

# MAR 19770022: JOHNSON LAKE

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PRELIMINARY REPORT

PROJECT A-76-1

JOHNSON LAKE PROPERTY, ALBERTA

PERMIT # 6876090003

September 26, 1977

ECONOMIC MINERALS  
FILE REPORT No.  
44-AF-135(3)

INTRODUCTION:

The initial field evaluation is at present in the final completion stages. Data compilation and final reports should be completed by the end of October. Final costs for the program will not be available until all invoices have been received.

Exploration being conducted on the permit during the first term consists of:

Lake sediment geochemistry

Lake water geochemistry

Surface prospecting

Radon soil gas and/or water determinations

VLF - EM test surveys

Office compilation of existing data

Aerial photograph examination (including Landsat Imagery)

## GENERAL DISCUSSION:

The lake sediment and water results are included as a separate preliminary report. Delays in receiving the laboratory analytical results, in conjunction with an unusually rainy field season were directly responsible for late commencement of the field aspects of this program.

The geochemical program returned extremely low metal values, which indicates a poor potential for near-surface uranium enrichment within the property. The geochemistry did not outline any target areas to concentrate surface exploration on. These poor results led to the surface exploration on the permit being de-emphasized. Exploration is being concentrated along the trend of a northeast basement structural break, as is evident from the regional airborne magnetic coverage.

The best remaining potential for uranium mineralization is along the Precambrian-Paleozoic unconformity surface. Without lake geochemical responses to guide follow-up exploration possible Paleozoic drainage systems on the Precambrian unconformity appear to be the best target. Basement structural control is most likely for such stream systems.

The northwest trending structural break thus forms the loci for the best potential area for uranium mineralization.

Access trails were observed present within the southern portion of the permit. Drill sites along access trails suggests that possibly seismic or shallow stratigraphic tests were conducted within the area. Attempts are being made to locate and obtain any seismic or drill hole data relevant to the Permit. Such information would be quite useful in evaluating the uranium potential of the Permit.

PROGRAM RESULTS:

The lake geochemistry results are negative and did not locate areas warranting follow-up work.

Surface prospecting and other surface exploration activities are in the final stages of completion and to date no target areas for further exploration have been defined.

CONCLUSIONS:

1. Surface exploration methods have not located mineralizations or indications of mineralization warranting follow-up exploration.
2. Sub-surface information may be available relevant to the Permit and at present attempts are being conducted to locate such information.
3. The best target area for uranium mineralization would be the Paleozoic -Precambrian unconformity in conjunction with a northeast trending basement structural break.

RECOMMENDATIONS:

1. The Permit should be reduced to a smaller size protecting the loci of the potential structural break.
2. Further exploration should initially consist of an airborne survey with high resolution magnetics and electromagnetic coverage.
3. If airborne coverage returns favorable responses an additional surface program of detailed geochemical and geophysical exploration will be required to help define drill targets.
4. A recommendation to conduct drilling would have to await further results.

PROPOSED WORK PROGRAM: 1977-1978 SEASON

1. Pre-field and office	\$2,000.00
2. Airborne electromagnetic and magnetic survey 100 line miles ( $\frac{1}{4}$ mile spacing) estimate of \$35.00 per mile	\$3,500.00
3. Provision for ground geophysical detailing of electromagnetic conductors and/or magnetic features. 15 line miles @ \$500.00 per mile	\$7,500.00
4. Provision for detailed geochemistry if required.	\$3,000.00
	<hr/>
TOTAL	\$ 16,000.00
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PROJECT A-76-1

PERMIT # 6876090003

Estimate of Program Expenditures. 1976-1977 Field Season

Pre-field and Office support	\$ 3,000.00
Lake geochemistry Program	1,430.00
Surface exploration	20,000.00
Compilation of final reports and office	3,000.00
	<hr/>
	\$ 27,430.00
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September 1, 1977

PROJECT A-76-1  
JOHNSON LAKE PROGRAM  
GEOCHEMICAL RESULTS

19770022

- See the plastic insert  
@ the back for the maps  
mentioned below.

INTRODUCTION:

J. Sciarra  
26-April-06.

A lake water and sediment sampling program was conducted on the Johnson Lake Permit on June 11, 1977. However, the analytical results were not received until August.

The scarcity of lakes and rugged nature of the terrain resulted in a low sample density and high cost per sample collected.

The lakes are generally small and shallow containing brown organic rich waters. Well developed oozes were not common. A large amount of bottom vegetation and a high clay or silt content were often present. The Johnson Lake sediment samples contained a considerable number of snail shells.

During the sampling program a number of tractor roads and seismic trails were noted, especially within the southern portion and south of the permit.

The presence of a manned forestry firetower and useable forestry air strip were also observed immediately southwest of the permit.

SURVEY RESULTS:

The geochemical analyses for 'U' in water and U, Cu, Pb, Zn, Ni, Co and Mo in lake sediments are included within the appendix. Sample locations and the results for 'U' in water and U, Zn, and Pb in sediments are plotted on enclosed maps (scale 1 inch = 1 mile).

The metal values obtained were extremely low, with the exception of Zn. Higher concentrations were obtained for Zn from the central portion of the permit. The presence of Paleozoic shelf-facies lithologies are reported in this region. During the ground evaluation the possibility of Zn mineralization should be kept in mind.

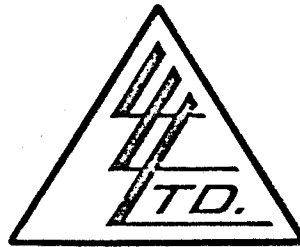
No uranium targets were indicated by the lake geochemical program.

RECOMMENDATIONS:

1. The ground evaluation programs should concentrate on the northeast trending structural breaks suggested by the regional aeromagnetic coverage.
2. The recommended surface work would include reconnaissance prospecting coverage and profiles across the magnetic break with VLF-EM, radon soil gas and radon water surveys. Ground magnetic coverage may also be useful.
3. If seismic coverage is available it should be reviewed and incorporated into a compilation map. Information relative to the Precambrian unconformity surface would be especially useful.

The coincidence of a Paleozoic channel with a Precambrian structural break could exist as a potential drill target.

To: TAIC CONSULTANTS LTD.,  
 Suite 205, Fina Oil Building,  
 736 - 8th Avenue S. W.,  
 CALGARY, Alberta T2P 1H4



File No. 13591  
 Date July 18, 1977  
 Samples Lake Bottom Sediment

ATTN: R.K. Netolitzky

cc: LaRonge  
 Lynn Lake

*Certificate of*  
**ASSAY of**  
**LORING LABORATORIES LTD.**

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SAMPLE No.	PPM U308	PPM Cu	PPM Pb	PPM Zn	PPM Ni	PPM Co	PPM Mo
EBS-99	1.8	10	10	44	14	10	3
EBS-101	1.6	9	12	97	14	10	NSS
EBS-102	1.2	6	14	69	21	19	2
EBS-103	1.8	6	9	63	14	11	1
EBJ-5	.4	3	10	19	10	8	3
EBJ-6	NIL	4	17	21	14	11	5
EBJ-9	.6	3	10	51	8	6	4
EBJ-10	NIL	1	17	34	14	13	5
EBJ-12	.2	3	7	76	8	4	2
EBJ-13	.2	2	7	127	10	6	2
EBJ-14	.2	1	7	46	8	6	2
EBJ-16	.8	9	5	76	7	4	1
EBJ-17	.4	5	4	64	4	4	2
EBJ-18	.4	5	5	98	7	4	4
EBJ-19	.2	4	5	200	5	6	NSS
EBJ-20	.6	6	4	103	8	6	4
EBJ-21	.6	5	5	70	8	6	NSS
EBJ-23	.4	6	5	138	7	6	4
EBJ-24	.4	5	4	162	8	4	3
EBJ-26	.2	4	4	147	8	4	3
EBJ-27	.4	5	4	94	5	4	1
EBJ-28	.2	3	14	78	11	11	4
EBJ-29	.4	4	7	79	2	4	2
EBJ-30	.8	6	4	180	5	4	3
EBJ-31	.8	5	5	100	5	4	2
EBJ-50	.8	3	4	46	5	4	5
EBO-1S	1.6	3	5	45	5	4	4
EBO-2S	1.4	1	5	44	4	4	2
EBO-3S	1.6	10	17	105	20	24	2
EBO-4S	.8	4	7	139	8	6	3
EBO-5S	2.0	5	5	47	11	4	4

I **Hereby Certify** THAT THE ABOVE RESULTS ARE THOSE  
 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES . . . .

Rejects Retained one month.  
 Pulps Retained one month  
 unless specific arrangements  
 made in advance.



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Geochemical Lab Report

Report No. 713-7

Page No. 3

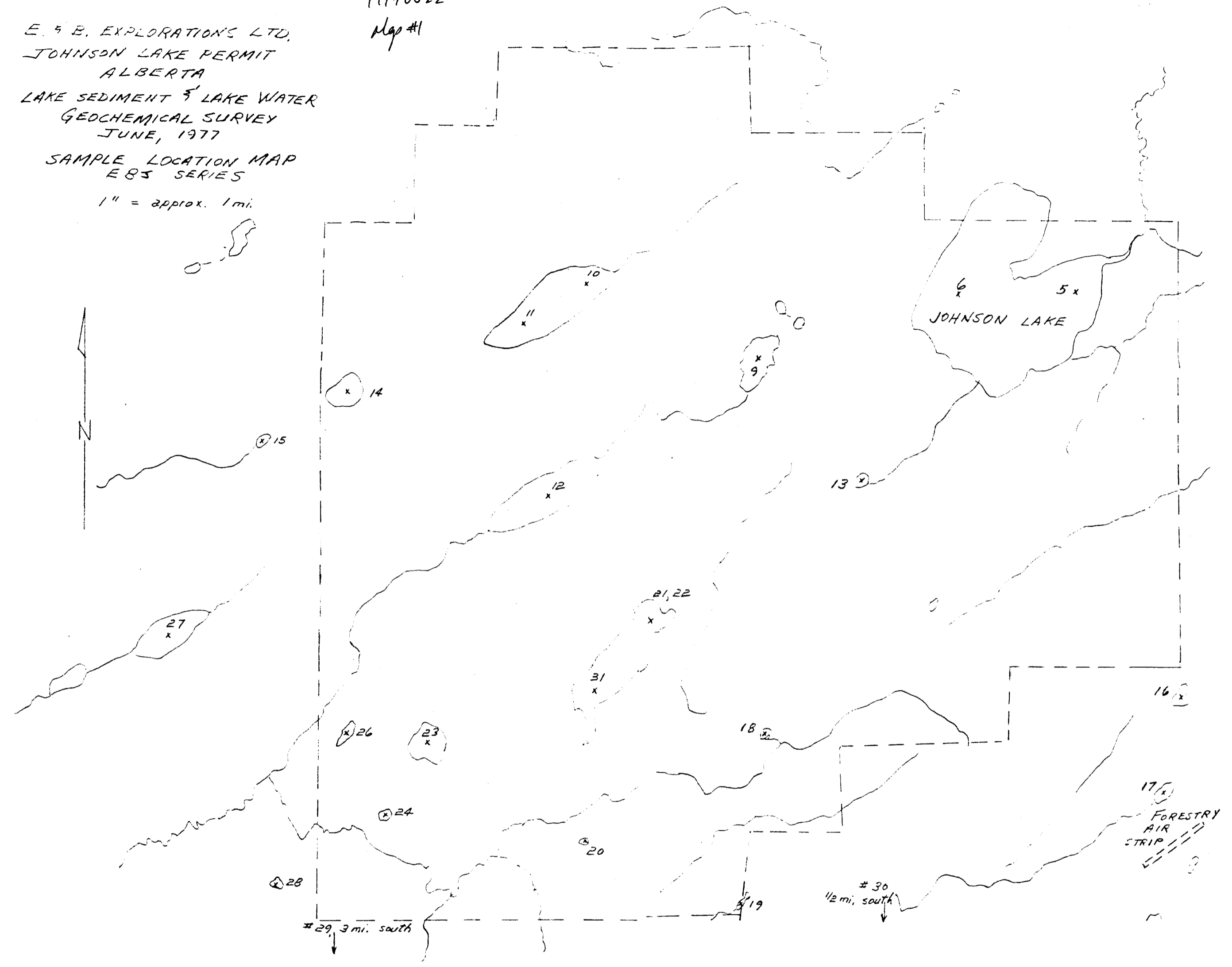
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38  
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107

SAMPLE NO.	U ppb	SAMPLE NO.	U ppb
EBO 03	0.10	EBO 41	0.05
04	0.14	43	0.07
05	0.02	44	0.13
06	0.08	46	0.11
07	0.19	47	0.07
08	ND	48	0.14
09	0.02	49	0.10
10	0.07	50	0.05
11	0.07	51	0.07
12	0.12	52	0.15
13	0.02	53	0.01
14	0.02	EBJ 05W	0.05
15W	0.15	06	0.14
16	0.15	09	ND
17	0.17	10	0.13
18	0.12	12	0.01
19	0.11	13	ND
20	0.07	14	0.12
21	0.11	16	0.08
23	0.10	17	0.11
24	0.09	18	ND
26	ND	19	0.16
27	0.11	20	ND
28	0.07	21	0.13
29	0.12	23	0.10
30	0.06	24	0.05
31	0.11	26	0.13
32	0.11	27	0.09
33	0.13	28	0.08
34	0.08	29	0.05
35	0.01	30	0.10
36	0.09	31	0.09
37	0.07	EBV 01W	0.11
38	0.11	02	0.15
39	0.06	03	0.15
40	0.06	04	0.11

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E. & B. EXPLORATIONS LTD.  
 JOHNSON LAKE PERMIT  
 ALBERTA  
 LAKE SEDIMENT & LAKE WATER  
 GEOCHEMICAL SURVEY  
 JUNE, 1977  
 SAMPLE LOCATION MAP  
 EBS SERIES

1" = approx. 1 mi.



19770022

Map #2

E. & B. EXPLORATIONS LTD.  
 JOHNSON LAKE PERMIT  
 ALBERTA  
 LAKE SEDIMENT & LAKE WATER  
 GEOCHEMICAL SURVEY  
 JUNE, 1977  
 SAMPLE LOCATION MAP  
 EBS SERIES

1" = approx. 1 mi.

ppb U in lake waters  
 N.D. not detected

ppm U } lake sediments  
 ppm Zn }  
 ppm Pb }

