



Denison Mines Corp.

Uranium Development & Exploration
in the Athabasca Basin

Investor Update

October 2016

TSX: DML | NYSE MKT: DNN

Cautionary Statements & References



Cautionary Statements:

This presentation includes forward-looking information or forward-looking statements under Canadian and U.S. securities laws that involve risks, uncertainties and other factors that could cause actual results to differ materially from those expressed or implied by such forward-looking statements.

Factors that could cause differences may include: the speculative nature of exploration and development projects, the failure of Denison to realize benefits from transactions, Denison's inability to expand and replace its mineral reserves and resources and the imprecision of mineral reserves and resources estimates, the impact of volatility in uranium prices on the valuation of mineral reserves and resources and the market price of Denison's shares, unexpected development and operating risks, delays in obtaining permits and licenses for development properties, reliance on other operators and partners, and uncertainty surrounding Denison's operations in foreign jurisdictions, successful completion of the 2016 exploration plan, timely completion of the PEA or PFS, the ability to reach 2016 revenue targets, and the ability to operate within budget. In addition, we have made assumptions in drawing the conclusions contained in these statements, including assumptions regarding future demand for uranium, production levels and costs, mining conditions, relationships with partners, and our ability to continue our operations without any significant disruptions.

Additional information about the material factors that could cause the results to differ materially, and the material assumptions we have made, are contained in our current Annual Information Form and our current annual MD&A, which are available on SEDAR. Forward-looking information is designed to help you understand management's current views of our near and longer-term prospects, and it may not be appropriate for other purposes. We will not necessarily update this information unless we are required to by securities laws.

This presentation may use the terms "measured", "indicated", "inferred" and "historical" mineral resources. U.S. investors are advised that, while such terms are recognized and required by Canadian regulations, the Securities and Exchange Commission does not recognize them. "Inferred mineral resources" and "historical estimates" have a great amount of uncertainty as to their existence and great uncertainty as to their economic feasibility. It cannot be assumed that all or any part of an inferred mineral resource or a historical estimate will ever be upgraded to a higher category. Under Canadian rules, estimates of inferred mineral resources may not form the basis of feasibility or other economic studies. Further, historical estimates are not recognized under Canada's NI 43-101. U.S. investors are cautioned not to assume that all or any part of measured or indicated mineral resources will ever be converted to mineral reserves.

Technical Report References:

- **McClean Lake** "Technical Report on the Denison Mines Inc. Uranium Properties, Saskatchewan, Canada" dated February 16, 2006. Richard E. Routledge, M.Sc., P. Geo. and James W. Hendry, P. Eng., are the independent Qualified Persons for the McClean Technical Report for the purposes of the requirements of NI 43-101.
- **McClean Lake - Sue D** "Technical Report on the Sue D Uranium Deposit Mineral Resource Estimate, Saskatchewan, Canada", dated March 31, 2006. Richard E. Routledge, M.Sc., P. Geo. and James W. Hendry, P. Eng., are the independent Qualified Persons for the Sue D Report for the purposes of the requirements of NI 43-101.
- **McClean Lake – McClean North** "Technical Report on the McClean North Uranium Deposit Mineral Resource Estimate, Saskatchewan, Canada", dated January 31, 2007. Richard E. Routledge, M.Sc., P. Geo. is the independent Qualified Person for the McClean North Technical Report for the purposes of the requirements of NI 43-101.
- **Midwest** "Technical Report on the Midwest Uranium Deposit Mineral Resource and Mineral Reserve Estimates, Saskatchewan, Canada" (the "Midwest Technical Report") dated February 14, 2006. Richard E. Routledge, M.Sc., P. Geo., James W. Hendry, P. Eng. and Luke Evans, M.Sc., P. Eng. are the independent Qualified Persons for the Midwest Technical Report for the purposes of the requirements of NI 43-101.
- **Midwest – Midwest A** "Technical Report on the Midwest A Uranium Deposit of Saskatchewan, Canada" (the "Midwest A Technical Report") dated January 31, 2008. Michel Dagbert, P. Eng is the independent Qualified Person for the Midwest A Technical Report for the purposes of the requirements of NI 43-101.
- **Waterbury** "Mineral Resource Estimate On The J Zone Uranium Deposit, Waterbury Lake Property" (the "J Zone Technical Report"), dated September 6, 2013. Allan Armitage, Ph.D., P.Geol., and Alan Sexton, M.Sc., P.Geol., are the independent Qualified Persons for the J Zone Technical Report for the purposes of the requirements of NI 43-101.
- **Wheeler River:** (1) "Technical Report on a Mineral Resource Estimate for the Wheeler River Property, Eastern Athabasca Basin, Northern Saskatchewan, Canada." Nov. 25, 2015. William E. Roscoe Ph.D, P.Eng. and Mark B. Mathisen C.P.G. A copy of this report is available on Denison Mines Corp.'s profile on the SEDAR website at www.sedar.com. William E. Roscoe, Ph.D, P. Eng., is the independent Qualified Person for the Report for the purposes of NI 43-101. and, (2) PRELIMINARY ECONOMIC ANALYSIS FOR THE WHEELER RIVER URANIUM PROJECT, SASKATCHEWAN, CANADA" March 31, 2016. Ken Reipas, P. Eng.

Uranium Development & Exploration

Northern Saskatchewan, Canada

Denison Mines



Wheeler River PEA⁽¹⁾: +20% IRR at US\$44/lb U₃O₈



STRATEGY: Co-development of the high-grade Gryphon and Phoenix deposits as a single underground mining operation, leveraging existing regional infrastructure, including assumed processing at Denison's 22.5% owned McClean Lake mill

Price Protected: 20.4% Pre-Tax IRR at LT price of US\$44/lb

Initial CAPEX to Denison (60%): CAD\$336M (CAD\$560M at 100%)

Price Sensitive: Pre-Tax NPV of CAD\$1,420M (100%) at US\$62.60/lb

Upside: Potential for resource growth with 2016 exploration results

Management: Motivated and with mining experience in the Basin

60% Denison owned and operated (30% Cameco; 10% JCU)

(1) **IMPORTANT CAUTION REGARDING THE PRELIMINARY ECONOMIC ASSESSMENT ("PEA"):** The PEA is preliminary in nature and includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them to be categorized as mineral reserves, and there is no certainty that the preliminary economic assessment will be realized. Mineral resources are not mineral reserves and do not have demonstrated economic value. See Press Release dated April 4, 2016 and Technical Report filed on SEDAR and EDGAR: "PRELIMINARY ECONOMIC ANALYSIS FOR THE WHEELER RIVER URANIUM PROJECT, SASKATCHEWAN, CANADA" March 31, 2016. Ken Reipas, P. Eng.

Wheeler River: CAD\$1.4B NPV at US\$62.60/lb U₃O₈



2016 Wheeler River Project Preliminary Economic Assessment⁽¹⁾ (100%)

Assumptions / Financial Results	Base Case	Production Case
Uranium Price	US\$44.00	US\$62.60
Exchange Rate (CAD:USD)	1.35	1.35
Discount Rate	8.00%	8.00%
Initial Capital Costs (100%)	CAD\$560M	
Sustaining Capital Costs (100%)	CAD\$543M	
Average Operating Costs per lb U ₃ O ₈	CAD\$25.67 (USD\$19.01)	
Pre-Tax IRR ⁽²⁾	20.4%	34.1%
Pre-Tax NPV ⁽²⁾ (100%)	CAD\$513M	CAD\$1,420M
Payback Period ⁽³⁾	~3 years	~18 months

(1) See IMPORTANT CAUTION REGARDING PEA on slide 4.

(2) NPV and IRR are calculated to the start of pre-production activities in 2021.

(3) Payback period is stated as number of years to pay-back from the start of commercial production.

One Project, Two High-Grade Deposits

2015 Wheeler River Property Mineral Resource Estimate Summary⁽¹⁾

Deposit	Category	Tonnes	Grade (%U ₃ O ₈)	Million lbs U ₃ O ₈ (100%)	Million lbs U ₃ O ₈ (Denison)
Gryphon	Inferred	834,000	2.3	43.0	25.8
Phoenix	Indicated	166,000	19.1	70.2	42.1
Phoenix	Inferred	9,000	5.8	1.1	0.7

2016 Wheeler River Project PEA: Overview of Mining Methods⁽²⁾

Gryphon Deposit	<ul style="list-style-type: none"> ➤ High-grade and hosted in basement rock ➤ Expected to allow for conventional underground mining methods (longitudinal longhole method assumed)
Phoenix Deposit	<ul style="list-style-type: none"> ➤ Very high grade and hosted at the sub-Athabasca unconformity ➤ Expected to require remote mining method and ground freezing to prevent water inflows (jet boring method assumed)

(1) See NI 43-101 Technical Report references for additional information about the resource estimate dated April 8, 2016.

(2) See IMPORTANT CAUTION REGARDING PEA on slide 4.

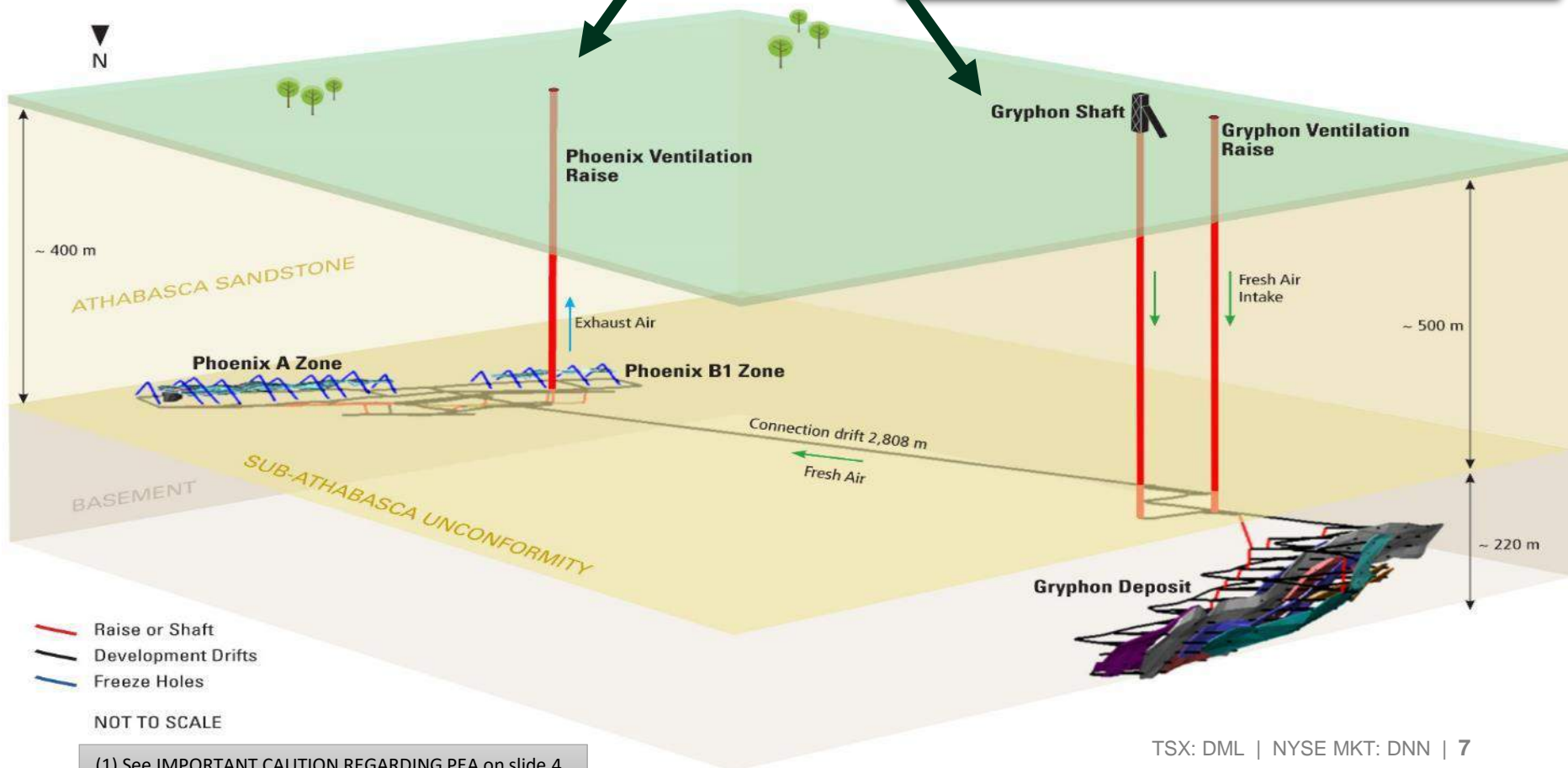
Wheeler River: Strategic Development Plan

Phase 2: Phoenix Production

- Underground freezing + Jet Bore mining
- 9 years at 7.0M lbs U_3O_8 / year (73t/d) ⁽¹⁾

Phase 1: Gryphon Production

- Conventional underground mining
- 7 years at 6.0M lbs U_3O_8 / year (399t/d) ⁽¹⁾
- Drift to Phoenix while mining Gryphon



(1) See IMPORTANT CAUTION REGARDING PEA on slide 4.

Licensed Capacity:
24M lbs/yr U_3O_8

18M lbs/yr reserved
for Cigar Lake

6M lbs/yr expected
excess capacity

**Positive Processing
Metallurgical Test**

Gryphon
(97% recovery)

Phoenix
(98.1% recovery)

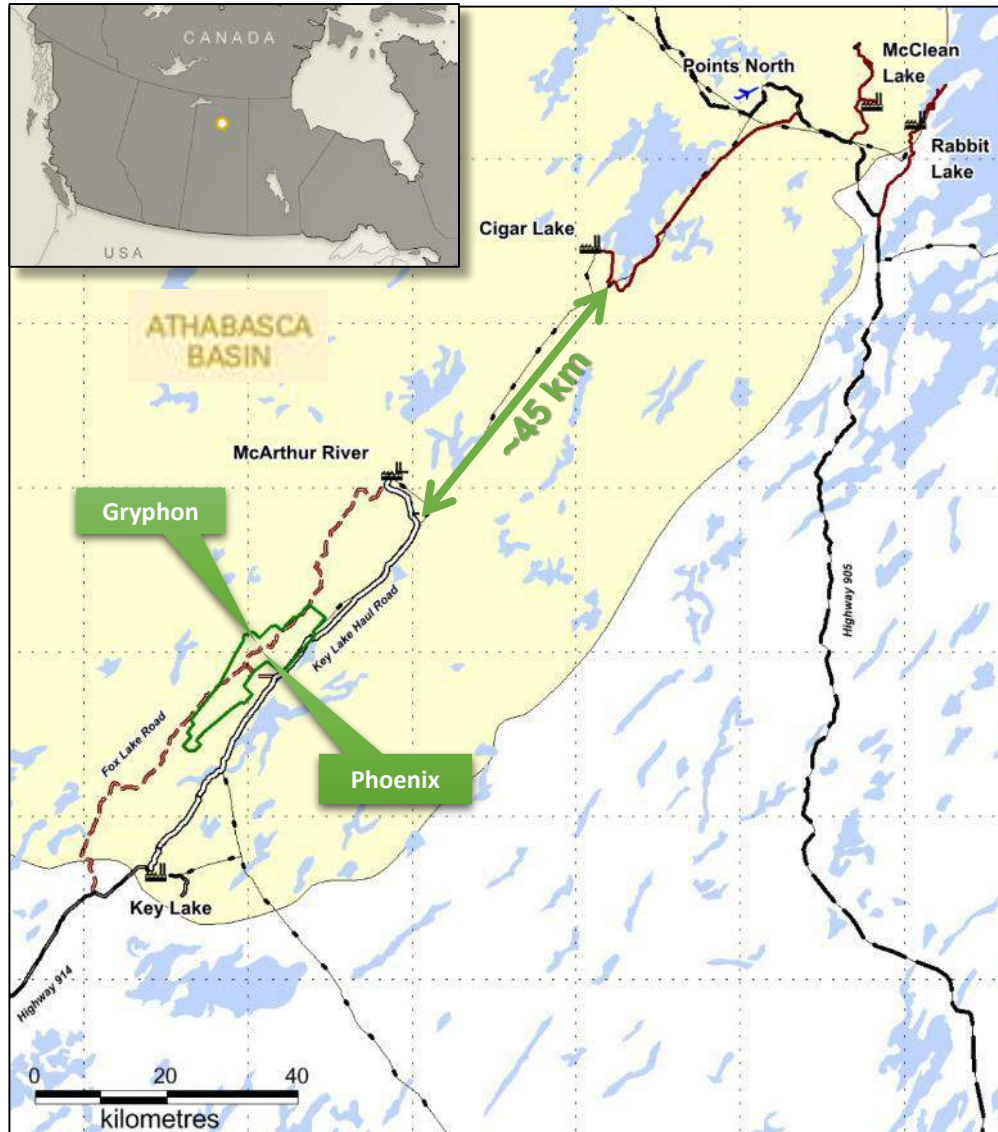
**Wheeler PEA¹ Assumes processing at
22.5% Owned McClean Lake Mill
(22.5% Denison, 70% AREVA, 7.5% OURD)**

**PEA Includes Minor
Mill Modifications**

Minor modifications
expected

Not expected to
conflict with Cigar

Eastern Athabasca Basin: Reduced Risk Profile



Existing Infrastructure

- Existing milling facility with excess capacity expected
- Existing provincial highways and provincial power grid
- Established mining jurisdiction and social infrastructure
 - ✓ 3 licensed uranium mills
 - ✓ Provincial power grid
 - ✓ Provincial highway

Infrastructure Map Showing Wheeler River Area



DML's Initial CAPEX Estimated at CAD\$336M



2016 Wheeler River Project Preliminary Economic Assessment⁽¹⁾

Capital Costs (CAD\$ millions)	Initial	Sustaining	Total
Surface Infrastructure	\$166	\$7	\$174
Mine	\$220	\$334	\$554
Mineral Processing	\$19	\$60	\$79
Owners Costs	\$25	\$0	\$25
Decommissioning	\$0	\$40	\$40
Subtotal	\$429	\$442	\$871
Contingency	\$131	\$101	\$232
Total Capital (100%)	\$560	\$543	\$1,103
Denison's Share (60%)	\$336	\$325	\$661

(1) IMPORTANT CAUTION REGARDING THE PRELIMINARY ECONOMIC ASSESSMENT ("PEA"): The PEA is preliminary in nature. Capital costs are stated in 2015 Canadian dollars to a bottom line accuracy of +/- 40%. Initial capital costs are from Jan. 1, 2021 to Dec. 31, 2025. Sustaining capital costs are from Jan. 1, 2026 to end of 2045. See IMPORTANT CAUTION REGARDING PEA on slide 4.

Wheeler River: Avg. Operating Cost US\$19.01



2016 Wheeler River Project Preliminary Economic Assessment⁽¹⁾

Operating Costs (CAD\$/lb U ₃ O ₈)	Gryphon	Phoenix
Mining	\$3.45	\$17.45
Surface Transportation	\$1.63	\$0.85
Mineral Processing (including tolling)	\$10.03	\$8.03
General & Administration	\$4.17	\$3.57
Total (CAD\$/lb U₃O₈)	\$19.28	\$29.90
Total (USD\$/lb U₃O₈)	\$14.28	\$22.15

(1) IMPORTANT CAUTION REGARDING THE PRELIMINARY ECONOMIC ASSESSMENT ("PEA"): The PEA is preliminary in nature and includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them to be categorized as mineral reserves, and there is no certainty that the preliminary economic assessment will be realized. Mineral resources are not mineral reserves and do not have demonstrated economic value. See IMPORTANT CAUTION REGARDING PEA on slide 4.

Looking Ahead at Wheeler River



Looking Ahead at Wheeler River

- PEA completed during 1H/2016
- Initiated Pre-Feasibility Study (“PFS”) 2H/2016
- 2016 PFS Budget: CAD\$1.8M (CAD\$1.1M Denison)



Wheeler: Exploration on K-North and K-West



2016 Exploration

- ~50,000 metres of drilling
- CAD\$10M Budget (Denison's share CAD\$6M)
- Numerous targets in the vicinity of Gryphon - along the K-North trend
- Recent discovery of mineralization at K-West
- Other high priority targets on the property for future testing



6375000Y



Gryphon Deposit
Inferred 43.0 Mlbs U_3O_8 @ 2.3%,
834,000 tonnes of mineralization

WR-663 mineralized intercept

Phoenix Deposit
Indicated 70.2 Mlbs U_3O_8 @ 19.1%,
166,000 tonnes of mineralization

Further details regarding the Wheeler River Project and mineral resource estimates are provided in the current NI 43-101 Technical Report, dated March 31st 2016, a copy of which is available on SEDAR and EDGAR.

Mineralization at Gryphon Continues to Grow



New 2016 Discoveries

(outside the current NI 43-101 mineral resource estimate)

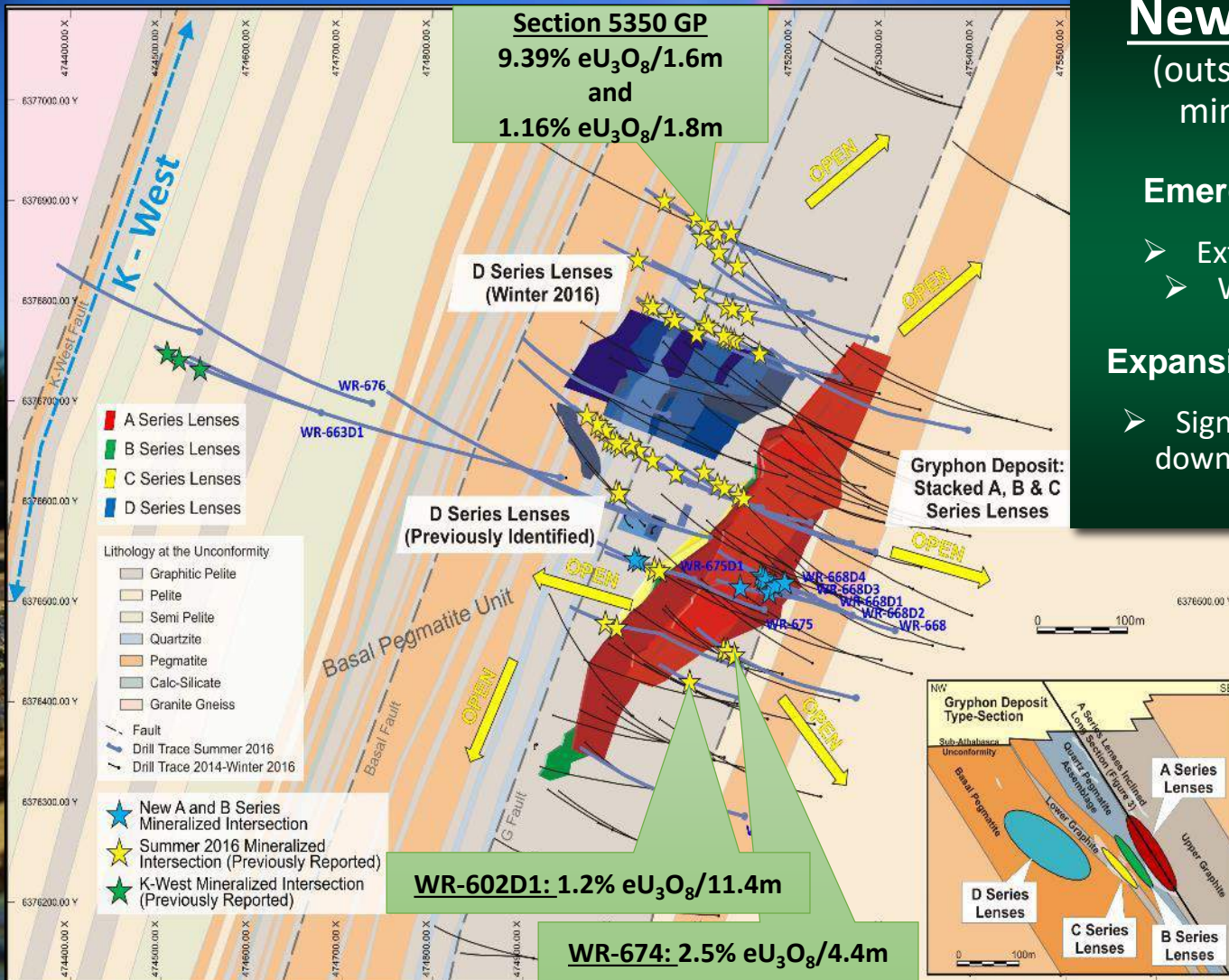
Emergence of D Series Lenses

- Extend ~330 metres along strike
- Wide open to the NE and SW

Expansion of A and B series lenses

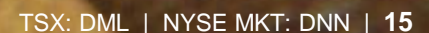
- Significant intersections up-dip and down-dip on the shallower, southwest portion of the deposit

See notes on next slide regarding drill results

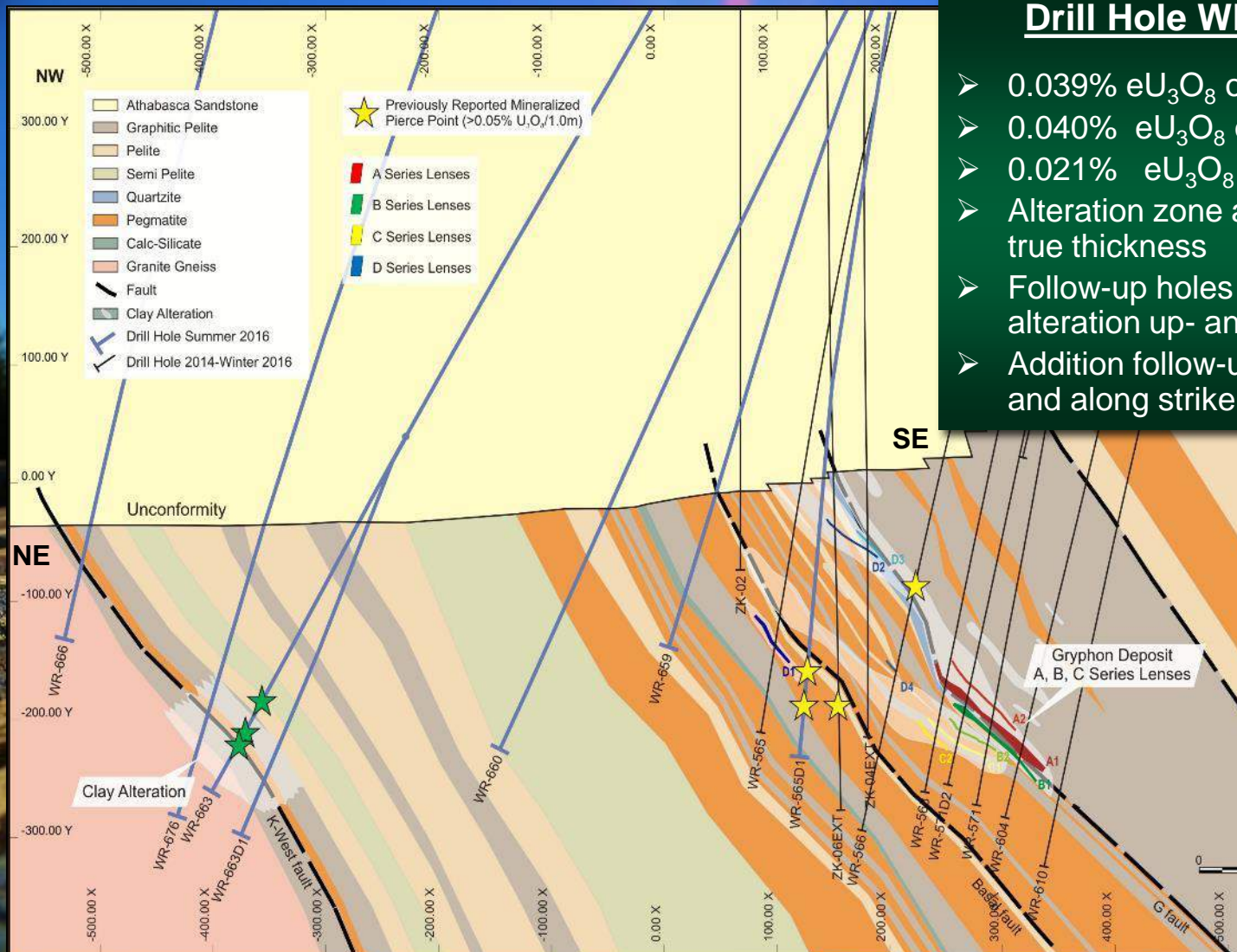




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Mineralization at K-West Target



Drill Hole WR-663 Highlights⁴

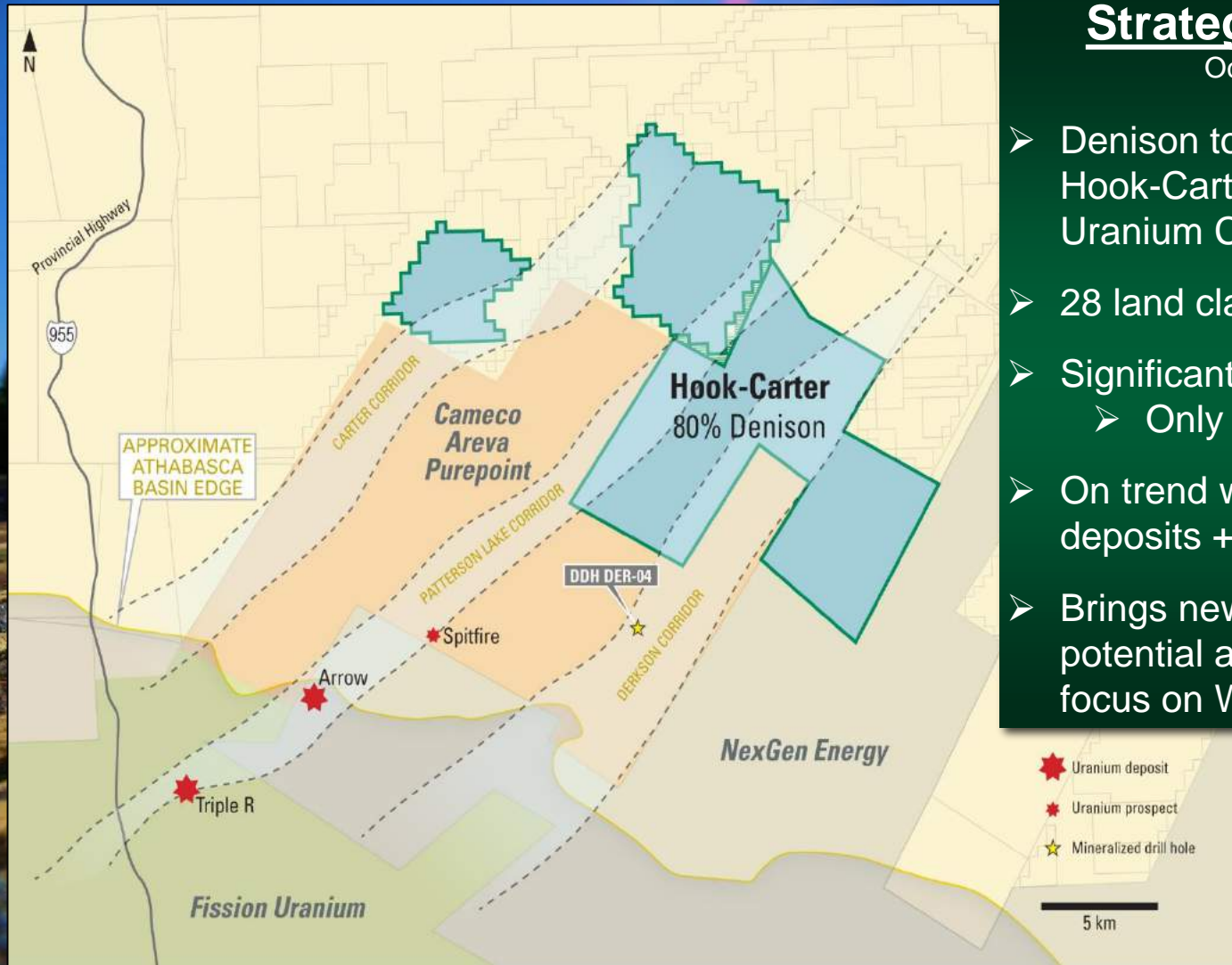
- 0.039% eU₃O₈ over 1.1 metres^{1,2,3}
- 0.040% eU₃O₈ over 2.0 metres^{1,2,3}
- 0.021% eU₃O₈ over 5.2 metres^{1,2,3}
- Alteration zone approximately 50 metres true thickness
- Follow-up holes confirm extensive alteration up- and down-dip
- Addition follow-up warranted on section and along strike

Notes:

1. eU₃O₈ is radiometric equivalent U₃O₈ from a calibrated total gamma down-hole probe
2. Compositing above a cut-off grade of 0.05% eU₃O₈
3. As the drill holes are oriented steeply toward the northwest and the basement mineralization is interpreted to dip moderately to the southeast, the true thickness of the mineralization is expected to be approximately 75% of the intersection lengths
4. See Q2'2016 MD&A dated Aug. 4th, 2016 for additional details regarding the exploration results from K-West

Portfolio Expands to Western Athabasca Basin

Denison Mines



Strategic Acquisition

October 13th, 2016

- Denison to acquire 80% of the Hook-Carter property from ALX Uranium Corp.
- 28 land claims = 16,805 hectares
- Significantly underexplored
 - Only 8 holes drilled to date
- On trend with Triple R and Arrow deposits + Spitfire discovery
- Brings new long-term exploration potential as Denison continues to focus on Wheeler River

DML's Uniquely Diversified Asset Base



- Denison's Flagship property in eastern Athabasca Basin (AB)
- **Gryphon + Phoenix co-development**
- PEA completed 1H16 with 20.4% IRR @ US\$44/lb U₃O₈
- PFS in progress

Wheeler River Project (60%)

- Strategic high-grade AB uranium mill
 - **6 M lbs/year excess milling capacity**
 - +C\$6M/year in tolling revenue
 - 24 M lbs /year capacity

McClean Lake Mill (22.5%)

- Interests in Midwest (25.17%), McClean (22.5%), and Waterbury (60%)
- **Over 350,000 hectares of eastern AB exploration properties** (e.g. Murphy, Mann, Crawford)

Strategic Project Portfolio

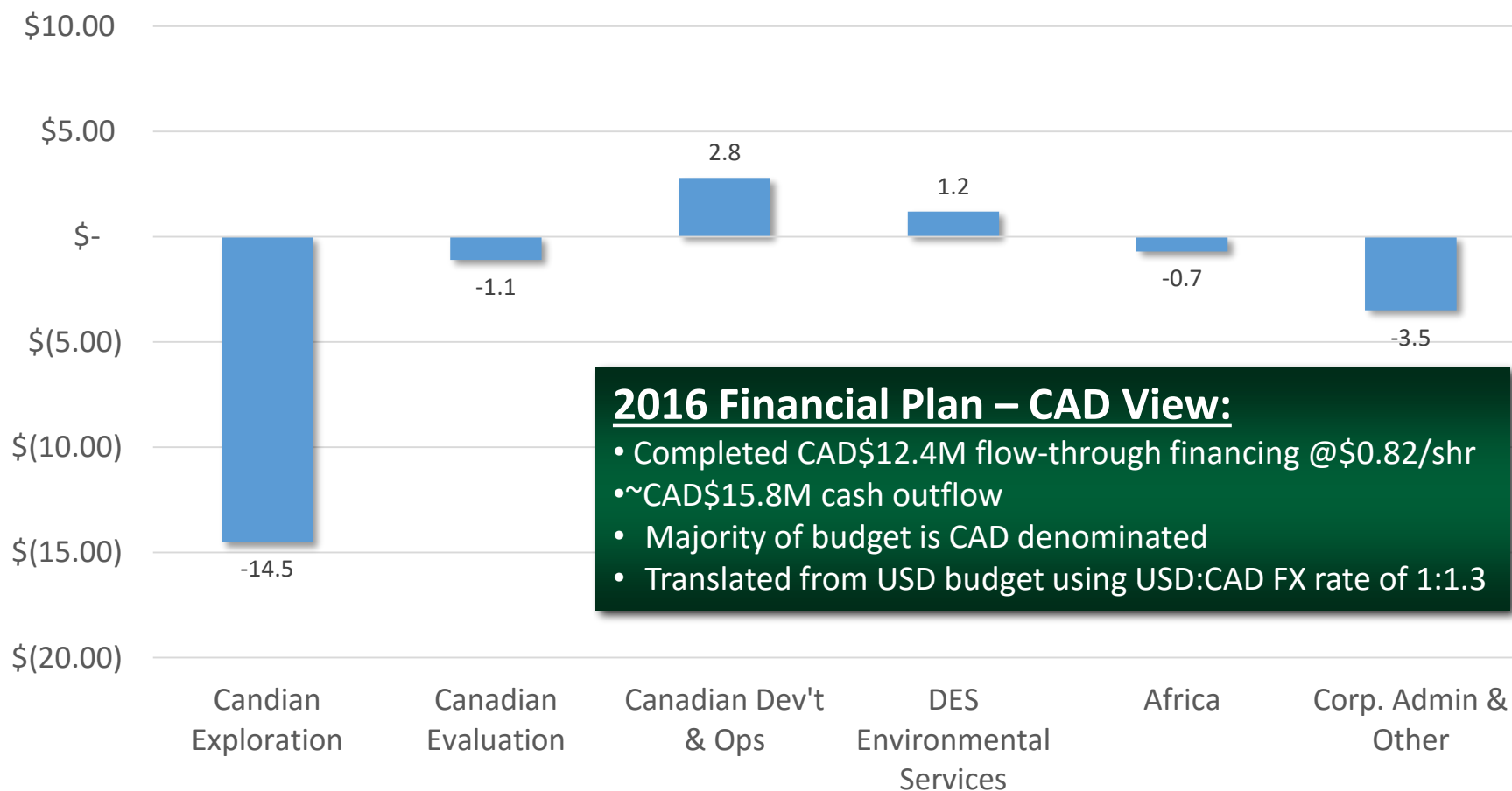
Cash Flow from UPC & DES

- Management services Agreement with UPC (TSX: U)
- DES environmental services group in Elliot Lake
- **Regular cash flow minimizes reliance on dilutive equity financing**

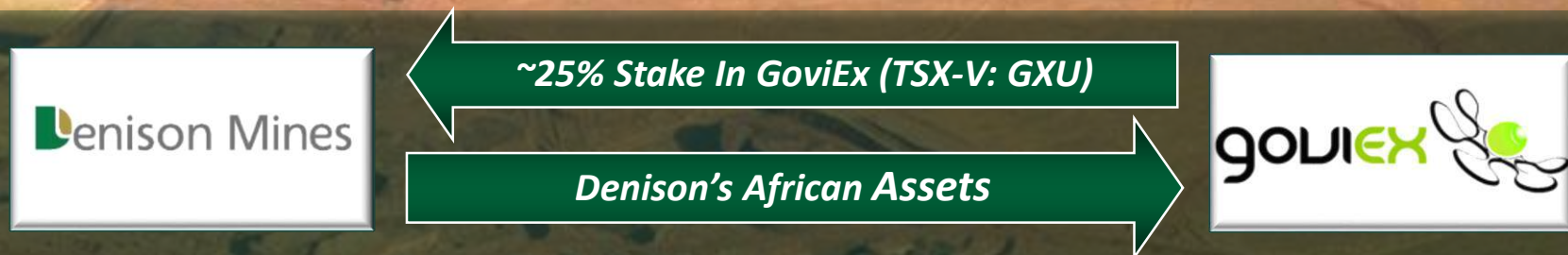
2016 Budget Highlights



2016 Budget Highlights (CAD, Millions)



Denison & GoviEx Combine African Assets



- Transaction gives Denison exposure to GoviEx's flagship Madaouela project in Niger, while finding a strategic home for Denison's African assets
- Madaouela is one of the world's most advanced uranium development projects
- Transforms Govi-Ex Uranium Inc. (TSX-V: GXU) into a large, diversified, and growth-focused African uranium development champion
 - Controlling one of the largest uranium resource bases among publicly listed companies
 - Two permitted African uranium mining / development projects
 - Total Measured & Indicated resources: 124.29 M lbs U_3O_8
 - Total Inferred resources of 73.11 M lbs U_3O_8
 - Geographically diversified between Niger, Zambia, Mali, and Namibia
- Completes Denison's objective of divesting non-core assets to focus resources and capital towards the Company's development projects in the Athabasca Basin

The Denison Advantage



- Flagship Wheeler River Project (60%) – Gryphon + Phoenix Deposits have potential to generate +20% pre-tax IRR per PEA
- Strategic ownership of the McClean Lake uranium mill (22.5%)
- 350k+ Hectares of strategic ground in the Athabasca Basin
- Significant internal sources of cash flow – Minimizing reliance on dilutive equity financing
- Motivated Management Team

Notes

Corporate Information



Market Summary

Exchanges	TSX: DML , NYSE MKT: DNN
Shares Outstanding ⁽¹⁾	533.4 M
Warrants ⁽¹⁾	nil
Options ⁽¹⁾	7.4 M
Fully Diluted Shares ⁽¹⁾	540.8 M
Market Cap – DML @ C\$0.61/share ⁽²⁾	CAD\$325.4 M
Market Cap – DNN @ U\$0.47/share ⁽²⁾	USD\$261.4 M
Daily Trading Volume – DML ⁽³⁾	646,950 shares
Daily Trading Volume – DNN ⁽³⁾	328,434 shares

Management & Directors

Lukas Lundin (Executive Chairman)

David Cates (President & CEO)

Mac McDonald (VP Finance & CFO)

Peter Longo (VP Project Development)

Dale Verran (VP Exploration)

Hyung Mun Bae (Director)

W. Robert Dengler (Director)

Brian D. Edgar (Director)

Ron F. Hochstein (Director)

William A. Rand (Director)

Catherine J.G. Stefan (Director)

(1) As of August 4th, 2016 – per Denison's 2Q 2016 MD&A / Financial Statements

(2) Based on shares outstanding above, and DML & DNN share prices as of September 30, 2016

(3) Average daily trading volume over the 3 months ended September 30, 2016

LUNDINGROUP



Investor Update

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