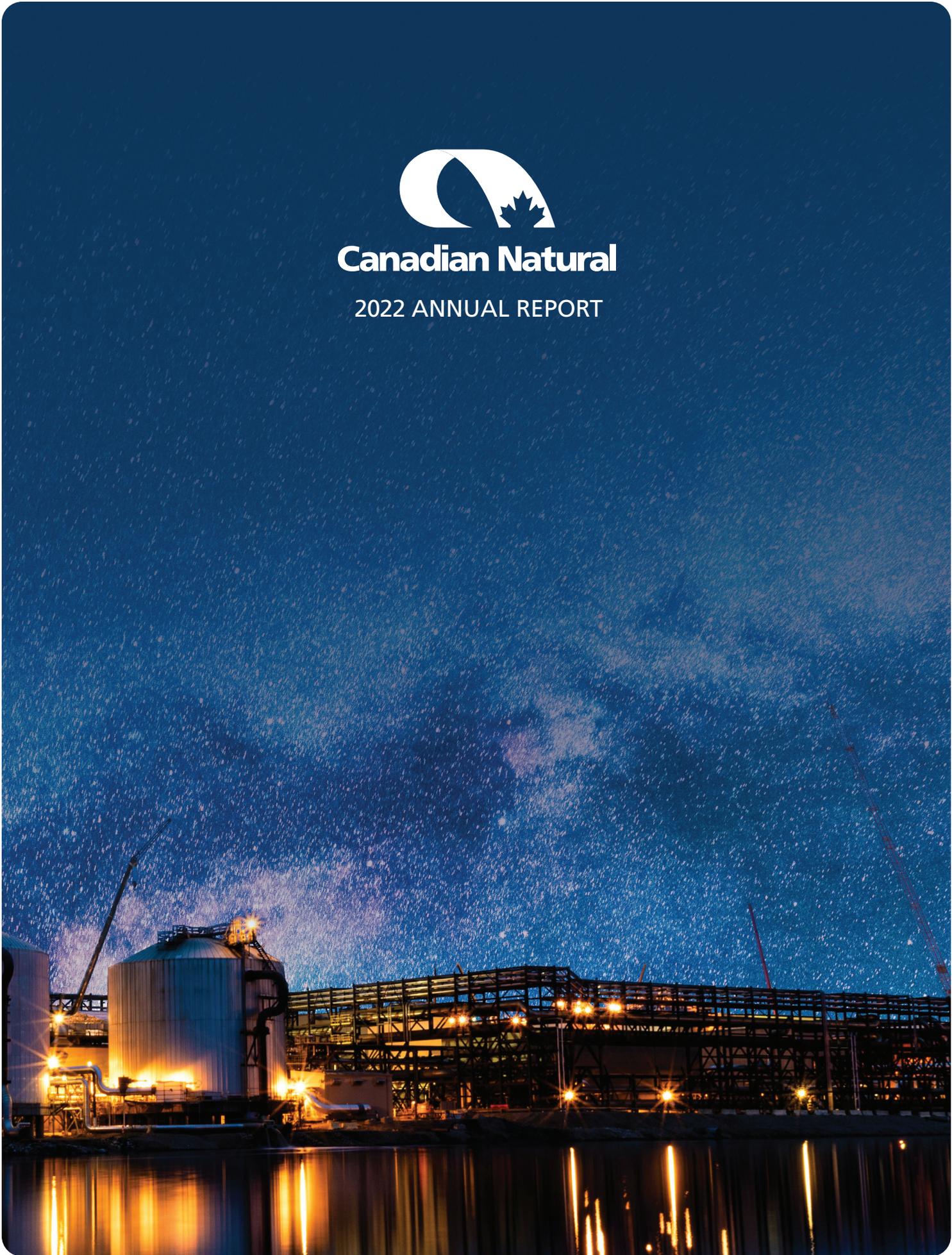




# Canadian Natural

2022 ANNUAL REPORT



# 2022 Performance Highlights

Canadian Natural's diverse and balanced asset base along with the Company's flexible capital allocation strategy and continued focus on effective and efficient operations delivered record operational and financial results in 2022. These strong results generated substantial free cash flow, significant returns to shareholders and strong reserves growth in the year.

	2022	2021	2020
<b>FINANCIAL</b> (\$ millions, except per common share amounts)			
Product sales <sup>(1)</sup>	\$ 49,530	\$ 32,854	\$ 17,491
Net earnings (loss)	\$ 10,937	\$ 7,664	\$ (435)
Per common share – basic	\$ 9.64	\$ 6.49	\$ (0.37)
– diluted	\$ 9.52	\$ 6.46	\$ (0.37)
Adjusted net earnings (loss) from operations <sup>(2)</sup>	\$ 12,863	\$ 7,420	\$ (756)
Per common share – basic <sup>(3)</sup>	\$ 11.33	\$ 6.28	\$ (0.64)
– diluted <sup>(3)</sup>	\$ 11.19	\$ 6.25	\$ (0.64)
Cash flows from operating activities	\$ 19,391	\$ 14,478	\$ 4,714
Adjusted funds flow <sup>(2)</sup>	\$ 19,791	\$ 13,733	\$ 5,200
Per common share – basic <sup>(3)</sup>	\$ 17.44	\$ 11.63	\$ 4.40
– diluted <sup>(3)</sup>	\$ 17.22	\$ 11.57	\$ 4.40
Cash flows used in investing activities	\$ 4,987	\$ 3,703	\$ 2,819
Net capital expenditures <sup>(2)</sup>	\$ 5,471	\$ 4,908	\$ 3,206
Long-term debt, net <sup>(4)</sup>	\$ 10,525	\$ 13,950	\$ 21,269
Shareholders' equity	\$ 38,175	\$ 36,945	\$ 32,380
Debt to book capitalization <sup>(4)</sup>	22%	27%	40%

(1) Further details related to product sales are disclosed in the "Segmented Information" note to the Company's audited consolidated financial statements.

(2) Non-GAAP Financial Measure. Refer to the "Non-GAAP and Other Financial Measures" section of the Company's annual Management's Discussion and Analysis ("MD&A") for the year ended December 31, 2022, dated March 1, 2023, included in this annual report.

(3) Non-GAAP Ratio. Refer to the "Non-GAAP and Other Financial Measures" section of the Company's MD&A.

(4) Capital Management Measure. Refer to the "Non-GAAP and Other Financial Measures" section of the Company's MD&A.

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	2022	2021	2020
<b>OPERATING</b>			
<b>Daily production, before royalties <sup>(1)</sup></b>			
Crude oil and NGLs (Mbb/d)			
North America - Exploration and Production	480	473	460
North America - Oil Sands Mining and Upgrading	426	448	417
North Sea	13	18	23
Offshore Africa	14	14	17
	<b>933</b>	952	918
Natural gas (MMcf/d)			
North America	2,075	1,680	1,450
North Sea	2	3	12
Offshore Africa	13	12	15
	<b>2,090</b>	1,695	1,477
Barrels of oil equivalent (MBOE/d) <sup>(2)</sup>	<b>1,281</b>	1,235	1,164
<b>Drilling activity <sup>(3)</sup></b>			
North America	390	193	71
North Sea	—	6	1
Offshore Africa	—	—	—
	<b>390</b>	199	72

(1) Numbers may not add due to rounding.

(2) A barrel of oil equivalent ("BOE") is derived by converting six thousand cubic feet ("Mcf") of natural gas to one barrel ("bbl") of crude oil (6 Mcf:1 bbl). This conversion may be misleading, particularly if used in isolation, since the 6 Mcf:1 bbl 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. In comparing the value ratio using current crude oil prices relative to natural gas prices, the 6 Mcf:1 bbl conversion ratio may be misleading as an indication of value.

(3) Net wells. Excludes net stratigraphic test and service wells.

**1,281,434**  
BOE/D  
RECORD PRODUCTION

**60%**  
OF LIQUIDS PRODUCTION IS  
SCO, LIGHT CRUDE OIL & NGLS

# Letter to Shareholders

In 2022, the strength of our balanced, diverse asset base combined with our flexible capital allocation strategy yielded substantial free cash flow <sup>(1)</sup> generation and strong reserve growth, which resulted in significant returns to our shareholders. We achieved record annual production of approximately 1,281 MBOE/d in 2022, an increase of 4% from 2021 levels, and 8% growth on a production per share basis. This growth was largely driven by our strategic investment in our robust natural gas assets, which resulted in 23% production growth from 2021 levels in our natural gas assets, achieving record annual natural gas production of approximately 2.1 Bcf/d. Our culture of continuous improvement, focus on cost control and disciplined capital allocation continue to drive strong operational and financial results, maximizing value for our shareholders. Canadian Natural generated approximately \$19.8 billion in adjusted funds flow in 2022, resulting in free cash flow of approximately \$10.9 billion, after total dividend payments and base capital expenditures excluding net acquisitions and strategic growth capital. We were able to deliver significant returns to shareholders in 2022, totaling approximately \$10.5 billion through \$5.6 billion in share repurchases and \$4.9 billion in dividends, including a special dividend of \$1.50 per common share paid in August 2022. This equates to approximately \$9.25 per share in direct returns to shareholders in 2022.

In 2022, the Board of Directors approved two separate increases to our quarterly dividend, for a combined increase of 45%, to \$0.85 per common share. Subsequent to year end, the Board of Directors approved an additional 6% increase in the quarterly dividend to \$0.90 per common share from \$0.85 per common share, demonstrating the confidence that the Board of Directors has in the sustainability of our business model, our strong balance sheet and the strength of our diverse, long life low decline asset base. The Company has a leading track record of 23 consecutive years of dividend increases, with a compound annual growth rate of 21% over that time period. One of Canadian Natural's key strengths is the diversity of our world class assets. Strategically assembled and developed over several decades, our top tier assets have a low decline rate as well as low maintenance capital relative to the size and quality of our reserves, which affords us significant flexibility when balancing our four pillars of capital allocation: returns to shareholders, balance sheet strength, resource value growth and opportunistic acquisitions. We delivered on all four of our pillars in 2022, through our disciplined and flexible approach to planning with a goal of safe, reliable, effective and efficient operations, maximizing value for our shareholders.

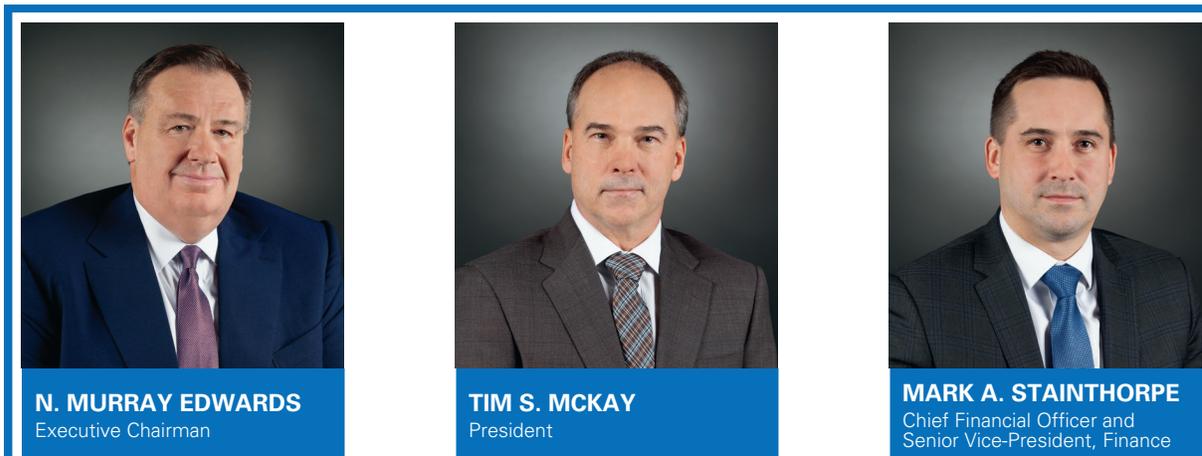
We maintained a strong balance sheet and reduced our net debt by approximately \$3.4 billion in 2022, closing the year with approximately \$10.5 billion in net debt. In just two years, we have reduced our net debt by \$10.7 billion or approximately 50% from the beginning of 2021.

Our free cash flow allocation policy is unique and balanced, providing significant returns to shareholders through dividends and share repurchases while continuing to strengthen the balance sheet. In 2022, we allocated approximately 50% of the Company's free cash flow, as defined in our current policy, to share repurchases and 50% to the balance sheet. Concurrently with the release of Canadian Natural's year end results, the Company enhanced its free cash flow allocation policy due to being in a strong financial position and having a sustainable cash flow profile, particularly when you compare our debt levels to the size, diversity, and long life low decline nature of our high value reserves. As a result, the Board of Directors has confidence in the sustainability and resilience of the Company to support accelerating incremental shareholder returns to 100% of free cash flow when the Company's net debt reaches \$10 billion. Once the Company's net debt reaches \$10 billion, the free cash allocation policy will be adjusted to define free cash flow as adjusted funds flow less dividends, less total capital expenditures in the year.

As a result of our diversified portfolio, we achieved annual realized natural gas pricing of \$6.55/Mcf in 2022, which was approximately 17% above the AECO benchmark price. In addition, our high value synthetic crude oil ("SCO") captured a strong price premium to WTI of US\$4.43/bbl, driving strong realized SCO pricing of \$117.69/bbl, which on an annual basis represents approximately 46% of our total liquids volumes and generates significant free cash flow for the Company.

**~\$10.9 BILLION**  
**RETURNED TO SHAREHOLDERS**

**~\$3.4 BILLION**  
**NET DEBT REDUCTION**



**N. MURRAY EDWARDS**  
Executive Chairman

**TIM S. MCKAY**  
President

**MARK A. STAINTHORPE**  
Chief Financial Officer and  
Senior Vice-President, Finance

Canadian Natural's total proved reserves increased by 6% to 13.587 billion BOE, replacing 2022 production by 265%. This provides the Company with a total proved BOE reserves life index ("RLI") of approximately 32 years and reflects the strength and depth of our assets. We continued to deliver strong total proved finding, development and acquisition ("FD&A") costs, including changes in future development costs, of \$8.39/BOE in 2022.

Canadian Natural is committed to supplying safe, reliable and responsible energy, along with reducing its environmental footprint. We incorporate Environmental, Social and Governance ("ESG") practices that strengthen our long term sustainability across all aspects of our business. In 2022, we announced a new environmental target to reduce corporate scope 1 and 2 absolute GHG emissions by 40% by 2035, in addition to our other robust environmental targets. We have a defined journey to net zero emissions in oil sands operations and are working collaboratively with our industry peers through the Pathways Alliance to achieve this goal. It is important we work together with both federal and provincial governments to achieve climate goals, in an economically feasible manner. We are also an industry leader in abandonment and reclamation activity and through our active program, we have abandoned more than 3,000 wells per year in each of the last two years. At this pace, we would be able to achieve 100% abandonment of our current inventory of inactive wells in approximately 10 years.

Canadian Natural is committed to safe, effective and efficient operations, and creating a shared value in the communities where we operate in Canada, the United Kingdom and Africa. This group of stakeholders includes more than 24,000 landowners, over 160 municipalities and more than 80 Indigenous communities in Western Canada, as well as industry, governments, regulators, academia, and non-governmental groups. The Company works with these diverse communities to identify opportunities for education and training, employment, business development and community investment. Canadian Natural also has a strong commitment to corporate governance, which assures stakeholders that the Company always operates with the highest levels of integrity and ethical standards. In 2022, we worked with 167 Indigenous businesses through which approximately \$684 million in contracts were awarded, a 20% increase from 2021 levels.

Canadian Natural is a unique E&P company that has a strong track record of delivering free cash flow, increasing returns to shareholders and strong returns on capital through the optimizing of capital allocation to our four pillars, maximizing value for our shareholders. Our 2023 capital budget of approximately \$5.2 billion<sup>(1)</sup> consists of approximately \$4.2 billion<sup>(1)</sup> of base capital and strategic growth capital of approximately \$1.0 billion<sup>(1)</sup>, driving annual targeted production growth of approximately 70,000 BOE/d, or 6% from 2022 levels. We remain committed to sustainable, growing shareholder returns, a strong balance sheet and reducing our environmental footprint through innovative technology and continuous improvement, continuing to build upon its history of creating premium value for our shareholders.

We would like to thank our employees and contractors for their hard work and commitment to deliver safe, reliable, effective and efficient operations across all areas of the business. Your commitment to operational excellence underpins the ongoing success of the business and our culture of working together and continuous improvement positions Canadian Natural well to continue to drive long-term shareholder value.

**N. MURRAY EDWARDS**  
Executive Chairman

**TIM S. MCKAY**  
President

**MARK A. STAINTHORPE**  
Chief Financial Officer and  
Senior Vice-President, Finance

(1) Refer to page 5 and the "Non-GAAP and Other Financial Measures" section of the Company's MD&A for additional details.

## NON-GAAP AND OTHER FINANCIAL MEASURES

This report includes references to non-GAAP and other financial measures as defined in National Instrument 52-112 – Non-GAAP and Other Financial Measures Disclosure. These financial measures are used by the Company to evaluate its financial performance, financial position or cash flow and are not defined by IFRS and therefore are referred to as non-GAAP and other financial measures. These measures used by the Company may not be comparable to similar measures presented by other companies, and should not be considered an alternative to or more meaningful than the most directly comparable financial measure presented in the Company's financial statements.

### FREE CASH FLOW

Free cash flow is a non-GAAP financial measure that represents adjusted funds flow adjusted for base capital expenditures and dividends on common shares. The Company considers free cash flow a key measure in demonstrating the Company's ability to generate cash flow to fund future growth through capital investment, pay returns to shareholders and to repay debt.

(\$ millions)		<b>2022</b>	2021	2020
Adjusted Funds Flow <sup>(1)</sup>	<b>\$</b>	<b>19,791</b>	\$ 13,733	\$ 5,200
Less: Base Capital Expenditures <sup>(2)</sup>		<b>3,956</b>	4,908	3,206
Dividends on Common Shares		<b>4,926</b>	2,170	1,950
Free Cash Flow	<b>\$</b>	<b>10,909</b>	\$ 8,080	\$ 549

(1) Refer to the descriptions and reconciliations to the most directly comparable GAAP measure, which are provided in the "Non-GAAP and Other Financial Measures" section of the Company's MD&A for the year ended December 31, 2022 dated March 1, 2023, included in this annual report.

(2) Item is a component of net capital expenditures. Refer to the "Non-GAAP and Other Financial Measures" section of Company's MD&A for the year ended December 31, 2022 dated March 1, 2023 for more details on net capital expenditures.

### CAPITAL BUDGET

Capital budget is a forward looking non-GAAP financial measure. The capital budget is based on net capital expenditures (Non-GAAP Financial Measure) and excludes net acquisition costs. Refer to the "Non-GAAP and Other Financial Measures" section of the Company's MD&A for more details on net capital expenditures.

### LONG-TERM DEBT, NET

Long-term debt, net (also referred to as net debt) is a capital management measure that is calculated as current and long-term debt less cash and cash equivalents.

# Our World-Class Team

**Our proven strategy and disciplined business approach are supported by our dedicated teams and experienced management team. Canadian Natural's exponential growth reflects dedication, planning and resilience from its main resource: our employees.**

G. Aalders, E. Aasen, L. Abadier, E. Abajifar, A. Abakar, Z. Abbas, T. Abbasi, D. Abbott, J. Abbott, M. Abbott, A. Abd, M. Abd Al Razzeq, Y. Abdallah, I. Abdi, M. Abdi, W. Abdi, A. Abdolmaleki, S. Abdughany, M. Abdullahi, M. Abdulrhman, A. Abeda, W. Abeda, D. Abel, V. Abeng, T. Abercrombie, K. Abolino, G. Abou Mechieh, A. Abraham, B. Abraham, R. Abrams, J. Abreu Sarache, N. Abro, N. Absamatova, M. Abu-Rumman, C. Acharya, M. Acharya, D. Acheson, D. Ackerman, J. Acosta, J. Acteson-Grill, N. Adair, I. Adam, S. Adam, T. Adam, D. Adams, K. Adams, M. Adams, D. Adamson, C. Adan, T. Adbous, D. Addinall, A. Adebayo, O. Adebayo, M. Aden, A. Adesanya, K. Adesanya, O. Adigun, B. Adjoussou, B. Adkins, S. Adniti, N. Agarwal, J. Agate, F. Agbadou, A. Agnihotri, I. Agu, O. Agu, U. Agu, R. Aguilera Maestre, A. Agustin, M. Agyby, C. Agyemang-Badu, J. Ahmad, K. Ahmad, M. Ahmad, N. Ahmad, R. Ahmad, S. Ahmad, A. Ahmadi, M. Ahmadi, F. Ahmadloo, A. Ahmari, N. Ahmed, R. Ahmed, S. Ahmed, N. Ahonon, M. 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Anderson, J. Anderson, K. Anderson, L. Anderson, M. Anderson, N. Anderson, R. Anderson, T. Anderson, V. Anderson, I. Andonov, A. Andrade, D. Andreoli, C. Andres, B. Andrews, E. Andrews, K. Andrews, L. Andrews, T. Andrews, E. Anfort, C. Angeles, G. Angeles, P. Angell, L. Angen, K. Angerman, B. Anhorn, M. Anis, R. Annet, C. Anokwute, A. Ansell, D. Anson, L. Antal, W. Anthony, E. Antle, C. Antoine, M. Antoine, A. Anton, K. Antonishyn, J. Antoniuk, A. Antunes, S. Anwar, T. Aos, P. Appiah, J. Aquila, R. Aranguren, F. Arano, C. Arban, L. Arbour, R. Arcilla, H. Arias, L. Arias, J. Arkley, N. Arlt, R. Armagost, T. Armfelt, A. Armstrong, D. Armstrong, J. Armstrong, J. Arnault, B. Arneson, B. Arnold, C. Arnold, J. Arnold, A. Arowosebe, F. Arrau, F. Arrieta, L. Arsenault, M. Arsenault, K. Arstall, A. Arthur Brown, B. Artz, A. Arya, D. Asfeday, J. Ashe, Z. Ashraf, J. Ashton, A. Aslam, R. Aslin, S. Aspden, H. Aspeslet, D. Assinger, J. Asso, V. Assouh-Ouattara, J. Assougnon, A. Astalos, R. Astalos, I. Astete, M. Atchudda Reddy, E. Atdayev, N. Athavan, A. Atienza, R. Atkins, J. Atkinson, K. Atkinson, T. Atkinson, L. Attreo, E. Au, G. Au, M. Au, J. Auch, P. Aucoin, W. Aucoin, J. Audia, A. Auger, P. Auger, S. Auger, C. Aular, M. Austerman, C. Austin, R. Austin, A. Avery, B. Avery, F. Avery, A. Avhad, M. Avila, O. Ayanleke, A. Ayasse, W. Ayles, J. Ayub, F. Azam, Z. Azim, B. Babiarz, A. Babiker, O. Babiker, M. Bachand, C. Bachelet, C. Bachman, W. Bachmeier, C. Backer, A. Badamchi Zadeh, C. Badger, J. Badh, O. Baffoh, N. Bagheri, K. Bagley, A. Bagnall, M. Bahraei, B. Bahlieda, R. Bahme, D. Baichev, D. Baier, J. Baier, S. Baig, M. Bailer, R. Bailer, A. Bailey, B. Bailey, J. Bailey, C. Bailey, S. Bailey, T. Bailey, S. Baillargeon, M. Baillie, B. Bain, E. Bain, C. Baird, E. Baird, D. Baisley, D. Bak, L. Bakaas, A. Baker, C. Baker, J. Baker, A. Bakhtiary Fard, D. Bakkar, J. Bakker, J. Balacang, B. Balan, K. Balan, D. Balaraman, B. Balaski, B. Baldonado, J. Baldonado, C. Baldwin, G. Baldwin, M. Baldwin, R. Baldwin, M. Baleja, P. Balfour, R. Balfour, M. Balino, J. Balkam, G. Ball, J. Ball, L. Ball, M. Ball, P. Ball, J. Ballard, S. Ballas, B. Balog, D. Balogoum, A. Balsom, D. Balson, J. Baltesson, B. Baluyot, B. Bam, R. Bama, L. Bamba, B. Bamber, R. Banack, J. Banak, D. Banah, J. Banawa, R. Baner, R. Banfield, S. Banfield, O. Bango, S. Banik, J. Banks, L. Banks, C. Ban-Nelson, R. Bannerholt, J. Banta, R. Barabe, M. Barakat, L. Barbaro, J. Barbeau, G. Barber, J. Barbour, G. Barfield, K. Barham, M. Bari, M. Barilek, K. Barker, R. Barker, S. Barker, A. Barley, S. Barlund, D. Barnes, M. Barnes, B. Barnett, S. Barr, C. Barrett, M. Barrett, T. Barrett, S. Barriault, C. Barrie, D. Barriero, D. Barron, R. Barron, B. Barrow, S. Barrows, D. Barry, A. Barstad, M. Barta, G. Bartel, C. Bartels, P. Barter, A. Bartko, E. Bartko, B. Bartlett, M. Bartlett, D. Bartman, M. Bartoszewski, N. Bartsch, A. Barysheva, J. Basabe, K. Basarab, R. Basile, L. Basines, P. Bass, S. 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Best, C. Betancur Pelaez, C. Bettany, T. Betteridge, W. Bewski, B. Beyer, J. Beytli, S. Bezpalchuk, J. Bezruchak, M. Bezugley, A. Bhaduria, A. Bhaduri, M. Bhakri, J. Bhangoo, H. Bhatial, H. Bhatia, B. Bhatt, J. Bhatt, K. Bhatt, R. Bhatt, V. Bhatt, I. Bhatti, V. Bhekare, P. Bhojapoojary, N. Bhorja, J. Bhuie, J. Bianchini, L. Bianco, A. Bibo, J. Bick, S. Biddle, T. Biddlecombe, D. Bieber, D. Bielech, E. Bielecki, D. Biendarra, D. Biener, V. Biesinger, K. Biever, A. Bigelow, C. Biggin, M. Biggs, A. Bilal, D. Biles, L. Billard, T. Billard, J. Bilna, J. Bilous, D. Bilston, D. Bingham, B. Binns, C. Bird, D. Birnie, T. Bisbing, B. Bischoff, C. Bischoff, R. Bischoff, S. Bischoff, C. Bish, H. Bishop, J. Bishop, K. Bishop, T. Bishop, C. Bisschop, L. Bissell, C. Bission, J. Bizuk, J. Blachford, A. Black, B. Black, C. Black, D. Black, J. Black, N. Black, R. Black, V. Black, W. Blackburn, T. Blackett, K. Blackmore, R. Blackmore, T. Blackwell, D. Blain, G. Blain, A. Blair, D. Blair, K. Blair, K. Blais, A. Blake, D. Blake, J. Blake, L. Blake, T. Blake, P. Blakely, J. Blanc, A. Blanchard, D. Blanchard, G. Blanchard, K. Blanchette, A. Blanco, W. Blanco, S. Blaquiére, E. Blawat, S. Blaydes, K. Blencowe, J. Blesa, A. Blesa Gomez, M. Blinkhorn, S. Blize, R. Blondin, G. Blouin, P. Bluemek, J. Blume, J. Blundon, C. Blyan, N. Blyth, C. Boadas Salazar, J. Bobbett, R. Bock, G. Boddy, J. Bodell, R. Bodell, S. Bodell, A. Bodnar, K. Bodnar, V. Bodnarchuk, B. Bodner, G. Bodner, D. Boeckx, M. Boehm, R. Boese, D. Boettcher, M. Boggust, L. Boghici, T. Bohach, A. Bohemier, B. Bohlen, J. Bohlen, E. Bohme, N. Bohning, J. Bohorquez, J. Boissoneault, C. Boisvert, J. Boisvert, M. Boisvert, B. Bokenfohr, D. Bokota, R. Boksteyn, R. Boland-Elliott, S. Bolduc, C. Bolger, S. Bolson, D. Bolster, B. Bolt, J. Bolt, P. Bolt, G. Bolzon, J. Bonami-McRae, G. Bond, K. Bond, N. Bond, S. Bond, T. Bond, T. Bondaruk, A. Bone, J. Bonifacio, M. Bonin, C. Bonogofski, A. Bonwick, S. Booker, G. Boomgaarden, J. 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Hewlin, A. Heydari Gorji, A. Heynen, C. Heywood, R. Hibbs, D. Hicke, M. Hickey, P. Hickey, R. Hicks, S. Hicks, L. Hiebert, R. Hiebert, M. Hiemstra, T. Hiemstra, E. Hietanen, R. Higa, A. Higgins, J. Higgins, L. Higgins, M. Higgins, R. Higgins, P. Higgitt, J. Higuerey De Sanchez, M. Higuerey Rodriguez, C. Hildahl, J. Hildebrandt, C. Hill, D. Hill, H. Hill, J. Hill, K. Hill, T. Hill, D. Hillier, R. Hillier, T. Hillier, R. Hillis, C. Hills, T. Hills, D. Hillyard, T. Hilsendager, Z. Hilsendager, B. Hindmarch, Z. Hines, A. Hinestroza Cordoba, W. Hinkle, T. Hinks, N. Hinze, M. Hird, D. Hiscock, S. Hiscock, F. Hiscox, D. Hitra, T. Hlewka, A. Ho, J. Ho, M. Ho, T. Ho, J. Hoare, W. Hobart, A. Hobbi, J. Hobbs, P. Hocaloski, R. Hoda, C. Hodder, G. Hodder, J. Hodder, D. Hodge, M. Hodge, R. Hodgins, J. Hodgson, A. Hoeg, C. Hoepfner, N. Hoey, M. Hoffart, L. Hoffman, R. Hoffman, M. Hofstrand, G. Hogan, L. Hogan, R. Hogan, S. Hogan, A. Hogg, J. Hogg, L. Hogg, M. Hogg, R. Hogg, B. Holaki, J. Holben, C. Holgate, D. Holik, K. Holladay, A. Holland, E. Holland, K. Holland, M. Holland, S. Holland, P. Hollett, D. Holley, D. Hollingshead, G. Holloway, L. Holloway, J. Hollowell, C. Holman, D. Holman, R. Holman, G. Holmes, J. Holmes, M. Holmes, N. Holmes, T. Holmes, S. Holmstrom, B. Holthe, C. Holthe, J. Holton, J. Holuk, A. Holz, J. Holz, G. Homann, P. Hondl, L. Hong, Q. Hong, D. Honing, C. Hood, J. Hood, G. Hook, J. Hook, J. Hooper, R. Hooper, A. Hope, S. Hopkins, Y. Hopkins, M. Hopp, T. Hopwood, A. Hordy, R. Horn, T. Hornberger, Z. Horne, A. Hornseth, K. Hornseth, B. Horobec, K. Horvath, R. Horvath, C. Horwood, J. Horyn, K. Hosker, J. Hoskins, B. Hossain, F. Hossain, M. Hossain, S. Hosseini, M. Hosseinnejad, A. Hosseinpoor, T. Hou, K. Hough, L. Houghton, R. Hourd, G. House, P. House, R. House, T. House, L. Houseman, G. Houston, T. Houston, K. Hovdebo, G. Howard, K. Howard, T. Howard, C. Howden, L. Howell, M. Howell, K. Howes, P. Howie, S. Howlader, J. Howse, M. Hoyle, T. Hoyle, R. Hoyt, B. Hoza, J. Hrycko, D. Hrycak, J. Hrycak, T. Hrycak, B. Hryniuk, A.

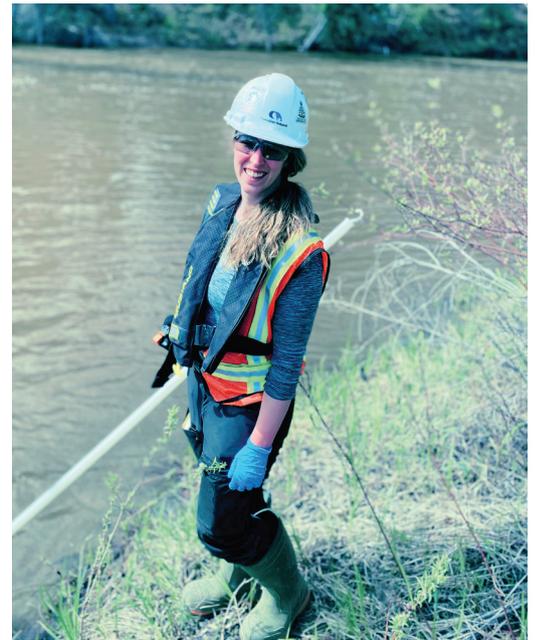


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Sprinkle, C. Sproat, A. Spurrell, E. Spurrell, N. Spurrell, P. Spurvey, N. Squarek, J. Squire, P. Squires, T. Squires, R. Sran, E. Sribney, A. Sriram, S. St. Croix, J. St. Denis, R. St. Jean, K. St. Laurent, R. St. Martin, J. St. Onge, E. St. Pierre, M. St. Pierre, R. St. Pierre, A. Stacey, K. Stacey, L. Stacey, I. Stacey-Salmon, P. Stackhouse, G. Stadnichuk, S. Stadnichuk, S. Stadyk, D. Stagg, J. Stagg, T. Stagg, M. Stainthorpe, J. Stajkowski, B. Stamp, R. Stamp, A. Standing, J. Stanford, B. Stang, C. Stang, M. Stang, R. Stang, R. Stanger, S. Stankovic, J. Stanley, T. Stanley, A. Stanojevic, A. Staples, J. Staples, J. Stark, K. Stark, J. Starkevich, R. Staruiala, T. Staruiala, D. Staszewski, S. Stauth, K. Stawinski, M. Stebner, M. Stec, J. Steel, M. Steel, R. Steele, L. Steeves, S. Stefan, T. Stefansson, A. Stefura, M. Steinbach, I. Steiner, J. Steinhauer, S. Steinhubl, B. Steinke, G. Steinke, J. Steinkey, S. Steinkey, D. Steinhann, W. Stenhouse, K. Stephansson, G. Stephen, T. Stephens, B. Stephenson, G. Stephenson, J. Stephenson, L. Stephenson, G. Stetar, S. Steunenberg, G. Stevens, N. Stevens, R. Stevens, A. Stevens-Dicks, D. Stevens-Dicks, A. Stevenson, H. Stevenson, M. Stevenson, N. Stevenson, R. Stevenson, T. Stevens, B. Stewart, C. Stewart, D. Stewart, J. Stewart, L. Stewart, M. Stewart, R. Stewart, T. Stewart, B. Stich, W. Stichel, G. Sticklemyer, R. Stieben, M. Stiefel, M. Stinson, M. St-Jacques, M. Stobart, D. Stobbe, J. Stober, M. Stockes, C. Stocking, M. Stockton, C. Stoddard, I. Stokes, J. Stokes, T. Stokke, S. Stoller, C. Stolz, T. Stolz, D. Stone, M. Stone, T. Stone, M. Stordahl, D. Stormo, B. Stortz, D. Stout, D. Stoyles, K. Stoyles, S. Strachan, W. Strand, J. Strandquist, D. Strankman, N. Strantz, B. Strachichuk, D. Stratmoen, M. Straughan, J. Street, M. Street, R. Stretch, H. Strickland, J. Strilchuk, M. Stroh, E. Strohan, J. Strong, R. Strong, M. Stronski, D. Strynadka, D. Stuart, L. Stuart, P. Stuart, C. Stubbs, G. Stuber, J. Stuckey, K. 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Szabo Tenger, N. Szalay, E. Szeto, A. Szoke, M. Szoke, C. Szpecht, D. Sztukowski, D. Szym, C. Szutiak, K. Szydiak, J. Ta, C. Tacadena, M. Tade, M. Tadjeh, D. Taggart, A. Taghipour, M. Taha, A. Tahir, V. Tai, P. Taiani, M. Tainsh, D. Tainton, D. Tait, G. Tait, J. Tait, A. Tait, K. Talati, S. Talati, C. Talbot, J. Talbot, M. Taleb, M. Taleb, G. Talanga, C. Tallack, B. Talma, K. Tam, N. Taman, B. Tamas, B. Tan, C. Tan, K. Tan, M. Tanasescu, B. Tancoway, L. Tang, X. Tang, R. Tangedal, T. Tanigami, M. Tapley, G. Tapp, C. Tarache, A. Tarasenco, R. Tarasoff, C. Tardif, W. Tarkowski, M. Taron, B. Tasek, J. Tatarin, R. Tatro, N. Tassoli, C. Taylor, J. Taylor, K. Taylor, L. Taylor, M. Taylor, R. Taylor, R. Taylor, S. Taylor, J. Taylor-Kay, M. Teyyab, M. Teeple, N. Teeple, J. Teixeira, F. Tejada, M. Telepcean, R. Tevlier, B. Temesgen, J. Temple, C. Templeton, S. Templeton, S. Tenhunen, K. Tenney, J. Teppin, L. Terry, E. Tertsakian, W. Terway, G. Teske, A. Teslak, L. Tessier, W. Teszeri, W. Tetachuk, M. Tetterford, C. Tetreau, J. Tettensour, A. Tetz, B. Tetz, J. Tetz, S. Tetz, I. Tewfik, F. Thaddaus, L. Thai, N. Thakur, T. Tham, P. Thannhauser, J. Theis, G. Theriault, G. Therrien, B. Thevarajah, W. Thew, G. Thibault, J. Thibeau, R. Thibodeau, C. Thiessen, J. Thiessen, R. Thiessen, E. Thillman, G. Thistle, M. Thoen, D. Thomas, E. Thomas, J. Thomas, K. Thomas, L. Thomas, S. Thomas, J. Thomas Cotton, T. Thomassen, G. Thomlison, A. Thompson, C. Thompson, E. Thompson, I. Thompson, J. Thompson, K. Thompson, L. Thompson, R. Thompson, S. Thompson, T. Thompson, P. Thomsen, A. Thomson, J. Thomson, K. Thomson, P. Thomson, W. Thomson, K. Thorburn, T. Thorburne, L. Thorhaug, J. Thorleifson, D. Thorne, L. Thorne, B. Thornhill, E. Thornton, K. Thornton, N. Thorp, K. Thors, K. Threndyle, E. Thunaaes, M. Thyer, T. Tian, M. Tiedje, P. Tieu, A. Tiffany, D. Tillapaugh, D. Tilley, K. Tillotson, T. Tillotson, J. Timmermans, S. Timothy, N. Tindall, M. Tineo, D. Tipper, A. Tishchenko, B. Titus, D. Tiway, R. Tiway, C. Tkach, P. To, K. Tober, K. Tobias, B. Tobin, K. Tobin, V. Tobin, K. Tobler, A. Todd, B. Todd, C. Todd, T. Tolen, A. Toloei, D. Tomar, C. Tomaszewski, B. Tomchuk, G. Tomchuk, D. Tomiuk, J. Tomiuk, C. Tomlinson, K. Tomlinson, T. Tomol, J. Tompkins, M. Tompkins, A. Tomaszak, N. Tomte, D. Toner, L. Tong, W. Tong, T. Tonge, M. Tonon, S. Tookey, V. Topacio, S. Topolnitsky, K. Tordon, P. Torgaev, P. Torrance, C. Torrarville, J. Torrarville, N. Torres, D. Toulellan, T. Tourand, R. Tower, M. Townsend, O. Tozser, D. Tracey, B. Trafjak, K. Trainor, A. Tran, B. Tran, C. Tran, D. Tran, J. Tran, Q. Tran, M. Tran, C. Trapp, G. Trask, L. Trautman, M. Travers, L. Traverse, P. Traverse, J. Tredger, G. Treen, M. Trefon, J. Trelniski, W. Trelniski, J. Trelliving, L. Tremblay, M. Tremblay, C. Tremblett, W. Tremblett, J. Trenholm, H. Trepanier, J. Trieu, J. Trieu-Ly, S. Trifonov, W. Trigger, A. Trinh, D. Trinh, E. Triumbari, C. Troake, P. Troy, J. Trto, J. Trudeau, R. Trudeau, J. Trudel, S. Trudel, B. Trumpf, N. Trung, A. Truong, S. Truong, H. Tsagalas, L. Tsapralis, M. Tschaja, C. Tse, E. Tse, Y. Tse, G. Tsemenko, M. Tsineli, Y. Tu, A. Tuck, B. Tucker, D. Tucker, J. Tucker, R. Tucker, D. Tuer, A. Tuico, J. Tuico, D. Tuite, J. Tuite, S. Tulan, B. Tulloch, N. Tulloch, B. Tumbach, M. Tunke, T. Turbide, J. Turcotte, T. Turgeon, R. Turnbull, B. Turner, D. Turner, J. Turner, P. Turner, S. Turner, P. Turnley, D. Turpin, T. Turpin, V. Turska, S. Turton, W. Tutt, R. Tuttle, B. Tuttosi, L. Tuttosi, J. Tweten, P. Twomey, D. Twyne, O. Tyan, A. Tyler, M. Tyler, D. Tymchyna, R. Tymchyna, J. Tymo, N. Tynan, C. Tyssen, S. Uddenberg, J. Uddin, J. Uhlman, T. Uhrich, S. Ulloa, C. Ulmer, J. Ulmer, E. Ulrich, J. Umali, O. Umama, M. Umeh, U. Umoh, A. Umpleby, L. Underhill, N. Underwood, R. Underwood, T. Ung, L. Unrau, H. Unruh, P. Unruh, M. Upadhyay, U. Upadhyay, U. Upadhyay, M. Upton, A. Ur Rehman, J. Urdaneta, T. Urkow, C. Urlacher, K. Urmeneta, P. Usama, W. Usiayo, A. Ustariz, E. Utin, P. Uwabor, K. Uyanwune, K. Vachhani, R. Vachon, S. Vadnai, N. Vaishnav, M. Vajdik, A. Valentine, T. Valin, A. Valiquette, G. Valiquette, J. Valle, L. Vallee, M. Vallee, G. Vallis, A. Valmadrid, K. Van Buskirk, A. Van De Reep, C. Van De Reep, M. van den Oever, W. Van den Oever, M. van der Burgh, N. Van Der Merve, A. Van Donkersvoort, H. Van Dyck, B. van Dyke, N. Van Dyke, J. Van Es, E. van Gellekom, L. Van Genne, L. van Heerden, C. Van Kankelenburg, J. Van Nes, C. van Niekerk, F. Van Overloop, S. Van Rensburg, D. Van Rootselaar, C. Van Schoor, R. Van Steinberg, C. Van Wyngaarden, B. Vanbeselaere, D. Vanboocquestal, J. Vancougnhett, K. Vandaelle, J. Vandeliert, R. Vandemark, T. Vandemark, G. Vander Veer, N. Vandergierd, T. Vandermeer, V. Vandersluis, S. Vandervliet, J. Vandervoort, P. Van-Dunem, N. Vangala, E. Vanopian, G. van't Woudt, C. Vare, N. Varey, S. Varey, M. Varga, C. Vargas Suarez, S. Varma, D. Varty, N. Vaschetto, A. Vashisht, A. Vasquez, C. Vasquez, M. Vasquez-Placid, G. Vassberg, J. Vasseur, R. Vassov, A. Vaters, R. Vaudan, A. Vaughan, N. Vaughan, D. Vazquez Guillen, O. Vedmedenko, F. Veenbaas, B. Veitch, S. Vekved, T. Vekved, B. Velagapudi, B. Velichka, T. Velichka, M. Velmurugan, R. Veloso, T. Velting, M. Venczell, R. Veneration, S. Venkatesh, G. Venkateshvaralu, R. Venn, D. Venning, J. Vera, L. Verbaas, D. Verbeek, D. Verbicky, M. Verburg, A. Verge, M. Verge, B. Verhoeven, S. Veroba, J. Verot, B. Verreau, D. Vernick-Brown, K. Veysey, J. Vezina, C. Viana, G. Vibert, J. Vivic, N. Vick, T. Viens, K. Vierzna, A. Vijayan, G. Viljoen, J. Villalba Bello, R. Villanueva, B. Villecourt, J. Villemaire, C. Villemere, K. Vincent, R. Vincent, S. Vineham, B. Viney, R. Vinkle, A. Virk, K. Virus, A. Visotto, K. Viswabharathi, R. Vivian, R. Vloet, D. Vo, S. Voigt, B. Volkman, W. Volschenk, L. Vondermuhll, B. Von-Grat, A. Vosburgh, A. Votta, A. Vredgeoor, J. Vrolson, N. Vu, L. Vuong, Q. Vuong, G. Waack, E. Waddell, T. Waddell, K. Waddy, J. Wade, T. Wade, W. Wade, T. Wagil, D. Wagner, G. Wagner, J. Wagner, K. Wagner, D. Wakaruk, L. Wakaruk, L. Wakefield, T. Wakulchyk, A. Walchuk, D. Waldner, D. Waldo, K. Waldron, A. Walintschek, A. Walker, C. Walker, D. Walker, G. Walker, J. Walker, K. Walker, M. Walker, R. Walker, S. Walker, T. Walker, K. Walko, D. Wall, M. Wall, S. Wall, T. Wall, A. Wallace, C. Wallace, D. Wallace, E. Wallace, H. Wallace, J. Wallace, K. Wallace, T. Wallace, V. Wallace, K. Wallin, M. Wallis, V. Wallwork, T. Walraven, A. Walsh, B. Walsh, D. Walsh, E. Walsh, M. Walsh, P. Walsh, R. Walsh, T. Walsh, W. Walsh, L. Walters, A. Walters, C. Walters, D. Walters, I. Walton, N. Wan, S. Wanderingspirit, C. Wang, H. Wang, J. Wang, L. Wang, Q. Wang, R. Wang, S. Wang, T. Wang, W. Wang, X. Wang, Y. Wang, Z. Wang, L. Wangkhang, D. Wannas, S. Waquan, T. Warburton, E. Ward, I. Ward, K. Ward, B. Warehouse, D. Warford, W. Warholik, C. Wark, W. Warman, F. Warraich, G. Warren, K. Warren, R. Warren, S. Warren, D. Warrington, K. Warwaruk, J. Washburn, M. Washington, A. Wasikowski, P. Wassell, W. Wasylucha, A. Watchorn, D. Waterfield, C. Waters, D. Watson, G. Watson, J. Watson, K. Watson, S. Watson, D. Watt, G. Watt, B. Watton, B. Watts, L. Waughtal, T. Wawro, B. Weatherby, D. Weatherby, C. Weatherhead, A. Webb, D. Webb, G. Webb, P. Webb, B. Webber, J. Webber, V. Webber, W. Weber, O. Websdale, A. Webster, K. Webster, D. Weed, M. Weeks, E. Weening, E. Weenink, B. Wegenast, A. Wei, B. Wei, Z. Wei, J. Weibrecht, J. Weigl, J. Weik, D. Weimer, C. Weingarten, R. Weir, S. Weir-Murphy, G. Weisbeck, A. Weisbrod, R. Weisbrot, M. Weishaar, K. Weldon, J. Weller, P. Weller, M. Wellman, E. Wells, J. Wells, L. Wells, R. Wells, A. Welsh, W. Welte, W. Welygan, Z. Wen, G. Weng, P. Wenger, J. Wensch, G. Wennberg, P. Wennenstrom, A. Wentworth, K. Wenzel, C. Werner, M. Werner-Fisher, N. Wert, R. Weseen, B. Weslake, E. Wessel, D. West, J. West, R. West, M. Westad, D. Westbrook, K. Westland, T. Whalen, R. Whalley, D. Wheatling, J. Wheaton, S. Wheaton, B. Wheeler, C. Wheeler, K. Wheeler, L. Wheeler, N. Wheeler, K. Whelan, R. Whelan, R. Whelan-Maloney, K. Whetham, A. White, B. White, C. White, H. White, J. White, M. White, P. White, R. White, S. White, T. White, Z. White, J. Whitehead, T. Whitehead, N. Whiteknife, J. Whitelaw, A. Whiteside, C. Whitford, R. Whitman, H. Whitmore, K. Whitney, M. Whittaker, A. Whitten, D. Whitty, A. Whittwell, L. Wichmann, R. Wicht, K. Wickenhauser, A. Wickins, R. Widdifield, G. Wideman, M. Widing, A. Wiebe, D. Wiebe, N. Wiebe, T. Wiebe, D. Wiede, B. Wiens, B. Wiesener, C. Wietzel, S. Wight, T. Wight, D. Wijesingha, C. Wilbee, D. Wilbee, A. Wilcox, D. Wilcox, J. Wilcox, M. Wilcox, D. Wild, R. Wild, D. Wilde, E. Wildeman, R. Wiles, C. Wilk, T. Wilk, A. Wilkes, C. Wilkes, N. Wilkes, C. Wilkin, L. Wilkin, E. Wilkinson, J. Wilkinson, K. Wilkinson, P. Will, D. Willard, E. Willard, B. Willburn, A. Willcott, B. Willcott, R. Willey, A. Williams, B. Williams, C. Williams, D. Williams, G. Williams, J. Williams, K. Williams, L. Williams, M. Williams, N. Williams, R. Williams, T. Williams, W. Williams, C. Williamson, J. Williamson, M. Williamson, M. Willis, J. Williston, D. Willms, S. Wills, G. Willshire, C. Willson, D. Willson, A. Wilson, C. Wilson, D. Wilson, G. Wilson, H. Wilson, J. Wilson, L. Wilson, M. Wilson, R. Wilson, S. Wilson, J. Wiltshire, A. Winfield, P. Winfield, B. Wingate, A. Wingert, J. Winia, B. Winiarz, I. Winland, R. Winnick, T. Winquist, R. Winslow, J. Winsor, L. Winsor, O. Winsor, W. Winsor, A. Winter, A. Winterburn, C. Winterhalt, G. Winters, R. Winters, G. Wirachowsky, J. Wirachowsky, H. Wiseman, M. Wiseman, P. Wiseman, W. Wiseman, I. Wishart, N. Withers, C. Witwi, M. Witmer, Z. Witt, B. Wittenborn, C. Wlad, A. Wlos, M. Woehleke, D. Woitas, J. Woitas, T. Woitte, R. Wojtowicz, D. Wold, S. Wolf, C. Wolfe, J. Wolfe, M. Wolfenden, D. Wollum, C. Woloshyn, J. Wolstenholme, J. Wolter, R. Wolters, A. Wong, C. Wong, G. Wong, J. Wong, L. Wong, N. Wong, S. Wong, C. Woo, J. Woo, L. Woo, A. Wood, G. Wood, J. Wood, K. Wood, P. Wood, S. Wood, T. Woodburn, R. Woodburne, J. Woodd, M. Woodfin, S. Woodfine, N. Woodford, S. Woodford, A. Woodger, C. Woodhead, M. Woodhead, D. Woods, H. Woods, J. Woods, T. Woods, M. Woodske, J. Woodridge, B. Wooley, S. Woolfitt, T. Woolley, R. Woolner, R. Wootton, M. Woroniuk, B. Worthington, C. Worthman, L. Wotherspoon, J. Wotten, C. Wright, L. Wright, R. Wright, G. Wu, J. Yu, N. Yu, Q. Yu, B. Yue, C. Yuen, D. Yuill, J. Yuill, A. Yule, R. Yuristy, R. Zabek, A. Zaboloski, T. Zabo, A. Zaccarac, A. Zacharias, T. Zachoda, C. Zaczowski, J. Zaderay, B. Zagoruy, S. Zagozewski, E. Zahacy, V. Zaharia, S. Zahary, A. Zahorszky, A. Zaidi, B. Zaitsoff, K. Zajarny, S. Zakeri, N. Zaman, D. Zambrano Suarez, I. Zami, R. Zamudio Baca, B. Zandstra, N. Zanet, D. Zanonci, C. Zaparyniuk, M. Zarbock, M. Zarichney, D. Zarowny, G. Zarowny, K. Zarowny, M. Zarowny, Z. Zarowny, S. Zawada, K. Zayac, D. Zazula, R. Zazula, S. Zbrodoff, A. Zecevic, K. Zeer, G. Zeiler, T. Zeiser, I. Zelazny, D. Zelman, B. Zembik, D. Zemlak, A. Zenide, W. Zeniuk, G. Zerani, K. Zern, J. Zerpa, K. Zerr, M. Zerr, S. Zgurski, J. Zhan, B. Zhang, J. Zhang, M. Zhang, Q. Zhang, W. Zhang, X. Zhang, Y. Zhang, Z. Zhang, B. Zhar, L. Zhao, G. Zheng, W. Zheng, H. Zhou, Q. Zhou, Y. Zhou, J. Zhu, L. Zhu, W. Zhu, E. Zhuromsky, K. Zielski, A. Zielke, E. Zimmer, C. Zimmerman, T. Zimmerman, M. Zisi, S. Zitaruk, R. Zoerb, W. Zohoory, J. Zuk, S. Zukanovic, N. Zukivski, S. Zukowski, S. Zwyer.



# 2022 Year End Reserves

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## DETERMINATION OF RESERVES

For the year ended December 31, 2022, the Company retained Independent Qualified Reserves Evaluators (IQREs), Sproule Associates Limited, Sproule International Limited and GLJ Ltd., to evaluate and review all of the Company's proved and proved plus probable reserves. The evaluation and review was conducted and prepared in accordance with the standards contained in the Canadian Oil and Gas Evaluation Handbook. The reserves disclosure is presented in accordance with NI 51-101 requirements using forecast prices and escalated costs.

The Reserves Committee of the Company's Board of Directors has met with and carried out independent due diligence procedures with the IQREs as to the Company's reserves.

Additional reserves information is disclosed in the Company's Annual Information Form.

## RESERVES INFORMATION HIGHLIGHTS

A key differentiator for Canadian Natural is the strength, diversity and balance of our world class, top tier reserves. Strategically assembled and developed over several decades, these assets have a low decline rate as well as low maintenance capital relative to the size and quality of the reserves. The low maintenance capital requirements of our reserves affords the Company significant flexibility when balancing our four pillars of capital allocation to maximize shareholder value.

- Total proved reserves increased 6% to 13.587 billion BOE, with reserves additions and revisions of 1.242 billion BOE. Total proved plus probable reserves increased 6% to 18.046 billion BOE, with reserves additions and revisions of 1.563 billion BOE.
  - The strength and depth of the Company's assets are evident as approximately 77% of total proved reserves are long life low decline reserves. This results in a total proved BOE reserves life index <sup>(1)</sup> of approximately 32 years and a total proved plus probable BOE reserves life index of approximately 42 years.
    - High value, zero decline SCO represents approximately 51% of total proved reserves with a reserve life index of approximately 44 years.
- Proved developed producing reserves additions and revisions are 491 million BOE, replacing 2022 production by 105%. The proved developed producing BOE reserves life index is approximately 21 years.
- Total proved reserves additions and revisions replaced 2022 production by 265%. Total proved plus probable reserves additions and revisions replaced 2022 production by 334%. This includes negative technical revisions as a result of accelerating the cessation of production from two platforms in the North Sea.
- In 2022, Canadian Natural continued to achieve strong finding and development costs:
  - FD&A <sup>(1)</sup> costs, excluding changes in Future Development Cost ("FDC"), are \$4.11/BOE for total proved reserves and \$3.26/BOE for total proved plus probable reserves.
  - FD&A costs, including changes in FDC, are \$8.39/BOE for total proved reserves and \$7.62/BOE for total proved plus probable reserves.
- The net present value of future net revenues, before income tax, discounted at 10%, is approximately \$102.3 billion for proved developed producing reserves, approximately \$150.9 billion for total proved reserves, and approximately \$183.7 billion for total proved plus probable reserves.

(1) Supplementary financial measure. Refer to the notes of the "2022 Year End Reserves" on page 8.

## Summary of Company Gross Reserves

as of December 31, 2022

Forecast Prices and Costs

	Light and Medium Crude Oil	Primary Heavy Crude Oil	Pelican Lake Heavy Crude Oil	Bitumen (Thermal Oil)	Synthetic Crude Oil	Natural Gas	Natural Gas Liquids	Barrels of Oil Equivalent
	(MMbbl)	(MMbbl)	(MMbbl)	(MMbbl)	(MMbbl)	(Bcf)	(MMbbl)	(MMBOE)
<b>Total Company</b>								
Proved								
Developed Producing	122	96	207	540	6,836	4,989	143	8,775
Developed Non-Producing	16	11	—	140	—	306	6	225
Undeveloped	93	73	55	2,604	37	8,332	337	4,587
<b>Total Proved</b>	<b>231</b>	<b>179</b>	<b>262</b>	<b>3,284</b>	<b>6,873</b>	<b>13,627</b>	<b>486</b>	<b>13,587</b>
Probable	89	93	114	1,901	535	8,643	285	4,458
<b>Total Proved plus Probable</b>	<b>320</b>	<b>272</b>	<b>376</b>	<b>5,186</b>	<b>7,408</b>	<b>22,270</b>	<b>772</b>	<b>18,046</b>

## Reconciliation of Company Gross Reserves

as of December 31, 2022

Forecast Prices and Costs

<b>TOTAL PROVED</b>	Light and Medium Crude Oil	Primary Heavy Crude Oil	Pelican Lake Heavy Crude Oil	Bitumen (Thermal Oil)	Synthetic Crude Oil	Natural Gas	Natural Gas Liquids	Barrels of Oil Equivalent
	(MMbbl)	(MMbbl)	(MMbbl)	(MMbbl)	(MMbbl)	(Bcf)	(MMbbl)	(MMBOE)
<b>Total Company</b>								
December 31, 2021	300	169	270	2,631	6,998	12,168	418	12,813
Discoveries	—	—	—	—	—	—	—	—
Extensions	3	14	—	262	—	290	13	339
Infill Drilling	7	5	—	—	—	218	19	68
Improved Recovery	—	—	—	2	37	—	—	40
Acquisitions	—	—	—	431	—	249	25	498
Dispositions	—	—	—	—	—	—	—	—
Economic Factors	10	6	4	—	—	446	9	103
Technical Revisions	(61)	11	6	50	(6)	1,019	23	194
Production	(28)	(25)	(18)	(92)	(155)	(763)	(22)	(468)
<b>December 31, 2022</b>	<b>231</b>	<b>179</b>	<b>262</b>	<b>3,284</b>	<b>6,873</b>	<b>13,627</b>	<b>486</b>	<b>13,587</b>

<b>TOTAL PROVED PLUS PROBABLE</b>	Light and Medium Crude Oil	Primary Heavy Crude Oil	Pelican Lake Heavy Crude Oil	Bitumen (Thermal Oil)	Synthetic Crude Oil	Natural Gas	Natural Gas Liquids	Barrels of Oil Equivalent
	(MMbbl)	(MMbbl)	(MMbbl)	(MMbbl)	(MMbbl)	(Bcf)	(MMbbl)	(MMBOE)
<b>Total Company</b>								
December 31, 2021	424	249	388	4,337	7,535	20,249	643	16,950
Discoveries	—	—	—	—	—	—	—	—
Extensions	4	26	—	337	—	829	35	539
Infill Drilling	10	8	—	—	—	344	26	100
Improved Recovery	—	—	1	2	50	—	—	52
Acquisitions	—	—	—	551	—	588	72	722
Dispositions	—	—	—	—	—	—	—	—
Economic Factors	10	7	3	—	—	528	11	120
Technical Revisions	(100)	8	2	50	(20)	495	8	29
Production	(28)	(25)	(18)	(92)	(155)	(763)	(22)	(468)
<b>December 31, 2022</b>	<b>320</b>	<b>272</b>	<b>376</b>	<b>5,186</b>	<b>7,408</b>	<b>22,270</b>	<b>772</b>	<b>18,046</b>

## NOTES TO RESERVES:

1. Company Gross reserves are working interest share before deduction of royalties and excluding any royalty interests.
2. Information in the reserves data tables may not add due to rounding. BOE values and oil and gas metrics may not calculate exactly due to rounding.
3. Forecast pricing assumptions utilized by the Independent Qualified Reserves Evaluators in the reserves estimates are the 3-consultant-average of price forecasts developed by Sproule Associates Limited, GLJ Ltd. and McDaniel & Associates Consultants Ltd., dated December 31, 2022:

		2023	2024	2025	2026	2027
<b>Crude Oil and NGLs</b>						
WTI	US\$/bbl	80.33	78.50	76.95	77.61	79.16
WCS	C\$/bbl	76.54	77.75	77.55	80.07	81.89
Canadian Light Sweet	C\$/bbl	103.76	97.74	95.27	95.58	97.07
Cromer LSB	C\$/bbl	104.55	98.50	95.55	96.83	98.13
Edmonton C5+	C\$/bbl	106.22	101.35	98.94	100.19	101.74
Brent	US\$/bbl	84.67	82.69	81.03	81.39	82.65
<b>Natural Gas</b>						
AECO	C\$/MMBtu	4.23	4.40	4.21	4.27	4.34
BC Westcoast Station 2	C\$/MMBtu	4.08	4.28	4.11	4.16	4.23
Henry Hub	US\$/MMBtu	4.74	4.50	4.31	4.40	4.49

All prices increase at a rate of 2% per year after 2027.

A foreign exchange rate of 0.7450 US\$/C\$ for 2023, 0.7650 US\$/C\$ for 2024, 0.7683 US\$/C\$ for 2025, 0.7717 US\$/C\$ for 2026 and 0.7750 US\$/C\$ after 2026 was used in the year end 2022 evaluation.

4. A barrel of oil equivalent ("BOE") is derived by converting six thousand cubic feet of natural gas to one barrel of crude oil (6 Mcf:1 bbl). This conversion may be misleading, particularly if used in isolation, since the 6 Mcf:1 bbl 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. In comparing the value ratio using current crude oil prices relative to natural gas prices, the 6 Mcf:1 bbl conversion ratio may be misleading as an indication of value.
5. Oil and gas metrics included herein are commonly used in the crude oil and natural gas industry and are determined by Canadian Natural as set out in the notes below. These metrics do not have standardized meanings and may not be comparable to similar measures presented by other companies and may be misleading when making comparisons. Management uses these metrics to evaluate Canadian Natural's performance over time. However, such measures are not reliable indicators of Canadian Natural's future performance and future performance may vary.
6. Reserves additions and revisions are comprised of all categories of Company Gross reserves changes, exclusive of production.
7. Reserves replacement or Production replacement ratio is the Company Gross reserves additions and revisions, for the relevant reserves category, divided by the Company Gross production in the same period.
8. Reserves Life Index ("RLI") is based on the amount for the relevant reserves category divided by the 2023 proved developed producing production forecast prepared by the Independent Qualified Reserves Evaluators.
9. Finding, Development and Acquisition ("FD&A") costs excluding changes in Future Development Costs ("FDC") are calculated by dividing the sum of total exploration, development and acquisition capital costs incurred in 2022 by the sum of total additions and revisions for the relevant reserves category.
10. FD&A costs including changes in FDC are calculated by dividing the sum of total exploration, development and acquisition capital costs incurred in 2022 and net changes in FDC from December 31, 2021 to December 31, 2022 by the sum of total additions and revisions for the relevant reserves category. FDC excludes all abandonment, decommissioning and reclamation costs.
11. Abandonment, decommissioning and reclamation ("ADR") costs included in the calculation of the Future Net Revenue ("FNR") consist of both the Company's total Asset Retirement Obligation ("ARO"), before inflation and discounting, for development existing as at December 31, 2022 and forecast estimates of ADR costs attributable to future development activity.

# Management's Discussion and Analysis

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## Definitions and Abbreviations

<b>AECO</b>	Alberta natural gas reference location	<b>IFRS</b>	International Financial Reporting Standards
<b>AIF</b>	Annual Information Form	<b>LIBOR</b>	London Interbank Offered Rate
<b>AOSP</b>	Athabasca Oil Sands Project	<b>Mbbl</b>	thousand barrels
<b>API</b>	specific gravity measured in degrees on the American Petroleum Institute scale	<b>Mbbl/d</b>	thousand barrels per day
<b>ARO</b>	asset retirement obligations	<b>MBOE</b>	thousand barrels of oil equivalent
<b>bbl</b>	barrel	<b>MBOE/d</b>	thousand barrels of oil equivalent per day
<b>bbl/d</b>	barrels per day	<b>Mcf</b>	thousand cubic feet
<b>Bcf</b>	billion cubic feet	<b>Mcfe</b>	thousand cubic feet equivalent
<b>Bcf/d</b>	billion cubic feet per day	<b>Mcf/d</b>	thousand cubic feet per day
<b>Bitumen</b>	a naturally occurring solid or semi-solid hydrocarbon consisting mainly of heavier hydrocarbons that are too heavy or thick to flow at reservoir conditions, and recoverable at economic rates using thermal in situ recovery methods	<b>MMbbl</b>	million barrels
		<b>MMBOE</b>	million barrels of oil equivalent
		<b>MMBtu</b>	million British thermal units
		<b>MMcf</b>	million cubic feet
		<b>MMcf/d</b>	million cubic feet per day
<b>BOE</b>	barrels of oil equivalent	<b>NGLs</b>	natural gas liquids
<b>BOE/d</b>	barrels of oil equivalent per day	<b>NWRP</b>	North West Redwater Partnership
<b>Brent</b>	Dated Brent	<b>NYMEX</b>	New York Mercantile Exchange
<b>C\$</b>	Canadian dollars	<b>NYSE</b>	New York Stock Exchange
<b>CAGR</b>	compound annual growth rate	<b>OPEC+</b>	Organization of the Petroleum Exporting Countries Plus
<b>CAPEX</b>	capital expenditures		
<b>CO<sub>2</sub></b>	carbon dioxide	<b>PRT</b>	Petroleum Revenue Tax
<b>CO<sub>2</sub>e</b>	carbon dioxide equivalents	<b>SAGD</b>	Steam-Assisted Gravity Drainage
<b>Crude oil</b>	includes light and medium crude oil, primary heavy crude oil, Pelican Lake heavy crude oil, bitumen (thermal oil), and synthetic crude oil	<b>SCO</b>	synthetic crude oil
		<b>SEC</b>	United States Securities and Exchange Commission
<b>CSS</b>	Cyclic Steam Stimulation	<b>SOFR</b>	Secured Overnight Financing Rate
<b>EOR</b>	Enhanced Oil Recovery	<b>Tcf</b>	trillion cubic feet
<b>E&amp;P</b>	Exploration and Production	<b>TSX</b>	Toronto Stock Exchange
<b>FASB</b>	Financial Accounting Standards Board	<b>UK</b>	United Kingdom
<b>FPSO</b>	Floating Production, Storage and Offloading Vessel	<b>US</b>	United States
<b>GHG</b>	greenhouse gas	<b>US GAAP</b>	generally accepted accounting principles in the United States
<b>GJ</b>	gigajoules	<b>US\$</b>	United States dollars
<b>GJ/d</b>	gigajoules per day	<b>WCS</b>	Western Canadian Select
<b>Horizon</b>	Horizon Oil Sands	<b>WCS Heavy Differential</b>	WCS Heavy Differential from WTI
<b>IASB</b>	International Accounting Standards Board	<b>WTI</b>	West Texas Intermediate reference location at Cushing, Oklahoma
<b>IBOR</b>	Interbank Offered Rate		

## Advisory

### SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

Certain statements relating to Canadian Natural Resources Limited (the "Company") in this document or documents incorporated herein by reference constitute forward-looking statements or information (collectively referred to herein as "forward-looking statements") within the meaning of applicable securities legislation. Forward-looking statements can be identified by the words "believe", "anticipate", "expect", "plan", "estimate", "target", "continue", "could", "intend", "may", "potential", "predict", "should", "will", "objective", "project", "forecast", "goal", "guidance", "outlook", "effort", "seeks", "schedule", "proposed", "aspiration" or expressions of a similar nature suggesting future outcome or statements regarding an outlook. Disclosure related to expected future commodity pricing, forecast or anticipated production volumes, royalties, production expenses, capital expenditures, income tax expenses, and other targets provided throughout this Management's Discussion and Analysis ("MD&A") of the financial condition and results of operations of the Company, constitute forward-looking statements. Disclosure of plans relating to and expected results of existing and future developments, including, without limitation, those in relation to: the Company's assets at Horizon, AOSP, the Primrose thermal oil projects, the Pelican Lake water and polymer flood projects, the Kirby Thermal Oil Sands Project, the Jackfish Thermal Oil Sands Project and the North West Redwater bitumen upgrader and refinery; construction by third parties of new, or expansion of existing, pipeline capacity or other means of transportation of bitumen, crude oil, natural gas, NGLs or SCO that the Company may be reliant upon to transport its products to market; the development and deployment of technology and technological innovations; the financial capacity of the Company to complete its growth projects and responsibly and sustainably grow in the long-term; and the impact of the Pathways Alliance ("Pathways") initiative and activities, government support for Pathways and the ability to achieve net zero emissions from oil production, also constitute forward-looking statements. These forward-looking statements are based on annual budgets and multi-year forecasts, and are reviewed and revised throughout the year as necessary in the context of targeted financial ratios, project returns, product pricing expectations and balance in project risk and time horizons. These statements are not guarantees of future performance and are subject to certain risks. The reader should not place undue reliance on these forward-looking statements as there can be no assurances that the plans, initiatives or expectations upon which they are based will occur.

In addition, statements relating to "reserves" are deemed to be forward-looking statements as they involve the implied assessment based on certain estimates and assumptions that the reserves described can be profitably produced in the future. There are numerous uncertainties inherent in estimating quantities of proved and proved plus probable crude oil, natural gas and NGLs reserves and in projecting future rates of production and the timing of development expenditures. The total amount or timing of actual future production may vary significantly from reserves and production estimates.

The forward-looking statements are based on current expectations, estimates and projections about the Company and the industry in which the Company operates, which speak only as of the earlier of the date such statements were made or as of the date of the report or document in which they are contained, and are subject to known and unknown risks and uncertainties that could cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Such risks and uncertainties include, among others: general economic and business conditions (including as a result of effects of the novel coronavirus ("COVID-19") pandemic, the actions of OPEC+ and inflation) which may impact, among other things, demand and supply for and market prices of the Company's products, and the availability and cost of resources required by the Company's operations; volatility of and assumptions regarding crude oil, natural gas and NGLs prices including due to actions of OPEC+ taken in response to COVID-19 or otherwise; fluctuations in currency and interest rates; assumptions on which the Company's current targets are based; economic conditions in the countries and regions in which the Company conducts business; political uncertainty, including actions of or against terrorists, insurgent groups or other conflict including conflict between states; industry capacity; ability of the Company to implement its business strategy, including exploration and development activities; impact of competition; the Company's defense of lawsuits; availability and cost of seismic, drilling and other equipment; ability of the Company and its subsidiaries to complete capital programs; the Company's and its subsidiaries' ability to secure adequate transportation for its products; unexpected disruptions or delays in the mining, extracting or upgrading of the Company's bitumen products; potential delays or changes in plans with respect to exploration or development projects or capital expenditures; ability of the Company to attract the necessary labour required to build, maintain, and operate its thermal and oil sands mining projects; operating hazards and other difficulties inherent in the exploration for and production and sale of crude oil and natural gas and in the mining, extracting or upgrading the Company's bitumen products; availability and cost of financing; the Company's and its subsidiaries' success of exploration and development activities and its ability to replace and expand crude oil and natural gas reserves; the Company's ability to meet its targeted production levels; timing and success of integrating the business and operations of acquired companies and assets; production levels; imprecision of reserves estimates and estimates of recoverable quantities of crude oil, natural gas and NGLs not currently classified as proved; actions by governmental authorities (including government mandated production curtailments); government regulations and the expenditures required to comply with them (especially safety and environmental laws and regulations and the impact of climate change initiatives on capital expenditures and production expenses); asset retirement obligations; the sufficiency of the Company's liquidity to support its growth strategy and to sustain its operations in the short, medium, and long-term; the strength of the Company's balance sheet; the flexibility of the Company's capital structure; the adequacy of the Company's provision for taxes; and other circumstances affecting revenues and expenses.

The Company's operations have been, and in the future may be, affected by political developments and by national, federal, provincial, state and local laws and regulations such as restrictions on production, changes in taxes, royalties and other amounts payable to governments or governmental agencies, price or gathering rate controls and environmental protection regulations. Should one or more of these risks or uncertainties materialize, or should any of the Company's assumptions prove incorrect, actual results may vary in material respects from those projected in the forward-looking statements. The impact of any one factor on a particular forward-looking statement is not determinable with certainty as such factors are dependent upon other factors, and the Company's course of action would depend upon its assessment of the future considering all information then available.

Readers are cautioned that the foregoing list of factors is not exhaustive. Unpredictable or unknown factors not discussed in this MD&A could also have adverse effects on forward-looking statements. Although the Company believes that the expectations conveyed by the forward-looking statements are reasonable based on information available to it on the date such forward-looking statements are made, no assurances can be given as to future results, levels of activity and achievements. 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. Except as required by applicable law, the Company assumes no obligation to update forward-looking statements in this MD&A, whether as a result of new information, future events or other factors, or the foregoing factors affecting this information, should circumstances or the Company's estimates or opinions change.

## **SPECIAL NOTE REGARDING NON-GAAP AND OTHER FINANCIAL MEASURES**

This MD&A includes references to non-GAAP measures, which include non-GAAP and other financial measures as defined in National Instrument 52-112 – Non-GAAP and Other Financial Measures Disclosure ("NI 52-112"). Non-GAAP measures are used by the Company to evaluate its financial performance, financial position or cash flow. Descriptions of the Company's non-GAAP and other financial measures included in this MD&A, and reconciliations to the most directly comparable GAAP measure, as applicable, are provided in the "Non-GAAP and Other Financial Measures" section of this MD&A.

## **SPECIAL NOTE REGARDING CURRENCY, FINANCIAL INFORMATION, PRODUCTION AND RESERVES**

This MD&A should be read in conjunction with the audited consolidated financial statements for the year ended December 31, 2022. It should also be read in conjunction with the Company's MD&A for the three months and year ended December 31, 2022. All dollar amounts are referenced in millions of Canadian dollars, except where noted otherwise. The Company's consolidated financial statements and this MD&A have been prepared in accordance with IFRS as issued by the IASB.

Production volumes, per unit statistics and reserves data are presented throughout this MD&A on a "before royalties" or "company gross" basis, and realized prices are net of blending and feedstock costs and exclude the effect of risk management activities. In addition, reference is made to crude oil and natural gas in common units called barrel of oil equivalent ("BOE"). A BOE is derived by converting six thousand cubic feet ("Mcf") of natural gas to one barrel ("bbl") of crude oil (6 Mcf:1 bbl). This conversion may be misleading, particularly if used in isolation, since the 6 Mcf:1 bbl 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. In comparing the value ratio using current crude oil prices relative to natural gas prices, the 6 Mcf:1 bbl conversion ratio may be misleading as an indication of value. In addition, for the purposes of this MD&A, crude oil is defined to include the following commodities: light and medium crude oil, primary heavy crude oil, Pelican Lake heavy crude oil, bitumen (thermal oil), and SCO. Production on an "after royalties" or "company net" basis is also presented for information purposes only.

The following discussion and analysis refers primarily to the Company's 2022 financial results compared to 2021 and 2020, unless otherwise indicated. In addition, this MD&A details the Company's targeted capital program for 2023. The accompanying tables form an integral part of this MD&A. Additional information relating to the Company, including its quarterly MD&A for the three months and year ended December 31, 2022, its Annual Information Form for the year ended December 31, 2022, and its audited consolidated financial statements for the year ended December 31, 2022, is available on SEDAR at [www.sedar.com](http://www.sedar.com), and on EDGAR at [www.sec.gov](http://www.sec.gov). Information on the Company's website does not form part of and is not incorporated by reference in this MD&A. This MD&A is dated March 1, 2023.

## Objectives and Strategy

The Company's objectives are to increase crude oil and natural gas production, reserves, cash flow and net asset value <sup>(1)</sup> on a per common share basis through the economic and sustainable development of its existing crude oil and natural gas properties and through the discovery and/or acquisition of new reserves. The Company strives to meet these objectives in a sustainable and responsible way, maintaining a commitment to environmental stewardship and safety excellence.

The Company endeavors to meet these objectives by having a defined growth and value enhancement plan for each of its products and segments. The Company takes a balanced approach to growth and investments and focuses on creating long-term shareholder value. The Company allocates its capital by maintaining:

- Balance among its products, namely light and medium crude oil and NGLs, primary heavy crude oil, Pelican Lake heavy crude oil <sup>(2)</sup>, bitumen (thermal oil), SCO and natural gas;
- A large, balanced, diversified, high quality, long life low decline asset base;
- Balance among acquisitions, development and exploration;
- Balance between sources and terms of debt financing and a strong financial position; and
- Commitment to environmental stewardship throughout the decision-making process.

The Company's three-phase crude oil marketing strategy includes:

- Blending various crude oil streams with diluents to create more attractive feedstock;
- Supporting and participating in pipeline expansions and/or new additions; and
- Supporting and participating in projects that will increase the downstream conversion capacity for heavy crude oil and bitumen (thermal oil).

Operational discipline, safe, effective and efficient operations, and cost control are fundamental to the Company and embrace the key piece of the Company's mission statement: "doing it right". By consistently managing costs throughout all cycles of the industry, the Company believes it will achieve continued growth. Effective and efficient operations and cost control are attained by developing area knowledge, and by maintaining high working interests and operator status in the Company's properties.

The Company is committed to maintaining a strong balance sheet and flexible capital structure. The Company believes it has built the necessary financial capacity to complete its growth projects. Additionally, the Company periodically utilizes its risk management hedging program to reduce the risk of volatility in commodity prices and foreign exchange rates and to support the Company's cash flow for its capital expenditure programs.

Strategic accretive acquisitions are a key component of the Company's strategy. The Company has used a combination of internally generated cash flows and debt and equity financing to selectively acquire properties generating future cash flows in its core areas. The Company's financial discipline, commitment to a strong balance sheet, and capacity to internally generate cash flows provides the means to responsibly and sustainably grow in the long term.

(1) Discounted value of crude oil and natural gas reserves plus value of unproved land, less net debt.

(2) Pelican Lake heavy crude oil is 12–17° API oil, which receives medium quality crude netbacks due to lower production expense and lower royalty rates.

## Financial and Operational Highlights

(\$ millions, except per common share amounts)	2022		2021		2020	
Product sales <sup>(1)</sup>	\$	<b>49,530</b>	\$	32,854	\$	17,491
Crude oil and NGLs	\$	<b>43,009</b>	\$	29,256	\$	15,579
Natural gas	\$	<b>5,236</b>	\$	2,716	\$	1,478
Net earnings (loss)	\$	<b>10,937</b>	\$	7,664	\$	(435)
Per common share – basic	\$	<b>9.64</b>	\$	6.49	\$	(0.37)
– diluted	\$	<b>9.52</b>	\$	6.46	\$	(0.37)
Adjusted net earnings (loss) from operations <sup>(2)</sup>	\$	<b>12,863</b>	\$	7,420	\$	(756)
Per common share – basic <sup>(3)</sup>	\$	<b>11.33</b>	\$	6.28	\$	(0.64)
– diluted <sup>(3)</sup>	\$	<b>11.19</b>	\$	6.25	\$	(0.64)
Cash flows from operating activities	\$	<b>19,391</b>	\$	14,478	\$	4,714
Adjusted funds flow <sup>(2)</sup>	\$	<b>19,791</b>	\$	13,733	\$	5,200
Per common share – basic <sup>(3)</sup>	\$	<b>17.44</b>	\$	11.63	\$	4.40
– diluted <sup>(3)</sup>	\$	<b>17.22</b>	\$	11.57	\$	4.40
Dividends declared per common share <sup>(4)</sup>	\$	<b>4.60</b>	\$	2.00	\$	1.70
Total assets	\$	<b>76,142</b>	\$	76,665	\$	75,276
Total long-term liabilities	\$	<b>29,316</b>	\$	32,298	\$	37,818
Cash flows used in investing activities	\$	<b>4,987</b>	\$	3,703	\$	2,819
Net capital expenditures <sup>(2)</sup>	\$	<b>5,471</b>	\$	4,908	\$	3,206
Average realized price						
Crude oil and NGLs - Exploration and Production (\$/bbl) <sup>(3)</sup>	\$	<b>90.64</b>	\$	63.71	\$	31.90
Natural gas - Exploration and Production (\$/Mcf) <sup>(5)</sup>	\$	<b>6.55</b>	\$	4.07	\$	2.40
SCO - Oil Sands Mining and Upgrading (\$/bbl) <sup>(3)</sup>	\$	<b>117.69</b>	\$	77.95	\$	43.98
Daily production, before royalties (BOE/d)		<b>1,281,434</b>		1,234,906		1,164,136
Crude oil and NGLs (bbl/d)		<b>933,149</b>		952,404		917,958
Natural gas (MMcf/d) <sup>(6)</sup>		<b>2,090</b>		1,695		1,477

(1) Further details related to product sales are disclosed in note 22 to the Company's audited consolidated financial statements.

(2) Non-GAAP Financial Measure. Refer to the "Non-GAAP and Other Financial Measures" section of this MD&A.

(3) Non-GAAP Ratio. Refer to the "Non-GAAP and Other Financial Measures" section of this MD&A.

(4) On November 2, 2022, the Board of Directors approved a 13% increase in the quarterly dividend to \$0.85 per common share, from \$0.75 per common share. On August 3, 2022, the Board of Directors approved a special dividend of \$1.50 per common share. On March 2, 2022, the Board of Directors approved a 28% increase in the quarterly dividend to \$0.75 per common share, from \$0.5875 per common share. On November 3, 2021, the Board of Directors approved a 25% increase in the quarterly dividend to \$0.5875 per common share, from \$0.47 per common share. On March 3, 2021, the Board of Directors approved an 11% increase in the quarterly dividend to \$0.47 per common share, from \$0.425 per common share. On March 4, 2020, the Board of Directors approved a 13% increase in the quarterly dividend to \$0.425 per common share, from \$0.375 per common share.

(5) Calculated as natural gas sales divided by sales volumes.

(6) Natural gas production volumes approximate sales volumes.

## CONSOLIDATED NET EARNINGS (LOSS) AND ADJUSTED NET EARNINGS (LOSS)

For 2022, the Company reported net earnings of \$10,937 million compared with \$7,664 million for 2021 (2020 – net loss of \$435 million). Net earnings for 2022 included non-operating items, net of tax, of \$1,926 million compared with \$244 million for 2021 (2020 – \$321 million) related to the effects of share-based compensation, risk management activities, fluctuations in foreign exchange rates, the impact of realized foreign exchange on the settlement of the cross currency swap and repayment of US dollar debt securities, the gain on acquisitions, the (gain) loss from investments, a recoverability charge relating to the de-booking of reserves at the Ninian field in the North Sea, and government grant income under the provincial well-site rehabilitation programs. Excluding these items, adjusted net earnings from operations for 2022 were \$12,863 million compared with \$7,420 million for 2021 (2020 – adjusted net loss from operations of \$756 million).

The increase in net earnings and adjusted net earnings from operations for 2022 compared with 2021 primarily reflected:

- higher crude oil and NGLs netbacks<sup>(1)</sup> and crude oil sales volumes in the North America segment;
- higher natural gas netbacks and natural gas sales volumes in the Exploration and Production segments; and
- higher realized SCO sales price<sup>(1)</sup> in the Oil Sands Mining and Upgrading segment;

partially offset by:

- lower SCO sales volumes in the Oil Sands Mining and Upgrading segment.

A detailed reconciliation of the changes in the Company's product sales is provided in the "Analysis of Changes in Product Sales" section of this MD&A.

The impacts of share-based compensation, risk management activities, fluctuations in foreign exchange rates, the gain on acquisitions, income from NWRP, and the (gain) loss from investments, also contributed to the movements in net earnings for 2022 from 2021. These items are discussed in detail in the relevant sections of this MD&A.

Prevailing regulatory and economic conditions in 2022 and the increasingly challenging commercial outlook in the United Kingdom, including the impact of higher natural gas and carbon costs, led the Company to assess the viability of its North Sea operations. Following a detailed review of its development plans, the Company determined that the Ninian field is no longer economic, de-booked associated crude oil reserves as at December 31, 2022, and is accelerating abandonment. As a result, the Company completed a recoverability assessment of its assets in the North Sea, and recognized a non-cash charge of \$651 million (after-tax) related to the Ninian field property, plant and equipment, comprised of a recoverability charge of \$1,620 million recognized in depletion, depreciation and amortization, net of deferred tax recoveries of \$969 million.

## CASH FLOWS FROM OPERATING ACTIVITIES AND ADJUSTED FUNDS FLOW

Cash flows from operating activities for 2022 were \$19,391 million compared with \$14,478 million for 2021 (2020 – \$4,714 million). The fluctuations in cash flows from operating activities for 2022 from 2021 were primarily due to the factors previously noted related to the fluctuations in adjusted net earnings (loss) from operations, together with the impact of net changes in non-cash working capital.

Adjusted funds flow for 2022 was \$19,791 million (\$17.44 per common share) compared with \$13,733 million (\$11.63 per common share) for 2021 (2020 – \$5,200 million; \$4.40 per common share). The fluctuations in adjusted funds flow for 2022 from 2021 was primarily due to the factors noted above related to the fluctuations in cash flows from operating activities, excluding the impact of the net change in non-cash working capital, abandonment expenditures, government grant income under the provincial well-site rehabilitation programs, and movements in other long-term assets, including the unamortized cost of the share bonus program.

## PRODUCTION VOLUMES

Crude oil and NGLs production before royalties for 2022 of 933,149 bbl/d was comparable with 952,404 bbl/d in 2021 (2020 – 917,958 bbl/d). Natural gas production before royalties for 2022 increased 23% to average 2,090 MMcf/d from 1,695 MMcf/d in 2021 (2020 – 1,477 MMcf/d). Total production before royalties for 2022 of 1,281,434 BOE/d increased 4% from 1,234,906 BOE/d in 2021 (2020 – 1,164,136 BOE/d). Crude oil and NGLs and natural gas production volumes are discussed in detail in the "Daily Production" section of this MD&A.

## PRODUCT PRICES

In the Company's Exploration and Production segments, the 2022 realized crude oil and NGLs prices<sup>(1)</sup> increased 42% to average \$90.64 per bbl from \$63.71 per bbl in 2021 (2020 – \$31.90 per bbl), and the 2022 realized natural gas price increased 61% to average \$6.55 per Mcf from \$4.07 per Mcf in 2021 (2020 – \$2.40 per Mcf). In the Oil Sands Mining and Upgrading segment, the Company's 2022 realized SCO sales price increased 51% to average \$117.69 per bbl from \$77.95 per bbl in 2021 (2020 – \$43.98 per bbl). Crude oil and NGLs and natural gas prices are discussed in detail in the "Business Environment", "Realized Product Prices - Exploration and Production", and the "Oil Sands Mining and Upgrading" sections of this MD&A.

(1) Non-GAAP Ratio. Refer to the "Non-GAAP and Other Financial Measures" section of this MD&A.

## PRODUCTION EXPENSE

In the Company's Exploration and Production segments, the 2022 crude oil and NGLs production expense <sup>(1)</sup> increased 24% to average \$18.17 per bbl from \$14.71 per bbl in 2021 (2020 – \$12.42 per bbl), and natural gas production expense <sup>(1)</sup> averaged \$1.22 per Mcf in 2022, an increase of 3% from \$1.18 per Mcf in 2021 (2020 – \$1.18 per Mcf). In the Oil Sands Mining and Upgrading segment, the Company's 2022 production expense <sup>(1)</sup> averaged \$26.04 per bbl, an increase of 25% from \$20.91 per bbl in 2021 (2020 – \$20.46 per bbl). Crude oil and NGLs and natural gas production expense is discussed in detail in the "Exploration and Production" and the "Oil Sands Mining and Upgrading" sections of this MD&A.

## SUMMARY OF QUARTERLY FINANCIAL RESULTS

The following is a summary of the Company's quarterly financial results for the eight most recently completed quarters:

(\$ millions, except per common share amounts)

<b>2022</b>	<b>Total</b>	<b>Dec 31</b>	<b>Sep 30</b>	<b>Jun 30</b>	<b>Mar 31</b>
Product sales <sup>(1)</sup>	\$ 49,530	\$ 11,012	\$ 12,574	\$ 13,812	\$ 12,132
Crude oil and NGLs	\$ 43,009	\$ 9,508	\$ 11,001	\$ 11,727	\$ 10,773
Natural gas	\$ 5,236	\$ 1,287	\$ 1,342	\$ 1,605	\$ 1,002
Net earnings	\$ 10,937	\$ 1,520	\$ 2,814	\$ 3,502	\$ 3,101
Net earnings per common share					
– basic	\$ 9.64	\$ 1.37	\$ 2.52	\$ 3.04	\$ 2.66
– diluted	\$ 9.52	\$ 1.36	\$ 2.49	\$ 3.00	\$ 2.63

(\$ millions, except per common share amounts)

<b>2021</b>	<b>Total</b>	<b>Dec 31</b>	<b>Sep 30</b>	<b>Jun 30</b>	<b>Mar 31</b>
Product sales <sup>(1)</sup>	\$ 32,854	\$ 10,190	\$ 8,521	\$ 7,124	\$ 7,019
Crude oil and NGLs	\$ 29,256	\$ 8,979	\$ 7,607	\$ 6,382	\$ 6,288
Natural gas	\$ 2,716	\$ 958	\$ 694	\$ 509	\$ 555
Net earnings	\$ 7,664	\$ 2,534	\$ 2,202	\$ 1,551	\$ 1,377
Net earnings per common share					
– basic	\$ 6.49	\$ 2.16	\$ 1.87	\$ 1.31	\$ 1.16
– diluted	\$ 6.46	\$ 2.14	\$ 1.86	\$ 1.30	\$ 1.16

(1) Further details related to product sales are disclosed in note 22 to the Company's audited consolidated financial statements.

(1) Calculated as respective production expense divided by respective sales volumes.

Volatility in the quarterly net earnings over the eight most recently completed quarters was primarily due to:

- **Crude oil pricing** – Fluctuating global supply/demand including crude oil production levels from OPEC+ and its impact on world supply; the impact of geopolitical and market uncertainties, including those due to COVID-19 and in connection with governmental responses to COVID-19 and the impact of the Russian invasion of Ukraine, on worldwide benchmark pricing; the impact of shale oil production in North America; the impact of the WCS Heavy Differential from WTI in North America; and the impact of the differential between WTI and Brent benchmark pricing in the International segments.
- **Natural gas pricing** – The impact of fluctuations in both the demand for natural gas and inventory storage levels, third-party pipeline maintenance and outages, the impact of geopolitical and market uncertainties, the impact of seasonal conditions, and the impact of shale gas production in the US.
- **Crude oil and NGLs sales volumes** – Fluctuations in production from the Kirby and Jackfish Thermal Oil Sands Projects, fluctuations in production due to the cyclic nature of the Primrose thermal oil projects, fluctuations in the Company's drilling program in North America and the International segments, natural decline rates, the impact of turnarounds and pitstops in the Oil Sands Mining and Upgrading segment, and the impact of shut-in production due to lower demand during COVID-19. Sales volumes also reflected fluctuations due to timing of liftings and maintenance activities in the International segments.
- **Natural gas sales volumes** – Fluctuations in production due to the Company's drilling program in North America and the International segments, natural decline rates, the temporary shutdown and subsequent reinstatement of the Pine River Gas Plant during 2021, and the impact and timing of acquisitions.
- **Production expense** – Fluctuations primarily due to the impacts of the demand and cost for services, fluctuations in product mix and production volumes, seasonal conditions, increased carbon tax and energy costs, inflationary cost pressures, cost optimizations across all segments, the impact and timing of acquisitions, turnarounds and pitstops in the Oil Sands Mining and Upgrading segment, and maintenance activities in the International segments.
- **Depletion, depreciation and amortization expense** – Fluctuations due to changes in sales volumes including the impact and timing of acquisitions and dispositions, proved reserves, asset retirement obligations, finding and development costs associated with crude oil and natural gas exploration, estimated future costs to develop the Company's proved undeveloped reserves, fluctuations in International sales volumes subject to higher depletion rates, the impact of turnarounds and pitstops in the Oil Sands Mining and Upgrading segment, and a recoverability charge relating to the de-booking of reserves at the Ninian field in the North Sea.
- **Share-based compensation** – Fluctuations due to the measurement of fair market value of the Company's share-based compensation liability.
- **Risk management** – Fluctuations due to the recognition of gains and losses from the mark-to-market and subsequent settlement of the Company's risk management activities.
- **Interest expense** – Fluctuations due to changing long-term debt levels, and the impact of movements in benchmark interest rates on outstanding floating rate long-term debt and accrued interest on the deferred PRT recovery.
- **Foreign exchange** – Fluctuations in the Canadian dollar relative to the US dollar, which impact the realized price the Company receives for its crude oil and natural gas sales, as sales prices are based predominantly on US dollar denominated benchmarks. Fluctuations in realized and unrealized foreign exchange gains and losses were also recorded with respect to US dollar denominated debt, partially offset by the impact of any cross currency swap hedges outstanding.
- **Gain on acquisitions, (gain) loss from investments and income from NWRP** – Fluctuations due to the recognition of gains on acquisitions, (gain) loss from the investments in PrairieSky Royalty Ltd. and Inter Pipeline Ltd. shares, and the distribution from NWRP in 2021.

## Business Environment

Global benchmark crude oil prices increased significantly in the first half of 2022, primarily in response to the impact of the Russian invasion of Ukraine and the OPEC+ decision to adhere to previously agreed upon production cut agreements, together with the improvement of global economic conditions and outlook due to the lessening of COVID-19 restrictions. In the second half of 2022, global benchmark crude oil prices decreased from levels in the first half of 2022 due to demand concerns related to the temporary reinstatement of COVID-19 restrictions in China, the impact of rising interest rates and concerns of a global recession.

### Liquidity

As at December 31, 2022, the Company had undrawn revolving bank credit facilities of \$5,520 million. Including cash and cash equivalents and short-term investments, the Company had approximately \$6,931 million in liquidity <sup>(1)</sup>. The Company also has certain other dedicated credit facilities supporting letters of credit.

The Company remains committed to maintaining a strong balance sheet, adequate available liquidity and a flexible capital structure. Refer to the "Liquidity and Capital Resources" section of this MD&A for further details.

### Capital Spending

Safe, reliable, effective and efficient operations continue to be a focus for the Company. On November 30, 2022, the Company announced its 2023 base capital budget <sup>(2)</sup> targeted at approximately \$4,190 million. The budget also includes incremental strategic growth capital of approximately \$1,020 million that targets to add additional production and capacity growth beyond 2023 in the Company's E&P segment, and long life low decline thermal in situ and Oil Sands Mining and Upgrading assets. Production for 2023 is targeted between 1,330,000 BOE/d and 1,374,000 BOE/d. Annual budgets are developed and scrutinized throughout the year and can be changed, if necessary, in the context of price volatility, project returns and the balancing of project risks and time horizons. The 2023 capital budget constitutes forward-looking statements. Refer to the "Advisory" section of this MD&A for further details on forward-looking statements.

### Risks and Uncertainties

COVID-19, including variants of concern, continues to have the potential to further disrupt the Company's operations, projects, and financial condition, through the disruption of the local or global supply chain and transportation services, or the loss of manpower, any of which may require the Company to temporarily reduce or shut down its operations depending on their extent and severity. The global economy, including Canada, is experiencing higher and more persistent inflation, in part due to the Russian invasion of Ukraine and ongoing supply constraints due to the impacts of COVID-19. As a result of these conditions, the Company has experienced and may continue to experience higher than normal fluctuations in commodity prices, and may experience inflationary pressures on operating and capital expenditures.

## BENCHMARK COMMODITY PRICES

(Yearly average)		2022		2021		2020
WTI benchmark price (US\$/bbl)	\$	94.23	\$	67.96	\$	39.40
Dated Brent benchmark price (US\$/bbl)	\$	99.80	\$	70.49	\$	42.27
WCS Heavy Differential from WTI (US\$/bbl)	\$	18.26	\$	13.04	\$	12.57
SCO price (US\$/bbl)	\$	98.66	\$	66.36	\$	36.26
Condensate benchmark price (US\$/bbl)	\$	93.69	\$	68.24	\$	36.97
Condensate Differential from WTI (US\$/bbl)	\$	0.54	\$	(0.28)	\$	2.43
NYMEX benchmark price (US\$/MMBtu)	\$	6.64	\$	3.85	\$	2.08
AECO benchmark price (C\$/GJ)	\$	5.28	\$	3.38	\$	2.12
US/Canadian dollar average exchange rate (US\$)	\$	0.7686	\$	0.7979	\$	0.7454
US/Canadian dollar year end exchange rate (US\$)	\$	0.7389	\$	0.7901	\$	0.7840

Substantially all of the Company's production is sold based on US dollar benchmark pricing. Specifically, crude oil is marketed based on WTI and Brent indices. Canadian natural gas pricing is primarily based on AECO reference pricing, which is derived from the NYMEX reference pricing and adjusted for its basis or location differential to the NYMEX delivery point at Henry Hub. The Company's realized prices are directly impacted by fluctuations in foreign exchange rates. Product revenue continued to be impacted by the volatility of the Canadian dollar as the Canadian dollar sales price the Company received for its crude oil and natural gas sales is based on US dollar denominated benchmarks.

(1) Non-GAAP Financial Measure. Refer to the "Non-GAAP and Other Financial Measures" section of this MD&A.

(2) Forward-looking non-GAAP Financial Measure. The capital budget is based on net capital expenditures (Non-GAAP Financial Measure) and excludes net acquisition costs. Refer to the "Non-GAAP and Other Financial Measures" section of this MD&A for more details on Net Capital Expenditures.

Crude oil sales contracts in the North America segment are typically based on WTI benchmark pricing. WTI averaged US\$94.23 per bbl for 2022, an increase of 39% from US\$67.96 per bbl for 2021 (2020 – US\$39.40 per bbl).

Crude oil sales contracts for the Company's International segments are typically based on Brent pricing, which is representative of international markets and overall global supply and demand. Brent averaged US\$99.80 per bbl for 2022, an increase of 42% from US\$70.49 per bbl for 2021 (2020 – US\$42.27 per bbl).

The increase in WTI and Brent pricing for 2022 from 2021 primarily reflected the impact of the Russian invasion of Ukraine, the OPEC+ decision to adhere to the previously agreed upon production cut agreements, and an increase in global demand for crude oil due to improved economic conditions as a result of the lessening of earlier COVID-19 restrictions.

The WCS Heavy Differential averaged US\$18.26 per bbl for 2022, compared with US\$13.04 per bbl for 2021 (2020 – US\$12.57 per bbl). The widening of the WCS Heavy Differential for 2022 from 2021 primarily reflected weakening US Gulf Coast pricing due to increased sour supply from the US Strategic Petroleum Reserve and lower Russian pricing as a result of the Ukraine invasion.

The SCO price averaged US\$98.66 per bbl for 2022, an increase of 49% from US\$66.36 per bbl for 2021 (2020 – US\$36.26 per bbl). The increase in SCO pricing for 2022 from 2021 primarily reflected the increase in WTI benchmark pricing.

NYMEX natural gas prices averaged US\$6.64 per MMBtu for 2022, an increase of 72% from US\$3.85 per MMBtu for 2021 (2020 – US\$2.08 per MMBtu). The increase in NYMEX natural gas prices for 2022 from 2021 primarily reflected increased global commodity prices due to lower European inventories and the Russian invasion of Ukraine.

AECO natural gas prices averaged \$5.28 per GJ for 2022, an increase of 56% from \$3.38 per GJ for 2021 (2020 – \$2.12 per GJ). The increase in AECO natural gas prices for 2022 from 2021 primarily reflected lower storage levels and increased NYMEX benchmark pricing.

## Analysis of Changes in Product Sales

(\$ millions)	2020	Changes due to			2021	Changes due to			2022	
		Volumes	Prices	Other		Volumes	Prices	Other		
<b>North America</b>										
Crude oil and NGLs	\$ 7,480	\$ 82	\$ 6,916	\$ —	\$ 14,478	\$ 286	\$ 5,991	\$ —	\$ 20,755	
Natural gas	1,242	193	1,049	—	2,484	584	1,863	—	4,931	
Other <sup>(1)</sup>	41	—	—	78	119	—	—	98	217	
	8,763	275	7,965	78	17,081	870	7,854	98	25,903	
<b>North Sea</b>										
Crude oil and NGLs	417	(72)	262	—	607	(183)	199	—	623	
Natural gas	12	(8)	1	—	5	(2)	10	—	13	
Other <sup>(1)</sup>	3	—	—	(4)	(1)	—	—	1	—	
	432	(80)	263	(4)	611	(185)	209	1	636	
<b>Offshore Africa</b>										
Crude oil and NGLs	318	(68)	170	—	420	45	229	—	694	
Natural gas	42	(9)	(2)	—	31	2	22	—	55	
Other <sup>(1)</sup>	18	—	—	(11)	7	—	—	1	8	
	378	(77)	168	(11)	458	47	251	1	757	
<b>Oil Sands Mining and Upgrading</b>										
Crude oil and NGLs	7,389	560	6,084	—	14,033	(592)	7,363	—	20,804	
Other <sup>(1)</sup>	139	—	—	(66)	73	—	—	76	149	
	7,528	560	6,084	(66)	14,106	(592)	7,363	76	20,953	
<b>Midstream and Refining</b>										
Midstream activities	83	—	—	(5)	78	—	—	2	80	
Refined product sales and other <sup>(1)</sup>	202	—	—	479	681	—	—	225	906	
	285	—	—	474	759	—	—	227	986	
<b>Intersegment eliminations and other <sup>(2)</sup></b>										
Product sales	74	—	—	(238)	(164)	—	—	454	290	
Other <sup>(1)</sup>	31	—	—	(28)	3	—	—	2	5	
	105	—	—	(266)	(161)	—	—	456	295	
<b>Total</b>	<b>\$ 17,491</b>	<b>\$ 678</b>	<b>\$ 14,480</b>	<b>\$ 205</b>	<b>\$ 32,854</b>	<b>\$ 140</b>	<b>\$ 15,677</b>	<b>\$ 859</b>	<b>\$ 49,530</b>	

(1) Includes the sale of diesel and other refined products and other income, including government grants and recoveries associated with the joint operations partners' share of the costs of lease contracts.

(2) Eliminates internal transportation and electricity charges and includes production, processing and other purchasing and selling activities that are not included in the above segments.

Product sales increased 51% to \$49,530 million for 2022 from \$32,854 million for 2021 (2020 – \$17,491 million). The increase in product sales was primarily a result of increased WTI benchmark pricing due to increased demand for refined products as a result of improved economic conditions. Crude oil and NGLs and natural gas pricing are discussed in detail in the "Business Environment", "Exploration and Production" and the "Oil Sands Mining and Upgrading" sections of this MD&A. Crude oil and NGLs and natural gas production volumes are discussed in detail in the "Daily Production" section of this MD&A.

For 2022, 3% of the Company's crude oil and NGLs and natural gas product sales were generated outside of North America (2021 – 3%; 2020 – 5%). North Sea accounted for 1% of crude oil and NGLs and natural gas product sales for 2022 (2021 – 2%; 2020 – 3%), and Offshore Africa accounted for 2% of crude oil and NGLs and natural gas product sales for 2022 (2021 – 1%; 2020 – 2%).

# Daily Production

## DAILY PRODUCTION, BEFORE ROYALTIES

	2022	2021	2020
<b>Crude oil and NGLs</b> (bbl/d)			
North America – Exploration and Production	<b>479,971</b>	472,621	460,443
North America – Oil Sands Mining and Upgrading <sup>(1)</sup>	<b>425,945</b>	448,133	417,351
International – Exploration and Production			
North Sea	<b>12,890</b>	17,633	23,142
Offshore Africa	<b>14,343</b>	14,017	17,022
Total International <sup>(2)</sup>	<b>27,233</b>	31,650	40,164
Total Crude oil and NGLs	<b>933,149</b>	952,404	917,958
<b>Natural gas</b> (MMcf/d) <sup>(3)</sup>			
North America	<b>2,075</b>	1,680	1,450
International			
North Sea	<b>2</b>	3	12
Offshore Africa	<b>13</b>	12	15
Total International	<b>15</b>	15	27
Total Natural gas	<b>2,090</b>	1,695	1,477
Total Barrels of oil equivalent (BOE/d)	<b>1,281,434</b>	1,234,906	1,164,136
<b>Product mix</b>			
Light and medium crude oil and NGLs	<b>11%</b>	10%	11%
Pelican Lake heavy crude oil	<b>4%</b>	5%	5%
Primary heavy crude oil	<b>5%</b>	5%	6%
Bitumen (thermal oil)	<b>20%</b>	21%	21%
Synthetic crude oil <sup>(1)</sup>	<b>33%</b>	36%	36%
Natural gas	<b>27%</b>	23%	21%
<b>Percentage of gross revenue</b> <sup>(1) (4)</sup>			
(excluding Midstream and Refining revenue)			
Crude oil and NGLs	<b>88%</b>	91%	91%
Natural gas	<b>12%</b>	9%	9%

(1) SCO production before royalties excludes SCO consumed internally as diesel.

(2) "International" includes North Sea and Offshore Africa Exploration and Production segments in all instances used.

(3) Natural gas production volumes approximate sales volumes.

(4) Net of blending costs and excluding risk management activities.

## DAILY PRODUCTION, NET OF ROYALTIES

	2022	2021	2020
<b>Crude oil and NGLs (bbl/d)</b>			
North America – Exploration and Production	<b>374,089</b>	404,637	420,906
North America – Oil Sands Mining and Upgrading	<b>351,740</b>	410,385	413,363
International – Exploration and Production			
North Sea	<b>12,849</b>	17,588	23,086
Offshore Africa	<b>12,972</b>	13,354	16,306
Total International	<b>25,821</b>	30,942	39,392
Total Crude oil and NGLs	<b>751,650</b>	845,964	873,661
<b>Natural gas (MMcf/d)</b>			
North America	<b>1,885</b>	1,593	1,406
International			
North Sea	<b>2</b>	3	12
Offshore Africa	<b>11</b>	11	14
Total International	<b>13</b>	14	26
Total Natural gas	<b>1,898</b>	1,607	1,432
Total Barrels of oil equivalent (BOE/d)	<b>1,068,063</b>	1,113,878	1,112,364

The Company's business approach is to maintain large project inventories and production diversification among each of the commodities it produces; namely light and medium crude oil and NGLs, primary heavy crude oil, Pelican Lake heavy crude oil, bitumen (thermal oil), SCO and natural gas.

Total 2022 production before royalties averaged 1,281,434 BOE/d, an increase of 4% from 1,234,906 BOE/d in 2021 (2020 – 1,164,136 BOE/d).

Crude oil and NGLs production before royalties for 2022 averaged 933,149 bbl/d, comparable with 952,404 bbl/d for 2021 (2020 – 917,958 bbl/d).

Annual crude oil and NGLs production for 2022 was slightly below the Company's previously issued production forecast of 943,000 bbl/d. Annual crude oil and NGLs production for 2023 is targeted to average between 969,000 bbl/d and 1,001,000 bbl/d. Production targets constitute forward-looking statements. Refer to the "Advisory" section of this MD&A for further details on forward-looking statements.

Natural gas production before royalties accounted for 27% of the Company's total production in 2022 on a BOE basis. Natural gas production for 2022 of 2,090 MMcf/d increased 23% from 1,695 MMcf/d for 2021 (2020 – 1,477 MMcf/d). The increase in natural gas production for 2022 from 2021 primarily reflected strong drilling results and the acquisition completed in 2021, partially offset by natural field declines and the impact of extreme cold weather conditions late in the fourth quarter of 2022.

Annual natural gas production for 2022 was slightly below the Company's previously issued production forecast of 2,112 MMcf/d. Annual natural gas production for 2023 is targeted to average between 2,170 MMcf/d and 2,242 MMcf/d. Production targets constitute forward-looking statements. Refer to the "Advisory" section of this MD&A for further details on forward-looking statements.

### North America – Exploration and Production

North America crude oil and NGLs production before royalties for 2022 averaged 479,971 bbl/d, comparable with 472,621 bbl/d for 2021 (2020 – 460,443 bbl/d).

Thermal oil production before royalties for 2022 averaged 252,018 bbl/d, a decrease of 3% from 259,284 bbl/d for 2021 (2020 – 248,971 bbl/d). The decrease in thermal oil production for 2022 from 2021 primarily reflected natural field declines.

Pelican Lake heavy crude oil production before royalties averaged 50,333 bbl/d for 2022, a decrease of 7% from 54,390 bbl/d for 2021 (2020 – 56,535 bbl/d), primarily reflecting a temporary injection reduction in 2022, together with natural field declines.

Natural gas production before royalties for 2022 averaged 2,075 MMcf/d, an increase of 24% from 1,680 MMcf/d for 2021 (2020 – 1,450 MMcf/d). The increase in natural gas production for 2022 from 2021 primarily reflected strong drilling results and the acquisition completed in 2021, partially offset by natural field declines and the impact of extreme cold weather conditions late in the fourth quarter of 2022.

## North America – Oil Sands Mining and Upgrading

SCO production before royalties for 2022 of 425,945 bbl/d decreased 5% from 448,133 bbl/d for 2021 (2020 – 417,351 bbl/d). The decrease in SCO production for 2022 from 2021 primarily reflected the extended turnaround at the Scotford Upgrader ("Scotford") in the first half of 2022, the unplanned outage at Horizon during October, and the impact of extreme cold weather conditions late in the fourth quarter of 2022 at both mines.

## International – Exploration and Production

International crude oil and NGLs production before royalties for 2022 averaged 27,233 bbl/d, a decrease of 14% from 31,650 bbl/d for 2021 (2020 – 40,164 bbl/d). The decrease in production for 2022 from 2021 primarily reflected natural field declines, together with the impact of maintenance activities in the North Sea in 2022.

## INTERNATIONAL CRUDE OIL INVENTORY VOLUMES

The Company recognizes revenue on its crude oil production when control of the product passes to the customer and delivery has taken place. Revenue has not been recognized in the International segments on crude oil volumes held in various storage facilities or FPSOs, as follows:

(bbl)	2022	2021	2020
International	<b>390,959</b>	727,439	972,133

## Exploration and Production

### OPERATING HIGHLIGHTS

	2022	2021	2020
<b>Crude oil and NGLs (\$/bbl) <sup>(1)</sup></b>			
Realized price <sup>(2)</sup>	\$ <b>90.64</b>	\$ 63.71	\$ 31.90
Transportation <sup>(2)</sup>	<b>4.13</b>	3.86	3.85
Realized price, net of transportation <sup>(2)</sup>	<b>86.51</b>	59.85	28.05
Royalties <sup>(3)</sup>	<b>18.91</b>	8.59	2.59
Production expense <sup>(4)</sup>	<b>18.17</b>	14.71	12.42
Netback <sup>(2)</sup>	\$ <b>49.43</b>	\$ 36.55	\$ 13.04
<b>Natural gas (\$/Mcf) <sup>(1)</sup></b>			
Realized price <sup>(5)</sup>	\$ <b>6.55</b>	\$ 4.07	\$ 2.40
Transportation <sup>(6)</sup>	<b>0.51</b>	0.45	0.43
Realized price, net of transportation	<b>6.04</b>	3.62	1.97
Royalties <sup>(3)</sup>	<b>0.61</b>	0.22	0.08
Production expense <sup>(4)</sup>	<b>1.22</b>	1.18	1.18
Netback	\$ <b>4.21</b>	\$ 2.22	\$ 0.71
<b>Barrels of oil equivalent (\$/BOE) <sup>(1)</sup></b>			
Realized price <sup>(2)</sup>	\$ <b>70.07</b>	\$ 49.67	\$ 26.15
Transportation <sup>(2)</sup>	<b>3.72</b>	3.44	3.44
Realized price, net of transportation <sup>(2)</sup>	<b>66.35</b>	46.23	22.71
Royalties <sup>(3)</sup>	<b>12.75</b>	5.98	1.89
Production expense <sup>(4)</sup>	<b>13.76</b>	11.98	10.67
Netback <sup>(2)</sup>	\$ <b>39.84</b>	\$ 28.27	\$ 10.15

(1) For crude oil and NGLs and BOE sales volumes, refer to the "Non-GAAP and Other Financial Measures" section of this MD&A. For natural gas sales volumes, refer to the "Daily Production, before royalties" section of this MD&A.

(2) Non-GAAP Ratio. Refer to the "Non-GAAP and Other Financial Measures" section of this MD&A.

(3) Calculated as royalties divided by respective sales volumes.

(4) Calculated as production expense divided by respective sales volumes.

(5) Calculated as natural gas sales divided by natural gas sales volumes.

(6) Calculated as natural gas transportation expense divided by natural gas sales volumes.

## REALIZED PRODUCT PRICES – EXPLORATION AND PRODUCTION

		2022		2021		2020
<b>Crude oil and NGLs (\$/bbl) <sup>(1)</sup></b>						
North America <sup>(2)</sup>	\$	<b>88.43</b>	\$	62.10	\$	30.31
International average <sup>(3)</sup>	\$	<b>128.41</b>	\$	87.04	\$	50.46
North Sea <sup>(3)</sup>	\$	<b>129.04</b>	\$	87.98	\$	50.09
Offshore Africa <sup>(3)</sup>	\$	<b>127.85</b>	\$	85.71	\$	50.95
Crude oil and NGLs average <sup>(2)</sup>	\$	<b>90.64</b>	\$	63.71	\$	31.90
<b>Natural gas (\$/Mcf) <sup>(1) (3)</sup></b>						
North America	\$	<b>6.51</b>	\$	4.05	\$	2.34
International average	\$	<b>12.78</b>	\$	6.21	\$	5.56
North Sea	\$	<b>15.75</b>	\$	2.94	\$	2.74
Offshore Africa	\$	<b>12.23</b>	\$	7.17	\$	7.77
Natural gas average	\$	<b>6.55</b>	\$	4.07	\$	2.40
Average (\$/BOE) <sup>(1) (2)</sup>	\$	<b>70.07</b>	\$	49.67	\$	26.15

(1) For crude oil and NGLs and BOE sales volumes, refer to the "Non-GAAP and Other Financial Measures" section of this MD&A. For natural gas sales volumes, refer to the "Daily Production, before royalties" section of this MD&A.

(2) Non-GAAP Ratio. Refer to the "Non-GAAP and Other Financial Measures" section of this MD&A.

(3) Calculated as crude oil and NGLs sales and natural gas sales divided by respective sales volumes.

### North America

North America realized crude oil and NGLs prices increased 42% to average \$88.43 per bbl for 2022 from \$62.10 per bbl for 2021 (2020 – \$30.31 per bbl), primarily due to higher WTI benchmark pricing.

The Company continues to focus on its crude oil blending marketing strategy including a blending strategy that expands markets within current pipeline infrastructure, supporting pipeline projects that will provide capacity to transport crude oil to new markets, and working with refiners to add incremental heavy crude oil and bitumen (thermal oil) conversion capacity. During 2022, the Company contributed approximately 179,000 bbl/d of heavy crude oil blends to the WCS stream.

The Company has 20-year transportation agreements to ship 94,000 bbl/d of crude oil on the Trans Mountain Pipeline Expansion that will provide waterborne access to international markets. The expansion is now under construction and Trans Mountain Corporation targets a completion date of late 2023.

North America realized natural gas prices increased 61% to average \$6.51 per Mcf for 2022 from \$4.05 per Mcf for 2021 (2020 – \$2.34 per Mcf). The increase in realized natural gas prices for 2022 from 2021 primarily reflected increased AECO benchmark pricing.

Comparisons of the prices received in North America Exploration and Production by product type were as follows:

(Yearly average)		2022		2021		2020
<b>Wellhead Price <sup>(1)</sup></b>						
Light and medium crude oil and NGLs (\$/bbl)	\$	<b>88.24</b>	\$	61.29	\$	33.42
Pelican Lake heavy crude oil (\$/bbl)	\$	<b>96.18</b>	\$	68.05	\$	33.57
Primary heavy crude oil (\$/bbl)	\$	<b>93.80</b>	\$	65.88	\$	31.81
Bitumen (thermal oil) (\$/bbl)	\$	<b>85.51</b>	\$	60.20	\$	28.11
Natural gas (\$/Mcf)	\$	<b>6.51</b>	\$	4.05	\$	2.34

(1) Amounts expressed on a per unit basis are based on sales volumes of the respective product type.

### International

International realized crude oil and NGLs prices increased 48% to average \$128.41 per bbl for 2022 from \$87.04 per bbl for 2021 (2020 – \$50.46 per bbl). Realized crude oil and NGLs prices per barrel in any particular year are dependent on the terms of the various sales contracts, the frequency and timing of liftings from each field, and prevailing crude oil prices and foreign exchange rates at the time of lifting. The increase in realized crude oil and NGLs prices for 2022 from 2021 reflected prevailing Brent benchmark pricing at the time of liftings, together with the impact of movements in the Canadian dollar.

## ROYALTIES – EXPLORATION AND PRODUCTION

		2022		2021		2020
<b>Crude oil and NGLs (\$/bbl) <sup>(1)</sup></b>						
North America	\$	<b>19.64</b>	\$	9.06	\$	2.72
International average	\$	<b>6.38</b>	\$	1.75	\$	0.99
North Sea	\$	<b>0.30</b>	\$	0.19	\$	0.12
Offshore Africa	\$	<b>11.79</b>	\$	3.94	\$	2.17
Crude oil and NGLs average	\$	<b>18.91</b>	\$	8.59	\$	2.59
<b>Natural gas (\$/Mcf) <sup>(1)</sup></b>						
North America	\$	<b>0.61</b>	\$	0.22	\$	0.07
Offshore Africa	\$	<b>1.50</b>	\$	0.33	\$	0.37
Natural gas average	\$	<b>0.61</b>	\$	0.22	\$	0.08
Average (\$/BOE) <sup>(1)</sup>	\$	<b>12.75</b>	\$	5.98	\$	1.89

(1) Calculated as royalties divided by respective sales volumes. For crude oil and NGLs and BOE sales volumes, refer to the "Non-GAAP and Other Financial Measures" section of this MD&A. For natural gas sales volumes, refer to the "Daily Production, before royalties" section of this MD&A.

### North America

Government royalties on a significant portion of North America crude oil and NGLs production fall under the oil sands royalty regime and are calculated on a project by project basis as a percentage of gross revenue less operating, capital and abandonment costs incurred.

North America crude oil and NGLs and natural gas royalties for 2022 and the comparable periods reflected movements in benchmark commodity prices, fluctuations in the WCS Heavy Differential and the impact of sliding scale royalty rates.

Crude oil and NGLs royalty rates <sup>(1)</sup> averaged approximately 22% of product sales for 2022 compared with 15% of product sales for 2021 (2020 – 9%). The increase in royalty rates for 2022 from 2021 was primarily due to higher benchmark prices together with fluctuations in the WCS Heavy Differential.

Natural gas royalty rates averaged approximately 9% of product sales for 2022, compared with 5% of product sales for 2021 (2020 – 3%). The increase in royalty rates for 2022 from 2021 was primarily due to higher benchmark prices.

### Offshore Africa

Under the terms of the various Production Sharing Contracts royalty rates fluctuate based on realized commodity pricing, capital expenditures and production expenses, the status of payouts, and the timing of liftings from each field.

Royalty rates as a percentage of product sales averaged approximately 9% for 2022 compared with 5% of product sales for 2021 (2020 – 4%). Royalty rates as a percentage of product sales reflected the timing of liftings and the status of payout in the various fields.

(1) Non-GAAP Ratio. Refer to the "Non-GAAP and Other Financial Measures" section of this MD&A.

## PRODUCTION EXPENSE – EXPLORATION AND PRODUCTION

		2022		2021		2020
<b>Crude oil and NGLs (\$/bbl) <sup>(1)</sup></b>						
North America	\$	<b>16.25</b>	\$	13.12	\$	11.21
International average	\$	<b>51.01</b>	\$	37.77	\$	26.60
North Sea	\$	<b>88.99</b>	\$	54.13	\$	36.51
Offshore Africa	\$	<b>17.25</b>	\$	14.73	\$	13.29
Crude oil and NGLs average	\$	<b>18.17</b>	\$	14.71	\$	12.42
<b>Natural gas (\$/Mcf) <sup>(1)</sup></b>						
North America	\$	<b>1.19</b>	\$	1.15	\$	1.14
International average	\$	<b>5.16</b>	\$	5.07	\$	3.64
North Sea	\$	<b>9.27</b>	\$	7.31	\$	3.72
Offshore Africa	\$	<b>4.40</b>	\$	4.41	\$	3.58
Natural gas average	\$	<b>1.22</b>	\$	1.18	\$	1.18
Average (\$/BOE) <sup>(1)</sup>	\$	<b>13.76</b>	\$	11.98	\$	10.67

(1) Calculated as production expense divided by respective sales volumes. For crude oil and NGLs and BOE sales volumes, refer to the "Non-GAAP and Other Financial Measures" section of this MD&A. For natural gas sales volumes, refer to the "Daily Production, before royalties" section of this MD&A.

### North America

North America crude oil and NGLs production expense for 2022 averaged \$16.25 per bbl, an increase of 24% from \$13.12 per bbl for 2021 (2020 – \$11.21 per bbl). The increase in crude oil and NGLs production expense per bbl for 2022 from 2021 primarily reflected higher energy and service costs.

North America natural gas production expense for 2022 averaged \$1.19 per Mcf, an increase of 3% from \$1.15 per Mcf for 2021 (2020 – \$1.14 per Mcf). The increase in natural gas production expense per Mcf for 2022 from 2021 primarily reflected higher energy costs.

### International

International crude oil and NGLs production expense for 2022 averaged \$51.01 per bbl, an increase of 35% from \$37.77 per bbl for 2021 (2020 – \$26.60 per bbl). The increase in crude oil production expense per bbl for 2022 from 2021 primarily reflected the timing of liftings from various fields that have different cost structures, the impact of lower production volumes, higher energy costs, and fluctuations in foreign exchange.

## DEPLETION, DEPRECIATION AND AMORTIZATION – EXPLORATION AND PRODUCTION

(\$ millions, except per BOE amounts)		2022		2021		2020
North America	\$	<b>3,595</b>	\$	3,569	\$	3,780
North Sea		<b>1,747</b>		160		277
Offshore Africa		<b>173</b>		142		190
Depletion, Depreciation and Amortization	\$	<b>5,515</b>	\$	3,871	\$	4,247
Less: Recoverability charge <sup>(1)</sup>		<b>1,620</b>		—		—
Adjusted depletion, depreciation and amortization <sup>(2)</sup>	\$	<b>3,895</b>	\$	3,871	\$	4,247
\$/BOE <sup>(3)</sup>	\$	<b>12.45</b>	\$	13.49	\$	15.45

(1) Prevailing regulatory and economic conditions in 2022 and the increasingly challenging commercial outlook in the United Kingdom, including the impact of higher natural gas and carbon costs, led the Company to assess the viability of its North Sea operations. Following a detailed review of its development plans, the Company determined that the Ninian field is no longer economic, de-booked associated crude oil reserves as at December 31, 2022, and is accelerating abandonment. As a result, the Company completed a recoverability assessment of its assets in the North Sea, and recognized a recoverability charge of \$1,620 million in depletion, depreciation and amortization.

(2) This is a non-GAAP measure used to calculate depletion, depreciation and amortization, excluding the impact of non-recurring charges that do not reflect the Company's normal course depletion, depreciation and amortization costs. It may not be comparable to similar measures presented by other companies, and should not be considered an alternative to or more meaningful than the most directly comparable financial measure presented in the financial statements (depletion, depreciation and amortization expense), as applicable, as an indication of the Company's performance. It is calculated as depletion, depreciation and amortization expense, less the impact of non-recurring charges.

(3) Non-GAAP ratio calculated as adjusted depletion, depreciation and amortization divided by sales volumes. For sales volumes, refer to the "Non-GAAP and Other Financial Measures" section of this MD&A.

Adjusted depletion, depreciation and amortization expense for 2022 of \$12.45 per BOE decreased 8% from \$13.49 per BOE for 2021 (2020 – \$15.45 per BOE). The decrease in adjusted depletion, depreciation and amortization expense per BOE for 2022 from 2021 primarily reflected lower depletion rates due to increases to the Company's North America E&P reserve estimates at December 31, 2021, including the impact of acquisitions completed during the prior year.

Adjusted depletion, depreciation and amortization expense on an absolute and per BOE basis also reflects the impact of the timing of liftings from each field in the North Sea and Offshore Africa.

## ASSET RETIREMENT OBLIGATION ACCRETION – EXPLORATION AND PRODUCTION

(\$ millions, except per BOE amounts)	2022		2021		2020
North America	\$	171	\$	101	\$ 97
North Sea		33		21	30
Offshore Africa		7		6	6
Asset Retirement Obligation Accretion	\$	211	\$	128	\$ 133
\$/BOE <sup>(1)</sup>	\$	0.67	\$	0.44	\$ 0.48

(1) Calculated as asset retirement obligation accretion divided by sales volumes. For sales volumes, refer to the "Non-GAAP and Other Financial Measures" section of this MD&A.

Asset retirement obligation accretion expense represents the increase in the carrying amount of the asset retirement obligation due to the passage of time.

Asset retirement obligation accretion expense for 2022 of \$0.67 per BOE increased 52% from \$0.44 per BOE for 2021 (2020 – \$0.48 per BOE). The increase in asset retirement obligation accretion expense per BOE for 2022 from 2021 primarily reflected the cost estimate and discount rate revisions made to the asset retirement obligation in 2021 and 2022.

## Oil Sands Mining and Upgrading

### OPERATING HIGHLIGHTS

The Company continues to focus on safe, reliable and efficient operations and leveraging its technical expertise across the Horizon and AOSP sites. SCO production in 2022 averaged 425,945 bbl/d, reflecting the extended turnaround at Scotford in the first half of 2022, the unplanned outage at Horizon in October, and the impact of extreme cold weather conditions late in the fourth quarter at both mines.

The Company incurred production expense of \$4,076 million for 2022, an increase of 19% from \$3,414 million for 2021, reflecting increased energy and maintenance services costs.

### REALIZED PRODUCT PRICES, ROYALTIES AND TRANSPORTATION – OIL SANDS MINING AND UPGRADING

(\$/bbl)	2022		2021		2020
Realized SCO sales price <sup>(1)</sup>	\$	117.69	\$	77.95	\$ 43.98
Bitumen value for royalty purposes <sup>(2)</sup>	\$	83.07	\$	58.39	\$ 25.82
Bitumen royalties <sup>(3)</sup>	\$	20.71	\$	6.62	\$ 0.51
Transportation <sup>(1)</sup>	\$	1.71	\$	1.21	\$ 1.23

(1) Non-GAAP Ratio. Refer to the "Non-GAAP and Other Financial Measures" section of this MD&A.

(2) Calculated as the quarterly average of the bitumen methodology price.

(3) Calculated as royalties divided by sales volumes.

The realized SCO sales price averaged \$117.69 per bbl for 2022, an increase of 51% from \$77.95 per bbl for 2021 (2020 – \$43.98 per bbl). The increase in the realized SCO sales price for 2022 compared to 2021 primarily reflected the increase in WTI benchmark pricing.

The increase in bitumen royalties per bbl for 2022 from 2021 primarily reflected the impact of Horizon reaching full payout in 2022, together with higher prevailing bitumen pricing and higher sliding scale royalty rates.

Transportation expense averaged \$1.71 per bbl for 2022, an increase of 41% from \$1.21 per bbl for 2021 (2020 – \$1.23 per bbl). The increase in transportation expense for 2022 from 2021 primarily reflected the impact of higher pipeline tolls, partially offset by lower sales volumes.

## PRODUCTION EXPENSE – OIL SANDS MINING AND UPGRADING

The following tables are reconciled to the Oil Sands Mining and Upgrading production expense disclosed in note 22 to the Company's audited consolidated financial statements.

(\$ millions)		<b>2022</b>		2021		2020
Production expense, excluding natural gas costs	<b>\$</b>	<b>3,743</b>	<b>\$</b>	3,176	<b>\$</b>	2,968
Natural gas costs		<b>333</b>		238		146
Production expense	<b>\$</b>	<b>4,076</b>	<b>\$</b>	3,414	<b>\$</b>	3,114

(\$/bbl)		<b>2022</b>		2021		2020
Production expense, excluding natural gas costs <sup>(1)</sup>	<b>\$</b>	<b>23.91</b>	<b>\$</b>	19.45	<b>\$</b>	19.50
Natural gas costs <sup>(2)</sup>		<b>2.13</b>		1.46		0.96
Production expense <sup>(3)</sup>	<b>\$</b>	<b>26.04</b>	<b>\$</b>	20.91	<b>\$</b>	20.46
Sales volumes (bbl/d)		<b>428,820</b>		447,230		415,741

(1) Calculated as production expense, excluding natural gas costs divided by sales volumes.

(2) Calculated as natural gas costs divided by sales volumes.

(3) Calculated as production expense divided by sales volumes.

Production expense for 2022 of \$26.04 per bbl increased 25% from \$20.91 per bbl for 2021 (2020 – \$20.46 per bbl). The increase in production expense per bbl for 2022 as compared to 2021 primarily reflected increased energy and maintenance services costs, together with lower production volumes.

## DEPLETION, DEPRECIATION AND AMORTIZATION – OIL SANDS MINING AND UPGRADING

(\$ millions, except per bbl amounts)		<b>2022</b>		2021		2020
Depletion, depreciation and amortization	<b>\$</b>	<b>1,822</b>	<b>\$</b>	1,838	<b>\$</b>	1,784
\$/bbl <sup>(1)</sup>	<b>\$</b>	<b>11.64</b>	<b>\$</b>	11.26	<b>\$</b>	11.73

(1) Calculated as depletion, depreciation and amortization divided by sales volumes.

Depletion, depreciation and amortization expense for 2022 of \$11.64 per bbl increased 3% from \$11.26 per bbl for 2021 (2020 – \$11.73 per bbl), reflecting lower production volumes in 2022.

## ASSET RETIREMENT OBLIGATION ACCRETION – OIL SANDS MINING AND UPGRADING

(\$ millions, except per bbl amounts)		<b>2022</b>		2021		2020
Asset retirement obligation accretion	<b>\$</b>	<b>70</b>	<b>\$</b>	57	<b>\$</b>	72
\$/bbl <sup>(1)</sup>	<b>\$</b>	<b>0.45</b>	<b>\$</b>	0.35	<b>\$</b>	0.47

(1) Calculated as asset retirement obligation accretion divided by sales volumes.

Asset retirement obligation accretion expense represents the increase in the carrying amount of the asset retirement obligation due to the passage of time.

Asset retirement obligation accretion expense for 2022 of \$0.45 per bbl increased 29% from \$0.35 per bbl for 2021 (2020 – \$0.47 per bbl). The increase in asset retirement obligation accretion expense on a per barrel basis for 2022 from 2021 primarily reflected the impact of cost estimate and discount rate revisions made to the asset retirement obligation during 2022.

## Midstream and Refining

(\$ millions)	2022	2021	2020
Product sales			
Midstream activities	\$ 80	\$ 78	\$ 83
NWRP, refined product sales and other	906	681	202
Segmented revenue	986	759	285
Less:			
NWRP, refining toll	247	213	166
Midstream activities	24	21	18
Production expense	271	234	184
NWRP, transportation and feedstock costs	691	550	181
Depreciation	16	15	15
Income from NWRP	—	(400)	—
Segmented earnings (loss)	\$ 8	\$ 360	\$ (95)

The Company's Midstream and Refining assets consist of two crude oil pipeline systems, a 50% working interest in an 84-megawatt cogeneration plant at Primrose and the Company's 50% equity investment in NWRP. Approximately 25% of the Company's heavy crude oil production was transported to international mainline liquid pipelines via the 100% owned and operated ECHO and Pelican Lake pipelines. The Midstream pipeline asset ownership allows the Company to control transportation costs, earn third party revenue, and manage the marketing of heavy crude oils.

NWRP operates a 50,000 bbl/d bitumen upgrader and refinery that processes approximately 12,500 bbl/d (25% toll payer) of bitumen feedstock for the Company and 37,500 bbl/d (75% toll payer) of bitumen feedstock for the Alberta Petroleum Marketing Commission ("APMC"), an agent of the Government of Alberta. The Company is unconditionally obligated to pay its 25% pro rata share of the debt component of the monthly fee-for-service toll over the 40-year tolling period until 2058. Sales of diesel and refined products and associated refining tolls are recognized in the Midstream and Refining segment. Production of ultra-low sulphur diesel and other refined products for 2022 averaged 58,351 BOE/d (14,588 BOE/d to the Company), reflecting turnaround activities during the year (2021 – 69,713 BOE/d; 17,428 BOE/d to the Company).

On June 30, 2021, the equity partners together with the toll payers, agreed to optimize the structure of NWRP to better align the commercial interests of the equity partners and the toll payers (the "Optimization Transaction"). As a result, North West Refining Inc. transferred its entire 50% partnership interest in NWRP to APMC. The Company's 50% equity interest remained unchanged.

Under the Optimization Transaction, the original term of the processing agreements was extended by 10 years from 2048 to 2058. NWRP retired higher cost subordinated debt, which carried interest rates of prime plus 6%, with lower cost senior secured bonds at an average rate of approximately 2.55%, reducing interest costs to NWRP and associated tolls to the toll payers. As such, NWRP repaid the Company's and APMC's subordinated debt advances of \$555 million each. In addition, the Company received a \$400 million distribution from NWRP during 2021.

To facilitate the Optimization Transaction, NWRP issued \$500 million of 1.20% series L senior secured bonds due December 2023, \$500 million of 2.00% series M senior secured bonds due December 2026, \$1,000 million of 2.80% series N senior secured bonds due June 2031, and \$600 million of 3.75% series O senior secured bonds due June 2051.

During 2022, NWRP extended its \$3,000 million syndicated credit facility and increased it to \$3,175 million. The revolving portion of the credit facility was increased to \$2,175 million, with \$118 million maturing in June 2023, and \$2,057 million maturing in June 2025. The \$1,000 million non-revolving portion of the credit facility was extended, with \$60 million maturing in June 2023, and \$940 million maturing in June 2025. During 2022, NWRP also entered into a \$150 million facility to support letters of credit. As at December 31, 2022, NWRP had borrowings of \$2,318 million under the syndicated credit facility (December 31, 2021 – \$1,981 million).

As at December 31, 2022, the cumulative unrecognized share of the equity loss and partnership distributions from NWRP was \$551 million (2021 – \$562 million). The recovery of the unrecognized share of equity losses from NWRP for 2022 was \$11 million (2021 – unrecognized equity loss of \$9 million and partnership distributions of \$400 million; 2020 – unrecognized equity loss of \$94 million).

## Corporate and Other

### ADMINISTRATION EXPENSE

	2022		2021		2020	
Expense (\$ millions)	\$	415	\$	366	\$	391
\$/BOE <sup>(1)</sup>	\$	0.88	\$	0.81	\$	0.92
Sales volumes (BOE/d) <sup>(2)</sup>		<b>1,285,877</b>		1,233,457		1,166,862

(1) Calculated as administration expense divided by sales volumes.

(2) Total Company sales volumes.

Administration expense for 2022 of \$0.88 per BOE increased 9% from \$0.81 per BOE for 2021 (2020 – \$0.92 per BOE). Administration expense per BOE increased for 2022 from 2021 primarily due to higher personnel costs, partially offset by the impact of higher overhead recoveries.

### SHARE-BASED COMPENSATION

(\$ millions)	2022		2021		2020	
Expense (recovery)	\$	804	\$	514	\$	(82)

The Company's Stock Option Plan provides employees with the right to receive common shares or a cash payment in exchange for stock options surrendered. The Performance Share Unit ("PSU") plan provides certain executive employees of the Company with the right to receive a cash payment, the amount of which is determined by individual employee performance and the extent to which certain other performance measures are met.

The Company recognized \$804 million of share-based compensation expense for 2022, primarily as a result of the measurement of the fair value of outstanding stock options related to the impact of normal course graded vesting of stock options granted in prior periods, the impact of vested stock options exercised or surrendered during the period, and changes in the Company's share price. An expense of \$101 million related to PSUs granted to certain executive employees was included in the share-based compensation expense for 2022 (2021 – \$79 million expense; 2020 – \$21 million expense).

### INTEREST AND OTHER FINANCING EXPENSE

(\$ millions, except effective interest rate)	2022		2021		2020	
Interest and other financing expense	\$	549	\$	711	\$	756
Interest income and other <sup>(1)</sup>		121		32		72
Capitalized interest <sup>(1)</sup>		—		—		24
Interest on long-term debt and lease liabilities <sup>(1)</sup>	\$	670	\$	743	\$	852
Average current and long-term debt <sup>(2)</sup>	\$	13,986	\$	18,935	\$	22,446
Average lease liabilities <sup>(2)</sup>		1,531		1,619		1,708
Average long-term debt and lease liabilities <sup>(2)</sup>	\$	15,517	\$	20,554	\$	24,154
Average effective interest rate <sup>(3) (4)</sup>		4.3%		3.5%		3.5%
Interest and other financing expense per \$/BOE <sup>(5)</sup>	\$	1.17	\$	1.58	\$	1.77
Sales volumes (BOE/d) <sup>(6)</sup>		<b>1,285,877</b>		1,233,457		1,166,862

(1) Item is a component of interest and other financing expense.

(2) The average of current and long-term debt and lease liabilities outstanding during the respective period.

(3) This is a non-GAAP ratio and may not be comparable to similar measures presented by other companies, and should not be considered an alternative to or more meaningful than the most directly comparable financial measure presented in the Company's audited consolidated financial statements, as applicable, as an indication of the Company's performance.

(4) Calculated as the total of interest on long-term debt and lease liabilities divided by the average long-term debt and lease liabilities balance for the respective period. The Company presents its average effective interest rate for financial statement users to evaluate the Company's average cost of debt borrowings.

(5) Calculated as interest and other financing expense divided by sales volumes.

(6) Total Company sales volumes.

Interest and other financing expense per BOE for 2022 decreased 26% to \$1.17 per BOE from \$1.58 per BOE for 2021 (2020 – \$1.77 per BOE). The decrease in interest and other financing expense per BOE for 2022 from 2021 was primarily due to lower debt levels in 2022 and accrued interest on the deferred PRT recovery.

The Company's average effective interest rate of 4.3% for 2022 increased from 2021 primarily due to higher prevailing interest rates on floating rate debt held during 2022.

## RISK MANAGEMENT ACTIVITIES

The Company utilizes various derivative financial instruments to manage its commodity price, interest rate and foreign currency exposures. These derivative financial instruments are not intended for trading or speculative purposes.

(\$ millions)		<b>2022</b>		2021		2020
Foreign currency contracts	<b>\$</b>	<b>(37)</b>	<b>\$</b>	1	<b>\$</b>	16
Natural gas financial instruments <sup>(1)</sup>		<b>13</b>		17		16
Crude oil and NGLs financial instruments <sup>(1)</sup>		<b>17</b>		(1)		—
Net realized (gain) loss		<b>(7)</b>		17		32
Foreign currency contracts		<b>(16)</b>		6		(3)
Natural gas financial instruments <sup>(1)</sup>		<b>(10)</b>		11		(36)
Crude oil and NGLs financial instruments <sup>(1)</sup>		<b>(2)</b>		2		—
Net unrealized (gain) loss		<b>(28)</b>		19		(39)
Net (gain) loss	<b>\$</b>	<b>(35)</b>	<b>\$</b>	36	<b>\$</b>	(7)

(1) Commodity financial instruments were assumed in the acquisition of Storm Resources Ltd. ("Storm") and Painted Pony Energy Ltd. ("Painted Pony") in 2021 and 2020, respectively.

During 2022, net realized risk management gains were related to the settlement of foreign currency contracts, partially offset by losses on natural gas financial instruments, and crude oil and NGLs financial instruments. The Company recorded a net unrealized gain of \$28 million (\$25 million after-tax of \$3 million) on its risk management activities for 2022 (2021 – \$19 million unrealized loss, \$16 million after-tax of \$3 million; 2020 – \$39 million unrealized gain, \$31 million after-tax of \$8 million).

Further details related to outstanding derivative financial instruments as at December 31, 2022 are disclosed in note 19 to the Company's audited consolidated financial statements.

## FOREIGN EXCHANGE

(\$ millions)		<b>2022</b>		2021		2020
Net realized (gain) loss	<b>\$</b>	<b>(114)</b>	<b>\$</b>	78	<b>\$</b>	(159)
Net unrealized loss (gain)		<b>852</b>		(205)		(116)
Net loss (gain) <sup>(1)</sup>	<b>\$</b>	<b>738</b>	<b>\$</b>	(127)	<b>\$</b>	(275)

(1) Amounts are reported net of the hedging effect of cross currency swaps.

The net realized foreign exchange gain for 2022 was primarily due to foreign exchange rate fluctuations on settlement of working capital items denominated in US dollars or UK pounds sterling and the settlement of the US\$550 million cross currency swap during 2022. The net unrealized foreign exchange loss for 2022 was primarily related to the impact of a weaker Canadian dollar with respect to outstanding US dollar debt and the reclassification of the gain on the US\$550 million cross currency swap to realized foreign exchange due to its settlement in 2022. The US/Canadian dollar exchange rate at December 31, 2022 was US\$0.7389 (December 31, 2021 – US\$0.7901, December 31, 2020 – US\$0.7840).

## INCOME TAXES

(\$ millions, except effective tax rates)	2022	2021	2020
North America <sup>(1)</sup>	\$ 2,789	\$ 1,841	\$ (245)
North Sea	69	7	(4)
Offshore Africa	74	21	17
PRT – North Sea	(42)	(34)	(31)
Other taxes	16	13	6
Current income tax	2,906	1,848	(257)
Deferred corporate income tax	302	399	(181)
Deferred PRT – North Sea	(441)	—	—
Deferred income tax	(139)	399	(181)
Income tax	\$ 2,767	\$ 2,247	\$ (438)
Earnings (loss) before taxes	\$ 13,704	\$ 9,911	\$ (873)
Effective tax rate on net earnings (loss) <sup>(2)</sup>	20%	23%	50%

(\$ millions, except effective tax rates)	2022	2021	2020
Income tax	\$ 2,767	\$ 2,247	\$ (438)
Tax effect on non-operating items <sup>(3)</sup>	964	5	29
Current PRT – North Sea	42	34	31
Other taxes	(16)	(13)	(6)
Effective tax on adjusted net earnings (loss)	\$ 3,757	\$ 2,273	\$ (384)
Adjusted net earnings (loss) from operations <sup>(4)</sup>	\$ 12,863	\$ 7,420	\$ (756)
Adjusted net earnings (loss) from operations, before taxes	\$ 16,620	\$ 9,693	\$ (1,140)
Effective tax rate on adjusted net earnings (loss) from operations <sup>(5) (6)</sup>	23%	23%	34%

(1) Includes North America Exploration and Production, Oil Sands Mining and Upgrading, and Midstream and Refining segments.

(2) Calculated as total of current and deferred income tax divided by earnings (loss) before taxes.

(3) Includes the net tax effect of PSUs, unrealized risk management, abandonment expenditure recovery, the recoverability charge, the Keystone XL pipeline provision and legislative changes to tax rates in adjusted net earnings (loss) from operations.

(4) Non-GAAP Financial Measure. Refer to the "Non-GAAP and Other Financial Measures" section of this MD&A.

(5) This is a non-GAAP ratio and may not be comparable to similar measures presented by other companies, and should not be considered an alternative to or more meaningful than the most directly comparable financial measure presented in the Company's audited consolidated financial statements, as applicable, as an indication of the Company's performance.

(6) Calculated as effective tax on adjusted net earnings (loss) divided by adjusted net earnings (loss) from operations, before taxes. The Company presents its effective tax rate on adjusted net earnings (loss) from operations for financial statement users to evaluate the Company's effective tax rate on its core business activities.

The effective tax rate on net earnings (loss) and adjusted net earnings (loss) from operations for 2022 and the comparable years included the impact of non-taxable items in North America and the North Sea and the impact of differences in jurisdictional income and tax rates in the countries in which the Company operates, in relation to net earnings (loss).

The current corporate income tax and PRT in the North Sea in 2022 and the prior periods included the impact of carrybacks of PRT losses, including expenditures related to decommissioning activities at the Company's platforms in the North Sea. Deferred PRT and income taxes for 2022 also reflected the impact of the recoverability charge recognized in depletion, depreciation, and amortization.

The Company files income tax returns in the various jurisdictions in which it operates. These tax returns are subject to periodic examinations in the normal course by the applicable tax authorities. The tax returns as prepared may include filing positions that could be subject to differing interpretations of applicable tax laws and regulations, which may take several years to resolve. The Company does not believe the ultimate resolution of these matters will have a material impact upon the Company's reported results of operations, financial position or liquidity.

During 2022, the Company filed Scientific Research and Experimental Development claims of approximately \$283 million (2021 – \$229 million; 2020 – \$246 million) relating to qualifying research and development expenditures for Canadian income tax purposes.

# Net Capital Expenditures <sup>(1) (2)</sup>

(\$ millions)	2022		2021		2020	
<b>Exploration and Evaluation</b>						
Net expenditures	\$	36	\$	12	\$	36
Net property dispositions		(3)		(11)		(31)
Total Exploration and Evaluation		33		1		5
<b>Property, Plant and Equipment</b>						
Net property acquisitions <sup>(3) (4)</sup>		513		1,112		536
Well drilling, completion and equipping		1,545		918		429
Production and related facilities		1,233		802		580
Other		59		64		60
Total Property, Plant and Equipment		3,350		2,896		1,605
Total Exploration and Production		3,383		2,897		1,610
<b>Oil Sands Mining and Upgrading</b>						
Project costs		294		236		258
Sustaining capital		1,171		1,035		839
Turnaround costs		287		145		196
Net property dispositions		(40)		—		—
Other <sup>(5)</sup>		7		331		30
Total Oil Sands Mining and Upgrading		1,719		1,747		1,323
<b>Midstream and Refining</b>		9		9		5
<b>Head office</b>		25		23		19
<b>Abandonments expenditures, net <sup>(2)</sup></b>		335		232		249
Net capital expenditures	\$	5,471	\$	4,908	\$	3,206
<b>By segment</b>						
North America <sup>(3) (4)</sup>	\$	3,133	\$	2,662	\$	1,389
North Sea		126		173		122
Offshore Africa		124		62		99
Oil Sands Mining and Upgrading		1,719		1,747		1,323
Midstream and Refining		9		9		5
Head office		25		23		19
Abandonments expenditures, net <sup>(2)</sup>		335		232		249
Net capital expenditures	\$	5,471	\$	4,908	\$	3,206

(1) Net capital expenditures exclude the impact of lease assets and fair value and revaluation adjustments, and include non-cash transfers of property, plant and equipment to inventory due to change in use.

(2) Non-GAAP Financial Measure. Refer to the "Non-GAAP and Other Financial Measures" section of this MD&A.

(3) Includes cash consideration of \$771 million and the settlement of long-term debt of \$183 million assumed in the acquisition of Storm in 2021.

(4) Includes cash consideration of \$111 million and the settlement of long-term debt of \$397 million assumed in the acquisition of Painted Pony in 2020.

(5) Includes the acquisition of a 5% net carried interest on an existing oil sands lease in 2021.

The Company's strategy is focused on building a diversified asset base that is balanced among various products. In order to facilitate efficient operations, the Company concentrates its activities in core areas. The Company focuses on maintaining its land inventories to enable the continuous exploitation of play types and geological trends, greatly reducing overall exploration risk. By owning associated infrastructure, the Company is able to maximize utilization of its production facilities, thereby increasing control over production expenses.

Net capital expenditures for 2022 were \$5,471 million compared with \$4,908 million for 2021. Net capital expenditures for 2022 included base capital expenditures <sup>(1)</sup> of \$3,956 million and strategic growth capital expenditures <sup>(1)</sup> of \$1,045 million, in accordance with the Company's capital budget. The Company also completed strategic acquisitions <sup>(1)</sup> of \$470 million during 2022.

(1) Item is a component of net capital expenditures. Refer to the "Non-GAAP and Other Financial Measures" section of this MD&A for more details on Net Capital Expenditures.

## 2023 CAPITAL BUDGET

On November 30, 2022, the Company announced its 2023 base capital budget <sup>(1)</sup> targeted at approximately \$4,190 million. The budget also includes incremental strategic growth capital of approximately \$1,020 million that targets to add additional production and capacity growth beyond 2023 in the Company's E&P segments, and long life low decline thermal in situ and Oil Sands Mining and Upgrading assets.

The 2023 capital budget constitutes forward-looking statements. Refer to the "Advisory" section of this MD&A for further details on forward-looking statements.

### DRILLING ACTIVITY <sup>(1) (2)</sup>

(number of net wells)	2022	2021	2020
Net successful crude oil wells <sup>(3)</sup>	317	149	42
Net successful natural gas wells	72	49	30
Dry wells	1	1	—
Total	390	199	72
Success rate	99%	99%	100%

(1) Includes drilling activity for North America and International segments.

(2) During 2022, on a net basis, the Company drilled 373 stratigraphic and 5 service wells in the Oil Sands Mining and Upgrading segment, 18 stratigraphic and 53 service wells in the Company's thermal oil projects, and 3 service wells in Northwest Alberta.

(3) Includes bitumen wells.

### North America

During 2022, the Company drilled 72 net natural gas wells, 176 net primary heavy crude oil wells, 6 net Pelican Lake heavy crude oil wells, 104 net bitumen (thermal oil) wells and 32 net light crude oil wells.

## Liquidity and Capital Resources

(\$ millions, except ratios)	2022	2021	2020
Adjusted working capital <sup>(1)</sup>	\$ (1,190)	\$ (480)	\$ 626
Long-term debt, net <sup>(2)</sup>	\$ 10,525	\$ 13,950	\$ 21,269
Shareholders' equity	\$ 38,175	\$ 36,945	\$ 32,380
Debt to book capitalization <sup>(2)</sup>	22%	27%	40%
After-tax return on average capital employed <sup>(3)</sup>	22%	16%	—%

(1) Calculated as current assets less current liabilities, excluding the current portion of long-term debt.

(2) Capital Management Measure. Refer to the "Non-GAAP and Other Financial Measures" section of this MD&A.

(3) Non-GAAP Ratio. Refer to the "Non-GAAP and Other Financial Measures" section of this MD&A.

As at December 31, 2022, the Company's capital resources consisted primarily of cash flows from operating activities, available bank credit facilities and access to debt capital markets. Cash flows from operating activities and the Company's ability to renew existing bank credit facilities and raise new debt is dependent on factors discussed in the "Business Environment" section and in the "Risks and Uncertainties" section of this MD&A. In addition, the Company's ability to renew existing bank credit facilities and raise new debt reflects current credit ratings as determined by independent rating agencies, and market conditions. The Company continues to believe its internally generated cash flows from operating activities, supported by the implementation of its ongoing hedge policy, the flexibility of its capital expenditure programs and multi-year financial plans, its existing bank credit facilities, and its ability to raise new debt on commercially acceptable terms will provide sufficient liquidity to sustain its operations in the short, medium and long-term and support its growth strategy.

On an ongoing basis the Company continues to focus on its balance sheet strength and available liquidity by:

- Monitoring cash flows from operating activities, which is the primary source of funds;
- Monitoring exposure to individual customers, contractors, suppliers and joint venture partners on a regular basis and when appropriate, ensuring parental guarantees or letters of credit are in place, and as applicable, taking other mitigating actions to minimize the impact in the event of a default;

(1) Forward-looking non-GAAP Financial Measure. The capital budget is based on net capital expenditures (Non-GAAP Financial Measure) and excludes net acquisition costs. Refer to the "Non-GAAP and Other Financial Measures" section of this MD&A for more details on Net Capital Expenditures.

- Actively managing the allocation of maintenance and growth capital to ensure it is expended in a prudent and appropriate manner with flexibility to adjust to market conditions. The Company continues to exercise its capital flexibility to address commodity price volatility and its impact on operating expenditures, capital commitments and long-term debt;
- Monitoring the Company's ability to fulfill financial obligations as they become due or the ability to monetize assets in a timely manner at a reasonable price;
- Reviewing bank credit facilities and public debt indentures to ensure they are in compliance with applicable covenant packages; and
- Reviewing the Company's borrowing capacity:
  - During 2021, the \$1,000 million non-revolving term credit facility originally due February 2022, was extended to February 2023. Additionally in 2021, the facility was fully repaid and amended to allow for a re-draw of the full \$1,000 million until March 31, 2022. During 2022, the Company repaid and cancelled the \$500 million non-revolving portion of the \$1,000 million term credit facility, reducing the remaining facility to the \$500 million revolving facility maturing February 2023, and extended this facility from February 2023 to February 2024.
  - During 2021, the Company repaid \$1,500 million of the \$2,650 million non-revolving term credit facility due February 2023, reducing the outstanding balance to \$1,150 million. During 2022, the Company repaid and cancelled the \$1,150 million non-revolving term credit facility maturing in February 2023.
  - During 2022, the Company discontinued its £5 million demand credit facility related to its North Sea operations.
  - During 2021, the Company extended both of its \$2,425 million revolving credit facilities originally maturing June 2022 and June 2023, to June 2024 and June 2025, respectively and increased each by \$70 million. In accordance with the terms of the extension, and by mutual agreement, \$70 million of the original revolving credit facilities were not extended and will mature upon the original maturity date of June 2022 and June 2023, respectively. The revolving syndicated credit facilities are extendible annually at the mutual agreement of the Company and the lenders. If the facilities are not extended, the full amount of the outstanding principal would be repayable on the maturity date. Borrowings under the Company's revolving term credit facilities may be made by way of pricing referenced to Canadian dollar bankers' acceptances, US dollar bankers' acceptances, LIBOR, US base rate or Canadian prime rate.
  - During 2021, the outstanding balance of \$3,088 million on the non-revolving term credit facility was repaid and the facility was cancelled.
  - The Company's borrowings under its US commercial paper program are authorized up to a maximum of US\$2,500 million. The Company reserves capacity under its revolving bank credit facilities for amounts outstanding under this program.
  - Borrowings under the Company's non-revolving term credit facilities may be made by way of pricing referenced to Canadian dollar bankers' acceptances, US dollar bankers' acceptances, LIBOR, SOFR, US base rate or Canadian prime rate.
  - During 2022, the Company repaid through market purchases \$498 million of medium-term notes with interest rates ranging from 1.45% to 3.55%, originally due between 2023 and 2028.
  - During 2022, the Company repaid \$1,000 million of 3.31% medium-term notes.
  - During 2021, the Company filed a base shelf prospectus that allows for the offer for sale from time to time of up to \$3,000 million of medium-term notes in Canada, which expires in August 2023. If issued, these securities may be offered in amounts and at prices, including interest rates, to be determined based on market conditions at the time of issuance.
  - During 2022, the Company early repaid US\$1,000 million of 2.95% debt securities, originally due January 15, 2023.
  - During 2021, the Company repaid US\$500 million of 3.45% debt securities.
  - During 2021, the Company filed a base shelf prospectus that allows for the offer for sale from time to time of up to US\$3,000 million of debt securities in the United States, which expires in August 2023. If issued, these securities may be offered in amounts and at prices, including interest rates, to be determined based on market conditions at the time of issuance.

As at December 31, 2022, the Company had undrawn revolving bank credit facilities of \$5,520 million. Including cash and cash equivalents and short-term investments, the Company had approximately \$6,931 million in liquidity. The Company also has certain other dedicated credit facilities supporting letters of credit.

During 2022, the Company settled the US\$550 million cross currency swap designated as a cash flow hedge of a portion of the US\$1,100 million 6.25% US dollar debt securities due March 2038. The Company realized cash proceeds of \$158 million on settlement. As at December 31, 2022, the Company had no cross currency swap contracts outstanding. As at December 31, 2022, there were no foreign currency contracts designated as cash flow hedges.

Long-term debt, net was \$10,525 million at December 31, 2022, resulting in a debt to book capitalization ratio <sup>(1)</sup> of 22% (December 31, 2021 – 27%, December 31, 2020 – 40%); this ratio was below the 25% to 45% internal range utilized by management. This range may be exceeded in periods when a combination of capital projects, acquisitions, or lower commodity prices occurs. The Company may be below the low end of the targeted range when cash flows from operating activities are greater than current investment activities. The Company remains committed to maintaining a strong balance sheet, adequate available liquidity and a flexible capital structure. Further details related to the Company's long-term debt at December 31, 2022 are discussed in note 11 to the Company's audited consolidated financial statements.

The Company is subject to a financial covenant that requires debt to book capitalization as defined in its credit facility agreements to not exceed 65%. As at December 31, 2022, the Company was in compliance with this covenant.

The Company periodically utilizes commodity derivative financial instruments under its commodity hedge policy to reduce the risk of volatility in commodity prices and to support the Company's cash flow for its capital expenditure programs. This policy currently allows for the hedging of up to 60% of the near 12 months budgeted production and up to 40% of the following 13 to 24 months estimated production. For the purpose of this policy, the purchase of put options is in addition to the above parameters. Further details related to the Company's commodity derivative financial instruments outstanding at December 31, 2022 are discussed in note 19 to the Company's audited consolidated financial statements.

As at December 31, 2022, the maturity dates of long-term debt and other long-term liabilities and related interest payments were as follows:

		Less than 1 year	1 to less than 2 years	2 to less than 5 years	Thereafter
Long-term debt <sup>(1)</sup>	\$	404	\$ 1,009	\$ 3,757	\$ 6,344
Other long-term liabilities <sup>(2)</sup>	\$	247	\$ 156	\$ 416	\$ 724
Interest and other financing expense <sup>(3)</sup>	\$	584	\$ 577	\$ 1,410	\$ 3,790

(1) Long-term debt represents principal repayments only and does not reflect interest, original issue discounts and premiums or transaction costs.

(2) Lease payments included within other long-term liabilities reflect principal payments only and are as follows; less than one year, \$244 million; one to less than two years, \$156 million; two to less than five years, \$416 million; and thereafter, \$724 million.

(3) Includes interest and other financing expense on long-term debt and other long-term liabilities. Payments were estimated based upon applicable interest and foreign exchange rates as at December 31, 2022.

## SHARE CAPITAL

As at December 31, 2022, there were 1,102,636,000 common shares outstanding (December 31, 2021 – 1,168,369,000 common shares) and 31,150,000 stock options outstanding. As at February 28, 2023, the Company had 1,099,741,000 common shares outstanding and 31,902,000 stock options outstanding.

On March 1, 2023, the Board of Directors approved a 6% increase in the quarterly dividend to \$0.90 per common share, beginning with the dividend payable on April 5, 2023.

On November 2, 2022, the Board of Directors approved a 13% increase in the quarterly dividend to \$0.85 per common share, beginning with the dividend paid on January 5, 2023.

On August 3, 2022, the Board of Directors approved a special dividend of \$1.50 per common share, paid on August 31, 2022.

On March 2, 2022, the Board of Directors approved a 28% increase in the quarterly dividend to \$0.75 per common share. On November 3, 2021, the Board of Directors approved a 25% increase in the quarterly dividend to \$0.5875 per common share. On March 3, 2021, the Board of Directors approved an 11% increase in the quarterly dividend to \$0.47 per common share, from \$0.425 per common share. The dividend policy undergoes periodic review by the Board of Directors and is subject to change.

On March 8, 2022, the Company's application was approved for a Normal Course Issuer Bid to purchase through the facilities of the Toronto Stock Exchange ("TSX"), alternative Canadian trading platforms, and the New York Stock Exchange ("NYSE"), up to 101,574,207 common shares, representing 10% of the public float, over a 12-month period commencing March 11, 2022 and ending March 10, 2023.

During 2022, the Company purchased 77,338,200 common shares at a weighted average price of \$72.03 per common share for a total cost of \$5,571 million. Retained earnings were reduced by \$4,868 million, representing the excess of the purchase price of common shares over their average carrying value. Subsequent to December 31, 2022, up to and including February 28, 2023, the Company purchased 6,000,000 common shares at a weighted average price of \$77.72 per common share for a total cost of \$466 million.

On March 1, 2023, the Board of Directors approved a resolution authorizing the Company to file a Notice of Intention with the TSX to purchase, by way of Normal Course Issuer Bid, up to 10% of the public float (as determined in accordance with the rules of the TSX) of its issued and outstanding common shares. Subject to acceptance of the Notice of Intention by the TSX, the purchases would be made through facilities of the TSX, alternative Canadian trading platforms, and the NYSE.

(1) Capital management measure. Refer to the "Non-GAAP and Other Financial Measures" section of this MD&A.

## Commitments and Contingencies

In the normal course of business, the Company has committed to certain payments. The following table summarizes the Company's commitments as at December 31, 2022:

(\$ millions)	2023	2024	2025	2026	2027	Thereafter
Product transportation and processing <sup>(1)</sup>	\$ 1,171	\$ 1,349	\$ 1,168	\$ 1,102	\$ 1,052	11,095
North West Redwater Partnership service toll <sup>(2)</sup>	\$ 151	\$ 152	\$ 151	\$ 133	\$ 118	4,884
Offshore vessels and equipment	\$ 44	\$ 35	\$ —	\$ —	\$ —	—
Field equipment and power	\$ 36	\$ 27	\$ 24	\$ 23	\$ 22	215
Other	\$ 23	\$ 24	\$ 21	\$ 16	\$ —	—

(1) Includes commitments pertaining to a 20-year product transportation agreement on the Trans Mountain Pipeline Expansion.

(2) Pursuant to the processing agreements, the Company pays its 25% pro rata share of the debt component of the monthly fee-for-service toll. Included in the toll is \$2,863 million of interest payable over the 40-year tolling period, ending in 2058.

In addition to the commitments disclosed above, the Company has entered into various agreements related to the engineering, procurement and construction of its various development projects. These contracts can be cancelled by the Company upon notice without penalty, subject to the costs incurred up to and in respect of the cancellation.

### LEGAL PROCEEDINGS AND OTHER CONTINGENCIES

The Company is defendant and plaintiff in a number of legal actions arising in the normal course of business. In addition, the Company is subject to certain contractor construction claims. The Company believes that any liabilities that might arise pertaining to any such matters would not have a material effect on its consolidated financial position.

## Reserves

For the years ended December 31, 2022 and 2021, the Company retained Independent Qualified Reserves Evaluators to evaluate and review all of the Company's total proved and total proved plus probable reserves. The evaluation and review was conducted and prepared in accordance with the standards contained in the Canadian Oil and Gas Evaluation Handbook ("COGE Handbook") and disclosed in accordance with National Instrument 51-101 – Standards of Disclosure for Oil and Gas Activities ("NI 51-101") requirements.

The following are reconciliation tables of the Company gross total proved and total proved plus probable reserves using forecast prices and costs as at the effective date of December 31, 2022:

<b>Total Proved</b>	<b>Light and Medium Crude Oil</b>	<b>Primary Heavy Crude Oil</b>	<b>Pelican Lake Heavy Crude Oil</b>	<b>Bitumen (Thermal Oil)</b>	<b>Synthetic Crude Oil</b>	<b>Natural Gas</b>	<b>Natural Gas Liquids</b>	<b>Barrels of Oil Equivalent</b>
	(MMbbl)	(MMbbl)	(MMbbl)	(MMbbl)	(MMbbl)	(Bcf)	(MMbbl)	(MMBOE)
December 31, 2021 <sup>(1)</sup>	300	169	270	2,631	6,998	12,168	418	12,813
Discoveries	—	—	—	—	—	—	—	—
Extensions	3	14	—	262	—	290	13	339
Infill Drilling	7	5	—	—	—	218	19	68
Improved Recovery	—	—	—	2	37	—	—	40
Acquisitions	—	—	—	431	—	249	25	498
Dispositions	—	—	—	—	—	—	—	—
Economic Factors	10	6	4	—	—	446	9	103
Technical Revisions	(61)	11	6	50	(6)	1,019	23	194
Production	(28)	(25)	(18)	(92)	(155)	(763)	(22)	(468)
December 31, 2022 <sup>(1)</sup>	<b>231</b>	<b>179</b>	<b>262</b>	<b>3,284</b>	<b>6,873</b>	<b>13,627</b>	<b>486</b>	<b>13,587</b>

<b>Total Proved Plus Probable</b>	<b>Light and Medium Crude Oil</b>	<b>Primary Heavy Crude Oil</b>	<b>Pelican Lake Heavy Crude Oil</b>	<b>Bitumen (Thermal Oil)</b>	<b>Synthetic Crude Oil</b>	<b>Natural Gas</b>	<b>Natural Gas Liquids</b>	<b>Barrels of Oil Equivalent</b>
	(MMbbl)	(MMbbl)	(MMbbl)	(MMbbl)	(MMbbl)	(Bcf)	(MMbbl)	(MMBOE)
December 31, 2021 <sup>(1)</sup>	424	249	388	4,337	7,535	20,249	643	16,950
Discoveries	—	—	—	—	—	—	—	—
Extensions	4	26	—	337	—	829	35	539
Infill Drilling	10	8	—	—	—	344	26	100
Improved Recovery	—	—	1	2	50	—	—	52
Acquisitions	—	—	—	551	—	588	72	722
Dispositions	—	—	—	—	—	—	—	—
Economic Factors	10	7	3	—	—	528	11	120
Technical Revisions	(100)	8	2	50	(20)	495	8	29
Production	(28)	(25)	(18)	(92)	(155)	(763)	(22)	(468)
December 31, 2022 <sup>(1)</sup>	<b>320</b>	<b>272</b>	<b>376</b>	<b>5,186</b>	<b>7,408</b>	<b>22,270</b>	<b>772</b>	<b>18,046</b>

(1) Information in the reserves data tables may not add due to rounding. BOE values as presented may not calculate due to rounding.

At December 31, 2022, the total proved crude oil, bitumen (thermal oil) and NGLs reserves were 11,316 MMbbl, and total proved plus probable crude oil, bitumen (thermal oil) and NGLs reserves were 14,334 MMbbl. Total proved reserves additions and revisions replaced 256% of 2022 production. Additions to total proved reserves resulting from exploration and development activities, acquisitions, dispositions and future offset additions amounted to 818 MMbbl, and additions to total proved plus probable reserves amounted to 1,120 MMbbl. Net positive revisions amounted to 53 MMbbl for total proved reserves and net negative revisions amounted to 21 MMbbl for total proved plus probable reserves, primarily due to technical revisions.

At December 31, 2022, the total proved natural gas reserves were 13,627 Bcf, and total proved plus probable natural gas reserves were 22,270 Bcf. Total proved reserves additions and revisions replaced 291% of 2022 production. Additions to total proved reserves resulting from exploration and development activities, acquisitions, dispositions and future offset additions amounted to 757 Bcf, and additions to total proved plus probable reserves amounted to 1,761 Bcf.

Net positive revisions amounted to 1,465 Bcf for total proved reserves, primarily due to technical revisions and economic factors. Net positive revisions amounted to 1,023 Bcf for total proved plus probable reserves, primarily due to economic factors and technical revisions.

The Reserves Committee of the Company's Board of Directors has met with and carried out independent due diligence procedures with each of the Company's Independent Qualified Reserves Evaluators to review the qualifications of and procedures used by each evaluator in determining the estimate of the Company's quantities and related net present value of future net revenue of the remaining reserves. Additional reserves information is annually disclosed in the AIF.

The Company annually discloses net proved reserves and the standardized measure of discounted future net cash flows using 12-month average prices and current costs in accordance with United States FASB Topic 932 "Extractive Activities - Oil and Gas" in the Company's annual report on Form 40-F filed with the SEC and in the "Supplementary Oil and Gas Information" section of the Company's annual report.

## Risks and Uncertainties

The Company is exposed to various operational risks inherent in the exploration, development, production and marketing of crude oil and NGLs and natural gas and the mining, extracting and upgrading of bitumen into SCO. These inherent risks include, but are not limited to, the following:

- Volatility in the prevailing prices of crude oil and NGLs, natural gas and refined products;
- The ability to find, produce and replace reserves, whether sourced from exploration, improved recovery or acquisitions, at a reasonable cost, including the risk of reserves revisions due to economic and technical factors. Reserves revisions can have a positive or negative impact on asset valuations, ARO and depletion rates;
- Reservoir quality and uncertainty of reserves estimates;
- Regulatory risk related to approval for exploration and development activities, which can add to costs or cause delays in projects;
- Labour risk associated with securing the manpower necessary to complete capital projects in a timely and cost effective manner;
- Operating hazards and other difficulties inherent in the exploration for and production and sale of crude oil and natural gas and in mining, extracting and upgrading the Company's bitumen products;
- Timing and success of integrating the business and operations of acquired companies and assets;
- Credit risk related to non-payment for sales contracts or non-performance by counterparties to contracts, including derivative financial instruments and physical sales contracts as part of a hedging program;
- Interest rate risk associated with the Company's ability to secure financing on commercially acceptable terms;
- Foreign exchange risk due to the effect of fluctuating exchange rates on the Company's US dollar denominated debt and revenue from sales predominantly based on US dollar denominated benchmarks;
- Environmental impact risk associated with exploration and development activities, including GHG;
- Future legislative and regulatory developments related to environmental regulation, including but not limited to GHG compliance costs and reduction targets;
- The timing and pace of change to a low carbon economy is uncertain and the ability to access insurance and capital may be adversely affected in the event that financial institutions, investors, insurers, rating agencies and/or lenders adopt more restrictive decarbonisation policies;
- Potential actions of governments, regulatory authorities and other stakeholders that may result in costs or restrictions in the jurisdictions where the Company has operations, including but not limited to restrictions on production and the certainty and timelines for regulatory processes;
- Geopolitical risks associated with changing governments or governmental policies, social instability and other political, economic or diplomatic developments in the regions where the Company has its operations;
- Changing royalty regimes;
- Business interruptions because of unexpected events such as fires or explosions whether caused by human error or nature, severe storms and other calamitous acts of nature, blowouts, freeze-ups, mechanical or equipment failures of facilities and infrastructure and other similar events affecting the Company or other parties whose operations or assets directly or indirectly impact the Company and that may or may not be financially recoverable;
- Epidemics or pandemics, such as COVID-19, have the potential to disrupt the Company's operations, projects and financial condition through the disruption of the local or global supply chain and transportation services, or the loss of manpower resulting from quarantines that affect the Company's labour pools in the local communities, workforce camps or operating sites or that are instituted by local health authorities as a precautionary measure, any of which may require the Company to temporarily reduce or shutdown its operations depending on the extent and severity of a potential outbreak and the areas or operations impacted. Depending on the severity, a large scale epidemic or pandemic could impact international demand for commodities and have a corresponding impact on the prices realized by the Company, which could have a material adverse effect on the Company's financial condition;

- The ability to secure adequate transportation for products, which could be affected by pipeline constraints, the construction by third parties of new or expansion of existing pipeline capacity and other factors;
- The access to markets for the Company's products;
- The risk of significant interruption or failure of the Company's information technology systems and related data and control systems or a significant breach that could adversely affect the Company's operations;
- Liquidity risk related to the Company's ability to fulfill financial obligations as they become due or ability to liquidate assets in a timely manner at a reasonable price; and
- Other circumstances affecting revenue and expenses.

The Company uses a variety of means to seek to mitigate and/or minimize these risks. The Company maintains a comprehensive property loss and business interruption insurance program to reduce risk. Operational control is enhanced by focusing efforts on large core areas with high working interests and by assuming operatorship of key facilities. Product mix is diversified, consisting of the production of natural gas and the production of crude oil of various grades. The Company believes this diversification reduces price risk when compared with over-leverage to one commodity. Accounts receivable from the sale of crude oil and natural gas are mainly with customers in the crude oil and natural gas industry and are subject to normal industry credit risks. The Company seeks to manage these risks by monitoring exposure to individual customers, contractors, suppliers and joint venture partners on a regular basis and when appropriate, ensuring parental guarantees or letters of credit are in place, and as applicable, taking other mitigating actions to minimize the impact in the event of a default. Derivative financial instruments are periodically utilized to help ensure targets are met and to manage commodity price, foreign currency and interest rate exposures. The Company is exposed to possible losses in the event of non-performance by counterparties to derivative financial instruments; however, the Company seeks to manage this credit risk by entering into agreements with counterparties that are substantially all investment grade financial institutions. The arrangements and policies concerning the Company's financial instruments are under constant review and may change depending upon the prevailing market conditions. Management of liquidity risk requires the Company to maintain sufficient cash and cash equivalents, along with other sources of capital, consisting primarily of cash flow from operating activities, available credit facilities, commercial paper and access to debt capital markets, to meet obligations as they become due. The Company has implemented cyber security protocols and procedures designed to reduce the risk of failure or a significant breach of the Company's information technology systems and related data and control systems.

The Company has safety, integrity and environmental management systems to recover and process crude oil and natural gas resources safely, efficiently, and in an environmentally sustainable manner and mitigate risk.

The Company's capital structure mix is also monitored on a continual basis to ensure that it optimizes flexibility, minimizes cost and offers the greatest opportunity for growth. This includes the determination of a reasonable level of debt and any interest rate exposure risk that may exist.

For additional details regarding the Company's risks and uncertainties, refer to the Company's AIF for the year ended December 31, 2022.

## Environment

The Company has a Corporate Statement on Environmental Management which affirms that environmental stewardship is a fundamental value of the Company. The Company continues to invest in people, proven and new technologies, facilities and infrastructure to recover and process crude oil and natural gas resources efficiently and in an environmentally sustainable manner. Environmental, social, economic and health considerations are evaluated in new project designs and in operations to improve environmental performance. Processes are employed to avoid, mitigate, minimize or compensate for environmental effects. Working with local communities, the Company considers the interests and values of the people using the land in proximity to its operations, and where appropriate, adapts projects to recognize those matters.

The crude oil and natural gas industry is experiencing incremental increases in costs related to environmental regulation compliance, particularly in North America and the North Sea. Existing and expected legislation and regulations may require the Company to address and mitigate the effect of its activities on the environment. The Company has processes in place to meet all existing environmental standards and regulations and has included appropriate amounts in its capital expenditure budget to continue to meet current environmental protection requirements. Increasingly stringent laws and regulations may have an adverse effect on the Company's future net earnings.

The Company's associated environmental risk management strategies incorporate working with legislators and regulators on any new or revised policies, legislation or regulations to reflect a balanced approach to sustainable development. Specific measures in response to existing or new legislation include a focus on the Company's energy efficiency, air emissions management, water management and land management to minimize disturbance impacts. The Company's environmental risk management strategies employ an Environmental Management Plan (the "Plan"). As part of risk management, the Company develops, assesses and implements technologies and innovative practices that will improve environmental performance, often through collaborative efforts with industry partners, governments and research institutions. Details of the Plan, along with performance results, are presented to, and reviewed by, the Board of Directors quarterly.

The Plan and the Company's operating guidelines focus on minimizing the impact of operations while meeting regulatory requirements, regional management frameworks for air quality and emissions, ground and surface water and biodiversity, industry operating standards and guidelines, and internal corporate standards. Training and due diligence for operators and contractors is key to the effectiveness of the Company's environmental management programs and the prevention of incidents to protect the environment. The Company, as part of this Plan, has implemented proactive programs that include:

- Environmental planning to assess impacts and implement avoidance and mitigation programs in order to maintain biodiversity for terrestrial and aquatic systems and high value ecosystems;
- Continued evaluation of new technologies to reduce environmental impacts, including support for Canada's Oil Sands Innovation Alliance ("COSIA"), the innovation arm of Pathways, Petroleum Technology Alliance Canada ("PTAC") and other research institutions;
- Mitigation of the Company's climate change impacts through implementation of various CO<sub>2</sub> emissions reduction and carbon capture projects including: CO<sub>2</sub> injection for EOR, CO<sub>2</sub> injection in tailings and the Quest Carbon Capture and Storage Facility; a methane emissions reduction program, including solution gas conservation to reduce methane venting, and an equipment retrofit program to reduce methane emissions from pneumatic equipment; and optimization of efficiencies at the Company's facilities;
- Water programs to improve efficiency of use and recycle rates as well as to reduce fresh water use;
- Groundwater monitoring for all thermal in situ and mine operations;
- Effective reclamation and decommissioning programs across the Company's operations. In North America, well abandonment and progressive reclamation of large contiguous areas of land provides the foundation for the enhancement of biodiversity and functional wildlife habitats. In the Company's International operations, decommissioning activities were completed at Murchison and Ninian North and were advanced at Banff and Kyle;
- Tailings management in Oil Sands Mining to minimize fine tailings and promote progressive reclamation;
- Monitoring programs to assess changes to biodiversity, wildlife and fisheries in order to manage construction and operation effects and to assess reclamation success;
- Participation and support for the Oil Sands Monitoring Program of regional important resources;
- An active spill prevention and management program;
- Supporting regional air shed monitoring for emissions and their deposition; and
- An internal environmental management system for compliance audit and inspection programs of operating facilities.

The Company's asset retirement obligations are expected to be settled on an ongoing basis over a period of approximately 60 years and have been discounted using a weighted average discount rate of 5.6% (2021 – 4.0%; 2020 – 3.7%). For 2022, the Company's capital expenditures included \$449 million for abandonment expenditures (\$335 million – abandonment expenditures, net) (2021 – \$307 million; 2020 – \$249 million). Refer to the "Non-GAAP and Other Financial Measures" section of this MD&A for further details on abandonments expenditures, net. The Company's estimated discounted ARO at December 31, 2022 was as follows:

(\$ millions)	2022	2021
Exploration and Production		
North America	\$ 4,326	\$ 4,021
North Sea	1,011	821
Offshore Africa	143	170
Oil Sands Mining and Upgrading	1,427	1,793
Midstream and Refining	1	1
	<b>\$ 6,908</b>	<b>\$ 6,806</b>

The discounted ARO was based on estimates of future costs to abandon and restore wells, production facilities, mine sites, upgrading facilities and tailings, and offshore production platforms. Factors that affect costs include number of wells drilled, well depth, facility size and the specific environmental legislation. The estimated future costs are based on estimates of current costs in accordance with present legislation, industry operating practice and the expected timing of abandonment.

In 2021, the Alberta Energy Regulator ("AER") announced a new Liability Management Framework, enforcing mandatory targets for companies for the closure of inactive wells and facilities. These targets became effective January 1, 2022. During 2022, the AER increased the mandatory targets. Also during 2022, the government of Saskatchewan introduced the Inactive Liability Reduction Program and the government of British Columbia updated its Dormancy and Shutdown Regulations, which provide mandatory targets for decommissioning and restoring inactive wells and facilities in those provinces. The Company has updated its forecasts of future expenditures to settle its ARO liability based on the set and forecasted annual targets. As a result, the Company's ARO liability as at December 31, 2022 was increased on an inflated and discounted basis due to earlier forecasted expenditures to settle liabilities associated with the closure of inactive well and facilities.

## GREENHOUSE GAS AND OTHER EMISSIONS

The Company has a large, diversified and balanced portfolio and a risk management strategy which incorporates an integrated GHG emissions reduction strategy and investments in technology and innovation to improve its GHG performance. The Company's integrated GHG emissions reduction strategy includes: 1) integrating emissions reduction in project planning and operations; 2) leveraging technology to create value and enhance performance; 3) investing in research and development and supporting collaboration with industry, entrepreneurs, academia and governments; 4) focusing on continuous improvement to drive long-term emissions reduction; 5) leading in carbon capture, sequestration and storage; 6) engaging in policy and regulatory development (including trading capacity and offsetting emissions); and, 7) reviewing and developing new business opportunities and trends.

The Company is participating in Pathways, an alliance of oil sands producers working collectively with federal and provincial governments, to achieve the goal of net zero GHG emissions from oil sands operations by 2050 to help Canada meet its climate goals, including its Paris Agreement commitments and 2050 net zero aspirations.

The Company, through industry associations, is working with Canadian legislators and regulators as they develop and implement new GHG emission laws and regulations to support emissions reductions and properly reflect a balanced approach to sustainable development. Internally, the Company is pursuing an integrated emissions reduction strategy, to ensure that it is able to comply with existing and future emissions reduction requirements, for both GHGs and air pollutants (such as sulphur dioxide and oxides of nitrogen). The Company continues to develop strategies that will enable it to deal with the risks and opportunities associated with new GHG and air emissions policies. In addition, the Company is working with relevant parties to ensure that new policies encourage technological innovation, energy efficiency, and targeted research and development while not impacting competitiveness.

Governments in jurisdictions in which the Company operates have developed or are developing GHG regulations as part of their national and international climate change commitments. The Company uses existing GHG regulations to determine the impact of compliance costs on current and future projects. The Company monitors the development of GHG regulations on an ongoing basis in the jurisdictions in which it operates to assess the impact of future regulatory developments on the Company's operations and planned projects. In Canada, the federal government has ratified the Paris climate change agreement, with a commitment to reduce GHG emissions by 40 - 45% from 2005 levels by 2030. The Canadian government has also committed to cap and cut emissions from the oil and gas sector, with further details to be developed in 2023. In December 2020, the federal government announced its intention to increase the carbon price to \$170/tonne in 2030. The federal government is also developing a comprehensive management system for air pollutants and has released regulations pertaining to certain boilers, heaters and compressor engines operated by the Company. Additionally, in 2022, the federal government released the Clean Fuel Regulations, which applies to producers or importers of liquid fuels (including gasoline, diesel, kerosene and light and heavy fuel oils).

Carbon pricing regulatory systems in all provinces are subject to periodic review by the federal government to assess the adequacy of the provincial systems against the federal Greenhouse Gas Pollution Pricing Act. Such future reviews may affect the carbon price and/or the stringency of provincial systems.

Effective January 1, 2020, the GHG regulation (the Carbon Competitiveness Incentive Regulation) was replaced with the Technology Innovation and Emissions Reduction Regulation ("TIER"). The coverage of TIER has expanded to include all of the Company's assets in Alberta (as an alternative to the federal fuel charge). In December 2022, the Alberta government published changes to TIER effective January 1, 2023 that reduce the amount of emissions allocations for facilities under the regulation. Additionally, emissions coverage within TIER was expanded to include flaring from all TIER regulated facilities. The carbon price in Alberta was \$50/tonne for emissions above the TIER-regulated limits in 2022 and is \$65/tonne in 2023, in alignment with the federal carbon pricing schedule. The Alberta government has published a carbon pricing schedule to 2030 that aligns with the federal carbon pricing schedule for that period. The non-operated Scotford Upgrader and the North West Redwater bitumen upgrader and refinery are also subject to compliance under the regulations.

In British Columbia, carbon tax is currently being assessed at \$50/tonne of CO<sub>2</sub>e on fuel consumed and gas flared and vented in the province. The British Columbia government has implemented a program (the CleanBC Plan) to partially mitigate the impact of the carbon tax increases on emissions intensive trade exposed ("EITE") sectors.

As part of its Prairie Resilience Plan, the Saskatchewan government has a regulation ("The Management and Reduction of Greenhouse Gases (Standards and Compliance) Regulations") that applies to facilities emitting more than 25 kilotonnes of CO<sub>2</sub>e annually and required the North Tangleflags in situ heavy oil facility and the Senlac in situ heavy crude oil facility to meet reduction targets for GHG emissions in 2020. This regulation also enables facilities below the threshold to aggregate and opt into the Saskatchewan regulatory system as an alternative to the federal fuel charge.

The governments of British Columbia and Saskatchewan have announced their intention to follow the federal carbon pricing schedule and associated regulations are expected in 2023.

In Manitoba, the federal output-based pricing system and carbon pricing schedule applies for facilities with emissions greater than or equal to 10 kilotonnes of CO<sub>2</sub>e annually, and the federal fuel charge applies for facilities with emissions of less than 10 kilotonnes of CO<sub>2</sub>e annually.

By 2025, the federal government has committed to reduce methane emissions from the oil and gas sector by 40% to 45% below 2012 levels. The federal government's methane regulation came into effect on January 1, 2020 and applies nationally unless provinces reach equivalency agreements with the federal government, under which the federal regulation would not be in effect for those jurisdictions. The provinces of British Columbia, Alberta and Saskatchewan have implemented provincial methane regulations, and have reached equivalency agreements with the federal government. Accordingly, the applicable provincial methane regulations govern in the three western provinces whereas the federal methane regulation applies to methane emissions in the province of Manitoba. In 2022, the federal government announced a framework for expanding methane regulations to achieve at least a 75% reduction below 2012 levels, by 2030. Draft regulations are expected in 2023.

Air pollutant standards and guidelines are being developed federally and provincially and the Company is participating in these discussions. Ambient air quality and sector based reductions in air emissions are being reviewed. Through Company and industry participation with stakeholders, guidelines are being developed that adopt a structured process to emission reductions that is commensurate with technological development and operational requirements.

In the UK, GHG regulations have been in effect since 2005. In Phase 1 (2005 - 2007) of the UK National Allocation Plan, the Company operated below its CO<sub>2</sub> allocation. In Phase 2 (2008 - 2012) the Company's CO<sub>2</sub> allocation was decreased below the Company's operations emissions. In Phase 3 (2013 - 2020) the Company's CO<sub>2</sub> allocation was further reduced. Following the UK's withdrawal from the European Union ("EU") on January 31, 2020, a new UK Emissions Trading Scheme ("ETS") was launched on January 1, 2021. The new scheme is currently aligned with the EU ETS rules and applies to energy intensive industries, the power generation sector and aviation. The Company continues to focus on implementing CO<sub>2</sub> emission reduction program opportunities at its facilities and on trading mechanisms to ensure compliance with requirements now in effect.

# Accounting Policies and Standards

## REGULATORY DEVELOPMENTS

On May 27, 2021, the Canadian Securities Administrators ("CSA") announced the adoption of NI 52-112 and related amendments. This National Instrument replaces the previous CSA staff notice on Non-GAAP Measures. NI 52-112 governs how entities present non-GAAP and other financial measures and ratios. The requirements apply to the Company's MD&A and certain other disclosure documents beginning in 2021.

## CHANGES IN ACCOUNTING POLICIES

In May 2020, the IASB issued amendments to IAS 16 "Property, Plant and Equipment" to require proceeds received from selling items produced while the entity is preparing the asset for its intended use to be recognized in net earnings, rather than as a reduction in the cost of the asset. The amendments were adopted January 1, 2022 and did not have a significant impact on the Company's consolidated financial statements.

## CRITICAL ACCOUNTING POLICIES AND ESTIMATES

The preparation of financial statements requires the Company to make estimates, assumptions and judgements in the application of IFRS that have a significant impact on the financial results of the Company. Actual results may differ from estimated amounts, and those differences may be material. A comprehensive discussion of the Company's significant accounting estimates is contained in this MD&A and the audited consolidated financial statements for the year ended December 31, 2022.

### A) Depletion, Depreciation and Amortization and Impairment

Exploration and evaluation ("E&E") costs relating to activities to explore and evaluate crude oil and natural gas properties are initially capitalized and include costs directly associated with the acquisition of licenses, technical services and studies, seismic acquisition, exploration drilling and evaluation, overhead and administration expenses, and the estimate of any asset retirement costs. E&E assets are carried forward until technical feasibility and commercial viability of extracting a mineral resource is determined. Technical feasibility and commercial viability of extracting a mineral resource is considered to be determined when an assessment of proved reserves is made. The judgements associated with the estimation of proved reserves are described below in "Crude Oil and Natural Gas Reserves".

An alternative acceptable accounting method for E&E costs under IFRS 6 "Exploration for and Evaluation of Mineral Resources" is to charge exploratory dry holes and geological and geophysical exploration costs incurred after having obtained the legal rights to explore an area against net earnings in the period incurred rather than capitalizing to E&E assets.

E&E assets are tested for impairment when facts and circumstances suggest that the carrying amount of E&E assets may exceed their recoverable amount, by comparing the relevant costs to the fair value of related Cash Generating Units ("CGUs"), aggregated at a segment level. Indications of impairment include leases approaching expiry, the existence of low benchmark commodity prices for an extended period of time, significant downward revisions in estimated probable reserves volumes, significant increases in estimated future exploration or development expenditures, or significant adverse changes in the applicable legislative or regulatory frameworks. The determination of the fair value of CGUs requires the use of assumptions and estimates including future commodity prices, expected production volumes, quantity of reserves, asset retirement obligations, future development and production costs, discount rates, income taxes, and the potential impact of climate related matters and in accordance with related government regulations. Changes in assumptions used in determining the recoverable amount could affect the carrying value of the related assets and CGUs.

Property, plant and equipment is measured at cost less accumulated depletion and depreciation and impairment provisions. Crude oil and natural gas properties in the Exploration and Production segments are depleted using the unit-of-production method over proved reserves, except for major components, which are depreciated using a straight-line method over their estimated useful lives. The unit-of-production depletion rate takes into account expenditures incurred to date, together with future estimated development expenditures required to develop proved reserves. Estimates of proved reserves have a significant impact on net earnings, as they are a key input to the calculation of depletion expense.

The Company assesses property, plant and equipment for impairment discounted at rates currently ranging from 10% to 12% whenever events or changes in circumstances indicate that the carrying value of an asset or group of assets may not be recoverable. Indications of impairment include the existence of low commodity prices for an extended period, significant downward revisions of estimated reserves volumes, significant increases in estimated future development expenditures, or significant adverse changes in the applicable legislative or regulatory frameworks. If an indication of impairment exists, the Company performs a recoverability assessment related to the specific assets at the CGU level.

## **B) Crude Oil and Natural Gas Reserves**

Reserves estimates are based on estimated future prices and production costs, expected future rates of production, and the timing and amount of future development expenditures, all of which are subject to many uncertainties, interpretations and judgements, including the potential impact of climate related matters and in accordance with related government regulations. The Company expects that, over time, its reserves estimates will be revised upward or downward based on updated information. Reserves estimates can have a significant impact on net earnings, as they are a key component in the calculation of depletion, depreciation and amortization and for determining potential asset impairment. For example, a revision to the proved reserves estimates would result in a higher or lower depletion, depreciation and amortization charge to net earnings. Downward revisions to reserves estimates may also result in an impairment of E&E and property, plant and equipment carrying amounts.

## **C) Asset Retirement Obligations**

The Company is required to recognize a liability for ARO associated with its property, plant and equipment. An ARO liability associated with the retirement of a tangible long-lived asset is recognized to the extent of a legal obligation resulting from an existing or enacted law, statute, ordinance or written or oral contract, or by legal construction of a contract under the doctrine of promissory estoppel. The ARO is based on estimated costs, taking into account the anticipated method and extent of restoration consistent with legal requirements, technological advances and the possible use of the site. Since these estimates are specific to the sites involved, there are many individual assumptions underlying the Company's total ARO amount, including the potential impact of climate related matters and in accordance with related government regulations. These individual assumptions may be subject to change.

The estimated present values of ARO related to long-term assets are recognized as a liability in the period in which they are incurred. The provision for the ARO is estimated by discounting the expected future cash flows to settle the ARO at the Company's weighted average credit-adjusted risk-free interest rate, which is currently 5.6%. Subsequent to initial measurement, the ARO is adjusted to reflect the passage of time, changes in credit adjusted interest rates, and changes in the estimated future cash flows underlying the obligation. The increase in the provision due to the passage of time is recognized as asset retirement obligation accretion expense whereas changes in discount rates or estimated future cash flows are capitalized to or derecognized from property, plant and equipment. Changes in estimates would impact accretion and depletion expense in net earnings. In addition, differences between actual and estimated costs to settle the ARO, timing of cash flows to settle the obligation and future inflation rates may result in gains or losses on the final settlement of the ARO.

## **D) Income Taxes**

The Company follows the liability method of accounting for income taxes. Under this method, deferred income tax assets and liabilities are recognized based on the estimated income tax effects of temporary differences in the carrying amount of assets and liabilities in the consolidated financial statements and their respective tax bases, using income tax rates substantively enacted that are expected to apply when the asset or liability is recovered. Accounting for income taxes requires the Company to interpret frequently changing laws and regulations, including changing income tax rates, and make certain judgements with respect to the application of tax law, estimating the timing of temporary difference reversals, and estimating the realizability of tax assets. There are many transactions and calculations for which the ultimate tax determination is uncertain. The Company recognizes a liability for a tax filing position based on its assessment of the probability that additional taxes may ultimately be due.

## **E) Risk Management Activities**

The Company periodically uses derivative financial instruments to manage its commodity price, foreign currency and interest rate exposures. These financial instruments are entered into solely for hedging purposes and are not used for speculative purposes. All derivative financial instruments are recognized in the consolidated balance sheets at their estimated fair value. The estimated fair value of derivative financial instruments has been determined based on appropriate internal valuation methodologies and/or third party indications. Fair values determined using valuation models require the use of assumptions concerning the amount and timing of future cash flows, discount rates and credit risk. In determining these assumptions, the Company primarily relied on external, readily-observable quoted market inputs including crude oil and natural gas forward benchmark commodity prices and volatility, Canadian and United States forward interest rate yield curves, and Canadian and United States foreign exchange rates, discounted to present value as appropriate. The carrying amount of a risk management liability is adjusted for the Company's own credit risk. The resulting fair value estimates may not necessarily be indicative of the amounts that could be realized or settled in a current market transaction and these differences may be material.

## **F) Purchase Price Allocations**

Purchase prices related to business combinations are allocated to the underlying acquired assets and liabilities based on their estimated fair value at the time of acquisition. The determination of fair value requires the Company to make estimates, assumptions and judgements regarding future events. The allocation process is inherently subjective and impacts the amounts assigned to individually identifiable assets and liabilities, including the fair value of crude oil and natural gas properties, together with deferred income tax effects. As a result, the purchase price allocation impacts the Company's reported assets and liabilities and future net earnings due to the impact on future depletion, depreciation and amortization expense and impairment tests.

The Company has made various assumptions in determining the fair values of acquired assets and liabilities. The most significant assumptions and judgements relate to the estimation of the fair value of crude oil and natural gas properties. To determine the fair value of these properties, the Company estimates crude oil and natural gas reserves. Reserves estimates are based on the work performed by the Company's internal engineers and outside consultants. The judgements associated with these estimated reserves are described above in "Crude Oil and Natural Gas Reserves". Estimates of future prices are based on prices derived from price forecasts among industry analysts and internal assessments. The Company applies estimated future prices to the estimated reserves quantities acquired, and estimates future operating and development costs, to arrive at estimated future net revenues for the properties acquired.

### **G) Share-Based Compensation**

The Company has made various assumptions in estimating the fair values of stock options granted including expected volatility, expected exercise timing and future forfeiture rates. At each period end, stock options outstanding are remeasured for changes in the estimated fair value of the liability.

### **H) Leases**

Purchase, extension and termination options are included in certain of the Company's leases to provide operational flexibility. To measure the lease liability, the Company uses judgement to assess the likelihood of exercising these options. These assessments are reviewed when significant events or circumstances indicate that the likelihood of exercising these options may have changed. The Company also uses estimates to determine its incremental borrowing costs if the interest rate implicit in the lease is not readily determinable.

### **I) Government Grants**

The Company receives or is eligible for government grants, including emissions credits and grants introduced in response to the impact of COVID-19. Government grants are recognized in net earnings when there is reasonable assurance that the Company will comply with the conditions attached to the grant and the grant will be received. Emissions performance and offset credits generated under the Alberta TIER regulation are initially recorded at fair value as determined by the prescribed Alberta TIER fund compliance rates in effect at the time the credits are recognized.

## **Control Environment**

The Company's management, including the President and the Chief Financial Officer and Vice-President, Finance and Principal Accounting Officer, evaluated the effectiveness of disclosure controls and procedures as at December 31, 2022, and concluded that disclosure controls and procedures are effective to ensure that information required to be disclosed by the Company in its annual filings and other reports filed with securities regulatory authorities in Canada and the United States is recorded, processed, summarized and reported within the time periods specified and such information is accumulated and communicated to the Company's management to allow timely decisions regarding required disclosures.

The Company's management, including the President and the Chief Financial Officer and Vice-President, Finance and Principal Accounting Officer, also evaluated the effectiveness of internal control over financial reporting as at December 31, 2022, and concluded that internal control over financial reporting is effective. Further, there were no changes in the Company's internal control over financial reporting during 2022 that have materially affected, or are reasonably likely to materially affect, internal control over financial reporting.

While the Company's management believes that the Company's disclosure controls and procedures and internal control over financial reporting provide a reasonable level of assurance they are effective, they recognize that all control systems have inherent limitations. Because of its inherent limitations, the Company's control systems may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

## Non-GAAP and Other Financial Measures

This MD&A includes references to non-GAAP and other financial measures as defined in NI 52-112. These financial measures are used by the Company to evaluate its financial performance, financial position or cash flow and include non-GAAP financial measures, non-GAAP ratios, total of segments measures, capital management measures, and supplementary financial measures. These financial measures are not defined by IFRS and therefore are referred to as non-GAAP and other financial measures. The non-GAAP and other financial measures used by the Company may not be comparable to similar measures presented by other companies, and should not be considered an alternative to or more meaningful than the most directly comparable financial measure presented in the Company's audited consolidated financial statements, as applicable, as an indication of the Company's performance. Descriptions of the Company's non-GAAP and other financial measures included in this MD&A, and reconciliations to the most directly comparable GAAP measure, as applicable, are provided below.

### ADJUSTED NET EARNINGS (LOSS) FROM OPERATIONS

Adjusted net earnings (loss) from operations is a non-GAAP financial measure that adjusts net earnings (loss) as presented in the Company's consolidated Statements of Earnings (Loss), for non-operating items, net of tax. The Company considers adjusted net earnings (loss) from operations a key measure in evaluating its performance, as it demonstrates the Company's ability to generate after-tax operating earnings from its core business areas. A reconciliation for adjusted net earnings (loss) from operations is presented below.

(\$ millions)	2022	2021	2020
Net earnings (loss)	\$ 10,937	\$ 7,664	\$ (435)
Share-based compensation, net of tax <sup>(1)</sup>	780	495	(86)
Unrealized risk management (gain) loss, net of tax <sup>(2)</sup>	(25)	16	(31)
Unrealized foreign exchange loss (gain), net of tax <sup>(3)</sup>	852	(205)	(116)
Realized foreign exchange (gain) loss, net of tax <sup>(4)</sup>	(62)	118	(166)
Gain on acquisitions, net of tax <sup>(5)</sup>	—	(478)	(217)
(Gain) loss from investments, net of tax <sup>(6)</sup>	(182)	(132)	185
Recoverability charge, net of tax <sup>(7)</sup>	651	—	—
Other, net of tax <sup>(8)</sup>	(88)	(58)	110
Non-operating items, net of tax	1,926	(244)	(321)
Adjusted net earnings (loss) from operations	\$ 12,863	\$ 7,420	\$ (756)

(1) Share-based compensation includes costs incurred under the Company's Stock Option Plan and PSU plan. The fair value of the share-based compensation is recognized as a liability on the Company's balance sheets and periodic changes in the fair value are recognized in net earnings (loss). Pre-tax share-based compensation for 2022 was an expense of \$804 million (2021 – \$514 million expense; 2020 – \$82 million recovery).

(2) Derivative financial instruments are recognized at fair value on the Company's balance sheets, with changes in the fair value of non-designated hedges recognized in net earnings (loss). The amounts ultimately realized may be materially different than those amounts reflected in the Company's audited consolidated financial statements due to changes in prices of the underlying items hedged, primarily crude oil, natural gas and foreign exchange. Pre-tax unrealized risk management gain for 2022 was \$28 million (2021 – \$19 million loss; 2020 – \$39 million gain).

(3) Unrealized foreign exchange losses and gains result primarily from the translation of US dollar denominated long-term debt to period-end exchange rates, partially offset by the impact of cross currency swaps, and are recognized in net earnings (loss). Pre- and after-tax amounts for these unrealized foreign exchange losses and gains are the same.

(4) During 2022, the Company early repaid US\$1,000 million of 2.95% debt securities, originally due January 15, 2023, resulting in a realized foreign exchange loss of \$7 million. Also, during 2022, the Company settled the US\$550 million cross currency swap designated as a cash flow hedge of a portion of the US\$1,100 million 6.25% US dollar debt securities due March 2038, resulting in a realized foreign exchange gain of \$69 million. During 2021, the Company repaid US\$500 million of 3.45% debt securities, resulting in a realized foreign exchange loss of \$118 million. During 2020, the Company settled the US\$500 million cross currency swaps designated as cash flow hedges of the US\$500 million 3.45% US dollar debt securities, originally due November 2021, resulting in a realized foreign exchange gain of \$166 million. Pre- and after-tax amounts for these realized foreign exchange gains and losses are the same.

(5) During 2021, the Company completed two acquisitions resulting in a pre- and after-tax gain of \$478 million. During 2020, the Company recognized a pre- and after-tax gain of \$217 million related to the acquisition of Painted Pony.

(6) The Company's investments have been accounted for at fair value through profit and loss and are measured each period with (gains) losses recognized in net earnings (loss). There is zero net tax impact on these (gains) losses from investments.

(7) The Company recognized a recoverability charge of \$1,620 million in depletion, depreciation and amortization at December 31, 2022 relating to the de-booking of reserves at the Ninian field in the North Sea. Prevailing regulatory and economic conditions in 2022 and the increasingly challenging commercial outlook in the United Kingdom, including the impact of higher natural gas and carbon costs, led the Company to assess the viability of its North Sea operations. Following a detailed review of its development plans, the Company determined that the Ninian field is no longer economic, de-booked associated crude oil reserves as at December 31, 2022, and is accelerating abandonment.

(8) During 2022, the Company recognized the impact of government grant income under the provincial well-site rehabilitation programs of \$114 million (2021 – \$75 million). During 2020, the Company recognized a provision in transportation, blending and feedstock expense of \$143 million relating to the Keystone XL pipeline project.

## ADJUSTED FUNDS FLOW

Adjusted funds flow is a non-GAAP financial measure that represents cash flows from operating activities as presented in the Company's consolidated Statements of Cash Flows, adjusted for the net change in non-cash working capital, abandonment expenditures excluding the impact of government grant income under the provincial well-site rehabilitation programs, and movements in other long-term assets. The Company considers adjusted funds flow a key measure in evaluating its performance, as it demonstrates the Company's ability to generate the cash flow necessary to fund future growth through capital investment and to repay debt. A reconciliation for adjusted funds flow, from cash flows from operating activities is presented below.

(\$ millions)	2022	2021	2020
Cash flows from operating activities	\$ 19,391	\$ 14,478	\$ 4,714
Net change in non-cash working capital	(79)	(964)	166
Abandonment expenditures, net <sup>(1)</sup>	335	232	249
Movements in other long-term assets <sup>(2)</sup>	144	(13)	71
<b>Adjusted funds flow</b>	<b>\$ 19,791</b>	<b>\$ 13,733</b>	<b>\$ 5,200</b>

(1) Non-GAAP Financial Measure. A reconciliation of abandonment expenditures, net is presented in the "Abandonment Expenditures, net" section below.

(2) Includes the unamortized cost of the share bonus program, accrued interest on the deferred PRT recovery, accrued interest on subordinated debt advances to NWRP and prepaid cost of service tolls.

## ADJUSTED NET EARNINGS (LOSS) FROM OPERATIONS AND ADJUSTED FUNDS FLOW, PER SHARE (BASIC AND DILUTED)

Adjusted net earnings (loss) from operations and adjusted funds flow, per common share (basic and diluted), are non-GAAP ratios that represent those non-GAAP measures divided by the weighted average number of basic and diluted common shares outstanding for the period, respectively, as presented in note 17 to the Company's audited consolidated financial statements. These non-GAAP measures, disclosed on a per share basis, enable a comparison to the per share amounts disclosed in the Company's financial statements prepared in accordance with IFRS.

## ABANDONMENT EXPENDITURES, NET

Abandonment expenditures, net, is a non-GAAP financial measure that represents the abandonment expenditures to settle asset retirement obligations as reflected in the Company's annual capital budget. Abandonment expenditures, net is calculated as abandonment expenditures, as presented in the Company's audited consolidated Statements of Cash Flows, adjusted for the impact of government grant income under the provincial well-site rehabilitation programs. A reconciliation of abandonment expenditures, net is presented below.

(\$ millions)	2022	2021	2020
Abandonment expenditures	\$ 449	\$ 307	\$ 249
Government grants for abandonment expenditures	(114)	(75)	—
<b>Abandonment expenditures, net</b>	<b>\$ 335</b>	<b>\$ 232</b>	<b>\$ 249</b>

## NETBACK

Netback is a non-GAAP ratio that represents net cash flows provided from core activities after the impact of all costs associated with bringing a product to market, on a per unit basis. The Company considers netback a key measure in evaluating its performance, as it demonstrates the efficiency and profitability of the Company's activities. Refer to the "Operating Highlights – Exploration and Production", "Per Unit Results – Exploration and Production", and "Per Unit Results – Oil Sands Mining and Upgrading" sections of this MD&A for the netback calculations on a per unit basis for crude oil and NGLs, natural gas and on a total barrels of oil equivalent basis.

The netback calculations include the non-GAAP financial measures: realized price and transportation, reconciled below to their respective line item in note 22 to the Company's audited consolidated financial statements.

## REALIZED PRICE (\$/BBL AND \$/BOE) – EXPLORATION AND PRODUCTION

Realized price (\$/bbl and \$/BOE) is a non-GAAP ratio calculated as realized crude oil and NGLs sales and total realized BOE sales (non-GAAP financial measures) divided by respective sales volumes. Realized crude oil and NGLs sales and total realized BOE sales include the impact of blending costs and other by-product sales. The Company considers realized price a key measure in evaluating its performance, as it demonstrates the realized pricing per unit the Company obtained on the market for its crude oil and NGLs sales volumes and BOE sales volumes.

Reconciliations for Exploration and Production realized crude oil and NGLs sales and BOE sales and the calculations for realized price are presented below.

(\$ millions, except bbl/d and \$/bbl)	2022	2021	2020
<b>Crude oil and NGLs (bbl/d)</b>			
North America	<b>480,691</b>	471,331	465,073
International			
North Sea	<b>13,215</b>	18,942	22,852
Offshore Africa	<b>14,866</b>	13,452	17,017
Total International	<b>28,081</b>	32,394	39,869
Total sales volumes	<b>508,772</b>	503,725	504,942
Crude oil and NGLs sales <sup>(1) (2)</sup>	\$ <b>22,072</b>	\$ 15,505	\$ 8,215
Less: Blending costs <sup>(3)</sup>	<b>5,239</b>	3,792	2,321
Realized crude oil and NGLs sales	\$ <b>16,833</b>	\$ 11,713	\$ 5,894
Realized price (\$/bbl)	\$ <b>90.64</b>	\$ 63.71	\$ 31.90

(1) Crude oil and NGLs sales in note 22 to the Company's audited consolidated financial statements.

(2) Includes other miscellaneous income in the segment.

(3) Blending costs are a component of transportation, blending and feedstock expense as reconciled below in the "Transportation – Exploration and Production" section.

(\$ millions, except BOE/d and \$/BOE)	2022	2021	2020
<b>Barrels of oil equivalent (BOE/d)</b>			
North America	<b>826,526</b>	751,330	706,799
International			
North Sea	<b>13,598</b>	19,512	24,805
Offshore Africa	<b>16,933</b>	15,385	19,517
Total International	<b>30,531</b>	34,897	44,322
Total sales volumes	<b>857,057</b>	786,227	751,121
Barrels of oil equivalent sales <sup>(1) (2)</sup>	\$ <b>27,071</b>	\$ 18,025	\$ 9,511
Less: Blending costs <sup>(3)</sup>	<b>5,239</b>	3,792	2,321
Less: Sulphur (income) expense	<b>(88)</b>	(21)	4
Realized barrels of oil equivalent sales	\$ <b>21,920</b>	\$ 14,254	\$ 7,186
Realized price (\$/BOE)	\$ <b>70.07</b>	\$ 49.67	\$ 26.15

(1) Barrels of oil equivalent sales includes crude oil and NGLs sales and natural gas sales in note 22 to the Company's audited consolidated financial statements.

(2) Includes other miscellaneous income in the segment.

(3) Blending costs are a component of transportation, blending and feedstock expense as reconciled below in the "Transportation – Exploration and Production" section.

## TRANSPORTATION – EXPLORATION AND PRODUCTION

Transportation (\$/BOE, \$/bbl and \$/Mcf) is a non-GAAP ratio calculated as transportation (a non-GAAP financial measure) divided by the respective sales volumes. The Company calculates transportation to demonstrate its cost to deliver products to the market excluding the impact of blending costs. A reconciliation for Exploration and Production transportation and the calculations for transportation on a per unit basis are presented below.

(\$ millions, except \$ per unit amounts)		2022		2021		2020
Transportation, blending and feedstock <sup>(1)</sup>	\$	<b>6,401</b>	\$	4,780	\$	3,409
Less: Blending costs		<b>5,239</b>		3,792		2,321
Less: Other <sup>(2)</sup>		—		—		143
Transportation	\$	<b>1,162</b>	\$	988	\$	945
Transportation (\$/BOE)	\$	<b>3.72</b>	\$	3.44	\$	3.44
Amounts attributed to crude oil and NGLs	\$	<b>767</b>	\$	710	\$	711
Transportation (\$/bbl)	\$	<b>4.13</b>	\$	3.86	\$	3.85
Amounts attributed to natural gas	\$	<b>395</b>	\$	278	\$	234
Transportation (\$/Mcf)	\$	<b>0.51</b>	\$	0.45	\$	0.43

(1) Transportation, blending and feedstock in note 22 to the Company's audited consolidated financial statements.

(2) Transportation excludes the impact of a \$143 million provision recognized in 2020, relating to the Keystone XL pipeline project.

## NORTH AMERICA – REALIZED PRODUCT PRICES AND ROYALTIES

Realized crude oil and NGLs price (\$/bbl) is a non-GAAP ratio calculated as realized crude oil and NGLs sales (non-GAAP financial measure) divided by sales volumes. Realized crude oil and NGLs sales include the impact of blending costs. The Company considers the realized crude oil and NGLs price a key measure in evaluating its performance, as it demonstrates the realized pricing per unit that the Company obtained on the market for its crude oil and NGLs sales volumes.

Crude oil and NGLs royalty rate is a non-GAAP ratio that is calculated as crude oil and NGLs royalties divided by realized crude oil and NGLs sales. The Company considers crude oil and NGLs royalty rate a key measure in evaluating its performance, as it describes the Company's royalties for crude oil and NGLs sales volumes on a per unit basis.

A reconciliation for North America realized crude oil and NGLs sales and the calculations for realized crude oil and NGLs prices and the royalty rates are presented below.

(\$ millions, except \$/bbl and royalty rates)		2022		2021		2020
Crude oil and NGLs sales <sup>(1)</sup>	\$	<b>20,755</b>	\$	14,478	\$	7,480
Less: Blending costs <sup>(2)</sup>		<b>5,239</b>		3,792		2,321
Realized crude oil and NGLs sales	\$	<b>15,516</b>	\$	10,686	\$	5,159
Realized crude oil and NGLs prices (\$/bbl)	\$	<b>88.43</b>	\$	62.10	\$	30.31
Crude oil and NGLs royalties <sup>(3)</sup>	\$	<b>3,445</b>	\$	1,558	\$	464
Crude oil and NGLs royalty rates		<b>22%</b>		15%		9%

(1) Crude oil and NGLs sales in note 22 to the Company's audited consolidated financial statements.

(2) Blending costs are a component of transportation, blending and feedstock expense as reconciled above in the "Transportation – Exploration and Production" section.

(3) Item is a component of royalties in note 22 to the Company's audited consolidated financial statements.

## REALIZED PRODUCT PRICES AND TRANSPORTATION – OIL SANDS MINING AND UPGRADING

Realized SCO sales price (\$/bbl) is a non-GAAP ratio calculated as realized SCO sales (non-GAAP financial measure) including the impact of blending and feedstock costs, divided by SCO sales volumes. The Company considers realized SCO sales price a key measure in evaluating its performance, as it demonstrates the realized pricing per unit that the Company obtained on the market for its SCO sales volumes.

Transportation (\$/bbl) is a non-GAAP ratio calculated as transportation (a non-GAAP financial measure) divided by SCO sales volumes. The Company calculates transportation to demonstrate its cost to deliver product to the market excluding the impact of blending and feedstock costs.

Reconciliations for Oil Sands Mining and Upgrading realized SCO sales and transportation and the calculations for realized SCO sales price and transportation on a per unit basis are presented below.

(\$ millions, except for bbl/d and \$/bbl)	2022	2021	2020
SCO sales volumes (bbl/d)	<b>428,820</b>	447,230	415,741
Crude oil and NGLs sales <sup>(1) (2)</sup>	\$ <b>20,804</b>	\$ 14,033	\$ 7,389
Less: Blending and feedstock costs	<b>2,384</b>	1,309	695
Realized SCO sales	\$ <b>18,420</b>	\$ 12,724	\$ 6,694
Realized SCO sales price (\$/bbl)	\$ <b>117.69</b>	\$ 77.95	\$ 43.98
Transportation, blending and feedstock <sup>(3)</sup>	\$ <b>2,652</b>	\$ 1,505	\$ 881
Less: Blending and feedstock costs	<b>2,384</b>	1,309	695
Transportation	\$ <b>268</b>	\$ 196	\$ 186
Transportation (\$/bbl)	\$ <b>1.71</b>	\$ 1.21	\$ 1.23

(1) Crude oil and NGLs sales in note 22 to the Company's audited consolidated financial statements.

(2) Excludes other miscellaneous income not pertaining to crude oil and NGLs sales.

(3) Transportation, blending and feedstock in note 22 to the Company's audited consolidated financial statements.

## NET CAPITAL EXPENDITURES

Net capital expenditures is a non-GAAP financial measure that represents cash flows used in investing activities as presented in the Company's audited consolidated Statements of Cash Flows, adjusted for the net change in non-cash working capital, proceeds from investments, the repayment of NWRP subordinated debt advances, abandonment expenditures including the impact of government grant income under the provincial well-site rehabilitation programs, and the settlement of long-term debt assumed in acquisitions. The Company considers net capital expenditures a key measure in evaluating its performance, as it provides an understanding of the Company's capital spending activities in comparison to the Company's annual capital budget. A reconciliation of net capital expenditures is presented below.

(\$ millions)	2022	2021	2020
Cash flows used in investing activities	\$ <b>4,987</b>	\$ 3,703	\$ 2,819
Net change in non-cash working capital	<b>149</b>	107	(383)
Proceeds from investment	—	128	—
Repayment of NWRP subordinated debt advances	—	555	124
Capital expenditures	<b>5,136</b>	4,493	2,560
Abandonment expenditures, net <sup>(1)</sup>	<b>335</b>	232	249
Settlement of long-term debt acquired <sup>(2)</sup>	—	183	397
Net capital expenditures <sup>(3)</sup>	\$ <b>5,471</b>	\$ 4,908	\$ 3,206

(1) Non-GAAP Financial Measure. A reconciliation of abandonment expenditures, net is presented in the "Abandonment Expenditures, net" section above.

(2) Relates to the settlement of long-term debt assumed in the acquisition of Storm in 2021 and Painted Pony in 2020.

(3) For 2022, includes base capital expenditures of \$3,956 million, net property, plant and equipment acquisitions and net exploration and evaluation asset dispositions of \$470 million, and strategic growth capital expenditures of \$1,045 million. Strategic growth capital expenditures represent the allocation of the Company's free cash flow that will be directed to strategic capital growth opportunities that target to increase production volumes in future periods and that exceed the Company's base capital expenditures for the current fiscal year, as outlined in the Company's capital budget.

## LIQUIDITY

Liquidity is a non-GAAP financial measure that represents the availability of readily available undrawn bank credit facilities, cash and cash equivalents, and other highly liquid assets to meet short-term funding requirements and to assist in assessing the Company's financial position. The Company's calculation of liquidity is presented below.

(\$ millions)	2022		2021		2020
Undrawn bank credit facilities	\$	5,520	\$	6,098	\$ 4,958
Cash and cash equivalents		920		744	184
Investments		491		309	305
Liquidity	\$	6,931	\$	7,151	\$ 5,447

## LONG-TERM DEBT, NET

Long-term debt, net, is a capital management measure that represents long-term debt less cash and cash equivalents, as disclosed in note 16 to the Company's audited consolidated financial statements.

## DEBT TO BOOK CAPITALIZATION

Debt to book capitalization is a capital management measure intended to enable financial statement users to evaluate the Company's capital structure, as disclosed in note 16 to the Company's audited consolidated financial statements.

## AFTER-TAX RETURN ON AVERAGE CAPITAL EMPLOYED

After-tax return on average capital employed as defined by the Company is a non-GAAP ratio. The ratio is calculated as net earnings (loss) plus after-tax interest and other financing expense for the twelve month trailing period; as a percentage of average capital employed (defined as current and long-term debt plus shareholders' equity) for the twelve month trailing period. The Company considers this ratio a key measure in evaluating the Company's ability to generate profit and the efficiency with which it employs capital. A reconciliation of the Company's after-tax return on average capital employed is presented below.

(\$ millions, except ratios)	2022		2021		2020
Interest adjusted after-tax return:					
Net earnings (loss), 12 months trailing	\$	10,937	\$	7,664	\$ (435)
Interest and other financing expense, net of tax, 12 months trailing <sup>(1)</sup>		424		547	571
Interest adjusted after-tax return	\$	11,361	\$	8,211	\$ 136
12 months average current portion long-term debt <sup>(2)</sup>	\$	1,359	\$	1,483	\$ 1,842
12 months average long-term debt <sup>(2)</sup>		11,761		16,769	20,162
12 months average common shareholders' equity <sup>(2)</sup>		38,218		34,458	33,026
12 months average capital employed	\$	51,338	\$	52,710	\$ 55,030
After-tax return on average capital employed		22%		16%	—%

(1) The blended tax rate on interest was 23% for December 31, 2022, 23% for December 31, 2021, and 24% for December 31, 2020.

(2) For the purpose of this non-GAAP ratio, the measurement of average current and long-term debt and common shareholders equity are determined on a consistent basis, as an average of the opening and quarterly period end values for the 12 month trailing period for each of the periods presented.

## Outlook

The Company continues to implement its strategy of maintaining a large portfolio of varied projects, which the Company believes will enable it, over an extended period of time, to provide consistent growth in production and create shareholder value. Annual budgets are developed, scrutinized throughout the year and revised if necessary in the context of targeted financial ratios, project returns, product pricing expectations, and balance in project risk and time horizons. The Company maintains a high ownership level and operatorship level in all of its properties and can therefore control the nature, timing and extent of capital expenditures in each of its project areas.

### 2023 CAPITAL BUDGET

On November 30, 2022, the Company announced its 2023 base capital budget targeted at approximately \$4,190 million. The budget also includes incremental strategic growth capital of approximately \$1,020 million that targets to add additional production and capacity growth beyond 2023 in the Company's E&P segments, and long life low decline thermal in situ and Oil Sands Mining and Upgrading assets. The 2023 capital budget constitutes forward-looking statements. Refer to the "Advisory" section of this MD&A for further details on forward-looking statements.

## Other

### SENSITIVITY ANALYSIS

The following table is indicative of the annualized sensitivities of cash flows from operating activities and net earnings due to changes in certain key variables. The analysis is based on business conditions and sales volumes during the fourth quarter of 2022, excluding mark-to-market gains (losses) on risk management activities and is not necessarily indicative of future results. Each separate line item in the sensitivity analysis shows the effect of a change in that variable only with all other variables being held constant.

	<b>Cash flows from Operating Activities</b> (\$ millions)	<b>Cash flows from Operating Activities</b> (per common share, basic)	<b>Net earnings (loss)</b> (\$ millions)	<b>Net earnings (loss)</b> (per common share, basic)
<b>Price changes</b>				
Crude oil – WTI US\$1.00/bbl				
Excluding financial derivatives	\$ 300	\$ 0.26	\$ 300	\$ 0.26
Natural gas – AECO C\$0.10/Mcf				
Excluding financial derivatives	\$ 36	\$ 0.03	\$ 36	\$ 0.03
Including financial derivatives	\$ 35	\$ 0.03	\$ 35	\$ 0.03
<b>Volume changes</b>				
Crude oil – 10,000 bbl/d	\$ 165	\$ 0.15	\$ 140	\$ 0.12
Natural gas – 10 MMcf/d	\$ 11	\$ 0.01	\$ 7	\$ 0.01
<b>Foreign currency rate change</b>				
\$0.01 change in US\$ <sup>(1)</sup>				
Including financial derivatives	\$ 280	\$ 0.25	\$ 146	\$ 0.13
<b>Interest rate change – 1%</b>	\$ 4	\$ —	\$ 4	\$ —

(1) For details of financial instruments in place, refer to note 19 to the Company's audited consolidated financial statements as at December 31, 2022.

## DAILY PRODUCTION BY SEGMENT, BEFORE ROYALTIES

	Q1	Q2	Q3	Q4	2022	2021	2020
<b>Crude oil and NGLs</b> (bbl/d)							
North America – Exploration and Production	484,280	477,478	471,632	486,559	479,971	472,621	460,443
North America – Oil Sands Mining and Upgrading <sup>(1)</sup>	429,826	356,953	487,553	428,784	425,945	448,133	417,351
International							
North Sea	15,961	10,788	10,855	14,006	12,890	17,633	23,142
Offshore Africa	15,742	15,119	13,638	12,909	14,343	14,017	17,022
Total International	31,703	25,907	24,493	26,915	27,233	31,650	40,164
Total Crude oil and NGLs	945,809	860,338	983,678	942,258	933,149	952,404	917,958
<b>Natural gas</b> (MMcf/d) <sup>(2)</sup>							
North America	1,988	2,089	2,117	2,105	2,075	1,680	1,450
International							
North Sea	3	2	1	3	2	3	12
Offshore Africa	15	14	14	7	13	12	15
Total International	18	16	15	10	15	15	27
Total Natural gas	2,006	2,105	2,132	2,115	2,090	1,695	1,477
<b>Barrels of oil equivalent</b> (BOE/d)							
North America – Exploration and Production	815,632	825,664	824,358	837,348	825,806	752,620	702,168
North America – Oil Sands Mining and Upgrading <sup>(1)</sup>	429,826	356,953	487,553	428,784	425,945	448,133	417,351
International							
North Sea	16,435	11,103	11,072	14,526	13,273	18,203	25,095
Offshore Africa	18,287	17,427	15,957	14,021	16,410	15,950	19,522
Total International	34,722	28,530	27,029	28,547	29,683	34,153	44,617
Total Barrels of oil equivalent	1,280,180	1,211,147	1,338,940	1,294,679	1,281,434	1,234,906	1,164,136

(1) SCO production before royalties excludes SCO consumed internally as diesel.

(2) Natural gas production volumes approximate sales volumes.

## PER UNIT RESULTS – EXPLORATION AND PRODUCTION

	Q1	Q2	Q3	Q4	2022	2021	2020
<b>Crude oil and NGLs (\$/bbl) <sup>(1)</sup></b>							
Realized price <sup>(2)</sup>	\$ 93.54	\$ 115.26	\$ 84.91	\$ 69.34	\$ 90.64	\$ 63.71	\$ 31.90
Transportation <sup>(2)</sup>	4.18	4.13	4.10	4.11	4.13	3.86	3.85
Realized price, net of transportation <sup>(2)</sup>	89.36	111.13	80.81	65.23	86.51	59.85	28.05
Royalties <sup>(3)</sup>	17.80	25.01	19.48	13.56	18.91	8.59	2.59
Production expense <sup>(4)</sup>	15.80	19.58	16.86	20.37	18.17	14.71	12.42
Netback <sup>(2)</sup>	\$ 55.76	\$ 66.54	\$ 44.47	\$ 31.30	\$ 49.43	\$ 36.55	\$ 13.04
<b>Natural gas (\$/Mcf) <sup>(1)</sup></b>							
Realized price <sup>(5)</sup>	\$ 5.26	\$ 7.93	\$ 6.57	\$ 6.39	\$ 6.55	\$ 4.07	\$ 2.40
Transportation <sup>(6)</sup>	0.50	0.52	0.51	0.55	0.51	0.45	0.43
Realized price, net of transportation	4.76	7.41	6.06	5.84	6.04	3.62	1.97
Royalties <sup>(3)</sup>	0.42	0.89	0.61	0.51	0.61	0.22	0.08
Production expense <sup>(4)</sup>	1.31	1.17	1.16	1.25	1.22	1.18	1.18
Netback	\$ 3.03	\$ 5.35	\$ 4.29	\$ 4.08	\$ 4.21	\$ 2.22	\$ 0.71
<b>Barrels of oil equivalent (\$/BOE) <sup>(1)</sup></b>							
Realized price <sup>(2)</sup>	\$ 69.66	\$ 88.07	\$ 66.04	\$ 56.83	\$ 70.07	\$ 49.67	\$ 26.15
Transportation <sup>(2)</sup>	3.72	3.70	3.64	3.80	3.72	3.44	3.44
Realized price, net of transportation <sup>(2)</sup>	65.94	84.37	62.40	53.03	66.35	46.23	22.71
Royalties <sup>(3)</sup>	11.88	17.03	12.88	9.31	12.75	5.98	1.89
Production expense <sup>(4)</sup>	12.70	14.44	12.68	15.17	13.76	11.98	10.67
Netback <sup>(2)</sup>	\$ 41.36	\$ 52.90	\$ 36.84	\$ 28.55	\$ 39.84	\$ 28.27	\$ 10.15

(1) For crude oil and NGLs and BOE sales volumes, refer to the "Non-GAAP and Other Financial Measures" section of this MD&A. For natural gas sales volumes, refer to the "Daily Production, before royalties" section of this MD&A.

(2) Non-GAAP Ratio. Refer to the "Non-GAAP and Other Financial Measures" section of this MD&A.

(3) Calculated as royalties divided by respective sales volumes.

(4) Calculated as production expense divided by respective sales volumes.

(5) Calculated as natural gas sales divided by natural gas sales volumes.

(6) Calculated as natural gas transportation expense divided by natural gas sales volumes.

## PER UNIT RESULTS – OIL SANDS MINING AND UPGRADING

	Q1	Q2	Q3	Q4	2022	2021	2020
<b>Crude oil and NGLs (\$/bbl) <sup>(1)</sup></b>							
Realized SCO sales price <sup>(2)</sup>	\$ 112.05	\$ 137.60	\$ 120.91	\$ 103.79	\$ 117.69	\$ 77.95	\$ 43.98
Bitumen royalties <sup>(3)</sup>	13.51	31.63	24.87	14.48	20.71	6.62	0.51
Transportation <sup>(2)</sup>	1.55	2.05	1.55	1.80	1.71	1.21	1.23
Production expense <sup>(4)</sup>	24.60	33.76	22.35	25.48	26.04	20.91	20.46
Netback <sup>(2)</sup>	\$ 72.39	\$ 70.16	\$ 72.14	\$ 62.03	\$ 69.23	\$ 49.21	\$ 21.78

(1) For SCO sales volumes, refer to the "Non-GAAP and Other Financial Measures" section of this MD&A.

(2) Non-GAAP Ratio. Refer to the "Non-GAAP and Other Financial Measures" section of this MD&A.

(3) Calculated as royalties divided by sales volumes.

(4) Calculated as production costs divided by sales volumes.

## TRADING AND SHARE STATISTICS

	Q1	Q2	Q3	Q4	2022	2021
<b>TSX – C\$</b>						
Trading volume (thousands)	408,106	378,433	401,112	346,071	1,533,722	1,568,872
Share Price (\$/share)						
High	\$ 80.13	\$ 88.18	\$ 75.95	\$ 84.25	\$ 88.18	\$ 55.59
Low	\$ 54.20	\$ 64.20	\$ 58.75	\$ 66.42	\$ 54.20	\$ 28.67
Close	\$ 77.41	\$ 69.17	\$ 64.30	\$ 75.19	\$ 75.19	\$ 53.45
Market capitalization as at December 31 (\$ millions)					\$ 82,907	\$ 62,449
Shares outstanding (thousands)					1,102,636	1,168,369
<b>NYSE – US\$</b>						
Trading volume (thousands)	243,414	176,133	187,207	148,968	755,722	795,605
Share Price (\$/share)						
High	\$ 64.10	\$ 70.60	\$ 58.60	\$ 62.57	\$ 70.60	\$ 44.33
Low	\$ 42.32	\$ 49.37	\$ 44.45	\$ 48.43	\$ 42.32	\$ 22.40
Close	\$ 61.98	\$ 53.68	\$ 46.57	\$ 55.53	\$ 55.53	\$ 42.25
Market capitalization as at December 31 (\$ millions)					\$ 61,229	\$ 49,364
Shares outstanding (thousands)					1,102,636	1,168,369

# Consolidated Financial Statements

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# Management's Report

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The accompanying consolidated financial statements of Canadian Natural Resources Limited (the "Company") and all other information contained elsewhere in this Annual Report are the responsibility of management. The consolidated financial statements have been prepared by management in accordance with the accounting policies described in the accompanying notes. Where necessary, management has made informed judgements and estimates in accounting for transactions that were not complete at the balance sheet date. In the opinion of management, the financial statements have been prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board as appropriate in the circumstances. The financial information presented elsewhere in the Annual Report has been reviewed to ensure consistency with that in the consolidated financial statements.

Management maintains appropriate systems of internal control. Policies and procedures are designed to give reasonable assurance that transactions are appropriately authorized and recorded, assets are safeguarded from loss or unauthorized use and financial records are properly maintained to provide reliable information for preparation of financial statements.

PricewaterhouseCoopers LLP, an independent firm of Chartered Professional Accountants, has been engaged, as approved by a vote of the shareholders at the Company's most recent Annual General Meeting, to audit and provide their independent audit opinions on the following:

- the Company's consolidated financial statements as at and for the year ended December 31, 2022; and
- the effectiveness of the Company's internal control over financial reporting as at December 31, 2022.

Their report is presented with the consolidated financial statements.

The Board of Directors (the "Board") is responsible for ensuring that management fulfills its responsibilities for financial reporting and internal controls. The Board exercises this responsibility through the Audit Committee of the Board, which is comprised entirely of independent directors. The Audit Committee meets with management and the independent auditors to satisfy itself that management responsibilities are properly discharged and to review the consolidated financial statements before they are presented to the Board for approval. The consolidated financial statements have been approved by the Board on the recommendation of the Audit Committee.



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**TIM S. MCKAY**

President



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**MARK A. STAINTHORPE, CFA**

Chief Financial Officer and  
Senior Vice-President, Finance



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**VICTOR C. DAREL, CPA, CA**

Vice-President, Finance and Principal  
Accounting Officer

Calgary, Alberta, Canada  
March 1, 2023

# Management's Assessment of Internal Control over Financial Reporting

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Management of Canadian Natural Resources Limited (the "Company") is responsible for establishing and maintaining adequate internal control over financial reporting for the Company as defined in Rules 13a-15(f) and 15d-15(f) under the United States Securities Exchange Act of 1934, as amended.

Management, including the Company's President and the Company's Chief Financial Officer and Senior Vice-President, Finance, performed an assessment of the Company's internal control over financial reporting based on the criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO").

Based on the assessment, management has concluded that the Company's internal control over financial reporting was effective as at December 31, 2022. Management recognizes that all internal control systems have inherent limitations. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

PricewaterhouseCoopers LLP, an independent firm of Chartered Professional Accountants, has provided an opinion on the Company's internal control over financial reporting as at December 31, 2022, as stated in their accompanying Report of Independent Registered Public Accounting Firm.



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**TIM S. MCKAY**

President



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**MARK A. STAINTHORPE, CFA**

Chief Financial Officer and  
Senior Vice-President, Finance

Calgary, Alberta, Canada

March 1, 2023

# Report of Independent Registered Public Accounting Firm

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## To the Shareholders and Board of Directors of Canadian Natural Resources Limited

### Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Canadian Natural Resources Limited and its subsidiaries (together, the “Company”) as of December 31, 2022 and 2021, and the related consolidated statements of earnings (loss), comprehensive income (loss), changes in equity and cash flows for each of the three years in the period ended December 31, 2022, including the related notes (collectively referred to as the “consolidated financial statements”). We also have audited the Company’s internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and its financial performance and its cash flows for each of the three years in the period ended December 31, 2022 in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control – Integrated Framework (2013) issued by the COSO.

### Basis for Opinions

The Company’s management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management’s Assessment of Internal Control over Financial Reporting. Our responsibility is to express opinions on the Company’s consolidated financial statements and on the Company’s internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (“PCAOB”) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

### Definition and Limitations of Internal Control over Financial Reporting

A company’s internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company’s internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company’s assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

## Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that (i) relates to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

### *The Impact of Crude Oil and Natural Gas Reserves on Property, Plant and Equipment Assets in the North America Exploration and Production Segment*

As described in Notes 1, 4 and 7 to the Company's consolidated financial statements, the property, plant and equipment ("PP&E") balance in the North America Exploration and Production segment was \$25.2 billion as of December 31, 2022. Depletion, depreciation and amortization ("DD&A") expense for the North America Exploration and Production segment was \$3.5 billion for the year ended December 31, 2022. In accordance with the Company's accounting policies, crude oil and natural gas properties in the North America Exploration and Production segment, excluding certain major components, are depleted using the unit-of-production method based on proved reserves. Estimates of the Company's crude oil and natural gas reserves are based on estimated future prices and production costs, expected future rates of production and the timing and amount of future development expenditures. Management utilizes third party specialists, specifically independent qualified reserve evaluators, to evaluate and review its estimates of crude oil and natural gas reserves. These estimates are utilized for the calculation of DD&A expense.

The principal considerations for our determination that performing procedures relating to the impact of crude oil and natural gas reserves on PP&E assets in the North America Exploration and Production segment is a critical audit matter are that there was a significant amount of judgment by management, including the use of specialists, when developing the estimates, specifically related to the estimates of crude oil and natural gas reserves in the North America Exploration and Production segment. This led to a high degree of auditor judgment, effort and subjectivity in performing procedures and evaluating evidence obtained related to the assumptions used in developing the estimates, including estimated future prices and production costs, expected future rates of production, and the timing and amount of future development expenditures.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of internal controls in the North America Exploration and Production segment relating to management's estimates of the Company's crude oil and natural gas reserves and the calculation of DD&A expense. The work of management's specialists was used in performing the procedures to evaluate the reasonableness of the estimates of crude oil and natural gas reserves used to determine DD&A expense for the North America Exploration and Production segment. As a basis for using this work, the specialists' qualifications were understood, and the Company's relationship with the specialists was assessed. The procedures performed also included evaluation of the methods and assumptions used by the specialists, tests of data used by the specialists and an evaluation of the specialists' findings. The procedures performed also included, among other, evaluating whether the assumptions used by management's specialists related to estimated future prices and production costs, expected future rates of production, and the timing and amount of future development expenditures were reasonable considering the current and past performance of the Company, consistency with industry pricing forecasts, and whether they were consistent with evidence obtained in other areas of the audit, as applicable. Additionally, these procedures also included testing the unit-of-production rates used to calculate DD&A expense.

*PricewaterhouseCoopers LLP*

Chartered Professional Accountants

Calgary, Canada

March 1, 2023

We have served as the Company's auditor since 1973.

# Consolidated Balance Sheets

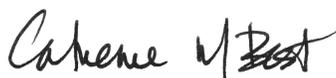
As at December 31,

(millions of Canadian dollars)

	Note	2022	2021
<b>ASSETS</b>			
<b>Current assets</b>			
Cash and cash equivalents		\$ 920	\$ 744
Accounts receivable		3,555	3,111
Inventory	5	1,815	1,548
Prepays and other		215	195
Investments	9	491	309
Current portion of other long-term assets	10	61	35
		<b>7,057</b>	5,942
<b>Exploration and evaluation assets</b>	6	<b>2,226</b>	2,250
<b>Property, plant and equipment</b>	7	<b>64,859</b>	66,400
<b>Lease assets</b>	8	<b>1,447</b>	1,508
<b>Other long-term assets</b>	10	<b>553</b>	565
		<b>\$ 76,142</b>	\$ 76,665
<b>LIABILITIES</b>			
<b>Current liabilities</b>			
Accounts payable		\$ 1,341	\$ 803
Accrued liabilities		4,209	3,064
Current income taxes payable		1,324	1,607
Current portion of long-term debt	11	404	1,000
Current portion of other long-term liabilities	8,12	1,373	948
		<b>8,651</b>	7,422
<b>Long-term debt</b>	11	<b>11,041</b>	13,694
<b>Other long-term liabilities</b>	8,12	<b>8,161</b>	8,384
<b>Deferred income taxes</b>	13	<b>10,114</b>	10,220
		<b>37,967</b>	39,720
<b>SHAREHOLDERS' EQUITY</b>			
<b>Share capital</b>	14	<b>10,294</b>	10,168
<b>Retained earnings</b>		<b>27,672</b>	26,778
<b>Accumulated other comprehensive income (loss)</b>	15	<b>209</b>	(1)
		<b>38,175</b>	36,945
		<b>\$ 76,142</b>	\$ 76,665

Commitments and contingencies (note 20).

Approved by the Board of Directors on March 1, 2023.



**CATHERINE M. BEST**

Chair of the Audit Committee  
and Director



**N. MURRAY EDWARDS**

Executive Chairman of the Board  
of Directors and Director

## Consolidated Statements of Earnings (Loss)

For the years ended December 31,

(millions of Canadian dollars, except per common share amounts)	Note	2022	2021	2020
Product sales	22	\$ 49,530	\$ 32,854	\$ 17,491
Less: royalties		(7,232)	(2,797)	(598)
<b>Revenue</b>		<b>42,298</b>	<b>30,057</b>	<b>16,893</b>
<b>Expenses</b>				
Production		8,712	7,152	6,280
Transportation, blending and feedstock		9,973	6,604	4,498
Depletion, depreciation and amortization	7,8	7,353	5,724	6,046
Administration		415	366	391
Share-based compensation	12	804	514	(82)
Asset retirement obligation accretion	12	281	185	205
Interest and other financing expense	18	549	711	756
Risk management activities	19	(35)	36	(7)
Foreign exchange loss (gain)		738	(127)	(275)
Gain on acquisitions	7	—	(478)	(217)
Income from North West Redwater Partnership	10	—	(400)	—
(Gain) loss from investments	9,10	(196)	(141)	171
		<b>28,594</b>	<b>20,146</b>	<b>17,766</b>
<b>Earnings (loss) before taxes</b>		<b>13,704</b>	<b>9,911</b>	<b>(873)</b>
Current income tax expense (recovery)	13	2,906	1,848	(257)
Deferred income tax (recovery) expense	13	(139)	399	(181)
<b>Net earnings (loss)</b>		<b>\$ 10,937</b>	<b>\$ 7,664</b>	<b>\$ (435)</b>
<b>Net earnings (loss) per common share</b>				
Basic	17	\$ 9.64	\$ 6.49	\$ (0.37)
Diluted	17	\$ 9.52	\$ 6.46	\$ (0.37)

## Consolidated Statements of Comprehensive Income (Loss)

For the years ended December 31,

(millions of Canadian dollars)	2022	2021	2020
<b>Net earnings (loss)</b>	<b>\$ 10,937</b>	<b>\$ 7,664</b>	<b>\$ (435)</b>
<b>Items that may be reclassified subsequently to net earnings (loss)</b>			
<b>Net change in derivative financial instruments designated as cash flow hedges</b>			
Unrealized income, net of taxes of \$1 million (2021 – \$2 million, 2020 – \$2 million)	4	15	13
Reclassification to net earnings (loss), net of taxes of \$1 million (2021 – \$1 million, 2020 – \$2 million)	(6)	(7)	(15)
	(2)	8	(2)
<b>Foreign currency translation adjustment</b>			
Translation of net investment	212	(17)	(24)
<b>Other comprehensive income (loss), net of taxes</b>	<b>210</b>	<b>(9)</b>	<b>(26)</b>
<b>Comprehensive income (loss)</b>	<b>\$ 11,147</b>	<b>\$ 7,655</b>	<b>\$ (461)</b>

# Consolidated Statements of Changes in Equity

For the years ended December 31,

(millions of Canadian dollars)

	Note	2022	2021	2020
<b>Share capital</b>	14			
Balance – beginning of year		\$ 10,168	\$ 9,606	\$ 9,533
Issued upon exercise of stock options		442	707	108
Previously recognized liability on stock options exercised for common shares		387	139	21
Purchase of common shares under Normal Course Issuer Bid		(703)	(284)	(56)
Balance – end of year		10,294	10,168	9,606
<b>Retained earnings</b>				
Balance – beginning of year		26,778	22,766	25,424
Net earnings (loss)		10,937	7,664	(435)
Dividends on common shares	14	(5,175)	(2,355)	(2,008)
Purchase of common shares under Normal Course Issuer Bid	14	(4,868)	(1,297)	(215)
Balance – end of year		27,672	26,778	22,766
<b>Accumulated other comprehensive income (loss)</b>	15			
Balance – beginning of year		(1)	8	34
Other comprehensive income (loss), net of taxes		210	(9)	(26)
Balance – end of year		209	(1)	8
<b>Shareholders' equity</b>		\$ 38,175	\$ 36,945	\$ 32,380

# Consolidated Statements of Cash Flows

For the years ended December 31,

(millions of Canadian dollars)	Note	2022	2021	2020
<b>Operating activities</b>				
Net earnings (loss)		\$ 10,937	\$ 7,664	\$ (435)
Non-cash items				
Depletion, depreciation and amortization	7	7,353	5,724	6,046
Share-based compensation		804	514	(82)
Asset retirement obligation accretion		281	185	205
Unrealized risk management (gain) loss		(28)	19	(39)
Unrealized foreign exchange loss (gain)		852	(205)	(116)
Gain on acquisitions		—	(478)	(217)
(Gain) loss from investments		(182)	(132)	185
Deferred income tax (recovery) expense		(139)	399	(181)
Realized foreign exchange (gain) loss <sup>(1)</sup>		(62)	118	(166)
Proceeds on settlement of cross currency swap		89	—	—
Other		(144)	13	(71)
Abandonment expenditures	12	(449)	(307)	(249)
Net change in non-cash working capital	21	79	964	(166)
Cash flows from operating activities		19,391	14,478	4,714
<b>Financing activities</b>				
(Repayment) issue of bank credit facilities and commercial paper, net	11,21	(1,156)	(6,151)	338
Repayment of medium-term notes	11,21	(1,498)	—	(1,100)
(Repayment) issue of US dollar debt securities	11,21	(1,356)	(628)	1,481
Settlement of long-term debt acquired	7	—	(183)	(397)
Proceeds on settlement of cross currency swaps		69	—	166
Payment of lease liabilities	8	(232)	(209)	(225)
Issue of common shares on exercise of stock options	14	442	707	108
Dividends on common shares		(4,926)	(2,170)	(1,950)
Purchase of common shares under Normal Course Issuer Bid	14	(5,571)	(1,581)	(271)
Cash flows used in financing activities		(14,228)	(10,215)	(1,850)
<b>Investing activities</b>				
Net expenditures on exploration and evaluation assets	6,22	(33)	(1)	(5)
Net expenditures on property, plant and equipment	7,22	(5,103)	(4,492)	(2,555)
Proceeds from investment	9	—	128	—
Repayment of North West Redwater Partnership subordinated debt advances	10	—	555	124
Net change in non-cash working capital	21	149	107	(383)
Cash flows used in investing activities		(4,987)	(3,703)	(2,819)
<b>Increase in cash and cash equivalents</b>		176	560	45
<b>Cash and cash equivalents – beginning of year</b>		744	184	139
<b>Cash and cash equivalents – end of year</b>		\$ 920	\$ 744	\$ 184
<b>Interest paid on long-term debt, net</b>		\$ 613	\$ 672	\$ 745
<b>Income taxes paid (received)</b>		\$ 3,057	\$ (62)	\$ (29)

(1) Consists of the realized foreign exchange gain on settlement of cross currency swaps in 2022 and 2020, and the realized foreign exchange loss on repayment of US dollar debt securities in 2022 and 2021.

# Notes to the Consolidated Financial Statements

(tabular amounts in millions of Canadian dollars, unless otherwise stated)

## 1. Accounting Policies

Canadian Natural Resources Limited (the "Company") is a senior independent crude oil and natural gas exploration, development and production company. The Company's exploration and production operations are focused in North America, largely in Western Canada; the United Kingdom ("UK") portion of the North Sea; and Côte d'Ivoire and South Africa in Offshore Africa.

The "Oil Sands Mining and Upgrading" segment produces synthetic crude oil through bitumen mining and upgrading operations at Horizon Oil Sands ("Horizon") and through the Company's direct and indirect interest in the Athabasca Oil Sands Project ("AOSP").

Within Western Canada, in the "Midstream and Refining" segment, the Company maintains certain activities that include pipeline operations, an electricity co-generation system and an investment in the North West Redwater Partnership ("NWRP"), a general partnership formed to upgrade and refine bitumen in the Province of Alberta.

The Company was incorporated in Alberta, Canada. The address of its registered office is 2100, 855 - 2 Street S.W., Calgary, Alberta, Canada.

The Company's consolidated financial statements and the related notes have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB"). The accounting policies adopted by the Company under IFRS are set out below. The Company has consistently applied the same accounting policies throughout all periods presented, except where IFRS permits new accounting standards to be adopted prospectively. Changes in the Company's accounting policies are discussed in note 2.

### (A) PRINCIPLES OF CONSOLIDATION

The consolidated financial statements have been prepared under the historical cost basis, unless otherwise required.

The consolidated financial statements include the accounts of the Company and all of its subsidiary companies and wholly owned partnerships. Subsidiaries include all entities over which the Company has control. Subsidiaries are consolidated from the date on which the Company obtains control. They are deconsolidated from the date that control ceases.

Certain of the Company's activities are conducted through joint arrangements in which two or more parties have joint control. Where the Company has determined that it has a direct ownership interest in jointly controlled assets and obligations for the liabilities (a "joint operation"), the assets, liabilities, revenue and expenses related to the joint operation are included in the consolidated financial statements in proportion to the Company's interest. Where the Company has determined that it has an interest in jointly controlled entities (a "joint venture"), it uses the equity method of accounting. Under the equity method, the Company's initial and subsequent investments are recognized at cost and subsequently adjusted for the Company's share of the joint venture's income or loss, less distributions received. If the Company's share of the joint venture's loss equals or exceeds its interest in the joint venture, the Company discontinues recognizing its share of further losses. The Company resumes recognizing profits when its share of profits exceeds the accumulated share of losses not recognized.

Joint ventures accounted for using the equity method of accounting are tested for impairment whenever objective evidence indicates that the carrying amount of the investment may not be recoverable. Indications of impairment include a history of losses, significant capital expenditure overruns, liquidity concerns, financial restructuring of the investee or significant adverse changes in the technological, economic or legal environment. The amount of the impairment is measured as the difference between the carrying amount of the investment and the higher of its fair value less costs of disposal and its value in use. Impairment losses are reversed in subsequent periods if the amount of the loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognized.

### (B) SEGMENTED INFORMATION

Operating segments have been determined based on the nature of the Company's activities and the geographic locations in which the Company operates, and are consistent with the level of information regularly provided to and reviewed by the Company's chief operating decision makers.

### (C) CASH AND CASH EQUIVALENTS

Cash comprises cash on hand and demand deposits. Other investments (term deposits and certificates of deposit) with an original term to maturity at purchase of three months or less are reported as cash equivalents in the consolidated balance sheets.

## **(D) INVENTORY**

Inventory is primarily comprised of product inventory, materials and supplies and other inventory, including emissions credits, and is carried at the lower of cost and net realizable value. Product inventory is comprised of crude oil held for sale, including pipeline linefill and crude oil stored in floating production, storage and offloading vessels ("FPSO"). Cost of product inventory consists of purchase costs, direct production costs, directly attributable overhead and depletion, depreciation and amortization and is determined on a first-in, first-out basis. Net realizable value for product inventory is determined by reference to forward prices. Cost for materials and supplies consists of purchase costs and is based on a first-in, first-out or an average cost basis. Net realizable value for materials and supplies and other inventory is determined by reference to current market prices. Emissions credit inventory generated in the normal course of business is initially measured in accordance with the Company's accounting policy for government grants.

## **(E) EXPLORATION AND EVALUATION ASSETS**

Exploration and evaluation ("E&E") assets consist of the Company's crude oil and natural gas exploration projects that are pending the determination of proved reserves.

E&E costs are initially capitalized and include costs directly associated with the acquisition of licenses, technical services and studies, seismic acquisition, exploration drilling and evaluation, overhead and administration expenses, and the estimate of any asset retirement costs. E&E costs do not include general prospecting or evaluation costs incurred prior to having obtained the legal rights to explore an area. These costs are recognized in net earnings.

Once the technical feasibility and commercial viability of E&E assets are determined and a development decision is made by management, the E&E assets are tested for impairment upon reclassification to property, plant and equipment. The technical feasibility and commercial viability of extracting a mineral resource is considered to be determined when an assessment of proved reserves is made. An E&E asset is derecognized upon disposal or when no future economic benefits are expected to arise from its use. Any gain or loss arising on derecognition of the asset is recognized in net earnings within depletion, depreciation and amortization.

E&E assets are also tested for impairment when facts and circumstances suggest that the carrying amount of E&E assets may exceed their recoverable amount, by comparing the relevant costs to the fair value of the related Cash Generating Units ("CGUs"), aggregated at a segment level. Indications of impairment include leases approaching expiry, the existence of low benchmark commodity prices for an extended period of time, significant downward revisions in estimated probable reserves volumes, significant increases in estimated future exploration or development expenditures, or significant adverse changes in the applicable legislative or regulatory frameworks.

## **(F) PROPERTY, PLANT AND EQUIPMENT**

Property, plant and equipment is measured at cost less accumulated depletion and depreciation and impairment provisions. Assets under construction are not depleted or depreciated until available for their intended use.

### **Exploration and Production**

The cost of an asset comprises its acquisition costs, construction and development costs, costs directly attributable to bringing the asset into operation, the estimate of any asset retirement costs, and applicable borrowing costs. Property acquisition costs are comprised of the aggregate amount paid and the fair value of any other consideration given to acquire the asset.

When significant components of an item of property, plant and equipment, including crude oil and natural gas interests, have different useful lives, they are accounted for separately.

Crude oil and natural gas properties are depleted using the unit-of-production method over proved reserves, except for certain major components, which are depreciated using a straight-line method over their estimated useful lives. The unit-of-production depletion rate takes into account expenditures incurred to date, together with future development expenditures required to develop proved reserves.

### **Oil Sands Mining and Upgrading**

Capitalized costs for the Oil Sands Mining and Upgrading segment are reported separately from the Company's North America Exploration and Production segment. Capitalized costs include acquisition costs, construction and development costs, costs directly attributable to bringing the asset into operation, the estimate of any asset retirement costs, and applicable borrowing costs.

Mine-related costs are depleted using the unit-of-production method based on proved reserves. Costs of the upgraders and related infrastructure located on the Horizon and AOSP sites are depreciated on the unit-of-production method based on the estimated productive capacity of the respective upgraders and related infrastructure. Other equipment is depreciated on a straight-line basis over its estimated useful life ranging from 2 to 20 years.

### **Midstream, Refining and Head Office**

The Company capitalizes all costs that expand the capacity or extend the useful life of the midstream, refining and head office assets. Midstream and Refining assets are depreciated on a straight-line basis over their estimated useful lives ranging from 5 to 30 years. Head office assets are depreciated on a declining balance basis.

## **Useful lives**

The depletion rates and expected useful lives of property, plant and equipment are reviewed on an annual basis, with changes in depletion rates and useful lives accounted for prospectively.

## **Derecognition**

A property, plant and equipment asset is derecognized upon disposal or when no future economic benefits are expected to arise from the continued use of the asset. Any gain or loss arising on derecognition of the asset (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is recognized in net earnings within depletion, depreciation and amortization.

## **Major maintenance expenditures**

Inspection costs associated with major maintenance turnarounds are capitalized and depreciated over the period to the next major maintenance turnaround. Maintenance costs are expensed as incurred.

## **Impairment**

The Company assesses property, plant and equipment for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset or group of assets may not be recoverable. Indications of impairment include the existence of low benchmark commodity prices for an extended period of time, significant downward revisions of estimated reserves volumes, significant increases in estimated future development expenditures, or significant adverse changes in the applicable legislative or regulatory frameworks. If an indication of impairment exists, the Company performs an impairment test related to the assets. Individual assets are grouped for impairment assessment purposes into CGUs, which are the lowest level at which there are identifiable cash inflows that are largely independent of the cash inflows of other groups of assets. A CGU's recoverable amount is the higher of its fair value less costs of disposal and its value in use. Where the carrying amount of a CGU exceeds its recoverable amount, the CGU is considered impaired and a recoverability charge is taken through depletion, depreciation and amortization expense.

In subsequent periods, an assessment is made at each reporting date to determine whether there is any indication that previously recognized recoverability charges may no longer exist or may have decreased. If such indication exists, the recoverable amount is re-estimated and the net carrying amount of the asset is increased to its revised recoverable amount. The revised recoverable amount cannot exceed the carrying amount that would have been determined, net of depletion, depreciation and amortization, had no recoverability charge been recognized for the asset in prior periods. A reversal of a recoverability charge is recognized in net earnings. After a reversal, the depletion, depreciation and amortization charge is adjusted in future periods to allocate the asset's revised carrying amount over its remaining useful life.

## **(G) BUSINESS COMBINATIONS**

Business combinations are accounted for using the acquisition method. Assets acquired and liabilities assumed in a business combination are recognized at their fair value at the date of the acquisition. Any excess of the consideration paid over the fair value of the net assets acquired is recognized as an asset. Any excess of the fair value of the net assets acquired over the consideration paid is recognized in net earnings.

## **(H) OVERBURDEN REMOVAL COSTS**

Overburden removal costs incurred during the initial development of a mine at Horizon and AOSP are capitalized to property, plant and equipment. Overburden removal costs incurred during the production of a mine are included in the cost of inventory, unless the overburden removal activity has resulted in a probable inflow of future economic benefits to the Company, in which case the costs are capitalized to property, plant and equipment. Capitalized overburden removal costs are depleted over the life of the mining reserves that directly benefit from the overburden removal activity.

## **(I) CAPITALIZED BORROWING COSTS**

Borrowing costs attributable to the acquisition, construction or production of qualifying assets are capitalized to the cost of those assets until such time as the assets are substantially available for their intended use. Qualifying assets are comprised of those significant assets that require a period greater than one year to be available for their intended use. All other borrowing costs are recognized in net earnings.

## **(J) LEASES**

At inception of a contract, the Company assesses whether a contract is, or contains a lease. A contract is, or contains a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. To assess whether a contract conveys the right to control the use of an identified asset, the Company assesses whether: the contract involves the use of an identified asset; the Company has the right to obtain substantially all of the economic benefits from the use of the asset throughout the period of use; and, the Company has the right to direct the use of the asset.

The Company recognizes a lease asset and a lease liability at the commencement date of the lease contract, which is the date that the lease asset is available to the Company. The lease asset is initially measured at cost. The cost of a lease asset includes the amount of the initial measurement of the lease liability, lease payments made prior to the commencement date, initial direct costs and estimates of the asset retirement obligation, if any. Subsequent to initial recognition, the lease asset is depreciated using the straight-line method over the earlier of the end of the useful life of the lease asset or the lease term.

Lease liabilities are initially measured at the present value of lease payments discounted at the rate implicit in the lease, or if not readily determinable, the Company's incremental borrowing rate. Lease payments include fixed lease payments, variable lease payments based on indices or rates, residual value guarantees, and purchase options expected to be exercised. Subsequent to initial recognition, the lease liability is measured at amortized cost using the effective interest method. Lease liabilities are remeasured if there are changes in the lease term or if the Company changes its assessment of whether it is reasonably certain it will exercise a purchase, extension or termination option. Lease liabilities are also remeasured if there are changes in the estimate of the amounts payable under the lease due to changes in indices or rates, or residual value guarantees.

Lease assets are reported in a separate caption in the consolidated balance sheet. Lease liabilities are reported within other long-term liabilities in the consolidated balance sheet.

Depreciation on lease assets used in the construction of property, plant and equipment is capitalized to the cost of those assets over their period of use until such time as the property, plant and equipment is substantially available for its intended use.

Where the Company acts as the operator of a joint operation, the Company recognizes 100% of the related lease asset and lease liability. As the Company recovers its joint operation partners' share of the costs of the lease contract, these recoveries are recognized as other income in the consolidated statements of earnings.

## **(K) ASSET RETIREMENT OBLIGATIONS**

The Company provides for asset retirement obligations on all of its property, plant and equipment and certain exploration and evaluation assets based on current legislation and industry operating practices. Provisions for asset retirement obligations related to property, plant and equipment are recognized as a liability in the period in which they are incurred. Provisions are measured at the present value of management's best estimate of expenditures required to settle the obligation as at the date of the balance sheets. Subsequent to the initial measurement, the obligation is adjusted to reflect the passage of time, changes in credit adjusted interest rates, and changes in the estimated future cash flows underlying the obligation. The increase in the provision due to the passage of time is recognized as asset retirement obligation accretion expense, whereas changes due to discount rates or estimated future cash flows are capitalized to or derecognized from property, plant and equipment. Actual costs incurred upon settlement of the asset retirement obligation are charged against the provision.

## **(L) FOREIGN CURRENCY TRANSLATION**

### **Functional and presentation currency**

Items included in the financial statements of the Company's subsidiary companies and partnerships are measured using the currency of the primary economic environment in which the subsidiary operates (the "functional currency"). The consolidated financial statements are presented in Canadian dollars, which is the Company's functional currency.

The assets and liabilities of subsidiaries that have a functional currency different from that of the Company are translated into Canadian dollars at the closing rate at the date of the balance sheets, and revenue and expenses are translated at the average rate for the period. Cumulative foreign currency translation adjustments are recognized in other comprehensive income.

When the Company disposes of its entire interest in a foreign operation, or loses control, joint control, or significant influence over a foreign operation, the foreign currency gains or losses accumulated in other comprehensive income related to the foreign operation are recognized in net earnings.

### **Transactions and balances**

Foreign currency transactions are translated into the functional currency of the Company and its subsidiaries and partnerships using the exchange rates prevailing at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of foreign currency transactions and from the translation at balance sheet date exchange rates of monetary assets and liabilities denominated in currencies other than the functional currency are recognized in net earnings.

## **(M) REVENUE RECOGNITION AND COSTS OF GOODS SOLD**

Revenue from the sale of crude oil and NGLs and natural gas products is recognized when performance obligations in the sales contract are satisfied and it is probable that the Company will collect the consideration to which it is entitled. Performance obligations are generally satisfied at the point in time when the product is delivered to a location specified in a contract and control passes to the customer. The Company assesses customer creditworthiness, both before entering into contracts and throughout the revenue recognition process.

Contracts for sale of the Company's products generally have terms of less than a year, with certain contracts extending beyond one year. Contracts in North America generally specify delivery of crude oil and NGLs and natural gas throughout the term of the contract. Contracts in the North Sea and Offshore Africa generally specify delivery of crude oil at a point in time.

Sales of the Company's crude oil and NGLs and natural gas products to customers are made pursuant to contracts based on prevailing commodity pricing at or near the time of delivery and volumes of product delivered. Revenues are typically collected in the month following delivery and accordingly, the Company has elected to apply the practical expedient to not adjust consideration for the effects of a financing component. Purchases and sales of crude oil and NGLs and natural gas with the same counterparty, made to facilitate sales to customers or potential customers, that are entered into in contemplation of one another, are combined and recorded as non-monetary exchanges and measured at the net settlement amount.

Revenue in the consolidated statement of earnings represents the Company's share of product sales net of royalty payments to governments and other mineral interest owners. The Company discloses the disaggregation of revenues from sales of crude oil and NGLs and natural gas in the segmented information in note 22. Related costs of goods sold are comprised of production, transportation, blending and feedstock, and depletion, depreciation and amortization expenses. These amounts have been separately presented in the consolidated statements of earnings.

## **(N) PRODUCTION SHARING CONTRACTS**

Production generated from Côte d'Ivoire in Offshore Africa is shared under the terms of various Production Sharing Contracts ("PSCs"). Product sales are divided into cost recovery oil and profit oil. Cost recovery oil allows the Company to recover its capital and production costs and the costs carried by the Company on behalf of the respective government state oil companies (the "Governments"). Profit oil is allocated to the joint venture partners in accordance with their respective equity interests, after a portion has been allocated to the Governments. The Governments' share of profit oil attributable to the Company's equity interest is allocated to royalty expense and current income tax expense in accordance with the terms of the respective PSCs.

## **(O) INCOME TAX**

The Company follows the liability method of accounting for income taxes. Under this method, deferred income tax assets and liabilities are recognized based on the estimated income tax effects of temporary differences in the carrying amount of assets and liabilities in the consolidated financial statements and their respective tax bases.

Deferred income tax assets and liabilities are calculated using the substantively enacted income tax rates that are expected to apply when the asset or liability is recovered. Deferred income tax assets or liabilities are not recognized when they arise on the initial recognition of an asset or liability in a transaction (other than in a business combination) that, at the time of the transaction, affects neither accounting nor taxable profit. Deferred income tax assets or liabilities are also not recognized on possible future distributions of retained earnings of subsidiaries where the timing of the distribution can be controlled by the Company and it is probable that a distribution will not be made in the foreseeable future, or when distributions can be made without incurring income taxes.

Deferred income tax assets for deductible temporary differences and tax loss carryforwards are recognized to the extent that it is probable that future taxable profits will be available against which the temporary differences or tax loss carryforwards can be utilized. The carrying amount of deferred income tax assets is reviewed at each reporting date, and is reduced if it is no longer probable that sufficient future taxable profits will be available against which the temporary differences or tax loss carryforwards can be utilized.

Current income tax is calculated based on net earnings for the period, adjusted for items that are non-taxable or taxed in different periods, using income tax rates that are substantively enacted at each reporting date. Income taxes are recognized in net earnings or other comprehensive income, consistent with the items to which they relate.

## **(P) SHARE-BASED COMPENSATION**

The Company's Stock Option Plan (the "Option Plan") provides current employees with the right to elect to receive common shares or a cash payment in exchange for stock options surrendered. The liability for awards granted to employees is initially measured based on the grant date fair value of the awards and the number of awards expected to vest. The awards are remeasured each reporting period for subsequent changes in the fair value of the liability. Fair value is determined using the Black-Scholes valuation model under a graded vesting method. Expected volatility is estimated based on historic results. When stock options are surrendered for cash, the cash settlement paid reduces the outstanding liability. When stock options are exercised for common shares under the Option Plan, consideration paid by the employee and any previously recognized liability associated with the stock options are recorded as share capital.

The Performance Share Unit ("PSU") plan provides certain executive employees of the Company with the right to receive a cash payment, the amount of which is determined by individual employee performance and the extent to which certain other performance measures are met. PSUs vest three years from original grant date. The liability for PSUs is initially measured in reference to the Company's stock price and the number of awards expected to vest and is remeasured at each reporting period for changes in the fair value of the liability.

The unamortized costs of employer contributions to the Company's share bonus program are included in other long-term assets.

## **(Q) FINANCIAL INSTRUMENTS**

The Company classifies its financial instruments into one of the following categories: financial assets at amortized cost; financial liabilities at amortized cost; and fair value through profit or loss. All financial instruments are measured at fair value on initial recognition. Measurement in subsequent periods is dependent on the classification of the respective financial instrument.

Fair value through profit or loss financial instruments are subsequently measured at fair value with changes in fair value recognized in net earnings. All other categories of financial instruments are measured at amortized cost using the effective interest method.

Cash and cash equivalents, accounts receivable and certain other long-term assets are classified as financial assets at amortized cost since it is the Company's intention to hold these assets to maturity and the related cash flows are solely comprised of payments of principal and interest. Investments in publicly traded shares are classified as fair value through profit or loss. Accounts payable, accrued liabilities, certain other long-term liabilities, and long-term debt are classified as financial liabilities at amortized cost. Risk management assets and liabilities are classified as fair value through profit or loss.

Financial assets and liabilities are also categorized using a three-level hierarchy that reflects the significance of the inputs used in making fair value measurements for these assets and liabilities. The fair values of financial assets and liabilities included in Level 1 are determined by reference to quoted prices in active markets for identical assets and liabilities. Fair values of financial assets and liabilities in Level 2 are based on inputs other than Level 1 quoted prices that are observable for the asset or liability either directly (as prices) or indirectly (derived from prices). The fair values of Level 3 financial assets and liabilities are not based on observable market data. The disclosure of the fair value hierarchy excludes financial assets and liabilities where book value approximates fair value due to the liquid nature of the asset or liability.

Transaction costs in respect of financial instruments at fair value through profit or loss are recognized in net earnings. Transaction costs in respect of other financial instruments are included in the initial measurement of the financial instrument.

### **Impairment of financial assets**

At each reporting date, on a forward looking basis, the Company assesses the expected credit losses associated with its financial assets carried at amortized cost. Expected credit losses are measured as the difference between the cash flows that are due to the Company and the cash flows that the Company expects to receive, discounted at the effective interest rate determined at initial recognition. For trade accounts receivable, the Company applies the simplified approach permitted by IFRS 9, which requires expected lifetime credit losses to be recognized from initial recognition of the receivables. To measure expected credit losses, accounts receivable are grouped based on the number of days the receivables have been outstanding and internal credit assessments of the customers. Credit risk for longer-term receivables is assessed based on an external credit rating of the counterparty. For longer-term receivables with credit risk that has not increased significantly since the date of recognition, the Company measures the expected credit loss as the 12-month expected credit loss. Changes in the provision for expected credit loss are recognized in net earnings.

## **(R) RISK MANAGEMENT ACTIVITIES**

The Company periodically uses derivative financial instruments to manage its commodity price, foreign currency and interest rate exposures. These financial instruments are entered into solely for hedging purposes and are not used for speculative purposes. All derivative financial instruments are recognized in the consolidated balance sheets at their estimated fair value. The estimated fair value of derivative financial instruments has been determined based on appropriate internal valuation methodologies and/or third party indications. Fair values determined using valuation models require the use of assumptions concerning the amount and timing of future cash flows, discount rates and credit risk. In determining these assumptions, the Company primarily relied on external, readily-observable market inputs including quoted commodity prices and volatility, interest rate yield curves, and foreign exchange rates. The carrying amount of a risk management liability is adjusted for the Company's own credit risk.

The Company documents all derivative financial instruments that are formally designated as hedging transactions at the inception of the hedging relationship, in accordance with the Company's risk management policies. The effectiveness of the hedging relationship is evaluated, both at inception of the hedge and on an ongoing basis.

The Company periodically enters into commodity price contracts to manage anticipated sales and purchases of crude oil and natural gas in order to protect its cash flow for its capital expenditure programs. The effective portion of changes in the fair value of derivative commodity price contracts formally designated as cash flow hedges is initially recognized in other comprehensive income and is reclassified to risk management activities in net earnings in the same period or periods in which the commodity is sold or purchased. The ineffective portion of changes in the fair value of these designated contracts is recognized in risk management activities in net earnings. All changes in the fair value of non-designated crude oil and natural gas commodity price contracts are recognized in risk management activities in net earnings.

The Company periodically enters into interest rate swap contracts to manage its fixed to floating interest rate mix on certain long-term debt instruments. The interest rate swap contracts require the periodic exchange of payments without the exchange of the notional principal amounts on which the payments are based. Changes in the fair value of interest rate swap contracts designated as fair value hedges and corresponding changes in the fair value of the hedged long-term debt are recognized in interest expense in net earnings. Changes in the fair value of non-designated interest rate swap contracts are recognized in risk management activities in net earnings.

Upon termination of an interest rate swap designated as a fair value hedge, the interest rate swap is derecognized in the consolidated balance sheets and the related long-term debt hedged is no longer revalued for subsequent changes in fair value due to interest rates changes. The fair value adjustment due to interest rates on the long-term debt at the date of termination of the interest rate swap is amortized to interest expense over the remaining term of the long-term debt.

Cross currency swap contracts are periodically used to manage currency exposure on US dollar denominated long-term debt. The cross currency swap contracts require the periodic exchange of payments with the exchange at maturity of notional principal amounts on which the payments are based. Changes in the fair value of the foreign exchange component of cross currency swap contracts designated as cash flow hedges related to the notional principal amounts are recognized in foreign exchange gains and losses in net earnings. The effective portion of changes in the fair value of the interest rate component of cross currency swap contracts designated as cash flow hedges is initially recognized in other comprehensive income and is reclassified to interest expense when the hedged item is recognized in net earnings, with the ineffective portion recognized in risk management activities in net earnings. Changes in the fair value of non-designated cross currency swap contracts are recognized in risk management activities in net earnings.

Realized gains or losses on the termination of financial instruments that have been designated as cash flow hedges are deferred under accumulated other comprehensive income and amortized into net earnings in the periods in which the underlying hedged items are recognized. In the event a designated hedged item is sold, extinguished or matures prior to the termination of the related derivative instrument, any unrealized derivative gain or loss is recognized in net earnings. Realized gains or losses on the termination of financial instruments that have not been designated as hedges are recognized in net earnings.

Foreign currency forward contracts are periodically used to manage foreign currency cash requirements. The foreign currency forward contracts involve the purchase or sale of an agreed upon amount of US dollars at a specified future date at forward exchange rates. Changes in the fair value of foreign currency forward contracts designated as cash flow hedges are initially recorded in other comprehensive income and are reclassified to foreign exchange gains and losses when the hedged item is recognized in net earnings. Changes in the fair value of non-designated foreign currency forward contracts are recognized in risk management activities in net earnings.

Embedded derivatives are derivatives that are included in a non-derivative host contract. Embedded derivatives are recorded at fair value separately from the host contract when their economic characteristics and risks are not clearly and closely related to the host contract, except when the host contract is an asset.

## **(S) GOVERNMENT GRANTS**

The Company receives or is eligible for government grants, including emissions credits and grants introduced in response to the impact of the novel coronavirus ("COVID-19"). Government grants are recognized in net earnings when there is reasonable assurance that the Company will comply with the conditions attached to the grant and the grant will be received. Emissions performance and offset credits generated under the Alberta Technology Innovation and Emissions Reduction ("TIER") regulation are initially recorded at the value prescribed by the Alberta TIER fund compliance rates in effect at the time the credits are recognized.

## **(T) COMPREHENSIVE INCOME (LOSS)**

Comprehensive income (loss) is comprised of the Company's net earnings (loss) and other comprehensive income (loss). Other comprehensive income (loss) includes the effective portion of changes in the fair value of derivative financial instruments designated as cash flow hedges and foreign currency translation gains and losses arising from the net investment in foreign operations that do not have a Canadian dollar functional currency. Other comprehensive income (loss) is shown net of related income taxes.

## **(U) PER COMMON SHARE AMOUNTS**

The Company calculates basic earnings (loss) per common share by dividing net earnings (loss) by the weighted average number of common shares outstanding during the period. As the Company's Option Plan allows for the settlement of stock options in either cash or shares at the option of the holder, diluted earnings per common share is calculated using the more dilutive of cash settlement or share settlement under the treasury stock method.

## **(V) SHARE CAPITAL**

Common shares are classified as equity. Costs directly attributable to the issue of new shares or options are included in equity as a deduction from proceeds, net of tax. When the Company acquires its own common shares, share capital is reduced by the average carrying value of the shares purchased. The excess of the purchase price over the average carrying value is recognized as a reduction of retained earnings. Shares are cancelled upon purchase.

## **(W) DIVIDENDS**

Dividends on common shares are recognized in the Company's financial statements in the period in which the dividends are declared by the Board of Directors.

## 2. Changes in Accounting Policies

In May 2020, the IASB issued amendments to IAS 16 "Property, Plant and Equipment" to require proceeds received from selling items produced while the entity is preparing the asset for its intended use to be recognized in net earnings, rather than as a reduction in the cost of the asset. The amendments were adopted January 1, 2022 and did not have a significant impact on the Company's consolidated financial statements.

## 3. Accounting Standards Issued But Not Yet Applied

In May 2021, the IASB issued amendments to IAS 12 "Income Taxes" to require companies to recognize deferred tax on particular transactions that, on initial recognition, give rise to equal amounts of taxable and deductible temporary differences. The amendments are effective January 1, 2023 with early adoption permitted. The amendments will be adopted January 1, 2023 and the Company is assessing the impact on the Company's consolidated financial statements.

In February 2021 the IASB issued amendments to IAS 1 to require entities to disclose their material accounting policy information rather than their significant accounting policies. To support this amendment the IASB also amended IFRS Practice Statement 2 "Making Materiality Judgements". The amendments will be adopted January 1, 2023 and the Company is assessing the impact on the Company's consolidated financial statements.

In January 2020, the IASB issued amendments to IAS 1 "Presentation of Financial Statements" to clarify that liabilities are classified as either current or non-current, depending on the existence of the substantive right at the end of the reporting period for an entity to defer settlement of the liability for at least twelve months after the reporting period. In October 2022, the IASB issued further amendments to specify that the classification of debt as current or non-current at the reporting date is not affected by covenants to be complied with after the reporting date, and added disclosure requirements about these covenants. All amendments are effective January 1, 2024 with early adoption permitted. The amendments are required to be adopted retrospectively. The Company is assessing the impact of all amendments on its consolidated financial statements.

## 4. Critical Accounting Estimates and Judgements

The Company has made estimates, assumptions and judgements regarding certain assets, liabilities, revenues and expenses in the preparation of the consolidated financial statements, primarily related to unsettled transactions and events as of the date of the consolidated financial statements. Accordingly, actual results may differ from estimated amounts. The estimates, assumptions and judgements that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are addressed below.

### (A) CRUDE OIL AND NATURAL GAS RESERVES

Purchase price allocations, depletion, depreciation and amortization, asset retirement obligations, and amounts used in impairment calculations are based on estimates of crude oil and natural gas reserves. Reserves estimates are based on estimated future prices and production costs, expected future rates of production, and the timing and amount of future development expenditures, all of which are subject to many uncertainties, interpretations and judgements including the potential impact of climate related matters and in accordance with related government regulations. The Company expects that, over time, its reserves estimates will be revised upward or downward based on updated information.

### (B) ASSET RETIREMENT OBLIGATIONS

The Company provides for asset retirement obligations on its property, plant and equipment based on current legislation and operating practices. Estimated future costs include assumptions of dates of future abandonment and technological advances and estimates of future inflation rates and discount rates. Actual costs may vary from the estimated provision due to changes in environmental legislation, the impact of inflation, changes in technology, changes in operating practices, changes in the date of abandonment due to changes in reserves life, and the potential impact of climate related matters and in accordance with related government regulations. These differences may have a material impact on the estimated provision.

### (C) INCOME TAXES

The Company is subject to income taxes in numerous legal jurisdictions. Accounting for income taxes requires the Company to interpret frequently changing laws and regulations, including changing income tax rates, and make certain judgements with respect to the application of tax law, estimating the timing of temporary difference reversals, and estimating the realizability of tax assets. There are many transactions and calculations for which the ultimate tax determination is uncertain. The Company recognizes a liability for a tax filing position based on its assessment of the probability that additional taxes may ultimately be due.

## **(D) FAIR VALUE OF DERIVATIVES AND OTHER FINANCIAL INSTRUMENTS**

The fair value of financial instruments that are not traded in an active market is determined using valuation techniques. The Company uses its judgement to select a variety of methods and make assumptions that are primarily based on market conditions existing at the end of each reporting period. The Company uses directly and indirectly observable inputs in measuring the value of financial instruments that are not traded in active markets, including quoted commodity prices and volatility, interest rate yield curves and foreign exchange rates.

## **(E) PURCHASE PRICE ALLOCATIONS**

Purchase prices related to business combinations are allocated to the underlying acquired assets and liabilities based on their estimated fair value at the time of acquisition. The determination of fair value requires the Company to make estimates, assumptions and judgements regarding future events. The allocation process is inherently subjective and impacts the amounts assigned to individually identifiable assets and liabilities, including the fair value of crude oil and natural gas properties together with deferred income tax effects. As a result, the purchase price allocation impacts the Company's reported assets and liabilities and future net earnings due to the impact on future depletion, depreciation, and amortization expense and impairment tests.

## **(F) SHARE-BASED COMPENSATION**

The Company has made various assumptions in estimating the fair values of stock options granted under its Option Plan, including expected volatility, expected exercise timing and future forfeiture rates. At each period end, stock options outstanding are remeasured for changes in the estimated fair value of the liability.

## **(G) IDENTIFICATION OF CGUs**

CGUs are defined as the lowest grouping of integrated assets that generate identifiable cash inflows that are largely independent of the cash inflows of other assets or groups of assets. The classification of assets into CGUs requires significant judgement and interpretations with respect to the integration between assets, the existence of active markets, shared infrastructures, and the way in which management monitors the Company's operations.

## **(H) IMPAIRMENT OF ASSETS**

The recoverable amount of a CGU or an individual asset has been determined as the higher of the CGUs' or the assets' fair value less costs of disposal and its value in use. These calculations require the use of estimates and assumptions and are subject to change as new information becomes available, including information on future commodity prices, expected production volumes, quantity of reserves, asset retirement obligations, future development and operating costs, after-tax discount rates (currently ranging from 10% to 12%), and income taxes. Changes in assumptions used in determining the recoverable amount could affect the carrying value of the related assets and CGUs.

## **(I) LEASES**

Purchase, extension and termination options are included in certain of the Company's leases to provide operational flexibility. To measure the lease liability, the Company uses judgement to assess the likelihood of exercising these options. These assessments are reviewed when significant events or circumstances indicate that the likelihood of exercising these options may have changed. The Company also uses estimates to determine its incremental borrowing costs if the interest rate implicit in the lease is not readily determinable.

## **(J) CONTINGENCIES**

Contingencies are subject to measurement uncertainty as the related financial impact will only be confirmed by the outcome of a future event. The assessment of contingencies requires the application of judgements and estimates including the determination of whether a present obligation exists and the reliable estimation of the timing and amount of cash flows required to settle the contingency.

## **(K) IMPACT OF COVID-19**

For the year ended December 31, 2022, COVID-19 continued to have an impact on the global economy, including the oil and gas industry. Business conditions in 2022 continued to reflect the market uncertainty associated with COVID-19. The Company has taken into account the impacts of COVID-19 and the unique circumstances it has created in making estimates, assumptions and judgements in the preparation of these consolidated financial statements, and continues to monitor the developments in the business environment and commodity market. Actual results may differ from estimated amounts, and those differences may be material.

## 5. Inventory

	2022	2021
Product inventory	\$ 611	\$ 535
Materials, supplies and other	1,204	1,013
	<b>\$ 1,815</b>	<b>\$ 1,548</b>

During 2022, approximately \$33 billion of purchased and produced inventory was recorded as expense (2021 - approximately \$22 billion).

## 6. Exploration and Evaluation Assets

	Exploration and Production			Oil Sands Mining and Upgrading	Total
	North America	North Sea	Offshore Africa		
<b>Cost</b>					
At December 31, 2020	\$ 2,101	\$ —	\$ 83	\$ 252	2,436
Additions/Acquisitions (note 7)	30	—	8	—	38
Transfers to property, plant and equipment	(73)	—	—	(150)	(223)
Derecognitions and other	(1)	—	—	—	(1)
At December 31, 2021	2,057	—	91	102	2,250
Additions/Acquisitions	41	—	5	—	46
Transfers to property, plant and equipment	(71)	—	—	—	(71)
Derecognitions and other	(1)	—	—	—	(1)
Foreign exchange adjustments	—	—	2	—	2
At December 31, 2022	<b>\$ 2,026</b>	<b>\$ —</b>	<b>\$ 98</b>	<b>\$ 102</b>	<b>2,226</b>

## 7. Property, Plant and Equipment

	Exploration and Production			Oil Sands Mining and Upgrading	Midstream and Refining	Head Office	Total
	North America	North Sea	Offshore Africa				
<b>Cost</b>							
At December 31, 2020	\$ 73,997	\$ 7,283	\$ 3,963	\$ 45,710	\$ 457	\$ 485	\$ 131,895
Additions/Acquisitions	4,146	208	48	1,526	9	23	5,960
Transfers from exploration and evaluation assets	73	—	—	150	—	—	223
Derecognitions <sup>(1)</sup>	(382)	3	—	(530)	—	—	(909)
Foreign exchange adjustments and other	—	(56)	(31)	—	—	—	(87)
At December 31, 2021	77,834	7,438	3,980	46,856	466	508	137,082
Additions/Acquisitions	<b>3,564</b>	<b>304</b>	<b>75</b>	<b>1,380</b>	<b>8</b>	<b>25</b>	<b>5,356</b>
Transfers from exploration and evaluation assets	<b>71</b>	—	—	—	—	—	<b>71</b>
Derecognitions <sup>(1)</sup>	<b>(394)</b>	<b>(1)</b>	—	<b>(469)</b>	—	—	<b>(864)</b>
Disposals	—	—	—	<b>(35)</b>	—	—	<b>(35)</b>
Foreign exchange adjustments and other	—	<b>517</b>	<b>277</b>	—	—	<b>3</b>	<b>797</b>
At December 31, 2022	<b>\$ 81,075</b>	<b>\$ 8,258</b>	<b>\$ 4,332</b>	<b>\$ 47,732</b>	<b>\$ 474</b>	<b>\$ 536</b>	<b>\$ 142,407</b>
<b>Accumulated depletion and depreciation</b>							
At December 31, 2020	\$ 49,641	\$ 5,853	\$ 2,822	\$ 7,289	\$ 168	\$ 370	\$ 66,143
Expense	3,468	149	118	1,733	15	25	5,508
Derecognitions <sup>(1)</sup>	(382)	3	—	(530)	—	—	(909)
Foreign exchange adjustments and other	5	(54)	(17)	7	—	(1)	(60)
At December 31, 2021	52,732	5,951	2,923	8,499	183	394	70,682
Expense	<b>3,502</b>	<b>117</b>	<b>148</b>	<b>1,684</b>	<b>15</b>	<b>23</b>	<b>5,489</b>
Derecognitions <sup>(1)</sup>	<b>(394)</b>	<b>(1)</b>	—	<b>(469)</b>	—	—	<b>(864)</b>
Disposals	—	—	—	<b>(2)</b>	—	—	<b>(2)</b>
Recoverability charge	—	<b>1,620</b>	—	—	—	—	<b>1,620</b>
Foreign exchange adjustments and other	<b>(5)</b>	<b>419</b>	<b>206</b>	—	—	<b>3</b>	<b>623</b>
At December 31, 2022	<b>\$ 55,835</b>	<b>\$ 8,106</b>	<b>\$ 3,277</b>	<b>\$ 9,712</b>	<b>\$ 198</b>	<b>\$ 420</b>	<b>\$ 77,548</b>
<b>Net book value</b>							
<b>At December 31, 2022</b>	<b>\$ 25,240</b>	<b>\$ 152</b>	<b>\$ 1,055</b>	<b>\$ 38,020</b>	<b>\$ 276</b>	<b>\$ 116</b>	<b>\$ 64,859</b>
At December 31, 2021	\$ 25,102	\$ 1,487	\$ 1,057	\$ 38,357	\$ 283	\$ 114	\$ 66,400

(1) An asset is derecognized when no future economic benefits are expected to arise from its continued use or disposal.

Prevailing regulatory and economic conditions in 2022 and the increasingly challenging commercial outlook in the United Kingdom, including the impact of higher natural gas and carbon costs, led the Company to assess the viability of its North Sea operations. Following a detailed review of its development plans, the Company determined that the Ninian field is no longer economic, de-booked associated crude oil reserves as at December 31, 2022, and is accelerating abandonment.

As a result, the Company completed a recoverability assessment of its assets in the North Sea, and recognized a non-cash charge of \$651 million (after-tax) related to the Ninian field property, plant and equipment, comprised of a recoverability charge of \$1,620 million recognized in depletion, depreciation and amortization, net of deferred tax recoveries of \$969 million.

As at December 31, 2022, the Company completed its normal course assessment of the recoverability of its other property, plant and equipment and exploration and evaluation assets, and determined the carrying amounts of all its cash generating units to be recoverable.

The Company capitalizes construction period interest for qualifying assets based on costs incurred and the Company's cost of borrowing. Interest capitalization to a qualifying asset ceases once the asset is substantially available for its intended use. During 2022, no interest was capitalized to property, plant and equipment (2021 – \$nil; 2020 – \$24 million at a weighted average capitalization rate of 3.5%).

As at December 31, 2022, property, plant and equipment included project costs, not subject to depletion and depreciation, of \$162 million in the Oil Sands Mining and Upgrading segment (2021 – \$118 million in the Oil Sands Mining and Upgrading segment).

Acquisitions in the current and comparative years have been accounted for as business combinations using the acquisition method of accounting. Gains reported on the acquisitions represent the excess of the fair value of the net assets acquired compared to the total purchase consideration.

## ACQUISITIONS IN 2022

During 2022, the Company acquired a number of crude oil and natural gas properties in the North America Exploration and Production segment for net cash consideration of \$513 million and assumed associated asset retirement obligations of \$11 million. No net deferred income tax liabilities were recognized and no pre-tax gains were recognized on these transactions.

## ACQUISITIONS IN 2021

### Acquisition of Storm Resources Ltd. ("Storm")

On December 17, 2021, the Company completed the acquisition of all the issued and outstanding common shares of Storm for total cash consideration of \$771 million. The following provides a summary of the net assets acquired relating to the acquisition:

Property, plant and equipment	\$	1,114
Exploration and evaluation assets		13
Working capital		20
Long-term debt		(183)
Asset retirement obligations		(18)
Other long-term liabilities		(35)
Deferred tax liability		(140)
<b>Net assets acquired</b>	<b>\$</b>	<b>771</b>

In connection with the acquisition the Company assumed certain product transportation and processing commitments (note 20).

### Other Acquisitions in 2021

During 2021, the Company completed two acquisitions of gas producing assets and related processing infrastructure in the Montney region of British Columbia, including property, plant and equipment assets of \$257 million and exploration and evaluation assets of \$13 million, for cash consideration of \$131 million. In connection with the acquisitions, the Company assumed asset retirement obligations of \$58 million, other liabilities of \$65 million, and recognized a deferred tax asset of \$462 million. A gain of \$478 million was recognized as a result of the acquisitions, representing the excess of the fair value of the net assets acquired compared with the total purchase consideration.

## ACQUISITION IN 2020

### Acquisition of Painted Pony Energy Ltd. ("Painted Pony")

On October 6, 2020, the Company completed the acquisition of all the issued and outstanding common shares of Painted Pony for total cash consideration of \$111 million. The following provides a summary of the gain on acquisition:

Net assets acquired	\$	328
Less: cash consideration		111
<b>Gain on acquisition</b>	<b>\$</b>	<b>217</b>

In connection with the acquisition the Company assumed certain product transportation and processing commitments (note 20).

## 8. Leases

### LEASE ASSETS

	Product transportation and storage	Field equipment and power	Offshore vessels and equipment	Office leases and other	Total
At December 31, 2020	\$ 1,038	\$ 379	\$ 128	\$ 100	\$ 1,645
Additions	48	36	—	4	88
Depreciation	(110)	(57)	(27)	(22)	(216)
Foreign exchange and other	(2)	(4)	(2)	(1)	(9)
At December 31, 2021	974	354	99	81	1,508
Additions	<b>44</b>	<b>110</b>	<b>28</b>	—	<b>182</b>
Depreciation	<b>(106)</b>	<b>(86)</b>	<b>(31)</b>	<b>(21)</b>	<b>(244)</b>
Foreign exchange and other	—	<b>(1)</b>	<b>1</b>	<b>1</b>	<b>1</b>
At December 31, 2022	<b>\$ 912</b>	<b>\$ 377</b>	<b>\$ 97</b>	<b>\$ 61</b>	<b>\$ 1,447</b>

### LEASE ASSETS, BY SEGMENT

As at December 31, 2022 and 2021, the Company had the following lease assets by segment:

	2022	2021
Exploration and Production		
North America	\$ 277	\$ 308
North Sea	1	1
Offshore Africa	98	101
Oil Sands Mining and Upgrading	1,015	1,027
Head Office	56	71
	<b>\$ 1,447</b>	<b>\$ 1,508</b>

### LEASE LIABILITIES

The Company measures its lease liabilities at the discounted value of its lease payments during the lease term. Lease liabilities at December 31, 2022 and 2021, were as follows:

	2022	2021
Lease liabilities	\$ 1,540	\$ 1,584
Less: current portion	244	185
	<b>\$ 1,296</b>	<b>\$ 1,399</b>

In addition to the lease assets disclosed above, on an ongoing basis the Company enters into short-term leases related to its Exploration and Production and Oil Sands Mining and Upgrading activities.

Other amounts included in net earnings and cash flows during 2022 and 2021 are provided below:

	2022	2021
Expenses relating to short-term leases <sup>(1)</sup>	\$ 410	\$ 450
Interest expense on lease liabilities	60	62
Variable lease payments not included in the measurement of lease liabilities	49	65
Total cash outflows for leases <sup>(2)</sup>	<b>\$ 1,204</b>	<b>\$ 1,089</b>

(1) During 2022, the Company capitalized \$453 million (2021 - \$303 million) of short-term leases as additions to property, plant and equipment.

(2) Comprised of cash outflows relating to lease liabilities, short-term leases, and variable lease payments.

## 9. Investments

As at December 31, 2022 and 2021, the Company had the following investment:

	<b>2022</b>	2021
Investment in PrairieSky Royalty Ltd.	<b>\$ 491</b>	\$ 309

### INVESTMENT IN PRAIRIESKY ROYALTY LTD.

The Company's 22.6 million common shares investment in PrairieSky Royalty Ltd. ("PrairieSky") does not constitute significant influence, and is accounted for at fair value through profit or loss, measured at each reporting date. As at December 31, 2022 the market price per common share was \$21.70 (December 31, 2021 – \$13.63; December 31, 2020 – \$10.09).

As at December 31, 2022, the Company's investment in PrairieSky was classified as a current asset. PrairieSky is in the business of acquiring and managing oil and gas royalty income assets through indirect third-party oil and gas development.

The (gain) loss from the investment in PrairieSky was comprised as follows:

	<b>2022</b>	2021	2020
(Gain) loss from investment	<b>\$ (182)</b>	\$ (81)	\$ 117
Dividend income	<b>(14)</b>	(7)	(9)
	<b>\$ (196)</b>	\$ (88)	\$ 108

### INVESTMENT IN INTER PIPELINE LTD.

During 2021, in accordance with a third-party offer to purchase, the Company elected to take total cash proceeds of \$128 million, or \$20.00 per common share, in exchange for its 6.4 million common shares investment in Inter Pipeline Ltd ("Inter Pipeline"). The Company's investment did not constitute significant influence, and was accounted for at fair value through profit or loss, measured at each reporting date.

The (gain) loss from the investment in Inter Pipeline was comprised as follows:

	<b>2022</b>	2021	2020
(Gain) loss from investment	<b>\$ —</b>	\$ (51)	\$ 68
Dividend income	<b>—</b>	(2)	(5)
	<b>\$ —</b>	\$ (53)	\$ 63

## 10. Other Long-Term Assets

	<b>2022</b>	2021
Prepaid cost of service toll	<b>\$ 199</b>	\$ 157
Long-term inventory	<b>137</b>	126
Risk management (note 19)	<b>9</b>	140
Long-term contracts, prepayments and other <sup>(1)</sup>	<b>269</b>	177
	<b>614</b>	600
Less: current portion	<b>61</b>	35
	<b>\$ 553</b>	\$ 565

(1) Includes physical product sales contracts assumed in the acquisition of Painted Pony in the fourth quarter of 2020, accrued interest on the deferred PRT recovery, and the unamortized portion of the Company's share bonus program.

### INVESTMENT IN NORTH WEST REDWATER PARTNERSHIP

The Company has a 50% equity investment in North West Redwater Partnership ("NWRP"). NWRP operates a 50,000 barrels per day bitumen upgrader and refinery that processes approximately 12,500 barrels per day (25% toll payer) of bitumen feedstock for the Company and 37,500 barrels per day (75% toll payer) of bitumen feedstock for the Alberta Petroleum Marketing Commission ("APMC"), an agent of the Government of Alberta. The Company is unconditionally obligated to pay its 25% pro rata share of the debt component of the monthly fee-for-service toll over the 40-year tolling period until 2058 (note 20). Sales of diesel and refined products and associated refining tolls are recognized in the Midstream and Refining segment (note 22).

On June 30, 2021, the equity partners together with the toll payers, agreed to optimize the structure of NWRP to better align the commercial interests of the equity partners and the toll payers (the "Optimization Transaction"). As a result, North West Refining Inc. transferred its entire 50% partnership interest in NWRP to APMC. The Company's 50% equity interest remained unchanged.

Under the Optimization Transaction, the original term of the processing agreements was extended by 10 years from 2048 to 2058. NWRP retired higher cost subordinated debt, which carried interest rates of prime plus 6%, with lower cost senior secured bonds at an average rate of approximately 2.55%, reducing interest costs to NWRP and associated tolls to the toll payers. As such, NWRP repaid the Company's and APMC's subordinated debt advances of \$555 million each. In addition, the Company received a \$400 million distribution from NWRP during 2021.

To facilitate the Optimization Transaction, NWRP issued \$500 million of 1.20% series L senior secured bonds due December 2023, \$500 million of 2.00% series M senior secured bonds due December 2026, \$1,000 million of 2.80% series N senior secured bonds due June 2031, and \$600 million of 3.75% series O senior secured bonds due June 2051.

During 2022, NWRP extended and increased its \$3,000 million syndicated credit facility to \$3,175 million. The revolving portion of the credit facility was increased to \$2,175 million, with \$118 million maturing in June 2023, and \$2,057 million maturing in June 2025. The \$1,000 million non-revolving portion of the credit facility was extended, with \$60 million maturing in June 2023, and \$940 million maturing in June 2025. During 2022, NWRP also entered into a \$150 million facility to support letters of credit. As at December 31, 2022, NWRP had borrowings of \$2,318 million under the syndicated credit facility (December 31, 2021 – \$1,981 million).

The assets, liabilities, partners' equity, product sales and equity income (loss) related to NWRP at December 31, 2022 and 2021 were comprised as follows:

	<b>2022</b>	2021
Current assets	<b>\$ 257</b>	\$ 280
Non-current assets	<b>\$ 10,729</b>	\$ 10,806
Current liabilities	<b>\$ 849</b>	\$ 798
Non-current liabilities	<b>\$ 11,239</b>	\$ 11,412
Partners' equity <sup>(1)</sup>	<b>\$ (1,102)</b>	\$ (1,124)
Partners' equity <sup>(1)</sup> at Company's 50% interest	<b>\$ (551)</b>	\$ (562)
Revenue <sup>(2)</sup>	<b>\$ 1,267</b>	\$ 1,168
Net income (loss) <sup>(3)</sup>	<b>\$ 22</b>	\$ (18)

(1) In 2021, NWRP paid partnership distributions at 100% interest of \$800 million.

(2) Included in NWRP's revenue for 2022 is \$317 million (2021 – \$294 million) related to the Company's 25% share of the refining toll.

(3) Included in the net income (loss) for 2022 is the impact of depreciation and amortization expense of \$245 million (2021 – \$278 million) and interest and other financing expense of \$422 million (2021 – \$412 million).

The carrying value of the Company's interest in NWRP is \$nil, and as at December 31, 2022, the cumulative unrecognized share of the equity loss and partnership distributions from NWRP was \$551 million (2021 – \$562 million). The Company's recovery of the unrecognized share of the equity loss from NWRP for 2022 was \$11 million (2021 – unrecognized equity loss of \$9 million and partnership distributions were \$400 million; 2020 – unrecognized equity loss of \$94 million).

## 11. Long-Term Debt

	2022	2021
<b>Canadian dollar denominated debt, unsecured</b>		
Medium-term notes		
3.31% debentures due February 11, 2022	\$ —	\$ 1,000
1.45% debentures due November 16, 2023	404	500
3.55% debentures due June 3, 2024	332	500
3.42% debentures due December 1, 2026	441	600
2.50% debentures due January 17, 2028	225	300
4.85% debentures due May 30, 2047	300	300
	<b>1,702</b>	<b>3,200</b>
<b>US dollar denominated debt, unsecured</b>		
Bank credit facilities (December 31, 2022 – US\$nil; December 31, 2021 – US\$901 million)	—	1,140
US dollar debt securities		
2.95% due January 15, 2023 (US\$1,000 million)	—	1,266
3.80% due April 15, 2024 (US\$500 million)	677	633
3.90% due February 1, 2025 (US\$600 million)	812	759
2.05% due July 15, 2025 (US\$600 million)	812	759
3.85% due June 1, 2027 (US\$1,250 million)	1,692	1,582
2.95% due July 15, 2030 (US\$500 million)	677	633
7.20% due January 15, 2032 (US\$400 million)	541	506
6.45% due June 30, 2033 (US\$350 million)	474	443
5.85% due February 1, 2035 (US\$350 million)	474	443
6.50% due February 15, 2037 (US\$450 million)	609	570
6.25% due March 15, 2038 (US\$1,100 million)	1,488	1,392
6.75% due February 1, 2039 (US\$400 million)	541	506
4.95% due June 1, 2047 (US\$750 million)	1,015	949
	<b>9,812</b>	<b>11,581</b>
Long-term debt before transaction costs and original issue discounts, net	<b>11,514</b>	14,781
Less: original issue discounts, net <sup>(1)</sup>	<b>13</b>	15
transaction costs <sup>(1) (2)</sup>	<b>56</b>	72
	<b>11,445</b>	14,694
Less: current portion of other long-term debt <sup>(1) (2)</sup>	<b>404</b>	1,000
	<b>\$ 11,041</b>	<b>\$ 13,694</b>

(1) The Company has included unamortized original issue discounts and premiums, and directly attributable transaction costs in the carrying amount of the outstanding debt.

(2) Transaction costs primarily represent underwriting commissions charged as a percentage of the related debt offerings, as well as legal, rating agency and other professional fees.

## **BANK CREDIT FACILITIES AND COMMERCIAL PAPER**

As at December 31, 2022, the Company had undrawn bank credit facilities of \$5,520 million. Details of these facilities are described below. The Company also has certain other dedicated credit facilities supporting letters of credit.

- a \$100 million demand credit facility;
- a \$500 million revolving credit facility maturing February 2024;
- a \$2,425 million revolving syndicated credit facility maturing June 2024; and
- a \$2,495 million revolving syndicated credit facility, with \$70 million maturing June 2023, and \$2,425 million maturing June 2025.

During 2021, the Company repaid \$1,500 million of the \$2,650 million non-revolving term credit facility due February 2023, reducing the outstanding balance to \$1,150 million. During 2022, the Company repaid and cancelled the \$1,150 million non-revolving term credit facility maturing February 2023.

During 2022, the Company discontinued its £5 million demand credit facility related to its North Sea operations.

During 2021, the Company extended both of its \$2,425 million revolving credit facilities originally maturing June 2022 and June 2023, to June 2024 and June 2025, respectively and increased each by \$70 million. In accordance with the terms of the extension, and by mutual agreement, \$70 million of the original revolving credit facilities were not extended and mature upon the original maturity date of June 2022 and June 2023, respectively.

Borrowings under the Company's non-revolving and revolving term credit facilities may be made by way of pricing referenced to Canadian dollar bankers' acceptances, US dollar bankers' acceptances, LIBOR, SOFR, US base rate or Canadian prime rate.

During 2021, the Company repaid and amended its \$1,000 million non-revolving term credit facility to allow for a re-draw of the full \$1,000 million until March 31, 2022. During 2022, the Company repaid and cancelled \$500 million of the non-revolving portion of the term credit facility, amended the remaining facility to a \$500 million revolving credit facility and extended maturity from February 2023 to February 2024.

During 2021, the Company repaid and cancelled the remaining \$3,088 million of its \$3,250 million non-revolving term credit facility with an original maturity of June 2022 used to finance the Company's acquisition of assets from Devon in 2019.

The Company's borrowings under its US commercial paper program are authorized up to a maximum US\$2,500 million. The Company reserves capacity under its revolving bank credit facilities for amounts outstanding under this program.

The Company's weighted average interest rate on bank credit facilities and commercial paper outstanding as at December 31, 2022 was 4.3% (December 31, 2021 – 0.8%), and on total long-term debt outstanding for the year ended December 31, 2022 was 4.3% (December 31, 2021 – 3.5%).

As at December 31, 2022, letters of credit and guarantees aggregating to \$637 million were outstanding (December 31, 2021 – \$513 million).

## **MEDIUM-TERM NOTES**

During 2021, the Company filed a base shelf prospectus that allows for the offer for sale from time to time of up to \$3,000 million of medium-term notes in Canada, which expires in August 2023. If issued, these securities may be offered in amounts and at prices, including interest rates, to be determined based on market conditions at the time of issuance.

During 2022, the Company repaid \$1,000 million of 3.31% medium-term notes.

During 2022, the Company repaid through market purchases \$95 million of 1.45% medium-term notes due November 2023, \$169 million of 3.55% medium-term notes due June 2024, \$159 million of 3.42% medium-term notes due December 2026, and \$75 million of 2.50% medium-term notes due January 2028.

## **US DOLLAR DEBT SECURITIES**

During 2021, the Company filed a base shelf prospectus that allows for the offer for sale from time to time of up to US\$3,000 million of debt securities in the United States, which expires in August 2023. If issued, these securities may be offered in amounts and at prices, including interest rates, to be determined based on market conditions at the time of issuance.

During 2022, the Company early repaid US\$1,000 million of 2.95% debt securities, originally due January 15, 2023.

During 2021, the Company repaid US\$500 million of 3.45% debt securities.

## SCHEDULED DEBT REPAYMENTS

Scheduled debt repayments are as follows:

Year	Repayment
2023	\$ 404
2024	\$ 1,009
2025	\$ 1,624
2026	\$ 441
2027	\$ 1,692
Thereafter	\$ 6,344

## 12. Other Long-Term Liabilities

	2022	2021
Asset retirement obligations	\$ 6,908	\$ 6,806
Lease liabilities (note 8)	1,540	1,584
Share-based compensation	832	489
Transportation and processing contracts <sup>(1)</sup>	159	241
Risk management (note 19)	3	85
Other	92	127
	<b>9,534</b>	9,332
Less: current portion	<b>1,373</b>	948
	<b>\$ 8,161</b>	\$ 8,384

(1) The acquisition of Painted Pony in 2020 included product transportation and processing obligations (note 7).

## ASSET RETIREMENT OBLIGATIONS

The Company's asset retirement obligations are expected to be settled on an ongoing basis over a period of approximately 60 years and discounted using a weighted average discount rate of 5.6% (2021 – 4.0%; 2020 – 3.7%) and inflation rates of up to 2% (December 31, 2021 – up to 2%). Reconciliations of the discounted asset retirement obligations were as follows:

	2022	2021	2020
Balance – beginning of year	\$ 6,806	\$ 5,861	\$ 5,771
Liabilities incurred	20	5	5
Liabilities acquired, net	11	76	13
Liabilities settled	(449)	(307)	(249)
Asset retirement obligation accretion	281	185	205
Revision of cost, inflation and timing estimates <sup>(1)</sup>	897	508	(134)
Impact of regulatory changes <sup>(2)</sup>	982	1,208	—
Change in discount rates	(1,698)	(723)	253
Foreign exchange adjustments	58	(7)	(3)
Balance – end of year	<b>6,908</b>	6,806	5,861
Less: current portion	<b>495</b>	249	184
	<b>\$ 6,413</b>	\$ 6,557	\$ 5,677

(1) Includes normal course revisions of cost, inflation and timing estimates, as well as revisions related to the acceleration of the abandonment of Ninian field assets in the North Sea at December 31, 2022.

(2) Reflects changes to the estimated timing of settlement of the Company's asset retirement obligations due to provincial regulatory changes in Alberta, British Columbia and Saskatchewan.

## Segmented Asset Retirement Obligations

	2022	2021
Exploration and Production		
North America	\$ 4,326	\$ 4,021
North Sea	1,011	821
Offshore Africa	143	170
Oil Sands Mining and Upgrading	1,427	1,793
Midstream and Refining	1	1
	<b>\$ 6,908</b>	<b>\$ 6,806</b>

## SHARE-BASED COMPENSATION

The liability for share-based compensation includes costs incurred under the Company's Option and PSU plans. The Company's Option Plan provides current employees with the right to elect to receive common shares or a cash payment in exchange for stock options surrendered. The PSU plan provides certain executive employees of the Company with the right to receive a cash payment, the amount of which is determined by individual employee performance and the extent to which certain other performance measures are met.

The Company recognizes a liability for potential cash settlements under these plans. The current portion of the liability represents the maximum amount of the liability payable within the next twelve month period if all vested stock options and PSUs are settled in cash.

	2022	2021	2020
Balance – beginning of year	\$ 489	\$ 160	\$ 297
Share-based compensation expense (recovery)	804	514	(82)
Cash payment for stock options surrendered and PSUs vested	(79)	(48)	(39)
Transferred to common shares	(387)	(139)	(21)
Other	5	2	5
Balance – end of year	832	489	160
Less: current portion	559	329	119
	<b>\$ 273</b>	<b>\$ 160</b>	<b>\$ 41</b>

Included within share-based compensation liability as at December 31, 2022 was \$127 million (2021 – \$90 million; 2020 – \$49 million) related to PSUs granted to certain executive employees.

The fair value of stock options outstanding was estimated using the Black-Scholes valuation model with the following weighted average assumptions:

	2022	2021	2020
Fair value	\$ 32.96	\$ 16.98	\$ 3.47
Share price	\$ 75.19	\$ 53.45	\$ 30.59
Expected volatility	35.8%	35.5%	39.8%
Expected dividend yield	4.5%	4.4%	5.6%
Risk free interest rate	3.8%	1.1%	0.3%
Expected forfeiture rate	5.0%	4.7%	4.3%
Expected stock option life <sup>(1)</sup>	4.2 years	4.2 years	4.3 years

(1) At original time of grant.

The intrinsic value of vested stock options at December 31, 2022 was \$208 million (2021 – \$112 million; 2020 – \$11 million).

## 13. Income Taxes

The provision for income tax was as follows:

<b>Expense (recovery)</b>	<b>2022</b>		2021		2020	
Current corporate income tax – North America	\$	<b>2,789</b>	\$	1,841	\$	(245)
Current corporate income tax – North Sea		<b>69</b>		7		(4)
Current corporate income tax – Offshore Africa		<b>74</b>		21		17
Current PRT <sup>(1)</sup> – North Sea		<b>(42)</b>		(34)		(31)
Other taxes		<b>16</b>		13		6
Current income tax		<b>2,906</b>		1,848		(257)
Deferred corporate income tax		<b>302</b>		399		(181)
Deferred PRT <sup>(1)</sup> – North Sea		<b>(441)</b>		—		—
Deferred income tax		<b>(139)</b>		399		(181)
Income tax	\$	<b>2,767</b>	\$	2,247	\$	(438)

(1) Petroleum Revenue Tax.

In connection with the Company's de-booking of its crude oil reserves and acceleration of the abandonment at the Ninian field in the North Sea (note 7), as at December 31, 2022, the Company recognized deferred tax recoveries comprised of a deferred corporate income tax recovery of \$528 million and a deferred PRT recovery of \$441 million.

The provision for income tax is different from the amount computed by applying the combined statutory Canadian federal and provincial income tax rates to earnings before taxes. The reasons for the difference are as follows:

	<b>2022</b>		2021		2020	
Canadian statutory income tax rate		<b>23.2%</b>		23.2%		24.1%
Income tax provision at statutory rate	\$	<b>3,180</b>	\$	2,298	\$	(211)
Effect on income taxes of:						
UK PRT and other taxes		<b>(467)</b>		(21)		(25)
Impact of UK PRT and other taxes on corporate income tax		<b>190</b>		11		11
Foreign and domestic tax rate differentials		<b>(203)</b>		(11)		(52)
Non-taxable portion of capital gains		<b>65</b>		(26)		(10)
Stock options exercised for common shares		<b>159</b>		98		(25)
Non-taxable gain on corporate acquisitions		<b>—</b>		(110)		(52)
Revisions arising from prior year tax filings		<b>(186)</b>		16		(62)
Change in unrecognized capital loss carryforward asset		<b>65</b>		(26)		(10)
Other		<b>(36)</b>		18		(2)
Income tax	\$	<b>2,767</b>	\$	2,247	\$	(438)

The following table summarizes the temporary differences that give rise to the net deferred income tax liability:

	<b>2022</b>	2021
Deferred income tax liabilities		
Property, plant and equipment and exploration and evaluation assets	\$ 11,985	\$ 12,254
Lease assets	336	349
Investments	56	35
Investment in North West Redwater Partnership	903	850
Unrealized risk management activities	—	12
Unrealized foreign exchange gain on long-term debt	—	14
Taxable PRT for corporate income tax	176	—
Other	25	78
	<b>13,481</b>	13,592
Deferred income tax assets		
Asset retirement obligations	(1,822)	(1,719)
Lease liabilities	(354)	(363)
Share-based compensation	(33)	(22)
Loss carryforwards	(652)	(1,268)
Unrealized foreign exchange loss on long-term debt	(67)	—
Deferred PRT	(439)	—
	<b>(3,367)</b>	(3,372)
Net deferred income tax liability	\$ 10,114	\$ 10,220

Movements in deferred tax assets and liabilities recognized in net earnings during the year were as follows:

	<b>2022</b>	2021	2020
Property, plant and equipment and exploration and evaluation assets	\$ (334)	\$ 184	\$ (158)
Lease assets	(15)	(30)	(11)
Unrealized foreign exchange on long-term debt	(81)	34	29
Unrealized risk management activities	(12)	19	(8)
Asset retirement obligations	(74)	(213)	(13)
Lease liabilities	11	25	6
Share-based compensation	(11)	(10)	4
Loss carryforwards	618	202	(182)
Investments	21	21	(22)
Investment in North West Redwater Partnership	53	83	174
Deferred PRT	(441)	—	—
Taxable PRT for corporate income tax	176	—	—
Other	(50)	84	—
	<b>\$ (139)</b>	\$ 399	\$ (181)

The following table summarizes the movements of the net deferred income tax liability during the year:

	<b>2022</b>	2021	2020
Balance – beginning of year	\$ 10,220	\$ 10,144	\$ 10,539
Deferred income tax (recovery) expense	(139)	399	(181)
Deferred income tax expense included in other comprehensive income (loss)	—	1	—
Foreign exchange adjustments	33	(2)	(3)
Business combinations (note 7)	—	(322)	(211)
Balance – end of year	<b>\$ 10,114</b>	\$ 10,220	\$ 10,144

Current income taxes recognized in each operating segment will vary depending upon available income tax deductions related to the nature, timing and amount of capital expenditures incurred in any particular year.

The Company files income tax returns in the various jurisdictions in which it operates. These tax returns are subject to periodic examinations in the normal course by the applicable tax authorities. The tax returns as prepared may include filing positions that could be subject to differing interpretations of applicable tax laws and regulations, which may take several years to resolve. The Company does not believe the ultimate resolution of these matters will have a material impact upon the Company's reported results of operations, financial position or liquidity.

Deferred income tax assets are recognized for temporary differences to the extent that the realization of the related tax benefit through future taxable profits is probable. Deferred PRT assets will be recovered from the UK Government, directly or through other third parties, as related abandonment expenditures are made. The Company has not recognized deferred income tax assets with respect to taxable capital loss carryforwards in excess of \$1,000 million in North America, which can be carried forward indefinitely and only applied against future taxable capital gains. In addition, the Company has not recognized deferred income tax assets related to North American tax pools of approximately \$1,000 million, which can only be claimed against income from certain oil and gas properties.

Deferred income tax liabilities have not been recognized on the unremitted net earnings of wholly controlled subsidiaries. The Company is able to control the timing and amount of distributions and no taxes are payable on distributions from these subsidiaries provided that the distributions remain within certain limits.

## 14. Share Capital

### AUTHORIZED

Preferred shares issuable in a series.

Unlimited number of common shares without par value.

	2022		2021	
	Number of shares (thousands)	Amount	Number of shares (thousands)	Amount
<b>ISSUED COMMON SHARES</b>				
Balance – beginning of year	<b>1,168,369</b>	<b>\$ 10,168</b>	1,183,866	\$ 9,606
Issued upon exercise of stock options	<b>11,605</b>	<b>442</b>	18,147	707
Previously recognized liability on stock options exercised for common shares	—	<b>387</b>	—	139
Purchase of common shares under Normal Course Issuer Bid	<b>(77,338)</b>	<b>(703)</b>	(33,644)	(284)
Balance – end of year	<b>1,102,636</b>	<b>\$ 10,294</b>	1,168,369	\$ 10,168

### PREFERRED SHARES

Preferred shares are issuable in a series. If issued, the number of shares in each series, and the designation, rights, privileges, restrictions and conditions attached to the shares will be determined by the Board of Directors of the Company.

### DIVIDEND POLICY

The Company has paid regular quarterly dividends in each year since 2001. The dividend policy undergoes periodic review by the Board of Directors and is subject to change.

On March 1, 2023, the Board of Directors approved a 6% increase in the quarterly dividend to \$0.90 per common share, beginning with the dividend payable on April 5, 2023.

On November 2, 2022, the Board of Directors approved a 13% increase in the quarterly dividend to \$0.85 per common share, beginning with the dividend paid on January 5, 2023.

On August 3, 2022, the Board of Directors approved a special dividend of \$1.50 per common share, paid on August 31, 2022.

On March 2, 2022, the Board of Directors approved a 28% increase in the quarterly dividend to \$0.75 per common share. On November 3, 2021, the Board of Directors approved a 25% increase in the quarterly dividend to \$0.5875 per common share. On March 3, 2021, the Board of Directors approved an 11% increase in the quarterly dividend to \$0.47 per common share, from \$0.425 per common share.

## NORMAL COURSE ISSUER BID

On March 8, 2022, the Company's application was approved for a Normal Course Issuer Bid ("NCIB") to purchase through the facilities of the Toronto Stock Exchange ("TSX"), alternative Canadian trading platforms, and the New York Stock Exchange ("NYSE"), up to 101,574,207 common shares, over a 12-month period commencing March 11, 2022 and ending March 10, 2023.

For the year ended December 31, 2022, the Company purchased 77,338,200 common shares at a weighted average price of \$72.03 per common share for a total cost of \$5,571 million. Retained earnings were reduced by \$4,868 million, representing the excess of the purchase price of common shares over their average carrying value. Subsequent to December 31, 2022, up to and including February 28, 2023, the Company purchased 6,000,000 common shares at a weighted average price of \$77.72 per common share for a total cost of \$466 million.

On March 1, 2023, the Board of Directors approved a resolution authorizing the Company to file a Notice of Intention with the TSX to purchase, by way of a Normal Course Issuer Bid, up to 10% of the public float (as determined in accordance with the rules of the TSX) of its issued and outstanding common shares. Subject to acceptance of the Notice of Intention by the TSX, the purchases would be made through facilities of the TSX, alternative Canadian trading platforms, and the NYSE.

## SHARE-BASED COMPENSATION – STOCK OPTIONS

The Company's Option Plan provides for the granting of stock options to employees. Stock options granted under the Option Plan have terms ranging from five to six years to expiry and vest over a five-year period. The exercise price of each stock option granted is determined at the closing market price of the common shares on the TSX on the day prior to the grant. Each stock option granted provides the holder the choice to purchase one common share of the Company at the stated exercise price or receive a cash payment equal to the difference between the stated exercise price and the market price of the Company's common shares on the date of surrender of the stock option.

The Option Plan is a "rolling 7%" plan, whereby the aggregate number of common shares that may be reserved for issuance under the plan shall not exceed 7% of the common shares outstanding from time to time.

The following table summarizes information relating to stock options outstanding at December 31, 2022 and 2021:

	2022		2021	
	Stock options (thousands)	Weighted average exercise price	Stock options (thousands)	Weighted average exercise price
Outstanding – beginning of year	38,327	\$ 35.88	48,656	\$ 37.53
Granted	7,547	\$ 68.15	12,547	\$ 34.39
Exercised for common shares	(11,605)	\$ 38.06	(18,147)	\$ 38.97
Surrendered for cash settlement	(441)	\$ 38.43	(1,324)	\$ 40.54
Forfeited	(2,678)	\$ 41.43	(3,405)	\$ 35.73
Outstanding – end of year	31,150	\$ 42.37	38,327	\$ 35.88
Exercisable – end of year	5,522	\$ 37.60	7,841	\$ 39.19

The range of exercise prices of stock options outstanding and exercisable at December 31, 2022 was as follows:

	Stock options outstanding			Stock options exercisable		
Range of exercise prices	Stock options outstanding (thousands)	Weighted average remaining term (years)	Weighted average exercise price	Stock options exercisable (thousands)	Weighted average exercise price	
\$20.76 – \$29.99	7,821	2.98	\$ 27.14	982	\$ 24.07	
\$30.00 – \$39.99	11,266	1.84	\$ 36.60	2,672	\$ 36.83	
\$40.00 – \$49.99	4,503	2.62	\$ 41.50	1,682	\$ 42.73	
\$50.00 – \$59.99	555	4.86	\$ 54.24	1	\$ 54.24	
\$60.00 – \$69.99	4,718	4.49	\$ 64.84	1	\$ 64.15	
\$70.00 – \$79.71	2,287	4.88	\$ 75.40	184	\$ 73.83	
	31,150	2.92	\$ 42.37	5,522	\$ 37.60	

## 15. Accumulated Other Comprehensive Income (Loss)

The components of accumulated other comprehensive income (loss), net of taxes, were as follows:

	2022		2021	
Derivative financial instruments designated as cash flow hedges	\$	75	\$	77
Foreign currency translation adjustment		134		(78)
	\$	209	\$	(1)

## 16. Capital Disclosures

The Company has defined its capital to mean its long-term debt and consolidated shareholders' equity, as determined at each reporting date.

The Company's objectives when managing its capital structure are to maintain financial flexibility and balance to enable the Company to access capital markets to sustain its on-going operations and support its growth strategies. The Company primarily monitors capital on the basis of an internally derived financial measure referred to as its "debt to book capitalization ratio", which is the arithmetic ratio of current long-term debt and long-term debt less cash and cash equivalents divided by the sum of the carrying value of shareholders' equity plus current long-term debt and long-term debt less cash and cash equivalents. The Company's internal targeted range for its debt to book capitalization ratio is 25% to 45%. This range may be exceeded in periods when a combination of capital projects, acquisitions, or lower commodity prices occurs. The Company may be below the low end of the targeted range when cash flow from operating activities is greater than current investment activities. At December 31, 2022, the ratio was below the target range at 22%.

Readers are cautioned that the debt to book capitalization ratio is not defined by IFRS and this financial measure may not be comparable to similar measures presented by other companies. Further, there are no assurances that the Company will continue to use this measure to monitor capital or will not alter the method of calculation of this measure in the future.

	2022		2021	
Long-term debt	\$	11,445	\$	14,694
Less: cash and cash equivalents		920		744
Long-term debt, net	\$	10,525	\$	13,950
Total shareholders' equity	\$	38,175	\$	36,945
Debt to book capitalization		22%		27%

The Company is subject to a financial covenant that requires debt to book capitalization as defined in its credit facility agreements to not exceed 65%. At December 31, 2022, the Company was in compliance with this covenant.

## 17. Net Earnings Per Common Share

	2022		2021		2020	
Weighted average common shares outstanding						
– basic (thousands of shares)		1,134,960		1,181,250		1,181,768
Effect of dilutive stock options (thousands of shares)		14,222		5,307		—
Weighted average common shares outstanding						
– diluted (thousands of shares)		1,149,182		1,186,557		1,181,768
Net earnings (loss)	\$	10,937	\$	7,664	\$	(435)
Net earnings (loss) per common share – basic	\$	9.64	\$	6.49	\$	(0.37)
– diluted	\$	9.52	\$	6.46	\$	(0.37)

In 2022, the Company excluded 2,039,000 potentially anti-dilutive stock options from the calculation of diluted earnings per common share (2021 – 3,496,000; 2020 – 44,117,000).

## 18. Interest and Other Financing Expense

	2022		2021		2020
Interest and other financing expense:					
Long-term debt	\$ 610	\$	681	\$	785
Lease liabilities	60		62		67
Less: amounts capitalized on qualifying assets	—		—		(24)
Total interest and other financing expense	670		743		828
Total interest income and other	(121)		(32)		(72)
Net interest and other financing expense	\$ 549	\$	711	\$	756

## 19. Financial Instruments

The carrying amounts of the Company's financial instruments by category were as follows:

2022						
Asset (liability)	Financial assets at amortized cost	Fair value through profit or loss	Derivatives used for hedging	Financial liabilities at amortized cost	Total	
Cash and cash equivalents	\$ 920	\$ —	\$ —	\$ —	\$ 920	
Accounts receivable	3,555	—	—	—	3,555	
Investments	—	491	—	—	491	
Other long-term assets	—	9	—	—	9	
Accounts payable	—	—	—	(1,341)	(1,341)	
Accrued liabilities	—	—	—	(4,209)	(4,209)	
Other long-term liabilities <sup>(1)</sup>	—	(3)	—	(1,540)	(1,543)	
Long-term debt <sup>(2)</sup>	—	—	—	(11,445)	(11,445)	
	\$ 4,475	\$ 497	\$ —	\$ (18,535)	\$ (13,563)	

2021						
Asset (liability)	Financial assets at amortized cost	Fair value through profit or loss	Derivatives used for hedging	Financial liabilities at amortized cost	Total	
Cash and cash equivalents	\$ 744	\$ —	\$ —	\$ —	\$ 744	
Accounts receivable	3,111	—	—	—	3,111	
Investments	—	309	—	—	309	
Other long-term assets	—	—	140	—	140	
Accounts payable	—	—	—	(803)	(803)	
Accrued liabilities	—	—	—	(3,064)	(3,064)	
Other long-term liabilities <sup>(1)</sup>	—	(64)	(21)	(1,632)	(1,717)	
Long-term debt <sup>(2)</sup>	—	—	—	(14,694)	(14,694)	
	\$ 3,855	\$ 245	\$ 119	\$ (20,193)	\$ (15,974)	

(1) Includes \$1,540 million of lease liabilities (December 31, 2021 – \$1,584 million).

(2) Includes the current portion of long-term debt.

The carrying amounts of the Company's financial instruments approximated their fair value, except for fixed rate long-term debt. The fair values of the Company's investments, recurring other long-term assets (liabilities) and fixed rate long-term debt are outlined below:

2022					
Asset (liability) <sup>(1) (2)</sup>	Carrying amount		Fair value		
			Level 1	Level 2	Level 3
Investments <sup>(3)</sup>	\$	491	\$	491	\$
Other long-term assets	\$	9	\$	—	\$
Other long-term liabilities	\$	(3)	\$	(3)	\$
Fixed rate long-term debt <sup>(4) (5)</sup>	\$	(11,445)	\$	(10,796)	\$

2021					
Asset (liability) <sup>(1) (2)</sup>	Carrying amount		Fair value		
			Level 1	Level 2	Level 3
Investments <sup>(3)</sup>	\$	309	\$	309	\$
Other long-term assets	\$	140	\$	—	\$
Other long-term liabilities	\$	(133)	\$	140	\$
Fixed rate long-term debt <sup>(4) (5)</sup>	\$	(13,554)	\$	(85)	\$

(1) Excludes financial assets and liabilities where the carrying amount approximates fair value due to the short-term nature of the asset or liability (cash and cash equivalents, accounts receivable, accounts payable and accrued liabilities).

(2) There were no transfers between Level 1, 2 and 3 financial instruments.

(3) The fair values of the investments are based on quoted market prices.

(4) The fair value of fixed rate long-term debt has been determined based on quoted market prices.

(5) Includes the current portion of fixed rate long-term debt.

## RISK MANAGEMENT

The Company periodically uses derivative financial instruments to manage its commodity price, interest rate and foreign currency exposures. These financial instruments are entered into solely for hedging purposes and are not used for speculative purposes.

The following provides a summary of the carrying amounts of derivative financial instruments held and a reconciliation to the Company's consolidated balance sheets.

Asset (liability)	2022		2021	
<b>Derivatives held for trading</b>				
Natural gas <sup>(1)</sup>	\$	3	\$	(41)
Crude oil and NGLs <sup>(1)</sup>		—		(10)
Foreign currency forward contracts		3		(13)
<b>Cash flow hedges</b>				
Foreign currency forward contracts		—		(21)
Cross currency swaps		—		140
	\$	6	\$	55
Included within:				
Current portion of other long-term assets	\$	3	\$	5
Current portion of other long-term liabilities		(3)		(72)
Other long-term assets		6		135
Other long-term liabilities		—		(13)
	\$	6	\$	55

(1) Commodity financial instruments assumed in the acquisitions of Storm and Painted Pony in 2021 and 2020, respectively (note 7).

The estimated fair values of derivative financial instruments in Level 2 at each measurement date have been determined based on appropriate internal valuation methodologies and/or third party indications. Level 2 fair values determined using valuation models require the use of assumptions concerning the amount and timing of future cash flows and discount rates. In determining these assumptions, the Company primarily relied on external, readily-observable quoted market inputs as applicable, including crude oil and natural gas forward benchmark commodity prices and volatility, Canadian and United States interest rate yield curves, and Canadian and United States forward foreign exchange rates, discounted to present value as appropriate. The resulting fair value estimates may not necessarily be indicative of the amounts that could be realized or settled in a current market transaction and these differences may be material.

The changes in estimated fair values of derivative financial instruments included in the risk management asset (liability) were recognized in the financial statements as follows:

<b>Asset (liability)</b>	<b>2022</b>		2021	
Balance – beginning of year	\$	55	\$	(24)
Net change in fair value of outstanding derivative financial instruments recognized in:				
Risk management activities <sup>(1)</sup>		70		(12)
Foreign exchange		(119)		82
Other comprehensive income		–		9
Balance – end of year		6		55
Less: current portion		–		(67)
	\$	6	\$	122

(1) Includes the fair value movement of commodity financial instruments included in acquisitions (note 7).

Net (gain) loss from risk management activities for the years ended December 31, were as follows:

	<b>2022</b>		2021		2020	
Net realized risk management (gain) loss	\$	(7)	\$	17	\$	32
Net unrealized risk management (gain) loss		(28)		19		(39)
	\$	(35)	\$	36	\$	(7)

## FINANCIAL RISK FACTORS

### a) Market risk

Market risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices. The Company's market risk is comprised of commodity price risk, interest rate risk, and foreign currency exchange risk.

#### COMMODITY PRICE RISK MANAGEMENT

The Company periodically uses commodity derivative financial instruments to manage its exposure to commodity price risk associated with the sale of its future crude oil and natural gas production and with natural gas purchases.

The Company's outstanding commodity derivative financial instruments are expected to be settled monthly based on the applicable index pricing for the respective contract month.

#### INTEREST RATE RISK MANAGEMENT

The Company is exposed to interest rate price risk on its fixed rate long-term debt and to interest rate cash flow risk on its floating rate long-term debt. The Company periodically enters into interest rate swap contracts to manage its fixed to floating interest rate mix on long-term debt. Interest rate swap contracts require the periodic exchange of payments without the exchange of the notional principal amounts on which the payments are based. At December 31, 2022, the Company had no significant interest rate swap contracts outstanding.

#### FOREIGN CURRENCY EXCHANGE RATE RISK MANAGEMENT

The Company is exposed to foreign currency exchange rate risk in Canada primarily related to its US dollar denominated long-term debt, commercial paper and working capital. The Company is also exposed to foreign currency exchange rate risk on transactions conducted in other currencies and in the carrying value of its foreign subsidiaries. The Company periodically enters into cross currency swap contracts and foreign currency forward contracts to manage known currency exposure on US dollar denominated long-term debt, commercial paper and working capital. The cross currency swap contracts require the periodic exchange of payments with the exchange at maturity of notional principal amounts on which the payments are based.

During 2022, the Company settled the US\$550 million cross currency swap designated as a cash flow hedge of a portion of the US\$1,100 million 6.25% US dollar debt securities due March 2038. The Company realized cash proceeds of \$158 million on settlement.

As at December 31, 2022, the Company had US\$1,017 million of foreign currency forward contracts outstanding, with original terms of up to 90 days, all of which were designated as derivatives held for trading.

## FINANCIAL INSTRUMENT SENSITIVITIES

The following table summarizes the annualized sensitivities of the Company's 2022 net earnings and other comprehensive income to changes in the fair value of financial instruments outstanding as at December 31, 2022, resulting from changes in the specified variable, with all other variables held constant. These sensitivities are prepared on a different basis than those disclosed in the Company's other continuous disclosure documents, are limited to the impact of changes in a specified variable applied to financial instruments only and do not represent the impact of a change in the variable on the operating results of the Company taken as a whole. Further, these sensitivities are theoretical, as changes in one variable may contribute to changes in another variable, which may magnify or counteract the sensitivities. In addition, changes in fair value generally cannot be extrapolated because the relationship of a change in an assumption to the change in fair value may not be linear.

	2022		2021	
	Increase (decrease) to net earnings	Increase (decrease) to other comprehensive income	Increase (decrease) to net earnings	Increase (decrease) to other comprehensive income
<b>Interest rate risk</b>				
Increase interest rate 1%	\$ (4)	\$ —	\$ (13)	\$ (29)
Decrease interest rate 1%	\$ 4	\$ —	\$ 13	\$ 39
<b>Foreign currency exchange rate risk</b>				
Weakening of the Canadian dollar by US\$0.01	\$ (135)	\$ —	\$ (116)	\$ —
Strengthening of the Canadian dollar by US\$0.01	\$ 131	\$ —	\$ 114	\$ —

### b) Credit risk

Credit risk is the risk that a party to a financial instrument will cause a financial loss to the Company by failing to discharge an obligation.

#### COUNTERPARTY CREDIT RISK MANAGEMENT

The Company's accounts receivable are mainly with customers in the crude oil and natural gas industry and are subject to normal industry credit risks. The Company manages these risks by reviewing its exposure to individual companies on a regular basis and where appropriate, ensures that parental guarantees or letters of credit are in place to minimize the impact in the event of default. At December 31, 2022, substantially all of the Company's accounts receivable were due within normal trade terms and the average expected credit loss was approximately 1% of the Company's accounts receivable balance (December 31, 2021 – 1%).

The Company is also exposed to possible losses in the event of nonperformance by counterparties to derivative financial instruments; however, the Company manages this credit risk by entering into agreements with counterparties that are substantially all investment grade financial institutions. At December 31, 2022, the Company had net risk management assets of \$7 million with specific counterparties related to derivative financial instruments (December 31, 2021 – \$140 million). The carrying amount of financial assets approximates the maximum credit exposure.

### c) Liquidity risk

Liquidity risk is the risk that the Company will encounter difficulty in meeting obligations associated with financial liabilities.

Management of liquidity risk requires the Company to maintain sufficient cash and cash equivalents, along with other sources of capital, consisting primarily of cash flow from operating activities, available credit facilities, commercial paper and access to debt capital markets, to meet obligations as they become due. The Company believes it has adequate bank credit facilities to provide liquidity to manage fluctuations in the timing of the receipt and/or disbursement of operating cash flows.

The maturity dates of the Company's financial liabilities were as follows:

	Less than 1 year	1 to less than 2 years	2 to less than 5 years	Thereafter
Accounts payable	\$ 1,341	\$ —	\$ —	\$ —
Accrued liabilities	\$ 4,209	\$ —	\$ —	\$ —
Long-term debt <sup>(1)</sup>	\$ 404	\$ 1,009	\$ 3,757	\$ 6,344
Other long-term liabilities <sup>(2)</sup>	\$ 247	\$ 156	\$ 416	\$ 724
Interest and other financing expense <sup>(3)</sup>	\$ 584	\$ 577	\$ 1,410	\$ 3,790

(1) Long-term debt represents principal repayments only and does not reflect interest, original issue discounts and premiums or transaction costs.

(2) Lease payments included within other long-term liabilities reflect principal payments only and are as follows; less than one year, \$244 million; one to less than two years, \$156 million; two to less than five years, \$416 million; and thereafter, \$724 million.

(3) Includes interest and other financing expense on long-term debt and other long-term liabilities. Payments were estimated based upon applicable interest and foreign exchange rates at December 31, 2022.

## 20. Commitments and Contingencies

In the normal course of business, the Company has committed to certain payments. The following table summarizes the Company's commitments as at December 31, 2022:

	2023	2024	2025	2026	2027	Thereafter
Product transportation and processing <sup>(1)</sup>	\$ 1,171	\$ 1,349	\$ 1,168	\$ 1,102	\$ 1,052	\$ 11,095
North West Redwater Partnership service toll <sup>(2)</sup>	\$ 151	\$ 152	\$ 151	\$ 133	\$ 118	\$ 4,884
Offshore vessels and equipment	\$ 44	\$ 35	\$ —	\$ —	\$ —	\$ —
Field equipment and power	\$ 36	\$ 27	\$ 24	\$ 23	\$ 22	\$ 215
Other	\$ 23	\$ 24	\$ 21	\$ 16	\$ —	\$ —

(1) Includes commitments pertaining to a 20-year product transportation agreement on the Trans Mountain Pipeline Expansion.

(2) Pursuant to the processing agreements, the Company pays its 25% pro rata share of the debt component of the monthly fee-for-service toll. Included in the toll is \$2,863 million of interest payable over the 40-year tolling period, ending in 2058 (note 10).

In addition to the commitments disclosed above, the Company has entered into various agreements related to the engineering, procurement and construction of its various development projects. These contracts can be cancelled by the Company upon notice without penalty, subject to the costs incurred up to and in respect of the cancellation.

The Company is defendant and plaintiff in a number of legal actions arising in the normal course of business. In addition, the Company is subject to certain contractor construction claims. The Company believes that any liabilities that might arise pertaining to any such matters would not have a material effect on its consolidated financial position.

## 21. Supplemental Disclosure of Cash Flow Information

	2022	2021	2020
Changes in non-cash working capital:			
Accounts receivable	\$ (441)	\$ (850)	\$ 284
Inventory	(266)	(487)	98
Prepays and other	(20)	39	(56)
Other long-term assets	—	—	(117)
Accounts payable	537	80	(147)
Accrued liabilities	896	525	(254)
Current income tax (liabilities) assets	(282)	1,918	(295)
Other long-term liabilities	(196)	(154)	(62)
Net changes in non-cash working capital	\$ 228	\$ 1,071	\$ (549)
Relating to:			
Operating activities	\$ 79	\$ 964	\$ (166)
Investing activities	149	107	(383)
	\$ 228	\$ 1,071	\$ (549)

The following table summarizes movements in the Company's liabilities arising from financing activities for the years' ended December 31, 2022 and 2021:

	Long-term debt	Cash flow hedges on US dollar debt securities	Lease liabilities	Liabilities from financing activities
At December 31, 2020	\$ 21,453	\$ (28)	\$ 1,690	\$ 23,115
Changes from financing cash flows:				
Repayment of long-term debt, net <sup>(1)</sup>	(6,779)	—	—	(6,779)
Repayment of Storm long-term debt	(183)	—	—	(183)
Payment of lease liabilities	—	—	(209)	(209)
Non-cash changes:				
Assumption of Storm long-term debt	183	—	—	183
Lease additions	—	—	88	88
Changes in foreign exchange and fair value <sup>(2)</sup>	20	(91)	15	(56)
At December 31, 2021	14,694	(119)	1,584	16,159
Changes from financing cash flows:				
Repayment of long-term debt, net <sup>(1)</sup>	<b>(4,010)</b>	—	—	<b>(4,010)</b>
Proceeds on settlement of cross currency swap	—	<b>69</b>	—	<b>69</b>
Payment of lease liabilities	—	—	<b>(232)</b>	<b>(232)</b>
Non-cash changes:				
Lease additions	—	—	<b>182</b>	<b>182</b>
Changes in foreign exchange and fair value <sup>(2)</sup>	<b>761</b>	<b>50</b>	<b>6</b>	<b>817</b>
At December 31, 2022	<b>\$ 11,445</b>	<b>\$ —</b>	<b>\$ 1,540</b>	<b>\$ 12,985</b>

(1) Includes original issue discounts and premiums, and directly attributable transaction costs.

(2) Includes foreign exchange loss (gain), changes in the fair value of cash flow hedges on US dollar debt securities, the amortization of original issue discounts and premiums and directly attributable transaction costs, and derecognition of lease liabilities.

## 22. Segmented Information

The Company's exploration and production activities are conducted in three geographic segments: North America, North Sea and Offshore Africa. These activities include the exploration, development, production and marketing of crude oil, natural gas liquids and natural gas. The Company's Oil Sands Mining and Upgrading activities are reported in a separate segment from exploration and production activities. Midstream and Refining activities include the Company's pipeline operations, an electricity co-generation system and NWRP.

Segmented revenue and segmented results include transactions between business segments. Sales between segments are made at prices that approximate market prices, taking into account the volumes involved. These transactions and any unrealized profits and losses are eliminated on consolidation, unless unrealized losses provide evidence of an impairment of the asset transferred. Sales to external customers are based on the location of the seller. Inter-segment elimination and Other includes internal and corporate transportation and electricity charges. Production, processing and other purchasing and selling activities, that are not included in the preceding segments are also reported in the segmented information as Inter-segment eliminations and Other.

Operating segments are reported in a manner consistent with the internal reporting provided to the Company's chief operating decision makers.

	North America			North Sea			Offshore Africa		
(millions of Canadian dollars)	2022	2021	2020	2022	2021	2020	2022	2021	2020
<b>Segmented product sales</b>									
Crude oil and NGLs <sup>(1)</sup>	\$ 20,755	\$ 14,478	\$ 7,480	\$ 623	\$ 607	\$ 417	\$ 694	\$ 420	\$ 318
Natural gas	4,931	2,484	1,242	13	5	12	55	31	42
Other income and revenue <sup>(2)</sup>	217	119	41	—	(1)	3	8	7	18
<b>Total segmented product sales</b>	<b>25,903</b>	17,081	8,763	<b>636</b>	611	432	<b>757</b>	458	378
Less: royalties	(3,918)	(1,694)	(503)	(1)	(1)	(1)	(71)	(21)	(16)
<b>Segmented revenue</b>	<b>21,985</b>	15,387	8,260	<b>635</b>	610	431	<b>686</b>	437	362
<b>Segmented expenses</b>									
Production	3,754	2,963	2,510	437	383	321	114	91	103
Transportation, blending and feedstock <sup>(1)</sup>	6,394	4,772	3,393	6	7	15	1	1	1
Depletion, depreciation and amortization <sup>(3)</sup>	3,595	3,569	3,780	1,747	160	277	173	142	190
Asset retirement obligation accretion	171	101	97	33	21	30	7	6	6
Risk management activities (commodity derivatives)	18	29	(20)	—	—	—	—	—	—
Gain on acquisitions	—	(478)	(217)	—	—	—	—	—	—
Income from NWRP	—	—	—	—	—	—	—	—	—
<b>Total segmented expenses</b>	<b>13,932</b>	10,956	9,543	<b>2,223</b>	571	643	<b>295</b>	240	300
<b>Segmented earnings (loss)</b>	<b>\$ 8,053</b>	\$ 4,431	\$ (1,283)	<b>\$ (1,588)</b>	\$ 39	\$ (212)	<b>\$ 391</b>	\$ 197	\$ 62
<b>Non-segmented expenses</b>									
Administration									
Share-based compensation									
Interest and other financing expense									
Risk management activities (other)									
Foreign exchange loss (gain)									
(Gain) loss from investments									
<b>Total non-segmented expenses</b>									
Earnings (loss) before taxes									
Current income tax									
Deferred income tax									
<b>Net earnings (loss)</b>									

(1) Includes blending and feedstock costs associated with the processing of third party bitumen and other purchased feedstock in the Oil Sands Mining and Upgrading segment.

(2) Includes the sale of diesel and other refined products and other income, including government grants and recoveries associated with the joint operations partners' share of the costs of lease contracts.

(3) Includes a \$1,620 million recoverability charge in depletion, depreciation and amortization, related to the Ninian field in the North Sea at December 31, 2022.

Oil Sands Mining and Upgrading			Midstream and Refining			Inter-segment elimination and Other			Total		
2022	2021	2020	2022	2021	2020	2022	2021	2020	2022	2021	2020
\$ 20,804	\$ 14,033	\$ 7,389	\$ 80	\$ 78	\$ 83	\$ 53	\$ (360)	\$ (108)	\$ 43,009	\$ 29,256	\$ 15,579
—	—	—	—	—	—	237	196	182	5,236	2,716	1,478
149	73	139	906	681	202	5	3	31	1,285	882	434
20,953	14,106	7,528	986	759	285	295	(161)	105	49,530	32,854	17,491
(3,242)	(1,081)	(78)	—	—	—	—	—	—	(7,232)	(2,797)	(598)
17,711	13,025	7,450	986	759	285	295	(161)	105	42,298	30,057	16,893
4,076	3,414	3,114	271	234	184	60	67	48	8,712	7,152	6,280
2,652	1,505	881	691	550	181	229	(231)	27	9,973	6,604	4,498
1,822	1,838	1,784	16	15	15	—	—	—	7,353	5,724	6,046
70	57	72	—	—	—	—	—	—	281	185	205
—	—	—	—	—	—	—	—	—	18	29	(20)
—	—	—	—	—	—	—	—	—	—	(478)	(217)
—	—	—	—	(400)	—	—	—	—	—	(400)	—
8,620	6,814	5,851	978	399	380	289	(164)	75	26,337	18,816	16,792
\$ 9,091	\$ 6,211	\$ 1,599	\$ 8	\$ 360	\$ (95)	\$ 6	\$ 3	\$ 30	\$ 15,961	\$ 11,241	\$ 101
									415	366	391
									804	514	(82)
									549	711	756
									(53)	7	13
									738	(127)	(275)
									(196)	(141)	171
									2,257	1,330	974
									13,704	9,911	(873)
									2,906	1,848	(257)
									(139)	399	(181)
									\$ 10,937	\$ 7,664	\$ (435)

## CAPITAL EXPENDITURES <sup>(1)</sup>

	2022			2021		
	Net expenditures	Non-cash and fair value changes <sup>(2)</sup>	Capitalized costs	Net expenditures	Non-cash and fair value changes <sup>(2)</sup>	Capitalized costs
<b>Exploration and evaluation assets</b>						
Exploration and Production						
North America	\$ 28	\$ (59)	\$ (31)	\$ (7)	\$ (36)	\$ (43)
Offshore Africa	5	—	5	8	—	8
Oil Sands Mining and Upgrading	—	—	—	—	(150)	(150)
	<b>33</b>	<b>(59)</b>	<b>(26)</b>	<b>1</b>	<b>(186)</b>	<b>(185)</b>
<b>Property, plant and equipment</b>						
Exploration and Production						
North America <sup>(3)</sup>	3,105	136	3,241	2,486	1,351	3,837
North Sea	126	177	303	173	38	211
Offshore Africa	119	(44)	75	54	(6)	48
	<b>3,350</b>	<b>269</b>	<b>3,619</b>	<b>2,713</b>	<b>1,383</b>	<b>4,096</b>
Oil Sands Mining and Upgrading <sup>(4)</sup>	1,719	(843)	876	1,747	(601)	1,146
Midstream and Refining	9	(1)	8	9	—	9
Head Office	25	—	25	23	—	23
	<b>5,103</b>	<b>(575)</b>	<b>4,528</b>	<b>4,492</b>	<b>782</b>	<b>5,274</b>
	<b>\$ 5,136</b>	<b>\$ (634)</b>	<b>\$ 4,502</b>	<b>\$ 4,493</b>	<b>\$ 596</b>	<b>\$ 5,089</b>

(1) This table provides a reconciliation of capitalized costs, reported in note 6 and note 7, to net expenditures reported in the investing activities section of the statements of cash flows. The reconciliation excludes the impact of foreign exchange adjustments.

(2) Derecognitions, asset retirement obligations, transfer of exploration and evaluation assets, and other fair value adjustments.

(3) Includes cash consideration paid of \$771 million for the acquisition of Storm in 2021.

(4) Net expenditures includes the acquisition of a 5% net carried interest on an existing oil sands lease during 2021.

## SEGMENTED ASSETS

	2022	2021
Exploration and Production		
North America	\$ 31,135	\$ 30,645
North Sea	378	1,561
Offshore Africa	1,322	1,332
Other	54	40
Oil Sands Mining and Upgrading	42,102	42,016
Midstream and Refining	979	886
Head Office	172	185
	<b>\$ 76,142</b>	<b>\$ 76,665</b>

## 23. Remuneration of Directors and Senior Management

### REMUNERATION OF NON-MANAGEMENT DIRECTORS

	<b>2022</b>		2021		2020
Fees earned	<b>\$ 2</b>	\$	2	\$	2

### REMUNERATION OF SENIOR MANAGEMENT <sup>(1)</sup>

	<b>2022</b>		2021		2020
Salary	<b>\$ 2</b>	\$	2	\$	2
Common stock option based awards	<b>12</b>		10		9
Annual incentive plans	<b>5</b>		6		4
Long-term incentive plans	<b>18</b>		19		14
	<b>\$ 37</b>	\$	37	\$	29

(1) Senior management identified above are consistent with the disclosure on Named Executive Officers provided in the Company's Information Circular to shareholders for the respective years.

# Supplementary Oil & Gas Information for the Fiscal Year Ended December 31, 2022 (Unaudited)

This supplementary crude oil and natural gas information is provided in accordance with the United States Financial Accounting Standards Board ("FASB") Topic 932 – "Extractive Activities – Oil and Gas" and where applicable, financial information is prepared in accordance with International Financial Reporting Standards ("IFRS").

For the years ended December 31, 2022, 2021, 2020 and 2019 the Company filed its reserves information under National Instrument 51-101 – "Standards of Disclosure of Oil and Gas Activities" ("NI 51-101"), which prescribes the standards for the preparation and disclosure of reserves and related information for companies listed in Canada.

There are significant differences in the type of volumes disclosed and the basis from which the volumes are economically determined under the United States Securities and Exchange Commission ("SEC") requirements and NI 51-101. The SEC requires disclosure of net reserves, after royalties, using 12-month average prices and current costs; whereas NI 51-101 requires gross reserves, before royalties, using forecast pricing and costs. Therefore the difference between the reported numbers under the two disclosure standards can be material.

For the purposes of determining proved crude oil and natural gas reserves for SEC requirements as at December 31, 2022, 2021, 2020 and 2019 the Company used the 12-month average price, defined by the SEC as the unweighted arithmetic average of the first-day-of-the-month price for each month within the 12-month period prior to the end of the reporting period. The Company has used the following 12-month average benchmark prices to determine its 2022 and 2021 reserves for SEC requirements.

	Crude Oil and NGLs					Natural Gas			
	WTI (US\$/bbl)	WCS (C\$/bbl)	Canadian Light Sweet (C\$/bbl)	Cromer LSB (C\$/bbl)	Brent (US\$/bbl)	Edmonton C5+ (C\$/bbl)	Henry Hub MMBtu)	AECO (C\$/MMBtu)	BC Westcoast Station 2 (C\$/MMBtu)
<b>2022:</b>	<b>94.13</b>	<b>99.40</b>	<b>118.90</b>	<b>117.76</b>	<b>97.98</b>	<b>119.93</b>	<b>6.44</b>	<b>5.59</b>	<b>4.51</b>
2021:	66.34	67.68	77.87	78.17	68.92	83.05	3.68	3.39	2.90

A foreign exchange rate of US\$0.7709/C\$1.00 was used in the 2022 evaluation (2021 - US\$0.7972/C\$1.00), determined on the same basis as the 12-month average price.

## Net Proved Crude Oil and Natural Gas Reserves

The Company retains Independent Qualified Reserves Evaluators to evaluate and review the Company's proved crude oil, bitumen, synthetic crude oil ("SCO"), natural gas, and natural gas liquids ("NGLs") reserves.

- For the years ended December 31, 2022, 2021, 2020 and 2019, the reports by GLJ Ltd. covered 100% of the Company's SCO reserves. With the inclusion of non-traditional resources within the definition of "oil and gas producing activities" in the SEC's modernization of oil and gas reporting rules, effective January 1, 2010 these reserves volumes are included within the Company's crude oil and natural gas reserves totals.
- For the years ended December 31, 2022, 2021, 2020 and 2019, the reports by Sproule Associates Limited and Sproule International Limited covered 100% of the Company's crude oil, bitumen, natural gas and NGLs reserves.

Proved crude oil and natural gas reserves, as defined within the SEC's Regulation S-X, are the estimated quantities of oil and gas that by analysis of geoscience and engineering data demonstrate with reasonable certainty to be economically producible, from a given date forward, from known reservoirs under existing economic conditions, operating methods and government regulations. Developed crude oil and natural gas reserves are reserves of any category that can be expected to be recovered from existing wells with existing equipment and operating methods or in which the cost of the required equipment is relatively minor compared to the cost of drilling a new well; and through installed extraction equipment and infrastructure operational at the time of the reserves estimate if the extraction is by means not involving a well. Undeveloped crude oil and natural gas reserves are reserves of any category that are expected to be recovered from new wells on undrilled acreage, or from existing wells where a relatively major expenditure is required for recompletion.

Estimates of crude oil and natural gas reserves are subject to uncertainty and will change as additional information regarding producing fields and technology becomes available and as future economic and operating conditions change.

The following tables summarize the Company's proved and proved developed crude oil and natural gas reserves, net of royalties, as at December 31, 2022, 2021, 2020 and 2019:

Crude Oil and NGLs (MMbbl) <sup>(1)</sup>	North America			North America Total	North Sea	Offshore Africa	Total
	Synthetic Crude Oil	Bitumen <sup>(2)</sup>	Crude Oil & NGLs				
<b>Net Proved Reserves</b>							
Reserves, December 31, 2019	5,554	2,216	598	8,368	105	70	8,544
Extensions and discoveries	708	8	10	726	—	—	726
Improved recovery	—	49	9	58	—	—	58
Purchases of reserves in place	—	—	28	28	—	—	28
Sales of reserves in place	—	—	—	—	—	—	—
Production	(151)	(109)	(45)	(305)	(8)	(6)	(320)
Economic revisions due to prices <sup>(3)</sup>	701	207	(94)	814	(12)	3	805
Revisions of prior estimates	36	41	20	97	3	4	103
Reserves, December 31, 2020	6,847	2,413	525	9,785	87	71	9,943
Extensions and discoveries	—	101	14	115	—	—	115
Improved recovery	—	19	14	33	—	—	33
Purchases of reserves in place	—	—	52	52	—	—	52
Sales of reserves in place	—	—	—	—	—	—	—
Production	(150)	(103)	(45)	(297)	(6)	(5)	(309)
Economic revisions due to prices <sup>(4)</sup>	(927)	(296)	108	(1,115)	1	(4)	(1,118)
Revisions of prior estimates	174	155	40	369	(3)	2	368
Reserves, December 31, 2021	5,944	2,289	708	8,941	79	64	9,083
Extensions and discoveries	—	<b>195</b>	<b>11</b>	<b>205</b>	—	—	<b>205</b>
Improved recovery	<b>29</b>	<b>5</b>	<b>21</b>	<b>56</b>	—	—	<b>56</b>
Purchases of reserves in place	—	<b>267</b>	<b>21</b>	<b>288</b>	—	—	<b>288</b>
Sales of reserves in place	—	—	—	—	—	—	—
Production	<b>(128)</b>	<b>(91)</b>	<b>(45)</b>	<b>(265)</b>	<b>(5)</b>	<b>(5)</b>	<b>(274)</b>
Economic revisions due to prices <sup>(5)</sup>	<b>(455)</b>	<b>(263)</b>	<b>(73)</b>	<b>(791)</b>	<b>1</b>	<b>(2)</b>	<b>(792)</b>
Revisions of prior estimates	—	<b>144</b>	<b>54</b>	<b>198</b>	<b>(64)</b>	—	<b>134</b>
Reserves, December 31, 2022	<b>5,390</b>	<b>2,546</b>	<b>696</b>	<b>8,632</b>	<b>11</b>	<b>57</b>	<b>8,700</b>
Net proved developed reserves							
December 31, 2019	5,452	661	354	6,466	38	39	6,543
December 31, 2020	6,770	628	285	7,682	32	37	7,751
December 31, 2021	5,929	584	370	6,883	39	38	6,960
December 31, 2022	<b>5,389</b>	<b>582</b>	<b>359</b>	<b>6,330</b>	<b>5</b>	<b>34</b>	<b>6,369</b>

(1) Information in the reserves data tables may not add due to rounding.

(2) Bitumen as defined by the SEC, "is petroleum in a solid or semi-solid state in natural deposits with a viscosity greater than 10,000 centipoise measured at original temperature in the deposit and atmospheric pressure, on a gas free basis." Under this definition, all the Company's thermal and primary heavy crude oil reserves have been classified as bitumen.

(3) Reflects the impact of decreased royalties at Oil Sands Mining and Upgrading (SCO) and thermal Bitumen due to lower bitumen pricing resulting in lower royalties and higher net reserves.

(4) Reflects the impact of increased royalties at Oil Sands Mining and Upgrading (SCO) and thermal Bitumen due to higher bitumen pricing resulting in higher royalties and lower net reserves.

(5) Reflects the impact of increased royalties due to higher commodity pricing resulting in higher royalties and lower net reserves.

2022 total proved Crude Oil and NGLs reserves decreased by 383 MMbbl:

- Extensions and discoveries: Increase of 205 MMbbl primarily due to extension drilling/future offset additions at various Bitumen properties.
- Improved recovery: Increase of 56 MMbbl primarily due to improved recovery at Oil Sands Mining and Upgrading (SCO) and infill drilling/future offset additions at various natural gas (NGLs) and Crude Oil properties.
- Purchases of reserves in place: Increase of 288 MMbbl primarily due to a Bitumen acquisition in Alberta.
- Production: Decrease of 274 MMbbl.
- Economic revisions due to prices: Decrease of 792 MMbbl primarily at Oil Sands Mining and Upgrading (SCO) and various Bitumen properties due to higher bitumen pricing resulting in higher royalties and lower net reserves.
- Revisions of prior estimates: Increase of 134 MMbbl primarily due to improved performance at various Bitumen, North America Crude Oil and natural gas (NGLs) properties, partially offset by removal of future undeveloped reserves at North Sea.

2021 total proved Crude Oil and NGLs reserves decreased by 860 MMbbl:

- Extensions and discoveries: Increase of 115 MMbbl primarily due to extension drilling/future offset additions at various Bitumen properties.
- Improved recovery: Increase of 33 MMbbl primarily due to increased recovery of thermal Bitumen at Jackfish and Kirby properties and infill drilling/future offset additions at various Crude Oil and natural gas (NGLs) properties.
- Purchases of reserves in place: Increase of 52 MMbbl primarily due to natural gas (NGLs) acquisitions in northeast British Columbia.
- Production: Decrease of 309 MMbbl.
- Economic revisions due to prices: Decrease of 1,118 MMbbl primarily at Oil Sands Mining and Upgrading (SCO) and thermal Bitumen properties due to higher bitumen pricing resulting in higher royalties and lower net reserves.
- Revisions of prior estimates: Increase of 368 MMbbl primarily due to transfers from beyond the 50-year reserves life cutoff at Oil Sands Mining and Upgrading (SCO) and improved performance at various North America and Offshore Africa Crude Oil, Bitumen and natural gas (NGLs) properties.

2020 total proved Crude Oil and NGLs reserves increased by 1,400 MMbbl:

- Extensions and discoveries: Increase of 726 MMbbl primarily due to the pit extension at Oil Sands Mining and Upgrading (SCO) and extension drilling/future offset additions at various Bitumen, Crude Oil and natural gas (NGLs) properties.
- Improved recovery: Increase of 58 MMbbl primarily due to increased steamflood recovery of Bitumen at Primrose and infill drilling/future offset additions at various Bitumen, Crude Oil and natural gas (NGLs) properties.
- Purchases of reserves in place: Increase of 28 MMbbl primarily of NGLs from the acquisition of Painted Pony Energy Ltd.
- Production: Decrease of 320 MMbbl.
- Economic revisions due to prices: Increase of 805 MMbbl primarily at Oil Sands Mining and Upgrading (SCO) and thermal Bitumen properties due to lower bitumen pricing resulting in lower royalties and higher net reserves, partially offset by uneconomic reserves at several North America Bitumen (primary heavy crude oil) and Crude Oil properties.
- Revisions of prior estimates: Increase of 103 MMbbl primarily due to improved mine performance and mine model changes at Oil Sands Mining and Upgrading (SCO) and improved performance at North America, North Sea and Offshore Africa Crude Oil, Bitumen and various natural gas (NGLs) properties.

<b>Natural Gas</b> (Bcf) <sup>(1)</sup>	<b>North America</b>	<b>North Sea</b>	<b>Offshore Africa</b>	<b>Total</b>
<b>Net Proved Reserves</b>				
Reserves, December 31, 2019	4,728	16	38	4,782
Extensions and discoveries	173	—	—	173
Improved recovery	159	—	—	159
Purchases of reserves in place	2,614	—	—	2,615
Sales of reserves in place	(4)	—	—	(4)
Production	(515)	(4)	(5)	(524)
Economic revisions due to prices	97	—	4	100
Revisions of prior estimates	402	—	(3)	399
Reserves, December 31, 2020	7,655	12	34	7,701
Extensions and discoveries	545	—	—	545
Improved recovery	161	—	—	161
Purchases of reserves in place	1,654	—	—	1,654
Sales of reserves in place	(1)	—	—	(1)
Production	(581)	(1)	(4)	(587)
Economic revisions due to prices	712	—	(4)	708
Revisions of prior estimates	1,139	(3)	—	1,136
Reserves, December 31, 2021	11,285	8	25	11,318
Extensions and discoveries	<b>251</b>	—	—	<b>251</b>
Improved recovery	<b>192</b>	—	—	<b>192</b>
Purchases of reserves in place	<b>228</b>	—	—	<b>228</b>
Sales of reserves in place	—	—	—	—
Production	<b>(688)</b>	<b>(1)</b>	<b>(4)</b>	<b>(693)</b>
Economic revisions due to prices <sup>(2)</sup>	<b>(572)</b>	—	<b>(3)</b>	<b>(575)</b>
Revisions of prior estimates	<b>1,521</b>	<b>(3)</b>	<b>7</b>	<b>1,526</b>
Reserves, December 31, 2022	<b>12,217</b>	<b>4</b>	<b>25</b>	<b>12,246</b>
Net proved developed reserves				
December 31, 2019	2,342	11	28	2,381
December 31, 2020	3,116	6	22	3,144
December 31, 2021	4,469	3	20	4,492
December 31, 2022	<b>4,956</b>	<b>1</b>	<b>19</b>	<b>4,975</b>

(1) Information in the reserves data tables may not add due to rounding.

(2) Reflects the impact of increased royalties primarily at various North America natural gas properties due to higher natural gas pricing resulting in higher royalties and lower net reserves.

2022 total proved Natural Gas reserves increased by 928 Bcf primarily due to the following:

- Extensions and discoveries: Increase of 251 Bcf primarily due to extension drilling/future offset additions in the Montney formation of northwest Alberta and northeast British Columbia.
- Improved recovery: Increase of 192 Bcf primarily due to infill drilling/future offsets additions in the Montney formation of northwest Alberta and northeast British Columbia.
- Purchases of reserves in place: Increase of 228 Bcf primarily due to property acquisitions in North America core areas.
- Production: Decrease of 693 Bcf.
- Economic revisions due to prices: Decrease of 575 Bcf primarily at various North America natural gas properties due to higher natural gas pricing resulting in higher royalties and lower net reserves.
- Revisions of prior estimates: Increase of 1,526 Bcf primarily due to overall positive revisions in several North American core areas as a result of increased performance and category transfers from probable to proved.

2021 total proved Natural Gas reserves increased by 3,617 Bcf primarily due to the following:

- Extensions and discoveries: Increase of 545 Bcf primarily due to extension drilling/future offsets additions in the Montney formation of northwest Alberta and northeast British Columbia.
- Improved recovery: Increase of 161 Bcf primarily due to infill drilling/future offsets additions in the Montney formation of northwest Alberta and northeast British Columbia.
- Purchases of reserves in place: Increase of 1,654 Bcf primarily due to the Storm Resources Ltd. and other acquisitions in northeast British Columbia.
- Sales of reserves in place: Decrease of 1 Bcf from Natural Gas properties in North America.
- Production: Decrease of 587 Bcf.
- Economic revisions due to prices: Increase of 708 Bcf primarily due to increased Natural Gas price in North America.
- Revisions of prior estimates: Increase of 1,136 Bcf primarily due to overall positive revisions in several North American core areas as a result of increased performance and category transfers from probable to proved.

2020 total proved Natural Gas reserves increased by 2,919 Bcf primarily due to the following:

- Extensions and discoveries: Increase of 173 Bcf primarily due to extension drilling/future offset additions in the Montney and other unconventional formations of northwest Alberta and northeast British Columbia.
- Improved recovery: Increase of 159 Bcf primarily due to infill drilling/future offset additions in the Montney and other unconventional formations of northwest Alberta and northeast British Columbia.
- Purchases of reserves in place: Increase of 2,615 Bcf primarily due to the acquisition of Painted Pony Energy Ltd.
- Sales of reserves in place: Decrease of 4 Bcf from Natural Gas properties in North America.
- Production: Decrease of 524 Bcf.
- Economic revisions due to prices: Increase of 100 Bcf primarily due to increased Natural Gas price in North America.
- Revisions of prior estimates: Increase of 399 Bcf primarily due to overall positive revisions in several North America core areas as a result of increased recovery and category transfers from probable to proved, partially offset by removal of future extension and infill undeveloped reserves in North America properties due to revised Company development plans.

## Capitalized Costs Related to Crude Oil and Natural Gas Activities

2022				
(millions of Canadian dollars)	North America	North Sea	Offshore Africa	Total
Proved properties	\$ 128,807	\$ 8,258	\$ 4,332	\$ 141,397
Unproved properties	2,128	—	98	2,226
	<b>130,935</b>	<b>8,258</b>	<b>4,430</b>	<b>143,623</b>
Less: accumulated depletion and depreciation	<b>(65,547)</b>	<b>(8,106)</b>	<b>(3,277)</b>	<b>(76,930)</b>
Net capitalized costs	<b>\$ 65,388</b>	<b>\$ 152</b>	<b>\$ 1,153</b>	<b>\$ 66,693</b>

2021				
(millions of Canadian dollars)	North America	North Sea	Offshore Africa	Total
Proved properties	\$ 124,690	\$ 7,438	\$ 3,980	\$ 136,108
Unproved properties	2,159	—	91	2,250
	126,849	7,438	4,071	138,358
Less: accumulated depletion and depreciation	(61,231)	(5,951)	(2,923)	(70,105)
Net capitalized costs	\$ 65,618	\$ 1,487	\$ 1,148	\$ 68,253

2020				
(millions of Canadian dollars)	North America	North Sea	Offshore Africa	Total
Proved properties	\$ 119,707	\$ 7,283	\$ 3,963	\$ 130,953
Unproved properties	2,353	—	83	2,436
	122,060	7,283	4,046	133,389
Less: accumulated depletion and depreciation	(56,930)	(5,853)	(2,822)	(65,605)
Net capitalized costs	\$ 65,130	\$ 1,430	\$ 1,224	\$ 67,784

## Costs Incurred in Crude Oil and Natural Gas Activities

		2022			
(millions of Canadian dollars)	North America	North Sea	Offshore Africa	Total	
Property acquisitions					
Proved	\$ 524	\$ —	\$ —	\$ 524	
Unproved	—	—	—	—	
Exploration	40	—	5	45	
Development	4,387	304	75	4,766	
<b>Costs incurred</b>	<b>\$ 4,951</b>	<b>\$ 304</b>	<b>\$ 80</b>	<b>\$ 5,335</b>	

		2021			
(millions of Canadian dollars)	North America	North Sea	Offshore Africa	Total	
Property acquisitions					
Proved	\$ 1,371	\$ —	\$ —	\$ 1,371	
Unproved	26	—	—	26	
Exploration	4	—	8	12	
Development	4,301	208	48	4,557	
<b>Costs incurred</b>	<b>\$ 5,702</b>	<b>\$ 208</b>	<b>\$ 56</b>	<b>\$ 5,966</b>	

		2020			
(millions of Canadian dollars)	North America	North Sea	Offshore Africa	Total	
Property acquisitions					
Proved	\$ 750	\$ —	\$ —	\$ 750	
Unproved	15	—	—	15	
Exploration	22	—	15	37	
Development	2,338	104	94	2,536	
<b>Costs incurred</b>	<b>\$ 3,125</b>	<b>\$ 104</b>	<b>\$ 109</b>	<b>\$ 3,338</b>	

## Results of Operations from Crude Oil and Natural Gas Producing Activities

The Company's results of operations from crude oil and natural gas producing activities for the years ended December 31, 2022, 2021 and 2020 are summarized in the following tables:

2022				
(millions of Canadian dollars)	North America	North Sea	Offshore Africa	Total
Crude oil and natural gas revenue, net of royalties, blending and feedstock costs	\$ 31,698	\$ 635	\$ 687	\$ 33,020
Production	(7,830)	(437)	(114)	(8,381)
Transportation	(1,424)	(6)	(1)	(1,431)
Depletion, depreciation and amortization	(5,417)	(1,747)	(173)	(7,337)
Asset retirement obligation accretion	(241)	(33)	(7)	(281)
Petroleum revenue tax	—	483	—	483
Income tax	(3,896)	442	(98)	(3,552)
<b>Results of operations</b>	<b>\$ 12,890</b>	<b>\$ (663)</b>	<b>\$ 294</b>	<b>\$ 12,521</b>

2021				
(millions of Canadian dollars)	North America	North Sea	Offshore Africa	Total
Crude oil and natural gas revenue, net of royalties, blending and feedstock costs	\$ 23,111	\$ 611	\$ 438	\$ 24,160
Production	(6,377)	(383)	(91)	(6,851)
Transportation	(1,176)	(7)	(1)	(1,184)
Depletion, depreciation and amortization	(5,407)	(160)	(142)	(5,709)
Asset retirement obligation accretion	(158)	(21)	(6)	(185)
Petroleum revenue tax	—	33	—	33
Income tax	(2,317)	(29)	(50)	(2,396)
<b>Results of operations</b>	<b>\$ 7,676</b>	<b>\$ 44</b>	<b>\$ 148</b>	<b>\$ 7,868</b>

2020				
(millions of Canadian dollars)	North America	North Sea	Offshore Africa	Total
Crude oil and natural gas revenue, net of royalties, blending and feedstock costs	\$ 12,520	\$ 432	\$ 354	\$ 13,306
Production	(5,624)	(321)	(103)	(6,048)
Transportation	(1,258)	(15)	(1)	(1,274)
Depletion, depreciation and amortization	(5,564)	(277)	(190)	(6,031)
Asset retirement obligation accretion	(169)	(30)	(6)	(205)
Petroleum revenue tax	—	31	—	31
Income tax	23	72	(13)	82
<b>Results of operations</b>	<b>\$ (72)</b>	<b>\$ (108)</b>	<b>\$ 41</b>	<b>\$ (139)</b>

## Standardized Measure of Discounted Future Net Cash Flows from Proved Crude Oil and Natural Gas Reserves and Changes Therein

The following standardized measure of discounted future net cash flows from proved crude oil and natural gas reserves has been computed using the 12-month average price, defined by the SEC as the unweighted arithmetic average of the first-day-of-the-month price for each month within the 12-month period prior to the end of the reporting period, costs as at the balance sheet date and year-end statutory income tax rates. A discount factor of 10% has been applied in determining the standardized measure of discounted future net cash flows. The Company does not believe that the standardized measure of discounted future net cash flows will be representative of actual future net cash flows and should not be considered to represent the fair value of the crude oil and natural gas properties. Actual net cash flows will differ from the presented estimated future net cash flows due to several factors including:

- Future production will include production not only from proved properties, but may also include production from probable and possible reserves;
- Future production of crude oil and natural gas from proved properties will differ from reserves estimated;
- Future production rates will vary from those estimated;
- Future prices and costs rather than 12-month average prices and costs as at the balance sheet date will apply;
- Economic factors such as interest rates, income tax rates, regulatory and fiscal environments and operating conditions will change;
- Future estimated income taxes do not take into account the effects of future exploration and evaluation expenditures; and
- Future development and asset retirement obligations will differ from those estimated.

Future net revenues, development, production and asset retirement obligation costs have been based upon the estimates referred to above. The following tables summarize the Company's future net cash flows relating to proved crude oil and natural gas reserves based on the standardized measure as prescribed in FASB Topic 932 - "Extractive Activities - Oil and Gas":

2022				
(millions of Canadian dollars)	North America	North Sea	Offshore Africa	Total
Future cash inflows	\$ 986,672	\$ 1,506	\$ 7,304	\$ 995,482
Future production costs	(303,270)	(691)	(1,998)	(305,959)
Future development costs and asset retirement obligations	(83,803)	(1,416)	(1,439)	(86,658)
Future income taxes	(136,905)	517	(900)	(137,288)
Future net cash flows	462,694	(84)	2,967	465,577
10% annual discount for timing of future cash flows	(327,333)	84	(1,330)	(328,579)
Standardized measure of future net cash flows	\$ 135,361	\$ —	\$ 1,637	\$ 136,998
2021				
(millions of Canadian dollars)	North America	North Sea	Offshore Africa	Total
Future cash inflows	\$ 679,123	\$ 7,791	\$ 5,581	\$ 692,495
Future production costs	(238,144)	(4,074)	(1,818)	(244,036)
Future development costs and asset retirement obligations	(77,375)	(1,857)	(1,142)	(80,374)
Future income taxes	(81,860)	(719)	(565)	(83,144)
Future net cash flows	281,744	1,141	2,056	284,941
10% annual discount for timing of future cash flows	(201,227)	(142)	(788)	(202,157)
Standardized measure of future net cash flows	\$ 80,517	\$ 999	\$ 1,268	\$ 82,784
2020				
(millions of Canadian dollars)	North America	North Sea	Offshore Africa	Total
Future cash inflows	\$ 404,193	\$ 5,873	\$ 4,172	\$ 414,238
Future production costs	(203,599)	(3,259)	(1,746)	(208,604)
Future development costs and asset retirement obligations	(72,935)	(2,130)	(1,032)	(76,097)
Future income taxes	(27,178)	(141)	(217)	(27,536)
Future net cash flows	100,481	343	1,177	102,001
10% annual discount for timing of future cash flows <sup>(1)</sup>	(74,395)	278	(373)	(74,490)
Standardized measure of future net cash flows	\$ 26,086	\$ 621	\$ 804	\$ 27,511

(1) Includes the impact of abandonment expenditures timing.

The principal sources of change in the standardized measure of discounted future net cash flows are summarized in the following table:

(millions of Canadian dollars)	<b>2022</b>	2021	2020
Sales of crude oil and natural gas produced, net of production costs	<b>\$ (23,242)</b>	\$ (16,149)	\$ (6,127)
Net changes in sales prices and production costs	<b>79,291</b>	74,558	(46,055)
Extensions, discoveries and improved recovery	<b>6,198</b>	2,948	626
Changes in estimated future development costs	<b>(3,640)</b>	(2,773)	(153)
Purchases of proved reserves in place	<b>5,745</b>	4,010	947
Sales of proved reserves in place	—	(1)	(1)
Revisions of previous reserve estimates	<b>(9,956)</b>	(186)	5,295
Accretion of discount	<b>10,712</b>	3,460	7,718
Changes in production timing and other	<b>5,463</b>	6,638	(4,830)
Net change in income taxes	<b>(16,357)</b>	(17,232)	6,566
Net change	<b>54,214</b>	55,273	(36,014)
Balance - beginning of year	<b>82,784</b>	27,511	63,525
Balance - end of year	<b>\$ 136,998</b>	\$ 82,784	\$ 27,511

# Ten Year Review

Years ended December 31	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
<b>FINANCIAL INFORMATION</b> (C\$ millions, except per share amounts)										
Net earnings (loss)	<b>10,937</b>	7,664	(435)	5,416	2,591	2,397	(204)	(637)	3,929	2,270
Per share - basic (\$/share)	<b>9.64</b>	6.49	(0.37)	4.55	2.13	2.04	(0.19)	(0.58)	3.60	2.08
Per share - diluted (\$/share)	<b>9.52</b>	6.46	(0.37)	4.54	2.12	2.03	(0.19)	(0.58)	3.58	2.08
Cash flows from operating activities	<b>19,391</b>	14,478	4,714	8,829	10,121	7,262	3,452	5,632	8,459	7,218
Adjusted funds flow <sup>(1)</sup>	<b>19,791</b>	13,733	5,200	10,267	9,088	7,347	4,293	5,785	9,587	7,477
Per share - basic (\$/share)	<b>17.44</b>	11.63	4.40	8.62	7.46	6.25	3.90	5.29	8.78	6.87
Per share - diluted (\$/share)	<b>17.22</b>	11.57	4.40	8.61	7.43	6.21	3.89	5.28	8.74	6.86
Cash flows used in investing activities	<b>4,987</b>	3,703	2,819	7,255	4,814	13,102	3,811	5,465	11,177	7,006
Net capital expenditures <sup>(1)</sup>	<b>5,471</b>	4,908	3,206	7,121	4,731	17,129	3,794	3,853	11,744	7,274
<b>Balance sheet information</b> (C\$ millions)										
Adjusted working capital <sup>(2)</sup>	<b>(1,190)</b>	(480)	626	241	(601)	513	1,056	1,193	(673)	(1,574)
Exploration and evaluation assets	<b>2,226</b>	2,250	2,436	2,579	2,637	2,632	2,382	2,586	3,557	2,609
Property, plant and equipment, net	<b>64,859</b>	66,400	65,752	68,043	64,559	65,170	50,910	51,475	52,480	46,487
Total assets	<b>76,142</b>	76,665	75,276	78,121	71,559	73,867	58,648	59,275	60,200	51,754
Long-term debt <sup>(3)</sup>	<b>11,445</b>	14,694	21,453	20,982	20,623	22,458	16,805	16,794	14,002	9,661
Shareholders' equity	<b>38,175</b>	36,945	32,380	34,991	31,974	31,653	26,267	27,381	28,891	25,772
<b>SHARE INFORMATION</b>										
Common shares outstanding (thousands)	<b>1,102,636</b>	1,168,369	1,183,866	1,186,857	1,201,886	1,222,769	1,110,952	1,094,668	1,091,837	1,087,322
Weighted average shares outstanding - basic (thousands)	<b>1,134,960</b>	1,181,250	1,181,768	1,190,977	1,218,798	1,175,094	1,100,471	1,093,862	1,091,754	1,088,682
Weighted average shares outstanding - diluted (thousands)	<b>1,149,182</b>	1,186,557	1,181,768	1,193,106	1,223,758	1,182,823	1,100,471	1,093,862	1,096,822	1,090,541
Dividends declared (\$/share) <sup>(4)</sup>	<b>4.60</b>	2.00	1.70	1.50	1.34	1.10	0.94	0.92	0.90	0.58
<b>Trading statistics</b>										
TSX – C\$										
Trading volume (thousands)	<b>1,533,722</b>	1,568,872	1,866,414	904,013	806,254	588,422	653,727	728,033	717,580	683,003
Share Price (\$/share)										
High	<b>88.18</b>	55.59	42.57	42.56	49.08	47.00	46.74	42.46	49.57	36.04
Low	<b>54.20</b>	28.67	9.80	30.01	30.11	35.90	21.27	25.01	31.00	28.44
Close	<b>75.19</b>	53.45	30.59	42.00	32.94	44.92	42.79	30.22	35.92	35.94
NYSE – US\$										
Trading volume (thousands)	<b>755,722</b>	795,605	1,058,121	679,697	796,971	608,008	892,220	951,311	812,521	645,403
Share Price (\$/share)										
High	<b>70.60</b>	44.33	32.79	32.56	38.19	36.78	35.28	34.46	46.65	33.92
Low	<b>42.32</b>	22.40	6.71	22.58	21.85	27.53	14.60	18.94	26.53	26.98
Close	<b>55.53</b>	42.25	24.05	32.35	24.13	35.72	31.88	21.83	30.88	33.84
<b>RATIOS</b>										
Debt to book capitalization <sup>(5)</sup>	<b>22%</b>	27%	40%	37%	39%	41%	39%	38%	33%	27%
After-tax return on average capital employed <sup>(6)</sup>	<b>22%</b>	16%	—%	11%	6%	6%	—%	(1)%	10%	7%
Daily production before royalties per ten thousand common shares (BOE/d)	<b>11.6</b>	10.6	9.8	9.3	9.0	7.9	7.3	7.8	7.2	6.2
Total proved plus probable reserves per common share (BOE) <sup>(7)</sup>	<b>16.4</b>	14.5	13.5	12.0	11.1	9.7	8.3	8.3	8.1	7.3
Net asset value (\$/share) <sup>(9)</sup>	<b>164.55</b>	119.36	71.62	97.09	101.89	81.41	74.77	73.39	78.99	72.41

(1) Non-GAAP Financial Measure. Refer to the "Non-GAAP and Other Financial Measures" section of the Company's MD&A.

(2) Calculated as current assets less current liabilities, excluding the current portion of long-term debt.

(3) Long-term debt includes current portion of long-term debt.

(4) On March 1, 2023, the Board of Directors approved a quarterly dividend of \$0.90 per common share, an increase from the previous quarterly dividend of \$0.85 per common share. The dividend is payable on April 5, 2023.

(5) Capital Management Measure. Refer to the "Non-GAAP and Other Financial Measures" section of the Company's MD&A.

(6) Non-GAAP Ratio. Refer to the "Non-GAAP and Other Financial Measures" section of the Company's MD&A.

(7) Based upon company gross reserves (forecast price and costs, before royalties), using year end common shares outstanding.

Years ended December 31	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
<b>COMPANY NET RESERVES</b> <sup>(8)</sup>										
<b>Crude oil and NGLs (MMbbl)</b>										
Company net proved reserves (after royalties)										
North America	<b>8,940</b>	8,740	8,980	8,129	7,163	6,423	3,909	3,645	3,380	3,290
North Sea	<b>11</b>	79	96	109	119	120	134	158	204	224
Offshore Africa	<b>59</b>	64	70	70	72	70	74	74	78	80
	<b>9,010</b>	8,883	9,147	8,307	7,354	6,613	4,117	3,877	3,662	3,594
Company net proved plus probable reserves (after royalties)										
North America	<b>11,181</b>	10,883	11,151	10,231	9,456	8,353	6,015	5,806	5,609	5,135
North Sea	<b>15</b>	117	160	175	186	180	252	284	308	325
Offshore Africa	<b>77</b>	85	94	93	98	102	108	113	119	122
	<b>11,273</b>	11,085	11,405	10,499	9,740	8,635	6,375	6,203	6,036	5,582
<b>Natural gas (Bcf)</b>										
Company net proved reserves (after royalties)										
North America	<b>11,614</b>	11,076	8,373	5,795	6,005	6,032	5,845	5,383	5,054	3,684
North Sea	<b>4</b>	8	12	16	27	21	41	39	83	91
Offshore Africa	<b>27</b>	25	32	37	21	15	23	21	36	38
	<b>11,645</b>	11,109	8,417	5,849	6,053	6,068	5,909	5,443	5,173	3,813
Company net proved plus probable reserves (after royalties)										
North America	<b>18,617</b>	18,315	13,884	8,556	8,681	8,454	7,888	7,361	6,791	5,138
North Sea	<b>7</b>	11	17	21	38	32	85	96	114	125
Offshore Africa	<b>40</b>	39	48	52	44	47	55	50	68	70
	<b>18,664</b>	18,364	13,949	8,630	8,763	8,533	8,028	7,507	6,973	5,333
Total company net proved reserves (after royalties) (MMBOE)	<b>10,951</b>	10,734	10,549	9,282	8,363	7,625	5,102	4,784	4,524	4,230
Total company net proved plus probable reserves (after royalties) (MMBOE)	<b>14,384</b>	14,146	13,730	11,938	11,202	10,057	7,713	7,454	7,198	6,471
<b>OPERATING INFORMATION</b>										
<b>Daily production</b> (before royalties) <sup>(10)</sup>										
Crude oil and NGLs (Mbbbl/d)										
North America – Exploration and Production	<b>480</b>	473	460	406	351	359	351	400	391	344
North America – Oil Sands Mining and Upgrading	<b>426</b>	448	417	395	426	282	123	123	111	100
North Sea	<b>13</b>	18	23	28	24	23	24	22	17	18
Offshore Africa	<b>14</b>	14	17	21	20	20	26	19	12	16
	<b>933</b>	952	918	850	821	685	524	564	531	478
Natural gas (MMcf/d)										
North America	<b>2,075</b>	1,680	1,450	1,443	1,490	1,601	1,622	1,663	1,527	1,130
North Sea	<b>2</b>	3	12	24	32	39	38	36	7	4
Offshore Africa	<b>13</b>	12	15	24	26	22	31	27	21	24
	<b>2,090</b>	1,695	1,477	1,491	1,548	1,662	1,691	1,726	1,555	1,158
Total production (before royalties) (MBOE/d)	<b>1,281</b>	1,235	1,164	1,099	1,079	962	806	852	790	671
<b>PRODUCT PRICING</b> <sup>(11) (6) (11)</sup>										
Average crude oil and NGLs price (\$/bbl) <sup>(12)</sup>	<b>90.64</b>	63.71	31.90	55.08	46.92	48.57	36.93	41.13	77.04	73.81
Average natural gas price (\$/Mcf)	<b>6.55</b>	4.07	2.40	2.34	2.61	2.76	2.32	3.16	4.83	3.30
Average SCO price (\$/bbl) <sup>(13)</sup>	<b>117.69</b>	77.95	43.98	70.18	68.61	63.98	58.59	61.39	100.27	99.18

(8) Company net reserves are company gross reserves after royalties. Reserves data may not add due to rounding and BOE values may not calculate exactly due to rounding.

(9) Net present value, discounted at 10%, of the future net revenue (before income tax and excluding the ARO for existing development as at December 31, 2022) of the Company's total proved plus probable crude oil, natural gas and NGL reserves prepared using forecast prices and costs, as reported in the Company's AIF, plus the estimated market value of core unproved property at \$300/acre (\$285/acre from 2021 to 2015, \$300/acre from 2014 to 2013), less net debt divided by common shares outstanding. Net debt is long term debt plus/minus the working capital deficit/surplus. Future development costs and abandonment and reclamation costs attributable to future development activity have been applied against the future net revenue.

(10) Numbers may not add due to rounding.

(11) Product prices reflect realized product prices before blending costs, transportation costs and exclude risk management activities.

(12) Average crude oil and NGLs pricing excludes SCO.

(13) For years 2017 to 2022, average SCO product price includes AOSP realized product prices net of blending and feedstock costs.

## Board of Directors

**\*Catherine M. Best, FCA, ICD.D** <sup>(1)(2)</sup>  
Corporate Director  
Calgary, Alberta

**\*M. Elizabeth Cannon, O.C.** <sup>(3)(4)(5)</sup>  
Corporate Director  
Calgary, Alberta

**N. Murray Edwards, O.C.**  
Corporate Director  
St. Moritz, Switzerland

**\*Christopher L. Fong** <sup>(3)(5)</sup>  
Corporate Director  
Calgary, Alberta

**\*Ambassador Gordon D. Giffin** <sup>(1)(4)</sup>  
Partner and Global Vice Chair, emeritus,  
Dentons US LLP  
Sarasota, Florida

**\*Wilfred A. Gobert** <sup>(1)(2)(4)</sup>  
Corporate Director  
Calgary, Alberta

**Steve W. Laut** <sup>(5)</sup>  
Corporate Director  
Calgary, Alberta

**Tim S. McKay** <sup>(3)</sup>  
President,  
Canadian Natural Resources Limited  
Calgary, Alberta

**\*Honourable Frank J. McKenna, P.C., O.C., O.N.B., Q.C.** <sup>(2)(4)</sup>  
Deputy Chair, TD Bank Group  
Cap Pelé, New Brunswick

**\*David A. Tuer** <sup>(1)(5)</sup>  
Corporate Director  
Calgary, Alberta

**\*Annette M. Verschuren, O.C.** <sup>(2)(3)</sup>  
Chairman and Chief Executive Officer, NRSTOR Inc.  
Toronto, Ontario

(1) Audit Committee member

(2) Compensation Committee member

(3) Health, Safety, Asset Integrity and Environmental Committee member

(4) Nominating, Governance and Risk Committee member

(5) Reserves Committee member

\*Determined to be independent by the Nominating, Governance and Risk Committee of the Board of Directors and pursuant to the independent standards established under National Instrument 58-101 and the New York Stock Exchange Corporate Governance Listing Standards.

## Senior Officers

**N. Murray Edwards**  
Executive Chairman

**Tim S. McKay**  
President

**Trevor J. Cassidy**  
Chief Operating Officer, Exploration and Production

**Scott G. Stauth**  
Chief Operating Officer, Oil Sands

**Mark A. Stainthorpe**  
Chief Financial Officer and Senior Vice-President, Finance

**Troy J.P. Andersen**  
Senior Vice-President, Canadian Conventional  
Field Operations

**Calvin J. Bast**  
Senior Vice-President, Production

**Jay E. Froc**  
Senior Vice-President, Oil Sands Mining and Upgrading

**Dwayne F. Giggs**  
Senior Vice-President, Exploration

**Dean W. Halewich**  
Senior Vice-President, Safety, Risk Management  
and Innovation

**Ron K. Laing**  
Senior Vice-President, Corporate Development and Land

**Warren P. Raczynski**  
Senior Vice-President, Thermal

**Robin S. Zabek**  
Senior Vice-President, Exploitation

**Victor C. Darel**  
Vice-President, Finance and Principal Accounting Officer

**Erin L. Lunn**  
Vice-President, Land

**Paul M. Mendes**  
Vice-President, Legal, General Counsel and  
Corporate Secretary

**Mark A. Overwater**  
Vice-President, Marketing

**Kyle G. Pisio**  
Vice-President, Drilling, Completions and  
Asset Retirement

**Roy D. Roth**  
Vice-President, Facilities and Pipelines

**Kara L. Slemko**  
Vice-President, Corporate Development and  
Commercial Operations

## HEAD OFFICE

### Canadian Natural Resources Limited

2100, 855 – 2 Street S. W.  
Calgary, Alberta T2P 4J8

**Telephone:** (403) 517-6700

**Facsimile:** (403) 517-7350

**Website:** www.cnrl.com

## INVESTOR RELATIONS

**Telephone:** (403) 514-7777

**Email:** ir@cnrl.com

## INTERNATIONAL OFFICE

### CNR International (U.K.) Limited

St. Magnus House, Guild Street  
Aberdeen AB11 6NJ Scotland

## REGISTRAR AND TRANSFER AGENT

### Computershare Trust Company of Canada

Calgary, Alberta  
Toronto, Ontario

### Computershare Investor Services LLC

New York, New York

## AUDITORS

### PricewaterhouseCoopers LLP

Calgary, Alberta

## INDEPENDENT QUALIFIED RESERVES EVALUATORS

### GLJ Ltd.

Calgary, Alberta

### Sproule Associates Limited

Calgary, Alberta

### Sproule International Limited

Calgary, Alberta

## STOCK LISTING – CNQ

Toronto Stock Exchange  
The New York Stock Exchange

## COMPANY DEFINITION

Throughout the annual report, Canadian Natural Resources Limited is referred to as “us”, “we”, “our”, “Canadian Natural”, or the “Company”.

## CURRENCY

All amounts are reported in Canadian currency unless otherwise stated.

## ABBREVIATIONS

Abbreviations can be found on page 10.

## METRIC CONVERSION CHART

To Convert	To	Multiply by
barrels	cubic metres	0.159
thousand cubic feet	cubic metres	28.174
feet	metres	0.305
miles	kilometres	1.609
acres	hectares	0.405
tonnes	tons	1.102

## COMMON SHARE DIVIDEND

The Company paid its first dividend on its common shares on April 1, 2001. Since then, dividends have been paid quarterly. The following table shows the aggregate amount of the cash dividends declared per common share of the Company and accrued in each of its last three years ended December 31, 2022.

	2022	2021	2020
Cash dividends declared per common share	\$4.60	\$2.00	\$1.70

## NOTICE OF ANNUAL MEETING

Canadian Natural’s Annual Meeting of the Shareholders will be held on Thursday, May 4, 2023 at 1:00 p.m. Mountain Daylight Time in Exhibition Hall E of the Telus Convention Centre, Calgary, Alberta.

## CORPORATE GOVERNANCE

Canadian Natural’s corporate governance practices and disclosure of those practices are in compliance with National Policy 58-201 Corporate Governance Guidelines and National Instrument 58-101 Disclosure of Corporate Governance Practices. Canadian Natural, as a foreign private issuer in the United States, may rely on home jurisdiction listing standards for compliance with most of the New York Stock Exchange (NYSE) Corporate Governance Listing Standards but must disclose any significant differences between its corporate governance practices and those required for U.S. companies listed on the NYSE.

Canadian Natural follows Toronto Stock Exchange (TSX) rules with respect to shareholder approval of equity compensation plans and material revisions to such plans. TSX rules provide that only the creation of or material amendments to equity compensation plans which provide for new issuance of securities are subject to shareholder approval. However, the NYSE requires shareholder approval of all equity compensation plans whether they provide for the delivery of newly issued securities, or rely on securities acquired in the open market by the issuing company for the purposes of redistribution to plan beneficiaries, and material revisions to such plans. Canadian Natural has a performance share unit plan pursuant to which common shares are purchased through the TSX. This is not a new issue of securities under the performance share unit plan and under TSX rules the plan is not subject to shareholder approval.

Canadian Natural has included as exhibits to its Annual Report on Form 40-F for the 2022 fiscal year filed with the United States Securities and Exchange Commission certificates of the Chief Executive Officer and Chief Financial Officer certifying as to disclosure controls and procedures and internal control over financial reporting.



## Canadian Natural

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