

**GEOLOGICAL SURVEY OF NEW SOUTH WALES
DEPARTMENT OF MINES**

Geological Survey Report

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**GEOCHEMICAL SURVEY
OF THE NEWEE CREEK SILVER PROSPECT,
NAMBUCCA HEADS, N.S.W.**

by

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Department of Mines, Sydney

Accompanying plans

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Map reference **Dorrigo 1:250,000 SH 56-10
Macksville 9436-I**



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ABSTRACT

A geochemical soil survey was carried out over the Newce Creek silver prospect near Nambucca Heads, N.S.W. The prospect contained small quantities of high grade silver ore in a series of lenses (fissure fillings). The geochemical survey was made of the area in which numerous small pits and shafts had been dug. Some anomalous antimony values were obtained that may be related to the mineralization, the results for arsenic were encouraging but were not determined for all samples. Zinc and silver values were low.

Additional soil samples were collected at a later date on the possible northern extension of the prospect. The results for copper, lead and zinc were low. High arsenic values were concentrated at the most southerly end of the sampling grid with anomalous antimony values more sporadic but in the same general area.



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SURVEY DETAILS

A geochemical soil survey was carried out over the Newee Creek silver prospect by Geologist D. W. Suppel and Field Assistant G. Simon from 25th March to 8th April, 1968. A later sampling campaign extended the survey to the north. The survey was carried out following requests by Messrs W.S. McColl and P.H. Wakeling (papers MS 67/5568 and MS 67/4668 respectively) who hold mining titles over the area, and recommendations by geologists I.A. Menzies and G. C. Sylvester (1967) who made a preliminary orientation geochemical survey over the prospect.

LOCATION, ACCESS AND TOPOGRAPHY

The prospect is situated in the Nambucca State Forest No. 543 and is 5 km (3 miles) west of Nambucca Heads (figure 1). The major workings are in ML's 3 and 4, Parish of Nambucca, County of Raleigh (Dorrigo 1:250,000 SH/56-10 9436-I). The North Coast railway line passes immediately to the east of the prospect and the Newee Creek Railway Station is located 1.2 km (0.75 mile) to the south. The prospect is accessible by all-weather dirt road from Nambucca Heads which is 550 km (340 miles) by highway north of Sydney (figure 1).

The southern part of the prospect area is covered by moderate to dense vegetation. The ridges are heavily timbered with sparse undergrowth. The undergrowth becomes quite thick in the gullies. The northern section of the prospect area is less timbered and relatively flat. The surrounding private land is, in the main, cleared. The area is one of undulating topography with fairly gentle slopes. A topographic plan of the prospect (figure 2) accompanies this report.

MINING HISTORY

Silver ore at Newee Creek was discovered in 1930 by Messrs C.B. and F.H. Ward, while working upon a road. The discovery was reported by Jaquet (1931, p. 45) who described the lode as follows:

"This lode has been traced by means of shallow shafts and trenches for a distance of over 20 chains (400 m). It varies in width from 9 inches to 3 feet (23 cm to 91 cm) trends a little west of north and has a varying easterly dip.

"The country rock is micaceous schist, probably of ordovician age, and felsitic rock (felspar porphyry?).

"At the northern end of the lode both the foot and hanging wall are composed of micaceous schist and at the southern end the hanging wall is composed of felspar porphyry

The ore is composed essentially of quartz. The Curator of the Mining Museum reports that the silver is present in the form of stephanite (sulphide of silver and antimony)

"Six tons of ore obtained from a shallow trench near the southern end of the lode when treated at Port Kembla yielded silver at the rate of 226 oz. per ton (692 g/t)..."



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Kenny (1937) in a report titled "A Geological Reconnaissance of Portion of the North Coastal Region of New South Wales" described further developments at the silver prospect, which he called Ward's mine;

"Following upon its discovery in 1930 initial prospecting proved very promising, but the great variation in ore values was demonstrated by assays of samples forwarded to the Department, the silver returns ranging from 3 oz to 697 oz. per ton (90 to 2130 g/t). Early developments were satisfactory and in 1931, parcels of ore totalling 31 tons (31t) were sold the aggregate silver contents being 3,104 oz. (96.5 kg) or approximately 100 oz. per ton (3000g/t). Since that year the average grade of the material proved has not been so high samples returning 67 to 79 oz. silver per ton (2050 to 2420 g/t) and it would appear that the first parcels disposed of represented the better available from the developments.

"The mine was let on tribute and a small concentration plant was installed, but apparently attempts at treatment were not successful. The ore may not be amenable to concentration by gravity methods and experimentation may be necessary to determine a workable process. Very little work appears to have been done since 1932.

"The deposits consist of a series of lenses along a defined fissure traced on the surface for a distance approximating 25 chains (500 m) and trending N. 15 to 20 deg. E. The fissure and associated lenses dip easterly at an average angle of 65 deg.

"Country rocks comprise schistose slate of the Nambucca Series intruded by a sill-like mass of felspar porphyry while the vein material, which ranges in thickness from 9 inches to 4 ft. 6 ins (23 cm to 137 cm) and averages about 2 feet, (60 cm) is composed mainly of quartz with inclusions of shattered, blackish, slate. The silver-bearing minerals so far recognised are stephanite and ruby silver. Arsenical pyrites and iron pyrites are present also. The conditions suggest siliceous replacement along a narrow zone of crushing.

"A number of shafts, trenches and potholes have been sunk along the fissure to explore the various lenses. The main workings are a shaft 48 feet deep (14.6 m) on the underlay with drives about 5 ft. (1.5 m) long in either direction of the lens. Water level is met at a shallow depth.

"To the east of the railway line opposite the Newee Creek Mine a little prospecting has been done on an outcrop of granular quartz about 2 feet 6 inches (75 cm) wide in schistose slate, the lode trending N 15 deg. E. and dipping easterly at 65 deg. Small parcels despatched for sale returned silver at the rate of 49 ounces per ton (150 g/t)."

The deposit was examined and briefly described by Loudon (1966) and a preliminary geochemical survey undertaken by Menzies and Sylvester in 1967. Geochemical soil samples were taken along two lines across the strike of the workings. Antimony and silver anomalies were outlined by this survey, and a more comprehensive geochemical programme was recommended.

GEOLOGY

Regional

The Newee Creek silver prospect is situated in an area of antimony and silver mineralization west of Nambucca Heads. This mineralization is located in the Nambucca "Series" described by Voisey (1934) as a sequence of folded phyllites and slates. Kenny (1937) wrote that the "Series" comprised

"... thinly-bedded fine-grained sandstones and sandy shales which have undergone alteration by both regional and contact agencies. Intensity of alteration appears greater along the coastal zone where the beds simulate phyllites and schistose slates with a predominant cleavage parallel to the bedding planes along which secondary mica is developed prominently. This more altered portion of the Series is remarkable also for the presence of innumerable veinlets of white quartz arranged predominantly along bedding planes but subordinately within cracks and joints."

Granite masses have been mapped at Pickett Hill and Valla near Urunga and at Warrell Creek, south of Macksville. Dykes and sills of feldspar porphyry and syenitic type have been noted in the Nambucca "Series", particularly in the section between Urunga and Macksville.

Five kilometres (3 miles) to the west of Newee Creek prospect, silver mineralization of a similar type has been described at Tewinga (Kenny 1936). Kenny (1937) also noted

"On G.H. Killmore's property at the back of the Macksville Butter Factory, a shallow shaft has been sunk upon a lenticular quartz vein with a maximum width in schistose slates, strike N. 10 deg. E., dip westerly at a high angle. The vein is irregular and composed of white and grey quartz, in part cellular, with iron pyrites. Assays as high as 80 oz. silver per ton (2450 g/t) have been obtained but the average would approximate half this figure".

This deposit would be approximately 6 km (4 miles) south of the Newee Creek prospect. Menzies and Sylvester (1967) sampled two quartz veins and intervening country rock in a railway cutting approximately 2.5 km (1.5 miles) southwest of the prospect. The approximate location of the veins is shown on figure 1. The samples gave the following results when assayed (table 1).

A spot map of mineral localities in the Nambucca-Coffs Harbour region is shown on accompanying figure 3.

Local

Phyllites and fissile mudstones dominate the lithologies noted in a few outcrops and in the excavations and railway cuttings in the vicinity of the prospect. The fissility displayed generally has a shallow dip. Feldspar porphyry bodies are located in the area; cross sections of two exposed by railway cuttings are shown in sections on figure 4. One of the bodies is sill-like (Section A-B), the lower contact being parallel in general to the shallow-dipping fissility of the surrounding phyllites in the eastern wall of the cut. The body, however, was not apparent in the west wall. The other, narrower body, whose width is approximately 2.1 m (7 ft), is a dyke, cutting across subhorizontal foliation of the

country rock. Narrow quartz stringers both parallel to and cutting across the country rock foliation were noted in a few of the trenches.

TABLE 1

Sample Locations and Assay Results for Rock Samples (modified from Menzies and Sylvester 1967)

Assay Number	Sample Location	Gold (ppm)	Silver (ppm)	Arsenic (%)	Antimony (%)
67/3844	0.75m (2.5 ft) quartz vein in railway cut	Tr ⁽¹⁾	300	5.6	0.1
67/3845	1.07m (3.5 ft) quartz vein in railway cut	Tr	730	N.A. ⁽²⁾	N.A.
67/3846	2.15m (7ft) sediment between above veins	Tr	Tr	N.A.	N.A.
67/3847	Dump at main shaft	Tr	116	0.5	0.1
67/3848	0.45m (1.5 ft) quartz	Tr	1920	3.8	0.14
67/3849	50 mm (2 in) quartz vein in costean	Tr	14	N.A.	N.A.
67/3851	Quartz exudations in face of trench	Tr	Tr	N.A.	N.A.

¹Tr = Trace (less than 1.5 ppm) ²N.A. = Not assayed

TABLE 2

Assay Results for Samples from Location E (figure 4)

Assay Number	Field Number	Width	Description	Assay Result			
				Silver ppm	Gold ppm	Antimony (%)	Arsenic (%)
68/2400	NNC	100 mm (4 in)	Pug	270	Tr	0.1	1.0
68/2401	NCD	250 mm (10 in)	Quartz vein	1230	Tr	.01	1.2
68/2402	NCE	75 mm (3 in)	Pug	8.6	Tr	Tr	0.1

Mineralization

Old workings at the prospect are located along two or more lines of mineralization having an approximate strike of 012° (M). The distance between the northernmost and southernmost mapped workings is 520 m (1700 ft.). The shafts located during the survey (figure 2) were inaccessible, none having ladders and some being filled with water.

Silver mineralization accompanies quartz veins which apparently fill fissures. From previous records the lodes may be lens-like and occur in series along these fissures. Mineralization has been exposed at point E (figure 2) in an excavation made by the local council beside a road. This mineralization is probably the northern continuation of a fissure exploited by workings near pegs SO, SI, S2, S5, S6 and S7 (figure 2), although a series of parallel, closely spaced fissures may have been worked. The excavation has exposed an easterly dipping quartz vein about 250 mm (10 in.) in width with a pug coating on both the foot and hanging walls. The vein transgresses the foliation of the phyllite country rock. Three chip-channel samples of the quartz vein and pug were taken (figure 4). These were assayed with the following results (table 2). A section across the vein is shown on figure 4.

Mineralogy

Specimens taken from the dump of the shaft near peg S5 were examined in reflected light by L. McClatchie (appendix 1). These were of sulphide mineralization in vein quartz. The following minerals were identified; arsenopyrite (FeAsS), pyrite (FeS_2) and sphalerite (ZnS) with minor but significant amounts of tetrahedrite ($\text{Cu, Fe, Zn, Ag}_{12}(\text{Sb, As})_4\text{S}_{13}$), galena (PbS), chalcopryrite (CuFeS_2), pyrargyrite - ruby silver ore (Ag_3SbS_3), (?) miargyrite (AgSbS_2) and electrum (AuAg). Some supergene covellite (CuS) was also noted. Brief notes and a short paragenesis of the sulphides are given by McClatchie in appendix 1 of this report.

GEOCHEMICAL SURVEY

Southern Section

Sampling Procedure

Spot heights and location of important features in the area to be sampled were determined during a telescopic alidade survey from a datum point SO (figure 2) with assumed elevation of 330 m (1000 ft). A "centre line" in a general southerly direction and roughly along the strike of the workings was established by telescopic alidade and pegs were placed at 30 m (100 ft) intervals along it. By means of tape, compass and abney level, soil sample lines bearing 100°M , were laid out from these pegs, that is, approximately at right angles to the centre line, and the topographic contours constructed. A total of 318 samples were collected along 20 sample lines (figure 2). The spacing between samples was approximately 15 m (50 ft) near the lodes (as inferred by the distribution of workings) and 30 m (100 ft) toward the extremities of the lines. Sample locations were displaced from grid where necessary to ensure that only undisturbed soil samples were obtained or to prevent contamination from workings. The distribution of sampling sites is shown on figure 2.

A loamy soil with red clayey subsoil was developed over most of the prospect. Soil samples were taken from the B horizon at sample depths of 0.3 to 0.6 m (1 to 2 ft). At a few sample locations to the southwest, a

wet, mottled, clayey soil type was encountered and a sample depth of 0.6 to 0.75 m (2 to 2.5 ft) adopted.

The samples were prepared for analysis by drying and sieving through nylon bolting cloth (aperture size 200 μ) to yield a fraction of nominal minus 72 bss mesh size. All prepared samples, including some duplicate samples (14), were analysed for antimony with some also analysed for silver (73), arsenic (63), and zinc (63 samples).

Summary of Results

Analytical results are tabulated in appendix 2. The initial silver values were consistently low (range 0.30 to 1.55 ppm) with little variation (table 3, figure 5) and therefore analysis for silver content was not continued. Zinc values were also low (range 4 to 66 ppm) and erratic in distribution (figure 5).

Significantly high arsenic values were obtained at some sample location but could only in part be correlated with anomalous antimony values (see figures 5, 6). Some statistical constants for zinc, arsenic, and the related antimony content as well as the silver analysis are listed in table 3. As can be noted from correlation matrix (table 4), no correlation is apparent between the arsenic, zinc, and antimony values for a total of 60 individual samples which had been analysed for these elements.

The frequency distribution of antimony values was determined (table 5). The median value was between 0.75 and 1.0 ppm and the mean was 1.2 ppm with a standard deviation of 1.1 ppm. Values greater than 4 ppm

TABLE 3

Range, Mean and Standard Deviation Constants for Silver, Zinc, Arsenic and Antimony

Element	Range of Values(ppm)		Mean (ppm)	Standard Deviation (ppm)	Standard Error	Coefficient of variation
	Low	High				
Silver	0.30	1.55	0.42	0.17	0.02	0.4
Zinc	4	66	27	14	8	0.5
Arsenic	10	240	50	33	6.8	1.1
Antimony ⁽¹⁾	0.25	9.5	1.8	1.7	0.2	0.9

¹ Antimony values used in calculations are for the samples which were also analysed for zinc and arsenic.

TABLE 4

Correlation Coefficients for Zinc, Arsenic and Antimony Content (60-samples)

Element	Zinc	Arsenic	Antimony
Zinc	1.00	-0.15	0.08
Arsenic	-0.15	1.00	0.06
Antimony ⁽¹⁾	0.08	0.06	1.00

¹ see footnote to table 3.

TABLE 5

Frequency Distribution of Antimony Values, Mean, Standard Deviation, and Anomalous Values

Value (Interval) ppm	Frequency	% Frequency	Value (Interval) ppm	Frequency	% Frequency
0.25	31	9.80	2.5 (2.25-2.75)	20	6.33
0.5	102	32.27	3.5 (3.0-4.0)	8	2.53
0.75	20	6.33	5.5	1	0.32
1.0	49	15.50	6.0	2	0.63
1.25	23	7.28	7.0	1	0.32
1.5	29	9.18	8.0	1	0.32
1.75	16	5.06	9.5	1	0.32
2.0	12	3.80			

Mean = 1.16 ppm
Standard Deviation = 1.11 ppm
Possible anomalous value = 3.5 ppm
Probable anomalous value = 4.5 ppm

were considered to be anomalous. The antimony content of the samples are shown as contour values on figure 6. The majority of the high values can be related to some mining activity or high arsenic values but there are also areas where only one of these three variables (high antimony, high arsenic, and pit or shaft) have been noted.

Northern Section

Sampling Procedures

A northerly trending line was sited by means of a telescopic alidade from datum point S0. Samples were collected at 8 m (25 ft) intervals from a point 2N, 60 m (200 ft) north from S0, for a distance of approximately 430 m (1400 ft) (figure 7). From this centre line, transverse sampling lines were laid out at 30 m (100 ft) intervals using tape and compass and bearing of about 090°M. Sample locations were 8 m (25 ft) apart (figure 8). Collection and preparation of the samples were the same as for samples obtained from the southern section. A total of 750 samples were collected along the centre line and the 14 transverse lines (approximate size of area sampled was 400 m (1300 ft) in a northerly direction by 400 m (1300 ft) in an easterly direction.).

All the prepared samples were analysed for copper, lead, zinc, arsenic and antimony (appendix 3).

Summary of Results

Analytical values for copper, lead, zinc, arsenic and antimony are given in appendix 3. Copper, lead and zinc values showed little variation and no grouping of the higher values was apparent. Since the ranges of values were narrow, means and standard deviation were not calculated.

Ranges of values were:-

Copper	6 to 40 ppm
Lead	10 to 55 ppm
Zinc	12 to 68 ppm

Arsenic and antimony values were more variable, range and frequency distribution are listed in tables 6 and 7 respectively. For both elements, a number of values (16.5%, 23.2% of total respectively) were below detection limits. Means and standard deviations were calculated for both elements assuming (i) values below detection limit were zero, and (ii) values below detection limit were equal to the lowest detectable value. The results are given in tables 6 and 7. The difference in the calculated means were negligible (5% for arsenic, 10% for antimony), particularly when considered in conjunction with the standard deviations.

High arsenic and antimony values were grouped mainly at the southern end of the sampling grid with very few sporadic high values elsewhere (figures 9 and 10 respectively).

TABLE 6

Frequency Distribution of Arsenic Content, Mean, and Standard Deviation

Value (ppm)	Frequency	% Frequency	Value (ppm)	Frequency	%Frequency
< 5	124	16.54	70	3	0.40
5	197	26.28	80	3	0.40
10	112	14.94	120	4	0.53
15	63	8.40	140	1	0.13
20	78	10.40	150	1	0.13
25	78	10.40	160	2	0.26
30	31	4.14	200	2	0.26
35	23	2.07	250	2	0.26
40	18	2.40	300	1	0.13
50	3	0.40	400	1	0.13
60	2	0.26	800	1	0.13
Assume values < 5 ppm = 0;			Assume values < 5 ppm = 5 ppm;		
Mean = 17.5 ppm			Mean = 18.5 ppm		
Variance = 1675			Variance = 1650		
Standard Deviation = 41 ppm			Standard Deviation = 41 ppm		

Possible Anomalous Value: 100 ppm (4 samples)

Probable Anomalous Value: 140 ppm (11 samples)

TABLE 7

Frequency Distribution of Antimony Content, Mean, and Standard Deviation

Value (ppm)	Frequency	% Frequency	Value (ppm)	Frequency	% Frequency
<0.5	174	23.26	3.0	17	2.27
0.5	164	21.93	3.5	1	0.13
1.0	173	23.13	4.0	2	0.27
1.5	112	14.97	6.0	1	0.13
2.0	80	10.70	9.5	1	0.13

Assume values <0.5 ppm = 0

Mean = 0.96

Variance = 0.75

Standard Deviation = 0.87

Assume values <0.5 ppm = 0.5 ppm

Mean = 1.08ppm

Variance = 0.57

Standard Deviation = 0.76 ppm

Possible anomalous value: 2.9 ppm (17 samples)

Probable anomalous value: 3.7 ppm (5 samples)

CONCLUSIONS

Mineralization at the Newee Creek silver prospect is associated with quartz veins occurring apparently as fill fissures in barren country rock. Kenny (1937) reported that major silver bearing minerals were stephanite (Ag_5SbS_3) and pyrargyrite (Ag_3SbS_3). A polished section of samples taken from the dump of the shaft near peg S5 (figure 2) was described by McClatchie (appendix 1, this report). The following minerals were identified: arsenopyrite, pyrite and sphalerite with minor tetrahedrite, galena, chalcopyrite, pyrargyrite, miargyrite, and electrum. Because of the above observations and the general occurrence of arsenic, silver, and antimony mineralization in the region, it was considered that anomalous geochemical values would be probably associated with arsenic, antimony, silver, possibly zinc, and to a lesser extent, lead and copper.

Geochemical soil sampling results, however, were disappointing. Analytical results for copper and lead content were uniformly low. Zinc and silver values were also low and showed little variation with higher values apparently randomly distributed (figure 5, southern area). In the southern area, which included all the diggings, some indication of zones of mineralization was obtained by contouring the antimony content of the samples. Due to the mineralization being confined to narrow veins in a predominantly barren country rock, the low mobility of silver and antimony combined with the wider line spacing has probably reduced the effectiveness of geochemical soil sampling as a means of defining zones of mineralization.

Some samples in this area were analysed for arsenic. The results appeared to be partly related to the antimony values and to locations of known mineralized quartz veins. Further samples were not analysed for arsenic as it did not appear to be warranted unless additional closer spaced sampling was undertaken.

The area to the north of the workings was sampled to determine if

any anomalous zones could be detected. As mentioned above, copper, lead and zinc values were low and showed no trend. A number of anomalous arsenic (15) and antimony (22) results were obtained, for the most part, centred at the southerly end of the grid (figures 9, 10 respectively). The results indicated that a northerly extension of mineralization probably did not occur.

It is considered therefore, that geochemical soil sampling is not likely to be successful in prospecting for this type of deposit where low level mineralization is associated with quartz veins in fissure fillings of barren country rock unless a more abundant or readily detected indicator element is also present. Arsenic probably acts in this way at this prospect. A closer sampling pattern would also need to be adopted.

REFERENCES

- Jaquet, J.B., 1931. Report on a discovery of rich silver ore at Newee Creek, near Nambucca Heads. A. Rep. Dep. Mines N.S.W. for 1930, 45.
- Kenny, E.J., 1938. Silver ores at Tewinga, Macksville district. A. Rep. Dep. Mines N.S.W. for 1937, 112.
- Kenny, E.J., 1937. A geological reconnaissance of portion of the north coastal region of New South Wales. Rep. geol. Surv. N.S.W. GS 1937/054 (unpubl.).
- Loudon, A.G., 1966. Newee Creek silver prospect, Nambucca Heads (interim report). Rep. geol. Surv. N.S.W., GS 1966/092 (unpubl.).
- McClatchie, L., and Sylvester, G.C., 1968. The Tulloch silver mine, Rockvale, northern New South Wales. Rep. geol. Surv. N.S.W., GS1968/031 (unpubl.) (1970 Rec. geol. Surv. N.S.W., 12(1), 5-28, 9 figs.)
- Menzies, I.A., and Sylvester, G.C., 1967. The Newee Creek silver prospect, Nambucca Heads (Interim report). Rep. geol. Surv. N.S.W., GS 1967/198 (unpubl.).
- Voisey, A.H., 1934. A preliminary account of the geology of the middle north coast district of New South Wales. Proc. Linn. Soc. N.S.W., 59, 333-347, 1 fig., pl. XVI.

APPENDIX 1

Mineragraphic Investigation of Dump Specimens from
Newee Creek Silver Prospect

By

L. McClatchie

Several specimens of disseminated sulphide mineralization in vein quartz with angular country rock inclusions were examined in reflected light. The sulphides consisted mainly of arsenopyrite, pyrite and sphalerite with minor but significant amounts of tetrahedrite, galena, chalcopyrite (mostly exsolved from sphalerite), pyrargyrite (Ag_3SbS_3), (?) miargyrite (AgSbS_2) and electrum (Au/Ag). Supergene covellite was noted in several instances.

This suite of ore minerals is similar to those in the Tulloch, Rockvale Arsenic and Ruby Silver mines near Rockvale, where mineralization consists essentially of arsenopyrite, pyrite/mixed base metal sulphides/silver sulfosalts (McClatchie and Sylvester, 1968). As in these ores, it appears that the pyrite arsenopyrite at Newee Creek represent an early high temperature stage of mineralization. It is probable that pyrargyrite and the related silver minerals (?) miargyrite, electrum were deposited at a later, much lower temperature stage after the fracturing of the earlier sulphides. Galena and tetrahedrite mineralization may have slightly preceded the deposition of pyrargyrite and related silver minerals.



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Analytical Values for Soil Samples, Southern Grid, Newee Creek Silver Prospect,
Nambucca Heads, N.S.W.

Field Number	Registration Number	Elemental Analytical Results (ppm)					
		Cu	Pb	Zn	As	Sb	Ag
1	1974					8.0	1.10
2	1975					1.75	.45
3	1976					1.5	.45
4	1977					1.5	.45
5	1978					1.75	.40
6	1979					1.5	.35
7	1980					1.5	.35
8	1981					.75	.35
9	1982					1.0	.50
10	1983					1.5	.35
11	1984					1.5	.35
12	1985					1.5	.30
13	1986					1.5	.30
14	1987					1.5	.35
15	1988					1.5	.35
16	1989					3.0	.35
17	1990					1.5	.30
18	1991					2.5	.40
19	1992			22	25	2.5	.30
20	1993			11	70	3.5	.40
21	1994			17	100	4.0	.60
22	1995			35	60	3.0	.40
23	1996			28	30	2.5	.35
24	1997			28	160	2.5	.40
25	1998			63	20	1.5	.35
26	1999			25	10	1.0	.35
27	2000			32	15	1.25	.30
28	2001			29	25	1.5	.40
29	2002			35	10	9.5	.40
30	2003			55	10	1.5	.40
31	2873			21	10	1.0	.30
32	2874			10	15	3.25	.30
33	2875			36	15	2.75	.30
34	2876			20	10	2.75	.40
35	2877					1.25	.40
36	2878					1.75	.45



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APPENDIX 2

Analytical Values for Soil Samples, Southern Grid, Mewee Creek Silver Prospect,
Nambucca Heads, N.S.W.

Field Number	Registration Number	Elemental Analytical Results (ppm)					
		Cu	Pb	Zn	As	Sb	Ag
37	2879					1.25	.50
38	2880					2.0	.45
39	2881					1.25	.45
40	2882					1.25	.45
41	2883					1.0	.40
42	2884					2.0	.40
43	2885					2.0	.30
44	2886					2.0	.30
45	2887					2.5	.35
46	2888					2.5	.35
47	2889					2.5	.30
48	1890					2.0	.50
49	2891					2.5	.30
50	2892					6.0	.30
51	2893					1.25	.35
52	2894			34	100	3.5	.40
53	2895			10	50	1.75	
54	2896			10	40	2.0	
55	2897			21	60	2.5	
56	2898			20	240	2.75	
57	2899			29	160	2.25	
58	2900			32	80	1.75	
59	2901			37	100	1.75	
60	2902			21	35	3.5	
61	2903			27	15	2.75	
62	2904			20	25	1.75	
63	2905			66	25	2.75	
64	2906			19	15	1.0	
65	2907			19	10	.75	
66	2908			15	10	.75	.50
67	2909			14	15	3.5	.45
68	2910			19	10	.25	.45
69	2911					.25	
70	2912					.25	
71	2913					.25	
72	2914					.75	

APPENDIX 2

Analytical Values for Soil Samples, Southern Grid, Newee Creek Silver Prospect,
Nambucca Heads, N.S.W.

Field Number	Registration Number	Elemental Analytical Results (ppm)					
		Cu	Pb	Zn	As	Sb	Ag
73	2915					.75	
74	2916					.50	
75	2917					.50	
76	2918					.25	
77	2919					.50	
78	2920					.25	
79	2921					.25	
80	2922					.25	
81	2923					.25	.40
82	2924					.25	.45
83	2925					1.75	72
84	2926					.25	.45
85	2927					.25	
86	2928					.50	
87	2929					.25	
88	2930					.25	
89	2931					.25	
90	2932					.25	
91	2933					.25	
92	2934					.25	
93	2935					1.0	
94	2936					.25	
95	2937					.25	
96	2938					1.0	
97	2939					1.5	
98	2940					1.5	
99	2941					2.0	
100	2942					1.5	
101	2943					1.0	
102	2944					1.0	
103	2945					1.5	
104	2946					1.0	
105	2947					1.0	
106	2948					.5	
107	2949					.5	
108	1950					1.75	

APPENDIX 2

Analytical Values for Soil Samples, Southern Grid, Newee Creek Silver Prospect,
Nambucca Heads, N.S.W.

Field Number	Registration Number	Elemental Analytical Results (ppm)					
		Cu	Pb	Zn	As	Sb	Ag
109	2951					1.0	
110	2952					.5	
111	2953					.5	
112	2954					1.25	
113	2955					1.0	
114	2956					1.75	
115	2957					.5	
116	2958					.5	
117	2959					.5	.40
118	2960					1.25	.40
119	2961					2.75	1.55
120	2962					1.75	.40
121	2963					.75	.40
122	2964					.75	.40
123	2965					.5	
124	2966					.5	
125	2967					1.0	
126	2968					1.5	
127	2969					1.25	
128	2970					1.0	
129	2971					1.75	
94A	2972					.5	
130	3050					.5	
131	3051					.5	
132	3052					.5	
133	3053					.5	
134	3054					.5	
135	3055					1.75	
136	3056					1.75	
137	3057					.5	
138	3058					1.0	
139	3059					1.0	
140	3060					.75	
141	3061					.75	
142	3062					.75	
143	3063					.5	

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Analytical Values for Soil Samples, Southern Grid, Newee Creek Silver Prospect,
Nambucca Heads, N.S.W.

Field Number	Registration Number	Elemental Analytical Results (ppm)					
		Cu	Pb	Zn	As	Sb	Ag
144	3064					.5	.40
145	3065					.5	.45
146	3066					2.0	.45
147	3067					1.25	.45
148	3068					.5	.45
151A	3069					1.5	
150	3070					1.0	
151	3071					1.5	
152	3072					2.0	
153	3073					.5	
154	3074					.5	
155	3075					.5	
156	3076					.25	
157	3077					.25	
158	3078					.5	
159	3079					.5	
160	3080					.5	.45
161	3081			10	40	2.0	.45
162	3082			10	20	.5	.50
163	3083			9	20	.5	
164	3084			11	25	.5	
165	3085			4	30	.75	
147A	3086			8	15	.5	
166	3087			8	240	.25	
167	3088			15	45	.25	
168	3089			36	35	.25	
169	3090			20	15	1.0	
170	3091			15	40	.75	
171	3092			30	160	1.0	
172	3093			23	160	.75	
173	3094					1.0	
174	3095					.25	
175	3096					1.75	
176	3097					.25	
177	3098					1.0	
178	3099					.5	

APPENDIX 2

Analytical Values for Soil Samples, Southern Grid, Newee Creek Silver Prospect,
Nambucca Heads, N.S.W.

Field Number	Registration Number	Elemental Analytical Results (ppm)					
		Cu	Pb	Zn	As	Sb	Ag
179	3100					.5	
180	3101					.5	
181	3102					.5	
182	3103					.25	
183	3104					.25	
184	3105					.25	
185	3106					.75	
186	3107					1.5	
187	3108					.5	
188	3109					.5	
189	3110					.5	
190	3111					1.0	
191	3112					1.25	
192	3113					1.5	
193	3114					2.75	
194	3115					.75	
195	3116					.5	
183A	3117					.25	
196	3118					.25	
197	3119					1.0	
198	3120					.5	
199	3121					.5	
200	3122					1.0	
201	3123					1.25	
202	3124					1.5	
203	3125					.5	
204	3126					.5	
205	3127					1.0	
206	3128					1.0	
207	3129					1.0	
208	3130					.75	
209	3131					.5	
210	3132					.5	
211	3133					.5	
212	3134					.5	
213	3135					.5	

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Analytical Values for Soil Samples, Southern Grid, Newee Creek Silver Prospect,
Nambucca Heads, N.S.W.

Field Number	Registration Number	Elemental Analytical Results (ppm)					
		Cu	Pb	Zn	As	Sb	Ag
214	3136					1.5	
215	3137					1.0	
216	3138					.5	
217	3139					.5	
218	3140					.5	
219	3141			33	40	5.5	
220	3142			36	35	1.5	
221	3143			20	35	1.0	
222	3144			25	80	1.5	
223	3145			43	30	1.25	
224	3146			37	40	.5	
225	3147			29	50	7.0	
170A	3148			25	25	.5	
226	3149			47	35	.5	
227	3220			46	10	.5	
228	3221			47	15	1.0	
229	3222			66	10	.5	
230	3223			16	40	1.5	
231	3224			22	70	2.0	
232	3225			20	45	1.0	
233	3226			17	30	.75	
234	3227			23	20	.5	
235	3228					2.25	
236	3229					1.0	
237	3230					.5	
238	3231					1.0	
239	3232					.75	
240	3233					1.25	
241	3234					.5	
242	3235					1.0	
243	3236					1.5	
244	3237					2.0	
245	3238					1.0	
246	3239					1.0	
192A	3240					3.0	
243A	3241					.75	

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Analytical Values for Soil Samples, Southern Grid, Newee Creek Silver Prospect,
Nambucca Heads, N.S.W.

Field Number	Registration Number	Elemental Analytical Results (ppm)					
		Cu	Pb	Zn	As	Sb	Ag
247	3242					.5	
248	3243					.5	
249	3244					.5	
250	3245					1.0	
251	3246					1.0	
252	3247					1.0	
253	3248					1.0	
254	3249					1.0	
255	3250					1.0	
256	3251					1.0	
257	3252					.5	
258	3253					.5	
259	3254					.5	
260	3255					.5	
261	3256					.5	
262	3257					.5	
263	3258					1.25	
261A	3259					.5	
264	3260					.5	
265	3261					.5	
266	3262					.5	
267	3263					.5	
268	3264					.5	
269	3265					.5	
270	3266					.75	
271	3267					.5	
272	3268					.5	
273	3269					1.0	
274	3270					1.5	
275	3271					1.0	
276	3272					.5	
277	3273					.5	
259A	3274					.5	
271A	3275					.5	
278	3276					.5	
279	3277					.5	

APPENDIX 2

Analytical Values for Soil Samples, Southern Grid, Newee Creek Silver Prospect,
Nambucca Heads, N.S.W.

Field Number	Registration Number	Elemental Analytical Results (ppm)					
		Cu	Pb	Zn	As	Sb	Ag
280	3278					.5	
281	3279					.5	
282	3280					.5	
283	3281					1.25	
284	3282					.5	
285	3283					.5	
286	3284					.5	
287	3285					.5	
288	3286					.5	
289	3287					1.25	
288A	3288					1.0	
290	3289					.5	
291	3290					.5	
290A	3291					1.0	
293	3292					1.0	
294	3293					.5	
295	3294					.5	
296	3295					.5	
297	3296					.5	
298	3297					.5	
286A	3298					.5	
295A	3299					.5	
299	3300					.5	
300	3301					1.25	
301	3302					1.0	
302	3303					.5	
303	3304					1.25	
304	3305					1.25	
305	3306					2.5	
306	3307					1.0	
307	3308					1.75	
308	3309					1.0	
309	3310					.5	
310	3311					1.5	
311	3312					.5	
312	3313					.5	

APPENDIX 2

Analytical Values for Soil Samples, Southern Grid, Newee Creek Silver Prospect,
Nambucca Heads, N.S.W.

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APPENDIX 3

Analytical Values for Soil Samples, Northern Grid, Newee Creek Silver Prospect,
Nambucca Heads, N.S.W.

Field Number	Registration Number	Elemental Analytical Results (ppm)					
		Cu	Pb	Zn	As	Sb	
NC1		22	35	29	40	2	
2		20	35	31	40	2	
3		18	30	33	30	2.5	
4		20	35	24	400	2.5	
5		30	35	35	140	3	
6		30	30	33	160	2.5	
7		30	30	45	120	2.5	
8		22	25	45	60	1.5	
9		22	25	33	50	2	
10		22	25	33	30	1	
11		22	25	45	40	1	
12		24	25	48	25	1	
13		22	25	31	40	<.5	
14		26	25	36	25	1.5	
15		20	20	31	35	1.5	
16		16	25	30	25	<.5	
17		18	30	31	35	.5	
18		14	25	28	20	1	
19		16	30	38	80	2	
20		16	25	25	35	1.5	
21		12	25	25	25	1.5	
22		20	30	28	25	1.5	
23		14	25	22	30	1	
24		12	20	17	25	<.5	
25		24	30	33	30	1	
26		18	25	29	25	.5	
27		22	25	31	25	1.5	
28		22	30	34	30	.5	
29		18	25	30	25	.5	
30		16	25	29	35	.5	
31		16	25	27	30	1	
32		14	25	30	35	.5	
33		16	25	27	35	.5	
34		18	25	34	25	1	
35		22	30	42	30	.5	
36		14	25	31	15	1	



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Analytical Values for Soil Samples, Northern Grid, Newee Creek Silver Prospect,
Nambucca Heads, N.S.W.

Field Number	Registration Number	Elemental Analytical Results (ppm)					
		Cu	Pb	Zn	As	Sb	
NC37		12	25	26	20	1	
38		12	25	27	15	1	
39		18	30	36	25	1.5	
40		20	25	42	30	1.5	
41		18	25	43	10	1	
42		16	30	26	20	.5	
43		16	25	26	10	.5	
44		10	25	17	15	.5	
45		12	25	23	10	1	
46		8	20	18	15	.5	
47		18	30	27	20	1.5	
48		16	25	24	30	1	
49		20	20	35	25	1	
50		N O	S A M P L E				
51		16	30	32	15	1	
52		8	10	24	15	1	
53		18	25	20	25	1	
54		12	20	24	15	1	
55		18	25	27	10	.5	
56		14	25	27	15	1	
57		14	25	17	25	1	
58		22	30	33	300	3.5	
59		24	30	41	30	1.5	
60		18	30	31	35	3	
61		18	30	39	25	-	
62		20	25	39	20	.5	
63		24	30	37	35	.5	
64		24	30	41	15	2	
65		24	30	40	30	1.5	
66		30	35	46	40	3	
67		18	25	33	20	2	
68		24	30	36	20	2.5	
69		28	30	40	25	1	
70		26	25	37	20	1	
71		28	25	40	15	.5	
72		22	25	36	10	2	

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2a.

Analytical Values for Soil Samples, Northern Grid, Newee Creek Silver Prospect,
Nambucca Heads, N.S.W.

Field Number	Registration Number	Elemental Analytical Results (ppm)					
		Cu	Pb	Zn	As	Sb	
NC73		18	25	35	10	2	
74		22	25	36	20	.5	
75		20	25	38	10	.5	
76		22	25	39	20	1	
77		22	25	33	10	1.5	
78		18	25	29	10	1.5	
79		6	10	12	15	1.5	
80		20	35	20	250	4	
81		14	25	24	80	3	
82		20	25	29	120	4	
83		24	30	40	150	6	
84		22	50	26	250	9.5	
85		N O S A M P L E					
86			"		"	CROSS ROAD	
87		18	25	29	40	2.5	
88		14	20	27	70	2.5	
89		18	25	37	35	1.5	
90		26	25	46	25	2	
91		24	30	40	30	1	
92		24	35	51	40	2	
93		24	30	43	40	1.5	
94		20	30	37	15	.5	
95		16	25	25	35	1.5	
96		22	25	37	25	2	
97		20	30	26	20	.5	
98		18	30	26	15	.5	
99		16	35	20	20	<.5	
100		24	35	34	160	1.5	
101		24	35	37	120	1	
102		28	35	40	120	.5	
103		30	35	42	800	3	
104		26	30	44	20	3	
105		28	35	44	25	2	
106		32	30	48	200	3	
107		32	30	48	25	2.5	
108		30	30	46	10	2.5	

Analytical Values for Soil Samples, Northern Grid, Newee Creek Silver Prospect,
Nambucca Heads, N.S.W.

Field Number	Registration Number	Elemental Analytical Results (ppm)					
		Cu	Pb	Zn	As	Sb	
EC109		29	30	44	25	2.5	
110		32	30	42	10	2	
111		26	30	38	20	1.5	
112		28	30	36	20	2.5	
113		24	30	34	25	2	
114		28	35	37	200	3	
115		18	30	29	25	.5	
116		24	35	51	20	.5	
117		24	25	39	15	2	
118		24	30	38	15	1	
119		28	30	36	10	.5	
120		22	25	29	20	1.5	
121		20	30	39	20	.5	
122		22	30	31	25	1.5	
123		26	35	35	40	1.5	
124		22	30	44	20	<.5	
125		22	30	40	25	.5	
126		22	35	38	35	1	
127		22	35	36	20	.5	
128		22	45	31	40	1.5	
129		20	30	39	15	1	
130		18	25	33	15	1	
131		18	25	36	20	1	
132		NO SAMPLE ROAD					
133		20	30	34	25	<.5	
134		16	25	34	15	1.5	
135		18	25	34	20	1	
136		16	20	32	25	2	
137		16	25	34	20	<.5	
138		16	25	24	10	1.5	
139		16	25	28	20	1	
140		18	20	37	5	2	
141		28	25	44	20	1.5	
142		24	30	39	35	1	
143		22	30	30	5	3	
144		26	25	56	35	1	

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Analytical Values for Soil Samples, Northern Grid, Newee Creek Silver Prospect,
Nambucca Heads, N.S.W.

Field Number	Registration Number	Elemental Analytical Results (ppm)					
		Cu	Pb	Zn	As	Sb	
NC145		26	25	46	40	2	
146		24	30	40	40	1.5	
147		20	30	38	40	2	
148		20	30	32	35	2	
149		22	30	37	80	3	
150		30	35	43	35	1.5	
151		24	25	41	25	2	
152		25	30	38	20	1.5	
153		22	25	41	20	2	
154		20	25	33	20	2.5	
155		18	25	30	5	2.5	
156		18	20	33	30	3	
157		18	20	33	20	1.5	
158		18	25	38	15	2	
159		18	25	39	10	1	
160		12	30	30	30	1.5	
161		24	30	55	10	1.5	
162		20	25	45	30	1.5	
163		20	25	40	10	<.5	
164		24	25	47	10	<.5	
165		17	25	34	5	<.5	
166		30	30	53	10	-	
167		26	30	51	25	<.5	
168		24	25	44	30	<.5	
169		24	30	52	25	.5	
170		26	30	48	35	<.5	
171		24	25	43	25	1	
172		26	30	44	35	1	
173		28	25	40	30	1	
174		26	25	42	15	.5	
175		28	25	47	15	<.5	
176		24	25	38	10	.5	
177		20	30	37	< 5	<.5	
178		20	25	31	< 5	.5	
179		22	25	34	5	1	
180		16	20	29	5	<.5	

APPENDIX 3

Analytical Values for Soil Samples, Northern Grid, Newee Creek Silver Prospect, Nambucca Heads, N.S.W.

Field Number	Registration Number	Elemental Analytical Results (ppm)					
		Cu	Pb	Zn	As	Sb	
NC181		24	25	40	20	1	
182		18	20	35	20	1	
183		22	25	41	20	1.5	
184		18	20	31	10	2	
185		18	20	28	25	1.5	
186		18	25	27	25	1	
187		20	25	34	25	1.5	
188		22	30	32	30	1.5	
189		16	25	24	35	2.5	
190		14	20	37	10	1	
191		16	25	35	5	1	
192		10	25	26	5	2	
193		18	30	41	10	1.5	
194		14	25	31	10	1.5	
195		16	25	28	10	1.5	
196		16	25	30	25	2	
197		18	25	32	15	2	
198		18	30	35	5	2	
199		20	25	34	5	2.5	
200		22	30	36	10	1.5	
201		18	30	33	5	2	
202		18	25	34	5	1.5	
203		18	30	33	5	1	
204		18	25	30	5	2	
205		22	25	31	35	1.5	
206		16	20	22	30	2	
207		16	25	24	40	1.5	
208		18	25	27	25	1.5	
209		18	25	24	30	2	
210		18	25	25	30	1	
211		20	30	28	15	.5	
212		20	30	30	10	1	
213		24	35	34	25	1	
214		28	35	38	10	.5	
215		26	30	39	25	.5	
216		24	30	35	5	.5	

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Analytical Values for Soil Samples, Northern Grid, Newce Creek Silver Prospect,
Nambucca Heads, N.S.W.

Field Number	Registration Number	Elemental Analytical Results (ppm)					
		Cu	Pb	Zn	As	Sb	
NC 217		16	25	25	5	.5	
218		20	30	31	5	1.5	
219		20	35	62	5	.5	
220		18	35	28	5	1	
221		20	40	29	5	2	
222		20	35	30	10	1	
223		18	25	23	10	1	
224		16	25	19	20	1	
225		14	25	18	5	1	
226		22	35	25	5	1.5	
227		20	30	22	5	1.5	
228		22	35	24	10	2	
229		22	30	26	5	2.5	
230		16	25	18	5	1.5	
231		20	30	29	20	2	
232		22	30	41	20	1.5	
233		22	35	40	20	1.5	
234		22	30	31	20	1.5	
235		22	35	39	20	1	
236		22	30	30	20	1	
237		22	30	34	25	1.5	
238		16	25	29	25	2	
239		12	25	25	30	1.5	
240		12	30	24	30	1.5	
241		22	35	37	25	2	
242		18	35	30	10	2	
243		18	30	30	20	.5	
244		18	35	33	5	1.5	
245		14	30	32	5	2	
246		16	30	38	10	1.5	
247		14	25	42	15	1.5	
248		14	20	33	15	1.5	
249		14	20	28	25	1	
250		12	25	24	5	1	
251		18	25	33	5	1.5	
252		18	25	32	5	.5	

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Nambucca Heads, N.S.W.

Field Number	Registration Number	Elemental Analytical Results (ppm)					
		Cu	Pb	Zn	As	Sb	
NC253		24	30	35	25	1.5	
254		22	30	30	20	2	
255		20	30	29	15	.5	
256		22	25	29	20	1	
257		26	30	43	20	2	
258		18	30	30	15	3	
259		18	30	28	20	3	
260		18	35	35	25	3	
261		20	35	30	20	3	
262		18	35	40	35	2	
263		20	35	35	40	2	
264		18	35	21	25	2.5	
265		16	35	20	20	2.5	
266		20	35	28	20	2	
267		18	35	35	25	<.5	
268		18	35	34	15	<.5	
269		22	40	43	15	<.5	
270		18	30	40	15	<.5	
271		14	25	28	10	<.5	
272		12	25	30	10	<.5	
273		14	25	34	10	<.5	
274		20	30	38	20	<.5	
275		22	35	40	20	<.5	
276		18	30	36	20	<.5	
277		20	35	36	25	<.5	
278		22	35	28	25	<.5	
279		-	-	-	-	-	
280		18	30	24	25	<.5	
281		18	30	21	20	1	
282		16	30	17	5	2	
283		12	35	17	15	2	
284		16	35	17	20	2	
285		14	30	18	5	1.5	
286		16	35	19	5	2	
287		14	30	23	25	2	
288		18	35	26	25	3	

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Analytical Values for Soil Samples, Northern Grid, Newee Creek Silver Prospect,
Nambucca Heads, N.S.W.

Field Number	Registration Number	Elemental Analytical Results (ppm)					
		Cu	Pb	Zn	As	Sb	
NC289		14	30	25	20	2	
290		14	30	27	15	2	
291		10	30	24	10	2	
292		18	35	32	15	2.5	
293		18	40	36	10	2	
294		20	35	35	20	1	
295		14	30	26	5	1	
296		14	30	29	5	1.5	
297		12	30	26	≤ 5	.5	
298		20	40	34	≤ 5	2	
299		24	40	66	20	1	
300		18	35	35	10	1	
301		18	30	39	≤ 5	.5	
302		14	25	34	≤ 5	≤ .5	
303		14	30	33	≤ 5	≤ .5	
304		20	30	35	≤ 5	≤ .5	
305		16	30	34	≤ 5	≤ .5	
306		16	25	27	5	.5	
307		24	35	36	≤ 5	≤ .5	
308		20	25	35	≤ 5	≤ .5	
309		24	35	39	5	.5	
310		20	35	30	5	1	
311		12	30	22	25	1	
312		18	30	22	25	1	
313		16	25	22	25	1	
314		18	25	23	25	1	
315		18	25	28	25	.5	
316		22	30	36	30	1	
317		20	30	35	25	.5	
318		18	25	27	30	1	
319		22	25	26	30	2.5	
320		26	35	23	50	1.5	
321		18	35	25	70	2	
322		14	30	19	70	2.5	
323		16	30	22	60	1.5	
324		26	40	34	40	1	

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Analytical Values for Soil Samples, Northern Grid, Newee Creek Silver Prospect, Nambucca Heads, N.S.W.

Field Number	Registration Number	Elemental Analytical Results (ppm)					
		Cu	Pb	Zn	As	Sb	
NC325		12	25	23	15	1.5	
326		12	20	23	10	1	
327		14	25	27	10	1.5	
328		16	30	36	15	<.5	
329		18	25	36	10	<.5	
330		16	25	30	10	<.5	
331		18	25	32	20	1	
332		20	25	32	20	.5	
333		20	25	28	25	1	
334		16	25	17	35	.5	
335		18	25	18	35	2	
336		16	25	18	30	2	
337		14	25	17	35	2.5	
338		14	40	15	30	1.5	
339		16	25	27	25	1.5	
340		26	30	34	25	3	
341		18	25	26	20	1.5	
342		14	20	24	25	2	
343		18	30	25	20	<.5	
344		10	20	18	50	.5	
345		10	20	18	< 5	<.5	
346		10	20	18	< 5	.5	
347		16	25	18	< 5	.5	
348		12	20	20	< 5	.5	
349		12	25	18	< 5	.5	
350		10	20	17	< 5	.5	
351		14	25	19	< 5	<.5	
352		12	25	20	< 5	<.5	
353		10	25	22	< 5	<.5	
354		12	25	19	< 5	<.5	
355		18	30	29	< 5	<.5	
356		18	25	28	5	<.5	
357		20	30	23	< 5	.5	
358		16	30	25	< 5	<.5	
359		20	35	28	5	.5	
360		16	25	25	< 5	.5	

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Analytical Values for Soil Samples, Northern Grid, Newee Creek Silver Prospect, Nambucca Heads, N.S.W.

Field Number	Registration Number	Elemental Analytical Results (ppm)					
		Cu	Pb	Zn	As	Sb	
NC361		18	30	28	< 5	1.5	
362		24	30	36	5	.5	
363		18	25	32	5	.5	
364		24	30	25	10	1	
365		20	25	35	20	1	
366		22	25	35	20	.5	
367		18	25	27	20	2	
368		14	25	33	20	1.5	
369		24	35	50	25	.5	
370		20	30	47	25	1	
371		22	35	56	25	1.5	
372		24	35	43	30	1.5	
373		24	35	45	25	.5	
374		20	30	50	25	< .5	
375		18	25	37	15	< .5	
376		20	25	45	5	< .5	
377		26	30	53	5	< .5	
378		18	25	40	< 5	< .5	
379		18	50	39	< 5	< .5	
380		16	20	46	5	< .5	
381		14	20	39	5	.5	
382		18	30	29	20	.5	
383		16	30	24	40	< .5	
384		20	25	24	40	.5	
385		16	30	17	30	1	
386		18	30	20	25	.5	
387		18	25	23	25	.5	
388		20	30	21	20	.5	
389		14	25	18	15	< .5	
390		16	25	23	5	< .5	
391		14	20	25	10	< .5	
392		14	25	28	10	< .5	
393		18	30	34	15	.5	
394		16	25	33	10	.5	
395		16	25	24	< 5	1	
396		10	20	21	< 5	.5	

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Nambucca Heads, N.S.W.

Field Number	Registration Number	Elemental Analytical Results (ppm)					
		Cu	Pb	Zn	As	Sb	
NC397		12	25	21	< 5	< .5	
398		16	25	22	< 5	< .5	
399		14	20	18	5	< .5	
400		16	20	17	5	< .5	
401		14	20	19	< 5	.5	
402		18	25	20	5	< .5	
403		18	25	21	10	.5	
404		22	30	23	5	.5	
405		20	30	28	< 5	< .5	
406		18	25	28	5	< .5	
407		16	25	26	< 5	1	
408		16	40	28	5	.5	
409		18	25	31	< 5	.5	
410		18	25	35	5	< .5	
411		16	25	26	< 5	1	
412		14	25	22	5	1	
413		18	30	37	< 5	.5	
414		18	25	27	< 5	< .5	
415		12	25	24	5	< .5	
416		16	25	25	< 5	< .5	
417		18	25	34	5	.5	
418		20	35	30	10	2	
419		16	25	29	20	1	
420		20	30	30	25	.5	
421		18	25	32	20	1	
422		16	25	29	25	.5	
423		16	30	32	25	1	
424		24	35	36	10	.5	
425		22	35	39	5	< .5	
426		20	30	31	5	< .5	
427		22	35	45	5	1	
428		20	30	41	5	.5	
429		16	35	31	5	< .5	
430		20	30	45	5	< .5	
431		22	30	47	5	< .5	
432		20	25	49	< 5	< .5	

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Analytical Values for Soil Samples, Northern Grid, Newee Creek Silver Prospect,
Nambucca Heads, N.S.W.

Field Number	Registration Number	Elemental Analytical Results (ppm)					
		Cu	Pb	Zn	As	Sb	
NG433		16	25	36	5	<.5	
434		22	35	42	5	<.5	
435		18	30	42	5	<.5	
436		14	25	25	5	<.5	
437		18	30	28	< 5	<.5	
438		18	30	30	5	<.5	
439		18	30	23	10	.5	
440		20	35	29	5	<.5	
441		24	35	30	5	.5	
442		28	40	40	5	<.5	
443		18	30	26	5	<.5	
444		14	30	27	10	<.5	
445		14	25	27	15	<.5	
446		14	25	27	5	<.5	
447		18	30	23	10	<.5	
448		24	35	35	5	<.5	
449		22	35	26	5	<.5	
450		22	30	29	10	1	
451		20	25	30	10	<.5	
452		24	30	33	10	<.5	
453		22	30	34	15	<.5	
454		24	35	40	10	<.5	
455		22	30	40	20	<.5	
456		22	35	33	15	<.5	
457		22	30	34	15	1.5	
458		20	25	32	10	.5	
459		24	30	32	20	<.5	
460		20	30	31	20	.5	
461		16	25	25	15	2	
462		20	30	26	30	1	
463		22	30	29	25	2	
464		20	30	29	10	1	
465		26	30	44	10	<.5	
466		28	35	43	15	<.5	
467		26	30	40	10	<.5	
468		34	40	51	10	<.5	

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Analytical Values for Soil Samples, Northern Grid, Newee Creek Silver Prospect,
Nambucca Heads, N.S.W.

Field Number	Registration Number	Elemental Analytical Results (ppm)					
		Cu	Pb	Zn	As	Sb	
NC469		32	40	48	25	< .5	
470		24	35	44	10	< .5	
471		18	30	35	10	< .5	
472		18	25	34	10	< .5	
473		18	25	35	10	< .5	
474		22	35	44	20	.5	
475		20	25	34	15	< .5	
476		26	35	44	15	< .5	
477		26	35	49	10	.5	
478		30	30	56	25	< .5	
479		38	35	56	20	1	
480		30	35	44	20	< .5	
481		22	30	42	5	1	
482		24	30	43	5	1.5	
483		22	25	41	5	.5	
484		24	30	43	5	.5	
485		24	30	38	5	1	
486		24	30	38	5	.5	
487		28	35	45	< 5	< .5	
488		30	30	39	5	< .5	
489		20	20	33	< 5	1	
490		16	20	31	< 5	.5	
491		20	25	40	< 5	1	
492		22	25	42	5	.5	
493		24	40	31	15	< .5	
494		20	30	25	5	< .5	
495		16	25	19	5	< .5	
496		18	30	21	15	1	
497		18	35	37	10	.5	
498		12	20	23	< 5	< .5	
499		14	25	24	5	1	
500		16	25	26	5	.5	
501		24	40	37	5	< .5	
502		26	40	38	10	< .5	
503		22	35	33	5	1	
504		20	30	34	5	< .5	

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Analytical Values for Soil Samples, Northern Grid, Newee Creek Silver Prospect, Nambucca Heads, N.S.W.

Field Number	Registration Number	Elemental Analytical Results (ppm)					
		Cu	Pb	Zn	As	Sb	
N0505		24	30	46	< 5	1	
506		24	35	39	< 5	2	
507		22	30	38	10	.5	
508		26	30	45	5	< .5	
509		16	20	30	5	1	
510		30	40	51	20	.5	
511		22	30	38	5	1.5	
512		24	30	39	15	2	
513		24	30	41	20	1	
514		26	35	48	15	1	
515		24	35	43	5	1	
516		30	35	46	10	2	
517		26	35	41	15	1	
518		22	30	32	< 5	.5	
519		24	30	39	10	.5	
520		26	35	38	10	< .5	
521		32	35	36	10	.5	
522		28	35	35	15	1	
523		28	30	41	15	2	
524		20	25	33	20	1.5	
525		14	25	28	10	1.5	
526		16	25	29	15	1	
527		18	30	33	15	1	
528		24	25	36	5	1	
529		22	25	36	15	< .5	
530		24	35	43	10	< .5	
531		26	35	44	10	< .5	
532		28	30	50	10	< .5	
533		26	30	50	5	< .5	
534		24	35	50	25	< .5	
535		20	30	35	25	< .5	
536		24	30	44	5	< .5	
537		26	25	48	< 5	< .5	
538		30	30	47	< 5	< .5	
539		28	30	43	10	.5	
540		28	30	42	< 5	.5	

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Analytical Values for Soil Samples, Northern Grid, Newee Creek Silver Prospect,
Nambucca Heads, N.S.W.

Field Number	Registration Number	Elemental Analytical Results (ppm)					
		Cu	Pb	Zn	As	Sb	
NC541		28	30	42	< 5	1	
542		26	25	43	5	1.5	
543		22	25	27	5	1.5	
544		16	25	28	10	1	
545		20	25	31	< 5	2	
546		28	35	40	5	< .5	
547		28	30	33	5	< .5	
548		34	30	42	5	.5	
549		26	30	26	10	< .5	
550		14	20	29	< 5	< .5	
551		26	35	44	< 5	< .5	
552		22	25	42	< 5	< .5	
553		26	30	52	< 5	< .5	
554		22	25	64	< 5	1	
555		28	30	59	5	1	
556		32	30	60	5	2	
557		38	40	56	20	2	
558		30	30	56	< 5	1	
559		28	25	47	5	1.5	
560		36	40	49	25	2	
561		28	35	47	< 5	2	
562		24	30	43	5	1.5	
563		22	30	40	5	1	
564		18	25	39	< 5	1	
565		22	25	43	10	2	
566		22	25	45	10	1	
567		28	30	46	10	1	
568		22	25	45	5	1	
569		24	25	46	5	1.5	
570		26	30	47	5	1.5	
571		24	25	42	< 5	1.5	
572		22	55	43	5	2	
573		16	35	35	< 5	1.5	
574		20	35	36	< 5	2	
575		14	20	28	< 5	2	
576		18	25	36	< 5	1.5	

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Analytical Values for Soil Samples, Northern Grid, Newee Creek Silver Prospect,
Nambucca Heads, N.S.W.

Field Number	Registration Number	Elemental Analytical Results (ppm)					
		Cu	Pb	Zn	As	Sb	
NC577		20	25	35	< 5	2	
578		18	30	45	5	1	
579		10	25	25	< 5	1.5	
580		12	25	25	< 5	1	
581		16	25	26	< 5	1	
582		18	30	31	< 5	.5	
583		20	30	31	< 5	1	
584		18	30	27	5	1	
585		24	35	35	< 5	1	
586		22	35	33	5	1.5	
587		24	35	33	< 5	.5	
588		22	35	33	5	1	
589		26	30	40	5	.5	
590		20	25	32	5	1	
591		24	30	42	5	1.5	
592		28	30	46	5	1	
593		30	25	68	5	.5	
594		20	25	49	5	.5	
595		20	20	41	5	.5	
596		24	25	33	10	.5	
597		24	25	29	5	1	
598		22	25	37	5	.5	
599		28	25	38	10	.5	
600		22	25	28	5	1	
601		24	30	29	10	.5	
602		16	30	26	10	1.5	
603		12	25	33	5	.5	
604		14	25	36	< 5	1.5	
605		12	25	26	5	1	
606		18	30	35	5	1	
607		16	25	29	10	2	
608		14	25	26	5	2	
609		16	30	35	< 5	1.5	
610		32	35	57	10	1	
611		22	30	45	5	1.5	
612		18	35	38	< 5	1.5	

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Analytical Values for Soil Samples, Northern Grid, Newee Creek Silver Prospect,
Nambucca Heads, N.S.W.

Field Number	Registration Number	Elemental Analytical Results (ppm)					
		Cu	Pb	Zn	As	Sb	
NC613		20	35	37	5	1.5	
614		18	35	39	5	1	
615		14	30	30	5	.5	
616		14	30	20	5	.5	
617		10	25	21	< 5	.5	
618		15	35	26	5	.5	
619		12	30	20	5	1	
620		12	30	15	5	1	
621		14	35	19	5	1	
622		12	35	17	5	1	
623		12	30	14	< 5	1	
624		10	30	13	5	1	
625		10	25	12	5	1	
626		12	35	19	< 5	1	
627		10	30	15	5	1.5	
628		12	30	16	5	1.5	
629		16	35	21	10	1.5	
630		18	35	28	5	1.5	
631		14	30	26	< 5	1.5	
632		18	30	26	5	1.5	
633		18	30	22	5	1	
634		14	25	19	< 5	1	
635		16	30	22	5	1.5	
636		22	35	24	< 5	1.5	
637		22	30	25	5	1	
638		20	30	27	< 5	.5	
639		28	40	30	5	1	
640		34	50	35	10	1.5	
641		28	45	30	15	2	
642		34	45	42	10	1	
643		28	45	32	5	1	
644		28	40	37	5	1	
645		22	30	31	< 5	2.5	
646		22	30	36	5	1	
647		20	25	30	5	.5	
648		18	25	36	< 5	1	

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Analytical Values for Soil Samples, Northern Grid, Newee Creek Silver Prospect,
Nambucca Heads, N.S.W.

Field Number	Registration Number	Elemental Analytical Results (ppm)					
		Cu	Pb	Zn	As	Sb	
NC649		24	25	31	< 5	.5	
650		20	25	28	< 5	.5	
651		28	35	41	5	.5	
652		30	30	46	< 5	.5	
653		16	30	29	< 5	.5	
654		16	30	29	< 5	.5	
655		16	35	26	< 5	< .5	
656		14	30	17	< 5	.5	
657		14	30	20	< 5	< .5	
658		8	30	14	< 5	.5	
659		10	30	14	< 5	.5	
660		10	25	13	5	< .5	
661		10	25	12	< 5	< .5	
662		14	35	18	< 5	.5	
663		14	30	15	< 5	1	
664		12	30	14	< 5	< .5	
665		12	35	15	< 5	1	
666		12	35	18	< 5	1	
667		12	30	17	< 5	1	
668		16	35	20	< 5	.5	
669		22	35	25	< 5	.5	
670		30	40	40	< 5	1	
671		24	35	26	< 5	1	
672		24	40	25	< 5	.5	
673		22	40	23	5	.5	
674		22	40	25	5	< .5	
675		22	40	21	< 5	1	
676		22	50	26	< 5	.5	
677		28	35	41	< 5	.5	
678		16	30	21	< 5	< .5	
679		22	35	24	< 5	1	
680		26	35	30	5	2	
681		18	30	24	< 5	1	
682		18	30	32	10	.5	
683		10	25	19	5	.5	
684		20	30	26	5	.5	

APPENDIX 3

Analytical Values for Soil Samples, Northern Grid, Newee Creek Silver Prospect, Nambucca Heads, N.S.W.

Field Number	Registration Number	Elemental Analytical Results (ppm)					
		Cu	Pb	Zn	As	Sb	
685		20	30	21	5	1	
686		18	30	19	10	< .5	
687		24	30	22	5	< .5	
688		28	35	29	5	< .5	
689		26	35	28	10	.5	
690		NO SAMPLE COLLECTED					
691		28	30	37	15	< .5	
692		30	35	47	5	.5	
693		28	30	41	5	.5	
694		28	30	51	5	.5	
695		32	30	48	10	1.5	
696		44	35	65	5	1.5	
697		28	30	57	< 5	< .5	
698		34	30	43	5	< .5	
699		30	30	48	10	.5	
700		30	30	50	< 5	< .5	
701		26	30	46	< 5	< .5	
702		22	25	37	5	< .5	
703		14	30	25	< 5	< .5	
704		12	25	18	5	< .5	
705		12	25	16	5	1.5	
706		10	30	15	5	.5	
707		10	25	14	< 5	< .5	
708		12	30	14	5	.5	
709		12	30	17	10	.5	
710		12	30	15	10	.5	
711		14	30	17	< 5	< .5	
712		12	30	13	5	< .5	
713		14	30	16	< 5	< .5	
714		14	25	14	5	.5	
715		14	40	15	10	< .5	
716		14	30	14	5	< .5	
717		16	35	17	10	.5	
718		20	30	17	5	1	
719		20	30	25	5	.5	
720		20	35	29	10	1	

APPENDIX 3

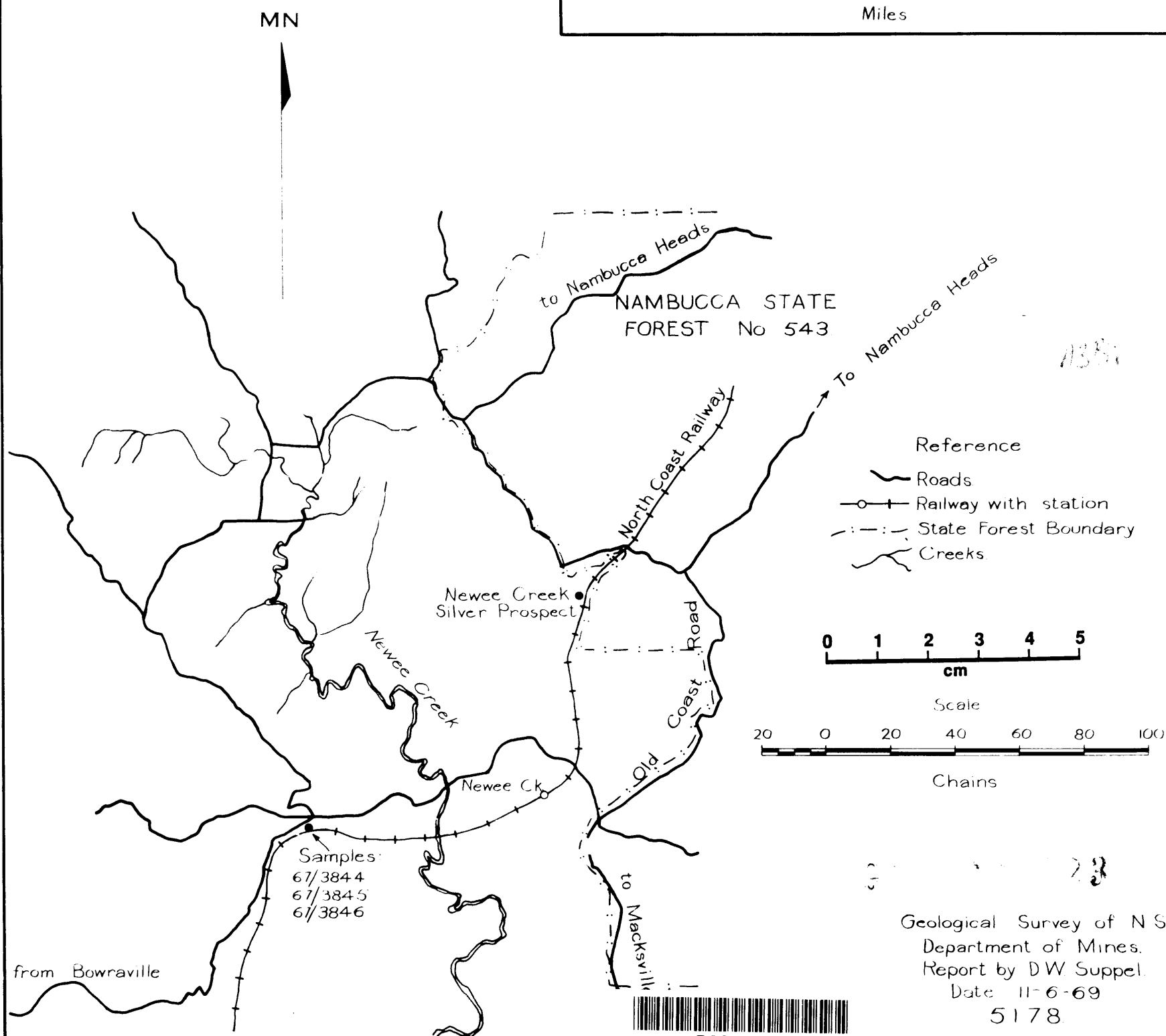
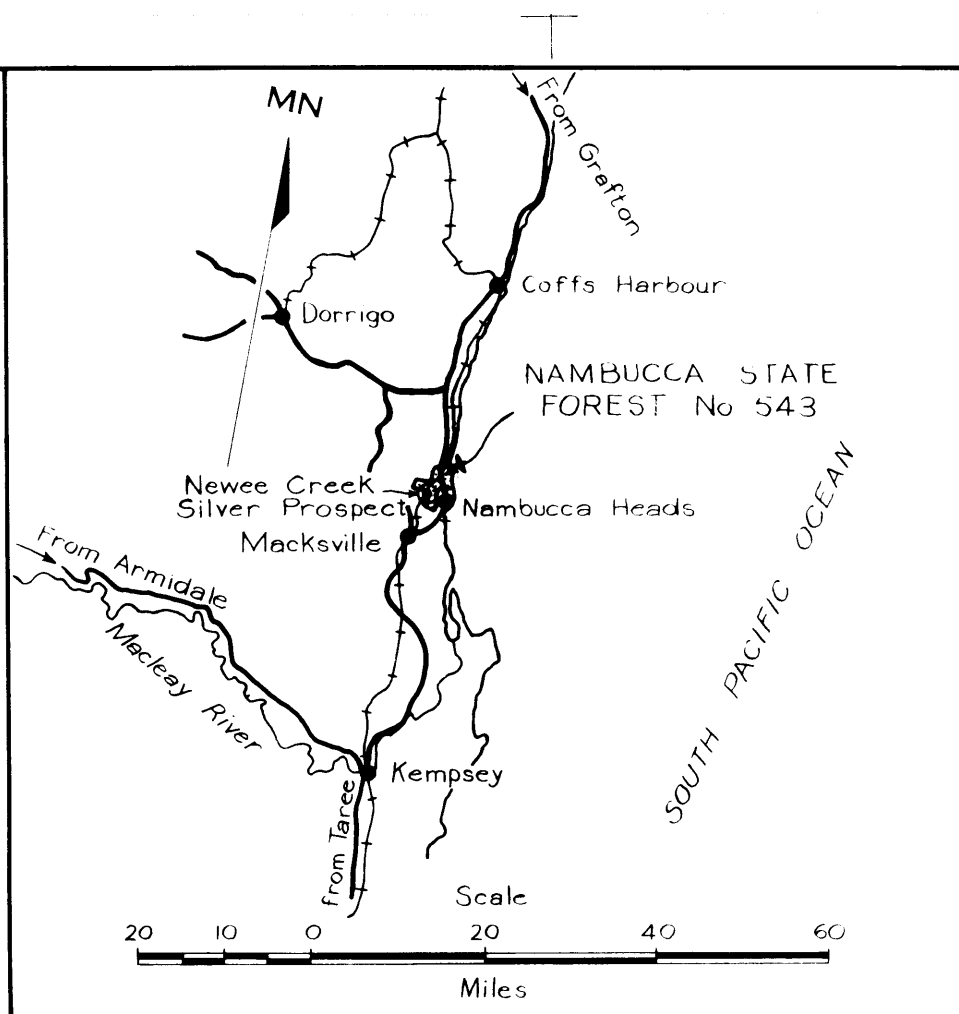
601077 123

Analytical Values for Soil Samples, Northern Grid, Newee Creek Silver Prospect,
Nambucca Heads, N.S.W.

Field Number	Registration Number	Elemental Analytical Results (ppm)					
		Cu	Pb	Zn	As	Sb	
NC721		22	30	35	10	< .5	
722		26	30	39	5	.5	
723		18	35	22	5	.5	
724		22	35	25	5	1	
725		22	35	31	5	1	
726		24	30	29	5	1.5	
727		30	35	39	15	< .5	
728		18	30	28	5	1	
729		18	25	26	5	1	
730		14	30	22	5	1	
731		16	25	19	5	1	
732		20	30	27	5	1	
733		14	30	28	5	< .5	
734		16	25	25	10	.5	
735		18	25	33	5	.5	
736		22	30	27	5	.5	
737		20	25	24	10	.5	
738		26	30	23	5	.5	
739		20	30	22	10	< .5	
740		24	30	27	5	.5	
741		26	30	30	10	.5	
742		30	35	33	5	1	
743		34	35	35	10	.5	
744		34	35	35	10	< .5	
745		40	35	45	20	1.5	
746		34	35	46	5	< .5	
747		34	40	51	10	1	
748		30	35	30	10	< .5	
749		38	35	61	5	.5	
750		36	30	64	15	.5	
751		34	30	62	15	< .5	
752		32	30	59	5	< .5	
753		38	30	62	10	< .5	
754		30	30	41	15	< .5	
755		30	35	37	25	1	
756		30	35	39	15	1	

LOCALITY PLANS NEWEE CREEK SILVER PROSPECT

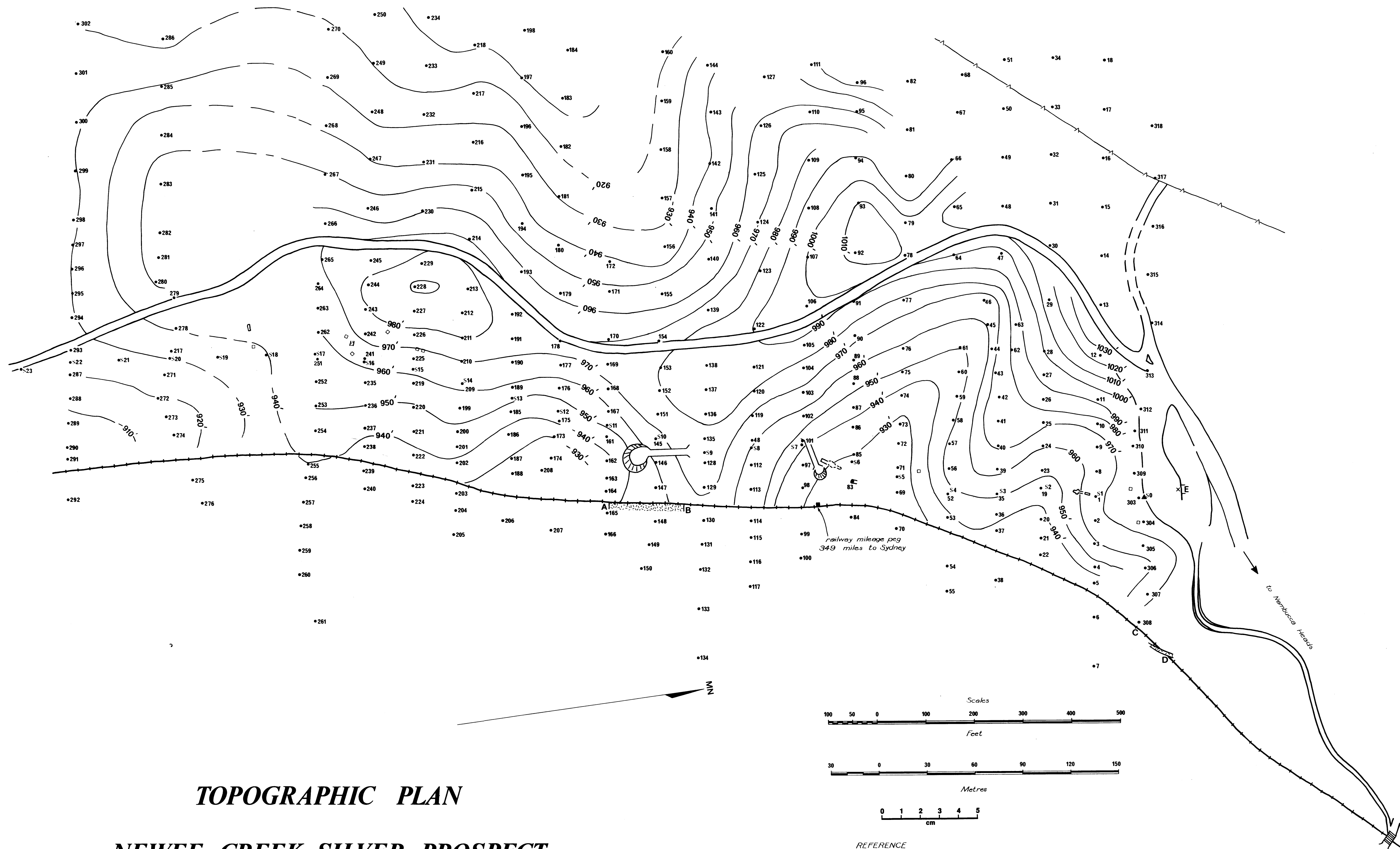
ML 3,4 and 5 Ph. Nambucca, Co Raleigh
Dorrigo SH 56-10 9436-1



Geological Survey of N S W
Department of Mines.
Report by D W Suppel.
Date 11-6-69
5178



D002845270



TOPOGRAPHIC PLAN

NEWEE CREEK SILVER PROSPECT

DORRIGO SH/56-10 9436-1
 Alidade, tape, compass and abney level survey
 by D. Suppel and G. Simon

- REFERENCE
- | | | | |
|---------|---------------------------------------|---|---------------------|
| • 111 | Geochemical soil sample locality | □ | Shaft, inaccessible |
| ▲ | Assumed elevation 1000' | ~ | Porphyry |
| ~ | Trench or costean with dump | ~ | Dirt road |
| ~ 930 ~ | Topographical contour (10' intervals) | + | Railway |
| | | — | Power lines |

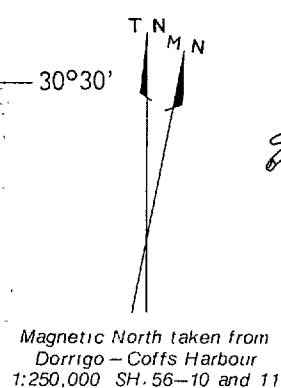


0002845280

Geological Survey of New South Wales
 Department of Mines
 Report by D.W. Suppel
 Date: 4-7-69

5/81

GS1977 123



<i>Taylor's Arm district</i>	43.	<i>Kia Ora prospect</i>	<i>Sb</i>
<i>(continued)</i>	44.	<i>Purgatory mine*</i>	<i>Sb</i>
	45.	<i>Dunghill mine</i>	<i>Sb</i>
	46.	<i>Sullivan's Hope prospect</i>	<i>Sb</i>
	47.	<i>Manusus prospect</i>	<i>Sb</i>
	48.	<i>Swallows Nest (Sharmans) mine</i>	<i>Sb</i>
	49.	<i>Grahams Hope deposit</i>	<i>Sb</i>
	50.	<i>Real McKay deposit</i>	<i>Sb</i>
	51.	<i>Nalders prospect</i>	<i>Sb</i>
	52.	<i>Flemings prospect</i>	<i>Sb</i>
	53.	<i>Underlay prospect</i>	<i>Sb</i>
	54.	<i>Grahams Mistake deposit</i>	<i>Sb</i>
	55.	<i>Hidden Treasure deposits</i>	<i>Sb</i>
	56.	<i>Dog and Duck deposit</i>	<i>Sb</i>
	57.	<i>Underlay mine reefs</i>	<i>Sb</i>
	58.	<i>Bradleys mine reefs</i>	<i>Sb</i>
	59.	<i>Surprise mine reefs</i>	<i>Sb</i>
	60.	<i>Swallows Nest deposit</i>	<i>Sb</i>
	61.	<i>Hanging Rock Creek deposit</i>	<i>Sb</i>

TERTIARY



GEOLOGICAL REFERENCE

Tb Basalt



D002845290

PERMIAN



New England Batholith

Pair Mainly adamellite
Pald Round Mountain Leucadamellite
Pab Daisy Plains Leucadamellite
Pac Botumburra Range Adamellite
Pav Carrar Adamellite
Pav Valla Adamellite
Pay Yarrhapinni Adamellite
Ptc Crescent Complex



Deposit locality

Boundary of Nambucca Beds

Boundary between Eastern and Western Blocks

Fault — position accurate

Fault — position approximate

River

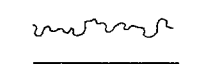
Geological boundary

PERMIAN



Hillgrove Plutonic Suite

Phfa Glenifer Adamellite
Phv Valery Granodiorite
Phdc Dorrigo Mountain Complex



Geological Survey of N.S.W.
 Department of Mines
 Report by D. Suppel
 Date: 5/12/73

PERMIAN



Nambucca Beds

Psb Basic volcanics within base of Nambucca Beds



Geological Survey of N.S.W.
 Department of Mines
 Report by D. Suppel
 Date: 5/12/73

PERMIAN



Nambucca Beds

Psb Basic volcanics within base of Nambucca Beds



Geological Survey of N.S.W.
 Department of Mines
 Report by D. Suppel
 Date: 5/12/73

A3BW



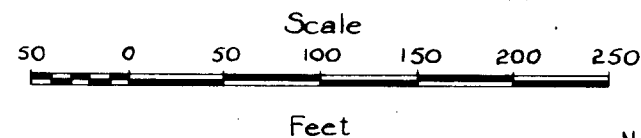
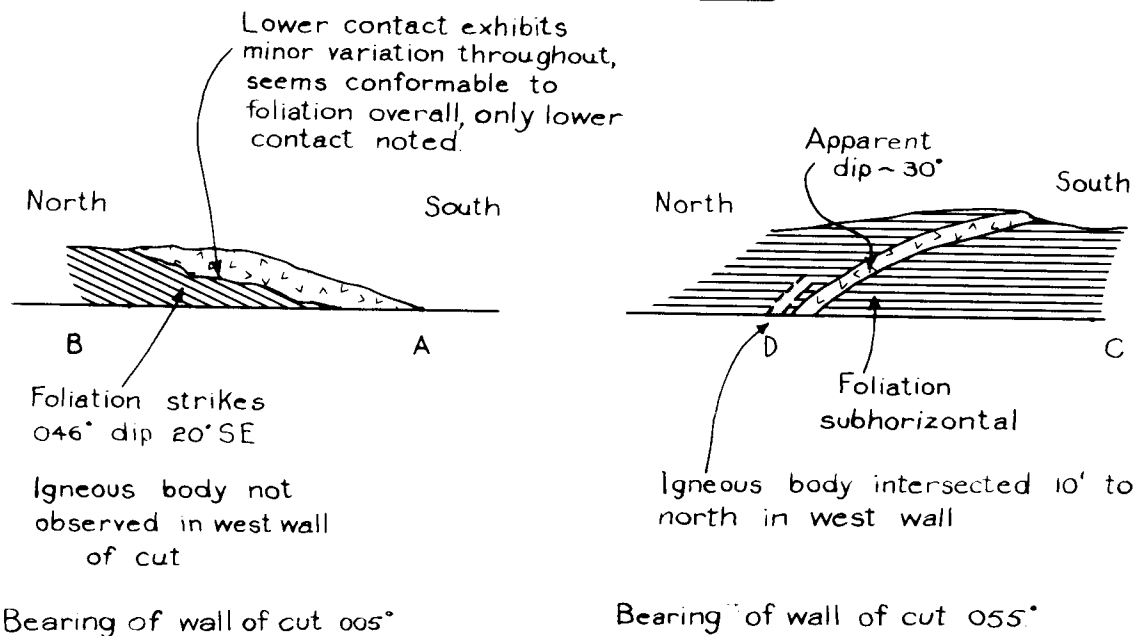
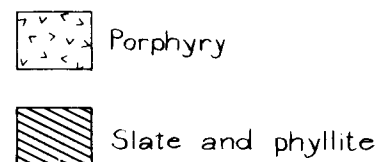
D002845290

66-1977-123

SECTIONS OF IGNEOUS BODIES AND LODE, NEWEE CREEK SILVER PROSPECT

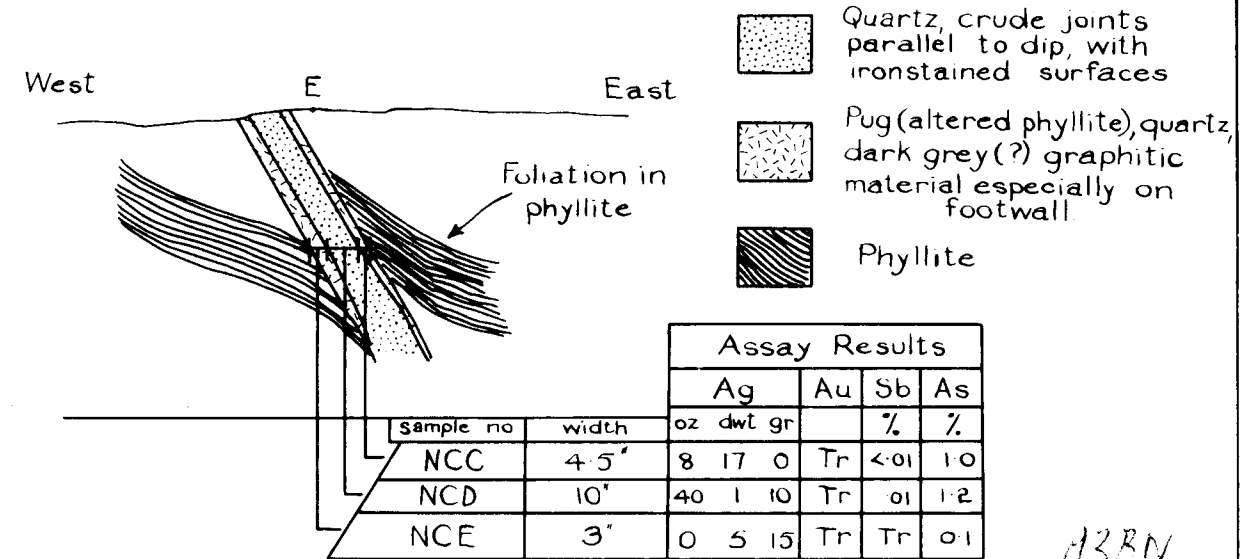
DORRIGO SH/56-10 9436-I

SECTIONS EXPOSED BY RAILWAY CUTTINGS (looking west)

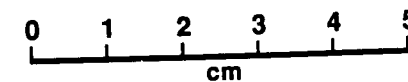
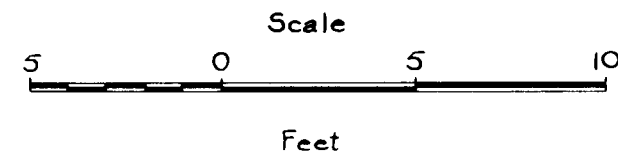


Note: for location see Plan 5178

SECTION of LODE EXPOSED at "E" (Plan 5181)



Bearing of face 260°

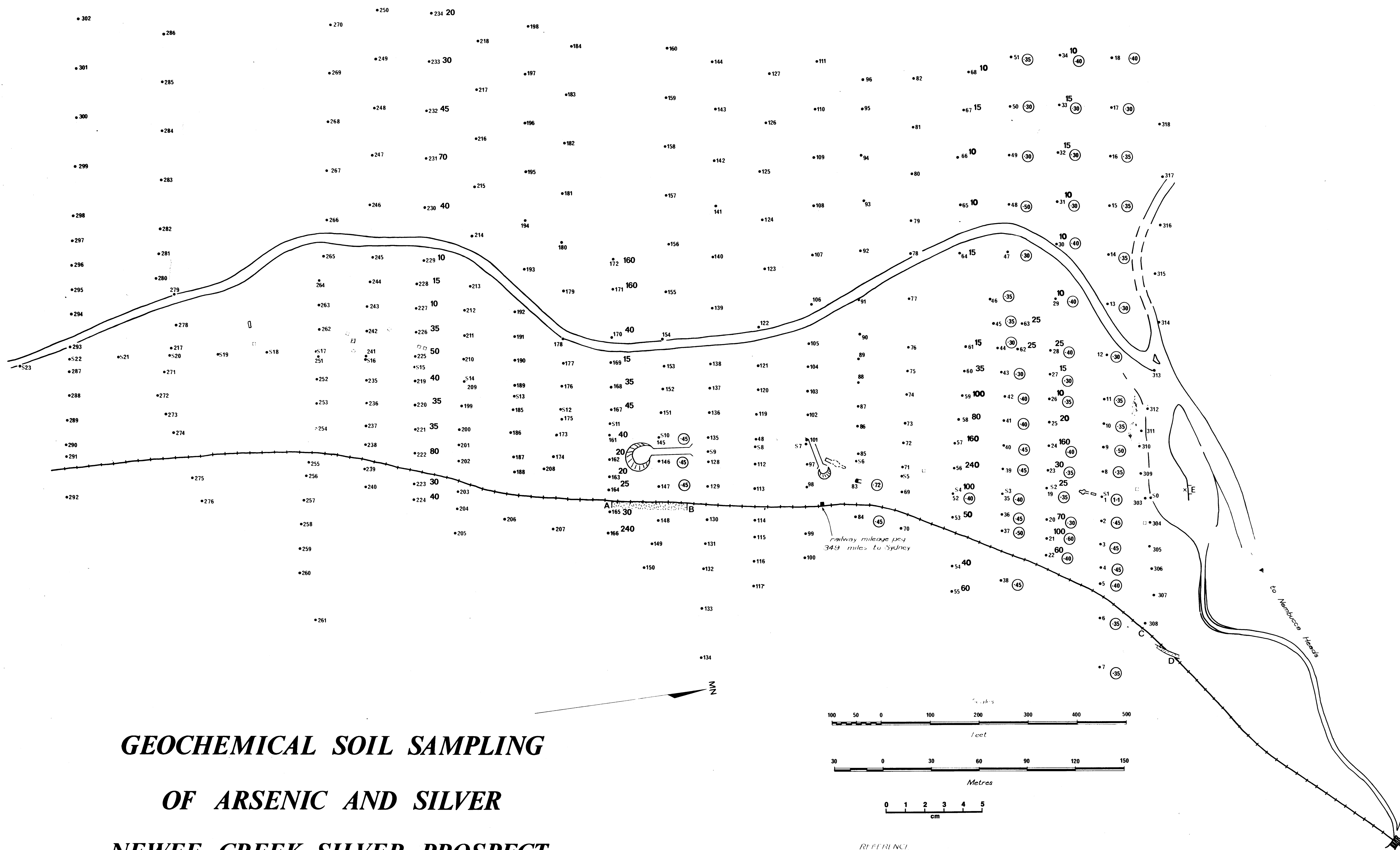


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Department of Mines
Report by D Suppel
16-5-69

D002845300

5182

30 027 123



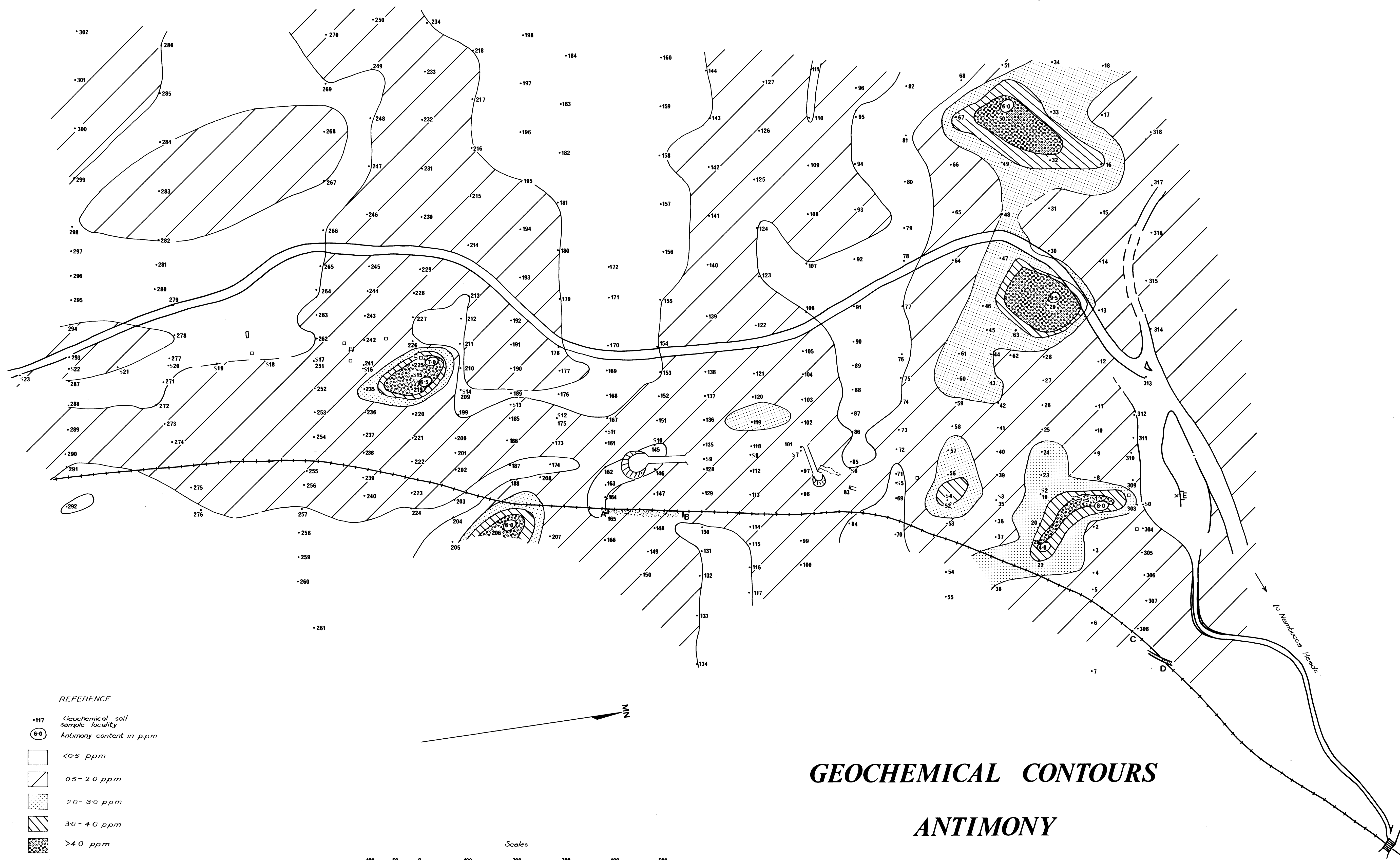
GEOCHEMICAL SOIL SAMPLING **OF ARSENIC AND SILVER** **NEWEE CREEK SILVER PROSPECT**

DURRIGG S/S/50 10 94-30-1
 Alidade, tape, compass and oblique level survey
 by D. Suppel and G. Simm

- REFERENCE
- 117 Geochemical soil sample locality
 - 40 Silver ppm
 - 40 Arsenic ppm
 - Trench or cut-stone with dump
 - Shaft, iron, possible
 - Porphyry
 - Ditch road
 - Railway

0002845310
 Geological Survey of New South Wales
 Department of Mines
 Report by D. W. Suppel
 Date: 15-7-69

5179



GEOCHEMICAL CONTOURS

ANTIMONY

NEWEE CREEK SILVER PROSPECT

DORRIGO SH/56-10 9436-1

Alidade, tape, compass and abney level survey
by D. Suppel and G. Simon

AOBN

D002845320

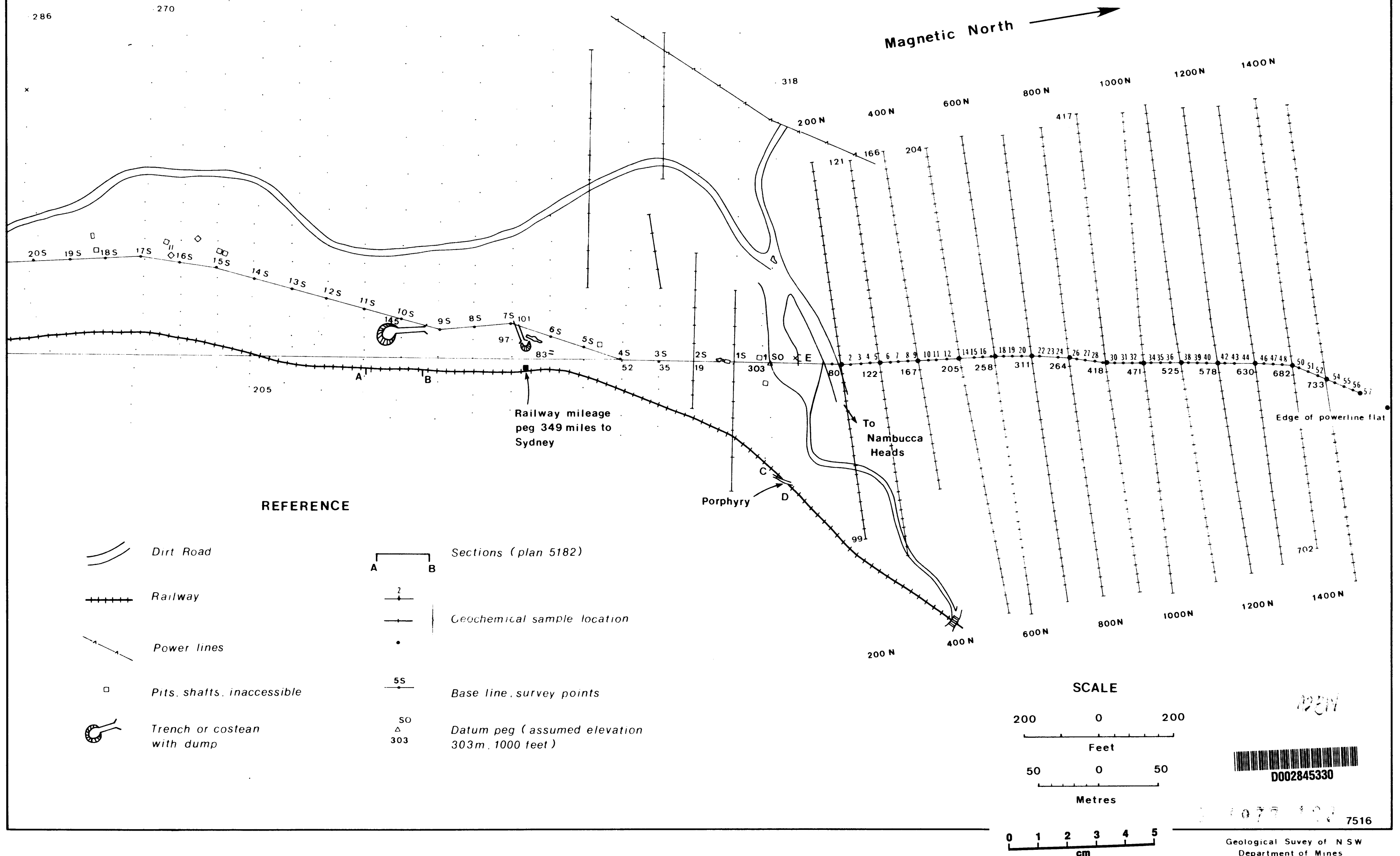
Geological Survey of New South Wales
Department of Mines
Report by D.W. Suppel
Date: 17-7-69

5180

NEWEE CREEK SILVER PROSPECT

NORTHERN AND SOUTHERN GEOCHEMICAL GRID AREAS

SH/56-10 9436 I

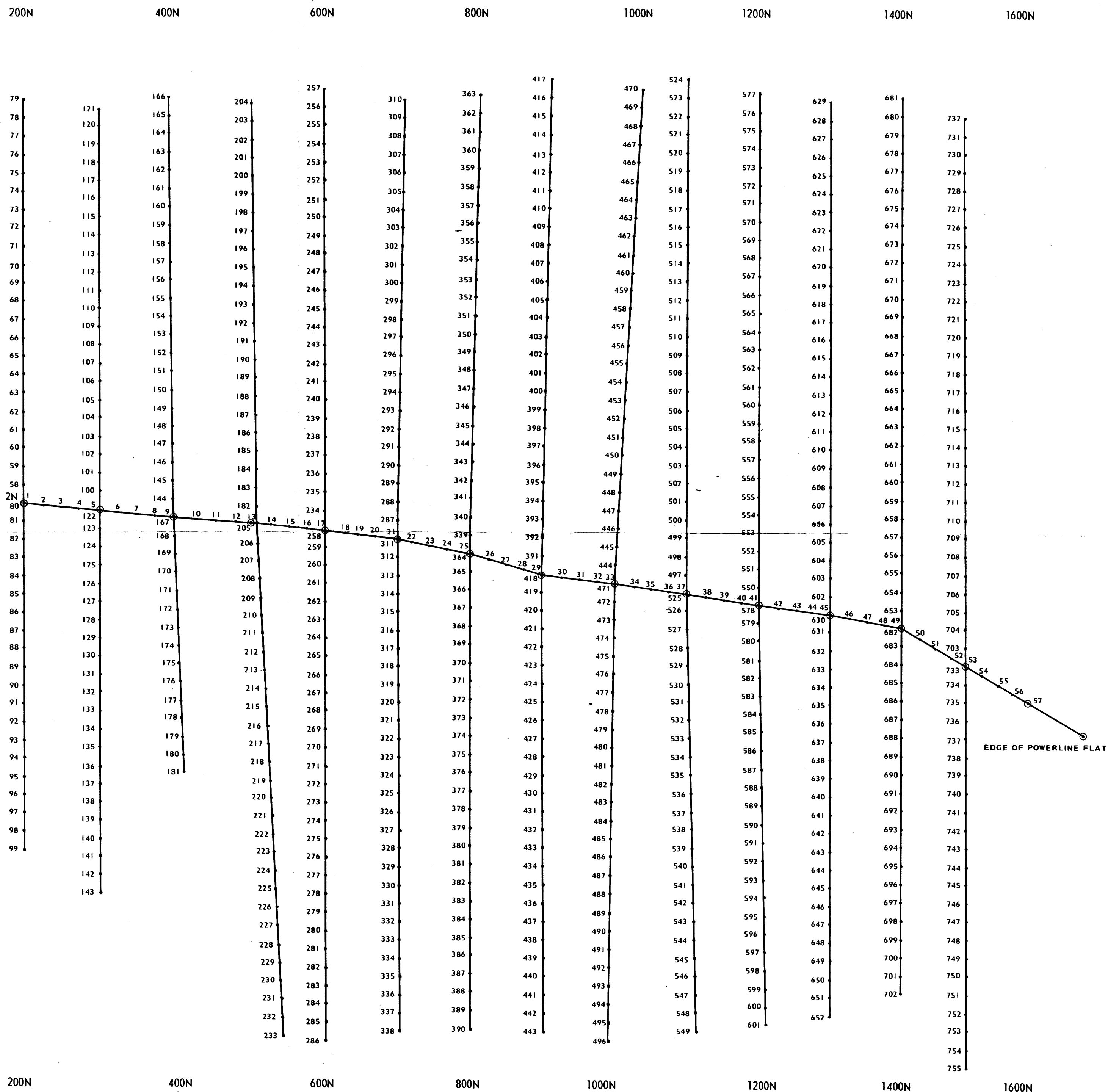


GEOCHEMICAL SOIL SAMPLING

Northern Extensions

NEWEE CREEK SILVER PROSPECT

SAMPLE LOCATIONS



A1BW

Magnetic
North

Scale

Metres 50 40 30 20 10 0 50 100 Metres

0 1 2 3 4 5
cm



D002845340

Geological Survey of N.S.W.
Department of Mines
Report by D. Suppel & J. Hobbs
Date: 22.4.76

7517

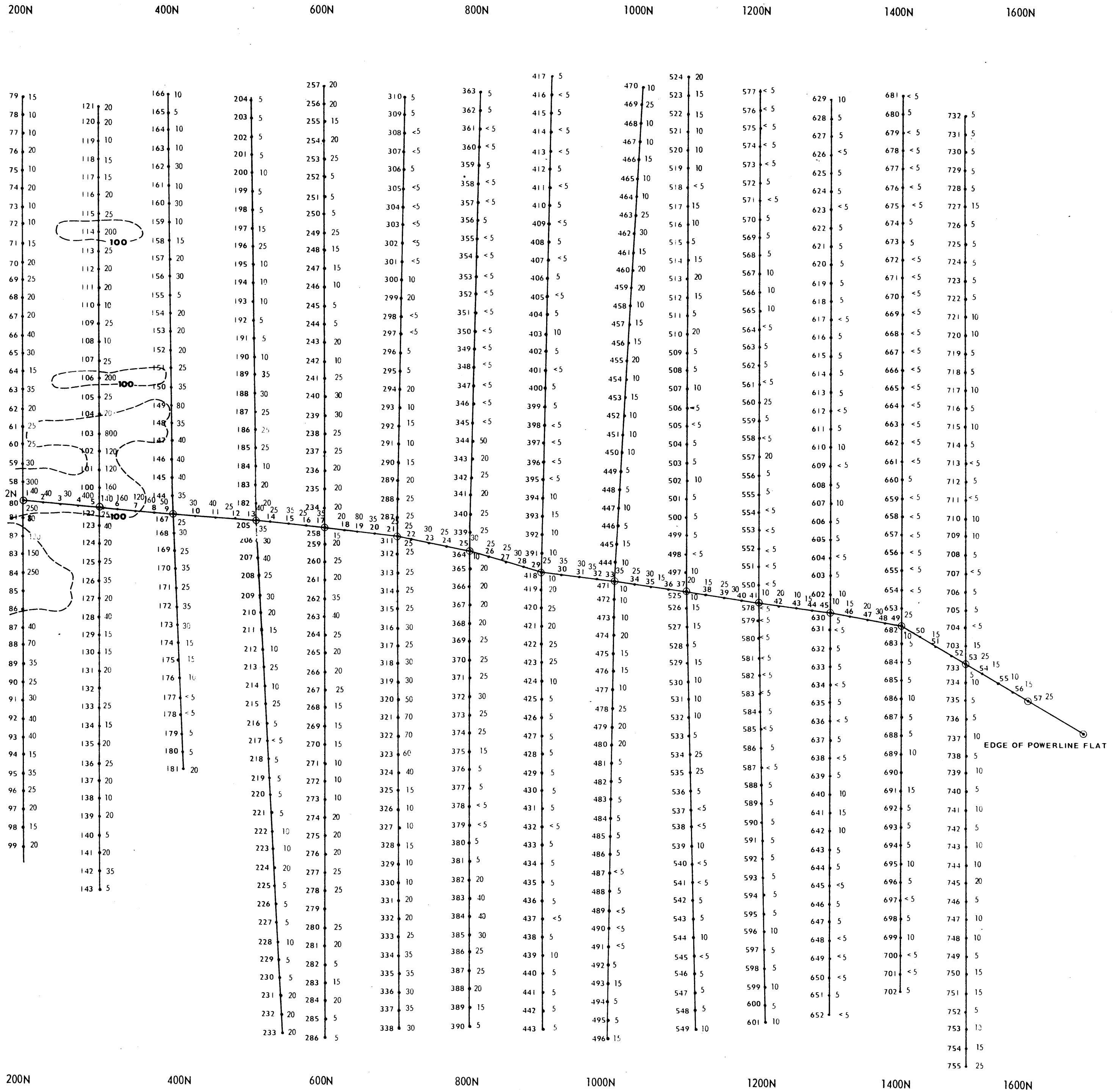
GS1977 123

GEOCHEMICAL SOIL SAMPLING

Northern Extensions

NEWEE CREEK SILVER PROSPECT

ARSENIC CONTENT (ppm)



Magnetic North →

285 (Base) Geochemical Sample locations

285 20 Arsenic content, (ppm)

100 Contour of arsenic values (ppm)

Scale
Feet 200 100 0 100 200 Feet

Metres 50 0 50 Metres

0 1 2 3 4 5
cm

0002845350

Geological Survey of N.S.W.
Department of Mines
Report by D. Suppel & J. Hobbs
Date: 22.4.76

7746

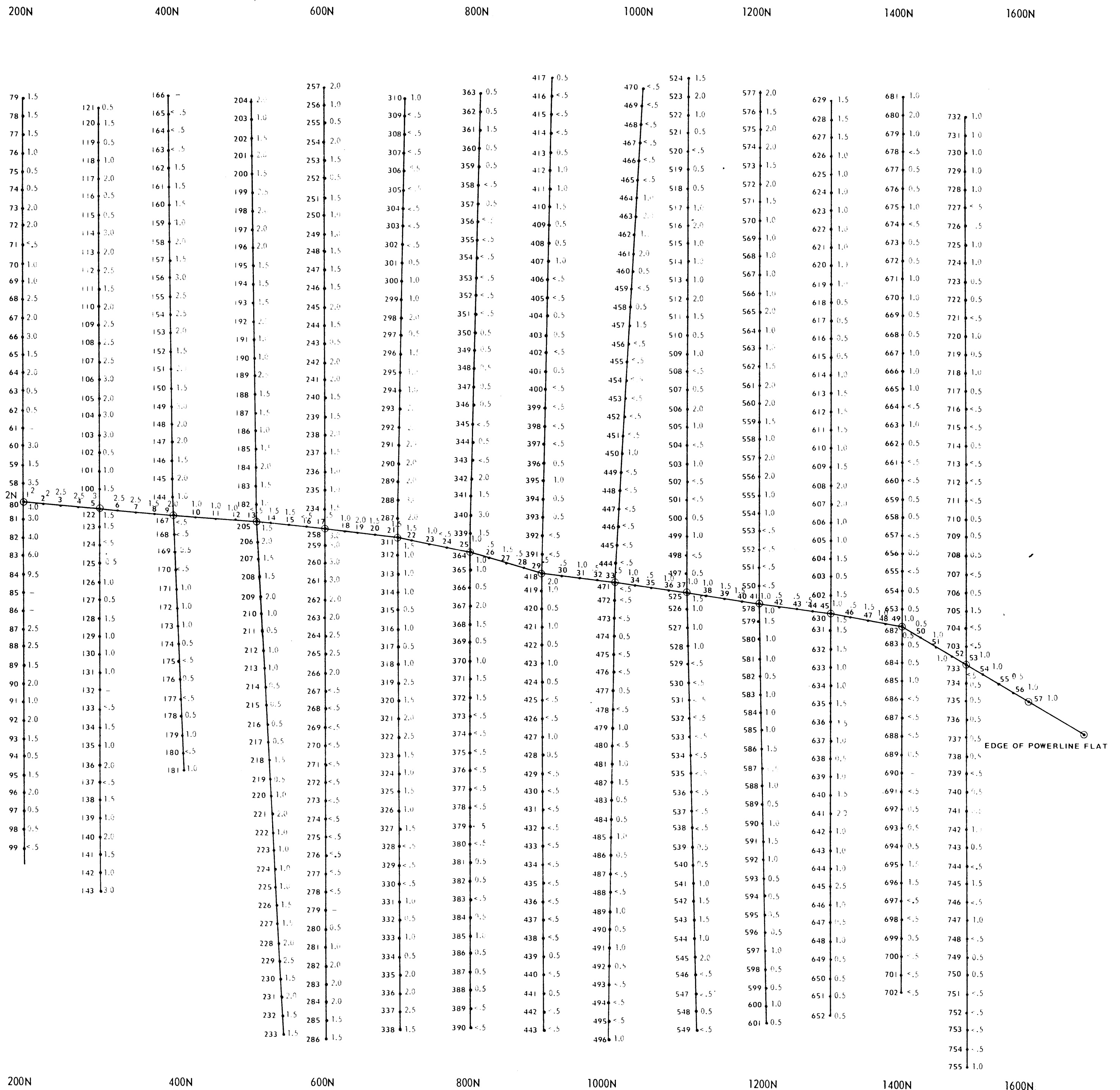
GS1977 123

GEOCHEMICAL SOIL SAMPLING

Northern Extensions

NEWEE CREEK SILVER PROSPECT

ANTIMONY CONTENT (ppm)



REFERENCE

265
(Base)

Geochemical sample locations

265 1.5

Antimony content (ppm)

Magnetic North →

Scale

Feet 200 100 0 100 200 Feet

Metres 50 0 50 Metres

0 1 2 3 4 5
cm

D002845360

Geological Survey of N.S.W.
Department of Mines
Report by D. Suppel & J. Hobbs
Date 22.4.76

7747

AI BW