LOG NO:	11-01	RD.
ACTION:	Date,	received
leack	from	amendment
FTLE NO:		

LOG NO:	0620	RD.
ACTION:	The second secon	- I r s -mod sil sil silve della del
FILE NO:	ndronales de la companya de la comp	1

ASSESSMENT REPORT
ON THE
METALLURGICAL SAMPLE
DIAMOND DRILLING PROGRAM

(CINOLA GOLD PROJECT)

SKEENA MINING DIVISION,
GRAHAM ISLAND
QUEEN CHARLOTTE ISLANDS, BRITISH COLUMBIA

Location:

NTS : 103 F/9E Latitude : 53°32'N Longitude : 132°13'W

JUN 1 4 1990

SUB-RECORDER

RECEIVED

M.R. # \$..... VANCOUVER, B.C.

Claims

RIC 1 to 32 RIC 1 to 12 RIC 20 FR to RIC 26 FR ROBIN FR

Owned and Operated By:

City Resources (Canada) Limited #2000 - 666 Burrard Street Vancouver, B. C. V6C 2X8 は下 CA ZO < △ **64** (2) **80 2 →** e Z C E - 2 S 0 0 -1 (2) OS **国** (5) 5

Prepared By:

NEIL V. FROC, P. Eng.

June 1990

TABLE OF CONTENTS

		Page No.
1.0	INTRODUCTION	3 /
2.0	LOCATION	3
3.0	ACCESS	3 ,
4.0	TOPOGRAPHY AND VEGETATION	3 /
5.0	CLAIM STATUS	6
6.0	HISTORY	6
7.0	WORK PROGRAM	8 /
8.0	GEOLOGY	
	8.1 Regional Geology	18/13 18/13
9.0	DIAMOND DRILLING	10/13
10.0	CONCLUSIONS AND RECOMMENDATIONS	11 14
	FIGURES	
Figure 1 Figure 2 Figure 3 Figure 4 Figure 5 Figure 6	Property Geology 🗸	- e
	3 DDENDIGES	

APPENDICES

Appendix I	Drill Logs 🗸
Appondix II	Statement of Qualifications
Annondiv III	Statement of Costs .
ADDCHUIA III	Deacement of Copes,

1.0 INTRODUCTION

A three hole diamond drilling program was carried out from November 26 to December 7, 1989 on the Babe 1 to 32, Ric 1 to 12, Ric 20 FR to Ric 26 FR and Robin FR claims for the purpose of collecting samples for metallurgical testwork. The holes were collared within the Babe 5 and Babe 7 claim boundaries.

The "HQ" size drill core was collected, logged and shipped to Richmond, B. C. under the direction of the author.

2.0 LOCATION

The Babe 1 to 32, Ric 1 to 12, Ric 20 FR to Ric 26 FR and Robin Fr claims are situated approximately 740 km northwest of Vancouver on central Graham Island in the Queen Charlottes, some 18 km southwest of the village of Port Clements (see Figure 1).

The mineral claims are located within the Skeena Mining Division on NTS map sheet 103 F/9E, centered on geographic coordinates 53°32'N latitude and 132°13'W longitude (see Figure 2).

3.0 ACCESS

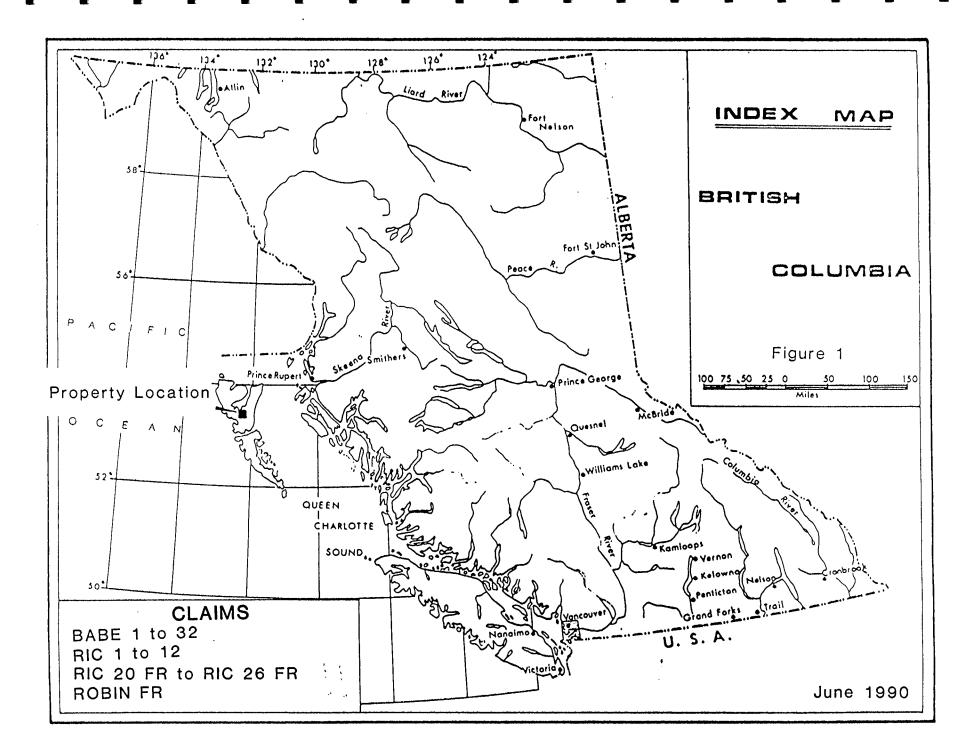
Drive in access to the property is gained from Port Clements via 40 km of MacMillan Bloedel owned and maintained gravel logging roads. The property is situated near the end of MacMillan Bloedel's "Branch 42" road.

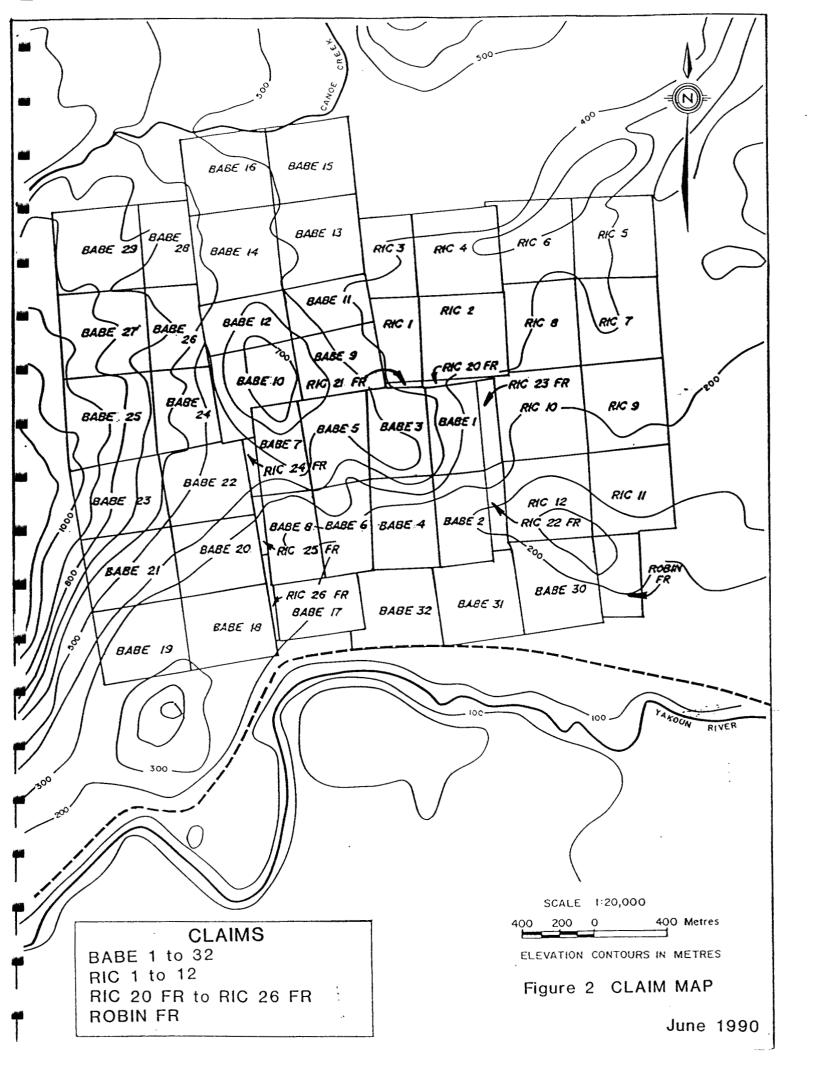
Port Clements can be reached from either Prince Rupert or Vancouver by regularly scheduled Canadian Airlines flights to Sandspit on Moresby Island, thence hourly B. C. Ferry service from Aliford Bay to Skidegate and highway travel on Yellowhead Highway No. 16. Skidegate can also be reached by twice weekly B. C. Ferry service from Prince Rupert.

4.0 TOPOGRAPHY AND VEGETATION

The terrain in the claim area is gently rolling to rugged, ranging in elevation from sea level to 270 m. Climatic conditions are typical of the coastal areas of British Columbia with high rainfall.

Most of the claim area has been recently logged or is in second growth with the remaining vegetation consisting primarily of fir, hemlock and spruce.





5.0 CLAIM STATUS

The property consists of 52 contiguous mineral claims and fractions within the Skeena Mining Division on Graham Island of the Queen Charlotte Islands on NTS sheet 103 F/9E. They are 100% owned by City Resources (Canada) Limited and cover an area of approximately 708 ha.

Pertinent claim data in summarized as follows:

Claim Name	<u>Units</u>	Record No.	Expiry Dates
BABE #1-3	3	34966-34968	05/03/92
BABE #4-7	4	34969-34972	05/03/94
BABE #8	1	34973	05/03/92
BABE #9-10	2	35222-35223	26/03/94
BABE #11	1	35224	26/03/93
BABE #12	1	35225	26/03/94
BABE #13-17	5	35226-35230	26/03/92
BABE #18-23	6	36578-36583	03/04/92
BABE #24-29	6	36601-36606	28/04/92
BABE #30-32	3	36746-36748	14/06/92
RIC #1-12	12	36589-36600	28/04/92
RIC #20-23 Frac.	4	36739-36742	14/06/92
RIC #24 Fraction	1	36743	14/06/95
RIC #25-26 Frac.	2	36744-36745	14/06/92
ROBIN Fraction	1	5762 (metric)	26/01/92

Assessment credit is applied for under this report.

6.0 HISTORY

Jarositic gossan and quartz veining was discovered in 1970 by Efrem Specogna and Johnny Trinco while prospecting along the trace of the Sandspit fault zone. Vein and wallrock samples carried gold and the Babe Property was located in 1970.

The claims were first optioned by Kennco Exploration, (Western) Limited who conducted geological mapping, and drilled packsack geochemical surveys two diamond drillholes totalling 55.2 m. The geochemical (Assessment Reports 2890 and 3517) revealed a considerable mercury anomaly as well as weak gold and arsenic anomalies. Following Kennco Exploration, (Western) Limited work the property was optioned to Cominco Ltd in 1972, Placer Development Ltd, Silver Standard Mines Limited, and from the later to Quintana Minerals Corporation.

In 1972 Cominco Ltd drilled nine holes totalling 500 m before relinquishing their option. In 1973, Placer Development Limited explored the property and from 1974 to 1975 Quintana Minerals Corporation drilled 18 percussion holes totalling

633 m, four packsack diamond drillholes totalling 58 m and five BQ hole totalling 690 m.

Consolidated Mines Limited a predecessor to City Resources (Canada) Limited, acquired an option to purchase the present Cinola Gold Project area in 1977 (the Robin Fraction replaced the Bill claim in 1987). In 1979, Consolidated Cinola acquired title to the claims before entering into a joint venture agreement with Energy Reserve Canada Ltd. (Energy Reserve). Energy Reserve acquired a 50% working interest in the claims for \$5,000,000 relating to initial exploration and development cost incurred on the property. Consolidated Cinola retained the operator position in the joint venture.

During a three year period ending in 1982 the joint venture expended about \$18,000,000 in exploration and development work on the Cinola Project. With Consolidated Cinola as operator, 165 holes totalling about 25 329 m of surface drilling, a 300 m adit, 178 m of crosscuts and 12 holes totalling 1554 m of underground workings were conducted. In 1981, about 4500 t from the underground workings were treated on site in a 45 t/d pilot mill.

In September 1982, the joint venture completed a feasibility study for a 13 000 to 15 000 t/d throughput with extraction based on a complex roasting process. The proposal was for a high capital cost operation with potential for permitting and environmental problems and the joint venture did not proceed.

In August 1984, Misty Gold Inc. acquired all of Energy Reserves interest in the property for \$5,000,000 plus a net smelter royalty. In November 1984, Misty Gold shares were exchanged for 1,500,000 shares of Consolidated Cinola Mines Ltd.

Since 1983, Consolidated Cinola Mines Ltd and City Resources (Canada) Limited conducted additional bench scale metal-lurgical tests, drilled 45 diamond drillholes and 63 reverse circulation holes totalling 10 773 m, extended the adit 58 m to 353 m and drove 66 m of additional crosscut. City Resources objective was to validate previous work and obtain material for new metallurgical work.

In December 1987, Wright Engineering Limited completed a feasibility study for City Resources (Canada) Limited on the Cinola Gold Project. The report summarizes reserves calculated by William Hill Mining Consultants Ltd as follows, "The mineable ore reserves are 24 800 000 t grading 2.11 gm Au/t (27,300,000 st at 0.062 oz/st). An additional 200 000 t grading 1.90 gm Au/t have been classified as possible reserves. The mineable reserves were calculated using a 1.10

gm Au/t (0.032 oz/st) cut-off grade and the overall waste to ore stripping ratio will be 2.08:1".

In December 1989, Barrack Mines Limited, through their subsidiary, Central Coast Exploration NL, concluded the purchase of 10,207,900 or 48.8% of City Resources (Canada) Limited's outstanding shares. Prior to, and during this transaction, it was decided that further metallurgical testwork was required to substantiate past results. The drilling program outlined in this report was undertaken to provide the Company with additional fresh core samples for the testwork.

7.0 WORK PROGRAM

Three diamond drillholes, 89-01 to 89-03 were drilled by Blackhawk Diamond Drilling Inc. for City Resources (Canada) Limited.

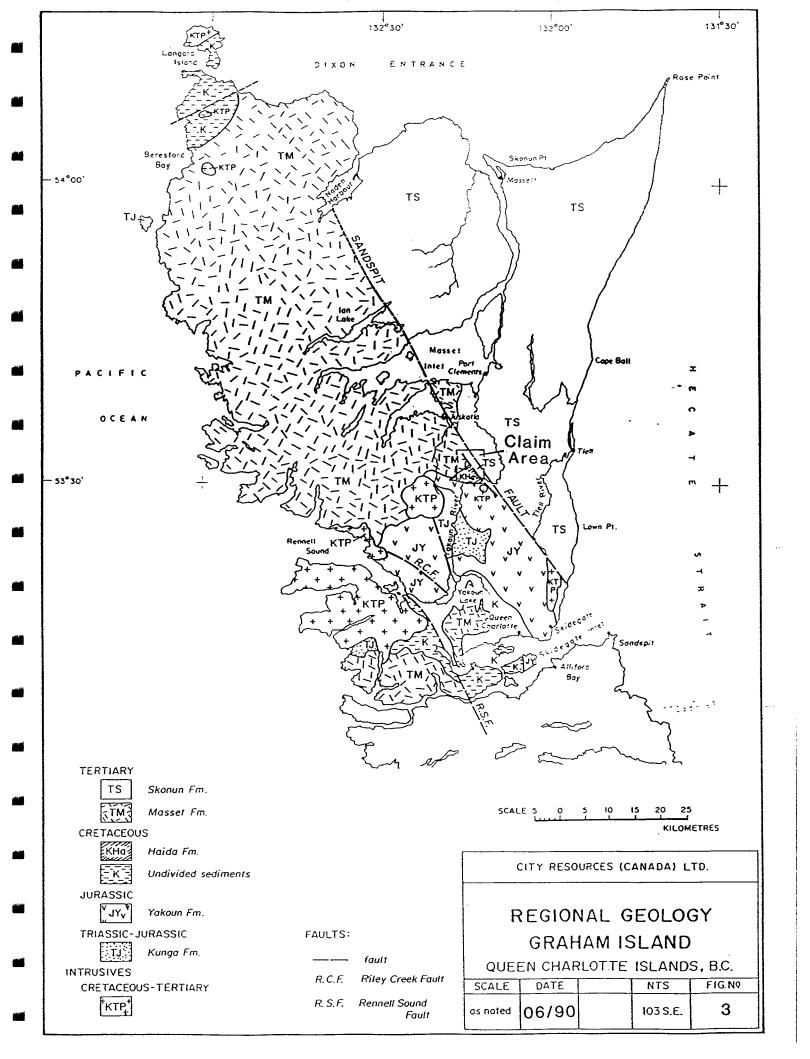
A total of 318.5 m of HQ core drilling was done. The core was photographed, geologically and geotechnically logged and shipped to Bacon, Donaldson and Associates Ltd (BDA), Richmond, B. C. to provide a sample for metallurgical testwork.

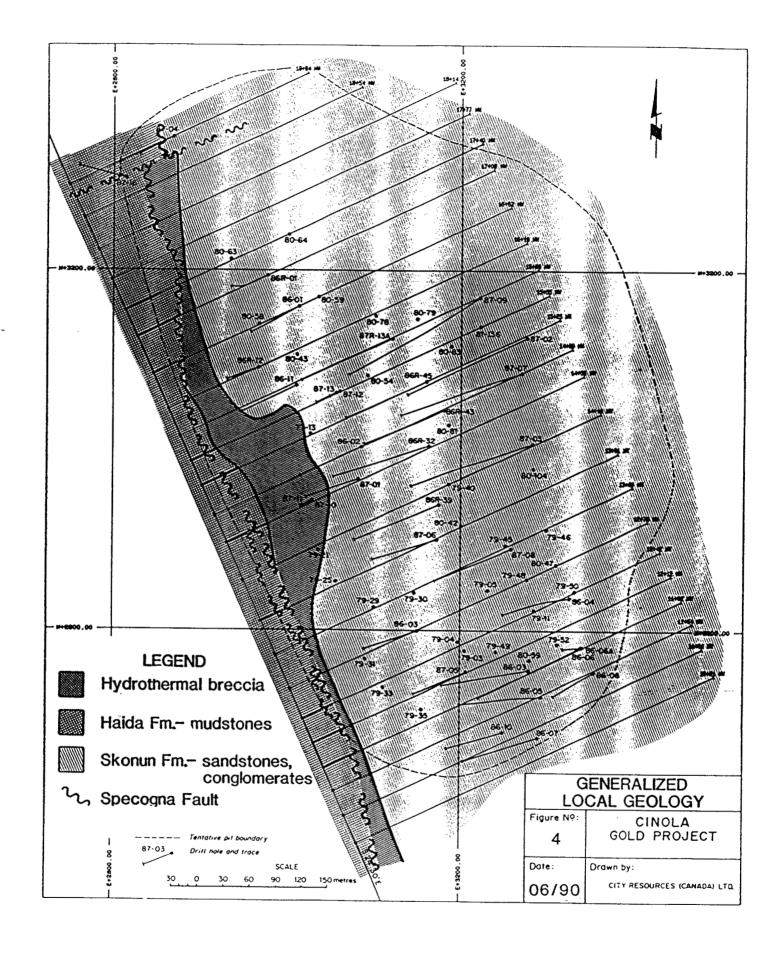
8.0 GEOLOGY

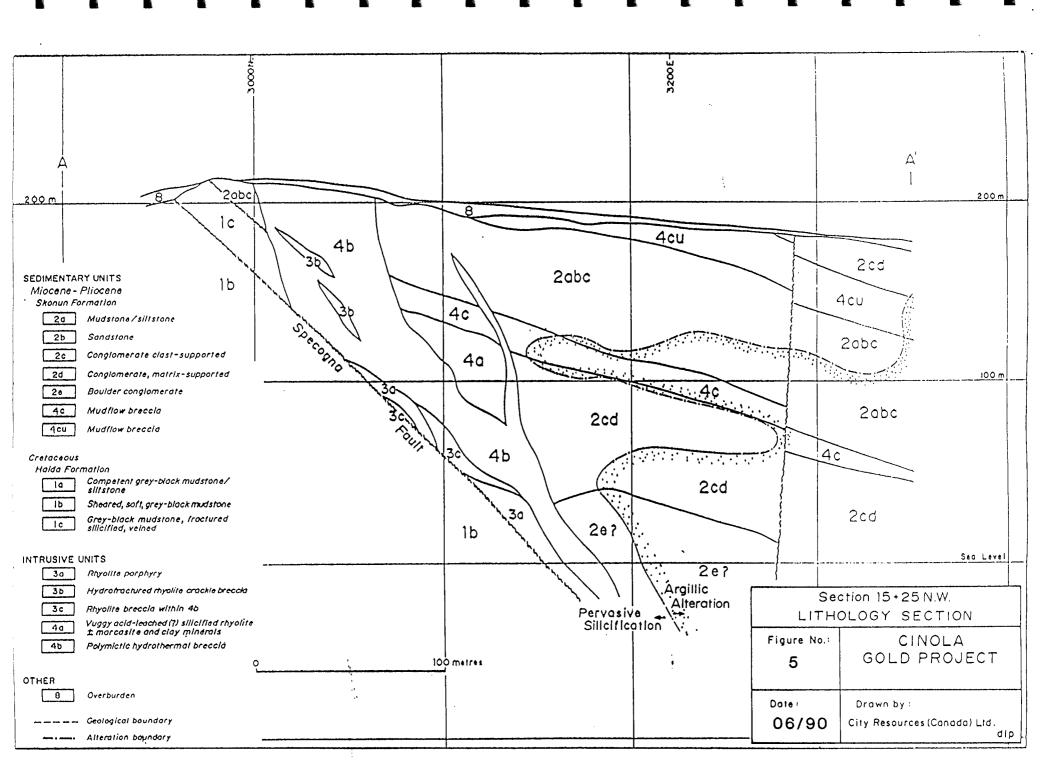
8.1 Regional Geology

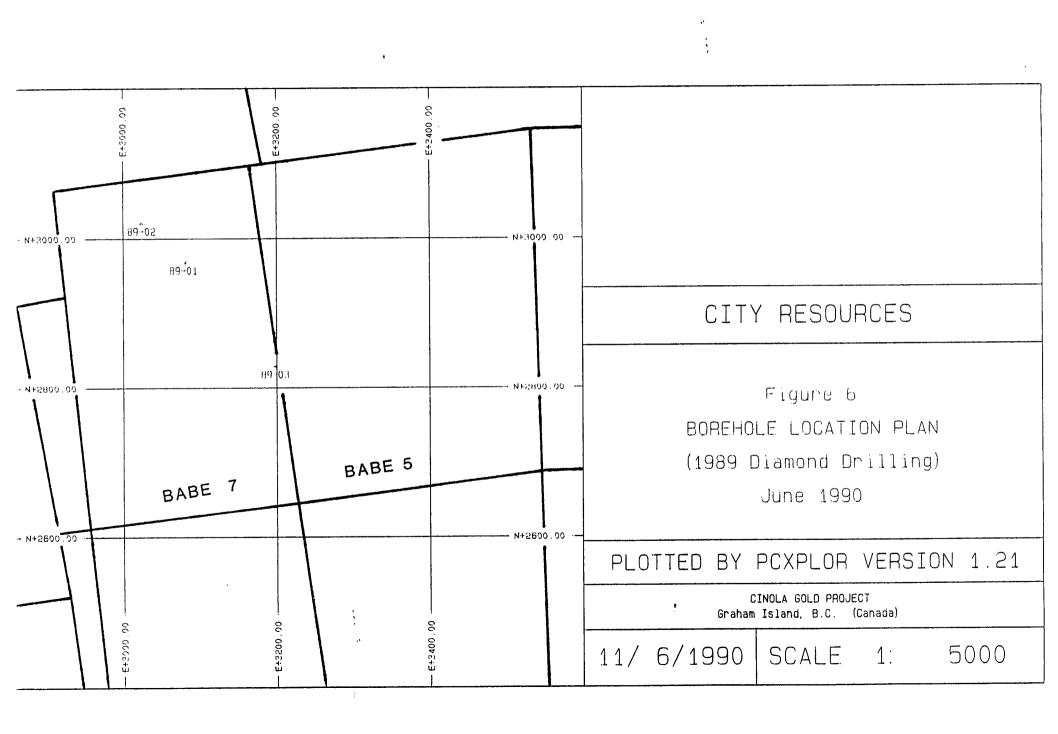
The Queen Charlotte Islands are part of the Insular Belt of the Canadian Cordillera. They are separated from the Pacific Ocean floor by the Queen Charlotte Transform Fault. The area is included within the Pacific Continental Shelf physiographic region and has been divided into the Queen Charlotte Ranges, Skidegate Plateau and Queen Charlotte Lowlands. The boundaries between the physiographic units follow major northwest trending fault zones.

The general geology of the Queen Charlotte Islands has been mapped and reported on by A. Sutherland-Brown in British Columbia Department of Mines Bulletin No. 54 (1968) (see Figure 3). The area of main interest for precious metals is near the Sandspit fault at the boundary of the Skidegate Plateau and Charlotte Lowlands. Sutherland Brown (1968) defined four main rock formations in Cinola Project area: the Haida and Honna Formations of Cretaceous age, the Masset Formation of Early Tertiary age, and the Skonun Formation of Mio-Pliocene age. West of the Sandspit Fault system, the Skidegate Plateau is









underlain by Massett Formation volcanic rocks of mafic to felsic composition and the Haida Formation composed of a Lower sandstone member and an upper shale member. A conglomeritic unit in the area of the Cinola Gold deposit has been variably mapped as an extension of the Haida Formation, the Honna Formation and part of the Skonun Formation. East of the Sandspit Fault system, the Queen Charlotte Lowlands are underlain by poorly lithified sands, shale, and conglomerate of the Skonun Formation.

8.2 Property Geology

A synopsis of the property geology is shown on Figure 4 lithology section typical on Figure Mineralization occurs in quartz veins, siliceous breccia and replacement zones within silicified conglomerate of the Skonun Formation along a faulted contact with Haida shale in association with rhyolite dikes or sills. mineralized block is situated between the N30°W trending Sandspit Fault system and a N35°W trending 40-60°E dipping splay referred to as the Specogna or Footwall Fault. Champigny and Sinclair (1980) stated that, "Displaced gold geochemical anomalies, drainage patterns topography suggest a dextral fault with a downward This is the same movement movement of the east block. picture observed for the Sandspit fault system (Sutherland-Brown, 1968)".

The Cinola Gold deposit formed in a shallow hotspring environment localized by the Specogna fault with heat supplied by emplacement of rhyolitic porphyry bodies along the fault. Intrusion of the porphyry created a hydrothermal system with solutions rich in gold, silver, mercury, arsenic and antimony causing mineralization and alteration of fractured or brecciated rhyolite and a porous clastic sequence. The mineralized zone is characterized by pervasive silicification and argillic alteration. (Tolbert and Froc, 1988.)

9.0 DIAMOND DRILLING

Three diamond drillholes, 89-01 to 90-03 (see Figure 6) were drilled by Blackhawk Diamond Drilling Inc., Site 11, Camp 138, RR 3, Kamloops, B. C. V2C 5K1 for City Resources (Canada) Limited. A total of 318.5 m of HQ core were drilled within the claim units Babe 5 and Babe 7 of the stated Babe 1 to 32, Ric 1 to 12, Ric 20 FR to Ric 26 FR and Robin FR claims. The drilling was completed using a Longyear 44 drilling rig under the supervision of the author.

The core was photographed, geologically and geotechnically logged and shipped to Bacon, Donaldson and Associates Ltd., 12271 Horseshoe Way, Richmond, B. C. V7A 4Z1 by the author to provide a sample for metallurgical testwork. The drill core which was not used for testing remains stored at BDA's warehouse in Richmond. Drill logs for the three holes has been included in Appendix I.

The following is a descriptive list of the diamond drillholes completed during the program.

Hole No.	<u>Azimuth</u>	<u>Inclination</u>	Depth (m)
89-01	_	- 90°(vert)	131.4
89-02	-	- 90°	97.2
89-03	-	- 90°	89.9
TOTAL			318.5
			=====

10.0 CONCLUSIONS AND RECOMMENDATIONS

The three drill holes provided the expected amount and type of fresh core samples required to conduct further metallurgical testwork.

Further drilling for metallurgical sampling, if required, should be concentrated in the same area.

APPENDIX I

DRILL LOGS

CITY RESOURCES (CANADA) LIMITED

BOREHOLE LOG

Date:_	De	<u> </u>	ember	1,	1989
Page	e]	L	of	7	

CORE ORIENTATION DIAGRAM

HOLE NUMBER: 89-01	
PROJECT : Cinola	
LOCATION : Graham Island, B.C.	
CLAIM :	
GRID COORDINATES:	
U.T.M. COORDINATES: 3079.8 E	
2967.0 N	
COLLAR ELEVATION : 200 m	
INCLINATION: Vertical (-90°)	
TOTAL DEPTH: 131.4 m	
PURPOSE : Metallurgical Testing Samples	
REASON FOR HOLE TERMINATION: Reached Ultimate Depth	
LOGGED BY: Neil Froc DATE(S) LOGGED: Dec 1 - Dec 3 1/12/89 - 3/1	<u>7</u> /0
DRILLING Blackhawk Diamond	
CONTRACTOR: Drilling Ltd. STARTED: Nov 28/89 COMPLETED: Dec 1 28/11/89 1/12/	
	09
CORE COLLAR CASED AND CAPPED: NO SIZE FROM TO	
Over 0 4.6 HOLE CEMENTED: NO	
H.Q. 4.6 131.4 STEEL DOWN HOLE: NO	

SURVEY LOG

CITY RESOURCES (CANADA) LIMITED

page 2 of <u>7</u>

DDH89-01	te:Dec 1 1989Logged By:Neil Fro	oc
Collar Survey By:	Down Hole Survey By: <u>Blackhawk I</u>	<u>Drill</u> ing

ELEVATION	NORTHING	EASTING	UNITS	Ft/M	RFE

DEPTH	INCLINATION	TRUE AZIMUTH	COMMENTS
0'	-89.25		NS
210' (64m)	-89.25	132.5	Sperry-Sun Single Shot obs.azim S25 ^O E
431' (131.4n	-89.00 h)	107.5	Sperry-Sun Single Shot obs.azim S50°E

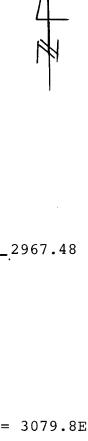
	COMMENTS	ON	COLLAR	SURVEY
*See next page		,		

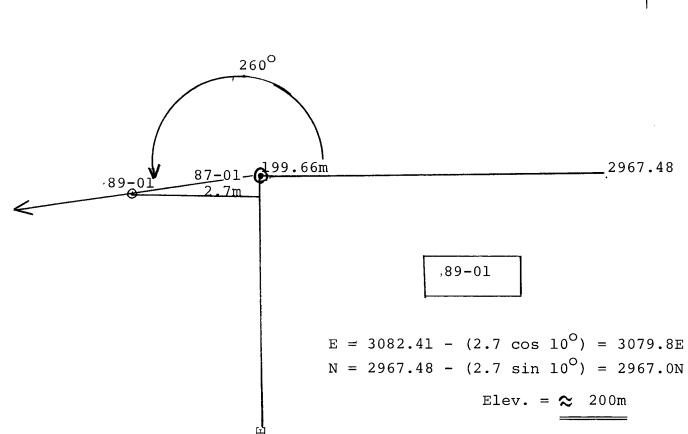
Note:

The coordinates for the collar location of 89-01 have been approximated by a compass and chain survey only. A proper survey must be done at a later date (the collar locations have been marked with orange 4" x 4" post with the hole # painted on)

The location of 89-01 has been determined as follows:

Dec 6/89 89-01 From collar of 87-01 260° 2.7 m same elev.





89-01

DDH

City Resources (Canada) Limited LITHOLOGIC LOG

AND GEOTECHNICAL

Page 4 of 7 Date:Dec 3/89 Logged by: Neil Froc

FROM ÓΧ CAR SUL TO UNIT CLY SFD SVN. REC ROD DESCRIPTION 4.6 Overburden 4.6 4b Minor 2b @ 4.6-4.9 veining pred. 60° CA 4 b] 4b/2a 2ca tr 2c tr 5dcF/2c 2ab tr tr large wood-frag @ 11.3m 2c 0 : tr tr 4b/2c tr tr 4b/2c tr tr 1 00 4b/2c tr 4b/2a 80% 4b 4Ь tr tr tr Intense brecciation of congl. & veins 4b tr tr tr tr 4b tr tr tr tr 4b tr tr tr minor2c 2c/4b tr tr 4b/2ca tr tr tr

DDH 89-01

City Resources (Canada) Limited LITHOLOGIC LOG

AND GEOTECHNICAL

Page 5 of 7 Date: Dec 3/89 Logged by: Neil Froc 2 of 4

% % % UNIT () X SUL FROM T0 CAR CLY SFD SVN REC DESCRIPTION ROD 4b/2ca Minor 2c tr tr tr 2c tr tr very distinct congl. 2c tr tr 2c/5dc tr 2c tr tr 2c tr tr 2c tr tr 2c(4c) Angular pebbly, choc. brown tr tr 2c (minor 4c?) tr 2c (minor 4c?) tr 2c/4b 4b tr 4ь tr 4b tr RQD low due to fractures following core axis 4 b tr 4ь N tr 4b/3b 3b at end of interval 4b/3b 3b at end of interval, 4b finely comminuted 4 b tr tr

Page 6 of 7 Date: Dec 4/89 Logged by: Neil Froc 89-01 AND GEOTECHNICAL DDH % FROM UNIT ÓX SUL TO CLY SFD CAR SVN. REC ROD DESCRIPTION 4 b tr tr tr tr -flow texture 4 b tr tr tr @ 81-82 brecciated grey/black veining 4 b tr tr tr 4 b tr tr - minor 3b 4 h - flow texture, blue/green color in patches 4ь tr - blue/green color in patches, minor 3b 4Ь tr .] - blue/green color in patches, flow texture 4Ь - relict 3b textures 4ь 0 . - minor 3b 4 b tr - @ 96.2-96.7 3b? 4b - increasing amount of 3b 100 102 4ь 102 104 4Ь - blue/green color in patches 104 106 3b/4b 104-104.5 4b, hematite (jasper along trace) 106 108 3b large vein at 108 108 110 3b - minor 4b @ 109.7 110 1112 3b 11 00 112 114 3b n 11 00 4b? @ 113-114 114 116 3b(4b)

Page 7 of 7 Logged by: Neil Froc

	DDH_	89-01					AND	GEO'	TECHN	ICAL	Date: Dec 4/89 Logged by: Neil Froc 4 of 4
FROM	ТО	UNIT	% ÓX	% CAR	% SUL	% CLY	% SFD	% S V N	% REC	RQD	DESCRIPTION
116	118	3b(4b)	0	0	1	0	95	10	100	90	
118	120	5g/3b	0	0	tr	0	95	85	1 00	90	grey black silica @ 118.4-120 (4b?)
120	122	3c	0	0	tr	30	- 60	10	80	70	highly clay alt.@ 120.4-120.9
122	124	3c	0	0	tr	0	95	1	100	1 00	intensely brecciated & stockworked
124	126	3c	0	0	tr	0	95	1	100	100	ti .
126	128	3 c	0	0	tr	0	95	1	100	1 00	tı
128	130	3c/1b	0	0	tr	60	5	0	9 5	15	lb starts @ 129.8 intense clay alt of 3c
130	131.4	1 b	0	0	tr	0	0	0	100	90?	slickensides
	E.O.H.					*clay	gouge				
										ı	
			<u> </u>					<u> </u>		+	

CITY RESOURCES (CANADA) LIMITED

BOREHOLE LOG

Date:	Dec	3/	′89	
Page	. 1	of	6	

CORE ORIENTATION DIAGRAM

HOLE NUMBER:	89-02		
PROJECT :	Cinola		
LOCATION :	Graham Island,	B.C.	
CLAIM :	A		
GRID COORDINATES:			
U.T.M. COORDINATES:	3025.1	_ <u>E</u>	
	3020.0	N	
COLLAR ELEVATION :	210.8		
INCLINATION:	Vertical (-90°)	
TOTAL DEPTH:	97.2 m		
		esting Samples	
		d Ultimate Depth	
LOGGED BY:	Neil Froc	DATE(S) LOGGED: Dec 2 - Dec 4	
DRILLING	Blackhawk Diamor	0.43.0.40.0 4.43.0.40.0	
SIZE	CORE FROM TO	COLLAR CASED AND CAPPED: NO	
Over H.Q.	0 4.0 4.0 97.2	HOLE CEMENTED: NO STEEL DOWN HOLE: NO	

SURVEY LOG

CITY RESOURCES (CANADA) LIMITED

page 2 of 6

DDH 89-02 Date: Dec 4 1989Logged By: Neil Froc

Collar Survey By: ____ Down Hole Survey By: Blackhawk Drilling

ELEVATION	NORTHING	EASTING	UNITS Ft/M	RFE

DEPTH	INCLINATION	TRUE AZIMUTH	COMMENTS
0			NS
150' (47.7	-88.5 [°]	312.5 ⁰	Sperry Sun Single Shot obs. azim N70 ⁰ E
318' (96.9	-88.5 m)	302.5°	obs. azim N80 ^O E
		••	

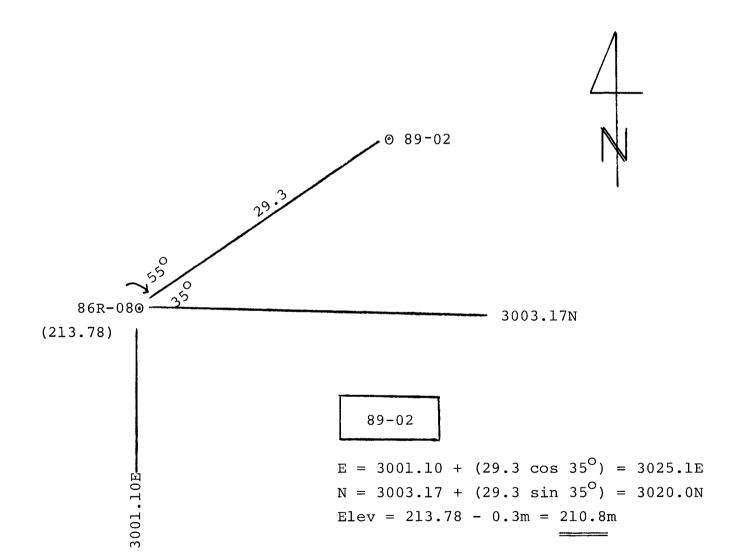
COMMENTS ON COLLAR SURVEY

- observed azimuth in NE quad. + mag decl (22.5°)
- * See next page

Note: The coordinates of the collar location of 89-02 have been approximated by a compass and chain survey only. A proper collar survey remains to be completed. The location of 89-02 has been marked in the field with an orange 4" x 4" post.

The location of 89-02 has been determined as follows:

Dec 6/89 89-02 from 86R-08 55° 29.3m -0.3m elev.



89-02

City Resources (Canada) Limited LITHOLOGIC LOG

AND GEOTECHNICAL

Page 4 of 6 Date: Dec 5/89 Logged by: Neil Froc

прн 1 of 3 FROM OX CAR SUL SFD REC TO UNIT CLY SVN. RQD DESCRIPTION 8 Overburden 2c 15 0 tr 80 75 55 2c 80 tr tr 100 85 10 2cb 90 tr tr 90 @ 8.8 clay filled banded silica vein 10 12 2h 10 85 tr 70 12 5dce/2b 14 20 80 tr tr tr 60 65 chl. alt? from 13-14m 14 2c/5de 16 15 t.r 80 25 90 50 16 18 2c 3 tr 80 55 90 -fragments of silica in conglomerate tr tr 18 20 2c 10 tr tr: 80 95 70 20 22 2c 20 tr 65 tr 15 80 40 22 20 24 5dcf 0 80 45 tr tr 85 85 -minor congl. 24 5dcf 26 20 Ω 80 90 tr tr 80 30 -minor 4c? from 25.8-26.0 26 28 4c 90 tr tr 30 100 100 4c(2c) 28 30 95 tr tr 90 15 65 - qtz.after calc. 30 32 4ь 2 tr tr tr 95 25 100 100 -grey, brecciated seds & silica, silica vein @ 30.1 32 34 4b 3 tr tr tr 95 25 75 - sulf. along vein boundaries 34 36 4ь 0 0 95 95 tr 30 90 36 38 4ь 0 95 tr tr tr 40 100 00 40 38 4ь 0 95 15 100 tr tr tr 95 Intensely brecciated silica veins

Page 5 of 6

Date: Dec 5/89 Logged by: Neil Froc 89-02 AND GEOTECHNICAL DDH % ÓΧ FROM CAR SUL T0 UNIT CLY SFD REC ROD SV N DESCRIPTION 4 b tr -finer brecciated 4b starts@ 41.0 4 b tr -blueish color, flow texture, intensely brecciated 4b/3b -3b starts @ 45.5 3b tr 3ь tr 11 00 - minor 4b 3h tr Ω 11 00 - some 3c? 3Ь tr 3Ь tr 3b tr - minor 3c 3Ь tr 3b tr 3Ь tr 3b/4btr @ 64.5-64.7 frag. of 1c with 4b 3b tr -flow texture? large grey vein at 67.8-68.5 3b/4b tr 4 b - pred. 3b fragments, blue/green color 4ь minor 3b 4b 4 b - @ 77.7-78.4 lc?

Page 6 of 6 Logged by: Neil Froc Date: <u>Dec 5/89</u>

	DDH_	89-02						O GEO	TECHN	ICAL	Date: <u>Nec 5/89</u> Logged by: Neil Froc 3 of 3
FROM	ТО	UNIT	% OX	% CAR	% SUL	% CLY	% SFD	% S V N	% REC	RQD	DESCRIPTION
78	80	4 b	0	0	2	0	95	10	100	100	- minor 3b, 1c
80	82	4b(5g)	0	0	2	0	95	5	100	100	pred. - brecciated grey silica (Maida mud?)
82	84	3c	0	0	1	1	95	1	95	90	
84	86	3c	0	0	1	tr	95	10	100	100	-(grey) - 10 mm vein parallel to core axis 85-86
86	88	3c/1b	0	0]	0	65	3_	100	75?	1b @ 87.6-89.8
88	90	1b/3c	0	0	1	0	0	0	75	40?	3c @ 89.8
90	92	3c	0	0	tr	0	95	10	100	90	(fell down hole) @ 90.5 rubble from near surface?
92	94	3c	0	0	1	1	80	10	100	90	minor lc
94		3b/1b	, 0	0	2-3	0	40	ר	75	75	- distinct 3b
96	97.2	1 b	0	0	1	0	0	0	85	65?	
	E.O.H.										
									ļ		
					<u> </u>				 		

CITY RESOURCES (CANADA) LIMITED

BOREHOLE LOG

Date:	Dec	4,	1989	
Pac	re 1	of	6	

CORE ORIENTATION DIAGRAM

HOLE NUMBER:	89-03	
PROJECT :	Cinola	-
LOCATION :	Graham Island, I	3.C.
CLAIM :		-
GRID COORDINATES:		-
	3198.7	<u>.</u> -
,	2828.1	Ī
COLLAR ELEVATION :	172.6	_
INCLINATION:	Vertical (-90°)	_
TOTAL DEPTH:	89.9 m	_
PURPOSE :	Metallurgical	Testing Samples
REASON FOR HOLE TERMINA	Reached Ultim	nate Depth
LOGGED BY:	Neil Froc	DATE(S) LOGGED:
DRILLING CONTRACTOR:_	Blackhaw Diamond Drilling Ltd.STAF	RTED: Dec 4 1989 COMPLETED: Dec 5, 1989
SIZE Casing H.Q.	FROM TO 2.4 F 89.9	COLLAR CASED AND CAPPED: NO HOLE CEMENTED: NO STEEL DOWN HOLE: NO

SURVEY LOG

CITY RESOURCES (CANADA) LIMITED

page 2 of 6

DDH	89.03	Date: <u>De</u>	ec 5 1	<u>989</u> Log <u>g</u>	ged	By: <u>Ne</u>	ill	Froc
Collar S	Survev Bv:	Down	Hole	Survev	Bv:	Blackha	awk	Drilling

ELEVATION	NORTHING	EASTING	UNITS	Ft/M	RFE

DEPTH	INCLINATION	TRUE AZIMUTH	COMMENTS
0	-89		NS
150'	-89 ⁰	17.5°	Sperry-Sun (N40 ^O E obs.dir)
295 (89.	-88.25 ⁰ 9m)	336.5 ⁰	Sperry-Sun (N1 ^O W obs.dir)
	٠.		• •

observed azim in NW quad .. Sub 22.5° " " " NE " .. Add 22.5° *See next page

Note:

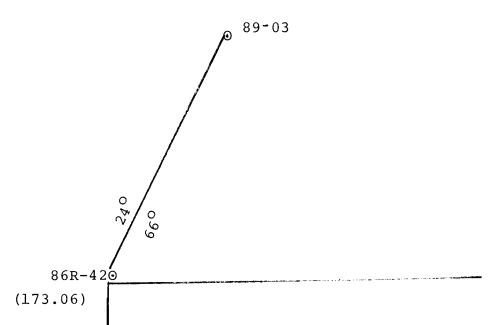
The coordinates of the collar location of 89-03 have been approximated by a compass and chain survey only. A proper collar survey remains to be completed. The location of 89-03 has been marked with an orange $4" \times 4"$ post.

The location of 89-03 has been determined as follows:

Dec 6/89

89-03 from 86R-42. 024 13.7m -0.5m elev.





2815.63N

89.03

$$E = 3193.12 + (13.7 \cos 66^{\circ}) = 3198.7E$$

 $N = 2815.63 + (13.7 \sin 66^{\circ}) = 2828.1N$

$$Elev = 173.06 - 0.5m = 172.6m$$

193.12E

Date: Dec 6/89 Page 4 of 6 Logged by: Neil Froc AND GEOTECHNICAL 89-03 DDH FROM ÓX TO UNIT SUL CLY SFD CAR SVN REC ROD DESCRIPTION 2.4 Overburden 2.4 2c 2c tr 2c - minor 2b tr 2c tr - large carbon frag. @ 8.8 2c tr tr - clay due to weathering 2c/5dcfq tr - boxwork silica (acid leached?) 5dcfq tr tr - breccia " " , brecciated veining 5dcFqe tr 5dcfqe tr 2c starts at 19.8 2c 5dcfg tr tr 2ab tr tr - minor 2c 2bac tr tr 4 c tr - minor 2b, large carb frag.@ 28.5 2a/4c tr tr tr 2a/4c tr tr tr tr clay seam @ 34 4c tr tr tr tr 4c tr tr tr tr tr

Page 5 of 6 Date: Dec 6/89 Logged by: Neil Froc

DDH 89-03 AND GEOTECHNICAL

											2013
FROM	ТО	UNIT	% 0X	% C A R	% SUL	% CLY	% SFD	% SVN	% REC	RQD	DESCRIPTION
38	40	4c	0	tr	1	1	70	tr	-100	95	
40	42	4 c	tr	tr	1	tr	70	tr	80	75	
42	44	4c	0	tr	7	tr	- 80	35	100	90	vein @ 43.3-44.4
44	46	2a	tr	tr	tr	5	80	25	90	75	- seds change color to end of hole
46	48	2ab	0	1	te	0.	80	15	85	80	from grey to choc brown
48	50	2ab/2c	0	tr	1	3	80	10	95	80	
50	52	5 e dg	tr	tr	tr	0	80	95	90	70	
52	54	5 edgb	tr	0	tr	0	80	95	90	70	
54	56	2bc	0	tr	1	0 :	80	10	100	90	
56	58	2bc	0	tr	2	0	80	10	100	85	minor 4c
58	60	4c	0	1	2	tr	80	15	90	70	
60	62	4c(2c)	0	1	1	0	80	1	100	50	
62	64	2cb	0	tr	1	0	80	٦	100	20	
64	66	2cb	0	1	1	tr	80	tr	100	70	
66	68	2c	0	1	1	tr	80	tr	100	100	
68	70	2 _C -	0	1	2	tr	80	tr	100	90	seds @ 45° to CA
70	72	2cb	0	1	2	tr	80	5	100	100	minor2a
72	74	2abc	0	2	2	ţr	80	1	100	85	
74	76	2ab	0	1	1	0	80	tr	90	85	
							1	1			

Page 6 of 6 Date: Dec 6/89 Logged by: Neil Froc

89-03 AND GEOTECHNICAL DDH ÓX FROM T0 UNIT SUL CAR CLY SFD SVN! REC RQD DESCRIPTION bedding @ 50° CA 100 100 76 78 2ab 0 tr 0 80 10 trace chl? 2ab/2c 0 80 100 100 78 80 tr 0 tr 80 40 80 82 2c 0 te 100 100 2c/5bdg minor 2ab 82 84 0 80 50 100 100 tr 2c 80 100 100 minor 2ab, chi alt (10%) 84 86 U U tr 2c 80 100 100 blue/grey congl. pumaceous pebbly 88 3 86 0 tr 0 89.9 2cb 3 80 100 0 0 85 tr E.O.H.