5737

COMINCO LTD.

EXPLORATION
NTS: 93N

WESTERN DISTRICT

DIAMOND DRILLING REPORT

JEAN GROUPS 75-1 to 75-4

NATION LAKES AREA

OMINECA M.D., B.C.

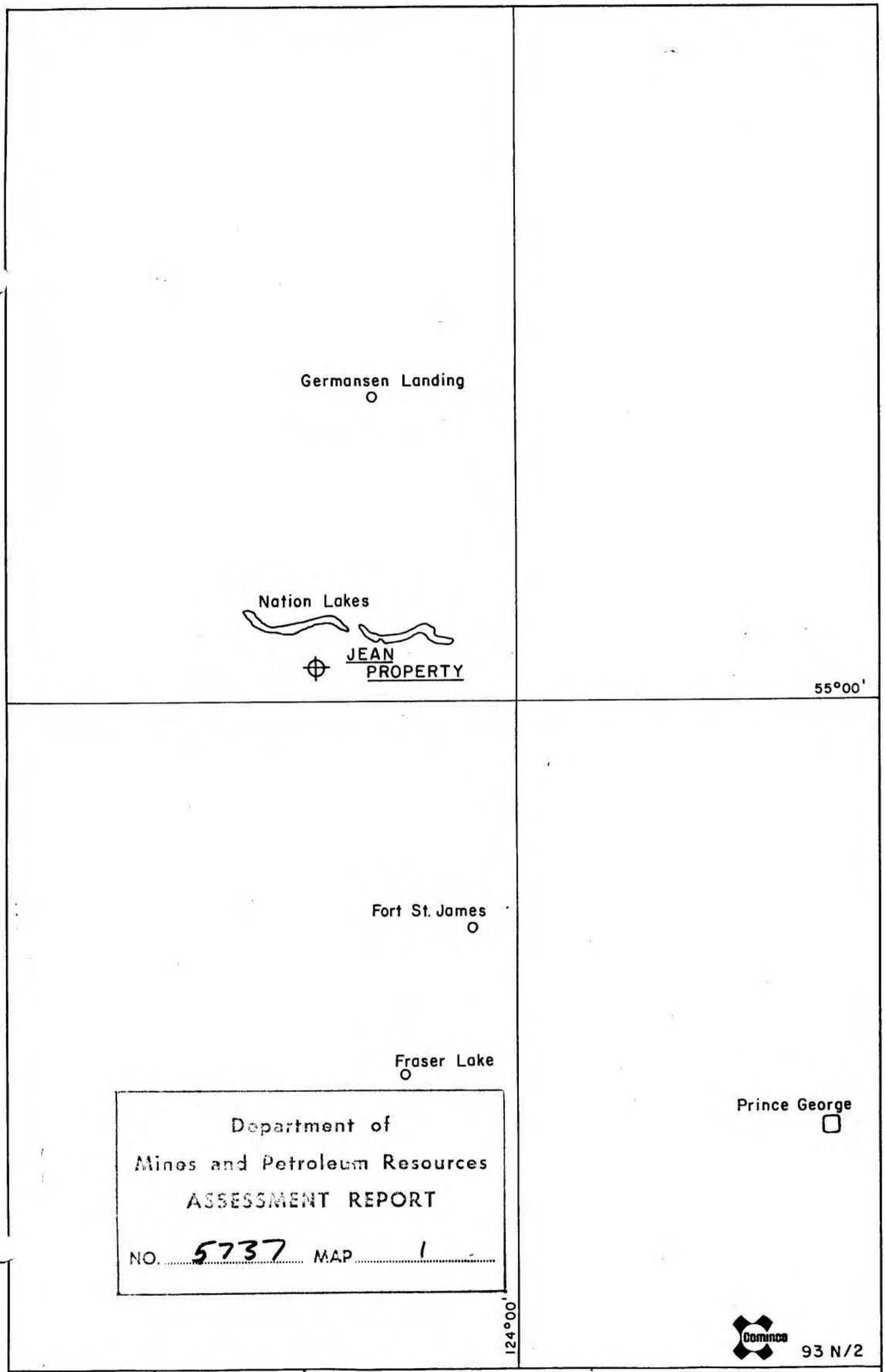
125°00'; 55°07'N

1 DECEMBER 1975

R. U. BRUASET

Period of Work

5 AUGUST to 31 AUGUST 1975



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 5737 MAP 1

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

JEAN PROPERTY
LOCATION MAP

Scale: 1" = 20 miles | Date: Nov., 1975 | Plate:

BCIL 2187C

210-0610

IN THE MATTER OF THE

B.C. MINERAL ACT

IN THE MATTER OF A DIAMOND DRILL PROGRAMME

CARRIED OUT ON MINERAL CLAIMS

J.W. 95, 123, 124, 125

ON JEAN GROUPS 75-1 TO 75-4

LOCATED IN THE MOUNT ALEXANDER AREA

IN THE OMINECA MINING DIVISION

PROVINCE OF BRITISH COLUMBIA

MORE PARTICULARLY NTS 93N

A F F I D A V I T

I, RAGNAR U. BRUASET, of the City of Vancouver in the Province of British Columbia, make oath and say:

1. That I am employed as a geologist by Cominco Ltd. and, as such, have a personal knowledge of the facts to which I hereinafter depose;

2. That annexed hereto and marked as "Exhibit A" to this my affidavit is a true copy of expenditures incurred on diamond drilling on mineral claims J.W. 95, 123, 124, 125.

3. That the said expenditures were incurred between the 5th day of August, 1975 and the 31st day of August, 1975 for the purpose of mineral exploration on the above noted claims.

Sworn Before Me at the City of Vancouver in the Province of British Columbia this fifth (5th) day of December 1975.

A NOTARY PUBLIC IN AND FOR THE PROVINCE OF BRITISH COLUMBIA

RAGNAR U. BRUASET

EXHIBIT "A"

COST STATEMENT

DIAMOND DRILLING

JEAN PROPERTY

NATION LAKES AREA, B.C.

OMINECA M.D.

CONTRACT CHARGES SHEPHERD DRILLING LTD.

1464 feet of B.Q. Drilling at $18.04/foot	$	26,416

INDIRECT CHARGES:

Parts, material, tools, freight, trailer rental, trailer repairs, transportation, domicile, demobilization	$	4,259

SALARY:

R.U. Bruaset 5 - 31 August 27 days @ $103/day	$	2,781

HELPER:

Mark Spurr - 5-7 August - 3 days @ $44/day	$	132

AIR TRANSPORTATION:

Fixed wing and helicopter (N.T.Air, Okanagan Helicopters, Northern Mountain Helicopters)	$	3,536

SURFACE TRANSPORTATION:

Truck rental (Redhawk Lease) fuel, and maintenance		783
Bombardier rental (Coast Utilities Ltd.)	$	1,134
TOTAL COST :	$	39,041

OVERALL COST/FOOT = $\frac{\$39,041}{1464\ ft}$ = $26.67

THIS IS EXHIBIT "A" TO THE STATUTORY DECLARATION OF EXPENDITURE RELATING TO THE DIAMOND DRILLING PROGRAM DECLARED BEFORE ME ON THIS 15th DAY OF DECEMBER 1975 A.D.

A NOTARY PUBLIC IN AND FOR THE
PROVINCE OF BRITISH COLUMBIA

DRILL DATA FOR DIAMOND DRILL HOLES 75-3, 4, 5, 6

DD HOLE NO.	LOCATION	CLAIM GROUP	DIP	DEPTH (Ft.)	UNIT COST PER FOOT	TOTAL COST	CREDITS REQUESTED (yrs)
75-3	J.W. 123	Jean Group 75-1	-90°	372	$26.67	$ 9,920	49
75-4	J.W. 124	Jean Group 75-2	-90°	528	26.67	14,081	70
75-5	J.W. 125	Jean Group 75-3	-90°	267	26.67	7,120	35
75-6	J.W. 95	Jean Group 75-4	-90°	297	26.67	7,920	39
				1464		$ 39,041	

Total Cost at least $ 39,041

Total assessment credits requested 195 years

All drill core is stored under cover at camp on J.W. 132 Fraction.

The hole locations have been determined by chain and compass and the elevations have been determined by altimeter. These particulars are given on the drill logs attached.

Report by: _____
R.U. Bruaset, B.Sc
Project Geologist

Endorsed by: _____
S.J. Pedley, P.Eng.
Assistant Manager

Approved for Release by: _____
W.T. Irvine, P.Eng.
Manager

******

COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

1 DECEMBER 1975

STATEMENT OF QUALIFICATIONS

I, R.U. Bruaset, with business address at 2200-200 Granville Square, Vancouver, British Columbia, V6C 2R2, do hereby certify that I have supervised the diamond drilling programme and the logging of the drill core, and have assessed and interpreted the data resulting from said programme on the Jean property.

I also certify that:

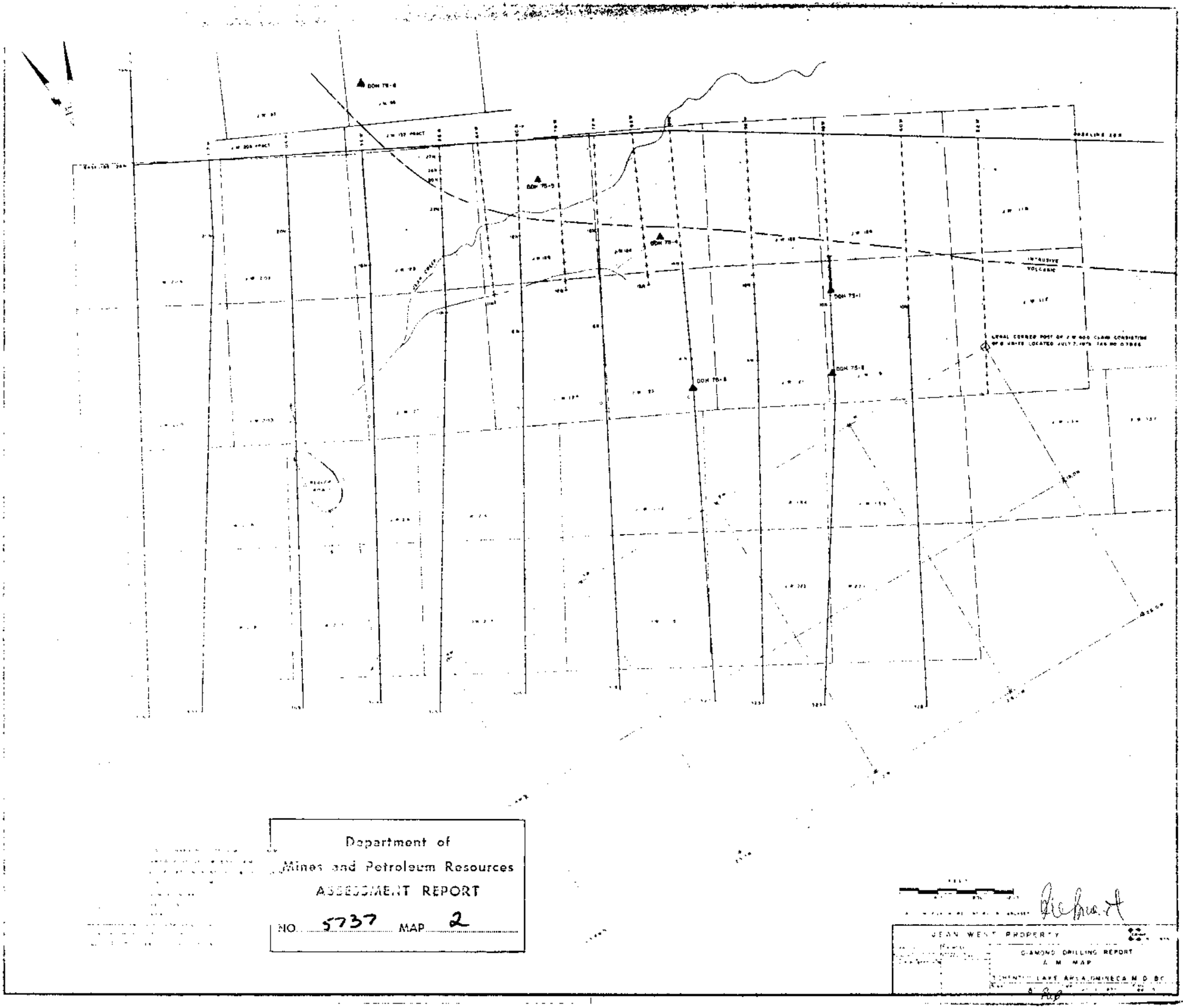
1. I am a graduate of the University of British Columbia with a degree of B.Sc. in Geology 1967.

2. That I have been involved in exploration work for Cominco Ltd. since 1967 and that I have been involved in most phases of porphyry copper exploration and development since 1968 to the present.

3. That I have been closely involved with the exploration work on the Jean property during 1973, 1974 and 1975.

Respectfully submitted: R.U. Bruaset

Ragnar U. Bruaset
Project Geologist



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 5737 MAP 2

JEAN WEST PROPERTY
DIAMOND DRILLING REPORT
A M MAP
TOMMY LAKE AREA OMINECA M.D. B.C.

Scale

Colour Plot & Dips

0

Drill Hole Record

Cominco

Property JEAN	District Omineca M.D.	Hole No. DDH 75-6	
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 | Hole No. DDH 75-6 | Sheet 9

No casing left in hole.

Footage From	To	Description	% Total Sulphide	cp/py	Bo/MoS_2 present or absent	Magnetism A=Strong B=Moderate C=Weak D=Non-Magnetic	Core Angle	Habit A=Hardened Fractures B=Quartz Veins C=Disseminated D=Seams	Epidote Carbonate	Notes	Sample No.	Length	Analysis
250	260	Cont'd.								253 Minor fault @ 50°			
260	270	As above.	0.1	1:1	No/No	B→C	20,50	A	-	263 fault @ 50°.	4771I	10	9.5
270	280	As above. Fresh biotite.	0.1	5:1	No/No	B→C	50°	A	-	278 Heavy chalcopyrite in Kspar fracture.	4772I	10	8.5
280	290	As above. Somewhat chloritic groundmass.	0.05	cpy/o	No/No	B→C	20°	A+C	-		4773I	10	10
290	297	As above.	0.05	1:1	No/No	B→C	35, 60, 70	A+C	-	292 Kspar salvages relative to hairline fracture @ 60°. 294 fault @ 50°.	4774I	7	5
		END											

211-9437

Scale

Colour Plot & Dips

0

Drill Hole Record

Cominco

Property	JEAN	District	Omineca	Hole No.	DDH 75-3
Commenced	Setting up August 4, 1975	Location	B-Zone	Tests at	Not tested
Completed	August 10, 1975	Core Size	BQ	Corr. Dip	-
Co-ordinates	0 + 93N 64 + 00W Plot relative to 0 + 00N 64 + 00W			True Brg.	-
Objective	Testing IP response			% Recov.	99%

Hor. Comp. -

Vert. Comp. 372

Logged by R.U. Bruaset

Date August 8-10, 1975

Claim	Collar Dip	Elev.	Length	Hole No.	Sheet
J.W. 123	-90	3430	372	DDH 75-3	1
T Brg. -					

Footage From	To	Description / Rock Type	% Total Sulphide	cpy/py	Presence of Bn/MoS_2	Magnetism: A=Strong B=Moderate C=Weak D=Non Magnetic	Core Angle to Core Axis	Habit of Sulphides: A=Hairline Fracture B=Vein C=Dissemination D=Seams	CaCO3 Fractures or Epidote	Notes	Sample No.	Length	Analysis
		0 - 17 ft. overburden. No secondary copper minerals encountered anywhere in hole.											
17	30	Fine grained Takla. Presumably flow. Augite phenocrysts fairly common. Secondary biotite and silicification pervasive. Occasional feldspar phenocrysts. Takla becoming progressively more intensely silicified with depth to 107.	0.25%	1:200	No/No	D	60-70	A+C	CaCO3	Limonitic fractures occasionally. K-feldspathized borders relative to pyrite hairline fractures common.	4648I		13
30	40	As 17 - 30.	0.25%	1:200	No/No	D	60-70	A+C	CaCO3+ Epidote clots in vein border	23' Fragmental with rounded fragment of augite porphyry	4649I		10

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Scale

Colour Plot & Dips

Drill Hole Reco..

Cominco

Property	JEAN	District	Omineca	Hole No.	DDH 75-3
Commenced		Location		Tests at	
Completed		Core Size		Corr. Dip	
Co-ordinates				True Brg.	
Objective				% Recov.	

Hor. Comp. Abandoned

Vert. Comp.

Logged by

Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. DDH 75-3 | Sheet 2

Footage From	To	Description (Rock Type)	% Total Sulphide	cpy/py	Presence of Bn/MoS_2	Magnetism A=Strong B=Moderate C=Weak D=Non Magnetic	Core Angle to Core Axis	Habit of Sulphides A=Hairline Fracture B=Vein C=Dissemination D=Seams	CaC03 Fractures or Epidote CaC03	Notes	Sample No.	Length	Analysis
40	50	As 17 - 30.	1%	1:200	No/No	D	50-70	A+C	CaC03		4650I		9.5
50	60	As 17 - 30.	1%	1:200	No/No	D	50-70	A+C	Minor CaC03		4651I		10
60	70	As 17 - 30.	½%	1:200	No/No	D	50-70	A+C	Minor CaC03		4652I		9
70	80	As 17 - 30.	½%	1:200	No/No	D	40	A+C	Minor CaC03		4653I		10
80	90	As 17 - 30.	½%	1:200	No/No	D	50-70	A+B+C	CaC03 Epidote clots		4654I		10
90	100	As 17 - 30.	1%	1:200	No/No	D	50-70	A+C	Minor CaC03	96.5 Fragmental or brecciated with andesitic groundmass	4655I		10

Scale

Colour Plot & Dips

0

Drill Hole Record

Cominco

Property JEAN | District Omineca | Hole No.: DDH 75-3

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 | Hole No. DDH 75-3 | Sheet 3

Footage From	To	Description	% Total Sulphide	cpy/py	Presence of Bn/MoS_2	Magnetism A=Strong B=Moderate C=Weak D=Non Magnetic	Core Angle to Core Axis	Habit of Sulphides A=Hairline Fracture B=Vein C=Dissemination D=Seams	CaCO3 Fractures or Epidote CaCO3	Notes	Sample No.	Length	Analysis
90	100 Cont'd									and sub-rounded andesitic fragments			
		END 107											
100	110	Starting at 107 and ending at 266. Aphanitic volcanic rock generally more intensely silicified than above, Augite phenocrysts rare.	0.1%	1:200	No/No	D		C	CaCO3		4656I		10
110	120	Starting at 124: Various intensities of K-feldspathization. Kspar occurs in vein borders of fractures and occasionally permeating the rock well beyond fractures.	0.1%	1:200	No/No	D	30	C	CaCO3 minor epidote		4657I		10
120	130	As above. Rock frequently completely recrystallized due to heavy introduction of secondary Kspar. The most	1%	1:150	No/No	D	80-90	A+C	CaCO3 occasional cloths of epidote.	129 Pyrite fracture cuts chalcopyrite bearing	4658I		10

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Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	JEAN	District	Omineca	Hole No.	DDH 75-3
Commenced		Location		Tests at	
Completed		Core Size		Corr. Dip	
Co-ordinates				True Brg.	
Objective				% Recov.	

Hor. Comp. Rechmont

Vert. Comp.

Logged by

Date

Claim	T Brg.	Collar Dip	Elev.	Length	Hole No. DDH 75-3	Sheet 4

Footage From	To	Description	% Total Sulphide	cpy/py	Presence of Bn/MoS_2	Magnetism A=Strong B=Moderate C=Weak D=Non Magnetic	Core Angle to Core Axis	Habit of Sulphides A=Hairline Fracture B=Vein C=Dissemination D=Seams	$CaCO_3$ Fractures or Epidote $CaCO_3$	Notes	Sample No.	Length	Analysis
120	- 130	intensity K-spathized sections are the most highly mineralized sections although it's nearly all pyrite. Plagioclase variously altered to clay minerals. Occasionally plagioclase soft to knife, occasionaly light greenish.								fracture both with associated Kspar.			
Cont'd													
130	- 140	As above.	2%	1:150	No/No	D	80-90	A+C	$CaCO_3$	139-151 intense K-feldspathization. Rock practically entirely recrystallized with relic augite phenocrysts occasionally. 130 Hairline fracture with pyrite only cuts K-spathized vein with chalcopyrite.	4659I		10

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property JEAN	District Omineca	Hole No. DDH 75-3	
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 | Hole No. DDH 75-3 | Sheet 5

Footage From	To	Description	% Total Sulphide	cpy/py	Presence of Bn/MoS_2	Magnetism A=Strong B=Moderate C=Weak D=Non Magnetic	Core Angle to Core Axis	Habit of Sulphides A=Hairline Fracture B=Vein C=Dissemination D=Seams	CaCO3 Fractures or Epidote CaCO3	Notes	Sample No.	Length	Analysis
140	150	As above.	3½%	1:150	No/No	D	20,50 80	A+C	CaCO3	142-143 shearing @ 40° occasionally banded silica in fractures.			
150	160	162 End of K-spathized sec- 153-162 aphanitic tion volcanics, no augite, phenocrysts, silicification becoming more intense. 155 Local magnetite filled fractures.	2.5	1:200	No/No	D	30,80	A,B,C	CaCO3		4661I		10
160	170	Continuing in aphanitic Takla as started at 107.	2.5	1:200	No/No	D	80-90 30	A+C	CaCO3		4662I		10
170	180		2.5	1:200	No/No	C to D	60-80 30	A+C	CaCO3		4663I		9
180	190		2.5	1:200	No/No	C to D	60-80	A+C	CaCO3	170-185 Local seams of massive magnetite up to 1"	4664I		10

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	JEAN	District	Omineca M.D.	Hole No.	DDH75-3
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 | Hole No. DDH75-3 | Sheet 7

Footage From	To	Description	% Total Sulphide	cpy/py	Presence of Bn/MoS_2	Magnetism A=Strong B=Moderate C=Weak D=Non Magnetic	Core Angle to Core Axis	Habit of Sulphides A=Hairline Fracture B=Vein C=Dissemination D=Seams	CaCO3 Fractures or Epidote CaCO3	Notes	Sample No.	Length	Analysis
		Rock Type											
190	200	As above.	½%	1:200	No/No	C+D	80.20	A+C	CaCO3 Epidote	195 Epidote becoming more widespread	4665I		10
200	210	As above.	½%	1:200	No/No	C+D	70-90	A+C	CaCO3		4666I		10
210	220	As above.	½%	1:200	No/No	C+D	80	A+C	CaCO3	192: Aphanitic Takla as above bleached or metasomatized into light grey rock of same grain size as above. Contacts gradational. Same at 197-198 and variously as far as 212. Also white banded quartz infractures.	4667I		10

211-9437

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	JEAN	District	Omineca M.D.	Hole No.	DDH75-3
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	Hole No. DDH75-3	Sheet 7

Footage From	To	Description	% Total Sulphide	cpy/py	Presence of Bn/MoS_2	Magnetism A=Strong B=Moderate C=Weak D=Non Magnetic	Core Angle to Core Axis	Habit of Sulphides A=Hairline Fracture B=Vein C=Dissemination D=Seams	CaC03 Fractures or Epidote CaC03	Notes	Sample No.	Length	Analysis
		Rock Type											
190	200	As above.	½%	1:200	No/No	C+D	80.20	A+C	CaC03 Epidote	195 Epidote becoming more widespread	4665I		10
200	210	As above.	½%	1:200	No/No	C+D	70-90	A+C	CaC03		4666I		10
210	220	As above.	½%	1:200	No/No	C+D	80	A+C	CaC03	192: Aphanitic Takla as above bleached or metasomatized into light grey rock of same grain size as above. Contacts gradational. Same at 197-198 and variously as far as 212 . Also white banded quartz infractures.	4667I		10

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property JEAN | District Omineca | Hole No.: DDH75-3

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 | Hole No. DDH75-3 | Sheet 8

Footage From	To	Description	% Total Sulphide	cpy/py	Presence of Bn/MoS_2	Magnetism A=Strong B=Moderate C=Weak D=Non Magnetic	Core Angle to Core Axis	Habit of Sulphides A=Hairline Fracture B=Vein C=Dissemination D=Seams	CaCO3 Fractures or Epidote CaCO3	Notes	Sample No.	Length	Analysis
220	230	As above.	½%	1:500	No/No	C to D	80	A+C	CaCO3 on a few fractures.	220-250: Occasional magnetite in pyritic fractures	4668I		10
230	240	As above.	½%	1:500	No/No	C to D	80,20	A+C	Minor CaCO3 Epidote	218 Limonitic fracture.	4669I		10
240	250	As above.	½%	1:500	No/No	C to D	80	A+C	Minor CaCO3 Epidote	243-246 fault @ 0° to axis.	4670I		10
										247-248: About 7% pyrite in seams and closely spaced fractures. very intense bleaching.			

211-9437

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property JEAN | District Omineca | Hole No. DDH75-3

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 | Hole No. DDH75-3 | Sheet 9

Footage From	To	Description	% Total Sulphide	cpy/py	Presence of Bn/MoS_2	Magnetism A=Strong B=Moderate C=Weak D=Non Magnetic	Core Angle to Core Axis	Habit of Sulphides A=Hairline Fracture B=Vein C=Dissemination D=Seams	CaCO3 Fractures or Epidote CaCO3	Notes	Sample No.	Length	Analysis
250	- 260 Cont'd									256 Minor fault @ 60° gauge.			10
250	- 260		¼%	1:500	No/No	D	80	A+C	Minor CaCO3		4672I		10
260	- 270	End of above at 266. 266-274 Pinkish porphyritic dyke containing subhedral white feldspar in fine grain pinkish matrix. Trace disseminated pyrite, chalcopyrite. No alterations sharp bottom contact @ 50°, and sharp chilled top contact @ 80°. Brecciation and bleaching of volcanic rock at both contact.											
270	- 280	END of dyke of 274.	0.1	1:1	No/No	D	No fractures	C		280 Limonitic fractures	4673I		10

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	JEAN	District	Omineca	Hole No.	DDH75-3
Commenced		Location		Tests at	
Completed		Core Size		Corr. Dip	
Co-ordinates				True Brg.	
Objective				% Recov.	

Hor. Comp. Reichmann

Vert. Comp.

Logged by

Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. DDH75-3 | Sheet 10

Footage From	To	Description	% Total Sulphide	cpy/py	Presence of Bn/MoS_2	Magnetism A=Strong B=Moderate C=Weak D=Non Magnetic	Core Angle to Core Axis	Habit of Sulphides A=Hairline Fracture B=Vein C=Dissemination D=Seams	CaCO3 Fractures or Epidote CaCO3	Notes	Sample No.	Length	Analysis
280	290	Aphanitic volcanic rock as above 274. Intense silicification. No secondary biotite development. Epidote common.	3/4%	1:500	No/No	C to D	80°	A+C	CaCO3 fractures.	282: Brecciation alone, contact of bleached section where barren white quartz has been introduced. Brecciation cuts hairline fracture with pyrite.	4674I		10
290	300	As above, bleaching is most intense along fractures and where the fracture frequency is the most intense which is also where pyrite is most abundant. Only traces of chalcopyrite.	3/4%	1:500	No/No	C+D	80°	A+C	CaCO3 Common	300-364:	4675I		10
300	310	As above.	½%	1:500	No/No	C+D	80,90	A+C	CaCO3 Minor	300-364: Limonitic fractures occasionally noted.	4676I		10

211-8437

Scale

Colour Plot & Dips

0

Drill Hole Record

Cominco

Property JEAN | District Omineca | Hole No.: DDH75-3

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 | Hole No. DDH75-3 | Sheet 11

Footage From	To	Description	% Total Sulphide	cpy/py	Presence of Bn/MoS_2	Magnetism A=Strong B=Moderate C=Weak D=Non Magnetic	Core Angle to Core Axis	Habit of Sulphides A=Hairline Fracture B=Vein C=Dissemination D=Seams	CaCO3 Fractures or Epidote CaCO3	Notes	Sample No.	Length	Analysis
310	320	310 - 314: Metasomatic dyke containing abundant pyrite. Total recrystallization into a fine grained rock consisting of silica and Kspar and pyrite mainly. 15% pyrite in total occurring mainly as closely spaced hairline fractures. Diffused contacts. Traces of cpy. Intense silicification.	5%	1:500	No/No	D	75-90	A,C	No CaCO3		4677I		10
320	330	As 280 - 290.	½%	1:500	No/No	A	80°	A+B+C	Minor CaCO3 Epidote	320-330: Barren quartz veins common.	4678I		10
330	340	As 280 - 290. Much faulting.	¼%	1:500	No/No	D	80°	A+C	Minor CaCO3	330-333: Fault @ 70° guage & mylonite	4679I		10
340	350	As above. Much faulting.	¼%	1:500	No/No	D	80°	A+C	Minor CaCO3	342-364: Fault with core angles 50-60° gauge, slickensides.	4680I		10

211-9437

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	JEAN	District	Omineca	Hole No.	DDH75-3
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 | Hole No. DDH75-3 | Sheet 12

Footage From	To	Description	% Total Sulphide	cpy/py	Presence of Bn/MoS_2	Magnetism A=Strong B=Moderate C=Weak D=Non Magnetic	Core Angle to Core Axis	Habit of Sulphides A=Hairline Fracture B=Vein C=Dissemination D=Seams	CaCO3 Fractures or Epidote CaCO3	Notes	Sample No.	Length	Analysis
350	360	As above. Much faulting.	½%	1:500	No/No	D	70°	A+C	Minor CaCO3		4681I		9.5
360	372	As above. Much faulting. until 370. 364 start of fine grained volcanic rock that is noticeably less intensely silicified and coarser grained than the rock above and is also noticeably more enriched in secondary biotite. No grade improvement. Augite crystals begin to appear.	½%	1:500	No/No	D	15,60	A+C	Minor CaCO3	364: Change in alteration from mainly silicification to mainly a development of secondary biotite. Epidote also less common from 364.	4682I		12
	END												

211-0437

Scale

Colour Plot & Dips

0

Drill Hole Record

Cominco

Property JEAN	District Omineca	Hole No. DDH75-4	Hor. Comp. Abandoned
Commenced Setting up August 10,1975	Location A-B Zone	Tests at Not tested	Vert. Comp. 528
Completed August 17, 1975	Core Size BQ	Corr. Dip -	Logged by R.U.Bruaset
Co-ordinates 17 + 10N 66 + 10W relative to 17N 64W		True Brg. -	Date August 13-17, 1975
Objective		% Recov. 93%	

Claim	J,W.
T Brg.	-
Collar Dip	-90°
Elev.	3450
Length	528
Hole No.	DDH75-4
Sheet	1

Footage From	To	Description	% Total Sulphide Estimated	cpy/py	Bn/MoS2 present or absent	Degree of Magnetism A=Strong B=Moderate C=Weak D=Non Magnetic	Core Angle	Habit A=Hairline Fracture B=QB Vein C=Dissemination D=Seams	CaCO3	Notes	Sample No.	Length	Analysis	Hole No.
0	- 100	Overburden.												
100	- 110	Massive medium grained hypautomorphic granodiorite. Plagioclase very weakly altered. Etched and stained specimen contains 12% Quartz; 4% (mafics + magnetite); 20% Kspar of the rock and 84% total feldspar.	.1	cpy/o	No/Yes	B	-	C	Traces		4683I			7
110	- 120	As above.	.1	cpy/o	No/Yes	B	0,30 90,55	B,C	CaCO3 in faulted area.		4684I			8.5
120	- 130	The granodiorite ends at 126'. It is in fault contact with Takla. 126-130: Aphanitic Takla volcanic, massive. Silicified and biotite altered. Occasionally augite phenocrysts. Biotite alteration is dominant.	-	-	-	B	-	-	-	118-127: Gauge core angle. 50-60 chalcopyrite in the gauge.	4685I			9

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	JEAN	District	Omineca	Hole No.	DDH75-4
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 | Hole No. DDH75-4 | Sheet 2

Footage From	Footage To	Description	% Total Sulphide Estimated	cpy/py	Bn/MoS2 present or absent	Degree of Magnetism A=Strong B=Moderate C=Weak D=Non Magnetic	Core Angle	Habit A=Hairline Fracture B=QB Vein C=Dissemination D=Seams	CaCO3	Notes	Sample No.	Length	Analysis
130	140	As above.	½%	100:1	No/No	B	20-30	A,C	Minor	132.5 Minor gauge zone @ 65°	4686I		10
										132: Very heavy disseminated pyrite, minor chalcopyrite over 4".			
140	150	As above.	½%	1:3	No/No	D	20,70	A,C	Minor		4687I		7.5
150	160	As above.	½%	1:10	No/No	D	20°	A+C	Minor		4688I		7.5
160	170	As above.	½%	1:2	No/No	C	60,70	A+C	Minor		4689I		10
170	180	Massive aphanitic grey Takla as above. Secondary biotite and silicification	½%	1:5	No/No	C+D	-	C	Minor		4690I		9

211-9437

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	JEAN	District	Omineca	Hole No.	DDH75-4
Commenced		Location		Tests at	
Completed		Core Size		Corr. Dip	
Co-ordinates				True Brg.	
Objective				% Recov.	

Hor. Comp.

Vert. Comp.

Logged by

Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. DDH75-4 | Sheet 3

Footage From	To	Description	% Total Sulphide Estimated	cpy/py	Bn/MoS_2 present or absent	Degree of Magnetism A=Strong B=Moderate C=Weak D=Non Magnetic	Core Angle	Habit A=Hairline Fracture B=QB Vein C=Dissemination D=Seams	CaCO3	Notes	Sample No.	Length	Analysis
170	- 180 Cont'd	(enrichment in feldspar and quartz). Silicification is occasionally noted as borders to mineralized fractures suggesting a possible relationship.											
180	- 190	As above.	½%	1:4	No/No	C	20,70	A,C	Minor		4691I		9.5
190	- 200	As above.	½%	1:2	No/No	C	25 50-70	A,C	Minor		4692I		8.5
200	- 210	As above.	3/4%	1:1	No/No	C	20 40,80	A,C	Minor	200-202: Medium grain section exhibiting augite phenocrysts	4693I		10
210	- 220	As above.	3/4%	1:1	No/No	C	50,60 20	A,C	Minor		4694I		10
220	- 230	Similar to above but less secondary biotite.	3/4%	1:2	No/No	C	60,90	A,C	Minor		4695I		10

Scale

Colour Plot & Dips

0

Drill Hole Record

Cominco

Property JEAN | District Omineca | Hole No. DDH75-4

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 | Hole No. DDH75-4 | Sheet 4

Footage From	Footage To	Description	% Total Sulphide Estimated	cpy/py	Bn/MoS2 present or absent	Degree of Magnetism A=Strong B=Moderate C=Weak D=Non Magnetic	Core Angle	Habit A=Hairline Fracture B=QB Vein C=Dissemination D=Seams	CaCO3	Notes	Sample No.	Length	Analysis	Hole No.
230	240	233: marks end of generally aphanitic Takla to fine grained Takla.	3/4%	1:2	No/No	B to C	20,30	A,C	Minor	231: Augite grains common.	4696I			9.5
240	250	Fine grained Takla (locally aphanitic) strong secondary biotite development also silicification. Augite crystals common.	¼%	1:2	No/No	D	50-60	A,C	Minor	241: sharp contact between fine grained and aphanitic flows @ 70° core angle	4697I			10
250	260	As above.	¼%	1:2	No/No	D	30,70	A,B,C	Minor		4698I			10
260	270.5	As above.	¼%	1:4	No/No	D	60,70	A,C	Minor	270: Augite crystals.	4699I			10.5
270.5	273	Quartz veinlets containing heavy chalcopyrite & pyrite + MoS_2 biotitized fine grained Takla. Local bleaching.	8%	5:1	No/No	D	50,80	A,B,C			4700I			2.5

211-8/77

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	JEAN	District	Omineca	Hole No.	DDH75-4
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 | Sheet 5 | Hole No. DDH75-4

Footage From	To	Description	% Total Sulphide Estimated	cpy/py	Bn/MoS2 present or absent	Degree of Magnetism A=Strong B=Moderate C=Weak D=Non Magnetic	Core Angle	Habit A=Hairline Fracture B=QB Vein C=Dissemination D=Seams	CaCO3	Notes	Sample No.	Length	Analysis
273	280	Takla as 240 - 270.5	0.1	4:1	No/No	D	60,70	A,C	Minor		4701I		6.5
280	290	As 240 - 270.5	.05	50:1	No/No	D	-	C	Minor		4702I		10
290	300	As 240 - 270.5	.1	1:200	No/Yes	D	20,60	C	Minor	295.5 Minor MoS_2.	4703I		9.5
300	310	Generally aphanitic Takla. Locally bleached or silicified. Augite phenocrysts noted. Sulphide ratio is 1:200 to 295.5 than 1:50.	0.25	1:50	No/Yes	D	20 50-60	A,C	Minor		4704I		6.5
310	320	As above.	0.1	1:50	No/No	D	20 80,90	A,C	Minor		4705I		4
320	330	Fine grained Takla with pervasive secondary biotite and siliceous sections. Augite phenocryst altered to secondary biotite.	0.1	1:50	No/No	D	85,20	A,C	Minor		4706I		9.5

211-9437

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property JEAN | District Omineca | Hole No. DDH75-4

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 | Hole No. DDH75-4 | Sheet 6

Footage From	Footage To	Description	% Total Sulphide Estimated	cpy/py	Bn/MoS2 present or absent	Degree of Magnetism A=Strong B=Moderate C=Weak D=Non Magnetic	Core Angle	Habit A=Hairline Fracture B=QB Vein C=Disseminations D=Seams	CaCO3	Notes	Sample No.	Length	Analysis
330	340	As above.	0.1	1:50	No/No	D	-	C	Minor		4707I		10
340	350	As above.	0.1	1:5	Yes/No	D	50,20	C	Minor		4708I		8.5
350	360	As above.	0.2	5:1	No/No	D	50,60 80	A,B,C,D	Minor	352: Chalcopyrite bearing seam.	4709I		10
360	370	As above.	1%	5:1	No/No	D	50,60	A,C	Minor	362-367: pegmatitic dyke @ 40° Chalcopyrite in fractures and disseminations	4710I		7
370	380	As above.	1%	5:1	No/No	D	50-60	A,C	Minor		4711I		10

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Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property JEAN | District Omineca | Hole No. DDH75-4

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 | Hole No. DDH75-4 | Sheet 7

Footage From	To	Description	% Total Sulphide Estimated	cpy/py	Bn/MoS_2 present or absent	Degree of Magnetism A=Strong B=Moderate C=Weak D=Non Magnetic	Core Angle	Habit A=Hairline Fracture B=QB Vein C=Dissemination D=Seams	CaCO3	Notes	Sample No.	Length	Analysis
380	390	Similar to above but by 396 the hole is already grading into aphanitic Takla without intense secondary biotite development.	1%	2:1	No/Yes	C	30,50	A,B,C	Minor	380: Heavy MoS_2 + pyrite + minor chalcopyrite in 3/4" quartz vein. 387: Limonitic fractures.	4712I		10
390	400	Aphanitic Takla with silicification as dominant alteration type	0.25	1:1	No/No	A,C	75,85 20	A,C	Minor	402: Minor Kspar along fractures Chalcopyrite + MoS_2.	4713I		10
400	410	Fine grained Takla with augite common in this somewhat less intensely altered section.	1%	1:1	No/Yes	D	25 60-70	A+D	Minor	404-405: Limonitic fractures.	4714I		10
410	423	Rock as 400-410.	1.5	3:1	No/Yes	D	50,70	A,B,C	Minor	414-416: Faulting @ 60°. Bleaching	4715I		13

Scale

Colour Plot & Dips

Drill Hole Recd J

Cominco

Property	JEAN	District	Omineca	Hole No.	DDH 75-4
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 | Hole No. DDH 75-4 | Sheet 8

Footage From	To	Description	% Total Sulphide Estimated	cpy/py	Bn/MoS_2 present or absent	Degree of Magnetism A=Strong B=Moderate C=Weak D=Non Magnetic	Core Angle	Habit A=Hairline Fracture B=QB Vein C=Dissemination D=Seams	CaCO3	Notes	Sample No.	Length	Analysis
410	- 423									418:			
Cont'd										Faulting @ 60° MoS_2			
423	- 428	As above but intense bleaching in sections of better grade. Chalcopyrite + MoS_2 in seams up to 1/8" and in quartz veins to ¼".	10%	10:1	No/Yes	D	50,70	A,B,C	Minor		4716I		5
428	- 440	Fine grained Takla with pervasive secondary biotite & silicification. The biotite alteration is most well developed of the two.	2%	10:1	No/Yes	D	60-70	A,B,C,	Minor	436: Minor fault @ 40° gauge	4717I		12
440	- 450	As above.	1.5	10:1	No/Yes	C to D	60-70	A,B,C,	Minor		4718I		10
450	- 460	As above but including fragmental rock.	0.75	2:1	No/No	D	50-60	A,B,C,	Minor	456-459: Fragmental Takla with angular fragments	4719I		10

211-9437

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property JEAN | District Omineca | Hole No. DDH 75-4

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 | Hole No. DDH 75-4 | Sheet 9

Footage From	To	Description	% Total Sulphide Estimated	cpy/py	Bn/MoS_2 present or absent	Degree of Magnetism A=Strong B=Moderate C=Weak D=Non Magnetic	Core Angle	Habit A=Hairline Fracture B=QB Vein C=Dissemination D=Seams	CaCO3	Notes	Sample No.	Length	Analysis
450	- 460 Cont'd									1" in diameter of light grey colour set in finer grain greenish grey groundmass containing biotite and chlorite.			
460	- 470	Fine grained, locally aphanitic Takla. Silicified and biotitized.	0.25	1:5	No/No	D	50-70	A,C	Minor		4720I		10
470	- 480	As above. 472: Diorite specimen slabbed, etched and stained: 2% quartz, 25% mafics plus magnetite, 73% total feldspar, 1% Kspar of rock, 99% plagioclase of total feldspar massive medium grained hypautomorphic.	1.5	5:1	No/No	D	40,70 20	A,C	Minor	470-472: dyke with sharp contact @ 60°.	4721I		10

211-9437

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olour Plot
Dips

Drill Hole Record

Cominco

Property JEAN | District Omineca | Hole No. DDH 75-4

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 | Hole No. DDH 75-4 | Sheet 10

Footage From	To	Description	% Total Sulphide Estimated	cpy/py	Bn/MoS2 present or absent	Degree of Magnetism A=Strong B=Moderate C=Weak D=Non Magnetic	Core Angle	Habit A=Hairline Fracture B=QB Vein C=Dissemination D=Seams	CaCO3	Notes	Sample No.	Length	Analysis
480	485	As above. Specimen 481 Etched and stained slab 2% quartz, 27% mafics + magnetite, 73% total feldspar < 1% Kspar of rock, 100% + plagioclase of total feldspar. Massive, medium grained hypautomorphic diorite.	1	100:1	No/Yes	D	50,90	A,B,C	Minor	481: dyke as 470-472 @ 60°. Disseminated pyrite. Chalcopyrite in hairline fractures cut both dyke and volcanic rock.	4722I		
485	487	As above. Faulted section well mineralized with chalcopyrite + MoS2 in quartz veins. Faulting @ 70°.	5%	100:1	No/Yes	C	-	B	Minor		4723I		
487	500	As 460-470 pervasive biotite alteration with lesser silicification.	0.5	10:1	No/No	C	-	C	Minor		4724I		
500	510	As above.	0.1	1:1	No/No	C	-	A,C	Minor	506: Augite crystals common.	4725I		

211-9437

Scale

Colour Plot
Dips

Drill Hole Reco

Cominco

Property JEAN	District Omineca	Hole No. DDH 75-4	
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 | Hole No. DDH 75-4 | Sheet 11

Footage From	Footage To	Description	% Total Sulphide Estimated	cpy/py	Bn/MoS2 present or absent	Degree of Magnetism A=Strong B=Moderate C=Weak D=Non Magnetic	Core Angle	Habit A=Hairline Fracture B=QB Vein C=Dissemination D=Seams	CaCO3	Notes	Sample No.	Length	Analysis
510	520	As above.	0.1	1:1	No/No	C	-	A,C	Minor		4726I		
520	528	As above.	0.1	1:1	No/No	C	-	A,C	Minor		4727I		7.5
	END												

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olour Plot
Dips

Drill Hole Recor

Cominco

Property	JEAN	District	Omineca M.D.	Hole No.	75-5
Commenced	Setting up August 17, 1975	Location	A-Zone	Tests at	-
Completed	August 19,1975	Core Size	BQ	Corr. Dip	-
Co-ordinates	23 + 85 N 77 + 90 W Plot relative to 24N 80W only			True Brg.	-
Objective				% Recov.	94.6%

Hor. Comp.

Vert. Comp. 267 feet

Logged by R.U. Bruaset

Date Aug 18 - Aug 19, 1975

Claim	J. W. 126
T Brg.	-
Collar Dip	-90
Elev.	3390
Length	267
Hole No.	75-5
Sheet	1

Footage From	To	Description	% Total Sulphide	cpy/py	Bornite or MoS_2 noted Yes/Yes No/No 0 = Not present in noticeable amounts	Magnetism A=Strong B=Moderate C=Weak D=Non-Magnetic	Core Angle	Habit A=Hairline Fracture B=Quartz Vein C=Disseminated D=Seam	Notes	Sample No.	Length	Analysis
0	- 46	Overburden. Drilled with mud. All rods and casing recovered.										
46	- 60	Medium grained massive hypautomorphic biotite granodiorite. Considerable faulting. Alteration mainly in the form of argillic alteration which has softened the plagioclase principally in areas of faulting. Hematitized plagioclase noted mainly in areas of faulting. Local intense argillic alteration appears to enhance the quality of plagioclase crystal outlines.	0.15	cpy only	No/Yes	C	40,70	A,D		4728I	46 to 60 14	4
50	- 60	As above.	2%	2:1	No/Yes	D	30,70	B,D	Occasionally Kspar envelope. 52.5 A 4 inch thick quartz vein containing nearly massive chalcopyrite & pyrite & MoS_2 @ 70°.	See above.		9

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olour Plot
Dips

Drill Hole Reco

Cominco

Property JEAN | District Omineca M.D. | Hole No. 75-5

Commenced | Location | Tests at | Hor. Comp.

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

Co-ordinates | True Brg. | Logged by

Objective | % Recov. | Date

Reformat

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. 75-5 | Sheet 2

Footage From	To	Description	% Total Sulphide	cpy/py	Bornite or MoS_2 noted Yes/Yes No/No 0 = Not present in noticeable amounts	Magnetism A=Strong B=Moderate C=Weak D=Non-Magnetic	Core Angle	Habit A=Hairline Fracture B=Quartz Vein C=Disseminated D=Seam	Notes	Sample No.	Length	Analysis
50	60								53-56 Intense kaolinization & gauging rear fault @ 70°. Also hematite stained feldspar in fault zone. 54 Chalcopyrite & MoS_2 in quartz vein @ 1/8 cut by barren quartz vein. 57 Barren quartz vein.			
60	70	Granodiorite. Minor shearing indicated by minor gauge development.	1%	cpy only	No/Yes	D	50,70	B+D	58-62.5 Medium grained porphyritic dyke consisting of plagioclase in fine grained pinkish ground mass. Unmineralized except for heavy chalcopyrite & MoS_2 in quartz vein @ 40° in contact of dyke with granodiorite. 64 Barren quartz vein cuts cpy & MoS_2 quartz vein.	4729I	10	10

211-9437

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olour Plot
Dips

Drill Hole Reco..

Cominco

Property JEAN | District Omineca M.D. | Hole No. 75-5

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 | Hole No. 75-5 | Sheet 3

Footage From	To	Description	% Total Sulphide	cpy/py	Bornite or MoS_2 noted Yes/Yes No/No 0 = Not present in noticeable amounts	Magnetism A=Strong B=Moderate C=Weak D=Non-Magnetic	Core Angle	Habit A=Hairline Fracture B=Quartz Vein C=Disseminated D=Seam	Notes	Sample No.	Length	Analysis
70	80	Granodiorite as above. Hematite staining of plagioclase near faults. Faulting @ 50°, 80° clearly cuts barren and mineralized quartz veins which have been gauged and crushed. Plagioclase variously soft to hard to knife depending on closeness to faults.	2%	200:1	No/Yes	D	35,50	B+D	78-81 Fault @ 30-50°. 73 1/8 chalcopyrite seam cut by fault parallel to core axis & displaced 1 inch	4730I	10	9.5
80	90	Granodiorite. 97 Specimen slabbed etched and stained:12% Quartz, 3% mafics & magnetite 85% total feldspar, 17% Kspar of rock, 80% plagioclase of total feldspar. Massive medium grained hypautomorphic.	1%	cpy only	No/Yes	D	70	B	85-92 Intense hematite staining, gauging & shearing.	4731I	10	8.5
90	100	Granodiorite. Kspar borders relative to mineralized fractures.	-	cpy only	No/Yes	D	70	D	Minor gauging	4732I	10	10

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olour Plot
Dips

Drill Hole Reco..

Cominco

Property JEAN | District Omineca M.D. | Hole No. 75-5

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 | Hole No. 75-5 | Sheet 4

Footage From	To	Description	% Total Sulphide	cpy/py	Bornite or MoS_2 noted Yes/Yes No/No 0 = Not present in noticeable amounts	Magnetism A=Strong B=Moderate C=Weak D=Non-Magnetic	Core Angle	Habit A=Hairline Fracture B=Quartz Vein C=Disseminated D=Seam	Notes	Sample No.	Length	Analysis
100	110	Granodiorite.	1%	5:1	No/Yes	D	70	D	98-113.5 Many minor faults & sections of softened feldspar much red staining of plagioclase presumable due to hematite. Core angles generally 30 - 50°.	4733I	10	8
110	120	Granodiorite. Dominant alteration associated with mineralization is Kspar borders. Plagioclase tend to be slightly greenish in colour.	1%	4:1	No/Yes	D	60,70	B+D		4734I	10	8.5
120	130	Granodiorite. Biotite generally fresh and plagioclase generally greenish. Kspar envelope relative to fractures containing mineralization.	½	only	Yes/Yes	D	60,70	B+D	120 Bornite first noticed in this hole. Accompanied by chalcopyrite & MoS_2 commonly here.	4735I	10	7

cale

olour Plot
Dips

Drill Hole Reco

Cominco

Property	JEAN	District	Omineca M.D.	Hole No.	75-5
Commenced		Location		Tests at	
Completed		Core Size		Corr. Dip	
Co-ordinates				True Brg.	
Objective				% Recov.	

Hor. Comp.

Vert. Comp.

Logged by

Date

Claim	
T Brg.	
Collar Dip	
Elev.	
Length	
Hole No.	75-5
Sheet	5

Footage From	To	Description	% Total Sulphide	cpy/py	Bornite or MoS_2 noted Yes/Yes No/No 0 = Not present in noticeable amounts	Magnetism A=Strong B=Moderate C=Weak D=Non-Magnetic	Core Angle	Habit A=Hairline Fracture B=Quartz Vein C=Disseminated D=Seam	Notes	Sample No.	Length	Analysis
130	- 140	As 120 - 130.	½	cpy only	Yes/Yes	C	60	B+D	130 - 131 fault @ 50°, gauge of red or hematitized plagioclase.	4736I	10	9.5
140	- 150	As 120 - 130.	½	cpy only	Yes/Yes	D	60	D		4737I	10	9.5
150	- 160	As 120 - 130.	½	cpy only	Yes/Yes	D	50-60	B+D		4738I	10	10
160	- 170	As 120 - 130.	½	cpy only	Yes/Yes	C	65-70	B+D		4739I	10	10
170	- 180	As 120 - 130.	½	cpy only	Yes/Yes	C	70-80	D		4740I	10	10
180	- 190	Granodiorite as above with Kspar borders relative to mineralized veins. Biotite generally fresh. Biotite altered to chlorite in better mineralized sections. Plagioclase soft in such sections.	½	only	Yes/Yes	D	60-65	B+D	176-180 Barren quartz vein @ 10° cut biotite chalcopyrite-MoS_2 veinlet.	4741I	10	10

Drill Hole Record

Cominco

Property	JEAN	District	Omineca M.D.	Hole No.	75-5
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 | Hole No. 75-5 | Sheet 6

Footage From	To	Description	% Total Sulphide	cpy/py	Bornite or MoS_2 noted Yes/Yes No/No 0 = Not present in noticeable amounts	Magnetism A=Strong B=Moderate C=Weak D=Non-Magnetic	Core Angle	Habit A=Hairline Fracture B=Quartz Vein C=Disseminated D=Seam	Notes	Sample No.	Length	Analysis
190	200	As 180 - 190.	½	cpy only	Yes/Yes	D	65,20	B+D	191 Barren quartz vein cuts & displaces chalcopyrite - bornite veinlet.	4742I	10	10
200	210	As 180 - 190.	3/4%	2:1	No/Yes	D	50-70	B+D	203 Minor fault @ 30°. Also heavy pyrite + MoS_2 and chalcopyrite in quartz vein in shear zone. Some sericite. 206-210 Shearing @ 25° gauge.	4743I	10	10
210	220	Granodiorite as above with similar type Kspar development in vein borders, one perhaps a little less intense. Kaolinization appears to have become the most intense alteration type.	3/4%	1:1	No/Yes	D	50-70	B+D	216-220 Plagioclase occasionally altered to emerald-green material (possibly sercite).	4744I	10	9.5

211-9437

Scale

Colour Plot
Dips

Drill Hole Reco

Cominco

Property JEAN | District Omineca M.D. | Hole No. 75-5

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 | Hole No. 75-5 | Sheet 7

Footage From	To	Description	% Total Sulphide	cpy/py	Bornite or MoS_2 noted Yes/Yes No/No 0 = Not present in noticeable amounts	Magnetism A=Strong B=Moderate C=Weak D=Non-Magnetic	Core Angle	Habit A=Hairline Fracture B=Quartz Vein C=Disseminated D=Seam	Notes	Sample No.	Length	Analysis
220	230	Granodiorite as 210-220 plagioclase generally greenish in colour. Biotite fresh. Chalcopyrite + MoS_2 + pyrite in veins with Kspar envelopes frequently.	½	1:1	No/Yes	D	60,80	B+D		4745I	10							9
230	240	Granodiorite as 210-220.	½	2:1	No/Yes	D	60,80	B+D	232 Barren quartz vein.	4746I	10							10
240	248	Granodiorite as above with fresh biotite.	-	-	-	-	-	-	232 Minor fault @ 50°.	4747I	8							8
248	249	Heavy chalcopyrite, MoS_2, pyrite in quartz vein.	3%	3:1	No/Yes	D	-	B	-	4748I	1							1
249	260	Granodiorite as above Greenish feldspars. Fresh biotite. Minor bornite.	¼	only	Yes/Yes	D	20,60	B+D		4749I	11							11

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Drill Hole Record

Cominco

Property	JEAN	District	Omineca M.D.	Hole No.	75-5
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 | Hole No. 75-5 | Sheet 8

Footage From	Footage To	Description	% Total Sulphide	cpy/py	Bornite or MoS_2 noted Yes/Yes No/No 0 = Not present in noticeable amounts	Magnetism A=Strong B=Moderate C=Weak D=Non-Magnetic	Core Angle	Habit A=Hairline Fracture B=Quartz Vein C=Disseminated D=Seam	Notes	Sample No.	Length	Analysis
260	267	As above except 261-263 which is a quartz-Kspar pegmatite dyke with minor associated chalcopyrite & MoS_2.	¼	only	No/Yes	D	50°	B+D		4750I	7	7
	END											

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Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	JEAN	District	Omineca M.D.	Hole No.	DDH-75-6
Commenced	19 August 1975	Location	A-Zone	Tests at	-
Completed	23 August 1975	Core Size	BQ	Corr. Dip	-
Co-ordinates	35 + 24N 96 + 00W relative to 35N/96W			True Brg.	-
Objective				% Recov.	92%

Hor. Comp. - Perpendicular

Vert. Comp. 296

Logged by R.U. Bruaset

Date 20 Aug - 23 Aug 1975

Claim	J.W. 95
T Brg.	-
Collar Dip	-90
Elev.	3390
Length	297
Hole No.	DDH 75-6
Sheet	1

No casing left in hole.

Footage From	Footage To	Description	% Total Sulphide	cp/py	Bo/MoS_2 present or absent	Magnetism A=Strong B=Moderate C=Weak D=Non-Magnetic	Core Angle	Habit A=Hardened Fractures B=Quartz Veins C=Disseminated D=Seams	Epidote Carbonate	Notes	Sample No.	Length	Analysis					
0	60	Overburden																
60	70	Medium grained massive hypautomorphic biotite-quartz diorite. Etched & stained specimen at 67' 15% Qtz. 3% mafic and magnetite, 82% total feldspar, 3% of rock is kspar. Biotite fresh: some argillic alteration of plagioclase; Kspar occasionally form borders of veins.	0.25	cpy/No	No/Yes	D	50,70	A+B	-		4751I	10						9
70	80	Rock type as above. Plagioclase frequently assume euhedral grain boundary in the more intensely argillicly altered sections.	0.1	cpy/No	No/Yes	D	90,60°	A	-	Post-mineral barren quartz veins cut cpy/MoS_2 bearing fractures.	4752I	10						8.5
80	91	As above.	0.1	cpy/No	Yes/Yes	D	85,45	A	-	91 kspar salvage relative to cpy bearing hairline fracture.	4753I	9						9

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Scale

Colour Plot & Dips

Drill Hole Reco

Cominco

Pertinent

Property	JEAN	District	Omineca M.D.	Hole No.	DDH-75-6
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

No casing left in hole.

Footage From	To	Description	% Total Sulphide	cp/py	Bo/MoS_2 present or absent	Magnetism A=Strong B=Moderate C=Weak D=Non-Magnetic	Core Angle	Habit A=Hardened Fractures B=Quartz Veins C=Disseminated D=Seams	Epidote Carbonate	Notes	Sample No.	Length
91	- 101	As above. Intensely Kaolinized in better mineralized section. Fresh biotite crystals.	1.5	1:1	No/Yes	D	30,70	A,B	-	98: Heavy pyrite, chalcopyrite, MoS_2, in quartz veins @ 30°. 99-101 fault @ 50° gauge	4754I	10
101	- 110	Fresher quartz diorite than at start of hole. Local sections of strong argillic alteration (clayey plagioclase soft to fingernails, plagioclase frequently greenish in colour),	0.1	cpy/No	No/Yes	D	50°	A	-		4755I	9
110	- 120	Quartz diorite as 101 - 110.	0.1	cpy/No	No/Yes	D	60°	A,B	-	119 Blebs of cpy to ½ inch in quartz vein. About one foot of core not recovered at	4756I	10

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. DDH 75-6 | Sheet 2

Analysis

211-8437

Scale

Colour Plot & Dips

Drill Hole Recd J

Cominco

Property JEAN | District Omineca M.D. | Hole No. DDH 75-6

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 | Hole No. DDH 75-6 | Sheet 3

No casing left in hole.

Footage From	To	Description	% Total Sulphide	cp/py	Bo/MoS_2 present or absent	Magnetism A=Strong B=Moderate C=Weak D=Non-Magnetic	Core Angle	Habit A=Hardened Fractures B=Quartz Veins C=Dissemin-ated D=Seams	Epid-ote Carb-onate	Notes	Sample No.	Length	Analysis
110	120									this point. Fault @ 30o. Sericitic gauge. Fault extends to 122. Limonitic gauge also.			
120	130	Quartz diorite quite fresh.	0.1	cpy/No	No/Yes	C	50,65	A	-		4757I	10	9.5
130	140	Quartz diorite as 120-130 Kspar salvages along veins & fractures.	0.1	cpy/No	Yes/No	C	50,60	A,B	-	No barren quartz veins noted 132 Mode of medium grained massive hypautomorphic quartz diorite 12% Quartz, 2% mafic & magnetite 86% total feldspar 5% Kspar in the rock.	4758I	10	9.5

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Drill Hole Record

Scale

Colour Plot & Dips

Property JEAN	District Omineca M.D.	Hole No. DDH 75-6	
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 | Hole No. DDH 75-6 | Sheet 4

No casing left in hole.

Footage From	To	Description	% Total Sulphide	cp/py	Bo/MoS_2 present or absent	Magnetism A=Strong B=Moderate C=Weak D=Non-Magnetic	Core Angle	Habit A=Hardened Fractures B=Quartz Veins C=Disseminated D=Seams	Epidote Carbonate	Notes	Sample No.	Length	Analysis					
140	150	Quartz diorite as 120-130	0.1	cpy/No	Yes/No	C	30, 50, 60	A	-	149 heavy chalcopyrite & bornite in hairline fracture @ 50o. No MoS_2 associated.	4759I	10						9.5
150	160	As 140-150. Limonitic fractures common occasionally with relic + chalcopyrite, suggesting possible leaching.	0.1	cpy/No	Yes/Yes	B C	50, 60	B	-	149 Mode for massive medium grained hypautomorphic quartz diorite 10% Quartz, 3% mafics & magnetite +87% total feldspar, 6% Kspar in the rock.	4760I	10						10
160	170	As 140-150. Limonitic fractures some with traces of bornite suggest possible leaching.	0.1	cpy/No	Yes/Yes	B C	50, 60	A+D	-	161 A 1/8" thick seam of chalcopyrite + biotite. Minor Kspar salvage.	4761I	10						9.5

Scale

Colour Plot & Dipe

0

Drill Hole Reco 1

Cominco

Property	JEAN	District	Omineca M.D.	Hole No.	DDH 75-6
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 | Hole No. DDH 75-6 | Sheet 5

No casing left in hole.

Footage From	Footage To	Description	% Total Sulphide	cp/py	Bo/MoS_2 present or absent	Magnetism A=Strong B=Moderate C=Weak D=Non-Magnetic	Core Angle	Habit A=Hardened Fractures B=Quartz Veins C=Disseminated D=Seams	Epidote Carbonate	Notes	Sample No.	Length	Analysis
170	180	Quartz diorite as 140 - 150. A specimen etched & stained at 179 appears to be of granodiorite composition. See note.	0.5	Yes/No	No/Yes	B→C	60-65 20	'A+C'	-	Rusty fractures contain some chalcopyrite, MoS_2. Suggesting some leaching has taken place. 173' mode: Medium grained massive hypautomorphic quartz diorite 20% quartz, 5% mafic + magnetite 75% total feldspar + 4% kspar in the rock. 179' mode: 12% Quartz. 5% mafics + magnetite 83% total feldspar 10% Kspar in the rock.	4762I	10	9.5

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Scale

Colour Plot & Dips

0

Drill Hole Record

Cominco

Property JEAN | District Omineca M.D. | Hole No. DDH 75-6

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 | Hole No. DDH 75-6 | Sheet 6

No casing left in hole.

Footage From	To	Description	% Total Sulphide	cp/py	Bo/MoS_2 present or absent	Magnetism A=Strong B=Moderate C=Weak D=Non-Magnetic	Core Angle	Habit A=Hardened Fractures B=Quartz Veins C=Disseminated D=Seams	Epidote Carbonate	Notes	Sample No.	Length	Analysis
180	190	Rock as above.	0.25	Yes/No	No/No	B→C	50-55	A+C	-	186 Limonitic fracture containing heavy bornite.	4763I	10	10
190	200	As above.	Minor	Yes/No	No/No	B→C	-	C	-	191 Fracture containing quartz & chalcopyrite cuts fresh biotite crystal leaving biotite fresh and partly replaced by chalcopyrite.	4764I	10	9
										193 mode of massive medium grained hypautomorphic quartz			

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Scale

Colour Plot & Dips

0

Drill Hole Record

Cominco

Property	JEAN	District	Omineca M.D.	Hole No.	DDH 75-6
Commenced		Location		Tests at	
Completed		Core Size		Corr. Dip	
Co-ordinates				True Brg.	
Objective				% Recov.	

Hor. Comp.

Vert. Comp.

Logged by

Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. DDH 75-6 | Sheet 7

No casing left in hole.

Footage From	To	Description	% Total Sulphide	cp/py	Bo/MoS_2 present or absent	Magnetism A=Strong B=Moderate C=Weak D=Non-Magnetic	Core Angle	Habit A=Hardened Fractures B=Quartz Veins C=Disseminated D=Seams	Epidote Carbonate	Notes	Sample No.	Length	Analysis	Hole No.
190	200									diorite: 13% Quartz, 7% mafics + magnetite 74% total feldspar, 6% Kspar of total feldspar.				
200	210	As above.	Traces	Yes/No	No/No	B - C	-	-	-	196½ fault @ 30° 208 fault @ 50°	4765I	10		10
210	220	As above.	A few specimens.	Yes/No	No/No	B - C	-	C	-		4766I	10		8
220	230	As above.	0.1	Yes/No	Yes/Yes	B - C	-	-	-	226 Heavy chalcopyrite, bornite in quartz vein ¼" thick. Minor MoS_2.	4767I	10		9

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Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	JEAN	District	Omineca M.D.	Hole No.	DDH 75-6
Commenced		Location		Tests at	
Completed		Core Size		Corr. Dip	
Co-ordinates				True Brg.	
Objective				% Recov.	

Hor. Comp.

Vert. Comp.

Logged by

Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. DDH 75-6 | Sheet 8

No casing left in hole.

Footage From	To	Description	% Total Sulphide	cp/py	Bo/MoS_2 present or absent	Magnetism A=Strong B=Moderate C=Weak D=Non-Magnetic	Core Angle	Habit A=Hardened Fractures B=Quartz Veins C=Disseminated D=Seams	Epidote Carbonate	Notes	Sample No.	Length	Analysis
230	240	As above. Note that pyrite all of a sudden appears.	0.25	2:1	Yes/No	B→C	30,50 60°	-	-	227:fault @ 50°. Minor gauge 236:fault @ 50°. Pyrite in gauge. 237 Limonitic fractures occasionally noted generally fresh biotite books and plagioclase is generally fresh to very weakly altered.	4768I	10	10
240	250	Rock as above. Limonitic fractures common.	0.25	100:1	No/No	B→C	40,50	-	-		4769I	10	10
250	260	Rock as above.	0.1	100:1	No/No	B→C	30	A	-	Minor Kspar alteration in borders of veinlets.	4770I	10	10

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