

## MINERAL RESERVES AND MINERAL RESOURCES

### Summary of Mineral Reserves and Mineral Resources

NI 43-101 requires mining companies to disclose mineral reserve and resource estimates using the subcategories of proven mineral reserves, probable mineral reserves, measured mineral resources, indicated mineral resources and inferred mineral resources.

The following tables show the Company's estimates of mineral reserves and mineral resources as at December 31, 2018. The estimates are reported in the applicable technical reports prepared in accordance with NI 43-101, adjusted for mining activity where applicable. The summary information below on Denison's proven mineral reserve estimates was prepared from the year-end stockpile survey reported by Orano Canada, the operator of the McClean Lake joint venture.

#### Proven Mineral Reserve Estimates <sup>(1,10)</sup>

Project/Deposit	100% Basis			Company Share <sup>(9)</sup>
	Tonnes	Grade % U <sub>3</sub> O <sub>8</sub>	Pounds of U <sub>3</sub> O <sub>8</sub> (,000)	Pounds of U <sub>3</sub> O <sub>8</sub> (,000)
McClean - Ore Stockpile	88,000	0.38	738	166
<b>Total Proven Mineral Reserves</b>	<b>88,000</b>		<b>738</b>	<b>166</b>

#### Probable Mineral Reserve Estimates <sup>(1,2,3,4,10)</sup>

Project/Deposit	100% Basis			Company Share <sup>(9)</sup>
	Tonnes	Grade % U <sub>3</sub> O <sub>8</sub>	Pounds of U <sub>3</sub> O <sub>8</sub> (,000)	Pounds of U <sub>3</sub> O <sub>8</sub> (,000)
Wheeler River - Phoenix	141,000	19.1	59,700	53,730
Wheeler River - Gryphon	1,257,000	1.8	49,700	44,730
<b>Total Probable Mineral Reserves</b>	<b>1,398,000</b>		<b>109,400</b>	<b>98,460</b>

#### Indicated Mineral Resource Estimates <sup>(1,5,10)</sup>

Project/Deposit	100% Basis			Company Share <sup>(9)</sup>
	Tonnes	Grade % U <sub>3</sub> O <sub>8</sub>	Pounds of U <sub>3</sub> O <sub>8</sub> (,000)	Pounds of U <sub>3</sub> O <sub>8</sub> (,000)
Wheeler River – Phoenix <sup>(7)</sup>	166,000	19.1	70,200	63,200
Wheeler River – Gryphon <sup>(7)</sup>	1,643,000	1.7	61,900	55,700
<i>Wheeler River Subtotal</i>	<i>1,809,000</i>		<i>132,100</i>	<i>118,900</i>
McClean - Caribou	47,800	2.6	2,800	600
McClean - Sue D	122,800	1.1	2,800	600
McClean - McClean North	205,800	2.8	12,400	2,800
<i>McClean Subtotal</i>	<i>376,400</i>		<i>18,000</i>	<i>4,000</i>
Midwest - Midwest Main	453,000	4.0	39,900	10,100
Midwest - Midwest A	566,000	0.87	10,800	2,700
<i>Midwest Subtotal</i>	<i>1,019,000</i>		<i>50,700</i>	<i>12,800</i>
Waterbury - J Zone	291,000	2.0	12,800	8,400
<b>Total Indicated Mineral Resources</b>	<b>3,495,400</b>		<b>213,600</b>	<b>144,100</b>

**Inferred Mineral Resource Estimates** (1,6,10)

Project/Deposit	100% Basis			Company Share <sup>(9)</sup>
	Tonnes	Grade % U <sub>3</sub> O <sub>8</sub>	Pounds of U <sub>3</sub> O <sub>8</sub> (,000)	Pounds of U <sub>3</sub> O <sub>8</sub> (,000)
Wheeler River - Phoenix	9,000	5.8	1,100	1,000
Wheeler River - Gryphon	73,000	1.2	1,900	1,700
<i>Wheeler River Subtotal</i>	<i>82,000</i>		<i>3,000</i>	<i>2,700</i>
McClellan - Sue D	24,200	0.39	200	0
McClellan – Sue E <sup>(8)</sup>	483,400	0.69	7,300	1,600
McClellan - McClellan North	3,300	0.79	100	0
<i>McClellan Subtotal</i>	<i>510,900</i>		<i>7,600</i>	<i>1,600</i>
Midwest - Midwest Main	793,000	0.66	11,500	2,900
Midwest - Midwest A	53,000	5.8	6,700	1,700
<i>Midwest Subtotal</i>	<i>846,000</i>		<i>18,200</i>	<i>4,600</i>
Waterbury – Huskie	268,000	0.96	5,700	3,800
<b>Total Inferred Mineral Resources</b>	<b>1,706,900</b>		<b>34,500</b>	<b>12,700</b>

**Notes:**

- (1) CIM definitions were followed for classification of mineral reserves and mineral resources. Mineral resources are not mineral reserves and do not have demonstrated economic viability.
- (2) Mineral reserves for the Phoenix deposit are reported at the mineral resource cut-off grade of 0.8% U<sub>3</sub>O<sub>8</sub>. The mineral reserves are based on the block model generated for the May 28, 2014 mineral resource estimate. A mining recovery factor of 85% has been applied to the mineral resource above the cut-off grade.
- (3) Mineral reserves for the Gryphon deposit are estimated at a cut-off grade of 0.58% U<sub>3</sub>O<sub>8</sub> using a long-term uranium price of US\$40/lb, and a US\$/CAD\$ exchange rate of 0.80. The mineral reserves are based on the block model generated for the January 30, 2018 mineral resource estimate. The cut-off grade is based on an operating cost of \$574/tonne, milling recovery of 97%, and a 7.25% fee for Saskatchewan royalties (basic royalty plus resource surcharge).
- (4) Mineral reserves are stated at a processing plant feed reference point and include diluting material and mining losses.
- (5) The indicated mineral resources were estimated at various cut-off grades. They are:
  - Phoenix: 0.80% U<sub>3</sub>O<sub>8</sub>
  - Gryphon: 0.20% U<sub>3</sub>O<sub>8</sub>
  - Caribou: 0.10% U<sub>3</sub>O<sub>8</sub>
  - Sue D: 0.10% U<sub>3</sub>O<sub>8</sub>
  - McClellan North: 0.10% U<sub>3</sub>O<sub>8</sub>
  - Midwest Main: 0.10% U<sub>3</sub>O<sub>8</sub> (0.085% U)
  - Midwest A: 0.10% U<sub>3</sub>O<sub>8</sub> (0.085% U)
  - J Zone: 0.10% U<sub>3</sub>O<sub>8</sub>
- (6) The inferred mineral resources were estimated at various cut-off grades. They are:
  - Phoenix: 0.80% U<sub>3</sub>O<sub>8</sub>
  - Gryphon: 0.20% U<sub>3</sub>O<sub>8</sub>
  - Sue D: 0.10% U<sub>3</sub>O<sub>8</sub>
  - Sue E: 0.10% U<sub>3</sub>O<sub>8</sub>
  - McClellan North: 0.10% U<sub>3</sub>O<sub>8</sub>
  - Midwest Main: 0.10% U<sub>3</sub>O<sub>8</sub> (0.085% U)
  - Midwest A: 0.10% U<sub>3</sub>O<sub>8</sub> (0.085% U)
  - Huskie: 0.10% U<sub>3</sub>O<sub>8</sub>
- (7) Indicated mineral resources for Phoenix and Gryphon deposits are inclusive of probable mineral reserves.
- (8) The operator conducted confirmatory drilling on a portion of the Sue E mineral resources outside the designated pit and late in 2006 submitted a preliminary analysis detailing an inferred mineral resource of approximately 2 million pounds on a 100% basis in this area, as compared to the 7.3 million pounds that Scott Wilson Roscoe Postle Associates Inc. ("**Scott Wilson RPA**"), now Roscoe Postle Associates Inc., estimated in its February 2006 technical report. Roscoe Postle Associates Inc. has not re-estimated the mineral resource using the new drill information.
- (9) As at December 31, 2018, pursuant to the terms of the agreements with its applicable joint venture partners, the Company had a 90.00% interest in the Wheeler River project, a 22.50% interest in the McClellan Lake property; a 25.17% interest in the Midwest project; and a 65.92% interest in the Waterbury Lake property.
- (10) Numbers may not add due to rounding.

## Technical Reports

For full details relating to the Company's estimates of mineral reserves and mineral resources reference should be made to the applicable technical reports for the properties, available on the Company's profile on the SEDAR website at [www.sedar.com](http://www.sedar.com), as detailed below.

### Wheeler River

Pre-feasibility Study for the Wheeler River Uranium Project, Saskatchewan, Canada, dated October 30, 2018 with an effective date of September 24, 2018, by Mark Liskowich, P.Geo. of SRK Consulting, Mark Hatton, P.Eng. of Stantec Consulting, William McCombe, P.Eng. of Hatch, Douglass Graves, P.Eng. of Woodard & Curran, Mark B. Mathisen, C.P.G. of RPA, William E. Roscoe, Ph.D., P.Eng. of RPA, Gordon Graham, P.Eng. of Engcomp Engineering and Computing Professionals, Geoff Wilkie, P. Eng of Engcomp Engineering and Computing Professionals, Greg Newman, P.Eng. – Newmans Geotechnique, Roland Tosney, P.Eng. of North Rock Mining Solutions, Michael Royle, P.Geo. of SRK Consulting, and Michael Selby, P.Eng. of SRK Consulting.

### Waterbury Lake

Technical Report with an Updated Mineral Resource Estimate for the Waterbury Lake Property, Northern Saskatchewan, dated December 21, 2018, by Serdar Donmez, P.Geo.,E.I.T., Dale Verran, Pr.Sci.Nat., P.Geo., and Paul Burry, P.Geo. of Denison, Oy Leuangthong, P.Eng, and Cliff Revering, P.Eng, of SRK, Allan Armitage, P.Geo, SGS Geostat and Alan Sexton, P.Geo, GeoVector Management.

### McClellan Lake

(A) Technical Report on the Denison Mines Inc. Uranium Properties, Saskatchewan, Canada, dated November 21, 2005, as revised February 16, 2006, by Richard E. Routledge, M.Sc., P. Geo of Scott Wilson RPA (now RPA Inc.)

(B) Technical Report on the Sue D Uranium Deposit Mineral Resource Estimate, Saskatchewan, Canada, dated March 31, 2006, by Richard E. Routledge, M.Sc., P. Geo. and James W. Hendry, P. Eng of Scott Wilson RPA (now RPA Inc.).

(C) Technical Report on the McClellan North Uranium Deposit Mineral Resource Estimate, Saskatchewan, Canada, dated January 31, 2007, by Richard E. Routledge, M.Sc., P. Geo. and James W. Hendry, P. Eng of Scott Wilson RPA (now RPA Inc.). By letter dated October 20, 2009, Orano Canada received from Scott Wilson RPA subsequent corrections to the resource estimate in the McClellan North Technical Report, which revisions have been incorporated herein as applicable.

### Midwest

Technical Report with an Updated Mineral Resource Estimate for the Midwest Property, Northern Saskatchewan, Canada, dated March 26, 2018, by Dale Verran, MSc, P.Geo, Pr.Sci.Nat. and Chad Sorba, P.Geo, of Denison Mines Corp. and G. David Keller, PGeo, and Oy Leuangthong, PEng, of SRK Consulting.

## Qualified Persons

Peter Longo, P. Eng, MBA, PMP, Denison's Vice-President, Project Development, who is a "Qualified Person" in accordance with the requirements of NI 43-101, is responsible for the mineral reserve estimates for the Company's properties and all disclosure of scientific or technical information concerning mineral reserves, except as otherwise provided herein.

Dale Verran, MSc, P.Geo, Pr.Sci.Nat., Denison's Vice President Exploration, who is a "Qualified Person" in accordance with the requirements of NI 43-101, is responsible for the mineral resource estimates for the Company's properties and all disclosure of scientific or technical information concerning mineral resources, except as otherwise provided herein.