



ASX Release

24 April 2012

BLACK RANGE MINERALS LIMITED

Suite 9
5 Centro Ave
Subiaco, Western Australia 6008
Australia
Tel: + 61 8 9481 4920
Fax: + 61 8 9226 2027

Contact:

Tony Simpson
Managing Director

E-mail:

info@blackrangeminerals.com

Directors / Officers:

Alan Scott
Tony Simpson
Ben Vallerine
Mike Haynes
Duncan Coutts
Nick Day

Issued Capital:

840.9 million shares
23.6 million unlisted options

Australian Stock Exchange

Symbol: BLR

**BLACK RANGE SELECTS DEVELOPMENT APPROACH
FOR HANSEN URANIUM DEPOSIT**

Highlights

- **Scoping study confirms underground borehole mining with ablation as the best approach for development of the Hansen Uranium Deposit**
- **Operating costs from the scoping study are estimated at US\$30/lb U₃O₈ at a production rate of 2Mlb U₃O₈ per annum**
- **Continuing ablation test work confirms recovery of ~95% U₃O₈ in ~10% of mined material**
- **Use of ablation expected to streamline the mine permitting process**
- **Strategic alliance signed with Kinley Exploration for underground borehole mining**
- **Preliminary Economic Assessment commenced**

Black Range Minerals Limited (ASX:BLR) ("BLR" or "the Company"), further to the December quarterly review of operations, recently completed a scoping study ("Study") to evaluate the technical feasibility and capital and operating costs to mine the Hansen Uranium Deposit ("Hansen") in south western Colorado, USA (see figure 5 & 6). The Study evaluated the use of open pit, underground, and underground borehole mining ("UBHM") with and without the use of ablation.

Prepared by TREC, Inc. ("TREC") of Casper, Wyoming, the Study confirms that UBHM combined with ablation is both technically feasible and the most cost effective alternative.

Hansen is part of the larger Hansen/Taylor Ranch Project ("the Project") and has been selected for initial production as the more technically advanced of the deposits in terms of historical permitting and drilling. Whilst the Study is focused on Hansen, mining using UBHM and ablation, can be applied to all the resources within the Taylor/Hansen Project.

The Study is based on an annual uranium production target of 2Mlb U₃O₈ per annum and an estimated total recovery of 14Mlbs U₃O₈ from the Hansen deposit.

Life of mine OPEX is estimated to be US\$30 per pound U₃O₈ including the costs for UBHM services, ablation and on-site milling, but excluding contingency. CAPEX costs from the Study are shown in Table 3

Following completion of the Study, BLR has determined that because of the considerable benefits arising from capital cost reductions, and further reduced environmental impact the best option for processing the ore is in an off-site mill.

Without the need to build a mill, the Study indicates CAPEX for Hansen would be under US\$80m

In development of the Study, TREC reviewed and incorporated design and technical information provided by Kinley Exploration LLC ("Kinley"), Ablation Technologies LLC and geotechnical and geological assessments carried out by Tetra Tech.

Commenting on the successful Study, BLR's Managing Director Tony Simpson said, *"the work we have carried out over recent months has enabled us to review all the development options for the development of Hansen, such as open pit, underground, borehole mining, with or without the use of ablation, all of which were feasible alternatives. The development option we have selected for Hansen is using underground borehole mining with ablation, as it offers clear advantages in operating and capital costs as well as reducing the environmental impact of the Project, which we believe will help streamline the permitting process. Subsequent to the completion of the scoping study, we have also determined that because of capital cost reductions and further reduced environmental impact the best option for processing the ore is to transport off site a high grade, high value concentrate using an off-site mill. Without the need to build a mill, the Study indicates CAPEX for Hansen would be under US \$80m and clearly the Study has demonstrated that Hansen can cope with a slight increase in OPEX to allow for the costs of off-site milling."*

Mr. Simpson further noted, *"in the selection of the development scenario for Hansen, the progress we have made in demonstrating to the investment community that this project can be permitted and mined is a huge leap forward for Black Range in its desire to transition from an explorer to a uranium miner."*

Scoping Study Results

The Study evaluated the use of open pit, underground, and UBHM, with and without the use of ablation. Although underground mining and open pit with ablation were shown to be technically feasible, BLR has selected UBHM with ablation as the preferred alternative on the basis of capital and operating cost advantages and the reduced environmental impacts.

The August 2010 resource estimate prepared by TetraTech was used to determine the estimated quantity of uranium expected to be recovered from Hansen. Applying a 750ppm cutoff grade the estimated Indicated and Inferred Resource is 19.72Mlb U₃O₈ at an average grade of 1,270 ppm (refer Table 1 below). The economic cutoff grade will be dictated by uranium price, and will be further assessed in the economic assessment.

Table 1 – Hansen Resources from TetraTech Technical Memorandum August 2010

Resource Category	Tonnes (millions)	Grade (ppm U ₃ O ₈)	Pounds U ₃ O ₈ (millions)
Indicated	3.13	1290	8.91
Inferred	3.91	1250	10.81
Total Indicated + Inferred	7.04	1270	19.72

Capital and operating costs for UBHM method with ablation and on-site milling are provided in Tables 2 and 3. Further information on the UBHM and ablation mining method is contained in the supplemental information below.

Table 2 - Hansen Scoping Study - Summary Operating Costs

Hansen Life of Mine Operation Costs ¹	Cost per Pound U ₃ O ₈	Cost per Metric Tonne Ore
Recovered Resources:	14,051,000	5,282,709
	US\$	US\$
Salaries and Wages (Mine)	3.07	8.16
UBHM Operating Costs	13.38	35.58
Ablation Operating Costs	3.13	8.32
Material Handling	0.19	0.51
Water Treatment	0.12	0.33
Mill Operating Costs	8.14	21.64
Mine Services	1.99	5.28
Subtotal:	30.02	79.82

¹ Excludes taxes, royalties, preproduction expenses, product transportation, state fees, regulatory fees, and contingency.

Table 3 - Hansen Scoping Study - Summary Capital Costs

Item Description	Cost (US\$ Million) ¹
UBHM Slurry Handling ²	3.09
Ablation	34.11
Material Handling	1.91
Water Treatment	12.07
Site Wide Infrastructure	7.34
Engineering and Installation	15.00
Mill	68.00
Subtotal Capital Cost:	141.52

¹ Excludes contingency.

² Capital for UBHM provided under contract by Kinley is included in the OPEX numbers in Table 2 above.

Following the selection of UBHM and ablation as the mining process at Hansen, BLR has entered into a consulting agreement with Kinley that includes a varied scope of services to assist in mine operations planning for Hansen. Kinley will provide continued analysis of the logistics and site-specific requirements to conduct UBHM at Hansen, considering such factors as behaviour and suitability of overburden materials, tools and equipment to be used, and the applicability and desirability of other associated technologies, to deliver material to the surface in the most economical and efficient means possible. Discussions with Ablation Technologies are in progress to secure the use of ablation.

The Company is in the process of applying to the regulatory authorities for approval to conduct an on-site test of UBHM.

Further to the work discussed in last Quarter's Review of Operations, additional ablation test work has been conducted that has continued to confirm the suitability of treating the Hansen ore with the ablation process. Concentrate from this work has been sent for leaching optimisation test work. A pilot scale evaluation of ablation will also be performed using a 1000 lb bulk sample and groundwater from site to acquire data for scaling up the test work.

Test work conducted by BLR suggests that using ablation results in the recovery of ~95% U₃O₈ in ~10% of mined material. The application of ablation results in the production of a high-value concentrate that can be readily transported to an off-site mill for processing.

The use of an off-site mill results in considerable CAPEX reductions a reduced on site footprint and an overall reduction in environmental impact. BLR is exploring options for off-site processing of the ablated concentrate. Off site milling will be incorporated in the economic assessment, which is currently being prepared by TREC.

Figure 1 below shows a view under the microscope of the sandstone grains, prior to ablation and Figure 2 a view, after ablation, where the patina (containing the uranium) surrounding the sandstone grain has been removed, and a clean sand product remains.

Figure 1 (Pre Ablation)

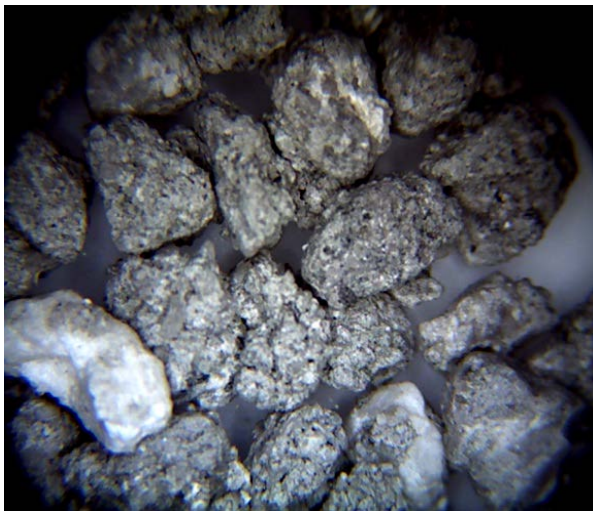


Figure 2 (Post Ablation)



Preliminary Economic Assessment

TREC has been further engaged to commence work on a NI 43-101 compliant Preliminary Economic Assessment ("PEA"). The PEA will incorporate mining Hansen using UBHM and ablation and transporting the ablated concentrate off site to a third party uranium mill for processing into yellowcake.

The PEA process, which is expected to be completed in the third quarter 2012, will include a review and update of Hansen resources. The resource review is anticipated to result in a re-classification of a considerable component of the Inferred resource base to Indicated resources.

Additional Information:

Scoping Study

The TREC Study is preliminary in nature and was used as a planning tool to evaluate the various mining and processing options available to BLR. The Study incorporated information from ablation test work, leaching test work, a UBHM study carried out by Kinley, current resources prepared by Tetra Tech, TREC's internal database, and previous feasibility studies. The engineering and design component of the Study is estimated at an accuracy level of plus or minus 30%, and TREC has recommended that a contingency of 20% be considered for OPEX and CAPEX.

Underground Borehole Mining

In the UBHM process, a conventional overburden drill rig bores a hole through the overburden to the mineralized horizon. Once the mineralized horizon is reached, the borehole is cased and sealed and the overburden drill rig is exchanged for a specialized mining rig with customized equipment, including a "Fixed Shrouded Jet Miner". The jet miner is lowered through the casing to the exposed face of the mineralised material, and uses pressurized water supplied by surface pumps to excavate material from the ore body in a 360-degree arc around the borehole. An internal airline within the mining pipe provides a continuous supply of air to depressurise the return pipe and create a vacuum to lift the mineralized material slurry through the drill pipe to the surface. The system proposed for Hansen will have mineralized material recovery rate of up to 50 tonnes per hour (per individual mining rig; multiple mining rigs can operate concurrently) (see Figures 3 & 4).

Once a borehole has been completely mined, the remaining cavity will be filled with specialized cement slurry. The borehole will then be backfilled and the top of the casing plugged with bentonite and cement before final completion with a soil cap.

The precision of UBHM mining gives BLR the ability to target individual mineral resources several hundred feet underground with relatively minimal environmental impact. The mobility of drill rigs allows the Company greater flexibility in targeting resource bodies based on grade and how they can be most cost-effectively developed according to the mine plan.

Ablation Technology

In ablation, the slurry from UBHM is ejected from two opposing injection nozzles to create a high energy impact zone. This high energy impact separates the mineralized patina (coating) of uranium from the underlying grain. The uranium bearing particles are found in the fine fractions separated in a subsequent screening process.

As tested on material from Hansen, ablation allows approximately 90% of barren material to be separated from mineralized material prior to milling, greatly reducing the total OPEX and CAPEX costs to process mineralized material. The final product is an "ablated concentrate" which consists of approximately 10% of the original mineralized material, which will be processed with conventional milling techniques.

Figure 3 – UBHM Process

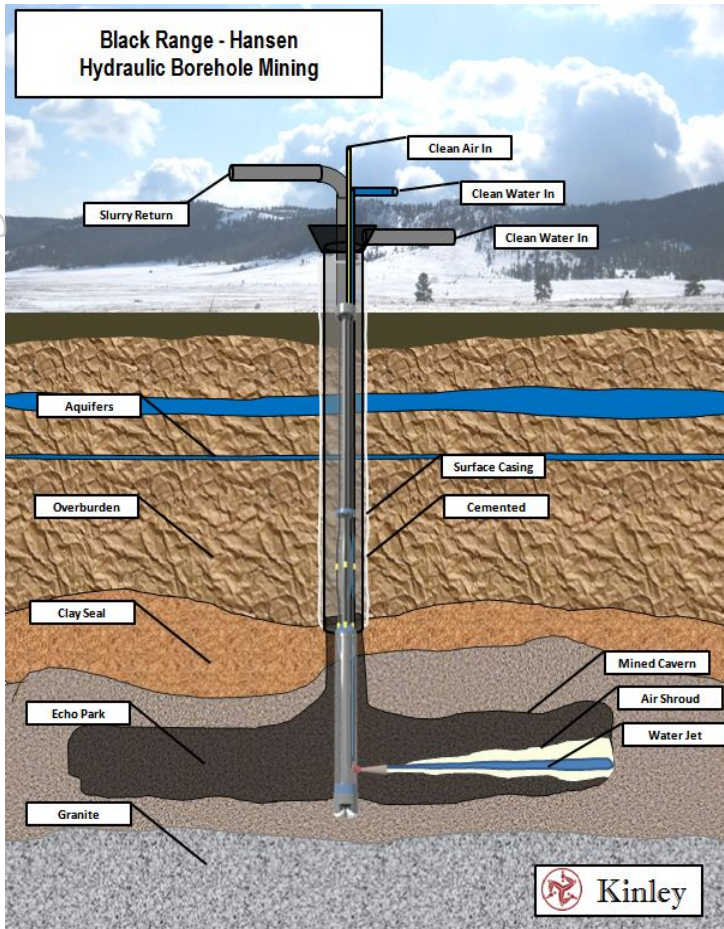


Figure 4 - Underground Borehole Mining Rig



About Black Range Minerals Limited

Black Range Minerals Limited is an Australian Securities Exchange-listed company focused on growth through acquisition, exploration and development of uranium projects. BLR is currently advancing the high-grade Hansen/Taylor Ranch Uranium Project, located northwest of Cañon City, Colorado, USA, toward production.

BLR controls 100% of the Project, which encompasses more than 13,500 acres. The vast majority of these mineral rights have been secured under four lease and option agreements with surface landowners, together with several State and Federal leases. The Project contains JORC Code-compliant Indicated and Inferred resources of approximately 90.9 million pounds U_3O_8 at a very robust grade of 600 ppm U_3O_8 , making it one of the largest uranium projects within the USA. These resources are located within a small portion of the extensive Tallahassee Creek Uranium District. Potential exists to discover additional uranium resources within the district. Historical drilling in the Tallahassee Creek Uranium District indicates further mineralised zones.

BLR has assembled a highly reputable team of US-based experts to guide the Project through the mine permitting process. These team members have a solid track record in preparing high-quality permitting documents and in conducting comprehensive and successful public outreach. BLR is targeting completion of permitting activities and commencement of production in 2016.

Wherever practical, BLR seeks to utilize mining technologies that are both environmentally sensitive and economically viable by identifying and evaluating new technologies, and by embracing innovation in existing technologies.

The Hansen Deposit is part of a larger Project and has been selected for initial production as it is the more technically advanced of the deposits in terms of historical permitting and drilling. Hansen was discovered in 1977 and fully permitted for mining by Cyprus Mines Corporation in 1981. More than 1,000 holes were drilled and three feasibility studies completed to evaluate Hansen. Cyprus concluded that the Project was economically viable; however, the Project was never brought to production due to the collapse of the uranium price. BLR's work to date has confirmed the historical work completed by Cyprus.

Figure 5 - Location of Black Range Minerals' Hansen/Taylor Ranch Uranium Project in Colorado, USA

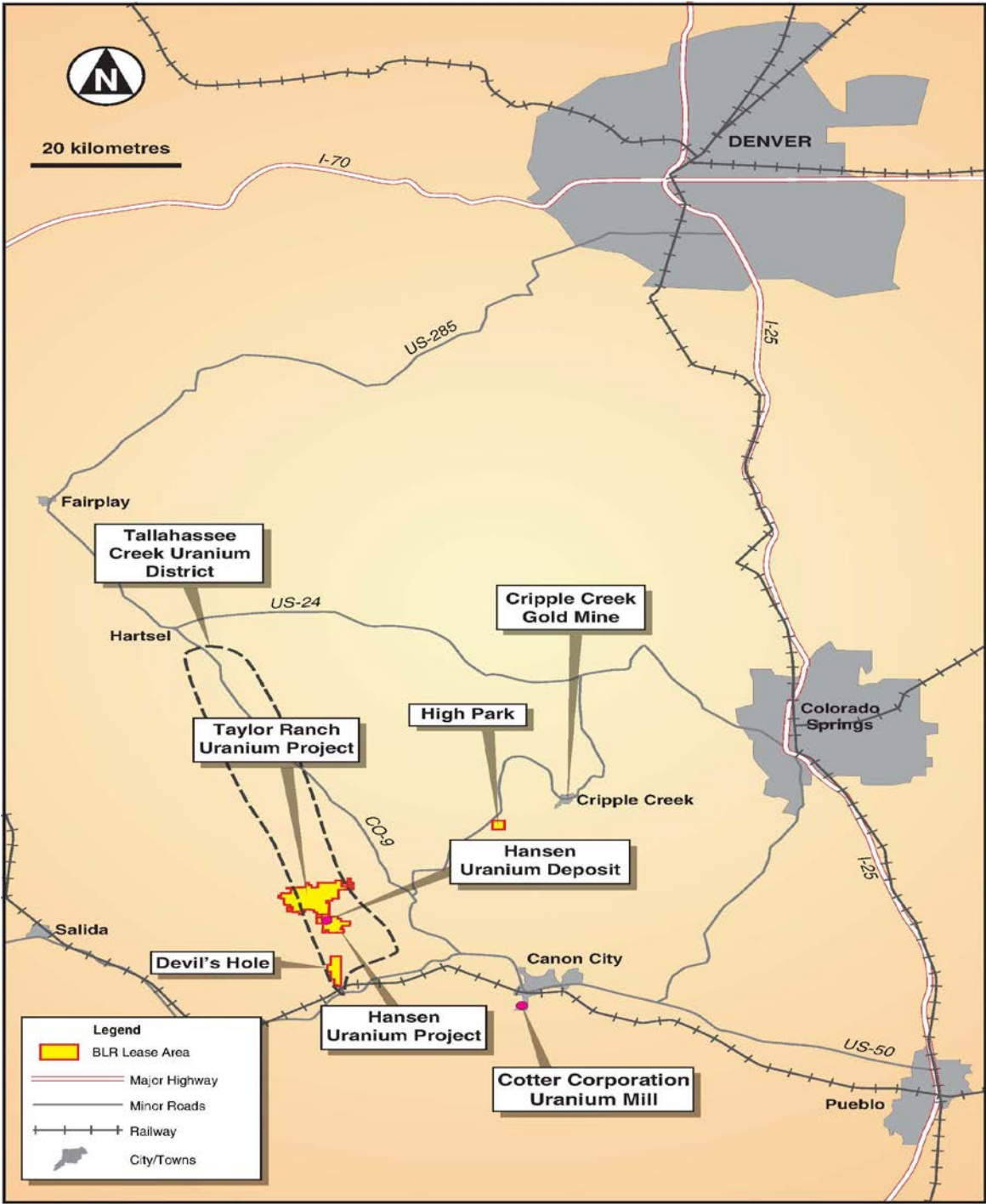


Figure 6 - Location of uranium deposits within Hansen/Taylor Ranch Uranium Project

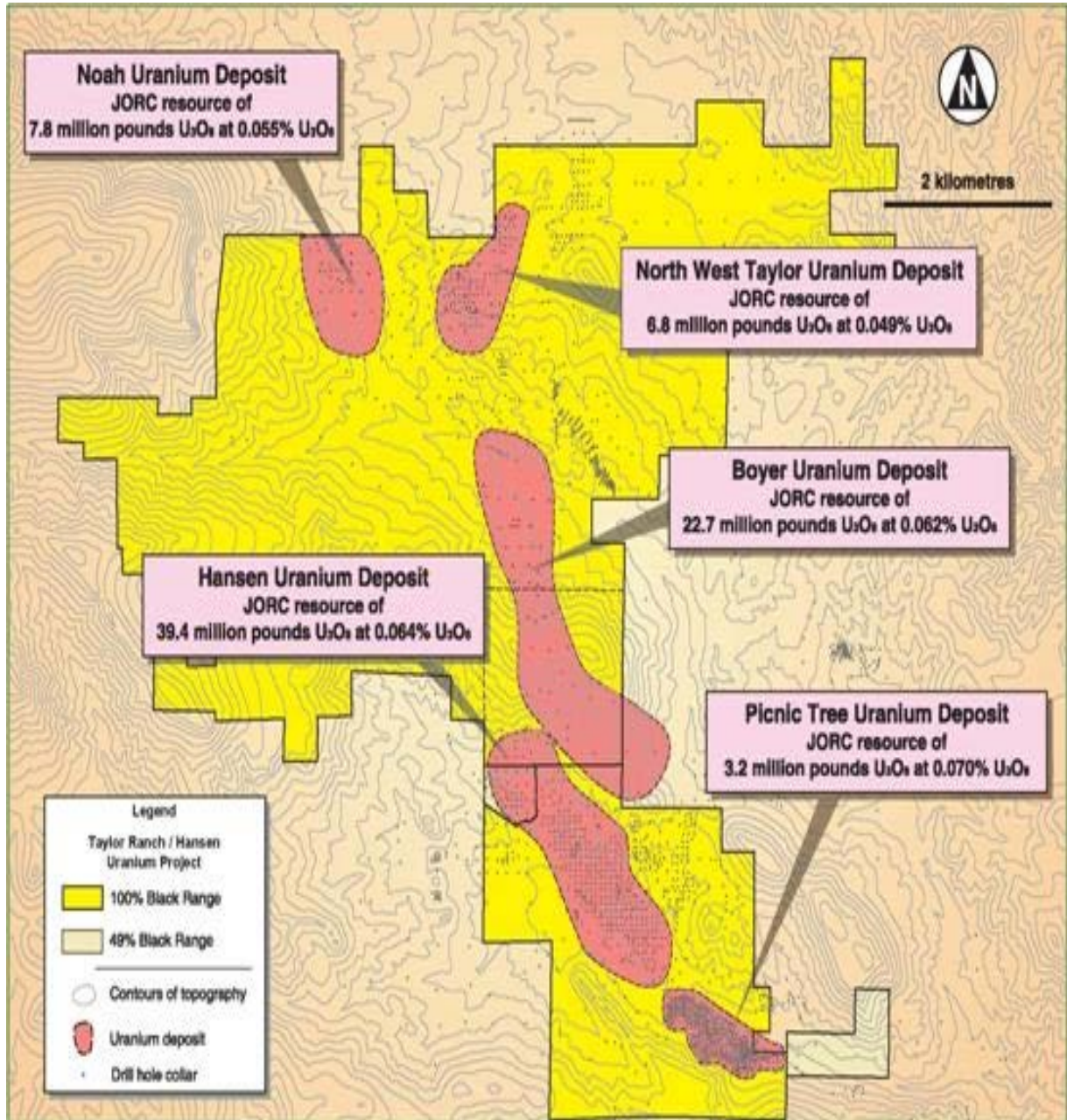


Table 4 - JORC Code compliant resources (Compiled August 2011)

Using a cut-off grade of 0.025% U₃O₈:

Deposit	Indicated (0.025% Cut-Off)				Inferred (0.025% Cut-Off)				Total (0.025% Cut-Off)			
	Tonnes	Grade U ₃ O ₈ (%)	Tonnes of U ₃ O ₈	Pounds of U ₃ O ₈	Tonnes	Grade U ₃ O ₈ (%)	Tonnes of U ₃ O ₈	Pounds of U ₃ O ₈	Tonnes	Grade U ₃ O ₈ (%)	Tonnes of U ₃ O ₈	Pounds of U ₃ O ₈
Hansen	11,600,262	0.067	7,768	17,124,620	16,399,487	0.062	10,101	22,269,792	27,999,749	0.064	17,869	39,394,412
Boyer	9,102,294	0.059	5,403	11,912,352	7,577,863	0.064	4,871	10,737,856	16,680,157	0.062	10,274	22,650,208
Picnic Tree	1,703,693	0.073	1,248	2,750,840	337,473	0.054	183	403,308	2,041,166	0.070	1,431	3,154,148
NW Taylor	2,385,649	0.058	1,388	3,061,003	3,940,027	0.043	1,710	3,769,842	6,325,676	0.049	3,098	6,830,845
Noah	1,438,200	0.055	784	1,728,025	4,956,582	0.055	2,736	6,031,920	6,394,782	0.055	3,520	7,759,945
High Park	1,954,983	0.053	1,028	2,267,000	433,634	0.077	333	734,000	2,388,617	0.057	1,361	3,001,000
Other (Taylor)	452,000	0.031	126	278,146	4,849,000	0.039	1,729	3,811,314	5,301,000	0.039	1,855	4,089,460
Other (Hansen Area)	364,000	0.086	285	625,000	2,223,000	0.077	1,552	3,419,000	2,587,000	0.078	1,837	4,044,000
Total	28,928,480	0.062	18,030	39,749,941	40,064,232	0.058	23,215	51,179,428	68,992,711	0.060	41,244	90,924,018

Or using a 0.075% U₃O₈ cut-off grade:

Deposit	Indicated (0.075% Cut-Off)				Inferred (0.075% Cut-Off)				Total (0.075% Cut-Off)			
	Tonnes	Grade U ₃ O ₈ (%)	Tonnes of U ₃ O ₈	Pounds of U ₃ O ₈	Tonnes	Grade U ₃ O ₈ (%)	Tonnes of U ₃ O ₈	Pounds of U ₃ O ₈	Tonnes	Grade U ₃ O ₈ (%)	Tonnes of U ₃ O ₈	Pounds of U ₃ O ₈
Hansen	3,126,521	0.129	4,041	8,908,599	3,909,667	0.125	4,904	10,811,979	7,036,188	0.127	8,945	19,720,578
Boyer	3,010,039	0.103	3,097	6,828,444	2,951,979	0.100	2,964	6,534,032	5,962,018	0.102	6,061	13,362,476
Picnic Tree	532,517	0.141	749	1,650,994	55,338	0.123	68	149,744	587,856	0.139	817	1,800,738
NW Taylor	373,571	0.154	574	1,265,849	346,530	0.098	338	745,633	720,101	0.127	912	2,011,481
Noah	259,397	0.114	295	649,647	806,233	0.125	1,010	2,227,132	1,065,630	0.122	1,305	2,876,779
High Park	326,587	0.114	372	820,000	130,635	0.163	212	468,000	457,221	0.128	584	1,288,000
Other (Taylor)	-	-	-	-	259,000	0.105	246	543,000	259,000	0.105	246	543,000
Other (Hansen Area)	93,000	0.213	180	396,000	472,000	0.196	839	1,849,000	565,000	0.199	1,019	2,245,000
Total	7,713,001	0.121	9,308	20,519,713	8,863,534	0.119	10,581	23,328,680	16,576,535	0.120	19,889	43,848,052

Competent Person Statement:

The information in this report that relates to Mineral Resources at the Hansen/Taylor Ranch Uranium Project is based on information compiled by Dr Rex Bryan who is a member of the Society for Mining, Metallurgy and Exploration. Dr Rex Bryan compiled this information in his capacity as a Senior Geostatistician of Tetra Tech. Dr Rex Bryan has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Dr Rex Bryan consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Exploration Results is based on information compiled by Mr Ben Vallerine, who is a member of The Australian Institute of Mining and Metallurgy. Mr Vallerine is the Exploration Manager, USA for Black Range Minerals Limited. Mr Vallerine has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify 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 Vallerine consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Exploration Potential of the Tallahassee Creek District is based on information compiled by Mr Howard Harlan, who is a Certified Professional Geologist of The American Institute of Professional Geologists. Mr Harlan is the Senior Consulting Geologist, USA for Black Range Minerals Limited. Mr Harlan has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity, which he is undertaking to qualify 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 Harlan consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.