15th April 2013

Company Announcements Office
Australian Securities Exchange Limited
4th Floor
20 Bridge Street
SYDNEY NSW 2000

Dear Sir/Madam

Please find attached a Market Release titled –

CHARLEY CREEK RARE EARTHS PROJECT

SCOPING STUDY RESULTS

Scoping Study Delivers Robust Economics for a Long Life - Low Capital Cost Project

Yours sincerely

Malcolm Smartt
Company Secretary / Director

CROSSLAND URANIUM MINES LIMITED
ABN 64 087 595 980
PHONE: (08) 89815911 FACSIMILE: (08) 89411364 EMAIL: geupene@crosslanduranium.com.au
ADDRESS: Unit 8, Raffles Plaza, 1 Buffalo Court, Darwin 0800, NT; GPO Box 2437, Darwin, 0801, NT.

15 April 2013

CHARLEY CREEK RARE EARTH PROJECT

SCOPING STUDY RESULTS

Scoping Study Delivers Robust Economics for a Long Life - Low Capital Cost Project

Highlights of Scoping Study

- **Low capital cost of A$156 million,**
- **Mine life 20(+) years; extensions likely,**
- **JORC Code compliant Resource (Indicated and Inferred) of ~800Mt containing ~235,000t TREO,**
- **Project production commencement expected in 2016,**
- **Feasibility Study will further optimise the project.**

Crossland Uranium Mines Ltd (Crossland: ASX:CUX), is pleased to announce the completion of the **Charley Creek Rare Earth Project Scoping Study**, including a preliminary economic evaluation. The Charley Creek Project is a joint venture with Pancontinental Uranium Corporation (TSX:PUC) which holds 45% of the project. Crossland holds the balance (55% interest). Crossland is delighted with this confirmation of its expectation of strong financial returns from the conceptual project. This Scoping Study identifies Charley Creek as one of the lowest capital cost Rare Earth Element (REE) projects in the world with a viable timeline to development. The Charley Creek Alluvial Rare Earth project is substantially different to most other REE projects that can be in production by mid-2016, offering the full spectrum of Light, Medium and Heavy Rare Earths in an easily extractible and readily processable form. The capital cost through to production of mixed Rare Earth Carbonate is one of the lowest on offer. The project is very scaleable, and could provide a stable supply of REE, including a substantial proportion of Heavy REE, for many decades. With the positive outcomes of the Scoping Study, the joint venture can now advance to a Feasibility Study which contemplates further optimisation of recoveries, Reserve definition, and expansion options. Given appropriate funding, it is expected that this and the Environmental Impact Statement can be concluded within the next year, leading to permitting and other agreements, financing and construction in early 2015. Production should be achievable by mid- 2016.

CROSSLAND URANIUM MINES LIMITED
ABN 64 087 595 980
PHONE: +61 8 89815911 FACSIMILE: +61 8 89411364 EMAIL: admin@crosslanduranium.com.au
ADDRESS: Unit 8, Raffles Plaza, 1 Buffalo Court, Darwin 0800, NT; GPO Box 2437, Darwin, 0801, NT, AUSTRALIA

Cautionary Statements

The Scoping Study and this report on the results thereof have been prepared to comply with the recently updated 2012 edition of the JORC Code. As such, the following should be noted: *'The Scoping Study referred to in this report is based on low-level technical and economic assessments, and is insufficient to support estimation of Ore Reserves or to provide assurance of an economic development case at this stage, or to provide certainty that the conclusions of the Scoping Study will be realised.' (JORC Code Cautionary Statement).*

For the purposes of ASX Listing Rules 5.16 and 5.17 as amended, the Scoping Study contains parameters that are defined as "production targets" in these Listing Rules, and these production targets are used to generate "forecast financial information". It should also be noted that as stated immediately above, a Scoping Study is not based upon Ore Reserves, but primarily upon Mineral Resources. Initial Resource estimates at Charley Creek (May 2012) produced the following results:

- Indicated Resources of 387Mt @ 300ppm TREO, supported by
- Inferred Resources of 418Mt @ 290ppm TREO.
-

Within these Resources, the block models contain approximately 70Mt @ 500ppm TREO.

The production target outputs utilised in the Scoping Study require:

- 54Mt @ 500ppm TREO in the first five years of production, followed by
- 300Mt @ 300ppmTREO over the succeeding 15 years.

Therefore, there are "reasonable prospects" that the "production targets" will be achieved, particularly given the large prospective areas at Charley Creek (around 2,500km^2) where drilling will be extended in the next round of Resource definition.

In the absence of the mine scheduling studies necessary to convert Resources to Reserves, it is prudent to classify some of the required production target of 54Mt@500ppm TREO as Exploration Target, since no studies have yet been completed to establish in what sequence the Resource can be extracted. The production target is therefore based as to approximately 85% on Indicated Resource, and up to 15% upon Exploration Target.

The use of the term "Exploration Target" in association with a production target necessitates inclusion of a cautionary statement under the ASX Listing Rules: "The potential quantity and grade of an Exploration Target is conceptual in nature, there has been insufficient exploration to determine a Mineral Resource and there is no certainty that further exploration work will result in determination of Mineral Resources or that the production target itself will be realised". An Exploration Target also requires a JORC Code cautionary statement: *"This target remains conceptual in nature, and there has at this time been insufficient exploration to estimate a Mineral Resource, and it remains uncertain if further exploration will result in the estimation of an additional Mineral Resource"*. *(JORC Code cautionary statement).* The Exploration Target referred to here, and to be explored in the next round of Resource drilling is: 50Mt to 100Mt at grades of 500ppmTREO to 1000ppmTREO. A more detailed discussion of the Exploration Target is to be found on Page 6 of this document.

The percentage of the "production target" that is based upon an Exploration Target is a maximum of 15%. This is within the sensitivity ranges considered in the Economic Evaluation, and returns a positive result in all circumstances modelled.

Key Features of Project

- **Low capital cost requirement of A$156 million** including contingency and project infrastructure with a payback of 2.5 years after commencing production.
- The project is based upon **a life-of-mine (LoM) of 20 years** , with a drilled Resource based on **around 1% of the area with exploration potential. Low- cost and rapid Resource expansion is possible.**
- **Average annual revenue[1] of A$154 million** at 3,645 tonnes equivalent total rare earth oxide (TREO) production.
- **Low cost alluvial sand mining operation** with **around 1% overburden** and potentially mineralised alluvium to depths of up to 80 metres, with an average drilled mineralised depth of 15m.
- Charley Creek concentrate product comprises **18% Heavy rare earth oxides (HREO) including yttrium** , the scarcer of the rare earth elements.
- **Beneficiation process plant is low risk and technologically straightforward, similar to heavy mineral sand operations,** utilising physical, not chemical separation technologies.
- Benefication **flowsheet has been piloted** using a bulk composite sample from several widely spaced trench samples.
- The mineral concentrate **feed to the REO Refinery contains 40% w/w rare earth oxides**. By-product zircon will be produced.
- **Simple REO Refinery flowsheet** using sulphuric acid roast followed by water leach with >95% REE extraction.
- **Product is a high purity mixed rare earth carbonate free of radionuclides**. A small amount of uranium by-product will be produced. Thorium disposal will utilise recognised best practices.
- **The Project is located in the Northern Territory, where mining of radioactive materials has been under way for the past 60 years**. A regulatory regime is in place that can oversee permitting of projects like Charley Creek.

Summary of Project

The Charley Creek Project is situated approximately 100km west-north west of Alice Springs in the Northern Territory, and lies on pastoral leases to the north of the West MacDonnell Ranges National Park (see **Figure 1** below). The resource is a surficial alluvial mineral sand deposit with average thickness of 15m, containing the valuable and easily processed rare earth bearing heavy minerals monazite and xenotime, as well as zircon and ilmenite.

The mine site and supporting operations will be located within the Charley Creek tenements and main access to the mine site will be from the Tanami Highway, after which a dedicated unsealed mine access road (approximately 28 km long) will be constructed to the mining operations. The operations consist of large scale mining (total 12- 20Mtpa) from two mining sites, where Run of Mine (ROM) ore is trucked a short distance to Mining Field Units where the oversize and slimes are removed to the pit void. The remaining sand is then pumped to a nearby Primary Wet Concentration Plant (WCP) of spirals circuits, where 93% of the feed is removed as tailings and pumped to the pit void. The Primary WCP Concentrate is transported to the Secondary WCP, where a concentrate grading 8% to 12% TREO is produced using wet magnetic separators, hydraulic classifiers and spirals to feed to the Dry Plant. The Dry Plant uses electrostatic and magnetic separators to produce a high grade rare earth mineral concentrate (a mixture of monazite and xenotime) that grades 40% TREO.

The Dry Plant Concentrate is transported a short distance to a small (1.2tph) Rare Earth Refinery where thorium and uranium are separated to produce a high purity mixed Rare Earth Carbonate product for export.

Forecast Operation and Financial Summary

A summary of the key physical and financial parameters for the Charley Creek Alluvial REO Project is provided in **Table 1**. Production targets[1] are estimated at 8Mtpa Run of Mine (ROM) in the first production year, before ramp-up to 12Mtpa through to Year 5, when it will be further ramped up to 20Mtpa in years 6 to 20. Foreign exchange rate decreases from US$1.00: A$1.02 in 2014 to a long term rate US$1.00: A$0.90 from 2019 onwards.

This analysis confirms the Charley Creek REO Project as a low capital cost, very long life producer of critical rare earths for the world market.

Table 1: Operational and Financial Assumptions[1].

Life of Mine (LoM)	20(+) years
Mine Throughput (Years 1-5)	8- 12 Mtpa
Total Years 1-5	54Mt
Mine Throughput (Year 6+)	20 Mtpa
Total Years 6-20	300Mt
Average Grade (Years 1-5)	500 ppm TREO
Average Grade (LoM)	300 ppm TREO
Average Strip Ratio	0.013
Overall Process Recovery	60.8%
Capital Costs (including 10% Contingency)	A$156M
Incremental Expansion Capital 12 to 20 Mtpa (Year 6)	A$40M
Sustaining Capital (LoM)	A$40M
Annual Production – REO Contained in Mixed Carbonate	3,645 tpa
Average Mine & Processing Cost (to 40% REO Concentrate)	A$4.45 / tonne ROM
Average Generals & Administration	A$0.70 / tonne ROM
Refining Cost (to Mixed REE Carbonate)	A$5.87 / kg REO
Product Packaging and Transport (FOB Darwin)	A$0.67 / kg REO
Product Off take Terms (% REO Basket Price)	75%
Revenue (FOB) “Basket Price”	US$57.38/kg
Discount Rate Applied	10%
IRR (Pre-tax and Royalties)	**39.4%**
NPV_{10} (Pre-tax and Royalties)	**A$302M**
Payback from start of production	**2.5 years**

Outlook

There remain matters to be resolved and others to be optimised in a Feasibility Study that the joint venture will now progress. Given appropriate funding, it is expected that this and the draft Environmental Impact Statement can be concluded within the next year, leading to permitting and other agreements, financing and construction in early 2015. Production should be achievable by mid- 2016.

Charley Creek Alluvial REO Project

Crossland engaged MSP Engineering Pty Ltd (MSP) to complete a Scoping Study for the development of the Charley Creek Alluvial Rare Earth Project (Charley Creek). The metallurgical test work and the Scoping Study has been overseen by Crossland's Chief Operating Officer, Dr Tony Chamberlain.

The Scoping Study was concluded in the first quarter of 2013 by MSP Engineering Pty Ltd, and has been prepared in line with AusIMM guidelines and in compliance with the newly revised 2012 edition of the JORC Code.

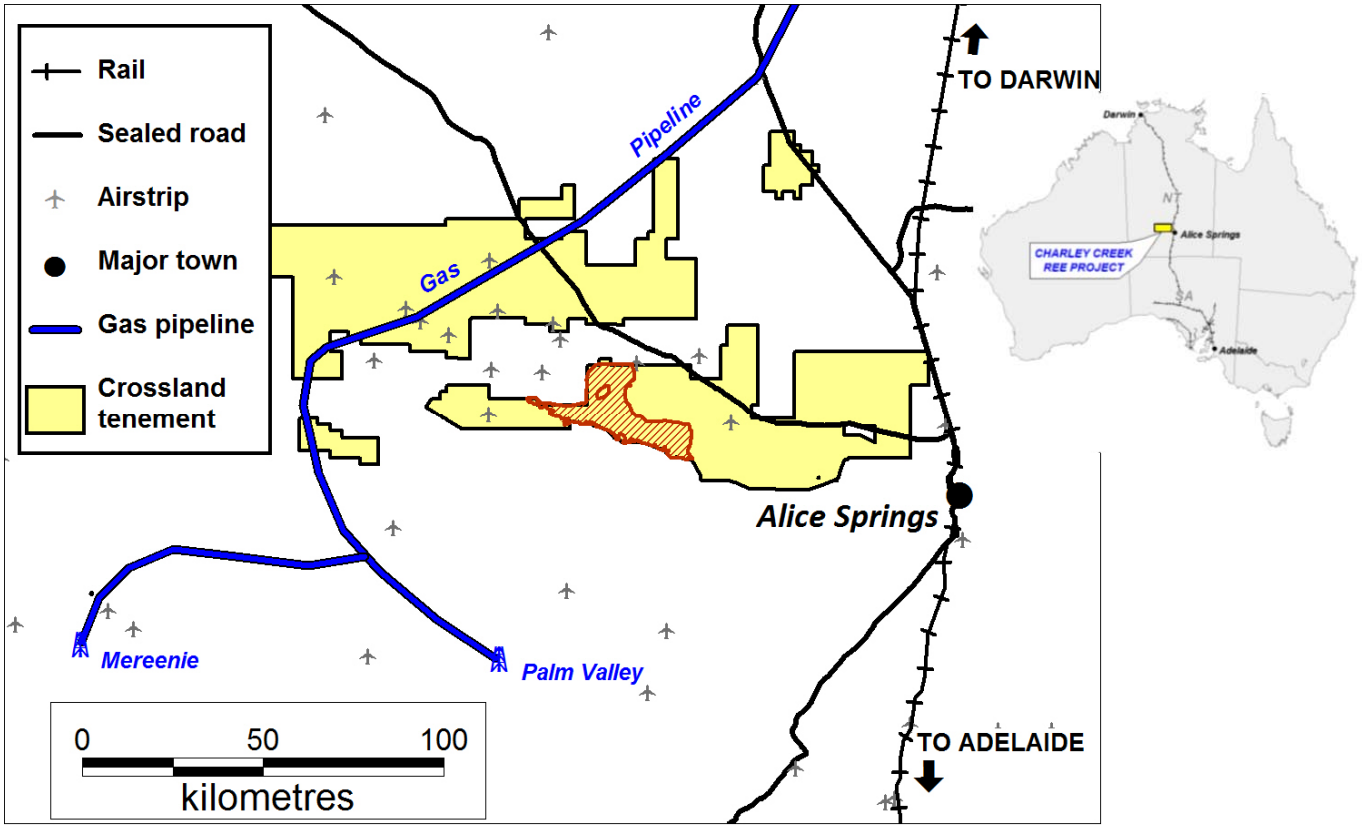

Figure 1: Location of Charley Creek Alluvial Rare Earth Project.

Mineral Resource Estimate

The deposits lie on plains to the north of the West MacDonnell Ranges. Granites and various high grade metamorphic rocks dominate the range country, and these contain elevated levels of REE. The Charley Creek deposits are alluvial REE deposits hosted by alluvial fans shedding off the West MacDonnell Ranges. The alluvium including the REE bearing minerals, monazite and xenotime, has been derived from disintegration of granitoids and metamorphic rocks exposed in the ranges. Fans range up to 80m thick, with an average of around 15m thick in the areas drilled to date by Crossland. The alluvial fans commence from the base of the ranges, extending out from there for tens of kilometres in the general direction of Lake Lewis. The alluvium seems to have been deposited in thin (tens of centimetres) pulses that in aggregate result in fairly regular grades across mining widths. Studies of satellite imagery and ground reconnaissance and stream sediment sampling indicate that an area of alluvial fans in excess of 2,500km^2 falls within the Joint Venture's EL package.

An Initial Mineral Resource estimate was released by Crossland on 15 May 2012, and this has not varied for the Scoping Study, but the Revised JORC Code (2012) Table 1 template and intersection data are appended to this release (**Appendix 1**), along with the relevant consents (at the rear of this report), and cautionary statements in compliance with the 2012 Edition of the JORC Code, and ASX Listing Rules on page 2 of this document, and in the footnotes on page 19of this document. Sufficient tonnage of Indicated Resource has been demonstrated for the 20 year life of the project as presented in the Scoping Study; however because the drill data used for the Initial Mineral Resource was largely confined to available and approved access tracks at the time of drilling in 2011, there was no effort made to optimise the grade of alluvium in the drill program, and the resulting estimated Resource had an overall grade of around 300ppm TREO. This is used as the average grade for years 6 to 20 in the Scoping Study. The Initial Resource estimate is reproduced in **Table 2** below:

Table 2: Charley Creek Resource Estimate.

RESOURCE	Mass	Weighted Average TREO	Contained TREO	Contained Xenotime	Contained Monazite	Contained Zircon
	Tonnes	ppm	kg	kg	kg	kg
Cattle Creek Indicated Resource	249,900,000	280	69,900,000	17,600,000	97,200,000	124,650,000
Western Dam Indicated Resource	136,960,000	323	44,150,000	9,675,000	63,700,000	70,930,000
TOTAL INDICATED RESOURCES	**386,860,000**	**295**	**114,050,000**	**27,275,000**	**160,900,000**	**195,580,000**
Cattle Creek Inferred Resource	353,210,000	291	102,750,000	26,450,000	141,075,000	183,750,000
Western Dam Inferred Resource	65,232,000	282	18,350,000	4,240,000	26,160,000	36,230,000
TOTAL INFERRED RESOURCES	**418,442,000**	**289**	**121,100,000**	**30,690,000**	**167,235,000**	**219,980,000**

Additional Exploration Target[2]

It should be noted that the first five years of production in the Scoping Study (ca. 54Mt ROM production) is based upon an average grade of 500ppm TREO. Within the existing JORC-compliant Resource, there are approximately 70Mt with average grade of 500ppm TREO in the Resource model blocks (Indicated plus Inferred categories, based upon grade-tonnage figures), but in the absence of mine scheduling studies, these may not be mineable, except in conjunction with some lower grade alluvium. The Competent Person believes that this tonnage has not been sufficiently defined, and in terms of the JORC Code and ASX Listing Rules should be described as an Exploration Target[2].

The Exploration Target used in the Scoping Study as start-up ROM would be 50Mt - 100Mt at the average grade of 500 - 1000ppm TREO. The Scoping Study is based upon the low end of this range for both grade and tonnage. There is firm evidence that this Exploration Target will be realised when additional Resource drilling is undertaken that targets higher grade start-up pit sites:

Samples collected from trenches have provided material for metallurgical test work. Higher grade zones for these samples have been located using a combination of reconnaissance stream sample results and radiometrics. Within the selected zones, radiometrics have been used to identify actual sites for trenches. The average grade of sampled material from ten widely spaced sites in the Cattle Creek and Cockroach areas was 1087ppm, with a range from 223ppm TREO to 4,386ppm TREO. Six of the ten sites returned grades of over 500ppm TREO. This, combined with the existence of 70Mt of 500ppm TREO in the Initial Mineral Resource estimate, provides evidence for a reasonable expectation that an Exploration Target of five years' production

(50 to 100Mt) at an average grade of 500 to 1000ppm TREO can be converted to Resource for start-up of the operation and to accelerate initial capital payback.

Mining

For the basis of this study it has been assumed that ROM ore feed for the Wet Concentrate Plant (WCP) will be mined using conventional dry mining methods from two active pit areas. Both 200 and 100 tonne track mounted excavators will load 90 tonne trucks, which will haul the ore to one of two mobile Mining Field Units (MFU's) located adjacent to the mining area. An allowance to back haul oversized material to the pits from the MFU's is included in the mining cost estimate.

The mining fleet will operate 24 hr. / day, 7 days per week. Mining will be on a contract basis and a capable mining contractor has provided costs to a stated accuracy of +/-15%. Mining rates are inclusive of Contractor profit margin, fuel, fleet maintenance and mobilization costs. It is assumed 25% of the mining contractor personnel are on a fly-in/fly-out roster and an allowance has been included for flights and accommodation. Other operators will be sourced and trained locally.

Wet Concentrator Plant

The Wet Concentrator Plant (WCP) consists of a primary and secondary circuit. The Primary WCP is a conventional 4 stage gravity spiral circuit consisting of Rougher, Middlings, Cleaner and Re-Cleaner spiral banks. The Wet Concentrator Plant feed from the MFU's is initially deslimed at 45µm using cyclones. The slimes are paste thickened and pumped to solar ponds. Water is internally recycled from slimes thickener and solar ponds located adjacent to the mining void. Deslimed feed is then passed through the 4 stage gravity spiral circuit to obtain a Primary Heavy Mineral Concentrate (HMC).

Tailings from the Primary WCP will be hydraulically pumped to a bunded area within the mining void where it will be dewatered by a hydrocyclone and solids deposited into the void. Water draining from the tailings will be recovered and returned to the WCP along with the water recovered from the cyclone overflow.

The Primary WCP is modular in construction and can be dismantled and relocated every 5-7 years to a new mine area. This is common practice within the mineral sands industry to maintain low mining and process costs.

Primary HMC from wet concentrate is stockpiled and transferred to the Secondary WCP via a frontend loader or repulped and then pumped. The concentrate is passed over three low intensity magnetic separators (LIMS), operating in series to remove any highly susceptible magnetic minerals such as magnetite and ilmenite. These will be stockpiled for possible sale.

The non-magnetics are then pumped to an up-flow classifier to recover any contained zircon. The zircon concentrate from the classifier overflow is further concentrated via a spiral bank. Any monazite and xenotime, which may have reported to the classifier overflow is recovered from the zircon concentrate using a high intensity magnetic separation (WHIMS) unit. Approximately 26,000tpa of zircon concentrate at an expected grade of 22% ZrO_2 will be produced each year and will be stockpiled for possible further beneficiation and sale.

The WHIMS magnetic fraction and classifier underflow are combined, dewatered and stockpiled to produce a Final HMC containing 8-12% TREO.

A number of process improvements have been identified to improve monazite and xenotime recoveries, and also improve water recovery and solids rehandling. Future studies will also investigate direct disposal of thickened slimes into disused mine areas.

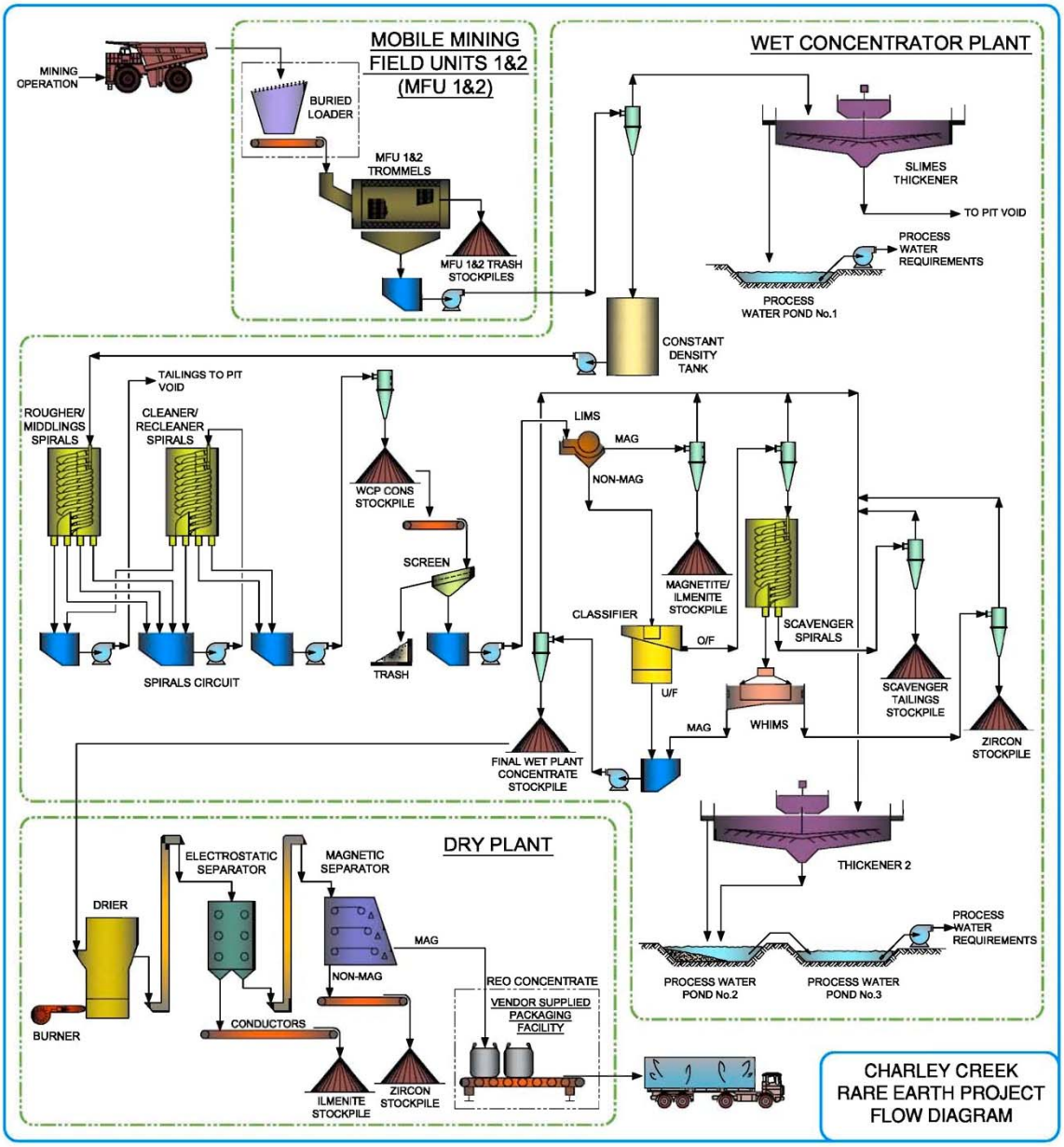

Figure 2: Process flowsheet for mine and wet/dry concentrators.

Dry Plant

Final HMC is dried and processed through a Dry Plant consisting of an electrostatic and magnetic separation circuit.

The electrostatic circuit consists of a three-tier coronastat unit, with the Rougher coronastat producing a conductor and non-conductor product. The conductor material will report to the ilmenite transfer conveyor while the non-conductor material will report to the Middlings coronastat. The Middlings coronastat produces three products; non-conductor, mids, and conductor material. The conductor material reports to the ilmenite transfer conveyor, the mids report to the Scavenger coronastat unit, and the non-conductors report to the bucket elevator which feeds the magnetic separator. The Scavenger coronastat unit will produce a conductor product, which reports to the ilmenite transfer conveyor and a non-conductor material reports to the magnetic separator bucket elevator.

The magnetic separation circuit consists of two Rare Earth Magnetic (REM) units arranged in series, with the non-magnetics from the first REM reporting to the second unit and the magnetic material reporting to the Final REO Concentrate product bin. The magnetic stream from the second REM unit reports to the Final REO Concentrate storage bin, while the non-mags report to the zircon transfer conveyor where they are conveyed

to the zircon stockpile. The final magnetic concentrate containing 40% TREO is packaged into two tonne Bulka bags or concentrate kibbles for transport to the REO Refinery.

REO Refinery

Charley Creek REO Refinery will be situated 35km from Alice Spring near the Tanami Highway and approximatley 100km from the Dry Plant. It is located within the Eastern boundary of the Charley Creek exploration tenements. The refinery will operate on a 24hr/day, 7 days per week basis using a drive-in/drive-out work force housed at Alice Springs.

The plant has a nameplate production capacity of 3,645 tpa of REO as a high purity mixed rare earth carbonate. Refinery feedrate is approximatley 1.2 dry tonne per hour of 40% w/w REO concentrate feed. It is worth noting at a concentrate grade of 40% REO there is only 15% w/w of impurities present apart from monazite and xenotime with the balance being phosphate associated with monazite and xenotime. Aluminium, iron and silica account for 80% of the impurities present.

The process flowsheet consists of a concentrated sulphuric acid roast step where the rare earth phosphate minerals are converted to sulphate salts. Acid roasted concentrate is then water leached to solubilise the rare earths into solution. Previously announced testwork results (ASX Announcement 23/11/2012) confirmed >95% leach extraction of rare earths. Water leach solution contains ~35 g/L of rare earths in solution. The main impurities are aluminium, iron, thorium, uranium and calcium. Silica and zircon are rejected to the water leach residue.

Thorium is removed by co-precipitation with iron by pH and oxidation-reduction potential (ORP) adjustment. Uranium is removed from the thorium free solution by ion-exchange (IX) using a fixed bed ion-exchange (FBIX) circuit. Uranium load IX resin is stripped with sulphuric acid and batch precipitated, filtered and packaged into drums for sale. Approximately 20 tpa of uranium as uranyl peroxide ($UO_4.xH_2O$) will be produced.

The final rare earth solution is precipitated using soda ash to produce a high purity mixed rare earth carbonate product. This Product is dried and packaged into two tonne Bulka-bags for transportation to market via Darwin port. The product is free of radionuclides and can be transported without any dangerous goods restrictions. The mixed rare earth carbonate will be 97-99% pure.

Future studies will investigate removal of cerium as a separate product to increase the HREO component of the mixed REO product. Also thorium disposal by blending with WCP tailings and placing back into the mining void will also be examined.

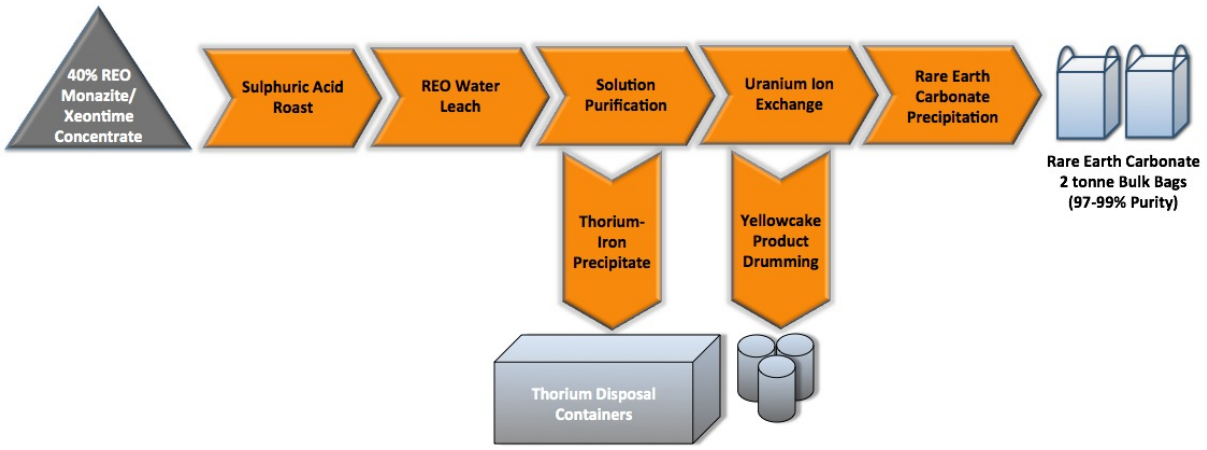

Figure 3: Schematic of REO Refinery process.

Infrastructure

The project has accounted for all associated infrastructure to commence operation of the plant. Infrastructure includes a high voltage (HV) power supply and distribution, access roads, accomodation and mess facilities, bore field for water supply, water treatment plant, sewage treatment plant, adminstration buildings, security, maintenance workshop and washdown areas.

Power will be provided to the site via a Build Own Operate (BOO) gas power plant located near the existing gas pipeline. Commercial proposals have been provided by two potential power suppliers. Crossland has included required capital for a HV 'step-up' transformer yard, 50km of HV transmision lines and a 'step-down' transform yard at site.

Operational personnel if not sourced locally will fly in to Alice Springs domestic airport and will then be transported to site via bus. Site accommodation and mess facilities have been included for 150 personnel working 12 hour shifts and on a 9 days on / 5 days off roster.

The REO Refinery will be a 24 hours/7days per week operation and personnel will drive in and out on a daily basis from Alice Springs working on a 12 hour shift and 9/5 roster. Power to the refinery is provided from existing mains.

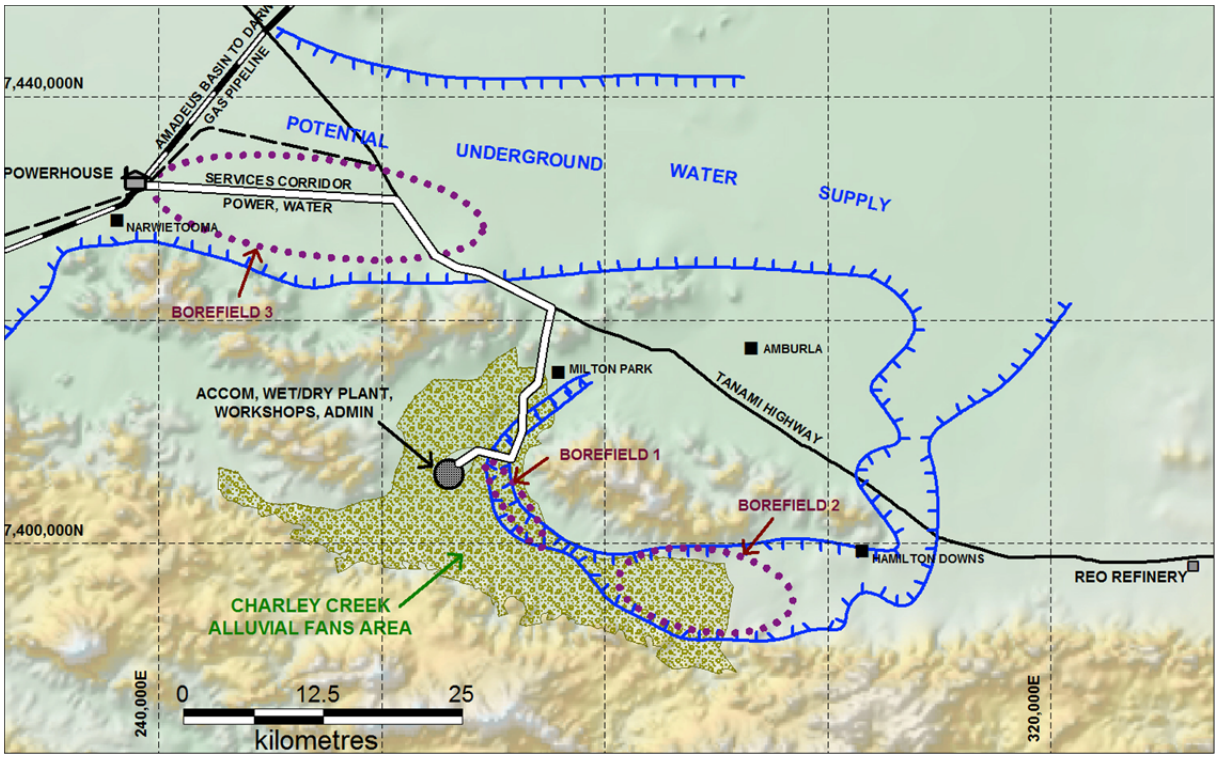

Figure 4: Location of process plant, refinery and associated infrastructure.

Environmental and Permitting

For a project of the potential scope of Charley Creek, Crossland anticipates that the permitting process will involve both NT and Commonwealth regulatory agencies who will assess the potential impacts of the project prior to issue of the permits required to commence construction and production. Approval is achieved through a defined process that is addressed through preparation and submission of a Draft Environmental Impact Statement (EIS) that is the basis for official and public comment, and the concerns raised are addressed by the proponent in the final EIS. Crossland has engaged the local office of international consultants, GHD, to undertake preparation of the Charley Creek EIS and their work has been under way since October 2012. GHD has previous experience in the preparation of environmental studies for REE projects in the NT. Important seasonal surveys have been completed, leading to the expectation that the Draft EIS can be completed within 12 months. The study also includes an investigation of the groundwater regime, an important consideration for the project. The scope of the environmental studies includes radiation management and disposal of radioactive species in a manner that is considered best practice.

Capital Cost Estimate

Total capital cost to develop the Charley Creek Alluvial REO Project is A$156M inclusive of A$12.7M of contingency. Capital breakdown by plant area is presented in **Table 3** below. Capital estimate is compliant to AusIMM Scoping Study guidelines and has an estimate accuracy of +/-35%.

Initial capital cost on an annualized kg of REO produced is A$42.80/kg REO. This level of capital intensity is amongst the lowest of any REO development project in the world. The capital cost for the Charley Creek Project is significantly lower due to the style of deposit and use of simple gravity, electrostatic and magnetic separation to obtain a high-grade monazite/xenotime concentrate.

Table 3: Capital Cost Estimate Charley Creek Alluvial Rare Earth Project.

Capital Item	**AUD $**
Mining Field Units	$9,560,189
Wet Concentrator Plant	$55,257,469
Dry Concentrator Plant	$12,728,878
REO Refinery	$15,799,437
Infrastructure	$26,938,914
SUB TOTAL	$120,284,887
Indirects	$5,672,830
EPCM	$17,565,280
Contingency	$12,734,166
TOTAL CAPEX	$156,257,164
CAPEX ROUNDED	**$156 Million**

Operating Cost Estimate[1]

Operating costs for the Charley Creek project are estimated at $85.5M per annum or $7.12/tonne of ROM processed for the first five years of production. Over life of mine this reduces to A$6.18/tonne of ROM after the mine is increased from 12Mt to 20Mt per annum throughput from Year 6 onwards. The breakdown of costs is shown in Table 4.

Table 4: Operating Cost Estimate Charley Creek Alluvial Rare Earth Project.

Operating Items	**Operating Cost A$/tonne ROM (Years 1-5)**	**Operating Cost A$/kg REO Produced (Yr. 1-5)**
Mining & Mining Field Units	$2.64	$8.68
Wet Concentrator Plant	$1.53	$5.03
Dry Concentrator Plant	$0.28	$0.92
SUB TOTAL Mining, Wet & Dry Plants	**$4.44**	**$14.63**
REO Refining	$1.78	$5.87
Product Transport (FOB Darwin)	$0.20	$0.67
TOTAL DIRECT CASH COST	**$6.43**	**$21.16**
Generals & Adminstration	$0.70	$2.29
TOTAL OPERATING COST	**$7.12**	**$23.45**

Economic Evaluation

An economic and financial analysis of the Charley Creek REO Project has been completed using a discounted cash flow model. The model has a valuation date of March 2013 and is in real dollars. No provision has been made for the impact of inflation or capital escalation. Financial analysis of the project is based on a "100% equity" basis and interest from debt or sources of equity for required capital funds are ignored. Results are presented on a before-tax and royalties basis in Australian dollars (A$), unless stated otherwise.

REO Pricing

Current REO prices were reviewed against economic analysis of historical prices published by various trade websites such as Metals Pages, Asian Metals and Roskill Information Services Ltd. In addition, rare earth price forecasts from specialist REE analysts and reviews of other REE project studies were considered in defining the basis for prices used in this study.

A comparison was done between five year trailing FOB price average from Metal-Pages, the current China FOB price and forecasts from various sources mentioned above. **Figure 5** shows the historical basket price for the Charley Creek project over the past 5 Years. Basket price excludes price allocations for Er-Lu as these rare earths are not quoted by Metal-Pages. This review concluded the current China FOB REO pricing (March 2013) quoted on Metal-Pages website has stabilised, with market conditions close to the base production costs of many significant producers. This conclusion is supported by the recent series of actions taken by the Chinese authorities in trying to stabilise prices at or above current levels. Therefore current prices are viewed as a realistic price deck when compared to the REO price highs in 2011.

As previously mentioned there are a number of rare earths not quoted on Metal Pages including Er, Ho, Tm, Yb and Lu. Various prices forecasts have been used to derive a conservative price outlook for these rare earths, which are present in significant amounts in the Charley Creek basket. Asian Metals occasionally provide news on sales of Er and its price. This data has also been taken into consideration. **Table 5** summaries the price assumptions for this scoping study. Contribution from Er-Lu accounts for 5% of the price basket, which is not material given the accuracy of this analysis.

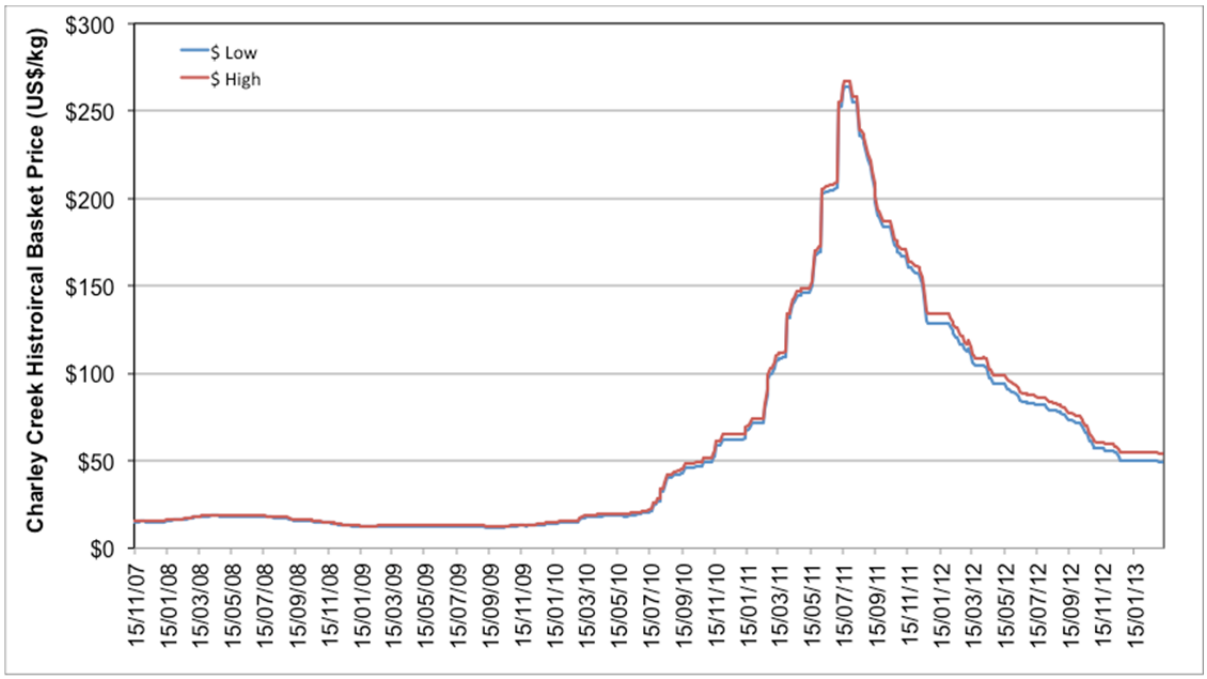

Figure 5: Charley Creek 5 Year Historical Basket Price (Metal-Pages China FOB).

Product Offtake Terms

Prices in **Table 5** are based on 99% pure oxides, except for Eu, which is based upon 99.9% prices. Crossland is proposing to produce a high purity mixed rare earth carbonate, which is suitable as a refinery feedstock. Product offtake terms of 75% have been assumed for this study. A discount of 25% was determined as a trade-off between further refining the mixed carbonate through to final individual saleable oxides and the relatively high HREE content contained within the Charley Creek mixed carbonate product. The distribution of rare earths in mixed carbonate product and 'basket price' is shown in **Table 6**

Table 5: REO Price Assumptions.

REO	Type	Price US$/kg China FOB (March 2013)
La_2O_3	Light	11
CeO_2	Light	11.50
Pr_6O_{11}	Light	85
Nd_2O_3	Light	77
Sm_2O_3	Medium	25
Eu_2O_3	Medium	1,600
Gd_2O_3	Medium	49
Tb_4O_7	Heavy	1,300
Dy_2O_3	Heavy	630
Ho_2O_3	Heavy	65
Er_2O_3	Heavy	40
Tm_2O_3	Heavy	25
Yb_2O_3	Heavy	25
Lu_2O_3	Heavy	320
Y_2O_3	Heavy	38

Table 6: Average REO Distribution and Basket Price.

REO	Distribution in Mixed REE Carbonate (%)	Basket Price US$/kg China FOB
La_2O_3	18.07%	1.99
CeO_2	38.63%	4.44
Pr_6O_{11}	4.24%	3.60
Nd_2O_3	14.93%	11.50
Sm_2O_3	2.82%	0.71
Eu_2O_3	0.59%	9.44
Gd_2O_3	2.39%	1.17
Tb_4O_7	0.37%	4.81
Dy_2O_3	2.11%	13.29
Ho_2O_3	0.41%	0.27
Er_2O_3	1.20%	0.48
Tm_2O_3	0.16%	0.04
Yb_2O_3	1.03%	0.26
Lu_2O_3	0.15%	0.48
Y_2O_3	12.90%	4.90
Total	**100%**	**57.38**

***Financial Model and Results*[1]**

A summary of the Base Case financial results is shown in **Table 7.**

Total pre-production capital expenditure is A$156M including first fills, infrastructure and accommodation facilities. A detailed breakdown by area is provided earlier. A total of A$40M in sustaining capital has been included over LoM. Initial capital cost on an annualized kg of REO produced is A$42.80/kg REO. This is very low when compared with other REO projects located in Canada, South Africa and Australia where the average cost per kg of annualised REO production is approximately A$115/kg REO. The capital cost for the Charley Creek Project is significantly lower due to the style of deposit being a 'mineral sand' type project rather than a hard rock deposit. Processing of this deposit uses simple gravity, electrostatic and magnetic processes, which are widely used throughout the Mineral Sands industry.

An incremental expansion has been scheduled for Year 6 to increase ROM throughput from 12Mt to 20Mt per annum by installation of a third MFU and an additional Primary Wet Concentrator Spiral Bank. This expansion coincides with an expected decrease in ROM head grade. The Dry Plant and REO Refinery remain at the same nameplate capacity of 3,645tpa mixed REO contained in carbonate. Capital cost for this incremental expansion has been estimated at A$40M, including an A$5M capital allowance for additional infrastructure.

Total operating costs are estimated at A$2,199M over the life of mine or an average of A$6.18 / tonne ROM.

Estimated revenue from mixed rare earth carbonate sales over life of mine is A$3,085M. No revenues from production of zircon, ilmenite and uranium oxide have been included. Sale of these products will be evaluated in subsequent studies.

The total operating profit is A$886M (EBIDTA) with a before tax Net Present Value (NPV) of A$302M at a discount rate of 10% and before tax Internal Rate of Return (IRR) of 39.4%.

The Project payback period is 2.5 years after production start-up.

Table 7: Project Evaluation Summary.

Forecast Project Financials	**Base Case (million AUD$)**
Total Revenue from REO Sales (75% Offtake Terms)	3,085
Total Operating Costs	2,199
Total Operating Profit (EBIDTA)	886
Before Tax NPV @ 8%	373
Before Tax NPV @ 10%	302
Before Tax NPV @ 12%	246
Before Tax IRR (%)	39.4
Before Tax Payback Period (Years)	2.5

Sensitivity Analysis

Sensitivity Analysis has been carried out on the Base Case to assess the impact of ROM grade, REO price, capital costs, operating costs, offtake terms and process recovery on the project's NPV @ 10% and IRR. A variance of ±20% has been used for the key parameters except for offtake terms and process recovery. In the case of offtake terms a Low Case of 70% has been assumed and a High Case of 80%. For process recovery a Low Case of 55% has been used and a High Case of 65%. **Table 8** summaries the conditions assessed for Low, Base and High Case scenarios.

In the High Case for process recovery and ROM grade, production has been capped at 3,645tpa REO by reducing the ROM throughput to match nameplate capacity of the REO Refinery.

Figure 6 and **Figure 7** show the variance in NPV and IRR for the different sensitivity cases. The project is relatively insensitive to capital costs, while TREO price and ROM grade showed the greatest variance from the Base Case.

In regards to product off-take terms, for every 1% discount in off-take terms approximately A$9M in capital can be invested to further refine the product from Charley Creek Project.

Operating cost analysis has shown there is a potential saving of A$2.01/kg REO (A$0.40/t ROM) in reagent transportation by relocating the REO Refinery to either Darwin or Adelaide. This represents an additional 4% IRR and A$55M NPV to the Base Case. A location study will be undertaken in the next phase to confirm the optimum site for the REO Refinery.

Table 8: Parameters Assumed for Sensitivity Analysis.

Variable	Low Case	Base Case	High Case
Average ROM Grade (LoM)	265ppm (-20%)	331ppm TREO	397ppm (+20%)
REO Price (Basket Price)	US$45.90(-20%)	US$57.38/kg	US$68.85 (+20%)
Capital Cost	A$187M (+20%)	A$156M	A$125M (-20%)
Average Opex	A$7.53 (+20%)	A$6.27/t ROM	A$5.02(-20%)
Process Recovery	55% (-10%)	60.8%	65% (+7%)
Offtake Terms	70% (-7%)	75%	80% (+7%)

(%) indicates relative variance from Base Case.

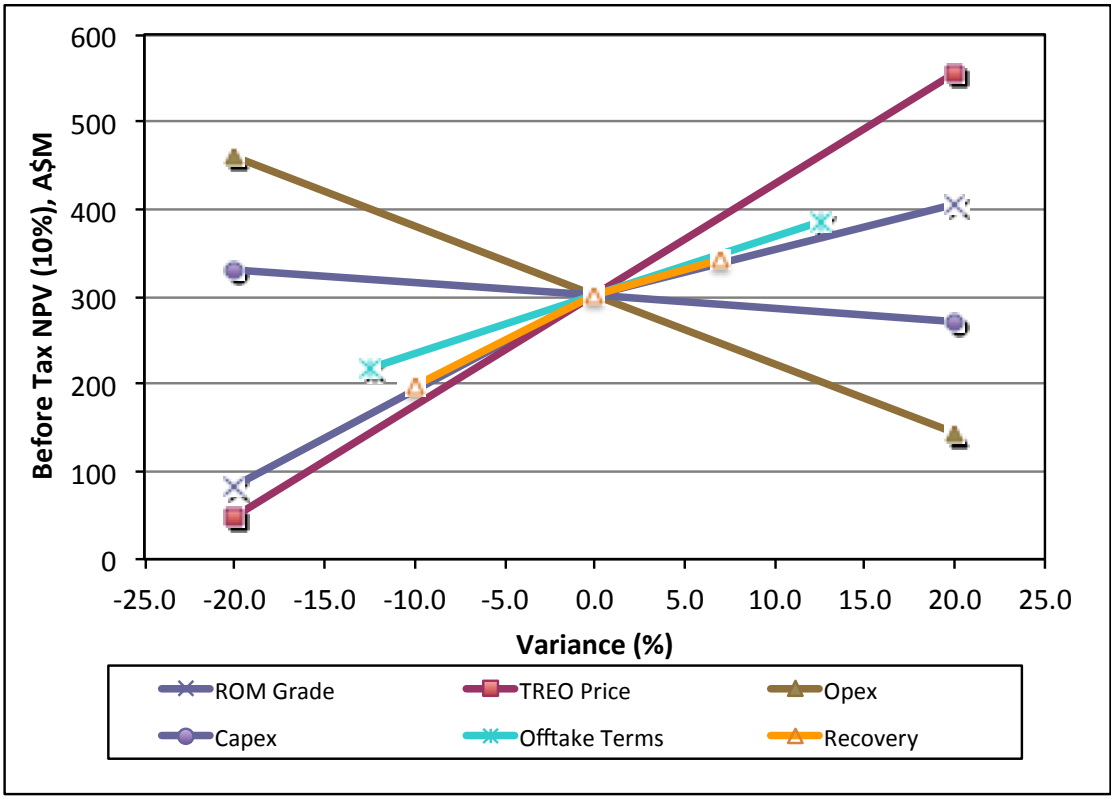

Figure 6: Before Tax NPV Sensitivity Analysis for Charley Creek REO Project

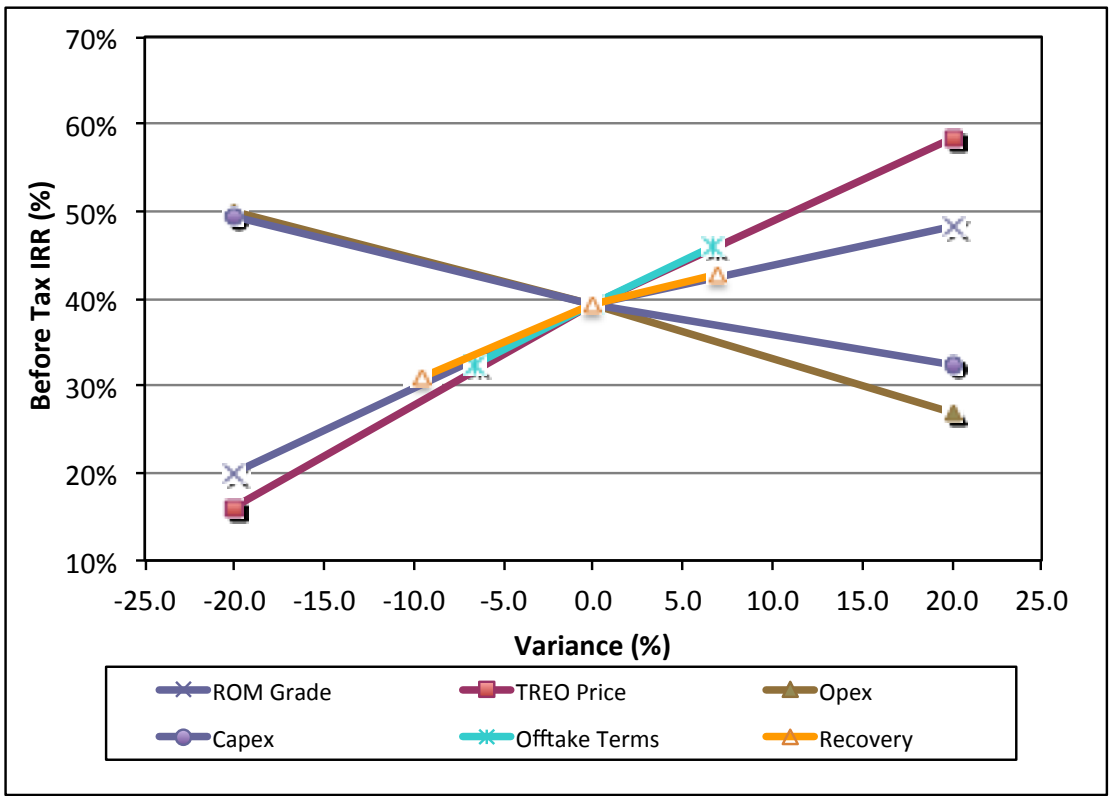

Figure 7: Before Tax IRR Sensitivity Analysis for Charley Creek REO Project

Project Development Schedule

The Charley Creek Rare Earth Project is forecast to enter into construction early 2015. The Scoping Study has identified no critical technical flaws, and therefore, it can proceed directly to Feasibility Study. Process development and engineering are on the critical path for the project development schedule.

Definition drilling will initially be undertaken early within the next phase of the project to idenitify initial high grade starter pits and increase the confidence level of the current Resource. Bulk sampling from these starter pit sites will be completed and ore variability tests completed through the current flowsheet. A number of potential process improvements were idenitifed during the Scoping Study and these will be evaluated while resource drilling is underway. A trial mine and primary wet concentrator pilot plant is being considered as part of the Feasibility study to obtain necessary design information for detail design.

Pilot plant testwork for the REO Refinery flowsheet will commece in the second half of 2013 to confirm overall flowsheet. Removal of cerium as a separate saleable product is being considered to increase the overall value and marketability of mixed rare earth carbonate product. Crossland has sufficient REO mineral concentrate (40% REO) available to commece this work as soon as additional funding has been secured.

Environmental Impact Assessment has been fully scoped and is currently in progress. Critical seasonal fauna and flora studies are on track and will be completed by December 2013. Crossland is well positioned to have all the required licenses and permitting completed before the end of 2014. Stakeholder engagement and consultations are ongoing.

MSP Engineering has estimated engineering, procurment and construction period of 14 months, with 7 months to physically construct and erect the plant. The overall schedule can be compressed by 5 months if long lead items are procured in advance.

A high level project schedule is provided in **Figure 8**.

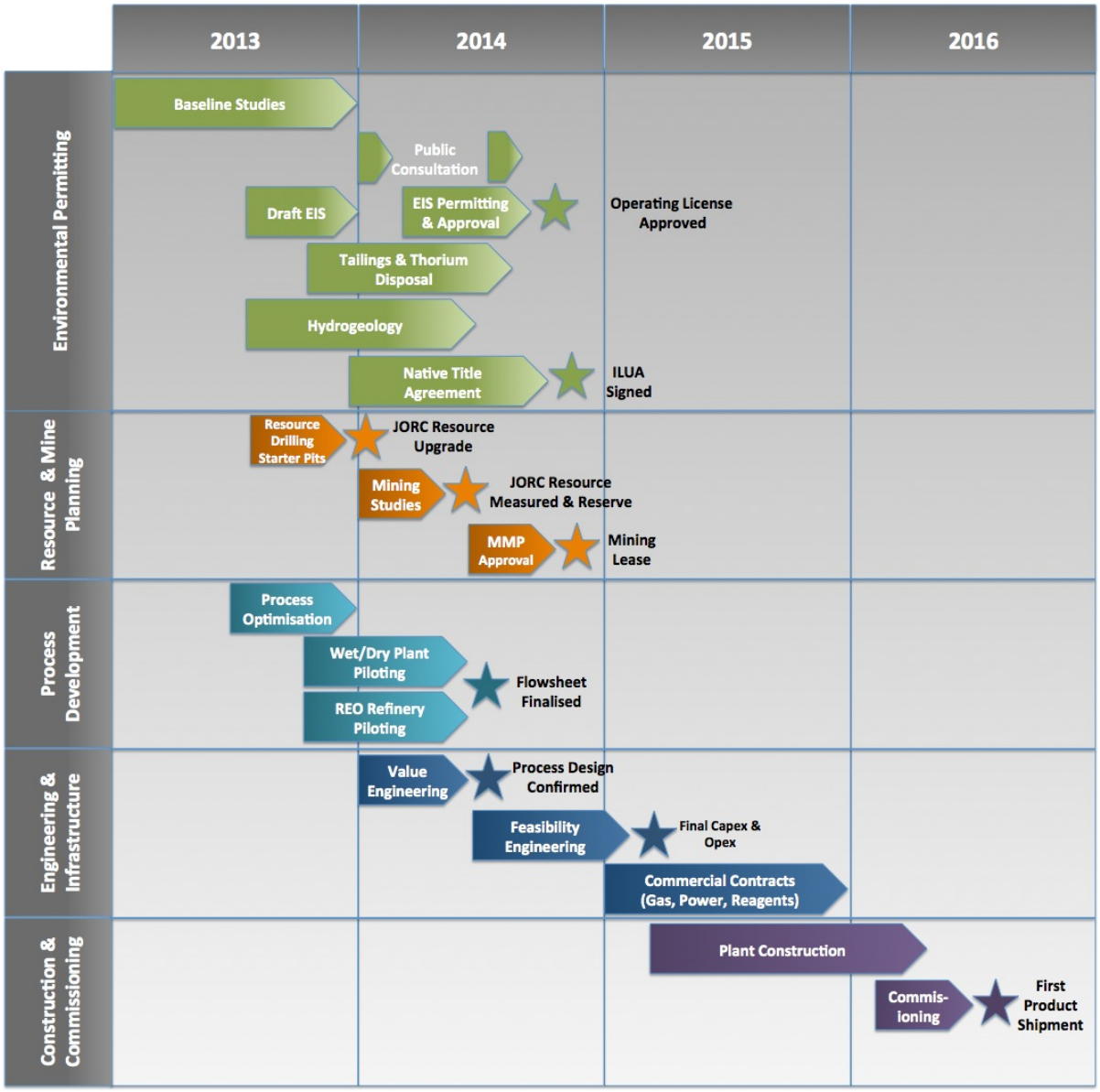

Figure 8: Project schedule.

Geoff Eupene
Exploration Director FAusIMM (CP)

*The information in this report that relates to Exploration Targets, Exploration Results, or Mineral Resources is based on information compiled by **Geoffrey S Eupene FAusIMM CP,** a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy. He is a director of the Company and a full time employee of Eupene Exploration Enterprises Pty Ltd, which is engaged by the Company. He has sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration, and to the activity which is 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' (the JORC Code). Geoffrey S Eupene has consented to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

FOOTNOTES

[1]This production target, or forecast financial information, is based upon a production target that contains up to 15% of material regarded as "Exploration Target". The use of the term "Exploration Target" in association with a production target necessitates inclusion of a cautionary statement under the ASX Listing Rules: "The potential quantity and grade of an Exploration Target is conceptual in nature, there has been insufficient exploration to determine a Mineral Resource and there is no certainty that further exploration work will result in determination of Mineral Resources or that the production target itself will be realised".

[2]"The potential quantity and grade of an Exploration Target is conceptual in nature, there has been insufficient exploration to determine a Mineral Resource and there is no certainty that further exploration work will result in determination of Mineral Resources or that the production target itself will be realised"

APPENDIX 1:

JORC CODE (2012 EDITION) Table 1 Template and backup data
for Initial Resource, Charley Creek, May 2012, and Scoping Study, April, 2013.

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.*	The Mineral Resource estimates is based upon air core holes drilled through the entire alluvial profile and into bedrock. Samples collected on 1m intervals with each individual metre retained in a single polyweave bag to minimize sample loss and contamination. Air core drilling was used to obtain 1m samples from which "spear" or tube sub-samples were collected and combined to produce 4m composite samples. The 4m composite samples were split from which a sub-sample of up to 1000g was pulverized, and a 0.100g aliquot of the pulverized sub-sample was analysed for REEs using a high grade REE lithium metaborate fusion method and finished by inductively coupled plasma - mass spectrometry. In instances where individual REEs exceeded the upper limit of detection the sample was re-analysed by an ore grade REE method that uses lithium metaborate fusion with analysis by inductively coupled plasma - atomic emission spectroscopy.
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,*	The type of drilling undertaken was air core, the contractor supplying a Almet 50/S top drive drill rig with on-board Sullair 150-ps1 x 250-cfm compressor, mounted on a 6x6 Toyota Landcruiser using NQ sized double tube aircore drill

	whether core is oriented and if so, by what method, etc).	rods.
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.*	Chip sample recoveries calculated by dividing sample weight by a constant calculated from the sample volume and the average sample SG (1.8). Once the water table was intersected whenever a rod change was completed and prior to continuing drilling compressed air was pumped down the drill hole to clear it of water. This was done to stop fines from being washed out of the sample and to keep it dry. No relationship between sample recovery and grade has yet been observed or determined.
Logging	*Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* *The total length and percentage of the relevant intersections logged.*	All drill holes were geologically logged on 1m intervals at the time of drilling and a small sample of each metre retained in a chip tray for later reference as required. No geotechnical logging was undertaken. The logging performed has been conducted to a level of detail sufficient to support the mineral resource estimation, mining and metallurgical studies undertaken. Logging was primarily qualitative in nature and no photography of the samples collected was undertaken as chip samples of all 1m intervals were retained for reference purposes. All drill holes were logged in their entirety, or 100%, on one metre intervals.
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.*	No core sampling undertaken. PVC "spear" or tube sub-samples were collected from each one metre drill sample to maximize representivity of the drilled interval. One metre tube samples were combined to create four metre composite samples. Care was taken to ensure that equal volumes of material was collected from each

		individual metre sampled when creating a composite. Only when drill holes were overcome by water and could not be cleared by pumping down compressed air were wet samples collected. There are few examples of wet samples from the data within the Resource volume.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	A sample split of up to 1000g, produced by riffle splitting, was taken from each 4m composite sample. This sample was pulverized and from the pulverized sample a 0.100g aliquot was used for fusion and subsequent analyses. Riffle splitting is an appropriate technique for selecting a smaller representative sample for preparation which in this instance was pulverizing. Similarly weighing out of an aliquot is a common method for selecting a sub-sample to be fused prior to analysis.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	When "spear" or tube sampling, care was taken to ensure that an equal volume of material was collected from each 1m sample. The 4m composite samples were riffle split in order to maximize the representivity of the material to be pulverized and used for analysis.
	Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.	The use of a "spear" or tube to select a sub-sample from each individual meter with care taken to make sure that the same volume of material was collected from each meter to be included in the composite sample. No repeat sampling of composited spear samples was undertaken; this would contribute little to the confidence in representivity of sampling. However for higher grade intervals from the composites were repeat assayed on 1m intervals. The 1m intervals provided good support for the composited interval assays, generally confirmed the representivity of the composited samples, but were not used directly in the resource estimate except for tails on composite intervals, as it was decided that the data set on 4m intervals was more complete sampling of the mineralised volume.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are appropriate for the grain size of sampled material.

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.*	Samples were analysed for REEs using a lithium metaborate fusion method and followed by inductively coupled plasma - mass spectrometry finish. Samples which returned individual REE analyses in excess of the upper limit of detection were re-analysed using a lithium borate fusion method followed by inductively coupled plasma - atomic emission spectrometry finish. Both techniques are considered state-of-the-art total analysis techniques for REEs. All routine Analyses for the Resource data set were performed at ALS Laboratories in Perth after submission to their Alice Springs receiving and sample preparation facility, to acceptable industry standards.
	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.	N/A as only chemical assay methods were used for sample analysis.
	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.	Quality control procedures included the analysis of blanks, duplicates and standards, as well as checking between two commercial laboratories that offered REE analysis using Lithium Borate fusion digestion and ICP- MS and -OES finish. Certified standards were inserted into some analytical batches. The internal quality control procedures of the lab were analysed in detail. Throughout the concentration range of the Resource data set, the level of precision and accuracy of results for the element data set reported is satisfactory.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	Significant intersections were not checked by either independent or alternative company personnel.
	The use of twinned holes.	No holes were twinned within the Resource volume. Twinned Aircore and Auger drilling was performed on a nearby project area, part of the same exploration licence, but these samples were processed by gravity separation and are therefore not comparable to unprocessed results from these areas.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Geological logs were recorded on paper log sheets at the time of drilling and later entered into electronic spreadsheets. All assay data was received from the laboratory as electronic copies, and cut and pasted into pre- prepared sample location spreadsheet files. The matching of sample numbers in each

	Discuss any adjustment to assay data.	data set was carefully checked and re- checked, and the spreadsheets were then exported to a database with verification limits suitable for each of the data fields. Assays that were less than the lower limit of detection were replaced by a value of one third of the stated lower limit of detection for the element. For assays greater than the upper limit of detection for the method were replaced with a 0.1 addition to the upper limit of detection to allow the data to be entered into numeric fields in the database software.
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.*	Collar surveys were completed using survey grade GPS differential survey equipment. As all drill holes were shallow and vertical, no down hole surveys were completed. The surveys completed followed the UTM co-ordinate system and the geodetic grid system used was WGS 84 (GDA94). A topographic survey using differential GPS survey gear was completed over the area to provide 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 Resource and Ore Reserve estimation procedure(s) and classifications applied.*	The initial Resource estimates utilised Aircore holes drilled typically at 200m intervals along existing tracks, except at Cattle Creek where new track was cleared and holes were drilled on 400m in places. All holes intersected the complete alluvial profile and this was assayed. As the Resource estimates are based upon alluvium accumulated in broad alluvial fans, largely composed of fine grained and poorly consolidated sediments, the establishment of geological continuity in fans with an average thickness of around 15m and a maximum thickness in this volume of around 40m, is felt to be achieved with holes drilled on these intervals. The grade continuity encountered is also remarkably uniform both within and between

	Whether sample compositing has been applied.	adjacent holes. The data set, largely based upon holes drilled along existing tracks, did not lend itself to variography; however a spherical semivariogram based upon the Cockroach East drill grid in the same exploration licence showed a range of 900m. We believe the definition of Indicated and Inferred Resources applied herein is conservative. Chemical analysis was done on 4m composites that were physically composited. No mathematical compositing of these samples was undertaken,
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.*	All drill holes were oriented vertically this would provide the optimal orientation for sampling an alluvial deposit and introduce the least amount of sampling bias possible. As the target is an alluvial deposit it is considered that vertical drill holes would intersect the mineralisation at the optimal angle and would not introduce bias.
Sample security	*The measures taken to ensure sample security.*	All samples were transported directly from site to prep lab in polyweave bags enclosed with a cable tie on company transport where custody was transferred to laboratory staff. .
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	Mr G R Ryan FAusIMM completed a site review of sampling and data procedures in August 2011. Procedures did not change subsequently. .

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.*	Work in the area has been conducted upon exploration licences issued by the NT Government and were current at the time of compilation. Relevant ELs are 24281 and 25230. The registered owner of these titles is Crossland Nickel Pty Ltd, though a 45% interest is in process of transfer to Panconoz Pty Ltd, Crossland's Joint Venture partner. The titles were current at the time of the Resource estimation and remain in force subject to an application to renew. An NSR Royalty of 3% of production is payable to the original vendors of EL24281. The ELs are on Pastoral Leases, and work is authorised under a current Mine Management Plan authorised by NT Department of Mines and Energy. There is Native Title interest in the area, and the areas are included in an Exploration Deed with the Central Land Council as representatives of the Native Title parties. Sacred site inspections and certificates have been issued to cover work programs by both the Aboriginal Areas Protection Authority and the Central Land Council. The West MacDonnell Ranges National Park forms the southern boundary of the area. The security of tenure is considered good. Relations with all stakeholders are good. There are no known impediments to operating in the area of the Resource.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	No exploration for alluvial REE resources has been undertaken by any previous exploration companies in the area.
Geology	*Deposit type, geological setting and style of mineralisation.*	Alluvial REE deposit which is hosted by alluvial fans shedding off the West MacDonnell Ranges. The alluvium including the REE bearing minerals, monazite and xenotime have been derived from disintegration of granitoids and metamorphic rocks exposed in the ranges. Fans range up to 80m thick and commence from the base of the ranges, extending out from there for tens of kilometres in the general direction of Lake Lewis. The alluvium seems to have

		been deposited in thin (10's of cm) pulses that in aggregate result in fairly regular grades across mining widths.
Drill hole Information	*A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* *easting and northing of the drill hole collar* *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* *dip and azimuth of the hole* *down hole length and interception depth* *Hole length.* *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	A summary of this data can be found in the attached PDF document entitled - Drill Hole and Intersections Data.
Data aggregation methods	*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	It was not judged to be necessary to cut high grades as the 4m composite grades were relatively uniform for the mineral resource; because of the multiple variables involved in assessment of multi- element REE deposits, it is impracticable to work on individual element grades. All of the REE, plus other elements of interest have been analysed on the data set used for the Resource estimate. After some consideration of the alternatives, it was decided to determine cut-off grades as aggregate US dollar values based upon an estimated recovery (70%) of TREO as calculated from the individual element oxide values as estimated by Toyota for 2016, as reported by Matamec Exploration for the PEA of their Kipawa Deposit. A cut-off value of US$4.30/ T recovered was initially advised by Crossland's consultant as the estimated cost to mine and wet plant process to produce a heavy mineral concentrate at Charley Creek. This has been used as the initial Cut-off grade for determining mineralisation outlines. More precise estimates can be made with the information that will be derived from the Scoping Study currently being

		reported. There is little material included in the Resource that is below this value; however overall project economics may dictate a higher average grade that would be obtained by selectivity on the grade block model that has not been applied to this Resource estimate.
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').*	There are no orientation issues to take into account in this simple deposit style. All widths represent true widths.
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.*	A plan was provided with the initial release on 15 May 2012. Because of the large difference between width and thickness of sections, graphical representation is not practicable.
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 values for all intercepts have been tabulated but the size and complexity of the multi element data set makes reporting of individual values impracticable. Details of average values have been reported above; a listing of intersections from all drill holes at Cattle Creek and Western Dam used to create both the Indicated and Inferred categories is given in the attached document entitled – Charley Creek Drill Hole and Intersections Data, May 2012. For each drill hole intersection the following data is presented; To Depth, From Depth, Interval, Area, Resource Class, High, Low and Average values for Total Rare Earth Oxides (TREO) in ground values and their component Light (LREO),Medium (MREO) and Heavy (HREO) values. The Light REE are La, Ce, Pr, Nd, the Medium REE are Sm, Eu, and Ga, while the Heavy REE are Tb ,Dy, Ho, Er, Tm, Yb, Lu, and Y, according to widely used convention.
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,*	Considerable work has been expended on establishing the processing characteristics of this material both in early Wilfley tabling to produce concentrates on site and in controlled metallurgical laboratory test work that is the basis of the Charley Creek Scoping Study. This will be reported elsewhere

	geotechnical and rock characteristics; potential deleterious or contaminating substances.	in this document.
Further work	*The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	The initial Resource drilling has covered a small portion of the potentially mineralised alluvial fans at Charley Creek which are estimated to cover around 2,000 square kilometres within Crossland's holdings in the Charley Creek Project. Regional exploration has established the prospectivity of broad areas of these fans. Crossland believes that releasing this information is commercially sensitive at this time. Efforts to identify areas of higher than average grade and high Heavy Rare Earth content will proceed to identify areas for Starter Pits for the first few years of production.

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.*	All assay data has been cut and pasted from original files of assay results (modified as described above to remove characters from the dataset), into the sample location database prepared from site data. Alignments of first and last sample numbers and internal continuity of numbers was checked with checksum columns. These spreadsheets are then imported into Access data tables where further validation checks to ensure reasonable values in critical columns are applied. Data is subsequently check- plotted and inspected for consistency with field records.
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 Competent Persons for the Resource estimate have worked on the project for an aggregate of several months over the past six years and are very familiar with the geology, geography, exploration history, and social aspects of the project.
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.*	The simple alluvial fan model for the deposit, commencing from surface, has been confirmed by the Resource drilling. While few REE assays are available for an initial 126 holes drilled in 2008, and the assay data used relates almost solely to the 2011 drilling, the 2008 holes were re- logged simultaneously with the 2011 holes by an experienced mining geologist to classify those areas of alluvium that were both free diggable and washable. This information from 2008 holes was incorporated into the data set for use in determining sectional outlines of alluvium. This provides good confidence that outlines of free-diggable alluvium form the basis for the Resource volume.
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.*	The Resource commences from surface. It extends vertically to the base of free digging and washable alluvium. These depths vary from zero at the base of outcrop, to over 40m within the drilled volume. In places the base of the Resource outline is hard calcreted alluvium rather than the base of alluvium.

		This is based upon the Competent Person's opinion of whether the material could be mined and treated through the proposed plant. The lateral, and northern, extents of alluvium have not been determined by drilling, but are very extensive based on satellite image interpretation.
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.* *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.*	A simple and conventional approach was applied to the estimation of the Resource: Geological Cross-Sections were constructed showing: a) A composite REE grade, in this case, the dollar value derived from summing the FOB prices for each of the Rare Earth Oxides predicted for 2016 by Toyota, ("Toyota 2016 $ values"- see Table 2) with applicable recovery factor of 70%. b) The original lithological logging, and c) The "mineability" log described above. These sections were used to digitise outlines of mineralisation in alluvium as interpreted by the author. A cut-off "Toyota 2016 $ value" of US$4.30/ Tonne was used as a boundary between mineralised and non- mineralised "mineable" alluvium. This figure was based on information supplied by Crossland's consultant for average costs of sand mining and wet plant processing to produce the first phase of Heavy Mineral Concentrate, to which a 70% recovery factor was applied. US$4.30/T is the break-even operating cost assumed for alluvial mining and first pass wet-plant processing. In reality, very little material is included within the mineralised outline that does not exceed the cut-off by at least one multiple (i.e. US$8.60/T). All outlines follow the land surface, (that is, there is no overburden on the mineralisation), and reference was made to aerial images to determine the broad boundaries at surface of the alluvial deposits. The base of the alluvial mineralisation was either:

		a) The logged natural base of alluvium on saprolite b) The logged base of “mineable” alluvium, generally upon material logged as calcrete, which is developed at two horizons in the profile: i. A thin zone about 4-5m below surface. In frequent cases, this zone is around a metre in thickness and would be readily broken by the large machinery that would be employed to mine the project. Therefore where sustainable grades are present, these intervals were included within the mineralisation outline. ii. A deeper zone generally developed at the base of the alluvium, around 9-10m from surface that is hard enough to terminate free digging machinery c) Occasionally, an assay cut-off. Outlines of alluvium so defined were constructed on sections at 400m intervals across each prospect area. Within these sectional outlines, zones of Indicated Resource were defined around drill hole intersections, extending 400m beyond intersections within the alluvium outline. Both the alluvium outline and the Indicated Resource outlines were wireframed to produce separate three dimensional model bodies, and these bodies were used to generate block model cells of 200m by 200m horizontal by 4m vertical size, with each cell dimension subdividable into four to produce sub cells to more precisely represent edges of 3D shapes. Cells were populated with Resource category (Indicated or Inferred, derived from the 3D models) as well as grade parameters, using inverse distance squared interpolation from the drill sample database within an 800m radius by 50m thick horizontal search ellipse that queried samples that fall within the 3D alluvium outlines. Only the closest 1-4 samples within the ellipse were interpolated for each cell centroid. Cells within the Indicated Resource category are totalled, and weighted averages of grade parameters calculated to produce the Indicated Resource Estimate.

		Inferred Resources are totalled from those cells within the Alluvium outline/ Block Model outside the Indicated Resource outlines that were populated from the 800m by 50m search ellipse. We believe the choice of an 800m by 50m search ellipse, with Indicated Resource within 400m of relevant sample points, and Inferred Resource the populated cells within alluvium outlines beyond the interpreted Indicated Resource outlines is a conservative estimate of additional potential within each grid.
Moisture	*Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	The samples collected from SG pits were air- dried for around ten days before weighing.
Cut-off parameters	*The basis of the adopted cut-off grade(s) or quality parameters applied.*	See above
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.*	Experienced and active major mining contractors consulted for the study recommended use of 100T and 200T excavators and 90T dump trucks with short cycles to a demountable wash plant. Following removal of 20cm of topsoil for revegetation, al material would be excavated to base of alluvium, with was plant tails returned to an isolated part of the excavation. Later production from deeper parts of the Resource could utilise dredging, with a different cost structure. Given the dimensions of the Resource, mining dilution is not a factor of importance at this stage of the assessment.
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.*	Front end mineral recovery is proposed to be achieved by conventional heavy mineral sands technology of scrubbing and gravity separation using spirals. Progressive upgrading in a dry mill also assumes conventional magnetic and electrostatic technology. Preliminary test work conducted by Allied Mineral Laboratories in 2012, on a bulk run of mine sample supplied by the client, appears to vindicate the choice of technology. The refinery flow sheet was derived from more conceptual studies undertaken by the client with some very preliminary front end test work by Ammtec. The

		refinery process and flow sheet requires closer definition in the next and subsequent round of studies, particularly the solution adjustment and purification circuits.
Environmental 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 greenfields 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.*	A full environmental impact assessment of the project has not been done by the client. For the front end wet and dry plants, current best practice used in the heavy minerals industry for waste and process residue disposal has been assumed. Protocols for the final disposal of hazardous wastes, particularly radioactive wastes, have not been finalised as yet and will be addressed in detail in subsequent studies.
Bulk density	*Whether assumed or determined. If assumed, the basis for the 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.*	Bulk density was determined by digging 12 pits of approximately 1cubic metre each across the Cockroach Resource. While that is not within the Resource volume, it is nearby with indiscernible physical difference to the Resource volumes. The excavation volumes were carefully measured with survey grade differential GPS in kinematic mode while the material excavated was bagged and allowed to dry for approximately 10 days before weighing. The average SG determined from this was 1.8, and this has been used for all Resource estimates to date. This is believed to be a good quality estimate to use for Resource estimation.
Classification	*The basis for the classification of the Mineral Resources into varying confidence categories.* *Whether appropriate account has been taken of all relevant factors (i.e. 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.*	This is covered above in the description of the Resource estimation process. We believe all factors of relevance are embodied in the Initial Mineral Resource estimate. Clearly the resource extends well beyond the volume defined by initial drilling and the tonnage and grade reported herein will ultimately be exceeded with more exploration. We are satisfied that the Resource estimate is an initial but not comprehensive estimate that will be increased with additional exploration.

Audits or reviews	*The results of any audits or reviews of Mineral Resource estimates.*	No audits of Mineral Resource estimates have been undertaken at this time. These will be incorporated into the mine plan to be undertaken during the forthcoming Feasibility Study.
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.*	This is covered in discussion of the Resource estimation process above. Because of the irregular distribution of drill holes along access tracks, variography was not possible on the Resource datasets, but there is evidence to conclude that the definitions of Indicated and Inferred Resources used herein are likely to be conservative, as would also be concluded by consideration of geological continuity factors. We consider the major potential source of error in this estimate is in the reliability of aircore drill sampling. This needs further checking by twinning with other sampling methods in the next phase of Resource definition. This should also attempt conversion of the Exploration Target used in the Scoping Study to Resource. . The Initial Resource statement is a local estimate for two nearby discrete drill patterns within a much larger alluvial fan with an area of around 275sq. km. The relevance of these to the economic evaluation has been discussed above. Production data is not yet available.

Section 4 Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	*Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.* *Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.*	While some of the Modifying Factors necessary to convert a Resource Estimate to an Ore Reserve have been identified and discussed in the Scoping Study reported here, there has been no conversion of Mineral Resources to Ore Reserves as a result of this Study. This will be done in the next phase of the Charley Creek 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.*	See above.
Study status	*The type and level of study undertaken to enable Mineral Resources to be converted to Ore* *Reserves.* *The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.*	The status of study at Charley Creek is Scoping Study. While some of the modifying factors necessary to convert Resources to Reserves have been addressed in sufficient detail, others have not, which is in keeping with the Scoping Study. No Ore Reserve exists at Charley Creek at this point.
Cut-off parameters	*The basis of the cut-off grade(s) or quality parameters applied.*	Not applicable.
Mining factors or assumptions	*The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).* *The choice, nature and appropriateness of the selected mining*	No specialist mining study has been undertaken as part of the Scoping Study. These Modifying Factors have not yet been developed.

	method(s) and other mining parameters including associated design issues such as pre-strip, access, etc. *The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.* *The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).* *The mining dilution factors used.* *The mining recovery factors used.* *Any minimum mining widths used.* *The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.* *The infrastructure requirements of the selected mining methods.*	
Metallurgical factors or assumptions	*The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.* *Whether the metallurgical process is well-tested technology or novel in nature.* *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.* *Any assumptions or allowances made for deleterious elements.* *The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.* *For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?*	The front end recovery of heavy mineral concentrates is achieved by conventional "wet and dry" plant technology for heavy mineral sands. The refinery is based on known unit processes for the recovery of uranium and RE carbonates and for the elimination of thorium. Whilst the individual processes are not novel in nature, the combined flow sheet has only been subjected to preliminary test work examination. Metallurgical recovery factors will require further definition by more detailed test work on more representative samples. To date only one bulk sample has been tested. Deleterious elements are known from the geological exploration samples. Preliminary test work has been done on one bulk sample which cannot be considered to be representative of the whole ore body. Detailed mineralogical analysis has been done by ALS

Environmental	*The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.*	A Draft Environmental Impact Statement in line with regulatory requirements for the issuance of a mining lease has been in preparation since October, 2012 by GHD Consultants. The issues raised in this section, where relevant, will form part of the scope of the EIS study.
Infrastructure	*The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.*	Adequate land is available for project development; The Darwin Amadeus Basin gas Pipeline traverses the Project Area around 60km from the start-up location of the project; it is proposed to construct a BOO gas turbine at the pipeline and using a corridor that runs generally parallel to the Tanami Road, run a HV power line to the project site. The power plant will be located over an area identified as a subsurface palaeovalley. There is geophysical and limited drilling evidence that these palaeovalleys will contain adequate underground water to support the project. A pipeline will run along the same corridor as the power line. Start-up water supplies for the project will likely be sources from smaller palaeovalleys to the south of Mount Hay. The sealed Tanami Highway runs the length of the project area and is scheduled for substantial upgrade and widening. As it is, it supplies the Granites Goldfield and is a relatively major artery adequate for Triple Road Trains. The start-up mining area is approximately 120km from Alice Springs on sealed road, except for the final 10km. Labour would be sourced with preference given to local inhabitants, supplemented with Fly-in / Fly out workforce. As Alice Springs is centrally located and well serviced by scheduled flights, workers can be drawn from all over Australia. Accommodation will be constructed for around 150 persons on site.
Costs	*The derivation of, or assumptions made, regarding projected capital costs in the study.* *The methodology used to estimate operating costs.* *Allowances made for the content of deleterious elements.* *The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co- products.*	Based on budget prices for major items from suppliers and in-house data base First principles estimating and budget prices for major consumables and labour. No detailed examination of deleterious elements Commodity prices supplied by client, based on prices published in various broadsheets and peer presentations

	The source of exchange rates used in the study. *Derivation of transportation charges.* *The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.* *The allowances made for royalties payable, both Government and private.*	Exchange rates not applicable Transport charges obtained from suppliers Treatment and refining charges not examined in detail No allowances for royalties
Revenue factors	*The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.* *The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.*	Revenue factors provided by client and assumed to be derived from subscription broadsheets and peer presentations. The scoping study referred to in this report is based on low-level technical and economic assessments.
Market assessment	*The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.* *A customer and competitor analysis along with the identification of likely market windows for the product.* *Price and volume forecasts and the basis for these forecasts.* *For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.*	A market assessment has not been done as part of this study
Economic	*The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.* *NPV ranges and sensitivity to variations in the significant assumptions and inputs.*	This is consistent with other REO benchmarking data, obtained from peer presentations The scoping study referred to in this report is based on low-level technical and economic assessments and is insufficient to support estimation of ore reserves or to provide assurance of an economic development case at this stage or to provide certainty that the conclusions of the scoping study may be realised.
Social	*The status of agreements with key stakeholders and matters leading to*	Key Stakeholders could be identified as Local Community, Regulators, and

	social licence to operate.	Native Title holders. Local community are represented by the pastoralists on which the project is based. There are four different owners of the group of Pastoral Leases upon which the greater Charley Creek Project is located. The initial Start-up area affects two pastoralists. Cordial relations including rental and compensation understandings are in place with both of these. Activities on mining titles are regulated under approvals issued by the NT Department of Mines and Energy to mining Management Plans prepared by the Titleholder. A mining management plan has been submitted for the work proposed for 2013 to complete the feasibility study on the first phase of the Project, and approval of this is expected before it will be required. Aboriginal culture is quite alive in the region and local aboriginals maintain an interest in Crossland's activities. Crossland has entered an Exploration Deed with CLC as representative of potential Native Title Claimants. This is an active arrangement involving meetings for program approvals, site inspections, and compensation payments, and is expected to lead to an Indigenous Land Use Agreement as the project proceeds. Sacred Site Clearances are incorporated into the Exploration Deed, but much of the area has also been covered by certificates issued by the Aboriginal Areas Protection Authority, an NT Government agency.
Other	*To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:* *Any identified material naturally occurring risks.* *The status of material legal agreements and marketing arrangements.* *The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.*	Ore Reserves have not yet been estimated for the Project. Other matters have been discussed to the extent that is currently relevant under headings above.

Classification	*The basis for the classification of the Ore Reserves into varying confidence categories.* *Whether the result appropriately reflects the Competent Person's view of the deposit.* *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).*	Ore Reserves have not yet been estimated for the Project.
Audits or reviews	*The results of any audits or reviews of Ore Reserve estimates.*	Ore Reserves have not yet been estimated for the Project.
Discussion of relative accuracy/ confidence	*Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve 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 reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which 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.* *Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.* *It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	Ore Reserves have not yet been estimated for the Project.

DRILL HOLE AND INTERSECTIONS DATA FOR APPENDIX 1

Hole ID	Easting	Northing	RL	Hole Depth (m)	Dip (°)	Azimuth (°)	From Depth (m)	To Depth (m)	Down Hole Width (m)	Resource Area	Resource Class	TREOig High Value ppm	THV LREO ppm	THV MREO ppm	THV HREO ppm	TREOig Low ppm	TLV LREO ppm	TLV MREO ppm	TLV HREO ppm	TREOig Average Value ppm	TAV LREO ppm	TAV MREO ppm	TAV HREO ppm
CCA028	287391.7	7408668.1	656	7	-90	0				Cattle Creek													
CCA032	288179.4	7408511.4	656	36	-90	0				Cattle Creek													
CCA033	288362.33	7408473.38	656	28	-90	0				Cattle Creek													
CCA034	288569.88	7408434.06	656	43	-90	0				Cattle Creek													
CCA036	288928.36	7408361.98	656	39	-90	0				Cattle Creek													
CCA037	289139.35	7408319.6	656	60	-90	0				Cattle Creek													
CCA041	289903.4	7408168.7	655	54	-90	0				Cattle Creek													
CCA042	290095.17	7408124.48	655	45	-90	0				Cattle Creek													
CCA044	290487.8	7408049.6	655	81	-90	0				Cattle Creek													
CCA046	290870.5	7407977.5	655	106	-90	0				Cattle Creek													
CCA048	291267.39	7407897.18	655	63	-90	0				Cattle Creek													
CCA057	299151.6	7398045.8	659	93	-90	0				Cattle Creek													
CCA060	298568.68	7398280.44	659	98	-90	0				Cattle Creek													
CCA099	288745.1	7401280.2	675.84	56.25	-90	0				Cattle Creek													
CCA100	288935.1	7401330.9	675.165	38	-90	0				Cattle Creek													
CCA103	289549.1	7401500.3	674.432	80.6	-90	0				Cattle Creek													
CCA104	289682.96	7401332.05	674.792	88	-90	0				Cattle Creek													
CCA105	289860.8	7401261.1	675.151	86	-90	0				Cattle Creek													
CCA106	290150.2	7401148.9	676.289	75	-90	0				Cattle Creek													
CCA107	290297.77	7401085.13	675.946	72	-90	0				Cattle Creek													
CCA108	290438.1	7401025.6	675.531	62	-90	0				Cattle Creek													
CCA109	290638.5	7400943.6	675.418	47.5	-90	0				Cattle Creek													
CCA110	290816.04	7400871.96	675.639	90	-90	0				Cattle Creek													
CCA111	290997.69	7400814.66	676.03	72	-90	0				Cattle Creek													
CCA112	291179.98	7400750.77	675.985	129	-90	0				Cattle Creek													
CCA113	291353.33	7400681.03	676.371	93	-90	0				Cattle Creek													
CCA114	291550.61	7400614.37	676.655	84	-90	0	3	5	2	Cattle Creek	Inferred									217.01	161.82	12.26	42.93
CCA115	291748.9	7400556.51	676.506	84	-90	0				Cattle Creek													
CCA116	291921.34	7400499.46	676.552	56	-90	0				Cattle Creek													
CCA117	292130.62	7400433.95	676.587	72	-90	0				Cattle Creek													
CCA118	292308.6	7400374.6	676.629	46	-90	0	14	15	1	Cattle Creek	Inferred									144.68	114.83	6.83	23.02
CCA119	292513.9	7400307.4	676.903	42	-90	0				Cattle Creek													
CCA120	292710.6	7400241.9	677.068	48	-90	0				Cattle Creek													
CCA121	292902.2	7400178.1	672.5	45	-90	0				Cattle Creek													
CCA122	293280.3	7400054.2	672.7	69	-90	0				Cattle Creek													
CCA123	293093.8	7400116.2	672.7	81	-90	0				Cattle Creek													
CCA124	293481.2	7400057	672.1	80	-90	0				Cattle Creek													
CCA125	293841.91	7400040.94	671	76	-90	0				Cattle Creek													
CCA126	294219.73	7399935.44	672	51	-90	0				Cattle Creek													
CCA127	292908.729	7400176.67	672.537	52	-90	0	0	20	20	Cattle Creek	Indicated	225.28	168.15	14.22	42.90	45.23	35.95	1.81	7.47	167.98	127.25	9.85	30.88
CCA128	292801.449	7400212.569	677.098	33	-90	0	0	12	12	Cattle Creek	Inferred	331.32	258.96	19.55	52.82	247.06	193.06	14.69	39.31	279.89	218.61	16.85	44.43
CCA129	292700.798	7400245.742	677.029	52	-90	0	0	12	12	Cattle Creek	Inferred	270.48	213.38	16.19	40.91	212.26	162.64	12.95	36.67	232.67	178.98	14.30	39.39
CCA129	292700.798	7400245.742	677.029	52	-90	0	12	16	4	Cattle Creek	Indicated									233.57	195.39	14.00	24.19
CCA130	292609.838	7400275.478	676.897	66	-90	0	0	16	16	Cattle Creek	Indicated	270.88	168.39	15.84	86.65	140.67	102.24	9.48	28.94	211.90	153.11	13.01	45.78
CCA130	292609.838	7400275.478	676.897	66	-90	0	16	20	4	Cattle Creek	Inferred									141.11	108.57	8.79	23.75
CCA131	292514.046	7400307.786	676.902	47	-90	0	0	20	20	Cattle Creek	Inferred	739.78	569.54	66.88	103.36	205.67	146.99	11.80	46.89	356.11	277.82	25.54	52.75
CCA132	292414.598	7400340.769	676.751	39	-90	0	0	16	16	Cattle Creek	Inferred	421.45	357.79	21.29	42.37	266.83	186.31	16.42	64.09	351.45	269.43	19.69	62.33
CCA133	292997.919	7400147.204	672.571	65	-90	0	0	16	16	Cattle Creek	Inferred	302.76	211.04	16.89	74.83	211.04	155.28	12.61	43.15	259.47	192.36	14.52	52.59
CCA133	292997.919	7400147.204	672.571	65	-90	0	16	20	4	Cattle Creek	Indicated									316.59	268.95	14.93	32.71
CCA134	293094.79	7400113.969	672.687	80	-90	0	0	16	16	Cattle Creek	Inferred	272.40	205.87	15.38	51.15	240.39	188.49	13.19	38.72	258.88	196.48	14.52	47.89
CCA135	293188.145	7400083.549	672.724	85	-90	0	0	16	16	Cattle Creek	Inferred	227.24	175.31	14.00	37.93	156.32	123.17	9.02	24.12	190.07	141.69	11.45	36.93
CCA136	293281.856	7400057.3	672.698	85	-90	0	0	20	20	Cattle Creek	Indicated	281.79	218.88	15.97	46.95	164.52	117.24	9.49	37.79	213.50	156.68	12.12	44.70
CCA137	293388.416	7400013.31	672.557	48	-90	0	0	22	22	Cattle Creek	Inferred	648.59	533.80	49.65	65.15	94.07	80.66	5.21	8.20	246.30	207.17	14.83	24.31
CCA138	293651.936	7400071.711	670.959	67	-90	0	0	24	24	Cattle Creek	Inferred	367.05	295.28	21.40	50.36	130.36	98.25	7.52	24.60	264.29	199.49	15.69	49.11
CCA139	292902.276	7400106.844	677.177	62	-90	0	0	24	24	Cattle Creek	Indicated	630.12	497.22	48.13	84.77	87.16	69.64	4.40	13.13	295.30	208.65	19.78	66.88
CCA140	292900.043	7400003.262	677.502	80	-90	0	0	20	20	Cattle Creek	Indicated	272.35	214.94	15.85	41.56	224.54	182.83	11.11	30.60	251.01	196.73	14.02	40.26
CCA141	292895.86	7399800.981	678.101	45	-90	0	0	12	12	Cattle Creek	Indicated	307.03	242.25	17.58	47.20	233.54	179.79	12.72	41.03	264.04	203.15	14.80	46.08

DRILL HOLE AND INTERSECTIONS DATA FOR APPENDIX 1

Hole ID	Easting	Northing	RL	Hole Depth (m)	Dip (°)	Azimuth (°)	From Depth (m)	To Depth (m)	Down Hole Width (m)	Resource Area	Resource Class	TREOig High Value ppm	THV LREO ppm	THV MREO ppm	THV HREO ppm	TREOig Low ppm	TLV LREO ppm	TLV MREO ppm	TLV HREO ppm	TREOig Average Value ppm	TAV LREO ppm	TAV MREO ppm	TAV HREO ppm
CCA141	292895.86	7399800.981	678.101	45	-90	0	12	16	4	Cattle Creek	Inferred									294.94	225.38	16.54	53.02
CCA142	292896.982	7399595.144	678.868	25	-90	0	0	21	21	Cattle Creek	Indicated	376.91	278.17	20.82	77.92	181.17	136.06	10.99	34.13	255.09	191.49	15.56	48.05
CCA143	292897.583	7399202.668	679.904	16	-90	0	0	12	12	Cattle Creek	Inferred	309.51	247.66	17.82	44.03	211.20	158.67	12.49	40.04	258.04	199.72	15.12	43.20
CCA144	292893.367	7398802.417	681.586	13	-90	0	0	8	8	Cattle Creek	Inferred	218.17	161.83	12.96	43.38	200.90	141.51	12.38	47.02	209.54	151.67	12.67	45.20
CCA145	292886.461	7398404.451	683.026	55	-90	0	0	20	20	Cattle Creek	Inferred	277.29	200.26	16.31	60.71	210.56	142.67	11.68	56.22	227.58	167.25	13.33	47.01
CCA146	292900.036	7398004.17	684.554	38	-90	0	0	33	33	Cattle Creek	Inferred	811.03	684.44	40.16	86.43	204.75	163.69	10.99	30.07	356.92	288.89	18.96	49.07
CCA147	292885.377	7397599.583	686.172	36	-90	0	0	25	25	Cattle Creek	Inferred	922.10	748.23	65.06	108.82	239.91	192.12	12.49	35.29	430.90	349.53	23.00	58.37
CCA148	292898.164	7397202.127	682.841	23	-90	0	0	16	16	Cattle Creek	Inferred	373.22	297.52	18.97	56.73	186.13	135.46	10.99	39.68	278.01	212.91	15.07	50.04
CCA149	292900.48	7396802.238	689.043	54	-90	0	0	21	21	Cattle Creek	Indicated	607.83	519.97	33.09	54.77	177.10	139.03	9.02	29.05	249.34	194.58	13.28	41.48
CCA150	292900.93	7396401.04	686.297	15	-90	0	0	8	8	Cattle Creek	Inferred	453.16	368.80	24.29	60.07	239.54	179.59	13.07	46.89	346.35	274.19	18.68	53.48
CCA150	292900.93	7396401.04	686.297	15	-90	0	8	15	7	Cattle Creek	Indicated		313.17	20.48	57.83	283.97	225.23	15.16	43.58	330.04	262.92	17.44	49.69
CCA151	292899.79	7396001.053	688.223	21	-90	0	0	16	16	Cattle Creek	Inferred	496.32	411.71	27.65	56.97	203.90	156.69	10.99	36.22	310.13	243.74	16.80	49.58
CCA152	292896.722	7395596.881	690.857	15	-90	0	0	12	12	Cattle Creek		365.31	289.75	19.66	55.90	246.81	182.47	13.30	51.04	315.83	218.27	16.62	80.95
CCA153	292897.33	7395198.743	697.785	16	-90	0	0	16	16	Cattle Creek	Indicated	479.04	389.01	25.22	64.82	218.60	166.47	12.38	39.75	300.05	233.52	16.42	50.11
CCA154	292893.867	7394798.491	700.247	19	-90	0	0	18.5	18.5	Cattle Creek	Inferred	371.36	284.61	19.66	67.09	283.58	218.97	15.27	49.35	320.89	240.30	18.28	62.31
CCA155	292900.701	7394398.12	703.917	10	-90	0	0	10	10	Cattle Creek	Indicated	490.51	409.12	26.84	54.54	290.71	226.12	14.58	50.01	353.19	276.03	18.44	58.71
CCA156	292898.36	7393999.158	708.164	4	-90	0				Cattle Creek													
CCA157	292950.416	7393577.841	708.553	5	-90	0	0	4.5	4.5	Cattle Creek	Inferred	295.40	151.24	23.12	121.04	291.87	223.53	16.42	51.91	292.26	215.50	17.17	59.59
CCA158	292897.535	7393200.697	709.99	7	-90	0	0	7	7	Cattle Creek	Inferred	439.09	339.79	22.21	77.09	276.04	218.45	14.11	43.48	345.92	270.45	17.58	57.88
CCA159	292897.837	7392854.691	711.704	7	-90	0	0	7	7	Cattle Creek	Inferred	355.56	289.04	17.93	48.59	208.09	158.91	10.87	38.30	271.29	214.68	13.90	42.71
CCA160	292900.449	7400314.926	672.176	17	-90	0	0	12	12	Cattle Creek	Inferred	297.56	223.61	16.77	57.18	244.65	171.16	13.30	60.18	266.70	195.62	14.80	56.28
CCA161	292898.39	7400407.099	672.19	25	-90	0	0	21	21	Cattle Creek	Inferred	1,247.35	954.77	62.01	230.57	221.87	166.04	11.57	44.26	456.68	340.71	24.92	91.06
CCA162	292903.105	7400603.576	671.91	31	-90	0	0	24	24	Cattle Creek	Inferred	525.43	409.37	29.16	86.91	227.96	165.93	13.53	48.50	289.69	222.85	16.06	50.78
CCA163	292902.037	7400801.171	671.289	57	-90	0	0	31	32	Cattle Creek	Inferred	511.60	375.93	28.11	107.56	218.11	168.97	11.80	37.34	308.23	239.17	16.47	52.58
CCA164	292903.496	7401202.935	670.107	19	-90	0	0	19	19	Cattle Creek	Inferred	480.37	385.11	24.07	71.20	241.72	186.44	12.50	42.79	337.27	265.49	17.20	54.58
CCA165	292898.621	7401600.023	668.747	93	-90	0	0	28	28	Cattle Creek	Inferred	416.91	333.68	21.17	62.05	258.15	206.59	13.77	37.79	301.96	235.73	15.83	50.40
CCA166	292899.388	7402003.179	667.467	98	-90	0	0	40	40	Cattle Creek	Inferred	435.18	348.45	22.10	64.64	214.91	152.70	12.61	49.60	301.84	235.41	16.27	50.17
CCA167	292898.083	7402401.701	665.584	15	-90	0	0	15	15	Cattle Creek	Inferred	377.97	312.75	18.86	46.36	166.77	128.31	9.37	29.09	261.59	204.27	13.77	43.55
CCA168	292896.94	7402803.764	663.82	81	-90	0	0	32	32	Cattle Creek	Inferred	431.71	345.01	21.87	64.83	203.75	159.49	11.34	32.93	312.85	239.96	16.14	56.75
CCA169	292897.286	7403201.368	662.739	85	-90	0	0	32	32	Cattle Creek	Indicated	591.84	479.56	32.51	79.77	228.40	173.13	11.69	43.59	338.02	266.21	17.51	54.30
CCA170	292896.843	7403602.653	661.808	101	-90	0	0	28	28	Cattle Creek	Inferred	374.61	292.16	19.21	63.24	192.71	145.91	10.76	36.03	302.42	237.44	15.50	49.48
CCA171	292896.455	7403998.72	661.188	79	-90	0	0	20	20	Cattle Creek	Inferred	437.04	341.71	23.49	71.84	269.32	156.26	14.00	99.06	382.99	285.68	20.29	77.01
CCA172	292897.38	7404403.126	660.728	62	-90	0	0	12	12	Cattle Creek	Inferred	282.94	222.30	15.85	44.78	35.43	24.85	2.20	8.38	171.66	130.04	9.68	31.94
CCA173	292898.301	7404792.171	659.044	29	-90	0	0	4	4	Cattle Creek	Inferred									205.43	157.95	11.22	36.25
CCA174	292800.725	7399999.566	677.791	73	-90	0	0	20	20	Cattle Creek	Inferred	292.53	236.89	17.01	38.63	208.46	158.96	11.80	37.70	255.54	200.97	14.30	40.27
CCA175	292703.27	7400000.567	677.716	70	-90	0	0	16	16	Cattle Creek	Inferred	299.45	219.62	15.27	64.57	214.44	165.24	11.57	37.64	261.90	201.46	14.03	46.41
CCA176	292502.192	7399999.201	677.79	29	-90	0	0	12	12	Cattle Creek	Indicated	269.87	202.27	14.46	53.14	235.26	179.73	12.73	42.80	250.70	186.38	13.54	50.78
CCA176	292502.192	7399999.201	677.79	29	-90	0	12	22	10	Cattle Creek	Inferred	3,548.68	2,060.51	235.32	1,252.84	286.62	211.03	13.88	61.71	855.59	594.59	53.06	207.94
CCA177	292305.416	7400006.433	677.867	48	-90	0	0	12	12	Cattle Creek	Inferred	356.25	291.29	17.59	47.37	250.34	193.44	13.30	43.59	301.39	237.09	15.27	49.02
CCA178	292096.682	7400001.738	677.989	52	-90	0	0	16	16	Cattle Creek	Indicated	321.17	240.10	16.43	64.64	213.69	163.82	11.69	38.19	265.69	201.08	13.62	50.99
CCA179	291902.636	7399998.378	678.098	41	-90	0	0	21	21	Cattle Creek	Inferred	431.08	320.03	21.87	89.18	242.93	187.60	12.84	42.50	306.96	234.41	16.27	56.28
CCA180	291501.357	7400003.402	678.233	62	-90	0	0	16	16	Cattle Creek	Inferred	294.22	236.76	16.08	41.38	240.49	175.59	13.54	51.37	261.88	202.21	14.40	45.27
CCA181	292997.073	7400005.777	673.089	84	-90	0	0	16	16	Cattle Creek	Inferred	280.55	218.41	14.93	47.21	193.55	147.12	10.64	35.79	242.20	185.74	13.07	43.39
CCA181	292997.073	7400005.777	673.089	84	-90	0	16	20	20	Cattle Creek	Indicated									609.18	509.40	29.86	69.93
CCA182	293089.481	7400005.071	673.133	84	-90	0	0	16	16	Cattle Creek	Inferred	345.17	275.08	20.83	49.27	212.48	164.51	11.45	36.52	267.60	197.15	15.55	54.90
CCA183	293496.202	7400004.401	672.117	70	-90	0	0	24	24	Cattle Creek	Inferred	546.91	449.15	26.84	70.92	255.66	195.22	13.19	47.25	356.57	278.08	19.26	59.23
CCA184	293751.621	7400001.955	670.64	67	-90	0	0	24	24	Cattle Creek	Inferred	570.68	478.34	26.04	66.30	194.82	151.35	9.49	33.99	332.04	264.06	16.91	51.06
CCA185	293949.009	7400001.56	671.91	95	-90	0	0	20	20	Cattle Creek	Inferred	400.51	294.62	16.66	89.23	216.23	167.74	11.34	37.16	285.60	223.77	13.70	48.13
CCA186	292846.668	7396803.509	688.913	30	-90	0	0	20	20	Cattle Creek	Indicated	425.98	324.88	22.33	78.77	182.12	141.01	9.37	31.73	312.77	243.09	16.11	53.58
CCA187	292796.642	7396802.181	688.878	30	-90	0	0	20	20	Cattle Creek	Inferred	292.96	223.04	15.50	54.42	231.39	179.04	11.92	40.43	270.49	207.57	14.00	48.92
CCA188	292706.387	7396804.03	688.825	44	-90	0	0	20	20	Cattle Creek	Inferred	407.73	338.73	19.90	49.10	244.72	187.82	13.07	43.83	315.23	251.53	15.94	47.76
CCA189	292495.303	7396803.709	689.312	26	-90	0	0	16	16	Cattle Creek	Indicated	403.00	302.25	20.25	80.49	191.24	150.04	10.30	30.90	299.69	235.62	15.10	48.97
CCA189	292495.303	7396803.709	689.312	26	-90	0	16	21	5	Cattle Creek	Inferred	381.58	296.99	21.75	62.85	212.22	148.16	14.80	49.26	246.10	177.92	16.19	51.98
CCA190	292298.775	7396804.038	689.534	22	-90	0	0	16	16	Cattle Creek	Inferred	439.86	361.76	23.25	54.85	205.85	160.05	11.11	34.70	300.92	220.27	15.62	65.03
CCA191	292103.18	7396805.089	689.74	20	-90	0	0	16	16	Cattle Creek	Inferred	296.71	220.10	15.96	60.65	248.47	196.02	13.54	38.91	265.09	198.62	14.11	52.36
CCA192	291898.872	7396801.169	689.978	19	-90	0	0	16	16	Cattle Creek	Inferred	314.51	246.54	16.54	51.43	237.17	181.15	11.92	44.11	267.74	204.50	14.06	49.18
CCA193	292952.784	7396807.231	684.669	46	-90	0	0	24	24	Cattle Creek	Inferred	483.12	387.52	24.99	70.62	237.08	181.28	12.73	43.08	312.95	247.99	16.50	48.46

DRILL HOLE AND INTERSECTIONS DATA FOR APPENDIX 1

Hole ID	Easting	Northing	RL	Hole Depth (m)	Dip (°)	Azimuth (°)	From Depth (m)	To Depth (m)	Down Hole Width (m)	Resource Area	Resource Class	TREOig High Value ppm	THV LREO ppm	THV MREO ppm	THV HREO ppm	TREOig Low ppm	TLV LREO ppm	TLV MREO ppm	TLV HREO ppm	TREOig Average Value ppm	TAV LREO ppm	TAV MREO ppm	TAV HREO ppm
CCA194	292994.408	7396806.18	684.725	21	-90	0	0	21	21	Cattle Creek	Inferred	692.52	571.01	35.75	85.76	247.62	190.23	12.84	44.54	283.56	220.73	15.21	47.62
CCA195	293103.04	7396798.979	684.765	40	-90	0	0	24	24	Cattle Creek	Inferred	321.92	235.07	17.35	69.50	224.74	172.54	12.50	39.70	276.01	210.29	14.98	50.74
CCA196	293301.353	7396802.239	685.069	26	-90	0	0	16	16	Cattle Creek	Indicated	306.44	237.52	16.43	52.49	210.20	161.53	12.03	36.63	251.73	195.70	13.74	42.29
CCA197	293497.268	7396807.476	684.792	44	-90	0	0	12	12	Cattle Creek	Inferred	259.15	197.28	13.88	47.99	251.89	164.42	13.76	73.71	255.99	187.32	13.77	54.90
CCA198	293697.376	7396815.466	684.433	56	-90	0	0	16	16	Cattle Creek	Indicated	466.16	384.62	24.76	56.78	236.97	181.45	13.30	42.22	305.33	241.27	16.77	47.28
CCA199	293898.189	7396800.41	684.445	59	-90	0	0	17	17	Cattle Creek	Inferred	580.77	467.92	28.58	84.27	216.25	161.71	12.49	42.04	309.04	235.46	16.49	57.09
CCA200	292798.712	7399601.25	678.898	14	-90	0	0	12	12	Cattle Creek	Indicated	300.78	236.54	15.73	48.51	227.36	163.88	11.68	51.79	270.47	207.96	14.08	48.44
CCA200	292798.712	7399601.25	678.898	14	-90	0	12	14	2	Cattle Creek	Inferred									560.00	449.26	29.38	81.36
CCA201	292695.299	7399601.136	678.951	12	-90	0	0	4	4	Cattle Creek	Inferred									220.35	162.60	12.49	45.26
CCA202	292599.597	7399602.499	678.995	14	-90	0	0	8	8	Cattle Creek	Inferred	262.31	203.48	13.65	45.17	238.78	182.57	13.07	43.14	250.54	193.03	13.36	44.15
CCA203	293096.753	7399604.353	673.876	17	-90	0	0	12	12	Cattle Creek	Inferred	292.37	226.69	15.16	50.53	212.55	162.60	12.15	37.80	244.88	187.13	13.42	44.34
CCA204	293300.188	7399604.475	673.761	14	-90	0	0	8	8	Cattle Creek	Inferred	382.73	281.64	19.44	81.65	274.71	205.02	15.97	53.72	328.72	243.33	17.70	67.69
CCA204	293300.188	7399604.475	673.761	14	-90	0	8	14	16	Cattle Creek	Indicated	321.81	231.08	16.31	74.41	165.72	89.79	13.88	62.05	269.78	183.99	15.50	70.29
CCA205	293490.126	7399603.76	673.601	18	-90	0	0	14	14	Cattle Creek	Inferred	1,363.32	628.39	90.91	644.02	229.49	174.85	13.07	41.57	431.02	299.62	28.64	102.76
CCA206	293694.302	7399608.214	673.54	74	-90	0	0	16	16	Cattle Creek	Inferred	390.27	309.77	20.36	60.14	240.19	183.86	13.42	42.91	313.58	243.04	17.27	53.27
CCA207	293898.54	7399602.622	673.072	73	-90	0	0	24	24	Cattle Creek	Inferred	350.58	292.93	20.95	36.70	249.41	185.38	13.65	50.38	297.65	239.79	16.33	41.53
CCA208	294097.093	7399601.978	672.888	71	-90	0	0	24	24	Cattle Creek	Inferred	299.76	241.26	17.36	41.14	210.23	168.63	11.22	30.37	260.13	204.48	14.50	41.15
CCA209	294294.138	7399603.668	673.194	32	-90	0	0	20	20	Cattle Creek	Inferred	371.38	279.89	21.52	69.97	196.96	155.62	10.30	31.04	264.88	201.39	14.65	48.85
CCA210	294064.3	7399734.613	672.532	71	-90	0	0	20	20	Cattle Creek	Indicated	325.20	261.35	16.89	46.96	177.93	138.11	9.49	30.33	262.82	204.53	13.75	44.55
CCA210	294064.3	7399734.613	672.532	71	-90	0	20	24	4	Cattle Creek	Inferred									287.28	241.81	14.58	30.88
CCA211	294609.138	7399829.837	672.279	89	-90	0	0	16	16	Cattle Creek	Indicated	318.23	237.45	18.74	62.04	197.96	149.25	12.26	36.45	259.50	197.74	14.67	47.09
CCA211	294609.138	7399829.837	672.279	89	-90	0	16	20	4	Cattle Creek	Inferred									295.23	240.91	15.74	38.58
CCA212	294982.09	7399708.19	672.74	60	-90	0				Cattle Creek													
CCA061	282307.68	7403903.13	673.119	22	-90	0				Western Dam													
CCA062	282451.3	7403769.5	673.238	12	-90	0				Western Dam													
CCA063	282587.5	7403660.7	673.522	12	-90	0				Western Dam													
CCA064	282744.4	7403531.9	673.561	9	-90	0				Western Dam													
CCA065	282903	7403401.3	673.456	15	-90	0				Western Dam													
CCA066	283070	7403283.8	673.507	13	-90	0				Western Dam													
CCA067	283189.2	7403172.9	673.668	12	-90	0				Western Dam													
CCA068	283331.2	7403014.4	673.912	12	-90	0				Western Dam													
CCA069	283478	7402876.2	674.124	11	-90	0				Western Dam													
CCA070	283631.7	7402734.5	674.381	12	-90	0				Western Dam													
CCA071	283793.9	7402587.3	674.564	9	-90	0				Western Dam													
CCA072	283952.5	7402458.5	674.632	12	-90	0				Western Dam													
CCA073	284116.1	7402337.2	674.959	12	-90	0				Western Dam													
CCA074	284247	7402239.5	675.256	9.5	-90	0				Western Dam													
CCA075	284421.1	7402096.1	675.818	8.7	-90	0				Western Dam													
CCA076	284545.97	7402000.44	676.212	11	-90	0				Western Dam													
CCA077	284741.39	7401857.21	676.727	8.6	-90	0				Western Dam													
CCA078	284887.12	7401752.05	677.172	8.7	-90	0				Western Dam													
CCA079	285057.05	7401621.02	677.733	12	-90	0				Western Dam													
CCA080	285213.96	7401493.85	678.228	13.3	-90	0				Western Dam													
CCA081	285381.84	7401383.22	678.558	12.5	-90	0				Western Dam													
CCA082	285545.68	7401271.12	678.795	13	-90	0				Western Dam													
CCA083	285705	7401177	678.997	12	-90	0				Western Dam													
CCA084	285870	7401077.9	679.225	14	-90	0				Western Dam													
CCA085	286041.8	7400973.3	679.349	10	-90	0				Western Dam													
CCA086	286245.9	7400872.9	679.409	9	-90	0				Western Dam													
CCA087	286415.6	7400799.6	679.732	10	-90	0				Western Dam													
CCA088	286625.2	7400791.6	679.511	6	-90	0				Western Dam													
CCA089	286815.9	7400788.8	679.348	5	-90	0				Western Dam													
CCA090	287006.3	7400810.1	679.123	7	-90	0				Western Dam													
CCA091	287234.8	7400794.9	678.923	8	-90	0				Western Dam													
CCA092	287428.6	7400812.5	678.617	9.3	-90	0				Western Dam													
CCA093	287657.7	7400871.2	677.904	10.4	-90	0				Western Dam													
CCA094	287818.6	7400932.6	677.57	15	-90	0				Western Dam													

DRILL HOLE AND INTERSECTIONS DATA FOR APPENDIX 1

Hole ID	Easting	Northing	RL	Hole Depth (m)	Dip (°)	Azimuth (°)	From Depth (m)	To Depth (m)	Down Hole Width (m)	Resource Area	Resource Class	TREOig High Value ppm	THV LREO ppm	THV MREO ppm	THV HREO ppm	TREOig Low ppm	TLV LREO ppm	TLV MREO ppm	TLV HREO ppm	TREOig Average Value ppm	TAV LREO ppm	TAV MREO ppm	TAV HREO ppm
CCA095	288025.3	7401003.9	677.272	12.5	-90	0				Western Dam													
CCA096	288181	7401070.8	677.089	17	-90	0				Western Dam													
CCA097	288390.9	7401162.4	676.638	14.5	-90	0				Western Dam													
CCA098	288558.5	7401229.5	676.619	48	-90	0				Western Dam													
CCA099	288745.1	7401280.2	675.84	56.25	-90	0				Western Dam													
CCA100	288935.1	7401330.9	675.165	38	-90	0				Western Dam													
CCA101	289126.8	7401379.8	674.757	37	-90	0				Western Dam													
CCA102	289321.9	7401430.6	674.503	51	-90	0				Western Dam													
CCA777	285030.242	7398102.266	690.557	8	-90	0	0	4	4	Western Dam	Indicated									342.94	276.94	17.47	48.53
CCA778	284671.472	7398046.798	691.928	4	-90	0	0	4	4	Western Dam	Indicated									327.32	262.75	17.47	47.10
CCA779	284294.863	7398189.275	694.408	5	-90	0	0	4	4	Western Dam	Indicated									338.26	275.00	17.82	45.44
CCA780	283938.659	7398354.411	695.133	7	-90	0	0	4	4	Western Dam	Indicated									317.94	257.08	15.74	45.13
CCA781	283560.808	7398477.858	694.427	5	-90	0	0	4	4	Western Dam	Indicated									309.42	241.67	16.78	50.97
CCA782	283176.188	7398577.169	696.515	2	-90	0				Western Dam													
CCA783	282991.22	7398653.477	696.377	8	-90	0	0	8	8	Western Dam	Indicated	424.07	331.12	22.68	70.27	348.91	279.40	18.63	50.89	386.49	305.26	20.66	60.58
CCA784	282797.688	7398715.803	697.039	7	-90	0	0	4	4	Western Dam	Indicated									250.20	197.67	12.96	39.58
CCA785	282600.764	7398752.192	696.549	7	-90	0	0	4	4	Western Dam	Indicated									363.97	296.75	18.86	48.36
CCA786	282409.335	7398807.666	695.661	6	-90	0	0	6	6	Western Dam	Indicated	280.89	217.30	16.66	46.93	279.30	220.58	14.93	43.79	279.83	219.49	15.51	44.84
CCA787	282269.299	7398940.112	694.149	8	-90	0	0	8	8	Western Dam	Indicated	266.44	208.39	14.70	43.35	227.21	175.18	12.15	39.88	246.83	191.79	13.43	41.62
CCA788	282218.511	7399322.084	691.86	11	-90	0	0	8	8	Western Dam	Indicated	312.94	248.64	16.20	48.11	269.20	215.54	14.00	39.66	291.07	232.09	15.10	43.89
CCA789	282164.232	7399712.278	689.571	12	-90	0	0	8	8	Western Dam	Indicated	386.36	311.92	20.48	53.96	310.94	246.19	16.78	47.98	348.65	279.06	18.63	50.97
CCA790	281949.424	7399910.536	688.574	12	-90	0	0	12	12	Western Dam	Indicated	467.85	398.04	20.94	48.86	291.28	232.53	15.62	43.12	356.87	293.58	17.66	45.63
CCA791	282080.53	7400287.131	686.398	13	-90	0	0	8	8	Western Dam	Indicated	305.88	244.66	16.43	44.80	254.82	197.86	13.88	43.08	280.35	221.26	15.16	43.94
CCA792	282210.281	7400662.161	684.735	11	-90	0	0	11	11	Western Dam	Indicated	349.89	216.08	18.16	115.65	307.94	245.33	16.20	46.41	329.54	249.48	16.27	63.80
CCA793	282257.474	7401032.665	682.825	10	-90	0	0	10	10	Western Dam	Indicated	298.52	244.49	15.73	38.30	225.55	166.45	12.03	47.06	278.92	220.53	14.95	43.45
CCA794	282263.795	7401430.833	681.15	11	-90	0	0	8	8	Western Dam	Indicated	519.08	441.76	26.15	51.17	276.97	219.83	14.12	43.02	398.03	330.80	20.14	47.10
CCA795	282137.987	7401798.239	679.809	13	-90	0	0	13	13	Western Dam	Indicated	320.18	246.93	17.12	56.13	239.92	183.79	12.26	43.86	297.16	235.93	15.40	45.84
CCA796	282174.228	7402392.305	677.986	15	-90	0	0	8	8	Western Dam	Inferred	303.21	237.18	16.55	49.48	235.48	184.15	11.80	39.53	269.35	210.67	14.18	44.51
CCA797	282016.97	7403147.453	675.881	20	-90	0	0	20	20	Western Dam	Inferred	299.92	243.44	15.16	41.32	229.82	171.37	12.15	46.30	263.42	204.34	13.65	45.43
CCA798	281979.549	7399726.018	689.725	14	-90	0	0	8	8	Western Dam	Indicated	359.49	296.29	17.93	45.27	319.95	255.12	16.55	48.29	339.72	275.71	17.24	46.78
CCA799	281993.369	7399550.227	690.723	16	-90	0	0	12	12	Western Dam	Indicated	458.49	372.51	23.26	62.72	291.35	233.25	14.70	43.40	349.66	281.95	17.86	49.84
CCA800	281894.334	7399373.227	691.641	14	-90	0	0	12	12	Western Dam	Indicated	492.07	408.02	24.53	59.52	269.27	214.21	13.77	41.29	365.50	298.40	18.36	48.73
CCA801	281795.315	7399195.342	692.983	11	-90	0	0	8	8	Western Dam	Indicated	344.96	280.60	17.35	47.01	229.81	181.69	11.92	36.21	287.39	231.15	14.64	41.61
CCA802	281703.863	7399031.283	694.185	11	-90	0	0	8	8	Western Dam	Indicated	352.33	285.22	17.94	49.17	283.68	226.98	15.04	41.66	318.01	256.10	16.49	45.42
CCA803	281507.831	7399008.639	694.438	11	-90	0	0	8	8	Western Dam	Indicated	268.78	220.29	13.77	34.71	238.15	186.04	12.61	39.49	253.47	203.17	13.19	37.10
CCA804	281329.825	7399066.55	694.533	11	-90	0	0	11	11	Western Dam	Indicated	422.87	356.42	21.29	45.16	330.34	270.51	16.55	43.29	370.90	305.57	18.86	46.48
CCA805	281128.799	7399103.945	694.655	11	-90	0	0	8	8	Western Dam	Indicated	364.91	301.10	18.51	45.31	333.38	273.31	16.78	43.29	349.15	287.21	17.65	44.30
CCA806	280933.8	7399132.878	694.731	11	-90	0	0	8	8	Western Dam	Indicated	364.33	299.40	18.17	46.77	315.99	254.59	16.89	44.50	340.16	277.00	17.53	45.64
CCA807	280729.978	7399138.86	695.171	12	-90	0	0	12	12	Western Dam	Indicated	557.24	474.57	26.50	56.17	390.50	324.99	19.67	45.83	467.62	392.86	23.26	51.50
CCA808	280530.768	7399107.767	695.768	11	-90	0	0	11	11	Western Dam	Indicated	391.84	321.42	20.02	50.40	338.99	276.95	17.24	44.80	355.17	289.30	18.34	47.53
CCA809	280333.279	7399099.189	696.054	10	-90	0	0	8	8	Western Dam	Indicated	369.43	306.32	18.40	44.71	339.99	284.18	13.54	42.28	354.71	295.25	15.97	43.50
CCA810	280137.532	7399071.101	696.256	15	-90	0	0	12	12	Western Dam	Indicated	388.15	316.33	19.67	52.15	325.14	263.83	16.32	44.99	362.15	290.44	17.24	54.47
CCA811	279939.532	7399058.068	696.98	14	-90	0	0	12	12	Western Dam	Indicated	368.09	300.30	19.67	48.11	340.96	270.94	17.01	53.01	340.88	273.97	17.67	49.24
CCA812	279741.553	7399027.215	698.149	17	-90	0	0	16	16	Western Dam	Indicated	366.48	295.62	18.28	52.58	331.12	267.09	16.90	47.14	349.36	276.13	17.56	55.68
CCA813	279540.173	7399049.367	699.18	17	-90	0	0	16	16	Western Dam	Indicated	563.99	478.53	30.66	54.81	308.54	252.86	15.74	39.94	418.51	337.91	21.95	58.65
CCA814	279339.031	7399050.105	699.1	18	-90	0	0	15	15	Western Dam	Indicated	588.30	503.26	29.97	55.07	277.83	217.60	14.00	46.24	353.50	287.76	17.63	48.11
CCA815	279158.751	7398986.556	699.654	13	-90	0	0	12	12	Western Dam	Indicated	382.64	313.73	19.21	49.70	328.64	262.75	16.66	49.23	361.03	292.48	18.40	50.16
CCA816	278972.535	7398989.432	699.483	10	-90	0	0	8	8	Western Dam	Indicated	369.06	302.77	18.17	48.12	322.35	259.64	16.32	46.39	345.71	281.21	17.25	47.26
CCA817	278585.888	7399064.097	700.618	13	-90	0	0	12	12	Western Dam	Inferred	363.06	290.00	18.51	54.55	273.98	214.35	13.77	45.86	322.29	255.91	16.31	50.06
CCA818	278202.446	7399193.663	700.105	11	-90	0	0	11	11	Western Dam	Inferred	323.40	254.48	17.12	51.79	258.66	199.70	13.31	45.65	297.41	234.77	15.23	47.40
CCA819	277815.017	7399209.047	702.347	14	-90	0	0	12	12	Western Dam	Inferred	328.25	258.84	16.55	52.87	267.34	209.89	13.54	43.91	301.46	236.22	15.20	50.05
CCA820	282243.006	7399133.524	692.997	10	-90	0	0	8	8	Western Dam	Indicated	281.55	225.04	15.16	41.35	268.44	205.52	14.81	48.10	275.00	215.28	14.99	44.73
CCA821	282191.647	7399525.636	690.589	11	-90	0	0	11	11	Western Dam	Indicated	415.43	330.86	22.10	62.47	264.87	203.60	14.35	46.92	322.47	254.54	17.22	50.71
CCA822	282009.082	7400102.791	687.345	10	-90	0	0	8	8	Western Dam	Indicated	316.12	253.20	15.73	47.18	277.76	216.63	15.85	45.28	296.94	234.92	15.79	46.23
CCA823	282181.532	7400465.194	685.567	11	-90	0	0	11	11	Western Dam	Indicated	366.98	295.53	19.55	51.90	285.95	222.34	15.39	48.22	318.46	252.53	16.78	49.16
CCA824	282289.303	7400839.374	683.824	10	-90	0	0	8	8	Western Dam	Indicated	344.12	279.53	17.47	47.12	317.92	249.30	16.89	51.72	331.02	264.42	17.18	49.42
CCA825	282278.847	7401231.692	681.963	11	-90	0	0	11	11	Western Dam	Indicated	322.57	259.09	17.01	46.47	258.18	200.63	14.58	42.97	298.08	234.70	16.28	47.10

Hole ID	Easting	Northing	RL	Hole Depth (m)	Dip (°)	Azimuth (°)	From Depth (m)	To Depth (m)	Down Hole Width (m)	Resource Area	Resource Class	TREOig High Value ppm	THV LREO ppm	THV MREO ppm	THV HREO ppm	TREOig Low ppm	TLV LREO ppm	TLV MREO ppm	TLV HREO ppm	TREOig Average Value ppm	TAV LREO ppm	TAV MREO ppm	TAV HREO ppm
CCA826	282207.507	7401610.075	680.496	11	-90	0	0	11	11	Western Dam	Indicated	360.50	295.76	19.21	45.52	252.90	184.55	13.42	54.93	299.70	234.35	15.90	49.44
CCA827	282142.072	7401998.871	679.21	11	-90	0	0	11	11	Western Dam	Indicated	473.99	390.83	25.34	57.83	277.46	225.90	13.19	38.36	377.96	310.06	19.82	48.08
CCA828	282047.761	7402759.239	676.75	18	-90	0	0	4	4	Western Dam	Inferred									261.40	208.80	14.58	38.02
CCA829	289222.321	7401410.549	674.632	42	-90	0				Western Dam													
CCA830	288448.431	7401188.935	676.698	23	-90	0	0	20	20	Western Dam	Inferred	346.98	273.70	17.70	55.58	78.12	49.68	5.44	23.00	237.09	181.47	12.89	42.73
CCA831	288080.159	7401027.624	677.202	17	-90	0	0	12	12	Western Dam	Indicated	326.93	271.65	17.36	37.92	254.25	192.66	14.12	47.47	284.32	218.54	15.31	50.47
CCA832	287703.628	7400889.464	677.809	13	-90	0	0	8	8	Western Dam	Indicated	257.81	189.31	13.07	55.42	230.07	179.88	12.50	37.70	243.94	184.60	12.79	46.56
CCA833	287317.874	7400792.859	678.905	9	-90	0	0	8	8	Western Dam	Indicated	278.03	218.97	14.81	44.26	249.16	190.78	13.42	44.95	263.60	204.88	14.12	44.61
CCA834	286921.83	7400803.75	679.215	5	-90	0	0	4	4	Western Dam	Indicated									250.59	190.55	12.50	47.55
CCA835	286519.14	7400796.344	679.395	7	-90	0	0	7	7	Western Dam	Indicated	286.08	225.06	15.16	45.86	217.83	167.58	11.46	38.79	256.83	200.43	13.57	42.83
CCA836	286147.544	7400929.722	679.303	10	-90	0	0	8	8	Western Dam	Indicated	326.74	250.72	16.78	59.24	274.09	213.61	15.62	44.86	300.42	232.17	16.20	52.05
CCA837	286043.823	7400586.532	680.98	11	-90	0	0	8	8	Western Dam	Indicated	377.50	234.22	20.93	122.34	248.66	194.22	13.65	40.79	313.08	214.22	17.29	81.57
CCA838	285987.589	7400190.1	681.976	15	-90	0	0	15	15	Western Dam	Indicated	358.22	272.26	18.97	66.99	286.81	223.16	15.97	47.68	319.37	248.06	17.08	54.23
CCA839	285723.923	7399889.253	683.346	18	-90	0	0	16	16	Western Dam	Indicated	381.66	309.69	20.02	51.95	236.44	184.86	12.96	38.63	307.17	243.14	16.34	47.69
CCA840	285463.091	7399588.076	685.643	19	-90	0	0	8	8	Western Dam	Indicated	329.83	266.70	18.51	44.62	268.86	213.62	14.81	40.43	299.35	240.16	16.66	42.53
CCA841	285235.783	7399253.245	686.466	11	-90	0	0	8	8	Western Dam	Indicated	422.54	331.91	21.17	69.45	313.10	246.55	17.82	48.73	367.82	289.23	19.50	59.09
CCA842	285102.338	7398881.357	688.306	13	-90	0	0	8	8	Western Dam	Indicated	373.19	297.64	19.21	56.34	212.13	165.47	12.15	34.52	292.66	231.56	15.68	45.43
CCA843	285151.691	7398484.164	689.463	8	-90	0	0	4	4	Western Dam	Indicated									303.86	235.00	16.54	52.32
CCA844	285799.463	7401120.596	679.144	13	-90	0	0	12	12	Western Dam	Indicated	314.44	244.08	17.82	52.54	238.18	184.09	13.19	40.89	271.46	211.61	15.20	44.65
CCA845	285462.522	7401336.651	678.692	11	-90	0	0	11	11	Western Dam	Indicated	319.33	254.05	15.85	49.43	254.72	188.13	13.77	52.82	275.73	213.33	14.50	47.89

END DRILL HOLE AND INTERSECTIONS DATA FOR APPENDIX 1

ABN 40 009 627 605

eupene exploration enterprises

CONSULTING GEOLOGISTS & MINERAL INDUSTRY CONSULTANTS

Established in Darwin in 1980

Competent Person's Consent Form

Pursuant to the requirements of ASX Listing Rules 5.6, 5.22 and 5.24 and Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

Report name

"CHARLEY CREEK RARE EARTH PROJECT SCOPING STUDY RESULTS"

(*Insert name or heading of Report to be publicly released*) ('Report')

CROSSLAND URANIUM MINES LTD

(*Insert name of company releasing the Report)*

CHARLEY CREEK ALLUVIAL RARE EARTH DEPOSIT

(Insert name of the deposit to which the Report refers)

If there is insufficient space, complete the following sheet and sign it in the same manner as this original sheet.

15TH APRIL 2013

(Date of Report)

Statement

I/We,

Geoffrey Samuel Eupene

(*Insert full name(s)*)

confirm that I am a Competent Person for the Report and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code, 2012 Edition, having five years experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I am a Member or Fellow of *The Australasian Institute of Mining and Metallurgy*
- I have reviewed the Report to which this Consent Statement applies.

I am a full time employee of

Eupene Exploration Enterprises Pty Ltd

(Insert company name)

and have been engaged by

Crossland Uranium Mines Ltd

(Insert company name)

to prepare the documentation for

Charley Creek Alluvial Rare Earth Deposit

(Insert deposit name)

on which the Report is based, for the period ended

15th April, 2013

(Insert date of Resource/Reserve statement)

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to Exploration Targets, Exploration Results, Mineral Resources and Resource Modifying Factors.

Consent

I consent to the release of the Report and this Consent Statement by the directors of:

Crossland Uranium Mines Ltd.

(Insert reporting company name)

	11th April 2013
Signature of Competent Person:	Date:
Australasian Institute of Mining and Metallurgy	104773
Professional Membership: *(insert organisation name)*	Membership Number:
Signature of Witness:	Print Witness Name and Residence: (eg town/suburb)

PAUL M. MELVILLE
13/302 CASUARINA DRIVE
RAPID CREEK N.T.

Additional deposits covered by the Report for which the Competent Person signing this form is accepting responsibility:

NIL

Additional Reports related to the deposit for which the Competent Person signing this form is accepting responsibility:
Those sections of MSP Engineering Pty Ltd Document:

"CHARLEY CREEK RARE EARTH PROJECT SCOPING STUDY DOCUMENT NO. 2315-J-RP-002"
That relate to Mineral Resources.

Signature of Competent Person:	Date: 11th April 2013
Professional Membership: *(insert organisation name)* Australasian Institute of Mining and Metallurgy	Membership Number: 104773
Signature of Witness:	Print Witness Name and Residence: (eg town/suburb) Paul M Melville, 13/302 Casuarina Drive. Rapid Creek NT.

MSP ENGINEERING PTY LTD
Resource Development Consultants

Competent Person's Consent Form

Pursuant to the requirements of ASX Listing Rules 5.6, 5.22 and 5.24 and Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

Report name

"CHARLEY CREEK RARE EARTH PROJECT SCOPING STUDY RESULTS"

(Insert name or heading of Report to be publicly released) ('Report')

CROSSLAND URANIUM MINES LTD

(Insert name of company releasing the Report)

CHARLEY CREEK ALLUVIAL RARE EARTH DEPOSIT

(Insert name of the deposit to which the Report refers)

If there is insufficient space, complete the following sheet and sign it in the same manner as this original sheet.

15TH APRIL 2013

(Date of Report)

Level 3, Suite 3.01, 110 Erindale Road, BALCATTA, WA, 6021
PO Box 1009, BALCATTA WA 6914
Telephone: +61 8 6241 4900 Facsimile: +61 8 6241 4988
E-mail: admin@mspengineering.com.au Website: www.mspengineering.com.au
ABN: 64 009 449 950

Statement

I/We,

Noel Mark O'Brien

(Insert full name(s))

confirm that I am the Competent Person for the Report and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code, 2012 Edition, having five years experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I am a Member or Fellow of *The Australasian Institute of Mining and Metallurgy* or the *Australian Institute of Geoscientists* or a 'Recognised Professional Organisation' (RPO) included in a list promulgated by ASX from time to time.
- I have reviewed the Report to which this Consent Statement applies.

I am a full time employee of

(Insert company name)

Or

I/We am a consultant working for

MSP Engineering Pty ltd

(Insert company name)

and have been engaged by

MSP Engineering Pty Ltd

(Insert company name)

to prepare the documentation for

Crossland Uranium Mines Ltd, Charley Creek Rare Earths Deposit

(Insert deposit name)

on which the Report is based, for the period ended

15 April,2013

(Insert date of Resource/Reserve statement)

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Scoping Study Report prepared by MSP Engineering is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to metallurgy and process plant design which gives rise to modifying factors on Exploration Targets, Exploration Results and Mineral Resources .

Consent

I consent to the release of the Report and this Consent Statement by the directors of:

Crossland Uranium Mines Ltd

(Insert reporting company name)

Signature of Competent Person:

11 April 2013

Date:

Australasian Institute of Mining and Metallurgy

Professional Membership:
(insert organisation name)

226758

Membership Number:

Signature of Witness:

IAIN MCBRIDE; BOORAGOON, W. AUST.

Print Witness Name and Residence:
(eg town/suburb)

Additional deposits covered by the Report for which the Competent Person signing this form is accepting responsibility:

NIL

Additional Reports related to the deposit for which the Competent Person signing this form is accepting responsibility:

Charley Creek Rare Earths Project Scoping Study

Dry Plant/ Wet Plant/Refinery

2315-J-RP-002

April 2013

Compiled by MSP Engineering Pty Ltd

Signature of Competent Person:	Date: 11 April 2013
Australasian Institute of Mining and Metallurgy	226758
Professional Membership: *(insert organisation name)*	Membership Number:
Signature of Witness:	Print Witness Name and Residence: (eg town/suburb) IAIN MCBRIDE; BOORAGOON, W. AUST