

LOG NO: 0728	RD.
ACTION:	
FILE NO:	

DIAMOND DRILLING  
 REPORT ON  
**THE LUMBY PROPERTY**  
 VERNON MINING DIVISION

PREPARED FOR:

ZEDCO PETROLEUMS LTD.  
 #602 - 543 Granville Street,  
 Vancouver, B.C.  
 V6C 1X8

BY:

Alfred R. Allen,  
**ALLEN GEOLOGICAL ENGINEERING LTD.**  
 827 West Pender Street  
 Vancouver, B.C.  
 V6C 3G8

DATED: July, 1989

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GEOLOGICAL BRANCH  
 DOCUMENT REPORT

18,932

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Drill Log, Samples and Assays  
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A. INTRODUCTION

Diamond drill hole OK89-1 was collared June 6, 1989 in the northeast area of the OK claim. It is directed 345° at -60° towards the newly exposed well mineralized shear zone, and possible western extension of the airborne E.M. anomaly over the vance zone of Quinto Mining Corporation.

Preparation of the drill site included road clearing and stripping on the east and west extensions of the mineralized exposure.

B. LOCATION

The Lumby property of Zedco Petroleums Ltd. is located in the Vernon Mining Division of south-central British Columbia, at west longitude 118°-57' latitude 50°15', five kilometers north of the town of Lumby.

C. PROPERTY

The Zedco Petroleum property includes the OK and HAZ #5 claims, currently under option to Zincton Gold Limited

<u>Claim</u>	<u>Record Number</u>	<u>Expiration Date</u>
OK	2016 20 units	September 1, 1989
HAZ #5	1845 10 units	July 2, 1989

D. PHYSIOGRAPHY

The town of Lumby is located at an elevation of 500 meters above seal level, at the base of the southwest ridge of Saddle Mountain. Six kilometers north, Beafies Creek heads at 1,100 meters above seal level, near the central west boundary of the OK mineral claim flows easterly across the OK and HAZ #5 claim,



<b>LOCATION MAP</b>		
SCALE: 1" = 136 Miles.		
Drawn by	Date	ALLEN GEOLOGICAL ENGINEERING LTD
Checked by	Org no.	
	22/789	
	224	

and southerly into Vance Creek, which flows southeasterly into Bessette Creek, 3.5 kilometers north of Lumby.

The OK89-1 drill hole is collared at 1100 meters above seal level, in the northeast area of the OK claim, 7 kilometers north of Lumby.

E. HISTORY

The HAZ #5 mineral claim was staked June 28 - July 2, 1984 by Sid Johnson, and recorded July 11, 1984 in Vernon. By Bill of Sale #274 all interest was conveyed to Zedco Petroleum Ltd. July 11, 1984.

The OK mineral claim was staked September 14 - 16, 1985 by Mr. John Hilton, and recorded in Vernon September 20, 1985. By Bill of Sale #366 all interest was conveyed to Zedco Petroleum Ltd. September 21, 1987. The HAZ #5 and OK Claim are currently in good standing, and are under option to Zicton Gold Ltd.

F. THEORY

Near the east boundary of the OK claim a shear zone is indicated by an outcrop of quartz 3 meters by one meter, within iron stained gouge.

On the adjoining Quinto property an airborne anomaly has been detected over a length of eight kilometers, and a width of one kilometer where the survey was terminated at the east boundary of the HAZ #5 claim.

On the theory that the anomalous zone extends over the HAZ #5 and onto the OK claim, the shear was stripped for 23 meters westerly, exposing a one meter zone of rusty gouge, vein quartz, massive sulphides and fine light grey sugary crushed rock with sulphides (similar to that from the Quinto property, 5 kilometers to the S.E.).

#### G. GEOLOGY

The geology of the Lumby area has been mapped by the Geological Survey of Canada in Report 269 and Paper 637.

The stratigraphy and structure are summarized as follows:-

##### Archeaeen or Later

##### Monashee Group

Composed of granitoid and augen gneiss, mica-sillimanite-garnet schist, quartzite, marble, slate, phyllite, limestone and quartzite.

##### Sicamous Formation

Composed of limestone, sericite and graphite schists.

##### Eagle Bay Formation

Chlorite and sericite schist, slate, limestone, quartzite, minor conglomerate.

Cache Creek Group, Carboniferous(?) and Permian argillite, andesite, lava, tuff, quartzite, limestone and breccia.

Nicola Group

Andesite, limestone, conglomerate, and basalt - upper triassic.

Granitic Intrusives, Jurassic

Kamloops Group, Lava, breccia, sandstone, shale, coal-tertiary.

Faults

Four major fault zones strike north, three northwest and one southeast across the Lumby area.

Folds At least one anticline and one syncline have been mapped striking northwesterly at and near Lumby.

Intrusives

A diorite stock is partially exposed 1.6 kilometers north from Lumby. A granitic intrusive is located adjacent to the southwest corner of the BS-3 claim, and granodiorite outcrops 10 kilometers to the southwest on the Brewer Creek drainage area. Twelve kilometers south of Lumby there is a similar granitic exposure on the Harris Creek drainage area. Each of the intrusive bodies are adjacent to or penetrated by major faults.

Mineralized Shear Zone

The mineralized shear zone in the northeast area of the OK claim strikes at 2550 and is close to vertical. A large exposure of quartz is located at the east end of the shear zone. Fro this outcrop the shear was exposed by stripping and trenching for 26 meters westerly. From 23 to 24 meters, narrow quartz veins along with massive sulfides were exposed and sampled. And on

June 9th a diamond drill hole was directed north at -60° beneath this mineralized zone.

A megascopic examination of the showing noted very fine pyrite to coarser cubic pyrites, limonite, chalcopyrite, arsenopyrite and sphalerite. Also included is a narrow zone containing white crushed rock with sulphides, chiefly pyrite, similar to the loose material encountered in the Quinto Mine workings.

Mineralized rock samples from these showings assayed as follows:

<u>Sample</u>	<u>Mineralized Zone</u>	<u>AU</u>	<u>AG</u>	<u>Z</u>	<u>CU</u>	<u>NI</u>	<u>CR</u>
35316	OK oxidized fine sulphides	.01	1.0	491	72	46	36
35317	" rock fragments-sulphides	.09	9.5	29	51	9.4	78.5
35318	" a slab of quartz & sulphides	.04	7.8	113	155	9.95	67
35319	" coarse pieces - pyrite	5.4	.02	7	741	137	14
35320	" coarse pieces - pyrite	0.2	.01	11	11	7.7	138

#### H. PREVIOUS WORK

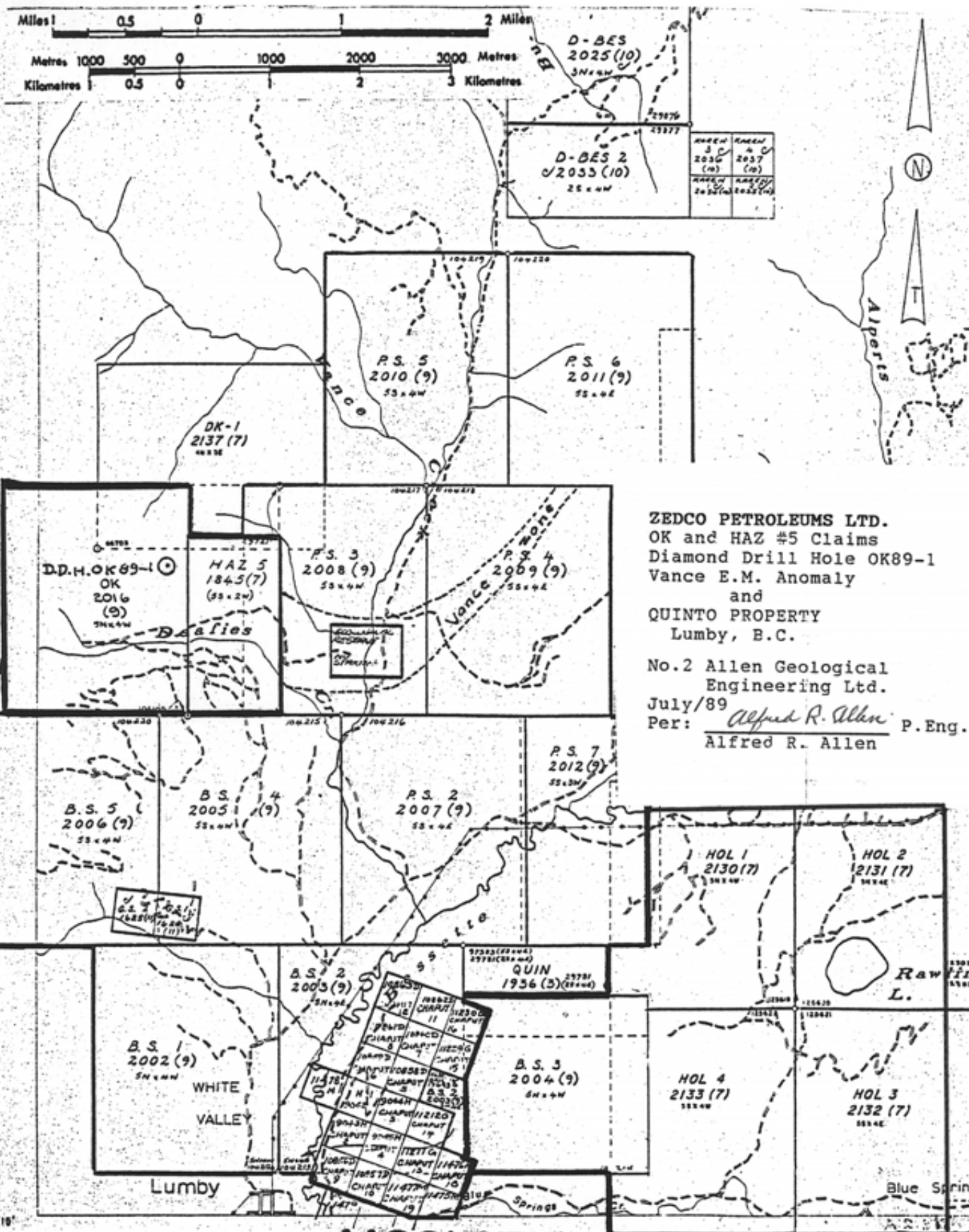
A diamond drilling program was conducted over the Quinto property prior to formulating production plans.

This information, along with extensive ground and airborne geophysical data, has been made available to the writer.

#### I. OBJECT OF THE DRILLING

Diamond drilling has been used as a follow-up to geophysical studies in the search for mineral deposits in the Lumby area partly because of lack of detailed geology due to extensive overburden cover.





Area	Area
32	4
2036	2037
(10)	(10)
Area	Area
2036	2037
(10)	(10)

**ZEDCO PETROLEUMS LTD.**  
 OK and HAZ #5 Claims  
 Diamond Drill Hole OK89-1  
 Vance E.M. Anomaly  
 and  
 QUINTO PROPERTY  
 Lumby, B.C.

No.2 Allen Geological  
 Engineering Ltd.  
 July/89  
 Per: Alfred R. Allen P. Eng.  
 Alfred R. Allen

#### J. DIAMOND DRILLING

The drilling of the OK89-1 hole was contracted to Mr. James C. MacNeill of Newmac Industries Ltd., Kamloops, B.C.

the drill site was prepared and the collar located 19 meters down the -15° slope south of the quartz-sulphide exposure within the shear zone. The hole is directed 355° azimuth at -60° for 61 meters, and NQ core recovery was plus 90%.

The core was logged and sampled by the writer June 9th and stored at Lumby pending transportation to Vancouver.

#### K. DRILLING RESULTS

Bedrock was reached at a depth of 5.8 meters. The first 4.9 meters of bedrock is grey tuff with disseminated pyrite and minute pyrite-filled fractures. The underlying 23.3 meters is fine-grained black argillite with calcite veinlets and fine fractures containing pyrite, along with sulphide disseminations and irregular blebs. The bottom 27 meters is harder black and grey banded argillite with disseminated and thinly veined pyrite.

#### L. DISCUSSION

The OK89-1 hole was drilled in order to acquire detailed mineralogical and structural data from the shear zone and wall rocks hosting quartz, sulphides, precious metals and associated minerals.

The importance of the shear zone is further enhanced by the Airborne Electromagnetic anomaly, detected by Quinto Mining Corporation. The anomalous zone extends from the northeast area

of the Quinto property westerly for 8 kilometers to the east boundary of the HAZ #5 claim where the survey was terminated, 1.0 kilometers from the OK89-1 hole.

**SUMMARY**

Diamond drill hole OK89-1 was collared on the south side of an east-west shear zone and directed north at  $-60^{\circ}$  to provide data regarding the mineral content and wall rock geology below the recently exposed quartz and sulphide mineralization within the zone.

Because of extensive overburden, only a few meters of the shear zone had been exposed, but this included a wide quartz vein in rusty weathered gouge, similar to some of the well mineralized zones on the adjoining Quinto property.

In addition, the Vance Zone airborne E.M. anomaly which has been mapped on the Quinto property westerly as far as the east boundary of the Zedco Petroleums property and is striking towards the OK89-1 drill hole.

The westerly extension of the shear zone was stripped the day before the drill hole was located and strong sulphide mineralization was exposed.

Additional work is recommended, including stripping and trenching, detailed geophysical ground surveying and diamond drilling.

July, 1989

Respectfully submitted,

**ALLEN GEOLOGICAL ENGINEERING LTD.**

Per: *Alfred R. Allen*

Alfred R. Allen

P.Eng.

## REFERENCES

- Jones, A.G., G.S.C. Mem. 296, Vernon Map Area
- Landsberg, N.R., Geology, Geophysics, Geochemistry, Trenching, Nov 24, 1983
- White, Glen E. Vector Pulse Electromagnetic Survey, Chap 8 (BS3 Claim) '84
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- Allen, A.R., Magnetometer and Electromagnetic surveys, Zicton gold Ltd., July 1987
- Allen, A.R. Magnetometer and Electromagnetic Surveys, #2 Zicton Gold Ltd., June 1988
- Allen, A.R. The Lumby Property, Vernon M.D., B.C., Zicton Gold Ltd., May 1987 (revised)

**COSTS STATEMENT**

JOHN HILTON AGENT

ZEDCO PETROLEUMS LTD.

By Contract: Newmac Industries Ltd.

DRILLING REPORT: D.D.H. 0K89-1-1

Start: June 6, 1989

Finish: June 8, 1989

LOCATION: OK Mineral Claim 1067 M.A.S.L.

DIRECTION: Azimuth 345° Dip -60°

LENGTH 61 m. NQ W

EQUIPMENT: Longyear Super #38 Drill and accessories  
Bulldozer: Case #1150,  
Truck: Ford 3/4 Ton  
FlatDeck Trailer

CREW: James MacNeill, Driller, Kamloops, B.C.  
Arron J. MacNeill, Helper, Kamloops, B.C.  
John Hilton, Coordinator, Vancouver, B.C.

<u>COSTS</u>	Drilling	
	61 m NQ @ \$59/m	\$3,600.00
	Road Building 200 m	
	Stripping 40 m X 5 m X 1 m	
	Drillsite 50 m X 50 m	
	Open Cuts 3 1m X 15m	\$1,950.00
	Transportation Kamloops - Lumby - Job & Return	\$570.00
	<b>TOTAL COSTS:</b>	<u>\$6,120.00</u>

Assessment Recorded in Vancouver June 22, 1989.

ZedcoRfr\Allen

#2 - 730 West 7th Avenue  
Vancouver, B.C.  
V5Z 1B8

**CERTIFICATE**

July, 1989

I, Alfred R. Allen, certify that:

I am a graduate of the University of British Columbia and hold the following degrees therefrom:

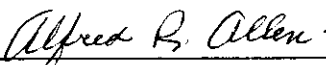
BASc Geological Engineering 1939  
MASc Geological Engineering 1941

I am a Life Member of the Association of Professional Engineers of the Province of British Columbia.

I have practiced my profession for the past 47 years.

I hold no interest in the properties or securities of ZEDCO PETROLEUMS LTD. or affiliates thereof, nor do I expect to receive any directly or indirectly.

The report on the Lumby Property, Vernon Mining Division, B.C. is based on examination by the writer on the property May 31, June 1, 2, 3, 4, 5, 6, and 9, 1989.

  
\_\_\_\_\_  
Alfred R. Allen, P.Eng.

ZedcoRfr\Allen

**ALLEN GEOLOGICAL ENGINEERING LTD.**

#2 - 730 West 7th Avenue

Vancouver, B.C.

V5Z 1B8

July, 1989

The British Columbia  
Securities Commission,  
Vancouver, B.C.

Dear Sirs:

**Re: Zedco Petroleum Ltd.**

I hereby consent to the use of my report of July, 1989 on the Lumby Property, Vernon Mining Division, B.C. in any prospectus or statement of material facts or other material to be filed with the British Columbia Securities Commission, or the Vancouver Stock Exchange by Zedco Petroleum Ltd.

Yours truly,

**ALLEN GEOLOGICAL ENGINEERING LTD.**

Per:

Alfred R. Allen P.Eng.  
Alfred R. Allen

ZedcoRfr\Allen

A P P E N D I X



## DIAMOND DRILL RECORD

**COLLAR**

**NORTH** \_\_\_\_\_  
**EAST** \_\_\_\_\_  
**ELEVATION** 1067 m  
**AZIMUTH** 345°  
**DIPS** -60°

**COMPANY** ZEDCO PETROLEUM LTD.
**PROPERTY** OK and HAZ #5 Claims
**LOCATION** Lumby: Vernon M.D., B.C.
**HOLE** OK89-1
**STARTED** June 6, 1989
**FINISHED** June 8, 1989
**DEPTH** 61 m @ -60°
**PURPOSE** Check Anomaly
**LOGGED BY** \_\_\_\_\_

% Cores Recovery	From m.	To m.	Log Description metres	Samples metres				Assays PPM							TI	
				Sample No.	From	To	Width	Au	Ag	CU	Pt	Zn	Ni	CR		
	0	5.8	Overburden													
A11	5.9	10.7	Tuff, cubic pyrite, white veinlets soft greenish coating													
	10.7	13	Black argillite fine sulphides in fractures, silver specks													
90%	13	16	" " " " " white veinlets-pyrite													
	16	17.9	Black argillite-sheared, pyrite, arsenopyrite(?)	35321	Composite			.005	1.1	104		198	51.2	42.8		
Plus	18	19.5	" " " , blebs and disseminations	35322	18	19.5	1.5	0.01	0.4	90	0.02	239	29.3	27	50	
	19.5	28	" " " , more pyrite	35323	26.5	28	1.5	0.02	0.2	72	0.06	89	21.1	26	15	
	28	34	" " " " "													
	34	37	Grey fine-grained tuff pyrite	35324	35.3	36.9	1.6	0.33	0.1	54	0.03	84	12.6	18	13	
	37	40	Dark " " " dark green coating, pyrite													
	40	46.3	Black argillite-grey banding, pyrite	35325	44.8	46.3	1.5	0.42	0.1	50	0.02	105	15.3	20	8	
	46.3	52	" " " " "													
	52	57.6	" " " " "	35326	54.9	56.4	1.5	0.65	0.1	78	0.01	281	26.3	25	8	
	57.6	61	" " " " " disseminated pyrite, blebs	35327	59.4	60.9	1.5	0.56	0.7	71	0.02	90	19	27.2	15	
				All samples	Se10	AS 30	Pd 0.01	Zr10	Pb5	Sb10	Ph10	Hg10	B 1	Bi20	Rh3	

**Quanta Trace Laboratories Inc.**  
#401-3700 Gilmore Way, Burnaby, B.C., Canada V5G 4Y1 Tel: (604) 438-5226

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**ANALYSIS OF GEOLOGICAL SAMPLES**

To: Dr. W.D. Groves  
#506 - 675 W. Hastings Street  
Vancouver, B.C.  
V6B 1N2

Workorder: 11809  
Received: 12-Jun-89  
Completed: 23-Jul-89

Re: Geochemical Analysis of Zipson Drill Core Samples

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**quanta trace laboratories inc.**

#401-3700 Gilmore Way, Burnaby, B.C., Canada V5G 4M1

Tel: (604) 438-5226

Dr. W.D. Groves

W/O: 11809 Page 2

Sample type	DD Core	DD Core	DD Core	DD Core	DD Core
Identification	35322	35323	35324	35325	35326
Lab Reference #	11809-001	11809-002	11809-003	11809-004	11809-005
<b>Analyzed by Plasma Emission Spectroscopy (ICAP)</b>					
Method used	acqua regia soluble	acqua regia soluble	acqua regia soluble	acqua regia soluble	acqua regia soluble
<b>Trace Elements</b>					
Antimony Sb	< 10.	< 10.	< 10.	< 10.	< 10.
Arsenic As	< 30	< 30	< 30	< 30	< 30
Beryllium Be	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Bismuth Bi	< 20	< 20	< 20	< 20	< 20
Boron B	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Calcium Ca	2.5	< 0.3	< 0.3	< 0.3	4.9
Chromium Cr	27.	26.	18.	20.	25.
Cobalt Co	13.	11.	6.	9.	12.
Copper Cu	90.	72.	54.	52.	78.
Lead Pb	7.	< 5.	< 5.	< 5.	< 5.
Mercury Hg	10	10	< 10.	10	10
Molybdenum Mo	< 3.	< 3.	< 3.	< 3.	< 3.
Nickel Ni	29.3	21.1	12.6	15.3	26.3
Selenium Se	10	10	< 10.	10	10
Silver Ag	0.4	0.2	0.1	0.1	0.5
Thorium Th	< 10.	< 10.	< 10.	< 10.	< 10.
Uranium U	< 30	< 30	< 30	< 30	< 30
Vanadium V	< 0.5	< 0.5	< 0.5	< 0.5	3.1
Zinc Zn	239.	89.	84.	105.	281.
<b>Major Elements</b>					
Aluminum Al	2320	13700	11900	9870	12900
Barium Ba	23.	36.	36.	30.	41.
Calcium Ca	35100	45000	57900	50600	48800
Iron Fe	39700	36700	37500	36700	36200
Lithium Li	< 100	< 100	< 100	< 100	< 100
Magnesium Mg	14700	11300	13700	16000	11800
Manganese Mn	499.	646.	974.	891.	777.
Phosphorus P	4600	5900	5400	4700	4600
Potassium K	800	600	500	500	500
Sodium Na	< 100	< 100	< 100	< 100	< 100
Strontium Sr	221.	305.	320.	214.	235.
Titanium Ti	< 5.	15.	13.	8.	8.
Zirconium Zr	< 10.	< 10.	< 10.	< 10.	< 10.
<b>Precious Metals</b>					
Gold FA Au	0.01	0.02	0.33	0.42	0.65
Palladium FA Pd	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Platinum FA Pt	0.02	0.06	0.03	0.02	0.01
Rhodium FA Rh	< 0.03	0.04	< 0.03	< 0.03	< 0.03
Results in	ppm	ppm	ppm	ppm	ppm

Quanta Trace Laboratories Inc.

#401-3700 Gilmore Way, Burnaby, B.C., Canada V5B 4M1

Tel: (604) 438-5226

Dr. W.D. Groves

W/O: 11809 Page 3

Sample type	DD Core
Identification	35327
Lab Reference #	11809-006

Analyzed by Plasma Emission Spectroscopy (ICAP)  
 Method used: aqua regia soluble

Trace Elements		
Antimony	Sb	< 10.
Arsenic	As	< 30.
Beryllium	Be	< 0.1
Bismuth	Bi	< 20.
Boron	B	< 1.
Caesium	Cs	< 0.3
Chromium	Cr	27.2
Cobalt	Co	13.
Copper	Cu	71.
Lead	Pb	< 5.
Mercury	Hg	10.
Molybdenum	Mo	< 3.
Nickel	Ni	19.
Selenium	Se	10.
Silver	Ag	0.7
Thorium	Th	< 10.
Uranium	U	< 30.
Vanadium	V	< 0.5
Zinc	Zn	90.

Major Elements		
Aluminum	Al	13200
Barium	Ba	34.
Calcium	Ca	57300
Iron	Fe	40000
Lithium	Li	< 100
Magnesium	Mg	12700
Manganese	Mn	919.
Phosphorus	P	5100
Potassium	K	500
Sodium	Na	< 100
Strontium	Sr	280.
Titanium	Ti	15.
Zirconium	Zr	< 10.

Precious Metals		
Gold	FA Au	0.56
Palladium	FA Pd	< 0.01
Platinum	FA Pt	0.02
Rhodium	FA Rh	< 0.03
Results in		ppm

Analyst: *[Signature]*

**cuanta trace laboratories inc.**

#401-3700 Gilmore Way, Burnaby, B.C., Canada V5G 4M1

Tel: (604) 438-5826

---

**ANALYSIS OF GEOLOGICAL SAMPLES**

To: Dr. W.D. Groves  
#506 - 675 W. Hastings Street  
Vancouver, B.C.  
V6B 1N2

Workorder: 11771  
Received : 05-Jun-89  
Updated : 23-Jul-89

Re: Geochemical Analysis of Drill Core Samples from Zircon Gold Ltd

---

**quanta trace laboratories inc.**

#401-3700 Gilmore Way, Burnaby, B.C., Canada V5B 4M1

Tel: (604) 438-5226

To: Dr. W.D. Groves

W/O: 11771 Page 4

Sample type		Rock Chios	Rock	Rock	Rock	DD Core
Identification		35317	35318	35319	35320	35321
Lab Reference #		11771-011	11771-012	11771-013	11771-014	11771-015
Analyzed by Plasma Emission Spectroscopy (ICAP)						
Method used		acqua regia soluble	acqua regia soluble	acqua regia soluble	acqua regia soluble	acqua regia soluble
Trace Elements						
Antimony	Sb	< 10.	< 10.	< 10.	< 10.	< 10
Arsenic	As	< 30	< 30	< 30	< 30	< 30
Beryllium	Be	< 0.10	< 0.10	< 0.10	< 0.10	< 0.2
Bismuth	Bi	< 20	< 20	< 20	< 20	< 20
Boron	B	< 1.0	< 1.0	< 1.0	< 1.0	< 1.
Cadmium	Cd	< 0.3	< 0.3	< 0.3	< 0.3	1.9
Chromium	Cr	78.5	67.1	14.3	138.	42.8
Cobalt	Co	37.	48.	309.	3.	14.
Copper	Cu	51.	155.	741.	11.	104.
Lead	Pb	20.	14.	< 5.	< 5.	20.
Mercury	Hg	70	90	160	< 10.	20
Molybdenum	Mo	3.	16.	< 3.	< 3.	< 3.
Nickel	Ni	9.4	10.0	137.	7.7	51.2
Selenium	Se	110	60	90	< 10.	20
Thorium	Th	< 10.	< 10.	< 10.	< 10.	< 10
Uranium	U	< 30	< 30	< 30	< 30	< 30
Vanadium	V	25.5	11.6	< 0.5	2.2	22.4
Zinc	Zn	29.	113.	7.	11.	198.
Major Elements						
Aluminum	Al	880	3550	600	680	4930
Barium	Ba	45.	101.	< 5.	24.	32.
Calcium	Ca	300	2800	1300	300	32800
Iron	Fe	98600	153000	343000	11500	49900
Lithium	Li	< 100	< 100	< 100	< 100	< 100
Magnesium	Mg	200	800	900	300	11700
Manganese	Mn	50.	154.	45.	483.	791.
Phosphorus	P	200	700	< 200	< 200	900
Potassium	K	1100	1800	< 500	< 500	1800
Silicon	Si	1170	2330	380	760	1070
Sodium	Na	200	200	< 100	< 100	200
Strontium	Sr	15.	65.	5.	6.	316.
Titanium	Ti	205.	73.	20.	< 5.	50.
Zirconium	Zr	< 10.	< 10.	< 10.	< 10.	< 10
Silver	AA Ag	9.5	7.8	5.4	0.2	1.1
Gold	AA Au	0.14	0.05	0.01	0.005	0.005
Results in		ppm	ppm	ppm	ppm	ppm
Total Carbon	%C	0.21	0.46	0.57	0.06	2.84
Total Sulfur	%S	9.82	0.25	31.4	0.06	3.94

Quanta Trace Laboratories Inc.

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Sample type		DD Core	DD Core	DD Core	DD Core	Rock
Identification		35312	35313	35314	35315	35316
Lab Reference #		11771-006	11771-007	11771-008	11771-009	11771-010
Analyzed by Plasma Emission Spectroscopy (ICAP)						
Method used		acqua regia soluble	acqua regia soluble	acqua regia soluble	acqua regia soluble	acqua regia soluble
Trace Elements						
Antimony	Sb	< 10.	< 9.	< 10.	< 10.	< 10.
Arsenic	As	< 30	< 30	< 30	< 30	< 30
Beryllium	Be	< 0.10	0.2	0.5	0.2	< 0.10
Bismuth	Bi	< 20	< 20	< 20	< 20	< 20
Boron	B	< 1.0	< 0.9	< 1.0	< 1.0	< 1.0
Cadmium	Cd	0.4	0.3	2.2	0.5	9.2
Chromium	Cr	27.1	34.9	68.0	54.0	36.0
Cobalt	Co	10.	14.	12.	10.	7.
Copper	Cu	85.	95.7	33.	72.	72.
Lead	Pb	21.	15.	25.	11.	7.
Mercury	Hg	10	10	< 10.	10	< 10.
Molybdenum	Mo	< 3.	< 3.	< 3.	3.	< 3.
Nickel	Ni	32.0	25.3	12.8	29.6	45.9
Selenium	Se	10	10	< 10.	20	10
Thorium	Th	< 10.	< 9.	< 10.	< 10.	< 10.
Uranium	U	< 30	< 30	< 30	< 30	< 30
Vanadium	V	< 0.5	30.5	61.5	77.0	15.3
Zinc	Zn	181. Zn	110. Zn	172. Zn	93.	491. Zn
Major Elements						
Aluminum	Al	3540	11200	13900	11000	4530
Barium	Ba	26.	80.	247.	102.	65.
Calcium	Ca	27900	34000	33400	20900	42400
Iron	Fe	34700	36300	35000	31300	22900
Lithium	Li	< 100	< 90	< 100	< 100	< 100
Magnesium	Mg	12200	13800	16400	9300	2700
Manganese	Mn	713.	738.	741.	300.	509.
Phosphorus	P	900	1100	1700	700	500
Potassium	K	900	3000	3500	4400	1100
Sodium	Na	100	300	400	200	< 100
Strontium	Sr	256.	327.	309.	141.	396.
Titanium	Ti	12.	75.	1120	341.	31.
Zirconium	Zr	< 10.	< 9.	< 10.	< 10.	< 10.
Precious Metals						
Silver	AA Ag	0.9	0.6	0.2	0.5	1.0
Gold	AA Au	0.005	0.005	0.005	0.005	0.005
Gold	FA Au	< 0.01	< 0.01	< 0.01	< 0.01	0.02
Palladium	FA Pd	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Platinum	FA Pt	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Rhodium	FA Rh	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Results in		ppm	ppm	ppm	ppm	ppm
Total Carbon	%C	3.12	1.93	1.31	2.31	3.11
Total Sulfur	%S	1.44	0.78	0.27	1.09	0.03