

AR 90-082

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MINES  
AND ENERGY

ENGINEERING REPORT COVERING  
THE WORK CARRIED OUT ON  
THE WINE HARBOUR CLAIM GROUP OF  
TRI-EXPLORATIONS LTD.

DURING THE PERIOD JULY 31, 1989 TO JULY 31, 1990

LICENCE NO. 15103 (12 CLAIMS)

JULY 31, 1990

REF. MAP 11F4B

J.E. Dawe, P.Eng.

COPY - 1

DUPLICATE AVAILABLE

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Assay Sheets ✓

*WAG*

## INTRODUCTION AND SUMMARY

The work carried out by Tri-Explorations on their Wine Harbour claims consisted of sampling, reconnaissance prospecting, considerable literature studies of past work, and laboratory work designed to confirm the grade of typical vein and wall rock material from these claims. Various sampling programs carried out over the past years by different exploration companies and individuals indicates the presence of considerable gold associated with the arsenopyrite in certain belts and veins; whereas other veins carrying arsenopyrite yield low assays. Assays as high as 1.5 oz/ton have been reported by a prospector, who picked up a piece of arsenopyrite from one of the old mine rock dumps. This is rather high, where there was no visible gold reported. Assays of sulphide concentrates can run considerably higher, but in this case fine V.G. is usually present.

This work has checked further on the following possibilities:

- (a) The presence of a wide zone of potential ore being present at the old Greengoods belt site;
- (b) The presence of values associated with the arsenopyrite-rich Mundic Lead (zone);
- (c) The presence of a zone of enrichment extending westerly from its drill indicated position (Acadia Mineral Ventures work); and
- (d) The significance of the extensive zone of silicious enrichment indicated by the above drilling, and to a degree by an airborne resistivity survey carried out several years ago.

## LIST OF CLAIMS

<u>Claims</u>	<u>Tract No.</u>	<u>Ref. Map</u>	<u>Licence</u>
J,K	67	11F4B	15103
J,K,I,M, N,O,P,Q	68	11F4B	15103
M,N	69	11F4B	15103

## LOCATION

Please see Figure 1, which shows the general location of the Wine Harbour gold district where the Tri-Explorations claims are located. They lie southerly approximately 10 miles from the village of Sherbrooke.

## GEOLOGY

Attached is a copy of the Fairbault map showing the general geology of the Wine Harbour district (Fig. 2).

Details of structure and the known vein systems are shown by the plan and section (Fig. 4), which also is based on Fairbault's field work (GSC).

Basically, we are dealing with a system of folded quartzites and slates of the Goldenville series of rock types. Once again, the unknown of great importance is not so much the structural configurations of the slates and quartzites, but it is the nature and significance of the mineralization occurring in these rock types, associated with the quartz veining. Faulting of a relatively late geologic stage may in some instances be related to local enrichment of a given gold-bearing zone of quartz veinlets and silicified slate.

## DISCUSSION

Plough Lead - Diamond Drilling for Wilco appears to have intersected a part of this zone down-dip to the east. Although not indicated in the work carried out to date on the portion of the property, it is suggested by old miners' reports that in fact this zone may be dipping in the manner of synclinal fold under the harbour.

Please see Figure 4, which shows the approximate extent and location of the low resistivity anomaly picked up by airborne geophysics carried out for Wilco Mining Company Limited by Terraquest Ltd., Toronto, Canada. We have checked at various locations in the field in an effort to determine whether this resistivity high is due to an overall silica enrichment of the slates within the indicated anomaly or if it may be due to a higher than normal quartz vein content. We did confirm that the slate near the Mundic pits was indeed quite silicious and carried low levels of sulphides. Kindly refer to the detailed sample description of Samples WH-83-10, 11, and 12. This sampling reveals a very definite silicification in this area.

Sampling in the area of the MacFarlane and Washington belts indicates that in this area the resistivity could be related more to a higher than normal content of quartz veining. North of this area the slates are definitely silicified.

The Greengoods area is also in an area of silicification, possibly

above normal for quartzite. Although this is difficult to determine in a positive manner by examination with a field glass, it appears that the quartzite is fine-grained and presents an overall smooth to glassy appearance on freshly broken surfaces.

Diamond drilling by Acadia Mineral Ventures towards the westerly end of this anomaly cut a system or systems of quartz veins over considerable widths that may in fact have contributed to a large extent to the resistivity anomaly indicated. A number of these holes showed very considerable gold metallization and in fact the geologist on the job has stated that he had never seen as much gold mineralization and as widespread as he observed in these holes, that apparently cut into above normal silicification and quartz veining, carrying gold.

An examination of the airborne geophysical results also indicates a system of north-northeast trending faults in the harbour more or less paralleling the harbour shore. Faulting is indicated inland up these inlets from the coast at several places, such as Harrigan Cove, Tangier-Mooseland, County Harbour, etc. If there is significant dislocation of the anticline-syncline system, constituting the main Wine Harbour gold district metasediment structure, then there may have been a structural condition created during late stage tectonic activity that allowed for the introduction of silica and, with it, gold-bearing solutions that even deposited in what may be a twisted section of the Wine Harbour anticline-syncline swinging northerly from its normal east-west trend, at this indicated westerly end of the structure. This may also be indicated by the apparent northerly swing in the resistivity anomaly in this area.

Tri-X carried out some detailed surface prospecting in this area, in an attempt to determine if the soils and till, which at this end of structure cover the bedrock completely, would show higher than normal gold levels. Unfortunately, at the time of writing this report assay results were not available. Nevertheless, limited rock sampling from rock dumps of old prospect pits confirmed the silica levels expected. One or two rock samples, especially WH-89-1, confirmed the presence of relatively strong gold mineralization in a bedrock vein or belt.

It is interesting and significant that Faribault showed a zone of enrichment or zone of pay streaks dipping east, running westerly, and swinging northerly at this end of the property, starting at the 110 ft fault found on

the Plough lead belt.

Sampling in the vicinity of the middle belt and to the north of this zone shows a high degree of silicification and above average gold levels. This seems also to hold true in the Greengoods area of the property, where old records suggest rather wide zones of mineralized rock were reported.

The reader may be in a better position to further interpret the results of this season's field work, when all the assay results are received.

Finally, the writer would like to make another observation based on the field work carried out at Wine Harbour and at many other Nova Scotia gold properties. Arsenopyrite mineralization generally is considered a favorable indicator for the presence of gold. This generally is the case, but wide variations in the strength of the gold metalization occurs in every property as it relates to the arsenopyrite. At Wine Harbour some of the arsenopyrite metalization carries higher than normal gold values; some carry little or none. Generally speaking, though, at Wine Harbour the arsenopyrite carries somewhat higher than normal levels of intimately associated gold values.

#### SAMPLE DESCRIPTIONS

<u>Sample No.</u>	<u>Description</u>
WH-89-A	Sheared, partly folded, silicified quartzite; very fine quartz inclusions; more than normal amount of pyrite and pyrrhotite disseminated through rock; no large or coarse pyrite crystals.
WH-89-B	Classic, mildly sheared quartzite containing numerous large ( $\frac{1}{4}$ to $\frac{1}{2}$ inch) arsenopyrite crystals; minor pyrrhotite and pyrite in matrix; little or no quartz, except possibly with a few small masses of pale pink carbonate.
WH-89-C	Sheared quartzite containing quartz veinlets, some at low angle with the bedding and shearing, some also at $90^\circ$ with this system; hematite on margins of some veinlets, discoloration in others; minor pyrite in host rock; some pyrite in veinlets

<u>Sample No.</u>	<u>Description</u>
WH-89-C continued	themselves. This piece was picked for its level of quartz veining. Other pieces of this old dump rock contained a much higher percentage of quartz veinlets.
	All these samples, i.e., A,B, and C, were taken from a dump lying parallel to a long open trench (E-W) which may be on the middle belt or the McKenzie belts. These samples are type samples representing a percentage of the dump, possibly 60 to 70%. No fine material was included in these samples; it most likely would contain a higher percentage of quartz and sulphide than the coarse tough pieces of altered quartzite sampled.
WH-89-1	A 3 to 4 inch quartz vein with heavy arsenopyrite mineralization, no wall rock included.
WH-89-2	Sheared and recemented quartzite veinlets at 30° with the deformed bedding, cut by another sequence of veinlets at 70° to 90° with the bedding. Medium-grained arsenopyrite in the host rock, with low percent of hematite staining. Some pyrite in the host rock and along the margins of some of the quartz veins.
WH-89-3	Large piece of rock being 30 to 40% quartz; some hematite staining. Slickensiding very obvious.
WH-89-4	Highly altered, brownish quartzite from dumps of old prospect pit, containing a few quartz veinlets. This sample consists of brownish sheared quartzite, very minor pyrite, but considerable hematite staining.
WH-89-5	From same areas as WH-89-4, sample of 3 to 10 inches thick highly altered rock. Contains a high percentage of quartz veinlets with high sericite content shear surfaces. Pockets of hematite, some minor fresh pyrite; contortions in face or boundaries of quartz veinlets.

<u>Sample No.</u>	<u>Description</u>
WH-89-10	Sample of dump material from area between the Mundic and Lincoln trenches. Sampled large semi-silicious slate, somewhat sheared, dark grey to bluish-black in colour. Contains disseminated pyrrhotite, some (few) medium-sized arsenopyrite crystals. In fresh more silicious faces noted minor calcopyrite in small patches, and possibly some galena on cross-fractures. This rock was badly weathered, possibly due to oxidation of fine sulphide, as some very fine sulphides were observed on several fresh surfaces. This rock could also be a very compact and sheared, altered fine-grained quartzite.
WH-89-11	Similar to WH-89-10; dark fine-grained silicious 'slate,' but containing considerably more arsenopyrite than in 10; taken from same area. Both these samples contain 2 to 5% dark black inclusions, irregular in outline but basically round or circular.
WH-89-12	Sample broken from large pieces of grey-blue 'slate,' same areas as Samples 10 and 11 above. This sample contains obvious silicious banding. The host rock in this case is mildly crenulated containing patches of brownish (rich colour) pyrrhotite. Some arsenopyrite of medium grain size noted. This sample displays more slickensiding than 10 and 11 with a few areas along the crenulations altered to a black carboniferous slate, graphitic. Noted quartz in one of the sychlines of a crenulation; appears to be in the nature of fracture filling.
WH-89-13	Small quartz samples dug out of slate dump in same general area as Samples 10, 11, and 12. These quartz pieces represent different widths of quartz veinlets, and are heavily leached.



<u>Sample No.</u>	<u>Description</u>
WH-89-13 continued	General Note:* Crenulations are crossed by a fine crenulation system at about 90°. This fine, mild system of crenulations is typical of all this slate. It may be quite significant that this system of very numerous crenulations crosses the more widely spaced and obvious crenulation without noticeable distortion (when examined by naked eye in field).
WH-89-14	Highly leached pieces of slate carryign a high percentage of fine- to medium-grained ( $\frac{1}{4}$ inch dia. size range) arsenopyrite. Considerable iron oxides believed to be from oxidized pyrrhotite; possibly very fine Au° in this laminar heavily oxidized piece.
WH-89-15	Similar to Sample WH-89-14, but contains coarser crystals of arsenopyrite. Carries some darker than normal arsenopyrite.

#### Till Samples

WH-90-T1	
WH-90-T2	Reddish till - no quartz noted.
WH-90-T3	
WH-90-T4	Several pieces of quartz in till.
WH-90-T5	Several pieces of quartz in till (new prospect pit).
WH-90-T6	Hard pan, bleached.

All above samples were taken at from 20 inches to 24 inches in depth; and weighed 15 to 20 pounds.

#### Soil Samples

A line of soil samples were taken to cut across the proejcted strike of the Greengoods belt or zone WH-90-S1 to S7.

WH-90-GD1	Quartz pieces dug from Greengoods dump; mostly small pieces but of various sizes, carrying considerable oxidized arsenopyrite plus some fresh material; carbonate common on both walls of quartz vein pieces; rather similar to that noted at Caribou.
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\* Please see theoretical interpretation attached as appendix.

<u>Sample No.</u>	<u>Description</u>
WH-90-GD2	Pieces of altered arsenopyrite bearing quartzite, carrying much scattered arsenopyrite and carbonate; no pyrite or quartz veining noted.
BAR-90-4	A chip sample across 4 ft belt (bedrock). This zone or belt occurs just west of Barachois Brook, about 75 yd south of Wine Harbour road. The belt consists of a series of parallel quartz veins ranging in thickness up to 10 inches; low level of mineralization in altered quartzite between the quartz veins. This zone could be wider as both sides are overburden covered; estimated quartz content about 50%; strike 310° (mag.), dip 85 to 87° south.

#### CONCLUSIONS

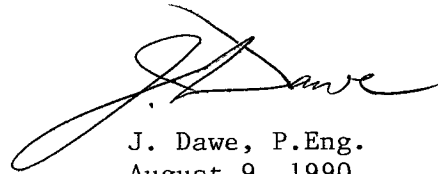
1. A study of the Acadia Mineral Ventures drilling shows interesting gold mineralization in the western portion of the property; appears to coincide with the resistivity high anomaly.
2. Sampling in this western portion shows some good gold mineralization associated with heavy arsenopyrite mineralization; and possibly the silicious host rock.
3. Sampling in the central portion of the property shows the presence of gold values associated with so-called wall rock of belts or zones of quartz and slate.
4. Results of soil sampling in the area of the Greengoods zone or belt are awaited, and will be attached to this report. Additional assay results will be attached as received.
5. It is recommended that additional till sampling be carried out to determine if the gold enrichment indicated by the Acadia drilling continues westerly. If so, additional diamond drilling is warranted. In fact, several additional holes are suggested based on the state of our present data.
6. A study of this additional data may show that a moderately sized open pit may be indicated in this portion of the property.

7. Additional exploration should be carried out down the indicated easterly plunge of the mineralization. It is assumed that this new gold mineralization will also plunge 18 to 20° to the east as did those on the Plough belt and others, partly developed in the early 1900s.
8. If, in fact, the north and south anticlines converge as assumed by early workers then the area of this convergence should be further explored geochemically, by geophysics (ground), and possibly reconnaissance diamond drilling.
9. It has been suggested that the central portion of this property, in the area of many old prospect pits and shafts, might constitute another target for potential open-pit mining and should be assessed from this point of view.

APPENDIX - THEORY

This overprint of crenulations of very mild amplitude, in the writer's opinion, could be referred to as tectonic vibrational energy release markers or rather like what might be called igneous activity fossil prints. The late stage igneous activity, relating directly to the granitic intrusions to the south, probably produced the hydrothermal solutions that penetrated the Wine Harbour sediments that had been folded by the initial intrusions of igneous rock.

The late phase, rather mild aftershock period of vibrational energy may be recorded by these cumulations.



J. Dawe, P.Eng.  
August 9, 1990

LOCATION MAP.

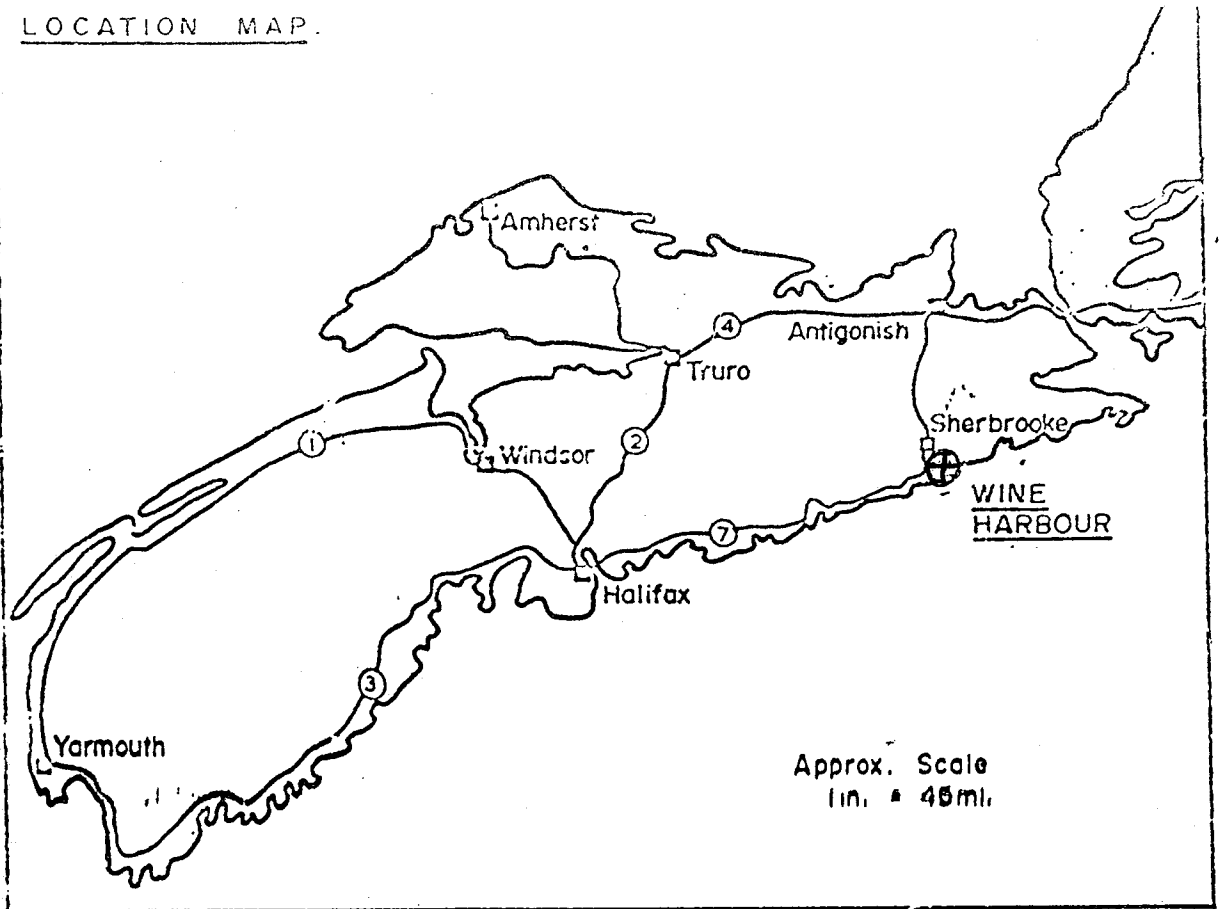
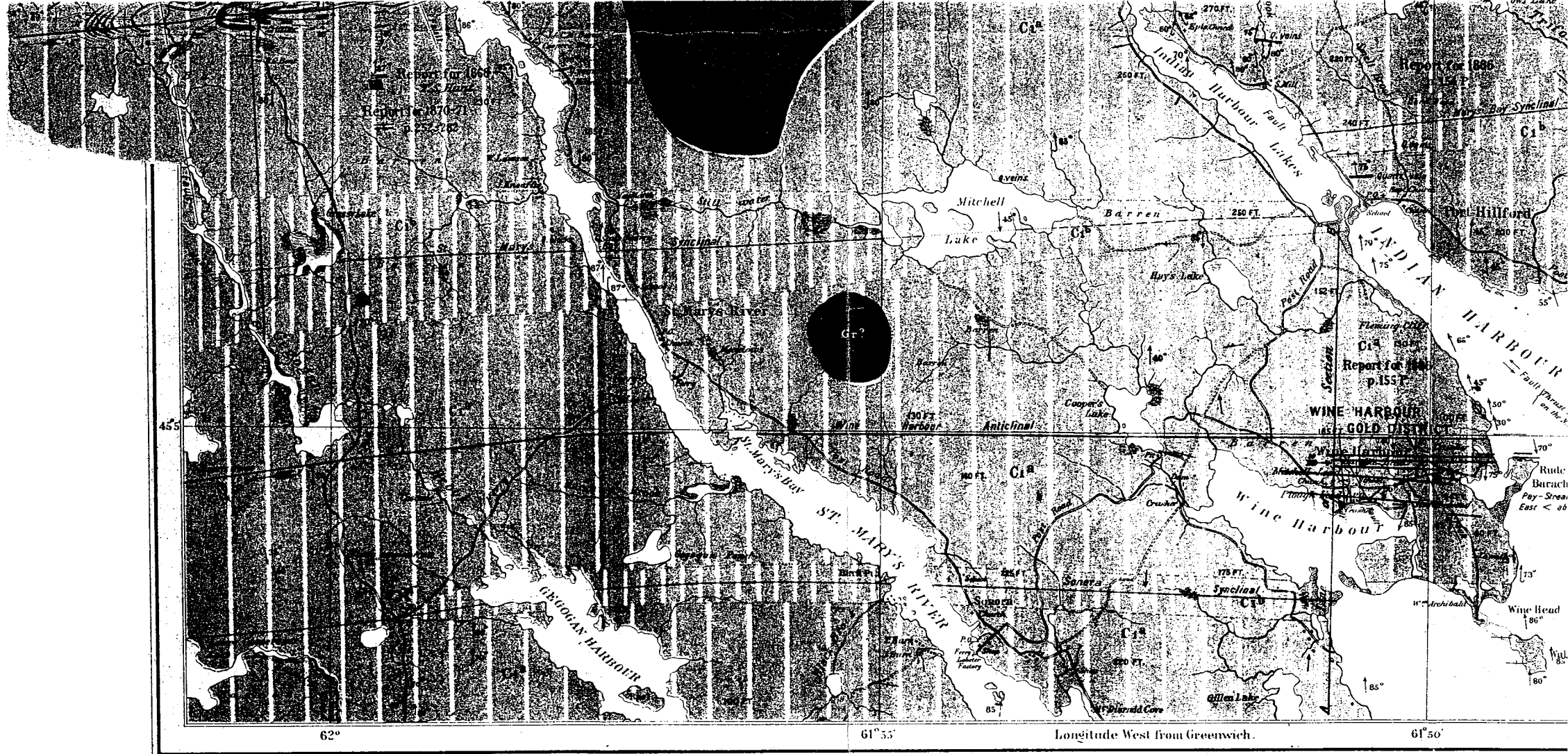


FIG. 1  
GENERAL LOCATION  
OF PROPERTY.  
TRI-EXPLORATIONS LTD  
AUG. 14, 1958

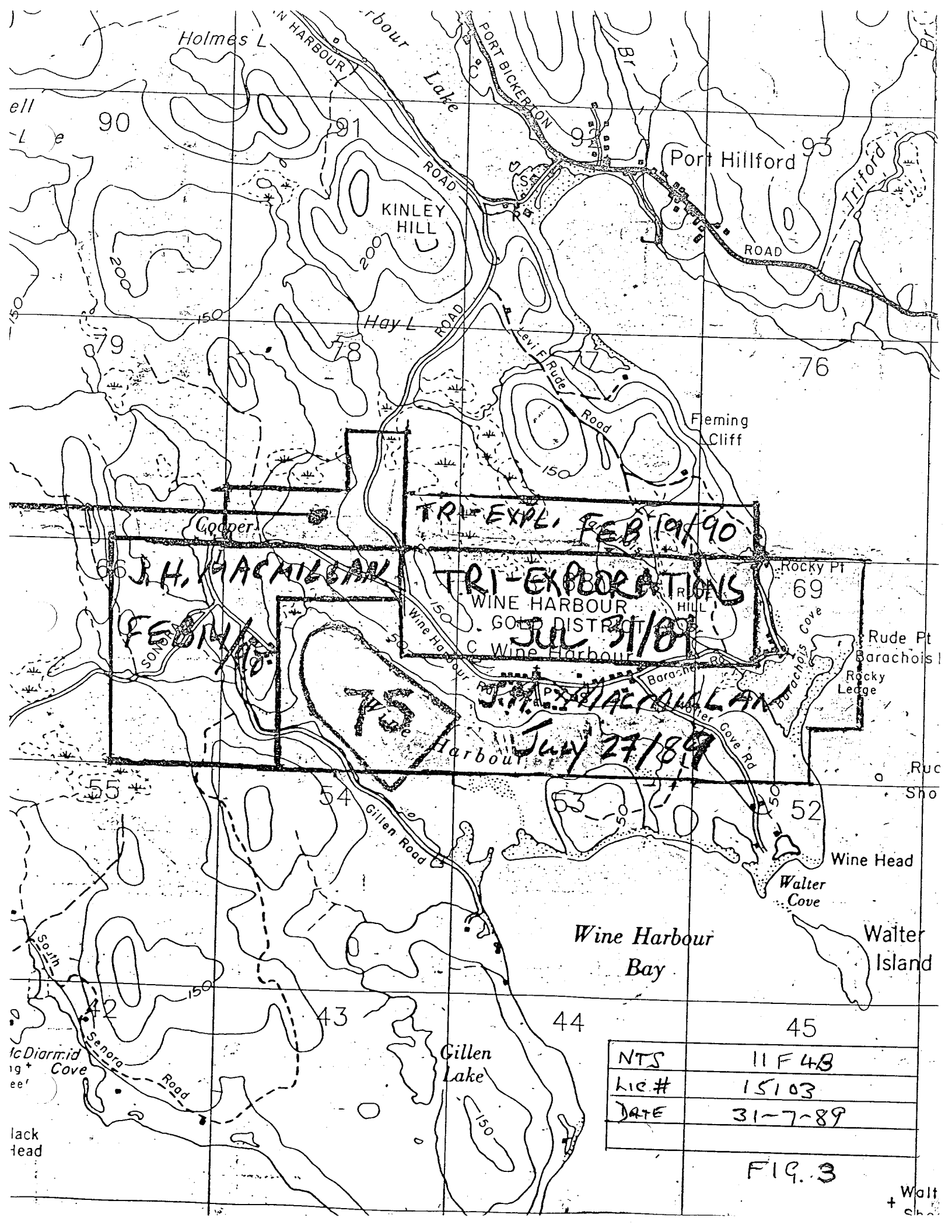


Compiled and drawn from Original Surveys by E. R. Faribault.  
 The Coast Line from the Admiralty Charts.

No. 28.  
 The Saberton Litho and Publishing Co. Montreal  
**PROVINCE OF NOVA SCOTIA,**  
 (Guysborough County)  
 Natural Scale  $\frac{1}{85,260}$   
 Scale 1 mile to one inch.



FIG. 2  
 GENERAL GEOLOGY  
 FARIBAULT - G.S.C.



Q T-69

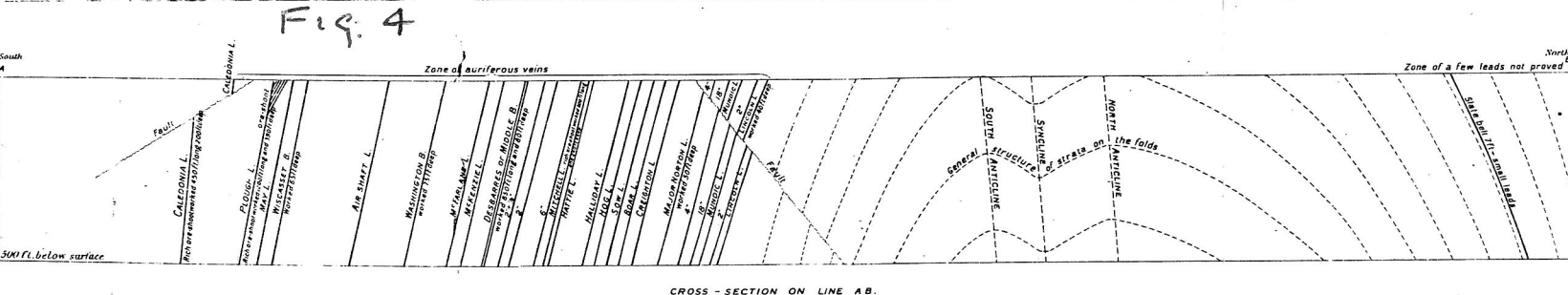
N

GSC Map. No 867



SCALE - REDUCED 50%  
 TRI-EXPLORATIONS LTD.  
 14-8-90  
 N.T.S. 11 F 4 B WINE HARBOR ME. LIC # 15103  
 TRI-EX CLAIM BOUNDARY (APP.)  
 - - - RESISTIVITY ANOMALY - REP 88-200  
 DRAWN BY A THOMSON.

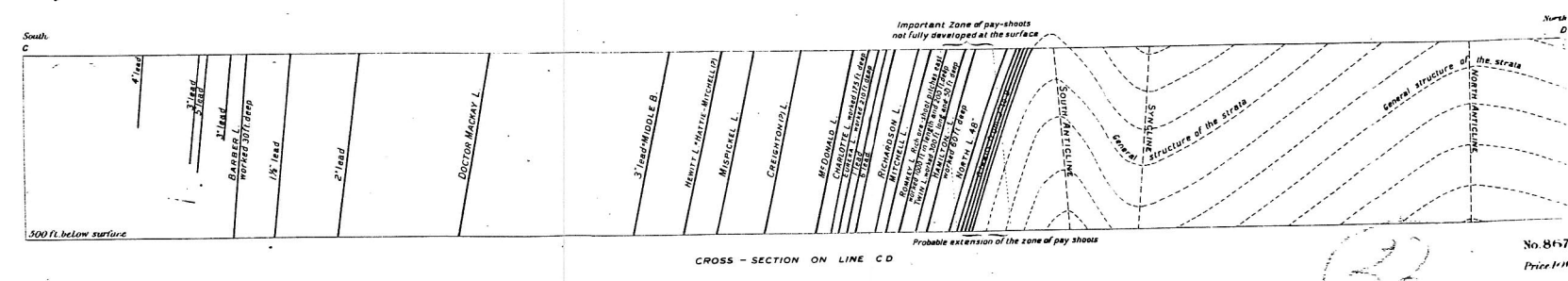
- Index to signs
- Clearing
  - Dip and strike of strata
  - Unconformable quartz veins (leads)
  - Dip of veins
  - Dip of beds in veins
  - Dip of pay streak
  - Thickness of zone in inches
  - Depth of shaft in feet measured on the sector
  - Oblique line
  - Roads
  - Wind roads
  - Faults
  - 100 ft. Bench above sea level



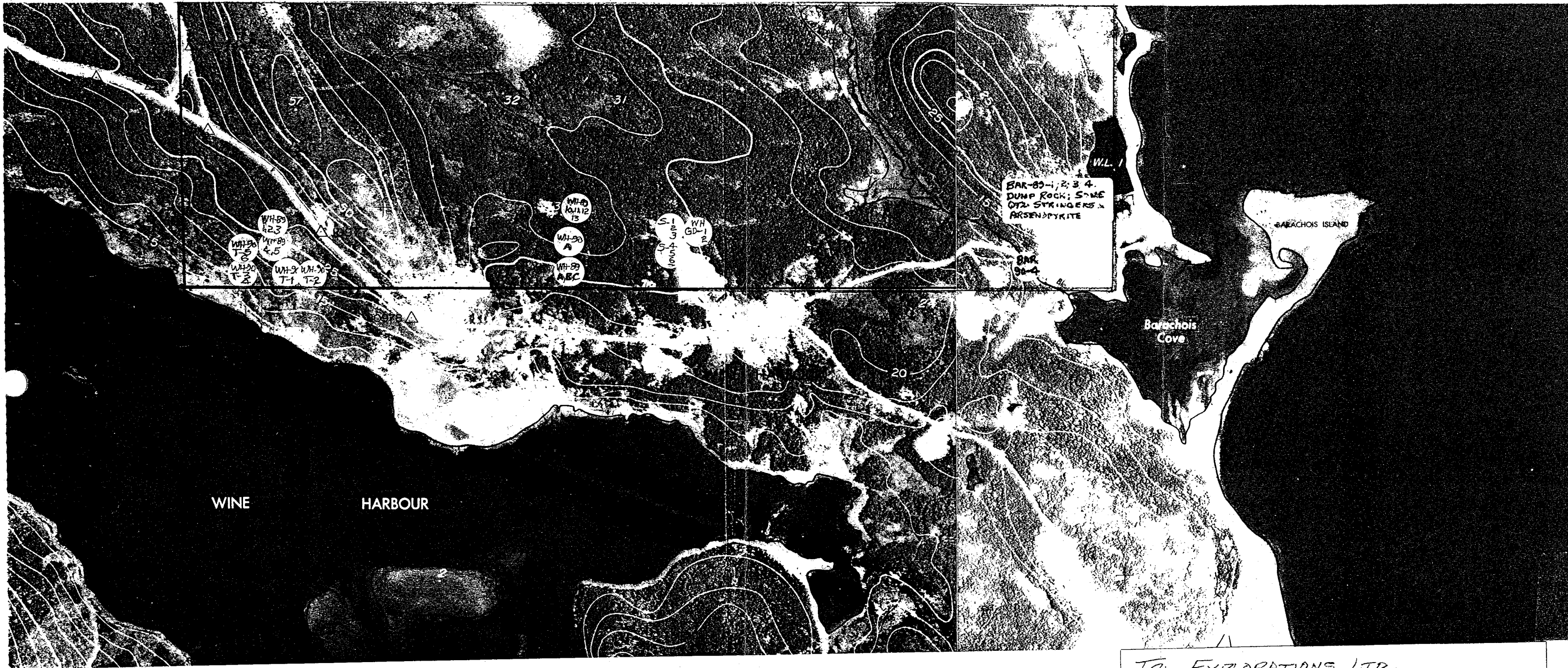
PLAN AND SECTIONS  
 WINE HARBOR GOLD DISTRICT,  
 GUYSBOROUGH CO., NOVA SCOTIA.

Scale: 250 Feet to 1 inch

NOTE  
 A new subdivision of lots and road allowances has recently been approved by the Department of Public Works and Mines, Halifax, to replace the old subdivision shown on this map. The boundaries of the new blocks are shown on this map in black, and a plan showing details of the new system of subdivision can be obtained from the Department of Public Works and Mines, Halifax.

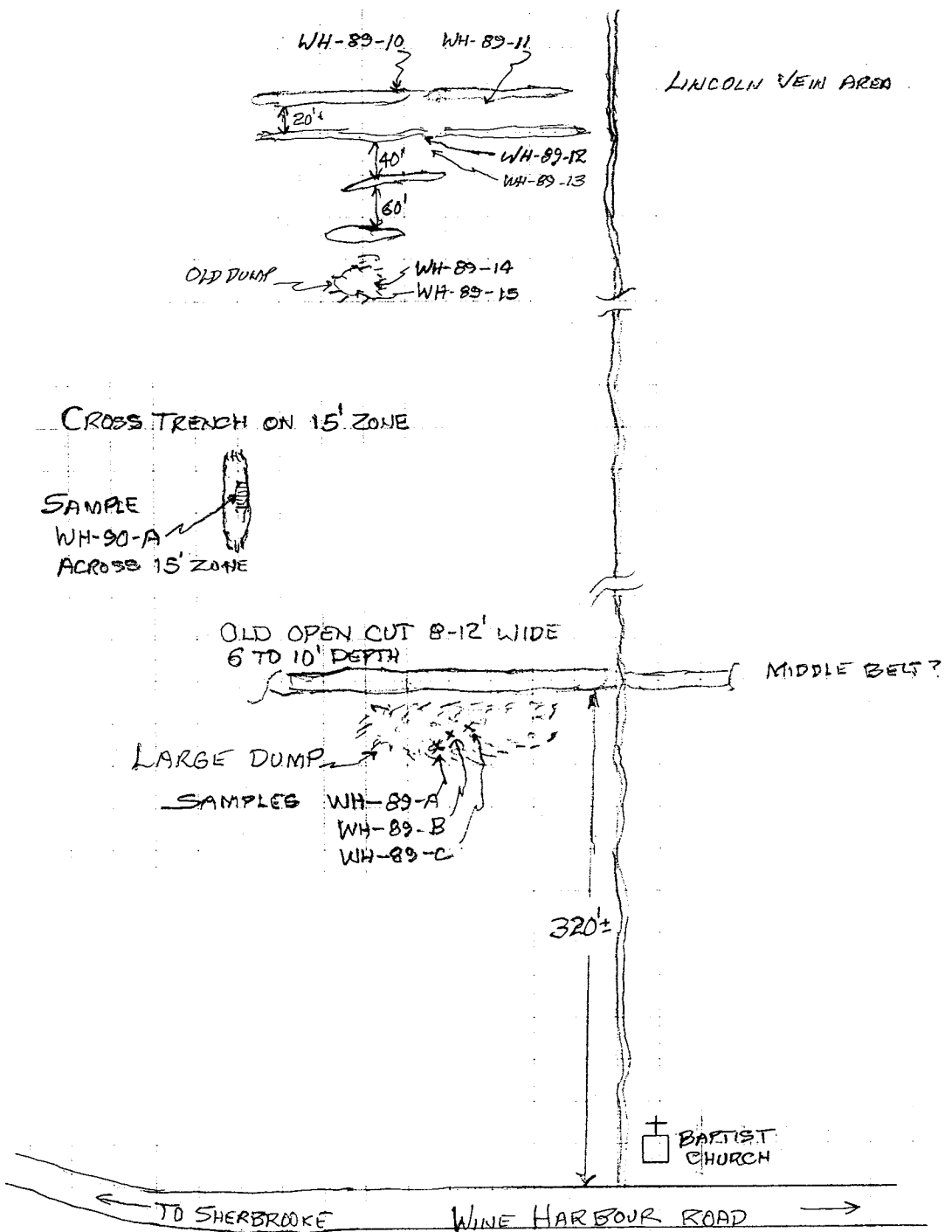






TRI - EXPLORATIONS LTD.  
 WINE HARBOUR PROPERTY  
 WINE HARBOUR, GUYSBOROUGH  
 COUNTY, N.S.

SCALE: NONE	GENERAL LOCATION OF SAMPLING
DATE: AUG. 14/90	ON ORTHOPHOTOS 11F/04-R4 & 11F/04-S3
DWG: JLS	(LRIS) SCALE 1:10,000. PLEASE SEE
FIG. 5	DETAIL SAMPLING SKETCHES FIGS 6, 7, 8, 9



(FIG. 6)

TRI-EXPLORATIONS LTD. WINE HARBOUR PROPERTY WINE HARBOUR, GUYSBOROUGH COUNTY, N.S.	
SCALE: NONE DATE: AUG. 10/91 DWG: JED	DETAIL SAMPLING SKETCH, CENTRAL PART OF PROPERTY. (WINE HBL GOLD PROPERTY)

OLD GREENGOODS PROSPECT

SOIL SAMPLES (S1 ETC) TAKEN  
WITH AN AUGER AT ABOUT 24"  
OF DEPTH. ROCK SAMPLES  
FROM OLD DUMP (GD-1 ETC)

WH-90-S1 → ⊙

WH-90-S2 → ⊙

WH-90-S3 → ⊙

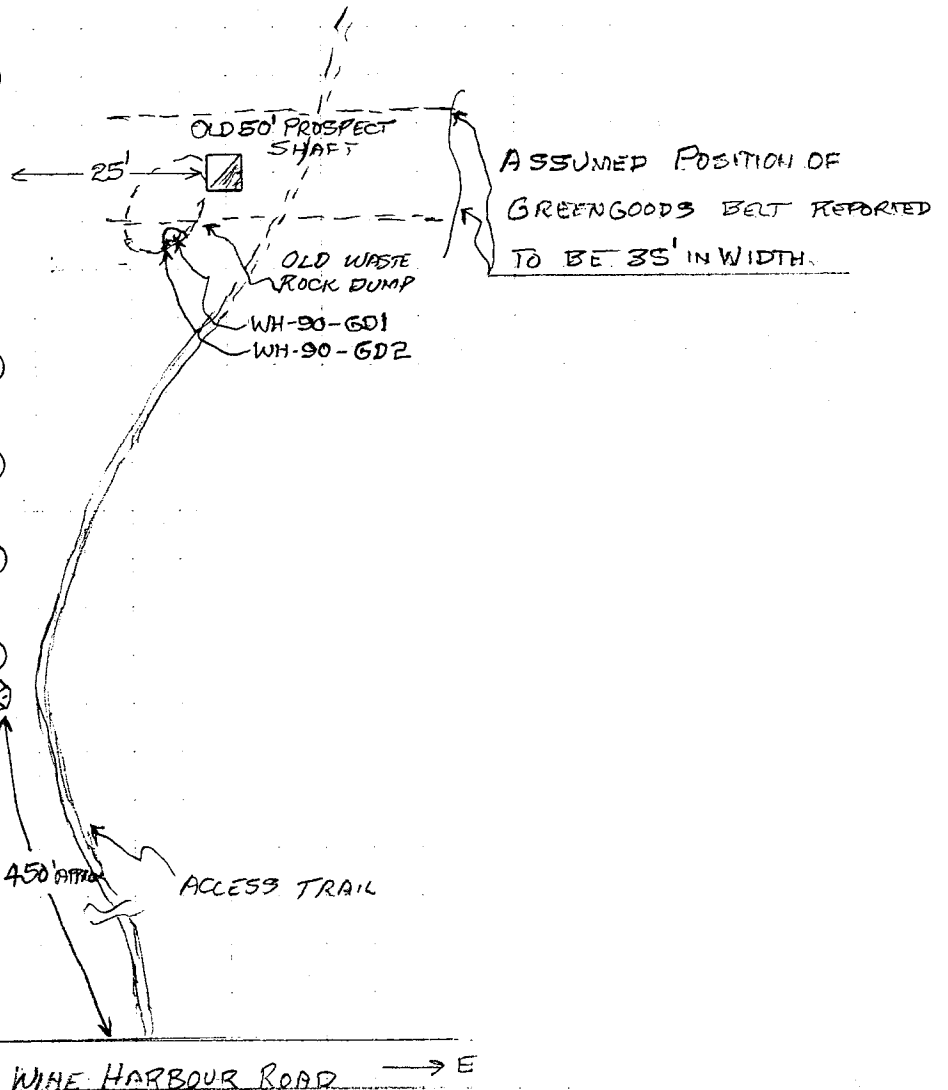
WH-90-S4 → ⊙

WH-90-S5 → ⊙

WH-90-S6 → ⊙

WH-90-S7 → ⊙

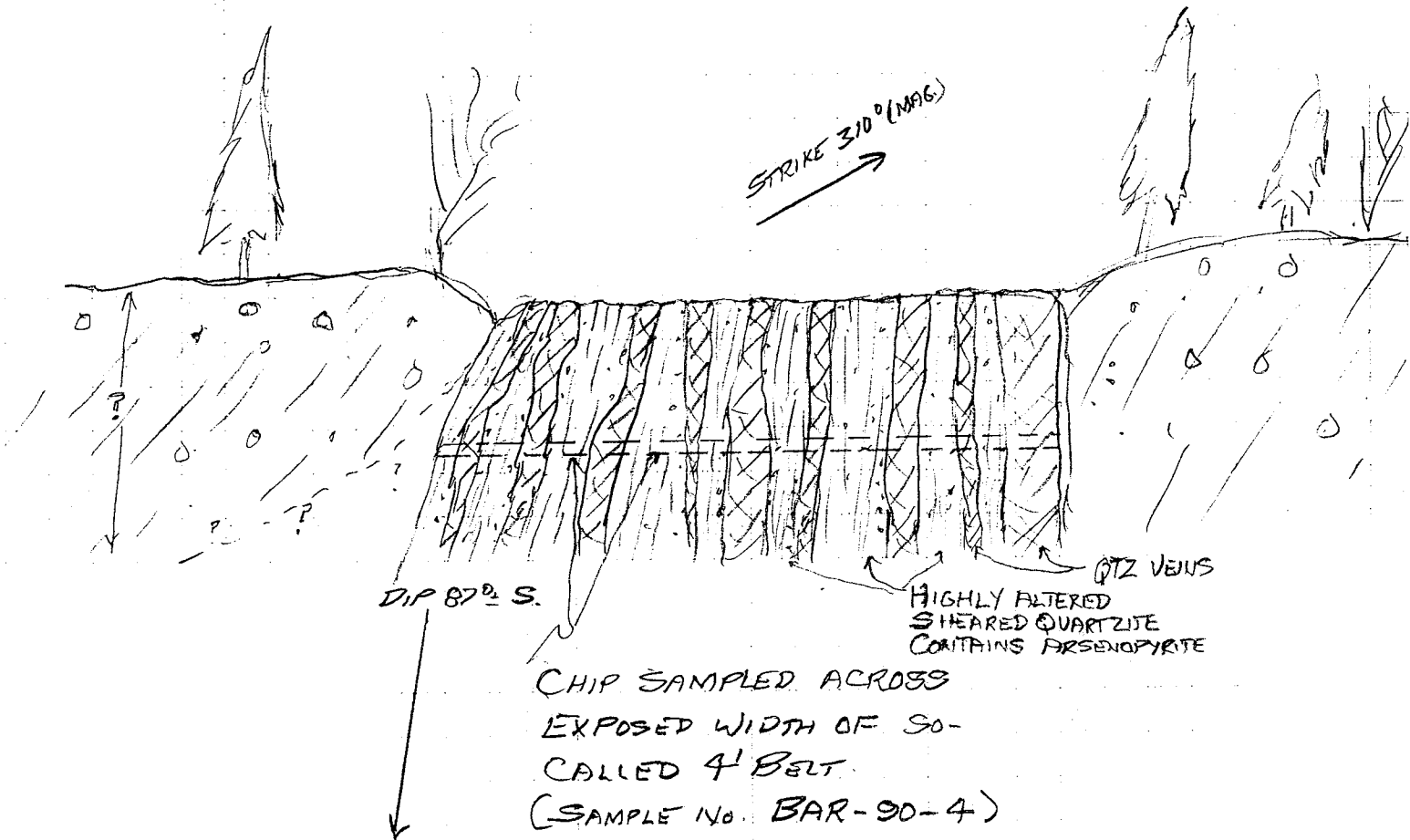
OLD PROSPECT PIT



(FIG. 7)

TRI-EXPLORATIONS LTD. WINE HARBOUR PROPERTY WINE HARBOUR, GUYSBOROUGH. COUNTY, N.S.	
SCALE: NONE DATE: AUG. 9/90 DWG: JED	DETAIL SAMPLING SKETCH OLD GREENGOODS PROSPECT AREA (WINE HARBOUR GOLD PROPERTY)

4' ± BELT ON WEST SIDE  
 OF BARACHOIS BROOK  
 APPROX. 75 YDS. SOUTH OF  
 WINE HBR. ROAD NEAR BARACHOIS  
 COVE.



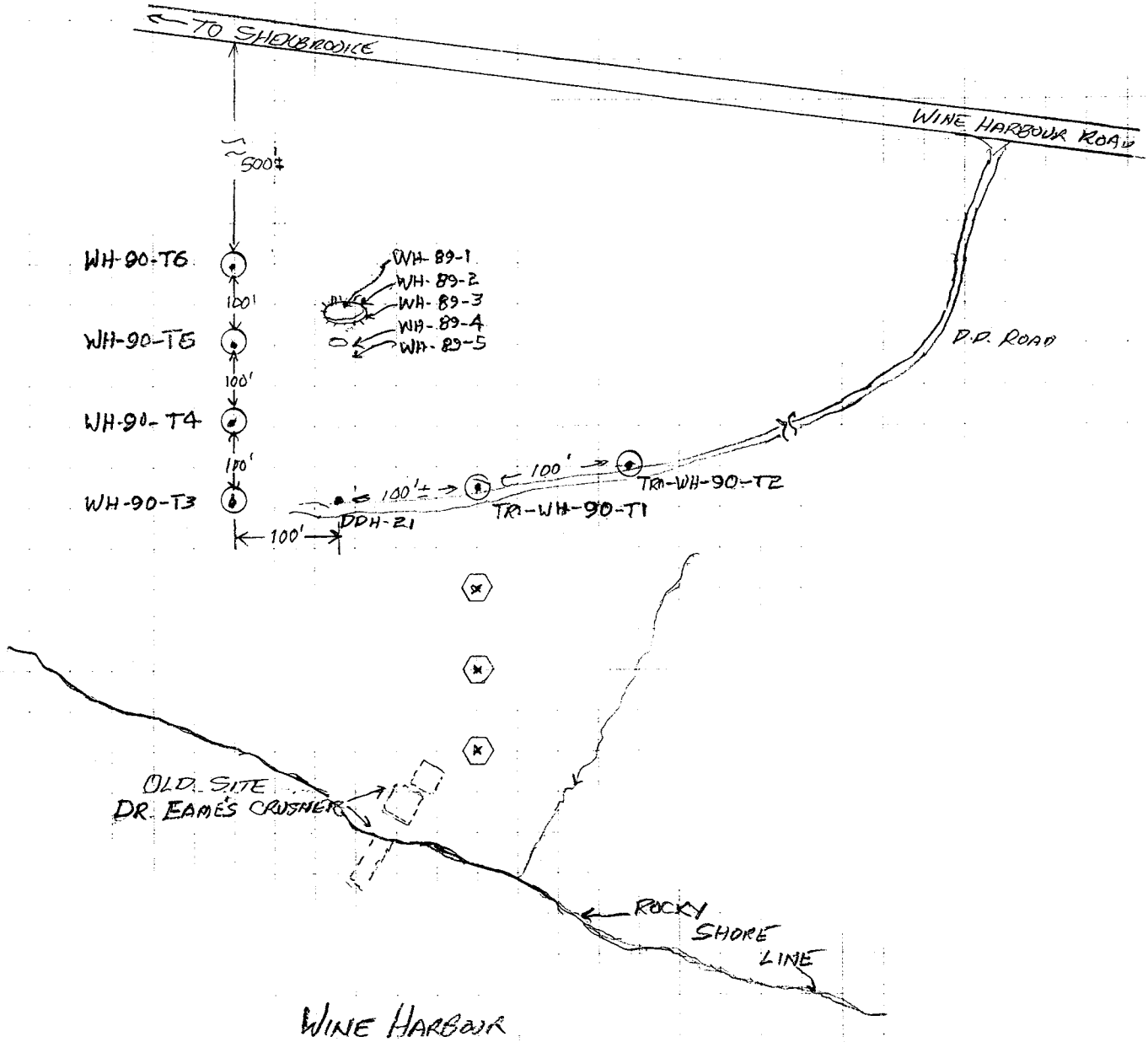
CHIP SAMPLED ACROSS  
 EXPOSED WIDTH OF SO-  
 CALLED 4' BELT.  
 (SAMPLE NO. BAR-90-4)

TRI-EXPLORATIONS LTD.  
 WINE HARBOUR PROPERTY  
 WINE HARBOUR, GUYSEBOROUGH  
 COUNTY, N.S.

SCALE: NONE	DETAIL SAMPLING SKETCH
DATE: AUG. 9/90	OF 48" ZONE CHIP
DWG: JEB	SAMPLED ACROSS ITS
	EXPOSED WIDTH IN
	BEDROCK.

(FIG. 8)

# TILL SAMPLING IN WESTERN END OF PROPERTY



WINE HARBOUR

TRI-EXPLORATIONS LTD WINE HARBOUR PROPERTY WINE HARBOUR, GUYSBOROUGH COUNTY, N.S.	
SCALE: NONE DATE: AUG 11/90 Dwg: JED.	DETAIL SAMPLING SKETCH TILL SAMPLING ON WEST END OF PROPERTY SAMPLE PITS DUG BY HAND WITH SHOVEL

(FIG. 9)


INDUSTRIAL RESEARCH AND DEVELOPMENT COMPANY LTD.

Tel (506)-634-7721  
 Fax (506)-634-1536

27 Clyde St.  
 Saint John,  
 New Brunswick, Canada  
 E2L 5A8

Samples from : Tri-Exploration Report # 65-90  
 Sample type : Core Date received : 02/20/90 P.O. #

Sample Number	Au g/t	Au g/t
WH-89-1	7.90	8.70
Ref	9.30	
WH-89-2	0.25	0.30
Blank	0.05	
WH-89-3	0.03	
WH-89-4	0.04	0.05
WH-89-5	0.29	
WH-89-A	0.08	0.11
WH-89-B	0.29	
WH-89-C	3.61	3.54
WH-90-A	0.05	0.05
Ref	9.20	
BAR-90-1(A)	0.17	
Blank	0.03	
BAR-90-2(B)	0.02	<0.01
BAR-90-3(C)	0.01	

Signature 



# Report of Work Performed

I, the undersigned, holder of/agent for, Exploration License No. 15103 issued on the 31st day of JULY 19 89, hereby report work as follows:

I have, under said License, and in conformity with the provisions of The Mineral Resources Act, performed or caused to be performed on the licensed area 315 days' work (eight-hour days) not reported before, totalling \$ 6311.00 as per the attached list of expenditures. (Rate is one day's work for each \$20.00 spent.)

Expenditures relating to office overhead, transportation, lodging, freight, express, construction of roads, erection of buildings, etc., will be accepted up to a maximum of ten percent (10%) of the required work.

The said work consisted of Literary search, review and interpretation, reconnaissance soil, till and rock sampling. Engineering report.

Attached is a geological report with applicable maps, sample results, drill logs, etc., which is submitted as evidence and initialled by me.

My Post Office address is 1149 BEDFORD HIGHWAY  
BEDFORD N.S. Tel. No. 835.5008

Dated this 31st day of JULY 19 90

Alex C. Thomson  
for J.M. Explorations Ltd.  
Signature of Licensee/Agent

I hereby make oath and say that the above statement is true and correct.

Alex C. Thomson  
Signature of Licensee/Agent

Sworn to  
at HALIFAX  
in the County of HALIFAX  
Province OF NOVA SCOTIA

AND  
JUL 31

The NAMES and ADDRESSES of the men who performed the said work and the DATES upon which each man worked in its performance are as follows:

NAME	ADDRESS	MONTH	DATES	
J.E. DAWE, P.Eng.	BEDFORD	Aug '89	4 <sup>th</sup>	
		Sept	9 <sup>th</sup>	
		June '90	26, 27	
		July	20, 21	
		Total field time 5.5 days @ 350 <sup>00</sup>		
Engineering report 4 days @ 350 <sup>00</sup>				1400
A. THOMSON	HILLIFAX	Aug '89	2, 3, 4, 7, 11, 29, 30	
		Sept.	5, 7, 9, 13, 18	
		Dec	11, 12	
		Feb '90	16	
		May	5, 21	
		June	23, 25, 26, 27	
		July	19, 20, 21, 30, 31	
Total field time - 8 days @ 150 <sup>00</sup>				1200
Total Other (LIBRARY, OFFICE, SAMPLE STORAGE etc) 6 days @ 150 <sup>00</sup>				900
ASSAYING				
TRDC - ST JOHN N.B.				196
M-Tech - ENNSDALE			Estimate	450
Overhead, office accommodation & travel				
10% of 2400 =				240
				<u>6311</u>