Certain information contained in this presentation constitutes “forward-looking information” (as defined in the Securities Act (Ontario)) and “forwarding-looking statements” (as defined in the United States Private Securities Litigation Reform Act of 1995 and similar Canadian legislation concerning the business, operations and financial performance and condition of Western Uranium Corporation (“Western)). Generally, these forward-looking statements can be identified by the use of forward-looking terminology such as “plans”, “expects” or “does not expect”, “is expected”, “budget”, “scheduled”, “estimates”, “forecasts”, “intends”, “anticipates” or “does not anticipate”, or “believes”, or variations of such words and phrases or state that certain actions, events or results “may”, “could”, “would”, “might” or “will be taken”, “occur”, “be achieved” or “has the potential to”. Forward-looking statements are based on the opinions and estimates of management as of the date such statements are made, and they are subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of each of Western to be materially different from those expressed or implied by such forward-looking information. Western believes that the expectations reflected in this forward-looking information are reasonable, but no assurance can be given that these expectations will prove to be correct, and such forward-looking information included in this presentation should not be unduly relied upon. This information speaks only as of the date of this presentation. In particular, this presentation may contain forward-looking information pertaining to the following: the likelihood of the benefits to be derived from the Black Range transaction (the “Transaction”); the rationale of the Transaction; the estimates of each of Black Range’s and Western’s mineral resources; expectations regarding the milling of ores and associated cash flows; and expectations with respect to the enhanced recoveries and efficiencies with respect to the application of the kinetic separation. There can be no assurance that such statements will prove to be accurate or that they will not differ materially from those anticipated in the forward-looking information. Accordingly, readers should not place undue reliance on forward-looking statements. These factors are not and should not be construed as being exhaustive. Statements relating to “mineral resources” are deemed to be forward-looking information, as they involve the implied assessment, based on certain estimates and assumptions that the mineral resources described can be profitably produced in the future. The forward-looking information contained in the presentation is expressly qualified by this cautionary statement.

Cautionary Note to United States Investors Concerning Estimates of Measured, Indicated and Inferred Mineral Resources: This presentation may use the terms “measured,” “indicated” and “inferred” mineral resources. United States investors are advised that while such terms are recognized and required by Canadian regulations, the United States Securities and Exchange Commission does not recognize them. “Inferred mineral resources” have a great amount of uncertainty as to their existence, and as to their economic and legal feasibility. It cannot be assumed that all or any part of an inferred mineral resource will ever be upgraded to a higher category. Under Canadian rules, estimates of inferred mineral resource may not form the basis of feasibility or other economic studies. United States investors are cautioned not to assume that all or any part of measured or indicated mineral resource will ever be converted into mineral reserves. United States investors are also cautioned not to assume that all or any part of an inferred mineral resource exists, or is economically or legally mineable.

CAUTIONARY STATEMENTS: The operating parameters and recovery estimates derived from field trials have been developed by Western utilizing internal and skilled third party resources. No technical report developed in accordance with NI 43-101 standards has been undertaken to confirm such parameters and recoveries, which therefore cannot be relied upon.

January 2020

www.western-uranium.com
Among the largest U.S. Uranium and Vanadium in-situ resource holders (Historic resources formerly JORC and NI 43-101)
• Total uranium resource ~53,000,000 lbs.
• Total vanadium resource ~35,000,000 lbs.
• Co-credits lower the all-in sustaining cost (AISC)

Near-Term Production Strategy
• Leverage previously producing mines for low CAPEX, infrastructure & permits
• Advance Sunday Mine Complex Project (2019 and 2020)
• Progress the Sunday Mine Complex to Production-Ready status
• Mine and stockpile ore for pursuit of economic supply agreements

Kinetic Separation Technology
• Proprietary process improves efficiency and reduces ore quantity and costs
• Upgrade current kinetic separation production unit to optimize performance
• Advance kinetic separation uranium regulatory framework
• Utilize to improve mining efficiency to lowest quartile production cost

www.western-uranium.com
Applications and Advantages

URANIUM
• **Nuclear Reactor Fuel**: primary application
• **Highest energy density**: one 10 gram uranium pellet equals 17,000 cubic feet natural gas = 149 gallons oil = 1 ton of coal
• **Baseload Energy Source**: available 24/7
• **Pro-Climate Change**: carbon free and zero emissions energy

VANADIUM
• **Steel Making**: primary application- adding 2 lbs vanadium to 1 ton of steel doubles its strength and reduces weight (90% global demand)
• **Aerospace**: critical aircraft components- jet engines & landing gear
• **Vanadium Redox Flow Batteries (VRFB)**: large stationary storage applications- support fast growing grid and renewable energy market
Uranium Catalysts

UNITED STATES URANIUM CATALYST
• President Trump’s response to the Section 232/Nuclear Fuel Working Group (NFWG) recommendations on national security by foreign-state owned enterprises’ on the world’s largest civilian nuclear reactor fleet, U.S. nuclear fuel cycle and uranium mining

URANIUM MARKET CATALYSTS
• Supply tightness reported in the spot market by prospective uranium buyers
• 2019 uranium supply contracts signed significantly above Term Price
• World Nuclear Association (WNA) September 2019 report concluding that in a worst case scenario increased nuclear generating capacity will require new uranium supply

GLOBAL URANIUM SUPPLY
• Annual Production less than Annual Consumption due to mine closures and cutbacks
• North American production nearly ceased due to prices less than production costs
• Constrained future supply because new mine development has 7 to 10 year lead time
GLOBAL URANIUM DEMAND
- Uncontracted demand and historical low inventories at utilities awaiting the Section 232/ Nuclear Fuel Working Group outcome
- Highest nuclear reactor growth in 25 years: ~50 in construction and ~100 planned
- Electrification trend increasing energy demand (example: EV cars)
- Climate change activism demand for carbon free non-fossil fuel energy
- Small Modular Reactors advancing toward mid-2020’s install (~ 2025)
- Technological advancements in accident tolerant fuel and nuclear waste disposal
Uranium $U^3O^8$ Prices (USD$)

(1) Uranium $U^3O^8$ Price—industry average prices derived from Ux Consulting (UxC) and TradeTech month-end average
SUPPLY / DEMAND
• Currently, ~90% of vanadium is used in steel making
• China and Russia supply reduction created 2018 supply deficit
• China transition from exporter to importer drove prices upward
• New Chinese rebar standard increased global demand
• Supply deficit reversal resulted in vanadium price reversal
• Analysts project price rebound from reduced production from stone coal and slag producers and a decline in niobium substitution

MARKET DYNAMICS
• Steel production for global infrastructure main driver vanadium prices
• VRFB growth to support non-baseload energy sources (renewables)
• Vanadium Redox Flow Battery growth in China, Japan, and Australia
Vanadium V\text{2}O\text{5} Price (USD$)

China's New High-Strength Rebar Standard Timeline
Feb 2018  New Standard Announced by China
Nov 2018  Official Effect Date for New Standard
Jul 2019  Producer Enforcement Post-License Renewals

<table>
<thead>
<tr>
<th>Month End</th>
<th>V\text{2}O\text{5} Price (USD$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/14</td>
<td>5.10</td>
</tr>
<tr>
<td>3/15</td>
<td>4.50</td>
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<tr>
<td>6/15</td>
<td>4.30</td>
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<tr>
<td>9/15</td>
<td>3.30</td>
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<tr>
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<tr>
<td>3/16</td>
<td>2.90</td>
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<tr>
<td>6/16</td>
<td>3.40</td>
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<td>9/19</td>
<td>8.60</td>
</tr>
<tr>
<td>12/19</td>
<td>6.10</td>
</tr>
</tbody>
</table>

(1) Vanadium V\text{2}O\text{5} Spot Price (China Vanadium Pentoxide Flake 98% FOB)
Sunday Mine Complex
High-Grade Ore Bodies

Uranium Seam

Uranium-Vanadium Seam

Vanadium Seam

14% Vanadium Ore
Sunday Mine Complex: Re-opening 2019

SUNDAY MINE COMPLEX

• Five underground conventional mines

• Uranium and vanadium production by Union Carbide and Denison (2009)

High Grades

• $U_3O_8$ grades (~0.25% to 0.36%)
• $V_2O_5$ grades (~1.49% to 2.16%)

www.western-uranium.com
Sunday Mine Complex Project
Kinetic Separation

- Applicable to sandstone-hosted deposits
- Uranium and vanadium minerals exist within the matrix of sandstones and as a patina around individual sand grains
- Uses kinetic energy to force particles against each other, without any chemicals, to remove the mineralized patina from barren sandstone grains
- The resulting fine material is a high-grade and high-value ore
- Produces an ore comprised of 85-95% of the uranium/vanadium in only approximately 10-20% of the mass of pre-separation material
Kinetic Separation Benefits

At the Mine
- Observed >90% of mineralization separated into <10-20% of the mass
- Barren material (cleaned sands) can be used for backfill

Transportation
- Up to ~90% reduction in transport costs

Processing
- Up to ~90% less material to process
- Smaller tanks and equipment for comparable output
- Lower power consumption
- Higher grade input and increased output

Overall
- Economically recoverable resources are increased, as lower cut-off grades can be applied
- Opportunity to use as a cleanup technology such as legacy uranium mining sites
## Western Milestones

### 2014
- Sunday Mine uranium /vanadium assets acquired Energy Fuels (NYSE: UUUU)
- Public entity acquired, renamed “Western Uranium Corp” (“WUC”); listed on Canadian Stock Exchange (“CSE”)

### 2015
- Western closes acquisition of Black Range Minerals (ASX: BLR); Acquires mine assets and kinetic separation rights
- Kinetic separation demonstrated during investor/analyst/utility Colorado mine visit.
- Top 3 US utility signs multi-year uranium offtake agreement with Western

### 2016
- OTCQX listing in United States (May)
- Submitted kinetic separation technical report and held CDPHE public meetings
- NRC kinetic separation advisory opinion
- CDPHE issues decision on regulating kinetic separation at Sunday Mine

### 2017
- Consolidated administrative operations
- Made kinetic separation advancements
- Evaluated vanadium mine acquisition

### 2018
- Paid-off resource property debt
- Changed company name to Western Uranium & Vanadium Corp.
- Sunday Mine stockpile sampling

### 2019
- Re-opened Sunday Mine Complex
- Sampling to define and develop high-grade SMC vanadium resource
- Development drilling and ore mining
- Ore production stockpiled underground
- U.S. Section 232 / Nuclear Fuel Working Group recommendation participation
- Prerequisite CDRMS surface projects

### 2020 Execute Production Strategy
- Move underground stockpiles to surface ore pads after complete CDRMS infrastructure projects
- Prime SMC for scaled-up production
- Source economic supply agreements with SMC ore samples
- Kinetic separation regulatory process
# Portfolio of Projects

## Historic Uranium Resources and Vanadium Mineralization and Mine Locations

<table>
<thead>
<tr>
<th>Projects</th>
<th>HISTORIC* (Formerly Measured and Indicated)</th>
<th>HISTORIC* (Formerly Inferred)</th>
<th>VANADIUM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Uranium (lbs)</td>
<td>Grade (%)</td>
<td>Uranium (lbs)</td>
</tr>
<tr>
<td>1 Sunday Complex**</td>
<td>1,007,833</td>
<td>0.25</td>
<td>1,906,081</td>
</tr>
<tr>
<td>2 San Rafael***</td>
<td>2,415,400</td>
<td>0.25</td>
<td>587,800</td>
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<tr>
<td>3 Sage****</td>
<td>459,640</td>
<td>0.23</td>
<td>122,265</td>
</tr>
<tr>
<td>6 Hansen/Taylor Ranch*****</td>
<td>24,580,000</td>
<td>0.062</td>
<td>21,900,000</td>
</tr>
</tbody>
</table>

![Production-Ready Mines](red-star)

**Five Sunday Complex Mines**
- Sunday Mine
- Carnation Mine
- St. Jude Mine
- West Sunday Mine
- Topaz Mine

Additional Uranium and Vanadium Mines: (4) Dunn (5) Van 4
TOTAL HISTORIC URANIUM RESOURCES ~ 53,000,000 lbs

*Important Caution Regarding Historic Mineral Resources:
Historic Mineral resources are not mineral reserves and do not have a demonstrated economic viability. All referenced historic mineral resources are historic estimates under NI 43-101. In order to disclose the historic resources as current, Western would need to complete and file an NI 43-101 technical report on www.sedar.com. The mineral resource estimates set out above may be affected by subsequent assessments of mining, environmental, processing, permitting, taxation, socio-economic, legal, political and other factors. There is insufficient information available to assess the extent to which the potential development of the mineral resources described herein may be affected by these risks and the other risk factors discussed in the Company’s most recent Management Discussion and Analysis.

**Anthony R. Adkins, CPG, is responsible for validating the database as adequate for resource estimation and for estimating the mineral resources pertaining to the Sunday Complex described herein. Mr. Adkins is a Qualified Person and is independent of Western within meaning of NI 43-101.

***O. Jay Gatten, P. Geol., LLC was commissioned by Western to prepare an Independent Technical Report compliant with the Canadian National Instrument, 43-101 on the San Rafael Uranium Project, an advanced-stage uranium property. The report was finalized on November 19, 2014 and filed on sedar.com on November 20, 2015.


*****The information in this presentation that relates to Mineral Resources at the Hansen/Taylor Ranch Uranium Project has been prepared in accordance with JORC standards and is based on information compiled by Mr. Rex Bryan who is a Registered Member of the Society for Mining, Metallurgy and Exploration (SME), which is a Recognized Professional Organization. Mr. Rex Bryan compiled this information in his capacity as a Principal Geologist of Tetra Tech.
Management & Board

**George Glasier, President, CEO and Director**
- Founder and leader of Western Uranium & Vanadium Corporation / 30+ years in uranium and vanadium
- Extensive experience in sales and marketing, project development and permitting uranium processing facilities
- Founder of Energy Fuels Inc. which is currently the largest uranium and vanadium resource holder in the U.S.
- Senior Executive and minority owner of Energy Fuels Nuclear, Inc., formerly the largest uranium producer in the United States led by the Bob Adams, uranium pioneer and a founder of the U.S. uranium industry

**Robert Klein, Chief Financial Officer**
- As CFO, oversees accounting and finance, and is closely involved in capital markets activities, corporate transactions, investor relations, public relations, and legal and compliance
- Previously, Vice President- Finance for Western and Chief Operating Officer at the Cross River Group
- Formerly, Managing Director at Analytical Research, and CFO of Five Points Capital, a Soros hedge fund spin-out
- Holds CFA designation, MBA from the University of Maryland, and began his career in public accounting

**Michael Rutter, Vice President Operations**
- Oversees resource properties and the advancement of Kinetic Separation for Western
- Former Maintenance and Operations Superintendent for Energy Fuels in uranium / vanadium resource production
- Previously oversaw maintenance, planning and development for Lisbon Valley Mining's copper resources
- Initially gained mining, smelting, and refining experience as an electrician supporting Asarco's solvent extraction / electro-winning (SX/EW) process and electrical mining equipment

**Dr. Kaiwen Wu, Consulting Geologist**
- Oversees the Sunday Mine Complex Vanadium Project
- Previously, Senior Exploration Geologist for Energy Fuels overseeing uranium and vanadium exploration
- Expertise conventional sandstone hosted vanadium/uranium deposits; extensive experience in CO/UT Mineral Belt
- Holds Ph.D. in Geological Science from the University of Texas at El Paso

www.western-uranium.com
Bryan Murphy, Non-Executive Director, Chairman
- Founder of Magellan Limited, a firm focused on providing advisory services to public and private companies
- CFO and Head of Finance for Biome Renewables Inc., an early stage renewable energy and design company
- Previously, Co-Founder and Managing Partner of Quest Partners, a boutique advisory firm serving private companies with corporate finance, M&A, and strategy advice
- Seasoned restructuring and turn-around professional with extensive international experience and relationships advising high-growth businesses across North America, Europe, and the Middle East
- Holds HBA and MBA from University of Western Ontario from the Richard Ivey School of Business

Andrew Wilder, Non-Executive Director
- Founder and CEO of Cross River Group, a business development and finance firm focused on clean energy and environmental infrastructure
- Co-Founder and Advisor for Inventiv Capital Management, an infrastructure asset management firm
- Co-Founder and COO of North Sound Capital, a $3B AUM long/short equity hedge fund
- Co-Founder Columbus Avenue Consulting, an independent fund administration business
- Extensive operations background & holds Chartered Accountant (Canada) and CFA designations

Denis Frawley, Corporate Secretary
- Senior Partner at Ormston List Frawley LLP, a Toronto based law firm
- Practices law in the areas of corporate, commercial and securities law, with an emphasis on advising businesses who require securities advice under both Canadian and U.S. law
- Member of the Law Society of Ontario and the New York State Bar Association
## Capital Structure & Ownership (12/31/2019)

**Western Uranium & Vanadium (CSE:WUC & OTCQX:WSTRF)**

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
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<tbody>
<tr>
<td>Share price</td>
<td>C$1.07</td>
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<tr>
<td>Market capitalization</td>
<td>C$32,000,000</td>
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<tr>
<td>Total shares outstanding</td>
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<td>Warrants</td>
<td>8,623,225</td>
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<td>Stock Options</td>
<td>2,808,000</td>
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<tr>
<td>Totally fully diluted shares</td>
<td>41,514,972</td>
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<tr>
<td>52 week closing price range</td>
<td>CAD$0.67 - $1.68</td>
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### Major Shareholders (10%+)

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<thead>
<tr>
<th>Shareholder</th>
<th>Shares</th>
<th>Ownership</th>
</tr>
</thead>
<tbody>
<tr>
<td>George Glasier (CEO)</td>
<td>4,783,333</td>
<td>(16% ownership)</td>
</tr>
</tbody>
</table>
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