



FOR IMMEDIATE RELEASE

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## **LARAMIDE RESOURCES ANNOUNCES 51 MILLION POUNDS MINERAL RESOURCE ESTIMATE ON THE CHURCH ROCK URANIUM PROJECT**

Toronto, Canada – Laramide Resources Ltd. (“**Laramide**” or the “**Company**”) is pleased to announce the results of its maiden independent Mineral Resource Estimate (the “Resource Estimate”) for the Company’s 100% owned Church Rock Uranium Project (the “Project” or “Church Rock”), located in New Mexico, United States. The Resource Estimate was prepared to CIM Definition Standards (2014) as incorporated in NI 43-101 and completed by Roscoe Postle Associates Inc. (“RPA”) in Denver, USA with the assistance of Laramide’s technical team. The Resource Estimate also satisfies the requirements of the JORC (2012) Code for Australian Securities Exchange compliance. The Technical Report pertaining to the Resource Estimate will be filed on Sedar ([www.sedar.com](http://www.sedar.com)) within 45 days.

The current Resource Estimate supersedes various “historical estimates” for purposes of NI 43-101 reporting (see press release dated March 29, 2017) and considers planned In Situ Recovery (“ISR”) of uranium consolidating the significant work completed by previous operators on the Project.

Highlights include:

- An Inferred Resource Estimate of **33.9 million tons** at an average grade of **0.075% eU<sub>3</sub>O<sub>8</sub>** for a contained resource of **50.8 million pounds** using a 0.5 ft-% Grade Thickness (GT) cutoff.
- Data from previous operators was consolidated and digitized resulting in a database of 1,667 drill holes totaling approximately 1,841,545 feet of drilling.
- The report highlighted areas for immediate follow up exploration to both improve confidence in the Resource Estimate and potentially discover additional mineral resources.

A Preliminary Economic Assessment (“PEA”) is planned to be commenced in Q4-2017 including:

- Core drilling with ISR process and restoration testing of mineralized materials.
- Exploration drilling in areas of potential mineralization.

Marc Henderson, Laramide Resources’ President and Chief Executive Officer, commented, “The Church Rock Project is a compilation of significant historical work completed by tier one mining and energy companies. This is the first time since discovery that the Project has been combined under one banner without significant royalty burden and this impressive initial resource at Church Rock clearly demonstrates the District scale potential of the asset. Combined with the NRC licence and other permitting work already completed by previous operators, Laramide is well positioned to benefit from a likely renewal of US domestic uranium production when market conditions warrant.”

The Resource Estimate did not include the Company’s 100% owned Crownpoint project, located 25 miles east of Church Rock. The Laramide team plans to begin the process of digitizing the significant data for Crownpoint in the coming months which will allow for a resource estimate on the Crownpoint property planned for Q1-2018 (The Crownpoint property has a historical resource estimate; see press release dated March 29, 2017 and the company’s website at [www.laramide.com](http://www.laramide.com)).

### **Mineral Resource Estimate**

The Church Rock Resource Estimate was completed utilizing the Grade x Thickness (GT) Contour Method, an industry standard for estimating uranium roll-front type deposits hosted within

groundwater-saturated sandstones. The mineralization at Church Rock has been previously shown to be amenable to In-situ Recovery (ISR) techniques.

The following table summarizes the Mineral Resource Estimate. Due to the historical nature of the data the resource estimate is classified as Inferred, until additional new confirmation data can be obtained:

**Table -1 Mineral Resource Estimate – September 30, 2017**  
**Laramide Resources Ltd. – Church Rock Deposit**

Classification	Sand Unit	Tonnage (Tons)	Grade (% eU <sub>3</sub> O <sub>8</sub> )	Contained Metal (U <sub>3</sub> O <sub>8</sub> lbs)
Inferred	Dakota Sandstone	632,000	0.115	1,452,000
	Morrison Formation - Brushy Basin	64,000	0.147	189,000
	Morrison Formation - Westwater Canyon (A Sand)	1,714,000	0.075	2,556,000
	Morrison Formation - Westwater Canyon (B Sand)	7,890,000	0.077	12,145,000
	Morrison Formation - Westwater Canyon (C Sand)	4,498,000	0.092	8,290,000
	Morrison Formation - Westwater Canyon (D Sand)	6,588,000	0.067	8,894,000
	Morrison Formation - Westwater Canyon (E Sand)	6,110,000	0.068	8,310,000
	Morrison Formation - Westwater Canyon (F Sand)	5,557,000	0.068	7,583,000
	Morrison Formation - Westwater Canyon (G Sand)	595,000	0.084	1,005,000
	Morrison Formation - Westwater Canyon (H Sand)	231,000	0.086	396,000
<b>Inferred Total</b>		<b>33,879,000</b>	<b>0.075</b>	<b>50,820,000</b>

**Notes**

- 1. CIM (2014) definitions were followed for Mineral Resources.
- 2. Mineral Resources are reported at a grade x thickness (GT) cut-off of 0.5 ft-%.
- 3. A minimum thickness of 2.0 feet was used.
- 4. A minimum cut-off grade of 0.02% eU<sub>3</sub>O<sub>8</sub> (based on historic mining costs and parameters from the district) was used to define the mineralization envelope.
- 5. Internal maximum dilution of 5.0 feet was used.
- 6. Grade values have not been adjusted for disequilibrium (equilibrium factor = 1.0).
- 7. Tonnage factor of 15 ft<sup>3</sup>/ton (based on historical density used by the mining operators) was applied.
- 8. Totals may not add due to rounding.

**Next Steps**

With the completion of the Resource Estimate, the Project will be advanced to a PEA. This will be the first economic study on the consolidated Project, and would include the elimination of certain royalties owned by Laramide (including the sliding scale 5%- 25% gross revenue royalty) on portions of the Project. The PEA will also have the benefit of the Feasibility Study on Section 8 of the Project completed by a previous operator.

To complete New Mexico Environmental Department Groundwater Discharge Plan requirements, the Company must demonstrate in a laboratory environment the ability, post leaching, to restore groundwater in the mining aquifer to an acceptable level. In order to complete this leach study fresh core is required from the Project. The Company plans to complete this core drilling and begin the leach-restoration testing in early 2018.

Exploration is also planned for areas noted in the Technical Report where wide-spaced drilling previously defined potential mineralization. This drilling, in conjunction with the core studies, may allow areas of the present Inferred Mineral Resource to be elevated to Measured and Indicated Resources, as well as lead to the potential discovery of additional mineral resources.

## **JORC Code, 2012 - Table 1 – Church Rock Project**

The tables below are a description of the assessment and reporting criteria used in the Church Rock Project mineral estimation that reflects those presented in Table 1 of *The Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves* (The JORC Code, 2012).

### **Information that is material to the understanding of the Resource estimate as required under ASX Listing Rule 5.8.1**

#### **Geology**

Uranium mineralization at the Church Rock Project is hosted within sandstone units of the Cretaceous Dakota Sandstone and Jurassic Morrison Formation (Westwater Canyon and Brushy Basin members) of western New Mexico. Tabular and redistributed (Wyoming-type roll fronts) uranium mineralization was distributed across a regional interface of oxidized and reduced environments, forming irregular and sinuous shaped deposits that extend across the Project area. Depth to mineralization varies from 365-1,850 feet, depending on which sedimentary horizon is mineralized, topography and the gentle northerly dip (1-3°) of the strata.

#### **Drilling Techniques**

Exploration drilling comprised of mud-rotary type water well rigs with bits 4-6 inches wide. Cored holes were completed with the same mud-rotary rigs. Holes were drilled vertically and upon completion each hole was logged with a geophysical tool for gamma-ray, spontaneous potential (SP) and resistivity. At least 1,694 historical drill holes (~1,860,100 feet drilled) were completed on the Project (1,667 historical drill holes available for use in the Resource estimation). See Figures 1-4 below for Project area drill hole location maps and a cross-section of the Section 17 drilling.

#### **Sampling Techniques**

Data used for the Mineral Resource estimation were obtained using industry standard geophysical tools. Downhole radiometric (natural gamma) data for 1,667 historic drill holes (1,841,545 feet drilled) was utilized for the estimation. The gamma radiation is detected by a sodium iodide crystal, which when struck by a gamma ray emits a pulse of light. This pulse of light is amplified by a photomultiplier tube, which outputs a current pulse which is known as “counts per second” or “cps”.

Downhole cps data is subjected to a complex set of mathematical equations, taking into account the specific parameters of the probe used, speed of logging, diameter of drill hole, drilling fluids and presence or absence of any type of drill hole casing, referred to as “calibration factors”. The result is an indirect measurement of uranium content within the sphere of measurement of the gamma detector referred to as “% eU<sub>3</sub>O<sub>8</sub>” for “percent equivalent U<sub>3</sub>O<sub>8</sub>”. Equivalent uranium grades were calculated from either digitization of the gamma logs or hand-calculated from raw cps data from historic drill/logging records.

In addition to the gamma curves, the geophysical logs displayed SP and resistivity curves which assist with determination and correlation of the sedimentary horizons. Physical samples were retrieved at 5-ft intervals and were used for lithologic determinations and comparison to the SP and resistivity curves from the geophysical logs. Additionally, cored samples were retrieved for metallurgical studies (mill leach amenability, in-situ recovery {ISR} processes, post ISR groundwater restoration) and assayed for disequilibrium determinations.

Although the Church Rock deposits are slightly enriched (chemical vs radiometric), equilibrium was assumed (factor of 1.0) and utilized for the Resource estimation.

#### **Criteria used for Resource Classification**

The Mineral Resources have been classified on the basis of confidence in geological and grade continuity using the drilling density, geological model and modeled grade continuity. The Resource is classified as Inferred based on the nature of the historic data and drill density along strike of the modeled deposits. The method of Resource estimation utilized the Grade times Thickness (GT) Contour Method, an industry standard for estimating uranium content in sandstone-hosted deposits that formed along a chemical front (redox) where a reduced environment overcame the oxidizing potential of the groundwater system.

#### **Resource Estimation Database**

All of the drilling was conducted by past owners of the Church Rock properties prior to their acquisition by Laramide Resources. Laramide Resources has logs from all of the historical drilling, as well as the results of geologic radiometric analyses. Laramide Resources compiled the probe radiometric assays at 0.5 and 1.0 ft intervals as the basis of the resource estimate.

The basis for resource estimation on the Church Rock property is the gamma logs from 1,667 rotary drill holes totaling 1,841,545 feet drilled from 1957 to 1991 located on the properties comprising the Church Rock deposit. The database includes drill hole collar locations (including dip and azimuth), gamma assay, and lithology data. This information was made available to and accepted by RPA. None of the original core or drill samples were available to RPA.

### **Geological Interpretation**

The primary uranium mineralization is considered to be of the sandstone hosted fluvial channel type commonly found in the Colorado Plateau. Uranium mineralization at the Church Rock Project is hosted within sandstone units of the Cretaceous Dakota Sandstone (Kd) and Jurassic Morrison Formation (Brushy Basin (Jmb) and Westwater Canyon (Jmw) Member A-H sand) of western New Mexico. Tabular and redistributed (Wyoming-type roll fronts) uranium mineralization was distributed across a regional interface of oxidized and reduced environments, forming irregular and sinuous shaped deposits that extend across the Project area. Depth to mineralization varies from 365-1,850 feet, depending on which sedimentary horizon is mineralized, topography and the gentle northerly dip (1 to-3 degrees) of the strata.

RPA carried out a detailed correlation of the 1,667 drill holes available for the Church Rock deposit using Leapfrog software. Correlation of the lithology logs was accomplished using commonly accepted subsurface exploration methods with a primary emphasis on identifying sands and interbedded shales and assigning them “formation” marker designations, as designated by Laramide Resource geologists. RPA recognized uranium mineralization at Church Rock occurs within and proximal to 10 individual uranium bearing sand packages (1-Kd, 1-Jmb, and 8-Jmw (A-H)) across the property that show varying degrees of interbedded clay beds, and hematite alteration. There is evidence that the mineralization consisting predominantly of coffinite within the individual sand units occur as a series of stacked (1-3+) roll-fronts, with the Kd, Jmw B and Jmw C sands hosting higher grade, thicker and more continuous mineralization than the others as defined by the drilling.

### **Capping High-Grade Values**

Where the assay distribution is skewed positively or approaches log-normal, erratic high-grade assay values can have a disproportionate effect on the average grade of a deposit. One method of treating these outliers in order to reduce their influence on the average grade is to cut or cap them at a specific grade level. In the absence of production data to calibrate the capping level, inspection of the assay distribution can be used to estimate a “first pass” cutting level.

RPA uses a number of industry best practice methods to assess the influence of high grade uranium assays, and to determine if they will have undue influence on the resultant estimation. All mineralization intercepts located inside the mineralized sand units were used together to assess the risk, and determine whether a cap of high grade values was needed to limit their influence within each mineralized zone. Mineralization intercept data were analysed using a combination of histogram, probability, percentile, and cutting curve plots. RPA is of the opinion that high grade capping is not required at this time; however, capping should be reviewed once additional data have been collected.

### **Compositing**

Composites were created from the uncapped, raw assay values using the downhole intra-select compositing function of the Vulcan modelling software package. The composite lengths used during interpolation were chosen considering the predominant sampling length, the minimum mining width, style of mineralization, and continuity of grade. Given this distribution, deposit type and considering the width of the mineralization, RPA chose to composite using the following parameters:

- Minimum cut-off grade: 200 ppm (0.02% eU<sub>3</sub>O<sub>8</sub>)
- Minimum thickness: 2.0 feet
- Maximum interval waste thickness: 5.0 feet (*This is the material between two mineralized layers which can be included (absorbed) in one composite, as long as the composite grade is above the cut-off grade*).
- Minimum GT value: 0.04 ft-%

Assays within the individual sand domains were composited starting at the first mineralized sand boundary from the top of the sand unit and resetting at each new sand boundary. RPA for this estimate

did not discriminate between shale and sand units in this process. Future resource estimates will have to discriminate between those units which are not amenable to ISR extraction.

### **Density**

Historic bulk density records were reviewed for cored samples across the Church Rock Project; the densities varied from 14-17 ft<sup>3</sup>/ton. Laramide Resources assumed a tonnage factor of 15 ft<sup>3</sup>/ton which is the typical tonnage factor used by most prior operators including United Nuclear and Kerr-McGee in the Church Rock sub-district, and Kerr-McGee, Homestake Mining, and others in the Ambrosia Lake sub district and the Mt. Taylor deposit, for mineralized intervals in the Westwater Canyon Member sandstone units. This tonnage factor was derived by the US AEC and the major operators from years of actual mining and milling based on over 300 million pounds of U<sub>3</sub>O<sub>8</sub> that was produced in the Ambrosia Lake district.

### **Disequilibrium Analysis**

Uranium grade is determined radiometrically by measuring the radioactivity levels of certain daughter products formed during radioactive decay of uranium atoms. Most of the gamma radiation emitted by nuclides in the uranium decay series is not from uranium, but from daughter products in the series.

Where daughter products are in equilibrium with the parent uranium atoms, the gamma-ray logging method will provide an accurate measure of the amount of parent uranium that is present. A state of disequilibrium may exist where uranium has been remobilized and daughter products remain after the uranium has been depleted, or where uranium occurs and no daughter products are present. Where disequilibrium exists, the amount of parent uranium present can be either underestimated or overestimated. It is important to obtain representative samples of the uranium mineralization to confirm the radiometric estimate by chemical methods.

Core is sampled over mineralized intervals as determined by a hand-held Geiger counter or scintillometer to define mineralized boundaries. Core intervals are split and sampled. Each sample is crushed and pulverized, and then two, separate assays are made of the same pulps; a scaler-radiometric or closed can radiometric log and a chemical assay. The disequilibrium factor is the ratio of the actual amount of uranium (measured by chemical assay) to the calculated amount (based on the gamma-ray activity of daughters). If the quantities are equal, there is no disequilibrium. If the ratio is less than one, some uranium has been lost and the calculated values are overestimating the quantity of uranium.

The degree of disequilibrium will vary with the mineralogy of the radioactive elements and their surroundings (which may create a reducing or oxidizing environment), climate, topography, and surface hydrology. The sample volume will also affect the determination of disequilibrium, as a small core sample is more likely to show extreme disequilibrium than a larger bulk sample. In some cases, the parents and daughters may have moved apart over the length of a sample, but not over a larger scale, such as the mineralized interval.

A limited number of disequilibrium analysis reports provided by Laramide Resources show that it is realistic to assume that the deposit is in equilibrium or slightly in favor of chemical grade (enriched), however the data does not necessarily represent characteristics of the entire ore body. Therefore, no adjustment for disequilibrium in the deposit was made for this resource estimate (equilibrium factor = 1.0). Although there is a low risk of depletion of chemical uranium compared to radiometrically determined uranium in the Church Rock mineralization, RPA is of the opinion that additional sampling and analyses should be completed to supplement results of the limited disequilibrium testing done in the past and support future resource updates and mine planning conducted in the Church Rock area.

### **Resource Estimation Methodology**

Mineral resources of the Church Rock Deposit have been estimated using the grade x thickness (GT) contour method (Agnerian and Roscoe, 2001) by RPA. The GT methodology of resource estimation is a technique best applied to estimate tonnage and average grade of relatively planar bodies, i.e. where the two dimensions of the mineralized body are much greater than the third dimension. For each of the 10 individual sand + shale zones, drill hole intercept composite values of grade, thickness and GT were plotted in plan view and contoured. See Figures 2-3 below.

Geometric (logarithmic) contour intervals of 0.03, 0.1, 0.3, 0.5, 1, and 3 were used for the GT values because of the positively skewed statistical distribution of the grade. Thickness was contoured in a linear progression at 5, 10, 20, 30, 40, 50, 60, and 70-foot intervals. Weighted average grade (GT/Thickness) was contoured using the minimum cut-off grade value of 0.02% eU<sub>3</sub>O<sub>8</sub> and was established as the lateral extent for uranium mineralization to be considered as resource. Contouring was done by hand and with Surfer software. The contours were inspected and where necessary

manually adjusted by RPA personnel to match geological and mineralized trends. The areas between each GT and thickness contour intervals within the boundaries of the grade contour (0.02% eU<sub>3</sub>O<sub>8</sub>) were measured using ArcGIS software in order to calculate tons, pounds and grade. Tons equal the total area of the geometric mean between thickness contours multiplied by the bulk density of 15 ft<sup>3</sup>/ton. Pounds U<sub>3</sub>O<sub>8</sub> equal the total area of geometric mean between GT contours multiplied by the bulk density of 15 ft<sup>3</sup>/ton. Grade is then calculated by dividing total pounds by tons. For the lowest and highest thickness contour intervals and highest GT interval, the geometric means were replaced with the actual average of the drilling composites on section basis.

#### **Allowance for Past Production and Wide Spaced Drilling**

Mineralized lenses defined by isolated or widely spaced drill holes, or located within the area previously subject to past production were not included in the final resource estimate. In order to deduct the past production areas from the mineral resources, RPA constructed polygonal areas around historic mine working maps from the Jmb, Jmw A, Jmw B and Jmw C sands in Section 17 and subtracted the calculated tons and pounds within these polygonal areas from the final resource estimate.

#### **Mining and Metallurgical methods and parameters**

The mineral resource has been identified as being amenable to In Situ Recovery (ISR) as the mining method.

#### **Competent Person**

The Mineral Resource estimate for Church Rock was prepared in accordance with standards as defined by the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") "CIM Definition Standards-For Mineral Resources and Mineral Reserves", adopted by CIM Council on May 10, 2014. The Mineral Resource estimate for Church Rock was prepared by Mark Mathisen, C.P.G., a Principal Geologist at Roscoe Postle Associates Inc. Mr. Mathisen is the Competent Person for the related Mineral Resource and is a Member of the American Institute of Professional Geologists, a 'Recognized Professional Organization' (RPO) included in a list that is posted on the ASX website from time to time. Mr. Mathisen has sufficient experience which is relevant to the style of mineralization and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Mathisen is independent of the Company at the time of the mineral resource estimate. He is a Qualified Person as defined by Canadian National Instrument 43-101 and has reviewed and approved the technical disclosure of the Mineral Resources contained in this news release.

The information has been reviewed and approved by Bryn Jones, MMinEng, FAusIMM, a Qualified Person under the definition established by National Instrument 43 101 and JORC. Mr. Jones is the Chief Operating Officer of the Company and a Fellow of the Australasian Institute of Mining and Metallurgy.

To learn more about Laramide, please visit the Company's website at [www.laramide.com](http://www.laramide.com).

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#### **About Laramide Resources**

Laramide Resources Ltd., headquartered in Toronto and listed on the TSX: LAM and ASX: LAM, is engaged in the exploration and development of high-quality uranium assets. Laramide's portfolio of advanced uranium projects have been chosen for their production potential. Major U.S. assets include the Church Rock and Crownpoint In Situ Recovery (ISR) projects and La Jara Mesa in Grants, New Mexico, as well as La Sal in the Lisbon Valley district of Utah. The recently acquired Church Rock and Crownpoint properties, with near-term development potential and significant mineral resources, form a leading ISR division operating in a tier one jurisdiction with enhanced overall project economics. The

Company's Australian advanced stage Westmoreland is one of the largest projects currently held by a junior mining company.

**Forward-looking Statements and Cautionary Language**

This News Release contains forward looking statements which are subject to a variety of risks and uncertainties which could cause actual events or results to differ materially from those reflected in the forward looking statements. The Company does not intend to update this information and disclaims any legal liability to the contrary.



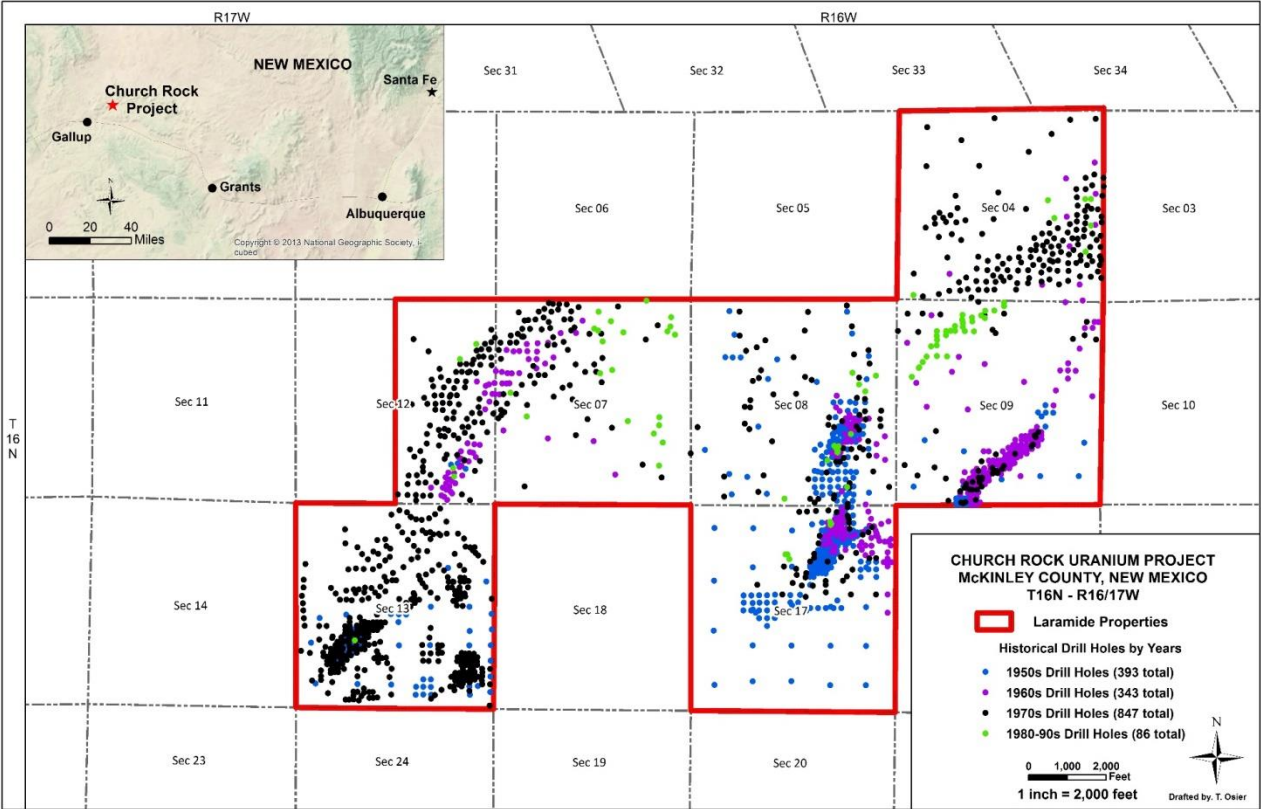


Figure 1: Property Location Map and Distribution of Historical Drill Holes by Years (Laramide, 2017)

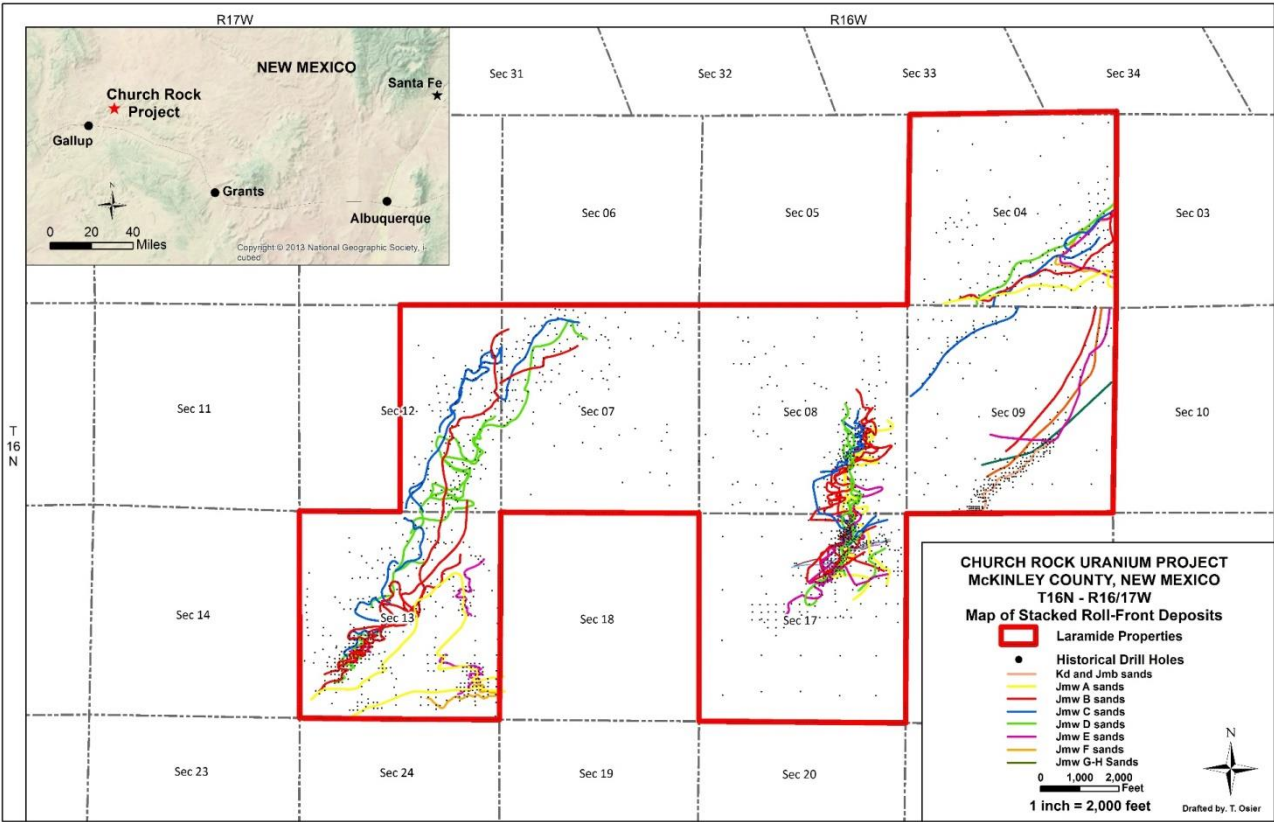


Figure 2: Map of the Stacked Roll-Fronts (Laramide, 2017)



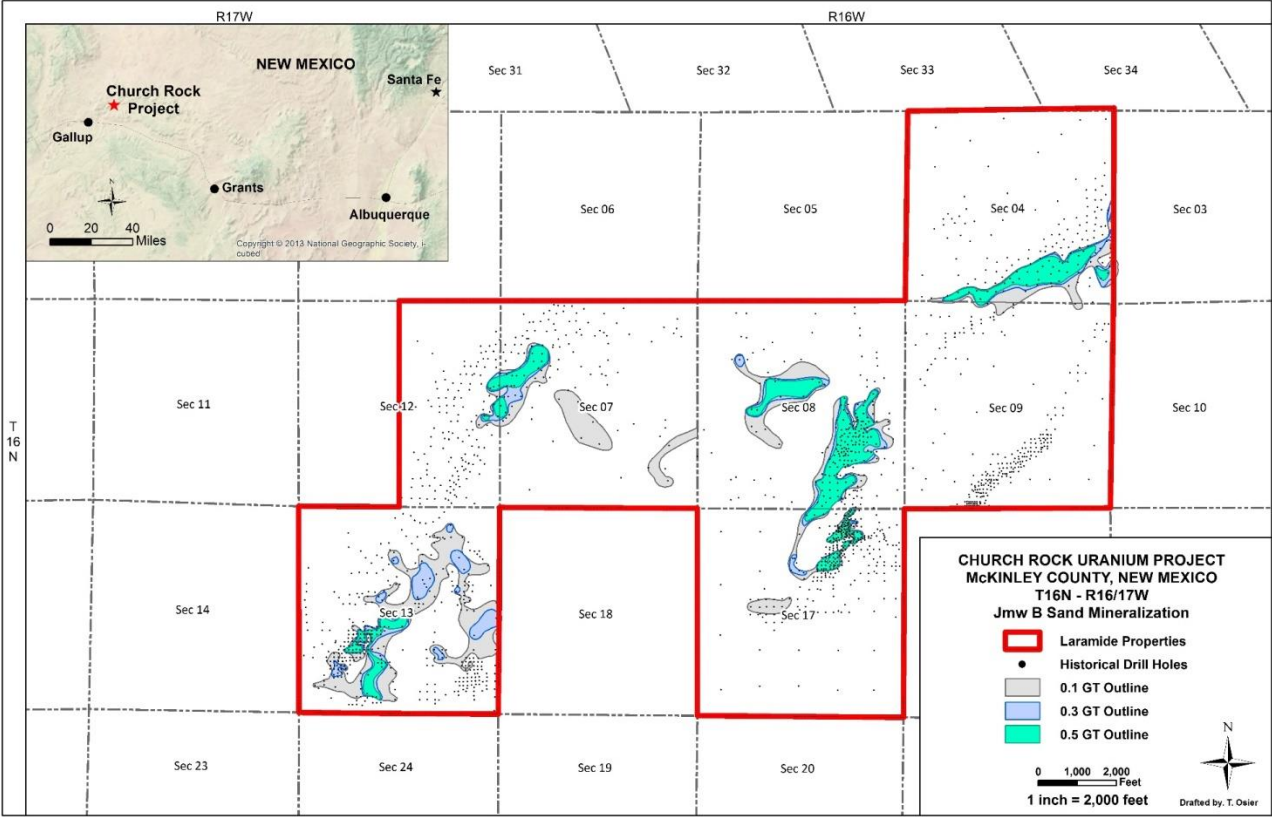


Figure 3: GT Contour Map of the Jmw B Sand Mineralization (Laramide, 2017)

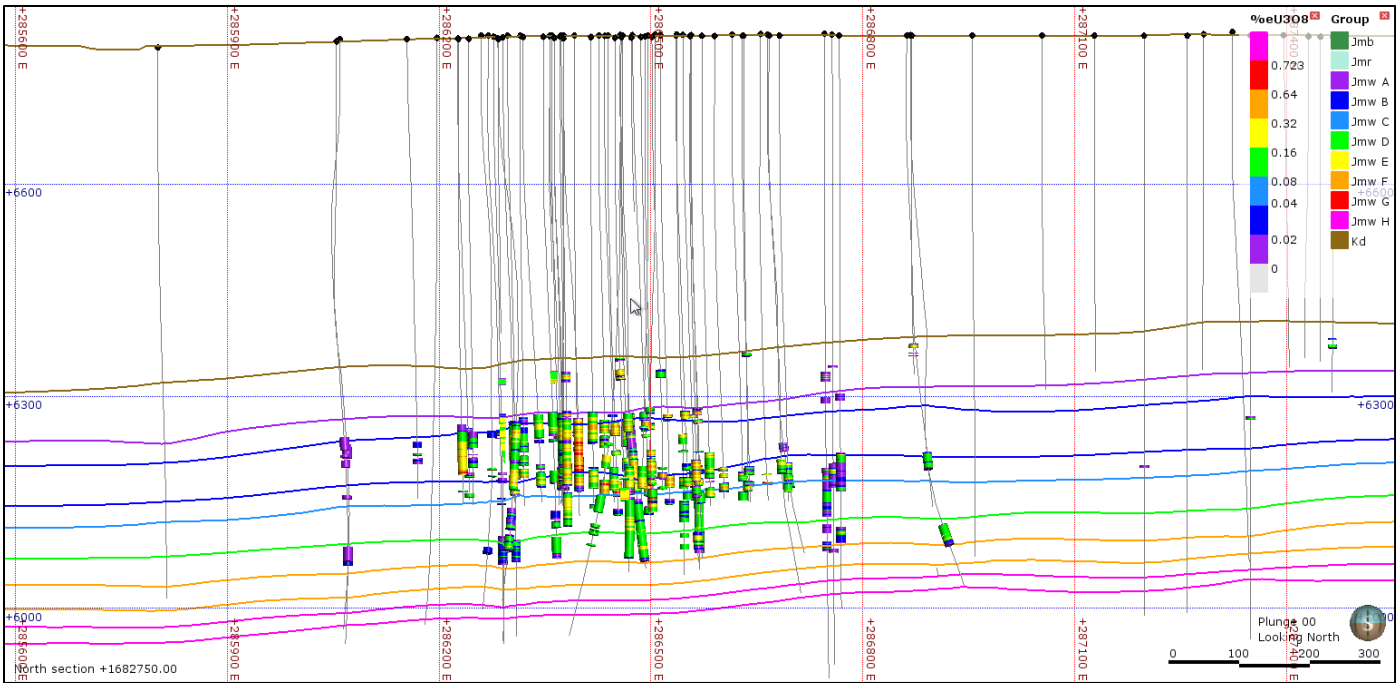


Figure 4: Cross-section of Section 17 (view to the north) with Drill Holes, Stratigraphy and Grade % eU<sub>3</sub>O<sub>8</sub> (Leapfrog View, RPA 2017)

Section 1 – Sampling Techniques and Data

Criteria	JORC Code 2012 explanation	Project Commentary
Sampling Techniques (1.1)	<ul style="list-style-type: none"><li>• <i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialized industry standard measurement tools appropriate to the minerals under investigation, such as down-hole gamma tools, or handheld XRF instruments, etc). These samples should not be taken as limiting the broad meaning of sampling.</i></li><li>• <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li><li>• <i>Aspects of the determination of mineralization that are Material to the Public Report. In cases where ‘industry standard’ work has been done this would be relatively simple (e.g. ‘reverse circulation drilling was used to obtain 1-m samples from which 3-kg was pulverized to produce a 30-g chard 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 mineralization types (e.g. submarine nodules) may warrant disclosure of detailed information.</i></li></ul>	<ul style="list-style-type: none"><li>• The Mineral Resources were estimated using equivalent uranium (eU<sub>3</sub>O<sub>8</sub>) data obtained from down-hole gamma logs. No physical samples were used in the Resource estimation.</li><li>• All geophysical tools were maintained by specialized logging companies in the USA including Century Geophysical Corp., Dalton Well Logging Services, Geosciences Associates, Log Master Services Inc., Western Wireline Corp., and company owned trucks. Calibration of the tools was regularly undertaken using certified calibration facilities operated by the US Atomic Energy Commission (now US Dept. of Energy) in Grants, New Mexico, and Grand Junction, Colorado (other test pits located in Casper, Wyoming and George West, Texas). Calibration results of appropriate water factors, k-factors and dead times were typically noted on the gamma logs.</li><li>• The geophysical logs included curves representing gamma-ray (counts-per-second, cps), spontaneous potential (SP) and resistivity (the latter two for determination and correlation of stratigraphic horizons).</li><li>• Standard industry procedures were used for geophysical logging of the drill holes and recalculation of the cps from the gamma curves to percent eU<sub>3</sub>O<sub>8</sub>.</li></ul>
Drilling techniques (1.2)	<ul style="list-style-type: none"><li>• <i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i></li></ul>	Drill holes were completed using mud-rotary type water well rigs (including cored holes) with bit sizes typically from 4 to 6 inches. Upon completion of drilling the holes were logged with geophysical tools. Most of the drilling was completed in the 1960s to 1970s, with lesser drilling in the 1950s, 1980s and 1990s. At least 1,694 drill holes were completed on the Project (1,667 drill holes used in the Resource estimate). See Figure 1 for a Project area location map.
Drill sample recovery (1.3)	<ul style="list-style-type: none"><li>• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li><li>• <i>Measures taken to maximize sample recovery and ensure representative nature of the samples.</i></li><li>• <i>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.</i></li></ul>	<ul style="list-style-type: none"><li>• This criterion is not directly applicable because the resources were estimated using equivalent grade values calculated from the down-hole geophysical (gamma) logs.</li><li>• Industry practices and standards were used to accurately calibrate the geophysical instruments</li><li>• Drill cuttings were collected to assist with lithological interpretations and comparison to the SP and resistivity curves generated from the geophysical logs. Cuttings were typically collected at 5-ft intervals and geologically logged on paper forms.</li></ul>
Logging (1.4)	<ul style="list-style-type: none"><li>• <i>Whether core and chip samples have been geologically and geotechnically logged to a level to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i></li><li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel etc) photography.</i></li><li>• <i>The total length and percentage of the</i></li></ul>	<ul style="list-style-type: none"><li>• Core samples were obtained for metallurgical studies (e.g. mill leach parameters, post ISR restoration of the groundwater) and disequilibrium determinations. Core samples were geologically logged on paper forms (none of the historical core samples were available for review for this technical report).</li><li>• In addition to the gamma curves, the geophysical logs displayed SP and resistivity</li></ul>

	<p><i>relevant intersections logged.</i></p>	<p>curves which assist with determination and correlation of the sedimentary horizons.</p> <ul style="list-style-type: none"> <li>• All mineralized intervals were geologically logged and the logging standards were compliant with the industry standards.</li> <li>• The Resource estimation was based on the grade and thickness values deduced from the down-hole geophysical logs; cored samples were not used.</li> </ul>
<p><i>Sub-sampling techniques and sample preparation (1.5)</i></p>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximize representivity of samples.</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable, because grade was deduced from down-hole geophysical logs.</li> <li>• The Resource estimation was based on the grade and thickness values deduced from the down-hole geophysical logs; physical samples were not used.</li> </ul>
<p><i>Quality of assay data and laboratory tests (1.6)</i></p>	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibration factors applied and their derivations, etc.</i></li> <li>• <i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All gamma tools were maintained by specialized logging companies in the USA including Century Geophysical Corp., Dalton Well Logging Services, Geosciences Associates, Log Master Services Inc., Western Wireline Corp., and company owned trucks. Calibration of the tools was regularly undertaken using certified calibration facilities operated by the US Atomic Energy Commission (now US DOE) in Grants, New Mexico, and Grand Junction, Colorado (other test pits in Casper, Wyoming and George West, Texas). Calibration results of appropriate water factors, k-factors and dead times were typically noted on the gamma logs.</li> <li>• The geophysical logs included curves representing gamma-ray (counts-per-second, cps), spontaneous potential (SP) and resistivity (the latter two for determination and correlation of stratigraphic horizons).</li> <li>• Industry standards procedures were used for geophysical logging of the drill holes and recalculation of the gamma cps to percent eU<sub>3</sub>O<sub>8</sub>.</li> </ul>
<p><i>Verification of sampling and assaying (1.7)</i></p>	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All of the drilling data and reported results is historic in nature and has not been verified with twinned holes or holes that have been relogged for grade confirmation.</li> <li>• RPA reviewed historic plans and sections, geological reports, historic drill hole logs, digital drill hole database, historic drill hole summary radiometric logs and survey records, property boundary surveys, and previous resource estimates for the Project. Discussions were also held with Laramide</li> </ul>

		<p>Resource personnel involved in the Project. No significant discrepancies were identified during this phase of the verification process</p> <ul style="list-style-type: none"><li>• RPA reviewed the gamma logs' ½ foot natural gamma radiometric data (probe) and related information from ten drill holes per section to confirm the interpretation and calculation of grade and thickness recorded by Laramide Resources in the resource database. RPA did not identify any significant problems with the interpretations and calculations.</li><li>• RPA did not perform an independent verification of the laboratory chemical assays for the historic drilling</li><li>• No adjustment for disequilibrium in the deposit was made for this resource estimate (equilibrium factor = 1.0).</li><li>• Historic bulk dry density records were reviewed for cored samples across the Church Rock Project; the densities varied from 14-17 ft<sup>3</sup>/ton. A tonnage factor of 15 ft<sup>3</sup>/ton was used based on prior operators in the Church Rock and Ambrosia Lake sub districts and the Mt. Taylor deposit, for mineralized intervals in the Westwater Canyon Member sandstone units. This tonnage factor was derived by the US AEC and the major operators from years of actual mining and milling based on over 300 million pounds of U<sub>3</sub>O<sub>8</sub> that was produced in the Ambrosia Lake sub district.</li></ul>
<i>Location of data points (1.8)</i>	<ul style="list-style-type: none"><li>• <i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in the Mineral Resource estimation.</i></li><li>• <i>Specification of the grid system used.</i></li><li>• <i>Quality and adequacy of topographic control.</i></li></ul>	<ul style="list-style-type: none"><li>• Collars of the drill holes were determined by licensed surveyors hired by the various mining companies active historically on the Project. Collar locations were generated from these data sets including tables and drill hole location maps. Additionally, collar elevations were compared to the aerial survey generated topographic control. Any drill holes with noticeable location discrepancies (significant strata offset) were removed from the database.</li><li>• For the Resource estimations, the coordinate grid system used was NAD-27, New Mexico West State Plane.</li><li>• Topographic control by aerial survey for the Project was completed in September 2011 by Cooper Aerial Survey Co., Phoenix, Arizona.</li></ul>
<i>Data spacing and distribution (1.9)</i>	<ul style="list-style-type: none"><li>• <i>Data spacing for report of Exploration Results.</i></li><li>• <i>Whether 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.</i></li><li>• <i>Whether sample compositing has been applied.</i></li></ul>	<ul style="list-style-type: none"><li>• Drill hole spacing varied depending on topography but was typically 200-ft by 200-ft and upwards to 400+-ft due to topographic constraints. Close drill hole spacing of 50-ft by 50-ft was also noted.</li><li>• See Figures 1-4 above for drill hole location maps and a representative cross-section of the Section 17 drilling.</li></ul>
<i>Orientation of data in relation to geological structure (1.10)</i>	<ul style="list-style-type: none"><li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li><li>• <i>If the relationship between the drilling orientation and the orientation of key</i></li></ul>	<ul style="list-style-type: none"><li>• All holes were drilled vertically which provides an accurate intersection of the mostly horizontal lying strata (typically 1-3° north) and mineralized deposits. Hole deviation (dip, azimuth) was determined by the logging companies and noted on tables or drill hole</li></ul>

	<i>mineralized structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	location maps. Hole deviation was utilized in the Resource modeling and estimations. Where hole deviation was not available, verticality was assumed.
<i>Sampling security (1.11)</i>	<ul style="list-style-type: none"><li><i>The measures taken to ensure sample security.</i></li></ul>	<ul style="list-style-type: none"><li>The historical down-hole logging data (gamma logs) and deduced uranium grades are saved in the Company database which is securely stored in the Company's Lakewood, Colorado office and on the Company's server, respectively.</li></ul>
<i>Audits or reviews (1.12)</i>	<ul style="list-style-type: none"><li><i>The results of any audits or review of sampling techniques and data.</i></li></ul>	<ul style="list-style-type: none"><li>RPA reviewed the logs ½ foot natural gamma radiometric data (probe) and related information from ten drill holes per section to confirm the interpretation and calculation of grade and thickness recorded by Laramide Resources in the resource database. RPA is of the opinion that data are of a good quality and suitable for estimation of Inferred Mineral Resources.</li></ul>

Section 2 – Reporting of Exploration Results

Criteria	JORC Code 2012 explanation	Project Commentary
Mineral Tenement and land tenure status (2.1)	<ul style="list-style-type: none"><li>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.</li><li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.</li></ul>	<ul style="list-style-type: none"><li>The Church Rock Project is located in northwestern New Mexico in McKinley County, near the city of Gallup. The Project consists of seven contiguous sections of land (~6.5 square miles) including Sections 4, 7, 8, 9 and 17 of T16N-R16W, and Sections 12 and 13 of T16N-R17W.</li><li>The Church Rock Project consists of a variety of mineral ownership including unpatented lode mining claims, patented mining claims, and private mineral leases. The surface estate consists of various ownership including the US Bureau of Land Management (US BLM), Laramide Resources (patented claims), and the Navajo Nation. The following details the mineral and surface ownership by section:<ul style="list-style-type: none"><li>Section 4 (640 acres): 36 unpatented mining claims (RAM 1-36). Surface estate managed by the US BLM.</li><li>Section 7 (640 acres): private minerals owned by Laramide. Surface estate managed by the Navajo Nation.</li><li>Section 8 (640 acres): consists of two parts; 10 patented mining claims (Mineral Survey 2220) owned by Laramide that cover the SE corner of the section (~175 acres) and 26 unpatented claims (UNC 1A-6A, 7, 8, 9A-21A, 22, 23, 24A, 25A, and 26) that cover the remainder of the section (~465 acres). The surface estate of the patented claims is owned by Laramide and the surface of the unpatented claims is managed by the US BLM.</li><li>Section 9 (640 acres): private minerals owned by Laramide. Surface estate managed by the Navajo Nation.</li><li>Section 17 (640 acres): private minerals owned by Laramide. Surface estate managed by the Navajo Nation.</li><li>Section 12 (320 acres): 20 unpatented mining claims (KP 1A-5A, 19A, 36A, 121617-14A-18A, 20A-23A, and 32A-35A). Surface estate managed by the US BLM.</li><li>Section 13 (640 acres): private minerals owned by Laramide. Surface estate managed by the Navajo Nation.</li></ul></li><li>By way of purchasing of the Church Rock Project, Laramide obtained the following regulatory clearances:<ul style="list-style-type: none"><li>Final Environmental Impact Statement (Docket No. 40-8968) prepared by the US Nuclear Regulatory Commission (US NRC) in cooperation with the US Bureau of Land Management (US BLM) and the US Bureau of Indian Affairs (US BIA) dated February 1997.</li><li>Radioactive Materials License from the US NRC, issued 1998 (amended in 2006 and in “timely renewal”).</li><li>Aquifer Exemption issued in the US Environmental Protection Agency, dated 1989.</li><li>Water Rights transfer, approved by the office of New Mexico State Engineer, dated October 19, 1999.</li></ul></li><li>During 2010, previous owner Uranium Resources Inc, (URI), in the name of subsidiary Hydro Resources Inc., pursued and won two significant</li></ul>

		<p>court judgments in respect to the development of the proposed ISR uranium mine at the Section 8 project. The first, involved an action challenging the UIC Permit, granted by the State of New Mexico based on whether Section 8 was considered to be in “Indian Country”. On September 13, 2010 the 10<sup>th</sup> Circuit Court’s en banc decision that Section 8 was not “Indian Country” was upheld. The second, an action challenging the US NRC license, was won on November 15, 2010 when the US Supreme Court denied a petition by interveners to review the 10<sup>th</sup> Circuit Court’s decision upholding the US NRC license.</p>
<p><i>Exploration done by other parties (2.2)</i></p>	<ul style="list-style-type: none"><li>• <i>Acknowledgement and appraisal of exploration by other parties.</i></li></ul>	<ul style="list-style-type: none"><li>• All of the drill hole data was generated historically; Laramide has not completed exploration activities on the Project. Historical exploration included:<ul style="list-style-type: none"><li>○ Section 4: Kerr-McGee Corp. began exploration in 1967. Most of the drilling was completed from 1968-77, and one drill hole per year completed in 1978-84, 1989 and 1991. 165 drill holes were completed and available for inclusion in the Technical Report, totaling 306,830 ft drilled.</li><li>○ Section 9: United Nuclear Corp (UNC) drilled at least 51 holes from 1957-61 and 179 holes from 1976-1979. From 1979-80, Santa Fe Minerals completed an additional 42 holes. A total of 272 drill holes out of 293 holes drilled on the section are available for inclusion in this Technical Report, totaling 250,800 ft drilled.</li><li>○ Sections 7 and 12: Quinta drilled 17 holes from 1958-61. From 1966 to 1979, UNC drilled 242 holes. In 1980, Santa Fe Minerals completed an additional 19 holes, all on Section 7. A total of 278 drill holes were completed and available for inclusion in the Technical Report, totaling 440,030 ft drilled.</li><li>○ Section 13: Phillips Petroleum drilled 48 holes from 1957-58. UNC’s subsidiary Teton Exploration drilled an additional 360 holes from 1971 to 1980. A total of 408 drill holes were completed and available for inclusion in the Technical Report, totaling 378,000 ft drilled.</li><li>○ Section 8: Phillips drilled at least 132 holes from 1957-60; Sabre-Piñon drilled 4 holes in 1962; UNC drilled at least 76 holes from 1965-81, and URI drilled 11 holes from 1988-91, including 8 core holes and installation of 8 monitor wells. A total of 223 drill holes were completed and available for inclusion in the Technical Report, totaling 238,180 ft drilled.</li><li>○ Section 17: Phillips drilled at least 256 holes from 1957-61 and UNC drilled at least 71 holes from 1969-81. A total of 327 drill holes completed and available for inclusion in the Technical Report, totaling 233,300 ft drilled.</li></ul></li></ul>
<p><i>Geology (2.3)</i></p>	<ul style="list-style-type: none"><li>• <i>Deposit type, geologic setting and style of mineralization.</i></li></ul>	<ul style="list-style-type: none"><li>• The Church Rock Project is located in the Church Rock mining district, near the western extent of the Grants Mineral Belt. The Grants Mineral Belt extends approximately 100 miles east-west and 25 miles north-south along the southern flank of the San Juan Basin. Principal host rocks are of Late Jurassic and Early Cretaceous ages; notably sandstone units within the Jurassic Morrison Formation’s Westwater Canyon and Brushy Basin members, and the overlying Cretaceous</li></ul>



		<p>Dakota Sandstone. A majority of the uranium mineralization, principally coffinite, is contained in the sandstone units of the Westwater Canyon member. The Westwater sandstones were laid down by braided streams and alluvial fans in a continental-type setting. The contact between the Brushy Basin member and the overlying Dakota Sandstone is erosional in nature, marking a significant time of unconformity. The strata generally dips 1-3° north, with structures (minor faults) generally trending SW-NE.</p> <ul style="list-style-type: none"><li>• The uranium mineralization in the western Grants Mineral Belt has been described as a mix of sandstone-hosted primary tabular deposits and secondary stacked, or “redistributed”, deposits that appear to have similarities to “Wyoming-type” roll-front deposits. These deposits are irregularly shaped and may extend for several 1000s of feet and vary in thickness from a few inches to several 10s of feet thick.</li><li>• The uranium mineralization in the western Grants Mineral Belt is described mostly as coffinite indicative of the silica-rich host materials, with lesser amounts contained in uraninite and unidentifiable organic-uranium oxide mineral complexes.</li><li>• Depth to mineralization varies (from ~365 to 1,850 ft deep) across the Project depending on the host sands stratigraphically, structure and topography. See Figure 4 above.</li></ul>
<p><i>Drill hole information (2.4)</i></p>	<ul style="list-style-type: none"><li>• <i>A summary of all information material to the understanding of the exploration results including tabulation of the following information for all Material drill holes:</i></li><li>• <i>easting and northing of the drill hole collar</i></li><li>• <i>elevation or RL (Reduced Level – elevation above sea level in meters) of the drill hole collar</i></li><li>• <i>dip and azimuth of the hole</i></li><li>• <i>down hole length and interception depth</i></li><li>• <i>hole length.</i></li><li>• <i>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.</i></li></ul>	<ul style="list-style-type: none"><li>• The Mineral Resource database consists of 1,667 drill holes (totaling 1,841,545 feet drilled) and is too large for inclusion in this table. At least 27 additional holes were drilled, however no physical gamma log or drill hole data were available for use in the Resource estimates.</li><li>• Collars of the drill holes were determined by licensed surveyors hired by the various mining companies active historically on the Project. Collar locations were generated from these data sets including tables and drill hole location maps.</li><li>• For the Resource estimations, the coordinate grid system used was NAD-27, New Mexico West State Plane.</li><li>• All holes were drilled vertically which provides an accurate intersection of the mostly horizontal lying strata (dipping typically 1-3° north) and mineralized deposits. Hole deviation (dip, azimuth) was determined by the logging companies and noted on tables or drill hole location maps. Hole deviation was utilized in the Resource modeling and estimations. Where hole deviation was not available, verticality was assumed.</li><li>• See Figures 1-4 for Project area drill hole location maps and a representative cross-section of the drilling on Section 17.</li></ul>
<p><i>Data aggregation methods (2.5)</i></p>	<ul style="list-style-type: none"><li>• <i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be</i></li></ul>	<ul style="list-style-type: none"><li>• Raw gamma logs were converted from cps units into equivalent uranium grades and then composites were created from the uncapped percent eU<sub>3</sub>O<sub>8</sub> values in two foot intervals.</li><li>• Mineralization intercept data were analysed using a combination of histogram, probability,</li></ul>

	<p><i>stated.</i></p> <ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<p>percentile, and cutting curve plots. RPA is of the opinion that high grade capping is not required at this time; however, capping should be reviewed once additional data have been collected.</p>
<p><i>Relationship between mineralization widths and intercept lengths (2.6)</i></p>	<ul style="list-style-type: none"> <li>• <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li>• <i>If the geometry of the mineralization with respect to the drill hole angle is known, its nature should be reported.</i></li> <li>• <i>If it is not known and only the down hole lengths are reported, there should be a clear state to this effect (e.g. 'down hole length, true width not known').</i></li> </ul>	<ul style="list-style-type: none"> <li>• All holes were drilled vertically which provides an accurate intersection of the mostly horizontal lying strata (dipping typically 1-3° north) and mineralized deposits. Hole deviation (dip, azimuth) was determined by the logging companies and noted on tables or drill hole location maps. Hole deviation was utilized in the Resource modeling and estimations. Where hole deviation was not available, verticality was assumed.</li> <li>• Most of the drill profiles are oriented orthogonal to the projected strike of the roll-fronts.</li> </ul>
<p><i>Diagrams (2.7)</i></p>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• See Figures 1-4 above for Project area drill hole location maps and a representative cross-section of the Section 17 drilling.</li> </ul>
<p><i>Balanced reporting (2.8)</i></p>	<ul style="list-style-type: none"> <li>• <i>Where comprehensive reporting for Exploration Results is not practicable, representative reporting for both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Laramide has yet to complete exploration on the Project; all historical exploration results used in the Resource estimate are considered to be accurate and representative of the types of mineralized deposits located at Church Rock (tabular and roll-fronts).</li> </ul>
<p><i>Other substantive exploration data (2.9)</i></p>	<ul style="list-style-type: none"> <li>• <i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical surveys; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i></li> </ul>	<ul style="list-style-type: none"> <li>• RPA assumed a tonnage factor of 15 ft<sup>3</sup>/ton which is the typical tonnage factor used by most prior operators including United Nuclear and Kerr-McGee in the Church Rock sub district, and Kerr McGee, Homestake and others in the Ambrosia Lake sub district and the Mt. Taylor deposit, for mineralized intervals in the Westwater Canyon Member sandstone units. This tonnage factor was derived by the AEC and the major operators from years of actual mining and milling based on over 300 million pounds of U<sub>3</sub>O<sub>8</sub> that was produced in the Ambrosia Lake sub district.</li> <li>• Sandstone and shale were not distinguished lithologically for each individual unit and mineralization present within the shale units was included in the Mineral Resource.</li> </ul>
<p><i>Further work (2.10)</i></p>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological</i></li> </ul>	<ul style="list-style-type: none"> <li>• Core recovery, metallurgy studies, and water well installations @ Section 8 and 17. <ul style="list-style-type: none"> <li>○ Hazen Research: Conduct a bench level demonstration of ISR, post ISR restoration and post restoration stability characteristics using cored samples from multiple mineralized zones from several locations</li> </ul> </li> </ul>

	<i>interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	<p>representative of the Sections 8 and 17 deposits. Demonstrate the capacity to restore the groundwater geochemical conditions to levels that exist prior to uranium recovery using ISR techniques.</p> <ul style="list-style-type: none"><li>○ Utilize water obtained from the installed wells in the Hazen study.</li><li>○ Quarterly testing of groundwater from the installed wells (and other previously installed) for baseline characterization.</li><li>● Exploration in areas of sparse historical drill data where geological interpretation of current data suggests mineralization exists, particularly the NE¼ of Section 9.</li></ul>
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Section 3 – Estimation and Reporting of Mineral Resources

Criteria	JORC Code 2012 explanation	Project Commentary
<i>Database integrity (3.1)</i>	<ul style="list-style-type: none"><li>• <i>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.</i></li><li>• <i>Data validation procedures used.</i></li></ul>	<ul style="list-style-type: none"><li>• All of the drill hole gamma logs are historical in nature, and were analog generated on paper logs. All of the logs were scanned and those for Sections 4, 7, 9, 12 and 13 were digitized by Logdigi of Katy, Texas, using Neuralog software. Logdigi generated LAS files containing gamma cps, SP and resistivity at 0.5 ft intervals for the entirety of the gamma logs. All of the calculated cps data was entered into Excel spreadsheets and appropriate calibrations (water factors, k-factors, dead times) applied to generate grade %s per 0.5 or 1.0 ft intervals.</li><li>• Lithologic data (breaks between sandstones and shales/mudstones) was generated by Laramide and entered into the Excel files.</li><li>• Down-hole deviations were also compiled by Laramide and entered into the Excel files.</li><li>• Coordinates and other pertinent information (e.g. depths drilled, dates, etc) were also compiled by Laramide and entered into the Excel files.</li><li>• Queries performed by RPA's Competent Person(s) were run on the data set to check for missing or overlapping intervals, erroneous coordinates, etc. Any mistakes were noted and corrected upon discussions with Laramide personnel.</li></ul>
<i>Site visits (3.2)</i>	<ul style="list-style-type: none"><li>• <i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i></li><li>• <i>If no site visits have been undertaken indicate why this is the case.</i></li></ul>	<ul style="list-style-type: none"><li>• Mark Mathisen, CPG (Competent Person and Principal Geologist at RPA) visited the Church Rock site on August 17, 2017, as part of the technical due diligence of the Project. He was accompanied by J. Mersch Ward, consulting geologist for Laramide.</li></ul>
<i>Geological interpretation (3.3)</i>	<ul style="list-style-type: none"><li>• <i>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</i></li><li>• <i>Nature of the data used and of any assumptions made.</i></li><li>• <i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i></li><li>• <i>The use of geology in guiding and controlling Mineral Resource estimation.</i></li><li>• <i>The factors affecting continuity both of grade and geology.</i></li></ul>	<ul style="list-style-type: none"><li>• The sandstone hosted uranium mineralization is confidently interpreted from the available data. The density of drilling is sufficient across much of the Project for accurate interpretation of uranium mineralization distributed across a regional interface of oxidized and reduced environments (redox fronts) that formed sinuous and laterally extensive deposits.</li><li>• The database consists of 1,667 drill holes (1,841,545 ft drilled) that includes geological interpretation of the host rock stratigraphy, redox fronts, and uranium thickness and grade %s from the geophysical log data generated from each drill hole completed.</li><li>• The uranium mineralization is hosted in the Cretaceous Dakota Sandstone and Jurassic Morrison Formation (Westwater Canyon and Brushy Basin members) where extensive exploration and mineral development in the Church Rock District produced approximately 16 million lbs of U<sub>3</sub>O<sub>8</sub> (including historic underground mining from a portion of the Section 17 property). Across the greater Grants Mineral Belt, historical uranium production exceeded 340 million pounds of U<sub>3</sub>O<sub>8</sub>, predominantly from underground and open-cut operations.</li><li>• The current interpretation of the geometry of the mineralization is largely empirical and is based on the interpretation of tabular and redistributed (Wyoming-type roll fronts) uranium deposits that formed along an interface between oxidized and</li></ul>

		reduced environments.
<i>Dimensions (3.4)</i>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Uranium mineralization at the Church Rock Project is hosted within sandstone units of the Cretaceous Dakota Sandstone and Jurassic Morrison Formation (Westwater Canyon and Brushy Basin members) of western New Mexico. Tabular and redistributed (Wyoming-type roll fronts) uranium mineralization was distributed across a regional interface of oxidized and reduced environments, forming irregular and sinuous shaped deposits that extend across the Project area.</li> <li>Depth to mineralization varies from 365-1,850 ft, depending on which sedimentary horizon is mineralized, topography and the gentle northerly dip (1-3°) of the strata. See Figure 4 above.</li> </ul>
<i>Estimation and modeling techniques (3.5)</i>	<ul style="list-style-type: none"> <li><i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters an maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i></li> <li><i>The availability of check estimates, previous estimates, and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i></li> <li><i>The assumptions made regarding recovery of by-products.</i></li> <li><i>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulfur for acid mine drainage characterization).</i></li> <li><i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></li> <li><i>Any assumptions behind modeling of selective mining units.</i></li> <li><i>Any assumptions about correlation between variables.</i></li> <li><i>Description of how the geological interpretation was used to control the resource estimates.</i></li> <li><i>Discussion of basis for using or not using grade cutting or capping.</i></li> <li><i>The process for validation, the checking process used, the comparison of model data to drill hole data, and use of</i></li> </ul>	<ul style="list-style-type: none"> <li>For the Resource estimation RPA chose to composite using the following parameters: <ul style="list-style-type: none"> <li>Minimum cut-off grade: 200ppm (0.02% eU<sub>3</sub>O<sub>8</sub>)</li> <li>Minimum thickness: 2.0 feet</li> <li>Maximum interval waste thickness: 5.0 ft (<i>This is the material between two mineralized intervals which can be included (absorbed) in one composite, as long as the composite grade is above the cut-off grade</i>).</li> </ul> </li> <li>All mineralization intercepts located inside the mineralized sand units were used together to determine an appropriate capping level for all mineralized zones. Mineralization intercept data were analysed using a combination of histogram, probability, percentile, and cutting curve plots. RPA is of the opinion that high grade capping is not required at this time; however, capping should be reviewed once additional data have been collected.</li> <li>Mineral resources of the Church Rock Deposit have been estimated using the grade x thickness (GT) contour method (Agnerian and Roscoe, 2001) by RPA. The GT methodology of resource estimation is a technique best applied to estimate tonnage and average grade of relatively planar bodies, i.e. where the two dimensions of the mineralized body are much greater than the third dimension. For each of the 10 individual sand zones, drill hole intercept composite values of grade, thickness and GT were plotted in plan view and contoured. <ul style="list-style-type: none"> <li>Geometric (logarithmic) contour intervals of 0.03, 0.1, 0.3, 0.5, 1, and 3 were used for the GT values because of the positively skewed statistical distribution of the gamma grade.</li> <li>Thickness was contoured in a linear progression at 5, 10, 20, 30, 40, 50, 60, and 70-foot intervals.</li> <li>Weighted average grade (GT/Thickness) was contoured using the minimum cut-off grade value of 0.02% eU<sub>3</sub>O<sub>8</sub> and was established as the lateral extent for uranium mineralization to be considered as resource.</li> <li>For the lowest and highest thickness contour intervals and highest GT interval, the geometric means were replaced with the actual average of the drilling composites on a per section basis.</li> </ul> </li> <li>Contouring was done by hand and with Surfer software. The contours were inspected and where</li> </ul>

	<p><i>reconciliation data if available.</i></p>	<p>necessary manually adjusted by RPA to match geological and mineralized trends.</p> <ul style="list-style-type: none"> <li>• The areas between each GT and thickness contour intervals within the boundaries of the grade contour (0.02% eU<sub>3</sub>O<sub>8</sub>) were measured using ArcGIS software in order to calculate tons, pounds and grade. <ul style="list-style-type: none"> <li>○ Tons equal the total area of the geometric mean between thickness contours multiplied by the bulk density of 15 ft<sup>3</sup>/ton.</li> <li>○ Pounds U<sub>3</sub>O<sub>8</sub> equal the total area of geometric mean between GT contours multiplied by the bulk density of 15 ft<sup>3</sup>/ton.</li> <li>○ Weighted Average Grade is then calculated by dividing total pounds by tons.</li> </ul> </li> <li>• Mineralized lenses defined by a single drill hole or widely spaced drill holes, or located within the area previously subject to pass production were not included in the final resource estimate. In order to deduct the past production areas from the mineral resources, RPA constructed polygonal areas around historic mine working maps from the Jmb, Jmw A, Jmw B and Jmw C sands in Section 17 and subtracted the calculated tons and pounds within these polygonal areas from the final resource estimate.</li> </ul>
<p><i>Moisture (3.6)</i></p>	<ul style="list-style-type: none"> <li>• <i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Historic bulk dry density records were reviewed for cored samples across the Church Rock Project; the densities varied from 14-17 ft<sup>3</sup>/ton. A tonnage factor of 15 ft<sup>3</sup>/ton was used for the Resource estimate and based on prior operators in the Church Rock and Ambrosia Lake sub districts and the Mt. Taylor deposit, for mineralized intervals in the Westwater Canyon Member sandstone units. This tonnage factor was derived by the US AEC and the major operators from years of actual mining and milling based on over 300 million pounds of U<sub>3</sub>O<sub>8</sub> that was produced in the Ambrosia Lake sub district.</li> </ul>
<p><i>Cut-off parameters (3.7)</i></p>	<ul style="list-style-type: none"> <li>• <i>The basis of adopted cut-off grade(s) or quality parameters applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The cut-off grades were based on comparisons to those used at ISR uranium projects elsewhere in the United States and Australia; an initial cut-off grade of 0.02% eU<sub>3</sub>O<sub>8</sub> and 2-ft minimum thickness was chosen. A Grade times thickness (GT) product of 0.5 ft-% was chosen for reporting resources.</li> </ul>
<p><i>Mining factors or assumptions (3.8)</i></p>	<ul style="list-style-type: none"> <li>• <i>Assumptions made regarding possible mining methods, minimum mining dimensions or 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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Uranium mineralization at the Church Rock Project is amenable to in-situ recovery (ISR) technologies. The US NRC Permit (Docket No. 40-8968) for a combined source and 11e(2) by-product materials license for the Project expressly states that ISR recovery is permitted using dissolved oxygen and sodium bicarbonate.</li> <li>• Mineralization at the Project is hosted in groundwater saturated sandstone deposits. Depths to mineralization in the permitted area (portions of Sections 8 and 17, T16N-R16W) are typically from 350-750 ft.</li> </ul>

<i>Metallurgical factors or assumptions (3.9)</i>	<ul style="list-style-type: none"><li>• <i>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 extractions 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.</i></li></ul>	<ul style="list-style-type: none"><li>• Several tests undertaken by a previous owner (URI) were undertaken at the Project. The tests describe the amenability of the uranium deposits to ISR techniques utilizing dissolved oxygen and sodium bicarbonate to oxidize and dissolve the uranium and processing/loading of the recovered uranium on resin beads via ion exchange columns.</li></ul>
<i>Environmental factors or assumptions (3.10)</i>	<ul style="list-style-type: none"><li>• <i>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.</i></li></ul>	<ul style="list-style-type: none"><li>• Various mining and milling clearances at the Church Rock Project have been obtained including:<ul style="list-style-type: none"><li>○ Final Environmental Impact Statement (Docket No. 40-8968) from the US Nuclear Regulatory Commission (US NRC) dated February 1997.</li><li>○ Radioactive Materials License from the US NRC, issued 1998 (amended in 2006 and in “timely renewal”).</li><li>○ Discharge Permit (UIC Permit DP-558) from the New Mexico Environmental Improvement Division, issued in 1989 (renewed in 1996, and in “timely renewal”).</li><li>○ Aquifer Exemption issued in the US Environmental Protection Agency, dated 1989.</li><li>○ Water Rights transfer, approved by the office of New Mexico State Engineer, dated Oct. 19, 1999.</li></ul></li><li>• Additional regulatory clearances necessary prior to ISR mining may commence include:<ul style="list-style-type: none"><li>○ Discharge Permit (Underground Injection Control Permit) from the New Mexico Environmental Improvement Division.</li><li>○ Right-of-Way Permit from the U.S. Bureau of Indian Affairs or the Navajo Nation.</li></ul></li></ul>
<i>Bulk density (3.11)</i>	<ul style="list-style-type: none"><li>• <i>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.</i></li><li>• <i>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and difference between rock and alteration zones within the deposit.</i></li><li>• <i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i></li></ul>	<ul style="list-style-type: none"><li>• For the Resource estimation, a tonnage factor of 15 cubic feet per ton was assumed. This tonnage factor was previously used by mining operators in the Church Rock district including Kerr-McGee Corporation and United Nuclear Corporation, who together, mined approximately 16 million pounds of U<sub>3</sub>O<sub>8</sub>.</li><li>• Results for historical bulk density tests were available in the extensive database owned by Laramide and confirm the 15 ft<sup>3</sup>/ton factor utilized in the Resource estimation.</li></ul>



<i>Classification (3.12)</i>	<ul style="list-style-type: none"><li>• <i>The basis for the classification of the Mineral Resources into varying confidence categories.</i></li><li>• <i>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).</i></li><li>• <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></li></ul>	<ul style="list-style-type: none"><li>• Mineral Resources at the Project were based on historic drilling records and geophysical logs which have not been confirmed through recent twinning of holes or reprobings of washed out holes, therefore the resource estimate is classified as Inferred. RPA recommends conducting additional core drilling for assay and disequilibrium confirmation and reprobings of several holes to bring portions of the deposit in which drill hole spacing is less than 100-ft by 100-ft spacing into Indicated classification.<ul style="list-style-type: none"><li>○ Mineralized lenses defined by single or widely spaced drill holes are not classified and are considered by Laramide and RPA to be prospective exploration target areas.</li></ul></li></ul>
<i>Audits or reviews (3.13)</i>	<ul style="list-style-type: none"><li>• <i>The results of any audits or reviews of Mineral Resource estimates.</i></li></ul>	<ul style="list-style-type: none"><li>• The database was generated by Laramide and independently reviewed and corrected, where appropriate, by the Qualified Persons of RPA. No material issues were found that would render the database unusable for the Mineral Resource estimates.</li><li>• 10 historical drill hole gamma logs for each section were re-interpreted and compared to those in the database provided by Laramide. No significant differences were noted.</li></ul>
<i>Discussion of relative accuracy/ Confidence (3.14)</i>	<ul style="list-style-type: none"><li>• <i>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 state 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.</i></li><li>• <i>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.</i></li><li>• <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></li></ul>	<ul style="list-style-type: none"><li>• Inferred classification applied to the Church Rock project is the result of the resource estimate being dependent on historic drilling and radiometric probes.</li><li>• In RPA's opinion, the estimation methodology is consistent with standard industry practice for this type of deposit.</li><li>• RPA recommends that following steps be undertaken to increase confidence in the resource estimate and upgrade resource classification from Inferred to Indicated in areas of dense drill hole spacing (less than 100-ft by 100-ft):<ul style="list-style-type: none"><li>○ Relog 5% of the holes with a gamma probe to insure accuracy of historic records.</li><li>○ To bolster confidence and to better quantify the disequilibrium ratio within the deposit, additional chemical assaying should be undertaken that are not only representative of all grade ranges but also spatially representative across the mineralized fronts.</li><li>○ Complete definition and infill drilling along the Kd and Jmw G sand mineralization trends on the E½ of Section 9.</li></ul></li></ul>