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ASSESSMENT REPORT  
FOR  
PROVINCE OF BRITISH COLUMBIA  
MINISTRY OF ENERGY, MINES & PETROLEUM RESOURCES

ON  
DOMTAR AMOS GROUP  
IN THE  
FORT STEEL MINING DIVISION

NTS 82J/4E  
LAT: 50 N  
LONG: 115 30'W

OWNERS

DOMTAR INC.  
P.O. BOX 6138  
MONTREAL, QUEBEC  
H3C 3K4

OPERATORS

DOMTAR GYPSUM  
12509 - 116TH AVENUE  
SURREY, BRITISH COLUMBIA  
V3T 4W4

16,886

DATED: NOVEMBER 27, 1987  
BY: DOUGLAS B. BLENDER, P.ENG.  
CHIEF GEOLOGIST  
DOMTAR GYPSUM

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## 1.0 INTRODUCTION

During the summer of 1987 exploration drilling consisting of both air trac and diamond core was carried on the Amos 1-6, Four-J and Cath claims. On November 3rd, the above claims were grouped to form the Domtar Amos Group. This assessment report deals with the work done on these claims.

## 1.1 Property Description

The Domtar Amos Group consists of the following claims.

Name	Record #	No. Units
Amos 1	2056	1
Amos 2	2057	1
Amos 3	2058	1
Amos 4	2059	1
Amos 5	2060	1
Amos 6	2061	1
Cath	2018	4
Four-J	2579	9
Two-T	2589	6

The claims are located on the North East side of Lussier River beginning at a point 500 meters north of the junction of Coyote Creek with the Lussier River and extending northward 3500 meters.

## 1.2 Physiography

The Domtar Amos Group begins on the N.E. Bank of the Lussier River with the hillsides rising at angles of up to 40 degrees away from the river. After 500 meters the slope reduces to 5-15 degrees. Vegetation consists of abundant lodgepole pine with minor larch and occasional fir. The undergrowth consists of grasses and occasional azelea. A main logging road crosses the Amos Group through the Amos claims. The only outcrop occurs on the Cath and Amos 3 claims. On the Amos claims there are two small gypsum outcrops and on the Cath claim there is one gypsum outcrop and two conglomerate outcrops. Numerous sinkholes were found on the Four-J and Two-T Claims.

## 1.3 Access

Access is via a gravel logging road which meets Highway 93/95 8 km south of Canal Flats. From here, it runs east towards Whiteswan Lake and then south along the upper Lussier River. At kilometer 25 a spur road leads up slope to the Four-J claim and another heads down slope to the Amos claim area. At the 27 1/2 km mark, the main Lussier River road crosses the Cath claim. (Please see attached location maps.)

#### 1.4 Previous Work

Domtar has not conducted any previous work in the area, nor does Domtar know of any work every having been conducted on this property.

#### 1.5 Object of Present Work

The object of the exploration program was two fold: (1) to determine the extent of the gypsum which outcrops on the Amos and Cath claims. (2) to determine if gypsum caused the sinkholes on the Four-J and Two-T claims.

#### 1.6 Theory

Other deposits in the area are lense shaped conforming to the slope of the hillside. As you move upslope from the creek, the depth of overburden increases. Our exploration program was designed to examine the thickness of overburden and the lateral extent of the gypsum.

#### 1.7 Instrumentation

Our equipment consisted of an air trac drill and a Longyear diamond core drill. The Airtrac is only capable of drilling solid rock, not glacial till, as there is no way of casing the hole as you drill. No core is recovered using an air trac, only cuttings consisting of small chips and dust. The diamond drill was used to drill down through the glacial till in search of bedrock. It was used to core any bedrock found using NQ size equipment.

#### 1.8 Procedures

One horizontal air trac hole was drilled on the Amos claims to a depth of 9.1 meters in gypsum before the hole caved in. Five diamond drill holes were drilled on the Amos Claim for a total drilled depth of 160 m. Two holes were drilled on the Cath claim for a total drilled depth of 55 m. A number of holes were drilled on the Four-J claim, however, assessment work was only claimed for 6 holes. Therefore results will only be disclosed for 6 holes. At the end of the program any trails built to provide access to drill sites and the sites themselves were seeded with native grasses. Small 0.4 meter ridges of dirt were periodically built across trails to reduce the effect of water erosion on the recently cleared trails.

## 1.9 Results

### A) AMOS 3

Although two small gypsum outcrops were found and the air trac confirmed a horizontal thickness of at least 9.1 meter the 5 holes drilled up slope as well as along slope from the outcrops did not encounter gypsum. Holes 87-1A, 2A and 5A were stopped while still in glacial till or overburden. Hole 87-3A encountered limestone below the till and hole 87-4A encountered Anhydrite below the till. Presented below are the logs for the holes drilled on the Amos Claims.

<u>HOLE NO.</u>	<u>DEPTH (M)</u>	<u>THICKNESS (M)</u>	<u>DESCRIPTION</u>
87-1A	0 - 21.3	21.3	Glacial Till Total Depth - 21.3 M
87-2A	0 - 21.3	21.3	Glacial Till Total Depth - 21.3
87-3A	0 - 19.8 19.8 - 27.4	19.8 7.6	Glacial Till Limestone Total Depth - 27.4
87-4A	0 - 25.9 25.9 - 54.9	25.9 29.0	Glacial Till Anhydrite Total Depth - 54.9
87-5A	0 - 35.4	35.4	Glacial Till Total Depth - 35.4

TOTAL METRES DRILLED = 160.3

See figure 3 in the appendix for drill hole locations.

### B) CATH

Although a small outcrop was found on the Cath Claim the two diamond drill holes, 87-1C and 87-2C did not encounter any gypsum. The logs for these two holes are presented below.

<u>HOLE NO.</u>	<u>DEPTH (M)</u>	<u>THICKNESS (M)</u>	<u>DESCRIPTION</u>
87-1C	0 - 12.8 12.8 - 24.4	12.8 11.6	Glacial Till Conglomerate Total Depth - 24.4
87-2C	0 - 30.5	30.5	Glacial Till Total Depth - 30.5

TOTAL METERS DRILLED = 54.9

See figure 4 in the appendix for drill hole locations.

### C) FOUR-J

The six holes for which assessment credit is being claimed did not encounter any gypsum. These holes were located based on the presence of sinkholes which may indicate the presence of gypsum beneath the till.

The logs of these 6 holes are presented below.

<u>HOLE NO.</u>	<u>DEPTH (M)</u>	<u>THICKNESS (M)</u>	<u>DESCRIPTION</u>
87-1F	0 - 45.7	45.7	Glacial Till Total Depth 45.7
87-2F	0 - 9.8 9.8 - 18.3	9.8 8.5	Glacial Till Limestone Total Depth 18.3
87-3F	0 - 36.6	36.6	Glacial Till Total Depth 36.6
87-4F	0 - 36.6	36.6	Glacial Till Total Depth 36.6
87-5F	0 - 36.6	36.6	Glacial Till Total Depth 36.6
87-6F	0 - 30.5	30.5	Glacial Till Total Depth 30.5

TOTAL METERS DRILLED = 204.3

See figure 5 in the appendix for drill hole locations.

### 1.10 Discussion

#### A) AMOS

Glen Rodgers who supervised the drilling prepared a cross section through the area of the gypsum outcrops which is drawn at the bottom of figure 3.

He interprets the area to be underlain by Anhydrite with only a small area having been hydrated to Gypsum. He postulates that the zone of hydration extends from the outcrops downslope to the Lussier River.

#### B) CATH

Mr. Rodgers has made a similar interpretation for the Cath claim with the zone of hydration extending from the outcrop down slope to the Lussier River. However, the gypsum is underlain by conglomerate, not anhydrite, although anhydrite may be present with the gypsum.

#### C) FOUR-J

Based on the results of the 6 holes reported on, the glacial till is quite thick with at least some of the area underlain by limestone.

## 1.11 Conclusions

### A) AMOS 1-6

If Mr. Rodgers geologic interpretation is correct, the areal extent of a deposit would be too small to be considered economic. In addition, the distance from the deposit to the Lussier River is too close to make mining the deposit practical.

### B) CATH

The conclusions made for the Amos claims are equally suited for the Cath Claim. In addition, the presence of conglomerate outcrops along the river bank further constricts the potential limits of the deposit.

### C) FOUR J

The drilling reported on indicates large thicknesses of glacial till. As several of these holes were drilled near sink holes, it is safe to say that the presence of sink holes does not necessarily indicate the presence of gypsum under shallow cover.

## 1.12 Appendices

Figure 1      Location Map

Figure 2      Claim Map

Figure 3      Amos Claims - Drill Locations

Figure 4      Cath Claim - Drill Locations

Figure 5      Four-J claim - Drill Locations

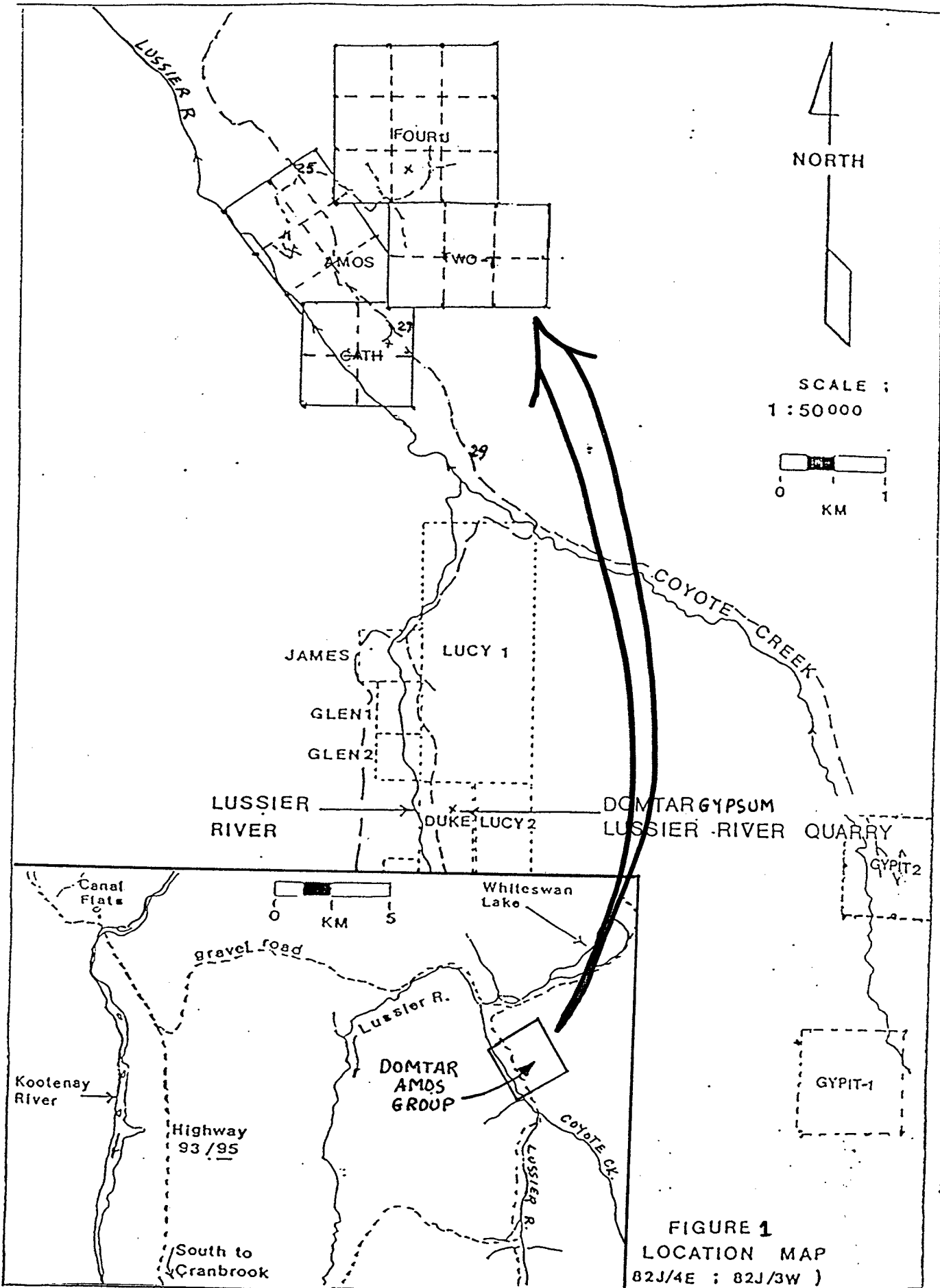


FIGURE 1  
 LOCATION MAP  
 ( 82J/4E ; 82J/3W )



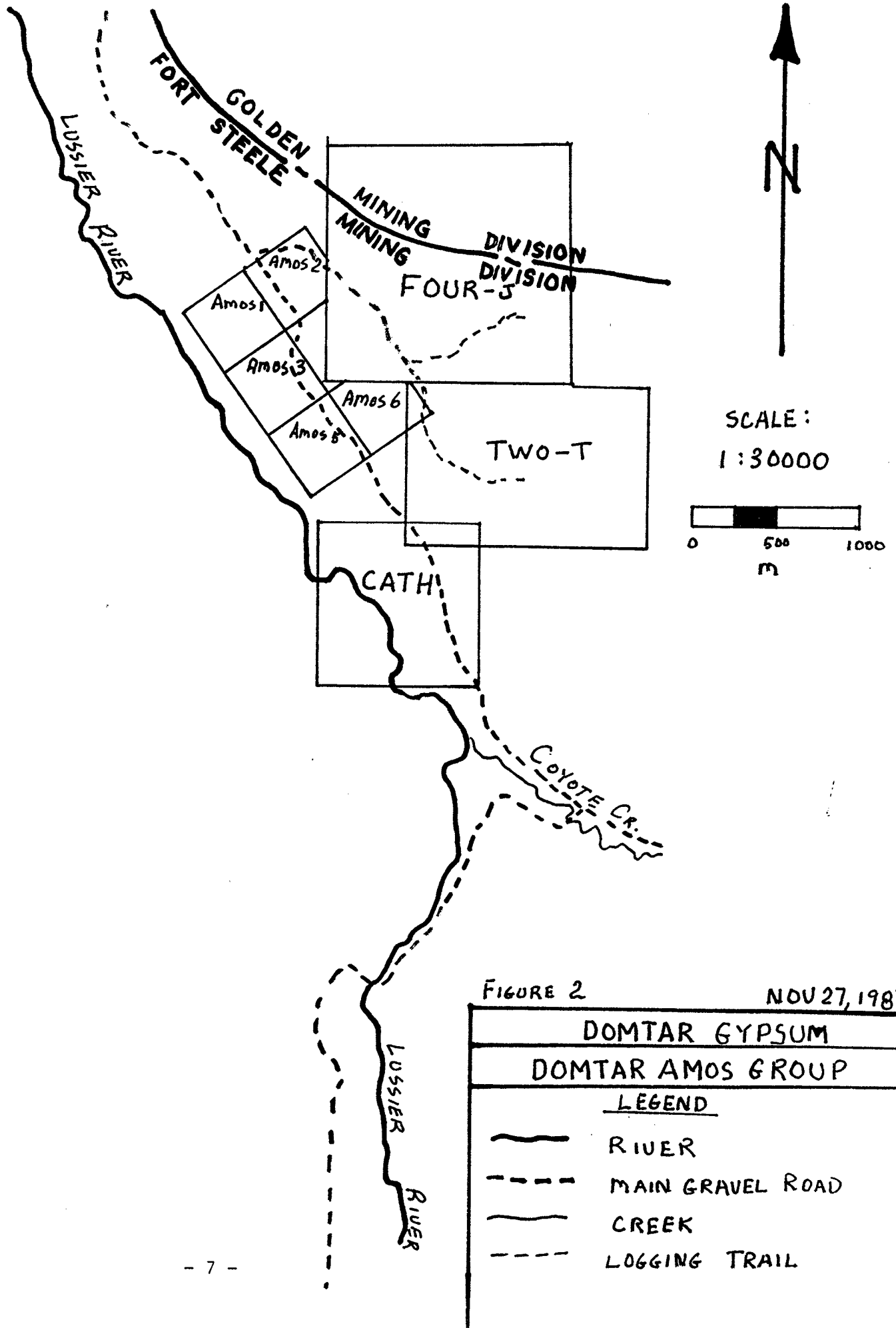


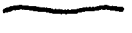



FIGURE 2 NOV 27, 1987

DOMTAR GYPSUM	
DOMTAR AMOS GROUP	
<u>LEGEND</u>	
	RIVER
	MAIN GRAVEL ROAD
	CREEK
	LOGGING TRAIL

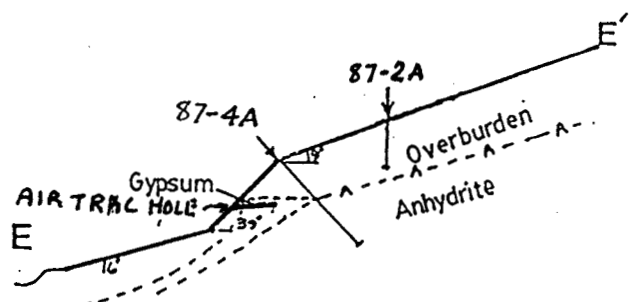
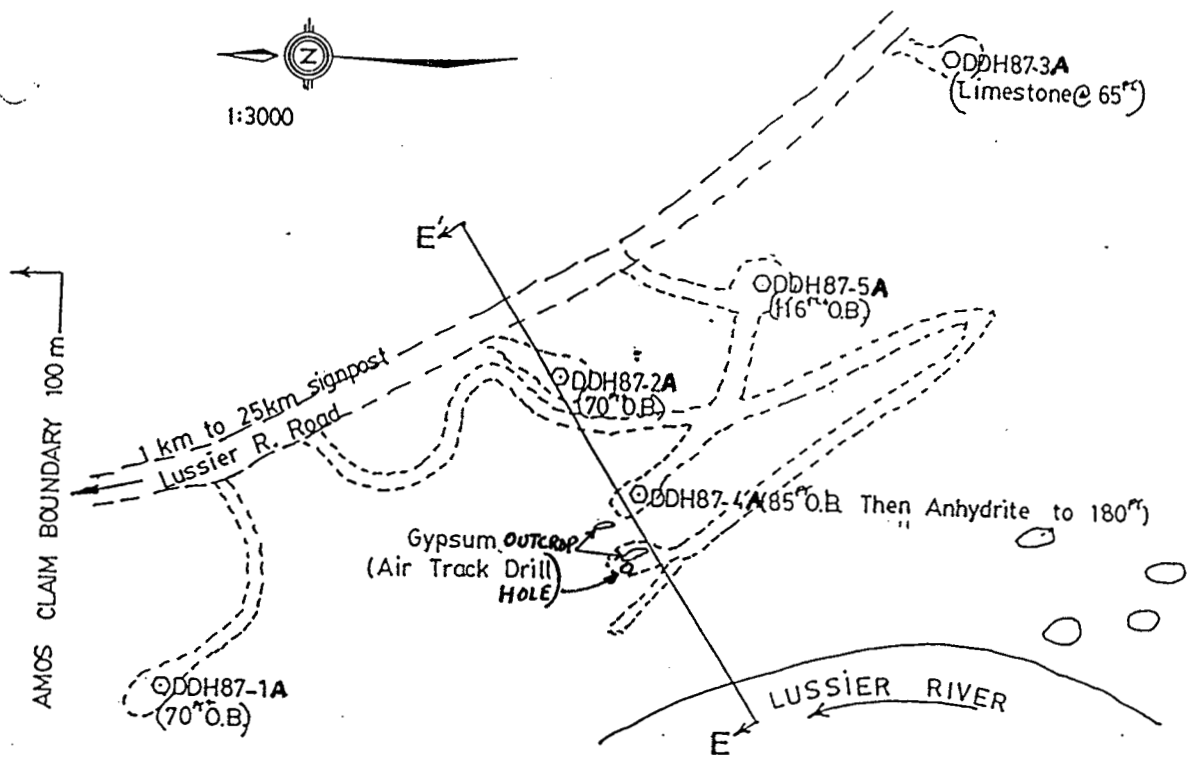


FIG 3 NOV 27, 1987

DOMTAR 1987 DRILLING

AMOS CLAIMS

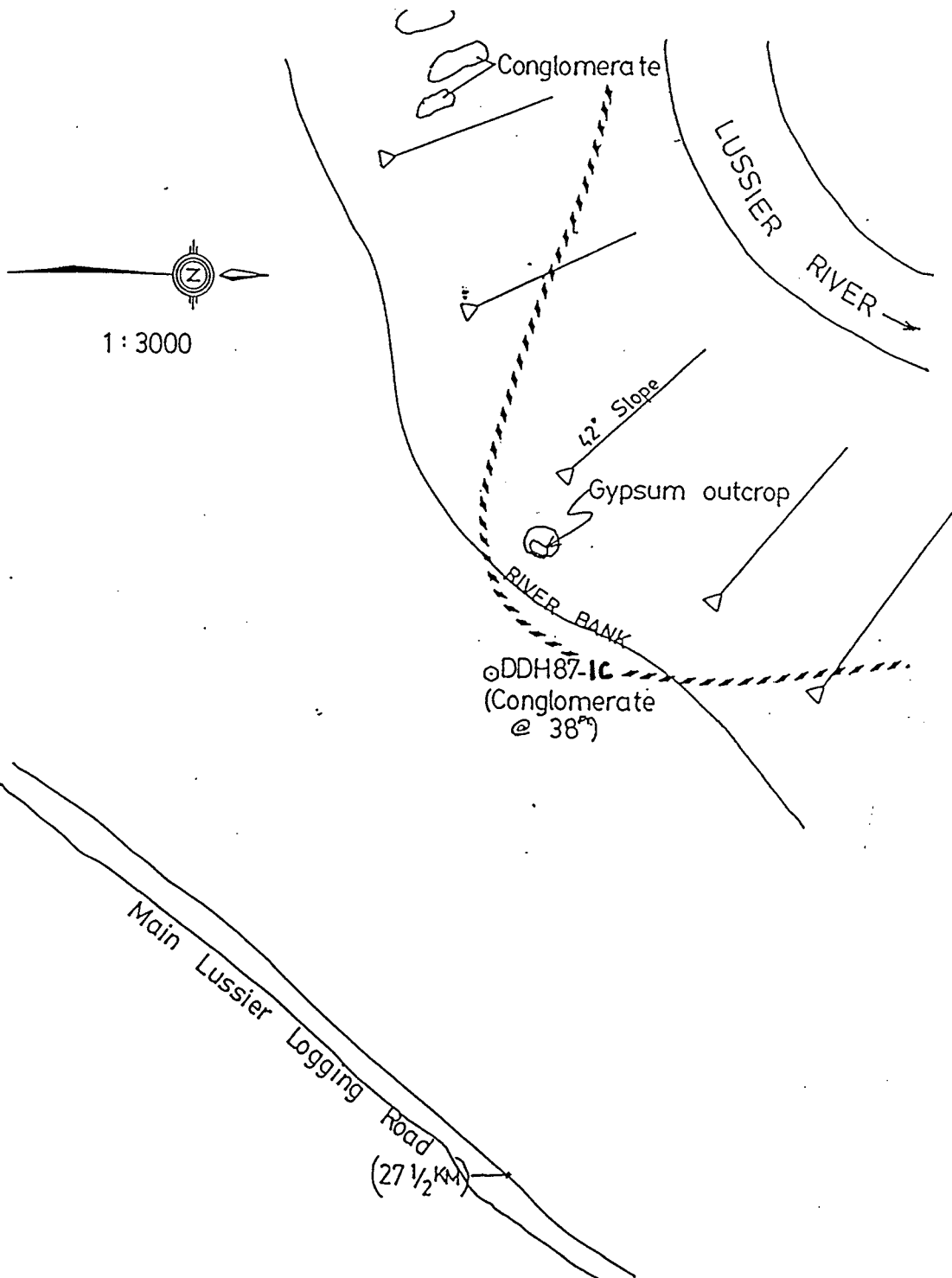


FIG. 4 NOV 27, 1987.

DOMTAR 1987 DRILLING

CATH CLAIMS

----- approximate geological CONTACT

⊙-DDH87-2C (100' O.B.)

FIREGUARD (1985) 087-4F

087-3F 87-5F

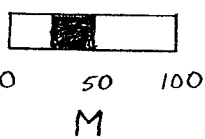
087-6F

087-2F

087-1F



SCALE  
1:4760



1200 METERS TO 25 KM  
SIGNPOST, MAIN  
LUSSIER R. ROAD.

FOUR-J

LF  
LCP  
Two-T

2E  
1E

GREEN  
BURNED

BACKROAD TO  
CATH CLAIM

FIGURE 5

NOV 27, 1987

DOMTAR GYPSUM

FOUR-J CLAIM

LEGEND

--- LOGGING TRAIL

O - DIAMOND DRILL HOLE

— CLAIM BOUNDARY

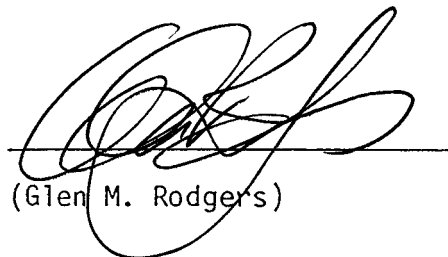
1.13 STATEMENT OF QUALIFICATIONS

1. FIELD SUPERVISOR

November 27, 1987

This is to certify that I, Glen M. Rodgers, am a graduate geological engineer of the University of Manitoba (1977).

I have practised my profession for the past ten years working as a geologist for the mineral industry in British Columbia, and the Yukon Territory.



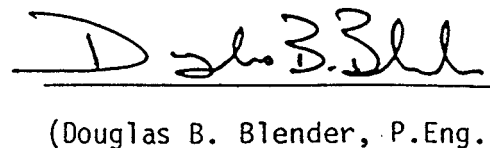
(Glen M. Rodgers)

2. AUTHOR

November 27, 1987

This is to certify that I, Douglas B. Blender, am a graduate geological engineer of the University of Saskatchewan (1972).

I have practised my profession for the past fifteen years working as a Professional Engineer in the industrial minerals industry in British Columbia, Alberta and Saskatchewan. My Association of Professional Engineers of the Province of British Columbia Registration Number is 12339.



(Douglas B. Blender, P.Eng.)

Silt			
Rock			
Other			
<b>DRILLING (total metres; number of holes, size)</b>			
Core	.419M, 13 HOLES, NQ	5 HOLES, AMOS 3, 2 HOLES CATH, 6 HOLES FOUR-J	30,272.00
Non-core	.76M, 1 HOLES, 50MMS DIAM.	1 HOLE, AMOS 3	1,170.00
<b>RELATED TECHNICAL</b>			
Sampling/assaying			
Petrographic			
Mineralogic	GEOLOGICAL SITE SUPERVISION	AMOS 3, CATH, AND FOUR-J	4,420.00
Metallurgic	(26 DAYS)		
<b>PROSPECTING (scale, area)</b>			
<b>PREPARATORY/PHYSICAL</b>			
Legal surveys (scale, area)			
Topographic (scale, area)			
Photogrammetric (scale, area)			
Line/grid (kilometres)			
Road, local access (kilometres)			
Trench (metres)			

A. PHYSICAL

(Trenches, open cuts, adits, pits, shafts, reclamation, and construction of roads and trails.)

(Give details as required by section 13 of regulations.)

	COST
Site preparations for drilling construction of roads, hauling of gravel, reclamation of sites, grass seed, culvert, labour and supervision	1912.50
Kennelly Contracting Equip.- D6D Cat, 25.5 hr @ 75.00/hr	337.50
D8H Cat 3hrs @ 112.50, D6C Cat-6hrs@ 60.00/hr, JD 644 C Track Loader 7hrs @ 85.00/hr, JD555 Trackloader-4hrs@ 55.00/hr	360.00
Gravel Truck 14hrs @ 50.00/hr, Materials \$860.00	595.00
Supervision 125.00	220.00
	700.00
	610.00
	250.00
	125.00
TOTAL PHYSICAL	\$5110.00