# FORM 51-102F3 MATERIAL CHANGE REPORT

#### Item 1 Name and Address of Company

Pan American Energy Corp. (the "**Company**") 100 - 521 3rd Avenue SW Calgary, Alberta Canada T2P 3T3

#### Item 2 Date of Material Change

September 12, 2023.

### Item 3 News Release

The Company disseminated a news release announcing the material change described herein through the news dissemination services of Globe Newswire on September 12, 2023, and a copy was subsequently filed on SEDAR.

#### Item 4 Summary of Material Change

The Company announced the completion and assay results of its exploratory subsurface drill program, Phase 1 and 2, at its Horizon Lithium Project ("**Horizon**" or the "**Project**") in the Big Smoky Valley, Esmeralda County, Nevada. This exploratory drilling program consisted of twenty-one targeted diamond core drill holes on Pan American's 17,334 acres of lithium-bearing claims. Using a 900 ppm cut-off weighted lithium grade, eight drill holes ranged from 902 ppm to 1033 ppm with a total cumulative thickness of 2,426 feet. The highest measured assay value was 2,040 ppm at a depth of 394 ft. Sixteen drill holes produced an average weighted lithium grade above 300 ppm with a total cumulative thickness of 7,390 ft. Higher-grade drill holes are particularly attractive for recovery using known extraction technologies.

### Item 5 Full Description of Material Change

# 5.1 Full Description of Material Change

The Company announced the completion and assay results of its exploratory subsurface drill program, Phase 1 and 2, at the Project.. This exploratory drilling program consisted of twenty-one targeted diamond core drill holes on Pan American's 17,334 acres of lithium-bearing claims The program was designed based on extensive geological research conducted by the Company's contractor partner, RESPEC LLC ("**RESPEC**"). A total of 2,306 Project assays were processed by ALS Geochemistry ("**ALS**"), located in Reno, NV.

#### Highlights from the Phase 1 and 2 drilling program include:

- Lithium Concentrations: Using a 900 ppm cut-off weighted lithium grade, eight drill holes ranged from 902 ppm to 1033 ppm with a total cumulative thickness of 2,426 feet (Table 1). The highest measured assay value was 2,040 ppm (HL008) at a depth of 394 ft. Sixteen drill holes produced an average weighted lithium grade above 300 ppm with a total cumulative thickness of 7,390 ft (Table 2). Higher-grade drill holes are particularly attractive for recovery using known extraction technologies.
- Shallow Overburden: Anomalous lithium concentrations were measured at shallow depth, with as little as 15.5 ft (HL030) overburden. The alluvium cover on the Project is comparable to industry peers with a similar range of depths indicating that low-cost and low-strip ratio techniques can potentially be applied.
- **Depth of Mineralization:** Drill holes were advanced as far as 1,000 ft of depth confirming lithium mineralization extends to a significant range. Also, the drill results show that lithium-bearing claystone at Horizon is extensive and several meters thick. The basal bedrock of the Siebert Formation was not encountered, allowing for further exploration at depth.
- **Deposit Significance**: The Project sits immediately adjacent to American Battery Technology's Tonopah Flats project, one of the largest known lithium claystone projects in the United States at 15.8 million tonnes of inferred lithium.
- **Future Plans:** Pan American will work with RESPEC to use the results from the Phase 1 and 2 programs to develop a mineral resource estimate. With less than one-third of the Project currently explored, the Company will

develop a step-out drill program to further characterize the deposit including grade and thickness assessment and resource estimation.

The drilling equipment employed in the Phase 1 and 2 program drilled up to a maximum depth of 1,000 feet on multiple drill holes (HL24 – HL 26). In several drill holes, significant lithium was present at final depths, and bedrock was not encountered. This suggests that anomalous lithium concentrations could be present at depths greater than 1000 ft. The Company is actively evaluating future exploration potential both at depth and in the untapped west-northwest and southern portion of the Project to further delineate the size, quality, and economic viability of the lithium-bearing resource. Pan American will also explore metallurgy testing and strategic partners for production testing and processing.

Drillhole	From	To (ft)	Thickness	Weighted
	(ft)		(ft)	Li Grade
*HL9, HL10, HL19, HL22, HL23,				(ppm)-
HL25, HL27, HL29, HL30, HL31, and HL32 did not ancounter lithium				
mineralization above the cut-off				
grade.				
HL005	461	491	30	963
	531	810	279	909
HL006	220	638	418	903
HL007	213	258	45	902
	283	408	125	929
	485	505	20	902
	510	520	10	929
	535	610	75	937
	665	695	30	929
	720	730	10	941
	755	895	140	920
HL008	259	424	165	943
HL020	108	413	305	908
	443	598	155	902
HL021	203	223	20	1033
	263	283	20	963
	313	383	70	906
	473	508	35	906
	543	583	40	945
HL024	173	293	120	959
	428	598	170	924
	628	648	20	955
HL026	225	260	35	962
	379	468	89	929

Table 1: Summarv	of Phase 1	1 & 2 Exploration	Results (900 ppr	n Li Cut-off)
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1. 900 ppm Li cutoff grade applied; 10-ft minimum cut-off thickness applied.

2. HL17 and HL18 encountered thick Quaternary Alluvium cover.

Drillhole	From	To (ft)	Thickness	Weighted
	( <b>ft</b> )		(ft)	Li Grade
				(ppm) <sup>*</sup>
*HL02/, HL030, and HL 031 did not				
cut-off grade of 300 ppm.				
HL005	448	908	460	808
HL006	215	908	693	750
HL007	120	995	875	778
HL008	127	424	297	752
HL009	309	319	10	407
	354	394	40	319
	434	444	10	384
HL010	159	478	319	358
HL019	385	600	215	301
HL020	74	598	524	880
HL021	100	600	500	699
HL022	109	601	492	356
HL023	129	998	869	437
HL024	148	988	840	642
HL025	452	544	92	323
HL026	220	985	765	463
HL029	30	48	18	379
	78	113	35	306
	383	703	320	391
HL032	396	411	15	327

Table 2: Summary of Phase 1 & 2 Exploration Results (300 ppm Li Cut-off)

1. 300 ppm Li cut-off grade applied; 10-ft minimum cut-off thickness applied.

2. HL017 and HL018 encountered thick Quaternary Alluvium cover.



**Figure 1 - Drill Hole Locations** 

#### **Core Handling and Sampling Procedures:**

Core handling and sampling procedures are as follows:

- Cored samples were transported twice daily from the drill pad to RESPEC/Pan American core logging headquarters in Tonopah, NV, by RESPEC geologists.
- Detailed core examination of the samples was completed using industry standards for core descriptions by RESPEC geologists. Logging criteria include Geotechnical and Structural parameters (RQD, structure types and infill, planarity, roughness, hardness, and angle to core axis), Lithologic qualifiers (lithofacies, mineralogical composition, and cementation), and acid reactivity for calcium carbonate.
- On-site core-slab sampling program was performed by the RESPEC geologists with a 5% Quality Control insertion rate using Certified Reference Materials (2 pulp types of known Lithium content and 2 separate pulp blanks). Sample selection was completed on every 5-foot depth increment and accounts for notable lithological variations. The program also includes random core-slab sample duplicates from every drill hole in the study area. Once coarse and pulp rejects are returned from ALS, located in Reno, NV, a small percentage will be sent to a check lab.
- Core photography and database management of all sampled intervals and core boxes were performed by RESPEC's field personnel.
- Samples were transported to ALS located in Reno, NV, by RESPEC field personnel.
- Chain of custody and sample assaying tracking/controls were kept throughout the entire program. ALS is independent of the Company.
- ALS performed ME-MS61 multi-element analyses by four acid digestion and ICP-MS on all of our lithiumbearing claystone samples.

# **Qualified Person**

The technical content of this material change report has been reviewed and approved by Tabetha Stirrett, P.Geo, who is a Qualified Person as defined by NI 43-101.

# 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

September 13, 2023.