONMENTAL IMPACT
 REVIEW

Results are expressed in mg/L, except as indicated. T and D refer to total and dissolved metals respectively.

FIELD SAMPLING AND DATA

LICENSEE/PROJECT <i>Cadillac Explorations Ltd</i>	LICENCE NO. <i>N3L3-0932</i>	LOCATION <i>Drainie Creek Homesite</i>
DATE SAMPLED <i>06/07/84</i>	SAMPLED BY <i>Mac Donald</i>	

ANALYSIS	SAMPLE VOLUME	PRESERVATIVE	STATION NUMBER					
			<i>Homesite</i>	<i>Homesite</i>	<i>Homesite</i>	<i>Homesite</i>	<i>Homesite</i>	<i>Homesite</i>
			BOTTLE NUMBER					
MISC. & ARSENIC	1 LITRE	NONE	<i>MW1</i>	<i>MW1</i>	<i>MW1</i>	<i>MW1</i>	<i>MW1</i>	<i>MW1</i>
HEAVY METALS	<i>500 ML 125</i>	2 ML 1:1 HNO ₃	<i>MW1</i>	<i>MW1</i>	<i>MW1</i>	<i>MW1</i>	<i>MW1</i>	<i>MW1</i>
CYANIDE	500 ML	About 6 pellets NaOH to pH 12						
MERCURY	250 ML	2 ML 1:1 HNO ₃ + 2 ML 5% K ₂ Cr ₂ O ₇						
NUTRIENTS	250 ML	NONE						
BACTERIA	500 ML	NONE						
OIL AND GREASE	1 LITRE (GLASS)	4 ML 1:1 H ₂ SO ₄						
Time of Sampling			<i>1210</i>					
Air Temperature								
Water Temperature								
Rate of Flow								
Ice Thickness								
Depth of Sampling								
pH								
Conductivity								
Dissolved Oxygen								

legal sample replicate of seven

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
 WATER RESOURCES DIVISION, YELLOWKNIFE, NORTHWEST TERRITORIES

Adrian

RESULTS OF LABORATORY ANALYSIS

LICENSEE/ PROJECT <i>Cadillac Explorations Ltd</i>		LICENCE NUMBER <i>N323-0932</i>			LOCATION <i>Prairie Creek Mine</i>		
DATE SAMPLED <i>06/07/84</i>		DATE RECEIVED <i>07/07/84</i>			DATE COMPLETED <i>13/07/84</i>		
STATION NUMBER	<i>Mine Water</i> (7)		<i>Field Blank</i>	<i>Field Blank</i>			
LABORATORY NUMBER	40593		40594	40595			
ANALYSIS REQUIRED	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
pH (units)	<input checked="" type="checkbox"/> 8.0						
Conductivity (µmho/cm)							
Dissolved Oxygen							
Turbidity (NTU)	<input checked="" type="checkbox"/> 0.80						
Colour (colour U.)							
Suspended Solids	<input checked="" type="checkbox"/> <5						
TDS, Residue							
Calcium							
Magnesium							
Tot. Hardness (CaCO ₃)							
Tot. Alkalinity (CaCO ₃)							
Sodium							
Potassium							
Chloride							
Sulphate							
Total Coliform (count)							
Fecal Coli. (100)							
Fecal Strep. (ml)							
Std. Plate Cnt (cnt/ml)							
BOD ₅							
COD							
Carbon, IC							
Carbon, TOC							
Ammonia Nitrogen (as N)							
Nitrate + Nitrite (N)							
Total Kjeldahl N							
Phosphorus O-P (as P)							
Phosphorus Tot (P)							
Silica Reac. (as SiO ₂)							
Total Cyanide							
Available Cyanide							
Sulphide							
Oil & Grease							
Phenols							
Arsenic	T (µg/L)						
	D (µg/L)						
Cadmium	T (µg/L)						
	D (µg/L)						
Copper	T (µg/L)						
	D (µg/L)						
Iron	T (µg/L)						
	D (µg/L)						
Lead	T (µg/L)	<input checked="" type="checkbox"/> 29.3		<input checked="" type="checkbox"/> <0.1	<input checked="" type="checkbox"/> <0.1		
	D (µg/L)						
Mercury	T (µg/L)						
	D (µg/L)						
Nickel	T (µg/L)						
	D (µg/L)						
Zinc	T (µg/L)	<input checked="" type="checkbox"/> 10,620		<input checked="" type="checkbox"/> 43	<input checked="" type="checkbox"/> 15		
	D _{up} (µg/L)			<input checked="" type="checkbox"/> 41			
Chromium	T (µg/L)						
	D (µg/L)						

Results are expressed in mg/L, except as indicated. T and D refer to total and dissolved metals respectively.

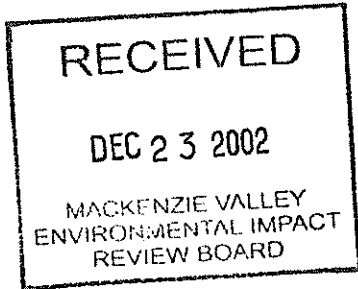
CHAIN OF CUSTODY RECORD

CASE FILE: MINE WATER DISCHARGE PRAIRIE CREEK MINE

SAMPLER(S): Adrian Mac Donald
(signature)

STATION NUMBER OR DESCRIPTION	STATION LOCATION	DATE	TIME	ANALYSIS					REMARKS
				MISC	HEAVY METALS	CYANIDE	MERCURY	OIL & GREASE	
mine water	2548 portal	06/07/84	12:10 MDT	✓	✓				replicate of 7 samples of
"	"	"	"	✓	✓				mine water taken
"	"	"	"	✓	✓				
"	"	"	"	✓	✓				
"	"	"	"	✓	✓				
"	"	"	"	✓	✓				
"	"	"	"	✓	✓				
Field Blank	-	06/07/84	12:20 MDT	✓	✓				
Field Blank	-	"	"	✓	✓				

RELINQUISHED BY: (signature)	DATE	TIME	RECEIVED BY: (signature)	DATE	TIME	METHOD OF TRANSFER
<u>Adrian Mac Donald</u>	<u>07/07/84</u>	<u>1015</u>	<u>Constance M. Quill</u>	<u>07/07/84</u>	<u>1015</u>	<u>direct transfer.</u>



Northern Affairs Program,
P.O. Box 150,
Fort Simpson, N.W.T.
XOE ONO

August 30, 1985

N80D248

Coopers Lybrand Limited,
1111 West Hastings Street,
Vancouver, B.C.
V6E 3R2

Dear Sirs:

Re: Land Use Permit N80D248
Prairie Creek Minesite

Please find attached an Environmental Inspection Report conducted by Land Use Inspector, John W. Hayes, on July 26, 1985. Mr. Hayes reports some unacceptable conditions exist, which were being corrected at the time of the inspection.

The assistance provided by Procan Staff onsite is appreciated.

Regards,
Original Signed By
J.E. UMPHERSON,
DISTRICT MANAGER
J.E. Umpherson,
District Manager

encls:

cc: Land Resources, YK

Procan

JWH/fcm

Permittee: (complete name and address) CADILLAC EXPLORATION LTD.

Prairie Creek Minesite

Land Use Permit No.	N80D248	Permit Expiry Date	April 12/85	Last Previous Inspection	Sept. 28/83
Quarrying Permit No.					
Contractor:	Hanvold Expidite - Fort Nelson, B.C.		Subcontractor:		

Location(s) Inspected: Minesite, tailings area, chemical storage, garbage pit, fuel storage, campsite, adits, etc.

Current Stage of Operation: No activity taking place except minor maintenance.

Program Modifications Approved:

Condition of Operation "A"-Acceptable "U"-Unacceptable "N/A"-Not Applicable

Operating Condition	Aspect Inspected			
	Campsite			Tailings Pond
A Location as Permitted	A			A
B Timing as Permitted	A			A
C Equipment as Approved	A			A
D Methods & Techniques	A			-
E Facilities	A			-
F Erosion - on access to air-strip	U1			U4
G Chemicals, Waste Storage	U2			-
H Wildlife & Fisheries Habitat	A			-
I Ecological Resource	-			-
K Fuel Storage	U3			-
L Brush Disposal	-			-
M Matters Not Inconsistent	A			-
N Water Engineering	A			-
O Water Supply	A			-
P Restoration	-			-
Q Quarrying Methods	-			-
R Sections 12 to 19 T.L.U.R.	A			A
S				
T				

Surveillance Network Program

Explanatory Remarks (attach page 2, if required) See page 2

Page 2 attached Yes No

Not Available
Representative's Signature

[Handwritten Initials]
RMO Initials

John W. Hayes
[Handwritten Signature]
Inspector's Signature
[Handwritten Initials]
District Mgr. Initials

Representative's Title

Date July 26 / 85Permit No. N800248
N° de permisExplanation and Remarks (Continued)
Explications et remarques (suite)

- U1 - Erosion and slumping occurring on access road to airstrip adjacent to tailings pond.
- U2 - Some broken bags present, new tarps required. Suggest highly toxic chemicals be covered first. To date, the chemicals stored on site that have been re-covered, look excellent.
- U3 - Bungs on waste oil barrels should be tightened to eliminate seepage. These barrels should be stacked more appropriately. Representative on site advised us that they are now putting waste oil in containers which would eliminate both problems. An excellent practise.
- U4 - Erosion occurring on various places on tailings pond berm. Corrective measures are essential if the integrity of the tailings pond is to remain.

All other environmental operating conditions acceptable.

John W. Hayer


Land Use Inspector - Inspecteur de l'utilisation des terres

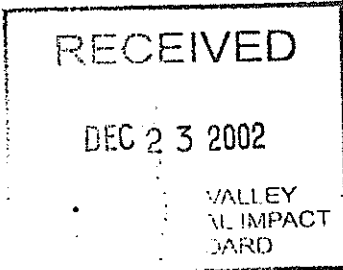
Note: This form is to be used as necessary in conjunction with the Land Use Inspection Report Territorial Land Use Regulations, IAND 52-221 (10-72).

Au besoin, annexer la présente feuille au rapport d'inspection de l'utilisation des terres, Règlements sur l'utilisation des terres territoriales, MAINC 52-221 (10-72).



Indian and
Northern Affairs

Affa. indiennes
et du Nord



Double Registered

Coopers Lybrand Limited,
1111 West Hasting Street,
Vancouver, B.C.
V6E 3R2

Dear Sir:

Re: Inspection Report on Cadillac Exploration Limited
Prairie Creek Minesite
July 26, 1985

Enclosed please find a report prepared by Dennis Trudeau following his inspection of July 26, 1985.

Overall, no serious problems were encountered on the minesite inspection. The Water Resource Officer has made some recommendations at the end of his report. If these concerns could be addressed as soon as possible, it would be appreciated.

Please advise the undersigned or Dennis Trudeau when the recommendations have been carried out. Do not hesitate to call if you have any questions.

Again, the onsite assistance is greatly appreciated.

Yours truly,

Original Signed By
J.E. UMPHERSON
DISTRICT MANAGER
J.E. Umpherson,
District Manager

encls: Report

cc: Water Resources, YK
Procan

DMT/fcm

Northern Affairs Program,
P.O. Box 150,
Fort Simpson, N.W.T.
XOE ONO

August 21, 1985

Your file Votre référence

Our file Notre référence

N3L3-0932

INSPECTION REPORT
CADILLAC EXPLORATIONS LIMITED
PRAIRIE CREEK MINESITE

N3L3-0932

INTRODUCTION:

On July 26, 1985, John Hayes, Environmental Surveillance Officer, Fort Simpson and Dennis Trudeau, Water Resource Officer, Fort Simpson, conducted an inspection of the Prairie Creek minesite. The officers were accompanied by Jack Richard, one of the two caretakers hired by Procan to care for the site.

GENERAL CONDITIONS:

A10. The chemical storage area was found to be in good condition. The old plastic wrap is slowly being replaced with a sturdier material favoured by forest product companies. To date they have covered 2 rows of NaCN pallets and 2 rows of Xanthate pallets. There are 2 crates of CuSO_4 that have been broken into which may have been caused by bears. A couple of the bags inside the crates have also been ripped open causing the chemical to spill on the ground. Mr. Richard said the spilled CuSO_4 and the broken bags would be put in a barrel and then taken to the tailings pond.

In addition to the mill reagents stored at the storage site, there are 6 - 45 gallon drums containing screened soil from the PCB spill site. The drums are covered with a sheet of plywood.

The sump was partially full and samples were taken. When the sump does fill, the liquid is pumped to a tanker truck and then deposited in the tailings pond.

CONDITIONS APPLYING TO WASTE DISPOSAL:

C1. Minewater was discharging from the 2848' portal at a rate of approximately .25 cubic meters per minute. A pH measurement was performed on the discharge as it exits the portal and was found to be 8.0. This is below the optimum value of 9.5 needed to precipitate out the high zinc that is prevalent in the discharge.

The minewater treatment system uses 30 kg. of soda ash per day to raise the pH of the discharge.

C2. The tailing pond was inspected and there are signs of continued slumping around the pond. Panels B and C of the Hypalon liner and the southern bank of the tailing pond are the worst areas. The pond has over 2.5 meters of freeboard.

GENERAL COMMENTS:

Fuel Storage:

The fuel storage area was found to be in fair condition. The mine is storing waste oil from their diesel generators in the dyked area. The oil is in 45 gallon drums piled 2 high. The more recent barrels are stacked neatly with wood inserted between the 2 levels while the older barrels are stacked somewhat haphazardly with no wood between the 2 levels. The latter barrels are leaking and contaminating the water that ponds in the dyke. The waste oil is now being deposited in an empty fuel tank. The water that ponds in the dyke is periodically pumped out to Harrison Creek.

There is 1.5 million gallons of fuel remaining in the fuel storage area.

GENERAL COMMENTS (CONT'D):

Landfill:

The solid waste disposal is accomplished by landfilling at the SE end of the minesite. The waste is being well covered with topsoil.

Sewage Treatment:

The sewage treatment and water systems have been working without problems since the last inspection.

RECOMMENDATIONS:

1. Ensure that enough soda ash is added to the minewater treatment system to keep the pH of the solution between 9 and 10.
2. Since the new plastic covers for the chemical storage area are coming in slowly and only a few at a time, there should be an order to what will be covered first. The priorities should be the barrels of PCB contaminated gravel, then the NaCN and CuSO_4 . These materials constitute the greater environmental hazard.
3. It is a good practice to pump excess water out of the fuel storage area, but since the water is contaminated with oil, it is not recommended that it be pumped to Harrison Creek. Instead it should be pumped to the tailings pond in the same way that the chemical storage area sump is emptied.
4. The waste oil that is stored in the fuel storage area should be restacked with the leaking barrels removed. Another option would be to put all of this waste oil in the empty fuel storage tank.

N3L3-0932:

...../4

SAMPLES:

932 - 4

932 - 6

932 - 7

Drinking water

Chemical Storage sump

Tailing pond supernate

Minewater (2848' portal)

Dennis M. Trudeau

Dennis M. Trudeau,

Water Resource Officer

DMT/fcm

RESULTS OF LABORATORY ANALYSIS

LICENSEE/ PROJECT		LICENCE NUMBER				LOCATION	
Cadillac		N3L3-0932				Prairie Cr.	
DATE SAMPLED		DATE RECEIVED				DATE COMPLETED	
July 21		August 2, 1988				Aug. 29 / 88	
STATION NUMBER	T. P.	O.S. 932-6	O.S. 932-7	SP 932-4			
LABORATORY NUMBER	880758	880759	880760	880761			
ANALYSIS REQUIRED	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
pH (units)	6.5	8.1	8.2	8.1			
Conductivity (umho/cm)	65	380	360	560			
Dissolved Oxygen							
Turbidity (NTU)							
Colour (colour U.)							
Suspended Solids	L2	3	L2	L2			
TDS, Residue							
Calcium							
Magnesium							
Tot. Hardness (CaCO ₃)	27	210	200	300			
Tot. Alkalinity (CaCO ₃)	13	167	165	208			
Sodium							
Potassium							
Chloride							
Sulphate							
Total Coliform (count)							
Fecal Coli. (100)							
Fecal Strep. (ml)							
Std. Plate Cnt (cnt/ml)							
BOD ₅							
COD							
Carbon, IC							
Carbon, TOC							
Ammonia Nitrogen (as N)	0.010	0.021	0.022	0.038			
Nitrate + Nitrite (as N)	<0.04	0.10	0.11	0.32			
Total Kjeldahl N	NOT AVAIL	NOT AVAIL	NOT AVAIL	NOT AVAIL			
Phosphorus O-P (as P)							
Phosphorus Tot (P)							
Silica Reac. (as SiO ₂)							
Total Cyanide	UNPRESERVED DID NOT ANALYSE	UNPRESERVED DID NOT ANALYSE	UNPRESERVED DID NOT ANALYSE				
Available Cyanide							
Sulphide							
Oil & Grease							
Phenols							
Arsenic	T (ug/L)	3.	L1	L1	L1		
	D (ug/L)						
Cadmium	T (ug/L)	L0.2	L0.2	L0.2	0.4		
	D (ug/L)						
Copper	T (ug/L)	0.2	L1	L1	3		
	D (ug/L)						
Iron	T (ug/L)	24	114	43	24		
	D (ug/L)						
Lead	T (ug/L)	L1	L1	L1	11.		
	D (ug/L)						
Mercury	T (ug/L)						
	D (ug/L)						
Nickel	T (ug/L)	L2	2.	L2	L2		
	D (ug/L)						
Zinc	T (ug/L)	15.	6.	3.	206		
	D (ug/L)						
Chromium	T (ug/L)	6	L1	L1	L1		
	D (ug/L)						

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FORT SIMPSON, N.W.T.

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DEC 23 2002
MACKENZIE VALLEY
ENVIRONMENTAL IMPACT
REVIEW BOARD

Results are expressed in ug/L, except as indicated. T and D refer to Total and Dissolved metals respectively.

DEPARTMENT OF INDIAN AND NORTHWESTERN AFFAIRS
WATER RESOURCES DIVISION, YELLOWKNIFE, NORTHWEST TERRITORIES

RESULTS OF LABORATORY ANALYSIS

LICENSEE/CLIENT Cadillac Exp. LICENSE NUMBER N3L3-0932 LOCATION Prairie Creel

DATE SAMPLED Aug 31 89 DATE IN Sept 6/89 DATE OUT Nov 9/89
LABORATORY NUMBER 890883 890884 890885
SAMPLED BY Dennis M. Trudeau

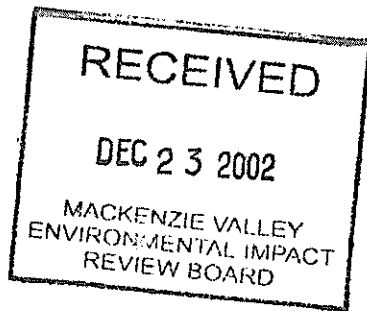
STATION NUMBER	932-4	932-6	932-7
Time of Sampling	10:30 AM	11:00 AM	11:15 AM
Depth of Sampling	Surface	Surface	Surface
Rate of Flow	12000 L/m	Lots	Lots
pH (units)	✓ 8.0	8.3	✓ 8.3
Conductivity (µmhos/cm)	✓ 700	430	✓ 420
Dissolved Oxygen			
Turbidity (NTU)			
Colour (colour units)			
Suspended Solids	- 3	- 4	- 2
TDS, Residue			
Calcium	✓ 87	- 59	✓ 58
Magnesium	✓ 46	✓ 24	✓ 23
Total Hardness	✓ 406	- 247	✓ 240
Total Alkalinity	- 250	190	184
Sodium			
Potassium			
Chloride			
Sulphate			
Tot. Coliform (cnt/100ml)			
Fecal Coli. (cnt/100ml)			
Fecal Strep. (cnt/100ml)			
Std. Plate Cnt (cnt/ml)			
BOD5			
COD			
Carbon, IC			
Carbon, TOC			
Ammonia Nitrogen (as N)			
Nitrite + Nitrate (as N)			
Total Kjeldahl N (as N)			
Phosphorus O-P (as P)			
Phosphorus Tot. (as P)			
Fluoride			
Total Cyanide			
Available Cyanide			
Sulphide			
Oil & Grease			
Phenols			
METALS (µg/L)			
Arsenic IT	✓ LI.	✓ LI.	✓ LI.
Arsenic ID			
Mercury IT			
Cadmium IT (DIG)	✓ 0.8	✓ 0.2	✓ 0.2
Cadmium IT (AE)			
Chromium IT (DIG)	✓ LI.	✓ LI.	✓ LI.
Chromium IT (AE)			
Copper IT (DIG)	✓ 2.	✓ LI.	✓ LI.
Copper IT (AE)			
Iron IT (DIG)	✓ 3.	✓ 7.	✓ 3.
Iron IT (AE)			
Lead IT (DIG)	✓ 12.	✓ LI.	✓ LI.
Lead IT (AE)			
Nickel IT (DIG)	✓ 2.	✓ LI.	✓ LI.
Nickel IT (AE)			
Zinc IT (DIG)	✓ 404	✓ 8.	✓ 2.
Zinc IT (AE)			
IT (DIG)			
IT (AE)			

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 1989
 FORT SMYTH, NT

NOTES:
NOTE:

Chemist's Note:

Results are expressed in mg/L except as indicated. I (DIG) and I (AE) refer to total digested and acid extractable respectively. L refers to less than



Northern Affairs Program,
P.O. Box 150,
Fort Simpson, N.W.T.
XOE ONO

October 30, 1985

N80D248

Coopers Lybrand Limited,
1111 West Hastings Street,
Vancouver, B.C.
V6E 3R2

Dear Sirs:

Re: Land Use Permit N80D248
Prairie Creek Minesite

Attached is an Environmental Inspection Report conducted by Land Use Inspector, Kieth A. Beraska, on September 24, 1985. Some conditions remain unacceptable, however corrective measures have begun on most.

Once again, the assistance provided by Procan staff onsite is appreciated.

Sincerely,

ORIGINAL SIGNED BY:
B. J. GAUTHIER

B.J.J. Gauthier,
District Manager

encls:

cc: Land Resources, YK
Procan

KAB/fcm

Permittee: (complete name and address)

Cadillac Exploration Ltd.
Prairie Creek Minesite

Land Use Permit No.	N80D248	Permit Expiry Date	April 12/85	Last Previous Inspection	July 26/85
Quarrying Permit No.					
Contractor: Hanvold Expedite Ltd. - Ft. Nelson		Subcontractor:			

Location(s) Inspected: Minesite, tailings pond, chemical storage, fuel storage, land fill site, explosive storage, campsite, adits, access tank farm.

Current Stage of Operation: No activity at the present time except for routine maintenance.

Program Modifications Approved: n/a

Condition of Operation "A"-Acceptable "U"-Unacceptable "N/A"-Not Applicable

	Operating Condition	Aspect Inspected	
		Camp	Tailings
A	Location as Permitted	A	A
B	Timing as Permitted	A	A
C	Equipment as Approved	A	A
D	Methods & Techniques	A	N/A
E	Facilities	A	N/A
F	Erosion	U	U
G	Chemicals, Waste	U	N/A
H	Wildlife & Fisheries Habitat	A	N/A
I	Ecological Resource	N/A	N/A
K	Fuel Storage	U	N/A
L	Brush Disposal	N/A	N/A
M	Matters Not Inconsistent	A	N/A
N	Water Engineering	A	N/A
O	Water Supply	A	N/A
P	Restoration	N/A	N/A
Q	Quarrying Methods	N/A	N/A
R	Sections 12 to 19 T.L.U.R.	A	A
S			
T			

Surveillance Network Program n/a

Explanatory Remarks (attach page 2, if required) See Page 2.

Page 2 attached Yes No

Not Available
Representative's Signature

Representative's Title

[Signature]
RMO Initials

[Signature]
Inspector's Signature

[Signature]
District Mgr. Initials

Date Sept 24/85Permit No. N800248
N° de permisExplanation and Remarks (Continued)
Explications et remarques (suite)Camp -

Erosion - Erosion and slumping of the roadbed on the access to the airstrip, near the tailings pond, is occurring.

Chemicals, Waste - Tops are required for the copper sulfate waste barrels. At present they are covered with plywood. Sodium cyanide drums should be covered (tarps ordered.)

Fuel Storage - Waste oil barrels are stacked haphazardly and some are in poor condition causing oil to leak out onto the ground.

Tailings Pond -

Erosion - Slumping of the berm is occurring and the hypalon liner is torn in places.

All other environmental operating conditions were acceptable at the time of inspection. The explosives storage area and land fill site were neat and well kept.

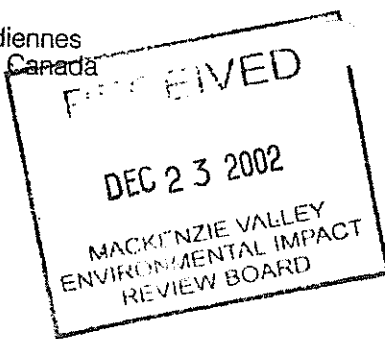

Land Use Inspector - Inspecteur de l'utilisation des terres

Note: This form is to be used as necessary in conjunction with the Land Use Inspection Report Territorial Land Use Regulations, IAND 52-221 (10-72).

Au besoin, annexer la présente feuille au rapport d'inspection de l'utilisation des terres, Règlements sur l'utilisation des terres territoriales, MAINC 52-221 (10-72).



Northern Affairs Program,
P.O. Box 150,
Fort Simpson, N.W.T.
XOE ONO



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Our file . Notre référence

September 9, 1991

J.E. Marshall,
Nanisivik Project Manager,
Procan Exploration Co. Ltd.,
c/o Strathcona Mineral Services Ltd.,
12th Floor, 20 Toronto Street,
Toronto Ont. M5C 2B8

D.M.	
R.M.O.	
D.P.O.	
W.R.O.	
E.S.O.	
A.R.M.O.	
A.R.M.O.	
A.D.P.O.	
O.M.	

Re: Inspection of Prairie Creek Minesite

Enclosed for your information and records is a copy of an inspection report carried out on the Prairie Creek minesite. The inspection was completed on August 07, 1991 by Water Resource Officer, Mr. M. Swyripa. Mr. Swyripa was assisted by property caretaker(s) Messrs. Bill and Peter Sidoruk, and I wish to take this opportunity to express our thanks for their co-operation and assistance.

The Inspection Report covers, in specific details, the operation and conditions as they exist at this present time; as well, comments and recommendations are identified in each section. We would very much appreciate your office making note of the recommendations regarding hazardous materials and also the waste materials strewn in and around the creek near portal 3170'.

Please contact us if you have questions or comments, or if we can assist you in preparing information, please feel free to call this office at any time.

Yours truly,

O.S.B.
M. Swyripa

(for) B.J.J. Gauthier,
District Manager

encls:

cc: Industrial Co-ordinator,
Water Resources

Director of Operations

MS/fcm

**INSPECTION REPORT
ON
THE PRAIRIE CREEK MINESITE
PRAIRIE CREEK, N.W.T.**

BY

**MURRAY W. SWYRIPA
WATER RESOURCE OFFICER**

**NORTHERN AFFAIRS PROGRAM
INDIAN AND NORTHERN AFFAIRS CANADA
FORT SIMPSON, N.W.T.**

**DATE: AUGUST 07, 1991
WATER REGISTER : UNLICENCED MINESITE**

*PRAIRIE CREEK MINESITE
UNLICENSED WATER INSPECTION
AUGUST 07, 1991*

INTRODUCTION

An inspection of the Prairie Creek minesite's water supply, waste disposal and fuel and chemical storage facilities was conducted on August 07, 1991 by Murray W. Swyripa, Water Resource Officer and Scott Davidson, Resource Management Officer for the Department of Indian and Northern Affairs in Fort Simpson, N.W.T. Messrs. Bill and Peter Sidoruk, property caretakers, assisted the inspectors and provided pertinent information regarding the minesite and its facilities.

Cadillac Exploration initially received a Water Licence (N3L3-0932 expired June 30, 1986) for industrial use in mining and milling process on July 01, 1982, shortly there after Procan Exploration Company took over as operator of the property. The mine has been inactive since 1983; effective November 01, 1990, Procan Exploration Company became a wholly owned subsidiary of Nanisivik Mines with Strathcona Mineral Services Ltd. acting as managers.

INSPECTION

A. Water Supply

Since there is currently no active mining being performed on site, the only water currently being used is strictly for domestic purposes. This consists of water being pumped straight from Prairie Creek (see photo two) to supply one residence (2-3 people), this water is not treated, nor is amount used metered.

B. Sewage Discharge

Camp trailers and buildings are no longer in use due to the mine shut down, as mentioned, the caretakers is the only residence operational at this time. All sewage and greywater is discharged via underground pipe and deposited into the tailings pond (see photo one), this material is not metered nor treated.

C. Solid Waste Disposal

All solid waste generated is separated and combustible material is firstly burnt in a incinerator (see photo four), then deposited into the garbage dump (south end of the minesite - see map). Non-combustible waste is hauled to the garbage dump and backfilled when required. It should be noted that there is considerable non-combustible materials dumped just below the 3170' portal, this material is strewn along the bank of a small drainage that at the time of inspection had considerable flow (see photo three).

D. Fuel Storage

All fuel storage facilities were well bermed and enclosed in impermeable dykes; there was no evidence of spills or leakage at any of the sites (see photos five & six). Other fuels, including lubricating oils and propane, are all stored in a satisfactory manner.

E. Chemicals / Hazardous Material Storage

Reagent storage and powder magazine areas are fully satisfactory with the method of storage, protection and location satisfactory (see photos seven & eight). All materials are

stored in locations as noted on surface plan and quantities as listed (Schedule A - list of Class A Materials). The one exception to this is the acid storage building (see map), this storage building contains various amounts of acids and other compounds (Hydrochloric Acid, Ammonium Hydroxide, Hydrofluoric Acid, Phosphoric Acid, Hydrogen Nitrate, Potassium Iodide). This is a metal enclosed building which is reasonably secure, but some of the acid has spilled and is leaking on the floor with the potential to corrode and escape through the floor (see photos nine & ten).

F. Tailings Containment

The tailings pond appears to be stable with no apparent leaks or breaches. There are signs of slumping around the pond, the Hypalon liner has become separated (see photos 11 & twelve) with the southern bank of the tailings pond being the worst area. The pond has over 2.5 meters of freeboard.

The dyke between the minesite and Prairie Creek has experienced little or no damage from run off or slumping. All mine water discharge and surface drainage is directed into the settlement ponds.

G. Ore Storage

The ore storage area (see map) has been in place since 1983 with what appears to be no visible disturbance. It should be noted that a slight brown discoloration on the banks of Prairie Creek was observed just upstream from the former SNP site #932-6 (see map/photos thirteen & fourteen), this is adjacent to the ore storage area.

H. Sampling Sites

The following water samples were taken at points established from the old Surveillance Network Program (see map);

- i) 932-4 - Final discharge point from tailings pond.
- ii) 932-6 - Prairie Creek at the confluence of Galena Creek.
- iii) 932-7 - Prairie Creek upstream of the airstrip.

* At the time of writing this report, laboratory results of the above samples have not yet been received.

CONCLUSION

The Prairie Creek mine site because of its status, that of being stagnant, operations remain unchanged and all berms and dykes continuing to be stable and reliable. The operator is recommended to make efforts to clean up and secure the leaking materials in the acid storage buildings, as well as removing all of the toxic chemicals and reagents from the mine property. It is also recommended that the material strewn in and around the creek below the 3170' portal be attempted to be cleaned or removed.

The Inspector(s) would like to thank Messrs. Bill and Peter Sidoruk for their assistance and hospitality during the inspection.



Murray W. Swyripa

Water Resource Officer

APPENDIX II
LIST OF CLASS "A" MATERIALS

LIST OF CLASS "A" MATERIALS LOCATED ON THE PRAIRIE CREEK MINESITE

<u>CHEMICALS</u>	<u>QUANTITY</u>
Copper Sulphate	196 pallets
Sodium Isopropyl Xanthate	84 pallets
M.I.B.C.	4 pallets
Dowfroth	4 pallets
Sodium Cyanide	94 pallets
Contaminated Gravel	6-45 gallon drums
Methanol	1 pallet
 <u>PETROLEUM PRODUCTS</u>	
Diesel Fuel	bulk
Lubricating Oil	bulk, drums and pails
Gasoline	bulk
Aviation Fuel	drums
Jet B	drums
Used Lube Oil	bulk and drums
Grease	pails
Propane	bulk
 <u>EXPLOSIVES</u>	
Cilgel	

RESULTS OF LABORATORY ANALYSIS

run

LICENSEE/ PROJECT	Cadillac Exploration	LICENCE NUMBER	Expired - June/1986 N3L3-0932	LOCATION	Prairie Creek
DATE SAMPLED	Aug. 07/91	DATE RECEIVED	Aug 8/91	DATE COMPLETED	Sept. 11/91

STATION NUMBER	932-4	932-6	932-7		
LABORATORY NUMBER	910636	910637	910638		
ANALYSIS REQUIRED					
pH (units)	✓ 8.73	✓ 8.30	✓ 8.43	Aug 12/91 MT	
Conductivity (umho/cm)	✓ 360	✓ 580	✓ 410	Aug. 13/91 MT	
Dissolved Oxygen					
Turbidity (NTU)					
Colour (colour U.)					
Suspended Solids	✓ L3	✓ L3	✓ L3	{ Aug. 23/91	
TDS, Residue	✓ 235	✓ 431	✓ 269	} MT	
Calcium	✓ 27.4	✓ 74.5	✓ 62.9	} Sept WC	
Magnesium	✓ 18.4	✓ 29.0	✓ 20.4		
Tot. Hardness (CaCO ₃)	✓ 144	✓ 305	✓ 241.		
Tot. Alkalinity (CaCO ₃)	✓ 115.	✓ 199.	✓ 175.	Aug 12/91 MT	
Sodium					
Potassium					
Chloride					
Sulphate					
Total Coliform (count)					
Fecal Coli. (100 ml)					
Fecal Strep. (ml)					
Std. Plate Cnt. (cnt/ml)					
DOB ₅					
COD					
Carbon, IC					
Carbon, TOC					
Ammonia Nitrogen (as Nitrate + Nitrite)			✓ 0.16	Aug 16/91 WC	
Total Kjeldahl N (N)					
Phosphorus O-P (as Phosphorus Tot. (P))					
Silica Reac. (as SiO ₂)					
Total Cyanide		✓ 0.002	✓ L0.001	Aug 14.	
Available Cyanide (WAD)					
Sulphide					
Oil & Grease	✓ L 0.2	Aug WC			
Phenols					
Arsenic	T (ug/L)	✓ 1.0	✓ 0.9	✓ L0.5	Sept 29/91
	D (ug/L)				
Cadmium	T (ug/L)	✓ L0.2	✓ 0.4	✓ L0.2	
	D (ug/L)				
Copper	T (ug/L)	✓ 3.	✓ 3.	✓ 1.	
	D (ug/L)				
Iron	T (ug/L)	✓ 65.	✓ 7.	✓ 90.	SEPT 11/91
	D (ug/L)				
Lead	T (ug/L)	✓ 2.	✓ 8.	✓ 2.	
	D (ug/L)				
Mercury	T (ug/L)		✓ 0.12		Aug 22/91
	D (ug/L)				
Nickel	T (ug/L)	✓ L1.	✓ 1.	✓ 3.	
	D (ug/L)				
Zinc	T (ug/L)	✓ 6.	✓ 216.	✓ 3.	
	D (ug/L)				
Chromium	T (ug/L)	✓ L1.	✓ L1.	✓ 2	SEPT 11/91
	D (ug/L)				
Cobalt	T (ug/L)	✓ L1.	✓ L1.	✓ L1.	
	D (ug/L)				

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OCT 9 1991
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FORT SIMPSON, N.W.T.

Northern Affairs Program,
P.O. Box 150,
Fort Simpson, N.W.T.
XOE ONO

September 30, 1992

J.E. Marshall,
Nanisivik Project Manager,
Procan Exploration Co., Ltd.,
c/o Strathcona Mineral Services Ltd.,
12th Floor, 20 Toronto Street,
Toronto, Ont. M5C 2B8

D.M.O.	APL
F.M.O.	APL
D.O.	
W.R.O.	
E.S.O.	
A.P.M.O.	
A.R.M.O.	
A.D.P.O.	
O.M.	

Your file Votre référence

Our file Notre référence
N3L3-0932

Re: Inspection of Prairie Creek Minesite June 30, 1992

Please find enclosed an Inspection Report carried out on the above noted site by Mr. Murray Swyripa. Mr. Swyripa was accompanied by Msrs. Davidson and Madson, as well as your representatives Mr. and Mrs. Potvin. Kindly accept my apologies for the tardiness of this report.

We sincerely appreciate your prompt response to the items that required your action as a result of last year's inspection and note that all were carried out to the Inspector's satisfaction. You will note the high zinc reading on the laboratory result from the water samples taken at the 2850 portal discharge. This situation will be monitored very closely as we are unable to determine the reason for these high numbers. The Inspector has again made reference to the discoloration on the east bank of Prairie Creek just upstream of Harrison Creek. Samples taken indicate that this is the result of a fuel spill sometime in the past. The results of these analyses will be carefully reviewed and recommendations will be forthcoming.

If you have any information to assist us in determining why the high zinc numbers at the lower portal and details of the spill near Harrison Creek, we would be grateful.

I would like, on behalf of our Department, to take this opportunity to thank your Mr. and Mrs. Potvin for their kind hospitality and assistance in providing our Inspectors with transportation and information. Mr. Potvin has done a lot of work

N3L3-0932

Inspection - June 30/92

...../2

Next year, we hope to have original photos for your copy of the Report; in the interim, please accept my apologies for the xeroxed copies.

Yours truly,

B. J. J. Gauthier

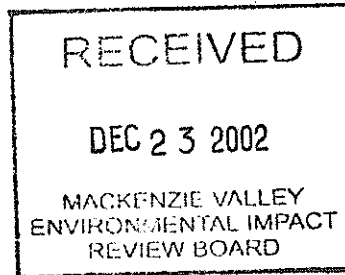
B. J. J. Gauthier,
District Manager

encls:

cc: F.N. Adlem, c/w encls.
M. Swyripa
Roger Potvin, c/w encls.
Eric Madson, c/w encls.
Supt., NNP, c/w encls.

*792-10-01
Gm*

BJJG/fcm



*INSPECTION REPORT
ON
THE PRAIRIE CREEK MINESITE
PRAIRIE CREEK, N.W.T.*

by

*MURRAY W. SWYRIPA
WATER RESOURCE OFFICER*

*NORTHERN AFFAIRS PROGRAM
INDIAN AND NORTHERN AFFAIRS CANADA
FORT SIMPSON, N.W.T.*

*DATE: JUNE 30, 1992
WATER REGISTER: EXPIRED*

**PRAIRIE CREEK MINESITE
UNLICENSED WATER INSPECTION
JUNE 30, 1992**

INTRODUCTION

An inspection of the Prairie Creek minesite's water supply, waste disposal and fuel and chemical storage facilities was conducted on June 30, 1992 by Murray W. Swyripa, Water Resource Officer and Scott Davidson, Resource Management Officer for the Department of Indian and Northern Affairs in Fort Simpson, and Eric Madsen, Industrial Co-ordinator for the Water Resources Division in Yellowknife. Mr Roger Potvin, property caretaker, assisted the inspectors and provided pertinent information regarding the minesite and its facilities.

Cadillac Exploration initially received a Water Licence (N3L3-0932 expired June 30, 1986) for industrial use in mining and milling process on July 01, 1982, shortly there after Procan Exploration Company took over as operator of the property. The mine has been inactive since 1983; effective November 01, 1990, Procan Exploration Company became a wholly owned subsidiary of Nanisivik Mines with Strathcona Mineral Services Ltd. acting as managers.

INSPECTION

A. Water Supply

Since there is currently no active mining being performed on site, the only water currently being used is strictly for domestic purposes. This consists of water being pumped straight from Prairie Creek to supply one residence (2-3 people), this water is not treated, nor is amount used metered (Mr. Potvin estimates approximately 500 gallons per week).

B. Sewage Discharge

Camp trailers and buildings are no longer in use due to the mine shut down, as mentioned, the caretakers is the only residence operational at this time. All sewage and greywater is discharged via underground pipe and deposited into the tailings pond, this material is not metered nor treated. It should be noted that at the time of inspection a small drilling program was in progress with approximatley 4-8 men staying on site.

C. Solid Waste Disposal

All solid waste generated is separated and combustible material is firstly burnt in a incinerator, then deposited into the garbage dump (south end of the minesite). Non-combustible waste is hauled to the garbage dump and backfilled when required, this site was in satisfactory condition at the time of inspection. Previous inpections (1991) had made note of various amounts of non-combustibles strewn about a small drainage below the 3170' portole, this material has now been cleaned with the material stacked in a satisfactory condition

D. Fuel Storage

All fuel storage facilities were well bermed and enclosed in impermeable dykes; there was no evidence of spills or leakage at any of the sites, although there was a small amount of ponded water within the berm (see photo two). Other fuels, including lubricating oils and propane , are all stored in a satisfactory manner.

E. Chemicals / Hazardous Material Storage

Reagent storage and powder magazine areas are fully satisfactory with the method of storage, protection and location satisfactory (see photo one). All materials are stored in locations as noted on surface plan and quantities as listed (Schedule A - list of Class A Materials). The one exception to this is the acid storage building, this storage building contains various amounts of acids and other compounds (Hydrochloric Acid, Ammonium Hydroxide, Hydrofluoric Acid, Phosphoric Acid, Hydrogen Nitrate, Potassium Iodide). This is a metal enclosed building and is reasonably secure, with previously spilled material cleaned up and in satisfactory condition.

F. Tailings Containment

The tailings pond appears to be stable with no apparent leaks or breaches. There are signs of slumping around the pond, the Hypalon liner has become separated with the southern bank of the tailings pond being the worst area. The pond has over 2.5 meters of freeboard.

The dyke between the minesite and Prairie Creek has experienced little or no damage from run off or slumping. All mine water discharge and surface drainage is directed into the settlement ponds.

G. Ore Storage

The ore storage area has been in place since 1983 with what appears to be no visible disturbance. It should be noted that a slight brown discoloration on the banks of Prairie Creek was observed just upstream from the former SNP site #932-6 (see photo three) , this is adjacent to the ore storage area.

H. Sampling Sites

The following water samples were taken at points established from the old Surveillance Network Program;

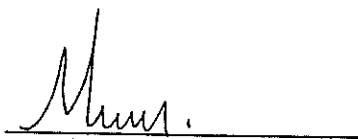
- i) 932-4 - Final discharge point from tailings pond.
- ii) 932-6 - Prairie Creek at the confluence of Galena Creek.
- iii) 932-7 - Prairie Creek upstream of the airstrip.
- iv) 932-9 - Discharge from 2850' portal (photo four).

See attached laboratory results and note extremely high zinc content from sample 932-9.

CONCLUSION

The Prairie Creek mine site because of its status, that of being stagnant, operations remain unchanged and all berms and dykes continuing to be stable and reliable. The operator is to be thanked for their efforts in dealing with the previous years outstanding issues. The Inspector would also like to make note of the high zinc reading (15,000 ug/l) in the sample taken from the discharge from portal 2850' and suggest further monitoring of this situation.

The Inspector(s) would like to thank Mr. Potvin and his wife for their assistance and hospitality during the inspection.



Murray W. Swyripa
Inspector Under the
Northern Inland Waters Act

PRAIRIE CREEK MINESITE
UNLICENSED MINE INSPECTION
AUGUST 07, 1991

APPENDIX I
PHOTOGRAPHS

PRAIRIE CREEK MINESITE
UNLICENSED MINE INSPECTION
AUGUST 07, 1991

APPENDIX II
LIST OF CLASS "A" MATERIALS

LIST OF CLASS "A" MATERIALS LOCATED ON THE PRAIRIE CREEK MINESITE

<u>CHEMICALS</u>	<u>QUANTITY</u>
Copper Sulphate	196 pallets
Sodium Isopropyl Xanthate	84 pallets
M.I.B.C.	4 pallets
Dowfroth	4 pallets
Sodium Cyanide	94 pallets
Contaminated Gravel	6-45 gallon drums
Methanol	1 pallet
 <u>PETROLEUM PRODUCTS</u>	
Diesel Fuel	bulk
Lubricating Oil	bulk, drums and pails
Gasoline	bulk
Aviation Fuel	drums
Jet B	drums
Used Lube Oil	bulk and drums
Grease	pails
Propane	bulk
 <u>EXPLOSIVES</u>	
Cilgel	

PRAIRIE CREEK MINESITE
UNLICENSED MINE INSPECTION
AUGUST 07, 1991

APPENDIX III
LABORATORY RESULTS

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
WATER RESOURCES DIVISION, YELLOWKNIFE, NORTHWEST TERRITORIES
RESULTS OF LABORATORY ANALYSIS

LICENCE PROJECT		Licence Expired June 1986				LOCATION	
Cadillac Exploration		NUMBER NAL3-0932				Prairie Creek	
DATE SAMPLED		DATE RECEIVED				DATE COMPLETED	
June 30/92		July 2/92				Aug 12/92	
STATION NUMBER	932-4	932-6	932-7	932-9	Oil Corp.	we	
LABORATORY NUMBER	920493	920494	920495	920496	920497		
ANALYSIS REQUIRED							
pH (units)	8.34	7.96	8.06	7.46	July 2/92	ML	
Conductivity (umho/cm)	850	562	360	930	July 2/92	ML	
Dissolved Oxygen							
Turbidity (NTU)							
Colour (colour U.)							
Suspended Solids	13	13	3	13	July 6/92	ML	
TDS, Residue	226	393	222	250	July 6/92	ML	
Calcium	30.6	68.3	47.8	12.7			
Magnesium	17.2	35.3	18.7	58.3	July 14/92	ML	
Tot. Hardness (CaCO ₃)	147	316	196	557			
Tot. Alkalinity (CaCO ₃)	117	192	165	248	July 14/92	ML	
Sodium							
Potassium							
Chloride							
Sulphate							
Total Coliform (count)							
Fecal Coli. (100)							
Fecal Strep. (ml)							
Std. Plate Cnt (cnt/ml)							
BOD ₅							
COD							
Carbon, IC							
Carbon, TOC							
Ammonia Nitrogen (as)							
Nitrate + Nitrite							
Total Kjeldahl N (N)							
Phosphorus O-P (as)							
Phosphorus Tot. (P)							
Silica React. (as SiO ₂)							
Total Cyanide							
Available Cyanide (WAD)							
Sulphide							
Oil & Grease							
Phenols					40.5	July 15/92	
Arsenic	T (ug/L)	10.2	0.5	10.2	0.8	July 21/92	ML
	D (ug/L)						
Cadmium	T (ug/L)	10.2	0.2	10.2	75		
	D (ug/L)						
Copper	T (ug/L)	4	3	2	98		
	D (ug/L)						
Iron	T (ug/L)	73	23	37	48		
	D (ug/L)						
Lead	T (ug/L)	11	7	11	27		
	D (ug/L)						
Mercury	T (ug/L)						
	D (ug/L)						
Nickel	T (ug/L)	1	1	1	17		
	D (ug/L)						
Zinc	T (ug/L)	20	167	6	15,200	July 21/92	ML
	D (ug/L)						
Chromium	T (ug/L)	2	1	2	10		
	D (ug/L)						
Cobalt	T (ug/L)	5	8	5	110		
	D (ug/L)						

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
WATER RESOURCES DIVISION
YELLOWKNIFE
SEP - 2 1992
WATER RESOURCES DIVISION
YELLOWKNIFE

Northern Affairs Program,
P.O. Box 150,
Fort Simpson, NT
XOE ONO

November 24, 1993

San Andreas Resources
Corporation,
Suite 900 - 595 Howe Street,
Vancouver, BC V6C 2T5

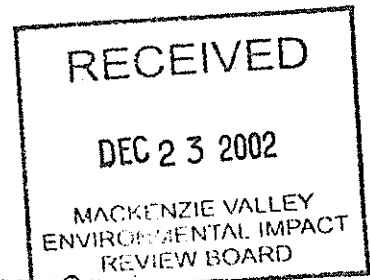
Attn: Mr. Peter P. Tsaparas

Re: Annual Inspection Report - Prairie Creek Minesite
Water Use/Waste Disposal & Storage - September 15, 1993

Please find enclosed a copy of an Inspection Report carried out on the above noted operation by Mr.K. Etherington, Water Resource Officer for the Fort Simpson Northern Affairs Program. Mr.Etherington was accompanied by Mssrs. S. Davidson and K.Halvorson, also of our Fort Simpson office. I have also enclosed copies of the laboratory results from the field samples taken on the day of the inspection.

As you will note, there continues to be a high level of zinc concentrates at the 2850 portal drainage, with lower levels near the settlement pond discharge. As well, we note a low, but continued petroleum flow coming from the stain in the rocks on the banks of Prairie Creek. Both these situations will require careful monitoring even though the values are presently low.

The Inspection Report covers some of the other activities that we have monitored on a yearly basis for many years now, as we continue to gather baseline information. You will also note that storage containers are disintegrating at the mill reagent storage site. I would like to ensure that your Company is aware of this situation. We know that an Engineer was to evaluate the storage tanks along the access road and prepare a report on the safety aspect of the leaning tanks. Although not mentioned in this report, I would be interested to receive a copy of this report as we have had other Departments express a concern in the possibility of fuel spills. We regret we do not have original photos to include with the report.



D.M.	
R.M.O.	
D.P.O.	
W.R.O.	
E.S.O.	
A.R.M.O.	
A.R.M.O.	
A.D.P.O.	
O.M.	

If you have any questions or comments on this Inspection Report, please feel free to call our office at any time and discuss them with Mr. Etherington or the undersigned.

Yours truly,

ORIGINAL SIGNED BY
B. J. GAUTHIER

B.J.J. Gauthier,
District Manager

encls:

cc: Water Resources
Land Resources
F.N. Adlem

7/23/11/25
fm

BJJG/fcm

***INSPECTION REPORT
ON
THE PRAIRIE CREEK MINESITE***

by

***KEN C. ETHERINGTON
WATER RESOURCE OFFICER***

***NORTHERN AFFAIRS PROGRAM
INDIAN AND NORTHERN AFFAIRS CANADA
FORT SIMPSON, N.W.T.***

DATE: SEPTEMBER 15, 1993
WATER REGISTER: EXPIRED

INTRODUCTION

An inspection of the Prairie Creek minesite's water supply, waste disposal, fuel and chemical storage facilities was conducted on September 15, 1993 by Ken C. Etherington, Water Resource Officer; Scott Davidson, Resource Management Officer III and Kent Halvorson, Resource Management Officer II for the Department of Indian and Northern Affairs in Fort Simpson. Mr Colin McAleenan, Project Manager assisted the inspectors and provided pertinent information regarding the minesite and its facilities.

Cadillac Exploration initially received a water licence for industrial use in mining and milling process on July 01, 1982, shortly thereafter Procan Exploration Company took over as owner of the property. On November 01, 1990, Procan Exploration Company became a wholly owned subsidiary of Nanisivik Mines with Strathcona Mineral Services Ltd. acting as managers. Most recently, San Andreas Resources Corporation acquired the property and are taking steps toward the possible reopening of the mine.

INSPECTION

A. Water Supply

Since there is currently no active mining on site, the only water currently being used is strictly for domestic purposes. This consists of water being pumped straight from Prairie Creek to supply one residence (2-3) people, this water is not treated, nor is the amount used metered.

B. Sewage Discharge

Camp trailers and buildings are no longer in use due to the mine shutdown; as mentioned the caretakers residence is the only one operational at this time. All sewage and greywater is discharged via an underground pipe and deposited into the tailings pond, this material is not metered nor treated. It should be noted that throughout the summer, a small drilling program was in progress with approximately 4-6 men staying on site.

C. Solid Waste Disposal

All solid waste generated is separated and combustible material is firstly burned in an incinerator, then deposited into the garbage dump (south end of the minesite). Non-combustible waste is hauled to the garbage dump and backfilled when required, this site was in satisfactory condition at the time of inspection.

D. Fuel Storage

All fuel storage facilities were well bermed and enclosed in impermeable dykes; there was no evidence of spills or leakage at any of these sites, although there was a small amount of ponded water within the berm. Other fuels, including lubricating oils and propane are all stored in a satisfactory manner.

E. Chemicals / Hazardous Material Storage

All materials are stored in locations as noted on the surface plan and in quantities as listed (Schedule A - list of Class A Materials). The only exception to this is the acid storage building which contains varying amounts of acids and other compounds (Hydrochloric Acid, Ammonium Hydroxide, Hydrofluoric Acid, Phosphoric Acid, Hydrogen Nitrate and Potassium Iodide). This is a metal enclosed building and is reasonably secure.

A small number of sodium isopropyl xanthate drums stored in the reagent storage area are slowly disintegrating as a result of being partially exposed to the weather. Mr McAleenan reports that San Andreas is planning to inventory all reagents as well as assess the condition of the storage containers with intentions of remedying the situation.

F. Tailings Containment

The tailings pond appears to be stable with no apparent leaks or breaches. There are signs of slumping around the pond, the Hypalon liner has been separated for a number of years (photo #1). The pond has over 2.5 meters of freeboard.

The dyke between the minesite and Prairie Creek remains in good condition with no apparent damage from runoff or slumping. At the time of inspection, there was a small amount of mine water discharge which drained in two directions (photo #2). Approximately half the water drained toward the tailings pond and disappeared into the ground several hundred feet from the mine entrance. Mr. McAleenan indicated that this discharge eventually entered the tailings pond. The remaining water drained in the opposite direction and eventually entered the settlement pond.

G. Ore Storage

The ore storage area has been in place since 1983 with what appears to be no visible disturbance. It should be noted here that the brown discoloration on the rocks of Prairie Creek that has been visible for a number of years is still present. This section is near the ore storage area just upstream of the former SNP site #932-4 (photo #3). During the inspection, a very definite sheen was observed in this area (photo #4) and a water sample was taken. The results of this sample show low levels of contamination of a petroleum origin. This site should continue to be monitored closely.

H. Sampling Sites

The following water samples were taken at points established from the old Surveillance Network Program;

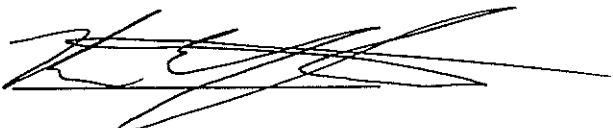
- i) 932-4 - Final discharge point from settling pond.
- ii) 932-6 - Prairie Creek at confluence of Galena Creek.
- iii) 931-7 - Prairie Creek upstream of the airstrip.
- iv) 931-9 - Discharge from 2850' portal (photo # 2).

Please note the high zinc values in the minewater discharge. This condition should continue to be monitored closely.

CONCLUSION

Apart from a small drilling program, the Prairie Creek mine site remains much the same as the previous inspection report indicates with all berms and dykes continuing to be stable and reliable. One issue of some concern is that of the condition of some of the mill reagent drums. Plans to inventory these containers and remedy the situation should be implemented as soon as possible when the site is again occupied next year.

The inspectors would like to thank Mr. McAleenan for assistance and hospitality during the inspection.



Ken C. Etherington
Inspector Under the
Northwest Territories Waters Act

LIST OF CLASS "A" MATERIALS LOCATED ON THE PRAIRIE CREEK MINESITE

CHEMICALS

QUANTITY

Copper Sulphate	196 pallets
Sodium Isopropyl Xanthate	84 pallets
M.I.B.C.	4 pallets
Dowfroth	4 pallets
Sodium Cyanide	94 pallets
Contaminated Gravel	6-45 gallon drums
Methanol	1 pallet

PETROLEUM PRODUCTS

Diesel Fuel	bulk
Lubricating Oil	bulk, drums and pails
Gasoline	bulk
Aviation Fuel	drums
Jet B	drums
Used Lube Oil	bulk and drums
Grease	pails
Propane	bulk

EXPLOSIVES

Cigel

PHOTOGRAPHS

PHOTO # 1

TAILINGS POND

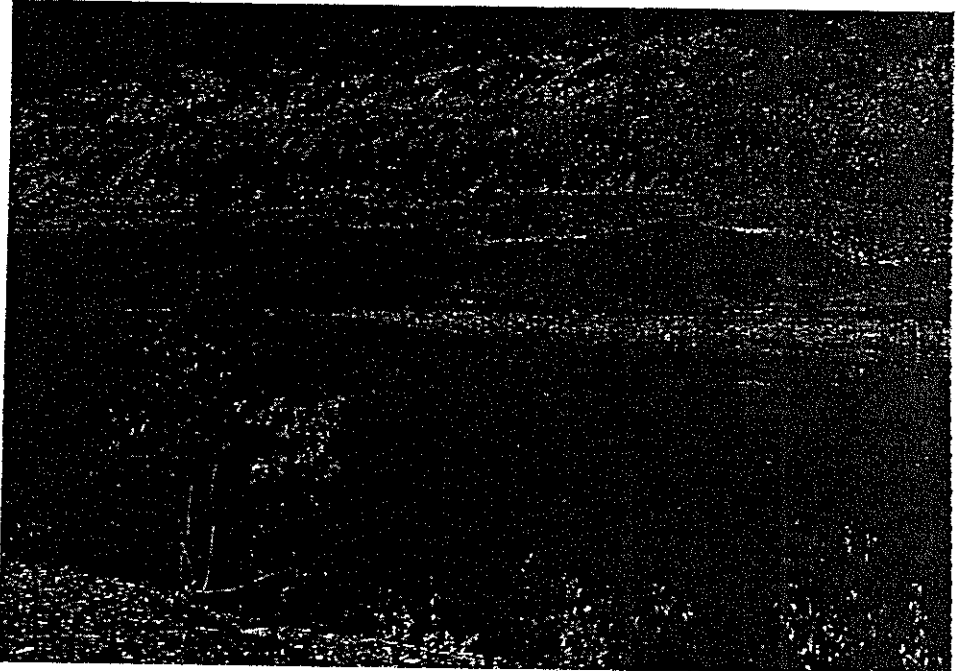
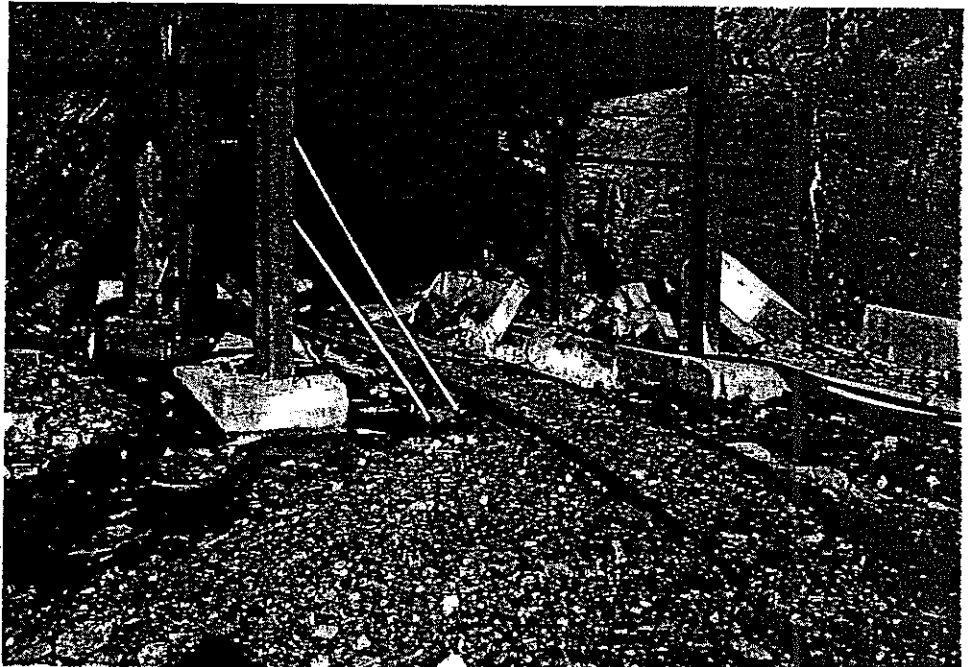


PHOTO #2

MINEWATER DISCHARGE



PHOTOGRAPHS

PHOTO # 3
ROCK STAIN

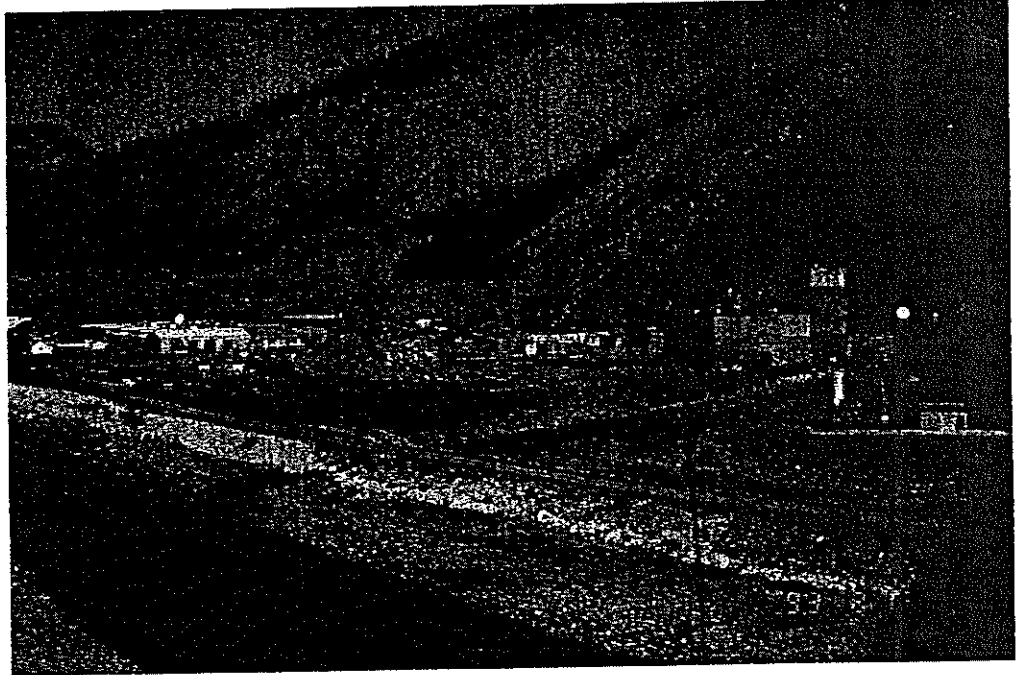


PHOTO # 4
SHEEN ON WATER



INDIAN & NORTHERN AFFAIRS
WATER RESOURCES LABORATORY
Box 1500
Yellowknife, NT. X1A 2R3
Tel. (403) 920-8129
Fax. (403) 873-9300

To: Cadillac Exploration
c/o ~~Ft. Simpson District~~
DIAND/NAP
Box 150
==> Ft. Simpson NT X0E_0N0

SAMPLE INFORMATION

Our Lab # : WL931980
Your Sample ID: 932-4
Sample Matrix : water

Account No.: N3L30932

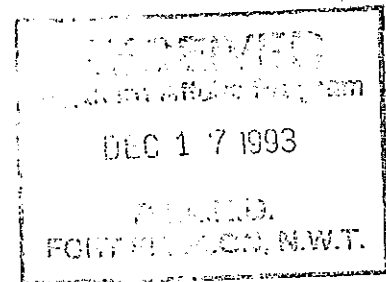
Collection:
Location: Ft. Simpson District
Date: 09/15/93
By:

Report Date: 11/10/93

Approved by: W. Coody

- SAMPLE ANALYSIS REPORT -

Lab#	Parameter	Result Units	Detect Limit	Method Code
WL931980	Alkalinity	236.0 mg/L	0.300	10101
	Calcium	92.10 mg/L	0.040	20103
	Sp. Conduct	739.0 uS/cm	0.100	2041
	Filt. Residue	516 mg/L	10.000	10451
	Tot. Hardness	417.0 mg/L	0.100	10602
	Magnesium	45.40 mg/L	0.010	12102
	Non-Filt_Res.	L3 mg/L	3.000	10406
	pH	7.86 pH	0.050	10301
	T. Arsenic-Hyd.	L0.3 ug/L	0.300	33011
	T. Cadmium-S/E	0.6 ug/L	0.200	48302
	T. Cobalt-S/E	1 ug/L	1.000	27302
	T. Chromium-S/E	1 ug/L	1.000	24303
	T. Copper-S/E	2 ug/L	1.000	29305
	T. Iron-S/E	16 ug/L	5.000	26305
	T. Nickel-S/E	4 ug/L	1.000	28302
	T. Lead-S/E	11 ug/L	0.700	82302
	T. Zinc-S/E	520.0 ug/L	1.000	30305



INDIAN & NORTHERN AFFAIRS
 WATER RESOURCES LABORATORY
 Box 1500
 Yellowknife, NT. X1A 2R3
 Tel. (403) 920-8129
 Fax. (403) 873-9300

To: Cadillac Exploration
 c/o Ft. Simpson District
 DIAND/NAP
 Box 150
 ==> Ft. Simpson NT X0E_ONO

SAMPLE INFORMATION

Our Lab # : WL931982
 Your Sample ID: 932-7
 Sample Matrix : water

Account No.: N3L30932

Collection:
 Location: Ft. Simpson District
 Date: 09/15/93
 By:

Report Date: 11/10/93

Approved by: W. Wood

- SAMPLE ANALYSIS REPORT -

Lab#	Parameter	Result Units	Detect Limit	Method Code
WL931982	Alkalinity	181.0 mg/L	0.300	10101
	Calcium	55.30 mg/L	0.040	20103
	Sp. Conduct	444.0 uS/cm	0.100	2041
	Filt. Residue	270 mg/L	10.000	10451
	Tot. Hardness	237.0 mg/L	0.100	10602
	Magnesium	24.10 mg/L	0.010	12102
	Non-Filt_Res.	L3 mg/L	3.000	10406
	pH	8.22 pH	0.050	10301
	T. Arsenic-Hyd.	L0.3 ug/L	0.300	33011
	T. Cadmium-S/E	L0.2 ug/L	0.200	48302
	T. Cobalt-S/E	L1 ug/L	1.000	27302
	T. Chromium-S/E	1 ug/L	1.000	24303
	T. Copper-S/E	1 ug/L	1.000	29305
	T. Iron-S/E	5 ug/L	5.000	26305
	T. Nickel-S/E	1 ug/L	1.000	28302
	T. Lead-S/E	2 ug/L	0.700	82302
	T. Zinc-S/E	4.0 ug/L	1.000	30305

RECEIVED
 INDIAN AFFAIRS PROGRAM
 DEC 17 1993
 G. L. D.
 FORT SIMPSON, N.W.T.

INDIAN & NORTHERN AFFAIRS
 WATER RESOURCES LABORATORY
 Box 1500
 Yellowknife, NT. X1A 2R3
 Tel. (403) 920-8129
 Fax. (403) 873-9300

To: Cadillac Exploration
 c/o Ft. Simpson District
 DIAND/NAP
 Box 150
 ==> Ft. Simpson NT X0E_0N0

 SAMPLE INFORMATION

Our Lab # : WL931981 Account No.: N3L30932
 Your Sample ID: 932-6
 Sample Matrix : water
 Collection: Report Date: 11/10/93
 Location: Ft. Simpson District
 Date: 09/15/93 Approved by: W. Wood
 By:

- SAMPLE ANALYSIS REPORT -

Lab#	Parameter	Result Units	Detect Limit	Method Code
WL931981	Alkalinity	79.3 mg/L	0.300	10101
	Calcium	59.40 mg/L	0.040	20103
	Sp. Conduct	454.0 uS/cm	0.100	2041
	Filt. Residue	266 mg/L	10.000	10451
	Tot. Hardness	340.0 mg/L	0.100	10602
	Magnesium	46.70 mg/L	0.010	12102
	Non-Filt_Res.	L3 mg/L	3.000	10406
	pH	8.15 pH	0.050	10301
	T. Arsenic-Hyd.	L0.3 ug/L	0.300	33011
	T. Cadmium-S/E	0.2 ug/L	0.200	48302
	T. Cobalt-S/E	1 ug/L	1.000	27302
	T. Chromium-S/E	1 ug/L	1.000	24303
	T. Copper-S/E	1 ug/L	1.000	29305
	T. Iron-S/E	10 ug/L	5.000	26305
	T. Nickel-S/E	2 ug/L	1.000	28302
	T. Lead-S/E	6 ug/L	0.700	82302
	T. Zinc-S/E	7.0 ug/L	1.000	30305

DEC 17 1993
 PROGRAM
 INDIAN & NORTHERN AFFAIRS
 YELLOWKNIFE, N.W.T.

INDIAN & NORTHERN AFFAIRS
WATER RESOURCES LABORATORY
Box 1500
Yellowknife, NT. X1A 2R3
Tel. (403) 920-8129
Fax. (403) 873-9300

To: Cadillac Exploration
c/o Ft. Simpson District
DIAND/NAP
Box 150
==> Ft. Simpson NT X0E_0N0

SAMPLE INFORMATION

Our Lab # : WL931983
Your Sample ID: 2850 Portal
Sample Matrix : water

Account No.: N3L30932

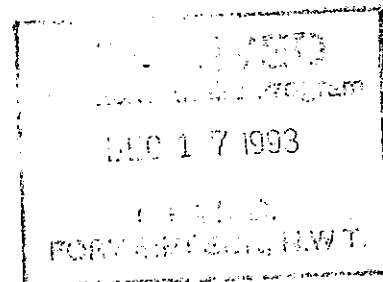
Collection:
Location: Ft. Simpson District
Date: 09/15/93
By:

Report Date: 11/10/93

Approved by: W. Wood

- SAMPLE ANALYSIS REPORT -

Lab#	Parameter	Result Units	Detect Limit	Method Code
WL931983	Alkalinity	254.0 mg/L	0.300	10101
	Calcium	120.50 mg/L	0.040	20103
	Sp. Conduct	936.0 uS/cm	0.100	2041
	Filt. Residue	696 mg/L	10.000	10451
	Tot. Hardness	540.0 mg/L	0.100	10602
	Magnesium	58.00 mg/L	0.010	12102
	Non-Filt_Res.	L3 mg/L	3.000	10406
	pH	7.74 pH	0.050	10301
	T. Arsenic-Hyd.	L0.3 ug/L	0.300	33011
	T. Cadmium-S/E	16.9 ug/L	0.200	48302
	T. Cobalt-S/E	L2 ug/L	1.000	27302
	T. Chromium-S/E	1 ug/L	1.000	24303
	T. Copper-S/E	47 ug/L	1.000	29305
	T. Iron-S/E	28 ug/L	5.000	26305
	T. Nickel-S/E	17 ug/L	1.000	28302
	T. Lead-S/E	25 ug/L	0.700	82302
	T. Zinc-S/E	9070.0 ug/L	1.000	30305



INDIAN & NORTHERN AFFAIRS
WATER RESOURCES LABORATORY
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Fax. (403) 873-9300

To: Cadillac Exploration
c/o Ft. Simpson District
DIAND/NAP
Box 150
==> Ft. Simpson NT XOE_ONO

[Handwritten signature]

SAMPLE INFORMATION

Our Lab # : WL931984
Your Sample ID: Oil Seep
Sample Matrix : water

Account No.: N3L30932

Collection:
Location: Ft. Simpson District
Date: 09/15/93
By:

Report Date: 10/27/93

Approved by: *[Handwritten signature]*

- SAMPLE ANALYSIS REPORT -

Lab#	Parameter	Result Units	Detect Limit	Method Code
WL931984	Oil & Grease	0.5 vis, non mg/L	0.100	vis

[Stamp: RECEIVED, Program, 12 1993, DIAND, INT.]

LICENSEE/PROJECT		LICENCE NUMBER		LOCATION		
San Andreas Mine at Prairie Creek		Exp. d N3L3-0932		Mt Simpson District		
DATE SAMPLED		DATE RECEIVED		DATE COMPLETED		
Sept 15/93		Sept 20/93		Nov. 3/93 MT INT		
STATION NUMBER	932-4	932-6	932-7	2850 Portal	O:/Seep	
LABORATORY NUMBER	931980	931981	931982	931983	931984	
ANALYSIS REQUIRED						
pH (units)	✓ 7.86	✓ 8.15	✓ 8.22	✓ 7.74		
Conductivity (umho/cm)	✓ 739	✓ 454	✓ 444	✓ 936		
Dissolved Oxygen						
Turbidity (NTU)						
Colour (colour U.)						
Suspended Solids	✓ L3	✓ L3	✓ L3	✓ L3		
TDS, Residue	✓ 516	✓ 266	✓ 270	✓ 696		
Calcium	✓ 92.1	✓ 59.4	✓ 55.3	✓ 120.5		
Magnesium	✓ 45.4	✓ 46.7	✓ 24.1	✓ 59.0		
Tot. Hardness (CaCO ₃)	✓ 417	✓ 340	✓ 237	✓ 540		
Tot. Alkalinity (CaCO ₃)	✓ 236	✓ 79.3	✓ 181	✓ 254		
Sodium						
Potassium						
Chloride						
Sulphate						
Total Coliform (count)						
Fecal Coli. (100)						
Fecal Strep. (ml)						
Std. Plate Cnt (cnt/ml)						
DOB ₅ (BOD)						
COD						
Carbon, IC						
Carbon, TOC						
Ammonia Nitrogen (as)						
Nitrate + Nitrite						
Total Kjeldahl N (N)						
Phosphorus O-P (as)						
Phosphorus Tot. (P)						
Silica Reac. (as SiO ₂)						
Total Cyanide						
Available Cyanide (WAD)						
Sulphide						
Oil & Grease						
Phenols				✓ 0.5	Oct. 16/93 MT	
TOTAL METALS						
Arsenic	T (ug/L)	✓ L0.3	✓ L0.3	✓ L0.3	✓ L0.3	Oct 12/93 MC
	D (ug/L)					
Cadmium	T (ug/L)	✓ 0.6	✓ 0.2	✓ L0.2	✓ 16.9	Sept 22/93 MC
	D (ug/L)					
Copper	T (ug/L)	✓ 2	✓ 1	✓ 1	✓ 47	"
	D (ug/L)					
Iron	T (ug/L)	✓ 16	✓ 10	✓ 3	✓ 28	"
	D (ug/L)					
Lead	T (ug/L)	✓ 11.2	✓ 5.9	✓ 7.3	✓ 25.3	"
	D (ug/L)					
Mercury	T (ug/L)					
	D (ug/L)					
Nickel	T (ug/L)	✓ 4	✓ 2	✓ 1	✓ 17	"
	D (ug/L)					
Zinc	T (ug/L)	✓ 520	✓ 7	✓ 4	✓ 9070	"
	D (ug/L)					
Chromium	T (ug/L)	✓ 1	✓ 1	✓ 1	✓ 1	"
	D (ug/L)					
Cobalt	T (ug/L)	✓ 1	✓ 1	✓ L1	✓ L2	"
	D (ug/L)					

LICENSEE / PROJECT		LICENCE NUMBER					LOCATION
Canada Tungsten		N3C3-0-4					Ft. Simpson District
DATE SAMPLED		DATE RECEIVED					DATE COMPLETED
Sept 15/93		Sept 20/93					Nov. 3/93
STATION NUMBER	4-5	4-12	4-13	4-20	4-29		
LABORATORY NUMBER	931985	931986	931987	931988	931989		
ANALYSIS REQUIRED							
pH (units)	✓ 7.63	✓ 7.75	✓ 8.06	✓ 7.88	✓ 8.03	Sept 23/93	
Conductivity (umho/cm)	✓ 201	✓ 19	✓ 385	✓ 359	✓ 625		
Dissolved Oxygen							
Turbidity (NTU)							
Colour (colour U.)							
Suspended Solids	✓ L3	✓ L3	✓ L3	✓ L3	✓ L3	Oct 14/93	
TDS, Residue	✓ 116	✓ 427	✓ 239	✓ 209	✓ 130	Pill-	
Calcium	✓ 25.7	✓ 61.0	✓ 54.9	✓ 41.4	✓ 25.0		
Magnesium	✓ 6.2	✓ 13.8	✓ 12.6	✓ 9.2	✓ 6.4	Nov. 3/93	
Tot. Hardness (CaCO ₃)	✓ 90	✓ 209	✓ 189	✓ 141	✓ 89		
Tot. Alkalinity (CaCO ₃)	✓ 55.3	✓ 49.4	✓ 126	✓ 119	✓ 105	Sept 23/93	
Sodium							
Potassium							
Chloride							
Sulphate							
Total Coliform (count)							
Fecal Coli. (100 ml)							
Fecal Strep. (ml)							
Std. Plate Cnt (cnt/ml)							
DOB ₅ (BOD)							
COD							
Carbon, IC							
Carbon, TOC							
Ammonia Nitrogen (as N)							
Nitrate + Nitrite (as N)							
Total Kjeldahl N (N)							
Phosphorus O-P (as P)							
Phosphorus Tot. (P)							
Silica Reac. (as SiO ₂)							
Total Cyanide	✓ 0.004			✓ 0.007	✓ 0.004	OCT. 4/93	
Available Cyanide (WAD)							
Sulphide							
OIL & Grease							
Phenols							
TOTAL METALS:							
Arsenic	T (ug/L)	✓ 0.3	✓ 0.3	✓ 0.3	✓ 0.3	✓ 0.3	Oct 12/93 ML
	D (ug/L)						
Cadmium	T (ug/L)	✓ 0.2	✓ 0.2	✓ 0.2	✓ 0.2	✓ 0.2	Sept 22/93 ML
	D (ug/L)						
Copper	T (ug/L)	✓ 1	✓ 1	✓ 2	✓ 1	✓ 1	"
	D (ug/L)						
Iron	T (ug/L)	✓ 133	✓ 65	✓ 18	✓ 75	✓ 79	"
	D (ug/L)						
Lead	T (ug/L)	✓ 0.7	✓ 0.7	✓ 0.7	✓ 0.7	✓ 1.5	"
	D (ug/L)						
Mercury	T (ug/L)						
	D (ug/L)						
Nickel	T (ug/L)	✓ 1	✓ 1	✓ 1	✓ 1	✓ 2	"
	D (ug/L)						
Zinc	T (ug/L)						
	D (ug/L)	✓ 1	✓ 2	✓ 3	✓ 1	✓ 1	"
Chromium	T (ug/L)						
	D (ug/L)						
Cobalt	T (ug/L)	✓ 1	✓ 1	✓ 1	✓ 1	✓ 2	"
	D (ug/L)						

WATER RESOURCES DIVISION, YELLOWKNIFE, NORTHWEST TERRITORIES
FIELD SAMPLING AND DATA

LICENSEE/PROJECT <i>Canada Tungsten</i>	LICENCE NO. <i>N323-0004</i>	LOCATION <i>Fort Simpson District</i>
DATE SAMPLED	SAMPLED BY	

ANALYSIS	SAMPLE	PRESERVATIVE	STATION NUMBER				
			4-5	4-12	4-13	4-20	4-29
			BOTTLE NUMBER				
MISC. & ARSENIC	1 LITRE	NONE	✓	✓	✓	✓	✓
HEAVY METALS	500 ML	2 ML 1:1 HNO ₃	✓	✓	✓	✓	✓
CYANIDE	500 ML	About 6 pellets NaOH to pH 12	✓			✓	✓
MERCURY	250 ML	2 ML 1:1 HNO ₃ 2 ML 5% K ₂ Cr ₂ O ₇					
NUTRIENTS	250 ML	NONE					
BACTERIA	500 ML	NONE					
OIL and GREASE	1 LITRE (GLASS)	4 ML 1:1 H ₂ SO ₄					
Time of Sampling							
Air Temperature							
Water Temperature							
Rate of Flow							
Ice Thickness							
Depth of Sampling							
pH							
Conductivity							
Dissolved Oxygen							

INDIAN & NORTHERN AFFAIRS
WATER RESOURCES LABORATORY
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Fax. (403) 873-9300

To: Cadillac Exploration
c/o Ft. Simpson District
DIAND/NAP
Box 150
==> Ft. Simpson NT X0E_ONO
Ken Etherington

SAMPLE INFORMATION

Our Lab # : WL930417
Your Sample ID: 932-6
Sample Matrix : water

Account No.: N3L30932

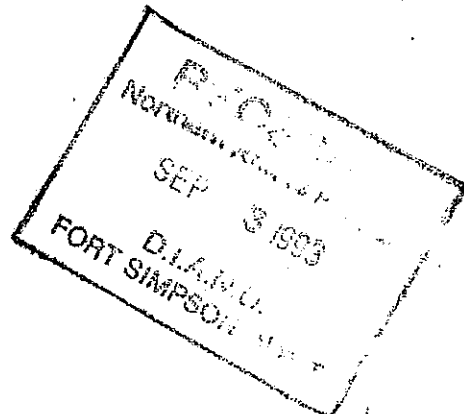
Collection:
Location: Prairie Creek
Date: 06/02/93
By: KE

Report Date: 08/05/93

Approved by: W. Coody

- SAMPLE ANALYSIS REPORT -

Lab#	Parameter	Result Units	Detect Limit	Method Code
WL930417	Alkalinity	122.0 mg/L	0.300	10101
	Calcium	35.80 mg/L	0.040	20103
	Sp. Conduct	288.0 uS/cm	0.100	2041
	Filt. Residue	180 mg/L	10.000	10451
	Tot. Hardness	141.0 mg/L	0.100	10602
	Magnesium	12.60 mg/L	0.010	12102
	Non-Filt_Res.	21 mg/L	3.000	10406
	pH	8.16 pH	0.050	10301
	T. Arsenic-Hyd.	L0.3 ug/L	0.300	33011
	T. Cadmium-S/E	L0.2 ug/L	0.200	48302
	T. Cobalt-S/E	1 ug/L	1.000	27302
	T. Chromium-S/E	3 ug/L	1.000	24303
	T. Copper-S/E	10 ug/L	1.000	29305
	T. Iron-S/E	399 ug/L	5.000	26305
	T. Nickel-S/E	4 ug/L	1.000	28302
	T. Lead-S/E	2 ug/L	0.700	82302
	T. Zinc-S/E	9.0 ug/L	1.000	30305



INDIAN & NORTHERN AFFAIRS
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Fax. (403) 873-9300

To: Cadillac Exploration
c/o Ft. Simpson District
DIAND/NAP
Box 150
==> Ft. Simpson NT XOE_0N0
Ken Etherington

SAMPLE INFORMATION

Our Lab # : WL930418
Your Sample ID: 932-7
Sample Matrix : water

Account No.: N3L30932

Collection:
Location: Prairie Creek
Date: 06/02/93
By: KE

Report Date: 07/28/93

Approved by: W. Wood

- SAMPLE ANALYSIS REPORT -

Lab#	Parameter	Result Units	Detect Limit	Method Code
WL930418	Alkalinity	118.0 mg/L	0.300	10101
	Calcium	34.70 mg/L	0.040	20103
	Sp. Conduct	284.0 uS/cm	0.100	2041
	Filt. Residue	170 mg/L	10.000	10451
	Tot. Hardness	136.0 mg/L	0.100	10602
	Magnesium	12.10 mg/L	0.010	12102
	Non-Filt_Res.	13 mg/L	3.000	10406
	pH	8.15 pH	0.050	10301
	T.Arsenic-Hyd.	0.7 ug/L	0.300	33011
	T.Cadmium-S/E	10.2 ug/L	0.200	48302
	T.Cobalt-S/E	1 ug/L	1.000	27302
	T.Chromium-S/E	1 ug/L	1.000	24303
	T.Copper-S/E	1 ug/L	1.000	29305
	T.Iron-S/E	364 ug/L	5.000	26305
	T.Nickel-S/E	1 ug/L	1.000	28302
	T.Lead-S/E	10.7 ug/L	0.700	82302
	T.Zinc-S/E	9.0 ug/L	1.000	30305

1993
JUL 28 1993
WATER RESOURCES LABORATORY
YELLOWKNIFE, N.T.

INDIAN & NORTHERN AFFAIRS
WATER RESOURCES LABORATORY
Box 1500
Yellowknife, NT. X1A 2R3
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To: Cadillac Exploration
c/o Ft. Simpson District
DIAND/NAP
Box 150
==> Ft. Simpson NT X0E_0N0
Ken Etherington

SAMPLE INFORMATION

Our Lab # : WL930416
Your Sample ID: 932-4
Sample Matrix : water

Account No.: N3L30932

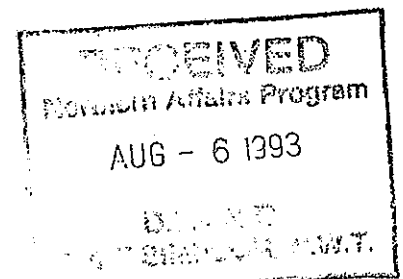
Collection:
Location: Prairie Creek
Date: 06/02/93
By: KE

Report Date: 07/28/93

Approved by: W. Coed

- SAMPLE ANALYSIS REPORT -

Lab#	Parameter	Result Units	Detect Limit	Method Code
WL930416	Alkalinity	116.0 mg/L	0.300	10101
	Calcium	30.60 mg/L	0.040	20103
	Sp. Conduct	381.0 uS/cm	0.100	2041
	Filt. Residue	240 mg/L	10.000	10451
	Tot. Hardness	145.0 mg/L	0.100	10602
	Magnesium	16.60 mg/L	0.010	12102
	Non-Filt_Res.	20 mg/L	3.000	10406
	pH	8.36 pH	0.050	10301
	T. Arsenic-Hyd.	2.0 ug/L	0.300	33011
	T. Cadmium-S/E	0.5 ug/L	0.200	48302
	T. Cobalt-S/E	11 ug/L	1.000	27302
	T. Chromium-S/E	1 ug/L	1.000	24303
	T. Copper-S/E	4 ug/L	1.000	29305
	T. Iron-S/E	983 ug/L	5.000	26305
	T. Nickel-S/E	2 ug/L	1.000	28302
	T. Lead-S/E	6 ug/L	0.700	82302
	T. Zinc-S/E	45.0 ug/L	1.000	30305



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To: Cadillac Exploration
c/o Ft. Simpson District
DIAND/NAP
Box 150
Ft. Simpson NT XOE_ONO
Ken Etherington

SAMPLE INFORMATION

Our Lab # : WL930419
Your Sample ID: oil seep
Sample Matrix : water

Account No.: N3L30932

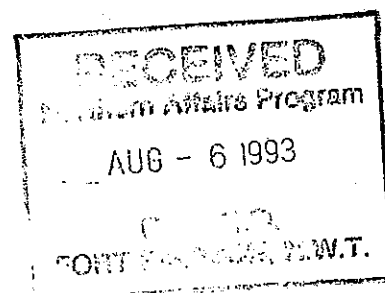
Collection:
Location: Prairie Creek
Date: 06/02/93
By: KE

Report Date: 07/05/93

Approved by: W Toed

- SAMPLE ANALYSIS REPORT -

Lab#	Parameter	Result Units	Detect Limit Units
WL930419	Oil&Grease	2.30 mg/L	0.2000 mg/L



RESULTS OF LABORATORY ANALYSIS

LICENSEE/ PROJECT DATE SAMPLED	<i>Cadillac Exploration</i> <i>June 2/93</i>	LICENCE NUMBER DATE RECEIVED	<i>Expired June 1986</i> <i>N343-0932</i> <i>JUNE 7/93</i>	LOCATION DATE COMPLETED	<i>Prairie Creek</i> <i>June 25/93</i>
---	---	---------------------------------------	--	-------------------------------	---

STATION NUMBER	932-4	932-6	932-7	oil seep		
LABORATORY NUMBER	930416	930417	930418	930419		
ANALYSIS REQUIRED	✓	✓	✓	✓	✓	✓
pH (units)	✓ 8.36	✓ 8.16	✓ 8.15			
Conductivity (umho/cm)	✓ 381	✓ 288	✓ 284			June 7/93
Dissolved Oxygen						
Turbidity (NTU)						
Colour (colour U.)						
Suspended Solids	✓ 20	✓ 21	✓ 13			
TDS, Residue	✓ 241	✓ 177	✓ 169			June 11/93
Calcium	✓ 30.4	✓ 35.7	✓ 34.4		June 8/93 ML	
Magnesium	✓ 15.8	✓ 12.3	✓ 12.2		"	
Tot. Hardness (CaCO ₃)	✓ 141	✓ 140	✓ 136		"	
Tot. Alkalinity (CaCO ₃)	✓ 116	✓ 122	✓ 118			June 7/93
Sodium						
Potassium						
Chloride						
Sulphate						
Total Coliform (count/100)						
Fecal Coli. (100 ml)						
Fecal Strep. (ml)						
Std. Plate Cnt. (cnt/ml)						
BOD ₅						
COD						
Carbon. IC						
Carbon, TOC						
Ammonia Nitrogen (as N)						
Nitrate + Nitrite (as N)						
Total Kjeldahl N						
Phosphorus O-P (as P)						
Phosphorus Tot (P)						
Silica Reac. (as SiO ₂)						
Total Cyanide						
Available Cyanide						
Sulphide						
Oil & Grease				✓ 2.3		June 17/93
Phenols						
Arsenic	T (ug/L)	✓ 2.0	✓ 0.3	✓ 0.7		June 25/93 ML
	D (ug/L)					
Cadmium	T (ug/L)	✓ 0.5	✓ 0.2	✓ 0.2		June 17/93 ML
	D (ug/L)					
Copper	T (ug/L)	✓ 4	✓ 10	✓ 11		"
	D (ug/L)					
Iron	T (ug/L)	✓ 983	✓ 399	✓ 364		"
	D (ug/L)					
Lead	T (ug/L)	✓ 5.9	✓ 1.9	✓ 0.7		"
	D (ug/L)					
Mercury	T (ug/L)					
	D (ug/L)					
Nickel	T (ug/L)	✓ 2	✓ 4	✓ 1		June 17/93 ML
	D (ug/L)					
Zinc	T (ug/L)	✓ 45	✓ 9	✓ 9		"
	D (ug/L)					
Chromium	T (ug/L)	✓ 1	✓ 3	✓ 11		"
	D (ug/L)					
Cobalt	T (ug/L)	✓ 1	✓ 1	✓ 1		"
	D (ug/L)					

Results are expressed in mg/l, except as indicated. T and D refer to Total and dissolved

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To: Cadillac Exploration
 c/o Ft. Simpson District
 DIAND/NAP
 Box 150
 Ft. Simpson NT X0E_0N0
 Ken Etherington

OCT 1 - 1993

D.I.A.N.D.
 FORT SIMPSON, N.W

SAMPLE INFORMATION

Our Lab # : WL930816
 Your Sample ID: 932-4
 Sample Matrix : water

Account No.: N3L30932

Collection:
 Location: Prairie Creek
 Date: 07/13/93
 By: KE/KH

Report Date: 09/03/93

Approved by: *W. Reed*

- SAMPLE ANALYSIS REPORT -

Lab#	Parameter	Result Units	Detect Limit	Method Code
WL930816	Alkalinity	104.0 mg/L	0.300	10101
	Calcium	24.62 mg/L	0.040	20103
	Sp.Conduct	352.0 uS/cm	0.100	2041
	Filt.Residue	220 mg/L	10.000	10451
	Tot.Hardness	131.3 mg/L	0.100	10602
	Magnesium	16.96 mg/L	0.010	12102
	Non-Filt_Res.	L3 mg/L	3.000	10406
	pH	8.74	0.050	10301
	T.Arsenic-Hyd.	L0.3 ug/L	0.300	33011
	T.Cadmium-S/E	0.6 ug/L	0.200	48302
	T.Cobalt-S/E	L1 ug/L	1.000	27302
	T.Chromium-S/E	1 ug/L	1.000	24303
	T.Copper-S/E	127 ug/L	1.000	29305
	T.Iron-S/E	24 ug/L	5.000	26305
	T.Nickel-S/E	1 ug/L	1.000	28302
	T.Lead-S/E	4 ug/L	0.700	82302
	T.Zinc-S/E	120.0 ug/L	1.000	30305

INDIAN & NORTHERN AFFAIRS
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To: Cadillac Exploration
c/o Ft. Simpson District
DIAND/NAP
Box 150
==> Ft. Simpson NT X0E_ONO
Ken Etherington

SAMPLE INFORMATION

Our Lab # : WL930817
Your Sample ID: 932-6
Sample Matrix : water

Account No.: N3L30932

Collection:
Location: Prairie Creek
Date: 07/13/93
By: KE/KH

Report Date: 09/03/93

Approved by: we

- SAMPLE ANALYSIS REPORT -

Lab#	Parameter	Result Units	Detect Limit	Method Code
WL930817	Alkalinity	139.0 mg/L	0.300	10101
	Calcium	50.91 mg/L	0.040	20103
	Sp. Conduct	415.0 uS/cm	0.100	2041
	Filt. Residue	265 mg/L	10.000	10451
	Tot. Hardness	211.4 mg/L	0.100	10602
	Magnesium	20.46 mg/L	0.010	12102
	Non-Filt_Res.	L3 mg/L	3.000	10406
	pH	8.31 pH	0.050	10301
	T. Arsenic-Hyd.	L0.3 ug/L	0.300	33011
	T. Cadmium-S/E	L0.2 ug/L	0.200	48302
	T. Cobalt-S/E	L1 ug/L	1.000	27302
	T. Chromium-S/E	L1 ug/L	1.000	24303
	T. Copper-S/E	2.98 ug/L	1.000	29305
	T. Iron-S/E	27 ug/L	5.000	26305
	T. Nickel-S/E	L1 ug/L	1.000	28302
	T. Lead-S/E	3 ug/L	0.700	82302
	T. Zinc-S/E	11.0 ug/L	1.000	30305

INDIAN & NORTHERN AFFAIRS
WATER RESOURCES LABORATORY
Box 1500
Yellowknife, NT. X1A 2R3
Tel. (403) 920-8129
Fax. (403) 873-9300

To: Cadillac Exploration
c/o Ft. Simpson District
DIAND/NAP
Box 150
==> Ft. Simpson NT X0E_ONO
Ken Etherington

SAMPLE INFORMATION

Our Lab # : WL930818
Your Sample ID: 932-7
Sample Matrix : water

Account No.: N3L30932

Collection:
Location: Prairie Creek
Date: 07/13/93
By: KE/KH

Report Date: 09/03/93

Approved by: we

- SAMPLE ANALYSIS REPORT -

Lab#	Parameter	Result Units	Detect Limit	Method Code
WL930818	Alkalinity	166.0 mg/L	0.300	10101
	Calcium	51.80 mg/L	0.040	20103
	Sp. Conduct	404.0 uS/cm	0.100	2041
	Filt. Residue	262 mg/L	10.000	10451
	Tot. Hardness	210.1 mg/L	0.100	10602
	Magnesium	19.62 mg/L	0.010	12102
	Non-Filt_Res.	L3 mg/L	3.000	10406
	pH	8.33 pH	0.050	10301
	T. Arsenic-Hyd.	L0.3 ug/L	0.300	33011
	T. Cadmium-S/E	L0.2 ug/L	0.200	48302
	T. Cobalt-S/E	L1 ug/L	1.000	27302
	T. Chromium-S/E	L1 ug/L	1.000	24303
	T. Copper-S/E	L1 ug/L	1.000	29305
	T. Iron-S/E	11 ug/L	5.000	26305
	T. Nickel-S/E	1 ug/L	1.000	28302
	T. Lead-S/E	L0.7 ug/L	0.700	82302
	T. Zinc-S/E	9.0 ug/L	1.000	30305

INDIAN & NORTHERN AFFAIRS
WATER RESOURCES LABORATORY
Box 1500
Yellowknife, NT. X1A 2R3
Tel. (403) 920-8129
Fax. (403) 873-9300

To: Cadillac Exploration
c/o Ft. Simpson District
DIAND/NAP
Box 150
==> Ft. Simpson NT X0E_ONO
Ken Etherington

SAMPLE INFORMATION

Our Lab # : WL930819
Your Sample ID: 932-9
Sample Matrix : water

Account No.: N3L30932

Collection:
Location: Prairie Creek
Date: 07/13/93
By: KE/KH

Report Date: 09/03/93

Approved by: we

- SAMPLE ANALYSIS REPORT -

Lab#	Parameter	Result Units	Detect Limit	Method Code
WL930819	Alkalinity	241.0 mg/L	0.300	10101
	Calcium	51.85 mg/L	0.040	20103
	Sp. Conduct	691.0 uS/cm	0.100	2041
	Filt. Residue	527 mg/L	10.000	10451
	Tot. Hardness	210.2 mg/L	0.100	10602
	Magnesium	40.90 mg/L	0.010	12102
	Non-Filt_Res.	L3 mg/L	3.000	10406
	pH	7.97 pH	0.050	10301
	T.Arsenic-Hyd.	0.9 ug/L	0.300	33011
	T.Cadmium-S/E	0.5 ug/L	0.200	48302
	T.Cobalt-S/E	L1 ug/L	1.000	27302
	T.Chromium-S/E	L1 ug/L	1.000	24303
	T.Copper-S/E	L1 ug/L	1.000	29305
	T.Iron-S/E	207 ug/L	5.000	26305
	T.Nickel-S/E	4 ug/L	1.000	28302
	T.Lead-S/E	13 ug/L	0.700	82302
	T.Zinc-S/E	497.0 ug/L	1.000	30305

RESULTS OF LABORATORY ANALYSIS

LICENSEE/PROJECT		LICENCE NUMBER				LOCATION
Cadillac Mine of Prairie Creek		N3C3 0932				Fort Simpson District
DATE SAMPLED	DATE RECEIVED	DATE COMPLETED				
July 13/93	July 14/93	Aug 11/93				
STATION NUMBER	932-4	932-6	932-7	932-9		
LABORATORY NUMBER	930816	930817	930818	930819		
ANALYSIS REQUIRED	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
pH (units)	✓ 8.74	✓ 8.31	✓ 8.33	✓ 7.97	✓	
Conductivity (µmho/cm)	✓ 352	✓ 415	✓ 404	✓ 691	July 19/93 KA	
Dissolved Oxygen						
Turbidity (NTU)						
Colour (colour U.)						
Suspended Solids	✓ L3	✓ L3	✓ L3	✓ L3		
TDS, Residue	✓ 221	✓ 265	✓ 262	✓ 527	Aug 5/93	
Calcium	✓ 24.6	✓ 50.9	✓ 51.8	✓ 51.9	AS	
Magnesium	✓ 17.0	✓ 20.5	✓ 19.6	✓ 40.9	} July 21/93 MT	
Tot. Hardness (CaCO ₃)	✓ 131	✓ 211	✓ 210	✓ 210		
Tot. Alkalinity (CaCO ₃)	✓ 104	✓ 169	✓ 166	✓ 241	July 19/93 KA	
Sodium						
Potassium						
Chloride						
Sulphate						
Total Coliform (count)						
Fecal Coli. (100)						
Fecal Strep. (ml)						
Std. Plate Cnt (cnt/ml)						
BOD ₅						
COD						
Carbon, IC						
Carbon, TOC						
Ammonia Nitrogen (as N)						
Nitrate + Nitrite (as N)						
Total Kjeldahl N (as N)						
Phosphorus O-P (as P)						
Phosphorus Tot (P)						
Silica Reac. (as SiO ₂)						
Total Cyanide						
Available Cyanide						
Sulphide						
Oil & Grease						
Phenols						
Arsenic	T (µg/L)	✓ L0.3	✓ L0.3	✓ L0.3	✓ 0.9	July 22/93 ML
	D (µg/L)					
Cadmium	T (µg/L)	✓ 0.6	✓ L0.2	✓ L0.2	✓ 0.5	Aug 11/93 ML
	D (µg/L)					
Copper	T (µg/L)	✓ 127	✓ L1	✓ L1	✓ L1	"
	D (µg/L)					
Iron	T (µg/L)	✓ 24	✓ 27	✓ 11	✓ 209	"
	D (µg/L)					
Lead	T (µg/L)	✓ 3.6	✓ 3.3	✓ L0.7	✓ 12.7	"
	D (µg/L)					
Mercury	T (µg/L)					
	D (µg/L)					
Nickel	T (µg/L)	✓ 1	✓ L1	✓ 1	✓ 4	Aug 11/93 ML
	D (µg/L)					
Zinc	T (µg/L)	✓ 120	✓ 11	✓ 9	✓ 497	"
	D (µg/L)					
Chromium	T (µg/L)	✓ 1	✓ L1	✓ L1	✓ L1	"
	D (µg/L)					
Cobalt	T (µg/L)	✓ L1	✓ L1	✓ L1	✓ L1	"
	D (µg/L)					

Results are expressed in mg/L, except as indicated. T and D refer to Total and Dissolved respectively.

Northern Affairs Program,
P.O. Box 150,
Fort Simpson, NT
X0E 0N0

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MACKENZIE VALLEY
ENVIRONMENTAL
REVIEW BOARD

November 9, 1994

San Andreas Resources Corporation,
Suite 900 - 595 Howe Street,
Vancouver, BC
V6C 2T5

D.M.	
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A.R.M.C.	
A.D.P.O.	
O.M.	

Attn: Mr. Peter P. Tsaparas

Re: Annual Inspection Report - Prairie Creek Minesite
Water Use/Waste Disposal & Storage - October 18, 1994

Please find enclosed a copy of the above noted report carried out by Mr. Ken Etherington, Water Resource Officer for the Fort Simpson District. Mr Etherington was accompanied by Mr. Scott Davidson and Mr. Kent Halvorson, Resource Management Officers also from the Fort Simpson District.

I would like to acknowledge the efforts put forth to improve the tarping of the mill reagents since the last inspection. This should prevent loss of reagents to surrounding areas from wind and rain. Other than this action taken by Mr. Potvin, the property seems to be in much the same condition as last year. One area of some concern is the mixing of waste metal with the surrounding rock in the Harrison Creek drainage. Efforts should be made to keep the metal from being buried to prevent the need for excavation upon abandonment and restoration of the minesite.

Two other areas that you are no doubt aware of require continued monitoring. Firstly there is the high Zinc values present in the minewater discharge and secondly, the petroleum stain on the rocks near the edge of the water in Prairie Creek.

As of this time we do not have the results from water samples taken at the time of inspection, however, we will forward them to you as soon as we receive them. If you have any questions or concerns regarding this report please do not hesitate to contact the inspector or the undersigned at 403-695-2626.

Yours truly,

B. J. J. Gauthier
B.J.J. Gauthier,
District Manager

cc: Water Resources
Land Resources
F.N. Adlem
Roger Potvin
Colin McAlceron

94/11/09
Jm

INSPECTION REPORT

ON

THE PRAIRIE CREEK MINESITE

by

**KEN C. ETHERINGTON
WATER RESOURCE OFFICER**

**NORTHERN AFFAIRS PROGRAM
INDIAN AND NORTHERN AFFAIRS CANADA
FORT SIMPSON, N.W.T.**

**DATE: OCTOBER 18, 1994
WATER REGISTER: EXPIRED**

INTRODUCTION

An inspection of the minesite at Prairie Creek was conducted on October 18, 1994 by Ken Etherington, Water Resource Officer who was accompanied by Scott Davidson and Kent Halvorson, Resource Management Officers for the Department of Indian and Northern Affairs in Fort Simpson. Mr. Sandy Gibson and Mr. Rodger Potvin assisted the inspectors and provided information regarding the minesite and its facilities.

The minesite is currently owned and operated by San Andreas Resources Corporation who are taking steps toward the eventual re-opening of the mine. The most recent water licence for the minesite expired on June 30, 1986. The current status of the mine does not require a licence, however before additional development begins, a water licence must be applied for.

INSPECTION

A. Water Supply

The only water being used on site is pumped directly from Prairie Creek and is used for domestic purposes. The amount of water used varies considerably as drilling crews move in and out of the facilities with a maximum of 27 people on site at any one time during the summer. Water used from the Creek is not treated nor is the amount used metered or recorded.

B. Sewage Discharge

Liquid waste from the main operations building is directed into a small sump located directly behind the building. At the time of inspection, the sump was in satisfactory condition. The sump is of sufficient size to accommodate the varied amounts of liquid waste generated and no problems have been encountered to date. The liquid waste is not treated or metered.

C. Solid Waste Disposal

All solid waste is firstly burned in an incinerator and then deposited into the garbage dump at the south end of the minesite. Non combustible waste is hauled to the dump and is backfilled on a regular basis. The dump was satisfactory at the time of inspection.

Most scrap metal and other materials are stored at the boneyard above Harrison Creek. However there is some scrap metal that was pulled from the drainage of the creek several years ago at the request of the Water Inspector. This metal is now slowly being covered by surrounding rock from the adjacent road. Efforts should be made to keep this metal separated from the rock to prevent the need for excavation of the material upon abandonment and restoration.

D. Fuel Storage

All fuel storage facilities were well bermed and enclosed in impermeable dykes. There were two spills of diesel fuel during the summer. One spill was reported to the spill line in July when approximately 200 gallons of diesel fuel was spilled when a refuelling truck was left unattended during refuelling at the generator shed. Remedial actions were taken to contain the fuel and prevent it from entering Prairie Creek. The spill is nearly all cleaned up, however, there are still booms in place in the ditch draining the area and the residual fuel is skimmed off the water weekly and burned off.

The other spill resulted from a fuel truck fire and was not reported to the spill line. An estimated 500 gallons of diesel fuel was spilled in the bermed area surrounding the main fuel storage facility. The fuel will remain within the berm until spring when it will be skimmed off the ponded water and burned off. It must be kept in mind that all future spills must be reported to the spill line as soon as possible.

There remains to be a brown discoloration on the rocks of Prairie Creek within the banks of the creek which is close to high water mark when the creek is at low flow and is near the discharge from the settling pond. This situation remains unchanged and is believed to have been caused by a fuel spill a number of years ago. The water level in Prairie Creek is presently below the stain with no visible contaminants entering the water.

E. Chemicals / Hazardous Material Storage

All materials are stored in locations as noted on the surface plan and in quantities as listed (Schedule A - list of Class A Materials). The only exception to this is the acid storage building which contains varying amounts of acids and other compounds (Hydrochloric Acid, Ammonium Hydroxide, Hydrofluoric Acid, Phosphoric Acid, Hydrogen Nitrate and Potassium Iodide). This is a metal enclosed building and is reasonably secure.

In the previous inspection report it was noted that a small number of sodium isopropyl xanthate drums stored in the reagent storage area were disintegrating as a result of being partially exposed to the weather. All mill reagents have now been securely tarpred to protect them from exposure to wind and rain.

F. Tailings Containment

The tailings pond appears to be stable with no apparent leaks or breaches. The condition of the pond appears to have remained unchanged with conditions of slumping in addition to the liner separation remaining much the same as in the previous inspection. Freeboard in the pond remains at over 2.5 meters.

At the time of inspection, there was a small amount of minewater discharge which split and ran in two directions. Some of the water runs into the tailings pond with the remainder entering the settling pond before entering Prairie Creek.

G. Ore Storage

The ore storage area remains unchanged since the last inspection with no visible disturbance. The ore has been stored since 1983 and the area is bermed and drains into the settling pond.

H. Sampling Sites

The following water samples were taken at points established from the old Surveillance Network Program;

- i) 932-4 - Final discharge point from settling pond.
- ii) 932-6 - Prairie Creek at confluence of Galena Creek.
- iii) 931-7 - Prairie Creek upstream of the airstrip.
- iv) 931-9 - Discharge from 2850' portal.

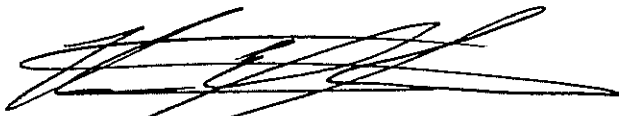
Results from the samples are not yet available but will be sent to San Andreas when they are received.

CONCLUSION

The minesite appears to be in much the same condition as last year. The additional tarping of the mill reagents is appreciated and should prevent leaching problems. Areas of concern are those of scrap metal mixed with rock near Harrison Creek and failure to report a fuel spill to the spill line.

Finally, the continued high zinc values in the discharge from the settling pond and the chronic problem of the rock stain on Prairie Creek should continue to be monitored closely.

The inspectors would like to thank Mr. Gibson and Mr. Potvin for their assistance and hospitality during the inspection.



Ken C. Etherington
Inspector Under the
Northwest Territories Waters Act

LIST OF CLASS "A" MATERIALS LOCATED ON THE PRAIRIE CREEK MINESITE

CHEMICALS

<u>CHEMICALS</u>	<u>QUANTITY</u>
Copper Sulphate	196 pallets
Sodium Isopropyl Xanthate	84 pallets
M.I.B.C.	4 pallets
Dowfroth	4 pallets
Sodium Cyanide	94 pallets
Contaminated Gravel	6-45 gallon drums
Methanol	1 pallet

PETROLEUM PRODUCTS

Diesel Fuel	bulk
Lubricating Oil	bulk, drums and pails
Gasoline	bulk
Aviation Fuel	drums
Jet B	drums
Used Lube Oil	bulk and drums
Grease	pails
Propane	bulk

EXPLOSIVES

Cigel

INDIAN & NORTHERN AFFAIRS
WATER RESOURCES LABORATORY
Box 1500
Yellowknife, NT. X1A 2R3
Tel. (403) 920-8129
Fax. (403) 873-9300

To: Water Resources
Ft. Simpson District Office
Box 150
Ft. Simpson NT X0E 0N0
==> Ken Etherington

SAMPLE INFORMATION

Our Lab # : 941933
Your Sample ID: 0932-7
Sample Matrix : water

Account No.: Simpson

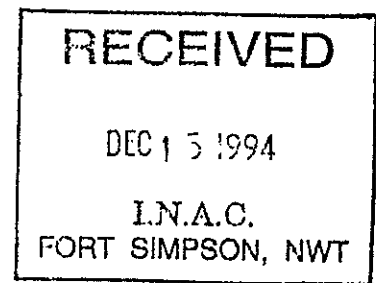
Collection:
Location: San Andreas Mine-PrairieC
Date: 10/18/94
By: KE

Report Date: 12/06/94

Approved by: J. G.

- SAMPLE ANALYSIS REPORT -

Lab#	Parameter	Result Units	Detect Limit	Method Code
941933	Alkalinity	185.2 mg/L	0.300	10101
	Calcium	30.15 mg/L	0.040	20103
	T.Cadmium ICP-MS	LO.1 ug/L	0.100	100133
	Chloride	0.86 mg/L	0.080	17206
	Conductivity	478.0 uS/cm	0.100	02041
	T.Cobalt ICP-MS	LO.1 ug/L	0.100	100115
	T.Chromium ICP-MS	3.4 ug/L	0.200	100111
	T.Copper ICP-MS	0.1 ug/L	0.100	100119
	Tot.Hardness	122.6 mg/L	0.100	10602
	Potassium	0.33 mg/L	0.050	19106
	Magnesium	11.50 mg/L	0.010	12102
	T.Manganese ICP-MS	LO.1 ug/L	0.100	100113
	Sodium	2.49 mg/L	0.040	11102
	T.Nickel ICP-MS	1.5 ug/L	0.100	100117
	T.Lead ICP-MS	0.5 ug/L	0.200	100145
	pH	8.31 pH	0.050	10301
	Reac.Silica	3.640 mg/L	0.005	14106
	Sulphate	78.0 mg/L	3.000	16306
	T.Arsenic-Hyd.	LO.3 ug/L	0.300	33011
	T. Iron	L20 ug/L	20.000	26004
	T.Zinc ICP-MS	2.3 ug/L	0.500	100121



INDIAN & NORTHERN AFFAIRS
WATER RESOURCES LABORATORY
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Tel. (403) 920-8129
Fax. (403) 873-9300

To: Water Resources
Ft. Simpson District Office
Box 150
Ft. Simpson NT X0E 0N0
==> Ken Etherington

SAMPLE INFORMATION

Our Lab # : 941932
Your Sample ID: 0932-6
Sample Matrix : water

Account No.: Simpson

Collection:
Location: San Andreas Mine-PrairieC
Date: 10/18/94
By: KE

Report Date: 12/06/94

Approved by: J. Q.

- SAMPLE ANALYSIS REPORT -

Lab#	Parameter	Result Units	Detect Limit	Method Code
941932	Alkalinity	194.0 mg/L	0.300	10101
	Calcium	32.10 mg/L	0.040	20103
	T.Cadmium ICP-MS	L0.1 ug/L	0.100	100133
	Chloride	0.86 mg/L	0.080	17206
	Conductivity	507.0 uS/cm	0.100	02041
	T.Cobalt ICP-MS	L0.1 ug/L	0.100	100115
	T.Chromium ICP-MS	3.7 ug/L	0.200	100111
	T.Copper ICP-MS	0.2 ug/L	0.100	100119
	Tot.Hardness	130.8 mg/L	0.100	10602
	Potassium	0.37 mg/L	0.050	19106
	Magnesium	12.30 mg/L	0.010	12102
	T.Manganese ICP-MS	0.3 ug/L	0.100	100113
	Sodium	2.44 mg/L	0.040	11102
	T.Nickel ICP-MS	1.8 ug/L	0.100	100117
	T.Lead ICP-MS	0.8 ug/L	0.200	100145
	pH	8.16 pH	0.050	10301
	Reac.Silica	3.730 mg/L	0.005	14106
	Sulphate	89.0 mg/L	3.000	16306
	T.Arsenic-Hyd.	L0.3 ug/L	0.300	33011
	T. Iron	L20 ug/L	20.000	26004
	T.Zinc ICP-MS	10.0 ug/L	0.500	100121

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I.N.A.C.
FORT SIMPSON, NWT

INDIAN & NORTHERN AFFAIRS
WATER RESOURCES LABORATORY
Box 1500
Yellowknife, NT. X1A 2R3
Tel. (403) 920-8129
Fax. (403) 873-9300

To: Water Resources
Ft. Simpson District Office
Box 150
Ft. Simpson NT X0E 0N0
==> Ken Etherington

SAMPLE INFORMATION

Our Lab # : 941931
Your Sample ID: 0932-4
Sample Matrix : water

Account No.: Simpson

Collection:
Location: San Andreas Mine-PrairieC
Date: 10/18/94
By: KE

Report Date: 12/06/94

Approved by: J. G.

- SAMPLE ANALYSIS REPORT -

Lab#	Parameter	Result Units	Detect Limit	Method Code
941931	Alkalinity	249.4 mg/L	0.300	10101
	Calcium	209.30 mg/L	0.040	20103
	T.Cadmium ICP-MS	0.1 ug/L	0.100	100133
	Chloride	0.94 mg/L	0.080	17206
	Conductivity	854.0 uS/cm	0.100	02041
	T.Cobalt ICP-MS	0.1 ug/L	0.100	100115
	T.Chromium ICP-MS	4.1 ug/L	0.200	100111
	T.Copper ICP-MS	0.7 ug/L	0.100	100119
	Tot.Hardness	962.7 mg/L	0.100	10602
	Potassium	0.69 mg/L	0.050	19106
	Magnesium	106.90 mg/L	0.010	12102
	T.Manganese ICP-MS	0.3 ug/L	0.100	100113
	Sodium	1.37 mg/L	0.040	11102
	T.Nickel ICP-MS	5.7 ug/L	0.100	100117
	T.Lead ICP-MS	5.6 ug/L	0.200	100145
	pH	7.85 pH	0.050	10301
	Reac.Silica	4.520 mg/L	0.005	14106
	Sulphate	233.0 mg/L	3.000	16306
	T.Arsenic-Hyd.	10.3 ug/L	0.300	33011
	T. Iron	120 ug/L	20.000	26004
	T.Zinc ICP-MS	851.0 ug/L	0.500	100121

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I.N.A.C.
FORT SIMPSON, NWT

INDIAN & NORTHERN AFFAIRS
WATER RESOURCES LABORATORY
Box 1500
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Tel. (403) 920-8129
Fax. (403) 873-9300

To: Water Resources
Ft. Simpson District Office
Box 150
Ft. Simpson NT X0E 0N0
==> Ken Etherington

SAMPLE INFORMATION

Our Lab # : 941934
Your Sample ID: 0932-9: 2850 Portal
Sample Matrix : water

Account No.: Simpson

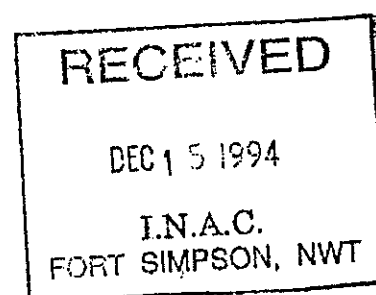
Collection:
Location: San Andreas Mine-PrairieC
Date: 10/18/94
By: KE

Report Date: 12/06/94

Approved by: F. Ga.

- SAMPLE ANALYSIS REPORT -

Lab#	Parameter	Result Units	Detect Limit	Method Code
941934	Alkalinity	260.0 mg/L	0.300	10101
	Calcium	246.60 mg/L	0.040	20103
	T.Cadmium ICP-MS	38.2 ug/L	0.100	100133
	Chloride	0.94 mg/L	0.080	17206
	Conductivity	963.0 uS/cm	0.100	02041
	T.Cobalt ICP-MS	10.1 ug/L	0.100	100115
	T.Chromium ICP-MS	3.1 ug/L	0.200	100111
	T.Copper ICP-MS	32.9 ug/L	0.100	100119
	Tot.Hardness	1102.4 mg/L	0.100	10602
	Potassium	0.69 mg/L	0.050	19106
	Magnesium	118.20 mg/L	0.010	12102
	T.Manganese ICP-MS	5.7 ug/L	0.100	100113
	Sodium	0.76 mg/L	0.040	11102
	T.Nickel ICP-MS	14.6 ug/L	0.100	100117
	T.Lead ICP-MS	19.5 ug/L	0.200	100145
	pH	7.99 pH	0.050	10301
	Reac.Silica	4.620 mg/L	0.005	14106
	Sulphate	302.0 mg/L	3.000	16306
	T.Arsenic-Hyd.	2.3 ug/L	0.300	33011
	T. Iron	120 ug/L	20.000	26004
	T.Zinc ICP-MS	7950.0 ug/L	0.500	100121





DEC 15 1994

FIELD SAMPLE SHEET

CLIENT NAME: DIAND
 ADDRESS: Box 150
Fort Simpson
NT

TEL#: 695 2878
 FAX#: 695 2615

INAC
 FORT SIMPSON, NWT

DATE SAMPLED: Oct 18/94
 DATE RECEIVED: Oct 19/94

PROJECT: Sgt Andreas Mine at
Prairie Creek
 SAMPLER: Ken Etherington
 SAMPLE TYPE: Grab

STATION NO.	932-4	932-6	932-7	932-9
STN LOCATION/TIME				2850 Parts
LAB. NO.	941931	941932	941933	941934

BOTTLE TYPE: PARAMETER

ROUTINE: (GREEN)	<input checked="" type="checkbox"/> pH <input type="checkbox"/> Fluoride <input checked="" type="checkbox"/> Sp. Conduct <input type="checkbox"/> Colour <input checked="" type="checkbox"/> Alkalinity <input checked="" type="checkbox"/> Calcium <input checked="" type="checkbox"/> Magnesium <input checked="" type="checkbox"/> Sodium <input checked="" type="checkbox"/> Potassium <input checked="" type="checkbox"/> Chloride <input checked="" type="checkbox"/> Sulphate <input checked="" type="checkbox"/> R. Silica				
NUTRIENTS: (BLACK)	Turbidity NFR (TSS) FR (TDS) Nitrate+ Nitrite-N Nitrate-N Ammonia-N Total Phosphorus-P Ortho-P Diss-P				
PRESERVED NUTS: (PINK)	Tot. Phosphorus-P Nitrate+ Nitrite-N Ammonia-N Chem. Oxy Demand				
BACTI: (AUTOCLAVED TAPE)	Tot. Coliform Fecal Coliform Fecal Streptococci BOD				
CYANIDE: (BLUE)	Tot. Cyanide Tot. Cyanide (Low) WAD Cyanide				
SULPHIDE: (PURPLE)	Sulphide				
PHENOL: (YELLOW)	Phenol				
OIL AND GREASE: (YELLOW)	O+G				
OTHER PARAMETER:					
MERCURY: (ORANGE)	Tot. Mercury				
METALS: (RED)	<input checked="" type="checkbox"/> Tot. Arsenic <input type="checkbox"/> Tot. Selenium <input type="checkbox"/> Tot. Antimony				
LAB NUMBER (IF REQUIRED)					
ICP-MS(1):Cd, Cr, Cu, Co, Mn, Ni, Pb, Zn, Fe <input checked="" type="checkbox"/>					
ICP-MS(2):total scan - 23					
ICP-MS(3): extractable - 23					
ICP-MS(4): t quant. - 60					
OTHER METALS:					

INDIAN & NORTHERN AFFAIRS
 WATER RESOURCES LABORATORY
 Box 1500
 Yellowknife, NT. X1A 2R3
 Tel. (403) 920-8129
 Fax. (403) 873-9300

To: Water Resources
 Ft. Simpson District Office
 Box 150
 Ft. Simpson NT X0E 0N0
 ==> Ken Etherington

OCT 24 1994
 D.I.A.N.D.
 FORT SIMPSON, N.W.T.

SAMPLE INFORMATION

Our Lab # : 940969
 Your Sample ID: 932-4
 Sample Matrix : water

Account No.: Simpson

Collection:
 Location: San Andreas Mine @ Pr.Crk
 Date: 06/23/94
 By: KE

Report Date: 10/15/94

Approved by: J. G.

- SAMPLE ANALYSIS REPORT -

Lab#	Parameter	Result Units	Detect Limit	Method Code
940969	Alkalinity	231.1 mg/L	0.300	10101
	Calcium	85.30 mg/L	0.040	20103
	T.Cadmium ICP-MS	0.6 ug/L	0.100	100133
	Conductivity	707.0 uS/cm	0.100	02041
	T.Cobalt ICP-MS	0.1 ug/L	0.100	27009
	T.Chromium ICP-MS	1.2 ug/L	0.200	24009
	T.Copper ICP-MS	1.3 ug/L	0.100	100119
	Magnesium	40.50 mg/L	0.010	12102
	T.Manganese ICP-MS	2.3 ug/L	0.100	100113
	T.Nickel ICP-MS	4.8 ug/L	0.100	100117
	T.Lead ICP-MS	8.8 ug/L	0.200	100145
	pH	7.93 pH	0.050	10301
	T. Iron	32 ug/L	20.000	26004
	T.Zinc ICP-MS	504.0 ug/L	0.500	100121

INDIAN & NORTHERN AFFAIRS
WATER RESOURCES LABORATORY
Box 1500
Yellowknife, NT. X1A 2R3
Tel. (403) 920-8129
Fax. (403) 873-9300

To: Water Resources
Ft. Simpson District Office
Box 150
Ft. Simpson NT X0E 0N0
==> Ken Etherington

SAMPLE INFORMATION

Our Lab # : 940970
Your Sample ID: 932-6
Sample Matrix : water

Account No.: Simpson

Collection:
Location: San Andreas Mine @ Pr.Crk
Date: 06/23/94
By: KE

Report Date: 10/15/94

Approved by: 

- SAMPLE ANALYSIS REPORT -

Lab#	Parameter	Result Units	Detect Limit	Method Code
940970	Alkalinity	164.7 mg/L	0.300	10101
	Calcium	50.20 mg/L	0.040	20103
	T.Cadmium ICP-MS	LO.1 ug/L	0.100	100133
	Conductivity	391.0 uS/cm	0.100	02041
	T.Cobalt ICP-MS	0.1 ug/L	0.100	27009
	T.Chromium ICP-MS	1.9 ug/L	0.200	24009
	T.Copper ICP-MS	0.2 ug/L	0.100	100119
	Magnesium	19.30 mg/L	0.010	12102
	T.Manganese ICP-MS	0.3 ug/L	0.100	100113
	T.Nickel ICP-MS	1.2 ug/L	0.100	100117
	T.Lead ICP-MS	0.3 ug/L	0.200	100145
	pH	8.29 pH	0.050	10301
	T. Iron	37 ug/L	20.000	26004
	T.Zinc ICP-MS	6.4 ug/L	0.500	100121

INDIAN & NORTHERN AFFAIRS
 WATER RESOURCES LABORATORY
 Box 1500
 Yellowknife, NT. X1A 2R3
 Tel. (403) 920-8129
 Fax. (403) 873-9300

To: Water Resources
 Ft. Simpson District Office
 Box 150
 Ft. Simpson NT X0E 0N0
 ==> Ken Etherington

SAMPLE INFORMATION

Our Lab # : 940972
 Your Sample ID: 2850Portal
 Sample Matrix : water

Account No.: Simpson

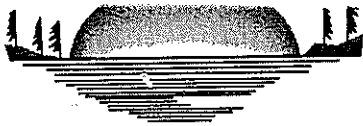
Collection:
 Location: San Andreas Mine @ Pr.Crk
 Date: 06/23/94
 By: KE

Report Date: 10/15/94

Approved by: *[Signature]*

- SAMPLE ANALYSIS REPORT -

Lab#	Parameter	Result Units	Detect Limit	Method Code
940972	Alkalinity	265.9 mg/L	0.300	10101
	Calcium	125.70 mg/L	0.040	20103
	T.Cadmium ICP-MS	41.0 ug/L	0.100	100133
	Conductivity	943.3 uS/cm	0.100	02041
	T.Cobalt ICP-MS	0.4 ug/L	0.100	27009
	T.Chromium ICP-MS	3.4 ug/L	0.200	24009
	T.Copper ICP-MS	20.6 ug/L	0.100	100119
	Magnesium	53.10 mg/L	0.010	12102
	T.Manganese ICP-MS	5.0 ug/L	0.100	100113
	T.Nickel ICP-MS	15.5 ug/L	0.100	100117
	T.Lead ICP-MS	13.7 ug/L	0.200	100145
	pH	7.96 pH	0.050	10301
	T. Iron	32 ug/L	20.000	26004
	T.Zinc ICP-MS	7240.0 ug/L	0.500	100121



DEPARTMENT OF INDIAN AFFAIRS & NORTHERN DEVELOPMENT
 BOX 500, 4601-52ND AVE., YELLOWKNIFE, NT X1A 2R3
 TELEPHONE: 403-920-8129 FAX: 403-873-9300

FIELD SAMPLE SHEET

CLIENT NAME: DIAND-
 ADDRESS: Box 150 Fort Simpson

TEL#: 695 2626
 FAX#: 695 2615

DATE SAMPLED: June 23/94
 DATE RECEIVED: _____

PROJECT: San Andreas Mine at Prairie Creek N323-0932 exp
 SAMPLER: Ken Etherington
 SAMPLE TYPE: Grab

BOTTLE TYPE: PARAMETER	STATION NO.	932-4	932-6	932-7	2850 Porto
	STN LOCATION/TIME				
	LAB. NO.	940969	940970	940971	940972
ROUTINE: (GREEN)	pH	✓	✓	✓	✓
	Fluoride				
	Sp. Conduct	✓	✓	✓	✓
	Colour				
	Alkalinity	✓	✓	✓	✓
	Calcium	✓	✓	✓	✓
	Magnesium	✓	✓	✓	✓
	Sodium				
	Potassium				
	Chloride				
	Sulphate				
	R. Silica				
NUTRIENTS: (BLACK)	Turbidity				
	NFR (TSS)				
	FR (TDS)				
	Nitrate+ Nitrite-N				
	Nitrate-N				
	Ammonia-N				
	Total Phosphorus-P				
	Ortho-P				
	Diss-P				
PRESERVED NUTS: (PINK)	Tot. Phosphorus-P				
	Nitrate+ Nitrite-N				
	Ammonia-N				
	Chem. Oxy Demand				
BACTI: (AUTOCLAVED TAPE)	Tot. Coliform				
	Fecal Coliform				
	Fecal Streptococci				
	BOD				
CYANIDE: (BLUE)	Tot. Cyanide				
	Tot. Cyanide (Low)				
	WAD Cyanide				
SULPHIDE: (PURPLE)	Sulphide				
PHENOL: (YELLOW)	Phenol				
OIL AND GREASE: (YELLOW)	O+G				
OTHER PARAMETER:					
MERCURY: (ORANGE)	Tot. Mercury				
METALS: (RED)	Tot. Arsenic				
	Tot. Selenium				
	Tot. Antimony				
LAB NUMBER (IF REQUIRED)					
ICP-MS(1):Cd, Cr, Cu, Co, Mn, Ni, Pb, Zn, Fe		✓	✓	✓	✓
ICP-MS(2):total scan - 23					
ICP-MS(3): extractable - 23					
ICP-MS(4): t quant. - 60					
OTHER METALS:					



Northern Affairs Program,
P.O. Box 150,
Fort Simpson, NT
X0E 0N0

Your file Votre référence

August 8, 1995

Our file Notre référence

San Andreas Resources Corporation,
Suite 900 - 595 Howe Street,
Vancouver, BC
V6C 2T5



Attn: Mr. David Elgee

Re: Annual Inspection Report - Prairie Creek Minesite
Water Use/Waste Disposal & Storage - June 15, 1995

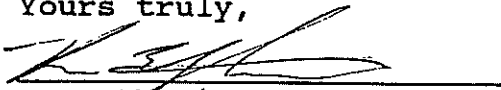
Please find enclosed the above captioned report prepared from information collected during an inspection of the facilities of the Prairie Creek minesite. The inspection was performed with the assistance of Mr. Sandy Gibson and Mr. Al Taylor.

The minesite appears to be in much the same condition as in previous inspections with several ongoing concerns. Firstly, the stain on the rocks, apparently from an old spill, of Prairie Creek just above the discharge from the settling pond is a problem that has lingered for some time. Our most recent recommendation for this was to leave it as is for the time being and monitor the situation. Mr. Taylor however expressed an interest in attempting to locate the source of the contamination and try to clean it up. We are as yet unsure of the best method to do this but would appreciate hearing any ideas you may have.

The second major concern is the storage of waste oil in the numerous drums that have collected within the fuel storage area. Again, Mr. Taylor expressed a sincere interest in cleaning up the situation possibly by acquiring an incinerator to dispose of the waste oil. We are currently trying to acquire the use of an incinerator and will inform you of any progress we make in this area.

There are several other less pressing items mentioned in the report which are self explanatory. I would like to express my appreciation for the hospitality shown to all our inspectors whenever they visit the minesite. As always, the on site personel are very helpful in assisting us with our tasks at hand. If you have any questions regarding this report, please do not hesitate to call our office at 403-695-2626.

Yours truly,



Ken Etherington
Water Resource Officer

cc: Water Resources
Land Resources
F.N. Adlem

INSPECTION REPORT
ON
SAN ANDREAS MINESITE

BY

KEN ETHERINGTON
WATER RESOURCE OFFICER
NORTHERN AFFAIRS PROGRAM
INDIAN AND NORTHERN AFFAIRS CANADA
FORT SIMPSON, N.W.T.

Date: June 15, 1995
Water Register: Expired

INTRODUCTION

An inspection of the minesite at Prairie Creek was conducted on June 15, 1995 by Ken Etherington, Water Resource Officer who was accompanied by Scott Davidson and Kent Halvorson, Resource Management Officers for the Department of Indian and Northern Affairs in Fort Simpson. Mr. Sandy Gibson and Mr. Al Taylor assisted the inspectors and provided information regarding the minesite and its facilities.

The minesite is currently owned and operated by San Andreas Resources Corporation who are taking steps toward the eventual re-opening of the mine. At the time of inspection there were two drills in operation which will be the case for the remainder of the season as the company attempts to prove up more ore reserves. The most recent water licence for the minesite expired on June 30, 1986. The current status of the mine does not require a licence, however before additional development begins or a winter or all weather road is constructed, a water licence must be in place.

INSPECTION

A. Water Supply

Water used for domestic purposes is pumped directly from Prairie Creek to supply the needs for a current staff of 16 people including drilling crews. Water used from the Creek is not treated nor is the amount used metered or recorded. Apart from this, the only other water use is by the drilling crews. The majority of this water is lost down the shaft of the drill hole as it migrates into the surrounding parent material.

B. Sewage Discharge

Liquid waste from the main operations building is directed into a small covered sump located directly behind the building. At the time of inspection, the sump was in satisfactory condition. The sump is of sufficient size to accommodate the varied amounts of liquid waste generated and no problems have been encountered to date. The liquid waste is not treated or metered.

C. Solid Waste Disposal

All solid waste is firstly burned in an incinerator and then deposited into the garbage dump at the south end of the minesite. Non combustible waste is hauled to the dump and is backfilled on a regular basis. The dump was satisfactory at the time of inspection.

Most scrap metal and other materials are stored at the boneyard above Harrison Creek. However there is some scrap metal that was pulled from the drainage of the creek several years ago at the request of the Water Inspector. This metal is now slowly being covered by surrounding rock from the adjacent road. It was requested in the previous inspection report that efforts be made to separate the scrap metal from the rock and maintain the area to prevent the metal from being randomly buried by the rock. This will eliminate the need for excavation of the waste metal upon abandonment and restoration. At the time of inspection, the area was in much the same condition and it is again requested that this scrap metal be kept separate from the surrounding material.

D. Fuel Storage

The fuel storage facilities continue to be bermed and in much the same condition as in the previous inspection. Waste oil accumulating within the bermed area however is reason for some concern as many of the drums are in poor shape and some are slowly leaking. Discussions were held on the best way to rectify the situation which may involve pumping off some of the oil into better drums and eventual incineration.

There were no spills since the last inspection. The spill of diesel fuel during the previous summer near the generator shed has been cleaned up and closure of the file will be recommended. The other spill which was not reported resulted from a truck fire within the bermed fuel storage area. There is some evidence of small amounts of saturated soil within this area which is from a combination of this spill and the waste oil drums slowly leaking.

There remains to be a brown discoloration on the rocks of Prairie Creek within the banks of the creek which is close to high water mark when the creek is at low flow and is near the discharge from the settling pond. This situation has existed for quite a number of years and is most likely the result of an old fuel spill near the site. This was discussed at length as San Andreas would like to somehow take remedial action to prevent the fuel from very slowly leaking into Prairie Creek. It is still undecided as to the best course of action whether it is best to try to trench or excavate the site somehow or whether it is best to leave it as is and monitor the situation closely.

E. Chemicals / Hazardous Material Storage

All materials are stored in locations as noted on the surface plan and in quantities as listed (Schedule A - list of Class A Materials). The only exception to this is the acid storage building which contains varying amounts of acids and other compounds (Hydrochloric Acid, Ammonium Hydroxide, Hydrofluoric Acid, Phosphoric Acid, Hydrogen Nitrate and Potassium Iodide). This is a metal enclosed building and is reasonably secure, however upon entering the building, a strong odour was detected indicating that all containers are not properly sealed however there was no evidence liquids leaking onto the floor. This should be monitored to ensure the situation does not worsen.

The mill reagent inventory remains the same as in the previous inspection with all reagents remaining tarped with liner from the tailings pond.

F. Tailings Containment

The tailings pond appears to be stable with no apparent leaks or breaches. The condition of the pond appears to have remained unchanged with conditions of slumping in addition to the liner separation remaining much the same as in the previous inspection. Geotechnical holes were drilled in November of last year to monitor slumping of the slope adjacent to the tailings pond. Freeboard in the pond remains at over 2.5 meters.

At the time of inspection, there was a small amount of minewater discharge which split and ran in two directions. Some of the water runs into the tailings pond with the remainder entering the settling pond before entering Prairie Creek. This water has a very high total zinc content and should continue to be monitored.

G. Ore Storage

The ore storage area remains unchanged since the last inspection with no visible disturbance. The ore has been stored since 1983 and the area is bermed and drains into the settling pond.

H. Sampling Sites

The following water samples were taken at points established from the old Surveillance Network Program;

- i) 932-4 - Final discharge point from settling pond.
- ii) 932-6 - Prairie Creek at confluence of Galena Creek.
- iii) 931-7 - Prairie Creek upstream of the airstrip.
- iv) 931-9 - Discharge from 2850' portal.

Results from the samples were recently received and a copy of these results is included with this inspection report.

CONCLUSION

The minesite remains in much the same condition as described in previous inspection reports with drilling being the only major activity currently taking place. As noted in the report the main areas of concern are the high zinc levels in the minewater discharge, the stain on the rocks at Prairie Creek and the waste oil accumulation in the fuel storage area.

The inspector would like to thank Mr. Gibson and Mr. Taylor for their assistance and hospitality during the inspection.

Ken C. Etherington
Inspector Under the
Northwest Territories Waters Act

LIST OF CLASS "A" MATERIALS LOCATED ON THE PRAIRIE CREEK MINESITE

CHEMICALS

QUANTITY

Copper Sulphate	196 pallets
Sodium Isopropyl Xanthate	84 pallets
M.I.B.C.	4 pallets
Dowfroth	4 pallets
Sodium Cyanide	94 pallets
Contaminated Gravel	6-45 gallon drums
Methanol	1 pallet

PETROLEUM PRODUCTS

Diesel Fuel	bulk
Lubricating Oil	bulk, drums and pails
Gasoline	bulk
Aviation Fuel	drums
Jet B	drums
Used Lube Oil	bulk and drums
Grease	pails
Propane	bulk

EXPLOSIVES

Cigel

INDIAN & NORTHERN AFFAIRS
WATER RESOURCES LABORATORY
Box 1500
Yellowknife, NT. X1A 2R3
Tel. (403) 920-8129
Fax. (403) 873-9300

To: DIAND/Ft.Simpson District
RE: San Andreas Mine @ Prairie Crk
Box 150
Ft. Simpson NT X0E ONO
==> Ken Etherington

SAMPLE INFORMATION

Our Lab # : 950464
Your Sample ID: 932-4
Sample Matrix : grab efflu

Account No.: Simpson

Collection:
Location: San Andreas Mine
Date: 06/15/95
By: KE

Report Date: 07/14/95

Approved by: J. G.

- SAMPLE ANALYSIS REPORT -

Lab#	Parameter	Result Units	Detect Limit	Method Code
950464	Alkalinity	247.0 mg/L	0.300	10101
	Calcium	93.00 mg/L	0.040	20103
	T.Cadmium ICP-MS	0.7 ug/L	0.100	100133
	Chloride	0.82 mg/L	0.080	17206
	Sp.Conduct	788.0 uS/cm	0.100	02041
	T.Cobalt ICP-MS	0.1 ug/L	0.100	100115
	T.Chromium ICP-MS	6.0 ug/L	0.200	100111
	T.Copper ICP-MS	0.1 ug/L	0.100	100119
	Tot.Hardness	419.0 mg/L	0.100	10602
	Potassium	0.91 mg/L	0.050	19106
	Magnesium	45.40 mg/L	0.010	12102
	T.Manganese ICP-MS	1.4 ug/L	0.100	100113
	Sodium	1.89 mg/L	0.040	11102
	T.Nickel ICP-MS	4.6 ug/L	0.100	100117
	T.Lead ICP-MS	10.2 ug/L	0.200	100145
	pH	7.92 pH	0.050	10301
	Sulphate	193.0 mg/L	3.000	16306
	T.Arsenic-Hyd.	0.5 ug/L	0.300	33011
	T.Iron	N/A ug/L	20.000	26004
	T.Iron	12 ug/L	3.000	26002
	T.Zinc ICP-MS	538.0 ug/L	5.000	100121

RECEIVED

JUL 21 1995

I.N.A.C.
FORT SIMPSON, NWT

INDIAN & NORTHERN AFFAIRS
 WATER RESOURCES LABORATORY
 Box 1500
 Yellowknife, NT. X1A 2R3
 Tel. (403) 920-8129
 Fax. (403) 873-9300

To: DIAND/Ft.Simpson District
 RE: San Andreas Mine @ Prairie Crk
 Box 150
 Ft. Simpson NT X0E 0N0
 ==> Ken Etherington

SAMPLE INFORMATION

Our Lab # : 950465
 Your Sample ID: 932-6
 Sample Matrix : grab efflu

Account No.: Simpson

Collection:
 Location: San Andreas Mine
 Date: 06/15/95
 By: KE

Report Date: 07/14/95

Approved by: J. G.

- SAMPLE ANALYSIS REPORT -

Lab#	Parameter	Result Units	Detect Limit	Method Code
950465	Alkalinity	170.0 mg/L	0.300	10101
	Calcium	51.50 mg/L	0.040	20103
	T.Cadmium ICP-MS	0.1 ug/L	0.100	100133
	Chloride	0.68 mg/L	0.080	17206
	Sp.Conduct	436.0 uS/cm	0.100	02041
	T.Cobalt ICP-MS	0.1 ug/L	0.100	100115
	T.Chromium ICP-MS	4.8 ug/L	0.200	100111
	T.Copper ICP-MS	0.1 ug/L	0.100	100119
	Tot.Hardness	211.0 mg/L	0.100	10602
	Potassium	0.60 mg/L	0.050	19106
	Magnesium	20.00 mg/L	0.010	12102
	T.Manganese ICP-MS	0.4 ug/L	0.100	100113
	Sodium	2.12 mg/L	0.040	11102
	T.Nickel ICP-MS	1.5 ug/L	0.100	100117
	T.Lead ICP-MS	0.2 ug/L	0.200	100145
	pH	8.20 pH	0.050	10301
	Sulphate	64.0 mg/L	3.000	16306
	T.Arsenic-Hyd.	0.3 ug/L	0.300	33011
	T.Iron	N/A ug/L	20.000	26004
	T.Iron	6.0 ug/L	3.000	26002
	T.Zinc ICP-MS	6.0 ug/L	3.000	100121

RECEIVED

JUL 21 1995

I.N.A.C.
 FORT SIMPSON, NWT

INDIAN & NORTHERN AFFAIRS
WATER RESOURCES LABORATORY
Box 1500
Yellowknife, NT. X1A 2R3
Tel. (403) 920-8129
Fax. (403) 873-9300

To: DIAND/Ft. Simpson District
RE: San Andreas Mine @ Prairie Crk
Box 150
Ft. Simpson NT X0E ON0
==> Ken Etherington

SAMPLE INFORMATION

Our Lab # : 950466
Your Sample ID: 932-7
Sample Matrix : grab efflu

Account No.: Simpson

Collection:
Location: San Andreas Mine
Date: 06/15/95
By: KE

Report Date: 07/14/95

Approved by: J. Ga.

- SAMPLE ANALYSIS REPORT -

Lab#	Parameter	Result Units	Detect Limit	Method Code
950466	Alkalinity	167.0 mg/L	0.300	10101
	Calcium	49.60 mg/L	0.040	20103
	T.Cadmium ICP-MS	0.1 ug/L	0.100	100133
	Chloride	0.67 mg/L	0.080	17206
	Sp.Conduct	426.0 uS/cm	0.100	02041
	T.Cobalt ICP-MS	10.1 ug/L	0.100	100115
	T.Chromium ICP-MS	4.2 ug/L	0.200	100111
	T.Copper ICP-MS	10.1 ug/L	0.100	100119
	Tot.Hardness	203.0 mg/L	0.100	10602
	Potassium	0.61 mg/L	0.050	19106
	Magnesium	19.20 mg/L	0.010	12102
	T.Manganese ICP-MS	0.3 ug/L	0.100	100113
	Sodium	2.11 mg/L	0.040	11102
	T.Nickel ICP-MS	1.5 ug/L	0.100	100117
	T.Lead ICP-MS	0.2 ug/L	0.200	100145
	pH	8.14 pH	0.050	10301
	Sulphate	62.0 mg/L	3.000	16306
	T.Arsenic-Hyd.	10.3 ug/L	0.300	33011
	T.Iron	N/A ug/L	20.000	26004
	T.Iron	3 ug/L <i>Amber</i>	3.000	26002
	T.Zinc ICP-MS	15 ug/L	5.000	100121

RECEIVED

JUL 21 1995

I.N.A.C.
FORT SIMPSON, NWT

INDIAN & NORTHERN AFFAIRS
WATER RESOURCES LABORATORY
Box 1500
Yellowknife, NT. X1A 2R3
Tel. (403) 920-8129
Fax. (403) 873-9300

To: DIAND/Ft.Simpson District
RE: San Andreas Mine @ Prairie Crk
Box 150
Ft. Simpson NT X0E 0N0
==> Ken Etherington

SAMPLE INFORMATION

Our Lab # : 950467
Your Sample ID: 2850 Portal
Sample Matrix : grab efflu

Account No.: Simpson

Collection:
Location: San Andreas Mine
Date: 06/15/95
By: KE

Report Date: 07/14/95

Approved by: *[Signature]*

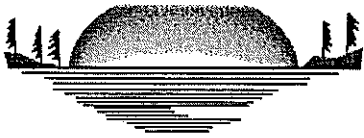
- SAMPLE ANALYSIS REPORT -

Lab#	Parameter	Result Units	Detect Limit	Method Code
950467	T.Copper ICP-MS	23.0 ug/L	0.100	100119
	Chloride	0.80 mg/L	0.080	17206
	T.Manganese ICP-MS	4.8 ug/L	0.100	100113
	Sp.Conduct	1010.0 uS/cm	0.100	02041
	Sulphate	320.0 mg/L	3.000	16306
	T.Chromium ICP-MS	10.2 ug/L	0.200	100111
	Potassium	0.85 mg/L	0.050	19106
	Calcium	134.00 mg/L	0.040	20103
	T.Cobalt ICP-MS	0.2 ug/L	0.100	100115
	T.Iron	19 ug/L	3.000	26002
	T.Zinc ICP-MS	8380.0 ug/L	5.000	100121
	pH	7.67 pH	0.050	10301
	T.Arsenic-Hyd.	1.1 ug/L	0.300	33011
	T.Cadmium ICP-MS	41.6 ug/L	0.100	100133
	Sodium	0.91 mg/L	0.040	11102
	Magnesium	56.50 mg/L	0.010	12102
	Tot.Hardness	567.0 mg/L	0.100	10602
	Alkalinity	275.0 mg/L	0.300	10101
	T.Lead ICP-MS	21.3 ug/L	0.200	100145
T.Nickel ICP-MS	16.9 ug/L	0.100	100117	

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JUL 21 1995

I.N.A.C.
FORT SIMPSON, NWT



FIELD SAMPLE SHEET

CLIENT NAME: DIANO
 ADDRESS: Box 150
Fort Simpson, NT
XDE 0N0

TEL#: 695 2626
 FAX#: 695 2615

DATE SAMPLED: June 15/95
 DATE RECEIVED: _____

PROJECT: Inspection of San Andreas
Mine at Prairie Creek

SAMPLER: Ken Etherington
 SAMPLE TYPE: Grab

STATION NO.	932-4	932-6	932-7	2850 Port 1
STN LOCATION/TIME				
LAB. NO.				

BOTTLE TYPE: PARAMETER

ROUTINE: (GREEN)	<input checked="" type="checkbox"/> pH <input type="checkbox"/> Fluoride <input checked="" type="checkbox"/> Sp. Conduct <input type="checkbox"/> Colour <input checked="" type="checkbox"/> Alkalinity <input checked="" type="checkbox"/> Calcium <input checked="" type="checkbox"/> Magnesium <input checked="" type="checkbox"/> Sodium <input checked="" type="checkbox"/> Potassium <input checked="" type="checkbox"/> Chloride <input checked="" type="checkbox"/> Sulphate <input type="checkbox"/> R. Silica				
NUTRIENTS: (BLACK)	<input type="checkbox"/> Turbidity <input type="checkbox"/> NFR (TSS) <input type="checkbox"/> FR (TDS) <input type="checkbox"/> Nitrate+ Nitrite-N <input type="checkbox"/> Nitrate-N <input type="checkbox"/> Ammonia-N <input type="checkbox"/> Total Phosphorus-P <input type="checkbox"/> Ortho-P <input type="checkbox"/> Diss-P				
PRESERVED NUTS: (PINK)	<input type="checkbox"/> Tot. Phosphorus-P <input type="checkbox"/> Nitrate+ Nitrite-N <input type="checkbox"/> Ammonia-N <input type="checkbox"/> Chem. Oxy Demand				
BACTI: (AUTOCLAVED TAPE)	<input type="checkbox"/> Tot. Coliform <input type="checkbox"/> Fecal Coliform <input type="checkbox"/> Fecal Streptococci <input type="checkbox"/> BOD				
CYANIDE: (BLUE)	<input type="checkbox"/> Tot. Cyanide <input type="checkbox"/> Tot. Cyanide (Low) <input type="checkbox"/> WAD Cyanide				
SULPHIDE: (PURPLE)	<input type="checkbox"/> Sulphide				
PHENOL: (YELLOW)	<input type="checkbox"/> Phenol				
OIL AND GREASE: (YELLOW)	<input type="checkbox"/> O+G				
OTHER PARAMETER:					
MERCURY: (ORANGE)	<input type="checkbox"/> Tot. Mercury				
METALS: (RED)	<input checked="" type="checkbox"/> Tot. Arsenic <input type="checkbox"/> Tot. Selenium <input type="checkbox"/> Tot. Antimony				
LAB NUMBER (IF REQUIRED)					
ICP-MS(1):Cd, Cr, Cu, Co, Mn, Ni, Pb, Zn, Fe <input checked="" type="checkbox"/>					
ICP-MS(2):total scan - 23					
ICP-MS(3): extractable - 23					
ICP-MS(4): t quant. - 60					
OTHER METALS:					

SAMPLER: RETAIN FOR YOUR RECORDS

FIELD SAMPLE NOTES:

PROJECT: _____

	(1)	(2)	(3)	(4)
STATION NO.	932-4	932-6	932-7	2950 Punta 1
WATER TEMP (°C)	15	13	16	1
SAMPLING DEPTH (m)	surface	surface	surface	surface
FLOW, ICE, etc.				
pH	meter not working			7
COND.	.750	.390	.400	.950
DO				
TURB				
OTHER				

SITE LOCATION/DESCRIPTION 1) _____
 2) _____
 3) _____
 4) _____

COMMENTS: _____

PRESERVATION CODE GUIDE

BOTTLE TYPE	DESCRIPTION	PRESERVATIVE	COLOUR
ROUTINE (R)	1 litre plastic (HDPE)	4 degrees C	green
NUTRIENTS (NUT)	500 mL plastic (HDPE)	4 degrees C	black
PRES. NUTRIENTS (p-nut)	125 mL plastic (HDPE)	1 mL 1:1 sulphuric acid	pink
BACTI	250 or 500 or 1 litre plastic (HDPE)	autoclave (time) tape	white
SULPHIDE (S)	250 mL plastic (HDPE)	1 mL 6N zinc acetate	purple
PHENOL (P-OH)	1 litre glass	4 mL 1:1 sulphuric acid	yellow
OIL + GREASE (O+G)	1 litre glass	4 mL 1:1 sulphuric acid	yellow
CYANIDE (CN)	500 mL brown plastic	5 mL 10% sodium hydroxide	blue
MERCURY (Hg)	150 mL glass	2 mL 1:1 sulphuric acid + 1 mL 5% potassium dichromate	orange
METAL (M)	500 mL clear plastic	5 ml 1:1 nitric acid	red

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 WATER RESOURCES LABORATORY
 Box 1500
 Yellowknife, NT. X1A 2R3
 Tel. (403) 920-8129
 Fax. (403) 873-9300

To: Indian & Northern Affairs Canada
 Ft. Simpson District Office
 Box 150
 Ft. Simpson NT X0E 0N0
 ==> Ken Etherington

 SAMPLE INFORMATION

Our Lab # : 951099
 Your Sample ID: 932-4
 Sample Matrix : grab water

Account No.: Simpson.

Collection:
 Location: San Andreas mine @ Pr. Cr
 Date: 09/28/95
 By: KE

Report Date: 10/10/95

Approved by: W. Coode

 - SAMPLE ANALYSIS REPORT -

Lab#	Parameter	Result Units	Detect Limit	Method Code
951099	Alkalinity	235.0 mg/L	0.300	10101
	Calcium	82.80 mg/L	0.040	20103
	T.Cadmium ICP-MS	0.7 ug/L	0.100	100133
	Chloride	0.47 mg/L	0.080	17206
	Conductivity	738.0 uS/cm	0.100	02041
	T.Cobalt ICP-MS	0.1 ug/L	0.100	100115
	T.Chromium ICP-MS	2.7 ug/L	0.200	100111
	T.Copper ICP-MS	1.6 ug/L	0.100	100119
	Tot.Hardness	392.0 mg/L	0.100	10602
	Potassium	0.73 mg/L	0.050	19106
	Magnesium	44.90 mg/L	0.010	12102
	T.Manganese ICP-MS	0.8 ug/L	0.100	100113
	Sodium	1.18 mg/L	0.040	11102
	T.Nickel ICP-MS	4.4 ug/L	0.100	100117
	T.Lead ICP-MS	7.9 ug/L	0.200	100145
	pH	7.92 pH	0.050	10301
	Sulphate	282.0 mg/L	3.000	16306
	T.Arsenic-Hyd.	0.4 ug/L	0.300	33011
	T.Iron	4 ug/L	3.000	26002
	T.Zinc ICP-MS	547.0 ug/L	0.500	100121

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 OCT 16 1995
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 YELLOWKNIFE, NT

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OCT 20 1995

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Tel. (403) 920-8129
Fax. (403) 873-9300

To: Indian & Northern Affairs Canada
Ft. Simpson District Office
Box 150
Ft. Simpson NT X0E 0N0
==> Ken Etherington

SAMPLE INFORMATION

Our Lab # : 951102
Your Sample ID: 2850 Portal
Sample Matrix : grab water

Account No.: Simpson

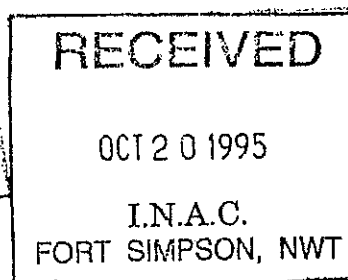
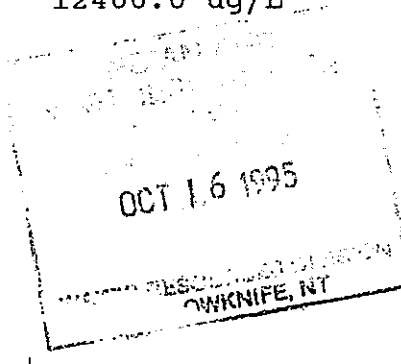
Collection:
Location: San Andreas mine @ Pr. Cr
Date: 09/28/95
By: KE

Report Date: 10/16/95

Approved by: Wood

- SAMPLE ANALYSIS REPORT -

Lab#	Parameter	Result Units	Detect Limit	Method Code
951102	Alkalinity	290.0 mg/L	0.300	10101
	Calcium	124.00 mg/L	0.040	20103
	T.Cadmium ICP-MS	67.9 ug/L	0.100	100133
	Chloride	0.58 mg/L	0.080	17206
	Conductivity	1020.0 uS/cm	0.100	02041
	T.Cobalt ICP-MS	0.6 ug/L	0.100	100115
	T.Chromium ICP-MS	3.2 ug/L	0.200	100111
	T.Copper ICP-MS	48.9 ug/L	0.100	100119
	Tot.Hardness	575.0 mg/L	0.100	10602
	Potassium	0.83 mg/L	0.050	19106
	Magnesium	64.50 mg/L	0.010	12102
	T.Manganese ICP-MS	7.6 ug/L	0.100	100113
	Sodium	0.87 mg/L	0.040	11102
	T.Nickel ICP-MS	16.2 ug/L	0.100	100117
	T.Lead ICP-MS	27.2 ug/L	0.200	100145
	pH	7.91 pH	0.050	10301
	Sulphate	407.0 mg/L	3.000	16306
	T.Arsenic-Hyd.	2.1 ug/L	0.300	33011
	T.Iron	6 ug/L	3.000	26002
	T.Zinc ICP-MS	12400.0 ug/L	0.500	100121



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Fax. (403) 873-9300

To: Indian & Northern Affairs Canada
Ft. Simpson District Office
Box 150
Ft. Simpson NT X0E 0N0
==> Ken Etherington

SAMPLE INFORMATION

Our Lab # : 951100
Your Sample ID: 932-6
Sample Matrix : grab water

Account No.: Simpson

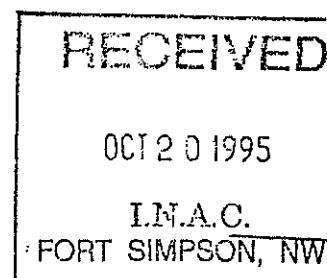
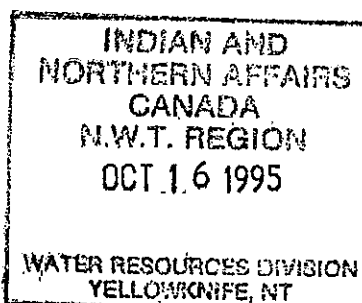
Collection:
Location: San Andreas mine @ Pr. Cr
Date: 09/28/95
By: KE

Report Date: 10/10/95

Approved by: W. Coe

- SAMPLE ANALYSIS REPORT -

Lab#	Parameter	Result Units	Detect Limit	Method Code
951100	Alkalinity	190.0 mg/L	0.300	10101
	Calcium	54.00 mg/L	0.040	20103
	T.Cadmium ICP-MS	0.1 ug/L	0.100	100133
	Chloride	0.37 mg/L	0.080	17206
	Conductivity	456.0 uS/cm	0.100	02041
	T.Cobalt ICP-MS	0.1 ug/L	0.100	100115
	T.Chromium ICP-MS	2.3 ug/L	0.200	100111
	T.Copper ICP-MS	0.8 ug/L	0.100	100119
	Tot.Hardness	235.0 mg/L	0.100	10602
	Potassium	0.38 mg/L	0.050	19106
	Magnesium	24.40 mg/L	0.010	12102
	T.Manganese ICP-MS	0.5 ug/L	0.100	100113
	Sodium	2.31 mg/L	0.040	11102
	T.Nickel ICP-MS	2.2 ug/L	0.100	100117
	T.Lead ICP-MS	1.5 ug/L	0.200	100145
	pH	8.30 pH	0.050	10301
	Sulphate	85.0 mg/L	3.000	16306
	T.Arsenic-Hyd.	10.3 ug/L	0.300	33011
	T.Iron	14 ug/L	3.000	26002
	T.Zinc ICP-MS	8.9 ug/L	0.500	100121



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To: Indian & Northern Affairs Canada
 Ft. Simpson District Office
 Box 150
 Ft. Simpson NT X0E 0N0
 ==> Ken Etherington

SAMPLE INFORMATION

Our Lab # : 951101
 Your Sample ID: 932-7
 Sample Matrix : grab water

Account No.: Simpson

Collection:
 Location: San Andreas mine @ Pr. Cr
 Date: 09/28/95
 By: KE

Report Date: 10/10/95

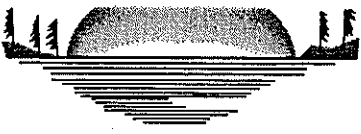
Approved by: W. B. ...

- SAMPLE ANALYSIS REPORT -

Lab#	Parameter	Result Units	Detect Limit	Method Code
951101	Alkalinity	187.0 mg/L	0.300	10101
	Calcium	53.00 mg/L	0.040	20103
	T.Cadmium ICP-MS	10.1 ug/L	0.100	100133
	Chloride	0.36 mg/L	0.080	17206
	Conductivity	448.0 uS/cm	0.100	02041
	T.Cobalt ICP-MS	0.1 ug/L	0.100	100115
	T.Chromium ICP-MS	2.5 ug/L	0.200	100111
	T.Copper ICP-MS	0.3 ug/L	0.100	100119
	Tot.Hardness	230.0 mg/L	0.100	10602
	Potassium	0.35 mg/L	0.050	19106
	Magnesium	23.70 mg/L	0.010	12102
	T.Manganese ICP-MS	0.5 ug/L	0.100	100113
	Sodium	2.30 mg/L	0.040	11102
	T.Nickel ICP-MS	1.9 ug/L	0.100	100117
	T.Lead ICP-MS	1.8 ug/L	0.200	100145
	pH	8.31 pH	0.050	10301
	Sulphate	237.0 mg/L	3.000	16306
	T.Arsenic-Hyd.	10.3 ug/L	0.300	33011
	T.Iron	12 ug/L	3.000	26002
	T.Zinc ICP-MS	3.1 ug/L	0.500	100121

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 OCT 16 1995
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 YELLOWKNIFE, NT

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FIELD SAMPLE SHEET

CLIENT NAME: DIANO
 ADDRESS: Box 150
Fort Simpson, NT.
XOE ONO

TEL#: 695 2626
 FAX#: 695 2615

DATE SAMPLED: Sept 28/95
 DATE RECEIVED: _____

PROJECT: San Andreas mine at
Prairie Creek
 SAMPLER: Ken Etherington
 SAMPLE TYPE: Grab

BOTTLE TYPE: PARAMETER	STATION NO.	932-4	932-6	932-7	2850' Park
	STN LOCATION/TIME				
	LAB. NO.				

ROUTINE: (GREEN)	<input checked="" type="checkbox"/> pH <input type="checkbox"/> Fluoride <input checked="" type="checkbox"/> Sp. Conduct <input type="checkbox"/> Colour <input checked="" type="checkbox"/> Alkalinity <input checked="" type="checkbox"/> Calcium <input checked="" type="checkbox"/> Magnesium <input checked="" type="checkbox"/> Sodium <input checked="" type="checkbox"/> Potassium <input checked="" type="checkbox"/> Chloride <input checked="" type="checkbox"/> Sulphate <input type="checkbox"/> R. Silica				
NUTRIENTS: (BLACK)	<input type="checkbox"/> Turbidity <input type="checkbox"/> NFR (TSS) <input type="checkbox"/> FR (TDS) <input type="checkbox"/> Nitrate+ Nitrite-N <input type="checkbox"/> Nitrate-N <input type="checkbox"/> Ammonia-N <input type="checkbox"/> Total Phosphorus-P <input type="checkbox"/> Ortho-P <input type="checkbox"/> Diss-P				
PRESERVED NUTS: (PINK)	<input type="checkbox"/> Tot. Phosphorus-P <input type="checkbox"/> Nitrate+ Nitrite-N <input type="checkbox"/> Ammonia-N <input type="checkbox"/> Chem. Oxy Demand				
BACTI: (AUTOCLAVED TAPE)	<input type="checkbox"/> Tot. Coliform <input type="checkbox"/> Fecal Coliform <input type="checkbox"/> Fecal Streptococci <input type="checkbox"/> BOD				
CYANIDE: (BLUE)	<input type="checkbox"/> Tot. Cyanide <input type="checkbox"/> Tot. Cyanide (Low) <input type="checkbox"/> WAD Cyanide				
SULPHIDE: (PURPLE)	<input type="checkbox"/> Sulphide				
PHENOL: (YELLOW)	<input type="checkbox"/> Phenol				
OIL AND GREASE: (YELLOW)	<input type="checkbox"/> O+G				
OTHER PARAMETER:					
MERCURY: (ORANGE)	<input type="checkbox"/> Tot. Mercury				
METALS: (RED)	<input checked="" type="checkbox"/> Tot. Arsenic <input type="checkbox"/> Tot. Selenium <input type="checkbox"/> Tot. Antimony				
LAB NUMBER (IF REQUIRED)					
ICP-MS(1): Cd, Cr, Cu, Co, Mn, Ni, Pb, Zn, Fe ✓					
ICP-MS(2): total scan - 23					
ICP-MS(3): extractable - 23					
ICP-MS(4): t quant. - 60					
OTHER METALS:					

SAMPLER: RETAIN FOR YOUR RECORDS

FIELD SAMPLE NOTES:

PROJECT: _____

	(1)	(2)	(3)	(4)
STATION NO.				
WATER TEMP (°C)				
SAMPLING DEPTH (m)				
FLOW, ICE, etc.				
pH				
COND.				
DO				
TURB				
OTHER				

SITE LOCATION/DESCRIPTION 1) _____
 2) _____
 3) _____
 4) _____

COMMENTS: _____

PRESERVATION CODE GUIDE

BOTTLE TYPE	DESCRIPTION	PRESERVATIVE	COLOUR
ROUTINE (R)	1 litre plastic (HDPE)	4 degrees C	green
NUTRIENTS (NUT)	500 mL plastic (HDPE)	4 degrees C	black
PRES. NUTRIENTS (p-nut)	125 mL plastic (HDPE)	1 mL 1:1 sulphuric acid	pink
BACTI	250 or 500 or 1 litre plastic (HDPE)	autoclave (time) tape	white
SULPHIDE (S)	250 mL plastic (HDPE)	1 mL 6N zinc acetate	purple
PHENOL (P-OH)	1 litre glass	4 mL 1:1 sulphuric acid	yellow
OIL + GREASE (O+G)	1 litre glass	4 mL 1:1 sulphuric acid	yellow
CYANIDE (CN)	500 mL brown plastic	5 mL 10% sodium hydroxide	blue
MERCURY (Hg)	150 mL glass	2 mL 1:1 sulphuric acid + 1 mL 5% potassium dichromate	orange
METAL (M)	500 mL clear plastic	5 ml 1:1 nitric acid	red

INDIAN & NORTHERN AFFAIRS
 WATER RESOURCES LABORATORY
 Box 1500
 Yellowknife, NT. X1A 2R3
 Tel. (403) 920-8129
 Fax. (403) 873-9300

To: Indian & Northern Affairs Canada
 Ft. Simpson District Office
 Box 150
 Ft. Simpson NT X0E 0N0
 ==> Ken Etherington

SAMPLE INFORMATION

Our Lab # : 950756
 Your Sample ID: 932-4
 Sample Matrix : water

Account No.: Simpson

Collection:
 Location: San Andreas Minesite-P.Cr
 Date: 08/03/95
 By: KE

Report Date: 08/21/95

Approved by: *Wood*

- SAMPLE ANALYSIS REPORT -

Lab#	Parameter	Result Units	Detect Limit	Method Code
950756	Alkalinity	223.0 mg/L	0.300	10101
	Calcium	78.50 mg/L	0.040	20103
	T.Cadmium ICP-MS	0.9 ug/L	0.100	100133
	Chloride	0.68 mg/L	0.080	17206
	Conductivity	672.0 uS/cm	0.100	02041
	T.Cobalt ICP-MS	0.1 ug/L	0.100	100115
	T.Chromium ICP-MS	1.9 ug/L	0.200	100111
	T.Copper ICP-MS	2.3 ug/L	0.100	100119
	Filt.Residue	506 mg/L	10.000	10451
	Tot.Hardness	374.0 mg/L	0.100	10602
	Potassium	0.78 mg/L	0.050	19106
	Magnesium	43.30 mg/L	0.010	12102
	T.Manganese ICP-MS	3.4 ug/L	0.100	100113
	Sodium	1.35 mg/L	0.040	11102
	Non-Filt Res.	L3 mg/L	3.000	10406
	T.Nickel ICP-MS	3.8 ug/L	0.100	100117
	T.Lead ICP-MS	11.5 ug/L	0.200	100145
	pH	8.05 pH	0.050	10301
	Sulphate	250.0 mg/L	3.000	16306
	T.Arsenic-Hyd.	0.8 ug/L	0.300	33011
	T.Iron	N/A ug/L	20.000	26004
	T.Iron	4 ug/L	3.000	26002
	T.Zinc ICP-MS	492.0 ug/L	0.500	100121

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 Box 1500
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 Tel. (403) 920-8129
 Fax. (403) 873-9300

To: Indian & Northern Affairs Canada
 Ft. Simpson District Office
 Box 150
 Ft. Simpson NT X0E 0N0
 ==> Ken Etherington

SAMPLE INFORMATION

Our Lab # : 950757
 Your Sample ID: 932-6
 Sample Matrix : water

Account No.: Simpson

Collection:
 Location: San Andreas Minesite-P.Cr
 Date: 08/03/95
 By: KE

Report Date: 08/21/95

Approved by: W. Coed

- SAMPLE ANALYSIS REPORT -

Lab#	Parameter	Result Units	Detect Limit	Method Code
950757	Alkalinity	180.0 mg/L	0.300	10101
	Calcium	53.60 mg/L	0.040	20103
	T.Cadmium ICP-MS	0.1 ug/L	0.100	100133
	Chloride	0.62 mg/L	0.080	17206
	Conductivity	420.0 uS/cm	0.100	02041
	T.Cobalt ICP-MS	0.1 ug/L	0.100	100115
	T.Chromium ICP-MS	1.4 ug/L	0.200	100111
	T.Copper ICP-MS	0.1 ug/L	0.100	100119
	Filt.Residue	277 mg/L	10.000	10451
	Tot.Hardness	226.0 mg/L	0.100	10602
	Potassium	0.41 mg/L	0.050	19106
	Magnesium	22.40 mg/L	0.010	12102
	T.Manganese ICP-MS	1.0 ug/L	0.100	100113
	Sodium	1.85 mg/L	0.040	11102
	Non-Filt_Res.	L3 mg/L	3.000	10406
	T.Nickel ICP-MS	1.6 ug/L	0.100	100117
	T.Lead ICP-MS	1.5 ug/L	0.200	100145
	pH	8.39 pH	0.050	10301
	Sulphate	115.0 mg/L	3.000	16306
	T.Arsenic-Hyd.	0.3 ug/L	0.300	33011
T.Iron	N/A ug/L	20.000	26004	
T.Iron	30 ug/L	3.000	26002	
T.Zinc ICP-MS	7.2 ug/L	0.500	100121	

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 Tel. (403) 920-8129
 Fax. (403) 873-9300

To: Indian & Northern Affairs Canada
 Ft. Simpson District Office
 Box 150
 Ft. Simpson NT X0E 0N0
 ==> Ken Etherington

SAMPLE INFORMATION

Our Lab # : 950758
 Your Sample ID: 932-7
 Sample Matrix : water

Account No.: Simpson

Collection:
 Location: San Andreas Minesite-P.Cr
 Date: 08/03/95
 By: KE

Report Date: 08/21/95

Approved by: WCoos

- SAMPLE ANALYSIS REPORT -

Lab#	Parameter	Result Units	Detect Limit	Method Code
950758	Alkalinity	178.0 mg/L	0.300	10101
	Calcium	55.10 mg/L	0.040	20103
	T.Cadmium ICP-MS	0.3 ug/L	0.100	100133
	Chloride	0.61 mg/L	0.080	17206
	Conductivity	412.0 uS/cm	0.100	02041
	T.Cobalt ICP-MS	0.2 ug/L	0.100	100115
	T.Chromium ICP-MS	1.2 ug/L	0.200	100111
	T.Copper ICP-MS	1.1 ug/L	0.100	100119
	Filt.Residue	270 mg/L	10.000	10451
	Tot.Hardness	230.0 mg/L	0.100	10602
	Potassium	0.52 mg/L	0.050	19106
	Magnesium	22.40 mg/L	0.010	12102
	T.Manganese ICP-MS	4.8 ug/L	0.100	100113
	Sodium	2.09 mg/L	0.040	11102
	Non-Filt_Res.	4 mg/L	3.000	10406
	T.Nickel ICP-MS	2.4 ug/L	0.100	100117
	T.Lead ICP-MS	2.0 ug/L	0.200	100145
	pH	8.40 pH	0.050	10301
	Sulphate	107.0 mg/L	3.000	16306
	T.Arsenic-Hyd.	0.3 ug/L	0.300	33011
	T.Iron	338 ug/L	20.000	26004
	T.Iron	N/A ug/L	3.000	26002
	T.Zinc ICP-MS	6.0 ug/L	5.000	100121

INDIAN & NORTHERN AFFAIRS
 CANADA
 N.W.T. REGION
 AUG 22 1995
 WATER RESOURCES DIVISION
 YELLOWKNIFE, NT

RECEIVED
 AUG 21 1995
 I.N.A.C.
 FORT SIMPSON, N.W.T.

INDIAN & NORTHERN AFFAIRS
 WATER RESOURCES LABORATORY
 Box 1500
 Yellowknife, NT. X1A 2R3
 Tel. (403) 920-8129
 Fax. (403) 873-9300

To: Indian & Northern Affairs Canada
 Ft. Simpson District Office
 Box 150
 Ft. Simpson NT X0E 0N0
 ==> Ken Etherington

SAMPLE INFORMATION

Our Lab # : 950759
 Your Sample ID: 2850 Portal
 Sample Matrix : water

Account No.: Simpson

Collection:
 Location: San Andreas Minesite-P.Cr
 Date: 08/03/95
 By: KE

Report Date: 08/21/95

Approved by: W. K. C.

- SAMPLE ANALYSIS REPORT -

Lab#	Parameter	Result Units	Detect Limit	Method Code
950759	Alkalinity	283.0 mg/L	0.300	10101
	Calcium	134.00 mg/L	0.040	20103
	T.Cadmium ICP-MS	111.0 ug/L	0.100	100133
	Chloride	0.79 mg/L	0.080	17206
	Conductivity	1030.0 uS/cm	0.100	02041
	T.Cobalt ICP-MS	0.6 ug/L	0.100	100115
	T.Chromium ICP-MS	2.9 ug/L	0.200	100111
	T.Copper ICP-MS	84.6 ug/L	0.100	100119
	Filt.Residue	893 mg/L	10.000	10451
	Tot.Hardness	612.0 mg/L	0.100	10602
	Potassium	0.86 mg/L	0.050	19106
	Magnesium	67.10 mg/L	0.010	12102
	T.Manganese ICP-MS	9.5 ug/L	0.100	100113
	Sodium	0.91 mg/L	0.040	11102
	Non-Filt Res.	L3 mg/L	3.000	10406
	T.Nickel ICP-MS	17.3 ug/L	0.100	100117
	T.Lead ICP-MS	39.7 ug/L	0.200	100145
	pH	7.83 pH	0.050	10301
	Sulphate	287.0 mg/L	3.000	16306
	T.Arsenic-Hyd.	2.8 ug/L	0.300	33011
	T.Iron	N/A ug/L	20.000	26004
	T.Iron	5 ug/L	3.000	26002
	T.Zinc ICP-MS	16000.0 ug/L	0.500	100121

INDIAN AND
 NORTHERN AFFAIRS
 CANADA
 WATER RESOURCES
 DIVISION
 AUG 22 1995
 WATER RESOURCES DIVISION
 YELLOWKNIFE, NT

RECEIVED
 AUG 22 1995
 IN
 FORT SIMPSON



NORTHERN ANALYTICAL LABORATORY
 DEPARTMENT OF INDIAN AFFAIRS - NORTHERN DEVELOPMENT
 BOX 1500, 4601-52ND AVE., YELLOWKNIFE, NT X1A 2R3
 TELEPHONE: 403-920-8129 FAX: 403-873-9300

FIELD SAMPLE SHEET

CLIENT NAME: DIAND
 ADDRESS: Box 150
Fort Simpson, NT
XOE OND

TEL#: 695 2626
 FAX#: 695 2615

DATE SAMPLED: Aug 3/95
 DATE RECEIVED: _____

PROJECT: San Andreas Minesite
at Prairie Creek
 SAMPLER: Ken Etherington
 SAMPLE TYPE: Grab

		STATION NO.	932-4	932-6	932-7	2850 Fort
BOTTLE TYPE: PARAMETER		STN LOCATION/TIME				
		LAB. NO.				
ROUTINE: (GREEN)	<input checked="" type="checkbox"/> pH <input type="checkbox"/> Fluoride <input checked="" type="checkbox"/> Sp. Conduct <input type="checkbox"/> Colour <input checked="" type="checkbox"/> Alkalinity <input checked="" type="checkbox"/> Calcium <input checked="" type="checkbox"/> Magnesium <input checked="" type="checkbox"/> Sodium <input checked="" type="checkbox"/> Potassium <input checked="" type="checkbox"/> Chloride <input checked="" type="checkbox"/> Sulphate <input type="checkbox"/> R. Silica					
NUTRIENTS: (BLACK)	<input type="checkbox"/> Turbidity <input checked="" type="checkbox"/> NFR (TSS) <input checked="" type="checkbox"/> FR (TDS) <input type="checkbox"/> Nitrate+ Nitrite-N <input type="checkbox"/> Nitrate-N <input type="checkbox"/> Ammonia-N <input type="checkbox"/> Total Phosphorus-P <input type="checkbox"/> Ortho-P <input type="checkbox"/> Diss-P					
PRESERVED NUTS: (PINK)	<input type="checkbox"/> Tot. Phosphorus-P <input type="checkbox"/> Nitrate+ Nitrite-N <input type="checkbox"/> Ammonia-N <input type="checkbox"/> Chem. Oxy Demand					
BACTI: (AUTOCLAVED TAPE)	<input type="checkbox"/> Tot. Coliform <input type="checkbox"/> Fecal Coliform <input type="checkbox"/> Fecal Streptococci <input type="checkbox"/> BOD					
CYANIDE: (BLUE)	<input type="checkbox"/> Tot. Cyanide <input type="checkbox"/> Tot. Cyanide (Low) <input type="checkbox"/> WAD Cyanide					
SULPHIDE: (PURPLE)	<input type="checkbox"/> Sulphide					
PHENOL: (YELLOW)	<input type="checkbox"/> Phenol					
OIL AND GREASE: (YELLOW)	<input type="checkbox"/> O+G					
OTHER PARAMETER:						
MERCURY: (ORANGE)	<input type="checkbox"/> Tot. Mercury					
METALS: (RED)	<input checked="" type="checkbox"/> Tot. Arsenic <input type="checkbox"/> Tot. Selenium <input type="checkbox"/> Tot. Antimony					
LAB NUMBER (IF REQUIRED)						
ICP-MS(1):Cd, Cr, Cu, Co, Mn, Ni, Pb, Zn, Fe <input checked="" type="checkbox"/>						
ICP-MS(2):total scan - 23						
ICP-MS(3): extractable - 23						
ICP-MS(4): t quant. - 60						
OTHER METALS:						

SAMPLER: RETAIN FOR YOUR RECORDS

FIELD SAMPLE NOTES:

PROJECT: _____

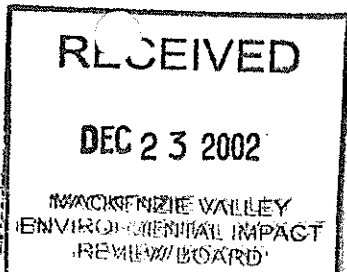
	(1)	(2)	(3)	(4)
STATION NO.	932-4	932-6	932-7	2850 Park
WATER TEMP (°C)	7	9	9	2
SAMPLING DEPTH (m)	surface	surface	surface	surface
FLOW, ICE, etc.				
pH	meter not working	8.40	8.45	meter not working
COND.	.667	.420	424	1026
DO				
TURB				
OTHER				

SITE LOCATION/DESCRIPTION 1) _____
 2) _____
 3) _____
 4) _____

COMMENTS: _____

PRESERVATION CODE GUIDE

BOTTLE TYPE	DESCRIPTION	PRESERVATIVE	COLOUR
ROUTINE (R)	1 litre plastic (HDPE)	4 degrees C	green
NUTRIENTS (NUT)	500 mL plastic (HDPE)	4 degrees C	black
PRES. NUTRIENTS (p-nut)	125 mL plastic (HDPE)	1 mL 1:1 sulphuric acid	pink
BACTI	250 or 500 or 1 litre plastic (HDPE)	autoclave (time) tape	white
SULPHIDE (S)	250 mL plastic (HDPE)	1 mL 6N zinc acetate	purple
PHENOL (P-OH)	1 litre glass	4 mL 1:1 sulphuric acid	yellow
OIL + GREASE (O+G)	1 litre glass	4 mL 1:1 sulphuric acid	yellow
CYANIDE (CN)	500 mL brown plastic	5 mL 10% sodium hydroxide	blue
MERCURY (Hg)	150 mL glass	2 mL 1:1 sulphuric acid + 1 mL 5% potassium dichromate	orange
METAL (M)	500 mL clear plastic	5 ml 1:1 nitric acid	red



Northern Affairs Program
P.O. Box 150
Fort Simpson, N.W.T.
XOE ONO

Cadillac Exploration Ltd.
Suite 920 Lancaster Bldg.
304 - 8th Avenue S.W.
Calgary, Alberta
T2P 1C2

June 13, 1980

N80D248

Attention: L.C. Morrisroe
President

Dear Sir,

RE: Land Use Permit No. N80D248
Minesite at Prairie Creek, N.W.T.

Kindly find a xerox copy of a Land Use Inspection report as carried out on the above noted operation, June 6, 1980 by the undersigned.

Most conditions were found very satisfactory and I must congratulate Mr. Ruban Fast for running a very clean camp. I must also express my sincere thanks for the camp tour and the time that he allocated to us to bring us up to date.

Yours truly,

B.J.J. Gauthier
District Manager

encl.

c.c. Fort Liard - RMO
c.c. Yellowknife - Land Use

LAND USE INSPECTION REPORT RAPPORT D'INSPECTION RELATIF À L'UTILISATION DES TERRES
 TERRITORIAL LAND USE REGULATIONS RÈGLEMENT CONCERNANT L'UTILISATION DES TERRES TERRITORIALES


Permittee - Détenteur du permis CADILLAC EXPLORATIONS LTD.	Date June 6/80	Permit No. - Permis n° N 80 D 248
Location - Endroit PRAIRIE CREEK	Previous Inspection Dates Inspections antérieures (dates)	
Contractor - Entrepreneur NONE	Initial Initiale	<input checked="" type="checkbox"/>
Sub-Contractors - Sous-traitants "	Interim Provisoire	
	Interim Provisoire	
Date operation commenced - Date du début des travaux APRIL 15/80	Final Finale	
Current stage of program - État des travaux UNDERGROUND WORK PROGRESSING	Expiry Date - Date d'expiration du permis APRIL 13/82	
Program modification Approved/Not Approved (Explain) Modifications apportées approuvées/non approuvées (Expliquer) NONE		

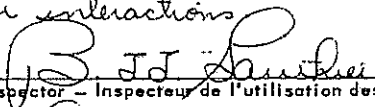
Conditions	Acceptable, U - Unacceptable	Staging Access	Access Route	Air Strip	Seismic Line	Camp site	Drilling site
A - Acceptable, U - Unacceptable	Acceptable, U - Unacceptable	Accès aux échafaudages	Route d'accès	Piste d'atterrissage	Ligne de sondage	Emplacement de camp	Emplacement de forage
A) DESTRUCTION DES BUISSONS							
1 Windrowed Formation d'andains				-		-	
2 Lopped & Scattered Élagage et dispersion				-		-	
3 Walked Down Fouillage				-		-	
4 Leaners Felled Abattage				-		-	
5 Burned Brûlage				-		-	
6 Buried Enfouissement				-		-	
7							
B) EROSION CONTROL							
CONTRÔLE DE L'ÉROSION							
1 Ground Disturbance Perturbation du sol				A		A	
2 Stream Approaches Abords de ruisseaux				-		-	
3 Stream Crossings Gués de ruisseaux				-		-	
4 Drainage Disruption Perturbation du réseau de drainage				A		A	
5 Backsloping - Contours Surface structurale et relief				-		-	
6 Shotholes Plugged Obturation du trou de tir				-		-	
7							
C) POLLUTION PREVENTION							
LUTTE CONTRE LA POLLUTION							
1 Removal Bldg. & Equip. Enlèvement, bâtiments et matériel				-		-	
2 Fuel Storage Entreposage, combustible				-		NOTE 1	
3 Incineration (garbage, etc.) Incineration, ordures etc.				-		NOTE 2	
4 Other wastes Autres déchets				A		A	
5 Sumps and Pits Puisards et fosses				-	*	A	
6							

Explanation and Remarks (include comments on other permit conditions, as necessary)
 Explications et commentaires (mentionner toute autre condition du permis)

C-2 Fuel dykes appear satisfactory where constructed, but will require better materials to line dyke if they are to stay where they are. Tanks without dykes will have to be dyked as soon as fuel storage location is confirmed.

C-3 Incineration of garbage is satisfactory at this time however an incinerator is required soonest to avoid bear interactions.

Operator's Representative / Représentant de l'exploitant

 Signature

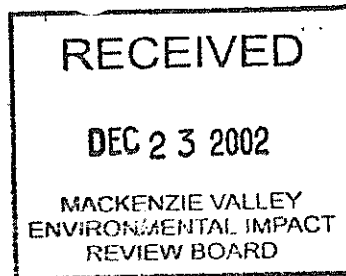
Land Use Inspector - Inspecteur de l'utilisation des terres

 Paul Simpson, M.S.T.
 Area - Zone

Land Use Permit on hand / Permis d'utilisation des terres Yes / Oui No / Non

Checked by RMO / Vérification par l'agent régional de l'exploitation minière

Findings of Initial and Interim reports are subject to final inspection during summer months unless otherwise stated in writing by the District Superintendent
 Les conditions décrites dans les rapports initiaux et provisoires doivent faire l'objet d'une inspection finale au cours de l'été, à moins que le surintendant n'en décide autrement et ne fasse, à ce sujet, une déclaration écrite.

Superintendent / Surintendant



Northern Affairs Program
P.O. Box 150
Fort Simpson, N.W.T.
XOE ONO

Cadillac Exploration Ltd.
Suite 290, Lancaster Building
304 - 8th Avenue S.W.
Calgary, Alberta
T2P 1C2

October 16, 1980

N80D248
N80F249

Attention: L.C. Morrisroe
President

Dear Sir,

RE: Land Use Permit N80D248 Minesite - Prairie Creek, N.W.T.

Enclosed is a copy of a Land Use Inspection report as carried out on your operation at Prairie Creek. The Inspection was carried out on October 15, 1980.

The report is self explanatory, and as usual the campsite was in a very clean and orderley state. Mr. Fast mentioned that the garbage dumping area may be re-located with out permission. At present I see no reason for re-locating, however once the land tenure is approved a permanent site will have to be found and proper incineration set up installed.

RE: Land Use Permit N80F249 - Winter Access
Prairie Creek to Liard Highway, N.W.T.

Enclosed is a copy of an Inspection report carried out on the above program on same date and same inspector.

The staging area on the Liard River was approved by our Yellowknife office to me by telephone, therefore I have nothing in writing as yet. I trust it will be mailed shortly and we will have an answer to your letter. At time of the inspection there were 2 caterpillars, 1 pick-up truck, 1 trailer and several 45 gal drums of fuel on the staging site. The location is satisfactory as it is near the old summer road.

Please note a minor change approved by myself in the vicinity of Mile 19. The access road to Mile 20 appears to be in very good condition at time of Inspection. I trust that the weather will tighten up and that there are no further rain storms in the area.

Yours truly,



B.J.J. Gauthier
District Manager

encls.

c.c. Yellowknife - Land Use

LAND USE INSPECTION REPORT / RAPPORT D'INSPECTION RELATIF À L'UTILISATION DES TERRES
 TERRITORIAL LAND USE REGULATIONS / RÉGLEMENT CONCERNANT L'UTILISATION DES TERRES TERRITORIALES

Permittee - Détenteur du permis CADILLAC EXPLORATION LTD	Date OCT 15/82	Permit No. - Permis n° NSAD 248
Location - Endroit PRAIRIE CREEK	Previous Inspection Dates Inspections antérieures (dates)	
Contractor - Entrepreneur BOB AMBROSE LASARRE	Initial Initiale	
Sub-Contractors - Sous-traitants AIR SERVICE	Interim Provisoire	
Date operation commenced - Date du début des travaux —	Interim Provisoire	✓
Current stage of program - État des travaux FLYING FUEL INTO CADILLAC	Final Finale	
Program modification Approved/Not Approved (Explain) Modifications apportées approuvées/non approuvées (Expliquer) UNDERGROUND WORK PROGRESSING.	Expiry Date - Date d'expiration du permis APRIL 13/83	
Modifications apportées approuvées/non approuvées (Expliquer) NIL		

Conditions A - Acceptable, U - Unacceptable	Staging Access Accès aux échafaudages	Access Route Route d'accès	Air Strip Piste d'atterrissage	Seismic Line Ligne de sondage	Camp site Emplacement de camp	Drilling site Emplacement de forage
A) BRUSH DISPOSAL DESTRUCTION DES BUISSONS						
1 Windrowed Formation d'andains	/	/	/	/	-	/
2 Lopped & Scattered Élagage et dispersion					-	
3 Walked Down Fouillage					-	
4 Leaners Felled Abattage					-	
5 Burned Brûlage					-	
6 Buried Enfouissement					-	
7						
B) EROSION CONTROL CONTRÔLE DE L'ÉROSION						
1 Ground Disturbance Perturbation du sol	/	/	/	/	A	
2 Stream Approaches Abords de ruisseaux					A	
3 Stream Crossings Gués de ruisseaux					A	
4 Drainage Disruption Perturbation du réseau de drainage					A	
5 Backslapping - Contours Surface structurale et relief					-	
6 Shotholes Plugged Obturation du trou de tir					-	
7						
C) POLLUTION PREVENTION LUTTE CONTRE LA POLLUTION						
1 Removal Bldg. & Equip. Enlèvement, bâtiments et matériel	/	/	/	/	-	
2 Fuel Storage Entreposage, combustible					-	
3 Incineration (garbage, etc.) Incineration, ordures etc.					NOTE 1	
4 Other wastes Autres déchets					A	
5 Sumps and Pits Puisards et fosses					A.	
6						

Explanation and Remarks (include comments on other permit conditions, as necessary)
 Explications et commentaires (mentionner toute autre condition du permis)

NOTE 1 GENERATOR INSTALLED BUT NOT WORKING VERY WELL, LOCAL
 ADAPTIONS WILL HAVE TO BE CARRIED OUT TO TRY AND SOLVE
 CIRCULATION PROBLEMS.

Operator's Representatives - Représentant de l'exploitant

[Signature]
 Signature

Land Use Inspector - Inspecteur de l'utilisation des terres

[Signature]
 Area - Zone

Land Use Permit on hand Yes No
 Permis d'utilisation des terres Oui Non

Checked by RMO
 Vérification par l'agent régional de l'exploitation minière

Findings of initial and interim reports are subject to final inspection during summer months unless otherwise stated in writing by the District Superintendent
 Les conditions décrites dans les rapports initiaux et provisoires doivent faire l'objet d'une inspection finale au cours de l'été, à moins que le surintendant n'en décide autrement et ne fasse, à ce sujet, une déclaration écrite.

Superintendent
 Surintendant

[Signature]

RECEIVED

DEC 23 2002

MACKENZIE VALLEY
ENVIRONMENTAL IMPACT
REVIEW BOARD

Cadillac Exploration Ltd.
Suite 920 Lancaster Bldg.
304 - 8th Avenue S.W.
Calgary, Alberta
T2P 1C2

Northern Affairs Program
P.O. Box 150
Fort Simpson, N.W.T.
XOE ONO

August 15, 1980

N80D248

Attention: L.C. Morrisroe
President

Dear Sir,

RE: Land Use Permit N80D248
Minesite at Prairie Creek, N.W.T.

Enclosed is a copy of a Land Use Inspection report as carried out on the above noted operation. The inspection was carried out on August 13, 1980 by the undersigned.

Some progress is made with the incinerator and should be set up shortly. I trust that it will work satisfactory and should prevent bears from coming into the existing garbage pit

Yours truly,



B.J.J. Gauthier
District Manager

c.c. Yellowknife - Land Use
c.c. Ft. Liard - RMO
c.c. Ft. Nelson - R. Fast

LAND USE INSPECTION REPORT / RAPPORT D'INSPECTION RELATIF À L'UTILISATION DES TERRES
 TERRITORIAL LAND USE REGULATIONS / RÈGLEMENT CONCERNANT L'UTILISATION DES TERRES TERRITORIALES

Permittee - Détenteur du permis: CADILLAC EXPLORATION LIMITED
 Date: Aug 13/80
 Permit No. - Permis n°: N 80 D 248
 Location - Endroit: PRAIRIE CREEK
 Previous Inspection Dates / Inspections antérieures (dates):
 Contractor - Entrepreneur: NONE
 Initial / Initiale:
 Interim / Provisoire: ✓
 Sub-Contractors - Sous-traitants:
 Interim / Provisoire:
 Date operation commenced - Date du début des travaux:
 Final / Finale:
 Current stage of program - État des travaux: UNDERGROUND WORK
 Expiry Date - Date d'expiration du permis: APRIL 13/82
 Program modification Approved/Not Approved (Explain) / Modifications apportées approuvées/non approuvées (Expliquer): PROGRESSING

Conditions A - Acceptable, U - Unacceptable A - Acceptable, U - Inacceptable	Staging Access Accès aux échafaudages	Access Route Route d'accès	Air Strip Piste d'atterrissage	Seismic Line Ligne de sondage	Camp site Emplacement de camp	Drilling site Emplacement de forage
A) BRUSH DISPOSAL DESTRUCTION DES BUISSONS					-	
1 Windrowed Formation d'andains						
2 Lopped & Scattered Élagage et dispersion						
3 Walked Down Fouillage						
4 Leaners Felled Abattage						
5 Burned Brûlage						
6 Buried Enfouissement						
B) EROSION CONTROL CONTRÔLE DE L'ÉROSION					A	
1 Ground Disturbance Perturbation du sol						
2 Stream Approaches Abords de ruisseaux						
3 Stream Crossings Gués de ruisseaux						
4 Drainage Disruption Perturbation du réseau de drainage						
5 Backslapping - Contours Surface structurale et relief						
6 Shot-holes Plugged Obturation du trou de tir						
C) POLLUTION PREVENTION LUTTE CONTRE LA POLLUTION					-	
1 Removal Bldg. & Equip. Enlèvement, bâtiments et matériel						
2 Fuel Storage Entreposage, combustible						
3 Incineration (garbage, etc.) Incinération, ordures etc.						
4 Other wastes Autres déchets						
5 Sumps and Pits Puisards et fosses						
6						

Explanation and Remarks (include comments on other permit conditions, as necessary)
 Explications et commentaires (mentionner toute autre condition du permis)

NOTE 1 Same as last inspection.

NOTE 2 " " " "

Incinerator will be finished today and set up tomorrow.

Operator's Representative - Représentant de l'exploitant: *[Signature]*
 Land Use Inspector - Inspecteur de l'utilisation des terres: *[Signature]*
 Area - Zone: *[Signature]*

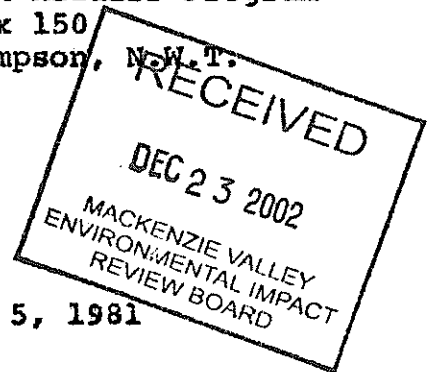
Land Use Permit on hand / Permis d'utilisation des terres: Yes / Oui No / Non
 Checked by RMO / Vérification par l'agent régional de l'exploitation minière:

Findings of initial and Interim reports are subject to final inspection during summer months unless otherwise stated in writing by the District Superintendent
 Les conditions décrites dans les rapports initiaux et provisoires doivent faire l'objet d'une inspection finale au cours de l'été, à moins que le surintendant n'en décide autrement et ne fasse, à ce sujet, une déclaration écrite.

Superintendent / Surintendant: _____

Northern Affairs Program
P.O. Box 150
Fort Simpson, N.W.T.
XOE ONO

Cadillac Exploration Ltd.
Suite 920
Lancaster Building
304 -8th Avenue S.W.
Calgary, Alberta
T2P 1C2



January 5, 1981

N80E248

Attention: L.C. Morrisroe
President

Dear Sir,

RE: Land Use Permit N80D248
Minesite - Prairie Creek, N.W.T.

Enclosed please find a copy of a Land Use Inspection Report as carried out on the above land use permit on December 31, 1980 by B.J.J. Gauthier, Land Use Inspector.

Yours truly,

encl.

B.J.J. Gauthier
District Manager

c.c. Land Resources - Yellowknife
c.c. Fort Liard - RMO



LAND USE INSPECTION REPORT / RAPPORT D'INSPECTION RELATIVEMENT À L'UTILISATION DES TERRES
TERRITORIAL LAND USE REGULATIONS / RÈGLEMENT CONCERNANT L'UTILISATION DES TERRES TERRITORIALES

Permittee - Détenteur du permis: CADILLAC EXPLORATION LTD.
Date: Dec 31/80
Permit No. - Permis n°: N80D248
Location - Endroit: PRAIRIE CREEK
Contractor - Entrepreneur:
Sub-Contractors - Sous-traitants:
Date operation commenced - Date du début des travaux:
Current stage of program - État des travaux: ONLY 5 MEN IN
Expiry Date - Date d'expiration du permis: APRIL 13/82

Program modification Approved/Not Approved (Explain)
Modifications apportées approuvées/non approuvées (Expliquer)
CAMP DURING HOLIDAYS.

Table with 8 columns: Conditions (A-U), Staging Access, Access Route, Air Strip, Seismic Line, Camp site, Drilling site. Rows include BRUSH DISPOSAL, EROSION CONTROL, and POLLUTION PREVENTION.

Explanation and Remarks (include comments on other permit conditions, as necessary)
Explications et commentaires (mentionner toute autre condition du permis)

Operator's Representative - Représentant de l'exploitant
[Signature]

Land Use Inspector - Inspecteur de l'utilisation des terres
[Signature]

Signature
Land Use Permit on hand / Permis d'utilisation des terres

Area - Zone
Checked by RMO / Vérification par l'agent régional de l'exploitation minière

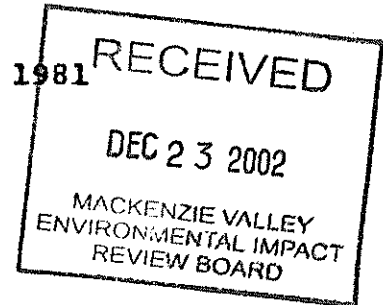
Findings of initial and Interim reports are subject to final inspection during summer months unless otherwise stated in writing by the District Superintendent
Les conditions décrites dans les rapports initiaux et provisoires doivent faire l'objet d'une inspection finale au cours de l'été, à moins que le surintendant n'en décide autrement et ne fasse, à ce sujet, une déclaration écrite.

Superintendent / Surintendant
[Signature]

Northern Affairs Program
P.O. Box 150
Fort Simpson, N.W.T.
XOE ONO

Cadillac Explorations Ltd.
Suite 290, Lancaster Building
3044 Eighth Avenue S.W.
Calgary, Alberta
T2P 1C2

March 27, 1981



N80F249
N80D248

Attention: L.C. Morrisroe

Dear Sir,

RE: Land Use Permit N80D248

In the discussion with Mr. Dolan of Alto Construction I decided to suspend all gravel crushing, washing operations until such time as we have a detail sketch plan and a full letter of intent on this operation.

The nature of this operation has many environmental implications and as I do not have a detail request for the various phases of this operation, it is therefore very important that everything be well planned prior to setting up and that all environmental considerations be taken into account.

RE: Land Use Permit N80F249

Mr. Fast and I identified and flagged areas that will require erosion control work on the total length of the access.

As many conditions are pending final clean-up and eventual closing of the winter road, I will not comment on any items that have to be done. The final inspection will be carried out as soon as creek crossings, clean-up and restoration are completed and I will send you a copy of same.

Yours truly,

A handwritten signature in dark ink, appearing to be "B.J.J. Gauthier".

B.J.J. Gauthier
District Manager

encl.

c.c. Yellowknife - Land Use
c.c. Fort Liard - RMO
c.c. Ruban Fast

LAND USE INSPECTION REPORT

RAPPORT D'INSPECTION RELATIF À L'UTILISATION DES TERRES
TERRITORIAL LAND USE REGULATIONS RÈGLEMENT CONCERNANT L'UTILISATION DES TERRES TERRITORIALES

Permittee - Détenant du permis: CADILLAC EXPLORATION LTD
 Location - Endroit: PRAIRIE CREEK
 Contractor - Entrepreneur: ALTO CONSTRUCTION SERVICES LTD (1973)
 Date operation commenced - Date du début des travaux: [blank]
 Current stage of program - État des travaux: UNDERGROUND WORK
 Date: MARCH 24/82
 Permit No. - Permis n°: MS0248
 Previous Inspection Dates / Inspections antérieures (dates): [blank]
 Initial / Interim / Final / Expiry Date - Date d'expiration du permis: APRIL 13/82

Program modification Approved/Not Approved (Explain):
 Modifications apportées approuvées/non approuvées (Expliquer):
 AS PER LETTER OF BANKER RE: AUTHORIZATION TO CONSTRUCT KITCHEN, 4 BUNKHOUSES, RE-LOCATE COLD STORAGE SHED, CONSTRUCT TRESTLE.

Conditions	Staging Access / Accès aux échafaudages	Access Route / Route d'accès	Air Strip / Piste d'atterrissage	Seismic Line / Ligne de sondage	Camp site / Emplacement de camp	Drilling site / Emplacement de forage
A) BRUSH DISPOSAL / DESTRUCTION DES BUISSONS						
1 Windrowed / Formation d'andains						
2 Lopped & Scattered / Élagage et dispersion						
3 Walked Down / Foulage						
4 Leaners Felled / Abattage						
5 Burned / Brûlage						
6 Buried / Enfouissement						
B) EROSION CONTROL / CONTRÔLE DE L'ÉROSION						
1 Ground Disturbance / Perturbation du sol						
2 Stream Approaches / Abords de ruisseaux					A	
3 Stream Crossings / Gués de ruisseaux						
4 Drainage Disruption / Perturbation du réseau de drainage						
5 Backsloping - Contours / Surface structurale et relief						
6 Shotholes Plugged / Obturation du trou de tir						
C) POLLUTION PREVENTION / LUTTE CONTRE LA POLLUTION						
1 Removal Bldg. & Equip. / Enlèvement, bâtiments et matériel						
2 Fuel Storage / Entreposage, combustible					A	
3 Incineration (garbage, etc.) / Incinération, ordures etc.					A	
4 Other wastes / Autres déchets					A	
5 Sumps and Pits / Puisards et fosses					NOTE	
6					U	

Explanation and Remarks (include comments on other permit conditions, as necessary):
 Explications et commentaires (mentionner toute autre condition du permis):
 NOTE: CAMP IS IN A TURMOIL WITH ALL STUFF ALL OVER
 C-5 GARBAGE SUMP IS ALMOST FULL.

AUTHORIZATION TO WASH GRAVEL IS AS OF THIS DATE CANCELLED.

Operator's Representative - Représentant de l'exploitant: [Signature]
 Land Use Inspector - Inspecteur de l'utilisation des terres: [Signature]
 Area - Zone: [Signature]

Land Use Permit on hand / Permis d'utilisation des terres: Yes / No
 Checked by RMO / Vérification par l'agent régional de l'exploitation minière:

Findings of Initial and interim reports are subject to final inspection during summer months unless otherwise stated in writing by the District Superintendent.
 Les conditions décrites dans les rapports initiaux et provisoires doivent faire l'objet d'une inspection finale au cours de l'été, à moins que le surintendant n'en décide autrement et ne fasse, à ce sujet, une déclaration écrite.

U.B.

RECEIVED
DEC 23 2002
MACKENZIE VALLEY
ENVIRONMENTAL IMPACT
REVIEW BOARD

DOUBLE REGISTERED

Water Resources Division,
P.O. Box 1509,
Yellowknife, N.W.T.

Cadillac Explorations Limited,
920 Lancaster Bldg.,
304 - 9th Avenue S.W.,
Calgary, Alberta
T2P 1C2.

May 11, 1981

File N80D248
Composite
Prairie Creek

Attention: Mr. L.C. Morrisroe,
President.

N3L3-0932
N3A3-0872
N3A3-1013

Dear Sir:

RE: REPORT ON INSPECTION OF CADILLAC EXPLORATION LTD.
PRAIRIE CREEK MINE, CAMP AND GRAVEL WASH OPERATION
BY LORNE COOPER ON APRIL 30, 1981

Enclosed is a copy of the inspection report referred to above.
From the report you will note the inspection has expressed
concern over two matters at the Prairie Creek minesite.

M. S. F.

With regards to minewater quality, it is unacceptable at
present and, particularly due to the likelihood of higher flows
later in the season, treatment is necessary to provide improved
minewater quality. From the report, it would appear the
facilities for treatment are essentially in place or readily
placed into service. We will be recommending to the Controller
of Water Rights that your Water Authorization No. N3A3-0872
for mine development (Longcut tunnelling) be amended to
include effluent quality requirements similar to those of the
Base Metal Liquid Effluent Regulations, and you will be contacted
shortly concerning this amendment.

Regarding site drainage water, the quality is not satisfactory.
I understand your contractor, Alto Construction was requested
to construct settling ponds, which he agreed to do immediately.
This is at best an interim measure until a larger, permanent
settling pond, as has been previously proposed, is constructed.
This must be given a high priority during this summer season,
and must provide protection from siltation in Prairie Creek from
development work.

I understand the contractorson site were very cooperative, which
we appreciate a great deal. I anticipate a continued good,
cooperative working relationship between Cadillac Mines and Water
Resources Division.

RECEIVED
Northern Affairs Program
MAY 15 1981
D. I. A. N. D.
FORT SIMPSON, N.W.T.

.....2

If you have any comments or questions concerning the inspection report, please contact Lonnie Cooper at this office.

Yours truly,



D.M. Bryant,
A/Administrator,
Inland Waters.

LPC:dk

cc: Dist. List

Encl.

I N S P E C T I O N R E P O R T

ON

CADILLAC EXPLORATION LIMITED

Prairie Creek Mine, Camp and
Gravel Wash Operation

by

I.P. Cooper,
Inspector Under the
Northern Inland Waters Act
Water Resources Division
Northern Affairs Program
D.I.A.N.D.
Yellowknife, N.W.T.

Dated: April 30, 1981
Water Register: N3L3-0932
N3A3-1013

Report of Inspection - Cadillac Exploration Limited - Prairie Creek

A. Introduction:

On April 30, 1981, Lorne Cooper, Regional Coordinator with Water Resources Division, D.I.A.N.D., Yellowknife, accompanied by Hugh Wilson, also of Water Resources, and Renne Pélkman of the Fort Simpson District Office, D.I.A.N.D. conducted an inspection of the Cadillac Exploration mine and campsite on Prairie Creek, as well as the site of the gravel crush and washing operation at the site. While on site they met with Earl Dolan, the on site superintendent for Alto Construction, who are contractors for Cadillac, and briefly with Murray Bath of Kilborn Engineering, who was temporarily on site.

B. Observations and Discussion:

- 1) Camp - Camp water is taken from a well near the present cookhouse.
- 2) Mine - Although no water is being pumped into the mine, there was a flow of minewater leaving the mine, for which the flow at the portal was estimated using the formula. Aug. width x average depth x the velocity over a reach = discharge. This came out to 0.3 ft. x 0.07 ft. x 1 ft/cm³ = 0.021 cfs - 7.9 igpm. Therefore, due to possible errors in estimation, flow can be said to be between 5-10 igpm. Unlike previous visits however, the water was free of suspended solids, due apparently to it now flowing undisturbed in a ditch adjacent layed tracks. Water leaving the mine flows parallel to the mountain face between the portal ramp and the mountain to the North for about 100 feet before seeping into the material (waste rock) from which the ramp is constructed. Although it may then flow through this ramp and eventually to a small drainage course for runoff from the development site, no such flow was visible below the portal ramp.

A sump 10' x 100' x 8' deep minimum has been completed (capacity 50,000 gallons) minewater had not yet been diverted to it at the time of inspection, as a small amount of ditch-work was still required. The foreman for the mine work stated that the diversion would be complete in one or two days. At the present flow rate, the sump would have a minimum retention time of 83 hours.

If metal levels remain high in the minewater after retention in the sump, lime treatment could be instituted ahead of the sump, to increase pH, and cause precipitation of metals. After having seen the effect which isolating the mine drainage ditch has had in reducing the suspended solids load, I feel effluent quality with the installation of the sump may improve considerably. Even if treatment proves necessary for the minewater, the present ditch system out of the sump appears adequate, and the point of discharge of minewater is also adequate in my opinion.

Samples of minewater were taken inside the mine, beyond the point where work was being carried out, from undisturbed minewater sample as well as at the exit from the mine at the 2940 portal. The analytical results will be available by May 8.

- 3) Drainage from Development Site - Snow melt from the development site and adjacent hills runs through the site, in what appears to be a small natural drainage channel, to join with Harrison Creek below the site, and eventually with Prairie Creek. There was considerable water running in the channel at the time of inspection, estimated to be roughly 1/2 cfs or 200 igpm. The water was fairly high in suspended solids, although evidence of these suspended solids rapidly dissipated below its confluence with Prairie Creek. A sample was taken of the water just prior to its confluence with Prairie Creek (dilution by Harrison Creek was not a factor, due to a negligible flow in Harrison Creek at the time of inspection.)

In order to reduce suspended solids in the drainage stream, the Alto Construction Superintendent was instructed to build two small gravel dams across the channel, thus providing a quiescent ponding area, where some of the solids might settle out. The Superintendent agreed, and stated the work would be completed by the following day. It should be noted that this measure is interim only, until the main two acre pond proposed by Cadillac can be constructed this summer.

- 4) Gravel Crushing and Wash Plant - (Water Authorization N3A3-1013) - The gravel crusher was set up, but had not been used at the time of inspection. Earl Dolon stated crushing would begin the next day, and would take approximately two weeks, after which the wash plant would be set up in place of the crusher and would operate for approximately two more weeks until all the gravel is washed. Meanwhile, a D8 cat is being used to prepare a settling pond for recycling wash water, on the bench above the flood plain material being removed will form part of the 10,000 yards of gravel material required for crushing. Crushed gravel, and the washed gravel will be stored on the flood plain in an area of approximate 100x100 metres maximum. Coarse gravel will be placed on the upstream side of this gravel, to prevent movement of the

gravel should the creek flood. As the gravel will be a clean, washed gravel, this is not an environmental consideration, but one to prevent loss of prepared gravel.

C. Conclusion:

The Cadillac mine site at Prairie Creek will be inspected frequently this spring, summer and fall, to ensure environmental controls are adhered to, and that environmental effects are minimized.

Recommendations on treatment of mine water will be forthcoming upon receiving analytical results of minewater samples. Such recommendations will be based on minewater quality and quantity.

Quality of surface drainage water from the development site will also be assessed when available and recommendation for treatment subsequently prepared.

L. P. Cooper

Lorne P. Cooper
Inspector Under the
Northern Inland Waters Act

May 7, 1981

ADDENDUM TO APRIL 30 INSPECTION REPORT

ON

CADILLAC EXPLORATION LTD. PRAIRIE CREEK

The majority of analytical results for samples taken at Prairie Creek April 30, 1981 are available, and are as follows:

Sample Description	Susp. Solids	Hardness	Cadmium	Copper	Iron	Lead	Nickel	Zinc
Undisturbed Minewater 1000' inside mine	<5	530	0.02	0.04	0.20	0.06	0.05	5.5
Minewater at 2940 Portal	19	470	<0.01	0.04	0.38	0.10	0.05	2.5
Drainage water from development site	650	173	0.01	0.07	15	0.39	0.05	0.9

All analyses are in mg/l

Discussion & Conclusions:

- A. Minewater - the quantity of minewater is very small at present, but if previous estimates are valid, will increase significantly as spring advances. The quality, particularly regarding zinc and lead is not satisfactory if compared, for example to the Base Metal Mine Liquid Effluent Regulations of the Fisheries Act which for lead are 0.2 mg/l avg. and 0.4 mg/l max. and for zinc are 0.5 mg/l avg. and 1.0 mg/l max.

A treatment system must therefore be installed to reduce metal levels in the minewater. While simple settling at the mine sump (newly constructed) may be sufficient, provisions for treatment (eg. liming) should be made immediately, and utilized as required. The present discharge point is, in my opinion quite adequate.

- B. Site Drainage Water - The site drainage water is surprisingly high in lead and zinc, although most of this is very likely in particulate form, and present only because of the high suspended solids. The Company's contractors AH Construction, have already been instructed to construct whatever settling ponds they are able to construct at this time. As this sample was taken during a period of high flow due to snowmelt when mud and dirty water are prevalent, it is quite possible the quality will improve after the snow disappears. Nevertheless, the requirement for adequate settling of this water is obvious, and must be attended to as soon as conditions on site permit.

J. P. Cooper

Northern Affairs Program,
P.O. Box 150,
Fort Simpson, N.W.T.

Cadillac Explorations
Ltd.,
Suite 290 Lancaster
Building,
304-8th Avenue S.W.,
Calgary, Alberta.
T2P 1C2

12 May 1981

Attention: L.C. Morrisroe

Dear Sir:

Land Use Permit N80D248
Minesite - Prairie Creek, N.W.T.

-- As per enclosed copy of Land Use Inspection Report as carried out by the undersigned on May 8, 1981.

Camp appears to be in good condition with the gravel crushing progressing quite well. The gravel stockpile was much closer to Prairie Creek than necessary and I advised Mr. Dolan to ensure this would discontinue and future gravel to be stockpiled East of present pile.

A new garbage pit is also required as the old location was filled in. I trust that the above will be taken care of soonest.

Yours truly,



B.J.J. Gauthier,
District Manager.

Encl.

c.c. Land Use, Yellowknife

Memo to file;

On Thursday, April 30, Mr. L. Cooper, Mr. H. Wilson and myself visited Cadillac mine site to determine if the company was complying with the terms of a recent amendment to land use permit N78D248 and water authorization N3A40873.

Mr. Earl Dalan, Alte Construction, indicated that he plans to excavate a settling pond about 5-6 feet deep and 350 feet X 80 feet and set up a crusher to process the estimated 3000 cubic yards of aggregate that will come out of the settling pond. An additional 7000 cubic yards of material will come from the tailings pond construction area. A washer will be set up as per the attached diagram and the washed coarse and fine material will be stockpiled on the floodplain, until it is required. At a later time during the summer, if approval is granted, a cement batch plant will be moved onto the working area and put to work in order to supply the mine site with cement for concrete foundations etc for the mill construction.

Approval was given to Mr. Dalan to excavate a new garbage pit some 70 feet immediately north of the old pit which was covered with waste rock from the mineshaft in order to provide a working platform.

R. Pelham
May 1, 1981



LAND USE INSPECTION REPORT RAPPORT D'INSPECTION RELATIF À L'UTILISATION DES TERRES
TERRITORIAL LAND USE REGULATIONS RÉGLEMENT CONCERNANT L'UTILISATION DES TERRES TERRITORIALES

Permittee - Détenteur du permis	CADILLAC EXPLORATION LTD	Date	May 8/81	Permit No. - Permis n°	ABD 248
Location - Endroit	PRAIRIE CREEK, ALBERTA	Previous Inspection Dates	Inspections antérieures (dates)		
Contractor - Entrepreneur	ALTD CONSTRUCTION	Initial			
Sub-Contractors - Sous-traitants		Interim			
Date operation commenced - Date du début des travaux		Provisoire			
Current stage of program - État des travaux	HAULING, CRUSHING AND	Final			
		Expiry Date - Date d'expiration du permis	APRIL 13/82		

Program modification Approved/Not Approved (Explain) STEEL PILING OF CRUSHED GRAVEL ON FLOOD PLAINS. APPROX 3000 CU YDS
 Modifications apportées approuvées/non approuvées (Expliquer) BIT SHED, METAL STORAGE SHED RE-LOCATED.
STEEL GIRDER WALL, TRACKS LAD OUTSIDE PORTAL, TRAILERS RE-LOCATED.

Conditions	Acceptable, A- Acceptable, U- Unacceptable Inacceptable	Staging Access	Access Route	Air Strip	Seismic	Camp site	Drilling
		Access aux échafaudages	Route d'accès	Piste d'atterrissage	Line de sondage	Emplacement de camp	site Emplacement de forage
A) BRUSH DISPOSAL / DESTRUCTION DES BUISSONS							
1	Windrowed / Formation d'andains						
2	Lopped & Scattered / Élagage et dispersion						
3	Walked Down / Foulage						
4	Leaners Felled / Abattage						
5	Burned / Brûlage						
6	Buried / Enfouissement						
B) EROSION CONTROL / CONTRÔLE DE L'ÉROSION							
1	Ground Disturbance / Perturbation du sol					A	
2	Stream Approaches / Abords de ruisseaux					A	
3	Stream Crossings / Gués de ruisseaux					A *	
4	Drainage Disruption / Perturbation du réseau de drainage					A	
5	Backsloping - Contours / Surface structurale et relief					A	
6	Shotholes Plugged / Obturation du trou de tir						
C) POLLUTION PREVENTION / LUTTE CONTRE LA POLLUTION							
1	Removal Bldg. & Equip. / Enlèvement, bâtiments et matériel						
2	Fuel Storage / Entreposage, combustible					A	
3	Incineration (garbage, etc.) / Incineration, ordures etc.					U	
4	Other wastes / Autres déchets					A	
5	Sumps and Pits / Puisards et fosses						
6							

Explanation and Remarks (include comments on other permit conditions, as necessary)
 Explications et commentaires (mentionner toute autre condition du permis)
 * A culvert was installed on access road to creek to prevent washing drainage channel.
 -3 A new garbage sump required shortly as old pit filled in. A berm to be constructed on settling pond for gravel wash and area graded down and levelled.

Operator's Representatives - Représentant de l'exploitant
 Signature:

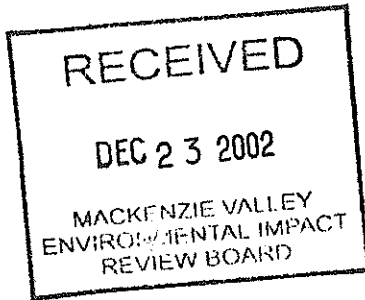
Land Use Inspector - Inspecteur de l'utilisation des terres
 Signature:

Land Use Permit on hand / Permis d'utilisation des terres Yes / Oui No / Non

Checked by RMO / Vérification par l'agent régional de l'exploitation minière

Findings of initial and interim reports are subject to final inspection during summer months unless otherwise stated in writing by the District Superintendent
 Les conditions décrites dans les rapports initiaux et provisoires doivent faire l'objet d'une inspection finale au cours de l'été, à moins que le surintendant n'en décide autrement et ne fasse, à ce sujet, une déclaration écrite.

Superintendent / Surintendant:



Northern Affairs Program,
P.O. Box 150,
Fort Simpson, N.W.T.
XOE ONO

June 19, 1981

Pil
N80D248

Cadillac Explorations Limited,
Suite 290, Lancaster Building,
304 - 8th Avenue, s.w.,
Calgary, Alta
T2P 1C2

Attn: L.C. Morrisroe

Dear Sir:

Re: Land Use Permit N80D248
Minesite - Prairie Creek, N.W.T.

Please find enclosed a copy of a Land Use Inspection Report carried out by Mr. R. Pelkman, on June 11, 1981. The Inspector investigated the clean up of Oil Spill report no. 81-035.

I recommend that all efforts continue to proceed with the total clean up of all contaminated ground. That all precautionary measures be undertaken to ensure that fuel does not enter Prairie Creek.

In order to prevent another oil spill, I strongly request that every effort be made to speed up the construction of the permanent fuel storage area. A concentrated effort be made to ensure that all fuel storage containers presently on site are properly dyked and checked regularly for leakage.

I trust the importance of the above is becoming very clear to you. We do not want oil spills. The costs of a major oil spill more than offsets the most elaborate precautionary measures. Compounded to this is the major effects an oil spill can have to the land itself and water bodies.

A complete report in fuel details is requested from your Company on the circumstances leading to the discovery, reporting and clean up of the Oil Spill.

Yours truly,

ORIGINAL SIGNED BY
B. J. GAUTHIER

cc: Land Use, YK
RMO, Ft Liard

B.J.J. Gauthier,
District Manager

LAND USE INSPECTION REPORT RAPPORT D'INSPECTION RELATIVE À L'UTILISATION DES TERRES
 TERRITORIAL LAND USE REGULATIONS RÈGLEMENT CONCERNANT L'UTILISATION DES TERRES TERRITORIALES

Permittee - Détenteur du permis: Cadillac Exploration Ltd
 Location - Endroit: Prairie Creek Minesite
 Contractor - Entrepreneur: ALTO Construction
 Date: June 11/81 Permit No. - Permis n°: N 80 0248
 Previous Inspection Dates / Inspections antérieures (dates): May 8
 Initial / Initiale
 Interim / Provisoire
 Interim / Provisoire: ✓
 Final / Finale
 Expiry Date - Date d'expiration du permis: April 13/82
 Current stage of program - État des travaux: Washing of Gravel, Clean up of Leaked Fuel
 Program modification Approved/Not Approved (Explain) / Modifications apportées approuvées/non approuvées (Expliquer):

N/A - not applicable

Conditions A - Acceptable, U - Unacceptable A - Acceptable, U - Inacceptable	Staging Access Accès aux échafaudages	Access Route Route d'accès	Air Strip Piste d'atterrissage	Seismic Line Ligne de sondage	Camp site Emplacement de camp	Drilling site Emplacement de forage
BRUSH DISPOSAL DESTRUCTION DES BUISSONS						
Windrowed Formation d'andains						
Lopped & Scattered Élagage et dispersion						
Walked Down Fouillage					N/A	
Leaners Felled Abattage						
Burned Brûlage						
Buried Enfouissement						
EROSION CONTROL CONTRÔLE DE L'ÉROSION						
Ground Disturbance Perturbation du sol					A	
Stream Approaches Abords de ruisseaux					A	
Stream Crossings Gués de ruisseaux					A	
Drainage Disruption Perturbation du réseau de drainage					A	
Backsloping - Contours Surface structurale et relief					N/A	
Shotholes Plugged Obturation du trou de tir					N/A	
POLLUTION PREVENTION LUTTE CONTRE LA POLLUTION						
Removal Bldg. & Equip. Enlèvement, bâtiments et matériel					N/A	
Fuel Storage Entreposage, combustible					U	
Incineration (garbage, etc.) Incineration, ordures etc.					A	
Other wastes Autres déchets					A	
Dumps and Pits Puisards et fosses					A	

Observation and Remarks (include comments on other permit conditions, as necessary) / Observations et commentaires (mentionner toute autre condition du permis)

C-2 - See attached sheet

Operator's Representatives - Représentant de l'exploitant
 Signature:

R. Pellanen
 Land Use Inspector - Inspecteur de l'utilisation des terres
 Fort Simpson
 Area - Zone

Land Use Permit on hand / Permis d'utilisation des terres
 Yes / Oui No / Non

Checked by RMO / Vérification par l'agent régional de l'exploitation minière

Reports of initial and interim reports are subject to final inspection during summer months unless otherwise stated in writing by the District Superintendent
 Les rapports décrits dans les rapports initiaux et provisoires doivent faire l'objet d'une inspection finale au cours de l'été, à moins que le surintendant ne décide autrement et ne fasse, à ce sujet, une déclaration écrite.

Superintendent / Surintendant



Date June 11/81

Permit No. N80D248
No de permis

Explanation and Remarks (Continued)
Explications et remarques (suite)

Cadillac Mine site
Prairie Creek

Fuel Storage

Fuel storage is unacceptable at present time.

Condition 39 of Land use permit N80D248 states

"The permittee shall ensure that the dyke and the area enclosed by the dyke shall be impermeable to petroleum products at all times"

The permittee has not abided by Condition 39, Conditions 35, 38 have not been followed either.

There will be a new fuel storage area constructed on site within 6 weeks. Permittee is to ensure that the new fuel storage area meets the requirements of the Land use permit. Discussions with Mr. F. Dolan this day concerning the new fuel storage area, were held. Permittee is to construct a dyke around the new fuel storage area with an impermeable clay liner at least one foot thick. Dyke capacity will be a minimum of 10% greater than the fuel capacity of the largest fuel tank to be located within the dyke (500,000 gallons).

In the interim, while the new fuel storage area is being constructed, Permittee will ensure that fuel tanks at present fuel storage site are checked daily for leaks.

Approximately 10,000 to 11,000 gallons of diesel fuel has leaked out of a fuel storage tank in old storage area. Cadillac has recovered approximately 9000 gallons to date by trenching around contaminated area and pumping off diesel that has collected in the pits. There is no fuel entering Prairie Creek at present time. Prairie Creek was flown from its confluence with the South Nahanni River. No fuel oil evidence was visible.

ALL contaminated soil resulting from fuel leak is to be transported to a clay lined excavation at airstrip.

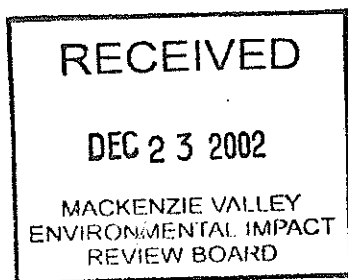
Earl Dolan
Project Mgr

June 11/81

R. Pelham
Land Use Inspector - Inspecteur de l'utilisation des terres

Note: This form is to be used as necessary in conjunction with the Land Use Inspection Report Territorial Land Use Regulations, IAND 52-221 (10-72).

Au besoin, annexer la présente feuille au rapport d'inspection de l'utilisation des terres, Règlements sur l'utilisation des terres territoriales, MAINC 52-221 (10-72).



Northern Affairs Program,
P.O. Box 150,
Fort Simpson, N.W.T.
XOE ONO

July 2, 1981

N80D248

Cadillac Exploration Ltd.,
Suite 290 Lancaster Building,
304 - 8th Avenue S.W.
Calgary, Alta
T2P 1C2

Attn: L.C. Morrósroe

Dear Sir:

Land Use Permit N80D248
Minesite-Prairie Creek, N.W.T.

The enclosed Land Use Inspection Report carried out by the undersigned on June 30, 1981 touches very lightly on several unauthorized Land Use activities carried out on the above noted program. The gravel crushing and hauling operation carried out North of the Airstrip had to be shut down as this is a clear case of a Permit violation.

As suggested to you on our telephone conversation, I request that we meet at Prairie Creek and go over the total operation to determine solutions to the many unsatisfactory items that are presently occurring on this program. The sooner this is done, the better it will be for all concerned.

Yours truly,

B.J.J. Gauthier,
District Manager

cc: Land Use, YK

June 30, 1981
Fort Simpson, N.W.T.

Memo to File - Re: Land Use Permit N80D248

Inspection of Cadillac access road and minesite this date with Mr. A. E. Ganske and Mr. A. Cronke and myself. Helicopter XPQ was utilized for this inspection.

The winter road was inspected from Liard River to minesite. As we were approaching the airstrip from the north we noticed -

- a) a large area cleared of overburden to the north of airstrip
- b) crusher on site and a pile of crushed material
- c) signs of vehicle travel in this area.

As we approached airstrip we further observed another area just to the north of airstrip where trees had been cleared and overburden disturbed. This was obviously the area requested for the Rip Rap materials.

To the south of this area was the airstrip and stock piled materials and overburden was noted immediately east of the airstrip.

We arrived and landed at the minesite at 12:15 MST and were met shortly by Mr. Earl Dolan of Alto Construction. After introductions were made I asked Mr. Dolan what was going on. After some discussions of the situation I advised Mr. Dolan that I would have to shut the gravel operation down, and that I would press charges for carrying out a Land Use operation without approval. Mr. Dolan stated that he began the operation as he thought he would have the OK to proceed at any time.

We then inspected the fuel oil spill, methods used to prevent fuel oil from entering Prairie Creek and salvaging or burning off of collected fuel oil. We also inspected the construction of the new fuel storage area and the excavations going on for minesite building.

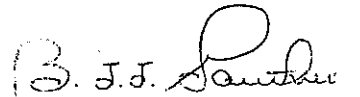
After these inspections were completed Mr. Ganske, Mr. Dolan and myself went into Mr. Dolan's office where I wrote out an Inspection Report to

page 2

cease the hauling of overburden from tailings pond to airstrip.

Mr. Dolan advised us that the area selected for Rip Rap materials was unsatisfactory and that another area a short distance away would be better. I requested Mr. Dolan to submit an amendment for -

- a) a new rip rap material site
- b) authorization to store and stockpile materials and overburden at airstrip.



B. J. J. Gauthier,
District Manager



LAND USE INSPECTION REPORT

RAPPORT D'INSPECTION RELATIF À L'UTILISATION DES TERRES
TERRITORIAL LAND USE REGULATIONS RÈGLEMENT CONCERNANT L'UTILISATION DES TERRES TERRITORIALES

Permittee - Détenteur du permis	CADILLAC EXPLORATION LTD	Date	JUNE 30/81	Permit No. - Permis n°	N30D248
Location - Endroit	PRAIRIE CREEK	Previous Inspection Dates / Inspections antérieures (dates)			
Contractor - Entrepreneur	ALTO CONSTRUCTION	Initial		Interim	
Sub-Contractors - Sous-traitants		Interim		Provisoire	
Date operation commenced - Date du début des travaux		Final		Provisoire	
Current stage of program - État des travaux	WASHING OF GRAVEL	Final		Final	
		Expiry Date - Date d'expiration du permis	APRIL 13/82		

CLEAN UP OIL SOIL CRUSHING, EXCAVATING + HAULING.
 Program modification Approved/Not Approved (Explain)
 Modifications apportées approuvées/non approuvées (Expliquer) OVERBURDEN HAULED TO AIRSTRIP, UNAUTHORIZED GRAVEL + SAND OPERATION BEGUN PRIOR TO APPROVAL, TERRAIN DISTURBANCES NEAR AIRSTRIP.

Conditions	A - Acceptable, U - Unacceptable	Staging Access	Access Route	Air Strip	Seismic Line	Camp site	Drilling site
		Access aux échafaudages	Route d'accès	Piste d'atterrissage	Ligne de sondage	Emplacement de camp	Emplacement de forage
A) BRUSH DISPOSAL							
DESTRUCTION DES BUISSONS							
1 Windrowed							
Formation d'andains							
2 Lopped & Scattered							
Élagage et dispersion							
3 Walked Down							
Foulage							
4 Leaners Felled							
Abattage							
5 Burned							
Brûlage							
6 Buried							
Enfouissement							
7							
B) EROSION CONTROL							
CONTRÔLE DE L'ÉROSION							
1 Ground Disturbance							
Perturbation du sol							
2 Stream Approaches							
Abords de ruisseaux							
3 Stream Crossings							
Gués de ruisseaux							
4 Drainage Disruption							
Perturbation du réseau de drainage							
5 Backsloping - Contours							
Surface structurale et relief							
6 Shotholes Plugged							
Obturation du trou de tir							
7							
C) POLLUTION PREVENTION							
LUTTE CONTRE LA POLLUTION							
1 Removal Bldg. & Equip.							
Enlèvement, bâtiments et matériel							
2 Fuel Storage							
Entreposage, combustible							
3 Incineration (garbage, etc.)							
Incinération, ordures etc.							
4 Other wastes							
Autres déchets							
5 Sumps and Pits							
Puits et fosses							
6							

UNAUTHORIZED WORK PROCEEDING NEAR AIRSTRIP.

Explanation and Remarks (include comments on other permit conditions, as necessary)
 Explications et commentaires (mentionner toute autre condition du permis)
 COMPANY (ALTO CONS. EARL DALOW) ORDERED TO TERMINATE GRAVEL OPERATION AT AIRPORT AREA AND TO HALT TRANSPORTING OF OVERBURDEN NEAR AIRPORT. THIS IS TO TAKE EFFECT 1300 HRS MST UNTIL FURTHER NOTICE

Operator's Representatives - Représentant de l'exploitant

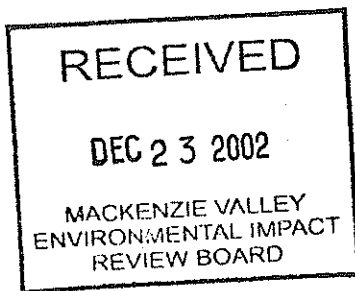
Land Use Inspector - Inspecteur de l'utilisation des terres
 Paul Simpson, NWT
 Area - Zone

Land Use Permit on hand / Permis d'utilisation des terres Yes / Oui No / Non

Checked by RMO / Vérification par l'agent regional de l'exploitation minière

Findings of initial and interim reports are subject to final inspection during summer months unless otherwise stated in writing by the District Superintendent
 Les conditions décrites dans les rapports initiaux et provisoires doivent faire l'objet d'une inspection finale au cours de l'été, à moins que le surintendant n'en décide autrement et ne fasse, à ce sujet, une déclaration écrite.

Superintendent / Surintendant



Northern Affairs Program,
P.O. Box 150,
Fort Simpson, N.W.T.
XOE ONO

July 20, 1981

N80D248

Mr. L.C. Morrisroe
President,
Cadillac Exploration Limited,
Suite 920, Lancaster Building,
304 - 8th Avenue, S.W.,
Calgary, Alta
T2P 1C2

Dear Sir:

Re: Land Use Permit N80D248
Minesite - Prairie Creek, N.W.T.

Please find enclosed a copy of a Land Use Inspection Report carried out by Land Use Inspector, Mr. R. Pelksan on July 9, 1981.

As you will note on the report, several items were found to be unsatisfactory at time of inspection. This will remain on the report until such time as the situation is completely corrected. We are very aware that work is progressing towards this aspect and will give you sufficient time to carry this out.

Yours truly,

ORIGINAL SIGNED BY:
B. J. GAUTHIER

B.J.J. Gauthier,
District Manager

Encl.

cc: Land Use, YK

BG/fm

LAND USE INSPECTION REPORT / RAPPORT D'INSPECTION RELATIF À L'UTILISATION DES TERRES
 TERRITORIAL LAND USE REGULATIONS / RÉGLEMENT CONCERNANT L'UTILISATION DES TERRES TERRITORIALES

Permittee - Détenteur du permis: Cadillac Explorations, Ltd. Date: July 9/81 Permit No. - Permis n°: N80D248

Location - Endroit: Prairie Creek mine site Previous Inspection Dates / Inspections antérieures (dates): June 30/81

Contractor - Entrepreneur: ALTO Construction Initial / Initiale: _____

Sub-Contractors - Sous-traitants: Gem Steel, Crown Caterer Interim / Provisoire: _____

Gubr Construction Interim / Provisoire:

Date operation commenced - Date du début des travaux: _____ Final / Finale: _____

Current stage of program - État des travaux: Construction of mill Expiry Date - Date d'expiration du permis: April 15/82

Program modification Approved/Not Approved (Explain) / Modifications apportées approuvées/non approuvées (Expliquer):
Tailings pond, settling pond and related facilities is underway
Gravel removal of 15,000 yds³, removal of rock 10,000 yds³ from area north of airstrip
N/A - not applicable

Conditions	A - Acceptable, U - Unacceptable, Inacceptable	Staging Access / Accès aux échafaudages	Access Route / Route d'accès	Air Strip / Piste d'atterrissage	Seismic Line / Ligne de sondage	Camp site / Emplacement de camp	Drilling site / Emplacement de forage	Minesite
A) BRUSH DISPOSAL / DESTRUCTION DES BUISSONS								
1 Windrowed / Formation d'andains								A
2 Lopped & Scattered / Élagage et dispersion								A
3 Walked Down / Foulage								N/A
4 Leaners Felled / Abattage								A
5 Burned / Brûlage								N/A
6 Buried / Enfouissement								A
7								
B) EROSION CONTROL / CONTRÔLE DE L'ÉROSION								
1 Ground Disturbance / Perturbation du sol						A		A
2 Stream Approaches / Abords de ruisseaux						A		A
3 Stream Crossings / Gués de ruisseaux						A		A
4 Drainage Disruption / Perturbation du réseau de drainage						A		A
5 Backslapping - Contours / Surface structurale et relief						N/A		N/A
6 Shotholes Plugged / Obturation du trou de tir						N/A		N/A
7								
C) POLLUTION PREVENTION / LUTTE CONTRE LA POLLUTION								
1 Removal Bldg. & Equip. / Enlèvement, bâtiments et matériel						N/A		N/A
2 Fuel Storage / Entreposage, combustible						N/A		U
3 Incineration (garbage, etc.) / Incinération, ordures etc.						U		U
4 Other wastes / Autres déchets						A		U
5 Sumps and Pits / Puisards et fosses						A		N/A
6								

Explanation and Remarks (include comments on other permit conditions, as necessary) / Explications et commentaires (mentionner toute autre condition du permis):
See Attached sheet for Explanation and remarks

JAMES J. DOHERTY
 Operator's Representatives - Représentant de l'exploitant
James J. Doherty
 Signature

R. Pelkonen
 Land Use Inspector - Inspecteur de l'utilisation des terres
Fort Simpson
 Area - Zone

Land Use Permit on hand / Permis d'utilisation des terres: Yes / Oui No / Non

Checked by RMO / Vérification par l'agent regional de l'exploitation minière:

Findings of initial and interim reports are subject to final inspection during summer months unless otherwise stated in writing by the District Superintendent
 Les conditions décrites dans les rapports initiaux et provisoires doivent faire l'objet d'une inspection finale au cours de l'été, à moins que le surintendant n'en décide autrement et ne fasse, à ce sujet, une déclaration écrite.

Superintendent / Surintendant: B. J. [Signature]



Date July 9/81

Permit No. N800248
No de permis

Explanation and Remarks (Continued)
Explications et remarques (suite)

Cadillac Explorations
Prairie Creek minesite

Incineration, garbage - of camp refuse and minesite waste is unacceptable. A new garbage pit should be completed within one week to allow for proper disposal of burned garbage. The incinerator adjacent to the washplant is burning daily.

Fuel storage - Unacceptable until new fuel storage facilities have been completed. Discussions with E. Dolan indicate that this will be completed by July 31.

Settling pond is now operational. Silty runoff from minesite is being channelled into the settling pond.

Washplant and cement batch plant are operating. The settling pond used to recycle wash plant water is presently working.

Fuel storage tanks (3 new 500,000 gallon tanks) have been finished and are undergoing testing. - dtyre to be constructed soon.

Cement is being poured for millsite building.

170 men now on site.

Fuel recovery operation is progressing well. 12,000 gallons diesel recovered - 2,000-3,000 gallons burned off.

James J. Doherty

R. Peltzman

Land Use Inspector - Inspecteur de l'utilisation des terres

Note: This form is to be used as necessary in conjunction with the Land Use Inspection Report Territorial Land Use Regulations, IAND 52-221 (10-72).

Au besoin, annexer la présente feuille au rapport d'inspection de l'utilisation des terres, Règlements sur l'utilisation des terres territoriales, MAINC 52-221 (10-72).



Northern Affairs Program,
P.O. Box 150,
Fort Simpson, N.W.T.
XOE ONO

August 11, 1981

N80D248

Cadillac Explorations Limited,
Suite 920, Lancaster Building,
304 - 8th Avenue, S.W.
Calgary, Alta
T2P 1C2

Attn: L.C. Morrisroe,
President

Dear Sir:

Re: Land Use Permit N80D248
Prairie Creek, N.W.T.

Enclosed is a copy of a Land Use Inspection Report as carried out by Mr. R. Pelkman on August 5, 1981. There is little change in the conditions of the operations from the last inspection.

I am still concerned with the fuel dykes on the new fuel storage site. It would be to your advantage and certainly would make me feel a lot better if this was completed. I'm sure we all realize that the new tanks are leak proof, however as you are well aware accidents happen all the time.

I remain...

ORIGINAL SIGNED BY:
B. J. GAUTHIER
B.J.J. Gauthier,
District Manager

cc: Land Use, Yk

BG/fm

LAND USE INSPECTION REPORT / RAPPORT D'INSPECTION RELATIF À L'UTILISATION DES TERRES
 TERRITORIAL LAND USE REGULATIONS / RÈGLEMENT CONCERNANT L'UTILISATION DES TERRES TERRITORIALES

Permittee - Détenteur du permis: Cadillac Explorations Ltd Date: August 5/81 Permit No. - Permis n°: N 80 D 248

Location - Endroit: Prairie Creek minesite Previous Inspection Dates / Inspections antérieures (dates): July 29

Contractor - Entrepreneur: ALTO Construction Initial:

Sub-Contractors - Sous-traitants: Crown Caterers, Fuhr Construction Interim Provisoire:

Date operation commenced - Date du début des travaux: Final:

Current stage of program - État des travaux: Minesite construction Expiry Date - Date d'expiration du permis: April 13/82

Program modification Approved/Not Approved (Explain) / Modifications apportées approuvées/non approuvées (Expliquer): is well underway

N/A - not applicable C - conditional

Conditions	Staging Access	Access Route	Air Strip	Seismic Line	Camp site	Drilling site	
A - Acceptable, U - Unacceptable	Accès aux échafaudages	Route d'accès	Piste d'atterrissage	Ligne de sondage	Emplacement de camp	Emplacement de forage	
A) BRUSH DISPOSAL / DESTRUCTION DES BUISSONS							
1 Windrowed / Formation d'andains							Rip Rap Blasting Areas
2 Lopped & Scattered / Élagage et dispersion							N/A
3 Walked Down / Foulage			N/A		N/A		A
4 Leaners Felled / Abattage							N/A
5 Burned / Brûlage					N/A		A
6 Buried / Enfouissement							N/A
7							A
B) EROSION CONTROL / CONTRÔLE DE L'ÉROSION							
1 Ground Disturbance / Perturbation du sol			A		A		A
2 Stream Approaches / Abords de ruisseaux			N/A		A		N/A
3 Stream Crossings / Gués de ruisseaux			N/A		A		N/A
4 Drainage Disruption / Perturbation du réseau de drainage			A		N/A		A
5 Backsloping - Contours / Surface structurale et relief			N/A		N/A		A
6 Shotholes Plugged / Obturation du trou de tir			N/A		N/A		N/A
7							
C) POLLUTION PREVENTION / LUTTE CONTRE LA POLLUTION							
1 Removal Bldg. & Equip. / Enlèvement, bâtiments et matériel			N/A		N/A		N/A
2 Fuel Storage / Entreposage, combustible			A		U		N/A
3 Incineration (garbage, etc.) / Incinération, ordures etc.			N/A		A		N/A
4 Other wastes / Autres déchets			A		C		A
5 Sumps and Pits / Puisards et fosses			N/A		A		N/A
6							

Explanation and Remarks (include comments on other permit conditions, as necessary) / Explications et commentaires (mentionner toute autre condition du permis)

C-4 - Other wastes - Two of three pits filled with waste oil have been pumped off into 500 gallon tank and filled in.

Other wastes - Conditional upon similar treatment with third pit

N.B., Mine water discharge to be rerouted more directly into settling pond to reduce contamination of surface mine runoff.

JAMES J. DOHERTY
 Operator's Representative - Représentant de l'exploitant

James J. Doherty
 Signature

R. Pellman
 Land Use Inspector - Inspecteur de l'utilisation des terres

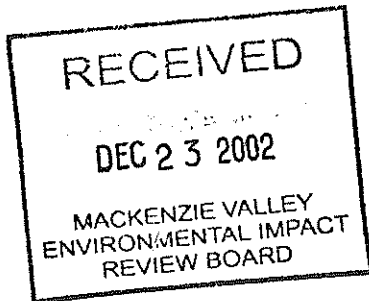
Fort Simpson
 Area - Zone

Land Use Permit on hand / Permis d'utilisation des terres: Yes / Oui No / Non

Checked by RMO / Vérification par l'agent régional de l'exploitation minière:

Findings of initial and interim reports are subject to final inspection during summer months unless otherwise stated in writing by the District Superintendent / Les conditions décrites dans les rapports initiaux et provisoires doivent faire l'objet d'une inspection finale au cours de l'été, à moins que le surintendant n'en décide autrement et ne fasse, à ce sujet, une déclaration écrite.

Superintendent / Surintendant: B. J. [Signature]



Northern Affairs Program,
P.O. Box 150,
Fort Simpson, N.W.T.
XOE GNO

July 27, 1981

N80D248

Mr. L.C. Morrisroe,
President,
Cadillac Exploration Limited,
Suite 920, Lancaster Building,
304 - 8th Avenue, S.W.
Calgary, Alta
T2P 1C2

Dear Sir:

Enclosed is a copy of a Land Use Inspection report as carried out by Land Use Inspector, Mr. R. Pelkman on July 24, 1981.

It appears that the operation is going along quite well now with a lot of the rough edges smoothed out. Now that the fuel is re-located to the new storage area, I trust that the dykes will be completed to specifications.

Encl.

Yours truly,
ORIGINAL SIGNED BY:
B. J. GAUTHIER
B.J.J Gauthier,
District Manager

cc:Land Use, YK

BG/fm

LAND USE INSPECTION REPORT TERRITORIAL LAND USE REGULATIONS
 RAPPORT D'INSPECTION RELATIF À L'UTILISATION DES TERRES
 RÈGLEMENT CONCERNANT L'UTILISATION DES TERRES TERRITORIALES

Permittee - Détenteur du permis: Cadillac Explorations Ltd. Date: July 24/81 Permit No. - Permis n°: N800248
 Location - Endroit: Prairie Creek minesite Previous Inspection Dates: June 30 Inspections antérieures (dates): July 9
 Contractor - Entrepreneur: ALZO Construction Initial: Initial
 Sub-Contractors - Sous-traitants: Gem Steel, Crown Caterers Interim Provisoire: Interim Provisoire
 Cuhr Construction Final: Final
 Date operation commenced - Date du début des travaux: Expiry Date - Date d'expiration du permis: April 13/82
 Current stage of program - État des travaux: Final

Program modification Approved/Not Approved (Explain) Modifications apportées approuvées/non approuvées (Expliquer)
 Rip rap blasting is underway

N/A - not applicable C - conditional

Conditions	A - Acceptable, U - Unacceptable	Staging Access	Access Route	Air Strip	Seismic Line	Camp site	Drilling site	
		Accès aux échafaudages	Route d'accès	Piste d'atterrissage	Ligne de sondage	Emplacement de camp	Emplacement de forage	
A) BRUSH DISPOSAL / DESTRUCTION DES BUISSONS								
1	Windrowed / Formation d'andains							Rip Rap Area N/A
2	Lopped & Scattered / Élagage et dispersion							N/A
3	Walked Down / Foulage					N/A		A
4	Leaners Felled / Abattage					N/A		A
5	Burned / Brûlage							A
6	Buried / Enfouissement					N/A		N/A
7								N/A
B) EROSION CONTROL / CONTRÔLE DE L'ÉROSION								
1	Ground Disturbance / Perturbation du sol							
2	Stream Approaches / Abords de ruisseaux					A		A
3	Stream Crossings / Gués de ruisseaux					A		C
4	Drainage Disruption / Perturbation du réseau de drainage					A		N/A
5	Backsloping - Contours / Surface structurale et relief					A		C
6	Shotholes Plugged / Obturation du trou de tir					N/A		A
7						N/A		N/A
C) POLLUTION PREVENTION / LUTTE CONTRE LA POLLUTION								
1	Removal Bldg. & Equip. / Enlèvement, bâtiments et matériel					N/A		N/A
2	Fuel Storage / Entreposage, combustible					U		N/A
3	Incineration (garbage, etc.) / Incinération, ordures etc.					U	Good Garbage Pit	N/A
4	Other wastes / Autres déchets					U		N/A
5	Sumps and Pits / Puisards et fosses					A		N/A
6								N/A

Explanation and Remarks (include comments on other permit conditions, as necessary)
 Explications et commentaires (mentionner toute autre condition du permis)
 2 - Fuel Storage - Unacceptable until dyke (impermeable) built around new area
 4 - Other wastes - Three pits 3 feet X 6 feet filled with waste oil and runoff water should be cleaned up - waste oil should be burned, at top of slope near Adit
 2-4 - Rip Rap area should be watered to avoid any silting of Prairie Creek

Operator's Representative / Représentant de l'exploitant
 Signature: [Signature]

R. Pelham
 Land Use Inspector - Inspecteur de l'utilisation des terres
 Area - Zone: FORT SIMPSON, N.W.T.

Land Use Permit on hand / Permis d'utilisation des terres
 Yes / Oui No / Non

Checked by RMO / Vérification par l'agent régional de l'exploitation minière

Findings of initial and interim reports are subject to final inspection during summer months unless otherwise stated in writing by the District Superintendent
 Les conditions décrites dans les rapports initiaux et provisoires doivent faire l'objet d'une inspection finale au cours de l'été, à moins que le surintendant n'en décide autrement et ne fasse, à ce sujet, une déclaration écrite.

Superintendent / Surintendant: B.S. Pelham



Date July 24, 1981

Permit No. N 800 248
No de permis

Explanation and Remarks (Continued)
Explications et remarques (suite)

D. INA notes only

Cadillac Explorations, Prairie Creek

On July 24, 1981 an inspection was conducted of the Cadillac Explorations mine site at Prairie Creek. Mr E. Dolan was on site and showed me several 45 gallon drums which had been sealed on the ~~top~~^{top} with lids constructed of galvanized steel and plywood. These drums were being used to store the 4 capacitors containing PCB's. Mr. Dolan stated that another drum was being prepared for the storage of soil which had become contaminated when PCB's had leaked out of one of the capacitors and onto the ground. The drums are to remain on site stored in a safe place until arrangements can be made for proper disposal down south. The drums are being stored adjacent to the powder magazine.

R. P. Newman

Land Use Inspector - Inspecteur de l'utilisation des terres

Note: This form is to be used as necessary in conjunction with the Land Use Inspection Report Territorial Land Use Regulations, IAND 52-221 (10-72).

Au besoin, annexer la présente feuille au rapport d'inspection de l'utilisation des terres, Règlements sur l'utilisation des terres territoriales, MAINC 52-221 (10-72).