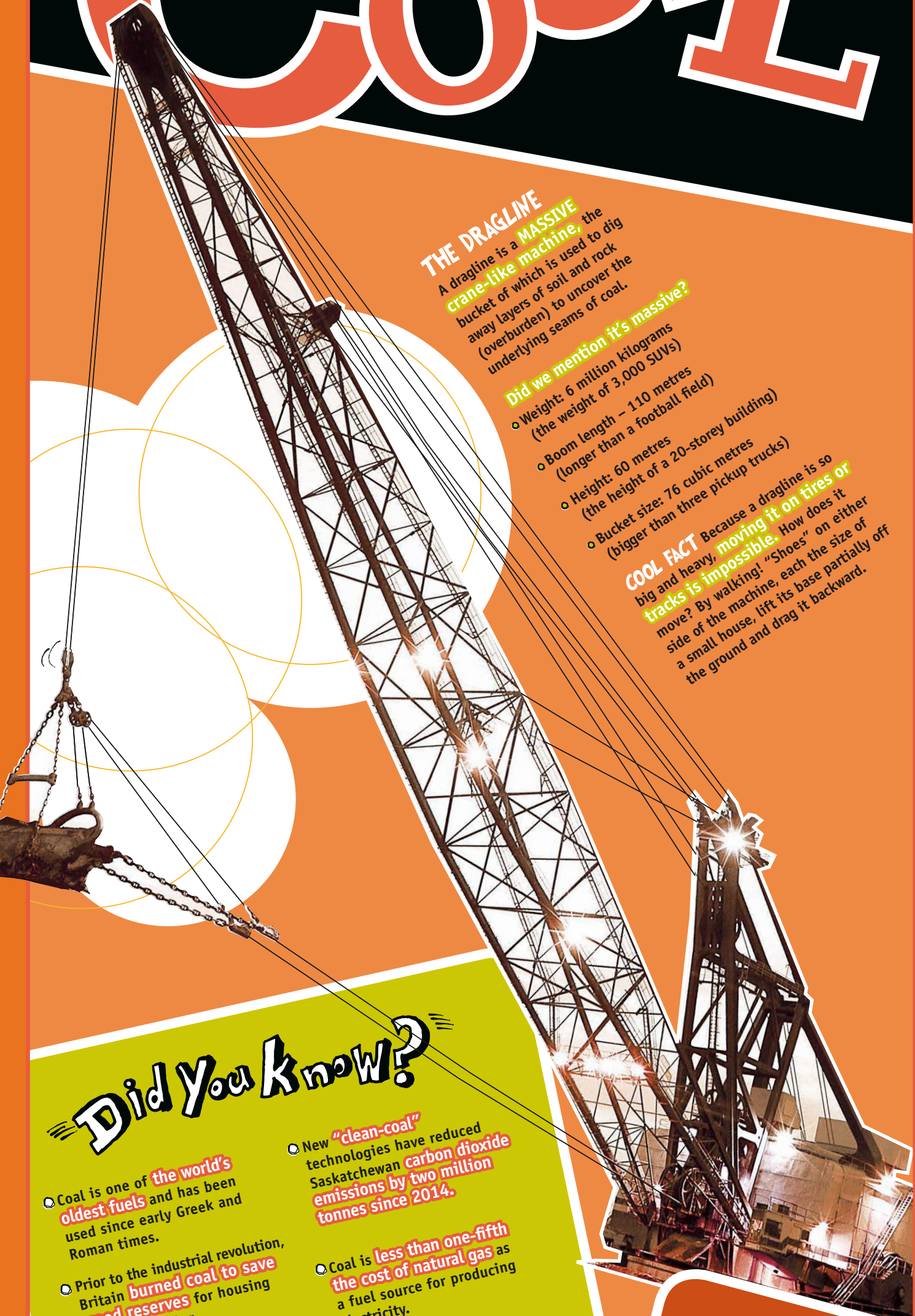


# Coal



## THE DRAGLINE

A dragline is a **MASSIVE** crane-like machine, the bucket of which is used to dig away layers of soil and rock (overburden) to uncover the underlying seams of coal.

### Did we mention it's massive?

- Weight: 6 million kilograms (the weight of 3,000 SUVs)
- Boom length – 110 metres (longer than a football field)
- Height: 60 metres (the height of a 20-storey building)
- Bucket size: 76 cubic metres (bigger than three pickup trucks)

**COOL FACT** Because a dragline is so big and heavy, moving it on tires or tracks is impossible. How does it move? By walking! "Shoes" on either side of the machine, each the size of a small house, lift its base partially off the ground and drag it backward.

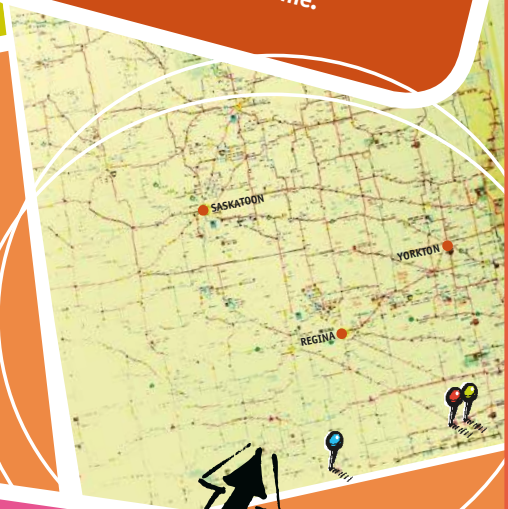
## Did You Know?

- Coal is one of **the world's oldest fuels** and has been used since early Greek and Roman times.
- Prior to the industrial revolution, Britain **burned coal to save wood reserves** for housing and shipbuilding.
- There is **more energy stored in Canadian coal** than in all of Canada's oil, natural gas and oil sands combined.
- The coal produced in Saskatchewan each year would cover **10 football stadiums 30 metres deep**.
- Some barbeque briquettes contain **30% char that is made from Saskatchewan lignite coal**.
- Coal mining is **one of the safest industries in the province**.
- New **"clean-coal"** technologies have reduced Saskatchewan **carbon dioxide emissions by two million tonnes since 2014**.
- Coal is **less than one-fifth the cost of natural gas** as a fuel source for producing electricity.
- Canada is the world's third-largest exporter of **coking coal (used for steel-making and electric power generation)**, after Australia and the United States.
- Coal mine areas are **reclaimed** to cropland, hayland, pasture, wildlife habitat, recreational and commercial land uses.



## Why is Coal important?

**C**oal is the **most abundant and least expensive of the fossil fuels**, which include petroleum and natural gas. More than 32% of Saskatchewan's electricity is produced by coal-fired power plants, and more of the world's electricity is generated from coal than from any other fuel source. Processed coal is a component in products ranging from bleach, fertilizer and perfume to baking powder, medicine and gasoline.



## Where to find a mine!

- Poplar River near the Town of Coronach
- Boundary Dam by the City of Estevan
- Bienfait beside the Town of Bienfait

## Science!

**C**oal is a sedimentary, flammable, organic rock made mostly of carbon, hydrogen and oxygen.

Saskatchewan's coal was formed 65 million years ago when dense layers of decayed vegetation called peat became covered by sediment and soil. Increasing heat and pressure formed four different types of coal: lignite, sub-bituminous, bituminous and anthracite. Nearly all of Saskatchewan's coal is lignite grade.



## Keywords

- Overburden:** material overlying a useful mineral deposit.
- Clean Coal:** technology that can extract energy from coal with minimal to zero emissions.
- Reclaim:** to return land disturbed by mining to a useful state.