

LOG NO:	NOV 10 1993
ACTION:	
FILE NO:	

PROSPECTING REPORT

CSW 1-8 CLAIMS

Clinton Mining Division

NTS#92P/5E & 92P/6W

LAT. 51° 15' , LONG. 121° 30' (approx.)

Owner: G.M.Rodgers, P.Eng.
& Author P.O. Box 63,
Skookumchuck, B.C. VOB 2E0
Ph. (604) 422-3748

FILMED

November 10, 1993

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

23,127

(i)

summary

Nineteen sample sites were done on three of the historically best soda producing lakes in the Clinton area during February 10-16, 1993.

Soda (Natron ... $\text{Na}_2\text{CO}_3 \cdot 10\text{H}_2\text{O}$) was found in only one sample site, and then as only a few distinct crystals.

The deep snowpack and warmer temperatures must have insulated and warmed the lake which together with ground heat allowed any soda crystal to dissolve back into solution.

Further testing should include temperature and sodic concentrations so as to better predict when crystal is likely to form.

TABLE OF CONTENTS

(i) summary	(i)
1.0 Introduction	(1)
1.1 Location & Access	(1)
1.2 History	(1)
1.3 Claim Status	(1)
Fig.1, Index Map	(2)
Fig.2, Location Map	(3)
1.4 Previous Work Done	(4)
2.0 Present Work Done	(4)
2.1 Sampling Procedure	(4)
3.0 Conclusions	(4)
4.0 Recommendations	(5)
5.0 Certificate	(6)
6.0 Statement of Costs	(7)
Fig.3, CSW 1-4 ; Sample Sites	(8)
Fig.4, CSW 5&6 ; " "	(9)
Fig.5, CSW 7&8 ; " "	(10)

1.0 INTRODUCTION

1.1 Location and Access

The CSW 1-4 mineral claims are located south of Alberta Lake just north of the Meadow Lake Road. Access is gained by taking the Meadow Lake Road turnoff which departs highway #97 approximately 80km north of Clinton, B.C.. From hydropole #169 a trail leads 300m north to the 32 post for CSW-1 claim.

The CSW 5&6 claims are located near the B.C. Rail tracks approximately 3 km west of Green Lake. Access is via and old dirt road which heads west for 2½ km from the Green Lake Park information sign on the South Green Lake Road.

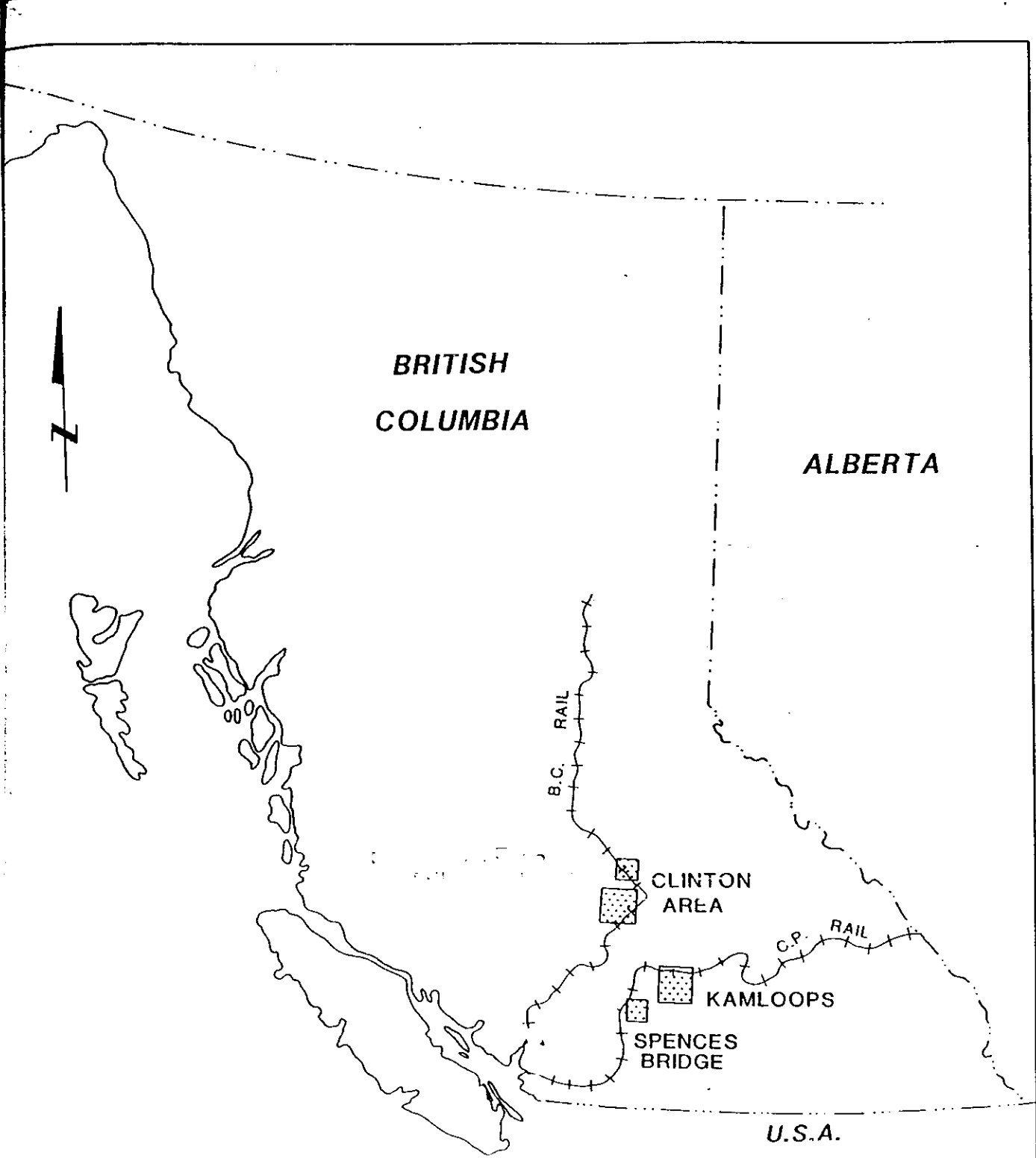
The CSW 7&8 claims are located 1 km west of the hydroline which runs north-south approximately 4 km northwest of "70 Mile House". Access is gained via the Old Cariboo Trail which leaves highway 97 and heads west to the hydroline, then 1.2km south to a rough 4*4 trail which heads west 400m to the lake shore.

1.2 History

Historical production from many of the soda lakes is well documented in BCDM bulletin #4 (1934) by Cummings. The CSW claims cover three lakes upon which historical production was highest and near which old concrete foundations and building rubble mark the sites of old roasting and processing facilities.

1.3 Claim Status

<u>CLAIM NAME</u>	<u>RECORD #</u>	<u>EXPIRY DATE</u>
CSW-1	312334	17/08/95
CSW-2	312335	"
CSW-3	312336	"
CSW-4	312337	"
CSW-5	312338	"
CSW-6	312339	"
CSW-7	312340	"
CSW-8	312341	"





**BRITISH
COLUMBIA**

ALBERTA

U.S.A.

LEGEND

-  SODA LAKES AREAS
-  MAJOR RAILWAY LINE

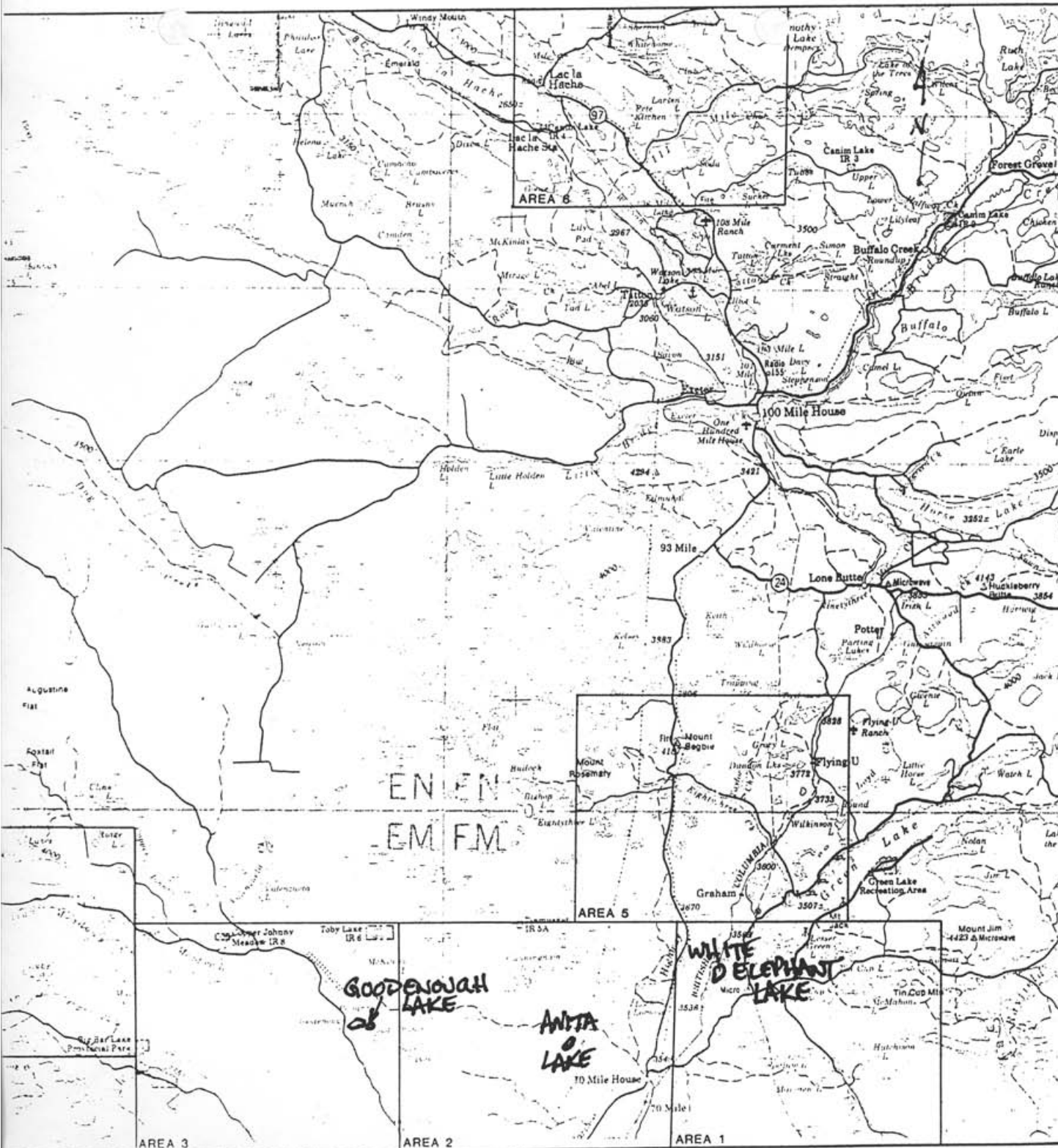
**SODA LAKES
BRITISH COLUMBIA**

LOCATION MAP

MAP NO.1

**SODA LAKES
CLINTON AREAS**

**ACCESS AND LOCATION OF
SODA LAKE AREAS**



MAP NO. 2

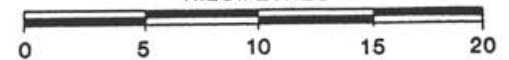
MAP SHEETS 92 O & 92 P

SCALE 1:250,000



MILES

KILOMETRES



1.4 Previous Work Done

Prior to 1989, no significant work was done on the soda lakes area except for small scale production from some of the best producing lakes. Canadian Occidental Petroleum acquired the claims in 1989 and conducted an extensive water and mud sampling program. An infr-red aerial survey was done in order to detect dissolved solids in other lakes.

2.0 PRESENT WORK DONE

Prospecting work during February of 1993 was conducted with the objective of doing several test holes in each lake in order to estimate the thickness of any underlying crystal ("winter crystal"). Approximate measurements were made of each lakes area in order to calculate possible tonnage.

Plans

were in place to take a 1000 tonne bulk sample, but these were cancelled due to lack of crystal.

2.1 Sampling Procedure

A skidoo with sled was used to carry equipment and was hoped to be used to transport crystal by nylon ore bag back to the truck. A 6 m² area was cleared of snow. A 1 m² hole was cut in the ice using a chainsaw. This ice block was removed to check for the presence or absence of winter crystal below. When there was no soda (almost all cases) then the lake water flooded into the cleared area within a minute to a depth of about 10 cm.

3.0 CONCLUSION

One sample site corresponded exactly with a sample site tested during December of 1991. In 1991, 15 cm of soda (Natron . . . Na₂CO₃10H₂O) was found here (sample # WE-6 ...see Fig.4) and in February of 1993 no soda was found.

At one sample site (Good-2 ...see Fig.3) three elongate monoclinic crystals of Natron (soda) were found attached to the bottom of the 1 m² ice slab. No other sample sites contained any visible soda crystal although in all cases the water was very sodic to the taste.

In all 19 sample sites were made with sparse soda crystal found in only one site.

In conclusion, the time frame for soda crystallization is short and critical. Any crystal that may have been formed during this winter must have re-dissolved back into the lake water. The author's guess is that the 60 cm snowpack plus the warmer weather (-5°C to $+1^{\circ}\text{C}$) combined to warm and insulated so as to warm the ice below and allow ground heat to warm up the lake waters. This increased the temperature of the sub-ice waters which allowed the dissolution of the soda crystal.

4.0 RECOMMENDATIONS

Further testing of the lakes is required during the early part of winter as then the snowpack would be less and the days darker and colder. Temperature readings of lake waters should also be taken and waters analyzed for sodic content in order to chart temperature versus sodic concentration and so be better able to predict the time when crystal will form.

Certificate

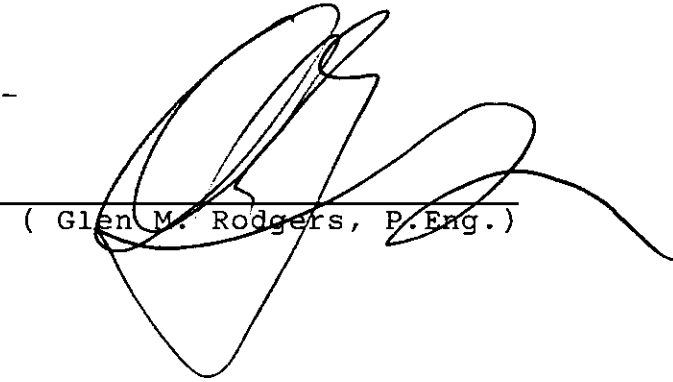
I, Glen M. Rodgers certify that:

I am a graduate fo the University of Manitoba (1977) with a BSc. degree in Geological Engineering.

I am a member in good standing with the Association of Professional Engineers and Geoscientisis of British Columbia (#16430).

I have practised my profession as exploration geologist over the last 16 years in Canada, Alaska and Latin America.

I am owner (100%) of the CSW 1-8 mineral claims.



(Glen M. Rodgers, P.Eng.)

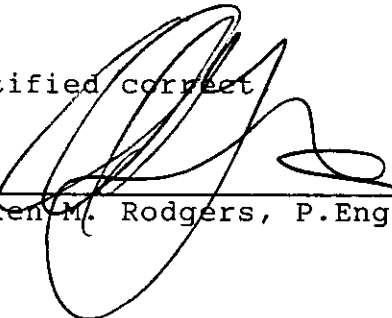
(7)

STATEMENT OF COSTS

sampler (G.Rodgers) (5 days @ \$200./day) . . \$1000.
4*4 truck (Cranbrook to Clinton and return)
(with trailer) . . (1800 km @ \$.30/km) \$ 540.
skidoo (3 days @ \$70./day) \$ 210.
motel (Round-up Motel) \$ 160.
meals (5 days @ \$30./day) \$ 150.

\$ 2060.

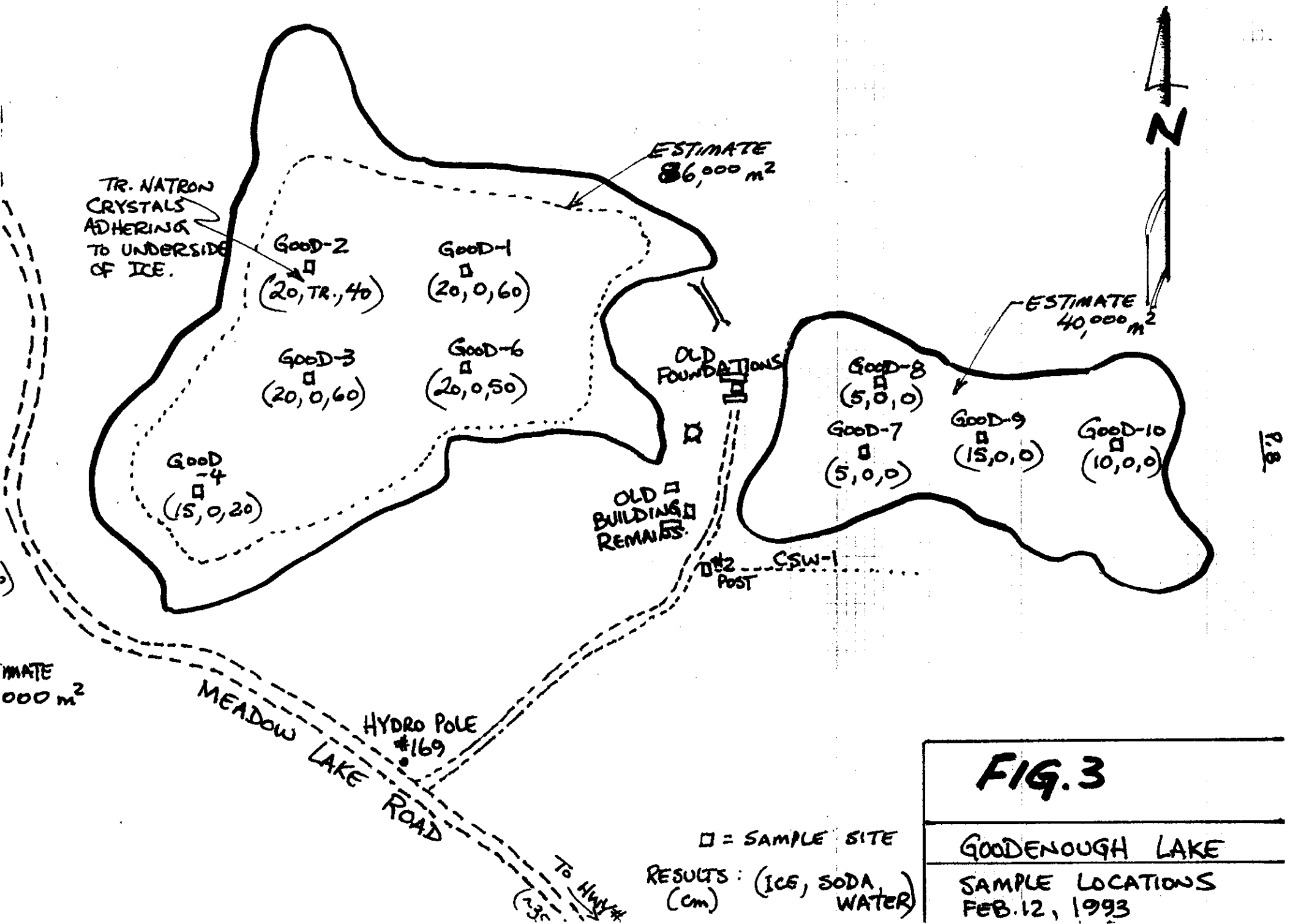
-certified correct



A large, stylized handwritten signature in black ink, appearing to read 'Glen M. Rodgers', is written over a horizontal line.

(Glen M. Rodgers, P.Eng.)

(registration # 16430)



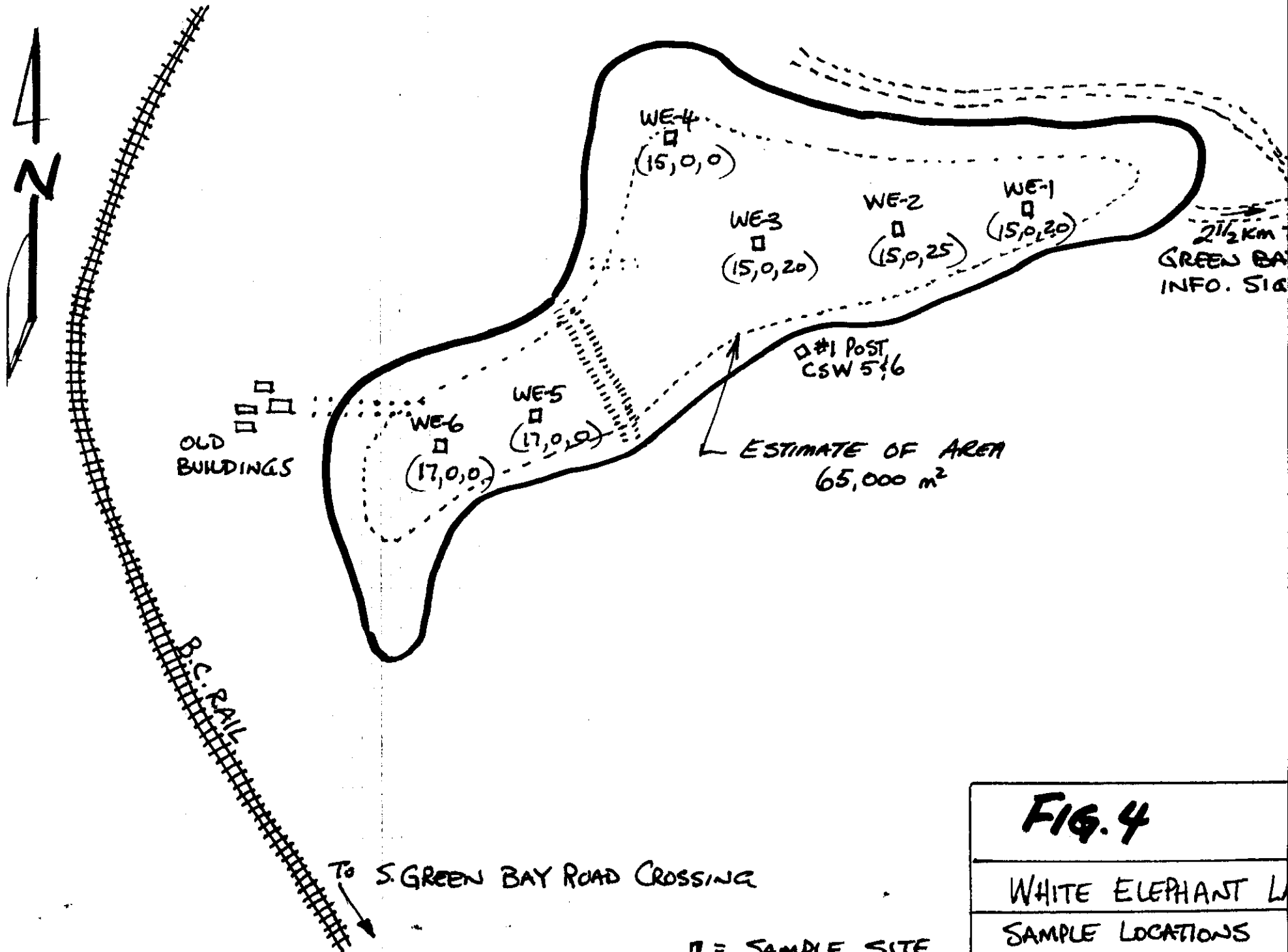


FIG. 4
WHITE ELEPHANT LA
SAMPLE LOCATIONS FEB. 11, 1993 SCALE = 1:800

RESULTS: (ICE, SODA, WATER)
(cm) □ = SAMPLE SITE

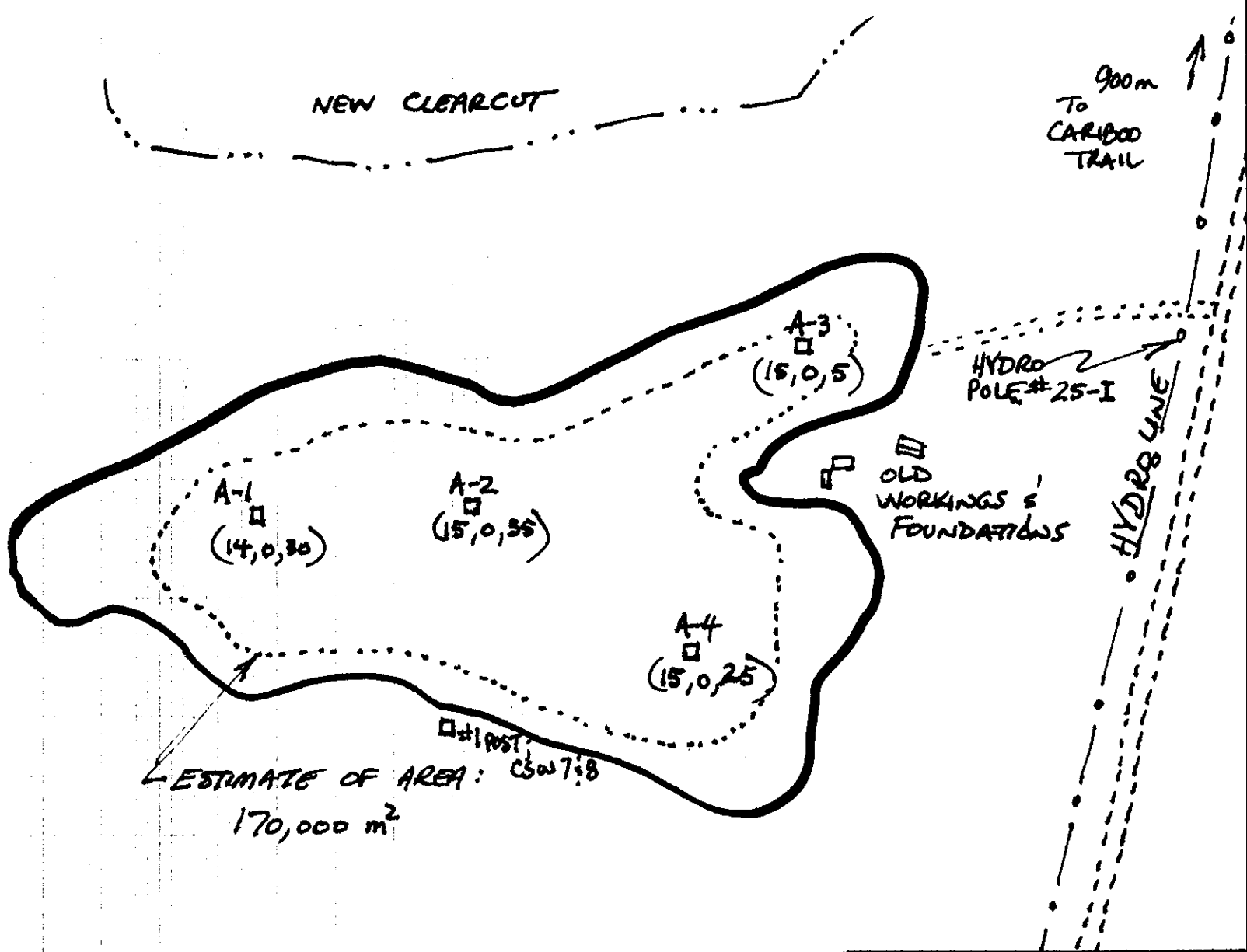


FIG. 5

ANITA LAKE

SAMPLE LOCATIONS

FEB. 13, 1993

SCALE = 1:800

□ = SAMPLE SITE

RESULTS: (ICE, SODA, WATER)
(cm)

92P/5E

nzuela

Toby L. IR. 6

V. WITH TO STORE (CHECK FOR XL)

McKinley L.

Alberta

163/31 186/131
1642 1653
1662 1670

BL 174
MAR. 6 93

enough

East Chanco L.

River

Lakes

CSW-4

CSW-3

CSW-1

Beaverdam L.

Little White L.

mine

CLAIM MAP

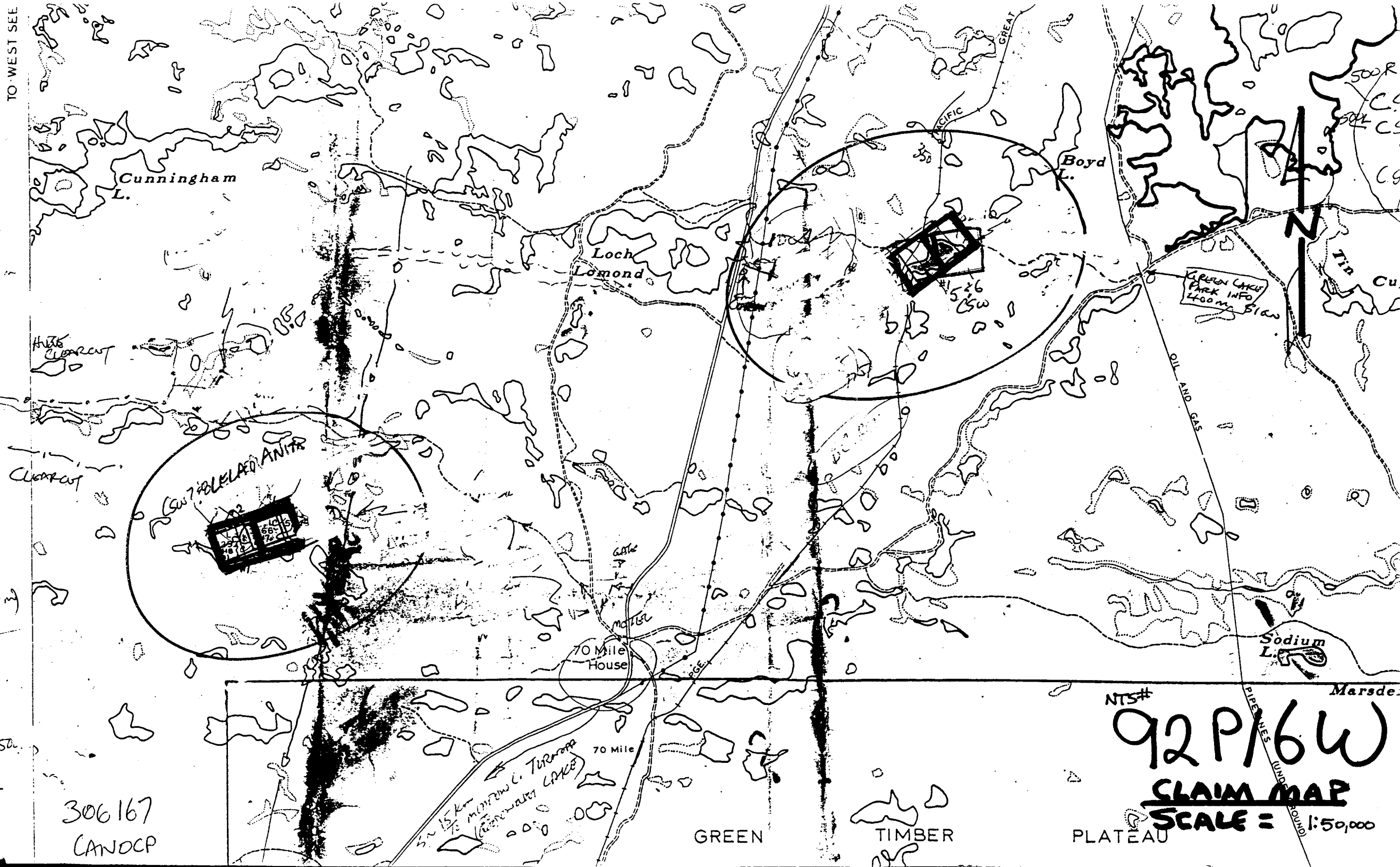
SCALE = 1:50,000

NTS # 92P/5E

7362
7663

CHECK 4
XL

TO WEST SEE



Cunningham L.

Loch Lomond

Boyd L.

GREEN CLAIM AREA INFO 1400 m 51 km

SUN 7906142 ANTR

1526 650

70 Mile House

Sodium L.

Marsden

NTS#

92P/6W

CLAIM MAP

SCALE = 1:50,000

306167
CANOCP

GREEN

TIMBER

PLATEAU

PIPELINES UNDERGROUND

Hills

Clampart

70 Mile
15 km
MORROW C. TURKOPOL
CAKES

500R
CL
500L
CS

TIN Cu

2m

500