

GEOLOGY, GEOCHEMISTRY AND  
GEOPHYSICS OF THE CHODI  
CLAIM GROUP

CHODI 1 - 12  
LIARD MINING DIVISION  
N.T.S. 94 K/3W-4E

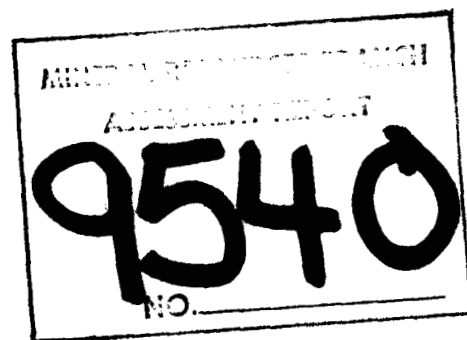
LATITUDE  $58^{\circ} 10'N$   
LONGITUDE  $125^{\circ} 30'W$

CLAIM OWNER AND OPERATOR  
ASARCO EXPLORATION COMPANY OF CANADA LIMITED

OCTOBER 23, 1981

D. M. FLETCHER

E. W. PERKINS



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ILLUSTRATIONS

<u>Plate</u>	<u>Title</u>	<u>Scale</u>	<u>Location</u>
1	Location	1 : 50,000	Report Body
2	Claim Map	1 : 10,000	Map Pocket
3	Geology Map	1 : 50,000	Report Body
4	Soil Grid Layout	1 : 10,000	Map Pocket
5	Geology Map	1 : 5,000	" "
6	" "	1 : 5,000	" "
7	" "	1 : 5,000	" "
8	" "	1 : 5,000	" "
9	Gut Showing	1 : 200	Report Body
10	Falls Showing	1 : 2,500	" "
11	Soil Geochem - Goat Z.	1 : 1,250	" "
12	Soil Geochem - Red Z.	1 : 750	" "
13	Soil Geochem - Copper	1 : 5,000	Map Pocket
14	" " "	1 : 5,000	" "
15	" " "	1 : 5,000	" "
16	" " "	1 : 5,000	" "
17	Soil Geochem - Lead	1 : 5,000	Map Pocket
18	" " "	1 : 5,000	" "
19	" " "	1 : 5,000	" "
20	" " "	1 : 5,000	" "
21	Soil Geochem - Zinc	1 : 5,000	Map Pocket
22	" " "	1 : 5,000	" "
23	" " "	1 : 5,000	" "
24	" " "	1 : 5,000	" "
25	Soil Geochem - Silver	1 : 5,000	Map Pocket
26	" " "	1 : 5,000	" "
27	" " "	1 : 5,000	" "
28	" " "	1 : 5,000	" "

PART AA-1 INTRODUCTION

The purpose of this report is to set forth all factual exploration data gathered at the Chodi Property during the past 13 months. The scope of the report covers geological, geochemical and geophysical information relating to zinc sulfide mineralization discovered during helicopter reconnaissance and prospecting conducted in 1980.

The Chodi 1 - 12 claims consisting of 182 units are located in the Liard Mining Division positioned astride the boundary of N.T.S. 94 K/3W-4E. Access to the claims is by helicopter. See Plates 1 and 2.

A-2 SUMMARY AND CONCLUSIONS

The geological mapping completed at a scale of 1 : 5000 indicates the position of sedimentary lithologies that underlie the property. See Plates 3, 5, 6, 7 and 8. The mapping suggest the limits of zinc mineralization to be associated with dolostone in contact with an overlying quartzite and shale-argillite sequence.

The geochemical soil survey conducted over the claims detected the presence of anomalous zinc and lead geochemical response positioned along the dolostone-quartzite-shale contact. The strike length of this response although discontinuous appears to be limited, ie. extending from the Gut Showing northwesterly to the Goat Showing a distance of approximately 6 kilometers.

A geophysical survey consisting of VLF-EM, IP/resistivity and magnetics was accomplished over sections of Grid No. 3, see Part E with attachments in report. VLF-EM response positioned to the west of the baseline is difficult to assess as a result of the presence of underlying carbonaceous shales. Magnetic response although yielding weak contrast in mineralized areas proves useful. IP/resistivity results coincide with mineralized areas positioned at the Goat and Red Showings. Abrupt change in resistivity appears to limit the extent of these sulfide bearing mineralized zones.

The results of exploratory work accomplished at the Chodi prospect is encouraging. Further work appears warranted.

PART BB-1 - LOCATION AND ACCESS

The Chodi claim group lies in the southwest corner of the Tuchodi Lakes map area. The 12 claims lie astride the boundary of N.T.S. 94 K/3W and 94 K/4E and are centered at Latitude 58°10'N and Longitude 125° 30'W. Refer to Plate 1 showing details of claim group.

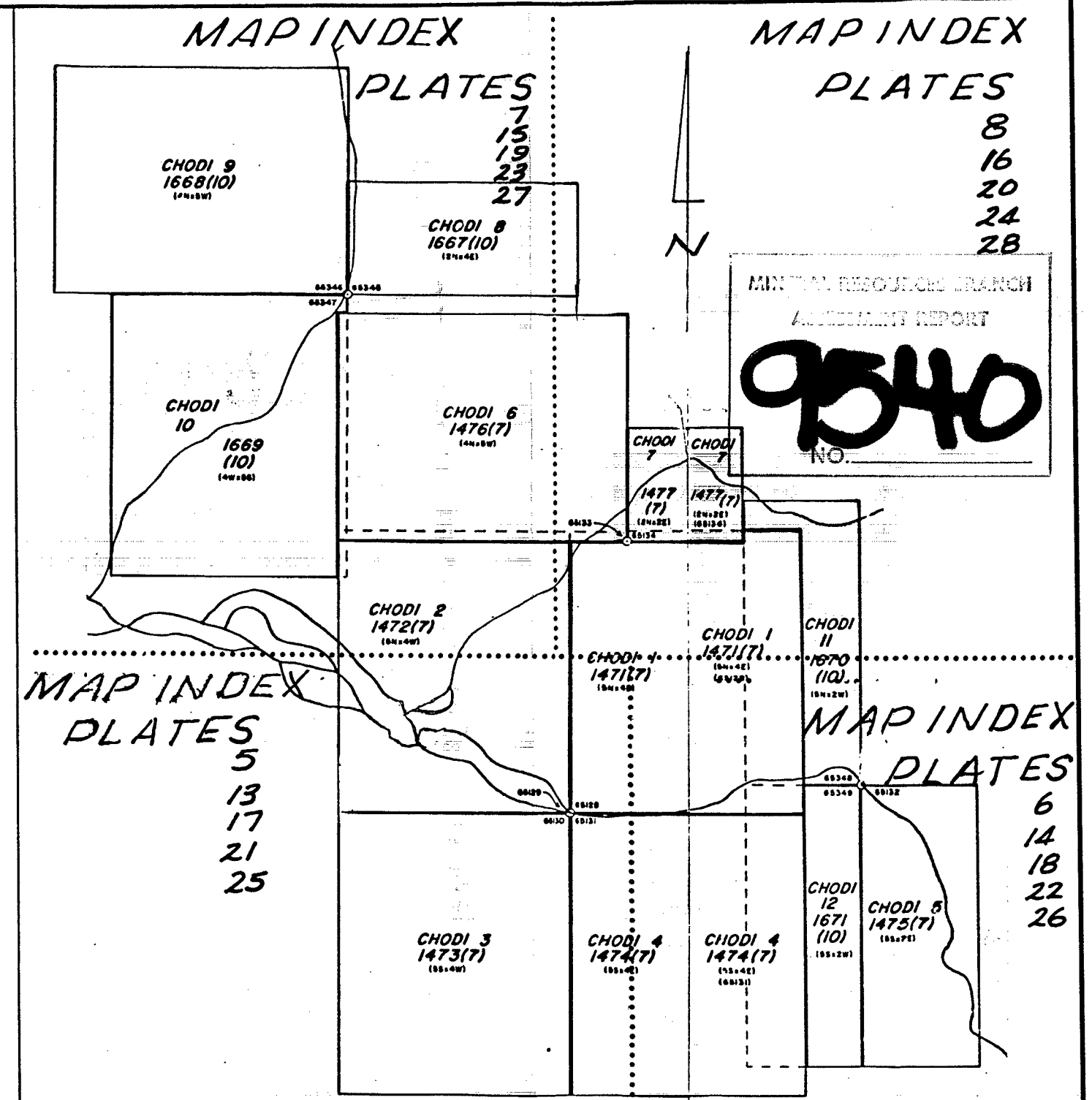
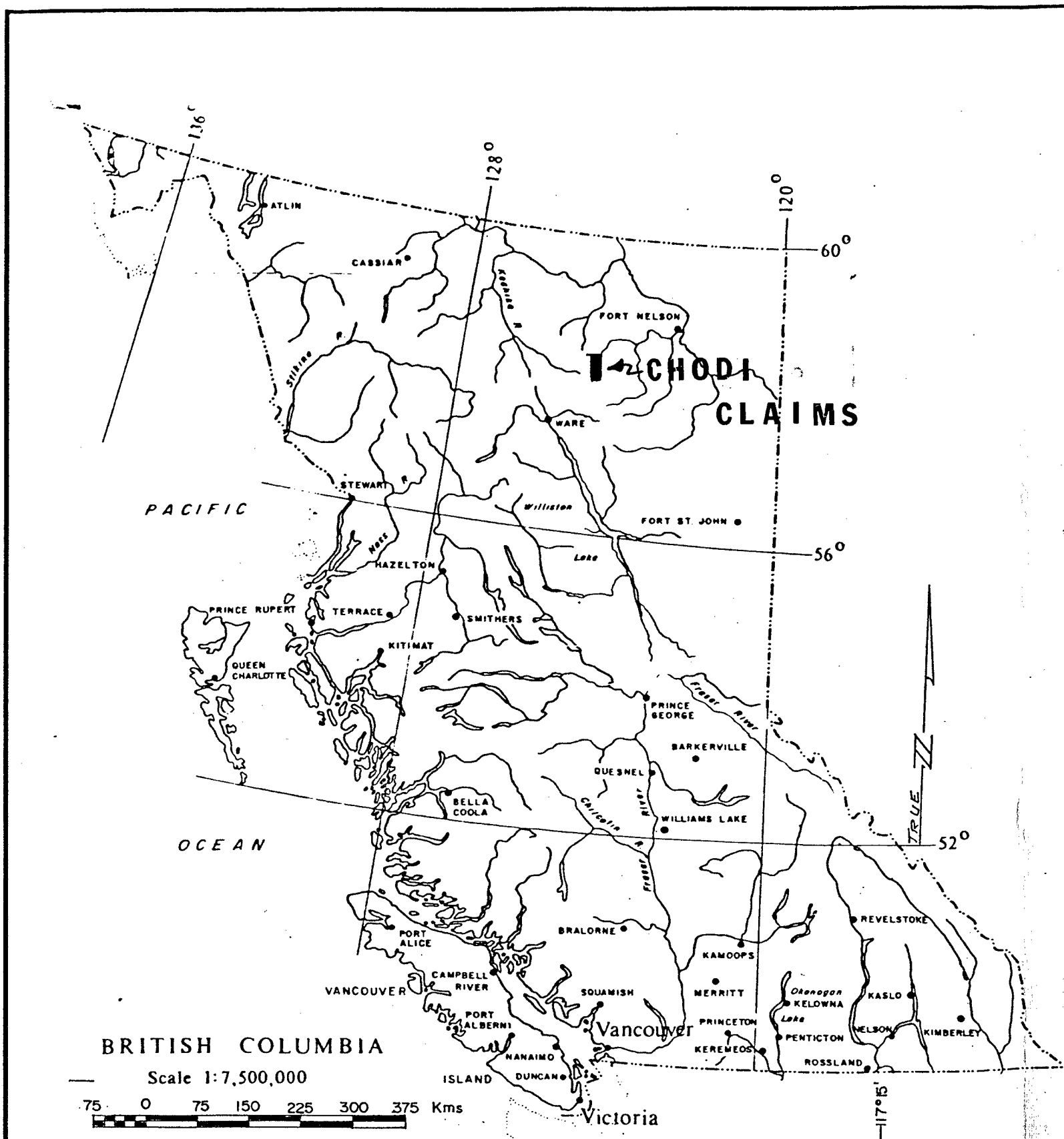
Access to the property is by fixed-wing aircraft to Mayfield Lake positioned approximately 12 kilometers northwest of the claim group or direct by helicopter from Fort Nelson, B.C. or Watson Lake, Yukon Territory.

B-2 - CLAIMS AND OWNERSHIP

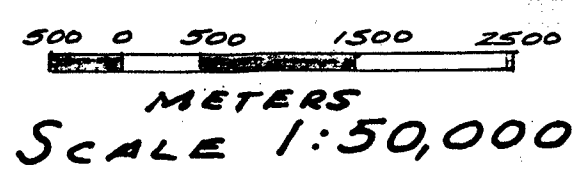
The Chodi 1 - 7 claims positioned in the Liard Mining Division were staked by Chris Graf and subsequently recorded on 29th July 1980. Thereafter a second group of claims Chodi 8 - 12 were staked and recorded on the 9th October 1980. The Chodi 1 - 12 claims are now owned and operated by Asarco Exploration Company of Canada Limited. A listing of the claims is as follows:

	<u>Record No.</u>	<u>Units</u>	<u>Month</u>
Chodi 1	1471	20	7
Chodi 2	1472	20	7
Chodi 3	1473	20	7
Chodi 4	1474	20	7
Chodi 5	1475	10	7
Chodi 6	1476	20	7
Chodi 7	1477	4	7
Chodi 8	1667	8	10
Chodi 9	1668	20	10
Chodi 10	1669	20	10
Chodi 11	1670	10	10
Chodi 12	1671	10	10

Refer to Plate 2 (Map Pocket) showing detail of claims in relation to physiographic features as well as gridlines. The total area covered by the claims is 4550 hectares or 45.5 square kilometers.



MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**9540**  
NO.



**ASARCO** Vancouver

**LOCATION MAP CHODI CLAIMS**

Drawn by	Date	N.T.S.	
D. M. F	OCT. 81	94 K/A	

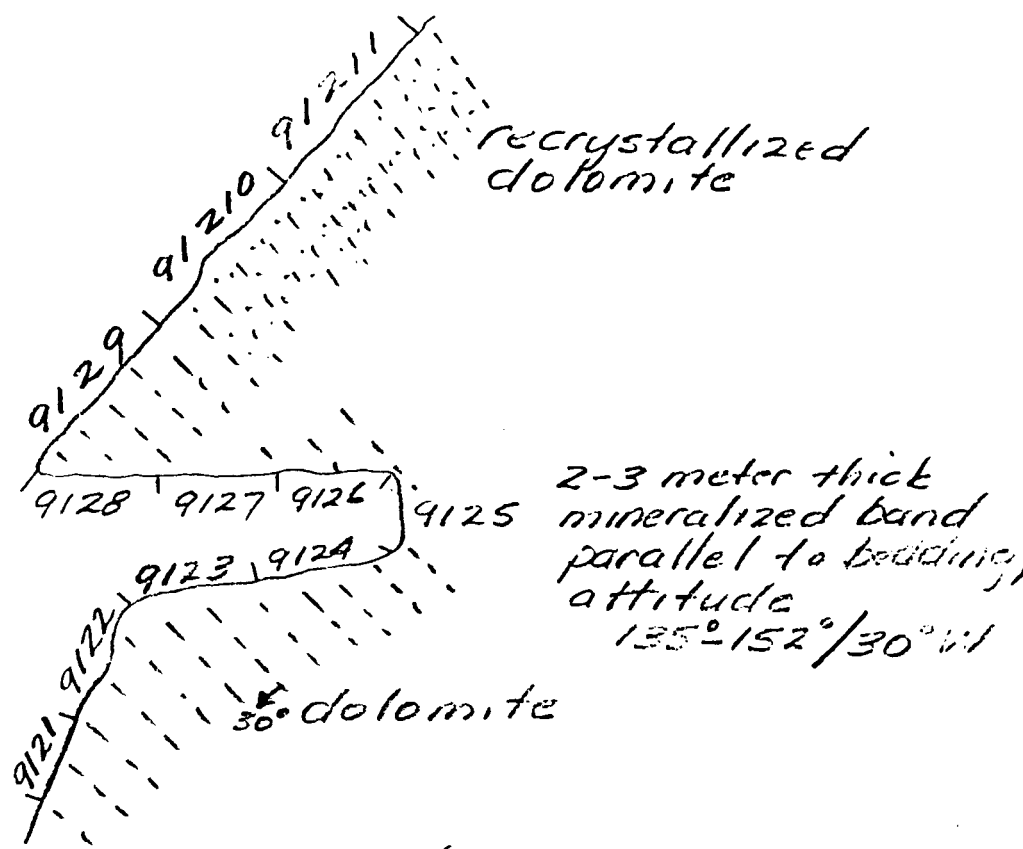
### B-3 - GENERAL SETTING

The Chodi claims are positioned in the Rocky Mountains underlain by middle Paleozoic and older carbonates. The claims lie on the western slope of the Battle of Britain Ranges at an elevation varying between 1000 and 2000 meters. U-shaped valleys occupy the highland to the east of the claims whereas the Gataga River borders the claims to the west. The area is moderately timbered with only a light veneer of glacial debris occurring at lower elevations.

### B-4 - HISTORY

The Chodi zinc prospect was discovered by Mr. C. Graf in early July 1980 during regional prospecting for base metals in the area. The recognition of iron staining in both soil and hosting dolostone led to the detection of zinc sulfide mineralization and associated pyrite. As a result of this initial encouraging evidence and indications suggesting mineralization to be continuous for several kilometers along a dolomite-shale contact, preliminary prospecting and reconnaissance soil geochemical lines were completed in October 1980. The results of this work indicated the presence of zinc sulfide at the Gut, Falls, Red and Goat showings. Refer to Plates 9, 10, 11 and 12. Further encouraging geochemical response prompted the geological, geochemical and geophysical survey work conducted from May 15th through August 8th, 1981.

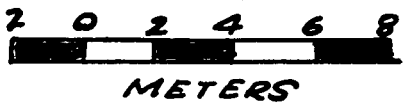
The reader is to refer to Appendix 4 for summary report dated October 29, 1980. See Appendix 3 for listing of 1981 analytical results.



SAMPLE #	WIDTH MTS.	%		Zn	oz/t Ag
		Cu	Pb		
9121	2.2	.01	.01	.57	.07
9122	3.3	.01	.01	.48	.03
9123	3.3	.01	.01	.65	.01
9124	3.2	.01	.01	.12	.01
9125	2.0	.01	.01	3.10	.01
9126	3.0	.01	.02	6.25	.01
9127	3.0	.01	.01	3.58	.01
9128	3.2	.01	.01	.58	.01
9129	5.0	.01	.01	.59	.01
91210	5.0	.01	.01	.12	.01
91211	5.0	.01	.01	.04	.01

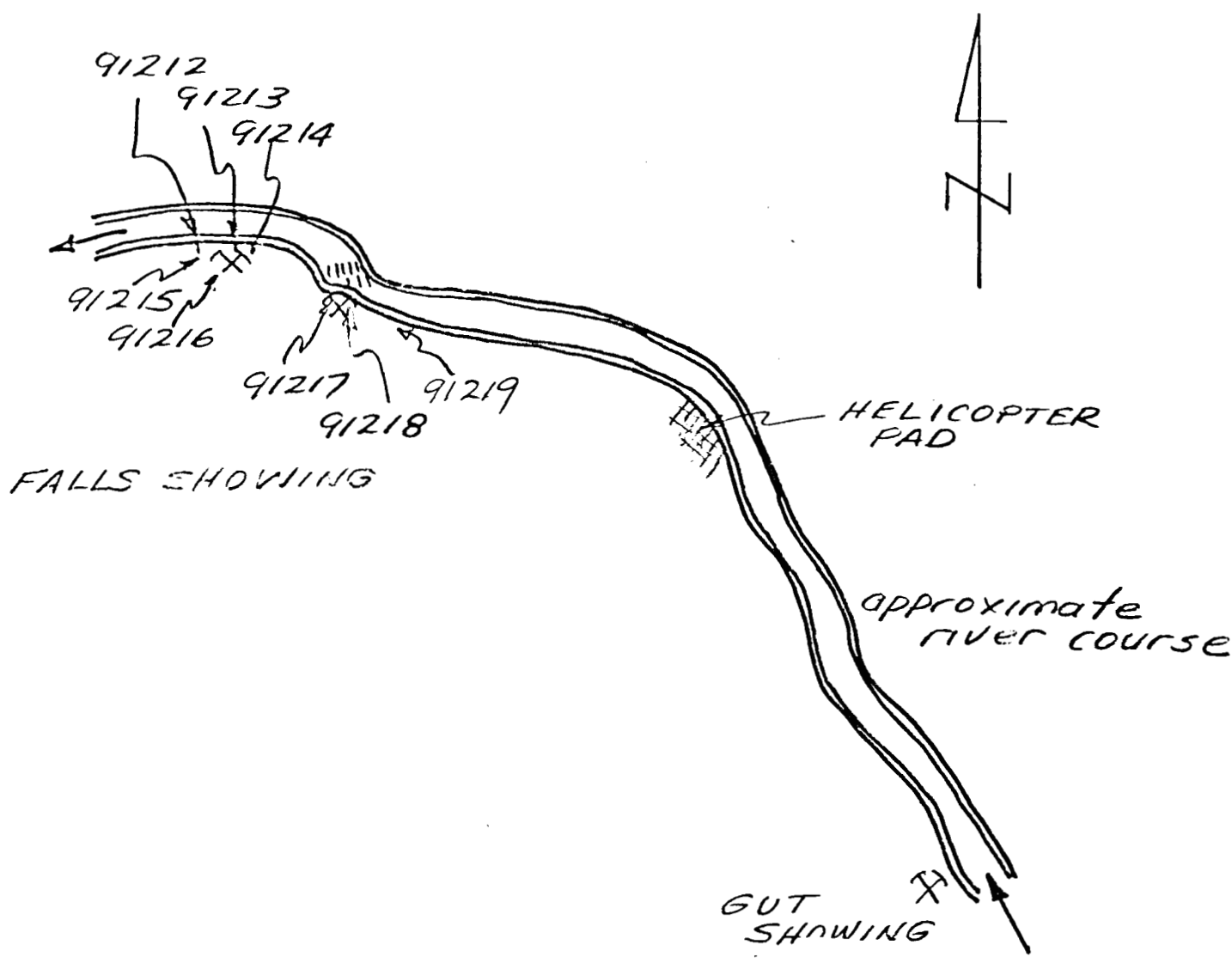
★ SAMPLING METHOD, CHARACTER CHIP, TAKEN HORIZONTAL

## PLATE 9



<b>ASARCO</b>		Vancouver	
CHODI PROPERTY PLAN OF GUT SHOWING			
Drawn by	Date	N.T.S.	SCALE
DMF	OCT 81	94K	1:200





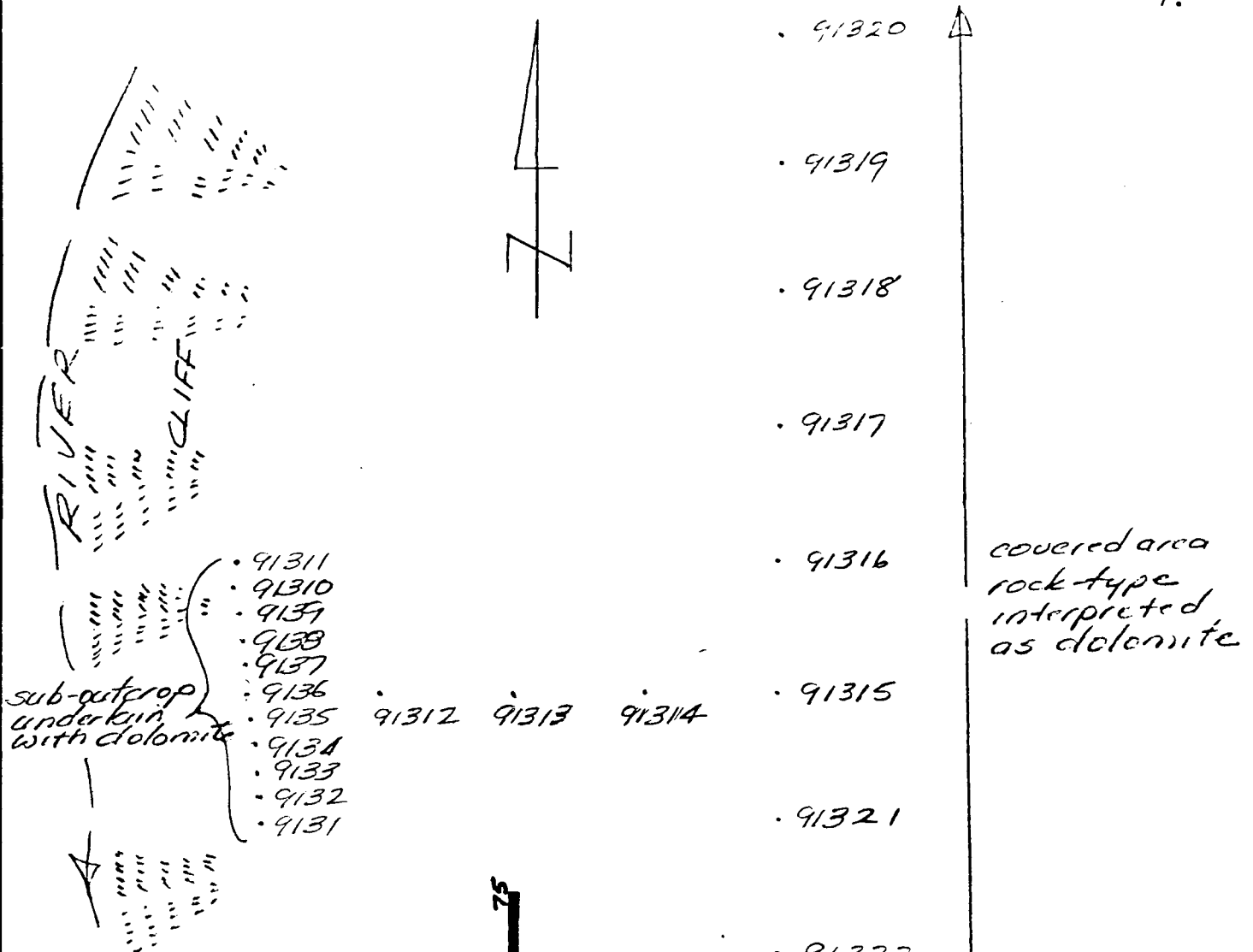
SAMPLE #	WIDTH MTRS	Cu	Pb	Zn	Ag
91219	2.0	.01	.01	.49	.01
91212	5.0	.01	.02	.03	.01
91213	1.0	.01	.01	.02	.01
91214	5.0	.01	.02	.01	.01
91215	4.5	.01	.02	.01	.01
91216	4.5	.01	.02	.01	.01
91217	3.5	.01	.03	.96	.01
91218	5.5	.01	.01	.02	.01

PLATE 10

\* SAMPLING METHOD, CHARACTER CHIP, TAKEN HORIZONTAL.



<b>ASARCO</b>		Vancouver	
<b>CHODI PROPERTY</b>			
SKETCH SHOWING POSITION OF GUT & FALLS SHOWINGS			
Drawn by	Date	N.T.S.	SCALE
DMF	OCT '81	94K	1:2500

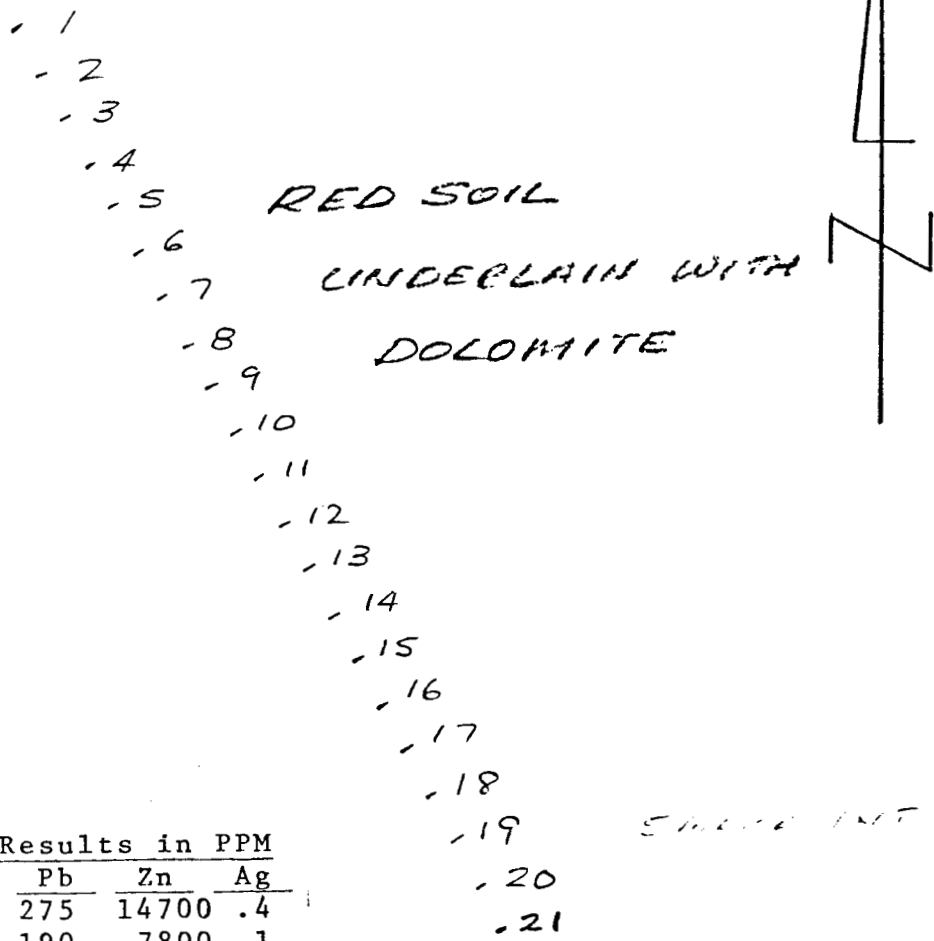


Sample No.	Cu	Results in PPM		
		Pb	Zn	Ag
91311	7	485	3750	.2
91312	7	700	4350	.2
9132A	30	295	7100	.4
9133	8	520	4500	.3
9133A	8	175	8750	.1
9134	9	750	4800	.2
9134A	5	1350	1800	.1
9135	6	150	400	.1
9135A	7	350	2000	.1
9136	9	150	2700	.1
9136A	6	60	435	.1
9137	12	160	2100	.1
9137A	7	60	360	.1
9138	7	230	3000	.1
9138A	4	58	280	.1
9139	4	300	2200	.1
9139A	3	58	590	.1
91310	8	375	2100	.1
91310A	5	520	1300	.4
91311	7	250	1750	.1
91311A	8	1800	3200	.3
91312	11	325	1250	.1
91313	12	54	365	.1
91314	18	115	330	.1
91315	10	44	240	.1
91316	8	30	170	.1
91317	11	40	200	.1
91318	12	55	185	.3
91319	14	44	200	.1
91320	12	42	185	.1
91321	16	50	675	.1
91322	9	28	225	.1
91323	13	37	205	.1
91324	15	105	575	.1
91325	16	60	255	.1



A, A' denotes  
deeper soil,  
approaching  
C-horizon  
equivalent.

<b>ASARCO</b>		Vancouver	
<b>CHODI PROPERTY GOAT SHOWING SOIL GEOCHEMISTRY</b>			
Drawn by	Date	N.T.S.	SCALE
DMF	OCT. 21 1981	94K	1:1250



Sample No.	Results in PPM			
	Cu	Pb	Zn	Ag
RED 1	25	275	14700	.4
2	10	190	7800	.1
3	8	110	5250	.1
4	19	140	24000	.2
5	7	80	10200	.1
6	11	105	6000	.1
7	8	190	7000	.1
8	9	135	8100	.1
9	16	90	8500	.1
10	13	115	14400	.2
11	13	125	46000	.2
12	10	135	7600	.2
12A*	14	215	8400	.1
13	7	94	7250	.2
13A*	11	165	7650	.1
14	8	120	6400	.1
15	7	90	4400	.1
15A	11	250	8600	.2
16	8	115	7600	.2
16A	11	175	9600	.2
17	9	130	6800	.1
18	24	365	19000	.4
19	17	675	19000	.2
20	23	275	60500	.3
21	28	260	58000	.2

7.5 0 7.5 15 22.5 30

PLATE 12

<b>ASARCO</b>		Vancouver		
CHODI PROPERTY RED SHOWING SOIL GEOCHEMISTRY				
Drawn by	Date	N.T.S.	SCALE	
DMF	OCT '81	94K	1:750	

\*"A" denotes surface sample

PART CC-1 - INTRODUCTION

Geological mapping of the claim area was conducted by Mr. A. Dunn during the period May - August under the direct supervision of this writer D. M. Fletcher, P. Eng. Parts C-2, C-3, C-4, C-5 and C-6 were prepared by A. Dunn. The geology map of the claim area was completed on a scale of 1:5000. Outcrop areas are coded by using patterns. Projections of outcrop in soil covered areas are coded by using numbers. Refers to Plates 5, 6, 7, and 8.

C-2 - GENERAL REGIONAL GEOLOGY

The Chodi claim group lies in the SW corner of the Tuchodi Lakes (94K) map area. The rocks in this area are nearly entirely sedimentary in nature and range in age from late Proterozoic (Hadrynian) through Devonian. The only igneous rocks in this area are Ordovician age volcanic materials - lapilli tuff and micro-dioritic flows (McIntyre, 1980).

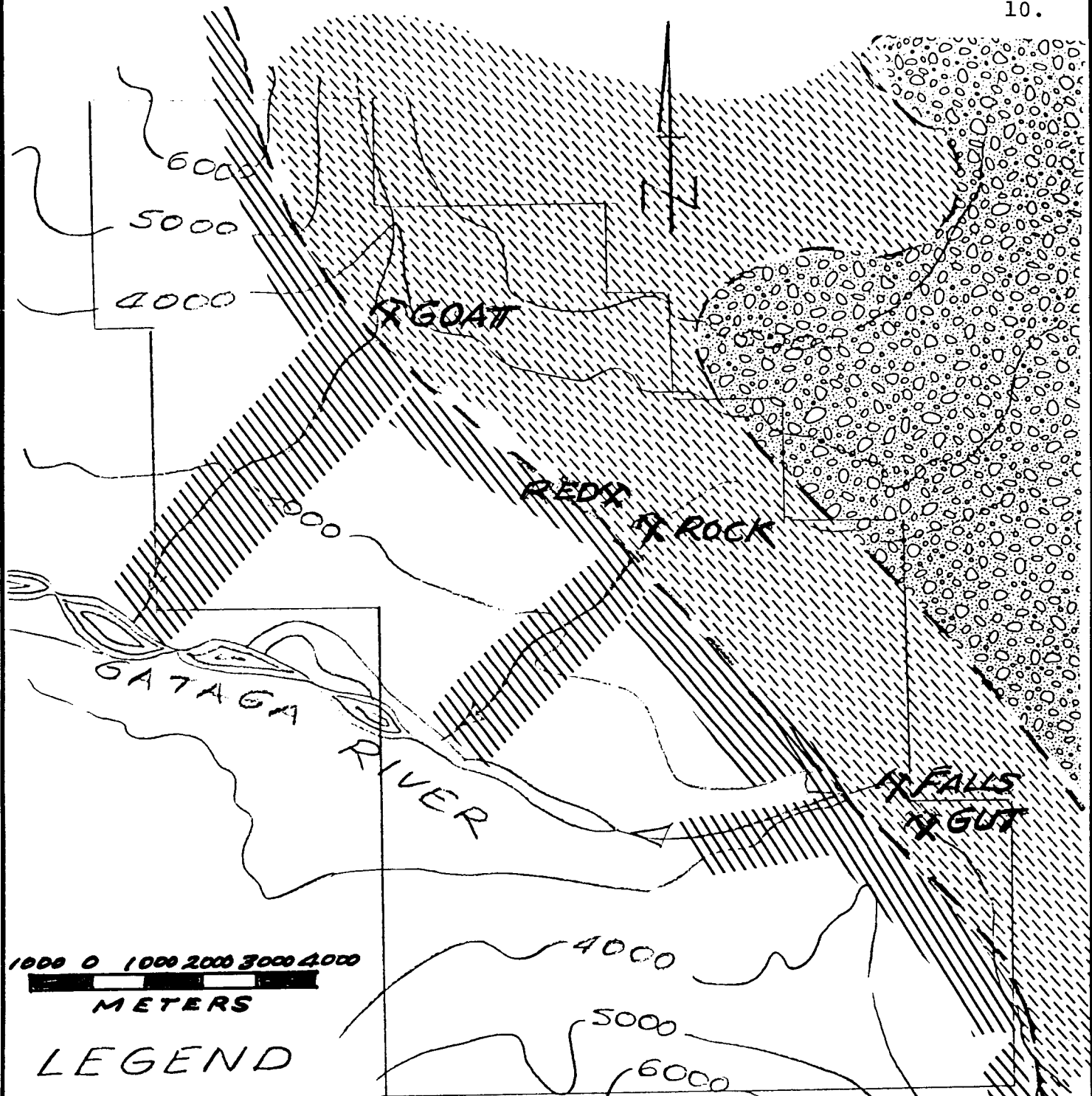
The sedimentary sequence represents large scale changes in depositional and environmental conditions. A broad lithologic breakdown is:

- a) Hadrynian rocks: phyllites, conglomerates and limestone.
- b) Cambrian rocks: dolostones, quartzites and shales; some limestone - sandstone turbiditic units.

The rocks of the two above ages are ones which outcrop in the map area, with Hadrynian rocks occurring in the extreme western part and Cambrian age in the remainder of the map area.

To the east of the map area, the following rocks occur:

- a) Ordovician: black graptolitic shales and limestone turbidites.
- b) Silurian: dolomitic siltstone, limestone, dolostone and some chert.
- c) Devonian: shales, limestones, sandstones, carbonaceous shales and conglomerates. It is within these Devonian shales, particularly the unit informally known as the "Gunsteel formation" that the major stratabound lead-zinc occurrences (ie. Driftpile, Cirque, Fluke, Elf, etc.) are found. As will be seen later in this report, the mineralization in these rocks differs significantly from the mineralization in the Chodi Claim group which occurs in Cambrian age dolostones.



1000 0 1000 2000 3000 4000  
METERS

LEGEND





-  16 to mO pyritic, rusty, black argillite and meta-sediments (>1000M ϕ)
-  16 Aton Group limestone & dolomite (>300 M ϕ)
-  diamictite unit (>400M ϕ)
-  zinc occurrences & geochemical anomalies

PLATE 3

<b>ASARCO</b>		Vancouver	
CHODI PROSPECT GEOLOGY MAP (after C. Graf)			
Drawn by	Date	N.T.S.	SCALE
DMF	08/81	94K	1:50,000

In a broad sense, these rocks represent alternations between near shore, warm shallow water sedimentation and proximal deep water sedimentation.

### C-3 - STRATIGRAPHY

There are five major sedimentary facies which occur in the map area. These facies from oldest to youngest are:

1) A late Hadrynian conglomeratic unit (Diamictite) consisting of rounded to subangular quartzitic sandstone clasts, and rarely limestone clasts, ranging in size from 1 cm to 2 m diameter, all contained in a shale to shaly lime matrix. Layers of quartzite and limestone occur within the clast rich units. These Hadrynian rocks show a gradation to and are conformably overlain by, an early Cambrian dolostone, most likely the Atan Formation. This unit is a very fine grained, blue grey dolostone, approximately 1000 meters thick. It contains fossilized cabbage head stromatolites and crystalgal laminae. In places there are small lenses and layers of a very pure, well rounded orthoquartzitic sandstone. This dolostone shows a fairly rapid change to the third unit, a probable Middle Cambrian age, fine grained quartzitic sandstone (quartzite), approximately 100 m. thick. The lower 5 m. in contact with the dolostones are fairly clean quartzites. This rapidly changes to a very fine grained argillaceous sandstone, which contains a fairly large amount of disseminated pyrite in the first 10 m. above the lowermost "clean" sandstones. This is overlain by the fourth unit, a probable Middle - Lower Cambrian argillite-shale package at least 2000 m. in thickness. This unit which may possibly be correlative with the Kechika group is very fine grained, grey to black in color. In places, the shale-argillite unit contains large (up to 500 m. in longest dimension) lenses, and layers of a coarse grained, brown colored limey-sandstone, and a fine grained grey colored micritic limestone. This limestone is characterized by rip-up clasts, graded bedding, and interlayered shale beds suggestive of a carbonate turbidite sequence. The entire thickness of this unit is not known as it extends off the property to the west of the map area.

#### C-4 - STRUCTURE

The structure of the rock units in the Chodi claim group is relatively simple, the deformation involving simple folding and cleavage development. There appear to be two main ages and directions of folding: an early one in which the rocks show an overall regional dip to the northwest, and a second later stage in which the rocks have an overall dip to the southwest. Average dip of bedding is  $30^{\circ}$  to  $40^{\circ}$  southwest, strike  $N60^{\circ}W$  to  $N40^{\circ}W$ . Folds are open with shallow amplitudes and wavelengths on the order of 50 - 200 m. Well developed axial planar cleavage occurs in the shale unit. This cleavage is on the order of  $70^{\circ}$  southwest to  $90^{\circ}$ . On the northeast limbs of folds, cleavage is in a similar attitude to the northeast. Strike of the fold axes are the same as the strike for the beds - on the order of  $N60^{\circ}W$  to  $N40^{\circ}W$ . This axial planar cleavage is extremely prominent and well developed, and without careful mapping can easily be mistaken for bedding. Compositional banding and relict bedding, however indicate the shale dips  $30^{\circ}$  -  $40^{\circ}$  southwest striking  $N60^{\circ}W$  to  $N40^{\circ}W$ .

The sandstone and dolostone have clearly developed bedding with the same attitudes as bedding in the shale. The dolostones show prominent fracturing in a northeast to east direction of dip - averaging  $70 - 75^{\circ}$  east to northeast. Strike of the cleavage is approximately north. The dolostones also show well developed north and east striking vertically dipping joint sets, along which present day horsting is taking place.

Deformation of these rocks most likely took place during the Laramide Orogeny.

#### C-5 - MINERALOGY

All potentially economic minerals found at Chodi occur in the upper 10 m. of the dolostone and to a more limited extent, within the overlying sandstone unit. Minerals found, listed in order of decreasing abundance, are: Pyrite, sphalerite, and galena. Pyrite occurs as fine grained massive lenses and beds to 20 cm. thick, and as vertical stockwork type zones to 1 m. wide. These pyrite occurrences are found on both sides of the 3 canyons cutting the property. Sphalerite occurs as disseminated grains and masses to 2 cm. across, or as bands of coarsely crystalline grains. These bands are found above the thicker pyrite lenses and beds, and in some cases occur

with the pyrite as alternating bands. In no cases were the bands of massive sphalerite observed found to be thicker than 2 cm. The sphalerite tends to be yellow to light red brown in color, indicating low iron content. The sphalerite is far less abundant than pyrite. Sphalerite occurs at the Gut Showing the discovery occurrence, as bands alternating with pyrite, appearing to replace crystalgal laminae. Sphalerite is less abundant at the Red Zone. Here it occurs as coarse grains forming pods and lenses in the dolostone. It is least abundant at the Goat Showing where it occurs as disseminated grains and small lenses. Galena occurs only at the Goat Showing, as disseminated grains and coarsely crystalline veins. Disseminated pyrite and very rare sphalerite occur in the lower 15 m. of the sandstone which overlies the dolostone.

No economic mineralization occurs in the shale, or below the upper 10 m., of the dolostone unit. Within the shales, however, numerous sulphates occur as encrustations and films between cleavage planes. This most likely is caused from movement and alteration of original  $\text{FeS}_2$  as a result of fluid migration out of the shales during the development of the axial planar cleavage.

Mineralization is accompanied by recrystallization of the dolostone, and is associated with "cabbage head" stromatolites and crystalgal laminae found in this section of the dolostone. Pyrite - sphalerite banding patterns and textures suggest these minerals may have precipitated in and near these structures as a result of the Eh-pH conditions near these structures and the presence of sulphur from the decay of the organic matter. The presence of the vertical stockwork pyrite zones, and disseminated mineralization in the capping sandstone suggest mineralizing fluids moved up ancient fault zones represented by the stockwork zones. Upon reaching the relatively impermeable cap of argillaceous sandstone the fluids migrated laterally through the dolostones. Some made their way into the sandstone. Conditions of mineral deposition were more conducive for pyrite deposition than for sphalerite and galena. The deposition of the latter two may have been controlled by requirements for smaller, more stringent Eh-pH conditions or by local Zn-Pb concentrations in the mineralizing fluids, or a combination of both. Age of the mineralization is most likely Middle to Lower Cambrian. The type of mineralization at Chodi can best be summed up as carbonate hosted massive sulphide.



C-6 - ENVIRONMENTAL RECONSTRUCTION

Reconstructing the Cambrian depositional environment suggests early Cambrian shelf stabilization with deposition of primary dolostone in a barred basin or lagoon, where sabkha type climatic conditions prevailed. Some river deltas in the basin deposited shale near the base of this section. The presence of well rounded, orthoquartzitic sandstones higher in the dolostone indicates the basin may have become extremely shallow, and climatic conditions much more arid in early to middle Cambrian time. This allowed the deposition and water working of wind blown sands in the basin. This was accompanied by growth of mat algae and "cabbage head" algae stromatolites.

It is suggested that in the Middle Cambrian there was an initiation of a tensional episode which began normal faulting and basin deepening, resulting in the deposition from continental sources of the argillaceous, and possibly turbiditic sandstone.

In the middle to late Cambrian, deposition of deep water, basinal shales begins. This deposition was accompanied by block faulting. This faulting allowed buildup of limestone reefs and sandy patches in the shallower water ends of the blocks. Fault movement triggered reef collapse, causing carbonate-sand debris flows into the deeper parts of the basin. Contemporaneous with this was the movement of Fe-Zn-Pb rich fluids, possibly derived from buried sediments up fault zones. Fluids migrated upward until they reached the relatively impermeable sandstone layer, where they began their lateral migration. Shale deposition, accompanied by periodic carbonate debris flows, and FeS<sub>2</sub> deposition in reducing environment continued for an unknown length of time, at least through the early Ordovician.

During the Laramide Orogeny, this area was affected by the deformation mentioned earlier. Latest major geologic events in the area were Pleistocene glaciation and post-Pleistocene glacier removal. The latter event was accompanied by increasing water flow and subsequent erosion and canyon cutting in this area.

D-1 - GEOCHEMICAL FIELD PROCEDURE

A soil survey grid was established by topo chain and compass. Approximately 2900 soil geochemical samples were gathered with a 25 meter sample spacing along lines no more than 150 meters apart. A total of 72 line kilometers of sampling was completed at the Chodi Prospect. Each soil sample was taken at a soil depth of 15 - 20 centimeters, bagged, packaged and sent to Acme Analytical Laboratories Ltd. in Vancouver for copper, lead, zinc and silver geochemical determination.

D-2 - ANALYTICAL PROCEDURES

All soil samples were dried to 75°C and sieved to -80 mesh. Rock samples were ground to -100 mesh. After mixing a .5 gram sample was digested with dilute aqua regia in a boiling water bath, thence diluted to 10 milliliters with distilled water. Determination of copper, lead, zinc and silver was accomplished by Atomic Absorption from this solution. Analytical results were reported in parts per million. The display of geochemical values are plotted on Plates 13 - 28 inclusive.

D-3 - STATISTICAL EVALUATION OF RESULTS

A statistical analysis was made on the results obtained on each grid (Grid 1, Grid 2, and Grid 3) and separated on each rock type, eg. shale, limestone, quartzite and dolostone. These results are herewith summarized.

Rock Type	Element	No. of Samples	ARITHMETIC		
			Mean	Standard Deviation	Variance
Limestone	Cu	83	18.73	13.39	179.4
	Pb	"	26.10	14.96	223.8
	Zn	"	71.37	51.50	2652.0
	Ag	"	.1880	.2115	.4473
Shale	Cu	177	21.90	19.72	389.1
	Pb	"	19.20	12.51	156.4
	Zn	"	121.3	178.1	.3193
	Ag	"	.3881	.4903	.2404

Rock Type	Element	No. of Samples	ARITHMETIC		
			Mean	Standard Deviation	Variance
Dolostone	Cu	156	17.29	9.182	84.31
	Pb	"	23.79	11.16	124.5
	Zn	"	141.2	213.0	.4538
	Ag	"	.1462	.9863	.9727
<u>Grid 2</u>					
Dolostone	Cu	250	11.32	7.427	55.17
	Pb	"	39.06	34.43	1186.0
	Zn	"	415.9	1071.0	.1147
	Ag	"	.1212	.6760	.4569
Shale	Cu	550	18.60	15.80	249.6
	Pb	"	22.92	16.14	260.5
	Zn	"	166.7	371.5	.1380
	Ag	"	.2151	.2964	.8784
Quartzite	Cu	33	13.82	11.02	121.3
	Pb	"	36.15	42.81	1833
	Zn	"	1041	2647	.7005
	Ag	"	.1364	.8594	.7386
<u>Grid 3</u>					
Limestone	Cu	61	15.70	10.90	118.7
	Pb	"	40.74	43.22	1868.0
	Zn	"	1177.0	2667.0	.7115
	Ag	"	.1787	.1343	.1804
Dolostone	Cu	345	12.04	8.964	80.35
	Pb	"	113.6	467.6	.2186
	Zn	"	900.8	2652.0	.7031
	Ag	"	.1448	.1549	.2399
Shales	Cu	870	22.36	51.82	2685.0
	Pb	"	25.04	59.40	3529.0
	Zn	"	464.03	1762.0	.3104
	Ag	"	.2472	.4478	.2005
Quartzite	Cu	33	10.67	5.337	28.48
	Pb	"	140.2	307.4	.9450
	Zn	"	1160.0	2124.0	.4512
	Ag	"	.1303	.7282	.5303

D-4 - DISCUSSION OF STATISTICAL RESULTS

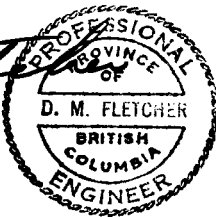
The principal in situ zinc sulfide mineralization occurs at the Gut (Grid 1), Red (Grid 3) and Goat (Grid 3) Showings. Geochemical response for zinc in the vicinity of the Gut Showing (Grid 1) appears very limited. In soil covered areas tributary to the Gut Showing geochemical response is low, generally less than 200 ppm - refer to Plate 22. At the Red Showing (see Plate 24) soil geochemical response for zinc is anomalously high, even exceeding 1.0% zinc. The Red zinc anomaly appears to have a strike length of over 300 meters, extending from the 570N line to the 600N line. Northwesterly along the same grid a distance of 2200 meters anomalous zinc values (2000 - 7000 ppm range) were detected on line 825N which lies astride the Goat Showing - refer to Plate 23. A study of the statistical data from Grid 3 suggests higher density of zinc values to be associated with the quartzite - dolostone contact. This contact borders both the Goat and Red Showings to the southwest. Study of probability plots of zinc data taken from Grid 3 suggest that

- < 999 ppm zinc = background
- 1000 - 1499 ppm zinc = possibly anomalous
- > 1500 ppm zinc = anomalous

D-5 - RECOMMENDATIONS

Further work on the Chodi property is warranted. Due to the remote location of the property bulldozer trenching at the Goat and Red showings would be difficult and costly. Although not as effective, hand trenching would assist in further definition in limiting zinc sulfide presence at these showings.

*D. M. Fletcher*



11344

PART E

GEOPHYSICS

REPORT ON  
GEOPHYSICAL SURVEYS  
CHODI PROJECT  
FORT NELSON AREA  
BRITISH COLUMBIA

BY

ASARCO Incorporated  
Geophysical Office - Exploration Department  
Salt Lake City, Utah

October 20, 1981

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### MAPS ACCOMPANYING REPORT:

	<u>Scale</u>
FIGURE 1 - IP CONTOUR MAP .....	1:5000
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## INTRODUCTION

Between July 24 and August 3, 1981, IP/resistivity, VLF-EM, and magnetic surveys were carried out on grid No. 3, Chode Project, near Fort Nelson, British Columbia. The work was conducted by Asarco personnel for Asarco Exploration Company of Canada Ltd.

The surveys were run over a previously established grid. The baseline was located approximately on a steeply west dipping shale-dolomite contact, with shale on the west and the dolomite to the east. A gossan exposure known as the Goat Prospect lies at the north end of the grid on Line 82+50N near the baseline. The Red Zone lies immediately east of the baseline between Lines 57+100N and 61+50N and consists of a strong zinc-lead geochemical anomaly associated with brick red iron stained soil.

IP/resistivity results are presented in Figures 1 through 6, magnetics on Figure 7, and VLF-EM results on Figures 8, 9 and 10.

## SUMMARY

The environment is a difficult one for the electrical methods. Carbonaceous shales, especially west of the baseline, produce a profusion of electrical conductors and high induced polarization responses that make isolation of a sulfide response difficult. Geological features are evident, however, and it is hoped that the results may prove of some value in conjunction with the previous geological and geochemical work.

The only magnetic response was a weak erratic high coinciding with the geochemical and electrical indications in the Red Zone. If this can be assumed to be a response from a sulfide occurrence with associated magnetic minerals, the magnetic method may prove to be of value in this area or other similar environments.

IP decay curve work might be considered as a means of helping to evaluate polarizable targets in future work.

## SURVEY AND INSTRUMENT SPECIFICATIONS:

### IP/Resistivity Survey

Instrument

Transmitter: Scintrex IPC-8/250 Watt

Receiver: Scintrex IPR-10

Instrument Accuracy

3% full scale, .1 Mv/V resolution

Electrode Configuration

Dipole-dipole, a=50 meters, n=1

Number of Stations & Coverage

103 stations (5.2 Km)

Field Time Required

17 man days.



### Magnetic Survey

Instrument	Geometrics G826 Proton Magnetometer
Instrument Accuracy	$\pm 1$ gamma - data corrected for diurnal drift.
Number of Stations & Coverage	430 stations (7.0 Km)
Field Time Required	3 man days.

### VLF-EM Survey

Instrument	Geonics EM-16
Instrument Accuracy	$\pm 3\%$ in-phase and quadrature
Transmitters	Stations: NLK/NPG Jim Creek, Wash. Frequency 18.6KHz
Number of Stations & Coverage	813 stations (13.6 Km)
Field Time Required	6 man days.

### Line Surveying

The survey was conducted on a previously established line grid with stations flagged and labeled at 50 meter intervals. Chainages were not corrected for slope.

## DISCUSSION

### IP/Resistivity.

Two contacts are suggested by the resistivity results in the northern part of the grid (Figure 2). One very distinct break in the responses divides the highly conductive sediments west of the baseline from a 200 meter wide zone of intermediate resistivity to the east. A second strong break in the eastern part of the grid divides the intermediate zone from still higher resistivity levels. Polarization levels (Figure 1) are high over the carbonaceous sediments declining rapidly over the more resistive rocks, creating a strong polarization gradient over the contact at the baseline.

The picture would be consistent with highly conductive carbonaceous sediments east of the baseline, highly resistant carbonate rocks on the eastern edge of the grid and a 200 meter wide gradational or interbedded contact zone. The Goat Prospect itself appears to be on the polarization gradient in the contact zone.

IP/resistivity results on the south end of the grid (Red Zone) are more erratic but the abrupt change in resistivity on the east part of the grid again probably marks the beginning of dominantly carbonate rocks.

Magnetics.

The total intensity magnetic field was monitored on seven days but on all but three days magnetic storms prevented field surveying. This magnetic activity, due to a combination of a peak sun spot year and high magnetic latitude, prevented a complete coverage of the grid which would have been desirable.

Low intensity magnetic highs were found on Lines 58+50N and 60+00N corresponding with a strong geochemical anomaly, an IP anomaly, and a VLF-EM conductor (Figure 7). The anomaly could be indicative of a slightly magnetic sulfide occurrence.

Because of the low level of the magnetic response and the problems encountered with the unstable field, it is recommended that further magnetic work be done with a second instrument for base station monitoring.

VLF-EM.

The VLF-EM survey produced multiple conductors which are considered mostly conductive carbonaceous beds. The conductor of most interest is the long weak zone east of the baseline that strengthens over and north of the Red Zone (Figure 8). The correlations, shown on the Fraser contour map, are somewhat speculative because of the wide line spacing but they probably do provide a fair idea of structural trends.

EWP:am

*Edward W. Perkins*  
EDWARD W. PERKINS  
Geologist

# ASARCO

Geophysical Office — Exploration Department

October 20, 1981

E. W. Perkins  
Manager

## CERTIFICATION

I, Edward W. Perkins, of Salt Lake City, Utah hereby certify  
that:

1. I am a graduate of the University of Maine in 1949 with  
a BA degree in geology.
2. I have been practising my profession of mineral exploration  
and exploitation geophysics for thirty years.
3. I am a member of the Society of Exploration Geophysicists.

*Edward W. Perkins*

---

EDWARD W. PERKINS  
Geologist



To: Asarco Exploration Co. of Canada Ltd., 852 E. Hastings St., Vancouver, B.C. V6A 1R6  
504 - 535 Thurlow St.,  
Vancouver, B.C. Telephone: 253 - 3158

File No. 80-1100

Type of Samples Rocks

Disposition

## ASSAY CERTIFICATE

No.	Sample	Cu%	Pb%	Zn%	Ag oz/ton			No.
1	9121	.01	.01	.57	.07			1
2	9122	.01	.01	.48	.03			2
3	9123	.01	.01	.65	.01			3
4	9124	.01	.01	.12	.01			4
5	9125	.01	.01	3.10	.01			5
6	9126	.01	.02	6.25	.01			6
7	9127	.01	.01	3.58	.01			7
8	9128	.01	.01	.58	.01			8
9	9129	.01	.01	.59	.01			9
10	91210	.01	.01	.12	.01			10
11	91211	.01	.01	.04	.01			11
12	91212	.01	.02	.03	.01			12
13	91213	.01	.01	.02	.01			13
14	91214	.01	.02	.01	.01			14
15	91215	.01	.02	.01	.01			15
16	91216	.01	.02	.01	.01			16
17	91217	.01	.03	.96	.01			17
18	91218	.01	.01	.02	.01			18
19	91219	.01	.01	.49	.01			19
20								20

GUT &amp; FALLS SHOWING

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DATE SAMPLES RECEIVED Sept. 18, 1980

DATE REPORTS MAILED Sept. 26, 1980

ASSAYER

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



To: Asarco Exploration Co. of Canada Ltd.,  
504 - 535 Thurlow St.,  
Vancouver, B.C.  
V6E 3L2

852 E. Hastings St., Vancouver, B.C. V6A 1R6  
Telephone: 253 - 3158

File No. 80-721  
Type of Samples Rocks  
Disposition \_\_\_\_\_

# ASSAY CERTIFICATE

No.	Sample	Cu%	Pb%	Zn%	Ag oz/ton			No.
1	CHODI A	.01	.02	19.10	.01			1
2	B	.01	.03	20.20	.02			2
3	C	.01	.02	28.50	.02			3
4	D	.01	.01	15.10	.01			4
5	E	.01	.02	.87	.02			5
6	F	.01	.02	18.10	.01			6
7	G	.01	.01	.71	.01			7
8	H	.01	.03	30.20	.01			8
9	I	.01	.02	16.60	.03			9
10	CHODI J	.01	.02	23.50	.02			10
11								11
12								12
13	<i>SPECIMENS WITH VISIBLE ZNS TAKEN FROM "GUT"</i>							13
14								14
15								15
16								16
17								17
18								18
19								19
20								20

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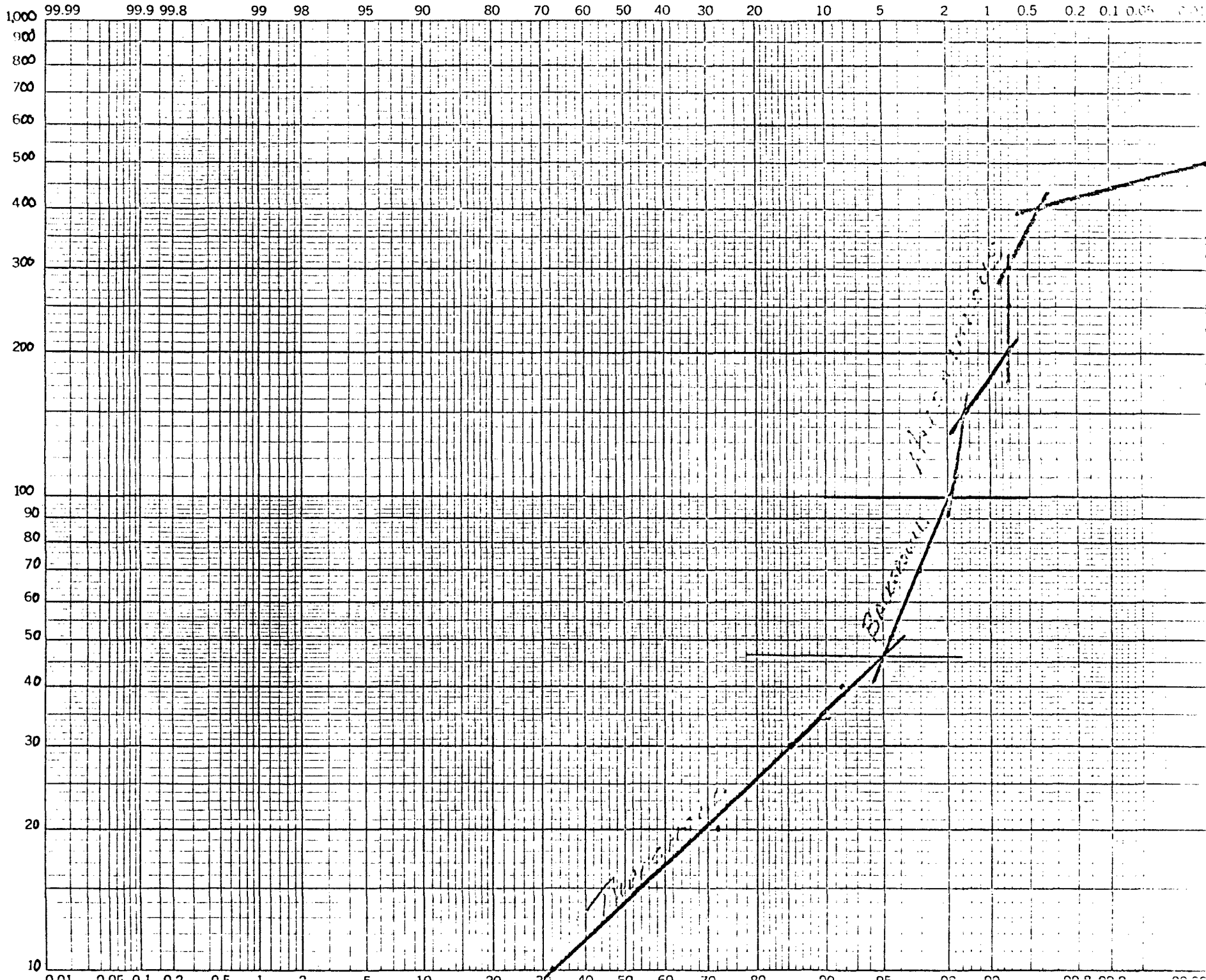
DATE SAMPLES RECEIVED July 30, 1980

DATE REPORTS MAILED Aug. 2, 1980

ASSAYER

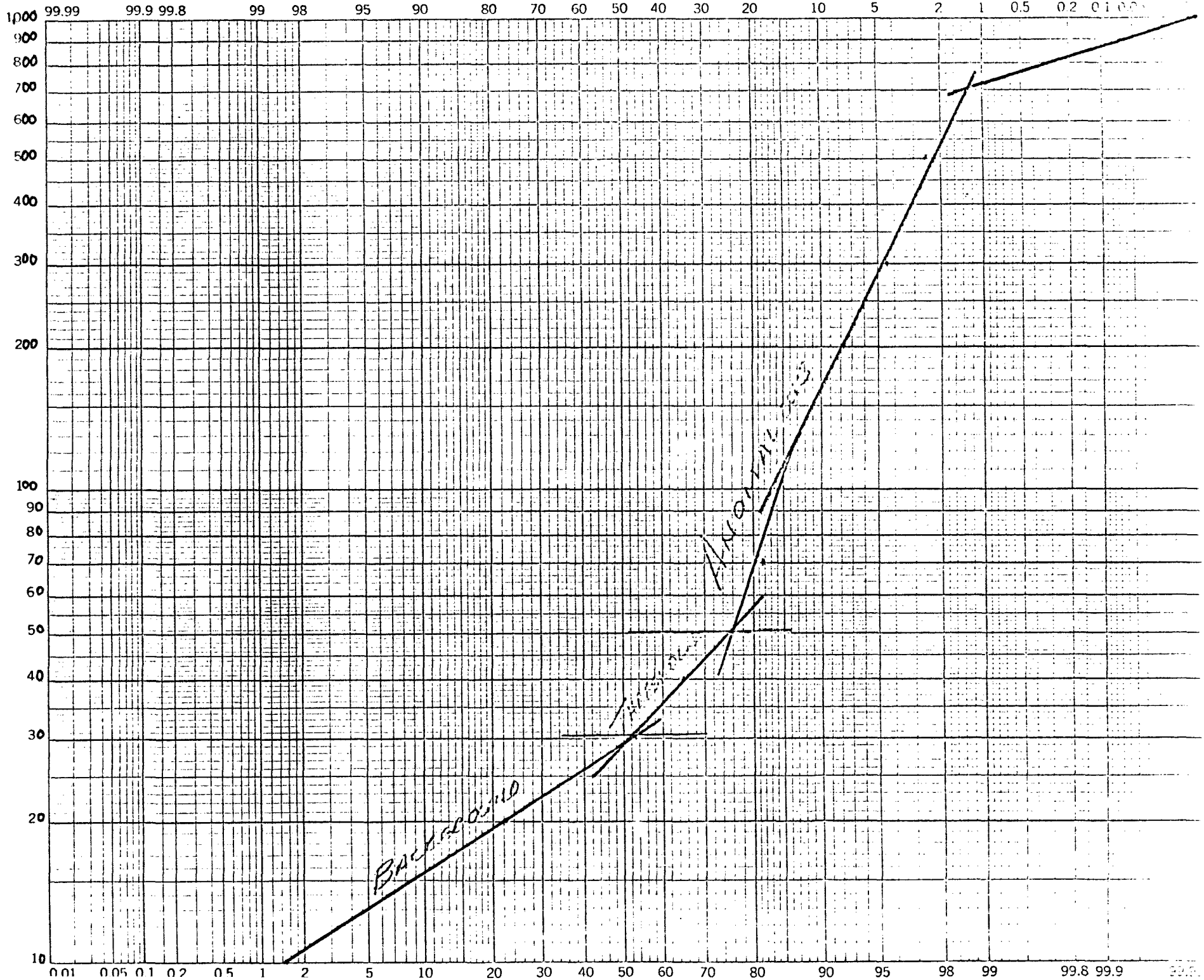
*Dean Toye*  
=====

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER

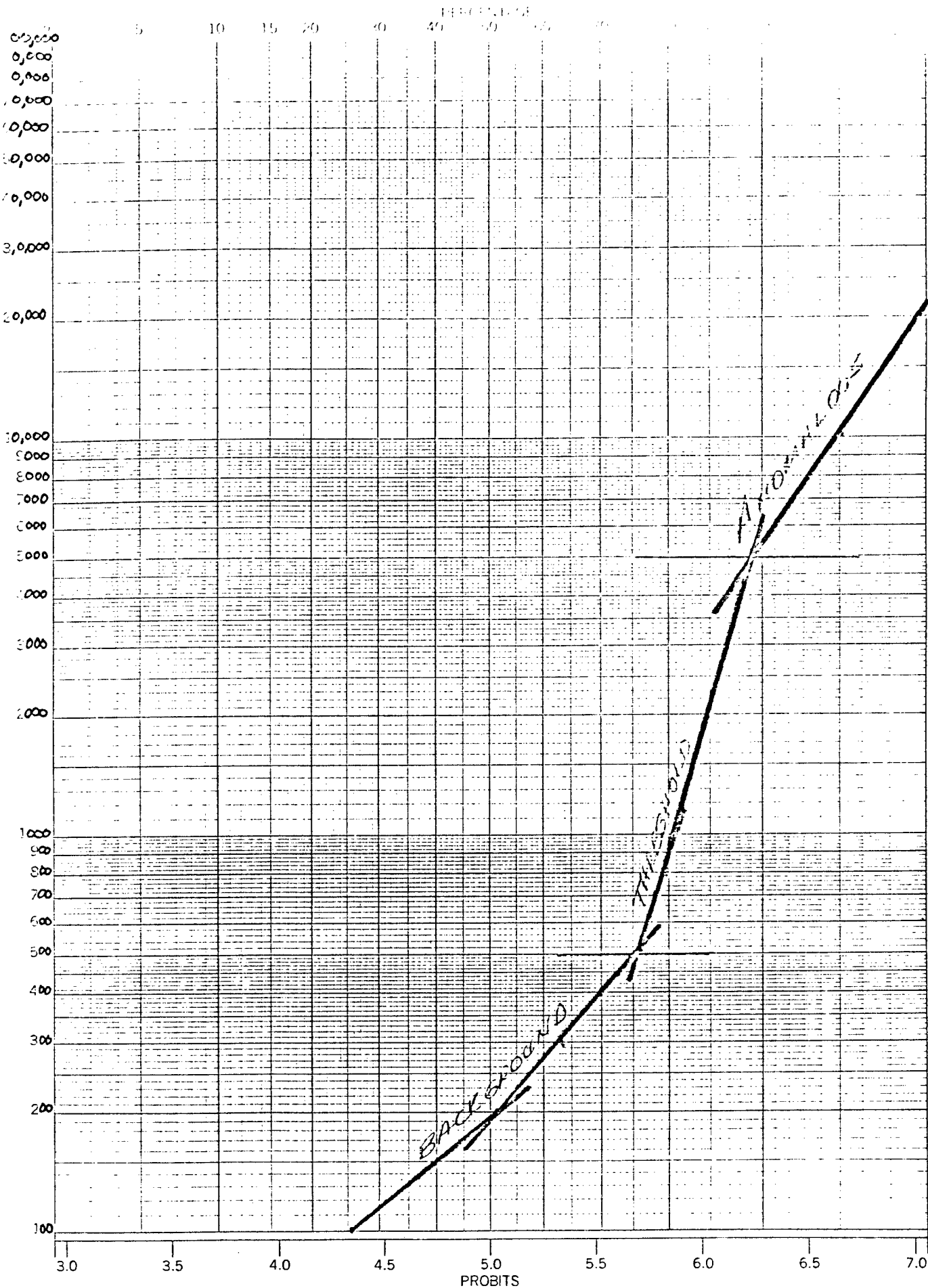


Y.T.M (CW)

P.P.M (Pb)



# CUMULATIVE % FREQUENCY

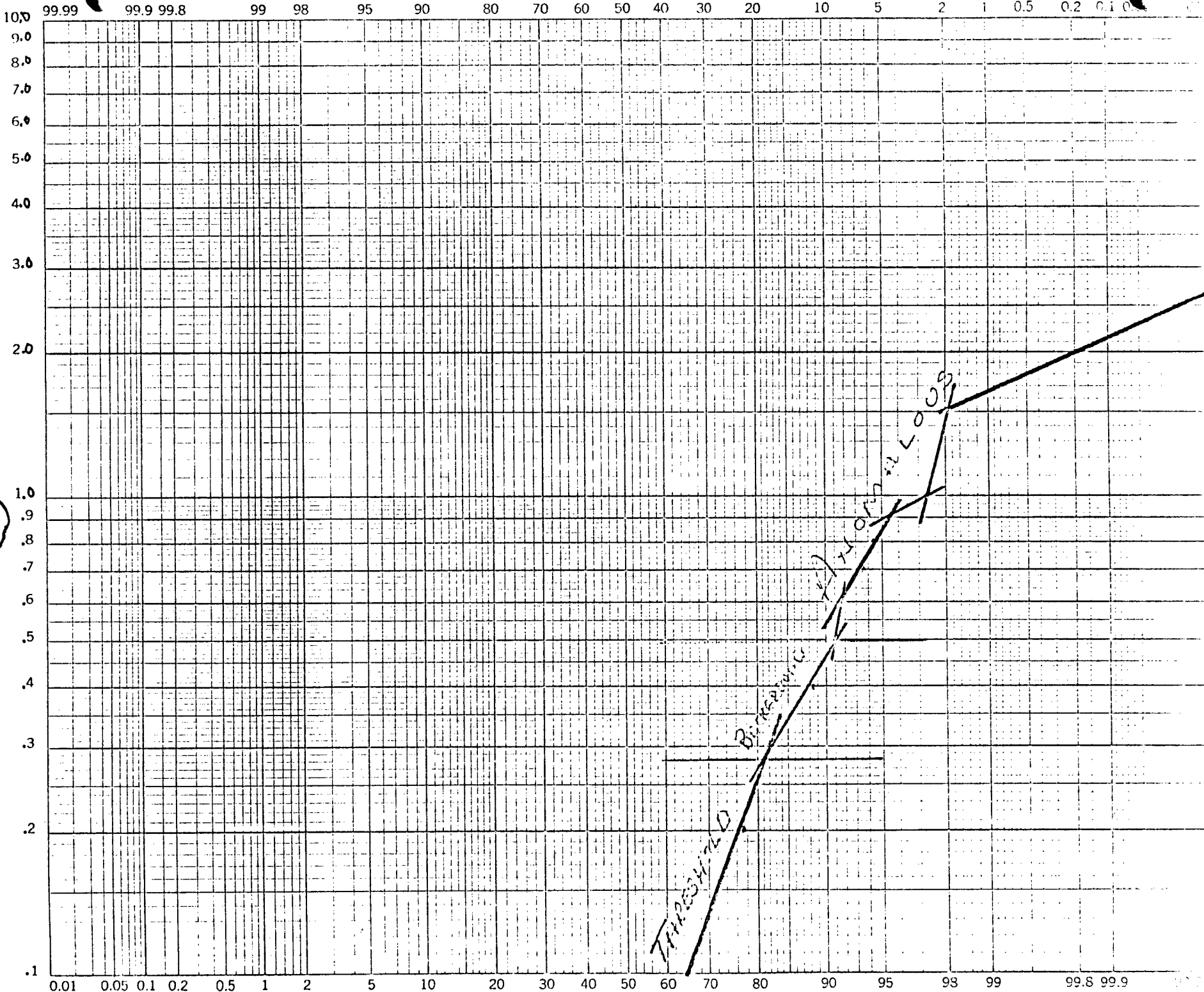


46 8080

P.P.M Zn

PROBABILITY X 3 LOG CYCLES  
KEUFFEL & ESSER CO. MADE IN U.S.A.





AG

P.P.M

THRESHOLD

BURNING

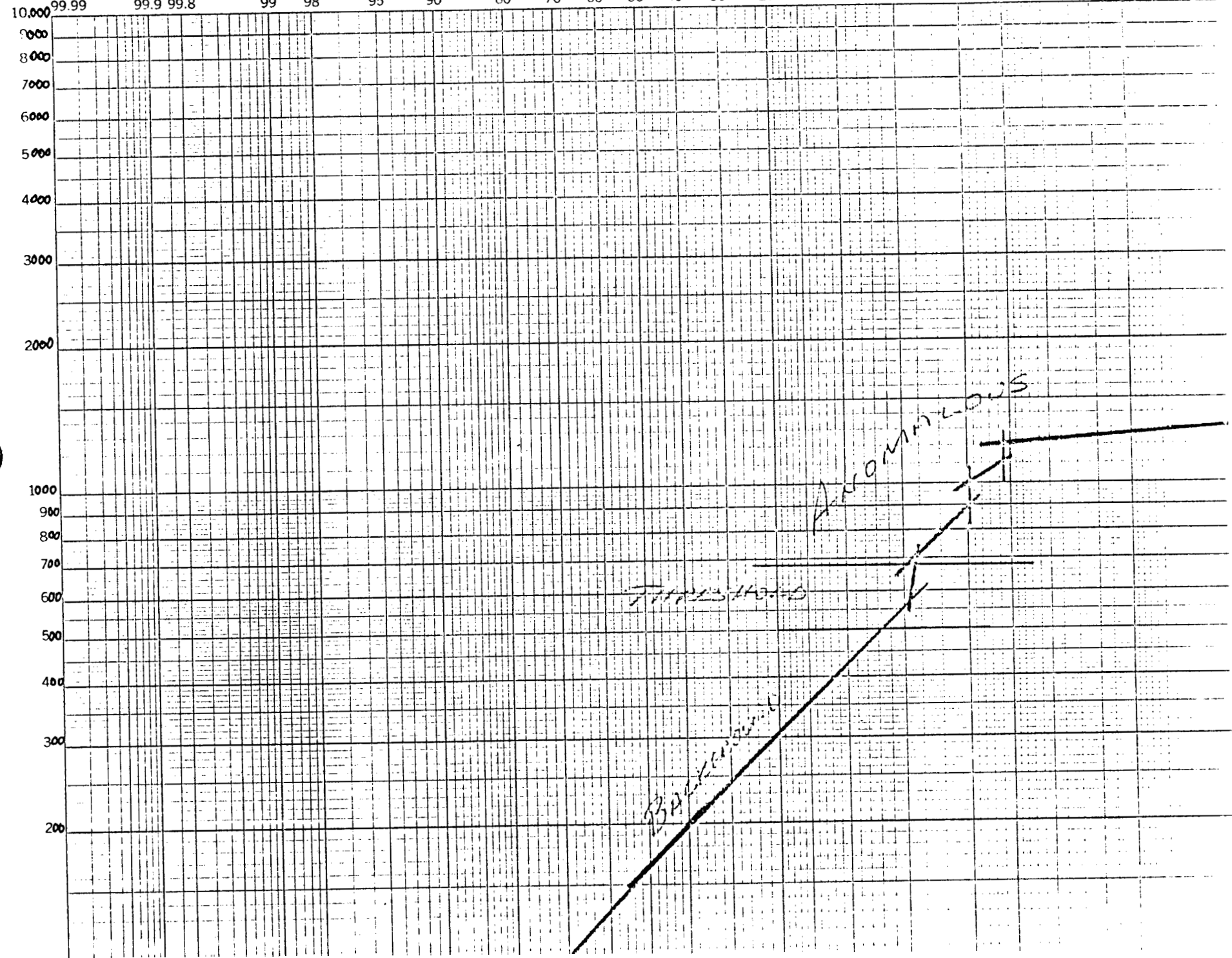
THRESHOLD LOSS

# CUMULATIVE % FREQUENCY

K+E PROBABILITY X 2 LOG CYCLES  
KEUFFEL & ESSER CO. MADE IN U.S.A.

46 8040

99.99 99.9 99.8 99 98 95 90 80 70 60 50 40 30 20 10 5 2 1 0.5 0.2 0.1 0.05



P.P.M (Ba)

77113-110-15

BASELINE

ANOMALOUS

APPENDIX 1

APPENDIX 1

STATEMENT OF EXPENDITURES

1. PERIOD SEPTEMBER 8 - 16 (inclusive) 1980

1-1	<u>Salaries</u>	
	D. Fletcher - \$120/day x 9 days	\$ 1080.00
	M. Lancaster - \$92/day x 9 days	828.00
	B. Dent - \$60/day x 9 days	540.00
	B. Saunders - \$44/day x 9 days	396.00
1-2	<u>Helicopter</u> 50%	4047.27
1-3	<u>Accommodation, Supplies, Equipment</u>	2978.36
1-4	<u>Laboratory Analysis</u>	1778.89
		<hr/>
	1. TOTAL	\$11648.52

2. PERIOD MAY 15 - AUGUST 8, 1981

2-1	<u>Salaries</u>	
	D. Fletcher - \$140/day x 17 days	\$ 2380.00
	A. Dunn - \$72/day x 70 days	5040.00
	R. Wahl - \$66/day x 80 days	5280.00
	R. Gadzala - \$50/day x 80 days	4000.00
	M. Ostry - \$50/day x 80 days	4000.00
	A. Hamilton - \$48/day x 80 days	3840.00
	A. Thorsen - \$100/day x 15 days	1500.00
	E. Perkins - \$140/day x 6 days	840.00
	F. Blackham - \$100/day x 6 days	600.00
		<hr/>
	2-1 TOTAL	\$27480.00
2-2	<u>Photogrammetry</u> - McElhanney Surveying	3785.00
2-3	<u>Helicopter</u> - 50%	13501.79
2-4	<u>Samples</u>	
	a) Sample Freight, Expediting	2112.24
	b) Analytical Analysis	9751.35
2-5	<u>Food, Field Supplies, Hardware, Gasoline, Expediting</u>	7762.34
2-6	<u>Drafting, Statistical Analysis, Report Preparation</u>	2000.00
		<hr/>
	2. TOTAL	\$66392.72
	1. & 2. TOTAL	\$78041.24
		<hr/>

APPENDIX 1 (cont.)

3. STATEMENT OF EXPLORATION AND DEVELOPMENT - EXPENDITURES

3-1	Submitted 29 July 1981	\$ 28392.00
3-2	" " " "	28392.00
3-3	" 7 October 1981	12000.00
3-4	" " " "	6441.62
		<hr/>
	3. TOTAL	\$75225.62
		<hr/>

APPENDIX 2

APPENDIX 2

STATEMENT OF QUALIFICATIONS

I, David McLean Fletcher of Vancouver, British Columbia, Canada, certify that,

1. I am a graduate in Geological Engineering (B.Ap.Sc. 1956) of The University of British Columbia.
2. I have practised my profession as an exploration geologist continuously for the past 25 years.
3. I am a registered Professional Engineer in the Provinces of British Columbia and Ontario, Canada.
4. I supervised the geological, geochemical and geophysical work accomplished at the Chodi Claims from September 1980 through August 1981.



D. M. Fletcher, P. Eng.  
October 23, 1981



APPENDIX 3



To: Asarco Exploration Co. of Canada Ltd., 852 E. Hastings St., Vancouver, B.C. V6A 1R6  
 504 - 535 Thurlow St.,  
 Vancouver, B.C.  
 V6E 3L2  
 phone: 253 - 3158

File No. 81-0476

Type of Samples Soils

Disposition

**GEOCHEMICAL ASSAY CERTIFICATE**

Property: CHODI

1

SAMPLE No.	Cu	Pb	Zn	Ag							
735N 1700 E	12	19	107	.1							1
1725	9	18	95	.1							2
1750	10	22	211	.2							3
1775	26	34	225	.1							4
1800	7	14	93	.1							5
1825	19	22	162	.1							6
1850	11	21	143	.1							7
1875	22	9	176	.5							8
1900	110	9	425	.3							9
1925	53	7	1000	.1							10
1950	35	29	890	.6							11
1975	124	39	1200	1.8							12
2000	29	16	270	1.6							13
2025	47	31	2300	8.8							14
2050	22	20	560	1.8							15
2075	6	12	131	.3							16
2100	8	10	53	.5							17
2125	17	17	98	.4							18
2150	7	8	97	.1							19
2175	12	17	133	.3							20
2200	9	13	92	.2							21
2225	15	8	148	.3							22
2250	15	16	42	.1							23
2275	6	13	102	.1							24
2300	16	21	210	.3							25
2325	17	23	225	.4							26
2350	11	21	300	.1							27
2375	31	22	195	.3							28
2400	66	12	210	.6							29
2425	4	11	100	.2							30
2450	5	15	82	.1							31
2475	12	21	136	.1							32
2500	23	9	440	.5							33
2525	27	10	16	.4							34
2550	10	7	78	.1							35
2575	14	7	7	.4							36
735N 2600 E	21	7	44	.4							37
											38
											39
											40

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 All results are in PPM.

DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED June 8, 1981

DATE REPORTS MAILED June 12, 1981

ASSAYER *Dean Toy*

DEAN TOYE, B.Sc.  
 CHIEF CHEMIST  
 CERTIFIED B.C. ASSAYER

To: Asarco Exploration Co. of Canada Ltd., 852 E. Hastings St., Vancouver, B. C. V6A 1R6

phone: 253 - 3158

File No. 81-0476

Type of Samples

Disposition

**GEOCHEMICAL ASSAY CERTIFICATE**

2

SAMPLE No.		Cu	Pb	Zn	Ag							
735N 2625 E		33	6	370	.1							1
	2650	18	17	240	.3							2
	2675	9	9	118	.1							3
	2700	15	12	114	.1							4
	2725	15	12	30	.1							5
	2750	18	15	15	.1							6
	2775	44	26	49	.3							7
	2800	2	7	21	.1							8
	2825	18	24	109	.1							9
	2850	22	23	115	.9							10
	2875	13	10	72	.1							11
	2900	10	27	124	.1							12
	2925	7	25	166	.1							13
	2950	6	24	126	.1							14
	2975	8	21	124	.1							15
735N 3000 E		3	4	66	.1							16
												17
750N 2300 E		22	24	315	.3							18
	2325	12	38	225	.1							19
	2350	31	20	250	.1							20
	2375	8	20	92	.1							21
	2400	11	15	47	.1							22
	2425	76	22	188	.6							23
	2450	6	13	86	.1							24
	2475	12	8	37	.1							25
	2500	90	28	460	1.7							26
	2525	13	18	170	.2							27
	2550	10	18	88	.1							28
	2575	31	27	38	.1							29
	2600	20	36	180	.1							30
	2625	26	33	178	.1							31
	2650	14	27	195	.1							32
	2675	38	29	380	.1							33
	2700	8	24	135	.1							34
	2725	12	17	76	.1							35
	2750	7	22	111	.1							36
	2775	6	22	127	.1							37
750N 2800 E		50	35	154	.4							38
												39
												40

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All results are in PPM.

DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED June 8, 1981

DATE REPORTS MAILED June 12, 1981

ASSAYER Dean Toye

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



To: Asarco Exploration Co. of Canada Ltd.

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B. C. V6A 1R6

phone: 253 - 3158

File No. 81-0476

Type of Samples

Disposition

### GEOCHEMICAL ASSAY CERTIFICATE

3

SAMPLE No.	Cu	Pb	Zn	Ag							
750N 2825 E	18	43	350	.3							1
750N 2850 E	14	175	1400	.1							2
											3
765N 1700 E	24	30	156	.1							4
1725	52	31	182	.1							5
1750	8	9	151	.2							6
1775	20	19	600	.1							7
2800	15	5	460	.8							8
1825	14	38	198	.2							9
1850	20	12	3300	.3							10
1875	4	7	68	.1							11
1900	23	8	390	.2							12
1925	20	20	170	.1							13
1950	23	16	74	.4							14
1975	3	10	55	.3							15
2000	10	12	70	.1							16
2025	7	9	118	.3							17
2050	42	17	1100	.3							18
2075	12	15	370	.4							19
2100	24	67	420	.7							20
2125	10	12	270	.3							21
2150	11	22	410	.1							22
2175	5	7	160	.3							23
2200	8	16	250	.7							24
2225	12	15	270	.4							25
2250	11	18	200	.1							26
2275	8	9	104	.2							27
2300	4	4	61	.1							28
2325	5	10	63	.1							29
2350	49	45	165	.3							30
2375	6	6	140	.1							31
2400	131	27	880	.3							32
2425	41	15	260	.2							33
2450	19	4	166	.1							34
2475	9	10	60	.1							35
2500	20	16	140	.1							36
2525	25	28	270	.1							37
765N 2550 E	4	6	26	.1							38
											39
											40

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED June 8, 1981

DATE REPORTS MAILED June 12, 1981

ASSAYER *Dean Toye*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



File No. 81-0476

Type of Samples

Disposition

### GEOCHEMICAL ASSAY CERTIFICATE

4

SAMPLE No.	Cu	Pb	Zn	Ag							
765N 2575 E	27	30	210	.1							1
2600	19	35	200	.1							2
2625	25	49	163	.1							3
2650	6	14	44	.1							4
2675	6	25	118	.1							5
2700	16	49	170	.1							6
2725	9	29	152	.2							7
2750	13	38	174	.2							8
2775	8	16	100	.2							9
2800	16	7	27	.1							10
2825	24	28	130	.1							11
2850	9	12	93	.1							12
2875	13	5	146	.2							13
2900	33	8	550	.1							14
2925	9	5	375	.1							15
2950	7	63	6300	.1							16
2975	31	12	6500	.1							17
3000	9	28	260	.1							18
3025	10	42	1000	.1							19
765N 3050 E	12	36	480	.1							20
765N 3075 E	6	43	140	.1							21
765N 3100 E	15	42	560	.1							22
3125	24	36	320	.1							23
3250	11	22	260	.1							24
3175	16	47	650	.2							25
3200	10	30	570	.2							26
3225	8	36	330	.2							27
3250	13	46	990	.1							28
3275	10	37	690	.1							29
765N 3300 E	9	44	430	.1							30
780N 2300 E	27	9	205	.6							31
2325	12	11	260	.8							32
2350	59	11	610	1.1							33
2375	22	10	230	.3							34
2400	15	23	500	1.5							35
2425	5	6	74	.1							36
780N 2450 E	8	2	120	.2							37
											38
											39
											40

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DIGESTION:.....

DETERMINATION:.....

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ASSAYER *Dean Toy*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



To: Asarco Exploration Co. of Canada Ltd., 852 E. Hastings St., Vancouver, B.C. V6A 1R6

phone: 253 - 3158

81-0476

File No. -----

Type of Samples -----

Disposition -----

**GEOCHEMICAL ASSAY CERTIFICATE**

5

SAMPLE No.	Cu	Pb	Zn	Ag							
780N 2475 E	4	9	145	.2							1
2500	18	28	177	.1							2
2525	35	35	3200	.3							3
2550	23	49	196	.1							4
2575	7	31	118	.1							5
2600	9	26	140	.1							6
2625	11	25	145	.1							7
2650	16	38	112	.1							8
2675	18	29	900	.1							9
2700	13	23	1100	.1							10
2725	24	46	210	.2							11
2750	22	31	196	.2							12
2775	14	34	990	.1							13
2800	21	31	1100	.2							14
2825	14	37	1800	.2							15
2850	14	32	1720	.3							16
2875	16	44	2600	.2							17
2900	20	5	1620	.3							18
2925	9	95	1100	.2							19
2950	9	70	800	.1							20
2975	11	320	780	.1							21
3000	10	20	200	.1							22
3025	9	29	700	.1							23
3050	15	24	260	.2							24
3075	9	17	330	.1							25
780N 3100 E	8	21	170	.1							26
											27
780N 3125 E	12	55	370	.1							28
3150	14	31	187	.1							29
3175	11	22	200	.1							30
3200	12	23	172	.1							31
3225	13	35	260	.1							32
3250	12	26	144	.1							33
3275	15	38	70	.3							34
780N 3300 E	18	36	80	.2							35
											36
											37
											38
											39
											40

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED June 8, 1981

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ASSAYER

DEAN TOYE, B.Sc.  
 CHIEF CHEMIST  
 CERTIFIED B.C. ASSAYER

To: Asarco Exploration Co. of Canada Ltd.,

Assay & Trace Analysis

352 E. Hastings St., Vancouver, B.C. V6A 1R6

phone: 253 - 3158

File No. 81-0476

Type of Samples

Disposition

**GEOCHEMICAL ASSAY CERTIFICATE**

6

SAMPLE No.		Cu	Pb	Zn	Ag						
795N 1750E		45	38	116	.3						1
1775		23	33	290	.1						2
1800		50	30	220	1.0						3
1825		21	26	171	.1						4
1850		8	16	87	.1						5
1875		33	88	112	.1						6
1900		17	12	116	.1						7
1925		24	23	121	.1						8
1950		25	24	42	.1						9
1975		17	27	137	.1						10
2000		27	10	178	.1						11
2025		8	9	100	.1						12
2050		92	23	2780	.6						13
2075		10	16	300	.1						14
2100		7	15	194	.1						15
2125		16	24	390	.3						16
2150		9	13	500	.2						17
2175		4	10	70	.1						18
2200		20	14	370	.2						19
2225		6	9	280	.6						20
2250		9	11	420	.3						21
2275		12	17	310	.7						22
2300		46	21	500	.7						23
2325		32	9	300	.1						24
2350		34	36	2450	.2						25
2375		12	23	81	.1						26
795N 2400E		35	28	103	.1						27
											28
795N 2425E		14	49	102	.1						29
2450		13	49	240	.1						30
2475		7	16	65	.1						31
2500	R	25	29	76	.1						32
2525	R	8	23	58	.1						33
2550	R	19	28	60	.1						34
2575	R	18	26	36	.1						35
2600		8	17	120	.1						36
2625		9	11	98	.1						37
795N 2650E		17	59	170	.1						38
											39
											40

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DIGESTION:.....

DETERMINATION:.....

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ASSAYER

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



File No. 81-0476

Type of Samples

Disposition

### GEOCHEMICAL ASSAY CERTIFICATE

7

SAMPLE No.	Cu	Pb	Zn	Ag						
795N 2675 E	13	20	131	.1						1
2700	12	17	113	.1						2
2725	8	8	60	.1						3
2750	23	53	212	.1						4
2775	10	28	142	.1						5
2800	16	40	350	.2						6
2825	11	36	260	.1						7
2850	17	36	191	.1						8
2875	39	49	1390	.1						9
2900	22	40	7600	.5						10
2925	17	78	580	.1						11
2950	17	48	190	.1						12
2975	14	86	300	.1						13
3000	13	45	240	.1						14
3025	8	29	164	.1						15
3050	12	30	180	.1						16
3075	5	28	40	.1						17
3100	12	43	130	.1						18
3125	15	36	225	.1						19
3150	14	37	198	.1						20
3175	19	35	178	.1						21
3200	8	44	240	.1						22
3225	8	37	45	.2						23
3250	5	36	27	.1						24
3275	14	54	164	.1						25
795N 3300 E	9	35	76	.1						26
8100N 2300 E	8	21	106	.1						27
2325	7	17	75	.1						28
2350	4	19	110	.1						29
2375	10	25	250	.1						30
2400	11	11	107	.1						31
2425	13	25	140	.1						32
2450	9	27	164	.1						33
2475	9	30	230	.1						34
2500	11	50	220	.1						35
2525	12	12	90	.1						36
8100N 2550 E	17	37	250	.1						37
										38
										39
										40

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED June 8, 1981

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ASSAYER

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER

File No. 81-0476

Type of Samples \_\_\_\_\_

Disposition \_\_\_\_\_

**GEOCHEMICAL ASSAY CERTIFICATE**

8

SAMPLE No.	Cu	Pb	Zn	Ag						
8100N 2575 E	12	22	166	.1						1
2600	10	26	162	.1						2
2625	18	58	300	.1						3
2650	12	40	140	.1						4
2675	8	47	205	.1						5
2700	12	55	200	.1						6
2725	12	45	210	.1						7
2750	36	35	330	.1						8
2775	28	22	820	.2						9
2800	36	42	450	.1						10
2825	25	60	170	.1						11
2850	11	34	125	.1						12
2875	25	34	205	.1						13
2900	13	31	110	.1						14
2925	17	28	160	.1						15
2950	18	39	225	.1						16
2975	13	40	380	.1						17
3000	14	39	390	.1						18
3025	15	51	540	.1						19
3050	9	29	260	.1						20
3075	12	40	330	.1						21
3100	18	46	190	.1						22
3125	14	35	196	.1						23
3150	8	33	340	.1						24
3175	11	31	260	.1						25
3200	12	33	270	.1						26
3225	12	28	270	.1						27
3250	10	29	265	.1						28
3275	9	30	220	.1						29
8100N 3300 E	11	37	160	.1						30
8250N 3000 E	12	260	1850	.1						31
3025	8	154	960	.1						32
3050	12	1500	2100	.1						33
3075	13	6700	7400	.4						34
3100	14	490	7100	.1						35
3125	10	37	600	.1						36
8250N 3150 E	10	29	260	.1						37
										38
										39
										40

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DETERMINATION:.....

DATE SAMPLES RECEIVED June 8, 1981

DATE REPORTS MAILED June 12, 1981

ASSAYER Dean Toye

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER





File No. 81-0476

Type of Samples

Disposition

### GEOCHEMICAL ASSAY CERTIFICATE

9	SAMPLE No.	Cu	Pb	Zn	Ag															
	8250N 3175 E	13	19	240	.1															1
	3200	10	49	170	.1															2
	3225	13	40	220	.1															3
	3250	7	45	115	.1															4
	3275	8	39	50	.1															5
	8250N 3300 E	10	37	95	.1															6
																				7
																				8
																				9
																				10
																				11
																				12
																				13
																				14
																				15
																				16
																				17
																				18
																				19
																				20
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																				31
																				32
																				33
																				34
																				35
																				36
																				37
																				38
																				39
																				40

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED June 8, 1981

DATE REPORTS MAILED June 12, 1981

ASSAYER

*Dean Toye*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER

To: Asarco Exploration Co. of Canada Ltd., 252 E. Hastings St., Vancouver, B.C. V6A 1R6  
 504 - 535 Thurlow St.,  
 Vancouver, B.C.  
 V6E 3L2  
 phone: 253 - 3158

File No. 81-0539

Type of Samples Soils

Disposition

*Asarco (Asarco Project)*

**GEOCHEMICAL ASSAY CERTIFICATE**

SAMPLE No.	Cu	Pb	Zn	Ag								
540N 2700 E	24	27	128	.1								1
2725	31	28	250	.1								2
2750	31	54	650	.1								3
2775	38	39	620	.1								4
2800	14	14	101	.1								5
2825	13	26	135	.2								6
2850	10	13	107	.1								7
2875	15	34	100	.1								8
2900	54	57	260	.3								9
2925	22	26	111	.1								10
2950	18	48	960	.2								11
2975	26	39	260	.1								12
540N 3000 E	9	56	290	.2								13
												14
555N 2000 E	11	18	590	.5								15
2025	23	24	730	.2								16
2050	11	19	161	.2								17
2075	12	24	185	.4								18
2100	31	23	360	.3								19
2125	44	29	105	.5								20
2150	11	19	290	.1								21
2175	10	18	110	.6								22
2200	34	25	200	.1								23
2225	18	26	196	.1								24
2250	16	23	109	.1								25
2275	6	17	118	.2								26
2300	13	18	160	.1								27
2325	13	18	128	.1								28
2350	6	14	94	.2								29
2375	6	14	103	.1								30
2400	7	14	152	.2								31
2425	21	21	131	.1								32
2450	19	9	310	.8								33
2475	16	19	112	.1								34
2500	103	19	43	1.5								35
2525	18	20	84	.3								36
2550	7	8	30	.1								37
555N 2575 E	8	11	40	.1								38
												39
												40

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED June 17, 1981

DATE REPORTS MAILED June 23, 1981

ASSAYER *[Signature]*

DEAN TOYE, B.Sc.  
 CHIEF CHEMIST  
 CERTIFIED B.C. ASSAYER

**GEOCHEMICAL ASSAY CERTIFICATE**

2

SAMPLE No.	Cu	Pb	Zn	Ag								
555N 2600 E	15	18	149	.1								1
2625	8	17	245	.3								2
2650	3	8	33	.1								3
2675	11	17	140	.1								4
2700	6	9	66	.1								5
2725	24	10	31	.1								6
2750	6	16	76	.1								7
2775	12	16	152	.1								8
2800	12	21	63	.1								9
2825	9	17	60	.1								10
2850	23	26	75	.1								11
2875	36	37	71	.1								12
2900	13	18	83	.1								13
2925	12	29	190	.1								14
2950	11	47	82	.1								15
2975	7	30	45	.1								16
3000	11	43	82	.1								17
3025	7	34	88	.1								18
3050	29	25	109	.1								19
3075	13	18	124	.1								20
3100	14	21	127	.1								21
3125	6	17	200	.1								22
3150	18	45	245	.1								23
3175	9	30	173	.1								24
3200	16	190	1500	.1								25
3225	9	21	142	.1								26
555N 3250 E	7	27	60	.1								27
												28
570N 2300 E	16	25	167	.2								29
2325	9	17	96	.2								30
2350	12	37	143	.1								31
2375	11	17	91	.1								32
2400	6	18	80	.2								33
2425	7	17	78	.1								34
2450	8	25	107	.1								35
2475	7	12	77	.1								36
2500	6	14	109	.1								37
570N 2525 E	9	20	102	.1								38
												39
												40

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DIGESTION:.....

DETERMINATION:.....

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ASSAYER Dean Toye

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



File No. 81-0539

Type of Samples Soil

Disposition

GEOCHEMICAL ASSAY CERTIFICATE

3

SAMPLE No.	Cu	Pb	Zn	Ag									
570N 2550 E	7	3	99	.1									1
2575	18	11	118	.1									2
2600	20	30	3480	.1									3
2625	6	7	210	.2									4
2650	10	12	47	.1									5
2675	11	29	71	.1									6
2700	12	28	116	.1									7
2725	8	13	172	.1									8
2750	6	13	122	.1									9
2775	9	11	79	.1									10
2800	7	5	218	.1									11
2825	7	3	156	.1									12
2850	68	39	8600	.5									13
2875	40	50	8300	.3									14
2900	17	20	1700	.1									15
2925	16	43	8000	.1									16
2950	33	33	4250	.1									17
2975	20	43	580	.1									18
3000	10	18	101	.1									19
3025	16	59	148	.3									20
3050	21	35	154	.1									21
3075	16	32	165	.1									22
3100	10	21	98	.1									23
3125	11	1200	9400	.1									24
3150	6	65	1160	.1									25
3175	8	53	940	.1									26
3200	11	23	175	.1									27
3225	12	64	360	.1									28
3250	13	65	116	.1									29
3275	10	44	120	.1									30
570N 3300 E	7	51	198	.1									31
													32
585N 1500 E	26	62	55	.2									33
1525	51	38	250	.3									34
1550	11	36	53	.2									35
1575	15	36	215	.3									36
1600	11	18	102	.1									37
585N 1625 E	19	21	112	.1									38
													39
													40

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DIGESTION:.....

DETERMINATION:.....

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ASSAYER *[Signature]*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



File No. 81-0539

Type of Samples Soil

Disposition

GEOCHEMICAL ASSAY CERTIFICATE

4

SAMPLE No.	Cu	Pb	Zn	Ag							
585N 1650 E	57	21	168	.2							1
1675	6	9	116	.4							2
1700	13	23	450	.2							3
1725	26	38	1100	1.9							4
1750	35	21	310	.3							5
1775	31	14	190	.2							6
1800	61	13	147	.1							7
1825	32	17	340	.2							8
1850	40	26	940	1.3							9
1875	22	22	540	.5							10
1900	13	16	315	.6							11
1925	180	12	8000	3.2							12
1950	34	28	370	.6							13
1975	8	8	1840	.2							14
2000	86	35	1920	1.3							15
2025	225	13	6800	2.5							16
2050	7	11	184	.1							17
2075	8	12	119	.2							18
2100	38	25	510	.6							19
2125	30	24	920	.3							20
2150	23	19	830	.3							21
2175	21	22	1310	.1							22
2200	8	16	52	.4							23
2225	54	15	620	.2							24
2250	32	8	99	.3							25
2275	7	13	133	.1							26
2300	18	24	108	.2							27
2325	56	16	780	1.0							28
2350	N.S.										29
2375	26	27	830	.1							30
2400	14	16	240	.1							31
2425	14	19	94	.1							32
2450	18	8	113	.1							33
2475	8	12	74	.1							34
2500	9	14	140	.1							35
2525	7	18	143	.1							36
585N 2550 E	6	12	78	.1							37
											38
											39
											40

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED June 17, 1981

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ASSAYER *[Signature]*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER

File No. 81-0539

Type of Samples Soil

Disposition

**GEOCHEMICAL ASSAY CERTIFICATE**

6

SAMPLE No.	Cu	Pb	Zn	Ag						
600N 2450 E	18	22	740	.2						1
2475	26	30	560	.4						2
2500	19	7	240	.1						3
2525	6	5	63	.1						4
2550	17	5	110	.1						5
2575	8	19	240	.1						6
2600	6	7	52	.1						7
2625	4	8	64	.1						8
2650	4	7	69	.1						9
2675	5	6	50	.1						10
2700	50	15	425	.2						11
2725	8	14	98	.1						12
2750	3	7	55	.1						13
2775	6	12	70	.1						14
2800	12	18	160	.1						15
2825	20	18	49	.1						16
2850	22	31	77	.1						17
2875	23	24	60	.1						18
2900	46	144	14600	.1						19
2925	16	5	8000	.1						20
2950	21	110	720	.4						21
2975	34	31	48	.1						22
600N 3000 E	6	17	940	.1						23
										24
600N 3025 E	6	40	1780	.1						25
3050	12	142	8100	.1						26
3075	10	130	10000	.1						27
3100	16	154	7800	.1						28
3125	11	330	7500	.2						29
3150	9	128	6850	.1						30
3175	14	48	730	.1						31
3200	11	34	620	.1						32
3225	10	35	200	.1						33
3250	15	38	160	.1						34
3275	4	30	155	.1						35
600N 3300 E	9	19	195	.1						36
										37
										38
										39
										40

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED June 17, 1981

DATE REPORTS MAILED June 23, 1981

ASSAYER

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



To: Asarco Exploration Co. of Canada Ltd.,

892 E. Hastings St., Vancouver, B. C. V6A 1R6

Phone: 253-3158

File No. 81-0539

Type of Samples Soil

Disposition

**GEOCHEMICAL ASSAY CERTIFICATE**

7

SAMPLE No.	Cu	Pb	Zn	Ag						
615N 1550 E	19	27	920	.1						1
1575	12	20	540	.8						2
1600	16	26	1420	.5						3
1625	8	18	161	.1						4
1650	15	20	210	.1						5
1675	7	12	95	.1						6
1700	14	17	155	.1						7
1725	17	14	67	.1						8
1750	16	13	92	.1						9
1775	114	22	197	1.3						10
1800	31	23	104	.1						11
1825	10	24	64	.1						12
1850	7	29	84	.1						13
1875	12	32	83	.2						14
1900	8	26	110	.1						15
1925	16	28	94	.1						16
1950	7	24	104	.1						17
1975	55	17	21	.4						18
615N 2000 E	9	30	68	.1						19
										20
615N 2025 E	19	36	55	.1						21
2050	25	22	23	.1						22
2075	40	30	55	.1						23
2100	13	19	49	.1						24
2125	13	31	71	.1						25
2150	16	36	120	.1						26
2175	13	22	85	.1						27
2200	12	20	210	.1						28
2225	17	24	540	.1						29
2250	30	41	425	1.1						30
2275	20	31	1000	.3						31
2300	31	24	500	.2						32
2325	78	22	240	1.0						33
2350	18	12	153	.1						34
2375	16	15	166	.2						35
2400	6	15	160	.1						36
2425	20	20	116	.3						37
615N 2450 E	43	46	600	.6						38
										39
										40

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED June 17, 1981

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ASSAYER Dean Toy

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



File No. 81-0539  
Soil

Type of Samples \_\_\_\_\_

Disposition \_\_\_\_\_

**GEOCHEMICAL ASSAY CERTIFICATE**

SAMPLE No.	Cu	Pb	Zn	Ag						
615N 2475 E	9	30	168	.1						1
2500	123	30	102	2.4						2
2525	11	16	78	.1						3
2550	20	30	240	.1						4
2575	4	15	34	.1						5
2600	4	13	100	.1						6
2625	12	17	118	.1						7
2650	19	17	166	.1						8
2675	8	23	240	.1						9
2700	21	9	21	.3						10
2725	25	50	108	.2						11
2750	15	26	116	.3						12
2775	148	65	410	.1						13
2800	21	14	66	.2						14
2825	30	33	95	.1						15
2850	7	21	94	.1						16
2875	10	16	94	.1						17
615N 2900 E	8	21	123	.1						18
										19
615N 2925 E	18	20	71	.1						20
2950	22	26	108	.1						21
2975	9	8	1240	.1						22
3000	9	24	136	.1						23
3025	7	56	172	.1						24
3050	8	37	145	.1						25
3075	12	23	177	.1						26
3100	8	8	310	.1						27
3125	23	55	640	.1						28
3150	10	44	210	.1						29
3175	18	37	290	.1						30
3200	7	44	115	.1						31
3225	9	44	129	.1						32
3250	10	8	81	.1						33
3275	11	30	114	.1						34
615N 3300 E	6	19	180	.1						35
										36
										37
										38
										39
										40

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED June 17, 1981

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ASSAYER DEAN TOYE

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



File No. 81-0539

Type of Samples Soil

GEOCHEMICAL ASSAY CERTIFICATE

Disposition

SAMPLE No.	Cu	Pb	Zn	Ag						
630N 2300 E	12	19	59	.1						1
2325	8	20	38	.1						2
2350	10	23	44	.2						3
2375	16	18	69	.1						4
2400	17	18	118	.4						5
2425	9	15	67	.1						6
2450	7	15	54	.1						7
2475	7	19	88	.2						8
2500	8	19	138	.1						9
2525	15	11	68	.1						10
2550	11	22	330	.3						11
2575	5	14	96	.4						12
2600	8	17	108	.3						13
2625	8	9	310	.1						14
2650	8	8	112	.1						15
2675	9	9	116	.1						16
2700	3	14	36	.1						17
2725	6	9	172	.2						18
2750	118	9	460	.3						19
2775	11	30	170	.2						20
2800	8	20	183	.1						21
2825	10	10	54	.1						22
2850	7	20	186	.1						23
2875	54	26	120	.3						24
2900	13	42	150	.2						25
2925	12	25	90	.1						26
2950	6	16	81	.1						27
2975	6	21	140	.1						28
630N 3000 E	12	24	118	.1						29
										30
630N 3025 E	96	15	41	.3						31
3050	6	19	500	.3						32
3075	9	23	152	.1						33
3100	11	33	310	.3						34
3125	9	26	190	.1						35
3150	11	31	194	.1						36
3175	6	18	114	.1						37
630N 3200 E	8	18	170	.1						38
										39
										40

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED June 17, 1981

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ASSAYER *Dean Toy*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



File No. 81-0539

Type of Samples Soil

GEOCHEMICAL ASSAY CERTIFICATE

Disposition

11

SAMPLE No.	Cu	Pb	Zn	Ag						
645N 2425 E	38	26	230	.1						1
2450	21	37	33	.3						2
2475	15	20	88	.1						3
2500	6	14	190	.1						4
2525	4	10	52	.1						5
2550	10	17	114	.1						6
2575	18	8	70	.1						7
2600	7	16	50	.1						8
2625	10	18	112	.1						9
2650	3	12	76	.1						10
2675	63	26	320	.1						11
2700	13	21	87	.1						12
2725	8	18	153	.1						13
2750	11	20	116	.3						14
2775	46	19	850	.1						15
2800	9	22	182	.3						16
2825	54	35	820	.1						17
2850	17	42	186	.1						18
2975	7	15	32	.1						19
2900	9	20	50	.1						20
2925	9	20	68	.1						21
2950	15	35	87	.1						22
2975	9	18	70	.1						23
3000	6	23	61	.1						24
3025	11	12	120	.3						25
3050	21	12	1620	.1						26
3075	16	26	112	.1						27
3100	9	29	245	.1						28
3125	11	52	217	.1						29
3150	17	47	235	.3						30
3175	34	67	630	.2						31
3200	14	40	210	.1						32
3225	7	24	67	.1						33
3250	13	41	175	.1						34
3275	3	20	51	.1						35
645N 3300 E	5	13	44	.1						36
										37
										38
										39
										40

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ASSAYER \_\_\_\_\_

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER

To: Amarco Exploration Co. of Canada Ltd.,

A. Fire & Trace Analysis

252 E. Hastings St., Vancouver, B.C. V6A 1R6

phone: 253-3158

File No. 81-0539

Type of Samples Soil

Disposition

**GEOCHEMICAL ASSAY CERTIFICATE**

12

SAMPLE No.	Cu	Pb	Zn	Ag							
660N 2300 E	7	22	72	.1							1
2325	5	12	70	.1							2
2350	2	5	14	.1							3
2375	26	26	215	.1							4
2400	7	10	62	.1							5
2425	6	9	51	.1							6
2450	18	12	61	.3							7
2475	23	15	60	.1							8
2500	38	13	40	.2							9
2525	5	15	90	.1							10
2550	18	13	136	.1							11
2575	8	17	78	.1							12
2600	7	5	40	.1							13
2625	45	24	177	.1							14
2650	30	22	1000	.1							15
2675	15	17	67	.1							16
2700	12	21	74	.1							17
2725	6	16	82	.1							18
2750	24	25	77	.1							19
2775	14	20	108	.1							20
660N 2800 E	8	16	85	.1							21
											22
660N 2825 E	9	13	51	.1							23
2850	15	18	110	.1							24
2875	14	22	74	.1							25
2900	27	30	97	.1							26
2925	23	28	110	.1							27
2950	20	43	225	.1							28
2975	37	35	73	.1							29
3000	4	14	50	.1							30
3025	7	18	111	.2							31
3050	8	50	220	.1							32
3075	2	4	15	.1							33
3100	8	19	1100	.2							34
3125	5	14	175	.1							35
3150	12	34	240	.1							36
3175	12	260	1300	.1							37
660N 3200 E	16	70	490	.2							38
											39
											40

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ASSAYER \_\_\_\_\_

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



To: Asarco Exploratory Co. of Canada Ltd.,

252 E. Hastings St., Vancouver, B.C. V6A 1R6

Phone: 253-3158

File No. 81-0539

Type of Samples Soil

GEOCHEMICAL ASSAY CERTIFICATE

Disposition

14

SAMPLE No.	Cu	Pb	Zn	Ag						
675N 2375 E	12	17	78	.1						1
2400	8	18	52	.1						2
2425	18	23	123	.2						3
2450	4	13	225	.1						4
2475	12	18	290	.1						5
2500	12	17	530	.2						6
2525	9	16	127	.1						7
2550	31	28	340	.1						8
2575	230	13	4000	1.1						9
2600	140	10	2150	.9						10
2625	98	8	2300	.4						11
2650	40	17	680	.3						12
2675	64	63	1310	.8						13
2700	36	28	840	.4						14
2725	108	45	1430	1.9						15
2750	32	17	1000	.3						16
2775	42	21	240	.2						17
2800	12	11	18	.1						18
2825	10	12	65	.1						19
2850	10	27	67	.1						20
2875	17	17	360	.3						21
2900	18	26	480	.1						22
2925	35	45	470	.3						23
2950	11	30	134	.1						24
2975	13	49	270	.1						25
675N 3000 E	16	48	200	.2						26
										27
675N 3025 E	6	10	31	.1						28
3050	2	7	12	.1						29
3075	6	18	146	.1						30
3100	3	13	51	.1						31
3125	6	115	1200	.1						32
3150	15	310	7500	.2						33
3175	11	58	730	.1						34
3200	9	78	420	.1						35
3225	11	53	350	.1						36
3250	9	36	590	.2						37
3275	3	62	15	.1						38
675N 3300 E	11	56	620	.1						39
										40

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED June 17, 1981

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ASSAYER *[Signature]*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



File No. 81-0539

Type of Samples Soil

GEOMETRICAL ASSAY CERTIFICATE

Disposition

15

SAMPLE No.	Cu	Pb	Zn	Ag							
690N 2300 E	12	22	70	.1							1
2325	12	28	122	.1							2
2350	10	18	85	.1							3
2375	14	30	137	.1							4
2400	7	20	75	.1							5
2425	9	26	83	.1							6
2450	31	31	137	.2							7
2475	6	22	86	.1							8
2500	6	21	69	.1							9
2525	10	21	45	.1							10
2550	13	22	49	.2							11
2575	9	19	46	.2							12
2600	6	12	105	.1							13
2625	55	16	171	.6							14
2650	16	17	116	.5							15
2675	28	11	270	.3							16
2700	16	11	154	.2							17
2725	11	12	260	.8							18
2750	28	56	430	.4							19
2775	23	25	94	.2							20
2800	16	14	91	.1							21
2825	10	22	122	.1							22
2850	15	14	53	.1							23
2875	14	20	204	.1							24
2900	9	17	94	.1							25
2925	14	20	94	.1							26
2950	15	22	160	.1							27
2975	12	13	82	.1							28
690N 3000 E	16	27	121	.1							29
											30
690N 3025 E	17	23	109	.1							31
3050	9	49	690	.1							32
3075	30	40	110	.1							33
3100	34	110	280	.2							34
3125	5	270	220	.1							35
3150	6	43	240	.1							36
3175	23	1600	210	.1							37
690N 3200 E	8	68	320	.1							38
											39
											40

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DIGESTION:.....

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ASSAYER \_\_\_\_\_

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER





**GEOCHEMICAL ASSAY CERTIFICATE**

16

SAMPLE No.	Cu	Pb	Zn	Ag						
690N 3225 E	6	30	130	.1						1
3250	11	42	205	.1						2
3275	12	27	440	.1						3
690N 3300 E	8	30	195	.1						4
										5
705N 2300 E	7	25	65	.1						6
2325	9	27	66	.1						7
2350	8	22	47	.1						8
2375	8	22	82	.1						9
2400	15	39	190	.1						10
2425	7	11	87	.1						11
2450	22	23	126	.2						12
2475	5	16	76	.1						13
2500	4	11	89	.1						14
2525	6	14	95	.1						15
2550	7	6	49	.1						16
2575	8	10	62	.1						17
2600	6	8	43	.1						18
2625	9	7	58	.1						19
2650	12	15	91	.2						20
2675	18	8	95	.1						21
2700	12	7	120	.6						22
2725	2	5	25	.1						23
2750	13	11	98	.1						24
2775	5	7	28	.1						25
2800	27	30	194	.2						26
2825	11	22	93	.1						27
2850	10	20	59	.1						28
2875	15	15	55	.1						29
2900	12	13	52	.1						30
2925	16	16	54	.1						31
2950	14	16	59	.1						32
2975	21	34	220	.4						33
3000	16	33	162	.1						34
3025	43	16	47	.4						35
3050	4	6	129	.1						36
3075	6	9	105	.1						37
705N 3100 E	11	6	116	.1						38
										39
										40

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DIGESTION:.....

DETERMINATION:.....

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ASSAYER *DKS*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER

To: Asarco Exploration Co. of Canada Ltd., 1052 E. Hastings St., Vancouver, B.C. V6A 1R6

phone: 253-3158

810539

File No. \_\_\_\_\_ Soil \_\_\_\_\_

Type of Samples \_\_\_\_\_

Disposition \_\_\_\_\_

**GEOCHEMICAL ASSAY CHEMICALS**

17

SAMPLE No.	Cu	Pb	Zn	Ag							
705 N 3125 E	11	18	93	.1							1
3150	4	14	49	.1							2
3175	12	36	230	.1							3
3200	9	23	148	.1							4
3225	10	24	81	.1							5
3250	5	6	74	.1							6
3275	6	310	108	.1							7
705N 3300 E	11	21	109	.1							8
											9
720N 2700 E	4	10	48	.1							10
2725	250	14	720	2.8							11
2750	14	20	71	.1							12
2775	8	15	23	.1							13
2800	8	17	46	.1							14
2825	28	30	80	.1							15
2850	38	34	103	.1							16
2875	4	5	15	.1							17
2900	40	28	189	.3							18
2925	74	16	84	.7							19
2950	20	22	112	.2							20
2975	16	27	105	.1							21
3000	19	32	115	.1							22
3025	9	23	126	.1							23
3050	48	10	84	.1							24
3075	18	39	1300	.2							25
3100	19	28	960	.1							26
3125	10	42	240	.1							27
3150	10	36	140	.1							28
3175	4	17	67	.1							29
3200	6	13	90	.3							30
3225	14	24	165	.1							31
3250	14	19	110	.1							32
3275	15	42	210	.2							33
720N 3300 E	35	34	87	.1							34
											35
											36
											37
											38
											39
											40

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DETERMINATION:.....

DATE SAMPLES RECEIVED June 17, 1981

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ASSAYER *[Signature]*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER







To: Asarco Exploration Co. of Canada Ltd.,  
504 - 535 Thurlow St.,  
Vancouver, B.C.  
V6E 3L2

852 E. Hastings St., Vancouver, B. C. V6A 1R6

phone: 253 - 3158

File No. 81-0577

Type of Samples Soils

Disposition

*Chordi*

**GEOCHEMICAL ASSAY CERTIFICATE**

SAMPLE No.	Cu	Pb	Zn	Ag						
405N 2300E	15	42	36	.1						1
2325	22	35	33	.1						2
2350	13	46	43	.1						3
2375	12	18	47	.1						4
2400	22	14	34	.1						5
2425	8	40	39	.1						6
2450	18	73	23	.1						7
2475	16	48	38	.1						8
2500	9	37	133	.1						9
2525	10	17	46	.1						10
2550	6	8	76	.1						11
2575	34	19	106	.1						12
2600	14	19	92	.1						13
2625	20	30	120	.1						14
2650	24	77	100	.1						15
2675	25	36	76	.1						16
2700	20	14	56	.1						17
2725	23	13	56	.1						18
2750	7	13	50	.1						19
2775	12	10	68	.1						20
2800	14	44	200	.1						21
2825	13	21	144	.1						22
2850	33	12	38	.1						23
2875	6	11	1400	.1						24
2900	3	52	104	.1						25
2925	8	230	5000	.1						26
2950	3	71	1350	.1						27
2975	2	52	680	.1						28
3000	10	65	250	.1						29
3025	8	43	710	.1						30
3050	13	28	270	.1						31
3075	10	44	480	.1						32
3100	4	18	105	.1						33
3125	9	35	325	.1						34
3150	6	18	153	.1						35
3175	14	87	630	.1						36
405N 3200E	16	30	205	.1						37
										38
										39
										40

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED June 23, 1981

DATE REPORTS MAILED June 29, 1981

ASSAYER *DT*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER

File No. 81-0577

Type of Samples

Disposition

**GEOCHEMICAL ASSAY CERTIFICATE**

2

SAMPLE No.	Cu	Pb	Zn	Ag						
405N 3225E	22	17	116	.1						1
3250	30	22	230	.3						2
3275	23	22	188	.1						3
405N 3300E	5	7	118	.1						4
										5
420N 3000E	8	29	210	.1						6
3025	11	39	325	.1						7
3050	6	28	115	.1						8
3075	15	93	215	.1						9
3100	13	240	195	.1						10
3125	13	33	110	.1						11
3150	10	19	164	.1						12
3175	17	28	107	.1						13
3200	12	29	144	.1						14
3225	28	30	65	.6						15
3250	13	37	275	.1						16
3275	10	44	183	.1						17
420N 3300E	15	37	158	.1						18
										19
435N 2300E	7	16	130	.1						20
2325	12	30	188	.1						21
2350	7	17	145	.3						22
2375	65	34	97	.1						23
2400	38	18	156	.5						24
2425	25	23	156	.3						25
2450	77	52	230	1.1						26
2475	4	10	90	.1						27
2500	11	14	70	.3						28
2525	10	20	70	.1						29
2550	43	66	146	.1						30
2575	34	35	72	.1						31
2600	5	11	39	.1						32
2625	51	41	240	.1						33
2650	7	14	48	.1						34
2675	12	11	74	.1						35
2700	12	15	73	.1						36
2725	11	55	230	.1						37
435N 2750E	29	18	74	.5						38
										39
										40

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED June 23, 1981

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ASSAYER

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



To: Asarco Exploration Co. of Canada Ltd.,

Assay & Trace Analysis

852 E. Hastings St., Vancouver, B. C. V6A 1R6

phone: 253 - 3158

File No. 81-0577

Type of Samples

Disposition

### GEOCHEMICAL ASSAY CERTIFICATE

3

SAMPLE No.	Cu	Pb	Zn	Ag							
435N 2775E	17	9	52	.1							1
2800	4	15	39	.1							2
2825	16	48	89	.1							3
2850	7	20	132	.2							4
2875	15	7	16	.1							5
2900	32	10	89	.1							6
2925	4	3	25	.1							7
2950	7	6	27	.1							8
435N 2975E	2	6	12	.1							9
											10
450N 3000E	28	22	91	.1							11
3025	3	6	10	.1							12
3050	6	66	32	.1							13
3075	7	15	70	.1							14
3100	12	30	240	.1							15
3125	8	16	134	.1							16
3150	10	43	91	.1							17
3175	6	45	162	.1							18
3200	6	33	99	.1							19
3225	5	12	39	.1							20
3250	10	50	106	.1							21
3275	12	25	80	.1							22
450N 3300E	15	12	47	.1							23
											24
465N 2300E	9	7	107	.1							25
2325	83	25	88	.4							26
2350	12	22	101	.1							27
2375	3	3	51	.2							28
2400	62	17	300	.1							29
2425	25	27	360	.1							30
2450	10	40	330	.1							31
2475	8	30	225	.1							32
2500	11	30	205	.4							33
2525	6	12	70	.1							34
2550	7	13	106	.1							35
2575	14	22	190	.1							36
2600	18	23	250	.1							37
2625	19	26	390	.1							38
465N 2650E	163	48	1900	1.2							39
											40

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED June 23, 1981

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ASSAYER *DC*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER





To: Asarco Exploration Co. of Canada Ltd.,

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B. C. V6A 1R6

phone: 253 - 3158

File No. 81-0577

Type of Samples

Disposition

### GEOCHEMICAL ASSAY CERTIFICATE

4

SAMPLE No.	Cu	Pb	Zn	Ag							
465N 2675E	4	4	52	.1							1
2700	29	21	89	.1							2
2725	57	33	163	.1							3
2750	17	9	270	1.1							4
2775	38	7	13	.1							5
2800	28	41	96	.1							6
2825	4	16	91	.1							7
2850	5	46	140	.1							8
2875	18	20	124	.1							9
2900	14	19	110	.1							10
2925	4	1	66	.1							11
2950	37	20	157	.2							12
2975	21	34	83	.1							13
3000	10	42	104	.1							14
3025	13	49	270	.1							15
3050	22	41	380	.4							16
3075	17	16	111	.1							17
3100	2	6	152	.1							18
3125	2	18	84	.1							19
3150	3	7	240	.1							20
3175	5	8	27	.1							21
3200	18	19	80	.1							22
3225	8	6	43	.1							23
3250	14	17	98	.1							24
3275	8	8	45	.1							25
465N 3300E	15	24	260	.1							26
											27
480N 3000E	42	76	150	.1							28
3025	28	76	116	.1							29
3050	30	62	207	.1							30
3075	14	46	137	.1							31
3100	15	29	135	.1							32
3125	14	10	650	.1							33
3150	8	6	88	.1							34
3175	5	6	61	.1							35
3200	4	6	14	.1							36
3225	6	8	39	.1							37
480N 3250E	5	6	36	.1							38
											39
											40

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DETERMINATION:.....

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ASSAYER DKC

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



To: Asarco Exploration Co. of Canada Ltd., 852 E. Hastings St., Vancouver, B. C. V6A 1R6

phone: 253 - 3158

File No. 81-0577

Type of Samples

Disposition

GEOCHEMICAL ASSAY CERTIFICATE

5

SAMPLE No.		Cu	Pb	Zn	Ag							
480N	3275E	9	38	42	.1							1
	3300	3	54	11	.1							2
	3325	85	37	119	.1							3
	3350	19	23	96	.1							4
	3375	7	11	17	.1							5
	3400	N.S.										6
	3425	3	5	71	.1							7
	3450	N.S.										8
	3475	13	23	125	.1							9
	3500	7	15	66	.1							10
	3525	5	15	75	.1							11
	3550	23	30	173	.2							12
	3575	3	55	12	.1							13
	3600	3	58	9	.1							14
	3625	13	37	72	.1							15
	3650	3	41	14	.1							16
	3675	2	56	12	.1							17
	3700	3	56	9	.1							18
	3725	13	47	48	.1							19
	3750	15	38	93	.2							20
	3775	2	55	10	.1							21
	3800	3	18	57	.1							22
	3825	14	33	240	.1							23
	3850	9	27	100	.1							24
	3875	8	28	89	.1							25
	3900	11	38	84	.1							26
	3925	7	59	38	.1							27
	3950	8	34	68	.1							28
	3975	9	40	101	.1							29
480N	4000E	17	39	130	.1							30
												31
495N	2300E	32	30	124	.1							32
	2325	6	16	102	.1							33
	2350	5	9	68	.1							34
	2375	7	15	77	.1							35
	2400	16	10	32	.2							36
	2425	3	6	37	.1							37
495N	2450E	11	8	26	.1							38
												39
												40

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DETERMINATION:.....

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ASSAYER *STC*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



File No. 81-0577

Type of Samples

Disposition

### GEOCHEMICAL ASSAY CERTIFICATE

6

SAMPLE No.	Cu	Pb	Zn	Ag							
495N 2475E	20	16	30	.3							1
2500	8	3	44	.1							2
2525	38	8	61	.1							3
2550	20	19	107	.1							4
2575	7	11	106	.1							5
2600	13	34	101	.1							6
2625	20	51	300	.1							7
2650	55	58	580	.4							8
2675	33	28	132	.3							9
2700	82	58	340	.1							10
2725	8	20	90	.1							11
2750	9	18	106	.1							12
2775	10	22	130	.1							13
2800	38	26	129	.1							14
2825	13	12	73	.1							15
2850	26	13	8	.1							16
2875	18	9	15	.1							17
2900	10	11	31	.1							18
2925	1	3	16	.1							19
2950	7	35	140	.1							20
2975	5	2	13	.1							21
3000	11	7	83	.1							22
3025	14	28	65	.1							23
3050	4	7	48	.1							24
3075	8	20	114	.1							25
3100	11	14	70	.1							26
3125	13	22	35	.1							27
3150	14	19	29	.1							28
3175	16	18	110	.1							29
3200	24	24	151	.1							30
3225	19	14	65	.1							31
3250	23	29	63	.1							32
3275	20	24	84	.1							33
495N 3300E	16	9	42	.2							34
											35
510N 3000E	7	3	125	.1							36
3025	9	52	49	.1							37
510N 3050E	3	50	12	.1							38
											39
											40

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED June 23, 1981

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ASSAYER

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



To: Asarco Exploration Co. of Canada Ltd.,

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B. C. V6A 1R6

phone: 253 - 3158

File No. 81-0577

Type of Samples

Disposition

### GEOCHEMICAL ASSAY CERTIFICATE

7

SAMPLE No.	Cu	Pb	Zn	Ag									
510N 3075E	4	61	13	.4									1
3100	4	56	29	.3									2
3125	4	56	14	.4									3
3150	15	22	42	.1									4
3175	20	25	27	.1									5
3200	9	16	48	.1									6
3225	9	15	65	.1									7
3250	18	25	93	.2									8
3275	13	49	80	.2									9
510N 3300E	3	57	16	.1									10
													11
													12
													13
													14
													15
													16
													17
													18
													19
													20
													21
													22
													23
													24
													25
													26
													27
													28
													29
													30
													31
													32
													33
													34
													35
													36
													37
													38
													39
													40

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED June 23, 1981

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ASSAYER DT

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



To: Asarco Exploration Co. of Canada Ltd.,  
504 - 535 Thurlow St.,  
Vancouver, B.C.  
V6E 3L2

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B. C. V6A 1R6

phone: 253 - 3158

File No. 81-0666

Type of Samples Soil

Disposition

**GEOCHEMICAL ASSAY CERTIFICATE**

*Chute*

SAMPLE No.		Cu	Pb	Zn	Ag							
1	255N 2850E	20	26	107	.1							1
	2875	7	17	51	.1							2
	2900	13	22	82	.1							3
	2925	3	5	27	.1							4
	2950	24	26	118	.1							5
	2975	25	26	115	.1							6
	255N 3000E	28	34	121	.2							7
												8
	270N 2775E	9	53	92	.1							9
	2800	8	36	82	.1							10
	2825	3	58	8	.1							11
	2850	10	32	74	.1							12
	2875	7	33	70	.1							13
	2900	11	21	97	.1							14
	2925	22	24	115	.1							15
	2950	16	21	111	.1							16
	2975	23	23	117	.1							17
	270N 3000E	23	25	120	.1							18
												19
	285N 2675E	11	20	87	.1							20
	2700	6	18	79	.1							21
	2725	8	33	94	.1							22
	2750	10	36	78	.1							23
	2775	6	6	50	.1							24
	2800	23	24	102	.1							25
	2825	25	25	111	.1							26
	2850	10	23	90	.1							27
	2875	21	22	117	.1							28
	2900	6	10	67	.1							29
	2925	4	9	54	.1							30
	2950	3	11	89	.1							31
	2975	13	17	140	.1							32
	3000	4	6	40	.1							33
	3025	4	6	45	.1							34
	3050	7	7	29	.1							35
	3075	3	6	38	.1							36
	285N 3100E	22	28	360	.1							37
												38
												39
												40

org

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED July 4, 1981

DATE REPORTS MAILED July 9, 1981

ASSAYER

*Dean Toy*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



To: Asarco Exploration Co. of Canada Ltd.,

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B. C. V6A 1R6

phone: 253 - 3158

File No. 81-0666

Type of Samples Soil

Disposition

### GEOCHEMICAL ASSAY CERTIFICATE

2

SAMPLE No.		Cu	Pb	Zn	Ag						
300N	2400E	14	19	127	.1						1
	2425	15	20	83	.1						2
	2450	N.S.									3
	2475	19	25	98	.1						4
	2500	13	20	83	.1						5
	2525	35	35	115	.2						6
	2550	33	39	134	.2						7
	2575	35	24	42	.3						8
	2600	24	22	130	.1						9
	2625	20	22	112	.1						10
	2650	19	31	74	.1						11
	2675	25	29	630	.2						12
	2700	18	27	780	.1						13
	2725	22	26	670	.2						14
	2750	18	31	1200	.1						15
	2775	11	26	218	.1						16
	2800	22	24	127	.1						17
	2825	25	27	111	.1						18
	2850	21	21	89	.1						19
	2875	19	19	97	.1						20
300N	2900E	22	25	103	.1						21
											22
300N	2925E	7	27	201	.1						23
	2950	12	28	123	.1						24
	2975	9	35	340	.1						25
	3000	14	19	163	.1						26
	3025	14	31	340	.1						27
	3050	11	23	134	.1						28
	3075	9	45	270	.1						29
	3100	13	36	260	.1						30
	3125	7	21	250	.1						31
	3150	12	45	480	.2						32
	3175	10	300	2000	.1						33
300N	3200E	10	48	940	.2						34
											35
315N	2300E	24	27	154	.3						36
	2325	29	25	103	.2						37
	2350	16	23	103	.1						38
315N	2375E	28	29	128	.1						39
											40

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ASSAYER

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER

File No. 81-0666

Type of Samples Soil

Disposition

**GEOCHEMICAL ASSAY CERTIFICATE**

3

SAMPLE No.	Cu	Pb	Zn	Ag						
315N 2400E	26	28	116	.1						1
2425	10	11	70	.1						2
2450	9	15	88	.1						3
2475	11	16	104	.1						4
2500	21	49	115	.3						5
2525	6	27	78	.1						6
2550	7	19	82	.1						7
2575	21	23	138	.1						8
2600	18	28	140	.1						9
2625	9	10	50	.1						10
2650	16	27	120	.1						11
2675	6	10	69	.1						12
2700	12	18	115	.1						13
2725	20	20	350	.1						14
2750	11	7	66	.1						15
2775	5	2	92	.1						16
2800	4	3	123	.1						17
2825	15	172	3620	.1						18
2850	13	48	11000	.1						19
2875	29	40	710	.1						20
2900	12	12	260	.1						21
2925	19	40	370	.1						22
2950	6	26	178	.1						23
2975	15	22	86	.1						24
315N 3000E	12	13	163	.1						25
										26
315N 3000EB	7	15	96	.1						27
3025	12	26	116	.1						28
3050	13	49	320	.1						29
3075	3	36	56	.1						30
3100	9	25	230	.1						31
3125	2	51	15	.1						32
3150	3	54	22	.1						33
3175	7	17	168	.1						34
3200	9	26	243	.1						35
3225	8	17	203	.1						36
3250	7	19	173	.1						37
315N 3275E	9	34	660	.1						38
										39
										40

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DETERMINATION:.....

DATE SAMPLES RECEIVED July 4, 1981

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ASSAYER

*Dean Toy*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



File No. 81-0666

Type of Samples Soil

Disposition

GEOCHEMICAL ASSAY CERTIFICATE

4

SAMPLE No.	Cu	Pb	Zn	Ag							
315N 3300E	11	42	530	.1							1
3325	10	21	220	.1							2
3350	13	33	370	.1							3
3375	8	39	300	.1							4
3400	8	37	490	.1							5
3425	12	36	370	.1							6
3450	8	47	420	.1							7
3475	16	42	300	.1							8
3500	16	27	161	.1							9
3525	10	36	175	.1							10
3550	9	30	315	.1							11
3575	9	43	380	.1							12
3600	11	41	89	.1							13
3625	13	32	164	.1							14
3650	13	34	111	.1							15
3675	8	29	165	.1							16
315N 3700E	7	30	170	.1							17
											18
330N 1875E	37	34	126	.1							19
1900	28	35	88	.1							20
1925	48	43	123	.1							21
1950	34	40	97	.1							22
1975	36	36	117	.1							23
2000	29	28	83	.1							24
2025	10	15	63	.1							25
2050	20	26	92	.1							26
2075	13	23	96	.1							27
2100	20	31	102	.1							28
2125	24	25	97	.1							29
2150	14	19	93	.1							30
2175	24	25	105	.1							31
2200	30	29	133	.1							32
2225	23	22	95	.1							33
2250	15	23	120	.1							34
2275	7	11	66	.1							35
2300	12	14	101	.1							36
2325	30	47	133	.1							37
330N 2350	30	29	140	.1							38
2375	17	26	680	.2							39
330N 2400E	23	21	144	.3							40

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DIGESTION:.....

DETERMINATION:.....

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ASSAYER

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER





To: Asarco Exploration Co. of Canada Ltd.,

852 E. Hastings St., Vancouver, B. C. V6A 1R6

phone: 253 - 3158

File No. 81-0666

Type of Samples Soil

Disposition

**GEOCHEMICAL ASSAY CERTIFICATE**

5

SAMPLE No.	Cu	Pb	Zn	Ag						
330N 2425E	32	17	60	.1						org 1
2450	31	22	148	.1						2
2475	24	23	94	.1						3
2500	47	25	125	.7						4
2525	30	24	123	.2						5
2550	38	30	73	.2						6
2575	12	20	60	.1						7
2600	39	28	300	.2						8
2625	10	15	146	.1						9
2650	6	11	100	.1						10
2675	7	10	105	.1						11
2700	18	19	142	.1						12
2725	17	20	117	.3						13
2750	20	24	178	.3						14
2775	28	26	143	.2						15
2800	9	162	33	.2						16
2825	14	50	1400	.2						17
2850	9	117	2500	.1						18
2875	8	56	73	.1						19
330N 2900E	13	89	1610	.1						20
										21
330N 2925E	17	36	390	.1						22
2950	12	22	176	.1						23
2975	10	16	158	.1						24
3000	16	39	530	.1						25
3025	4	54	14	.1					Carbonate	26
3050	8	188	410	.1						27
3075	12	12	152	.1						28
3100	8	43	450	.1						29
3125	9	26	260	.1						30
3150	3	52	15	.1					Carbonate	31
3175	14	45	270	.1						32
3200	6	38	350	.1						33
3225	3	56	10	.1					Carbonate	34
3250	18	43	300	.1						35
3275	7	25	235	.1						36
330N 3300E	11	53	276	.1						37
										38
										39
										40

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GEOCHEMICAL ASSAY CERTIFICATE

6

SAMPLE No.	Cu	Pb	Zn	Ag									
345N 2300E	11	24	156	.1									1
2325	4	16	68	.1									2
2350	12	17	94	.1									3
2375	28	10	61	.1									4
2400	18	25	660	.1									5
2425	17	29	730	.1									6
2450	12	7	30	.3									7
2475	19	25	143	.1									8
2500	19	10	19	.2									9
2525	36	11	131	.2									10
2550	40	10	34	.4									11
2575	37	27	169	.2									12
2600	27	9	42	.2									13
2625	50	42	130	.5									14
2650	21	24	156	.3									15
2675	9	17	94	.1									16
345N 2700E	31	79	198	.3									17
													18
345N 2725E	30	26	90	.5									19
2750	3	11	49	.1									20
2775	20	23	141	.1									21
2800	5	8	48	.1									22
2825	17	39	184	.5									23
2850	38	16	12000	.3									24
2875	7	51	153	.1									25
2900	4	53	124	.1									26
2925	7	29	182	.1									27
2950	15	22	240	.1									28
2975	16	30	510	.1									29
3000	6	8	78	.1									30
3025	8	22	186	.1									31
3050	9	34	330	.1									32
3075	31	21	350	.2									33
3100	27	48	450	.2									34
3125	18	47	590	.2									35
3150	13	63	1200	.1									36
3175	11	69	1200	.1									37
345N 3200E	9	41	490	.1									38
													39
													40

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File No. 81-0666

Type of Samples Soil

Disposition

**GEOCHEMICAL ASSAY CERTIFICATE**

7

SAMPLE No.	Cu	Pb	Zn	Ag								
345N 3225E	3	59	10	.1							Carbonate	1
3250	11	49	305	.1								2
3275	8	88	900	.1								3
345N 3300E	4	57	16	.1							Carbonate	4
360N 1450E	9	13	45	2.8								5
1475	19	31	102	.1								6
1500	5	12	101	.2								7
1525	33	14	140	.9								8
1550	53	15	142	1.1								9
1575	4	13	48	.1								10
1600	6	13	31	.1								11
1625	39	38	77	.1								12
1650	17	30	101	.4								13
1675	4	16	46	.1								14
1700	14	24	115	.1								15
1725	24	19	65	.2								16
1750	8	12	33	.1								17
1775	15	22	44	.1								18
1800	25	51	63	.1								19
1825	12	26	103	.1								20
1850	14	28	77	.2								21
1875	5	16	36	.1								22
360N 1900E	12	15	26	.2								23
360N 1925E	12	18	71	.1								24
1950	16	20	72	.1								25
1975	51	42	173	.1								26
2000	21	46	84	.2								27
2025	17	30	68	.1								28
2050	6	17	27	.1								29
2075	4	13	40	.1								30
2100	8	10	38	.1								31
2125	5	9	14	.1								32
2150	6	13	43	.2								33
2175	21	24	110	.2								34
2200	4	8	76	.1							org	35
360N 2225E	5	7	33	.1							org	36
												37
												38
												39
												40

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File No. 81-0666

Type of Samples Soil

Disposition \_\_\_\_\_

**GEOCHEMICAL ASSAY CERTIFICATE**

8

SAMPLE No.	Cu	Pb	Zn	Ag							
360N 2250E	39	23	56	1.4						org	1
2275	10	18	95	.2							2
2300	21	11	30	.3						org	3
2325	46	29	195	.7						org	4
2350	8	13	84	.1							5
2375	10	20	124	.1							6
2400	23	33	440	.4						org	7
2425	44	17	64	.8						org	8
2450	13	13	136	.2						org	9
2475	26	17	160	.6							10
2500	20	34	900	.2							11
2525	16	40	545	.1							12
2550	26	28	130	.4							13
2575	9	15	60	.2							14
2600	17	28	111	.1							15
2625	21	23	127	.1							16
2650	16	6	26	.1							17
2675	12	32	109	.2							18
2700	4	20	37	.1							19
2725	6	17	52	.1							20
2750	5	9	20	.1							21
2775	14	22	48	.1							22
360N 2800E	20	21	48	.4							23
											24
360N 2825E	7	20	106	.1							25
2850	20	23	88	.5							26
2875	10	26	96	.1							27
2900	2	26	151	.2							28
2925	9	39	620	.1							29
2950	8	26	680	.1							30
2975	12	149	5000	.3							31
3000	9	15	170	.1							32
3025	11	42	540	.4							33
3050	7	19	143	.2							34
3075	9	54	73	.2							35
3100	7	22	160	.1							36
3125	5	21	380	.1							37
360N 3150E	18	16	143	.3						org	38
											39
											40

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A. Mining & Trace Analysis

852 E. Hastings St., Vancouver, B. C. V6A 1R6

phone: 253 - 3158

File No. 81-0666

Type of Samples Soil

Disposition \_\_\_\_\_

**GEOCHEMICAL ASSAY CERTIFICATE**

9

SAMPLE No.	Cu	Pb	Zn	Ag							
360N 3175E	3	56	18	.1						Carbonate	1
3200	8	35	940	.1							2
3225	14	53	600	.1							3
3250	2	51	17	.1						Carbonate	4
3275	6	44	530	.1							5
360N 3300E	11	54	430	.1							6
											7
375N 2300E	10	20	108	.1							8
2325	6	16	78	.1							9
2350	14	18	143	.1							10
2375	21	10	91	.2						org	11
2400	8	13	76	.1							12
2425	23	29	190	.1							13
2450	5	13	60	.1							14
2475	12	16	74	.2							15
2500	14	16	99	.1							16
2525	24	36	166	.3							17
2550	6	19	120	.1							18
2575	26	28	270	.7							19
2600	13	15	123	.2							20
2625	6	10	56	.1							21
2650	32	21	114	.2						org	22
2675	15	11	102	.3						org	23
2700	11	10	70	.1						org	24
2725	27	16	99	.2							25
2750	41	22	1050	.2							26
2775	15	9	66	.1						org	27
2800	7	15	16	.1							28
2825	5	19	255	.1							29
2850	5	17	370	.1							30
2875	6	16	225	.1							31
2900	3	53	2500	.1							32
2925	12	215	2900	.1							33
2950	15	178	6000	.1							34
2975	8	73	9000	.1							35
3000	21	72	2100	.1							36
3025	19	115	2500	.3							37
375N 3050E	3	59	1600	.1							38
											39
											40

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CERTIFIED B.C. ASSAYER

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Analysing & Trace Analysis

852 E. Hastings St., Vancouver, B. C. V6A 1R6

phone: 253 - 3158

File No. 81-0666

Type of Samples Soil

Disposition

**GEOCHEMICAL ASSAY CERTIFICATE**

10	SAMPLE No.	Cu	Pb	Zn	Ag							
	375N 3075E	4	25	183	.1							1
	3100	10	37	430	.1							2
	3125	10	28	325	.1							3
	3150	7	10	63	.1							4
	3175	9	5	280	.2						org	5
	3200	27	52	810	.4							6
	3225	25	58	820	.5							7
	3250	8	51	540	.1							8
	3275	12	56	590	.1							9
	375N 3300E	2	52	12	.1						Carbonate	10
												11
	390N 1675EB	23	32	46	.1							12
	1675E	4	15	76	.1							13
	1700	5	18	126	.1							14
	1725	12	16	150	.1							15
	1750	34	27	790	1.0							16
	1775	55	54	1260	2.4							17
	1800	29	23	530	.3							18
	1825	25	28	195	.3							19
	1850	13	13	460	.6							20
	1875	5	5	110	.7							21
	1900	21	28	171	.1							22
	1925	7	19	235	.1							23
	1950	10	19	148	.1							24
	1975	17	42	140	.1							25
	2000	29	24	154	.1							26
	2025	19	24	110	.1							27
	2050	14	27	50	.1							28
	2075	12	18	83	.1							29
	2100	27	39	92	.1							30
	2125	21	25	114	.1							31
	2150	20	36	36	.3							32
	2175	16	11	66	.2							33
	2200	70	28	192	1.0							34
	2225	10	15	73	.1							35
	2250	39	14	96	.4							36
	2275	91	32	310	.8							37
	390N 2300E	26	19	158	.2							38
												39
												40

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Type of Samples Soil

Disposition

### GEOCHEMICAL ASSAY CERTIFICATE

11

SAMPLE No.	Cu	Pb	Zn	Ag							
390N 2325E	13	21	260	.1							1
2350	26	41	250	.1							2
2375	16	41	70	.1							3
2400	13	21	103	.1							4
2425	26	41	215	.3							5
2450	17	19	89	.1							6
2475	13	24	165	.1							7
2500	8	16	122	.1							8
2525	10	7	22	.2					org		9
2550	21	12	230	.5					org		10
2575	5	12	57	.1							11
2600	97	15	86	.7					org		12
2625	12	21	111	.1							13
2650	14	33	98	.1							14
2675	12	49	270	.1							15
2700	25	45	380	.2							16
2725	8	4	117	.1					org		17
2750	10	9	77	.1					org		18
2775	21	28	150	.2							19
2800	27	52	590	.2							20
2825	27	24	420	.1							21
2850	5	8	38	.1							22
2875	5	13	70	.1							23
2900	7	14	198	.1							24
2925	49	36	9800	.5							25
2950	11	31	1430	.1							26
2975	8	205	400	.1							27
390N 3000E	8	57	480	.1							28
											29
390N 3025E	8	42	235	.1							30
3050	1	7	53	.1							31
3075	7	26	156	.1							32
3100	6	28	310	.2							33
3125	16	54	315	.1							34
3150	3	7	59	.1					org		35
3175	8	6	80	.1					org		36
3200	38	17	480	.2					org		37
390N 3225E	14	44	227	.1							38
											39
											40

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Disposition

**GEOCHEMICAL ASSAY CERTIFICATE**

12

SAMPLE No.		Cu	Pb	Zn	Ag						
390N	3250E	15	35	161	.1						1
	3275	10	32	68	.1						2
	3300	4	21	61	.1						3
	3325	8	25	116	.1						4
	3350	10	53	330	.1						5
	3375	3	56	10	.1					Carbonate	6
	3400	4	55	11	.1					Carbonate	7
	3425	8	64	250	.1						8
	3450	2	50	12	.1					Carbonate	9
	3475	3	55	10	.1					Carbonate	10
	3500	2	54	9	.1					Carbonate	11
	3525	2	55	9	.1					Carbonate	12
	3550	2	55	8	.1					Carbonate	13
	3575	9	53	131	.1						14
	3600	3	47	37	.1					Carbonate	15
	3625	11	39	141	.1						16
	3650	7	34	120	.1						17
	3675	8	50	75	.1						18
390N	3700E	10	44	101	.1						19
											20
420N	1375E	18	22	310	.4						21
	1400	28	31	520	2.5						22
	1425	42	26	310	.9						23
	1450	11	20	275	.3						24
	1475	43	23	760	.2						25
	1500	13	20	270	1.0						26
	1525	17	24	470	1.4						27
	1550	22	27	260	.5						28
	1575	7	20	350	.3						29
	1600	16	21	300	.4						30
	1625	9	13	110	.2						31
	1650	12	12	192	.5						32
	1675	16	9	166	.6					org	33
	1700	7	14	86	.1						34
	1725	26	8	1600	.4					org	35
	1750	43	6	390	1.7					org	36
	1775	5	5	152	.1						37
420N	1800E	23	8	40	.1					org	38
											39
											40

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File No. 81-0666

Type of Samples Soil

Disposition

GEOCHEMICAL ASSAY CERTIFICATE

13

SAMPLE No.	Cu	Pb	Zn	Ag								
420N 1825E	52	13	350	1.3						org	1	
1850	37	31	210	.7							2	
1875	42	14	91	.4					org	3		
1900	10	17	79	.1							4	
1925	10	15	67	.1							5	
1950	6	2	18	.2					org	6		
1975	14	18	101	.1							7	
2000	21	14	50	.3					org	8		
2025	7	10	51	.1							9	
2050	8	13	73	.1							10	
2075	38	18	415	.1					org	11		
420N 2100E	28	6	137	.2					org	12		
											13	
420N 2125E	7	1	162	.4					org	14		
2150	19	29	920	.9							15	
2175	55	33	1100	.5							16	
2200	25	32	210	.3					org	17		
2225	13	21	340	.2					org	18		
2250	41	29	290	.3							19	
2275	28	27	410	.3							20	
2300	9	13	330	.3							21	
2325	12	11	100	.2							22	
2350	11	10	30	.1							23	
2375	27	34	146	.1							24	
2400	10	16	64	.1							25	
2425	10	10	44	.2							26	
2450	4	1	38	.1							27	
2475	8	1	40	.1							28	
2500	116	59	75	.2							29	
2525	32	27	84	.1							30	
2550	18	18	144	.1							31	
2575	20	41	540	.2							32	
2600	12	11	59	.2							33	
2625	6	3	18	.1							34	
2650	8	7	54	.1							35	
2675	15	17	34	.1							36	
420N 2700E	15	18	44	.2							37	
											38	
											39	
											40	

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Type of Samples Soil

**GEOCHEMICAL ASSAY CERTIFICATE**

Disposition

14

SAMPLE No.		Cu	Pb	Zn	Ag							
420N	2725E	22	56	215	.1							1
	2750	12	3	15	.3						org	2
	2775	18	17	56	.1							3
	2800	10	4	42	.5						org	4
	2825	6	5	35	.1							5
	2850	2	5	23	.1							6
	2875	29	7	41	.3							7
	2900	37	22	90	.2							8
	2925	9	15	20	.1						org	9
	2950	4	8	30	.1						org	10
420N	2975E	6	11	127	.1							11
												12
435N	3000E	2	6	19	.1						org	13
	3025	5	3	42	.1							14
	3050	R	2	41	.1							15
	3075	R	4	30	.1							16
	3100	R	10	15	.1							17
	3125	R	8	14	.1							18
	3150	R	6	17	.1							19
	3175		13	33	.1							20
	3200		46	225	.2							21
	3225		61	640	.2							22
	3250		35	350	.2							23
	3275	10	22	160	.2							24
	3300	8	43	460	.4							25
	3325	22	20	380	.1						org	26
	3350	16	34	235	.5							27
	3375	68	25	350	.1						org	28
	3400	12	37	350	.1							29
	3425	14	27	260	.2							30
	3450	9	26	300	.3							31
	3475	14	33	190	.1							32
	3500	4	18	118	.1							33
	3525	5	19	132	.1							34
	3550	5	23	80	.1							35
	3575	6	39	235	.2							36
	3600	R	53	10	.2						Carbonate	37
435N	3625E	R	53	9	.2						Carbonate	38
												39
												40

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED July 4, 1981

DATE REPORTS MAILED July 9, 1981

ASSAYER *Dean Toye*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



To: Asarco Exploration Co. of Canada Ltd.,

Analysing & Trace Analysis

852 E. Hastings St., Vancouver, B. C. V6A 1R6

phone: 253 - 3158

File No. 81-0666

Type of Samples Soil

Disposition

### GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE No.			Cu	Pb	Zn	Ag						
15	435N	3650E	8	26	65	.1						1
		3675	R 3	62	11	.2						2
	435N	3700E	7	35	79	.1						3
												4
	450N	1200E	42	50	220	.1						5
		1225	10	53	40	.1						6
		1250	17	42	196	.1						7
		1275	6	26	90	.1						8
		1300	15	25	110	.1						9
		1325	8	24	108	.1						10
		1350	7	17	86	.1						11
		1375	9	24	88	.1						12
		1400	10	21	78	.1						13
		1425	8	19	78	.2						14
		1450	9	20	90	.2						15
		1475	14	23	139	.2						16
		1500	22	29	120	.1						17
		1525	39	15	210	.3						18
		1550	7	16	280	.5						19
		1575	4	13	270	.4						20
		1600	21	20	98	.2						21
		1625	27	14	157	.1						22
		1650	15	12	130	1.0						23
		1675	12	24	45	.3						24
		1700	23	27	118	.1						25
		1725	13	20	79	.1						26
		1750	17	24	97	.1						27
		1775	28	30	130	.1						28
		1800	5	10	25	.1					org	29
		1825	3	9	17	.1					org	30
		1850	6	12	9	.1					org	31
		1875	6	12	8	.1					org	32
		1900	6	12	14	.1					org	33
		1925	8	10	7	.1					org	34
		1950	4	6	7	.1					org	35
		1975	32	8	141	.1					org	36
		2000	27	13	30	.1					org	37
	450N	2025E	37	12	34	.1					org	38
												39
												40

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED July 4, 1981

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ASSAYER

*Dean Toye*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



File No. 81-0666

Type of Samples Soil

Disposition

GEOCHEMICAL ASSAY CERTIFICATE

16

SAMPLE No.		Cu	Pb	Zn	Ag							
450N	2050E	25	12	55	.1							1
	2075	22	25	180	.1							2
	2100	25	24	220	.3							3
	2125	30	29	260	.3							4
	2150	28	29	119	.2							5
	2175	48	32	188	.4							6
	2200	41	13	124	.3							7
	2225	37	31	420	.5							8
	2230	R	46	8	60	.1						9
	2250		42	28	380	.6						10
	2275	R	17	34	34	.1						11
	2300		25	32	215	.2						12
	2325		14	23	125	.1						13
	2350	R	20	44	48	.1						14
	2375	R	9	52	34	.1						15
	2400	R	19	36	56	.1						16
	2425		12	16	41	.1						17
	2450		9	35	51	.1						18
	2475		16	27	193	.1						19
	2500		8	24	74	.1						20
	2525		17	26	60	.1						21
	2550		19	42	32	.1						22
	2575		12	49	21	.2						23
450N	2600E		23	52	22	.1						24
												25
450N	2625E		45	30	186	.1						26
	2650		6	13	47	.1						27
	2675		8	13	47	.1						28
	2700		12	25	124	.3						29
	2725		13	36	79	.1						30
	2750	N.S.										31
	2775		6	28	46	.1						32
	2800		7	21	89	.1						33
	2825		22	46	170	.2						34
	2850		7	13	49	.1						35
	2875		16	45	58	.1						36
	2900		21	55	55	.1						37
450N	2925E		18	20	60	.1						38
												39
												40

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ASSAYER *Dean Toy*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



To: Asarco Exploration Co. of Canada Ltd.,

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B. C. V6A 1R6

phone:253 - 3158

File No. 81-0666

Type of Samples Soil

Disposition

GEOCHEMICAL ASSAY CERTIFICATE

17

SAMPLE No.		Cu	Pb	Zn	Ag								
450N	2950E	14	58	250	.1								1
450N	2975E	16	24	78	.1								2
													3
480N	1300E	12	30	49	.1								4
	1325	11	32	95	.4								5
	1350	10	23	37	.1								6
	1375	4	13	17	.1								7
	1400	30	47	91	.4								8
	1425	31	37	141	.1								9
	1450	26	43	68	.1								10
	1475	17	32	80	.1								11
	1500	21	28	114	.1								12
	1525	13	22	100	.2								13
	1550	13	24	92	.1								14
	1575	8	15	47	.4								15
	1600	19	28	108	.1								16
	1625	21	35	740	.2								17
	1650	10	20	205	.1								18
	1675	18	24	260	.2								19
	1700	5	3	26	.1								20
	1725	3	7	71	.1							org	21
	1750	4	10	45	.2							org	22
	1775	3	7	13	.1							org	23
	1800	2	6	27	.1							org	24
	1825	5	11	28	.1							org	25
	1850	4	6	42	.1							org	26
	1875	6	10	14	.1							org	27
	1900	5	9	15	.1							org	28
	1925	10	23	46	.1								29
	1950	6	18	50	.1								30
	1975	3	11	18	.1								31
	2000	4	11	31	.2							org	32
	2025	14	13	38	.1							org	33
	2050	3	12	13	.1							org	34
	2075	3	7	15	.1							org	35
	2100	36	65	32	.2								36
	2125	41	40	102	.3								37
480N	2150E	42	40	116	.2								38
													39
													40

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED July 4, 1981

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ASSAYER *Dean Toye*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER

To: Asarco Exploration Co. of Canada Ltd.,

852 E. Hastings St., Vancouver, B.C. V6A 1R6

phone: 253 - 3158

File No. 81-0666

Type of Samples Soil

Disposition \_\_\_\_\_

**GEOCHEMICAL ASSAY CERTIFICATE**

18

SAMPLE No.		Cu	Pb	Zn	Ag							
480N	2175E	7	16	46	.1							1
	2200	17	22	98	.1							2
	2225	19	24	111	.1							3
	2250	27	23	330	.4							4
	2275	16	21	195	.2							5
	2300	N.S.										6
	2325		13	12	193	.1					org	7
	2350		16	14	81	.1					org	8
	2375		22	25	158	.1						9
	2400		46	21	132	.4						10
	2425		15	36	205	.8						11
	2450		18	33	193	.1					org	12
	2475		11	10	50	.1						13
	2500		24	33	79	.2						14
	2525		21	33	520	.2						15
	2550		18	35	123	.1						16
	2575		39	48	440	.4						17
	2600		19	42	460	.5						18
	2625		25	35	540	.9						19
	2650		5	22	240	.1						20
	2675		9	35	620	.1						21
	2700		9	13	51	.1						22
	2725		13	51	300	.1						23
	2750		42	35	245	.7						24
	2775		12	14	137	.1						25
	2800		10	22	166	.1						26
	2825		11	27	235	.5					org	27
	2850		18	11	26	.1						28
	2875		15	45	163	.1						29
	2900		7	38	80	.1						30
	2925		6	8	21	.1						31
	2950		3	8	18	.1						32
480N	2975E	16	14	17	.1						33	
											34	
510N	1350E	39	38	173	2.7						35	
	1375	26	22	800	1.1					org	36	
	1400	3	3	64	.1						37	
510N	1425E	9	22	270	.3						38	
											39	
											40	

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DIGESTION: .....

DETERMINATION: .....

DATE SAMPLES RECEIVED July 4, 1981

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ASSAYER Dean Toye

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



To: Asarco Exploration Co. of Canada Ltd.,

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B. C. V6A 1R6

phone: 253 - 3158

File No. 81-0666

Type of Samples Soil

Disposition

GEOCHEMICAL ASSAY CERTIFICATE

19

SAMPLE No.		Cu	Pb	Zn	Ag								
510N	1450E	10	11	200	.1								1
	1475	10	7	900	.1								2
	1500	24	16	305	.8								3
	1525	10	14	250	.5								4
	1550	13	18	230	.2								5
	1575	24	15	135	.8								6
	1600	33	26	290	.5								7
	1625	37	12	171	.3								8
	1650	12	20	460	.6								9
	1675	5	13	155	.1								10
	1700	23	13	160	.5								11
	1725	23	22	158	.1								12
	1750	5	4	58	.1								13
	1775	5	10	96	.1								14
	1800	18	11	53	.1								15
	1825	44	45	113	.6								16
	1850	N.S.											17
	1875	5	13	64	.1								18
	1900	36	11	220	.1								19
	1925	17	10	430	.1								20
	1950	7	18	130	.1								21
	1975	12	15	101	.1								22
510N	2000E	16	33	96	.1								23
													24
510N	2050E	7	21	75	.1								25
	2050	12	22	182	.1								26
	2075	12	30	360	.2								27
	2100	10	15	122	.1								28
	2125	14	39	680	.6								29
	2150	19	40	50	.1								30
	2175	8	14	35	.1								31
	2200	36	42	137	.1								32
	2225	19	30	41	.1								33
	2250	9	19	38	.1								34
	2275	15	26	60	.1								35
	2300	23	29	96	.1								36
	2325	19	27	90	.1								37
510N	2350E	85	48	170	.6								38
													39
													40

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED July 4, 1981

DATE REPORTS MAILED July 9, 1981

ASSAYER

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER

To: Asarco Exploration Co. of Canada Ltd., 852 E. Hastings St., Vancouver, B. C. V6A 1R6

phone: 253 - 3158

File No. 81-0666

Type of Samples Soil

Disposition

**GEOCHEMICAL ASSAY CERTIFICATE**

20

SAMPLE No.		Cu	Pb	Zn	Ag						
510N	2375E	16	52	73	.1						1
	2400	9	17	90	.1						2
	2425	9	21	139	.2						3
	2450	11	21	122	.1						4
	2475	10	12	51	.1						5
	2500	6	6	34	.1						6
	2525	15	6	43	.2					org	7
	2550	18	9	40	.1					org	8
	2575	6	7	41	.1						9
	2600	33	29	240	.1						10
	2625	10	20	251	.2						11
	2650	27	34	128	.1						12
	2675	7	21	76	.1						13
	2700	20	42	280	.3						14
	2725	16	37	153	.2						15
	2750	15	39	200	.1						16
	2775	22	43	240	.1						17
	2800	51	49	410	.1						18
	2825	19	24	89	.1						19
	2850	7	56	152	.2						20
2875	9	56	280	.1						21	
2900	11	38	99	.1						22	
2925	15	28	56	.1						23	
2950	9	21	70	.2						24	
510N	2975E	12	20	46	.1						25
											26

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED July 4, 1981

DATE REPORTS MAILED July 9, 1981

ASSAYER *Dean Toye*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER





To: Asarco Exploration Co. of Canada Ltd.,  
504 - 535 Thurlow st.,  
Vancouver, B.C.  
V6E 3L2

852 E. Hastings St., Vancouver, B. C. V6A 1R6  
phone: 253 - 3158

File No. 81-0855

Area or Property: CHODI

Type of Samples Soil & Rock

**GEOCHEMICAL ASSAY CERTIFICATE**

Disposition

1

SAMPLE No.		Cu	Pb	Zn	Ag							
150N 2950 E	R	4	15	52	.1							1
2975	R	12	22	56	.1							2
3000	R	11	15	50	.1							3
3025	R	12	63	60	.1							4
3050		20	24	125	.1							5
3075		17	22	115	.1							6
3100		8	14	88	.2							7
3125		23	24	116	.1							8
3150		10	16	75	.1							9
3175		16	18	35	.4							10
3200		9	25	96	.1							11
3225		10	31	105	.1							12
3250		14	22	126	.1							13
3275		10	24	112	.1							14
150N 3300 E		8	18	90	.1							15
												16
165N 2975 E	R	6	21	36	.1							17
3000		34	10	28	.1						org.	18
3025		72	26	88	.2							19
3050		18	16	84	.1							20
3075		22	24	115	.1							21
3100		21	20	120	.1							22
3125		12	22	98	.1							23
3175		15	20	95	.1							24
3200		12	18	100	.1							25
3225		10	20	86	.1							26
3250		2	5	22	.1							27
3275		2	6	24	.1							28
165N 3300 E		4	11	50	.1							29
												30
180N 2975 E	R	9	19	42	.1							31
3000	R	10	17	44	.1							32
3025		11	22	98	.1							33
3050		16	21	92	.1							34
3075		21	24	116	.1							35
3100		19	18	115	.1							36
3125		12	15	108	.1							37
180N 3150 E		8	14	78	.2							38
												39
												40

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED July 25, 1981

DATE REPORTS MAILED July 29, 1981

ASSAYER *Dean Toy*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



File No. 81-0855

Type of Samples \_\_\_\_\_

Disposition \_\_\_\_\_

**GEOCHEMICAL ASSAY CERTIFICATE**

SAMPLE No.		Cu	Pb	Zn	Ag							
180N 3175 E		12	25	102	.1							1
3200	R	2	58	16	.1							2
3225	R	3	57	13	.1							3
3250	R	2	56	13	.1							4
3275		8	36	78	.1							5
180N 3300 E		7	16	80	.1							6
195N 2350 E		16	18	8	.1							8
2375		38	23	76	.1							9
2400		21	19	48	.1							10
2425		5	3	19	.5					org.		11
2450		38	14	20	.1					org.		12
2475		43	27	32	.3							13
2500		35	19	88	.1					org.		14
2525	R	3	62	14	.1							15
2550	R	4	65	12	.1							16
2575	R	5	45	11	.1							17
2600		15	47	28	.1							18
2625		11	53	46	.1							19
2650		9	42	36	.1					org.		20
2675		8	28	42	.1							21
2700		7	30	32	.1							22
2725		20	30	38	.2							23
2750		9	29	57	.1							24
2775		5	45	85	.1							25
2800		12	61	50	.1							26
2825		36	18	38	.2					org.		27
195N 2850 E		12	13	26	.1					org.		28
195N 2975 E		32	9	106	.2					org.		30
3000		30	12	45	.1							31
3025		26	18	46	.2							32
3050		9	13	80	.1							33
3075		28	30	128	.1							34
3100		18	22	92	.3							35
3125		11	18	102	.1							36
3150		24	29	109	.1							37
195N 3175 E		20	28	115	.1							38
												39
												40

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DIGESTION:.....

DETERMINATION:.....

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DATE REPORTS MAILED July 29, 1981

ASSAYER Dean Toyé

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



To: Asarco Exploration Co. of Canada Ltd., 852 E. Hastings St., Vancouver, B.C. V6A 1R6

phone: 253 - 3158

File No. 81-0855

Type of Samples \_\_\_\_\_

Disposition \_\_\_\_\_

### GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE No.		Cu	Pb	Zn	Ag							
195N	3200 E	22	27	94	.1							1
	3225	16	27	60	.2							2
	3250	22	3	98	.2							3
	3275	24	32	115	.2							4
195N	3300 E	13	37	78	.1							5
												6
210N	2350 E	14	17	80	.1							7
	2375	13	8	20	.1					org.		8
	2400	R 7	12	54	.1							9
	2425	16	20	78	.1							10
	2450	9	10	24	.1							11
	2475	5	2	28	.2					org.		12
	2500	58	27	98	.3							13
	2525	12	40	78	.2							14
	2550	12	38	45	.1							15
	2575	8	38	44	.2							16
	2600	6	29	33	.1							17
	2625	7	33	38	.1							18
	2650	10	24	92	.1							19
	2675	6	37	64	.2							20
	2700	17	38	60	.1							21
	2725	21	17	34	.3					org.		22
	2750	R 11	12	38	.2							23
	2775	28	24	36	.3					org.		24
210N	2800 E	18	27	118	.1							25
												26
210N	3000 E	R 20	10	44	.2							27
	3025	25	22	122	.2							28
	3050	19	16	82	.1							29
	3075	38	15	65	.3					org.		30
	3100	33	28	115	.2							31
	3125	21	24	98	.1							32
	3150	20	24	102	.2							33
	3175	25	27	110	.3							34
	3200	27	25	120	.3							35
210N	3225 E	26	23	150	.3							36
												37
												38
												39
												40

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All results are in PPM.

DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED July 25, 1981

DATE REPORTS MAILED July 29, 1981

ASSAYER *[Signature]*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



To: Asarco Exploration Co. of Canada Ltd., 852 E. Hastings St., Vancouver, B. C. V6A 1R6

phone:253 - 3158

File No. 81-0855

Type of Samples

Disposition

GEOCHEMICAL ASSAY CERTIFICATE

4

SAMPLE No.		Cu	Pb	Zn	Ag							
225N 2300 E		40	21	145	.4							1
2325		33	22	48	.4							2
2350		28	22	72	.3							3
2375		8	8	45	.2							4
2400		17	18	68	.1							5
2425		49	24	98	.2							6
2450		35	24	52	.3							7
2475		30	31	70	.2							8
2500	R	3	60	13	.2							9
2525	R	3	15	15	.2							10
2550	R	7	20	28	.1							11
2575	R	5	43	15	.3							12
2600		15	44	88	.3							13
2625		40	23	98	.2							14
2650		8	47	40	.2							15
2675	R	5	62	12	.3					org.		16
2700		7	11	68	.1							17
2725		9	2	42	.4					org.		18
2750		7	2	19	.4					org.		19
2775		5	1	22	.2					org.		20
2800		36	25	110	.4							21
2825	R	12	16	76	.3							22
2850	R	17	12	54	.2							23
2875	R	31	17	72	.3							24
2900	R	20	12	60	.2							25
2925	R	9	9	54	.1							26
2950	R	13	11	64	.1							27
2975		17	18	84	.2							28
3000		7	17	165	.2							29
225N 3025 E		20	25	110	.3							30
230N 3000 E		15	102	298	.2							31
240N 2300 E		22	22	166	.1							32
2325		24	21	136	.2							33
2350		23	13	140	.2							34
2375		19	26	120	.2							35
240N 2400 E		29	23	112	.2							36
												37
												38
												39
												40

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED July 25, 1981

DATE REPORTS MAILED July 29, 1981

ASSAYER *Dean Toy*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER

File No. 81-0855

Type of Samples

Disposition

**GEOCHEMICAL ASSAY CERTIFICATE**

SAMPLE No.	Cu	Pb	Zn	Ag							
240N 2425 E	28	28	104	.3							1
2450	9	7	38	.1							2
2475	30	30	128	.2						org.	3
2500	18	25	92	.1							4
2525	17	26	94	.1							5
2550	16	33	125	.1							6
2575	19	14	42	.1							7
2600	27	45	126	.1							8
2625	25	28	117	.1							9
2650	24	29	110	.1							10
2675	24	32	124	.1							11
2700	6	9	36	.1							12
2725	4	9	32	.2							13
2750 R	15	28	68	.1							14
2775	2	10	18	.1							15
2800 R	10	26	50	.1							16
2825	33	32	130	.1							17
2850	23	24	105	.1							18
2875	2	3	24	.1							19
2900	20	18	20	.2							20
2925	24	38	205	.2							21
2950	12	65	445	.2							22
2975	23	36	215	.1							23
3000	20	56	1800	.1							24
240N 3020 E	21	58	1900	.1							25

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DIGESTION:.....

DETERMINATION:.....

\* P = pulverizing

DATE SAMPLES RECEIVED July 29, 1981

DATE REPORTS MAILED July 29, 1981

ASSAYER

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



To: Asarco Exploratic. Co. of Canada Ltd.,  
504 - 535 Thurlow St.,  
Vancouver, B.C.  
V6E 3L2

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B.C. V6A 1R6

phone: 253 - 3158

File No. 81-0889

Type of Samples Soil

Disposition

**GEOCHEMICAL ASSAY CERTIFICATE**

*Chodi*

SAMPLE No.	Cu	Pb	Zn	Ag							
600N 2300 E	38	22	170	.7							1
2325	30	18	120	.4							2
2350	34	21	148	.5							3
2375	12	12	58	.1							4
2400	41	13	30	.7					org.		5
2425	49	17	34	.7					org.		6
2450	32	27	235	1.3							7
2475	29	11	30	.2					org.		8
2500	10	10	28	.1					org.		9
2525	12	10	37	.1					org.		10
2550	12	10	28	.1							11
2575	25	13	44	.1							12
2600	7	4	21	.1							13
2625	38	23	128	.3							14
2650	32	19	190	.1					org.		15
2675	11	8	17	.6					org.		16
2700	78	42	410	.8							17
2725	27	10	67	.6					org.		18
2750	36	23	190	.3							19
2775	22	28	200	.2							20
2800	23	25	174	.1							21
2825	6	9	165	.1					org.		22
2850	24	29	135	.1							23
2875	18	28	115	.1							24
2900	19	31	116	.1					org.		25
2925	26	40	103	.2							26
2950	25	27	145	.1							27
2975	18	29	53	.1							28
600N 3000 E	19	41	85	.1							29
											30
750N 2300 E	18	18	156	.2							31
2325	39	12	140	.5							32
2350	52	20	255	.4							33
2375	62	23	240	.4							34
2400	21	9	18	.4							35
2425	N.S.										36
2450	78	25	290	.6							37
750N 2475 E	10	6	150	.1					org.		38
											39
											40

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DIGESTION:.....  
DETERMINATION:.....

DATE SAMPLES RECEIVED July 29, 1981  
DATE REPORTS MAILED Aug. 4, 1981  
ASSAYER *Dean Toy*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



File No. 81-0889

Type of Samples

Disposition

GEOCHEMICAL ASSAY CERTIFICATE

2

SAMPLE No.	Cu	Pb	Zn	Ag							
750N 2500 E	70	38	370	.9							1
2525	68	29	360	.9							2
2550	40	24	280	.9							3
2575	26	26	185	.5							4
2600	48	20	115	.4							5
2625	50	31	182	1.0							6
2650	24	18	145	1.1							7
2675	27	13	120	.4							8
2700	150	70	690	4.8							9
2725	13	27	210	.3							10
2750	26	22	162	.6							11
2775	22	32	220	.9							12
2800	64	45	360	1.2							13
2825	38	32	162	.4							14
2850	37	35	148	.3							15
2875	29	26	125	.4							16
2900	35	32	150	.1							17
2925	23	34	183	.1							18
2950	34	32	178	.1							19
2975	26	28	180	.1							20
3000	19	27	172	.1							21
3025	17	18	122	.1							22
3050	22	29	141	.1							23
3075	23	30	140	.1							24
3100	25	26	190	.1							25
3125	26	27	150	.1							26
3150	24	26	170	.1							27
3175	24	26	130	.2							28
3200	25	29	160	.3							29
750N 3225 E	23	28	71	.1							30
											31
900N 2300 E	18	27	86	.8							32
2325	13	14	37	1.2							33
2350	24	22	135	.6							34
2375	10	14	47	.3							35
2400	25	30	185	.5							36
2425	41	25	300	1.0							37
2450	N.S.										38
900N 2475 E	49	26	290	.9							39
											40

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED July 29, 1981

DATE REPORTS MAILED Aug. 4, 1981

ASSAYER *D. Toye*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER

To: Asarco Exploration Co. of Canada Ltd., 852 E. Hastings St., Vancouver, B. C. V6A 1R6

phone: 253 - 3158

File No. 81-0889

Type of Samples \_\_\_\_\_

Disposition \_\_\_\_\_

**GEOCHEMICAL ASSAY CERTIFICATE**

SAMPLE No.	Cu	Pb	Zn	Ag							
900N 2500 E	48	12	150	.5						org.	1
2525	30	22	210	.7							2
2550	13	16	80	.5							3
2575	27	28	225	.4							4
2600	16	14	72	.1							5
2625	23	15	115	.1							6
2650	23	27	156	.7							7
2675	24	41	150	.1							8
2700	18	33	131	.1							9
2725	44	49	203	.4							10
2725 Rock	18	14	67	.1							11
2750	10	27	66	.1							12
2775	12	22	45	.1							13
2800 Rock	10	18	37	.1							14
2825	13	19	87	.1							15
2850	9	12	53	.1							16
2875	11	25	100	.1							17
2900	16	22	123	.4							18
2925	20	50	750	.1							19
2950	13	5	330	.9						org.	20
2950A	15	93	330	.2							21
2975	16	29	242	.2							22
900N 3000 E	8	25	375	.1							23
											24
900N 3025 E	20	32	310	.2							25
3050	15	25	360	.1							26
3075	8	16	120	.1							27
3100	18	21	145	.1							28
3125	10	17	85	.1							29
3150	35	22	150	.1						org.	30
3175	11	13	97	.1						org.	31
3200	23	31	130	.2							32
3225	22	25	140	.1							33
3250	19	29	110	.3							34
3275	21	23	185	.1							35
900N 3300 E	26	27	138	.2							36
											37
											38
											39
											40

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED July 29, 1981

DATE REPORTS MAILED Aug. 4, 1981

ASSAYER *Dean Toye*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER





File No. 81-0889

Type of Samples -----

Disposition -----

### GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE No.		Cu	Pb	Zn	Ag							
1050N	2300E	15	12	60	.6							1
	2325	42	13	183	.9					org.		2
	2350	46	12	142	.9					org.		3
	2375	25	12	148	.9					org.		4
	2400	27	8	610	.5					org.		5
	2425	14	22	121	.5							6
	2450	15	19	100	.4							7
	2475	51	29	210	.6							8
	2500	5	23	59	.3							9
	2525	19	26	170	.4							10
	2550	18	22	121	.6							11
	2575	12	14	65	.3							12
	2600	16	26	120	.6							13
	2625	20	25	118	.4							14
	2650	28	30	170	.6							15
	2675	13	20	81	.3							16
	2700	20	27	88	.2							17
	2725	12	32	69	.2							18
	2750	Rock	14	24	54	.1						19
	2775	Rock	26	23	74	.1						20
	2800		5	20	72	.2						21
	2825		8	9	11	.3				org.		22
	2850	N.S.										23
1050N	2875 E	21	20	35	.2							24
												25
1050N	2900 E	25	21	183	.1							26
	2925	7	19	146	.1							27
	2950	13	28	117	.3							28
	2975	12	27	152	.3							29
	3000	33	30	195	.4					org.		30
	3025	15	24	178	.3							31
	3050	16	23	100	.3							32
	3075	10	19	74	.1							33
	3100	18	26	80	.1							34
	3125	19	25	86	.1							35
	3150	18	25	100	.2							36
	3175	15	21	92	.2							37
1050N	3200 E	10	22	96	.1							38
												39
												40

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED July 29, 1981

DATE REPORTS MAILED Aug. 4, 1981

ASSAYER *Dean Toy*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER

To: Asarco Exploration Co. of Canada Ltd., 852 E. Hastings St., Vancouver, B. C. V6A 1R6  
 phone:253 - 3158

File No. 81-0889

Type of Samples \_\_\_\_\_

Disposition \_\_\_\_\_

**GEOCHEMICAL ASSAY CERTIFICATE**

5

SAMPLE No.		Cu	Pb	Zn	Ag								
1050N 3225 E		8	15	71	.1								1
	3250	7	16	112	.1								2
	3275	9	21	92	.1								3
1050N 3300 E		8	25	105	.1								4
													5
1200N 2300 E		25	25	154	.5								6
	2325	6	27	67	2.0								7
	2350	11	25	91	.3								8
	2375	48	24	227	1.7					org.			9
	2400	9	12	37	.6								10
	2425	15	20	155	.4								11
	2450	22	55	320	.6								12
	2475	15	18	100	1.1								13
	2500	R 5	73	17	.1								14
	2525	17	36	370	.3					org.			15
	2550	9	17	68	.1								16
	2575	23	14	9	.4					org.			17
	2600	20	18	20	.5								18
	2625	5	62	16	.1								19
	2650	14	15	61	.1								20
	2675	12	14	70	.1								21
	2700	16	15	32	.1								22
	2725	14	26	115	.1								23
	2750	22	22	105	.1								24
	2775	N.S.											25
	2800	N.S.											26
	2825	N.S.											27
	2850	N.S.											28
	2875	N.S.											29
	2900	N.S.											30
	2925	N.S.											31
	2950	N.S.											32
	2975	19	38	51	.1								33
	3000	11	19	124	.1								34
	3025	7	14	125	.1								35
	3050	16	20	92	.2								36
	3075	10	18	85	.2								37
1200N 3100 E		13	21	82	.1								38
													39
													40

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED July 29, 1981

DATE REPORTS MAILED Aug. 4, 1981

ASSAYER

*Dean Toye*  
 DEAN TOYE, B.Sc.  
 CHIEF CHEMIST  
 CERTIFIED B.C. ASSAYER

To: Asarco Exploration Co. of Canada Ltd., 852 E. Hastings St., Vancouver, B. C. V6A 1R6

phone: 253 - 3158

File No. 81-0889

Type of Samples

Disposition

**GEOCHEMICAL ASSAY CERTIFICATE**

SAMPLE No.	Cu	Pb	Zn	Ag							
6 1200N 3125 E	16	19	85	.1							1
3150	22	28	103	.1							2
3175	9	20	110	.1							3
3200	9	15	78	.1							4
3225	7	40	57	.2							5
3250	8	33	350	.1							6
3275	11	27	98	.1							7
1200N 3300 E	7	22	97	.1							8
											9
1350N 2300 E	17	9	65	.3							10
2325	12	27	98	.8							11
2350	6	4	45	.4							12
2375	7	23	46	.2							13
2400	62	25	120	1.9					org.		14
2425	17	24	37	.2							15
2450	24	70	170	.3							16
2475	Rock 5	68	10	.3							17
2500	34	25	56	.1							18
2525	9	21	190	.1							19
2550	19	16	28	.1							20
2575	12	15	8	.6					org.		21
2600	10	26	96	.1							22
2625	9	13	23	.1					org.		23
2650	15	16	56	.3							24
2675	11	71	40	.1							25
2700	25	23	82	.1							26
2725	13	27	105	.1							27
2750	7	12	17	.1							28
2775	4	11	11	.1							29
2800	N.S.										30
2825	N.S.										31
2850	N.S.										32
2875	N.S.										33
2900	N.S.										34
2925	N.S.										35
2950	N.S.										36
2975	14	38	50	.2							37
1350N 3000 E	18	25	92	.1							38
											39
											40

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED July 29, 1981

DATE REPORTS MAILED Aug. 4, 1981

ASSAYER

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



To: Asarco Exploration Co. of Canada Ltd.,

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B. C. V6A 1R6

phone: 253 - 3158

File No. 81-0889

Type of Samples \_\_\_\_\_

Disposition \_\_\_\_\_

**GEOCHEMICAL ASSAY CERTIFICATE**

7

SAMPLE No.		Cu	Pb	Zn	Ag								
1350N 3025 E		35	13	53	.1								1
	3050	20	22	100	.1								2
	3075	7	14	45	.1								3
	3100	15	22	89	.1								4
	3125	18	19	85	.1								5
	3150	9	20	62	.1								6
	3175	5	12	64	.1								7
	3200	21	26	84	.1								8
	3225	5	14	60	.1								9
	3250	14	22	102	.1								10
	3275	13	8	37	.1								11
1350N 3300 E		14	23	106	.1								12
													13
1500N 2300 E		105	30	840	2.0								14
	2325	23	16	400	.9						org.		15
	2350	22	22	175	.2								16
	2375	26	13	128	.3								17
	2400	9	23	93	1.0								18
	2425	10	20	77	.1								19
	2450	Rock	8	30	120	.1							20
	2475	Rock	48	22	63	.1							21
	2500		23	60	140	.1							22
	2525		34	21	68	.2							23
	2550		5	52	15	.1							24
	2575		12	14	75	.1							25
	2600		16	14	54	.1							26
	2625		23	39	14	.4							27
	2650		4	7	15	.1							28
	2675		8	17	21	.1							29
	2700		13	23	82	.1							30
	2725		9	20	68	.1							31
1500N 2750 E		8	18	40	.1								32
													33
1650N 2300 E		38	7	1900	.1						org.		34
	2325	6	5	87	.1						org.		35
	2350	13	30	102	.1								36
	2375	3	3	83	.2						org.		37
1650N 2400 E		22	10	17	.2						org.		38
													39
													40

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED July 29, 1981

DATE REPORTS MAILED Aug. 4, 1981

ASSAYER *D. Toyer*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER

File No. 81-0889

Type of Samples \_\_\_\_\_

Disposition \_\_\_\_\_

**GEOCHEMICAL ASSAY CERTIFICATE**

8

SAMPLE No.		Cu	Pb	Zn	Ag							
1650N 2425 E		6	5	72	.4							1
2450		22	13	20	.3						org.	2
2475		11	6	51	.1						org.	3
2500		56	20	62	.4						org.	4
2525		9	18	55	.1							5
2550		39	15	46	.2						org.	6
2575		47	26	72	.3						org.	7
2600	rock	32	32	48	.1							8
2625		31	31	50	.1							9
2650		10	21	78	.1							10
2675		12	14	68	.1							11
2700		2	5	9	.1							12
1650N 2725 E		9	15	57	.1							13
												14
1800N 2300 E		25	9	9	.3						org.	15
2325		12	62	82	.1							16
2350		4	66	10	.3							17
2375		6	45	7	.3							18
2400		8	8	135	.2						org.	19
2425		19	19	51	.1							20
2450		11	9	42	.2						org.	21
2475		18	25	73	.1							22
2500	rock	22	70	52	.2							23
2525	rock	42	24	82	.3							24
2550		15	6	28	.1							25
2575	rock	15	22	45	.1							26
2600		10	14	90	.1							27
2625		41	20	24	.5						org.	28
2650		13	10	45	.1							29
2675	rock	35	22	76	.1							30
2700		9	15	44	.2							31
2725		10	31	118	.2							32
2750		12	38	75	.1							33
2775		10	25	145	.2							34
1800N 2800 E		15	27	100	.1							35
												36
												37
												38
												39
												40

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED July 29, 1981

DATE REPORTS MAILED Aug. 4, 1981

ASSAYER

*D. Toyé*  
DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



To: Asarco Exploration Co. of Canada Ltd.,  
504 - 535 Thurlow St.,  
Vancouver, B.C.  
V6E 3L2

852 E. Hastings St., Vancouver, B. C. V6A 1R6

phone: 253 - 3158

File No. 81-1146

Type of Samples Soils

Disposition

### GEOCHEMICAL ASSAY CERTIFICATE

*Chodi*

SAMPLE No.		Cu	Pb	Zn	Ag								
5625N	2800E	12	22	75	.3								1
	2825	22	19	80	.1								2
	2850	7	16	105	.1								3
	2875	7	48	390	.1								4
	2900	16	45	54	.4								5
	2925	6	42	74	.3								6
	2950	12	30	65	.1								7
	2975	25	35	125	.5								8
	3000	10	60	235	.3								9
	3025	R	4	40	16	.1							10
	3050		4	14	85	.1							11
	3075		10	17	75	.1							12
	3100	R	5	17	32	.1							13
	3125		8	60	1700	.1							14
	3150		4	38	465	.1							15
	3175		4	45	200	.1							16
	3200		3	37	60	.4							17
	3225		15	53	230	.3							18
5625N	3250E		15	40	186	.3							19
													20
5775N	2800E		13	5	45	.1							21
	2825		22	21	240	.1							22
	2850		20	25	1410	.6							23
	2875		13	51	285	.2							24
	2900		15	50	60	.1							25
	2925		16	39	54	.4							26
	2950		6	40	15	.3							27
	2975		15	60	405	.3							28
	3000		18	60	10000	.2							29
	3025		10	12	865	.3							30
	3050		16	79	925	.1							31
	3075		10	485	10000	.1							32
	3100		8	105	1900	.1							33
	3125		10	45	605	.4							34
	3150		13	95	585	.2							35
	3175		5	43	50	.2							36
	3200		12	20	280	.1							37
5775N	3225E		10	43	380	.1							38
													39
													40

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED Aug. 22, 1981

DATE REPORTS MAILED Sept. 2, 1981

ASSAYER

*D. Toye*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



To: Asarco Exploration Co. of Canada Ltd. 852 E. Hastings St., Vancouver, B. C. V6A 1R6

phone:253 - 3158

File No. 81-1146

Type of Samples

Disposition

GEOCHEMICAL ASSAY CERTIFICATE

2

Table with columns: SAMPLE No., Cu, Pb, Zn, Ag, and numbered rows 1-34. Data includes sample IDs like 5775N, 5925N and values for Cu, Pb, Zn, Ag.

All results are in PPM.

DIGESTION:.....

DETERMINATION:.....

DATE REPORTS MAILED Sept. 2, 1981

ASSAYER

DEAN TOYE, B.Sc. CHIEF CHEMIST CERTIFIED B.C. ASSAYER



To: Asarco Exploration Co. of Canada Ltd.

7 E. Hastings St., Vancouver, B. C. V6A 1R6

phone: 253 - 3158

File No. 81-1146

Type of Samples

Disposition

GEOCHEMICAL ASSAY CERTIFICATE

3	SAMPLE No.	Cu	Pb	Zn	Ag							
---	------------	----	----	----	----	--	--	--	--	--	--	--

6000N	3325E	6	20	18	.2							7
	3350	14	55	52	.3							8
	3375	10	37	33	.3							9
	3400	7	44	40	.4							10
	3425	9	20	19	.1							11
	3450	9	28	28	.1							12
	3475	10	20	20	.2							13
6000N	3500E	12	44	40	.2							14
												15
6075N	2900E	15	38	36	.4							16
	2925	7	11	10	.2							17
	2950	55	18	19	.5							18
	2975	20	25	25	.4							19
	3000	9	65	65	.1							20
	3025	11	200	190	.1							21
	3050	29	275	275	.2							22
	3075	4	20	18	.1							23
	3100	8	215	210	.1							24
	3125	12	105	100	.2							25
	3150	14	40	38	.1							26
	3175	10	52	52	.1							27
6075N	3200E	3	60	54	.2							28
												29
6075N	3275E	3	18	16	.2							30
	3300	7	22	25	.1							31
	3325	6	20	22	.1							32
	3350	12	25	26	.1							33
	3375	16	30	31	.1							34
	3400	8	18	18	.2							35
	3425	7	22	22	.1							36
	3450	9	25	24	.1							37
	3475	8	23	22	.1							38
6075N	3500E	4	20	23	.1							39
												40

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED Aug. 22, 1981

DATE REPORTS MAILED Sept. 2, 1981

ASSAYER *D. Toy*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER





To: Asarco Exploration Co. of Canada Ltd.,

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B. C. V6A 1R6

phone: 253 - 3158

File No. 81-1146

Type of Samples

Disposition

### GEOCHEMICAL ASSAY CERTIFICATE

4

SAMPLE No.		Cu	Pb	Zn	Ag								
------------	--	----	----	----	----	--	--	--	--	--	--	--	--

6150N	3325E	5	21	158	.1								
	3350	6	20	135	.1								
	3375	5	20	126	.2								
	3400	10	28	198	.1								
	3425	5	26	156	.1								
	3450	12	40	195	.1								
	3475	10	24	178	.1								
6150N	3500E	10	36	215	.1								
6225N	2800E	8	22	85	.3								
	2825	22	24	230	.1								
	2850	10	16	48	.1								
	2875	6	28	158	.1								
	2900	5	18	70	.1								
	2925	6	20	86	.2								
	2950	10	26	124	.4								
	2975	15	30	168	.3								
	3000	10	26	285	.1								
	3025	23	25	215	.1								
	3050	6	19	216	.1								
	3075	4	14	42	.1								
	3100	4	20	80	.1								
6225N	3125	8	20	165	.1								
	3150E	8	26	200	.1								

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED Aug. 22, 1981

DATE REPORTS MAILED Sept. 2, 1981

ASSAYER

*D. Toye*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER

To: Asarco Exploration Co. of Canada Ltd.,

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B. C. V6A 1R6

phone: 253 - 3158

File No. 81-1146

Type of Samples

Disposition

**GEOCHEMICAL ASSAY CERTIFICATE**

5

SAMPLE No.		Cu	Pb	Zn	Ag							
6225N	3175E	10	23	600	.1							1
	3200	12	28	210	.1							2
	3225	22	45	205	.2							3
	3250	22	45	220	.1							4
	3275	8	154	730	.1							5
	3300	11	54	385	.1							6
	3325	14	30	380	.1							7
	3350	12	38	195	.1							8
	3375	40	85	550	.2							9
	3400	10	30	230	.1							10
	3425	5	28	185	.1							11
	3450	9	23	100	.1							12
	3475	8	38	340	.1							13
6225N	3500E	8	40	305	.1							14
												15
6700N	2550E	5	66	55	.1							16
	2575	16	83	120	.4							17
	2600	95	12	630	.6							18
	2625	33	52	130	.1							19
	2650	9	14	45	.1							20
	2675	5	13	315	.1							21
	2700	37	8	3200	.1							22
	2725	140	10	530	.8							23
	2750	125	22	215	1.5							24
6700N	2775E	15	15	60	.4							25
												26
6750N	3325E	7	150	335	.1							27
	3350	1	80	335	.1							28
	3375	9	90	500	.1							29
	3400	7	110	310	.2							30
	3425	6	80	350	.1							31
	3450	7	45	375	.1							32
	3475	5	13	75	.1							33
	3500	12	40	210	.2							34
	3525	9	28	165	.1							35
	3550	10	12	50	.1							36
	3575	7	10	40	.1							37
6750N	3600E	3	55	24	.1							38
												39
												40

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DETERMINATION:.....

DATE SAMPLES RECEIVED Aug. 22, 1981

DATE REPORTS MAILED Sept. 2, 1981

ASSAYER

*D. Toye*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER

To: Asarco Exploration Co. of Canada Ltd.,

Assaying & Trace Analysis  
852 E. Hastings St., Vancouver, B.C. V6A 1R6  
phone: 253 - 3158



File No. 81-1146

Type of Samples

Disposition

**GEOCHEMICAL ASSAY CERTIFICATE**

6

SAMPLE No.		Cu	Pb	Zn	Ag								
6750N	3625E	13	39	72	.1								1
	3650	10	40	95	.1								2
	3675	8	25	50	.1								3
	3700	9	30	63	.1								4
	3725	9	30	75	.1								5
	3750	9	39	100	.1								6
	3775	13	36	75	.1								7
6750N	3800E	9	36	80	.1								8
													9
6800N	2550E	9	16	225	.1								10
	2575	36	20	440	1.1								11
	2600	12	19	435	.8								12
	2625	8	9	190	.9								13
	2650	8	11	110	.1								14
	2675	8	28	1250	1.0								15
	2700	28	14	270	.6								16
	2725	190	29	890	4.6								17
	2750	7	12	90	.2								18
6800N	2775E	11	11	80	.2								19
													20
7300N	3150E	35	15	650	.8								21
	3175	80	35	980	.4								22
	3200	125	62	685	.5								23
	3225	18	45	835	.1								24
7300N	3250E	15	460	3400	.1								25
													26
7350N	3025E(B)	9	23	220	.1								27
													28
7400N	3150E	6	40	260	.1								29
	3175	8	44	725	.1								30
	3200	5	505	1200	.1								31
	3225	15	36	270	.1								32
7400N	3250E	15	7	27	.1								33
													34
7425N	3000E	12	31	625	.1								35
	3025	20	20	1140	.2								36
7425N	3050E	55	2040	4300	.1								37
													38
													39
													40

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED Aug. 22, 1981

DATE REPORTS MAILED Sept. 2, 1981

ASSAYER

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER

To: Asarco Exploration Co. of Canada Ltd.,

852 E. Hastings St., Vancouver, B. C. V6A 1R6

phone: 253 - 3158

File No. 81-1146

Type of Samples

Disposition

**GEOCHEMICAL ASSAY CERTIFICATE**

7

SAMPLE No.	Cu	Pb	Zn	Ag							
7500N 3325E	20	60	1200	.1							1
3350	14	44	400	.1							2
3375	13	43	385	.1							3
3400	15	40	400	.1							4
3425	15	44	575	.1							5
3450	14	50	395	.1							6
3475	35	160	1700	.1							7
3500	15	55	865	.1							8
3525	15	55	860	.1							9
3550	14	68	430	.1							10
3575	13	65	445	.1							11
3600	9	50	150	.1							12
3625	11	54	240	.1							13
3650	15	58	225	.2							14
3675	14	48	190	.1							15
3700	12	50	205	.1							16
3725	38	110	260	.1							17
3750	13	50	175	.1							18
3775	12	40	168	.2							19
7500N 3800E	13	47	165	.2							20
											21
7575N 3000E	16	50	165	.3							22
3025	17	75	1000	.2							23
3050	33	4000	25000	2.2							24
7575N 3075E	10	1750	22000	1.2							25
											26
7650N 3000E(B)	6	40	385	.1							27
3025E(B)	9	85	1095	.3							28
7650N 3050E(B)	6	60	480	.1							29
											30
7650N 3325E	3	55	35	.1							31
3350	13	55	635	.1							32
3375	16	60	695	.1							33
3400	14	52	320	.2							34
3425	8	39	196	.2							35
3450	13	50	168	.1							36
3475	18	44	150	.1							37
7650N 3500E	17	52	250	.2							38
											39
											40

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED Aug. 22, 1981

DATE REPORTS MAILED Sept. 2, 1981

ASSAYER

*D. Toy*  
DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



To: Asarco Exploration Co. of Canada Ltd.,

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B. C. V6A 1R6

phone: 253 - 3158

File No. 81-1146

Type of Samples

Disposition

GEOCHEMICAL ASSAY CERTIFICATE

8

Table with columns: SAMPLE No., Cu, Pb, Zn, Ag, and numbered rows 1-33. Data includes sample IDs like 7650N, 7725N and various assay values.

38
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40

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DIGESTION:

DETERMINATION:

DATE SAMPLES RECEIVED Aug. 22, 1981

DATE REPORTS MAILED Sept. 2, 1981

ASSAYER [Signature]

DEAN TOYE, B.Sc.
CHIEF CHEMIST
CERTIFIED B.C. ASSAYER



To: Asarco Exploration Co. of Canada Ltd.,

852 E. Hastings St., Vancouver, B. C. V6A 1R6

phone: 253 - 3158

File No. 81-1146

Type of Samples

Disposition

**GEOCHEMICAL ASSAY CERTIFICATE**

SAMPLE No.		Cu	Pb	Zn	Ag							
7875N	2600E	15	35	90	.1							1
	2625	20	25	175	.1							2
	2650	10	11	100	.1							3
	2675	25	17	145	.1							4
	2700	6	8	65	.1							5
	2725	24	16	2500	.1							6
	2750	35	10+20000		.1							7
	2775	33	14	4100	.1							8
	2800	44	7	1500	.1							9
	2825	40	30	400	.4							10
	2850	16	34	980	.1							11
	2875	5	39	1700	.1							12
	2900	20	25	960	.2							13
	2925	11	38	105	.1							14
	2950	23	60	180	.1							15
	2975	16	44	195	.1							16
	3000	15	40	185	.1							17
	3025	11	48	187	.2							18
7875N	3050E	13	40	115	.2							19
												20
8200N	3000E	15	73	686	.1							21
	3025	12	53	545	.1							22
	3050	10	58	385	.1							23
	3075	15	30	170	.1							24
	3100	12	33	220	.1							25
	3125	14	26	220	.2							26
8200N	3150E	12	28	160	.2							27
												28
885N	2600E	20	23	60	.1							29
	2625	26	34	50	.1							30
	2650	25	28	50	.1							31
	2675	20	29	60	.1							32
	2700	22	25	225	.1							33
	2725	15	14	63	.1							34
	2750	20	29	70	.1							35
	2775	19	29	105	.1							36
	2800	19	20	100	.3							37
885N	2825E	18	17	68	.1							38
												39
												40

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED Aug. 22, 1981

DATE REPORTS MAILED Sept. 2, 1981

ASSAYER

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER

To: Asarco Exploration Co. of Canada Ltd., 852 E. Hastings St., Vancouver, B. C. V6A 1R6

phone: 253 - 3158

File No. 81-1146

Type of Samples \_\_\_\_\_

Disposition \_\_\_\_\_

**GEOCHEMICAL ASSAY CERTIFICATE**

10

SAMPLE No.		Cu	Pb	Zn	Ag						
885N	2850E	15	24	70	.1						1
	2875	14	19	73	.1						2
	2900	R 17	26	83	.1						3
	2925	R 16	25	50	.1						4
	2950	22	30	110	.4						5
	2975	18	35	125	.2						6
	3000	23	30	80	.1						7
	3025	15	26	70	.1						8
	3050	18	28	90	.1						9
	3075	13	27	230	.2						10
	3100	20	22	70	.2						11
	3125	25	25	115	.1						12
	3150	15	22	105	.1						13
	3175	22	30	80	.1						14
	3200	26	34	80	.1						15
	3225	18	30	160	.1						16
	3250	R 19	18	365	.1						17
	3275	18	26	85	.1						18
885N	3300E	13	15	80	.2						19
											20
870N	3000E	10	14	95	.1						21
	3025	8	9	53	.1						22
	3050	13	13	75	.1						23
	3075	8	115	350	.1						24
	3125	18	22	115	.1						25
	3225	10	22	60	.1						26
	3275	12	29	70	.2						27
	3425	5	24	80	.2						28
	3450	4	15	80	.1						29
	3475	6	9	45	.1						30
	3500	6	8	60	.1						31
870N	3625E	20	32	95	.1						32
											33
											34
											35
											36
											37
											38
											39
											40

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED Aug. 22, 1981

DATE REPORTS MAILED Sept. 2, 1981

ASSAYER Dean Toy

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



To: Asarco Exploration Co. of Canada Ltd.,  
504 - 535 Thurlow St.,  
Vancouver, B.C.  
V6E 3L2

ing & Trace Analysis  
852 E. Hastings St., Vancouver, B. C. V6A 1R6  
phone: 253 - 3158

File No. 81-1048

Type of Samples Rock chips

Disposition Soil

*Chodi*

**GEOCHEMICAL ASSAY CERTIFICATE**

SAMPLE No.		Cu	Pb	Zn	Ag									
L5700N 1800 E		10	20	230	.5									1
1825		5	12	110	.4									2
1850		26	8	255	.6									3
1875		9	13	100	.5									4
1900		13	9	112	.1									5
1925	R	22	14	318	.5									6
1950	R	54	13	415	.6									7
1975	R	52	12	375	.3									8
2000		7	16	556	.7									9
2025	R	35	14	215	.3									10
2050	R	18	22	120	.6									11
2075	R	39	11	120	.4									12
2100		25	26	420	.4									13
2125		7	12	48	.3									14
2150		22	12	135	.6									15
2175		20	10	74	.1									16
2200		26	17	180	.4									17
2225		48	16	325	1.0									18
2250		64	16	245	1.5									19
L5700N 2275 E		11	17	144	.1									20
														21
L6000N 1800 E		14	36	88	.1									22
1825		12	22	105	.2									23
1850		14	19	94	.1									24
1875		40	25	265	.3									25
1900		30	14	260	.2									26
1925		6	12	315	.1									27
1950		14	27	1000	.7									28
1975		44	28	375	.4									29
2000		40	39	660	1.3									30
2025		12	19	280	.4									31
2050		8	18	470	.3									32
2075		22	24	820	.2									33
2100		5	15	216	.5									34
2125		8	18	370	.3									35
2150		34	19	240	.2									36
L6000N 2175 E		82	18	690	.3									37
														38
														39
														40

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DIGESTION:.....  
DETERMINATION:.....

DATE SAMPLES RECEIVED Aug. 12, 1981  
DATE REPORTS MAILED Aug. 21, 1981  
ASSAYER *Dean Toy*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER





To: Asarco Exploration Co. of Canada Ltd., 852 E. Hastings St., Vancouver, B. C. V6A 1R6

phone: 253 - 3158

File No. 81-1048

Type of Samples Soil

Disposition

GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE No.	Cu	Pb	Zn	Ag							
L7500N 1800 E	11	18	184	.3							1
1825	12	21	166	.2							2
1850	8	22	240	.1							3
1875	11	15	260	.1							4
1900	4	12	230	.1							5
1925	16	19	860	.1							6
1950	5	7	320	.1							7
1975	20	23	780	.6							8
2000	56	32	500	1.2							9
2025	66	35	1140	2.2							10
2050	10	20	630	.2							11
2075	2	5	75	.2							12
2100	186	17	9600	2.6							13
2125	20	16	280	.3							14
2150	9	18	138	.1							15
2175	4	9	58	.1							16
2200	2	13	50	.2							17
2225	16	24	107	.5							18
2250	12	20	121	.3							19
L7500N 2275 E	6	20	104	.1							20
											21
L7800N 1800 E	14	21	103	.1							22
1825	7	13	62	.1							23
1850	6	6	122	.1							24
1875	10	12	75	.1							25
1900	10	20	410	.1							26
1925	5	18	116	.1							27
1950	3	5	56	.1							28
1975	14	17	445	.1							29
2000	17	16	1500	.1							30
2025	8	14	60	.1							31
2050	38	10	2700	.1							32
2075	158	11	3100	.6							33
2100	60	38	7300	.3							34
2125	205	15	4600	.5							35
2150	1300	25	7400	1.5							36
2175	14	9	300	.1							37
2200	15	11	265	.3							38
L7800N 2225 E	10	21	360	.4							39
											40

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DETERMINATION:.....

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phone: 253 - 3158

File No. 81-1048

Type of Samples Soil

Disposition

GEOCHEMICAL ASSAY CERTIFICATE

3

SAMPLE No.	Cu	Pb	Zn	Ag									
L7800N 2250 E	4	2	79	.4									1
L7800N 2275 E	14	12	170	.1									2
													3
6000N 2200 E	9	9	155	.5									4
2225	9	10	156	.1									5
2250	7	18	270	.5									6
6000N 2275 E	45	38	390	1.2									7
													8
													9
													10
													11
													12
													13
													14
													15
													16
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													32
													33
													34
													35
													36
													37
													38
													39
													40

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED Aug. 12, 1981

DATE REPORTS MAILED Aug. 21, 1981

ASSAYER

*Dean Toye*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER

APPENDIX 4

OCTOBER 29, 1980

British Columbia  
Rocky Mountain Belt  
C. Graf Reconnaissance  
Stratabound Pb, Zn, Cu Deposits

This memorandum deals with the search for shale-hosted lead-zinc and red bed copper deposits conducted by C. Graf under an agreement with Asarco. The project consisted of prospecting and reconnaissance stream sediment geochemical sampling of a specific area of approximately 2500 km<sup>2</sup> using a Bell G-47 piston driven helicopter during the period July 8th - 26th, 1980.

The results of this program are outlined in Mr. Grafts' report dated August 25, 1980, see Attachment "L". The highlight of this search is the discovery of the Chodi zinc prospect (see Attachment "A") resulting in the staking of an area now totalling 12 claims, comprised of 182 units\*, or a total area of 4550 hectares, or 45.5 square kilometers, see Attachment "B". In September Asarco personnel conducted a limited follow-up soil reconnaissance program and sampled accessible mineralized outcrop. Encouraging response from this soil sampling prompted additional staking.

Preliminary inspection of the prospect area indicates significant zinc sulfide mineralization occurring within the top portion of a thick section (greater than 300 meters) of massive, bedded dolomite overlain by a thin bedded sequence of shale, argillite and metasedimentary rocks. (See Attachment "C"). The zinc sulfide mineralization, although yet to be demonstrated as continuous, appears to occur in irregularly shaped zones within a recrystallized dolomite.

\* 1 unit = 500 meters by 500 meters

Mineralized surface exposures appear limited to cliff faces along transecting streams - see Attachment "D" for positioning of the "Gut", "Falls", "Rock" and "Goat" showings. Intervening ground between these showings is soil covered. The discovery showings (Gut and Falls) were initially sighted as a color anomaly by C. Graf. This principal mineralized area outcrops intermittently over a distance of 300 meters - see Attachments "F" and "G" for location of sample results. In this area sphalerite is hosted in bedded and brecciated sections of dolomite positioned within the top 70 meters of the dolomite unit. At the "Gut" sphalerite occurs in two separate mineralized bands that appear conformable to bedding. The principal band outcrops in a near vertical cliff and is 2 - 3 meters in width. A narrower band occurs approximately 2 meters up section but could not be sampled as its exposure is limited to an overhanging cliff-face. Within these bands pyrite and sphalerite occur as infillings and appear to form the matrix of a brecciated dolomite. From the "Gut" the mineralized trend extends northwesterly and is exposed in outcrop at the "Falls" showing. The intervening area is covered with iron-stained soil.

Iron stained outcrop at the "Rock" and "Goat" showings were not sampled as it was not possible to traverse these canyon areas. However, some sampling was attempted at the "Rock" at the base of a cliff positioned beneath iron staining. Geochemical results from unmineralized outcrop yielded unspectacular results, see samples #91326 - 32 and 9141 - 45, Attachment "J".

Reconnaissance soil lines were completed between and astride the showings - see Attachment "E" for positioning and numbering

of soil samples. Sample spacing along lines was 50 meters. Analytical results for soil samples and rock chip samples are listed in Attachment "J". Results from soil samples are plotted on cumulative-frequency probability paper. (See Attachment "K") Indications suggest that geochemical response for copper, lead, zinc and silver in excess of,

	<u>p.p.m.</u>
copper	100
lead	50
zinc	5000
silver	.5

may reflect the presence of base metal sulfide. Soil cover over most of the area appears to be thin (less than 5 meters); however at the Red Showing soil cover is extremely thin (less than 0.5 meters) and geochemical results (See Attachment "I") directly reflect the presence of zinc in underlying dolomites. Outcrop throughout the claim block is in the order of 5 - 10%. Fortuitously three major drainages that are deeply entrenched transgress the area. Exposure of the dolomite-argillite contact within these rivers is excellent; however, exposure is limited to near vertical cliff faces at the Gut, Rock, and Goat Showings thus making systematic sampling hazardous.

The results of this preliminary follow-up suggest additional work is definitely warranted on the claim block to further define the extent and limits of zinc and possible lead mineralization. At this stage detailed geochemical grid-soil sampling, say, along lines at 25 meter intervals with line spacing of 100 meters is justified and should be carried out during the 1981 field season.

In addition geological mapping of outcrop exposed in the Chodi Claim Group is prerequisite to consideration for drilling. An appropriation request will be prepared to cover these recommendations.



ATTACHMENTS

Location Map	"	"A"
Claim Map	"	"B"
Geology Map	"	"C"
Location of Showings	"	"D"
Location Reconnaissance Soil Lines	"	"E"
Gut Showing Sampling	"	"F"
Gut and Falls Sampling	"	"G"
Goat Soil Sampling	"	"H"
Red Soil Sampling	"	"I"
List of Analytical Results	"	"J"
Geochemistry Graphs	"	"K"

PACIFIC

OCEAN

BRITISH COLUMBIA

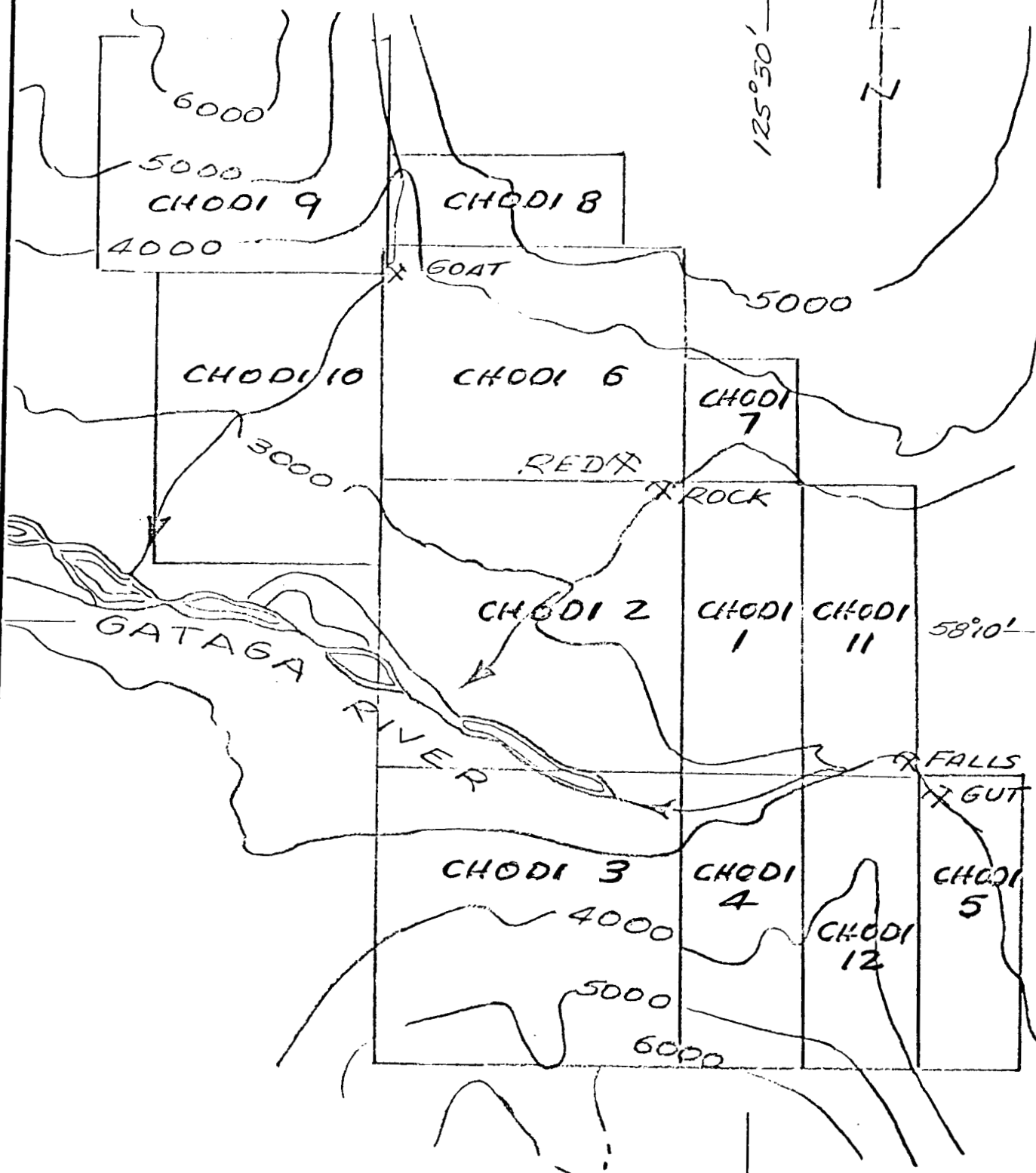
Scale 1:7,500,000 m

PROPERTY



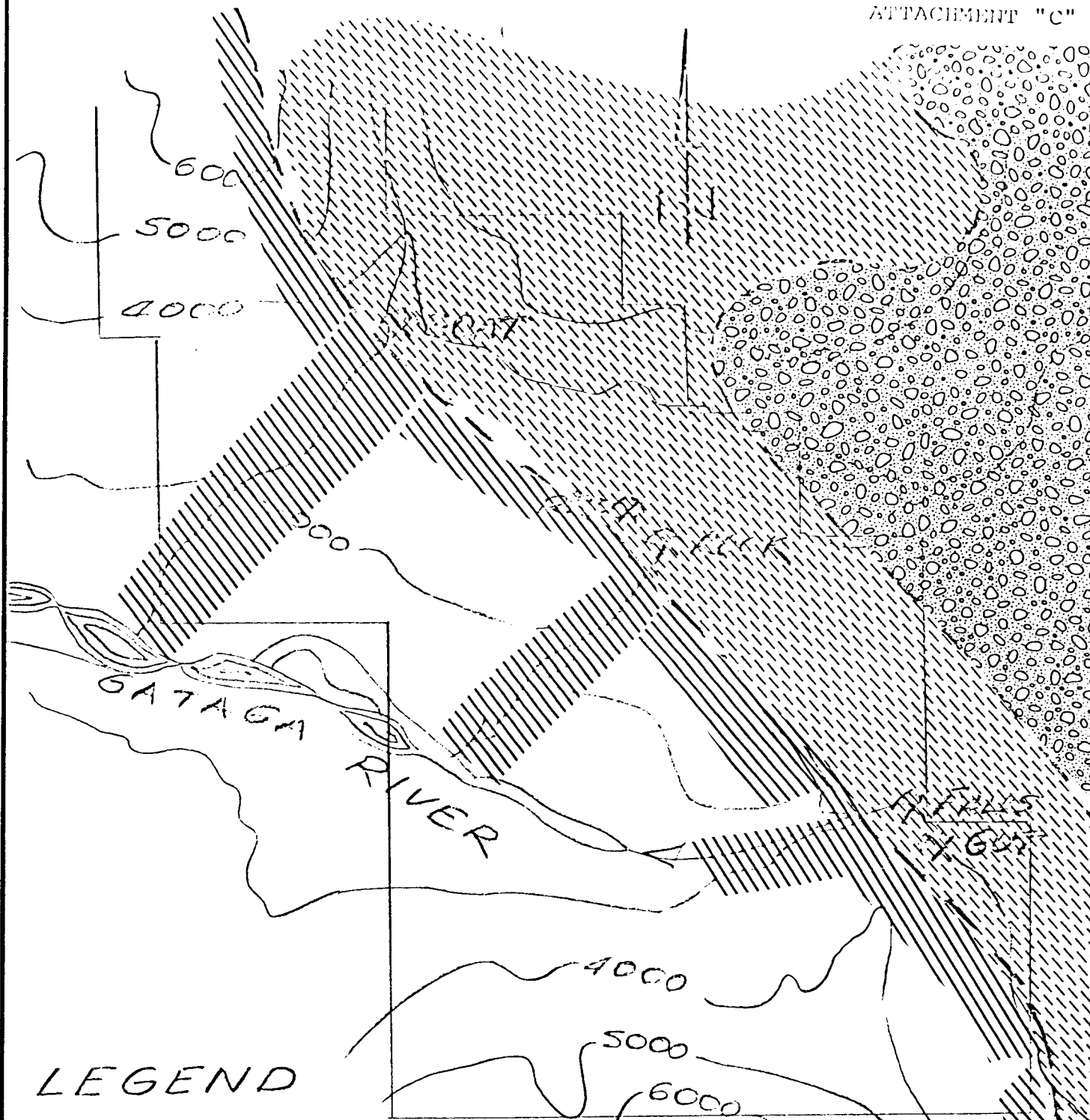
<b>ASARCO</b>		Vancouver	
<i>LOCATION MAP</i>			
<i>CHODI PROSPECT</i>			
Drawn by	Date	N.T.S.	
DMF	OCT '80	94K	









CONTOUR INTERVAL  
1000 FEET

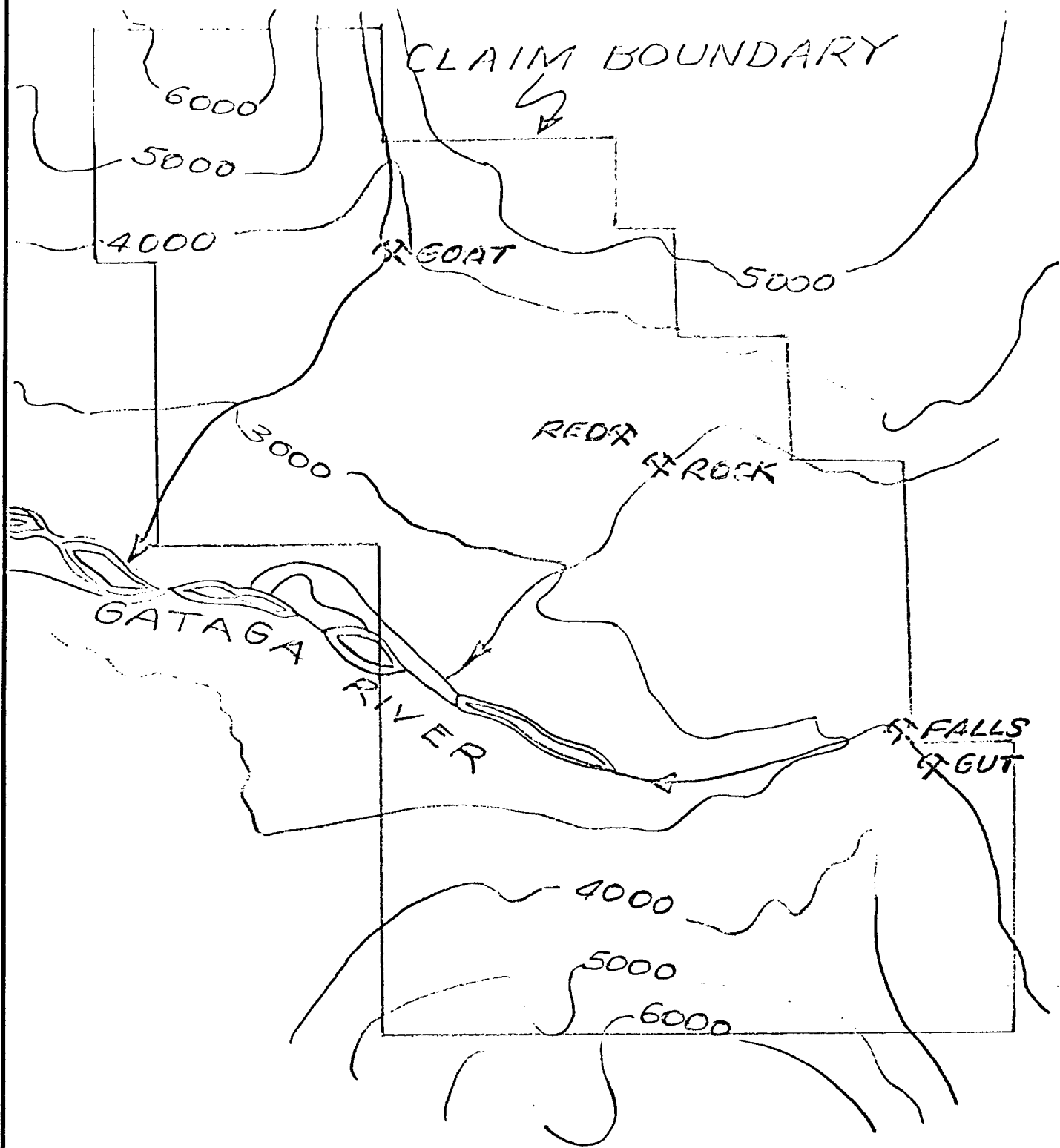
<b>ASARCO</b>		Vancouver	
<b>CHODI CLAIMS</b> SCALE 1:50,000			
Drawn by	Date	N.T.S.	
D.M.F.	Oct '80	94 K	



LEGEND

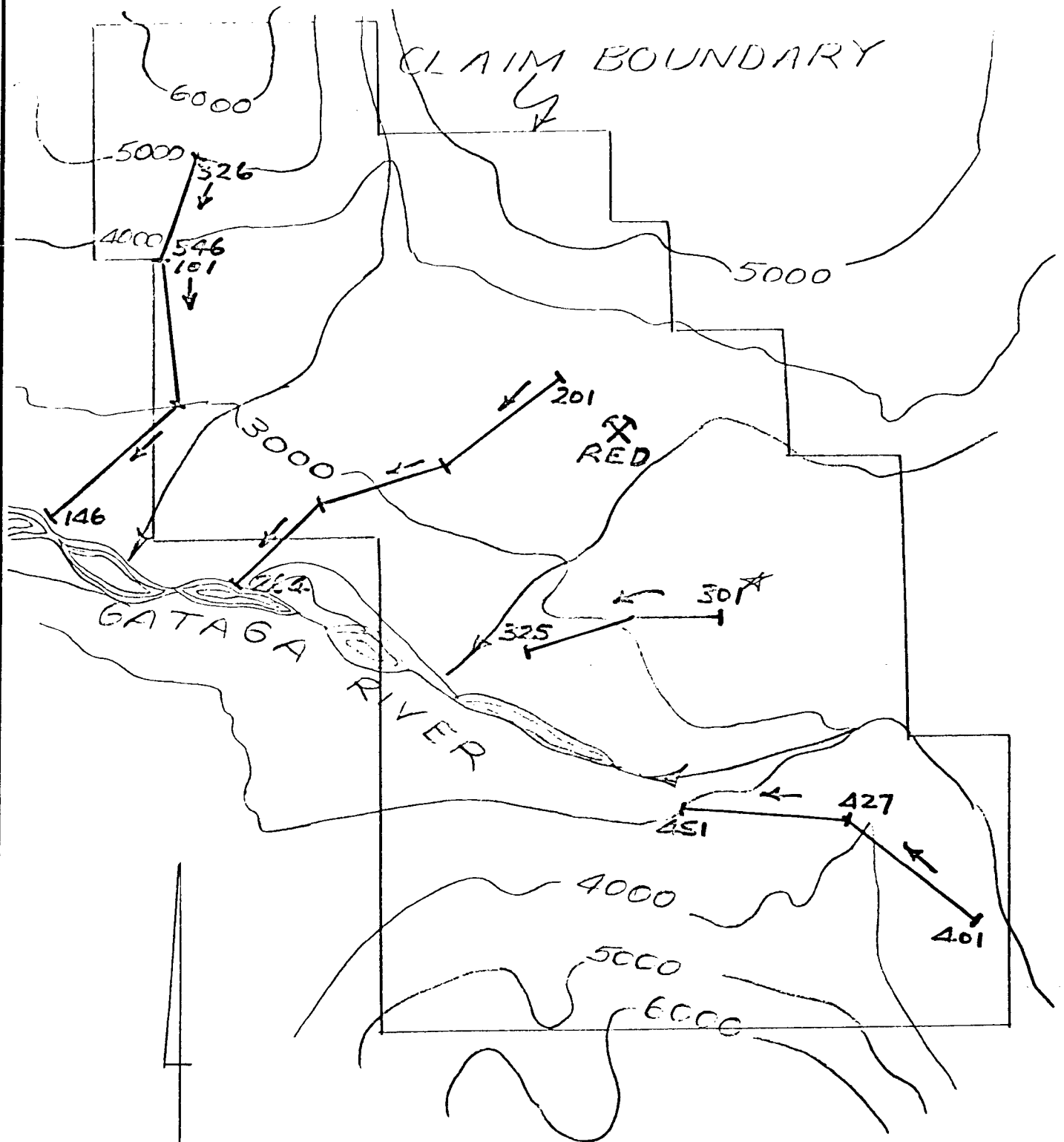
-  16 to mO pyritic, rusty, black argillite and meta-sediments (>1000M φ)
-  16 Aton Group limestone & dolomite (>300M φ)
-  diamicrite unit (>400M φ)
-  zinc occurrences & geochemical anomalies

<b>ASARCO</b>		Vancouver	
<b>CHODI PROSPECT</b> <b>GEOLOGY MAP</b> (after C. Graf)			
Drawn by	Date	N.T.S.	SCALE
DMF	OCT 80	94K	1:50,000



CONTOUR INTERVAL  
1000 FEET

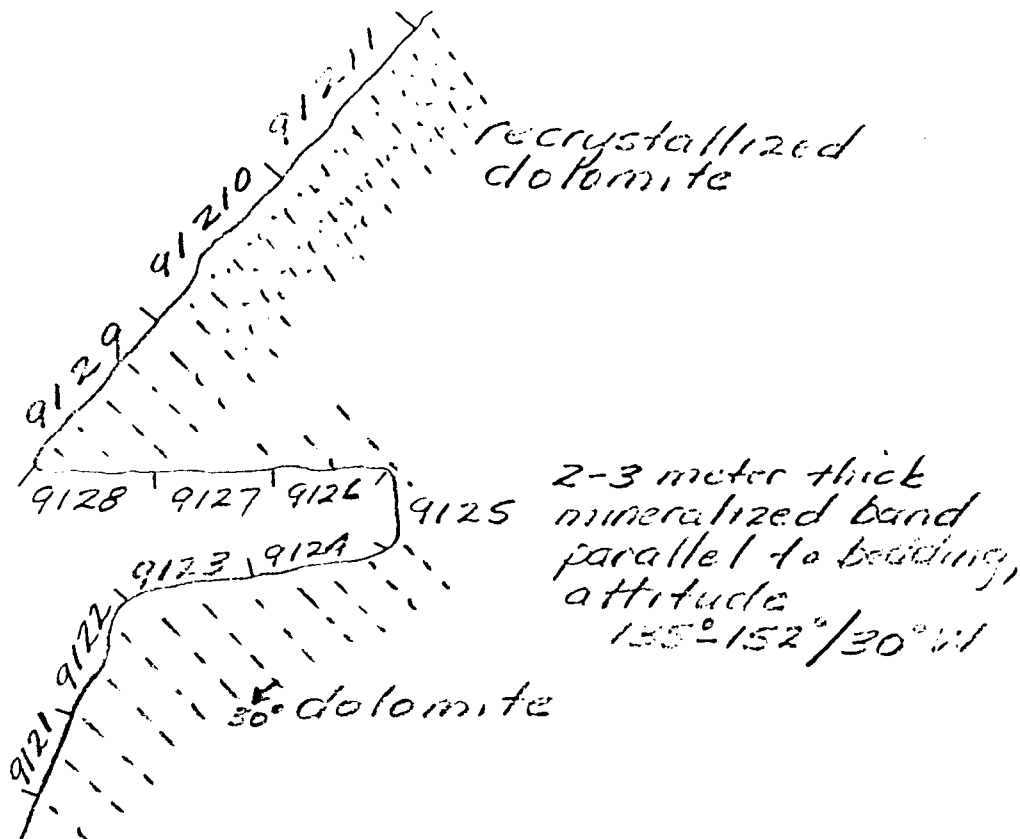
<b>ASARCO</b>		Vancouver	
<b>CHODI PROSPECT</b> LOCATION OF SHOWINGS SCALE 1:50,000			
Drawn by	Date	N.T.S.	
DMF	OCT '60		



★ SAMPLE NUMBER, → DIRECTION OF LINE

CONTOUR INTERVAL 1000 FEET

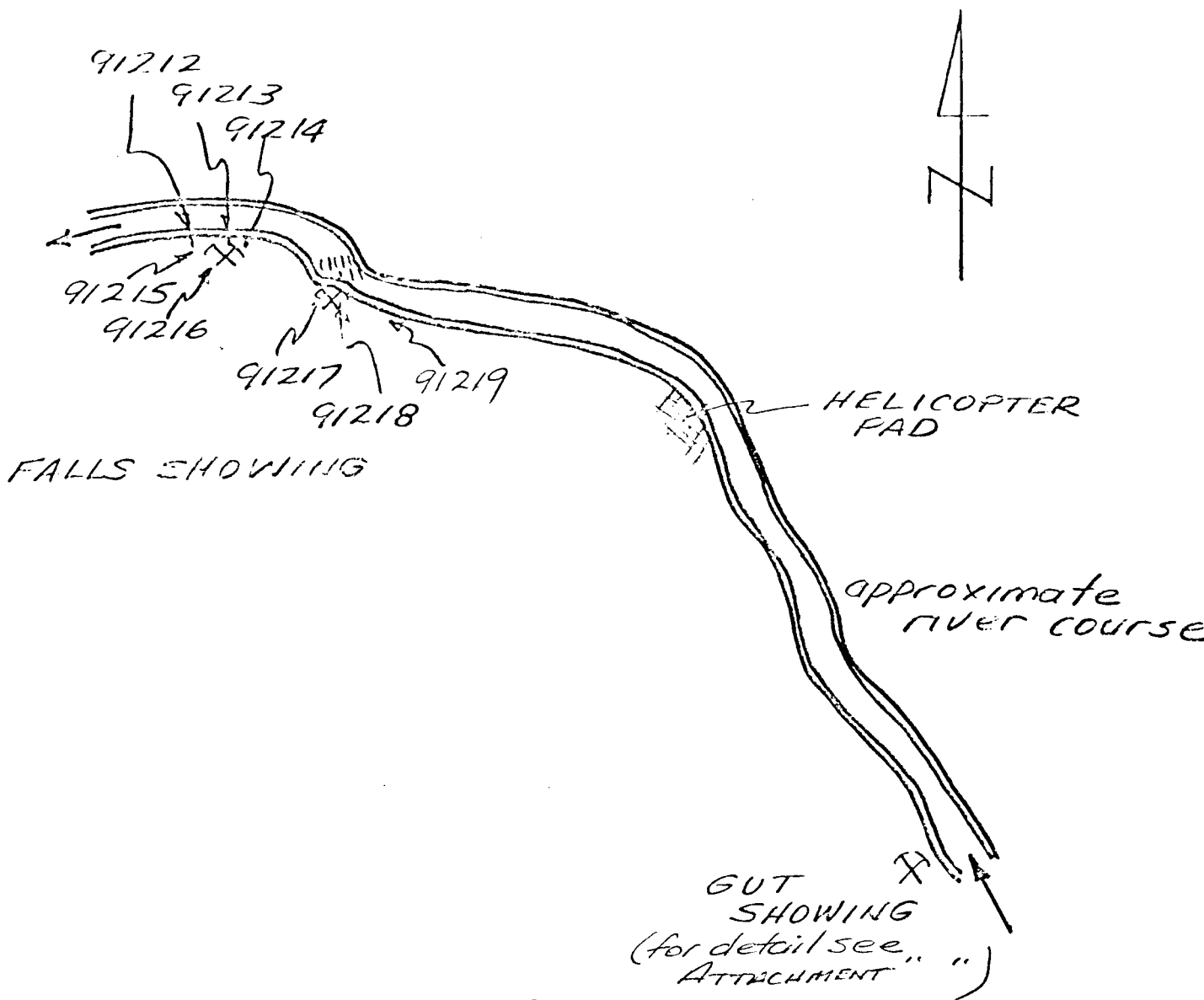
<b>ASARCO</b>		Vancouver		
CHODI PROSPECT				
LOCATION OF REGIONAL SCALE SOIL GEOCHEMICAL LINES				
Drawn by	Date	N.T.S.	SCALE	
D.M.F. Q.T. '80	94K	1:50,000		



SAMPLE #	WIDTH MTS.	%		Zn	oz/t Ag
		Cu	Pb		
9121	2.2	.01	.01	.57	.07
9122	3.3	.01	.01	.48	.03
9123	3.3	.01	.01	.65	.01
9124	3.2	.01	.01	.12	.01
9125	2.0	.01	.01	3.10	.01
9126	3.0	.01	.02	6.25	.01
9127	3.0	.01	.01	3.58	.01
9128	3.2	.01	.01	.58	.01
9129	5.0	.01	.01	.59	.01
91210	5.0	.01	.01	.12	.01
91211	5.0	.01	.01	.04	.01

\* SAMPLING METHOD, CHARACTER CHIP, TAKEN HORIZONTAL

<b>ASARCO</b>		Vancouver	
CHODI PROPERTY GUT SHOWING			
Drawn by	Date	N.T.S.	SCALE
DMF	OCT '80	94K	1:200



FALLS SHOWING

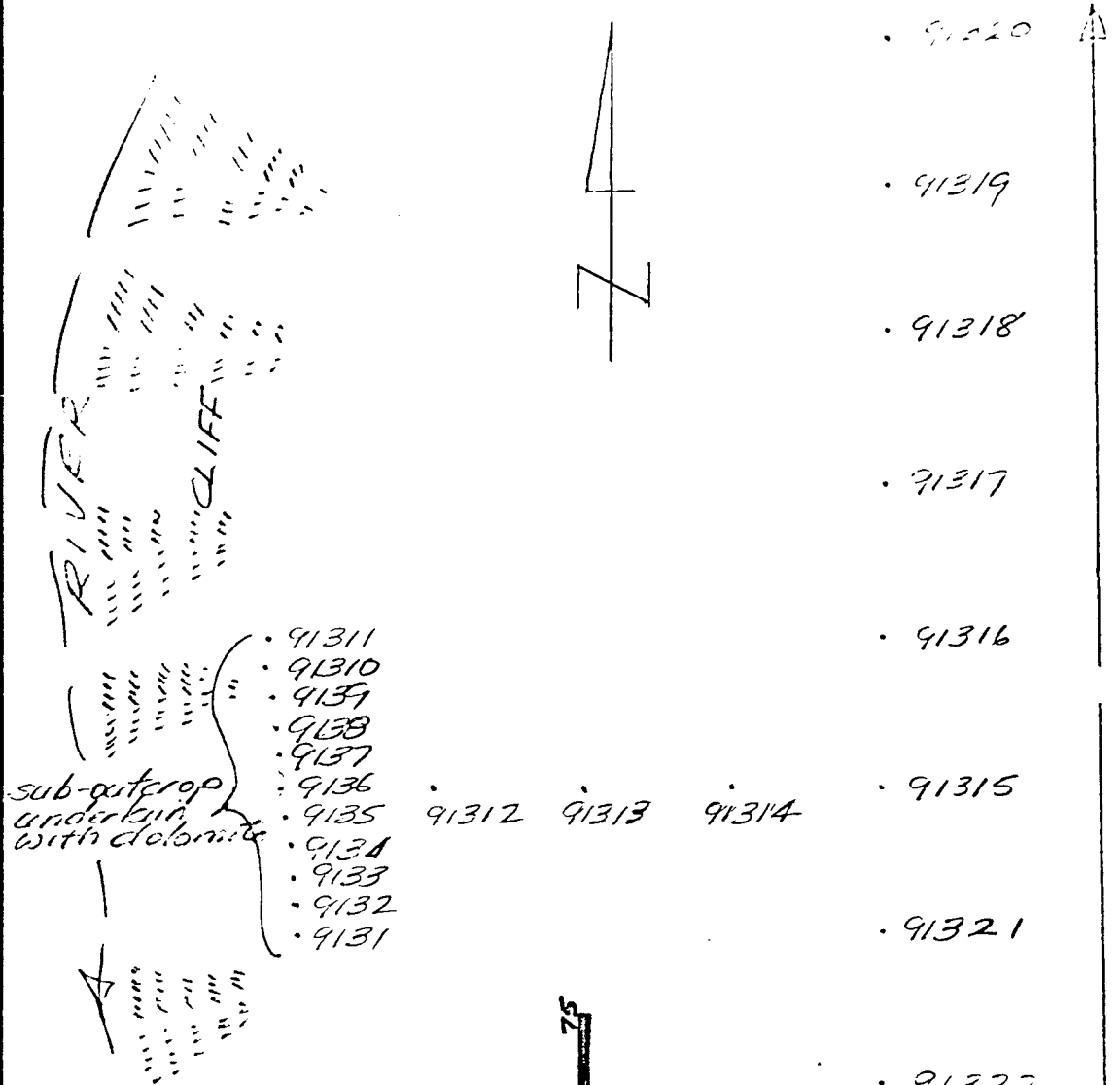
approximate river course

GUT SHOWING  
(for detail see " " ATTACHMENT " ")

SAMPLE #	WIDTH MFS	Cu	Pb	Zn	Ag
91219	2.0	.01	.01	.49	.01
91212	5.0	.01	.02	.03	.01
91213	1.0	.01	.01	.02	.01
91214	5.0	.01	.02	.01	.01
91215	4.5	.01	.02	.01	.01
91216	4.5	.01	.02	.01	.01
91217	3.5	.01	.03	.96	.01
91218	5.5	.01	.01	.02	.01

\* SAMPLING METHOD, CHARACTER CHIP, TAKEN HORIZONTAL.

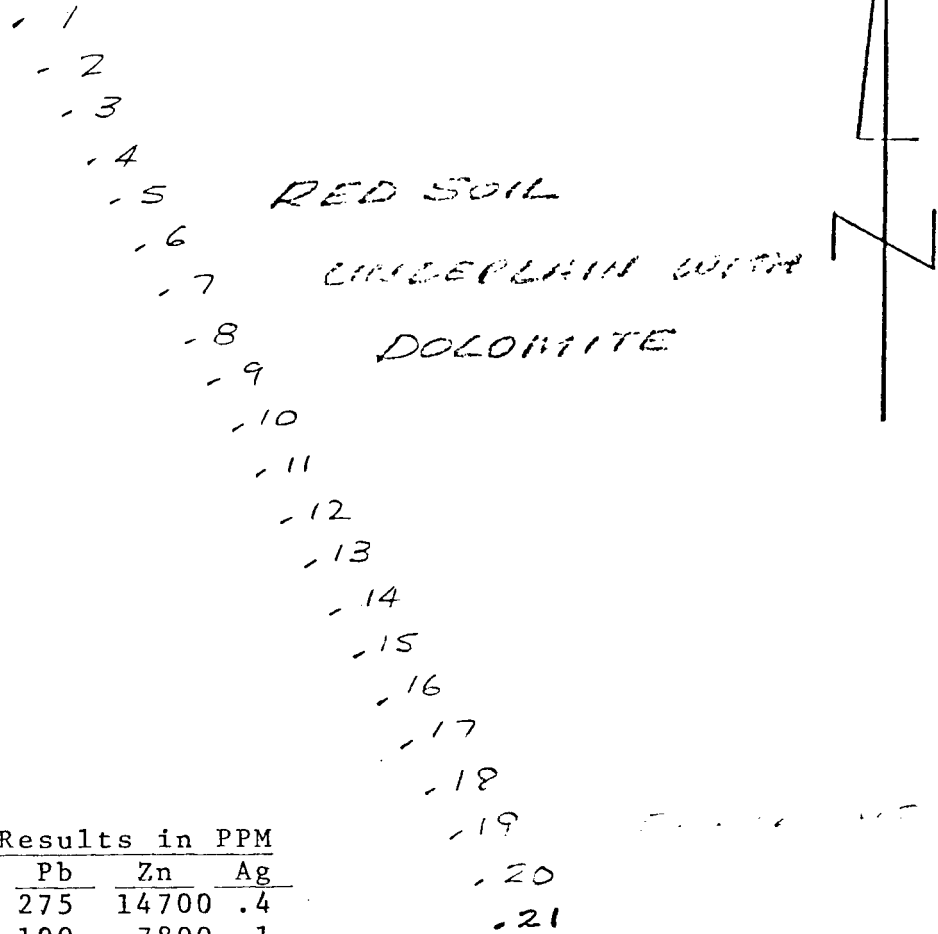
<b>ASARCO</b>		Vancouver	
<b>CHODI PROPERTY</b>			
SKETCH SHOWING POSITION OF GUT & FALLS SHOWINGS			
Drawn by	Date	N.T.S.	SCALE
DMF	OCT '80	94K	1:2500



Sample No.	Cu	Results in PPM		
		Pb	Zn	Ag
91311	7	485	3750	.2
91312	7	700	4350	.2
91312A	30	295	7100	.4
91313	8	520	4500	.3
91313A	8	175	8750	.1
91314	9	750	4800	.2
91314A	5	1350	1800	.1
91315	6	150	400	.1
91315A	7	350	2000	.1
91316	9	150	2700	.1
91316A	6	60	435	.1
91317	12	160	2100	.1
91317A	7	60	360	.1
91318	7	230	3000	.1
91318A	4	58	280	.1
91319	4	300	2200	.1
91319A	3	58	590	.1
91310	8	375	2100	.1
91310A	5	520	1300	.4
91311	7	250	1750	.1
91311A	8	1800	3200	.3
91312	11	325	1250	.1
91313	12	54	365	.1
91314	18	115	330	.1
91315	10	44	240	.1
91316	8	30	170	.1
91317	11	40	200	.1
91318	12	55	185	.3
91319	14	44	200	.1
91320	12	42	185	.1
91321	16	50	675	.1
91322	9	28	225	.1
91323	13	37	205	.1
91324	15	105	575	.1
91325	16	60	255	.1

"A" denotes deeper soil approaching C-horizon equivalent.

<b>ASARCO</b>		Vancouver		
CHODI PROPERTY GOAT SHOWING SOIL GEOCHEMISTRY				
Drawn by	Date	N.T.S.	SCALE	
DMF	OCT. 8 1994	K	1:1250	



Sample No.	Results in PPM			
	Cu	Pb	Zn	Ag
RED 1	25	275	14700	.4
2	10	190	7800	.1
3	8	110	5250	.1
4	19	140	24000	.2
5	7	80	10200	.1
6	11	105	6000	.1
7	8	190	7000	.1
8	9	135	8100	.1
9	16	90	8500	.1
10	13	115	14400	.2
11	13	125	46000	.2
12	10	135	7600	.2
12A	14	215	8400	.1
13	7	94	7250	.2
13A	11	165	7650	.1
14	8	120	6400	.1
15	7	90	4400	.1
15A	11	250	8600	.2
16	8	115	7600	.2
16A	11	175	9600	.2
17	9	130	6800	.1
18	24	365	19000	.4
19	17	675	19000	.2
20	23	275	60500	.3
21	28	260	58000	.2

<b>ASARGO</b>		Vancouver		
CHODI PROPERTY RED SHOWING SOIL GEOCHEMISTRY				
Drawn by	Date	N.T.S.	SCALE	
DMF	OCT '80	94K	1:750	

"A" denotes surface sample





To: Asarco Exploration Co. of Canada Ltd.  
504 - 535 Thurlow St.,  
Vancouver, B.C.  
V6E 3L2

852 F. Hastings St., Vancouver, B.C. V6A 1R6

phone: 253-3158

File No. 80-1099

Type of Samples Soils

Disposition \_\_\_\_\_

### GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE No.	Cu	Pb	Zn	Ag	Ba					
101	12	28	120	.1	220					1
102	17	32	126	.1	150					2
103	11	34	185	.1	130					3
104	28	14	16	.2	1265					4
105	16	29	146	.1	210					5
106	49	20	52	.2	1220					6
107	N.S.									7
108	10	20	137	.1	120					8
109	21	26	110	.1	120					9
110	14	22	120	.1	125					10
111	13	24	275	.2	140					11
112	6	16	58	.1	75					12
113	18	25	200	.1	140					13
114	7	17	110	.1	95					14
115	20	26	510	.1	190					15
116	18	32	135	.2	150					16
117	17	30	350	.2	145					17
118	7	17	215	.2	140					18
119	27	24	1180	.4	500					19
120	9	32	142	.1	300					20
121	9	28	66	.1	285					22
122	5	19	62	.1	75					23
123	9	20	115	.1	110					24
124	23	30	136	.1	760					25
125	6	16	87	.1	100					26
126	4	13	55	.1	45					27
127	7	18	76	.1	60					28
128	11	16	157	.3	100					29
129	23	28	75	.1	75					30
130	16	32	118	.1	65					31
131	10	28	70	.1	100					32
132	6	21	62	.1	40					33
133	33	33	118	.1	40					34
134	10	30	110	.1	90					35
135	10	24	70	.1	60					36
136	30	30	84	.1	120					37
137	18	32	80	.1	70					38
										39
										40

SOIL LINE

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED Sept. 18, 1980

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ASSAYER Dean Toye

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



File No. 80-1099

Type of Samples Soils

Disposition

### GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE No.	Cu	Pb	Zn	Ag	Ba					
138	14	24	88	.1		65				1
139	13	27	83	.1		55				2
140	10	20	58	.1		35				3
141	7	18	59	.1		60				4
142	11	23	100	.1		60				5
143	7	30	68	.1		25				6
144	18	15	30	.1		1015				7
145	16	24	55	.1		100				8
146	10	34	58	.1		180				9
147	12	35	73	.1		200				10
148	13	42	90	.1		130				11
149	17	35	96	.1		135				12
150	20	25	40	.1		330				13
201	11	47	74	.1		190				14
202	15	48	220	.1		265				15
203	11	43	132	.1		230				16
204	11	48	146	.1		200				17
205	15	50	200	.1		195				18
206	11	45	98	.1		200				19
207	11	46	160	.1		140				20
208	12	50	250	.1		180				21
209	10	48	194	.1		140				22
210	13	64	265	.1		185				23
211	11	50	230	.1		225				24
212	12	105	735	.1		130				25
213	17	58	220	.1		125				26
214	9	48	127	.1		245				27
215	12	35	205	.1		110				28
216	9	27	108	.1		50				29
217	13	42	330	.1		55				30
218	9	28	160	.1		60				31
219	9	24	170	.1		50				32
220	9	28	94	.1		10				33
221	14	25	825	.1		90				34
222	13	65	435	.1		255				35
223	11	35	122	.1		100				36
224	6	18	76	.1		75				37
										38
										39
										40

SOIL LINES

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 DIGESTION:.....  
 DETERMINATION:.....

DATE SAMPLES RECEIVED Sept. 18, 1980  
 DATE REPORTS MAILED Sept. 27, 1980  
 ASSAYER Dean Toyé

DEAN TOYE, B.Sc.  
 CHIEF CHEMIST  
 CERTIFIED B.C. ASSAYER



80-1099

File No. \_\_\_\_\_

Type of Samples Soils

### GEOCHEMICAL ASSAY CERTIFICATE

Disposition \_\_\_\_\_

3

SAMPLE No.	Cu	Pb	Zn	Ag	Ba					
225	12	24	60	.1	100					1
226	15	20	45	.1	60					2
227	29	22	770	.1	270					3
228	19	27	114	.1	115					4
229	14	25	105	.1	80					5
230	7	13	40	.1	70					6
231	29	28	430	.1	145					7
232	11	24	98	.1	100					8
233	10	16	60	.1	80					9
234	42	12	400	.4	750					10
235	7	14	62	.1	70					11
236	15	21	145	.1	55					12
237	15	17	68	.1	50					13
238	12	31	75	.1	55					14
239	11	32	155	.1	65					15
240	14	17	140	.1	145					16
241	3	18	78	.1	40					17
242	6	14	76	.1	120					18
243	6	15	73	.1	50					19
244	5	43	41	.1	60					20
245	23	24	73	.2	140					21
246	9	25	80	.1	80					22
247	16	43	92	.1	170					23
248	410	26	540	2.3	230					24
249	36	46	490	.9	150					25
250	350	24	1180	2.6	150					26
251	28	25	740	.5	110					27
252	30	20	400	.3	100					28
253	14	23	200	.2	50					29
254	19	30	185	.1	30					30
255	19	20	148	.1	40					31
256	13	19	142	.2	30					32
257	36	24	975	.1	220					33
258	18	27	340	.2	70					34
259	32	26	360	.3	80					35
260	17	22	120	.1	10					36
261	13	23	370	.7	155					37
										38
										39
										40

SOIL LINES

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED Sept. 18, 1980

DATE REPORTS MAILED Sept. 27, 1980

ASSAYER

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



File No. 80-1009

Type of Samples Soils

GEOCHEMICAL ASSAY CERTIFICATE

Disposition

4

SAMPLE No.		Cu	Pb	Zn	Ag	Ba				
262		11	26	280	.4	120				1
263		6	23	220	1.0	75				2
264		12	32	165	.1	125				3
										4
										5
301		8	34	120	.1	135				6
302	N.S.									7
303		11	25	130	.2	150				8
304		22	24	68	.1	75				9
305		13	18	66	.2	55				10
306		16	58	360	.1	160				11
307		30	45	84	.2	125				12
308		42	40	1200	1.0	270				13
309		6	19	205	.1	55				14
310		21	45	590	.2	140				15
311		24	34	115	.1	165				16
312		36	12	135	.4	1300				17
313	N.S.									18
314		21	27	144	.1	110				19
315		13	22	118	.1	70				20
316		14	29	82	.1	45				21
317		38	41	180	.1	75				22
318		64	30	250	.1	465				23
319		21	37	117	.3	110				24
320		10	20	125	.1	60				25
321		4	18	210	.5	65				26
322		14	20	370	.7	175				27
323		15	25	230	1.5	120				28
324		18	29	295	.9	145				29
325		35	28	710	.6	210				30
326		10	32	215	.1	120				31
										32
327		8	29	275	.1	60				33
328		10	31	180	.1	110				34
329		9	36	240	.1	80				35
330		8	46	240	.1	220				36
331		8	54	320	.1	180				37
332		12	46	460	.1	360				38
333		8	48	250	.1	130				39
										40

SOIL LINES

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 DIGESTION:.....  
 DETERMINATION:.....

DATE SAMPLES RECEIVED Sept. 18, 1980  
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 ASSAYER Dean Toy

DEAN TOYE, B.Sc.  
 CHIEF CHEMIST  
 CERTIFIED B.C. ASSAYER



File No. 80-1099

Type of Samples Soils

GEOCHEMICAL ASSAY CERTIFICATE

Disposition

SAMPLE No.	Cu	Pb	Zn	Ag	Ba					
334	9	56	385	.1	35					1
335	8	45	445	.1	40					2
336	14	70	455	.1	130					3
337	20	45	225	.1	270					4
338	22	28	62	.1	135					5
339	12	120	455	.1	100					6
340	16	115	1650	.1	110					7
341	12	58	480	.1	80					8
342	9	30	255	.1	80					9
343	12	50	560	.1	80					10
344	14	100	295	.1	145					11
345	20	78	665	.1	110					12
346	N.S.									13
401	37	26	90	.1	500					14
402	22	35	80	.1	110					15
403	23	25	122	.1	485					16
404	25	14	84	.1	550					17
405	36	32	125	.4	330					18
406	28	20	142	.2	480					19
407	55	26	280	.4	90					20
408	36	24	220	.5	290					21
409	49	20	114	.5	600					22
410	50	24	182	.7	535					23
411	57	30	300	.4	110					24
412	58	20	110	1.0	310					25
413	50	26	365	.9	190					26
414	85	34	380	1.0	240					27
415	44	35	300	.7	310					28
416	11	18	70	.1	75					29
417	10	11	60	.3	50					30
418	6	14	30	.1	45					31
419	11	16	88	.3	115					32
420	21	17	168	.4	285					33
421	38	30	420	.6	310					34
422	16	44	180	.3	145					35
423	43	34	146	.4	220					36
424	17	25	142	.3	30					37
										38
										39
										40

SOIL LINES

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DIGESTION:.....  
DETERMINATION:.....

DATE SAMPLES RECEIVED Sept. 18, 1980  
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ASSAYER Dean Toye

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



File No. 80-1009

Type of Samples Soils

Disposition

GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE No.	Cu	Pb	Zn	Ag	Ba				
425	20	24	182	.8	240				1
426	9	6	42	.3	180				2
427	17	19	138	.5	140				3
428	30	18	480	.1	180				4
429	86	24	375	.7	560				5
430	36	40	440	.1	160				6
431	22	20	24	.4	610				7
432	15	19	104	.1	150				8
433	102	22	945	.5	455				9
434	14	16	20	.2	310				10
435	26	19	20	.1	220				11
436	39	16	310	.5	260				12
437	16	27	33	.1	220				13
438	39	20	87	.4	420				14
439	93	21	260	1.1	710				15
440	27	20	135	.8	440				16
441	40	6	34	1.0	1020				17
442	38	18	255	.4	220				18
443	36	4	365	.1	810				19
444	50	6	86	1.6	900				20
445	192	20	1500	2.2	560				21
446	182	21	500	2.3	850				22
447	27	22	75	.2	145				23
448	25	27	100	.3	230				24
449	45	25	140	.4	220				25
450	27	24	115	.3	130				26
451	11	30	66	.1	110				27
									28
									29
									30
									31
									32
									33
									34
									35
									36
									37
									38
									39
									40

SOIL LINE

RED 1	25	275	14700	.4	280
2	10	190	7800	.1	200
3	8	110	5250	.1	350
4	19	140	24000	.2	370
RED 5	7	80	10200	.1	290

RED ZONE

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 DIGESTION:.....  
 DETERMINATION:.....

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 ASSAYER D. Toy

DEAN TOYE, B.Sc.  
 CHIEF CHEMIST  
 CERTIFIED B.C. ASSAYER



File No. 80-1099

Type of Samples Soils

Disposition \_\_\_\_\_

### GEOCHEMICAL ASSAY CERTIFICATE

7

SAMPLE No.	Cu	Pb	Zn	Ag	Ba			
RED 6	11	105	6000	.1	220			1
7	8	190	7000	.1	250			2
8	9	135	8100	.1	280			3
9	16	90	8500	.1	270			4
10	13	115	14400	.2	355			5
11	13	125	46000	.2	415			6
12	10	135	7600	.2	420			7
12A	14	215	8400	.1	320			8
13	7	94	7250	.2	500			9
13A	11	165	7650	.1	270			10
14	8	120	6400	.1	160			11
15	7	90	4400	.1	250			12
15A	11	250	3600	.2	245			13
16	8	115	7600	.2	290			14
16A	11	175	9500	.2	290			15
17	9	130	6800	.1	330			16
18	24	365	19000	.4	320			17
19	17	675	19000	.2	240			18
20	23	275	60500	.3	275			19
RED 21	28	260	58000	.2	230			20
9131	7	485	3750	.2	280			21
9132	7	700	4350	.2	280			22
9132A	30	295	7100	.4	320			23
9133	8	520	4500	.3	350			24
9133A	8	175	8750	.1	370			25
9134	9	750	4800	.2	440			26
9134A	5	1350	1800	.1	560			27
9135	6	150	400	.1	415			28
9135A	7	350	2000	.1	350			29
9136	9	150	2700	.1	275			30
9136A	6	60	435	.1	280			31
9137	12	160	2100	.1	100			32
9137A	7	60	360	.1	320			33
9138	7	230	3000	.1	230			34
9138A	4	58	280	.1	330			35
9139	4	300	2200	.1	120			36
9139A	3	58	590	.1	310			37
								38
								39
								40

RED ZONE

GOAT SHOWING SOIL

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED Sept. 18, 1980

DATE REPORTS MAILED Sept. 27, 1980

ASSAYER

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



To Asarco Exploration Co. of Canada Ltd.,

Assaying & Test Analysis

852 E. Hastings St., Vancouver, B.C. V6A 1K6

phone: 253-3158

File No. 80-1099

Type of Samples Soils & Sc

Disposition

### GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE No.	Cu	Pb	Zn	Ag	Ba					
91310	8	375	2100	.1	190					1
91310A	5	520	1300	.4	225					2
91311	7	250	1750	.1	260					3
91311A	8	1800	3200	.3	270					4
91312	11	325	1250	.1	180					5
91313	12	54	365	.1	200					6
91314	18	115	330	.1	180					7
91315	10	44	240	.1	120					8
91316	8	30	170	.1	170					9
91317	11	40	200	.1	180					10
91318	12	55	185	.3	220					11
91319	14	44	200	.1	240					12
91320	12	42	185	.1	240					13
91321	16	50	675	.1	300					14
91322	9	28	225	.1	140					15
91323	13	37	205	.1	200					16
91324	15	105	575	.1	240					17
91325	16	60	255	.1	320					18

GOAT SHOWING

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED Sept. 18, 1980

DATE REPORTS MAILED Sept. 27, 1980

ASSAYER

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



To: Asarco Exploration Co. of Canada Ltd., 852 E. Hastings St., Vancouver, B.C. V6A 1R6  
 504 - 535 Thurlow St.,  
 Vancouver, B.C.  
 V6E 3L2  
 phone: 253-3158

File No. 80-1099 B

Type of Samples Rocks

Disposition \_\_\_\_\_

**GEOCHEMICAL ASSAY CERTIFICATE**

SAMPLE No.	Mo	Cu	Pb	Zn	Ag	Au	W						
9141		5	35	670	.1	↑ ROCK SHOWING ↓						1	
9142		4	49	620	.1								2
9143		4	52	430	.1								3
9144		28	50	2400	.1								4
9145		22	50	4800	.1								5
91326		10	48	840	.1								6
91327		21	32	1300	.1								7
91328		9	49	540	.1								8
91329		8	50	600	.1								9
91330		9	50	290	.1								10
91331		7	49	152	.1								11
91332		5	53	80	.1								12
													13
													14

GATAGA SOUTH	<i>R</i>	27	38	50	.1							20
GATAGA NORTH	<i>R</i>	50	28	52	.1							21
												22
												23
												24
												25
												26
												27
												28
												29
												30
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												39
												40

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DIGESTION: .....

DETERMINATION: .....

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DATE REPORTS MAILED Sept. 30, 1980

ASSAYER

DEAN TOYE, B.Sc.  
 CHIEF CHEMIST  
 CERTIFIED B.C. ASSAYER