

MAIDEN INFERRED RESOURCE AT SAFFRON DEPOSIT ON JUNCTION DAM URANIUM PROJECT

- 4.36 Mt U_3O_8 maiden Inferred resource for the Saffron deposit, one of four identified uranium prospects at Junction Dam project on SA-NSW border west of Broken Hill.
- Significant expansion potential identified within Saffron and at two other prospects immediately adjacent to Saffron. Increase in exploration target to $15 20Mt U_3O_8$ at a grade of .03 .05% uranium.
- Marmota Energy set to increase its equity interest in the uranium rights on Junction Dam to 87.3%.

Junction Dam uranium project

(Marmota 87.3% of uranium under JV Agreement with Teck Australia Pty Ltd (Teck), PlatSearch NL (ASX: PTS) and Eaglehawk Geological Consulting Pty Ltd)

Marmota Energy Limited (ASX: MEU) is pleased to announce an initial resource estimate of 4.36 million tonnes (Mt) U_3O_8 for its Saffron deposit, one of four prospects identified by the Company within its now advanced Junction Dam uranium project. The project is located adjacent to the Honeymoon in-situ leach (ISL) uranium mine (1.2 Mt Indicated resource) which commenced full scale production in November 2011 with expected annual production of 880,000 pounds U_3O_8 per year.

An Inferred Resource of mineralisation for Saffron has been estimated in accordance with JORC code and comprises:

- 4.36 million tonnes of mineralisation
- Estimated to contain 1,510 tonnes of U₃O₈ (3.33 million pounds)
- Two mineralised sand layers of the Eyre Formation (basal and upper) intersected
- Average grade of 437 parts per million (.044%) eU₃O₈ and 248 parts per million (.025%) eU₃O₈ for the basal and upper layers respectively
- Average thickness of mineralised intersections is 2.57m and 1.07m for the basal and upper layers respectively

The resource estimate is based on results obtained from rotary mud drilling on a variable grid pattern no greater than 300 x 300 metres within the Saffron deposit. The mineralisation was intersected by 59 drill holes across two layers with a cumulative grade-thickness of up to 0.25 m $\% eU_3O_8$, calculated using a lower grade cutoff of 0.01 $\% eU_3O_8$ and a minimum individual intercept thickness of 0.30 m. The bulk of the mineralisation is contained in the higher grade basal unit. Mineralisation was measured within a contained zone extending for approximately 2 km north to south, 1km east to west covering an area of approximately 2 km². The uranium mineralisation has been identified as coffinite, uraninite and uranium phosphates in sediments of the Eyre Formation. This is analogous to those at the nearby Honeymoon uranium mine and at the Four Mile project near the Beverley uranium mine, suggesting good potential for in-situ leach extraction.

Marmota is continuing exploration across prospects adjacent to Saffron where significant grades of uranium were intercepted during the 2011 Phase 3 drilling program. A number of holes were drilled utilising sonic drilling methods to ensure a statistically acceptable sample is recovered from key mineralised intervals across the Saffron prospect. It is expected that this will assist in developing the resource to the Indicated and Measured levels of JORC.

Accompanying this announcement is

- Worksheet for the estimation of the Inferred Resource; and
- A discussion of the assumptions that have been made and the variables that have been considered in the estimation of the Inferred Resource.

It is uncertain if further exploration work or feasibility studies will result in the determination of an Ore Reserve.



Figure 1: Saffron deposit showing Thiessen polygon model. Two layers of mineralisation have been modelled, with most of the mineralisation hosted in the basal layer. Red area represents higher grade basal layer of mineralisation. Diagram shows drillholes that were used as part of the inferred resource calculation. Mineralisation interpreted to remain open in several directions (blue arrows).

Increase in exploration target for Junction Dam

Drilling completed during the 2011 Phase 3 program intersected significant grades of uranium at both the Bridget and Yolanda prospects adjoining Saffron to the north and south respectively.

The presence of mineralisation within a 15km strike length open to the north and south will offer substantial expansion potential to existing mineralisation already defined at the Saffron prospect.

Downhole gamma readings indicating uranium mineralisation of potential economic significance at Bridget and Yolanda occur in Eyre Formation sediments. This complements the inventory of uranium mineralisation defined at the Saffron prospect as this formation hosts the nearby Honeymoon Uranium Mine and adjacent Saffron mineralisation.

Mineralisation at Bridget extends for approximately 5km and remains open to the north. The Yolanda prospect extends for approximately 7.5km, and is open to the south. The Company believes these results offer

significant increase to the exploration target potential of the Junction Dam project to **15 – 20Mt at a grade of** .03 - .05% uranium.~

Further drilling is planned in 2012 to continue to test the mineralisation at the Bridget and Yolanda prospects which is expected to facilitate an expansion of the Inferred Resource at Saffron.



 \sim The estimates of exploration target sizes mentioned above should not be misunderstood or misconstrued as estimates of Mineral Resources. The estimates of exploration target sizes are conceptual in nature and there has been insufficient results received from drilling completed to date to estimate a Mineral Resource compliant with the JORC Code (2004) guidelines. Furthermore, it is uncertain if further exploration will result in the determination of a Mineral Resource.

Increase in ownership interest

Marmota Energy Limited is pleased to announce that it is set to move to an 87.3% share of the Junction Dam uranium project. In 2010, Marmota achieved its earn in requirement of 51% interest in the uranium rights from Teck Australia Pty Ltd, PlatSearch NL (ASX: PTS) and Eaglehawk Geological Consulting Pty Ltd.

Marmota moved to a 74.5% equity interest in the uranium rights on the project through exploration and drilling completed in 2010. Expenditures by Marmota on the Junction Dam project in 2011 will see its equity interest in the uranium rights on this strategic project rise to **87.3%**.

Inferred Resource Estimation Method

The calculation has been based on 59 rotary mud drilled holes intersecting two layers of mineralisation at Saffron, spaced from 100 metres to no more than approximately 300 metres apart. The main mineralised zone which is the basal layer of the Eyre Formation, is widespread within the Saffron prospect. An upper layer of mineralisation was also intercepted in part of the Saffron prospect covering approximately a third of the area. These holes were variably spaced as per Figure 1.

In areas where the mineralised host sequence is constrained by basement, Thiessen polygon boundaries were determined from drill data and interpretation of high resolution geophysical data sets. Elsewhere, the polygon boundaries are assumed at half the proximal drill hole separation.

The Thiessen polygon is calculated by ArcGIS based on each drill hole and it is assumed the average grade and interval thickness of the mineralisation intercepted in that hole is assumed for each polygon respectively. In effect, a resource number is calculated for each individual polygon area. These individual figures are then summed to provide a final total resource number for the entire prospect. Individual calculations are completed for each layer of mineralisation. Both of the layers offer a total resource figure individually at different average grades.

The total resource in pounds (contained) is the sum of pounds from both layers.

This method is also known as Voronoi polygon method and is utilised by other uranium companies in resource calculations for in-situ leach (ISL) style projects both in Australia and internationally.

Table1

Saffron Deposit drill hole summary Upper mineralised unit

HOLE ID	EASTING	NORTHING	DEPTH FROM (metres)	THICKNESS (metres)	AVERAGE GRADE eU₃O₅*(ppm)	GRADE THICKNESS (GT) m%eU ₃ O ₈
JDRM0106	484980	6488734	116.75	1.05	211.64	0.022
JDRM0107	484996	6487979	120.60	0.65	508.98	0.033
JDRM0114	485000	6488530	118.82	0.85	165.80	0.014
JDRM0116	485000	6488130	118.18	0.95	308.80	0.029
JDRM0117	485000	6487850	116.42	0.90	509.98	0.046
JDRM0122	484810	6488330	114.75	1.60	134.11	0.021
JDRM0123	484900	6488630	117.35	1.00	154.84	0.015
SARM010	484846	6488720	116.09	0.90	274.38	0.025
SARM011	484856	6488516	115.04	1.45	122.39	0.018
SARM027	484803	6488038	118.65	1.00	459.64	0.046
SARM060	484850	6488750	121.15	1.30	169.63	0.022
SARM090	484877	6489286	115.75	1.40	315.50	0.044
SARM117	484886	6488592	115.20	0.95	124.92	0.012
SARM106	484992	6488630	119.20	0.90	153.33	0.014
SARM108	484997	6488231	117.70	0.95	203.96	0.019
SARM113	485098	6488067	119.05	0.90	169.03	0.015
SARM112	485083	6488254	117.10	1.50	231.62	0.035

*Equivalent grades (eU308) from Borehole Wireline Pty Ltd gamma probe 3024, calibrated at Adelaide Test Pits. Dead time 6.06656e-6, k factor 2.47442e-5, 108mm hole, water filled. *Equivalent grades (eU308) from Borehole Wireline Pty Ltd gamma probe 3785, calibrated at Adelaide Test Pits. Dead time 4.27264e-6, k factor 2.2702e-5, 108mm hole, water filled. *Equivalent grades (eU308) from Borehole Wireline Pty Ltd gamma probe 3348, calibrated at Adelaide Test Pits. Dead time 4.36826e-6, k factor 2.39056e-5, 108mm hole, water filled. *Equivalent grades (eU308) from Borehole Wireline Pty Ltd gamma probe 3018, calibrated at Adelaide Test Pits. Dead time 5.95913e-6, k factor 2.35474e-5, 108mm hole, water filled.

Basal mineralised unit

HOLE ID	EASTING	NORTHING	DEPTH FROM (metres)	THICKNESS (metres)	AVERAGE GRADE eU₃Oଃ*(ppm)	GRADE THICKNESS (GT) m%eU ₃ O ₈
JDRM0111	484800	6488818	124.80	0.80	588.24	0.047
JDRM0114	485000	6488530	124.07	3.15	174.61	0.055
JDRM0115	485000	6488330	128.86	0.75	648.60	0.049
JDRM0116	485000	6488130	123.98	0.85	540.73	0.046
JDRM0117	485000	6487850	123.27	0.85	674.38	0.057
JDRM0118	484799	6488726	124.03	5.95	423.79	0.252
JDRM0120	484700	6488750	124.80	4.05	97.41	0.039
JDRM0121	484800	6488530	127.88	2.70	427.61	0.115
JDRM0122	484810	6488330	126.10	3.15	238.56	0.075
SARM002	484784	6488669	124.69	6.85	67.85	0.046
SARM003	484794	6488617	123.88	5.50	106.76	0.059
SARM004	484798	6488567	129.84	0.85	825.94	0.070
SARM006	484797	6488415	127.30	4.50	85.82	0.039
SARM007	484805	6488385	128.20	1.85	693.50	0.128
SARM008	484749	6488715	124.75	1.70	1,272.90	0.216
SARM009	484749	6488533	125.70	6.55	117.73	0.077
SARM012	484596	6488740	125.32	4.00	156.53	0.063
SARM013	484594	6488645	123.66	3.15	633.66	0.200
SARM019	484703	6488662	125.70	2.70	130.44	0.035
SARM021	484706	6488438	126.16	3.85	357.93	0.138
SARM022	484695	6488358	126.15	4.15	584.18	0.242
SARM028	484657	6488501	124.95	3.70	161.20	0.060
SARM029	484646	6488402	125.15	4.05	328.41	0.133
SARM032	484739	6488300	127.55	1.80	409.59	0.074
SARM033	484504	6489381	124.37	1.00	378.07	0.038
SARM037	484698	6489195	128.10	1.15	766.12	0.088
SARM039	484373	6488010	129.44	0.85	535.91	0.046
SARM042	484600	6489411	124.29	1.45	304.93	0.044
SARM044	484596	6488997	128.19	0.80	505.25	0.040
SARM046	484490	6488651	126.90	1.00	926.33	0.093
SARM050	484895	6488118	124.99	4.20	300.34	0.126
SARM061	484772	6488724	127.75	1.00	377.79	0.038
SARM063	484700	6488403	125.20	4.70	161.65	0.076
SARM065	484751	6488349	125.00	3.15	138.17	0.044
SARM066	484794	6488067	125.55	1.75	496.17	0.087
SARM067	484390	6488747	127.15	1.15	569.22	0.065
SARM070	484395	6488449	126.70	0.70	497.49	0.035
SARM071	484400	6488350	127.05	1.10	525.87	0.058
SARM075	484501	6488450	125.75	1.25	357.71	0.045
SARM076	484493	6488354	126.60	1.05	352.83	0.037
SARM081	484494	6489499	122.60	1.45	1,491.46	0.216
SARM094	484598	6489100	128.50	1.00	463.35	0.046
SARM096	484795	6489100	122.95	1.55	232.87	0.036
SARM101	484605	6488897	127.45	1.55	418.18	0.065
SARM103	484807	6488873	122.45	2.00	253.42	0.051
SARM116	484748	6488601	123.95	6.70	289.07	0.194

Table2

Schedule of variables considered in determining compliance to the 'Inferred Resource' classification as decribed above:

Variables considered	Explanation
Tenure	The Saffron prospect is located within the Junction Dam uranium project (Exploration Licence 4509). Marmota Farming in to the uranium rights, where Marmota currently has 87.3% of the uranium rights.
Data	The drilling , geological and geophysical data utilised in the resources estimate has been internally validated and held within database systems. All of the data used in this resource estimate has been collected by or under the direction of Marmota Energy Limited.
Geological setting	Uranium mineralisation at the Saffron prospect is confined to the Tertiary age Eyre Formation hosted in carbonaceous and pyritic sands confined to the Yarramba Palaeochannel. It is interpreted to be a basal sand layer of the Eyre Formation, comprising of an upper oxidised unit and a lower generally coarser grained reduced unit without any intervening clay layers. The mineralised intervals are confined to the sands of the Eyre Formation by crystalline basement below mineralisation and capped by clay units acting as an aquaclude for potential ISL operations. Excellent geological correlation is observed between drill holes providing confidence in the resource estimate.
Geological continuity	Mineralisation is confined to the Eyre Formation sediments. It is strata-bound and intercept correlation between drill holes is achievable at acceptable levels of confidence.
Mineralisation	Mineralogical assessment completed late in 2010 confirmed that uranium mineralisation within the Saffron prospect appears to be predominantly coffinite, uraninite and autinite (uranium phosphates.) This is considered to be 'the source of the gamma signature' and is analogous to the mineral assemblages at the nearby Honeymoon in-situ leach uranium mine.
Geometry of mineralisation and drill holes	The sand units of the Eyre Formation correlate from hole to hole indicating that the sequence is flat lying. Drill holes are vertical and with the depths involved (90-130m) azimuth deviation is not considered to impact on the estimate of interval thickness.
Drilling method	Drill holes included in the resource estimation are rotary mud holes drilled using a 5 3/8 th inch (136.5mm) bit with a circulating mud built on hypersaline formation waters. Rotary mud drilling is used as the host sediments are unconsolidated and have variable levels of water saturation. Sediments recovered from rotary mud drilling are not considered suitable for assay, as the collection method does not provide a statistically representative sample.

	Rotary mud drilling was completed by Coughlan Drilling Pty Ltd under contract to Marmota Energy Limited. Sonic drilling technique was utilised to provide an accurate representative sample and therefore suitable for assay. A four inch core sample of the sediments is recovered from this technique. Sonic drilling was completed by Boart Longyear Pty Ltd under contract to Marmota Energy Limited. Sonic drilled holes were 'twinned' rotary mud drill holes and therefore are not used in the resource estimation.
Drill hole spatial density	Within the Saffron prospect 59 drill holes have been used in the resource estimation. Holes have been drilled at approximately 100 metre to 300 metre centres along traverses of 200 to 300 metre separations. Drill collars are located with a hand held GPS to a horizontal accuracy of 1 to 5 metres. The land surface in the mineralised zone is flat, approximately 100 to 120m above AHD. Variation in collar elevation has negligible affect on this estimation.
Geological logging	Cuttings collected from the rotary mud drill collar are laid out to a sample field to represent 2 metre intervals. The sample field materials are geologically logged and an approximate 30 gram sample retained in a chip tray. The remaining sample is placed in bags and retained in storage. Sonic drilled core is retained and stored in core boxes. Only prospective geological units from the Eyre Formation were sampled using this drilling technique. The geological chip tray samples from the rotary mud drilling and the core samples from the sonic drilling are used in conjunction with geophysical logs to estimate the stratigraphic boundaries which are used in part to constrain the area and volumes of mineralised materials.
Geophysical logging	All drill holes were geophysically logged using a natural gamma tool and equivalent uranium grades expressed as %eU ₃ O ₈ are assigned to each logged interval. Geophysical tools are regularly calibrated at a calibration facility that is owned and managed by the South Australian Government. Prior to and at the conclusion of each phase of drilling, the tools were calibrated at this facility. Daily calibrations were also undertaken on site. Geophysical logging was carried out by Borehole Wireline Pty Ltd under contract to Marmota Energy Limited. Calibration and logistics reports were provided to Marmota Energy at the conclusion of each phase of drilling.
Disequilibrium	A number of drill holes have been drilled using sonic drilling to obtain a good quality, uncontaminated sample from the mineralised sands of the Eyre Formation. A disequilibrium assessment will be considered upon return of assay results.
Data verification	Preliminary mapping of down hole mineralisation is completed on site utilising geological and geophysical logging. The data is scrutinised by another geologist to confirm the identity of geophysical equipment used in line with calibration data. Mapped downhole mineralisation is checked against geological and geophysical logs. Verified drill hole information is then entered into Marmota databases by a Marmota Energy geologist.

Cut-off	The lower limit for uranium mineralisation to be included into the calculation of a significant intercept in this resource estimate is $0.01 \% eU_3O_8$.
Significant intercept	For the purpose of the estimate, the minimum intercept is 0.3m above a 0.01 %eU ₃ O ₈ cut-off, with isolated 0.1m intervals below 0.01 %eU ₃ O ₈ allowable within an intercept provided the average grade of the whole intercept exceeds 0.01 %eU ₃ O ₈
GT	Grade thickness (GT) is the product of the thickness of an individual drill hole intercept and its average grade for that intercept.
GT accumulation	For each drill hole, individual GT's are summed to produce a GT accumulation for that drill hole. Drill holes reporting a GT accumulation 0.035 m%eU ₃ O ₈ or greater have been included in this estimate for the basal mineralised layer and 0.01 m%eU ₃ O ₈ or greater for the upper mineralised layer. The basal layer contains a higher concentration of mineralisation, hence the GT accumulation within this layer is greater than the upper mineralised layer.
Density	A bulk density of 1.9 tonnes/cubic metre has been adopted for this resource estimate. This figure is adopted from the nearby Honeymoon development.
Recovery	No recovery factor is applied to this resource estimate.
Average Grade	Average grade assigned to each polygon area is the length weighted average of the drill hole intercepts above significance. In the resource estimation this average grade is weighted by polygon volume.
Estimation method	Thiessen polygons were constructed using ArcGIS software constrained within the host Eyre Formation of the Yarramba Palaeochannel, excluding drill holes in which the combined intercepts resulted in a Grade Thickness (GTm%) of less than 0.035 m%eU ₃ O ₈ for the basal mineralised layer and less than 0.01 m%eU ₃ O ₈ for the upper mineralised layer. Estimates were derived from the polygon area and the GT for each associated drill hole.
Classification	In accordance with Clause 19 of the JORC Code the Competent Persons consider that on the basis of the bulk grade, geological continuity for mineralisation and indicated hydrological characteristics of the host formation, together with initial mineralogy "there are reasonable prospects for eventual economic extraction". The estimate given herein is classified as an Inferred Resource in the absence of applicable recovery data and economic modelling to define a deposit specific cut-off grade.

About the Junction Dam uranium project

The Saffron Prospect on Junction Dam was discovered by Marmota Energy Limited late in 2009. Marmota is set to earn an 87.3% interest in the uranium rights on this highly prospective project.

The project is strategically located less than an hour's drive west from the major regional centre of Broken Hill, and is approximately 10 kilometres from the producing Honeymoon ISL uranium mine. The Honeymoon in-situ leach (ISL) uranium mine commenced full scale production in November 2011 with an expected annual production of 880,000 pounds U_3O_8 per year.

Drilling completed at Junction Dam in the 2011 Phase 3 program confirmed additional zones of uranium mineralisation to the north and south of the Saffron prospect. A zone of uranium mineralisation extending for approximately 15km has been defined on the project from the 2011 Phase 3 program.

Marmota believes that there is significant potential for further extension to the Saffron prospect from additional inventory of uranium mineralisation in both the adjoining Bridget and Yolanda prospects. Further drilling is planned for 2012 to expand on the resource defined at Junction Dam.



The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr D J Calandro, who is a Member of the Australian Institute of Geoscientists. Mr Calandro is employed full time by the Company as Managing Director and, has sufficient experience in the style of mineralisation and type of deposit under consideration and qualifies as a Competent Person as defined in the 2004 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Calandro consents to the inclusion of the information in this report in the form and context in which it appears.

Mr Dom Calandro MANAGING DIRECTOR

18 November 2011