MANHATTAN

MANHATTAN CORPORATION LIMITED

ASX Release *Monday, 23 January 2017*

PONTON MINERAL RESOURCE ESTIMATES

DOUBLE 8 INFERRED RESOURCE ESTIMATE UPGRADED TO JORC CODE 2012
MAIDEN RESOURCE ESTIMATES FOR STALLION, HIGHWAY and SHELF URANIUM DEPOSITS REPORTED

HIGHLIGHTS

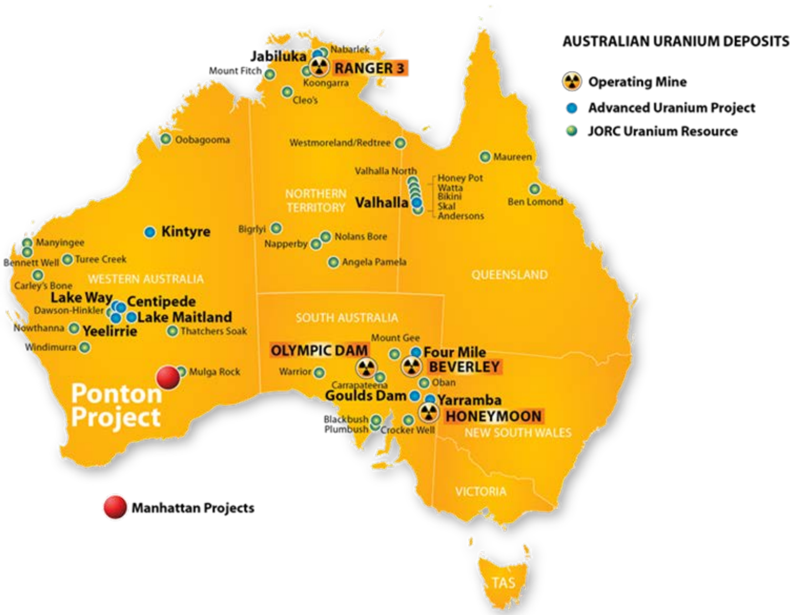
- ***Double 8 Inferred Mineral Resource of 17.2Mlb uranium oxide upgraded to JORC Code 2012***
- ***Stallion Inferred Mineral Resource of 3.3Mlb uranium oxide;***
- ***Highway Inferred Mineral Resource of 1.9Mlb uranium oxide; and***
- ***Shelf Inferred Mineral Resource of 1.8Mlb uranium oxide reported***

INTRODUCTION

Manhattan Corporation Limited's ("**Manhattan**") flagship Ponton uranium project is located approximately 200km northeast of Kalgoorlie on the edge of the Great Victoria Desert in WA. The Company has 100% control of around 1,100km^2 of exploration tenements underlain by Tertiary palaeochannels within the Gunbarrel Basin. These palaeochannels are known to host a number of uranium deposits and drilled uranium prospects (Figures 1 & 2).

The Company is drill testing and developing palaeochannel sand hosted uranium mineralisation amenable to in-situ metal recovery ("**ISR**").

FIGURE 1: MANHATTAN'S PONTON URANIUM PROJECT



The Double Mineral Resource previously reported under the JORC Code 2004 has undergone a comprehensive review by resource specialists H&S Consultants Pty Ltd ("**H&SC**") and is now reported in accordance with the JORC Code 2012. The reported Inferred Resource for the Double 8 uranium deposit at Ponton in WA of 17.2 million pounds ("**Mlb**") of uranium oxide ("**U_3O_8**") at a 200ppm cutoff remains unchanged. This updated resource estimate prepared by H&SC is supported by further detailed information in Appendix 1 being the JORC Code 2012 prescribed Table 1.

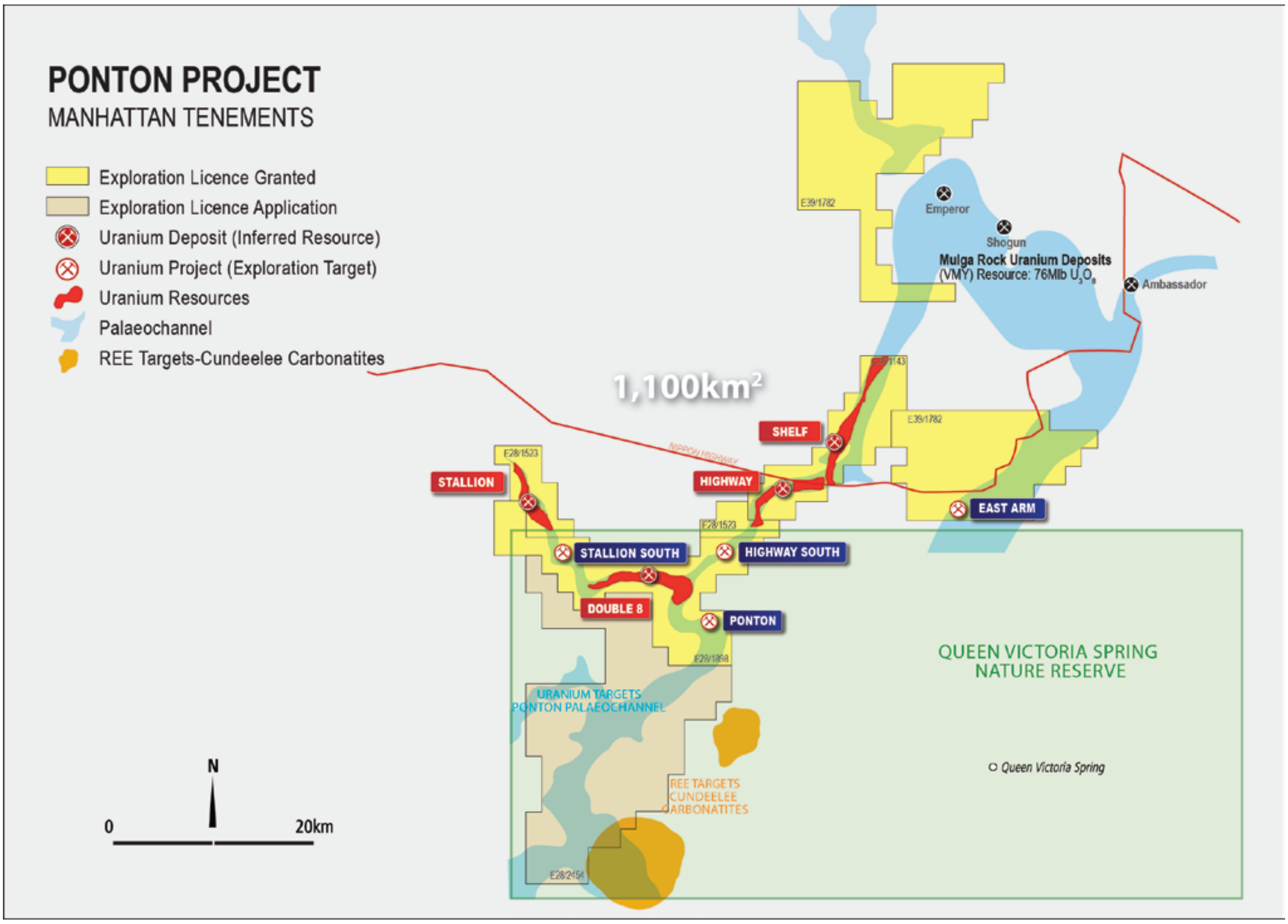
Maiden Mineral Resource estimates for three deposits at Ponton have reported combined Inferred Mineral resources of 21.5 million tonnes ("**Mt**"), grading from 137 to 151ppm U_3O_8 totalling 6.97Mlb U_3O_8 at the 100ppm U_3O_8 cutoff. These resource estimates have been prepared by H&SC and reported in accordance with the JORC Code 2012. The three maiden Resource Estimates reported for Ponton uranium project are:

- Stallion uranium deposit of 3.3Mlb U_3O_8 at 100ppm cutoff;
- Highway uranium deposit of 1.9Mlb U_3O_8 at 100ppm cutoff; and
- Shelf uranium deposit of 1.8Mlb U_3O_8 at 100ppm cutoff

These maiden Resource Estimates prepared by H&SC are supported by further detailed information in Appendix 1 being the JORC Code 2012 prescribed Table 1.

The Double 8 uranium deposit is located on granted exploration licence, E28/1898, located mostly within the Queen Victoria Spring Nature Reserve ("**QVSNR**"). The Stallion, Highway and Shelf uranium deposits are located on E28/1523 and E39/1143 to the north and outside of the QVSNR (Figures 2 & 3).

FIGURE 2: MANHATTAN'S PONTON TENEMENTS



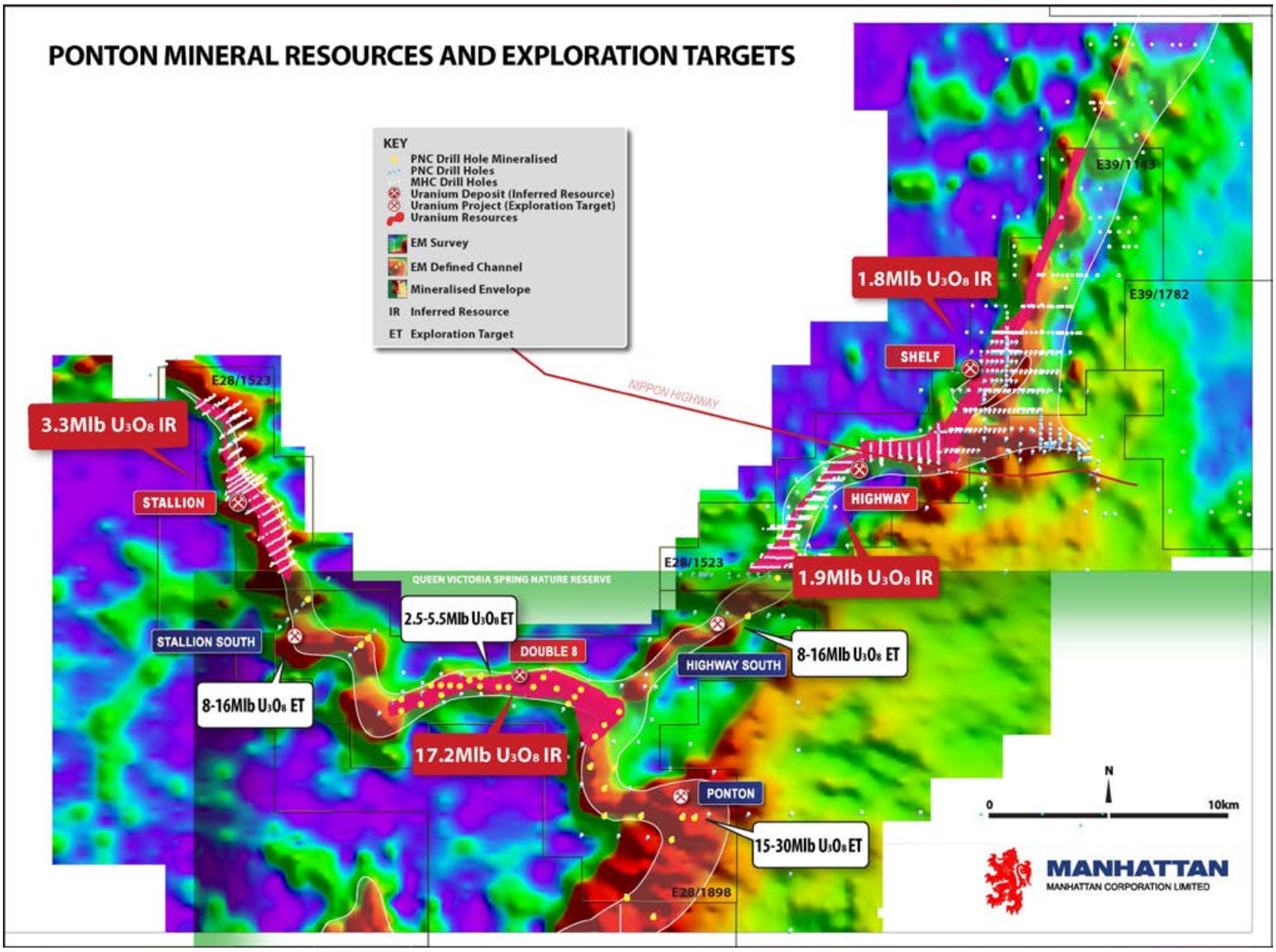
Exploration Results at Ponton, reported by Manhattan on 7 February 2014, have also identified four wide spaced drilled Exploration Targets with tonnage ranges of 4 to 45 million tonnes ("**Mt**"), grade ranges of 250 to 450ppm U_3O_8 totalling 33 to 67Mlb U_3O_8 at the 200ppm U_3O_8 cutoff. In accordance with clause 17 of the JORC Code 2012, the potential quantity and grade reported as Exploration Targets in this report must be considered conceptual in nature as there has been insufficient exploration and drilling to define a Mineral Resource and it is uncertain if further exploration and drilling will result in the determination of a Mineral Resource.

The four Mineral Resource Estimates reported here, and the four Exploration Targets previously reported in 2014, are based on actual exploration results including Manhattan's aircore and sonic drilling of over 767 holes and 52,700 metres of drilling along the palaeochannels immediately to the north of QVSNR in 2009 and 2010, 21 holes and 1,170 metres of drilling by Manhattan in 2016 and over 70km of conductive palaeochannels defined by the Company's airborne EM and magnetic surveys within QVSNR (Figure 3) and uranium mineralised sands discovered in previous drilling of 114 holes and 6,900 metres of drilling and down hole gamma logging by PNC Exploration ("**PNC**") and Uranerz Limited ("**Uranerz**") in the area in the 1980's.

REGIONAL GEOLOGICAL SETTING AND DRILLING

The Ponton project area is underlain by Tertiary palaeochannels within the Gunbarrel Basin. Carbonaceous sand hosted uranium mineralisation, below 40 to 70 metres of cover, has now been defined by drilling along 55 kilometres of the palaeochannels at Stallion, Stallion South, Double 8, Ponton, Highway, Highway South and the Shelf prospects (Figure 3). At a depth of 40 to 70 metres the uranium mineralisation is in shallow reduced sand hosted tabular uranium deposits in a confined palaeochannel with uranium mineralisation that is potentially amenable to in-situ metal recovery ("**ISR**"), the lowest cost method of producing yellowcake with the least environmental impact.

FIGURE 3: DOUBLE 8, STALLION, HIGHWAY & SHELF INFERRED RESOURCES (IR)
STALLION SOUTH, HIGHWAY SOUTH & PONTON EXPLORATION TARGETS (ET)



Manhattan has obtained and compiled all the PNC and Uranerz exploration drilling results from 1983 to 1986 that discovered the palaeochannel sand hosted uranium mineralisation in the area. This information including the geological drill logs, assay results, down hole gamma logs, logging tool calibrations and estimated disequilibrium factors have been digitised and verified by Manhattan's independent consultants 3D Exploration Pty Ltd.

Forty four (44) of these drill holes were drilled into the Double 8 deposit. Double 8 was found to host roll-front or tabular type uranium mineralisation in the lower parts of the palaeochannel (40-70 metres depth) in reduced sands. The uranium mineralisation was drill intersected in an area along approximately nine kilometres of the palaeochannel, at widths of approximately 500m on average and down hole thicknesses of 3 to 25 metres.

From December 2009 to December 2010 Manhattan drilled over 52,700 metres of aircore and sonic drilling in 767 holes along the palaeochannels at Ponton to the north of the QVSNR. In September 2016 Manhattan completed a 24 hole 1,170 metres of aircore drilling along the palaeochannels north of the QVSNR utilising a high resolution gamma probe.

PNC and Uranerz's drilling from the 1980's and Manhattan's 2009, 2010 and 2016 exploration drilling results have been reviewed and the Inferred Resource estimates for Double 8, Stallion, Highway and Shelf are based on these drilling results.

DISEQUILIBRIUM CORRECTION FACTORS

The original analog gamma logging data for the PNC and Uranerz drill holes has been digitized and recalibrated by 3D Exploration Pty Ltd in April 2009 and provided to H&SC as digitized logs converted to eU_3O_8. David Wilson, of 3D Exploration Pty Ltd, takes responsibility for the quality and accuracy of radiometric uranium (eU_3O_8) measurements used in these estimates.

PNC did not establish a disequilibrium factor or factors that could be used for their work at Double 8. Instead they compared the gamma results from several diamond core holes against the chemical assays and established a calibration factor for their gamma probes. This calibration factor, 0.4CPS/ppmU, would have incorporated any disequilibrium factor present in the diamond core samples used for comparison. The actual disequilibrium was unknown.

At Double 8 where U_3O_8 is reported it relates to grade values calculated from down hole radiometric gamma logs. Double 8 drill holes were logged by PNC using Austral L300 Middiloggers for natural gamma radiation. Four Austral L300 loggers were used by PNC in the area, calibrated against each other on a regular basis, and gamma responses compared to chemical assays from a number of core holes. Conversion factors for gamma response to U assays assuming secular equilibrium were then established. eU_3O_8 grades are then estimated by converting down hole radiometric gamma logs to equivalent uranium eU and multiplied by 1.179 to convert to equivalent uranium grades eU_3O_8. Down hole radiometric gamma logging in sand hosted uranium deposits, similar to Double 8, is a common and well established method of estimating uranium grades. All U_3O_8 grade results reported are subject to disequilibrium factors that may vary from those used in the original gamma to chemical assay comparison. This should be taken into account when assessing the reported grades.

Radiometric disequilibrium corrections for Manhattan and Uranio drill holes:

- The disequilibrium ratio for the Manhattan and Uranio aircore holes were derived from a comparison of chemical and radiometric assays for the sonic Manhattan sonic drill holes, as these holes have the most reliable samples;
- A Q-Q plot of the chemical and radiometric assays for the Manhattan sonic holes was divided into three grade ranges based on distinct changes in slope of the relationship and power curve regressions were fitted to each grade range. Care was taken to ensure a smooth transition for the regression formulas from one grade range to the next;
- The regression formulas for the Manhattan and Uranio aircore drill holes are;
  - Low grade (0 - 71ppm eU_3O_8): $y = 0.023x^{1.8779}$;
  - Medium grade (71 - 105ppm eU_3O_8): $y = 0.00002x^{3.5318}$; and
  - High grade (>105ppm eU_3O_8): $y = 4.3372x^{0.8922}$.
- The regression for the high grade range is broadly concordant to the results of the closed can tests undertaken by Manhattan and to a correction factor derived by our consultant, David Wilson of 3D Exploration Pty Ltd; and
- These regressions were then applied to the radiometric gamma logs for the Manhattan and Uranio aircore holes and sections of sonic holes missing chemical assays for the Stallion, Highway and Shelf uranium deposits.

DOUBLE 8 INFERRED RESOURCE ESTIMATE

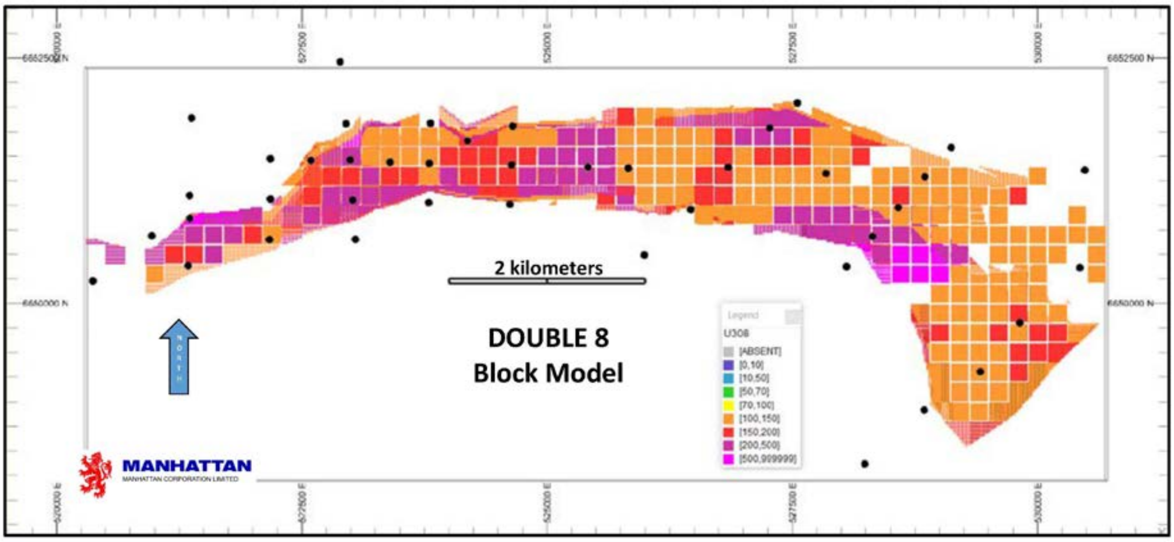
The Double 8 uranium deposit is located in granted tenement E28/1898 in the southwest of the project area within the QVSNR (Figures 2 & 3).

H&SC's resource estimate for the Double 8 Prospect is based on approximately 2,706m of drilling from 44 aircore holes drilled by PNC in the early 1980s along 10 kilometres of the palaeochannel at Double 8 (Figure 3). The drilling has covered an area of approximately 9 x 1.2 km of the Ponton palaeochannel. 40 were successfully logged for uranium decay products using a down hole gamma radiometric probe. The original analog gamma logging data has been digitized and recalibrated by 3D Exploration Pty Ltd in April 2009 and provided to H&SC as digitized logs converted to eU_3O_8. David Wilson, of 3D Exploration Pty Ltd, takes responsibility for the quality and accuracy of radiometric uranium (eU_3O_8) measurements used in these estimates.

An Inferred Resource of 7,800 tonnes (17.2Mlb) of uranium oxide at a 200ppm U_3O_8 cutoff for the Double 8 uranium deposit is reported (Figure 4). The reported resources are based on RC drilling by PNC in the mid 1980's and are classified as Inferred. This information was prepared and first disclosed under the JORC Code 2004. This updated resource estimate prepared by H&SC is supported by further detailed information in Appendix 1 being the JORC Code 2012 prescribed Table 1.

The uranium mineralisation at Double 8 remains open and is yet to be closed off by drilling. Manhattan considers that further infill drilling, on 100m x 400m centres, of the Double 8 deposit will expand on the reported resource and the confidence levels of resources will improve.

FIGURE 4: DOUBLE 8 BLOCK MODEL 100ppm CUTOFF



Double 8 Inferred Resources

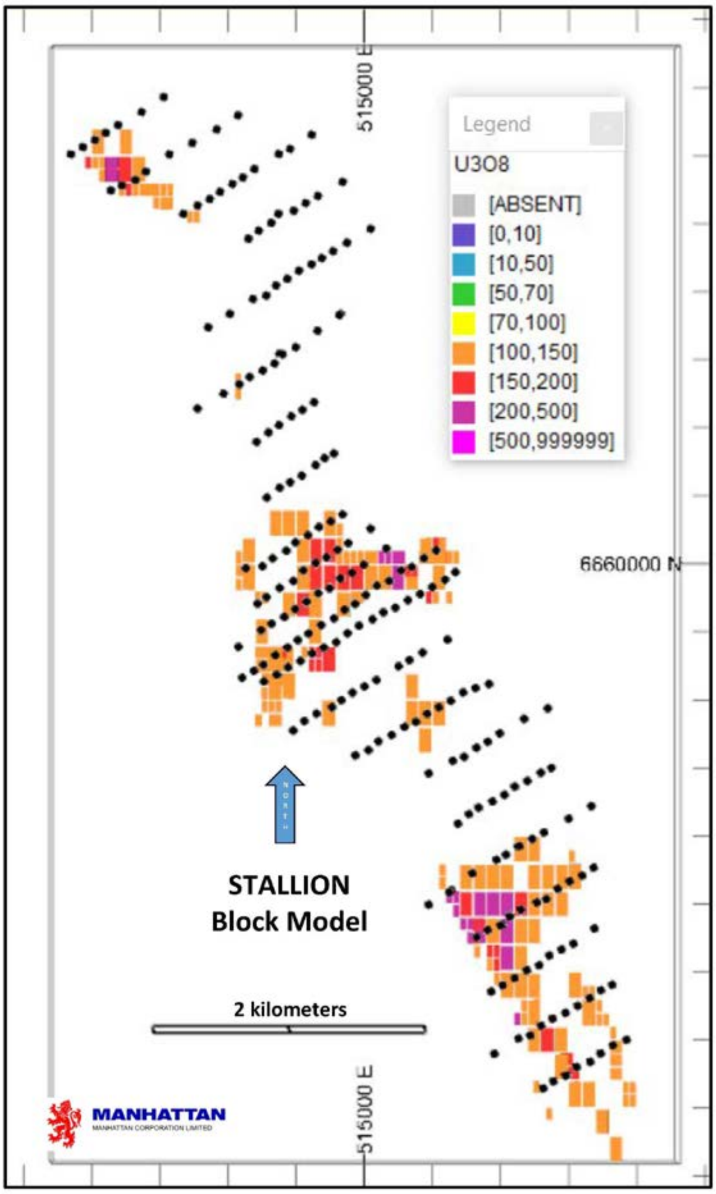
DOUBLE 8 INFERRED RESOURCE ESTIMATES				
CUTOFF GRADE eU_3O_8(ppm)	TONNES (MILLION)	GRADE eU_3O_8(ppm)	TONNES U_3O_8(t)	POUNDS (MILLION) U_3O_8(Mlb)
100	110	170	18,700	42.0
150	51	240	12,240	26.0
200	26	300	7,800	17.2
250	14	360	5,040	11.0

On gaining exploration access to E28/1898, and approval of Manhattan's Program of Work ("**POW**") by the Department of Mines and Petroleum ("**DMP**"), the Company plans to complete approximately 200 aircore drill holes for 16,000 metres of infill resource definition drilling on 400 x 100m centres along the defined palaeochannel within the reported Inferred Resource area at Double 8. This drilling program, including the resource definition drilling planned for the Stallion South, Highway South and Ponton prospects, will be completed within approximately one year of POW approval (Figure 3).

STALLION INFERRED RESOURCE ESTIMATE

The Stallion uranium deposit is located in E28/1523 and centred 14 kilometres northwest of the Double 8 uranium deposit at Ponton (Figures 2 & 3).

FIGURE 5: STALLION BLOCK MODEL 100ppm CUTOFF



H&SC's resource estimate for the Stallion Prospect is based on a total of 252 drill holes totalling 18,746m of drilling including 7 aircore holes for approximately 401 metres of drilling by PNC in the early 1980s and Manhattan's 226 vertical aircore drill holes totalling 16,914m and 16 duplicate sonic drill holes totalling 1,179m of drilling along 8 kilometres of the palaeochannel at Stallion in 2009 and 2010 and 3 aircore holes for 252m, utilising improved high resolution gamma probe technology, drilled into the Stallion deposit twinning previously drilled Manhattan aircore and sonic drill holes in 2016 (Figure 3). Drilling has been completed on 200m and 400m spaced lines with holes drilled at 100m centres along each grid line across the palaeochannel within mineralised zones. All drill holes were gamma logged.

An Inferred Resource of 1,490 tonnes (3.3Mlb) of uranium oxide at a 100ppm U_3O_8 cutoff for the Stallion uranium deposit is reported (Figure 5). The reported resources, based primarily on Manhattan's aircore and sonic drilling in 2010 and 2016, are classified as Inferred. This resource estimate has been prepared by H&SC and is supported by further detailed information in Appendix 1 being the JORC Code 2012 prescribed Table 1.

Stallion Inferred Resources

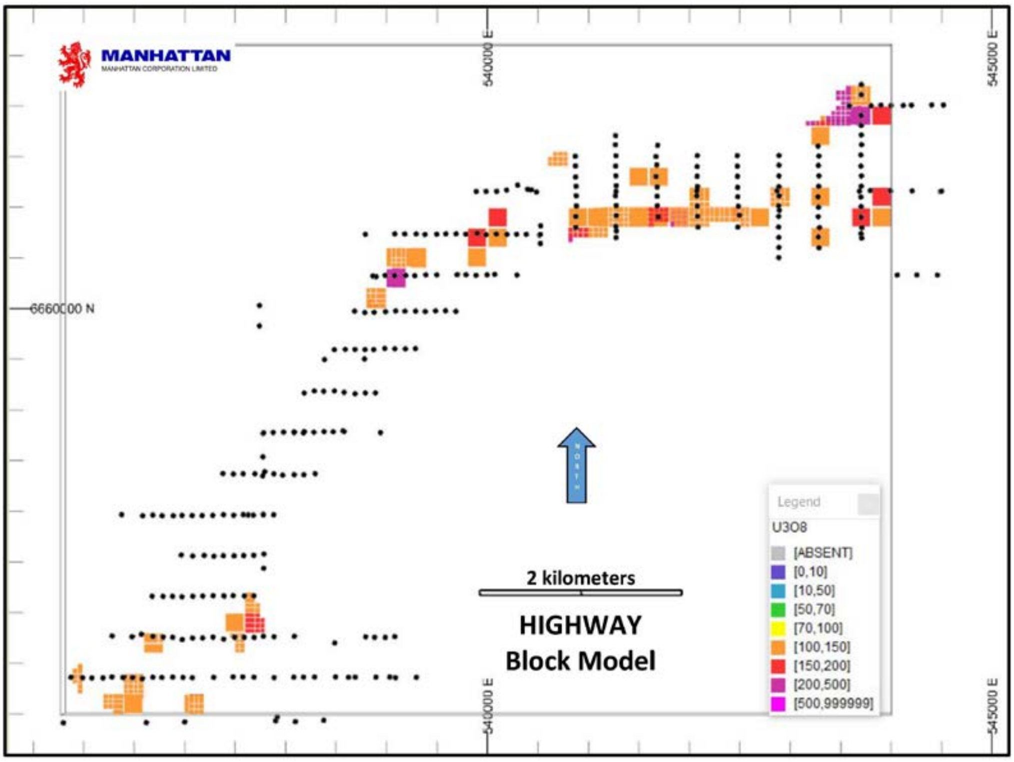
STALLION INFERRED RESOURCE ESTIMATES				
CUTOFF GRADE eU_3O_8(ppm)	TONNES (MILLION)	GRADE eU_3O_8(ppm)	TONNES U_3O_8(t)	POUNDS (MILLION) U_3O_8(Mlb)
100	***9.9***	***151***	***1,490***	***3.3***
150	*3.6*	*200*	*720*	*1.6*
200	*1.3*	*253*	*330*	*0.7*

HIGHWAY INFERRED RESOURCE ESTIMATE

The Highway uranium deposit is located in E28/1523 and E39/1143 centred 15 kilometres northwest of the Double 8 uranium deposit at Ponton (Figures 2 & 3).

H&SC's resource estimate for the Highway Prospect is based on a total of 304 drill holes totalling 18,236m of drilling including 6 aircore holes for approximately 279 metres of drilling by PNC and 27 RC hole for approximately 1,378m of aircore and reverse circulation ("**RC**") drilling by Uranerz in the early 1980s, Uranio's 5 aircore holes totalling 381m in 2009, Manhattan's 260 vertical aircore drill holes totalling 15,832m and 3 duplicate sonic drill holes totalling 183m of drilling along 10 kilometres of the palaeochannel at Stallion in 2009 and 2010 and 3 aircore holes for 183m, utilising improved high resolution gamma probe technology, drilled into Highway twinning previously drilled Manhattan aircore and sonic drill holes in 2016 (Figure 3). Drilling has been completed on 200m and 400m spaced lines with holes drilled at 100m centres along each grid line across the palaeochannel within mineralised zones. All drill holes were gamma logged.

FIGURE 6: HIGHWAY BLOCK MODEL 100ppm CUTOFF



An Inferred Resource of 860 tonnes (1.9Mlb) of uranium oxide at a 100ppm U_3O_8 cutoff for the Highway uranium deposit is reported (Figure 6). The reported resources, based primarily on Manhattan and Uranio's aircore and sonic drilling in 2009, 2010 and 2016, are classified as Inferred. This resource estimate has been prepared by H&SC and is supported by further detailed information in Appendix 1 being the JORC Code 2012 prescribed Table 1.

Highway Inferred Resources

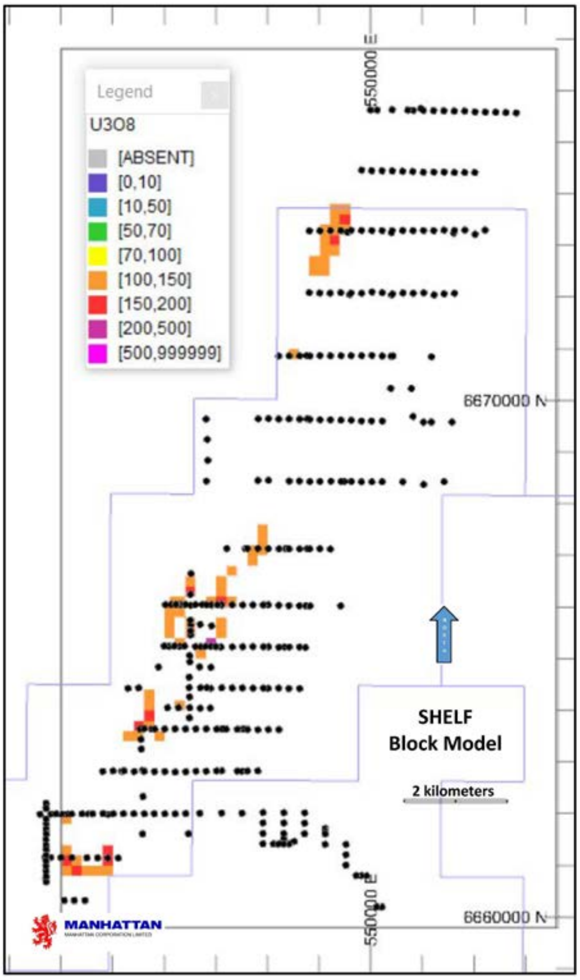
HIGHWAY INFERRED RESOURCE ESTIMATES				
CUTOFF GRADE eU_3O_8(ppm)	TONNES (MILLION)	GRADE eU_3O_8(ppm)	TONNES U_3O_8(t)	POUNDS (MILLION) U_3O_8(Mlb)
100	*5.7*	*150*	*860*	*1.9*
150	*2.4*	*196*	*470*	*1.0*
200	*1.0*	*234*	*220*	*0.5*

Apart from some shallow lignite hosted uranium mineralisation encountered along the northern part of the palaeochannel at Highway, the geological controls and style of the channel sand hosted uranium mineralisation at Highway are similar to the mineralisation encountered at Double 8 and Stallion.

SHELF INFERRED RESOURCE ESTIMATE

The Shelf uranium deposit is located along the palaeochannel approximately 10km northeast of Highway in E39/1143 (Figures 2 and 3).

FIGURE 7: SHELF BLOCK MODEL 100ppm CUTOFF



H&SC's resource estimate for the Shelf Prospect is based on a total of 352 drill holes totalling 21,550m of drilling including 110 holes for approximately 5,871m of aircore and RC drilling by Uranerz in the early 1980s, Uranio's 15 aircore holes totalling 1,302m in 2009 and Manhattan's 227 vertical aircore drill holes totalling 14,377m in 2010 (Figure 3). Drilling has been completed on 200m and 400m spaced lines with holes drilled at 100m centres along each grid line across the palaeochannel within mineralised zones along 14 kilometres of the palaeochannel at Shelf in 2010. All drill holes were gamma logged.

At Shelf the drilling by Uranerz on 200m x 100m centres identified shallower lignite hosted uranium mineralisation within the upper sandstone and claystone. In 2010 Manhattan drilled 8 duplicate aircore holes into, and confirmed, the lignite mineralisation at Shelf.

An Inferred Resource of 810 tonnes (1.8Mlb) of uranium oxide at a 100ppm U_3O_8 cutoff for the Shelf uranium deposit is reported (Figure 7). The reported resources are based on RC and aircore drilling by Uranez in the mid 1980's and Manhattan and Uranio's aircore drilling in 2009 and 2010, are classified as Inferred. This resource estimate has been prepared by H&SC and is supported by further detailed information in Appendix 1 being the JORC Code 2012 prescribed Table 1.

Shelf Inferred Resources

SHELF INFERRED RESOURCE ESTIMATES				
CUTOFF GRADE eU_3O_8(ppm)	TONNES (MILLION)	GRADE eU_3O_8(ppm)	TONNES U_3O_8(t)	POUNDS (MILLION) U_3O_8(Mlb)
100	*5.9*	*137*	*810*	*1.8*
150	*1.4*	*187*	*270*	*0.6*
200	*0.3*	*270*	*80*	*0.2*

MATERIAL INFORMATION SUMMARY

Pursuant to ASX Listing Rule 5.8.1 the following summary is provided of information material to understanding the Mineral Resource estimates.

GEOLOGY AND GEOLOGICAL INTERPRETATION

GEOLOGY

The resources reported for Double 8, Stallion, Highway and Shelf are all hosted within Tertiary palaeochannels within the Gunbarrel Basin. Carbonaceous sand hosted uranium mineralisation, generally below 40 to 70 metres of cover, has now been defined by drilling along 55 kilometres of the palaeochannels in the area. At a depth of 40 to 70 metres the uranium mineralisation is in shallow reduced sand hosted tabular uranium deposits in a confined palaeochannel with uranium mineralisation that is potentially amenable to ISR metal recovery.

Mineralisation is hosted within carbonaceous sand under a clay cap layer (approx. 1m thick). The base of the palaeochannel is weathered/fresh Archaean granite and, locally, mid Proterozoic Paterson Formation shales and sediments.

The mineralogy of the Ponton deposits has had some preliminary petrological analysis. The mineralogical analysis showed that uranium was predominantly represented by coffinite, (U,Th)(SiO4)1-x(OH)4x and davidite, $(U,REE,Ca)(Ti,Fe)_{20}O_{38}$. Microprobe analyses of davidite grains detected that Lanthanum is the most common rare earth element (REE), with minor amounts of Cerium, Yttrium and Erbium. Calcium is common and substitutes REE and probably uranium.

Samples analysed demonstrated strong correlation between uranium mineralisation and ilmenite-rutile-pyrite association, as well as uranium being commonly associated with carbonaceous organics.

GEOLOGICAL INTERPRETATION

There is a reasonable confidence level in the geological interpretation of the Ponton palaeochannel uranium deposits.

The geological interpretation involved modelling the cross sections of the palaeochannels based on the geological drill logs from all phases of drilling and superimposing the airborne EM images to confine the sub surface channels and their aerial real extent.

There appears to be limited scope for an alternative interpretation. The palaeochannel sands are quite clearly and easily geologically logged and strongly correspond to radiometric down hole gamma logging data. As well the palaeochannels are generally hydraulically active and fully charged with saline water producing wet drill samples and strong water return on the drill rigs. In any event, it is unlikely an alternative interpretation would have a material impact on the Mineral Resource estimates reported as the strong lateral continuity over 10's of kilometres of the palaeochannels in over 1,000 drill holes and 65,000m of drilling in the area, supported by the EM imagery, suggests few alternative geological, if any, models could be applied.

The mineralised palaeochannels were treat as having physical boundaries based on the palaeochannel cross sections and shapes of the model developed, the upper clay cap layer and the granitic sand (and occasionally shale) basement material underlying the palaeochannels.

The major feature affecting the continuity of both the grade and tenor of uranium mineralisation is the sinuous nature of the palaeochannels. However, as the proposed metal recovery is by ISR the geological modelling and interpretation is considered appropriate to the style of deposit being reported.

SAMPLING AND SUB SAMPLING TECHNIQUES

OVERVIEW

The Ponton palaeochannels have been explored and drilled by PNC Exploration, Uranerz, Uranio Limited and Manhattan Corporation Limited over a period of approximately 35 years.

All exploration companies have utilised open hole drilling techniques combined with down hole gamma logging and some drill sample collection and chemical assays. In general, apart from Manhattan's sonic drill core samples, it is extremely difficult to collect reliable core or drill chip samples from water charged palaeochannel deposits and gamma logging is considered the most appropriate method to sample and test such deposits worldwide.

Despite the difficulty in collecting mineralised samples the quality and consistency of the down hole gamma logs is considered to be of good quality, consistent and a measurable technique for such deposits as the Ponton palaeochannel uranium deposits. All gamma probes tools are independently calibrated to allow comparison of different generations of gamma probe data collected by different operators.

SAMPLING

The following sampling techniques were employed PNC, Uranerz, Uranio and Manhattan at Ponton:

PNC and Uranerz collected very few drill chip samples, no details of sampling techniques, sample preparation or handling are available.

Uranio had 1m sample piles laid on the ground and spear sampled. Certified standards were used and duplicate sampling was undertaken.

Manhattan collected 1m aircore samples off the drill rig into polyweave bags as most mineralised samples were wet. Polyweave bags were then laid on their side, allowed to drain, and spear sampled from top to bottom of the bag.

Manhattan sonic cores were wedge sampled by a continuous "v" slice being taken along the core in 0.5m lengths.

Manhattan aircore samples had three uranium certified standards and one certified blank standard used as well as field duplicate sampling undertaken. For the sonic core samples three uranium certified standards and one certified blank standard were used, field duplicate sampling was undertaken.

Sample sizes were considered appropriate for the grain size of the material being sampled.

Manhattan undertook a program of twin holes, where sonic holes twinned a selection of mineralised aircore holes at Stallion and Highway and duplicated aircore and RC holes at Shelf.

Manhattan undertook a second program of twin holes where six of the sonic holes were twinned by aircore holes to gain additional gamma data for development of an appropriate disequilibrium factor.

DRILLING TECHNIQUES

A total of 949 holes for 61,055m of drilling has been completed on the four Mineral Resource estimates reported. The following drilling techniques were employed PNC, Uranerz, Uranio and Manhattan at Ponton:

PNC completed 57 aircore holes for 3,386m and an unknown number of diamond drill holes in the area whilst Uranerz used a combination of aircore and Reverse Circulation Drilling (RC) drilling completing 137 holes for 7,249m of drilling. There are no details regarding drill sample recovery available.

Uranio and Manhattan utilised Wallis aircore NQ (71mm) diameter holes face sampling bits and proprietary Wallis vacuum bits. Drill sample recovery in the palaeochannel wet sands was poor as was anticipated. Uranio completed 20 holes for 1,683m of drilling and Manhattan completed 716 aircore holes for 47,375m of drilling.

Manhattan sonic drilling, undertaken by Boart Longyear, drilled a 170mm diameter hole with 100mm internal diameter core samples utilising 3m core barrel. 100% sample recovery was achieved for the mineralised palaeochannels and all holes gamma logged. Manhattan completed 19 sonic holes for 1,362m of drilling.

Apart from Manhattan's sonic holes, all Manhattan and Uranio aircore holes delivered poor sample recoveries from the palaeochannel sands and these "washed out" samples reflected low assay values most likely due to preferential loss of fine carbonaceous material, host to the uranium mineralisation, being lost down hole on wet sample recovery.

All drill holes were geologically logged to an appropriate level of detail with respect to the style of mineralisation. No geotechnical logging was undertaken due to expected future extraction method being by ISR. Aircore holes were logged to a minimum of 1m scale. The Sonic core holes were logged per the differing geological lengths and the sonic core was photo logged.

CLASSIFICATION CRITERIA

All Mineral Resources reported are classified as Inferred at this stage of the project due to relatively wide drill hole spacing, uncertainties with some historical data, lack of density measurements and uncertainties regarding disequilibrium correction factors.

For PNC drilling the average drill spacing is 100m x 500m, which is considered appropriate for Inferred category Mineral Resource estimation taking into consideration the style of mineralisation.

Uranerz drill spacing in the Shelf prospect area is generally 200m x 400m, with some 100m spaced holes, which has been infilled by Uranio and MHC drilling. Combined with the later drilling the drill spacing is considered appropriate for Inferred category Mineral Resource estimation taking into consideration the style of mineralisation.

Uranio & Manhattan's drilling was conducted on 100m x 400m drill centres in mineralised sections of the palaeochannel, on 200m x 400m spacings in prospective palaeochannels and 200m x 800m spacings for reconnaissance exploration.

The 100m x 400m spaced drilling is considered appropriate for Inferred category Mineral Resource estimation taking into consideration the style of mineralisation.

The mineralisation is interpreted to be a flat lying tabular body, all holes being vertical intersect the mineralisation perpendicular to its orientation. All intercepts are true width.

SAMPLE ANALYSIS METHODS

PNC aircore drilling: The primary sample analysis technique used was down hole gamma probe. Very few physical samples were taken, no details of the sampling techniques are available.

Uranerz aircore and Reverse Circulation Drilling (RC): The primary sample analysis technique used was a down hole gamma probe. All holes penetrating Tertiary channel sediments were sampled at 1m intervals across the redox boundary, this typically involved the taking of five samples. Approximately 1-2kg of sample was collected. Samples were assayed by pressed powder XRF for U_3O_8 and ThO_2 at SGS Laboratories. Some samples had additional multi-element assaying by pressed powder XRF and Au by aqua regia AAS finish.

Uranio Aircore Drilling: A Gamma Surveyor handheld spectrometer was used to measure gamma CPS for each 1m sample, samples with a gamma CPS three or more times background radiation were sampled. Samples were spear sampled, with approximately 3kg of sample collected. Samples were pulverised and sent for a standard uranium suitable ICP-MS multi element analysis suite at Genalysis Laboratories in Perth.

Manhattan Aircore Drilling: The primary sampling analysis technique used was down hole gamma probe. A RS125 Super Spectrometer was used to measure gamma CPS for each 1m sample, samples with a gamma CPS three or more times background radiation were sampled. Samples were spear sampled, with approximately 3kg of sample collected. Samples were pulverised and sent for a standard uranium suitable ICP-MS multi element analysis suite at ALS Laboratories in Perth.

Manhattan Sonic Drilling: The primary sampling analysis technique used was down hole gamma probe. A RS125 Super Spectrometer was used to identify mineralised sections of core. The Sonic core was sampled by cutting a wedge out of the core. Samples were taken at both 1m and 0.5m intervals through the mineralised sections. Individual samples were approximately 3kg. Samples were pulverised and sent for a standard uranium suitable ICP-MS multi element analysis suite at ALS.

PNC personnel undertook the down hole gamma logging using 3 calibrated gamma probes (816/817/819) with a Middilogger system. The hardcopy down hole gamma logs were scanned and digitised. The gamma data was processed by David Wilson of 3D Exploration Pty Ltd, providing eU_3O_8 and deconvolved eU_3O_8.

Uranerz down hole gamma logging was undertaken using a Mount Sopris 1,000 gamma logger. The down hole gamma logs were recorded on to paper. Gamma CPS values have been digitally compiled into 0.5m intervals. At present no conversion is available for gamma CPS to eU_3O_8.

Manhattan's first phase of down hole gamma logging in 2009 and 2010 was undertaken by Down Under Surveys using gamma probes S939 and S791. The gamma probes were calibrated at the Adelaide calibration pits. Gamma data was collected in 2cm intervals. The gamma data was processed by David Wilson of 3D Exploration Pty Ltd, providing eU_3O_8 and deconvolved eU_3O_8. Aircore holes were logged inside NQ (71mm) diameter rods), a number of holes were logged open hole, but on most occasions the hole closed up.

Manhattan's second phase of down hole gamma logging in 2010 was undertaken by Geoscience Associates Australia Pty Ltd utilizing 38mm natural gamma probes (calibrated probes SSG01 and SSG02). Gamma data was collected in 1cm intervals. The gamma data was processed by Geoscience Associates Australia Pty Ltd, providing eU_3O_8 and deconvolved *e*U_3O_8. The Aircore holes were logged inside NQ (71mm) diameter rods, a number of holes were logged open hole, but on most occasions the hole closed up. The Sonic holes were logged within 50mm PVC casing in a 170mm diameter drill hole.

Manhattan's third phase of down hole gamma logging in 2016 was undertaken by Wallis Drilling personnel using the Reflex EZ40 system. The gamma probe was calibrated at the Adelaide calibration pits. Gamma data was collected in 2cm intervals. The gamma data was processed by David Wilson of 3D Exploration Pty Ltd, providing *e*U_3O_8 and deconvolved *e*U_3O_8.

For chemical analyses of Uranio aircore holes two uranium standards were used at a frequency of at least 1 in 20 samples. Field duplicate samples were also taken at a minimum frequency of 1 in 20 samples.

For chemical analyses of Manhattan aircore holes three uranium standards and one blank standard were used at a frequency of at least 1 in 20 samples. Field duplicate samples were also taken at a minimum frequency of 1 in 20 samples. For the Sonic core samples three uranium standards and one black standard were used at a frequency of at least 1 in 20 samples. All 1m sample intervals were duplicated by 2 x 0.5m intervals.

All standards, blanks and field duplicates were checked for acceptable accuracy and laboratory results were only accepted once these were met. The internal laboratory standards, blanks and pulp duplicates were also routinely checked.

ESTIMATION METHODOLOGY

A consistent estimation scheme was applied to all four Ponton palaeochannel Mineral Resource estimates.

Several previous estimates were generated by H&SC (and its predecessor Hellman & Schofield) for the deposits including the previous Inferred Resource estimate for Double 8 released under JORC Code 2004 in March 2011) and the new estimates take into account these earlier estimates. All the deposits remain unmined so there are no production records for reconciliation.

Samples were composited to 0.5m intervals for analysis and estimation. A combination of chemical and corrected radiometric assays were used for estimation, depending on which was available and considered more reliable. The majority of data for Stallion, Highway and Shelf deposits is corrected radiometric assays for Manhattan aircore holes, while the Double 8 estimate relied entirely on corrected radiometric assays for PNC aircore holes.

Ordinary kriging was the estimation technique used for all Mineral Resources, which is considered an appropriate method for this style of mineralisation and the moderate skewness of the data.

No grade cutting has been used for the Mineral Resource estimates. The coefficients of variation are modest and the most extreme values are in context and do not appear to be outliers with respect to the main body of data.

Estimates for Double 8 were generated using Micromine software, while estimates for Stallion, Highway and Shelf utilised Datamine software.

Block model interpolation:

At Double 8, the block size is 200 x 200 x 1.0m, while the drill hole spacing is nominally 400 x 400m (at its closest) with 0.5m samples. Maximum estimation search was 1200 x 600 x 2.25m, using a minimum of 4 and maximum of 16 samples in at least 2 octants.

At Stallion, the block size is 100 x 200 x 1.0m, while the drill hole spacing is 100 x 400m with 0.5m samples. Maximum estimation search was 450 x 900 x 4.0m, using a minimum of 4 and maximum of 16 samples in at least 2 octants.

At Highway, the block size is 200 x 200 x 1.0m, while the drill hole spacing is nominally 100 x 400m with 0.5m samples. Maximum estimation search was 300 x 1200 x 3.0m, using a minimum of 4 and maximum of 16 samples in at least 4 octants.

At Shelf, the block size is 200 x 200 x 1.0m, while the drill hole spacing is nominally 200 x 400m with 0.5m samples. Maximum estimation search was 300 x 1200 x 3.0m, using a minimum of 4 and maximum of 16 samples in at least 4 octants.

The geological interpretation controlled the resource estimates by restricting all Mineral Resources to palaeochannel profiles. No assumptions were made regarding selective mining units or mining dilution as these concepts are not applicable to ISR mining.

Tonnages are estimated on a dry basis, and moisture content has not been determined. A bulk density of 1.80t/m3 has been assumed in the Mineral Resource estimates based on deposits with similar geology. No bulk density measurements have been taken on channel sediments from the Double 8 Prospect or elsewhere in the Ponton project.

CUT OFF GRADES

Cut off grades of 100ppm uranium oxide are based on comparable uranium projects. The cut off grade were selected on the basis of providing reasonable prospects for eventual economic extraction by ISR metal recovery technique based on Manhattan's internal Scoping Study where operating recovery cost are low being less than A$20 pound uranium oxide.

JORC CODE 2012 TABLE 1

In accordance with section 5.8.2 of the ASX Listing Rules, Section 1 (Sampling Techniques and Data), Section 2 (Reporting of Exploration Results) and Section 3 (Estimation and Reporting of Mineral Resources) of Table 1 of Appendix 5A (JORC Code 2012) is attached as Appendix 1 to this ASX announcement.

SUMMARY

It is envisaged that the mining method at Ponton will be in-situ metal recovery (ISR). At this early stage of the project, detailed mining parameters are yet to be determined. No field leaching tests or hydrogeological studies have been undertaken on site to date.

A Scoping (Desktop) Study was prepared by Tetra Tech in 2011, outlining an 872t U_3O_8 per annum ISR operation with an assumed recovery of 72.7%. No metallurgical test work has been completed but some preliminary mineralogical data was available. One issue identified was the high salinity of the groundwater at Ponton.

As a potential ISR operation, no waste rock and minimal process residue will be generated. ISR is a minimal impact mining method and the main issue will be water management.

The Double 8 Mineral Resource is entirely within the Queen Victoria Spring Nature Reserve (QVSNR), where ministerial consent is required to undertake exploration activities, or the Reserve boundaries need to be modified by a Reserves Amendment Bill in the WA parliament to exclude the area of the Double 8 Mineral Resource estimate from the Reserve to allow future exploration and development of the deposit.

The Inferred Mineral Resources of over 24Mlb uranium oxide reported here, along with the Exploration Targets previously reported in 2014 of 33 to 67Mlb uranium oxide, in the contiguous palaeochannel deposits within Manhattan's project area at Ponton demonstrates potential of the project to host a world class ISR sand hosted uranium resource.

ALAN J EGGERS
Executive Chairman
23 January 2017

COMPETENT PERSON'S STATEMENTS

The information in this Report that relates to reported Exploration Results or Mineral Resources is based on information compiled by Mr Alan J Eggers, who is a Corporate Member of the Australasian Institute of Mining and Metallurgy ("AusIMM"). Alan Eggers is a professional geologist and an executive director of Manhattan Corporation Limited. Mr Eggers has sufficient experience that is relevant to the style of mineralisation and type of mineral deposits being reported on in this Report and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves "JORC Code 2012". Mr Eggers consents to the inclusion in this Report of the information on the Exploration Results or Mineral Resources based on his information in the form and context in which it appears.

The information in this Report that relates to Mineral Resources is based on information compiled by Mr Arnold van der Heyden, who is a Member and Chartered Professional (Geology) of the Australasian Institute of Mining and Metallurgy ("AusIMM"). Arnold van der Heyden is managing director of H&S Consultants Pty Ltd. Mr van der Heyden has sufficient experience that is relevant to the style of mineralisation and type of mineral deposits under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves "JORC Code 2012". Mr van der Heyden consents to the inclusion in this Report of the matters based on the information in the form and context in which it appears.

The information in this Report that relates to reported eU_3O_8 grades from down hole total count gamma ray logs is based on information compiled by Mr David Wilson, who is a Member of the Australasian Institute of Mining and Metallurgy ("AusIMM"). David Wilson is professional geophysicist and principal geoscientist with 3D Exploration Pty Ltd. Mr Wilson has sufficient experience that is relevant to the style of mineralisation and type of mineral deposits being reported on in this Report and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves "JORC Code 2012". Mr Wilson consents to the inclusion in this Report of the information on the Exploration Results or Mineral Resources based on his information in the form and context in which it appears.

APPENDIX 1 Ponton Mineral Resource Estimates

JORC Code, 2012 Edition – Table 1 Report 23 January 2017

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.*	• PNC – the primary sampling technique used was down hole gamma probe. Very few physical samples were taken, no details of the sampling techniques are available. • Uranerz – the primary sampling technique used was a down hole gamma probe. All holes penetrating Tertiary channel sediments were sampled at 1m intervals across the redox boundary, this typically involved the taking of five samples. Approximately 1-2kg of sample was collected. Samples were assayed by pressed powder XRF for U_3O_8 and ThO_2 at SGS Laboratories. Some samples had additional multi-element assaying by pressed powder XRF and Au by aqua regia AAS finish. • Uranio – A Gamma Surveyor handheld spectrometer was used to measure gamma CPS for each 1m sample, samples with a gamma CPS three or more times background radiation were sampled. Samples were spear sampled, with approximately 3kg of sample collected. Samples were pulverised and sent for a standard uranium suitable ICP-MS multi element analysis suite at Genalysis Laboratories in Perth. • MHC – Aircore: the primary sampling technique used was down hole gamma probe. A RS125 Super Spectrometer was used to measure gamma CPS for each 1m sample, samples with a gamma CPS three or more times background radiation were sampled. Samples were spear sampled, with approximately 3kg of sample collected. Samples were pulverised and sent for a standard uranium suitable ICP-MS multi element analysis suite at ALS Laboratories in Perth. • MHC – Sonic: the primary sampling technique used was down hole gamma probe. A RS125 Super Spectrometer was used to identify mineralised sections of core. The Sonic core was sampled by cutting a wedge out of the core. Samples were taken at both 1m and 0.5m intervals through the mineralised sections. Individual samples were approximately 3kg. Samples were pulverised and sent for a standard

Criteria	JORC Code explanation	Commentary
		uranium suitable ICP-MS multi element analysis suite at ALS Laboratories in Perth.
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).*	• PNC – Aircore • Uranerz – Aircore/RC • Uranio – Aircore, NQ (71mm) Diameter holes, face sampling bit. • MHC – Aircore, NQ (71mm) Diameter holes, face sampling Wallis Drilling proprietary vacuum bit. • MHC – Sonic core – hole diameter 170mm, core barrel 3m in length with 100mm internal diameter.
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 fine/coarse material.*	• PNC – Aircore: No details regarding drill sample recovery are available. • Uranerz – Aircore: No details regarding drill sample recovery are available. • Uranio and MHC Aircore: Recovery of samples within wet sands was poor, which was expected. • MHC Sonic: Sonic core recovery was excellent ~100%. MHC Sonic holes were gamma logged. • Due to poor sample recovery, all MHC holes were gamma logged. • In general, it was observed that poor sample recovery was reflected in lower assay values, most likely due to the preferential loss of fine material.
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 holes were 100% geologically logged to an appropriate level of detail with respect to the style of mineralisation. No geotechnical logging was undertaken due to expected future extraction method being by In Situ Recovery (ISR). Aircore holes were logged to a minimum of 1m scale. The Sonic core holes were logged per the differing geological lengths. Sonic core was photographed
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*	• PNC – Very few drill chip samples were collected, no details of sampling techniques, sample preparation etc are available. • Uranerz – no details of the sampling techniques, sample preparation etc are available. • Uranio – 1m sample piles were laid on the ground and spear sampled. Certified standards were used and duplicate sampling was undertaken. • MHC Aircore – Samples were collected off the drill rig into polyweave bags as most samples were wet. Polyweave bags were laid on their

Criteria	JORC Code explanation	Commentary
	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.*	side and spear sampled from top to bottom of the bag. • MHC Sonic – A wedge sample was cut from the sonic core • For MHC Aircore holes three uranium certified standards and one certified blank standard were used as well as field duplicate sampling undertaken. For the Sonic core samples three uranium certified standards and one certified blank standard were used, field duplicate sampling was undertaken. • Sample sizes were considered appropriate for the grain size of the material being sampled.
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.*	• PNC – PNC personnel undertook the down hole gamma logging using 3 calibrated gamma probes (816/817/819) with a Middilogger system. The hardcopy down hole gamma logs were scanned and digitised. The gamma data was processed by David Wilson of 3D Exploration Pty Ltd, providing eU_3O_8 and deconvolved eU_3O_8. • Uranerz – Down hole gamma logging was undertaken using a Mount Sopris 1000 gamma logger. The down hole gamma logs were recorded on to paper. Gamma CPS values have been digitally compiled into 0.5m intervals. At present no conversion is available for gamma CPS to eU_3O_8. • MHC – First phase of down hole gamma logging was undertaken by Down Under Surveys using gamma probes S939 and S791. The gamma probes were calibrated at the Adelaide calibration pits. Gamma data was collected in 2cm intervals. The gamma data was processed by David Wilson of 3D Exploration Pty Ltd, providing eU_3O_8 and deconvolved eU_3O_8. Aircore holes were logged inside NQ (71mm) diameter rods), a number of holes were logged open hole, but on most occasions the hole closed up. • MHC – Second phase of down hole gamma logging was undertaken by Geoscience Associates Australia Pty Ltd utilizing 38mm natural gamma probes (calibrated probes SSG01 and SSG02). Gamma data was collected in 1cm intervals. The gamma data was processed by Geoscience Associates Australia Pty Ltd, providing eU_3O_8 and deconvolved eU_3O_8. The Aircore holes were logged inside NQ (71mm) diameter rods, a number of holes were logged open hole, but on most occasions the hole closed up. The Sonic holes were logged within 50mm PVC casing in a 170mm diameter drill hole. • MHC – Third phase of down hole gamma logging was undertaken by Wallis Drilling personnel using the Reflex EZ40 system. The gamma probe was calibrated at the Adelaide calibration pits. Gamma data

Criteria	JORC Code explanation	Commentary
		was collected in 2cm intervals. The gamma data was processed by David Wilson of 3D Exploration Pty Ltd, providing eU_3O_8 and deconvolved eU_3O_8. • For chemical analyses of Uranio Aircore holes two uranium standards were used at a frequency of at least 1 in 20 samples. Field Duplicate samples were also taken at a minimum frequency of 1 in 20 samples. • For chemical analyses of MHC Aircore holes three uranium standards and one blank standard were used at a frequency of at least 1 in 20 samples. Field Duplicate samples were also taken at a minimum frequency of 1 in 20 samples. For the Sonic core samples three uranium standards and one black standard were used at a frequency of at least 1 in 20 samples. All 1m sample intervals were duplicated by 2 x 0.5m intervals. • All standards, blanks and field duplicates were checked for acceptable accuracy and laboratory results were only accepted once these were met. The internal laboratory standards, blanks and pulp duplicates were also routinely checked.
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.*	• MHC undertook a program of twin holes, where Sonic holes twinned a selection of mineralised Aircore holes. • MHC undertook a second program of twin holes where six of the sonic holes were twinned by Aircore holes to gain additional gamma data for development of an appropriate disequilibrium factor.
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.* • *Quality and adequacy of topographic control.*	• PNC holes had been surveyed by theodolite, hole collars where visible were checked by handheld GPS. • Uranerz holes were in a local grid, which was transformed to GDA 94 Zone 51 using located drill collars surveyed by hand held GPS. Most holes in the Shelf area were located by hand held GPS ±5m accuracy. • Uranio and MHC holes were surveyed by hand held GPS ±5m accuracy. • All holes are vertical no down hole surveying was undertaken • Grid system: GDA 94 Zone 51 • SRTM data was used to provide topographic control.
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*	• PNC the average drill spacing is 100m x 500m, which is considered appropriate for Inferred category Mineral Resource estimation taking into consideration the style of mineralisation.

Criteria	JORC Code explanation	Commentary
	Resource and Ore Reserve estimation procedure(s) and classifications applied. • *Whether sample compositing has been applied.*	• Uranerz drill spacing in the Shelf prospect area is generally 200m x 400m, with some 100m spaced holes, which has been infilled by Uranio and MHC drilling. Combined with the later drilling the drill spacing is considered appropriate for Inferred category Mineral Resource estimation taking into consideration the style of mineralisation. • Uranio & MHC drilling was conducted on 100m x 400m drill centres in mineralised sections of the palaeochannel, on 200m x 400m spacings in prospective palaeochannels and 200m x 800m spacings for reconnaissance exploration. • The 100m x 400m spaced drilling is considered appropriate for Inferred category Mineral Resource estimation taking into consideration the style of mineralisation. • No sample compositing was undertaken of chemical assays. • Gamma derived *e*U_3O_8 analyses were composited.
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 mineralisation is interpreted to be a flat lying tabular body, all holes being vertical intersect the mineralisation perpendicular to its orientation. All intercepts are true width.
Sample security	• *The measures taken to ensure sample security.*	• PNC and Uranerz – the sample security measures undertaken are unknown. • Uranio samples were transported in secured drums to Kalgoorlie by Uranio personnel and then by courier to laboratory in Perth. • MHC personnel delivered MHC samples directly to the ALS laboratory in Kalgoorlie where they were transported to Perth by ALS.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• MHC's review of Uranio's sampling determined that any assays could only act as a guide to U_3O_8 grade due to poor sample recovery in the palaeochannel wet sand material. Down hole gamma logging was considered to be the preferred primary method for determining U_3O_8 via equivalent U_3O_8 (*e*U_3O_8). This was confirmed by the Sonic holes, which twinned mineralised Aircore holes, where the Sonic holes with excellent recovery returned higher assay results.

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.*	• The Ponton Project is located on Exploration Licences E39/1143, E39/1782, E28/1523 and E28/1898. • MHC holds 100% interest in all tenements, with all licences held in good standing at time of writing. • E28/1898 is partly located within the Queen Victoria Spring Nature Reserve (QVSNR), where ministerial consent is required to undertake exploration activities. The Double 8 Mineral Resource is entirely within the QVSNR.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Historical exploration within the area has been undertaken by PNC and Uranerz. Uranio became MHC through a merger.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Tabular reduced sand hosted palaeochannel uranium deposit. Mineralisation is hosted within carbonaceous sand under a clay cap layer. The base of the palaeochannel is weathered/fresh granite.
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:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *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.*	• Refer to body of report.
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*	• eU_3O_8 intercepts are length weighted averages. • Chemical assay U_3O_8 intercepts are length weighted averages. • High grade U_3O_8 intervals are reported as included intervals. • Chemical U was converted to U_3O_8 using a factor of 1.1792

Criteria	JORC Code explanation	Commentary
	such aggregations should be shown in detail. • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *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').*	• Mineralised intercepts are true widths, with the vertical holes intersecting the flat lying mineralisation perpendicularly.
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.*	• Refer to Figures in the body of the report.
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 results reported are representative.
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.*	• MHC has undertaken disequilibrium test work on Aircore and Sonic core samples at ANSTO and Western Radiation Services allowing for a disequilibrium factor to be applied to the raw eU_3O_8. • Tetra Tech undertook some preliminary petrological analyses of the Ponton deposits. The mineralogical analysis showed that uranium was predominantly represented by coffinite and davidite. Microprobe analysis of davidite grains detected that lanthanum (La) is the most common rare earth element (REE), with minor amounts of cerium (Ce), yttrium (Y) and erbium (Er). Calcium is common and substitutes REE and probably uranium. Samples analysed demonstrated strong correlation between uranium mineralisation and ilmenite-rutile-pyrite association, as well as uranium being commonly associated with carbonaceous material.
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.*	• Follow up work programs will be subject to interpretation of recent and historic results. Further exploration work on the ground at Double 8 is subject to access to the QVSNR.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• Limited validation has been completed to ensure the integrity of the Ponton database, including comparison of some database records to original paper gamma logs, and comparison of gamma derived eU_3O_8 values to available chemical assays. • The geological logging allows a consistent and coherent interpretation to be generated, and suggests no obvious problems issues with drill hole locations. • Radiometric Disequilibrium Corrections for MHC holes: o Disequilibrium corrections for the MHC aircore holes were derived from a comparison of chemical and radiometric assays for the sonic holes drilled by MHC, as these holes have the most reliable samples. o A Q-Q plot of the chemical and radiometric assays for the MHC sonic holes was divided into three grade ranges based distinct changes in slope, and power curve regressions were fitted to each grade range. Care was taken to ensure a smooth transition for regression formulas from one grade range to the next. o These regressions were then applied to the radiometric assays for the MHC aircore holes and sections of sonic holes missing chemical assays for Stallion, Highway and Shelf deposits. • Radiometric Disequilibrium Corrections for PNC holes: o The average disequilibrium ratio at Double 8 Prospect was unknown by PNC. PNC used several diamond drill core holesto compare the down hole gamma data against chemical assays. From this comparison a calibration factor was determined for conversion of gamma CPS to eU. This calibration factor would also have included any disequilibrium factor. o This correction factor is broadly comparable to that developed for PNC data by Vimy for their nearby Mulga Rocks project.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• The current CP has not visited site because the site is remote and there is little to see; the cost of a site visit was not considered justified because little benefit would result.

Criteria	JORC Code explanation	Commentary
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• There is a high degree of confidence in the interpreted palaeochannel environment proposed for these deposits. • The geological logging reflects this depositional environment and allows a consistent and coherent interpretation to be generated. • There is limited scope for alternative interpretations, which are unlikely to have a significant impact on the Mineral resource estimates. • Geology is the primary control on the Mineral resource estimates, with mineralisation entirely constrained to the palaeochannels and generally in the vicinity of the redox boundary. • While the continuity of the palaeochannels is well defined by drilling, the uranium mineralisation is less continuous and confined to particular parts of the channels. It would appear that the uranium mineralisation is confined to particular sedimentary facies and/or hydrogeological environments.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• At 100ppm U_3O_8 cut-off grade, the Main Horizon of the Double 8 Mineral Resource is approximately 9,800m along strike, 1,200m in plan width, starts at around 50m below surface and is 5-10m in thickness. There are thinner, less extensive lenses of mineralisation around 12m above and/or below the Main Horizon. • At 100ppm U_3O_8 cut-off grade, the Stallion Mineral Resource consists of irregular lenses of mineralisation up to approximately 800 x 800m in plan extent. Mineralisation typically starts at around 60m below surface and is up to 6m thick. • At 100ppm U_3O_8 cut-off grade, the Highway Mineral Resource consists of irregular lenses of mineralisation up to approximately 2,000 x 600m in plan extent. Mineralisation typically starts between 20 and 40m below surface and is up to 4m thick. • At 100ppm U_3O_8 cut-off grade, the Shelf Mineral Resource consists of irregular lenses of mineralisation up to approximately 1,400 x 400m in plan extent. Mineralisation typically starts between 15 and 35m below surface and is up to 2m thick.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.*	• Samples were composited to 0.5m intervals for analysis and estimation. A combination of chemical and corrected radiometric assays were used for estimation, depending on which was available and considered more reliable. The majority of data for Stallion, Highway and Shelf deposits is corrected radiometric assays for MHC air-core holes, while the Double 8 estimate relied entirely on

Criteria	JORC Code explanation	Commentary
	• *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	corrected radiometric assays for PNC air-core holes. • Ordinary kriging was the estimation technique used for all Mineral Resources, which is considered an appropriate method for this style of mineralisation and the moderate skewness of the data. • No grade cutting has been used for the Mineral Resource estimates. The coefficients of variation are modest and the most extreme values are in context and do not appear to be outliers with respect to the main body of data. • No assumptions have been made regarding the recovery of by-products. • There are no deleterious elements or other non-grade variables of economic significance. • No assumptions were made about correlation between variables as only uranium was estimated. • Estimates for Double 8 were generated using Micromine software, while estimates for Stallion, Highway and Shelf utilised Datamine software. • Block model interpolation: o At Double 8, the block size is 200x200x1.0m, while the drill hole spacing is nominally 400x400m (at its closest) with 0.5m samples. Maximum estimation search was 1200x600x2.25m, using a minimum of 4 and maximum of 16 samples in at least 2 octants. o At Stallion, the block size is 100x200x1.0m, while the drill hole spacing is 100x400m with 0.5m samples. Maximum estimation search was 450x900x4.0m, using a minimum of 4 and maximum of 16 samples in at least 2 octants. o At Highway, the block size is 200x200x1.0m, while the drill hole spacing is nominally 100x400m with 0.5m samples. Maximum estimation search was 300x1200x3.0m, using a minimum of 4 and maximum of 16 samples in at least 4 octants. o At Shelf, the block size is 200x200x1.0m, while the drill hole spacing is nominally 200x400m with 0.5m samples. Maximum estimation search was 300x1200x3.0m, using a minimum of 4 and maximum of 16 samples in at least 4 octants. • The geological interpretation controlled the resource estimates by restricting all Mineral Resources to palaeochannel profiles. • No assumptions were made regarding selective mining units or mining dilution as these concepts are not applicable to ISR mining.

Criteria	JORC Code explanation	Commentary
		• All models were validated through visual and statistical comparison of block and drill hole grades, and comparison with previous and/or alternative check estimates. No reconciliation data is available. • The Mineral Resource estimates take appropriate account of previous estimates and are broadly comparable to these alternative estimates.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages are estimated on a dry basis, and moisture content has not been determined.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• Cut-off grades are based on comparable uranium projects.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	• It is envisaged that the mining method at Ponton will be in-situ recovery (ISR). At this early stage of the project, detailed mining parameters are yet to be determined. No field leaching tests or hydrogeological studies have been undertaken on site to date.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• A Scoping (Desktop) Study was prepared by Tetra Tech in 2011, outlining an 872 t U_3O_8 per annum ISR operation with an assumed recovery of 72.7%. No metallurgical testwork has been completed but some preliminary mineralogical data was available. One issue identified was the high salinity of the groundwater at Ponton.
Environmen-tal factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a green fields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	• As a potential ISR operation, no waste rock and minimal process residue will be generated. ISR is a minimal impact mining method and the main issue will be water management. • The Double 8 Mineral Resource is entirely within the Queen Victoria Spring Nature Reserve (QVSNR), where ministerial consent is required to undertake exploration activities.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the*	• A bulk density of 1.80t/m3 has been assumed in the Mineral

Criteria	JORC Code explanation	Commentary
	assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	Resource estimates based on deposits with similar geology. • No bulk density measurements have been taken on channel sediments from the Double 8 Prospect or elsewhere in the Ponton project. • There is limited variability in the sediments at Ponton, so a single value is considered appropriate at this stage of the project.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• All Mineral Resources are classified as Inferred at this stage of the project due to the relatively wide drill hole spacing, uncertainties with some of the historical data, lack of density measurements and uncertainties regarding disequilibrium factors. • The resource classification appropriately reflects the Competent Person's view of the deposit.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• An independent check estimate was conducted for the Double 8 Mineral Resource estimate, which showed that the reported Mineral Resource estimate is within expected limits for an Inferred Resource. • No formal audits or reviews have been completed for the other Mineral Resource estimates.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• The Mineral Resource estimates have a relative accuracy and confidence level appropriate to an Inferred Mineral Resource. This is based on a qualitative assessment of data quality and spacing. Factors that could affect the relative accuracy and confidence of the estimate include: o the relatively wide drill hole spacing, o uncertainties with some of the historical data, o lack of density measurements, o poor sample recovery for some chemical assays, o uncertainties regarding disequilibrium factors applied to gamma logging data. • No production data is available as the project remains undeveloped.