REPORT ON WORK PROGRAMME FOR 1971

on the property of

MARSHALL BOSTON IRON MINES LTD.

BOSTON TOWNSHIP, LARDER LAKE MINING DIVISION, ONTARIO.

Thornhill, Ontario.
October 29, 1971.

[illegible] Eng.
Consulting Geologi[illegible]

SUMMARY -

A total of 5425 ft. of drilling is recommended to test for base metal mineralization in a variety of anomalous conditions outlined by geophysical, geochemical and prospecting work done during 1971 on the Marshall Boston claims in Boston Twp., Ontario.

GENERAL -

This report describes work performed on the Marshall Boston Iron Mines Ltd. property in Boston Twp., Ontario during 1971. The outline of the claim group is shown on an accompanying claim map and claims are not individually listed herein. For general geological background, reference is made to the ODM Annual Report, volume 66, part 5 by K.D. Lawton (1957) and to a report by W.D. Beaton (1970) in the company's files.

ACCESS -

Access to all parts of the claim group is easily attained via a paved highway through the village of Dane which leads to the Adams iron mine. From this highway numerous tractor roads and trails lead north to within a short distance of the various locations described below.

WORK PROGRAMME IN 1971 -

During the past field season exploration of the company's main claim group in Boston Twp. was extended west to the Otto Twp. boundary. This work included the cutting of line systems at 200 and 400-ft. intervals, magnetic and electromagnetic surveying, prospecting, geochemical surveying and geological mapping of part of the group. The above work was done with the dual purposes of

outlining and evaluating the numerous magnetite iron formation bands known to cross the claims and also of outlining any sulphide zones carrying base metals which may be present.

The following is a description of the methods and survey instruments used in the above work. The grid references are those indicated on J. Donelan's geological maps and on the geophysical maps done by Marshall Boston.

METHOD OF EXPLORATION -

As virtually all known base metal occurrences previously discovered on the property are associated with electromagnetic anomalies, it was felt that electromagnetic surveying of the remainder of the property was a logical first step in continuing this exploration. Qualifying information was obtained by means of the magnetic and geochemical surveys and mapping which was done. The numerous electromagnetic anomalies which were detected are almost all located close to known or suspected iron formation, known fault or shear features, or to topographic depressions. Geochemical anomalies over some but not all iron formations suggest, however, the possibility of flanking sulphide zones and in these cases drill holes are proposed to test this theory where previous drilling may have left this possibility open. In other cases, holes are proposed where anomalous conditions occur in proximity to faults either known to exist or suggested by geophysical patterns as in Bradshaw's report for Shield Geophysics. Anomalies suspected as being due to topography are generally downgraded especially if no strong geochemical confirmation of them was obtained and in general no drilling of them is proposed.

Fairly extensive prospecting, including blasting

of pits where feasible, has in most cases shown weak zinc or other metalliferous mineralization to underlie geochemically confirmed conductors. Although no mineralization of economic grade was exposed in this work, nowhere was exposure continuous enough to eliminate the possibility of a flanking mineralized zone.

SURVEYS -

Magnetic Surveys:

A Sharpe MF-1 fluxgate magnetometer was used both in surveys of the North and South grids by Shield Geophysics and of the Southwest grid by Marshall Boston. The instrument measures the vertical component of the earth's magnetic field in gammas. The surveys were tied to base stations and all readings corrected for drift variations. In addition, the various magnetic surveys were adjusted to approximately common intensity levels.

Values ranged from +98,224 gammas to -16,810 gammas. Intensities of over 10,000 gammas are believed to be generally due to iron formation or in certain cases pyrrhotite mineralization.

Electromagnetic Surveys:

Two types of instrument were used in the electromagnetic surveys. Shield Geophysics used a Crone JEM unit for the North and South grids surveying at high frequency (1800 cps) and checking anomalous readings with low frequency (480 cps). A 300-ft. coil separation was used for most of this work. An analysis of the JEM survey, which rests upon the size and shape of obtained crossovers and the ratio of low to high frequency readings, is included in Bradshaw's report on this work for Shield Geophysics.

A Crone Radem unit was used in surveying the Southwest grid, a change made necessary due to unavailability

of rental JEM units. However, the Radem, which reads signals from VLF communications stations in the 12 - 24 KHz range, is believed to be suitable in the relatively shallow overburden areas surveyed and, in fact, offers advantages in its ability to detect smaller and more disseminated sulphide zones than the JEM. Both dip angle and field strength measurements were made using the transmitter at Cutler, Maine as signal source.

In addition, some fill-in readings in the South grid area were taken in areas where power line interference prevented JEM readings. Limited check work in the old Northeast grid was also done.

Analysis of Radem readings involves the size and location of field strength readings and their relationship to dip angle crossover locations and size.

Both types of surveys produced numerous conductors, many of which are apparently related to magnetite iron formations. It is not yet known whether the anomalous condition is due to magnetite or conductive (possibly sulphide) zones flanking the magnetite. The geochemical surveying described below was done in an attempt to evaluate the conductors with respect to possible association with base metal mineralization.

Geochemical Surveying:

This work was confined to areas of E.M. conductors and was used in evaluating them for possible contained Copper (Cu), Lead (Pb) and Zinc (Zn) mineralization. Soil sampling was employed using a spade or auger and taking samples from the B horizon where it was detectable. Samples were stored in envelopes and sent to a commercial laboratory for hot nitric acid leaching and analysis. The results were plotted as frequency / analysis histograms for each of

the three metals and smoothed to form Bell curves. From the curves, analysis of normal and anomalous readings was made and used in the plots which accompany this report..

Geological Mapping:

Mapping of the North and South grids was completed during the season by J. Donelan. The claim group is shown to be underlain by a generally east-west striking and steep dipping series of volcanic flows of various compositions with interlayered tuff and banded iron formations. These have been intruded by lamprophyre, peridotite, diorite and the large syenite mass known as the Lebel stock. Surrounding the latter is a unit of altered flow rocks labelled contact volcanics. A granular non-banded type of iron also occurs locally near the Lebel stock and may be a metamorphic recrystallized equivalent of the banded iron formations. Alteration of the rocks near the Lebel stock has made absolute identifications difficult and it should be recognized that distinctions, especially between the various volcanic units, are often necessarily subjective.

Major faulting features known to exist on the claims include the Long Lake fault along which a 2000-ft. displacement appears to occur and the Northwest Boston fault which trends north westerly across the Southwest grid map area terminating at the Long Lake fault. Both are late stage features offsetting all rocks present.

The geology is presented on two map sheets accompanying this report.

Prospecting:

Prospecting of both geochemically and electromagnetically anomalous zones is currently in progress. Disseminated zinc and copper mineralization has been found

in several of the anomalous areas but, as yet, values obtained have been sub-economic. However, overburden covers most of the anomalies and their further exploration will necessarily involve either heavy stripping equipment or drilling.

DISCUSSION OF SURVEY RESULTS -

The following analysis and recommendations are based on the work outlined above. A separate report dealing with the iron formation potential on the claims has already been submitted to the company and this aspect of the claims' potential will not be further discussed here.

The North and South grid areas were surveyed by Shield Geophysics and an analysis of the anomalies obtained is presented by R. Bradshaw in his report to the company dated April 19, 1971. Reference is, therefore, made to this report for detailed discussion of those results.

The Southwest grid was surveyed by Marshall Boston and the following analysis describes the Radem anomalies obtained.

Anomaly SW-1 is a relatively strong close to surface conductor with a coincident field strength of over 130%. It does not appear to be related to iron formation but lies close to or on the Northwest Boston fault. High Cu geochemical results were obtained over its western portion. It forms a drill target.

Anomaly SW-2 shows what appears to be a deeper source of conductivity on lines 92W and 96W and shallow conductivity on lines 84W and 88W. Field strength is up to 133% and is coincident with the crossovers. It is probably an extension of SW-1 but appears to lie north of the Northwest Boston fault. It lies south of the magnetic anomalies and

may not be due to iron formation. Its location on the corner of the Dane townsite may make it undesirable as a drill target in spite of relatively high Cu, Pb and Zn geochemistry obtained in one sample close to it.

Anomaly SW-3 is one of the strongest conductors with field strengths of over 180%. It lies on the south flank of a narrow magnetic feature and may be caused either by iron formation or flanking sulphides. Pyrrhotite is reported nearby. It is close to the Northwest Boston fault and may be terminated by it to the west. It is a close to surface feature with coincident crossovers and field strengths. Relatively high Cu and Zn values were obtained in one geochemical sample on line 80W. It forms a possible drill target.

Anomaly SW-4 is another strong conductor, possibly on the same horizon as SW-3. Magnetic readings are partly lacking but it correlates with a magnetic low on line 52W. It has coincident field strength and crossover plots. It may be terminated on the east by the Long Lake fault but, based on a fault offset of 2000 ft. (east side to north) as indicated by the geology map of the township, SW-4 may have been traced to the east as anomaly SW-6. Poor geochemical confirmation was obtained.

Anomaly SW-5 is a long (2000 ft.+) anomaly possibly from a deeper source than the others. It is apparently not related to iron formation. It may be due to conductive overburden located in the large valley in that area. There is generally a good fit between field strengths and crossovers. No geochemical confirmation of anomalous conditions was obtained.

Anomaly SW-6 is apparently related to a band of iron formation outlined by magnetic anomalies on lines 32W and 28W. It is also possibly a faulted offset of anomaly SW-4.

(which see). Results of geochemical testing of this anomaly have not yet been received.

Anomaly SW-7 is coincident with a strong magnetic anomaly related to iron formation outcrop. Only poor geochemical results were obtained over it.

Other crossovers obtained in the survey show generally poorer field strength intensities.

DRILLING RECOMMENDATIONS -

Consideration of the above factors has lead to the drilling proposals outlined below. Hole numbers given are for reference purposes only and do not indicate relative importance. All holes are at 40° dips.

North Grid:

Hole No. 1 (L72W, 9+60S) L = 530'

A hole to test two conductors with geochemical confirmation, one of which is coincident with a magnetic anomaly. It is in a contact area of syenite and magnetite bearing syenite with volcanics.

Hole No. 2 (47W, 11+50S) L = 350'

A hole to test two conductors in a geochemically high area known to contain iron formation. The northerly conductor appears to dip south and lies just north of the known banded iron formation. It appears to lie north of the collar of hole 65-15.

Hole No. 3 (L32W, 6+90S) L = 200'

A hole to test the northerly of three conductors adjacent to the Long Lake fault, the northernmost of which is off the iron formation zone which lies to the south. It may be on a volcanic / syenite contact. Geochemical

results are poor on line 32W but strong in Cu and Zn on line 26W where probable extensions of the conductors are detected. The line 32W location was chosen as the stronger of the E.M. anomalies. Alternately, the hole could be drilled on line 26W.

Hole No. 4 (L22W, 14S) L = 330'

A hole to test a strong E.M. conductor with an apparent north dip which may lie just south of and dip with the iron formation holes already drilled in that area. High Cu and Zn geochemical results confirm it as a drill target. It appears to be close to the south contact of the iron formation and may represent a base metal bearing sulphide zone. Shield Geophysics interprets this conductor as lying in a possible fault block near the Long Lake fault.

South Grid:

Hole No. 5 (3W, 2+50S) L = 700'

A hole to test an area of Radem crossovers with relatively high field strength readings lying within a lens of siliceous tuff. High Cu, Pb and Zn geochemical results were obtained near these crossovers and finely divided sphalerite (Zn) mineralization was uncovered by blasting a short distance to the east. The hole should also test the eastward extension of the 8E iron formation body and volcanic flow / siliceous tuff and siliceous tuff / peridotite contacts.

Hole No. 6 (L8E, 1+40S) L = 520'

A hole to test a pair of strong JEM anomalies lying on or near contacts of siliceous tuff with volcanic flow. Disseminations and streaks of pyrrhotite and pyrite sulphides are observable at surface. High copper and zinc geochemical

results are associated with these anomalies which lie close to an inferred fault zone as interpreted by Shield Geophysics.

Hole No. 7 (L16E, 6+70N) L = 200'

A short hole to test a strong JEM anomaly near a diorite / volcanic flow contact and on an interpreted fault zone (Shield Geophysics). One medium strength Cu geochemical result was obtained.

Southwest Grid:

Hole No. 8 (L116W, 24+50S) L = 350'

A hole to test a string of Radem anomalies lying on or near the Northwest Boston fault zone. Geochemically high Cu values are associated with the anomalies which do not appear to be related to iron formation.

Hole No. 9 (L80W, 47+00S) L = 525'

A hole to test one of the strongest Radem anomalies obtained in addition to the iron formation southwest of Helent Lake. Cu and Zn geochemical anomalies are associated with this conductor which lies close to or on the iron formation contact.

Northeast Grid:

Hole No. 10 (4+20S, 9+30W) L = 290'

A hole to test the area between zones B and C where intrusive material of dioritic composition trends easterly toward the main zinc pit on B zone. Where exposed by blasting, this intrusive shows Cu and Zn mineralization, a grab sample of which ran 0.16% Cu and 1.49% Zn.

Hole No. 11 (4+25S, 7+00W) L = 180'

A short hole under the main B zone zinc pit to test the possibility of west dipping mineralization in the zone.

The hole is angled north-easterly to intersect any easterly trending intrusive material or structural feature which may have paralleled the previous drill holes.

Hole No. 12 (L8N, 10+50E) L = 550'

A hole to test a series of Radem anomalies trending roughly parallel to F zone where they are geochemically confirmed. The hole would also further test F zone where it passes behind the collar of hole F2.

The complete drilling programme proposed above totals 4725 ft. It is recommended that in addition to this, consideration be given to a possible hole into D zone in the Northeast grid area. A thin section study by Dr. P. Price of alteration patterns shown in core from hole D2 rates the zone as promising with respect to its possible association with ore grade mineralization. The best location for such a hole has not yet been determined but is under study. It would probably be necessary to reserve funds for a hole of about 700 ft. if such a test is ultimately judged desirable.

An estimated $37,000.00 would be necessary for the complete drilling programme including the hole into D zone and supervision.

Respectfully submitted

L.G. Hobbs, P. Eng.

REGISTERED PROFESSIONAL ENGINEER
L. G. HOBBS
PROVINCE OF ONTARIO

LGH/ec
Enc.

GEOPHYSICAL – GEOLOG.
TECHNICAL DAT.

900

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey MAGNETOMETER

Township or Area BOSTON

Claim holder(s) MARSHALL BOSTON Iron Mines Ltd.

Author of Report L. G. Hobbs.

Address 65 Westwood Lane Thornhill, Ont.

Covering Dates of Survey August 1971
(linecutting to office)

Total Miles of Line cut 1.21

SPECIAL PROVISIONS CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

	DAYS per claim
Geophysical	
–Electromagnetic	40
–Magnetometer	20
–Radiometric	
–Other	
Geological	
Geochemical	

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: 21/4/72 SIGNATURE: P. Hubbard
Author of Report or Agent

PROJECTS SECTION

Res. Geol. _____ Qualifications This

Previous Surveys ND

Checked by _____ date _____

GEOLOGICAL BRANCH _____

Approved by _____ date _____

GEOLOGICAL BRANCH _____

Approved by _____ date _____

OFFICE USE ONLY

MINING CLAIMS TRAVERSED
List numerically

L 105397
(prefix) (number)

* Linecutting credits included in Magnetometer survey.

If space insufficient, attach list

TOTAL CLAIMS 1

Show instrument technical data in each space for type of survey submitted or indicate "not applicable"

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS

Number of Stations _____ Number of Readings 45

Station interval 100'

Line spacing 200', 400'

Profile scale or Contour intervals 2000' gammas, 10,000 gammas
(specify for each type of survey)

MAGNETIC

Instrument SHARPE MF-1 Fluxgate.

Accuracy - Scale constant _____

Diurnal correction method _____

Base station location _____

ELECTROMAGNETIC

Instrument _____

Coil configuration _____

Coil separation _____

Accuracy _____

Method: ☐ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency _____
(specify V.L.F. station)

Parameters measured _____

GRAVITY

Instrument _____

Scale constant _____

Corrections made _____

Base station value and location _____

Elevation accuracy _____

INDUCED POLARIZATION – RESISTIVITY

Instrument _____

Time domain _____ Frequency domain _____

Frequency _____ Range _____

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

File 2.836

GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL TECHNICAL DATA STATEMENT

RECEIVED
APR 21 1972
PROJECTS SECTION

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey Electromagnetic
Township or Area Boston Township
Claim holder(s) MARSHALL Boston Iron Mines Ltd.

Author of Report H.G. Hobbs.
Address 65 Westwood Lane, Thornhill Ont.
Covering Dates of Survey July 1971
(linecutting to office)
Total Miles of Line cut 1.21

SPECIAL PROVISIONS CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

DAYS per claim

Geophysical 0
--Electromagnetic ~~40~~
--Magnetometer
--Radiometric
--Other
Geological
Geochemical

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer ____ Electromagnetic ____ Radiometric ____
(enter days per claim)

DATE: 21/4/72 SIGNATURE: P. Hubbold
Author of Report or Agent

PROJECTS SECTION

Res. Geol. ____ Qualifications This

Previous Surveys L D

Checked by ____ date ____

GEOLOGICAL BRANCH

Approved by ____ date ____

GEOLOGICAL BRANCH

Approved by ____ date ____

OFFICE USE ONLY

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
b	105397

of

* Map not returned
No Credits

If space insufficient, attach list

TOTAL CLAIMS 1

Show instrument technical data in each space for type of survey submitted or indicate "not applicable"

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS

Number of Stations 40 Number of Readings 40

Station interval 100'

Line spacing 200', 400',

Profile scale or Contour intervals 20' intervals
(specify for each type of survey)

MAGNETIC

Instrument

Accuracy - Scale constant

Diurnal correction method

Base station location

ELECTROMAGNETIC

Instrument GRONE RADEM V.L.F.

Coil configuration

Coil separation 300'

Accuracy

Method: ☑ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency 12-24 KHz range. Cutler, MAINE
(specify V.L.F. station)

Parameters measured Field strength, dip angles.

GRAVITY

Instrument

Scale constant

Corrections made

Base station value and location

Elevation accuracy

INDUCED POLARIZATION – RESISTIVITY

Instrument

Time domain Frequency domain

Frequency Range

Power

Electrode array

Electrode spacing

Type of electrode

Lebel Twp. (M-359)

Otto Twp. (M-379)

McElroy Twp. (M-366)

Pacaud Twp. (M-380)

THE TOWNSHIP
OF

BOSTON

DISTRICT OF
TIMISKAMING

LARDER LAKE
MINING DIVISION

SCALE: 1-INCH=40 CHAINS

LEGEND

PATENTED LAND	P
CROWN LAND SALE	C.S.
LEASES	L
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	
CANCELLED	C.

2.836

NOTES

400' Surface Rights Reservation around all lakes and rivers.

Areas withdrawn from staking under Section 43 of the Mining Act. (R.S.O. - 70)

	File	Date	Disposition
(43)	32283	15/10/71	S.R.O.
(43)	32283	5/11/71	S.R.O.

PLAN NO. M-332

ONTARIO
DEPARTMENT OF MINES
AND NORTHERN AFFAIRS

M.332

M.332

Lebel Twp. (M-359)

Otto Twp. (M-379)

McElroy Twp. (M-366)

Pacaud Twp. (M-380)

THE TOWNSHIP OF

BOSTON

DISTRICT OF TIMISKAMING

LARDER LAKE MINING DIVISION

SCALE: 1-INCH=40 CHAINS

LEGEND

PATENTED LAND	P
CROWN LAND SALE	C.S.
LEASES	L
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	
CANCELLED	

NOTES

400' Surface Rights Reservation around all lakes and rivers.

N GRID

NE GRID

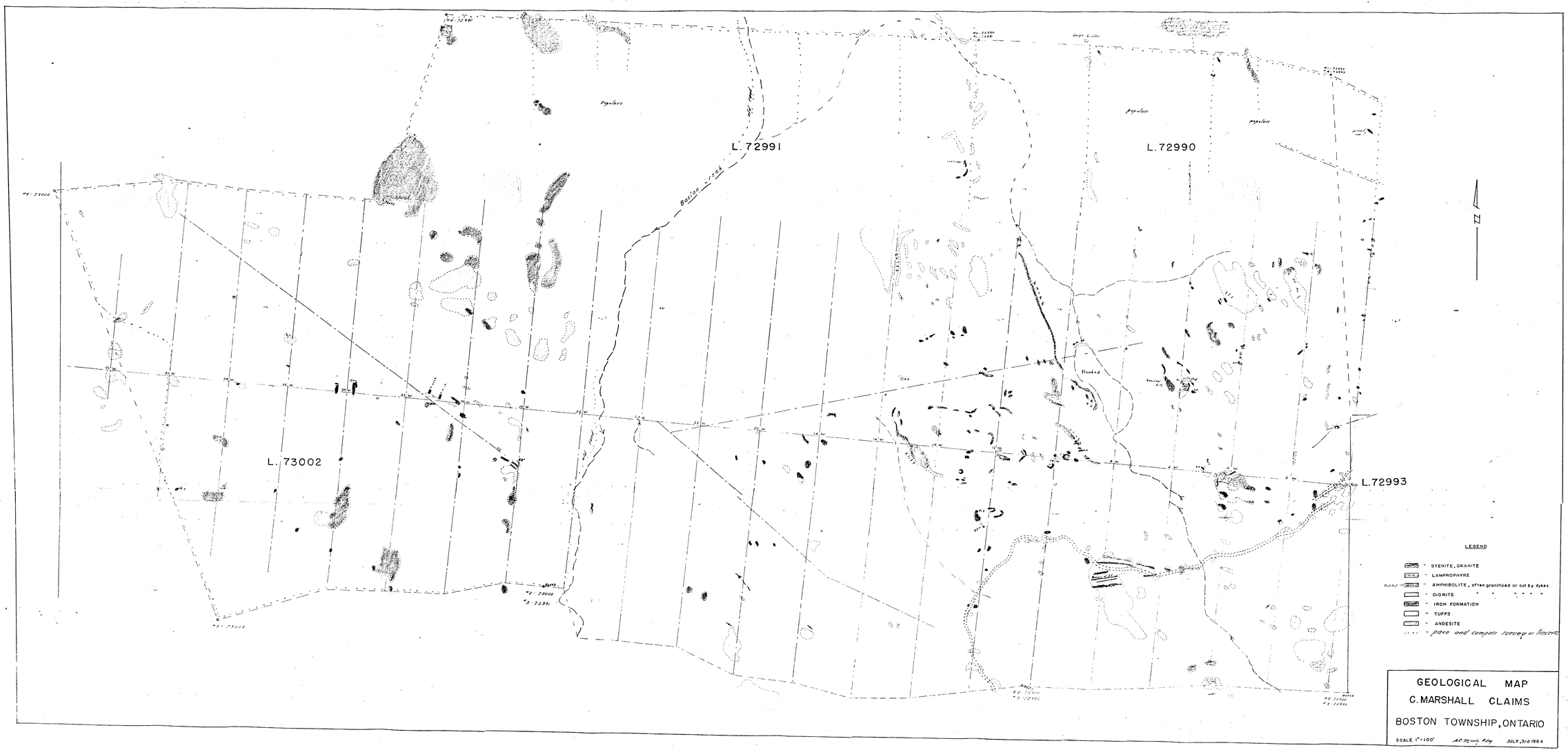
S GRID

SW GRID

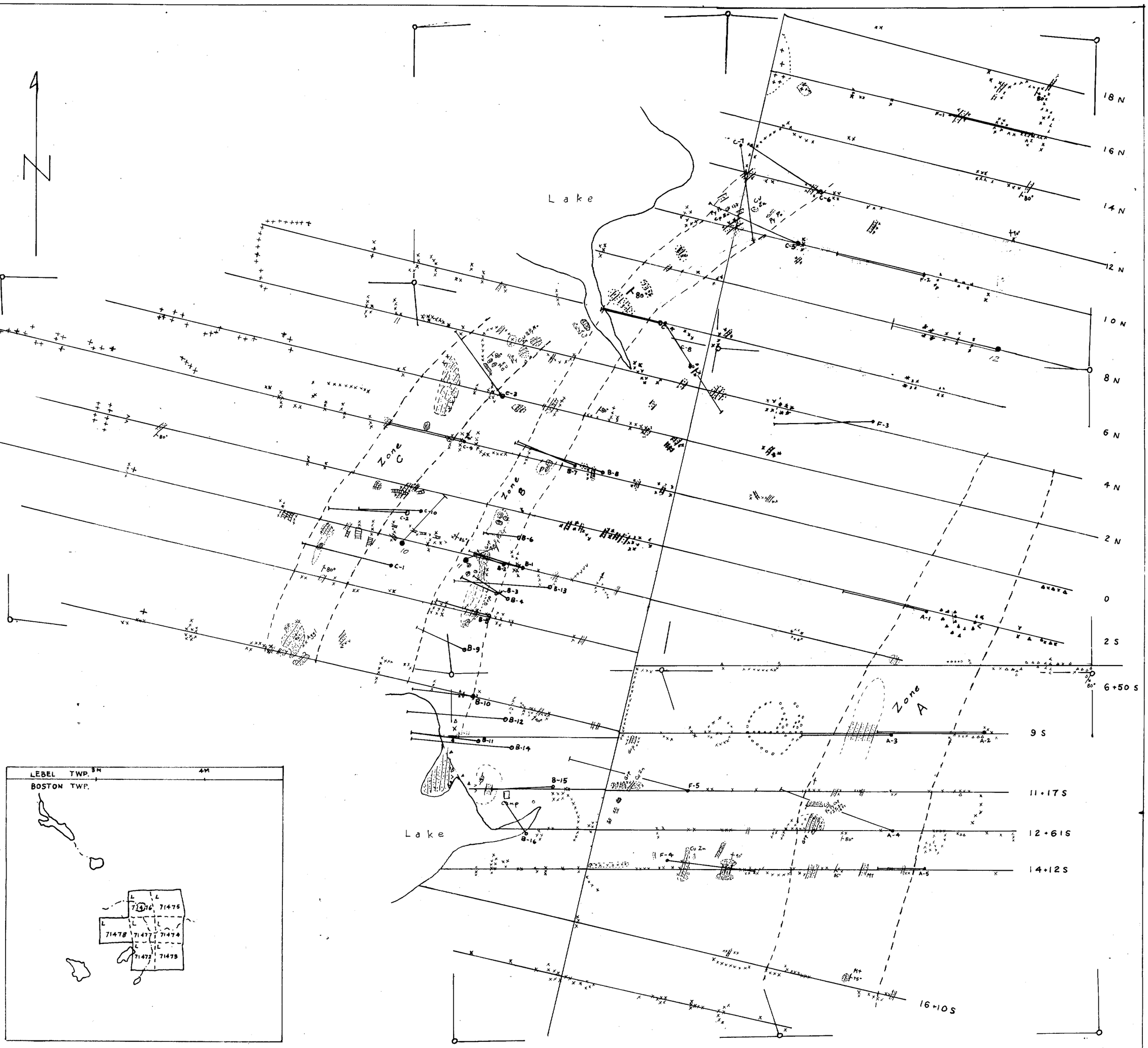
PLAN NO. M-332

ONTARIO DEPARTMENT OF MINES AND NORTHERN AFFAIRS

2.836


L. 72991
L. 72990
L. 73002
L. 72993
Boston Creek
Poplars
Bluffs
N
LEGEND
- SYENITE, GRANITE
- LAMPROPHYRE
- AMPHIBOLITE, often granitized or cut by dykes
- DIORITE
- IRON FORMATION
- TUFFS
- ANDESITE
- pace and compass survey or traverse
GEOLOGICAL MAP
C. MARSHALL CLAIMS
BOSTON TOWNSHIP, ONTARIO
SCALE 1" = 100'
JULY, 3rd 1964

File. 63.1211



KEY MAP
one inch to one half mile

LEGEND

Geology

- ** Basaltic rocks } Mainly Volcanic
- xx Andesitic rocks } flows and pyroclastics; some sills and dikes
- ΔΔ Dacitic rocks } Flows, Pyroclastics
- VV Rhyolitic rocks }
- oo Peridotite
- ++ Granite, Coarse, Red
- III Aplite granite dike
- Gossan – Cherty, Tuffaceous (Rhyolitic to Dacitic) Mineralized with Cu, Zn, Fe and Mo (traces) Sulphides } Weathers Rusty
- Grp – Graphitic zone included in Gossan Zone; often with much Py and some Sp
- Bull dozed Area
- Exploration Pit
- Claim Post
- Drill Hole
- Proposed drill holes

MARSHALL – BOSTON IRON MINES LTD.

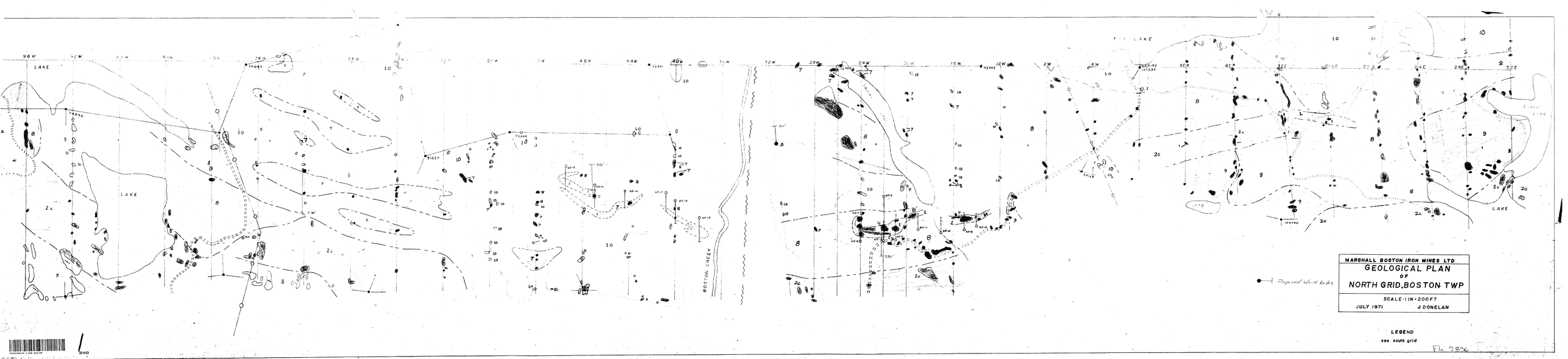
BOSTON TOWNSHIP, LARDER LAKE MINING DIV., ONTARIO

drawn by J.C.D.
geology after W.H. MacLean
revised 11/2/71 J.C.D.
revised May 1971 J.C.D.

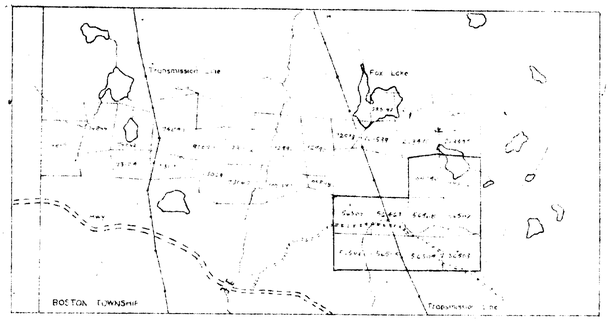
SCALE
0 200 400 600 800 1000
FEET

JANUARY 1971

NORTH-EAST GRID.


LAKE
BOSTON CREEK
LAKE
LAKE
Proposed drill holes
MARSHALL BOSTON IRON MINES LTD
GEOLOGICAL PLAN
OF
NORTH GRID, BOSTON TWP
SCALE-1 IN-200 FT
JULY 1971 J DONELAN
LEGEND
see south grid

Fr. 2836



KEY MAP
one inch to one half mile

MARSHALL BOSTON IRON MINES LTD.

GEOLOGICAL PLAN OF SOUTH GRID, BOSTON TWP.

SCALE 1 IN.=200FT

JULY 1971 J. DONELAN

File. 2836

LEGEND

10	10	Syenite
9	9	Diorite
8	8	Contact volcanics
7	7	Magnetite zone
6	6	Lamprophyre
5	5	Shear zone rocks
4	4	Peridotite
3	3	Siliceous tuff
2	2	Volcanics
		2a acidic flow
		2b basic-intermediate flow
		2c tuffaceous
1.	1	Banded iron formation

SYMBOLS

- Po — Pyrrhotite
- Py — Pyrite
- Contact probable
- Contact possible
- Strike & dip
- Outcrop
- Outcrop area
- Road
- Claim line & post
- Post located
- Higher ground
- Power line
- Swamp

Proposed drill hole

N

BASE LINE

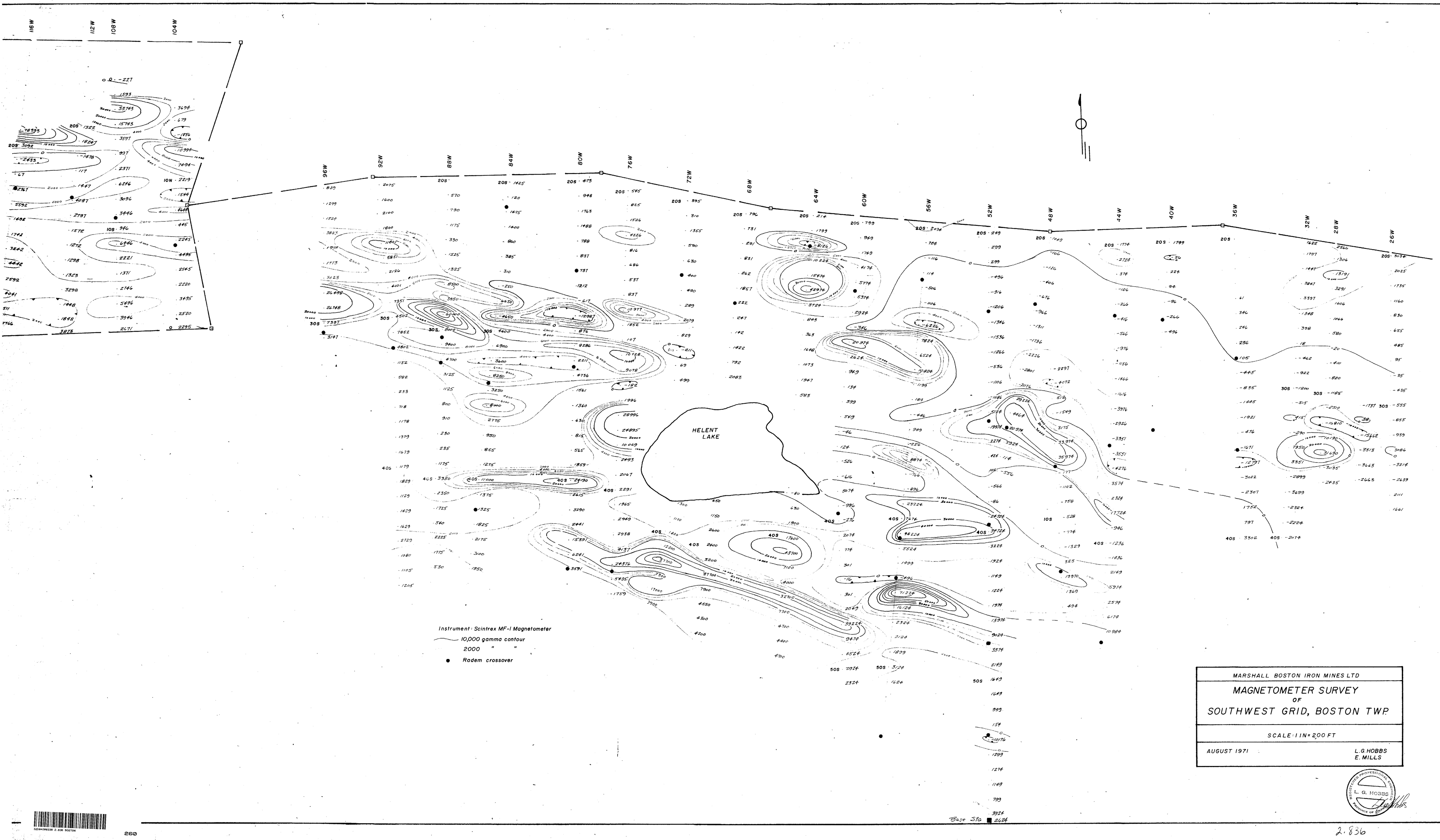
beaver pond

Lake

pond

16W 12W 8W 4W 0 4E 8E 12E 16E 20E 24E

250



Instrument - Scintrex MF-I Magnetometer

~~~ 10,000 gamma contour

2000 " "

● Radem crossover

MARSHALL BOSTON IRON MINES LTD

MAGNETOMETER SURVEY OF SOUTHWEST GRID, BOSTON TWP.

SCALE - 1 IN = 200 FT

AUGUST 1971

L.G. HOBBS
E. MILLS

L. G. HOBBS
REGISTERED PROFESSIONAL ENGINEER
PROVINCE OF ONTARIO

2.836
~~~

N

pond

baseline

16W

12W

8W

4W

0

4E

8E

3S 100 Reading
3s dip angle
100 field strength

crossover

100 field strength contour

J.E.M. crossover

powerline

MARSHALL BOSTON IRON MINES
BOSTON TWP. PROP.

RADEM SURVEY

S. E. SHEET

Scale 1in = 200 ft.

Sept 1971 J. Donelan B Sc.

transmitter : Cutler, Maine

92W 88W 84W 80W 76W 72W base line

N

pond

pond

8N	55
0	61
6S	67
10S	70
9S	80
8S	87
11S	93
10S	100
5S	102
5S	103
0	104
0	110

14N	82
0	82
5N	82
2N	82
0	80
4S	85
2N	88
0	84
0	77
0	76
0	78
4S	78
6S	75

4S	90
5S	74
4S	89
2S	82
4S	79
10S	78
13S	80
14S	81
18S	87
18S	82
26S	84
32S	89

MARSHALL BOSTON IRON MINES
BOSTON TWP. PROP.

RADEM SURVEY

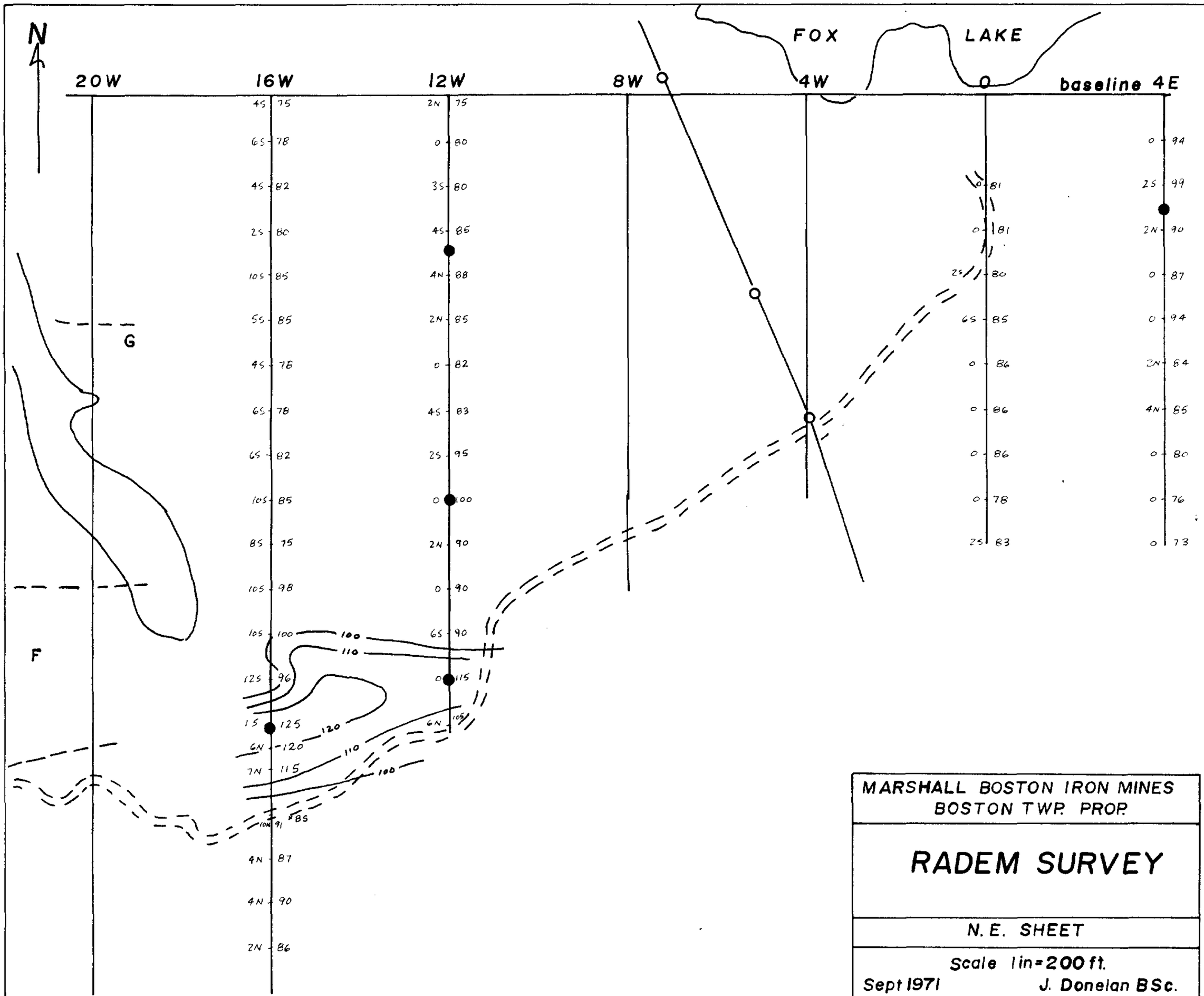
N.W. SHEET

Scale 1 in = 200 ft.

Sept 1971 J. Donelan BSc.

transmitter : Cutler, Maine

legend : see S.E. sheet



MARSHALL BOSTON IRON MINES BOSTON TWP. PROP.
RADEM SURVEY
N. E. SHEET
Scale 1in=200ft. Sept 1971 J. Donelan BSc.

transmitter : Cutler, Maine

legend : see S.E. sheet

MARSHALL BOSTON IRON MINES
BOSTON TWP. PROP.

SOIL SAMPLING
FOR
COPPER

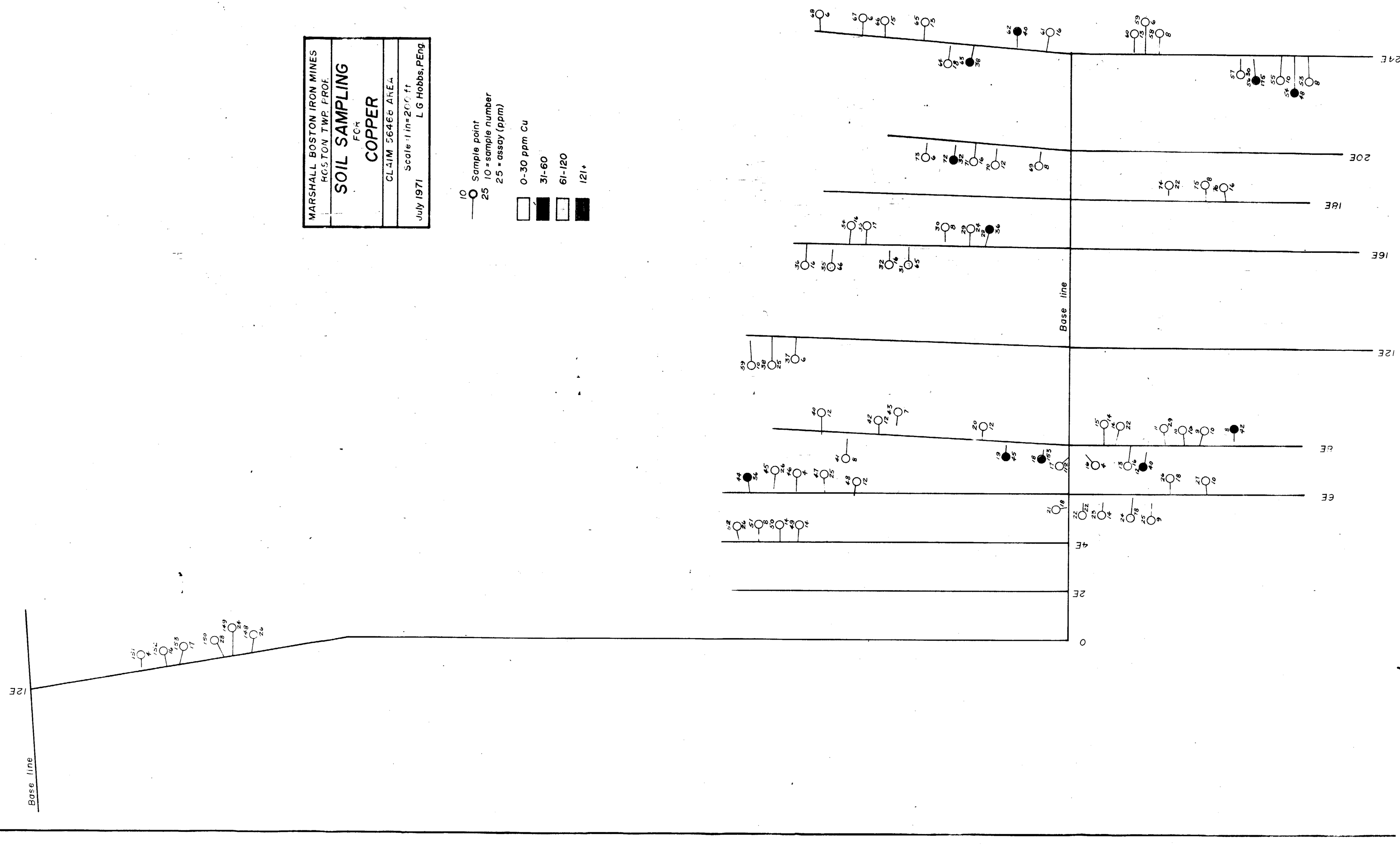
CLAIM 56466 AREA

Scale 1 in = 200 ft

July 1971 — L G Hobbs, PEng.

10 — Sample point
25 — 10 = sample number
25 = assay (ppm)

0-30 ppm Cu
31-60
61-120
121+



300

MARSHALL BOSTON IRON MINES
BOSTON TWP. PROP.

SOIL SAMPLING
FOR
LEAD

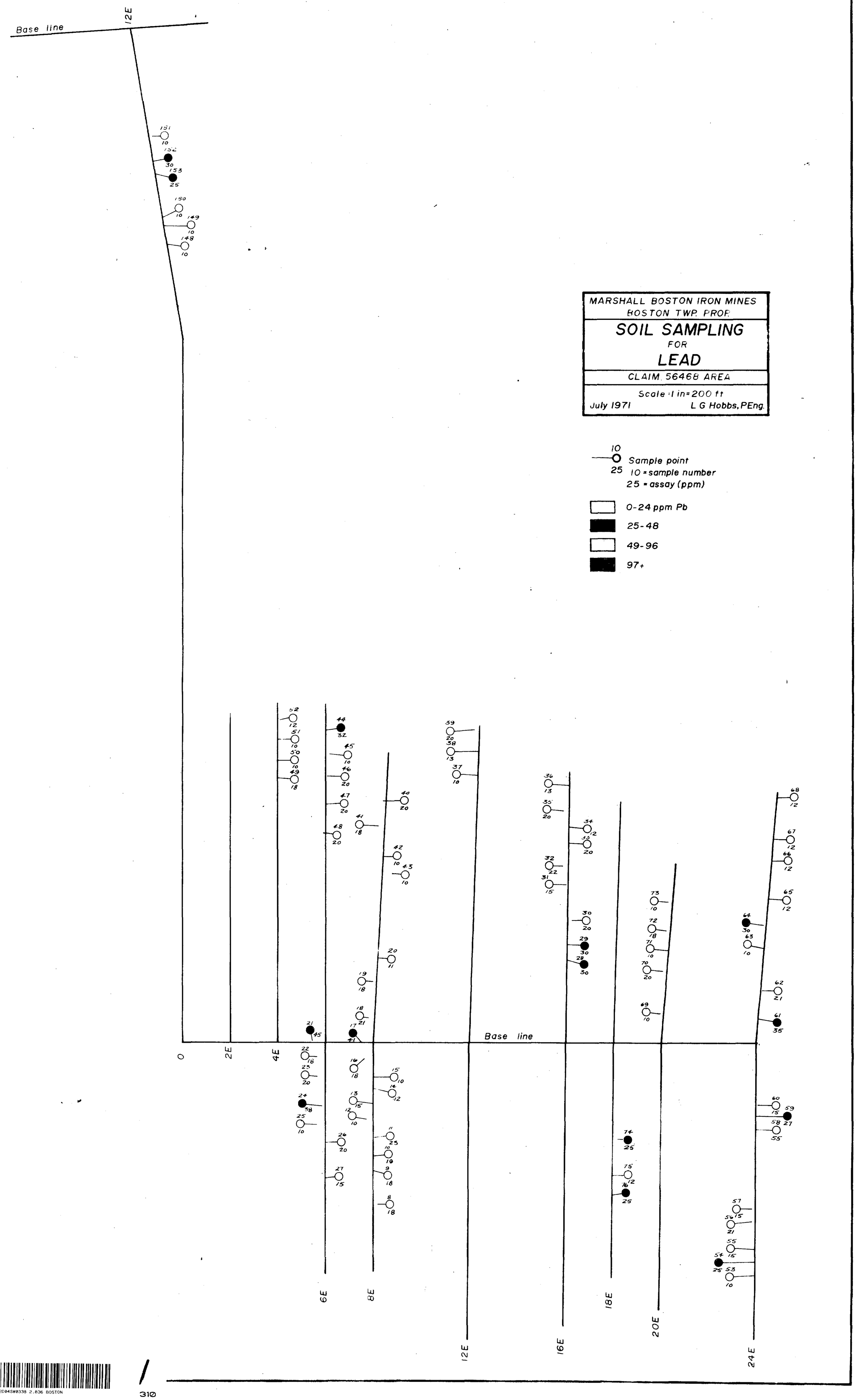
CLAIM 56468 AREA

Scale 1 in = 200 ft

July 1971 — L G Hobbs, PEng.

10
25 — Sample point
10 = sample number
25 = assay (ppm)

- 0-24 ppm Pb
- 25-48
- 49-96
- 97+



MARSHALL BOSTON IRON MINES
BOSTON TWP. PROP.

SOIL SAMPLING
FOR
ZINC

CLAIM 56468 AREA

Scale : 1 in = 200 ft

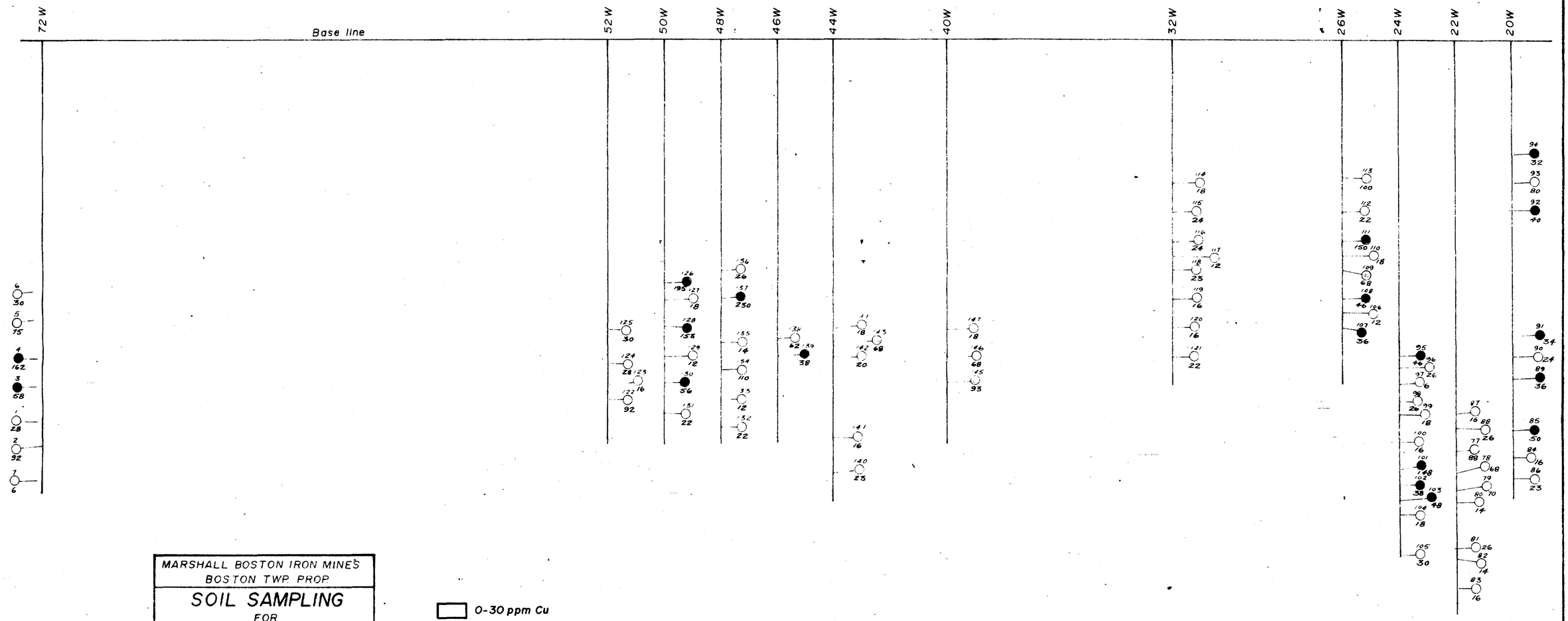
July 1971 — L G Hobbs, PEng.

10
25 — Sample point
10 = sample number
25 = assay (ppm)

- 0-52 ppm Zn
- 53-104
- 105-208
- 209 +

Base line

0 2E 4E 6E 8E 12E 16E 18E 20E 24E



MARSHALL BOSTON IRON MINES
BOSTON TWP. PROP.

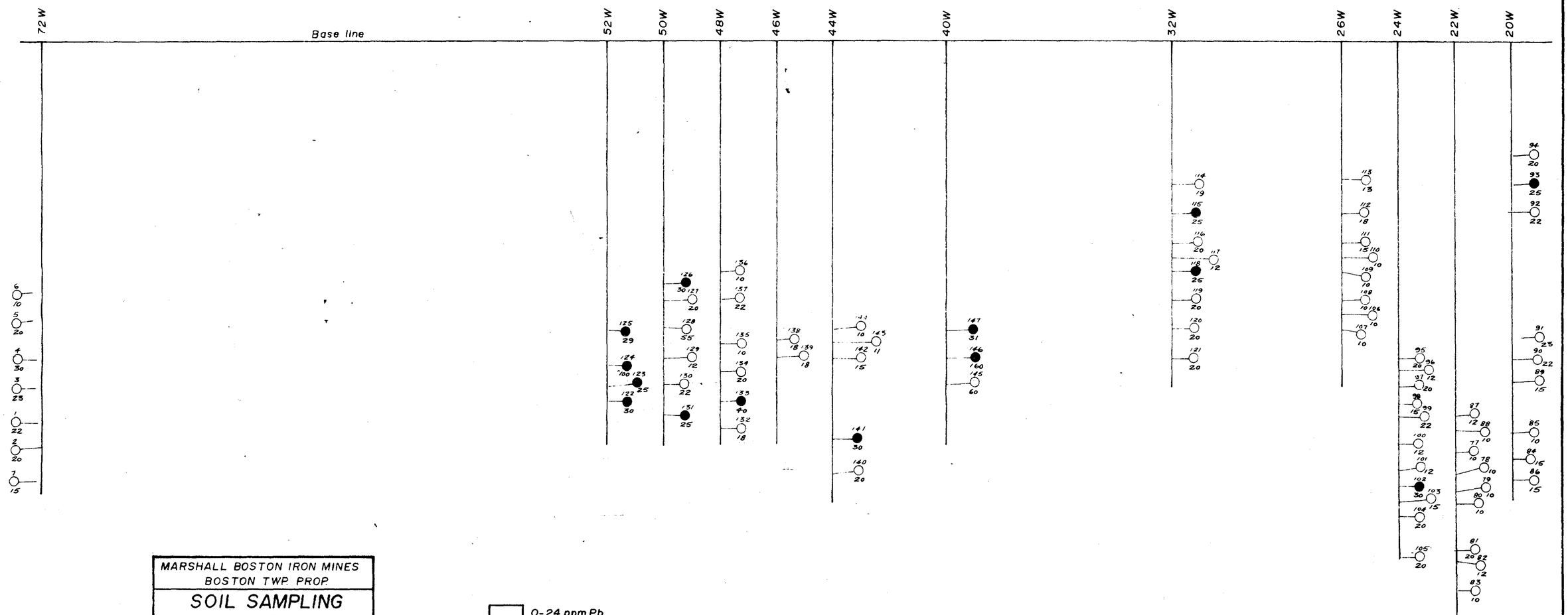
SOIL SAMPLING
FOR
COPPER

CLAIM 72991 AREA

Scale: 1in = 200ft
July 1971 L G Hobbs, P.Eng.

- 0-30 ppm Cu
- 31-60
- 61-120
- 121+

10
25 Sample point
10 = sample number
25 = assay (ppm)



MARSHALL BOSTON IRON MINES
BOSTON TWP. PROP.

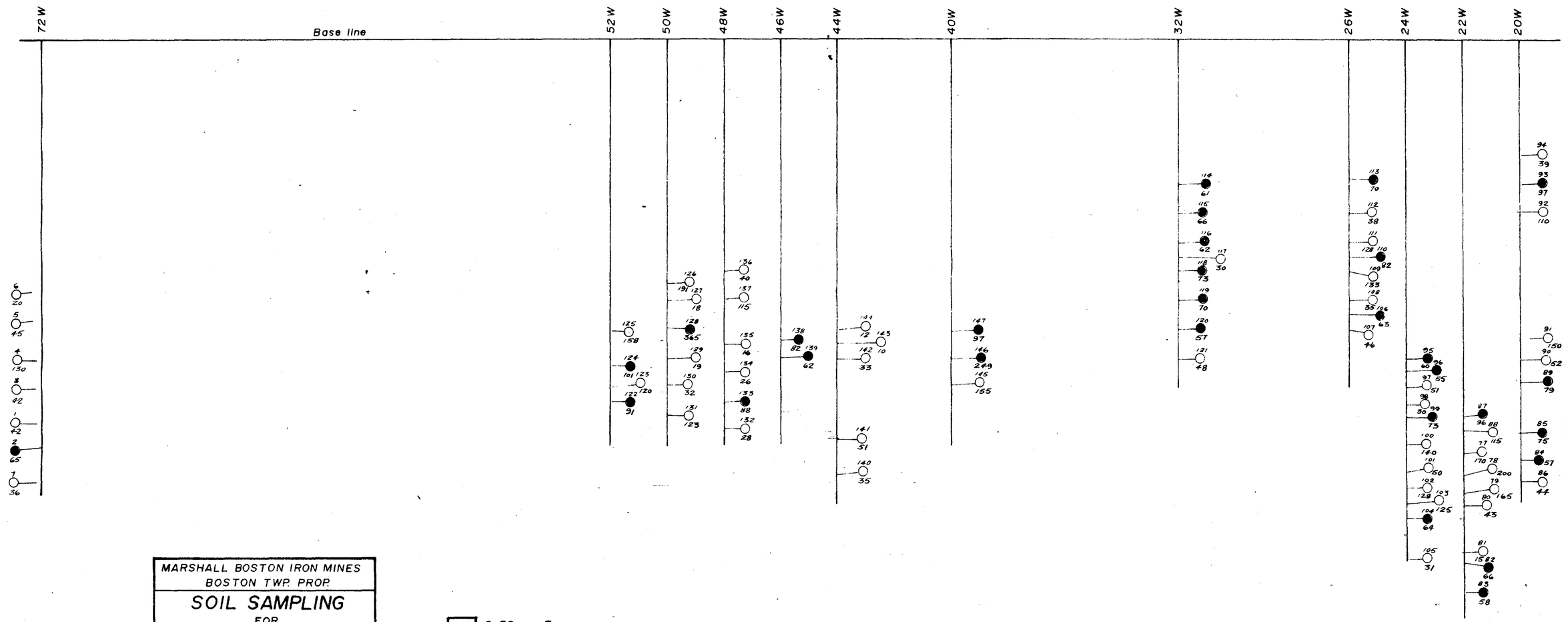
SOIL SAMPLING
FOR
LEAD

CLAIM 72991 AREA

Scale: 1in = 200 ft
July 1971 L G Hobbs, P.Eng.

0-24 ppm Pb
25-48
49-96
97+

10
25 Sample point
10 = sample number
25 = assay (ppm)



MARSHALL BOSTON IRON MINES
BOSTON TWP. PROP.

SOIL SAMPLING
FOR
ZINC

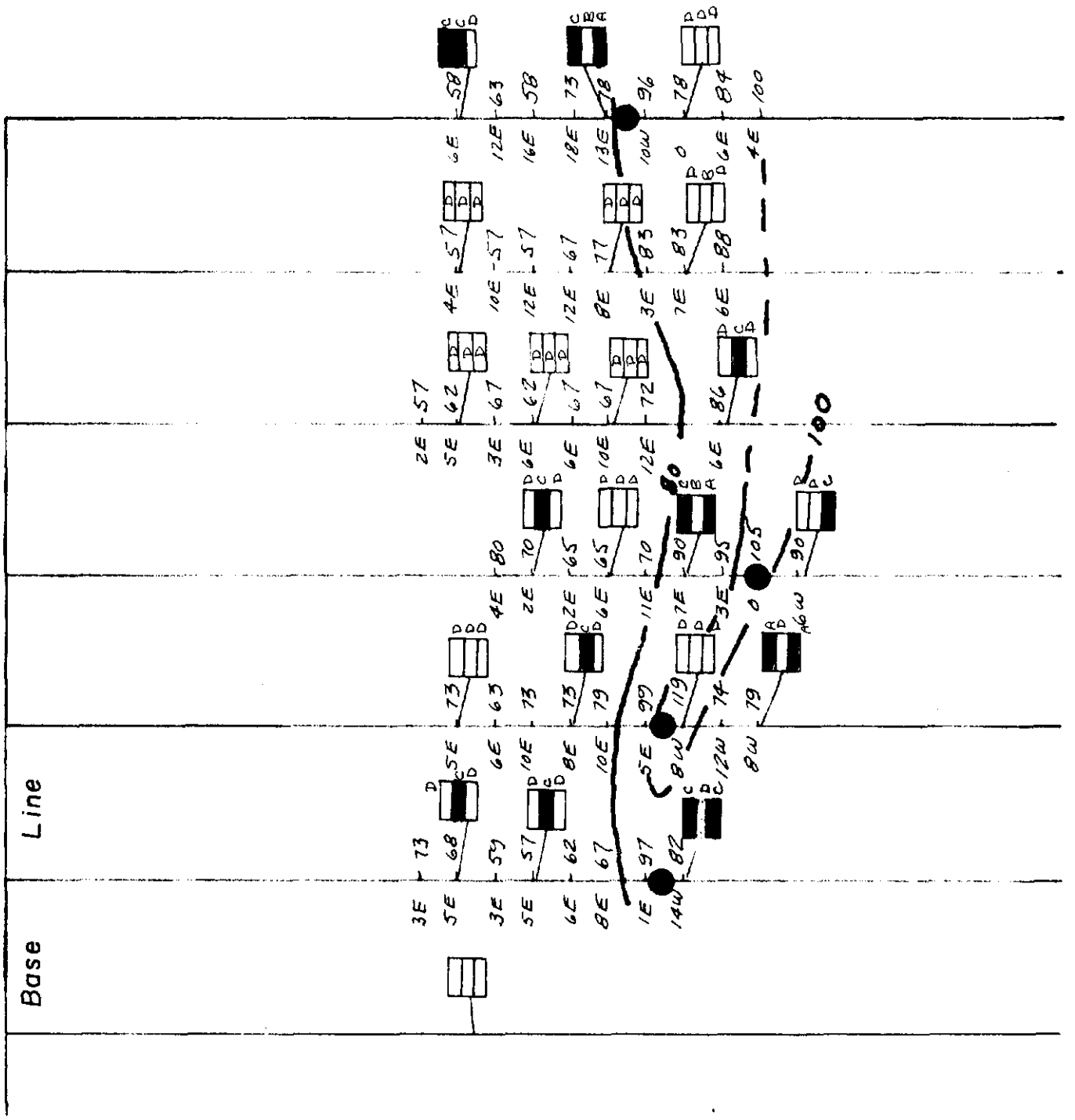
CLAIM 72991 AREA

Scale: 1in = 200ft
July 1971 L G Hobbs, P.Eng.

0-52 ppm Zn
53-104
105-208
209+

10
25
Sample point
10 = sample number
25 = assay (ppm)

350



Marshall Boston Iron Mines

RADEM & GEOCHEMICAL SURVEYS
over
F ZONE AREA
NORTHEAST GRID

Scale : 1 in = 200 ft

October 1971 L G Hobbs, P.Eng

360

	A	B	C	D
Cu	121+	61-120	31-60	0-30
Pb	97+	49-96	25-48	0-24
Zn	209+	105-208	53-104	0-103

Radem crossover

100 Field Strength contour

N

P-72
19 54 50

P-71
15 28 55

P-55
38 75 78

P-61
19 58 37

P-56
27 30 38

P-66
58 96 157

P-62
45 69 26

P-57
12 35 32

P-65
90 212 290

P-58
16 54 21

P-63
22 35 40

P-59
24 45 38

P-64
9 19 21

P-60
22 41 23

baseline

MARSHALL BOSTON IRON MINES
BOSTON TWP. PROP.

SOIL SAMPLING

S. GRID

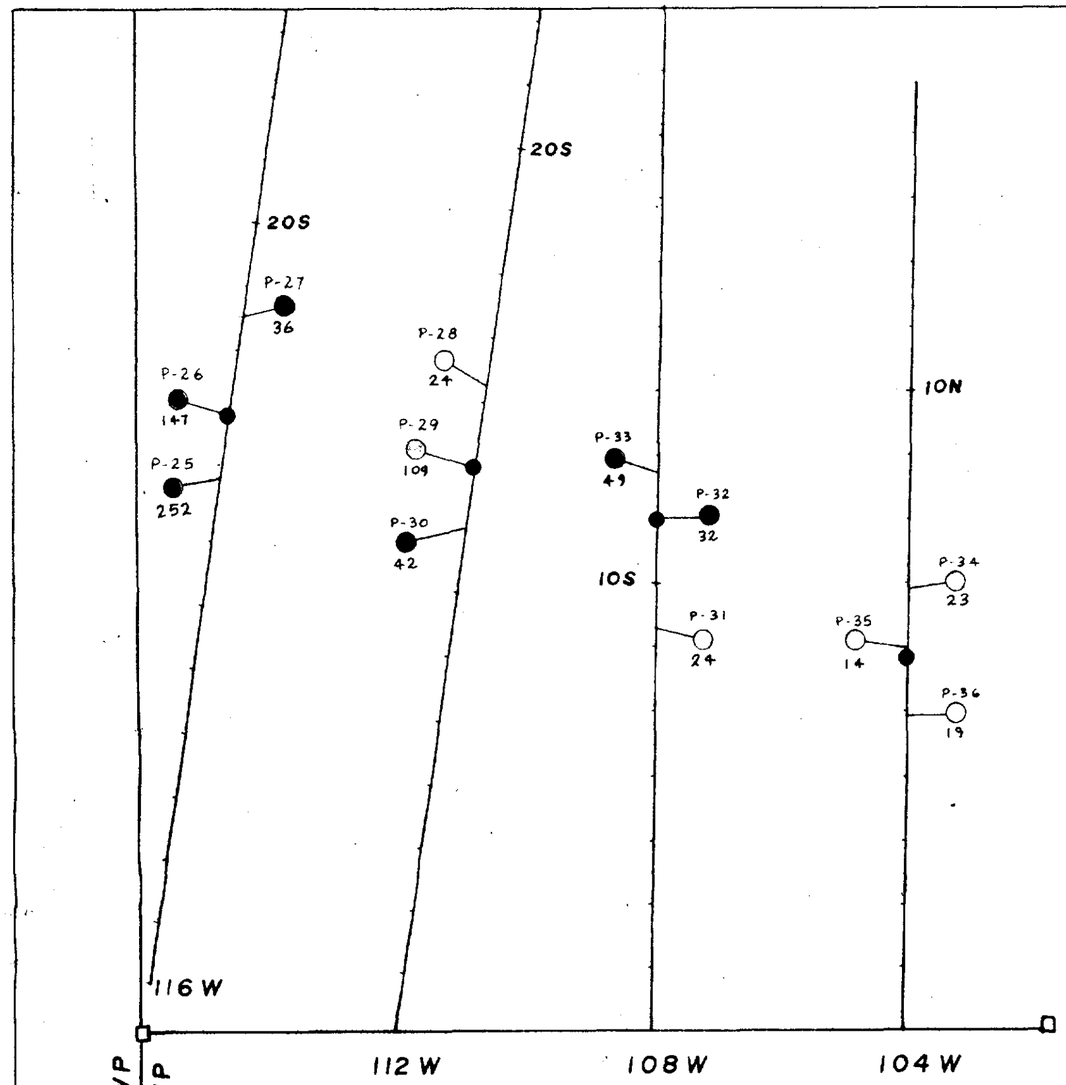
Scale 1in=200 ft
Oct 1971 J Donelan BSc

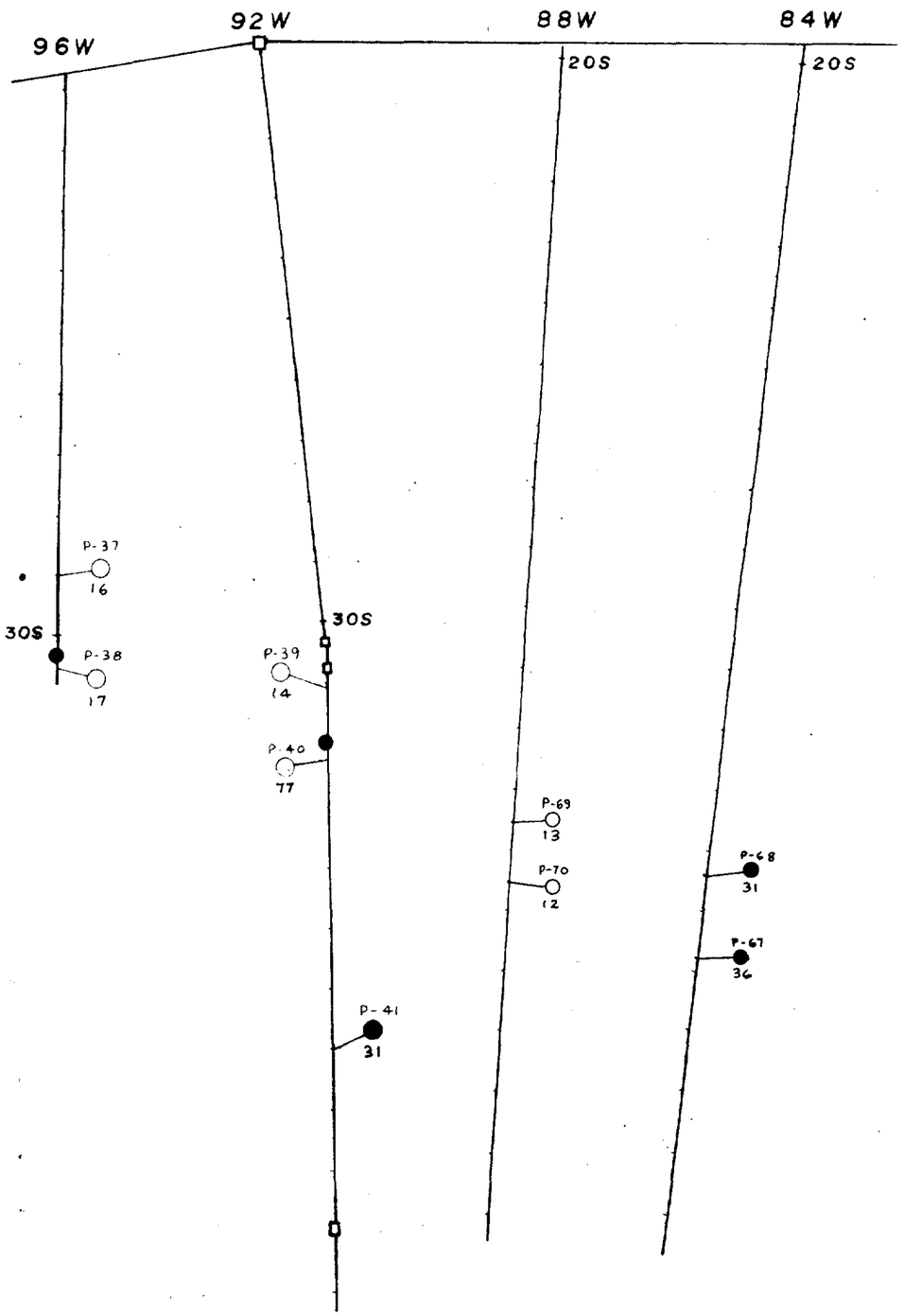
23
5 30 13

Sample point
23 = sample number
5 = assay ppm Cu
30 = assay ppm Zn
13 = assay ppm Pb

● radem crossover

24W 8W 4W 2W 0 2E 4E





MARSHALL BOSTON IRON MINES
BOSTON TWP. PROP.

SOIL SAMPLING
FOR
COPPER

S. W. GRID

...le 1in=200ft
J Donelan BSc

380

32D04SW0338 2.836 BOSTON

0-30 ppm Cu

31-60

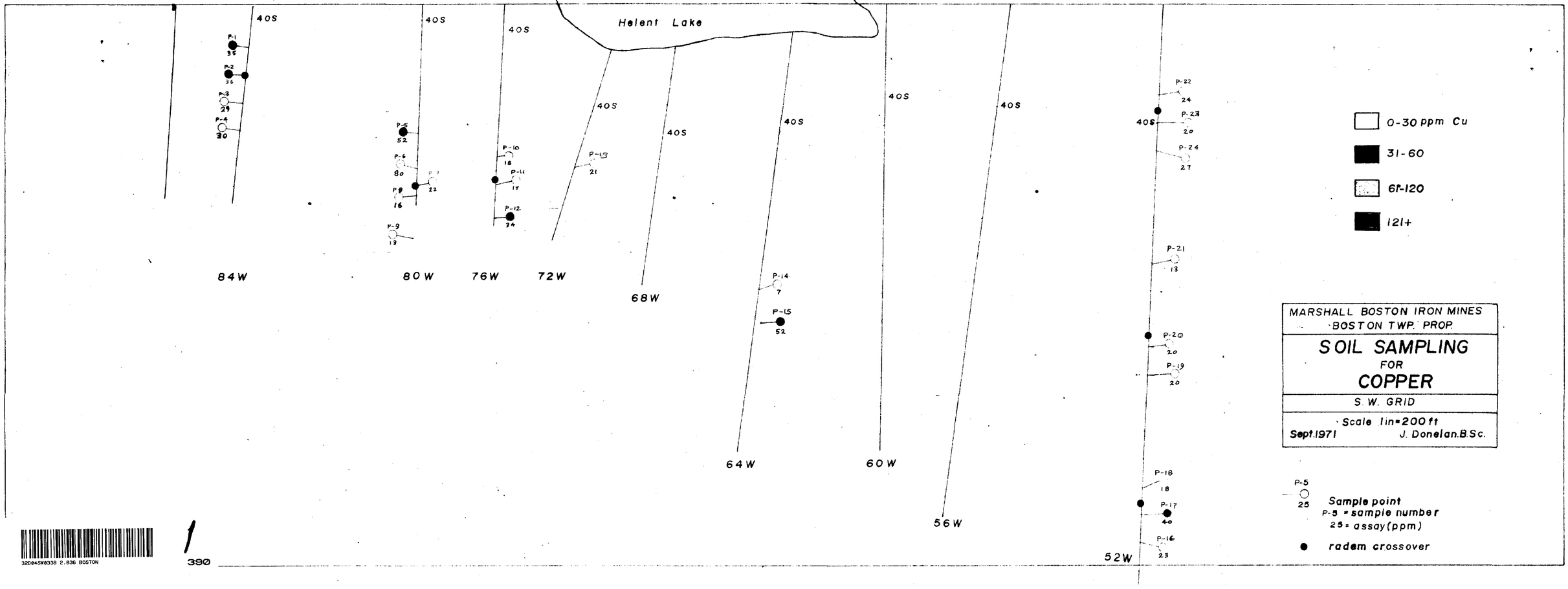
61-120

121+

P-5
25

Sample point
P-5 = sample number
25 = assay (ppm)

radem crossover



1

390

60W 56W 52W 48W 44W 40W 36W

30S

P-42 30
P-43 29
P-44 27
P-45 24
P-46 26
P-47 28
P-48 30
P-49 28
P-50 28
P-51 48
P-52 9
P-53 11
P-54 26

MARSHALL BOSTON IRON MINES
BOSTON TWP. PROP.

SOIL SAMPLING
FOR
COPPER

S. W. GRID

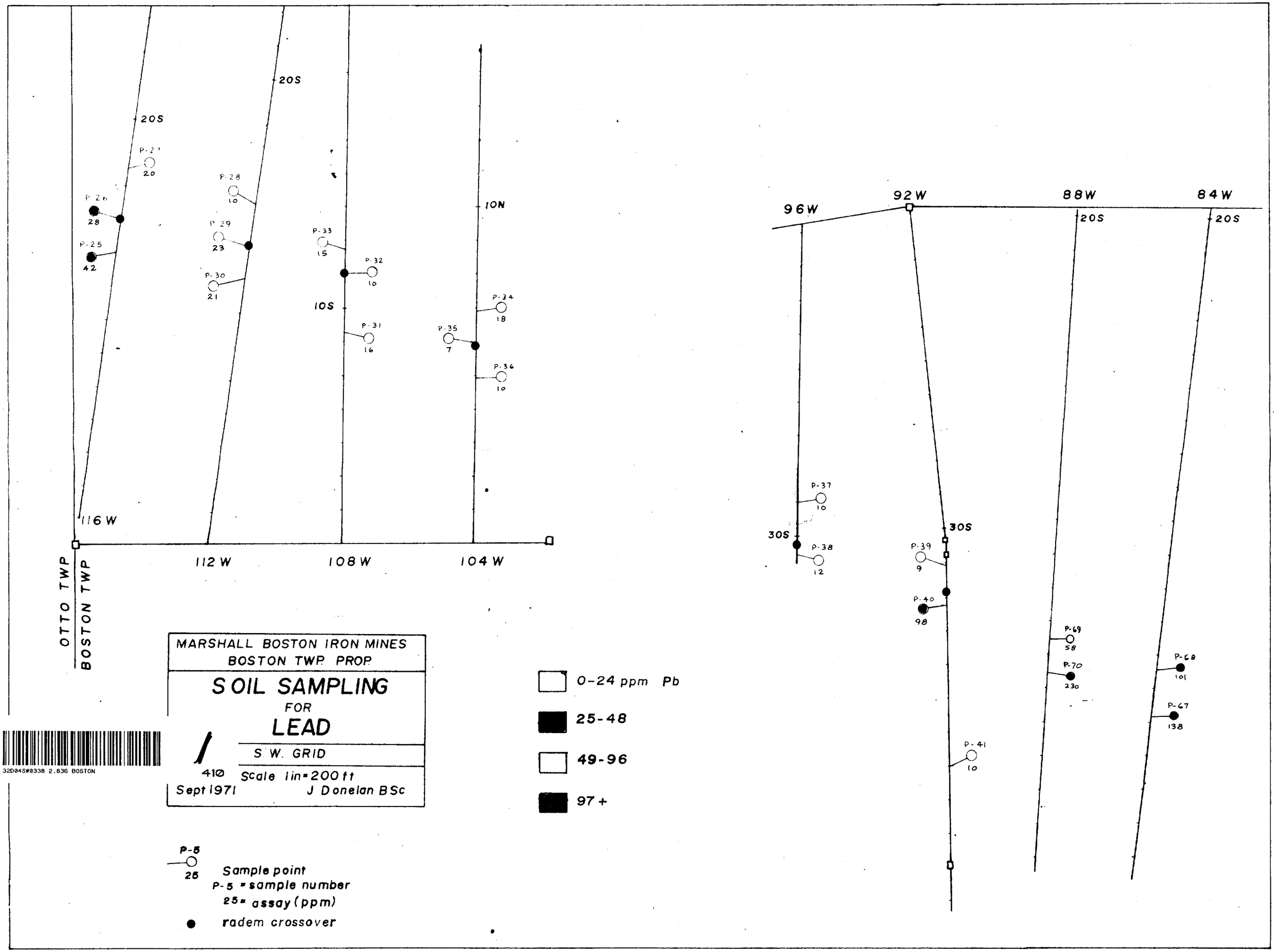
Scale 1in=200 ft
Sept. 1971 J. Donelan BSc

400

P-5
25
Sample point
P-5 = sample number
25 = assay (ppm)

● radem crossover

0-30 ppm Cu
31-60
61-120
121+



MARSHALL BOSTON IRON MINES
BOSTON TWP PROP

SOIL SAMPLING
FOR
LEAD

S W. GRID

410

Scale 1in=200ft

Sept 1971 J Donelan BSc

- 0-24 ppm Pb
- 25-48
- 49-96
- 97+

P-5
25
Sample point
P-5 = sample number
25= assay (ppm)
radem crossover

60W 56W 52W 48W 44W 40W 36W

30S

P-42 22
P-43 20
P-44 19
P-45 18
P-46 20
P-47 21
P-48 20
P-49 15
P-50 16
P-51 22
P-52 12
P-53 10
P-54 20

MARSHALL BOSTON IRON MINES
BOSTON TWP. PROP

SOIL SAMPLING
FOR
LEAD

S.W. GRID

Scale 1in=200 ft
Sept. 1971 J. Donelan BSc

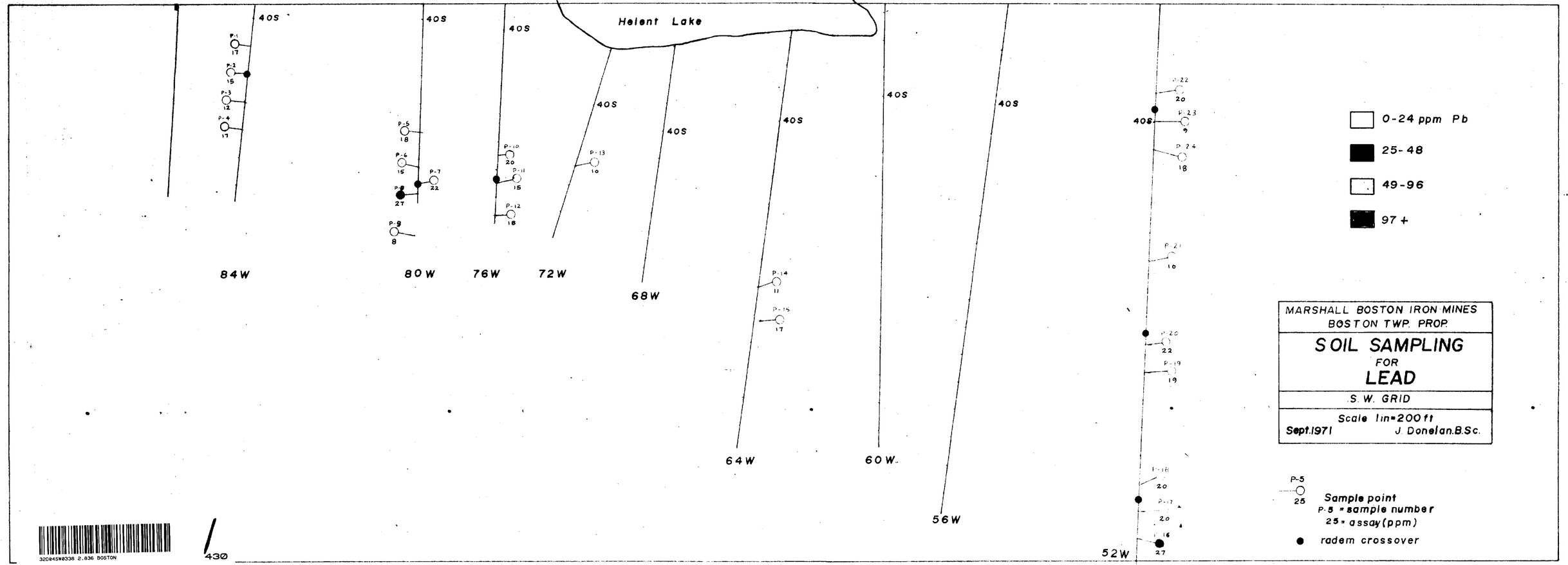
32D04SW0338 2.836 BOSTON

420

P-5
25 Sample point
P-5 = sample number
25 = assay (ppm)

● radem crossover

0-24 ppm Pb
25-48
49-96
97+



430

20S

20S

P-27
40

P-26
63

P-28
18

P-29
60

P-25
47

P-30
49

P-33
36

P-32
43

10S

P-31
36

10N

P-34
30

P-35
23

P-36
25

116 W

112 W

108 W

104 W

OTTO TWP

BOSTON TWP

96W

92W

88W

84W

20S

20S

P-37
27

30S

P-38
53

30S

P-39
13

P-40
202

P-41
40

P-69
43

P-70
94

P-68
49

P-67
44

MARSHALL BOSTON IRON MINES
BOSTON TWP. PROP.

SOIL SAMPLING
FOR
ZINC

S.W. GRID

440

Scale 1in=200ft

Sept 1971 J Donelan BSc

0-52 ppm Zn

53-104

105-208

209+

P-5
25

Sample point
P-5 = sample number
25 = assay (ppm)
● radem crossover

60W 56W 52W 48W 44W 40W 36W

30S

P-42 75
P-43 60
P-44 62
P-45 47
P-46 69
P-47 65
P-48 63
P-49 37
P-50 34
P-51 80
P-52 22
P-53 27
P-54 65

MARSHALL BOSTON IRON MINES
BOSTON TWP. PROP.

SOIL SAMPLING
FOR
ZINC

S. W. GRID

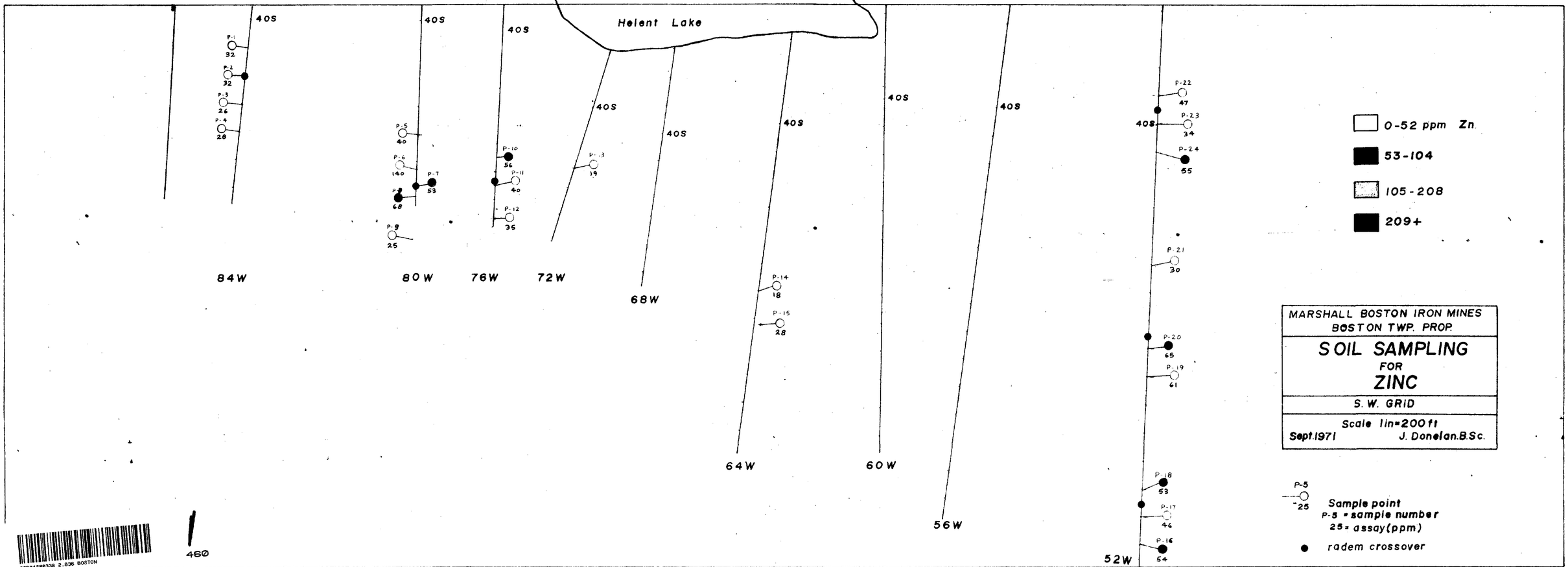
Scale 1in=200 ft
Sept. 1971 J. Donelan BSc

450

P-5
25
Sample point
P-5 = sample number
25 = assay (ppm)

radem crossover

0-52 ppm Zn
53-104
105-208
209+



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