Additional information



In the figure above black dots represent historic drill holes and red triangles are those holes reported in this announcement. The underlying image is the topography with the Michelin deposit's mineralisation wireframe in plan view. Arrows indicate the directions in which the Michelin deposit is open – along strike in both directions and down plunge.



Tenements within the Michelin deposit along with details of the Labrador Inuit Lands and Labrador Inuit Settlement areas as they relate to the project are shown below.



The figure above shows two cross sections containing drilling from the most recent drilling campaign. Significant mineralised intervals in these drill holes are detailed along with the wireframe representing the main mineralised zone within the deposit. Not shown are the Hanging and Footwall zones.

The figure below is a Total Magnetic Intensity image for the Michelin–Rainbow trend area in NAD83 Zone 21 grid. The information used to derive this image was compiled from a number of ground surveys primarily conducted using specially prepared equipment towed on sleds behind snowmobiles during the winter exploration programme. The image shows the positions of the Michelin and Rainbow deposits and the interpreted structural corridor connecting both deposits. The limited drilling that has been completed to date within this area has intersected promising, but currently relatively thin, mineralisation.



Drill hole information from the recent drilling programme

The drilling grid used is a local and is based around the Michelin deposit. The baseline for the grid is parallel to the strike, and co-incident with the surface expression of the mineralisation.

	North	East	RL				Dept	h from	Length	eU₃O ₈
Hole	m	m	m	Depth	Azimuth	Dip		m	m	ppm
M14-151	-380.51	-1106.83	333	366	345.32	-53		302	10	1,092
							and	342	3	618
							and	353	5	206
M14-152	-167.94	-528.45	332.86	221	0.32	-70		60	21	561
							and	170	12	429
							and	190	19	376
M14-153	-168.18	-528.48	332.91	272	0.32	-80		70	20	567
							and	93	4	421
							and	199	7	538
							and	216	24	580
M14-154	-218.95	-864.32	332.29	272	0.32	-77		188	5	243
							and	214	15	1,403
							and	232	7	774
							and	242	11	391
							and	256	8	1,307
M14-155	-167.5	-528.48	332.76	116	0.32	-55		54	19	605
			-							
M14-156	251	-218.72	864.38	251	0.32	-69		161	6	197
							and	172	13	172
							and	195	32	787
							and	230	12	956

M14-157	-216.74	-906.65	332.32	344	357.32	-87		187	6	140
							and	205	8	459
							and	217	6	306
							and	244	66	771
M14-158	-216.74	-906.65	332.32	261	0.32	-68		158	5	256
							and	166	8	323
							and	183	5	614
							and	191	16	960
							and	212	32	747
							and	249	4	238
M14-159	-225.17	-604.33	332.31	240	358.32	-63		112	25	592
M14-160	-387.15	-774.44	336	442	340.32	-74		307	6	219
							and	385	5	625
							and	395	12	500
M14-161	-224.45	-601.12	333	282	359.32	-72		63	5	406
							and	129	25	709
							and	246	13	195
							and	275	3	254
M14-162	-387.15	-774.44	336	399	340.32	-64		272	19	416
							and	306	4	233
							and	348	28	1,022
							and	380	3	389
M14-163	-368.8	-592.19	333	405	355.32	-60		176	3	270
							and	267	9	399
							and	279	7	278
							and	355	9	1,146
							and	374	15	267

Michelin deposit JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	 Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information. 	 Cut diamond drill core and downhole radiometric logging. A number of additional factors were determined used to deconvolve and equivalent U₃O₈ grade, according to a well-defined and documented procedure. Sleeve calibrations on radiometric probes are completed prior to logging each drill hole. ½ core samples were collected for all mineralised holes to validate down hole gamma results. The routine aim is for 10-20% of all mineralised holes to be verified by assay, but all drill holes from re-started drilling programme were assayed to allow for a robust comparison. Samples were selected using a combination of on core scintillometry and the radiometric log as an indication of the location of mineralisation. Core samples were cut to 1m in length but were additionally limited to lithological boundaries. An additional 5m of low grade material either side of the mineralised zone was sampled. Areas <10m of internal waste within the mineralised zone was additionally included in sample runs. Sample preparation, crush – split-pulverise, of the half-core was completed at Actlabs in Goose Bay. U & Zr were then analysed by pressed-powder XRF at ALS in Vancouver (method code: ME-XRF05). Samples analysing >5000ppm Zr were re-analysed by fused-disk XRF at ALS (method code: ME-XRF15 (LDL =0.01% Zr)).
Drilling techniques	 Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc). 	 All holes were NQ, diamond core All core was orientated and all holes were orientated using a Relfex ACT tool.
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of 	 Recovered core length is measured and compared to the length drilled provided by the driller. In addition, following down hole radiometric logging, drilling depths are adjusted and recoveries verified. Mineralisation hosted in fresh rock and core recovery is generally very good to excellent. Very occasional zones of core loss have been recorded and these are associated with faulting.

Criteria	JORC Code explanation	Commentary
	fine/coarse material.	There is no relationship between core recovery and grade.
Logging	 Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	 All drill cores are logged by geologists. All drill cores are photographed both wet and dry and digital images are stored within the drilling database. Basic geotechnical information (RQD and fracture frequencies) has routinely been collected for all recent drill holes. A programme of more detailed geotechnical and structural logging of historical and recent core is expected to be undertaken over the summer field season. The deposit is currently considered to have minimal metallurgical variability however the geological logging is conducted in detail and is considered appropriate for all future studies.
Sub-sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	 Drill cores were split using a mechanical core splitter. For the 2014 drilling programme, the results of which are reported above, an Almonte automatic core saw was used to split drill core for sampling. Sample preparation was undertaken at Actlabs, Goose Bay, using industry standard methods (crush–split-pulverise) and is considered appropriate to the style of mineralisation present in the deposit. Standard, blank and ¼ core duplicates were inserted into the sample stream every 20 samples The material samples are relatively fine grained and the sample size taken is deemed to be appropriate. Analysis of duplicates has indicated some potential for a bias to be introduced but to the mechanical splitting process and, because of this, core sawing has been introduced. As yet results from sawn duplicates are not available.
Quality of assay data and laboratory tests	 The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	 U₃O₈ was analysed by pressed powder XRF methods. A scoping study was done prior to the re-commencement of drilling, to determine most appropriate assay method: matrix-matched standard material was analysed by various methods and the method returning the most appropriate results (XRF) was identified. Down hole radiometric probes are calibrated at a primary calibration facility each year to confirm both the dead-time and K-factor's to be applied to calculate the equivalent U₃O₈ value. All probes are subject to routine sensitivity checks to identify instrument drift and confirm the

Criteria	JORC Code explanation	Commentary
		 reliability of readings. Where radiometric logging is conducted inside drill rods, appropriate casing factors are defined from both in-rod and open hole logs. It is company policy to use open hole logs wherever possible. Standard, blank and ¼ core duplicate are submitted into the sample stream every 20 samples. Analysis of the drilling programmes undertaken in 2012 and 2013 indicates that both the standards and blanks performed very well however duplicate analysis showed a significant spread in results and investigation suggested this was due to poor mechanical splitting of the drill core. This issue is expected to be resolved buy the use of an automatic core saw. Results from the 2014 drilling programme are not yet available to confirm this.
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	 As both assaying and down hole logging are performed, along with scintillometry of core following geological logging, the identification of mineralised intersections has been confirmed by a number of methodologies and personnel. A limited number of holes (between Aurora/Brinex and Paladin/Aurora) have been completed. It is anticipated that additional twinned holes (particularly with historical Brinex drilling) will be completed. Analysis of the twins drilled so for shows good positional agreement and limited overall grade variation. Data is entered into a Microsoft Access logging database during data capture at the exploration camp. When all data has been collected for a hole, it is transferred to the main office where the database. Data is verified by geologists after it has been collected, prior to import into Geobank, and regularly by geologists during geological modelling as well as and prior to resource estimates. The server based database has restricted access and is internally audited. U converted to U₃O₈ in the database where required on export by x1.1798.
Location of data points	 Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. 	 Multi-shot down hole surveys are taken with resultant datapoints every 3m. All collars were surveyed by DGPS. Historical collars have been resurveyed when located using DGPS with most locations being accurate.

Criteria	JORC Code explanation	Commentary
	Quality and adequacy of topographic control.	Where discrepancies have occurred these have been traced to original data entry issues or miss locations of holes in previous surveys.
Data spacing and distribution	 Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied. 	 Drilling is targeted at a nominal 40m x 40m grid but is dependent on drilling platform siting. Spacing currently increases to 50m-100m at depth. For down hole radiometrics the information used for mineral resources are based on 1m composites of 5cm gamma data. For geochemical assays, the majority of core was cut to a 1m interval except at lithological boundaries where shorter lengths may have been assayed. All geochemical data has been composited to 1m.
Orientation of data in relation to geological structure	 Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	 The majority of mineralisation boundaries are gradational (and the sampling process either includes material either side of the mineralisation or, in the case of radiometrics, the entire drill hole) so not relevant to this style of mineralisation. Orientation of mineralisation is well known and drilling is, in most cases, near perpendicular to the mineralisation.
Sample security	The measures taken to ensure sample security.	 Geochemical samples are dispatched with 3 security tags on each container and each receiver signs off to confirm those samples have not been tampered with.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	No audits or reviews have been conducted since 2008.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)					
Criteria	JORC Code explanation	Commentary			
Mineral tenement and land tenure status	 Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	 All drilling was carried out on tenement 017287M Michelin Main which was gradated 27th March 2003 and has an expiry date of 27th March 2023. The tenement consists of 190 blocks with an area 48km². The tenements are 100% owner by Aurora Exploration Limited, which is in turn 100% owned by Paladin. All tenements are in good standing and there are no current impediments 			

Criteria	JORC Code explanation	Commentary
		to operating in the area.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	• The area has been explored on and off from the mid/late 1950's through to the present with the majority of drilling taking place in the 1970's by Brinex, 2005-2008 by Aurora and most recently from 2012 by Paladin. All work undertaken by the proceeding companies was performed to a very high standard.
Geology	Deposit type, geological setting and style of mineralisation.	The Michelin deposit is considered to be a uranium metasomatite-type (albitite-type) hosted in Proterozoic felsic volcanics of the Aillik group within the Central Mineral Belt of Labrador.
Drill hole Information	 A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	See attached table for 2014 drilling results
Data aggregation methods	 In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	 The values reported are based on a minimum target grade of 100ppm eU₃O₈, no cutting of high values, minimum length of 3m and maximum of 2m internal waste. Composites are length weighted averages of 1m composites (derived from original 5cm data). There are no contained short length of high grade mineralisation which would bias the final composite value.
Relationship between	 These relationships are particularly important in the reporting of Exploration Results. 	 As far as is possible the drilling targets to achieve a perpendicular intercept to the mineralisation. However, as a number of holes are drilled

Criteria	JORC Code explanation	Commentary
mineralisation widths and intercept lengths	 If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known'). 	from a single drill platform, this is not possible in every case. In particular this is most likely to occur at depth where initial drill dips can approach -85 degrees. In this case the drill intercept angle may drop to as low as 65 degrees by the time the mineralisation is intersected which may lead to an overstatement of the actual intercept width.
Diagrams	 Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. 	See attached plan and section.
Balanced reporting	 Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. 	 All drilling from the 2014 drilling programme is presented in the table.
Other substantive exploration data	 Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. 	• As part of the routine logging of completed drill holes a number of bulk density determinations are made (between 10 and 20 depending on hole length). During the winter field season, when local access is much simpler and more economical, a number of ground geophysical surveys were completed and will be incorporated into the current, existing, larger scale geophysical dataset.
Further work	 The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	 The drilling undertaken is the 2014 programme was designed to infill some gaps within the drilling coverage for the Michelin mineral resource estimate. This programme is ongoing and it is expected that additional holes will be drilled during the next winter season to both infill and extend the Michelin deposit and mineral resource. See plan attached.