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## REPORT ON TRENCHING, SAMPLING AND COMPILATION OF DRILL DATA

<u>AT</u>

HIGH LAKE, NORTHWEST ONTARIO

ON BEHALF OF LARAMIDE SERVICE CORPORATION

J. H. REEDMAN & ASSOCIATES LTD, P. O. Box 1583, Winnipeg, Manitoba, R3C 2Z6

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# OM87-3-2-195

From 21st August to 27th September, 1987 a trenching and sampling programme was conducted at High Lake in Northwest Ontario to try and determine the controls of the gold mineralization and assess the property's potential. A compilation of all existing data was carried out currently with the field work and for a further four weeks following completion of the field work. Data from 115 diamond drill holes was entered on computer file using the BORSURV software package which was used to plot all sections and level plans.

Twenty two trenches, varying in depth from one to 10 feet and in length from 20 to 100 feet, were dug with a back-hoe mounted on a muskeg tractor. In addition 16 old trenches were cleaned out and outcrop at five sites was stripped of vegetation and thin soil cover by hand. Two hundred rock samples were taken and analysed for gold.

The geology consists of Archean basic volcanic rocks intruded by later Archean porphyritic granodiorite. The mineralization, which is hosted by both rock types, is controlled by regional shear joints trending N6OE and dipping northwest at 75 to 85 degrees. Pyrite always accompanies the gold mineralization, though sulphide content is not a good guide to gold content and some pyrite-bearing rocks contain little or no gold. Conversely, some high-grade samples contain only minor amounts of pyrite. Chalcopyrite is often present with some samples assaying up to five per cent copper.

The present investigation confirmed that the mineralization is erratic and consists of a series of lenses and pods with poor continuity. High-grade mineralization over widths of six to 10 feet may only have a strike length of 30 to 50 feet. As a result, the various zones on the property where significant concentrations of mineralization have been found are essentially comprised of a series of en echelon lenses.

Best sampling results obtained in the new trenches are: 0.93 oz/ton over 6.3 feet at Anomaly No. 5, 0.39 oz/ton over 5.5 feet at the W Zone and 0.11 oz/ton over 4.6 feet at Anomaly No. 3. In the old trenches best results are: 2.28 oz/ton over 6.2 feet at the B Zone, 0.33 oz/ton over 11.5 feet at the C Zone and 0.14 oz/ton over 4.7 feet at the W Zone.

At the A, B, C, P, R and W Zones defined in earlier drilling programmes total drill indicated reserves are just over 100,000 tons grading 0.33 oz/ton over an average true width of 8.7 feet. In all cases additional tonnage could probably be proved in depth and along strike, though substantial additions are unlikely. In this regard the W Zone is the most promising as it has better continuity than the other zones with a total minimum strike length of 700 feet proved by trenching. Only half this strike length has been tested by drilling to a maximum depth of 85 feet. However, indications are that the grade is likely to be lower than at the other zones.

The various zones are within a few hundred yards of each other and could be

#### SUMMARY

worked from a central location. If such a deposit with total reserves of 200,000 to 300,000 tons grading 0.25 to 0.35 oz/ton to a depth of 300 feet is of interest, it is recommended that the W Zone be tested by 5,000 feet of drilling in 20 or more shallow holes. If results proved encouraging, further drilling could be undertaken on any, or all, of the other zones with the C Zone having the lowest priority.



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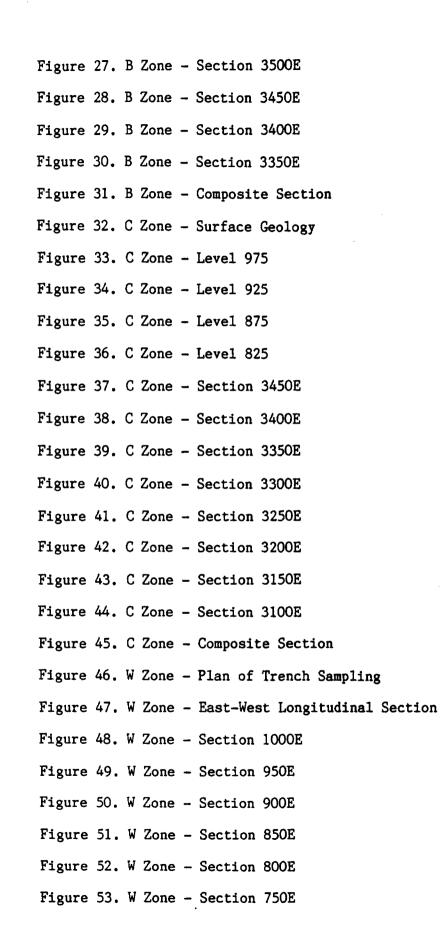


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Figure 85. Anomaly No. 5 - Section 2400E (in pocket)

NOTE: All levels and sections are at a scale of one inch to 20 feet except Figs. 46 and 47 which are at a scale of one inch to 40 feet.

Figures 4 to 45 are bound together separately. IN FOLID UNEBUND Figures 46 to 81 are bound together separately. IN FOLID UNEBUNDS

#### INTRODUCTION

Numerous gold showings occur in the High Lake area associated with shear and fracture zones in Keewatin basic volcanics and later Archean instrusive granodiorite. The mineralization was first discovered in the 1930's and, since then, several exploration programmes by different companies over the years have outlined a number of separate mineralized zones. Although this mineralization is often of high grade, it appears to be erratic with limited continuity and poor potential for developing tonnage.

In August 1987 J. H. REEDMAN & ASSOCIATES LTD was engaged by Laramide Service Corporation to supervise a trenching, mapping and sampling programme to try and determine the controls of the mineralization in order to make a better assessment of the property's potential. In addition to the field work a comprehensive compilation and review of all available data was also undertaken. This involved entering all the drill data on computer file using the BORSURV software package, which was used to plot all sections and level plans.

The field work, which was supervised by John Reedman, was caried out over a five week period from the 21st August to the 27th September. Compilation of existing data was carried out concurrently with the field work and for a further four weeks following completion of the field work.

#### PREVIOUS WORK

The Kenora District was subjected to considerable prospecting activity in the late 1800's and earlier years of the present century, but it was not until 1936 that gold was first discovered by C. Alcock to the south of Electrum Lake (formerly known as South Baubee Lake). The identification of the gold-silver alloy, electrum, resulted in the lake being renamed, or officially named, Electrum Lake.

These earliest discoveries were just outside the boundaries of the Calnor Resources claim group and the first discovery of gold within the present Calnor property was in 1953 when a local prospector, R. Longe, discovered gold on what is now the B Zone. Later that year San Antonio Gold Mines optioned a large block of ground from messrs. Alcock and Longe and undertook an exploration programme during the same year. This involved some geophysical work and the drilling of 24 diamond drill holes, 20 of which are on the Calnor property for a total of 4,526 feet. Although gold mineralization was intersected in a number of holes, the company found the results insufficiently encouraging and the option was

#### dropped at the end of 1953.

In 1956 Green Bay Uranium Mines drilled three holes in the area exploring for porphyry copper mineralization. One of these holes, GB6, was drilled on what became the A Zone. The core from this hole was not assayed for gold at the time, but some of the core was sampled in 1958 and showed good gold values over significant lengths.

In the late 1950's the claims were optioned by Electrum Lake Gold Mines, a company floated to undertake exploration in the area. Following prospecting, mapping, trenching and geophysical work the company undertook a drilling programme from 1960 to 1961. A total of 12,962 feet in 71 holes was drilled on the present Calnor property, resulting in the definition of the A, B, C, P and W Zones. The erratic nature and poor continuity of the mineralization resulted in a failure to obtain further finance, forcing the company to relinquish its option in 1962.

Between 1965 and 1967 Steep Rock Mines held a large block of ground in the High Lake area that included all the claims presently held under option by Calnor Resources. Their work, which was directed towards porphyry copper mineralization, involved geological mapping and an I.P. survey over the entire area for a total of 49.5 line miles. This survey was undertaken by Canadian Aero Mineral Surveys Limited using pulse-type equipment and a gradient array with an electrode spacing of 200 feet. In addition a magnetic survey was undertaken by W. G. Wahl Ltd. Numerous chargeability anomalies were defined and geological mapping, geochemical surveying and some drilling were recommended. The few anomalies within the present Calnor claim group are associated with basic volcanic rocks.

Croydon Mines optioned some claims that included part of the present Calnor property and engaged Seigel Associates Limited to undertake an I. P. survey to locate possible porphyry copper targets. This survey covered parts of claims 32306, 32307, 32574, 24136, 8519 and 28661, which are all to the south of the main gold mineralized zones. The chargeability anomalies were ascribed to basic volcanic rocks with high magnetite contents and no clear indication of chargeability values relating to chalcopyrite-rich sections of the porphyry was obtained.

In 1981 claims 23942 and 23943 were optioned by Sherritt Gordon Mines who engaged James E. Tilsley and Associates Ltd. to undertake a compilation of existing data and calculation of reserves. This study estimated that the A, B and C Zones contain between 60,000 and 100,000 tonnes of rock to a depth of 65 metres with a total gold content of 12,300 to 26,680 ounces. In the summer of 1981 Sherritt Gordon undertook a magnetic and Max-Min survey over the two claims. The magnetic survey clearly outlines the areas underlain by basic volcanics, but nothing meaningful can be seen in the HLEM survey results. Following Tilsley's recommendations the company drilled six holes on the C Zone for a total of 1,248 feet. Although this drilling essentially confirmed the results of earlier drilling, the company did not feel further work was warranted and dropped their option in 1982.

An option over the property as presently constituted was obtained by Barrier

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Reef Resources Ltd. in 1983. In the summer of that year an exploration programme consisting of geological mapping, soil sampling, magnetic and VLF-EM surveying was undertaken by Kerr, Dawson & Associates Ltd. on behalf of the company. This work resulted in the delineation of a number of EM anomalies and some good gold geochemical anomalies outside the known mineralized zones. Trenching, mapping, sampling, diamond drilling and an I.P. survey over the EM conductors were recommended.

In 1984 Barrier Reef Resources assigned its rights in the High Lake property to a subsidiary company, Francis Resources Ltd. which merged with Northcal Resources Ltd. in 1985 to form Calnor Resources Ltd. In the winter of 1986 a diamond drilling programme was undertaken by Calnor Resources under the direction of Dawson Geological Consultants Ltd. for a total of 7,594 feet in 22 holes. This work resulted in the definition of the new R Zone, but, as in the case of previous work, excellent grade material appeared to be erratic with poor continuity.

#### OWNERSHIP

The property consists of 25 contiguous claims held by Calnor Reources under under an option agreement with the owners. Calnor can assume full ownership by completing the schedule of payments under the terms of the option.

#### Unpatented Claims

<u>Claim</u> <u>Number</u>	Assessment Date	Owner
K638625	February 4, 1988	Gladys Stephens
K638626	February 4, 1988	Gladys Stephens
K638627	February 4, 1988	Gladys Stephens
K638628	February 4, 1988	Gladys Stephens
K638629	February 4, 1988	Gladys Stephens
K638630	February 4, 1988	Gladys Stephens

## Patented Claims

.

<u>Claim</u> <u>Number</u>	<u>Date Taxes</u> <u>Due</u>	<u>Owner</u>
K8517	October 1, 1988	Rosalyn Alcock
K8518	October 1, 1988	Rosalyn Alcock
K8519	October 1, 1988	Rosalyn Alcock
K8555	October 1, 1988	Rosalyn Alcock

) (

## Leased Claims

<u>Claim</u> <u>No.</u>	Lease No.	Expiry Date	Lease Payment Dat	e Owner
K23942	104078	Dec. 31, 2005	Dec. 31, 1987	Gladys Stephens
K23943	104079	Dec. 31, 2005	Dec. 31, 1987	Gladys Stephens
K20696	104080	Dec. 31, 2005	Dec. 31, 1987	Rosalyn Alcock
K20697	104081	Dec. 31, 2005	Dec. 31, 1987	Rosalyn Alcock
K21479	104082	Dec. 31, 2005	Dec. 31, 1987	Rosalyn Alcock
K20694	104083	Dec. 31, 2005	Dec. 31, 1987	Rosalyn Alcock
<b>K20695</b>	104084	Dec. 31, 2005	Dec. 31, 1987	Rosalyn Alcock
K28663	101164	Dec. 31, 2005	Dec. 31, 1987	Rosalyn Alcock
K23980	101165	Dec. 31, 2005	Dec. 31, 1987	Rosalyn Alcock
K24136	101166	Dec. 31, 2005	Dec. 31, 1987	Rosalyn Alcock
K32306	101169	Dec. 31, 2005	Dec. 31, 1987	Rosalyn Alcock
K32307	101170	Dec. 31, 2005	Dec. 31, 1987	Rosalyn Alcock
K24137	101171	Dec. 31, 2005	Dec. 31, 1987	Rosalyn Alcock
K28661	101168	Under renewal	Oct. 1, 1988	Rosalyn Alcock
K32574	101167	Under renewal	Oct. 1, 1988	Rosalyn Alcock

#### LOCATION AND PHYSICAL FEATURES

The property is located in northwestern Ontario approximately 40 kilometres west of the town of Kenora and three kilometres east of the Manitoba-Ontario border Fig. 1). The eastern end of High Lake can be reached by three kilometres of narrow gravel track which runs west from the tarred Shoal Lake road three kilometres south of its junction with the Trans-Canada Highway. The centre of the property is a further kilometre north along a rough bush road accessible only to four-wheel drive vehicles Fig. 2).

The terrain consists of prominent, steep, rock ridges separated by areas of swamp and muskeg with a maximum relief of about 150 feet. Vegetation is typical of this part of the shield, with the low-lying swampy ground varying from open muskeg to swamp with a dense growth of tag alders. Well drained areas are wooded with a mixed growth of spruce, fir, birch and poplar. Pines predominate in drier, rocky areas.

#### GEOLOGY

The geology on the property is relatively simple and consists of Archean basic volcanic rocks of probable basaltic composition intruded by later Archean granodiorite. The basalts are generally massive, fine-grained and structureless, though pillow structures have been described. The rocks weather greenish-black to very dark grey and are composed of fine hornblende and plagioclase with minor magnetite. Locally ENE shear jointing has resulted in a distinct foliation and the development of bands of hornblende schist within narrow zones of strong shearing.

Porphyritic granodiorite underlies the larger part of the property and consists of a medium-grey, coarse-grained quartz-feldspar rock with quartz eyes and feldspar phenocrysts up to 2 cm across, commonly referred to as quartz feldspar porphyry. Basalt xenoliths of various sizes occur within the porphyry and the areas of basaltic rocks are considered to be stoped blocks within the intrusive mass. The incorporation of basic material has resulted in hybrid rocks so that rocks of quite varied composition fall under the general heading of "High Lake porphyrytic granodiorite". These range from the typical medium-grey quartz feldspar prophyry of probable quartz monzonite composition to dark-grey rocks approximating to quartz-diorites in composition. As in the case of the volcanic rocks, a distinct foliation is developed locally by the dominant ENE shear jointing and narrow bands of quartz-sericite schist are formed in zones of strongest shearing.

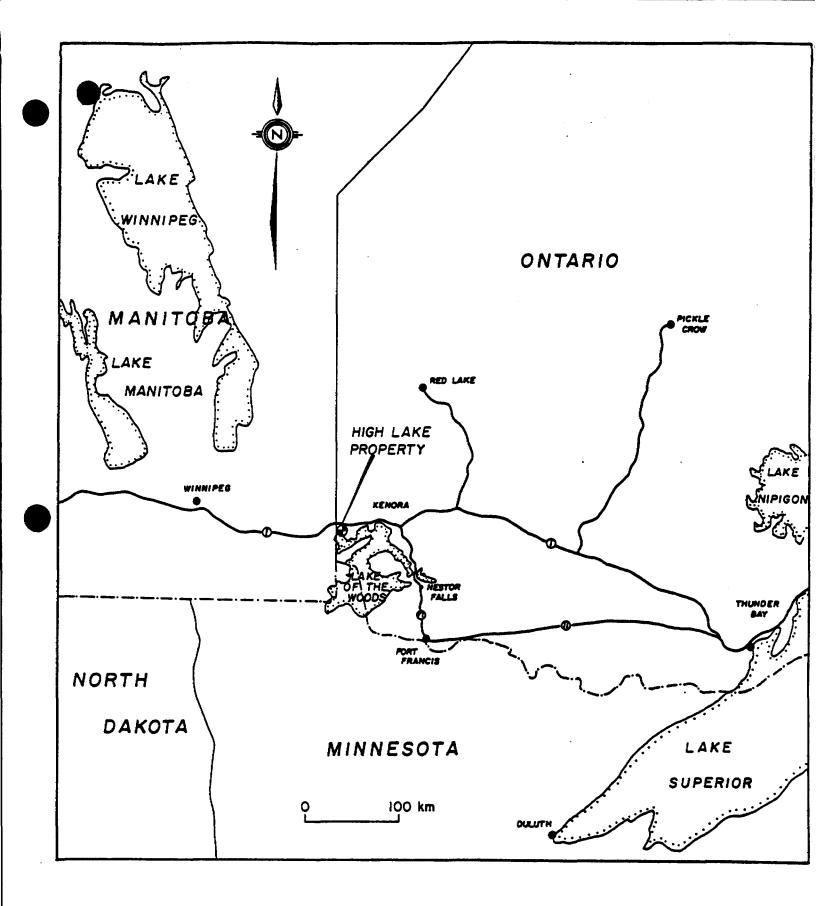


Fig. 1. Property Location Map

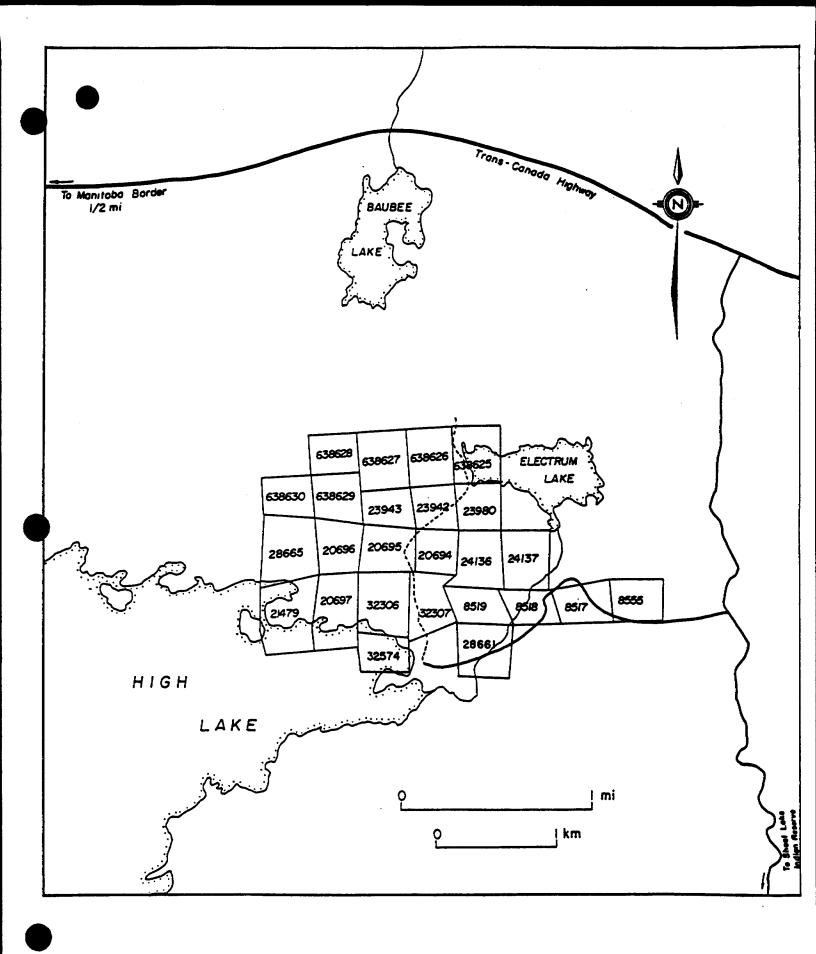


Fig. 2. Property Claim Map.

#### STRUCTURE

The most prominent structural feature is the pronounced ENE jointing and shear jointing that can be seen in almost every outcrop. This can be intense enough to develop a distinct foliation and even schistose bands in the strongest shear zones. These shear joints dip steeply northwest and vary over a twenty degree range in strike with the majority at N60E. The other major set of joints strike at N10E to N20E and vary in dip from sub-vertical to 50 degrees east. This subsidiary set undoubtedly represents tension jointing since the joints are commonly filled by narrow quartz veins. Other joint directions can be measured, but they are very much of minor importance compared to the two dominant sets with average strikes of N15E and N60E.

A number of east-northeast, northeast and north-south trending faults have been inferred from topography, photogeology and EM surveys in earlier work undertaken on behalf of Calnor (Dawson, 1986), but no measureable offsets have been mapped to substatiate any of them. Davies (1965) considers east-west faulting to be of most importance in the High Lake-Rush Bay area and specifically refers to obvious east-west linear depressions that occur along the northern and southern parts of the present Calnor property. One extends west from the the northern shore of Electrum Lake and the other extends east from the eastern side of High Lake.

#### MINERALIZATION

Although no large body of ore-grade material has been found in the High Lake area, there are numerous mineral showings. Copper and molybdenum mineralization occur as disseminations and fracture coatings in a number of places within the High Lake granodiorite south of the Calnor property and much of the earlier exploration was directed towards possible porphyry copper deposits. The only serious attempt at mining in the immediate area was the development of a small molybdenum deposit with drill indicated reserves of 126,000 tons grading 0.68% molybdenite just outside the southern boundary of the Calnor property at the east end of High Lake. A shaft was sunk and a small mill constructed by Echo Molybdenite Mines Ltd., but the operation closed down shortly after opening in 1982. The mineralization consists of narrow zones of quartz veining with molybdenite and minor pyrite and chalcopyrite. The main mineralized zone strikes N80W over a length of 1600 feet and dips steeply north.

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Within the area of the Calnor property there are numerous gold and copper-gold showings. The mineralization occurs in steeply dipping, ENE trending shears both in the volcanic rocks and feldspar porphyry. Pyrite is the most common sulphide and chalcopyrite may or may not be present. Minor pyrrhotite also occurs. Gold mineralization is associated with the sulphide mineralization, but total sulphide content is not necessarily a good guide to gold content. Typically, within the volcanic rocks the best gold mineralization occurs in zones with narrow bands and lenses of massive pyrite together with significant amounts of chalcopyrite. In the porphyry, on the other hand, high-grade gold mineralization is often associated with only minor amounts of disseminated pyrite.

In both the porphyry and volcanics the best mineralization occurs in strongly sheared and altered schistose bands. In the volcanics the alteration consists of thin, wispy carbonate and quartz-carbonate veinlets, chloritization and epidotization. In the porphyry the alteration consists of sericitization and silicification, which is often accompanied by vein quartz in irregular masses and lenses together with varying amounts of black tourmaline. Haematization is also sometimes present in the porphyry resulting in the "red-brown alteration" mentioned in some of the drill logs of Electrum Lake Gold Mines.

#### RESULTS OF THE PRESENT INVESTIGATION

The present investigation involved a trenching and sampling programme together with a compilation and review of all available data. Trenching was contracted to Motkalyk Investments Inc. of Kenora and was carried out using a back-hoe mounted on a muskeg tractor operated by George Oshorn of Kenora. Machine trenching was supplemented by hand stripping of outcrops and hand digging and cleaning out of some old trenches. Rock sampling of the trenches was undertaken using a hammer and moil where there were sufficient jagged and broken surfaces, but most sampling was done using a diamond saw with a dry-cutting blade. Before commencing work with trenching and sampling, several days were spent line cutting to re-establish some of the lines and pickets on the 1983 survey grid. Line-cutting, trenching, sampling and propecting assistance were provided by Maurice Burke of Winnipeg and Don Woito of North Bay, both of whom were employed by R. Blais and Associates Ltd. of North Bay, who arranged the contracting of equipment. In addition Andrew Reedman of Winnipeg worked for a total of five days as a field assistant.

The back-hoe operator travelled from his home in Kenora, but the other members of the field party stayed at Keystone Motel and Cabins in West Hawk Lake. All the field work was conducted under the overall supervision of John Reedman who mapped and sampled the trenches. A total of 200 rock samples were taken and analysed for gold by Warnock Hersey in Winnipeg. A few selected samples were also analysed for copper.

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In addition to the field work a compilation, review and interpretation of all available data was made. This involved entering all the diamond drill data for 115 holes on computer file using the BORSURV software package developed by J. H. Reedman & Associates. Plotting of all sections and levels was carried out by computer using the BORSURV system.

#### Location of Drill Holes

The holes drilled by the various organizations over the years were located on a number of different grids. In the case of the holes drilled by San Antonio Gold Mines in 1953 and by Electrum Lake Gold Mines in 1960 and 1961 it is no longer possible to locate the old lines and collar positions on the ground. The holes drilled by Calnor Resources in 1986 were located on the grid established in 1983 for the geochemical and geophysical survey. This grid is referred to as the Calnor Grid and it was decided to use this grid for the compilation of data since mapping and sampling are referenced to it and it is correctly oriented with respect to the strike of the mineralied zones.

The location of the different mineralized zones and gold soil anomalies are shown with respect to an idealised Calnor Grid in Fig. 3. There will, of course, be differences between this grid and the location of the actual lines on the ground, a situation that can only be resolved by an accurate ground survey. However, while this would result in accurate location of the various gold soil anomalies and trenches, it still would not be possible to tie in accurately all the drill holes dating back to 1953 and 1960/61.

The collar positions of 18 of the 22 holes drilled by Calnor Resources in 1986 were surveyed by R. L. Blais and Associates Ltd. The control point for this survey (set at 10,000 ft East, 10,000 ft North and elevation 1,000 ft) is located in the middle of the C Zone on the Calnor grid base line at 3375.27 East. These surveyed co-ordinates were entered on computer file and the corrected Calnor grid co-ordinates computed. The differences between the original grid co-ordinates and correct computed ones are shown in Table 1. Since the Calnor holes drilled on the C and R Zones were surveyed, these two zones are correctly located with respect to each other. The precise locations of the other zones vis a vis each other will be in error, but the drill hole locations with respect to one another within individual zones should be reasonably accurate.

In the case of the <u>C</u> Zone, the four Calnor holes drilled here were accurately surveyed and, since the casing of four of the six holes drilled by Sherritt Gordon in 1981 was located, it was possible to tie these holes in accurately to the surveyed grid. The holes drilled by San Antonio and Electrum were entered on computer file using their original co-ordinates. A plot was made and superimposed on the plot of surface trenches and Calnor and Sherritt Gordon holes made to the same scale using the survey co-ordinates. By referring to a

HOLE No.	CO-OR	L FIELD DINATES NORTHINGS	CO-ORDINATE FROM SURVEY EASTINGS	• • • • • • •
SC-1	3326.00	93.00	3294.80	97.32
SC-2	3326.00	93.00	3295.73	107.02
SC-3	3326.00	178.00	3305.08	186.54
SC-3A	3326.00	178.00	3304.81	184.16
SC-4	3426.00	178.00	3411.59	174.46
SC-6	3200.00	-613.00	3168.92	-578.35
SC-7	3600.00	-600.00	3593.53	-600.94
SC-8	2800.00	-460.00	2741.15	-414.64
SC-9	3410.00	-530.00	3361.16	-532.70
SC-10	3000.00	-510,00	2958.29	-509.16
SC-11	3300.00	-600.00	3260.81	-585.87
SC-12	2800.00	-575.00	2738.38	-528.61
SC-13	3179.00	-670.00	3148.42	-637.15
SC-14A	3100.00	-610.00	3065.09	-585.46
SC-15	3250.00	-610.00	3217.83	-592.03
SC-16	3200.00	-491.00	3153.21	-457.12
SC-17	3274.00	-818.00	3254.15	-790.18
SC-18	3100.00	-581.00	3060.91	-555.00
SC-19	1600.00	150.00	NOT SUR	VEYED
SC-20	2400.00	750.00	NOT SUR	VEYED
SC-21	3200.00	700.00	NOT SUR	VEYED
SC-22	2600.00	1405.00	NOT SUR	VEYED

manuscript map drawn by W. N. Taylor at a scale of 1 inch to 100 feet on behalf of Electrum Lake Gold Mines in 1961 it was possible to locate the hole collars with respect to the position of the original discovery trench and correctly locate and orient the two plots with respect to each other. The hole collars were given survey grid co-ordinates by scaling off the map and the true bearings were retained from the original logs. In this manner survey grid co-ordinates were obtained for all the holes on the C Zone. The surface geology and level plans were plotted using the survey grid co-ordinates. However, for the sections Calnor grid co-ordinates were computed and used for the plots. The excellent fit with near-surface geology indicates that the final plot must be accurate to a few feet.

No recent drilling has been carried out at the <u>B</u> <u>Zone</u> and the surface features and trenches were mapped using the Calnor Grid. Several of these old trenches can be clearly identified on Taylor's 1961 manuscript map and this made it possible to superimpose the plot of the drill holes using the original grid co-ordinates correctly onto the surface geology plot made using the Calnor grid. A common local reference point was thus established for the two grids for this zone making it possible to compute Calnor grid co-ordinates for the holes.

No surface work was undertaken at the <u>A</u> <u>Zone</u> and a conversion to Calnor grid co-ordinates was made using the same reference point established for the B Zone.

At the <u>W</u> <u>Zone</u> the collar positions of two of the holes drilled by Electrum Lake Gold Mines were located on the ground. Thus, it was possible to tie the 1961 drilling at this locality accurately to the Calnor Grid which was used to map the trenches.

No hole collars were located at the <u>P</u> <u>Zone</u>, but the two small discovery trenches, which are plotted on the W. N. Taylor's manuscript map, were located and it was possible to tie the drill holes into the Calnor grid.

#### The A Zone

No field work was undertaken at the A Zone and an evaluation was made by plotting sections and level plans (Figs. 4 to 15). A total of 4,036 feet in 13 holes was drilled by Electrum Lake Gold Mines in 1960 (Table 2). The hole drilled by Green Bay Uranium Mines in 1956 was not included since only a partial log was available and the precise location and attitude of the holes are not known.

A strike length of just over 300 feet was tested and the holes were drilled under the assumption of a possible NNE trending zone. However, there is no reason to believe that this zone would depart from the regional ENE trend, so the sections were plotted at 50-foot intervals on the Calnor grid. The geology consists essentially of a central zone of volcanics flanked by porphyry, though

Table 2. Summary of Holes Drilled on the A Zone.

Hole No.	Eastings	Northings	Elevation	Units	Inclination	Grid Bearing	Final Depth	Nedges	Litho Units	No. of Assays	-	isay Intervals Named Zones	Elements
E-i	4015.00	-537.50	0.00	feet	-45.00	150.00	308.00	0	22	28	2	2	1 (Au oz/T)
E-2	4065.00	-512.50	0.00	feet	-45.00	150.00	266.00	0	13	22	1	1	1 (Au oz/T)
E-3	3965.00	-564.50	0.00	feet	-45.00	150.00	480.00	0	28	32	0	0	i (Au oz/T)
E-4	4250,00	-477.50	0.00	feet	-45.00	179.00	560.00	0	32	15	0	0	i (Au oz/T)
E-5	3940.00	-412.50	0.00	feet	-47.00	150.00	430.00	0	28	38	0	0	i (Au oz/T)
E-6	3955.00	-642.50	5.00	feet	-45.00	150.00	301.00	0	14	13	1	1	1 (Au oz/T)
E-7	4090.00	-622.50	25.00	feet	-45.00	150.00	140.00	0	16	18	2	2	1 (Au oz/T)
E-8	4040.00	-632.50	20.00	feet	-45.00	150.00	123.50	0	11	4	0	0	1 (Au oz/T)
E-9	4115.00	-477.50	20.00	feet	-45.00	150.00	161.00	0	14	20	0	0	i (Au oz/T)
E-28	4050.00	-602.50	10.00	feet	-50.00	150.00	173.00	0	20	12	1	1	1 (Au oz/T)
E-29	4015.00	-537.50	0.00	feet	-55,00	150.00	399.00	0	30	24	3	3	2 (Au oz/T, XCu)
E-30	4130.00	-877.50	8.00	feet	-75.00	325.00	484.50	0	18	21	3	3	1 (Au oz/T)
E-A4	4070.00	-522.50	0.00	feet	-45.00	117.00	210.00	0	13	9	0	0	i (Au oz/T)

Total Holes: 13 Total depth: 4036.00 Total assays: 256

in detail it is more complex than this with some interdigitating of volcanics and porphyry. The mineralization is almost all confined to the volcanics with the best grade material on section 4100 East along a contact with the south-flanking porphyry.

Three zones have been interpreted and they only appear on sections 4050 and 4100 East. With the assumption that ore would extend halfway to a barren hole and halfway to adjacent sections, the following reserves were calculated for the A Zone using a tonnage factor of 10.50 cu. ft. per ton:

Zone	Tons	Width (ft)	Grade (oz/ton)
1	1,308	4.82	0.09
2	1,880	9.40	0.13
2a	7,215	9.41	0.34
3	1,197	3.35	0.21
TOTAL:	11,600	8.27	0.26

In terms of drill coverage the deposit appears to be cut off to the east by hole E-4, but it is still open in depth and to the west. However, the potential to the west is probably poor due to the fact that the volcanics pinch out in this direction. Nevertheless, some of the mineralization intersected in holes on the R Zone to the west is exactly on strike indicating that the potential to the west might be reasonable. For instance, hole SC-7 intersected 0.08 oz/ton over five feet at a contact between porphyry and a narrow band of volcanics 400 feet west of the A Zone. In spite of the lack of an intersection in E-4, the possibility for extensions to the east is probably quite good. Hole E-4 intersected volcanics with alteration and some sulphides in the right area and, given the nature of the mineralization, a single blank hole is not necessarily that significant.

#### The B Zone

Surface work at the B Zone consisted of mapping, the digging of one new trench with the back-hoe, and the cleaning out of one of the original discovery trenches. Due to the fact that Sherritt Gordon had sampled the old trenches in detail, only a few samples were taken from some of the better mineralized zones for confirmatory purposes.

One trench was dug in the area of overburden covered ground 50 feet to the east of high-grade mineralization exposed at the porphyry/volcanic contact in

Table 3. Main Averaged Assay Intervals at the A Zone.

Hole No.	Zone	From	То	Drilled Width	Core Angle	True Width	Au oz/T
E-1	2	219.30	231.40	12.10	45.0	8.56	0.940
	?	195.00	197.00	2.00	45.0	1.41	0.120
E-2	?	155.20	156.70	1.50	45.0	1.06	1.940
E-6	?	245.60	247.20	1.60	50.0	1.23	0.420
E-7	Ş	60.20	63.30	3.10	45.0	2.19	0.175
	2a	81.00	94.30	13.30	45.0	9.40	0.127
E-28	2	136.40	149.50	13.10	45.0	9.26	0.095
E-29	Ş	182.40	184.30	1.90	40.0	1.22	0.390
	1	191.10	198.60	7.50	40.0	4.82	0.089
	2	249.00	264.80	15.80	40.0	10.16	0.116
E-30	?	349.60	352.60	3.00	20.0	1.03	0.140
	<sup>6</sup>	403.00	412.80	9.80	20.0	3.35	0.213
	?	453.50	458.30	4.80	20.0	1.64	0.170

one of the original discovery trenches to test for a possible strike extension of the mineralized zone. The trench reached bedrock at a depth of one to 1.5 metres along most of its length of 63 feet between the outcrops of porphyry and volcanics (Fig. 16), successfully exposing the porphyry/volcanic contact which was devoid of mineralization. The original trench exposes over nine feet of porphyry and sheared volcanics heavily mineralized with seams and disseminations of pyrite and chalcopyrite. Sampling produced gold values of 2.29 oz/ton over 6.2 feet straddling the porphyry/basalt contact with a further three feet in the volcanics grading 0.045 oz/ton. Fifty feet east the same zone is barren.

The poor continuity of the mineralization can be seen in the old trenches blasted in the porphyry outcrop. Narrow seams of quartz-sericite schist that produce ore-grade assays can be traced along strike for only a few feet to a few tens of feet.

The B Zone, which occurs along a contact zone between volcanics to the north and porphyry to the south, was drilled by San Antonio Gold Mines in 1953 (six holes) and Electrum Lake Gold Mines in 1960 (18 holes) for a total of 4,682 feet (Table 4). The mineralization occurs in both porphyry and volcanic rocks over a 90-foot wide zone roughly centred on the porphyry/volcanic contact, though the best mineralization occurs in the porphyry (Figs. 16-31). Three mineralized zones have been interpreted north to south and the following reserves computed in long section using a tonnage factor of 10.50 cubic feet per ton:

Zone	Tons	Width (ft)	Grade (oz/ton)
1	9,173	8.35	0.41
la	1,216	2.43	0.31
2	10,025	5.19	0.11
2a	3,581	6.65	0.31
2ъ	893	4.86	0.74
3	927	2.09	0.40
TOTAL:	25,815	6.26	0.29

The B Zone is still open at depth and to the east. Prospects to the west are probably poor since the trend of the zone can be traced into barren prophyry outcrop. The fact that the volcanic/porphyry contact swings north to the west towards the C Zone is an additional reason for feeling that the potential to the west is poor since the mineralization is associated with the contact zone.

Table 4. Summary of Holes Drilled on the B Zone.

Hole No.	Eastings	Northings	Elevation	Units	Inclination	Grid Bearing	Final Depth	Nedges	Litha Units	No. of Assays		say Intervals Named Zones	Eleaents
E-10	3550.00	-352.50	0.00	feet	-45.00	360.00	93,00	0	10	15	0	0	1 (Au oz/T)
E-11	3575.00	-377.50	0.00	feet	-45.00	360.00	123.00	0	13	15	2	2	1 (Au oz/T)
E-12	3600.00	-267.50	0.00	feet	-45.00	180.00	210.00	0	19	27	2	2	i (Au oz/T)
E-13	3625.00	-257.50	0.00	feet	-45.00	167.00	179.00	0	26	27	2	3	1 (Au oz/T)
E-14	3660.00	-247.50	0.00	feet	-45.00	167.00	242.00	0	32	26	1	1	1 (Au oz/T)
E-15	3705.00	-252.50	0.00	feet	-45.00	167.00	212.00	0	19	ġ	i	i	1 (Au oz/T)
E-16	3850.00	-217.50	0.00	feet	-35.00	180.00	247.00	0	17	8	i	t	1 (Au oz/T)
E-17	3495.00	-227.50	0.00	feet	-45.00	155.00	226.00	0	22	29	1	1	1 (Au oz/T)
E-18	3495.00	-227.50	0.00	feet	-60.00	155.00	208.00	0	11	14	2	2	1 (Au oz/T)
E-19	3400.00	-177.50	0.00	feet	-50.00	155.00	276.00	0	22	18	0	0	1 (Au oz/T)
E-20	3350.00	-197.50	0.00	feet	-50.00	155.00	253.00	0	24	21	0	0	1 (Au oz/T)
E-21	3265.00	-157.50	0.00	feet	-50.00	175.00	265.00	0	24	6	0	0	1 (Au oz/T)
E-22	3675.00	-502.50	-13.00	feet	-40.00	347.00	315.00	0	31	21	2	3	1 (Au dz/T)
E-23	3660.00	-327.50	0.00	feet	-50.00	145.00	117.00	0	15	19	2	2	1 (Au oz/T)
E-24	3710.00	-327.50	0.00	feet	-45.00	145.00	118.50	0	9	B	0	0	1 (Au oz/T)
E-25	3765.00	-337,50	0.00	feet	-40.00	145.00	112.50	0	11	6	0	0	1 (Au oz/T)
E-26	3815.00	-337.50	0.00	feet	-40.00	145.00	78.00	0	5	10	0	0	1 (Au 02/T)

## Table 4. (continued)

E-27	3800.00	-380.50	0.00	feet	-45.00	145.00	172.00	0	11	12	0	0	1 (Au oz/T)
SA-10	3550.00	-192.50	0.00	feet	-45.00	180.00	167.00	0	8	4	i	i	2 (Au 02/T, XCu)
SA-11	3500.00	-192.50	0.00	feet	-43.00	180.00	186.00	0	11	6	0	0	1 (Au oz/ī)
SA-12	3450.00	-192.50	0.00	feet	-45.00	180.00	197.00	0	10	8	0	0	i (Au oz/T)
SA-13	3500.00	-206.50	0.00	feet	-45.00	180.00	191.00	0	13	10	2	2	1 (Au oz/T)
SA-14	3650.00	-205.50	0.00	feet	-45.00	180.00	178.00	0	11	9	1	1	1 (Au oz/T)
SA-23	3765.00	-327.50	0.00	feet	-45.00	360.00	292.00	0	9	5	0	Û	1 (Au pz/T)

Total Holes: 24 Total depth: 4682.00 Total assays: 333

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Hole No.	Zone	From	То	Drilled Width	Core Angle	True Width	Au oz/T
5A-10	2	152.80	156.00	3.20	45.0	2.26	0.190
SA-13	2ь	121.70	128.00	6.30	45.0	4.45	0.086
	2a	159.40	172.00	12.60	45.0	8,91	0.378
SA-14	Ξ	93.00	95.10	2,10	45.0	1.48	0.200
E-11	1a	47.00	49.00	2.00	45.0	1.41	0.360
	1	61.10	54.00	2.90	45.0	2.05	0.220
E-12	3	18.70	22.20	3.50	45.0	2.47	0.570
	2	೭೫.50	73.00	9.50	45.0	6.72	0.124
E-13	З	32.90	34.90	2.00	45.0	1.41	0.400
	1	117.00	141.00	24.00	45.0	16.97	0.641
	1a	149.00	152.50	3.50	45.0	2.47	0.400
E-14	2	100,30	116.00	15.70	45.0	11.10	0.111
E-15	4 4	127.00	130.60	3.60	45.0	2.55	0,045
E-16	2	108.20	116.00	7.80	70.0	7.33	0.136
E-17	2	121.20	134.00	12.80	45.0	9.05	0.105
E-18	2a	152.20	160.40	8.20	30.0	4.10	o.159
	2	179.60	185.50	5.90	30.0	2.95	0.108
E-22	1	212.00	219.00	7.00	55.0	5.73	0.192
	2	272.90	275.50	2,60	55.0	2.13	0.080
		303.00	306.00	3.00	55.0	2.46	0.240
E-23	1	6.00	17.50	11.50	40.0	7.39	0.154
	1a	29.70	34.60	4.90	40,0	3,15	0,190

The C Zone

Considerably more interest has been shown in the C Zone than in the other zones over the years and holes have been drilled here by four different companies. In view of this fact, this zone was selected for a detailed surface examination. Old trenches were cleaned out and sampled and two of the trenches were extended across an area of overburden covered ground using the back-hoe. The results of this work are shown on the surface geology plan (Fig. 32). As might be expected, the results show good grade material in the original discovery trenches where it can be seen that the mineralization is controlled by ENE trending shears dipping steeply north.

The true north-oriented survey co-ordinates were used for plotting the surface geology and level plans (Fig. 32 to 36) which show that the mineralization occurs within the volcanic rocks. Unlike the B Zone, which appears to be controlled by the porphyry/volcanic contact, the C Zone mineralization does not appear to be directly related to the contact and actually trends away from it to the east. Another surprising feature is the blind nature of the mineralization eastwards from the excellent mineralization in Trench 1; drill holes over 100 feet east of Trench 1 intersect good mineralization that does not appear at the surface. Exposure along the rocky ridge of volcanic rocks is excellent and an examination revealed nothing but barren outcrop. There are not even any indirect indications of mineralization as the volcanics here are massive with little structure evident. In Trench 3 some weak chloritization and epidotization with a few wispy quartz veins can be seen, but it hardly seems significant.

Four holes were drilled by San Antonio Gold Mines in 1953, seven by Electrum Lake Gold Mines in 1960, six by Sherritt Gordon Mines in 1981 and four by Calnor Resources in 1986 for a total of 4,364 feet (Table 6). Sections were plotted at 50-foot intervals using the Calnor Grid co-ordinates (Figs. 37 to 44). Five zones of mineralization have been interpreted. Reserve calculations were made in long section using a tonnage factor of 10.50 cubic feet per ton with the following results:

Zone	Tons	Width (ft)	Grade (oz/ton)
1	1,033	3.63	2.57
2	3,082	4.19	0.13
3	4,060	7.83	0.36
4	5,068	3.82	0.25
5	2,147	3.40	0.39
TOTAL:	15,390	4.88	0.43

There is the possibility of proving further reserves, but the prospects are

Table 6. Summary of Holes Drilled on the C Zone.

Hole Na.	Eastings	Northings	Elevation	Units	Inclination	Grid Bearing	Final Depth	Nedges	Litho Units	No. of Assays		say Intervals Named Zones	Elements
SA-6	3250.58	129.72	978.00	feet	-46.00	183.00	196.00	0	6	16	1	1	2 (Au nz/T, ZCu)
5A-7	3151.09	140.72	975.00	feet	-44.00	183.00	185.00	0	12	9	0	0	1 (Au oz/T)
SA-8	3355.83	206.27	985.00	feet	-47.00	183.00	280.00	0	15	14	1	1	1 (Au oz/T)
SA-9	3452.05	172.10	982.00	feet	-45.00	183.00	319.00	0	15	9	0	0	1 (Au oz/T)
E-31	3273.27	142.58	980.00	feet	-45.00	163.00	169.00	0	14	14	2	2	2 (Au oz/T, ZCu)
E-32	3315.81	179.98	987.00	feet	-36.00	163.00	190.00	0	14	6	2	2	1 (Au oz/T)
E-35	3273.27	142.58	980.00	feet	-65.00	163.00	186.00	0	17	B	2	2	2 (Au cz/T, ZCu)
E-36	3323.15	44.70	1000.00	feet	-45.00	148.00	125.50	0	15	8	2	2	2 (Au oz/T, ICu)
E-37	3387.31	16.25	1000.00	feet	-45.00	148.00	129.00	0	9	0	0	Ō	0
E-38	3208.91	55.61	972.00	feet	-45.00	118.00	213.50	0	19	8	i	1	1 (Au oz/T)
E-59	3098.44	146.06	975.00	feet	-30.00	183.00	98.00	0	6	B	O	0	1 (Au oz/T)
<b>S6-</b> 1	3246.48	109.25	977 <b>.0</b> 0	feet	-45.00	178.00	223.00	Q	12	86	4	4	3 (Au oz/T, %Cu, Ag oz/T)
<del>56-</del> 2	3207.29	133.90	977.00	feet	-45.00	178.00	213.00	0	4	65	1	1	3 (Au oz/T, ZCu, Ag oz/T)
<del>\$6-</del> 3	3304.31	106.59	97 <b>8.0</b> 0	feet	-45.00	178.00	223.00	0	9	80	4	4	3 (Au oz/T, ZCu, Ag oz/T)
<del>56</del> -4	33 <b>28.95</b>	125.88	979.00	føet	-45.00	178.00	163.00	0	14	88	2	2	3 (Au dz/T, <b>ZCu, Ag dz/T</b> )
S6-5	3355.69	129.33	9 <b>80.0</b> 0	feet	-45.00	178.00	163.00	0	12	<del>9</del> 9	1	1	3 (Au oz/T, ZCu, Ag oz/T)
S6-6	3306 <b>. 95</b>	177.74	987.00	feet	-55.00	178.00	263.00	0	15	105	1	1	3 (Au cz/T, ZCu, Ag cz/T)
SC-1	3294.80	97.32	977.60	feet	-90.00	0.00	200.00	0	15	9	0	0	1 (Au oz/T)
SC-2	3295.73	107.02	978.30	feet	-60.00	180.00	145.00	0	13	16	1	1	1 (Au oz/T)
SC-3	3305.08	186.54	987.50	feet	-90,00	0.00	300.00	0	21	13	0	0	1 (Au oz/T)
SC-4	3411.59	174.46	981.40	feet	-90.00	0.00	350.00	0	17	8	0	0	1 (Au oz/T)
SC-A3	3304.81	184.16	987.50	feet	-70.00	180.00	30.00	0	9	1	0	0	1 (Au oz/T)

Total Holes: 22 Total depth: 4364.00 Total assays: 670

Table 7. Main Averaged Assay Intervals at the C Zone.

فأكعل محمد شكرته ونربر

Hole No.	Zone	From	Τo	Drilled Width	Co <b>re</b> Angl <b>e</b>	True Width	Au oz/T
SA-6	4	75.00	80.00	5.00	50.0	3.83	0.080
SA-8	4	172.30	176.60	4.30	50.0	3.29	0.380
E-31	4	100.00	103.00	3.00	50.0	2.30	0.120
	3	112.80	131.40	18.60	50.0	14.25	0.362
E-32	4	137.50	145.70	8.20	30.0	4.10	0.249
	2	164.40	170.50	6.10	70.0	5.73	0.166
E-35	5	114.50	118.20	3.70	50.0	2.83	0.130
	4	141.80	146 <b>.8</b> 0	5.00	90.0	5.00	0.090
E-36	2	29.60	33.60	4.00	50.0	3.06	0.080
		45.80	46.70	0.90	50.0	0.69	0.150
	1	50.30	55 <b>.5</b> 0	5.20	50.0	3.98	3.510
E-38	4	4.00	9.30	5.30	40.0	3.41	0.440
SG-1	?	27.50	28.00	0.50	50.0	0.38	0.434
	4	59.50	61.00	1.50	50.0	1.15	0.449
	3	75.00	78.00	3.00	50.0	2.30	0,137
	?	203.60	20 <b>5.60</b>	2.00	60.0	1.73	0.155
SG-2	5	69.00	72.00	3.00	50.0	2.30	0,240
SG-3	5	45.00	51.00	6.00	45.0	4.24	0.961
	4	57.00	65.00	8.00	45.0	5.66	0.172
	Ţ.	71.50	76.80	5.30	45.0	3.75	0.483
	1	98.00	103.00	5.00	45.0	3.54	0.200
SG-4	4	78.00	85.00	7.00	40.0	4.50	0.490
	2	112.00	117.00	5.00	60.0	4.33	0.182
56-5	1	121.00	127.00	6.00	65.0	5.44	0.072
56-6	?	155.00	156.00	1.00	90.0	1.00	1.480
SC-2	S	89.50	102.00	12.50	40 <b>.0</b>	8.03	0.404

probably not as good as at either the A or B Zones. A possible continuation to the west is unlikely due to the fact that the volcanics terminate against porphyry. To the east of line 3350 East the deposit is still open and, although hole SA-9 on line 3450 East would appear to cut off an eastward extension beyond that point, it did intersect some weakly mineralized volcanics. As in the case of the B Zone, one poor hole is not necessarily of great significance. There is also some potential in depth, but this is limited by the mass of intrusive porphyry that comes in at the 875 level and below.

#### The W Zone

This zone, which occurs wholly within the porphyry was discovered in 1960 by Electrum Lake Gold Mines who drilled 11 holes in the winter of 1961 for a total of 1,399 feet (Table 8). The mineralization occurs within highly sheared and silicified porphyry with lenses and irregular masses of vein quartz accompanied by minor pyrite, black tourmaline and carbonate. Visible gold is reported in some of the old trenches, but none was noted in the present investigation. Generally the mineralization is very sparse and, although pyrite is always present in samples containing gold, total sulphide content is not necessarily a good guide to grade.

The shearing strikes at the regional trend of N60E, but it is offset by other shears striking N10E to N30E with the result that the overall trend of the mineralized zone is N35E. Unlike the other zones on the property, the W Zone shows reasonable continuity and it has been traced by trenching over a strike length of over 700 feet. Nevertheless, examination of the trenches and outcrops shows that the zone consists of a series of smaller en echelon zones with poorly mineralized material, and possibly even minor gaps, between the areas of better mineralization.

A total of 17 trenches are shown on the surface geology plan (Fig. 46). Four of these (TR-1 to TR-4) are the original sampling trenches blasted along the edge of the porphyry outcrop ridge by Electrum Gold Lake Mines. These were cleaned out by hand and sampled. Three of the other trenches (TR-13, TR-14 and TR-15) are sites where outcrop was stripped bare and sampled. The other trenches (TR-5 to TR-12 and TR-16 and TR-17) were dug with the back-hoe. In three cases (TR-5, TR-12 and TR-16) the trenches had to be abandoned before reaching bedrock. A total of 56 samples were taken over a total footage of 161 feet. Individual samples ranged from trace to a maximum of 0.66 oz/ton over a width of 2.5 feet in TR-7. The assay averages obtained for the W Zone in the trenches are shown in Table 10.

The style of mineralization at the W Zone undoubtedly means that there is a problem in evaluating it effectively with the size of sample obtained in drill holes and taken in the trenches. For example, the zone in trench, TR-8, appears very similar to the zone in trenches, TR-6 and TR-7, yet it only assayed 0.04 oz/ton over 2.58 feet compared to 0.12 oz/ton over 6.0 feet and 0.39 oz/ton over 5.5 feet in trenches TR-6 and TR-7 respectively. The good width of the zone in

Hole No.	Eastings	Northings	Elevation	Units	Inclination	Grid Bearing	Final Depth	Nedges	Lìtho Units	No. of Assays	Averaged As Total No	say Intervals Named Zones	Elements
E-98	1255.40	757.30	25.00	feet	-45.00	115.00	121.00	0	11	8	0	0	1 (Au oz/T)
E-69	1255.40	757.30	25.00	feet	-40,00	180.00	104.00	0	15	7	1	1	1 (Au dz/T)
E-70	1210.40	715.30	30.00	feet	-45,00	180.00	51.00	0	0	0	0	0	0
E-71	700.40	375.30	35.00	feet	-40,00	180.00	80.00	0	12	5	1	1	1 (Au oz/T)
E-72	650.40	385.30	40.00	feet	-35.00	185.00	122.00	0	12	9	2	2	1 (Au oz/T)
E-77	755.40	395.30	35.00	feet	-40.00	180.00	80.00	0	9	4	i	1	1 (Au oz/T)
E-78	B05.40	525.30	50.00	feet	-35.00	180.00	236.00	0	22	6	1	1	1 (Au oz/T)
E-79	605.40	350.30	35.00	feet	-45.00	180.00	116.00	0	17	6	i	i	1 (Au oz/T)
E-80	555.40	360.30	35,00	feet	-45.00	180.00	141.00	0	5	2	1	1	1 (Au oz/T)
E-81	855.40	525.30	50.00	feet	-40.00	180.00	138.00	0	12	4	1	1	1 (Au oz/T)
E-82	710.40	440.30	40.00	feet	-50.00	180.00	210.00	0	24	4	1	1	1 (Au cz/T)

Table. 8. Summary of Holes Drilled on the W Zone.

Total Holes: 11 Total depth: 1399.00 Total assays: 55

55

Table 9. Main Averaged Assay Intervals in Drill Holes on the W Zone.

Hole No.	Zone	From	То	Drilled Width	Core Angle	True Width	Au oz/T
E-71	1	52.00	62.00	10.00	60.0	8.66	0.445
E-72	1	86.00	104.00	18.00	65.0	16.31	0.133
	2	86.00	96.00	10.00	65.0	9.06	0.180
E-77	1	47.00	57.50	10.50	55.0	<b>8.</b> 60	0.043
E-78	1	146.30	164.90	18.60	75.0	1 <b>7.</b> 97	0.047
E-79	1	93.00	106.50	13.50	60.0	11.69	0.196
E-80	1	126.80	134.00	7.20	60.0	<b>6.</b> 24	0.054
E-81	1	102.70	122.00	19.30	70.0	<b>18.</b> 14	0.052
E-82	1	146.00	151.00	5.00	50.0	3.83	0.090

Table. 10. Averaged Assay Intervals in the Trenches on the W Zone.

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Hole No.	Zone	From	То	Drilled Width	Core Angle	True Wi <b>d</b> th	Au oz/T
TR-1	1	0.00	3.00	3.00	90.0	3.00	0.045
TR-2	1	0.00	6.00	6.00	90.0	6.00	0,115
TR-3	1	3.00	8.33	5.33	90.0	5.33	0.127
TR-4	1	0.00	4.67	4.67	90.0	4.67	0.143
TR-6	1	2.50	8.50	6.00	90.0	6.00	0.117
TR-7	1	3.00	8.50	5.50	90.0	5.50	0,390
TR-8	1	3 <b>. 33</b>	5.91	2.58	90.O	2.58	0.045
TR-9	1.	11.00	14.67	3.67	90.0	3.67	0.070
TR-10	1.	15.00	16.67	1.67	90.0	1.67	0.050
TR-11	1	19.42	23.25	3.83	<b>70.</b> 0	3.83	0.040
TR-13	1	0.00	6.17	6.17	90.0	6.17	0.020
TR-14	3.	0.00	7.75	7.75	90.0	7.75	0.056
TR-15	1	3.00	5.17	2.17	90.0	2.17	0.030

holes E-78 and E-81 is encouraging in spite of the apparently poor grade. The fact that eight of the 20 intersections of the zone in drill holes or trenches produced grades above 0.10 oz/ton is also encouraging for this type of mineralization which is likely to show a nugget effect.

An east-west longtudinal section was plotted after rotating the grid 25 degree counter-clockwise about OE/ON of the Calnor Grid (Fig. 47) to produce a section along the true trend of the zone. The eastings on this section refer to the resultant rotated grid and do not match the Calnor Grid. Sections on this rotated grid are given in Figures 48 to 56. Approximate elevations given in the orignal drill logs were used for the hole collars and estimated elevations were given to the trenches by extrapolating from the drill holes and from approximate elevations obtained along lines 600 East and 800 East with an Abney level. No particular cut-off was used in making up the averaged assay intervals defining the zone. The maximum and minimum individual sample values within the zone for each trench and drill hole are shown in Table 11. Widths obtained in the old trenches are considerably shorter than widths in the drill holes immediately below them. The discrepancy can be partly explained by the fact that it was not possible to clear out all the rubble by hand and the full width of the silicifed zone may not have been sampled. However, this would probably only account for a maximum additional two or three feet so a significant difference remains.

There are insufficient points to calculate meaningful reserves, but using a cut-off of 0.05 oz/ton and a tonnage factor of 11.50 cubic feet per ton, a computer computation by the triangular method using the ORECALC program indicated 12,200 tons at a grade of 0.16 oz/ton over an average with of 9.50 feet. Using a cut-off of 0.1 oz/ton increases the grade to 0.21 oz/ton, but it drastically reduces the tonnage as there are only three closely spaced drill holes above this cut-off.

The tonnage potential at the W Zone is much better than at the A, B or C Zones, though indications are that the grade is likely to be lower at around 0.20 oz/ton. There is good continuity over a strike length of 700 feet and the zone is still open at either end. Exploration by drilling has been limited to only half the known strike length to a maximum depth of 85 feet. A zone with a strike length of 700 feet and average width of 10 feet would contain just over 600 tons of material for every foot of depth extent with a tonnage factor of 11.50 cubic feet per ton. Thus, potential reserves could amount to 180,000 tons to a depth of 300 feet. In addition there is the possibility of increasing potential tonnage along strike.

#### The R Zone

This zone was discovered in the 1986 drilling programme when hole SC-6 intersected high-grade gold mineralization over significant widths in sheared, sericitized and silicified porphyry. However, as seems to be the case with

## Table 11. Range of Assay Values from Trenches and Drill Holes at the W Zone. (Samples from the Defined Zone)

HOLE NUMBER	NUMBER OF ASSAYS	CUMULATIVE NO. OF ASSAYS	MAXIMUM VALUE	MINIMUM VALUE
TR-1	i	1	0.05	0.05 -
TR-2	2	3	0.15	0.09
TR-3	2	5	0.18	0.10 -
TR-4	2	7	0.22	0.04
TR-6	2	9	0.13	0.11
TR-7	2	11	0.66	0.17
TR-8	1	12	0.05	0.05
TR-9	1	13	0.07	0.07
TR-10	1	14	0.05	0.05
TR-11	1	15	0.04	0.04
TR-13	2	17	0.02	0.02
TR-14	17 21	20	0.07	0.05
TR-15	i	21	0.03	0.03
E-71	2	23	0.81	0.08
E-72	Σį.	27	0.25	0.07
E-77	2	29	0.05	0.04
E-78	4	33	0,07	0.03
E-79	7	36	0,32	0.09
E-80	2	38	0.06	0.05
E-81	4	42	0.08	0.03
	ų č ak	43	0.09	0.09

other zones at High Lake, this excellent intersection was not matched in holes drilled either side on strike and it would appear that the mineralization is erratic with poor continuity. A total of 5,266 feet was drilled in 13 holes (Table 12) over a strike length of 900 feet. It was originally hoped that some trenching could be undertaken to investigate this zone, but unfortunately the best mineralization in hole SC-6 lies beneath swampy, water-logged ground and it was not possible to dig there.

Dawson (1986) considers that, although the mineralization is controlled by the regional east-northeasterly shearing, the individual shoots may have one or more orientations. While it is possible that the mineralization may be affected by the N15E shears as at the W Zone, it is considered most likely that the mineralization simply follows the ENE trend. It is exactly on strike from the A Zone mineralization and is presumably controlled by the same shear direction.

Section slices at 50-foot intervals are given in Figures 57 to 64 and 50-foot level plans in Figures 65 to 69. The mineralization intersected in holes SC-6 and SC-13 (Table 13) on section 3150 East has poor continuity both on strike and down-dip. As a consequence, any estimate of reserves has to be accepted with a degree of caution. Assuming that mineralized lenses extend 25 feet along strike on either side of section 3150 East and halfway to a barren hole along dip, there are 25,000 tons grading 0.46 oz/ton over an average width of 11.8 feet.

In spite of the wide, high-grade intersections in holes SC-6 and SC-13 the potential at the R Zone cannot be considered to be particularly high. The 1986 drilling has tested a possible strike extension with negative results in a number of holes 450 feet on either side of section 3150 East. There are large enough gaps to have missed small lenses similar to those intersected and it more than likely that more would be discovered with further drilling. However, the possibilities for building up significant tonnages are severely limited.

#### The P Zone

This zone was discovered by Electrum Lake Gold Mines in 1960 in the follow up to a small, auriferous, iron-stained outcrop located in an overburden covered area on top of a prominent outcrop ridge of porphyry. No trenching was undertaken on this zone during the present investigation as it was not possible to get the back-hoe up the craggy ridge. However, the lines were walked and prospected and the site of the original discovery found and examined. Two small trenches dug by Electrum Lake Gold Mines did not reach bedrock at depths of one to three feet and no attempt was made to dig them deeper by hand.

A total of 1,924 feet was drilled by Electrum Lake Gold Mines in 14 holes (Table 14). Only three holes have good mineralized intersections (Table 15) and they are on three adjacent sections, 2150 East, 2200 East and 2250 East (Figs. 74 to 76) for a strike length of 150 feet. The three intersections do not line

Table 12. Summary of Holes Drilled on the R Zone.

Hole No.	Eastings	Northings	Elevation	Units	Inclination	Grid Bearing	Final Depth	Nedges	Litho Units	No. of Assays	Averaged A Total No	ssay Intervals Named Zones	Elements
SC-6	3163.92	-578.35	925.60	feet	-45.00	180.00	377.00	0	26	70	8	8	1 (Au dz/T)
SC-7	3593.53	-600.94	944.90	feet	-45.00	180.00	407.00	0	22	66	0	0	1 (Au oz/T)
SC-8	2741.15	-414.64	929.10	feet	-60.00	180.00	487.00	0	39	72	2	2	1 (Au oz/T)
SC-9	3361.16	-532.70	942.80	feet	-45.00	180.00	409.00	0	24	66	1	1	1 (Au oz/T)
SC-10	2958.29	-509.16	925.40	feet	-50.00	180.00	527.00	0	39	96	0	0	1 (Au oz/T)
SC-11	3260.81	-585.87	926.90	feet	-45.00	180.00	357.00	0	32	14	1	1	1 (Au oz/T)
SC-12	2738.38	-528.61	916.20	feet	-47.00	180.00	387.00	0	29	7	0	0	i (Au dz/T)
SC-13	3148.42	-637.15	922.10	feet	-45.00	180.00	325.00	0	24	39	2	2	1 (Au oz/T)
SC-15	3217.83	-592.03	928.30	feet	-45.00	180.00	300.00	0	30	22	0	0	i (Au oz/T)
SC-16	3153.21	-457.12	955.50	feet	-45.00	180.00	597.00	0	63	41	0	0	1 (Au oz/T)
SC-17	3254.15	-790.18	940.00	feet	-45.00	328.00	597.00	0	40	41	2	2	1 (Au oz/T)
SC-18	3060.91	-555.00	927.20	feet	-45.00	180.00	397.00	0	40	35	0	0	1 (Au oz/T)
SC-A14	3065.09	-585.46	921.70	feet	-45.00	180.00	59.00	0	2	0	0	0	0

Total Holes: 13 Total depth: 5226.00 Total assays: 569

Hole No.	Zone	From	То	Drilled Width	Core Angle	True Width	Au oz/T
SC-6	2	72.00	109.00	37.00	50.0	28.34	0.161
	3	122.00	127.00	5.00	50,0	3.83	0.310
	4	142.00	147.00	5.00	50.0	<b>3.</b> 83	0.190
	5	187.00	192.00	5.00	50.0	3.83	0.160
	6	221.50	228.00	6.50	50.0	4.98	0.175
	7	257.00	279.00	22.00	50.0	16.85	1.601
	8	298.00	301.00	3.00	50.0	2.30	0.110
	1	22.00	47.00	25.00	50.0	19.15	0.110
SC-8	1	121.00	127.00	6.00	50.0	4.60	0.370
	2	167.00	173.00	6.00	50.0	4.60	0.110
SC-9	1	303.00	307.00	4.00	50.0	3.06	0.210
SC-11	1	199.00	203.00	4.00	50.0	3.06	0.090
SC-13	1	97.00	108.00	11.00	50.0	8.43	0.200
	2	116.00	127.00	11.00	50.0	8.43	0.836
SC-17	1	159.00	162.00	3.00	50.0	2.30	0.170
	2	177.00	182.00	5.00	50.0	3.83	0.130

Table 13. Main Averaged Assay Intervals at the R Zone.

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Table 14. Summary of Holes Drilled on the P Zone.

Hole No.	Eastings	Northings	Elevation	Units	Inclination	Grid Bearing	Final Depth	Nedges	Litho Units	No. of Assays	Averaged As Total No	ssay intervals Named Zones	Elements
E-33	2165.00	330.00	50.00	feet	-45.00	180.00	58.00	0	4	7	0	0	1 (Au oz/T)
E-34	2215.00	285.00	50.00	feet	-45.00	360.00	125.00	0	6	5	1	1	1 (Au oz/T)
E-60	2200.00	225.00	15.00	feet	-30.00	15.00	160.00	0	15	14	1	1	1 (Au 02/T)
E-61	2135.00	255.00	12.00	feet	-30.00	15.00	60.00	0	9	0	0	0	0
E-62	2225.00	215.00	15.00	feet	-30.00	30.00	173.00	0	16	5	0	0	1 (Au oz/T)
E-93	2150.00	440.00	65.00	feet	-45.00	180.00	198.00	0	13	9	1	1	1 (Au oz/T)
E-64	2050.00	495.00	60.00	feet	-45.00	180.00	210.00	0	15	10	0	0	1 (Au oz/T)
E-65	1950.00	490.00	55.00	feet	-45.00	180.00	223.00	0	28	5	0	0	1 (Au oz/T)
E-66	2350.00	225.00	50.00	feet	-30.00	360.00	122.00	0	18	11	0	0	1 (Au oz/T)
E-67	2440.00	200.00	50.00	feet	-30.00	360.00	133.00	0	18	8	0	0	1 (Au oz/T)
E-73	1835.00	330.00	0.00	feet	-43.00	180.00	90.00	0	8	4	0	0	1 (Au oz/T)
E-74	1890.00	325.00	0.00	feet	-45.00	180.00	124.00	0	20	2	0	0	1 (Au oz/T)
E-75	2040.00	325.00	0.00	feet	-40.00	180.00	130.00	0	13	6	0	D	1 (Au dz/T)
E-76	1995.00	305.00	0.00	feet	-45.00	180.00	118.00	0	19	0	0	0	0

Total Holes: 14 Total depth: 1924.00 Total assays: 86

Hole No.	Zone	From	То	Drilled Width	Core Angle	True Width	Au oz/T
E-34	1	36.00	56.50	20.50	50.0	15.70	0.210
E-60	1	131.00	146.00	15.00	65.0	13.59	0.117
E-63	1	134.00	146.50	12.50	50.0	9.58	0.674

Table 15. Averaged Assay Intervals at the P Zone.



up on strike with the middle one being 20 feet south of the line between the outer ones. This probably indicates en echelon zones as seen elsewhere on the property. Assuming that the mineralization extends for 60 feet along dip and halfway to adjacent sections there are 10,000 tons at 0.29 oz/ton with an average width of 12.96 feet using a tonnage factor of 11.50 cubic feet per ton.

The zone is still open in depth and, although it has been drilled on strike both east and west, the holes do not really cut it off and it is certainly possible that further mineralization could be intersected to the east and west of the good intersections.

#### Anomaly No. 3

The soil anomaly No. 3 (Fig. 3), which reaches a maximum value of 1400 ppb gold, was tested by Calnor Resources in the winter drilling programme of 1986 with one hole, SC-21, which was drilled grid south at -45 degrees under the centre of the anomaly on line 3200 East to a depth of 362 feet (Fig. 82). This hole intersected 50 feet of sheared hybrid volcanic-granodiorite rock with variable amounts of pyrite grading 0.038 oz/ton gold (Fig. 83). The two best samples ran 0.10 oz/ton over two feet and 0.09 oz/ton over five feet.

Four trenches were dug with the back-hoe to investigate this anomaly. Trench No. 2 was dug along line 3200 East above the drill hole intersection. Trench No. 1 was dug 100 feet west of Trench No. 2 to test the zone along strike and Trench No. 3 was dug 75 feet east of Trench No. 2 where the soil values reach a maximum of 1400 ppb at 3300 East/650 North. Trench No. 4 was dug east of Trench No. 3 to trace the sheared volcanics in Trench No. 3 which contain trace to minor amounts of disseminated pyrite.

Exposure is quite good in the area of the anomaly and the zone of slightly sheared and weakly iron-stained rock was well exposed in an outcrop crossing the drill road. As is the pattern elsewhere on the property, this zone strikes at N60E and dips north at 75 to 80 degrees. Directly above the drill hole in Trench No. 2 assay results are disappointing with a maximum value of 0.20 oz/ton gold within a narrow band of strongly sheared, heavily iron-stained, dark-grey granodiorite eight inches wide. The next best value is 0.02 oz/ton over three feet. The zone at surface correlates with the zone in the drill hole except that it is less well mineralized. Pyrite in the drill hole is represented by the iron stained zones at surface in which the pyrite has been totally oxidized.

Results in Trench No. 1 are somewhat better than in the trench directly above the drill hole with the zone averaging 0.036 oz/ton over 34 feet. With a maximum value of 0.32 oz/ton over one foot and the next best sample running 0.10oz/ton over four feet the results are comparable to those obtained in the drill hole. The zone can be traced eastwards into the outcrops immediately south of Trenches 3 and 4 where it consists of weakly iron-stained jointing and shears and is not as prominent as it is in Trenches 1 and 2.

It did not prove possible to expose the actual basalt/granodiorite contact in Trenches 3 and 4 due to depth of overburden, but the sheared volcanics just north of the contact only contain traces of gold. In drill hole SC-21, which intersected the basalt/granodiorite contact, only trace amounts of gold occur in similar volcanics with variable amounts of disseminated pyrite.

The gold soil anomaly is due to a weakly sheared and mineralized zone 30 to 40 feet wide in which narrow zones of more strongly sheared rock varying in width from less than a foot to three feet wide carry most of the gold values. The zone can be traced over a minimum strike length of 200 feet and it has been intersected at a depth of 80 feet in hole SC-21. The exploration potential for economic mineralization seems poor.

#### Anomaly No. 4 and 4a

Most of this anomaly is located on outcrop ridges of granodiorite which were prospected along the grid lines. As in the case of Anomaly No. 6, nothing significant was seen in the way of mineralization. Some zones of weak shearing and iron staining with the regional ENE trend and low-grade gold values associated with such shears would account for the anomaly.

Calnor Resources tested one of the better parts of this anomaly in 1986 with a drill hole, SC-22, which was drilled at -45 grid south on line 2600 East to a depth of 346 feet. Fresh granodiorite and hybrid basalt-granodiorite was intersected, but apart from some zones of weak fracturing and silicification with traces of pyrite, no mineralization was intersected.

A trench was dug with the back-hoe on line 3000 East between 1900 and 1950 North. Nothing but massive, barren granodiorite was uncovered and no samples were taken.

#### Anomaly No. 5

This soil anomaly is the highest with an incredible value of over 72,000 ppb (2.1 oz/ton) and was tested by Calnor Resources in 1986 with drill hole SC-20

which was drilled grid south at -45 degrees to a final depth of 218 feet. The hole was sited to be vertically below the peak of the anomaly at a depth of 40 feet. The best intersection in this hole was a zone of foliated granodiorite with minor pyrite and chalcopyrite that graded 0.05 oz/ton gold over a drilled length of 10 feet.

The back-hoe was used to strip the outcrop clear along the full length covered by the drill hole (Fig. 84). A zone of heavily iron stained, silicified and sheared granodiorite was uncovered just below a thin covering of soil and moss. Weak, patchy malachite and azurite staining was noted and a number of coarse specks of visible gold 1 to 3 mm across were noted in several specimens. Stripping both eastwards and westwards along the N60E strike direction for a total distance of 160 feet showed that this strongly mineralized zone pinched out in both directions into barren granodiorite for a total strike length of only 40 feet. It is just over six feet wide and averaged 0.93 oz/ton over 6.33 feet. If another 2.33 feet that ran 0.06 oz/ton is included the zone averages 0.69 oz/ton over 8.66 feet. The dip is 75 to 80 degrees to the north.

Another trench was dug with the back-hoe 200 feet to the west along the projected strike of the zone. This trench uncovered similar mineralized material, though it is not as wide with a total width of four feet and it is not as well mineralized. A grade of 0.15 oz/ton was obtained for the zone at this point.

The erratic nature of the mineralization at this locality is very similar to other mineralized zones on the property where excellent mineralization can often only be traced for a few feet or tens of feet. Hole SC-20 was drilled immediately below the best part of the showing and at a depth of 40 feet the grade drops to only 0.05 oz/ton (Figure 86).

In spite of the excellent grade and appearance of the main showing, the exploration potential of Anomaly No. 5 cannot be considered to be very good. It is likely that further mineralization occurs along the trend, but its poddy nature precludes the possibility of being able build up significant tonnages.

#### Anomaly No. 6

This soil anomaly, which has a maximum gold value of 235 ppb, runs along a ridge of almost bare porphyry outcrop for the greater part of its 600-foot length. Only at its northeastern end is the ground covered by overburden. The back-hoe was used to dig a trench on line 2600 East between 1050 North and 1150 North. Rock was exposed at depths ranging from one to five feet along the entire length of the trench. For the most part it consists of massive dark-grey granodiorite, but towards the southern end some bands of hornblende schist and sheared volcanics occur with an average trend of N65E. There is some iron staining and occasional traces of disseminated pyrite are present, but the rock appears barren. Samples were taken from the sheared and weakly iron stained zones with the following results:

From	То	Width	oz/ton	Description
1070.00	1073.00	3.00	0.005	Weakly sheared,dark-grey granodiorite, some iron staining
1073.00	1074.25	1.25	0.005	Hornblende schist
1074.25	1076.00	1.75	0.010	Basalt
1076.00	1079.00	3.00	0.005	Hornblende schist
1079.00	1082.33	3.33	0.005	Dark-grey granodiorite
1125.25	1128.25	3.00	Trace	Weakly sheared granodiorite patchy iron staining, trace pyrite
1128.25	1131.25	3.00	0.005	Granodiorite, trace pyrite
1131.25	1134.25	3.00	Trace	As above

Prospecting along the lines over the outcrop showed only graniodiorite with occasional weak shears or fractures and iron staining.

#### Anomaly No. 7

This anomalous area was prospected for one day by Don Wioto. Basalt outcrops underlie a high proportion of the area and, except for some weak patchy iron staining no signs of possible mineralization were noted. No further work was done.

#### Anomaly No. 8

This anomaly consists of a single sample which ran over 10,000 ppb. At the point where the sample was taken there is very little soil cover and the ground is largely underlain by basalt with some weak jointing or shearing and some patchy iron staining. A strip along the grid line was stripped of moss and what little soil cover there was by hand, but nothing of interest was uncovered. No samples were taken.

#### CONCLUSIONS AND RECOMMENDATIONS

Gold mineralization at High Lake is controlled by regional shear joints trending N6OE and dipping northwest at 75 to 85 degrees. Although rock type does not appear to be an important factor, locally lithology may partly influence shearing and thus have an indirect control on mineralization. For instance, at the B Zone the best mineralization occurs in both rock types along a contact zone between volcanics and porphyry. The situation at the A Zone is similar except that the mineralization is largely confined to the volcanics. At the C Zone mineralization is confined to the volcanics and trends away from the contact with the porphyry. At the P, R and W zones the mineralization occurs wholly within the porphyry.

A second important set of joints and shears trend N10E to N30E and frequently contain thin, barren quartz veins. This trend does not appear to have a major bearing on the mineralization except at the W Zone where these shears offset the N60E mineralized shears resulting in a series of en echelon lenses with an overall trend of N35E. There is always the possibility that this may occur at some of the other zones, though there is no real evidence for it in the drill data.

Pyrite always accompanies the gold mineralization, though sulphide content is not a good guide to gold content and some pyrite-bearing rock contains little or no gold. Typically, within the volcanic rocks the best mineralization occurs in zones with narrow bands and lenses of massive pyrite, often with significant amounts of chalcopyrite. In the porphyry, on the other hand, high-grade mineralization is often associated with only minor amounts of pyrite.

The well-mineralized rocks are always strongly altered. In the volcanics the alteration consists of carbonate and quartz-carbonate veining, chloritization and epidotization. In the porphyry the alteration consists of sericitization and silicification, which is often accompanied by vein quartz in irregular masses and lenses together with varying amounts of black tourmaline.

Trenching at the No. 3 and No. 5 Soil Anomalies located zones of sheared and mineralized porphyry to explain the gold content of the overlying soils. At the No. 5 Anomaly a heavily mineralized zone grading 0.93 oz/ton over 6.3 feet was discovered. However, it only has a strike length of 40 feet. At the No. 3 Anomaly a low-grade zone 30 to 35 feet wide included best intervals of 0.11 oz/ton over 4.6 feet and 0.10 oz/ton over 4.0 feet. As in the case of the No. 5 Anomaly, continuity along strike is limited and the exploration potential for economic mineralization appears poor.

Six mineralized zones have been defined by drilling since 1953 in 97 drill holes for a total of 21,631 feet. Drill indicated reserves to a maximum depth of 200 feet amount to 100,000 tons grading 0.33 oz/ton over an average width of 8.73 feet as detailed below:

Zone	Tons	Width (ft)	Grade (oz/ton)
A	11,308	8.27	0.26
В	25,815	6,26	0.29
С	15,390	4.88	0.43
Р	10,000	12.96	0.29
R	25,000	11.80	0.46
W	12,200	9.50	0.16
TOTAL:	100,005	8,73	0.33

Assays were not cut in the calculations, but it is considered that there are no major unrepresentative intervals that would unduly bias the results.

Further tonnages could probably be proved at all the zones both in depth and along strike, though it is unlikely that substantial additions could be made given the erratic nature and poor continuity of the mineralization. In this regard the W Zone is the most promising as it has better continuity than the other zones with a total strike length of 700 feet proved by trenching. Only half this strike length has been tested by drilling to a maximum depth of 85 feet. Potential tonnages could amount to 60,000 tons per 100 feet of depth extent. In addition there is the possibility of increasing potential tonnage along strike. However, indications are that the grade is likely to be lower than at the other zones.

The various zones are within a few hundred yards of each other and could readily be worked from a central location. If such a deposit with total tonnage of the order of 200,000 to 300,00 tons is of interest, it is recommended that the W Zone be tested by a series of shallow holes for a total of 5,000 feet of drilling. This should provide 20 or more intersections to determine whether there is any real economic potential. If results at the W Zone proved positive, further drilling could be undertaken at any, or all, of the other zones with the C Zone having the lowest priority.

John H. Reedman

B.Sc., M.Phil., M.I.M.M., C.Eng.

29th October, 1987

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#### REFERENCES

Davies, J. C., 1965. Geology of High Lake-Rush Bay Area, District of Kenora, <u>Ontario Department of Mines, Geological Report No. 41</u>, Toronto, 57pp.

Dawson, J. M., 1984. Geological, Geochemical and Geophysical Report on the High Lake Property, Shoal Lake Area, Kenora Mining Division, Ontario, Unpub. report on behalf of Barrier Reef Resources Ltd.

Dawson, J. M., 1986. Report on Diamond Drilling Programme on the High Lake Property, Kenora Mining Division, Ontario, Unpub. report on behalf of Calnor Resources Ltd.



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## REPORT ON THE 1987/88 DIAMOND DRILLING PROGRAMME

on

### THE W ZONE

at

## HIGH LAKE, NORTHWEST ONTARIO

ON BEHALF OF LARAMIDE SERVICE CORPORATION

J. H. REEDMAN & ASSOCIATES LTD, 89 Dickens Drive, Winnipeg, Manitoba, R3K OM1

May, 1988

#### SUMMARY

Between 30th November, 1987 and 25th February, 1988 12 diamond drill holes for a total of 5,136 feet were drilled to test the W Zone gold mineralization at High Lake, Northwest Ontario. The drilling proved the continuity of the zone over a strike length of 800 feet and to a vertical depth of 550 feet with an average width of 8.24 feet.

The zone is defined by quartz flooding, silicification and intense shearing and sericitization of the quartz feldspar porphyry country rock. The mineralization is sparse and consists of finely disseminated pyrite varying from a trace to two or three per cent. Native gold is rare, but is occasionally present as finely disseminated grains in quartz.

Gold values are disappointing and the zone only exceeds 0.10 oz/ton in three of the 12 holes drilled. The maximum value is 0.31 oz/ton over 12.99 feet in one of the eight holes drilled by Electrum Lake Gold Mines in 1960/61. The highest grade in the current drilling programme is 0.29 oz/ton over 5.02 feet in hole WZ-12.

The style of mineralization undoubtedly means that there is a problem in evaluating it effectively with diamond drill holes and in a number of cases poor assays were returned from holes that had intersected good zone material. However, even if many poor assays are discounted as being due to inadequate sampling, the better assays indicate that the grade is unlikely to average more than 0.20 oz/ton. Reserve computations using a cut-off of 0.05 oz/ton over a minimum width of five feet, give 47,000 tons grading 0.17 oz/ton over an average true width of 7.09 feet.

In terms of gross tonnage there are 172,400 tons of material within the area bounded by the drill holes and surface trenches with an average width of 8.24 feet. The zone is still open along strike and to depth and there is potential for proving more than 500,00 tons of material. However, no further drilling is recommended in view of the low indicated tenor of the zone. It is considered highly unlikely that there is potential for proving more than 100,000 to 200,000 tons grading 0.15 to 0.20 oz/ton gold.



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#### INTRODUCTION

This report describes the results of a diamond drilling programme undertaken on the W Zone at Calnor Resources Ltd.'s High Lake property in Northwestern Ontario between the 30th November, 1987 and the 25th February, 1988. A total of 5,136 feet of drilling in 12 holes tested the auriferous zone over a strike length of 800 feet to a maximum vertical depth of 550 feet.

#### PREVIOUS WORK

The Kenora District was subjected to considerable prospecting activity in the late 1800's and earlier years of the present century, but it was not until 1936 that gold was first discovered by C. Alcock to the south of Electrum Lake (formerly known as South Baubee Lake). The identification of the gold-silver alloy, electrum, resulted in the lake being renamed, or officially named, Electrum Lake.

These earliest discoveries were just outside the boundaries of the Calnor Resources claim group and the first discovery of gold within the present Calnor property was in 1953 when a local prospector, R. Longe, discovered gold on what is now the B Zone. Later that year San Antonio Gold Mines optioned a large block of ground from messrs. Alcock and Longe and undertook an exploration programme during the same year. This involved some geophysical work and the drilling of 24 diamond drill holes, 20 of which are on the Calnor property for a total of 4,526 feet. Although gold mineralization was intersected in a number of holes, the company found the results insufficiently encouraging and the option was dropped at the end of 1953.

In 1956 Green Bay Uranium Mines drilled three holes in the area exploring for porphyry copper mineralization. One of these holes, GB6, was drilled on what became the A Zone. The core from this hole was not assayed for gold at the time, but some of the core was sampled in 1958 and showed good gold values over significant lengths.

In the late 1950's the claims were optioned by Electrum Lake Gold Mines, a company floated to undertake exploration in the area. Following prospecting, mapping, trenching and geophysical work the company undertook a drilling programme from 1960 to 1961. A total of 12,962 feet in 71 holes was drilled on the present Calnor property, resulting in the definition of the A, B, C, P and W Zones. The erratic nature and poor continuity of the mineralization resulted in a failure to obtain further finance, forcing the company to relinquish its

option in 1962.

Between 1965 and 1967 Steep Rock Mines held a large block of ground in the High Lake area that included all the claims presently held under option by Calnor Resources. Their work, which was directed towards porphyry copper mineralization, involved geological mapping and an I.P. survey over the entire area for a total of 49.5 line miles. This survey was undertaken by Canadian Aero Mineral Surveys Limited using pulse-type equipment and a gradient array with an electrode spacing of 200 feet. In addition a magnetic survey was undertaken by W. G. Wahl Ltd. Numerous chargeability anomalies were defined and geological mapping, geochemical surveying and some drilling were recommended. The few anomalies within the present Calnor claim group are associated with basic volcanic rocks.

Croydon Mines optioned some claims that included part of the present Calnor property and engaged Seigel Associates Limited to undertake an I. P. survey to locate possible porphyry copper targets. This survey covered parts of claims 32306, 32307, 32574, 24136, 8519 and 28661, which are all to the south of the main gold mineralized zones. The chargeability anomalies were ascribed to basic volcanic rocks with high magnetite contents and no clear indication of chargeability values relating to chalcopyrite-rich sections of the porphyry was obtained.

In 1981 claims 23942 and 23943 were optioned by Sherritt Gordon Mines who engaged James E. Tilsley and Associates Ltd. to undertake a compilation of existing data and calculation of reserves. This study estimated that the A, B and C Zones contain between 60,000 and 100,000 tonnes of rock to a depth of 65 metres with a total gold content of 12,300 to 26,680 ounces. In the summer of 1981 Sherritt Gordon undertook a magnetic and Max-Min survey over the two claims. The magnetic survey clearly outlines the areas underlain by basic volcanics, but nothing meaningful can be seen in the HLEM survey results. Following Tilsley's recommendations the company drilled six holes on the C Zone for a total of 1,248 feet. Although this drilling essentially confirmed the results of earlier drilling, the company did not feel further work was warranted and dropped their option in 1982.

An option over the property as presently constituted was obtained by Barrier Reef Resources Ltd. in 1983. In the summer of that year an exploration programme consisting of geological mapping, soil sampling, magnetic and VLF-EM surveying was undertaken by Kerr, Dawson & Associates Ltd. on behalf of the company. This work resulted in the delineation of a number of EM anomalies and some good gold geochemical anomalies outside the known mineralized zones. Trenching, mapping, sampling, diamond drilling and an I.P. survey over the EM conductors were recommended.

In 1984 Barrier Reef Resources assigned its rights in the High Lake property to a subsidiary company, Francis Resources Ltd. which merged with Northcal Resources Ltd. in 1985 to form Calnor Resources Ltd. In the winter of 1986 a diamond drilling programme was undertaken by Calnor Resources under the direction of Dawson Geological Consultants Ltd. for a total of 7,594 feet in 22 holes. This work resulted in the definition of the new R Zone, but, as in the case of previous work, excellent grade material appeared to be erratic with poor continuity.

In August 1987 J. H. REEDMAN & ASSOCIATES LTD was engaged by Laramide Service Corporation on behalf of Calnor Resources to supervise a trenching, mapping and sampling programme to try and determine the controls of the mineralization in order to make a better assessment of the property's potential. In addition to the field work a comprehensive compilation and review of all available data was also undertaken. This work confirmed the erratic nature of much of the mineralization, but indicated that good continuity could be expected at the W Zone over a strike length of at least 700 feet. Accordingly, diamond drilling was recommeded to test this zone.

#### **OWNERSHIP**

The property consists of 25 contiguous claims held by Calnor Reources under under an option agreement with the owners. Calnor can assume full ownership by completing the schedule of payments under the terms of the option.

#### Unpatented Claims

<u>Claim</u> <u>Number</u>	Assessment Date	Owner
K638625	February 4, 1989	Gladys Stephens
K638626	February 4, 1989	Gladys Stephens
K638627	February 4, 1989	Gladys Stephens
<b>K638628</b>	February 4, 1989	Gladys Stephens
K638629	February 4, 1989	Gladys Stephens
<b>K638630</b>	February 4, 1989	Gladys Stephens

# Patented Claims

<u>Claim Number</u>	<u>Date Taxes Due</u>	Owner
K8517	October 1, 1989	Rosalyn Alcock
<b>K8518</b>	October 1, 1989	Ro <b>sa</b> lyn Alcock
K8519	October 1, 1989	Rosalyn Alcock
<b>K</b> 8555	October 1, 1989	Rosalyn Alcock

# Leased Claims

<u>Claim No.</u>	Lease No.	Expiry Date	<u>Lease</u> Payment Da	te <u>Owner</u>
K23942	104078	Dec. 31, 2005	Dec. 31, 1988	Gladys Stephens
<b>K23943</b>	104079	Dec. 31, 2005	Dec. 31, 1988	Gladys Stephens
<b>K20696</b>	104080	Dec. 31, 2005	Dec. 31, 1988	Rosalyn Alcock
K20697	104081	Dec. 31, 2005	Dec. 31, 1988	Rosalyn Alcock
K21479	104082	Dec. 31, 2005	Dec. 31, 1988	Rosalyn Alcock
K20694	104083	Dec. 31, 2005	Dec. 31, 1988	Rosalyn Alcock
<b>K20695</b>	104084	Dec. 31, 2005	Dec. 31, 1988	Rosalyn Alcock
<b>K28663</b>	101164	Dec. 31, 2005	Dec. 31, 1988	Rosalyn Alcock
<b>K239</b> 80	101165	Dec. 31, 2005	Dec. 31, 1988	Rosalyn Alcock
K24136	101166	Dec. 31, 2005	Dec. 31, 1988	Rosalyn Alcock
K32306	101169	Dec. 31, 2005	Dec. 31, 1988	Rosalyn Alcock
K32307	101170	Dec. 31, 2005	Dec. 31, 1988	Rosalyn Alcock
K24137	101171	Dec. 31, 2005	Dec. 31, 1988	Rosalyn Alcock
K28661	101168	Ünder renewal	Oct. 1, 1988	Rosalyn Alcock
K32574	101167	Under renewal	Oct. 1, 1988	Rosalyn Alcock

#### LOCATION AND PHYSICAL FRATURES

The property is located in northwestern Ontario approximately 40 kilometres west of the town of Kenora and three kilometres east of the Manitoba-Ontario border (Fig. 1). The eastern end of High Lake can be reached by three kilometres of narrow gravel track which runs west from the tarred Shoal Lake road three kilometres south of its junction with the Trans-Canada Highway. The centre of the property is a further kilometre north along a rough bush road accessible only to four-wheel drive vehicles (Fig. 2).

The terrain consists of prominent, steep, rock ridges separated by areas of swamp and muskeg with a maximum relief of about 150 feet. Vegetation is typical of this part of the shield, with the low-lying swampy ground varying from open muskeg to swamp with a dense growth of tag alders. Well drained areas are wooded with a mixed growth of spruce, fir, birch and poplar. Pines predominate in drier, rocky areas.

#### GEOLOGY

The geology on the property is relatively simple and consists of Archean basic volcanic rocks of probable basaltic composition intruded by later Archean granodiorite. The basalts are generally massive, fine-grained and structureless, though pillow structures have been described. The rocks weather greenish-black to very dark grey and are composed of fine hornblende and plagioclase with minor magnetite. Locally ENE shear jointing has resulted in a distinct foliation and the development of bands of hornblende schist within narrow zones of strong shearing.

Porphyritic granodiorite underlies the larger part of the property and consists of a medium-grey, coarse-grained quartz-feldspar rock with quartz eyes and feldspar phenocrysts up to 2 cm across, commonly referred to as quartz feldspar porphyry. Basalt xenoliths of various sizes occur within the porphyry and the areas of basaltic rocks are considered to be stoped blocks within the intrusive mass. The incorporation of basic material has resulted in hybrid rocks so that rocks of quite varied composition fall under the general heading of "High Lake porphyrytic granodiorite". These range from the typical medium-grey quartz feldspar prophyry of probable quartz monzonite composition to dark-grey rocks approximating to quartz-diorites in composition. As in the case of the volcanic rocks, a distinct foliation is developed locally by the dominant ENE shear jointing and narrow bands of quartz-sericite schist are formed in zones of strongest shearing.

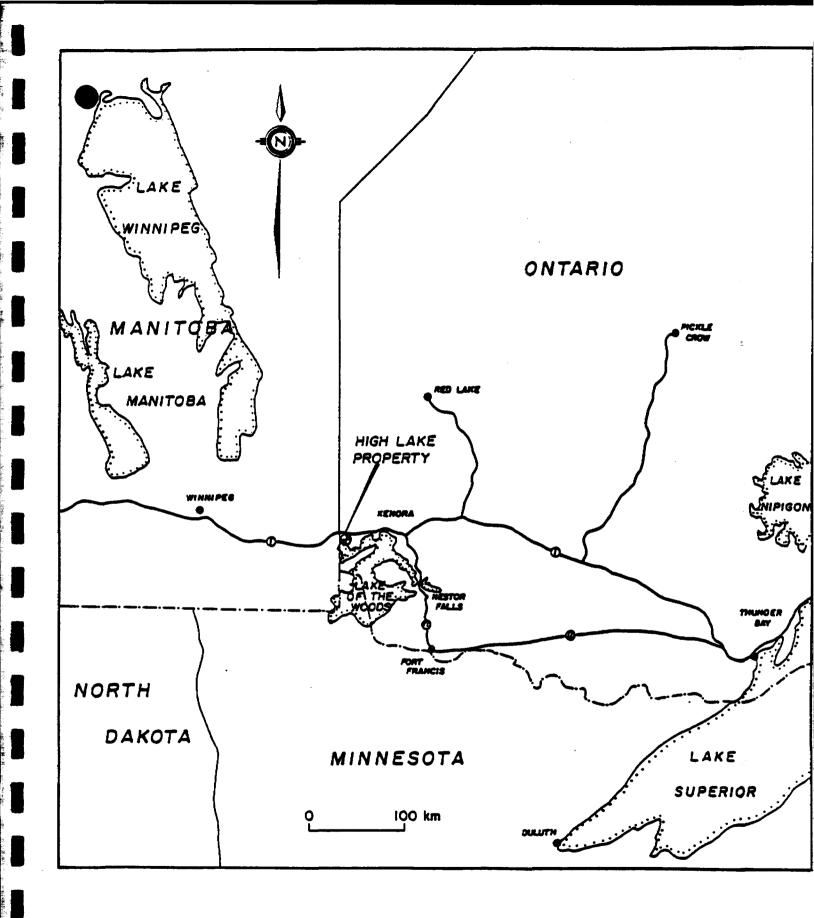


Fig. 1. Property Location Map

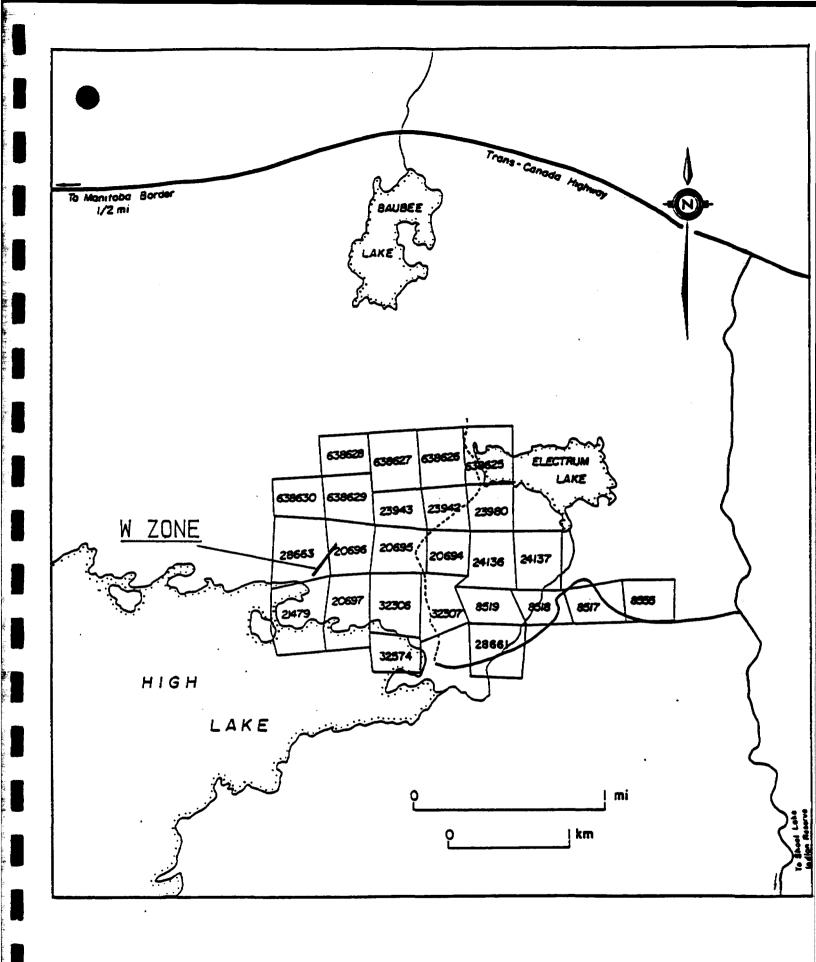


Fig. 2. Property Claim Map.

At the W Zone the country rock is porphyrytic granodiorite and for the most part is a leucocratic, quartz feldspar porphyry with large feldspar phenocrysts up to 1 inch or more across. Lesser amounts of medium- to coarse-grained, darker, dioritic rock, variously described as quartz diorite or "hybrid rock", occur and are considered to represent assimalated basalt. The basaltic rocks present elsewhere on the property are only represented at the W Zone by a few narrow bands of hornblende schist.

#### STRUCTURE

The most prominent structural feature is the pronounced ENE jointing and shear jointing that can be seen in almost every outcrop. This can be intense enough to develop a distinct foliation and even schistose bands in the strongest shear zones. These shear joints dip steeply northwest and vary over a twenty degree range in strike with the majority at N60E. The other major set of joints strike at N10E to N20E and vary in dip from sub-vertical to 50 degrees east. This subsidiary set undoubtedly represents tension jointing since the joints are commonly filled by narrow quartz veins. Other joint directions can be measured, but they are very much of minor importance compared to the two dominant sets with average strikes of N15E and N60E.

A number of east-northeast, northeast and north-south trending faults have been inferred from topography, photogeology and EM surveys in earlier work undertaken on behalf of Calnor (Dawson, 1986), but no measureable offsets have been mapped to substatiate any of them. Davies (1965) considers east-west faulting to be of most importance in the High Lake-Rush Bay area and specifically refers to obvious east-west linear depressions that occur along the northern and southern parts of the present Calnor property. One extends west from the the northern shore of Electrum Lake and the other extends east from the eastern side of High Lake.

#### MINERALIZATION

Although no large body of ore-grade material has been found in the High Lake area, there are numerous mineral showings. Copper and molybdenum mineralization occur as disseminations and fracture coatings in a number of places within the High Lake granodiorite south of the Calnor property and much of the earlier exploration was directed towards possible porphyry copper deposits. The only serious attempt at mining in the immediate area was the development of a small molybdenum deposit with drill indicated reserves of 126,000 tons grading 0.68% molybdenite just outside the southern boundary of the Calnor property at the east end of High Lake. A shaft was sunk and a small mill constructed by Echo Molybdenite Mines Ltd., but the operation closed down shortly after opening in 1982. The mineralization consists of narrow zones of quartz veining with molybdenite and minor pyrite and chalcopyrite. The main mineralized zone strikes N80W over a length of 1600 feet and dips steeply north.

Within the area of the Calnor property there are numerous gold and copper-gold showings. The mineralization occurs in steeply dipping, ENE trending shears both in the volcanic rocks and feldspar porphyry. Pyrite is the most common sulphide and chalcopyrite may or may not be present. Minor pyrrhotite also occurs. Gold mineralization is associated with the sulphide mineralization, but total sulphide content is not necessarily a good guide to gold content. Typically, within the volcanic rocks the best gold mineralization occurs in zones with narrow bands and lenses of massive pyrite together with significant amounts of chalcopyrite. In the porphyry, on the other hand, high-grade gold mineralization is often associated with only minor amounts of disseminated pyrite.

In both the porphyry and volcanics the best mineralization occurs in strongly sheared and altered schistose bands. In the volcanics the alteration consists of thin, wispy carbonate and quartz-carbonate veinlets, chloritization and epidotization. In the porphyry the alteration consists of sericitization and silicification, which is often accompanied by vein quartz in irregular masses and lenses together with varying amounts of black tourmaline. Haematization is also often present in the porphyry.

At the W Zone the mineralization is associated with a sheared, altered and silicified zone trending approximately N3OE and dipping northwest at 70 to 75 degrees. This zone is controlled by the regional N6OE trending shear joints, but it is offset by a subsidiary set of shears striking N1OE to N3OE, resulting in a series of enchelon lenses with an average trend of N3OE to N35E. Where the zone is best developed the porphyry is strongly sericitized, sheared and silicified, forming what is generally described as "quartz-eye sericite schist".

The W Zone mineralization is very sparse and consists of finely disseminated pyrite and small aggregations of pyrite grains, varying from a trace to a maximum of two or three per cent. Native gold is rare, but is occasionally present as very fine disseminated grains. Neither pyrite content or degree of alteration and/or shearing are a good guide to gold content. The best gold values are generally associated with conspicuous quartz flooding accompanied by minor tourmaline.

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#### THE CURRENT DRILLING PROGRAMME

The current drilling programme commenced on the 30th November 1987 and was completed on the 25th February 1988 for a total of 5,136 feet in 12 holes. The drilling was performed by two contractors: K. Allen Drilling of Vancouver, B.C., who drilled the first 3,029 feet, and F. Boisvenu Drilling Ltd. of Vancouver, B.C., who drilled the final 2,107 feet. The programme was supervised by J. H. Reedman who also logged and sampled the core. The logging of core was undertaken in a core shack on the property and all core is stored in racks on the property.

Selected portions of the core were split and submitted for fire assay for gold. Samples from the first eight holes were assayed by Warnock Hersey Professional Services Ltd. in Winnipeg and samples from the last four holes were assayed by CDN Resource Laboratories in Delta, B.C. Crushed coarse rejects of selected samples from the first eight holes were sent to CDN Resource Laboratories Ltd. for duplicate anaylsis.

#### Location of Drill Holes

The drill holes were located in the field using the Calnor exploration grid which was established in 1983 for a regional geochemical and geophysical survey. This grid was also used for tying in the trenching and sampling undertaken in August and September of 1987. The base line for this grid had been established as closely as possible to the old base line used by Electrum Lake Gold Mines in 1960/61 for their exploration grid. The azimuth of 62 degrees used for this base line was based on the regional strike of the dominant shear joints. The orientation of the 1960/61 drilling on the W Zone was grid south, but it was decided to drill all new holes across the trend of the W Zone at approximately 25 degrees off the grid.

On completion of the drilling all drill hole collars and surface trenches were surveyed using a theodolite and Sokkisha EDM taking 6+00 East 4+00 North as a reference point. An arbitrary datum of 1000 feet was assigned to this point. A level was used for determining collar elevations. Two of the old Electrum Lake Mines Ltd. holes, E-72 and E-81, were located on the ground so it was possible to tie them in accurately to the new drilling. Elevations of the other Electrum Lake Mines' holes were estimated from their locations; no attempt was made to survey them.

All drill data was entered on computer file using J. H. REEDMAN & ASSOCIATES



LTD's BORSURV software package which was used to generate all the drawings plotted on a Houston Instrument DMP-52 pen-plotter.

#### Summary of Drilling Results

The drilling demonstrated the overall continuity of the zone along strike and to depth, but, with the exception of a few holes, gold values are disappointing.

The drill hole location plan (Figs. 3 and 10) shows the holes and surface trenches on an idealized Calnor Grid. The hole collars and surface trenches are all surveyed with respect to the picket at 4+00 North on line 6+00 East.

Since the trend of the zone is approximately E3ON with respect to the Calnor grid, a new grid was created by a rotation 30 degrees west about the point OE/ON. Figs. 4 and 11 show the resulting drill hole location plan for this theoretical grid which was used for plotting all sections. The holes WZ-1 to WZ-12 are slightly off this new grid direction since it was originally thought that the difference between the Calnor grids and W Zone trend was 25 degrees, but after surveying, it was clear that 30 degrees was a better approximation.

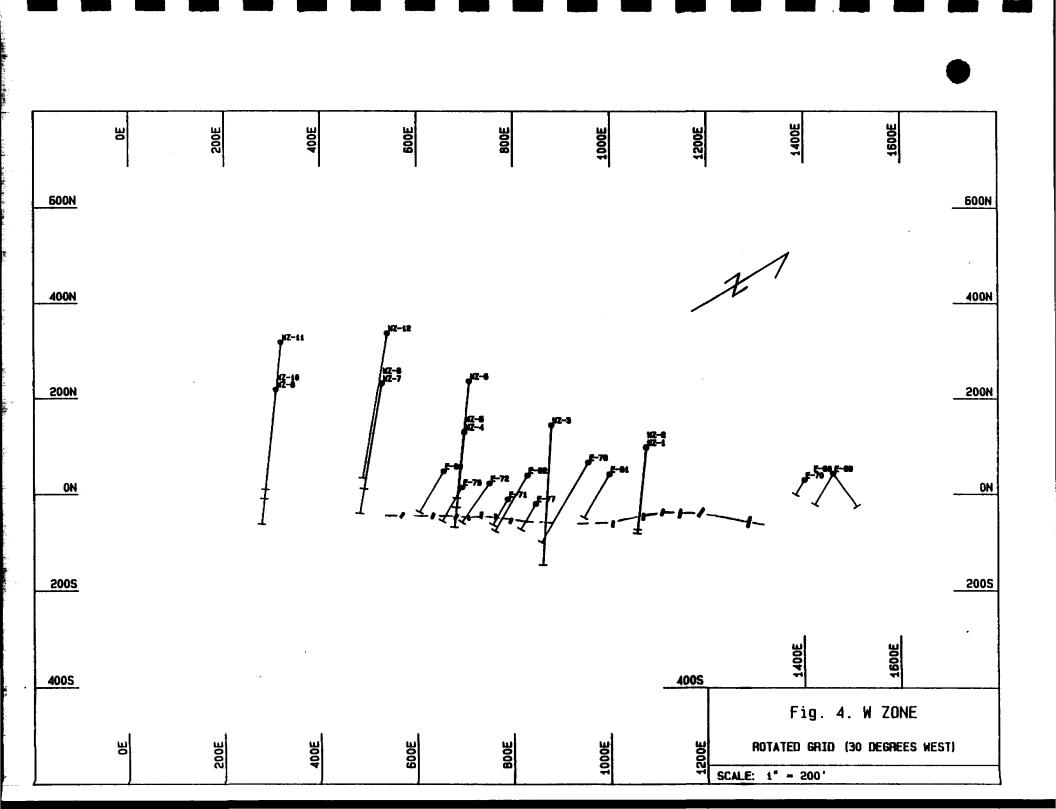
North-south section slices were generated for 50-foot intervals on the rotated grid and plotted at scales of one inch to 100 feet (Figs. 5 to 9) and one inch to 20 feet (Figs. 12-23).

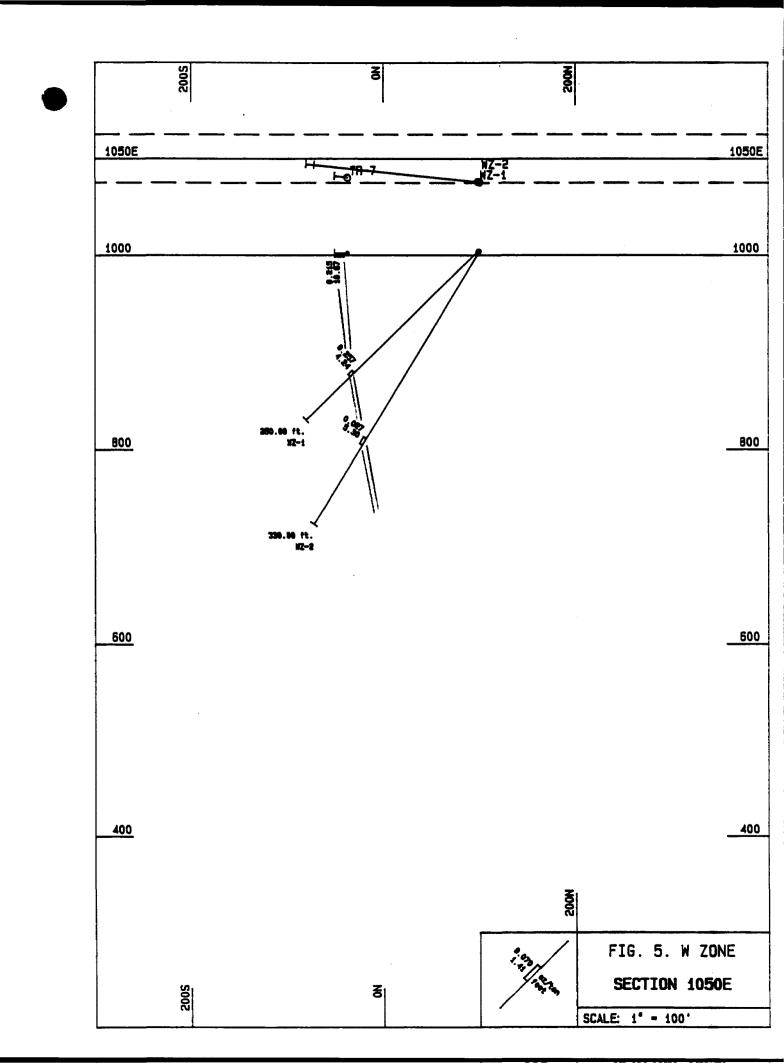
Section 1050E (Holes WZ-1 and WZ-2). These two holes were drilled to test the zone approximately 100 feet to the northeast of the most northeasterly intersection in the Electrum Lake Gold Mines' drilling (Hole E-81) and to come below trench TR-7 where the zone assayed 0.215 oz/ton gold over 10.67 feet. Hole WZ-1 intersected a strongly sheared, silicified zone with 1-27 disseminated pyrite over a core length of six feet at a vertical depth of 120 feet below surface. Over a true width of 4.24 the zone averages 0.257 oz/ton.

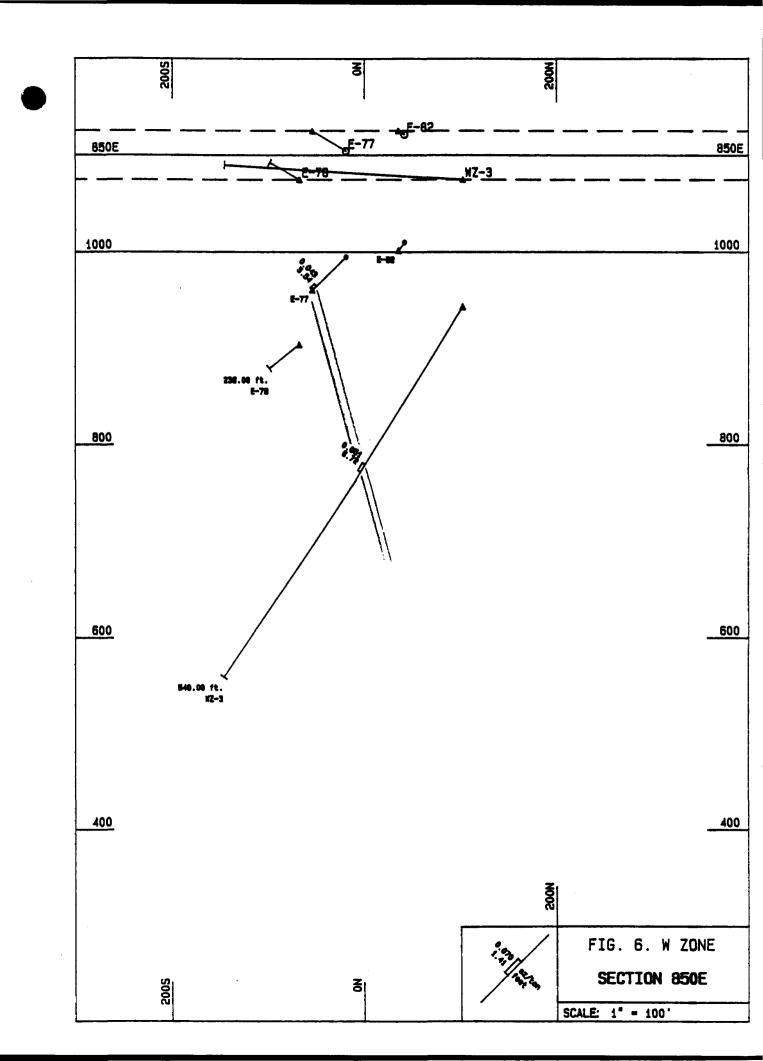
Hole WZ-2 intersected vein quartz and strongly silicified, sheared porphyry with minor tourmaline and local concentrations of pyrite up to 10% over a core length of 8.25 feet at a vertical depth of 70 feet below the intersection in WZ-1. However, assays are poor with an average of only 0.027 oz/ton over a true width of 5.30 feet.

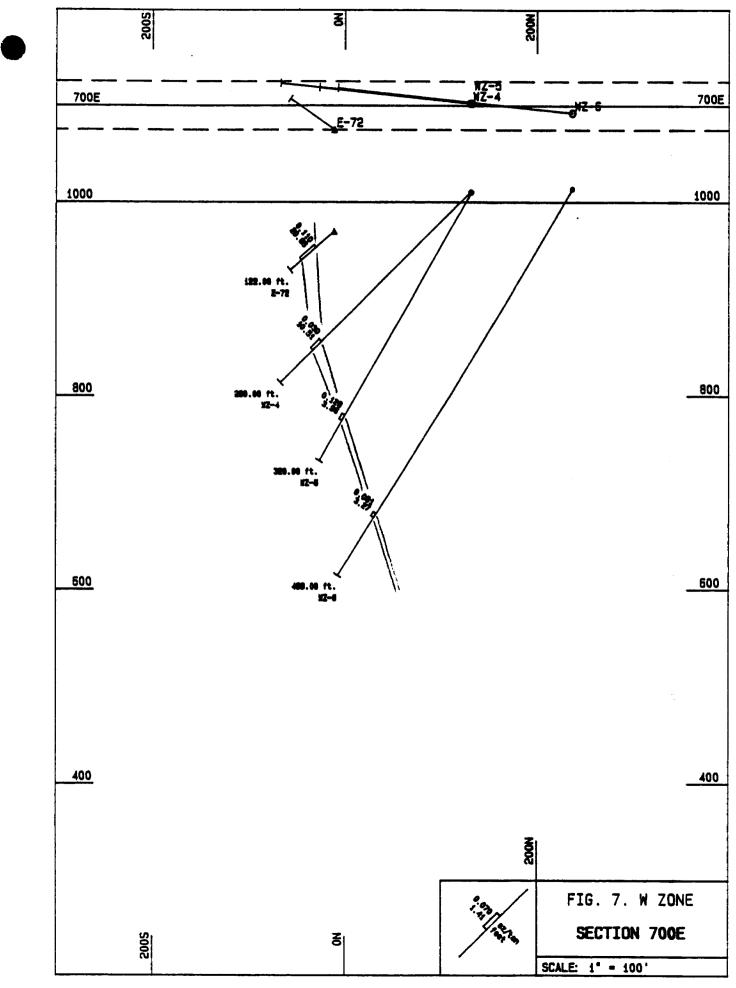
Section 850E (Hole WZ-3). This hole was drilled 200 feet to the west of holes WZ-1 and WZ-2 and was planned to intersect the zone approximately 150 feet below the intersection in hole E-78. A strongly silicified zone with bands of "quartz-eye sericite schist" and local concentrations of several per cent pyrite was intersected over a core length of 9.50 feet. One two-foot sample within the zone assayed 0.18 oz/ton with the next best sample assaying only 0.035 oz/ton over 1.65 feet. The overall gold content of the zone is only 0.051 oz/ton over a true width of 5.72 feet. A three-foot sample in

1200E 1400E 200E **B00E** 200M **40 10** 8006 1000 Ы BOON BOON **E** 10-1 17-1 600N **500N** 12-12 2-71 E-81 6-89 WZ-11 2-72 400N 400N E-01 12-A 1200E 1400E 200N 200N Surface Trench HIGH Diamond Drill Hole ON K28663 K20696 K20697 ON LAKE Drilled 1980/61 £--K21479 0-11104 1307/00 - Claim Boundary **200**5 200S FIG. 3. W ZONE 200E 200M GOOE Ы 400F BOOE 1000E SCALE: i inch - 200 feet

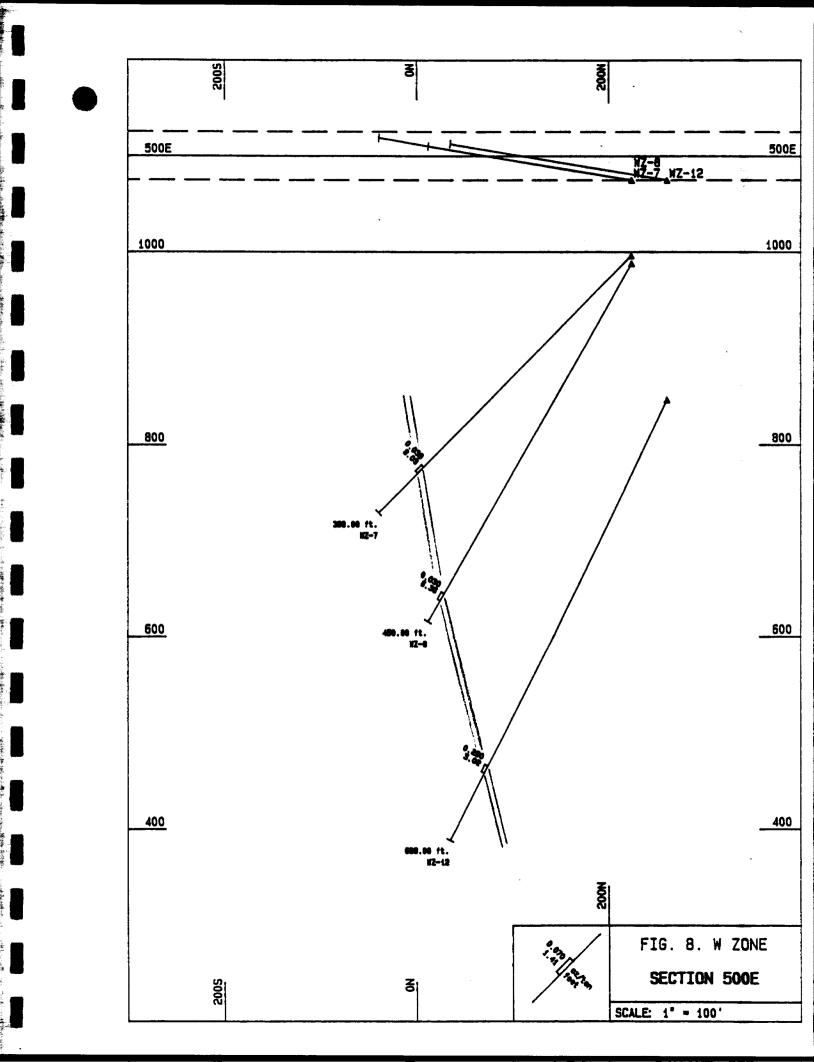


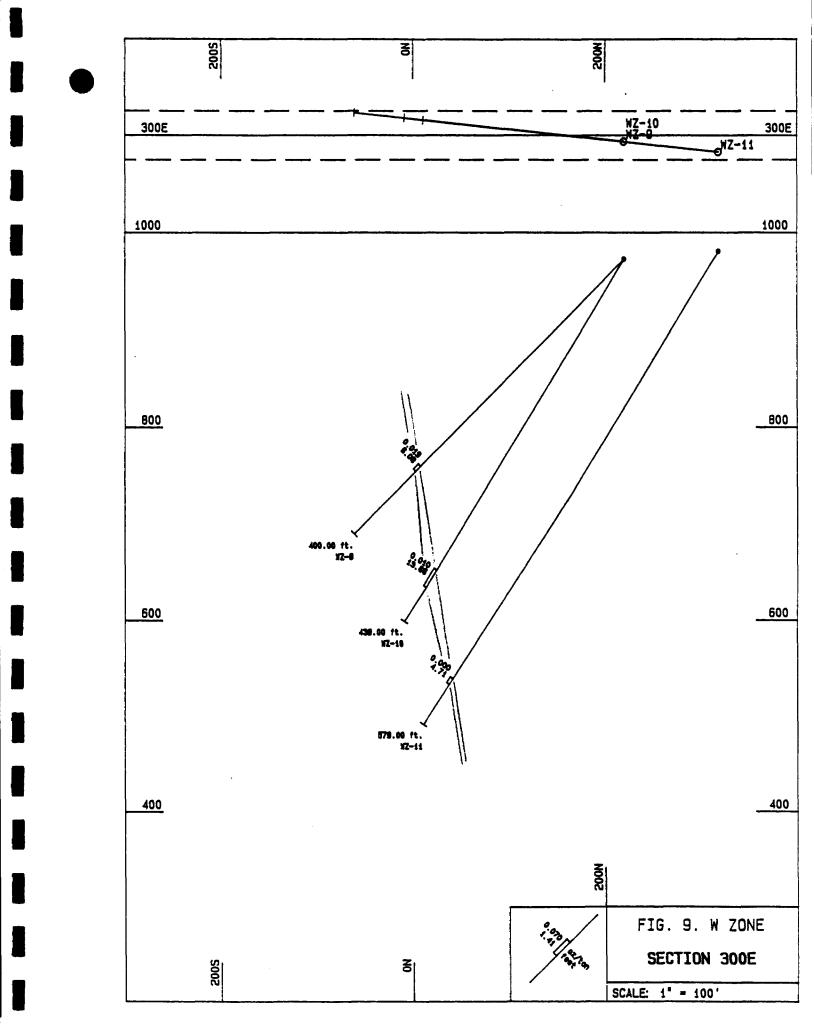






10.1





moderately silicified porphyry three feet below the zone assayed 0.080 oz/ton.

When the zone was intersected and the core first examined at the drill, it was considered that it might not be the zone proper so the hole was allowed to run for a further 100 feet. Nothing further of interest was intersected, but it was decided to let the hole run over the following night shift since none of the earlier holes had penetrated more than 55 feet into the footwall and it was felt that there was a possibility of an additional footwall zone or zones. There were indications of this possibility from the surface mapping where a silicified shear zone in trench TR-16 was located just to the south of the main trend on line 8+00 East of the Calnor Grid. Since there are no other surface exposures in the footwall of the W Zone, the possibility of subsidiary zones occurring could not be ruled out. Although a -60 inclined hole is not the most efficient inclination for cutting the geology, it was decided that WZ-3 might as well be the exploratory hole, since it had already penetrated over 100 feet beyond the zone.

The hole was stopped at a depth of 540 feet after intersecting 180 feet true width of the footwall rocks. Nothing of interest was intersected with the rocks consisting of a high proportion of darker, more mafic, granodiorite or so-called hybrid rock.

Section 700E (Holes WZ-4, WZ-5 and WZ-6). These holes were drilled to test the zone below the best intersections obtained by Electrum Lake Gold Mines in 1961 approximately 200 feet west of WZ-3. Hole WZ-4 intersected a narrow quartz tourmaline vein and 12.16 feet of highly sheared and altered silicified porphyry with up to 2% disseminated pyrite. In spite of the promising appearance of the zone, the best assay was only 0.070 oz/ton over a core length of 2.08 feet. The entire zone only averages 0.030 oz/ton over a true width of 10.51 feet.

Hole WZ-5 intersected 12.08 feet of intensely sheared and silicified porphry with 1-2% disseminated pyrite at a vertical depth of 80 feet below the intersection in WZ-4. The best assay was 0.230 oz/ton over a core length of 2.58 feet. The zone averages 0.128 oz/ton over a true width of 3.96 feet. If 5.5 feet of weakly silicified porphyry that ran 0.070 oz/ton is included as part of the zone, the intersection averages 0.109 oz/ton over a true width of 10.08 feet.

Hole WZ-6 was drilled to intersect the zone at a vertical depth of 100 feet below the intersection in hole WZ-5. Highly sheared and silicified porphyry with irregular lenses and replacements of white quartz and up to 1% disseminated pyrite was intersected over a core length of 5.08 feet. One sample within the zone assayed 0.17 oz/ton over a core length of 2.50 feet; other samples only produced low assays. The entire zone averages 0.091 oz/ton over a true width of 3.27 feet.

Section 500E (Holes WZ-7, WZ-8 and WZ-12). These holes were drilled on section 200 feet west of WZ-4, WZ-5 and WZ-6 and 120 feet southwest of the most southwesterly intersection in the Electrum Lake Gold Mines' drilling (E-80). Hole WZ-7 intersected 11.34 feet of strongly sheared and silicified porphyry including 8.92 feet of so-called "quartz-eye sericite schist" with a trace to 3% disseminated pyrite at a vertical depth of 200 feet below surface. The best assay was 0.095 oz/ton over 2.00 feet and the entire zone averages only 0.039 oz/ton over a true width of 8.03 feet.

Hole WZ-8 intersected nine feet of strongly silicified porphyry with much vein quartz including 6.6 feet of highly sheared "quartz-eye sericite schist". Pyrite content as fine disseminations is very sparse varying from trace to a maximum of 1%. A few minute specks of native gold were noted in one small piece of core. The best assay was 0.070 oz/ton over two feet and the entire zone only averages 0.030 oz/ton over a true width of 6.36 feet.

Hole WZ-12, which was drilled to intersect the zone at a vertical depth of 200 feet below the intersection in WZ-8, intersected 8.75 feet of strongly silicified porphyry and hybrid rock with a 2.2 foot central core of white quartz flooding with minor black tourmaline and fine disseminations of native gold. The best assay was 1.108 oz/ton over 1.50 feet and the entire zone averages 0.29 oz/ton over a true width of 5.02 feet.

Section 300E (Holes WZ-9, WZ-10 and WZ-11). These holes were drilled on section to test for the strike extension of the zone 200 feet west of holes WZ-7, WZ-8 and WZ-12. Although all three holes intersected a number of narrow zones of silicified porphyry, the alteration and shearing is not as strongly developed and the zone is not as clearly defined as it is on sections to the east. Hole WZ-9 intersected 36.50 feet of variably silicified and sheared prophyry. The best assay was 0.071 oz/ton over 1.92 feet and the next best assay was only 0.012 oz/ton over four feet. The interval considered to represent the zone proper averages 0.019 oz/ton over a true width of 6.08 feet.

Hole WZ-10 intersected a number of sheared, silicified zones above the strongly silicified zone which considered to represent the zone proper. The best assay was 0.037 oz/ton over 2.5 feet and the zone averages only 0.010 oz/ton over a true width of 13.66 feet.

Hole WZ-11 intersected 7.33 feet of strongly silicified porphyry with some white quartz flooding with a trace to 1% pyrite. All three samples taken from this zone produced nil assays for gold. The zone has a true thickness of 4.71 feet.

# DISCUSSION OF RESULTS

The drilling programme has proved the continuity of the W Zone over a strike length of 800 feet and to a vertical depth of 550 feet. The zone is still open both to depth and along strike to the southwest and northeast. However, the development and definition of the zone in the most southwesterly section is not as good as in the other sections and this may indicate that the zone is dying out to the southwest.

Weak sericitization and shearing often accompanied by weak to moderate silicification may extent over widths of many tens of feet, but the zone proper, defined by strong silicification generally accompanied by intense shearing and sericitization, varies in true width from 3.27 feet in hole WZ-6 to 20.85 feet in hole E-72 with an average of 9.81 feet for the 20 drill hole intersections. This definition of the zone may be somewhat subjective, but in most cases there is little ambiguity in defining the boundaries of the strongly altered zone.

In view of the erratic nature of the mineralization, average grades were calculated for the full width of the defined zone without using minimum cut-offs (Table 1). The best intersection is 0.31 oz/ton over 12.99 feet in hole E-71 drilled by Electrum Lake Gold Mines in 1961. The highest grade intersection in the current drilling programme is 0.29 oz/ton over 5.02 feet in hole WZ-12. The poorest intersection is in hole WZ-11 where nil assays were returned for the zone's full width of 4.71 feet. The grade of the zone exceeds 0.10 oz/ton in three of the eight holes drilled by Electrum Lake Gold Mines in 1961 and in three of the 12 holes drilled during the current programme.

In addition to the 20 drill hole intersections, the zone was sampled at the surface in 13 trenches (Reedman, 1987). The width varies from 2.17 feet in trench TR-15 to 10.67 feet in trench TR-7 with an average width of 7.69 feet (Table 2). The highest grade for the zone in the trenches is 0.215 oz/ton over 10.67 feet in trench TR-7 and the grade exceeds 0.10 oz/ton over the full width of the zone in only three of the 13 trenches.

An east-west longitudinal section of the zone was plotted at a scale of one inch to 40 feet using the rotated grid (Fig. 24) showing the grades for the full width of the zone in all the drill holes and trenches. In addition grade times thickness contours were plotted. No real pattern emerges with four isolated highs where the values exceed 1.0 foot-oz/ton. The highest values up to a maximum of 4.03 foot-oz/ton are centred on three of the Electrum Lake Gold Mines' holes drilled just beneath the original discovery trenches.

The style of mineralization at the W Zone undoubtedly means that there is a problem in evaluating it effectively with diamond drill holes. For example, the zone in hole, WZ-4, is strongly developed over a true width of 10.51 feet

TABLE 1. Summary of the drill hole intersections of the W Zone  $% \left( {{{\mathbf{T}}_{{\mathbf{T}}}}_{{\mathbf{T}}}} \right)$ 

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Hole Number	Depth From	Depth To	Drilled Width	Core Angle	True Width	Grade (oz/ton)
E-71	52.00	67.00	15.00	60	12.99	0.310
E-72	81.00	104.00	23.00	65	20.85	0.110
E-77	47.00	57,50	10.50	55	8.60	0.043
E-78	146.30	164.90	18.60	75	17.97	0.047
E-79	83.50	106.50	23.00	60	19.92	0.135
E-80	126.80	134.00	7.20	60	6.24	0.054
E-81	106.70	122.00	15.30	70	14.38	0.050
E-82	136.20	151.00	14.80	50	11.34	0.044
WZ-1	179.50	185.50	6.00	45	4.24	0.257
WZ-2	226.00	234,25	8.25	40	5.30	0.027
WZ-3	275.00	284.50	9.50	45	6.72	0.051
WZ-4	219.00	231.83	12.83	55	10.51	0.030
WZ-5	260.42	278.00	17.58	35	10.08	0.109
WZ-6	393.25	398.33	5.08	40	3.27	0.091
WZ-7	322.40	331.67	9.27	60	8.03	0.039
WZ-8	415.60	424.60	9.00	45	6.36	0.030
WZ-9	301.00	308.42	7.42	55	6.08	0.019
WZ-10	375.50	396.75	21.25	40	13.66	0.010
WZ-11	521.92	529.25	7.33	40	4.71	0.000
WZ-12	601.67	610.42	8.75	35	5.02	0.290

Number of Trench	Full Width of Zone	Grade (oz/ton)
TR-1	9.00	0.023
TR-2	6.00	0.110
TR-3	9.83	0.079
TR-4	7.67	0.091
TR-6	9.00	0.100
TR-7	10.67	0.215
TR-8	8.41	0.018
TR-9	8.67	0.033
TR-10	4.67	0.021
TR-11	7.08	0.026
TR-13	9.08	0.017
TR-14	7.75	0.056
TR-15	2.17	0.030

TABLE 2. Summary of the W Zone in the Surface Trenches

yet the maximum assay was only 0.07 oz/ton and it only averages 0.03 oz/ton over the full width. The chances that further intersections in the immediate vicinity of WZ-4 would produce good assays are probably very good. Nevertheless, the potential of the W Zone cannot be considered very promising even if many of the poor assays are discounted as being due to inadequate sampling. There is no indication from the holes that produced reasonable assays that the deposit would average more than 0.20 oz/ton. Only nine of the 33 drill hole and trench intersections average 0.10 oz/ton or more across the full width of the zone and these produce a weighted average of 0.167 oz/ton over an average true width of 10.97 feet. If the cut-off is raised to 0.20 oz/ton, only four of the 33 intersections meet this critereon and produce a weighted average of 0.269 oz/ton over an average true width of 8.23 feet.

In terms of gross tonnage there are 342,000 tons of material over a strike length of 800 feet with an average width of 9.0 feet to a vertical depth of 550 feet at a dip of 75 degrees using a tonnage factor of 12.00 cubic feet per ton. Since the deposit is open at depth and along strike, the potential for proving 500,000 to 1,000,000 tons of material is very high.

Reserve calculations were made with J. H. REEDMAN & ASSOCIATES LTD's ORECALC computer program which uses the triangular method. Cut-offs of 0.05 oz/ton and five feet were used and the resulting triangles are shown in Fig. 25 with the computation listings given in Appendix B. Diluted to a minimum width of five feet there are 46,892 tons grading 0.17 oz/ton over an average true width of 7.09 feet. Undiluted there are 38,779 tons grading 0.18 oz/ton over an average true width of 5.87 feet. If the entire area bounded by the trenches and drill hole intersections is taken into account, disregarding any cut-offs, there are 172,400 tons grading 0.07 oz/ton over an average true width of 8.24 feet.

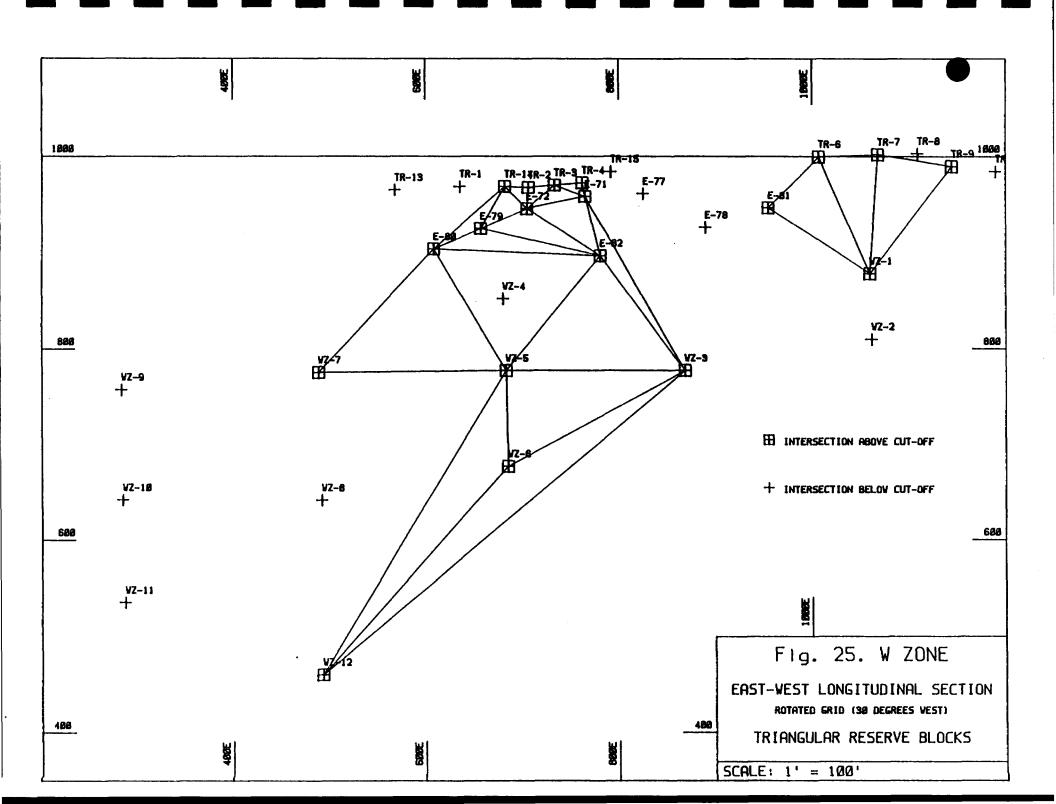
# CONCLUSIONS AND RECOMMENDATIONS

Gold mineralization at the W Zone is controlled by regional shear joints trending N6OE and dipping northwest at 75 to 85 degrees. A second set of steep joints and shears trending N1OE to N3OE offsets the N6OE mineralized shears resulting in a series of en echelon lenses with an overall trend of N3OE and dip to the northwest of 75 degrees. Drilling has shown that there is good continuity of the zone over a strike length of 800 feet and to a vertical depth of 550 feet. The true width varies from 3.27 to 20.85 feet with an average of 9.81 feet. The zone is open both to depth and along strike.

The zone is defined by quartz flooding, silicification and intense shearing and sericitization of the quartz feldspar porphyry country rock. Weaker sericitization and shearing with weak to moderate silicification may extend to many tens of feet on either side of the zone proper. The mineralization is sparse and consists of finely disseminated pyrite and small aggregations of pyrite varying from a trace to two or three percent. Native gold is rare, but may be present as finely disseminated grains in quartz. Pyrite content is not a good guide to gold content and the best gold values are generally associated with conspicuous quartz flooding accompanied by minor tourmaline.

Gold values are disappointing and the zone only exceeds 0.10 oz/ton in three of the eight holes drilled by Electrum Lake Gold Mines in 1960/61 and in three of the 12 holes drilled in the current programme. The highest value is 0.31 oz/ton over 12.99 feet in hole E-71 drilled by Electrum Lake Gold Mines and the highest grade in the current drilling programme is 0.29 oz/ton over 5.02 feet in hole WZ-12.

The style of mineralization undoubtedly means that there is a problem in evaluating it effectively with diamond drill holes and in a number of cases poor assay results were returned from holes that had intersected good zone material. However, even if many of the poor assays are discounted as being due to inadequate sampling, it would be unrealistic to expect that the overall



grade of the W Zone might exceed 0.20 oz/ton. The weighted average grade of the six holes out of a total of 20 that averaged more than 0.10 oz/ton over the full width of the zone is 0.173 oz/ton over an average true width of 12.18 feet.

In terms of gross tonnage there are 172,400 tons of material within the area bounded by the twenty drill hole intersections and 13 surface trenches with an average width of 8.24 feet. Over the full proven strike length of 800 feet and extending to a vertical depth of 550 there are some 340,000 tons of material. Since the zone is open both in depth and along strike, there is potential for more than 500,000 tons of material. However, reserve calculations made with cut-offs of 0.05 oz/ton and five feet true width give only 47,000 tons grading 0.17 oz/ton over an average true width of 7.09 feet.

Although the zone is still open along strike and to depth, no further drilling is recommended in view of the overall low gold values. It is considered highly unlikely that there is potential for proving more than 100,00 to 200,000 tons grading 0.15 to 0.20 oz/ton gold.

> John H. Reedman B.Sc., M.Phil., M.I.M.M., C.Eng. 12th May, 1988

# REFERENCES

Davies, J. C., 1965. Geology of High Lake-Rush Bay Area, District of Kenora, <u>Ontario Department of Mines, Geological Report No. 41</u>, Toronto, 57pp.

Dawson, J. M., 1984. Geological, Geochemical and Geophysical Report on the High Lake Property, Shoal Lake Area, Kenora Mining Division, Ontario, Unpub. report on behalf of Barrier Reef Resources Ltd.

Dawson, J. M., 1986. Report on Diamond Drilling Programme on the High Lake Property, Kenora Mining Division, Ontario, Unpub. report on behalf of Calnor Resources Ltd.

Reedman, J. H., 1987. Report on Trenching, Sampling and Compilation of Drill Data at High Lake, Northwest Ontario, Unpub. report on behalf of Laraminde Service Corporation.

# APPENDIX A

DIAMOND DRILL LOGS

for

HOLES WZ-1 to WZ-12

NOTE: First column of assays (Au oz/T) for holes WZ-1 to WZ-8 analysed by Warnock Hersey Professional Services Ltd. of Winnipeg. Second column of assays (Au 2) for holes WZ-1 to WZ-8 are duplicate analyses of crushed rejects by CDN Resource Laboratories Ltd. of Delta, B. C. No resample denoted by -0.000. Assays for holes WZ-9 to WZ-12 all by CDN Resource Laboratories Ltd.

#### DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-1 Collar Eastings: BB0.68 Collar Northings: 622.35 Collar Elevation: 1003.97 Calnor Grid: Azimuth 332

Collar Inclination: -44.50 Grid Bearing: 156.00 Final Depth: 250.00 feet Target: W Zone Logged by: J. H. Reedman Date: 30th Nov - 2nd Dec 1987 Down-hole Survey: Acid Etch Core Size: NQ

			ی بی چھ پہ کا کر پیر ہے جہ سے	: حیور پر اس شیار خان افغا ملک نوی		ASBAYS		
FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH	Au oz/T	Au 2
0	8.0	CASING (Ob)						
8	101.25	QUARTZ FELDSPAR PORPHYRY - (ia) Massive light-grey quartz feldspar porphyry with feldspar phenocrysts up to 1° across, though more commonly 0.5° across. Feldspars have slight pinkish colour and rock has an overall reddish-brown colour to 38 feet. 12.6 19.33 Silicified Zone. (ia, sil, 1-3% py) Rock is variably silicified and contains 1 to 3% pyrite generally dissem- inated as fine grains, but occasionally narrow wispy bands occur. Between 16 and 17 feet a few narrow bands (iam wide) of black tourmaline at 50 to 60 degree C.A.	11701 11702 11703 11704 11705	10.33 12.33 14.33 16.33 19.33	12.33 14.33 16.33 19.33 21.33	2.00 2.00 2.00 3.00 2.00	0.000 0.000 0.001 0.000 0.000	-0.000 -0.000 -0.000 -0.000 -0.000
101.25	105.25	•						
105.25	170.0	HYBRID ROCK - (3b) Dark-grey granodiorite weakly foliated in places. Contains a few small mafic volcanic xenoliths and some darker patches which probably represent assimalated mafic volcanic material. Trace disseminated pyrite throughout. Occasionally pyrite occurs concentrated along narrow bands, particularly between 164 and 166 feet. Some quartz and feldspar phenocrysts occur scattered throughout. Foliation 50-60 degrees to C.A.						
		128 128.3 Quartz vein (q.v.)1" wide 32 degrees C.A.						
		153.6 154.2 Band of hornblende schist (2b, carb. v.) with carbonate veining.						
		158.25 158.5 Band of hornblende schist (2b, carb. v.) with carbonate veining.						
170	174.5	QUARTZ FELDSPAR PORPHYRY - (1a) Massive, light-grey quartz feldspar porphyry - occasional grain of pyrite						
174.5	179.5	SILICIFIED PORPHYRY - (1b, sil, 1-2% py) Variably silicified and sheared reddish porphyry with pyrite throughout, generally about 1%,but sometimes more. From 174.5 to 175 heavy concentration of pyrite from 5 to 10% showing some reddish-brown pxidation.	1170 <b>6</b> 11707	174.50 176.50	176.50 179.50	2.00 3.00	0.010 0.010	0.012 0.014

# DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-1

ROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TQ	ASSAYS WIDTH	Au oz/T	Au 2
		175.5 176.5 Strongly sheared zone.						
		177 178.5 A few imm wide bands of black tourmaline at 50 degree to C.A.						
9.5	185.5	SILICIFIED ZONE - (1c, sil, 1-2% py) Strongly sheared zone, waxy lustre, pinkish colour with mylonite appearance. Contains 1-2% pyrite as fine disseminated grains. Shearing at 45 degrees to C.A.	11708 11709 11710	179.50 181.50 183.50 179.50	181.50 183.50 185.50 185.50	2.00 2.00 2.00 6.00	0.320 0.290 0.160 0,257	0.278 0.613 0.232 0.374
5.5	192	SILICIFIED BRANDDIDRITE - (3b, sil, (3% py) Dark-grey, medium- grained, silicified granodiorite, weakly foliated at 45 degrees to C.A. Several per cent pyrite as disseminations and in narrow bands and aggregations.	11711 11712	185.50 188.50	188.30 191.75	3.00 3.25	0.010 0.005	0.014 0.012
2	195	QUARTZ FELDSPAR PORPHYRY (1a, hm) with reddish colour. Some narrow bands of black tourmaline at 50 degrees to C.A. Contains several per cent fine grained pyrite as disseminations and concentrations along narrow bands and clots	11713	191.75	195.00	3.25	0.005	-0.000
5	212.75	GREY QUARTZ FELDSPAR PORPHYRY (1a)						
		210 211 Weakly foliated with some thin bands of hornblende schist						
2.75	250	QUART2 FELDSPAR PORPHYRY - (1a) pinkish to dark-gray. Large feld- spar phenocrysts up to 1" across, though generally 0.5" across.						
		214.3 214.32 quartz lined fracture at 10 degrees to C.A.						
		223 223.4 narrow band of hornblende schist (2b), weakly foliated at 30 degress to C.A.						
		END OF HOLE						
		Acid Tests: -42 at 250'						

#### DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-2 Collar Eastings: 879.95 Collar Northings: 624.01 Collar Elevation: 1003.97 Calnor Grid: Azimuth 332

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Collar Inclination: -59.50 Grid Bearing: 156.00 Final Depth: 330.00 feet Target: W Zone Logged by: J. H. Reedman Date: 2nd - 4th Dec. 1987 Down-hole Survey: Acid Etch Core Size: NQ

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	T0	ASSAYS NIDTH	Au oz/T	Au 2	
0	9.0	CASING (Ob)							
9	11	QUARTZ FELDSPAR PORPHYRY - Grey, massive quartz feldspar porphyry with pinkish feldspar phenocrysts yp to 0.5° across							
11	38	FOLIATED QUARTZ FELDSPAR PORPHYRY - grey, weakly sheared quartz feldspar porphyry with pinkish feldspar phenocrysts up to 0.5° across. Shears marked by thin, white, sericite bands generally about 1mm wide and somewhat irregular, though main foliation is at 30 degrees to C.A. Trace of pyrite as disseminated fine grains.							
		26 26.4 Quartz vein with coarse black tourmaline at 30 degrees to C.A.							
38	129	QUARTZ FELDSPAR PORPHYRY - Grey, massive, light-grey quartz feldspar porphyry with feldspar phenocrysts up to 1° across, though more commonly 0.5° across. Trace disseminated pyrite.							
129	171.75	HYBRID RDCK - Dark-grey, medium-grained granodiorite with trace to 1%+ pyrite throughout, mainly as disseminated grains, but occasional aggregates or wispy lenses.							
		139 142 Light-grey quartz feldspar porphyry							
171.75	186.33	QUARTZ FELDSPAR PORPHYRY - Grey quartz feldspar porphyry with pinkish feldspar phenocrysts							
		1B4 184.67 Mafic volcanic band at 40 degrees to C.A. Trace of pyrite as disseminations and small aggregates.							
186.33	187.5	HDRNBLENDE SCHIST - Foliation at 42 degrees to C.A. Thin carbonate veinlets and irregular quartz lenses. Minor pyrite.							
187.5	190.25	GRANDDIDRITE - Medium grained grey granodiorite with some coarser quartz feldspar porphyry. Possibly partly hybrid rock.							
190.25	194.5	GUART2 FELDSPAR PORPHYRY - grey porphyry with pinkish feldspar phenocrysts up to 0.5" across.							
194.5	196	PARTLY SILICIFIED QUARTZ FELDSPAR PORPHYRY - pinkish colour, weakly sheared at 40 degrees to C.A. Thin sericite bands (<1mm)							

## DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-2

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Page 2

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						ASSAYS		
ROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH	Au oz/T	Au 2
		mark foliation. Up to 1% disseminated pyrite.						
5	226	PARTLY SILICIFIED QUARTZ FELDSPAR PDRPHYRY - grey porphyry with	11721	220.00	223.00	3.00	0.010	-0.000
		thin bands (2mm) of mafic volcanics at 40 degrees to C.A. Trace to 1% disseminated pyrite.	11720	223.00	226.00	3.00	0.015	0.014
5	234.25	······································	11714	226.00	228.00	2.00	0.065	0.094
		at 40 degrees to C.A. Thin irregular bands of black tourmaline.	11715	228.00	230.00	2.00	0.020	0.036
		Distinct waxy lustre. Alternating bands of vein quartz and silicified porphyry. Pyrite disseminated and concentrated along	11716	226.00	230.00 232.00	4.00	0.042	0.065
		banding (3-10%).	11717	232.00	234.25	2.00	0.010	0.022
		construg to source		226.00	234.25	8.25	0.027	0,039
		227.5 228.15 band of hornblende shist						
1.25	251	PARTLY SILICIFIED QUARTZ FELDSPAR PORPHYRY - irregularly silicified	11718	234.25	237.25	3.00	0.010	0.018
		grey quartz feldspar porphyry with pinkish feldspars. Strong	11719	237.25	240.00	2.75	0.005	0.004
		reddish colour to 242 feet. Several per cent pyrite to 242 feet with >5% in places. Lower pyrite content below 242 feet.	11722	240.00	242.00	2.00	0.010	-0.000
	30 <b>8.</b> 5	QUARTZ FELDSPAR PORPHYRY - grey quartz feldspar porphyry with pinkish feldspar phenocrysts up to 1° across, though more commonly 0.5° across.						
		294 295 Strongly sheared porphyry with some vein quartz and trace pyrite. Shearing at 55 degrees to C.A.						
8.5	317.25	HYBRID ROCK - dark-grey, porphyrytic granodiorite. Quartz phenocrysts up to 2-3mm across. Finely disseminated pyrite at approximately 2%.						
7.25	317.B	SILICIFIED QUARTZ FELDSPAR PORPHYRY - grey porphyry, partly silicified with 2% disseminated pyrite.						
7.8	330	QUARTZ FELDSPAR PORPHYRY - light-grey porphyry with slight pinkish feldspars. Weak foliation at 60 degrees to C.A.						
		END OF HOLE						

Acid tests: -57 at 310'

#### DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-3 Collar Eastings: 687.44 Collar Northings: 564.64 Collar Elevation: 1013.71 Calnor Grid: Azimuth 332

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Collar Inclination: -59.50 Grid Bearing: 153.50 Final Depth: 540.00 feet Target: W Zone Logged by: J. H. Reedman Date: 3rd - 7th Dec. 1987 Down-hole Survey: Acid Etch Core Size: NQ

FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS WIDTH	Au oz/T	Au 2
I	5	Casing (OB)						
5	10	FOLIATED QUARTZ FELDSPAR PORPHYRY - (1b, tr-1% py) Strong reddish colour from 7 to 9 feet around 0.5" quartz-tourmaline vein at a few degrees to C.A. Trace to 1% disseminated pyrite						
0	18.3	SHEARED AND SILICIFIED PORPHYRY (1b, sil, 1-2% py) with 1-2% disseminated pyrite.						
8.3	56.75	QUARTZ FELDSPAR PORPHYRY - (1a, 1% py) Massive grey quartz feldspar porphyry with pinkish feldspar phenocrysts up to 1° across. Trace to 1% disseminated pyrite. Quartz-tourmaline veins 0.5° wide at 30.4′ at 22 degrees to C.A.						
6.75	207.33	HYBRID ROCK - (3, tr-1% py) Dark-grey porphyrytic granodiorite with hornblende in some of the darker zones. Trace to 1% dissem- inated pyrite. Thin carbonate-lined fractures at 30 to 60 degrees to C.A.						
		114.25 115.5 Fracture zone - highly fragmented core with carbonate veining						
		117.75 118.15 silicified granodiorite with 2-3% pyrite.						
		139.25 140.75 quartz veins 0.25-0.5" wide at 5 degrees to C.A.						
		154 156.25 Mafic volcanic - fractured with carbonate veining.						
		167.4 169 hornblende schist (2b, q. carb.v.) with thin quartz and carbonate veinlets.						
207.33	207.67	REDDISH SILICIFIED PORPHYRY - (1a, ha, 2%+ py) includes 0.25" band of pyrite. 2%+ pyrite overall.						
207.67	225.67	QUARTZ FELDSPAR PORPHYRY - (1a) pinkish-grey quartz feldspar with pinkish feldspar phenocrysts up to 1" across. Thin carbonate lined fractures at 45 degrees to C.A. at 209' and 210'. At 221.75' carbonate-lined fracture with pyrite at 20 degrees to C.A. Trace to 1% disseminated pyrite, locally concentrated along narrow fractures.						

# DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-3

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ROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASBAYS WIDTH	Au oz/T	Au 2
		223 223.33 Fault? - Haematite and carbonate in vughy fracture zone						
5.67	239.4	HYBRID ROCK - (3) Dark-grey, medium to caorse-grained porphyrytic granodiorite.						
. 4	241	SILICIFIED SHEARED PORPHYRY - (1b, sil, 2% py) Reddish colour. 2% disseminated pyrite. Three carbonate-lined fractures at 45 degrees to C.A.						
l	247.83	BUARTZ FELDSPAR PORPHYRY - (1a, tr-1% py) Pinkish-grey massive quartz feldspar porphyry with feldspar phenocrysts up to 0.5° across. Trace to 1% pyrite.						
		246.33 247.33 Fracture zone. Carbonate-lined at 15-20 degrees to C.A. Also fragmented core.						
7.83	262.67	HYBRID ROCK - (3, 1% py) medium to coarse-grained porphyrytic granodiorite with trace to 1% disseminated pyrite.						
		240 248.5 Fault Zone - fragmented core.						
2.67	267.42	SILICIFIED PORPHYRY - (ib, sil) Strongly sheared and silicified reddish porphyry with fractures and carbonate veining over top 2 inches.	11724 11725	262.67 263.67	26 <b>5.67</b> 267 <b>.42</b>	3.00 1.75	0.010 0.010	~0.000 -0.000
7,42	273.5	HYBRID ROCK - (3, 1% py) medium to coarse-grained porphyrytic granodiorite with trace to 1% disseminated pyrite.						
3.5	275	SILICIFIED GRANODIDRITE - (3b, sil, 1-2% py) well sheared with thin sericite bands. 1-2% pyrite.	11726	273.50	275.00	1.50	0.015	0.036
5	284.5	SILICIFIED ZONE - (ic, sil, 1-3% py) Totally silicified and sheared rock with cherty bands and quartz-eye sericite schist. Foliation at 42-45 degrees to C.A. 1% fine disseminated pyrite locally con- centrated to several per cent along foliation. Also some pyrite as small aggregates 0.25° across.	11727 11728 11729 11730 11731	275.00 276.60 278.60 276.60 280.25 282.50	276.60 278.60 280.25 <u>280.25</u> 282.50 284.50	1.60 2.00 1.65 <u>3.65</u> 2.25 2.00	0.015 0.180 0.035 0.114 0.010 0.010	0.016 0.257 0.086 0.180 0.020 0.014
4.5	294.75	SILICIFIED PORPHYRY - 1-2% pyrite (1a, sil, 1-2% py)	11732 11733 11734	275.00 284.50 287.50 290.50	284.50 287.50 290.50 294.75	3.00	0.051 0.010 0.080 0.030	0.079 0.016 0.040 0.057

DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-3

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	T0	ASSAYS WIDTH	Au oz/T	Au 2	
294,75	301	QUARTZ FELDSPAR PORPHYRY - (1a,1b, tr py) medium to coarse grained with trace disseminated pyrite. Weak foliation with partly seri- citized feldspars deformed along foliation at 35-40 degrees to C.A.							
301	324.75	QUARTZ FELDSPAR PORPHYRY - (1a, tr-1% py) Grey porphyry with feldspar phenocrysts up to 1° across. Trace to 1% disseminated pyrite. At 309 feet narrow carbonate-lined fracture at 20 degrees to C.A.							
324.75	339.33	HYBRID ROCK - (3, 3% py) medium-grey to dark-grey, porphyrytic granodiorite. Disseminated pyrite up to 3%.	ı						
339,33	349.25	QUARTZ FELDSPAR PORPHYRY - (ia, tr-1% py) grey porphyry with feldspar phenocrysts up to 0.5° across. Minor biotite. Trace to 1% pyrite.							
349.25	410.5	HYBRID RDCK - (3,3b, 1-3% py) dark-grey porphyrytic granodiorite with feldspar phenocrysts up to 0.25°. Hornblende in some of the darker bands. Foliation at 45–50 degrees to C.A. Disseminated pyrite trace to 1% throughout, up to 2-3% locally over 6° intervals.							
		372 372.5 A few haematized fractures with carbonate, both parallel to foliation and at right angles.							
		384 384.2 Thin haematized fracture with carbonate parallel to foliation.							
410.5	418.5	HYBRID ROCK - (3) dark-grey, medium-grained granodiorite with pyrite from trace to 2% as disseminations and small clots.							
418.5	456	QUART2 FELDSPAR PORPHYRY - (1a, tr-1% py) Massive, grey quartz feldspar porphyry with trace to 1% disseminated pyrite. Also pyrite in small wispy lenses and aggregates. Lighter grey colour 450 to 456 feet.							
456	482.12	HYBRID ROCK - (3) medium to coarse-grained porphyrytic granodiorite with hornblende							
		458 458.75 apple-green epidote crystals scattered throughout rock.							
		462.75 463.17 mafic volcanic with carbonate veinlets 60 degrees to C.A.							

# DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-3

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FROM		LITHOLOGICAL DESCRIPTION	SAMPLE N	 FROM	 TO	ASSAYS WIDTH	Au oz/T	Au 2
FRUN	10	468 469.25 mafic volcanic with carbonate veinlets at 30 to 45 degrees to C.A.	SMALE N	rtun	10	WIDIN	HU U271	MU 2
		471.5 473 vughy quartz vein 1" wide cut core at 10 degrees to C.A.						
		473.25 476 Some irregular carbonate veinlets.						
482,12	505.67	QUARTZ FELDSPAR PORPHYRY - (1a, tr-1% py) grey quartz feldspar porphyry with feldspar phenocrysts up to 1° across. Trace to 1% pyrite.						
505.67	534.33	HYBRID ROCK - (3, 1-3% py) Dark-grey meium to coarse-grained por- phyrytic granodiorite with 1-3% disseminated pyrite. A number of carbonate lined fractures at 55 degrees to C.A.						
534,33	540	QUARTZ FELDSPAR PORPHYRY - (1a, tr py) sassive porphyry with pink- ish feldspar phenocrysts up to 1° across. Trace disseminated pyrite.						
		537.5 538.5 silicified and weakly sheared reddish porphyry						
		END OF HOLE						

Acid tests: -57 at 300', -55 at 540'

#### DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-4 Collar Eastings: 538.49 Collar Northings: 461.84 Collar Elevation: 1010.21 Calnor Grid: Azimuth 332

Collar Inclination: -45.00 Grid Bearing: 156.00 Final Depth: 280.00 feet Target: W Zone Logged by: J. H. Reedman Date: 7th - Bth Dec. 1987 Down-hole Survey: Acid Etch Core Size: NQ

FROM	τa	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS NIDTH	Au oz/T	Au 2
0	4	CASING (OB)						
4	17.17	QUARTZ FELDSPAR PORPHYRY (1a, hm, tr-1% py) with pinkish feldspar phenocrysts up to 0.5° across. Trace disseminated pyrite.						
17.17	20	HORNBLENDE SCHIST - (2b, q. carb. v.) sheared mafic volcanic with numerous carbonate veinlets and small irregular lenses. Follation at 50 degrees to C.A. Carbonate veinlets at various attitudes.						
20	28.5	FOLIATED PORPHYRY - (16, sil) sheared and partly silicified. Foliation irregular, but average about 60 degrees to C.A. Some definite partings with the same orientation.						
28.5	70.33	QUARTZ FELDSPAR PORPHYRY (1a, hm) with overall pinkish-grey colour. Feldspar phenocrysts up to 0.5° across. Accessory biotite. Also some darker more mafic intervals over widths of 6°. Trace dissemi- nated pyrite. At 31 feet fracture at 5 degrees to C.A. At 61.18 feet fracture at 20 degrees to C.A.						
		33.75 34.18 weakly foliated and silicified.						
70.33	73.5	HORNBLENDE SCHIST - (2b, carb. v.)sheared mafic volcanic with irregular carbonate veinlets over first two feet. Trace dissem- inated pyrite.						
73.5	96	QUARTZ FELDSPAR PORPHYRY (1a, ha, tr py) with overall pink or reddish colour. Trace disseminated pyrite.						
		94 94.25 fracture zone - core fragmented.						
96	172.18	GREY QUARTZ FELDSPAR PORPHYRY - (1a, tr py) massive with feldspar phenocrysts up to 0.5" across. Gradational change from reddish porphyry above to grey porphyry. Trace disseminated pyrite. Over short intervals pyrite content may reach 1-2% as small aggregations. Narrow quartz veins and zone of silicification over widths of 0.5" at 128.08, 137.33 and 138.5 feet.						
		133.4 134.75 several narrow quartz veins						
		143.83 144.08 weakly sheared and silicified. Some sericite and chlorite along narrow shears at 62 degrees to C.A.						

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# DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-4

FROM	TO	LITHOLDGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS NIDTH	Au oz/T	Au 2
172.18	213	PARTLY SILICIFIED PORPHYRY - (1a, 1a sil) variably silicified grey quartz feldspar porphyry. Trace pyrite. At 208.33 feet a 1° wide quartz tourmaline vein at 40 degrees to C.A.						
		178.9 183.75 "hybrid" rock - much darkær grey porphyrytic granodiorite. From 179.25 to 180 feet quartz-eye sericite schist with some vein quartz.						
13	219	SILICIFIED PORPHYRY - (1a, sil) silicified grey quartz feldspar porphyry. At 213.75 1" quartz-tourmaline vein at 40 degrees to C.A.	11744 11743	213.00 216.00	216.00 219.00	3.00 3.00	0.020	-0.000 -0.000
19	219.67	VEIN QUARTZ (q. tour. v.) with coarse black tourmaline over top 1 inch.	11794	219.00	219.67	0.67	0.020	0.030
19.67	231.83	SILICIFIED ZONE - (ic, sil, i-2% py) Strongly sheared and silicified rock to form quartz-eye sericite schist. Light greenish colour and distinct waxy lustre on broken surfaces. Foliation at 55 degrees to C.A. Pyrite as small scattered cubes and grains generally less than 1% but up to 2% in places.	11795 11796 11797 11798	219.67 221.67 223.67 225.67 225.67	221.67 223.67 225.67 227.75 227.75	2.00 2.00 2.00 2.08 2.08	0.030 0.020 0.010 0.070 0.070	0.008 0.044 0.022 0.014 0.014
		220.75 221.75 Vein quartz	11799 11800	227.75 229.75 219.00	229.75 231.03 231.63	2.00 2.08 12.83	0.020 0.030 0.030	0.022 0.028 0.023
31.93	234.33	SILICIFIED PORPHYRY (1a, sil, q. tour. v.) with some narrow quartz- tourmaline veins at 30 degrees to C.A.	11742	231.83	234.33	2.50	0.015	0.018
34.33	237.25	GUARTZ FELDSPAR PORPHYRY - (1a, 1% py) massive with large feldspar phenocrysts 1% disseminated pyrite.						
37.25	240	SILICIFIED PORPHYRY (1a, sil, 1-2% py) with 1-2% disseminated pyrite. At 238.33 feet 0.5" quartz-tourmaline vein at 30 degrees to C.A.						
40	280	QUARTZ FELDSPAR PORPHYRY - (1a, tr-1% py) massive, grey quartz feldspar porphyry with feldspar phenocrysts up to 1° across. Trace to 1% pyrite. At 269 feet 1° quartz-tourmaline vein at 30 degrees to C.A.						
		246.67 247.25 fracture zone, slightly silicified.						
		249 250.33 pinkish colour and slightly silicified. 0.5" quartz-tourmaline vein at 30 degrees to C.A. in middle of interval.						
								HOLE No: 1

DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-4

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RDM	TO		LITH	OLOGICAL DESCRIPTION		SAMPLE No.	FROM	TO	ASSAYS WIDTH	Au oz/T	A	u 2	
		259.5 2	261	slightly silicified.									
		271.4	271.9	slightly silicified									
		266.67 2	268	slightly silicified									
		END OF HE	DLE										
		Acid test	ts: -44	at 280'									

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#### DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-5 Collar Eastings: 538.09 Collar Northings: 463.14 Collar Elevation: 1010.21 Calnor Grid: Azimuth 332

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Collar Inclination: -60.00 Grid Bearing: 156.00 Final Depth: 320.00 feet Target: W Zone Logged by: J. H. Reedman Date: Bth - 10th Dec. 1987 Down-hole Survey: Acid Etch Core Size: NQ

FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS WIDTH	Au oz/T	Au 2
0	3.25	CASING (Db)						
3.25	22.2	QUARTZ FELDSPAR PORPHYRY (1a, hm, tr-1% py) )with pinkish feldspar phenocrysts up to 0.5° across. Overall reddish colour. Trace to 1% pyrite.						
22.2	23.45	HORNBLENDE SCHIST (2b, carb. v.) with carbonate veinlets and small irregular lenses. Foliation to 55 degrees to C.A.						
23.45	24.1	SHEARED PORPHYRY - (1b) Foliated quartz feldspar porphyry with thin sericititized shears at 55 degrees to C.A.						
24.1	28.67	HYBRID ROCK - (3) Dark-grey dioritic porphyry with pinkish feldspar phenocrysts.						
28.67	32.3	SHEARED PORPHYRY - (ib, sil, hm, tr py) Well sheared and weakly silicified quartz feldspar porhyry with overall reddish colour. Trace	e pyrite.					
32.3	77	QUARTZ FELDSPAR PORPHYRY (ia, hm) with pinkish feldspar phenocrysts up to 1° across. Accessory biotite. Overall reddish colour but also some dark-grey dioritic sections. Trace pyrite.						
		69 70 Neakly sheared (1b).						
		74 75.5 Fault zone – core fragmented. Dark-grey gouge. Slickensided surfaces. At 75 feet 2–3″ quartz-tourmaline vein.						
77	80.67	SHEARED HYBRID RDCK - (3b, sil) sheared dioritic porphyry with some silicification and small quartz lenses.						
80.67	91.5	HYBRID RDCK - (3, tr py) dark-grey porphyry with sections of dark mafic material. Pinkish feldspar phenocrysts up to 0.5° across. Trace pyrite. Several per cent pyrite 77.75 to 78.75 feet.						
		93.67 84 (q. tour. v.) Irregular quartz lenses with black tourmaline. Some silicification of rock.						
		B4.3 B4.67 Fracture zone - fragmented core. Shears at 45 degree to C.A.						
		88.7 88.83 Hornblende schist (25, carb. v.) with carbonate						HOLE No: WZ-5

# DIAMOND DRILL LOG

PROFERTY: HIGH LAKE HOLE No.: WZ-5

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS NIDTH	Au oz/T	Au 2
		veinlets.						
91.5	193.5	QUARTZ FELDSPAR PORPHYRY - (1a, tr-1% py) grey quartz feldspar porphyry with pinkish-grey colour to 121 feet. Grey below 121 feet. Feldspar phenocrysts up to 0.5° across. Trace to 1% pyrite.						
		109 109.25 Weakly sheared and silicified (1b, sil).						
		137.08 139.25 Weakly silicified (1a, sil).						
		144.25 144.45 Weakly sheared and silicified (1b, sil).						
		159.75 160.25 Weakly sheared and silicified (1b, sil).						
		163.25 163.0 Weakly sheared and silicified (1b, sil).						
93.5	201	HYBRID ROCK - (3, 1% py) Dark-grey porphyry - dioritic. 1% pyrite.						
201	204	SHEARED PORPHYRY - (1b, tr py) Weakly sheared and silicified porphyry with foliation at 40 to 45 degrees to C.A. Trace pyrite.						
204	240.17	QUARTZ FELDSPAR PORPHYRY - (1, hm, tr py) reddish colour. Variably and weakly silicified. Trace pyrite. At 229.6 feet 0.5" quartz- tourmaline vein at 35 degrees to C.A.						
240.17	249.08	SHEARED PORPHYRY - (1b, hm, tr py) Reddish porphyry weakly sheared and silicified. Foliation at 30 degrees to C.A. Trace disseminated pyrite.						
249.08	253 <b>.5</b>	GUARTZ FELDSPAR PORPHYRY - (1a, ha, tr py) reddish porphyry with feldspar phenocrysts up to 0.5° across. Trace pyrite. At 251 feet pyrite along 1mm wide fracture at 30 degrees to C.A.						
253.5	259.08	SHEARED PORPHYRY - (1b, hm) reddish porphyry weakly sheared and silicified.	11755 11754	253.50 255.00	255.00 258.00	1.50 3.00	0.030 0.025	0.088 0.032
2 <b>59.0</b> 8	260.42	FRACTURE ZONE - (F.Z.) core fragmented and rock bleached.	11753	258.00	260.42	2.42	0.035	0.048
260.42	265.6	SILICIFIED PORPHYRY - (1b, sil, 1% py) Strongly sheared and sil- icified porphyry with reddish colour, Foliation at 35 degrees to C.A. 1% pyrite as disseminated grains and scattered small aggregations.	11752 11751	260.42 263.00	263.00 265.60	2.58 2.60	0.230 0.020	0.244 0.008

#### DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-5

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						ASSAYS			
FROM	TC	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH	Au oz/T	Au 2	
265.6	266.42	VEIN QUARTZ (q.v., tour.) with some black tousaline.	11745	265.60	266.42	0.82	0.005	0.088	
266.42	270	SILICIFIED ZONE - (ic, sil, 1-2% py) Strongly sheared and intensely	11746	266.42	268.33	1.91	0.045	0.050	
		silicified porphyry with 1-2% pyrite. Some small irregular lenses of quartz with some black tourmaline.	11747	268.33	270 <b>.00</b>	1.67	0.190	0.182	
270	272.5	DUARTZ-EYE SERICITE SCHIST (1c, 1-2% py) with 1-2% pyrite.	11748	270.00	272.50	2.50	0.190	0.151	
272.5	282	SILICIFIED PORPHYRY - (1a, sil, tr-1% py) weakly silicified	11749	272.50	275.00	2.50	0.070	0.068	
		porphyry with some narrow irregular quartz veins at steep angles	11750	275.00	278.00	3.00	0.070	0.106	
		to C.A. Trace to 1% pyrite.		260.42	278.00	17,58	0.109	0.113	
			11771	278.00	280.00	2,00	0.005	0.010	
			11772	280.00	282.00	2.00	0.020	0.022	

- 282 288 QUARTZ FELDSPAR PORPHYRY (1a, 1% py) grey porphyry with feldspar phenocrysts up to 0.5" across. 1% pyrite.
- 288 297.5 WEAKLY SILICIFIED PORPHYRY (la, sil) reddish porphyry with weak and variable silicification. Some steep, thin, irregular quartz veins. At 289 feet 0.25° quartz vein at 40 degrees to C.A.
- 297.5 320 QUARTZ FELDSPAR PORPHRY (1a, <1% py) grey porphyry with feldspar phenocrysts up to 1" across, though more commonly up to 0.5" across. Up to 1% disseminated pyrite. Some narrow (approx. 1") zones of silicification at 300.75, 310.4, 312.25, 314, 315.4, 317.15, 317.7, and 319 feet.

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END OF HOLE

Acid tests: -60 at 320'

#### DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ~6 Collar Eastings: 493.83 Collar Northings: 559.20 Collar Elevation: 1013.76 Calnor Grid: Azimuth 332

Collar Inclination: ~60.00 Grid Bearing: 156.00 Final Depth: 469.00 feet Target: W Zone Logged by: J. H. Reedman Date: 10th - 13th Dec. 1987 Down-hole Survey: Acid Etch Core Size: NQ

Calnor	Grid:	Azimuth 332	Target: W Zone			Cori	e Size:	NQ	
FROM	то	LITHOLDBICAL	DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS WIDTH	Au oz/T	Au 2
0	4.7	CASING (Db)							
4.7	51.8	pink feldspar phenocrys 0.5". Slightly dioritic	'- (la, tr py) medium to dark-grey with is up to l" across, though more commonly with assimalation of some basic material. sional disseminated grains and small se.						
51.8	55.67	quartz feldspar porphyry shears, though overall f	PORPHYRY - (ib, tr py) light-grey, foliated with somewhat irrgeular sericitized coliation is about 35 degrees to C.A. Sional small scattered aggregations.						
55.67	76	DUARTZ FELDSPAR PORPHYR porphyry with trace of p	( - (1,3, tr py) dark-grey, dioritic lyrite.						
76	86	accessory biotite. Dark-	( - (1a, hm, tr py) reddish porphyry with grey, but not as dark as dioritic interval mocrysts up to 1" across. Trace pyrite red grain - very sparse.						
86	88.25	SHEARED PORPHYRY - (1b) sericitized shears at 3	reddish sheared porphyry with thin 5 degrees to C.A.	·					
88.25	95.08	DUARTZ FELDSPAR PORPHYR large pink feldspar pher	/ - (la, hm, tr py) reddish porphyry with nocrysts. Medium to dary-grey. Trace pyrite						
95.08	95.75	SHEARED PORPHYRY - (1b) sericitized shears at 5	reddish sheared porphyry with thin ) degrees to C.A.						
95.75	142.6	phenocrysts. Dark-grey = as dioritic intervals.	f - (1a) reddish porphyry with pink feldspar with accessory biotite, but not as dark Contains several weakly sheared intervals ed small aggregations and small dissem- arse.						
142.6	152.5	granodiorite. Slightly	)dioritic, medium grained, porphyrytic sheared to 147 feet then well sheared at # 147 feet. Trace pyrite.						
		147.5 148.67 Hornble	nde schist (2b) - very soft, broken core -						HOLE No: WZ-6

# DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-6

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS WIDTH	Au	02/T	Au 2
		fault zone?							
		150.17 150.25 Hornblende schist (2b, carb. v.) with small car- bonate veinlets and lenses. Foliation at 40 degrees to C.A.							
152.5	156.67	FRACTURE ZONE - (F.Z.) broken and fragmented core of dark-grey quartz feldspar porphyry with pink feldspar phenocrysts.							
156.67	181.75	SHEARED PORPHYRY - (1b) reddish quartz feldspar with pinkish feldspar phenocrysts up to 0.5° across. Accessory biotite. From 180.5 to 181 feet small carbonate-lined fractures or partings at 60 degrees to C.A.							
		169 172 Hore intensely sheared with sericitized shears at various attitudes and orientations, 40, 50 and 75 degrees to							
181.75	226.6	QUARTZ FELDSPAR PORPHYRY - (1a, tr py) Massive light-grey to medium-grey porphyry with pinkish feldspars. Trace pyrite.							
		199.75 201.25 Vein quartz (q.v.) and silicified porphyry at 35 degrees to C.A.							
		212.75 213.17 Sheared and silicified (15, sil)							
226.6	227.75	HYBRID ROCK - (3) dark-grey, dioritic porphyry.							
227.75	230.17	HORNBLENDE SCHIST (2b, carb. v.) with numerous thin carbonate lenses along foliation with is irregular, varying from 15 to 40 degrees to C.A. Some coarse irregular quartz veining up to 0.5° wide.							
230.17	270.25	QUARTZ FELDSPAR PORPHYRY - (1a) pinkish-grey to 245 feet then light grey below with feldspar phenocrysts up to 0.5° across. Trace disseminated pyrite may reach 1% or more in places. Narrow (0.25°) quartz veins with overall 2° wide zone of silicification at 25 degrees to C.A. at 262.17 and 263.25 feet.							
		249.33 249.83 Vein quartz (q.v.) and strongly silicified porphyry at approximately 40 degrees to C.A.							
270.25	285.6	QUARTZ FELDSPAR PORPHYRY - (1a, hm) reddish colour with pink feldspar phenocrysts up to 0.5° across							

#### J. REEDMAN & ASSOCIATES LTD н.

#### DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-6

Page 3 ASSAYS FROM TO LITHOLOGICAL DESCRIPTION SAMPLE No. FROM TO WIDTH Au oz/T Au 2 290.83 HYBRID ROCK - (3, 2% py) dark-gray, porphyrytic granodiorite 285.6 with up to 2% disseminated pyrite. Sheared from 289 to 290 feet. 290.83 310 QUARTZ FELDSPAR PORPHYRY - (1a, tr-1% py) light-grey to mediumgrey porphyry with trace to 1% pyrite as disseminated grains and small clusters QUARTZ FELDSPAR PORPHYRY - (1a, hs) reddish porphyry with large 310 313 feldspar phenocrysts up to 0.5" across. 313 323.5 SHEARED PORPHYRY - (1b) weakly sheared and silicified porphyry 323.5 340 QUARTZ FELDSPAR PORPHYRY - (1a, tr py) light-grey porphyry with feldspar phenocrysts up to 0.5" across. Trace pyrite. 334.25 335.17 Sheared and weakly silicified (1b) 338.25 338.45 Hornblende schist (2b) at 50 degrees to C.A. 352.25 QUARTZ FELDSPAR FORPHYRY - (1a, hm, tr py) reddish porphyry with 340 pink feldspar phenocrysts up to 1" across. Trace pyrite. 344.83 354.25 Sheared and partly silicified (1b). 45 degrees to C.A. 346 348 Weakly sheared (1b). 352.25 376.4 QUARTZ FELDSPAR PORPHYRY - (1a, tr py) light-grey porphyry with feldspar phenocrysts up to 0.5" across. Trace pyrite. At 354.33 feet a 1" quartz vein at 45 degrees to C.A. 376.4 377.67 HYBRID ROCK - (3) dark-grey dioritic, porphyrytic granodiorite. 377.67 387.5 QUARTZ FELDSPAR PORPHYRY - (1a, 1% py) medium to light-grey porphyry with feldspar phenocrysts up to 0.5" across. 1% dissesinated pyrite. 387.5 393.25 SILICIFIED PORPHYRY - (1b, sil, tr py) grey porphyry weakly 11761 387.50 390.00 2.50 0.015 0,008 silicified and sheared at 50 degrees to C.A. Trace pyrite. 11762 390.00 393.25 3.25 0.020 0.016 393.25 398.33 SILICIFIED ZONE - (ic, sil, qtz, tr-1% py) Totally silicified rock 11756 393.25 395.75 2.50 0.170 0.175 with irregular lenses and replacements of white guartz. Well 393.25 395.75 2,50 0.170 0.175 sheared, particularly from 394.75 to 395.75 where it can be 398.33 11757 395.75 2.58 0.015 0.012 described as a quartz-eye sericite schist. Pyrite as tiny dissem-393.25 398.33 5.08 0.091 0.092 HOLE No: WZ-6

# DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-6

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Page 4

FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS WIDTH	Au oz/T	Au 2
		inated grains and occasional small aggregations from trace to 1%.						
9 <b>8</b> ,33	406.67	SILICIFIED PORPHYRY - (1b, sil, tr-1% py) well silicified grey porphyry. Neakly to moderately sheared. Trace to 1% disseminated pyrite grains. Some small scattered black tourmaline crystals. Shears marked by thin sericitized bands with various attitudes and orientations - 20, 30,55 degrees to C.A.	11758 11759 11760	398.33 400.67 403.67	400.67 403.67 406.67	2.34 3.00 3.00	0.020 0.010 0.030	0.032 0.016 0.083
06.67	429	QUARTZ FELDSPAR PORPHYRY - (1a, tr-1% py) medium-grey porphyry with feldspar phenocrysts up to 1ª across. Trace to 1% pyrite as disseminated grains and scattered small aggregations.						
		416.83 417.42 Weakly silicified						
		426.67 427.6 Weakly silicified and sheared (1b, sil). Sericitized narrow shear at 20 degrees to C.A.						
29	446	SILICIFIED PORHYRY - (1a, sil, 1% py) Weakly sheared and silicified grey porphyry with 1% pyrite.						
		431.33 432.5 Quartz-tourmaline vein (q-tour. v.) - Steep and irregular						
		444 444.75 Quartz-tourmaline vein - (q-tour v.) irregular but at about 20 degrees to C.A. Rock has light-greenish colour for 6° either side of vein. Silicification more intense near vein.						
46	447.5	QUARTZ FELDSPAR PORPHYRY - (ia) light-grey porphyry.						
47.5	469	HYBRID ROCK ~ (3, 1%+ py)dark-grey, almost black, dioritic and slightly porphyrytic granodiorite. 1%+ finely disseminated pyrite.						
		END OF HOLE						

Acid tests: -58 at 250', -57 at 469'

## DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-7 Collar Eastings: 339.80 Collar Northings: 464.29 Collar Elevation: 1004.91 Calnor Grid: Azimuth 332

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Collar Inclination: -45.00 Grid Bearing: 159.50 Final Depth: 390.00 feet Target: W Zone Logged by: J. Reedman Date: 13th Dec 87 - 14th Jan 88 Down-hole Survey: No Data Core Size: NQ

FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE	No.	FROM	TO	ASSAYS WIDTH	Au oz/T	Au 2
0	4	CASING (Db)							
4	22.4	QUARTZ FELDSPAR PORPHYRY - (1a, hm) pinkish feldspar pheocrysts up to 0.5" across. Dverall reddish colour. Somewhat fragmented, particularly 7.15 to 9.0, 10 to 14, 15.75 to 17.5 and 20.6 to 22.4 feet.							
22.4	31.33	MAFIC VOLCANIC - (2) highly fragmented to 23.25 feet. From 27.83 to 31.33 fragmented with limonite lined fractures at 45 degrees to C.A.							
31.44	38.0	QUARTZ FELDSPAR PORPHYRY (1a) with feldspar phenocrysts up to 0.5° across, though more commonly less than this.							
		33.5 36 weakly sheared with several narrow quartz veins with minor black tourmaline at 45 degrees to C.A.							
38.0	121.33	QUARTZ FELDSPAR PORPHYRY (1a, hm) with overall reddish colour. Pinkish feldspar phenocrysts up to 1° across, though more generally 0.5° across. At 44 feet narrow (1/8°) irregular pyrite band at 30 degrees to C.A. At 66.B3 a 0.5° quartz vein with free contacts with limonite at approximately 45 degrees to C.A. At 75 feet a 0.75° shear with vein quartz at 45 degrees to C.A. At 97.67 feet a 0.25° vuggy quartz vein at 30 degrees to C.A.							
		92.0 93.0 sheared silicified (1b, sil) zone at 30 degrees to C.A.							
		95.67 96.75 zone of fragmented core, limonite staining and weak shearing in rock. fracures at 45-60 degrees to C.A.							
		101 102.5 highly fragmented core (F.Z.), limonite stained, weak shearing in rock.							
		104 106 fragmented core, limonite staining, weak shearing in rock.							
		110.6 112.67 fracture zone (F.Z.) - rock weakly sheared. Fractures at 45 to 60 degrees to C.A.							

## DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-7

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					Page	2	
FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	 ASSAYS NIDTH Au	oz / T	Au 2
		0.5" across. though more commonly 0.25" across.					
		136.75 137.33 weakly sheared zone.					
		138 138.75 weakly sheared zone				•	
145.5	148.9	HORNBLENDE SCHIST (2b, carb, q.v.)with variable foliation, but averages 50 degrees to C.A. Carbonate and quartz-carbonate lenses and veining - irregular, but follows foliation.					
148.9	198	DUARTZ FELDSPAR PORPHYRY - (1,3) alternating medium and dark grey intervals - some darker intervals dioritic - feldspar phenocrysts up to 0.5" across. At 173 feet 0.5" quartz vein at 45 degrees to C.A.					
		165 165.5 weakly sheared and silicified zone					
		166 166.33 weakly sheared (1b)					
		167 168.75 weakly sheared and silicified.					
198	202.67	GRANODIORITE - (3, 1% py) dark-grey, porphyrytic with feldspar phenocrysts up to 0.25° across. 1% disseminated pyrite.					
202.67	322.33	QUARTI FELDSPAR PORPHYRY (ia) - medium-grey with feldspar pheno- crysts up to 0.5" across. From 246 to 297 feet overall reddish colour with pinkish feldspar phenocrysts.					
		206 209.5 sheared zone with some silicification. 0.25" quartz vein 40 degrees to C.A. at 209.33 feet.					
		214.67 216.08 alteration zone with lighter colour, possibly sericitized and weakly silicified. At 209.33 feet 0.25" quartz vein at 40 degrees to C.A. 0.75" and 1" quartz veins at 30 degrees to C.A. at 215.5 and 216 feet respectively.					
		242.25 243.25 Darker, dioritic interval					
		244.5 247.0 Darker, dioritic interval.					
		At 250.08 feet flat carbonate-filled fracture 85 degrees to C.A. 2-Jam wide.					
		At 264.08 and 264.5 feet fractures at 40 degrees to C.A.					HOLE No. H7-

# DIAMOND DRILL LOG

OLE N	lo.: WZ-	-7				Pa	age 3	
ROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS WIDTH	Au oz/T	Au 2
		At 276.33 steep open irregular fracture 1-10 degrees to C.A.						
		279.33 280.85 Sheared zone with some silicification, lighter colour. Shears at 50 degrees to C.A.						
		At 284.5 feet concentration of pyrite along a steep fracture 2mm wide.						
		At 287.5 feet steep frature at 10 degrees to C.A.						
		At 294.25 feet an open carbonate-coated fracture 20 degrees C.A.						
		At 309.25 feet limonite-lined fracture at 35 degrees to C.A.						
		At 310 feet sericitized shear at 35 degrees to C.A.						
22.33	322.75	SHEARED, SILICIFIED PORPHYRY (16, sil, 1% py) with 1% disseminated pyrite.	11763	320.00	322.40	2.40	0.005	0.006
22.75	331.67	"BUARTZ-EYE SERICITE SCHIST" - (ic, sil, (3% py) shearing at 45-50 degrees to C.A. Highly sheared with sericitized feldspar. Trace to several per cent pyrite as disseminated tiny grains and small aggregations. Distinct waxy lustre.	11764 11765 11766	322.40 324.40 326.40 322.40	324.40 326.40 328.40 328.40	2.00 2.00	0.095 0.035 0.053	0.118 0.053 0.032 0.068
		322.75 323.16 vein quartz with some black tourmaline	11767 11768	328.40 329.92	329.92 331.67		0.015 0.010	0.020 0.014
		323.4 323.6 quartz-tourmaline vein		322.40	331.67	9.27	0.039	0.050
		324.75 325.33 quartz-tourmaline vein						
		325.33 326 strongly silicified zone with several per cent pyrite.						
31.67	333.67	SHEARED, SILICIFIED PORPHYRY - (1b, sil, tr-1% py) trace to 1% pyrite.	11769	331.67	333.67	2.00	0.010	0.012
33.67	352.75	GREY DUARTZ FELDSPAR PORPHYRY (1a,3) with feldspar phenocrysts up to 0.5" across. A few darker dioritic intervals.	11770	333.67	336.00	2.33	0.005	-0.000
352.75	361.08	REDDISH QUARTZ FELDSPAR PORPHYRY (1a, hm) with pinkish feldspar phenocrysts up to 0.5" across. At 355 feet a steep fracture at 18 degrees to C.A.						

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HOLE No: WI-7

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DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-7

Page 4 ASSAYS SAMPLE No. FROM TO. WIDTH Au oz/T Au 2 FROM 10 LITHOLOGICAL DESCRIPTION 358.33 360.33 Sheared, silicified zone (15, sil) with narrow carbonate-lined fractures at 45 degrees to C.A. 361.08 366.83 HORNBLENDE SCHIST (2b, carb. v.) with irregular carbonate and quartz-carbonate veins. 1-2% disseminated pyrite, sometimes concentrated along foliation in narrow bands at approximately 60 degrees to C.A. 366.83 390 REDDISH QUARTZ FELDSPAR PORPHYRY (1a, hm, tr py) with pinkish feldspar phenocrysts up to 0.75° across. Trace disseminated pyrite. Core somewhat fractured over last two feet. From 367 to 372 fractures or natural breaks every 1 to 4 inches sometimes lined with quartz and possible sericite (<iam) at 50 degrees to C.A. 369.6 370.0 Sheared and silicified. Shears 50 degrees to C.A. 370.85 371.18 Core broken up - fracture zone. Chloritized shears at 50 degrees to C.A. 373.5 374.33 Core broken up - fracture zone. 376.0 377.33 Sheared zone strongly silicified over top 5 inches 377.75 377.85 hornblende schist (2b, carb v.) with carbonate veining 60 degrees to C.A. 377.85 378.08 Very dark grey granodiorite 380.0 382.0 Grey Quartz Feldspar Porphyry 382.5 383.0 Sheared and weakly silicified Grey Quartz Feldspar Porphyry 383.67 385.0 END OF HOLE

#### DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-8 Collar Eastings: 339.20 Collar Northings: 465.70 Collar Elevation: 1004.91 Calnor Grid: Azimuth 332

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Collar Inclination: -60.00 Grid Bearing: 159.50 Final Depth: 450.00 feet Target: W Zone Logged by: J. H. Reedman Date: 14th - 16th Jan. 1988 Down-hole Survey: No Data Core Size: NO

FROM	то		SAMPLE No.	FROM	 TO	ASSAYS	Au oz/T	Au 2
		LITHOLOGICAL DESCRIPTION	SANFLE NO.	FKUN	10	WIDIN	AU OZ/I	RU Z
•	3.5	CASING (Ob)						
.5	39.182	REDDISH QUARTZ FELDSPAR PORPHYRY (1a, hm)						
		8.5 12.25 weakly sheared zone with some silicification. Shears at 50 degrees to C.A.						
		At 19.4 feet 2" wide sheared zone - weakly silicified						
		26.75 28.08 Hornblende Schist (2b, carb v.) with some carbonate veining and irregular lenses generally along foliation at 45-50 degrees to C.A.						
		30.25   30.65   Sheared, silicified zone with narrow (<2mm) band of pyrite at 40 degrees to C.A.						
		33.6 34.0B weakly sheared zone with some silicification.						
39.182	40.75	HDRNBLENDE SCHIST (2b, carb v.) with irregular carbonate veinlets and quartz-carbonate lenses approximately parallel to foliation at 40 degrees to C.A. 1-2% disseminated pyrite.						
10.75	51.0	GREY QUARTZ FELDSPAR PORPHYRY - (ia,ib) dark-grey, weakly sheared with anumber of sericitized shears at 40 degrees to C.A. from 40.75 to 42.5 feet. Also weakly sheared 45.4 to 46.75 and 50.75 to 51.0.						
		42.5 45.85 Strongly sheared zone with sericitized shears marking foliation at 40 degrees to C.A. Dverall dark-grey colour. At 44 feet 0.5° quartz vein at 50 degrees to C.A. with different orientation to shearing.						
		45.25 to 45.5 Hornblende schist with carbonate veinlets						,
51	179.75	REDDISH QUARTZ FELDSPAR PORPHYRY (1a, hm) with pinkish feldspar phenocrysts up to 0.5" across. Relatively dark colour with accessory biotite. Weakly sheared to 52.33 feet.						
		56.33 57.9 weakly sheared zone. At 56.85 a narrow band of pyrite (2mm) along shear.						

DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-8

Page 2

ROM TO	LITHOLOGIÇAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS WIDTH	Au oz/T	Au 2
	76.25 77.08 A number of natural breaks 1" to 4" apart, lined with carbonate.						
	89.0 89.5 Core broken up - limonite staining.						
	B9.5 92.25 A number of shears. Most at 45 degrees to C.A. Some with 2mm wide concentration of pyrite. Several prientations. One shear at 45 degrees C.A. has another at approximately right angles at 30 degrees to C.A.						
	111.5 112.0 Several carbonate-lined breaks or joints at 55 degrees to C.A.						
	114.75 117.33 weakly foliated at 55 degrees to C.A.						
	120.85 122.0 weakly foliatied at 55 degrees to C.A. At 121.4 feet vuggy quartz vein 0.25" wide 50 degrees C.A. with 1% pyrite.						
	125.33 135.85 sheared and weakly silicified. Shearing <b>55 degrees</b> to C.A. A number of carbonate-lined fractures at 40, 50 and 80 degrees to C.A. Silicified fractures 25 degrees C.A. at 134.18 and 134.62 feet.						
	137.33 137.9 bands of strong silicification - angle variable but averages 40 degrees C.A.						
	140.33 151.4 weakly sheared with some weak silicification at 55 degrees C.A. some carbonate and pyrite along some fractures. Strongest shearing 149.33 to 149.75 with dark chloritized shears some pyrite.						
	152.4 156.67 Grey Quartz Feldspar Porphyry						
	158 161.33 Grey Quartz Feldspar Porphyry						
9.75 181.0	DARK-GREY SILICIFIED PDRPHYRY WITH VEIN QUARTZ (ia, sil, qtz)						
1.0 184.08	VEIN QUARTZ (q.v., carb, 2b) WITH IRREGULAR INCLUSIONS OF HORNBLENDE SCHIST - Also irregular masses of white carbonate from 0.25" to 1" or 2" across. Lower contact at 25 degrees C.A. Upper contact 40 degrees to C.A.						
14.0B 191.67	WEAKLY SHEARED QUARTZ FELDSPAR PORPHYRY - (ib, hm) slightly altered with partly sericitized feldspars. Pinkish feldspar phenocrysts						

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#### DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-8

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FROM	TÖ	LITHOLOGICAL DESCRIPTION	BAMPLE	No.	FROM	TO	ASSAYS WIDTH	Au oz/T	Au 2
		and overall reddish colour.							
191.67	215.6	REDDISH QUARTZ FELDSPAR PORPHYRY (1a, hm) with pinkish feldspar phenocrysts up to 0.5" across. Overall reddish colour but some short intervals of grey porphyry.							
		202.5 205.6 Sheared, silicified zone (15, sil)							
		205.6 20B weakly sheared							
215.6	220.42	HYBRID ROCK - (3) dark-grey, dioritic, porphyrytic, granodiorite with feldspar phenocrysts up to 0.25" across.							
		213.33 214.0 Fracture zone with dark-green chloritic shears with some carbonate coating. Benerally 60-65 degrees to C.A., though not all same orientation.							
220.42	225.5	REDDISH QUARTZ FELDSPAR PORPHYRY - (1a, hm)							
225.5	369.5	GREY QUARTZ FELDSPAR PORPHYRY - (1a) medium grey, massive with feldspar phenocrysts up to 0.5° across. Overall reddish colour 239 to 243.6 feet.							
		226.25 228.25 Dark-grey, dioritic interval							
		At 235.33 0.5" quartz vein and silicification at 60 degrees C.A.							
		At 237.33 0.5" quartz vein and silicification at 50 degrees C.A.							-
		At 232.9 0.5" quartz vein and silicification at 50 degrees C.A.							
		240.33 240.67 dark-grey banding at 55 degrees to C.A. Several per cent disseminated pyrite							
		244.75 245.5 Weakly foliated at 40 degrees C.A. Reddish colour.							
		247.85 254.25 Overall reddish colour. Strongest reddish colour between 252.25 and 252.75 around two carbonate-lined fractures with different orientations at 25 degrees to C.A.							
		278.0 279.0 Strongly silicified shears at 30 degrees to C.A. with 1% pyrite.							
		At 281.6 carbonate-lined fracture at 25 degrees to C.A.							

#### DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-8

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS WIDTH	Au oz/T	Au 2	
		286.08 286.18 silicified zone.							
		At 293.2 feet a carbonate-lined fracture at 50 degrees to C.A. slightly silicified 1" either side.							
		294.0 294.33 silicified zone with pyrite concentrated along banding at 50 degrees to C.A. Several per cent pyrite overall.							
		At 294.6 quartz-lined fracture 2-3mm wide at 15 degrees to C.A.							
		At 294.85 carbonate-lined fracture at 40 degrees C.A. Different orientation to quartz-lined fracture above. Cuts quartz fracture.							
		At 298.67 feet carbonate-lined fracture at 30 degrees to C.A.							
		302.75 303 silicified zone with 2% pyrite.							
		305 305.5 weakly foliated with pyrite concentrated along foliation. 2% overall.							
		At 318.25 feet carbonate-lined break at 85 degrees to C.A. with 1 to 2% pyrite.							
		332 352.67 Overall reddish colour with pinkish feldspar phenocrysts. Chloritized shears at 332.4 and 333.4, both at 45 degrees to C.A. but at right angles to each other. At 341.33 thin greenish carbonate vein at 40 degrees to C.A.							
		352.67 353.08 Quartz vein with some black tourmaline.							
		353.08 360.75 Slightly silicified grey porphyry. Weak shearing and some sericitization. Trace to 1 or 2% pyrite. From 354.5 to 355 feet vein quartz. At 360.75 feet 0.25" quartz-tourmaline vein with some carbonate at 20 degrees to C.A.							
		366.08 366.67 Light-green altered zone with some silicification and weak shearing and sericitization.						i.	
369.4	370.75	STRONGLY SHEARED AND SILICIFIED PORPHYRY - (16, ic, sil, tr py) approaching "quartz-eye sericite schist" in appearance. Trace pyrite.							
370.75	376.5	REDDISH QUARTZ FELDSPAR PORPHYRY - (1a, hm) slightly silicified							

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## DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-B

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS	Au oz/T	<b>A</b> 11 <b>2</b>
						****		
		and weakly sheared						
6.5	415.6	SILICIFIED PORPHYRY (1a, sil) sericitized along irregular fractures	11786	376.50	379.50	3.00	0.010	-0.000
		and shears. Quite strongly altered.	11787	379.50	382.50	3.00	0.005	Au 2 -0.000 -0.000 -0.000 0.024 0.012 0.012 0.018 0.008 0.028 0.028 0.026 0.016 0.026 0.016 0.062 0.024 0.024 0.024 0.024 0.024 0.024 0.024 0.024 0.024 0.026 0.026 0.026 0.024 0.026 0.016 0.000 -0.0000 -0.0000 -0.0000 -0.0000 -0.0000 -0.0000 -0.0000 -0.0000 -0.0000 -0.
			11788	382.50	385.50	3.00	0.010	-0.000
		At 388.6 feet 1" wide quartz-tourmaline vein 20 degrees to C.A.	11789	385.50	388.50	3.00	0.020	
		strong reddish colour for 4" either side of vein.	11790	388.50	391.50	3.00	0.005	
			11791	391.50	395.00	3.50	0.030	
		389 390 "Quartz-eye sericite schist" (1c)	11792	395.00	398.00	3.00	0.010	
			11793	398.00	401.00	3.00	0.010	
		392.4 393.85 "Quartz-eye sericite schist" (ic)	11785	401.00	404.00	3.00	0.010	
			11784	404.00	407.00	3.00	0.005	$\begin{array}{c} -0.000\\ -0.000\\ -0.000\\ 0.024\\ 0.012\\ 0.012\\ 0.018\\ 0.016\\ 0.014\\ 0.008\\ 0.028\\ 0.028\\ 0.026\\ 0.006\\ 0.026\\ 0.006\\$
		400.75 402.18 "Quartz-eye sericite schist" (ic)	11783	407.00	410.00	3.00	0.005	
			11782	410.00	413.00	3.00	0.015	
		410    410.75 "quartz-eye sericite schist" (1c, 1-2% py) with 1-2% pyrite.	11701	413.00	415.60	2.60	0.010	0.025
5.6	418	SILICIFIED ZONE (1b, sil, qtz, 1% py) with much vmin quartz. Sheared but not as strongly as unit below. Thin sericitized shearm are irregular but follow main foliation at 50 degrees to C.A. in general. One sericitized shear at a few degrees to C.A. Slight waxy lustre, but lacks greenish colour of more strongly altered unit below. Trace to 1% pyrite.	11780	415.60	418.00	2.40	0.020	0.016
8	424.6	"QUARTZ-EYE SERICITE SCHIST" - (1c, sil, tr-1% py) Highly sheared	11774	418.00	420.00	2.00	0.070	0.062
		and silicified zone with finely disseminated pyrite trace to 1%.		418.00	420,00	2.00	0.070	
		Distinct greenish colour and waxy lustre.	11775	420.00	421.50	1.50	0.015	
			11776	421.50	423.00	1.50	0.005	0.004
		421.33 421.34 a few small specks of VISIBLE BOLD (V.G.)	11777	423.00	424.60	1.60	0.030	0.042
				415.60	424,60	9,00	0,030	0,030
4.6	429.33	HYBRID RDCK - (3, 1-2% py) very dark-grey dioritic, porphyrytic	11778	424.60	426.62	2.02	0.005	
		granodiorite with 1-2% disseminated pyrite - up to several per cent in place. Slightly silicified to 427.5 feet.	11779	426.62	428.62	2.00	0.010	-0.000
9.33	435.5	HORNBLENDE SCHIST (2b, carb v.) with carbonate veining and lenses along foliation at 40 degrees to C.A.						
5.5	450	HYBRID ROCK - (3, carb v.) dark-grey to almost black dioritic, porphyrytic rock with feldspar phenocrysts up to 0.25" across. Some carbonate veining.						

END OF HOLE.

HOLE No: WZ-8

#### DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-9 Collar Eastings: 155.22 Collar Northings: 343.04 Collar Elevation: 973.00 Calnor Grid: Azimuth 332

Collar Inclination: -45.00 Grid Bearing: 156.00 Final Depth: 400.00 feet Target: W Zone Logged by: J. H. Reedman Date: 15th-17th Feb. 1988 Down-hole Survey: Acid Etch Core Size: BQ

FROM	TD	LITHOLOGICAL	DESCRIPTION	SAMPLE No.	FROM	ASSAYS TO	WIDTH	Au oz/T	 
0	16	CASING (Ob)							
16	65.18	REDDISH QUARTZ FELDSPAR phenocrysts up to 0.5° Trace to 1% pyrite. Fir fracture at 55 degrees							
		25.42 25.60 Fractur stained.	e zone - (F.Z.) fragmented core - limonite						
		30.25 30.42 Fractur stained.	e zone - (F.Z.) core fragmented and limonite						
		38 39.5 A few s	ericitized shears - fragmented core						
		40.85 41.18 Fractur stained.	e zone - (F.Z.) core fragmented and limonite						
		41.6 42.0 Sheared	and silicifed - 1-2% pyrite						
		46.6 46.85 Sheared	and silicifed						
65.18	67.0	HORNBLENDE SCHIST (2b, veinlets and lenses whi degrees to C.A.							
67.0	97.5	REDDISH QUARTZ FELDSPAR porphyry with overall r crysts up to 0.75" acro							
		74.82 75.0 Hornble	nde schist with carbonate lenses.						
		89.5 89.92 Silicif concentrated along band	ied with white vein quartz and pyrite s - up to 5% overall.						
97.5	194.0	phenocrysts up to 0.5" grey colour with darker	RPHYRY (1a, tr-1% py) with feldspar across, though more commonly 0.25". Medium , dioritic bands 97.5 to 98.85, 114.82 to 7.85. Trace to 1% disseminated pyrite.						
		99.25 99.75 Strangl	y silicified (1, sil, q.v.) with white						

### DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-9

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE NO.	FROM	ASSAYS To	Au oz/T	
		quartz vein. Pyrite concentrated in 0.5" band in middle.					
		147.18 l47.25 Sheared, silicified (1b, sil, 5% py) with up to 5% py. Shearing at 60 degrees to C.A.					
		At 151 feet 0.25" dark band with pyrite 45 degrees to C.A.					
		157.5 161.0 Weakly sheared (15) with some thin sericitized shears at various angles, but most 1t 60-65 degrees to C.A.					
194.0	213.5	DUARTZ FELĎSPAR PORPHYRY (1a, tr≖1% py) with light reddish colous and pinkish feldspar phenocrysts up to 0.5° across. Trace to 1% disseminated pyrite.					
		199.58 202.18 Strongly sheared and variably (1b, sil, py) silicified with thin quartz veinlets and a number of thin serici~ tized shears at 45-60 degrees to C.A.					
		207.5 208.5 Moderately sheared (1b) with patchy silicification and heavy concentration of pyrite over last 2 inches where rock is vuggy.					
		At 209 feet 0.25" quartz vein at 60 degrees to C.A.					
		At 211.82 feet 0.25" quartz vein at 60 degrees to C.A.			· .		
213.5	232.5	REDDISH QUARTZ FELDSPAR PORPHYRY - (ia, hm) Strong overall reddish colour down to 228.75 feet. A number of thin white quartz veinlets up to 0.25" wide at various angles to C.A. (25, 35, 50, 65, 70) with roughly same orientation. Some quartz veinlets with pyrite. Veinlets 2 to 12 inches apart. Also some 0.25" wide pyrite bands.					
		225.67 226.0 Heavy concentration of pyrite (3, py) in dark-grey almost black dioritic rock					
		227.33 228.75 A number of darker, dioritic bands (3, py) with some pyrite concentrate in narrow bands.					
232.5	272.33	GREY QUARTZ FELDSPAR PORPHYRY (1a, tr py) with trace to 1% pyrite.					
		245.25 245.42 Sheared and silicified (1b, sil) 60 degrees C.A.					
		255.0 255.33 Silicified (1a, sil).					

### DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-9

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	AS <b>SA</b> YS To		Au oz/T	
		236.0 236.38 Sheared and silicified (1b, sil) with a few thin sericitized shears 45-35 degrees to C.A.						
		269.67 270.0 Hornblende schist (2b) with thin carbonate vein- lets at 20 degrees to C.A.						
		270.33 270.5 Hornblende schist (2b)						
72.33	274.82	STRONGLY SILICIFIED QUARTZ FELDSPAR PORPHYRY (1b, sil, 2% py) approaches "quartz-eye sericite schist" in appearance. 2% pyrite.						
74.82	281.75	SHEARED QUARTZ FELDSPAR PORPHYRY (1b) quite strongly altered with sericitized feldspar and sericitized shears. Patchy silicification						
81.75	285.42	STRONGLY SILICIFIED GREY PORPHYRY - (1b, sil, 1% py) well sheared with numerous sericitized shears and fractures at various prientations. 1% pyrite.	11801 11802	281.75 283.42	283.42 285.42	1.67 2.00	0.004 0.011	
85.42	289.42	HORNBLENDE SCHIST (2b, carb. v.) with irregular carbonate lenses and veinlets. Also some irregular masses of vein quartz.	11803	285.42	289.42	4.00	0.012	
89.42	301.0	SHEARED PORPHYRY - (1b) moderately sheared and moderately to well silicified grey porphyry. Altered with sericitized feldspars and numerous thin sericitized shears at various orientations with core angles from 25 to 50 degrees. The majority are parallel with a core angle of approximately 40 to 45 degrees. Trace of pyrite as occasional disseminated grains and occasional concentrations along narrow wispy bands.	11804 11805 11806 11807 11808 11809	289.42 291.00 293.00 295.00 297.00 299.00	291.00 293.00 295.00 297.00 297.00 301.00	1.58 2.00 2.00 2.00 2.00 2.00	0.000 0.000 0.000 0.003 0.003	
		289.92 291.08 strongly silicified (1b, sil)						
		300.25 300.75 strongly silicified (1b, sil)						
01.0	304.08	STRONGLY SILICIFIED GREY PORPHYRY (1b, sil, tr py) with irregular anastamosing sericited shears and fractures to give rock breccia- like appearance. At 303' irregular quartz-tourmaline vein 0.25° to 0.5° wide at approximately 10 degrees to C.A. Trace pyrite	11810	301.00	30 <b>4.08</b>	3.0B	0.000	
04.09	306.0	SHEARED REDDISH PORPHYRY - (1b) Well-foliated at 40 degrees to C.A. with some chloritization along some shears. Medium-grained with small quartz phenocrysts elongated along foliation. Weakly silicified with several per cent pyrite concentrated along fractures as fine-grained aggregations. The lower contact with	11811	304.08 304.08	306.00 306.00	1.92	0.071 0.071	

HOLE No: WZ-9

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#### DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-9

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	ASSAYS		Au oz/T
		coarser porphyry at 25 degrees to C.A. at opposite direction to foliation.					
306.0	308.42	STRONGLY SILICIFIED REDDISH PORPHYRY (1b, sil, (10% py) well fractured with sericitized fractures. Pyrite content up to 10% as fine-grained aggregations along fractures	11812	306.00 301.00	308.42 308.42	2.42 7.42	0.000 0.019
308.42	318.25	MODERATELY SHEARED AND SILICIFIED PORPHYRY (15, sil, 2-3% py) with pinkish feldspar phenocrysts up to 0.5° across. Thin serici- tized shears at various angles to C.A. (20 to 50 degrees), but majority at 40 degree to C.A. Pyrite content up to 2-3% as narrow irregular fine-grained aggregations along fractures.	11813 11814 11815 11816	308.42 310.92 313.42 315.92	310.92 313.42 315.92 318.25	2.50 2.50 2.50 2.33	0.000 0.000 0.000 0.000
318.25	328.18	MEDIUM TO DARK-GREY FELDSPAR PORPHYRY - (1b, 1-2% py) weakly to moderately sheared with pinkish feldspar phenocrysts up to 0.5" across. Sericitized shears at various angles, but majority at approx. 40 degrees to C.A. Weak variable silicification. 1-2% pyrite as disseminated grains and irregular aggregations along fractures.	11817 11818	318.25 321.25	321.25 325.25	3.00 4.00	0.000 0.000
328,18	335.33	DARK-GREY QUARTZ FELDSPAR PORPHYRY (1a,3) with feldspar pheno- crysts up to 0.5" across and trace disseminated pyrite.					
335.33	348.5	GREY QUARTZ FELDSPAR PORPHYRY (1a) with feldspar phenocrysts up to 0.5" across. Some darker, dioritic bands.					
348.5	367.0	REDDISH QUARTZ FELDSPAR PDRPHYRY (1a, hm) with feldspar pheno- crysts up to 0.5" across. Strong overall reddish colour. From 357.5 to 367.0 feet very strong reddish colour with fragmented core. From 361 to 367 feet rubble with only 20% core recovery.					
		350.0 353.0 Fracture zone (F.Z.) with numerous breaks and fragmented core.					
367.0	400.0	QUARTZ FELDSPAR PORPHYRY (la, tr py) light-grey with slight reddish colour and pinkish feldspar phenocrysts up to 0.5° across. Trace disseminated pyrite. Bottom two feet weakly sheared.					
		377.0 379.0 Silicified, sheared and sericitized (1b, sil) with distinct reddish colour,					
		380.5 382.25 Weakly sheared and silicified (15, sil)					
		391.18 392.0 Weakly sheared and silicified (1b, sil)					

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DIAMOND DRILL LOG

END OF HOLE

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Acid tests: -45 at 400'

#### DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HDLE No.: WZ-10 Collar Eastings: 155.22 Collar Northings: 343.04 Collar Elevation: 973.00 Calnor Grid: Azimuth 332

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Collar Inclination: -60.00 Grid Bearing: 156.00 Final Depth: 439.00 feet Target: W Zone Logged by: J. H. Reedman Date: 17th-19th Feb. 1988 Down-hole Survey: Acid Etch Core Size: BQ

FROM	דט	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	ASSAYS To	Au 02/T
0	15.0	CASING (Ob)				
15.0	74.5	REDDISH QUARTZ FELDSPAR PORPHYRY (1a, hm, tr py) with pinkish feldspar phenocrysts up to 0.5" across.				
		36.58 37.33 Fracture zone (F.Z.) - limonite staining and limonite coated fractures 75-80 degrees to C.A.				
		46.75 47.75 Silicified zone (1a, sil) with late quartz				
		At 48.33 feet steep irregular fracture 15 degrees to C.A.				
		48.67 49.0 Core fragmented				
		At 52 feet flat-lying fracture, carbonate coated, 75 degrees C.A.				
74.5	81.33	DARK-GREY, SHEARED, SILICIFIED PORPHYRY (ib, sil) weakly sheared and silicified quartz feldspar porphyry with large pinkish feldspar phenocrysts. Thin irregular sericitized shears.				
		78.67 79.75 Strongly silicified				
81,33	88.0	DARK-GREY DIDRITIC HYBRID ROCK (3) slightly altered with weak sericitization.				
		82.0 82.67 White quartz vein with black toursaline.				
		85.58 87.33 Hornblende schist (2b, carb. v.) with some vein quartz and small veinlets of white carbonate. Trace to 1% pyrite.				
88.0	95.0	REDDISH-GREY QUARTZ FELDSPAR PORPHYRY (Ia) with large feldspar phenocrysts.				
		90.5 93.0 Darker, dioritic band with smaller phenocrysts.				
95.0	97.58	STRONGLY SILICIFIED QUARTZ FELDSPAR PORPHYRY (1b, sil, tr py) Slightly sheared and sericitized. Light grey colour.				
97.58	100.18	GREY QUARTZ FELDSPAR PORHYRY (1a) with slightly sericitized feldspars.				

DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-10 Page 2 ASSAYS WIDTH Au oz/T FROM TO. FROM TO. LITHOLOGICAL DESCRIPTION SAMPLE No. 100.18 101.92 DARK-GREY DIORITIC HYBRID ROCK (3) 101.92 141.18 GREY QUARTZ FELDSPAR PORPHYRY (1a) with feldspar phenocrysts up to 0.5" across, though more commonly 0.25" across. 108.58 111.67 Silicified zone (1b, sil) weakly sheared and silicified. 133.75 134.67 Dark, dioritic band (3) 141.18 146.0 SHEARED AND SILICIFIED PORPHYRY (16, sil, 3-5% py) weakly sheared and silicified grey quartz feldspar porphyry with 3-5% disseminated pyrite. 178.25 DARK-GREY QUARTZ FELDSPAR PORPHYRY - (1a, 3) dioritic appearance with 146.0 trace to 1% disseminated pyrite. At 149.0 feet 1" wide silicified band At 154.33 feet 1" wide silicified band 164.18 164.5 Weakly silicified 174.42 174.58 Silicified zone 178.25 186.33 STRONGLY SILICIFIED PORPHYRY (1, sil, (2% py) - very light grey to white intensely silicified and weakly sheared quartz feldspar porphyry with trace to 2% disseminated pyrite. 186.33 253.0 GREY QUARTZ FELDSPAR PORPHYRY (1a, tr py) with feldspar phenocrysts up to 0.5", though more commonly 0.25" across. Trace disseminated pyrite. 253.0 258.0 REDDISH QUARTZ FELDSPAR PORPHYRY (1a, hm) with pinkish feldspar phenocrysts up to 0.75" across. 254.25 255.58 Moderately silicified porphyry with pyrite concentrated in 0.25" band at 255.58 feet. 258.00 0.006 258.0 269.92 SILICIFIED PORPHYRY WITH STRONG REDDISH COLDUR (1a, sil, hm, 5% py) 11844 261.00 3.00 264.00 Moderately silicified quartz feldspar porphyry with conspicuous 11845 261.00 3.00 0.024 267.00 0.008 anounts of pyrite concentrated in irregualr narrow bands. Overall 11846 264.00 3.00 pyrite content probably 5%, but 10-20% overall some intervals of 11847 267.00 268.92 1.92 0.004

several inches in width 30-35 degrees to C.A.

HOLE No: WZ-10

#### DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-10

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FROM       TO       LITHOLOGICAL DESCRIPTION       SAMPLE No.       FROM       Au or/T         261.0       262.3       Lighter colour with sericitized feldspars         269.72       311.5       REDISM-ORCY QUARTI FELDSPAR PORPHYRY (1a, he) with pinkish feldspar phenocrysts up to 0.5° across       274.83       294.83       297.83       Weakly silicitied         At 299.5       0.25° band pyrite at 40 degrees to C.A.       307.67       311.0       A number of narrow pyrite bands       0.25° or less at 40 degrees to C.A.         311.5       326.83       GREY DUARTI FELDSPAR PORPHYRY (1a) with pinkish feldspar pheno- crysts up to 0.5° across.       315.33       317.75       Hornblende schist (2b, carb. v.) with seall carbonate veninlets along foliation at 55 degrees to C.A.         326.83       330.75       STROMELY SILICIFIED PORPHYRY with quart flooding (1a, sil, 35 µp) with up to 32 disessinated pyrite. Also soae black tournaline. Irregular, sericitized fractures from 329.33 feet.       11848       326.83       330.75       3.92       0.054         330.75       338.0       HORNELENDE SCHIST (2b, carb. v.) with irregular carbonate lenness and veninites. Also soae white quarts lenses.       311.33       343.5       Weakly sheared and silicified (3b, sil, 1-21 py)       351.83       354.00       3.25       0.0054         352.75       359.47       GREY SILICIFIED QUARTIZ FELDSPAR (1a, sil, (St py) - enderately to strongly quartit feldspar porphyr								
<ul> <li>269.92 311.5 REDDISH-GREY QUARTZ FELDSPAR PORPHYRY (1a, he) with pinkish feldspar phenocrysts up to 0.5° across</li> <li>294.83 297.83 Neakly silicified</li> <li>At 299.5 0.25° band pyrite at 40 degrees to C.A.</li> <li>307.67 311.0 A number of narrow pyrite bands 0.25° or less at 40 degrees to C.A.</li> <li>311.5 326.83 GREY QUARTZ FELDSPAR PORPHYRY (1a) with pinkish feldspar phenocrysts up to 0.5° across.</li> <li>315.33 317.75 Hornblende schist (2b, carb. v.) with small carbonate veninlets along foliation at 55 degrees to C.A.</li> <li>326.83 330.75 STRONGLY SILICIFIED PORPHYRY with quartz flooding (1a, sil, 31 py) into the 0.32 dissentated pyrite. Also some black tournaline. Irregular, sericitized fractures from 329.33 feet.</li> <li>330.75 338.0 MORNELENDE Schist (2b, carb. v.) with irregular carbonate lenses and veinlets. Also some white quartz lenses.</li> <li>338.0 352.75 HYBRID ROCK (3) Dark-grey to black, dioritic, perhyrytic granodiorite.</li> <li>341.33 343.5 Neakly silicified with 1-21 py (3, sil, 1-21 py) at5.18 346.0 Neakly sheared and silicified (3b, sil, 21 py) with 72 disseminated pyrite.</li> <li>352.75 359.67 GREY SILICIFIED GUARTZ FELDSPAR (1a, sil, (51 py) - moderately to strongly quartz feldspar porphyry. Disseminated pyrite with conspicuous pyrite in narrow, irregular bands up to 52 overall. 1° quartz teinds porphyry. Disseminated pyrite with conspicuous pyrite in narrow, irregular bands up to 52 overall. 1° quartz vein at bottee of (unit 40 degrees to C.A.</li> <li>352.67 362.92 DARK-GREY, DIORITIC GRAMODIDRITE (3b, 1-22 py) weakly sheared</li> </ul>	FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM			Au oz/T
<ul> <li>feldspar phenocrysts up to 0.5" across</li> <li>294.83 297.83 Weakly silicified</li> <li>At 299.5 0.25" band pyrite at 40 degrees to C.A.</li> <li>307.67 311.0 A number of narrow pyrite bands 0.25" or less at 40 degrees to C.A.</li> <li>311.5 326.83 GREY DUARTZ FELDSPAR PORPHYRY (1a) with pinkish feldspar phenocrysts up to 0.5" across.</li> <li>315.33 317.75 Hornblende schist (2b, carb. v.) with small carbonate veninlets along foliation at 55 degrees to C.A.</li> <li>326.83 330.75 STRONGLY SILICIFIED PORPHYRY with quartz flooding (1a, sil, 3X py) i1848 326.83 330.75 3.92 0.054 with up to 3X disseninated pyrite. Also some black tournaline. Irregular, sericitized fractures from 329.33 feet.</li> <li>330.75 338.0 HORNBLENDE SCHIST (2b, carb. v.) with irregular carbonate lenses and veinlets. Also some white quartz lenses.</li> <li>338.0 352.75 HYBRID ROCK (3) Dark-grey to black, dioritic, porhyrytic granodiarite.</li> <li>341.33 343.5 Weakly silicified with 1-2X py (3, sil, 1-2X py) with 2 disseninated pyrite.</li> <li>352.75 359.67 GREY SILICIFIED DUARTZ FELDSPAR (1a, sil, (5X py) - moderately to strongly quartz feldspar porphyry. Disseninated pyrite with conspicuous pyrite in narrow, irregular bands up to 5X overall. 1" quart vein at bottos of unit 40 degrees to C.A.</li> <li>359.67 362.92 DARK-GREY, DIDRITIC GRAMODIORITE (3b, 1-2X py) weakly sheared</li> </ul>			261.0 262.5 Lighter colour with sericitized feldspars					
At 299.5 0.25* band pyrite at 40 degrees to C.A.307.67 311.0 A number of narrow pyrite bands 0.25* or less at 40 degrees to C.A.311.5 326.83 GREY DUARTZ FELDSPAR PORPHYRY (1a) with pinkish feldspar pheno- crysts up to 0.5* across.315.33 317.75 Hornblende schist (2b, carb. v.) with small carbonate veninlets along foliation at 35 degrees to C.A.326.83 330.75 STRONGLY SILICIFIED PORPHYRY with quartz flooding (1a, sil, 3X py) with up to 32 dissesinated pyrite. Also some black tournaline. Irregular, sericitized fractures from 329.33 feet.330.75 338.0352.75 MORNHENES CHIST (2b, carb. v.) with irregular carbonate lenses and veinlets. Also some white quartz lenses.338.0352.75 MYBRID ROCK (3) Dark-grey to black, dioritic, porhyrytic grano- diorite.341.33 343.5 Weakly sheared and silicified (3b, sil, 22 py) with 2Z disseminated pyrite.352.75 359.67 GREY SILICIFIED DUARTZ FELDSPAR (1a, sil, (52 py) - moderately to strongly quartz feldspar porphyry. Dissesinated pyrite with conspicuous pyrite in narrow, integular porphyry to C.A.359.67 362.92 </td <td>269.92</td> <td>311.5</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	269.92	311.5						
<ul> <li>307.67 311.0 A number of narrow pyrite bands 0.25° or less at 40 degrees to C.A.</li> <li>311.5 326.83 GREY DUARTZ FELDSPAR PORPHYRY (1a) with pinkish feldspar phenocrysts up to 0.5° across.</li> <li>315.33 317.75 Hornblende schist (2b, carb. v.) with small carbonate veninlets along foliation at 55 degrees to C.A.</li> <li>326.83 330.75 STRONGLY BILICIFIED PORPHYRY with quartz flooding (1a, sil, 32 py) i1848 326.83 330.75 3.92 0.054 with up to 32 dissesinated pyrite. Also some black tournaline. Irregular, sericitized fractures from 329.33 feet.</li> <li>330.75 338.0 HORNBLENDE SCHIST (2b, carb. v.) with irregular carbonate lenses and veinlets. Also some white quartz lenses.</li> <li>341.33 343.5 Neakly silicified with 1-22 py (3, sil, 1-22 py) 345.18 346.0 Weakly sheared and silicified (3b, sil, 22 py) with 2 disseminated pyrite.</li> <li>352.75 359.67 GREY SILICIFIED QUARTZ FELDSPAR (1a, sil, (52 py) - moderately to strongly quartz feldspar porphyry. Disseminated pyrite with conspicuous pyrite in narrow, irregular bands up to 52 voverall. I'quartz vein at bottom of unit 40 degrees to C.A.</li> <li>359.67 362.92 DARK-GREY, DIORITIC GRANODIORITE (3b, 1-22 py) weakly sheared</li> </ul>			294.83 297.83 Weakly silicified					
at 40 degrees to C.A. 311.5 326.83 GREY QUARTZ FELDSPAR PORPHYRY (1a) with pinkish feldspar pheno- crysts up to 0.5" across. 315.33 317.75 Hornblende schist (2b, carb. v.) with small carbonate veninlets along foliation at 55 degrees to C.A. 326.83 330.75 STRONGLY SILICIFIED PORPHYRY with quartz flooding (1a, sil, 3X py) with up to 3Z dissesinated pyrite. Also some black tourmaline. Irregular, sericitized fractures from 329.33 feet. 330.75 338.0 HORNBLENDE SCHIST (2b, carb. v.) with irregular carbonate lenses and veinlets. Also some white quartz lenses. 338.0 352.75 HYBRID ROCK (3) Dark-grey to black, dioritic, porhyrytic grano- diorite. 341.33 343.5 Neakly silicified with 1-2X py (3, sil, 1-2X py) 345.18 346.0 Meakly sheared and silicified (3b,sil, 2X py) with 2X disseminated pyrite. 352.75 359.67 GREY SILICIFIED QUARTZ FELDSPAR (1a, sil, (5X py) - moderately to strongly quartz feldspar porphyry. Disseminated pyrite with conspicuous pyrite in narrow, irregular baneta up to 5X overall. 1' quartz vein at bottom of unit 40 degrees to C.A. 359.67 362.92 DARK-GREY, DIORITIC GRANODIDRITE (3b, 1-2X py) weakly sheared			At 299.5 0.25" band pyrite at 40 degrees to C.A.					
crysts up to 0.5" across. 315.33 317.75 Hornblende schist (2b, carb. v.) with small carbonate veninlets along foliation at 55 degrees to C.A. 326.83 330.75 STRONGLY SILICIFIED PORPHYRY with quartz flooding (ia, sil, 3% py) with up to 3% disceninated pyrite. Also some black tourmaline. Irregular, sericitized fractures from 329.33 feet. 330.75 338.0 HORNBLENDE SCHIST (2b, carb. v.) with irregular carbonate lenses and veinlets. Also some white quartz lenses. 338.0 352.75 HYBRID ROCK (3) Dark-grey to black, dioritic, porhyrytic grano- diorite. 341.33 343.5 Weakly silicified with 1-2% py (3, sil, 1-2% py) with 2% disceminated pyrite. 352.75 359.67 GREY SILICIFIED DURATZ FELDSPAR (ia, sil, <5% py) - moderately to strongly quartz feldspar porphyry. Disseminated pyrite with conspicuous pyrite in narrow, irregular bands up to 5% overall. 1* quartz vein at bottom of unit 40 degrees to C.A. 359.67 362.92 DARK-GREY, DIORITIC GRANODIDRITE (3b, 1-2% py) weakly sheared								
carbonate veninlets along foliation at 55 degrees to C.A. 326.83 330.75 STRONGLY SILICIFIED PORPHYRY with quartz flooding (1a, sil, 37 py) with up to 32 disseminated pyrite. Also some black tourmaline. Irregular, sericitized fractures from 329,33 feet. 330.75 338.0 HORNBLENDE SCHIST (2b, carb. v.) with irregular carbonate lenses and veinlets. Also some white quartz lenses. 338.0 352.75 HYBRID ROCK (3) Dark-grey to black, dioritic, porhyrytic grano- diorite. 341.33 343.5 Weakly silicified with 1-2% py (3, sil, 1-2% py) 345.18 346.0 Weakly sheared and silicified (3b,sil, 2% py) with 2% disseminated pyrite. 352.75 359.67 GREY SILICIFIED QUARTZ FELDSPAR (1a, sil, (5% py) - moderately to strongly quartz feldspar porphyry. Disseminated pyrite with conspicuous pyrite in narrow, irregular bands up to 5% overall. 1* quartz vein at bottom of unit 40 degrees to C.A. 359.67 362.92 DARK-GREY, DIORITIC GRANODIORITE (3b, 1-2% py) weakly sheared	311.5	326.83						
<ul> <li>with up to 32 disseminated pyrite. Also some black tourmaline. Irregular, sericitized fractures from 329.33 feet.</li> <li>330.75 338.0 HORNBLENDE SCHIST (2b, carb. v.) with irregular carbonate lenses and veinlets. Also some white quartz lenses.</li> <li>338.0 352.75 HYBRID ROCK (3) Dark-grey to black, dioritic, porhyrytic grano- diorite. 341.33 343.5 Weakly silicified with 1-22 py (3, sil, 1-22 py) 345.18 346.0 Weakly sheared and silicified (3b,sil, 22 py) with 22 disseminated pyrite.</li> <li>352.75 359.67 GREY SILICIFIED QUARTZ FELDSPAR (1a, sil, (52 py) - moderately to strongly quartz feldspar porphyry. Disseminated pyrite with conspicuous pyrite in narrow, irregular bands up to 52 overall. 1° quartz vein at bottom of unit 40 degrees to C.A.</li> <li>359.67 362.92 DARK-GREY, DIORITIC GRANODIDRITE (3b, 1-22 py) weakly sheared</li> </ul>								
and veinlets. Also some white quartz lenses. 338.0 352.75 HYBRID ROCK (3) Dark-grey to black, dioritic, porhyrytic grano- diorite. 341.33 343.5 Neakly silicified with 1-2% py (3, sil, 1-2% py) 345.18 346.0 Neakly sheared and silicified (3b,sil, 2% py) with 2% disseminated pyrite. 352.75 359.67 GREY SILICIFIED QUARTZ FELDSPAR (1a, sil, <5% py) - moderately to strongly quartz feldspar porphyry. Disseminated pyrite with conspicuous pyrite in narrow, irregular bands up to 5% overall. 1* quartz vein at bottom of unit 40 degrees to C.A. 359.67 362.92 DARK-GREY, DIORITIC GRANODIORITE (3b, 1-2% py) weakly sheared	326.83	330.75	with up to 3% disseminated pyrite. Also some black tourmaline.	11848	326.83	330.75	3.92	0.054
diorite. 341.33 343.5 Weakly silicified with 1-2% py (3, sil, 1-2% py) 345.18 346.0 Weakly sheared and silicified (3b,sil, 2% py) with 2% disseminated pyrite. 352.75 359.67 GREY SILICIFIED QUARTZ FELDSPAR (1a, sil, <5% py) - moderately to strongly quartz feldspar porphyry. Disseminated pyrite with conspicuous pyrite in narrow, irregular bands up to 5% overall. 11850 356.00 359.67 3.67 0.004 259.67 362.92 DARK-GREY, DIORITIC GRANODIORITE (3b, 1-2% py) weakly sheared	330.75	338.0						
345.18 346.0 Weakly sheared and silicified (3b,sil, 2% py) with 2% disseminated pyrite. 352.75 359.67 GREY SILICIFIED QUARTZ FELDSPAR (1a, sil, <5% py) - moderately to strongly quartz feldspar porphyry. Disseminated pyrite with conspicuous pyrite in narrow, irregular bands up to 5% overall. 1° quartz vein at bottom of unit 40 degrees to C.A. 359.67 362.92 DARK-GREY, DIORITIC GRANODIORITE (3b, 1-2% py) weakly sheared	<b>338.</b> 0	352.75						
with 2% disseminated pyrite. 352.75 359.67 GREY SILICIFIED QUARTZ FELDSPAR (1a, sil, <5% py) - moderately to strongly quartz feldspar porphyry. Disseminated pyrite with conspicuous pyrite in narrow, irregular bands up to 5% overall. 1° quartz vein at bottom of unit 40 degrees to C.A. 359.67 362.92 DARK-GREY, DIORITIC GRANODIORITE (3b, 1-2% py) weakly sheared			341.33 343.5 Weakly silicified with 1-2% py (3, sil, 1-2% py)					
to strongly quartz feldspar porphyry. Disseminated pyrite with 11850 356.00 359.67 3.67 0.004 conspicuous pyrite in narrow, irregular bands up to 5% overall. I" quartz vein at bottom of unit 40 degrees to C.A. 359.67 362.92 DARK-GREY, DIORITIC GRANODIORITE (3b, 1-2% py) weakly sheared								
	352.75	359.67	to strongly quartz feldspar porphyry. Disseminated pyrite with conspicuous pyrite in narrow, irregular bands up to 5% overall.					
	359.67	362.92						

362.92 375.5 REDDISH QUARTZ FELDSPAR PORPHYRY (1a, tr py) with trace to 1% disseminated pyrite. Weakly sheared and silicified to 367.58 feet.

#### DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-10

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*** *** *** ***					ASSAYS		
FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO		Au oz/T
		368.83 369.33 Silicified zone					
375.5	396.75	STRONGLY SILICIFIED PORPHYRY (1b, sil, tr-1% py) - reddish quartz	11819	375.50	378.50	3.00	0.000
		feldspar porphyry with pinkish feldspar phenocrysts. Weakly	11820	378,50	380.00	1.50	0.003
		sheared 375.5 to 378.5. Below 378.5 feet moderately to well	11821	380.00	381.50	1.50	0.019
		sheared with thin sericitized shears. Trace to 1% pyrite as	11822	381.50	384.00	2.50	0.019
		disseminated grains. Some small scattered aggregations 2-3mm across.	11923	384.00	386.50	2.50	0.012
			11824	386,50	389.00	2.50	0.037
		380.33 381.33 Intensely silicified and sheared with auch grey		386.50	389.00	2.50	0.037
		quartz flooding. Thin sericitized shears at 30 degrees to C.A.	11825	389.00	392.00	3.00	0.000
		Small disseminated needles of minor black tourmaline. Trace to	11826	392.00	394.00	2.00	0.000
		1% fine disseminated pyrite.	11827	394.00	396.75	2.75	0.000
				375.50	396.75	21.25	0,010
		392.25 393.92 Intensely silicified and sheared - grey quartz					
		flooding. Thin sericitized shears at 30 degrees to C.A. Waxy					
		lustre on broken surfaces. Minor black tourmaline as scattered					
		fine needles. Trace to 1% fine-grained disseminated pyrite.					

- 396.75 415.5 REDDISH-GREY QUARTZ FELDSPAR PORPHYRY (1a) Patchy weak silicification with a few shears.
- 415.5 421.25 QUARTZ FELDSPAR WITH STRONG REDDISH COLOUR (1a, hm)
- 421.25 439.0 REDDISH-GREY TO DARK-GREY QUARTZ FELDSPAR PORPHYRY (1a) almost dioritic appearance.

428.5 429.75 Moderately silicified and sheared.

END OF HOLE

Acid tests: -57 at 399'

#### DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-11 Collar Eastings: 115.00 Collar Northings: 434.00 Collar Elevation: 981.00 Calnor Grid: Azimuth 332

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Collar Inclination: -59.50 Grid Bearing: 156.00 Final Depth: 579.00 feet Target: W Zone Logged by: J. H. Reedman Date: 19th - 21st Feb. 1988 Down-hole Survey: Acid Etch Core Size: BQ

Calnor	Grid:	Azimuth 332	Target: W Zone			Core	Sizei	BQ	
FROM	פד	L I THOLOGICAL	DESCRIPTION	SAMPLE No.	FROM	ASSAYS		Au oz/T	
0	7.0	CASING (Ob)							
7.0	B1.33	REDDISH-GREY QUARTZ FEDL crysts up to 0.5" across	SPAR PORPHYRY (1a) with feldspar pheno-						
		16.58 17.0 Silicifi	ed - deep reddish almost orange colour						
		At 26.92 feet a 0.5" wh:	ite quartz vein at 20 degrées C.A.						
		At 20.33 feet 1.5" wide	silicified zone 25-30 degrees C.A.						
		60.83 61.18 Fracture	e zone (F.Z.) fragmented core						
		At 68.5 feet carbonate-1	ined fracture at 60 degrees C.A.						
81.33	87.5		PORPHYRY (1b, sil) - weakly sheared and ed quartz feldspar porphyry. From 85.5 black, dioritic.						
87.5	95.0	REDDISH-GREY QUARTZ FED crysts up to 0.5" acros	SPAR PORPHYRY (1a) with feldspar pheno- s.						
95.0	102.0	porphyry with some larg anastomosing thin seric:	CORPHYRY (1b, tr py) quartz feldspar e pinkish feldspar phenocrysts. Irregular itized shears. Foliation indistinct and approx. 30 degrees to C.A. Trace pyrite.						
102.0	137.75		AR PORPHYRY (1a) with pinkish feldspar across, but more commonly 0.25° across.						
		At 114.0 feet pyrite co	sted fracture at 80 degrees C.A.						
		At 118.75 feet silicifi wide at 35 degrees to C	ed shear with pyrite approximately 0.5" .A.						
		130.5 130.58 Strongl	y silicified zone with late quartz						
		131.0 131.33 Strongl	y silicified zone at 30 degrees C.A.						
		131.5 131.83 Strong1	y silicified zone at 30 degrees C.A.						

### DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-11

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	ASSAYS To	Au pz/T		
137.75	173.0	BREY QUARTZ FELDSPAR PORPHYRY (1a, tr-1% py) with feldspar pheno- crysts up to 0.75" across, though more commonly 0.25" across. Trace to 1% disseminated pyrite.						
		151.18 151.29 Silicified zone						
		169.33 171.25 Weakly sheared and silicified (1b, sil)						
173.0	176.67	REDDISH QUARTZ FELDSPAR PORPHYRY (1a, hm) - Strong reddish colour						
		174.0 174.83 Fragmented core (F.Z.) - fracture zone with carbonate coated fracture surfaces.						
		175.92 176.18 Several carbonate-lined fractures at 80 degrees to C.A.						
176.67	195.92	GREY QUARTZ FELDSPAR PDRPHYRY (1a, tr-1% py) with some light reddish coloured sections. Trace to 1% pyrite.						
		185.75 186.25 Weakly silicified						
		188.42 189.83 Weakly silicified						•
		190.5 190.83 Weakly silicified						
		191.75 192.25 Weakly sheared and silicified						
195.83	199.0	DARK PORPHYRYTIC DIDRITIC GRANODIDRITE (3) with feldspar pheno- crysts up to 0.25" across. Core recovery 75%. Core fragmented over last 2 inches.						
199.0	205.25	REDDISH QUARTZ FELDSPAR PORPHYRY (1a, hm)						
205.25	207.5	GREY QUARTZ FELDSPAR PORPHYRY (1a) with feldspar phenocrysts up to 0.5° across.						
207.5	209.18	DARK-GREY PORPHYRYTIC, DIORITIC GRANODIORITE (3) with feldspar phenocrysts up to 0.25" across.					,	
209.18	214.0	GREY QUARTZ FELDSPAR PORPHYRY (1a, 1% py) with 1% disseminated pyrite.						
214.0	216.0	REDDISH QUARTZ FELDSPAR PORPHYRY (1a, hm)						

#### DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-11

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	ASSAYS To	Au oz/T
216.0	229.42	GREY QUARTZ FELDSPAR PORPHYRY (1a, tr-1% py) with trace to 1% disseminated pyrite.				
		At 219.67 feet thin silicified fracture at 20 degrees C.A.				
		At 222.25 feet carbonate lined fracture at 80 degrees with reddish coloration 1" on either side.				
229.42	235.5	REDDISH QUARTZ FELDSPAR PORPHYRY (1a, hm, 1% py) - strong reddish colour. 1% pyrite.				
		231.0 231.25 Fragmented core.				
235.5	237.5	GREY QUARTZ FELDSPAR PORPHYRY (1a, 1% py). with 1% pyrite.				
237.5	241.75	REDDISH QUARTZ FELDSPAR PORPHYRY (1a, hm) - strong ræddish colour with a number of natural breaks every 1 to 2 inches. Some carbon- ate lined.				
241.75	250.18	GREY QUARTZ FELDSPAR PORPHYRY (ia, tr-1% py) with trace to 1% disseminated pyrite.				
250.18	253.0	HORNBLENDE SCHIST (2b, carb. v.) with a few thin carbonate veinlets. Coarse disseminated pyrite to 1%.				
253.0	315.75	GREY QUARTZ FELDSPAR PORPHYRY (1a, tr-1% py) with trace to 1% pyrite.				
		258.5 262.0 Weakly silicified, light reddish grey colour				
		274.0 281.0 Reddish colour				
		At 296.5 feet narrow sericitized fracture, slightly irregular 5 to 20 degrees to C.A. Silicified rock either side.				
		306.83 307.5 Weakly silicified.				
315.75	322.0	SILICIFIED PORPHYRY (1a, sil) light grey weakly to moderately silicified quartz feldspar porphyry.				
322.0	328.5	GREY QUARTZ FELDSPAR PORPHYRY (1a, tr-1% py) with trace to 1% disseminated pyrite				
328.5	330.75	REDDISH QUARTZ FELDSPAR PORPHYRY (1a) with a number of natural				

#### DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-11

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	ASBAYS To	Au oz/T	
		breaks and fractures.					
330.75	336.5	SHEARED AND SILICIFIED PORPHYRY (ib, sil, 1% py) - light reddish colour with variable shearing and silicification. Thin sericitized shears. 1% disseminated pyrite. 1° quartz vein at 30 degrees to C.A. at 336.5 feet.					
		331.5 332.67 Strongly silicified					
336.5	433.5	GREY QUARTZ FELDSPAR PORPHYRY (1a, tr-1% py) with feldspar pheno- crysts up to 0.5" across. A few pinkish feldspars. Trace to 1% disseminated pyrite.					
		359.0 359.42 Weakly sheared and silicified (1b, sil)					
		364.0 365.25 Reddish colour. At 364 feet 0.5" band of pyrite along fracture at 60 degrees to C.A.					
		369.5 373.5 Reddish colour					
		371.42 372.58 A number of carbonate-lined fractures at 35-40 degrees to C.A.					
		At 384.67 feet steep irregular fracture at 5-10 degrees to C.A.					
		405.33 408.33 Weakly silicified and sheared (ib, sil) Foliation at 50 degrees to C.A.					
		410.42 410.58 Weakly sheared and silicified (1b, sil)					
		411.08 411.42 Weakly sheared and silicified					
		413.58 414.0 Weakly sheared and silicified (ib, sil)					
		424.0 424.25 Weakly sheared and silicified (1b, sil)					
433.5	446.18	DARK-GREY, DIORITIC GRANODIORITE (3, tr py) porphyrytic with feldspar phenocrysts up to 0.25" across, though more commonly 0.125" across. Trace disseminated pyrite. A few narrow irregular carbonate filled fracutures cut rock.					
446.18	448.08	HORNBLENDE SCHIST (2, carb. v, tr-2% py) with irregular carbonate lenses and veinlets generally along foliation at 40-45 degrees to C.A. Trace to 2% disseminated pyrite.					

#### MAN & ASSOCIATES LTD J. H.

#### DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-11

Page 5 ASSAY5 SAMPLE No. FROM NIDTH Au oz/T LITHOLOGICAL DESCRIPTION TO FROM TD 448.08 457.33 DIORITIC GRANODIORITE (3, tr py) with trace disseminated pyrite. 457.33 459.75 SHEARED AND SILICIFIED QUARTZ FELDSPAR PORPHYRY (1b, sil) moderately silicified and sheared porphyry with 1% pyrite. 459.75 462.75 GREY QUARTZ FELDSPAR PORPHYRY (1a) 462.75 465.0 SHEARED/SILICIFIED QUARTZ FELDSPAR PORPHYRY (1b, sil, 1% py) Well sheared grey quartz feldspar porphyry. Moderately silicified with thin sericitized shears at 35 degrees to C.A. 1% pyrite. 465.0 476.33 HORNBLENDE SCHIST (2b, carb. v.) with numerous irregular carbonate veinlets and lenses. Trace to 1% pyrite. 476.33 519.08 HYBRID ROCK (3, 1% py) Dark-grey, medium-grained, porphyrytic 11834 516.08 519.08 3.00 0.006 quartz diorite with up to 1-2% disseminated pyrite. At 502.5 feet 0.25" quartz vein 20 degrees to C.A. 512.18 512.58 Sheared (3b) with thin sericitized shears at various angles - average 45 deprees to C.A. 513.67 514.18 Sheared (3b) with thin sericitized shears at various angles - average 45 degrees to C.A. 519.08 521.92 SILICIFIED HYBRID ROCK - (3, sil, 2-3% py) Dark-orey moderately 11828 519.08 521.92 2.84 0,002 to strongly silicified, porphyrytic quartz diorite with 2 to 3% disseminated pyrite - also small accrecations. A few shears. 521.92 529.25 STRONGLY SILICIFIED ZONE - (15, sil, qtz, tr py) Light-gray to 11829 521.92 524.42 2.50 0.000 greenish-grey quartz feldspar porphyry with partly sericitized 11830 524.42 526.92 2.50 0.000 2.33 feldspars. Variably silicified with white quartz flooding. Trace 529.25 0.000 11831 526.92 disseminated pyrite, though some heavier concentrations of small 521.92 529.25 7.33 0.000 aggregations associated with late guartz 526.5 to 529 feet. 529.25 532.08 SILICIFIED HYBRID ROCK - (3b, sil, tr-2% py) Dark-grey moderately 11832 529.25 532.08 2.83 0.000 to strongly silicified porphyry - much late quartz dark-grey almost black in places. Weakly sheared with some sericitization. Trace to 2% pyrite disseminated and in small aggregations. Late quartz vuggy in places. 11833 532.08 535.00 2.92 0.002

532.08 540.25 HYBRID ROCK - Dark-grey, medium-grained, dioritic (3b, 1% py) porphyry. Weakly sheared and slightly sericitized. 1% disseminated

HOLE No: WZ-11

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DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-11

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FROM	TO	LITHOLOBICAL DESCRIPTION	SAMPLE	No.	FROM	ASSAYS TD	Au oz/T	
		pyrite.						
540.25	564.5	BREY QUARTZ FELDSPAR PORPHYRY (1a, 1% py) with feldspar pheno- crysts up to 0.5° across, though more commonly 0.25° across. 1% disseminated pyrite.						
564.5	579.0	DARK-GREY DIORITIC ROCK (3, 2% py) with up to 2% finaly disseminated pyrite.						
		575.75 575.92 Fracture zone - reddish colour						
		END OF HOLE						
		Acid tests: -57 at 301′, -57 at 579′						

HOLE No: WZ-11

#### DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-12 Collar Eastings: 297.00 Collar Northings: 561.00 Collar Elevation: 1005.00 Calnor Grid: Azimuth 332

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Collar Inclination: -65.00 Grid Bearing: 159.50 Final Depth: 689.00 feet Target: W Zone Logged by: J. H. Reedman Date: 22nd - 25th Feb. 1988 Down-hole Survey: Acid Etch Core Size: BQ

			arget: W Zone	et			Size:	BQ
FROM	 TO	LITHOLOGICAL DESCRIPTION		SAMPLE No.	FROM	ASBAYS To	WIDTH	Au 02/T
0	4.0	CASING (Db)						
4.0	5.67	BIOTITE-RICH BRANODIORITE - (1) Coarse-grain	ad					
5.67	48.25	QUARTZ FELDSPAR PORPHYRY (1a) with feldspar 0.5° across, though more commonly 0.25° acro pinkish colour. Generally overall reddish co 19 to 31 feet.	ss. Feldspars have					
		At 12.33 and 13.75 feet limonite-lined fract to C.A.	tures at 20 degrees					
		At 40.42 feet strong reddish colour over 2*	fracture zone.					
		At 43.18 feet 0.5" quartz vein 20 degrees to	D C.A.					
48.25	135.92	SHEARED PDRPHYRY (1b) with partly sericitize strongly sheared sections thin sericitized a to C.A., particularly to 52 feet.	ed feldspars, In more shears at 40 degrees					
		52.0 58.75 Relatively fresh, unaltered	(Ia) massive porphyry					
		100.25 107.0 Strongly silicified, reddist From 104 to 106.67 vuggy quartz in fractures						
		132.33 131.33 Strongly silicified (1b, sil)	) reddish colour					
135.92	188.33	REDDISH QUARTZ FELDSPAR PORPHYRY (1a, tr py) crysts up to 0.5" across. General overall re some sections mostly grey. Trace disseminate	eddish colour though					
		145.67 147.0 Fracture zone (F.Z.) with so fractures	ome carbonate-lined					
		159.83 167.33 Weakly sheared and sericitiz	zed					
		161.0 162.1B A number of carbonate-lined	fractures					
		169.67 177.18 A number of carbonate-line	d fractures					
188.33	190.83	HORNBLENDE SCHIST (2b, carb. v., 2% py) with	h narrow carbonate					

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DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-12

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	ASSAYS To	NIDTH	Au oz/T
		veinlets and lenses approximately parallel to foliation at 30 degrees to C.A. Up to 2% finely disseminated pyrite.					
190.83	193.0	SHEARED AND SILICIFIED PORPHYRY (1b, sil, 1-2% py) - strongly sheared and silicified grey feldspar porphyry approaching "quartz eye sericite schist" in appearance. 1-2% disseminated pyrite.					
193.0	199.42	GREY QUARTZ FELDSPAR PORPHYRY (16) - weakly sheared and sericitized.					
		198.25 198.95 Hornblende schist (2b, 3-5% py) with 3 to 5% disseminated pyrite.					
198,95	204.42	SHEARED AND SILICIFIED PORPHYRY (16, sil, 1% py) - strongly sheared and silicified feldspar porphyry - approaching *quartz eye sericite schist* in appearance. 1% finely disseminated pyrite					
204.42	214.42	GREY QUARTZ FELDSPAR PORPHYRY (1a)					
214.42	275.25	REDDISH QUARTZ FELDSPAR PORPHYRY (1a, hm)					
		219.0 219.42 Several carbonate-lined fractures at 45 degress to C.A.					
		227.25 228.75 Several carbonate-lined fractures at various attitudes (80, 40 degrees C.A.)					
		At 231.75 feet irregualr carbonate-lined fractures					
		236.18 238.33 weakly silicified reddish porphyry					
		239.25 246.0 Strong reddish colour (la, ha, 5% py) with conspicuous pyrite content concentrated in irregular bands. Overall content probably 5%					
		264.67 269.0 Silicified porphyry (1a, sil, 2% py) with up to 2% pyrite					
		276.5 277.08 Strongly silicified grey porphyry (1a, sil, 2% py) with banding 35-40 degrees to C.A. Fine-grained pyrite concentra- ted along narrow bands. 2% overall.					
275.25	331.19	GREY QUARTZ FELDSPAR PORPHYRY (ia) with feldspar phenocrysts up to 0.5" across.					

DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-12

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE	No.	FROM	ASSAYS To	WIDTH	Au oz/T
		303.75 304.18 Reddish colour						
		309.67 310.58 Silicified, dark-grey colour, banding at 40 degrees to C.A. Up to 2% pyrite.						
		At 315.18 and 315.5 feet 1" wide sericitized shear zones, weakly silicified						
		319.5 320.18 Silicified porphyry with banding at 40 degrees to C.A. Up to 2% pyrite						
		330.58 331.42 Weakly silicified						
331.18	332.75	HYBRID ROCK (3, 2% py) Dark-grey, almost black, porphyrytic quartz diorite with 2% disseminated pyrite.						
332.75	347.5	GREY QUARTZ FELDSPAR PORPHYRY (ia, 1% py) with large feldspar phenocrysts up to 0.5" across. 1% disseminated pyrite.						
347.5	351.5	HYBRID ROCK (3, 2% py) Dark-grey, almost black, porphyrytic quartz diorite with 2% disseminated pyrite.						
351.5	368.75	GREY QUARTZ FELDSPAR PORPHYRY (1a)						
		352.5 354.83 Weakly silicified						
		357.75 359.58 Weakly silicified						
		360.25 360.58 Weakyl silicified						
368.75	371.75	HORNBLENDE SCHIST (2b, carb. v.) with some irregular, marrow carbonate veinlets approximately parallel foliation at 40 degrees to C.A.						
371.75	415.5	GREY QUARTZ FELDSPAR PORPHYRY (1a, 1% py) with feldspar pheno- crysts up to 0.5" across. 1% pyrite. Weakly sheared and silicified to 378.58 feet and reddish colour to 382.5 feet. Weakly sheared and silicified 379.83 to 380.83 feet.						

At 394 feet 0.5" to 0.75" irregular quartz vein along core axis

DIAMOND DRILL LOG

PROPERTY: HIGH LAKE HOLE No.: WZ-12

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Page 4

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	ASSAYS TO		Au oz/T	
		408.0 412.18 0.5° irregular quartz vein						
415.5	444.5	SHEARED PORPHYRY (ib, tr-2% py) - weakly sheared and silicified quartz feldspar porphyr. Light-grey colour cut by a number of steep narrow (0.25°) quartz veins. Trace to 2% disseminated pyrite						
		At 423 and 425.5 feet 0.25-0.5" quartz vein a few degrees to C.A.						
		At 431 feet 0.5" quartz vein 20 degrees to C.A.						
		433.5 434.75 0.25-0.5" quartz vein a few degrees to C.A.						
444.5	471.0	HYBRID ROCK (3) porphyrytic, dark-grey quartz diorite. To 449 feet lighter grey colour as weaklyy sericitized. Bradational to darker, unaltered rock. From 455 feet cut by numerous quartz and quartz-carbonate veinlets (2mm - 10mm) at approximately 30 degrees to C.A. Mostly quartz with minor carbonate.						
471.0	555.0	GREY DUARTZ FELDSPAR PORPHYRY (1a) with large pinkish feldspar phenocrysts up to 0.75° across						
		473.5 474.18 Irregular white quartz vein						
		552.18 552.25 Two 0.25° quartz-tourmaline veins at 45 and 55 degrees to C.A.						
555.0	599.5	SHEARED AND SILICIFIED PORPHYRY (ib, tr-1% py) Light-gray altered quartz feldspar porphyry. Sericitized, silicified and variably sheared. A number of thin sericitized shears at 30-35 degrees to C.A. Trace to 1% disseminated pyrite, but may be up to 3%.	11851	595.25	599.00	3.75	0.018	
		570.75 571.1B A number of 0.25" quartz veins 25 degrees to C.A.						
599.5	601.67	HYBRID ROCK (3b, 1-2% py) Medium-grained, porphyrytic quartz diorite. Weakly sheared with sericitized shears and slightly sericitized feldspars. 1-2% pyrite.	11835	599.00	601.67	2.67	0.016	
601.67	50 <b>6.8</b>	SILICIFIED ZONE - (1b, sil, tr py) Strongly silicified light-grey quartz feldspar porphyry with feldspar phenocrysts up to 0.5" across. Weakly sheared with thin sericitized shears at various angles, but majority at 35 degrees to C.A.	11836 11837	601.67 604.00	604.00 606.00	2.33 2.00	0.036 0.034	
606.8	609.0	SILICIFIED ZONE (16, sil, qtz~tour, V.G.) Much white quartz flooding with trace disseminated pyrite and a number of specks	11838 11839	606.00 607.50	607.50	1.50	0.452 1.108	
		rissarny with trace disseminated pyrite and a number of specks	11057	001130	00/100			HOLE No: WI-12

### DIAMOND DRILL LDG

PROPERTY: HIGH LAKE HOLE No.: WZ-12

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Page 5

0 M	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	ASSAYS To		Au oz/T
		of VISIBLE GOLD disseminated in quartz. Considerable fine-grained black tourmaline scattered throughout.				-	÷.,
.0	610.42	STRONGLY SILICIFIED HYBRID ROCK - (3b, sil) Strongly sheared, sericitized and silicified dark-grey to almost black medium- grained quartz diorite.	11840	609.00 601.67	610.42 610.42	1.42 8.75	0.030
2	620.67	HORNBLENDE SCHIST (2b, carb v., 3% py) with numerous carbonate veinlets and small lenses. A few small white quartz lenses. Disseminated pyrite up to 3%.	11841 11842 11843	610.42 613.58 615.58	613.58 613.58 619.00	3.16 2.00 3.42	0.064 0.018 0.023
		613.58 614.08 Sheared and sericitized (1b) light-grey quartz feldspar porphyry.					
		618.5 619.0 Sheared, sericitized and silicified (1b, sil) light-grey quartz feldspar porphyry with quartz flooding.					
	646.25	QUARTZ FELDSPAR PORPHYRY (1a) with feldspar phenocrysts up to 0.5" across.					
•	654.5	HYBRID RDCK (3) Dark-grey, dioritic quartz feldspar porphyry with pinkish feldspar phenocrysts up to 0.5° across.					
	663.0	SHEARED AND SILICIFIED PORPHYRY (15, sil) - grey weakly sheared and silicified quartz feldspar porphyry with thin sericitized and carbonate-lined shears.					
		658.0 659.0 Several fractures filled with carbonate and apple green epidote (Imm to 5mm) at various angles 40 to 70 degrees to C.A.					
	679.0	DUARTZ FELDSPAR PORPHYRY (1a) with pinkish feldspar phenocrysts up to 0.5" across. Generally dark-grey, dioritic.					
	684.42	SILICIFIED PORPHYRY (ia, sil) Pinkish-grey moderately silicified quartz feldspar porphry with trace to 1% pyrite. Strongly silicified below 683.42 feet.					
2	689.0	REDDISH QUARTZ FELDSPAR PORPHYRY (1a)					
		END OF HOLE					

Acid tests: -63 at 449', -62.5 at 679'

## APPENDIX B

# COMPUTATION LISTINGS FOR RESERVE CALCULATIONS

by

ORECALC PROGRAM

RESERVES FOR FILE: wz ZONE: 1 Dip: 75.0

Imperial Data Tonnage Factor: 12.00 cu. ft./ton

Calculations on East-West Longitudinal

Cut-offs used: 0.05 over 5.00 True Width Reserves Diluted

								{	AVERAGE		
TRIANGLE	HOLE	GRADE	DRILLED WIDTH	CORE ANGLE	TRUE WIDTH	HORIZONTAL NIDTH	AREA		HORIZONTAL WIDTH	GRADE	TONS
1	WZ-3	0.11	3.65	45.0	2.58	2.67	1817.09	6.22	6.44	0.22	975.10
-	E-82	0.09	5.00	50.0	3.83	3.97					
	E-71	0.44	10.00	60.0	8.66	8.97					
2	WZ-3	0.11	3.65	45.0	2.58	2.67	11042.24	6.69	6.93	0.10	6377.49
	E-82	0.09	5.00	50.0	3.83	3.97					
	WZ-5	0.11	17.58	35.0	10.08	10.44					
3	WZ-5	0.11	17.58	35.0	10.08	10.44	9211.51	6.69	6.93	0.12	5320.14
	WZ-6	0.17	2.50	40.0	1.61	1.66					
	WZ-3	0.11	3.65	45.0	2.58	2.67					
4	E-71	0.44	10.00	60.0	8.66	8.97	213.69	6.33	6.55	0.25	116.70
	TR-4	0.14	4.67	90.0	4.67	4.83			•		
	TR-3	0.13	5.33	90.0	5.33	5.52					
5	E-72	0,13	18.00	65.0	16.31	16.87	272.63	10.02	10.37	0.10	235.70
	TR-2	0.11	6.00	90.0	6.00	6.21					
	TR-14	0.06	7.75	90.0	7.75	8.02					
5	E-72	0.13	18.00	65.0	16.31	16.89	302.63	9.21	9.54	0.12	240.58
	TR-2	0.11	6.00	90.0	6.00	6.21					
	TR-3	0.13	5.33	90.0	5.33	5.52					
7	E-80	0.05	7.20	60.0	6.24	6.46	823.25	8.56	8.86	0.11	607.89
	E-79	0.20	13.50	60.0	11.69	12.10					
	TR-14	0.06	7.75	90.0	7.75	8.02					
8	E-BO	0.05	7.20	60.0	6.24	6.46	2031.42	7.64	7.91	0.12	1339.36
	E-79	0,20	13.50	60.0	11.69	12.10					
	E-82	0 <b>.09</b>	5.00	50.0	3.83	3.97	•				
9	E-81	0.05	19.30	70.0	18.14	18.78	4588.15	9.71	10.05	0.13	3844.34
	TR-6	0.12	6.00	90.0	6.00	6.21					
	WZ-1	0.26	6.00	45.0	4.24	4.39					

10	E-82 E-71 E-72	0.09 0.44 0.13	5.00 10.00 18.00	50.0 40.0 45.0	3.83 8.66 16.31	3.97 8.97 16.89	1972.57	9.99	10.34	0.22	1700.31
11	TR-6 TR-7 WZ-1	0.12 0.21 0.26	6.00 10.67 6.00	90.0 90.0 45.0	6.00 10.67 4.24	6.21 11.05 4.39	3786.94	7.22	7.48	0 <b>.20</b>	2359.94
12	WZ-1 T <del>R-</del> 7 TR-9	0.26 0.21 0.07	6.00 10.67 3.67	45.0 90.0 90.0	4.24 10.67 3.67	4.39 11.05 3.80	4755.14	6.89	7.13	0.18	2826.55
13	WZ-7 E-80 WZ-5	0.05 0.05 0.11	6.00 7.20 17.58	60.0 60.0 35.0	5.20 6.24 10.08	5.38 6.46 10.44	12345.95	7.17	7.42	0 <b>.07</b>	7638.70
14	WZ-12 WZ-6 WZ-3	0.78 0.17 0.11	3.00 2.50 3.65	35.0 40.0 45.0	1.72 1.61 2.58	1.78 1.66 2.67	1030 <b>2.48</b>	5.00	5.18	0.30	4444.13
15	WZ-12 WZ-6 WZ-5	0.78 0.17 0.11	3.00 2.50 17.58	35.0 40.0 35.0	1.72 1.61 10.08	1.78 1.66 10.44	9810.76	6.69	6.93	0 <b>.30</b>	5666.24
16	E-71 TR-3 E-72	0.44 0.13 0.13	10.00 5.33 18.00	60.0 90.0 65.0	8.66 5.33 16.31	8.97 5.52 16.89	574.28	10.10	10.46	0.23	500.47
17	E-79 TR-14 E-72	0.20 0.06 0.13	13.50 7.75 18.00	60.0 90.0 63.0	11.69 7.75 16.31	12.10 8.02 16.89	802.56	11.92	12.34	0.13	825.21
18	E-79 E-82 E-72	0.20 0.09 0.13	13.50 5.00 18.00	60.0 50.0 65.0	11.69 3.83 16.31	12.10 3.97 16.89	1974.32	11.00	11.39	0.14	1874.10

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TOTALS: 76627.80 7.09 7.34 0.17 46892.96

### RESERVES FOR FILE: wz ZONE: 1 Dip: 75.0

Imperial Data Tonnage Factor: 12.00 cu. ft./ton

Calculations on East-West Longitudinal

Cut-offs used: 0.05 over 5.00 True Width Reserves Undiluted

								<b>{</b>	AVERAGE	>	
TRIANGLE	HOLE	GRADE	DRILLED WIDTH	CORE ANGLE	TRUE NIDTH	HORIIONTAL WIDTH	AREA	TRUE WIDTH	HORIZONTAL SIDTH	GRADE	TONS
1	WZ-3	0.11	3.65	45.0	2.58	2.67	1817.09	5.02	5.20	0.24	787.55
	E-82	0.09	5.00	50.0	3.83	3.97				•	
	E-71	0.44	10.00	60.0	8.66	8.97					
2	₩Z-3	0.11	3.65	45.0	2.58	2.67	11042.24	5.50	5.69	0.10	5237.86
	E-82	Q.09	5.00	50.0	3.83	3.97					
	WZ-5	0.11	17.58	35.0	10.08	10.44					
3	WZ-5	0.11	17.58	35.0	10.08	10.44	9211.51	4.76	4.92	0.13	3780.51
	WZ-6	0.17	2.50	40.0	1.61	1.66					
	WZ-3	0.11	3.65	45.0	2.58	2.67					
4	E-71	0.44	10.00	60.0	8.66	8.97	213.69	6.22	6.44	0.25	114.67
	TR-4	0.14	4.67	90.0	4.67	4.83					
	TR-3	0.13	5.33	90.0	5.33	5.52					
5	E-72	0.13	18.00	65.0	16.31	16.89	272.63	10.02	10.37	0.10	235.70
	TR-2	0.11	6.00	90.0	6.00	6.21					
	TR-14	0.06	7.75	90.0	7.75	8.02					
6	E-72	0.13	18.00	65.0	16.31	16.89	302.63	9.21	9.54	0.12	240.58
	TR-2	0.11	6.00	90.0	6.00	6.21					
	TR-3	0.13	5.33	90.0	5.33	5.52					
7	E-80	0.05	7.20	60.0	6.24	6.46	823.25	8.56	8.86	0.11	607.89
	E-79	0.20	13.50	60.0	11.69	12.10					
	TR-14	0.06	7.75	<b>90.</b> 0	7.75	8.02					
8	E-80	0.05	7.20	60.0	6.24	6.46	2031.42	7.25	7.51	0.12	1271.02
	E-79	0.20	13.50	60.0	11.69	12.10					
	E-82	0.09	5.00	50.0	3.83	3.97					
9	E-81	0.05	19.30	70.0	18.14	18.78	4588.15	9.46	9.79	0.13	3744.42
	TR-6	0.12	6.00	90.0	6.00	6.21					
	WZ-1	0.26	6.00	45.0	4.24	4.39					

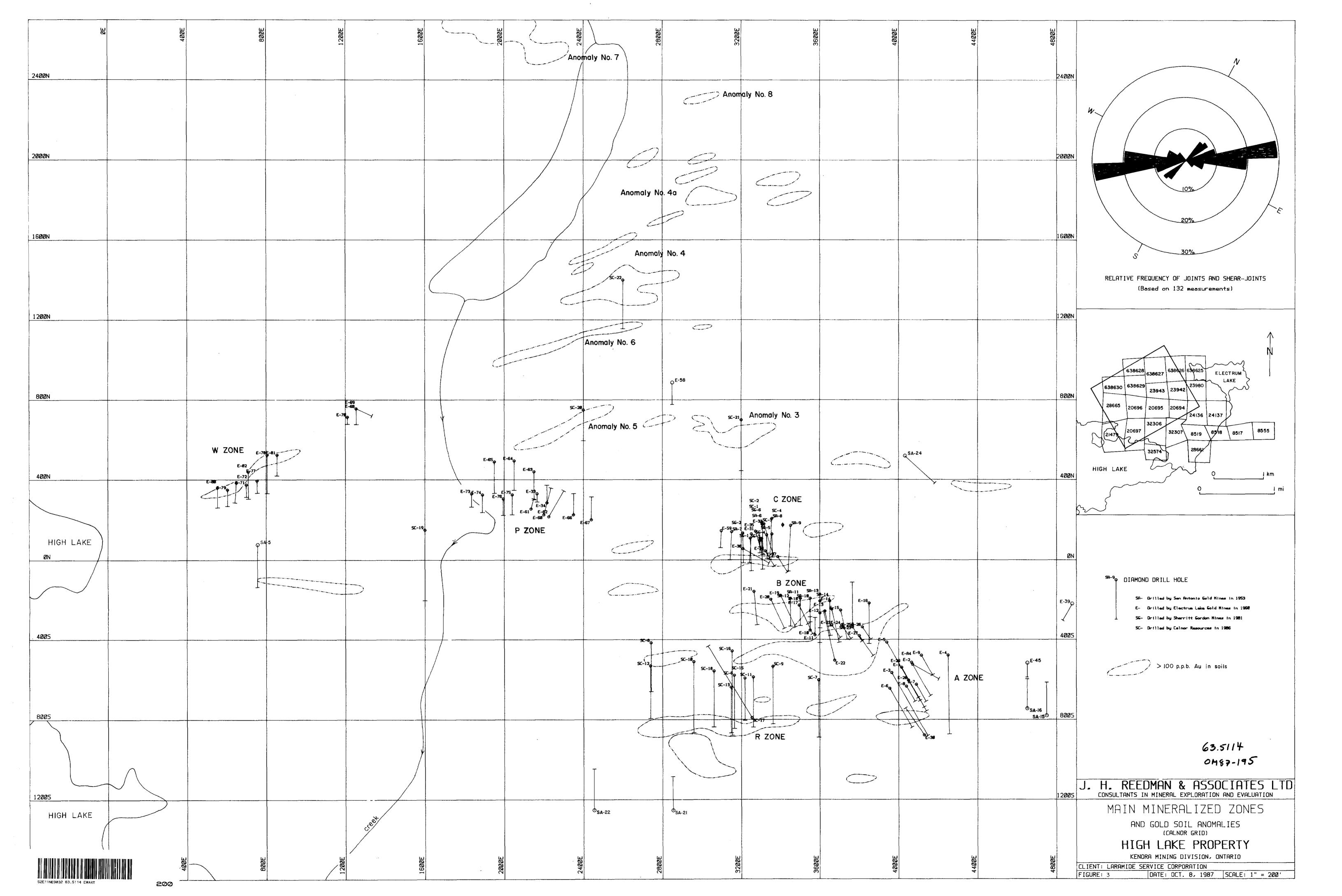
10	E-82 E-71 E-72	0.09 0.44 0.13	5.00 10.00 18.00	50.0 60.0 65.0	3.83 8.66 16.31	3.97 8.97 16.89	1972.57	9.60	9.94	0.22	1633 <b>.95</b>
11	TR-6 TR-7 WZ-1	0.12 0.21 0.26	6.00 10.67 6.00	90.0 90.0 45.0	6.00 10.67 4.24	6.21 11.03 4.39	37 <b>86.94</b>	6.97	7.22	0.20	2277.46
12	WZ-1 TR-7 TR-9	0.26 0.21 0.07	6.00 10.67 3.67	45.0 90.0 90.0	4.24 10.67 3.67	4.39 11.05 3.80	4755.14	6.19	6.41	0.1 <b>8</b>	2541.12
13	WZ-7 E-80 WZ-5	0.05 0.05 0.11	6.00 7.20 17.58	60.0 60.0 35.0	5.20 6.24 10.08	5.38 6.46 10.44	123 <b>45.95</b>	7.17	7.42	0.07	7638.70
14	WZ-12 WZ-6 WZ-3	0.78 0.17 0.11	3.00 2.50 3.65	35.0 40.0 <b>45.</b> 0	1.72 1.61 2.58	1.78 1.66 2.67	10302.48	1.97	2.04	0.35	1750.58
15	WZ-12 WZ-6 WZ-5	0.78 0.17 0.11	3.00 2.50 17.58	35.0 40.0 35.0	1.72 1.61 10.08	1.78 1.66 10.44	9810.76	4.47	4.63	0.32	3783.76
16	E-71 TR-3 E-72	0.44 0.13 0.13	10.00 5.33 18.00	60.0 90.0 65.0	8.66 5.33 16.31	8.97 5.52 16.89	574.28	10.10	10.46	0.23	500.47
17	E-79 TR-14 E-72	0.20 0.06 0.13	13.50 7.75 18.00	60.0 90.0 65.0	11.69 7.75 16.31	12.10 8.02 16.89	802.56	11.92	12.34	0.13	825.21
18	E-79 E-82 E-72	0.20 0.09 0.13	13.50 5.00 18.00	60.0 50.0 65.0	11.69 3.83 16.31	12.10 3.97 16.89	1974.52	10.61	10.99	0.14	1807.68

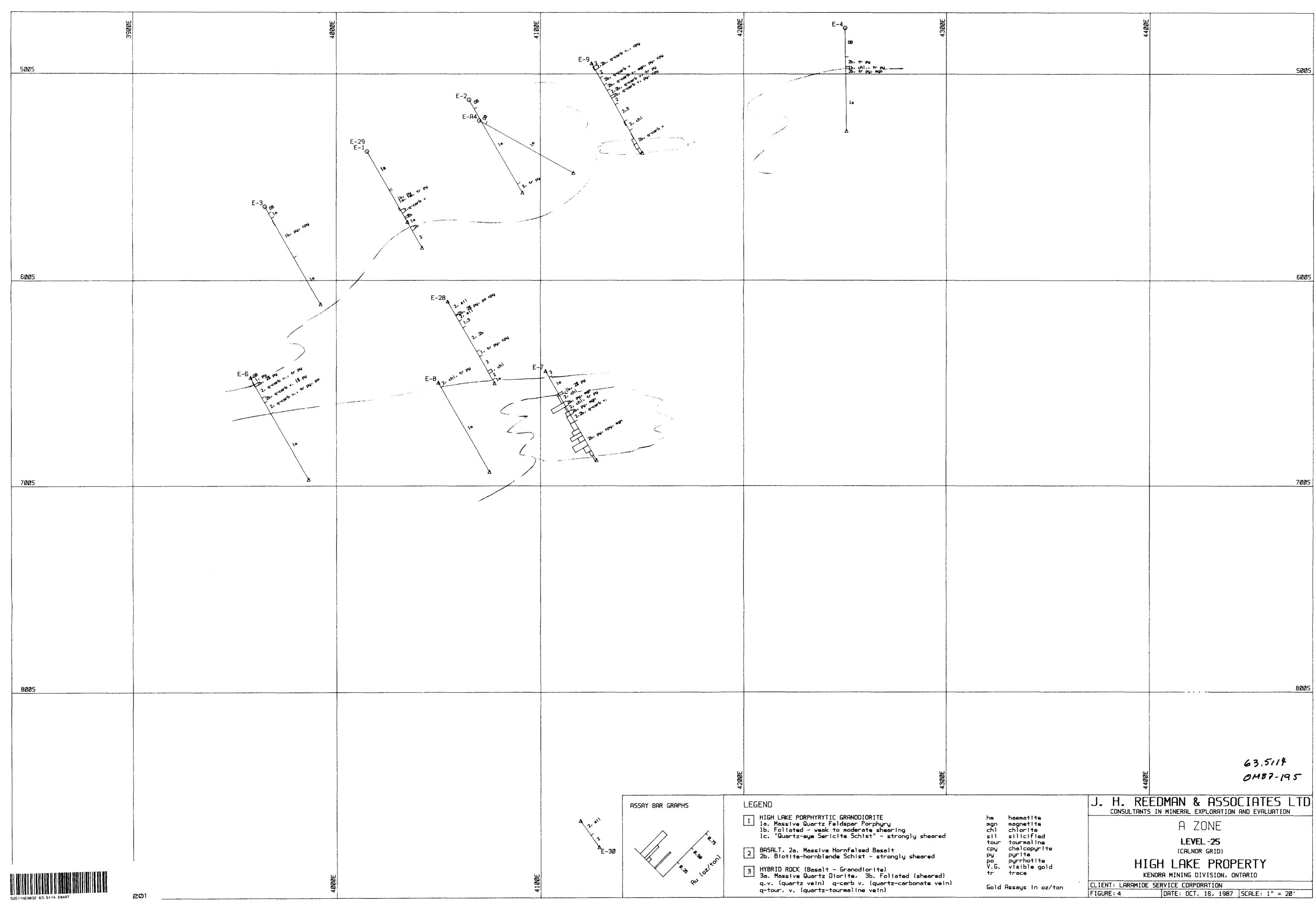
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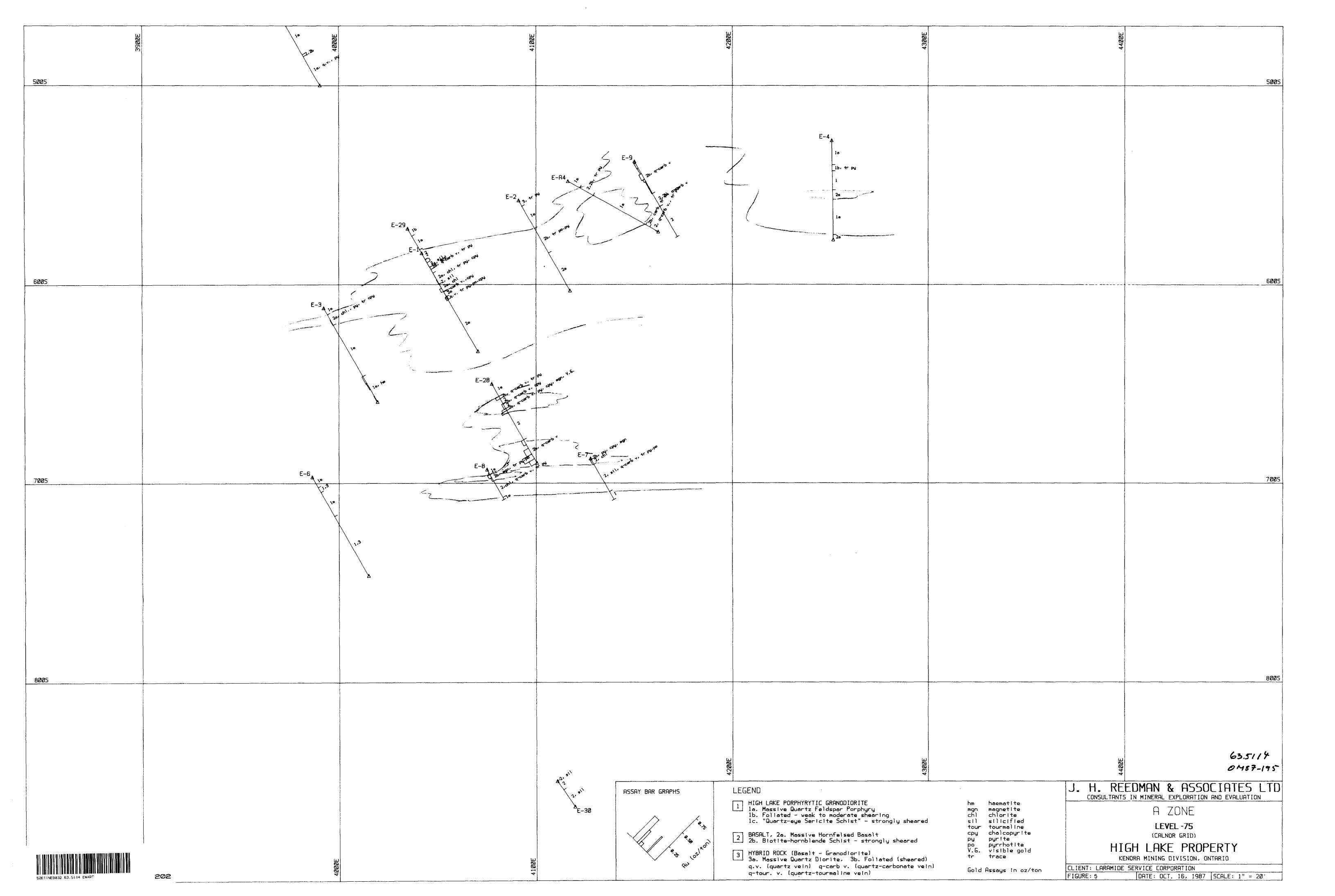
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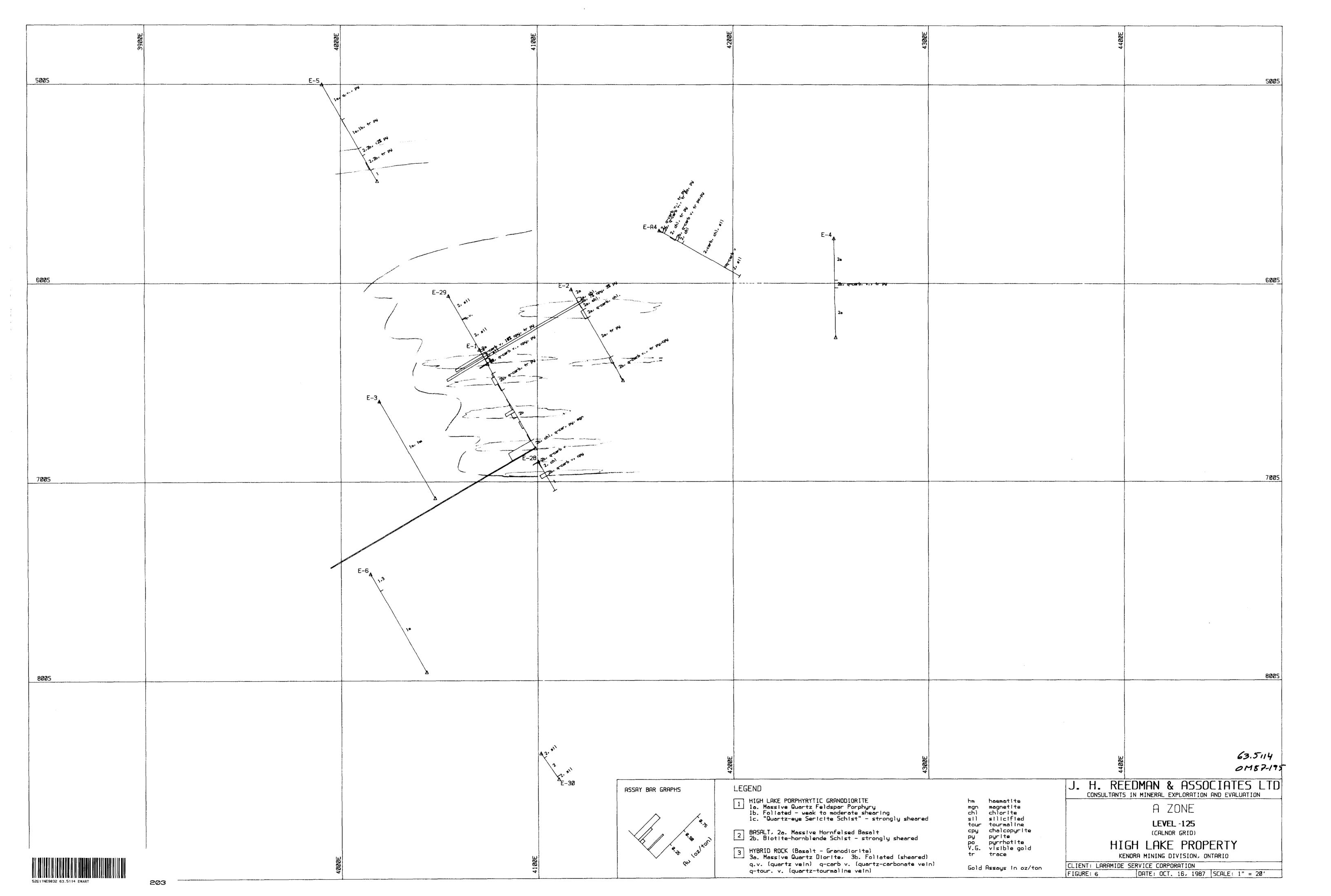
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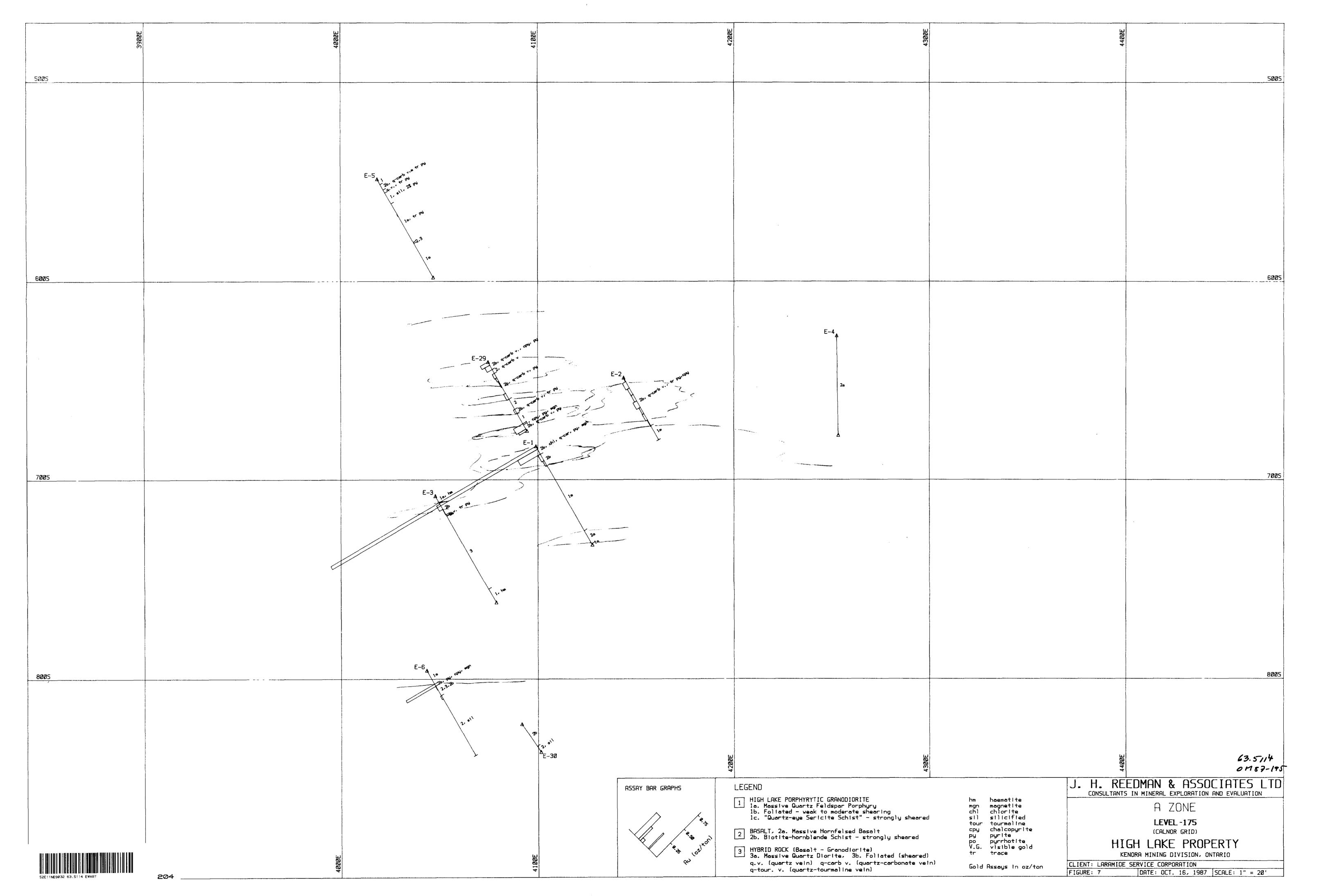






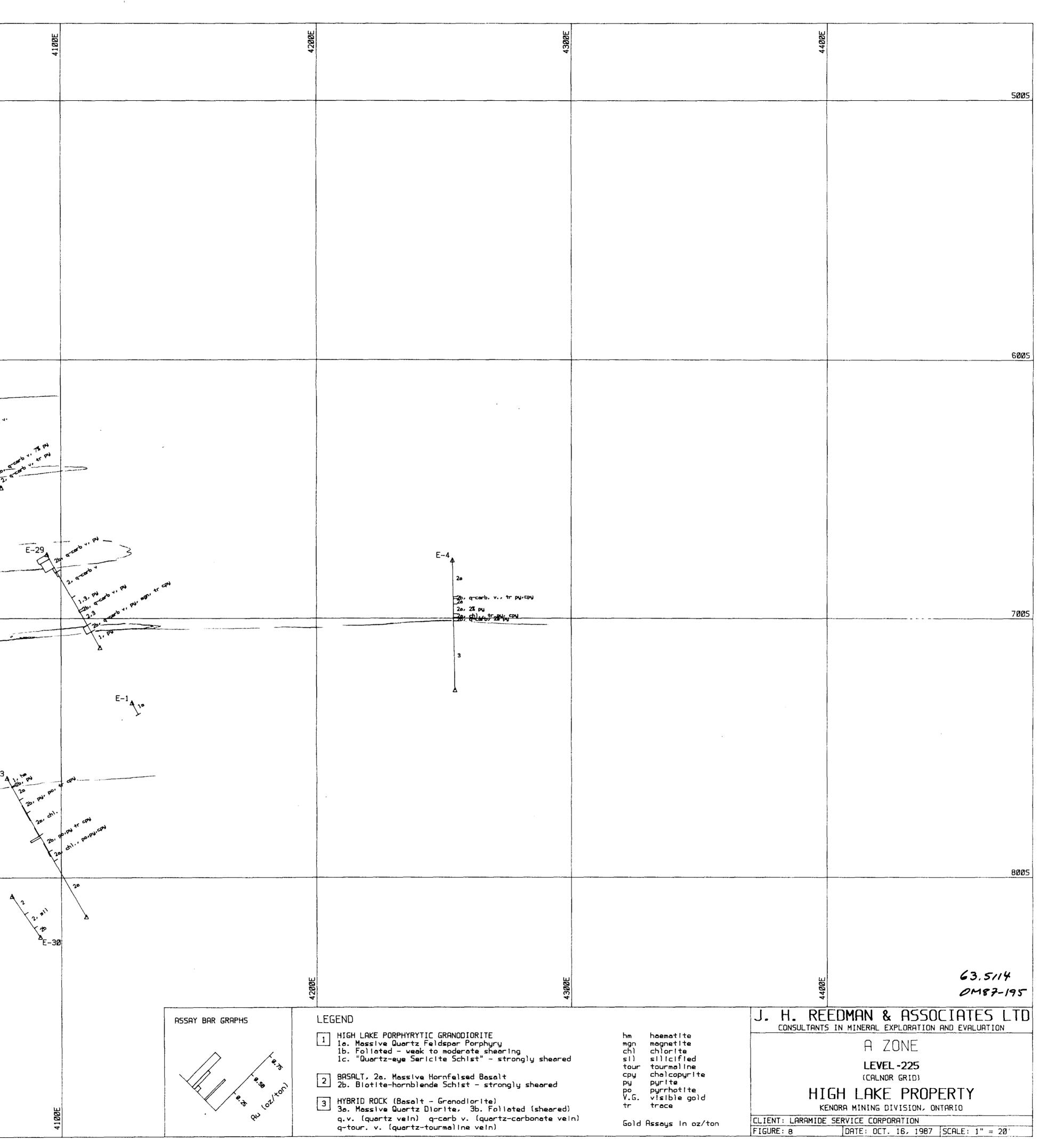


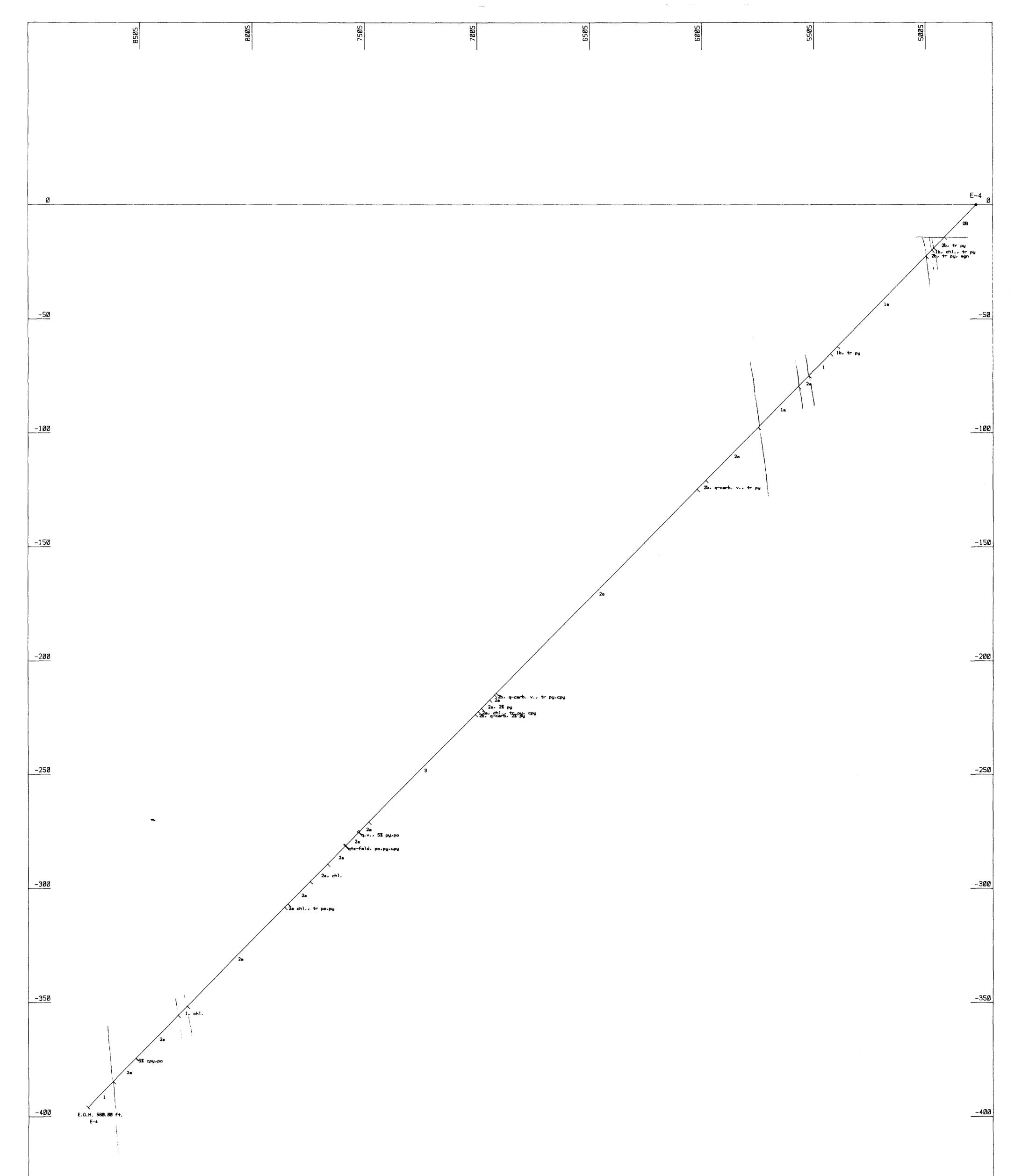




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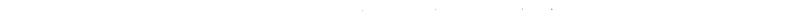
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ASSAY BAR GRAPHS	2 BASALT, 2b. Blot 3 HYBRID RI 3a. Moss 9.v. (qu	E PORPHYRYTIC GRANODIORITE Ive Quartz Feldspar Porphyra ated - veak to moderate she rtz-eye Sericite Schist" - : 2a. Massive Hornfelsed Basa ite-hornblende Schist - stro DCK (Basalt - Granodiorite) ive Quartz Diorite, 3b. Fo artz vein) q-carb v. (quarty)	lt ongly sheared llated (sheared) tz-carbonate veln)	hm haematite mgn magnetite chi chlorite sil silicified tour tourmaline cpy chalcopyrite py pyrite po pyrrhotite V.G. visible gold tr trace Gold Assays in oz/ton	CONSULTANTS IN MINERAL A SECT ICAL HIGH LAK KENORA MINING CLIENT: LARAMIDE SERVICE CO	& ASSOCIATES LTD EXPLORATION AND EVALUATION ZONE NOR GRID CE PROPERTY DIVISION, ONTARIO RPORATION CT. 15, 1987 SCALE: 1" = 20'

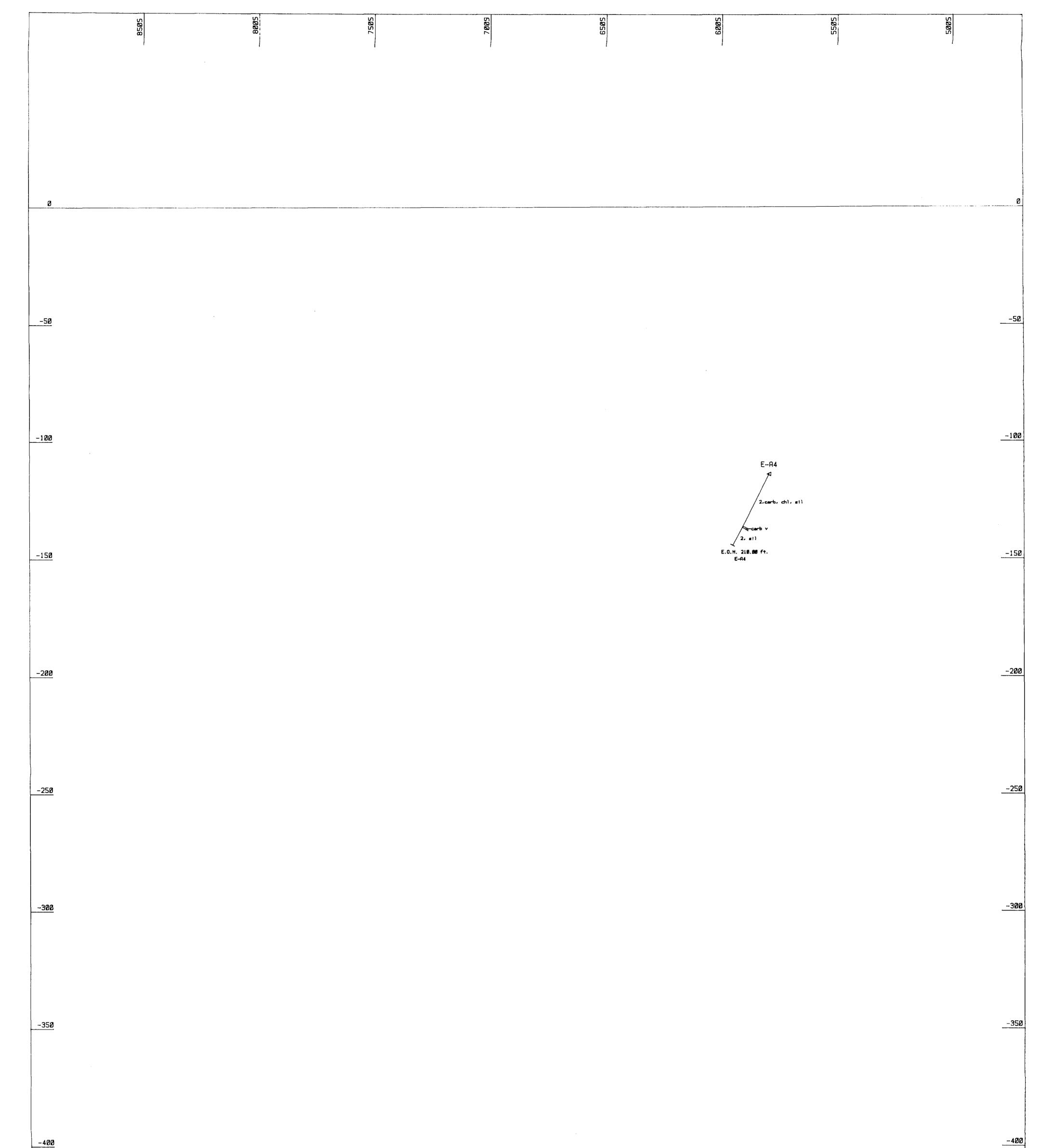
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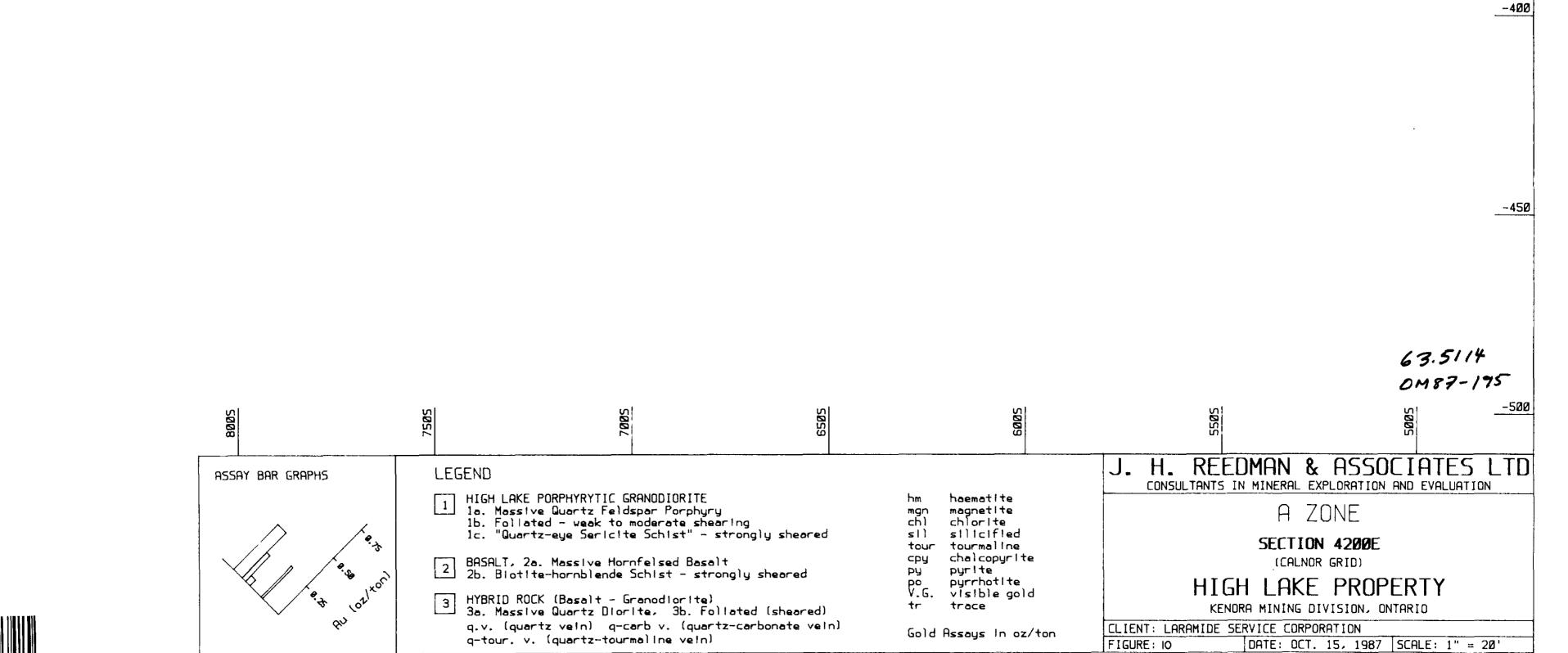
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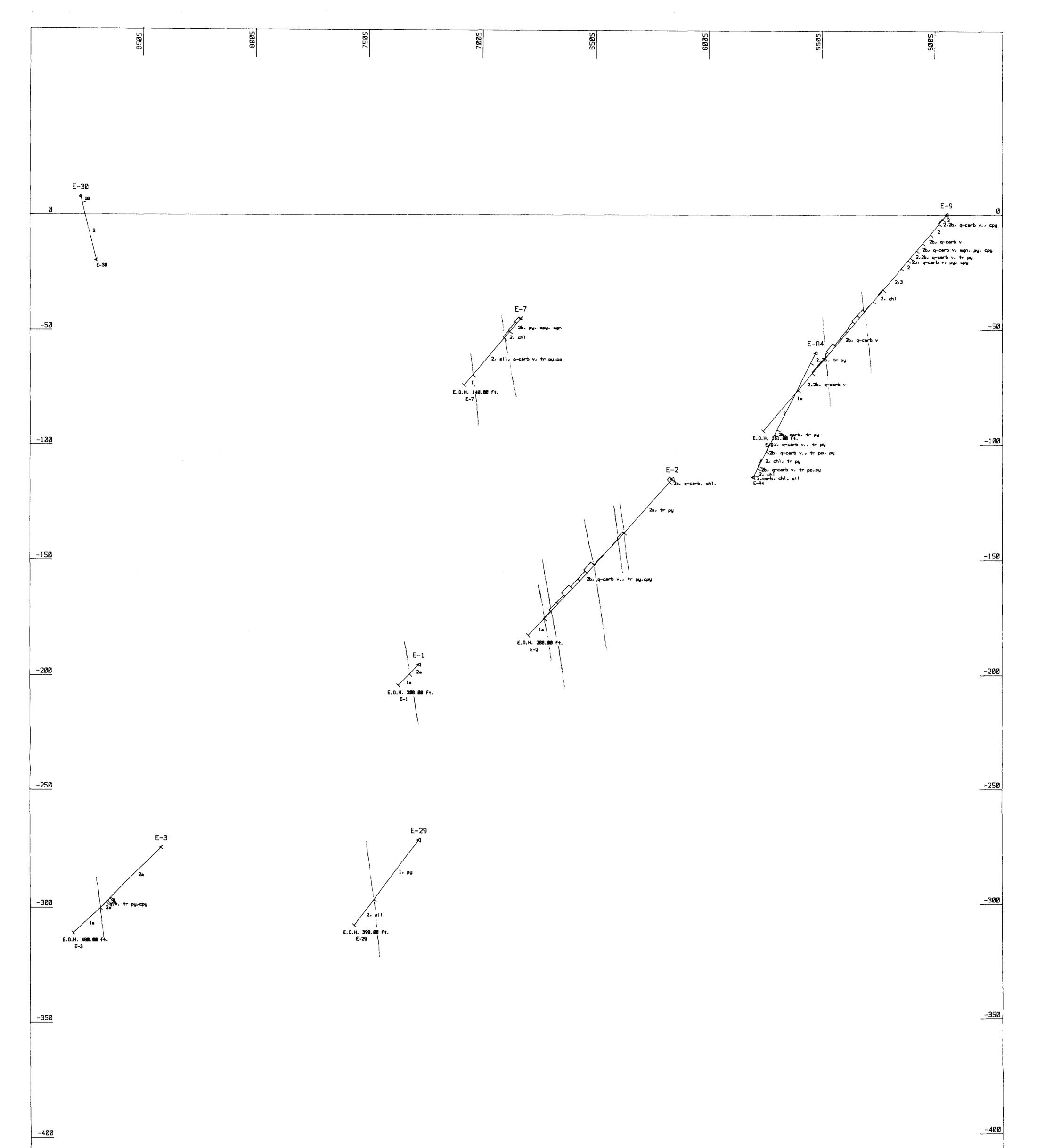


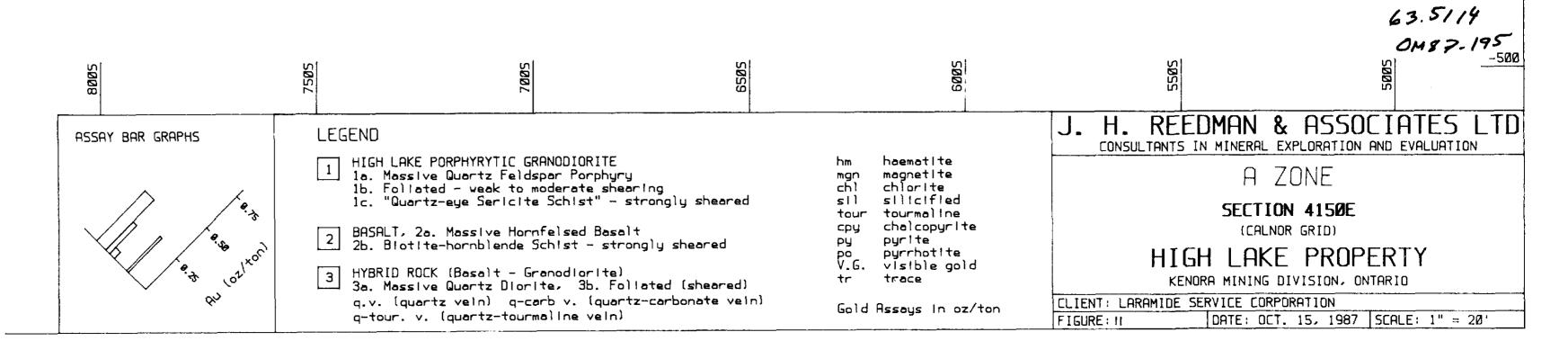


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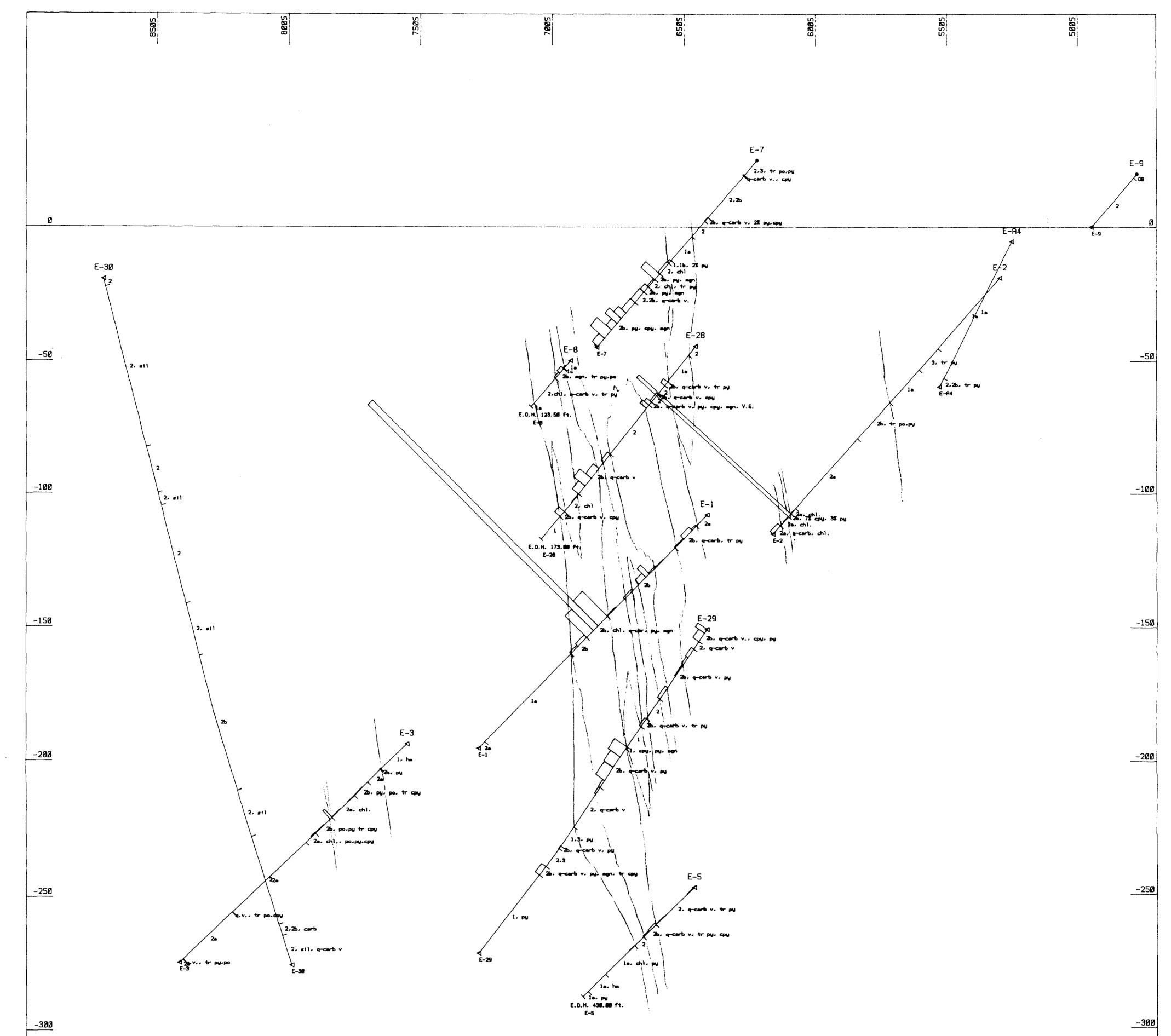
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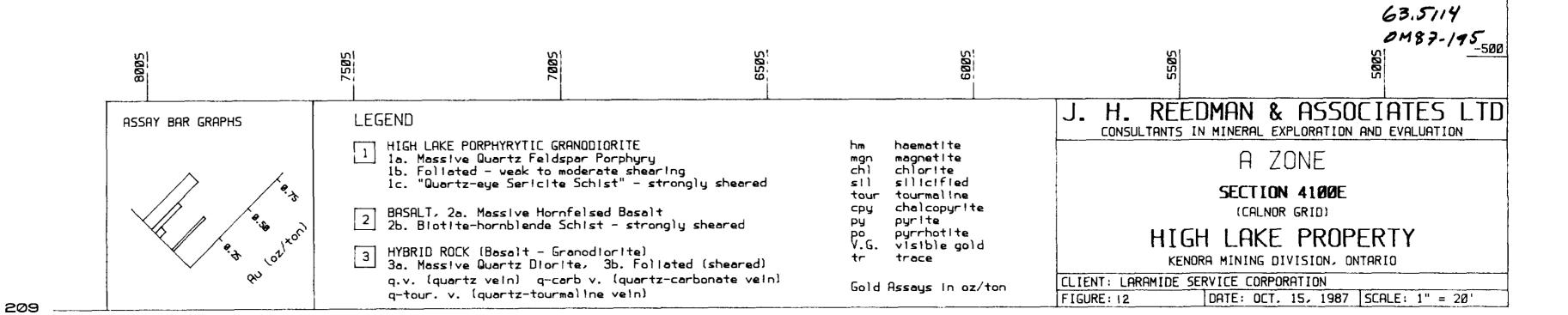
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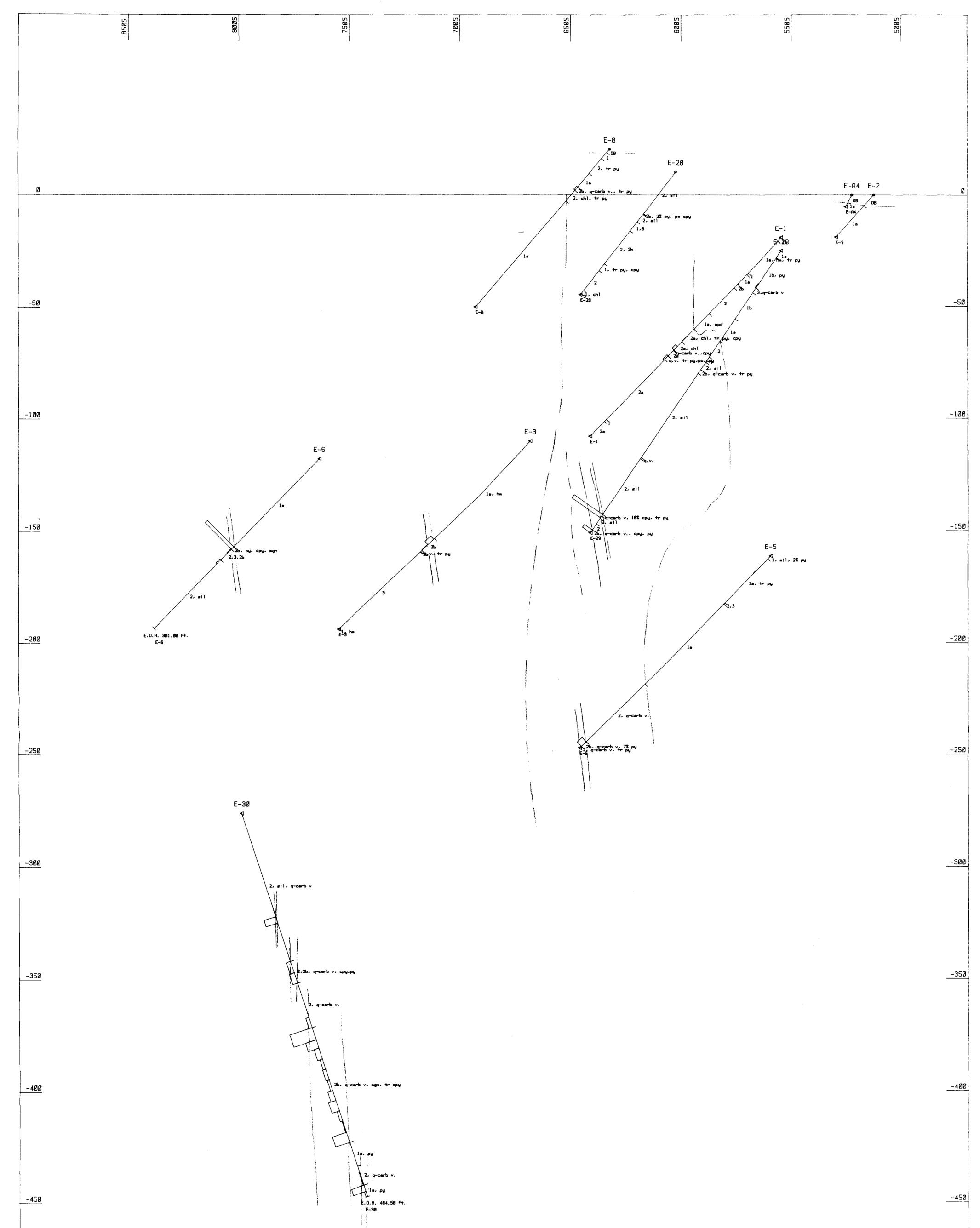
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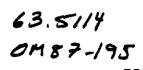
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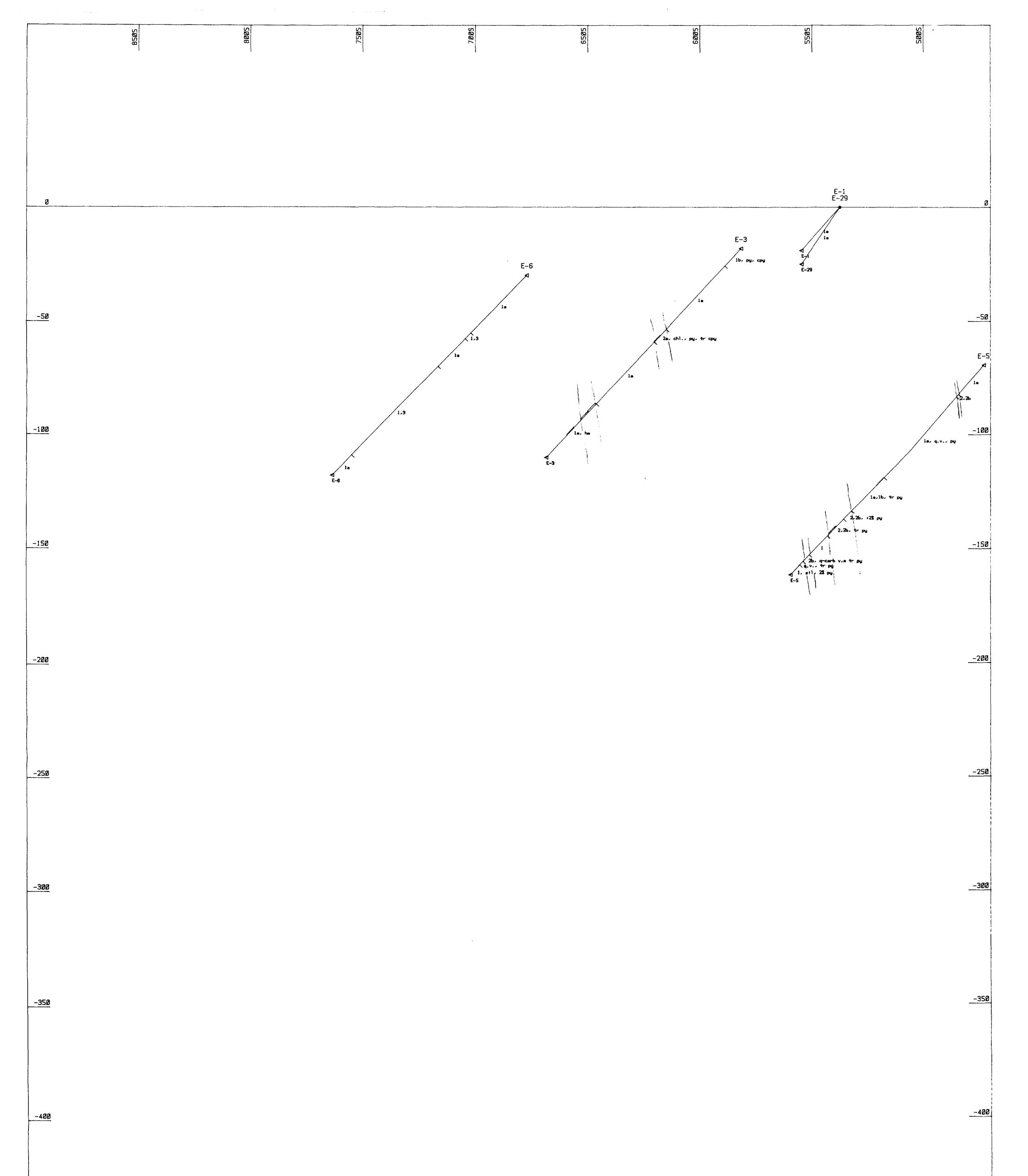
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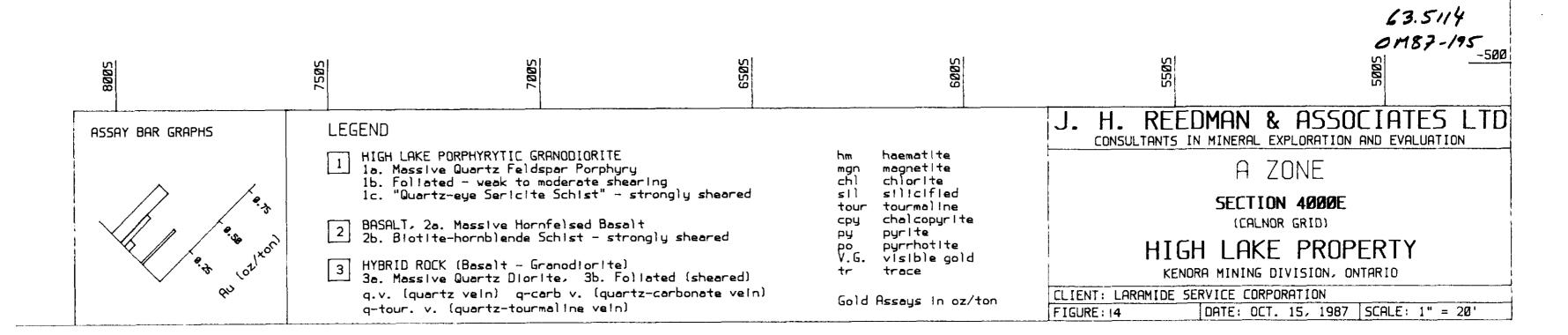
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ASSAY BAR GRAPHS	LEGEND				& ASSOCIATES LTD
e. to the to the total t	2 BASALT, 2a. Massive 1 2 2b. Biotite-hornblen 3 HYBRID ROCK (Basalt 3a. Massive Quartz D	eldspar Porphyry to moderate shearing tite Schist" - strongly sheared dernfelsed Basalt de Schist - strongly sheared - Granodiorite) iorite, 3b. Follated (sheared)	hm haematite mgn magnetite chì chlorite siì silicified tour tourmaline cpy chalcopyrite py pyrite po pyrrhotite V.G. visible gold tr trace	A SECT (CA HIGH LA KENORA MININ	ZONE TION 4050E ILNOR GRID) KE PROPERTY IG DIVISION, ONTARIO
62	q.v. (quartz veln) q-tour. v. (quartz-to	q-carb v. (quartz-carbonate veln) burmallne veln)	Gold Assays in oz/ton	CLIENT: LARAMIDE SERVICE CO FIGURE: 13 DATE: 1	DRPORATION DCT. 15, 1987   SCALE: 1" = 20'

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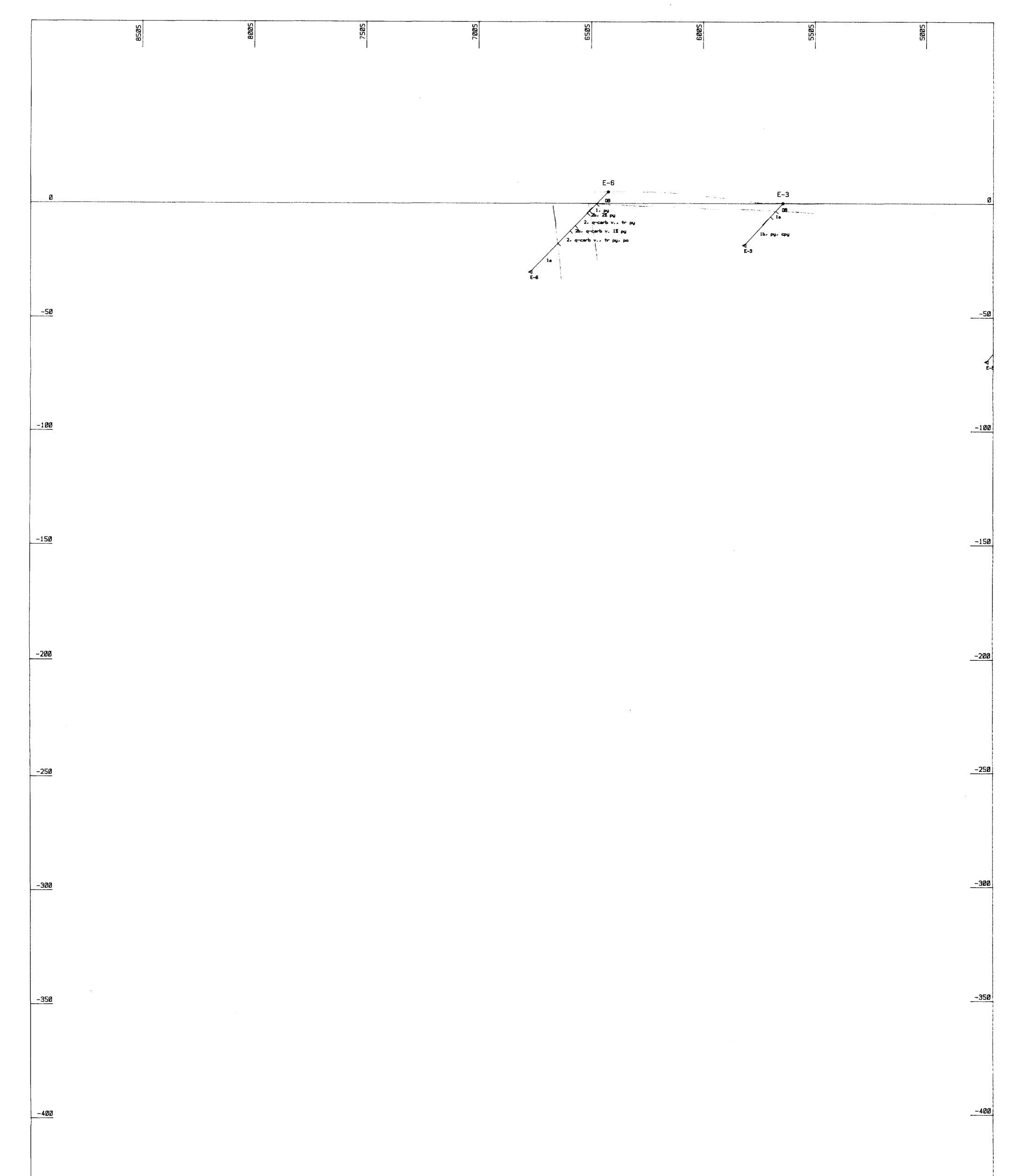


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52E11NE9032 63.5114 EWART



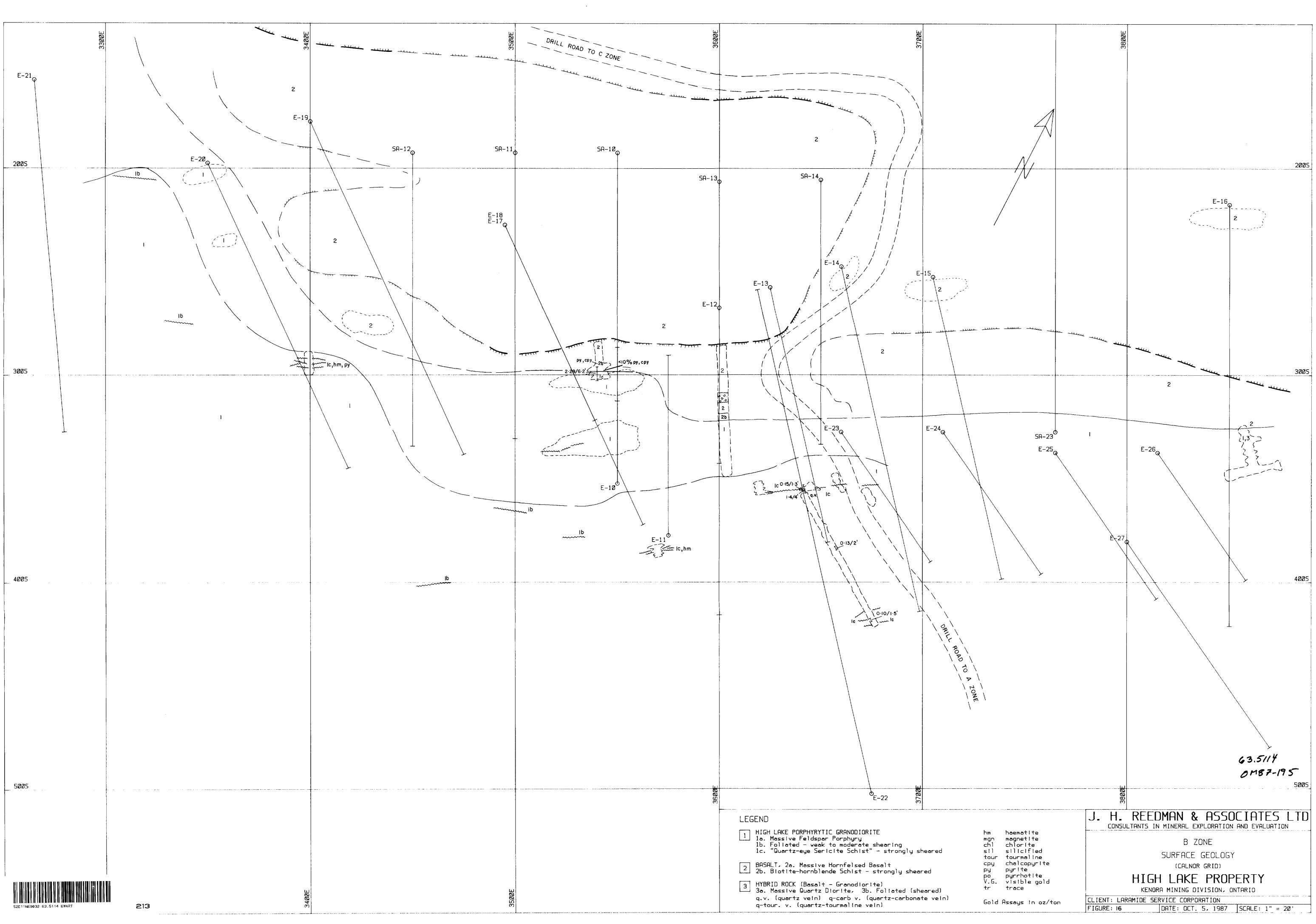
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ASSAY BAR GRAPHS	16. Folia ic. "Quar 2 BASALT, 2 26. Blott 3 HYBRID RC 36. Mass q.v. (qua	E PORPHYRYTIC GRANODIORITE Ive Quartz Feldspar Porphyry ated - weak to moderate shear tz-eye Sericite Schist" - s 2a. Massive Hornfelsed Basal Ite-hornblende Schist - stro OCK (Basalt - Granodiorite) Ive Quartz Diorite, 3b. Fol artz vein) q-carb v. (quart 2. (quartz-tourmaline vein)	ring trongly sheared ingly sheared lated (sheared)	hm haematite mgn magnetite chi chiorite sil silicified tour tourmaline cpy chalcopyrite py pyrite po pyrrhotite V.G. visible gold tr trace Gold Assays in oz/ton	A SECTION (CALN HIGH LAK KENDRA MINING CLIENT: LARAMIDE SERVICE CORF	& ASSOCIATES LTD EXPLORATION AND EVALUATION ZONE ON 3950E OR GRID E PROPERTY DIVISION, ONTARIO PORATION I. 15, 1987 SCALE: 1" = 20'

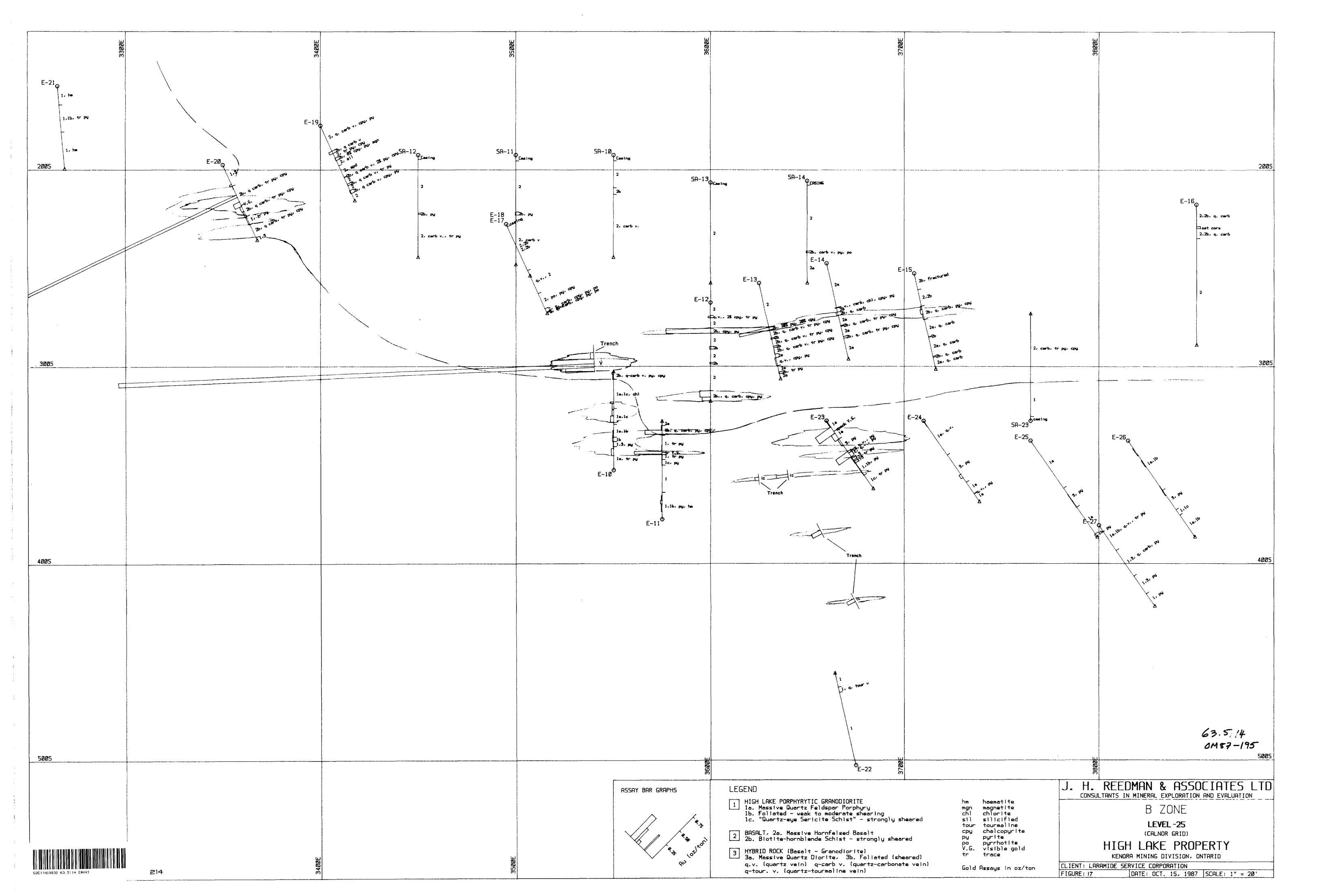
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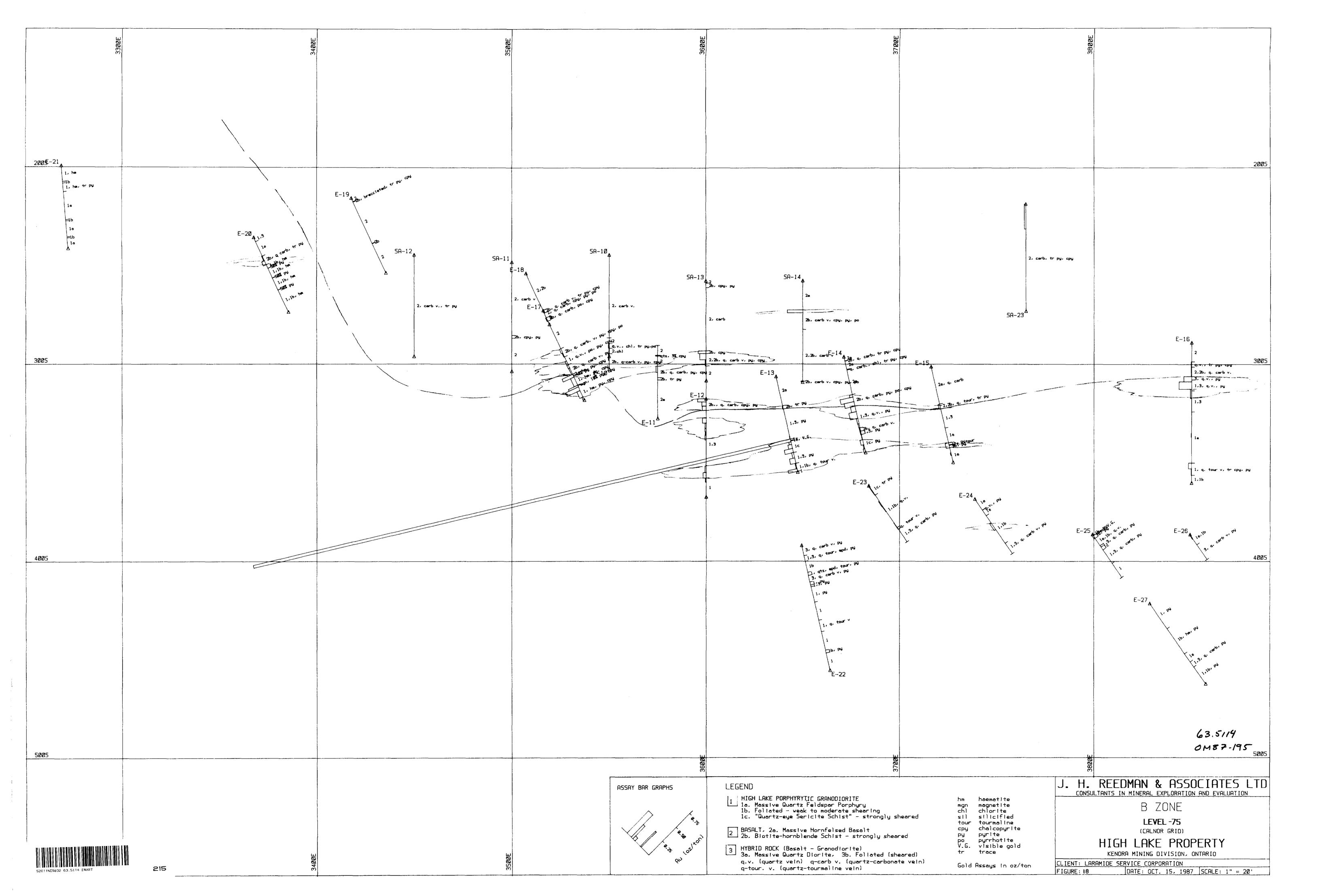
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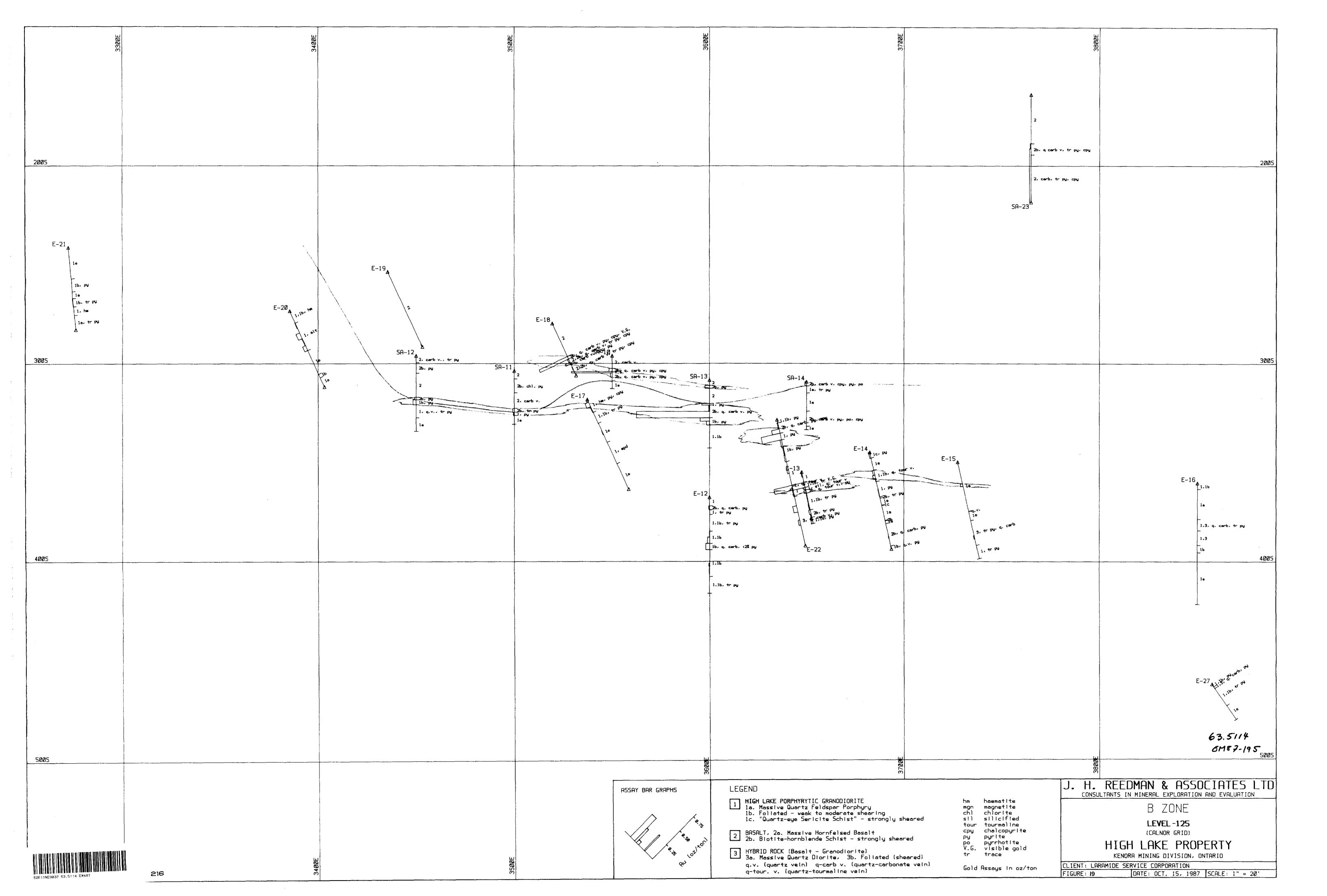
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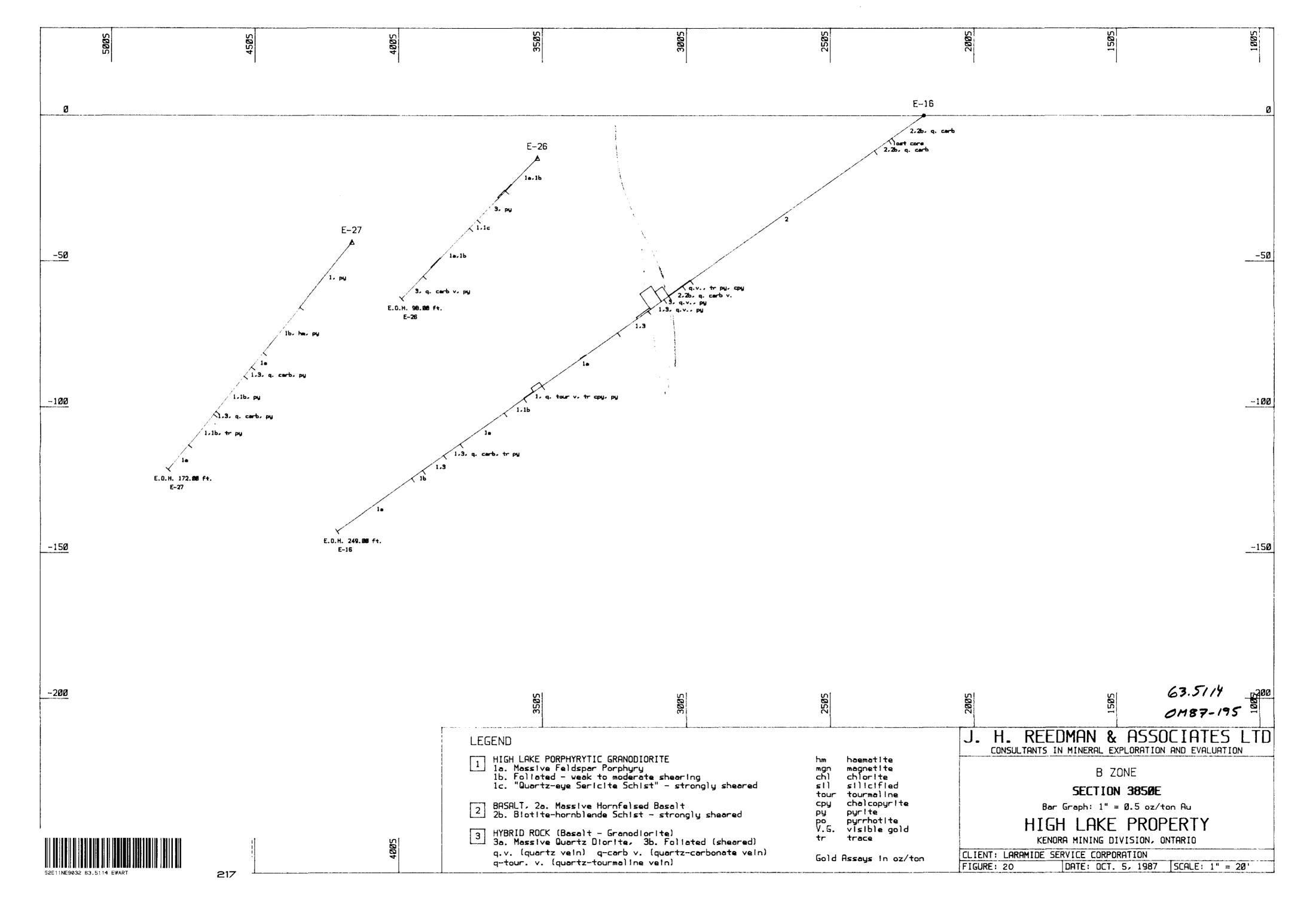


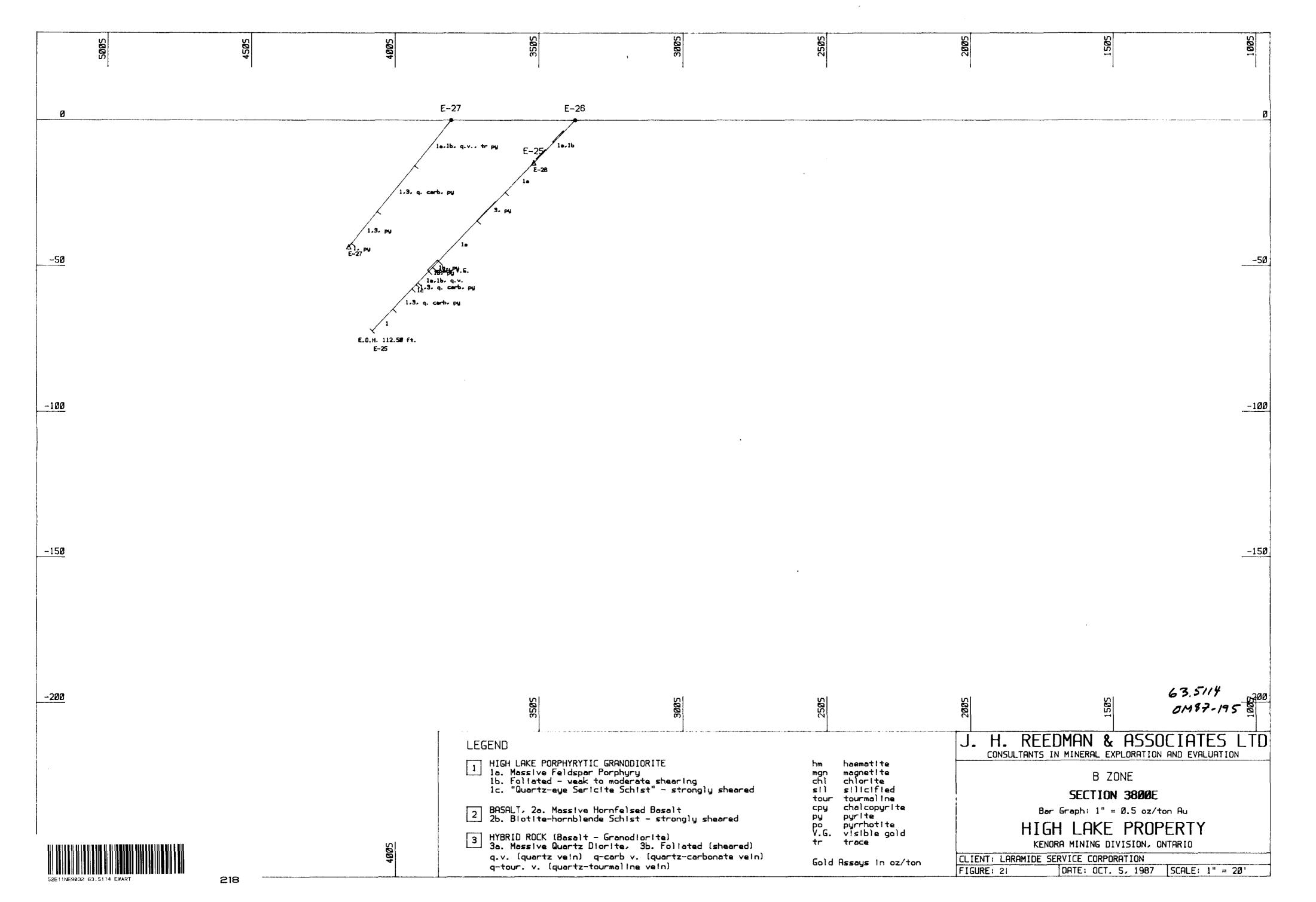


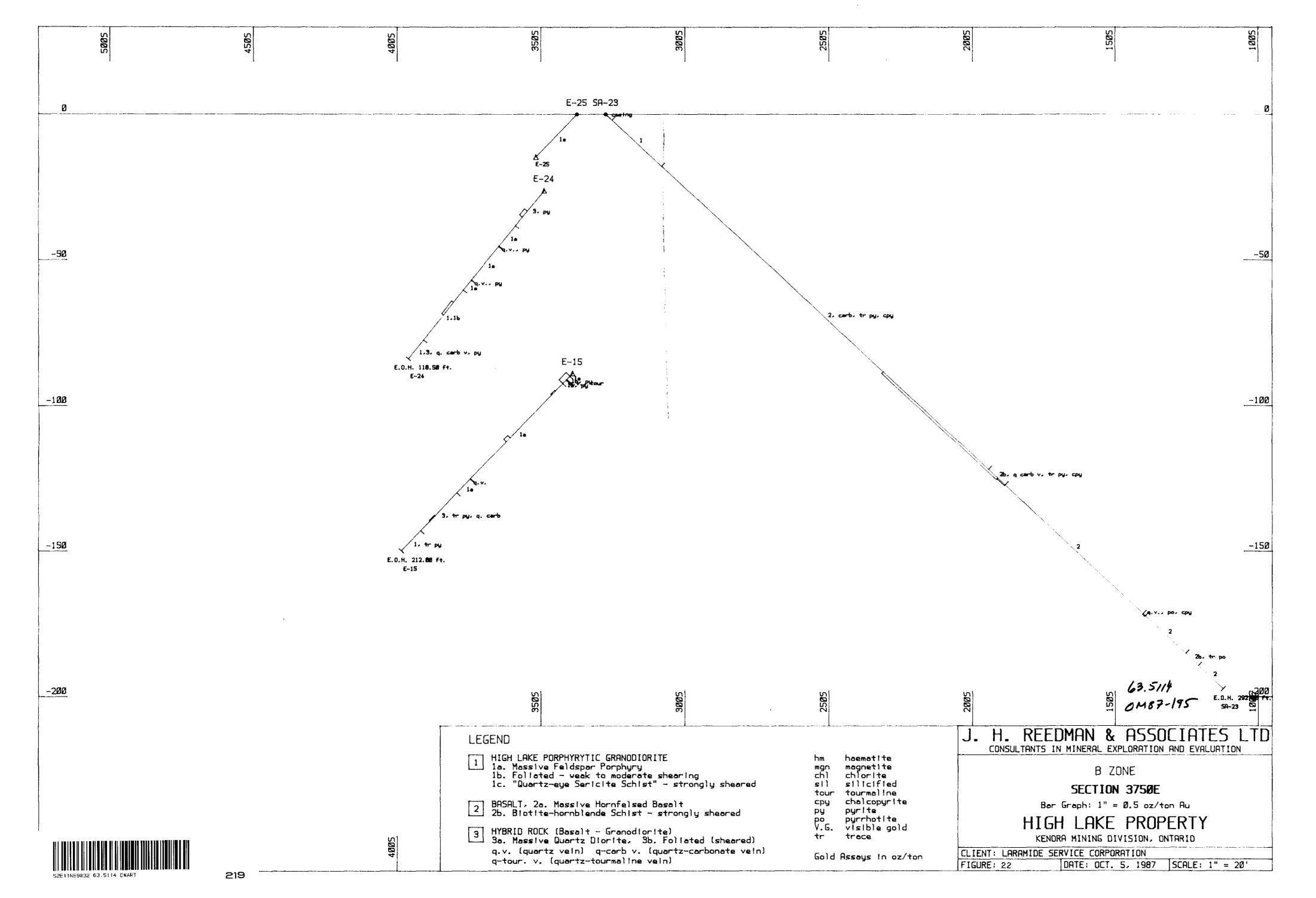


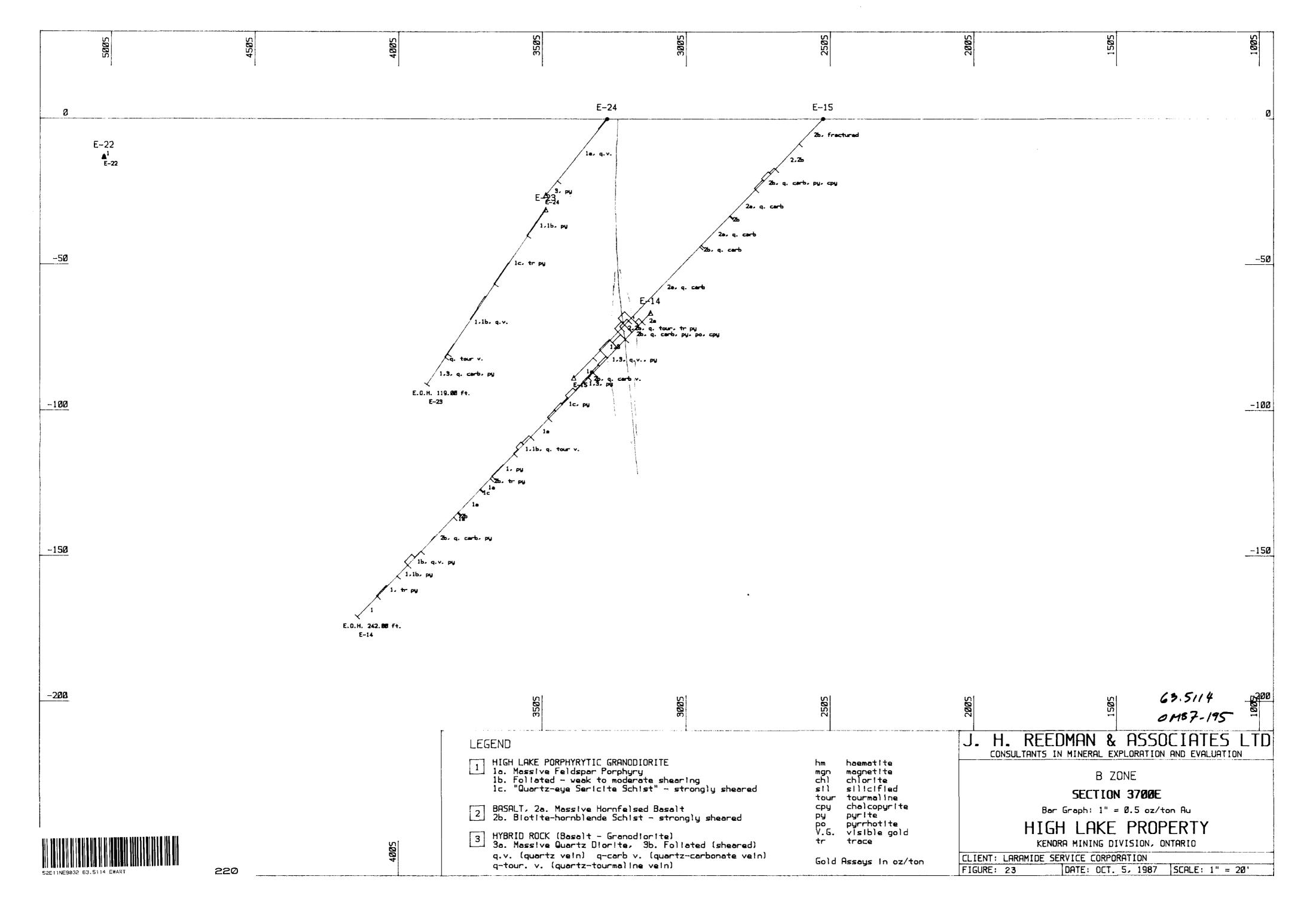


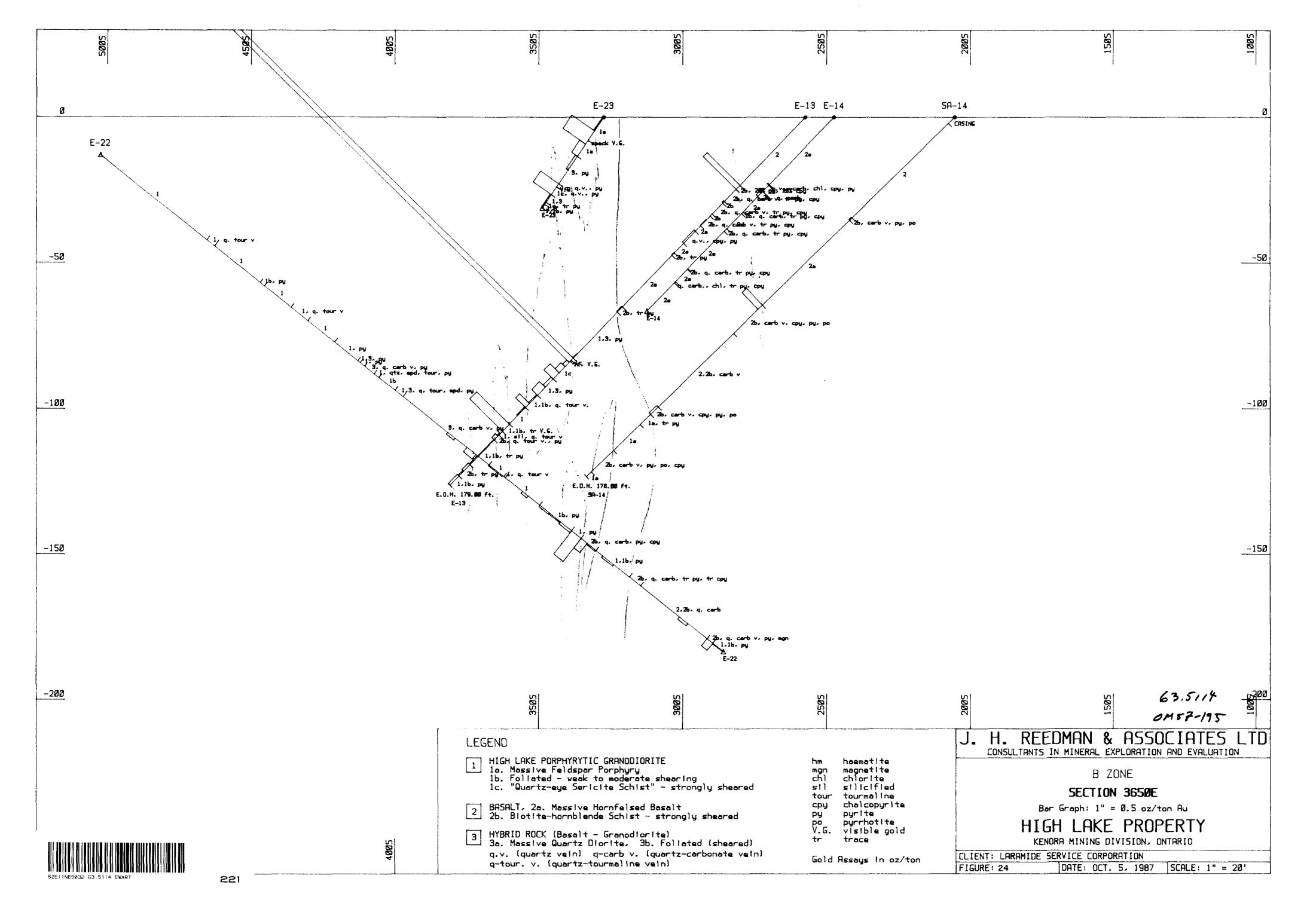


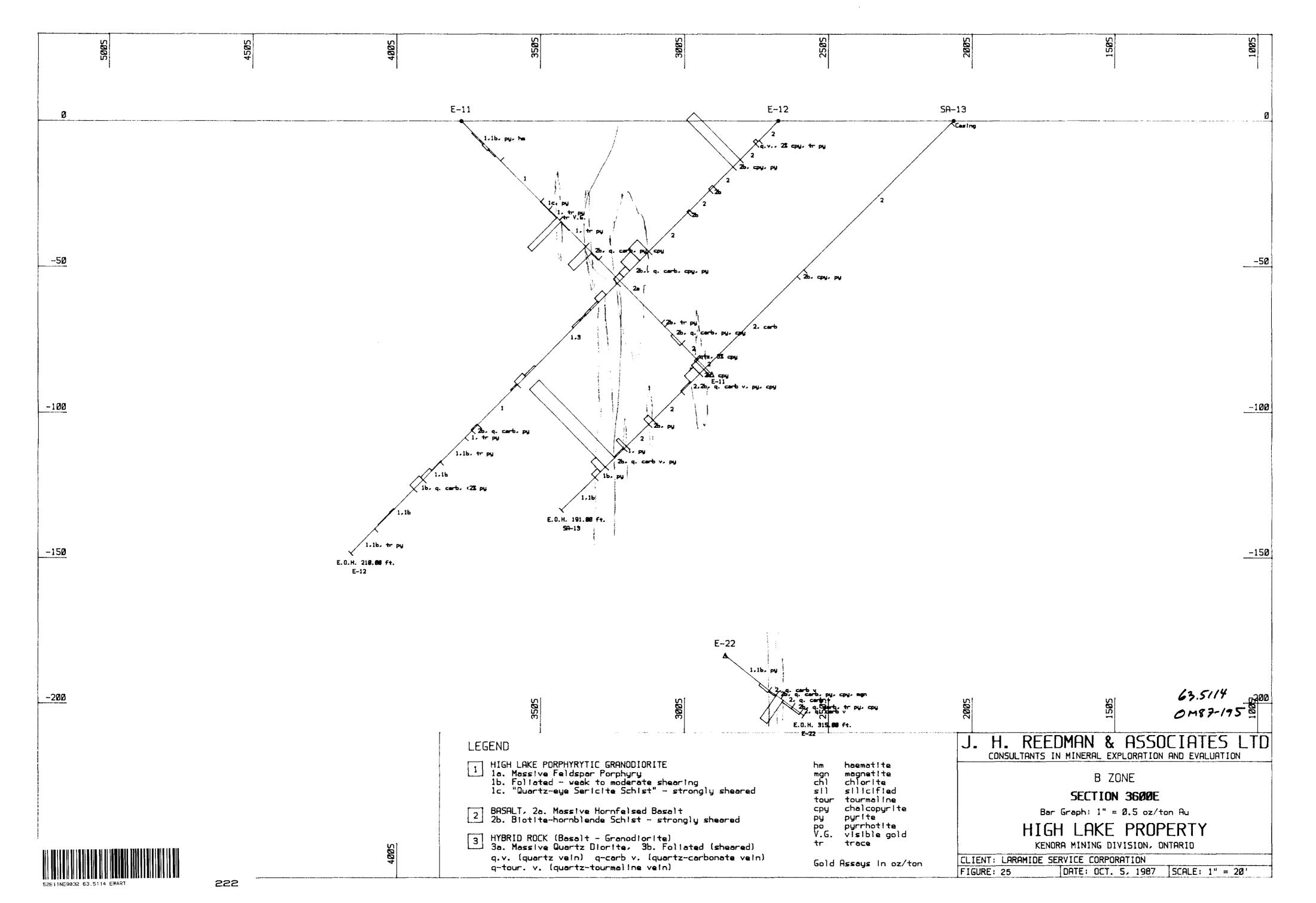


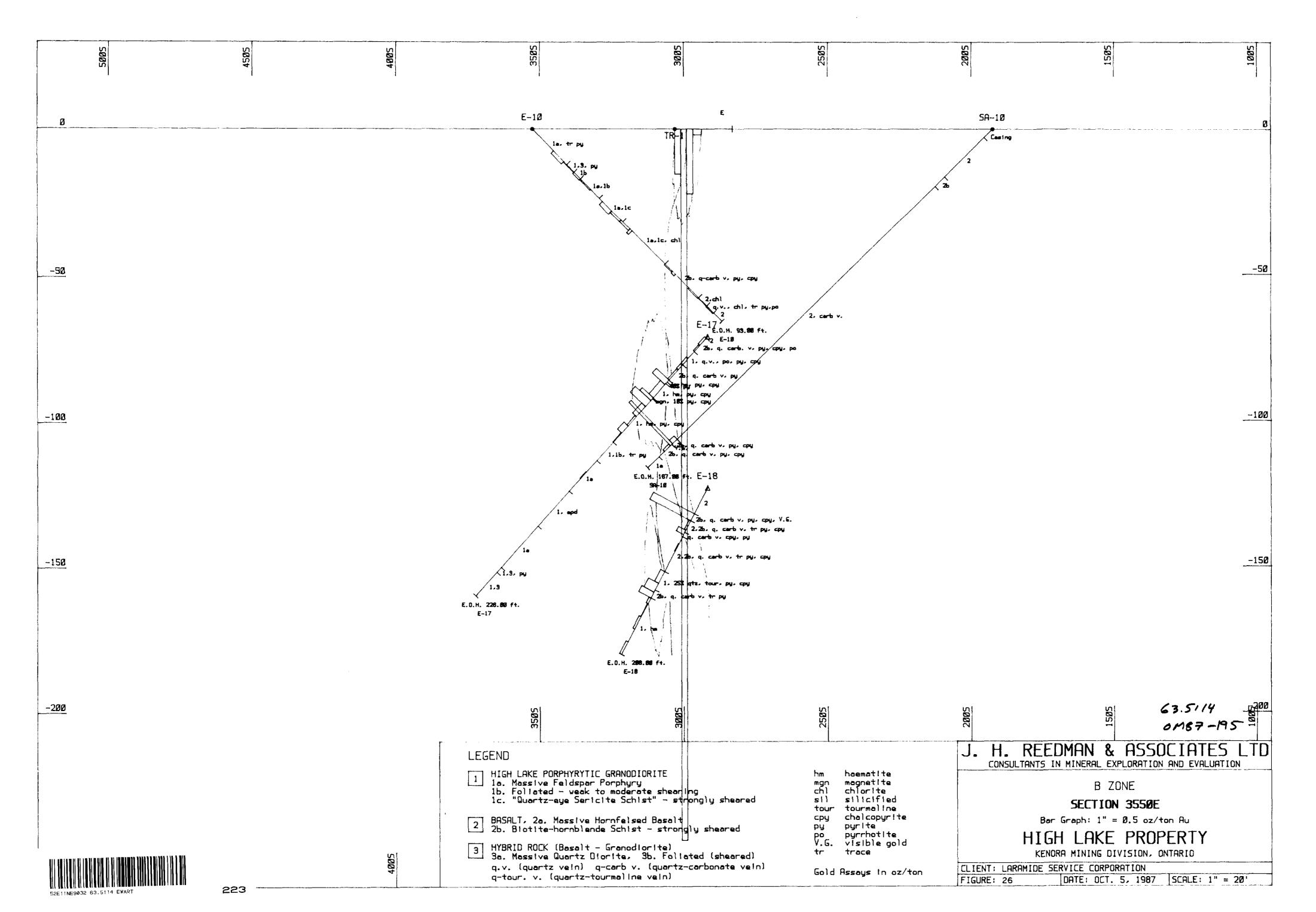




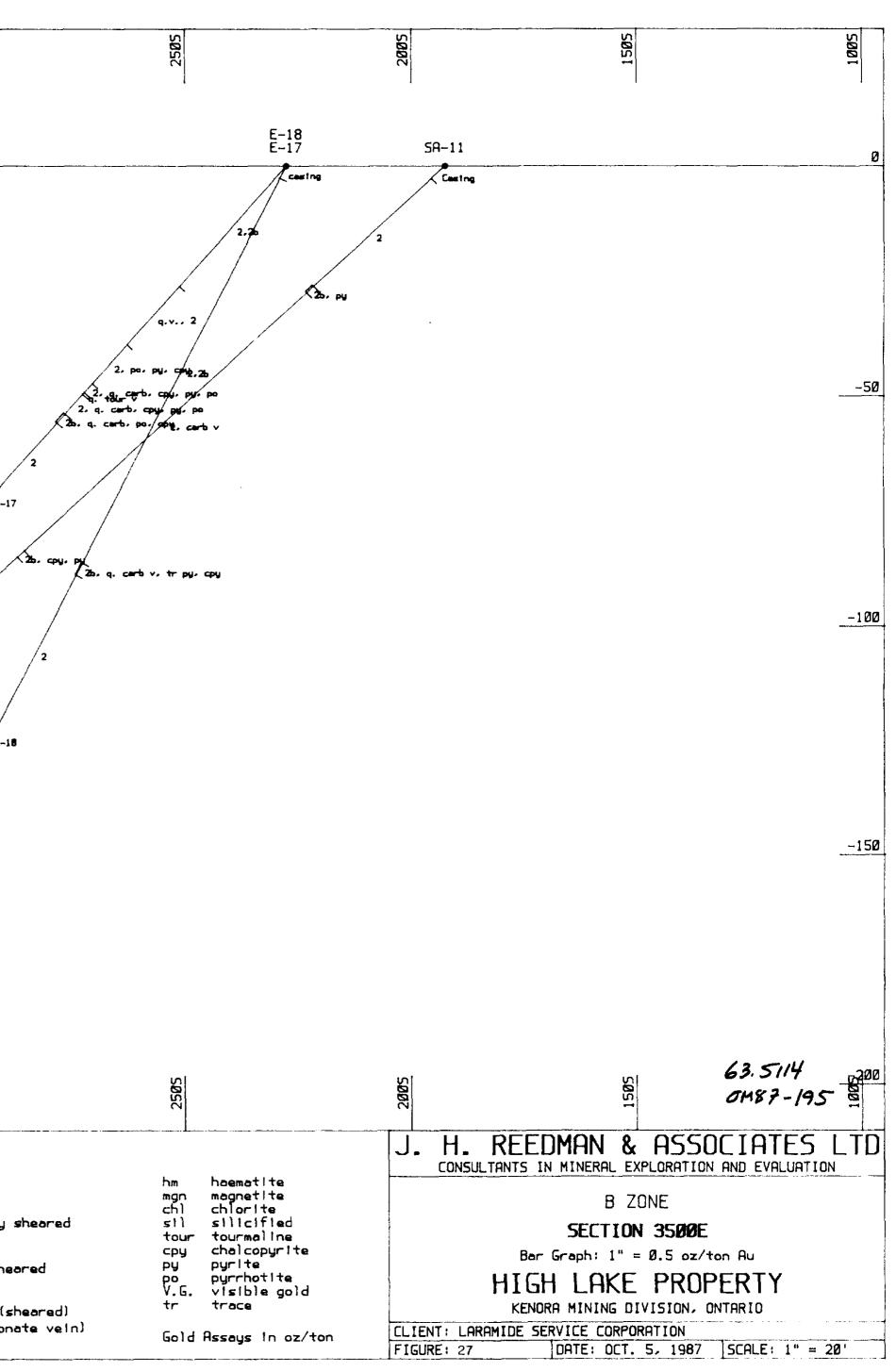


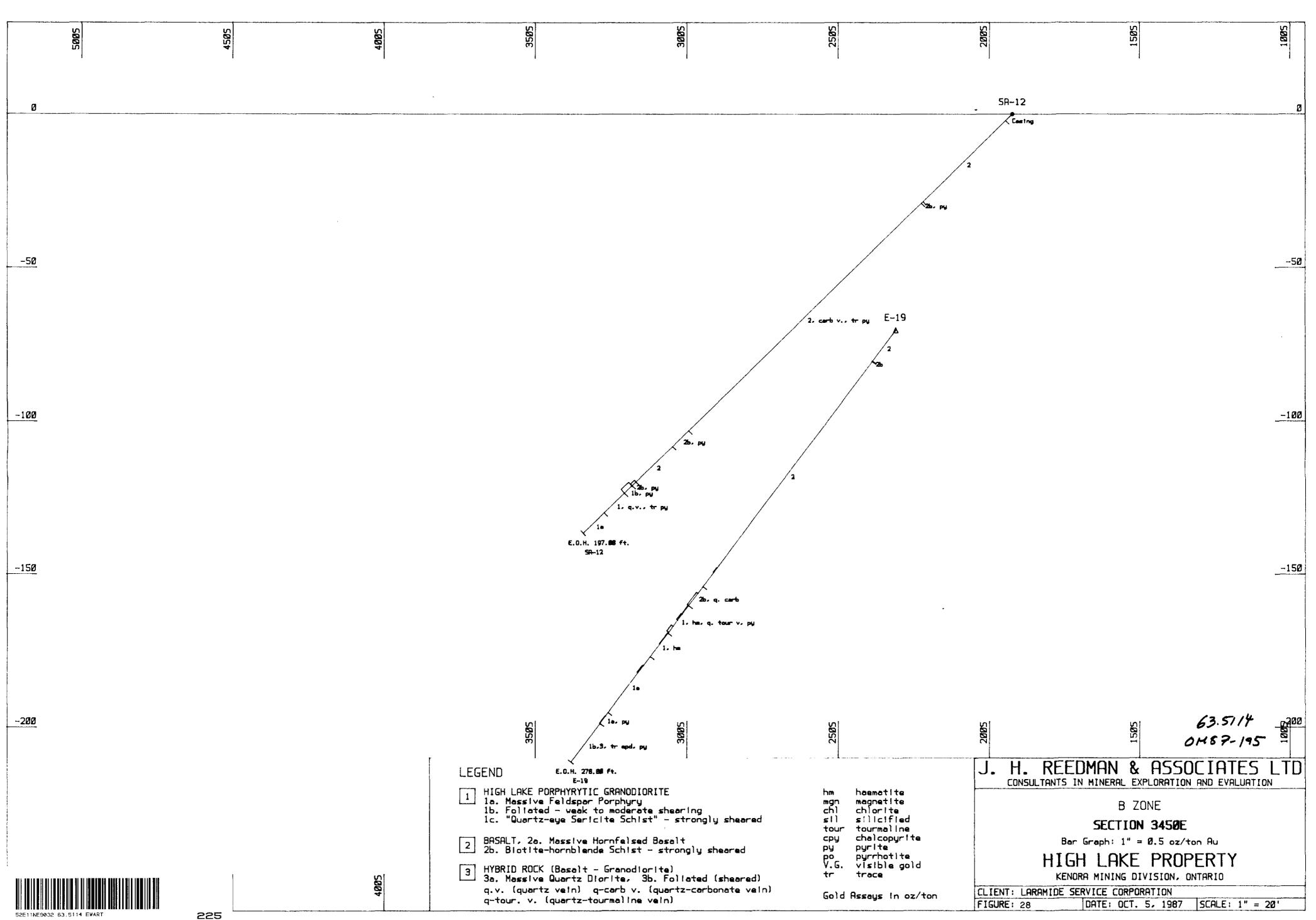


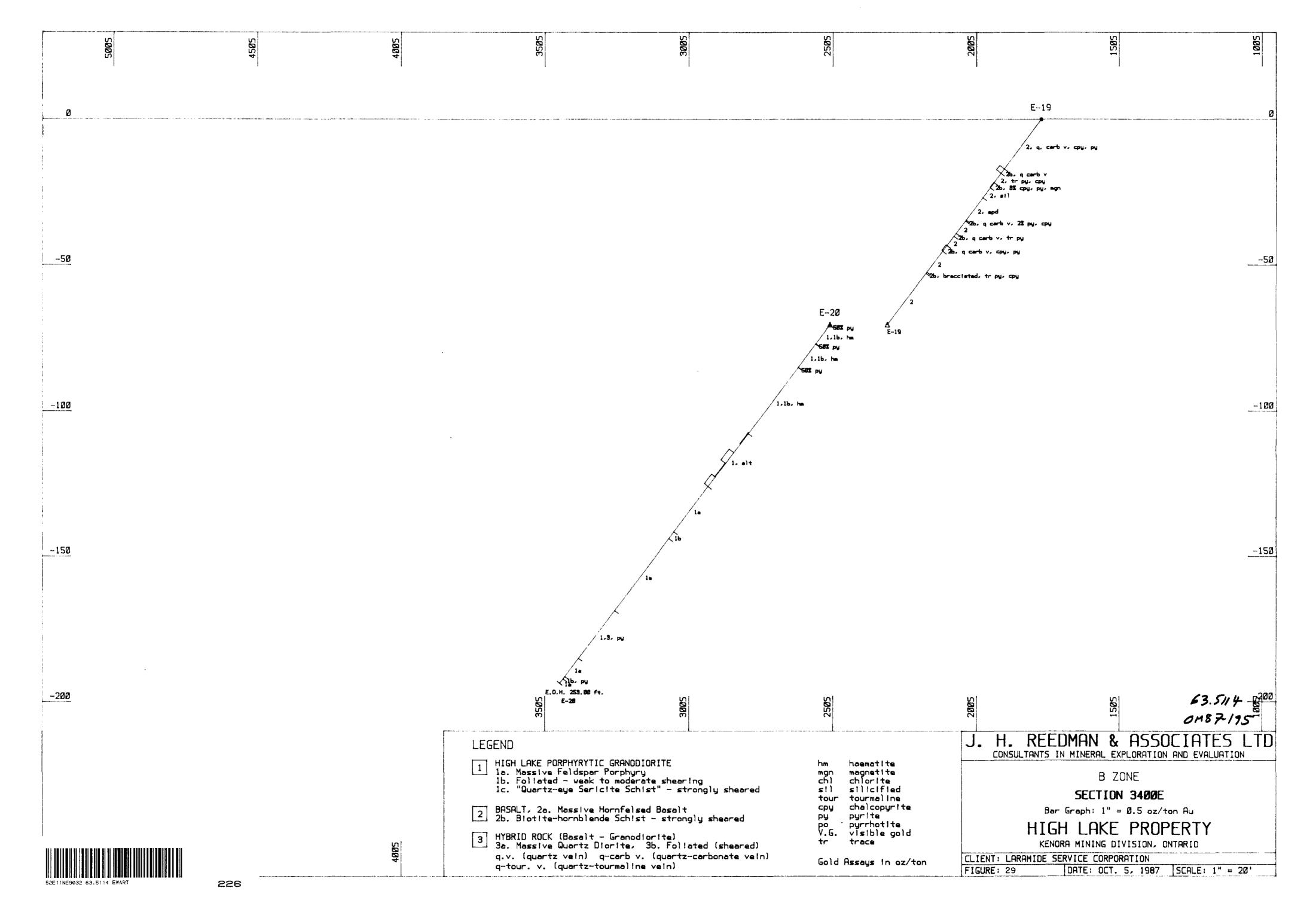




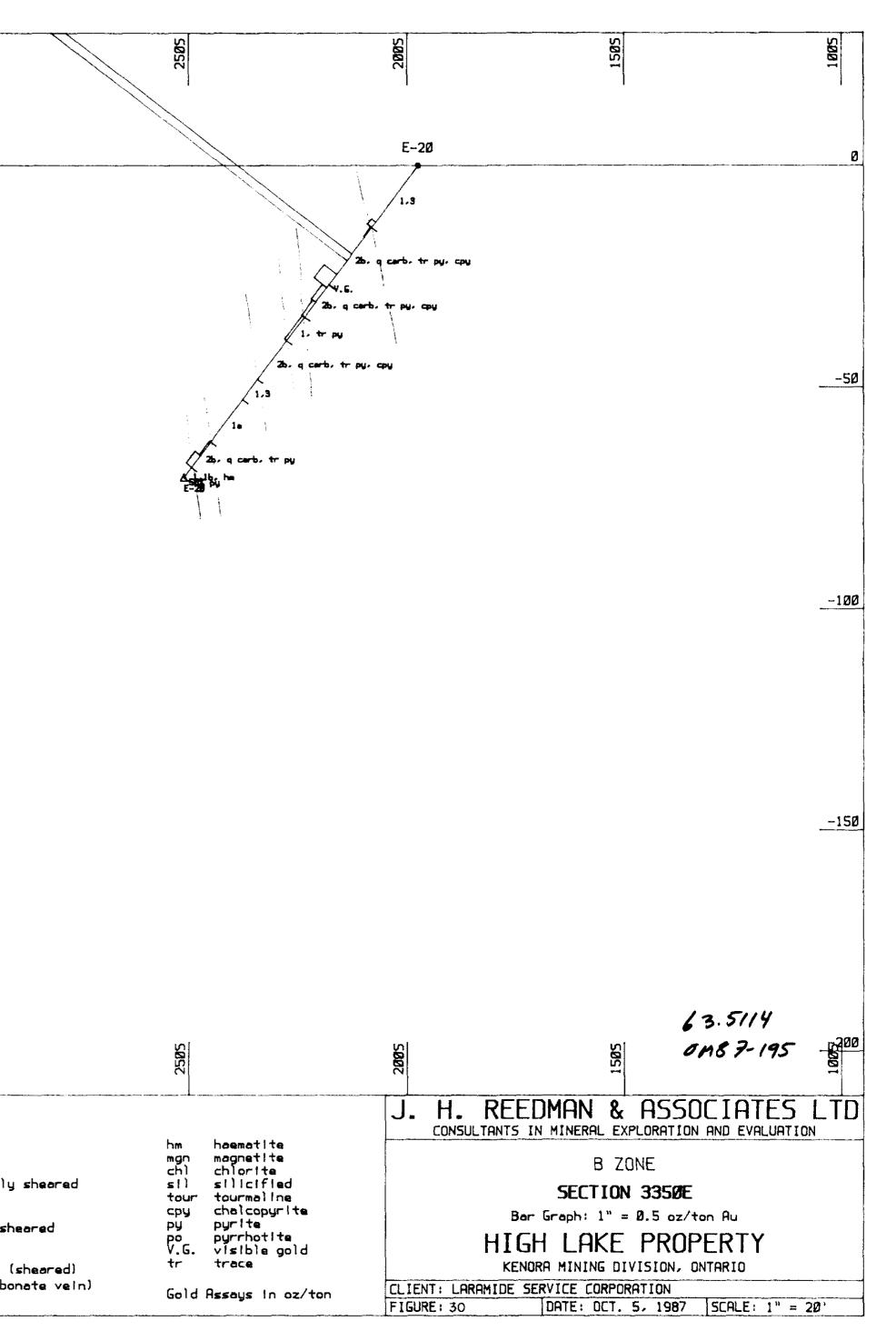
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			1b. Follated - veak to 1c. "Quartz-eye Sericit 2 BASALT, 2a. Massive Hor 2b. Biotite-hornblende	
52E11NE9032 63.5114 EWART	224	4005	3 HYBRID ROCK (Basalt - 0 3a. Massive Quartz Dior q.v. (quartz vein) q-0 q-tour, v. (quartz-tour	Granodiorite) rite, 36. Follated ( carb v. (quartz-carbo

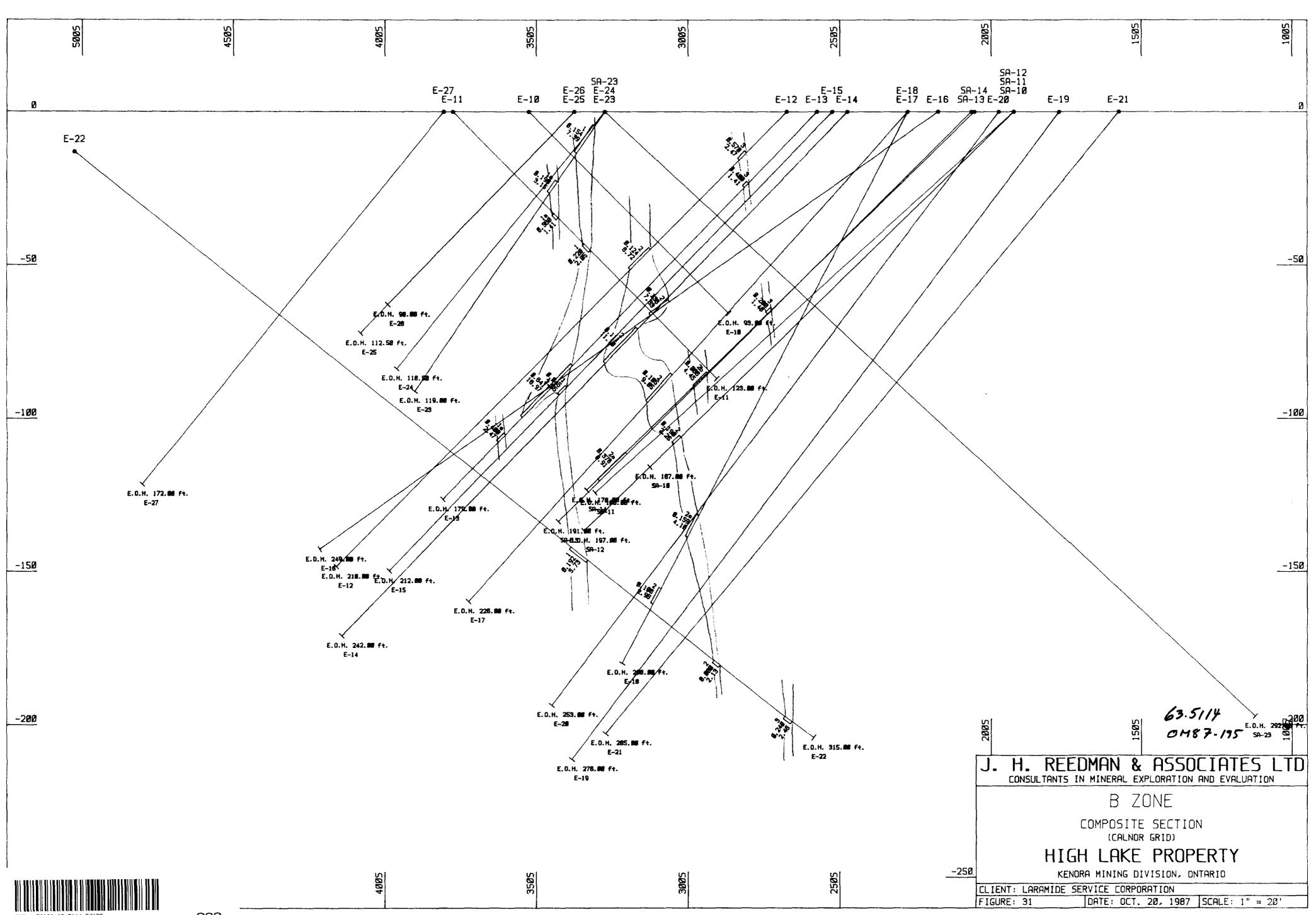


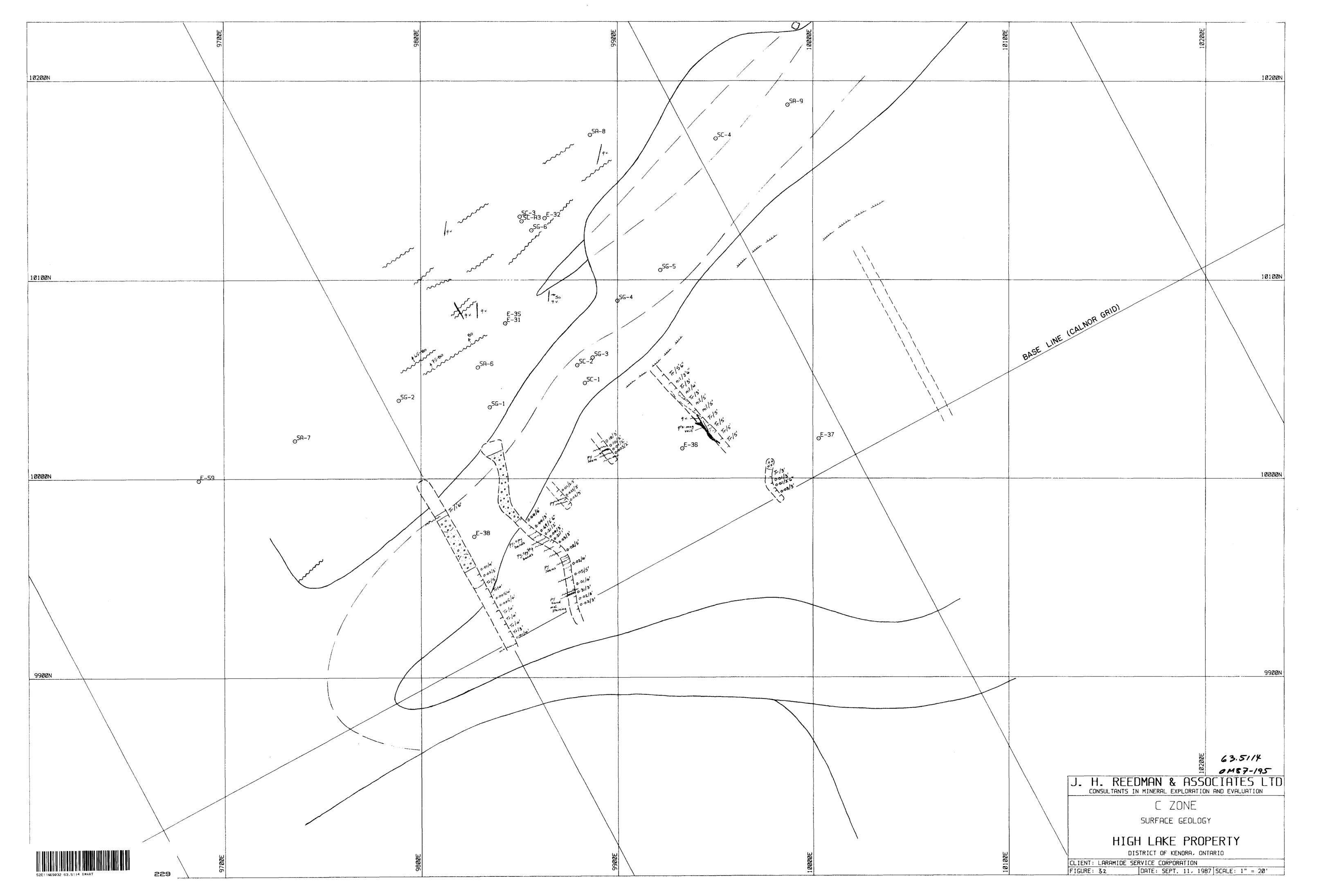


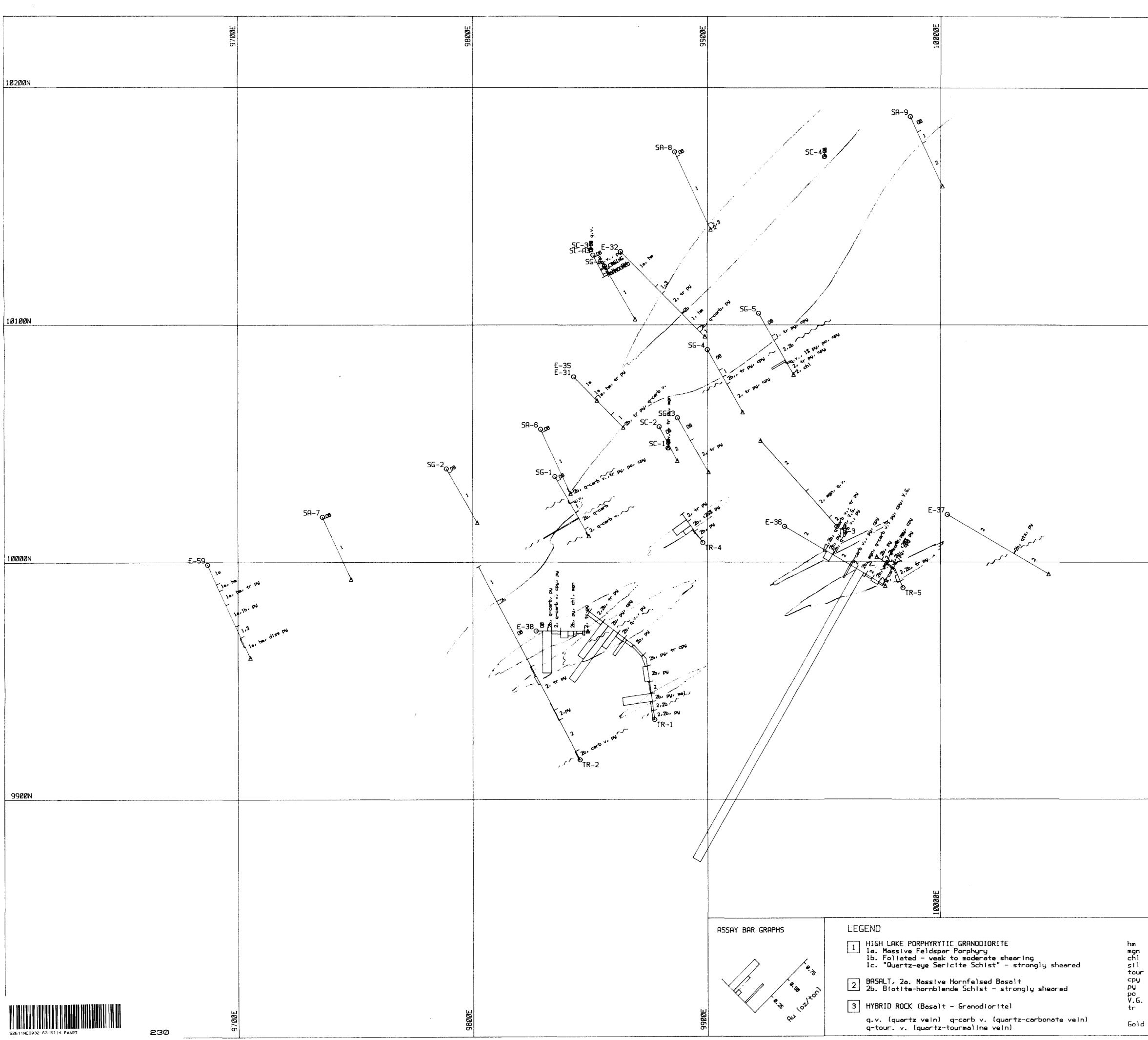


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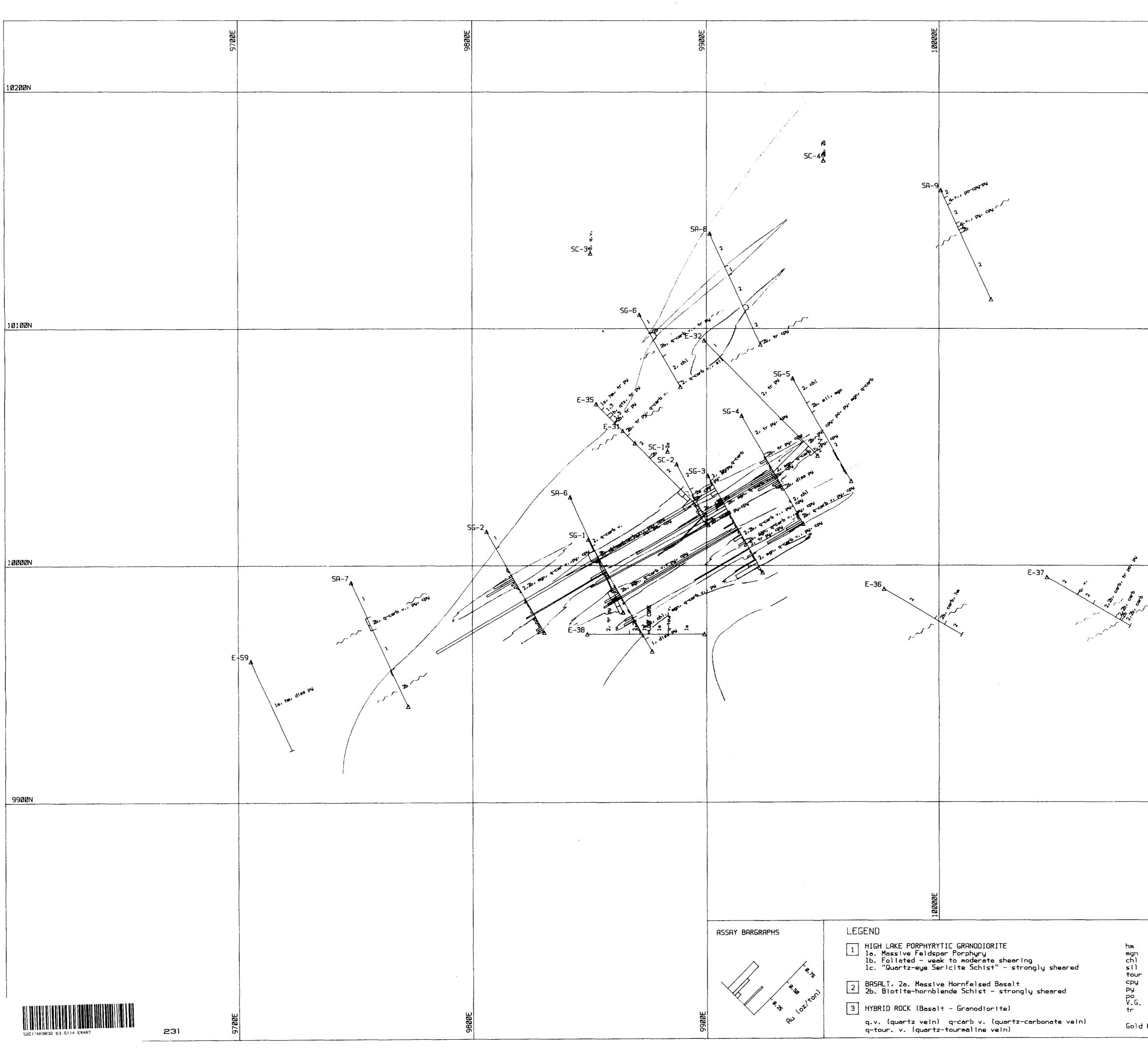








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magnetite chlorite silicified tourmaline chalcopyrite		ZUNE Evel 925
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Assays In oz/ton	CLIENT: LARAMIDE SERVICE CO	

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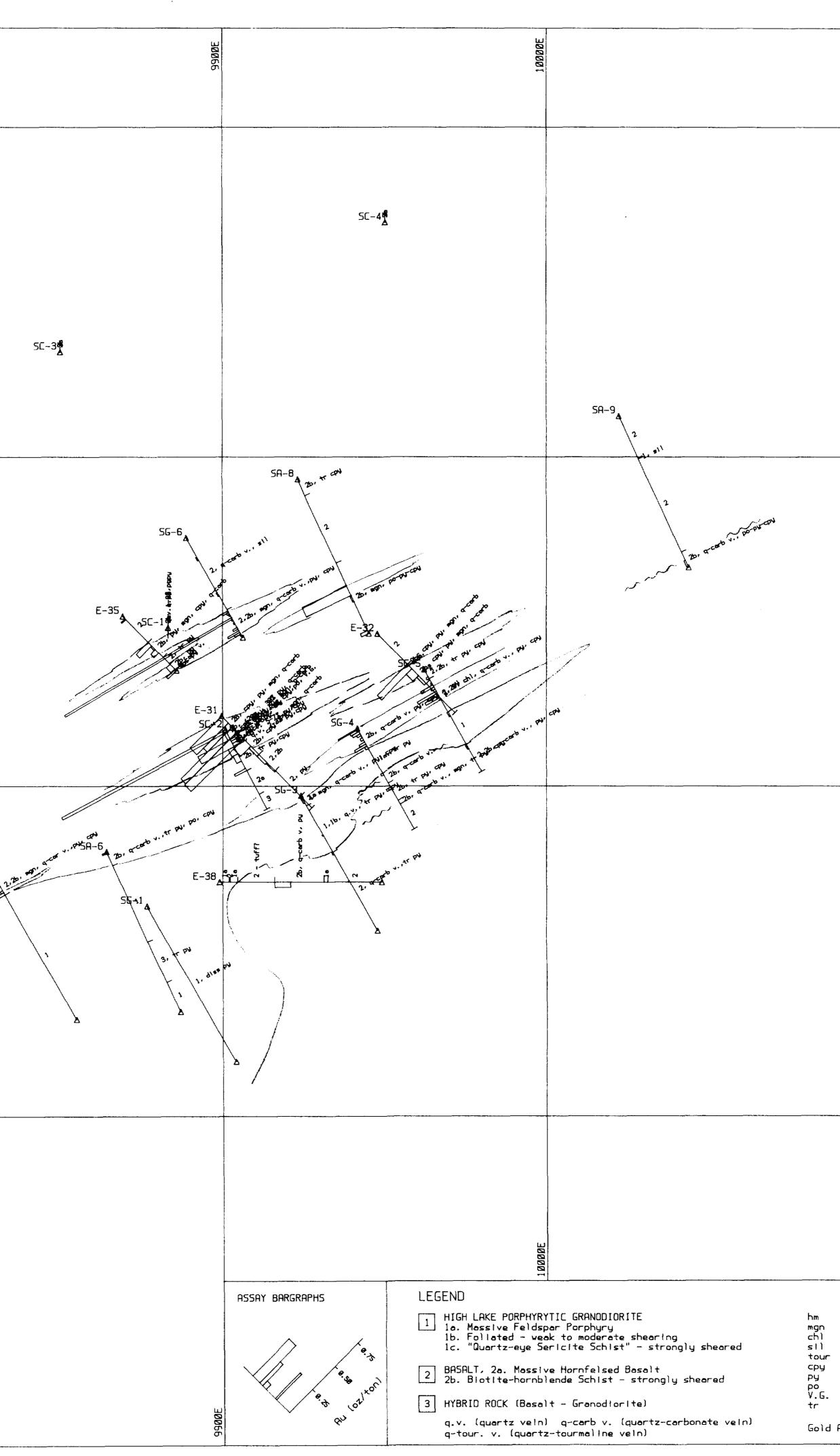
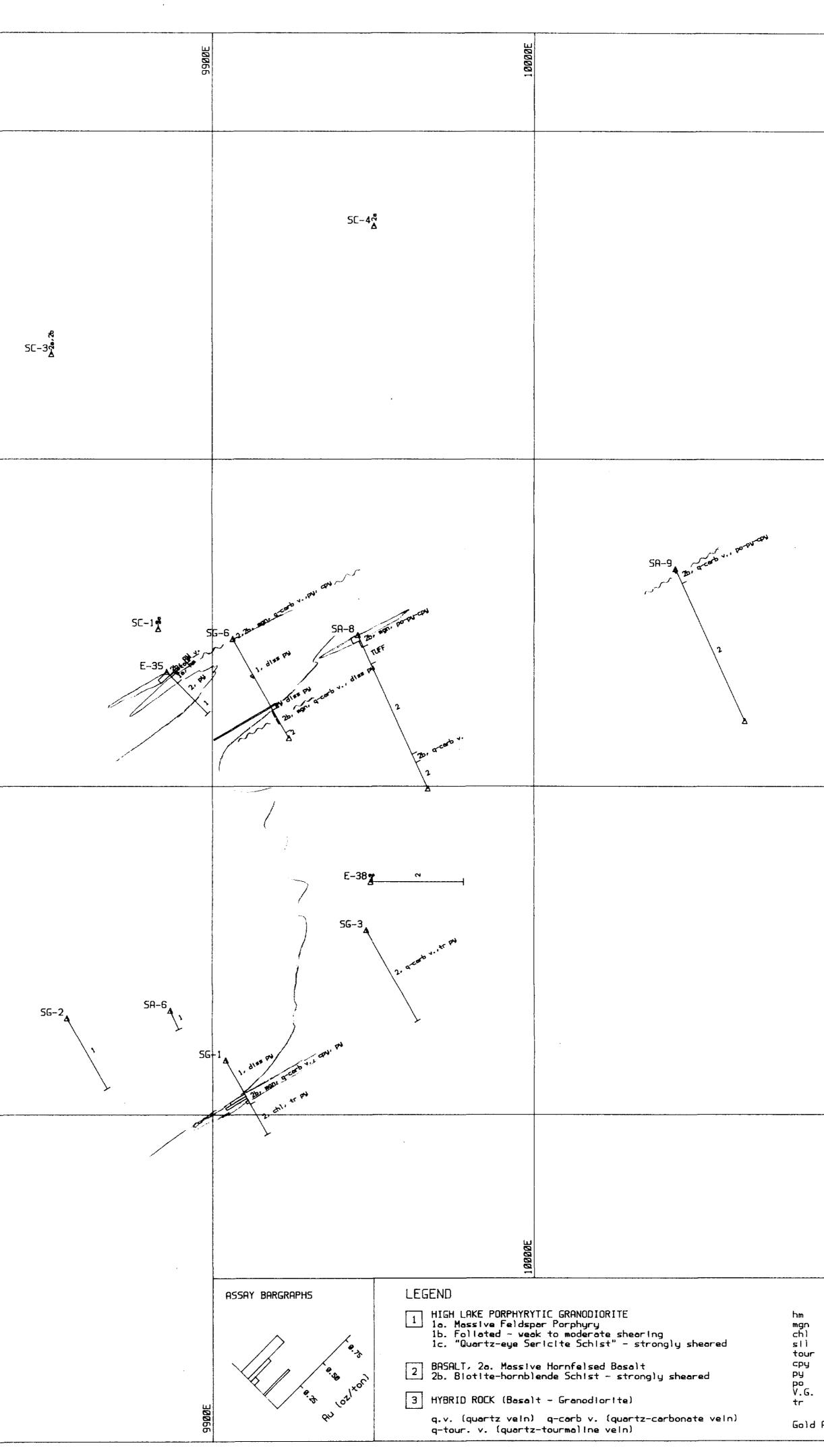
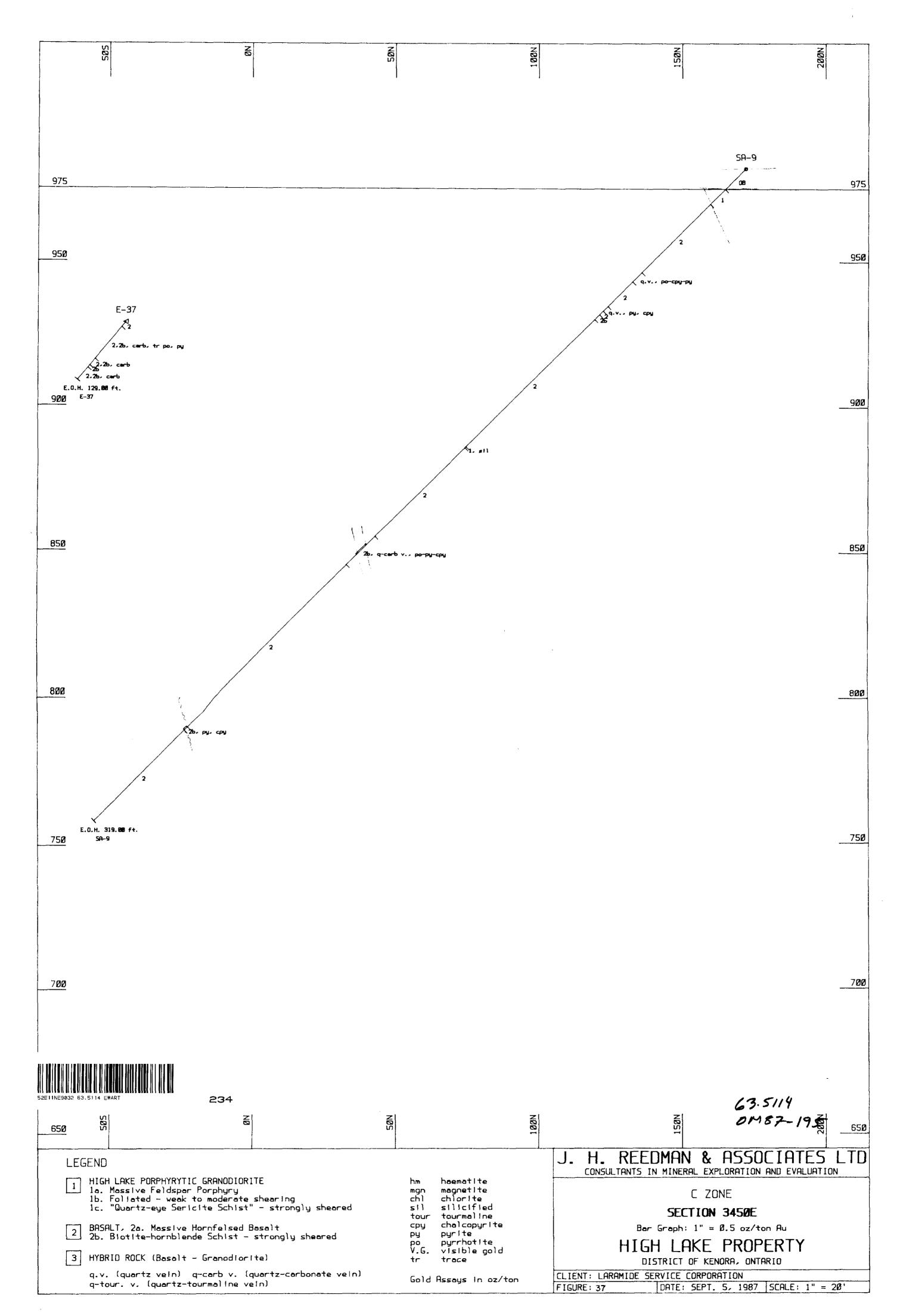


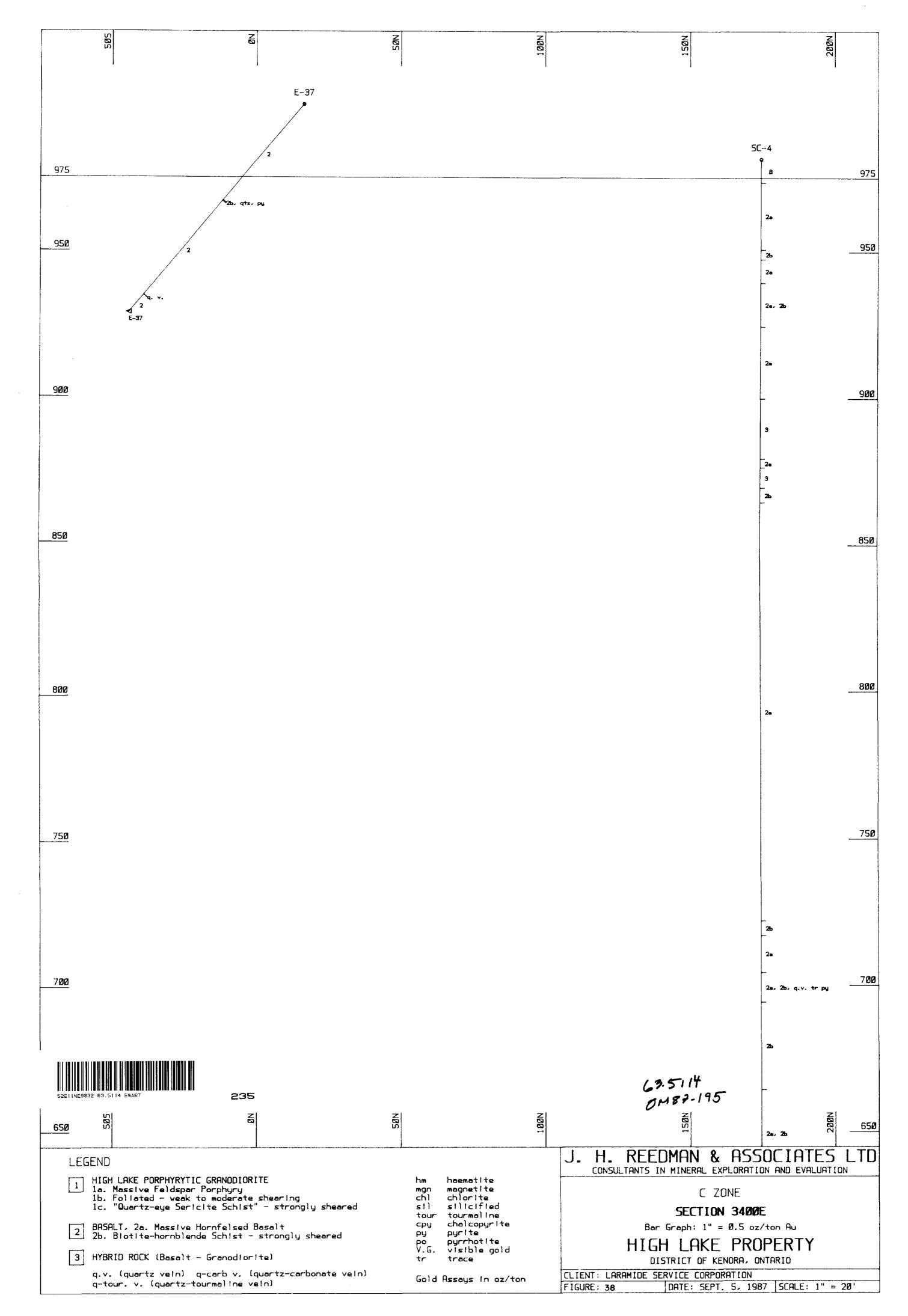
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hoematite         magnetite         chlorite         stillified         tourmaline         chalcopyrite         pyrite         pyrite         pyrite         pyrite         pisible gold         trace         Assays in oz/ton	ØØE						00E		
haematite       CONSULTANTS IN MINERAL EXPLORATION AND EVALUATION         magnetite       CZONE         chlorite       LEVEL 875         chalcopyrite       LEVEL 875         pyrhotite       HIGH LAKE PROPERTY         visible gold       DISTRICT OF KENORA, ONTARIO         Assays in ez/ton       CLIENT: LARAMIDE SERVICE CORPORATION	101			1 1	סררר				
magnetite       C ZONE         chlorite       LEVEL 875         chalcopyrite       LEVEL 875         pyrite       HIGH LAKE PROPERTY         visible gold       DISTRICT OF KENORA, ONTARIO         Asseys in oz/ton       CLIENT: LARAMIDE SERVICE CORPORATION	ı	<b>1</b> 14							
silicified       LEVEL 875         tourmaline       LEVEL 875         pyrite       Pyrhotite         pyrhotite       HIGH LAKE PROPERTY         visible gold       DISTRICT OF KENORA, ONTARIO         Assays in oz/ton       CLIENT: LARAMIDE SERVICE CORPORATION	magne	tlte					ZONE		
Chalcopyrite pyrite pyrhotite visible gold trace Asseys in oz/ton CLIENT: LARAMIDE SERVICE CORPORATION	sl)lc tourm	lfled allne				LEV	EL 875		
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Asseys In oz/ton CLIENT: LARAMIDE SERVICE CORPORATION	visib trace	le gold							
	Assays	: In oz/tor	r	CLIENT: LI FIG. 35		RVICE COR	PORATION		" = 201'

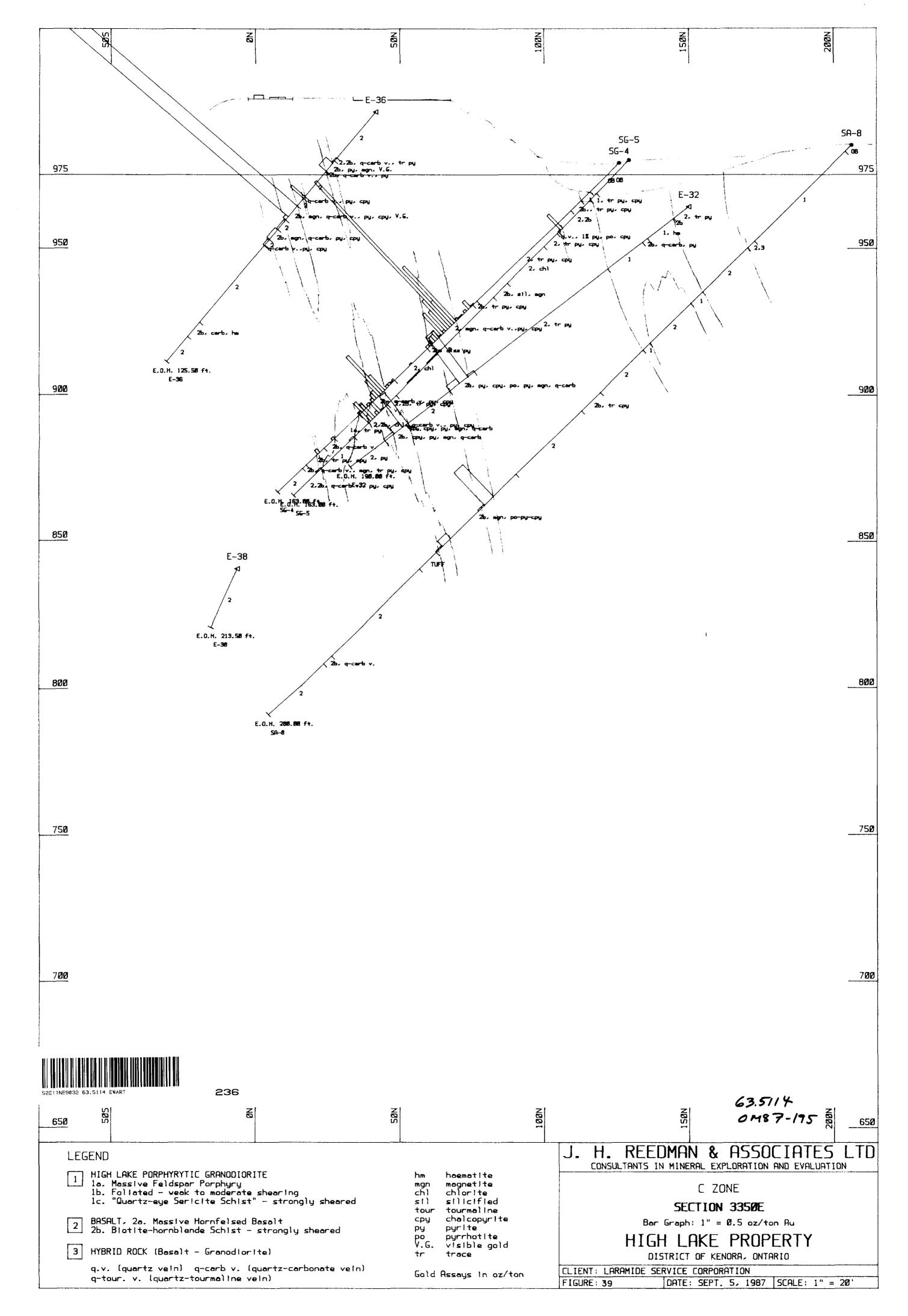
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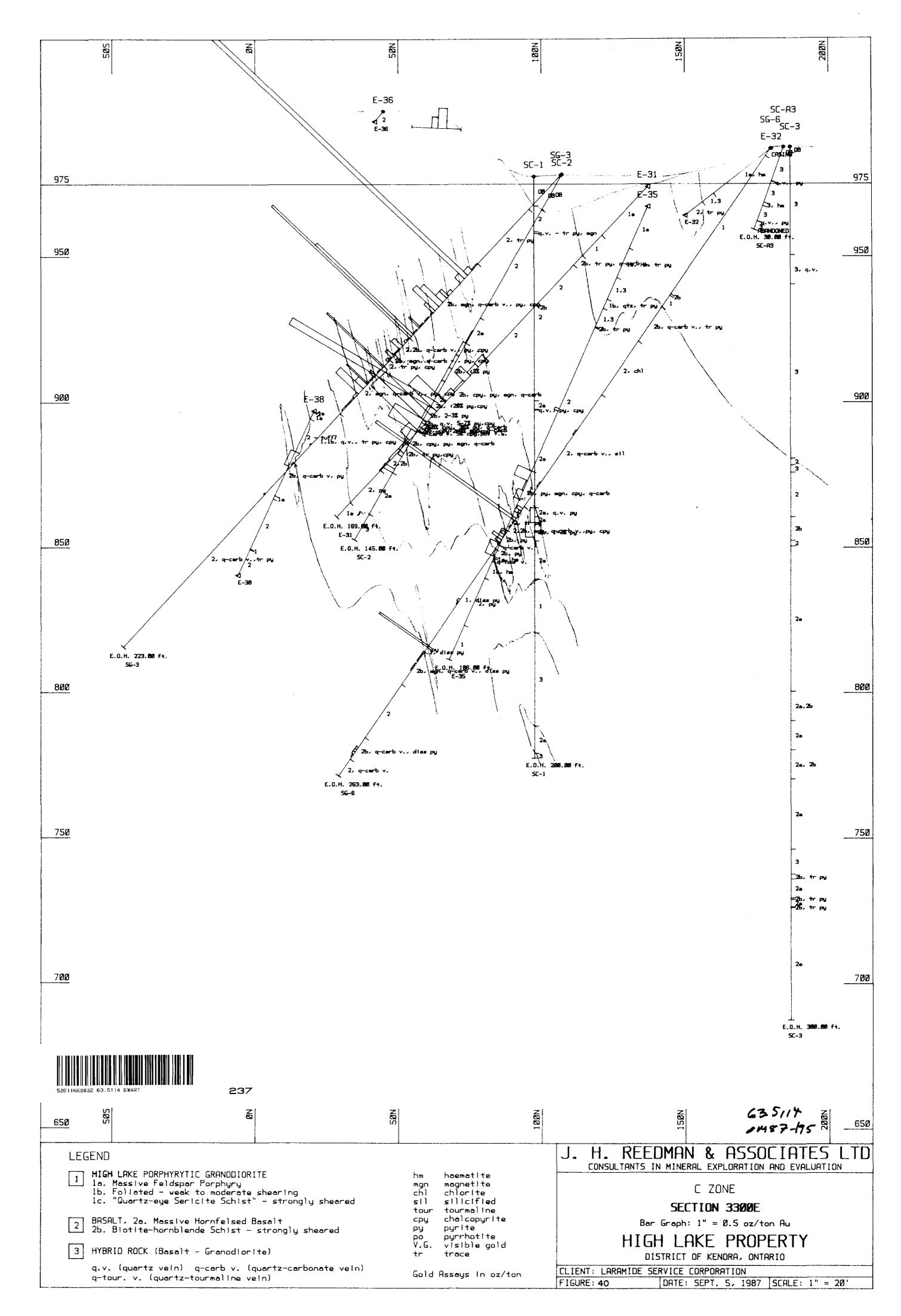


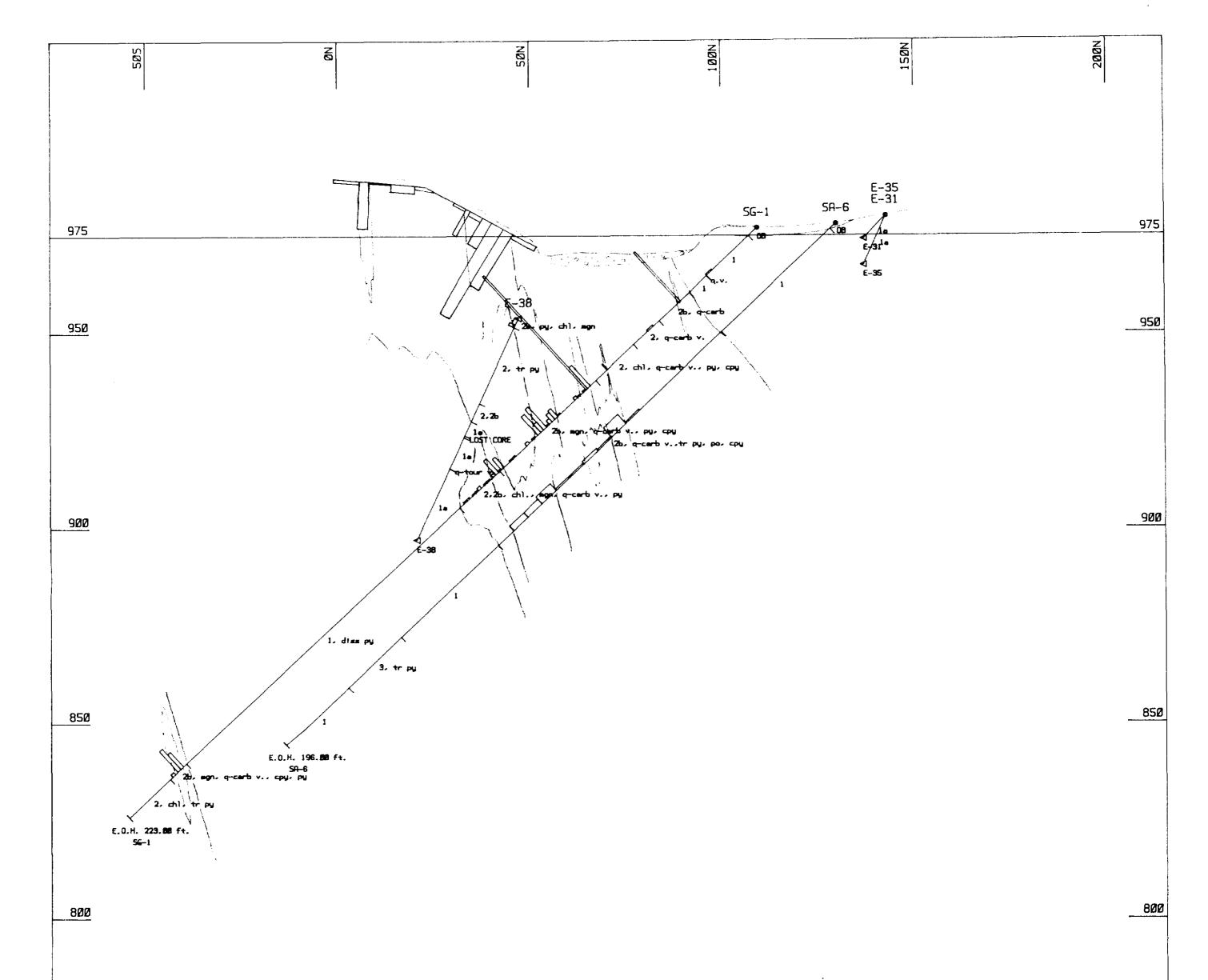
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L.		J. H. REEDMAN & ASSOCIATES LTD CONSULTANTS IN MINERAL EXPLORATION AND EVALUATION
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tourma chalco	a)lne ppurtte	LEVEL 825
pyrite pyrrhe visibi trace	ptite le gold	HIGH LAKE PROPERTY
	In oz/ton	DISTRICT OF KENORA, ONTARIOCLIENT: LARAMIDE SERVICE CORPORATIONFIG. 36DATE: SEPT. 5, 1987SCALE: 1" = 20'

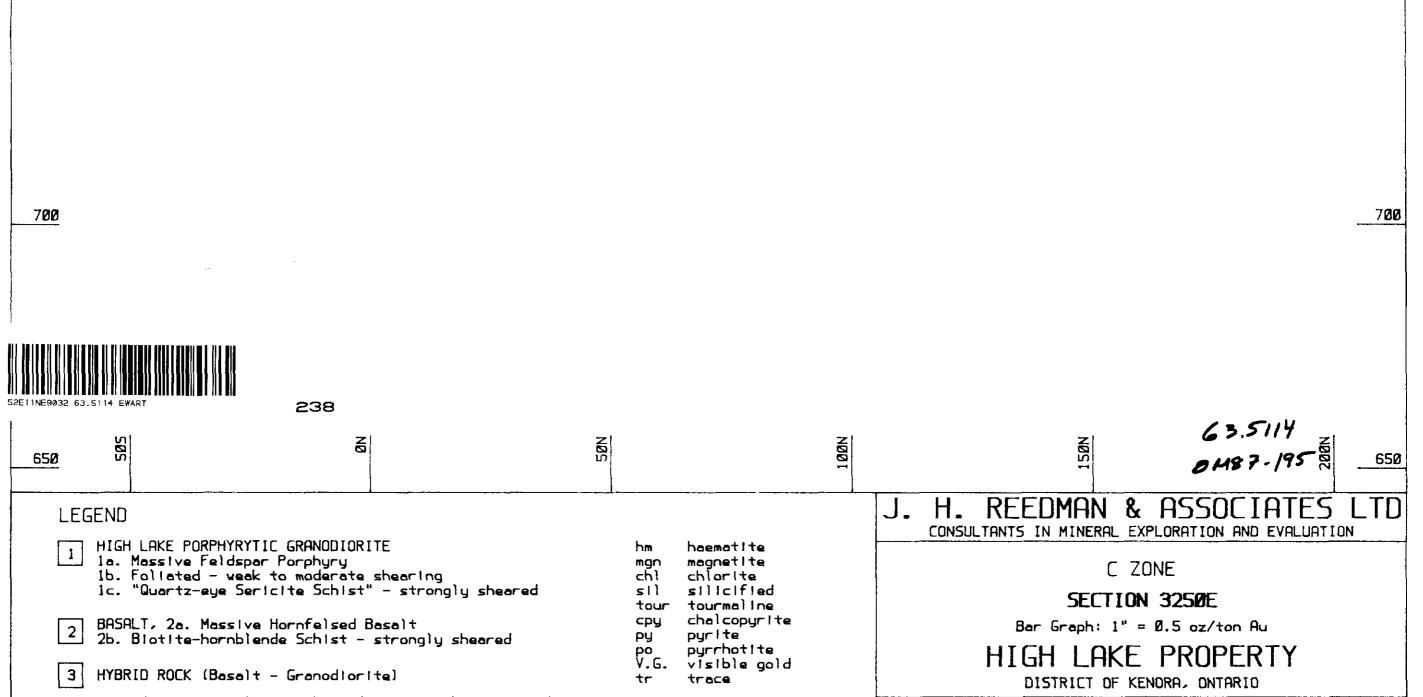










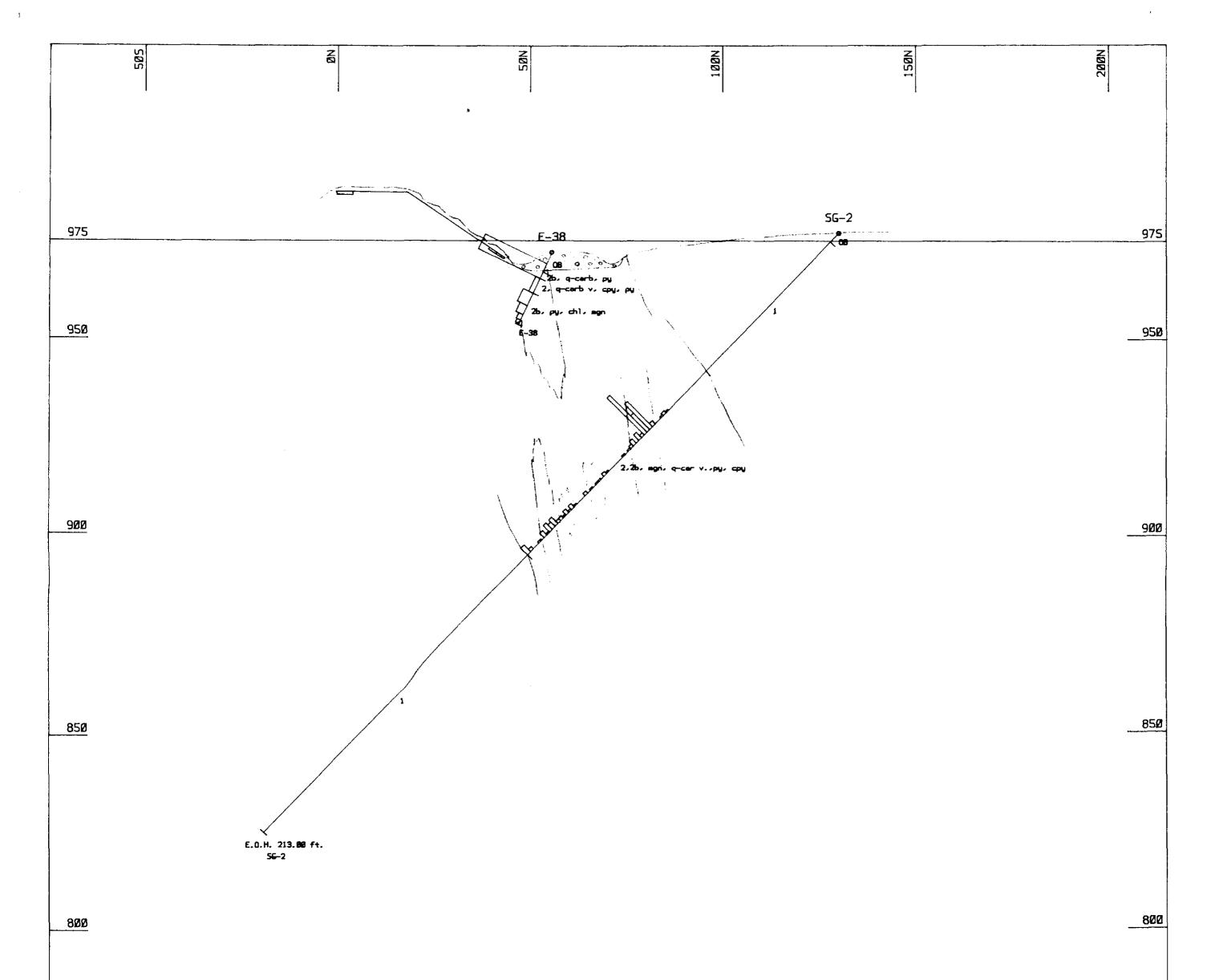


q.v. (quartz veln) q-carb v. (quartz-carbonate veln)
q-tour. v. (quartz-tourma) ine veln)

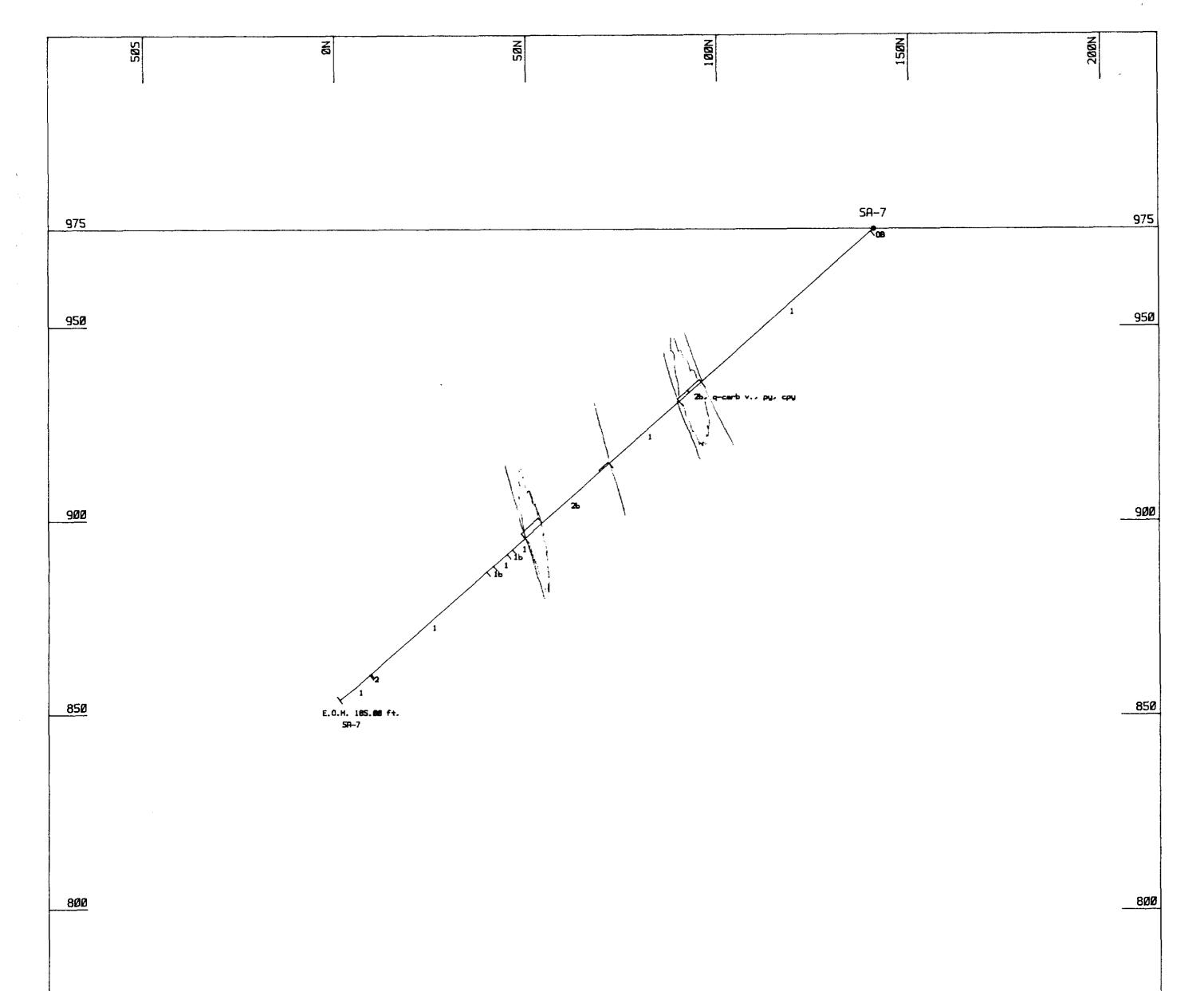
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Gold Assays in oz/ton CLIENT: LARAMIDE SERVICE CORPORATION FIGURE: 41 DATE: SEPT. 5, 19 7**5**Ø

DATE: SEPT. 5, 1987 SCALE: 1" = 20"



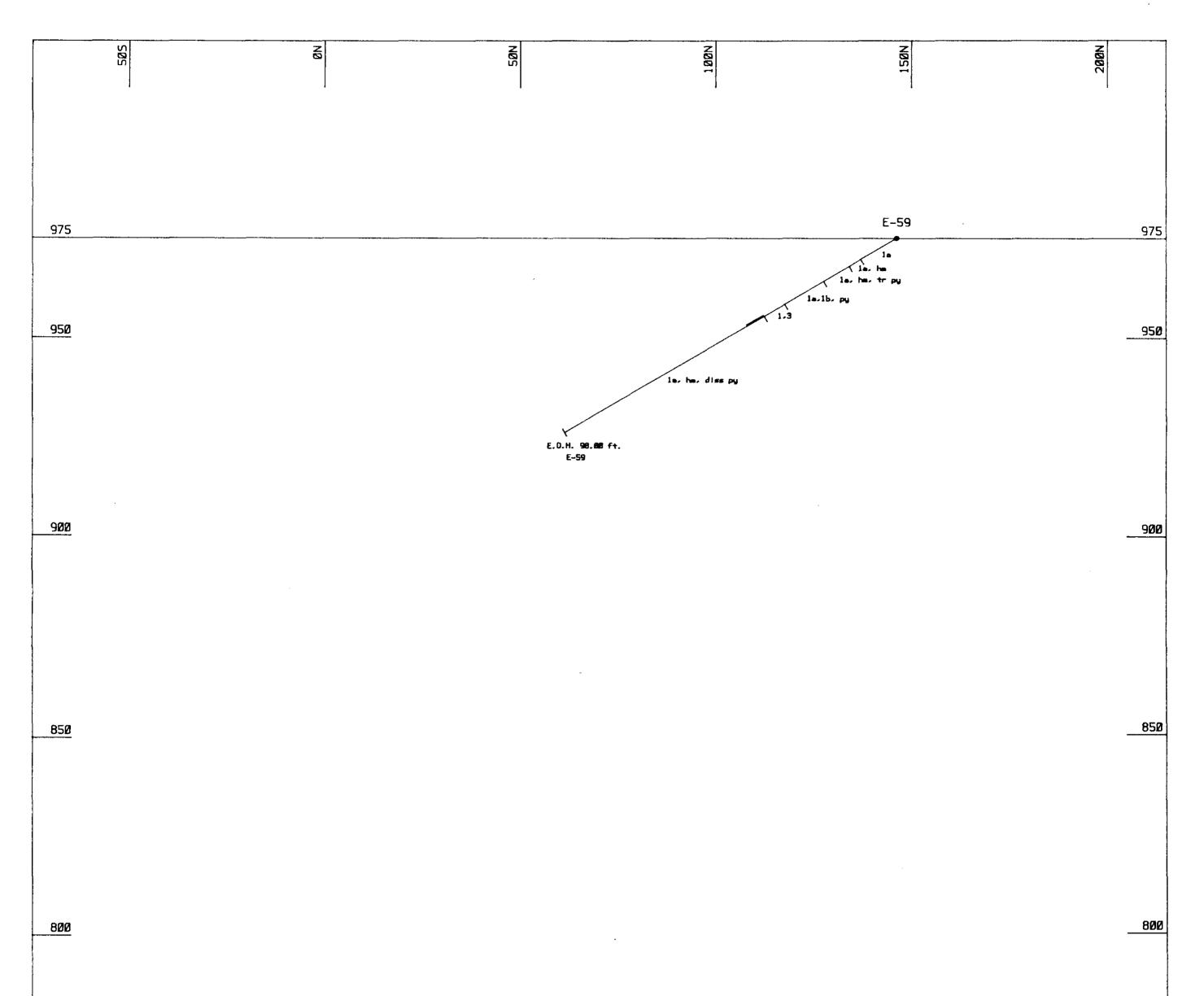
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LEGEND I HIGH LAKE PORPHYRYTIC GRANODIORITE	hm haematite mgn magnetite	J. H. REEDMAN & ASSOCIATES LTD CONSULTANTS IN MINERAL EXPLORATION AND EVALUATION
1a. Massive Feldspar Porphyry         1b. Follated - weak to moderate shearing         1c. "Quartz-eye Sericite Schist" - strongly sheared         2         BASALT, 2a. Massive Hornfelsed Basalt	chi chiorite sil silicified tour tourmaline cpy chalcopyrite	C ZONE SECTION 3200E. Bar Graph: 1" = 0.5 oz/ton Au
2b. Blotite-hornblende Schist - strongly sheared 3 HYBRID ROCK (Basalt - Granodiorite)	py pyrite po pyrrhotite V.G. visible gold tr trace	HIGH LAKE PROPERTY DISTRICT OF KENORA, ONTARIO
q.v. (quartz veln) q-carb v. (quartz-carbonate veln) q-tour. v. (quartz-tourmaline veln)	Gold Assays In oz/ton	CLIENT:LARAMIDESERVICECORPORATIONFIGURE:42DATE:SEPT.5, 1987SCALE:1" = 20'



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	N N N N N N N N N N N N N N N N N N N	J. H. REEDMAN & ASSOCIATES LTD CONSULTANTS IN MINERAL EXPLORATION AND EVALUATION
<ul> <li>HIGH LAKE PORPHYRYTIC GRANODIORITE         <ol> <li>Massive Feldspar Porphyry                 <ol> <li>Follated - weak to moderate shearing</li></ol></li></ol></li></ul>	hm haematite mgn magnetite chi chlorite sil silicified tour tourmaline cpy chalcopyrite py pyrite po pyrrhotite V.G. visible gold tr trace	C ZONE SECTION 3150E Bar Graph: 1" = 0.5 oz/ton Au HIGH LAKE PROPERTY DISTRICT OF KENORA, ONTARIO
q.v. (quartz vein) q-carb v. (quartz-carbonate vein) q-tour. v. (quartz-tourmaline vein)	Gold Assays In oz/ton	CLIENT: LARAMIDE SERVICE CORPORATIONFIGURE: 43DATE: SEPT. 5, 1987SCALE: 1" = 20'

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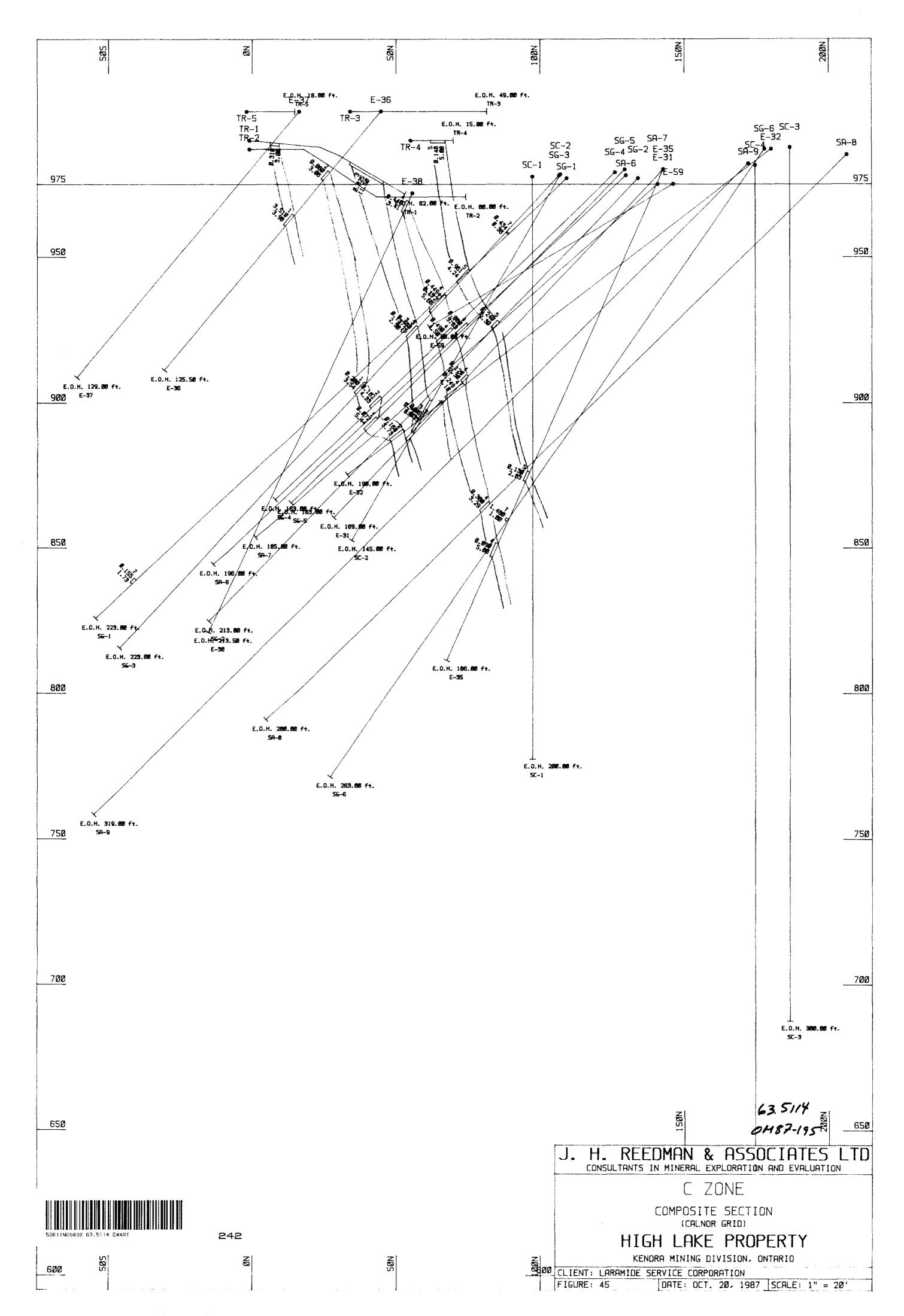
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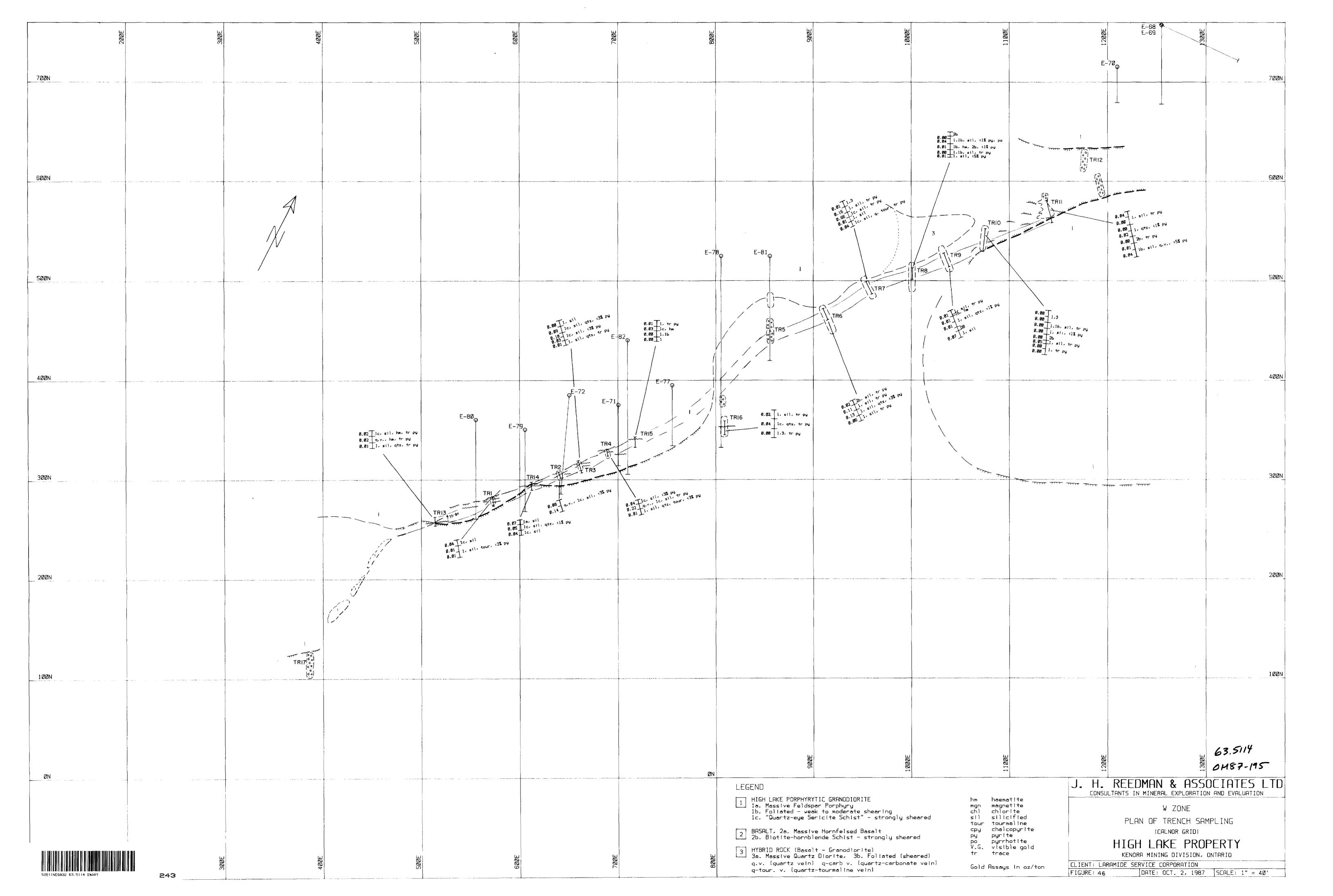


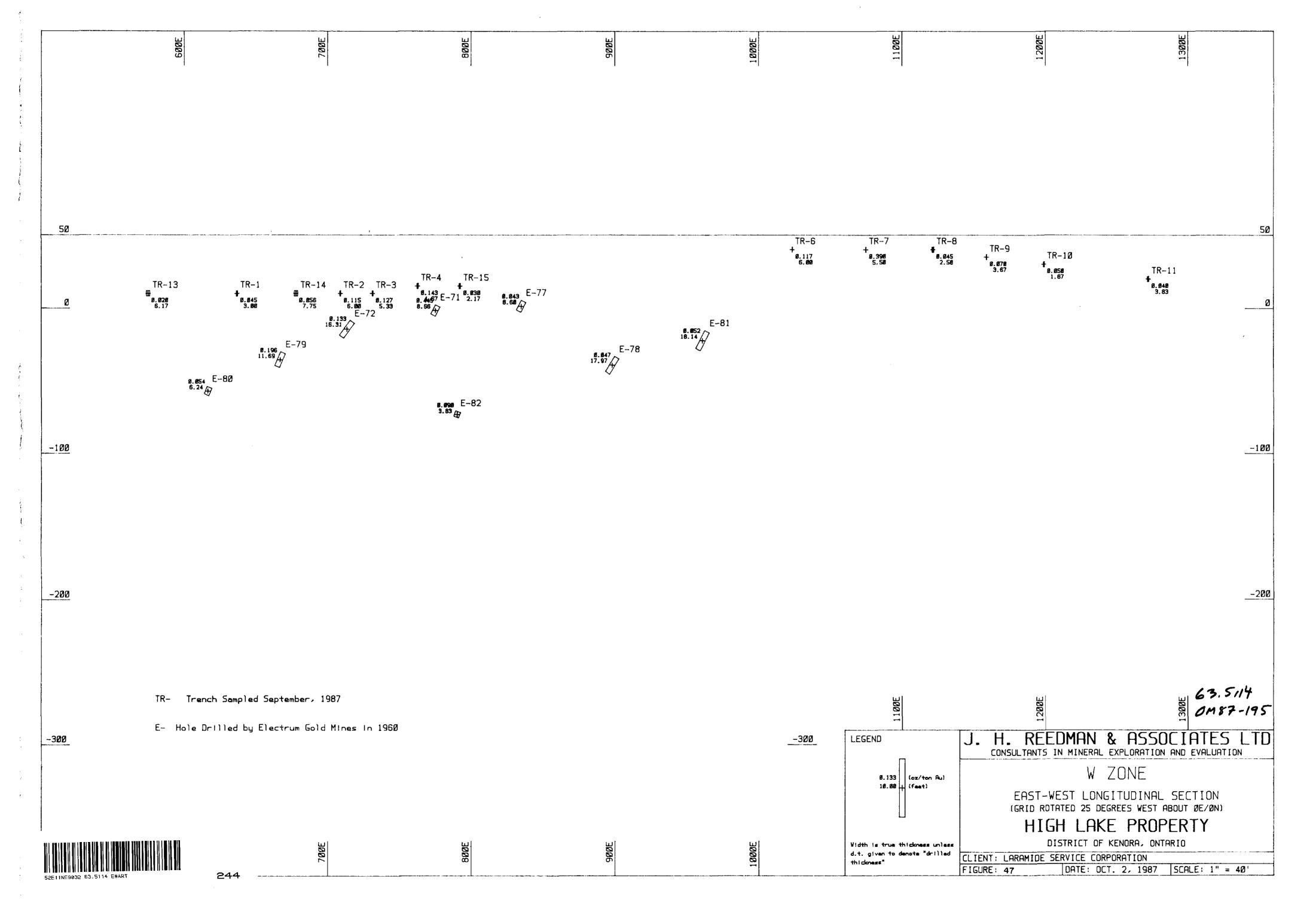
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65Ø <sup>5</sup> 5	5 <u>0</u> N 100N	63.5114 2 650 0M87-175 0 650
<ul> <li>LEGEND         <ul> <li>HIGH LAKE PORPHYRYTIC GRANODIORITE</li> <li>1a. Massive Feldspar Porphyry</li> <li>1b. Follated - weak to moderate shearing</li> <li>1c. "Quartz-eye Sericite Schist" - strongly sheared</li> </ul> </li> <li>BASALT, 2a. Massive Hornfelsed Basalt</li> <li>2b. Blotite-hornblende Schist - strongly sheared</li> <li>HYBRID ROCK (Basalt - Granodiorite)</li> <li>3a. Massive Quartz Diorite, 3b. Follated (sheared)</li> </ul>	hm haematite mgn magnetite chi chlorite sil silicified tour tourmaline cpy chalcopyrite py pyrite po pyrrhotite V.G. visible gold tr trace	J. H. REEDMAN & ASSOCIATES LTD CONSULTANTS IN MINERAL EXPLORATION AND EVALUATION C ZONE SECTION 3100E Bar Graph: 1" = 0.5 oz/ton Au HIGH LAKE PROPERTY KENORA MINING DIVISION, ONTARIO
q.v. (quartz veln) q-carb v. (quartz-carbonate veln) q-tour. v. (quartz-tourma)lne veln)	Gold Assays In oz/ton	CLIENT: LARAMIDE SERVICE CORPORATIONFIGURE: 44DATE: SEPT. 5, 1987SCALE: 1" = 20'

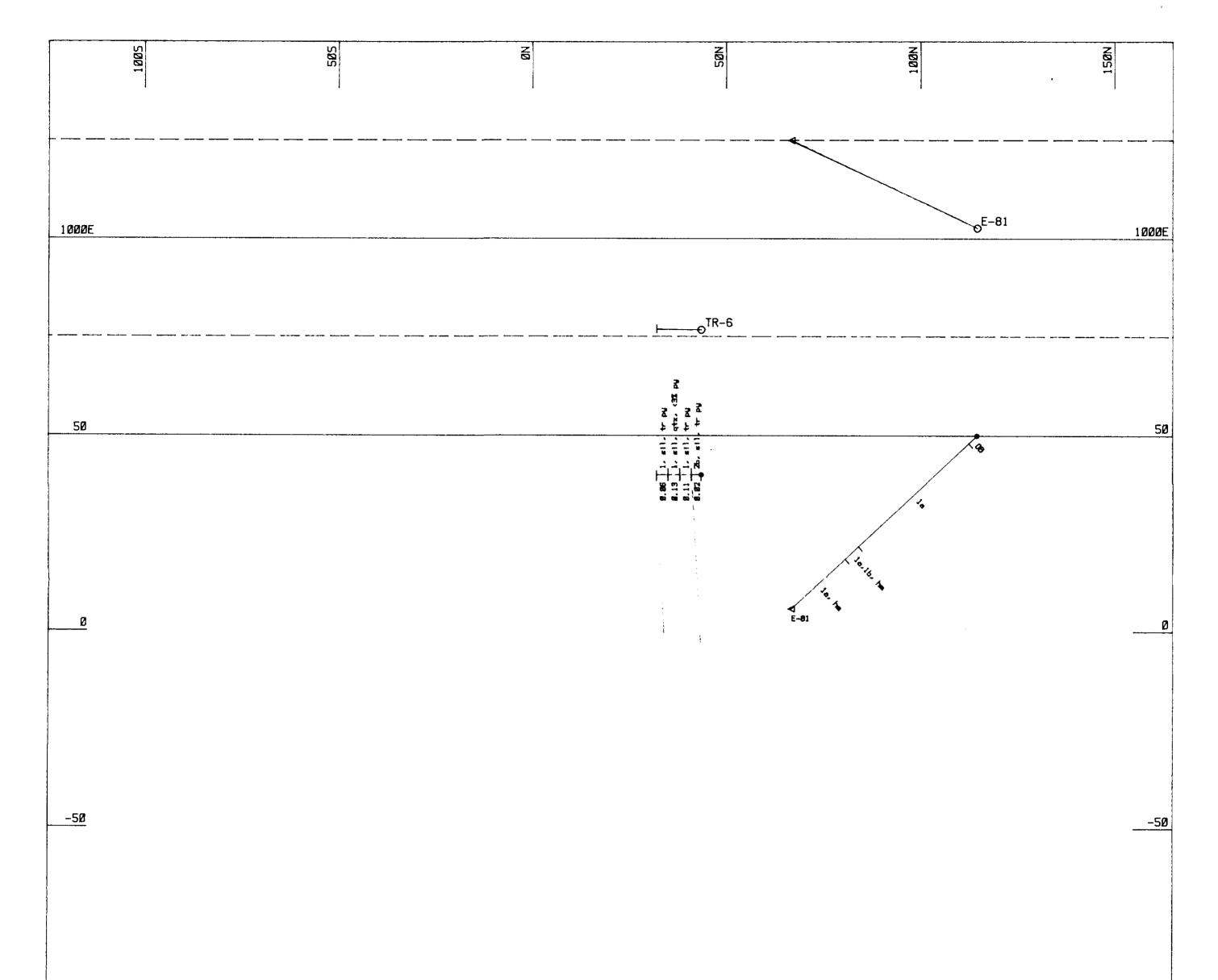
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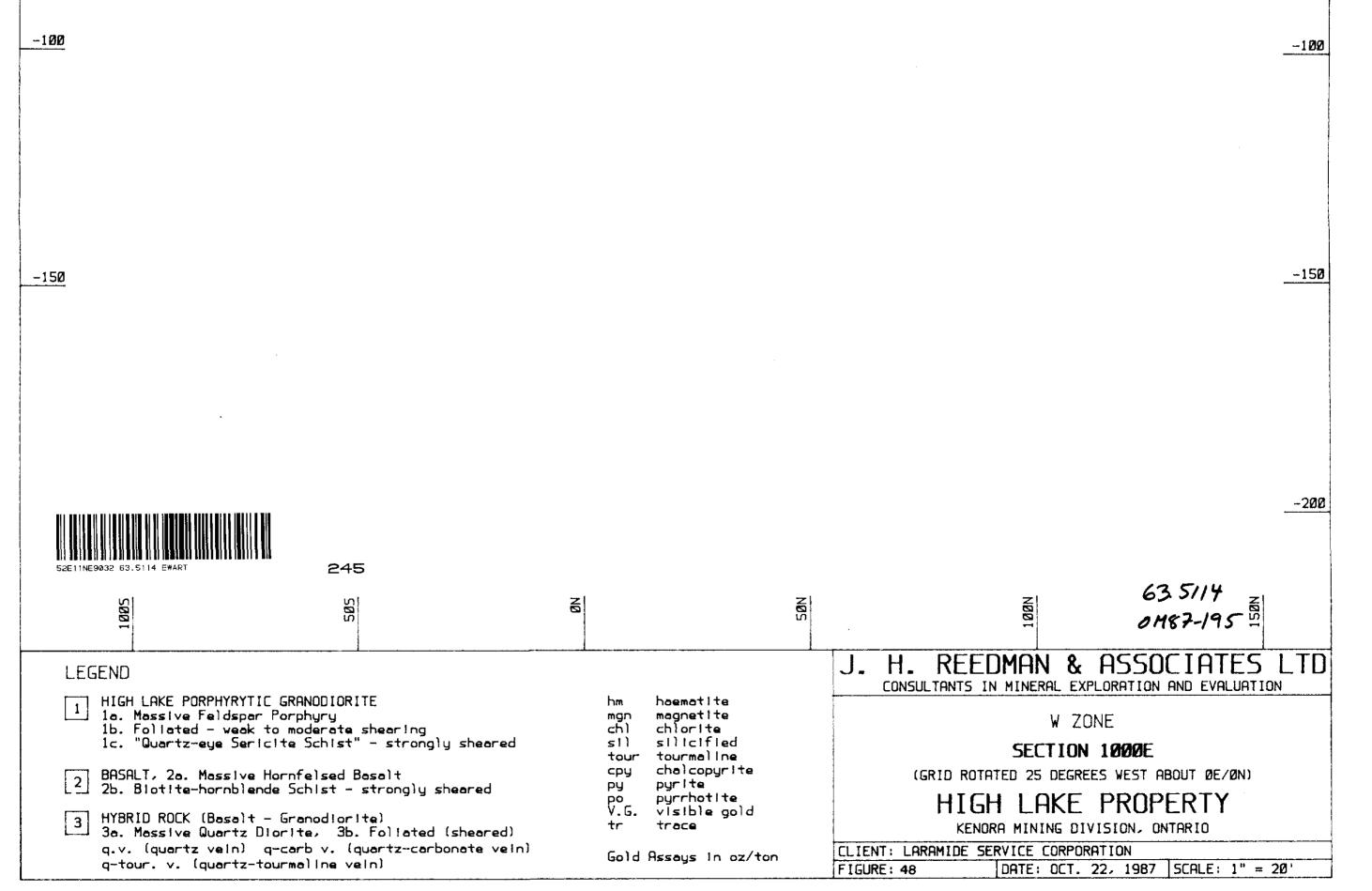
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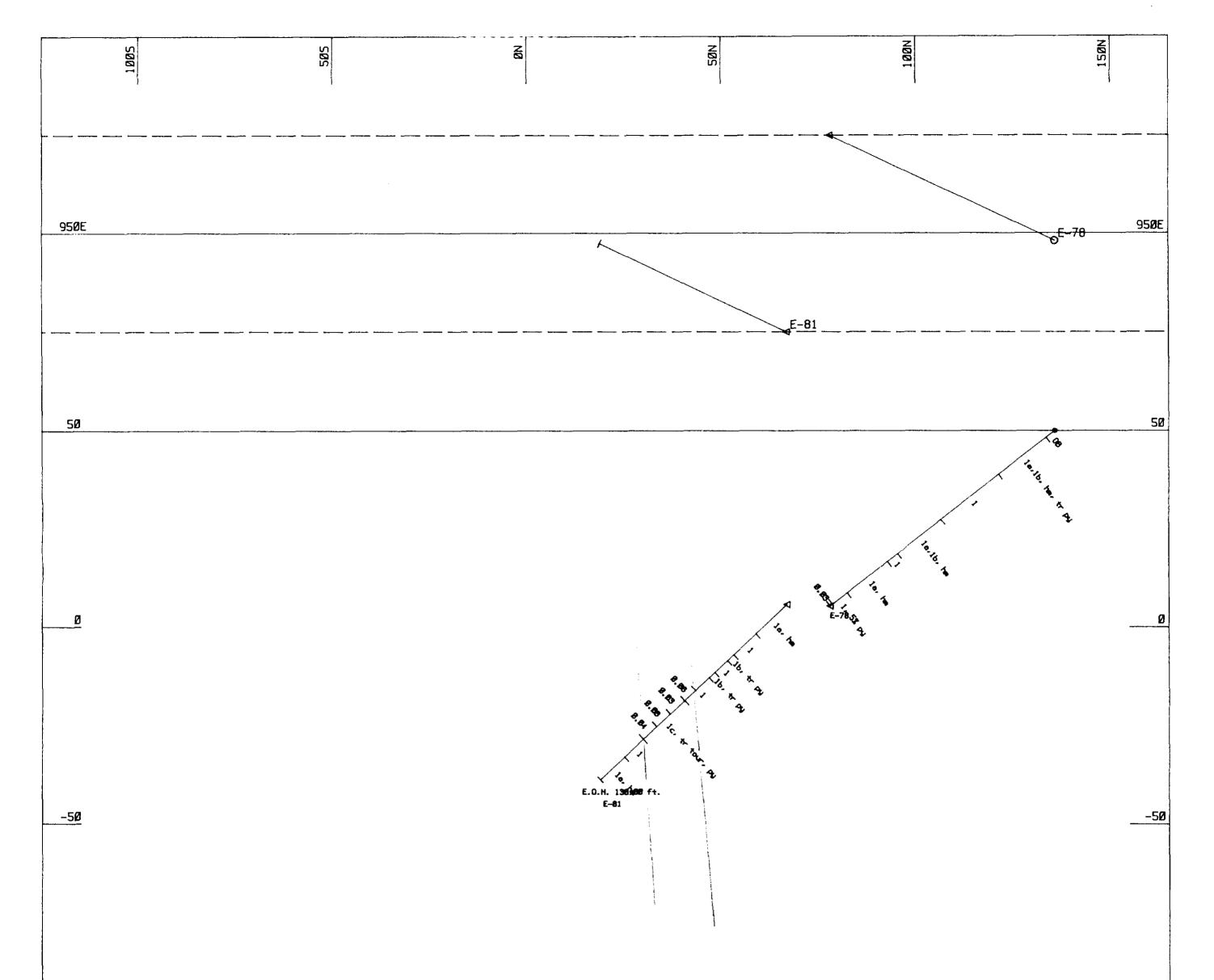


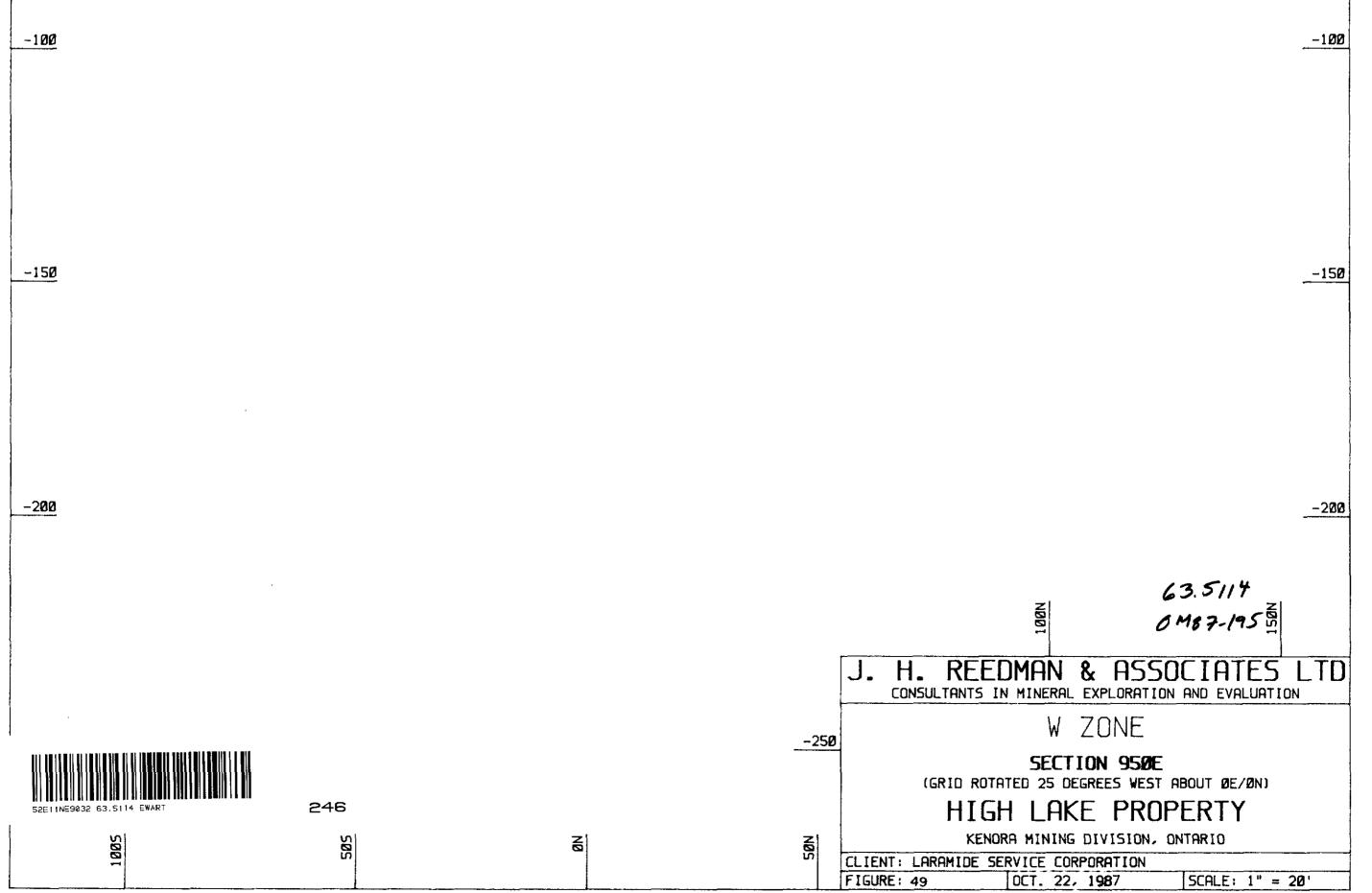


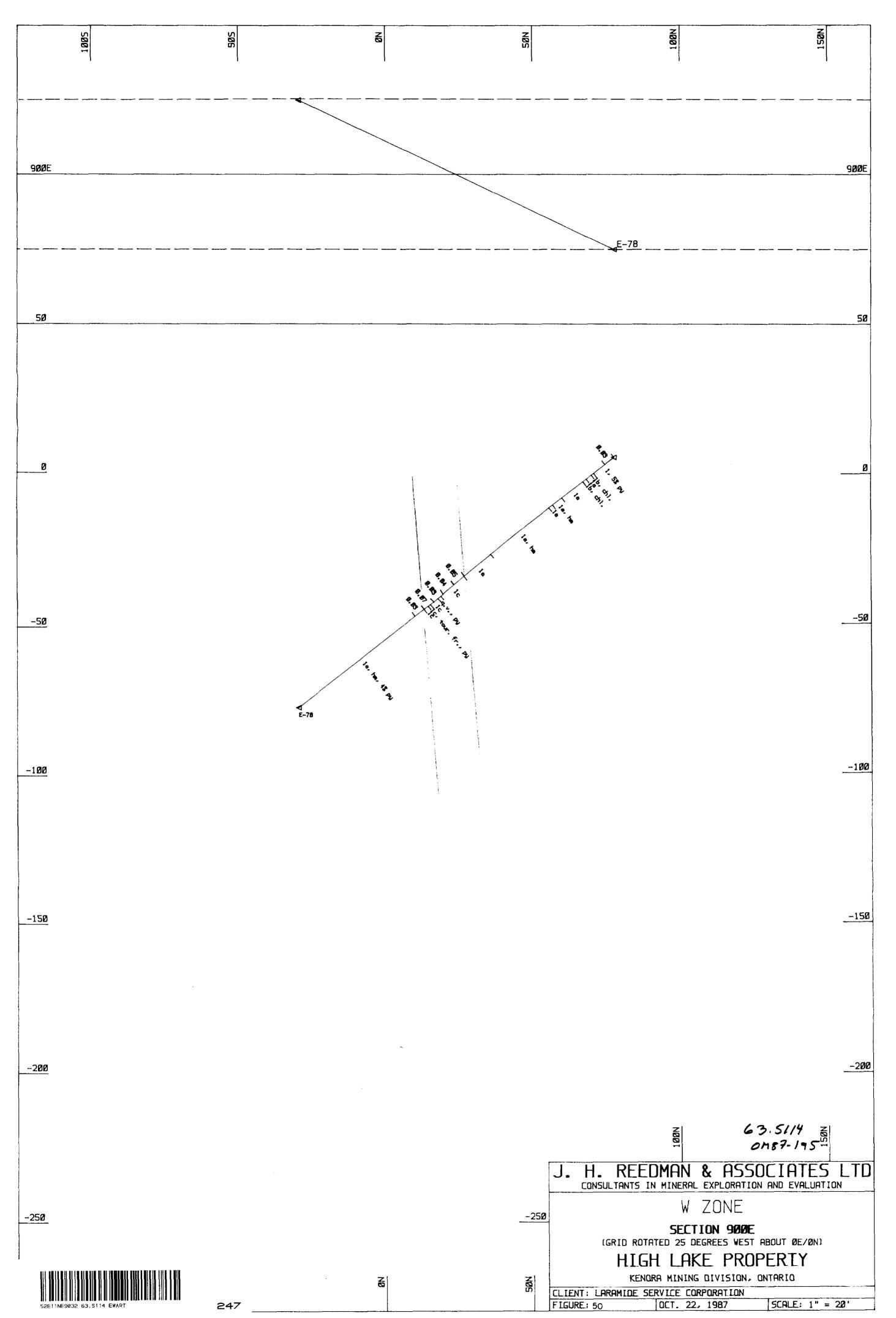


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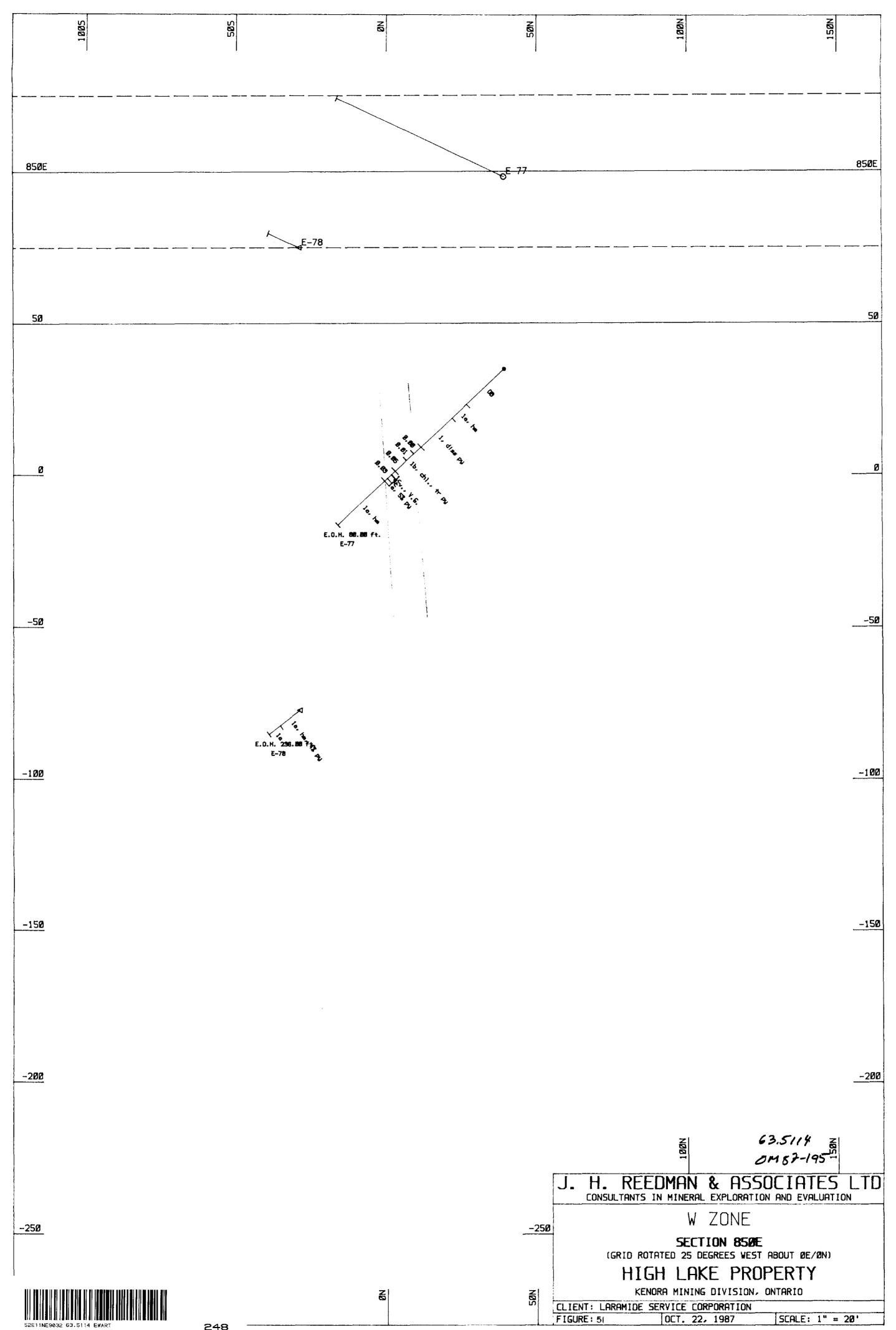
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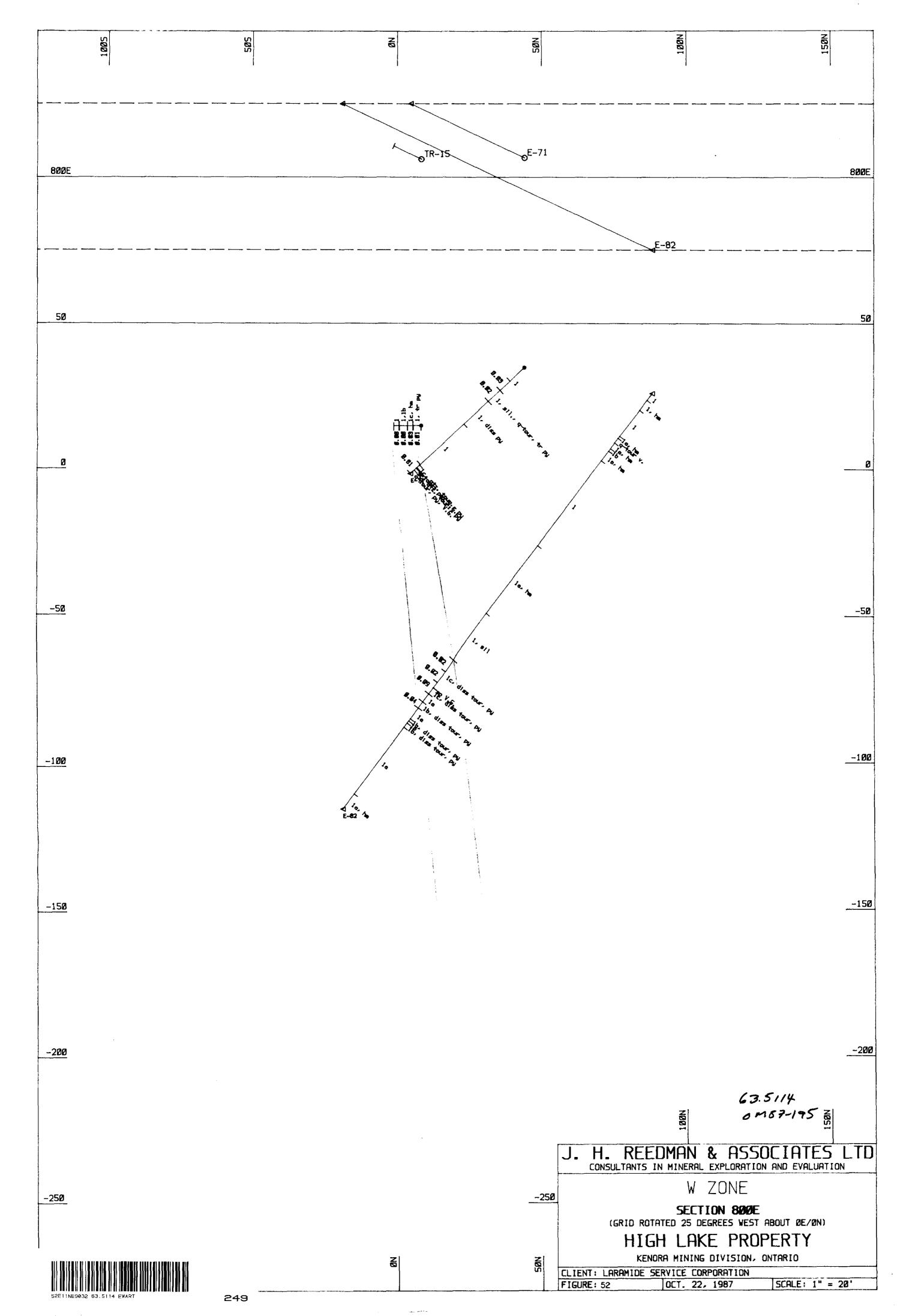


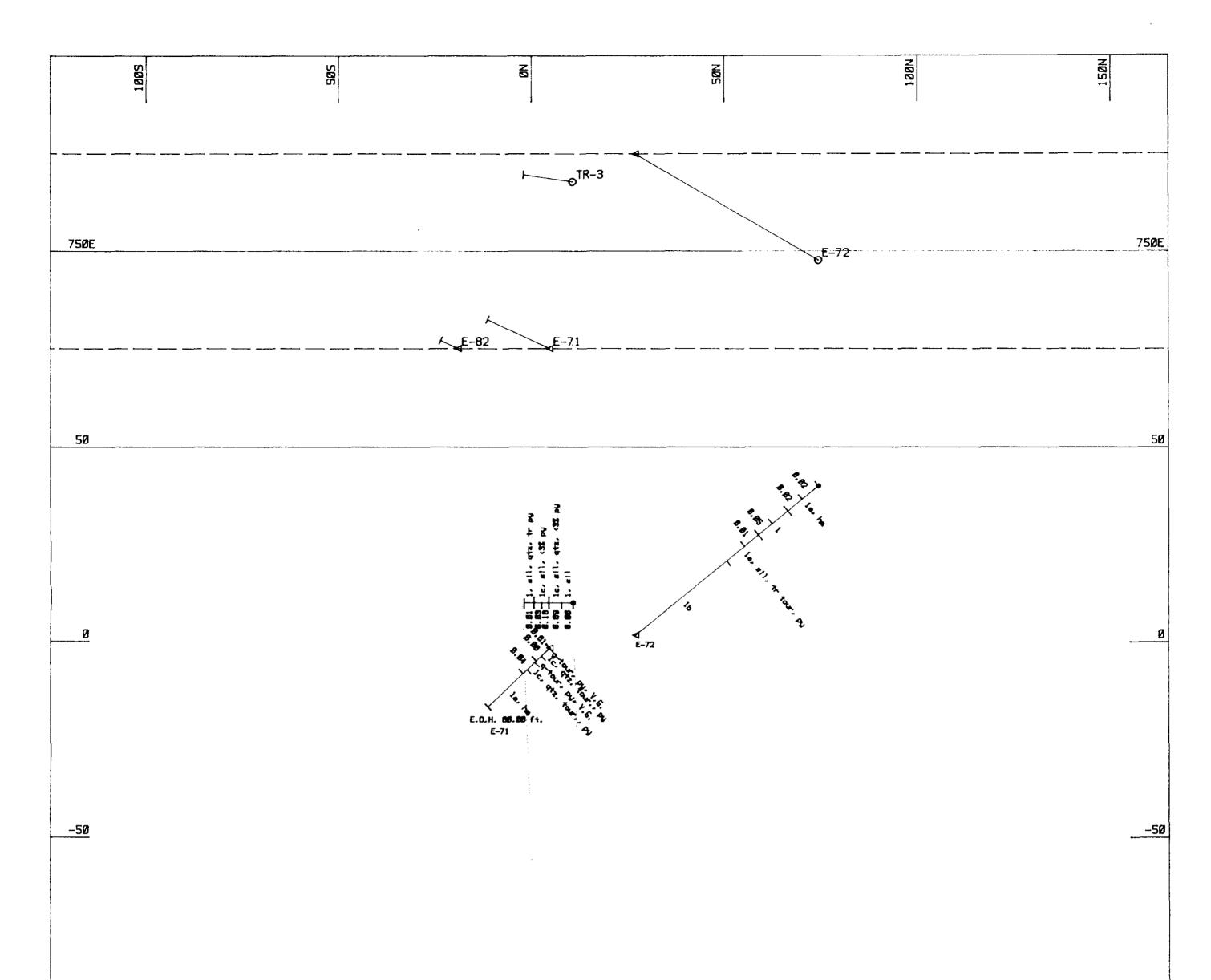


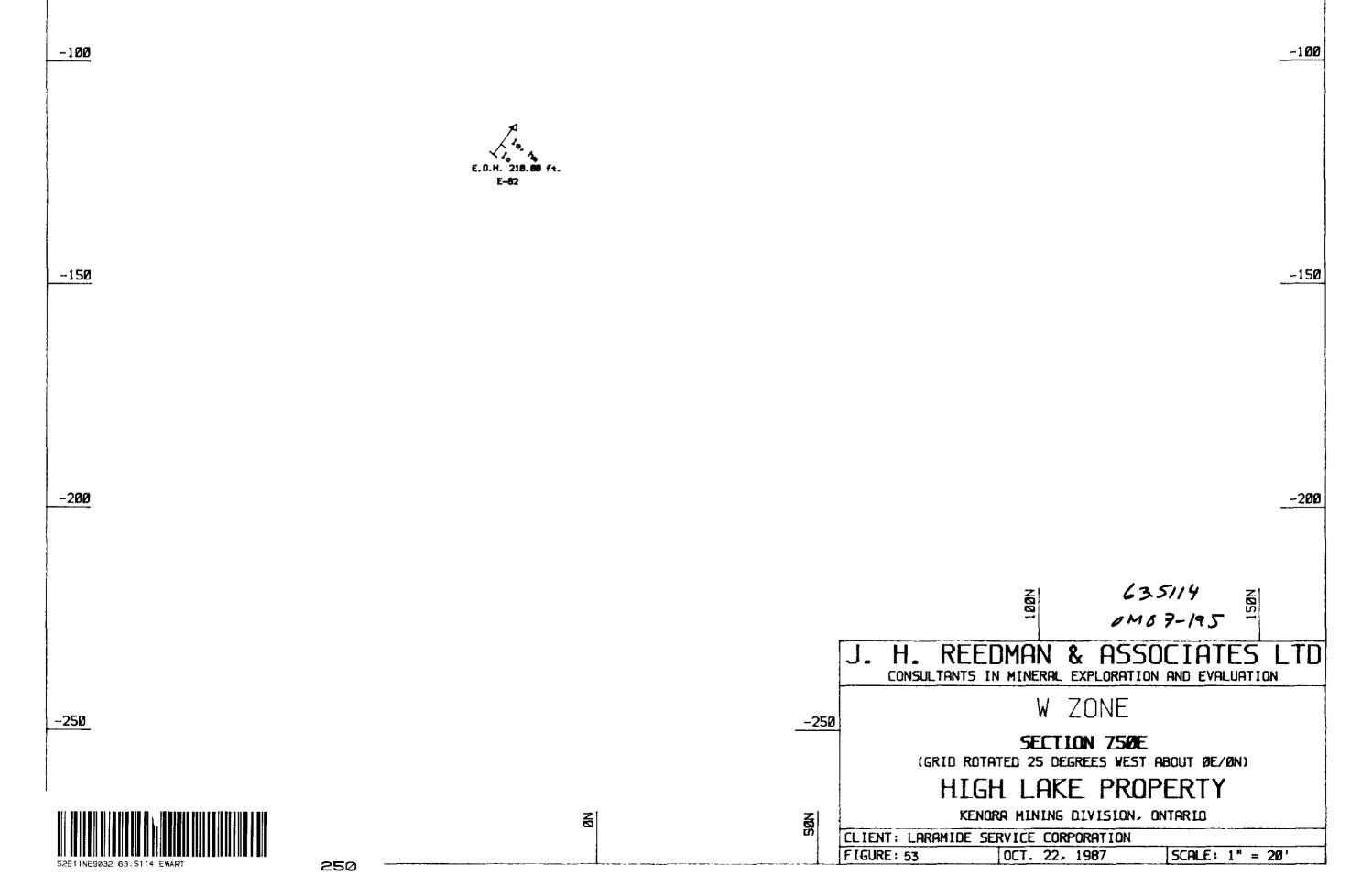
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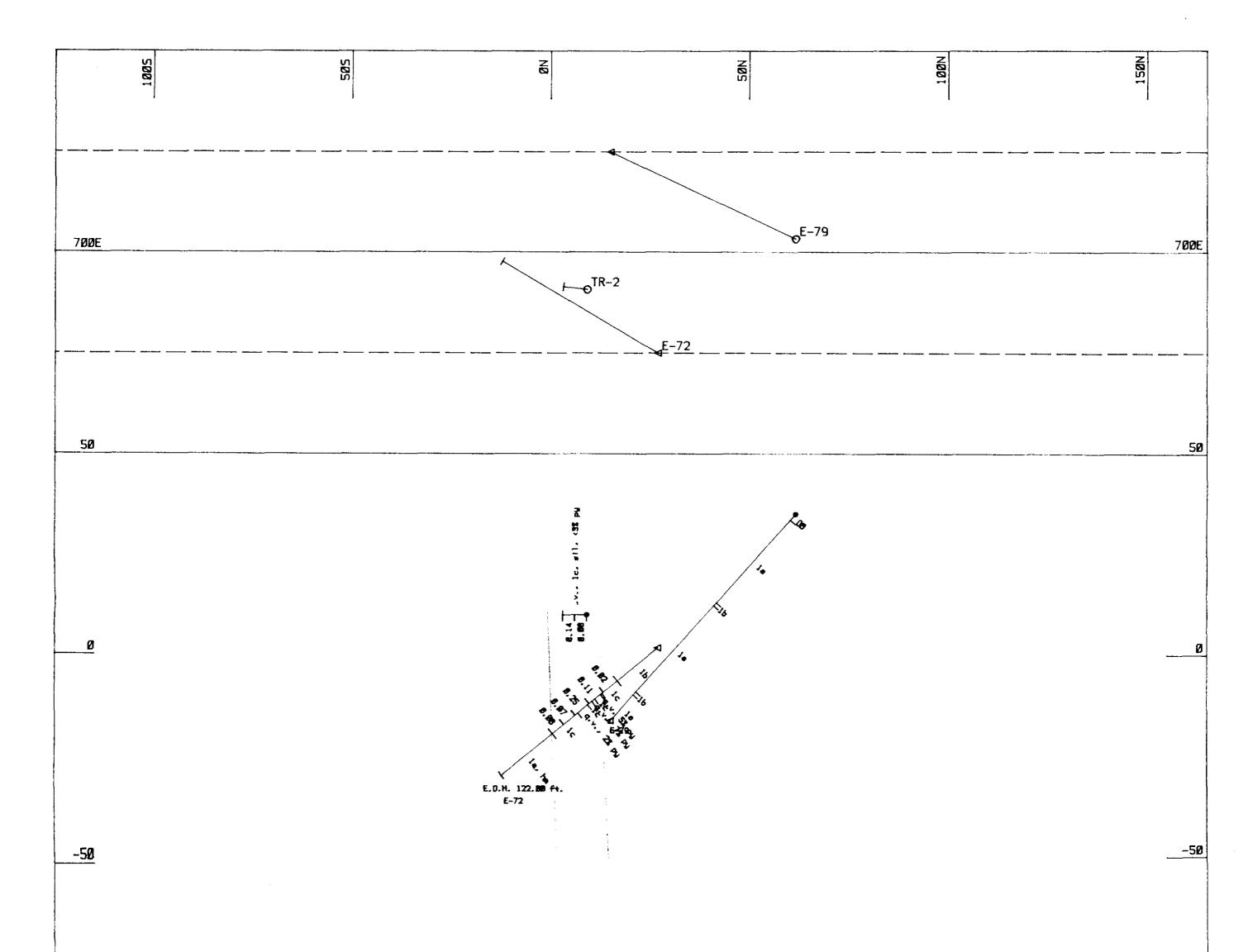
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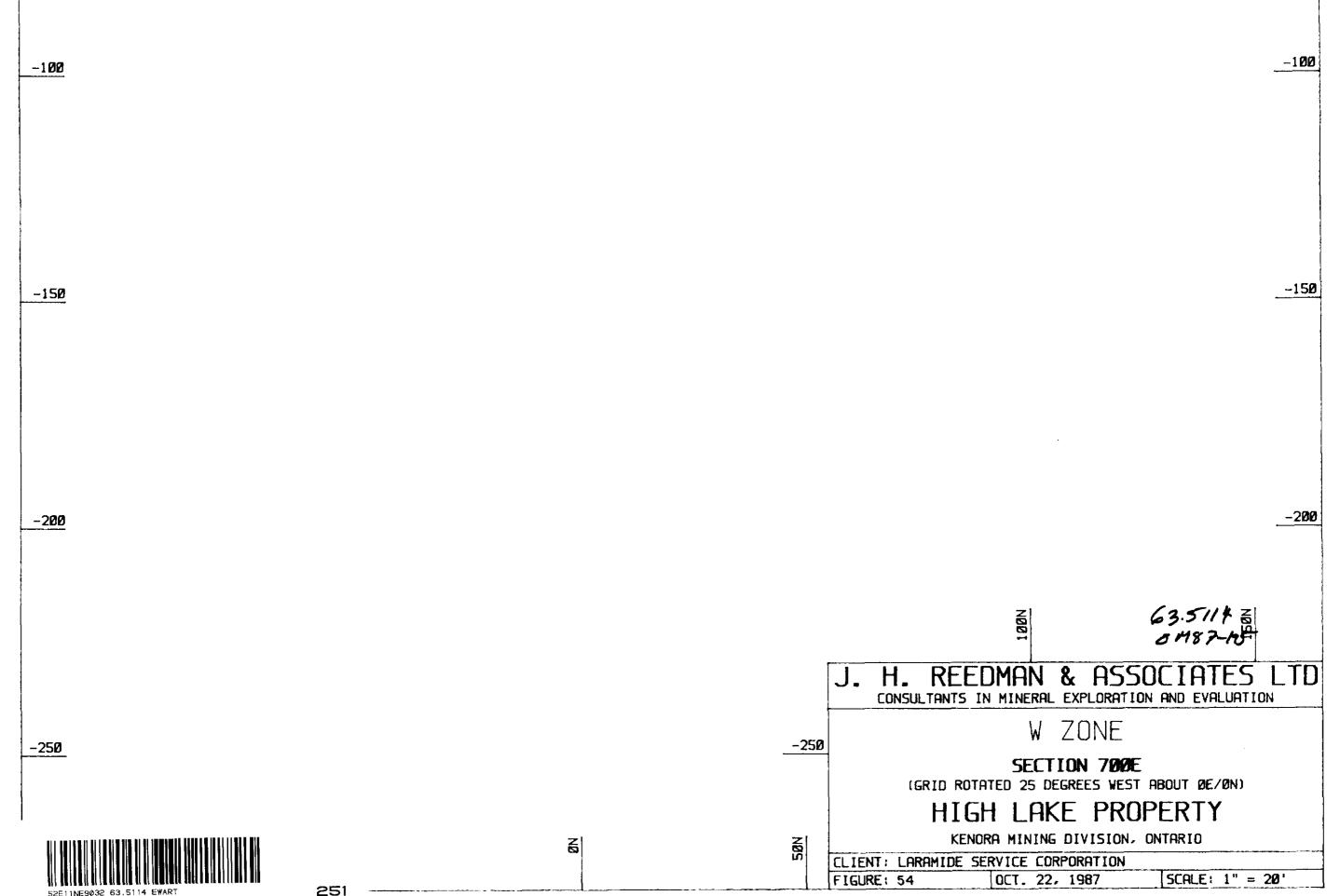


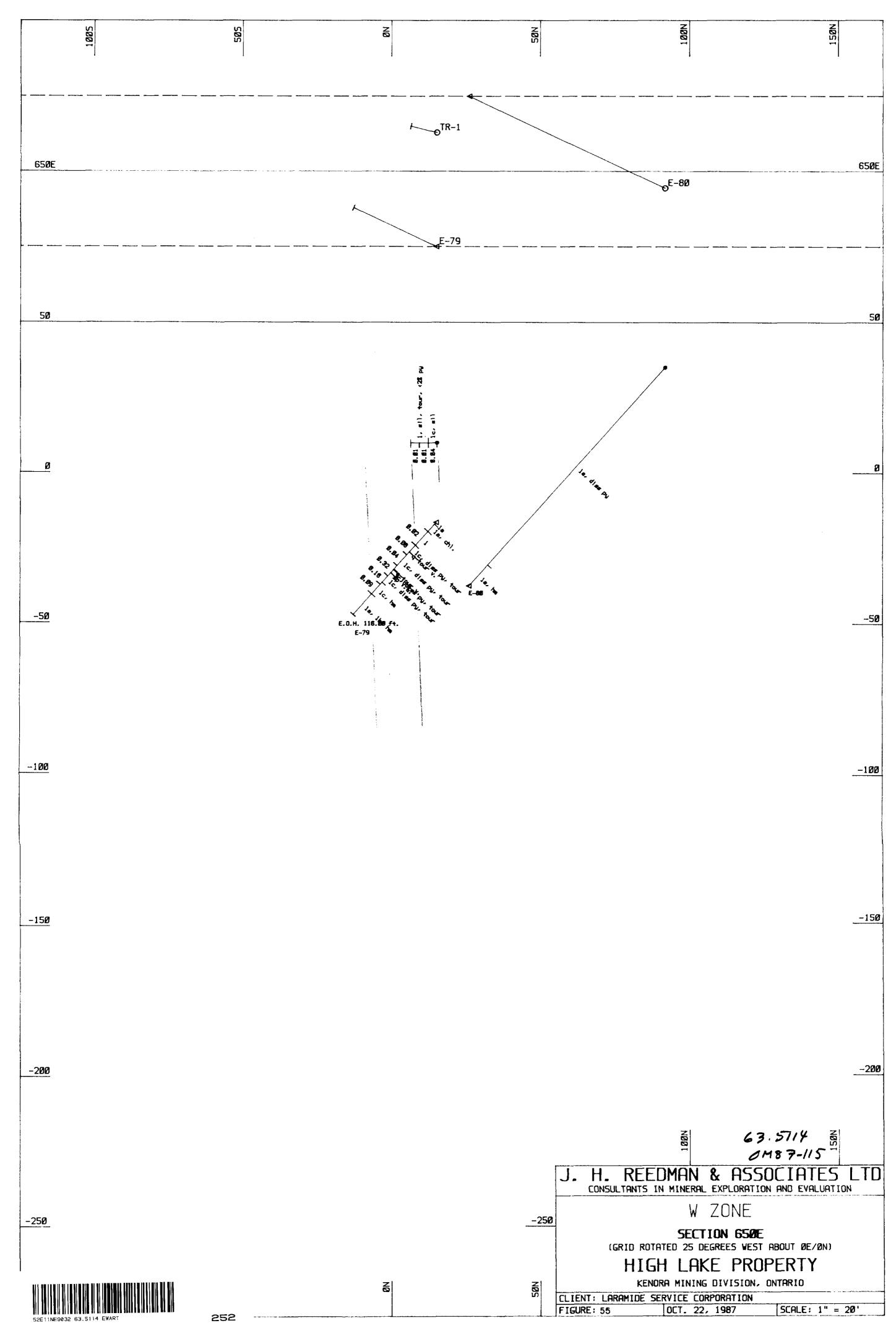


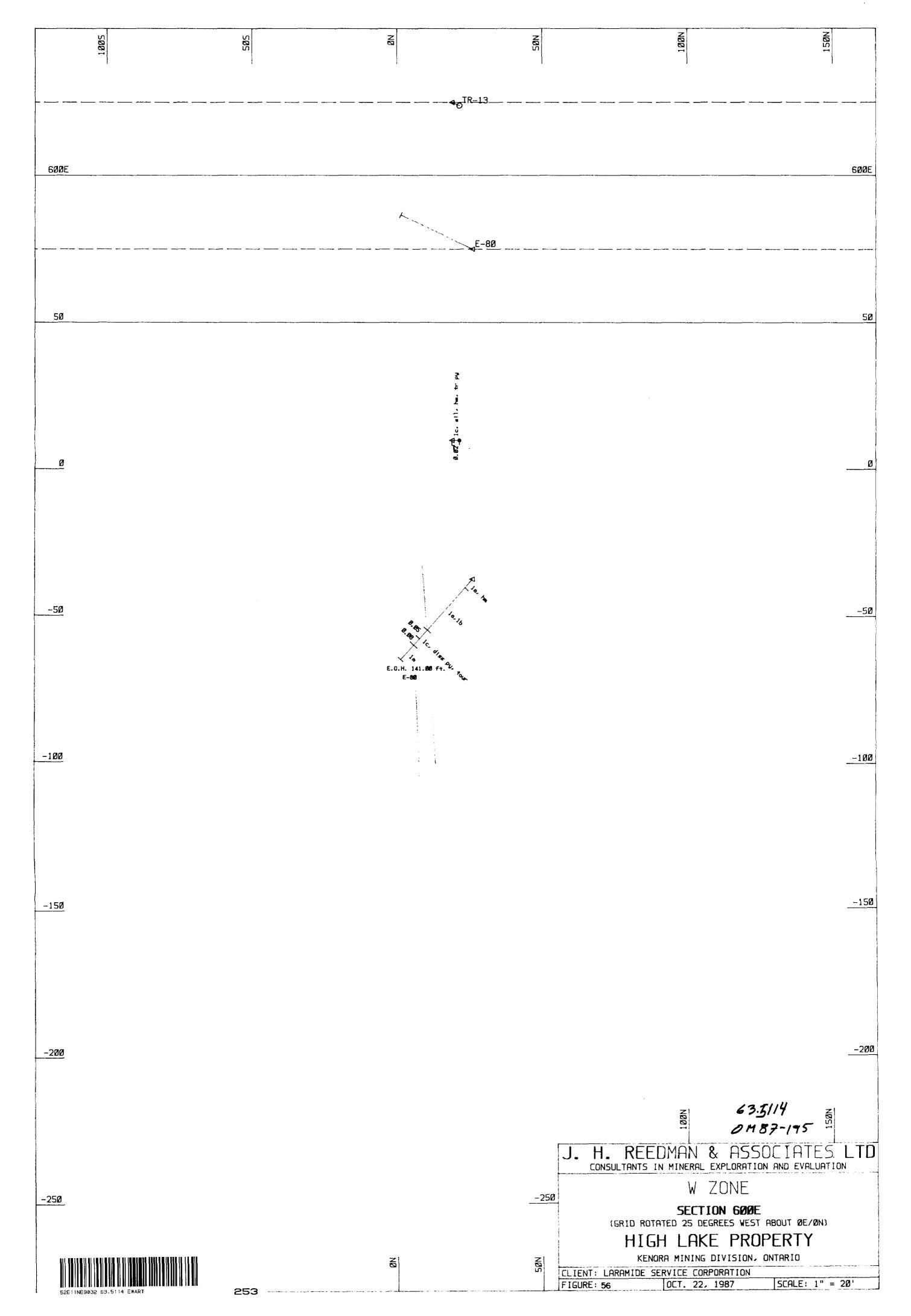


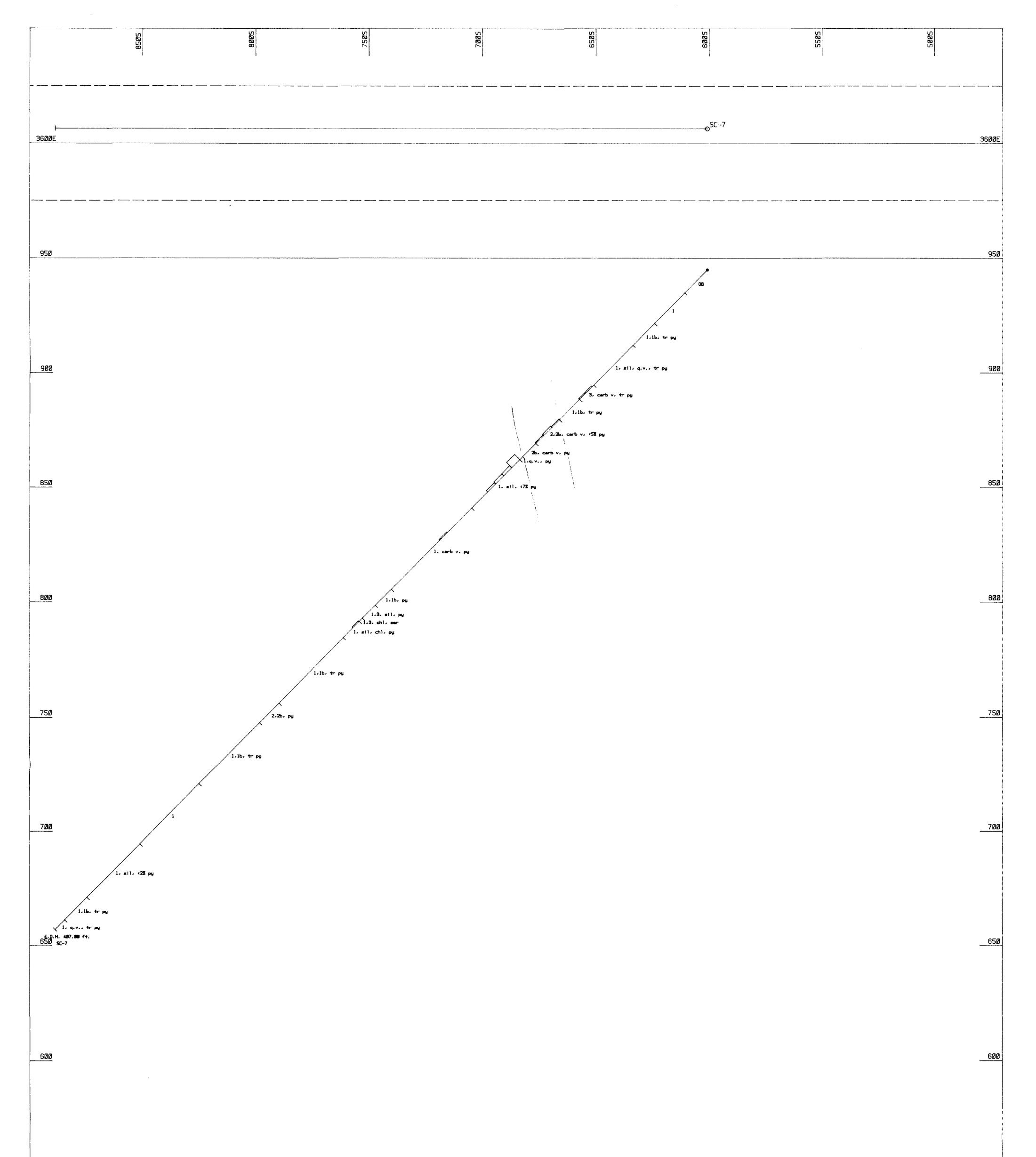
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ASSAY BAR GRAPHS	LEGEND	H LAKE PORPHYRYTIC GRANODIORITE		hm	haematite
e.,,	16. 1c.	Massive Quartz Feldspar Porphyry Follated - weak to moderate shea "Quartz-eye Sericite Schist" - s ALT, 2a. Massive Hornfelsed Basal Biotite-hornblende Schist - stro	t	mgn chl sll tour cpy py	magnetite chlorite silicified tourmaline chalcopyrite pyrite
Pur of kor	q.v	RID ROCK (Basalt - Granodiorite) Massive Quartz Diorite, 3b. Fol 2. (quartz vein) q-carb v. (quart our. v. (quartz-tourmaline vein)		tr	pyrrhotite visible gold trace Assays in oz/ton

J. H. REEDMAN & ASSOCIATES LTD CONSULTANTS IN MINERAL EXPLORATION AND EVALUATION R ZONE SECTION 3600E (CALNOR GRID) HIGH LAKE PROPERTY

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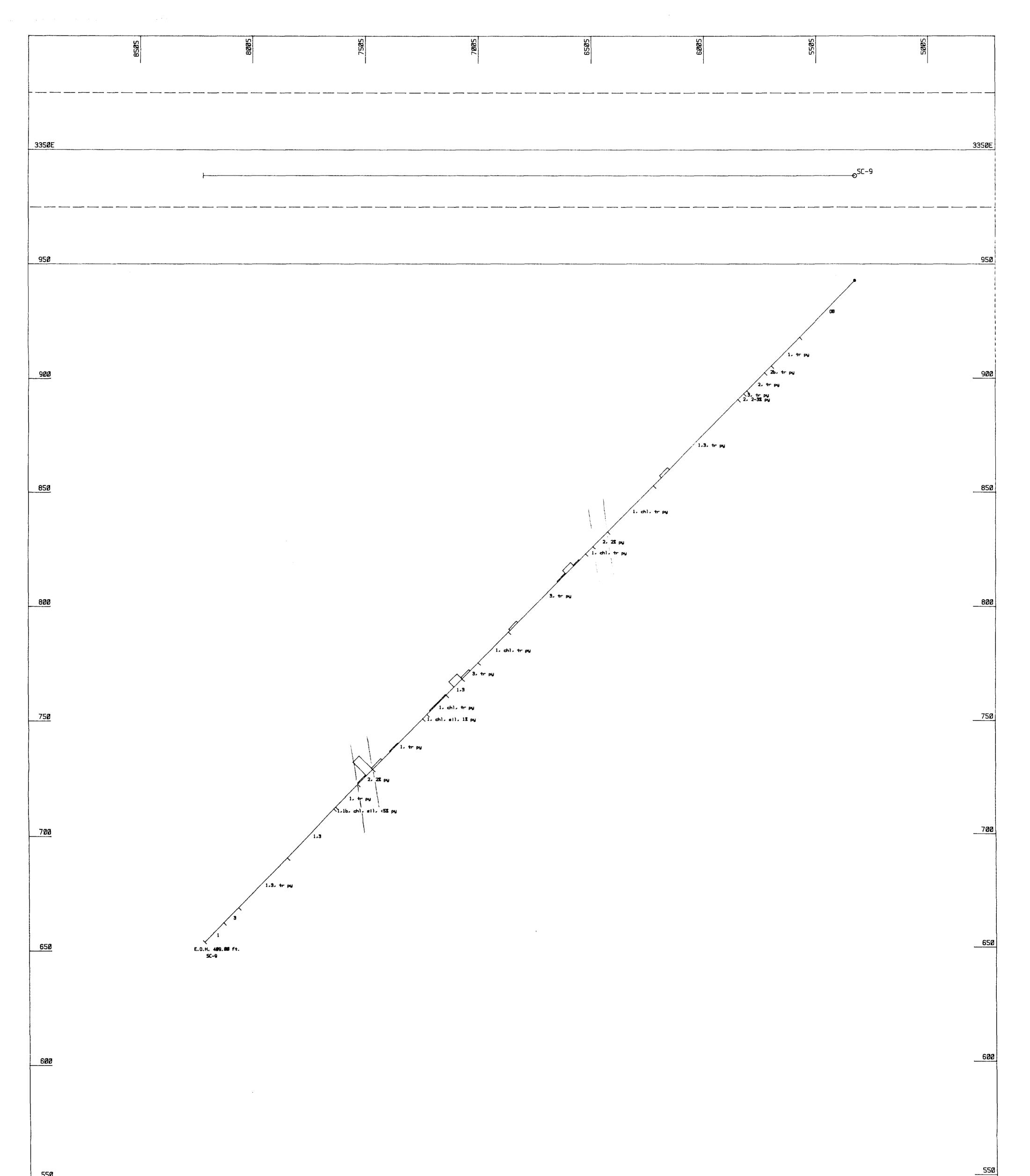
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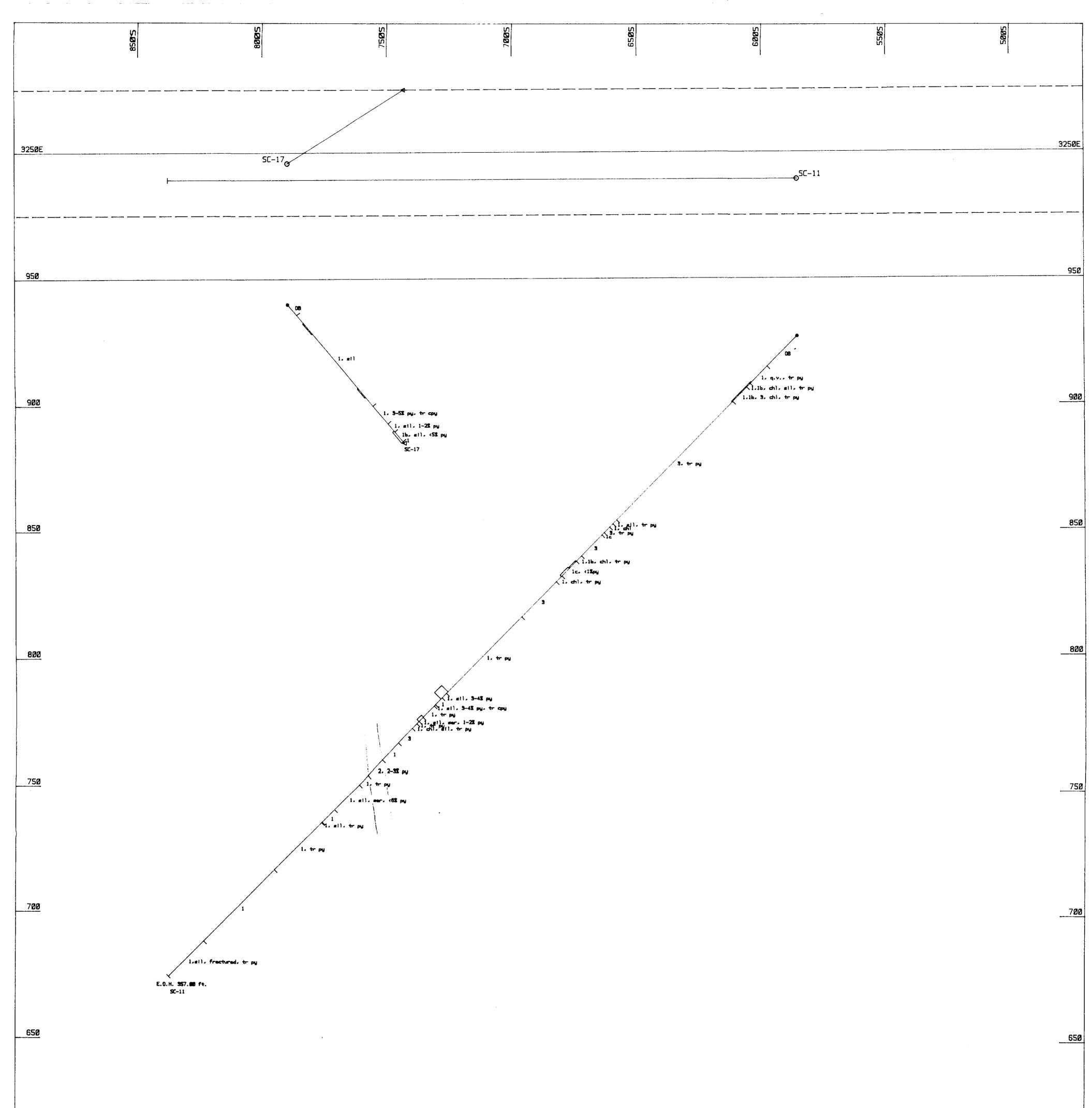
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ASSAY BAR GRAPHS	LEGEND			J. H. REEDMAN & ASSOCIATES L. CONSULTANTS IN MINERAL EXPLORATION AND EVALUATION	TD
/•.	HIGH LAKE PORPHYRYTIC GRANODIORITE 1 1a. Massive Quartz Feldspar Porphyry 1b. Follated - weak to moderate shearing 1c. "Quartz-eye Sericite Schist" - strongly sh		hm haematite mgn magnetite chì chìorite heared siì siìicified tour tourmaìine	R ZONE SECTION 3350E	
territe territe	2 BASALT, 2a. Massive Hornfe 2 2b. Blotite-hornblende Sch	lst - strongly sheared	cpy chalcopyrite py pyrite po pyrrhotite V.G. visible gold	(CALNOR GRID) HIGH LAKE PROPERTY	
Pu loz	3 HYBRID ROCK (Basalt - Granodiorite) 3a. Massive Quartz Diorite, 3b. Follated (sheared) q.v. (quartz vein) q-carb v. (quartz-carbonate vein)		tr trace Gold Assays In oz/ton	KENORA MINING DIVISION, ONTARIO CLIENT: LARAMIDE SERVICE CORPORATION	
	q-tour. v. (quartz-tourma)	ine veinj	-	FIGURE: 58 DATE: OCT. 21, 1987 SCALE: 1" = 20	

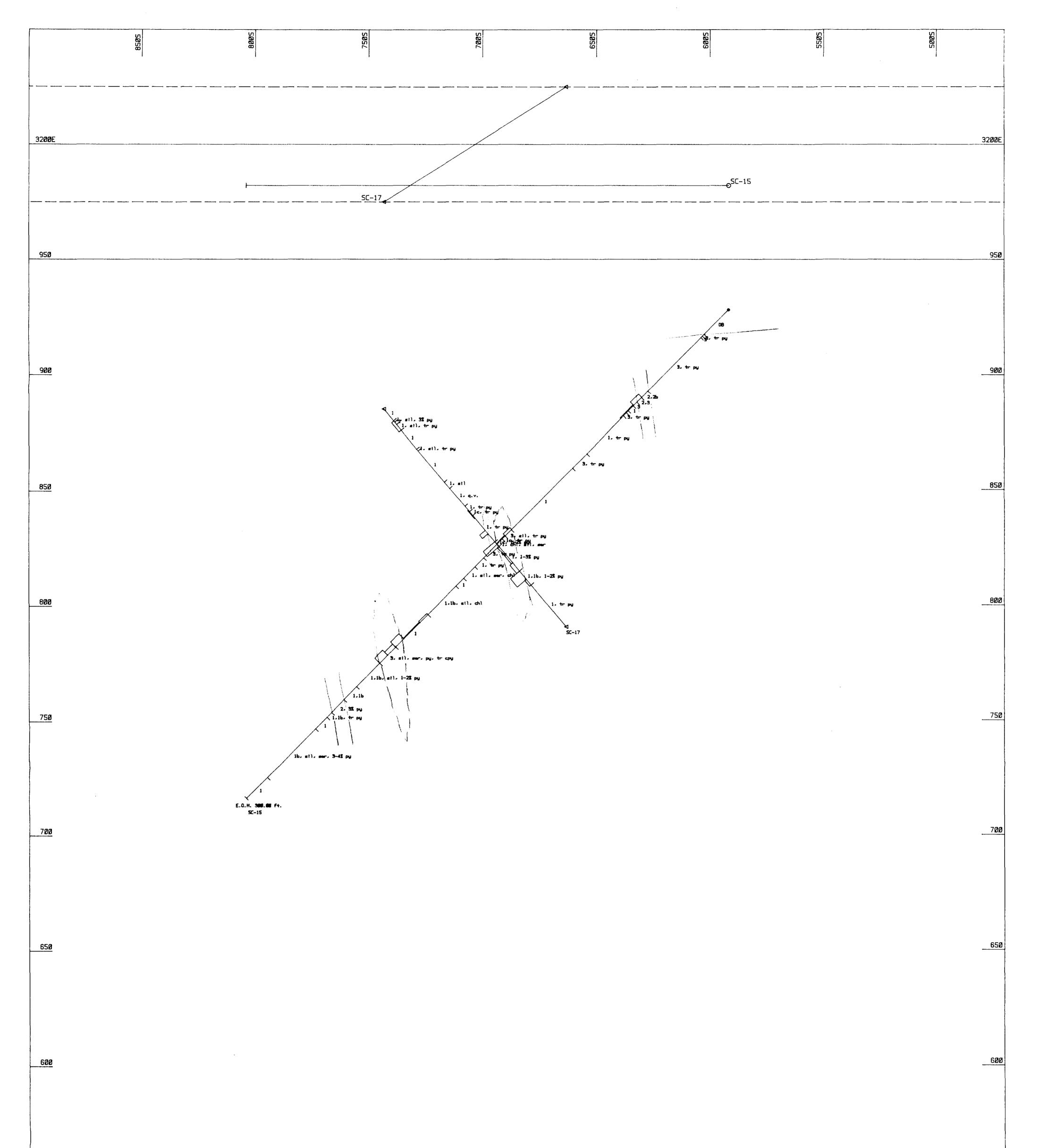


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ASSAY BAR GRAPHS	la. Mass	E PORPHYRYTIC GRANODIORITE Ive Quartz Feldspar Porphyr	u	hm haematite mgn magnetite	1	EDMAN & ASSOCIATES LTD S IN MINERAL EXPLORATION AND EVALUATION
	<ul> <li>1b. Follated - weak to moderate shearing 1c. "Quartz-eye Sericite Schist" - strongly sheared</li> <li>2 BASALT, 2a. Massive Hornfelsed Basalt</li> <li>2 2b. Biotite-hornblende Schist - strongly sheared</li> <li>3 HYBRID ROCK (Basalt - Granodiorite) 3a. Massive Quartz Diorite, 3b. Follated (sheared) q.v. (quartz vein) q-carb v. (quartz-carbonate vein) q-tour. v. (quartz-tourmaline vein)</li> </ul>	arate shearing chist" - strongly sheared lsed Basalt	ch) chlorite s!) s!)!clfied tour tourmaline cpy chalcopyrite		R ZONE SECTION 3250E (CALNOR GRID)	
An log tool		py pyrite po pyrrhotite V.G. visible gold tr trace Gold Assays in oz/ton	K CLIENT: LARAMID	GH LAKE PROPERTY ENORA MINING DIVISION, ONTARIO		
					FIGURE: 59	DATE: OCT. 21, 1987 SCALE: 1" = 20'

52E11NE9032 63.5114 EWART

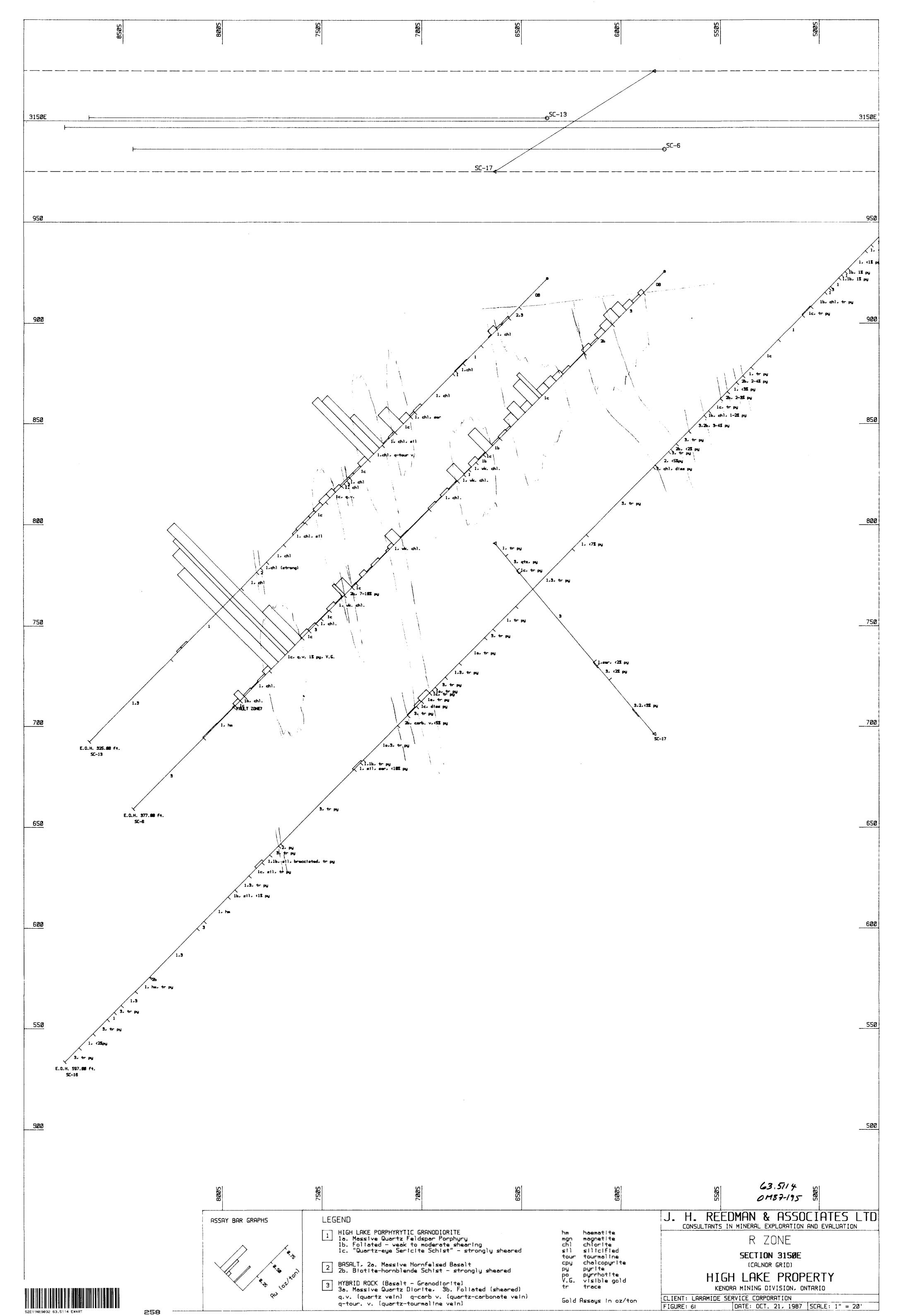
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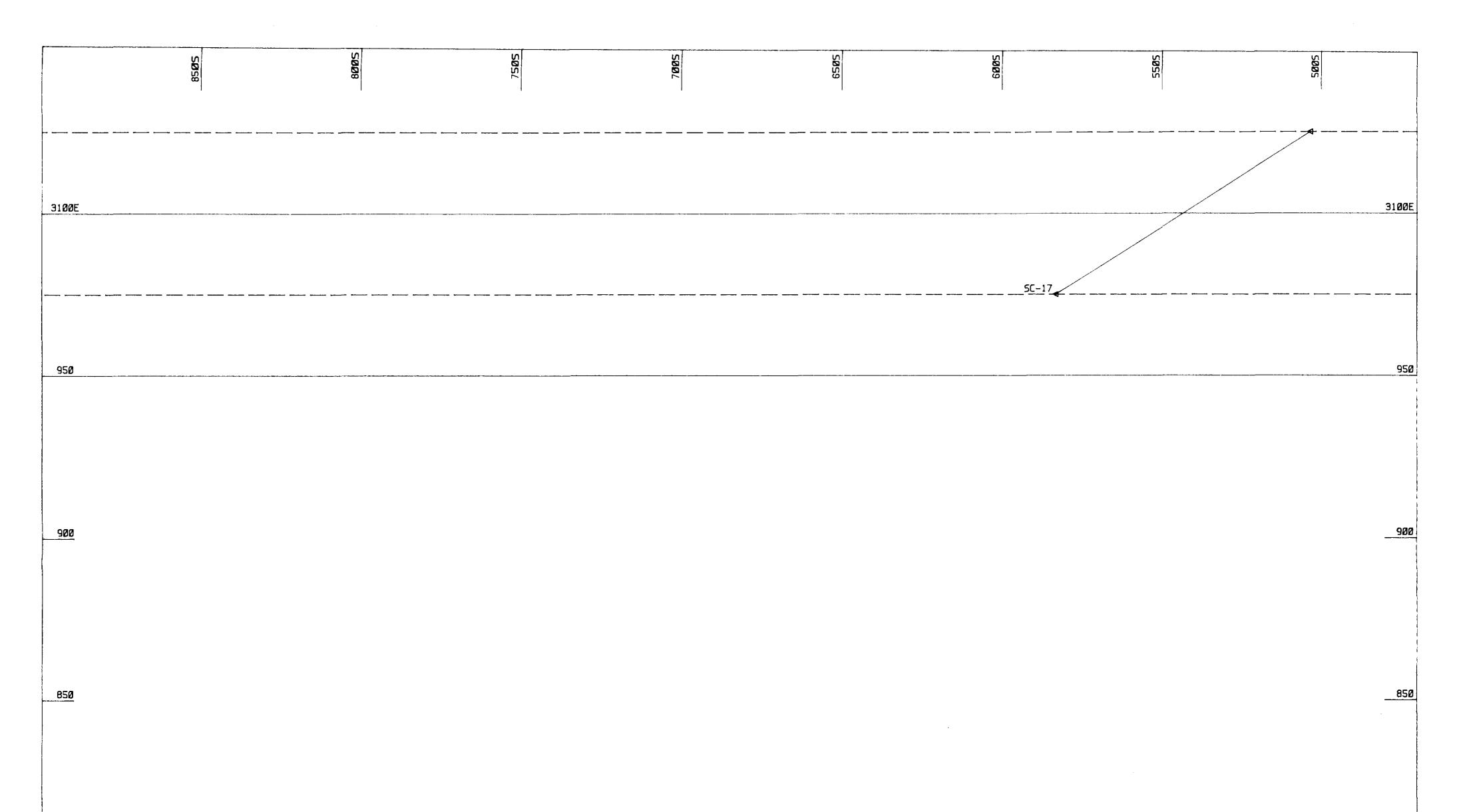


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ASSAY BAR GRAPHS	LEGEND		J. H. REEDMAN & ASSOCIATES LTD CONSULTANTS IN MINERAL EXPLORATION AND EVALUATION
	1HIGH LAKE PORPHYRYTIC GRANODIORITE11a. Massive Quartz Feldspar Porphyry1b. Follated - weak to moderate shearing1c. "Quartz-eye Sericite Schist" - strongly sheared	hm haematite mgn magnetite chì chlorite siì silicified tour tourmaìine	R ZONE SECTION 3200E
••	2 BASALT, 2a. Massive Hornfelsed Basalt 22 2b. Blotite-hornblende Schist - strongly sheared	tour tourmailne cpy chalcopyrite py pyrite po pyrrhotite V.G. visible gold	(CALNOR GRID) HIGH LAKE PROPERTY
et lozike	3 HYBRID ROCK (Basalt - Granodiorite) 3a. Massive Quartz Diorite, 3b. Foliated (sheared)	tr trace	KENORA MINING DIVISION, ONTARIO
¢n,	q.v. (quartz veln) q-carb v. (quartz-carbonate veln q-tour. v. (quartz-tourma)ine veln)	) Gold Assays In oz/ton	CLIENT: LARAMIDE SERVICE CORPORATIONFIGURE: 60DATE: DCT. 21, 1987SCALE: 1" = 20'

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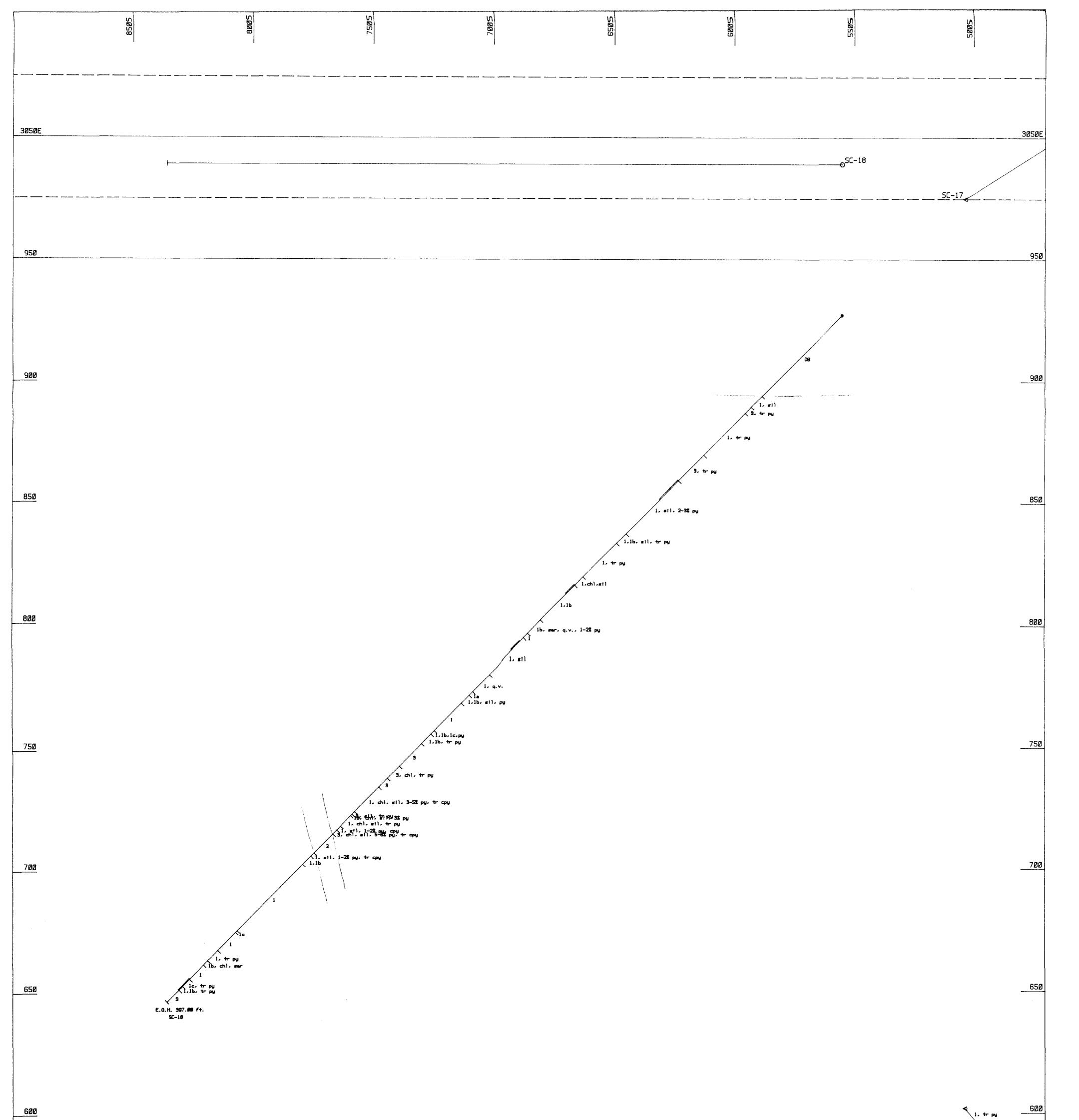




8005	7505	7005	5005	5855 0M87-195
ASSAY BAR GRAPHS	LEGEND			J. H. REEDMAN & ASSOCIATES LTD CONSULTANTS IN MINERAL EXPLORATION AND EVALUATION
	1 HIGH LHKE 1 la. Massi 1b. Folla 1c. "Quar	PORPHYRYTIC GRANODIORITE /e Quartz Feldspar Porphyry ted – weak to moderate shearing tz-eye Sericite Schist" – strongly sheared	hm haamatite mgn magnetite chì chlorite siì siìicified tour tourmaìine	R ZONE SECTION 3100E
	<ul> <li>BASALT, 2a. Massive Hornfelsed Basalt</li> <li>2b. Blotite-hornblende Schist - strongly sheared</li> <li>HYBRID ROCK (Basalt - Granodiorite)</li> <li>3a. Massive Quartz Diorite, 3b. Follated (sheared)</li> <li>q.v. (quartz vein) q-carb v. (quartz-carbonate vein)</li> <li>q-tour. v. (quartz-tourmaline vein)</li> </ul>	a. Massive Hornfelsed Basalt te-hornblende Schist – strongly sheared	po pyrrhotite	(CALNOR GRID) HIGH LAKE PROPERTY
* to the		V.G. visible gold tr trace	KENORA MINING DIVISION, ONTARIO	
		Gold Assays in oz/ton	CLIENT: LARAMIDE SERVICE CORPORATIONFIGURE: 62DATE: OCT. 21, 1987SCALE: 1" = 20'	

S2E11NE9032 63.5114 EWART

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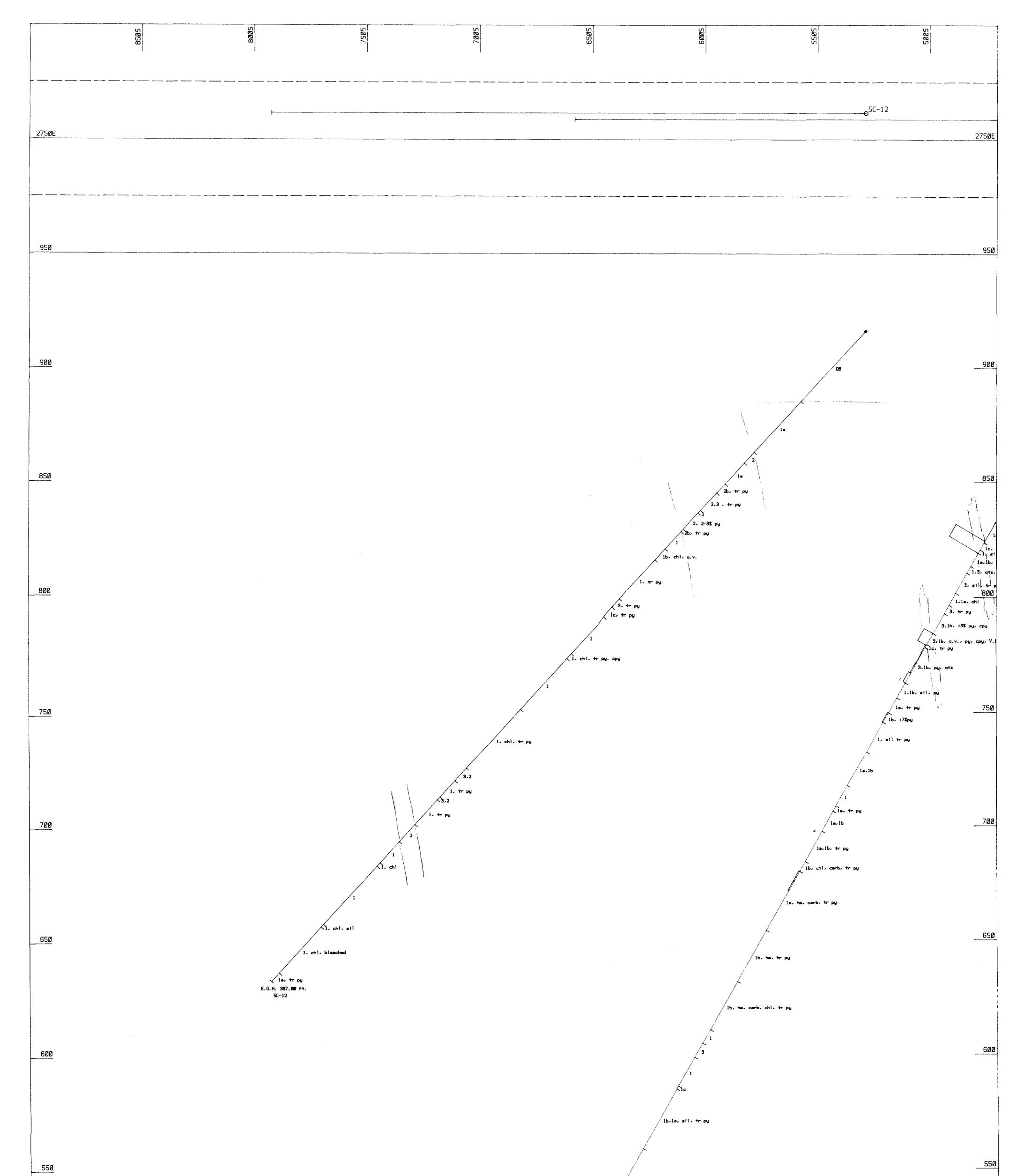


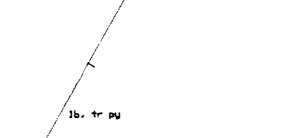
800S	7505	7005	6585	500S	5585	63.5114 0187-195
ASSAY BAR GRAPHS	LEGEND					EDMAN & ASSOCIATES LTD IN MINERAL EXPLORATION AND EVALUATION
/•,	HIGH LAKE PORPHYRYTIC GRANODIORITE         1         1a. Massive Quartz Feldspar Porphyry         1b. Follated - weak to moderate shearing         1c. "Quartz-eye Sericite Schist" - strongly sheared		hm haematite mgn magnetite chì chlorite siì siìicified tour tourmaline	R ZONE SECTION 3050E		
· · · · · · · · · · · · · · · · · · ·	BASALT, 2a. Massive Hornf 2 2b. Biotite-hornbiende Sc	2a. Massive Hornfelsed Bas Ite-hornblende Schist - st	salt trongly sheared	cpy chalcopyrite py pyrite po pyrrhotite V.G. visible gold	HT	GH LAKE PROPERTY
et loth	3 HYBRID ROCK (Basalt - Granodiorite) 3a. Massive Quartz Diorite, 3b. Follated (sheared) q.v. (quartz vein) q-carb v. (quartz-carbonate vein) q-tour. v. (quartz-tourmaline vein)		V.G. visible gold tr trace	KENORA MINING DIVISION, ONTARIO		
- Ris			Gold Assays in oz/ton	CLIENT: LARAMIDE FIGURE: 63	SERVICE CORPORATION DATE: OCT. 21, 1987 SCALE: 1" = 20	

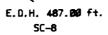
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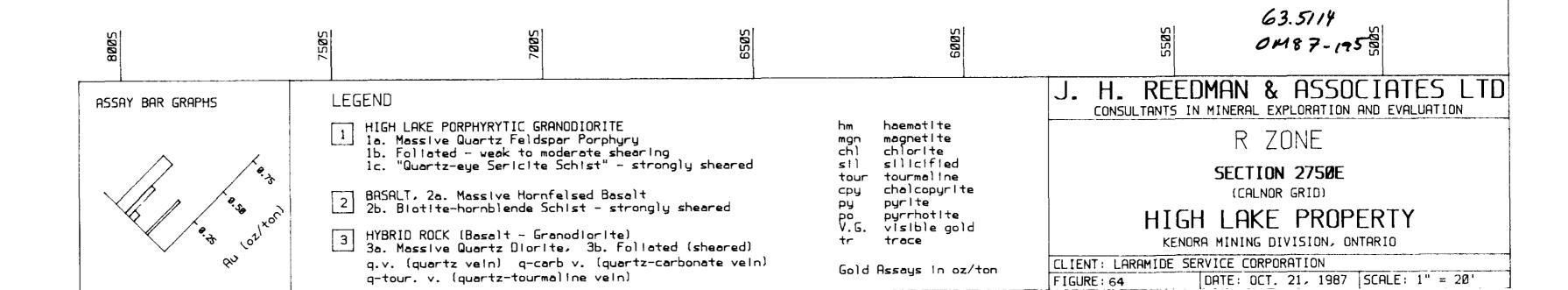
52E11NE9032 63.5114 EWART



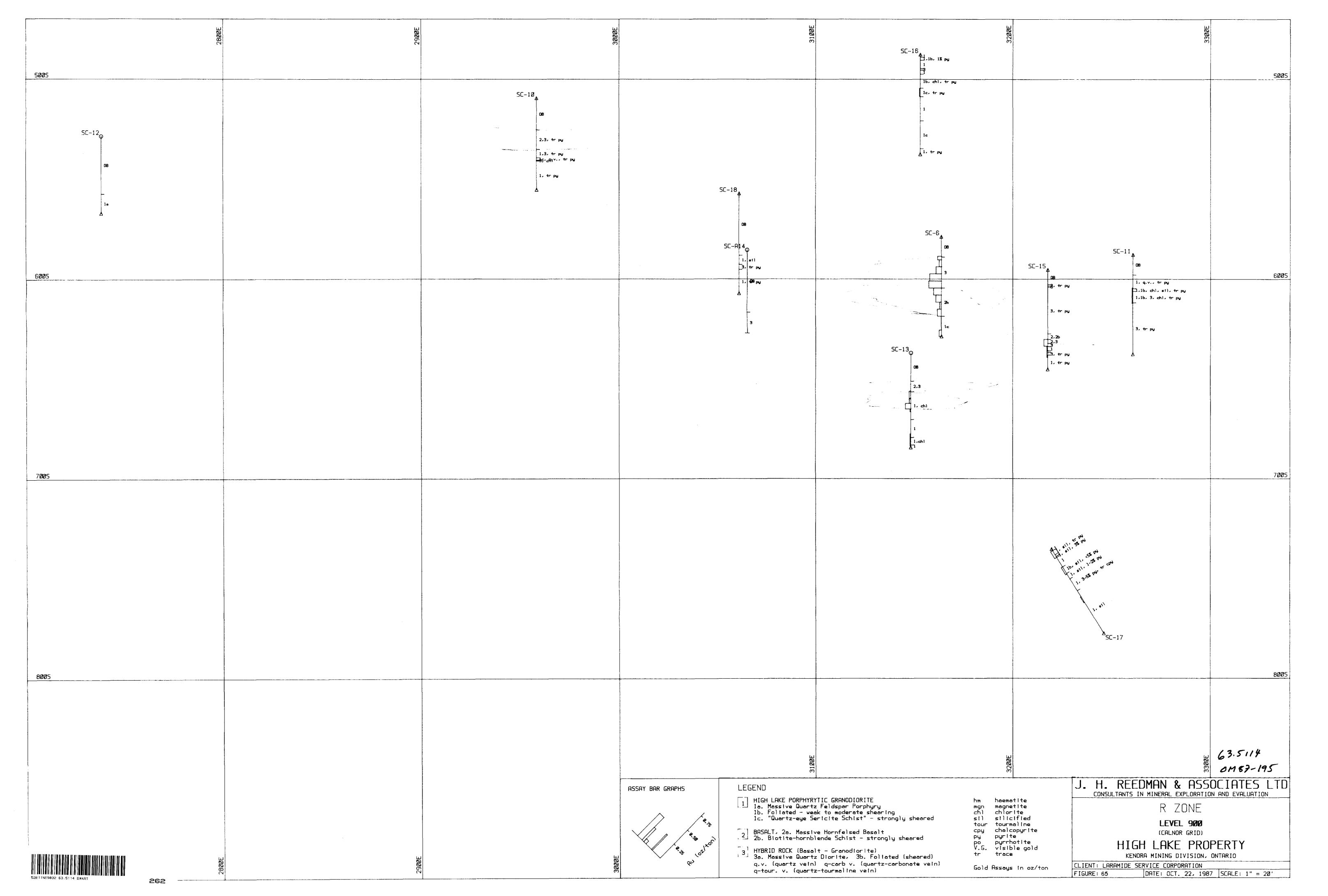


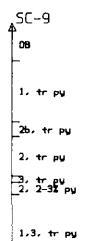


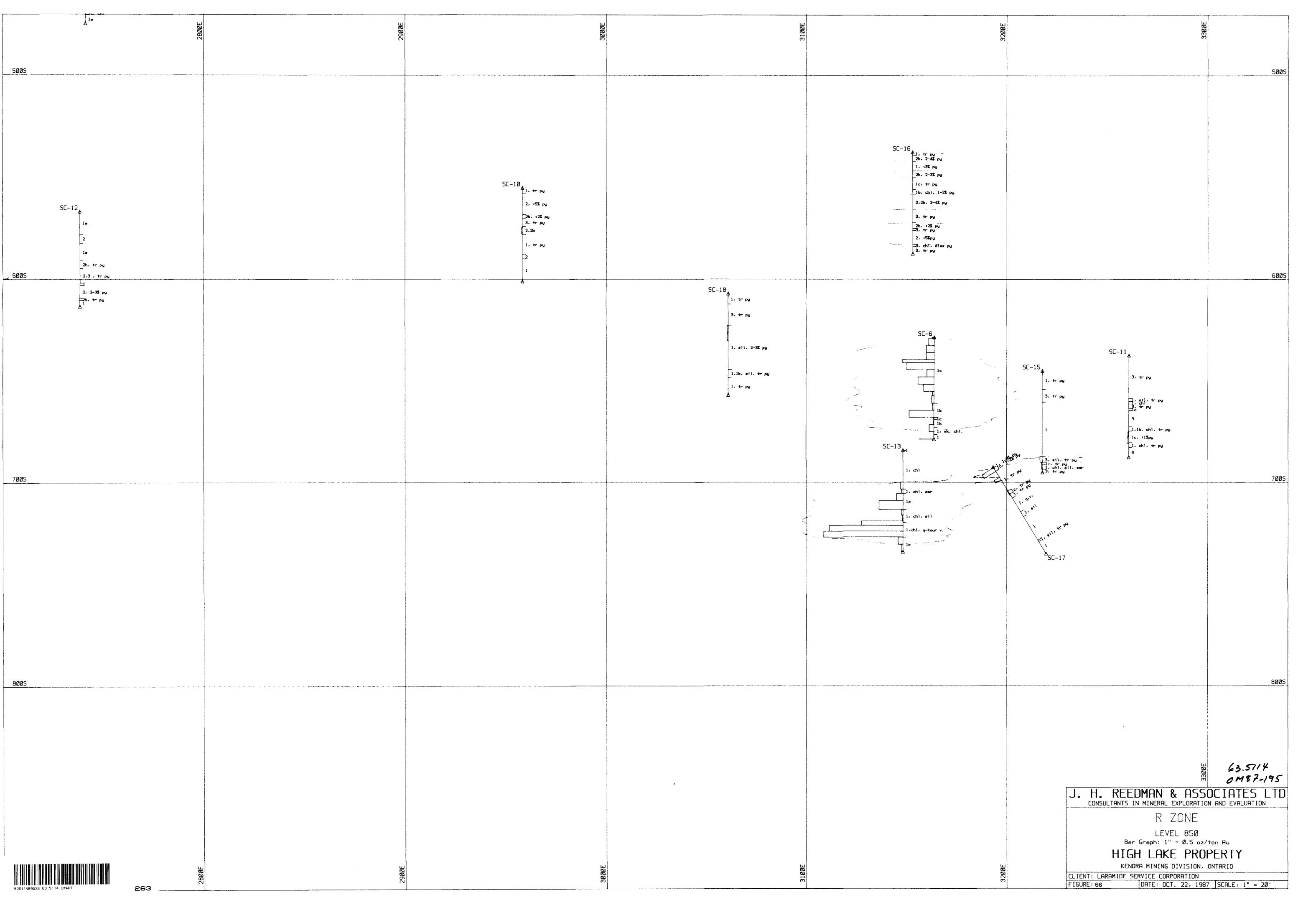


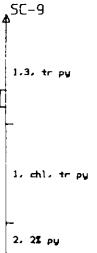


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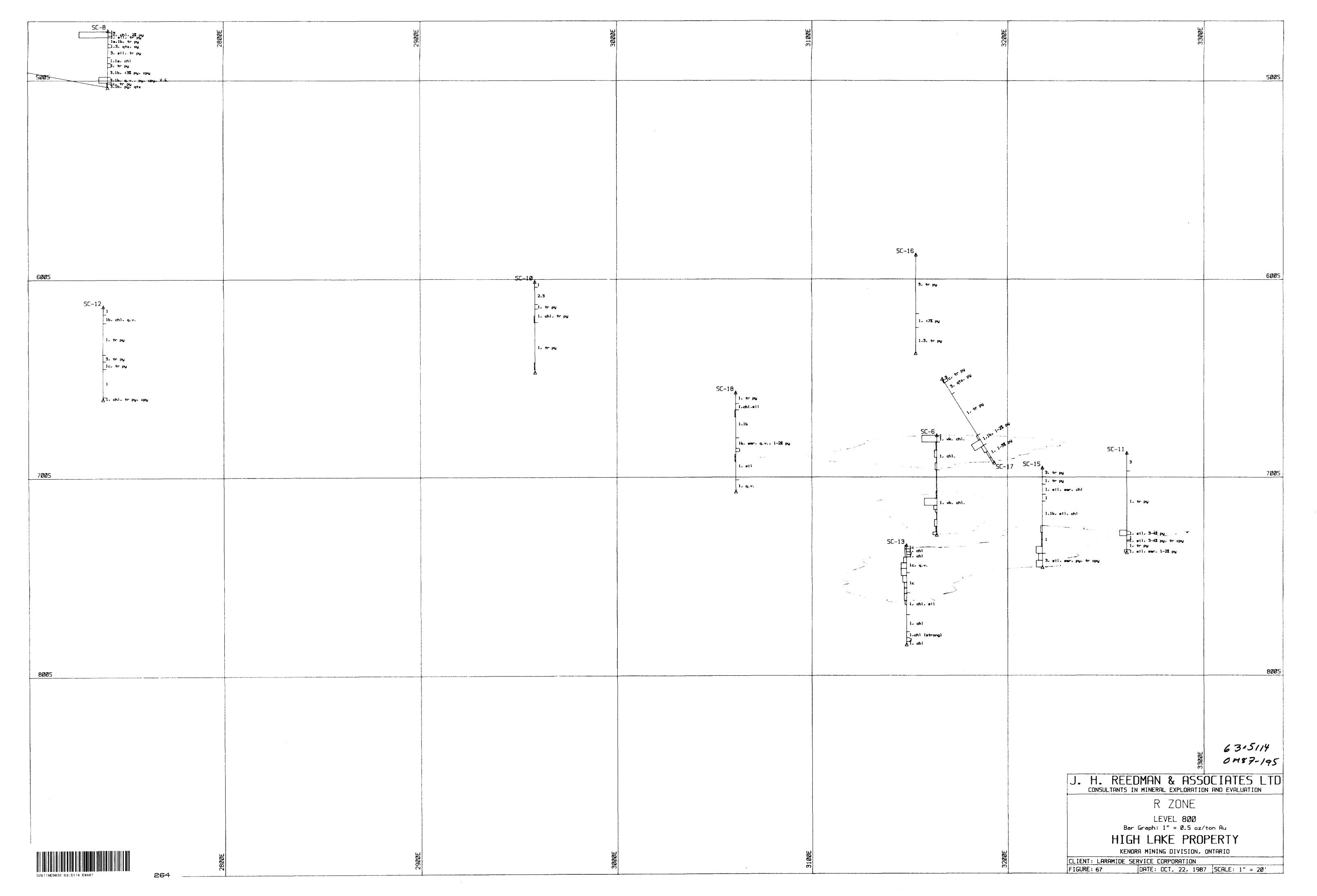


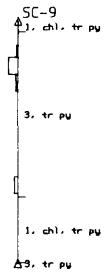




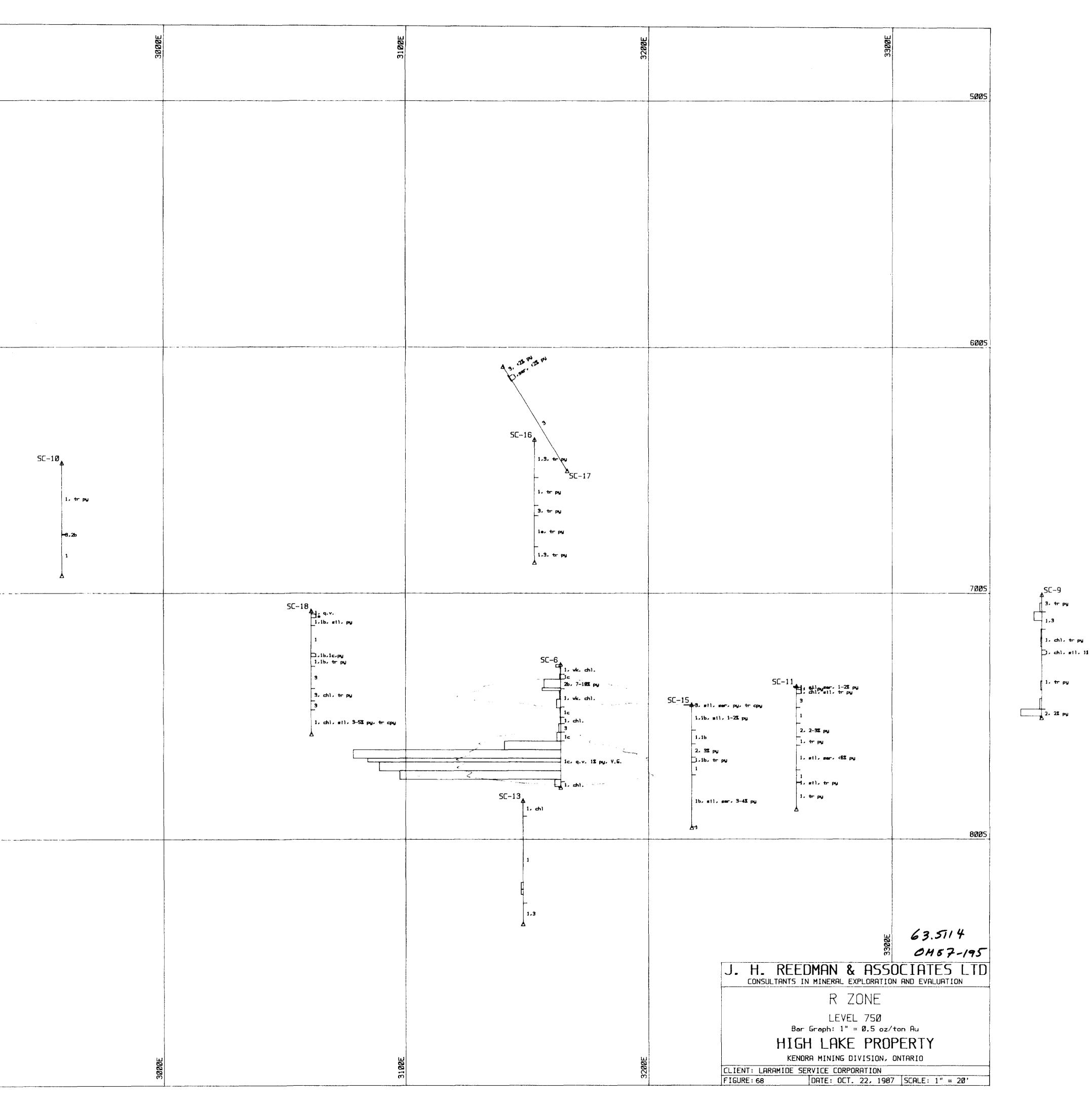


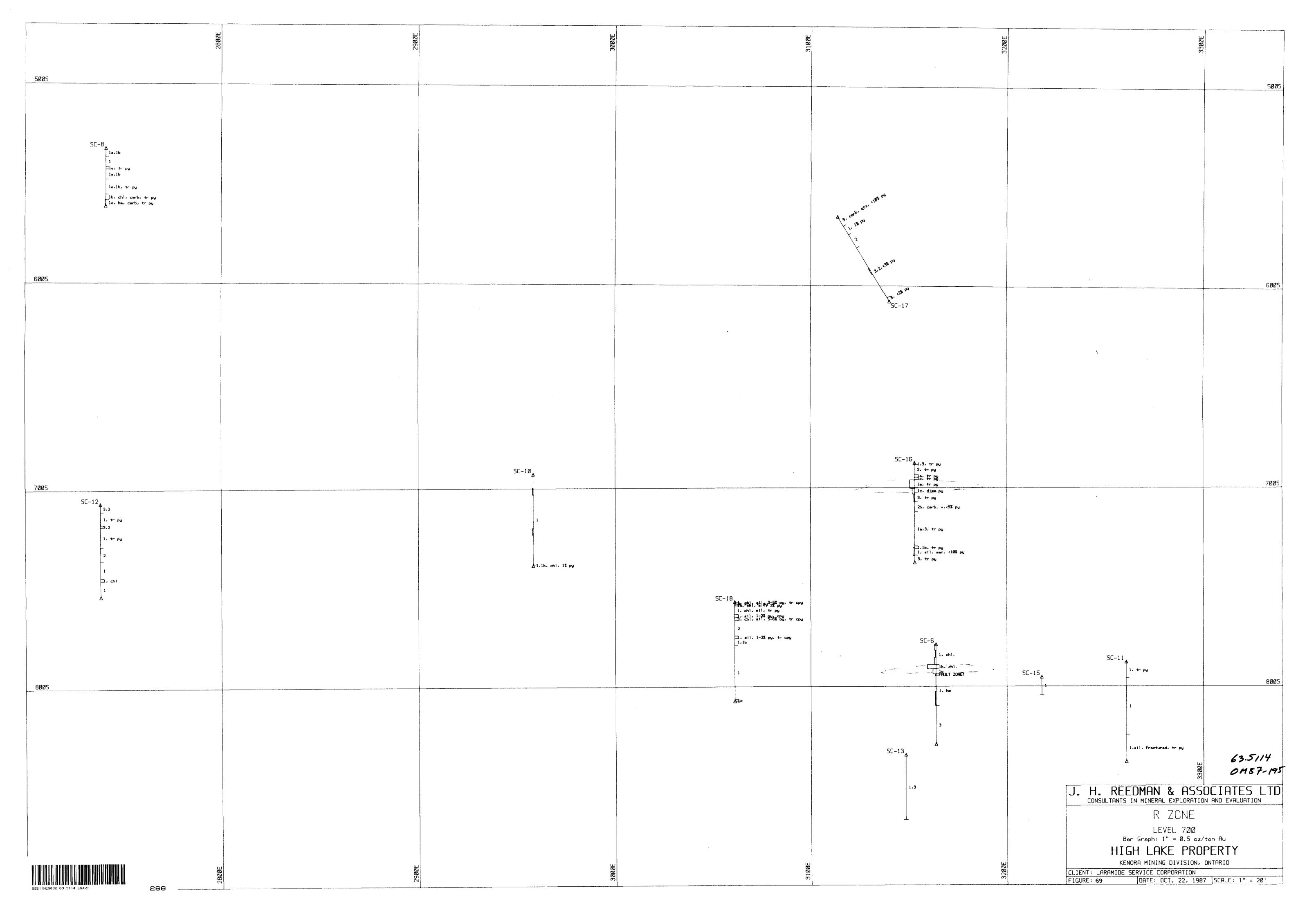
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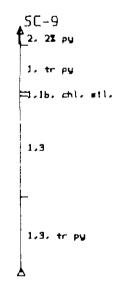


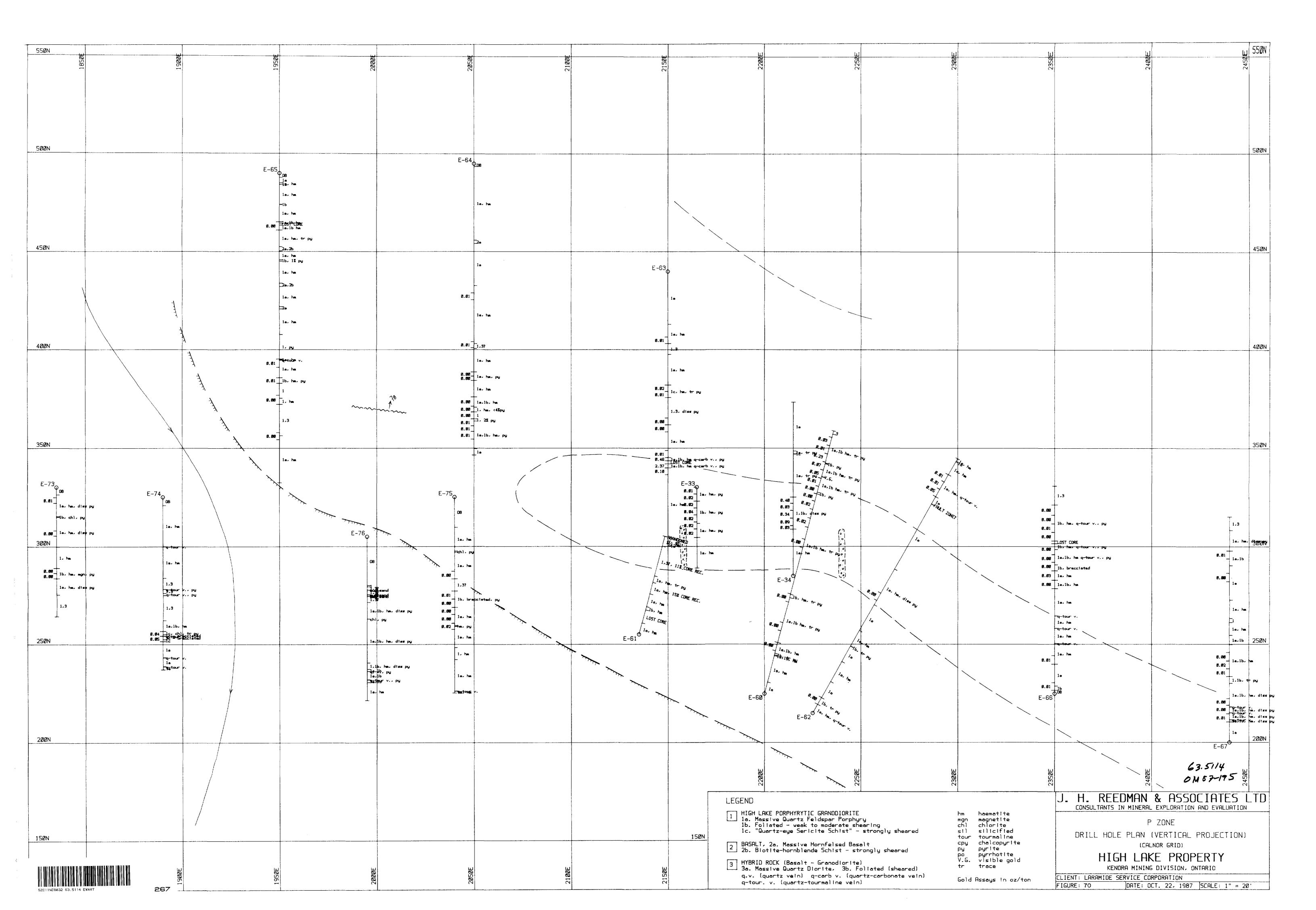


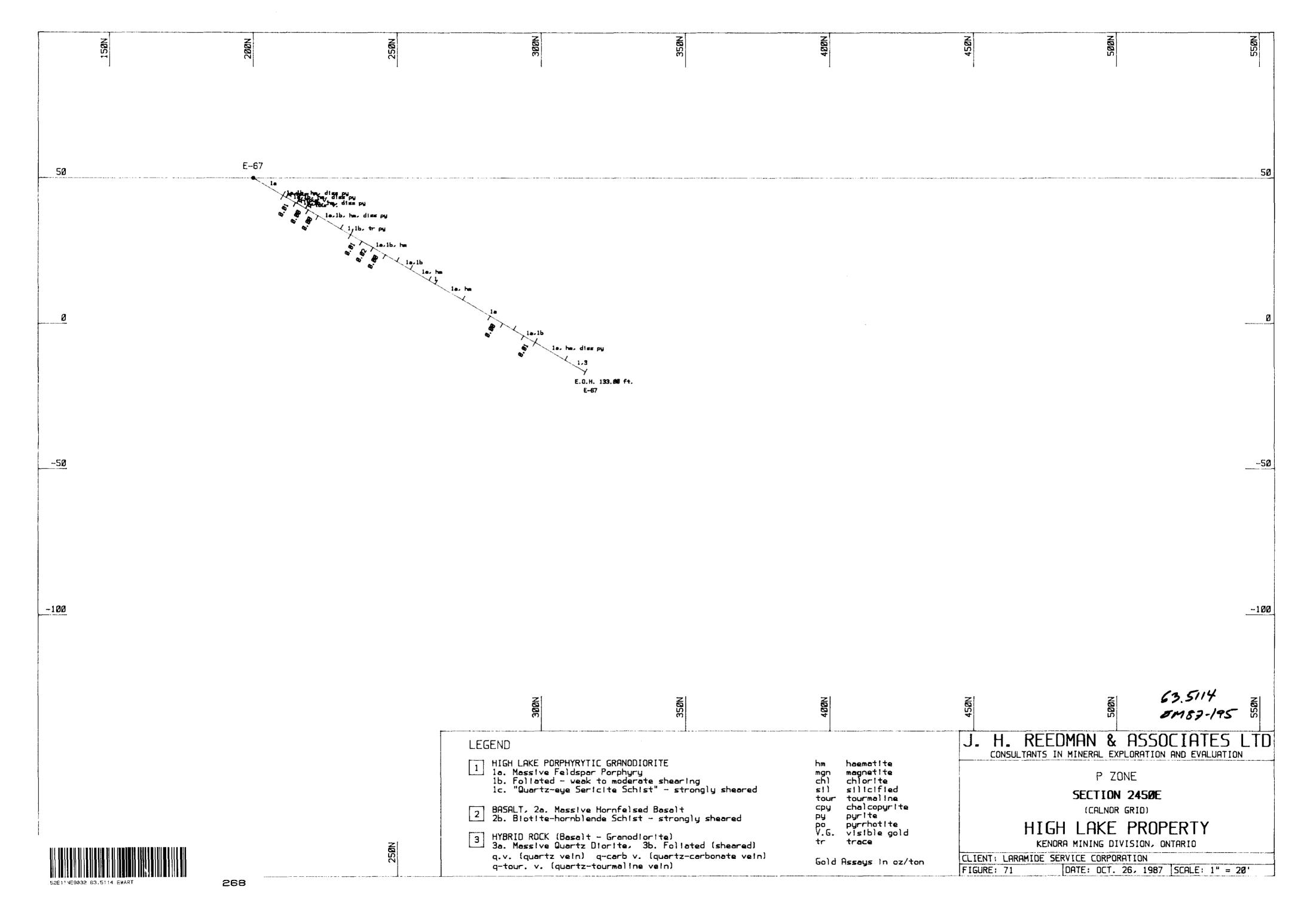
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			28ØØF	29ØØE
	5 <b>00</b> 5 SC-	8 1 3.1b, py, qtz 1.1b, s11, py 1a, tr py 1b, <7%py		
		l. atl tr py la.1b A		
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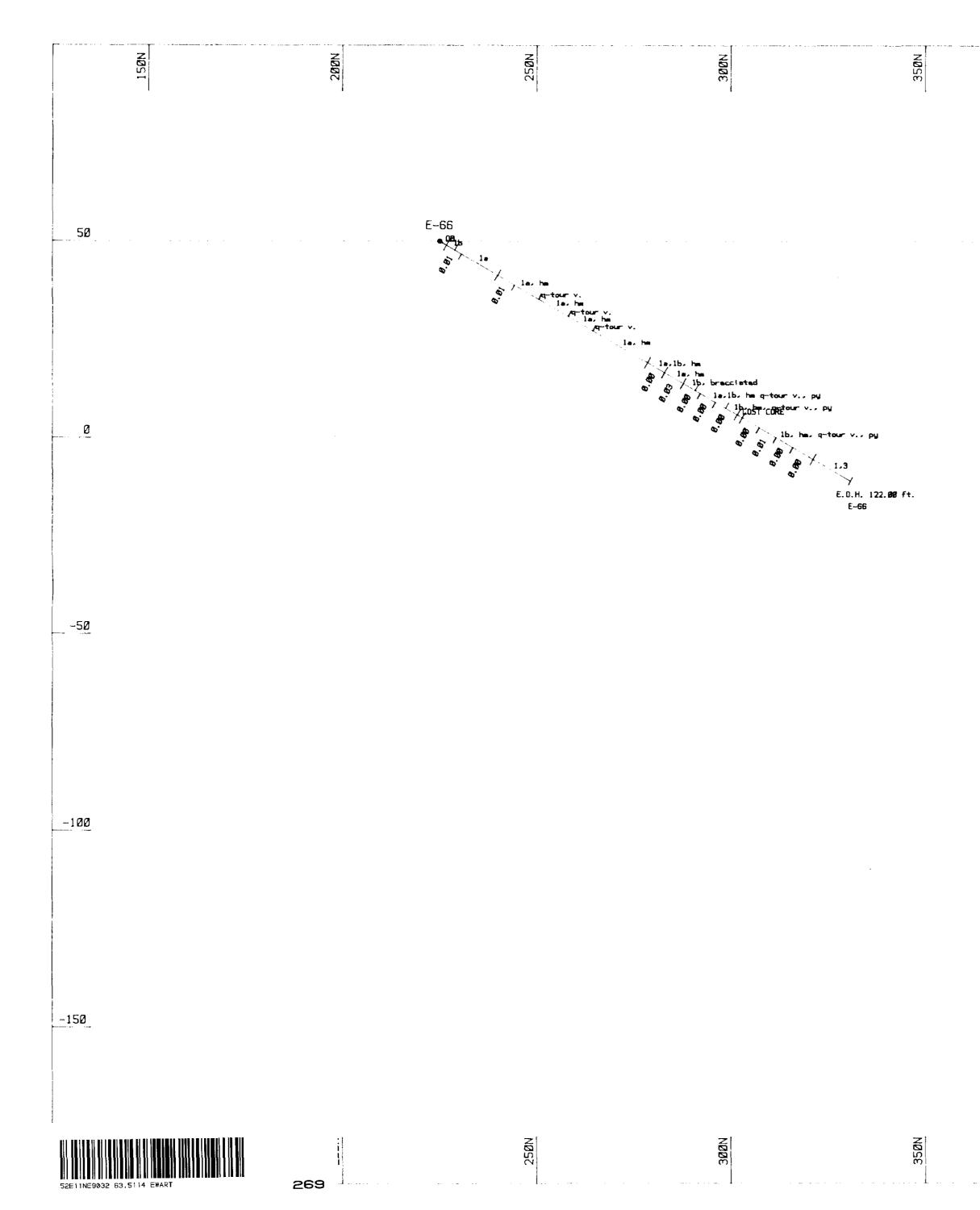


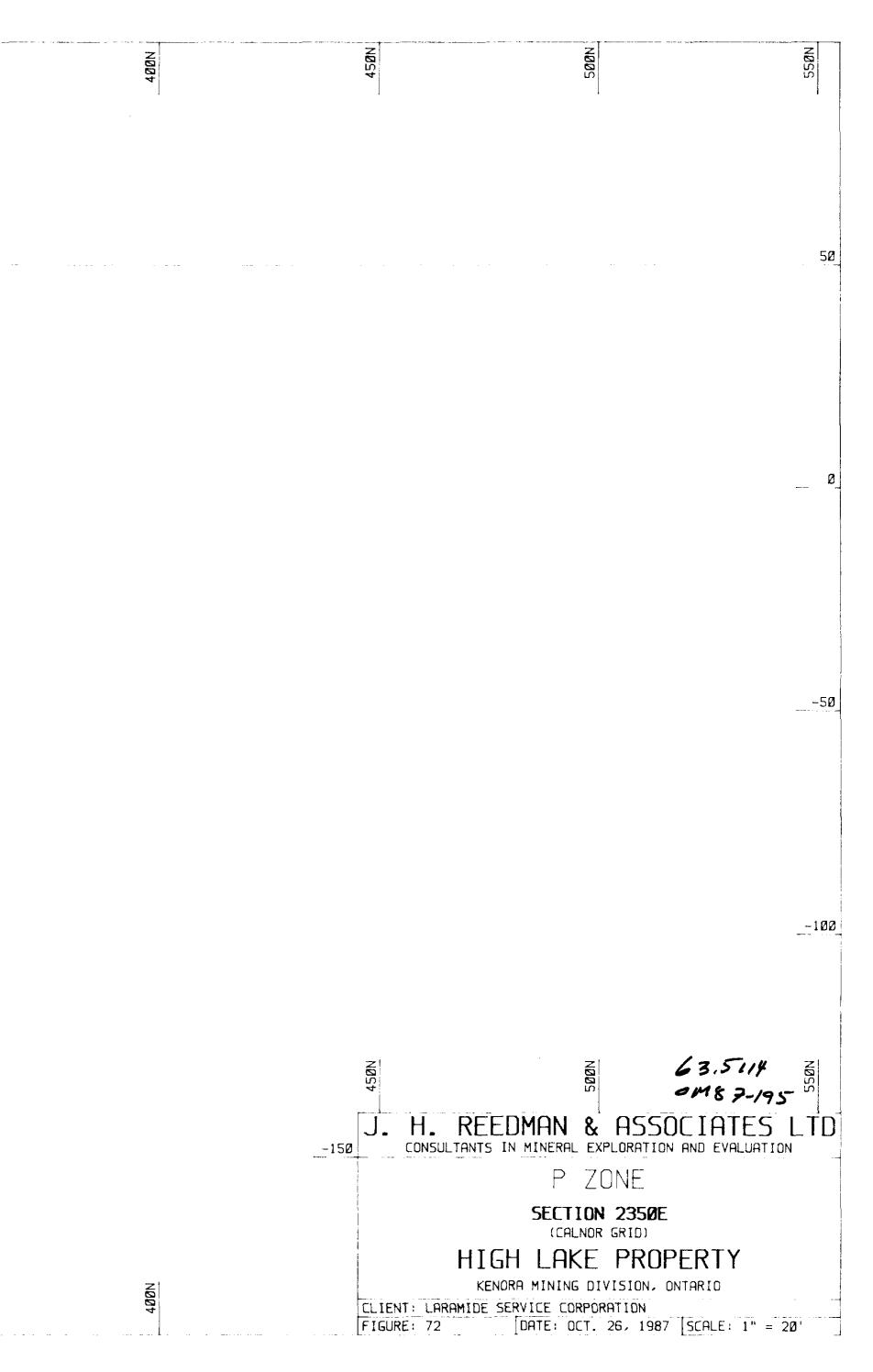


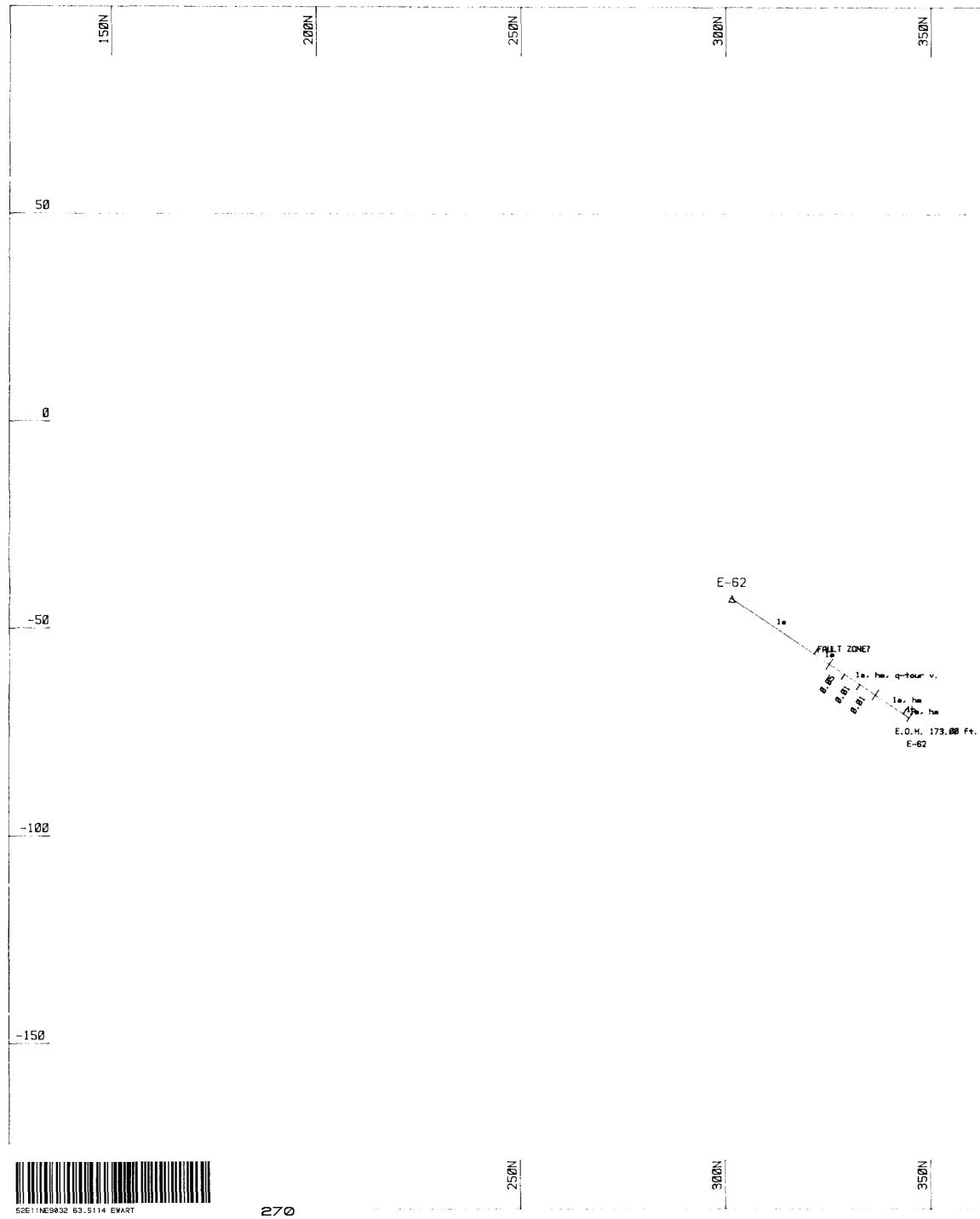


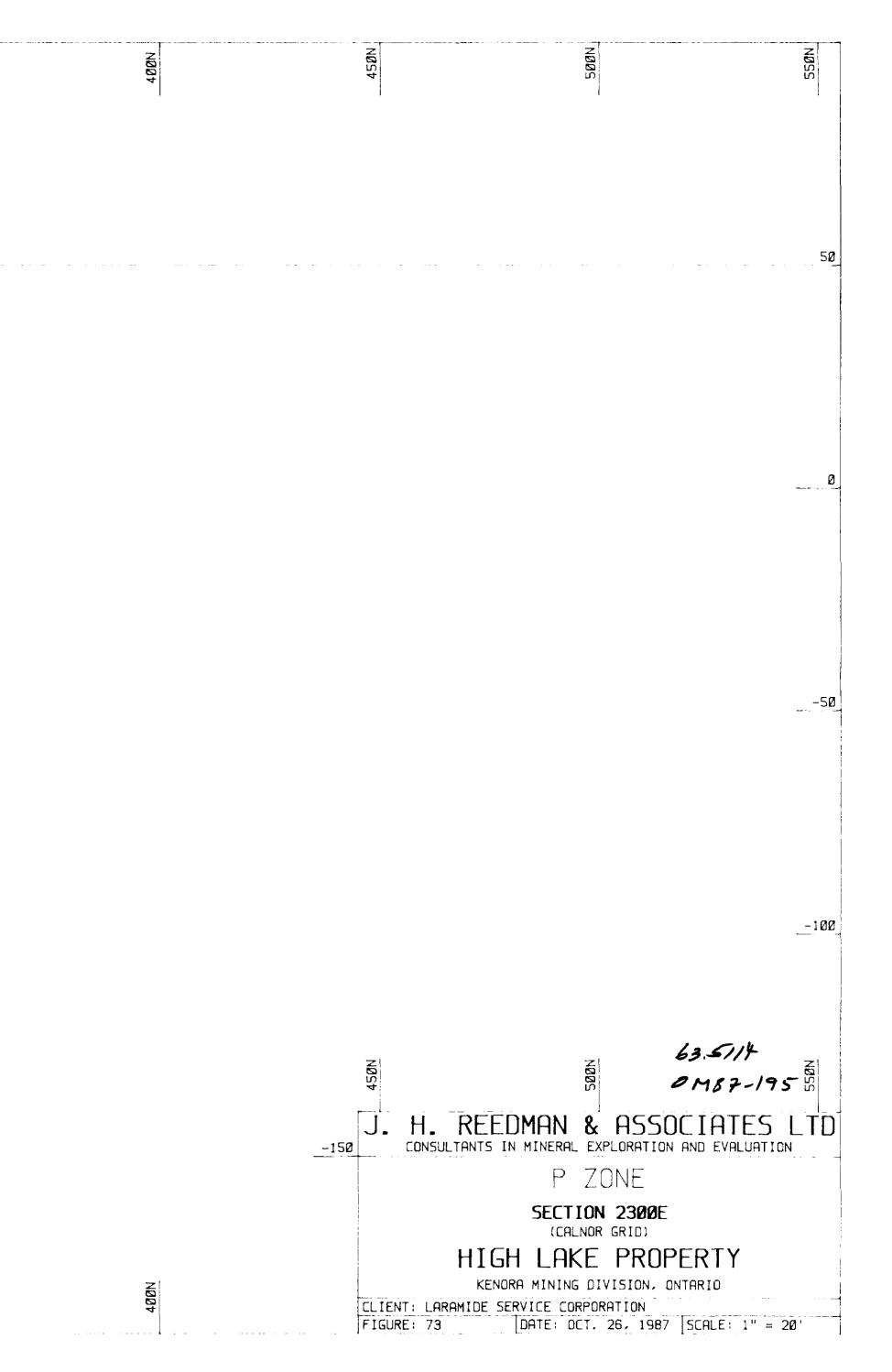


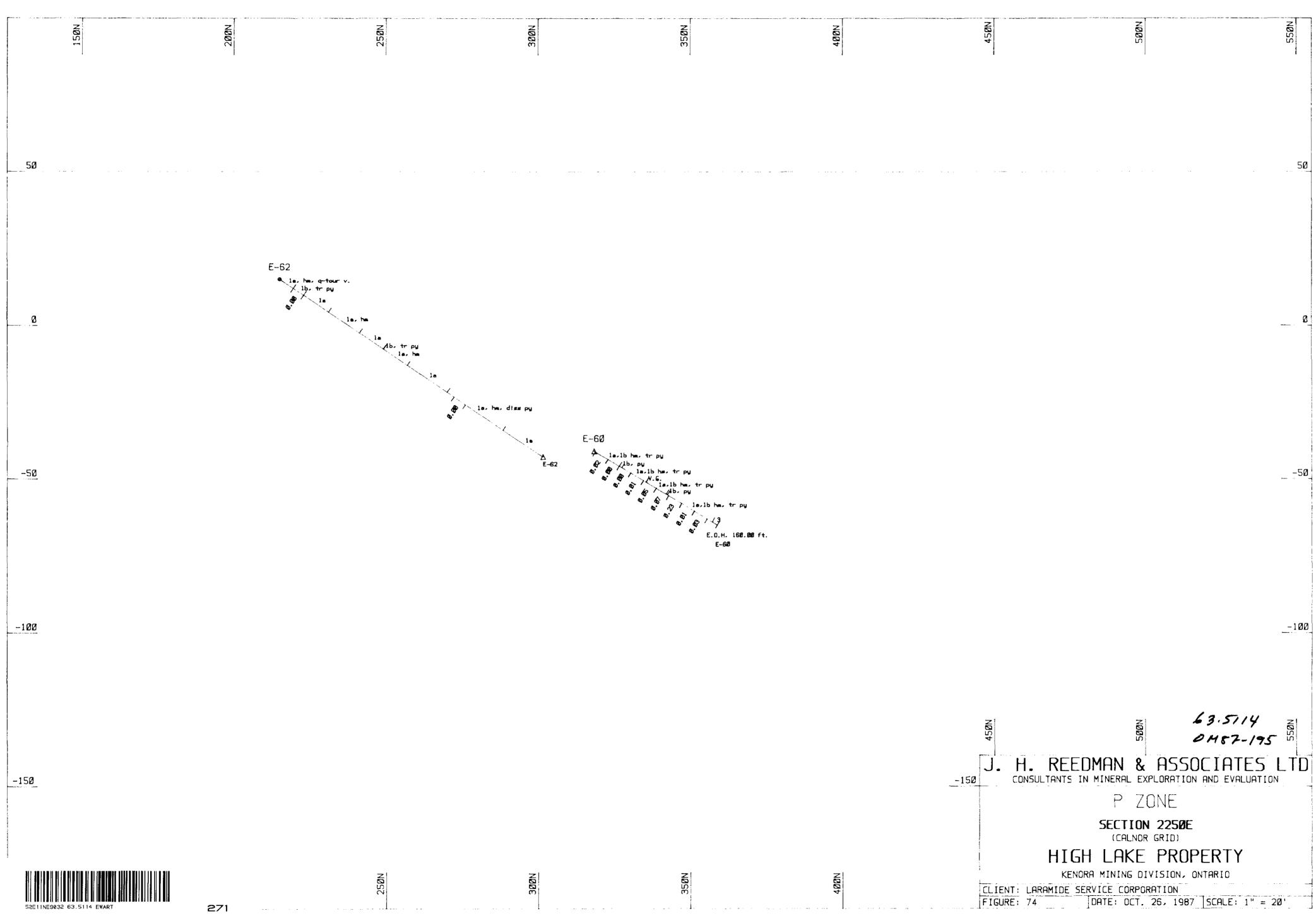


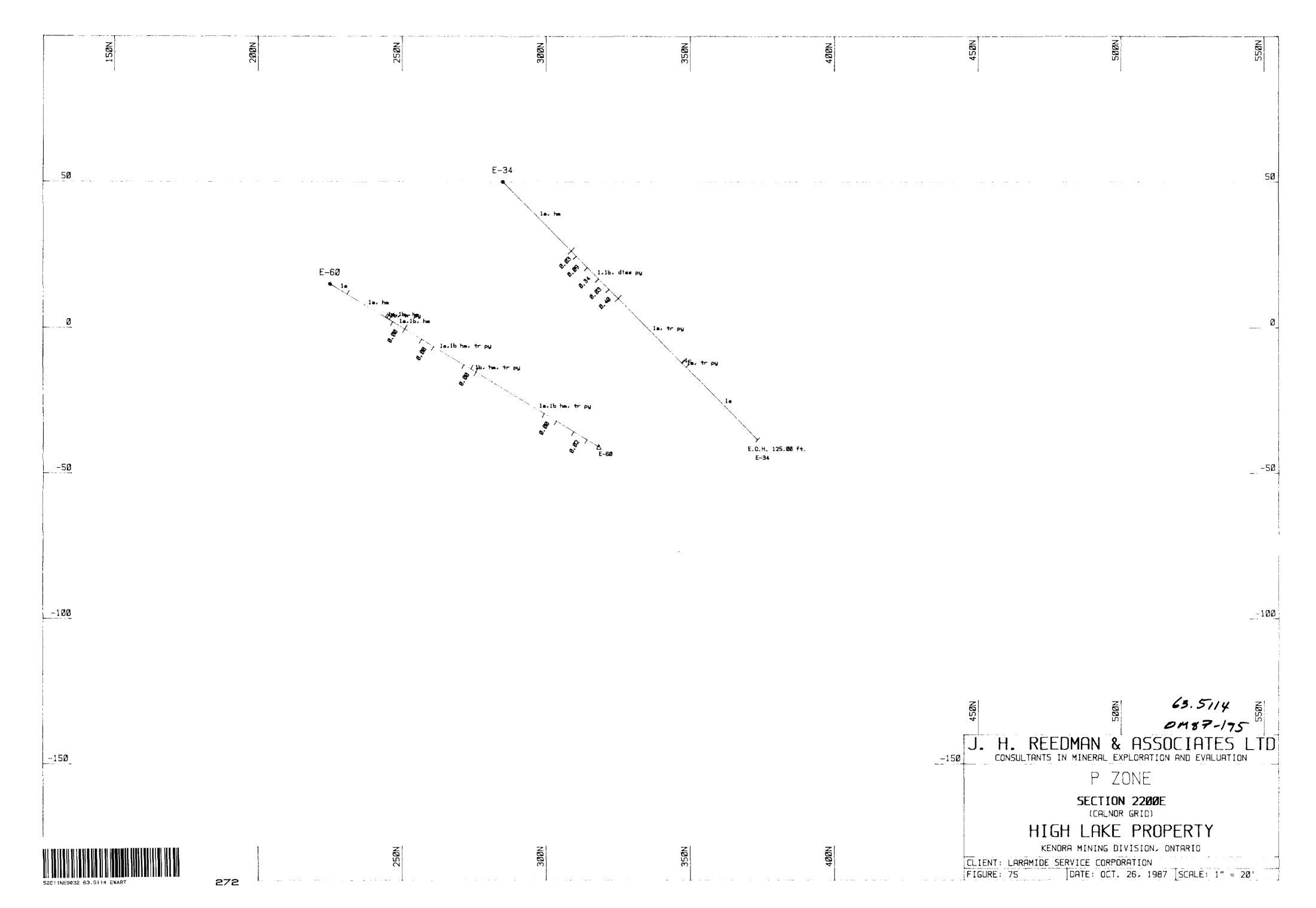


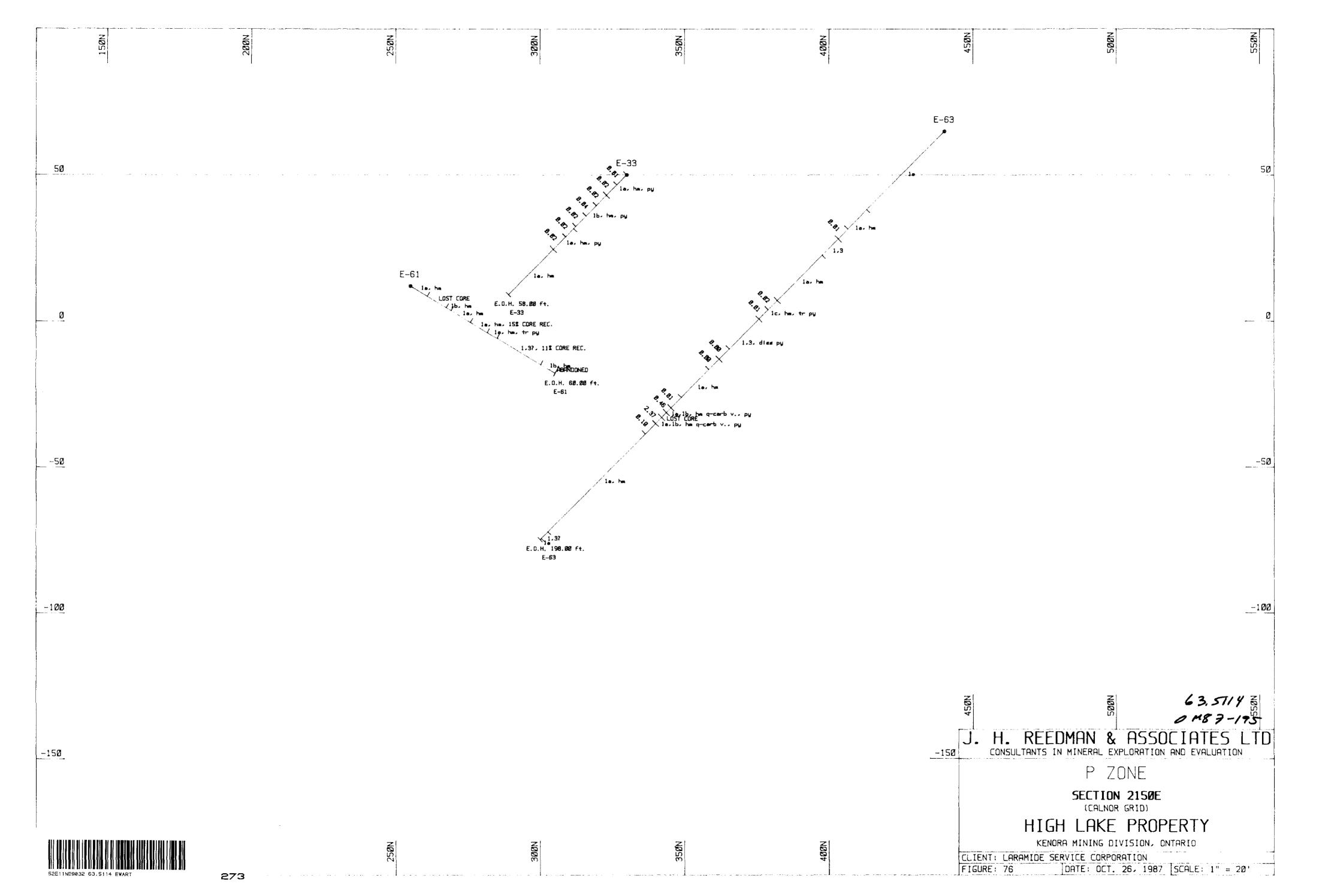


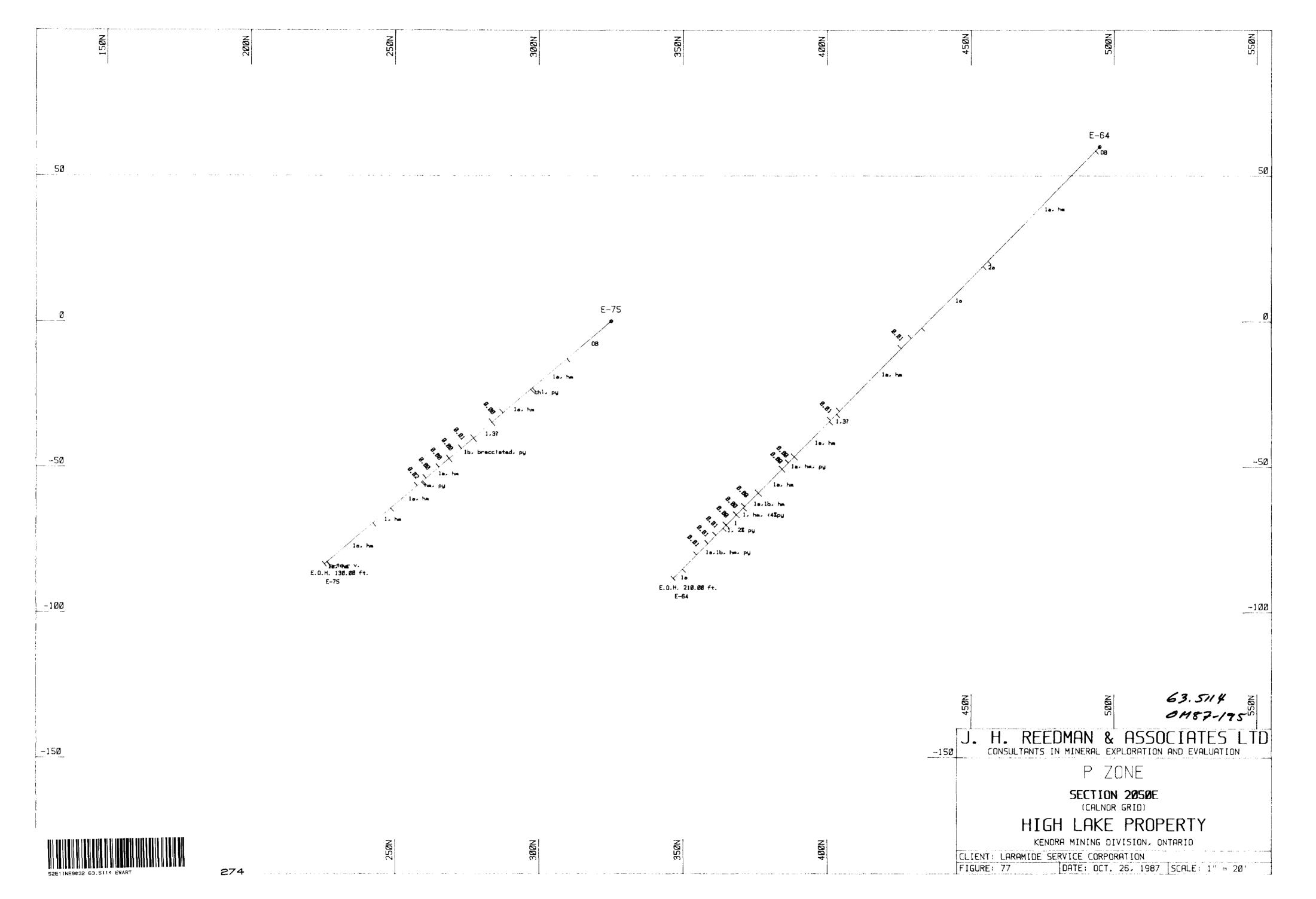


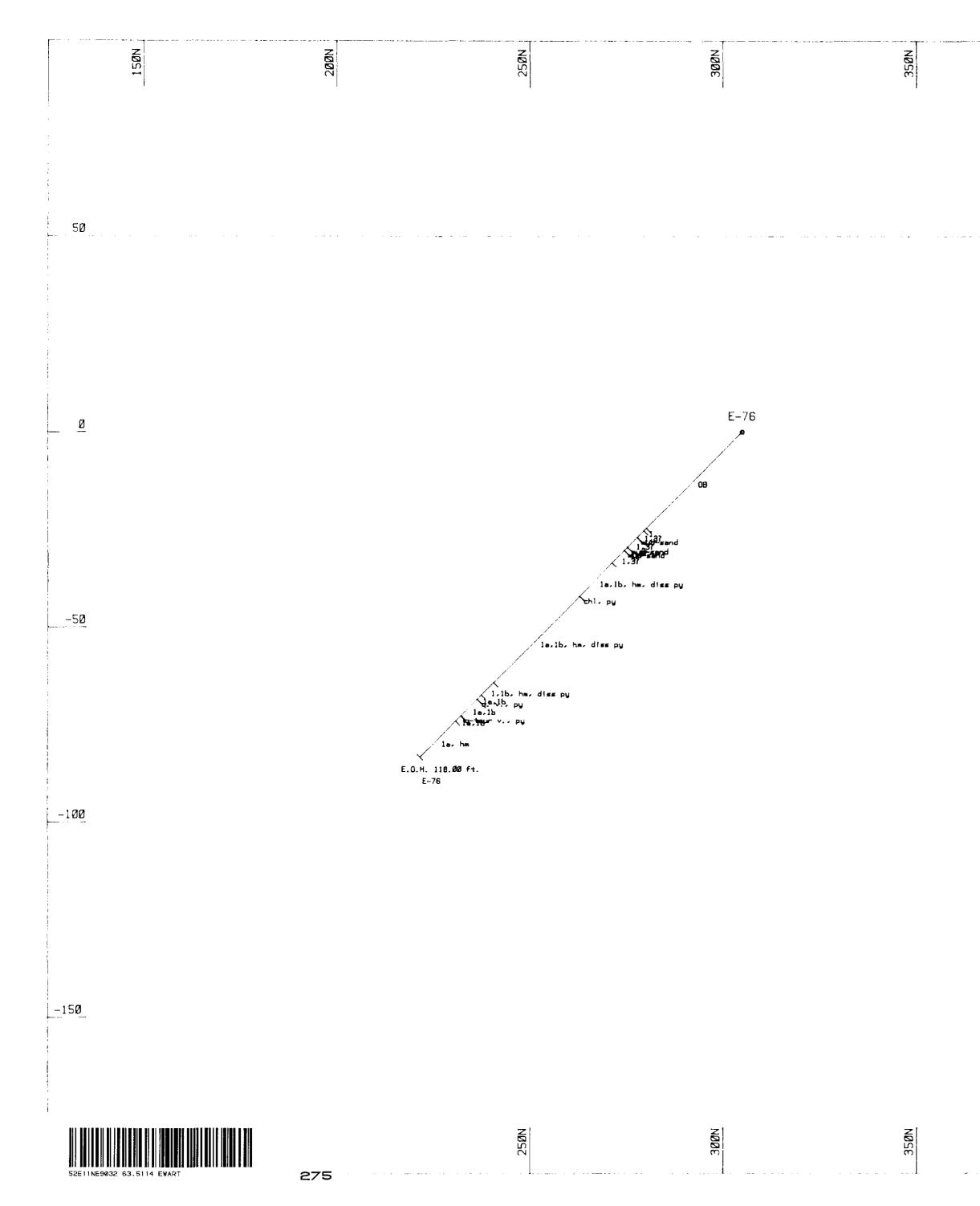


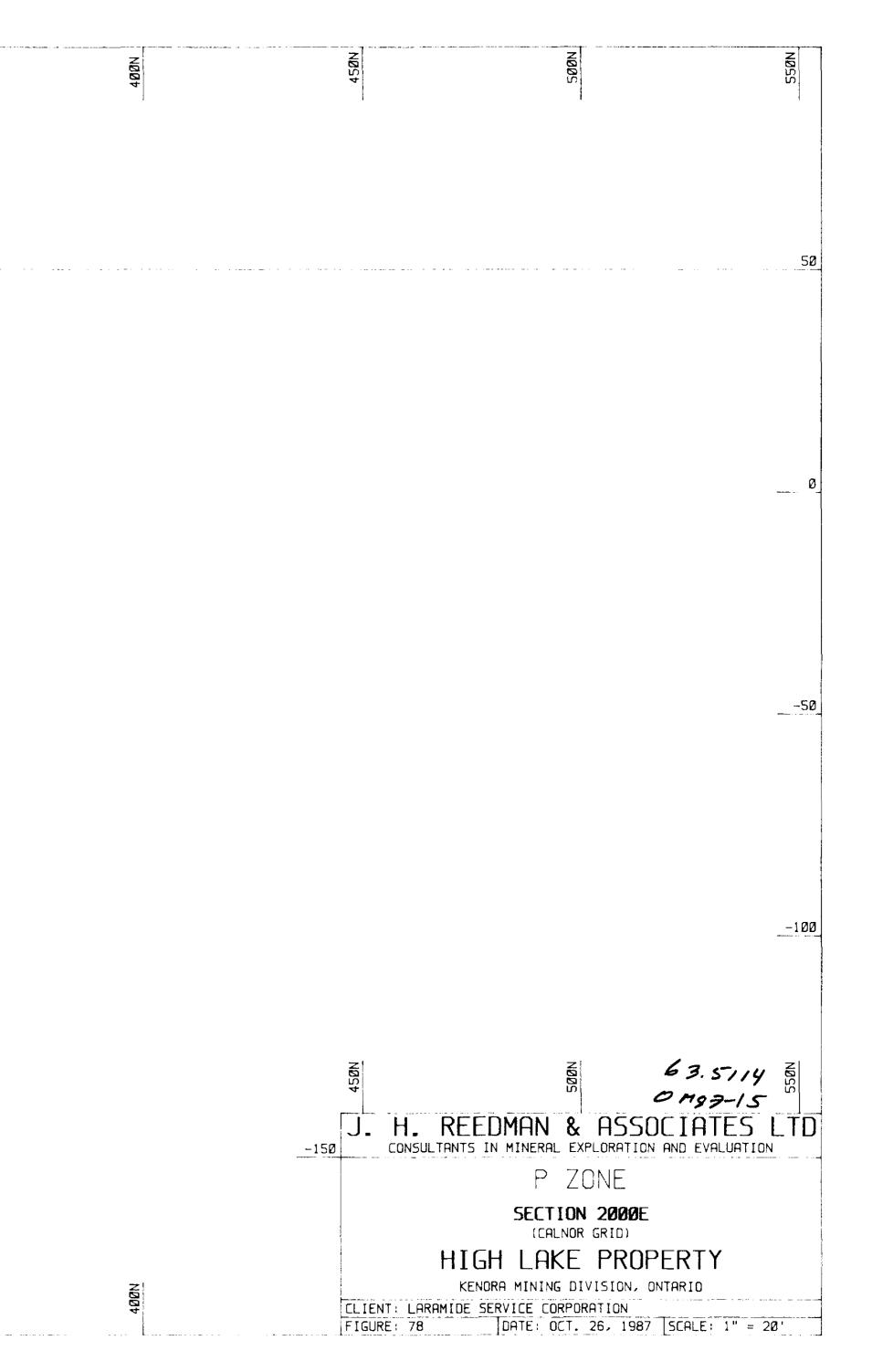


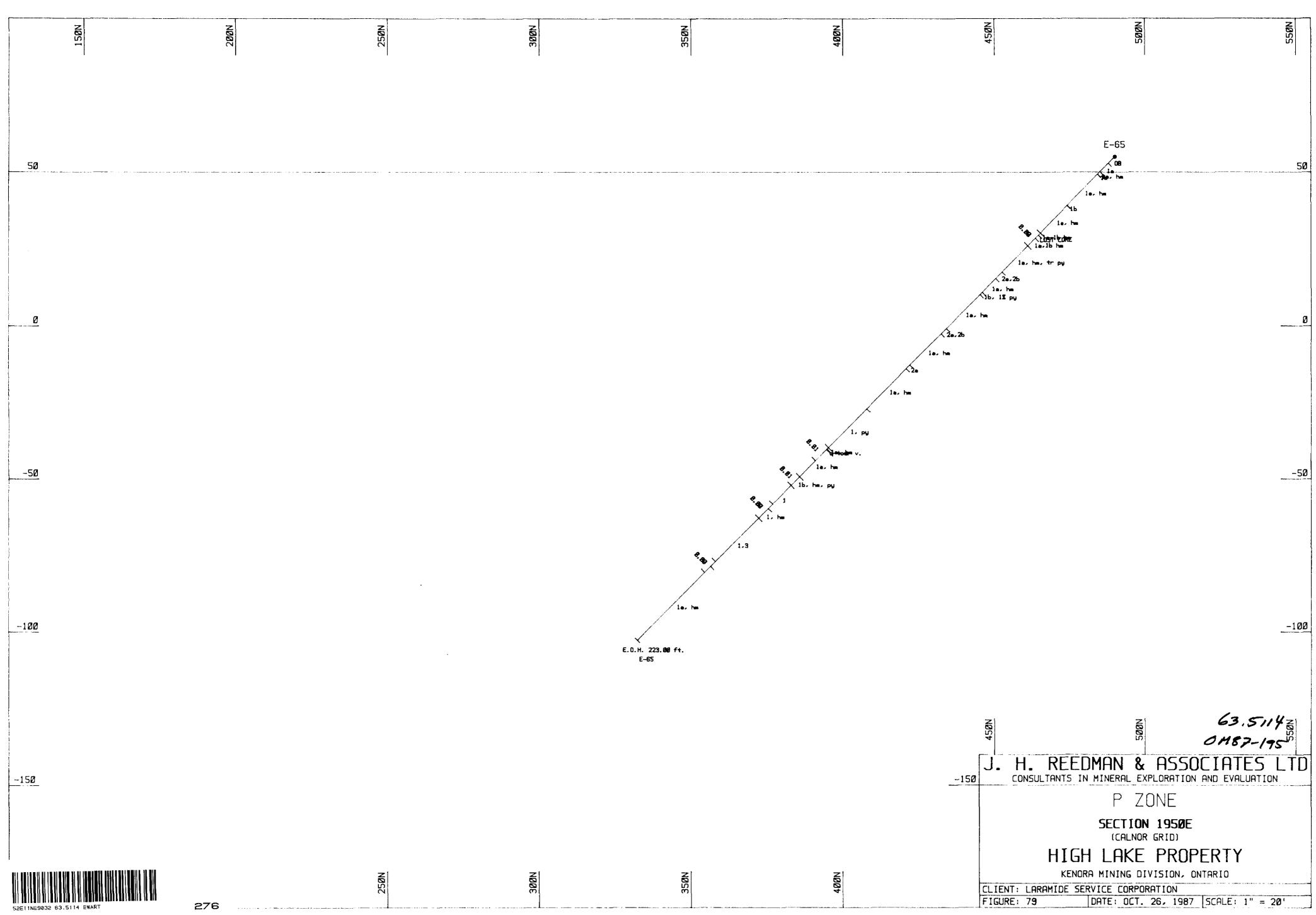


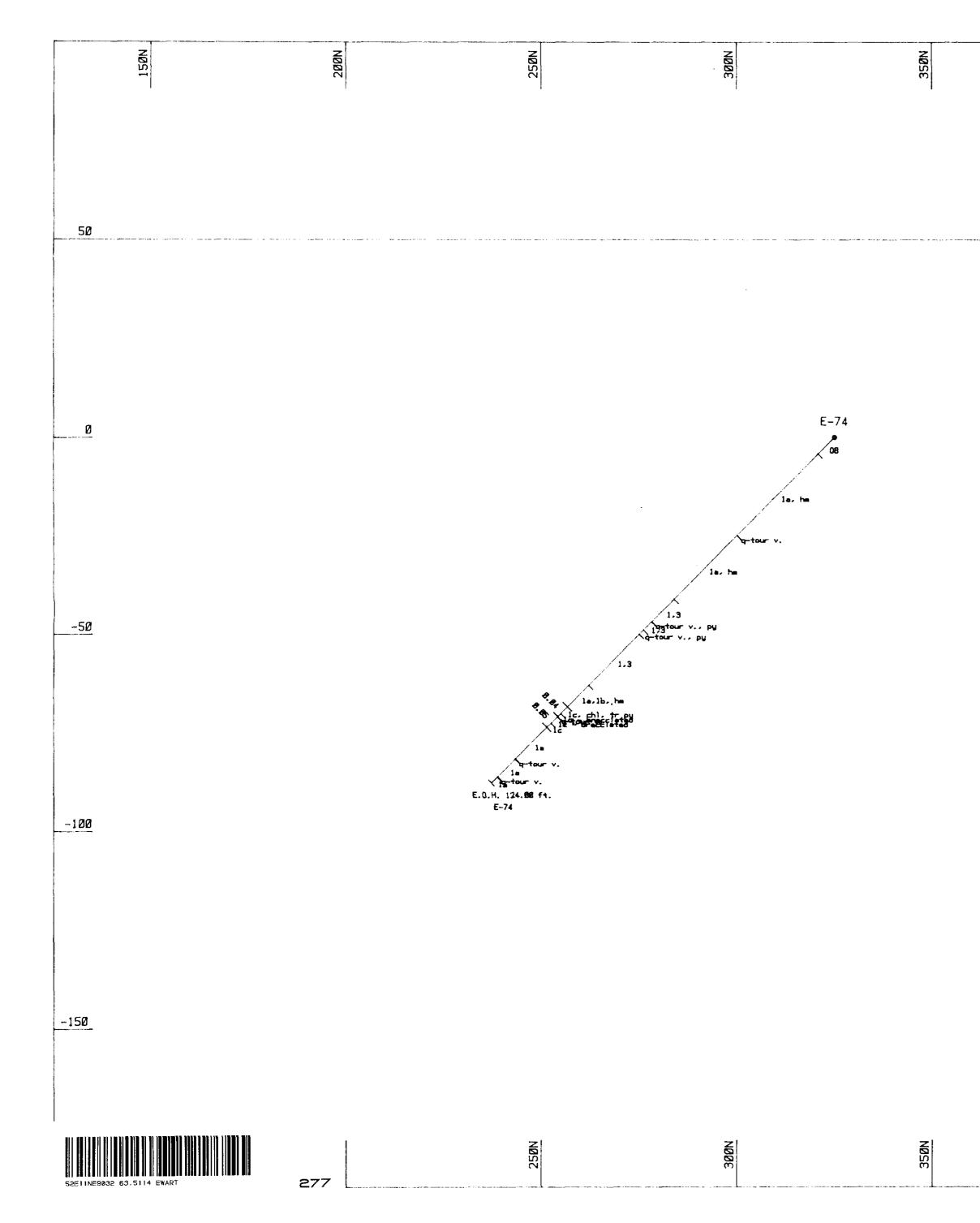


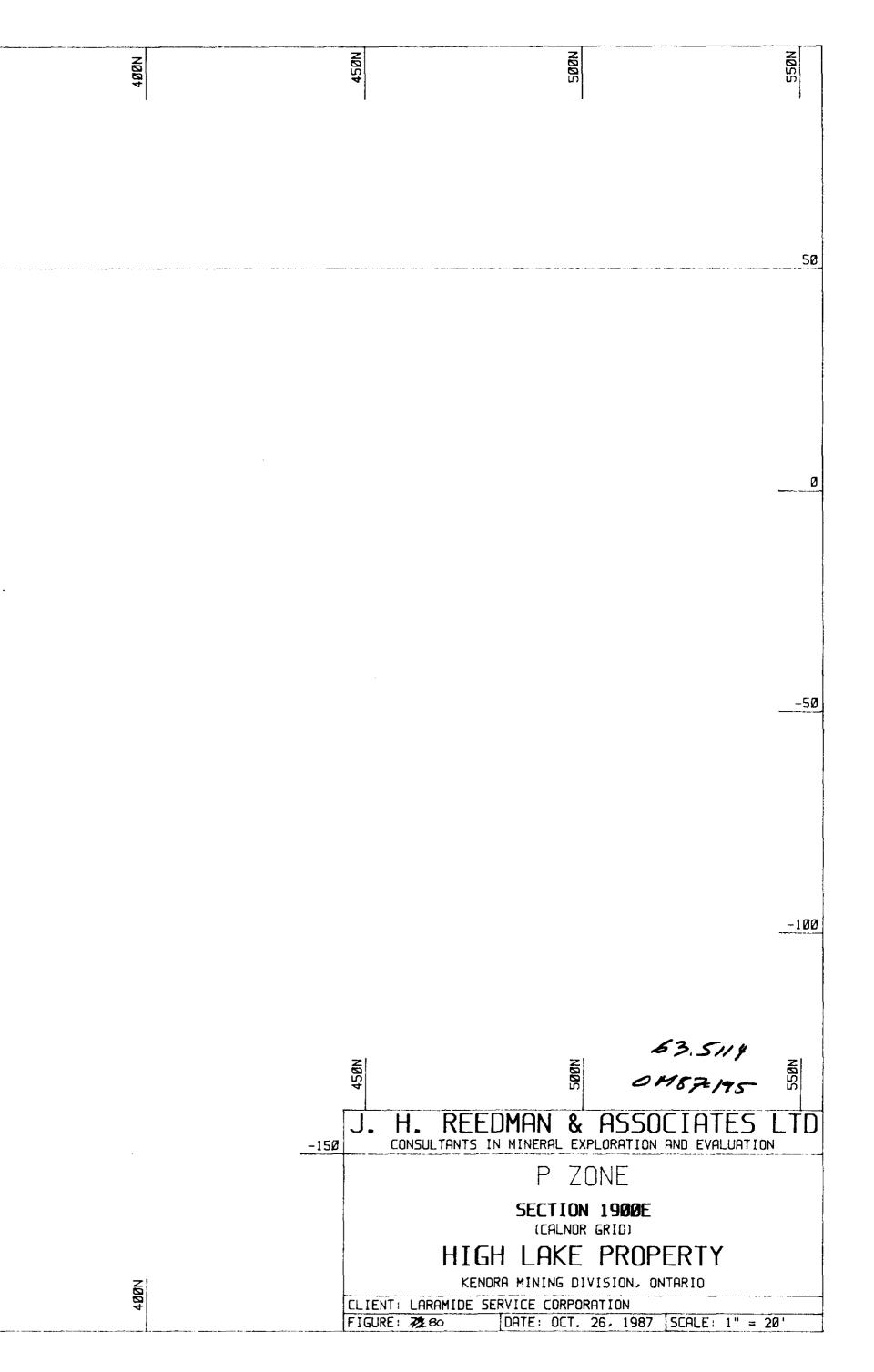


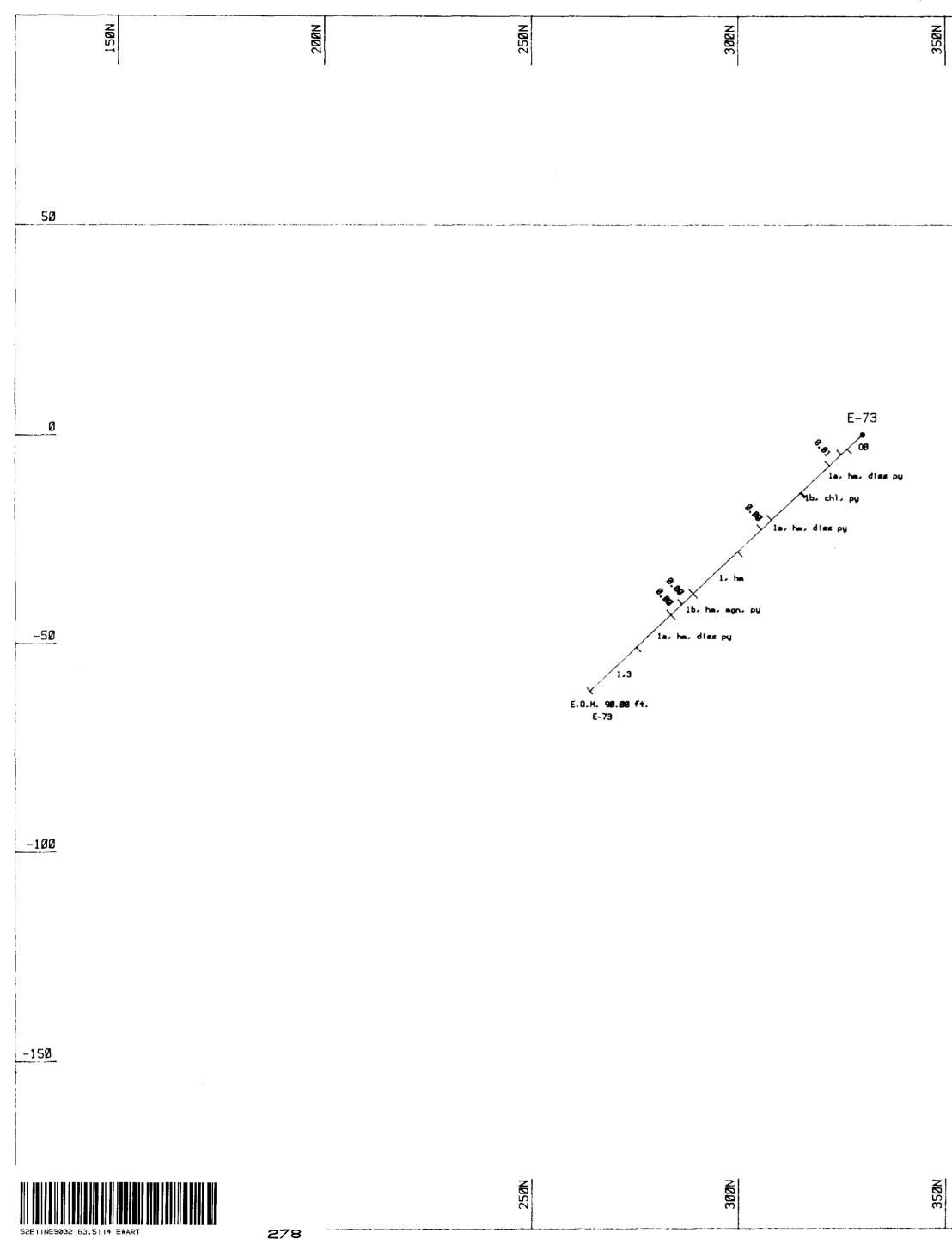


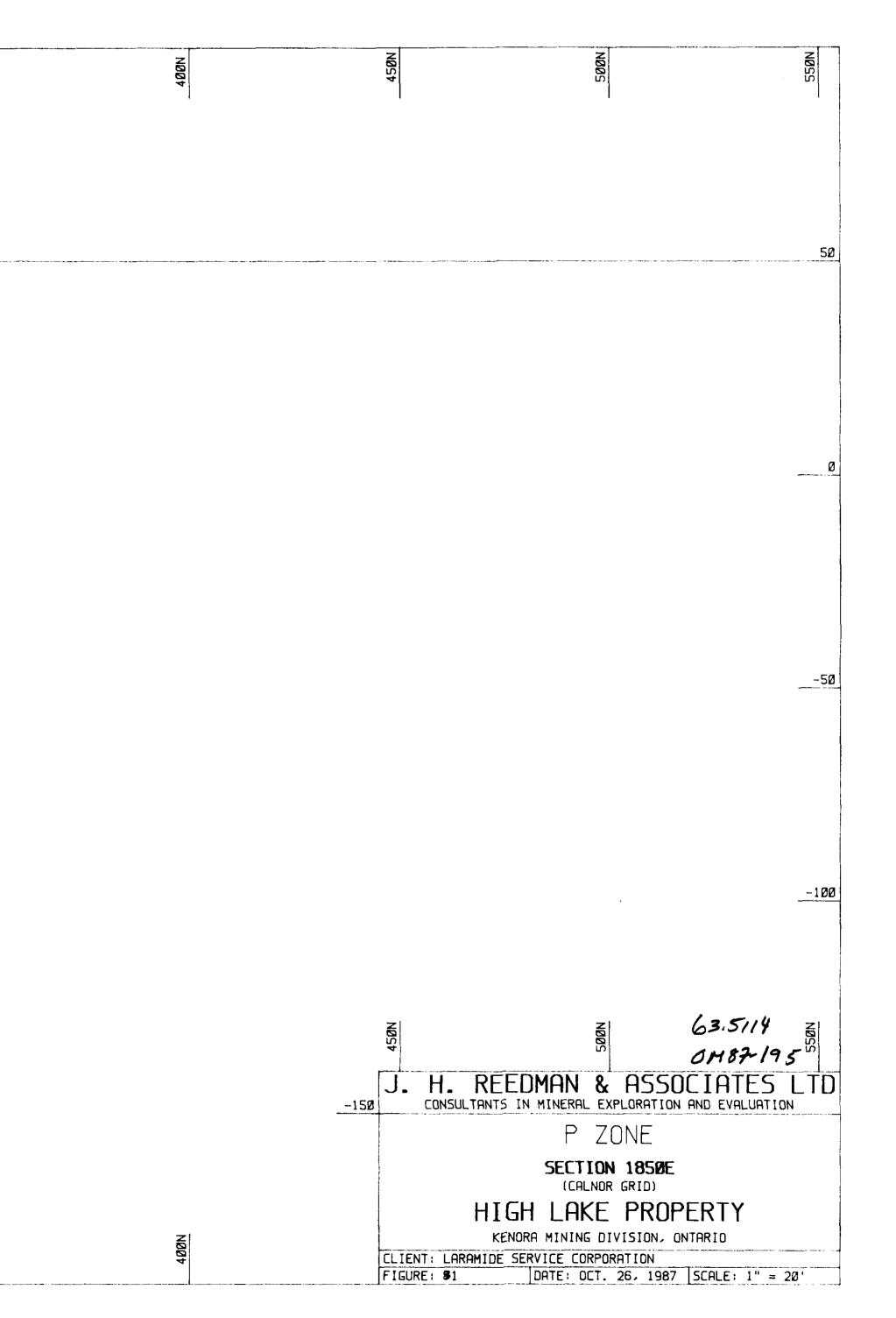


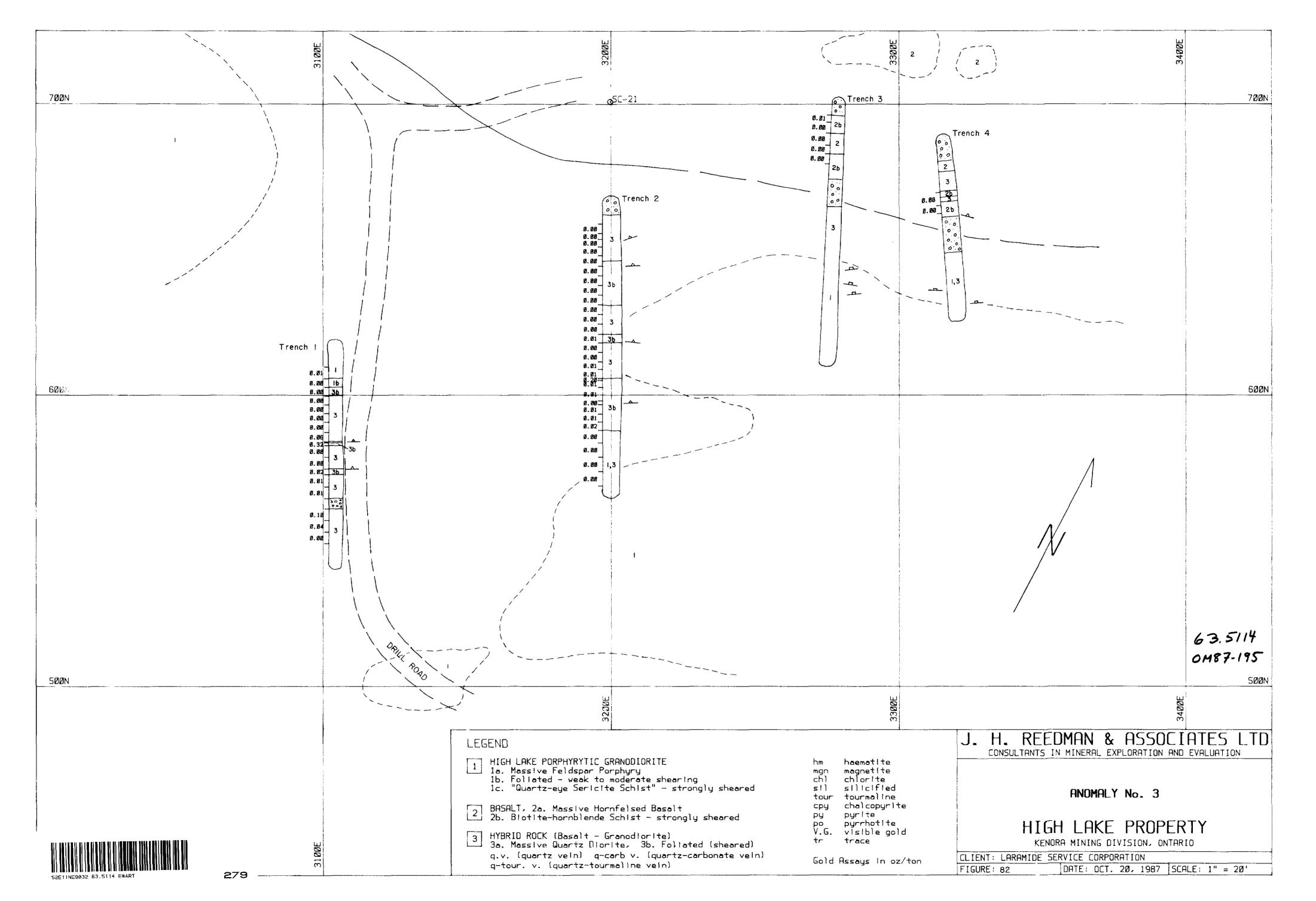


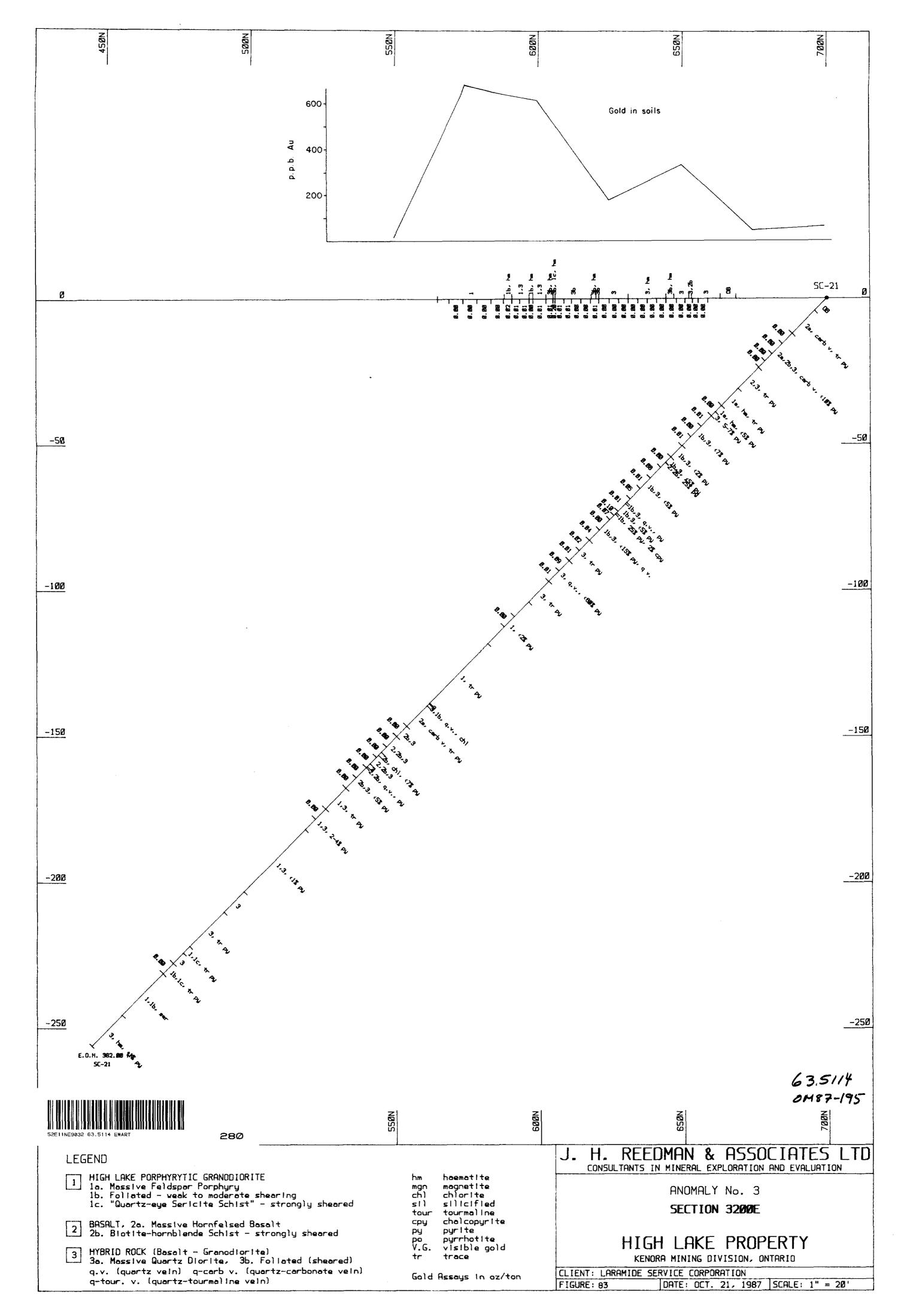


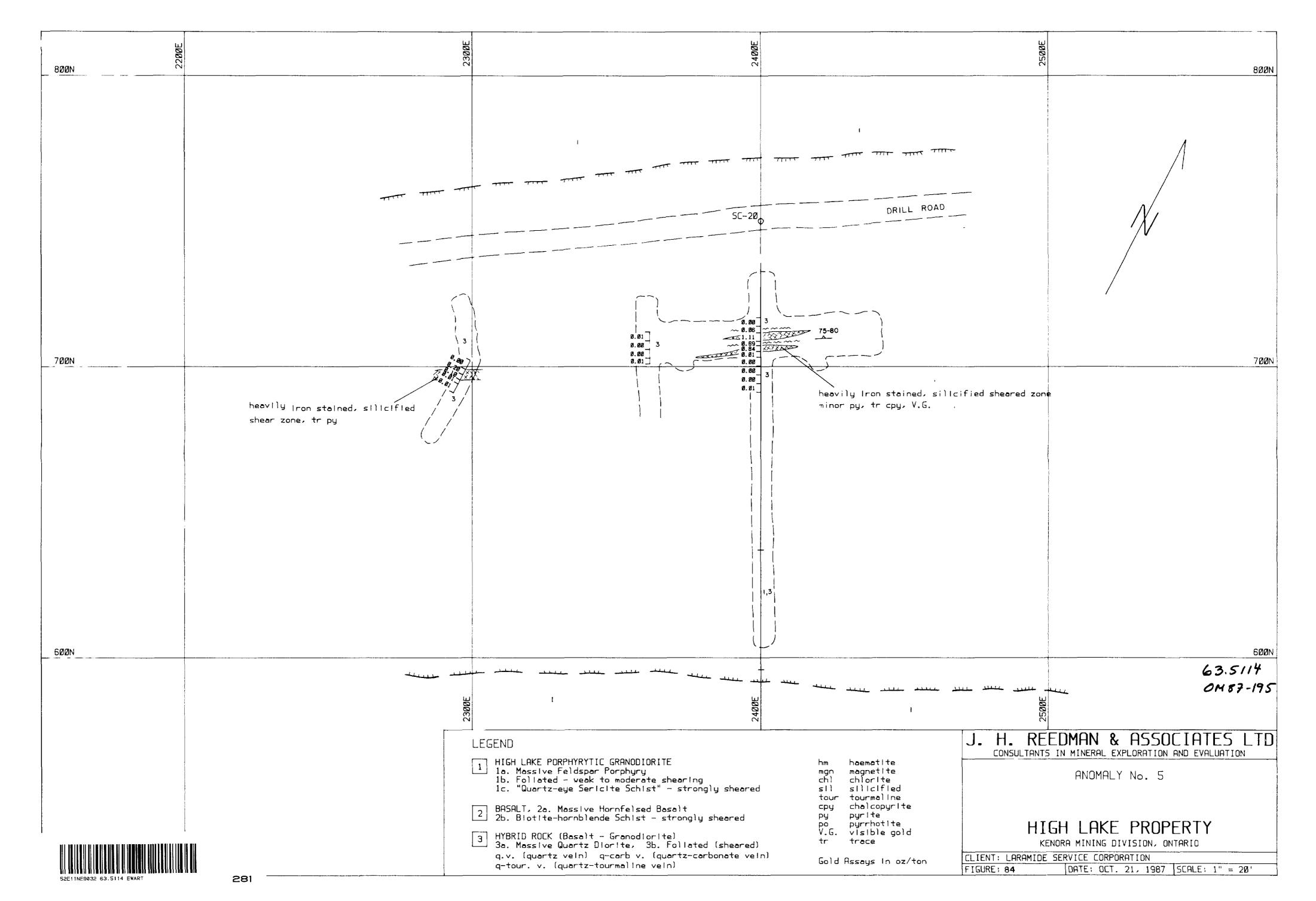


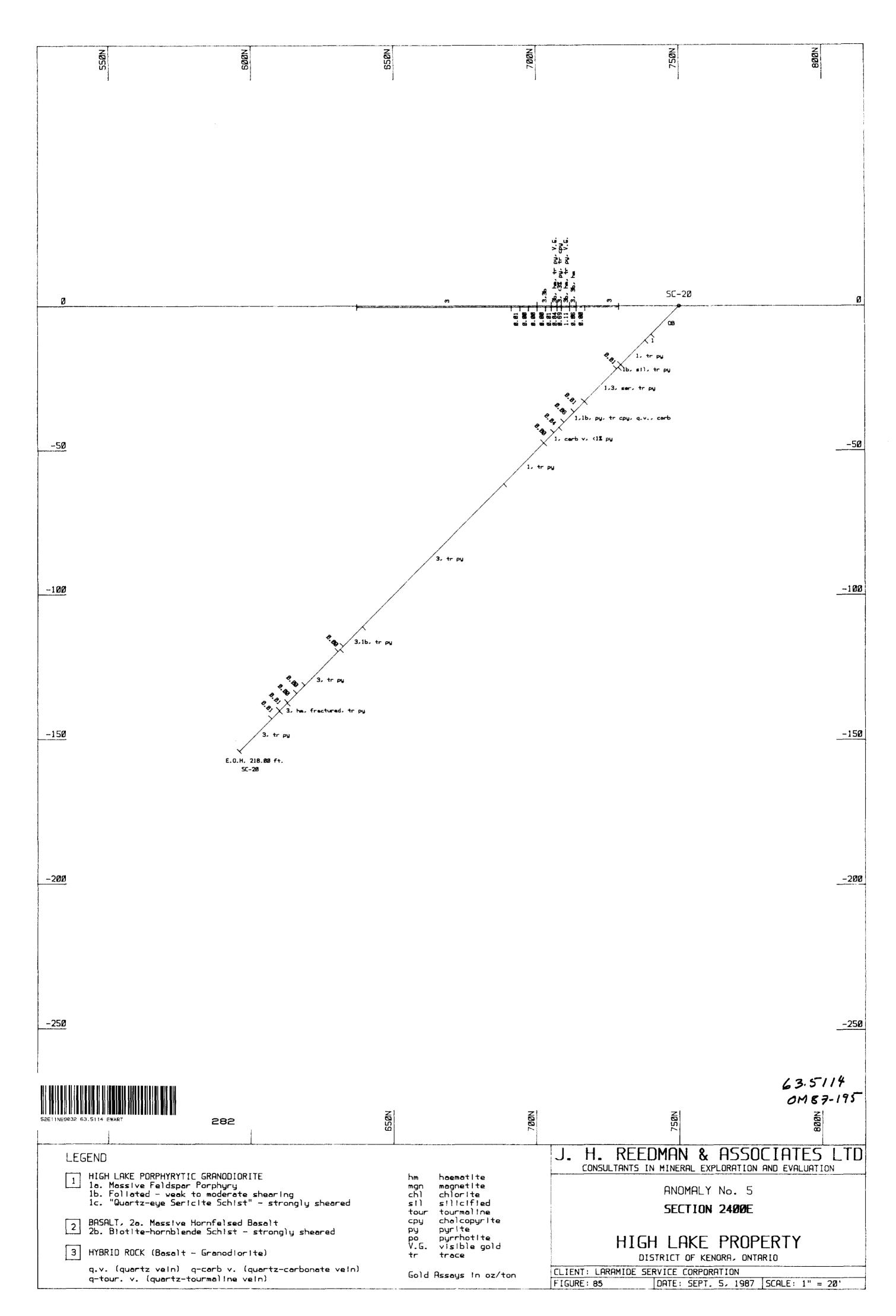


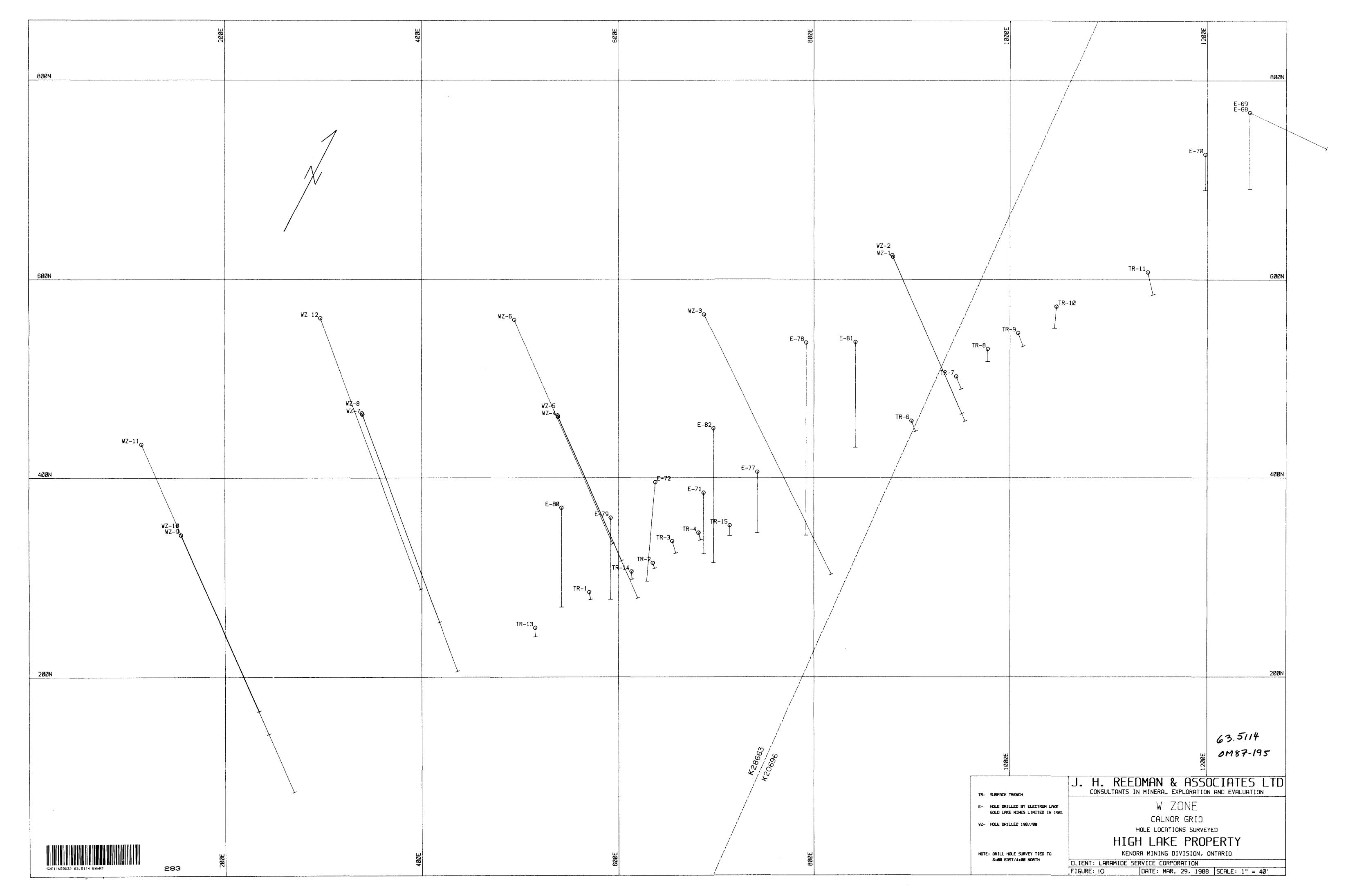


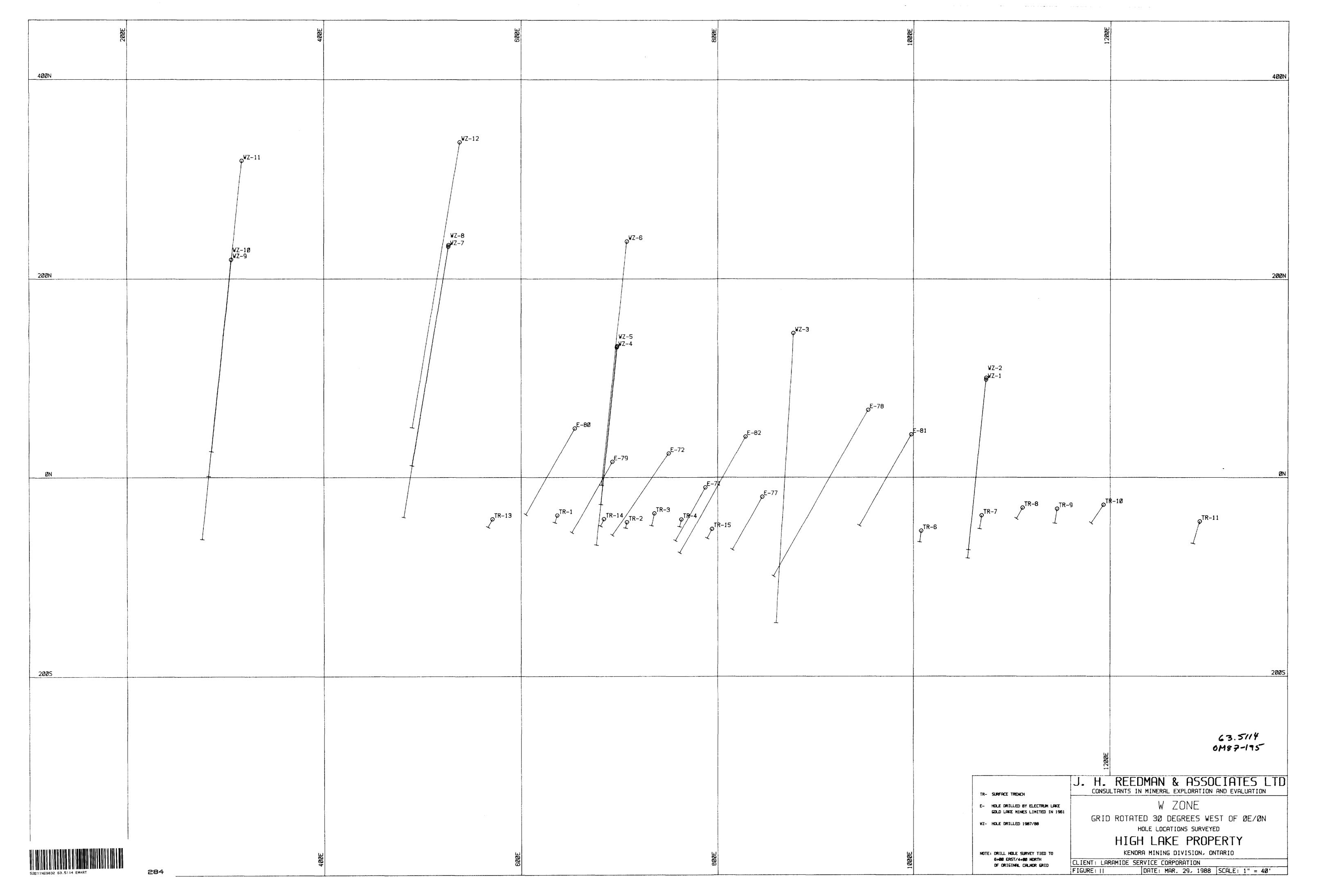


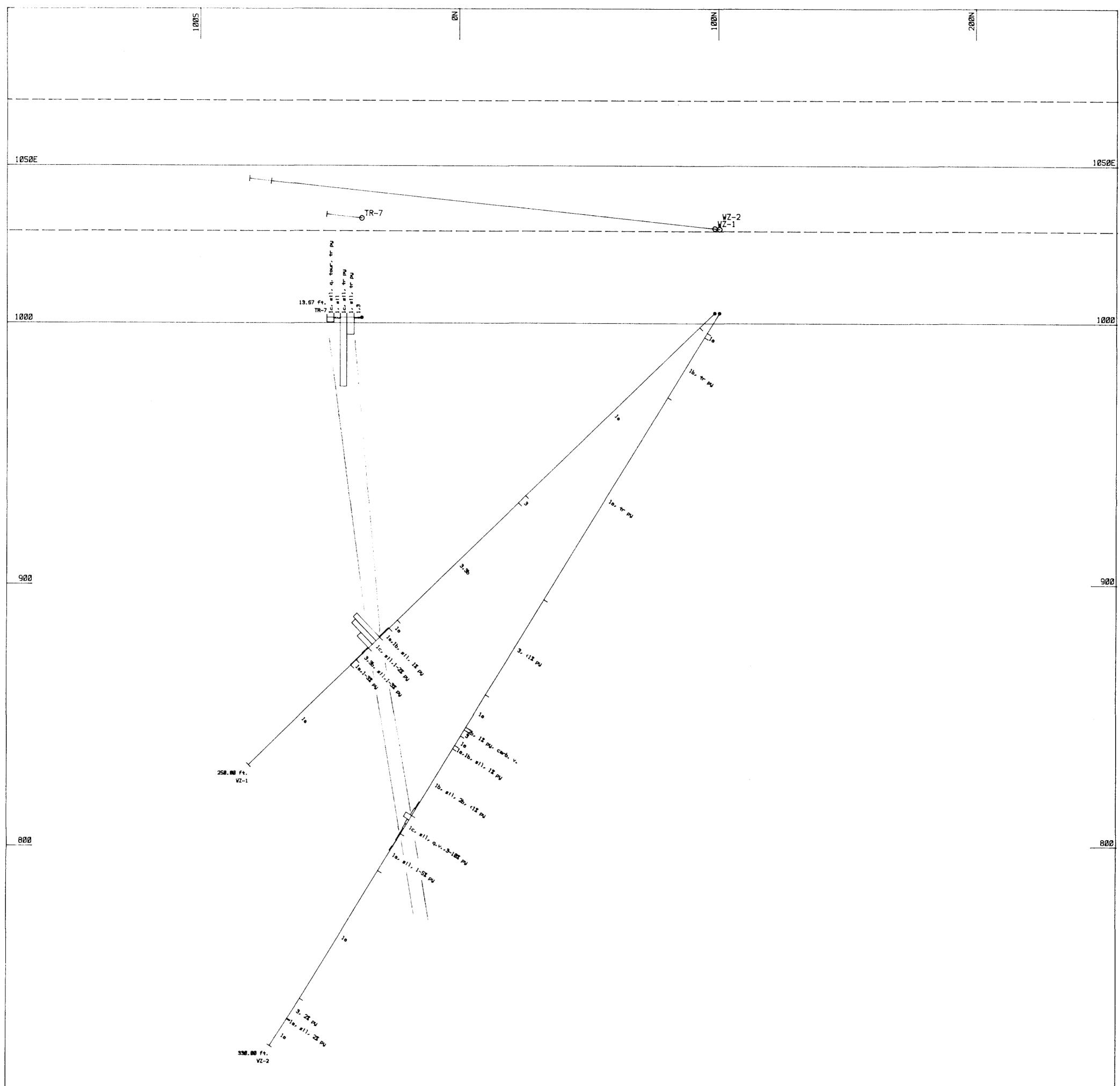




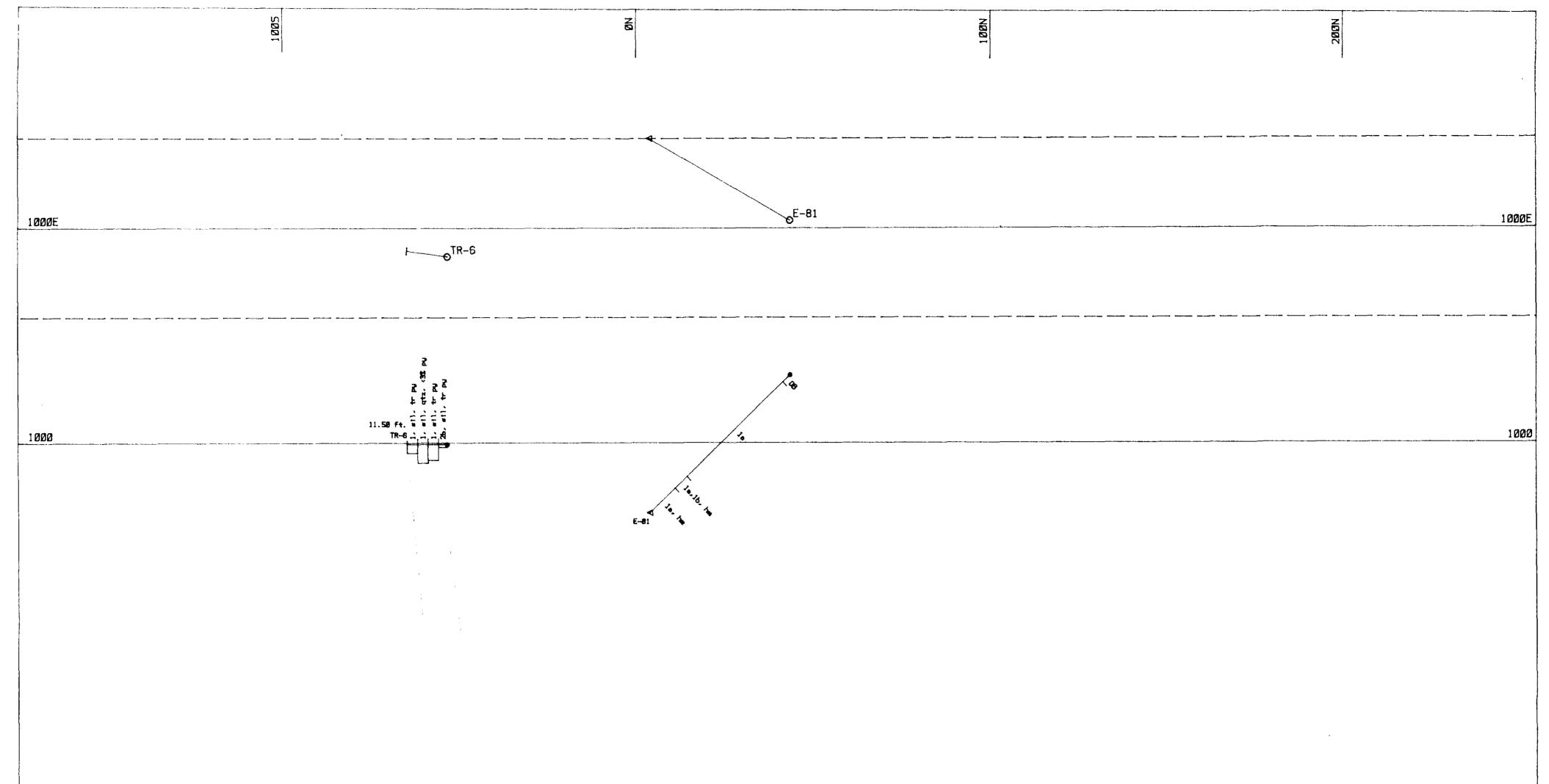






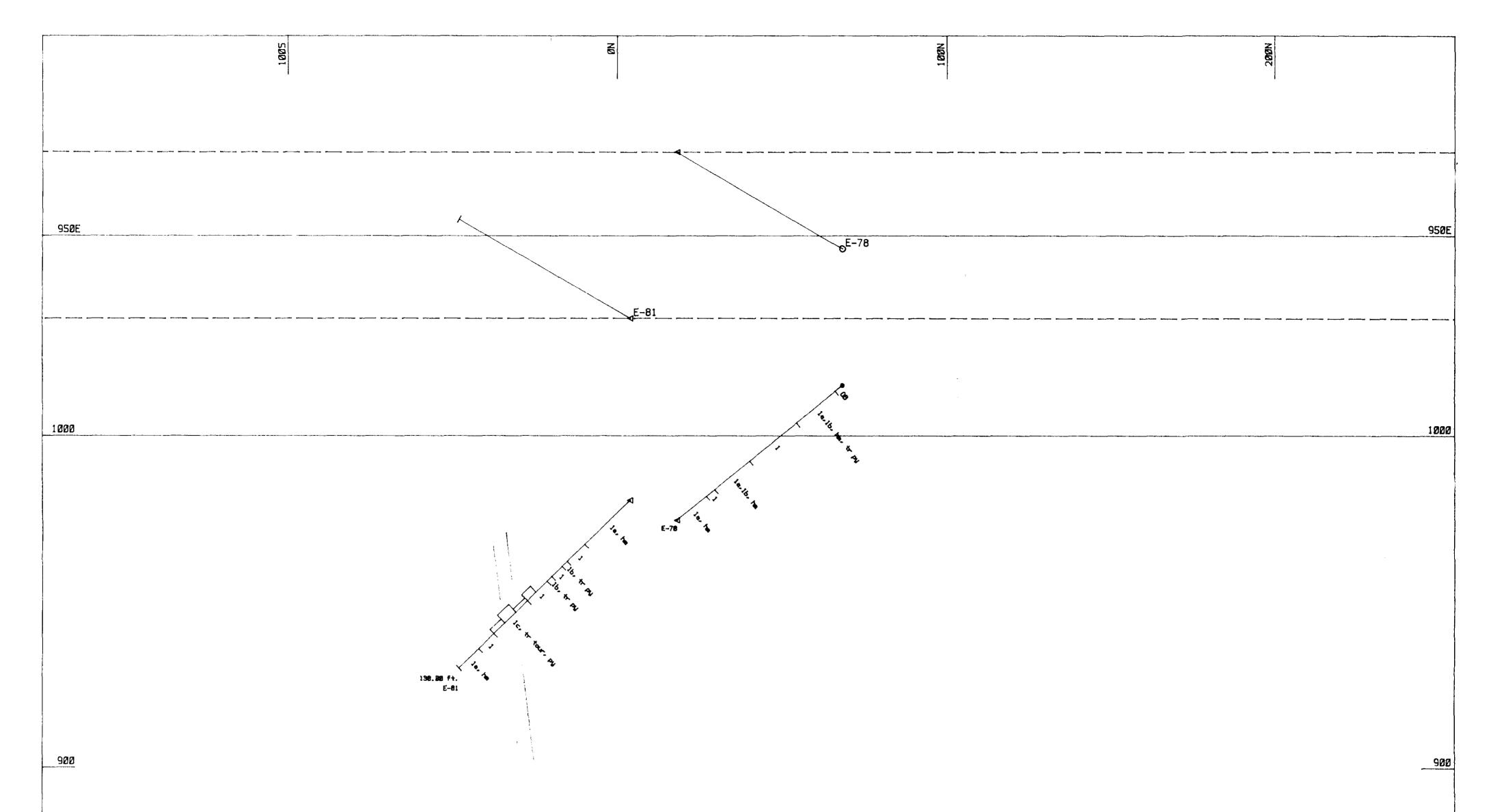


52E11NE9032 63.5114 EWART	285	S	NØDI	63.5114 OM87-175
	assay bar graphs	LEGEND		J. H. REEDMAN & ASSOCIATES LTD CONSULTANTS IN MINERAL EXPLORATION AND EVALUATION
	e, *	1HIGH LAKE PORPHYRYTIC GRANODIORITE11a. Massive Quartz Feldspar Porphyry1b. Follated - weak to moderate shearing1c. "Quartz-eye Sericite Schist" - strongly sheared	hm haematite mgn magnetite chi chiorite sii siiicifted tour tourmaline	W ZONE SECTION 1050E
		2 BASALT, 2a. Massive Hornfelsed Basalt 2 2b. Blotite-hornblende Schist - strongly sheared	cpy chalcopyrite py pyrite po pyrrhotite V.G. visible gold	GRID ROTATED 30 DEGREES WEST ABOUT 0E/0N HIGH LAKE PROPERTY
SØØ	et loziz	3 HYBRID ROCK (Basalt - Granodlorite) 3a. Massive Quartz Diorite, 3b. Foliated (sheared)	V.G. visible gold tr trace	KENORA MINING DIVISION, ONTARIO
	6 <sup>1</sup> 2	q.v. (quartz vein) q-carb v. (quartz-carbonate vein) q-tour. v. (quartz-tourma)ine vein)	Gold Assays In oz/ton	CLIENT: LARAMIDE SERVICE CORPORATIONFIGURE: 12DATE: FEB. 5, 1988SCALE: 1" = 20'





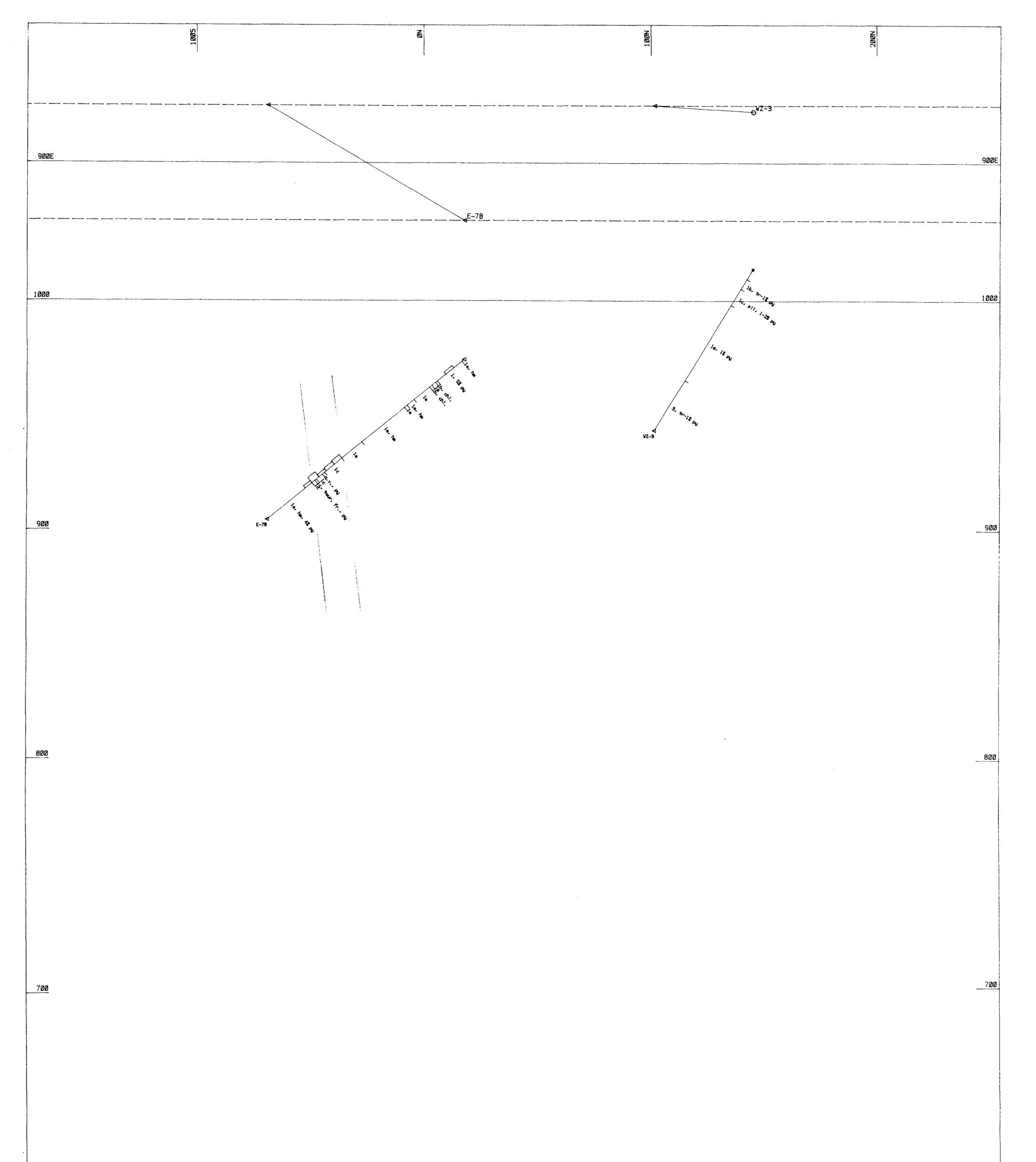
52E11NE9032 63.5114 EWART	286	N		1 ØØN	ZØØN	63.5714 0M87-195
	ASSAY BAR GRAPHS	LEGEND			J. H. REEDMAN & ASS CONSULTANTS IN MINERAL EXPLORATE	
	· · · ·	HIGH LAKE PORPHYRYTIC GRANODI11a. Massive Quartz Feldspar P1b. Follated - weak to modera1c. "Quartz-eye Sericite Schilt	ite shearing	hm haematite mgn magnetite chì chlorite siì silicified tour tourmaline	W ZONE SECTION 1000	Æ
	A A A A A A A A A A A A A A A A A A A	2 BASALT, 2a. Massive Hornfelse 2 2b. Biotite-hornblende Schist	d Basalt - strongly sheared	cpy chalcopyrite py pyrite po pyrrhotite V.G. visible gold	GRID ROTATED 30 DEGREES WES HIGH LAKE PRO	
Søø	* tot	3 HYBRID ROCK (Basa)t - Granod 3a. Massive Quartz Diorite,		V.G. visible gold tr trace	KENORA MINING DIVISION	
10	642	q.v. (quartz veln) q-carb v. q-tour. v. (quartz-tourma)lne		Gold Assays in oz/ton	CLIENT: LARAMIDE SERVICE CORPORATION FIGURE: 13 DATE: 88/04/30	SCALE: 1" = 20'



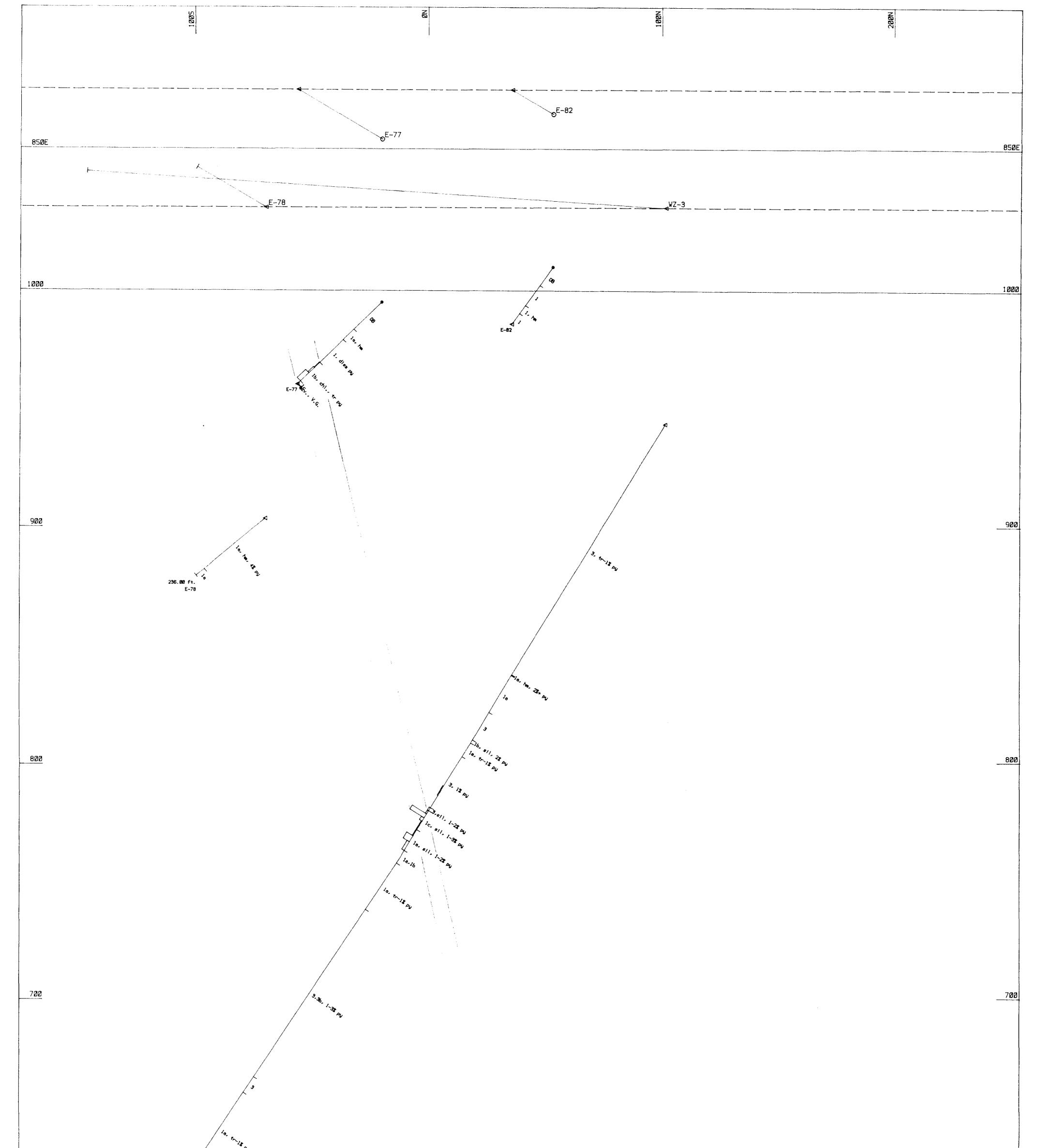


52E11NE9032 63.5114 EWAR	RT 287	NØ		1 ØØN	63.57/4 88 87 87
	ASSAY BAR GRAPHS	LEGEND			J. H. REEDMAN & ASSOCIATES LTD CONSULTANTS IN MINERAL EXPLORATION AND EVALUATION
	/ · · ·	15. Massive Qua 15. Foliated - 1c. "Quartz-eye	YRYTIC GRANODIORITE rtz Feldspar Porphyry weak to moderate shearing Sericite Schist" - strongly sheared	hm haematite mgn magnetite chì chìorite siì silicified tour tourmaline	W ZONE SECTION 950E
	et tor		sive Hornfelsed Basalt nblende Schist - strongly sheared salt - Granodiorite) rtz Diorite, 36. Foliated (sheared)	cpy chalcopyrite py pyrite po pyrrhotite V.G. visible gold tr trace	GRID ROTATED 30 DEGREES WEST ABOUT 0E/0N HIGH LAKE PROPERTY KENDRA MINING DIVISION, ONTARIO
1005	<b>A</b> 12	g.v. (quartz ve	rtz Diorite, 35. follated (sneared) In) q-carb v. (quartz-carbonate vein) rtz-tourmaline vein]	Gold Assays in oz/ton	CLIENT: LARAMIDE SERVICE CORPORATION FIGURE: 14 DATE: 88/04/30 SCALE: 1" = 20'

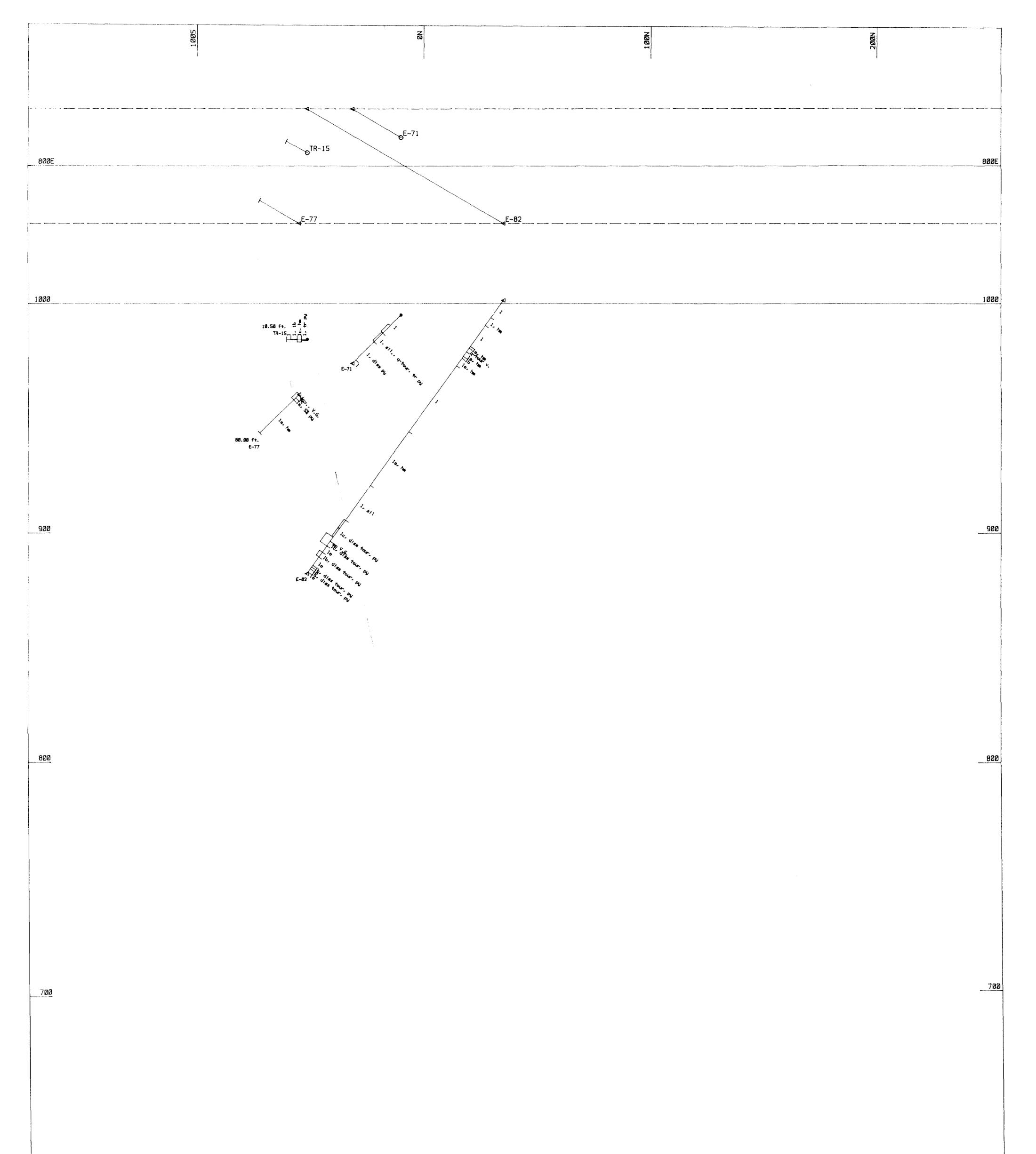
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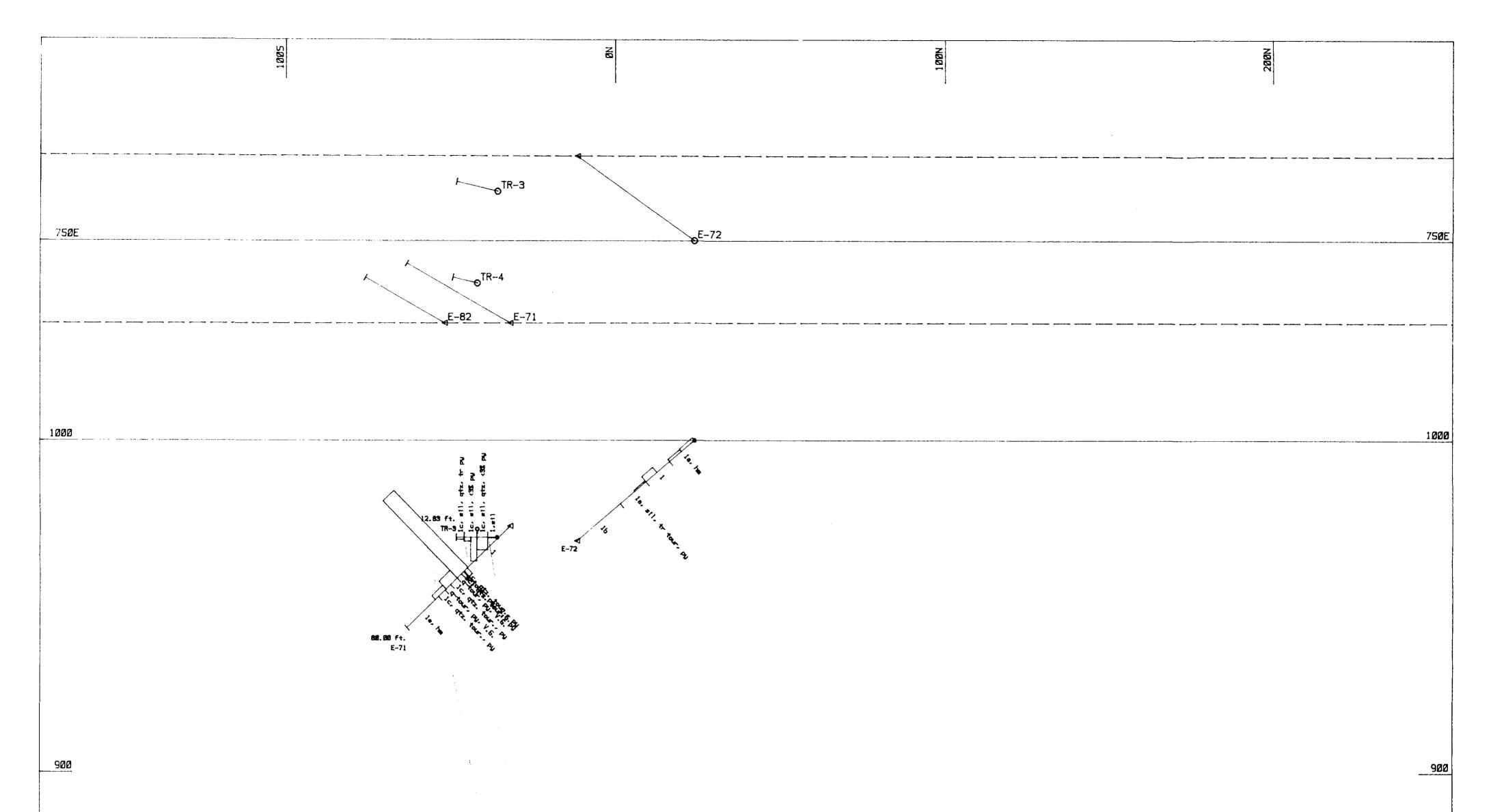
52E11NE9032 63.511	4 EWART 288	S	NØØI	63.5114 0M87-195
	ASSAY BAR GRAPHS	LEGEND		J. H. REEDMAN & ASSOCIATES LTD CONSULTANTS IN MINERAL EXPLORATION AND EVALUATION
	/ · · ·	HIGH LAKE PORPHYRYTIC GRANODIORITE11a. Massive Quartz Feldspar Porphyry1b. Follated - weak to moderate shearing1c. "Quartz-eye Sericite Schist" - strongly sheared	hm haematite mgn magnetite chì chlorite siì siìicified tour tourmaline	W ZONE SECTION 900E
		2 BASALT, 2a. Massive Hornfelsed Basalt 2b. Blotite-hornblende Schist - strongly sheared	cpy chalcopyrite py pyrite po py <del>rr</del> hotite V.G. visible gold	GRID ROTATED 30 DEGREES WEST ABOUT 0E/0N HIGH LAKE PROPERTY
500	et lor	3 HYBRID ROCK (Basalt - Granodiorite) 3a. Massive Quartz Diorite, 3b. Foliated (sheared)	tr trace	KENDRA MINING DIVISION, ONTARIO
100	<i>b</i> r <sub>2</sub>	q.v. (quartz veln) q~carb v. (quartz-carbonate vel q-tour. v. (quartz-tourmaline veln)	in) Gold Assays in oz/ton	CLIENT:LARAMIDESERVICECORPORATIONFIGURE:15DATE:88/04/30SCALE:1" = 20"

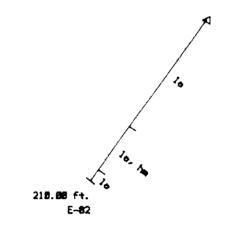


500 548.80 ft. V2-3			- 600
52E11NE9032 63.5114 EWART 289	S	NØØ	63.5114 0M87-195
ASSAY BAR GRAPHS	<ul> <li>LEGEND <ul> <li>HIGH LAKE PORPHYRYTIC GRANODIORITE <ul> <li>Assive Quartz Feldspar Porphyry</li> <li>Follated - weak to moderate shearing</li> <li>C. "Quartz-eye Sericite Schist" - strongly sheared</li> </ul> </li> <li>BASALT, 2a. Massive Hornfelsed Basalt <ul> <li>BASALT, 2a. Massive Hornfelsed Basalt</li> <li>Biotite-hornblende Schist - strongly sheared</li> </ul> </li> <li>HYBRID ROCK (Basalt - Granodiorite) <ul> <li>Amssive Quartz Diorite, 3b. Follated (sheared)</li> <li>V. (quartz vein) q-carb v. (quartz-carbonate vein)</li> <li>q-tour. v. (quartz-tourmaline vein)</li> </ul> </li> </ul></li></ul>	hm haematite mgn magnetite chi chiorite sil silicified tour tourmaline cpy chalcopyrite py pyrite po pyrrhotite V.G. visible gold tr trace Gold Assays in oz/ton	J. H. REEDMAN & ASSOCIATES LTD CONSULTANTS IN MINERAL EXPLORATION AND EVALUATION W ZONE SECTION 850E GRID ROTATED 30 DEGREES WEST ABOUT 0E/0N HIGH LAKE PROPERTY KENORA MINING DIVISION, ONTARIO CLIENT: LARAMIDE SERVICE CORPORATION Figure: 16 DATE: FEB. 5, 1988 SCALE: 1" = 20'



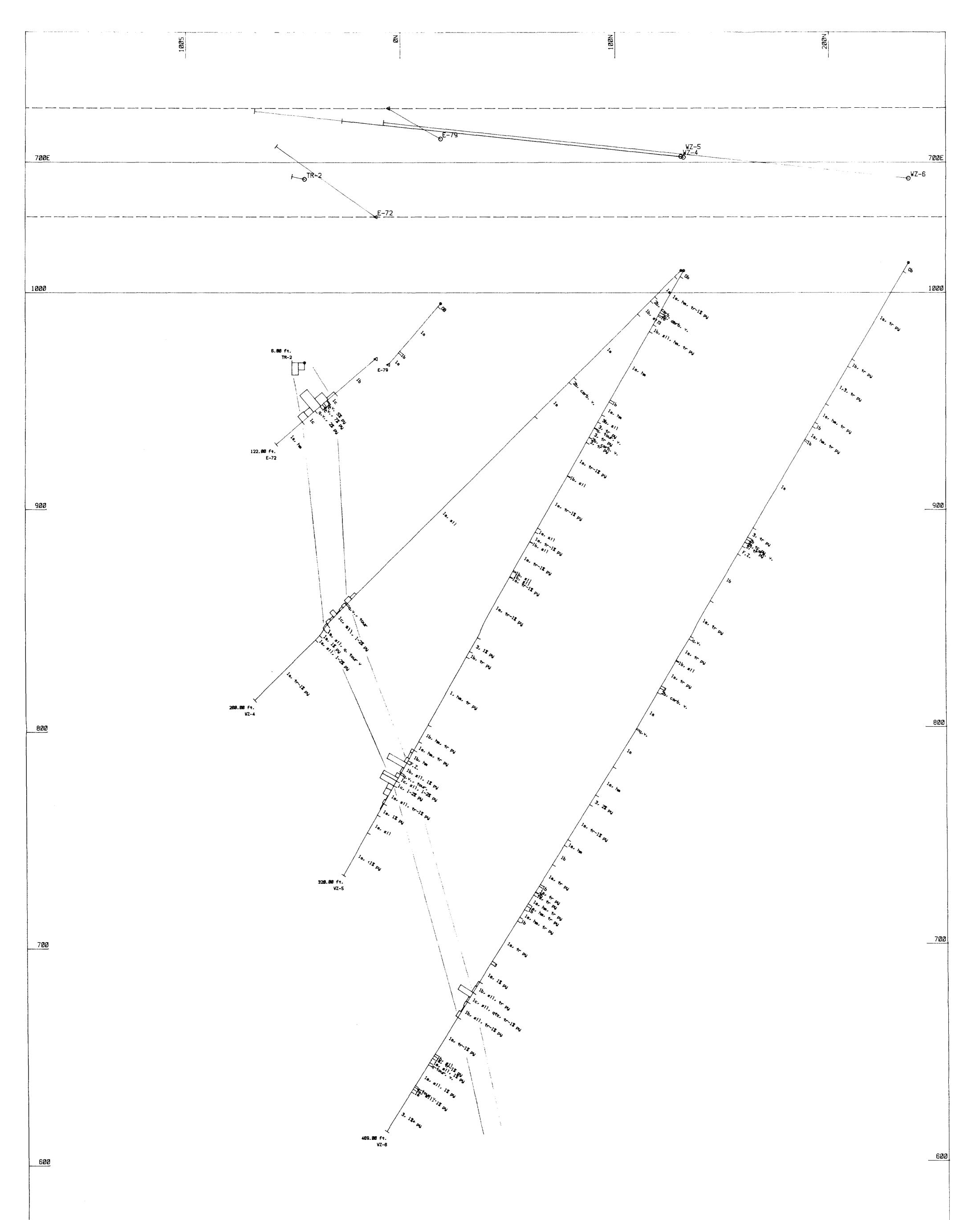
52E11NE9032 63.5114	EWART 290	S	1 BGN		ZBBN	63.5114 OM87-195
	ASSAY BAR GRAPHS	LEGEND          1       HIGH LAKE PORPHYRYTIC GRANODIORITE         1       1a. Massive Quartz Feldspar Porphyry         1b. Follated - weak to moderate shearing         1c. "Quartz-eye Sericite Schist" - strongly sh         2       BASALT, 2a. Massive Hornfelsed Basalt         2b. Biotite-hornblende Schist - strongly shear         3       HYBRID ROCK (Basalt - Granodiorite)         3c. Massive Quartz Diorite, 3b. Follated (shear)	ed py pyrite po pyrhotite vel po pyrhotite	GRID I H]	EDMAN & ASS S IN MINERAL EXPLORATION W ZONE SECTION 800 ROTATED 30 DEGREES WES GH LAKE PRO	E T ABOUT ØE/ØN DPERTY
1885		3a. Massive Quartz Diorite, 3b. Follated (she q.v. (quartz vein) q-carb v. (quartz-carbonat q-tour. v. (quartz-tourma)ine vein)			E SERVICE CORPORATION DATE: 88/04/30	SCALE: 1" = 20'

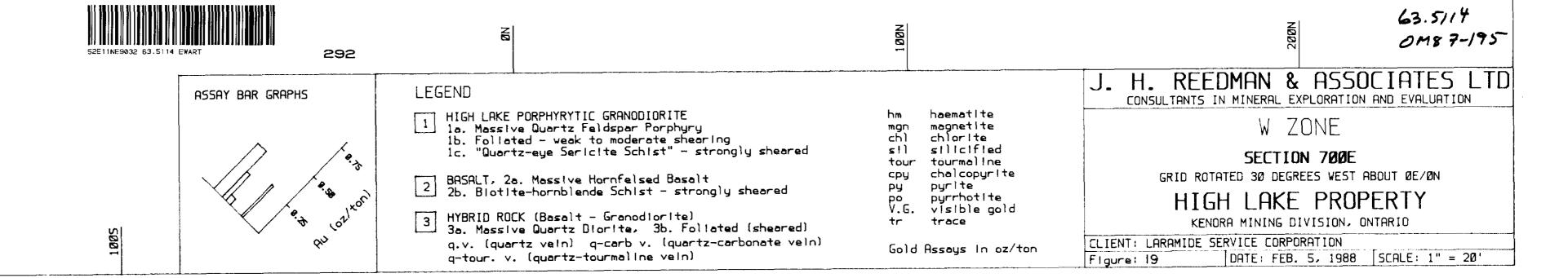


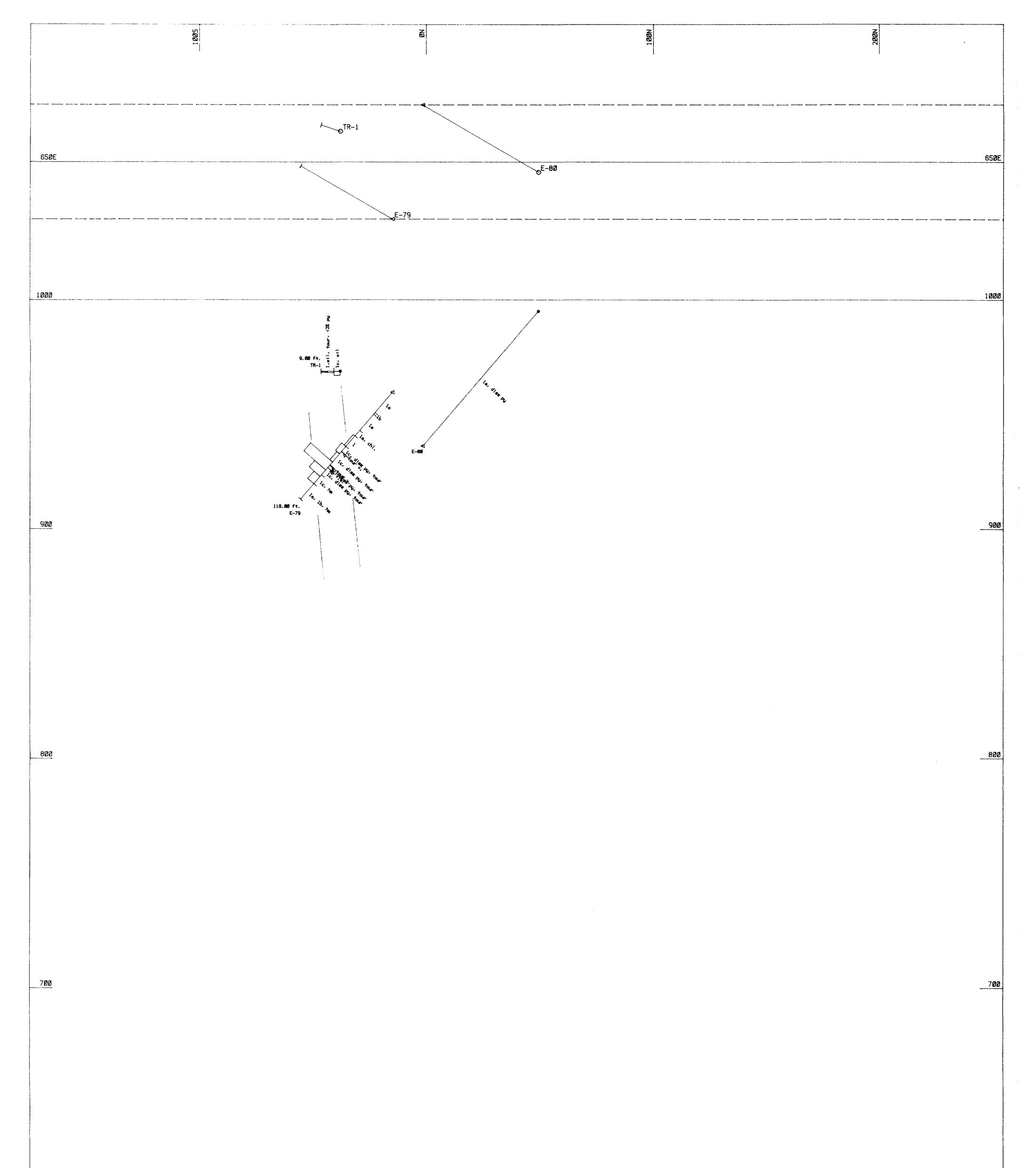


52E11NE9032 63.5114 EWART		Z	1 BBN	200N	63.5114 OM87-195
ASSAY BAR GRAPHS	LEGEND			J. H. REEDMAN & ASS CONSULTANTS IN MINERAL EXPLORATION	SOCIATES LTD
	1 HIGH LA 1 Ia. Mass 1b. Fol 1c. "Qu	(E PORPHYRYTIC GRANODIORITE sive Quartz Feldspar Porphyry lated - veak to moderate shearing artz-eye Sericite Schist" - strongly sheared	hm haematite mgn magnetite chì chlorite siì silicified tour tourmaline	W ZONE SECTION 750	
•	2 BASALT, 225. Bio	2a. Massive Hornfelsed Basalt tite-hornblende Schist - strongly sheared	cpy chalcopyrite py pyrite po pyrrhotite V.G. visible gold	GRID ROTATED 30 DEGREES VES	
SB AN AN		ROCK (Basa)t - Granodiorite) sive Quartz Diorite, 36. Foliated (sheared)	po pyrrhotite V.G. visible gold tr trace	KENORA MINING DIVISION.	
1 60 62	q.v. (q q-tour.	uartz vein) q-carb v. (quartz-carbonate vein) v. (quartz-tourmaline vein)	Gold Assays in oz/ton	CLIENT:       LARAMIDE       SERVICE       CORPORATION         FIGURE:       18       DATE:       88/04/30	SCALE: 1" = 20'

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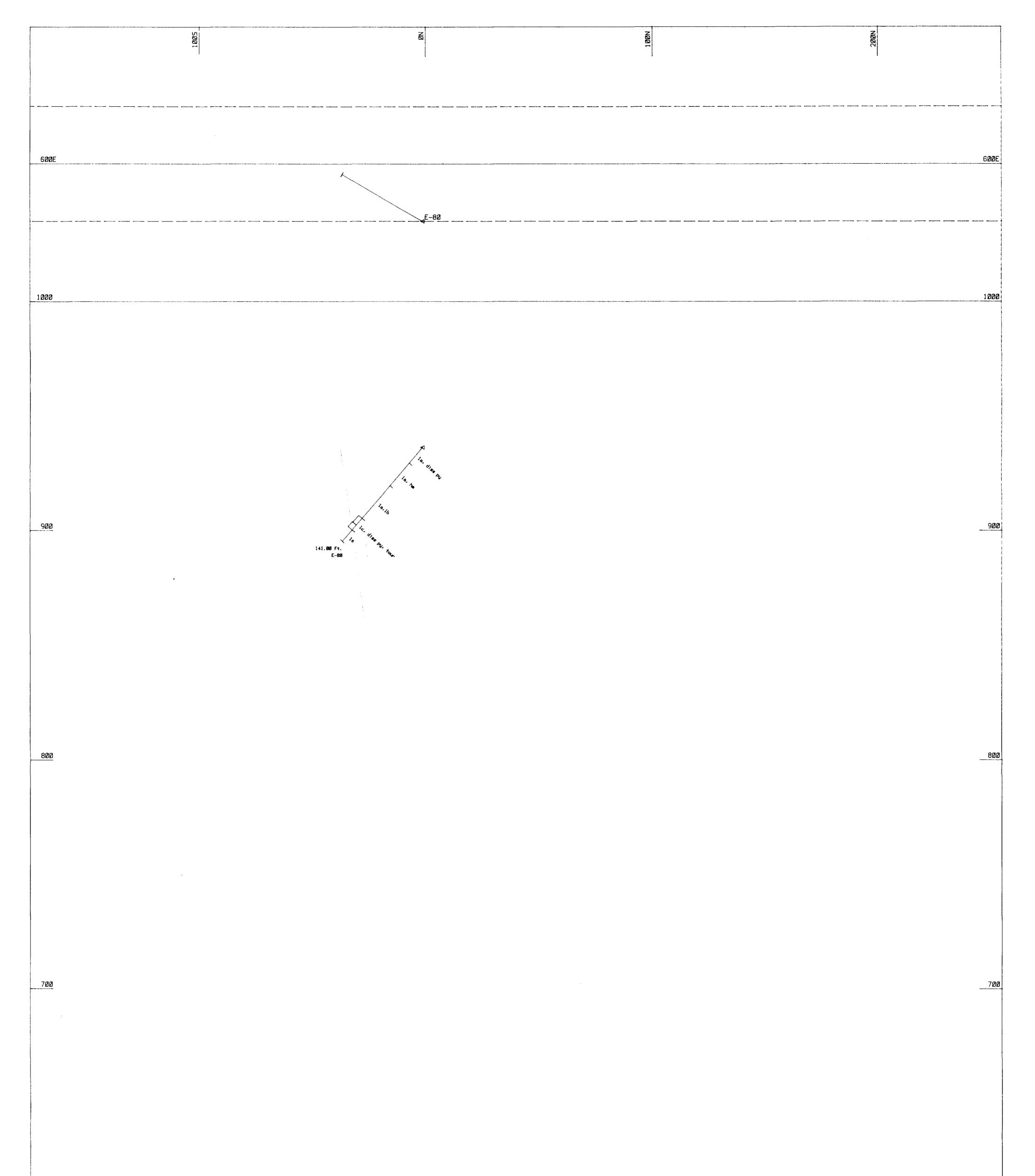




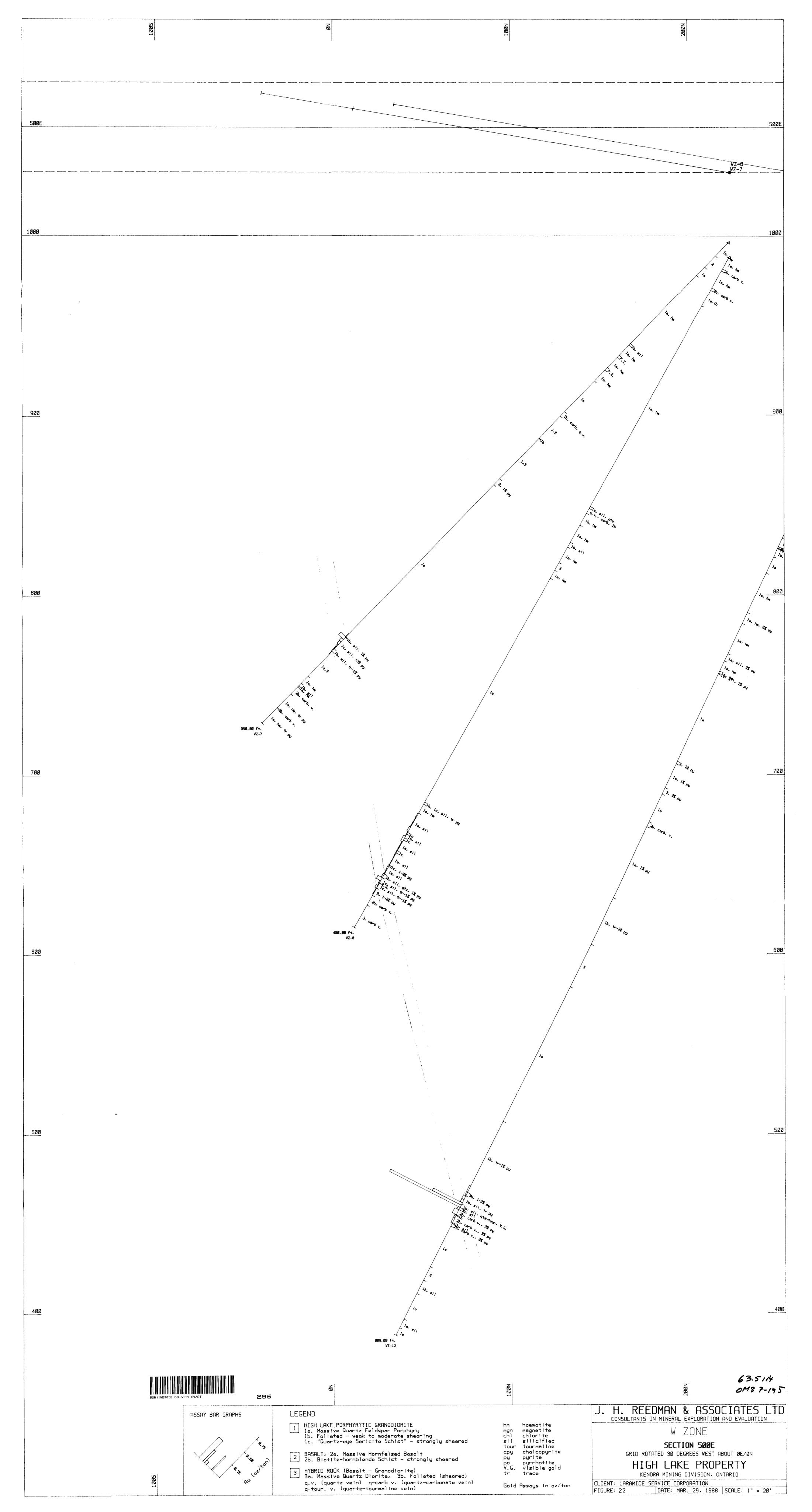


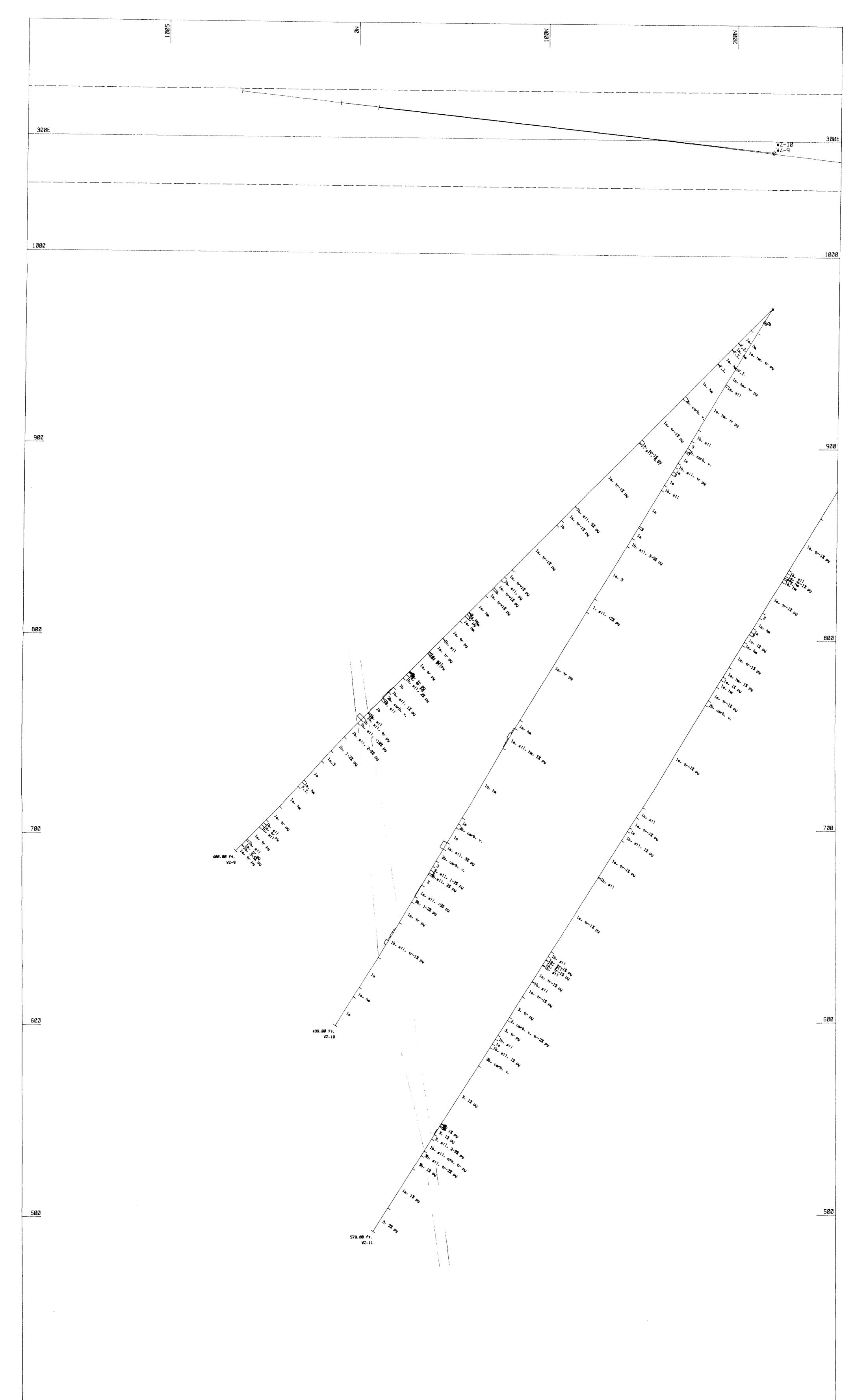
52E11NE9032 63.51	114 EWART 293	N	1 ØØN	63.5114 UM87-195
	ASSAY BAR GRAPHS			J. H. REEDMAN & ASSOCIATES LTD CONSULTANTS IN MINERAL EXPLORATION AND EVALUATION
		HIGH LAKE PORPHYRYTIC GRANDDIORITE         1       1a. Massive Quartz Feldspar Porphyry         1b. Follated - weak to moderate shearing         1c. "Quartz-eye Sericite Schist" - strongly sheared	hm haematite mgn magnetite chì chiorite	W ZONE
			r sl) sl)icified tour tourmaline cpy chalcopyrite	SECTION 650E GRID ROTATED 30 DEGREES WEST ABOUT ØE/ØN
	the stand	2 BASALT, 2a. Massive Hornfelsed Basalt 22 2b. Blotite-hornblende Schist - strongly sheared	py pyrite po pyrrhotite V.G. visible gold	HIGH LAKE PROPERTY
1005	AU AU	3 HYBRID ROCK (Basalt - Granodlorite) 3a. Massive Quartz Diorite, 3b. Foliated (sheared)	tr trace	KENORA MINING DIVISION, ONTARIO
16	Ŷ	q.v. (quartz veln) q-carb v. (quartz-carbonate veln) q-tour. v. (quartz-tourma)!ne veln)	Gold Assays In oz/ton	CLIENT: LARAMIDE SERVICE CORPORATION .FIGURE: 20DATE: 88/04/30SCALE: 1" = 20'

and the second



52E11NE9032 63.5114	EWART 294	S	1 ØØN	63.5714 0M87-195
	ASSAY BAR GRAPHS	LEGEND	hm haematite	J. H. REEDMAN & ASSOCIATES LTD CONSULTANTS IN MINERAL EXPLORATION AND EVALUATION
	· • •	1HIGH LAKE PORPHYRYTIC GRANODIORITE11a. Massive Quartz Feldspar Porphyry1b. Follated - weak to moderate shearing1c. "Quartz-eye Sericite Schist" - strongly sheared	mgn magnetite chì chlorite siì silicified tour tourmaline	W ZONE SECTION 600E
	et tou	<ul> <li>BASALT, 2a. Massive Hornfelsed Basalt</li> <li>2b. Biotite-hornblende Schist - strongly sheared</li> <li>HYBRID ROCK (Basalt - Granodiorite)</li> <li>3a. Massive Quartz Diorite, 3b. Follated (sheared)</li> </ul>	cpy chalcopyrite py pyrite po pyrrhotite V.G. visible gold tr trace	GRID ROTATED 30 DEGREES WEST ABOUT 0E/0N HIGH LAKE PROPERTY KENORA MINING DIVISION, ONTARIO
1005	RU	q.v. (quartz veln) q-carb v. (quartz-carbonate veln) q-tour. v. (quartz-tourmaline veln)	Gold Assays in oz/ton	CLIENT:LARAMIDESERVICECORPORATIONFIGURE:21DATE:88/04/30SCALE:1" = 20'





52E11NE9032 63.5114	evart 296	Z	NBBI	63.5114 0M87-195
	ASSAY BAR GRAPHS	LEGEND I HIGH LAKE PORPHYRYTIC GRANODIORITE 1 1a. Massive Quartz Feldspar Porphyry 1b. Foliated - veak to moderate shearing 1c. "Quartz-eye Sericite Schist" - strongly she	hm haematite mgn magnetite chì chìorite siì siìicified	J. H. REEDMAN & ASSOCIATES LTD CONSULTANTS IN MINERAL EXPLORATION AND EVALUATION W ZONE
	et ozlavon	Ic. "Wuartz-eye Sericite Schist" - strongly she2BASALT, 2a. Massive Hornfelsed Basalt22b. Biotite-hornblende Schist - strongly sheare3HYBRID ROCK (Basalt - Granodiorite)33a. Massive Quartz Diorite, 3b. Follated (sheat	tour tourmaline cpy chalcopyrite ed py pyrite po pyrrhotite	SECTION 300E GRID ROTATED 30 DEGREES WEST ABOUT ØE/ØN HIGH LAKE PROPERTY KENORA MINING DIVISION, ONTARIO
1005	Q12	Ja. Massive Quartz Diorite, 3b. Follated Ishea q.v. (quartz veln) q-carb v. (quartz-carbonate q-tour. v. (quartz-tourmaline veln)		CLIENT: LARAMIDE SERVICE CORPORATION         FIGURE: 23         DATE: MAR. 29, 1988         SCALE: 1" = 20'

