CANEX AERIAL EXPLORATION LTD.
DIVISION OF CANADIAN EXPLORATION LIMITED
700 BURRARD BUILDING VANCOUVER 5, B. C. CANADA

REPORT ON GEOLOGIC MAPPING AND SOIL SAMPLING - DOORN PROPERTY, BEAVERDELL, B.C.

By

P. Beaudoin

3006

Vancouver, B.C.
September 14, 1970.

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File: GRID 82-E-6.

REPORT ON GEOLOGIC MAPPING AND SOIL SAMPLING - DOORN PROPERTY, BEAVERDELL, B.C.

INTRODUCTION

On the favourable recommendations made by the writer, a preliminary survey of geologic mapping and soil sampling was initiated on the Doorn Property at Beaverdell, B.C. owned by Argentia Mines Ltd. (N.P.L.).

This survey was made on verbal agreement with Mr. D. Paine, President of Argentia, that all results would be made available to him. The survey was, however, devised and carried out on speculation only.

The Doorn Property is located four miles south of the town of Beaverdell, B.C. and is accessible on the west side of the West Kettle River valley by dirt road and on the east side from Highway 33.

The property consists of 116 mineral claims, made up of several small groups, all either touching or overlapping. The property is bordered to the north by Silver Lee Mines and to the east by the Scandie claims. The western borders are Amax and Giant Explorations. The property is open to the south according to the Government mineral claim map.

WORK

Following the writer's recommendations, nine north-south flag lines were laid out, five on the west side of the valley and four on the east. The lines totalled nearly 12 miles in length. They were laid 800 feet apart with stations every 200 feet along the line. The lines were tied in to claim posts on the Doorn ground as shown on the accompanying maps. In addition all other claim posts encountered were plotted on the geologic map.

Geologic mapping was carried out with position reference made to the lines. Mapping was also carried out along several road cuts and in particular along one long trench cut by Amax situated in the north-west portion of the map area.

Soil sampling was undertaken along the lines with a sample taken at every station. All lines were sampled except those lying on creek sediments or those where the going was too hard (i.e. cliffs). Approximately 230 soil samples were taken in all and with these it was hoped to find the areal extent of any mineralization present.

ROCK TYPES

Granodiorite:

This rock of medium grain size is relatively hard and is mottled green and white. It contains approximately 60-70% feldspars, 20% quartz and 10-20% biotite. The feldspars show incipient alteration to clay minerals calcite and epidote while the biotite exhibits almost total changeover to chlorite.

Granite Porphyry:

A coarse crystalline, pinkish,fresh rock. Mineral content: quartz 30-35%, orthoclase 50%, plagioclase 10-15%, biotite 5-10%. The rocks' main characteristic is large orthoclase phenocrysts ranging in size up to 3" in long dimension. These phenocrysts probably occupy 3-5% of total rock volume.

Hornblende Diorite:

A fine grained dark grey-brown dyke rock with 1/4" hornblende crystals. The hornblende crystals were the only mineral visible in hand specimen and were situated in a fine crystalline matrix of feldspar and mafic minerals.

Andesite:

A fine to medium grained, hard, light brown rock with no distinct joint or cleavage pattern in outcrop. As it was very homogeneous in composition it tended to break up in what appeared similar to choncoidal fracturing. The rock is composed of grey-white plagioclase, no quartz and 50-60% hornblende and other mafics.

Alaskite Porphyry:

This rock, called Alaskite for its lack of mafic mineral, is made up of a grey matrix and large orthoclase phenocrysts.

The matrix is composed of fine crystalline quartz and feldspar with anhedral 1/4-3/8 inch quartz grains. The large orthoclase phenocrysts comprise 10-15% of the rock and range in size up to 3" in long dimension.

GEOLOGY

The Doorn property is comprised of several different types of igneous rocks, both intrusive and extrusive. The ages of these rocks vary between late Cretaceous and Middle Cenozoic. Granite Porphyry and granodiorite are the intrusives while Alaskite Porphyry, Andesite and Hornblende Diorite exist as dykes. The Alaskite Porphyry exhibits flow characteristics as well.

The relation of the igneous rocks to each other is not too clear, but it appears that either the Granite Porphyry has been intruded by the Granodiorite or the Granodiorite is an altered border phase of the Granite Porphyry. Since the Granodiorite is the only rock type that carries any appreciable mineralization and is the only rock to show alteration, the former supposition is most likely. This is also supported by the fact that none of the Hornblende Diorite dykes found commonly in the Granite Porphyry are found in the Granodiorite.

These intrusive rocks are cut by dykes of Alaskite Porphyry which in many places has flowed over and can be seen overlying the Granodiorite. In several instances the contact between the two can be seen and is strongly faulted. The large areal extent of this Alaskite Porphyry suggests a rather large flow of the material.

The last phase of igneous activity is a large andesite dyke which cuts both the Granodiorite and Alaskite Porphyry. The dyke can be found on both sides of the West Kettle River valley and ranges in width between 50 feet and 400 feet.

MINERALIZATION

The minerals of interest found on the Doorn Property are chalcopyrite, galena, sphalerite, cuprite, malachite and aurichalcite, a hydrous carbonate of zinc and copper.

The mineralization is found almost exclusively within the granodiorite, although spots of malachite were found in the Alaskite.

It is most common to find the copper minerals separate from the lead-zinc but rock samples can be found which contain all three minerals. It is noteworthy that silver is present in small varying amounts and probably occurs in the galena as either argentite or tetrahedrite.

The mode of mineralization appears to be dissemination within the Granodiorite with small amounts of hairline quartz veining. The malachite occurs mainly as halos around cuprite and/or chalcopyrite grains, and was not found to be widespread throughout the rock. The aurichalcite occurs near surface on the joints and fractures and is an indicator of copper-zinc mineralization within the granodiorite.

GEOCHEM - SOIL SAMPLING

The results of the soil sampling program show several anomalous zones. These zones are mainly on the west side of the valley, although, one thin anomalous trend is revealed on the east side. In general these zones strongly contrast with the relatively low background values and correlate well with the granodiorite. The zinc values are generally quite high over large areas and although, trends similar to the lead and copper are present, these higher values represent a high degree of downslope migration of the zinc ions. The lead values are not nearly as high as the zinc but still show anomalous zones correlating well with the high zinc zones. Silver is present in low quantities in the high lead-zinc zones and ranges between 1.50 to 3.00 p.p.m. against an average background of from 0.2 to 0.3 p.p.m. The copper content in the soils is too low to be considered as anomalous; however, the range of values show similar trends to those of the lead and zinc. Molybdenum content is so low as to be considered absent.

Two zones of prime interest show anomalous lead and zinc with higher copper values as well. Both zones are located on line 16W and are centered approximately 16N and 6S. The more northerly zone is about 600-800 feet across while the zone to the south is about 1,000-1,200 feet across.

One other zone which shows up consistently is located on line 32W and is centered about 20S. This zone is approximately 800 to 1,000 feet across and is open to the west.

On the east side of the valley only one zone is revealed in the soils. This zone is only 200 to 300 feet wide and 800 to 1,000 feet long. It is centered on east baseline station 400 east. This zone, although very small, is picked up in the lead, zinc and copper values.

It must be noted that the soils on the property where the program was conducted are nearly 100% residual, also the depth to bedrock would average only 1-2 feet. Many soil samples were taken where depth to bedrock was only 2-3 inches. Clearly then the results which at first appear high are not entirely anomalous but serve only to outline the zones of mineralization.

PB/mm

P. Beaudoin

APPENDIX

Statement of Costs

Assay Results

#1 Geological Map (in pocket)

Soil Sample Map for: (in pocket)

#2 1. Cu

#3 2. Pb

#4 3. Zn

STATEMENT OF COSTS

The following cost statement is for work carried out by three Canex Aerial Exploration Ltd. personnel on the Doorn property, Beaverdell, B.C. belonging to Argentia Mines Ltd. between August 14, 1970 and August 30, 1970.

The work consisted of the layout out of nearly 12 miles of flag line, using compass and chain together, with geological mapping and soil sampling using the lines as control. Additional time was spent in Vancouver with report and map preparation.

COSTS

Geologist	14 days @ $37.50/day	=	$ 525.00
Assistant	16 days @ $20.30/day	=	325.00
Assistant	16 days @ $20.30/day	=	325.00
Room and Board, $7/man day, 46 man days		=	322.00
Transportation		=	75.00
Analysis of soil samples 232 samples @ $2.50/sample		=	570.00
Map and report preparation 1 geologist, 3 days @ $37.50/day		=	112.50
	TOTAL		$2,254.50

PB/mm

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA P. BEAUDOIN

P. Beaudoin, B.A.Sc., P.Eng.
Geologist

CERTIFICATION

I, Peter G. Beaudoin, of North Vancouver, B.C. hereby certify that:

1. I am a graduate from the University of British Columbia in 1968.

2. I have been practising my profession for the past three years.

3. I am a member of the Association of Professional Engineers of the Province of British Columbia.

PB/mm

Peter Beaudoin, P.Eng.

April 14, 1971.

FORM NO. 127

PLACER DEVELOPMENT LIMITED

GEOCHEMISTRY DIVISION

323 Alexander Street · Vancouver, B.C.

AREA Beaverdell ANALYST

DATE Sept 1970 PAGE No.

SAMPLE NO.	PPM IN SOIL OR SEDIMENT								
	Mo	Cu	Zn	Pb	Ag	Au			
3L. E 0	2	17	890	133	.02-	.03-			
2	1	20	1030	370	.02-	.03-			
4	1	37	460	155	.15	.03-			
6	1-	74	330	83	.36	.03-			
8	1	28	191	47	.02-	.03-			
10	2	14	165	39	.10	.03-			
12	2	23	77	23	.10	.03-			
14	1	17	101	24	.02-	.03-			
16	2	25	101	22	.10	.03-			
3L. W 0	2	16	79	17	.02-	.03-			
2	1	13	157	14	.02-	.03-			
4	1	16	107	15	.02-	.03-			
6	2	14	122	18	.02-	.03-			
8	1	16	172	19	.02-	.03-			
10	2	23	1480	77	.06	.03-			
12	3	16	1056	31	.11	.03-			
14	2	58	2020	1430	1.34	.03-			
16	2	19	1230	210	.10	.03-			
18	1	19	2510	570	.21	.03-			
20	1	15	2190	640	.44	.03-			
22	2	19	840	680	.41	.03-			
24	2	16	1290	240	.07	.03-			
26	3	51	2230	410	1.75	.03-			
28	2	69	1960	210	1.06	.03-			
30	2	29	780	111	.33	.03-			
32	3	17	1030	50	.64	.03-			
E 0 S 0									
2	1	17	202	50	.17	.03-			
4	1	11	218	59	.02-	.03-			
6	1	10	215	25	.02-	.03-			
8	1	12	148	28	.02-	.03-			
10	1	8	97	39	.02-	.03-			
12	1	11	114	34	.02-				
14	1	52	107	72	1.40				
16	1	18	111	45	.02-				
18	2	25	81	36	.36				
20	2	8	74	20	.02-				
E 0 N 0									
2	11	152	1310	2350	3.74				
4	3	33	170	68	.26				
6	2	24	76	34	.23				
8	1	15	183	54	.02-				
10	1	14	173	46	.02-				

FORM NO. 127

PLACER DEVELOPMENT LIMITED

GEOCHEMISTRY DIVISION

323 Alexander Street · Vancouver, B.C.

AREA Beaverdell. ANALYST _____

DATE Sept 9 1970 PAGE No. _____

SAMPLE NO.	PPM IN SOIL OR SEDIMENT								
	Mo	Cu	Zn	Pb	Ag				
E O N 12	2	41	82	26	.02-				
14	1	40	96	26	.02-				
16	1	16	121	22	.02-				
18	1	36	104	31	.02-				
20	1	27	87	20	.02-				
22	1	26	58	14	.02-				
24	1	24	63	14	.02-				
26	2	46	85	26	.02-				
28	2	170	137	32	.42				
30	2	27	156	36	.02-				
E 8 S 0									
2	4	81	1210	1130	.25				
4	2	51	460	230	.17				
6	1	14	1090	98	.21				
8	2	11	310	34	.02-				
10	1	20	69	24	.10				
12	2	7	67	41	.02-				
14	1-	26	77	33	.02-				
16	1	31	87	41	.02-				
18	1	12	65	21	.02-				
20	1	19	68	21	.02-				
E 8 N 0									
2	1	20	125	35	.02-				
4	2	33	112	47	.02-				
6	1	14	120	14	.02-				
8	2	23	76	33	.02-				
10	2	15	57	19	.08				
12	2	12	163	52	.02-				
14	2	13	171	51	.02-				
16	37	18	83	22	.02-				
18	2	34	80	20	.02-				
20	2	15	58	18	.02-				
22	3	20	45	17	.02-				
24	1	21	57	18	.02-				
26	1	20	67	17	.02-				
28	2	27	89	24	.20				
30	1	21	98	22	.02-				
W 8 S 0									
2	1-	19	158	22	.02-				
4	1-	15	155	18	.02-				
6	1	29	156	20	.02-				
8	1	12	145	15	.02-				
10	1-	11	210	17	.02-				

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DATE Sept 9 1970 PAGE No.

SAMPLE NO.	PPM IN SOIL OR SEDIMENT								
	Mo	Cu	Zn	Pb	Ag	Cd.			
W8 S 12	1	17	490	46	.16				
14	1	11	280	38	.02-				
16	1-	14	130	17	.02-				
18	1-	12	87	13	.02-				
20	1-	18	80	12	.02-				
22	1	25	137	22	.06				
24	1-	12	156	13	.02-				
26	1-	10	1770	40	.02-				
28	1	10	1470	57	.02-				
30	1-	17	1070	64	.23				
32	1-	14	600	38	.19				
34	1-	14	764	16	.02-				
36	1	16	110	17	.10				
38	1	14	187	16	.10				
40	1	9	80	14	.02-				
42	1-	7	83	20	.02-				
44	1	26	147	21	.10				
46	1	7	300	16	.02-				
W8 N 0									
2	1	14	710	76	.02-				
4	1	14	121	16	.02-				
6	1	17	118	16	.02-				
8	1	12	112	15	.02-				
10	1-	17	167	21	.02-				
12	1	22	350	26	.02-				
W16 S 0									
2	1-	20	1600	304	.42				
4	2	46	4500	1420	.07				
6	2	21	2000	121	.53				
8	2	60	3600	220	1.04				
10	2	179	4000	430	.69	1.8			
12	1	17	2000	380	1.19	1.9			
14	2	20	1480	353	.58	2.5			
16	4	19	1250	510	.44	2.2			
18	2	40	115	94	.64	1.5			
20	2	22	154	56	.18	1.6			
22	1	9	180	29	.06	1.3			
24	1	10	1110	60	.04	1.3			
26	1-	9	430	33	.08	.9			
28	1-	13	350	44	.06	1.2			
30	2	116	2400	59	.75	3.3			
32	1	108	790	73	.81	2.6			
34	2	29	163	75	.26	1.7			

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GEOCHEMISTRY DIVISION

323 Alexander Street · Vancouver, B.C.

AREA Beaverdell.

ANALYST

DATE Sept 9 1970

PAGE No.

SAMPLE NO.	PPM IN SOIL OR SEDIMENT								
	Mo	Cu	Zn	Pb	Ag	Cd			
W16 S 36	1	34	132	43	.26	1.6			
38	1	21	201	36	.11	1.4			
40	2	27	300	32	.25	1.4			
42	1	26	200	32	.17	1.5			
44	1	26	149	40	.09	1.5			
46	1	21	115	44	.24	1.3			
W16 N 0									
2	1	13	1090	39	.20	1.5			
4	2	74	2200	500	3.17	2.1			
6	1	13	540	53	.09	1.5			
8	1	11	250	40	.02-	1.6			
10	1	22	830	44	.11	1.4			
12	20	575	5550	825	1.70	6.4			
14	22	490	5300	740	2.52	5.8			
16	15	480	5100	640	1.73	4.7			
18	15	280	6400	610	1.92	3.9			
20	6	65	1100	165	.43	1.7			
E18 N 20	1	15	109	23	.36	1.8			
22	1	30	51	10	.23	1.3			
W24 S 0									
2	1-	11	820	70	.12	1.4			
4	1-	20	1400	135	.34	1.7			
6	1	12	1200	150	.25	1.9			
8	1	37	1100	121	.48	1.6			
10	2	23	1200	375	.49	1.8			
12	4	21	1900	272	.25	2.0			
14	4	18	900	383	.43	2.1			
16	3	23	2100	285	.69	2.1			
18	3	41	1900	560	.51	3.1			
20	4	49	2100	580	1.62	3.8			
22	2	57	440	105	.18	2.0			
24	3	17	350	49	.15	1.7			
26	4	85	144	54	.50	1.6			
28	3	58	156	45	.42	1.9			
30	3	24	370	50	.18	1.6			
32	2	40	157	81	.30	1.8			
34	2	43	129	73	.12	1.6			
36	2	27	151	45	.02-	1.3			
38	1	39	310	56	.28	1.6			
40	3	21	180	50	.08	1.7			
42	2	14	410	42	.05	1.5			
44	2-	9	420	17	.02-	.8			
46	2	9	210	28	.02-	.9			

FORM NO. 127

PLACER DEVELOPMENT LIMITED

GEOCHEMISTRY DIVISION

323 Alexander Street · Vancouver, B.C.

AREA Beaverdell. Soils

ANALYST

DATE Sept. 1970.

PAGE No.

SAMPLE NO.	PPM IN SOIL OR SEDIMENT								
	Mo	Cu	Zn	Pb	Ag				
W8 N 14	2	12	92	16	.06				
16	2	15	100	16	.06				
18	7	161	5100	430	.89				
20	3	44	1400	104	.38				
22	1	14	90	20	.04				
24	1-	14	107	19	.13				
26	1	17	125	20	.31				
28	1-	13	90	18	.09				
30	1-	13	78	17	.08				
E16 S 2	1	38	166	76	.38				
4	1-	14	110	29	.12				
6	1-	21	390	163	.20				
8	1	10	80	40	.14				
10	1-	13	121	34	.12				
12	1-	34	20	170	.39				
E16 N 2	1	19	72	25	.23				
4	1-	20	46	18	.15				
6	1-	16	64	19	.09				
8	1	18	50	20	.05				
10	2	28	96	29	.14				
12	1	61	159	27	.67				
14	1	14	95	19	.09				
16	1	18	120	22	.07				
18	1	19	120	36	.10				
20									
22									
24	2	22	50	18	.05				
26	1	22	97	18	.03				
28	1-	19	91	16	.05				
30	1-	29	44	15	.05				

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GEOCHEMISTRY DIVISION

323 Alexander Street • Vancouver, B.C.

AREA Beaverdell. ANALYST

DATE Sept 1970. PAGE No.

SAMPLE NO.	PPM IN SOIL OR SEDIMENT								
	Mo	Cu	Zn	Pb	Ag	Cd.			
W24 N 0.									
2	2	9	1500	39	.30	1.2			
4	4	20	570	20	.58	1.7			
6	5	33	1400	139	1.18	1.8			
8	2	17	1600	70	.96	1.5			
10	2	14	1700	130	.70	1.7			
12	2	12	1000	72	.17	1.8			
14	3	12	1100	61	.12	1.8			
16	3	38	800	230	.30	2.5			
W32 S 0									
2	2	17	2800	355	.18	2.8			
4	3	89	3100	358	1.26	2.8			
6	2	29	1500	220	.75	2.7			
8	7	29	2000	189	.27	2.1			
10	1	19	1100	88	.85	2.2			
12	2	37	720	530	.96	2.3			
14	1	15	1800	201	.50	2.1			
16	26	167	3200	2600	2.60	4.5			
18	2	19	2100	396	.83	3.1			
20	18	169	1250	1000	1.90	4.4			
22	5	100	4000	2850	3.00	5.6			
24	6	58	980	600	.63	2.4			
26	2	22	1150	117	1.17	2.2			
28	4	47	3400	370	1.21	4.2			
30	2	13	1300	113	.34	2.0			
32	2	52	3000	138	.23	3.6			
34	1	71	310	104	.53	2.1			
36	2	45	540	69	.20	2.0			
38	2	55	153	68	.18	2.0			
W32 N 0									
2	1	19	540	33	.65	1.4			
4	2	32	835	154	.71	1.4			
6	1	13	1200	120	.31	1.4			
8	2	24	2100	54	.45	1.7			
10	1	21	770	36	.47	1.9			

LEGEND

VOLCANICS

AGGLOMERATE 1

INTRUSIVES

GRANITE PORPHYRY 2

GRANODIORITE 3

DYKE AND EXTRUSIVES

ANDESITE 4

ALASKITE PORPHYRY 5

HORNBLENDE DIORITE 6

SYMBOLS

ROADS
RAILWAYS
RIVERS
STREAMS
CLAIM POST
LAND CORNER MONUMENT
GEOLOGIC BOUNDARIES
(DEFINED, APPROXIMATE)
CONTACT ATTITUDES
JOINTS
FAULTS
SHEAR ZONES
MINERAL OCCURRENCE (Cu, Pb, Zn)
SAMPLES TAKEN
" " (GEOCHEMICAL)
" " (ASSAY)

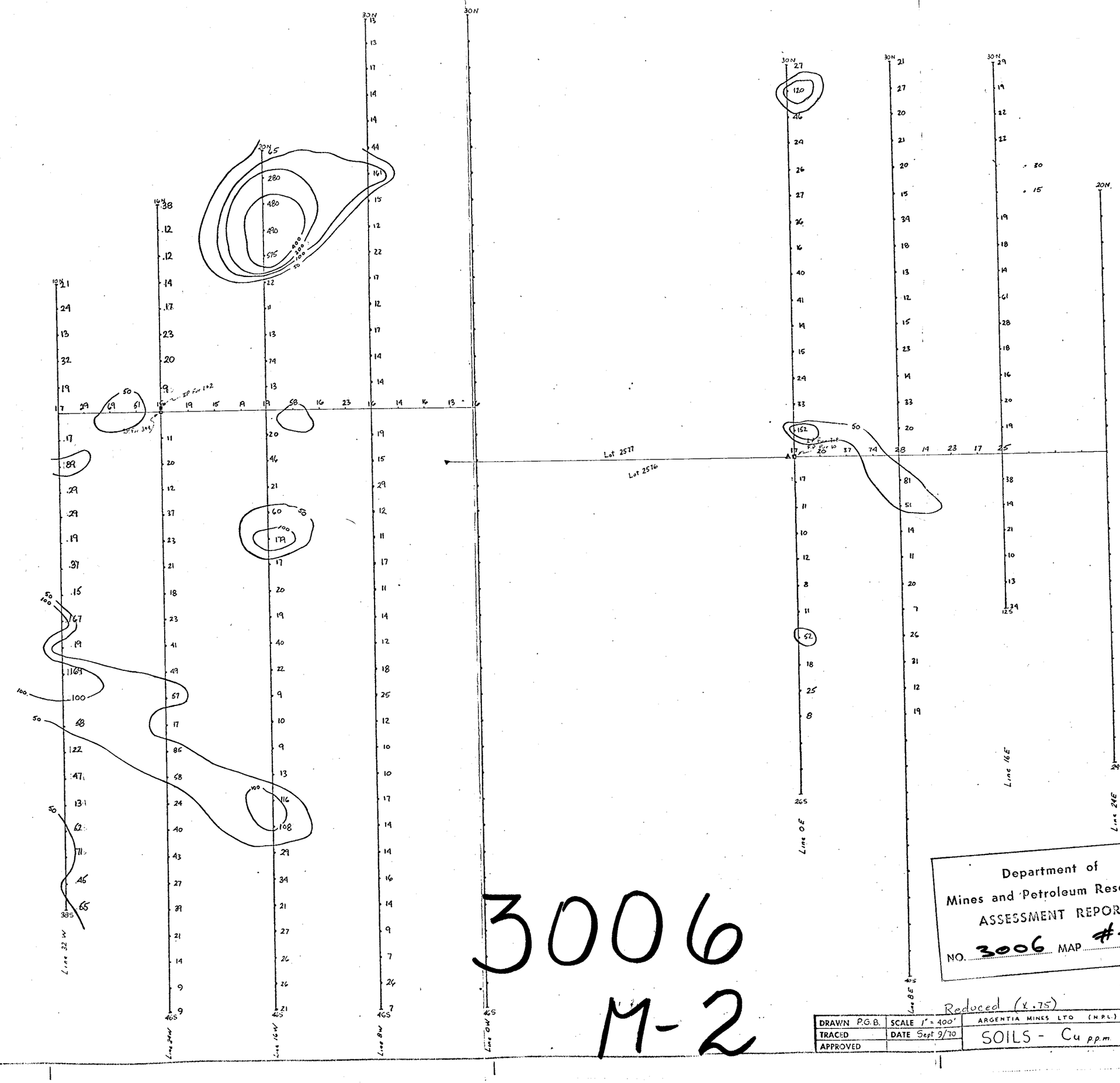
Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 3006 MAP #1

Reduced (X.75)

DRAWN P.G.B.	SCALE 1" = 400'	ARGENTIA MINES LTD (N.P.L.)	DOORN PROPERTY
TRACED R.K.Bann	DATE Aug 27/70	GEOLOGY	FILE No. 82-E-6
APPROVED			

3006 M-1

4 mi S BANDERE 11

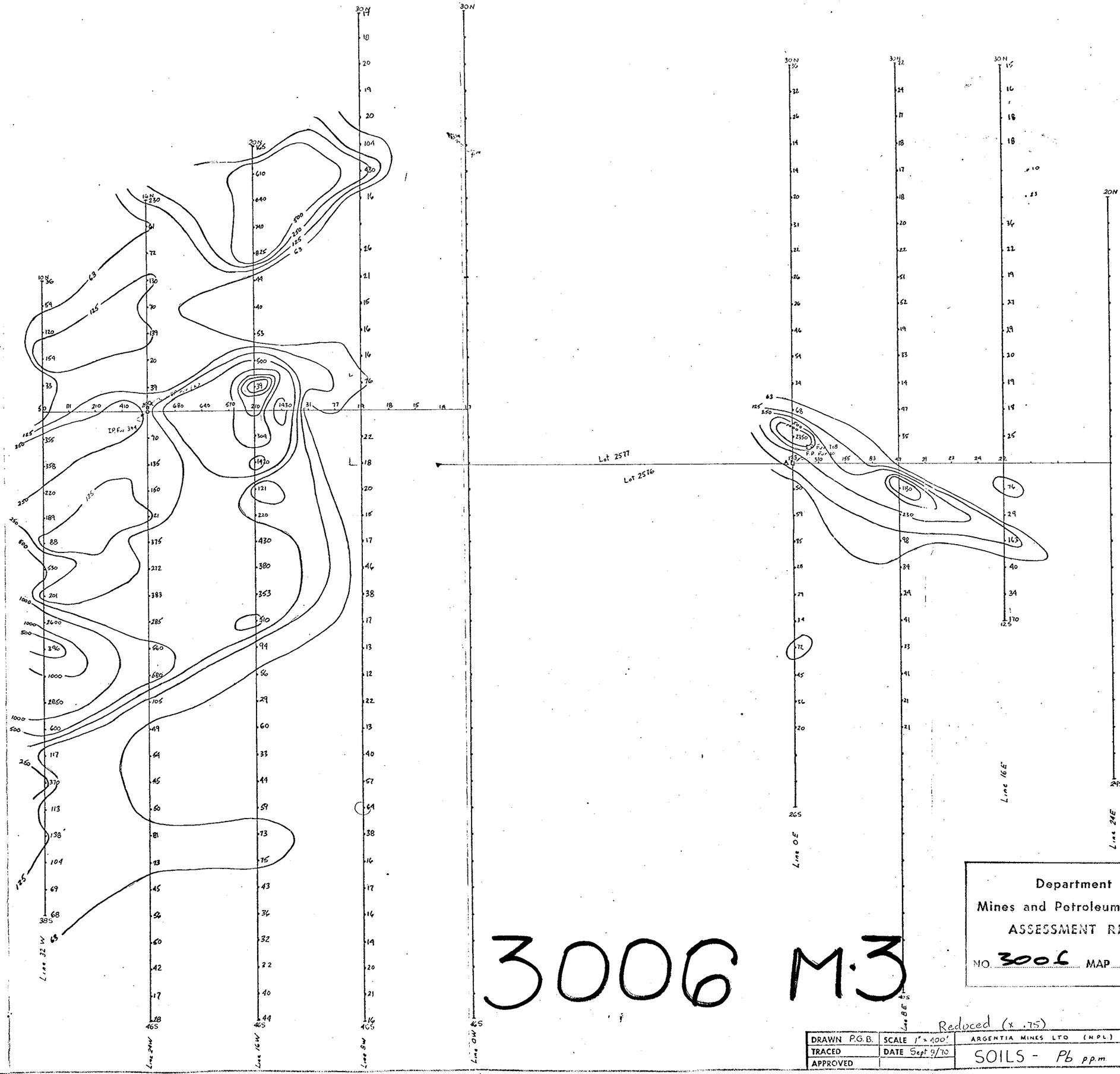


Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 3006 MAP #2

3006
M-2

Reduced (X .75)

DRAWN P.G.B.	SCALE 1" = 400'	ARGENTIA MINES LTD (N.P.L.)	DOORN PROPERTY
TRACED	DATE Sept 9/70	SOILS - Cu p.p.m.	FILE No. 82 - E - 6
APPROVED			

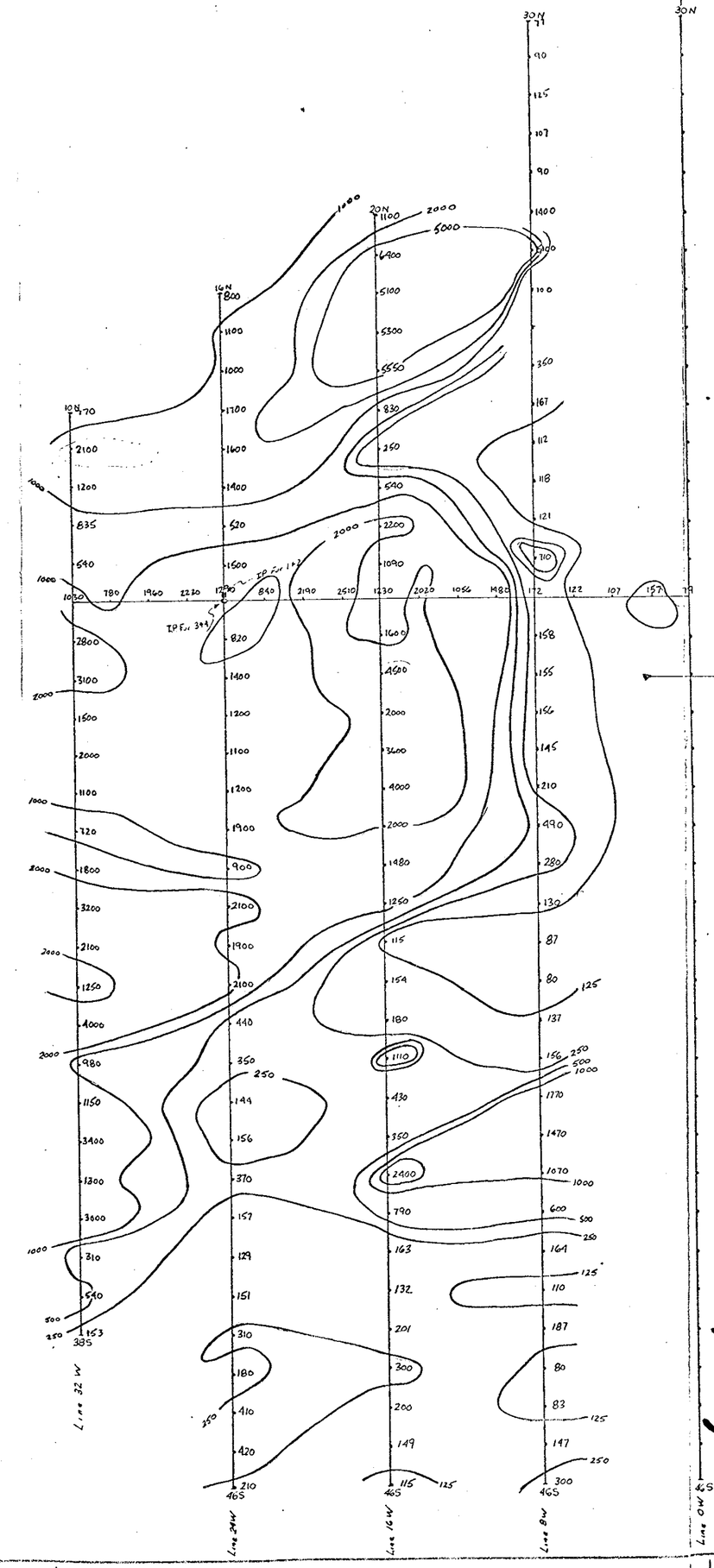


Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 3006 MAP #3

3006 M.3

Reduced (x .75)

DRAWN P.G.B.	SCALE 1" = 400'	ARGENTIA MINES LTD (N.P.L.)	DOORN PROPERTY
TRACED	DATE Sept 9/70	SOILS - Pb p.p.m.	FILE No. 82-E-6
APPROVED			



3006 M4

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 3006 MAP #4

p.p.m. Zn
2000 +
1000 - 2000
500 - 1000
250 - 500
125 - 250
0 - 125

Reduced (x .76)

DRAWN P.G.B.	SCALE 1" = 400'	ARGENTIA MINES LTD (N.P.L.)	DOORN PROPERTY
TRACED	DATE Sept 9/70	SOILS - Zn p.p.m.	FILE No. 82 - E - 6
APPROVED			