Vancouver, British Columbia - (July 13, 2017) – E3 METALS CORP. (TSX.V: ETMC) (the "Company" or "E3 Metals") is pleased to announce that it has been granted 389,934 hectares (ha) of strategically positioned Metallic and Industrial Minerals ("MIM") permits in E3 Metals’ core area in southern Alberta. This brings E3 Metals’ total MIM permit area to 477,898 ha in Alberta, located over some of the most prospective areas for lithium rich Leduc formation water (Petro-Brine) according to historical testing and E3 Metals’ internal technical evaluation (Figure 1). The Company is now the largest holder of consolidated MIM Permits over the Leduc Reservoir in Alberta. The acquisition of these additional permits secures all of the crown rights to what the Company targeted as the most prospective ground for lithium Petro-Brines in Southern Alberta.
Figure 1: E3 Metals Corp Metallic and Industrial Mineral Permits (blue), Leduc depositional edge (purple), other companies MIM Permits (light grey), oil (green) and gas (red) accumulations
Oil and gas accumulations in the Leduc Reservoir represent only a small fraction of the total fluid contained within the reservoir. Lithium is contained within the Petro-Brine, which exists not only directly below the oil and gas accumulations, but also laterally, throughout the entire reservoir (Figure 2). The majority of the historical testing for lithium within the Leduc Reservoir has demonstrated that lithium is present at concentrations that are considered anomalous (>50mg/L) throughout the formation water. E3 Metals acquired its initial permits over areas of oil and gas production due the availability of access to Petro-Brine to sample for lithium. Historic results show that lithium concentrations in and around E3 Metals’ permit areas range as high as 135mg/L, as described further in its Technical Report dated May 18, 2017 detailed below. As the Petro-Brine is present across the entire reservoir, E3 Metals believes that lithium concentrations are also likely to exist throughout the entire reservoir.

The Leduc Reservoir is world renowned for the production of oil and gas due to the unique properties of this reservoir, which allows for both large volumes of fluid to be trapped in the rock and the ability to move large volumes of fluid to surface. These same properties have shown that a single vertical well has the ability to produce as much as 20,500m3/day of water when completed to the bottom of the reservoir. This combination of anomalous lithium concentrations and the potential high production rates of petro-brines, suggests the Leduc Reservoir has the potential to be a large-scale producer of lithium.

E3 Metals plans to sample as many actively producing wells as possible across the permit area in the coming months to determine the lithium concentrations across a larger extent of the Leduc Reservoir. This sampling will allow for potentially higher lithium concentration areas to be identified, following which E3 Metals plans to complete a resource estimate under National Instrument ("NI")-43-101 reporting standards.

Figure 2: Conceptual Model of Oil Pools and Petro-Brine in the Leduc Reservoir at Innisfail and Wimbourne. Lithium is contained within the Petro-Brine denoted in blue. Green and orange denote oil and gas, respectively.
Technical Overview

This major land acquisition is part of E3 Metals’ strategic staged approach to acquiring permits in Alberta. The initial acquisition of E3 Metals’ original 10 permits, located in areas with oil and gas (collectively, hydrocarbon) production, are in close proximity to available oil and gas infrastructure. In these areas, hydrocarbons occur above the oil/water contact. In this portion of the Leduc Reservoir, the production of hydrocarbons is associated with the production of large amounts of formation water, especially later in the production lifecycle, as is the case in E3 Metals’ permit area. This existing infrastructure from hydrocarbon production allows E3 Metals to sample the Petro-Brine to determine lithium concentrations from producing wells. The ability to complete sampling from the existing infrastructure provides E3 Metals with significant cost savings, as no exploration drilling is required.

This latest acquisition of land (51 new permits) reflects E3 Metals’ acknowledgement of the broader scope of the lithium opportunity in Alberta. This is because the lithium bearing Petro-Brine contained within the Leduc reservoir, as a whole, is significantly larger in size than where the oil and gas is present (Figure 1 and Figure 2). In both a lateral and vertical sense, hydrocarbons occupy only a small percentage of the total volume in the reservoir, located in areas referred to as traps. Both within and outside of hydrocarbon traps, E3 Metals believes all of the Leduc formation water is prospective for anomalous concentrations of lithium. E3 Metals has now expanded its MIM permit holdings to include the entirety of the Leduc reservoir as a result of this understanding.

Historical testing in E3 Metals’ permit areas has indicated the presence of enriched amounts of lithium (>50 mg/L) within the Leduc reservoir. E3 Metals has permitted both tested and untested areas; all are located within the confines of the Leduc depositional edge. These untested areas represent high-value exploration targets for E3 Metals, and is the primary reason E3 Metals permitted these additional exploratory areas.

The Leduc Reservoir is a Devonian-age ancient reef complex, analogous to the Great Barrier Reef on the east coast of Australia. The Leduc reefs are located throughout Alberta; with thicknesses ranging from 100m to over 300m. Most Leduc reefs in southern Alberta are all connected at the base by an aquifer called the Cooking Lake Formation. The Cooking Lake is the conduit through which many fluids, including hydrocarbons, migrated through and became trapped in the Leduc.

After deposition, the Leduc reefs were deeply buried and experienced several phases of dolomitization. This process resulted in the creation of additional porosity (the ability of a rock to store water) and permeability (the ability for gas or fluids to flow through the rock). The enhancement of reservoir properties in the Leduc, combined with the presence of hydrocarbons and adequate pressure, is the reason why the Leduc formation is well established in Alberta for production of hydrocarbons. Many Leduc wells have produced hydrocarbons profitably since 1947.

Hydrocarbons have historically been the focus of Leduc development. However, in the Leduc formation, water is present in extremely large volumes below the hydrocarbons. Consequently, a well’s oil production over time will decrease while the amount of formation water increases. This is referred to as an increasing water cut. As oil and gas pools in the Leduc mature, their water cuts can increase to as high as 95% or more, meaning that only 5% of the total fluid volume produced is hydrocarbon, and the rest is Petro-Brine. These fluids in the Leduc formation are held in place under pressure, and this pressure varies spatially within the reservoir based on the internal architecture of the formation and regional flow magnitudes. In some areas, the Leduc has been found to produce water to surface under its own pressure during formation tests.

As noted in E3 Metals’ Technical Report dated May 18, 2017 Geological Introduction to E3 Metals Corp. Clearwater and Exshaw Lithium-Brine properties In South Central Alberta, authored by Apex Geoscience
LTD. (available on SEDAR and on the Company's website at e3metalscorp.com), an independent study was completed by GLJ Petroleum Consultants, which demonstrated that a single vertical well in the Leduc Reservoir is able to deliver at least 5,000 m/3/d at an average permeability of 20 millidarcies (mD). The vertical well deliverability increases up to 20,500 m/3 at 80 mD. Horizontal wells (wells that penetrate the Leduc and turn horizontally at depth to access more reservoir), can provide an increased deliverability of at least 8,100 m/3/d at 20 mD and 26,500 m/3/d at 80 mD.

In addition to the massive volume of water available in the Leduc formation, historical testing of the Leduc Petro-Brine in E3 Metals' permit areas indicate that the waters contain anomalous amounts of lithium. Anomalous concentrations are defined as being greater than 50 ppm. The concentration of anomalous lithium in the formation water varies by area, relating to potentially geological and hydrodynamic influences.

While many of the Devonian reservoirs in Alberta contain elevated amounts of lithium, the greatest concentrations of lithium in southern Alberta are located within the boundaries of the Leduc formation depositional edge. This co-location of Leduc reservoir and enriched lithium is the basis for E3 Metals' exploratory permits located in areas with no historical testing. E3 Metals expects that anomalous lithium concentrations are present across the entire Leduc reservoir, both in areas containing hydrocarbons and not.

Chris Doornbos, P.Geo., E3's President and CEO is the qualified person who has reviewed and is responsible for the technical information contained in this news release.

Royalty on Clearwater MIMs

E3 Metals announces that it has entered into an amendment to the original acquisition agreement under which its wholly owned subsidiary acquired seven MIM permits namely 9316060174-9316060180 (the "Clearwater Permits") to clarify the grant of a 2.25% Gross Overriding Royalty (the "Royalty") on the Clearwater Permits to the original owner under standard terms. The Royalty can be purchased by E3 Metals on or before September 10, 2020 for a total of $600,000 or a portion of the Royalty can be purchased at a rate of $75,000 for every 0.25%.

About Lithium

The main driver behind the increase in demand for lithium, and the excitement for lithium as a commodity, has been significantly increased production globally of high efficiency lithium-ion batteries. Although Tesla is at the forefront of the lithium revolution in the recent years, the lithium-ion battery has solidified itself as the battery of choice for automakers and mobile technology such as laptops and mobile phones. Continuously, additional car manufacturers announce their movement of their production into electric cars. Recent announcements by Volkswagen, as well as Volvo (who announced that its entire production by 2019 will contain electric motors), are recent evidence of the move to electric vehicles. These electric cars will rely on lithium-ion batteries to provide the high efficiency required to generate the range new buyers will be expecting. E3 Metals believes that over the next few years, we will reach a tipping point in the shift in mentality when purchasing an automobile, as evidenced by Volvo's recent production decision.

E3 Metals believes rapid growth for lithium as a bulk commodity will be further enhanced by the expanding large-scale battery market, such as the Los Angeles battery backup facility Tesla has recently completed. Adelaide, South Australia, is set to build a backup battery facility 5x the size of the Los Angeles facility. This continual movement to storing power using lithium-ion batteries demonstrates E3 Metals belief that the demand for lithium as a commodity is only getting started.

About E3 Metals Corp

E3 Metals is a publically listed mineral exploration and development company (TSXV: ETMC). The Company’s focus is on developing lithium in an efficient and environmentally responsible manner. This includes the development and potential repurposing of oil and gas infrastructure in Alberta to produce
lithium from Leduc formation water. More information about E3 Metals can be found on our website by visiting: www.e3metalscorp.com.