A Qualifying 43-101 Report

On the

Crackingstone River-Ruza Property (CRR Property) Beaverlodge District SE of Uranium City Saskatchewan

> NTS 74 N/10 SE

For

Belmont Resources Inc. & International Montoro Resources Inc.

By

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Compilation Map – Back Pocket

Summary

Belmont Resources Inc. and International Montoro Resources Inc. have entered into an option agreements with Ruza Resources Ltd., whereby Belmont and Montoro may acquire 100% interest in a property consisting of 1 (one) claim, identified as S-108022, 750 hectares in size, more or less, located in the Crackingstone River area, 8 km SW of Uranium City in Northern Mining district of Saskatchewan, NTS 74-N-10-SE. The UTM coordinates for the property, are from 626700E to 629250E to at 6599600N to 6602900N. The centre of the property is located at latitude 59 deg 30.5' and longitude 108 deg 44.3'.

This report assesses the mineral potential of the property, of which uranium is the principal mineral of interest. The author visited the property from May 25 to May 28, 2006, and conducted three traverses over the south, central and northern portion of the property. A total of twenty samples were taken from various locations along these three traverses. The locations, descriptions and assays for these samples are tabulated in appendix "A". Two days was spent in Regina's ministry assessment office, selecting the appropriate assessment reports of work performed by previous exploration companies on the property and surrounding area. Numerous geological and geophysical reports and maps pertaining to the Beaverlodge and East Athabasca Basin areas were obtained from the Saskatchewan Geological Survey and Geological Survey of Canada's web site. The author has summarized briefly in this report the work carried out by these two agencies

The author also summarized all previous known exploration work, as listed by L.S. Beck, in his report of 1969 on the "Uranium Deposits of the Athabasca Region".

The author has used a variety of information from numerous reports to describe the geological, structural and mineralogical setting of the uranium mineralization of the property and Beaverlodge area.

The report is to be used by Belmont Resources Inc. and International Montoro Resources Inc., to support any filings with the TSX Venture Exchange, the British Columbia Securities Commission and/or any other regulatory bodies.

The property is located 8 km southwest of the community of Uranium City, via an all weather gravel based road known as the Black Bay road, which crosses the southeast portion of the property and terminates at Bushell located at the northern tip of Bushell Inlet, on the north shore of Lake Athabasca. A hydro electric power line, that provides power to Uranium City and area, crosses the southern portion of the property and the road at a point 8.5 km southwest from Uranium City. The road branches off south southeast at the 8 km mark and continues southeasterly to the Lorado, Cinch and Box Mine. Two old tote roads leads to the southern and northern portion of the property.

Past production came from four of these outside occurrences; the Cinch, Lorado, Rix Smitty and Leonard Occurrence. The Cinch and Rix Smitty mine produced a total 1,869,000 lbs of U3O8.

The property is located within the eastern portion of the Southern Zemlak geological domain of the Rae Province, which forms part of the Western Churchill sub-province.

There were two main phase of exploration activity on the property by Rix Athabasca Uranium Mines Ltd and Amax Athabasca Uranium Mines Ltd., (1949 to 1958) and by Mukta Canada Ltd (1967-1969). The three companies carried out traditional prospecting with Geiger counter and scintilometer, trenching, geological mapping followed up with diamond drilling the strongest radioactive showings.

The author describes in this report, 18 uranium showings located on the property, as listed and described by Beck (1969). Information from all available sources, indicate that these showings have been trenched and sampled and tested by numerous short diamond drill holes. Only a few of the showings were drill tested to a depth of 200 to 300 feet. Two parallel uranium bearing shear/fracture zones, located on the northern portion of the property and along the Chance Lake Fault Zone (Beck # 95 showing), were tested with 41 shallow percussion drill holes and 7 diamond drill holes along a 500 meters strike distance. Additional percussion and diamond drilling was carried out beyond the northern boundary of the property. The percussion drill holes were tested down hole with a scintilometer probe to measure the radioactive response of the rocks intersected in the drill holes.

Two bulk samples were taken from two showings located on the property. The first was a 46 ton hand sorted bulk sample from the Amax's 50-CC1-80 (Beck's # 58) showing assaying 0.5% U3O8. A second 6.5 ton hand sorted bulk sample, was extracted from Mylo's Lease (Rix # 49-CC1-4) assaying 0.5% Uranium. Rix Athabasca Uranium Mines Ltd reported a grab assay of 12.53% U3O8 from the Rix #59 (Beck #93) showing located in the southwestern portion of the property, just south of the power line.

Numerous other uranium showings occur proximal to the property. Most of the adjacent ground to the north, east and south of the property is presently held by Red Rock Energy Inc., GLR Resources, JNR Resources, CanAlaska and Rod Budnik. The grounds west, northwest and some to the southwest is presently open for staking. The author recommends staking this open ground.

The uranium mineralization in the Beaverlodge area, is localized within altered, silicified brittle, brittle-ductile and ductile sheared rocks contained within the Archean crystalline basement and Paleoproterozoic Martin Group rocks. The uranium deposits in the area can be classified into two type based on there mineralogy: A) a large group of deposits consists of deposits of simple mineralogy;

B) a much smaller group consists of deposits with more complex mineralogy. Only uranium deposits (or occurrences) of simple mineralogy have been found on Montoro-Belmont present property holding. However, this does not exclude the possibility of finding deposits with complex mineralogy on the property.

The author has concluded that the property warrants further exploration work to test the depth and structure of the known occurrences and to test the unexplored sections , such as the areas of extensive overburden in the central portion of the property, where the Chance Lake, Boom Lake (Eric) Leonard faults intersect with the Crackingstone fault. Further exploration should be carried out in the southwesterly extension of the Chance Lake and Boom Lake fault located in the southwest portion of the property. Further exploration should be carried out northeasterly and southwesterly along the Chance Lake fault and Crackingstone fault located beyond the north and west property boundary, if the Montoro-Belmont is successful in acquiring the open ground in these two areas.

Introduction

Northern Saskatchewan has the richest and largest reserves of uranium in the world. It is important to remember that the Beaverlodge area along the north shore of Lake Athabasca was and still is an important metallogenic province of uranium which extends into northeastern Alberta and north into the Northwest Territories. The Crackingstone River-Ruza property (CRR) is located 8 km southwest from Uranium City, in the Northern Mining district of Saskatchewan. The property is favorably located within the intensely granitized and sheared eastern boundary of the Zemlak Domain near its contact with the Beaverlodge Domain which both form part of the southern Rae Province. A major fault, the Black Bay Fault, is located near the southeast corner of the property. The Black Bay Fault forms the common boundary between the Zemlak and Beaverlodge Domain. The rocks within this area consist of Archean crystalline basement rocks overlain by Paleoproterozoic Martin Group and late Paleoproterozoic Athabasca Group.

The Beaverlodge mining area has been explored for uranium, gold, copper and nickel.

There are two styles of uranium mineralization as documented by Beck (1969). Uranium mineralization occurs as four different environments in the Beaverlodge area: 1) Uranium bearing pegmatites, 2) Uraninite in country rocks, 3) pitchblende vein deposits with complex mineralogy, and 4) pitchblende vein deposits with simple mineralogy. The later two types are the main ore source for uranium in the Beaverlodge area.

Review of the assessment files in Regina, indicates that only two major phases of uranium exploration activity took place on the property and vicinity. These periods were between 1949 and 1957 (Rix Athabasca Uranium Mines Ltd and Amax Athabasca Uranium Mines Ltd) and from 1967 to 1969 (Mukta Explorations (Quebec). Most of the uranium occurrences were found during the first phase using a standard scintilometer (Geiger counter) followed by detailed scintilometer surveys of the uranium occurrences found by Geiger counters. This work was followed by trenching and sampling followed by diamond drill hole testing of the more promising showings. Mokta followed up on the more promising showings that were not fully tested in the 1st phase.

The bulk of uranium production in the Beaverlodge area came from the Fay-Ace, Verna-Bolger, Hab, Rix Smitty, Cinch Lake, Cayzor, Dubyna Lake, Gunnar and other small deposits for a total production of 70,250,000 lbs U3O8 averaging 0.24 % U3O8. The grades ranged from 0.18% to 0.43%. The largest deposit was the Fay-Ace Deposit which produced 30,000,000 lbs of U3O8. The Cinch Lake, Rix Smitty and Leonard, St Michael and Cayzor deposit are located within the Black Bay Shear Zone. Most of the uranium deposits and occurrences are contained within brittle and brittle-ductile fractured and sheared rocks.

Recent geological mapping and studies of the uranium mineralization in the Beaverlodge and Athabasca Basin areas, by the Saskatchewan Geological Survey (Energy and Mines) and the Geological Survey of Canada (GSC) has provided much better understanding of the nature and emplacement of the uranium mineralization in these areas. Similarly, new and more detailed radiometric surveys by the Geological Survey of Canada (GSC) have been carried out over the area which has provided much valuable information on the radiometric susceptibility of the rocks of the area.

The uranium mineralization in the province occurs in two main areas, representing two different metallogenic origins: 1) epigenetic veins of the Beaverlodge district along the north shore of Lake Athabasca, and the unconformity-type deposits located mostly near the eastern margin of the Athabasca Basin. However, some of the uranium mineralization in the Beaverlodge area may be of the unconformity type and occurring at the unconformity between the basement complex and the Martin Group. This suggests that the epigenetic veins in the Beaverlodge area may have been originally unconformity type and that the overlying younger sediment have been eroded and that only the uranium mineralization in the basement rock remains. The uranium mineralization on the Ruza (CRR) property is of the epigenetic vein type, simple mineralogy type deposits.

Recent price increases for uranium has generated considerable interest on both areas and has generated considerable staking and re-staking in these areas. Recent studies on the origin and deposition of uranium mineralization in these areas has been carried out.

The author has concluded that the Beaverlodge should be re-investigated for its uranium potential and other metallic minerals such as gold.

Scope of the Report

This report was prepared by R.A. Bernatchez, P. Eng., at the request of Gary Musil, president, CEO and director of International Montoro Resources Inc. and Belmont Resources Inc. as a qualifying report (43-101). This report is based on a 4 day property visit and the research of the government geological reports available from the Saskatchewan Geological Survey and the Geological Survey of Canada, and the assessment files of the Saskatchewan Geological Survey and the Saskatchewan Mineral Resource Data Base in Regina.

Four days was spent conducting three east-west traverses across portions of the south central and northern section of the property. Two days was spent before and after the property visit, reviewing the available assessment report files in Regina for photocopying and detail review. Several geological reports and maps were obtained through the internet from the provincial and federal web sites.

Disclaimer

The author has made every effort to assure the accuracy of the data as presented to him from the assessment files at the Saskatchewan Mineral Resources office in Regina, Saskatchewan. The information may be used on the strict understanding that, neither, the author or the agent shall be liable for any inaccuracy provided to him.

Location and Access

The property is located between latitudes 59 deg 31' and 59 deg 33', longitudes 108 deg 43' and 108 deg 46' and at NTS location 74N/10SE, Uranium City Sheet. Its UTM coordinated are located between 6599700mN and 6603000mN and 626700mE and 629200mE, Zone 12, Nad 83.

There are no roads leading into Uranium City. The community is serviced via air service trough Transwest Airlines with an airstrip at the Beaverlodge Airport, 10 km east of Uranium City. Regular scheduled is available from Saskatoon, Saskatchewan on a 3 day week flights on Monday, Wednesday and Friday. The community is also accessible in the summer by barge and winter road from Fort McMurray, Alberta, along the Hay river and Lake Athabaska at Fort Chipewyan. There are four other communities located along the north shore of Lake Athabasca; they are Camsell Portage, 40 km to the west, Fond-du-Lac and Stoney Rapids, 80 and 170 km respectively, to the east. The last two communities are also on the Transwest Airline's route from Saskatoon to Uranium City.

The roads render access to the former producing uranium mines such as the Eldorado, Fay-Ace and Verna to the east and to the Rix Smitty, Cinch, and Lorado and to the former producing gold Box Mine to the southwest. New forest growth may impede access to some of the mine sites, such as to the Rix Smitty and Leonard mine.

The center of the property is located approximately 8 km southwest of the community of Uranium City. Uranium City has a population of about 50 residents at the time of the author's visit. The community has limited infrastructure and services.

The property consists of one (1) unsurveyed and mining claim numbered S-108022, constituting 750 hectares more or less. An all-seasons gravel based road crosses the southeastern portion of the property and a second road branches south and southeast to the former Lorado, Cinch and Box mine site. The main southwest road through the property leads to the former loading docks at the north end of Bushel Inlet located on the north shore of Lake Athabasca and 500 meters from the south boundary of the claim. The main hydro power line for the Uranium City area, crosses diagonally through the south and west boundary of the property.

The winter temperatures range from -8deg C to -32 deg C whereas the summer temperatures range from +12deg C to 21deg C with highs of 25deg C to 35deg C. The annual average rainfall is 224mm with the heaviest precipitation from May to October. The amount of snowfall averages 215 mm with heaviest from November to January.

Lakes freezes over in late September to early October and stays till May. Lake Athabasca is the largest lake, followed by Beaverlodge, Martin, Fredette, Nero, Cinch, Jean Lake, with numerous other small lakes scattered throughout the area.

The vegetation is of the boreal forest type, with small scattered trees on the hills. The valleys are filled with gravel and drift. The main tree species are the Black spruce, jack

pine, white pine, birch and poplar. The low areas are muskeg, swamps, and bogs, grass, shrubs, moss and lichens. Large areas have bedrock outcrop exposures of over 50% with an average 0f 15%.

Infrastructure and services are limited in the community of Uranium City. Some services, such as line cutters and stakers, can be obtained locally. Limited transportation, such as $\frac{1}{2}$ ton 4x4 trucks and accommodations with meals, are available locally.

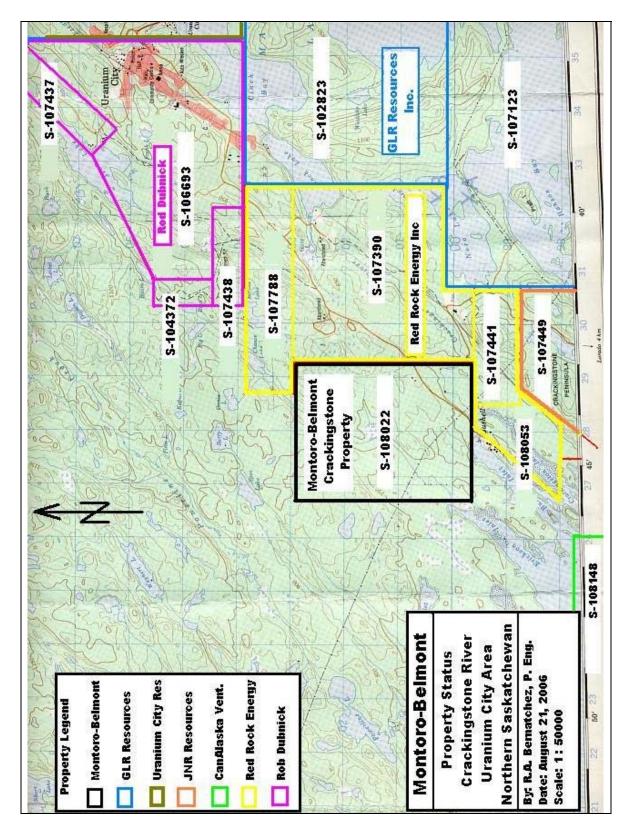


Figure -1-Map showing road access, property location, other staked ground and topography of the area.

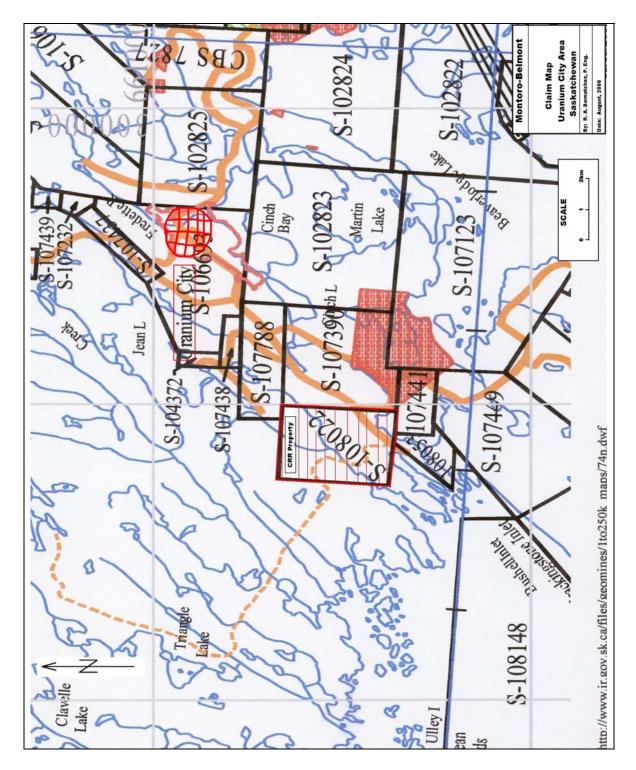


Figure – 2 - Claim map of the Uranium City area, Northern Saskatchewan

Physiography (See topographic map above)

The topography of the area is typical of Precambrian peneplain of Canada with low relief and a drainage consisting of numerous lakes separated by hummocky rock ridges, muskeg and drift-covered areas. Lake Athabasca is the most dominant feature in the area followed by Beaverlodge and Martin Lake.

The elevation of Lake Athabasca is 211.5 m above sea level. The area has moderately high hills with the highest up to 450 meters. Beaverlodge Mountain rises 419.7 m above sea level.

Local topography is often extremely rugged and is a result of differential erosion, controlled by bedrock lithology and structure. Amphibolite and gabbro are the most resistant rocks and form prominent ridges. Felsic intrusive rocks, migmatite and paragneiss present a variable resistance to erosion. Clastic cover rocks are easily eroded to form low, flat areas of monotonous relief. The topography of the Uranium City and immediate vicinity of the claim area has northeast trending ridges, which is heavily influenced by the Black Bay Fault Shear Zone. This major shear zone originates southwest under Lake Athabasca. This major shear structure is visible at the north end of Erickson, Bushel and Crackingstone inlets near the south boundary of the property. A swampy area is located in the central portion of the property which trends east northeast and is probably caused by a major eat northeast fault zone known as the Crackingstone Fault. This structure extends north eastward into Cinch Lake. The uranium mineralization at the Cinch Lake Mines is contained at the intersection point of Cinch Lake fault and the eastern edge of the Black Bay Shear Zone.

The outcrop exposure on the property is excellent on the high ground and ridges. Two prominent low swampy areas are located within the northeast and central portion of the property. The high ground areas have thin overburden. The excellent outcrop exposure is due to three recent fires that covered most of the property area in the 1982, 1984 and 1986 (see map and satellite photo).

Faults and shear zones generally form scarps and topographic depressions which are clearly visible on satellite photo. Strike faults are not easily distinguishable from lineaments formed from differential erosion of adjacent softer rocks.

Rounded hills, roches moutonnes and ice grooving are clear evidence of erosion during a Pleistocene ice sheet that moved southwestwards across the area.

Two creeks trending drain southwest through the northeast and central swamp and continue southwesterly and discharges into Erickson Inlet of Lake Athabasca. A third creek, the Crackingstone Creek, which originates from Cinch Lake, drains through the southeast corner of the property. This creek veers northwesterly for a short distance near the southeastern corner of the property near post # 2 of the claim property.

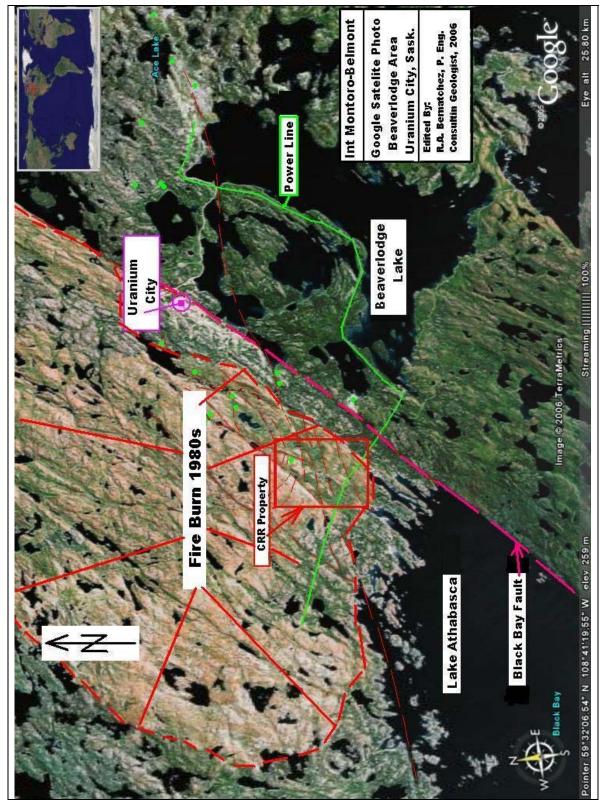


Figure – 3 - Satellite photograph of the Crackingstone river area showing extent of the mid 1980s forest fires.

Previous Geological Surveys

The Beaverlodge area was mapped by several individuals working for the Geological Survey of Canada and the Saskatchewan Geological Survey. There work is listed below;

Geological Survey of Canada Mapping

- 1875 Map showing the route traveled by Prof. John Macoun M.A. from Forks of Peace and Smoky rivers to Carlton House, Saskatchewan River.
- 1897 D.B. Dowling and C.O. Senegal map the country between Lake Athabasca and Churchill River. This is the first geology map of north shore of Lake Athabasca.
- 1917 J.O. Fortin explored route between Lake Athabasca and Great Slave Lake on the Tazin, Taltson Slave and Peace Rivers in Alberta, Saskatchewan and Northwest Territories.
- 1923 F.J. Alcock and C. Camsell map the Lake Athabasca, Saskatchewan and Alberta
- 1936 F.J. Alcock Maps the Tazin Lake Sheet, Northern Saskatchewan
- 1936 F.J. Alcock Maps the Goldfields area, northern Saskatchewan.
- 1952 A.M. Christie maps the Goldfields-Martin Lake area, Saskatchewan.
- 1969 L.P. Tremblay maps the Beaverlodge Mining area, Saskatchewan
- 1971 A.G Darnley and R.L. Grasty report on the first radiometric survey over the Beaverlodge area.
- 2001 J.M. Carson, P.B. Holman, R.B.K. Shives, K.L. Ford, K Ashton and W. Slimmon, Report on an airborne geophysical survey, which includes Radiometric and Magnetic surveys, on Zemlak and Beaverlodge area.
- 2005 J.M. Carson, P.B Holman, K.L. Ford, RBK Shives, Report on a Canada wide Radiometric Survey which included the Beaverlodge area.

Saskatchewan Geological Survey

1962 – R.G. Agerwal – Regional correlation of Geological and Geophysical Data of the Lake Athabasca Area, Northern Saskatchewan.

- 1985 R. Macdonald and W.L. Slimmon Bedrock Geology of the Greater Beaverlodge Area, NTS 74-N-6 to N11, Saskatchewan Energy and Mines, Map 241A, Scale 1:100,000
- 1989 I.R. Annesley and C. Madore, Miscellaneous Report 89-4 The Wollaston Group and its Underlying Archean Basement in Saskatchewan, titled 'Field Investigations and Preliminary Observations'.
- 1989 M.H. Gunning Progress on the Tazin Lake Map area (74-N) for Development of a new NTS based Metallogeny Database Series
- 1989 E.C. Agerwal Field Observations on the Frontier, Box and Athona Granites, Goldfields Area, Saskatchewan.
- 2000 K.E. Ashton, J. Kraus and R. Morelli Geology of the Beaverlodge Area, Part of NTS 74-N-7 to N-10, Preliminary Map (2000), Scale - 1:20,000.
- 2001 I.R. Annesley, C. Madore and J. Cutler Synchrotron X-ray Analysis of Graphitic Pelitic Gneiss in the Vicinity of Unconformity -Type Uranium mineralization.
- 2001 I. Lambert, A. McKay and Y. Miezitis Geology of uranium Deposits, Nuclear Issues Briefing Paper #34
- 2001 K.H. Mahan, M.L. Williams, J.A. Baldwin and S.A. Bowring Juxtaposition of Deep Crustal and Middle Crustal Rocks across the Legs Lake Shear Zone in Northern Saskatchewan.
- 2003 K.E. Ashton and R.C. Hunter Geology of the LeBlanc-Wellington Lakes Area, Eastern Zemlak Domain, Rae Province (Uranium City Project).
- 2003 C.D. Card, J.E. Campbell and W.L. Slimmon Basement Lithologic Framework and Structural features of the Western Athabasca Basin.
- 2003 C.T. Harper Misc. report 2003-7 Geology and Mineral and Petroleum Resources of Saskatchewan, pages 78 to 100.
- 2003 R.C. Hunter, K.M. Bethune and K.E. Ashton Stratigraphic and Structural Investigations of the Thluicho Lake Group, Zemlak Domain, Rae Province, (Uranium City Project)
- 2004 K.E. Ashton and R.C. Hunter Geology of the Camsell Portage

Area, South Zemlak Domain, Rae Province. (Uranium City Project)

2004 – R.C. Hunter, Bethune, G.M. Yeo and K.E. Ashton – Investigations of the Thluicho Lake Group. A Stratigraphic, Structural and Tectonic Perspective, (Uranium City Project)

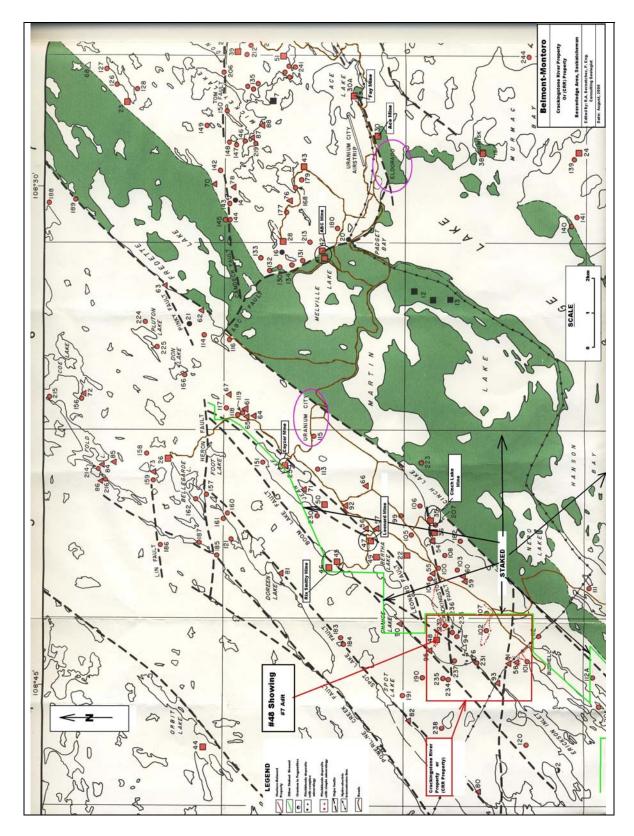


Figure – 4 - Map showing mineral occurrence identified in Beck's 1969, Report # 126, Uranium Deposits of the Athabasca Region.

General Geology

The following is a summary of the rock formation found in the Beaverlodge area as mapped by Beck (1960), Tremblay (1969) and Saskatchewan Geological Survey' 2000 Summary of Investigation, Volume 2, "Uranium City Revisited – A new look at the rocks of the Beaverlodge Mining Camp".

Summary of Formations

	Stable Bloc	cks Linear Belts	
Cenozoic		Glacial Drift	
		Great Unconformity	
Proterozoi	2	Diabase dykes and gabbro sills	
		Intrusive Contact	
Cover Roc	ks	Athabasca Formation	
		Unconformity (?)	
		Martin Formation	
		Unconformity	
		Hales Lower Athabasca	
		Unconformity	
	Pegmatites	Plugs and sills of granites of varying	
		composition including alkali granites	
	Intrustivo oo	and pegmatites (Type Y granites)	
Pre- and syn-tectonic grand		Adamellite in batholith	
	Intrusive co	ntact	
(Tvi	be O granites)	Small bodies of pre- and syn-tectonic	
		ranodiorite-adamellite (Type O granite	
		l contact	
	ite-and biotite-hornblende		
Archean-	gneisses, garnetiferous gneisses, gneisses of variable mafic content;		
Or hornblende-pyroxene gneiss and locally garnetiferous.			
Aphebian	granulite.		
- Basement	G	radational contact	
Complex	Marble, diopside-	Volcanic flows and tuffs, chlorite-	
	serpentine rocks	epidote rocks, conglomerates,	
		quartzite, meta-greywacke, meta-	
		argillite, limestone, I.F.	

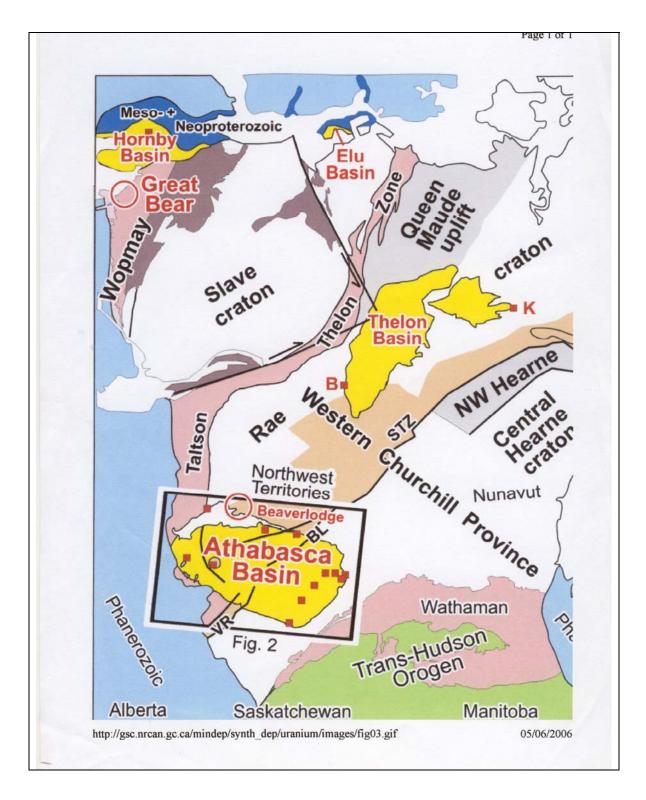
Regional Geology of the Beaverlodge Area

The geology of the region lies within the Churchill Structural Province of the Canadian Shield. It is underlain by an Archean or Aphebian sequence of paragneiss with minor metasedimentary, volcanic and basic intrusive rocks to which the Rae Craton has been applied. The Rae Craton is bounded by two tectonic zones: the Taltson-Thelon Zone to the northwest and the BL-ST Zone to the southeast. The southern portion of the Rae Craton is covered by the younger Athabasca Basin sediments. The Rae Craton covers most of the northern shore of Lake Athabasca.

The Rae Craton north of Lake Athabasca has been sub-divided into seven (7) domains. From east to west, they are the: Dodge Domain, Tantato Domain, Train Domain, Beaverlodge Domain, Zemlak Domain, Ena Domain and the Nolan Domain. The sequence of rocks within these domains have been regionally metamorphosed and intruded or replaced in part by granite rocks during the Hudsonian Orogeny at about 1750 – 1950 m.y. ago. In places, flat lying or gentle folded successions of conglomerate, arkose, sandstone, siltstone, and basalt flows, probably Palaeohelikian age, are referred to as the cover rocks, which lie with marked unconformity on the peneplaned basement rocks. Lake basic dykes cut all rocks of the region.

The basement rocks are severely folded along dominant northeasterly-trending axes. The folding is mainly isoclinal but some open folds of large amplitudes occur. Cover rocks north of Lake Athabasca are folded in broad open folds with axial traces roughly parallel to those in the basement. In contrast, the Athabasca Formation, south of Lake Athabasca is mainly flat lying.

Three prominent sets of faults, referred to as either early or late faults, trend east, northeast, and northwest and transect all rocks in the region. In the basement rocks, linear belts of mylonite and breccia, ranging from a few feet to several hundreds of feet in width, are commonly associated with the late faults, and are considered to represent a set of earlier thrust faults.



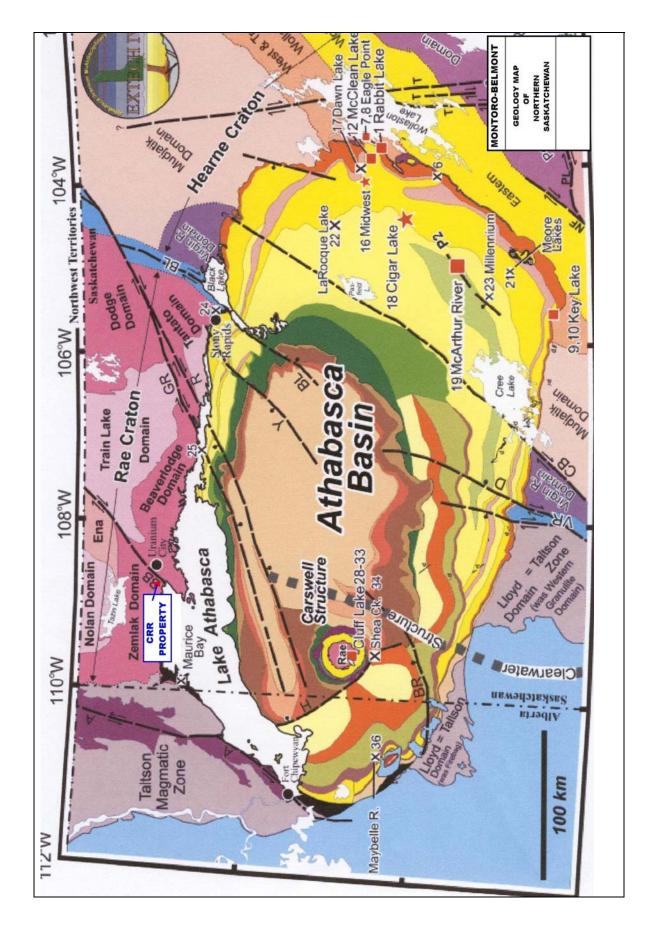


Figure – 5a and 5b – (see above) Geology Map Showing Property Location, the Rae Craton,

Hearn Craton, Zemlak and Beaverlodge Domains, and the Athabasca Basin of Northern Saskatchewan.

The circa 3.0 Ga granite basement is unconformably overlain by a dominantly siliciclastic sedimentary sequence containing abundant quartzite, and subordinate amounts of basalt, iron formation, carbonate, psamatite and pelite, along with gabbroic to komatiitic intrusive rocks. This dominant sedimentary package was originally considered part of the Tazin Group (Alcock, 1936: Christie, 1953), but was subsequently termed the Fay Mine complex in the vicinity of Eldorado's Ace-Fay-Verna mine complex and Murmac Bay Formation (Tremblay, 1972; subsequently modified to Murmac Bay Group (Macdonald, 1983) south of the St. Louis Fault in the Beaverlodge Lake area. Previous workers have suggested that the Fay Mine Complex and the Murmac Bay Group are correlative. Recent findings by the Saskatchewan Geological Survey, supports the later view, the term Murmac Bay Group has been adopted in this report.

The Murmac Bay Group was deformed and metamorphosed (M1) at conditions locally reaching as high as upper amphibolite facies prior to the intrusion of an apparently single suite of coarse-grained granite plutons including the Gunnar, Macintosh Bay, Cameron Island, Stephens Lake and Dead Man Channel granites. Previous efforts to dates this suite of intrusions have yielded U-Pb zircon ages ranging from ca. 2.18 Ga to 2.44 Ga (Persons, 1983; Van Schmus et al., 1986; Bickford et al., although ongoing geochronological studies suggest that at least, the Dead Man Granite may be as old as 2.64 Ga.

The Murmac Bay Group was also intruded by abundant gabbroic sills and by medium grained leucocratic granites including an inclusion-rich variety which invades the supracrustal rocks in the northeast (formerly referred to as "Donaldson Lake Gneiss") and a pink homogeneous variety which occurs as small intrusions throughout (e.g. Box Mine Granite). There may be several ages of pink leucogranite.

A second, younger set of mafic intrusions in the form of locally cross-cutting dykes is distinguished from the older gabbro sills based on their thinner nature, the more acicular habit of the hornblende, and by their lower metamorphic grade (the gabbro sills exhibit local M2? partial melting) together with rare medium-grained to pegmatitic granite dykes. They are considered ramifications of the Peleoproterozoic Trans-Hudson Orogeny, which is also thought to have produced a third metamorphic event (M3) along with the dominant northeast-trending folds.

The siliciclastic package was later unconformably overlain by both the ca. 1.8 Ga to 1.75 Ga Martin Group red beds, which are themselves folded about a north-northeast-trending axis, and by the flat lying , ca. 1.75 to 1.7 Ga Athabasca Group.

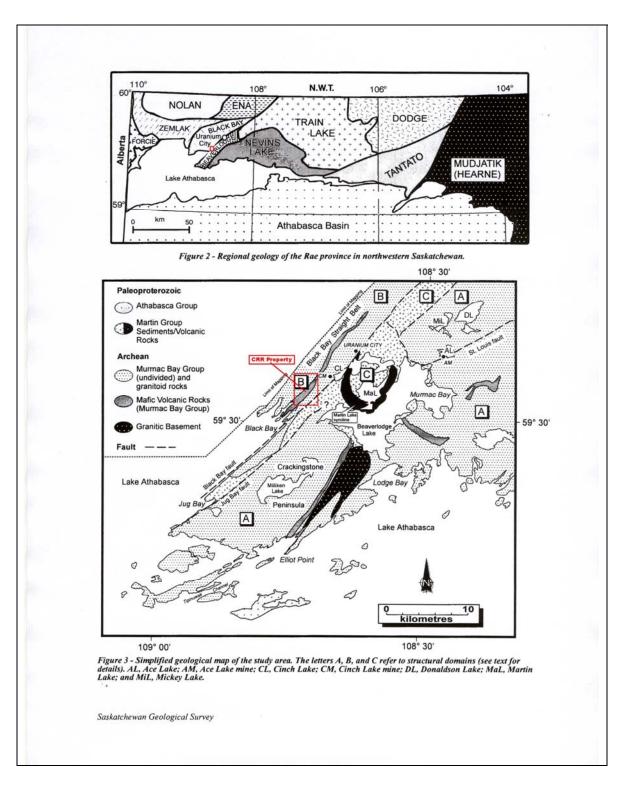


Figure – 6 – Geology of the Uranium City and Crackingstone peninsula.

Local Geology - Unit Description

The property is located within the Murmac Bay Group which forms part of two domains: the Zemlak and Beaverlodge Domain. The Black Bay Fault is the dividing line between the two domains. The rocks adjacent to the Black Bay Fault have been highly sheared, metamorphosed, foliated and in some places mylonitized. Below is a detailed description of the rocks found on the property and in surrounding areas. The rock descriptions have been taken from the Saskatchewan Energy and Mines, Saskatchewan Geological Survey's Summary of Investigation 2000, Volume 2, "Uranium City Revisited: A new look at the Rocks of the Beaverlodge Mining Camp", by K.E. Ashton, J. Kraus, R.P. Hartlaub, and R. Morelli.

a) Basement Rocks

The circa 3.0 Ga Lodge Bay and Elliot Bay granites, comprise homogeneous, mediumgrained, leucocratic granitoid rocks containing up to 3% chlorite replacing biotite. As with most rocks in the region, the basement rocks are variably strained, ranging from weakly foliated to mylonitic. Due to the masking effects of this deformation and the broad similarity of younger granitoid rocks, the basement granites may be more abundant than previously recognized.

b) Murmac Bay Group

<u>Quartzite</u>

Quartzite occurs throughout the area but is particularly abundant in the east. Most is white orthoqartzite containing minor sericite, although hematization related to the Martin and Athabasca group unconformities has produced widespread ferruginous varieties, particularly along the eastern Crackingstone Peninsula. Rarely preserved primary features include trough and planar cross bedding and ripple marks. The contact with the basement granites is generally a high-strain zone up to several meters thick, but the local absence of this deformation suggests that it is an unconformity which has been variably affected by the contact strain.

Variants of the quartzite include oligomictic conglomerate, grits feldspathic quartzite and calcareous quartzite. The oligomictic conglomerate ranges from clast to matrix supported, is poorly sorted and is characterized by sub-angular to sub-rounded ovoid quartz(ite?) pebbles up to 3 cm long by 1.5 cm wide in a fine-grained to gritty matrix. It is interlayered with finer-grained quartzite on a centimeter to meter scale and apparently forms a continuous unit several meters thick. The main unit is intraformational, occurring about 100 m stratigraphically above the basement unconformity, which infers a beach or shallow marine rather than fluvial setting for the quartzite unit. Assuming that the clasts are locally derived from earlier lithified quartzite, the oligomictic conglomerate could mark a marine transgression (i.e. disconformities), a storm deposit, or an episode of dipslip faulting. The conglomerate is especially common at the southern end of the

Beaverlodge Lake, where one occurrence is underlain by a meter-scale wedge of coble to boulder conglomerate typified by more angular quartzite clasts ranging from 5 to 10 cm in size. This may represent one of several channel deposits which were supplying sediment to the more continuous conglomerate sheet.

The "grits" comprise 1 to 2 mm quartz grains in a finer quartzite matrix. They are most common in the southeast Crackingstone Peninsula, where they occur as lenticular sheets typically interlayered with finer-grained orthoquartzite on a scale of a few centimeters.

Feldspathic quartzite occurs both as gradational units between quartzite and more psammitic sedimentary rocks and in some of the more highly metamorphosed areas where the quartzite may have been feldspathized during the emplacement of abundant syn-metamorphic granite dykes and sheets. Calcareous quartzite similarly occurs as a transitional unit into duotone and is characterized by minor tremolite and/or diopside.

Mafic Volcanic Rocks

Mafic volcanic rocks form several thin units generally in sharp contact with the quartzite. Most are weakly layered, fine grained hornblende-plagioclase amphibolites, but near massive outcrops on the islands in Elliot Bay exhibit primary flow contacts. Cooling cracks and amygdules, feature previously interpreted as pillow selvages on one of the islands area re-interpreted as polygonal cooling cracks due to their angular and intersecting nature. Although pillows have been reported from the Howland Lake area C. Harper, personal communication, 2000, most flows appear massive and may be subaerial. The Elliot Bay volcanic belt is characterized by a high aeromagnetic signature. This is in sharp contrast to other supracrustal and granitoid rocks which appear devoid of magnetite, presumably due to replacement by hematite during sub-aerial exposure associated with the Martin and Athabasca unconformity.

Pale green, fine grained, intermediate (?) volcanic rocks also occur in the Howland Lake area. Rare volcanic breccia suggests that some of these more intermediate rocks may be volcaniclastic.

In the most metamorphosed rocks, in the Black Bay area, the amphibolites are intruded by abundant granite. This is particularly evident in the Donaldson Lake area where agmatites have resulted. West of Black Bay Fault, the combination of amphibolites and thin granite intrusions has produced straight gneisses in zones of high strain. The replacement of hornblende by fine-grained biotite in some rocks is attributed to metasomatism associated with these large granitoid rocks.

Centimeter-scale oxide-facies iron formation was noted in quartzite a few centimeters from the mafic volcanic contact near Jean Lake. It also occurs as several thin units up to 0.8 m within the mafic volcanic rocks. The oxide facies iron formation is thought to mark a period of chemical sedimentation related to volcanism.

Several occurrences of fine-grained, homogeneous felsites within the mafic volcanic rocks are tentatively interpreted as shallow, syn-volcanic intrusions.

Dolostone

Fine-grained buff-coloured dolostone is found at several localities in the Goldfields and Cornwall Bay areas, where it is spatially associated with the quartzite and mafic volcanic rocks. It is commonly interlayered with quartzite on a scale of centimeters to meters. Pegmatitic diopside formed along contacts with the quartzite is attributed to the well-known amphibolite facies metamorphic reaction involving quartz and dolomite. Less pure reactants result in more heterogeneous calc-silicate rocks containing abundant tremolite +/- biotite. The patchy distribution and stratigraphic setting of the dolostone suggests that it was deposited as chemical sediments from hydrothermal vents during the main period of volcanism, rather than as continuous, uniform sedimentary sheets.

Serpentine-Gabbro

A large ultramafic body at Nicholson Bay has been interpreted as a komatiitic intrusion (Schwann, 1985). It exhibits rare spinifex texture along its chilled contact and has been intruded into quartzite and dolostone, the latter giving rise to thin skarn deposits. Several smaller bodies occur in the Cornwall Bay area. These units appear to grade into gabbros which are considered coeval.

Psammopelitic to Pelitic Rocks

In the more weakly metamorphosed northern Crackingstone Peninsula and Murmac Bay areas, rare argillaceous rocks as well layered mica schist or hornblende-biotite occur as foliates. With increasing grade, biotite-rich varieties become partially melted, culminating in politic migmatites west of the Black Bay Fault, which contain about 50% leocosome and garnet +/- sillimanite in the melanosome.

The pelitic rocks tend to be spatially associated with the quartzite and/or the mafic volcanic rocks, and therefore probably occur stratigraphically below the psammites, although they are commonly missing from the sequence.

Psammitic Rocks

The extent and distribution of psammitic sedimentary rocks is uncertain due to there similarity to widespread sheared granitoid rocks. In the least deformed and metamorphosed Elliot Bay area, feldspathoid sediments contain about 20 to 50% glassy quartz eyes and abundant sericite, locally containing ripple marks. This grade into fine-grained siltstone and argillites interlayered on a scale of cm to tens of centimeters. Both varieties are in contact with quartzite and all of these rocks are ferruginous due to long periods of exposure related to the Martin and Athabasca unconformities. In higher grade rocks of the eastern and northern Crackingstone Peninsula, rocks thought to be psammitic in origin include white to pink, fine- to medium grained quartzofeldspathic rocks containing varying amounts of white mica and biotite, are rare garnet or micaceous lenses thought to be retrogressed sillimanite faserkiesel. Psammitic rocks of the southern

Crackingstone Peninsula and west of the Black Bay Fault weather grey and have been metamorphosed at even higher grades to produce a centimeter-scale partial melt fraction and rare garnet in the biotite-rich melanosome.

c) Intrusive Rocks

<u>Inclusion-rich to Migmatitic Leucocratic Granite to Tonalite (Former Donaldson</u> <u>Lake Gneiss)</u>

Heterogeneous leucocratic granitoid rocks occur as sheets and transported dykes throughout the more highly metamorphosed parts of the area (Black Bay Fault Zone area). They are particularly common in the Donaldson Lake area where they invade the Murmac Bay Group, and range from inclusion-rich intrusions to agmatitic and arteritic migmatites. The presence of quartzite within the supracrustal component is taken as strong evidence that the rocks are simply a complex mixture of the Murmac Bay Group and intrusive granitoids. Other supracrustal components include abundant amphibolite and subordinate pelite. The character of the granitoid rocks appear to vary depending on the host rock type: white granodiorite to tonalitic rocks are most commonly associated with amphibolitic hosts, whereas rocks invading the quartzite and pelitic rocks are more commonly pink to grey and more granitic. Interaction of the host and injected granitoid rocks is further suggested by the presence of up to 20% feldspar in the quartzite, which locally forms discontinuous units up to several meters thick. The pelitic rocks occur as rare partially melted garnet-biotite-silimanite gneiss. More commonly, the granitoid rocks are nebulitic with an unusually high biotite content and rare silimanite, possibly suggesting an anatectic origin. In many places, magmatic portions of the migmatite contain inclusions of amphibolite, quartzite and/or pelite separated by only a few meters. The heterogeneous nature of the inclusion-rich to migmatitic leucocratic granite to tonalite suggests a crystal origin, possibly by anatexis of the Murmac Bay Group rocks at depth.

Granite (North Shore Pluton)

A suite of pink, coarse-grained, homogeneous granite plutons in the region is represented in the study area by the Gunnar Granite, which occurs as a central main body and as sheets tens of meters thick. The migmatitic host rocks occur locally as xenoliths suggesting that an episode of partial melting took place prior to granite emplacement. The variably strained, massive to well foliated main phase is coarse grained with K-feldspar grains reaching 3 cm in size, and contains 5 to 10% variably chloritized biotite. Similar pink coarse-grained granite sheets in highly strained migmatites west of the Black Bay Fault occur as augen foliates.

Quartzofeldspathic Rocks of Uncertain Origin

The effects of alteration and deformation preclude easy distinction of rock types in many areas. In places, grain size and texture is sufficient to distinguish granitoid rocks from supracrustal rocks but inadequate to place a rock or unit in a particular granitoid suite. In

these cases, the rocks are generally pink to white, medium grained, and well foliated to mylonitic. Elsewhere, finer grain size, higher strain, and/or spatial association to the quartzite preclude easy distinction between psammitic and granitoid rocks.

Diabase

Thin dykes and sills of black fine-grained diabase were noted on the northern portion of the property, west of the Black Bay Fault. These differ from the older gabbro in several ways: 1) they have a generally finer grain size, and are characterized by a more acicular habit to the approximately 50% hornblende, 2) they locally crosscut the main regional foliation, and 3) they do not exhibit evidence of partial melting in areas of high metamorphic grade. They have, however, been affected by the main period of shearing west of the Black Bay Fault. This set of diabase dykes is tentatively correlated with relatively late diabase reported to the east in the eastern Nevins Lake Block (Harper, 1986) and Train Lake Domain (Ashton and Card, 1998).



Figure – 7 - Geology map of the Beaverlodge area indicating location of all past producing uranium mines.

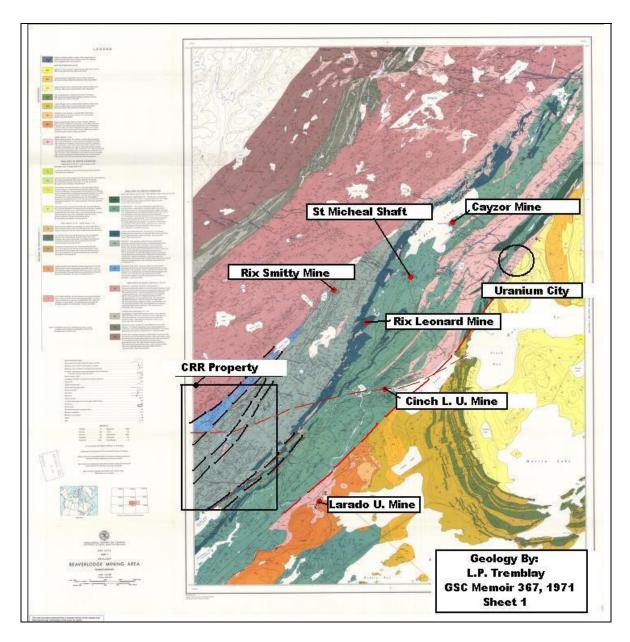


Figure – 8 - Geology map of the Crackingstone River area indicating location of the Property and local past producing uranium mines.

Regional and Local Structure

The structural history of the Beaverlodge area is very complex. The Claim is predominantly underlain with Archean age basement rocks. These basement rocks are highly deformed and metamorphosed. There are two types of structural environments in the Beaverlodge area, stable blocks and linear belts. The stable blocks are largely underlain by relatively structureless granite and, although paragneisses and migmatites are severely folded, they are less heavily faulted than the linear belts. The foliation of the metasedimentary rocks and paragneiss in the Beaverlodge linear belt is roughly parallel to contacts between the rock units and is therefore believed to be conformable with the original bedding. However, original bedding is difficult to determine because of the synorogenic granitization making fold structures difficult and often impossible to interpret.

Folding

Two main periods of folding took place in the Beaverlodge area. The early period is coincident with the Hudsonian orogeny (1750 - 1959 m.y. ago). At this time the basement rocks underwent a severe period of folding. The second period, late Proterozoic times in which cover rocks north of Lake Athabasca were folded.

Basement Folding

In the Beaverlodge Linear belt the rocks are tightly or isoclinaly folded and strikes northnortheast to north. In the Black Bay area Tremblay mapped several parallel, northeasttrending folds which alternate with strike faults. The folds have steep limbs, are almost isoclinal, and plunge northeastward at about 30 deg. The northeast trending folds are transected by minor north-trending folds.

Faults (From Beck 1969)

The rocks in the Beaverlodge area have been intensely fractured resulting in complex patterns of major faults with numerous minor faults and fractures. Two main periods of faulting have been recognized. The earlier period followed the main orogenesis and granitization of the basement rocks, and is represented by linear bands of mylonite, and breccia that range from a few feet to several hundred feet in width. They mainly strike east and northeast but a few northwest-trending zones have been mapped. Tremblay has identified these as early faults. And they are due to both faulting and fold breccia.

The later faults form broad zones of faulting convex to the south that encompasses the Beaverlodge linear belt. Many of the late faults are clean-cut fractures, whereas others have well developed gouge that are characterized by bright red, brecciated wall rock, and a few are broad zones of shearing and brecciation. The late faults have the dominant strike directions of northeast, east, northwest and north-northwest. In many cases the late faults are enclosed by mylonite bands or cut them at low angles, but some mylonite bands and late faults occur independently of one another. The occurrence of rocks of the Martin Formation in the hanging-wall of several major late faults indicates that the last main movement along them was normal. Many have concluded that these faults must have developed under tensional conditions after deposition and folding of the Martin Formation. Many of the faults were initiated much earlier because 1) many of the faults are host to the pitchblende deposits which were emplaced about 1780 m.y. ago and because the Martin Formation was laid down about 1600 m.y. ago., the faults must postdate the Martin Formation by about 200 m.y.; 2) many of the late faults have a thick fault gouge and heavily brecciated wall rocks, features more characteristically developed under compression; 3) the fault pattern in the type typically formed under compression.

Data on the early faults are scarce whereas most of the late faults form prominent topographic lineaments. And they are much more easily recognized in the field. Relative movement along these faults is difficult to determine due to the lack of marker horizons. Many faults are parallel to the regional foliation and of subsequent important normal movements that they have obscured evidence of early fault history.

Description of Major Faults

The main northeast-trending fault in the region and in the property area is the Black Bay Fault which forms a well marked obsequent fault scarp along the shoreline of the Crackingstone peninsula and island to the northeast for a strike length of about 40 km. The fault dips about 70 degrees to the southeast as measured at the Gulch Mine (# 32, Map 126B). The Martin Formation forms the hanging-wall indicating that the last major movement was normal. There are at least 4 major northeast-trending strike faults located west and parallel to the Black Bay Fault. They are starting east from the Black Bay Fault, Boom Lake Fault, Chance Lake Fault, Spot Lake fault and the Powerline Creek Fault. Four additional faults merge and/or cross-cuts these faults. They are the Jean Lake, Leonard and Crackingstone Faults and an unnamed fault striking westerly from Nero Lake east of the property. The Chance Lake, Boom Lake, Crackingstone Creek and the Nero Lake fault strikes through the property in an easterly direction. Many of the known pitchblende showings on the property and surrounding area are located near these faults. These faults appear to have been reactivated several times to provide ample fractured ground for hosting the uranium mineralization.

Dr. M.C. Trigg, Eldorado mine geologist in personal communications with Beck (1969) has shown that the Crackingstone Fault is possibly the easterly extension of the St. Louis Fault. The St. Louis Fault is hosts the Ace-Fay and Verna-Bolger deposits to the east. The Ace-Fay deposits have been mined down to a depth of 1675m (5500 feet). If the Crackingstone Fault is the westerly extension of the St. Louis Fault, then one can assume that the Crackingstone fault will extend at depth also. The intersection of the east northeast Crackingstone fault with the northeasterly Chance and Boom Lake Faults should be an excellent area for multi-directional brecciation and for the deposition of uranium mineralization. Similarly, the intersection of the Boom Lake fault with the Nero Lake Fault and all other northeasterly faults should also be a suitable target for uranium mineralization

In summary, there is sufficient evidence to indicate that, late regional faults in the Beaverlodge lineal belt form a definite pattern composed of four sets of faults.

- 1) Major NE striking thrust faults parallel to the main fold axis which dips 50 to 70 degrees southeast.
- 2) Faults striking east to 70 deg and dipping 50 to 60 deg to the south that originated as wrench faults and which have since undergone significant normal faulting.

- 3) A weaker set of steeply dipping faults which strike north to 350 deg.
- 4) A northwest-trending set of tension fractures.

Movement along the Faults

Evidence of late movement along the faults is provided by strike separations at intersections of major fault. In the Beaverlodge area the northeast –trending faults are displacing the northwest-trending faults with right-hand strike separation of up to 400 feet (e.g. Rix Smitty and # 62 ore-bodies by the Boom Lake Fault. The northeast-trending faults have a right hand strike separation of as much as 1200 feet (e.g. displacement of the Black Bay fault by the Cracking fault).

The Northeast faults are generally straight whereas the more easterly faults tend to be more sinuous. The St. Louis and Crackingstone faults are of the latter type. The St. Louis fault is host to the larger deposits in the camp, e.g. the Ace, Fay, Verna and Bolger deposits). The Crackingstone Fault is host to the Cinch Lake Mine.

The Crackingstone Fault

The Crackingstone Fault has been a subject of much debate. Some authors have suggested that it is the westerly extension of the St. Louis Fault, which is host to the Ace, Fay, Verna, and Bolger deposit on the east side of Beaverlodge Lake. Recent airborne surveys of the Beaverlodge area, appears to support this observation. A persistent lineal magnetic low trend is coincident with the location of the St. Louis-Crackingstone Fault system. It has a weaker magnetic expression in the Martin Lake area because of the thick sequence of the Martin Group formation. The 1st derivative magnetic map of the Beaverlodge area shows a linear magnetic low trend extending westerly from the Cinch Lake mine and onto the property. This linear magnetic low becomes wavy within the property boundary, and continues westerly beyond the west boundary of the property. At this point, the magnetic low resumes its linear trend. The Crackingstone fault at the Cinch Lake mine is aligned with this magnetic low feature. This gives strong support for the westerly extension of the Crackingstone fault through the property and beyond to the west. The wavy trend on the property may be caused by the intersection of the known location of the Chance Lake and Boom Lake Fault in the central portion of the property and coincident with the magnetic low. The points of their intersection are expressed as large topographic low swampy areas. This suggests that there intersection points may be areas of maximum fracturing and brecciation, a very favourable environment for the deposition of uranium mineralization. The deposit at the Cinch Lake mine is located at the intersection point of two structures.

The Boom Lake West and East Fault

Beck's geological map shows two parallel northeast trending faults crossing the northwest half of the property. They are the Boom Lake West and Boom Lake East Fault.

These two faults join together as one fault at a point 1.75 km north of the property. The Boom Lake West fault is host to a number of uranium showings such as the Rix Smitty mine and Beck's # 95, 234 and 235 showing. The # 95 showing is contained within a wide zone of shearing containing significant amounts of uranium. The Boom Lake East fault trends northeasterly through the central portion of the property. It is also host to a number of uranium showings such as Beck's # 6, 93, 94, 231, 232, 233 and 236. The intersection of all three faults in the central portion of the property is characterized by areas of swampy topographic lows.

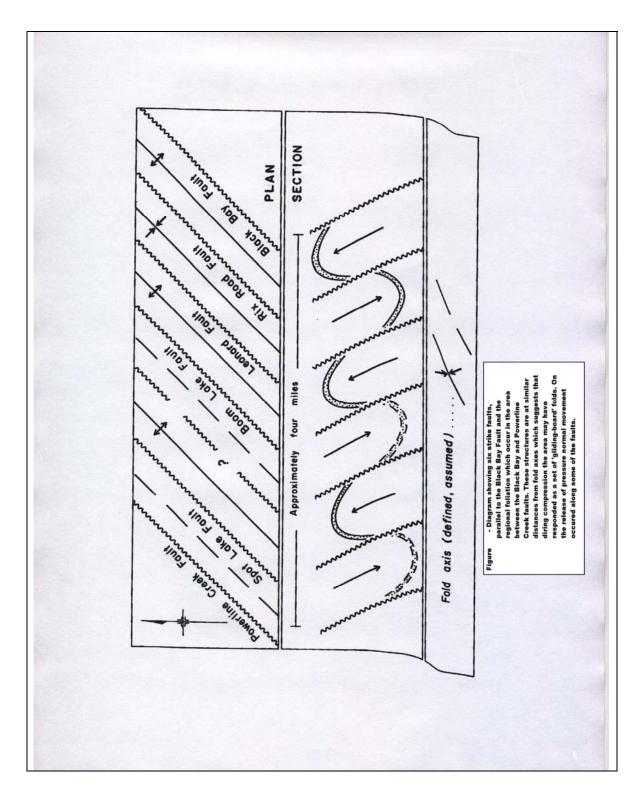
Bushell Bay Fault

There is possibly another NE shear/fault zone which coincides with bushel inlet. Showings # 101, 102 and 107 may be contained within this shear zone. This lineament is also marked by a physical depression within the southeast portion of the property and is located within 100 to 300 metres west of the road. It is also located near the western contact of the main amphibolite gneissic band that traverses northeasterly through the property.

Spot Lake and Powerline Faults

These two faults are located west of the property and trend parallel to the Boom Lake faults and the Black Bay fault. There are eight known uranium occurrences on the Spot Lake fault and two on the Powerline fault. There are a few occurrences between the Boom Lake West fault and the Spot Lake Fault. Much of this area is un-staked and relatively un-explored.

All of the faults described above are described as normal strike slip faults dipping to the west. The Crackingstone fault dips to the south at 75 to 80 degrees. Both foot wall and hanging wall portion of the faults host uranium mineralization. This is well illustrated at the Cinch Lake mine and the River Zone 1600 feet to the west. A number of radiometric high anomalies have been identified in the airborne radiometric survey west of the property.



 $Figure-9-Plan \ and \ cross-sectional \ view \ of \ the \ Black \ Bay \ Fault \ area.$

Mineralogy and Geochemistry of the Uranium Deposits

There are four types of uranium deposits in the Beaverlodge area.

- 1) Pegmatite deposits (dyke-like pegmatites and pegmatites in migmatite zones.
- 2) Uraninite in country rock.
- 3) Pitchblende deposits with complex mineralogy.
- 4) Pitchblende deposits with simple mineralogy.

The property is known to contain mostly the 4th type and one of the 2nd type. The occurrences are at various levels of development from preliminary to advanced exploration development. Several occurrences have reported high grades and warrant further work.

Uraninite in Country Rocks

There is one occurrence of this type of mineralization in the central portion of the property, Beck's # 6 (Rix # 58) showing. This type of mineralization occurs in metamorphic and migmatitic rocks that are located in gneissic bands composed of older altered oligoclase, younger fresh microcline, quartz, and biotite, accompanied in places by garnets. Common accessory minerals are uraninite, thorite, monazite, apatite, sphene, pyrite, and molybdenite. Most of the uraninite occurs in small grains in biotite and sometimes in feldspar and hornblende. Showing #58 (on the property) on Map 126 B is of this type.

Pitchblende Deposits

There are 284 pitchblende occurrences documented by Beck on his map 126 B. Of these, 36 were explored underground and of these, 16 commenced production, mostly between 1948and 1958.

There are two types of deposits: deposits of simple mineralogy and deposits of complex mineral assemblage. The deposits, of simple mineralogy, consist of pitchblende, with lesser amounts of pyrite, chalcopyrite and galena. The deposits with complex mineral assemblage contain more or less the following minerals; cobalt-nickel-lead selenides and native platinum, silver and copper, in addition to the common accessory minerals found in the simple mineralogy deposits. Pitchblende is the main hypogene uranium-bearing mineral in all of the deposits.

There are 17 known showings on the property exhibiting this style of mineralogy.

Ground Preparation

The faulting and shearing discussed above are of primary importance to the ground preparation for the deposition of uranium mineralization. The fracturing, brecciation and shearing provide the permeability for the deposition and precipitation of uranium bearing hydrothermal fluids.

Almost all of the uranium occurrences in the Beaverlodge area are vein type derived from hydrothermal fluids. The veins have been deposited in previously fractured ground. The major structures have been host to the largest deposits.

There are several northeast and east northeast striking structures located on the property. These structures intersect each other in the central portion of the property. Most of the area of intersection is underlain with swamps. Many of the known uranium occurrences are located adjacent to this area.

Airborne and Ground Radiometric Surveys

Uranium, thorium and potassium are the three naturally occurring radioactive material that can de detected in anomalous concentration by radiometric surveys. Only gamma radiation is useful in exploration, because alpha and beta emissions are masked by a thin cover of soil, water, or air. Gamma ray emissions penetrate only a few inches of soil or a few hundred feet of air, so that the radioactive mineralization must virtually outcrop at surface to be detected.

Geiger counter and scintilometer instruments are easily portable and can be held in the hand, mounted in surface vehicles, or operate from an aircraft. Airborne radiometric surveys are successfully used today in exploring for uranium. Airborne Radiometric (Gamma Ray Spectrometry) surveys detect and map natural radioactive emanations, called gamma rays, from rock and soil. All detectable gamma radiation from the earth materials come from the natural decay products of only three elements, i.e. uranium, thorium and potassium. The radiometric method is capable of detecting only the presence of U, Th and K at the surface of the ground.

The purpose of the radiometric surveys is to determine either the absolute or relative amount of U, Th, and K on the surface of the rocks and soils. Many variables must be considered in order to reduce the observational data to formulate a useful geological interpretation. The following conditions must be considered when conducting an airborne survey: meteorological conditions, topography of survey area, the influence of the planets cosmic environment, the height of the sensor above ground and the speed of the aircraft are just a few of the variables which can affect radiometric measurements and which can bias our analysis.

Most recently, the Geological Survey of Canada has conducted a Canada wide airborne radiometric survey which covered the Beaverlodge area. The resulting maps of the

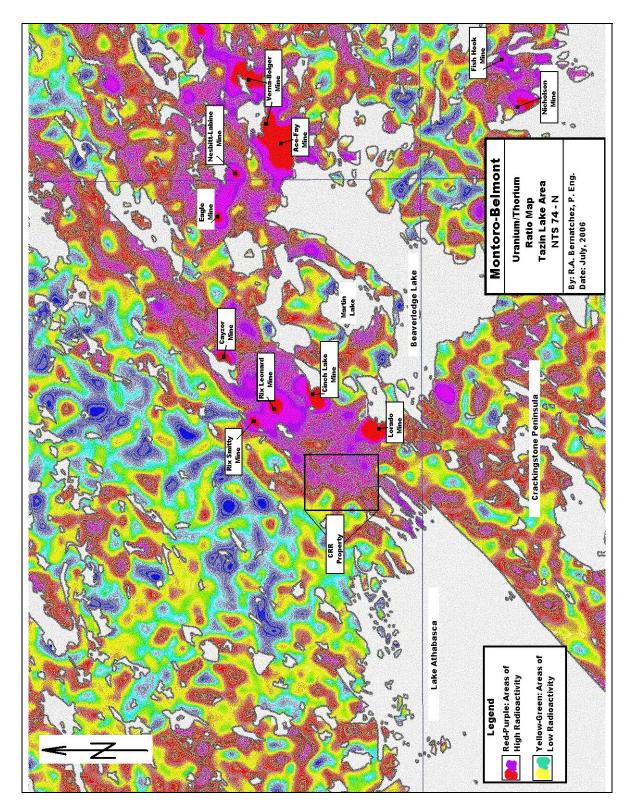


Figure – 10 - Airborne Radiometric response over the Beaverlodge area.

survey was obtained from their web site in Ottawa and is presented here in this report as small scale maps. The author has selected two of these maps to illustrate the radiometric and magnetic response of the property and area.

The survey has identified several very prominent radiometric highs in the Beaverlodge area. A portion of one of these prominent trends extends across the property. This prominent northeast trending expresses high radiometric readings over some of the known past producers and over the northern and south-central portion of the property. This radiometric trend is also coincident with the northeasterly trending Archean mafic volcanic and granitoid rocks of the Murmac Bay Group, which straddles and parallels the west side of the Black Bay Fault. The Archean basement rocks are well exposed over this radiometric trend. Areas of moderate to heavy overburden, responded to low radioactivity. The surface areas around the past producing mines, such as tailing and waste dump areas, appears to shows up as the strong radioactive anomaly. The radioactivity over areas of overburden and located in the central portion of the property, shows up as areas of weaker radioactivity.

Magnetic Survey

The 2001 Geological Survey of Canada's magnetic survey has also identified linear northeast magnetic trends coincident with the Archean rocks located on the west side of the Black Bay fault. There is also a sinuous east-northeast magnetic low trend coinciding with the east northeast trending Crackingstone fault. The Cinch uranium deposit is located on the Crackingstone Fault. This somewhat linear-sinuous trend can be traced eastward to the St Louis Fault that hosts the Ace- Fay and Verna deposits. The sinuous magnetic linear trend extends west southwesterly over the central swampy portion of the property, and appears to extend southwesterly beyond the property boundary. The Crackingstone fault is considered to be an older fault zone. The younger northeasterly younger NE and parallel Powerline, Chance Lake, Boom Lake and Leonard faults intersect the older Crackingstone. This interpretation may explain the position of the swampy grounds near the intersection of these faults where the rocks would be more severely fractured and more easily eroded. This interpretation would suggest that this area would be an attractive target for uranium exploration. This interpretation is supported by the high radiometric reading toward the swamp discussed in the previous paragraph.

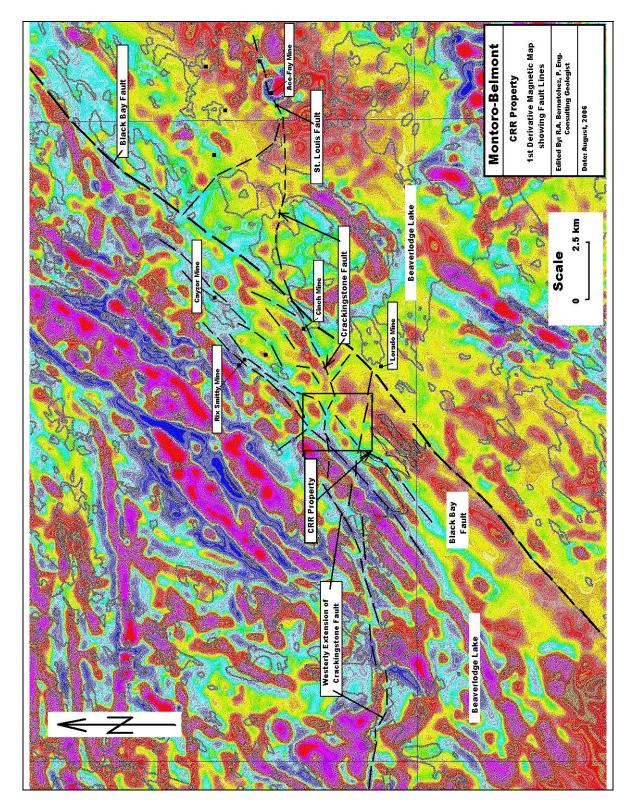


Figure – 11 – First Derivative of the total magnetic field of the Uranium City-Crackingstone River area.

Exploration History of the Property

Economic interest was first aroused by Tyrrell in 1896, who described iron formations at Fish Hook Bay. Subsequent studies proved them to be uneconomical. Further mineral interest was generated in 1910, 1929 and the mid 1930s after the discovery of copper and nickel sulphide at Pine Channel, Axis Lake and Dinty Lake. In 1930, base metal mineralization was discovered on the Consolidated Nicholson property and in 1934; gold was discovered near Neiman Bay of Lake Athabasca, which led to the development of the Box Mine. Radioactive minerals, pitchblende and thucholite were discovered at both the Nicholson and Box Mine. In 1944, the military importance of uranium led to the re-evaluation of the Beaverlodge area.

Eldorado Mining and Refining, a crown Corporation, had sole exploration rights for the exploration and production of uranium in Canada from 1944 to 1947. They carried out extensive exploration work in the Beaverlodge area which led to the discovery of the ore bodies along the St. Louis Fault as well as several other small deposits in the Beaverlodge area.

The ban of uranium exploration for the private sector was lifted in 1947 which led to a flurry of uranium exploration by the private sector. The federal and private sector exploration activity led to the discovery over 2000 uranium showings in the Athabasca region. Over 800 were discovered in the Beaverlodge area. Of these 800 or so discoveries, 36 were major occurrences. Sixteen of these occurrences were brought into production or had underground development.

By 1958, the demand for uranium on the world market had diminished to the point that only existing mines were able to carry out any exploration. Production continued at the Fay-Ace, Verna-Bolgel, Hab and Gunnar mines. The Gunnar Mine ceased production in 1963 and Eldorado Mining and refining until 1982. The total production of uranium in the Beaverlodge area amounted to 70,225,000 lbs of U3O8 at an average grade of 0.23% U3O8 (4.6 lb). The bulk of the uranium came from the Fay-Ace, Verna-Bolger and Gunnar Mine (64,540,000 lb total) and the balance from the Hab, Rix Smitty, Cinch Cayzor, Dubyna Lake and others (5,685,000 lb)

Pitchblende was discovered during the 1930s gold rush around Goldfields on the north shore of Lake Athabasca. This discovery established a new focus that still exists today.

Pitchblende was discovered in 1935 by prospectors working for Mineral Locators Syndicate on the Nicholson property, 19 km southeast of the CRR property.

A brief history of exploration in the Beaverlodge area is described by Beck's Report #126 'Uranium Deposits of the Beaverlodge Area, NTS Area 74/N, 74/O and 74/P, 1969, Saskatchewan Mineral Resources. He describes and summarizes all of the showings to his knowledge at that time. He locates and describes 18 uranium occurrences within the present property boundary.

The property was explored by three companies since 1948. They are Rix Athabasca Uranium Mines limited, from 1949 to 1958, Amax Athabasca Uranium Mines Limited, from 1949 to 1958, and by Mukta (Canada) Limited from 1967 to 1969. The results of there work is documented below. The three companies discovered a total of 87 radioactive occurrences, of which 18 are significant and are briefly described in Beck's 1969 Report126, "Uranium Deposits in the Beaverlodge Area". Beck numbered these showings as follows: #6, #48, #58, #91, #93, #94, #95, #101, #102, #190, #231, #232, #233, #234, #235 and #237. The showings are listed in numerical order with their corresponding Beck number, Rix, Amax or Mukta numbers.

Beck #6 – Rix Athabasca - Showing 58

The geological setting consists of irregular sill-like body of coarse-grained granite in paragneiss. Several short, narrow, NW trending fractures are filled with carbonate and pitchblende. This showing was trenched only. This showing was tested with one diamond drill hole, R-4.

Beck #48 - Rix Athabasca Uranium Mines Limited - No. 7 Adit

The showing consists of a narrow fracture zone that strikes N60deg W along the side of a prominent ridge underlain by a northeasterly-trending sequence of quartz-feldsparbiotite-hornblende gneiss containing numerous narrow layers of amphibolite. The fracture zone lays parallel to, and about 30 feet northeast of a drift filled valley and can be traced for approximately 170 feet (52 m) along strike. The dip of the fracture is NE and varies from 60degrees at the east end and from 75 deg to vertical at the west end. The fractured rocks are veined with calcite and quartz and vuggy calcite and secondary uranium minerals are abundant locally. Pyrite is densely disseminated in the vein material where the fractures cut the amphibolite.

In 1950 the company sunk 10 trenches along the zone at intervals of about 15 feet. Channel samples were taken from the trenches. The best assays were obtained from trench # 2, 5 and 9. No samples were taken from trench #8 and #10. Trench #2 – 0.29% over 1.0 foot, 15.6% over 1.4 feet and 0.19% over 1.0 foot Trench #5 – 1.42% over 1.0 foot and 0.3% over 1.0 foot Trench #9 – 0.06% over 1.0 foot, 0.22% over 1.2 feet and 0.04% over 1.2 feet

Later in 1950, the showing was tested by eight (8) x-ray diamond drill holes aggregating 528 feet (average - 66 feet/hole)In 1958 the showing was high graded by Mr. E. Kull, who drove a short adit from the base of the base of Trench #1 westward towards trench #2 and deepened trench # 9. The broken rock was hand cobbed and 11 tons were shipped to the Lorado mill grading 2.3% U3O8.

The author collected 4 samples from this location 336913 to 336917 containing 0.28%, 0.40% 6.55% and 0.78% Uranium.

Beck #58 – Amax Athabasca Uranium Mines Limited – Showing No. 50-CC1-80 (Mukta 230-170)

A northwesterly-trending sequence of granitized quart-feldspathic-chlorite schist and amphibolite is cut by two gently sinuous, sub-parallel fractures that trend from N 60deg E to due east. They are connected by a short cross fracture forming an 'H-shaped' vein system.

The sub-parallel fractures are filled with hematite, chlorite and pitchblende, forming two small ore shoots, 45 feet and 65 feet long respectively. Radioactivity decreases markedly towards the ends of the fractures. The cross fracture is a narrow, vertical, gently sinuous fracture that is only moderately radioactive and no uranium minerals are visible. Wall rock of the veins, are reddened and contain abundant chlorite.

In 1950, the deposit was tested by eight shallow diamond drill holes and radioactive intersections were made in all of the holes except holes no. 10. Two small ore shoots were outlined. The upper shoot graded 0.36% U3O8 across 1.7 feet for a length of 45 feet The lower ore shoot graded 0.36% U3O8 over 1.6 feet for a length of 65 feet. The deposit was tested at a later date but the results are not known. The east portion of the lower vein was high graded by C. Hnilica in 1959. Approximately 250 tons was extracted, hand-cobbed to produce 46 tons grading 0.5% U3O8.

Beck #91 – Rix Athabasca Uranium Mines Limited – Showing No. 49-CC1-4 (Mukta 230-16)

This showing consisting of a radiating cross fracture striking N 50deg W and dipping 70deg southwest is exposed for a strike length of 45 feet by a narrow trench at the northeast end of an outcrop of quartz-feldspar gneiss. The gneisses contain thin bands of amphibolite and strike N 40deg E and dip from vertical to 40 deg northwest. The fracture is clean cut and intermittently radioactive along its exposed length. Uranium stain is visible at a few places in the fracture and a channel sample across the area of strongest radioactivity assayed 0.95% U3O8 over 2 feet. A bulk sample from the same locality assayed 3.86% U3O8.

The zone was tested with 4 short diamond drill holes spaced along a strike of 110 feet. The results are not known. The center portion of the showing was high-graded by M. Filgas in 1959, hand sorted 6.5 tons grading 0.5% U3O8.

Beck #93 – Rix Athabasca Uranium Mines Limited – Showing # 59 (Mukta 230-13)

The deposit is in a chloritized shear zone that strikes N 40deg E along the base of a steep scarp of quart-feldspar gneiss. The zone ranges from a few inches to four feet in width and dips 75 to 85 deg southeast. The zone consists of strongly radioactive sheared paragneiss. The zone contains abundant calcite veinlets and pitchblende is visible at a few places in the calcite and sheared rock. The zone is exposed by seven trenches for a strike length of 70 feet and the best mineralization is in trench No. 5 where pitchblende is

visible across a width of 3.5 feet. Elsewhere, the pitchblende is erratically disseminated and the overall radioactivity is low to moderate. The zone was tested with 3 short diamond drill holes.

Sampling in 1950 returned the following results: A grab sample containing considerable yellow stain, possibly fine disseminated pitchblende, from this showing, assayed 12.53% U3O8 Trench 1 – 0.12% over 1.4 feet (Original report by------ gave assay of 0.82% over 3.4 feet. Sampling in trenches gave 0.31% over 2 feet for 70 feet strike length. DDH #20 – 0.13% over 4.0 feet) Beck reports as follows: Trench 2 – 0.04% over 2.5 feet Trench 3 – 0.16% over 1.2 feet Trench 4 – not sampled Trench 5 – 0.63% over 1.0 ft, 1.67% over 1.1 ft, 0.26% over 1.3 ft Trench 6 – 0.10% over 1.3 ft Trench 7 – 0.21% over 1.0 ft, 0.04% over 0.9 ft The sampling confirmed a small ore shoot 70 feet long grading 0.32% over 2 feet. In 1950, three short drill holes tested the deposit. Holes #5 intersected at a depth of 30 feet, 4 feet of sheared rock assaying 0.13% U3O8.

Beck #94 – Rix Athabasca Uranium Mines Limited – Showing # 59 (Mukta 230-10)

The showing is exposed on the nose of small pink aplitic granite outcrop that extends northwesterly from an outcrop of quartz-feldspar-biotite gneiss and is enclosed on three sides by overburden. The granite is cut by a diabase sill that strikes N 75deg E and dips 50 to 60 deg south. The diabase is exposed for a strike length of 85 feet and passes under muskeg at both ends. Both cross and strike fractures are abundant. Along the contact of the diabase and granite and contains thin coating of pitchblende and secondary uranium minerals.

In 1950 the deposit was explored by small trenches sunk into the foot-wall and hangingwall zones at ten-foot intervals and channel samples were taken in each trench. Strong Geiger and scintilometer readings were obtained here. As uranium mineral occur as thin coatings to individual joint and fracture faces it was believed that some of the ore minerals would be lost by channel sampling, so in addition, large chip samples were taken from each trench and these generally returned much higher uranium values than corresponding channel samples. A 40 foot length of the foot-wall zone assayed 0.2% over 4.2 feet and the eastern part of the hanging-wall zone assayed 0.27% U3O8 over 4.7 feet for a strike length of 40 feet. Five drill holes spaced over the length of 140 feet were put down to test the zone at depths ranging from 5 feet to 30 feet. The zone was tested with 8 diamond drill holes, numbered R-7 to R-11 and R-179, R-181 and R-182. Drill results indicated that the sill branches, swells and thins at depth. Joubin states that the mineralization here is located along the contacts of a diabase dyke.

Beck #95 – Rix Athabasca Uranium Mines limited – Showing No. 111 (Mukta 230-3)

A zone in mafic rocks is reddened quartz-sericite-chlorite schist in the hanging-wall of the Boom Fault consists of several sub-parallel fractures across a width of 20 feet and strikes N 50deg E and dips 45 -65 deg southeast, the cross fractures are highly R.A. The zone has been traced on surface for 350 feet. Radioactivity has been traced southwestward into the swamp for 150 feet and northeastward into the draw for 250 feet. To the northeast it feathers out and to the southwest it passes beneath the overburden. Pitchblende is irregularly disseminated in the zone in short calcite veinlets and in red-altered wall-rock fragments. Systematic channel sampling every 10 feet indicated a narrow mineralized shoot 230 feet long grading 0.18% over 2.1 feet.

In 1950, Rix Athabasca tested this area with 8 short X-ray drill holes aggregating 528 feet were put down to test the showing and its strike extensions. All holes intersected radioactive mineralization. The best hole graded 0.31% over 1 ft. Mukta (Canada) Ltd. carried out 39 percussion drill holes and two diamond drill holes in this area on two parallel zones along the Chance Lake Fault. All of the percussion holes were surveyed with down-hole scintilometer probing. Several holes reported high radioactive reading of up to 20000 cps.

Beck #101 – Amax Athabasca Uranium Mines Limited – Showing No. 49-CC1-1 (Mukta 230-18)

The showing consists of a NE-striking unit of quartz-feldspar-chlorite-sericite schist. Fracture zone strikes N 40deg W and dips vertically to 80 deg NE. It is erratically mineralized with pitchblende and hematite for a strike length of 120 feet. Trenching was carried out on the showing. There is no mention of any samples being taken. The zone was tested with 3 short diamond drill holes. The author took a sample from this occurrence. Sample # 336901

Beck # 102 – Amax Athabasca Uranium Mines Limited – Showing No. 49-CC1-6 (Mukta 230-11)

The showing consists of a narrow overburden filled draw in quartz-feldspar gneiss trending NE. Trenching has exposed several en-echelon striking shears forming a zone trending N 70 deg E for at least 130 feet. Pitchblende with hematite is scattered in the shears and in N-trending cross fractures. Channel sampling returned 0.11% over 2.5 feet. This showing was tested with 8 short X-ray drill holes in 1951.

Beck #107 – Amax Athabasca Mines Limited – Showing 50-CC1-97 (Mukta 230-26) (Known as the 'Lorado Road Showing')

The uranium is contained in northeast-trending unit of quartz-feldspar-chlorite schist. Mineralization consists of pitchblende in calcite veinlets associated with a strike shear (traced for 300 feet) and with a cross fracture trending N 70deg W Best intersection in strike shear: 0.52% across 4 feet. Three shallow X-ray holes in cross fractures in 1951. In 1959, 7 short diamond drill holes test the shear.

Beck #190 – Goldfield Uranium Mines limited – Showing No. 50-DD-22 (Just outside the northern boundary of the property)

This showing consists of NE-trending quartz-feldspar gneiss. A fracture striking N 60 deg E is mineralized with scattered pitchblende veinlets for a strike length of 40 feet. High assays were obtained across narrow widths. The showing was trenched. No other information is available on the trenching.

Beck # 231 – Rix Athabasca Uranium Mines Limited – Showing No. 57 & 58

The showing consists of NNE-trending brecciated quartzite dipping gently E. Several fracture zones striking W to NW contain pitchblende. High radioactivity was obtained in the drift covered areas. The showing was tested with several trenches. Channel sampling from the three main showings assayed as follows:

Zone B – 1.32% over 2.1 feet

Zone H – 2.13% over 2.3 feet

Zone J - 1.46% over 1.6 feet

The two zones were tested with 1 diamond drill hole, R-4.

Beck #232 – Rix Athabasca Uranium Mines Limited – Showing No. 63 (Mukta 230-3)

The showing consists of northeast -trending quartz-feldspar-biotite gneiss with thin conformable layers of pink granite. Pitchblende grains are disseminated in an irregular shaped lens of brecciated rock over an area a few square feet. Trenching was carried out on the showing. Mukta tested this northeasterly zone with 8 diamond drill holes. The scintilometer probing identified radioactivity in all drill holes up to 5500 cps.

Beck #233 – Rix Athabasca Uranium Mines Limited – Showing No. 64 (Mukta 230-3) part of showing 63 - see above

The showing consists of northeast-striking quartz-feldspar-hornblende-biotite gneiss with thin layers of amphibolite. Two sub-parallel fractures, 40 feet apart in amphibolite, strike N 60 deg E and are intermittently radioactive for a strike length of 20 feet. Trenching was carried out.

Beck #234 – Rix Athabasca Mines Limited – Showing No. 50-DD1-94

The showing consists of northeast-trending quartz-feldspar gneiss with fractures striking east-west (N 70 deg E, Beck 1969). The pinching and swelling fracture veins are filled with carbonate, coarse hematite and pitchblende in pinches and swells. Shows fair radioactivity for 300 feet and varies in width from a few inches to 4 feet. Initial bulk

sampling assayed 0.86%, 0.95%, 0.18% and 0.26%. Channel sampling returned disappointing results. Zone better tested by bulk sampling. Strong radioactivity was shown to the south of the east end of the zone. Grab samples returned high assays but channel sampling returned low assays less than 0.05%. This showing has not been tested by drilling.

Beck #235 – Rix Athabasca Uranium Mines Limited – Sample No. 50-DD1-100 (Mukta 237-17)

The showing consists of NE-trending quartz-feldspar gneiss with thin amphibolite layers. Pitchblende is contained within thin cross fractures striking N 45 deg W. Channel sampling along a series of trenches shows a grade 0.06% over 2.2 ft for 300 feet. This zone has not been tested by drilling.

Beck #236 - Rix Athabasca Uranium Mines - Showing No. 104 (Mukta 230 3)

The show consists of quartz-feldspar-biotite gneiss striking N 50 deg E. A narrow sinuous fracture trending N 80 deg E is radioactive for twenty feet. The showing was tested by trenching and two diamond drill holes. No results are available at the time of the report. Mukta tested this showing by drilling 8 holes (see above showing 232 and 233)

Beck #237 - Rix Athabasca Uranium Mines Limited - Showing No. 152

The showing consists of northeast-trending quartz-feldspar-biotite gneiss. Two short narrow fractures striking N 55deg W is filled with carbonate and pitchblende. Trenching was performed on the showing.

The following 5 small maps were taken from the author's full size compilation map located at the back map pocket at the end of this report. The author has organized the maps from Area A to Area E. (from south to north).

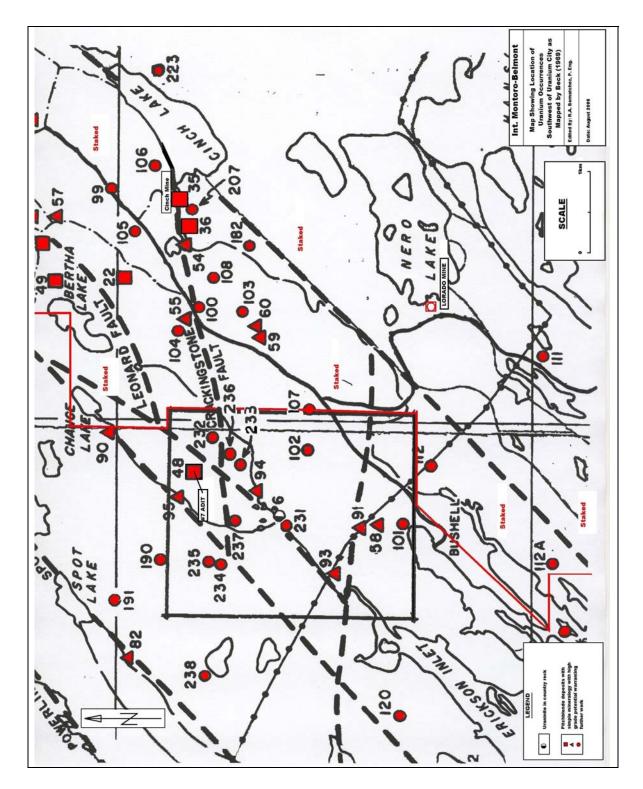


Figure – 12 – Map indicating location of showings reported by Beck, 1969, Report 126.

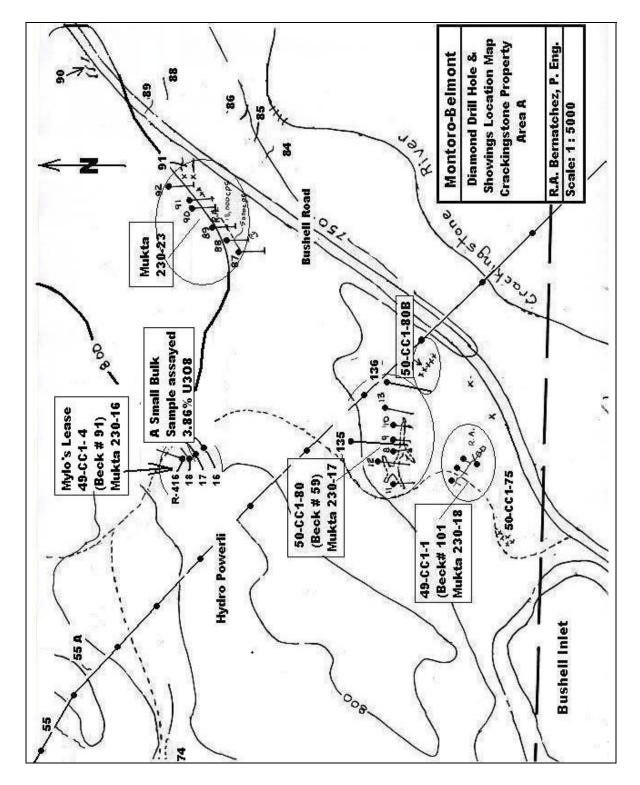


Figure – 13 - Area A of property, south part of property, showing location of uranium occurrences, trenches and diamond drill holes.

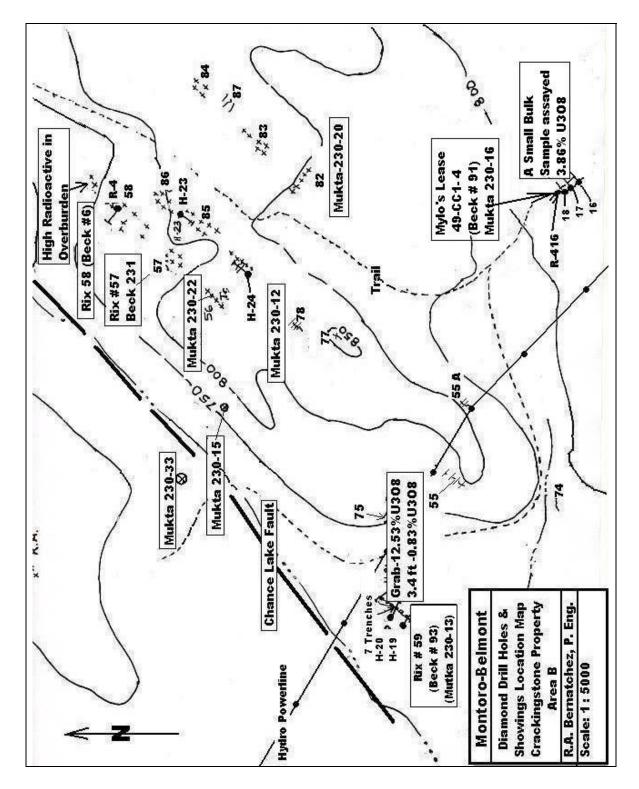


Figure – 14 - Map of area B, south portion, west side of property with locations of uranium occurrences, trenches and diamond drill holes.

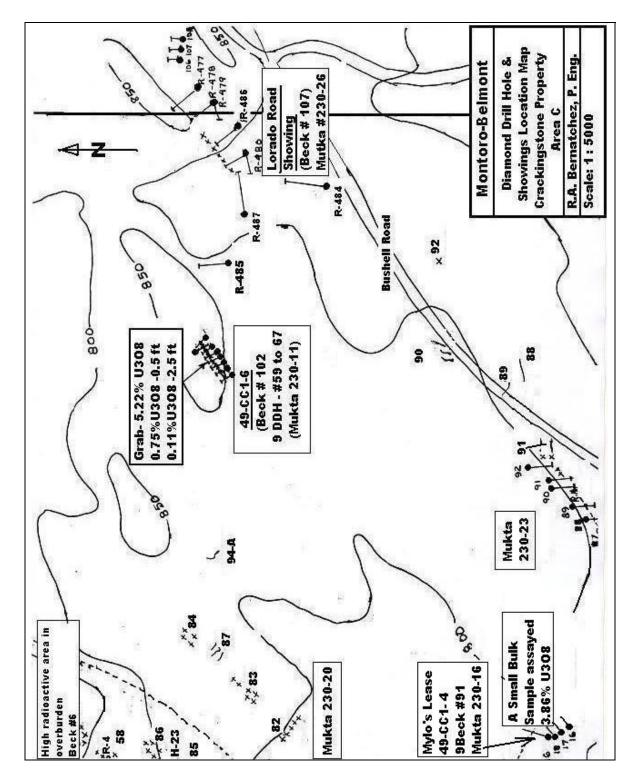


Figure – 15 - Map of Area C, northeast of south portion of property, showing locations of uranium occurrences, trenches and diamond drill holes.

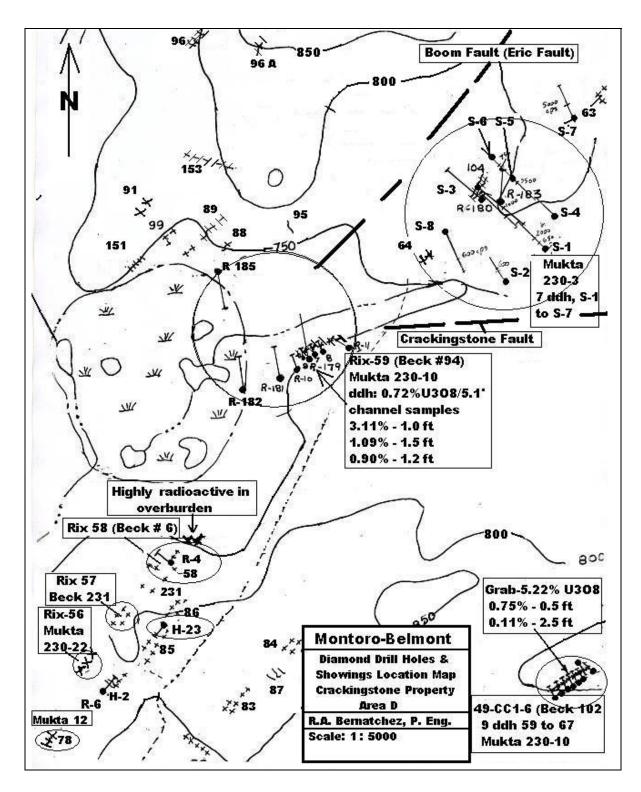


Figure – 16 - Map of Area D, north central portion of property, showing locations of uranium occurrences, trenches and diamond drill holes.

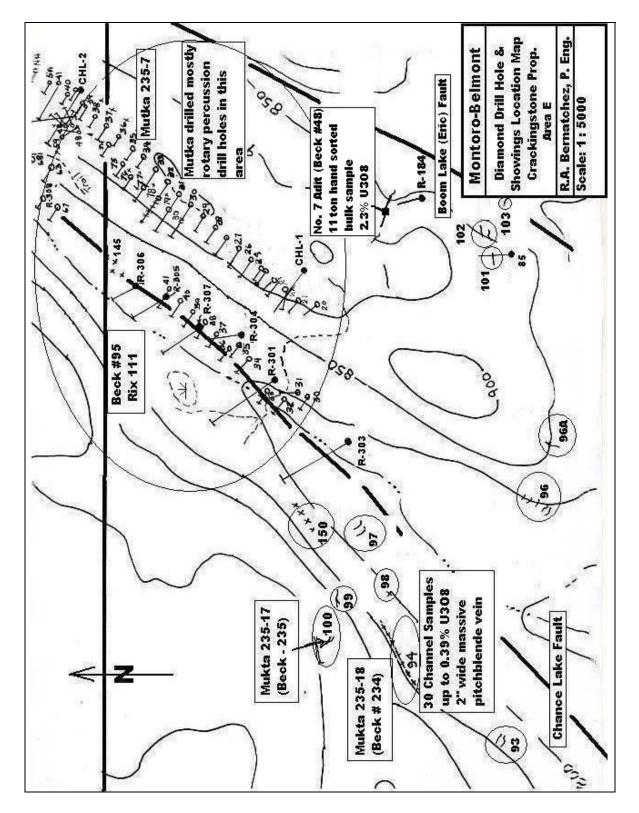


Figure – 17 - Map of Area E, north part of property, showing locations of uranium occurrences, trenches, and diamond drill holes.

Overburden

The relative thickness of the overburden coverage is crucial to the radioactive response in the airborne survey. This report has provided a satellite photo comparing the exposed outcrop in response to the airborne radiometric survey. It can be seen that the swampy area on the property showed lower radioactive response than the areas of high outcrop exposes. Note that areas of high outcrop exposure are shown in red and fault lines in yellow. The areas along the fault lines have the most vegetation growth and thickest overburden and swampy ground.

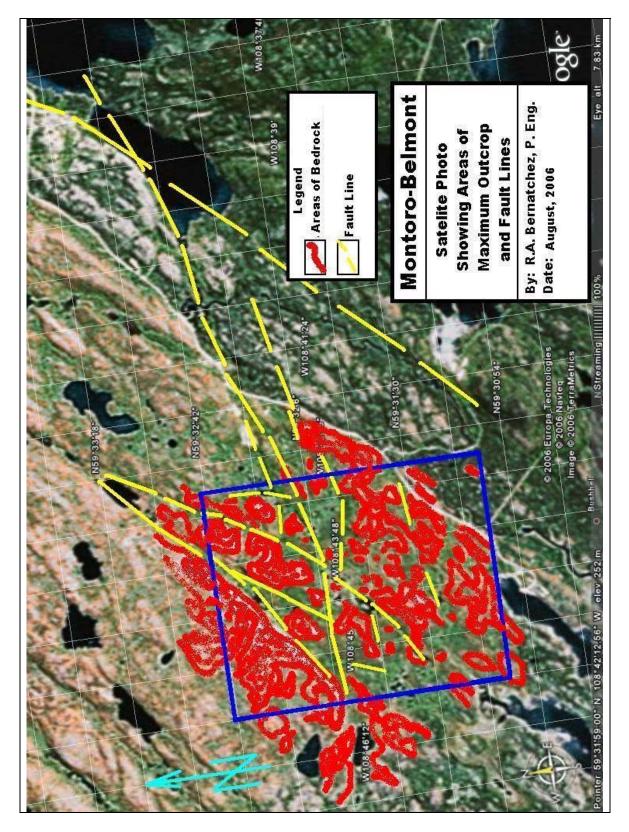


Figure – 18 - Satellite photo showing structures and areas of heavy outcrop in red, swampy areas in green.

Sampling and Assays

A total of 20 samples were collected during the 2006 property visit taken during the three day traversing the southern, central and northern portion of the property. The author was assisted by Wayne Powder, a local prospector. Insufficient time was available to visit all of the showings. Six of the samples collected returned anomalous to high levels of uranium. The samples collected at the # 7 Adit returned the highest uranium values. Samples # 336916 from trench #2 assayed 6.55% uranium.

Sample Number	Location	Description	Туре	Uranium	Uranium %	Silver	Lead
336901	Stop #1 628092E 6599983N	Biotite- hornblende- quartz-feldspar schist, f.g. grey, rusty	Rock chips, grab	9pm 471	0.047	g/t trace	Ppm 114
336907	Stop 13 628120E 6600259N	Syenite porphyry, red biotite, equigranular, m.g.	Rock chip, grab	229	0.023	trace	79
336913	Stop # 30 628687E 6602457N	Red syenite, fractures, with yellow orange stain, f-m.g. rock pile	Rock chips, grab	2759	0.28	5	1148
336914	Stop # 30 628691E 6602457N	Syenite, red, mineralized with pitchblende and yellow stain, NE corner of open cut.	Rock chip, grab	3984	0.40	8	1580
336915	Stop # 30 620293E 6602457N	Syenite, red, fractures mineralized with pitchblende and yellow stain, trench # 2	Rock chips, grab	65490	6.55	trace	>5000
336917	Stop # 31 628411E 6602533N	Syenite, red, f.g. with pitchblende and yellow stain, trench # 3	Rock chip, grab	7777	0.78	15	3014

Table -1 – The best assays from six samples are listed as follows:

The assays of all 20 samples collected during the visit to the property in May of 2006 are listed in Appendix A.

Interpretation

Multi-Element Analysis

There is a strong correlation between uranium and lead as to be expected because of radioactive decay of uranium to lead. There is also a similar strong correlation with higher levels of yttrium, vanadium, thallium, titanium, strontium and barium. There is a moderate correlation with arsenic, boron, molybdenum, sodium.

This indicates that soil geochemical sampling may be a useful tool to identify new uranium targets in areas of overburden.

Airborne Magnetic Survey

The government airborne survey has clearly defined a strong east northeast lineament which coincides with the Crackingstone Fault. This fault can be traced east northeasterly to the Ace-Fay mine. The survey also shows a prominent northeast magnetic trend which coincides with the northeasterly foliation of the rocks formations west of the Black Bay Fault. This northeasterly magnetic trend also coincides with the strong northeasterly radiometric response of this area. The northeasterly Crackingstone, Chance, Boom Leonard and Black Bay fault are expressed as magnetic lows. This may suggests alteration along these fault zones, a positive setting for uranium mineralization in this area.

Observations

There are several areas on the property that have not been explored. Particularly, the swampy areas located in the central portion of the property are prime exploration targets due to there coinciding with the intersection of the Chance Lake and Boom Lake faults with the Crackingstone fault. The swampy areas are strong indicators of where the structures are. Many good showings have been identified on the edges of these swamps. These areas have not been drill tested yet.

Alteration, such as hematization, chlorritization and silicification, are major indicators of uranium mineralization in the Beaverlodge area. This alteration is present in many of the showings on the property.

Recent geological mapping and airborne geophysical surveys by the Geological Survey of Canada and the Saskatchewan Geological Survey has provided a better understanding on the nature of uranium mineralization in the Beaverlodge area. The new 2001 airborne radiometric surveys of the area has confirmed strong radioactivity over the property and adjacent area.

The 2001 Magnetic survey has identified a strong lineal feature crossing diagonally through the central portion of the property. This lineal feature appears to coincide with the Crackingstone fault, a favourable feature for localization uranium mineralization.

Only the most promising uranium occurrences have been tested by trenching, surface channel or grab sampling, and shallow drill holes, down to a depth from 9m (30 ft) with only a few holes below 122 m (400 ft).

No modern geophysical techniques, such as magnetic and electromagnetic, have ever been used to evaluate the uranium potential of the property and immediate area. However, these geophysical techniques have been used successfully to explore and detect uranium deposits at depth within the basement rocks and Athabasca Formation in the eastern Athabasca Basin. This technique may be successful in defining new targets on the Crackingstone property within the Archean basement rocks.

The basement rocks in the Crackingstone River area are intensely sheared and fractured and contain moderate amount of sulphide and/or graphite mineralization. This mineralization is an important factor in the precipitation of uranium mineralization within the eastern Athabasca Basin. This style of mineralization and structures lends itself to the utilization of magnetic and electromagnetic survey methods.

Some of the mineralogical setting in the Beaverlodge area, such as the complex sulphide type, is very similar to those found in the east Athabasca Basin area.

Assays obtained from the #7 Adit has confirmed the presence of high concentration of uranium mineralization (up to 6.55 % Uranium) with anomalous amounts of copper, cobalt, silver and lead. The anomalous amount of trace elements associated with the uranium mineralization may be important in identifying uranium mineralization in areas of overburden. The previous sampling on the property has returned high levels of uranium, up to 12.52% U3O8 on the Beck #93 showing.

The uranium occurrences in the Beaverlodge area have not been evaluated using modern geophysical techniques. The uranium is found as veins with simple or complex mineralogy. Both zones may respond to these geophysical techniques because of there sulphide content and/or graphite content or fault related structures. However, this does not diminish the possibility of discovering uranium mineralization with complex mineralogy. It is anticipated that the induced polarization technique will be able to test the depth extension of the known uranium occurrences, and the potential mineralization in the swampy areas.

The St. Louis fault structure has been identified to a depth of over 1675 m (5500 feet). If the Crackingstone fault is a westerly extension of the St. Louis fault then one can assume that the Crackingstone fault is also deep seated and should also be favourable deep seated uranium mineralization. The nearby Cinch mine has only been mined down to a depth of 205 m (675 feet).

Conclusions

The author has concluded that has concluded that the property has strong merits for the discovery of uranium deposits in the areas of overburden. Uranium exploration was hindered in these areas because of the ability of the Geiger and Scintilometer to detect radioactivity on outcrop exposure only.

The author has concluded that many of the showings were only tested with shallow diamond drill holes. Many of the short drill holes were drill along strike and little attention was placed in drilling the plunge of the structures.

The compilation of data for this report indicated a lack of drilling in the swamps where possibly the major structures lie.

No resources or reserves have been established or calculated by the author from the available data.

The new and improved geophysical techniques used today should be able to trace out the major structures in the swampy areas.

The Beaverlodge area has received little exploration attention since 1969. The price and increasing demand for uranium makes the Crackingstone property an attractive exploration play.

The author has identified at least five (5) exploration targets on the property. They are; 1) the Chance Lake fault zone; 2) the Boom Lake fault zone; 3) the Crackingstone fault zone;

4) the intersection point of the Crackingstone fault and the Boom Lake fault zone and5) the southern extension of the Boom Lake fault zone.

Recommendations

The author recommends that a program of exploration consisting of ground geophysical surveys such as magnetic, electromagnetic and induced polarization (or other deep penetrating geophysical technique) and soil geochemical survey be use to re-evaluate the uranium potential of the Crackingstone property.

The following two-phase program is being recommended to further explore the uranium potential of the Crackingstone River-Ruza Property (CRR Property). The following two-stage programs are as follows:

Phase I (Costs Estimates)

Line cutting 90 km
90 km @ \$600.00 / km\$ 54,000.00
<u>Geophysical Surveys</u>
Magnetic and Electromagnetic (EM VLF) Surveys
90 km @ 300.00 / km\$ 36,000.00
I.P Surveys 45 km @ 2 km /day
45 km @ \$2600.00 / day (5 man crew) for 24 days. \$ 62,400.00
Soil Geochemical Survey - Collecting 360 samples. \$ 2,500.00 Analysis (ICP) of 30 elements - 360 @ \$12.00/sample\$ 4,220.00 Air travel - 3 men\$ 10,000.00
Sub-total\$ 169,120.00
Geological Surveys
Detailed Compilation of all Data\$15,000.00
Field mapping and investigations 2 months @ \$ 900.00 /day\$54,000.00
Analysis of 200 samples\$ 4,000.00
<u>Report</u> \$30,000.00
Sub-total\$ 103,000.00

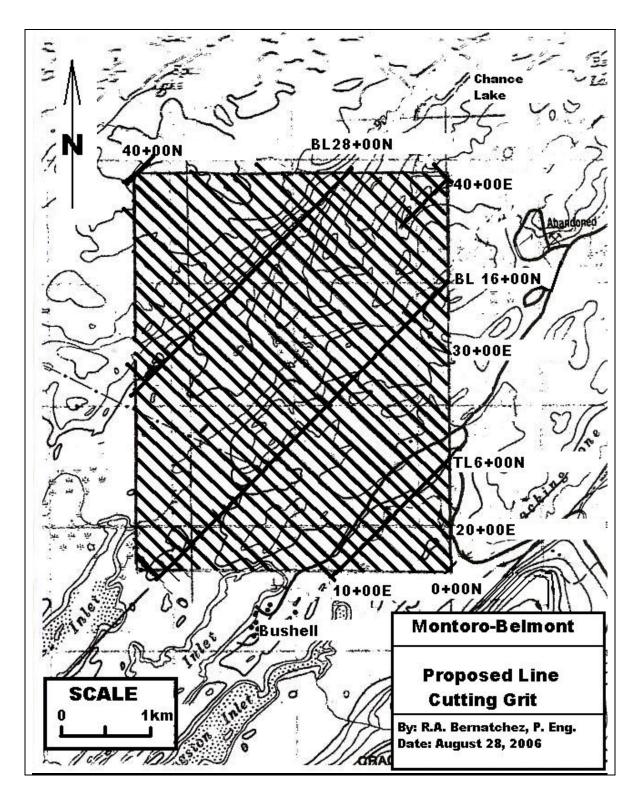


Figure 19 – Map Showing Proposed Grid for Surveys

Phase II _Drilling

Grand total (Phase I and Phase II)	\$ 889,570.00
Sub-total	\$ 617,450.00
Air travel	\$ 2,500.00
Report 20 days @ \$ 600.00/day	\$ 12,000.00
Accommodations, food and travel (local)	\$ 11,250.00
Analysis 150 samples	\$ 3,000.00
Labor (core splitting ect.)	\$ 6,700.00
Drill supervision 45 days @ \$ 600.00/day	\$ 27,000.00
Mob-De mob	\$ 30,000.00
2 Stages of drilling total - 3,000 metres (9,842 ft) @ 175.00 / m .	\$ 525,000.00

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Appendix A

Appendix **B**

Appendix C