# Calgary Denver

### TSXV: PSH | OTCQB: PSHIF

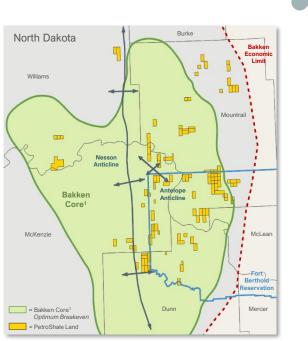
HIGH-QUALITY OIL-FOCUSED US BAKKEN OPERATOR

January 2021

# **ABOUT PETROSHALE**



Pure-play North Dakota Bakken producer focused on high-quality acreage



(1) Bakken Core area defined by a low oil price breakeven

### **HIGH-QUALITY & HIGH-RETURN LIGHT OIL WEIGHTED ASSETS**

100% U.S. asset exposure with 69% oil weighting and 84% liquids weighting in Q3 2021

### ACREAGE IN HEART OF BAKKEN PLAY

Assets focused in most prolific part of North Dakota Bakken / Three Forks with 97% of acreage held by production and under-drilled in the heart of the play

# STACKED OIL PAY & SIGNIFICANT DRILLING INVENTORY

Offer significant runway and long-range development potential with low risk, high-return growth location inventory

### **PROVEN TRACK RECORD**

Demonstrated success with organic production growth and accretive land acquisitions

### STRONG TECHNICAL MANAGEMENT TEAM

Extensive operational, financial and acquisition experience with significant equity ownership



# **INVESTMENT OPPORTUNITY**

High-quality asset base supports strong economic returns

- Light oil weighted assets offer high torque to WTI prices
  - Track record of production growth, with significant upside potential
  - Majority operating asset base with significant drilling location inventory
  - Low-decline, pipeline connected operations offer stability
  - Multiple DUCs provide near term growth in production and cash flow
- Operating netbacks resilient to oil price volatility; supported by high realized pricing, low unit costs, and a robust hedging program
- Sustainable production while retaining the ability to generate meaningful free cash flow at US\$40 WTI and above
- Extensive remaining upside: numerous locations in the core of the Bakken-Three Forks Play





### 4

# 2021 BUSINESS PLAN

Shareholder accretion by focusing on additional cost efficiencies, enhanced margins and prudent spending

# STABLE PRODUCTION PROFILE

FOCUSED CAPITAL SPENDING

### FOCUS ON EFFICIENCIES & LIQUIDITY

- Predictable production base; shallow decline supported by significant drilling inventory
- 84% liquids weighted production (Q3 2021)

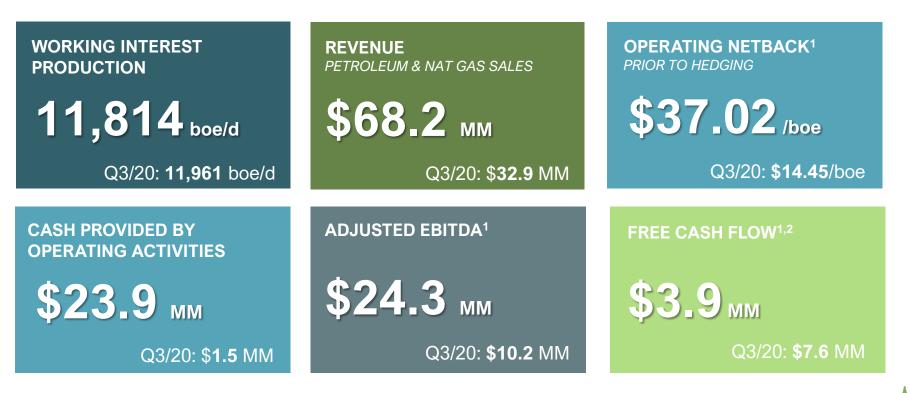
- Development through the prudent allocation of capital based on project economics, payback and the potential for free cash flow generation
- Actively identify and apply operational efficiencies while constantly evaluating opportunities to further strengthen the balance sheet
- Meaningful free cash flow generation down to WTI \$40



# Q3 2021 HIGHLIGHTS



Continued strength in commodity prices drove improved revenue, netbacks, and cash flow



(1) Non-IFRS Measure. See "Non-IFRS Measures" in the Advisories section of this presentation

(2) Calculated with Adjusted EBITDA of \$24.3 MM and capital expenditures of \$20.4 MM as at September 30, 2021

# **MANAGEMENT AND DIRECTORS**



### Experienced management team with a track record of value creation

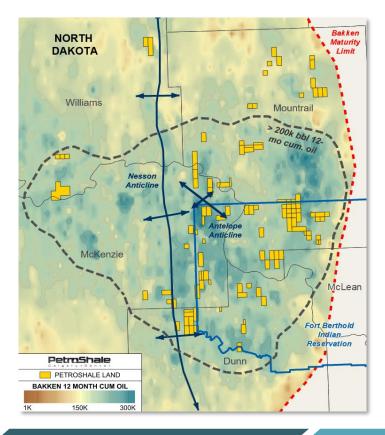
- Combined Calgary & Denver team brings significant technical, financial, governance and capital markets expertise along with unique experience in oil and gas operations and A&D transactions, particularly in the Williston Basin
- Track record of successfully building and growing companies over 20 years; Denver team with extensive experience in North Dakota and on the Fort Berthold Indian Reservation

MANAGEMENT TEAM	BOARD OF DIRECTORS			
M. Bruce Chernoff, P.Eng. – Executive Chairman	M. Bruce Chernoff, P.Eng			
Harvest Energy, Petrobank Energy & Resources, Pacalta Resources	Harvest Energy, Petrobank Energy & Resources, Pacalta Resources			
Jacob Roorda, P.Eng. – President & CEO	Brett Herman, C.A.			
Independent Businessman, formerly President, Harvest Energy	Independent Businessman, formerly, TORC Oil & Gas Ltd.			
Scott Pittman – CFO	Jacob Roorda, P.Eng.			
Chaparral Energy, Ursa Resources, Aethon Energy Management, JP Morgan	Independent Businessman, formerly President, Harvest Energy			
Richard Kessy – COO	Gary Reaves			
Painted Pony, Repsol, Talisman Energy	Managing Director, First Reserve			
Tony Izzo – Senior VP, Corporate Development	David Rain, C.A.			
Rising Sky Energy, White Fire Energy & Lightning Energy	Harvest Energy, Petrobank Energy & Resources, Pacalta Resources			
Dominic Pallone – VP Land & Acquisitions Kodiak Oil & Gas				
Stan Sprinkle – Chief Accounting Officer Carbon Energy, Crescent Point US, Antero Resources, KPMG				

# **HIGH QUALITY WELL LOCATIONS**



Sizeable drilling inventory and acreage situated in heart of the Bakken / Three Forks

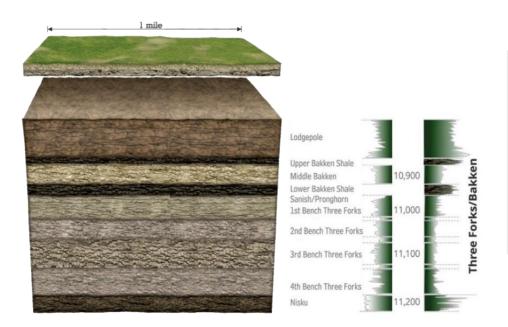


- Majority operated, under-drilled opportunity in the core
- Situated in the highest quality reservoir in the play, leading to enhanced capital efficiencies and reduced operating costs
- Surrounded by the most productive wells in the basin; true core position



# SIGNIFICANT DRILL BIT GROWTH OPPORTUNITY

Stacked pay serves as a multiplier for drilling locations



- Located in the thickest, most resource intense area of the Williston Basin, leading to high original oil in place and multi-bench development opportunities
- Asset base has the optimum combination of reservoir over-pressure, porosity and permeability leading to largest potential recoverable hydrocarbon volumes in the basin
- World class reservoir properties provide a robust inventory for actionable, commercial development with meaningful upside

# **COMMITMENT TO RESPONSIBILITY**

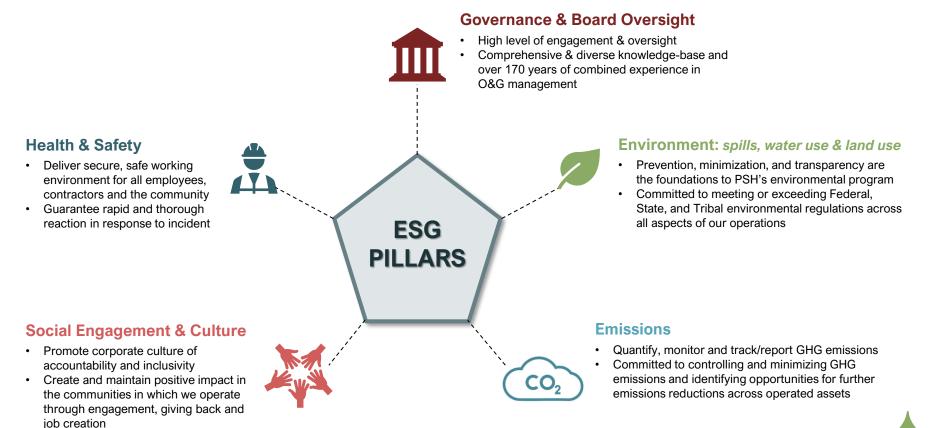


PetroShale is committed to upholding the highest standard of **Environmental, Social and Governance** criteria using our **CASE** principles



# **OUR FIVE PILLARS OF ESG**





# PetmShale



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*High-quality asset base supports strong economic returns* 

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## PetroShale

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### LEGAL COUNSEL

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### **RESERVE ENGINEERS**

Netherland, Sewell & Associates Inc.

BANKERS Bank of Nova Scotia

### **INVESTOR RELATIONS**

5 Quarter Investor Relations, Inc.



# APPENDIX

# Calgary Denver

## 2022 HEDGES<sup>1</sup>



Oil Contracts	Quarter	Volume (bbls/d)	Swap <i>(US\$)</i>	Sold Put <i>(US\$)</i>	Bought Put <i>(US\$)</i>	Sold Call <i>(U</i> S\$)
Costless Collars	Q1 2022	2,500	-	-	48.10	63.29
	Q2 2022	2,750	-	-	48.73	62.72
	Q3 2022	1,500	-	-	50.83	65.32
	Q4 2022	1,500	-	-	50.83	65.32
Fixed Swaps	Q1 2022	1,118	56.85	-	-	-
	Q2 2022	833	58.63	-	-	-
	Q3 2022	417	62.78	-	-	-
	Q4 2022	317	62.78	-	-	-

Natural Gas Contracts	Quarter	Volume (Mmbtu/d)	Swap <i>(US\$)</i>	Sold Put <i>(U</i> S\$)	Bought Put <i>(U</i> S\$)	Sold Call <i>(US\$)</i>
Fixed Swaps	Q1 2022	2,000	3.43	-	-	-
	Q2 2022	2,000	3.43	-	-	-
	Q3 2022	2,000	3.43	-	-	-

### **ADVISORY STATEMENTS**



#### FORWARD-LOOKING STATEMENTS

Certain information set forth in this presentation, including (among other things): PetroShale's proposed development opportunities, business plans and intentions, expectations for realizing certain benefits from higher well density spacing within its DSUs (including as described below under "Drilling Locations"), the Company's belief that more development opportunities exist within its core focus areas, expectations forn near-term drilling activity, timing of drilling and well completion activity, expected results from wells following a 'type curve', and the Company's investment summary, including the potential set forth therein, may constitute forward-looking statements under applicable estimates and assumptions, that the reserves described exist in the quantities predicted or estimated and can be profitably produced in the future. These forward-looking statements are subject to numerous risks and uncertainties, certain of which are beyond PetroShale's control, including without limitation, risks associated with oil and gas exploration, development, exploitation, production, marketing and transportation, loss of markets, volatility of commodity prices, volatility in production rates, environmental risks, inability to obtain drilling rigs or other services, capital expenditure costs, including drilling, completion and facility costs, unexpected decline rates in wells, wells not performing as expected, delays resulting from or inability to obtain required third party and regulatory approvals, ability to access sufficient capital from internal and external sources, inability to access gas transportation and processing infrastructure, the impact of general economic conditions in Canada, the United States and overseas, industry conditions, fluctuations in foreign exchange or interest rates, and the uncertainty of estimates and projections of production, costs and expenses. Management believes there is a reasonable basis for the forward-looking statements contained in this presentation.

With respect to forward-looking statements contained in this presentation, PetroShale has made a number of assumptions. The key assumptions underlying the aforementioned forward-looking statements include assumptions regarding (among other things): that increased well density within a drilling spacing unit will provide additional economic drilling locations (as set forth herein); the impact of increasing competition; the general stability of the coenomic drilling locations (as set forth herein); the impact of increasing competition; the general stability of the coenomic drilling locations (as set forth herein); the impact of increasing competition; the general stability of the coenomic drilling locations (as set forth herein); the impact of increasing competition; the general stability of the coenomic drilling locations (as set forth herein); the impact of increasing competition; the general stability of the coenomic drilling locations (as set forth herein); the impact of increasing competition operations; the timely and regulatory approvals; the ability of the Company to obtain qualified staff, equipment and services in a timely and the coefficient manner; drilling results; that the net proceeds of the Offered Shares will remain consistent with those stated in the Company's short form prospectus; the timing of drilling plans and completion operations; the ability of the operator of the projects in which the Company has an interest in operating the field in a safe, efficient and effective manner; the ability of the Company to obtain financing on acceptable terms; field production rates, decline rates and ultimate resource recovery from wells; the ability to replace and expand oil and natural gas reserves through acquisition, development and exploration; the timing and costs of pipeline, staxes and environmental matters in the jurisdictions in which the Company operates; and the ability of the Company to successfully market its oil and natural gas production. Certain or all of the forgoing assumptions may prove

PetroShale's actual results, performance or achievement could differ materially from those expressed in, or implied by, these forward-looking statements and, accordingly, no assurance can be given that any of the events anticipated by the forward-looking statements will transpire or occur, or if any of them do so, what benefits that the Company will derive therefrom. All subsequent forward-looking statements, whether written or oral, attributable to the Company or persons acting on its behalf are expressly qualified in their entirety by these cautionary statements. Additional information on these and other factors that could affect PetroShale's operations and financial results are included in reports on file with Canadian securities regulatory authorities and may be accessed through the SEDAR website (<u>www.sedar.com</u>). The forward-looking statements contained in this document are made as at the date of this presentation and PetroShale does not undertake any obligation to update publicly or to revise any of the included forward-looking statements, whether as a result of new information, future events or otherwise, except as may be required by applicable securities laws.

**NON-IFRS MEASURES:** Within this presentation, references are made to "operating netback", "operating netback prior to hedging", "net debt", "Adjusted EBITDA" and "free cash flow", which are not defined by IFRS and therefore may not be comparable to performance measures presented by others. Operating netback represents revenue, plus or minus any realized gain or loss on financial derivatives less royalities, production taxes, operating netback prior to any realized gain or loss on financial derivatives. Net debt represents total liabilities, excluding decommissioning obligation, lease liabilities, deferred tax liabilities and any financial derivative liability, less current assets. Adjusted EBITDA represents cash flow from operating activities prior to changes in non-cash working capital. The Company believes that Adjusted EBITDA provides useful information to the reader in that it measures the Company's ability to generate funds to service its debt and other obligations and to fund its operations, without the impact of changes in non-cash working capital which can vary based solely on timing of settlement of accounts receivable and accounts payable. Free cash flow is a non-IFRS measure which should not be considered an alternative to, or more meaningful than, cash flow from operating netback, Adjusted EBITDA and free cash flow are useful supplemented measures as they assist in the determination of the Company as a measure of financial liquidity and the capacity of the Company to repay debt and pursue other corporate objectives. Free cash flow are useful supplemental measures as they assist in the determination of the Company's operating performance, leverage and liquidity. Operating netback is commonly used by investors to assess performance of oil and gas properties and the possible impact of the Company's performance, leverage and liquidity. Operating netback is commonly used by investors to assess performance of oil and gas properties and the possible impact of the Company's performance. Investors should be

# **ADVISORY STATEMENTS, CONT'D**



ANALOGOUS INFORMATION: In this presentation, PetroShale has provided certain information on the production rate of a well on properties adjacent to the Company's acreage which is "analogous information" as defined by applicable securities laws. This analogous information is derived from publicly available information sources which the Company believes are predominantly independent in nature. Some of this data may not have been prepared by qualified reserves evaluators or auditors and the preparation of any estimates may not be in strict accordance with Canadian Oil & Gas Evaluation Handbook. Regardless, estimates by engineering and geotechnical practitioners may vary and the differences may be significant. PetroShale believes that the provision of this analogous information will be accurate.

**INITIAL PRODUCTION RATES**: Any references in this presentation to well-flow test results and/or initial production rates are useful in confirming the presence of hydrocarbons, however, such test results and rates are not determinative of the rates at which such wells will continue production and decline thereafter. While encouraging, readers are cautioned not to place reliance on such test results and rates in calculating the aggregate production for the Company. Well-flow test results and initial production rates may be estimated based on other third party estimates or limited data available at the time. Well-flow test result data should be considered to be preliminary until a pressure transient analysis and/or well-test interpretation has been carried out. In all cases in this presentation, well-flow test results are not necessarily indicative of long-term performance of the relevant well or fields or of ultimate recovery of hydrocarbons.

**DRILLING LOCATIONS:** This presentation discloses drilling locations in two categories: (i) proved and probable locations; and (ii) un-booked locations. Proved plus probable drilling locations set forth herein are based on the Company's most recent independent reserves evaluation as prepared by Netherland, Sewell & Associates Inc.("NSAI") as of December 31, 2020. Unbooked locations are internal estimates based on the Company's most recent independent reserves evaluation as prepared by Netherland, Sewell & Associates Inc.("NSAI") as of December 31, 2020. Unbooked locations are internal estimates based on the Company's prospective detributed reserves or resources. Unbooked locations have been identified by management as an estimation of our multi-year drilling activities based on evaluation of applicable geologic, seismic, engineering, production and reserves information. There is no certainty that such locations will result in additional oil and gas reserves, resources or production. The drilling locations on which we actually drill wells will ultimately depend upon the availability of capital, regulatory approvals, seasonal restrictions, oil and natural gas prices, costs, actual drilling locations, management has less certainty whether wells will be drilled in such locations and if drilled there is more uncertainty that such wells will result in additional oil and gas reserves, resources or production.

BOE. Where amounts are expressed on a barrel of oil equivalent ("Boe") basis, natural gas volumes have been converted to Boe using a ratio of 6,000 cubic feet of natural gas to one barrel of oil (6 Mcf: 1 Bbl). This Boe conversion ratio is based on an energy equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at the wellhead. Given the value ratio based on the current price of crude oil as compared to natural gas is significantly different from the energy equivalency of 6 Mcf: 1 Bbl, utilizing a conversion ratio at 6 Mcf: 1 Bbl may be misleading as an indication of value. In this presentation, mboe refers to thousands of barrels of oil equivalent.

**COMPANY INTERESTS.** Company interest means, in relation to the Company's interest in production and reserves, the Company's working interest (operating and non-operating) before the deduction of royalties payable and including such entity's royalty interest in production and reserves. Where volumes of reserves have been presented, they have been presented as company working interest, gross of royalties unless otherwise indicated. Where volumes of production have been presented, they have been presented, they have been presented as company working interest, gross of royalties, except where otherwise noted. Company net revenue interests is the share of production to the Company after all burdens, such as royalties and overriding royalties, have been deducted from the Company's working interest. Relative price deck used by NSAI in their reserves evaluation has been disclosed within our 2020 Annual Information Form available on our SEDAR profile. There is no assurance that the forecast prices and cost assumption will be attained and variances could be material. The recovery and reserve estimates of our tight oil and shale gas reserves may be greater than or less than the estimates provided herein. It should not be assumed that the discounted future revenue estimated by NSAI represents the fair market value of the reserves.

# **ADVISORY STATEMENTS, CONT'D**



**RESERVES DISCLOSURES.** Estimates pertaining to the Company's reserves and the net present value of future net revenue attributable thereto are based upon the independent engineering evaluation of the crude oil, natural gas liquids and natural gas reserves of the Company prepared by NSAI, the Company's independent reserves evaluator, as at December 31, 2020, which is prepared in accordance NI 51-101 and the COGE Handbook. The estimates pertaining to reserves provided in this presentation are estimates and there is no guarantee that the estimated reserves will be recovered. Actual reserves and the estimated number of potential undeveloped drilling locations to which reserves have been attributed, may be greater than or less than the estimates provided in this presentation and the differences may be material. The estimates of reserves and future net revenue for all properties, due to the effects of aggregation. Estimates of net present value of future net revenue of all to the Company's reserves do not represent fair market value and there is uncertainty that the net present value of future net revenue will be realized. There is no assurance that the forecast price and cost assumptions applied by NSAI in evaluating PetroShale's reserves will be attained and variances could be material. The reserves information contained in this presentation should be reviewed in conjunction with the annual information form of the Company for the year ended December 31, 2020 which is available on SEDAR, and contains important additional information regarding the independent reserve evaluation that was conducted by NSAI and a description of, and important information about, the reserves terms

**NOTICE TO U.S. READERS.** The Company's reserves information contained in this presentation has generally been prepared in accordance with Canadian disclosure standards, which are not comparable in all respects to United States disclosure standards. Reserves categories such as "proved reserves" and "probable reserves" may be defined differently under Canadian requirements than the definitions contained in the United States Securities and Exchange Commission ("SEC") rules. In addition, under Canadian disclosure requirements and industry practice, reserves and production are reported using gross volumes, which are volumes prior to deduction of royalty and similar payments. The practice in the United States is to report reserves and production using net volumes, after deduction of applicable royalties and similar payments. Canadian disclosure requirements require that forecasted commodity prices be used for reserves evaluations, while the SEC mandates the use of an average of first day of the month price for the 12 months prior to the net porting period.

#### Selected Definitions

"COGE Handbook" means the Canadian Oil and Gas Evaluation Handbook maintained by the Society of Petroleum Evaluation Engineers (Calgary Chapter), as amended from time to time.

"NI 51-101" means National Instrument 51-101 Standards of Disclosure for Oil and Gas Activities.

"reserves" are estimated remaining quantities of oil and natural gas and related substances anticipated to be recoverable from known accumulations, as of a given date, based on: (i) analysis of drilling, geological, geophysical and engineering data; (ii) the use of established technology; and (iii) specified economic conditions, which are generally accepted as being reasonable. Reserves are classified according to the degree of certainty associated with the estimates.

"proved reserves" or ("1P reserves") are those reserves that can be estimated with a high degree of certainty to be recoverable. It is likely that the actual remaining quantities recovered will exceed the estimated proved reserves.

"probable reserves" or ("2P reserves") are those additional reserves that are less certain to be recovered than proved reserves. It is equally likely that the actual remaining quantities recovered will be greater or less than the sum of the estimated proved plus probable reserves or ("P+P reserves").

#### **Certain Abbreviations:**

bbl means barrel

MMboe means million barrels of oil equivalent MM means millions

- boe/d means barrel of oil equivalent per day
  EUR means estimated ultimate recovery
  - means estimated ultimate recovery IP30 mean
    - means 30 day average initial production rate