

# GM 34787

ASSESSMENT REPORT 1978, PROJECT NO 71-85, BEAVER-ZORAN / OTISH WEST, BEAVER-ZORAN CLAIMS

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Énergie et Ressources  
naturelles

Québec 

ASSESSMENT REPORT 1978  
PROJECT No. 71-85  
BEAVER-ZORAN / OTISH WEST  
BEAVER-ZORAN CLAIMS

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March 27, 1979

Ministère des Richesses Naturelles, Québec	
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PROJECT BEAVER ZORAN/OTISH WEST  
 LOCATION MAP  
 FIG. I

1. INTRODUCTION

1.1 AREA OF INVESTIGATION

The Beaver-Zoran/Otish West Area is located in the western section of the Otish basin along the Archean/Aphebian unconformity (Location Map).

1.2 PURPOSE OF INVESTIGATION

The objective of the summer program is to investigate the tectonically controlled uranium mineralization in the Beaver Lake and Twenty Mile Area and to evaluate the area between the two known mineral occurrences.

1.3 TIME OF INVESTIGATION

June 10 to August 28, 1978.

1.4 PERSONNEL

- B. Starke                    Manager Exploration, Eastern Canada
- R. Lambert                Chief Geologist
- C. Jenkins                Acting Project Geologist
- W. Gehrisch              Project Geologist
- M. Leppin                Geophysicist
- S. Winter                Geologist
- B. Leppin                Technician
- R. Fortin                Technician
- S. Brameld              Junior Assistant
- D. Sidaway              Junior Assistant
- N. McBride              Prospector
- R. Millette              Prospector
- D. Hopewell             Camp Handyman
- M. Landry                Cook

1.5 INSTRUMENTS, VEHICLES USED

### 1.5.1 Instruments

1 Apex max/min. II EM Unit  
 1 Scintrex MP-2 Proton Magnetometer  
 15 Alphameters  
 15 SPP-2 Scintillometers  
 2 Mount Sopris Downhole Logging Instruments (Mod. 1000)  
 1 Sokkisha Automatic B-4 Level  
 1 Scintrex GAM 1 Spectrometer  
 1 E.D.A. Radon Unit

### 1.5.2 Vehicles

#### 1.5.2.1 Trucks

UEM: two GM Suburbans

The vehicles were used to transport personnel and equipment from Montreal to Chibougamau and groceries from Chibougamau to Rivière Temiscamie.

#### 1.5.2.2 Aircraft

1. Fixed-wing aircraft were used for the mobilization of the main campsite at Simon Lake.
2. Rotary-wing aircraft were used to transport D.D. equipment and UEM personnel into the field area.

#### 1.5.2.3 Other Vehicles

1 Mirage 14-foot rubber boat with 15 HP Johnson motor plus 3 canoes are used in the field area.

## 2. GENERAL INFORMATION

### 2.1 LOCALITY

Beaver Zoran/Otish Mountains West area is located at Archean/Aphebian unconformity along the northwestern rim of the Otish basin (see Map #1).

## 2.2 COMMUNICATIONS AND ACCESS

### 2.2.1 Communications

Radio -- CH-25 single side band radio transceivers, frequencies 4050 kc/s, 5391 kc/s, 7418 kc/s, 4982 kc/s.

Radio communications are maintained with Fecteau Air Services on 4050 kc/s. With UEM Montreal office via Bell Canada radio-telephone network on 5391 and 7418 kc/s. Communications between projects are maintained on 4797 and 4982 kc/s.

### 2.2.2 Access

During the summer months, the area is accessible by float-equipped aircraft from Temiscamie River airbase.

## 2.3 TOPOGRAPHY

The Tichegami Riber area is dominated by the Tichegami Mountains which form a plateau-like block of rounded hills. The elevation varies between 700 to 900 meters above sea level.

## 2.4 CLIMATE

The climate in the region is classified as subarctic.

## 2.5 VEGETATION

Black spruce (*Picea mariana*) and Jack Pine (*Pinus banksiana*) with a few groves of white Birch (*Betula papyrifera*) are the dominant tree types.

## 2.6 POPULATION AND LAND USE

No settlements or commercial land exploitation occur within the area of investigation.



## 2.7 WATER RESOURCES

The numerous lakes and rivers provide an abundant supply of water. The Tichegami River area is part of the James Bay drainage system.

## 2.8 MAGNETIC DEVIATION

The magnetic deviation is in the order of 23°30'W.

## 3. PREVIOUS SURVEYS AND ACTIVITIES

### 3.1 TOPOGRAPHIC MAPPING

Area	N.T.S.	Name	Scale	Photo No	Scale
Tiche- gami River	32P/16	Lac Hippocampe	1:50,000	A15475	1:60,000
	33A/1	Lac Barou	1:50,000	A15654 21-27	1:58,000
				A15588 7-13	1:58,000

### 3.2 GEOLOGICAL MAPPING

Otish Basin has been mapped by the Ministère des Richesses Naturelles. The geological maps have proven to be fairly reliable.

<u>Area</u>	<u>Geological Report</u>	<u>Map Scale</u>	<u>Author</u>
Tichegami River	Tichegami Area	1:63,360	E. Chown

### 3.3 GEOPHYSICAL SURVEYS AND ACTIVITIES

The area is covered by the following aeromagnetic maps at a scale of 1:250,000: 7111G, 7112G.

3.3 GEOPHYSICAL SURVEYS AND ACTIVITIES (cont'd)

The following companies have been active in the Otish Basin this summer:

- 1) Soquem/Hydro-Québec/Gulf Minerals
- 2) Pancontinental and James Bay J.V.
- 3) Ingamar Exploration Limited

4. MINERAL CLAIMS

A total of 429 mineral claims are held in good standing in the Beaver-Zoran Lake Area.

Name:	Beaver-Zoran		
Number of Claims:	S 52°N:	197	
	N 52°N:	<u>232</u>	
	Total	429	
Longitude:	Approx. 72°23'W		
Latitude:	Approx. 51°59'N		
N.T.S.:	33 A/1	32 P/16	
Area:	69.44 km <sup>2</sup>		
Mining District:	Abitibi East		

<u>CLAIM No.</u>	<u>TOWNSHIP</u>	<u>STAKED ON</u>	<u>APPLICATION FOR DEVELOP LIC.</u>
355515 (1-2)	2233	26-08	4-09-78
(3-5)	2233	27-08	5-09-78
341469 (1)	2233	25-08	3-09-78
(2-5)	2233	26-08	4-09-78

<u>CLAIM No.</u>	<u>TOWNSHIP</u>	<u>STAKED ON</u>	<u>APPLICATION FOR DEVELOP. LIC.</u>
361470 (1-5)	2233	25-08	3-09-78
361622 (1-4)	2233	28-08	6-09-78
(5)	2233	27-08	5-09-78
361623 (1-2)	2233	27-08	5-09-78
(3-5)	2233	29-08	7-09-78
361624 (1-2)	2233	29-08	7-09-78
(3-4)	2233	28-08	6-09-78
(5)	2233	31-08	9-09-78
361625 (1-5)	2233	30-08	8-09-78
361626 (1)	2233	30-08	8-09-78
(2-3)	2233	29-08	7-09-78
(4-5)	2233	1-09	10-09-78
361627 (1-2)	2233	1-09	9-09-78
(3-5)	2233	31-08	9-09-78
361628 (1-2)	2233	31-08	9-09-78
(3-5)	2233	2-09	11-09-78
361629 (1-4)	2233	2-09	10-09-78
(5)	2233	1-09	10-09-78
361630 (1)	2233	1-09	10-09-78
(2-5)	2133	3-09	12-09-77
361631 (1-2)	2133	3-09	12-09-77
(3-5)	2133	4-09	13-09-77
361632 (1-5)	2233	25-08	3-09-78
361633 (1-4)	2233	25-08	3-09-78
(5)	2233	26-08	4-09-78
361634 (1-2)	2233	26-08	4-09-78
(3-5)	2233	27-08	5-09-78
361635 (1-3)	2233	27-08	5-09-78
(4-5)	2233	28-08	6-09-78
361636 (1-4)	2233	28-08	6-09-78
(5)	2233	29-08	7-09-78
361637 (1-5)	2233	29-08	7-09-78
361638 (1-5)	2233	30-08	8-09-78
361639 (1)	2233	30-08	8-09-78
(2-5)	2233	31-08	9-09-78
361640 (1)	2233	31-08	9-09-78
(2-5)	2233	1-09	10-09-78
361641 (1)	2233	1-09	10-09-78
(2-5)	2233	2-09	11-09-78

<u>CLAIM No.</u>	<u>TOWNSHIP</u>	<u>STAKED ON</u>	<u>APPLICATION FOR DEVELOP. LIC.</u>
361642 (1-5)	2233	25-08	3-09-78
361643 (1)	2233	25-08	3-09-78
92-5)	2233	26-08	4-09-78
361644 (1-2)	2233	26-08	4-09-78
(3-5)	2233	27-08	5-09-78
361645 (1-3)	2233	27-08	5-09-78
(4-5)	2233	28-08	6-09-78
361646 (1-4)	2233	28-08	6-09-78
(5)	2233	29-08	7-09-78
361647 (1-5)	2233	29-08	7-09-78
361648 (1-5)	2233	30-08	8-09-78
361649 (1)	2233	30-08	8-09-78
(2-5)	2233	31-08	9-09-78
361650 (1-2)	2233	31-08	9-09-78
(3-5)	2233	1-09	10-09-78
361651 (1-2)	2233	1-09	10-09-78
(3-5)	2233	2-09	11-09-78
361652 (1-5)	2233	25-08	3-09-78
361653 (1)	2233	25-08	3-09-78
(2-5)	2233	26-08	4-09-78
361654 (1)	2233	26-08	4-09-78
(2-5)	2233	27-08	5-09-78
361655 (1-2)	2233	27-08	5-09-78
(3-4)	2233	28-08	6-09-78
(5)	2133	28-08	6-09-77
361656 (1-3)	2133	28-08	6-09-77
(4-5)	2133	29-08	7-09-77
361657 (1-4)	2133	29-08	7-09-78
(5)	2133	20-08	8-09-78
361658 (1-5)	2133	30-08	8-09-77
361659 (1-5)	2133	31-08	9-09-77
361660 (1)	2133	31-08	9-09-77
(2-5)	2133	1-09	10-09-77
361661 (1)	2133	1-09	10-09-77
(2-5)	2133	2-09	11-09-77
361734 (1-4)	2233	2-09	11-09-78
(5)	2133	2-09	11-09-77

<u>CLAIM No.</u>	<u>TOWNSHIP</u>	<u>STAKED ON</u>	<u>APPLICATION FOR DEVELOP. LIC.</u>
361735 (1)	2133	2-09	11-09-77
(2-5)	2133	3-09	12-09-77
361736 (1-2)	2133	3-09	12-09-77
(3-5)	2133	4-09	13-09-77
361737 (1-3)	2133	4-09	13-09-77
(4-5)	2133	5-09	14-09-77
361738 (1-4)	2133	6-09	15-09-77
(5)	2133	6-09	15-09-78
361739 (1)	2233	6-09	15-09-78
(2-3)	2233	7-09	16-09-78
(4-5)	2133	7-09	16-09-77
361740 (1-2)	2133	7-09	16-09-77
(3-5)	2133	8-09	17-09-77
361741 (1-3)	2133	8-09	17-09-77
(4-5)	2133	9-09	18-09-77
361742 (1-4)	2133	9-09	18-09-77
(5)	2133	10-09	19-09-77
361743 (1-5)	2133	10-09	19-09-77
361744 (1-2)	2133	11-09	20-09-77
361753 (1-5)	2133	3-09	12-09-77
361754 (1)	2133	3-09	12-09-77
(2-5)	2133	4-09	13-09-77
361755 (1-2)	2133	4-09	13-09-77
(3-5)	2133	5-09	14-09-77
361756 (1-3)	2133	5-09	14-09-77
(4-5)	2133	6-09	15-09-77
361757 (1-4)	2133	6-09	15-09-77
(5)	2133	7-09	16-09-77
361758 (1-5)	2133	7-09	16-09-77
361759 (1-5)	2133	8-09	17-09-77
361760 (1-2)	2133	8-09	17-09-77
(3-5)	not existent		
361768 (1-5)	2233	3-09	12-09-78
361769 (1)	2233	3-09	12-09-78
(2-5)	2233	4-09	13-09-78
361770 (1-2)	2233	4-09	13-09-78
(3-5)	2233	5-09	14-09-78
361771 (1-3)	2233	5-09	14-09-78
(4-5)	2133	6-09	15-09-77

<u>CLAIM No.</u>	<u>TOWNSHIP</u>	<u>STAKED ON</u>	<u>APPLICATION FOR DEVELOP. LIC.</u>
361772 (1-4)	2133	6-09	15-09-77
(5)	2133	7-09	16-09-77
361773 (1-5)	2133	7-09	16-09-77
361774 (1-5)	2133	8-09	17-09-77
361775 (1)	2133	8-09	17-09-77
(2-5)	2133	9-09	18-09-77
361776 (1-5)	2133	11-09	20-09-77
361777 (1-4)	2133	12-09	21-09-77
(5)	2133	11-09	20-09-77
361778 (1-2)	2133	12-09	21-09-77
(3-5)	2133	13-09	22-09-77
361779 (1-2)	2133	14-09	23-09-77
(3-5)	2133	13-09	22-09-77
361780 (1-4)	2133	14-09	23-09-77
(5)	2133	15-09	24-09-77
361781 (1-5)	2133	15-09	24-09-77
361782 (1-5)	2133	16-09	25-09-77
361809 (1-5)	2233	9-09	18-09-78
361810 (1)	2233	9-09	18-09-78
(2-5)	2233	10-09	19-09-78
361811 (1-2)	2233	10-09	19-09-78
(3-5)	2233	11-09	20-09-78
361812 (1-3)	2233	11-09	20-09-78
(4-5)	2233	12-09	21-09-78
361813 (1-4)	2233	12-09	21-09-78
(5)	2233	13-09	22-09-78
362557 (1-3)	2133	4-09	13-09-77
(4-5)	2133	5-09	14-09-77
362558 (1-4)	2133	5-09	14-09-77
(5)	2133	6-09	15-09-77
362559 (1-5)	2133	6-09	15-09-77
362560 (1)	2133	6-09	15-09-77
(2-4)	2133	7-09	16-09-77
(5)	2233	7-09	16-09-78
363561 (1-5)	2233	8-09	17-09-78

4.1 LARGER CONCESSIONS

Not applicable in this area.

5. GENERAL GEOLOGY

The Otish Basin lies along the edge of the Superior Province unconformably overlying an Archean basement. The Archean complex is composed of a quartzo feldspathic-biotite gneiss, metavolcanics, metasediments and granite complex.

The Archean units are overlain by an Aphebian succession of fluviatile conglomerates and coarse arkoses alternating with well sorted subarkoses and orthoquartzites (Indicator Formation), followed by mature arkoses, dolomites and argillaceous conglomerates (Peribonca Formation). The Archean and Aphebian rocks have been intruded by dikes and sills of gabbroic composition.

TABLE OF FORMATION

Cenozoic		Recent & Pleistocene	Sand - Glacial Till	
Unconformity				
Precambrian	Proterozoic	Otish Gabbro	Gabbro, Diabase — intrusive contact —	
		Otish Group	Peribonca Formation Indicator Formation	
	Unconformity			
	Archean	Granitic Complex	Granite, granodiorite to tonalite, pegmatite	
Metasedimentary & Metavolcanic rocks		Biotite gneiss, quartz-metaconglomerate, amphibolite, basalt		
Gneiss Complex		Quartzo-feldspathic gneiss, biotite gneiss		

6. INVESTIGATION

- |                          |                       |
|--------------------------|-----------------------|
| 1) Diamond Drilling      | 914 m (3000 ft)       |
| 2) Prospecting           | 75 man days           |
| 3) Scintillometer Survey | approx. 4 line km     |
| 4) Radon                 | approx. 600 stations  |
| 5) Soil Survey           | approx. 400           |
| 6) Ground Geophysics     | HEM, Mag., Emanometer |

## 7. SURVEY RESULTS

### 7.1 SOIL SURVEY

A total of 324 soil samples were collected with hand augers between lines 4375E and 4725E from 3250N to 3500N. Samples were taken every 10 meters along the lines, the B-horizon was sampled where possible.

The survey results are poor, the most anomalous samples are organic rich material. The uranium appears to be fixed to the organic complex creating false anomalies. The anomalous zones located on the contour map are swampy areas.

Soil samples were also collected across some H.E.M. conductor (see geophysical report, Appendix A). The soil profiles show no enrichment of U in the overburden down-ice from the conductors.

### 7.2 BOULDER PROSPECTING

A total of 75 man days were spent on detailed boulder prospecting in the Beaver Lake area. The detailed prospecting located 50 radioactive boulders. The sources of the boulders may be the weak mineralization encountered in BL-32.

### 7.3 ALPHA METER SURVEY

A detailed alpha-meter survey on a 10 by 10 meter grid was carried out (3250N to 3450N and from 4375N to 4750N). The alpha-meter were burried to a depth of 40 cm with a counting time of 8 hours. The radon highs do not correlate well with the mineralization encountered in the drill holes.

### 7.4 GROUND GEOPHYSICS

Some soil samples and radon profiles were conducted across some EM-conductors; the results are described in Appendix A.



7.5

SCINTILLOMETER SURVEY

Two sections of the Beaver Lake grid were covered with the detailed scintillometer survey. Readings were collected at 10 meter intervals along cut lines. In area one (3600N to 3900N from 4450E to 4900E) and area two (3000N to 3350N from 5200 to 5500E) the scintillometer survey failed to outline any zones of significant radiation. The anomalies which were located correspond to slightly radioactive pegmatite boulders located in glacial till.

7.6

DIAMOND DRILLING

## Drilling

A total of 14 diamond drill holes were drilled with a total footage of 3000 ft (914 m) from 14 setups. All holes were inclined (45°) and were drilled using BQ size bits (core diameter: 1 7/16").

The Beaver Lake grid is north-south, with the base line east-west. All drill holes are tied into this grid.

The drilling was contracted to Bradley Bros. Ltd. with a base in Noranda, Quebec.

## Acid Test

Generally two acid tests were performed, the first at 100 ft and the second at the bottom of the hole.

## Down Hole Logging

The down hole logging system consisted of Mt. Sopris gamma logger, 1000C and Standard Combination probe G 375/A, analogue recorder, handcrane winch with cable.

## Drilling Results

A geological description of this drilling area was already presented in the assessment report 1978.

This time the drilling targets were additional tectonic structures parallel or at an angle to the Beaver Lake structure described in the preceding report.

Several structures of this kind (brecciated to mylonitic fault zones) were found, though no economic mineralizations were encountered. Of particular interest is a north-west striking fault zone west of the Beaver Lake structure which is associated with an ultrabasic (peridotitic) dike-shaped pipe (Kimberlite ??). Mineralogically this body is a serpentinized mica peridotite with at least 50% antigorite (pseudomorphic after olivine) and between 10 and 20 percent carbonate. Biotite phenocrysts are an important constituent. The groundmass is very fine grained and represents about a quarter of the rock. No indicator minerals to identify the rock as a Kimberlite have been found though the pipe-like occurrence strongly points to such a rock type.

8.

CONCLUSION

The results of 1978 surveys are not encouraging but some additional drilling on the property is required for a final evaluation. The drilling targets should be geophysical conductors which have some radon response. The 1976 and 1977 geochemical surveys should be evaluated again for possible weak geochemical signatures.

APPENDIX A  
GEOPHYSICAL REPORT  
BEAVER/ZORAN LAKE AREA  
PROJECT 71-85

Prepared by:  
Michael Leppin,  
UEM Montreal

1. INTRODUCTION

During July and August 1978, geophysical investigations (HEM, Mag., emanometer) were made in four small areas on the Beaver Lake grid (see Map 1). In area C a total field magnetometer ground survey was carried out in order to outline an ultrabasic body. In areas B, D and E horizontal loop EM, and emanometer surveys were conducted to get detailed information about conducting zones found by an airborne EM survey and some soil samples were taken over these conductors.

2. TOTAL FIELD MAGNETOMETER RESULTS

The magnetometer survey was carried out on the 23rd and 24th of July between 9 a.m. and 3 p.m., measuring the earth's total magnetic field with a proton-free precession magnetometer (Scintrex MP-2) at a 25 m line separation and a 10 m station interval. Besides corrections for diurnal variations, no other corrections were done.

The magnetic profiles are shown on Map 1 indicating a mean value of the field of about 58,900  $\gamma$ . The anomalies in the centre of Map 1 (60374  $\gamma$  at 45+00E, 34+50N) are interpreted due to an igneous basic rock (pipe?) which is steeply dipping to the north. Its average susceptibility is  $3 \cdot 10^{-3}$ . According to the drill results (BL-30, BL-31, BL-34) an ultrabasic intrusive body is trending from NW to SE at 45+50E, 34+25N, but it has a weak magnetic response. The hematized and mineralized zone at 45+50E, 34+00N seems to cause magnetic anomalies (59453  $\gamma$  at 45+50E, 34+00N). The axis of these anomalies stretches WNW.

3. HORIZONTAL LOOP E.M., RADON - EMANOMETER AND URANIUM IN SOILS RESULTS

The HEM survey was carried out with an Apex Max.Min. II portable EM system using a coil separation of 50 m and a frequency of 3.55 kHz (station interval = 25 m). In order to test the conductors as favourable zones of uranium mineralization, an emanometer survey was conducted (E.D.A. radon detector RD 200) and also soil samples were taken for uranium assay.

Area D (Maps 2 and 3)

The conductor stretches almost E-W, having a length of approximately 350 m. According to the inphase and quadrature data on line 55+00E, 29+55N the anomaly is caused by a vertical dyke-shaped body having a thickness less than 2 m and a depth to the top of about 14 m. The conductivity is about  $5 \Omega^{-1} m^{-1}$ .

Soil gas for radon detection was taken from 0.5 m deep holes. The average radon counts of the area close to the conductor was about 15 cpm. Radon anomalies of more than 50 cpm are located north and south of the conductor's western end. Although not located exactly

over the conductor's axis, the radon anomalies may originate from a uranium source which may be associated with the conductor. The distorted radon picture appears to be influenced by the overburden thickness, groundwater circulation and fractures in the host rock. The uranium in soils (mean = 1.5 ppm, highest value = 7 ppm) does not show significant anomalies over the conductor's axis.

#### Area E (Map 4)

In the area of interest only on line 67+00E, 46+50N a HEM anomaly was picked up probably caused by a poor conductor (quadrature/inphase ratio = 2). The radon data shows no anomaly on L67+00E whereas the uranium in soils increases over the conductor (mean = 1 ppm, highest value = 3.5 ppm). In order to define more precisely this conductor, a longer cable (150 m) should be used because the overburden seems to be deep over the EM anomaly.

#### Area B (Map 5)

The mean of the radon data in the vicinity of the conductors C1, C2, C3 is about 10 cpm. Two anomalies exceeding 25 cpm (mean plus two standard deviations) are located north of C1 at the conductor's western end. The uranium in soils (mean = 0.6 ppm, highest value = 5.2 ppm) does not indicate any uranium mineralization in the area of investigation.

4.

#### CONCLUSION

According to the correlation between uranium mineralization in DDH #BL 30 and the magnetic anomaly on line 45+50E, 34+00N and the discovery of mineralized magnetic boulders west and south-east of Beaver Lake, the magnetic method should be kept in mind as a reconnaissance tools (especially in the area south-east of Beaver Lake). To detect local magnetic bodies like pipes etc. the line spacing should not exceed 50 m. The western end of conductor C1 (Area D) intersects an interpreted zone along which mineralizations are thought to be aligned. The association with radon anomalies makes the conductor an interesting target which should be investigated further (proposed drilling site: line 55+00E, 29+75N, to the south, dip =45°). If C1 (Area D) turns out to be mineralized then conductor C1 (Area B) should be drilled also.

APPENDIX B  
GEOCHEMICAL LAB REPORT  
BEAVER ZORAN LAKE AREA  
PROJECT 71-85

Ministère des Richesses Naturelles, Québec

SERVICE DE LA  
DOCUMENTATION TECHNIQUE

Date: 25 SEP. 1979

No GM: 34787



# BONDAR-CLEGG & COMPANY LTD.

764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5

PHONE: 237-3110

## Geochemical Lab Report

C.J., W.G., R.L.

2/2/78  
71-85

Extraction U - HNO<sub>3</sub>  
Method Fluorimetric  
Fraction Used -80 mesh

Report No. 1643-78  
From Uranerz Exploration & Mining Limited  
Project: 71-85 P.O. # 6213  
Date September 5, 1978

SAMPLE NO.	U ppm	SAMPLE NO.	U ppm
8ML - 001	1.5	8ML - 032	1.9
02	4.0	33	1.6
03	2.5	34	1.1
04	2.1	35	1.2
05	1.3	36	1.1
06	1.6	37	1.1
07	5.5	38	1.6
08	1.3	39	1.6
09	2.5	40	1.0
10	1.6	41	1.6
11	7.0	42	1.2
12	4.0	43	1.6
13	1.0	44	0.4
14	2.1	45	0.4
15	2.1	46	1.1
16	0.6	47	0.6
17	2.1	48	1.1
18	1.0	49	0.2
19	2.1	50	0.6
20	2.1	51	0.6
21	2.0	52	0.9
22	1.1	53	3.5
23	1.1	54	1.1
24	3.5	55	0.9
25	2.5	56	0.9
26	2.3	57	1.1
27	1.1	58	1.5
28	1.2	59	0.9
29	1.1	60	2.8
30	1.2	61	1.3
31	1.1	62	1.0

Geochemical Lab Report

Report No. 1643-78

Page No. 2

SAMPLE NO.	U ppm	SAMPLE NO.	U ppm
8ML - 063	0.9	8ML - 099	0.8
64	1.1	100	0.8
65	1.9	01	0.5
66	0.9	02	0.9
67	0.6	03	0.4
68	1.6	04	0.3
69	0.8	114	0.1
70	0.4	15	0.6
71	0.4	16	0.3
72	0.3	17	0.2
73	0.2	18	0.4
74	0.4	19	0.6
75	5.2	20	0.6
76	0.6	21	0.7
77	0.6	22	0.3
78	0.4	23	0.3
79	0.3	24	0.3
80	0.9	25	0.3
81	0.6	26	0.3
82	0.9	27	0.1
83	0.4	28	0.2
84	0.7	29	0.3
85	0.9	8JC - 001	0.1
86	0.5	02	40.0
87	0.1	03	42.0
88	0.4	04	0.6
89	0.1	05	45.0
90	0.5	06	0.7
91	0.2	Samples 8ML-105 to 113 not received.	
92	0.5		
93	0.7		
94	0.8		
95	0.8		
96	0.7		
97	0.7		
98	1.1		





## Geochemical Lab Report

C.E.M. MONTREAL

Extraction U - HNO<sub>3</sub> Report No. 1433-78  
 Method Fluorimetric From Uranerz Exploration & Mining Limited  
 Fraction Used -80 mesh Date August 25, 1978  
 FILING NO. 71-85  
 TO: C.J. R.L. W.G. H.M. Project # 71-85 P.O. # 6205

SAMPLE NO.	U ppm	SAMPLE NO.	U ppm
8-WG-001	1.3	8-WG-032	2.9
02	1.9	33	0.8
03	2.9	34	1.1
04	1.9	35	3.9
05	1.6	36	2.1
06	1.9	37	1.4
07	1.9	38	1.4
08	91.0	39	4.0
09	2.9	40	8.1
10	2.9	41	0.8
11	1.3	42	2.4
12	2.9	43	5.3
13	1.5	44	7.6
14	1.9	45	1.2
15	1.3	46	2.1
16	0.8	47	8.4
17	1.9	48	3.8
18	1.5	49	1.9
19	1.8	50	1.9
20	2.4	51	1.9
21	1.3	52	3.1
22	0.3	53	5.0
23	0.4	54	1.9
24	0.8	55	3.0
25	2.4	56	2.1
26	1.6	57	0.8
27	1.3	58	1.4
28	1.1	59	1.6
29	1.6	60	40.0
30	4.7	61	185.0
31	2.4	62	1.5

Geochemical Lab Report

Report No. 1433-78

Page No. 2

SAMPLE NO.	U ppm		SAMPLE NO.	U ppm
8-WG-063	13.4		8-JC-004	53.0
64	2.0			
65	1.4			
66	2.1			
67	1.9			
68	1.9			
69	1.9			
70	1.1			
71	1.1			
72	2.4			
73	2.1			
74	4.8			
75	2.4			
76	1.9			
77	3.0			
78	29.0			
79	2.3			
80	1.4			
81	1.7			
82	0.9			
83	3.0			
84	2.4			
85	2.4			
86	2.1			
87	2.0			
88	3.3			
89	6.1			
90	1.4			
91	0.8			
92	1.9			
93	200.0			
94	2.3			
95	5.0			
8-JC-001	0.6			
02	54.0			
03	0.7			



# BONDAR-CLEGG & COMPANY LTD.

764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5

RECEIVED

PHONE: 237-3110

FILING NO. 71-85  
TO: C.J., R.L. W.G.

1687-78

## Geochemical Lab Report

Extraction U - HNO<sub>3</sub>

Report No. \_\_\_\_\_

Method Fluorimetric

From Uranerz Exploration & Mining Limited

Fraction Used -80 mesh

Project: 71-85 P.O. # 6253 Group 1

Date September 8, 1978

SAMPLE NO.	U ppm	SAMPLE NO.	U ppm
8WG - 200	2.7	8WG - 231	1.3
01	2.3	32	2.2
02	2.4	33	1.5
03	2.6	34	2.8
04	76.0	35	1.9
05	34.0	36	2.0
06	105.0	37	1.8
07	9.5	38	1.3
08	60.0	39	2.6
09	1.0	40	1.8
10	1.9	41	3.1
11	2.6	43	1.0
12	3.5	250	1.5
13	1.8	51	2.2
14	2.2	52	2.6
15	2.0	55	2.0
16	1.2	56	1.3
17	2.0	57	1.5
18	1.9	58	1.2
19	3.2	59	2.0
20	12.6	60	1.5
21	3.3	61	1.5
22	4.9	62	1.5
23	2.0	63	1.5
24	1.3	64	2.3
25	3.5	65	3.5
26	8.7	66	2.3
27	0.9	67	1.5
28	2.3	68	1.2
29	2.7	69	0.5
30	0.9	70	1.0

# Geochemical Lab Report

Port No. 1687-78u

Page No. 2

SAMPLE NO.	U ppm	SAMPLE NO.	U ppm
8WG - 271	2.6	8WG - 322	1.2
72	2.2	23	1.9
73	2.9	24	1.1
74	0.6		
75	1.9		
76	1.2		
77	0.9		
78	2.6		
79	1.8		
80	19.4		
81	1.5		
82	2.0		
83	2.0		
84	1.5		
85	2.4		
86	1.2		
87	1.3		
88	1.8		
89	1.8		
90	2.8		
91	5.9		
93	2.3		
301	10.8		
02	1.9		
03	2.6		
04	1.2		
05	1.9		
06	3.1		
07	3.2		
10	1.0		
11	1.5		
15	3.2		
16	1.8		
17	1.9		
18	1.0		
21	1.8		

APPENDIX C  
PROJECT 71-85  
BEAVER-ZORAN/OTISH WEST  
DIAMOND DRILL LOGS  
BEAVER LAKE AREA

# URANERZ EXPLORATION AND MINING LIMITED

## DIAMOND DRILL LOG

PROJECT No: 71-85

HOLE No: 22

PROPERTY: Beaver Lake

CLAIM No: 361630-3

### MAIN GRID LOCATION

### DRILL GRID LOCATION

EAST 5472  
NORTH 2800  
ELEVATION \_\_\_\_\_

EAST \_\_\_\_\_  
NORTH \_\_\_\_\_

ACID TEST

FOOTAGE

INCLINATION


DIP

AZIMUTH

45°

180°

DRILLING CONTRACTOR Bradley

LENGTH 67.3 m

RIG No: 36

CASING SIZE BW

COMMENCED 18.06.78

BIT SIZE \_\_\_\_\_

CORE SIZE BQ

COMPLETED 19.06.78

### DOWN HOLE LOGGING

CASING REMOVED  YES  NO

PLASTIC PIPE (LENGTH) \_\_\_\_\_

INSTRUMENT M. Sopris 1030 BP AT-5

PROBE \_\_\_\_\_

OPERATOR R. Fortin

DATE 19.06.78

CORE STORED IN \_\_\_\_\_

CORE LOGGED

CHEMICAL ASSAYS

BY W. Gehrisch

LAB \_\_\_\_\_

DATE 20.06.78

DATE \_\_\_\_\_

FOOTAGE		GEOLOGICAL DESCRIPTION	CORE REC. %	CHEMICAL ASSAY			
FROM	TO			SAMPLE NO.	FROM (FT) m	TO (FT) m	U <sub>3</sub> O <sub>8</sub> (ppm)
0	12'	Overburden	99%	3001	53,5	54,0	15.8
12'	143'02"	Amphibolite (from coarse to fine grained) alternating with minor gneiss schistosity: 45° to c.a. (i.e. vertical)		3002	53,0	53,5	14.4
				3003	52,5	53,0	24.2
				3004	51,5	52,5	22.3
				3005	54,0	54,5	48.1
				3006	54,5	55,0	108
				3007	55,0	55,5	126
				3008	55,5	56,5	69.3
		at: 12'04" } 2 to 5 mm joints, healed with epidote. At right angle to schistosity					
		12'11" }					
		13'10" }					
		14'10" }					
		15'04" }					
		15'09" }					
		15'04" Hematized joints + band of 0.5 cm of epidote, parallel to schistosity					
		16'10" 10 cm "layer" of epidote fcls. + hematization on fractures + large (0.5 cm) secondary Ann = plible - porphyroblasts + Pyrite					
		21'07" } 10 cm "layer" of epidote fcls					
		22'00" }					

Amphibolite →

FOOTAGE		CORE LOG	CORE REC. %	CHEMICAL ASSAY		
FROM	TO			SAMPLE		U <sub>3</sub> O <sub>8</sub> (ppm)
				NO.	FROM (FT.)	
		23'05" } 3 to 5 cm "layers" of epidote-fels.				
		24'03" } fels.				
		25'10" }				
		26'07" 10 cm of epidotefels in reworked section. + Pyrite				
		↓ some narrow "layers" of epidotefels				
		32'08" 20 cm of epidotefels in reworked section. + rusty stain on fracture + pink stain				
		34'00" random fractures healed with epidote and quartz.				
		35'02 fractures with Fe-stain				
		35'07" 15 cm } of epidotefels in reworked section. + Pyrite				
		37'02" 10 cm }				
		37'09" 7 cm }				
		40'00" 20 cm section with some Quartz lenses + clusters of Pyrite.				
		41'00" - 44'00" : fine grained, chloritized, with abundant fine lenses, healed with epidote, mostly parallel to c.a.				

Amphibolite →



FOOTAGE		CORE LOG	CHEMICAL ASSAY			
FROM	TO		CORE REC. %	SAMPLE		U <sub>3</sub> O <sub>8</sub> (ppm)
		NO.		FROM (FT.)	TO (FT.)	
		44'00" to 52'08": medium grained gneiss, only minor foliation, little Biotite				
		47'11": 10 cm of chloritic "layer" with epidote + pink Feldspar.				
		52'08": 1 cm carbonate-vein + epidote, being cut by shear fault.				
		52'08" - 57'00" fine grained, chloritized and partly epidotized. Small fractures healed with epidote.				
		56'00": 1 cm calcite vein with epidote				
		59'09": 20 cm section reworked, partly epidotized + quartz.				
		61'00": fractures with hematite stain				
		62'00": 1 cm epidote vein, ⊥ to schistosity				
		64'00": Fe stain of fractures with py.				
		66'00": Fe-stain or hematite (?)				
		67'00": 5 cm epidote vein with 1 cm calcite at the centre. ⊥ to schist.				
		67'04": Cluster of pyrite crystals (> 0.5 cm large)				
		67'00 - 68'30" disseminated Pyrite crystals + pink Feldspar in small lenses				

Gneiss →  
 Amphibolite →

FOOTAGE		CORE LOG	CORE REC. %	CHEMICAL ASSAY			
FROM	TO			NO.	FROM (FT.)	TO (FT.)	U <sub>3</sub> O <sub>8</sub> (ppm)
		69'00" - 74'00" : fractures with Fe-stain + minor carbonate coating.					
		73'05" : 0,5 cm Quartz vein					
		80'00" : 1,5 cm shear zone with ep. + Carb. ⊥ to schistosity.					
		81'00" : fold (small)					
		82'00" : ep. + quartz-vein, ⊥ to schist.					
		83'04" : 2 cm of ep. - "layer" + 0,5 cm - crystals of Pyrite + Hem around Pyrite.					
		-----					
		98'00" to 105'03" : medium grained gneiss to granitic gneiss, light gray.					
		-----					
		107'00" : Pyrite					
		108'00" : fractures with thin carb. coating.					
		108'06" - 113'00" : disseminated Pyrite					
		109'03" : 3 cm Quartz-lense					
		111'00" - 112'00" fractures with carb. coating					

Amphibolite →

Gneiss

Amphibolite →

FOOTAGE

CORE LOG

CHEMICAL ASSAY

FROM TO

GEOLOGICAL DESCRIPTION

CORE REC. %

SAMPLE

U<sub>3</sub>O<sub>8</sub> (ppm)

NO.

FROM (FT.)

TO (FT.)

116'03" to 120'05": light gray medium grained Gneiss

Gneiss

128'00" - 132'00": disseminated Pyrite, partly on fractures

Amphibolite

135'10" - 138'03": medi

135'10" - 138'03": medium to fine grained, light gray Gneiss

Gneiss

Amph.

near contact: schistosity of Amphibolite tends to 70° to c.a.

← at the contact: about 5 cm of contact - metamorphism.

143'02" 211'07"

light pinkish gray, very coarse grained "Granite" with ~~no mica~~ <sup>Biotite and chlorite</sup> small nests of <sup>of</sup> chlorite are conspicuous throughout. The feldspar (Potassium feldspar) partly suffered stromatolitic alteration. (Alaskitic granite?)

Granite

159'06" - 161'06": extremely coarse grained section. One Feldspar

FOOTAGE		CORE LOG	CORE REC. %	CHEMICAL ASSAY			
FROM	TO			GEOLOGICAL DESCRIPTION	SAMPLE NO.	FROM (FT.)	TO (FT.)
		in the centre of this section has 20 to 30 cm in diameter.					
		186'05" - 202'00": "Epingenite" (?) (Granite with little Quartz and lots of vugs). Strong metamorphism, epidotization and large <sup>biotite</sup> chlorite-nests, finegrained (up to 4 cm).					
		radioactive at about 188' (150 cps)					
211'07	221'00	Amphibolite					
		219'00" lenses of Quartz, Epidote, chlorite and Pyrite.					
		220 - 221 : fracturing.					
		schistosity: 70° to c.a.					

# URANERZ EXPLORATION AND MINING LIMITED

## DIAMOND DRILL LOG

PROJECT No: \_\_\_\_\_

HOLE No: 23

PROPERTY: Beaver Lake

CLAIM No: 361630-3

MAIN GRID LOCATION

DRILL GRID LOCATION

EAST 5472  
NORTH 2755  
ELEVATION \_\_\_\_\_

EAST \_\_\_\_\_  
NORTH \_\_\_\_\_

ACID TEST  
FOOTAGE  
INCLINATION


DIP 45°  
AZIMUTH 180°

DRILLING CONTRACTOR Bradley  
RIG No: 36  
CASING SIZE BW  
BIT SIZE \_\_\_\_\_  
CORE SIZE BQ

LENGTH 67.3 m  
COMMENCED 20.06.78  
COMPLETED 21.06.78

CASING REMOVED  YES  NO  
PLASTIC PIPE (LENGTH) \_\_\_\_\_

DOWN HOLE LOGGING

INSTRUMENT Mt. Sopris 1000 BP AI-5  
PROBE \_\_\_\_\_  
OPERATOR R. Fortin  
DATE 21.06.78

CORE STORED IN \_\_\_\_\_

CORE LOGGED  
BY J. Gelwinch  
DATE 22.06.78

CHEMICAL ASSAYS  
LAB \_\_\_\_\_  
DATE \_\_\_\_\_

FOOTAGE

CORE LOG - Beaver Lake

CHEMICAL ASSAY

FROM	TO	GEOLOGICAL DESCRIPTION	CORE REC. %	SAMPLE			U <sub>3</sub> O <sub>8</sub> (ppm)
				NO.	FROM (FT.)	TO (FT.)	
0	12'	<u>Overburden</u>					
12'	62'	coarse grained, gray to pinkish "granitic" rock with small nests of biotite and/or chlorite.	18'-				
		19'-20' section of abundant chlorite-biotite nests up to 0.5 cm large.	37'				
		25' 06" } fractures with black aphanitic material.	= 78%				
		26' 08" }	the rest is 99%				
		34' 00" : abundant fractures					
		38' 05" : 0.5 cm of brown green aphanitic material on 30° fractures					
		40' 00" : greenish coating on 30° fracture					
		41' 10" : fracture with dark green aphanitic material					
		47' 00" } fractures with hematite (20°)					
		47' 06" }					
		50' 00" } some 20° to 45° fractures with hematite.					
		51' 00" }					
		56' - 59' 07" : cataclastic "Granite" with large chlorite (and epidote) - flakes at 57' 06"					
62'	72' 08"	59' 07" - 62' 00" : extremely coarse grained, large (dom) Fsp. Mylonitic and silicified transition zone from pegmatitic "Granite" to amphibolite.					

FOOTAGE

CORE LOG - Beaver Lake

CHEMICAL ASSAY

FROM	TO	GEOLOGICAL DESCRIPTION	CORE REC. %	SAMPLE			U <sub>3</sub> O <sub>8</sub> (ppm)
				NO.	FROM (FT.)	TO (FT.)	
72'08"	209'05" (200'02")	fine to coarse grained <u>amphibolite</u> . schistosity - 45° to c.a.					
	70'00"	hematite coating on fracture.					
	74'00"	10 cm pegmatitic section with some chalcopyrite.					
	87'06"	2cm quartz-epidote vein, ⊥ to schistosity.					
	90'00" } 91'07" }	2cm of recrystallized Amphibole + quartz,    to schistosity. In between, some Pyrite.					
	92'00"	Quartz vein, ⊥ to schistosity.					
	98'00"	5 cm Quartz lense + recrystallized amphibole + pyrite.					
	104'08" } 105'10" }	two massive layers of cristalline hematite(?)					
	106'-109'	coarse grained(?) amphibolite					
	112'-113'	fractures ⊥ to schistosity, filled with epidote and quartz.					
	113'09" - 114'04"	Quartz lenses and schlieren with recrystallized amphibole.					
	119'07"	randomly fractured, healed with epidote.					
	120'04" } 121'03" }	carbonate-epidote veins					
	123' - 125'	random fractures, healed with epidote, quartz and pink fclsp.					

FOOTAGE

CORE LOG - Beaver Lake

CHEMICAL ASSAY

FROM	TO	GEOLOGICAL DESCRIPTION	CORE REC. %	SAMPLE			U <sub>3</sub> O <sub>8</sub> (ppm)
				NO.	FROM (FT.)	TO (FT.)	
		125'05" : 2 cm epidote fels + Pyrite.					
		134' : 1 cm thick lenses of quartz, pink feldsp., carbonate and Pyrite.					
		144' : 15 cm reworked section with cloudy epidotization, recrystallization of Amphibole and massive pyrite seams (up to 3 mm)					
		146'03" : 5 cm recrystallized amphibole					
		147' - 148' : } name as 144'					
		149' - 149'06" : } name as 144'					
		153' : 5 cm band of recrystallized amphibole with quartz lenses					
		154'01" - 07" : strong banding					
		160' : 3 cm feldspathic layer, rich with Pyrite xx.					
		5" above: disseminated pyrite xx					
		161' : epidote vein, cutting two thin (0.5 cm) feldspathic "layers".					
		<del>167'05" - 169' : thin</del>					
		167'05" - 169' : intercalation of very fine grained quartzitic "lenses" with thin layers of amphibolites in between.					
		199' : Pyrite					
		200' : cloudy epidotization, recrystallization of amphibole, + Pyrite. Fe-stain on 20° fracture.					
		201' - 207' : intense random fracturing					





# URANERZ EXPLORATION AND MINING LIMITED

## DIAMOND DRILL LOG

PROJECT No: 71-85

HOLE No: 24

PROPERTY: Beaver Lake

CLAIM No: 361630-4

### MAIN GRID LOCATION

### DRILL GRID LOCATION

EAST 5054

EAST \_\_\_\_\_

NORTH 3175

NORTH \_\_\_\_\_

ELEVATION \_\_\_\_\_

### ACID TEST

FOOTAGE

100'	221'		
50°	50°		

INCLINATION

DIP 45°

AZIMUTH 180°

DRILLING CONTRACTOR Bradley

LENGTH 67,3m

RIG No: 36

CASING SIZE BW

COMMENCED 23.06.78

BIT SIZE \_\_\_\_\_

CORE SIZE BQ

COMPLETED 24.06.78

CASING REMOVED  YES  NO

PLASTIC PIPE (LENGTH) \_\_\_\_\_

CORE STORED IN \_\_\_\_\_

### DOWN HOLE LOGGING

INSTRUMENT Mt. Sopris 1000RP AI-5

PROBE \_\_\_\_\_

OPERATOR R. Fortin

DATE 24.06.78

### CORE LOGGED

BY W. Gehrisch

DATE 25.06.78

### CHEMICAL ASSAYS

LAB \_\_\_\_\_

DATE \_\_\_\_\_



FOOTAGE

CORE LOG

CHEMICAL ASSAY

FRM	TO	GEOLOGICAL DESCRIPTION	CORE REC. %	SAMPLE			U <sub>3</sub> O <sub>8</sub> (ppm)
				NO.	FROM (FT.)	TO (FT.)	
		61 <sup>07</sup> - 63 <sup>06</sup> - Cataclastic zone with large chloritic veins and fracture fillings, hematitization and an unidentified brown mica (rosette)					
		64 <sup>06</sup> } fracture zones with alteration 65 <sup>00</sup> } chlorite					
		67 <sup>00</sup> - 70 <sup>03</sup> : fractured, chloritization on some fractures.					
		72 <sup>00</sup> - 74 <sup>06</sup> : 10-70° to c.a.: shear-zones and fract., partly chloritic.					
		82 <sup>00</sup> : joints, 20° to c.a. speckly, (greasy) chloritic coating.					
		88 <sup>00</sup> - 100 <sup>00</sup> } Intensely fractured, joints 111 <sup>00</sup> - 137 <sup>00</sup> } at right angles to each other, with greasy (chloritic) coating.					
		138 <sup>03</sup> : hematite on fractures, 55° to 70° to c.a.					
		152 <sup>00</sup> : epidotization on fractures					
		167 - 169 : highly fractured					

FOOTAGE

CORE LOG

CHEMICAL ASSAY

FROM	TO	GEOLOGICAL DESCRIPTION	CORE REC. %	SAMPLE			U <sub>3</sub> O <sub>8</sub> (ppm)
				NO.	FROM (FT.)	TO (FT.)	
		186 } fractured 187 } 188 }					
191	195	191 - 195: gradational <u>mylonitic transition zone</u> between "granite" and amphibolite.					
195	221	chloritic <u>amphibolite</u> grading into <u>chlorite schist</u> , with <u>pegmatitic sections</u> + Quartz veins. <small>schistosity: 40° to 50° to c.a.</small> 195° - 197°: highly fractured and slightly mineralized (Ba+U) <u>section within chloritic amphibolite.</u> 197° - 210°: fine grained. 197 - 200: hematitization on thin fracture planes, especially in parts of intense chloritization. 201° - 203°: intense fracturing some hematite + carbolite on fract. 210° - 211°: Quartz- <u>pegmatite</u> (little feldspar)					



24

FOOTAGE

CORE LOG

CHEMICAL ASSAY

FROM TO

GEOLOGICAL DESCRIPTION

CORE REC. %

SAMPLE

NO.

FROM (FT.) IN

TO (FT.) IN

U<sub>3</sub>O<sub>8</sub> (ppm)

Sample Sheet for B.L. 24

3009	58.5m	59.5m	76.3
3010	59.5m	60.1m	602.
3011	60.1m	61.0m	13.4

# URANERZ EXPLORATION AND MINING LIMITED

## DIAMOND DRILL LOG

PROJECT No: 7185

HOLE No: 25

PROPERTY: Beaver Lake

CLAIM No: 361630-4

### MAIN GRID LOCATION

### DRILL GRID LOCATION

EAST 5054  
NORTH 3130  
ELEVATION \_\_\_\_\_

EAST \_\_\_\_\_  
NORTH \_\_\_\_\_

### ACID TEST

FOOTAGE

100'			
50°			

INCLINATION

DIP 45°

AZIMUTH 180°

DRILLING CONTRACTOR Bradley

LENGTH 67.3 m

RIG No: 36

CASING SIZE BW

COMMENCED 25/06/78

BIT SIZE \_\_\_\_\_

COMPLETED 26/06/78

CORE SIZE BQ

CASING REMOVED  YES  NO

PLASTIC PIPE (LENGTH) 67.3 m

### DOWN HOLE LOGGING

INSTRUMENT Mt-Sporis 1000 BP RI-5-4

PROBE \_\_\_\_\_

OPERATOR R. Fortin

DATE 26/06/78

CORE STORED IN \_\_\_\_\_

### CORE LOGGED

### CHEMICAL ASSAYS

BY W. Gerish

LAB \_\_\_\_\_

DATE 27/06/78

DATE \_\_\_\_\_



FOOTAGE		GEOLOGICAL DESCRIPTION	CORE REC. %	CHEMICAL ASSAY		
FROM	TO			SAMPLE NO.	FROM (FT.)	TO (FT.)
0	20'	Overburden	98%			
20'	20'05"	granitic rock (granodiorite?)				
20'05"	58'05"	<u>Amphibolite</u> , mostly fine grained chloritic to biotitic. Schistosity: 45° to c.a.				
	20'05" - 27'00"	intensely fractured, some hematite.				
	33" to 36"	fractured, some hematite				
	45"	fractured				
	49'06"	sheared				
	52'00"	fractured, hematization				
	53-57'07"	intensely fractured and sheared.				
	54'06" - 55'	pink feldsp-vein (1cm)				
	58'05"	10 cm of <u>transition</u>				
58'09"	221	<u>"granite"</u> , mostly coarse to very coarse grained, with nests of fine grained chlorite and/or biotite. Varying ratio of K-feldspar to plagioclase <sup>(chlorite)</sup>				
	58'08" - 66'00"	some remains of banding within medium to coarse grained "Granite"				

FOOTAGE		GEOLOGICAL DESCRIPTION	CORE REC. %	CHEMICAL ASSAY			
FROM	TO			SAMPLE			U <sub>3</sub> O <sub>8</sub> (ppm)
				NO.	FROM (FT.)	TO (FT.)	
		73 <sup>00</sup> - 78 <sup>00</sup> cataclastic section.					
		88 <sup>00</sup> - 20 cm chlorite-schist, radio-active!					
		94 <sup>00</sup> 2cm chloritic to aphanitic section.					
		95 <sup>00</sup> - 99 <sup>00</sup> very coarse grained					
		104 <sup>00</sup> 2cm chloritic section					
		106 <sup>00</sup> - 117 <sup>00</sup> very coarse grained, partly cataclastic appearance.					
		117 <sup>00</sup> - 122 <sup>00</sup> joint // to c.a.					
		128 <sup>00</sup> - 2cm shear zone with Quartz + aphanitic black material.					
		132 <sup>00</sup> fractured					
		132 - 134 joints // to c.a. to 20° to c.a.					
		135 - 142 fine grained, aplitic.					
		140 - 142 joint // to c.a. with black aphanitic coating (blearing)					
		142 - 143 <sup>00</sup> : coarse grained.					
		143 <sup>00</sup> - 147 : extremely coarse grained (monomineralic) Feldsp. several dec in d					

FOOTAGE		CORE LOG	CORE REC. %	CHEMICAL ASSAY			
FROM	TO			SAMPLE			U <sub>3</sub> O <sub>8</sub> (ppm)
				NO.	FROM (FT.)	TO (FT.)	
		145"-147": joint // to c.a. with black aphanitic material (shearing)					
		149' - 150' extremely coarse grained (graphitic Feldsp.)					
		156' - 159' joints // to c.a. with 1cm mylonitic greeny material (shear zone)					
		159' - 160' cataclastic section.					
		165' - 166' joints // to c.a.					
		167 - 175: joints // to c.a. with black aphanitic material (shear zone)					
		188' - 189' cataclastic section					
		189 <sup>09</sup> } joints of black fine grained mica =					
		190 <sup>10</sup> } ceous material					
		191 <sup>06</sup> - 194 <sup>00</sup> very coarse grained.					
		194' - 196' joint // to c.a. with black aphanitic material.					
		205' - 209' very coarse grained					
		209 <sup>06</sup> - 211' : cataclastic section, with joints // to c.a.					



# URANERZ EXPLORATION AND MINING LIMITED

## DIAMOND DRILL LOG

PROJECT No: 71-85

HOLE No: 26

PROPERTY: Beaver Lake

CLAIM No: 361659-5

### MAIN GRID LOCATION

### DRILL GRID LOCATION

EAST 4880 E  
NORTH 3430 N  
ELEVATION \_\_\_\_\_

EAST \_\_\_\_\_  
NORTH \_\_\_\_\_

ACID TEST

FOOTAGE

100'			
50°			

INCLINATION

DIP 45°  
AZIMUTH 180°

DRILLING CONTRACTOR Bradley  
RIG No: 36  
CASING SIZE BW  
BIT SIZE \_\_\_\_\_  
CORE SIZE BQ

LENGTH 67.3 m  
COMMENCED 28.06.78  
COMPLETED 29.06.78

CASING REMOVED  YES  NO

PLASTIC PIPE (LENGTH) 67.3 m

CORE STORED IN \_\_\_\_\_

CORE LOGGED

BY W. Gehnsch  
DATE 30.06.78

### DOWN HOLE LOGGING

INSTRUMENT Mt Sopn's 1000BP AI-54  
PROBE 131, AI-6-20  
OPERATOR René Fortin  
DATE 29.06.78

### CHEMICAL ASSAYS

LAB \_\_\_\_\_  
DATE \_\_\_\_\_

FOOTAGE		GEOLOGICAL DESCRIPTION	CORE REC. %	CHEMICAL ASSAY					
FROM	TO			SAMPLE			U <sub>3</sub> O <sub>8</sub> (ppm)		
				NO.	FROM (FT.)	TO (FT.)			
0	14'	Over burden							
14'	68 <sup>08</sup>	pink "Granite" medium to coarse and very coarse grained.							
		20' : joints at 45° to c.a.							
		35' : joints at 20° to c.a., with thin black aphanitic coating.							
		44 <sup>06</sup> : joints 30° to c.a.							
		46 <sup>08</sup> : 10 cm of Quartz							
		56 <sup>04</sup> : 1 cm shear zone at 55° to c.a., with green, greasy material.							
		62'-63' : fracture, // to c.a.							
		∴ 65'-68 <sup>08</sup> : cataclastic, highly fractured "granite"							
68 <sup>08</sup>	71'	<u>Volcanics</u> chloritic, highly fractured, partly micritic, with Biotite - crystals, up to several mm in φ.							
		69 <sup>09</sup> : little hematization							
71'	221'	pink "Granite", medium to coarse to very coarse grained.							



# URANERZ EXPLORATION AND MINING LIMITED

## DIAMOND DRILL LOG

PROJECT No: 71-85

HOLE No: 27

PROPERTY: Beaver Lake

CLAIM No: 361659-5

### MAIN GRID LOCATION

### DRILL GRID LOCATION

EAST 4880  
NORTH 3385  
ELEVATION \_\_\_\_\_

EAST \_\_\_\_\_  
NORTH \_\_\_\_\_

### ACID TEST

FOOTAGE

100'			
53°			

INCLINATION

DIP

45°

AZIMUTH

180°

DRILLING CONTRACTOR Bradley

LENGTH 67.3 m

RIG No: 36

CASING SIZE BW

COMMENCED 01.07.78

BIT SIZE \_\_\_\_\_

CORE SIZE BQ

COMPLETED 02.07.78

CASING REMOVED  YES  NO

PLASTIC PIPE (LENGTH) \_\_\_\_\_

CORE STORED IN \_\_\_\_\_

### CORE LOGGED

BY W. Gehrisch

DATE 02.07.78

### DOWN HOLE LOGGING

INSTRUMENT Mt Sopris, 1000 BP

PROBE 131, AI-6-20

OPERATOR R. Fortin

DATE 02.07.78

### CHEMICAL ASSAYS

LAB \_\_\_\_\_

DATE \_\_\_\_\_

AI-5-4



FOOTAGE

CORE LOG

CHEMICAL ASSAY

FROM	TO	GEOLOGICAL DESCRIPTION	CORE REC. %	SAMPLE			U <sub>3</sub> O <sub>8</sub> (ppm)
				NO.	FROM (FT.)	TO (FT.)	
0	18'	<u>Oolite</u>	99%				
18'	120'	"Granite", pink to beige, medium to coarse grained, with chlorite mts, some of which are chloritized garnets (in some cases, remnants of these garnets are still recognizable)					
		27' - 28' } fractured					
		31' - 32' }					
		34 <sup>05</sup> - 36 }					
		39' - 40' - fracture // to c.a.					
		45 <sup>06</sup> - 49 <sup>05</sup> very coarse grained, partly pegmatitic sections.					
		51' } 30cm					
		52' } 10cm pegmatitic sections					
		53' } 10cm					
		60' } shear zones with green aphanitic material, 45° to c.a.					
		65' }					
		67' } 10cm					
		72 <sup>06</sup> } 10cm pegmatitic sections.					
		78 <sup>04</sup> shear zone at 45° to c.a. with green aphanitic material.					

FOOTAGE		GEOLOGICAL DESCRIPTION	CORE REC. %	CHEMICAL ASSAY		
FROM	TO			SAMPLE NO.	FROM (FT.)	TO (FT.)
		78 <sup>04</sup> - 79 <sup>05</sup> fractured				
		79 <sup>05</sup> - 90 <sup>05</sup> fracture,    to c.a.				
		90 <sup>05</sup> - 92 fractured, at 90° to c.a.				
		94 <sup>08</sup> } shear zones with green aphanitic material, at 45° to c.a.				
		101 <sup>10</sup> }				
		104 <sup>04</sup> - 105 <sup>08</sup> brecciated, chloritized				
		107 <sup>1</sup> - 108 <sup>1</sup> } very coarse grained, fractured, chloritized in the vicinity of fractures.				
		109 <sup>02</sup> - 110 <sup>05</sup> }				
		111 <sup>04</sup> - 117 <sup>08</sup> very coarse to extremely coarse grained (pegmatitic) with little or no mica.				
120'	181 <sup>04</sup>	<u>Alternation of "Granite" and "Quartz-Biotite Gneiss</u> (medium to fine grained), foliation at 50 to 55° to c.a.				
		Quartz-Biotite-Gneiss sections at:				
		120' - 123' (with chloritic shear zone at 120 <sup>01</sup> )				
		124 <sup>10</sup> - 125 <sup>11</sup> (with irregular contact to top granite)				
		156 <sup>06</sup> - 157 (with intercalation of 5cm of granite)				
		159 - 159 <sup>06</sup>				

FOOTAGE		CORE LOG	CORE REC. %	CHEMICAL ASSAY			
FROM	TO			SAMPLE			U <sub>3</sub> O <sub>8</sub> (ppm)
				NO.	FROM (FT.)	TO (FT.)	
		160' (3cm)					
		160 <sup>08</sup> (18cm)					
		162' - 166 <sup>05</sup>					
		169 <sup>05</sup> (10cm)					
		170 <sup>02</sup> (3cm)					
		170 <sup>05</sup> - 171 <sup>04</sup>					
		178 <sup>10</sup> - 181 <sup>04</sup> (with 5 cm of pegmatitic section and hematized fracture at 181 <sup>03</sup> )					
181 <sup>04</sup>	221'	<u>"Granite"</u>					
		187 <sup>10</sup> : 10 cm of Qu-Bi. Gneiss with hematized fracture					
		196 <sup>00</sup> : 30 cm of Qu. Bi. Gneiss with cloudy contacts to "Granite".					
		205-206 <sup>08</sup> fractured					
		at 210 : slightly altered (?) section					
		217 : chloritic shear zone.					

# URANERZ EXPLORATION AND MINING LIMITED

## DIAMOND DRILL LOG

PROJECT No: 71-85

HOLE No: 28

PROPERTY: Beaver Lake

CLAIM No: 361659-4

### MAIN GRID LOCATION

### DRILL GRID LOCATION

EAST 4750  
NORTH 3520  
ELEVATION ^

EAST \_\_\_\_\_  
NORTH \_\_\_\_\_

### ACID TEST

FOOTAGE

INCLINATION

49°	44°		
100'	205'		

DIP

AZIMUTH

45°

180°

DRILLING CONTRACTOR Bradley

RIG No: 36

CASING SIZE BW

BIT SIZE \_\_\_\_\_

CORE SIZE BQ

LENGTH 62.6 m

COMMENCED 4.07.78

COMPLETED 7.07.78

CASING REMOVED  YES  NO

PLASTIC PIPE (LENGTH) 62.6 m

CORE STORED IN \_\_\_\_\_

### DOWN HOLE LOGGING

INSTRUMENT Mt. Sopris 1000BP AI-5-4

PROBE 131 AI-6-20

OPERATOR R. Fortin

DATE 7.07.78

### CORE LOGGED

BY W. Gehrisch

DATE 7.07.78

### CHEMICAL ASSAYS

LAB \_\_\_\_\_

DATE \_\_\_\_\_

FOOTAGE		GEOLOGICAL DESCRIPTION	CORE REC. %	CHEMICAL ASSAY			
FROM	TO			SAMPLE		U <sub>3</sub> O <sub>8</sub> (ppm)	
				NO.	FROM (FT.)		TO (FT.)
0	60'	Overburden	99%				
60'	205'	"granite", medium to coarse grained.					
	62' - 64' <sup>05</sup>	fractured, at different angles to c.a., with thin black to green aphanitic coating.					
	71' <sup>03</sup>	shear zone with chlorite, at 35° to c.a.					
	73' <sup>09</sup>	mica on 60°-shear face					
	83' <sup>03</sup> - 85'	fractured					
	83' <sup>03</sup> - 91' <sup>09</sup>	pegmatitic section with large mica crystals (>5cm)					
	122' <sup>10</sup>	} 5cm Quartz-sections					
	136						
	142						
	137' <sup>04</sup> - 137''	pegmatitic section					
	157	joint // to c.a.					
	18.8 - 195	fractured and altered section					

# URANERZ EXPLORATION AND MINING LIMITED

## DIAMOND DRILL LOG

PROJECT No: 71-85

HOLE No: 29

PROPERTY: Beaver Lake

CLAIM No: 361659-4

### MAIN GRID LOCATION

### DRILL GRID LOCATION

EAST 4750  
NORTH 3555  
ELEVATION \_\_\_\_\_

EAST \_\_\_\_\_  
NORTH \_\_\_\_\_

ACID TEST  
FOOTAGE  
INCLINATION

100'			
45°			

DIP 45°  
AZIMUTH 180°

DRILLING CONTRACTOR Bradley  
RIG No: 36  
CASING SIZE BW  
BIT SIZE \_\_\_\_\_  
CORE SIZE BQ

LENGTH 72.8 m  
COMMENCED 08.07.78  
COMPLETED 09.07.78

CASING REMOVED  YES  NO  
PLASTIC PIPE (LENGTH) \_\_\_\_\_

CORE STORED IN \_\_\_\_\_

CORE LOGGED  
BY W. Gehrisch  
DATE 08.07.78

### DOWN HOLE LOGGING

INSTRUMENT Mt. Sopris 1000BP AL  
PROBE 131, AL-6-20  
OPERATOR R. Fortin  
DATE 08.07.78

### CHEMICAL ASSAYS

LAB \_\_\_\_\_  
DATE \_\_\_\_\_

FOOTAGE		GEOLOGICAL DESCRIPTION	CORE REC. %	CHEMICAL ASSAY			
FROM	TO			SAMPLE			U <sub>3</sub> O <sub>8</sub> (ppm)
				NO.	FROM (FT.)	TO (FT.)	
0	40'	Overburden	99%				
40'	240'	<u>Granite</u> light-pinkish, medium to coarse grained.					
	41" - 43"	joint with chlorite and epidote-coating, at 30° to c.a.					
	50" - 51" } 55' - 55" }	two sections with lots of vugs and hematization					
	57"	joint with chlorite at 45° to c.a.					
	58"	fractures with hematite-coating and hematization of rock. 45° to c.a.					
	65' to 99"	fractures at 30°, 45° and 60° to c.a.					
	99" to 105"	Pegmatite zone, fractured and altered.					
	141' - 143'	fractures // to c.a.					
	148"	Shear zone at 60° to c.a., with chlorite (4 cm).					
	161" - 162"	Pegmatite zone to c.a.					
	168' - 172'	Pegmatite zone, fractures at 30° to c.a.					





# URANERZ EXPLORATION AND MINING LIMITED

## DIAMOND DRILL LOG

PROJECT No: 7/-85

HOLE No: 30

PROPERTY: Beaver Lake

CLAIM No: 361659-4

### MAIN GRID LOCATION

### DRILL GRID LOCATION

EAST 4550

EAST \_\_\_\_\_

NORTH 3420

NORTH \_\_\_\_\_

ELEVATION \_\_\_\_\_

ACID TEST

FOOTAGE

INCLINATION

100'			
48'			

DIP 45°

AZIMUTH 180°

DRILLING CONTRACTOR BRADLEY

LENGTH 53.0 m

RIG No: 36

COMMENCED 10.07.78

CASING SIZE BW

BIT SIZE \_\_\_\_\_

CORE SIZE BQ

COMPLETED 12.07.78

CASING REMOVED  YES  NO

### DOWN HOLE LOGGING

PLASTIC PIPE (LENGTH) 53.0 m

INSTRUMENT Mt-Sopris 1000BP AT-5

PROBE \_\_\_\_\_

OPERATOR R. Fortin

CORE STORED IN \_\_\_\_\_

DATE 12.07.78

CORE LOGGED

CHEMICAL ASSAYS

BY \_\_\_\_\_

LAB \_\_\_\_\_

DATE 12/07/78

DATE \_\_\_\_\_

HOLE NO: 30		URANIFEROUS EXPLORATION AND MINING Beaver Lake		PAGE 1 OF					
FOOTAGE		CORE LOG		CHEMICAL ASSAY					
FROM	TO	GEOLOGICAL DESCRIPTION	CORE REC. %	SAMPLE		U <sub>3</sub> O <sub>8</sub> (ppm)	Cu (ppm)		
				NO.	FROM (FEET) IN			TO (FEET) IN	
0	50	Overburden		3012	27.4	28.0	164.	↑	6
50	68	Gneiss (?) (0-68': casing)		3013	28.0	28.5	173.	↑	11
68	90	Gneiss (no core recovery, highly weathered)		3014	28.5	29.00	256.	↑	15
90	107	"Granite"		3015	29.0	29.50	240.	↓	5
		90' shear zone with dark green aphanitic material.		3016	29.5	30.0	88.3		6
		91' bundle of fine (thin) fractures, filled with red and yellow Fe-oxides.		3017	30.0	30.5	17.1		4
		92 <sup>05</sup> -94 <sup>04</sup> highly fractured and sheared, black aphanitic material		3018	30.5	31.0	18.7		4
				3019	31.0	31.5	14.6		4
				3020	31.5	32.0	41.6		3
				3021	32.0	32.5	29.8		4
				3022	32.5	33.0	28.8		4
				3023	33.0	33.5	144.	↑	4
				3024	33.5	34.0	115.	↑	5
				3025	34.0	34.5	96.	↑	5
				3026	34.5	35.0	159.	↑	3
		95' mylonitic zone, 3 cm wide, at 25° to c.a., with hematitic matrix. Hematite both below and above this section.		3027	35.0	35.5	795.	↑	5
				3028	35.5	36.0	391.	↓	7
		101' fractured, with red and yellow Fe-oxides.							
		103-107 <sup>06</sup> intense Fe- and Cu-stain on fractures.							
		105 <sup>06</sup> 8 cm of Gneiss with Fe- and Cu-stain on fractures.							

FOOTAGE		GEOLOGICAL DESCRIPTION	CORE REC. %	CHEMICAL ASSAY					
FROM	TO			SAMPLE		U <sub>3</sub> O <sub>8</sub> (ppm)			
				NO.	FROM (FT.)			TO (FT.)	
107	111	<u>Gneiss</u>							
		108: Fe-stain on fracture							
111	113	<u>Contact</u> Gneiss - Granite is not well defined. Gneiss is inter-fingered with pegmatitic granite and merges into pegmatitic granite with schlieren of chlorite.							
113	174	<u>"Granite"</u>							
		115: 20 cm of pegmatitic granite with chlorite schlieren.							
		116-117. Fractures with Fe-stain, olive green coating with soft amorphous material and another black metal oxide as coating.							
		117-119 heavy Fe-stain on fractures.							
		120 shear zone // to c.a.							
		128: blue green coating on fracture.							
		133: dark blue green coating on fracture.							
		147: Fe (Hem.) and Cu (?) staining on fractures.							



# URANERZ EXPLORATION AND MINING LIMITED

## DIAMOND DRILL LOG

PROJECT No: 71-85

HOLE No: 31

PROPERTY: Baver Lake

CLAIM No: 361659-4

### MAIN GRID LOCATION

### DRILL GRID LOCATION

EAST 4550

EAST \_\_\_\_\_

NORTH 3458

NORTH \_\_\_\_\_

ELEVATION \_\_\_\_\_

### ACID TEST

FOOTAGE

100'		200'	
42°		42°	

INCLINATION

DIP 45°

AZIMUTH 180°

DRILLING CONTRACTOR BRADLEY

LENGTH 85.6 m

RIG No: 36

CASING SIZE BW

COMMENCED 13/07/78

BIT SIZE \_\_\_\_\_

CORE SIZE BQ

COMPLETED 14/07/78

CASING REMOVED  YES  NO

PLASTIC PIPE (LENGTH) 85.6 m

### DOWN HOLE LOGGING

INSTRUMENT Mt-Sopris 1000 BP, AI-5

PROBE 131, AI-6-20

OPERATOR B. Leppin

CORE STORED IN \_\_\_\_\_

DATE 14/07/78

### CORE LOGGED

### CHEMICAL ASSAYS

BY \_\_\_\_\_

LAB \_\_\_\_\_

DATE \_\_\_\_\_

DATE \_\_\_\_\_

FOOTAGE

CORE LOG

CHEMICAL ASSAY

FROM	TO	GEOLOGICAL DESCRIPTION	CORE REC. %	SAMPLE			U <sub>3</sub> O <sub>8</sub> (ppm)
				NO.	FROM (FT.)	TO (FT.)	
0	20'	<u>Overburden</u>					
20'	87 <sup>06</sup>	fractured and highly weathered "Granite", mostly coarse grained, pinkish to yellowish to beige.					
87 <sup>06</sup>	210 <sup>06</sup>	<p>volcanic pipe/dike rock type: (andesitic?)</p> <p>olivine basalt, with silica deficiency. <u>nonmetamorphic!</u></p> <p>Phenocrysts: olivine, chlorite, Biotite + chromite(?)</p> <p>87<sup>06</sup> - 89<sup>08</sup>: highly weathered to soft olive-green material</p> <p>87<sup>06</sup> - 92': alternation of granite and volcanic, with highly altered (contaminated) contacts of the granite.</p> <p>95' - 115' some fragments of the enclosing rock of the pipe within the volcanic rock (size of a fist and bigger) highly altered.</p> <p>104<sup>07</sup> - 150': rock is altered.</p> <p>115' - 150': the volcanic rock is frequently loaded with fragments of the</p>					

FOOTAGE

CORE LOG

CHEMICAL ASSAY

FROM	TO	GEOLOGICAL DESCRIPTION	CORE REC. %	SAMPLE			U <sub>3</sub> O <sub>8</sub> (ppm)
				NO.	FROM (FT.)	TO (FT.)	
		<p>enclosing rock (granite, gneiss etc.). The fragments are altered. In one case hematization is apparent.</p> <p>150' - 210<sup>06</sup> partly fractured (with some carbonate on fracture and cavities) non altered volcanics enclosing some pockets (size of a fist) of denudified rock fragments from the wall rock of the pipe, these are white in colour. Some of these fragments are reduced to a <sup>very fine and</sup> pure white material.</p>					
210 <sup>06</sup>	211 <sup>06</sup>	highly contaminated granitic contact-zone					
211 <sup>06</sup>	224	highly fractured "Granite" with formation of black aphanitic material and partly with neo-formation of biotite along fractures. 215-216: occurrence of disseminated bright bluish green soft mineralization in Granite.					
224	281	Fracturing is still very intense in part 243' : 3 cm chlorite on shear (?) - zone From 250' : the Granite gets more					





# URANERZ EXPLORATION AND MINING LIMITED

## DIAMOND DRILL LOG

PROJECT No: 71-85

HOLE No: 32

PROPERTY: Beaver Lake

CLAIM No: 361659-A

MAIN GRID LOCATION

DRILL GRID LOCATION

EAST 4475

EAST \_\_\_\_\_

NORTH 3438

NORTH \_\_\_\_\_

ELEVATION \_\_\_\_\_

ACID TEST

FOOTAGE

100'		230'	
38°		36°	

INCLINATION

DIP 45°

AZIMUTH 180°

DRILLING CONTRACTOR BRADLEY

LENGTH 71.0 m

RIG No: 36

CASING SIZE BW

COMMENCED 14/07/78

BIT SIZE \_\_\_\_\_

CORE SIZE BQ

COMPLETED 16/07/78

CASING REMOVED  YES  NO

PLASTIC PIPE (LENGTH) 36.6 m

DOWN HOLE LOGGING

INSTRUMENT ht-5000's 1000 BP, AI-5-

PROBE 131, AI-6-20

OPERATOR R. Fortin

DATE 16/07/78

CORE STORED IN \_\_\_\_\_

CORE LOGGED

BY W. Geirisch

DATE \_\_\_\_\_

CHEMICAL ASSAYS

LAB \_\_\_\_\_

DATE \_\_\_\_\_

FOOTAGE		CORE LOG	CORE REC. %	CHEMICAL ASSAY			
FROM	TO			SAMPLE			U <sub>3</sub> O <sub>8</sub> (ppm)
		GEOLOGICAL DESCRIPTION	NO.	FROM (FT.)	TO (FT.)		
0	24	<u>Overburden</u>					
24	39	<u>"Granite"</u> , very coarse grained to pegmatitic, pink in colour, little mica (if any), some chlorite, fractured.					
39	145	<u>Quartz and granite</u> alternating, with more quartz at the top and more granite at the bottom part. The whole section is intensely fractured, especially in between 61' and 79'. Rusty stain all over.					
		→ At 77': little more than 10 cm of the highly weathered, nonmetamorphic soft <u>volcanic rock</u> of BH 31. The rock is so fractured here, that no contacts are preserved.					
		Schistosity of the quartz is mainly at about <u>35° to e.d.</u> , but ranges from 25° to 50°!					
145	233	pink <u>"Granite"</u> , coarse grained, with small intercalations of quartz at: 150' (30 cm); 153 (10 cm); 157 (20 cm); 197' (10 cm); 201 (3 cm). Fe-stain on fractures throughout					



# URANERZ EXPLORATION AND MINING LIMITED

## DIAMOND DRILL LOG

PROJECT No: 71-85

HOLE No: 33

PROPERTY: Beaver Lake

CLAIM No: 361659-3

### MAIN GRID LOCATION

### DRILL GRID LOCATION

EAST 4400  
NORTH 3420  
ELEVATION \_\_\_\_\_

EAST \_\_\_\_\_  
NORTH \_\_\_\_\_

ACID TEST  
FOOTAGE  
INCLINATION

100'			
244'			

DIP 45°  
AZIMUTH 180°

DRILLING CONTRACTOR BRADLEY  
RIG No: 36  
CASING SIZE EW  
BIT SIZE \_\_\_\_\_  
CORE SIZE BQ

LENGTH 52.1m  
COMMENCED 17/07/78  
COMPLETED 18/07/78

CASING REMOVED  YES  NO  
PLASTIC PIPE (LENGTH) \_\_\_\_\_

CORE STORED IN \_\_\_\_\_

CORE LOGGED  
BY \_\_\_\_\_  
DATE \_\_\_\_\_

### DOWN HOLE LOGGING

INSTRUMENT Mart-Sopris, model 7000 BT  
PROBE 131, AT-6-20  
OPERATOR E. Leppin  
DATE 18.07.78

### CHEMICAL ASSAYS

LAB \_\_\_\_\_  
DATE \_\_\_\_\_

FOOTAGE		GEOLOGICAL DESCRIPTION	CORE REC. %	CHEMICAL ASSAY			
FROM	TO			SAMPLE NO.	FROM (FT.)	TO (FT.)	U <sub>3</sub> O <sub>8</sub> (ppm)
0	9'	<u>overburden</u>					
9	71	<u>"Granite"</u> coarse grained, pink to light greenish, partly rich in chlorite.  14' : 5 cm of Gneiss  14-32 partly highly fractured and Fe-stain on fractures.  50 to 56 : shear zone // to c.a.					
71	77	<u>Gneiss</u> , medium grained					
77	171	<u>"Granite"</u> , pink to greenish, coarse grained, partly rich in chlorite.  77-125 : moderately fractured, partly with black aphanitic material on fractures  125-171 intensely fractured with minor sections not affected. many fractures are coated with black or light green aphanitic or greasy material. Some shear zones. Rock tends from pinkish to reddish. partly very coarse grained to pegmatitic					

# URANERZ EXPLORATION AND MINING LIMITED

## DIAMOND DRILL LOG

PROJECT No: 71-85

HOLE No: 34

PROPERTY: Beaver Lake

CLAIM No: 361659-4

### MAIN GRID LOCATION

### DRILL GRID LOCATION

EAST 4606

EAST \_\_\_\_\_

NORTH 3380

NORTH \_\_\_\_\_

ELEVATION \_\_\_\_\_

ACID TEST

FOOTAGE

100			
46°			

INCLINATION

DIP 45°

AZIMUTH 360°

DRILLING CONTRACTOR Bradley

LENGTH 67.0 m

RIG No: 36

CASING SIZE BW

COMMENCED 19.07.78

BIT SIZE \_\_\_\_\_

CORE SIZE BQ

COMPLETED 20.07.78

CASING REMOVED  YES  NO

PLASTIC PIPE (LENGTH) NO

### DOWN HOLE LOGGING

INSTRUMENT Mt. Sopris 1000 BP-AI-5

PROBE 131, AI-6-20

OPERATOR R. Fortin

CORE STORED IN \_\_\_\_\_

DATE 20.07.78

CORE LOGGED

CHEMICAL ASSAYS

BY W. Gehrish

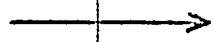
LAB \_\_\_\_\_

DATE 21.07.78

DATE \_\_\_\_\_

FOOTAGE		CORE LOG	CHEMICAL ASSAY			
FROM	TO		CORE REC. %	SAMPLE		U <sub>3</sub> O <sub>8</sub> (ppm)
		NO.		FROM (FT.)	TO (FT.)	
0	20	<u>Overburden</u>				
20	112	<p><u>Volcanics</u> <u>nonmetamorphic</u> dike (!) - (olivine - Basalt?) with remnants of desilicified wall rock, ranging from 1 cm to the size of a child's fist. Some of these remnants show reaction rims. Some carbonate on fractures.</p> <p>Phenocrysts: olivine, biotite, chromite (?) or ilmenite (?), and a non identified reddish brown mineral.</p> <p>20 - 25' : weathered.</p> <p>62 - 78' : green Cu (?) mineralizations in several parts</p> <p>79 : hematite + chalcopyrite</p> <p>79 - 81<sup>04</sup> } remnants of strongly hematized and contaminated granitic rock.</p> <p>86 - 87<sup>07</sup> }</p> <p>81<sup>04</sup> - 87 : the volcanic rock is very fine-grained (chilled) and partly altered to soft olive green material.</p>				
112	117	<u>Q.B. - Gneiss</u> , fine grained, dark, partly hematized.				

FOOTAGE		GEOLOGICAL DESCRIPTION	CORE REC. %	CHEMICAL ASSAY		
FROM	TO			SAMPLE NO.	FROM (FT.)	TO (FT.)
117	130	Alternation of granitic to pegmatitic rock, containing biotite rich schlieren - with Q.B. - Gneiss. Some Fe-stain on fractures.				
130	130 <sup>09</sup>	<u>Volcanics, non metamorphic!</u>				
130 <sup>09</sup>	132	<u>Q.B. Gneiss</u>				
132	220	"Granite", medium to coarse grained. Many fractures have green to dark green coating (except on the last 30'), some have Fe-stain.  132-136. Partly pegmatitic, partly biotite rich to quartzitic and highly fractured. Some Fe-stain on fractures.  173 <sup>08</sup> - 174 <sup>02</sup> non metamorphic volcanics with reaction rims on both sides.				





# URANERZ EXPLORATION AND MINING LIMITED

## DIAMOND DRILL LOG

PROJECT No: 71-85

HOLE No: 35

PROPERTY: Beaver Lake

CLAIM No: 361659-4

### MAIN GRID LOCATION

### DRILL GRID LOCATION

EAST 4475  
NORTH 3355  
ELEVATION \_\_\_\_\_

EAST \_\_\_\_\_  
NORTH \_\_\_\_\_

ACID TEST

FOOTAGE

INCLINATION

100'			
47°			

DIP 45°

AZIMUTH 360°

DRILLING CONTRACTOR BRADLEY

LENGTH 46m

RIG No: 36

CASING SIZE BW

COMMENCED 21.07.78

BIT SIZE \_\_\_\_\_

CORE SIZE BQ

COMPLETED 22.07.78

CASING REMOVED  YES  NO

PLASTIC PIPE (LENGTH) \_\_\_\_\_

CORE STORED IN \_\_\_\_\_

### DOWN HOLE LOGGING

INSTRUMENT Mt-Sopris 1000BP, AT-5

PROBE 131, AI-G-20

OPERATOR R. Fortin

DATE 21.07.78

CORE LOGGED

BY W. Gehrlich

DATE 22.07.78

### CHEMICAL ASSAYS

LAB \_\_\_\_\_

DATE \_\_\_\_\_

FOOTAGE		CORE LOG	CORE REC. %	SAMPLE			U <sub>3</sub> O <sub>8</sub> (ppm)
FROM	TO			NO.	FROM (FT.)	TO (FT.)	
0	12'	<u>Overburden</u>					
12	32 <sup>08</sup>	<u>Granite</u> , coarse grained to very coarse grained, partly pegmatitic. Containing chloritized garnet. Fe-stain on fractures.					
		15 <sup>06</sup> - 16 } Gneiss, fine grained					
32 <sup>08</sup>	37 :	Gneiss with granitic sections at 36' and 36 <sup>03</sup>					
37	151	<u>"Granite"</u> , with chloritized garnet, coarse to very coarse grained.					
		37 - 60' : cataclastic, chlorite rich (schlieren filling the cracks). colour ranging from bright greenish-white to pink.					
		42 : highly fractured					
		50 : shear zone					
		65-66 : fracture // to c.a.					
		76 : 30 cm chlorite-rich, pegmatitic.					
		84 : fracture with black aphanitic material. Granite contains amphibole and pyrite.					
		89 : Fe-stain on fracture					
		96 : green coating on fracture					

