OM 86-1-P-274

53C13NE0011 63.4867 SETTING NET LAKE

010

GEOLOGICAL REPORT

ON THE

ZAHAVY MINES LTD. PROPERTY

FAVOURABLE LAKE AREA

ONTARIO

FOR

ZAHAVY MINES LIMITED

L.D.S. Winter,
B.A.Sc., M.Sc., F.G.A.C.,
February 15, 1988

TABLE OF

53C13NE0011 63.4867 SETTING NET LAKE

010C

1. INTRODUCTION

The Favourable Lake metavolcanic belt is a linear, northwest trending suite of metavolcanics and metasediments in northwestern Ontario (Figure 1). Geologists of the Ontario Bureau of Mines pointed out the mineral potential of the area in 1925 and subsequent prospecting in 1927 led to the discovery of base and precious metals in the Favourable Lake area. The Berens River Gold Mine came into production in 1939 and until 1948 when the property closed due to economic conditions, it produced 508,807 tonnes of ore with a recovered grade of 9.6 g/t gold and 347 g/t silver, 2.773 million Kg of lead and 773,000 Kg of zinc (Ferguson et al, 1971).

Zahavy Mines Ltd. acquired the property in 1959 through its predecessor company Golsil Mines Limited. Underground and surface exploration was carried out by Zahavy and Golsil Mines until the formation of the Getty-Zahavy Joint Venture in August, 1980. In turn the joint venture carried out surface and underground exploration. The Joint Venture agreement has been terminated and management of the property now rests with Noramco Explorations Inc.

The writer was requested by Zahavy Mines Ltd.to review the work currently being carried out on the property. The following report summarizes the results to date and reviews the ongoing exploration and development programme.

2. SUMMARY AND RECOMMENDATIONS

The Zahavy Mines Ltd. property consists of a contiguous block of 5 patented claims, 45 leased claims and 174 unpatented mining claims covering approximately 3,500 hectares.

The Zahavy Mines Ltd. property is located on the southeast end of an Early Precambrian metavolcanic-metasedimentary belt extending from Northwind Lake to west of the Ontario-Manitoba boundary. The belt is bounded by composite granitic batholiths and is at least 11 km wide in the area of the mine property. The supracrustal sequence comprises 15 formations

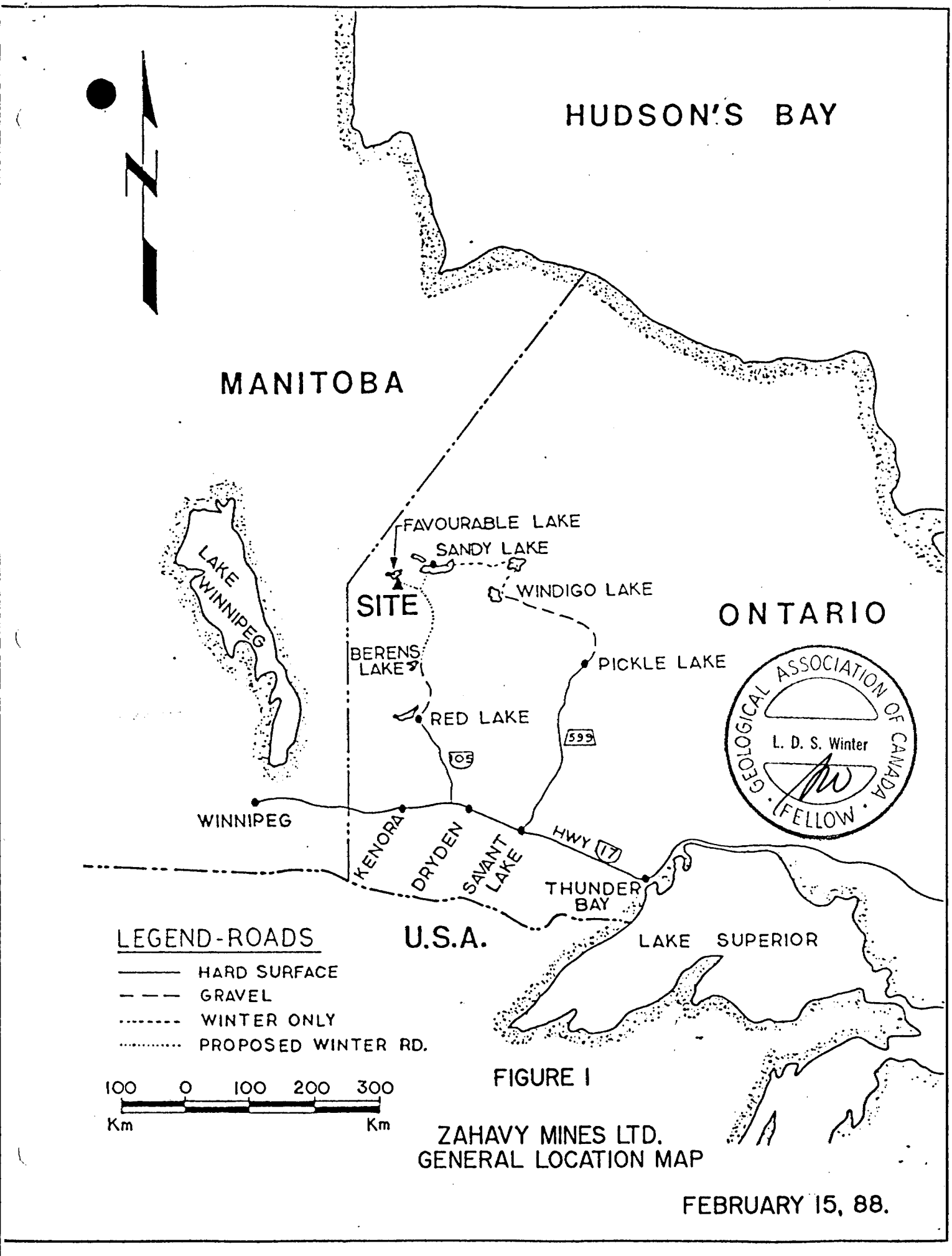


FIGURE 1

ZAHAVY MINES LTD.
GENERAL LOCATION MAP

FEBRUARY 15, 88.

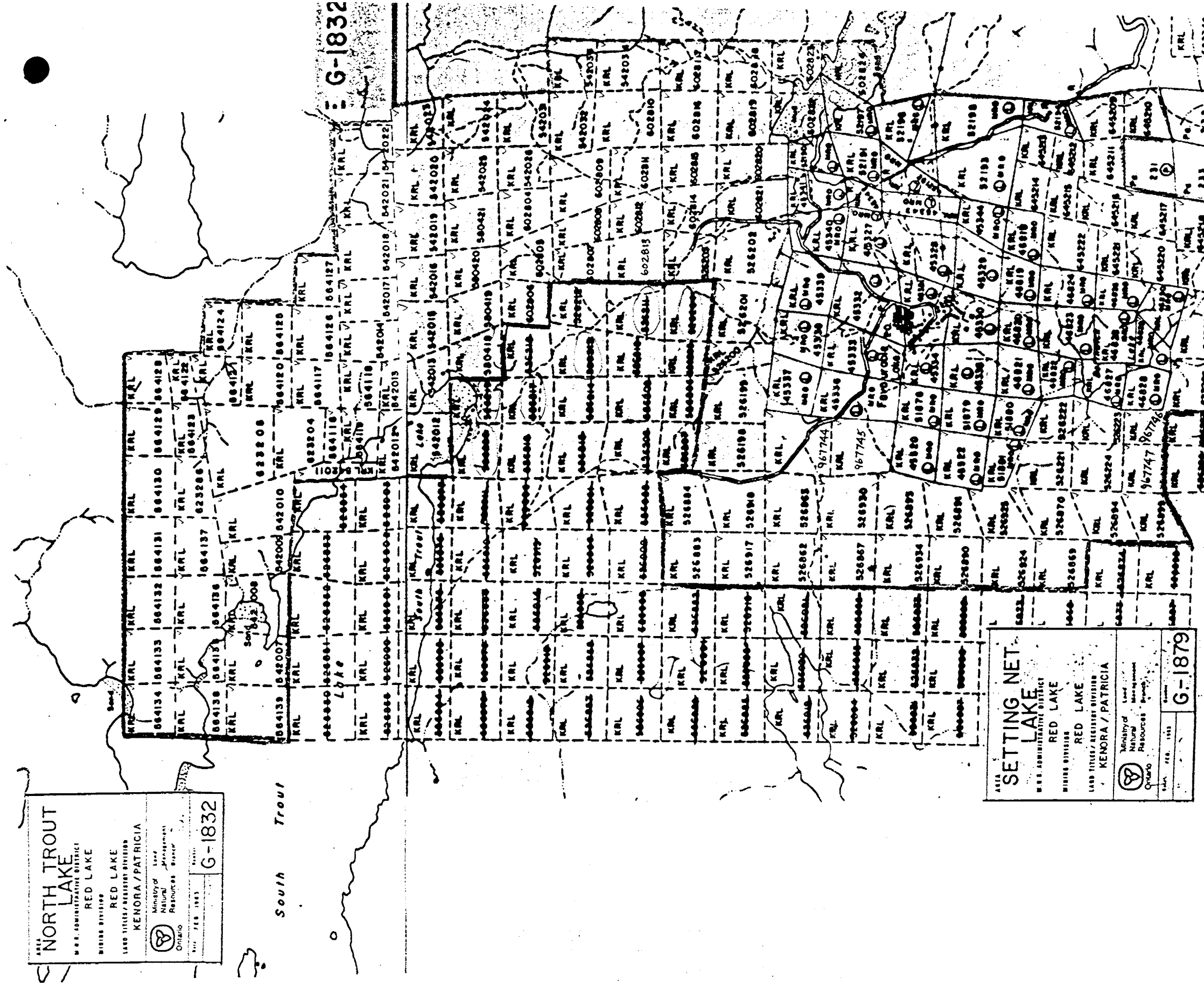


FIGURE 2

CLAIM MAP

DATE:	SCALE: 1:31680
DRAWN BY:	CHECKED BY:
DWG. NO.	NTS:
REVISION:	
REVISION:	
REVISION:	

Zahavy Mines Limited

that are grouped into five (5) cycles that represent progressive stages of development of the Favourable Lake volcanic complex. The cycles are considered by Ayres (1977) to represent the development of a series of stratavolcanoes by both sub-aerial and subaqueous accumulations. The supracrustal sequence is folded about axes trending southeast parallel to the boundaries of the belt with local east-trending cross folds also being present. Numerous faults are present in the area with two (2) major systems trending southeast and south to southeast being of particular importance.

The property consists of a sequence of folded volcanic and metasedimentary rocks of cycles 2 and 3 which trend approximately north-south and dip steeply to the east. These units have been intruded by gabbro and granitoid masses. The hosts to the mineralization are felsic calc-alkalic metavolcanics.

The most significant mineralization in the area is the precious base metal veining on the Zahavy Mines Ltd. property. A series of sub-parallel south dipping veins occur in east trending zones in felsic volcanics. The mineralization consists of silicified zones containing pyrite, sphalerite, galena, minor chalcopyrite and gold and silver minerals.

In the #1 shaft area, the main zone that was mined by Berens River Mines plunged approximately 70° to the southeast with ore shoots within the vein being from 18 to 106 meters in strike length. The width varied from 1 to 5 meters and there was a variable vertical extent from 25 to 150 meters. Mineralization in the #2 shaft area in the #3 vein appears to have similar geometry and mineralogy to that of the #1 shaft area.

T. A. Bevan, P. Eng., calculated the geological reserves for Getty-Canadian Metals Ltd. based on underground work plus surface diamond drilling. His estimate was for an indicated reserve of 647,231 tonnes grading 8.54 g/t gold and 165.60 g/t silver and an inferred reserve of 244,069 tonnes assaying 9.84

g/t gold and 162.86 g/t silver.

Wright Engineers, in early 1987, estimated the mineable in-situ drill indicated reserves in the #3 vein to the 600 m. level to be 546,820 tonnes grading 6.57 g/t gold and 151.68 g/t of silver.

Mr. Bevan, P. Eng. also indicated that there were a number of areas within the confines of the #3 vein for picking up additional tonnage. He also indicated that the #2 and #4 vein zones between the #1 and 2 shafts could provide additional mineralization accessible from existing mine workings.

Starting in early 1987, an underground exploration and development programme managed by Strathcona Mineral Services was carried out for Zahavy Mines Ltd. This work was completed by December 31, 1987. Management of the project now rests with Noramco Explorations Inc. who commenced a surface exploration programme in the 4th quarter of 1987 which is continuing at the present time. In addition, Noramco Explorations Inc. started additional underground exploration and development work in January, 1988.

The expenditures to date on these programmes are $2,769,420 by Strathcona Minerals Services, $757,051 by Noramco Explorations in their surface programme and $561,322 on underground work by Noramco Explorations Inc.

The surface exploration work has consisted of airborne, magnetometer and EM surveys, a ground magnetometer survey, geological mapping and diamond drilling which is currently in progress.

On the 225 meter level in the #2 shaft area, drifting and diamond drilling and sampling have outlined the mineralization. This work has indicated the presence of four (4) en echelon lenses which from southeast to northwest are labelled A, B, C and D. These lenses strike approximately 100° and dip steeply south with the mineralized shoots plunging at 60 to 70° to the east. The results being obtained are presented in the

longitudinal sections (Figure 7A, B and C).

The current programme is directed towards extending the known mineralization in the #3 vein structure along strike to the east and west and also down plunge. A raise is being driven from the 225 meter level to the 50 meter level to determine the continuity of mineralization in the vertical sense. Surface exploration is currently exploring other known vein structures and the extension of the #1 vein structure along strike to the east.

The total proposed budget for the property is $5,380,420 of which $4,087,793 has been spent to date leaving a balance of $1,292,627. An expenditure of $153,949 for completion of the surface diamond drilling programme and $1,138,678 on the underground development programme is currently being budgeted.

In view of the positive results being obtained from the current exploration programme, both surface and underground, it is recommended that the programme currently in progress be completed. It is anticipated that by completion of this work, the property will be at the stage where a decision can be made as to the feasibility of placing it in production.

Respectfully submittted,

L.D.S. Winter

GEOLOGICAL ASSOCIATION OF CANADA · FELLOW · L.D.S. Winter

L.D.S. Winter
B.A.Sc., M.Sc., F.G.A.C.
February 15, 1988

3. PROPERTY LOCATION AND ACCESS

3.1 PROPERTY DESCRIPTION

The property consists of a contiguous block of 5 patented, 45 leased and 174 unpatented mining claims. The area of the block is approximately 3,500 hectares with the claims being located in the Setting Net Lake area of the Red Lake Mining Division. The claims are listed below (Table 1) and are outlined in Figure 2 after plan 2493, Setting Net Lake area as issued by the Land Management Branch of the Ministry of Natural Resources, Ontario.

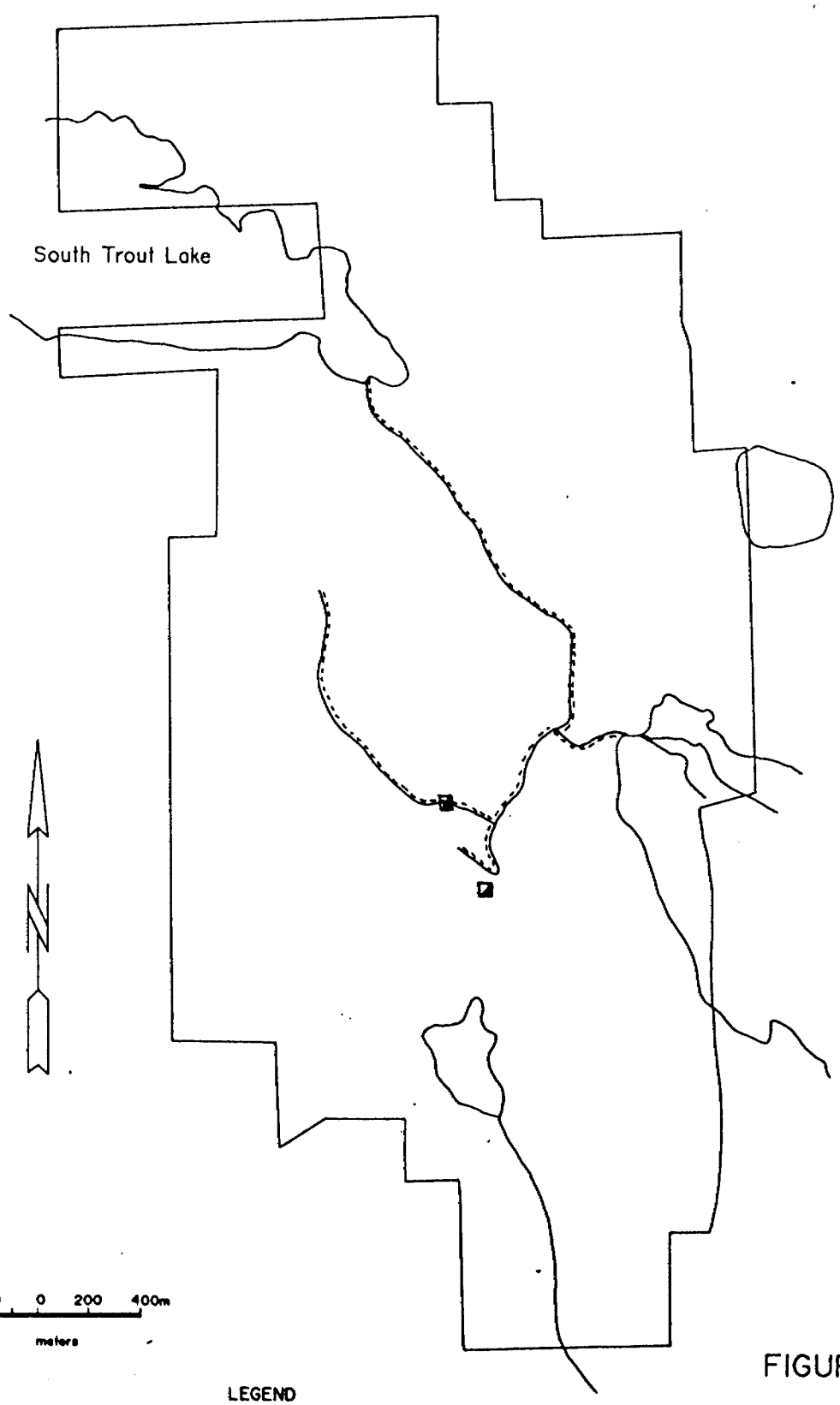
TABLE 1

CLAIM DATA - ZAHAVY MINES PROPERTY

CLAIM NUMBERS	NUMBER OF CLAIMS
PATENTED CLAIMS	
222, 231, 232, 233, 234	5
LEASED CLAIMS	
45327 - 45344	18
45520	1
45522	1
46818 - 46830	13
51878 - 51881	4
52190 - 52197	8
STAKED CLAIMS (unpatented)	
526198 - 526203	6
526221 - 526224	4
526862 - 526863	2
526867	1
526869 - 526870	2

526883 - 526884	2
526890 - 526891	2
526893 - 526894	2
526899	1
526917 - 526918	2
526924 - 526925	2
526930	1
526934	1
542007 - 542026	20
542031 - 542034	4
564116 - 564139	24
580418 - 580421	4
602804 - 602824	21
623204 - 623206	3
623286	1
645209 - 645224	16
646219 - 646226	8
646227 - 646228	2
943944 - 943945	2
943948 - 943949	2
943957 - 943958	2
944014 - 944018	5
944023 - 944024	2
944029 - 944030	2
944084 - 944086	3
944088 - 944099	12
944100 - 944105	6
944154 - 944156	3
967744 - 967747	4
TOTAL	224

The leased claims are in good standing until May 1, 1988 when they come up for renewal for an additional ten-year term. The unpatented mining claims are currently in good standing and



GEOLOGICAL ASSOCIATION OF CANADA
L. D. S. Winter
FELLOW

FIGURE 2

ZAHAVY MINE PROPERTY

CLAIM GROUP OUTLINE MAP

FEBRUARY 18, 1988

sufficient work is being done on the property to meet further assessment work requirements necessary to bring them to lease.

3.2 LOCATION

The Zahavy property is located approximately 15 km east of Favourable Lake which is 200 km north of Red Lake, Ontario at 50°-22' N latitude; 93°-42' W latitude. It is connected by an old bush road to South Trout Lake, 5 km to the north-northwest and the nearest settlement is Sandy Lake, an Indian reserve with a population of about 1,200 people, located 35 km to the north-northeast. Deer Lake, a small settlement, is 35 km southwest and a second small settlement, North Spirit Lake, is 50 km southeast.

3.3 ACCESS

In recent years, winter road access has usually been possible in the months of February and March from the end of the all-weather road at Windigo Lake north of Pickle Lake with the distance from Windigo Lake via Weagamow Lake and Sandy Lake being approximately 205 km.

An all-weather air strip approximately 430 meters in length was constructed on the old Berens River Mines tailings by Getty Mines Limited to service their recent exploration activity. This strip has now been extended to handle DC-3 aircraft.

Float equipped aircraft are able to land at South Trout Lake in the summer while in the winter, heavy aircraft of the Hercules class are capable of landing on properly constructed and maintained ice strips.

4. PREVIOUS WORK ON THE PROPERTY

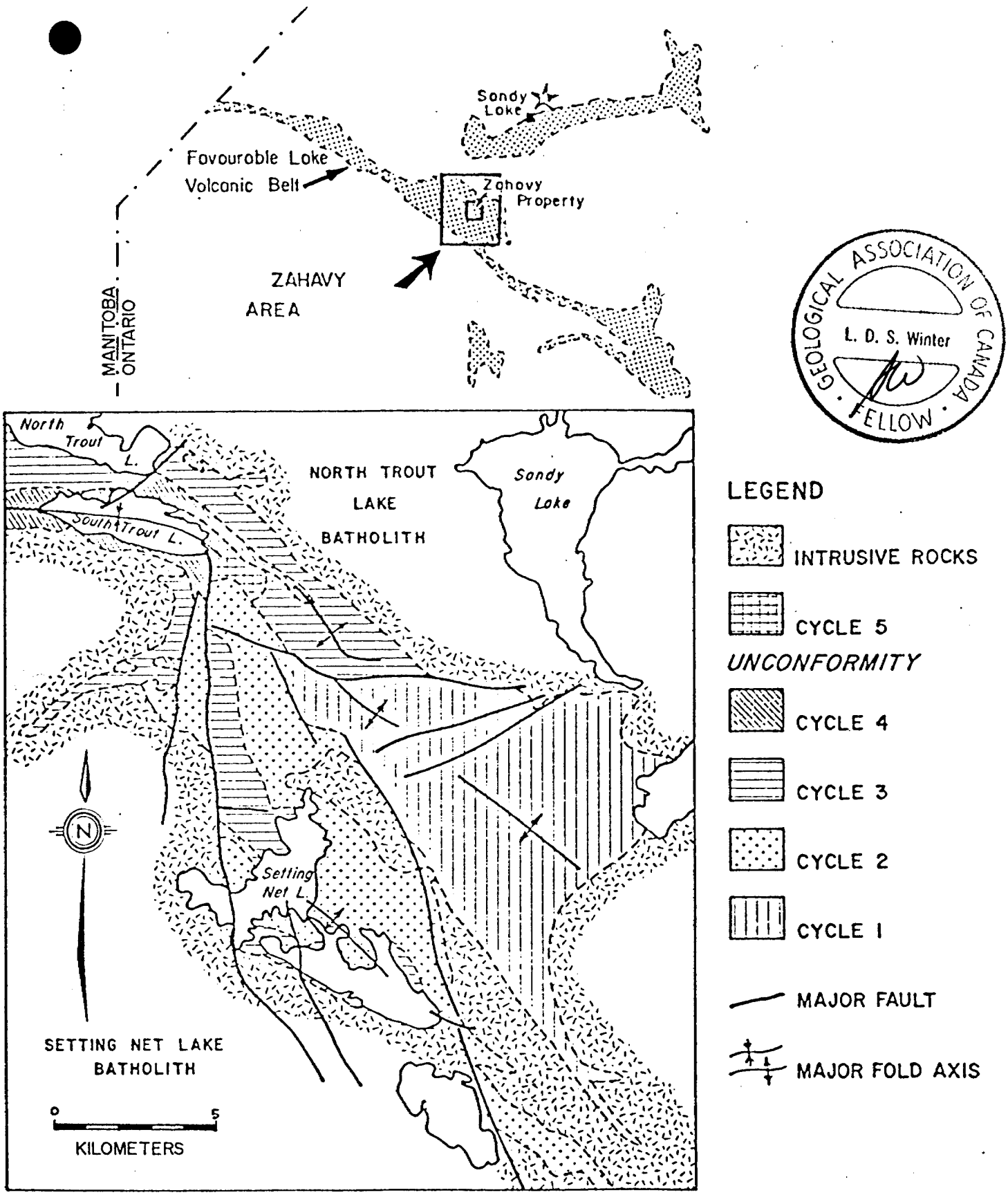
Geologists of the Ontario Bureau of Mines pointed out the mineral potential of the area in 1925 and subsequent prospecting in 1927 led to discovery of base and precious metals in the Favourable Lake area. In 1928 and 1929, trenching and 20 surface drill holes totalling approximately 1,067 meters were

drilled by Favourable Lake Mining and Exploration Company Ltd. on the #1 vein on the Zahavy property (Figure 3). At the same time, trenching and nine (9) surface drill holes totalling 579 meters explored the #3 vein which lies approximately 610 meters north of the #1 vein. From 1936 through to 1948, Berens River Mines Ltd., a subsidiary of Newmont Mining Corporation carried out extensive exploration and development work which led to production from the property. Between 1936 and 1939, approximately 9,756 meters of surface drilling and 4,268 meters of underground drilling was carried out on the #1 vein. In addition, 30,368 meters in surface and underground holes were also completed between 1940 and 1948. The vertical #1 shaft was sunk to 579 meters with 13 levels and a vertical winze 335 meters southeast of #1 shaft was sunk from 518 meters to 990 meters with eight (8) levels being installed. Four thousand-seven hundred and sixty-six (4,766) meters of cross-cutting were carried out as well as 6,566 meters of drifting including a drift on the 475 meter level connecting the #1 and #3 veins. Production started in the latter part of 1939 with the mill capacity at 204 tons per day. Between 1941 and 1947, the vertical #2 shaft was sunk on the three vein to a depth of 156 meters. One hundred and sixty-three (163) meters of drifting on the 104 and 140 meter levels and 236 meters on the 473 meter level from the #1 shaft were carried out.

Production from the property mainly from the #1 vein between 1939 and 1948 consisted of 4,904.8 kg of gold, 180,278.5 kg of silver, 2,775,396 kg of lead and 816,860 kg of zinc from 508,471 long tonnes of ore. Included in this is production of 9,070 tonnes of ore from the #2 shaft area. It should be noted that base metal concentrates, especially zinc, were not produced continuously. (O.G.S., Stat. Data).

In 1941, Berens River Mines Ltd. carried out diamond drilling on the #4 vein but no additional work was done on this structure.

Between 1961 and 1967, de-watering of the #2 shaft and



GEOLOGICAL ASSOCIATION OF CANADA
L. D. S. Winter
FELLOW

FIGURE 3

ZAHAVY MINES LTD.
REGIONAL GEOLOGY

FEBRUARY 15, 88.

the drilling of 24 diamond drill holes totalling 7,195 meters plus underground drilling of 3,295 meters were carried out by Golsil Mines Ltd. Also, the #2 shaft was deepened to the 225 meter level with levels at 187 and 225 meters. Drifting was also carried out on the 225 meter level.

In August 1980, Getty Canadian Minerals Ltd. entered into a joint venture agreement with Zahavy Mines Ltd. to explore the property and assess the economic viability of the mineralized zones. During 1980 and 1981, 6,600 meters of diamond drilling was completed in 41 holes with drilling being concentrated on the #3 vein. In the early part of 1982, a programme was initiated to de-water the #1 and #2 shafts and extend the 225 meter level parallel to the #3 vein system. The de-watering of the #1 shaft was not completed due to time and budget constraints. The 225 meter level was extended into the hanging wall of the #3 vein from the #2 shaft. Stations were established for drilling and in late 1982 underground diamond drilling was carried out on the #3 vein for a total of 9,450 meters in 26 holes.

In early 1987, the Zahavy - Getty joint venture was terminated and recently Noramco Mining Corporation acquired control of the property through Zahavy Mines Ltd.

5. REGIONAL GEOLOGY

The subject property is located on the southeast end of an Early Precambrian metavolcanic-metasedimentary belt that extends from Northwind Lake to west of the Ontario-Manitoba boundary (Figure 3). The greenstone belt is bordered by composite granitic batholiths and is at least 11 km wide in the area between Setting Net and Northwind Lakes. The metavolcanic-metasedimentary sequence is at least 6,000 meters thick and is composed predominantly of pillowed to massive, locally variolitic mafic flows and coeval metagabbro-metadiorite intrusions. Felsic to intermediate flows and pyroclastic rocks are locally abundant, especially west of Northwind Lake. Volcaniclastic greywacke and

siltstone form several, relatively thin formations in the sequence. Minor occurrences of conglomerate, slate, chert, ferruginous chert, iron formation and marble are also found. Near Setting Net Lake, the supracrustal sequence comprises 15 formations that are grouped into five (5) cycles that represent progressive stages in the development of the Favourable Lake volcanic complex. The cycles are considered by Ayres (1977) to represent the progressive development of a series of stratovolcanoes by both subaerial and subaqueous accumulations.

Metamorphic grade ranges from middle greenschist in the centre of the belt to middle almandine-amphibolite and hornblende - hornfels facies adjacent to the large batholithic masses that border the greenstone belt. A narrow hornblende - hornfels aureole has developed about the Setting Net Lake pluton.

The metavolcanic-metasedimentary sequence has been folded about axes trending southeast, parallel to the boundaries of the belt. Local east-trending cross folds are also present. Numerous faults have been recognized in the area but two (2) major systems are particularly important: (1) southeast-trending faults that have large components of vertical movement with the southwest side having moved up, and (2) south to southeast-trending faults with right-hand strike separation. Ayres (1969) has noted that some of these faults were a major control for the localization of copper mineralization.

During the Wisconsin glaciation, the Setting Net Lake area was entirely overridden by a fan-shaped advance of continental ice that formed part of a major ice lobe centred to the northeast in the Hudson Bay region. The continental ice flow direction, as measured by glacial striae in the Setting Net Lake area, varies between S60W and S65W. The area lies in the region that was covered by glacial Lake Agassiz during the retreat of the Wisconsin ice front into northwestern Ontario and is partly covered by massive to varved, calcareous Pleistocene Lake clays.

Numerous types of mineralization are present in the area

and are listed below.

1. Granular quartz veins and stock works containing narrow veinlets and/or silicification, patches and disseminations of galena, sphalerite, silver-bearing minerals, gold and rarely chalcopyrite.
2. Molybdenite, generally along the margins of narrow quartz veins in the northern part of an epizonal granitic stock at the north end of Setting Net Lake.
3. Quartz veins carrying gold mineralization.
4. Copper and/or zinc mineralization associated usually with pyrite and pyrrhotite in;
   - fault zones,
   - veins and disseminations
   - quartz and carbonate veinlets.
5. Uranium mineralization in the granitic batholith south of, but less than 3 km from the major southeast trending fault.
6. A 125 meter thick iron formation unit in the south side of Setting Net Creek contains several 15 meter wide magnetite rich horizons.

The most significant mineralization in the area is considered to be the precious-base metal mineralization on the Zahavy Mines property. Here, a series of sub-parallel, south-dipping veins occur in east-trending zones within felsic volcanics. The mineralization which consists of silicification, pyrite, sphalerite, galena, minor chalcopyrite, gold and silver minerals, occurs in shoots in structures which have been offset by faulting.

Also of interest is the molybdenite-copper mineralization associated with the granodiorite stock at the north end of Setting Net Lake. Often there is a zonal pattern of precious metal mineralization associated with molybdenite-copper porphyries.

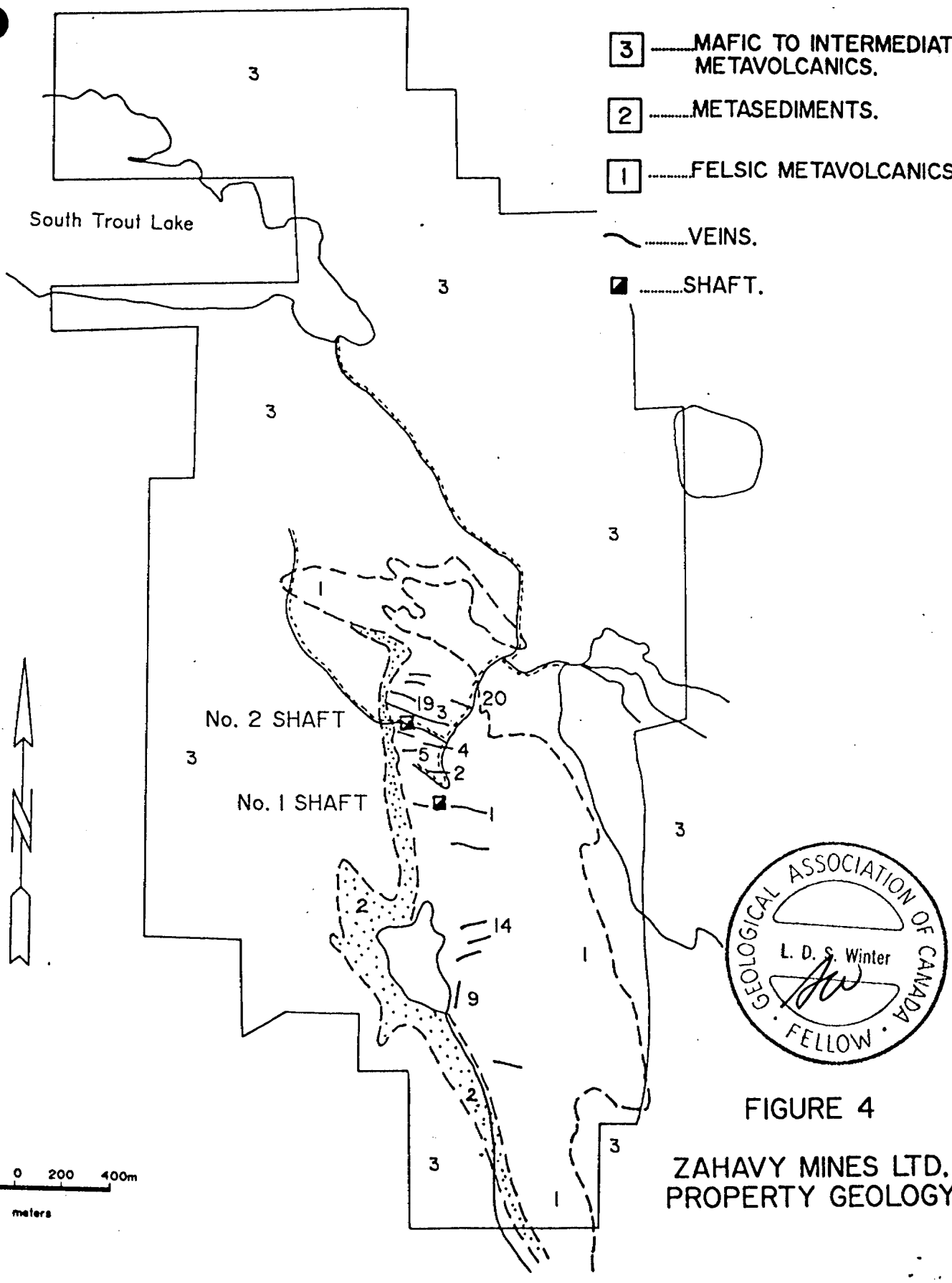
6. PROPERTY GEOLOGY

The geology of the property consists of a sequence of folded volcanic and metasedimentary rocks of cycles 2 and 3 (Ayres, 1977) which trend approximately north-south and dip steeply to the east. These supracrustal units have been intruded by gabbro and granitoid masses. (Figure 4). Most of the outcrops on the property are calc-alkalic volcanic and sedimentary rocks. A sequence of dominantly intermediate to felsic calc-alkalic volcanic rocks is host to the polymetallic veins on the Zahavy property.

The metavolcanics consists of andesitic flows, andesitic tuffs, and flows, minor pyroclastics and brecciated units. The metasediments are composed of laminated cherts, argillites, siltstones, fine grained tuffs, marble and banded sulphide and oxide facies iron formation stratigraphically overlying the felsic volcanic unit. These units occur directly west of the mineralized veins.

Gold, silver, lead and zinc mineralization occur in veins which consist of variable amounts of quartz, actinolite, calcite, chlorite, garnet, pyrite, sphalerite, galena and minor amounts of pyrrhotite, chalcopyrite, tetrahedrite and the ruby silvers. The mineralized veins on the property strike at approximately 100° and dip 70° to the south. They cross-cut the stratigraphy at approximately 90° and the strike length of the veins is variable. The widths are generally up to 5 meters. The veins appear to be en echelon and have been displaced by north-northeast trending cross faults in a right-handed fashion.

In the #1 shaft area, the main ore zone plunged approximately 70° to the southeast with ore shoots within the #1 vein being from 18 to 106 meters in strike length. The width varied from 1 to 5 meters and there was a variable vertical extent of 25 to 150 meters. Mineralization in the #2 shaft area appears to have the same geometry, mineralogy and other characteristics of that in the #1 shaft area. (Adams, 1976).



GEOLOGICAL ASSOCIATION OF CANADA
L. D. S. Winter
FELLOW

FIGURE 4

ZAHAVY MINES LTD.
PROPERTY GEOLOGY

FEBRUARY 15, 88.

7. GEOLOGICAL RESERVES

Wright Engineering Ltd. in their 1987 report present the following summary of the geological ore reserves of the #3 vein of the #2 shaft area as calculated by P. A. Bevan P. Eng who prepared the estimates for Getty Canadian Metals Ltd. The reserves were based on geological and diamond drill cross sections prepared on 25 meter intervals and plans at a 15 meter spacing. The results are based on 95 surface drill holes for a total of 16,295 meters and 104 underground drill holes totalling 13,760 meters.

The geological reserves were calculated using standard sections analysis techniques in combination with the level plans and longitudinal sections. Areas were taken from the transverse vertical sections and the lengths were measured on the longitudinal sections. The volume for each block was then calculated. The volume was multiplied by the specific gravity of 2.90 to give the tonnage in metric units.

The specific gravity of 2.90 was determined from a number of drill core samples which were sent to Lakefield Research Ltd. Laboratories for a density determination.

The following parameters were used to calculate the geological ore reserves.

1. Minimum true mining width of 2 meters.
2. Cut-off grades. The reserves were calculated at three (3) different cut-off grades at 0.12, 0.15 and 0.18 oz of gold/ton equivalence. The silver to gold ratio used was 45:1. Base metal values were not included in the determination of cut-off grades. The metal prices used as follows: gold $400 U.S., silver $5.50 U.S., gold recovery 96% to bullion, silver recovery 70% to bullion, 20% to lead. concentrate. 1 oz gold in millheads equals $529.92 Can. and 1 oz silver in millheads equals $6.75 Can.

3. Three (3) grades of diamond drill intercepts were computed for the various cut-offs however, frequently the same core interval applied for all of the different cut-offs. For other intercepts, the grade in the different widths varied. If a core width when converted to a true width did not reach the minimum of 2 meters then low grade or waste was added to the core width to make the required true width provided the resulting average grade met the cut-off constraints. Gold and silver grades expressed as a gold equivalent were computed for each intercept for use in the calculations at different cut-offs. All grades quoted in the geological reserves represent uncut precious metal values.
4. Waste Pillars: A minimum width of 5 meters of waste material was left between closely lying vein zones.
5. Tonnage: All calculations were made using metric measurements and these were later converted to short tons with a conversion factor of 1.102.
6. Range of influence: The calculations assumed the following continuity. In the top 200 meters where the drill hole spacing is approximately 25 meters, the range of influence or continuity is assumed to be halfway to the next hole or 12.5 meters along strike whichever is the lesser distance. On section up or down dip, the range of influence was taken as being halfway to the next hole to a maximum of 25 meters. From the 200 to 650 meter level where the drill spacing is on a 50-meter grid pattern, the continuity was assumed to be halfway to the next hole or 25 meters whichever was the lesser distance. On section, the continuity up or down dip is taken as halfway to the next hole for a maximum of 25 meters.

The volumes and grades were checked using the mineralized intersections on transverse vertical sections, longitudinal sections, level plans and diamond drill logs. Wright Engineers Ltd. stated they were in agreement with the in situ geological reserves calculated for Getty Canadian Metals. These reserves are summarized in Table 2. (See Figures 7A - 7C for longitudinal sections).

TABLE 2 (A)
GEOLOGICAL IN-PLACE RESERVES

0.15 OZ AU EQUIV. CUT-OFF

Level	Tonnes	S. Tons	oz Au/st	oz Ag/st	Au Equiv 45:1	(Au Equiv) (78.5:1)
0-200 m						
Indicated	267,031	294,269	0.137	5.63	0.262	(.209)
Inferred	39,223	43,224	0.148	7.02	0.304	(.237)
200-650 m						
Indicated	380,200	418,980	0.328	4.27	0.423	(.382)
Inferred	98,474	108,518	0.303	4.33	0.399	(.358)
0-650 m						
Indicated	647,231	713,249	0.249	4.83	0.356	(.311)
Inferred	137,697	151,742	0.259	5.10	0.372	(.324)
650-750 m						
Inferred	106,372	117,222	0.323	4.29	0.418	(.378)
(based on Ind. + Inf. from 200-650 m)						
GRAND TOTAL						
0+750 m	891,300	982,213	0.260	4.81	0.367	(.321)
Ind. + Inf.						
Indicated	647,231	713,249	0.249	4.83	0.356	(.311)
Inferred	244,069	268,964	0.287	4.75	0.392	(.347)

TABLE 2 (B)

GEOLOGICAL IN-PLACE RESERVES - INDICATED

SUMMARY — By Section - 2.0 m min. mining width 0.15 oz Au Equiv. cut-off)

Indicated Ore Section	Volume	Metric Tons	Oz Au/st	Oz Ag/st	Au Equiv. 45:1	(Au Equiv.) (78.5:1)
9950E	653.12	1,894	0.030	5.58	0.154	(1.101)
9975E	1,775.00	5,147	0.140	7.12	0.298	(0.231)
10000E	10,473.87	30,374	0.118	5.99	0.251	(0.194)
10025E	14,481.51	41,997	0.133	5.80	0.242	(0.187)
10050E	16,139.00	46,802	0.120	5.57	0.244	(0.191)
10075E	10,570.13	30,654	0.136	11.18	0.384	(0.278)
10100E	9,247.67	26,819	0.166	8.54	0.356	(0.275)
10125E	8,098.20	23,485	0.136	2.94	0.201	(0.173)
10150E	3,696.00	10,719	0.193	0.95	0.214	(0.205)
10175E	10,692.56	31,792	0.203	3.35	0.277	(0.246)
10200E	6,927.22	20,088	0.099	3.82	0.184	(0.148)
10225E	10,525.49	30,523	0.140	5.03	0.252	(0.204)
10250E	24,368.31	70,667	0.398	6.54	0.543	(0.481)
10275E	22,564.07	65,435	0.210	3.00	0.277	(0.248)
10300E	30,596.27	88,731	0.169	2.31	0.220	(0.198)
10325E	---	---	---	---	---	--
10350E	37,646.01	108,645	0.558	4.46	0.657	(0.615)
10375E	---	---	---	---	---	---
10400E	4,641.00	13,459	0.190	4.35	0.287	(0.245)
Total Ind.	223,183.43	647,231	0.249	4.83	0.356	(0.311)
Total Inf.	47,483.65	137,697	0.259	5.10	0.372	(0.324)
GRAND TOTAL	270,667.08	784,928	0.251	4.88	0.359	(0.313)

TABLE 2 (C)

GEOLOGICAL IN-PLACE RESERVES - INFERRED

SUMMARY By Section - 2.0 m min. mining width 0.15 oz Au Equiv cut-off)

Indicated Ore Section	Volume	Metric Tons	Oz Au/st	Oz Ag/st	Au Equiv. 45:1	(Au Equiv. (78.5:1)
9950E	4,525.00	13,121	0.133	8.49	0.322	(0.241)
9975E	1,543.50	4,476	0.210	14.25	0.527	(0.392)
10000E	---	---	---	---	---	---
10025E	2,137.50	6,198	0.086	4.10	0.177	(0.138)
10050E	1,468.25	4,257	0.152	5.26	0.269	(0.219)
10075E	397.47	1,153	0.095	6.80	0.246	(0.082)
10100E	916.49	2,658	0.079	5.98	0.212	(0.155)
10125E	158.90	461	0.120	6.52	0.265	(0.203)
10150E	1,567.75	4,547	0.155	0.74	0.171	(0.164)
10175E	3,131.71	9,081	0.179	4.41	0.277	(0.235)
10200E	822.56	2,385	0.130	5.51	0.252	(0.200)
10225E	---	---	---	---	--	---
10250E	2,538.20	7,361	0.200	7.18	0.360	(0.291)
10275E	10,225.00	29,642	0.234	3.74	0.317	(0.282)
10300E	5,697.75	16,522	0.155	2.32	0.207	(0.185)
10325E	---	---	---	---	---	---
10350E	12,353.57	35,825	0.497	5.41	0.617	(0.566)
10375E	---	---	---	---	---	---
10400E	---	---	---	---	---	---
Total Inf.	47,483.65	137,697	0.259	5.10	0.372	(0.324)

MINEABLE RESERVES

The mineable mineral inventory was also calculated in 1983 by Wright Engineers Limited using the same parameters as Getty Canadian Metals with respect to density, mineable widths, and dimensions for defining the blocks.

Other parameters for determining the mineable reserves were:

1. A cut-off grade of 5.214 grams per metric tonne of Au equivalent was used. The silver to gold ratio used was 45:1. There are two (2) areas where blocks of slightly lower grade mineralization were included for the purpose of mining continuity.
2. Gold assays above 34.276 grams per metric tonne were cut to 34.276 grams per metric tonne. Values in excess of this figure were considered erratic.
   No silver assays were cut.
3. A dilution factor of 15% of tonnage with a zero grade was used in the calculations. This dilution is dictated by the mining method selected and also because of the undulating nature of the mineralization both horizontally and vertically. Dilution is related to the widths of blocks in narrow vein mining.

The mineable reserves total 546,820 tonnes at a grade of 6.57 grams Au and 151.68 grams Ag (diluted) to the 600 meter level. The average width of all zones is 2.6 meters. Length of the zones vary from 25 metres to 100 meters. Below the 600 meter level available information was considered inadequate for calculation of reserves.

The classification by Wright Engineers for the in-situ mineable reserves is drill indicated. Their results are presented in Table 3.

TABLE 3
ZAHAVY MINES LTD. PROPERTY
MINEABLE RESERVES (DILUTED)

Level	Tonnes	Grade (g/t)	
		Au	Ag
50	29,441	5.42	100.74
104	58,716	3.94	130.31
150	73,061	3.19	148.63
200	95,017	3.97	219.52
250	22,510	7.37	120.65
300	82,085	6.55	111.82
350	---	---	---
400	41,196	10.02	130,51
450	29,192	7.37	113.67
500	73,436	13.67	178.08
550	25,494	6.47	227.48
600	16,672	5.34	68.41
TOTAL	546,820	6.57	151.68

7.1 POTENTIAL RESERVES

7.1.1 POTENTIAL #3 VEIN

Mr. P. A. Bevan, P. Eng., in his review for Getty Canadian Metals (ibid) indicated that the geological drill indicated reserves that were not included in the mineable reserves may be mined if further development provided positive results. The tonnage involved is 138,567 tons to the 600 m. level. As well, he indicated that the geologically inferred reserve of 137,697 tons to the 650 level with a grade of 0.259 oz of gold and 5.10 oz of silver had a reasonable chance of being transferred to the indicated reserve category. This could happen if they were confirmed by diamond drilling and level development.

Mr. Bevan also goes on to report in June of 1983, that there were a number of areas within the present confines of the #3 vein for picking up additional tonnage. As well, he indicated that the potential for additional ore at depth was excellent. Of the five (5) sections drilled in the 1982,1983 exploration programme three (3) were open to depth. These are sections 10250 east, 10350 east and 10400 east respectively. Finely, he concluded that all currently defined zones whether containing mineralized blocks or not required additional testing either by diamond drilling or by development. Barren areas along strike between blocks could provide additional mineralized material and testing of these blocks may likely change the overall geometry of currently defined zones.

7.1.2 OTHER KNOWN VEINS

The #2 and #4 vein zones are located between the #1 and #2 shaft and could provide additional mineralization accessible from the existing mine workings. Any economic mineralization found in #20 vein, a relatively short distance east of #2 shaft could also be developed from that area. There are a number of other vein zones reported on the Zahavy property which warrant additional evaluation by surface sampling and diamond drilling.

8. CURRENT EXPLORATION PROGRAMME

The Getty-Zahavy joint venture programme proposed a work programme to begin in January of 1987. This programme was initiated by Zahavy Mines Ltd. with Strathcona Mineral Services Ltd. being the operator in early 1987. The programme continued to operate on this basis to December 31, 1987 when over-all management of the project came under the direction of Noramco Mining Corporation. The programme as outlined consisted of three (3) phases. The first was directed to underground diamond drilling and bulk sampling of the #3 vein from the #2 shaft. The second phase was concurrent diamond drilling of several other

veins on the property. The first two (2) phases were estimated to cost $2,720,000 and were to be completed by August of 1987.

The third phase was considered to be a de-watering and rehabilitation programme of the #1 shaft to the 475 meter level. A drill drift was to be driven in the hanging wall of the #3 vein on that level with deep drilling of the #3 vein below the 475 meter level to be carried out. The purpose of this work was to provide a detailed definition of the vein on and above the 475 meter level and finally drifting and raising were to be carried out on the vein to provide a bulk sample. This phase was to begin in July of 1987 at an estimated cost of $5,160,000.

Completion of the full programme proposed for 1987 and early 1988 would provide the basis for making a production decision early in 1988.

To date, the #2 shaft has been de-watered and rehabilitated. The 225 meter level has been geologically mapped and chip sampling has been done across the mineralized zone. In addition, the level has been surveyed. Four hundred (400) meters of drifting as well as a limited amount of slashing for drill stations has been done in the #2 shaft area. Ninety-six (96) holes were drilled by Zahavy from the underground workings for a total of 8,614 meters. Work was started on refurbishing the #1 shaft collar and the dry/change facilities in that area.

Since Noramco has taken over as project operator in January, 1988, additional drifting has been done and is continuing to explore the #3 vein to the west on the 225 meter level. Also a raise is being driven from the 225 meter level to the 150 meter level to assess mineralization continuity in the vertical dimension. This raise is approximately 15 meter below the 150 meter level at the time of writing. Six (6) additional underground holes totalling 330 meters have also been drilled.

Noramco began surface exploration in September, 1987 and has had the property covered with an airborne helicopter magnetometer and VLF-EM survey along lines at 100 meter spacings.

A grid has been cut on the property with lines at 100 meter spacings and 50 meter in the area of the mine workings. This grid has been covered by a ground magnetometer survey and a limited amount of surface mapping was done before the onset of winter. Surface diamond drilling also was started by Noramco in late fall, 1987 and to January 31, 1988, 27 surface holes totalling 3614.15 had been drilled.

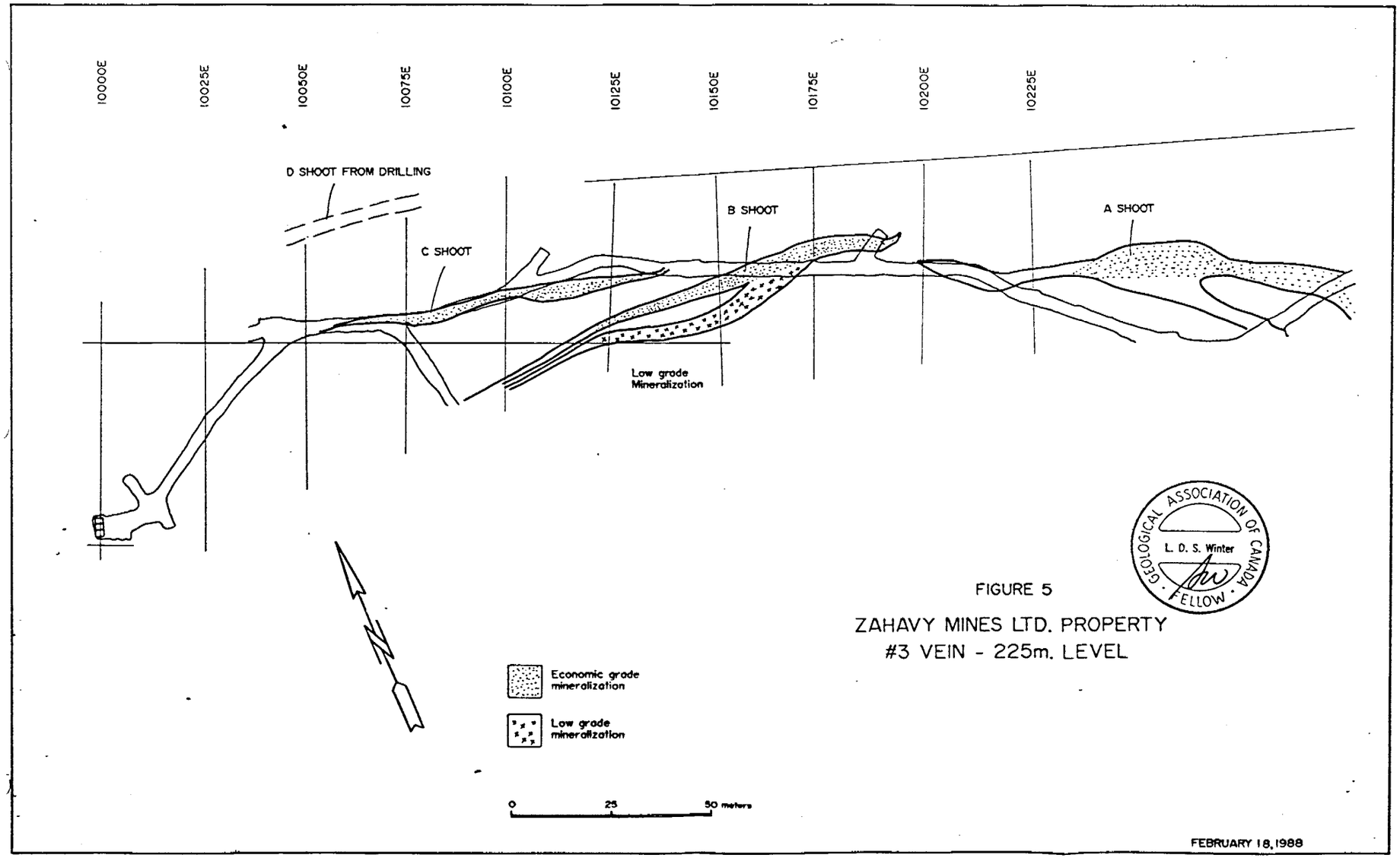
The air strip has been extended to a length of 900 meters and is now capable of being used by DC-3 aircraft which will result in considerable savings on bulk freight loads.

8.1 RESULTS

The ground magnetometer survey has shown the mineralized zones to be represented by well defined magnetic lows. In addition, the survey shows a distinct pattern of northeast trending faults which displace the mineralized zones in a right handed fashion. Currently, the geophysical work is being correlated with the known position of the mineralized zones and the geological data. The anomalous structures are being tested by drilling.

On the 225 meter level in the #2 shaft area, the drifting and diamond drilling on the #3 vein have been outlining the mineralization. The drill results as well as the mapping indicate en echelon veins (Figure 5) with the eastern extent of the main zone being displaced by a northeast trending fault. The extension of the vein beyond this structure remains to be evaluated. One hole (N87-2) drilled by Noramco, 200 meters east of the most easterly mineralization in the #3 vein intersected 2.73 m assaying 0.17 oz gold/ton. Drilling is currently in progress to further evaluate this area.

Results from the recent diamond drilling in conjunction with earlier work has outlined the mineralized zones as shown in Figures 7A - 7C (Sections in Pocket at end of report) which are longitudinal sections through the #3 vein structure. This work



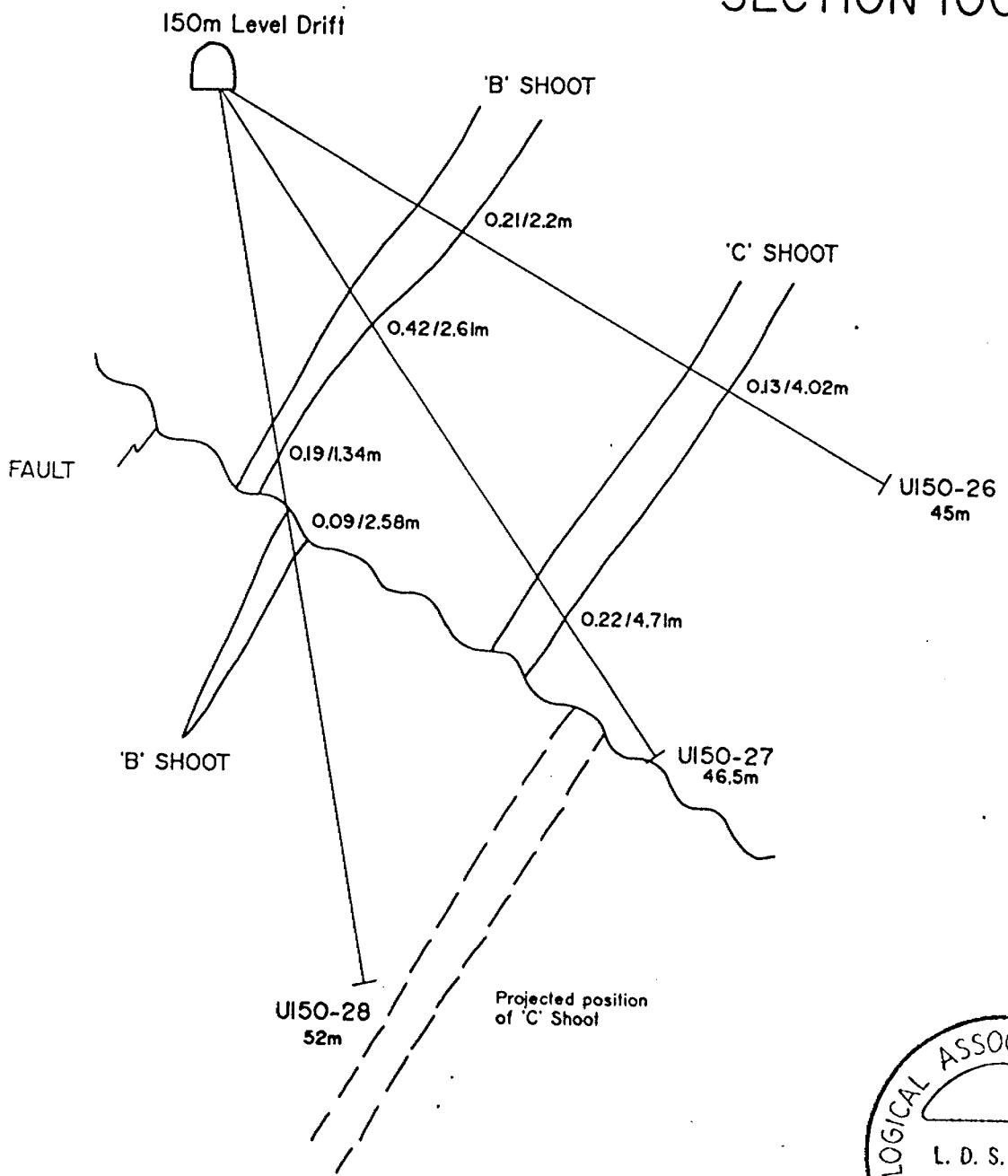
GEOLOGICAL ASSOCIATION OF CANADA
L. D. S. Winter
FELLOW

FIGURE 5

ZAHAVY MINES LTD. PROPERTY
#3 VEIN - 225m. LEVEL

FEBRUARY 18, 1988

SECTION 10036E



1:400
METERS

GEOLOGICAL ASSOCIATION OF CANADA
L. D. S. Winter
FELLOW

FIGURE 6

ZAHAVY MINE PROPERTY

SECTION 10036E
DRILL RESULTS OF B & C SHOOTS

February 18, 1988.

shows four (4) en echelon zones, A, B, C and D dipping steeply to the south, trending at approximately 100° and plunging at 60° to 70° to the east. The mineralization appears to be open to the west and down dip and the probability of additional mineralization to the east of the fault structure at the eastern end of the mineralization on the 225 level is considered to be favourable (Hole N87-2 above).

As an example of the results being obtained from the current drilling programme on the 150 meter level, the results from 13 drill holes are summarized in Table 4. The location of the drill holes is shown in Figure 7A - 7C. A section through drill holes 150-26, 150-27 and 150-28 is presented in Figure 6.

TABLE 4

ZAHAVY MINES PROPERTY

RECENT DRILL RESULTS - 150 M LEVEL DRILLING

Drill Hole	Intersection Easting (meters)	Intersection Elevation* meters)	Length (meters/ft)	Au Oz/Ton	Ag Oz/Ton	Pb %	Zn %
Z150-01	9993E	-152	6.5/21.3	0.054	0.823	0.027	0.118
including			3.0/ 9.8	0.092	1.3	0.34	0.127
Z150-02	10013E	-155	2.00/6.6	0.177	34.6	0.215	0.286
Z150-03	10016E	-177	3.97/13.0	0.149	6.69	0.08	0.31
Z150-04	10019E	-163	5.50/18.1	0.23	9.79	0.157	0.517
		-187	3.5/11.5	0.149	8.25	0.225	0.637
		-196	3.00/9.8	0.10	5.19	0.129	0.498
		-200	2.23/7.31	0.14	2.49	0.119	0.626
Z150-05	10132E	-150	3.0/9.8	0.048	0.282	0.018	0.104
Z150-06	10131E	-172	2.5/8.2	0.098	1.2	0.029	0.337
		-180	2.5/8.2	0.218	4.00	0.265	1.02
Z150-07	10131E	-195	8.09/26.5	0.15	1.88	0.15	0.50
including			4.0/13.1	0.222	3.23	0.21	0.78
Z150-12	10187E	-204	3.0/9.8	0.14	1.468	0.151	1.184
Z150-16	10220E	-149	4.0/13.1	0.449	4.014	0.634	1.9
			4.5/14.8	0.069	0.729	0.131	0.961
Z150-18	10250E	-149	2.50/8.2	0.062	0.397	0.246	1.003
Z150-19	10252E	-188	8.38/27.5	0.162	1.121	0.174	0.535
Z150-21	10283E	-197	10.00/32.8	0.312	1.922	0.635	4.668
Z150-22	10000E	-158	2.29/7.5	0.112	Assays pending.		
		-170	2.44/8.0	0.107	Assays pending.		
		-180	3.97/13.0	0.11	Assays pending.		

8.2 EXPENDITURES

Expenditures on the Zahavy Mines project by Strathcona Mineral Services to December 31, 1987 are as presented below.

TABLE 5

ZAHAVY MINE PROJECT BY ZAHAVY MINES LIMITED

EXPENDITURES

Geology and drilling	$	468,639
Mining		933,386
Power supply		71,853
Fuel supply		103,653
Surface equipment		85,309
Surface facilities		137,145
General project services		316,465
Transportation		415,265
Project management		222,284
Owners cost		15,421
TOTAL	$	2,769,420

The programmes being carried out by Noramco Explorations Inc. have budgets of $911,000 and $1,700,000 for the surface and underground programmes respectively for a total of $2,611,000. Expenditures to January 31, 1988 are as shown in Table 5.

TABLE 6

ZAHAVY PROPERTY PROJECT EXPENDITURES

BY NORAMCO EXPLORATIONS INC.

Surface Programme

Geophysical Surveys - ground and airborne	$ 55,133
Line-cutting	98,323
Geology and Prospecting	20,916
Diamond drilling	281,964
Assaying	10,441
Field Equipment and Services	21,913
Transportation and Communication	70,279
Office, reports, maps, etc	148,555
Administration	49,527
Sub-Total	$ 757,051

Underground Programme

Underground expenditures by Noramco Explorations Inc. total $561,322. No breakdown was available at the time of writing. These expenditures were made carrying out the programme outlined in Section 9, below.

9. PROPOSED ADDITIONAL WORK AND EXPENDITURES

Noramco Explorations Inc. are planning to continue the surface diamond drilling programme testing the strike extensions, east and west of the #1 and #3 vein structues and also other known surface veins. The proposed additional expenditure is $153,949.

The proposed underground development programme is as presented below.

Zahavy Mines Ltd. Property

Underground Development Programme - First Quarter, 1988

Mining equipment expense	$ 43,000
Diamond drilling (underground)	240,000
Mining Programme	
Mobilization	16,000
Drifting	494,000
Raising	375,100
Slashing	23,000
Sub-drifting	61,400
Ground support	2,500
Labour	60,000
Assaying	81,000
Geologists, samples, etc.	42,000
Meals, accommodations, etc.	54,000
Mine services (heat, electrical, water)	14,000
Metallurgical studies	15,000
Office expenses	16,000
Project Supervision	25,000
Travel and transportation	138,000
TOTAL	$ 1,700,000

10. CONCLUSIONS

The Zahavy Mines Limited property is a past producer from which 508,807 tonnes of ore with a recovered grade of 9.6 g/t of gold and 346.98 g/t of silver along with 2.773 million Kg lead and 773,000 Kg of zinc were produced (Ferguson, et al, 1971).

The property is underlain by a sequence of folded metavolcanics and metasedimentary rocks of cycles 2 and 3 of a stratovolcanic sequence (Ayers, 1977). The units trend approximately north-south and dip steeply to the east. The supracrustal units have been intruded by gabbro and granitoid bodies. Most of the outcrops on the property represent calc-

alkalic volcanic rocks. This sequence hosts the polymetallic veins from which the previous production was taken.

Gold, silver, lead and zinc mineralization occurs in veins which also contain variable amounts of quartz, calcite, chlorite, pyrite, chalcopyrite, tetrahedrite and the ruby silvers. The veins occur as a series of en echelon lenses which strike approximately 100° and dip 70° to the south. In general, the mineralized zones show a plunge to the southeast. The veins cross-cut the stratigraphy at approximately 90° and the strike length is variable with widths up to 5 meters.

The main ore zone in the #1 shaft area had shoots from 18 to 106 meters in length and from 1 to 5 meters in width. The vertical extent varied from 25 to 150 meters in any one zone. The mineralization in the #2 shaft area appears to have the same geometry and mineralogy as those in the #1 shaft area.

Geological in-place reserves as estimated by Mr. P. A. Bevan P. Eng. for Getty-Canadian Metals are 647,231 tonnes grading 8.54 g/t gold and 165.60 g/t silver plus 244,069 tonnes of inferred reserves grading 9.84 g/t gold and 162.86 g/t silver.

Wright Engineers calculated a mineable mineral inventory in 1983 of 546,820 tonnes at a grade of 6.57 grams gold/t and 151.68 grams/t silver to the 600 meter level. The estimated average width of all zones was 2.6 meters with a length varying from 25 to 100 meters.

Current work is being concentrated on the #3 vein in the #2 shaft area. Earlier work had indicated that the mineralization in the #3 vein was contained within a relatively short strike length and within a plunging structure. Recent work is showing that the mineralization is contained within at least four (4) en echelon plunging shoots. (Figures 5, 6 and 7A - 7C). The underground work is being directed towards extending the strike length of this mineralization to the west and east and to defining the continuity between the 225 and 150 meter level by raising. The raise is within 15 meters of the 150 meter level and has shown

strong continuity of mineralization within this vertical zone. Additional diamond drilling from underground is being used to define the tonnage and grade of the mineralization in-place and surface drilling is being directed towards extending the strike length of the known veins east and west of their presently explored locations.

The #1 vein in the #1 shaft area remains to be further evaluated both at depth and along strike. A hole (#69) drilled by earlier operators east of the mined area of the #1 vein intersected 2.65 m assaying 36.0 g/t gold and 144.0 g/t silver, 112.8 m below surface.

Expenditures to date by Zahavy Mines during their programme and the current work by Noramco Explorations Inc. have resulted in expenditures of $4,087,793. The total proposed budget for the property is $5,380,420 leaving a balance of $1,292,627. Due to the encouraging results being obtained in the #2 shaft area from the #3 vein, the current work is being directed towards further outlining the mineralization in this area. The objective is to outline sufficient tonnage at an appropriate grade that will enable a feasibility study to be prepared in preparation for putting the property into production.

It is recommended that the current programme be continued with the objective being to outline sufficient reserves of mineable tonnage and grade to enable the property to be placed in production.

L.D.S. Winter,
B.A.Sc., M.Sc., F.G.A.C.,
February 15, 1988

REFERENCES

1. ADAMS, J. W., 1976

   Precious Metal Veins of the Berens River Mine.

2. AYRES, L.D., 1968

   Setting Net Lake Area, District of Kenora (Patricia Portion; p. 3-6 in Summary of Field Work, 1968, by the Geological Branch, edited by E. G. Pye, Ontario Dept. Mines MP22, 67 p.

3. _____, 1969

   Setting Net Lake Area, District of Kenora (Patricia Portion); p. 3-6 in Summary of Field Work, 1969, by the Geological Branch, edited by E.G. Pye, Ontario Dept. Mines. MP32, 70 p.

4. _____, 1970

   Setting Net Lake Area, District of Kenora (Patricia Portion); Ontario Dep. Mines, Prelim. Geol. Map No. P. 538 (Revised), scale 1 inch to 1/4 mile. Geology 1968 and 1969. Re-issued 1970 with additional geology.

5. _____, 1972

   Northwind Lake Area, District of Kenora (Patricia Portion), Ontario Div. Miens, Prelim. Map. p. 756. Scale 1 inch to 1/4 mile.

6. _____, 1973

   Favourable Lake - Berens Lake
   Geol. Compilation Series, Ont. Div. Miens Map 2262, Scale 1" - 4 mi.

7. _____, 1974

   Geology of the Trout Lake Area,
   Ontario Dept. Miens, Geol. Report 113.

8. _____, 1977

   The Importance of Stratigraphy in Early Precambrian Volcanic Terranes: Cyclic Volcanism at Setting Net Lake, Northwestern Ontario in Volcanic Regimes in Canada, geol. Ass. Can. Sp. Paper 16.

9. BATEMAN, J. D., 1938

Recent Developments in the Favourable Lake Area, Ont. Dept. Mines, Ann. Report, Vol. 47, pt. 7, p. 79-93.

10. FERGUSON, S.A., et al. 1971

Berens River Mine, Gold Deposits of Ontario, Ont. Div. Mines, Min. Res. Circular 13, p. 233-234.

11. HURST, M.E., 1929

Geology of the Area between Favourable Lake and Sandy Lake, Ont. Dept. Mines, Ann. Report, Vol 38, pt. 2.

12. NORAMCO EXPLORATIONS INC., 1988

Reports, maps, and drill logs re current exploration work plus conversations with operating personnel.

13. ONTARIO GEOLOGICAL SURVEY, ASSESSMENT FILES, TORONTO.

14. WRIGHT ENGINEERS LIMITED, 1987

Getty-Zahavy Joint Venture Gold Project - Status Report; January, 1987.

15. WOLFE, W.J., 1976

Geochemical and Biogeochemical Exploration of Molybdenum Copper Mineralization at Setting Net Lake, Ont. Div. Mines Geoscience Report 156.

CERTIFICATE OF QUALIFICATION

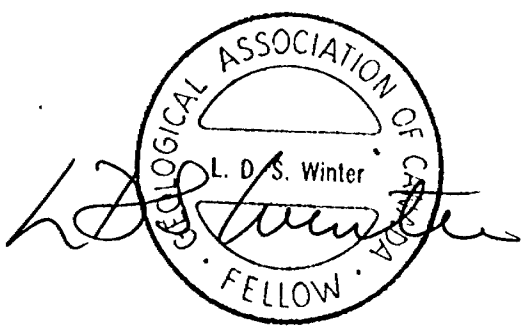
I, Lionel Donald Stewart Winter do hereby certify:

1. that I am a geologist and reside at 1849 Oriole Drive, Sudbury, Ontario, P3E 2W5,
2. that I am a Fellow of the Geological Association of Canada,
3. that I graduated from the University of Toronto in Mining Engineering in 1957 with a Bachelor of Applied Science and from McGill University, Montreal in 1961 with a Master of Science (Applied) in Geology,
4. that I have practiced my profession continuously for 26 years,
5. that my report on the Zahavy Property, Favourable Lake Area, Ontario is based on my personal knowledge of the geology of the area, and on a review of published and unpublished information on the property and surrounding area and, discussions with operating personnel,
6. that I have no personal, direct or indirect interest in the Zahavy Property, Favourable Lake Area, Ontario or any adjacent properties, nor do I hold or intend to hold any shares of Zahavy Mines Limited and I have written this report as a totally independent consultant.

L.D.S. Winter
B.A.Sc., M.Sc., F.G.A.C.
February 15, 1988

LETTER OF CONSENT

I, L.D.S. Winter, consulting geologist, 1849 Oriole Drive, Sudbury, Ontario, do hereby consent to Zahavy Mines Limited, using in whole or in part my report on the Zahavy Property, Favourable Lake Area, Ontario in a prospectus or statement of material facts or for filing with government regulatory bodies as is deemed necessary.



Dated at Sudbury, Ontario
February 15, 1988

L.D.S. Winter,
B.A.Sc., M.Sc., F.G.A.C.

53C13NE0011 63.4867 SETTING NET LAKE

020

SUMMARY REPORT

FAVOURABLE LAKE PROJECT

SOUTH TROUT LAKE PROPERTY

FOR THE PERIOD

NOVEMBER 1, 1986 TO FEBRUARY 28, 1987

Peter T. George, P.Eng.,
Geologist.

Downsview, Ontario,
May 5, 1987.

SUMMARY

During the period November 1, 1986 to February 28, 1987 plans were finallized for the major 1987 program of surface and underground exploration on the property, site preparations (primarily readying the camp for personnel) were initiated, a preliminary supply haul was completed, and the planned program of surface drilling was initiated.

As a result of adverse winter conditions (in particular, insufficient development of good lake ice) the winter supply haul utilizing Hawker Siddley 748 aircraft onto an ice airstrip at South Trout Lake could not be completed as planned.

In order to minimize the cost effect of utilizing smaller aircraft to mobilize supplies to the site, a decision was made to haul sufficient fuel to the site to keep the project going until the end of June and to bring the rest of the required fuel and supplies into the site in late May to early June when it is planned to have the airstrip extended to at least 1900 feet and possibly to 3300 feet. The longer runway length will allow use of a DC-3 aircraft at a significant cost saving.

The surface drill program was initiated on February 16, 1987. Six holes totalling 976 metres were completed during February to test the No. 2 Vein Zone structure. The vein structure was intersected along a strike length of 250 metres at vertical depths up to 90 metres. A preliminary assessment of the data indicates that the vein structure is made up of at least three, en echelon veins. Assays received to date indicate that the zone has potential for economically significant gold-silver values. It is anticipated that a major program of surface drilling will be required to assess the economic potential of this zone.

Total project expenditures for the period November 1, 1986 to February 28, 1987 were $291,351.56 with costs shared equally by Zahavy Mines Limited and Getty Resources Limited ($145,675.78 each).

53C13NE0011 63.4867 SETTING NET LAKE

020C

TABLE OF

INTRODUCTION

The following report has been prepared for submission to the Ontario Mineral Exploration Program to cover work carried out under OMEP Designation No. OM-86-P-274.

The report covers the period November 1, 1986 to February 28, 1987.

PROPERTY DESCRIPTION AND LOCATION

The property is located approximately 200 kilometres north of the mining community of Red Lake, Ontario and approximately 30 kilometres southwest of the Sandy Lake Indian Reserve.

The property is comprised of 45 leased claims, and 134 unpatented claims, all contiguous and located on the Setting Net Lake and North Trout Lake claim maps, Red Lake Mining Division, Ontario. The claim numbers are presented in Table 1 and their location presented on Figures 1 and 2.

PROPERTY ACCESS AND LOCAL RESOURCES

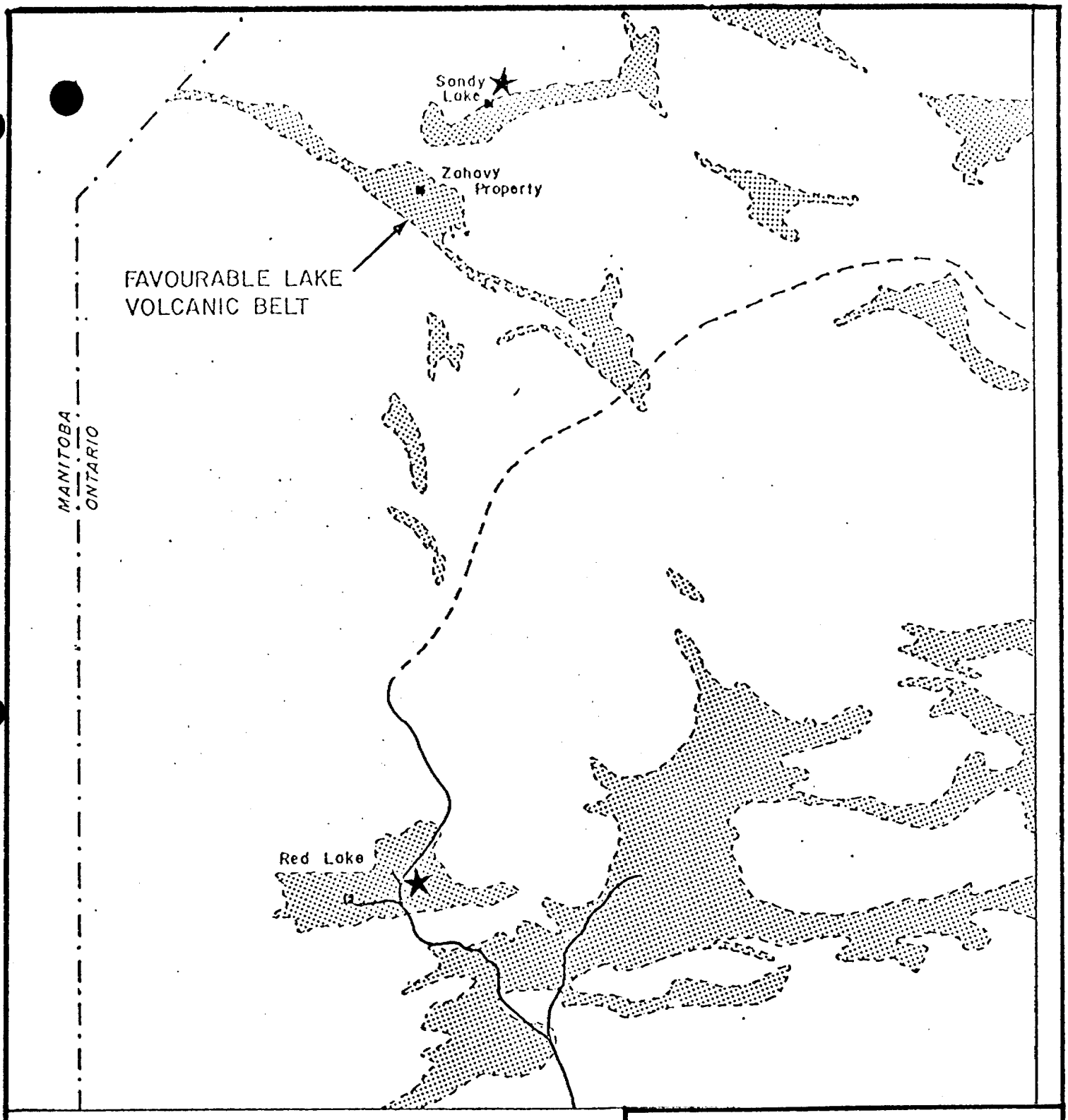
Access to the property is via air from Red Lake, Ontario or via the winter road from Pickle Lake, Ontario to Sandy Lake, Ontario.

South Trout Lake which is located approximately 3 kilometres north of the site, is accessible by road from the site, and is suitable for float and ski-equipped aircraft of all sizes.

At the site there is currently a 500 metre airstrip suitable for up to Twin Otter aircraft. This airstrip will be extended to 1000 metres during the 1987 program with a minimal amount of work. The airstrip is located on the tailings pond from the past producing Berens River Mine.

A hydro electric site capable of producing approximately 1500 horsepower is located 15 kilometres east of the site. All permits are in place to allow use of this site when a production decision is made.

All supplies necessary to carry on a mining operation are readily available through suppliers in Red Lake which is an established mining community.



LEGEND

- Volcanic Complex
- Airport
- All weather road
- Proposed road

10 0 25

MILES

FIGURE 1

LOCATION MAP

DATE:	SCALE: 1:1,600,000
DRAWN BY:	CHECKED BY:
DWG. NO.	NTS:
REVISION:	
REVISION:	
REVISION:	

Zahavy Mines Limited

Table 1

ACTIVE MINING CLAIMS

Code	Claim Number	Location	Recording Date
KRL	45327	SETTING NET	05/01/67
KRL	45328	SETTING NET	05/01/67
KRL	45329	SETTING NET	05/01/67
KRL	45330	SETTING NET	05/01/67
KRL	45331	SETTING NET	05/01/67
KRL	45332	SETTING NET	05/01/67
KRL	45333	SETTING NET	05/01/67
KRL	45334	SETTING NET	05/01/67
KRL	45335	SETTING NET	05/01/67
KRL	45336	SETTING NET	05/01/67
KRL	45337	SETTING NET	05/01/67
KRL	45338	SETTING NET	05/01/67
KRL	45339	SETTING NET	05/01/67
KRL	45340	SETTING NET	05/01/67
KRL	45341	SETTING NET	05/01/67
KRL	45342	SETTING NET	05/01/67
KRL	45343	SETTING NET	05/01/67
KRL	45344	SETTING NET	05/01/67
KRL	45520	SETTING NET	05/01/67
KRL	45522	SETTING NET	05/01/67
KRL	46818	SETTING NET	05/01/67
KRL	46819	SETTING NET	05/01/67
KRL	46820	SETTING NET	05/01/67
KRL	46821	SETTING NET	05/01/67
KRL	46822	SETTING NET	05/01/67
KRL	46823	SETTING NET	05/01/67
KRL	46824	SETTING NET	05/01/67
KRL	46825	SETTING NET	05/01/67
KRL	46826	SETTING NET	05/01/67
KRL	46827	SETTING NET	05/01/67
KRL	46828	SETTING NET	05/01/67
KRL	46829	SETTING NET	05/01/67
KRL	46830	SETTING NET	05/01/67
KRL	51878	SETTING NET	05/01/67
KRL	51879	SETTING NET	05/01/67
KRL	51880	SETTING NET	05/01/67
KRL	51881	SETTING NET	05/01/67
KRL	52190	SETTING NET	05/01/67
KRL	52191	SETTING NET	05/01/67
KRL	52192	SETTING NET	05/01/67
KRL	52193	SETTING NET	05/01/67
KRL	52194	SETTING NET	05/01/67
KRL	52195	SETTING NET	05/01/67
KRL	52196	SETTING NET	05/01/67
KRL	52197	SETTING NET	05/01/67
KRL	526198	SETTING NET	03/27/80
KRL	526199	SETTING NET	03/27/80

Table 1 (Continued)

ACTIVE MINING CLAIMS

Code	Claim Number	Location	Recording Date
KRL	526200	SETTING NET	03/27/80
KRL	526201	SETTING NET	03/27/80
KRL	526202	SETTING NET	03/27/80
KRL	526203	SETTING NET	03/27/80
KRL	526221	SETTING NET	03/20/80
KRL	526222	SETTING NET	03/20/80
KRL	526223	SETTING NET	03/20/80
KRL	526224	SETTING NET	03/20/80
KRL	526862	SETTING NET	07/17/80
KRL	526863	SETTING NET	07/17/80
KRL	526867	SETTING NET	07/17/80
KRL	526869	SETTING NET	07/17/80
KRL	526870	SETTING NET	07/17/80
KRL	526883	SETTING NET	07/17/80
KRL	526884	SETTING NET	07/17/80
KRL	526890	SETTING NET	07/17/80
KRL	526891	SETTING NET	07/17/80
KRL	526893	SETTING NET	07/17/80
KRL	526894	SETTING NET	07/17/80
KRL	526899	SETTING NET	07/17/80
KRL	526917	SETTING NET	07/17/80
KRL	526918	SETTING NET	07/17/80
KRL	526924	SETTING NET	07/17/80
KRL	526925	SETTING NET	07/17/80
KRL	526930	SETTING NET	07/17/80
KRL	526934	SETTING NET	07/17/80
KRL	542007	SETTING NET	02/26/81
KRL	542008	SETTING NET	02/26/81
KRL	542009	SETTING NET	02/26/81
KRL	542010	SETTING NET	02/26/81
KRL	542011	SETTING NET	02/26/81
KRL	542012	SETTING NET	02/26/81
KRL	542013	SETTING NET	02/26/81
KRL	542014	SETTING NET	02/26/81
KRL	542015	SETTING NET	02/26/81
KRL	542016	SETTING NET	02/26/81
KRL	542017	SETTING NET	02/26/81
KRL	542018	SETTING NET	02/26/81
KRL	542019	SETTING NET	02/26/81
KRL	542021	SETTING NET	02/26/81
KRL	542022	SETTING NET	02/26/81
KRL	542023	SETTING NET	02/26/81
KRL	542024	SETTING NET	02/26/81
KRL	542025	SETTING NET	02/26/81
KRL	542020	SETTING NET	02/26/81

Table 1 (Continued)

ACTIVE MINING CLAIMS

Code	Claim Number	Location	Recording Date
KRL	542026	SETTING NET	02/26/81
KRL	542031	SETTING NET	02/26/81
KRL	542032	SETTING NET	02/26/81
KRL	542033	SETTING NET	02/26/81
KRL	542034	SETTING NET	02/26/81
KRL	564116	SETTING NET	01/11/82
KRL	564117	SETTING NET	01/11/82
KRL	564118	SETTING NET	01/11/82
KRL	564119	SETTING NET	01/11/82
KRL	564120	SETTING NET	01/13/82
KRL	564121	SETTING NET	01/13/82
KRL	564122	SETTING NET	01/13/82
KRL	564123	SETTING NET	01/13/82
KRL	564124	SETTING NET	02/03/82
KRL	564125	SETTING NET	02/03/82
KRL	564126	SETTING NET	02/03/82
KRL	564127	SETTING NET	02/03/82
KRL	564128	SETTING NET	02/05/82
KRL	564129	SETTING NET	02/03/82
KRL	564130	SETTING NET	02/03/82
KRL	564131	SETTING NET	02/03/82
KRL	564132	SETTING NET	01/14/82
KRL	564133	SETTING NET	01/14/82
KRL	564134	SETTING NET	01/14/82
KRL	564135	SETTING NET	01/14/82
KRL	564136	SETTING NET	01/14/82
KRL	564137	SETTING NET	01/14/82
KRL	564138	SETTING NET	02/03/82
KRL	564139	SETTING NET	02/03/82
KRL	580418	SETTING NET	02/26/81
KRL	580419	SETTING NET	02/26/81
KRL	580420	SETTING NET	02/26/81
KRL	580421	SETTING NET	02/26/81
KRL	602804	SETTING NET	02/26/81
KRL	602805	SETTING NET	02/26/81
KRL	602806	SETTING NET	02/26/81
KRL	602807	SETTING NET	02/26/81
KRL	602808	SETTING NET	02/26/81
KRL	602809	SETTING NET	02/26/81
KRL	602810	SETTING NET	02/26/81
KRL	602811	SETTING NET	02/26/81
KRL	602812	SETTING NET	02/26/81
KRL	602813	SETTING NET	02/26/81
KRL	602814	SETTING NET	02/26/81
KRL	602815	SETTING NET	02/26/81
KRL	602816	SETTING NET	02/26/81
KRL	602817	SETTING NET	02/26/81
KRL	602818	SETTING NET	02/26/81
KRL	602819	SETTING NET	02/26/81
KRL	602820	SETTING NET	02/26/81

Table 1 (Continued)
ACTIVE MINING CLAIMS

Code	Claim Number	Location	Recording Date
KRL	602821	SETTING NET	02/26/81
KRL	602822	SETTING NET	02/26/81
KRL	602823	SETTING NET	02/26/81
KRL	602824	SETTING NET	02/26/81
KRL	623204	SETTING NET	06/30/82
KRL	623205	SETTING NET	06/30/82
KRL	623206	SETTING NET	06/30/82
KRL	623286	SETTING NET	08/19/82
KRL	645209	SETTING NET	06/15/82
6RL	645210	SETTING NET	06/15/82
KRL	645211	SETTING NET	06/15/82
KRL	645212	SETTING NET	06/15/82
KRL	645213	SETTING NET	06/15/82
KRL	645214	SETTING NET	06/15/82
KRL	645215	SETTING NET	06/15/82
KRL	645216	SETTING NET	06/15/82
KRL	645217	SETTING NET	06/15/82
KRL	645218	SETTING NET	06/15/82
KRL	645219	SETTING NET	06/15/82
KRL	645220	SETTING NET	06/15/82
KRL	645221	SETTING NET	06/15/82
KRL	645222	SETTING NET	06/15/82
RRL	645223	SETTING NET	06/15/82
KRL	645224	SETTING NET	06/15/82
KRL	646219	SETTING NET	06/15/82
KRL	646220	SETTING NET	06/15/82
KRL	646221	SETTING NET	06/15/82
KRL	646222	SETTING NET	06/15/82
KRL	646223	SETTING NET	06/15/82
KRL	646224	SETTING NET	06/15/82
KRL	646225	SETTING NET	06/15/82
KRL	646226	SETTING NET	06/15/82
KRL	646227	SETTING NET	06/15/82
KRL	646228	SETTING NET	06/15/82
KRL	967744	SETTING NET	02/20/87
KRL	967745	SETTING NET	02/20/87
KRL	967746	SETTING NET	02/20/87
KRL	967747	SETTING NET	02/20/87

PROPERTY HISTORY

Douglas (1926) carried out a mapping program for the Ontario Department of Mines in the Favourable Lake area. His report refers to mineralized showings near South Trout Lake that prompted prospecting activity in the area. In 1927 nine claims were staked by K. Murray of Winnipeg, Manitoba which covered the main mineralized veins within the confines of the current Zahavy property. Subsequently, Murray optioned the claims to a syndicate led by F. M. Connell (Conwest) who, in 1928 organized the Favourable Lake Mining and Exploration Company to explore the claims. Twenty-one additional claims were staked around the original nine claims and in 1928-29 the group completed extensive prospecting, trenching, and 1,050 metres of core drilling. This work resulted in the discovery of four mineralized veins (No. 1, No. 2, No. 3, and No. 4) but development was ruled out due to depressed precious metal prices and lack of inexpensive transportation routes.

In July 1936 Berens River Mines Limited, a subsidiary of Newmont Mining Corporation, acquired the property and added an additional nine claims and commenced development work. A shaft was sunk on the No. 1 Vein and surface and underground drilling completed between 1936 and 1939 successfully outlined an estimated 318,000 tons of ore averaging 0.31 oz. Au per ton and 16.4 oz. Ag per ton in the No. 1 Vein.

Heaavy equipment was brought into the property via tractor train on a winter road from Berens River Landing, Lake Winnipeg, during 1938 and 1939. Production commenced in September 1939 at a rate of 225 tons per day incorporating both flotation and cyanidization circuits in the mill. The No. 1 Shaft reached a depth of 576 metres (1890 feet) and an internal winze was sunk from the 518 metre-level (1700 feet) to a depth of 990 metres (3250 feet). No production is recorded below the 518 metre-level. The mine was in constant production until 1948 when low metal prices, post war inflation and labour problems forced its closure. During its nine-year life, a total of 560,607 tons of ore were milled producing 5,796,177 oz. Ag, 157,196 oz. Au, 6,105,872 lbs. Pb, and 1,797,091 lbs. Zn (Ferguson et al 1973). Precious metal consentrates were flown to the nearest railroad while base metal concentrates were stockpiled on the property and hauled out by winter road to Lake Winnipeg. A second shaft (No. 2 Shaft) was sunk to a depth of 155 metres (511 feet) to explore the No. 3 Vein. This zone was not brought into production.

The property received little attention until 1959 when Newmont allowed the claims to lapse and W. C. Arrowsmith acquired the mine property by staking. Golsil Mines Limited was formed to acquire the claims with the objective of re-evaluating the mine property and surrounding area. During the 1960's Golsil completed approximately 5500 metres of surface drilling and 3000 metres of underground drilling, deepened the No. 2 Shaft to 233 metres below surface and expanded the underground workings. By 1969 Golsil had outlined 460,000 tons of reserves averaging 0.17 ounces gold per ton, 6.22 ounces silver per ton, and 5 percent combined lead-zinc (Annis et al 1978) in the No. 3 Vein Zone (No. 2 Shaft area). Production was not undertaken because of prevailing economic conditions.

In 1971 Ducanex Resources optioned the property and carried out ground magnetic and electromagnetic surveys in an attempt to assess the volcanogenic base metal potential of the property. The option was dropped after one year. No drilling was carried out.

In 1973 Eastwest Resources optioned the property, dewatered the No. 2 Shaft, and attempted to increase the reserves by drilling three underground holes. This option was dropped in 1976.

In May 1980 Getty Canadian Metals Limited and Zahavy Mines Limited entered into a joint venture to explore the economic potential of the No. 2 Shaft mineralization. During the period 1980-83 Getty as operator carried out 6,600 metres of surface drilling on the No. 3 Vein Zone, dewatered and rehabilitated the No. 2 Shaft and completed approximately 350 metres of drifting on the 225 metre-level to provide access for drilling 26 deep holes totalling 9,450 metres to test the No. 3 Vein Zone to a depth of approximately 650 metres. Getty decided not to proceed with development of the property due to prevailing economic conditions. In-place, drill indicated plus drill inferred reserves calculated by Getty for the No. 3 Vein Zone on the basis of all work completed up to 1983 were 982,213 tons with an average grade of 0.26 oz. gold per ton and 4.81 oz. silver per ton.

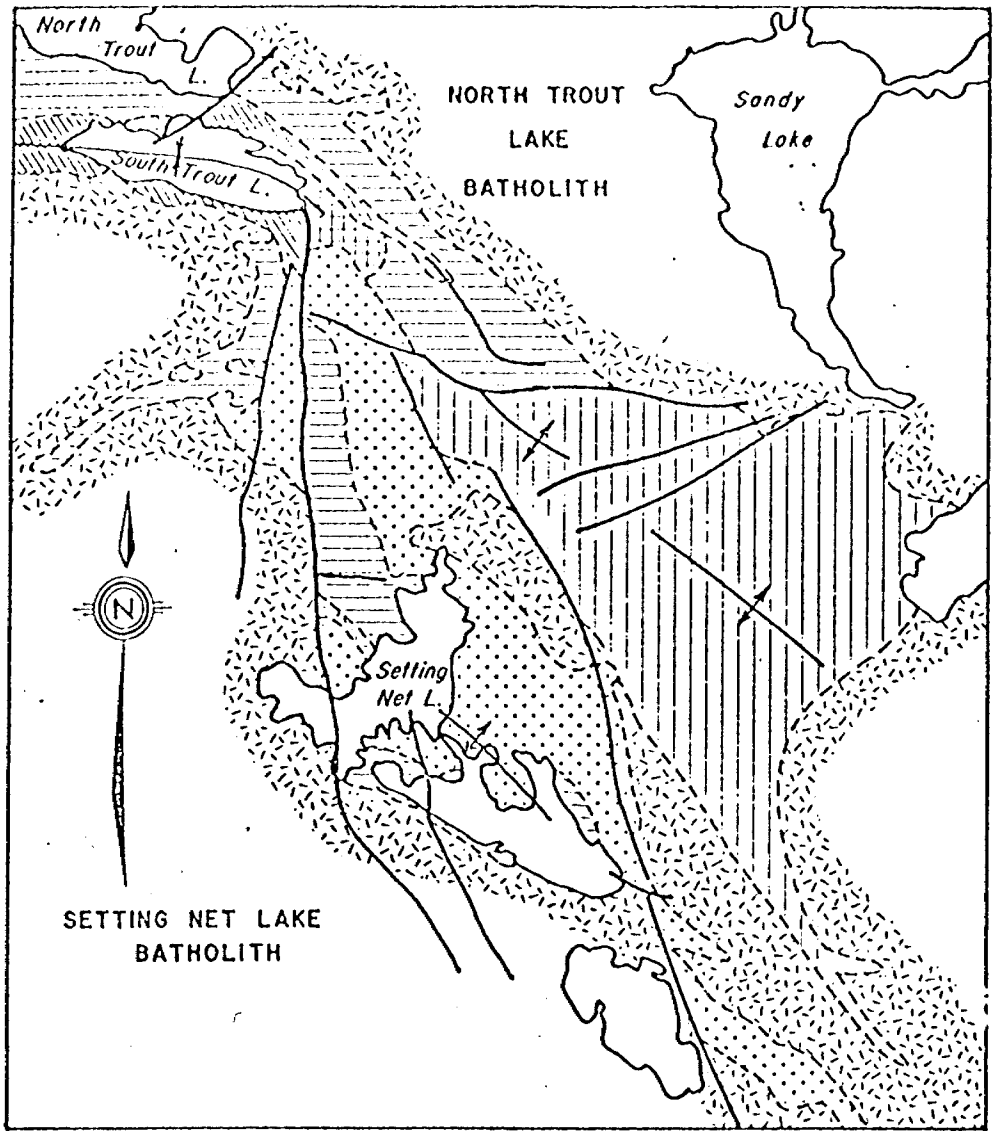
In November 1985 Zahavy took over as operator of the joint venture and in 1986 proposed that the joint venture proceed with a major surface and underground exploration program with the objective to bring the property to the production decision stage early in 1988. Preparations for this program commenced in November 1986.

GEOLOGY

Regional Geology

The property lies within the Favourable Lake volcanic belt, a part of the Superior Province of the Canadian Shield. The belt has been structurally deformed and subsequently intruded by a variety of younger intrusive rocks. The belt has a northwesterly trend, varies from 3 km to 10 km in width and is approximately 150 km in length. The belt has an average stratigraphic thickness of approximately 3,000 metres but thickens locally to 7,000 metres in the South Trout Lake area. The Favourable Lake volcanic belt is comprised of an assemblage of volcanic and sedimentary rocks which display the cyclic nature typical of the Archean.

Detailed stratigraphic mapping in the Trout Lakes-Setting Net Lakes area by Ayres (1972, 1974, 1977) has resulted in a five-fold division of volcanic cycles comprised of at least 15 formations (Table 2 and Figure 3). Ayres (1977) reports the Favourable Lake sequence commenced with a subaerial andesitic to dacitic event (Cycle 1) followed by three subaqueous basaltic shield events (Cycles 2, 3, and 4), capped by a relatively thin subaerial or shallow marine andesitic to dacitic unit (Cycle 5).



LEGEND

- INTRUSIVE ROCKS
- CYCLE 5
- *UNCONFORMITY*
- CYCLE 4
- CYCLE 3
- CYCLE 2
- CYCLE 1
- MAJOR FAULT
- MAJOR FOLD AXIS

0 5
KM

Distribution of volcanic cycles, Setting Net Lake portion of Favourable Lake metavolcanic – metasedimentary sequence. After Ayres, 1977.

FIGURE 3

VOLCANIC CYCLES

DATE	SCALE
DRAWN BY.	CHECKED BY.
DWG. NO.	NTS
REVISION	
REVISION	
REVISION	

Zahavy Mines Limited

TABLE 2

STRATIGRAPHY OF THE FAVOURABLE LAKE VOLCANIC BELT
(After Ayres 1977)

CYCLE 5 –	Intermediate pyroclastic rocks and sandstone.
CYCLE 4 –	Felsic to intermediate tuff.
–	Mafic flows, minor tuff.
CYCLE 3 –	Intermediate lapilli tuff.
–	Sandstone, conglomerate, tuff.
–	Mafic flows, minor tuff.
CYCLE 2 –	Chemical sediments - unsubdivided - chert, oxide and sulphide iron formation, marble.
–	Iron formation, sulphide and oxide facies.
–	Clastic sediments - conglomerate, sandstone, siltstone, slate, argillite.
–	Intermediate to felsic metavolcanic rocks, tuffs, breccia, porphyritic flows.
–	Mafic flows, minor tuff.
CYCLE 1 –	Argillite, siltstone, sandstone, minor iron formation.
–	Felsic flows
–	Mafic flows and tuff.
–	Intermediate to felsic flows and pyroclastic rocks.

The structural history of the Favourable Lake volcanic belt can be summarized in three main events:

(1) Synvolcanic, premetamorphic, normal faulting with relatively small (hundreds of metres) displacements. These structures are probably related to local caldera development.

(2) Regional isoclinal folding with a northwesterly trend characterized by broad folds overturned 5 to 10 degrees to the southwest.

(3) Regional faulting with relatively large displacements and probably active over a long period.

Two major regional fault trends, northerly and northwesterly, are characterized by subvertical dips. Displacement on these major features may be in the order of kilometres and activity along the faults probably extended over a period spanning late volcanism through metamorphism.

Metamorphism of the Favourable Lake volcanic belt probably occurred subsequent to regional isoclinal folding and for the most part is restricted to the lower to middle greenschist facies, marked by the development of chlorite, amphibole, and garnet. Locally metamorphic grade reaches amphibolite or hornblende-hornfels facies, especially within the contact zones of the younger granitic intrusives.

On a regional scale the main mineralization on the property is located near the top of volcanic Cycle 2 which consists of basal mafic volcanics overlain by a felsic pyroclastic assemblage which is in turn overlain by a sedimentary unit with a significant component of cherty, sulphide-rich chemical sedimentary rocks.

Property Geology

The property is underlain by an Archean volcanic-sedimentary sequence that has a northerly strike trend and a dip to the east of approximately 70 degrees. Stratigraphic tops are to the west.

The property is underlain by Cycle 2 volcanic rocks. The stratigraphic sequence from bottom to top (east to west) in the immediate vicinity of the property is as follows:

- mafic volcanic flows; overlain by
- intermediate to felsic pyroclastic rocks (caldera sequence); overlain by
- sedimentary rocks, including cherty sulphide-rich units; overlain by
- mafic volcanic rocks of the overlying volcanic cycle.

volcanic-sedimentary complex is intruded by late Archean granitic rocks to the west of the property. One diabase dike with a northerly strike direction has been mapped crosscutting the volcanic-sedimentary complex on the property.

Buck (1978) and Ayres (1977) have interpreted that the intermediate to felsic pyroclastic rocks underlying the property formed in a volcano-tectonic depression, possibly a caldera.

The sedimentary unit on the property is less than 500 metres thick and is comprised of a lower unit of sandstone, siltstone, and conglomerate overlain by thin-bedded argillite, siltstone, fine-grained tuffs, and chemical sediments. The chemical sediments consist of laminated chert, marble, banded sulphide and oxide facies iron formation. The chemical sediments are interpreted to be exhalites resulting from late stage fumerolic activity associated with the felsic volcanism. The fumerolic activity is also interpreted to be directly related to the formation of the mineralized vein systems.

MINERALIZATION

(1) Quartz-carbonate-actinolite veins containing gold, silver, lead and zinc are the most significant form of mineralization on the property. Accessory gangue minerals are primarily chlorite and garnet. The most common sulphide minerals are pyrite, sphalerite, and galena. Minor amounts of pyrrhotite, chalcopyrite, dyscrasite, tetrahedrite, ruby silvers, native silver and native antimony have been identified in polished section studies (Oliver 1949, Bateman 1938, Adams 1976). Native gold has so far not been recognized.

The veins strike in an easterly direction and generally dip 70 degrees to the south. The strike length of the veins is generally less than 500 metres and their width is variable but seldom greater than 5 metres. The veins lie within synvolcanic fault zones related to the collapse of the caldera complex. Ayres (personal communications), Buck (1978), and Adams (1976) have, through detailed mapping in the area, conclusively demonstrated that the mineralized vein faults are pre-regional metamorphism and pre-lithification of the caldera sequence pyroclastic rocks and the overlying sedimentary rocks. That is, the mineralization is genetically related to volcanic fumarolic activity during and immediately following the formation of the caldera complex. At least 20 veins of this type are known on the property, however, only two veins have been extensively explored:

- No. 1 Vein (No. 1 Shaft)

  Explored during the period 1928 to 1936 and developed to a depth of 990 metres (3250 feet) by Berens River Mines. Total production from the No. 1 Vein during the period 1939 to 1947 was 4,904.8 kilograms gold, 180,278.5 kilograms silver, 2,775,396 kilograms lead, and 816,860 kilograms zinc from 508,471 tonnes milled. The bulk of the production was from above the 518 metre-level (1700 feet). Production ceased in 1948 due to low metal prices, post-war inflation, and availability of labour. The potential still exists to

define reserves in the No. 1 Vein Zone.

The vein zone dips 70 degrees to the south and the mineralization within the vein zone rakes approximately 70 degrees to the southeast. The rake of the zone is subparallel to the dip of the overlying volcanic-sedimentary contact. Individual stopes in the No. 1 Vein are reported to range from 20 to 100 metres long in strike length, 25 to 150 metres in vertical extent, with widths from 1 to 5 metres.

- No. 3 Vein (No. 2 Shaft)

Explored by trenching and surface drilling during the period 1928 to 1947. No. 2 Shaft sunk by Berens River Mines in 1946 with minor drifting on the 104 and 150 metre-levels. Berens River also drifted north from the No. 1 Shaft on the 473 metre-level (1550 feet) in an attempt to assess the down-dip potential of the No. 3 Vein. This drift stopped short of the No. 3 Vein, however, underground drilling by Berens River encountered the probable down-dip extension of the zone approximately 40 metres north of the drift.

During the period 1961-1967 Golsil Mines Limited carried out a surface drilling program and dewatered and deepened No. 2 Shaft to the 225 metre-level in order to carry out a program of drifting and underground drilling.

From 1980 to 1983 Getty Canadian Metals Limited carried out surface and underground exploration on the No. 3 Vein Zone.

Current in-place, drill indicated plus drill inferred reserves in the No. 3 Vein Zone to a depth of 750 metres are 891,300 tonnes grading 8.91 grams gold and 164.89 grams silver per tonne.

Mineralization in the No. 3 Vein is essentially identical in geometry and mineralogy to the No. 1 Shaft zone.

(2) A number of gold bearing quartz veins with common accessory arsenopyrite are known to occur on the property. These veins occur primarily within the mafic volcanic rocks on the property. These zones are basically unexplored and some will warrant drilling.

(3) The base metal potential of the property has not been evaluated. The zone of sulphide-rich cherty sedimentary rocks appears to be of exhalative origin and has potential for stratabound polymetallic base and precious metal mineralization. The zone has been traced by airborne electromagnetic surveys for a strike length of approximately 10 kilometres. The Borland Lake lead-silver-gold deposit located approximately 25 kilometres west of the property appears to be a stratabound occurrence located in what can be inferred to be a stratigraphically equivalent position.

1987 EXPLORATION WORK PLAN

The following provides an overview of the objectives and work plan for 1987:

1) To establish the tonnage of drill indicated and drill inferred reserves in the No. 3 Vein Zone above the bottom (520 metre level) of the No. 1 Shaft. Additional deep drilling will be carried out from the 225 metre-level of the No. 2 Shaft to accomplish this objective.

   Current reserve tonnage to the 520 metre level is approximately 700,000 tonnes in the drill indicated and drill inferred categories with an average in-place grade of 0.26 oz.Au and 5.02 oz.Ag per ton, based on a cut-off grade of 0.15 oz. gold per ton. Potential exists within the untested portions of the No. 3 Vein System above the 520 metre level to add at least another 150,000 tonnnes.

2) To define by drilling the grade distribution within the orebody above the 520 metre level in order to plan the mining sequence to optimize the economics.

3) To confirm the lateral and vertical continuity of the vein system as indicated by drilling, and to confirm by bulk sampling the validity of the drill indicated and inferred reserve grades. Detailed drilling will be carried out in areas of planned raising prior to initiating the mining program.

4) To indicate the reserve potential at depth by carrying out a program of deep drilling from the 425 metre level of the No. 1 Shaft.

   Current drill indicated and drill inferred reserves, based on a cut-off grade of 0.15 oz. gold per ton, between the 520 metre and 650 metre levels are approximately 85,000 tonnes with an average in-place grade of 0.12 oz. gold and 3.29 oz. silver per ton. The vein zone is only partially drill tested below the 520 metre level and is open at depth and completely untested below the 650 metre level.

5) A computer-based economic model will be developed for the deposit and will be continually upgraded as new data becomes available in order that decisions to continue with the program will be based on the best possible economic criteria.

6) To carry out a program of surface exploration drilling to test other vein zones known to occur on the property that have potential to increase the reserve tonnage on the property.

7) Completion of the full program proposed for 1987 and early 1988 should provide the basis for making a production decision early in 1988.

WORK COMPLETED DURING THE PERIOD NOVEMBER 1, 1986 TO FEBRUARY 28, 1987

WINTER SUPPLY HAUL

Due to poor ice forming conditions in the early part of the winter it was not possible to construct a landing strip on South Trout Lake that could handle large aircraft such as the Hawker Siddley 748 or DC-3.

As a result a decision was made to utilize Twin Otter aircraft to mobilize sufficient fuel (135,000 litres of diesel fuel, 9,000 litres of regular gas, and 2000 litres of Jet-B fuel) to the site to keep the project operating until the end of June. Kenn Borek Air Limited of Calgary were the low bidder and were awarded the contract. A concerted effort will be made early in May to complete the extension of the airstrip at the site in order that at least a DC-3 can be utilized to complete the required fuel and supply haul for the initial phase of the project. Some additional supplies may have to be hauled to the site early in May utilizing a Twin Otter out of Red Lake.

The fuel haul was 90 percent complete at month end and will be finished early in the first week of March.

SITE PREPARATIONS

During January some attempts were made to assess the possibility of opening up an ice airstrip on South Trout Lake. These attempts were abandoned when it became apparent that it would not be possible to get sufficient blue ice to support larger aircraft. In fact it was questionable whether or not there was sufficient ice to support our Cat 950 loader which would be needed to clear the strip.

The airstrip at the site has been maintained in a snow-free condition since February 10. Fortunately from a cost point of view snowfall during February has been minimal and little time has been expended on plowing.

The managers house has been opened up and is being utilized as a cookery and as accomodation for the drill crew and technical staff.

The 67 Kw diesel generator on site has been reassembled (a new engine had been shipped to the site by Getty in 1983) and will be operational early in March. This generator is sufficient to provide all surface electrical requirements in addition to being capable of operating the hoist in the event of loss of the larger Cat diesel generator units.

Minor equipment repairs are being completed to ensure that everything is operational for the start of the underground program.

SURFACE DRILL PROGRAM

The surface drill program was commenced on February 16 with mobilization of the crew to the site. Six holes totalling 976 metres were completed during the month.

The six holes (See Table 3 and Figure 4 for locations) were drilled to test the No. 2 Vein Zone which is located approximately 235 metres north of the No. 1 Shaft. The zone was previously untested by drilling with the exception of one hole (G-10) drilled by Golsil during the 1960's. No significant veining was reported in the first 30 metres of the Golsil hole where it should have intersected the vein zone. With the exception of the crosscut north of the No. 1 Shaft on the 1550-foot level no underground workings explored the area where this vein should occur. No geological records are available for the 1550-foot level immediately north of the shaft, however, the level plan indicates that approximately 130 metres of lateral drifting was completed at the point where the No. 2 Vein Zone would be interpreted to intersect the underground workings.

A preliminary assessment of the drill results indicates that three, en echelon vein zones make up the No. 2 Vein structure in the area tested. Table 4 summarizes the vein intercepts for the six holes. The host rocks are dacitic pyroclastic rock.

Table 3 - Hole Locations - No. 2 Zone

Hole Number	UTM Grid Co-ordinates	Brg(true)/Dip	Elev. (m a.s.l.)
Z87-42	457149E/5854569N	010/-50	329.8
Z87-43	457198E/5854561N	010/-50	331.8
Z87-44	457247E/5854553N	010/-50	331.6
Z87-45	457296E/5854544N	010/-50	330.6
Z87-46	457395E/5854527N	010/-50	322.2
Z87-47	457278E/5854446N	010/-50	325.5

These preliminary results of the drilling of the No. 2 Vein Zone are most encouraging as the vein has similar strike length potential to the No. 3 Vein and has yielded indications of significant gold-silver values in parts of the vein zone. A major drill program will be required to fully assess the potential of this vein zone. If ore reserves are defined in the No. 2 Vein system they will be readily accessible from the No. 1 Shaft.

Respectfully submitted

Peter T. George, P.Eng

LICENSED PROFESSIONAL ENGINEER
P.T. GEORGE
ONT. 810

REFERENCES

Adams, G.W.
1976 — Precious metal veins of the Berens River Mine, Northwestern Ontario; unpublished M.Sc. Thesis, University of Western Ontario, 113p.

Annis, R. C. et al
1978 — A survey of known mineral deposits in Canada that are not being mined; D.E.M.R. Report EMR 181, 69p.

Ayres, L. D.
1972 — Setting Net and Northwind Lake area, Ontario; O.D.M. Misc. Paper 53, pp. 6 - 13.

1974 — Geology of the Trout Lakes area, Ontario; O.D.M. Report 113, 119p.

1977 — Importance of stratigraphy in Early Precambrian volcanic terranes, cyclic volcanism at Setting Net Lake; in Volcanic Regimes in Canada, G.A.C. Special Paper 16, pp. 243 - 264.

Bateman, J. D.
1938 — Recent developments in the Favourable Lake area; O.D.M. Annual Report, v. 47, pt. 6, pp. 79-92.

Buck, P. S.
1978 — A caldera sequence in the Early Precambrian, Favourable Lake volcanic sequence; unpublished M.Sc. thesis, University of Manitoba, 140p.

Douglas, G. V.
1926 — Reconnaissance from Red Lake to Favourable Lake, Patricia - Kenora Districts, Ontario; O.D.M. Annual Report, v. 35, pt. 4, pp. 1 - 21.

Ferguson, S. A. et al
1973 — The Berens River Mine; in, Gold Deposits of Ontario, O.D.M. Mineral Resources Circular MRC 13, pp. 233 - 234.

Oliver, T. A.
1949 — Ore Minerals of the Berens River Mine; C.M.J., v. 70, pt. 6, pp. 83 - 86.

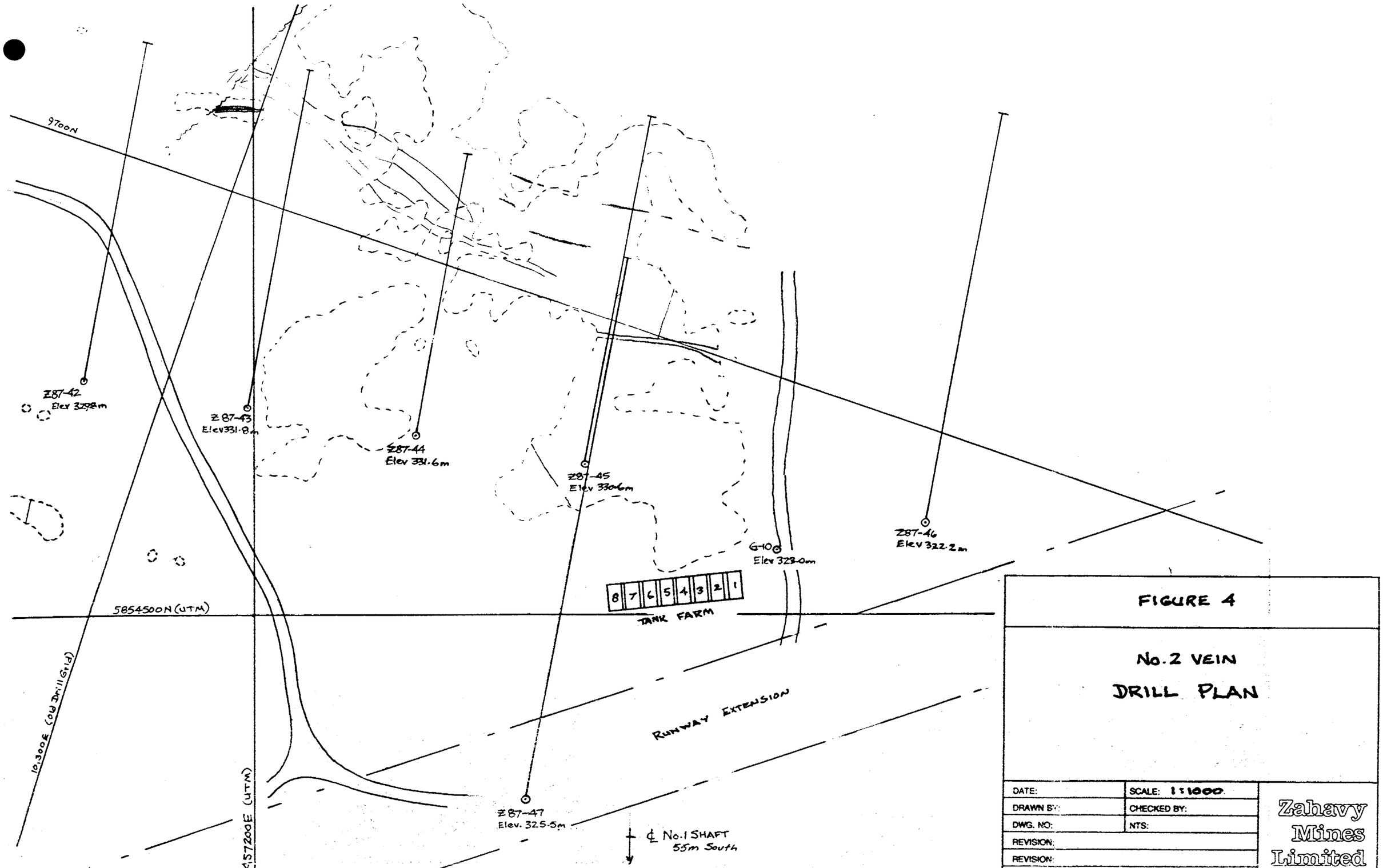


FIGURE 4

No.2 VEIN

DRILL PLAN

DATE:	SCALE: 1:1000
DRAWN BY:	CHECKED BY:
DWG. NO:	NTS:
REVISION:	
REVISION:	
REVISION:	

Zahavy Mines Limited

Table 4 - Vein Intercepts and Assays - No. 2 Vein

Hole Number	Vein Intercepts From	To (m)	Assays (g/t) Au	Ag	Description
Z87-42	109.9	111.0	3.87	113.01	Vein breccia zone, minor sphalerite.
Z87-43	110.2	113.2	0.69	6.17	Vein breccia zone, minor sphalerite.
Z87-44	36.5	41.0	Tr	Nil	Mineralized vein, 36.5 to 37.6, 5% galena, minor sphalerite; Vein breccia zone, 37.6 to 41.0
	100.3	104.9	Tr	Nil	Vein breccia zone, minor sphalerite and galena
Z87-45	31.5	33.0	0.21	298.73	Vein breccia zone, 10% sphalerite, 1% galena
	54.1	55.9	4.22	524.91	Mineralized vein, 54.1 to 55.9, 10% sphalerite 3% galena;
	55.9	58.1	Tr	Nil	Vein breccia zone 55.9 to 58.1
Z87-46	38.2	43.1	Tr	15.02	Vein breccia zone, 6% galena, 1% sphalerite
	44.5	105.0	No significant assays		Wide zone containing numerous narrow mineralized vein zones
Z87-47	68.0	71.0	Tr	27.14	Vein breccia zone
	116.0	119.0	Tr	Nil	Vein breccia zone

TABLE 5 - EXPENDITURE SUMMARY

ZAHAVY/GETTY JOINT VENTURE
FOR THE PERIOD NOVEMBER 1, 1986 TO FEBRUARY 28, 1987

1.0 Surface Drilling	66492.00
4.0 Site Services	8891.84
5.0 General Services	2400.00
6.0 Contract Personnel	42709.02
8.0 Fuel Supply	38078.52
9.0 Communications	1794.13
10.0 Transportation	93610.95
12.0 Travel, Accomodation	2324.03
13.0 Office Supplies	239.46
15.0 Insurance	1654.00
16.0 Project Management	6671.10
18.0 G & A	26486.51
TOTAL	$291,351.56
ZAHAVY MINES LIMITED SHARE	$145,675.78
GETTY RESOURCES LIMITED SHARE	$145,675.78

APPENDIX 1

DRILL LOGS

PETE GEORGE AND ASSOCIATES

DIAMOND DRILL RECORD

Hole Number Z-87-42

Company Name: Zahavy Mines Limited
Project Name: Favourable Lake Project
Property Name: South Trout Lake
Area: Setting Net Lake
Drilled By: Midwest Drilling

Location: Ontario
Latitude: 5854569N
Elevation: 329.8m
Started: February 18, 1987
Core: BQ

Claim: KRL 45331
Departure: 457149E
Length: 152 m
Finished: February 20, 1987
Logged By: D. Black & P. George

Remarks:
Holes Z-87-42 to 47 were drilled to provide a preliminary evaluation of the Number 2 Vein structure

Attitude of Hole

Depth	Dip	Azimuth	Depth	Dip	Azimu
Collar	-50	010			
75m	-47.8	---			
152m	-47.8	---			

Metreage From	Metreage To	DESCRIPTION	SAMPLES Sample No.	From	To	Total	Assays Au oz	Ag oz	Cu ppm	Zn ppm	Pb ppm
0	3.5	CASING									
3.5	38.6	DACITE Massive, fine grained, dark grey-blue, minor carbonate stringers at 20 to 75 degrees to core axis, occasional fracture filled with massive pyrite. 20.7 m: 3 cm Vein Breccia, 30 degrees to core axis 25-25.7m: fault zone, gouge and breccia. 28.75-28-93: Vein Breccia with minor fine pyrite. 34.8m: Vein Breccia, minor pyrite									
38.6	102.2	DACITE AGGLOMERATE/BRECCIA Dark grey blue colour, blocks and bombs of dacite, occasional seam of massive pyrite, plus occasional lithic fragment of massive pyrite. Common, 1-20 mm carbonate and quartz-carbonate stringers at 25 to 75 degrees to core axis. 101.75-102.1m: Vein Breccia, 25% lithic frags., 35% quartz, 20% actinolite, 20% calcite.	C13976	101.75	102.1	0.35	Tr	Nil			

Signature of Logger Peter George

DIAMOND DRILL RECORD Hole Number Z-87-42

Company Name: Zahavy Mines Limited Project Name: Favourable Lake
Property Name: South Trout Lake Area: Setting Net Lake

Metreage From	Metreage To	DESCRIPTION	SAMPLES Sample No.	From	To	Total	Assays Au ppm	Ag ppm	Cu ppm	Zn ppm	Pb ppm
102.2	111.0	DACITE Massive, dark blue-grey, frequent quartz and quartz-carbonate stringers at 30 to 70 degrees to core axis, frequent seams of massive pyrite at 30 to 40 degrees to core axis.									
109.94	111.0	VEIN BRECCIA 50% quartz, 25% actinolite, 20% calcite, 5% pyrite, minor sphalerite	C13982	109.69	109.94	0.25	Tr	Nil			
			C13977	109.94	110.25	0.31	0.12	3.37			
			C13978	110.25	110.5	0.25	0.19	5.80			
			C13979	110.50	110.75	0.25	0.06	4.22			
111.0	116.2	DACITE As 102.2 to 111.0	C13980	110.75	111.00	0.25	0.06	0.18			
			C13983	111.00	111.25	0.25	Tr	Nil			
116.2	116.65	VEIN BRECCIA 40% lithic fragments, 25% actinolite, 25% calcite, minor pyrite	C13981	116.20	116.65	0.45	0.01	Nil			
116.65	123.1	DACITE As 102.2 to 111.0									
123.1	123.47	MINERALIZED VEIN ZONE 30% actinolite, 30% calcite, 20% quartz, 10% sphalerite, 7% galena, 3% pyrite	C13984	123.00	123.47	0.47	Tr	0.82			
123.47	134.4	DACITE As 102.2 to 111.0 132.0-133.7: buff alteration zone, minor grey quartz veining.									
134.4	152.0	DACITE AGGLOMERATE/BRECCIA Dark grey-blue with vaguely visible blocks and bombs. Rare quartz and quartz-carbonate stringers, minor seams of massive pyrite. 141.3m: Narrow Vein Breccia, 40% lithic fragments, 20% quartz, 20% actinolite, 20% calcite, minor pyrite									
152.0		END OF HOLE									

Signature of Logger _____

DIAMOND DRILL RECORD

Hole Number Z-87-43

Company Name: Zahavy Mines Limited
Project Name: Favourable Lake
Property Name: South Trout Lake
Area: Setting Net Lake
Drilled By: Midwest Drilling

Location: Ontario
Latitude: 5854561N
Elevation: 331.8
Started: February 20, 1987
Core: BQ

Claim: KRL 45331
Departure: 457166E
Length: 155.0m
Finished: February 21, 1987
Logged By: D. Black & P.George

Remarks:

Holes Z-87-42 to 47 were drilled to provide a preliminary evaluation of the Number 2 Vein structure.

Attitude of Hole

Depth	Dip	Azimuth	Depth	Dip	Azimuth
0	-50	010			
75	-50.5	---			
150	-46.5	---			

Metreage From	Metreage To	DESCRIPTION	SAMPLES Sample No.	From	To	Total	Assays Au oz	Ag oz	Cu ppm	Zn ppm	Pb ppm
0	3.5	CASING									
3.5	12.5	DACITE AGGLOMERATE/BRECCIA Dark grey-blue colour with course blocks and bombs. Narrow seams of pyrite common.									
12.5	34.0	DACITE Massive, fine grained with local porphyrytic sections at 14.55 to 15m, 17.25 to 17.5m, and 20 to 34m. Quartz-carbonate stringers at 40 to 50 degrees to core axis and occasional narrow pyrite seam in the section 20 to 34m. Buff alteration 30.8 to 32.25m. 13.74m: Narrow Vein Breccia 28.25m: Narrow Vein Breccia, 50% quartz, 45% calcite, minor actinolite and pyrite.									
34.0	41.44	DACITE AGGLOMERATE/BRECCIA Dark grey-blue with angular blocks and bombs. Frequent pyrite seams at 30 to 50 degrees to core axis. Grey quartz-calcite stringers also common at 30 to 50 degrees to core axis.									

Signature of Logger Peter George

DIAMOND DRILL RECORD

Hole Number Z-87-43

Company Name: Zahavy Mines Limited
Property Name: South Trout Lake

Project Name: Favourable Lake
Area: Setting Net Lake

Metreage From	Metreage To	DESCRIPTION	SAMPLES Sample No.	From	To	Total	Assays Au ppm	Ag ppm	Cu ppm	Zn ppm	Pb ppm
41.44	44.95	FELSITE DIKE/BUFF ALTERATION									
		Fine grained, buff coloured rock, very similar in appearance to typical buff alteration (sericite-silica) except that contacts are very sharp.									
		42.04m: Narrow Vein Breccia, minor sphalerite									
44.95	63.8	DACITE LAPILLI TUFF									
		Massive, fine to medium grained, dark grey-blue, with occassional coarse fragment. Porphyritic zone from 48.85 to 49.60m. Quartz-calcite stringers common to 55m at 10 to 70 degrees to core axis.									
		51.2m: 6cm Vein Breccia, minor sphalerite.									
		62.88m: 3cm Vein Breccia, minor sphalerite									
63.8	93.9	DACITE-CHLORITE ALTERED									
		Dark grey-blue, tuff to agglomerate, chlorite altered throughout. Occasional quartz-carbonate stringer.									
93.9	98.0	DACITE									
		Massive, dark grey-blue, minor chlorite alteration for 30cm at 97m.									
98.0	107.45	DACITE PORPHYRY									
		Massive, dark grey-blue, fine grained with light grey medium-fine grained feldspar crystals. Similar to 48.85 to 49.6.									
107.45	110.2	DACITE									
		Massive, dark grey-blue, fine grained, occasional quartz-calcite stringer at 40 degrees to core axis.									
			C13985	110.2	110.7	0.50	0.08	Nil			
		107.45m: 3cm Vein Breccia	C13986	110.7	111.2	0.50	Tr	Nil			
			C13987	111.2	111.7	0.50	0.01	0.41			
110.2	113.2	VEIN BRECCIA	C13988	111.7	112.2	0.50	Tr	Nil			
		Minor sphalerite.	C13989	112.2	112.7	0.50	0.01	0.38			
			C13990	112.7	113.2	0.50	Tr	0.96			

Signature of Logger Peter George

DIAMOND DRILL RECORD

Hole Number Z-87-43

Company Name: Zahavy Mines Limited Project Name: Favourable Lake
Property Name: South Trout Lake Area: Setting Net Lake

Metreage From	Metreage To	DESCRIPTION	SAMPLES Sample No.	SAMPLES From	SAMPLES To	SAMPLES Total	Assays Au ppm	Assays Ag ppm	Assays Cu ppm	Assays Zn ppm	Assays Pb ppm
113.2	117.77	DACITE Massive, fine grained, dark grey-blue.									
117.77	119.96	DACITE TUFF Fine grained, thin bedded, buff coloured, similar to typical buff alteration, however, contacts are very sharp and appear to conform to bedding.									
119.96	141.57	DACITE PORPHYRY As 98.0 to 107.45. Occasional quartz-carbonate stringer at 25 to 50 degrees to core axis. Minor chlorite alteration in local patches. 126.4m: 10cm Vein Breccia									
141.57	142.18	VEIN BRECCIA	C13991	141.57	142.18	0.61	Tr	0.43			
142.18	144.5	DACITE PORPHYRY As 119.96 to 141.57									
144.5	155.0	DACITE Fine grained, massive, dark grey-blue, with occasional narrow porphyritic section. Frequent narrow pyrite seams.									
155.0		END OF HOLE									

Signature of Logger Peter J. George

PETER GEORGE AND ASSOCIATES

DIAMOND DRILL RECORD

Hole Number Z-87-44

Company Name: Zahavy Mines Limited
Project Name: Favourable Lake
Property Name: South Trout Lake
Area: Setting Net Lake
Drilled By: Midwest Drilling

Location: Ontario
Latitude: 5854553N
Elevation: 331.6
Started: February 21, 1987
Core: BQ

Claim: KRL 45331
Departure: 457247E
Length: 122.0m
Finished: February 22, 1987
Logged By: D. Black & P. George

Remarks:

Holes Z-87-42 to 47 were drilled to provide a preliminary evaluation of the Number 2 Vein structure.

Attitude of Hole

Depth	Dip	Azimuth	Depth	Dip	Azimu
Collar	-50	010			
75m	-45.5	---			
122m	-45.2	---			

Metreage From	Metreage To	DESCRIPTION	SAMPLES Sample No.	From	To	Total	Assays Au ppm	Ag ppm	Cu ppm	Zn ppm	Pb ppm
0	3.72	CASING									
3.72	14.8	DACITE PORPHYRY/CRYSTAL TUFF Fine grained, inequigranular, dark grey-blue, with light grey phenocrysts of feldspar less than 5mm. Occasional lithic fragment, frequent seams of pyrite.									
14.8	36.5	DACITE TUFF Fine grained, massive to faintly bedded, dark grey-blue 21.5-36.5: MGCA - magnetite-garnet-chlorite alt'n.									
36.5	37.58	MINERALIZED VEIN ZONE 50% Quartz, 30% actinolite, 10% calcite, 5% pyrite, 5% galena, minor sphalerite.									
37.58	41.0	VEIN BRECCIA Numerous narrow Vein Breccia zones									
41.0	73.5	DACITE Fine grained, massive to faintly bedded, dark grey-blue. Minor MGCA alteration from 41.0 to 48.0m and from d64.0 to 73.5m. Minor narrow Vein Breccia zones at 45.5m, 46.1 to 46.35m, 54.0m, 68.75m, 70.18m, and 71.58 to 71.88m									

Signature of Logger

DIAMOND DRILL RECORD Hole Number Z-87-44

Company Name: Zahavy Mines limited Project Name: Favourable Lake Project
Property Name: South Trout Lake Area: Setting Net Lake

Metreage From	Metreage To	DESCRIPTION	SAMPLES Sample No.	From	To	Total	Assays Au ppm	Ag ppm	Cu ppm	Zn ppm	Pb ppm
73.5	97.19	DACITE									
		Massive, dark grey-blue, occasional quartz-calcite stringer at 25 to 80 degrees to core axis; frequent pyrite seams from 73.5 to 77.5 metres; chlorite alteration 77.5 to 81.0 metres; porphyritic section from 81 to 97.19 metres; white bull quartz vein with minor sphalerite along contacts occurs at 76.26 to 76.69 metres; narrow vein breccia at 95.42 metres.									
97.19	100.3	ALTERED DACITE									
		Dark grey-blue, massive with chlorite alteration throughout; no quartz-calcite stringers.	C14001	100.3	100.8	0.5	Tr	Nil			
			C14002	100.8	101.3	0.5	Tr	Nil			
100.3	104.87	VEIN BRECCIA ZONE	C14003	101.3	101.8	0.5	Tr	Nil			
		Quartz, calcite, actinolite vein with large wallrock fragments; pyrite present, minor galena, and rare sphalerite.	C14004	101.8	102.3	0.5	Tr	Nil			
			C14005	102.3	102.8	0.5	Tr	Nil			
			C14006	102.8	103.3	0.5	Tr	Nil			
			C14007	103.3	103.8	0.5	Tr	Nil			
104.87	110.28	DACITE	C14008	103.8	104.3	0.5	Tr	Nil			
		Massive, dark grey-blue, slightly silicified, 3 cm wide vein breccia at 108.45 metres	C14009	104.3	104.87	0.57	Tr	Nil			
110.28	112.41	SILICEOUS TUFF									
		Olive to buff brown coloured, thin bedded, hard; numerous narrow seams of pyrite with associated dark alteration halos.									
112.41	122.0	DACITE AGGLOMERATE									
		Blocks and bombs of massive dacite in fine grained matrix; no veining.									
122.0		END OF HOLE									

Signature of Logger Peter A George

DIAMOND DRILL RECORD

Hole Number Z-87-45

Company Name: Zahavy Mines Limited
Project Name: Favourable Lake Project
Property Name: South Trout Lake
Area: Setting Net Lake
Drilled By: Midwest Drilling

Location: Ontario
Latitude: 5854544N
Elevation: 330.6
Started: February 22, 1987
Core: BQ

Claim: KRL 45331
Departure: 457296E
Length: 147.76
Finished: February 23, 1987
Logged By: D. Black & P. George

Remarks:
Holes Z-87-42 to 47 were drilled to provide a preliminary evaluation of the Number 2 Vein structure.

Attitude of Hole

Depth	Dip	Azimuth	Depth	Dip	Azimut
Collar	-50	010			
75m	-45				
148m	-46				

Metreage From	Metreage To	DESCRIPTION	SAMPLES Sample No.	From	To	Total	Assays Au oz/ton	Ag oz/ton	Cu ppm	Zn ppm	Pb ppm
0	3.5	CASING									
3.5	31.5	DACITE Massive, dark grey blue with occasional quartz-calcite stringers; silicified from 17 to 18 metres with a narrow vein breccia at 17.65 metres.									
31.5	33.0	VEIN BRECCIA ZONE 40% actinolite, 25% calcite, 20% quartz, 10% sphalerite, 1% galena, 4% pyrite from 31.5 to 32.7 metres with the remainder of the zone dominantly wallrock fragments.	C14010	31.5	32.0	0.5	Tr	1.74			
			C14011	32.0	32.5	0.5	0.01	Nil			
			C14012	32.5	33.0	0.5	0.01	24.40			
			C14013	33.0	33.5	0.5	Tr	0.33			
			C14014	33.5	34.0	0.5	Tr	Nil			
33.0	46.53	DACITE Massive, dark grey-blue; frequent quartz-calcite stringers at 30 to 50 degrees to core axis; chlorite alteration from 33.0 to 38.5 metres; narrow vein breccia at 35.5 metres.									
		44.68-45.18 Vein Breccia	C14015	44.68	45.18	0.5	Tr	Nil			
		46.03-46.53 Vein Breccia	C14016	46.03	46.53	0.5	Tr	Nil			

Signature of Logger Peter George

DIAMOND DRILL RECORD

Hole Number Z-87-45

Company Name: Zahavy Mines Limited
Property Name: South Trout Lake

Project Name: Favourable Lake Project
Area: Setting Net Lake

Metreage From	Metreage To	DESCRIPTION	SAMPLES Sample No.	From	To	Total	Assays Au oz/ton	Ag oz/ton	Cu ppm	Zn ppm	Pb ppm
46.53	54.08	DACITE AGGLOMERATE/BRECCIA									
		Large dark grey-blue, rounded to angular fragments of dacite in a fine grained matrix; occasional quartz-calcite stringers and pyrite seams at 25 to 80 degrees to core axis; chlorite alteration for last 0.5 metre of this section adjacent to vein breccia.									
54.08	58.1	VEIN BRECCIA ZONE	C14017	54.08	54.58	0.5	0.16	20.82			
		Highly mineralized vein breccia occurs from 54.08 to 55.9 with 40% actinolite, 25% calcite, 20% quartz, 10% sphalerite, 3% galena, and 2% pyrite; from 55.9 to 58.10 there are several large wallrock fragments separated by vein breccia, vein breccia constitutes 5% of the section.	C14018	54.58	55.08	0.5	0.29	34.91			
			C14019	55.08	55.4	0.32	Tr	Nil			
			C14020	55.4	55.9	0.5	Tr	Nil			
			C14021	55.9	56.4	0.5	Tr	0.15			
			C14022	56.4	56.9	0.5	Tr	Nil			
			C14023	56.9	57.4	0.5	0.04	0.66			
			C14024	57.4	57.9	0.5	Tr	0.50			
58.1	70.79	DACITE AGGLOMERATE/BRECCIA	C14025	57.9	58.1	0.2	Tr	0.63			
		Blocks and bombs of dark grey-blue dacite in a fine grained matrix; occasional quartz-calcite stringer at 30 to 70 degrees to core axis. Narrow vein breccia occurs at 65.8 and 70.5 metres.									
70.79	76.05	SILICEOUS TUFF									
		Buff-brown, siliceous rock with knife edge contacts with adjacent dacite									
76.05	77.97	VEIN BRECCIA ZONE	C14026	76.05	76.55	0.5	Tr	Nil			
		30% actinolite, 30% quartz, 30% calcite, 5% pyrite, 4% galena, 1% sphalerite; 30% wallrock fragments.	C14027	76.55	77.05	0.5	Tr	Nil			
			C14028	77.05	77.55	0.5	Tr	Nil			
			C14029	77.55	77.97	0.42	Tr	Nil			
77.97	79.9	DACITE									
		Massive dacite with fine disseminated pyrite.									
79.9	81.4	VEIN BRECCIA ZONE									
		As 76.05 to 77.97 with 50 % wallrock fragments	C14030	79.9	80.4	0.5	Tr	Nil			
			C14031	80.4	80.9	0.5	Tr	Nil			
81.4	144.0	DACITE AGGLOMERATE/BRECCIA	C14032	80.9	81.4	0.5	Tr	1.25			
		As 58.1 to 70.79;									

Signature of Logger Peter George

DIAMOND DRILL RECORD

Hole Number Z-87-45

Company Name: Zahavy Mines Limited Project Name: Favourable Lake Project
Property Name: South Trout Lake Area: Setting Net Lake

Metreage		DESCRIPTION	SAMPLES				Assays				
From	To		Sample No.	From	To	Total	Au ppm	Ag ppm	Cu ppm	Zn ppm	Pb ppm
144.0	147.76	DACITE Bleached, porphyritic dacite(rhyodacite?), locally brecciated; minor pyrite seams.									
147.76		END OF HOLE									

Signature of Logger [redacted]

DIAMOND DRILL RECORD

Hole Number Z-87-46

Company Name: Zahavy Mines Limited
Project Name: Favourable Lake Project
Property Name: South Trout Lake
Area: Setting Net Lake
Drilled By: Midwest Drilling

Location: Ontario
Latitude: 5854527N
Elevation: 322.2m
Started: February 23, 1987
Core: BQ

Claim: KRL 45331
Departure: 457395E
Length: 152.0m
Finished: February 25, 1987
Logged By: D. Black & P. George

Remarks:

Holes Z-87-42 to 47 were drilled to provide a preliminary evaluation of the Number 2 Vein structure.

Attitude of Hole

Depth	Dip	Azimuth	Depth	Dip	Azimut
Collar	-50	010			
75m	-46				
152m	-48				

Metreage From	Metreage To	DESCRIPTION	SAMPLES Sample No.	From	To	Total	Assays Au oz/ton	Ag oz/ton	Cu ppm	Zn ppm	Pb ppm
0	9.8	CASING									
9.8	20.8	SILICEOUS TUFF Massive to foliated, fractured, buff brown, siliceous occasional narrow smokey quartz vein at 20 to 70 degrees to core axis.									
20.8	38.23	DACITE AGGLOMERATE/BRECCIA Large angular to subrounded, dark grey-blue dacite fragments in a fine grained matrix. Narrow vein breccia zones occur at approximately 1/2 metre intervals from 21.5 to 34 metres. Some of the dacite is porphyritic.									
38.23	43.06	VEIN BRECCIA ZONE Well mineralized from 38.23 to 39.69, with 30% lithic fragments, 30% actinolite, 20% calcite, 10% quartz, 6% galena, 3 pyrite, and 1% sphalerite. Lithic fragments increase to 40% with only a trace of sphalerite from 39.69 to 42.21 metres. From 42.21 to 43.06 is as 38.23 to 39.69.	C14033	38.23	38.73	0.5	Tr	Nil			
			C14034	38.73	39.23	0.5	Tr	Nil			
			C14035	39.23	39.69	0.46	Tr	Nil			
			C14036	39.69	40.19	0.5	Tr	Nil			
			C14037	40.19	40.69	0.5	Tr	1.40			
			C14038	40.69	41.19	0.5	Tr	Nil			
			C14039	41.19	41.69	0.5	0.03	1.20			
			C14040	41.69	42.21	0.52	Tr	Nil			
43.06	44.51	SILICEOUS TUFF Buff brown, siliceous, weakly foliated; smokey grey 6cm wide grey quartz vein at 30 degrees to core axis.	C14041	42.21	42.71	0.5	Tr	Nil			
			C14042	42.71	43.06	0.35	Tr	0.60			

Signature of Logger _____

DIAMOND DRILL RECORD Hole Number Z-87-46

Company Name: Zahavy Mines Limited Project Name: Favourable Lake Project
Property Name: South Trout Lake Area: Setting Net Lake

Metreage		DESCRIPTION	SAMPLES				Assays				
From	To		Sample No.	From	To	Total	Au oz/ton	Ag oz/ton	Cu ppm	Zn ppm	Pb ppm
44.51	105.0	DACITE AGGLOMERATE/BRECCIA	C14043	44.77	45.27	0.5(85)	Tr	2.53			
		Dark grey-blue with large blocks and bombs with	C14044	45.27	45.77	0.5(0)	Tr	Nil			
		ghosty, indistinct margins. Frequent narrow vein	C14045	45.77	46.27	0.5(25)	Tr	Nil			
		breccia zones at 1/2 to 1 metre intervals. Quartz-	C14046	51.62	52.12	0.5(25)	Tr	Nil			
		calcite stringers are also frequent at 30 to 45	C14047	52.12	52.62	0.5(0)	Tr	Nil			
		degrees to core axis.	C14048	52.62	53.12	0.5(5)	Tr	Nil			
			C14049	53.12	53.62	0.5(5)	Tr	Nil			
		The percent of vein material in the samples taken has	C14050	53.62	54.12	0.5(25)					
		been indicated in brackets in the sample width	C14051	54.12	54.62	0.5(25)					
		column.	C14052	54.62	55.12	0.5(5)					
			C14053	55.12	55.62	0.5(5)					
105.0	152.0	DACITE AGGLOMERATE/BRECCIA	C14054	55.62	56.12	0.5(5)	Tr	0.66			
		Large angular to rounded blocks and bombs of dark	C14055	56.12	56.62	0.5(45)	Tr	0.36			
		grey-blue dacite. Minor narrow vein breccia	C14056	56.62	57.12	0.5(0)					
		occurences; rare quartz-calcite stringers; frequent	C14057	57.12	57.62	0.5(0)					
		narrow seams of pyrite.	C14058	57.62	58.12	0.5(25)					
			C14059	58.12	58.62	0.5(5)					
152.0		END OF HOLE	C14060	58.62	59.12	0.5(35)					
			C14061	59.12	59.62	0.5(15)					
			C14062	59.62	60.12	0.5(15)					
			C14063	60.12	60.62	0.5(25)	Tr	Nil			
			C14064	60.62	61.12	0.5(55)	Tr	Nil			
			C14065	61.12	61.62	0.5(5)	Tr	1.90			
			C14066	61.62	62.12	0.5(25)	Tr	1.70			
			C14067	62.12	62.62	0.5(35)	Tr	1.08			
			C14068	62.62	63.12	0.5(15)	Tr	1.36			
			C14069	102.87	103.37	0.5(55)	Tr	2.38			
			C14070	103.37	103.87	0.5(5)	Tr	0.52			
			C14071	103.87	104.37	0.5(95)	Tr	3.96			
			C14072	104.37	104.87	0.5(0)	Tr	1.90			

Signature of Logger Peter George

PETER GEORGE AND ASSOCIATES

DIAMOND DRILL RECORD

Hole Number Z-87-47

Company Name: Zahavy Mines Limited
Project Name: Favourable Lake Project
Property Name: South Trout Lake
Area: Setting Net Lake
Drilled By: Midwest Drilling

Location: Ontario
Latitude: 5854446N
Elevation: 325.5m
Started: February 26, 1987
Core: BQ

Claim: KRL 45331
Departure: 457278E
Length: 251m
Finished: February 28, 1987
Logged By: D. Black & P. George

Remarks:

Holes Z-87-42 to 47 were drilled to provide a preliminary evaluation of the Number 2 Vein structure.

Attitude of Hole

Depth	Dip	Azimuth	Depth	Dip	Azimu
Collar	-50	010			
170m	-46.6				
251m	-45.4				

Metreage From	Metreage To	DESCRIPTION	SAMPLES Sample No.	From	To	Total	Assays Au ppm	Ag ppm	Cu ppm	Zn ppm	Pb ppm
0	3.5	CASING									
3.5	17.5	DACITE Massive, dark grey-blue; frequent pyrite seams; narrow vein breccia at 13.7m									
17.5	28.32	DACITE AGGLOMERATE/BRECCIA Large rounded to angular dark grey blue bombs and blocks of dacite; occasional quartz-calcite stringer at 30 to 45 degrees to core axis.									
28.32	57.5	DACITE PORPHYRY Dark grey-blue dacite porphyry with occasional pyrite seams; possible agglomeratic section from 44.5 to 51m.									
57.5	64.2	ALTERED DACITE Dark grey-blue dacite with patchy chlorite-garnet-magnetite alteration.									
64.2	68.12	DACITE PORPHYRY As 28.32 to 57.5									

Signature of Logger Peter George

DIAMOND DRILL RECORD Hole Number Z-87-47

Company Name: Zahavy Mines Limited Project Name: Favourable Lake Project
Property Name: South Trout Lake Area: Setting Net Lake

Metreage		DESCRIPTION	SAMPLES				Assays				
From	To		Sample No.	From	To	Total	Au oz/ton	Ag oz/ton	Cu ppm	Zn ppm	Pb ppm
68.12	71.0	VEIN BRECCIA ZONE	C14073	68.12	68.62	0.5	Tr	2.44			
		Quartz-actinolite-calcite vein with 50 % lithic	C14074	68.62	69.12	0.5	Tr	2.31			
		fragments	C14075	69.12	69.62	0.5	Tr	Nil			
			C14076	69.62	70.12	0.5	Tr	Nil			
			C14077	70.12	70.62	0.5	Tr	Nil			
			C14078	70.62	71.0	0.38	Tr	Nil			
71.0	115.78	DACITE AGGLOMERATE/BRECCIA									
		Dark to light grey-blue, rounded to angular blocks									
		and bombs of dacite; frequent quartz-calcite									
		stringers and pyrite seams; Chlorite alteration from									
		110 to 113.									
115.78	119.5	VEIN BRECCIA ZONE	C14079	115.78	116.28	0.5	Tr	Nil			
		30% lithic fragments, 30% actinolite, 20% calcite,	C14080	116.28	116.78	0.5	Tr	Nil			
		10% quartz, 5% pyrite, 4% galena, 1% sphalerite	C14081	116.78	117.28	0.5	Tr	Nil			
			C14082	117.28	117.78	0.5	Tr	Nil			
119.5	127.25	DACITE	C14083	117.78	118.28	0.5	Tr	Nil			
		Dark grey-blue, fine to medium grained massive	C14084	118.28	118.78	0.5	Tr	Nil			
			C14085	118.78	119.28	0.5	Tr	Nil			
127.25	173.5	DACITE LAPILLI TUFF	C14086	119.28	119.5	0.22	Tr	Nil			
		Dark grey blue, fine to medium grained, minor									
		chloritic alteration; occasional quartz-calcite									
		stringer at 25 to 50 degrees to core axis.									
173.5	205.5	DACITE									
		Dark grey-blue, aphanitic, with occasional fragment									
		(lapilli?); chlritic alteration from 179 to 192m									
205.5	251.0	DACITE LAPILLI TUFF									
		As 127.25 to 173.5; with the occasional coarse									
		fragment; buff-brown zone of sericite-carbonate									
		alteration from 224.73 to 226.15; pyrite seams common									
251.0		END OF HOLE									

Signature of Logger Peter George

9900 E | 10000 E | 10100 E | 10200 E | 10300 E

5000 ELEVATION

SURFACE

"B" SHOOT 176,350 T
0.76 Au 7.8 Ag 2.83 m
TO-300 m

A SHOOT
AVERAGE OF ALL INTERSECTIONS AND GRADE 0.24 Au/3.78 m
OF ALL USING 3.5 TON / CU METRE
202,419 TONS AT 0.24/3.78 m
TO-300 m

4900

-100 m

150 LEVEL

4800

-200 m

COULD BE 100m ZONE.

225 LEVEL

4700

-300 m

4600

-400 m

4500

-500 m

-600 m

P.039 NEW ORE SHOOT

LEGEND

15 - 12 HOLE NUMBER

0.78, 21.8/1.85

GOLD OZ/T, SIVLER OZ/T/WIDTH METERS

SCLAE: 1:10,000

GEOLOGICAL ASSOCIATION OF CANADA
L. D. S. Winter
FELLOW

norsemaco explorations inc.

COMPANY NAME ZAHAVY MINES LTD.

PROPERTY NAME FAVOURABLE LAKE PROPERTY

LONGITUDINAL SECTION THROUGH ORE SHOOTS A & B
NO.3 VEIN SYSTEM

EXECUTED BY | COMPILATION BY
DATE | N.T.S. | DRAWN BY
SCALE | PROJECT NO. | CHECKED
DRAWING NO.

53C13NE0011 63.4867 SETTING NET LAKE

OM86-274

63.4867

9900 E | 10000 E | 10100 E | 10200 E | 10300 E

19 VEIN

"C" ZONE

151.500 T
0.183 , 7.5/7.7 TO-300m

5000 ELEVATION

DATUM 0

S282
0.33 , 8.22/2.0

S288
0.11 , 3.0/1.98

S285
0.09 , 4.5/1.37

ZA-80-05
0.11 , 2.5/1.4

ZA-81-39
0.12 , 4.82/2.34

ZA-80-07A
0.3 , 1.41/0.92

S291
0.21 , 14.25/3.43

ZA-80-08
0.14 , 0.79/2.01

S203
0.05 , 0.27/3.63

ZA-80-02
0.1 , 3.57/2.31

4900

-100 m

ZA-80-08
0.06 , 5.99/7.44

ZA-80-10
0.16 , 5.42/4.5

GI7
0.2 , 6.43/1.2

GI6
0.07 , 10.36/2.13

0.08 , 6.95/2.13

U150-3
0.184/3.0

0.13 , 6.14/2.0

U150-4
0.23/3.0

GI7
0.08 , 3.12/2.0

ZA-81-36
0.23 , 22.88/2.81

ZA-81-38
0.07 , 2.96/1.58

U410
0.7 , 3.85/2

U414
0.05 , 5.17/2.57

4800

-200 m

44 4.02 m

D-225-44
0.11 , 10.25/2.82

U225-48
0.167/1.52

0.2 , 4.31/2

0.24 , 16.88/2

U225-45

U225-42
0.86 /2.5

#45 4.68 m

225-43
0.134 ,9.316/1.28

225-06
0.56/2.5

#43 3.79 m

TR
225-47

#37 m
NOT FULLY
PENETRATED

225-45
0.224 , 1.33/1.95

G3
0.15 , 2.27/2.11

4700

-300 m

G-18
NIL

4600

-400 m

225-26
NIL

#15-36
0.08 , 3.27/2.0

#15-12
0.78 , 21.8/1.85

UNTESTED

4500

-500 m

-600 m

LEGEND

15 - 12 hole number

0.78, 21.8/1.85

GOLD OZ/T, SILVER OZ/T/WIDTH METERS

SCALE: 1:10,000

GEOLOGICAL ASSOCIATION OF CANADA
L. D. S. Winter
FELLOW

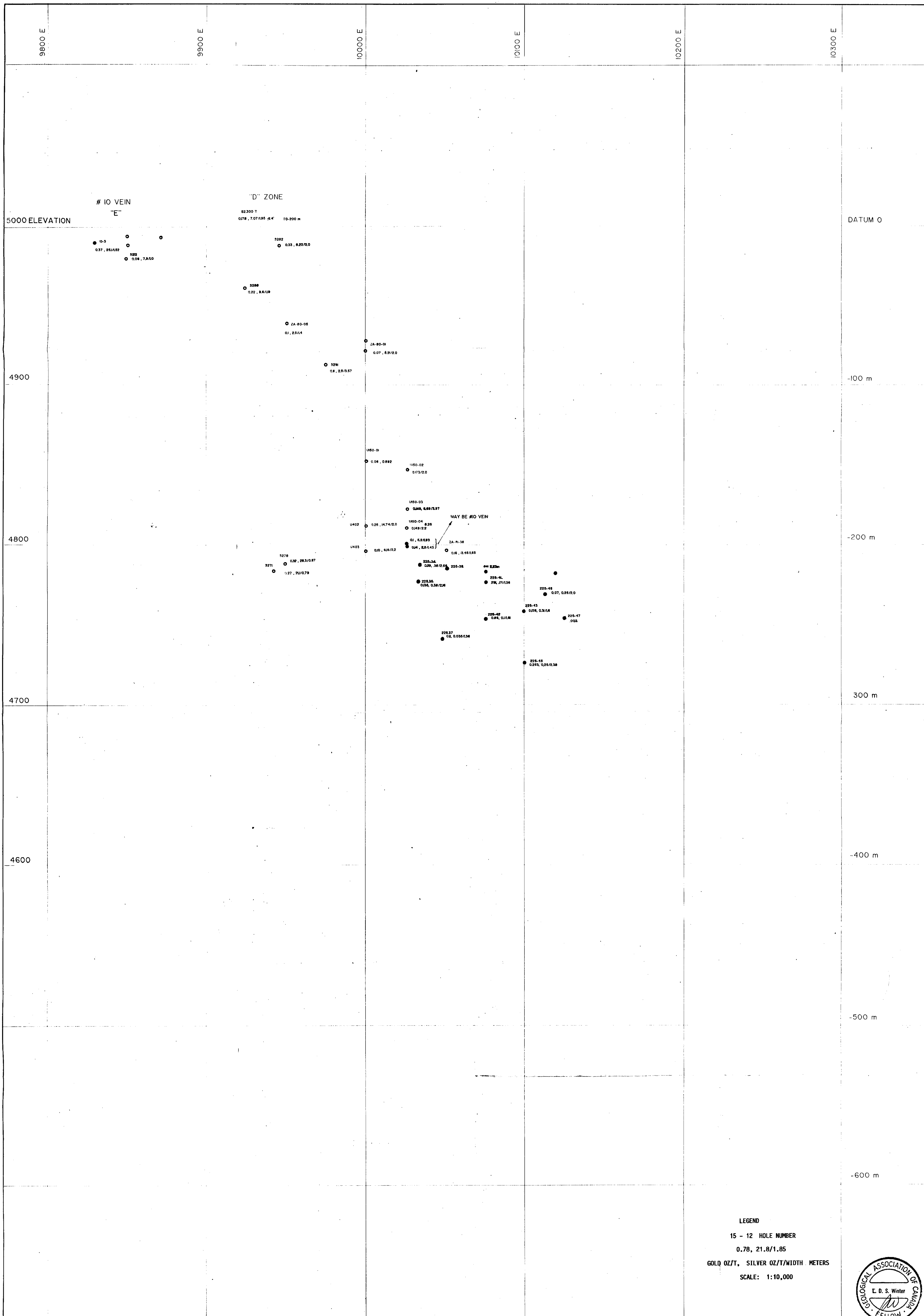
COMPANY NAME	ZAHAVY MINES LTD.
PROPERTY NAME	FAVOURABLE LAKE PROPERTY
	LONGITUDINAL SECTION THROUGH ORE SHOOT "C" ON ON NO.3 VEIN SYSTEM

EXECUTED BY	COMPILATION BY	
DATE:	N.T.S.	DRAWN BY:
SCALE:	PROJECT NO.	CHECKED
	DRAWING NO.:	

53C13NE0011 63.4867 SETTING NET LAKE

0M86-274

63.4867



9800 E
9900 E
10000 E
10100 E
10200 E
10300 E
10 VEIN
"E"
"D" ZONE
5000 ELEVATION
DATUM 0
52.300 T
0.178 , 7.07/1.95 ;6.4'
TO-200 m
10-3
0.37 , 25.1/1.52
3212
0.06 , 7.9/1.0
3262
0.33 , 6.22/2.0
3268
0.22 , 9.6/1.9
ZA-80-05
0.1 , 2.5/1.4
ZA-80-01
0.07 , 6.21/2.0
3291
0.11 , 2.8/3.57
4900
-100 m
U150-01
0.06 , 0.892
U150-02
0.173/2.0
U150-03
0.149, 8.68/3.97
MAY BE #10 VEIN
U402
0.25 , 14.74/2.0
U150-04
8.26
0.149/2.2
0.1 , 5.2/1.93
0.14 , 2.6/1.43
U403
0.10 , 6.16/2.2
ZA-81-38
0.16 , 13.46/1.65
4800
-200 m
3278
0.32 , 28.3/0.87
3271
0.27 , 21.1/0.79
225-34
0.39, .38/2.56
225-38
225-35
0.136, 0.38/2.16
641 2.23m
225-41
.291, .171/1.36
225-45
0.07, 0.25/2.0
225-43
0.128, 0.3/1.6
225-42
0.88, 0.1/1.61
225-47
.002
225.37
0.1, 0.035/1.36
225-46
0.263, 0.25/2.38
4700
300 m
4600
-400 m
-500 m
-600 m
LEGEND
15 - 12 HOLE NUMBER
0.78, 21.8/1.85
GOLD OZ/T, SILVER OZ/T/WIDTH METERS
SCALE: 1:10,000
GEOLOGICAL ASSOCIATION OF CANADA
E. D. S. Winter
FELLOW

noramco

COMPANY NAME ZAHAVY MINES LTD.

PROPERTY NAME FAVOURABLE LAKE PROPERTY

LONGITUDINAL SECTION THROUGH ORE SHOOTS "D" & "E"
ON NO.3 VEIN SYSTEM

DATE JAN./88

53C13NE0011 63.4867 SETTING NET LAKE

220

OM 86-274

63.4867