

OM 85-8-P-238

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GEOLOGICAL REPORT
ON THE
PROTEUS RESOURCES INC.
RUBY VALLEY PROPERTY
NORTH COBALT, ONTARIO
BY ROBERT CINITS

JAN + FEB 1982

#63.4927

OM 85-8-P-238

THIS SUBMITTAL CONSISTED OF VARIOUS REPORTS, SOME OF WHICH HAVE BEEN CULLED FROM THIS FILE. THE CULLED MATERIAL HAD BEEN PREVIOUSLY SUBMITTED UNDER THE FOLLOWING RECORD SERIES (THE DOCUMENTS CAN BE VIEWED IN THESE SERIES):

GEOPHYSICAL SURVEY OF LUNDY → SEE TORONTO OFFICE
TWP., SILVERSIDE RESOURCES INC. FILE # 2-9171, REPORT
GEORGE W. R. HILL, DECEMBER 1985 OF WORK # 56 FOR 1986

Summary

In the winter of 1986, a mineral exploration program was conducted on the Proteus Resources Inc. North Cobalt silver property in Lorrain Township, Ontario. The program lasted from January 10, 1986 until February 28, 1986 and included 12,534 feet of diamond drilling in 24 holes. The purpose was to attempt to further explore the areas in which anomalous silver and gold values were obtained from drilling on the 1985 Proteus Exploration Project, as a result of drilling during the 1960's.

The drilling concentrated on two zones, referred to as the North Zone and the South Zone. The latter proved to be more successful as a drill hole intersected a quarter of an inch pink calcite - cobalt arsenide vein which assayed 13.55 oz/ton silver over 0.3 feet. Many anomalous gold values were also returned, the best being 0.374 oz/ton over 0.9 feet. Numerous anomalous gold values also occurred in the South Zone. Several other interesting but uneconomic intersections of silver and gold were encountered in both zones.

The property is strategically located in the heart of the Cobalt Silver Camp and geological and structural information indicate that the potential for substantial quantities of silver and possibly gold do exist within the claim group.

A further exploration program to involve extending the existing grid, geophysical surveys and 10,000 feet of diamond drilling is recommended to evaluate the potential of the property.

Introduction

Proteus Resources Inc. is the present owner of a group of 15 leased and patented claims in Lorrain Township, District of Timiskaming, 4.5 km southeast of North Cobalt, Ontario. The claim block is directly south of the Silverside Resources Property. During the period of January 10, 1986 to February 28, 1986 a mineral exploration program commenced aiming at silver and gold. This involved 12,534 feet of diamond drilling.

This report describes the geology, structure, and mineralization encountered on the property, and recommendations for further exploration.

The report is based upon:

1. The records of the 1984, 1985, and 1986 exploration programmes of Proteus Resources Inc.
2. Geological reports and maps of the O.G.S. and O.D.M.
3. The records of the 1960's exploration program by Timiskaming Project Syndicate.
4. Personal communication with Geologists from Proteus Resources Inc.

Property and Location

The Proteus Resources Inc. Property is located in Lorrain Township, in the District of Temiskaming, Ontario. There is a total of 15 adjoining claims which make up 240 ha. of land. The claims are all leased except for two which are patented. The surface rights to the land are divided between G. Peckover, G.L. and L.W. Peddie, the Crown and Proteus Resources Inc. The claim numbers are as listed below and located as on Fig 2.

<u>Claim Number</u>	<u>Area (ha.)</u>
Patented Claim: SE/4 of NE/4 N/2 Lot 1 Con.12	16
Patented Claim: NE/4 of SE/4 S/2 Lot 1 Con.12	16
T - 27917	16
T - 27789	16
T - 27790	16
T - 27793	16
T - 46861	16
T - 46862	16
T - 3591	16
T - 11627	16
T - 31627	16
T - 31635	16
T - 25997	16
T - 25661	16
T - 31634	16
T - 27828	16

Access and Facilities

Access to the property is made from Highway 11B in North Cobalt at which point one travels approximately 2.5 km southeast on Highway 567 until a gravel service road is reached. This leads to the Silverside Resources ramp and the Proteus Property. Travelling south on the road one comes to the Proteus core shack at approximately 2.2 km. The property boundary is located 0.7 km further south along the road. (see Figs. 1 & 2)

Many rough drill roads run across the property making easy access to all areas by foot or Ski-doo in the winter.

A creek traverses much of the claim group, supplying adequate water for diamond drilling in both the summer and winter months.

Should further development of the property be required, it is closely located to roads and towns (Cobalt, Haileybury, New Liskeard) with available mine supplies and milling services.

Topography and Physiography

The property displays a wide variety of topography and surface conditions. Much of the north portion has moderate relief with poplar as the dominant vegetation. Overburden, in this area, ranged from 0 to 49 feet with the deepest values occurring in the vicinity of the N-S trending fault. A southeast trending creek traverses the middle of the property. This is surrounded by areas of open field and swamp to the south.

The south portion of the property is characterized by swampy ground with thick poplar and birch vegetation. An abrupt northwest trending ridge covers most of the extreme south and southwest of the claims. Overburden ranges from zero along the ridge thickening to over 120 feet in the swamp.

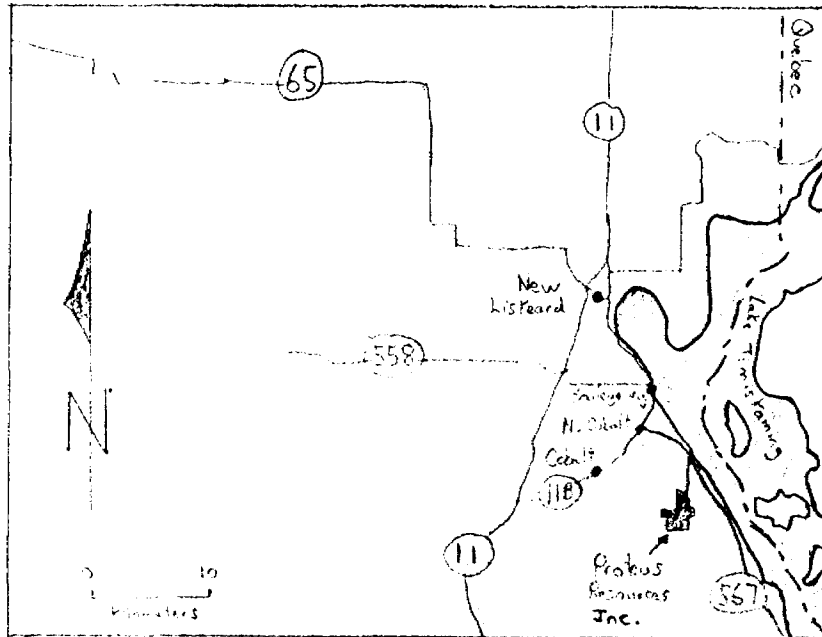
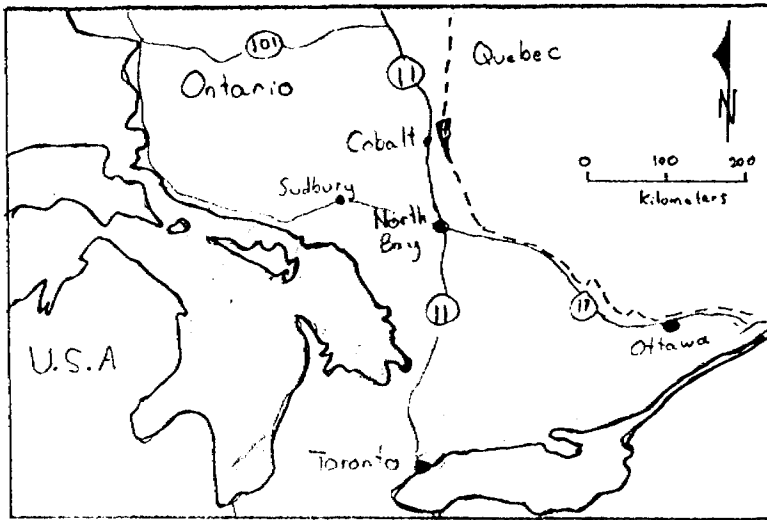
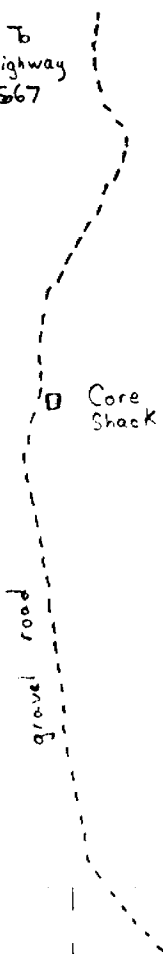


Fig. 1, Location Map

To
highway
567



Core
Shack

Coleman Twp
Loran Twp

Patented Claim
SE/4 of NE/4
N/2 Lot 1
CON 12

Patented Claim
NE/4 of SE/4
S/2 Lot 1
CON 12

T-27917

T-27790

T-27789

T-27818

T-25727

T-3591

T-27793

T-25661

T-41627

T-46861

T-31634

T-31635

T-46862



PROTEUS RESOURCES INC

Claim Location Map

Scale 1" = 1000'

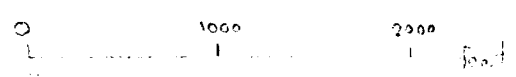


Fig. 2

Regional Geology

The best descriptions of the geology, mineralogy, and ore deposits of the Cobalt Silver Camp can be found in publications by the O.D.M and O.G.S (Knight 1922, Thompson 1960, and O.D.M Map 2050).

The Cobalt area consists of three main rock types: Keewatin Volcanics, Huronian Sediments, and Nipissing Diabase. Historically silver has been found in all three, occurring as short veins which pinch and swell from a few tenths of an inch to over a foot.

The oldest rocks are the Keewatin greenstones and interflow sediments. These are steeply dipping with a general east-west trend. Rock type varies a great deal throughout the region from basalt to rhyolite as flows and pyroclastic units.

The volcanics are unconformably overlain by relatively flat lying Cobalt Series Sediments. These consist of conglomerate, greywacke, quartzite and argillite. Deformation within these units is quite minimal.

Both the volcanics and Sediments are cut by the Keeweenawan aged Nipissing Diabase Sill. This is somewhat flat lying, but creates several arches and basins as it slices through the other rock types.

Extensive faulting characterizes the region with a series of northwest trending faults dominating. These are the Lake Temiskaming Fault, the McKenzie Fault, and the Cross Lake Fault. Locally many other smaller faults of various orientations are present.

Property Geology

The Proteus Property contains outcroppings of the three main rock types common to the area. Diabase outcrops along the extreme west, north and southeast borders of the claim group and dips to create a northeast trending basin in the center of the property. This is overlain by Keewatin Volcanics, which in turn is unconformably overlain by Cobalt Sediments. Therefore, for exploration purposes, the Proteus property is primarily concerned with an "Upper Contact" geology.

The volcanics only outcrop along the ridge on southwest corner of the property. Their lithology varies a great deal from the north of the property to the south. In the north they consist mainly of steeply dipping units of rhyolite to porphyritic rhyolite with local variations in colour from black to grey to red. These units tend to grade into each other with no distinct contact. The heavily porphyritic units contain mainly phenocrysts of subhedral to euhedral quartz and feldspar. Locally, the volcanics are moderately to intensely fractured and brecciated, primarily in the vicinity of faults. Lamprophyre, diabase, and other mafic dikes occur as small swarms and individual dikes ranging from several inches to over 10 feet in width.

The south zone on the other hand includes rhyolite to porphyritic rhyolite which is intercalated with bands of intermediate flow breccia. These bands range from two or three feet to about 80 feet in width and tend to be very irregular and discontinuous. In places they are very pyrite rich containing up to 20% fine disseminated pyrite as narrow stringers and irregular bands. The flow breccia bands have a general northwest trend. Fragments within the breccia are primarily rhyolitic set in a fine grained mafic to intermediate groundmass. The rhyolite and porphyritic rhyolites are similar in composition to those in the north, however in places they grade to a slightly more mafic andesitic composition. A large mass of intermediate feldspar porphyry also exists in the south, but it is uncertain whether it is a variation of the above units or due to a latter event and intruded into the volcanics. As in the north, lamprophyre, diabase and other mafic dikes are very common in the south. Alteration within the volcanics generally includes carbonatization, chloritization, silicification and potassic alteration which all increase in intensity near faulted and brecciated zones.

The Cobalt Sediments outcrop over much of the northeast and extreme south west portions of the property, Most of the Sediments are of the Coleman Formation which includes conglomerate, greywacke, pebbly-wacke, argillite, siltstone, and arkose. Drill hole data from the North Zone indicated a general grain size increase with depth from banded argillite and siltstone to greywacke and conglomerate. All beds are close to horizontal and relatively unformed. A small outcrop of quartzite from the Lorrain Formation occurs on the extreme east and southwest borders of the claim group. The Cobalt Sediments thicken dramatically in the North Zone as one moves east where values well over 250' were encountered. Alteration in the Sediments includes carbonitization and chloritization with minor polassic alteration.

Geological Sequence

CENOZOIC - RECENT AND PLEISTOCENE - bedded clay, sand, gravel, till. Great Unconformity.

PRECAMBRIAN - PROTEROZOIC - KEWEENAWAN - olivine diabase and quartz diabase dikes - Intrusive contact - Nipissing diabase sill - HURONIAN - COBALT GROUP - Lorrian Formation - arkose, quartzite - Colman Formation - conglomerate, greywacke, pebbly-wacke, Great Unconformity.

ARCHEAN - POST - ALGOMAN - lampropyre dikes - Intrusive Contact - ALGOMAN - Granite, Felsite dikes - Intrusive Contact.

PRE-ALGOMAN - Lampropyre and other basic intrusive rocks, andesite and diorite (dikes and sill).

KEEWATIN - andesite, tuff, andesite breccia, rhyolite, rhyolite tuff, rhyolite breccia, quartz-feldspar porphyry dikes, basic intrusive rocks.

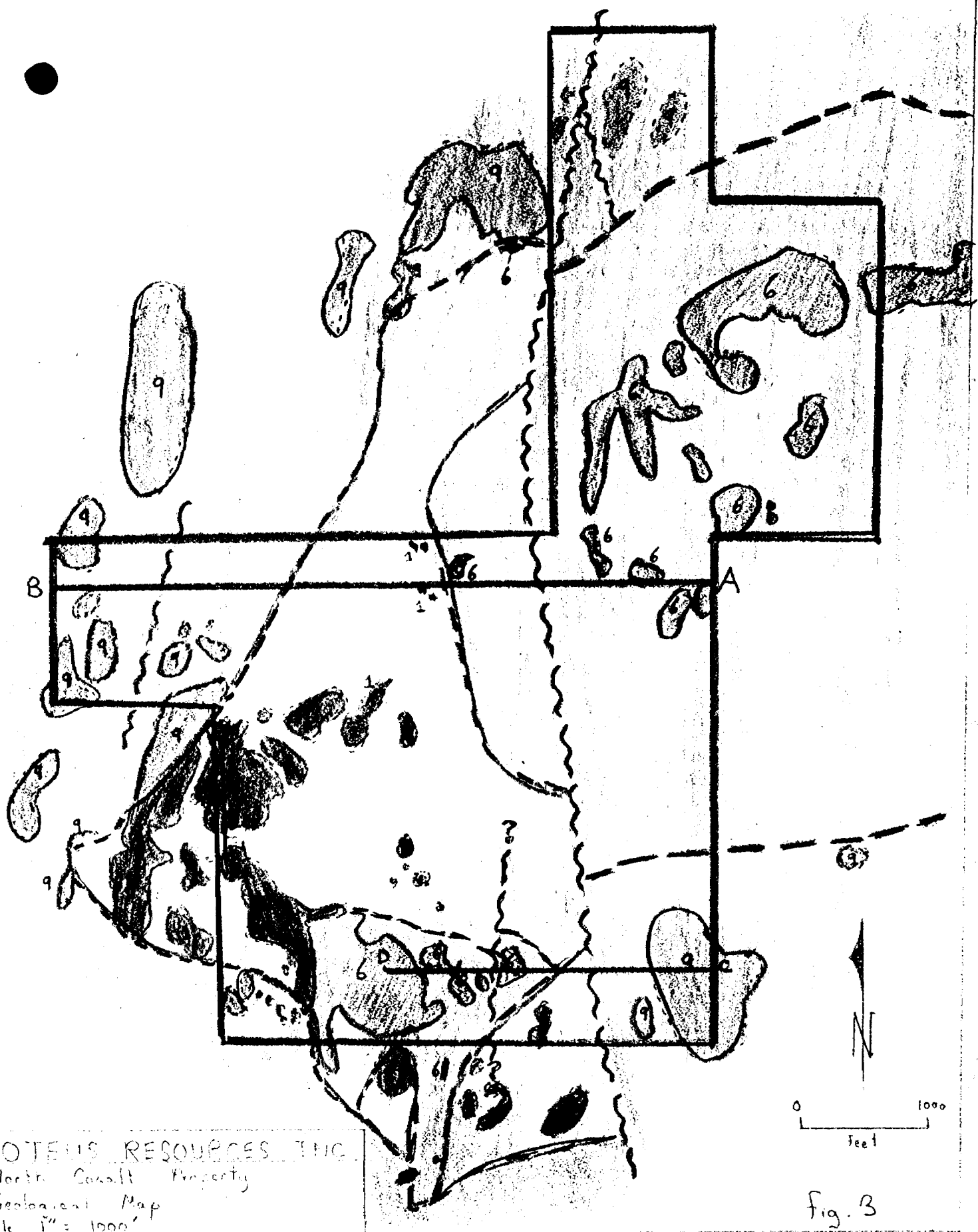
The Diabase Sill was intersected in many of the 1985 drill holes in the North Zone indicating its depth to be about 600 feet. The drilling in the South Zone did not intersect the Diabase, however similar depths of slightly less can probably be expected.

Structural Geology

A large north trending fault has been identified by geological field mapping and diamond drill hole data. The fault traverses much of the property and at depth occurs as an intensely brecciated and fractured zone cemented with white calcite.

Another northeast trending fault has been intersected by drill holes in the South Zone, however further work is needed to find its extent.

Locally many small sheared and brecciated zones have been identified from drilling, but their orientations have yet to be determined.



PROTEUS RESOURCES, INC.
 North Coast Property
 Geological Map
 Scale 1" = 1000'

LEGEND

Mississippian
 Cambrian
 Devonian

○ outcrop
 - - - - - group boundary
 ~~~~~ fault

— group boundary  
 B — A — cross section line

Fig. 3

## History

The Proteus Resources Inc. property is located within the Cobalt Silver Camp, directly south of the recent Silverside Resources Inc. discovery. Since the early 1900's the Cobalt area has produced over 750,000,000 ounces of silver, making it one of the richest silver producing areas in the world.

The property and its near vicinity have been explored since the early 1900's. The surface is dotted with small exploration pits and trenches indicating many uneconomic but interesting veins.

The first documented exploration on the Proteus claim group occurred in the 1960's by the Timiskaming Project Syndicate. They performed a geophysical survey which showed several anomalies across the property. Many of these were drilled and returned, very encouraging results ranging from 1.00 oz/ton Ag to 19.79 oz/ton Ag in all three main rock types. They drilled a total of 22 holes, most being in the north portion of the property. No further work was done by this company.

In 1979 Teck Explorations Ltd. optioned claims T-31635, T-46861, and T-46862 and performed EM-15, VLF, and Magnetometer surveys. Minor anomalies were detected, but nothing substantial was indicated after mapping and surface sampling were completed. The claims were allowed to lapse.

In September 1984, Proteus Resources Inc. started an exploration program on the claim group. Two grids were cut: one in the north on claims T-27828, T-25997, T-3591, and T-31635 and T-46862. The property was then mapped and sampled. In August of 1985 they started a diamond drilling program in hopes of reproducing and improving results obtained by the Temiskaming Project Syndicate in the 1960's. A total of 9,261 feet was drilled in 15 holes, 11 on the north grid and 4 on the south grid. Unfortunately, few significant results were obtained in the areas where the earlier drilling had its success. However several anomalous silver and gold results in the North Zone warranted further exploration. Most notable were values of 2.00 oz/ton Ag (sludge) over 10 feet and 0.142 oz/ton Au over 0.8' both in hole P-85-15. They also drilled 4 holes in the south previously unexplored by diamond drilling. Several zones of NW trending pyrite rich flow breccia bands were intersected that carried amounts of silver and gold. Several gold values ran in the 0.30 to .036 oz/ton to 0.044 oz/ton range. Once again further exploration was warranted.

### Current Exploration

In January 1986, Proteus Resources Inc. started a winter diamond drilling project to follow up on results from the 1985 drilling. From January 10, 1986 to February 28, 1986 a total of 24 holes were drilled by three units (core size B.Q.) amounting to 12,534 feet. All samples sent in for assay were tested for gold and silver and sludge samples were collected every 10 feet and tested for silver. Once again the project was divided between the North and South Zones with an emphasis placed upon the south.

### The South Zone

A total of 8505 feet in 17 holes were drilled. The bands of intercalated flow breccia and rhyolite were further outlined, and several pyrite rich bands were intersected returning many gold values in the range of 0.03 oz/ton to 0.08 oz/ton. The best gold intersection occurred in hole P-86-23 where a pyrite seam assayed 0.374 oz/ton Au over a true width of 0.3 feet.

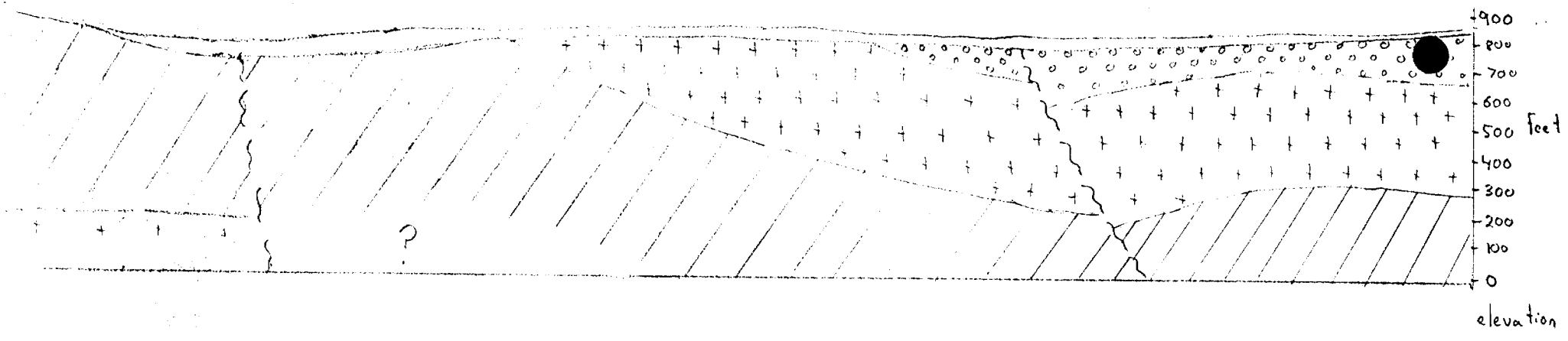
The best silver value was obtained from hole P-86-13 which intersected a 1/4" pink calcite vein with 70% cobalt arsenides. This vein assayed 13.55 oz/ton Ag over 0.3 feet. Many other uneconomic but interesting silver values were intersected in both the rhyolite and flow breccia. (see appendix for further assay results)

### North Zone

This area was secondary to the South Zone, as a result only 4029 feet in 7 holes were drilled. Once again anomalous silver and gold values were obtained, in both the Sediments and the Volcanics. The best results were 2.04 oz/ton Ag in hole P-86-3.

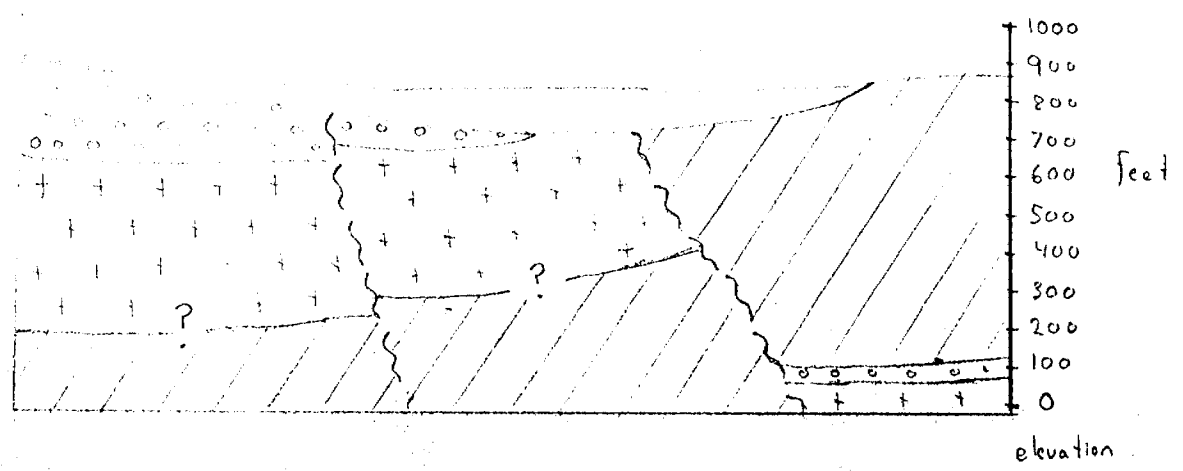
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A

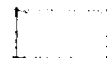
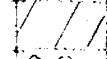
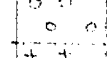
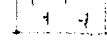



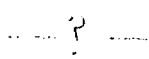
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Legend

-  Overburden
-  Nipissing Diabase
-  Cobalt Sediments
-  Keewatin Volcanics

-  fault
-  ? inferred contact

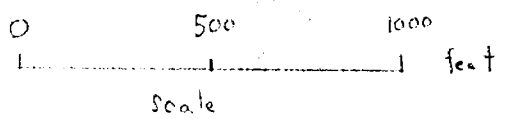


Fig. 4  
Geological Cross Sections

## Economic Geology

### Silver

Most of the exploration in the Cobalt Camp has concentrated on silver, and this would have to be considered the primary target on the Proteus Property. Most of the claims are located over a diabase basin which in the past has been suitable for silver mineralization. Also several faults are present which may be a controlling factor in the deposition of some ore deposits in the area. Another encouraging feature of the property is the zone of pyrite rich flow breccia in the south, which may have acted as a conduit for silver bearing fluids to have permeated into nearby host rocks. The fact that a pink calcite vein assaying 13.55 oz/ton Ag was intersected here, supports this theory. Other less significant silver values occurred in the pyrite rich breccia, and in small pink and white calcite and quartz veins in the rhyolite. Associated mineralogy includes pyrite, chalcopyrite, galena, specular hematite and magnetite. The North Zone has not yet intersected any flow breccia and therefore its silver values came primarily in the small isolated veins as mentioned above in both the Sedimentary and Volcanic units. Initial inspection may indicate some type of mineralized splay coming out of the north trending fault at about 150°.

### Gold

Although gold is a secondary target to silver, it should not be overlooked since many very significant values have been intersected. Most have been associated with low silver values in the pyrite rich flow breccia. The best results are in irregular stringers and bands of fine disseminated pyrite 1/8" to 1" wide. These appear to be subparallel to the northwest trend of the breccia. Values of 0.03 oz/ton Au to 0.085 oz/ton Au are common, and range as high as 0.374 oz/ton Au. Background gold is relatively high, especially in the flow breccia where it seemed to range from 10 to 80 ppb Au. The rhyolite was also host to some of the significant gold values in both the South and the North Zones. No significant gold values have been returned from the Cobalt Sediments.



### Conclusion and Recommendations

From the data collected during the 1985 and 1986 exploration programme, the following conclusions may be drawn:

1. The Proteus Resources Inc. North Cobalt Property is located in an excellent environment for silver mineralization due to its close proximity to many past and present silver producers.
2. The property is located over a diabase basin which is favourable for silver mineralization.
3. There is at least one fault running across the property which in the past has been known to be a controlling feature in localizing ore bodies.
4. There exists a zone of pyrite rich flow breccia on the property which may have acted as a conduit for silver bearing mineralization.
5. Results of the 1985 and 1986 drilling programmes indicate significant silver and gold values do occur on the property.
6. The South Zone of the property should be considered the primary target for exploration.

Drill Hole Location and Footage

South Grid

| DDH     | Location                 | Az           | Dip          | Date Started<br>Date Finished | Depth<br>(Feet) |
|---------|--------------------------|--------------|--------------|-------------------------------|-----------------|
| P-86-1  | South Grid<br>1078W-287S | 048°         | -50°         | Jan 29/86<br>Feb 1/86         | 655             |
| P-86-2  | South Grid<br>500W-269S  | 048°         | -50°         | Jan 19/86<br>Jan 27/86        | 462             |
| P-86-5  | South Grid<br>161E-190S  | 308.05°      | -45°         | Jan 22/86<br>Jan 30/86        | 449             |
| P-86-6  | South Grid<br>99E-269S   | 309°         | -50°         | Jan 31/86<br>Feb 7/86         | 500             |
| P-86-12 | South Grid<br>523W-418S  | 048°         | -50°         | Feb 17/86<br>Feb 20/86        | 508             |
| P-86-13 | South Grid<br>490W-455S  | 048°         | -50°         | Feb 11/86<br>Feb 14/86        | 506             |
| P-86-14 | South Grid<br>645W-520S  | 048°         | -50°         | Feb 15/86<br>Feb 16/86        | 232             |
| P-86-15 | South Grid<br>115W-550S  | 360°         | -50°         | Feb 8/86<br>Feb 11/86         | 506             |
| P-86-16 | South Grid<br>965W-365N  | 090°         | -50°         | Feb 1/86<br>Feb 7/86          | 517             |
| P-86-17 | South Grid<br>940W-30N   | 048°<br>048° | -50°<br>-50° | Feb 8/86<br>Feb 10/86         | 501             |
| P-86-18 | South Grid<br>888W-331S  | 048°         | -50°         | Feb 11/86<br>Feb 13/86        | 505             |

| DDH     | Location                | Az   | Dip  | Date Started<br>Date Finished | Depth<br>(Feet) |
|---------|-------------------------|------|------|-------------------------------|-----------------|
| P-86-19 | South Grid<br>920W-3S   | 173° | -50° | Feb 13/86<br>Feb 15/86        | 503             |
| P-86-20 | South Grid<br>683W-332S | 048° | -50° | Feb 15/86<br>Feb 18/86        | 507             |
| P-86-21 | South Grid<br>185W-543S | 356° | -50° | Feb 18/86<br>Feb 20/86        | 515             |
| P-86-22 | South Grid<br>029W-503S | 325° | -50° | Feb 21/86<br>Feb 23/86        | 545             |
| P-86-23 | South Grid<br>105W-520S | 325° | -50° | Feb 21/86<br>Feb 25/86        | 527             |
| P-86-24 | South Grid<br>590W-240S | 090° | -50° | Feb 25/86<br>Feb 28/86        | 567             |

NORTH GRID

| DDH     | Location                | Az   | Dip  | Date Started<br>Date Finished | Depth<br>(Feet) |
|---------|-------------------------|------|------|-------------------------------|-----------------|
| P-86-3  | North Grid<br>130E-096S | 027° | -50° | Jan 14/86<br>Jan 17/86        | 527'            |
| P-86-4  | North Grid<br>209E-188N | 022° | -50° | Jan 10/86<br>Jan 17/86        | 394'            |
| P-86-7  | North Grid<br>170E-470S | 271° | -50° | Jan 18/86<br>Jan 27/86        | 798'            |
| P-86-8  | North Grid<br>170E-670S | 270° | -50° | Feb 4/86<br>Feb 9/86          | 657             |
| P-86-9  | North Grid<br>400E-770S | 270° | -50° | Feb 9/86<br>Feb 11/86         | 501             |
| P-86-10 | North Grid<br>190E-161S | 025° | -50° | Feb 17/86<br>Feb 20/86        | 600             |
| P-86-11 | North Grid<br>10E-40N   | 025° | -45° | Feb 12/86<br>Feb 16/86        | 552             |
|         |                         |      |      | Total Footage                 | 12534           |

1986 Proteus Assay Values for Core and Sludge  
 (Note: Ag > .25 oz/ton - Au > 300 ppb)

North Grid

| DDH     | Sample Type | Footage |          | Interval | Assay Value |        |
|---------|-------------|---------|----------|----------|-------------|--------|
|         |             | From    | To       |          | Ag oz/ton   | Au/ppb |
| P-86-3  | Core        | 127'    | 127' 10" | 10"      | 2.04        |        |
| "       | "           | 423'    | 423' 2"  | 2"       | 0.30        |        |
| "       | "           | 447' 5" | 448' 1"  | 7"       | 0.68        |        |
| "       | "           | 448'    | 448' 1"  | 1"       | 0.29        |        |
| "       | "           | 464'    | 464' 7"  | 7"       | 0.88        |        |
| "       | Sludge      | 27'     | 37'      | 10'      | 0.25        |        |
| "       | "           | 47'     | 57'      | 10'      | 0.25        |        |
| "       | "           | 57'     | 67'      | 10'      | 0.42        |        |
| P-86-4  | Sludge      | 10      | 20       | 10'      | 0.79        |        |
| "       | "           | 37      | 47       | 10'      | 0.35        |        |
| "       | "           | 227     | 237      | 10'      | 1.40        |        |
| P-86-7  | Core        | 263     | 264      | 1.0'     |             | 317    |
| "       | "           | 277     | 279      | 2.0'     |             | 470    |
| "       | "           | 309.1   | 311      | 1.9'     |             | 890    |
| P-86-8  | Core        | 222.4   | 222.9    | 0.5'     |             | 1273   |
| P-86-9  | Core        | 248.5   | 249.2    | 0.7'     |             | 700    |
| "       | "           | 293.6   | 294      | 0.4'     |             | 890    |
| "       | "           | 364.1   | 365      | 0.9'     |             | 343    |
| "       | Sludge      | 257     | 267      | 10'      | 0.61        |        |
| "       | "           | 377     | 387      | 10'      | 0.29        |        |
| P-86-11 | Core        | 297.4   | 297.7    | 0.3'     |             | 710    |
| P-86-10 | Core        | 401.7   | 402.9    | 1.2'     |             | 925    |

South Grid

| DDH     | Sample Type | Footage |       | Interval | Assay Value |                 |
|---------|-------------|---------|-------|----------|-------------|-----------------|
|         |             | From    | To    |          | Ag oz/ton   | Au/             |
| P-86-1  | Core        | 85      | 85.3  | 0.3'     |             | 630             |
| P-86-5  | Core        | 223.1   | 224.1 | 1.0'     |             | 485             |
| "       | "           | 224.1   | 224.8 | 0.7'     |             | 448             |
| P-86-6  | Core        | 395     | 396   | 1.0'     |             | 600             |
| P-86-12 | Core        | 419.7   | 420.7 | 1.0'     |             | 450             |
| "       | "           | 427     | 428   | 1.0'     |             | 0.044<br>oz/ton |
| P-86-13 | Core        | 281     | 281.3 | 0.3'     |             | 925             |
| "       | "           | 387.7   | 388.7 | 1.0'     |             | 496             |
| "       | "           | 389.2   | 389.5 | 0.3'     | 0.40        |                 |
| "       | "           | 389.5   | 389.8 | 0.3'     | 0.42        |                 |
| "       | "           | 389.8   | 390.8 | 1.0'     |             | 361             |
| "       | "           | 391.8   | 392.8 | 1.0'     |             | 409             |
| "       | "           | 392.8   | 393.8 | 1.0'     | 0.24        | 1019            |
| "       | "           | 393.8   | 394.6 | 0.8'     |             | 330             |
| "       | "           | 394.6   | 395   | 0.4'     | 0.38        | 0.042<br>oz/ton |
| "       | "           | 413.7   | 415.7 | 2.0'     |             | 0.032<br>oz/ton |
| "       | "           | 451.9   | 450.2 | 0.3'     |             | 470             |
| "       | "           | 492.7   | 493.7 | 1.0'     | 2.83        |                 |
| "       | "           | 493.7   | 494   | 0.3'     | 13.55       |                 |
| "       | "           | 494     | 495   | 1.0'     | 1.70        |                 |
| P-86-15 | Core        | 368.5   | 369.5 | 1.0'     |             | 331             |
| "       | "           | 400.8   | 401.8 | 1.0'     | 0.23        | 641             |
| "       | "           | 406.6   | 407   | 0.4'     | 0.26        |                 |

| DDH     | Sample Type | Footage |       | Interval | Assay Value |                 |
|---------|-------------|---------|-------|----------|-------------|-----------------|
|         |             | From    | To    |          | Ag oz/ton   | Au/ppb          |
| P-86-16 | Core        | 143.8   | 144.4 | 0.6'     | 1.15        |                 |
| "       | "           | 145     | 145.4 | 0.4'     | 0.44        |                 |
| "       | "           | 192.7   | 193.7 | 1.0'     | 0.28        |                 |
| "       | "           | 234     | 234.6 | 0.6'     | 0.34        |                 |
| "       | "           | 260     | 260.4 | 0.4'     | 0.24        |                 |
| "       | "           | 404.2   | 405   | 0.8'     |             | 0.058<br>oz/ton |
| "       | "           | 449.6   | 449.8 | 0.2'     |             | 342             |
| "       | "           | 447.3   | 478.1 | 0.8'     |             | 365             |
| "       | Sludge      | 145     | 155   | 10'      | 0.35        |                 |
| P-86-17 | Sludge      | 45      | 55    | 10'      | 0.34        |                 |
| P-86-18 | Core        | 65      | 65.4  | 0.4'     | 0.33        |                 |
| "       | "           | 195.6   | 196.1 | 0.5'     |             | 892             |
| "       | "           | 220.2   | 220.8 | 0.6'     | 0.51        |                 |
| "       | "           | 369.6   | 369.9 | 0.3'     | 0.79        |                 |
| "       | "           | 369.9   | 370.1 | 0.2'     | 0.28        |                 |
| "       | "           | 425.3   | 425.5 | 0.2'     |             | 418             |
| P-86-19 | Core        | 83.6    | 83.8  | 0.2'     |             | 300<br>ppb      |
| "       | "           | 245.9   | 246.1 | 0.2'     |             | 935             |
| "       | "           | 360.7   | 361.5 | 0.8'     | 0.40        |                 |
| P-86-20 | Core        | 120.8   | 121   | 0.2'     |             | 0.021<br>oz/ton |
| "       | "           | 209.7   | 210   | 0.3'     |             | 0.085<br>oz/ton |
| "       | "           | 294     | 294.2 | 0.2'     | 0.26        | 0.051<br>oz/ton |

| DDH               | Sample Type | Footage |       | Interval | Assay Value |                 |
|-------------------|-------------|---------|-------|----------|-------------|-----------------|
|                   |             | From    | To    |          | Ag oz/ton   | Au/ppb          |
| <u>South Grid</u> |             |         |       |          |             |                 |
| P-86-21           | Core        | 394.9   | 395.4 | 0.5'     |             | 342             |
| P-86-23           | Core        | 335.8   | 336.8 | 1.0'     |             | 922             |
| "                 | "           | 336.8   | 337.7 | 0.9'     | 0.54        | 0.374<br>oz/ton |
| "                 | "           | 503.7   | 504.1 | 0.4'     |             | 315             |

Total Assay Samples Taken From Each Hole

| Hole # | Number of Core Samples (Ag & Au) |          |       | Number of Sludge Samples (Ag)<br>Bell White |
|--------|----------------------------------|----------|-------|---------------------------------------------|
|        | Bell White                       | Swastika | Total |                                             |
| P-86-1 | 24                               | 12       | 36    | 64                                          |
| 2      | 13                               | 7        | 20    | 30                                          |
| 3      | 41                               | 13       | 54    | 51                                          |
| 4      | 78                               | 38       | 116   | 38 Ag, 38 Au                                |
| 5      | 13                               | 5        | 18    | 23                                          |
| 6      | 17                               | 10       | 27    | 34                                          |
| 7      | 28                               | 13       | 41    | 39                                          |
| 8      | 19                               | 10       | 29    | 56                                          |
| 9      | 17                               | 8        | 25    | 47                                          |
| 10     | 13                               | 6        | 19    | 56                                          |
| 11     | 16                               | 8        | 24    | 47                                          |
| 12     | 14                               | 7        | 21    | 43                                          |
| 13     | 20                               | 10       | 30    | 47                                          |
| 14     | 4                                | 2        | 6     | 15                                          |
| 15     | 13                               | 9        | 22    | 48                                          |



| Hole # | Number of Core Samples (Ag & Au) |          |       | Number of Sludge Samples (Ag) |
|--------|----------------------------------|----------|-------|-------------------------------|
|        | Bell White                       | Swastika | Total | Bell White                    |
| 16     | 16                               | 9        | 25    | 39                            |
| 17     | 16                               | 9        | 25    | 49                            |
| 18     | 21                               | 13       | 34    | 49                            |
| 19     | 11                               | 7        | 18    | 49                            |
| 20     | 13                               | 6        | 19    | 46                            |
| 21     | 13                               | 3        | 16    | 48                            |
| 22     | 12                               | 5        | 17    | 48                            |
| 23     | 18                               | 8        | 26    | 47                            |
| 24     | 15                               | 8        | 23    | 45                            |
| Total  | 456                              | 226      | 691   | 1096                          |

### Recommendations

It is recommended from the previous conclusions that a further exploration program be carried out on the Proteus Resources Inc. North Cobalt Property, to investigate previously encountered mineralized areas. This should include:

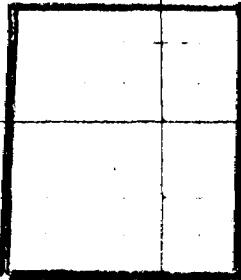
- 1) Extending the existing grid to include claims: T-11627, T-46861, The grid should be cut with 200 foot line spacings and 25 foot picket intervals.
- 2) Performing geophysics survey over the existing and new grids. The surveys should include:
  - i) I.P. survey to delineate mineralized veins. This should be ran over 7 north-south oriented lines 1400 feet long and 200 feet apart (see fig 5). Readings should be taken every 50 feet.
  - ii) V.L.F. - E.M. survey to delineate faults fractures and conductive mineralized zones over the property. The area should include all existing and new grids using a north-south orientation. Line spacing should be 200 feet with reading intervals at 50 feet.
- 3) An additional 10,000 feet of diamond drilling once the above has been completed and target areas delineated.

### Costs

Grid: 31,300 line feet = 5.9 line miles

VLF Survey: 8 claims  
69,160 line feet = 13.1 line miles  
1383 stations

IP Survey: 9800 line feet = 1.85 line miles  
= 196 stations

|         |         |                                                                                      |                |
|---------|---------|--------------------------------------------------------------------------------------|----------------|
|         |         |                                                                                      | Patented Claim |
|         |         |                                                                                      | Patented Claim |
|         |         |                                                                                      | T-27917        |
|         |         |                                                                                      | T-27790        |
|         |         |                                                                                      | T-27789        |
| T-27828 | T-25417 | T-3591                                                                               | T-27793        |
|         | T-25661 | T-11627                                                                              | T-46861        |
|         |         |  |                |
|         | T-31634 |                                                                                      |                |
|         |         | T-31635                                                                              | T-46862        |

PROTEUS RESOURCES INC  
 North Carolina  
 Existing & Proposed Grids

|                                     |                                        |                     |
|-------------------------------------|----------------------------------------|---------------------|
| <input type="checkbox"/>            | Use of the claims                      | Scale<br>1" = 1000' |
| <input type="checkbox"/>            | Existing grid                          |                     |
| <input type="checkbox"/>            | Proposed grid                          |                     |
| <input checked="" type="checkbox"/> | Proposed U.S. Survey grid              |                     |
| <input type="checkbox"/>            | Proposed Universal Transverse Mercator |                     |

All holes were drilled by N. Morissette Diamond Drilling Ltd, Using BQ (1 7/16 inch diameter) recovery of core. The holes were drilled in the following claims.

|         |         |
|---------|---------|
| T-27790 | P-86- 4 |
| "       | P-86-11 |
| T-27793 | P-86- 3 |
| "       | P-86-10 |
| "       | P-86- 7 |
| "       | P-86- 8 |
| "       | P-86- 9 |
| T-46862 | P-86- 5 |
| "       | P-86- 6 |
| T-31635 | P-86- 1 |
| "       | P-86- 2 |
| "       | P-86-12 |
| "       | P-86-13 |
| "       | P-86-14 |
| "       | P-86-15 |
| "       | P-86-18 |
| "       | P-86-19 |
| "       | P-86-20 |
| "       | P-86-21 |
| "       | P-86-22 |
| "       | P-86-23 |
| "       | P-86-24 |
| T-11627 | P-86-16 |
| "       | P-86-17 |

See report for hole locations & depths.

Core from the holes is presently stored on covered core racks located on land on which the surface rights are owned by Gord Peckover (claim T-19202, NE/4, S/2, Lot 1 Con 12). This land is adjacent to the Proteus Resources Inc. claim group.

APPENDIX

To Highway 567

Patented Claim  
SE/4 of N/2 Lot 1, Con. 12

Core Shack

Patented Claim  
NE/4 of S/2 Lot 1, Con. 12

T-27917

Gravel Road

T-27790

T-27789

Drill Road

T-27828

T-25997

T-3591

T-27793

T-25661

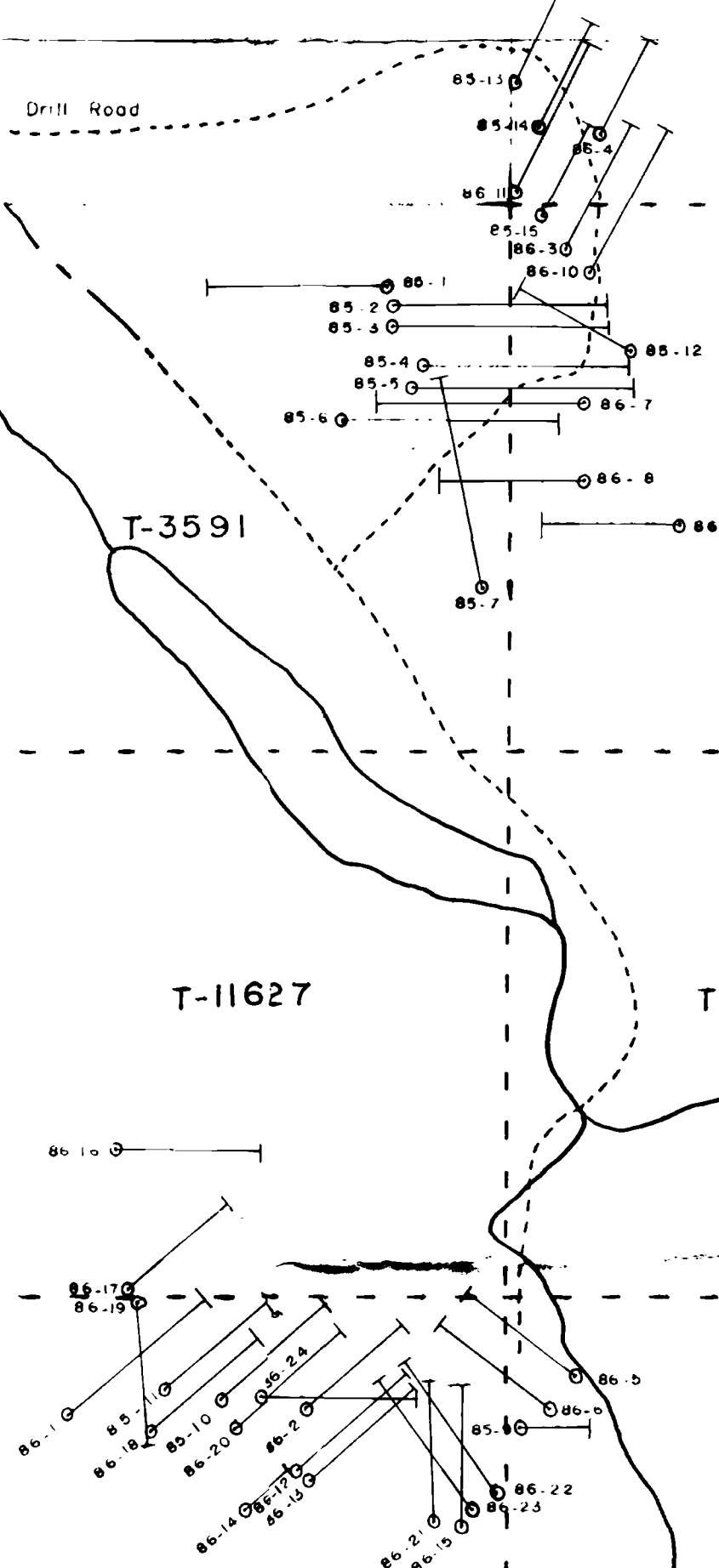
T-11627

T-46861

T-31634

T-31635

T-46862



**SYMBOLS**

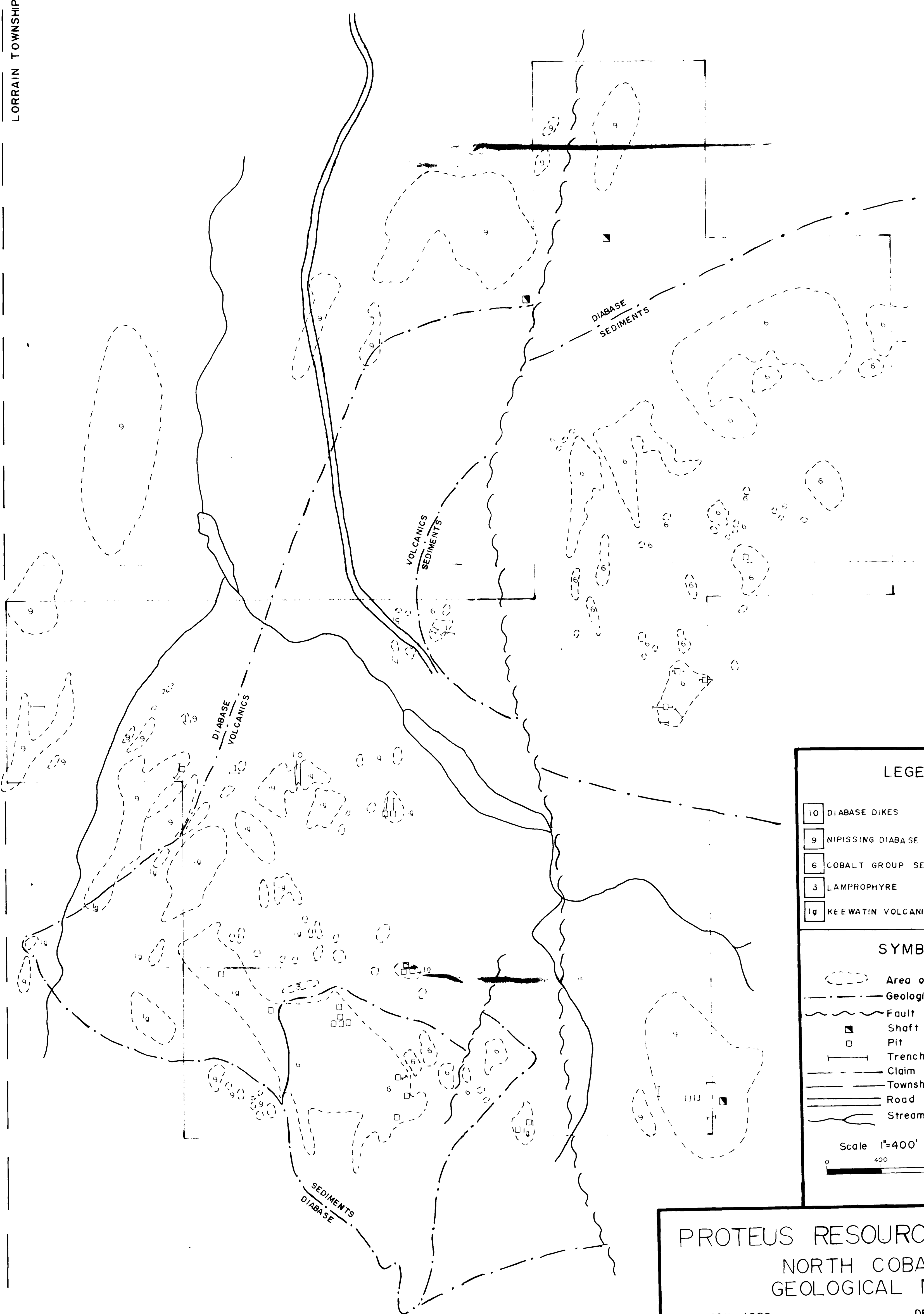
- Drill Hole
- Township Boundary
- Claim Group Boundary
- Claim Boundary
- Claim Number
- Gravel Road
- Drill Road
- Stream
- Pond

0 400 800 1200  
SCALE feet

**PROTEUS RESOURCES INC.**  
**NORTH COBALT**  
**DRILL HOLE LOCATION PLAN**  
**1985-1986**  
 SCALE: 1"=400' DRAWN BY: R.C. APRIL, 1986  
 0185-238 62-4927



To Highway 567



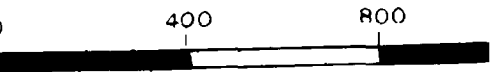
LEGEND

- 10 DIABASE DIKES
- 9 NIPISSING DIABASE SILL
- 6 COBALT GROUP SEDIMENTS
- 3 LAMPROPHYRE
- 19 KEEWATIN VOLCANICS - RHY

SYMBOLS

- Area of Outcrop
- Geological Contact
- Fault
- Shaft
- Pit
- Trench
- Claim Group Boundary
- Township Boundary
- Road
- Stream, Pond

Scale 1"=400'



PROTEUS RESOURCES  
NORTH COBALT  
GEOLOGICAL MAP

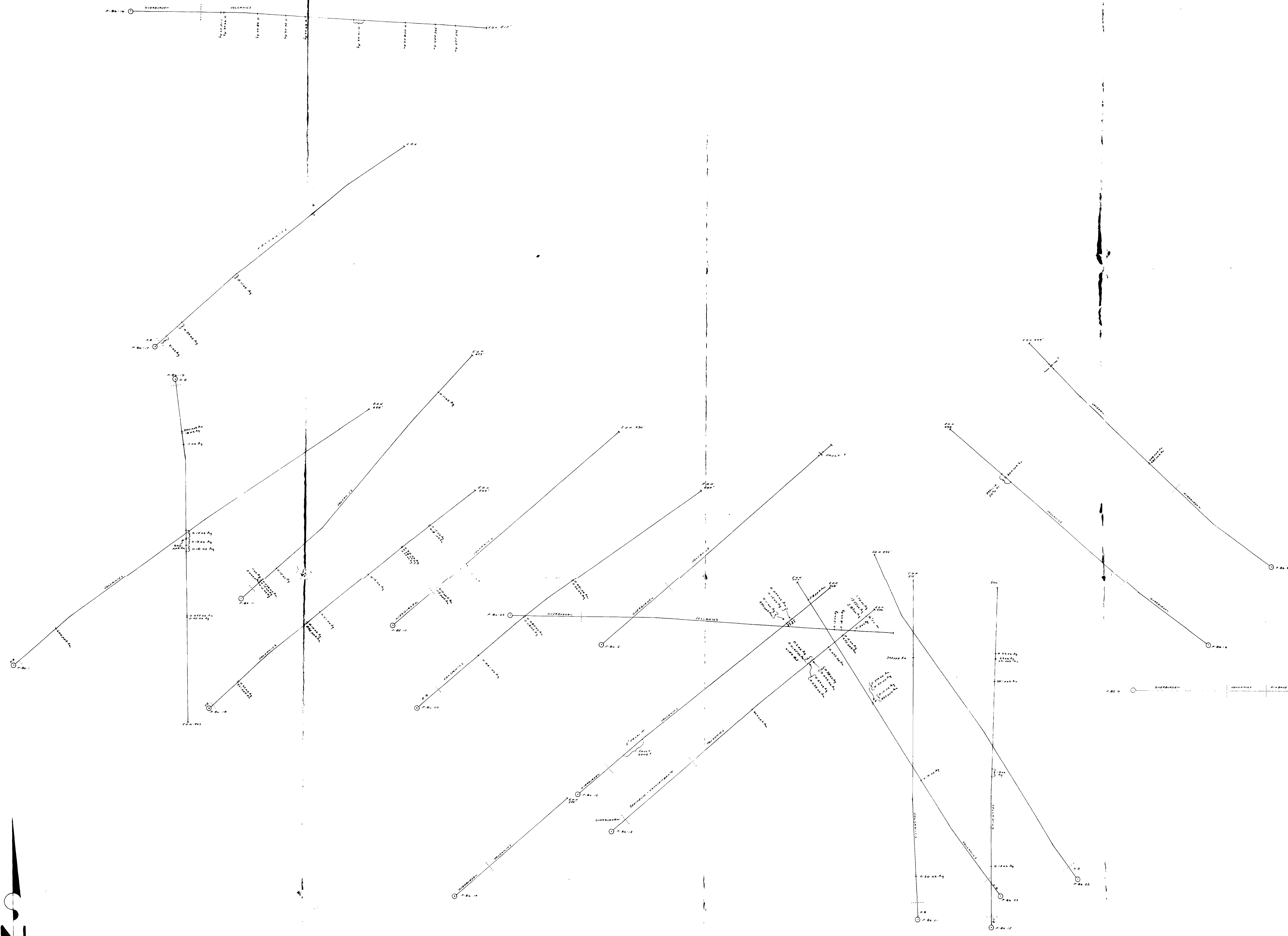
APRIL, 1986

DRAWN BY

0785-238

63

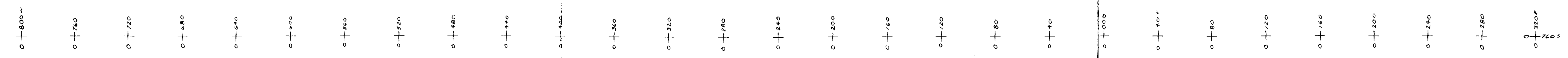




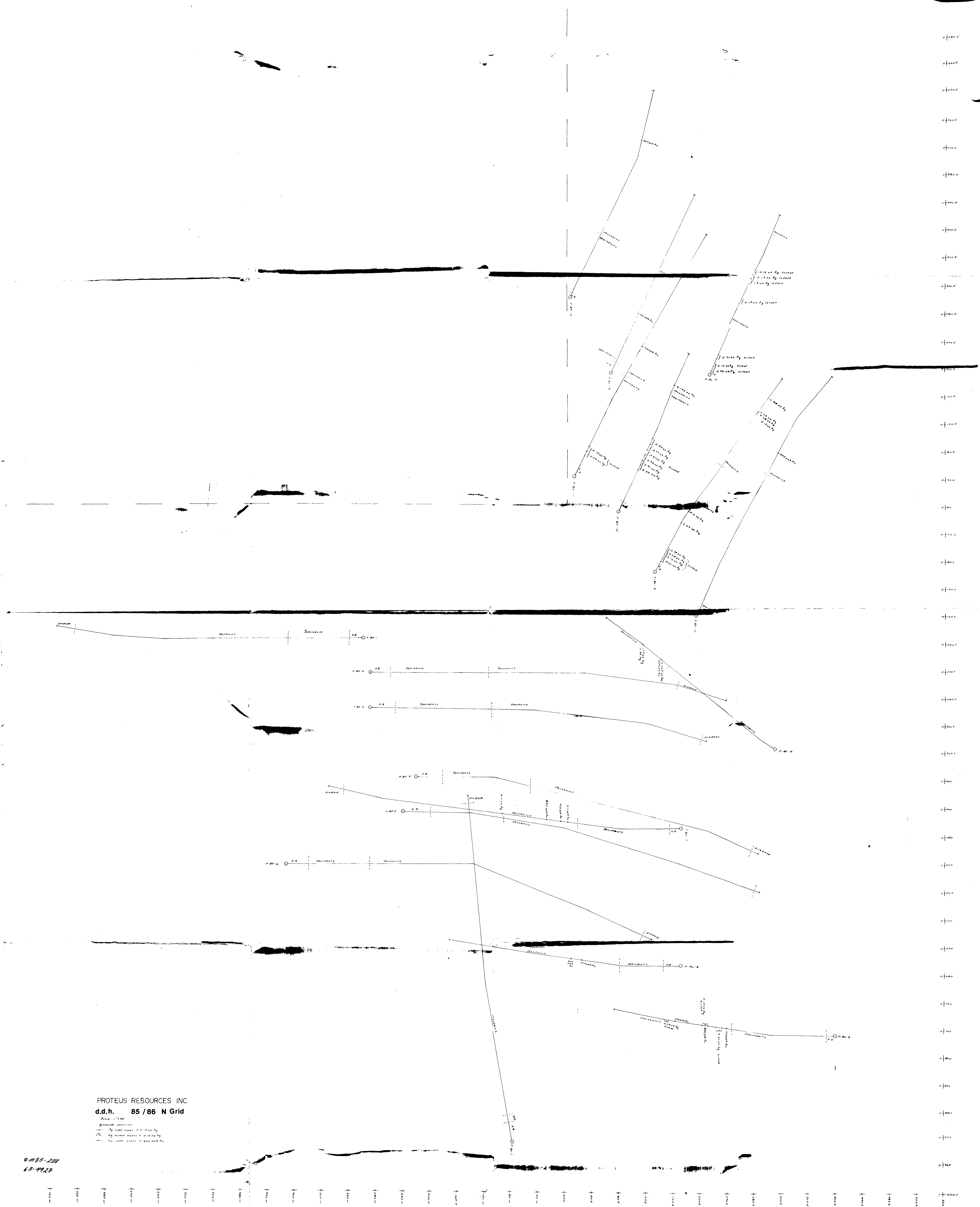
PROTEUS RESOURCES INC.  
 NORTH COBALT 1985-1986  
 DIAMOND DRILL HOLES SOUTH GRID

- Ag CORE ASSAY > 0.10oz Ag
- Ag SLUDGE ASSAY > 0.10oz Ag
- Au CORE ASSAY > 300ppbAu

SCALE 1"=40' COMPANY & DATE MARCH 86  
 0005-238 220







PROTEUS RESOURCES INC.  
 d.d.h. 85/86 N Grid  
 Scale: 1"=100'  
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0 185-220  
 63-1122

