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BLUESTACK RESOURCES LIMITED

LUXOR JOINT VENTURE

REPORT ON

DIAMOND DRILL PROGRAM

McDONOUGH TOWNSHIP,

RED LAKE AREA

NORTHWESTERN ONTARIO

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James M. Patterson, May 8, 1984.

1. SYNOPSIS

1.1 Introduction

Bluestack Resources Ltd. has completed a diamond drilling program in the Slate Bay Area of Red Lake, N.W. Ontario. The 35 claim property is subject to an option and joint venture agreement with Luxor Explorations Inc. of Toronto whereby Bluestack can earn a 70% interest in the joint property upon expenditures of \$275,000. On completion of the drilling program reported herein Bluestack has exceeded the expenditure requirements and so owns a 70% undivided interest in the property with Luxor holding the balance of 30%.

1.2 Objectives & Results

The Objectives of the recently completed drilling program were:

- (i) To investigate a basal till Cu/Zn anomaly associated with a strong EM response.
- (ii) To investigate the base/precious metal potential of the rocks flanking an alteration pipe containing copper, silver and gold values.
- (iii) To follow-up gold values intersected by previous operators.

Six drill holes totalling 2,578 feet were completed in the period March 2 - April 22, 1984.

- D.D.H. B84-1 investigated the Cu/Zn geochemical anomaly and failed to intersect any significant mineralization.
- D.D.H. B84-2 and 84-5 investigated the old gold showings and were successful in that gold values were intersected in a pyritic chloritic greenstone horizon which was correlatable with earlier drilling. Values up to 0.36 Au were obtained and it is clear that a significant stratabound exploration target has been outlined.
- D.D.H. B84-3, 4 and 6 investigated the potential for base/ precious metals flanking an alteration pipe which had been recognized

for the first time by Bluestack work. Though copper values were obtained in veins and fractures no evidence of bedded massive Cu/Zn orebodies was intersected. However significant gold and silver values were obtained with values ranging up to 0.13 oz.Au and 3.44 oz. Ag/ton. These values occur in cherty metasediments and indicate a strataform control to mineralization. Additional drilling is required to investigate these intersections both along strike and at depth.

1.3 Recommendations

Further follow up of the EM anomalies under the lake to the south of the Slate Bay peninsula is not warranted at this stage.

Results from the gold zone drilling suggest that a new stratabound gold bearing horizon has been identified and that further drilling is fully warranted.

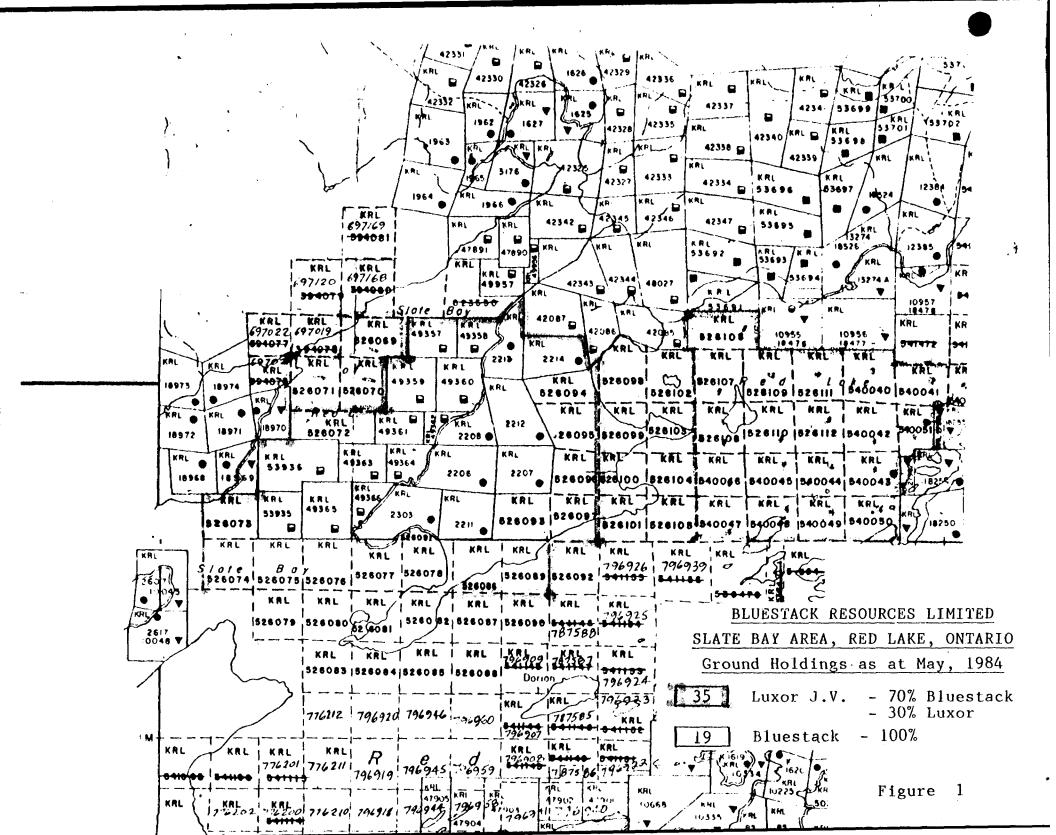
Positive results in precious metals from the drilling on the flanks of the alteration pipe demand that further drilling be undertaken to:

- (i) Investigate values at depth and
- (ii) To investigate the existence of a massive sulphide deposit more distal to the volcanic feeder pipe.

2. PROPERTY LOCATION & JOINT VENTURE AGREEMENT

By agreement dated February 20, 1981, Bluestack Resources Ltd. and Luxor Explorations Inc. agreed to amalgamate certain properties in the Slate Bay area of the Red Lake Mining Camp. Luxor held eight patented and twelve leased claims while Bluestack held seventeen claims and staked one additional claim adjoining the Luxor ground. The total block of 38 claims was amalgamated into a joint venture property. In addition Bluestack held a 100% interest in a further 23 claims.

The claims are located in McDonough and Dome Townships and lie approximately seven miles NW of the town of Red Lake. (Map 1).



Following the recent drill program Bluestack dropped one claim and filed abandonment of two other joint venture claims, thus reducing the joint venture to 35 claims, while abandonment was also filed on 21 claims held 100% by Bluestack. The present ground holdings are as shown on Fig. 1.

Under the terms of the agreement referred to above Bluestack can, on expending \$ 275,000 on the joint property, earn a 70% interest in the property. Expenditures to date on the joint property exceed this total so that Bluestack now owns 70% of the property. Continuing expenditures in excess of the \$ 275,000 are pro rated to each company's interest.

3. HISTORY OF PROPERTY

The property was originally staked in 1926 by W. McNeely who carried out trenching and test pitting on several quartz veins associated with quartz porphyry dykes.

- 1936 1937 Luxor Red Lake Mines incorporated to acquire the McNeely claim group and carried out further surface exploration followed by 2000 ft. of diamond drilling in seven holes, five of which were located on Claim 2214.
- 1946 1947 The same company carried out a further 3400 ft of surface diamond drilling in five holes.
- In 1962 Cochenour Exploration Ltd. completed magnetic and electromagentic surveys over part of the property. A total of 2100 ft. of drilling was carried out in seven holes on claims 2206 and 2208, although three of the holes were abandoned before reaching their target. In 1965, two holes were drilled for a total of 1400 ft., while in 1966, 1574 ft. was completed in four holes to test EM anomalies.
- Bluestack Resources entered into an option and joint venture agreement on the property and has now (1984) earned a 70% interest in the property.

4. SUMMARY OF BLUESTACK WORK

Upon commencement of work in 1981, Bluestack established a grid totalling 80 line miles on the property. This grid was laid out on 400 ft. line spacing with stations picketed 100 ft. apart on the lines.

Ground magnetometer and electromagnetic (MaxMin) surveys have been completed on lines 400 ft. apart with readings taken at 50 ft. intervals, along each line. In areas of interest intermediate lines were cut thus giving 200 ft. line spacing. Reports and maps were prepared by John Betz Ltd.

Two trenching programs were completed. Program I comprised three trenches on the silver/copper alteration pipe in 1981, while Program 2, in 1983, comprised one trench on the gold zone and a further trench on the silver/ copper zone.

As base metals were known to be associated with some of the geophysical anomalies follow up geochemical surveys were carried out. A total of 1962 soil samples was collected by grub hoe and auger from beneath the organic rich horizon and all samples were analysed for Copper (Cu), Lead (Pb), Zinc (Zn), Gold (Au) and Silver (Ag). Anomalies in Cu, Au and Ag were confirmed.

A follow up basal till sampling program was undertaken near EM anomalies associated with known mineralization in the silver/copper zone. Surface anomalies were confirmed at depth.

A basal till sampling program was undertaken from the ice on Red Lake in early 1982 in an attempt to investigate the long "formational" geophysical anomalies. Results were uniformly low except at the south west end of the sampled area where a coincident Cu/Zn anomaly is present.

Geological mapping was completed on the property on a scale of 1'' = 400 ft. (1:4800) using the established grid and air photographs for control purposes.

5. GEOLOGY

The northwestern part of the claim block is underlain by a succession of intermediate basalts and tuffs. The units represented appear as relatively massive flows in the extreme NW with a transition to waterlain tuffs towards the SE. As in the rest of the area, metamorphic alteration appears to just enter the lower greenschist facies and many primary features are still recognizable.

Granodiorite and quartz feldspar porphyry intrusives occur at a number of locations within the above succession. Rhyolite units concordant with the strike of the country rocks crop out infrequently, but appear to be of relatively large areal extent. Blebs and stringers of carbonate were noted in a number of exposures in the basalt and tuff lithologies.

An extensive magnetite formation occurs on claim 2206 & 2208. This magnetite stratigraphically overlies a garnetiferous epidote and chlorite alteration zone. The presence of angular blocks of magnetite and epidote strongly suggests a breccia pipe which contains significant copper, silver and gold values. This pipe is interpreted as a volcanic feeder pipe and raises the economic potential of the property. A chert formation overlies this magnetite.

The central part of the property is underlain by a thick succession of polymict conglomerates, sandstones, shales and minor arkosic and calcareous sediments. The presence of a marble unit at the north east end suggests a facies change in this direction. Cherty iron formation and graphitic shales crop out to the southeast of the clastic sediments. The contact with the underlying unit is obscured by a large quartz porphyry and a gabbroic intrusive.

Intermediate to mafic volcanics are poorly exposed on the southeastern part of the property. The development of pillow structures suggests a marginal subaerial to submarine environment. A conglomerate iron rich unit is exposed on a partially submerged reef in the lake on claims 526089.

6. RECENT DRILLING PROGRAM

6.1 Location

A diamond drilling program totalling 2,578 feet in six holes was recently completed on the Slate Bay Property. One hole 84-1 was drilled on 100% owned Bluestack ground (Claim 526090) and was designed to investigate a Cu/Zn geochemical anomaly coincident with a strong EM conductor.

Holes 84-2 to 84-6 inclusive were drilled on the Luxor J.V. property and comprised 2,124 feet in five holes (Table 1). The locations of these holes relative to the EM conductors are shown on Figure 2.

6.2 Results of Drilling Program

6.2.1 Claim 526090

D.D.H. 84-1

This hole was drilled to a depth of 454 feet but although interesting from a geological viewpoint nothing of economic significance was intersected. Very minor sphalerite (ZnS) was noted, while the geophysical conductors are attributed to the locally heavy concentrations of pyrrhotite (FeS₂) in the hole.

6.2.2 Gold Zone

D.D.H. 84-2

This hole was located in an attempt to repeat the intersection obtained in 1937-1, which cut 0.23 oz. Au/15' in a

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"Table 1"

<u>Collar Location</u>						Vertical
Hole No.	Claim No.	Coordinates	<u>Declination</u>	<u>Azimuth</u>	<u>Total Depth</u>	Depth
B84-1	526090	62+00E / 39+00S	-45°	Grid North	454.0'	321'
B84-2	2214	108+65E / 11+70N	-45°	Grid North	486.01	357'
B84-3	2208	80+00E / 1+70N	-45°	Grid North	253.0'	179'
B84-4	2208	84+00E / 1+37N	-45°	Grid North	416.0'	285 '
B84-5	2214	106+00E / 10+50N	-45°	Grid North	523.0'	367'
B84-6	526095	100+00E / 1+10N	-45°	Grid North	446.0'	315'

Bluestack 100% Property 84-1 = 454.0 Ft.
Luxor J.V. - 70% Bluestack
30% Luxor

84-2 to 84-6 = 2124.0 Ft.

D.D.H. 84-2 (Continued)

pyritic greenstone horizon. As no drill core was available it was considered necessary to drill close to this hole. Hole 84-2 was collared 25 ft. south of 37-1 and the results are shown on Table 2. The highest value obtained was 0.36 oz. over a 2 ft. intersection with from 0.01 to trace noted over where the 37-1 zone might be considered to be located. Of special significance is the presence (Fig. 3) of a new zone at the base of the chloritized pyritic horizon and immediately above the rhyolite contact. This zone ran 0.11 oz. Au and 0.93 oz. Ag/ton over 7 ft. and this contact was not intersected in 37-1.

Though not repeating the 37-1 intersection in width, drill hole 84-2 may have clipped it (0.36/2') while a new zone has been discovered at the rhyolite contact.

D.D.H. 84-5

The excellent correlation of the geology in D.D.H. 84-2 with that obtained in the Gold Zone trench excavated in late 1983 caused us to be optimistic at the possibility of a distinct gold bearing horizon being present on the property. The low gold values in the trench were more than offset by the correlation of the geology over 200 ft. vertically and the presence of significant gold values at depth suggested that a major target zone could be present.

Accordingly hole 84-5 was sited to investigate if the gold bearing horizon persisted along strike and down dip. This hole was collared approx. 300' SW of 84-2, and intersected the pyritic chloritic zone and again carried significant gold values as shown on Fig. 4 and Table 2.

6.2.3 <u>Alteration Pipe Zone</u>

Trenching in late 1983 had enchanced the attraction of this area as a target for base/precious metals. We concluded that the alteration pipe was a volcanic feeder and that the

LUXOR JOINT VENTURE

1984 Diamond Drilling Program

Significant Intersections

Hole No.	Intersection Length (Ft.)	Au. oz./t	Ag. Zone Zone
B84-1	Nil		
B84-2	367.0 - 369.0 = 2' $393.0 - 395.0 = 2'$ $395.0 - 397.0 = 2'$ $397.0 - 399.0 = 2'$ $399.0 - 400.1 = 1.1'$	0.36 0.05 0.22 0.03 0.17	·
B84-3	99.0 - 101.0 = 2' $101.0 - 103.0 = 2'$	0.05 0.01	1.00) 99' - 103 1.02) 0.03; 1.01 4 Ft.
_	119.5 - 122.5 = 3'	0.10	0.66
	165.0 - 168.0 = 3' 168.0 - 171.0 = 3'	0.01 0.12	0.96 } 165' - 171 0.88) 0.065; 0.92
••	189.0 - 192.0 = 3'	0.01	1.18
	216.0 - 219.0 = 3'	0.01	2.04
	241.4 - 242.7 = 1.3	0.05	Nil
	246.0 - 249.0 = 3'	0.01	1.04
B84-4	198.0 - 200.0 = 2' 200.0 - 203.0 = 3'	Tr. 0.08	0.88) 198' - 203 3.44) <u>0.05; 2.42</u> 5 Ft.
B84-5	437.1 - 439.0 = 1.9' 439.0 - 441.0 = 2' 441.0 - 443.0 = 2' 479.0 - 481.0 = 2' 481.0 - 483.6 = 2.6' 483.6 - 486.0 = 2.4'	0.04 0.09 0.05 0.03 0.08 0.03	0.30) 437.1' - 443' 0.36) 0.06; 0.22 Ni1) 5.9 Ft. Ni1) 479' - 486' 0.05) 0.049; 0.19 Ni1) 7 Ft.
B84-6	178.4 - 193.0 = 14.6' 205.0 - 211.0 = 6' 213.0 - 215.2 = 2.2' 215.2 - 218.0 = 2.8'	0.03 0.03 0.13 0.02	0.19 0.26 Nil) 213' - 218' Nil) 0.07; Nil) 5 Ft.

EM conductors flanking this pipe could very well reflect massive stratabound mineralization, which could also contain precious metal values.

Three holes were located to investigate this target. $\overline{\text{D.D.H. 84-3}}$

This hole was sited to investigate the "C" anomaly below the trench (Fig.5). The anomaly is represented by a series of highly siliceous rocks with strong epidotization and with pyrrhotite, pyrite and chalcopyrite occurring sporadically as veinlets, blebs and disseminations around quartz, carbonate veinlets. This chert assemblage is a distinct unit and carries values in gold and silver (Fig. 5) and (Table 2). The hole cut approximately 80 ft. of garnet bearing alteration pipe with sporadic gold and silver values.

D.D.H. 84-4

Sited a further 400 ft. to the NE of 84-3, this hole was located to investigate the "C" anomaly below the area of strongest response. No obvious explanation of this conductor was intersected (Fig. 6) through very well developed banded chlorite/epidote alteration is present throughout the metasediments in the core. One 3 ft. section carries heavy chalcopyrite in a quartz carbonate vein in a highly altered section and this also carries gold and silver values.

D.D.H. 84-6

Sited 1600 ft. grid east of 84-4 and approx. 1100 ft. SW of 84-5, this hole was located to investigate the C1/A3 conductors. Here again the C1 anomaly is related to a mappable unit in a cherty iron formation. The unit comprises alternating grey white chert; minor grey magnetite (5-7%) and green chlorite (3-5%). Sulphides occur in bands and as disseminations

in the chert, quartz veins, and quartz carbonate bands and veins. Gold values occur persistently throughout the unit with the highest individual assay being 0.1 oz/ton over 2.2 ft.; Fig. 7 and Table 2.

6.3 Analysis of Drilling Results

The significant intersections cut in the 1984 drilling program on the Luxor Joint Venture property are summarized on Fig.8. Two apparently distinct zones have been indicated over a grid strike length of 2800 ft. The northern zone (The Gold Zone) represented by two 1984 holes, shows continuity of mineralization over 300 ft. of strike within a mappable stratiform unit, while the southern zone (the Alteration Pipe Zone) is represented by two holes sited 400 ft. apart and a third hole a further 1600 ft. grid east.

6.3.1 Gold Zone

Previous drilling on this zone in 1937 had intersected gold mineralization in a greenstone unit. Trenching by Bluestack in 1983 had shown this unit to be present at surface and two holes drilled in the recent program intersected the horizon also. Re-interpretation of the old data in light of the recently acquired drillcore indicates that the gold mineralization occurs in a stratigraphic unit up to 70' thick which can be correlated over some 400' of strike, and approx. over 300' of dip length. Grades are generally low but significant, and ore grade values have been cut over narrow widths. The recent drilling intersected a rhyolite footwall to the mineralized horizon with a discrete zone of mineralization at and above the rhyolite contact. Fig. 9 shows the drill hole geology and significant gold intersection projected to the surface at 75° dip. plan demonstrates good correlation of the mineralized bed and signifies the confirmation of an important stratiform gold horizon.

Important stratiform gold deposits have been discovered in the Canadian Shield in the past three years. The best known, and by far the most impressive, are the Hemlo deposits contained within metavolcanic/metasedimentary hosts and with impressive dimensions even by massive base metal deposit parameters. An allied type of deposit is the more recent Harker Township discovery some 40 miles north of Kirkland Lake where a gold bearing cherty horizon occurring between andesites has been traced for some 13,000 ft. along strike. Initial values were low but persistent and recent deeper drilling has indicated ore grade values over substantial widths (50 ft.) to at least 1,000 ft. down dip. The ore grade material is not continuous but is related to shoreline or basement topography, with better grades favouring topographic depressions in the depositional seafloor.

The third example is the Cameron Lake deposit south of Kenora. Mineralization here occurs in a highly altered sericitized and carbonatized pillowed to massive basalt unit with ore grade material present as lenses within this unit. The mineralized horizon is described as a low grade envelope with which ore grade lenses occur. This deposit bears some similarity to the Madsen and Starratt Olsen mines, both past producers in the Red Lake camp.

Each of these three new discoveries occur in areas which had been subjected to previous detailed, and sometimes intensive exploration. The recognition of the stratabound control to mineralization was the common key which has led to much more intensive investigation. This has led in one case to mine development and hopefully in the other two cases will also lead to production decisions. The recognition of the stratabound nature of the low grade but persistent mineralization encountered in the recent drill program on the Slate Bay property opens this up as an exploration target of some significance and promise, and one which warrants additional drilling.

6.3.2 Alteration Pipe Zone

Reference to Fig. 2 shows the location of holes 84-3, 84-4 and 84-6 relative to the alteration pipe. This pipe is regarded as a volcanic feeder through which metals were brought to the surface and deposited in sediments on the flanks of the pipe. Base and precious metal values are present in the pipe and holes 84-3 and 84-4 were sited to test the EM conductor 'C'. Hole 84-3 intersected cherty metasediments below the 'C' anomaly (Fig.5) and values in gold and silver are present. No massive base metals were intersected though it is significant that the footwall to the cherty horizon is a quartz feldspar porphyry. If this porphyry is indeed a dyke then it has been intruded along the very area where the massive sulphide deposits would be expected.

Hole 84-4 intersected altered metasediments/metavolcanics with very widespread chlorite and epidote alteration. The significant values noted in the hole are associated with a quartz carbonate vein containing blebs of chalcopyrite.

The results of the drilling suggest that our holes are still too proximal to the alteration pipe and further drilling down dip more distal to the pipe may yield the desired results.

Hole 84-6, a further 1600 ft. grid east of 84-4 investigated an EM conductor which is considered to be the strike extension of the 'C' anomaly drilled by 84-3 and 84-4. This hole intersected cherty iron formation with significant gold values. Again the isolated location of this hole demands that further drilling be undertaken.

7. CONCLUSIONS

Six drill holes totalling 2,578 ft. were completed on the Bluestack Slate Bay property in March-April 1984. Five of these holes comprising 2,124 ft. were completed on the Luxor Joint Venture claims and confirmed the presence of significant gold and silver values indicated by previous operators. The significant intersections are presented on Fig. 8, and Table 2.

Drilling on the previously known gold zone did not reproduce the 0.23 oz/15 ft. reported by previous operators in 1937, but did confirm ore grade values over narrower widths. Most importantly a stratabound mineralized horizon has been identified and traced, with the aid of the 1937 drill logs and 1983 trenching over 400 ft. of strike and for a dip length of 300 ft. An important drill target has been identified.

Drilling on the flanks of the alteration pipe has shown the presence of cherty metasediments with gold values. It is considered that this drilling is still too close to the pipe and that viable drill targets exist further down dip.

Hole 84-6 - the possible strike extension of the alteration pipe zone - has indicated the presence of gold bearing cherty iron formation. Additional drilling is warranted both along strike and down dip.

8. RECOMMENDATIONS

The success of the recent drilling program in confirming the presence of significant stratabound precious metal values requires that additional diamond drilling be undertaken to more fully investigate the potential of these targets.

JMP/v

May 8, 1984.

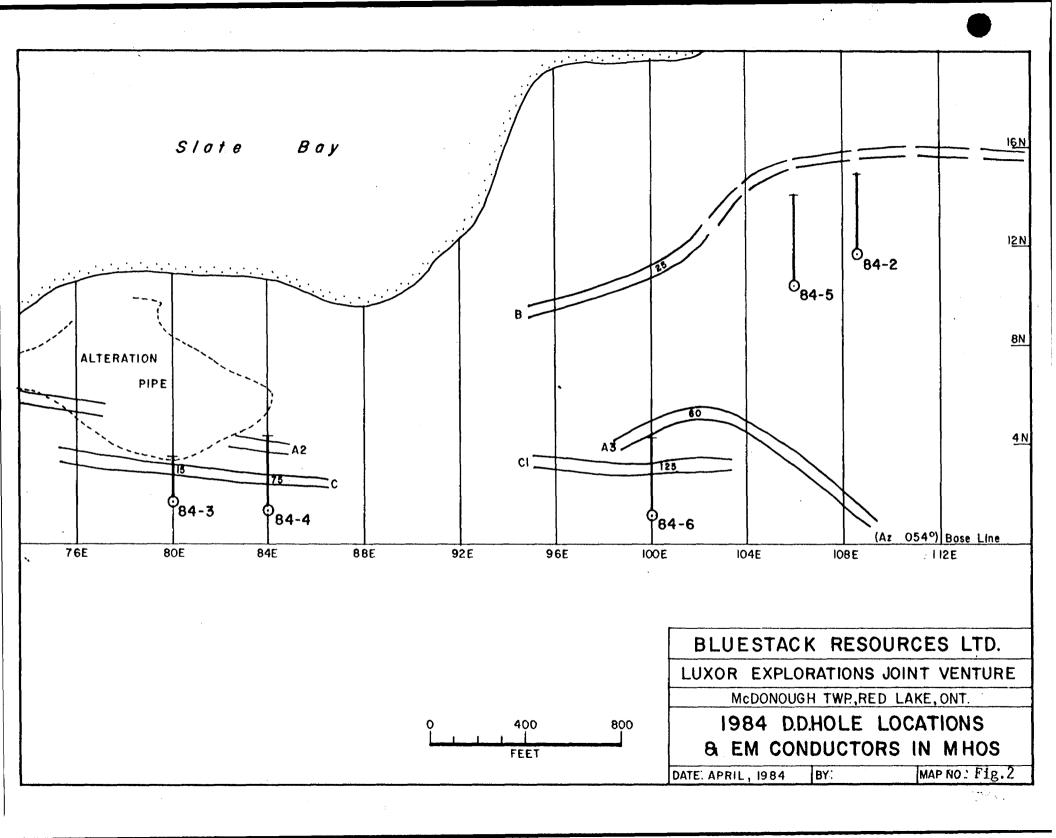
James M. Patterson

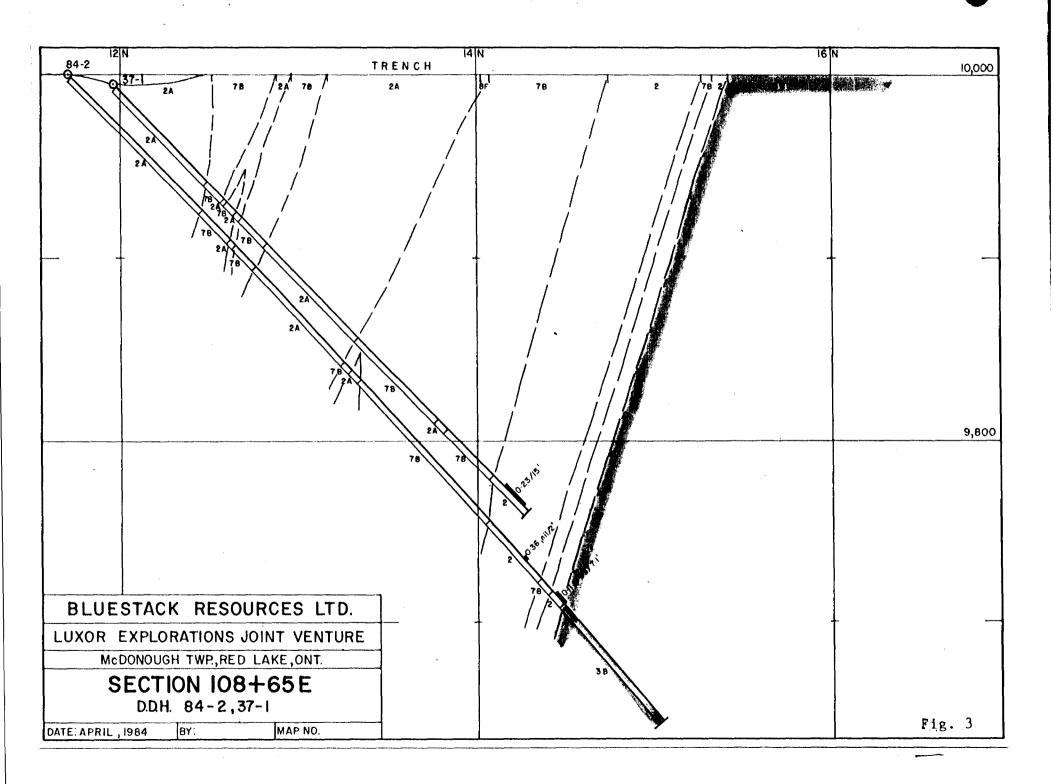
LEGEND TO GEOLOGICAL SECTIONS

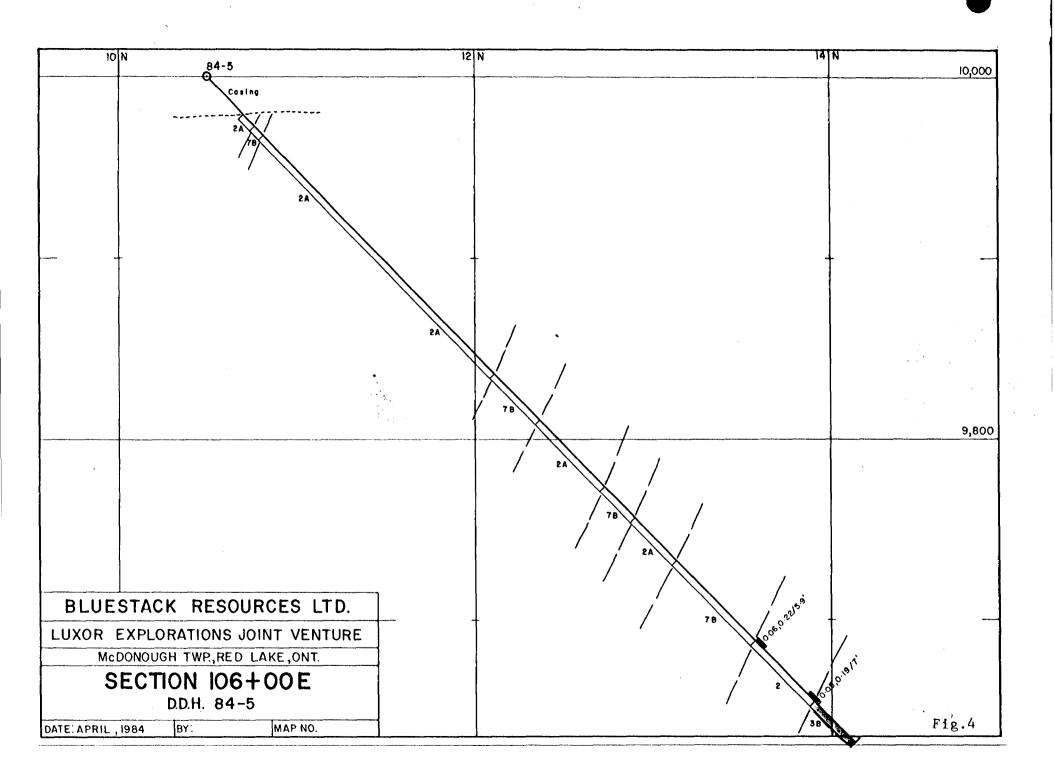
2 Chloritic Tuff - Altered. Ore Horizon 2A Metasediment/Metavolcanics Garnet Bearing Alteration Pipe 2K Epidote-Chlorite Alteration Zone 2L 3B Rhyolite Cherty Metasediments 5 A Cherty Iron Formation 5B Quartz Feldspar Porphyry 7B

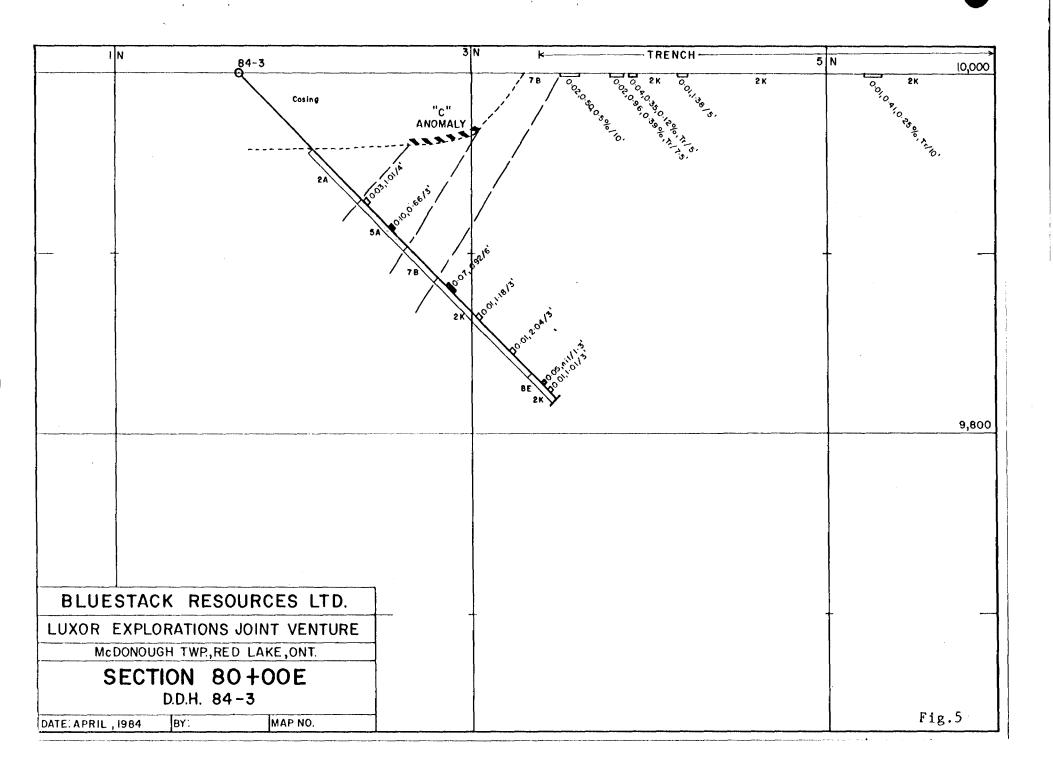
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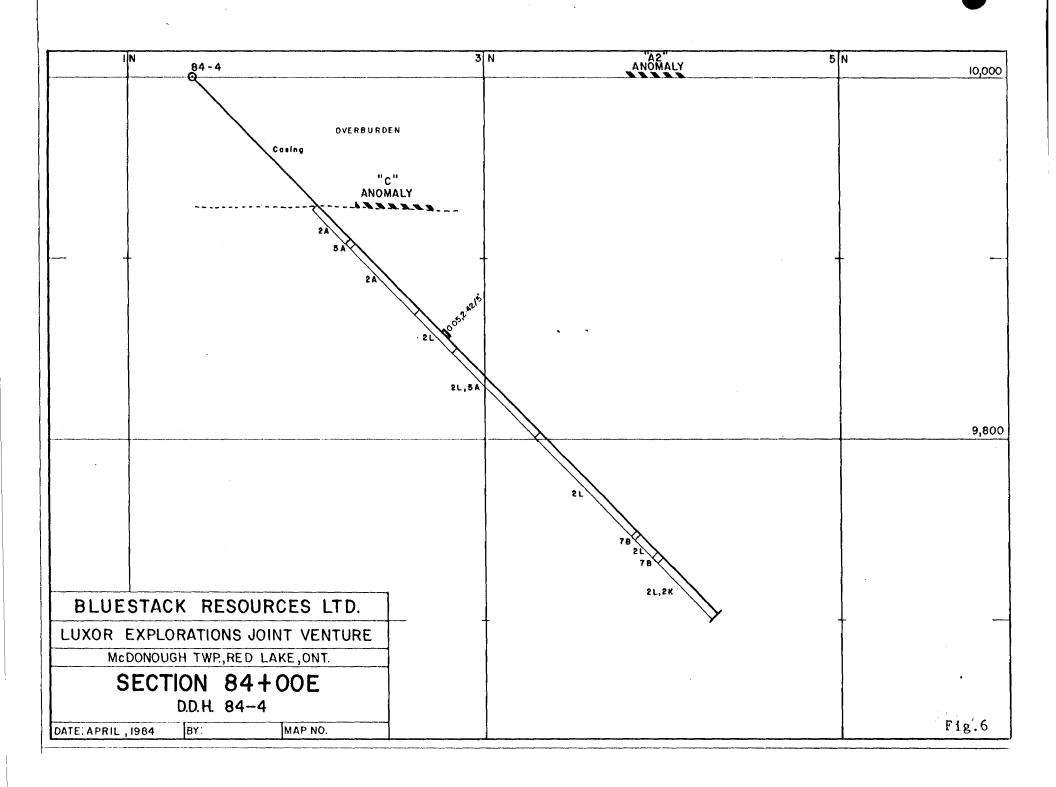
Au Ag oz. per ton/intersection length in ft.

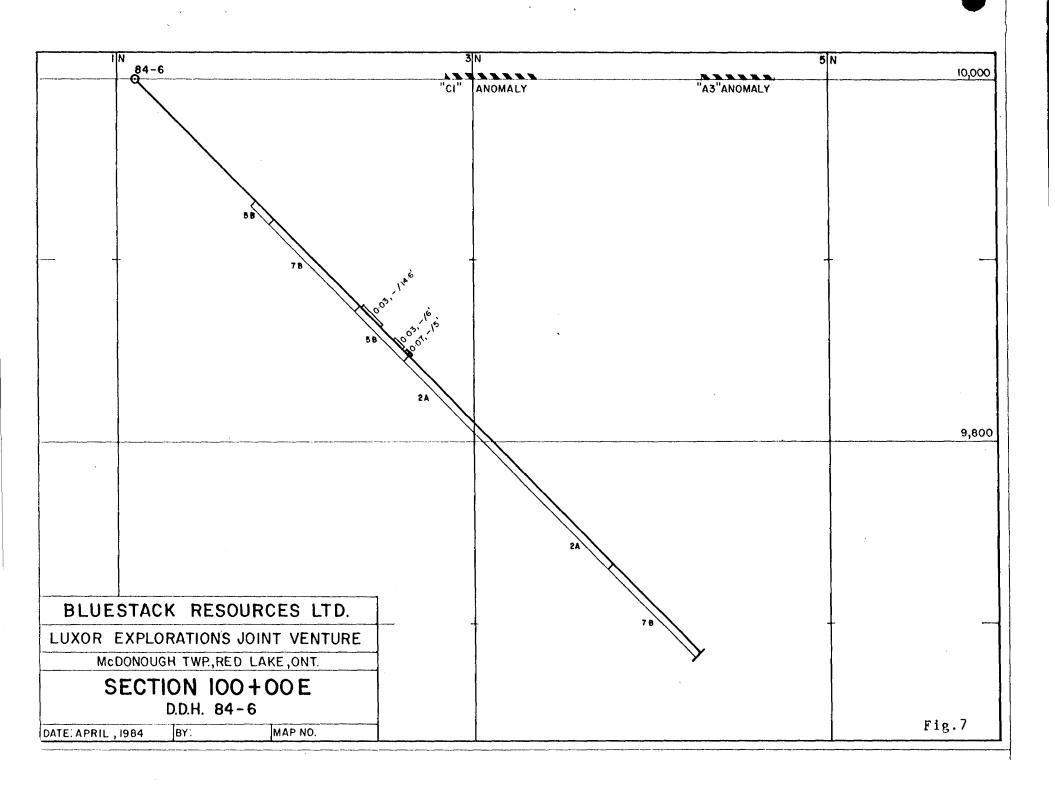


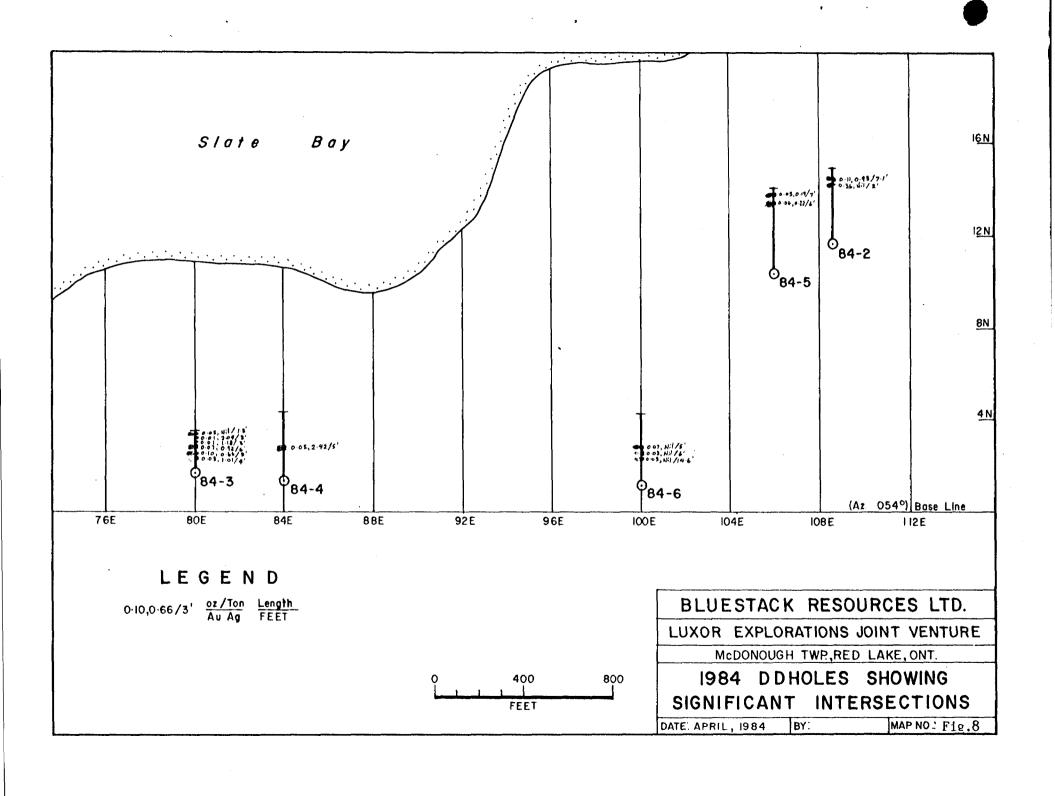


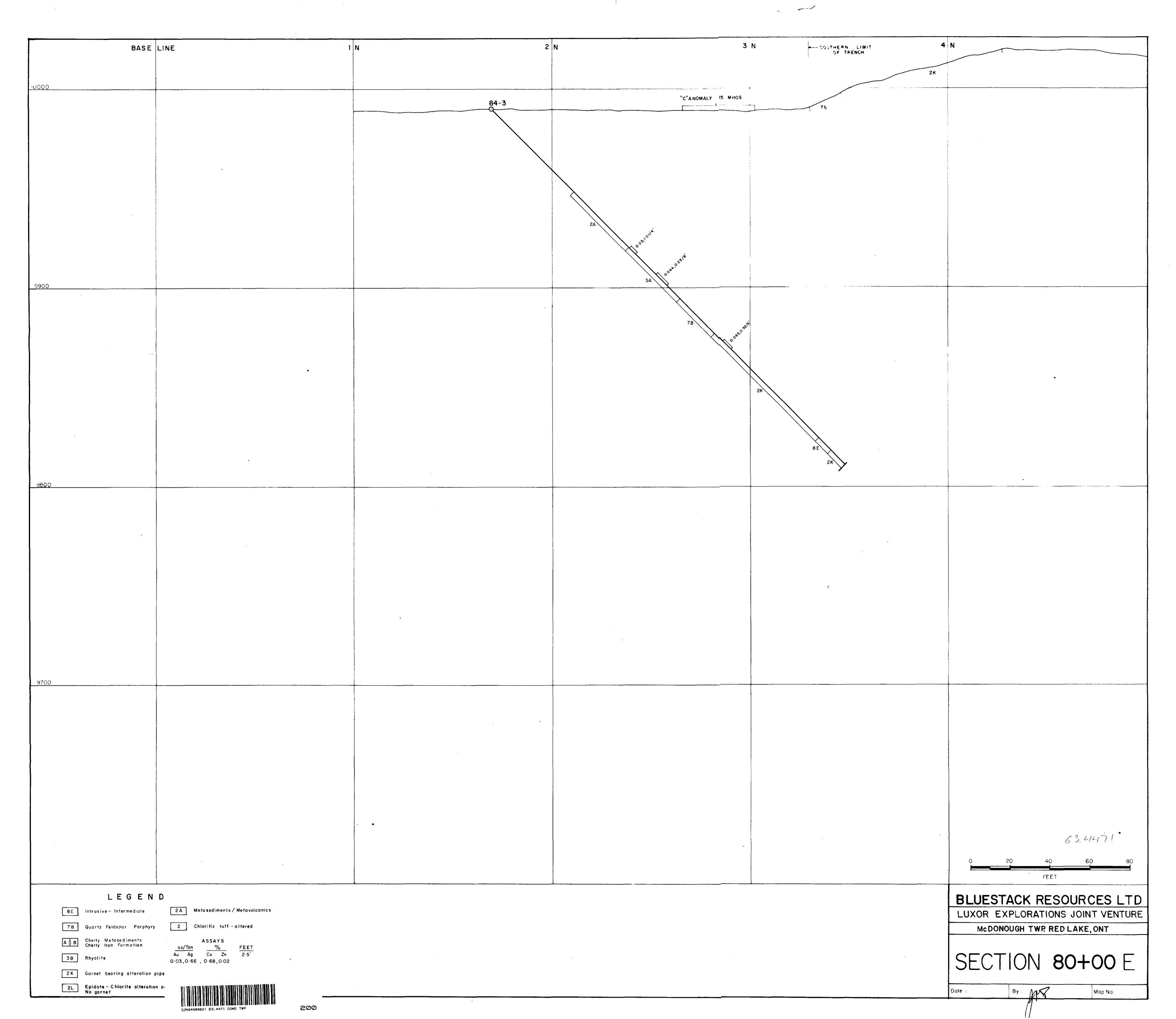


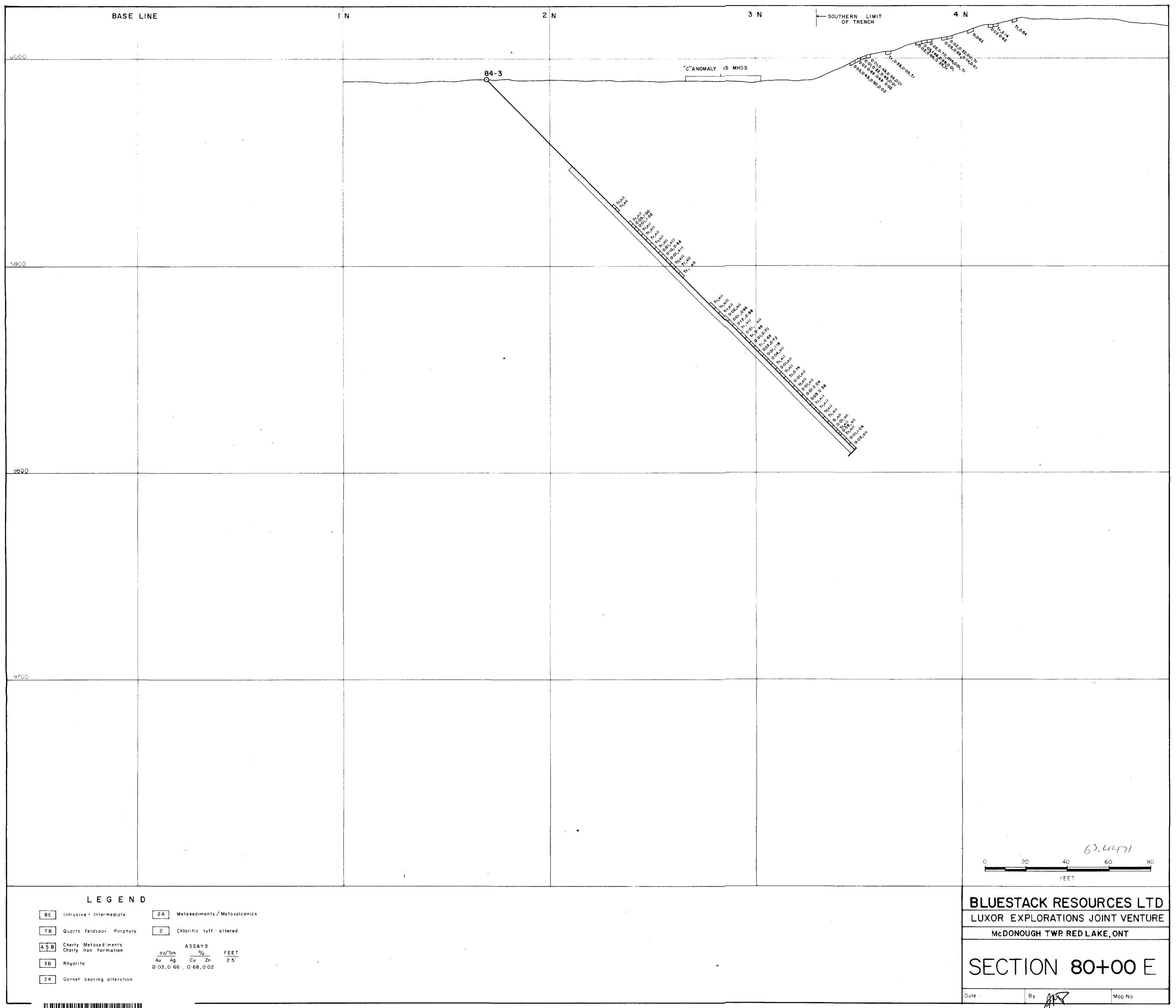




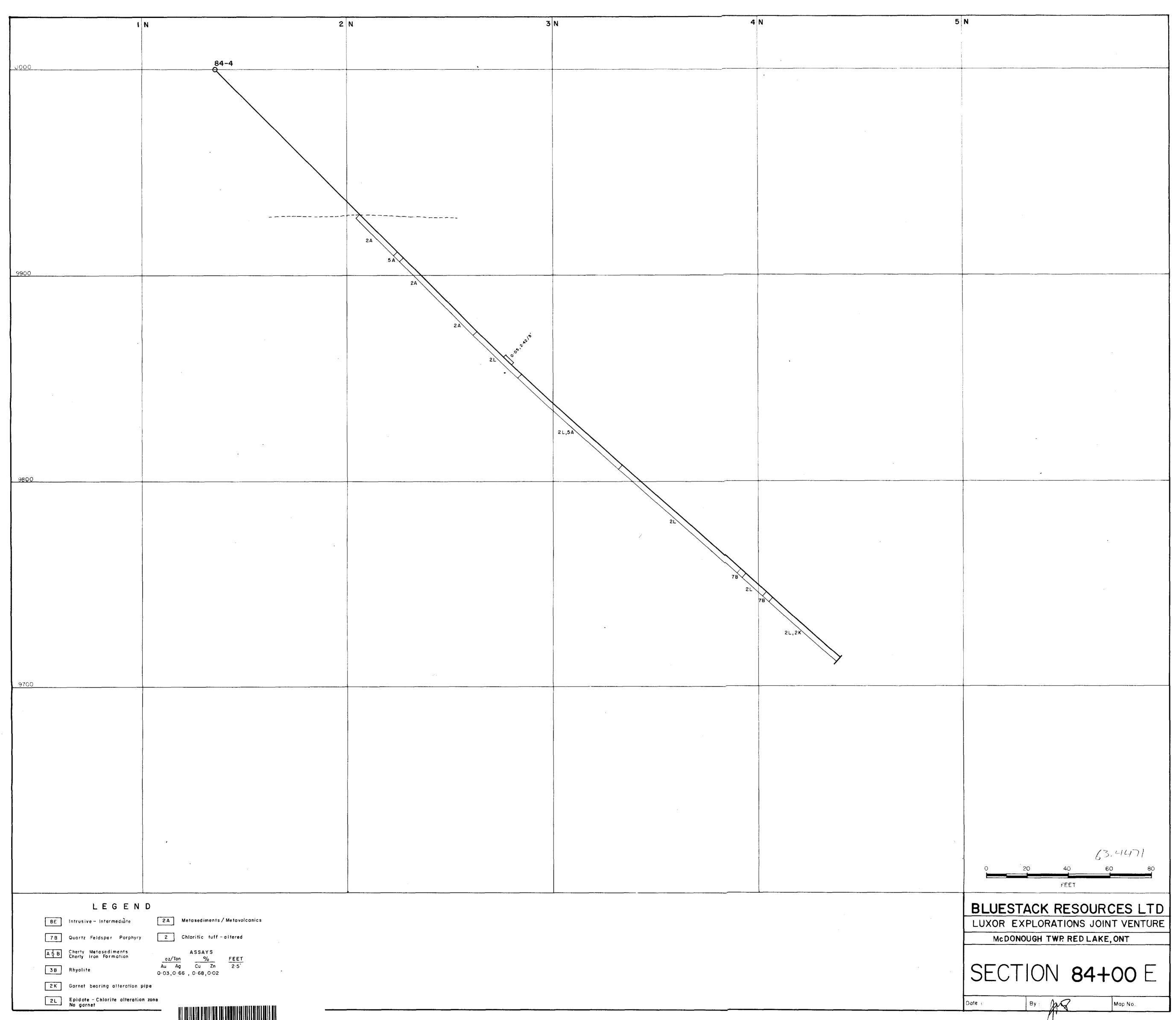


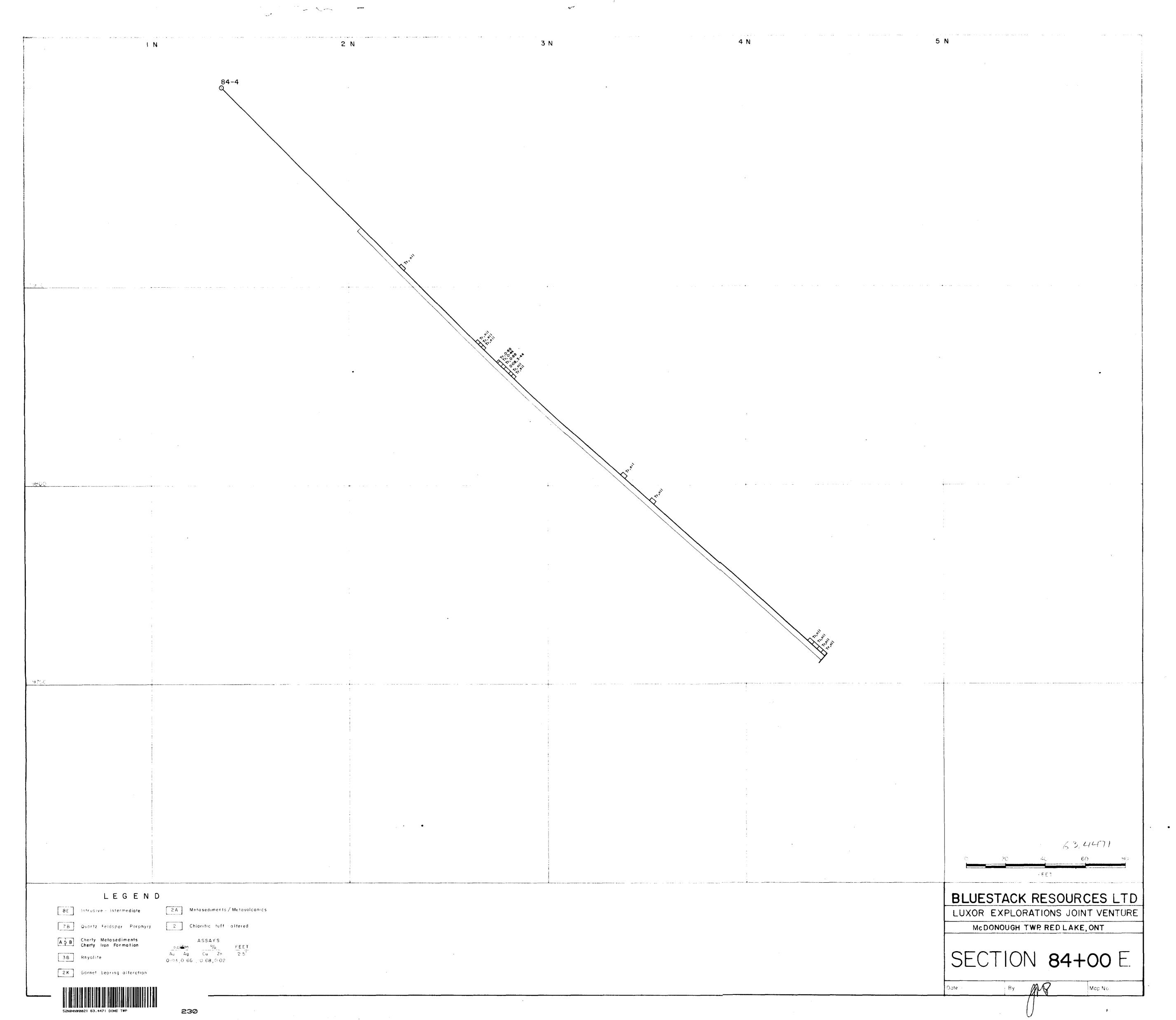


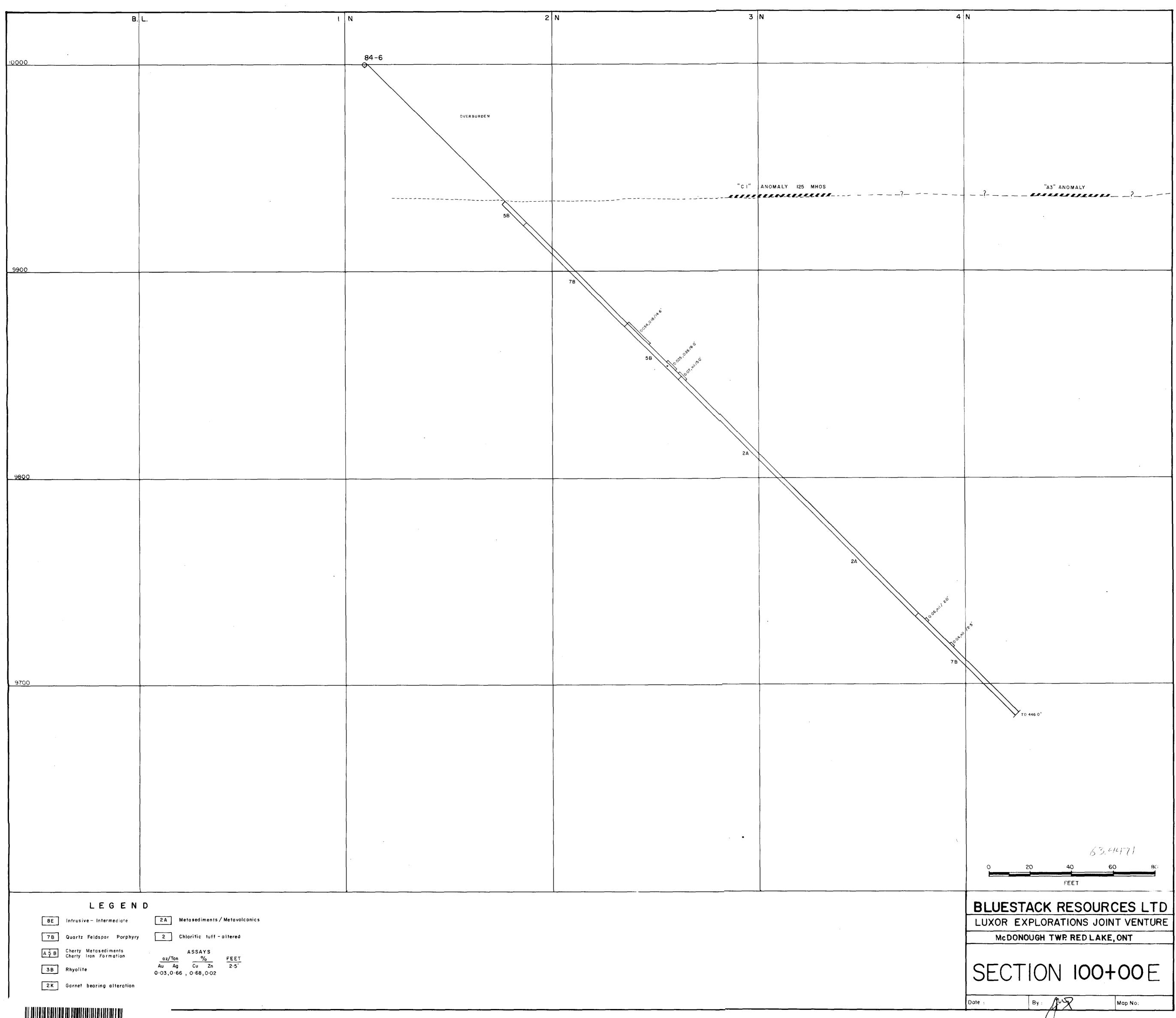




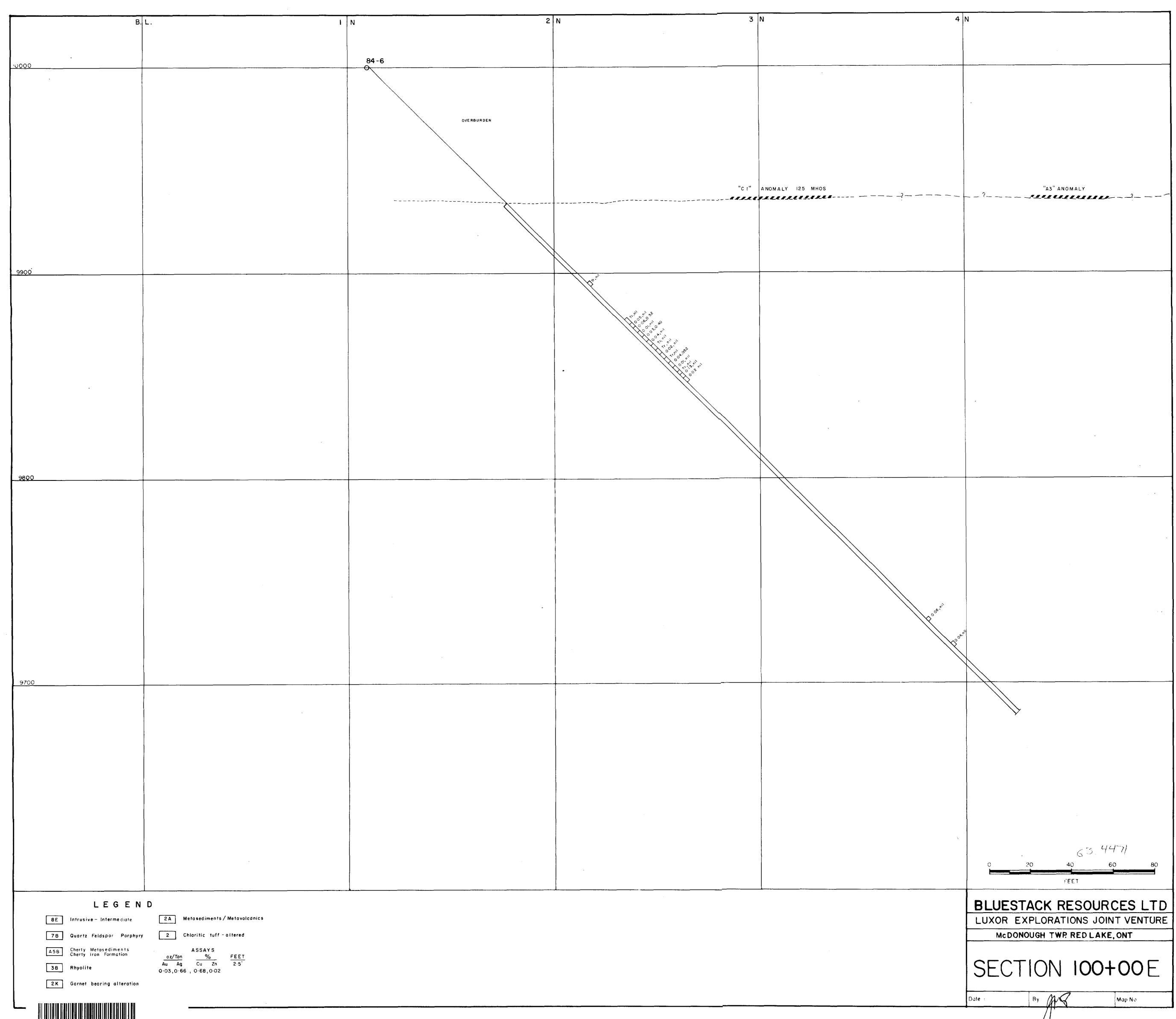




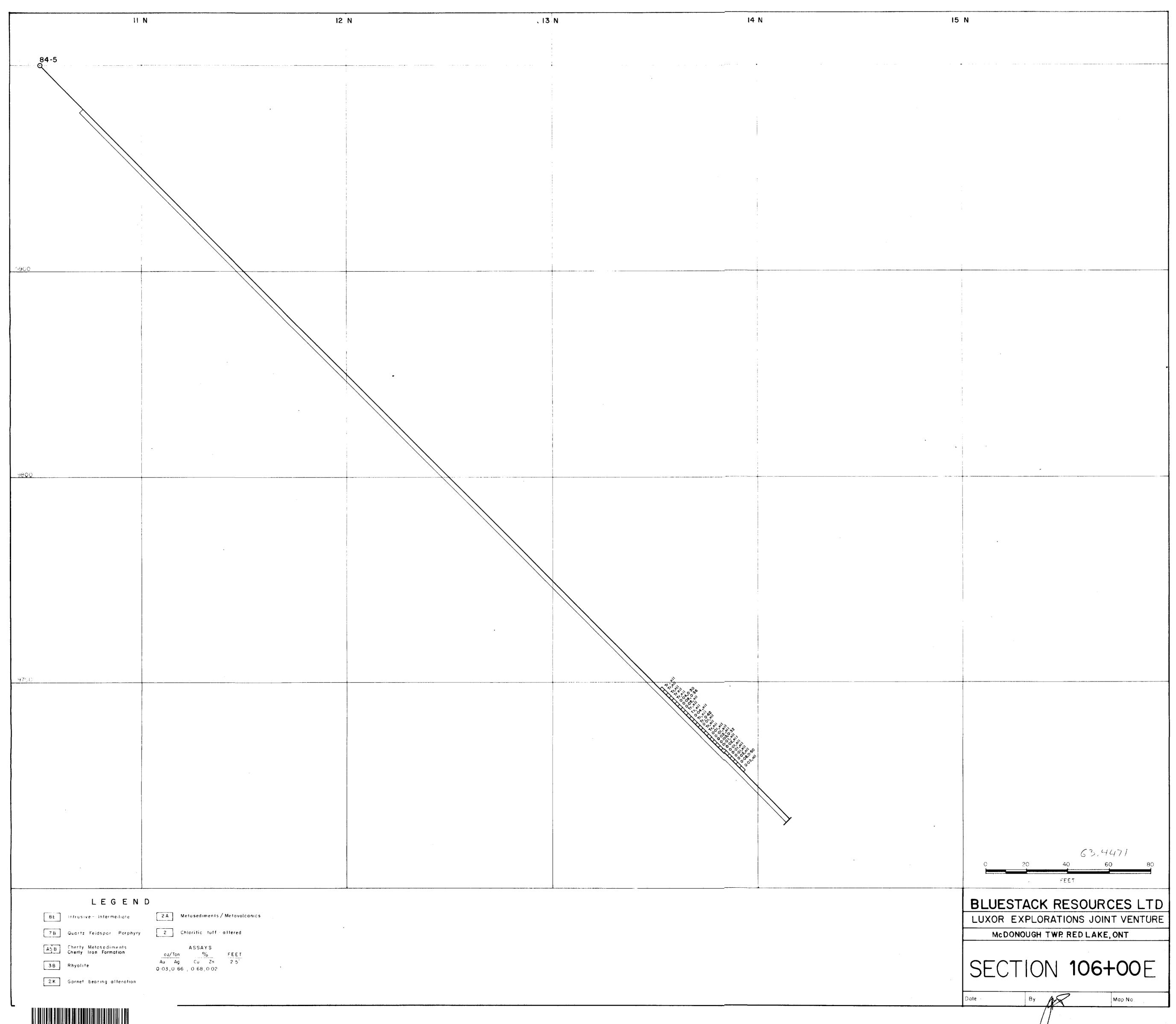




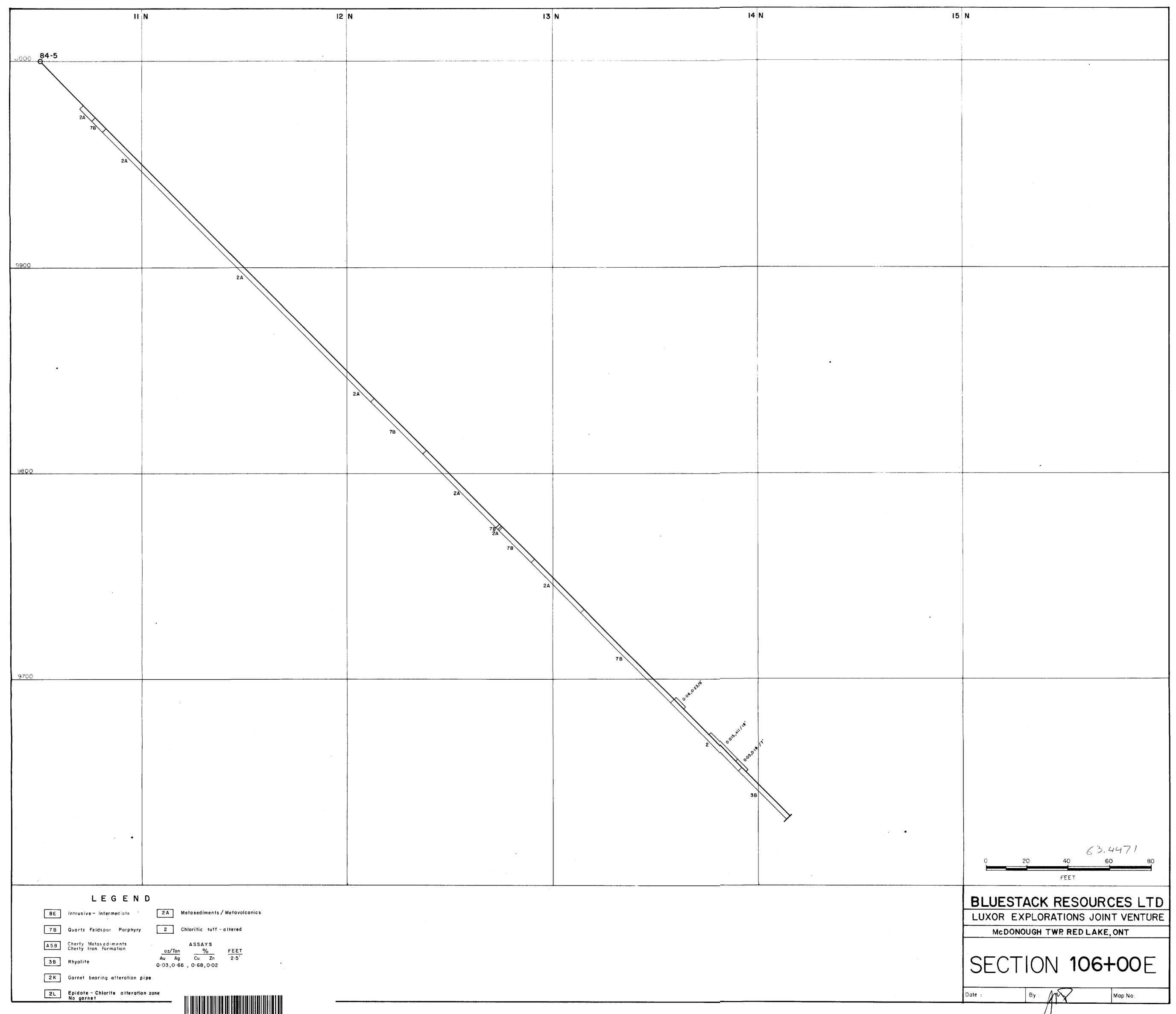


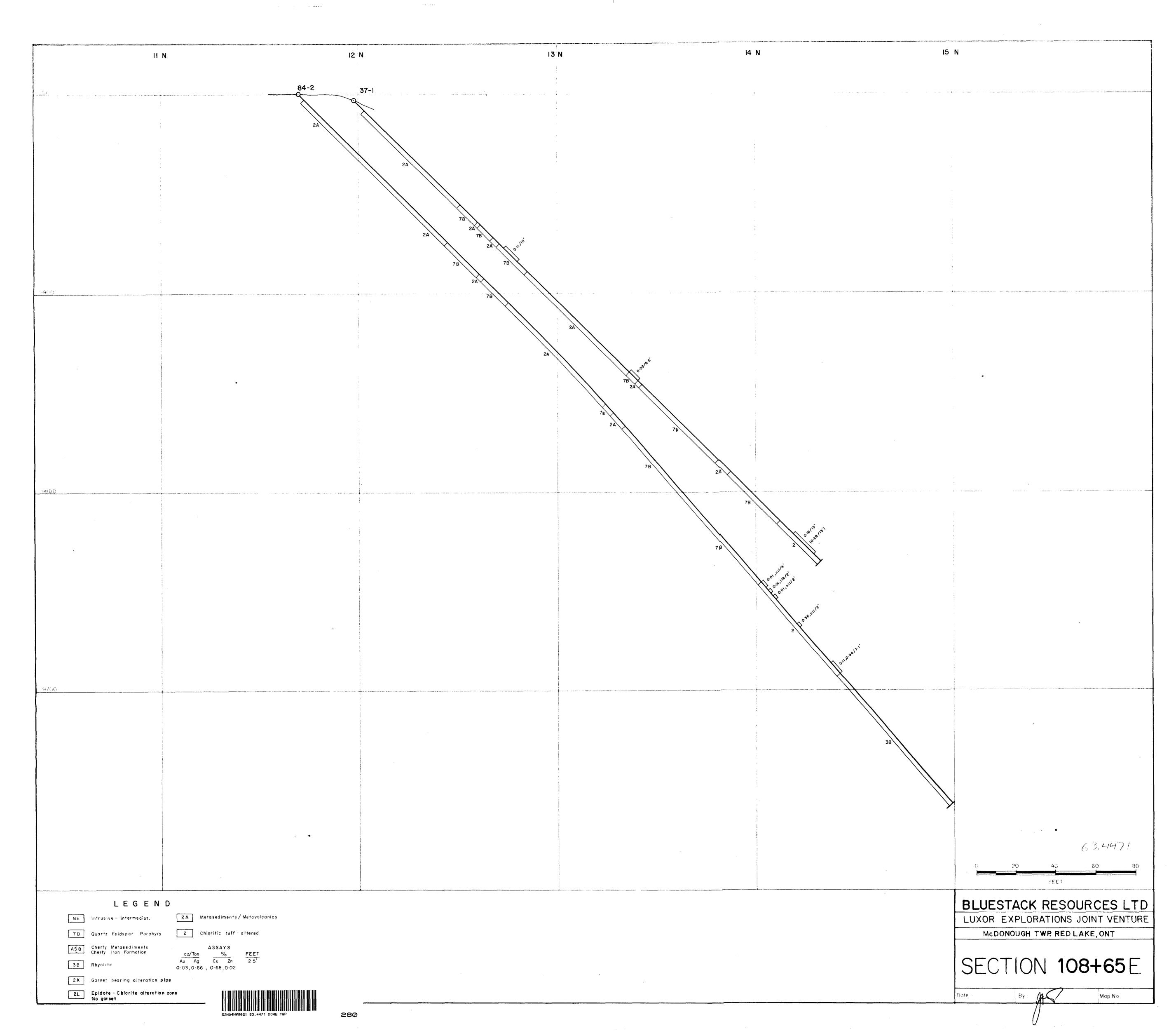


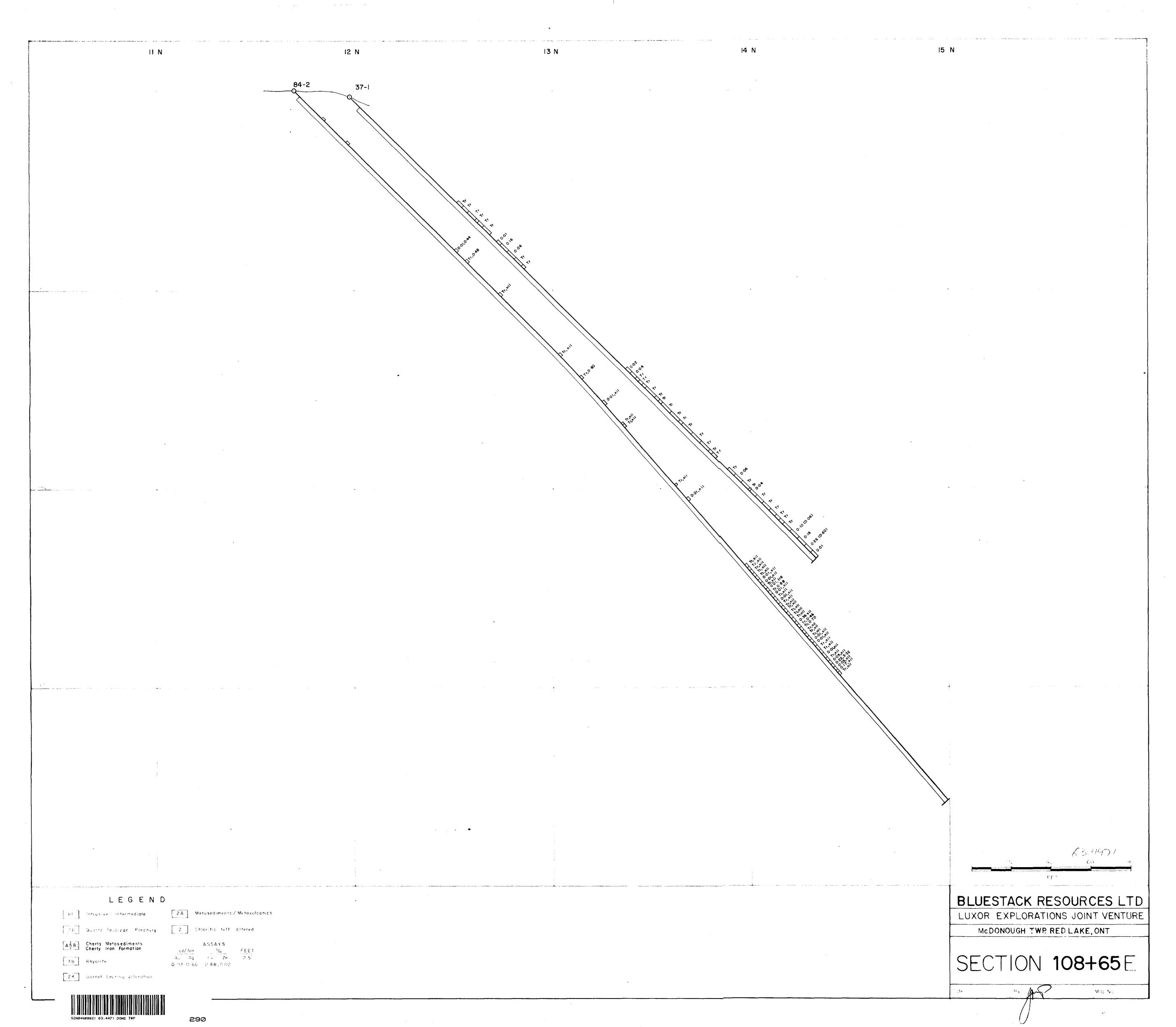
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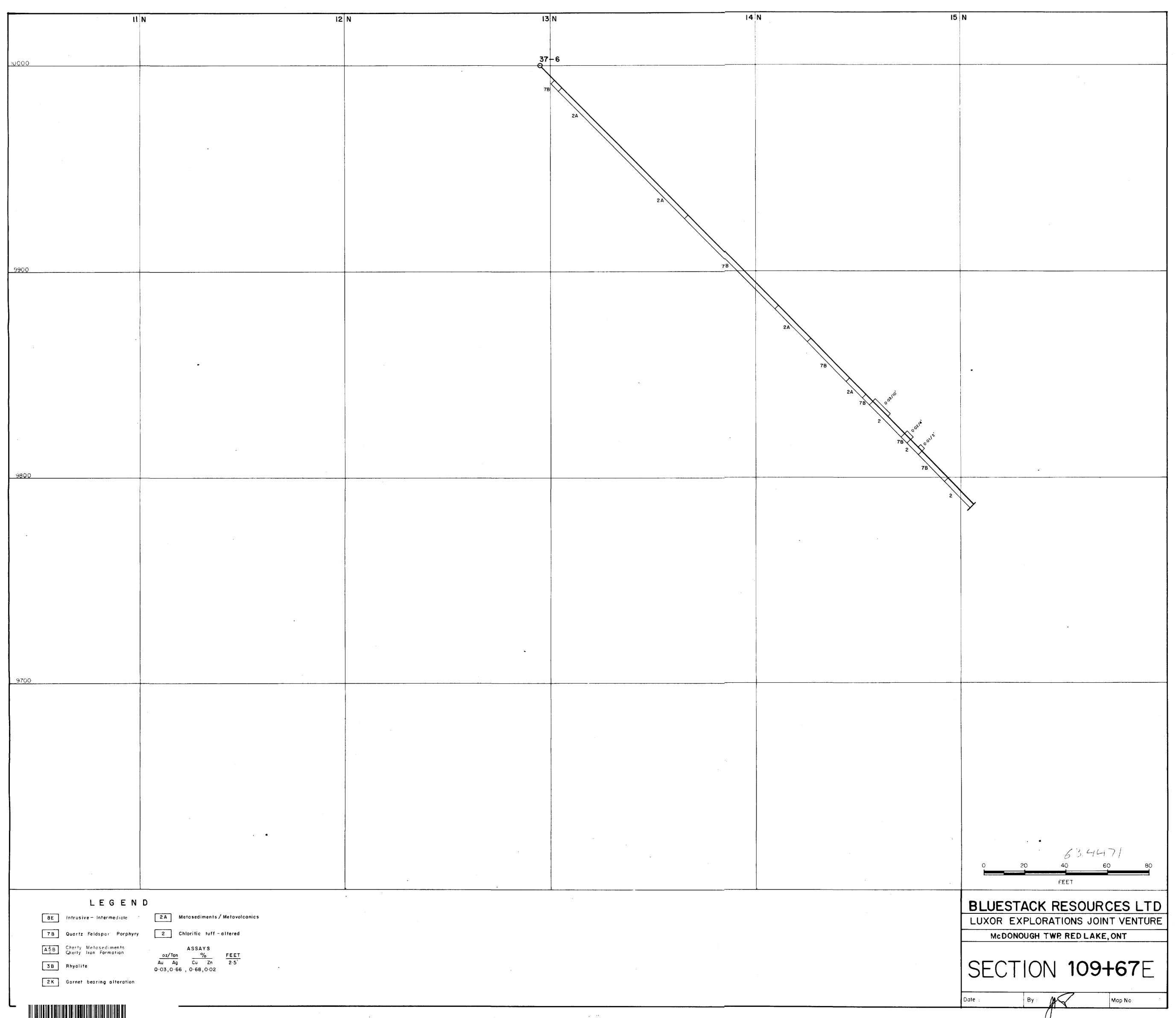


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