FORM 51-102F3 MATERIAL CHANGE REPORT

Item 1 Name and Address of Company

Pan American Energy Corp. (the "**Company**") #610, 505 3 Street SW Calgary, Alberta Canada T2P 3E6

Item 2 Date of Material Change

November 20, 2023.

Item 3 News Release

The Company disseminated a news release (the "**News Release**") announcing the material change described herein through the news dissemination services of Globe Newswire on November 20, 2023, and a copy was subsequently filed on SEDAR+.

Item 4 Summary of Material Change

The Company announced its inaugural mineral resource estimate ("**MRE**") on its Horizon Lithium Project (the "**Project**") in Big Smoky Valley, Esmeralda County, Nevada. The MRE includes estimated Indicated Mineral Resources of 1,325 Lithium Carbonate Equivalent ("**LCE**") kilo tonnes ("**KTonnes**") and Inferred Mineral Resources of 8,879 LCE KTonnes, with an average grade of 678 ppm lithium ("**Li**").

Item 5 Full Description of Material Change

5.1 Full Description of Material Change

The Company announced its inaugural MRE on the Project. The MRE was completed pursuant to the requirements of National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* ("**NI 43-101**").

The MRE was completed by RESPEC, LLC ("**RESPEC**") utilizing the results of the Company's 20-hole exploratory drill program, which totaled approximately 4,371.6 metres. RESPEC has also been engaged to prepare a technical report on the Project containing the full results of the Company's drill program and the MRE (the "**Technical Report**"). Pursuant to NI 43-101, the Company will file the Technical Report within 45 days of the date of the News Release on the Company's SEDAR+ profile at www.sedarplus.ca.

Highlights

- One of the largest identified lithium deposits in the U.S. with an estimated Indicated Mineral Resource of 1,325 LCE KTonnes and Inferred Mineral Resource of 8,879 LCE KTonnes, with an average grade of 678 ppm Li (see table below for additional details regarding the calculation of the MRE and the average Li grades for the Inferred Mineral Resources and Indicated Mineral Resources).
- **High-Grade Mineral Resources.** Estimates were calculated based on a conservative 300 ppm Li cut-off within an optimized pit.
- **Rapid advancement in a short timeframe.** The MRE is based on 20 diamond drill holes completed in 2023, within a year of the Company acquiring rights to the Project pursuant to

the property option agreement entered into with the owner of the Project, Horizon Lithium LLC (the "**Property Option Agreement**"). One hole was abandoned due to hole conditions and was not used in the MRE.

• **Significant expansion potential** through step-out drilling to extend the deposit to the North West, South, East and West and at greater depths. The Company is actively evaluating geophysical exploration techniques and Phase 3 drill planning.

The Project's resource block model and tabulation was completed based on the data collected from 20 drill holes which were completed during 2023. Mineral domains were interpreted on 450-meter cross sections, solidified into 3D solids, and coded into the model as lithium domain percentages. The lithium grades were interpolated by inverse-distance at a power of 2 by using the lithium domain percentages to assist in constraining the grade estimation. The resource estimate has also been constrained by pit optimization to determine a shape and cut-off grade in order to meet the requirement of reasonable prospects for economic extraction. The MRE is summarized below:

Table 1. Mineral Resource Estimate for the Horizon Lithium Project					
Classification	Cut-off (ppm Li)	Total KTonnes	Average Grade (ppm Li)	Li KTonnes	LCE KTonnes
Indicated	300	372,845	669	249	1,325
Inferred	300	2,453,963	680	1,668	8,879

Notes:

- The MRE was done by RESPEC in metric tonnes.
- Mineral Resources comprised all model blocks at a 300 ppm Li cut-off within an optimized pit.
- Mineral Resources within the optimized pit are block-diluted tabulations.
- In order to describe the resource in terms of 'industry standard' lithium carbonate equivalent, a conversion factor of 5.323 was used to convert elemental lithium to LCE.
- 20 drillholes were drilled, however only 20 holes were used in the MRE as one hole was abandoned due to loss circulation issues.
- An Inferred Mineral Resource has a lower level of confidence than that applying to Measured and Indicated Resources and must not be converted to Mineral Reserves. It is reasonably expected that most of the Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.
- Mineral Resources potentially amenable to open pit mining methods are reported using a lithium carbonate price of US\$20,000/tonne, a throughput rate of 10,800 Ktonnes/day, assumed metallurgical recoveries of 66%, mining costs of US\$2.20/tonne mined, processing costs of US\$14.12/tonne processed and general and administrative costs of \$0.42/tonne processed. The results from the pit optimization are used solely for the purpose of testing the "reasonable prospects for economic extraction" by an open pit and do not represent an attempt to estimate mineral reserves. There are no mineral reserves on the Project. The results are used as a guide to assist in the preparation of the MRE and to select an appropriate resource reporting cut-off grade. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing or other relevant issues. The effective date of the MRE is November 15, 2023.
- All figures are rounded to reflect the relative accuracy of the estimate and numbers may not add due to rounding.



Figure 1 — The Project boundary, 20 exploratory drillholes used in the MRE, and the Mineral Resource body showing unexplored areas to the west, northwest, east and south.

Details related to the calculation of the MRE

The MRE was prepared by Tabetha Stirrett, P. Geo. (the "Author" or "QP") with an effective date of November 15, 2023. This estimate is the inaugural MRE produced by the Company since the Company acquired rights to the Project pursuant to the Property Option Agreement.

The MRE was estimated using the following geological and resource block modeling parameters which are based on geological interpretations, geostatistical studies, and best practices in mineral estimation.

The QP is not aware of any factors or issues that materially affect the MRE other than normal risks faced by mining projects in the area of the Project in terms of environmental, permitting, taxation, socioeconomic, marketing, and political factors, and the additional risk factors normally associated with the estimation of inferred mineral resources.

- The Project geology is comprised of sedimentary rocks of the Siebert Formation deposited by lacustrine, fluvial, and volcanic processes during the middle Miocene epoch. The Siebert Formation is overlain in varying amounts by sedimentary and volcaniclastic sands and gravels sourced from the surrounding terrain.
- Drilling conducted by the Company included diamond core drilling of HQ size (63.5 mm diameter).
- Diamond core has been sampled in intervals of 1.52 m where possible. 2,311 core samples have been collected and submitted for analysis. Duplicate samples, pulp and coarse blank samples, and certified reference material used as standard samples were submitted for QA/QC analysis.

- Geochemical analysis of drill core samples was conducted by ALS Global in Reno, Nevada where they were analyzed for a 48-element suite via ICP-MS following four acid digestion. ALS is independent of the Company.
- The MRE was estimated from the diamond drill holes completed by Pan American since February 2023. A total of 20 drill holes comprising 2,311 assays were used for the mineral resources model.
- The 3D modelling of the Mineral Resources was conducted using a minimum grade of 60 ppm Li within a preliminary lithological model. The Li-grade distribution was analyzed on a population distribution graph and three grade populations were identified for modeling purposes. These populations were used in conjunction with geologic characteristics to generate 2D mineral domain interpretations on 450-m cross sections. The 2D mineral domains were used to generate 3D mineralized solids. Volume percentages of these solids were coded into the block model and applied to the interpolation of Li grades to constrain the estimation. The interpolation was conducted using Inverse Distance Squared methodology with two interpolation passes for each mineral domain.
- The block model was defined by a block size of 30 m long by 30 m wide by 10 m thick and covers a strike length of approximately 10,800 m to a maximal vertical depth of 870 m below surface.
- The MRE was classified as Indicated or Inferred Mineral Resources based on data quality, sample spacing, and mineral domain continuity. Mineral Resources were defined using a search ellipsoid 1,000 m by 1,000 m by 250 m.
- Classification focused on spatial relation using a minimum of 1 composite within a maximum isotropic distance of 200 m to a block for the Indicated Mineral Resources.
- Validation has proven that the block model fairly reflects the underlying data inputs. Variability over distance is relatively moderate to low for this deposit type, therefore the maximum classification level is Indicated Mineral Resources.
- Mineralization at the deposit extends to surface and is expected to be suitable for open cut mining. No minimum mining width was applied. Internal mining dilution is limited to internal barren host rock intervals within the mineralized claystone intervals. Based on these assumptions, it is considered that there are no mining factors which are likely to affect the assumption that the deposit has reasonable prospects for eventual economic extraction.
- It is the QP's opinion that the current classification used is adequate and reliable for this type of mineralization and mineral resource estimate.
- Mineral Resources were constrained within the boundaries of an optimized pit shell using the following constraints: Concentrate price: USD\$20,000/t; mining costs: USD\$2.20/t ROM; Processing costs: USD14.12/t ROM, General/Admin: USD\$0.42/t ROM, Lithium Recovery: 66%. The MRE reported is a pit-constrained estimate with reasonable prospects of eventual economic extraction.

Qualified Persons

The technical content of the news release was reviewed and approved by Tabetha Stirrett, P.Geo, who is a consulting geologist of RESPEC, an independent consultant of the Company, and a "Qualified Person" as defined by NI 43-101.

In accordance with the guidelines outlined in NI 43-101, Section 3.2, the geological information presented herein is based on extensive fieldwork, drilling campaigns, and laboratory analyses conducted by qualified persons in compliance with the CIM Definition Standards on Mineral Resources and Mineral Reserves.

Data Verification:

The data presented in the news release has undergone a comprehensive verification process to ensure accuracy and reliability. The verification procedures were conducted by qualified professionals with relevant expertise in geological and mining disciplines, and were overseen by the QP.

Data Collection and Compilation:

All raw data, including geological, drilling, and analytical data, was collected and compiled from various sources, including fieldwork, drilling campaigns, and laboratory analyses. Data compilation involved a meticulous review to identify and rectify any inconsistencies or errors in the dataset.

QA/QC Procedures:

Quality assurance and quality control (QA/QC) procedures were implemented throughout the data collection process. Standard QA/QC measures, including the insertion of certified reference materials, duplicate samples, and blanks, were employed during drilling and sampling campaigns. Regular checks and audits were conducted to monitor and address any deviations from established QA/QC protocols.

MRE Verification

The Project's mineral resource estimation heavily depended on explicitly modeling lithium mineralization domains in cross-sections. This practical approach ensured a thorough verification of the data, meticulously assessing the continuity and significance of geological variables and assays within that context.

Limitations on the Verification Process:

Despite rigorous verification efforts, it is essential to acknowledge certain limitations associated with the data verification process:

Sampling Variability:

While QA/QC measures were implemented to address sampling variability, inherent variability in geological and mineralization characteristics may introduce uncertainties in the dataset.

Geological Complexity:

The Project's geological setting may pose challenges in terms of interpretation and verification. Unknown geological structures and mineralization patterns could introduce uncertainties despite verification efforts.

It is crucial to note that, despite these limitations, every effort has been made to minimize potential biases and inaccuracies in the data. Qualified Persons have exercised their professional judgment to mitigate these limitations and ensure the reliability of the information presented in this report.

5.2 Disclosure for Restructuring Transactions

Not applicable.

Item 6 Reliance on Subsection 7.1(2) of National Instrument 51-102

Not applicable.

Item 7 Omitted Information

Not applicable.

Item 8 Executive Officer

For further information, please contact Jason Latkowcer, Chief Executive Officer and Director of the Company, at 585-885-5970 or via email to <u>info@panam-energy.com</u>.

Item 9 Date of Report

November 23, 2023