J.D. BLACKWELL

COMINCO LTD.

EXPLORATION
93D/9

WESTERN DISTRICT
2 January 1986

NIFTY PROPERTY

YEAR END SUMMARY

Two reports are filed describing the results of Cominco's 1985 programme on the Nifty Joint Venture. These include an assessment report, titled "Geology and Geochemistry of the Nifty... Mineral Claims", and a company and partner report titled "Geology of the Nifty Showing". Following is a summary of key elements:

PROPERTY GEOLOGY

The property is underlain by a homoclinal volcanic succession, cut by numerous dykes and vertical fault zones. Oldest units are probably basalts and andesites occurring in Noosgulch River bottom. These are overlain by a rhyolite and dacite pyroclastic unit, which host Pb-Zn-Ag mineralization. Overlying rhyolites is a thick, monotonous sequence of andesite breccias and flows, capped by basalt flows. The entire sequence is probably submarine. The older andesite/basalt and rhyolite units are cut by numerous quartz-feldspar porphyry dykes, which are rarely observed cutting younger andesites and do not cut the youngest basalts. Thick diorite dykes cut all rock units on the property. The relative age of these rocks is not clear, however, the writer would concur with the Jurassic assignment based on fossils collected 6 km away on Salloomt Peak by Baer (1973).

Based on textural observations, rhyolite geology west of the river is considered to represent a broad, low-relief rhyolite dome, traversed by a north-trending axial graben. Units underlying the Nifty showing, to the east of the river are distal volcaniclastic and pyroclastic deposits laid down within flanking basinal deeps. The dacite pyroclastic separating rhyolite from overlying andesite flow breccias is considered to be a single ash sheet produced during caulderon collapse. Mineral showings on the property coincide with the dome-flank to volcaniclastic transition and are hosted immediately above the dacite sheet.

MINERALIZATION

There are two Pb-Zn-Ag showings on the property (Nifty and "Jamtart") and one area of anomalous soil geochemistry (the Keen) with no known mineralization.

The "Jamtart showing" is located 1.5 km south of the Nifty showing on the west bank of the Noosgulch valley at an elevation of 1200 m. Dangerous ground conditions prohibit surface examinations, however, considerable mineralized float can be observed in the talus along the river bottom. Mineralization comprises rich sphalerite-galena-pyrite with minor chalcopyrite hosted in a druzy quartz stockwork breccia. Host rocks appear to be rhyolite tuff. Mineralization appears different from the Nifty showing, inasmuch as it is coarse grained, appears to be vein-like and is not associated with barite.

Contour soil lines above the known Keen geochem anomaly yielded no anomalous values. The source of metal appears to be cut off upslope. IP surveys done by Imperial Metals in 1984 did not adequately cover the soil anomaly, however weak anomalous readings were obtained.

The Nifty showing comprises three outcropping massive sulphide lenses, 2.5 to 12 m thick, exposed along strike for 130 m. Geology strikes 100 to 110° and dips 50 to 60° east. From west to east is the (a) Northwest zone, a large thick mass of barren pyrite breccia and laminate, (b) the Main zone, a baritic sphalerite-galena body 3 to 4 m thick grading approximately 5% Pb,6.5% Zn, 4 oz/t Akg and (c) the Trench zone, a barite breccia up to 10 m thick grading approximately 0.5% Pb, 1.5% Zn and 3 to 4 oz/t Ag. The mineralized zones are separated by faults and dykes.

The showings are hosted within a F/W to H/W sequence comprising 20+ m dacitic tuff with flattened chlorite shards, 50+ m of pyritic crystal tuff and lapilli (sulphide host), overlain by the H/W marker (the Lapilli Triplet), 30 to 40 m of red multilithic tuff, grey-green fragment-supported crystal-lithic tuff, and grey matrix-supported multilithic tuff, then an unknown thickness of cherty tuffite and andesite tuff.

Thirteen drill holes totalling 1653.2 metres have been drilled by 3 operators. Based on the current understanding of the showing geology, only holes 78-2, 78-3 and 81-2 effectively penetrated the favourable stratigraphy and none encountered significiant mineralization. It is postulated that the showings do not project directly downdip, instead having a northeast plunge. This interpretation is based up to the tops to the east assymetry of sulphide mineralization (barite content increasing eastward), the lack of room downdip (constrained by drilling) and a strong IP anomaly coincident with and northeast of the Trench Zone.

The bottom line is there is reasonable doubt that the showing has been properly tested by diamond drilling by previous operators, that an alternative and valid geological interpretation suggests a new direction to take exploration followup, and that diamond drill holes collared immediately north and east of the trench zone will likely intercept the favourable stratigraphy and mineralization.

RECOMMENDATIONS

Three diamond drill holes totalling 650 m are proposed for the Nifty showing. Rock geochemistry on the red member of the lapilli triplet and the pyritic crystal/lapilli tuff should define metal enrichment vectors in the favourable unit. A work proposal recommending expenditures of $120,000 in 1986 has been submitted to Cominco for 1986 consideration. This programme would be acceptable to Imperial Metals, despite coming under the 1986 $180,000 minimum requirement. Balance remaining would be carried to 1987, should Cominco elect to continue.

Reported by: _____

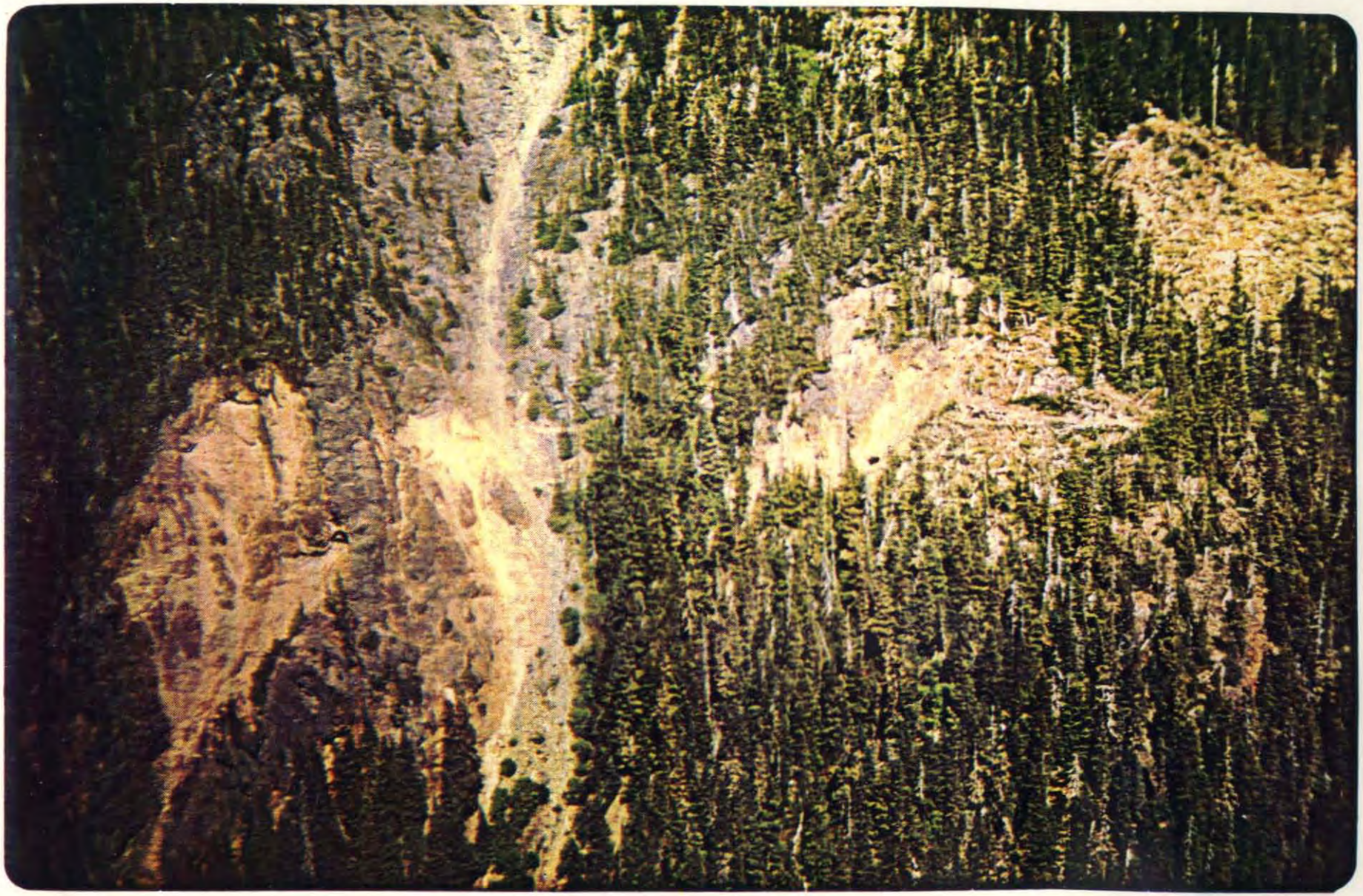
J.D. BLackwell,
Project Geologist.

JDB/pm

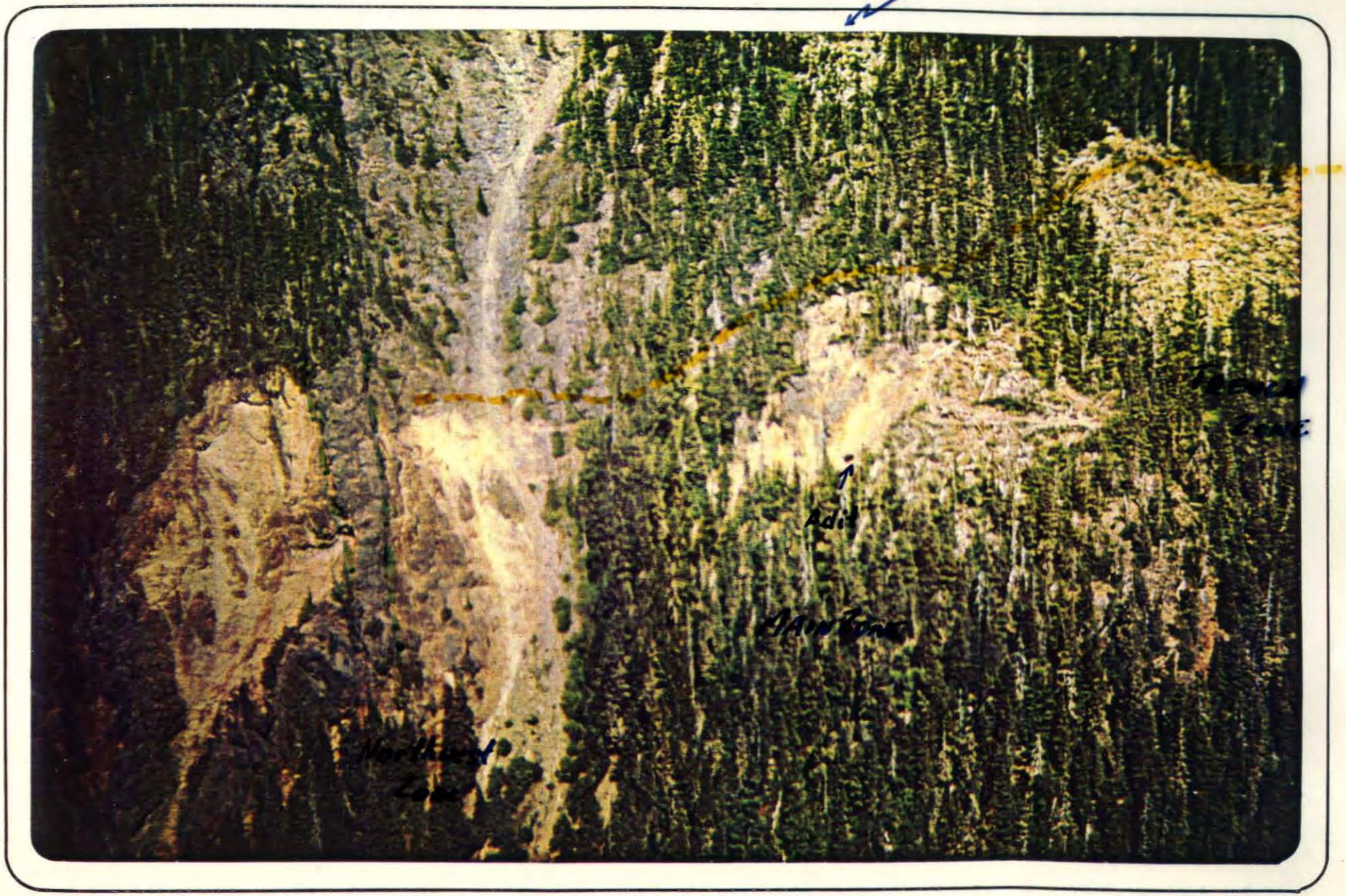
NIFTY JOINT VENTURE

SUMMARY OF EXPENDITURES FOR 1985

Salaries:	Staff	$34,000		
	Temporary	7,000		
				$40,000
Geological Supplies				7,000
Assays & Analyses				3,000
Transportation				15,000
Expense Accounts				5,000
Domicile				5,000
Tenure				2,000
				$77,000
Administration & Supervision				15,000
			TOTAL	$92,000



PAN OCEAN '78 ddh.



COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

NTS: 93 D/9

ASSESSMENT REPORT

GEOLOGY AND GEOCHEMISTRY

OF THE

NIFTY, NIFTY 2,3,4,5,6,7,8,9,10,11,12&14

AND KEEN, KEEN 2,3

MINERAL CLAIMS

SKEENA MINING DIVISION

BELLA COOLA AREA

LATITUDE: 52°34'N; LONGITUDE: 126°25'W

WORK PERFORMED: AUGUST 6 - AUGUST 24, 1985

NOVEMBER 1985

J.D. BLACKWELL

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COMINCO LTD.

EXPLORATION | WESTERN DISTRICT

NTS: 93 D/9 | 29 November 1985

ASSESSMENT REPORT

GEOLOGY AND GEOCHEMISTRY OF THE

NIFTY, NIFTY 2,3,4,5,6,7,8,9,10,11,12&14

AND KEEN, KEEN 2,3

MINERAL CLAIMS

I. SUMMARY

Contour soil geochemistry and geological mapping was undertaken at the Nifty property. Soil geochemistry clearly detected the Main showing area, appears to have established an up-slope cut-off in the Keen area, and suggested two other areas worth follow-up. Geological mapping suggests the property is underlain by a homoclinal sequence of basalt and andesite breccias, overlain by a variable thickness of rhyolite flows and breccias (the sulphide host), overlain by a thick sequence of andesite lapilli and breccias, then disconformably by massive basalt flows. This rock package is cut by several north to northeast faults which bound rotated and deformed blocks, and are the loci of intense dyking. Known showings appear to coincide with the upper portion of the rhyolite unit. Further soil geochemistry, prospecting and geological study is recommended.

II. INTRODUCTION

The Nifty property is located 23 km northeast of Hagensborg, B.C. The southern portion is accessible by the Noosgulch River logging roads, the remainder is steep to rugged mountainous terrain entered upon by foot and helicopter. The property lies on the eastern flank of the Coast Range Mountains, abuting Tweedsmuir Provincial Park to the east (Plate 1).

Claim information is tabulated in Table 1 and disposition is portrayed on Figure 2. The property is currently held by Imperial Metal Corporation, 1300-409 Granville Street, Vancouver, B.C. and is in turn covered by a 1985 joint venture agreement with Cominco Ltd., 2300-200 Granville Street, Vancouver, B.C. with Cominco as project manager.

The Nifty Zn-Pb-Ag showings were first staked in the early 1930's and optioned to the Consolidated Mining and Smelting Co. (Cominco). Several years of subsequent work included trenching, sampling and development of a 35 foot adit. Subsequent owners and operators include United Minerals Services Ltd. and Dimac Resource Corporation Ltd., whom had various operating agreements with Pan Ocean Ltd. and Rio Tinto in the late 1970's and early 1980's. Exploration programmes undertaken by these various interests include geological mapping, grid soil sampling, rock geochemistry, silt sampling, PEM and Max-Min HLEM surveys and diamond drilling. In 1984 Imperial Metals undertook IP surveys, grid soil sampling and diamond drilling.

Drawn by:		Traced by:		NIFTY JOINT VENTURE		
Revised by	Date	Revised by	Date			
				Scale:	Date:	Plate: 1

NO. 112A (1)

210-0610

The historical and current features of interest on the property are hillside exposures of modest grade, massive pyrite-sphalerite-galena-barite mineralization in rhyolite volcanic breccias. Mineralization occurs at the contact between footwall rhyolite schist and hangingwall andesite breccia. Previous exploration was directed at testing the downdip potential of the showing area.

The 1985 Cominco programme aimed to produce a 1:10,000 geological map of the property utilizing a consistent rock type/textured modifier scheme, to develop a base for structural interpretation, to develop a sense of stratigraphy, and to evaluate potential showing areas through contour soil geochemistry. Pre-existing grids and control points were re-established and a 1:10,000 orthophoto map was commissioned to serve as a field base map. Work was helicopter supported, traversing done on foot.

III. SOIL GEOCHEMISTRY

A total of 281 soil samples were collected in three areas, and analysed for Pb,Zn,Ag,Au and Cu. Areas sampled include the Main Showing area, the "Keen geochem anomaly" area, and the "Westside area", 1.5 km due west from the Main Showing. Sampling medium was usually "B" horizon developed upon talus fines. Soil analyses were undertaken by the Cominco Exploration Research Laboratory. Samples were seived through 80 mesh screens and the resulting yield was analysed by atomic absorption after a 20% HNO_3 decomposition for Pb,Zn,Ag and Cu, and after an aqua regia decomposition-solvent extraction for Au. Weight Gold (Wt.Au) is the weight of sample taken to analyse for gold. All elements are reported in parts per million, except gold in parts per billion. Results are plotted on Plates 3 to 11. Lead and zinc values show the greatest range; only gold values above detection limit (10 ppb) are plotted.

Main Showing Area (Plate 3,4&5)

Samples were collected at 25m intervals along the 1200, 1150, 1100, and 1050 metre contour intervals. Very high lead, zinc and silver plus weaker copper anomalies occur at sample sites below the main showing. Several anomalous values occur at the east end of the 1150 m line, including one sample at 732 ppm lead. This latter anomalous area is unexplained and further definition sampling is required. The sample area is entirely overburden covered, comprising mostly inactive talus vegetated with slide alder.

Keen Anomaly Area (Plates 9,10&11)

Samples were collected at 25 m intervals along lines 7E and 8E of the 1984 Imperial Metals grid, and at 25m intervals along the 1000m contour level above. Metal values are low in all samples collected, suggesting sample lines are above the up-slope cut-off for this anomalous area and the mineralized source must lie below line 7E. The area is entirely overburden covered and underlain by inactive talus.

West Side (Plates 6,7&8)

Samples were collected at 25m intervals along the 1400 and 1500m contours. Weakly anomalous Pb,Zn samples were collected along the north edge of the 1500 m contour line. This area was selected for sampling due to the widespread

gossanous rhyolite in the area which is cut by numerous quartz-feldspar porphyry dykes. No sulphide mineralization other than pyrite was noted during mapping this area, however site checks of the weak anomalies are necessary.

IV. GEOLOGICAL MAPPING

A 40 square kilometre area was mapped at 1:10,000. Steep and treacherous terrain limits the amount of ground which can be examined (Plate 12).

The geology, as presented is based upon field observation only; no supporting chemial analyses or thin section study has been undertaken. Rocks are classified upon macroscopic field criteria, incorporating rock type (basalt, andesite etc.) based upon colour, modal composition and density, with a textural modifer (tuff, brecia etc.) based upon observed textures attributed to primary deposition processes. Fragmental classification ascribes to Fisher (1966).

Volcanic Rocks

White, buff and apple green-weathering, quartz-phyric volcanic units were mapped as rhyolite (unit 1). Major outcrop areas are in the immediate Main showing area, and west of the Noosgulch River. In the showing area, massive to schistose sericite-feldspar-quartz units predominate. Rocks are lapilli and crystal tuffs (1c,d,e, and g) with subordinate thin laminated waterlain tuff (1h). Textures are more readily observed on sawn rock slabs than on outcrop surfaces. West of the Noosgulch River, massive feldspar and quartz-phyric, crackled and blocky flows predominate (1i and a). Massive units pass laterally and are intercalated with subordinate, resistant-weathering medium-laminated waterlain tuff (1h) and tuff breccia (1b). To the western edge of the map area, lapilli tuff and lapilli predominate (1c and d).

Light to medium green-weathering feldspathic dacite (unit 2) occurs east of the Noosgulch River, forming a north-trending band around the 1200m contour level. This unit appears to constitute a single lapilli-tuff (2c) horizon, up to 150 m thick.

Grass-green, maroon and brown weathering andesite (unit 3) is the most common rock type on the property. To the west, polylithic breccias (3a) are composed of clast-supported accidental fragments of andesite with minor rhyolite, intercalated with andesite lapilli tuff (3c) and massive feldspar-phyric flows (3i). In the Noosgulch River bottom, north end, massive, dark green weathering chloritic andesite lapilli and mid-green andesitic feldspar-phyric waterlain tuff occurs (3i, d). Exposures are massive and non-descript, textures are best observed on sawn surfaces. Andesite units are distinguished with great difficulty from the numerous porphyry dykes present. Similar rocks occur in the river bottom towards the southern portion of the property.

Units flanking Thunder and Tzeetsatsul Montains, to the east, are massive, thick bedded, dark green weathering maroon and green feldspar and pyroxene-phyric flows (3j,i), flow breccias (3k) and various pyroclastics (3a to c). Peak forming units include massive glomerophyric and amygdular basalt flows (4n,j). Basalt units weather green or brown, and contain fresh euhedral phenocrysts and amygdular fillings of chlorite, calcite, hematite and chalcedony.

Sedimentary Rocks

Truly sedimentary rocks are rare in the map area. Mudstone (6) was recognized beneath basalt outcrops in the southeastern portion of the property. This unit is recessive, grey-weathering, medium laminated with minor, thin grit layers. Thickness and continuity is unknown.

A singular, massive debris flow (5) was identified north of Tzeetsaytsul peak at the northeast corner of the map area. This unit is red-weathering, comprising large blocks of andesite and andesite/lapilli in a red, gritty mud matrix. The breccia is matrix supported and fines towards the upper and lower contacts. It is probable that most other andesitic fragmentals on the property are debris flows, however this locality is the only one where internal characteristics are readily observed.

Intrusive Rocks

Quartz and feldspar-phyric dykes (Fp) occur as green to brown coloured masses, 1 to 20 metres wide, trending north. Contacts with adjacent rocks are sharp and frequently marked by shearing. Dyke and dyke swarms are abundant in the Noosgulch River bottom and to the west along the flanks of Mt. Stepp, where dykes constitute up to 60% by volume of any outcrop area. In the Noosgulch River canyon dykes can be seen to cut and be cut by more dykes, frequently occurring as large rotated blocks of dyke with thin screens of andesite lapilli, rotated to 50 to 60°, then cut by vertical dykes. Fp dykes have not been observed cutting upper basalt and andesite volcanic rocks on Thunder Mountain, nor do they cut diorite intrusions. Quartz phenocryst content is highest in dykes nearest the Noosgulch River, passing to quartz-poor dykes east and west.

Diorite (Di) occurs as several large steeply west dipping dyke masses up to 100m wide. Principal occurrences are north of the main showing, on Mt. Stepp and along the shoulder of Thunder Mountain. Diorite is the youngest rock on the property, having been observed cutting all rock units.

Structure

Rocks on the Nifty property appear unaffected by folding. Strong north and north-northeast linears mark areas of intense joint, fracturing and dyke injection, and appear to represent vertical fault zones which may have been active during volcanism and where the sites of dyke stoping. These linear zones bound blocks of rotated and variably deformed rock. The sense of overall vertical unit displacement across any of these features is less than 100 metres.

V. MINERALIZATION

Detailed investigation of the Main Nifty showing is not within the scope of this study. The reader is referred to earlier descriptive reports by Pan Ocean and Rio Tinto geologists.

The Jamtart showing is located 1.5 km south of the main showing on the west bank of the Noosgulch valley at an elevation of 1200m. Dangerous ground conditions prohibit surface examinations, however considerable mineralized float can be observed in the talus along the river bottom. Mineralization comprises rich sphalerite-galena-pyrite with minor chalcopyrite hosted in a druzy quartz stockwork breccia. Host rocks appear to be rhyolite tuff. Mineralization appears different from the Main showing, inasmuch as it is coarse grained, appears to be vein-like and is not associated with barite.

No mineralization was found in the Keen geochem anomaly area.

Numerous large gossans occur throughout the property, particularly in rhyolite and andesite units. None are observed in the basalts. All gossans appear attributed to disseminated pyrite (5-10%), and none had any base metal mineralization.

VI. INTERPRETATION

Contour soil geochemistry identified two areas which merit follow-up sampling and prospecting. In the Main showing area, the east end of the 1150 line has very high lead and zinc values, comparable to those obtained down slope from the Main showing. At "West Side", several modest lead and zinc anomalies occur in an area of good outcrop, and sample sites should be re-established and the adjacent area prospected for metal sources.

Based on the Main Showing sampling, contour sampling of even a poor medium appears to be successful in identifying down-slope metal anomalies. In the Keen area lines completed in the programme did not attain anomalous values. It is implied that these lines are above metal source, however on such a steep hillside it is possible that recent talus from higher up may cover the older, more locally derived anomalous talus soil.

Based upon the 1985 geological mapping programme, a simplified geological picture has been developed for the property. The area is undelain by a homoclinal volcanic succession, cut by numerous dykes and vertical fault zones. Oldest units are probably basalts and andesites occurring in Noosgulch River bottom. These are overlain by a rhyolte pyroclastic unit, which host Pb-Zn-Ag mineralization. Overlying rhyolites is a thick, monotonous sequence of andesite breccias and flows, capped by basalt flows. The entire sequence is probably submarine. The older andesite/basalt and rhyolite units are cut by numerous quartz-feldspar porphyry dykes, which are rarely observed cutting younger andesites and do not cut the youngest basalts. Thick diorite dykes cut all rock units on the property. The relative age of these rocks is not clear, however the writer would concur with the Jurassic assignment based on fossils collected 6 km away on Salloomt Peak by Baer (1973).

Careful thin section and whole rock geochemical studies, followed by additional mapping, would aid in further refining the geological map of the property. High quality age dates of three rock types, the rhyolite, porphyry dykes and diorite would resolve both absolute ages of the rocks in the map area, and verify temporal relationships suggested in this report.

VII. REFERENCES

Baer, A.J. (1973): Bella Coola - Laredo Sound Map-Areas, British Columbia, Memoir 372, Geological Survey of Canada.

Fisher, R.V. (1966): Rocks Composed of Volcanic Fragments and Their Classification; Earth Sciences Review, pp. 287-298.

Reported by: J. Blackwell

J.D. Blackwell
Project Geologist

Endorsed for
Release by: _____

W.J. Wolfe
Manager, Exploration -
Western Canada

JDB/cgs

Distribution
Mining Recorder
Western District
JDB

TABLE 1

NIFTY PROPERTY - TENURE SUMMARY

CLAIM	RECORD NO.	UNITS	DATE RECORDED
Nifty	389	18	June 27, 1977
Nifty 2	2621	12	October 14, 1980
Nifty 3	401	8	August 4, 1977
Nifty 4	406	20	August 4, 1977
Nifty 5	2622	16	October 14, 1980
Nifty 6	402	18	August 4, 1977
Nifty 7	403	18	August 4, 1977
Nifty 8	2623	2	October 14, 1980
Nifty 9	2624	2	October 14, 1980
Nifty 10	2625	2	October 14, 1980
Nifty 11	2626	2	October 14, 1980
Nifty 12	4687	6	October 17, 1984
Nifty 14	4688	8	October 17, 1984
Keen	4228	18	November 30, 1983
Keen 2	408	18	August 4, 1977
Keen 3	405	15	August 4, 1977
Keen 4	4459	20	May 29, 1984

TABLE 2

GEOCHEMICAL ANALYSES, SOIL SAMPLES

APPENDIX A

NIFTY PROPERTY

STATEMENT OF EXPENDITURES

FOR

WORK DURING PERIOD AUGUST 6 TO AUGUST 24, 1985

Salaries:	J.D. Blackwell	20 days @ $200/day	$4,000	
	R.F. Nichols	15 days @ $200/day	3,000	
	S.B. Butrenchuk	20 days @ $200/day	4,000	
	A.P. Roberts	15 days @ $150/day	2,250	
	A. Taylor	15 days @ $100/day	1,500	
	D. Debiasio	12 days @ $74/day	900	
				15,650
Equipment:			1,787	
Domicile:			5,095	
Geochemistry:		273 samples @ $11/sample	3,003	
Transportation:		Helicopter	8,543	
		Truck (Rental plus gas)	3,794	
				37,872
Report Writing:		JDB, APR, SBB	1,500	
				$39,372

APPENDIX B

STATEMENT OF QUALIFICATIONS

I, Jerry D. Blackwell of the Village of Lions Bay, in the Province of British Columbia, hereby certify:

1. THAT I am a geologist residing at 253 Stewart Road, Lions Bay, British Columbia,

2. THAT I graduated with an Honours B.Sc. in geology from the University of Western Ontario in 1974,

3. THAT I have practiced geology with Cominco Ltd. from 1974 to 1985.

Signed: J. Blackwell

Jerry D. Blackwell
Project Geologist
COMINCO LTD.

November 1985

NIFTY

Job V 85-03073
Report date 12 SEP 1985

LAB NO	FIELD NUMBER	Pb PPM	Zn PPM	Ag PPM	Au PPB	Wt Au GRAM	Cu PPM
S8506969	AR85-221	<4	60	.4	<10	10	51
S8506970	AR85-222	<4	53	<.4	<10	10	56
S8506971	AR85-223	6	73	.4	<10	10	43
S8506972	AR85-224	1630	255	4.9	<10	6.5	70
S8506973	AR85-225	261	103	3.5	<10	10	14
S8506974	AR85-226	2290	281	24	<10	10	20
S8506975	AR85-227	1840	108	22	<10	10	33
S8506976	AR85-228	210	51	1.4	<10	10	11
S8506977	AR85-229	21	32	<.4	<10	8.5	8
S8506978	AR85-230	12	24	<.4	<20	4.5	13
S8506979	AR85-231	7	33	.8	<10	10	23
S8506980	AR85-232	11	35	<.4	<50	2.8	4
S8506981	AR85-233	23	14	<.4	21	10	4
S8506982	AR85-234	7	15	<.4	<10	6.5	7
S8506983	AR85-235	8	9	<.4	<10	7.5	8
S8506984	AR85-236	7	5	<.4	<10	7.0	<1
S8506985	AR85-237	4	7	<.4	<10	10	5
S8506986	AR85-238	5	15	<.4	<20	3.5	9
S8506987	AR85-239	4	4	<.4	<10	10	1
S8506988	AR85-240	5	6	<.4	<10	10	2
S8506989	AR85-241	16	22	<.4	<10	7.0	8
S8506990	AR85-242	<4	13	<.4	<10	9.0	3
S8506991	AR85-243	5	7	<.4	25	8.0	1
S8506992	AR85-244	<4	10	<.4	<10	6.0	5
S8506993	AR85-245	<4	5	<.4	<10	7.0	1
S8506994	AR85-246	<4	5	<.4	<20	4.5	2
S8506995	AR85-247	<4	18	<.4	<50	2.0	6
S8506996	AR85-248	4	14	.4	<10	5.0	13
S8506997	AR85-249	6	9	<.4	<10	8.5	4
S8506998	AR85-250	8	9	<.4	<10	9.0	1
S8506999	AR85-251	<4	17	.5	<10	10	14
S8507000	AR85-252	6	7	<.4	<10	10	3
S8507001	AR85-253	4	7	<.4	<20	4.0	2
S8507002	AR85-254	4	27	<.4	<10	10	8
S8507003	AR85-255	8	25	<.4	<10	8.0	5
S8507004	AR85-256	8	56	<.4	<10	7.0	5
S8507005	AR85-257	54	24	1.8	<10	7.0	13
S8507006	AR85-258	40	46	<.4	<10	6.5	20
S8507007	AR85-259	30	50	<.4	26	4.5	16
S8507008	AR85-260	732	590	<.4	<10	10	61
S8507009	AR85-261	18	29	<.4	<10	10	16
S8507010	AR85-262	26	49	<.4	<20	3.0	73
S8507011	AR85-263	6	7	<.4	<10	8.0	6
S8507012	AR85-264	14	12	<.4	<10	10	7
S8507013	AR85-265	12	11	<.4	<20	4.5	6
S8507014	AR85-266	<4	18	<.4	<10	5.0	27
S8507015	AR85-267	15	14	<.4	<10	10	15
S8507016	AR85-268	<4	11	<.4	<20	3.5	18
S8507017	AR85-269	13	31	<.4	<10	5.5	26
S8507018	AR85-270	15	16	<.4	<10	10	24
S8507019	AR85-271	15	19	<.4	<10	10	11

LAB NO	FIELD NUMBER	Pb PPM	Zn PPM	Ag PPM	Au PPB	Wt Au GRAM	Cu PPM
S8507020	AR85-272	18	16	(.4	(10	6.0	45
S8507021	AR85-273	14	11	(.4	(10	10	9
S8507022	AR85-274	10	20	(.4	(20	3.0	20
S8507023	AR85-275	15	20	.4	(10	7.5	43
S8507024	AR85-276	16	25	(.4	(10	10	22
S8507025	AR85-277	26	18	(.4	(10	10	7
S8507026	AR85-278	19	21	(.4	(10	10	11
S8507027	AR85-279	20	18	(.4	(10	8.5	18
S8507028	AR85-280	28	16	(.4	(10	10	16
S8507029	AR85-281	177	106	1.7	(10	7.0	7
S8507030	AR85-282	50	49	(.4	(10	5.5	13
S8507031	AR85-283	541	32	2.8	(10	10	36
S8507032	AR85-284	35	48	(.4	(10	10	32
S8507033	AR85-285	34	25	(.4	(10	8.0	21
S8507034	AR85-286	29	22	(.4	(20	3.5	27
S8507035	AR85-287	27	86	(.4	(10	10	33
S8507036	AR85-288	28	24	.4	(10	10	28
S8507037	AR85-289	11	19	(.4	(10	10	28
S8507038	AR85-290	15	41	(.4	(10	10	28
S8507039	AR85-291	17	10	(.4	(10	10	7
S8507040	AR85-292	13	19	(.8	(10	7.0	15
S8507041	AR85-293	7	9	(.4	(20	4.0	10
S8507042	AR85-294	7	18	.5	(50	2.0	9
S8507043	AR85-295	30	25	(.4	(10	10	24
S8507044	AR85-296	13	13	(.4	(10	9.5	34
S8507045	AR85-297	4	11	(.4	(20	4.0	24
S8507046	AR85-298	7	9	(.4	(10	6.0	23
S8507047	AR85-299	(4	8	(.4	(20	4.5	23
S8507048	AR85-300	13	20	(.4	(10	10	15
S8507049	AR85-301	11	21	(.4	(10	7.5	33
S8507050	AR85-302	33	23	.4	(10	6.5	37
S8507051	AR85-303	6	12	(.4	(10	8.5	13
S8507052	AR85-304	6	11	(.4	(10	10	6
S8507053	AR85-305	11	21	(.4	(10	8.0	21
S8507054	AR85-306	(4	11	.4	(20	3.0	6
S8507055	AR85-307	14	19	(.4	(20	4.5	20
S8507056	AR85-308	18	28	(.4	(10	10	24
S8507057	AR85-309	5	12	.4	(10	10	18
S8507058	AR85-310	9	8	(.4	(10	10	29
S8507059	AR85-311	8	30	(.4	(50	1.5	37
S8507060	AR85-312	9	17	(.4	(10	10	25
S8507061	AR85-313	4	8	.5	(10	3.5	23
S8507062	AR85-314	7	11	(.4	(10	10	23
S8507063	AR85-315	(4	19	(.4	(10	5.0	5
S8507064	AR85-316	12	17	(.4	(10	7.0	29
S8507065	AR85-317	(4	24	(.4	(10	5.0	13
S8507066	AR85-318	5	7	(.4	(50	2.0	32
S8507067	AR85-319	(4	22	(.4	(50	1.5	23
S8507068	AR85-320	(4	17	(.4	(50	1.0	16
S8507069	AR85-321	116	39	5.2	(20	4.5	29
S8507070	AR85-322	11	16	(.4	(10	7.0	41
S8507071	AR85-323	16	24	(.4	(10	8.0	31
S8507072	AR85-324	15	15	(.4	(10	10	24
S8507073	AR85-325	20	12	.4	(10	8.5	7

LAB NO	FIELD NUMBER	Pb PPM	Zn PPM	Ag PPM	Au PPB	Wt Au GRAM	Cu PPM
S8507074	AR85-326	5	11	<.4	<20	4.8	6
S8507075	AR85-327	18	20	<.4	<10	6.5	15
S8507076	AR85-328	24	11	<.4	<10	6.0	8
S8507077	AR85-329	105	12	1.6	<20	4.8	15
S8507078	AR85-330	32	23	1.7	<50	2.1	18
S8507079	AR85-331	70	24	2	<20	4.3	13
S8507080	AR85-332	98	45	.5	<50	2.7	9
S8507081	AR85-333	18	13	<.4	<10	9.7	9
S8507082	AR85-334	11	8	<.4	<10	8.5	4
S8507083	AR85-335	14	7	<.4	<10	10	3
S8507084	AR85-337	12	29	<.4	<10	10	7
S8507085	AR85-338	13	34	<.4	<10	10	12
S8507086	AR85-339	6	14	<.4	<50	2.3	6
S8507087	AR85-340	<4	11	1.6	<20	4.0	12
S8507088	AR85-341	7	58	<.4	<10	10	32
S8507089	AR85-342	4	18	.5	<10	5.9	41
S8507090	AR85-343	5	7	<.4	<10	8.7	4
S8507091	AR85-344	9	22	<.4	<10	10	6
S8507092	AR85-345	10	99	<.4	<10	10	43
S8507093	AR85-346	12	92	<.4	<10	10	39
S8507094	AR85-347	15	42	<.4	<10	10	14
S8507095	AR85-348	4	16	<.4	I	0	17
S8507096	AR85-349	10	46	.7	<10	10	25
S8507097	AR85-350	9	27	.5	I	0	40
S8507098	AR85-351	7	20	2.2	<10	5.0	159
S8507099	AR85-352	6	20	1.8	<10	5.3	56
S8507100	AR85-353	18	358	.8	I	0	86
S8507101	AR85-354	15	98	<.4	<10	7.1	23
S8507102	AR85-355	15	245	1	<10	7.1	95
S8507103	AR85-356	10	120	1	<20	4.6	55
S8507104	AR85-357	5	29	1.1	<10	7.7	55
S8507105	AR85-358	36	65	.8	<10	10	60
S8507106	AR85-359	8	88	.5	<10	10	44
S8507107	AR85-360	8	36	<.4	<10	10	25
S8507108	AR85-361	11	12	.5	<10	8.6	7
S8507109	AR85-362	6	31	<.4	<10	10	30
S8507110	AR85-363	13	137	<.4	<10	10	32
S8507111	AR85-364	11	23	.4	20	5.3	10
S8507112	AR85-365	12	51	.9	<10	10	36
S8507113	AR85-366	26	44	.5	<10	10	41
S8507114	AR85-367	19	46	.5	<10	10	27
S8507115	AR85-368	7	16	.5	<10	6.2	26
S8507116	AR85-369	9	32	.5	<10	10	15
S8507117	AR85-370	11	37	<.4	<10	10	19
S8507118	AR85-371	8	46	<.4	<10	10	30
S8507119	AR85-372	8	45	<.4	<10	10	23
S8507120	AR85-373	8	80	<.4	<10	10	50
S8507121	AR85-374	6	65	<.4	<10	10	63
S8507122	AR85-375	<4	20	<.4	<10	10	14
S8507123	AR85-376	12	23	.4	<20	2.7	13
S8507124	AR85-377	4	31	<.4	<10	10	13
S8507125	AR85-378	12	12	<.4	<10	10	4
S8507126	AR85-379	12	121	<.4	<10	10	48
S8507127	AR85-380	8	41	<.4	<10	10	22

LAB NO	FIELD NUMBER	Pb PPM	Zn PPM	Ag PPM	Au PPB	Wt Au GRAM	Cu PPM
S8507128	AR85-381	17	160	(.4	(10	10	124
S8507129	AR85-382	(4	62	1.9	I	0	9
S8507130	AR85-383	18	78	(.4	(10	10	50
S8507131	AR85-384	20	43	(.4	(10	10	29
S8507132	AR85-385	10	69	(.4	(10	10	50
S8507133	AR85-386	18	51	(.4	18	10	43
S8507134	AR85-387	11	62	(.4	(10	10	47
S8507135	AR85-388	8	60	(.4	(10	10	37
S8507136	AR85-389	11	75	(.4	(10	10	39
S8507137	AR85-390	9	33	(.4	(10	10	17
S8507138	AR85-391	14	48	.6	(10	6.2	19
S8507139	AR85-392	4	36	.4	(10	10	28
S8507140	AR85-393	6	70	(.4	(10	10	39
S8507141	AR85-394	21	80	(.4	(10	10	46
S8507142	AR85-395	66	42	(.4	(10	5.9	21
S8507143	AR85-396	55	16	.8	(10	6.2	9
S8507144	AR85-397	6	18	.4	(10	6.5	17
S8507145	AR85-398	5	14	.9	(50	2.3	35
S8507146	AR85-399	6	19	.7	31	4.7	12
S8507147	AR85-400	22	30	(.4	(10	9.2	28
S8507148	AR85-401	8	43	(.4	(10	10	23
S8507149	AR85-402	46	59	1	(10	5.4	29
S8507150	AR85-403	28	118	(.4	(10	7.5	91
S8507151	AR85-404	7	28	(.4	(10	10	24
S8507152	AR85-405	11	70	(.4	(10	10	63
S8507153	AR85-406	10	77	(.4	(20	3.7	47
S8507154	AR85-407	10	62	(.4	(10	10	38
S8507155	AR85-408	8	62	(.4	(10	10	43
S8507156	AR85-409	7	61	(.4	(10	10	38
S8507157	AR85-410	8	68	(.4	(10	10	39
S8507158	AR85-411	26	156	(.4	(10	10	47
S8507159	AR85-412	24	58	(.4	(10	8.2	18
S8507160	AR85-413	6	9	(.4	I	0	51
S8507161	AR85-414	10	29	.7	(10	5.2	10
S8507162	AR85-415	9	34	(.4	(10	10	13
S8507163	AR85-416	9	28	.5	(10	7.8	14
S8507164	AR85-417	8	45	(.4	(10	10	25
S8507165	AR85-418	15	64	(.4	(10	10	21
S8507166	AR85-419	31	42	(.4	(10	10	20
S8507167	AR85-420	36	20	(.4	(10	10	7
S8507168	AR85-421	146	140	(.4	(10	7.5	21
S8507169	AR85-422	88	128	(.4	(20	3.3	47
S8507170	AR85-423	76	60	.4	(10	7.8	34
S8507171	AR85-424	1460	293	6.3	(10	10	48
S8507172	AR85-425	272	42	1.4	(10	7.2	29
S8507173	AR85-426	96	81	.8	(10	6.8	27
S8507174	AR85-427	653	142	(.4	(10	10	286
S8507175	AR85-428	103	64	.9	53	20	91
S8507176	AR85-429	62	76	(.4	(20	4.9	21
S8507177	AR85-430	21	36	(.4	(10	10	71
S8507178	AR85-431	22	20	(.4	(10	10	14
S8507179	AR85-432	20	8	(.4	37	17.5	6
S8507180	AR85-433	45	34	(.4	(10	5.8	24
S8507181	AR85-434	23	43	(.4	103	3.6	54

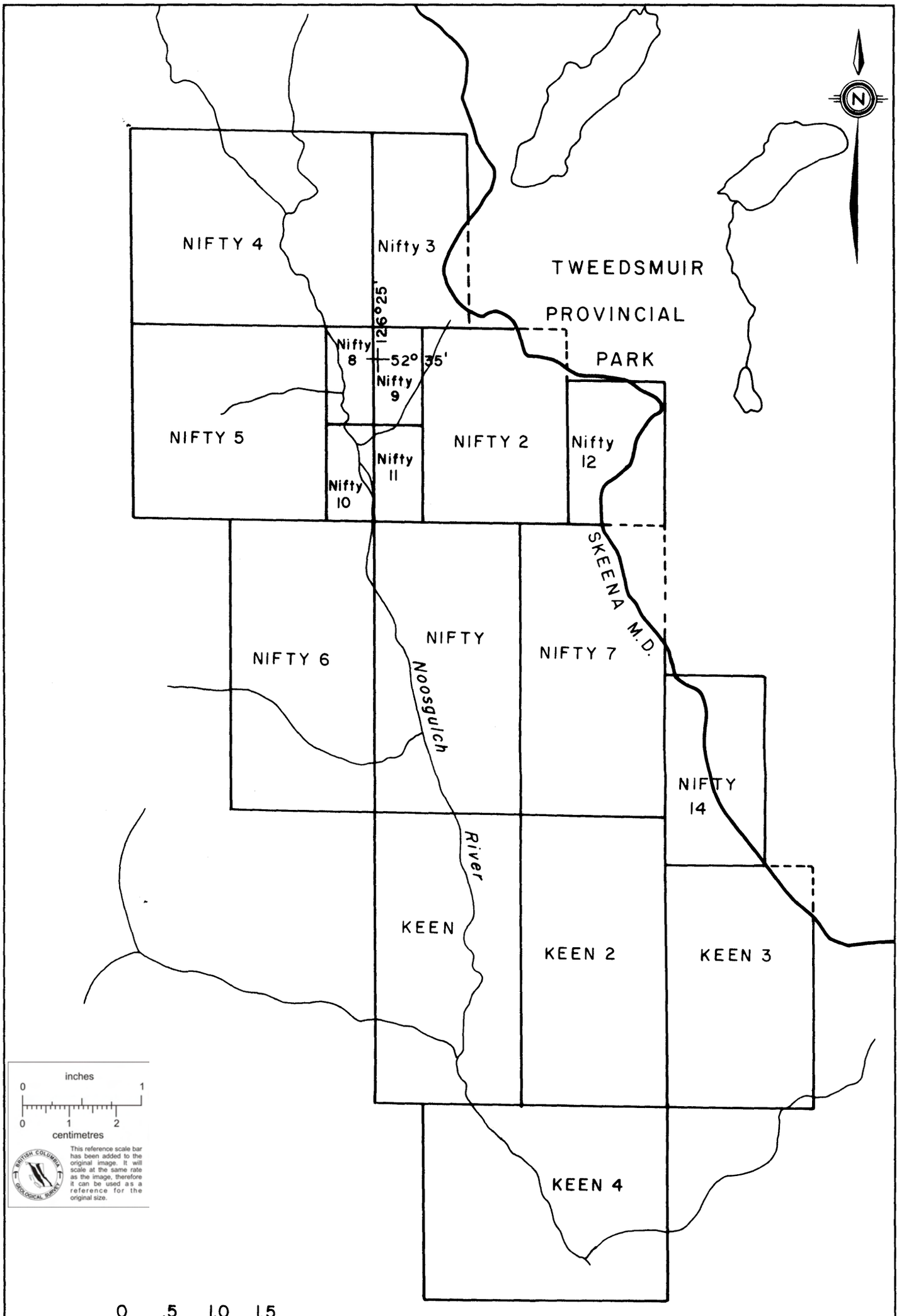
LAB NO	FIELD NUMBER	Pb PPM	Zn PPM	Ag PPM	Au PPB	Wt Au GRAM	Cu PPM
S8507182	AR85-435	99	116	1	<10	10	21
S8507183	AR85-436	56	106	<.4	<20	3.7	108
S8507184	AR85-437	57	54	1.1	<10	6	31
S8507185	AR85-438	168	115	.4	<10	5.6	24
S8507186	AR85-439	483	139	1.5	63	4.7	23
S8507187	AR85-440	32	71	.4	<20	4.3	40
S8507188	AR85-441	228	66	1.8	<10	5	21
S8507189	AR85-442	13	60	<.4	<10	9.5	17
S8507190	AR85-443	16	39	.7	<10	10	45
S8507191	AR85-444	7	21	.6	60	5.5	21
S8507192	AR85-445	13	25	1.1	27	4.4	24
S8507193	AR85-446	33	26	<.4	30	10	17
S8507194	AR85-447	22	15	<.4	<10	10	11
S8507195	AR85-448	27	46	<.4	32	10	35
S8507196	AR85-449	41	64	<.4	78	10	35
S8507197	AR85-450	22	63	<.4	<10	10	37
S8507198	AR85-451	11	14	1	<10	10	24
S8507199	AR85-452	18	36	.7	18	10	33
S8507200	AR85-453	47	198	.5	<10	10	54
S8507201	AR85-454	39	192	<.4	<10	10	57
S8507202	AR85-455	58	252	<.4	20	10	63
S8507203	AR85-456	40	140	<.4	<10	10	73
S8507204	AR85-457	72	73	.8	<10	10	96
S8507205	AR85-458	34	89	<.4	<10	10	41
S8507206	AR85-459	12	247	<.4	<10	10	45
S8507207	AR85-460	8	107	<.4	<10	10	172
S8507208	AR85-461	4	15	.5	<10	4.4	14
S8507209	AR85-462	21	219	.5	<10	10	42
S8507210	AR85-463	<4	52	2.3	T	0	5
S8507211	AR85-464	<4	11	<.4	<10	5.0	7
S8507212	AR85-465	<4	42	<.4	<10	10	23
S8507213	AR85-466	4	31	<.4	<10	8.3	28
S8507214	AR85-467	<4	15	<.4	<50	2.1	25
S8507215	AR85-468	10	30	<.4	<10	10	21
S8507216	AR85-469	13	31	<.4	<10	8.4	17
S8507217	AR85-470	10	103	<.4	<10	5.8	60
S8507218	AR85-471	11	60	<.4	<10	8.4	44
S8507219	AR85-472	18	33	<.4	<10	10	28
S8507220	AR85-473	12	18	<.4	<10	9.0	37
S8507221	AR85-474	41	54	.9	<10	9.3	37
S8507222	AR85-475	11	23	<.4	<10	10	29
S8507223	AR85-476	15	17	<.4	<10	9.7	25
S8507224	AR85-477	12	35	<.4	<10	9.8	49
S8507225	AR85-478	22	51	<.4	<10	9.7	55
S8507226	AR85-479	<4	14	<.4	<20	3.5	27
S8507227	AR85-480	<4	23	<.4	<10	5.6	28
S8507228	AR85-481	12	98	<.4	<10	7.0	52
S8507229	AR85-482	4	15	<.4	<20	4.3	34
S8507230	AR85-483	9	22	<.4	<10	10	30
S8507231	AR85-484	11	33	<.4	<10	5.5	26
S8507232	AR85-485	16	128	.4	<10	10	67
S8507233	AR85-486	19	71	<.4	<10	7.4	25
S8507234	AR85-487	19	119	<.4	<10	6.1	57
S8507235	AR85-488	<4	59	<.4	<10	10	37

LAB NO	FIELD NUMBER	Pb PPM	Zn PPM	Ag PPM	Au PPB	Wt Au GRAM	Cu PPM
S8507236	AR85-469	<4	72	<.4	<10	8.9	68
S8507237	AR85-470	9	49	<.4	<10	10	31
S8507238	AR85-491	17	20	1.1	<10	10	57
S8507239	AR85-492	<4	17	<.4	<20	4.0	20
S8507240	AR85-493	6	14	<.4	<10	6.9	31
S8507241	AR85-494	17	87	<.4	<10	10	21
S8507242	AR85-495	14	199	<.4	<10	7.6	63
S8507243	AR85-496	31	152	<.4	11	10	30
S8507244	AR85-497	21	212	<.4	<10	10	58
S8507245	AR85-498	4	58	<.4	<10	9.1	41
S8507246	AR85-499	<4	68	<.4	30	10	40

I=INSUFFICIENT SAMPLE X=SMALL SAMPLE E=EXCEEDS CALIBRATION C=BEING CHECKED R=REVISED
IF REQUESTED ANALYSES ARE NOT SHOWN RESULTS ARE TO FOLLOW

ANALYTICAL METHODS

Pb 20% HNO3 DECOMPOSITION / AAS
Zn 20% HNO3 DECOMPOSITION / AAS
Ag 20% HNO3 DECOMPOSITION / AAS
Au AQUA REGIA DECOMPOSITION / SOLVENT EXTRACTION / AAS
Wt Au THE WEIGHT OF SAMPLE TAKEN TO ANALYSE FOR GOLD (GEOCHEM)
Cu 20% HNO3 DECOMPOSITION / AAS



Drawn by:		Traced by:		NIFTY PROPERTY CLAIM MAP SKEENA M.D.		
Revised by	Date	Revised by	Date			
				Scale: 1:50,000	Date: Nov. 1985	Plate: 2

NCI 112A - CL

210-0610

1300

1200

1100

1000

900

1000

N.S. 431 430 429 N.S. N.S. 428 427 426 425 424 423 422 421 N.S. 420 419 283 284 285 286 287 288 289 290 291 292 N.S. 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 N.S. 331 332 441 N.S. 440 N.S. N.S. 439 438 437 436 435 434 433 N.S. 432

224 225 226 227 228 N.S. N.S. 229 N.S. N.S. 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256

Showing Area

N.S. 257 258 N.S. 259 260 261 262 263 264 265 N.S. 266 267 N.S. 268 269 270 271 272 273 274 275 276 277 278 N.S. 279 280 281 N.S. 282 N.S. N.S. N.S. N.S.

0 50 100 150
Metres

inches
0 1 2
0 1 2 3 4 5
centimetres

This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.

NIFTY PROPERTY

93 D/9

Drawn by:		Traced by:	
Revised by	Date	Revised by	Date

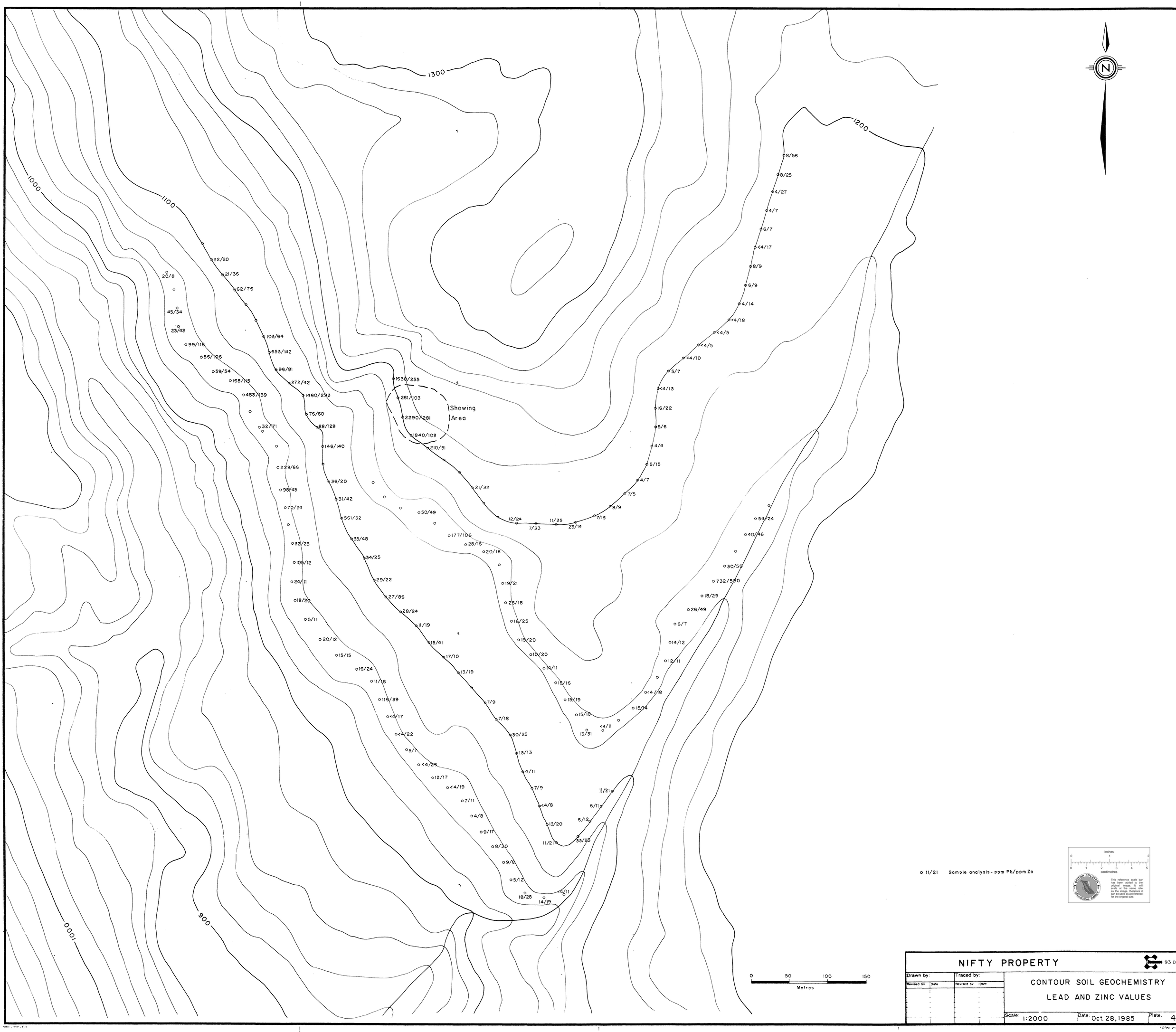
CONTOUR SOIL GEOCHEMISTRY

SAMPLE LOCATION MAP

Scale: 1:2000 Date: Oct. 28, 1985 Plate: 3

NCI - 117 - C.1

FORM 210 - 0556



o 11/21 Sample analysis - ppm Pb/ppm Zn

0 50 100 150
Metres

inches
0 1 2
0 1 2 3 4 5
centimetres

This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.

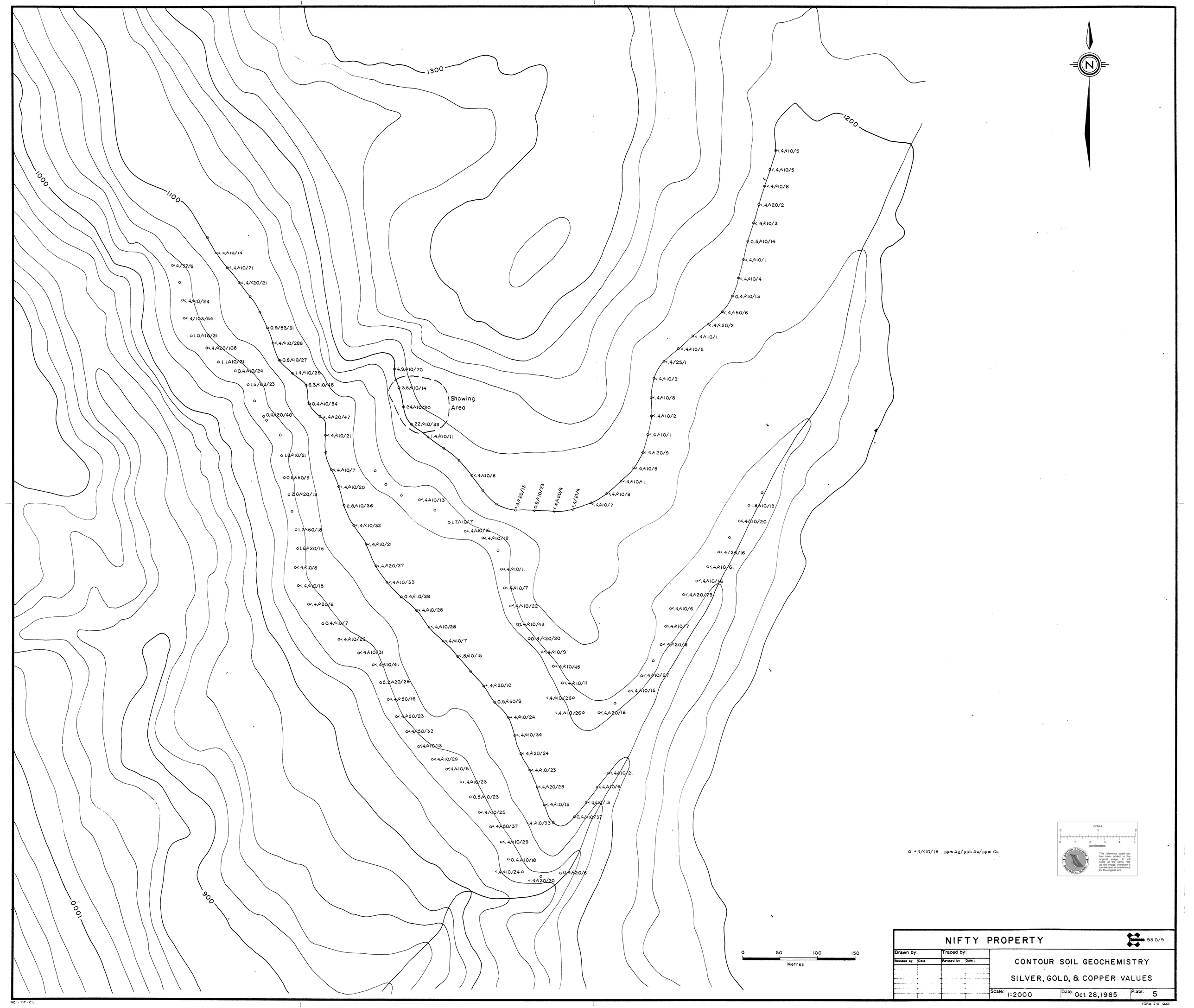
NIFTY PROPERTY

93 D/9

Drawn by:	Traced by:
Revised by: Date	Revised by: Date

CONTOUR SOIL GEOCHEMISTRY
LEAD AND ZINC VALUES

Scale: 1:2000 | Date: Oct. 28, 1985 | Plate: 4



NIFTY PROPERTY

93 O/9

Drawn by:		Traced by:	
Revised by	Date	Revised by	Date

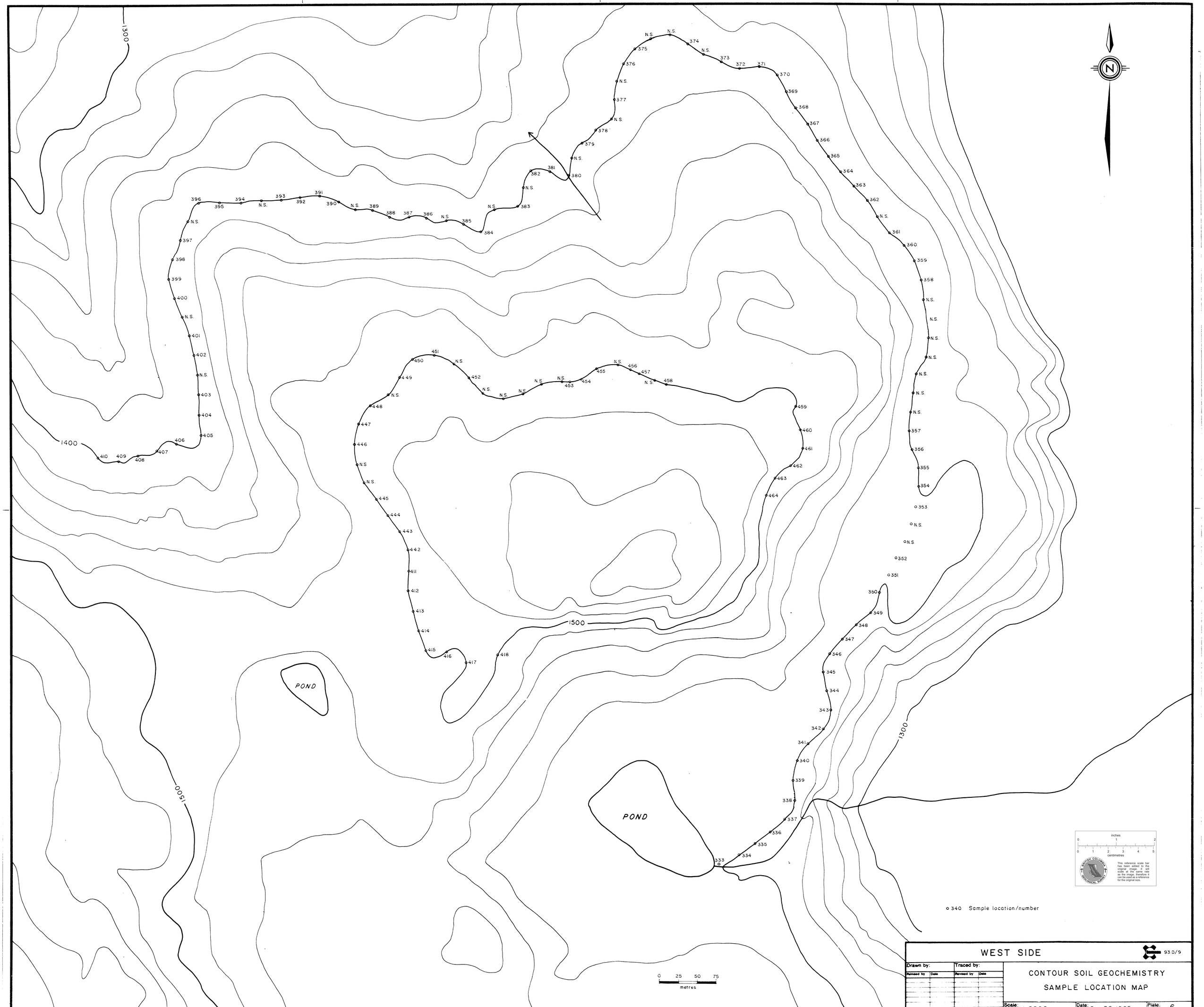
CONTOUR SOIL GEOCHEMISTRY

SILVER, GOLD, & COPPER VALUES

Scale: 1:2000 | Date: Oct. 28, 1985 | Plate: 5

NCI - 117 - C L

FORM 210 0000



WEST SIDE

93D/9

Drawn by:		Traced by:	
Revised by	Date	Revised by	Date

CONTOUR SOIL GEOCHEMISTRY
SAMPLE LOCATION MAP

Scale: 1:2000 | Date: Oct. 30, 1985 | Plate: 6

5826 000 m N.
5824 000 m N.
5822 000 m N.
678 000 m E
676 000 m E
674 000 m E

Noosgulch River
BELLA COOLA
CAMPSITE
CAMPSITE
CAMPSITE
MAIN SHOWING
PRIMARY SHOWING
KEEN ANOMALY

LEGEND

ROCK TYPE

VOLCANICS
1 Rhyolite
2 Dacite
3 Andesite
4 Basalt
EPICLASTICS
5 Laharic Breccias
6 Mudstone
INTRUSIVES
Db Diabase
FP Feldspar Porphyry Quartz
Di Diorite

TEXTURAL MODIFIER

PYROCLASTICS
(a) Breccia > 2/3 > 64mm
(b) Tuff-Breccia 1/3-2/3 > 64mm
(c) Lapilli Tuff > 2/3 2-64mm
(d) Lapilli 2-64mm.
(e) Tuff < 2mm.
(f) Ash tuff or lithic tuff.
(g) Crystal tuff
(h) Waterlain tuff
FLOWS
(i) Massive flows
(j) Phyric or porphyritic
(k) Flow breccia
(n) Amygdaloidal or vesicular

SYMBOLS
Outcrop
Snowfield
Talus

500 0 1000
metres
contour interval 20m.

NIFTY JOINT VENTURE

Drawn by:		Traced by:	
Revised by	Date	Revised by	Date

GEOLOGY

N.T.S.: 93O/9 SKEENA M.D.
Scale: 1:10000 Date: OCT. 1985 Plate: 2

TRIATHLON MAPPING CORP.

inches 0 1 2
centimetres 0 1 2 3 4 5
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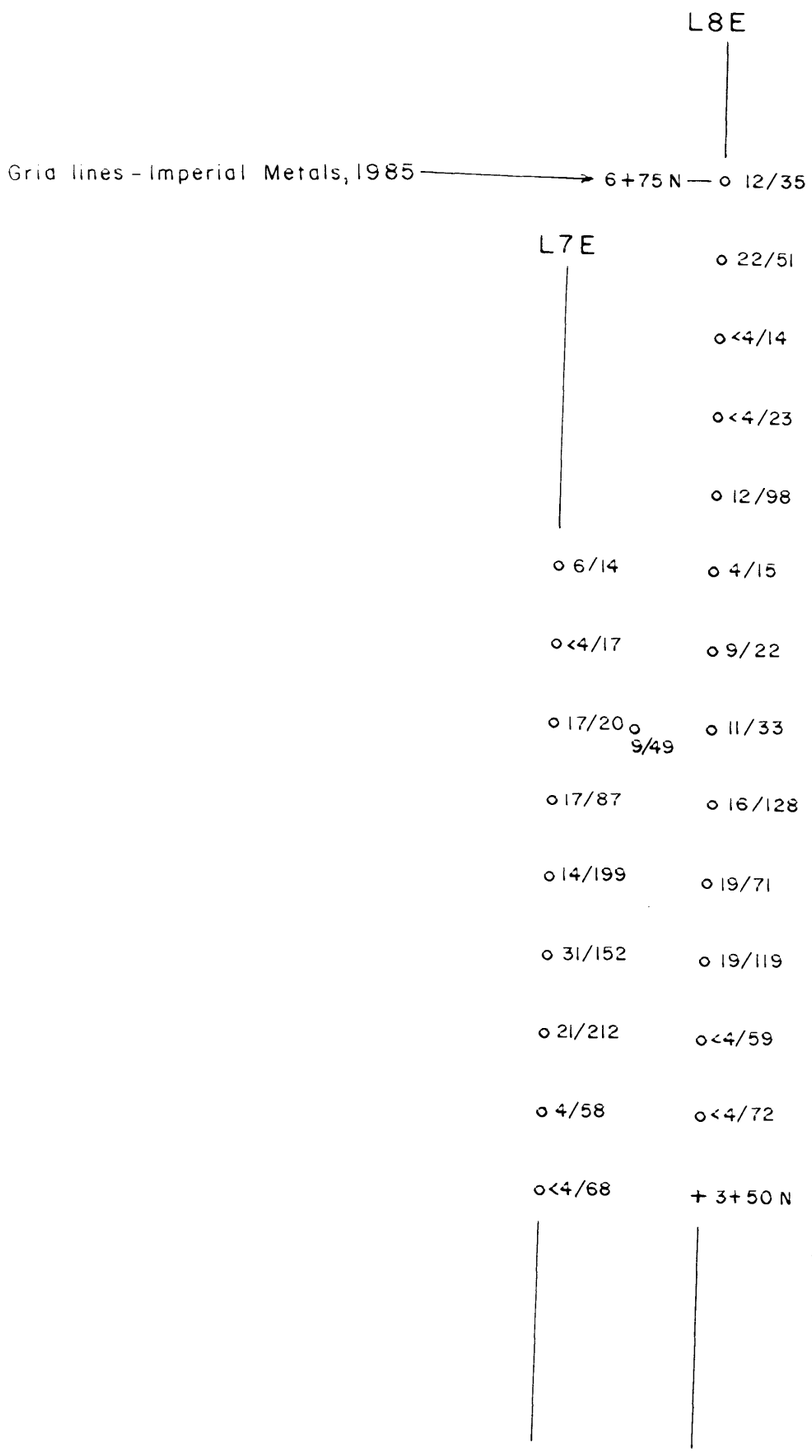
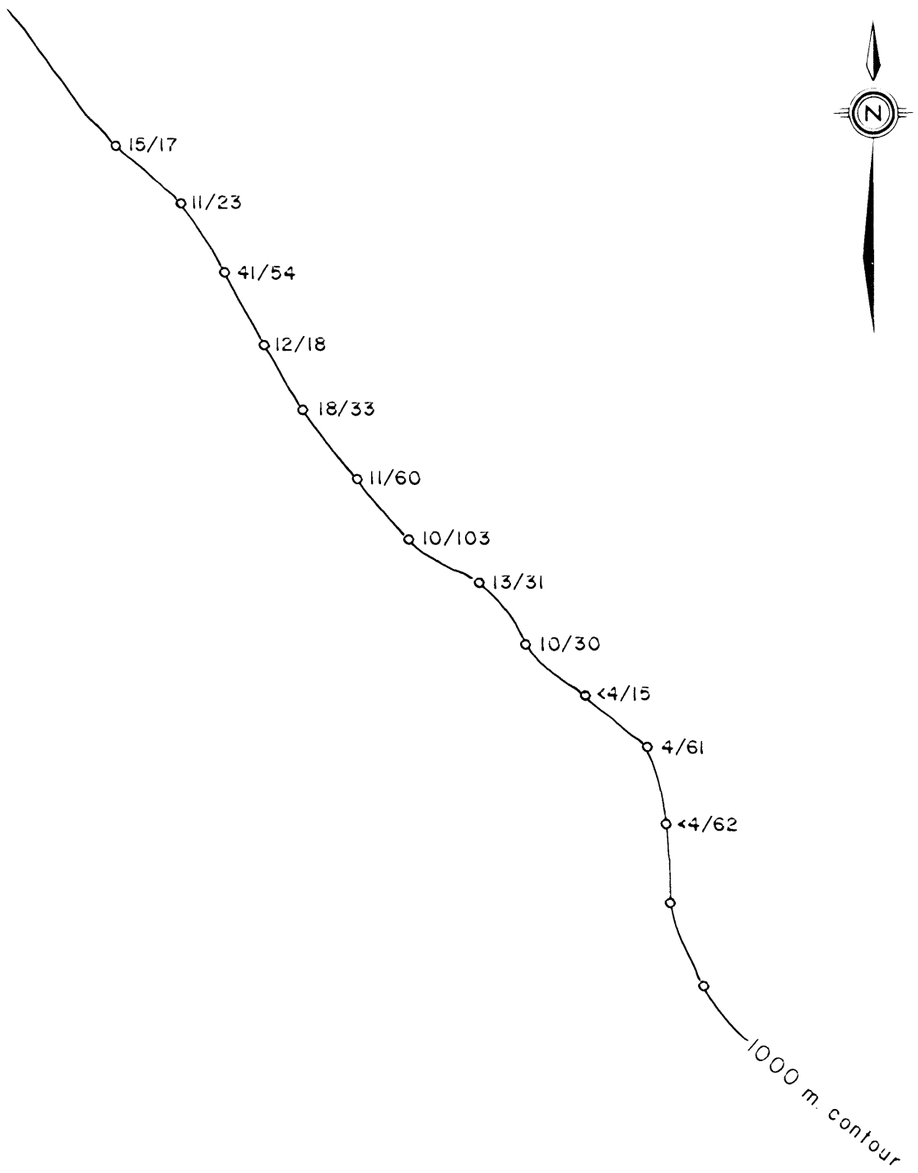
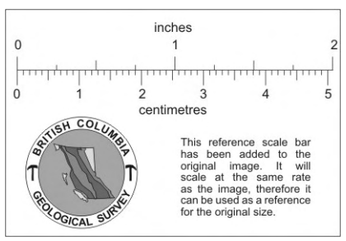
NCI - 118 - C L





o 4/61 Sample analysis - ppm Pb/ppm Zn

0 25 50 75
metres



KEEN AREA

Cominco 93 D/9

Drawn by:		Traced by:	
Revised by	Date	Revised by	Date

CONTOUR SOIL GEOCHEMISTRY
LEAD AND ZINC VALUES

Scale: 1:2000 | Date: Nov. 1985 | Plate: 10

210 3620

L8E

Grid lines - Imperial Metals, 1985 → 6+75 N — o<.4/<10/49

L7E

o<.4/<10/55

o<.4/<20/27

o<.4/<10/28

o<.4/<10/52

o<.4/<10/31 o<.4/<20/34

o<.4/<20/20 o<.4/<10/30

1.1/<10/57 o <.4/<10/31 o<.4/<10/26

<.4/<10/21 o 0.4/<10/67

<.4/<10/63 o<.4/<10/25

<.4/11/30 o<.4/<10/57

<.4/<10/58 o<.4/<10/37

<.4/<10/41 o<.4/<10/68

<.4/30/40 + 3+50 N

<.4/<10/25

<.4/<10/29

0.9/<10/37

<.4/<10/37

<.4/<10/28

<.4/<10/44

<.4/<10/60

<.4/<10/17

<.4/<10/21

<.4/<50/25

<.4/<10/28

<.4/<10/23

1000 m. contour

N

o <.4/<10/28 Sample analysis - ppm Ag/ppb Au/ppm Cu

0 25 50 75
metres

inches
0 1 2
0 1 2 3 4 5
centimetres

BRITISH COLUMBIA GEOLOGICAL SURVEY

This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.

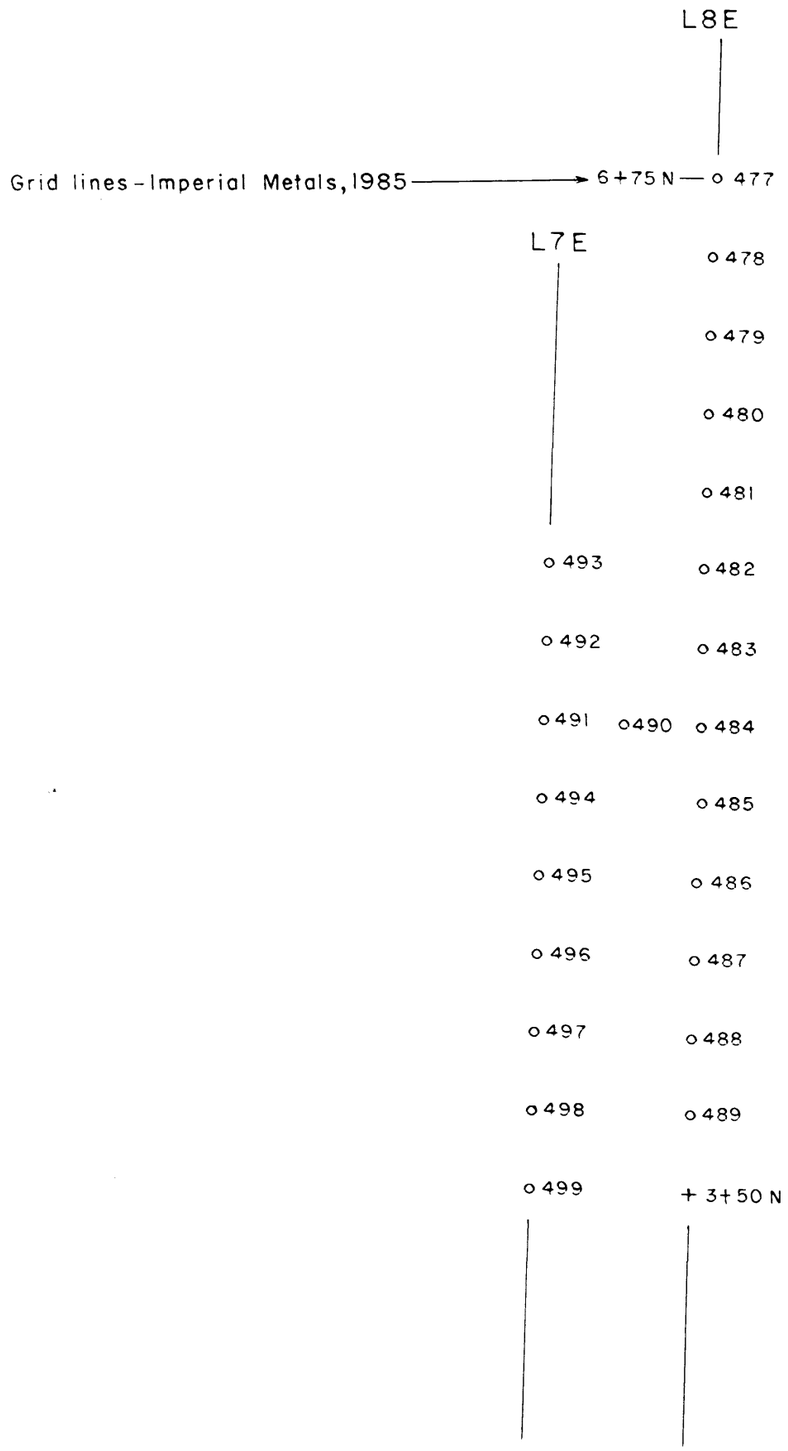
KEEN AREA

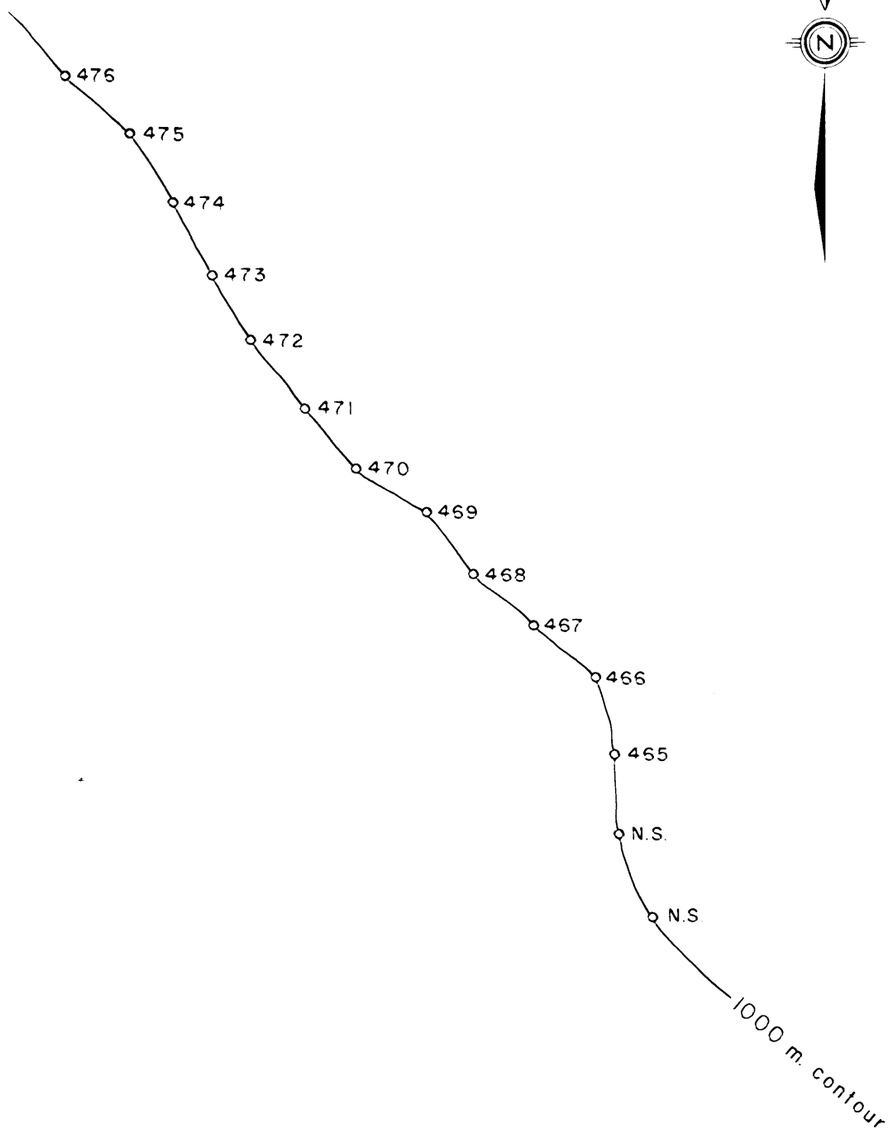
Cominco 93 D/9

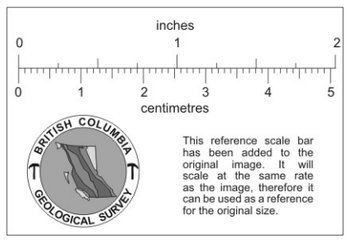
Drawn by:		Traced by:	
Revised by	Date	Revised by	Date

CONTOUR SOIL GEOCHEMISTRY
SILVER, GOLD, & COPPER VALUES

Scale: 1:2000 Date Nov. 1985 Plate: II







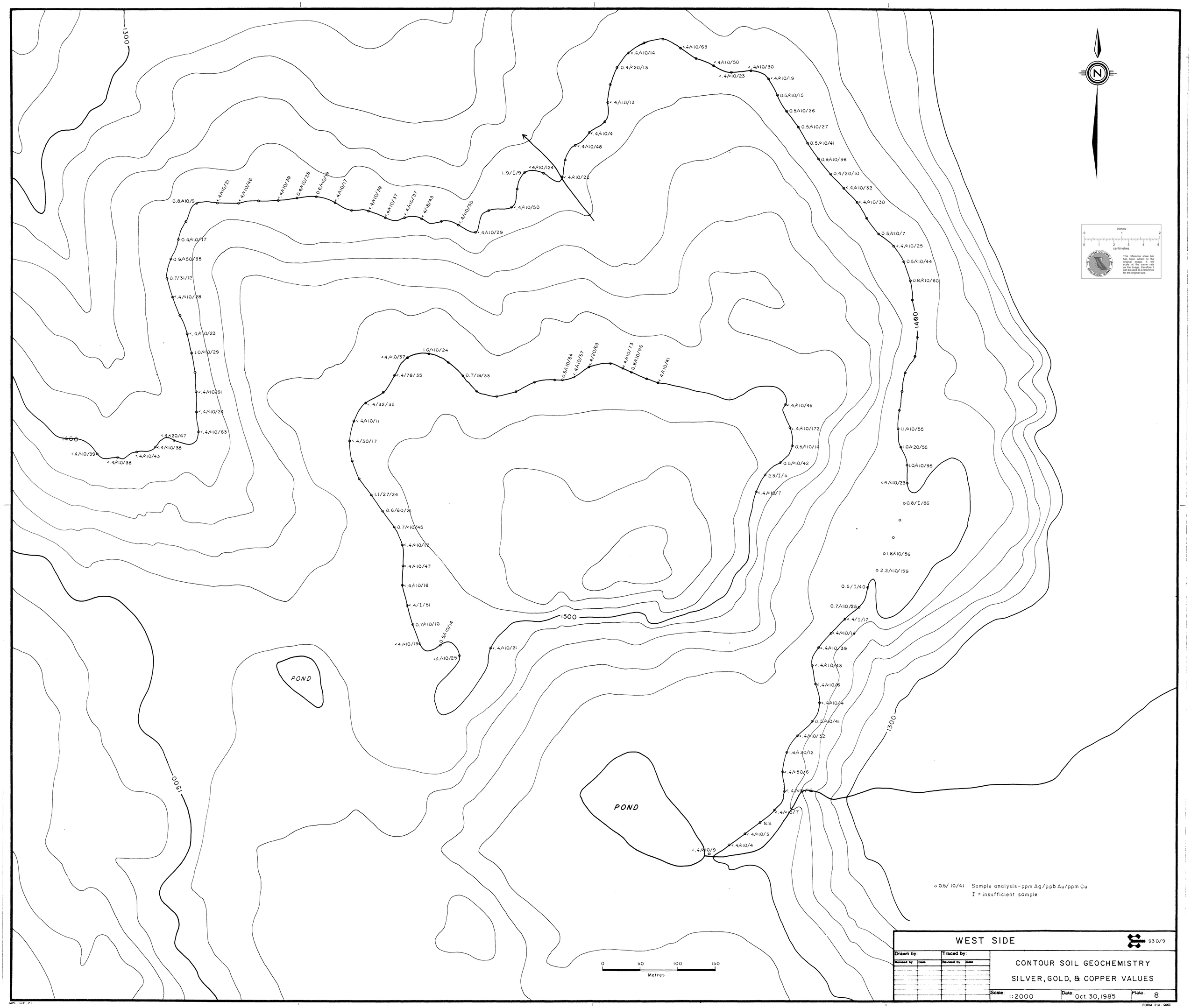
KEEN AREA

Commco 93 D/9

Drawn by:		Traced by:	
Revised by	Date	Revised by	Date

CONTOUR SOIL GEOCHEMISTRY SAMPLE LOCATION MAP

Scale: 1:2000 | Date: Nov. 1985 | Plate: 9



This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.

o 0.5/ 10/41 Sample analysis - ppm Ag / ppb Au / ppm Cu
I = insufficient sample

WEST SIDE

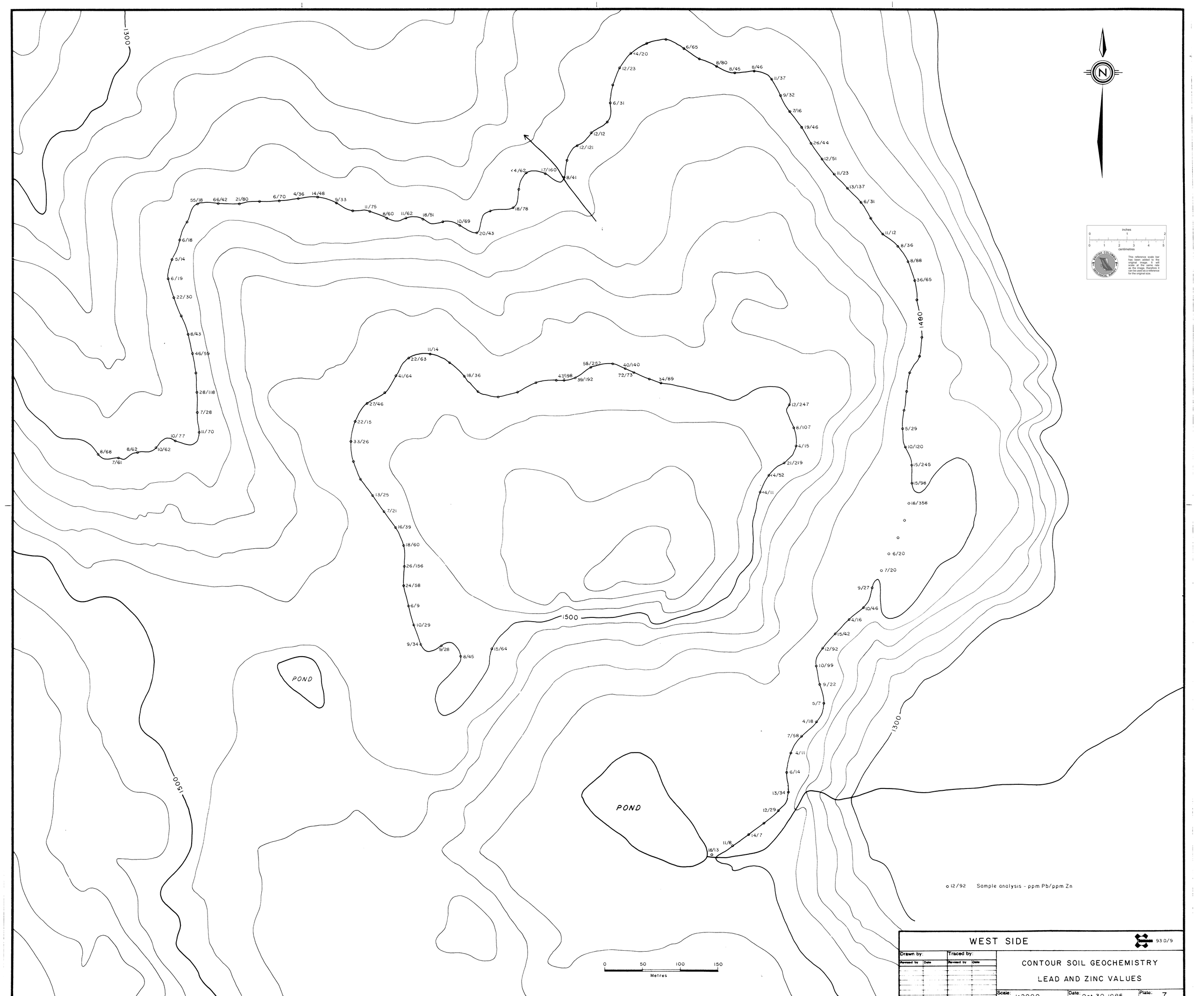
93 O/9

Drawn by:		Traced by:	
Revised by	Date	Revised by	Date

CONTOUR SOIL GEOCHEMISTRY
SILVER, GOLD, & COPPER VALUES

Scale: 1:2000 | Date: Oct. 30, 1985 | Plate: 8

FORM 210 - 0600



This reference scale bar has been added to the original image. It will therefore change relative to the image, therefore it can be used as a reference for the original size.

WEST SIDE

93 D/9

Drawn by:		Traced by:	
Revised by	Date	Revised by	Date

CONTOUR SOIL GEOCHEMISTRY
LEAD AND ZINC VALUES

Scale: 1:2000 | Date: Oct. 30, 1985 | Plate: 7

NCI - 117 - C L

FORM 210 - 0600

5,826,000 mN

5,825,000 mN

5,824,000 mN

5,823,000 mN

678,000 mE

674,000 mE

Noosgulch River

CAMPSITE

CAMPSITE

MAIN SHOWING

TAMART SHOWING

KEEN ANOMALY

BELLA COOLA

LEGEND

ROCK TYPE	TEXTURAL MODIFIER
VOLCANICS	PYROCLASTICS
1 Rhyolite	(a) Breccia > 2/3 > 64mm
2 Dacite	(b) Tuff-Breccia 1/3-2/3 > 64mm
3 Andesite	(c) Lapilli Tuff > 2/3 2-64mm
4 Basalt	(d) Lapilli 2-64mm
EPICLASTICS	(e) Tuff < 2mm
5 Lahoric Breccias	(f) Ash tuff or lithic tuff
6 Mudstone	(g) Crystal tuff
INTRUSIVES	(h) Waterlain tuff
Db Diabase	FLOWS
FP Feldspar Porphyry Quartz	(i) Massive flows
Di Diorite	(j) Phyric or porphyritic
	(k) Flow breccia
	(n) Amygdaloidal or vesicular

SYMBOLS

Outcrop

Snowfield

Talus

500 0 1000

metres

contour interval 20m.

inches 0 1 2 3 4 5

centimetres

This reference scale bar should measure 5 cm on the original image. It will scale at the same ratio when the image copy that can be used as a reference for the original size.

TRIATHLON MAPPING CORP.

NIFTY JOINT VENTURE

Drawn by: | Traced by:

Revised by	Date	Revised by	Date

GEOLOGY

N.T.S: 93D/9 SKEENA M.D.

Scale: 1:10000 Date: OCT. 1985 Plate: 12

NCI - 118 - C L

FORM 810-0670

COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

NTS: 93D/9

18 December 1985

REPORT

GEOLOGY OF THE NIFTY SHOWING

NIFTY JOINT VENTURE

IMPERIAL METALS LTD. (OWNER)
COMINCO LTD. (OPERATOR)

SKEENA M.D.

J. D. BLACKWELL

R. F. NICHOLS

TABLE OF CONTENTS

****

COMINCO LTD.

EXPLORATION WESTERN

18 December 1985

NIFTY Pb-Zn-Ag SHOWINGS AREA

1. SUMMARY

All pertinent drill core from the Nifty showing area was relogged. The 1981 Rio Canex grid was reflagged and the surface geology adjacent to the mineralized showings and various Pan Ocean, Rio Canex, and Imperial drill holes was mapped by R.F. Nichols and A. Taylor. As a result of this work surface geology from an area including the main and barite trench zones can be confidently correlated with drill hole geology. A distinctive stratigraphic sequence is interpreted to strike 100-110° and dip 50-60° to the east. Faulting and dyke phases (quartz feldspar porphyry, andesitic) disrupt this sequence but stratigraphic correlation can still be made as illustrated in sections A-A', B-B', and C-C'.

2. INTRODUCTION

Surface work on the Nifty Zn-Pb-Ag showings began in the 1930's. Prior to 1978 work consisted of geological mapping, prospecting, extensive trenching and one 35 foot adit. Since 1978 3 companies have variously undertaken geological mapping, grid soil sampling, limited geophysics and diamond drilling. In all, 13 BQ drill holes totalling 1653.2 metres have been completed. Pan Ocean was the first to drill in 1978 with a total of 668.7 metres in 5 holes - all collared from the same set up. In 1981 Rio Canex completed a deep hole to 475.3 metres after their first attempt was lost at 175.9 metres. Imperial Metals drilled six short BQ holes in 1984 for a total of 313.3 metres.

3. GEOLOGY

a) Stratigraphy

The stratigraphic sequence, from hangingwall to footwall is as follows:

HANGINGWALL (Map Units 4a, 4b)

Intercalated cherty-tuffite/siltstone and coarse grained andesitic tuff

4a) The cherty-tuffite/siltstone is a pale to medium green centimetre scale colour banded mostly aphanitic unit with small (0.5 m or less) chalky white feldspar crystals scattered throughout. The darker green bands are most likely the result of a fine chlorite component, pyrite (0.1 to 0.5 mm), is weakly disseminated throughout but overall less than 1%.

4b) The dominantly coarse grained andesitic tuff (0.5 to 1 mm) is comprised of pale grey aphanitic; fragments and feldspar crystals in a darker green chloritic matrix. The unit, varies (locally) from fine grained to lapilli size.

The hangingwall units total 100 metres plus in thickness.

THE LAPILLI TRIPLET (Map Units 3a, 3b, 3c)

The hangingwall unit is underlain by a distinctive 30-40 metre thick "lapilli triplet" unit that can be correlated from surface through Pan Ocean and Rio Canex drill holes.

3a) Light grey-matrix supported multilithic lapilli-tuff

The upper unit of the triplet is characterized by a light grey-blue aphanitic matrix which supports angular lapilli size fragments up to 25 mm. Distinctive dark grey black angular to irregular/contorted "shard-like" chlorite fragments (0.5 to 2.0 mm) are also common. Lapilli size fragments include:

i) light grey to medium green aphanitic rhyolite/cherty fragments - some are pyritic and similar to unit 2a.

ii) grey-green aphanitic fragments with abundant chalky white feldspar crystals/phenocrysts (0.1 to 0.5 mm).

iii) occasional flow banded fragments.

A few quartz eyes are also erratically developed throughout. Epidote often as mm or less radiating clusters is ubiquitous.

3b) Medium grey-green, fragment supported feldspar crystal-lithic lapilli-tuff

The fragment types present in the middle member are similar to the overlying matrix supported unit, but the rock is matrix poor and is almost entirely made up of 1 mm or less lithic fragments as well as abundant feldspar crystals. Dark green "shard-like", chloritic fragments are still present but less abundant than above.

Epidote is more strongly developed throughout this unit.

3c) Flattened and hematized multilithic lapilli-tuff

The lower unit of the triplet is a brick red multilithic lapilli tuff. This is a variably hematized unit with distinctive flattened (50 to 20 mm) aphanitic to flow banded fragments. The intensity of hematitic alteration varies from affecting only the matrix to (locally?) pervasively altering matrix and fragments alike. Some silicification appears to accompany the more intensely hematized zones. Pyrite $\pm$ traces of galena/sphalerite and barite(?) is also variable within this unit, which most likely represents the top of the mineralized section.

MINERALIZED SEQUENCE (Map Units 2a, 2b)

2a) Fine to coarse grained massive (laminated) felsic-pyrite tuff

A light-medium grey (brown) pyritic felsic tuff is mostly massive and featureless except for local laminated sections. The unit is also variably sericitized and/or kaolinized. The pyrite content is equally variable throughout.

2b) Feldspar rich crystal lithic lapilli tuff

Feldspar packed crystal mono(?)-lithic lapilli tuffs are interlayered within the pyritic acid tuff unit.

FOOTWALL UNIT (Map Unit 1)

Footwall rocks were only encountered in a few drill holes, and these showed the mineralized zone to be underlain by a 20 metre + thick mottled chlorite unit.

1) Mottled chlorite unit

A weakly foliated light-medium grey tuffaceous unit appears similar in character to the matrix of unit 3a. The lapilli size fragments, including pyritic frags are occasionally present.

The dark green-black shard-like chloritic fragments set in a fine grained tuffaceous matrix is the most obvious characteristic of this unit and is similar to unit 3a.

b) Mineralization

The surface showings extend from the northwest zone through the main zone (adit zone) to the barite trench over a distance of 125 metres. A single test line of IP initiated by Imperial in 1984 defined a strong anomaly over the barite trench zone. Subsequent follow up IP lines appears to extend the anomaly 50 metres to the east (lines 1E, 2E) the anomaly does not continue through to line 3E (75 metres east), so the combined showings/IP target width is likely in the order of 200 metres. Thickness of the surface showings is variable and often obscured by dykes/sills and faulting, but in several places appears to be at least 2 metres thick (locally thicker - ie barite trench?). To date 13 drill holes have been collared in an attempt to extend the surface showings. It appears that only drill holes 78-2, 78-3, 81-2 have effectively penetrated the favourable stratigraphy within this 200 x 300 m zone, and none of these encountered any significant mineralization.

Main Zone - Pan Ocean drill hole 78-2 intersected the favourable stratigraphic package 60 metres down dip from the surface showing (Section A-A). No base metal sulphides were encountered. Rio Canex drill hole 81-2 encountered an identical hangingwall - "Lapilli triplet"- pyritic tuff sequence at approximately 300 metres down dip. No base metal sulphides were present.

Trench (Barite) Zone - Testing down dip of the Trench (Barite) zone by Pan Ocean 78-1 (Section B-B') was inconclusive due to severe dyking within the projected favourable interval. Pan Ocean 78-5 (Section C-C') partially tests the favourable stratigraphy, but ends in broken, oxidized (mineralization hosting?) pyritic tuffs.

Northwest Zone - Faulting and dyking are evident within the Northwest zone on surface. Pan Ocean drill hole 78-3 (Section C-C') which drilled behind this zone (60-70 metres down dip) reflects this complexity. It is possible that the favourable stratigraphy has been tested with this hole, but no evidence of base metal sulphides was seen.

4. DISCUSSION

The above testing, while far from exhaustive does limit the down dip potential of the surface showings. The indications are that the target will most likely be narrow (50-100 metres??) probably difficult to follow

lenses/shoots. Faults and dykes are also likely to disrupt/offset and/or dilute any mineralized trends. An extensive dip/plunge direction or a significant improvement to the presently known width and/or thickness of the surface showings will have to be defined in order to develop any economic tonnage potential. To follow up this possibility it would first be necessary to establish if the surface showings persist down dip below the trenches. Some trenching and/or a few short drill holes collared immediately behind the surface showings may answer this question. Further IP would be helpful in an attempt to extend the limits of the presently known IP anomaly.

Reported by: _____

J.D. Blackwell,
Project Geologist

_____

R.F. Nichols,
Project Geologist

JDB/RFN/PM
Distribution:

Scale

Colour Plot & Dips

Drill Hole Record

Property NIFTY | District Skeena M.D. | Hole No. Pan Ocean 78-1

Commenced | Location | Tests at | Hor. Comp.

Completed | Core Size BQ | Corr. Dip -58° | Vert. Comp.

Co-ordinates | True Brg. 173° | Logged by R.F.Nichols;A.T.

Objective | % Recov. | Date August 13,1985

Claim Nifty 5 | T Brg. 173° | Collar Dip -58° | Elev. | Length 200.2 m

Footage From	To	Description	Sample No.	Length	Analysis
0	47.8 m	Light grey green massive feldspar porphyry - minor quartz eyes.			
		mm to occasionally cm wide quartz-calcite stringers, few specs of pyrite in some veins.			
		2.7 - 7.0 - light green aphanitic unit, soft - most likely "cooked" andesite.			
47.8	72.8	Green grey feldspar crystal-lithic lapilli tuff (Lapilli triplet - unit 2)			
		quartz eyes locally abundant.			
		feldspars show variable epidotization, some completely replaced.			
		fragments commonly up to 5 mm consist of grey to pink aphanitic/cherty and black/green wispy			
		chloritic frags.			
		58.5 - 61.6 - andesitic dyke - contacts irregular			
		63.1 - 66.7 - andesitic dyke - contacts sheared upper @ 20° to C/A lower at 60° to C/A			
		66.7 - 72.8 - chert more abundant now, fragments commonly up to 2-3 cm			
72.8	101.5	Andesite			
		massive fine grained green andesite mm wide quartz-calcite veinlets scattered throughout			
101.5	114.0	Feldspar porphyry			
		matrix dark-medium green, chloritic - few tan coloured specs of sericite (?) throughout. Feldspar			
		phenocrysts are mostly fresh and average 2-3 mm. Weak pervasive pyrite 1% with occasional larger			
		bleb, also some chlorite rich blebs (cm +).			
		107.9 - 109.1 - Andesitic dyke.			

Scale

Colour Plot & Dips

Drill Hole Record

Property	NIFTY	District		Hole No.	
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Footage From	To	Description	Sample No.	Length	Claim	T Brg.	Collar Dip	Elev.	Length
					Analysis				
114.0	147.2	Andesite							
		Massive fine grained green andesite.							
		114 - 137.2 -featureless except for a few lighter (bleached) zones near the top.							
		137.2 - 147.2 - more irregular now due to erratic chlorite and/or feldspar rich patches as well as vague, localized bleached zones, weak disseminated pyrite and occasional bleb .							
147.2	150.6	Mottled chlorite unit							
		Fine grained light grey-green unit with distinctive "shard like" chlorite fragments in an often weakly foliated and tuff (?) matrix distinctive tan sericite ragged patches up to few cm across.							
150.6	154.5	Andesite							
		Similar to 114.0 - 147.2, massive featureless.							
		151.6 - 152.3 broken, (rotten) epidote - carbonate rich zone - minor pyrite.							
154.5	200.2	Epidotized Feldspar porphyry							
		Overall a grey green unit similar to 0-47.8 m but now most of the feldspars are altered to a distinctive yellow-green epidote, approximately 10% are still relatively fresh.							
		Widespread narrow (mm +) quartz-calcite veinlets.							
200.2		END OF HOLE							

Scale

Colour Plot & Dips

Drill Hole Record

Commco

Property NIFTY	District Skeena M.D.	Hole No. Pan Ocean 78-2	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size BQ	Corr. Dip -75°	Vert. Comp.
Co-ordinates		True Brg. 237°	Logged by R.F.Nichols/A.T.
Objective		% Recov.	Date August 14,1985

Claim Nifty 5 | T Brg. 237° | Collar Dip | Elev. | Length 130.2

Footage From	To	Description	Sample No.	Length	Analysis
0	9.4 m	Quartz-feldspar porphyry			
		Dark green to locally, light waxy green aphanitic groundmass			
		1-2 mm quartz eyes abundant throughout			
		2-3 mm feldspar phenocrysts are mostly fresh (unaltered)			
9.4	70.7	Intercalated cherty tuffite/siltstone and coarse grained andesitic tuff			
		Variable light grey to medium grey-green fine grained cherty tuffite/siltstone colour banding			
		on cm to mm scale. at 40° to core axis.			
		A few cm-dm darker grey green bands of coarse grained to lapilli size andesite tuff are inter-			
		calated throughout.			
		Pale yellow-green epidote occurs partly replacing some bands, and as thin stringers.			
		Few mm size quartz eyes @ 34.1 m.			
		44.2 - 52.7 - intermediate-mafic (andesitic?) dyke, minor pyrite traces chalcopyrite-			
		malachite - feldspars variably epidotized.			
		62.2 - 64.6 - silicified zone - milky grey - very hard epidotized feldspars			
		some vague lapilli size frags still seen.			
		64.6 - 70.7 - mostly highly epidotized coarse grained tuff some fine grained (muddy)			
		interbands over cm-dm. Still at 40° to C/A.			
70.7	87.5	Intermediate-felsic multi-lithic lapilli tuff - this unit can be subdivided into 3 distinct			
		units - all massive in character. Together they form a "Lapilli triplet".			
		Unit (1) 70.7 - 74.7 - light grey-blue (aphanitic) matrix supported lapilli tuff with angular			
		fragments to 25 mm. Some sharp-contorted chloritic-sericitic shard like fragments.			

Scale

Colour Plot & Dips

0

Drill Hole Record

Property NIFTY | District | Hole No.

Commenced | Location | Tests at | Hor. Comp.

Completed | Core Size | Corr. Dip | Vert. Comp.

Co-ordinates | True Brg. | Logged by

Objective | % Recov. | Date

Claim | T Brg. | Collar Dip | Elev. | Length

Footage From	To	Description	Sample No.	Length	Analysis
		Fragment types include:			
		1. aphanitic/cherty light grey-pink			
		2. grey-dark grey green tuffaceous			
		3. felsic flow banded			
		4. quartz eye rhyolite			
		Unit (2) 74.7 - 83.8 - medium grey green feldspar crystal lithic lapilli tuff with a fragment supported matrix now. This unit more strongly epidotized than unit(1). Fragments include:			
		1. chlorite rich clots			
		2. white-pink cherty/aphanitic			
		3. feldspar porphyry.			
		Unit (3) 83.8 - 87.5 - red-hematized multi-lithic lapilli tuff brick red unit - foliated,			
		flattened texture throughout overall fragment size apparently smaller than above.			
87.5	91.4	Light grey fine-medium grained, pyritic (felsic?) tuff			
		Massive featureless unit, with heavily disseminated pyrite throughout. Bottom meter has			
		wispy flattened fragments - some hematitic.			
91.4	93.0	Well laminated very fine grained mud tuff			
		mm - cm scale laminae @ 45° to C/A			
93.0	98.1	Monolithic feldspar crystal lapilli tuff			
		Tightly packed fragment supported unit gives some impression of being re-worked (winnowed)			
		erratic pyrite in matrix around some frags.			

Scale

Colour Plot & Dips

Drill Hole Record

Commco

Property	NIFTY	District		Hole No.	
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length

Footage From	Footage To	Description	Sample No.	Length	Analysis
98.1	103.3	Pyritic (felsic) tuff			
		Similar to 87.5 - 91.4 but darker grey-brown now due to higher pyrite content.			
103.3	105.5	Andesite dyke			
105.5	130.1	Light-medium grey wispy chloritic (shard) tuff			
		Some fine-coarse - lapilli grain size banding @ 40-50° toC/A.			
		Lapilli dominates to 111.9 then mostly fine-coarse tuffs, distinctive, ragged tan sericite			
		patches up to few cm throughout unit overall weakly foliated.			
		123.7 - 125.3 - unit broken, some oxidation of fractures.			
		125.3 - 130.1 - broken, mostly bleached now.			
130.1		END OF HOLE			

211-

Scale

Colour Plot & Dips

0

Drill Hole Record

Commco

Property NIFTY	District Skeena M.D.	Hole No. Pan Ocean 78-3	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size BQ	Corr. Dip -65°	Vert. Comp.
Co-ordinates		True Brg. 296°	Logged by R.F.Nichols/A.T.
Objective		% Recov.	Date August 14,1985

Claim Nifty 5 | T Brg. 296° | Collar Dip -65° | Elev. | Length 177.7 m

Footage From	To	Description	Sample No.	Length	Analysis
0	5.8 m	Quartz-feldspar porphyry			
5.8	75.3	Intercalated cherty tuffite/siltstone and andesitic tuff			
		Same as Pan Ocean 78.2 9.4 to 70.7 altitudes @30° to C/A now.			
		No lapilli size sections present.			
		cm-dm wide epidote rich bands common down to 25 m			
		37.2 - 44.8 darker grey more massive coarse grained andesitic tuff			
		70.7 - 75.3 silicified section - lighter (waxy) green cm-dm wide epidote veins common			
75.3	78.6	Andesite-feldspar porphyry dyke			
		Most feldspars epidotized, chilled upper contact @ 10° to C/A.			
78.6	81.4	Dark grey, fine to medium grained, Andesitic tuff			
		Massive featureless unit.			
81.4	89.3	Light grey fine to medium grained pyritic tuff			
		Massive, felsic unit similar to Pan Ocean 78.2 - 87.5 - 91.4 m.			
89.3	93.3	Feldspar porphyry dyke			
		Altered, indistinct unit - could be feldspar crystal tuff.			
93.3	94.2	Andesite dyke			

211

Scale

Colour Plot & Dips

Drill Hole Record

Commco

Property NIFTY	District	Hole No. Pan Ocean 78-3	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length

Footage From	To	Description	Sample No.	Length	Analysis
94.2	104.2	Light-dark grey pyritic felsic tuff			
		94.2 - 98.7 only weakly pyritic now			
		98.7 - 104.2 - very pyritic/muddy in nature now			
		99.7 - few cm wide argillite band.			
104.2	113.1	Andesite dyke			
113.1	125.0	Light to medium grey aphanitic tuffaceous unit - cm scale coarser grained bands and colour			
		banding (mm-cm) @ 30° to C/A pyrite variable throughout from traces to locally very abundant			
		(darker sections).			
125.0	133.2	(Quartz) Feldspar porphyry dyke			
		Upper part altered and pyritized, bottom few metres more typical QFP. Sharp contact @ 35°			
		to C/A - narrow chilled margin?			
133.2	160.3	Intermediate-felsic multi-lithic lapilli tuff			
		Parts of the same unit in Pan Ocean 78.2 (70.7 - 87.5)			
		Unit (2) - 132.2 - 141.1 dark grey green feldspar crystal-lithic lapilli tuff			
		coarse grained tuffaceous matrix. Frags. at 78.2 with few			
		hematized frags as well - average size 3-5 mm locally 20-30 mm.			
		Weak epidote throughout.			
		Unit (3) 141.5 - 156.1 - brick red-hematized close packed lapilli most frags hematized, some			
		andesitic feldps porphyry.			

211-041

Scale

Colour Plot & Dips

Drill Hole Record

Property NIFTY | District | Hole No. Pan Ocean 78.3

Commenced | Location | Tests at | Hor. Comp.

Completed | Core Size | Corr. Dip | Vert. Comp.

Co-ordinates | True Brg. | Logged by

Objective | % Recov. | Date

Claim	T Brg.	Collar Dip	Elev.	Length

Footage From	To	Description	Sample No.	Length	Analysis
		150.3 - 151.3 - Andesitic dyke			
		156.1 - 160.3 - medium green close packed lapilli tuff - like unit (2)? above.			
160.3	167.9	Fine grained light grey pyritic - felsic tuff			
		Massive weakly to moderately pyritic unit - pyrite laminated in places @ 70° to C/A.			
		161.8 - 167.9 - dominantely lapilli size frags. now.			
167.9	172.5	Andesitic- feldspar porphyry dyke			
		Few dm sections of above (160.3 - 167.9).			
172.5	177.7	Light-medium grey wispy chloritic (shard) tuff.			
		Weakly foliated.			
		Some narrow fine grained pyritic tuff interbands.			
177.7		END OF HOLE			

Scale

Colour Plot & Dips

Drill Hole Record

Commco

Property NIFY	District Skeena M.D.	Hole No. Pan Ocean 78-4	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size BQ	Corr. Dip -84°	Vert. Comp.
Co-ordinates		True Brg. 004°	Logged by R.F.Nichols/A.T.
Objective		% Recov.	Date August 1985

Claim Nifty 5 | T Brg. 004° | Collar Dip -84° | Elev. | Length 63.1 m

Footage From	To	Description	Sample No.	Length	Analysis
0	4.3 m	Quartz feldspar porphyry dyke			
4.3	63.1	Intercalated cherty tuffite/siltstone and andesitic tuff similar to other Pan Ocean holes, but slightly higher proportion of c-q tuff now. attitudes 30° to C/A.			
63.1		END OF HOLE			

211-0

Scale

Colour Plot & Dips

Drill Hole Record

Property NIFTY	District Skeena M.D.	Hole No. Pan Ocean 78-5	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size BQ	Corr. Dip -70°	Vert. Comp.
Co-ordinates		True Brg. 114°	Logged by R.F.Nichols/A.T.
Objective		% Recov.	Date August 15,1985

Claim Nifty 5 | T Brg. 114° | Collar Dip -70° | Elev. | Length 99.7 m

Footage From	To	Description	Sample No.	Length	Analysis
0	19.2 m	Quartz feldspar porphyry			
19.2	64.3	Intercalated cherty tuffite/siltstone and andesitic tuff			
		Some sections very fine grained, laminated, others coarse grained over few cm-dm attitudes @ 50° to C/A. Epidote throughout as mm- several cm wide veins/pods.			
		30.5 - 32.0 - quartz feldspar porphyry - subparallel to C/A (in/out of tuff unit).			
64.3	85.9	Intermediate-felsic multilithic lapilli tuff			
		Parts of the same unit in Pan Ocean 78-2, 78-3.			
		Unit (1) 64.3 - 69.2 - white-blue grey aphanitic matrix supported lapilli tuff - angular frags up to 25 mm. Some shard like chloritic fragments. Same as 78-2 (70.7/74.7).			
		Unit (2) 69.2 - 85.9 - grey green fragment supported feldspar crystal lithic lapilli tuff same as 78.2 (74.7 to 83.8).			
		75.3 - 77.1 - Andesite dyke/sill wavy upper contact @ 50° C/A.			
85.9	99.7	Light grey (brown) tuff			
		Very broken, oxidized section - sheared 50% recovery.			
		Shearing @ 0-20° to C/A.			
99.7		END OF HOLE			

Scale

Colour Plot & Dips

0

Drill Hole Record

Commco

Property NIFTY	District Skeena M.D.	Hole No. RIOCANEX 81-2	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size BQ	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by R.F.Nichols/A.T.
Objective		% Recov.	Date August 16,1985

Claim Nifty 8 | T Brg. 215° | Collar Dip -82° | Elev. | Length

Footage From	To	Description	Sample No.	Length	Analysis
		START LOGGING @ 165 m			
165	256 m	Andesite tuff intercalated cherty tuffite/siltstone			
		Similar to upper unit in Pan Ocean holes. Andesite variable up to 5mm in grain size			
		thin mm wide quartz + calcite stringers ubiquitous epidote variably developed occasionally in			
		cm-dm wide veins.			
		176 - 183 - Light to dark grey laminated tuffite/siltstone @ 30° to C/A			
		195 - 200.2 - Pale, massive sericitic unit - possible rhyolitic - tuff lower contact wavy but			
		distinct 30° to C/A.			
		224 - 234 - Feldspar porphyry dyke.			
256	300	Intermediate - felsic multi lithic lapilli tuff			
		Can be subdivided into 3 units same as Pan Ocean 78-2, 78-3., etc.			
		Unit (1) 256 - 274 - Matrix supported, chloritic (shard like) light grey green lapilli.			
		Few alternating coarse grained andesite tuff bands bedding @ 30° to C/A.			
		Unit (2) 274 - 287 - Grey green (epidotized) multi lithic fragments supported lapilli tuff -			
		frags same as 78-2.			
		281 - 283 - heavily epidotized coarse grained tuff.			
		Unit (3) 287 - 300 - Brick red (hematitic) multi lithic lapilli tuff frags mostly white-aphanitic,			
		andesite feldspar porphyry unit shows foliation - flattening of fragments @			
		0 - 10° to C/A.			
300	305	Andesite dyke			
305	336	Coarse grained - lapilli tuff			
		Confusing section of narrow alternating, lapilli tuff, coarse grained tuff and andesite dyke.			

211-4

Scale

Colour Plot & Dips

Drill Hole Record

Comineo

Property	NIFTY	District	Hole No.	
Commenced		Location	Tests at	Hor. Comp.
Completed		Core Size	Corr. Dip	Vert. Comp.
Co-ordinates			True Brg.	Logged by
Objective			% Recov.	Date

Footage From	To	Description	Sample No.	Length	Claim	T Brg.	Collar Dip	Elev.	Length	Analysis
		327 - 328.5 - Hematitic zone								
		329.5 - 336 - Andesite dyke								
335 -	351	Light green - sericitic unit								
		Massive, featureless (waxy) light green sericitic tuff cut by numerous andesite dykes such as								
		342 - 342.5								
		343.6 - 344.1								
		347.2 - 348.2								
		350 - 351 - near massive pyrite + lapilli size fragments.								
351 -	356	Andesite dyke - local bleaching on contacts.								
356 -	364	Quartz-feldspar porphyry dyke								
		Very coarse grained crowded quartz-felds porph.								
364 -	495.3	Core stored in Vancouver - quick check in general agreement with Rfocanex logging.								
495.3		END OF HOLE								

Scale

Colour Plot & Dips

0

Drill Hole Record

Commco

Property NIFTY	District Skeena M.D.	Hole No. Imperial 84-1	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size BQ	Corr. Dip -45°	Vert. Comp.
Co-ordinates		True Brg. 015°	Logged by R.F.Nichols/A.T.
Objective		% Recov.	Date August 16,1985

Claim | T Brg. 015° | Collar Dip -45° | Elev. | Length 49.4 m

Footage From	To	Description	Sample No.	Length	Analysis
0	17.1 m	Dark green coarse grained feldspar crystal tuff			
		Same as Imperial 84-2 (0 - 7.3)			
17.1	20.1	Multi lithic lapilli tuff			
		Section badly broken, oxidized, some pyritic mud clasts.			
20.1	28.0	Dark grey pyritic tuff			
		Massive fine grained pyritic felsic (?) tuff. Similar to Imperial 84-2 (16.1 - 61.6).			
		20.7 to 21.9 and 25.3 to 27.7 badly broken, oxidized			
		25.9 - 26.7 pyrite, pyrrhotite abundant as blebs, stringers, traces galena at 26.2 m			
		narrow "banded" pyrite - tan sphalerite + galena @ 10° toC/A..			
		23.8 - 24.4 - Andesite dyke.			
28.0	49.4	Feldspar crystal lithic tuff			
		Tightly packed feldspar crystal tuff with weak foliation.			
		29.3 - 30.5 andesite dyke.			
		from 34.7 to end core missing - last metre similar to above but slightly more chloritic.			
49.4		END OF HOLE			

Scale

Colour Plot & Dips

0

Drill Hole Record

Commco

Property NIFTY	District Skeena M.D.	Hole No. Imperial 84-2	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size BQ	Corr. Dip -85°	Vert. Comp.
Co-ordinates		True Brg. 015°	Logged by R.F.Nichols/A.T.
Objective		% Recov.	Date August 16,1985

Claim | T Brg. 015° | Collar Dip -85° | Elev. | Length

Footage From	To	Description	Sample No.	Length	Analysis
0	7.3 m	Dark green coarse grained feldspar crystal tuff			
		Chlorite specs throughout, epidote strong to intensly developed with a few veins to several cm.			
		Bedding/lower contact @ 40° to C/A.			
7.3	16.1	Light grey-green multi-lithic lapilli tuff			
		A matrix supported unit similar to unit (1) of the lapilli triplet. Abundant 5 to occasional 25-50 mm angular fragments include: shard like chlorite; light to medium green banded tuff; white-pink aphanitic/cherty; dark grey tuff.			
16.1	61.6	Medium-dark grey pyritic tuff			
		Very consistent unit - massive fine grained pyritic-tuff.			
		24.4 - 37.5 - broken, oxidized and bleached section with weak erratic chlorite + pyrite stringers throughout.			
		30.5 - 31.7 - fault minor gange - core missing.			
61.6		END OF HOLE.			

Scale

Colour Plot & Dips

Drill Hole Record

Commco

Property NIFTY	District Skeena M.D.	Hole No. Imperial 84-3	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size BQ	Corr. Dip -45°	Vert. Comp.
Co-ordinates		True Brg. 010°	Logged by R.F.Nichols/A.T.
Objective		% Recov.	Date August 15,1985

Claim | T Brg. 010° | Collar Dip -45° | Elev. | Length 49.4 m

Footage From	To	Description	Sample No.	Length	Analysis
0	22.3 m	Intermediate coarse grained - lapilli feldspar crystal tuff. Medium to dark grey green- some cm scale finer grained sections @ 10° to C/A (0-20° range).			
		6.7 - 8.2 - solid epidote vein - adjacent tuff heavily epidotized as well.			
		11.6 - 16.5 - feldspar porphyry - feldspars - mm size phenocrysts and glomerocrysts are all epidotized. Drill hole travels in/out of dyke.			
22.3	32.0	Light to medium grey, felsic tuff.			
		Highly altered massive, weakly pyritic unit. Local lapilli rich sections. Pervasive kaolinization and sericite throughout.			
		24.1 - 24.7 - few mm wide quartz stringers @ 0 - 10° to C/A with occasional specs galena, pyrite/pyrrhotite very pale - tan sphalerite floods into wall rock for cm or so.			
		28.0 - 1 cm massive pyrite band @ 20° to C/A - runs along core for 30 cm. - Some pyrite very fine grained - marcasite (?).			
		31.7 - 32.0 - Andesite dyke.			
32.0	49.4	Chalky white fine grained laminated tuff			
		Core attitudes almost parallel to C/A. Minor pyrite throughout - locally more abundant.			
		Section highly altered to kaolin - sericite with some emerald green sericite after feldspar.			
		36.0 - 38.1 lapilli size frags common now.			
49.4		END OF HOLE			

211

Scale

Colour Plot & Dips

0

Drill Hole Record

Commco

Property NIFTY	District Skeena M.D.	Hole No. Imperial 84-4	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size BQ	Corr. Dip -85°	Vert. Comp.
Co-ordinates		True Brg. 010°	Logged by R.F.Nichols/A.T.
Objective		% Recov.	Date August 15,1985

Claim | T Brg. 010° | Collar Dip -85° | Elev. | Length

Footage From	Footage To	Description	Sample No.	Length	Analysis
0	9.4 m	Andesitic tuff			
		Coarse grained tuff with a few thin lapilli sections. Andesitic dyke wanders in/out of this			
		section. Erratic epidote veining throughout including 2.4 - 3.1.			
9.4	15.5	Feldspar crystal-lithic lapilli tuff			
		Angular multi lithic fragements up to 25 mm fragements include pale grey-pink cherty/aphanitic,			
		dark grey aphanitic, chlorite, feldspar rich frags. Epidote moderate to strong throughout.			
15.5	27.4	Medium grey pyritic felsic tuff			
		Fine grained massive to occasionally thinly laminated @ 30° to C/A. Bottom 2 m lapilli frag-			
		ments common.			
27.4	32.0	Andesite dyke			
32.0	38.1	Light-medium grey wispy chloritic (shard) tuff			
		Similar to Imperial 84-3 (57.0-70.7) - vaguely foliated. Some dark (chlorite-pyrite)			
		stringers - locally abundant.			
38.1		END OF HOLE			

Scale

Colour Plot & Dips

Drill Hole Record

Commco

Property	NIFTY	District	Skeena M.D.	Hole No.	Imperial 84-5
Commenced		Location		Tests at	
Completed		Core Size	BQ	Corr. Dip	-45°
Co-ordinates				True Brg.	015°
Objective				% Recov.	

Hor. Comp.

Vert. Comp.

Logged by R.F.Nichols/A.T.

Date August 16,1985

Claim | T Brg. 015° | Collar Dip -45° | Elev. | Length

Footage From	Footage To	Description	Sample No.	Length	Analysis
0	6.1 m	Pyritic mud- lapilli tuff			
		Distinctive felsic aphanitic lapilli fragments in a "pyrite mud" matrix - weak foliation results			
		in some pulled apart frags. Similar to NWZ showing? and Imperial 84-1 (17.1 - 20.1).			
6.1	8.8	Feldspar crystal tuff			
		Medium grey green tightly packed feldspar crystal tuff. Vague grain size banding @ 40° to C/A			
		Some coarse grained bands weakly epidotized.			
8.8	10.4	Pale to dark green banded tuff			
		Pale green sections very fine grained - well bedded @ 20° to C/A.			
		Scattered feldspar crystals throughout.			
10.4	36.9	Grey-green feldspar crystal lithic lapilli tuff			
		Fragment size variable 5-25 mm fragments include white-pink aphanitic/cherty and dark grey			
		tuffaceous narrow hematitic sections from 19.8 to 20.4 and 29.5 to 30.1 epidote weak throughout			
		minor erratic chlorite.			
		17.1 - 18.4 Andesite dykes			
		27.4 - 28.0			
36.9	43.3	Light green lapilli tuff			
		Few dark fragments in an otherwise tightly packed mass of light green aphanitic fragments.			
		Vague bedding (fragement orientation) @ 30-40° to C/A.			
		Minor disseminated pyrite.			
43.3		END OF HOLE			

Scale

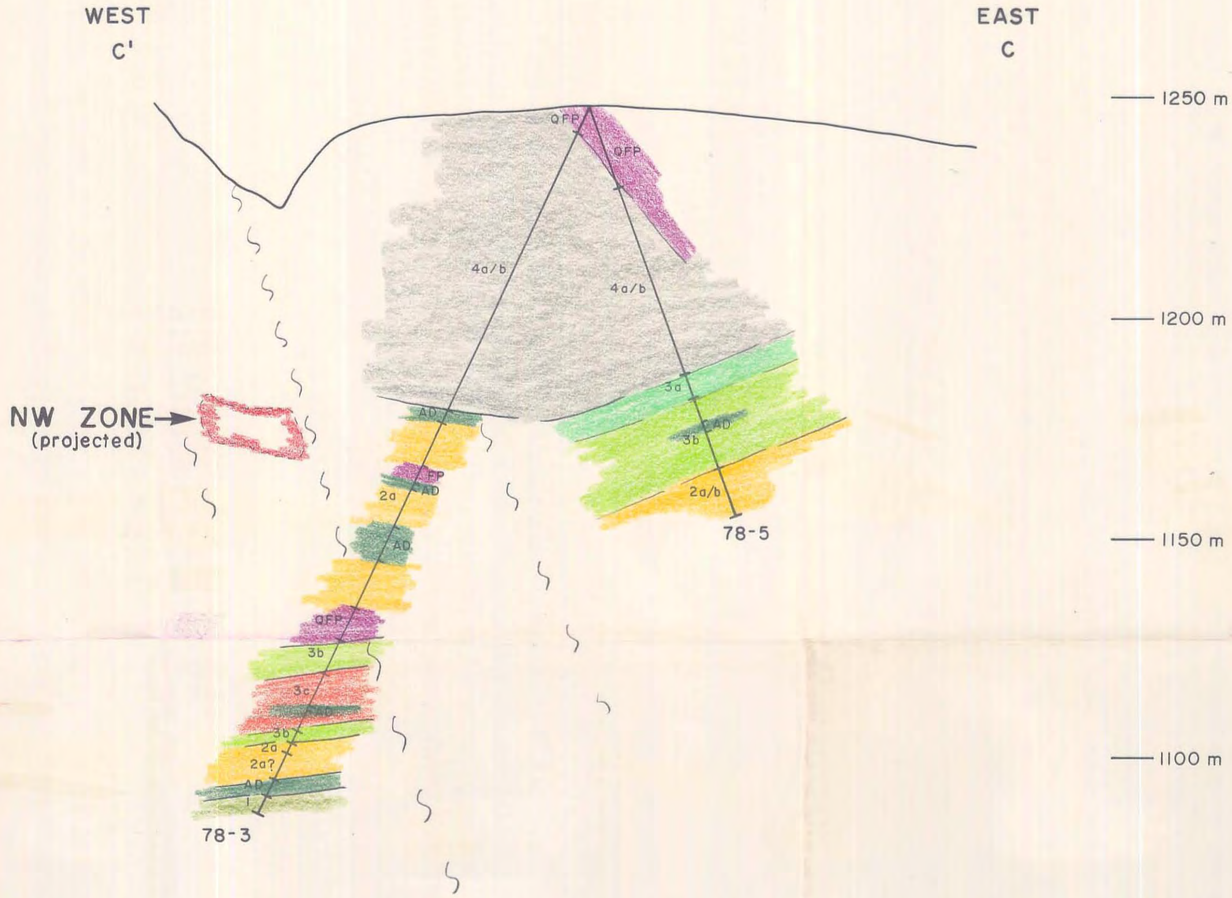
Colour Plot & Dips

Drill Hole Record

Property	NIFTY	District	Skeena M.D.	Hole No.	Imperial 84-6
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size	BQ	Corr. Dip	-45° Vert. Comp.
Co-ordinates				True Brg.	015° Logged by R.F.Nichols/A.T.
Objective				% Recov.	Date August 15,1985

Claim | T Brg. 015° | Collar Dip -45° | Elev. | Length 70.7 m

Footage From	To	Description	Sample No.	Length	Analysis
0	14.3 m	Light grey feldspar crystal lithic tuff			
		Locally abundant lapilli size fragments scattered throughout.			
		3.6 - 4.3 } Andesite dykes			
		10 - 10.3 }			
14.3	57.0	Light to medium grey felsic tuff			
		Fine to medium grained massive unit - now mostly sericite			
		23.8 - 57.0 - weak foliation @ 30-40° to C/A			
		34.7 - 39.9 - Andesite dyke			
		41.4 - 57.0 - More bleached - kaolinitic now like 84-3 (32.0 - 49.4).			
57.0	70.7	Light- medium grey wispy chloritic (shard) tuff			
		Lapilli size fragments erratic throughout.			
		Weak foliation @ low angles to C/A			
		Distinctive ragged tan sericite patches to few cm across.			
70.7		END OF HOLE			



LEGEND

- 4a Cherty tuffite/siltstone - massive to well laminated
- 4b C.gd. Andesitic tuff - occas. lapilli tuff
- 3a Light grey matrix supported multilithic lapilli tuff
- 3b Medium grey (green) feldspar crystal-lithic lapilli tuff
- 3c Red-hematized multilithic lapilli tuff
- 2a F.gd.-c.gd. massive (laminated) pyritic (acid ?) tuff
- 2b Interlayered feldspar rich crystal lithic lapill tuff
- 1 Mottled chlorite unit
- QFP (Quartz) feldspar porphyry
- A.D. Andesite dyke

inches
0 1 2
0 1 2 3 4 5
centimetres

BRITISH COLUMBIA GEOLOGICAL SURVEY

This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.

NIFTY JOINT VENTURE

Esso Minerals

Drawn by:		Traced by:	
Revised by	Date	Revised by	Date

D.D.H. SECTION C-C'

Scale: 1 : 1000 | Date: | Plate: N-85-4

NCI - 114 - CL

#210-0640

NORTH-EAST
A'

SOUTH-WEST
A

1350 m
1300 m
1250 m
1200 m
1150 m
1100 m
1050 m
1000 m
950 m
900 m
850 m
800 m

LEGEND

- 4a Cherty tuffite/siltstone - massive to well laminated
- 4b C.gd. Andesitic tuff - occas. lapilli tuff
- 3a Light grey matrix supported multilithic lapilli tuff
- 3b Medium grey (green) feldspar crystal - lithic lapilli tuff
- 3c Red - hematized multilithic lapilli tuff
- 2a F.gd.-c.gd. massive (laminated) pyritic (acid ?) tuff
- 2b Interlayered feldspar rich crystal lithic lapill tuff
- 1 Mottled chlorite unit
- Q.F.P. (Quartz) feldspar porphyry
- A.D. Andesite dyke

inches
0 1 2
0 1 2 3 4 5
centimetres

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BRITISH COLUMBIA GEOLOGICAL SURVEY

NIFTY JOINT VENTURE

Cominco

Drawn by:		Traced by:	
Revised by	Date	Revised by	Date

D.D.H. SECTION A-A'

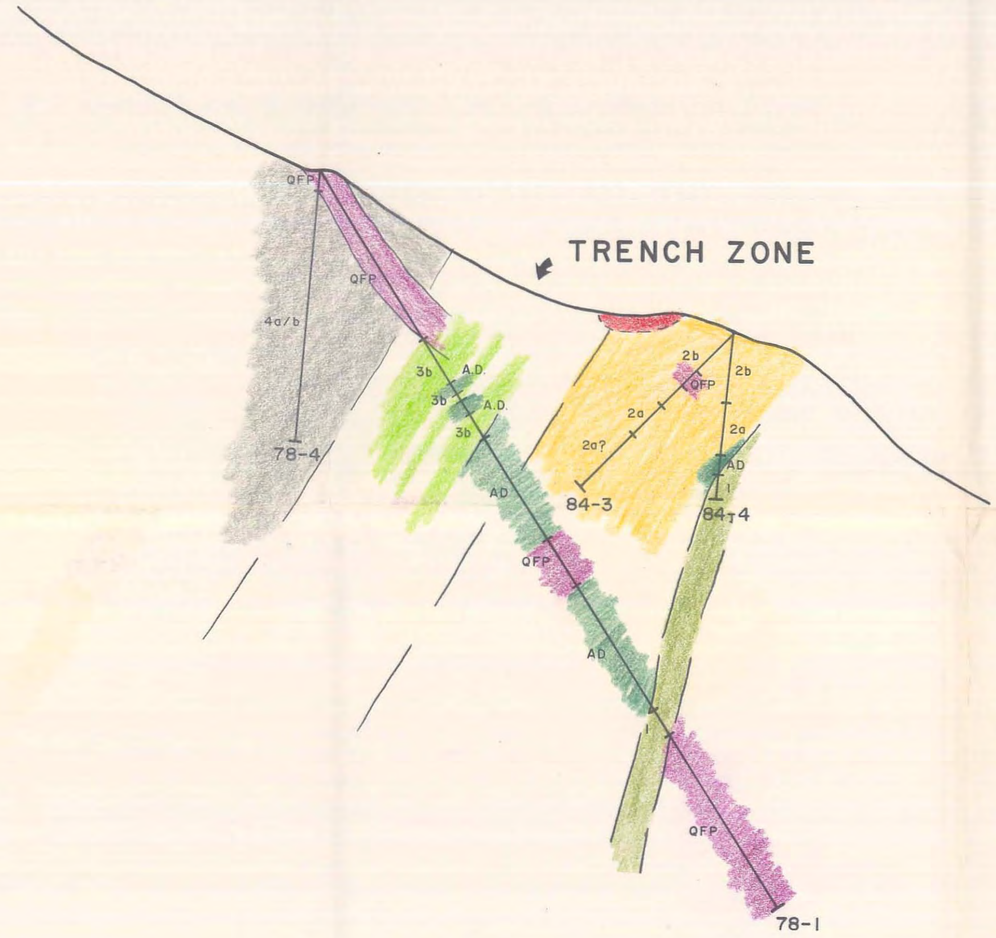
Scale: 1 : 1000 | Date: | Plate: N-85-2

NCI - 117 - CL

FORM 210 - 0602

NORTH
B'

SOUTH
B



1250 m

1200 m

1150 m

1100 m

1050 m

LEGEND

- 4a Cherty tuffite/siltstone - massive to well laminated
- 4b C.gd. Andesitic tuff - occas. lapilli tuff
- 3a Light grey matrix supported multilithic lapilli tuff
- 3b Medium grey (green) feldspar crystal - lithic lapilli tuff
- 3c Red - hematized multilithic lapilli tuff
- 2a F.gd. - c.gd. massive (laminated) pyritic (acid ?) tuff
- 2b Interlayered feldspar rich crystal lithic lapill tuff
- 1 Mottled chlorite unit
- Q.F.P. (Quartz) feldspar porphyry
- A.D. Andesite dyke

inches
0 1 2
0 1 2 3 4 5
centimetres

BRITISH COLUMBIA GEOLOGICAL SURVEY

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NIFTY JOINT VENTURE

Cominco

Drawn by:	Traced by:	D.D.H. SECTION B-B'
Revised by / Date	Revised by / Date	Scale: 1:1000 Date: Plate N-85-3

NCI - 114 - CL

#210-0640

Sample	Length m.	Pb %	Zn %	Ag oz/t	Ba %
e	2.0	.26	.85	3.9	15.9
f	2.6	.62	3.4	4.2	4.6
g	2.0	8.6	7.1	4.8	0.8
h	2.9	2.1	5.8	2.2	1.2

Sample	Length m	Pb %	Zn %	Ag oz/t	Ba %
a	2.9	.14	.08	1.9	33.2
b	4.8	.19	.61	10.8	33.5
c	5.9	.75	2.2	3.5	17.9
d	7.0	.39	.67	.89	7.0

NIFTY JOINT VENTURE

Drawn by: | Traced by:

Revised by	Date	Revised by	Date

NIFTY MAIN SHOWING

Scale: 1:1000 | Date: Oct. 1985 | Plate: N-85-1