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- Appendix II Smitheringale, W. G., 1980, Preliminary Report on the 1980 Casmo Geological Mapping Program
- Appendix III Chemex Certificate of Analysis for 1980 Core Assays

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GROUND GEOPHYSICAL INVESTIGATIONS OVER
THE CASMO MOLYBDENITE DEPOSIT

by

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ABSTRACT

Induced polarization/resistivity and magnetometer surveys have been carried out over the Casmo molybdenite deposit which is located in mountainous terrain in Northern British Columbia. The deposit is within a quartz-feldspar porphyry and quartz monzonite intrusive, and the mineralization occurs along a zone of hydrothermal alteration and intense fracturing which is believed to be a northerly dipping fault zone. The molybdenite mineralization is present mainly in quartz bearing fractures with or without pyrite.

The zone of interest is characterized by a significant resistivity low, a metal factor high and a subtle IP low flanked by highs outside the mineralized area. Magnetic trends indicated by the magnetometer survey generally parallel the fault zone and strike direction of the different intrusive phases, and have been helpful in delineating contacts and faulting in the area.

INTRODUCTION

The Casmo molybdenite deposit is situated 6 km southwest of the asbestos mining town of Cassiar in northern British Columbia, at an elevation of 1,550 metres (Figure 1).

Molybdenite mineralization on the Casmo property was first discovered during the early 1950's and first important exploration work was done in 1964. Between 1964 and 1971, about 25,000 feet of drilling was done by various operators as a result of which 33.7 million tons of drill indicated molybdenite ore was proven at a grade of .130%. No work

was done until 1979 when Shell Canada Resources entered into an option agreement with the former operator, New Jersey Zinc Corporation. Shell has completed 27,000 feet of diamond drilling between 1979 and 1980 and has proven 75 million tonnes of drill indicated ore with an average grade of .13% MoS₂.

This paper is a detailed case history of IP/resistivity and magnetometer surveys done over the Casmo deposit during 1979 and 1980.

GEOLOGY

The Casmo deposit is hosted in a quartz monzonite stock which lies along the eastern contact of the Cassiar Batholith (Figure 2). The stock intrudes older paleozoic sediments which consist of mainly carbonates, quartzites and argillites on the property. The intrusive caused minor skarn development along the sedimentary contact and is believed to be responsible for the emplacement of lenticular massive sulphide bodies consisting of mainly pyrrhotite, galena and sphalerite, within the bordering sediments.

On the property, geologists have identified four different phases of quartz monzonite based on color and grain size (Figure 3). Age and grain size of the intrusive phases decrease going from Unit 1 to Unit 4, and mineralization seems to show preference to the later phases 3 and 4.

The Casmo deposit is cut by numerous northerly and northeasterly trending faults. The dominant regional structural trend in the area is northeasterly. The most prominent structural feature on the property is the northeasterly trending Crone fault which steeply dips north (at about 70°), and is believed to be a normal fault. The fault is a broad shear zone and both mineralization and alteration increase towards the core of the fault. Molybdenite mineralization is present in quartz and pyrite bearing fractures. The close association between the Crone fault and mineralization suggest that

the fault played a significant role in the formation of the deposit by acting as a localizing feature. Approximately 100 metres wide zone of intense fracturing and alteration encompassing the Crone Fault will be referred to as "structural zone" in the text.

The .07 percent molybdenite grade boundary of the deposit as outlined by drilling at 1,400 m elevation is shown by a heavy line on Figure 3. Figure 4 shows the deposit outline at 1,400 m elevation, the Crone fault and location of the drill holes drilled by Shell and former operators. Figure 5 shows the deposit outline and the Crone fault, and preliminary outline of the open pit as suggested by mining engineers. Now let us look at the geology cross-section across AA' which shows the Crone fault and the .07% molybdenite grade outline in relation to different intrusive phases (Figure 6). Note that the deposit has a concealed flat top near the surface and dips steeply north along the main fault zone.

Further information on geology and history of the area can be obtained from Bloomer (1980), and Smitheringale (1980).

1979 GEOPHYSICAL TESTS

In 1979, Shell minerals conducted Induced Polarization/resistivity and magnetometer test surveys along 3 lines shown in Figure 7 to test the usefulness of these methods in exploring the type of mineralization under consideration (Saydam, 1979). Note that the base line is more or less centered over the deposit. Pole-dipole array with an electrode separation of $a = 100$ m and dipole to current pole separations of $n = 1$ to 3 were used to do the IP test work. Pole-dipole configuration was used because it has good depth penetration and less labor intensive in comparison to many other electrode arrays (Saydam et al, 1978). Figure 8 shows the apparent resistivity and apparent chargeability pseudo-sections along line 0+0. Apparent resistivity values were anomalously low over the structural zone. Apparent chargeabilities were more or less uniform across the profile with slight

increase towards the south end of the grid. Apparent resistivity and chargeability responses obtained over lines 1E and 2E were similar to those obtained over line 0+0 (Figures 9 and 10). Along line 2E, there was more than tenfold contrast between the core of the apparent resistivity low and the flanking highs (Figure 10).

Apparent resistivity anomalies obtained along the three test lines indicated presence of a broad northerly dipping zone of low resistivity which seemed to contain no more metallic mineralization than the surrounding rocks as evidenced by the apparent chargeability data.

In order to gain insight into geometry of the source causing the resistivity anomaly, a synthetic model has been constructed as shown in Figure 11 and its apparent resistivity response has been computed using a two dimensional finite difference modelling program developed in Berkeley by A. Dey and F. Morrison (Dey and Morrison, 1976). The model was a 100 m wide zone of 150 ohm-m resistivity dipping north at 30 to 45 degrees. Computed apparent resistivity pseudo-section (Figure 11) agrees in general with the observed data except that the observed anomaly is broader and has steeper contours, indicating a more steeply dipping and wider source than the synthetic model. In summary, the IP test results were encouraging since we seemed to detect the structural zone as a low resistivity anomaly.

Magnetometer test results were inconclusive since no significant anomaly which could be attributed to mineralization was recognizable along the lines surveyed.

1980 GEOPHYSICS

With the encouragement we got from the 1979 test results, we set out to cover the area shown in Figure 7 using IP/resistivity and magnetometer surveys during the summer of 1980. The object was to detect mineralization, or delineate structures which may be associated

with mineralization, such as faulting, and help further understanding of the geology. The survey lines were oriented in north-south direction and were 100 metres apart. Pole-dipole array with $a = 100$ m and $n = 1$ to 3 was used to do the IP/resistivity survey using a Hunttec Mark III time domain system and a 7.5 kw power transmitter.

Apparent resistivity contour maps for each n separation are shown in Figures 12 to 14. A significant apparent resistivity low was detected at all n separations over the main structural zone. The resistivity low extends for about 900 metres in northeasterly direction from south end of the grid into the sediments. The resistivity low shifts in the dip direction of the source (northerly) as the dipole to current pole separation increases from $n = 1$ to 3. Sediments are characterized with an apparent resistivity response which is several orders of magnitude lower than the response obtained over the intrusive, excluding the anomalous fault zone.

Apparent chargeability response obtained over the mineralized zone is generally average or less than average in magnitude, and the mineralized zone is flanked by some subtle chargeability highs (Figures 15 to 17). This is believed to be an indicator of a pyritic halo along the relatively undisturbed periphery of the main structural zone. The highest chargeabilities were obtained over the sedimentary rocks due to widespread presence of disseminated graphite and pyrite in these rocks.

In frequency domain IP work, a parameter which is referred to as metal factor is often used in presentation of IP results (Hallof, 1964). Metal factor is simply the ratio of observed IP response to apparent resistivity at a given measurement position, and largely eliminates any bias imposed on IP measurements due to changes in resistivity. Metal factors have been computed for 3 n separations and contoured as shown in Figures 18 to 20. The main structural zone and graphitic sediments stand out as high metal factor anomalies at all n separations.

As a next step, attempts were made to gain more information about geometry of the source causing the low resistivity/high metal factor anomaly obtained over the main structural zone by theoretical modelling. Figures 21 and 22 show the observed data along line 1E and computed apparent resistivity and metal factor responses for a 150 m wide, steeply dipping (at about 70°) zone of low resistivity which approximates the Crone fault. Agreement between the observed and computed data is poor. Making the fault zone any wider (Figures 23 and 24) does not improve the fit, suggesting that the observed response cannot be explained in terms of a simple dipping fault model. If we go back to the geology section AA' near line 1E (Figure 6), we notice that the mineralization extends into a zone of alteration paralleling the surface away from the fault. An altered zone is expected to have much lower resistivity than fresh intrusive rock due to large amount of clay minerals present in the altered zone. Therefore, a synthetic model which takes effects of both alteration and faulting into consideration was constructed as shown in Figure 25. This time the computed apparent resistivity and metal factor responses show much better agreement with the observed data (Figures 25 and 26).

The magnetometer survey was done using a Scintrex MP-2 proton magnetometer and measurements were corrected for diurnal variation. The results are given as a contour map in Figure 27. The main structural zone stands out as a broad magnetic low paralleling the trend indicated by the IP/resistivity survey. Weathering and alteration is believed to be responsible for the destruction of primary magnetite within the intrusive in the vicinity of the structural zone, therefore leading to the observed magnetic low.

Northeasterly trending magnetic highs near the center of the grid correlate well with the intrusive phases 1 and 2, and value of this information was acknowledged by geologists who did the mapping in the field (Smitheringale, pers. comm.).

CONCLUSIONS

The most important outcome of the geophysical work done in Casmo was the delineation of a structural zone which hosts the molybdenite mineralization as a low resistivity, high metal factor, and low magnetic anomaly. The structural zone comprises a major fault and an approximately 100 meters wide region of intense fracturing and alteration, all of which have been established to be closely related to molybdenite-pyrite mineralization as a result of the exploration work done to date. Faulting and intense fracturing are believed to be the major contributors to the low resistivity anomaly observed over the structural zone, since they would lead to a significant increase in electrolytic conduction through pathways which would not normally occur abundantly in an undisturbed intrusive rock. Presence of clay minerals which have been derived mainly from alteration is thought to be another major factor contributing to the low resistivity anomaly due to low resistivity of clay minerals relative to other silicates normally found in an intrusive. Primary magnetic minerals within the structural zone are believed to have been destroyed to a large extent as a result of alteration, hence leading to the observed magnetic low. High metal factor anomaly obtained over the structural zone is an evidence of an increase in polarizable mineral content within the zone, even though one does not get that impression by looking at the apparent chargeability data. The high metal factor anomaly is believed to be mainly due to presence of clay minerals and to a smaller extent a minor increase in the metallic mineral content within the structural zone. The combined analysis of IP/resistivity and magnetometer data has helped identification of other faults in addition to the main structural zone discussed. The sedimentary-intrusive contact was best defined by the magnetometer data.

As a final conclusive remark, it would be fair to say that the integrated exploration program employed in Casmo backed up by computer interpretation techniques enriched our understanding of the geology and helped in identification of the new areas of potential interest.

REFERENCES

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3. Hallof, P. G., 1964, A Comparison of The Various Parameters Employed in the Variable-Frequency Induced-Polarization Method, Geophys., V. 29, P. 425 - 433.
4. Saydam, A. S., 1979, Geophysical Test Results over the Storie MoS₂ Property, Cassiar, B.C.: Shell Canada Resources Limited Report.
5. Saydam, A. S., and Duckworth, K., 1978, Comparison of some Electrode Arrays for their IP and Apparent Resistivity Responses over a Sheet-like Target: Geoexploration, V. 16, P. 267 - 289.
6. Smitheringale, 1980, 1979 Exploration Program: Casmo Property, Cassiar, B.C., Report for Shell Canada Resources Limited.

FIGURES

1. Location Map
2. Regional Geology map of Cassiar area, B.C.
3. Geology map of Casmo
4. The deposit outline at 1,400 m elevation and drill holes
5. The deposit outline and proposed open pit boundary
6. Geologic cross-section A-A'
7. The location of 1979 geophysical test lines
8. Apparent resistivity and apparent chargeability pseudo-sections along line 0+0
9. Apparent resistivity and apparent chargeability pseudo-sections along Line 1E
10. Apparent resistivity and apparent chargeability pseudo-sections along Line 2E
11. Computed apparent resistivity response over a dipping model and observed apparent resistivity response along line 2E

12. Casmo apparent resistivity contour map n = 1
13. Casmo apparent resistivity contour map n = 2
14. Casmo apparent resistivity contour map n = 3
15. Casmo apparent chargeability contour map n = 1
16. Casmo apparent chargeability contour map n = 2
17. Casmo apparent chargeability contour map n = 3
18. Casmo apparent metal factor contour map n = 1
19. Casmo apparent metal factor contour map n = 2
20. Casmo apparent metal factor contour map n = 3
21. Computed apparent resistivity pseudo-section over a 150 m thick target and observed apparent resistivity response along line 1E
22. Computed apparent metal factor pseudo-section over a 150 m thick target and observed apparent metal factor response along line 1E
23. Computed apparent resistivity pseudo-section over a 250 m thick target and observed apparent resistivity response along line 1E
24. Computed apparent metal factor pseudo-section over a 250 m thick target and observed apparent metal factor response along line 1E
25. Computed apparent resistivity pseudo-section over an irregular shaped target and observed apparent resistivity response along line 1E
26. Computed apparent metal factor pseudo-section over an irregular shaped target and observed apparent metal factor response along line 1E
27. Casmo total field magnetic contour map

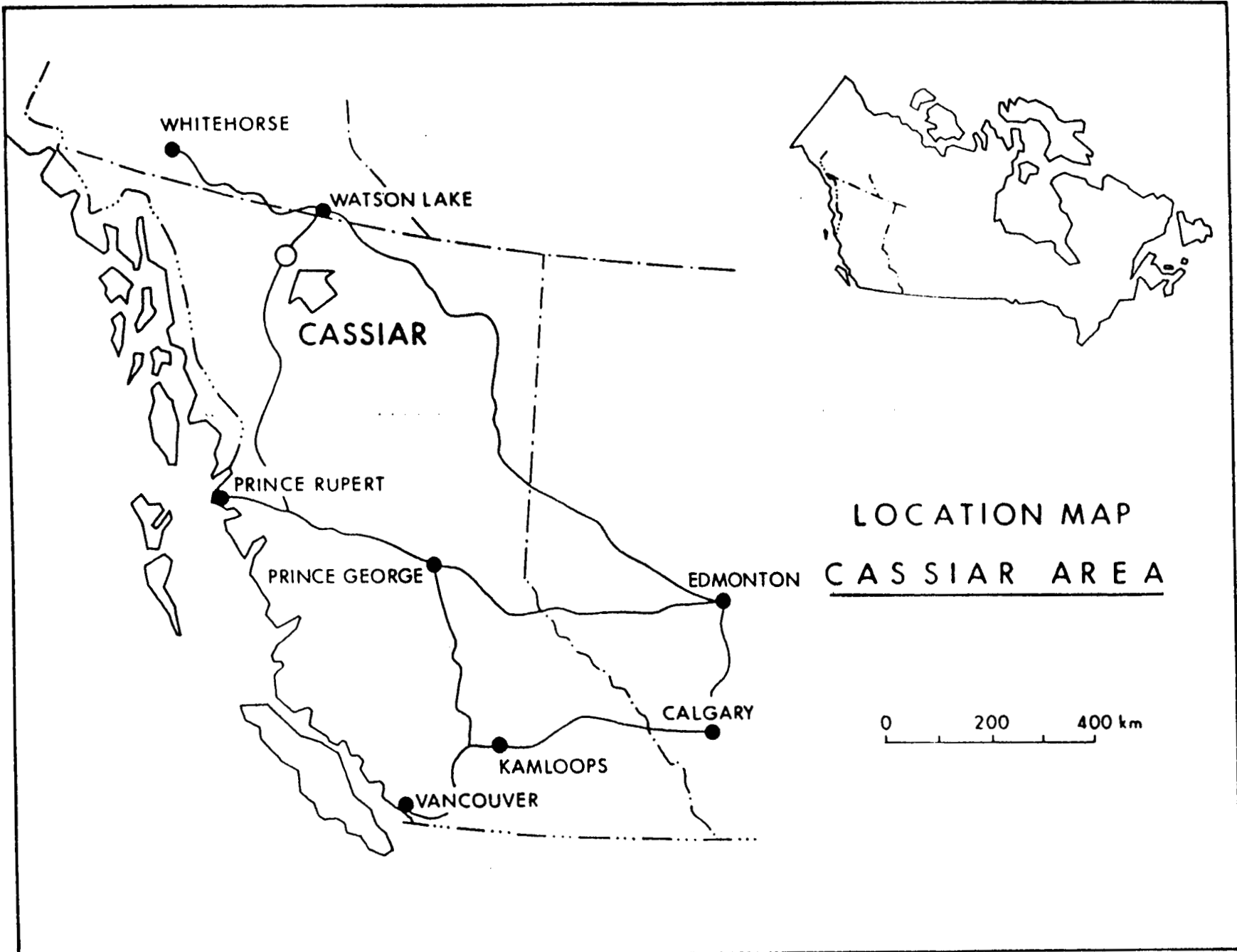


FIG.1

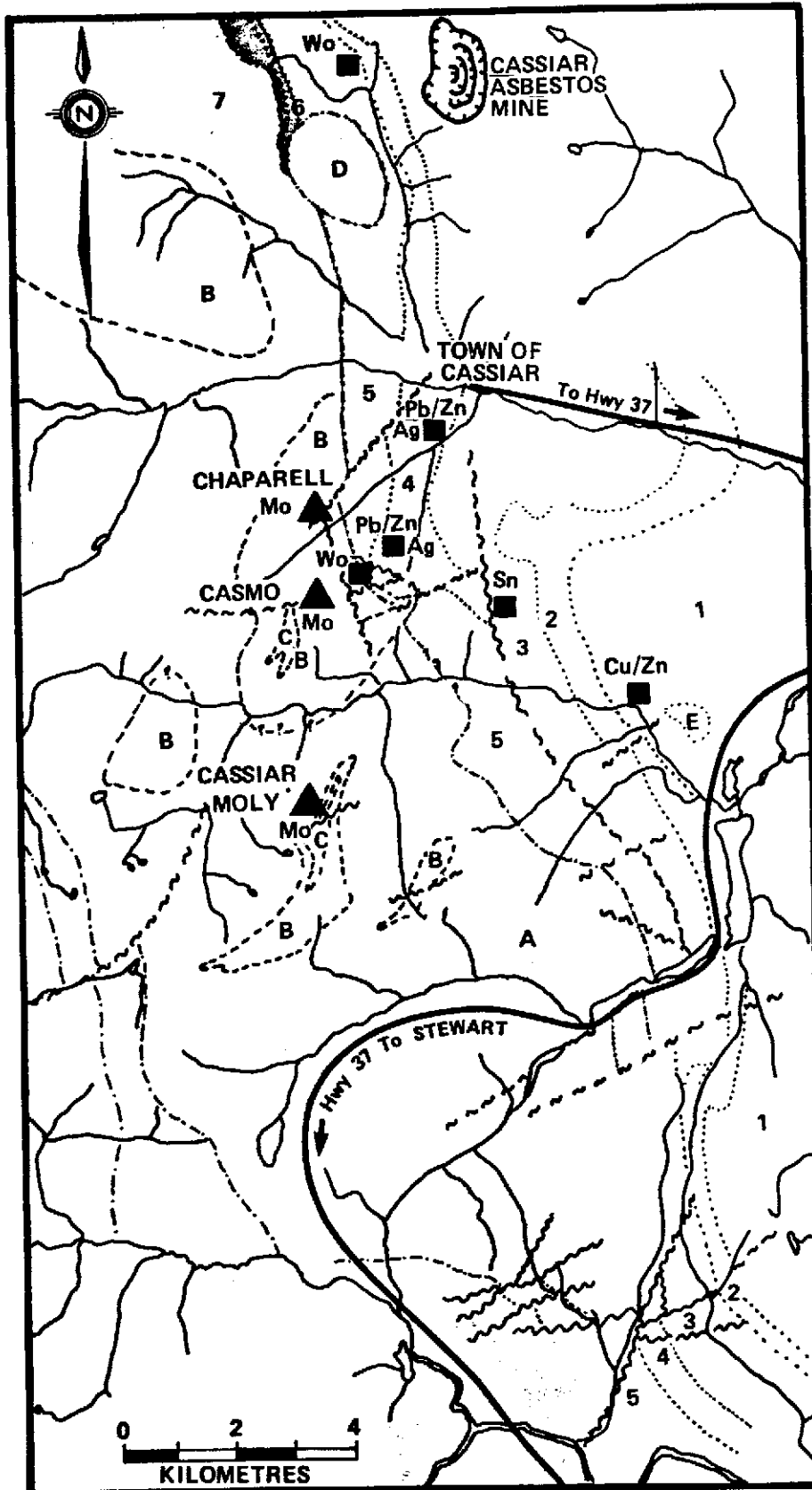
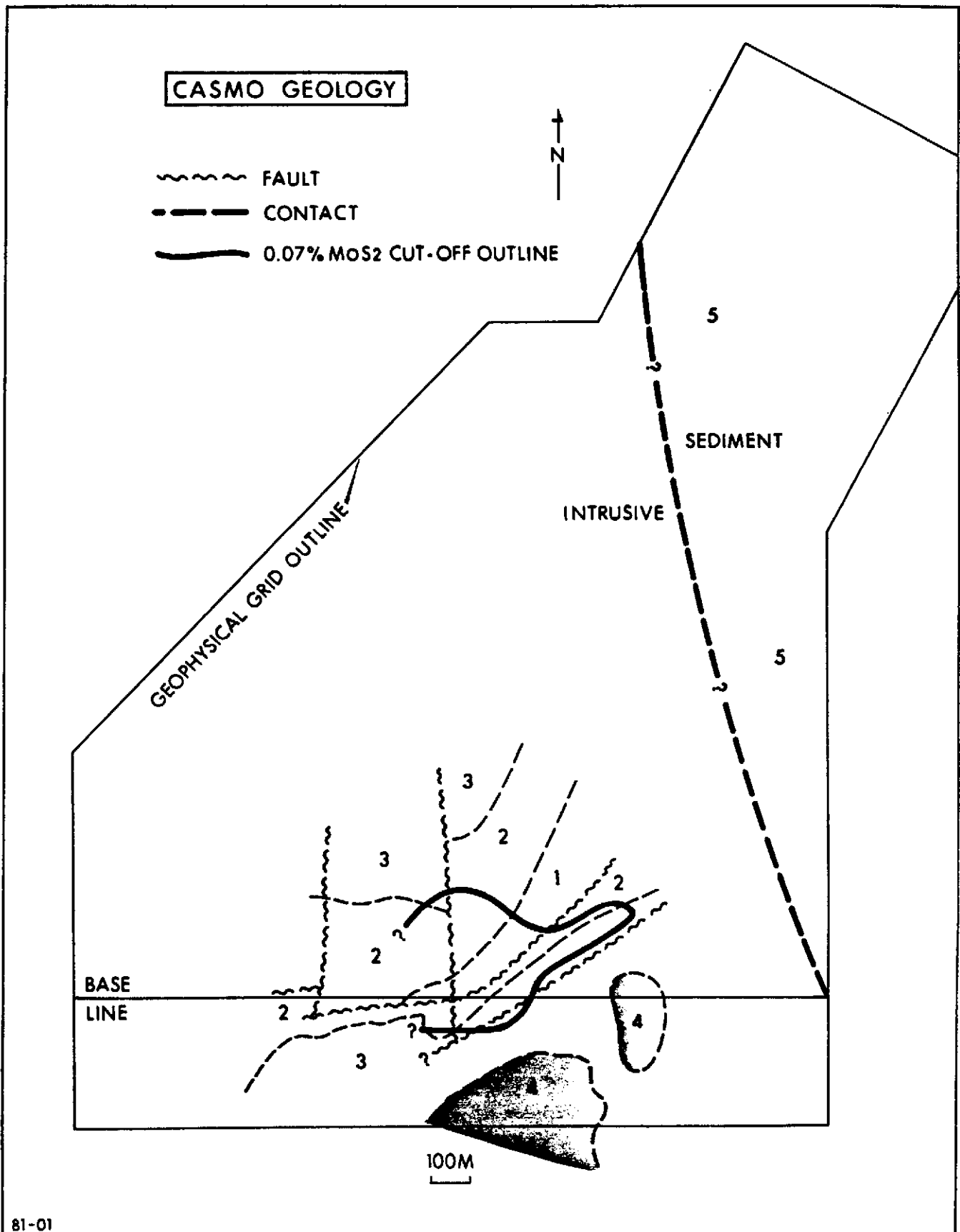


FIG. 2

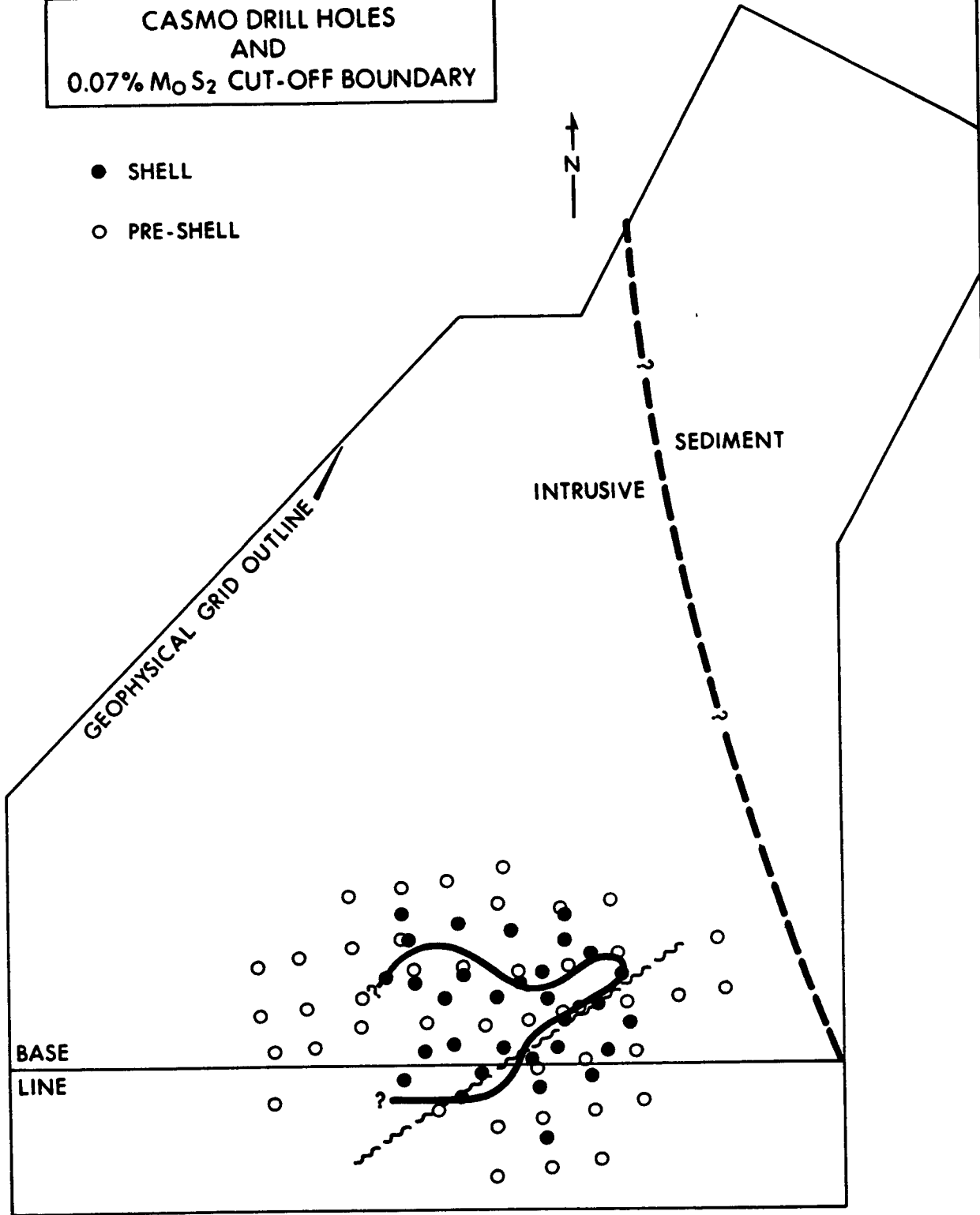


81-01

FIG. 3

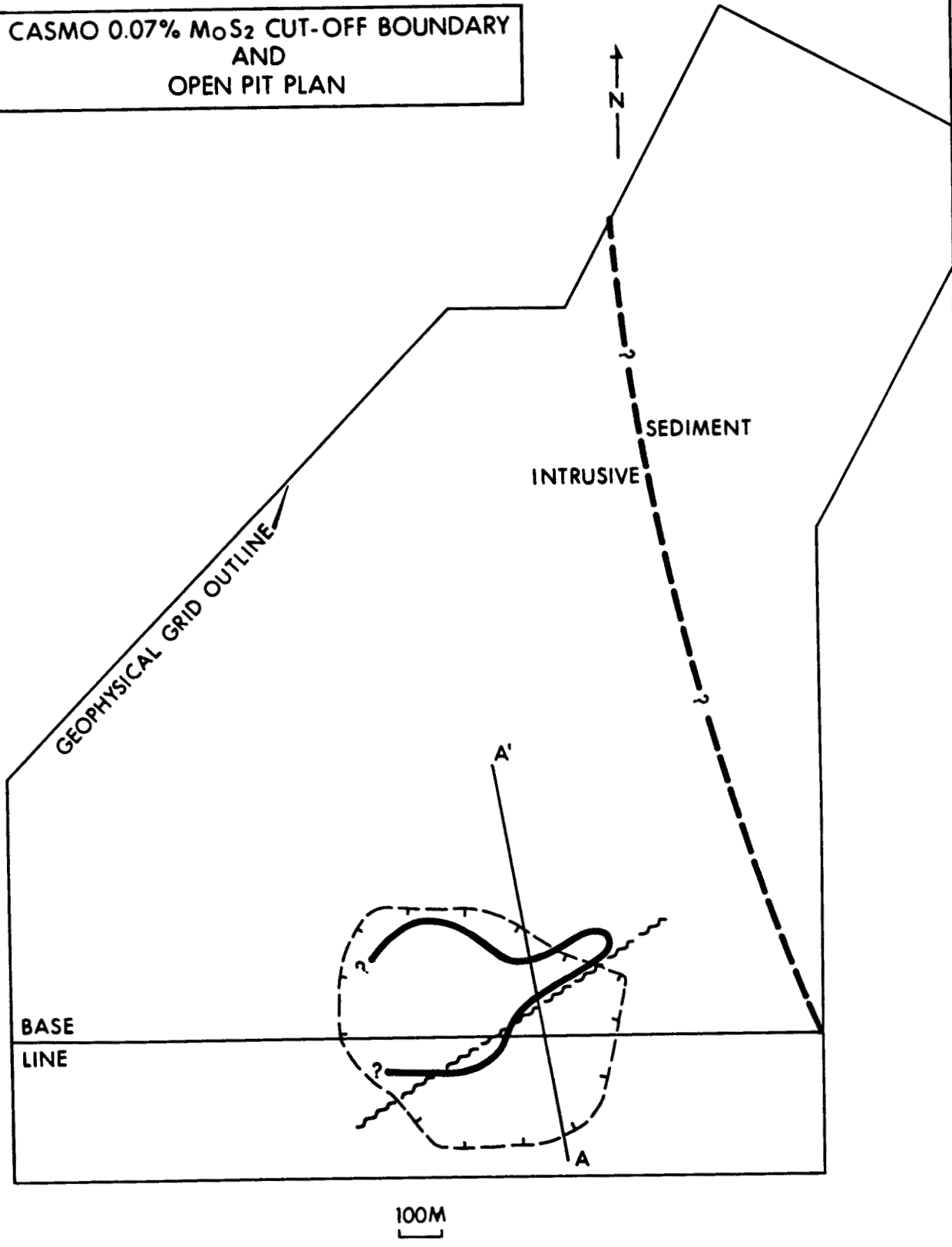
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AND
0.07% M_0S_2 CUT-OFF BOUNDARY

- SHELL
- PRE-SHELL



100M

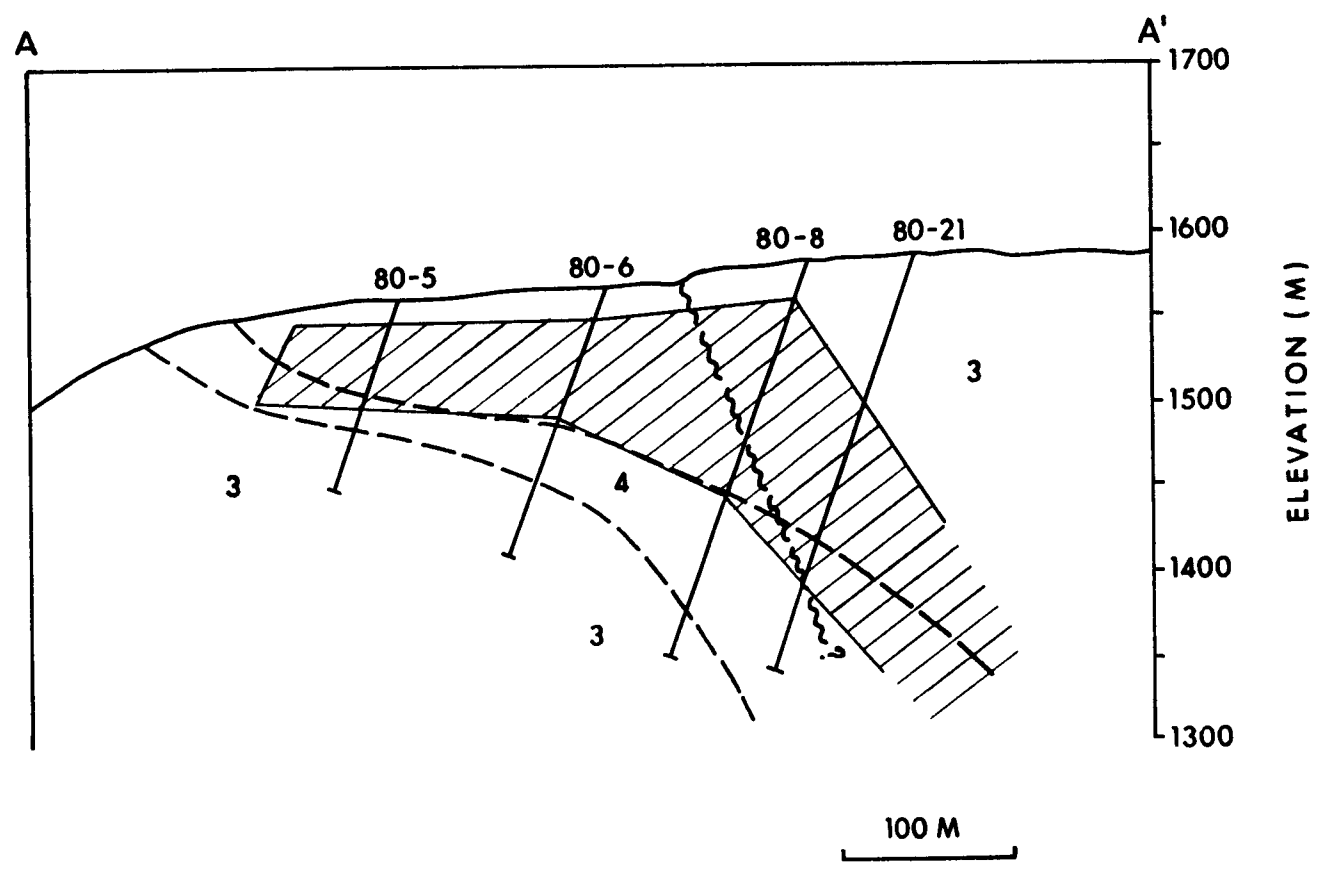
CASMO 0.07% $M_{O}S_{2}$ CUT-OFF BOUNDARY
AND
OPEN PIT PLAN



81-01

FIG.5

GEOLOGY SECTION A-A'



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FIG. 6

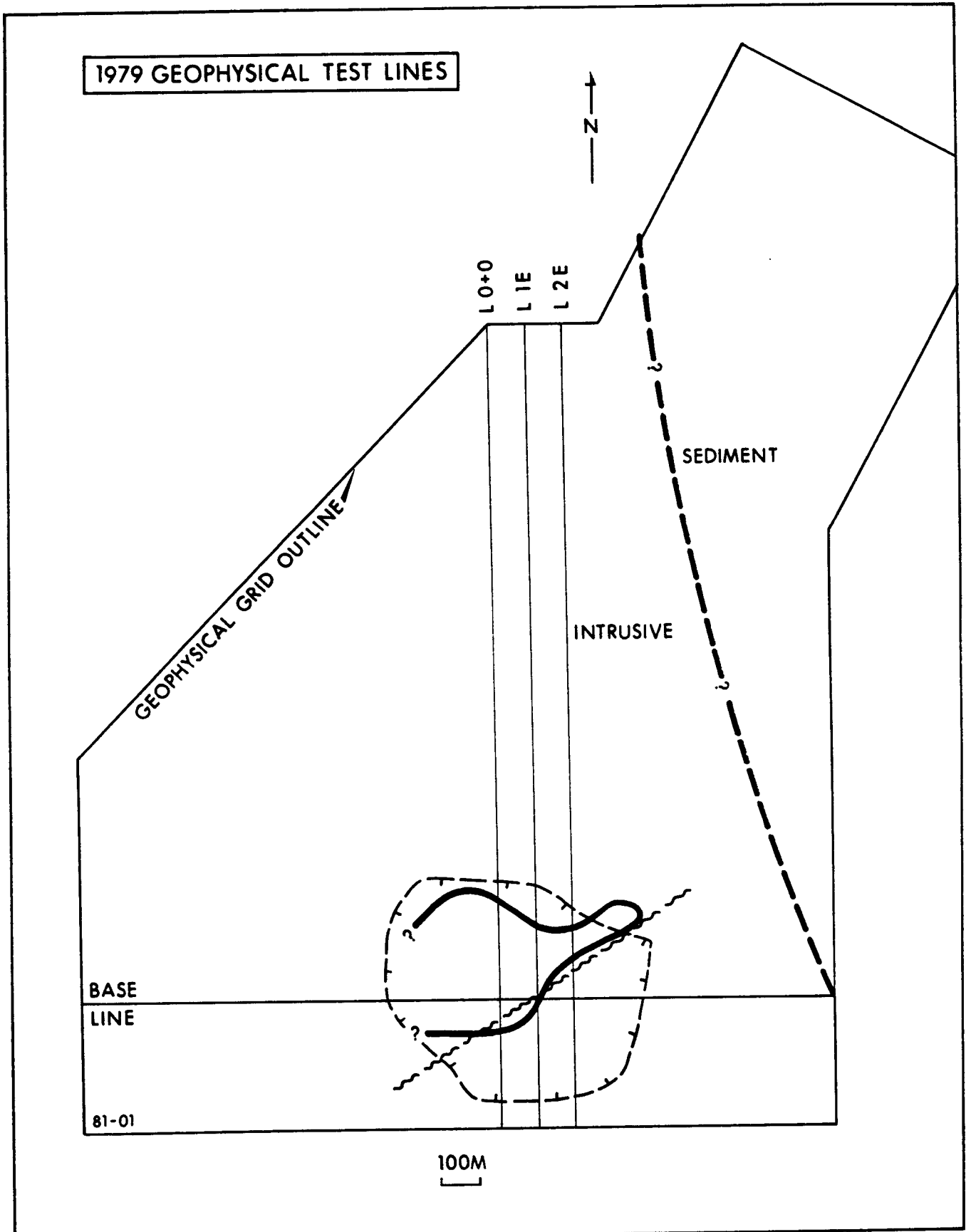


FIG.7

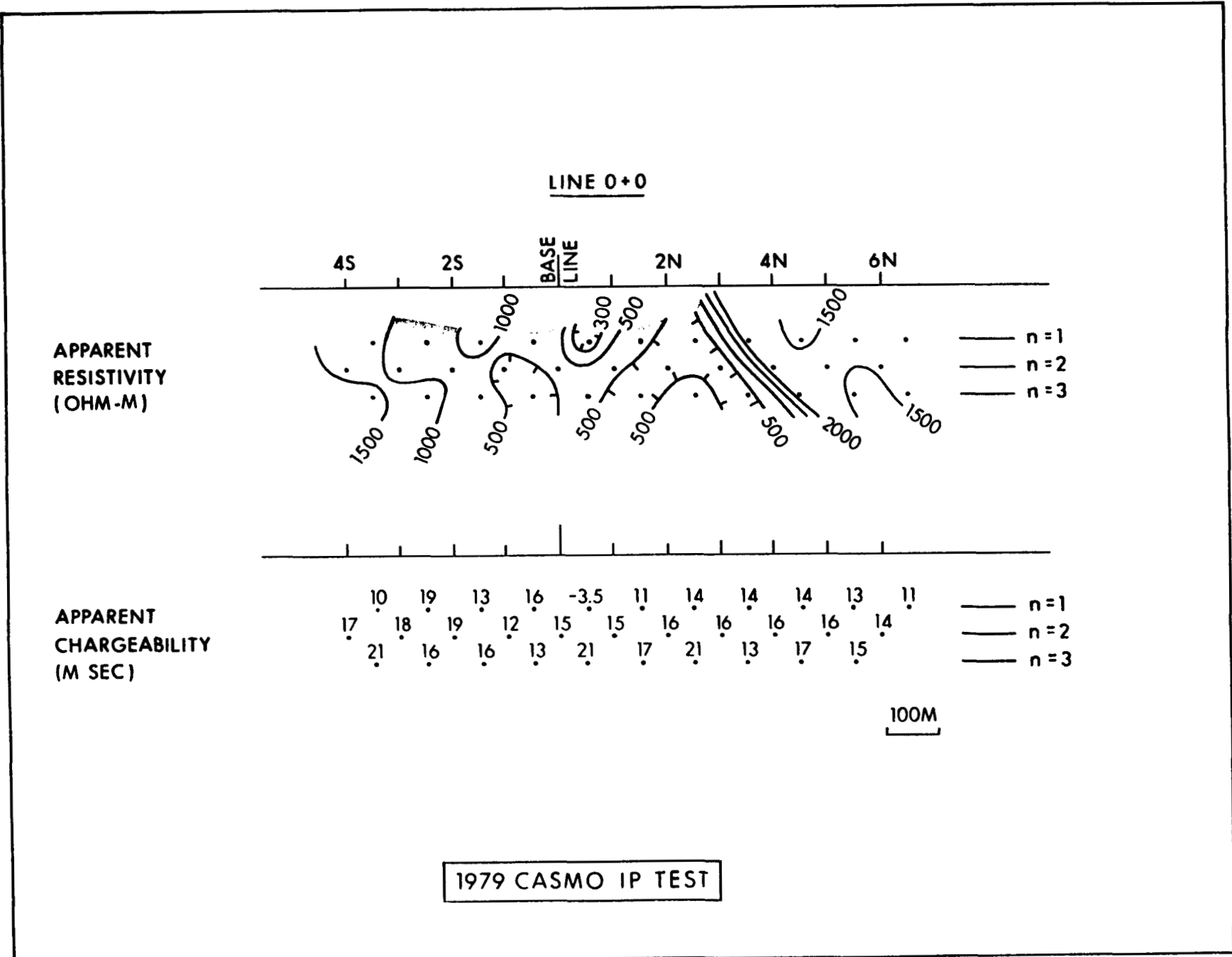
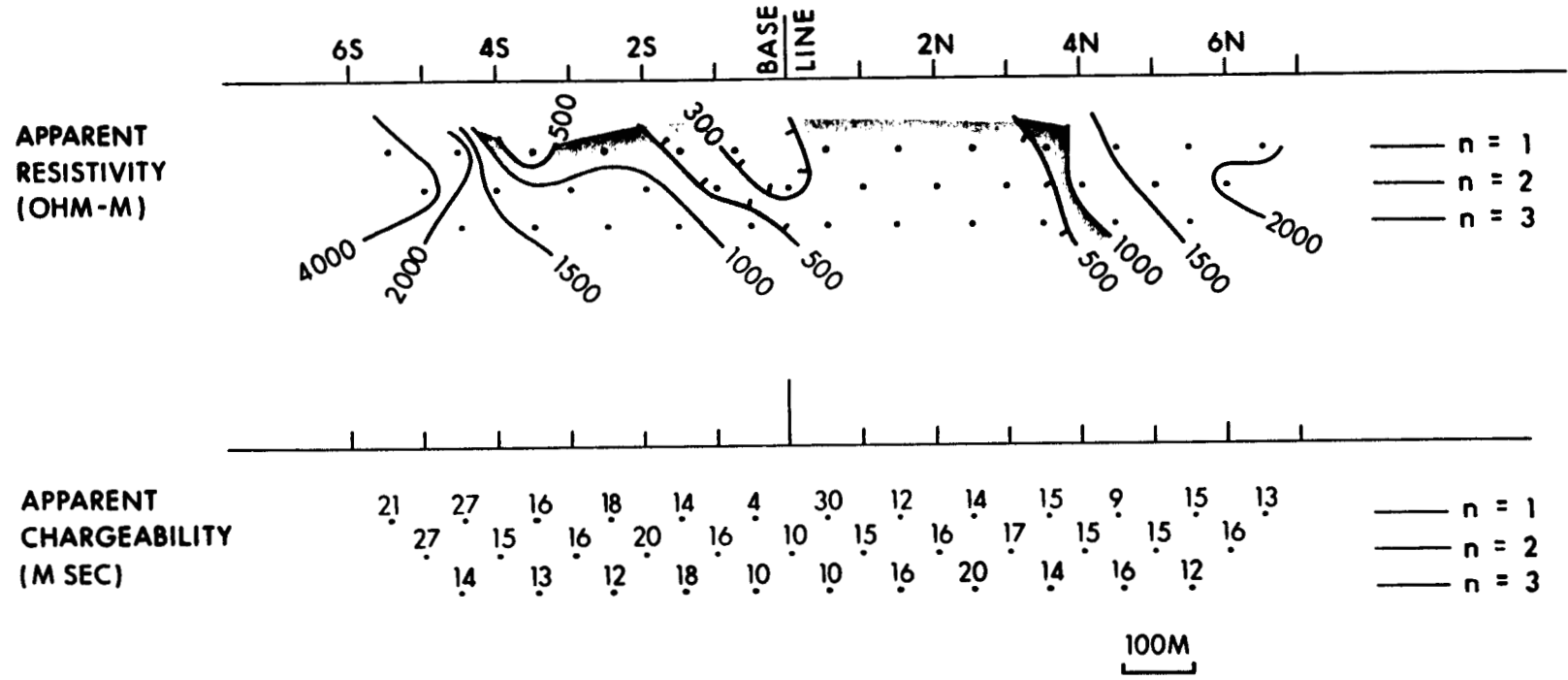


FIG.8

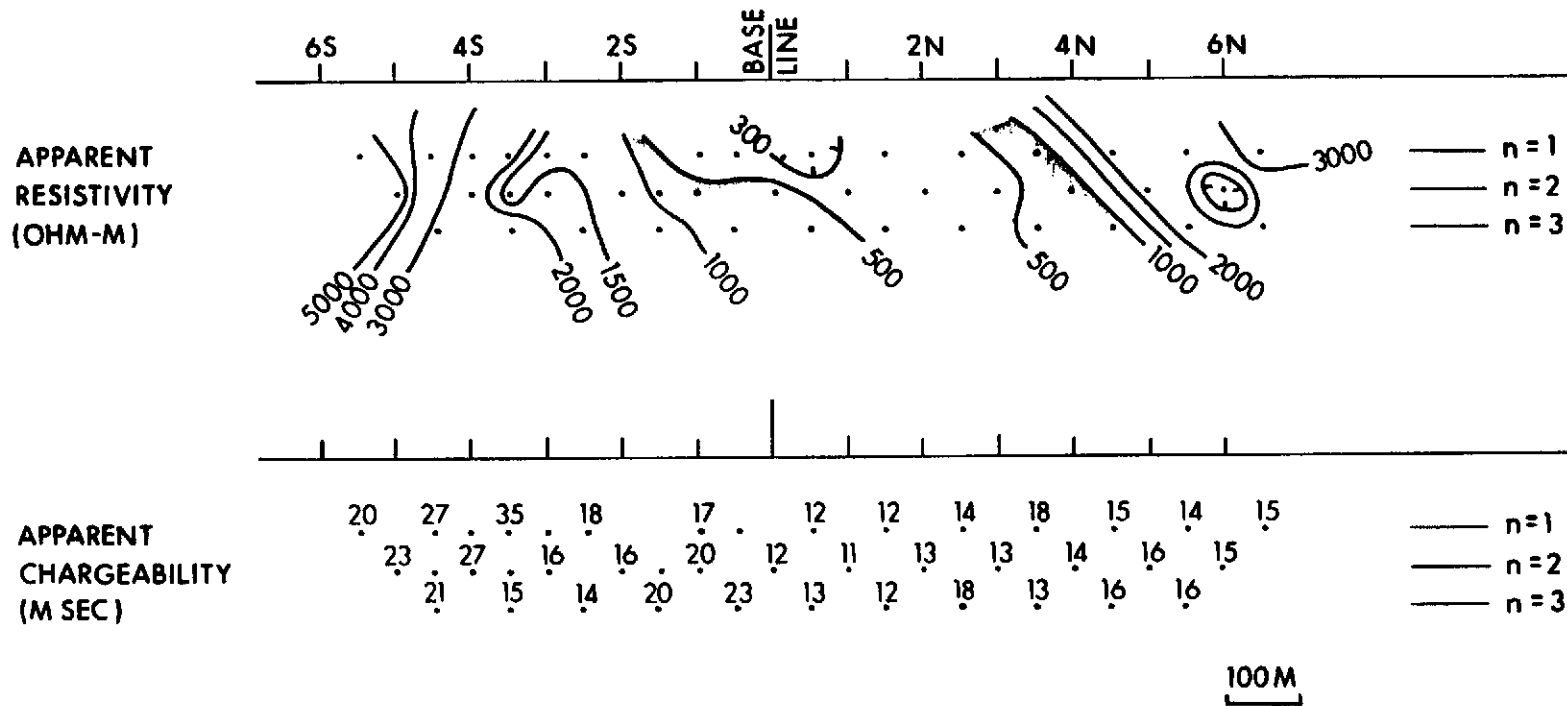
LINE - 1E



1979 CASMO IP TEST

FIG.9

LINE 2E

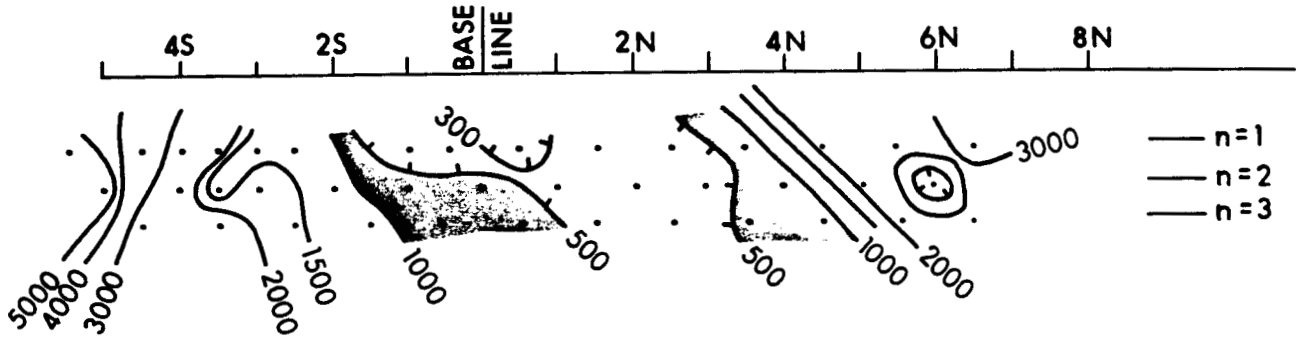


1979 CASMO TEST

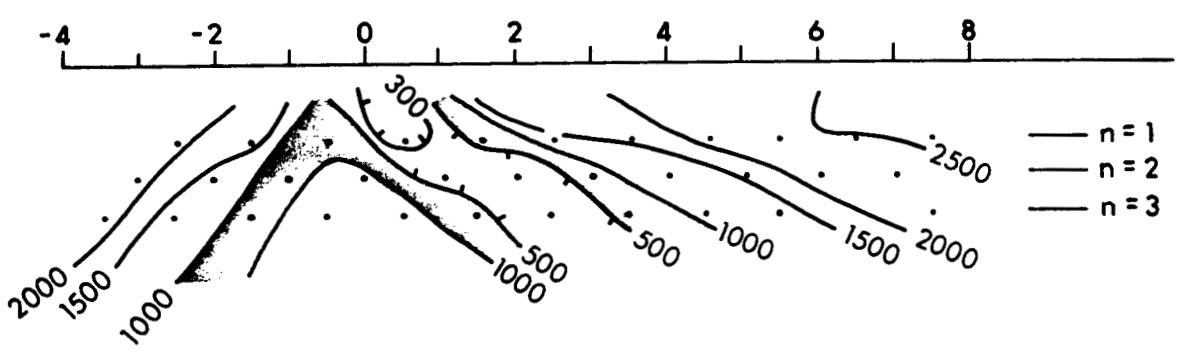
81-01
FIG. 10

LINE 2E

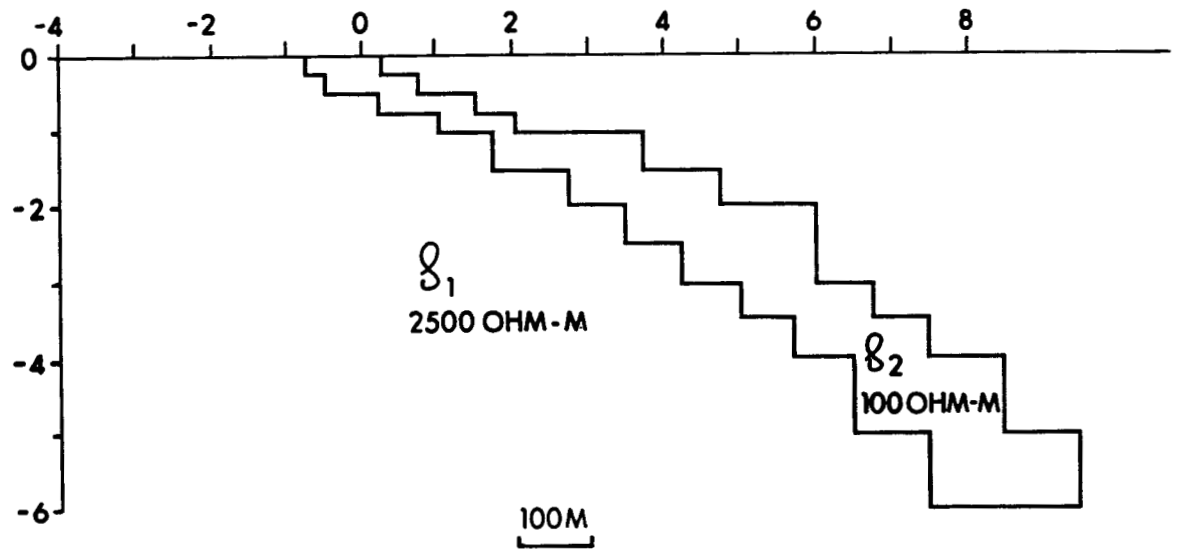
OBSERVED APPARENT RESISTIVITY (OHM-M)



COMPUTED APPARENT RESISTIVITY (OHM-M)



MODEL



81-01

FIG. 11

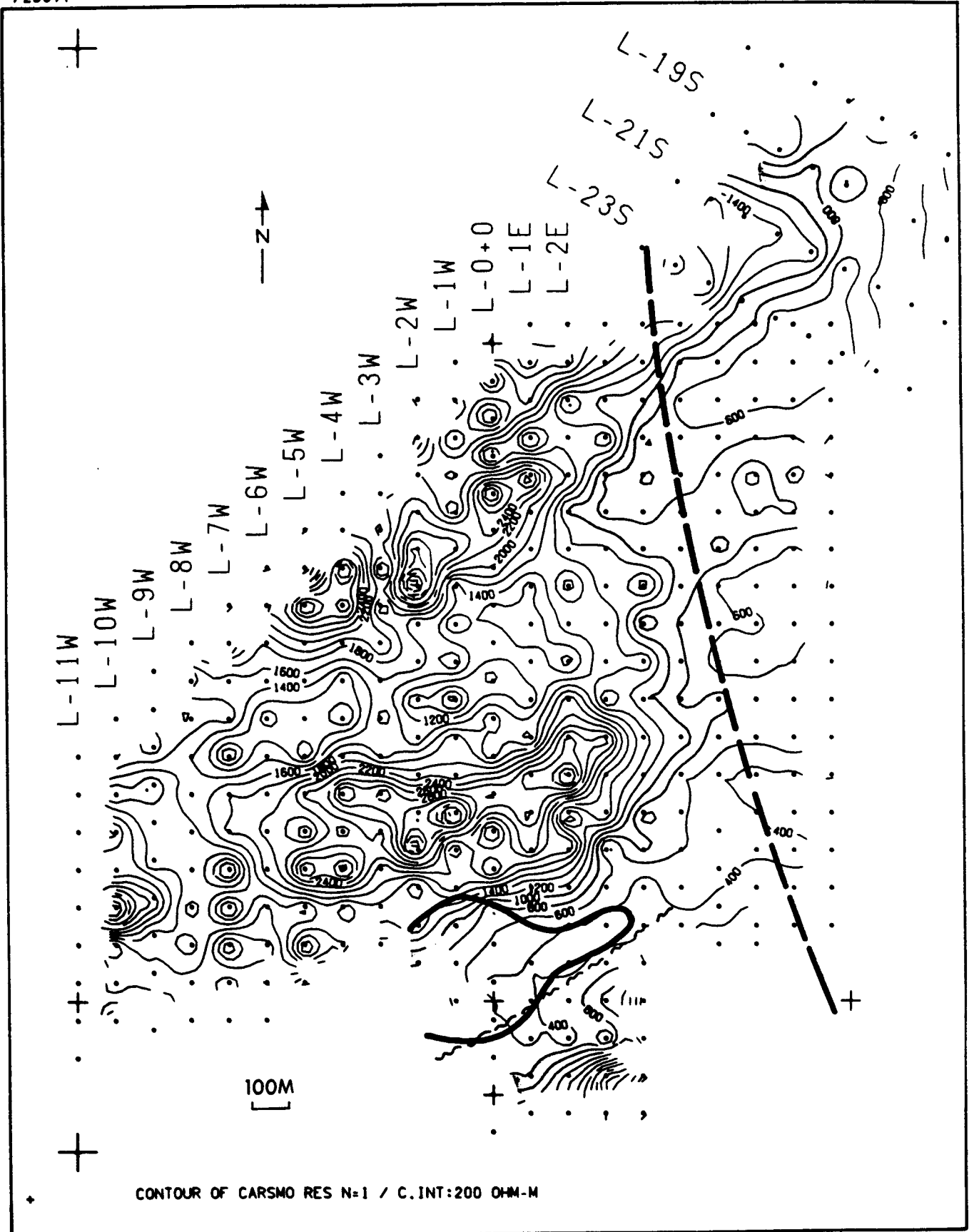
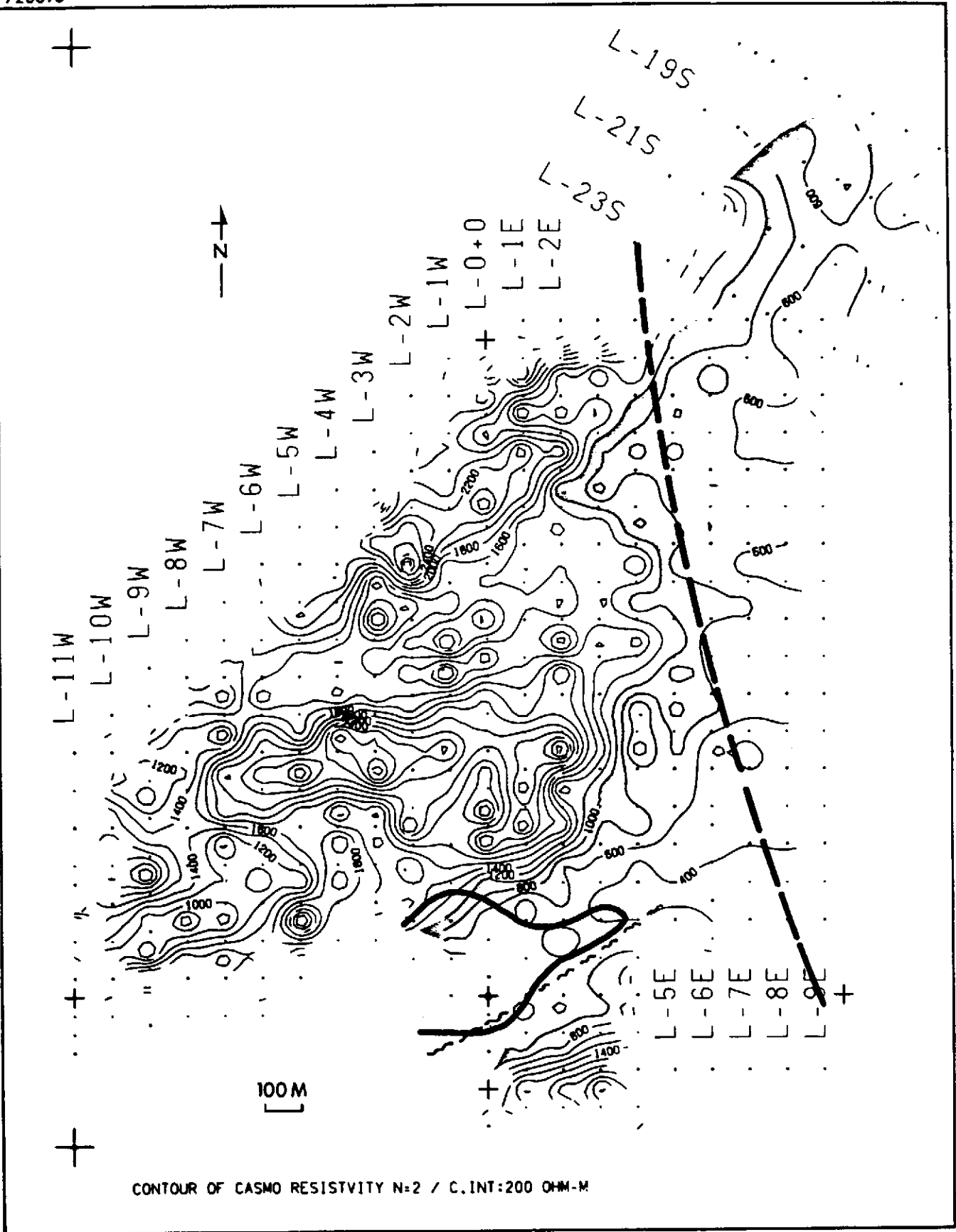


FIG.12



CONTOUR OF CASMO RESISTIVITY N=2 / C.INT:200 OHM-M

FIG.13

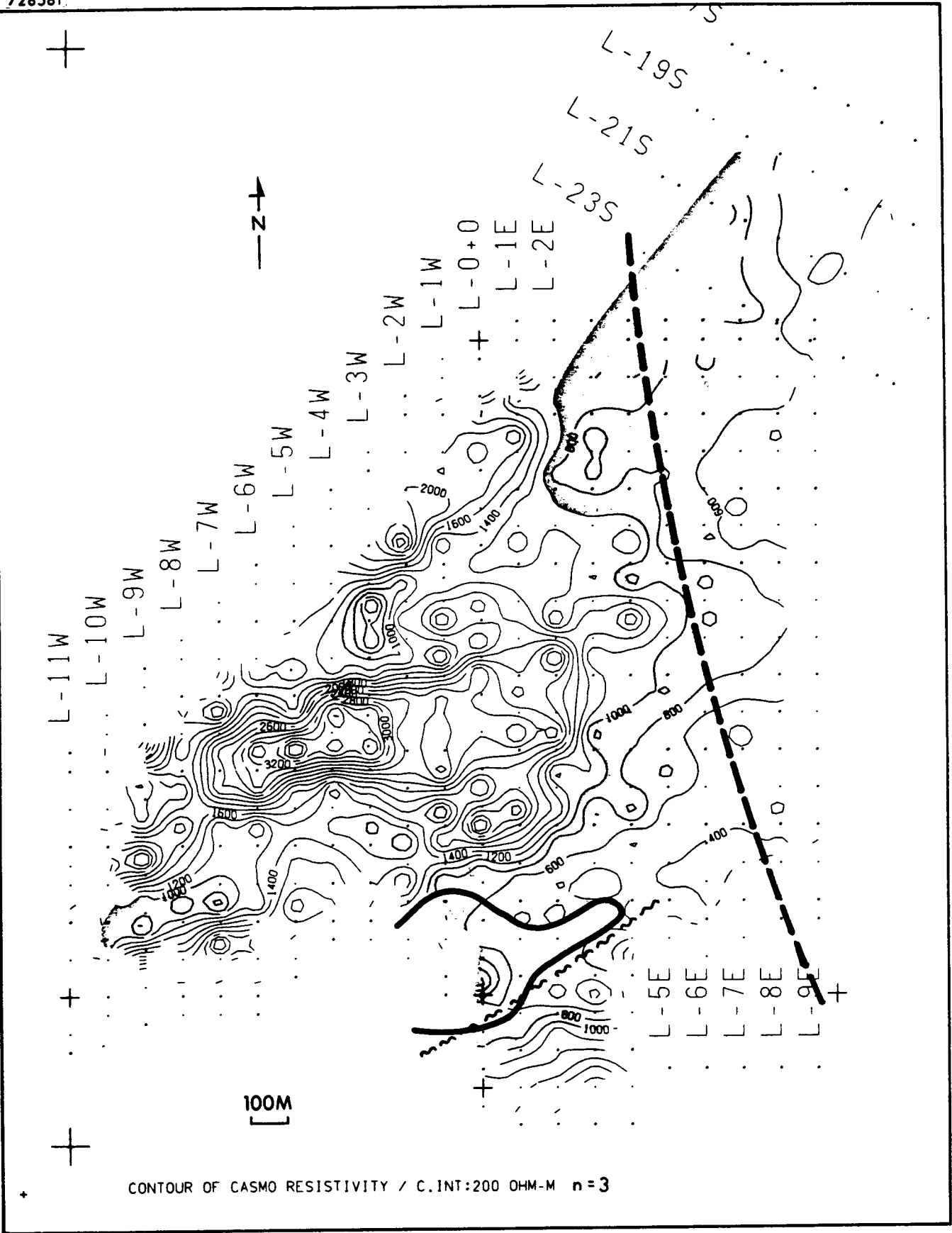
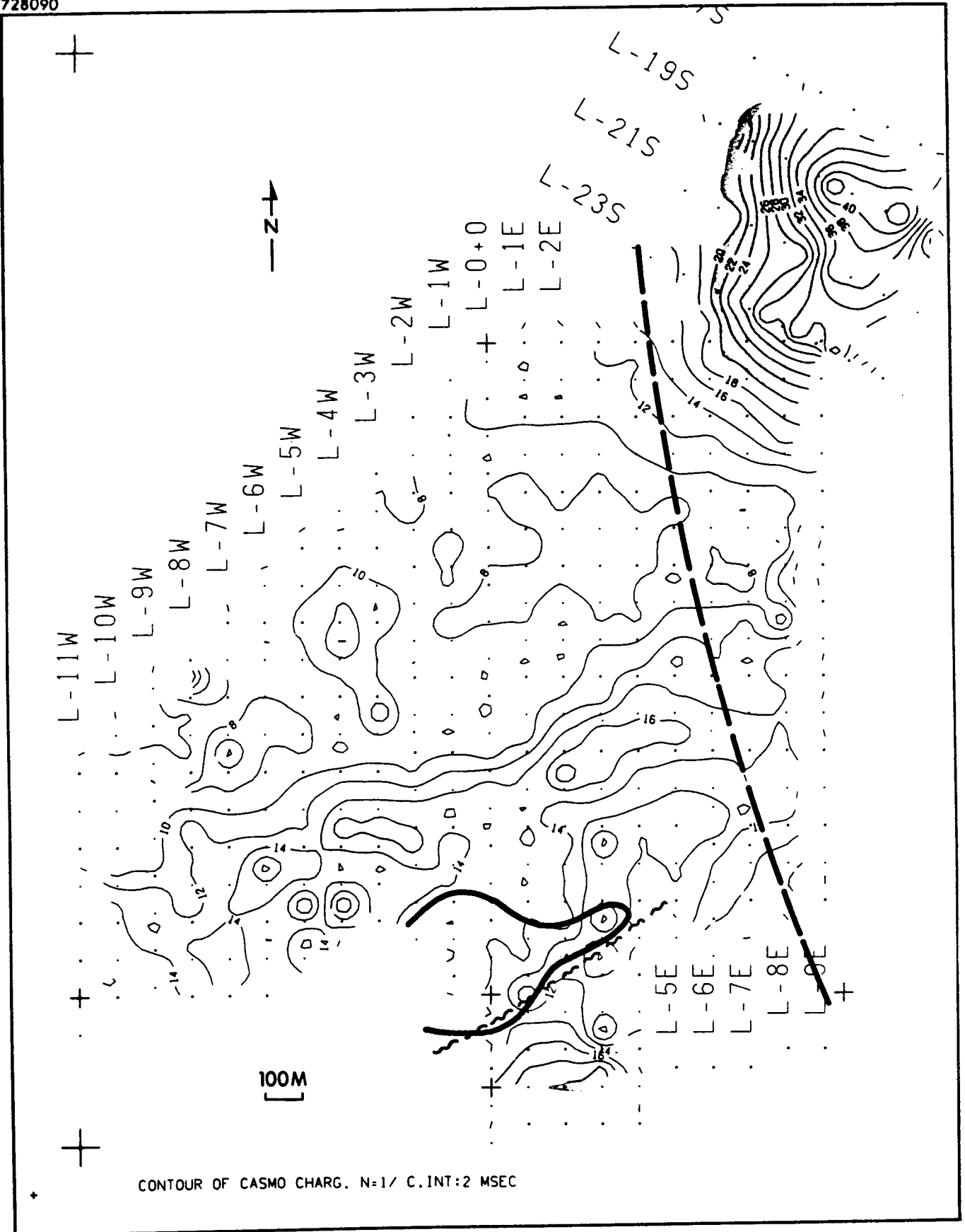
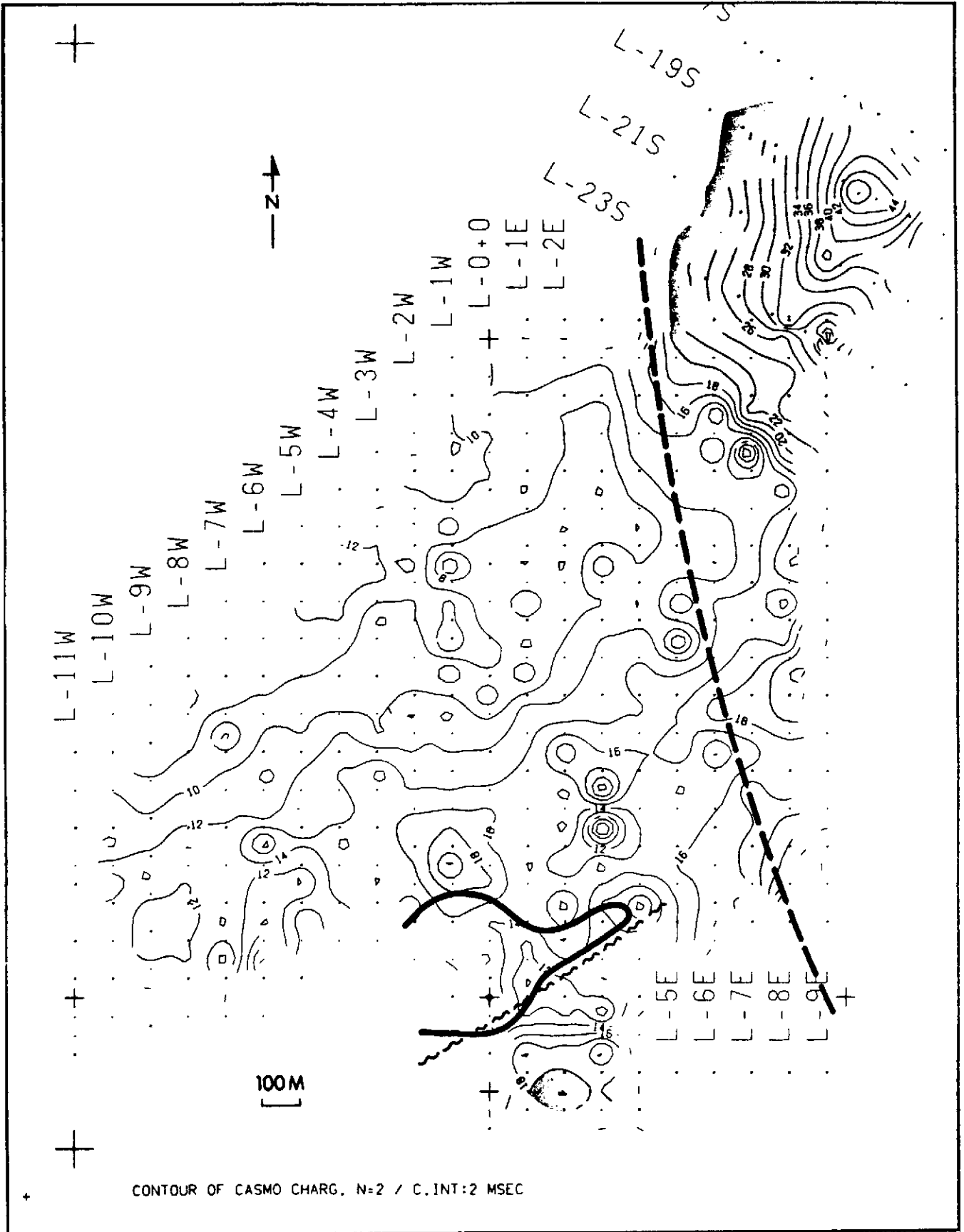


FIG.14



CONTOUR OF CASMO CHARG. N=1/ C.INT:2 MSEC

FIG.15



CONTOUR OF CASMO CHARG. N-2 / C.INT:2 MSEC

FIG.16

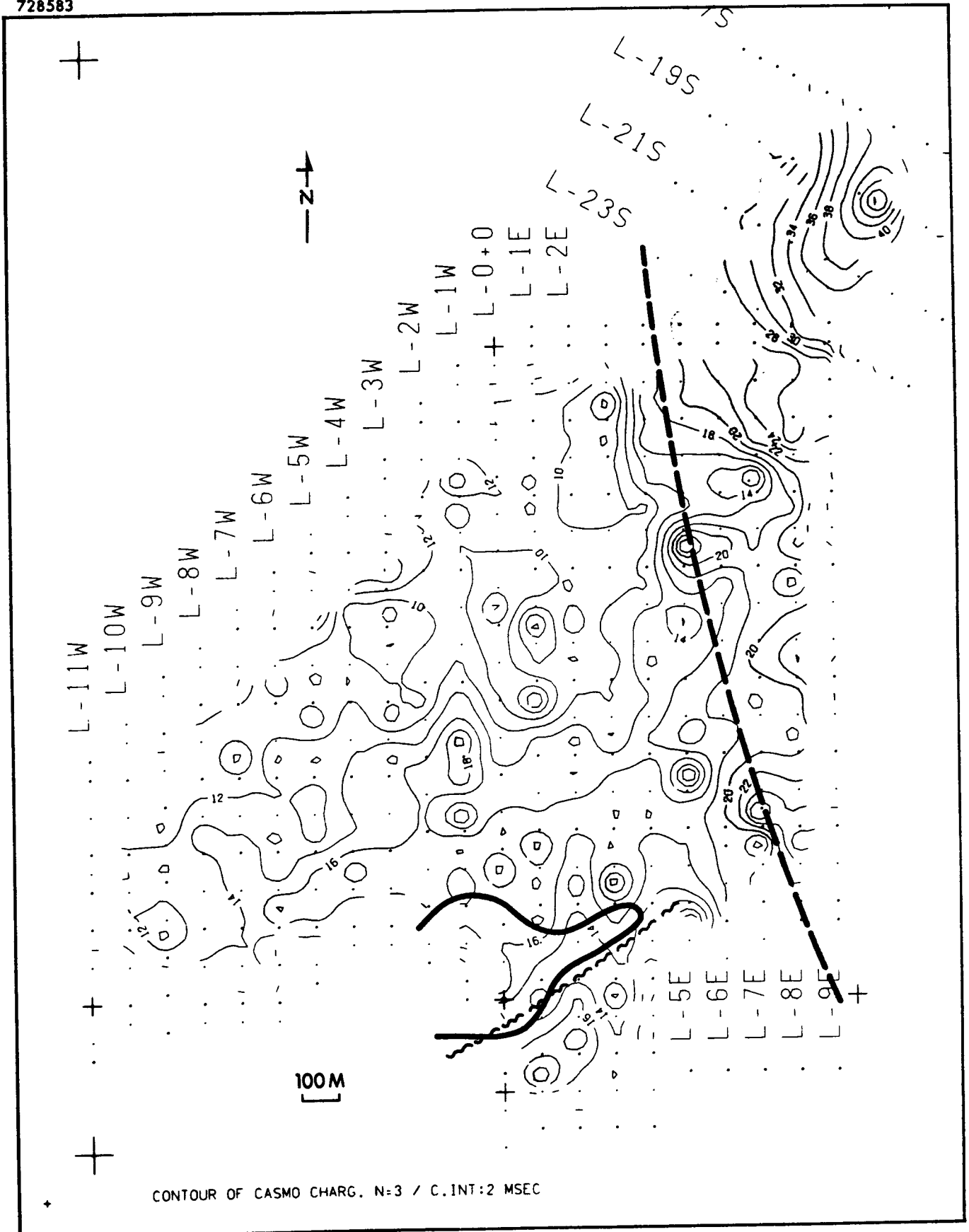
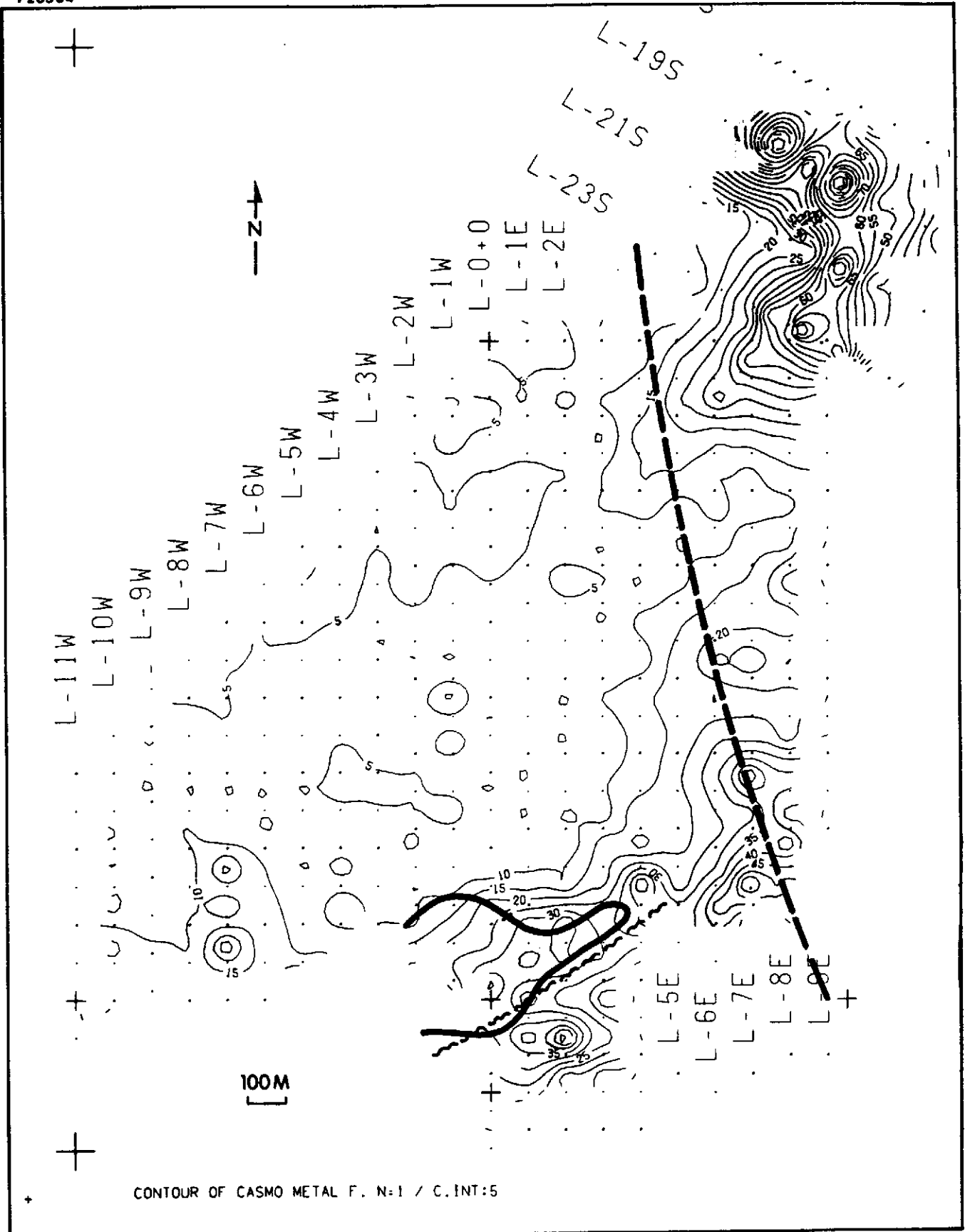
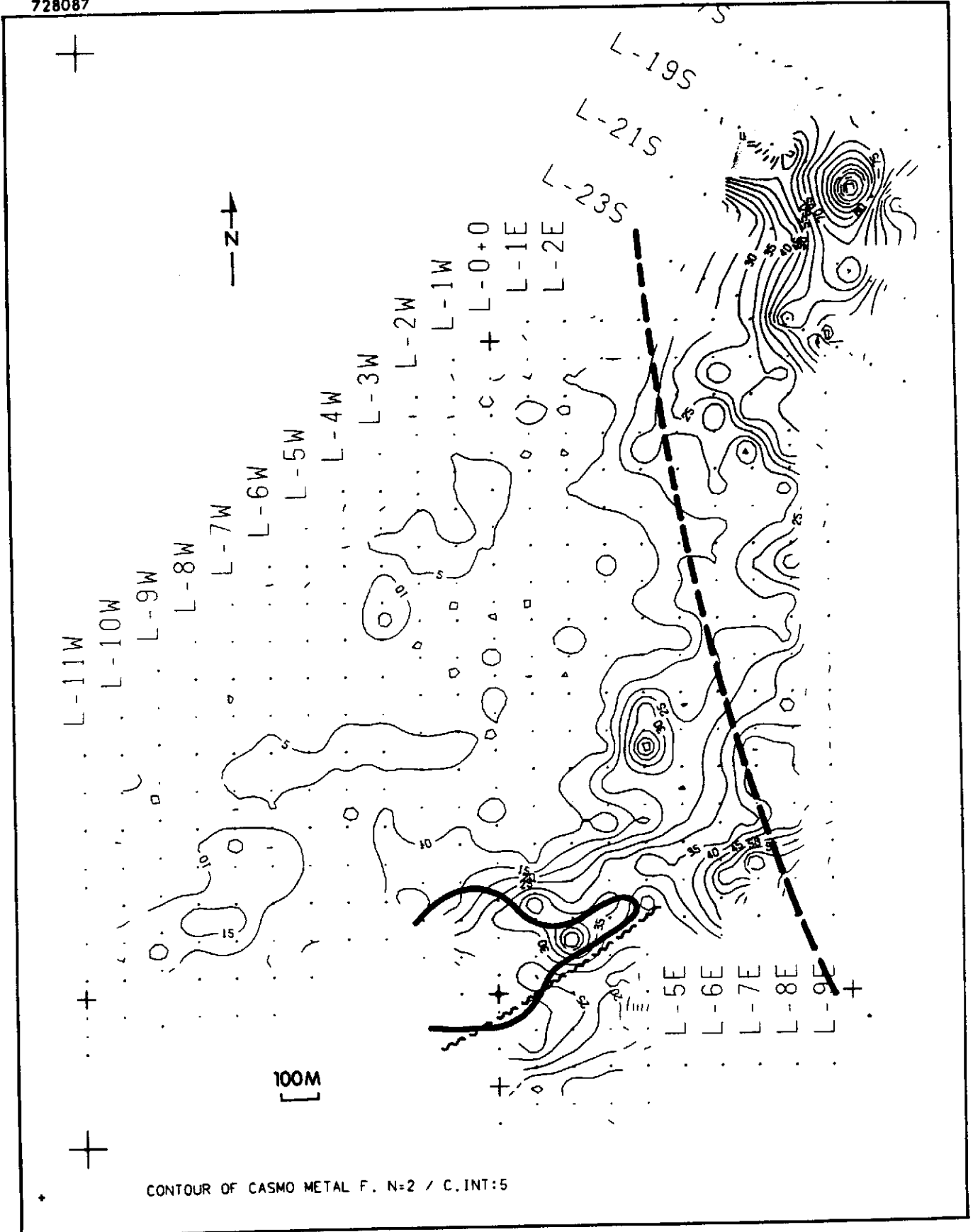


FIG.17



CONTOUR OF CASMO METAL F. N-1 / C. INT:5

FIG.18



CONTOUR OF CASMO METAL F. N=2 / C.INT:5

FIG.19

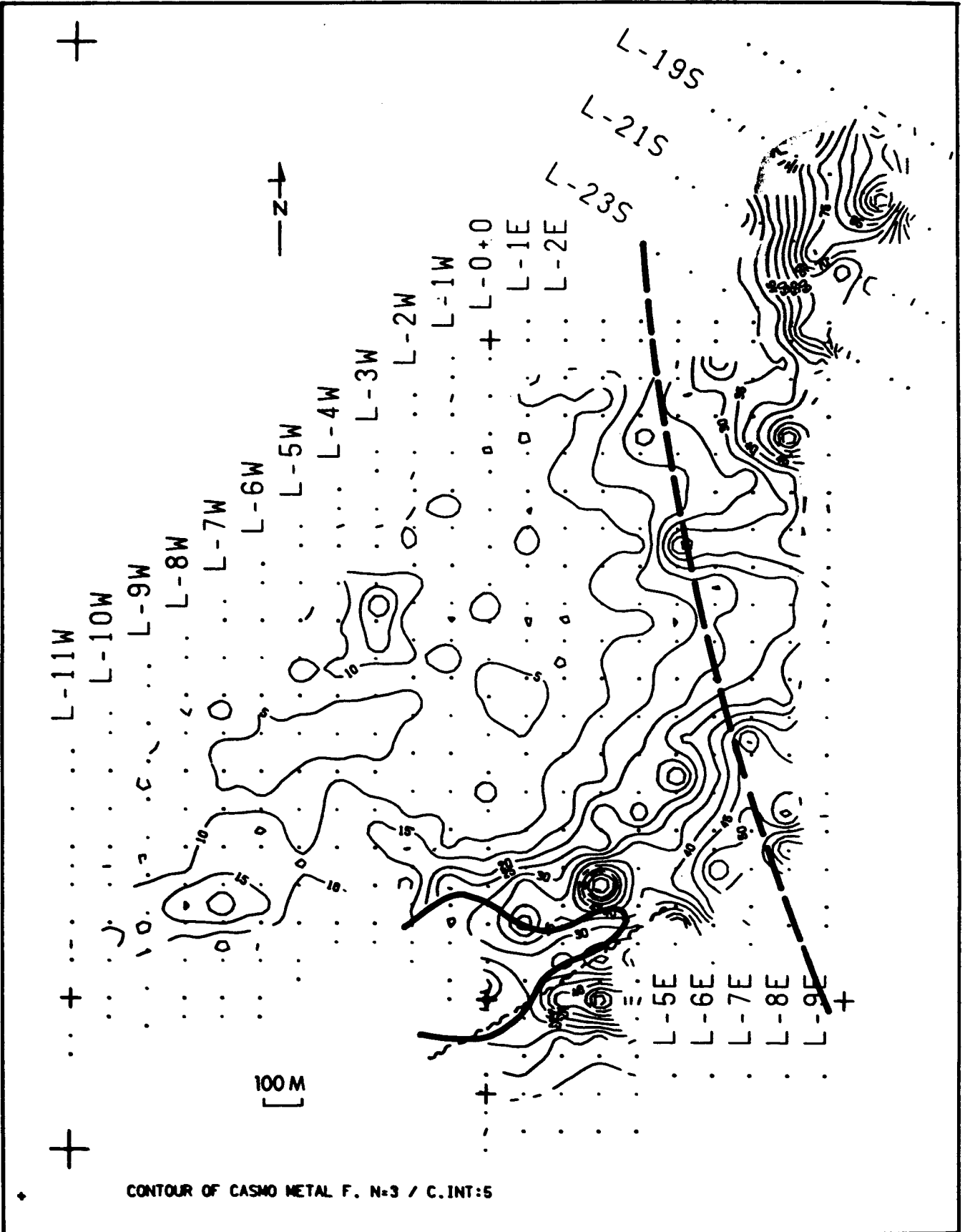
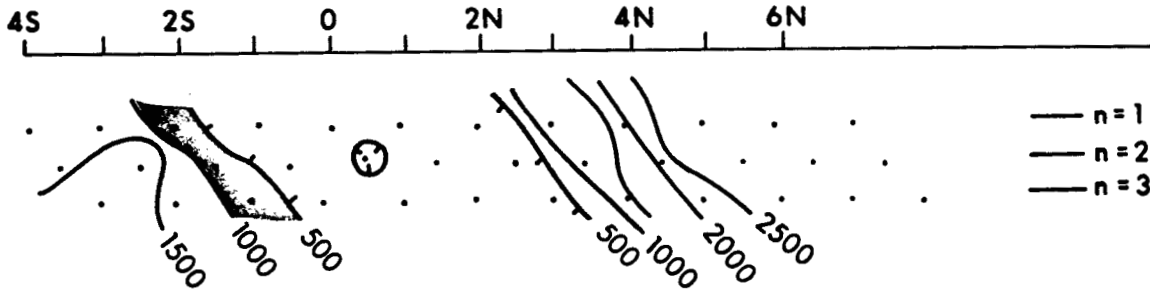


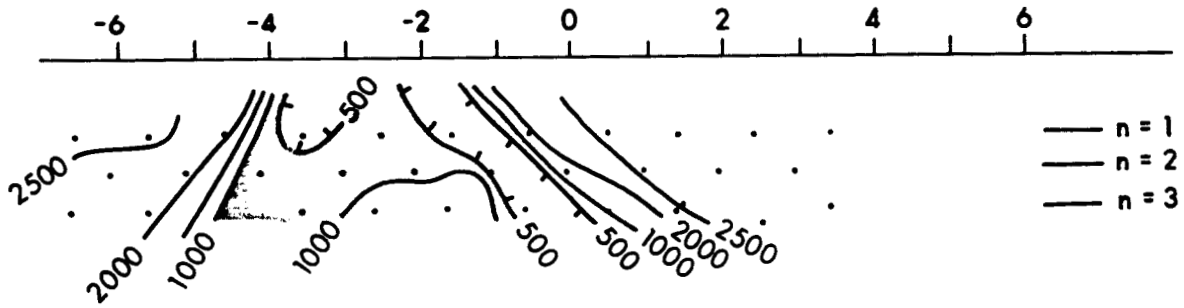
FIG.20

LINE 1E

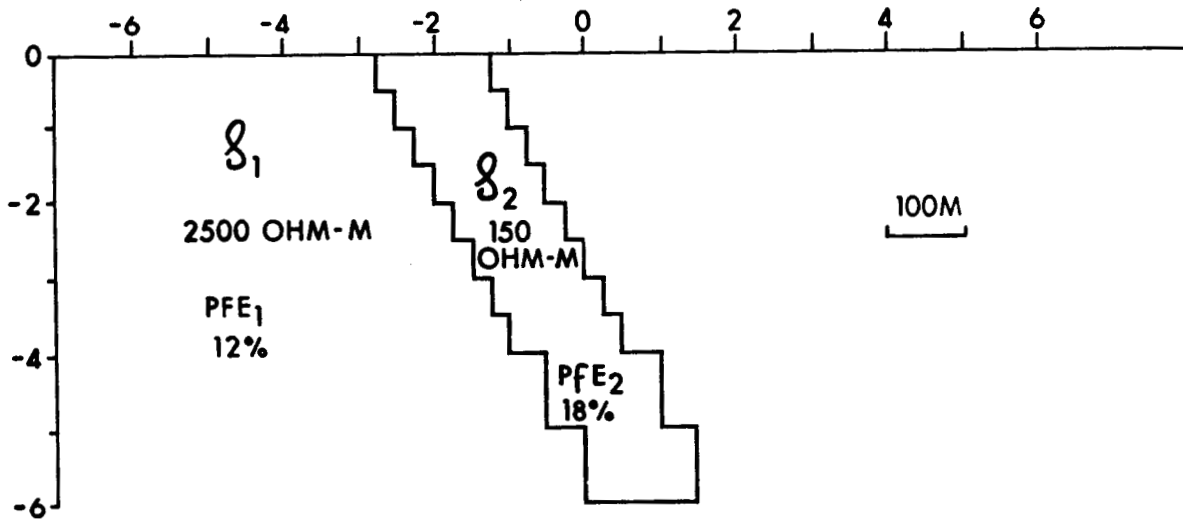
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COMPUTED APPARENT RESISTIVITY (OHM-M)



MODEL

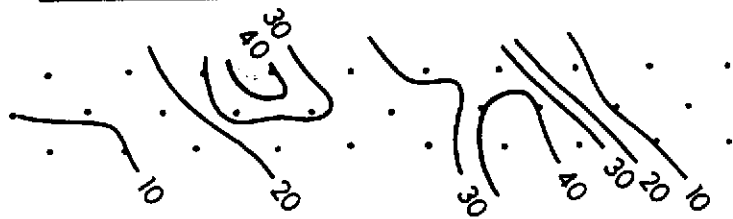
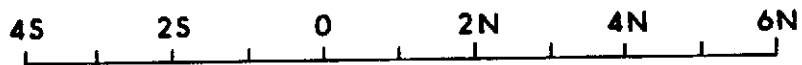


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FIG.21

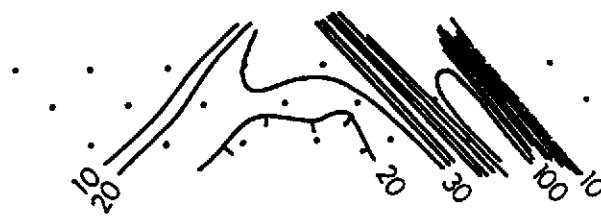
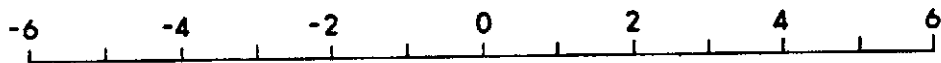
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OBSERVED APPARENT METAL FACTOR



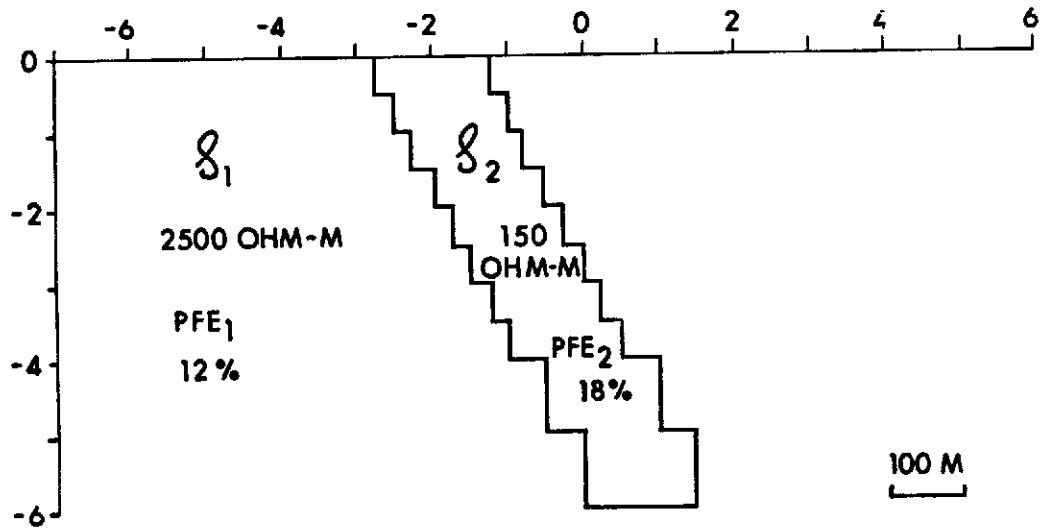
- n=1
- n=2
- n=3

COMPUTED APPARENT METAL FACTOR



- n=1
- n=2
- n=3

MODEL

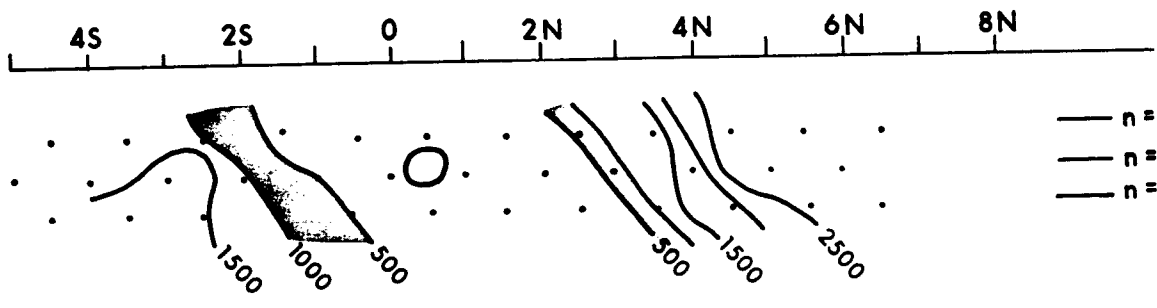


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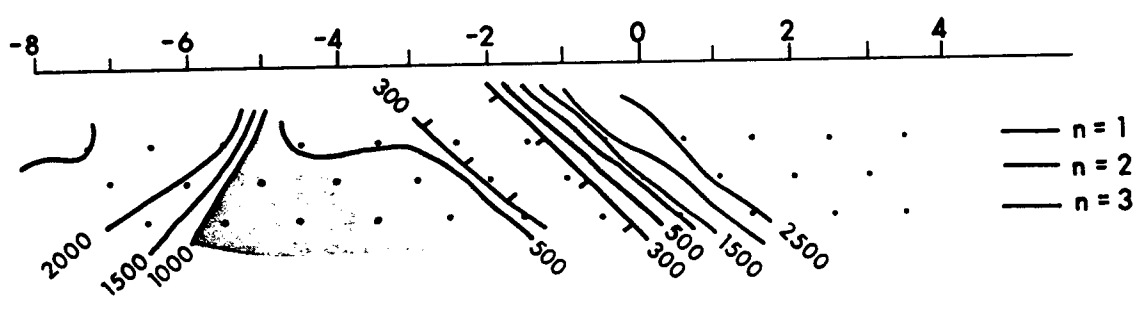
FIG. 22

LINE 1E

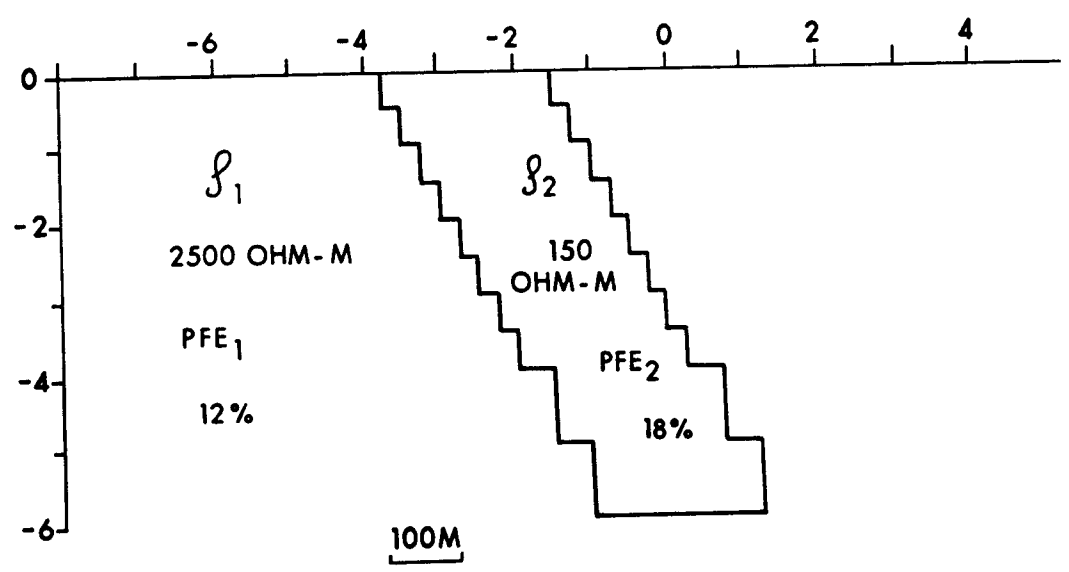
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COMPUTED APPARENT RESISTIVITY (OHM-M)



MODEL

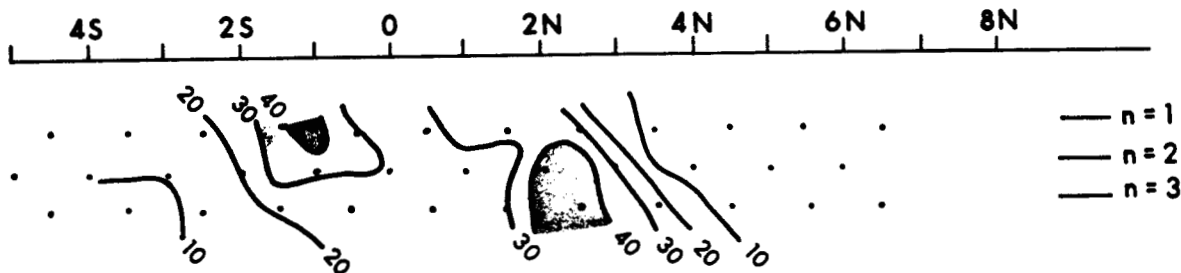


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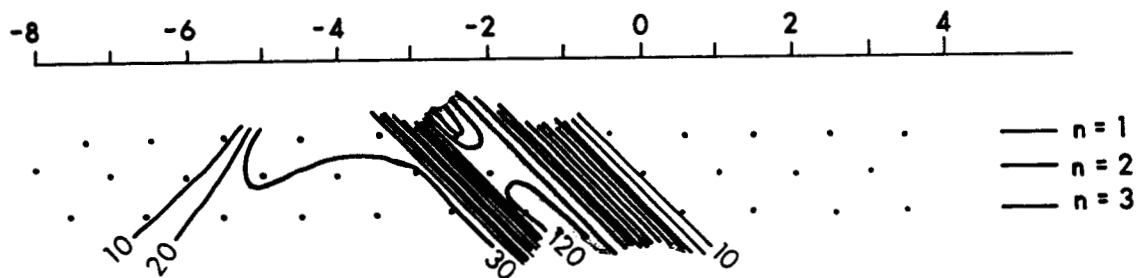
FIG.23

LINE 1E

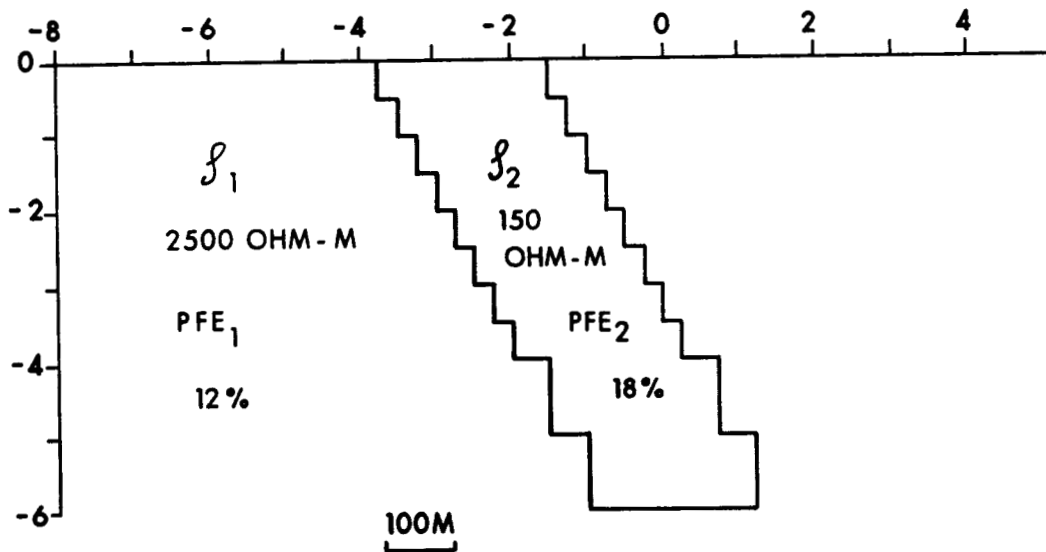
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COMPUTED APPARENT METAL FACTOR



MODEL

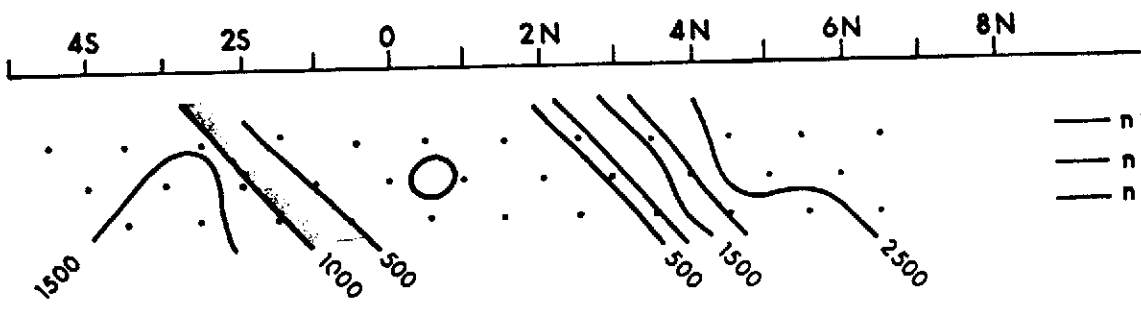


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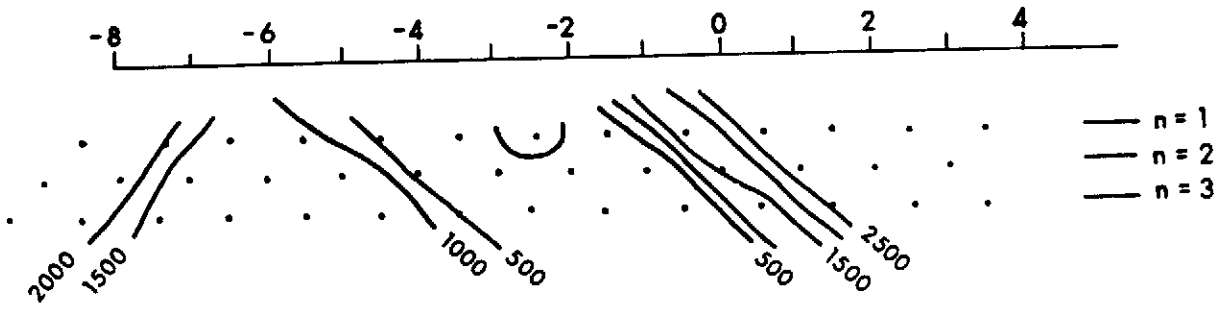
FIG.24

LINE 1E

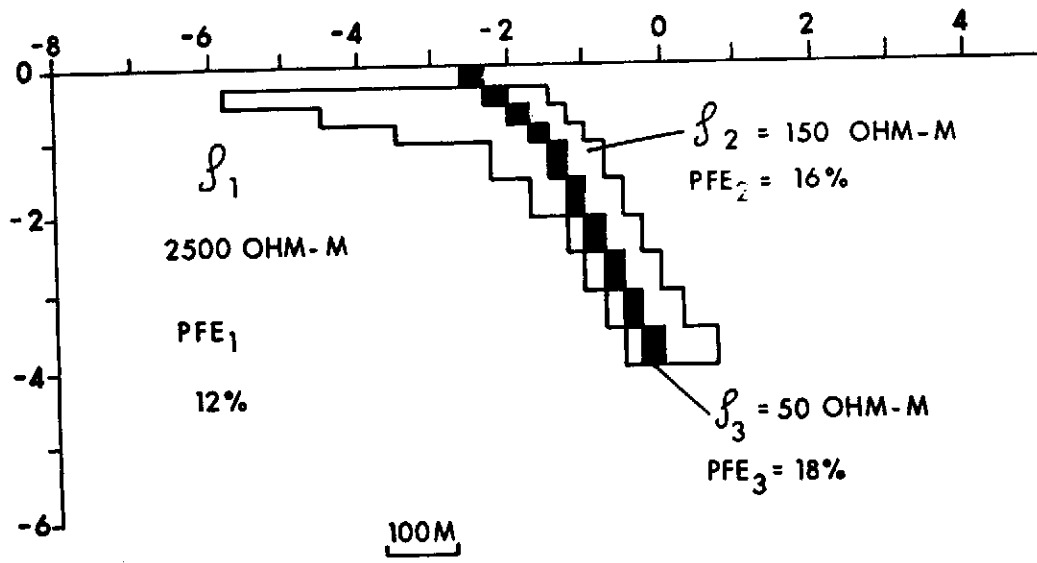
OBSERVED APPARENT RESISTIVITY (OHM-M)



COMPUTED APPARENT RESISTIVITY (OHM-M)



MODEL



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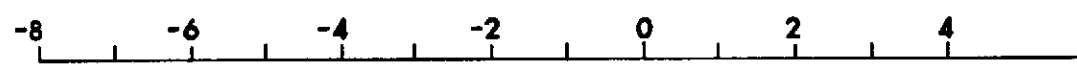
FIG. 25

LINE 1E

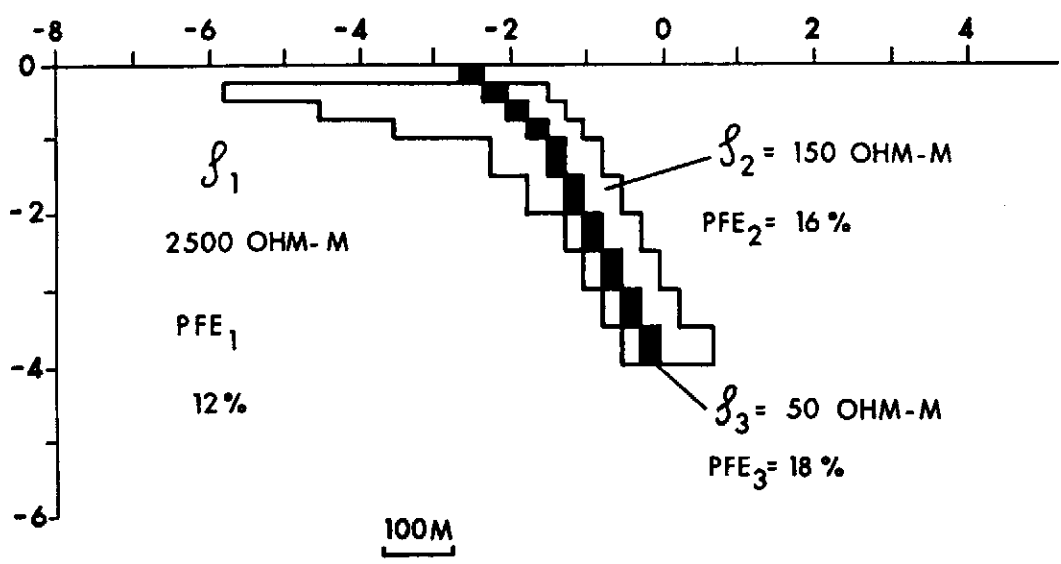
OBSERVED APPARENT METAL FACTOR



COMPUTED APPARENT METAL FACTOR



MODEL



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FIG. 26

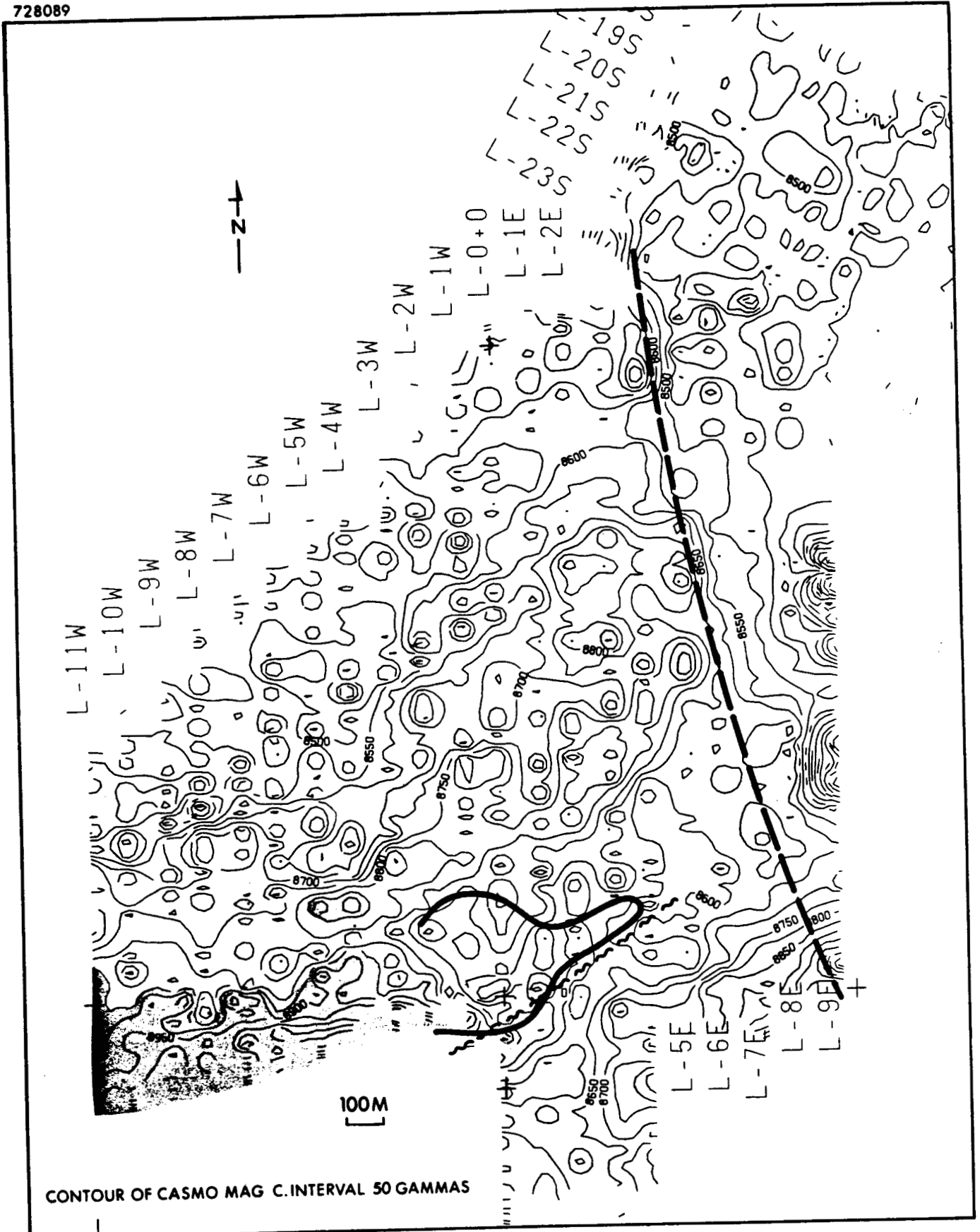
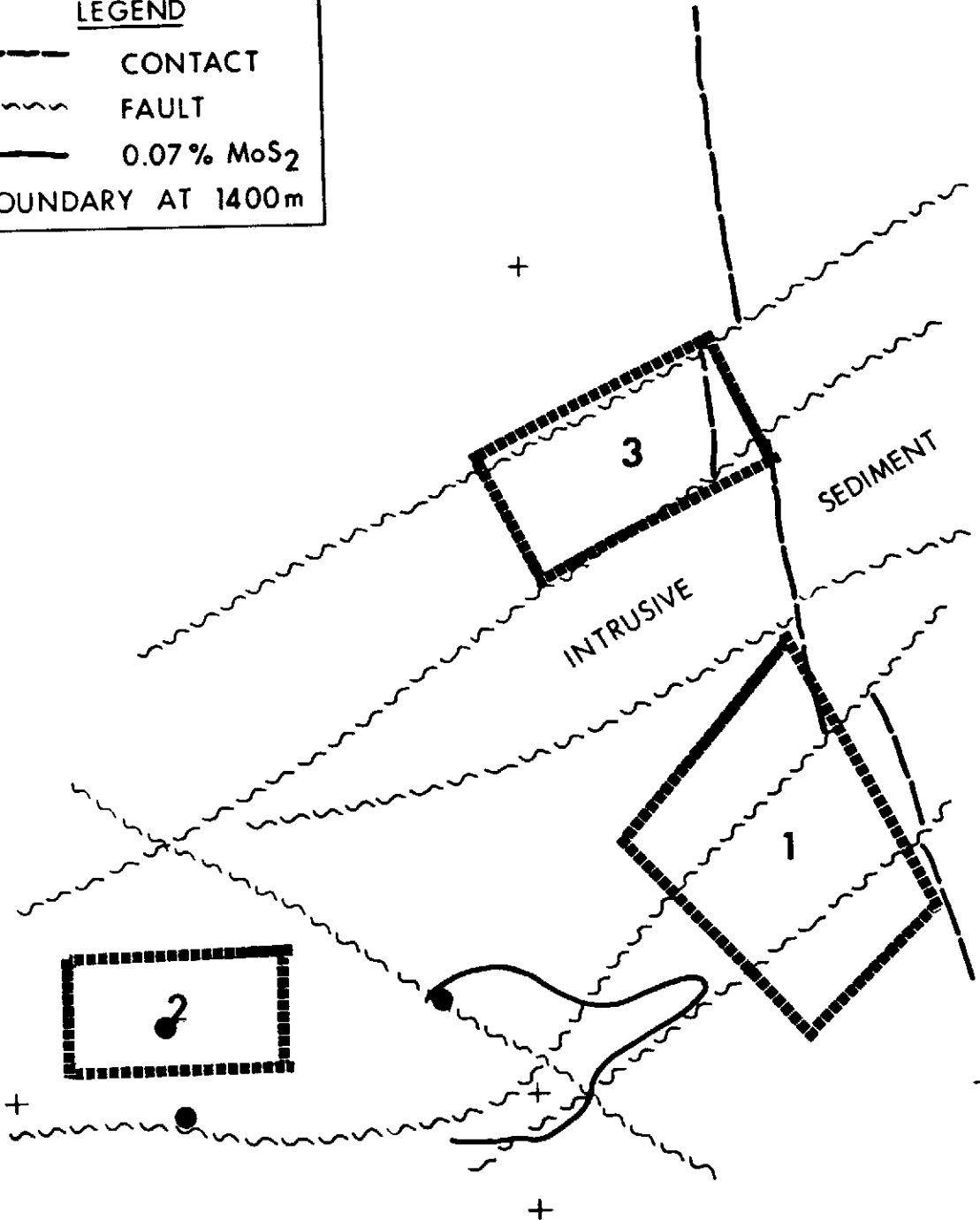


FIG. 27

LEGEND

- CONTACT
- ~~~~~ FAULT
- 0.07% MoS₂ BOUNDARY AT 1400m

↑ Z



CASMO STRUCTURAL INTERPRETATION

PRELIMINARY REPORT ON THE 1980 CASMO GEOLOGICAL MAPPING PROGRAM

INTRODUCTION

The 1980 geological mapping program on the Casmo property comprised mapping the Storie 1, 2, 3, 4 and 5 claims and the Alta 6 and 8 claims on a scale of 1:5000. In areas underlain by sedimentary rocks only the structural features near to the intrusive contact were mapped. The sides and floor of Lang Valley below 1300m. elevation contain little, if any, outcrop and were not traversed. The M zone was mapped on a scale of 1:1000.

This report summarizes the highlights of the program. Sufficient rock specimens and geological data were collected to form the basis for a detailed geological report as well as petrological and petrochemical studies if they are required.

GEOLOGY

All the intrusive rocks in the area mapped are quartz monzonites, except for scattered mafic dykes that intrude them. The main component of the Cassiar stock, a "megacrystic" porphyry (map-unit 1 of the accompanying map), underlies most of the map-area. It is intruded by a medium-to fine-grained quartz and feldspar porphyritic rock (map-unit 2) that forms an elongate body up to 1 km. wide extending from north of the Chaparelle showing southward through the Casmo zone and the Storie 1 claim to south of the Cassiar Moly property. This rock contains more magnetite than the other units and is responsible for the linear zones of high magnetic susceptibility delineated by the 1980 magnetometer survey on the Casmo grid. A variant

of this (2a) forms a large body that is intersected by the northern Casmo drill holes and extends northward to the Chaparelle ridge. It may be significant that the Chaparelle, Casmo and Cassiar Moly occurrences are all adjacent to unit 2. Unit 3, a dominantly medium-grained, orthoclase porphyry, forms a body much smaller than unit 2 that underlies unit 2 in the Casmo zone. Unit 3 and related rocks also underlie unit 2 on Storie 1 claim. In the southern portion of the Casmo zone, and in drill core, unit 3 grades into a finer grained, generally saccharoidal and pink variant (unit 3a) that is interzoned and abruptly gradational with units 4 and 5. Contacts between units 3 and 2 are either zones of intermixed 2, 3 and hybrid 2-3 rocks or are marked by aplitic members that may be local flow differentiates. In one talus block north of Chaparelle ridge and in another on Storie 1 claim small dykes resembling unit 3 cut unit 2. Unit 4, a pink, fine-grained, quartz-feldspar porphyry, outcrops in the Casmo zone over an area about 800m. by 300m. and surrounded on all sides except the south by unit 3 or 3a. It also occurs in scattered small outcrops and talus on the northern slope of the Casmo zone. Its distribution there suggests it is present as small disconnected bodies along some particular zone. This rock also outcrops sparingly on Storie 1 claim and the M zone. Unit 5, a medium-grained, non-porphyrific rock, occurs in the Casmo zone as a locally developed border phase of unit 3 up to 50m. thick and in the M zone as north striking, steeply dipping dykes containing local segregations of aplite and pegmatite. Unit 6 is a fine-grained, equigranular rock with a very limited distribution and without importance in present considerations.

All igneous units except 6 occur south of Storie 1 claim on the Cassiar Moly property.

Numerous faults, including the Crone fault, cut the intrusive contact and adjacent Atan Group east of the Casmo zone. These strike easterly to east-northeasterly and have the north side displaced westward relative to the south side. Where these faults outcrop on the M zone they are bounded by intense feldspar alteration of the type that is common in the Casmo zone. There is probably a fault in the northerly trending valley in which the old New Jersey Zinc camp is located, because it is a strong topographic feature. However, a comparison of rocks across this hypothetical fault zone indicates that displacement is not large.

ECONOMIC CONSIDERATIONS

The 1979 Casmo program showed the mineralization in the Casmo zone to be associated with a zone of interlayered units 3, 3a and 4 and with the Crone and Ridge faults. The surface features related to mineralization are iron oxide on joint surfaces (almost ubiquitous over the mineralized zone and extending less regularly beyond it), irregularly distributed alteration of plagioclase to green kaolinite and mixed-layer montmorillonite-illite, scattered outcrop and rubble showing intense alteration of both feldspars to kaolinite and montmorillonite-illite and scattered occurrences of molybdenite as coatings on joint surfaces and in quartz veinlets.

The most important results of the 1980 program are the following :

1. The M zone shows all the surface features suggestive of mineralization that are present on the Casmo zone except large outcrops of quartz-feldspar porphyry (unit 4). The writer considers it probable that molybdenum mineralization underlies the M zone, but no surface indications of its grade or extent were found. The stripping ratio in this area would be large except for mineralization occurring close to surface.

2. The presence of quartz-molybdenite veinlets and iron oxide bearing joints from about 100m. to 400m. east of drill section 451-132 at about 1500m. elevation and the apparent absence of large fault displacement across the intervening valley suggests that the eastern end of the Casmo deposit extends across this valley into the area beneath the M zone. This being the case, the eastern end of the proposed pit could be extended for about 300m. east of drill section 451-132 before the stripping ratio would become prohibitive, thereby adding 10 to 15 million tons to the reserves.

3. The ridge west of the Casmo zone (to coordinate 449 250E) and the Chaparelle ridge contain iron oxide bearing joints, shear zones with associated intense feldspar alteration, more widespread alteration of plagioclase and occasional quartz-molybdenite veinlets. Although these features are not developed as strongly as they are on the Casmo zone, these areas warrant investigation.

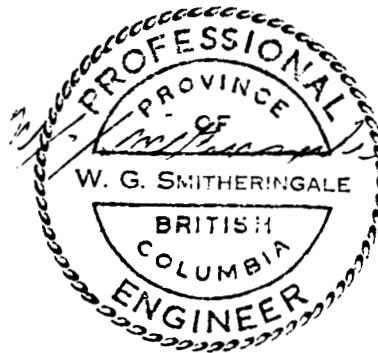
4. On Storie 1 claim some of the outcrops of unit 3 underlying unit 2 are medium to fine grained and saccharoidal, i.e. they resemble some parts of unit 3 in the Casmo zone. Shear zones nearby are bounded by intense lavender kaolinitic alteration of feldspars. This area of Storie 1 claim therefore warrants further investigation.

5. It has been suggested by C.J. Bloomer that the Tremolite showing owes its existence to an underlying cupola and is therefore a favourable site for molybdenum exploration. Although the area was not mapped, the writer believes this is a valid concept.

RECOMMENDATIONS

1. Diamond drilling should be continued on the Casmo zone east of and parallel to section 451 132E along sections spaced 50m. apart.
2. The ridge west of the Casmo zone, the Chaparelle ridge and north of it, the Storie 1 claim and the Tremolite showing should be investigated by soil geochemical surveys with I.P. and magnetometer follow-up if warranted. Also, the talus slope flanking Lang Valley on Storie 1 claim should be prospected for float of unit 4, molybdenite coated joints and quartz-molybdenite veinlets.

Respectfully submitted,



W.G. SMITHERINGALE, P.Eng.

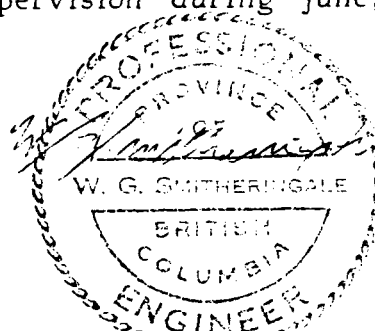
W.G. Smitheringale & Associates Ltd.
1328 - 510 West Hastings Street
Vancouver, B.C.
V6B 1L8

September 2, 1980

CERTIFICATION

I, William G. Smitheringale, certify that:

1. I am a practising Professional Geological Engineer, resident at 219 - 145 West Keith Road, North Vancouver, B.C.
2. I am a graduate of the University of British Columbia with a degree in Geological Engineering (B.Ap.Sc., 1955) and of the Massachusetts Institute of Technology with the degree of Doctor of Philosophy in Geology (Ph.D., 1962).
3. I have practised my profession continuously for eighteen years as geologist with the Geological Survey of Canada, as Assistant and Associate Professor, Department of Geology, Memorial University of Newfoundland, and since 1974, as a Consulting Geologist.
4. I am a member in good standing of the Association of Professional Engineers of the Province of British Columbia.
5. This report is based on field work and data collected either by myself or under my supervision during June, July and August, 1980.



W.G. SMITHERINGALE, P.Eng.

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Vancouver, B.C.

September 2, 1980



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Shell Canada Resources Ltd.
 P.O. Box 100, 400-4 Ave. S.W.
 Calgary, Alberta
 T2P 2H5

DATE Apr. 18, 1980

PROJECT NO. 816-1-2201

ASSAY ANALYSES

| LOCATION | MoS, % |
|-----------------|--------|
| 1. 3091T-39-1 | 0.010 |
| 2. -2 | 0.008 |
| 3. -3 | 0.007 |
| 4. -4 | 0.008 |
| 5. -5 | 0.005 |
| 6. -6 | 0.008 |
| 7. -7 | 0.012 |
| 8. -8 | 0.025 |
| 9. -9 | 0.022 |
| 10. -10 | 0.017 |
| 11. -11 | 0.018 |
| 12. -12 | 0.004 |
| 13. -13 | 0.025 |
| 14. -14 | 0.013 |
| 15. -15 | 0.022 |
| 16. -16 | 0.012 |
| 17. -17 | 0.007 |
| 18. -18 | 0.005 |
| 19. -19 | 0.003 |
| 20. -20 | 0.008 |
| 21. -21 | 0.013 |
| 22. -22 | 0.010 |
| 23. -23 | 0.015 |
| 24. -24 | 0.012 |
| 25. -25 | 0.015 |
| 26. -26 | 0.012 |
| 27. -27 | 0.010 |
| 28. -28 | 0.010 |
| 29. -29 | 0.042 |
| 30. -30 | 0.007 |
| 31. -31 | 0.007 |
| 32. -32 | 0.003 |
| 33. -33 | 0.002 |
| 34. -34 | 0.003 |
| 35. -35 | 0.010 |
| 36. -36 | 0.003 |
| 37. -37 | 0.005 |
| 38. -38 | 0.033 |
| 39. 3091T-39-39 | 0.017 |



MEMBER
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 ASSOCIATION

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SHELL CANADA RESOURCES LTD.

DATE APRIL 22, 1980

PROJECT NO. 816-1-2209

PAGE 1 OF 2

MOLYBDENUM ASSAY PROJECT

| SAMPLE # | Mo % | MoS ₂ % |
|----------------|-------|--------------------|
| 3091T - 25 - 1 | 0.003 | 0.005 |
| - 2 | 0.006 | 0.010 |
| - 3 | 0.007 | 0.012 |
| - 4 | 0.003 | 0.005 |
| - 5 | 0.013 | 0.022 |
| - 6 | 0.008 | 0.013 |
| - 7 | 0.011 | 0.018 |
| - 8 | 0.045 | 0.075 |
| - 9 | 0.005 | 0.008 |
| -10 | 0.010 | 0.017 |
| -11 | 0.007 | 0.012 |
| -12 | 0.013 | 0.022 |
| -13 | 0.054 | 0.090 |
| -14 | 0.019 | 0.032 |
| -15 | 0.017 | 0.028 |
| -16 | 0.015 | 0.025 |
| -17 | 0.009 | 0.015 |
| -18 | 0.012 | 0.020 |
| -19 | 0.013 | 0.022 |
| -20 | 0.011 | 0.018 |
| -21 | 0.020 | 0.033 |
| -22 | 0.018 | 0.030 |
| -23 | 0.005 | 0.008 |
| -24 | 0.023 | 0.038 |
| -25 | 0.010 | 0.017 |
| -26 | 0.009 | 0.015 |
| -27 | 0.015 | 0.025 |



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DATE APRIL 22, 1980

PROJECT NO. 816-1-1209

MOLYBDENUM ASSAY PROJECT

PAGE 2 OF 2

| SAMPLE # | Mo % | MoS ₂ % |
|-----------------|-------|--------------------|
| 3091T - 25 -28 | 0.017 | 0.028 |
| -29 | 0.008 | 0.013 |
| -30 | 0.009 | 0.015 |
| -31 | 0.020 | 0.033 |
| -32 | 0.006 | 0.010 |
| -33 | 0.015 | 0.025 |
| -34 | 0.020 | 0.033 |
| -35 | 0.029 | 0.048 |
| -36 | 0.022 | 0.037 |
| -37 | 0.044 | 0.073 |
| 3091T 80- 1 - 1 | 0.009 | 0.015 |
| 80- 1 - 2 | 0.010 | 0.017 |
| 80- 1 - 3 | 0.006 | 0.010 |
| 80- 1 - 4 | 0.003 | 0.005 |
| 80- 1 - 5 | 0.014 | 0.023 |
| 80- 1 - 6 | 0.020 | 0.033 |
| 80- 1 - 7 | 0.087 | 0.145 |
| | | |
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DATE April 21, 1980

Location: CASMO

PROJECT NO. 816-1-2227

| MOLYBDENUM ASSAYS | |
|-------------------|--------------------------|
| <u>Location</u> | <u>MoS₂ %</u> |
| 3091T 26-1 | 0.028 |
| 26-2 | 0.012 |
| 26-3 | 0.022 |
| 26-4 | 0.025 |
| 26-5 | 0.020 |
| 26-6 | 0.025 |
| 26-7 | 0.063 |
| 26-8 | 0.032 |
| 26-9 | 0.032 |
| 26-10 | 0.050 |
| 26-11 | 0.080 |
| 26-12 | 0.150 |
| 26-13 | 0.043 |
| 26-14 | 0.137 |
| 26-15 | 0.035 |
| 26-16 | 0.027 |
| 26-17 | 0.012 |
| 26-18 | 0.025 |
| 26-19 | 0.038 |



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Shell Canada Resources

DATE April 21, 1980

Location: CASMO

PROJECT NO. 816-1-2227

| MOLYBDENUM ASSAYS | |
|-------------------|--------------------|
| Location | MoS ₂ % |
| 3091T 36-1 | 0.013 |
| 36-2 | 0.025 |
| 36-3 | 0.008 |
| 36-4 | 0.005 |
| 36-5 | 0.048 |
| 36-6 | 0.028 |
| 36-7 | 0.022 |
| 36-8 | 0.015 |
| 36-9 | 0.002 |
| 36-10 | <0.001 |
| 36-11 | 0.002 |
| 36-12 | 0.002 |
| 36-13 | 0.015 |
| 36-14 | 0.015 |
| 36-15 | 0.010 |
| 36-16 | 0.003 |
| 36-17 | 0.003 |
| 36-18 | <0.001 |
| 36-19 | <0.001 |
| 36-20 | 0.005 |
| 36-21 | 0.005 |
| 36-22 | 0.005 |
| 36-23 | <0.001 |
| 36-24 | 0.002 |
| 36-25 | 0.002 |



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Molybdenum Assay

DATE April 29, 1980

PROJECT NO. 816-1-2241

Page 1 of 2.....

| LOCATION | MoS ₂ % |
|-----------------------|--------------------|
| CASMO 3091T DDH 18A-1 | 0.005 |
| 18A-2 | 0.002 |
| 18A-3 | 0.003 |
| 18A-4 | 0.005 |
| 18A-5 | 0.022 |
| 18A-6 | 0.015 |
| 18A-7 | 0.010 |
| 18A-8 | 0.005 |
| 18A-9 | 0.003 |
| 18A-10 | 0.002 |
| 18A-11 | 0.005 |
| 18A-12 | 0.008 |
| 18A-13 | 0.013 |
| 18A-14 | 0.017 |
| 18A-15 | 0.003 |
| 18A-16 | 0.002 |
| 18A-21 | 0.003 |
| 18A-22 | 0.005 |
| 18A-23 | 0.007 |
| 18A-24 | 0.008 |
| 18A-25 | 0.015 |
| 18A-26 | 0.007 |
| 18A-27 | 0.062 |
| 18A-28 | 0.012 |
| 18A-29 | 0.012 |
| 18A-30 | 0.020 |
| 18A-31 | 0.003 |
| 18A-32 | 0.008 |
| 18A-33 | 0.005 |
| 18A-34 | 0.012 |
| 18A-35 | 0.002 |
| CASMO 3091T 79-5A-1 | 0.025 |
| 5A-2 | 0.027 |
| 5A-3 | 0.037 |
| 5A-4 | 0.012 |
| 5A-5 | 0.015 |
| 5A-6 | 0.012 |
| 5A-7 | 0.015 |
| 5A-8 | 0.117 |



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Molybdenum Assay

DATE April 30, 1980

PROJECT NO. 816-1-2241

Page 2

| LOCATION | MoS ₂ % |
|---------------------|--------------------|
| CASMO 3091T 79-5A-9 | 0.032 |
| 5A-10 | 0.022 |
| CASMO 3091T 80-1-8 | 0.170 |
| 80-1-9 | 0.087 |
| 80-1-10 | 0.057 |
| 80-1-11 | 0.042 |
| 80-1-12 | 0.127 |
| 80-1-13 | 0.067 |
| 80-1-14 | 0.022 |
| 80-1-15 | 0.138 |
| 80-1-16 | 0.182 |
| 80-1-17 | 0.177 |
| 80-1-18 | 0.242 |
| 80-1-19 | 0.247 |
| CASMO 3091T-DH-16-1 | 0.045 |



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Molybdenum Assays

DATE April 30, 1980

PROJECT NO. 816-1-2280

Page 1 of 2

| LOCATION | MoS ₂ % |
|----------|--------------------|
| 79 3A-1 | 0.087 |
| -2 | 0.027 |
| -3 | 0.103 |
| -4 | 0.063 |
| -5 | 0.015 |
| -6 | 0.012 |
| -7 | 0.013 |
| -8 | 0.003 |
| -9 | 0.005 |
| -10 | 0.003 |
| -11 | 0.003 |
| -12 | 0.005 |
| -13 | 0.003 |
| -14 | 0.002 |
| -15 | 0.022 |
| -16 | 0.003 |
| -17 | 0.003 |
| -18 | 0.002 |
| -19 | 0.002 |
| -20 | 0.002 |
| -21 | 0.007 |
| -22 | <0.001 |
| -23 | <0.001 |
| -24 | <0.001 |
| -25 | 0.002 |
| 80-1-52 | 0.030 |
| -53 | 0.013 |
| -54 | 0.048 |
| -55 | 0.038 |
| -56 | 0.020 |
| -57 | 0.013 |
| -58 | 0.030 |
| -59 | 0.010 |
| -60 | 0.022 |
| -61 | 0.005 |
| -62 | 0.018 |
| -63 | 0.005 |
| 44-30 | 0.010 |
| -31 | 0.010 |



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 Molybdenum Assays

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PROJECT NO. 816-1-2280

Page 2

| LOCATION | MoS ₂ |
|----------|------------------|
| 44-32 | 0.005 |
| -33 | 0.003 |
| -38 | 0.002 |
| -39 | 0.013 |
| -40 | 0.005 |
| -41 | 0.003 |
| -42 | 0.007 |
| -43 | 0.003 |
| -44 | 0.008 |
| -45 | <0.001 |
| -46 | 0.007 |
| 44-8 | 0.002 |
| -9 | 0.007 |
| -10 | 0.010 |
| 80-2-1 | 0.005 |
| -2 | 0.015 |
| -3 | 0.010 |
| -4 | 0.007 |
| | |
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DATE May 22, 1980

SHELL CANADA RESOURCES

PROJECT NO 816-1-2288

MOLYBDENUM ASSAYS

| Location | MoS ₂ % |
|----------|--------------------|
| 80-2-5 | 0.023 |
| -6 | 0.012 |
| -7 | 0.46 |
| -8 | 0.035 |
| -9 | 0.023 |
| 10 | 0.012 |
| 11 | 0.042 |
| 12 | 0.090 |
| 13 | 0.048 |
| 14 | 0.057 |
| 15 | 0.16 |
| 16 | 0.11 |
| 17 | 0.003 |
| 18 | 0.013 |
| 19 | 0.037 |
| 20 | 0.10 |
| 21 | 0.010 |
| 22 | 0.023 |
| 23 | 0.050 |
| 24 | 0.012 |
| 25 | 0.022 |
| 26 | 0.060 |
| 27 | 0.090 |
| 28 | 0.012 |
| 29 | 0.025 |
| 30 | 0.018 |
| 31 | 0.23 |
| 32 | 0.023 |
| 33 | 0.075 |
| 34 | 0.23 |
| 35 | 0.042 |
| 36 | 0.030 |
| 37 | 0.007 |
| 38 | 0.050 |
| 39 | 0.017 |
| 40 | 0.033 |
| 80-3-1 | 0.007 |
| -2 | 0.020 |
| -3 | 0.017 |
| -4 | 0.008 |



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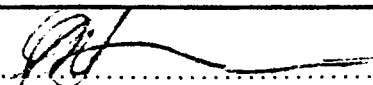
DATE May 22, 1980

PROJECT NO. 816-1-2288

MOLYBDENUM ASSAYS

| Location | MoS ₂ % |
|----------|--------------------|
| 80-3-5 | 0.037 |
| -6 | 0.007 |
| -7 | 0.007 |
| -8 | 0.035 |
| -9 | 0.035 |
| 10 | 0.042 |
| 11 | 0.015 |
| 12 | 0.007 |
| 13 | 0.018 |
| 14 | 0.007 |
| 15 | 0.008 |
| 16 | 0.027 |
| 17 | 0.003 |
| 18 | 0.012 |
| 19 | 0.023 |
| 20 | 0.023 |
| 21 | 0.037 |
| 22 | 0.022 |
| 23 | 0.060 |
| 24 | 0.022 |
| 25 | 0.025 |
| 26 | 0.013 |
| 27 | 0.012 |
| 28 | 0.023 |
| 29 | 0.067 |
| 30 | 0.097 |
| 31 | 0.025 |
| 32 | 0.048 |



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SHELL CANADA RESOURCES

DATE May 21, 1980

PROJECT NO. 816-1-2297

| LOCATION | MoS ₂ % |
|----------|--------------------|
| 80-2-41 | 0.072 |
| -42 | 0.15 |
| -43 | 0.082 |
| -44 | 0.048 |
| -45 | 0.12 |
| -46 | 0.080 |
| -47 | 0.062 |
| -48 | 0.078 |
| -49 | 0.022 |
| -50 | 0.032 |
| -51 | 0.017 |
| -52 | 0.058 |
| -53 | 0.47 |
| -54 | 0.012 |
| -55 | 0.11 |
| -56 | 0.022 |
| -57 | 0.030 |
| -58 | 0.020 |
| -59 | 0.042 |
| -60 | 0.018 |
| -61 | 0.13 |
| -62 | 0.028 |
| -63 | 0.018 |
| -64 | 0.16 |
| -65 | 0.017 |
| -66 | 0.030 |
| -67 | 0.010 |
| -68 | 0.013 |
| -69 | 0.030 |
| -70 | 0.010 |
| -71 | 0.14 |
| -72 | 0.013 |
| 80-3-33 | 0.050 |
| -34 | 0.042 |
| -35 | 0.028 |
| -36 | 0.045 |
| -37 | 0.20 |
| -38 | 0.047 |
| -39 | 0.020 |



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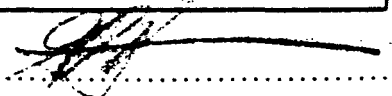
SHELL CANADA RESOURCES

DATE May 21, 1980

PROJECT NO. 816-1-2297

| LOCATION | MbS ₂ % |
|----------|--------------------|
| 80-3-40 | 0.042 |
| -41 | 0.005 |
| -42 | 0.012 |
| -43 | 0.023 |
| -44 | 0.017 |
| -45 | 0.098 |
| -46 | 0.032 |
| 80-3-51 | 0.032 |
| -52 | 0.073 |
| -53 | 0.010 |
| -54 | 0.038 |
| -55 | 0.050 |
| -56 | 0.028 |
| -57 | 0.062 |
| -58 | 0.032 |
| -59 | 0.017 |
| -60 | 0.043 |
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SHELL CANADA RESOURCES

DATE May 21, 1980

PROJECT NO. 816-1-2312

| Location | MoS ₂ % |
|----------|--------------------|
| 80-2-73 | 0.007 |
| -74 | 0.046 |
| -75 | 0.015 |
| -76 | 0.027 |
| -77 | 0.035 |
| -78 | 0.018 |
| -79 | 0.038 |
| -80 | 0.007 |
| -81 | 0.005 |
| -82 | 0.023 |
| 80-3-47 | 0.018 |
| -48 | 0.042 |
| -49 | 0.008 |
| -50 | 0.095 |
| 80-3-61 | 0.030 |
| -62 | 0.025 |
| -63 | 0.083 |
| -64 | 0.025 |
| -65 | 0.058 |
| -66 | 0.010 |
| -68 | 0.15 |
| -69 | 0.065 |
| -70 | 0.030 |
| -71 | 0.097 |
| -72 | 0.040 |
| -73 | 0.072 |
| -74 | 0.052 |
| -75 | 0.003 |
| -76 | 0.082 |
| -77 | 0.017 |
| -78 | 0.10 |
| -79 | 0.042 |
| -80 | 0.050 |
| 80-4-1 | 0.088 |
| -2 | 0.11 |
| -3 | 0.077 |
| -4 | 0.28 |
| -5 | 0.28 |
| -6 | 0.36 |



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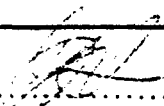
SHELL CANADA RESOURCES

DATE May 21, 1980

PROJECT NO. 816-1-2312

| Location | MoS ₂ ,% |
|----------|---------------------|
| 80-4-7 | 0.052 |
| -8 | 0.075 |
| -9 | 0.16 |
| -10 | 0.003 |
| -11 | 0.013 |
| -12 | 0.008 |
| -13 | 0.027 |
| -14 | 0.063 |
| -15 | 0.11 |
| -16 | 0.010 |
| -17 | 0.022 |
| -18 | 0.027 |
| -19 | 0.055 |
| -20 | 0.030 |
| -21 | 0.083 |
| -22 | 0.010 |
| 80-3-67 | 0.050 |
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SHELL CANADA

DATE May 20, 1980

Molybdenum Assays

PROJECT NO. 816-1-2330

| LOCATION | MoS ₂ | % |
|----------|------------------|-------|
| 80-3-89 | | 0.10 |
| -90 | | 0.09 |
| -91 | | 0.14 |
| -92 | | 0.20 |
| -93 | | 0.083 |
| -94 | | 0.17 |
| -95 | | 0.083 |
| -96 | | 0.19 |
| -97 | | 0.056 |
| -98 | | 0.075 |
| -99 | | 0.062 |
| -100 | | 0.027 |
| -101 | | 0.037 |
| -102 | | 0.015 |
| -103 | | 0.14 |
| -104 | | 0.055 |
| -105 | | 0.018 |
| -106 | | 0.015 |
| -107 | | 0.073 |
| -108 | | 0.042 |
| 80-5-23 | | 0.030 |
| -24 | | 0.025 |
| -25 | | 0.085 |
| -26 | | 0.033 |
| -27 | | 0.082 |
| -28 | | 0.033 |
| -29 | | 0.052 |
| -30 | | 0.038 |
| -31 | | 0.022 |
| -32 | | 0.042 |
| -33 | | 0.17 |
| -34 | | 0.077 |
| -35 | | 0.078 |
| -36 | | 0.057 |
| DNR-24-1 | | 0.008 |
| -2 | | 0.022 |
| -3 | | 0.008 |
| -4 | | 0.010 |



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DATE May 20, 1980

Molybdenum Assays

PROJECT NO. 816-1-2330

| LOCATION | MoS ₂ | % |
|----------|------------------|---|
| DDH-24-5 | 0.008 | |
| -6 | 0.007 | |
| -7 | 0.012 | |
| -8 | 0.013 | |
| -9 | 0.007 | |
| -10 | 0.008 | |
| -11 | 0.023 | |
| -12 | 0.007 | |
| -13 | 0.008 | |
| -14 | 0.008 | |
| -15 | 0.008 | |
| -16 | 0.005 | |
| -17 | 0.008 | |
| -18 | 0.010 | |
| -19 | 0.015 | |
| -20 | 0.018 | |
| -21 | 0.018 | |
| -22 | 0.022 | |
| -23 | 0.020 | |
| -24 | 0.008 | |
| -25 | 0.017 | |
| -26 | 0.008 | |
| -27 | 0.005 | |
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Molybdenum Assays

DATE May 21, 1980

PROJECT NO. 816-1-2342

Page 1 of 2

| LOCATION | MoS ₂ % |
|----------|--------------------|
| 80-3-109 | .008 |
| -110 | .013 |
| -111 | .052 |
| -112 | .032 |
| -113 | .020 |
| -114 | .062 |
| -115 | .037 |
| -116 | .15 |
| -117 | .80 |
| -118 | .083 |
| -119 | .018 |
| -120 | .053 |
| -121 | .040 |
| -122 | .045 |
| -123 | .025 |
| -124 | .015 |
| -125 | .015 |
| 80-6-1 | .053 |
| -2 | .055 |
| -3 | .058 |
| -4 | .048 |
| -5 | .035 |
| -6 | .045 |
| -7 | .10 |
| -8 | .062 |
| -9 | .071 |
| -10 | .092 |
| -11 | .21 |
| -12 | .023 |
| -13 | .053 |
| -14 | .060 |
| -15 | .097 |
| -16 | .23 |
| DH-22-1 | .018 |
| -2 | .018 |
| -3 | .035 |
| -4 | .032 |
| -5 | .048 |
| -6 | .072 |



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- GAS
- WATER
- OIL
- SOILS
- VEGETATION
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Shell Canada Resources

Molybdenum Assays

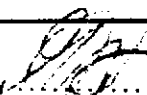
DATE May 21, 1980

PROJECT NO. 816-1-2342

Page 2

| LOCATION | MoS ₂ % |
|----------|--------------------|
| DH-22-7 | .028 |
| -8 | .10 |
| -9 | .077 |
| -10 | .070 |
| -11 | .010 |
| -12 | .040 |
| -13 | .010 |
| -14 | .055 |
| -15 | .022 |
| -16 | .053 |
| -17 | .043 |
| -18 | .020 |
| -19 | .008 |
| -20 | .063 |
| -21 | .025 |
| -22 | .030 ¹ |
| -23 | .045 |
| -24 | .018 |
| Dh-23-1 | .055 |
| -2 | .043 |
| DH-37-29 | .018 |
| -30 | .057 |
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SHELL CANADA RESOURCES

DATE May 22, 1980

Molybdenum Assays

PROJECT NO. 816-1-2365

| LOCATION | MoS ₂ % |
|----------|--------------------|
| 80-6-17 | 0.025 |
| -18 | 0.17 |
| -19 | 0.15 |
| -20 | 0.13 |
| -21 | 0.13 |
| -22 | 0.060 |
| -23 | 0.13 |
| -24 | 0.075 |
| -25 | 0.088 |
| -26 | 0.062 |
| -27 | 0.055 |
| -28 | 0.017 |
| -29 | 0.020 |
| -30 | 0.023 |
| -31 | 0.027 |
| -32 | 0.067 |
| -33 | 0.055 |
| -34 | 0.042 |
| -35 | 0.058 |
| -36 | 0.058 |
| -37 | 0.028 |
| -38 | 0.028 |
| -39 | 0.027 |
| -40 | 0.035 |
| -41 | 0.030 |
| -42 | 0.035 |
| -43 | 0.022 |
| -44 | 0.035 |
| -45 | 0.017 |
| -46 | 0.20 |
| -47 | 0.028 |
| -48 | 0.048 |
| 80-P-1 | 0.062 |
| -2 | 0.055 |
| -3 | 0.022 |
| -4 | 0.012 |
| -5 | 0.033 |
| -6 | 0.013 |



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SHELL CANADA RESOURCES


DATE May 22, 1980

Molybdenum Assays

PROJECT NO. 816-1-2365

| LOCATION | MoS ₂ % |
|----------|--------------------|
| 80-8-7 | 0.20 |
| -8 | 0.030 |
| -9 | 0.083 |
| -10 | 0.048 |
| -11 | 0.067 |
| -12 | 0.055 |
| -13 | 0.080 |
| -14 | 0.10 |
| -15 | 0.083 |
| -16 | 0.10 |
| -17 | 0.065 |
| -18 | 0.040 |
| -19 | 0.10 |
| -20 | 0.33 |
| -21 | 0.042 |
| -22 | 0.025 |
| -23 | 0.087 |
| -24 | 0.40 |
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SHELL CANADA RESOURCES

DATE May 22, 1980

PROJECT NO. 816-1-2380

MOLYBDENUM ASSAYS

| Location | MoS ₂ % | Location | MoS ₂ % |
|----------|--------------------|----------|--------------------|
| 80-6-49 | 0.027 | 80-8-37 | 0.14 |
| -50 | 0.003 | -38 | 0.085 |
| -51 | 0.010 | -39 | 0.083 |
| -52 | 0.030 | -40 | 0.17 |
| -53 | 0.037 | -41 | 0.18 |
| -54 | 0.067 | -42 | 0.53 |
| 80-7-1 | 0.007 | -43 | 0.12 |
| -2 | 0.007 | -44 | 0.018 |
| -3 | 0.023 | -45 | 0.058 |
| -4 | 0.018 | -46 | 0.16 |
| -5 | 0.045 | -47 | 0.037 |
| -6 | 0.028 | -48 | 0.027 |
| -7 | 0.012 | | |
| -8 | 0.025 | | |
| -9 | 0.022 | | |
| -10 | 0.003 | | |
| -11 | 0.033 | | |
| -12 | 0.017 | | |
| -13 | 0.18 | | |
| -14 | 0.075 | | |
| -15 | 0.010 | | |
| -16 | 0.035 | | |
| -17 | 0.077 | | |
| -18 | 0.058 | | |
| -19 | 0.012 | | |
| -20 | 0.017 | | |
| -21 | 0.068 | | |
| -22 | 0.017 | | |
| 80-8-25 | 0.070 | | |
| -26 | 0.020 | | |
| -27 | 0.10 | | |
| -28 | 0.045 | | |
| -29 | 0.11 | | |
| -30 | 0.043 | | |
| -31 | 0.59 | | |
| -32 | 0.067 | | |
| -33 | 0.10 | | |
| -34 | 0.042 | | |
| -35 | 0.050 | | |
| -36 | 0.28 | | |



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SHELL CANADA RESOURCES LTD.

DATE May 22, 1980

Molybdenum Assays

PROJECT NO. 816-1-2405

| LOCATION | MoS ₂ % |
|----------|--------------------|
| 80-7-23 | 0.027 |
| -24 | 0.022 |
| -25 | 0.017 |
| -26 | 0.065 |
| -27 | 0.032 |
| -28 | 0.050 |
| -29 | 0.025 |
| -30 | 0.017 |
| -31 | 0.023 |
| -32 | 0.030 |
| -33 | 0.088 |
| -34 | 0.037 |
| -35 | 0.035 |
| -36 | 0.040 |
| -37 | 0.035 |
| -38 | 0.018 |
| -39 | 0.242 |
| -40 | 0.018 |
| -41 | 0.075 |
| -42 | 0.042 |
| -43 | 0.027 |
| -44 | 0.030 |
| -45 | 0.050 |
| -46 | 0.202 |
| -47 | 0.025 |
| -48 | 0.037 |
| -49 | 0.200 |
| -50 | 0.032 |
| -51 | 0.020 |
| -52 | 0.022 |
| -53 | 0.085 |
| -54 | 0.022 |
| -55 | 0.020 |
| -56 | 0.043 |
| -57 | 0.305 |
| -58 | 0.013 |
| 80-8-49 | 0.010 |
| -50 | 0.045 |



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DATE May 22, 1980

Molybdenum Assays

PROJECT NO. 816-1-2405

| LOCATION | MoS ₂ % |
|----------|--------------------|
| 80-8-51 | 0.125 |
| -52 | 0.003 |
| -53 | 0.040 |
| -54 | 0.003 |
| -55 | 0.027 |
| -56 | 0.008 |
| -57 | 0.048 |
| -58 | 0.008 |
| -59 | 0.223 |
| -60 | 0.050 |
| -61 | 0.040 |
| -62 | 0.075 |
| -63 | 0.020 |
| -64 | 0.030 |
| -65 | 0.007 |
| -66 | 0.068 |
| -67 | 0.072 |
| -68 | 0.033 |
| -69 | 0.067 |
| -70 | 0.017 |
| -71 | 0.143 |
| -72 | 0.058 |
| -73 | 0.053 |
| -74 | 0.052 |
| -75 | 0.043 |
| -76 | 0.057 |
| | |
| | |
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SHELL CANADA RESOURCES

DATE May 26, 1980

PROJECT NO. 816-1-2414

MOLYBDENUM ASSAYS

| Location | MoS ₂ % |
|----------|--------------------|
| 80-7-59 | 0.023 |
| 60 | 0.038 |
| 61 | 0.027 |
| 62 | 0.012 |
| 67 | 0.11 |
| 68 | 0.12 |
| 69 | 0.065 |
| 70 | 0.037 |
| 71 | 0.14 |
| 72 | 0.068 |
| 73 | 0.085 |
| 74 | 0.055 |
| 75 | 0.035 |
| 76 | 0.030 |
| 77 | 0.32 |
| 78 | 0.033 |
| 79 | 0.017 |
| 80 | 0.030 |
| 81 | 0.043 |
| 82 | 0.11 |
| 83 | 0.12 |
| 84 | 0.025 |
| 85 | 0.072 |
| 86 | 0.13 |
| 87 | 0.19 |
| 88 | 0.072 |
| 89 | 0.028 |
| 80-7-90 | 0.25 |
| 80-8-77 | 0.032 |
| 78 | 0.063 |
| 79 | 0.007 |
| 80-8-80 | 0.005 |
| 80-9-1 | 0.062 |
| 8 | 0.087 |
| 9 | 0.053 |
| 10 | 0.12 |
| 11 | 0.088 |
| 12 | 0.077 |
| 13 | 0.042 |
| 80-9-14 | 0.15 |



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DATE **May 26, 1980**

SHELL CANADA RESOURCES

PROJECT NO. 816-1-2414

Page 2 . . .

| Location | MoS ₂ , % |
|----------|----------------------|
| 80-9-15 | 0.11 |
| -16 | 0.067 |
| -17 | 0.18 |
| -18 | 0.057 |
| -19 | 0.040 |
| -20 | 0.040 |
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Shell Canada Resources

DATE May 27, 1980

PROJECT NO. 816-1-2429

MOLYBDENUM ASSAY

| Location | MoS ₂ % |
|----------|--------------------|
| 80-7-91 | 0.050 |
| 92 | 0.250 |
| 93 | 0.11 |
| 94 | 0.20 |
| 95 | 0.24 |
| 96 | 0.083 |
| 97 | 0.082 |
| 98 | 0.075 |
| 99 | 0.13 |
| 100 | 0.22 |
| 101 | 0.23 |
| 102 | 0.21 |
| 103 | 0.092 |
| 104 | 0.15 |
| 105 | 0.15 |
| 106 | 0.48 |
| 107 | 0.50 |
| 108 | 0.077 |
| 109 | 0.030 |
| 110 | 0.13 |
| 112 | 0.050 |
| 113 | 0.090 |
| 114 | 0.007 |
| 115 | 0.020 |
| 116 | 0.015 |
| 117 | 0.030 |
| 118 | 0.063 |
| 119 | 0.038 |
| 120 | 0.082 |
| 121 | 0.007 |
| 122 | 0.070 |
| 123 | 0.040 |
| 80-9-21 | 0.31 |
| 22 | 0.090 |
| 23 | 0.15 |
| 24 | 0.15 |
| 25 | 0.048 |
| 26 | 0.12 |
| 27 | 0.97 |
| 28 | 0.14 |



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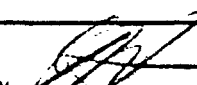
DATE May 27, 1980

PROJECT NO. 816-1-2429

MOLYBDENUM ASSAYS

| Location | MoS ₂ % |
|----------|--------------------|
| 80-9-29 | 0.12 |
| 30 | 0.14 |
| 31 | 0.097 |
| 32 | 0.13 |
| 33 | 0.12 |
| 34 | 0.34 |
| 35 | 0.072 |
| 36 | 0.075 |
| 37 | 0.12 |
| 38 | 0.25 |
| 29 | 0.14 |
| 40 | 0.13 |
| 41 | 0.083 |
| 42 | 0.16 |
| 43 | 0.14 |
| 44 | 0.14 |
| 45 | 0.032 |
| 80-7-111 | 0.14 |
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SHELL CANADA RESOURCES LTD.

DATE May 27, 1980

PROJECT NO. 816-1-2430

| LOCATION | MoS ₂ % |
|----------|--------------------|
| 80-7-124 | 0.39 |
| -125 | 0.067 |
| -126 | 0.14 |
| -127 | 0.082 |
| -128 | 0.38 |
| -129 | 0.043 |
| -130 | 0.072 |
| -131 | 0.16 |
| -132 | 0.090 |
| -133 | 0.023 |
| -134 | 0.047 |
| -135 | 0.028 |
| -136 | 0.055 |
| -137 | 0.047 |
| -138 | 0.085 |
| -139 | 0.012 |
| -140 | 0.023 |
| -141 | 0.012 |
| -142 | 0.042 |
| -143 | 0.048 |
| -144 | 0.10 |
| -145 | 0.037 |
| -146 | 0.022 |
| -147 | 0.017 |
| -148 | 0.027 |
| -149 | 0.020 |
| -150 | 0.067 |
| -151 | 0.018 |
| -152 | 0.003 |
| -153 | 0.005 |
| -154 | 0.005 |
| -155 | 0.002 |
| 80-9-46 | 0.31 |
| -47 | 0.12 |
| -48 | 0.055 |
| -49 | 0.13 |
| -50 | 0.085 |
| -51 | 0.088 |



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PROJECT NO. 816-1-2430

| LOCATION | MoS ₂ % |
|----------|--------------------|
| 80-9-52 | 0.15 |
| -53 | 0.20 |
| -54 | 0.053 |
| -55 | 0.020 |
| -56 | 0.14 |
| -57 | 0.12 |
| -58 | 0.045 |
| -59 | 0.022 |
| -60 | 0.022 |
| -61 | 0.26 |
| -62 | 0.048 |
| -63 | 0.058 |
| -64 | 0.067 |
| -65 | 0.023 |
| -66 | 0.053 |
| -67 | 0.060 |
| -68 | 0.075 |
| -69 | 0.048 |
| 80-10-1 | 0.017 |
| 80-11-1 | 0.013 |
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DATE May 30, 1980

Molybdenum Assay Project

PROJECT NO. 316-1-2441

| LOCATION | MoS ₂ % |
|----------|--------------------|
| 79-4A-1 | 0.057 |
| -2 | 0.038 |
| -3 | 0.047 |
| -4 | 0.027 |
| -5 | 0.065 |
| 80-7 -63 | 0.035 |
| -64 | 0.048 |
| -65 | 0.037 |
| -66 | 0.075 |
| 80-9 -2 | 0.037 |
| -3 | 0.063 |
| -4 | 0.027 |
| -5 | 0.035 |
| -6 | 0.15 |
| -7 | 0.025 |
| 80-10-2 | 0.007 |
| -3 | 0.005 |
| -4 | 0.012 |
| -5 | 0.007 |
| -6 | 0.008 |
| -7 | 0.027 |
| -8 | 0.042 |
| -9 | 0.062 |
| -10 | 0.030 |
| -11 | 0.063 |
| -12 | 0.008 |
| -13 | 0.017 |
| -14 | 0.010 |
| -15 | 0.042 |
| -16 | 0.020 |
| -17 | 0.017 |
| -18 | 0.082 |
| -19 | 0.088 |
| -20 | 0.042 |
| -21 | 0.068 |
| -22 | 0.082 |
| -23 | 0.043 |
| -24 | 0.028 |



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Molybdenum Assay Project

PROJECT NO. 816-1-2441

| LOCATION | MoS ₂ % |
|----------|--------------------|
| 80-10-25 | 0.048 |
| 80-11-2 | 0.017 |
| -3 | 0.022 |
| -4 | 0.013 |
| -5 | 0.018 |
| -6 | 0.065 |
| -7 | 0.022 |
| -8 | 0.010 |
| -9 | 0.017 |
| -10 | 0.008 |
| -11 | 0.013 |
| -12 | 0.008 |
| -13 | 0.013 |
| -14 | 0.003 |
| -15 | 0.008 |
| -16 | 0.003 |
| -17 | 0.013 |
| -18 | 0.005 |
| -19 | 0.008 |
| -20 | 0.018 |
| -21 | 0.013 |
| -22 | 0.065 |
| -23 | 0.017 |
| -24 | 0.010 |
| -25 | 0.012 |
| -26 | 0.018 |
| -27 | 0.020 |
| -28 | 0.008 |
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Molybdenum Assay Project

PROJECT NO. 816-1-2456

| LOCATION | MoS ₂ % |
|----------|--------------------|
| 79-4A-6 | 0.033 |
| -7 | 0.028 |
| -8 | 0.055 |
| -9 | 0.073 |
| -10 | 0.027 |
| -11 | 0.055 |
| -12 | 0.025 |
| -13 | 0.045 |
| -14 | 0.038 |
| -15 | 0.048 |
| -16 | 0.023 |
| -17 | 0.14 |
| -18 | 0.050 |
| -19 | 0.038 |
| -20 | 0.092 |
| -21 | 0.027 |
| -22 | 0.037 |
| -23 | 0.030 |
| -24 | 0.045 |
| -25 | 0.19 |
| -26 | 0.037 |
| -27 | 0.012 |
| -28 | 0.16 |
| -29 | 0.040 |
| -30 | 0.052 |
| -31 | 0.038 |
| -32 | 0.010 |
| -33 | 0.025 |
| -34 | 0.078 |
| -35 | 0.032 |
| -36 | 0.010 |
| -37 | 0.003 |
| 80-10-26 | 0.062 |
| -27 | 0.067 |
| -28 | 0.042 |
| -29 | 0.015 |
| -30 | 0.030 |
| -31 | 0.010 |



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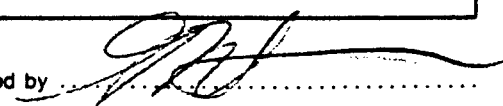
DATE **May 30, 1980**

Molybdenum Assay Project

PROJECT NO. **816-1-2456**

| LOCATION | MoS ₂ % |
|----------|--------------------|
| 80-10-32 | 0.048 |
| -33 | 0.050 |
| -34 | 0.055 |
| -35 | 0.037 |
| -36 | 0.043 |
| -37 | 0.067 |
| -38 | 0.018 |
| -39 | 0.020 |
| -40 | 0.032 |
| -41 | 0.10 |
| -42 | 0.032 |
| -43 | 0.28 |
| -44 | 0.28 |
| -45 | 0.057 |
| -46 | 0.11 |
| -47 | 0.070 |
| -48 | 0.050 |
| -49 | 0.087 |
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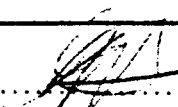
Molybdenum Assay Project

PROJECT NO. 816-1-2473

Page 1 of 3

| LOCATION | MoS ₂ % |
|----------|--------------------|
| 80-10-61 | 0.10 |
| -62 | 0.26 |
| -63 | 0.27 |
| -64 | 0.37 |
| -65 | 0.21 |
| -66 | 0.38 |
| -67 | 0.14 |
| -68 | 0.23 |
| -69 | 0.35 |
| -70 | 0.063 |
| -71 | 0.21 |
| -72 | 0.17 |
| -73 | 0.098 |
| -74 | 0.038 |
| -75 | 0.060 |
| -76 | 0.072 |
| -77 | 0.073 |
| -78 | 0.11 |
| -79 | 0.15 |
| -80 | 0.077 |
| -81 | 0.058 |
| -82 | 0.092 |
| -83 | 0.43 |
| -84 | 0.073 |
| -85 | 0.15 |
| -86 | 0.067 |
| -87 | 0.14 |
| -88 | 0.12 |
| -89 | 0.10 |
| -90 | 0.11 |
| -91 | 0.17 |
| -92 | 0.023 |
| -93 | 0.060 |
| -94 | 0.048 |
| -95 | 0.048 |
| -96 | 0.037 |
| -97 | 0.075 |
| -98 | 0.12 |



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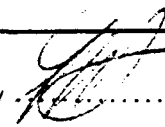
Molybdenum Assay Project

PROJECT NO. 816-1-2473

Page 3 of 3

| LOCATION | MoS ₂ % |
|-----------------|--------------------|
| 80-12-3 | 0.013 |
| -4 ₁ | 0.043 |
| -4 ₂ | 0.008 |
| -6 | 0.033 |
| -7 | 0.032 |
| -8 | 0.038 |
| -9 | 0.030 |
| -10 | 0.018 |
| -11 | 0.047 |
| -12 | 0.18 |
| -21 | 0.042 |
| -22 | 0.030 |
| -23 | 0.050 |
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Molybdenum Assay Project

PROJECT NO. 816-1-2482

Page 1 of 3

| LOCATION | MoS ₂ % |
|----------|--------------------|
| 80-10-99 | 0.11 |
| -100 | 0.053 |
| -101 | 0.13 |
| -102 | 0.027 |
| -103 | 0.032 |
| -104 | 0.008 |
| -105 | 0.013 |
| -106 | 0.028 |
| -107 | 0.087 |
| -108 | 0.052 |
| -109 | 0.013 |
| -110 | 0.027 |
| -111 | 0.042 |
| -112 | 0.058 |
| -113 | 0.003 |
| -114 | 0.005 |
| 80-12-13 | 0.15 |
| -14 | 0.027 |
| -15 | 0.048 |
| -16 | 0.047 |
| -17 | 0.072 |
| -18 | 0.053 |
| -19 | 0.077 |
| -20 | 0.010 |
| -49 | 0.12 |
| -50 | 0.32 |
| -51 | 0.027 |
| -52 | 0.028 |
| -54 | 0.058 |
| -57 | 0.085 |
| -58 | 0.007 |
| -59 | 0.063 |
| -60 | 0.035 |
| -61 | 0.058 |
| -62 | 0.077 |
| -63 | 0.018 |
| -64 | 0.020 |
| -65 | 0.047 |



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DATE **June 3, 1980**

Molybdenum Assay Project

PROJECT NO. **816-1-2482**

Page 2 of 3

| LOCATION | MoS ₂ % |
|----------|--------------------|
| 80-12-66 | 0.005 |
| -67 | 0.038 |
| -68 | 0.12 |
| -69 | 0.063 |
| -70 | 0.042 |
| -71 | 0.050 |
| -72 | 0.13 |
| -73 | 0.035 |
| -74 | 0.053 |
| -75 | 0.015 |
| -76 | 0.015 |
| -77 | 0.003 |
| -78 | 0.002 |
| -79 | 0.017 |
| -80 | 0.023 |
| 80-13-9 | 0.030 |
| -10 | 0.042 |
| -11 | 0.032 |
| -12 | 0.038 |
| -13 | 0.012 |
| -14 | 0.015 |
| -15 | 0.015 |
| -16 | 0.035 |
| -21 | 0.023 |
| -22 | 0.030 |
| -23 | 0.005 |
| -24 | 0.037 |
| -25 | 0.007 |
| -26 | 0.008 |
| -27 | 0.005 |
| -28 | 0.038 |
| 80-13-45 | 0.013 |
| -46 | 0.072 |
| -47 | 0.18 |
| -48 | 0.005 |
| -49 | 0.025 |
| -50 | 0.007 |
| -51 | 0.005 |



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DATE June 3, 1980

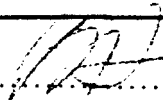
Molybdenum Assay project

PROJECT NO. 816-1-2482

Page 3 of 3

| LOCATION | MoS ₂ % |
|----------|--------------------|
| 80-13-52 | 0.022 |
| -53 | 0.043 |
| -55 | 0.31 |
| -56 | 0.035 |
| -57 | 0.017 |
| -58 | 0.067 |
| -59 | 0.020 |
| -60 | 0.082 |
| -61 | 0.12 |
| -62 | 0.26 |
| -63 | 0.13 |
| -64 | 0.072 |
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SHELL CANADA RESOURCES

DATE June 9, 1980

PROJECT NO. 916-1-506

Page 1

| Location | MoS ₂ % |
|----------|--------------------|
| 80-12-81 | 0.022 |
| 82 | 0.008 |
| 83 | 0.015 |
| 84 | 0.11 |
| 85 | 0.098 |
| 86 | 0.28 |
| 87 | 0.24 |
| 88 | 0.068 |
| 89 | 0.065 |
| 90 | 0.15 |
| 91 | 0.12 |
| 92 | 0.13 |
| 93 | 0.13 |
| 94 | 0.17 |
| 95 | 0.14 |
| 96 | 0.11 |
| 97 | 0.073 |
| 98 | 0.22 |
| 99 | 0.25 |
| 100 | 0.11 |
| 101 | 0.15 |
| 102 | 0.045 |
| 103 | 0.037 |
| 104 | 0.058 |
| 80-13-1 | 0.013 |
| 2 | 0.012 |
| 3 | 0.025 |
| 4 | 0.010 |
| 5 | 0.023 |
| 6 | 0.030 |
| 7 | 0.058 |
| 8 | 0.028 |
| 17 | 0.027 |
| 18 | 0.020 |
| 20 | 0.022 |
| 22 | 0.037 |
| 29 | 0.015 |
| 30 | 0.010 |
| 31 | 0.012 |



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PROJECT NO. 916-1-506

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Page 2

| Location | MoS ₂ % |
|----------|--------------------|
| 80-13-33 | 0.030 |
| 34 | 0.038 |
| 35 | 0.072 |
| 36 | 0.065 |
| 37 | 0.042 |
| 38 | 0.013 |
| 39 | 0.060 |
| 40 | 0.022 |
| 41 | 0.073 |
| 42 | 0.078 |
| 43 | 0.022 |
| 44 | 0.090 |
| 53 | 0.015 |
| 54 | 0.033 |
| 55 | 0.048 |
| 56 | 0.045 |
| 65 | 0.12 |
| 66 | 0.083 |
| 67 | 0.20 |
| 68 | 0.13 |
| 69 | 0.33 |
| 70 | 0.28 |
| 71 | 0.23 |
| 72 | 0.16 |
| 73 | 0.14 |
| 74 | 0.18 |
| 75 | 0.17 |
| 76 | 0.18 |
| 77 | 0.67 |
| 78 | 0.47 |
| 79 | 0.48 |
| 80 | 0.16 |
| 81 | 0.35 |
| 82 | 0.26 |
| 83 | 0.38 |
| 84 | 0.34 |
| 85 | 0.19 |
| 86 | 0.12 |
| 87 | 0.083 |
| 88 | 0.20 |



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DATE June 9, 1980

PROJECT NO. 916-1-506

SHELL CANADA RESOURCES

Page 3

| Location | MoS ₂ % |
|----------|--------------------|
| 80-13-89 | 0.20 |
| 92 | 0.060 |
| 93 | 0.057 |
| 94 | 0.18 |
| 101 | 0.027 |
| 80 -15-1 | 0.032 |
| 2 | 0.10 |
| 3 | 0.20 |
| 4 | 0.015 |
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DATE June 9, 1980

PROJECT NO. 916-1-0512

Page 1

| Location | MoS ₂ % |
|----------|--------------------|
| 80-13-90 | 0.045 |
| 91 | 0.19 |
| 95 | 0.15 |
| 96 | 0.18 |
| 97 | 0.053 |
| 98 | 0.12 |
| 99 | 0.072 |
| 100 | 0.18 |
| 102 | 0.13 |
| 103 | 0.073 |
| 104 | 0.12 |
| 105 | 0.008 |
| 106 | 0.030 |
| 107 | 0.055 |
| 108 | 0.007 |
| 109 | 0.027 |
| 110 | 0.030 |
| 111 | 0.023 |
| 112 | 0.083 |
| 113 | 0.12 |
| 114 | 0.19 |
| 115 | 0.047 |
| 116 | 0.050 |
| 117 | 0.017 |
| 118 | 0.012 |
| 119 | 0.030 |
| 120 | 0.018 |
| 121 | 0.005 |
| 122 | 0.067 |
| 123 | 0.10 |
| 124 | 0.12 |
| 125 | 0.12 |
| 126 | 0.078 |
| 127 | 0.010 |
| 128 | 0.097 |
| 129 | 0.007 |
| 130 | 0.002 |
| 131 | 0.047 |
| 80-14-17 | 0.077 |



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PROJECT NO. 916-1-0512

Page 2

| Location | MoS ₂ % |
|----------|--------------------|
| 80-14-18 | 0.14 |
| 19 | 0.042 |
| 20 | 0.032 |
| 21 | 0.072 |
| 22 | 0.13 |
| 23 | 0.043 |
| 24 | 0.11 |
| 25 | 0.053 |
| 26 | 0.060 |
| 27 | 0.065 |
| 28 | 0.043 |
| 38 | 0.043 |
| 39 | 0.067 |
| 40 | 0.063 |
| 41 | 0.10 |
| 42 | 0.022 |
| 43 | 0.023 |
| 44 | 0.038 |
| 45 | 0.032 |
| 46 | 0.050 |
| 47 | 0.058 |
| 48 | 0.038 |
| 49 | 0.040 |
| 50 | 0.053 |
| 51 | 0.025 |
| 52 | 0.078 |
| 53 | 0.038 |
| 54 | 0.033 |
| 55 | 0.025 |
| 56 | 0.032 |
| 57 | 0.11 |
| 58 | 0.037 |
| 59 | 0.053 |
| 60 | 0.045 |
| 61 | 0.023 |
| 62 | 0.037 |
| 63 | 0.030 |
| 64 | 0.050 |
| 65 | 0.032 |
| 66 | 0.037 |



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SHELL CANADA RESOURCES

DATE June 9, 1980

PROJECT NO. 916-1-0512

Page 3

| Location | MoS ₂ % |
|----------|--------------------|
| 80-14-67 | 0.063 |
| 68 | 0.028 |
| 69 | 0.057 |
| 70 | 0.020 |
| 71 | 0.012 |
| 72 | 0.045 |
| 73 | 0.062 |
| 74 | 0.047 |
| 75 | 0.060 |
| 76 | 0.025 |
| 77 | 0.037 |
| 78 | 0.033 |
| 79 | 0.022 |
| 80-16-1 | 0.032 |
| 2 | 0.055 |
| 3 | 0.023 |
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PROJECT NO. 916-1-0548

Shell Canada Resources

Page 1

| Location | MoS ₂ % |
|----------|--------------------|
| 80-14-1 | 0.022 |
| 2 | 0.028 |
| 3 | 0.010 |
| 4 | 0.017 |
| 5 | 0.027 |
| 6 | 0.023 |
| 7 | 0.058 |
| 8 | 0.058 |
| 9 | 0.030 |
| 10 | 0.035 |
| 11 | 0.048 |
| 12 | 0.020 |
| 13 | 0.067 |
| 14 | 0.023 |
| 15 | 0.033 |
| 16 | 0.050 |
| 29 | 0.032 |
| 30 | 0.015 |
| 31 | 0.070 |
| 32 | 0.14 |
| 33 | 0.12 |
| 34 | 0.060 |
| 35 | 0.057 |
| 36 | 0.048 |
| 37 | 0.045 |
| 80 | 0.037 |
| 81 | 0.025 |
| 82 | 0.032 |
| 83 | 0.080 |
| 84 | 0.082 |
| 85 | 0.075 |
| 86 | 0.11 |
| 87 | 0.098 |
| 88 | 0.087 |
| 89 | 0.025 |
| 90 | 0.078 |
| 91 | 0.16 |
| 92 | 0.080 |
| 93 | 0.10 |
| 94 | 0.61 |



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PROJECT NO.916-1-0548

Shell Canada Resources

Page 2

| Location | MoS ₂ % |
|----------|--------------------|
| 80-14-95 | 0.51 |
| 96 | 0.12 |
| 97 | 0.060 |
| 98 | 0.16 |
| 99 | 0.20 |
| 100 | 0.53 |
| 101 | 0.16 |
| 102 | 0.092 |
| 103 | 0.18 |
| 104 | 0.14 |
| 105 | 0.18 |
| 106 | 0.31 |
| 107 | 0.095 |
| 108 | 0.077 |
| 109 | 0.18 |
| 110 | 0.27 |
| 111 | 0.23 |
| 112 | 0.14 |
| 80-15-5 | 0.025 |
| 6 | 0.058 |
| 7 | 0.028 |
| 8 | 0.12 |
| 9 | 0.060 |
| 10 | 0.027 |
| 11 | 0.012 |
| 12 | 0.070 |
| 13 | 0.075 |
| 14 | 0.067 |
| 15 | 0.052 |
| 16 | 0.018 |
| 17 | 0.16 |
| 18 | 0.10 |
| 19 | 0.052 |
| 20 | 0.043 |
| 21 | 0.12 |
| 38 | 0.032 |
| 39 | 0.10 |
| 40 | 0.052 |
| 41 | 0.052 |
| 47 | 0.027 |



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- OIL
- SOILS
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DATE June 9, 1980

PROJECT NO. 916-1-0548

Shell Canada Resources

Page 3

| Location | MoS ₂ % |
|----------|--------------------|
| 80-15-48 | 0.21 |
| 49 | 0.095 |
| 50 | 0.18 |
| 51 | 0.16 |
| 52 | 0.058 |
| 53 | 0.10 |
| 54 | 0.055 |
| 67 | 0.008 |
| 68 | 0.013 |
| 69 | 0.063 |
| 70 | 0.007 |
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Molybdenum Assay Project

PROJECT NO. 916-1-0559

Page 1 of 3

| LOCATION | MoS ₂ % |
|-----------|--------------------|
| 80-12-100 | 0.16 |
| -105 | 0.087 |
| -106 | 0.062 |
| -107 | 0.058 |
| 80-15-22 | 0.093 |
| -24 | 0.19 |
| -25 | 0.035 |
| -26 | 0.050 |
| -34 | 0.023 |
| -35 | 0.052 |
| -36 | 0.025 |
| -37 | 0.080 |
| -42 | 0.067 |
| -43 | 0.070 |
| -44 | 0.013 |
| -45 | 0.097 |
| -46 | 0.040 |
| -55 | 0.070 |
| -56 | 0.057 |
| -57 | 0.20 |
| -58 | 0.23 |
| -59 | 0.23 |
| -60 | 0.20 |
| -61 | 0.26 |
| -62 | 0.18 |
| 80-16-4 | 0.030 |
| -5 | 0.033 |
| -6 | 0.023 |
| -7 | 0.035 |
| -8 | 0.010 |
| -9 | 0.002 |
| -10 | 0.023 |
| -11 | 0.012 |
| -12 | 0.032 |
| -13 | 0.008 |
| -14 | 0.013 |
| -15 | 0.090 |
| -16 | 0.017 |



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Molybdenum Assay Project

PROJECT NO. 916-1-0559

Page 2 of 3

| LOCATION | MoS ₂ % |
|----------|--------------------|
| 80-16-17 | 0.053 |
| -18 | 0.042 |
| -19 | 0.010 |
| -20 | 0.015 |
| -21 | 0.010 |
| -22 | 0.020 |
| -23 | 0.012 |
| -24 | 0.005 |
| -25 | 0.015 |
| -26 | 0.030 |
| -27 | 0.013 |
| -28 | 0.012 |
| -29 | 0.015 |
| -30 | 0.035 |
| -31 | 0.040 |
| -32 | 0.025 |
| -33 | 0.042 |
| -34 | 0.015 |
| -35 | 0.023 |
| -36 | 0.12 |
| -37 | 0.010 |
| -38 | 0.007 |
| -39 | 0.012 |
| -40 | 0.030 |
| -41 | 0.015 |
| -42 | 0.005 |
| -44 | 0.12 |
| -45 | 0.027 |
| -46 | 0.052 |
| -47 | 0.030 |
| -48 | 0.027 |
| -49 | 0.027 |
| -50 | 0.050 |
| -51 | 0.023 |
| -52 | 0.032 |
| -53 | 0.043 |
| -54 | 0.073 |
| -55 | 0.013 |



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DATE June 12, 1980

Molybdenum Assay Project

PROJECT NO. 916-1-0559

Page 3 of 3

| LOCATION | MoS ₂ % |
|----------|--------------------|
| 80-16-56 | 0.027 |
| -57 | 0.24 |
| -58 | 0.11 |
| -59 | 0.082 |
| -60 | 0.29 |
| -61 | 0.018 |
| -62 | 0.057 |
| -63 | 0.027 |
| -64 | 0.060 |
| -65 | 0.042 |
| -66 | 0.008 |
| -67 | 0.040 |
| -68 | 0.078 |
| -93 | 0.025 |
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PROJECT NO. 916-1-0570

Page 1 of 3

| LOCATION | MoS ₂ |
|-----------|------------------|
| 80-14-113 | 0.16 |
| -114 | 0.14 |
| -115 | 0.47 |
| -116 | 0.14 |
| -117 | 0.20 |
| -118 | 0.12 |
| -119 | 0.25 |
| -120 | 0.17 |
| -121 | 0.025 |
| -122 | 0.032 |
| -123 | 0.13 |
| -124 | 0.16 |
| -125 | 0.20 |
| -126 | 0.22 |
| -127 | 0.083 |
| -128 | 0.043 |
| -129 | 0.040 |
| -130 | 0.048 |
| -131 | 0.027 |
| -132 | 0.018 |
| -133 | 0.063 |
| -134 | 0.090 |
| -135 | 0.035 |
| -136 | 0.34 |
| -137 | 0.34 |
| S.D. -138 | 0.10 |
| -139 | 0.28 |
| -140 | 0.033 |
| -141 | 0.078 |
| -142 | 0.097 |
| -143 | 0.10 |
| -144 | 0.11 |
| -145 | 0.17 |
| -146 | 0.23 |
| 80-15-23 | 0.023 |
| -27 | 0.023 |
| -28 | 0.023 |
| -29 | 0.073 |



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DATE June 12, 1980

Molybdenum Assay Project

PROJECT NO. 916-1-0570

Page 2 of 3

| LOCATION | MoS ₂ |
|----------|------------------|
| 80-15-30 | 0.13 |
| -31 | 0.025 |
| -32 | 0.018 |
| -33 | 0.027 |
| -63 | 0.12 |
| -64 | 0.040 |
| -65 | 0.028 |
| -66 | 0.038 |
| -71 | 0.076 |
| 80-16-85 | 0.028 |
| -86 | 0.038 |
| -87 | 0.070 |
| 80-17-1 | 0.058 |
| -2 | 0.020 |
| -3 | 0.020 |
| -4 | 0.26 |
| -5 | 0.030 |
| -6 | 0.013 |
| -7 | 0.023 |
| -8 | 0.015 |
| -9 | 0.017 |
| -10 | 0.017 |
| -11 | 0.097 |
| -12 | 0.18 |
| -13 | 0.097 |
| -14 | 0.032 |
| -15 | 0.20 |
| -16 | 0.13 |
| -17 | 0.020 |
| -18 | 0.032 |
| -19 | 0.11 |
| -20 | 0.060 |
| -21 | 0.020 |
| -22 | 0.033 |
| -23 | 0.075 |
| -24 | 0.10 |
| -25 | 0.032 |
| -26 | 0.062 |



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DATE June 12, 1980

Molybdenum Assay Project

PROJECT NO. 916-1-0570

Page 3 of 3

| LOCATION | MoS ₂ |
|-------------|------------------|
| 80-17-27 | 0.15 |
| -28 | 0.070 |
| -29 | 0.007 |
| -30 | 0.062 |
| -31 | 0.082 |
| -32 | 0.067 |
| -33 | 0.037 |
| -34 | 0.050 |
| -35 | 0.017 |
| -36 | 0.26 |
| -37 | 0.033 |
| -38 | 0.032 |
| -39 | 0.028 |
| SD80-14-138 | 0.11 |
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SHELL CANADA RESOURCES

DATE June 19, 1980

PROJECT NO. 916-1-604

MOLYBDENUM ASSAYS

Page 1

| Location | MoS ₂ % |
|----------|--------------------|
| 80-17-40 | 0.083 |
| 41 | 0.053 |
| 42 | 0.037 |
| 43 | 0.060 |
| 44 | 0.023 |
| 45 | 0.067 |
| 46 | 0.032 |
| 47 | 0.028 |
| 48 | 0.032 |
| 49 | 0.060 |
| 50 | 0.027 |
| 51 | 0.30 |
| 52 | 0.10 |
| 53 | 0.15 |
| 54 | 0.10 |
| 55 | 0.11 |
| 56 | 0.055 |
| 57 | 0.063 |
| 58 | 0.070 |
| 59 | 0.19 |
| 60 | 0.35 |
| 61 | 0.11 |
| 62 | 0.085 |
| 63 | 0.14 |
| 64 | 0.095 |
| 65 | 0.15 |
| 66 | 0.058 |
| 67 | 0.062 |
| 68 | 0.17 |
| 69 | 0.23 |
| 70 | 0.13 |
| 71 | 0.42 |
| 72 | 0.27 |
| 73 | 0.14 |
| 74 | 0.14 |
| 75 | 0.077 |
| 76 | 0.10 |
| 77 | 0.10 |
| 78 | 0.12 |
| 79 | 0.26 |



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DATE June 19, 1980

PROJECT NO. 916-1-604

MOLYBDENUM ASSAYS

Page 2

| Locations | MoS ₂ % |
|-----------|--------------------|
| 80-17-80 | 0.11 |
| 81 | 0.18 |
| 82 | 0.12 |
| 83 | 0.15 |
| 84 | 0.30 |
| 85 | 0.36 |
| 86 | 0.15 |
| 87 | 0.073 |
| 88 | 0.037 |
| 89 | 0.12 |
| 90 | 0.035 |
| 91 | 0.048 |
| 92 | 0.10 |
| 93 | 0.063 |
| 94 | 0.21 |
| 95 | 0.20 |
| 96 | 0.10 |
| 97 | 0.038 |
| 98 | 0.053 |
| 99 | 0.067 |
| 100 | 0.035 |
| 101 | 0.060 |
| 102 | 0.043 |
| 103 | 0.088 |
| 80-18-1 | 0.008 |
| 4 | 0.058 |
| 5 | 0.033 |
| 8 | 0.047 |
| 11 | 0.46 |
| 12 | 0.083 |
| 15 | 0.048 |
| 16 | 0.12 |
| 21 | 0.027 |
| 22 | 0.007 |
| 23 | 0.038 |
| 24 | 0.027 |
| 25 | 0.027 |
| 26 | 0.022 |
| 27 | 0.033 |
| 28 | 0.010 |



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CERTIFICATE OF ANALYSIS

• MINERAL • GAS • WATER • OIL • SOILS • VEGETATION • ENVIRONMENTAL ANALYSIS

SHELL CANADA RESOURCES

DATE June 19, 1980

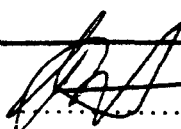
PROJECT NO. 916-1-604

MOLYBDENUM ASSAYS

Page 3

| Locations | MoS ₂ % |
|-----------|--------------------|
| 80-18-29 | .017 |
| 30 | 0.020 |
| 31 | 0.068 |
| 32 | 0.015 |
| 33 | 0.017 |
| 34 | 0.017 |
| 35 | 0.087 |
| 36 | 0.013 |
| 37 | 0.063 |
| 38 | 0.008 |
| 39 | 0.020 |
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DATE June 19, 1980

Molybdenum Assay Project

PROJECT NO. 916-1-616

Page 2 of 3

| LOCATION | MoS ₂ |
|-----------|------------------|
| 80-16-110 | 0.31 |
| -111 | 0.073 |
| -112 | 0.027 |
| -113 | 0.020 |
| -114 | 0.022 |
| -115 | 0.020 |
| -116 | 0.027 |
| -117 | 0.043 |
| -118 | 0.028 |
| -119 | 0.030 |
| 80-18-2 | 0.037 |
| -3 | 0.025 |
| -6 | 0.080 |
| -7 | 0.20 |
| -8 | 0.052 |
| -10 | 0.052 |
| -13 | 0.057 |
| -14 | 0.16 |
| -17 | 0.010 |
| -18 | 0.020 |
| -19 | 0.082 |
| -20 | 0.037 |
| 80-19-1 | 0.008 |
| -2 | 0.028 |
| -3 | 0.027 |
| -4 | 0.017 |
| -5 | 0.047 |
| -6 | 0.31 |
| 80-19-27 | 0.37 |
| -28 | 0.040 |
| -29 | 0.073 |
| -30 | 0.053 |
| -31 | 0.063 |
| -32 | 0.027 |
| -33 | 0.060 |
| -34 | 0.085 |
| -35 | 0.028 |
| -36 | 0.11 |



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DATE June 19, 1980

Molybdenum Assay Project

PROJECT NO. 916-1-616

Page 3 of 3

| LOCATION | MoS ₂ |
|----------|------------------|
| 80-19-37 | 0.18 |
| -38 | 0.033 |
| -39 | 0.023 |
| -40 | 0.010 |
| -41 | 0.008 |
| -42 | 0.012 |
| -43 | 0.133 |
| -44 | 0.057 |
| -45 | 0.018 |
| -46 | 0.023 |
| -47 | 0.085 |
| -48 | 0.013 |
| -49 | 0.028 |
| -50 | 0.042 |
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Shell Canada Resources Ltd.

DATE June 23, 1980

PROJECT NO. 916-1-654

Molybdenum Assay Project

Page 1

| Location | MoS ₂ % |
|----------|--------------------|
| 80-19-7 | 0.092 |
| 8 | 0.078 |
| 9 | 0.025 |
| 10 | 0.12 |
| 11 | 0.052 |
| 12 | 0.085 |
| 13 | 0.067 |
| 14 | 0.075 |
| 15 | 0.048 |
| 16 | 0.12 |
| 17 | 0.053 |
| 18 | 0.065 |
| 19 | 0.020 |
| 20 | 0.12 |
| 21 | 0.058 |
| 22 | 0.097 |
| 23 | 0.095 |
| 24 | 0.073 |
| 25 | 0.088 |
| 26 | 0.047 |
| 80-20-1 | 0.047 |
| 2 | 0.090 |
| 3 | 0.038 |
| 4 | 0.17 |
| 5 | 0.022 |
| 6 | 0.040 |
| 7 | 0.053 |
| 8 | 0.12 |
| 9 | 0.043 |
| 10 | 0.087 |
| 11 | 0.035 |
| 12 | 0.080 |
| 13 | 0.085 |
| 14 | 0.30 |
| 15 | 0.037 |
| 16 | 0.14 |
| 17 | 0.073 |
| 18 | 0.032 |
| 19 | 0.17 |
| 20 | 0.073 |



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DATE

PROJECT NO.

Page 2

| Location | MoS ₂ % |
|----------|--------------------|
| 80-20-21 | 0.10 |
| 22 | 0.16 |
| 23 | 0.048 |
| 28 | 0.085 |
| 25 | 0.16 |
| 26 | 0.16 |
| 27 | 0.15 |
| 28 | 0.12 |
| 29 | 0.11 |
| 30 | 0.14 |
| 31 | 0.073 |
| 32 | 0.12 |
| 32A | 0.22 |
| 33 | 0.037 |
| 34 | 0.12 |
| 35 | 0.14 |
| 36 | 0.080 |
| 37 | 0.088 |
| 38 | 0.008 |
| 39 | 0.040 |
| 40 | 0.13 |
| 41 | 0.048 |
| 42 | 0.027 |
| 43 | 0.065 |
| 44 | 0.025 |
| 45 | 0.048 |
| 46 | 0.063 |
| 80-21-1 | 0.018 |
| 2 | 0.043 |
| 3 | 0.063 |
| 4 | 0.047 |
| 5 | 0.067 |
| 6 | 0.025 |
| 7 | 0.14 |
| 8 | 0.012 |
| 9 | 0.12 |
| 10 | 0.023 |
| 11 | 0.018 |
| 12 | 0.007 |
| 13 | 0.040 |



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SHELL CANADA RESOURCES LTD.

DATE June 30, 1980

Molybdenum Assay Project

PROJECT NO. 916-1-0695

Page 2 of 2

| LOCATION | MoS ₂ % |
|----------|--------------------|
| 80-21-52 | 0.053 |
| -53 | 0.18 |
| -54 | 0.12 |
| -55 | 0.072 |
| -56 | 0.17 |
| -57 | 0.045 |
| -58 | 0.15 |
| -59 | 0.078 |
| -60 | 0.058 |
| -61 | 0.10 |
| -62 | 0.008 |
| -63 | 0.012 |
| -64 | 0.30 |
| -65 | 0.018 |
| -66 | 0.15 |
| -67 | 0.017 |
| -68 | 0.018 |
| -69 | 0.015 |
| -70 | 0.010 |
| -71 | 0.022 |
| -72 | 0.023 |
| -73 | 0.042 |
| -74 | 0.023 |
| -75 | 0.013 |
| -76 | 0.013 |
| -77 | 0.052 |
| -78 | 0.055 |
| -79 | 0.028 |
| -80 | 0.062 |
| -81 | 0.052 |
| -82 | 0.062 |



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DATE June 30, 1980

Molybdenum Assay Project

PROJECT NO. 916-1-0695

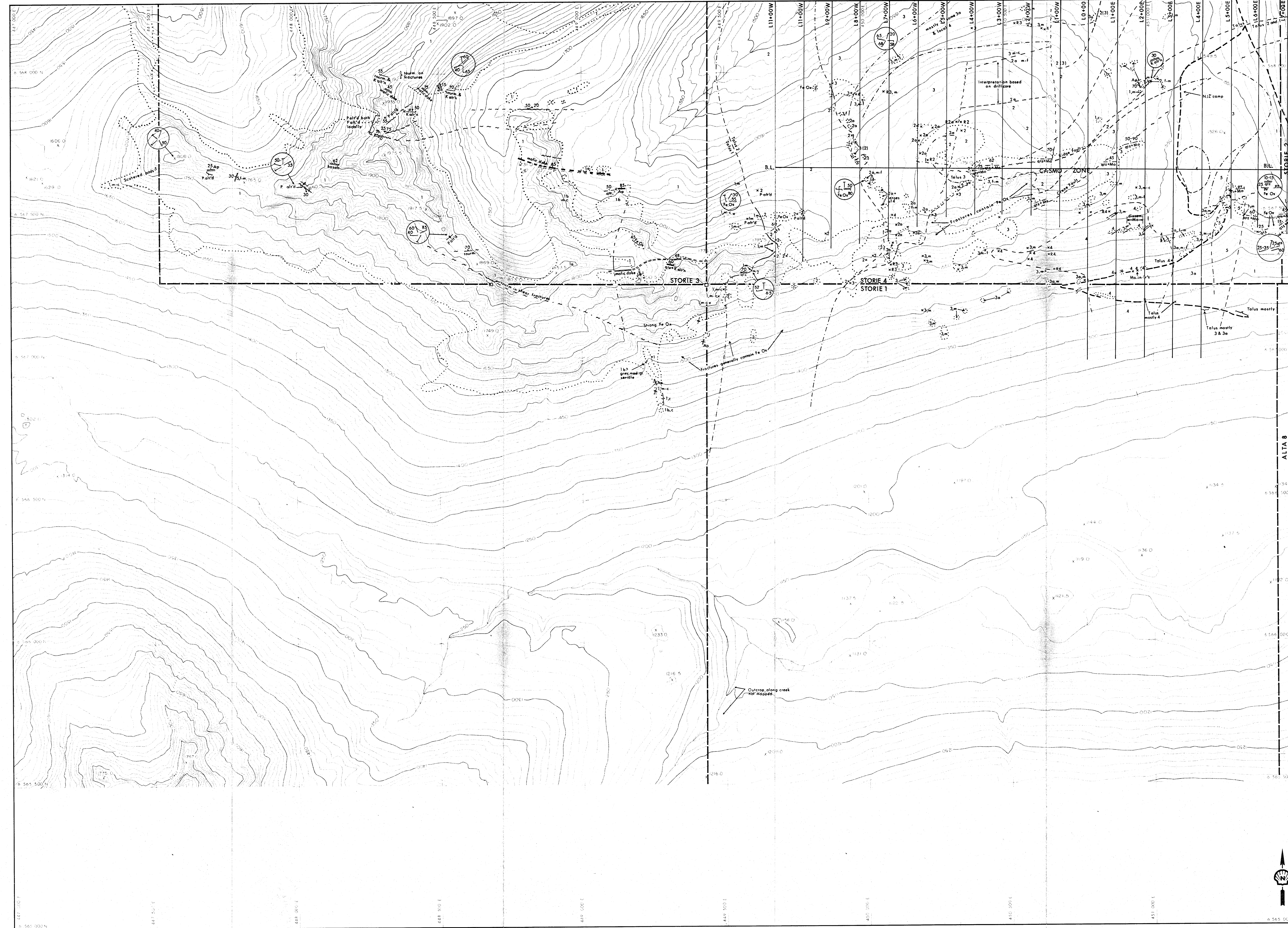
Page 1 of 2

| LOCATION | MoS ₂ % |
|----------|--------------------|
| 80-21-14 | 0.023 |
| -15 | 0.058 |
| -16 | 0.017 |
| -17 | 0.007 |
| -18 | 0.008 |
| -19 | 0.048 |
| -20 | 0.11 |
| -21 | 0.012 |
| -22 | 0.057 |
| -23 | 0.022 |
| -24 | 0.015 |
| -25 | 0.025 |
| -26 | 0.080 |
| -27 | 0.013 |
| -28 | 0.030 |
| -29 | 0.046 |
| -30 | 0.037 |
| -31 | 0.13 |
| -32 | 0.16 |
| -33 | 0.11 |
| -34 | 0.12 |
| -35 | 0.065 |
| -36 | 0.10 |
| -37 | 0.077 |
| -38 | 0.22 |
| -39 | 0.17 |
| -40 | 0.095 |
| -41 | 0.025 |
| -42 | 0.080 |
| -43 | 0.16 |
| -44 | 0.030 |
| -45 | 0.060 |
| -46 | 0.12 |
| -47 | 0.032 |
| -48 | 0.078 |
| -49 | 0.12 |
| -50 | 0.064 |
| -51 | 0.16 |



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- LEGEND**
- 1 Quartz Monzonite: light grey dominantly coarse grained, characterized by 10% to 20% pink K-feldspar phenocrysts up to 4 cm long; in places medium-grained varieties are indistinguishable from unit 3.
1a: contains more than 30% K-feldspar phenocrysts; "crowded porphyry".
1b: K-feldspar in both phenocrysts and matrix is grey.
 - 2 Quartz Monzonite: light to medium grey, dominantly medium grained bordering on fine grained, K-feldspar, plagioclase and quartz porphyritic. Distinguishing feature is bimodal biotite, i.e. normal fine-to-medium-grained as well as very fine-grained "pepper-like" biotite.
2a: pinkish grey, medium grained, weakly developed "pepper biotite".
2b: sparsely to non-porphyritic, found principally on Storie 1 claim where it grades into 2.
 - 3 Quartz Monzonite: light pinkish-grey, variably textured from fine to coarse grained and sparsely to strongly K-feldspar and quartz porphyritic but dominantly medium grained and pink K-feldspar porphyritic.
3a: in places, especially adjacent to or within regions of unit 4 the groundmass is distinctly pink, partly fine grained and sauceroidal and the K-feldspar phenocrysts are smaller than normal. Unit 3 and 3a have sharp to abruptly gradational contacts with units 4 and 5.
3b: sparsely to non-porphyritic, found principally on Storie 1 claim where it grades into 2.
 - 4 Quartz-Feldspar Porphyry: pink, fine-grained groundmass, variably developed quartz, K-feldspar and plagioclase phenocrysts.
 - 5 Quartz Monzonite: light cream to pink colored, medium bordering on fine grained, essentially non-porphyritic. In the M-zone it commonly contains and is gradational with lenses and pods of apite and pegmatite.
 - 6 Quartz Monzonite: medium grey, fine grained, uniform texture. Scattered K-feldspar porphyroblasts near contacts.
 - 7 Alteration:
7a: grey limestone
7b: tan dolomite
7c: hornfels
- Note: numbering of units does not reflect relative age.
2 (3) unit 2 locally resembling unit 3

- f, m, c fine, medium, coarse grained
x x rubble appearing to be almost in place
o o o outcrop or outcrop area, small outcrop
--- geological contact: location known, approximate, assumed.
--- Fault: location known, approximate, assumed.
--- Attitude of fault showing pitch of slickensides
--- Attitude of bedding or geological contact, inclined, vertical
--- Attitude of joints: inclined, vertical, horizontal
--- Attitude of fracture cleavage, inclined, vertical
--- Attitude of split dyke
--- Attitude of pink K-feldspar alteration band, usually with quartz and muscovite along a central fracture
--- Attitude of quartz-molybdenite veinlet
--- Legal corner post and claim boundary
--- Access road

- F alt'd Plagioclase altered to green mixture of kaolinite and mixed-layer monmorillonite-illite
F alt'd Intense alteration, plagioclase altered to green kaolinite and mixed-layer monmorillonite-illite and K-feldspar altered to green kaolinite
F kaol Feldspars intensely altered to white kaolinite
Ap Apatite
peg Pegmatite
Mo Molybdenite
py Pyrite
qtz Quartz
mag Magnetite
tourm Tourmaline
Fe Ox Distinct iron oxide staining joints
Topo lin Topographic lineament

CONTOUR INTERVAL 10 m
BASE MAP FROM AIR PHOTOS BY
MCGRAW-HILL SURVEYING & ENGINEERING LTD.

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EXPLORATION - MINERALS

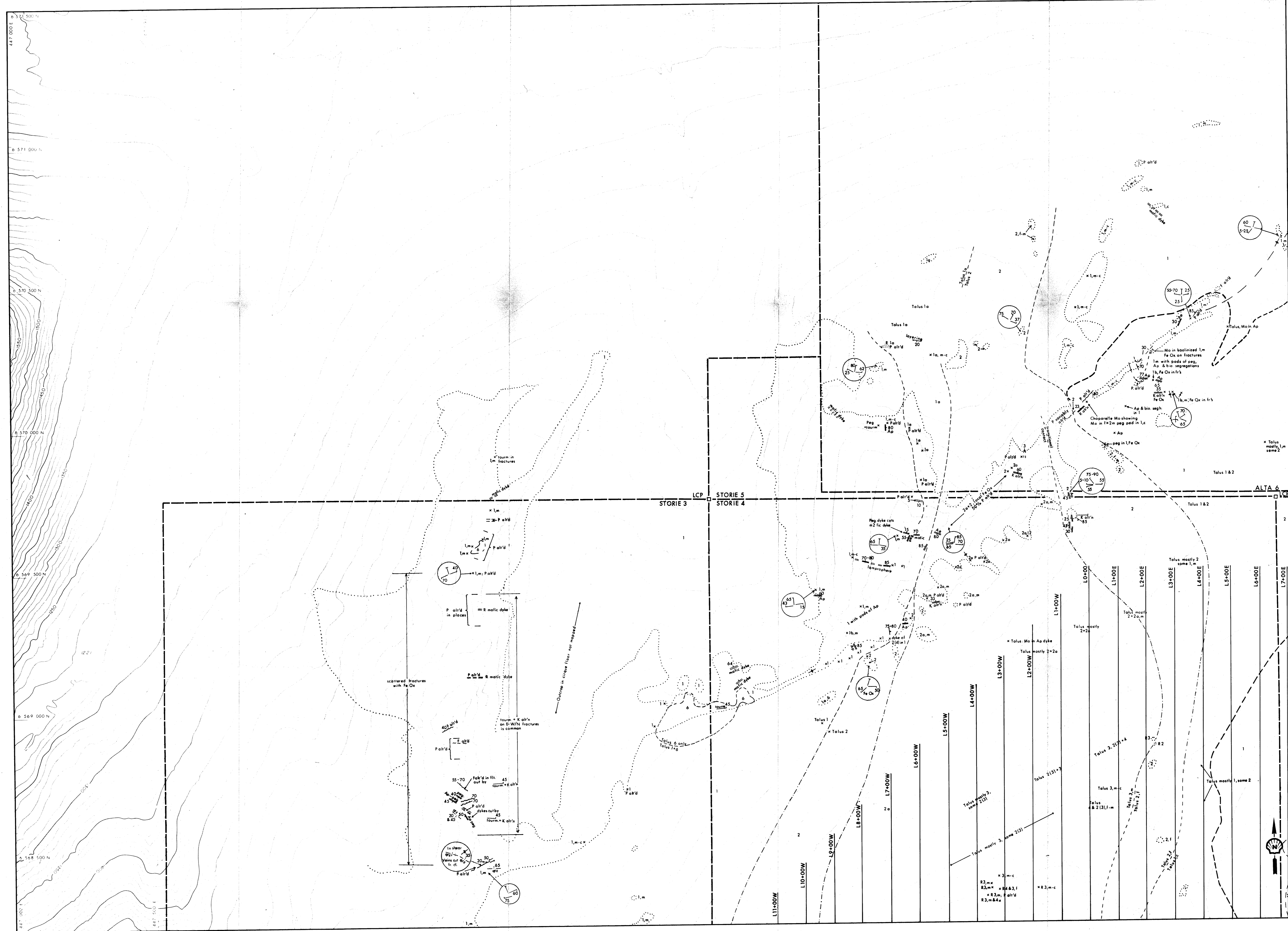
INDEX
FIG.1
FIG.2
FIG.3
FIG.4

3091 T
CASIMO PROPERTY
GEOLOGY
WITH GEOPHYSICAL GRID (1980)

AUTHOR: W. G. SMITHERSGALE SCALE: 1:5000 DRAWING NO.:
DATE: SEPT. 1980 REVISION: ENCLOSURE NO.:
BY: []

MINERAL RESOURCES BRANCH
INTERNATIONAL REPORT

9215 part 2 of 4



- LEGEND**
- 1 Quartz Monzonite: light grey dominantly coarse grained, characterized by 10% to 20% pink K-feldspar phenocrysts up to 4 cm long; in places medium grained varieties are indistinguishable from unit 3.
1a: contains more than 30% K-feldspar phenocrysts: "crowded porphyry".
1b: K-feldspar in both phenocrysts and matrix is grey.
 - 2 Quartz Monzonite: light to medium grey, dominantly medium grained bordering on fine grained, K-feldspar, plagioclase and quartz porphyritic. Distinguishing feature is bimodal biotite, i.e. normal fine to medium grained as well as very fine grained "pepper-like" biotite.
2a: pinkish grey, medium grained, weakly developed "pepper biotite".
2b: sparsely to non-porphyritic, found principally on Storie 1 claim where it grades into 2.
 - 3 Quartz Monzonite: light pinkish-grey, variably textured from fine to coarse grained and sparsely to strongly K-feldspar and quartz porphyritic but dominantly medium grained and pink K-feldspar porphyritic.
3a: in places, especially adjacent to or within regions of unit 4 the groundmass is distinctly pink, partly fine grained and saccharoidal and the K-feldspar phenocrysts are smaller than normal. Unit 3 and 3a have sharp to abruptly gradational contacts with units 4 and 5.
 - 4 Quartz Feldspar Porphyry: pink, fine grained groundmass, variably developed quartz, K-feldspar and plagioclase phenocrysts.
 - 5 Quartz Monzonite: light cream to pink colored, medium bordering on fine grained, essentially non-porphyritic. In the M zone it commonly contains and is gradational with lenses and pods of apfite and pegmatite.
 - 6 Quartz Monzonite: medium grey, fine grained, uniform texture. Scattered K-feldspar porphyroblasts near contacts.
 - 7
7a: grey limestone
7b: tan dolomite
7c: hornfels
- Note: numbering of units does not reflect relative age.
- 2 (3): unit 2 locally resembling unit 3

- 1, 2, 3 fine, medium, coarse grained
- * * * Rubble appearing to be almost in place
- Outcrop or outcrop area, small outcrop
- Geological contact: location known, approximate, assumed.
- Fault: location known, approximate, assumed.
- 20°/30° Attitude of fault showing pitch of slickensides
- 30° Attitude of bedding or geological contact, inclined, vertical
- 30° Attitude of joints: inclined, vertical, horizontal
- 30° Attitude of fracture cleavage, inclined, vertical
- 30° Attitude of apfite dyke
- 30° Attitude of pink K-feldspar alteration band, usually with quartz and muscovite along a central fracture
- 30° Attitude of quartz-molybdenite veinlet
- Legal corner post and claim boundary
- ==== Access road

- P alt'd Plagioclase altered to green mixture of kaolinite and mixed layer montmorillonite-illite
- F alt'd Intense alteration, plagioclase altered to green kaolinite and mixed layer montmorillonite-illite and K-feldspar altered to green kaolinite
- F ksd Feldspars intensely altered to white kaolinite
- Ap Apfite
- peg Pegmatite
- Mo Molybdenite
- py Pyrite
- qtz Quartz
- mag Magnetite
- tourm Tourmaline
- Fe Ox Distinct iron oxide staining joints
- Topo lin Topographic lineament

CONTOUR INTERVAL: 10 m
BASE MAP FROM AIR PHOTOGRAPHS BY
MELHAMMEY SURVEYING & ENGINEERING LTD.

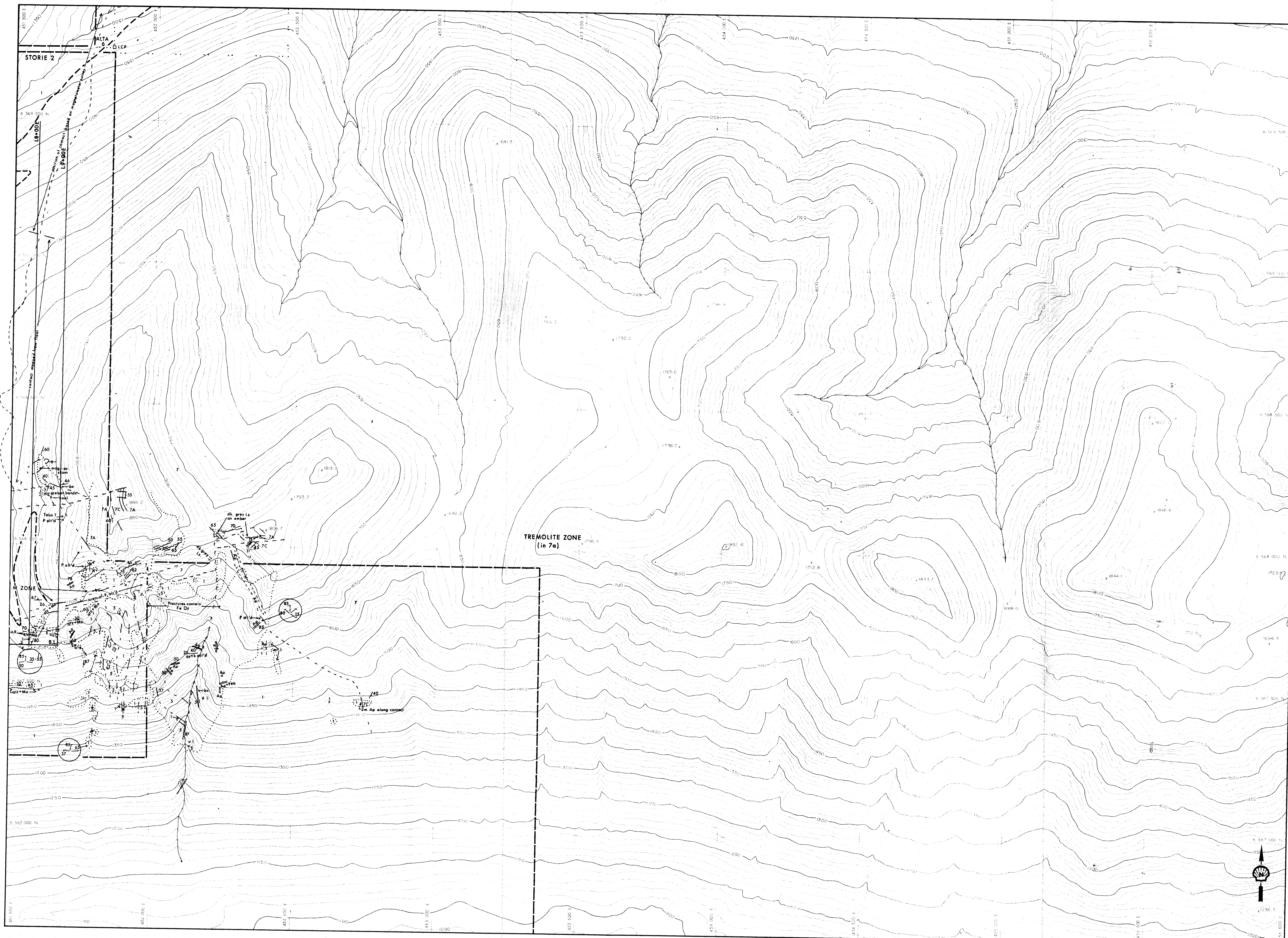
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EXPLORATION - MINERALS

3891 Y
CASMO No. 52 PROPERTY
GEOLOGY
WITH GEOGRAPHICAL GRID (1980)

AUTHOR: W.G. SMITHINGDALE SCALE: 1:5000 DRAWING NO.:
DATE: SEP. 1980 REVISION: ENCLOSURE NO.:
BY: [Signature]

INDEX
FIG 1
FIG 2
FIG 3
FIG 4

MINERAL RESOURCES BRANCH



- LEGEND**
- 1 Quartz Monzonite: light grey dominantly coarse grained, characterized by 10% to 20% pink K-feldspar phenocrysts up to 4 cm long; in places medium-grained varieties are indistinguishable from unit 3.
1a: contains more than 30% K-feldspar phenocrysts; "crowded porphyry".
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 - 2 Quartz Monzonite: light to medium grey, dominantly medium grained bordering on fine grained, K-feldspar, plagioclase and quartz porphyritic. Distinguishing feature is bimodal biotite, i.e. normal fine to medium-grained as well as very fine-grained "spongy-like" biotite.
2a: pinkish grey, medium grained, weakly developed "spongy biotite".
2b: sparsely to non-porphyritic, found principally on Store 1 claim where it grades into 2.
 - 3 Quartz Monzonite: light pinkish-grey, variably textured from fine to coarse grained and sparsely to strongly K-feldspar and quartz porphyritic but dominantly medium grained and pink K-feldspar porphyritic.
3a: in places, especially adjacent to or within regions of unit 4 the groundmass is distinctly pink, partly fine grained and anhedral and the K-feldspar phenocrysts are smaller than normal. Unit 3 and 3a have sharp to abruptly gradational contacts with units 4 and 5.
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 - 5 Quartz Monzonite: light cream to pink colored, medium bordering on fine grained, essentially non-porphyritic. In the M-zone it commonly contains and is gradational with lenses and pods of apatite and pegmatite.
 - 6 Quartz Monzonite: medium grey, fine grained, uniform texture. Scattered K-feldspar porphyroblasts near contacts.
 - 7 Apatite Group:
7a: grey limestone
7b: tan dolomite
7c: hornfels
- Note: numbering of units does not reflect relative age.
- 2 (3) unit 2 locally resembling unit 3

- f, m, c fine, medium, coarse grained
- Rubble appearing to be almost in place
- Outcrop or outcrop area, small outcrop
- Geological contact: location known, approximate, assumed.
- Fault: location known, approximate, assumed.
- 50° Attitude of fault showing pitch of slickensides
- 50° Attitude of bedding or geological contact, inclined, vertical
- 50° Attitude of joints: inclined, vertical, horizontal
- 50° Attitude of fracture cleavage, inclined, vertical
- 50° Attitude of apatite dyke
- 50° Attitude of pink K-feldspar alteration band, usually with quartz and muscovite along a central fracture
- 50° Attitude of quartz-molybdenite veinlet
- Legal corner post and claim boundary
- Access road

- P alt'd Plagioclase altered to green mixture of kaolinite and mixed-layer montmorillonite-illite
- F alt'd Intense alteration, plagioclase altered to green kaolinite and mixed-layer montmorillonite-illite and K-feldspar altered to green kaolinite
- F kaol Feldspars intensely altered to white kaolinite
- Ap Apatite
- mg Magnetite
- Mo Molybdenite
- py Pyrite
- qtz Quartz
- mag Magnetite
- tour Tourmaline
- Fe Ox Distinct iron oxide staining joints
- Topo lin Topographic lineament

CONTOUR INTERVAL 10 m
BASE MAP FROM AIR PHOTOS BY
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EXPLORATION - MINERALS

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CASMO No. 52 PROPERTY
GEOLOGY
WITH GEOPHYSICAL GRID (1980)

AUTHOR: R. G. SMITHINGALS SCALE: 1:5000 DRAWING No.:
DATE: SEPT. 1980 REVISION: ENCLOSURE No.:
BY:

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