

Usibelli Coal Mine, Inc.

Bill Brophy

**VP, Customer Relations, UCM and
Exec Dir, The Usibelli Foundation**

Alliance

18 October 2013





UCM History



Photo - One bulldozer and one truck mining coal circa 1943

1971 - UCM became the sole producing coal mine in Alaska.

1970s - UCM began a restoration program years before required by government agencies.

1978 – Ace-In-The-Hole dragline in service; largest land mobile machine in Alaska



The Usibelli Family

1943 - Emil Usibelli at age 50, founded UCM in Healy, Alaska.

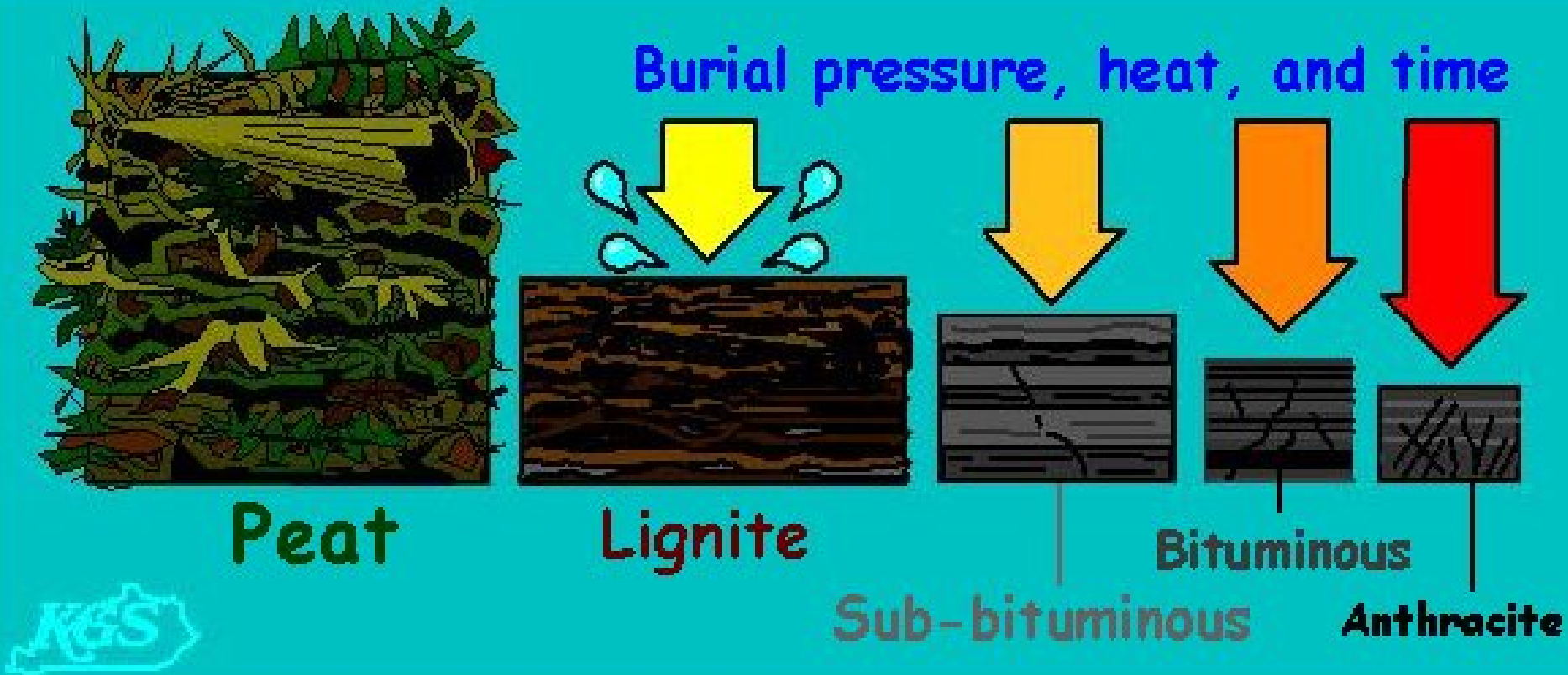


1964 - Emil's 25-year old son, Joe became President and now serves as Chairman of the Board of Directors.



1987 to Present - Joe Usibelli Jr. serves as President.

Coal Rank



Today



300 Million
Years

Usibelli Coal = Subbituminous
About 8 to 30 million years old

Healy - Coal Quality

Average As Received

■ Heating Value	7,650 Btu/lb (4,250 kcal/kg)
■ Fixed Carbon	27%
■ Volatile Matter	37%
■ Moisture	27%
■ Ash	8%
■ Sulfur	0.17%*

Sub bituminous C, Ultra-low sulfur, lowest sulfur coal in the United States and rated very low world wide

UCM Facilities – Healy, Alaska



- **MP 249 Parks Highway**
- **250 miles north of Anchorage and**
- **115 miles south of Fairbanks**
- **Adjacent to the Alaska Railroad**
- **On Golden Valley Electric Grid**
- **Denali Borough**

The People of UCM

as of 3 July 2013

- Full-time employees – 130
 - Female - 21
- Average # years with UCM – 11
- Employees > 20 yrs – 31
- Operations 70% -- Corporate 30%
- 2nd, 3rd, 4th Generation – 50 (38%)
- Average Age – 44
- Over 50 years old - 45



One employer their entire working career!



Coal Industry Jobs - Direct

Usibelli Coal Mine, Inc.	130
---------------------------------	------------

Alaska Railroad Corp. (coal trains)	30
--	-----------

Seward Coal Terminal	15
-----------------------------	-----------

State and Federal Agencies	17
-----------------------------------	-----------

Power Plants:

Fort Wainwright	42
------------------------	-----------

Eielson AFB	55
--------------------	-----------

Clear AFS	34
------------------	-----------

Aurora Energy	26
----------------------	-----------

GVEA Healy #1/HCCP	34
---------------------------	-----------

University of Alaska	<u>35</u>
-----------------------------	------------------

Total	418
--------------	------------



Lots of yellow iron - heavy equipment gets the job done



Truck, 150 ton = 8

Truck, 100 ton = 3

Dozers = 9

Loaders = 14

Graders = 3

Water Truck = 2

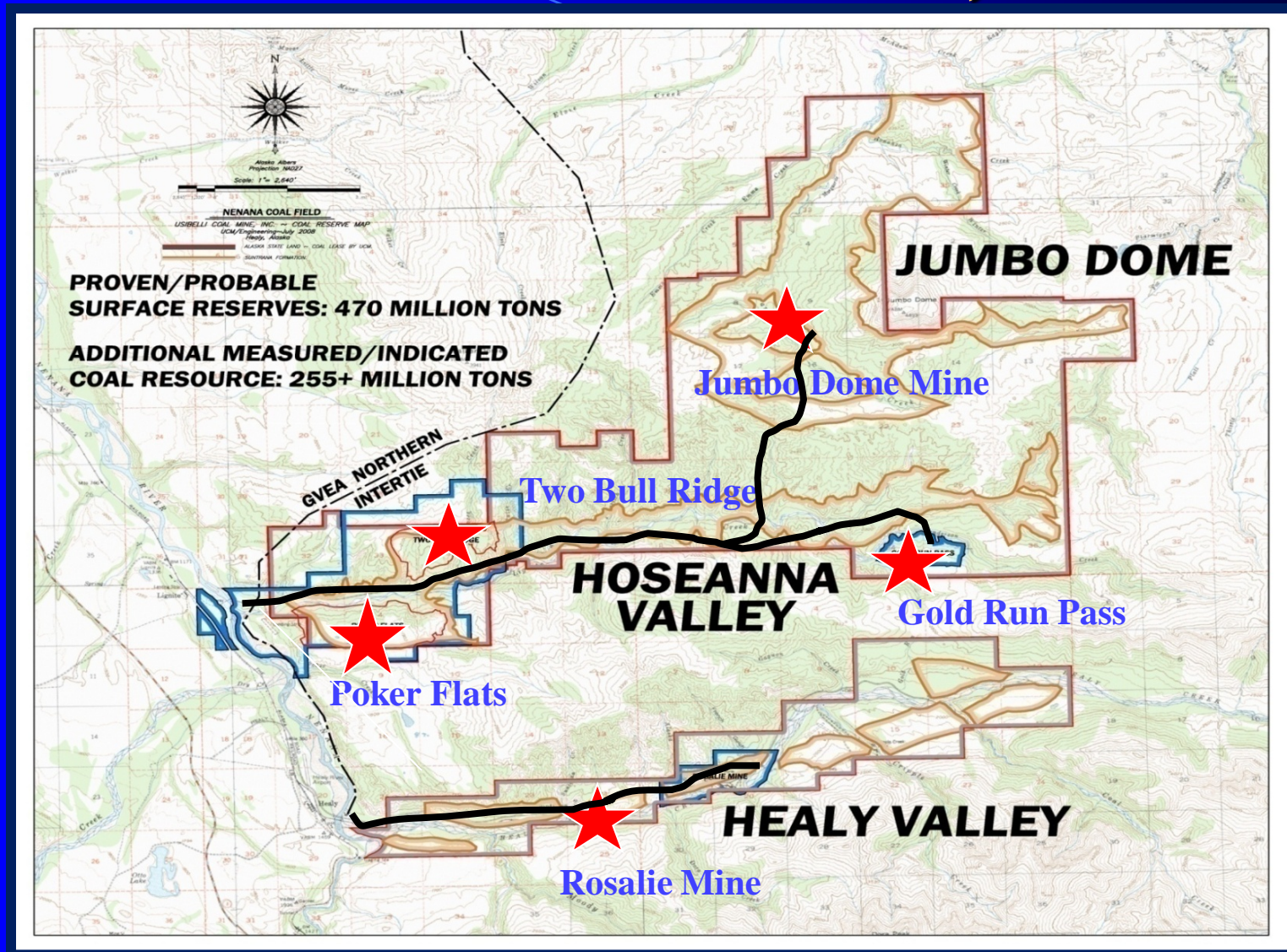
Drill Rigs = 3

Drag Line = 1

Four Ways to Remove Overburden



Usibelli Coal Mine, Inc.



700 Million Tons = 350 Years

Coal Seams



- Naturally exposed seams #6, #4, and #3
- Typical thickness of the coal seam is 20 -40 feet
- Overburden and interburden are generally 100 feet thick

Typical cross section of the Suntrana coal bearing formation in the Nenana Basin

Domestic Customers



1. Clear AFS



2. Eielson AFB

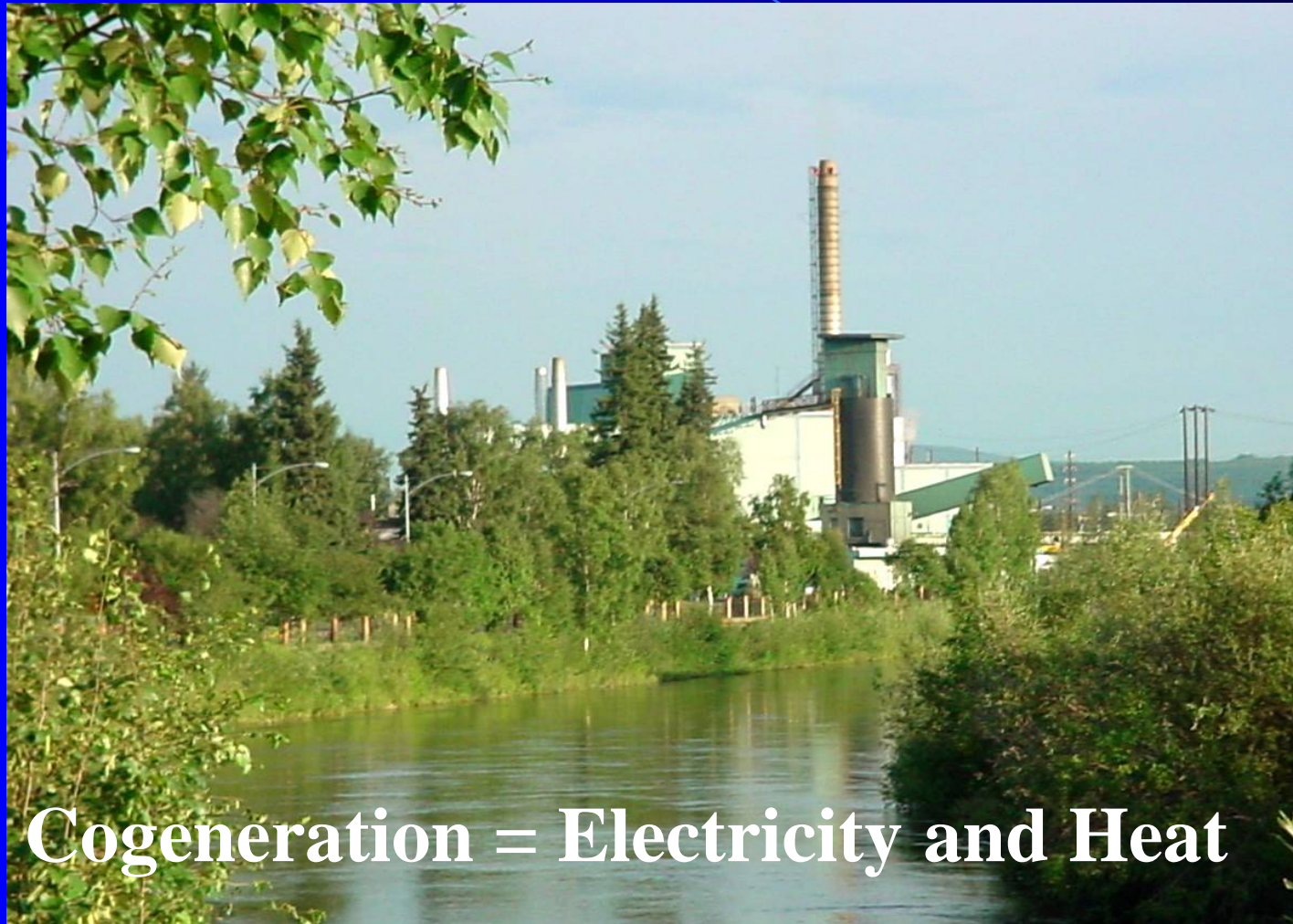


3. Fort Wainwright



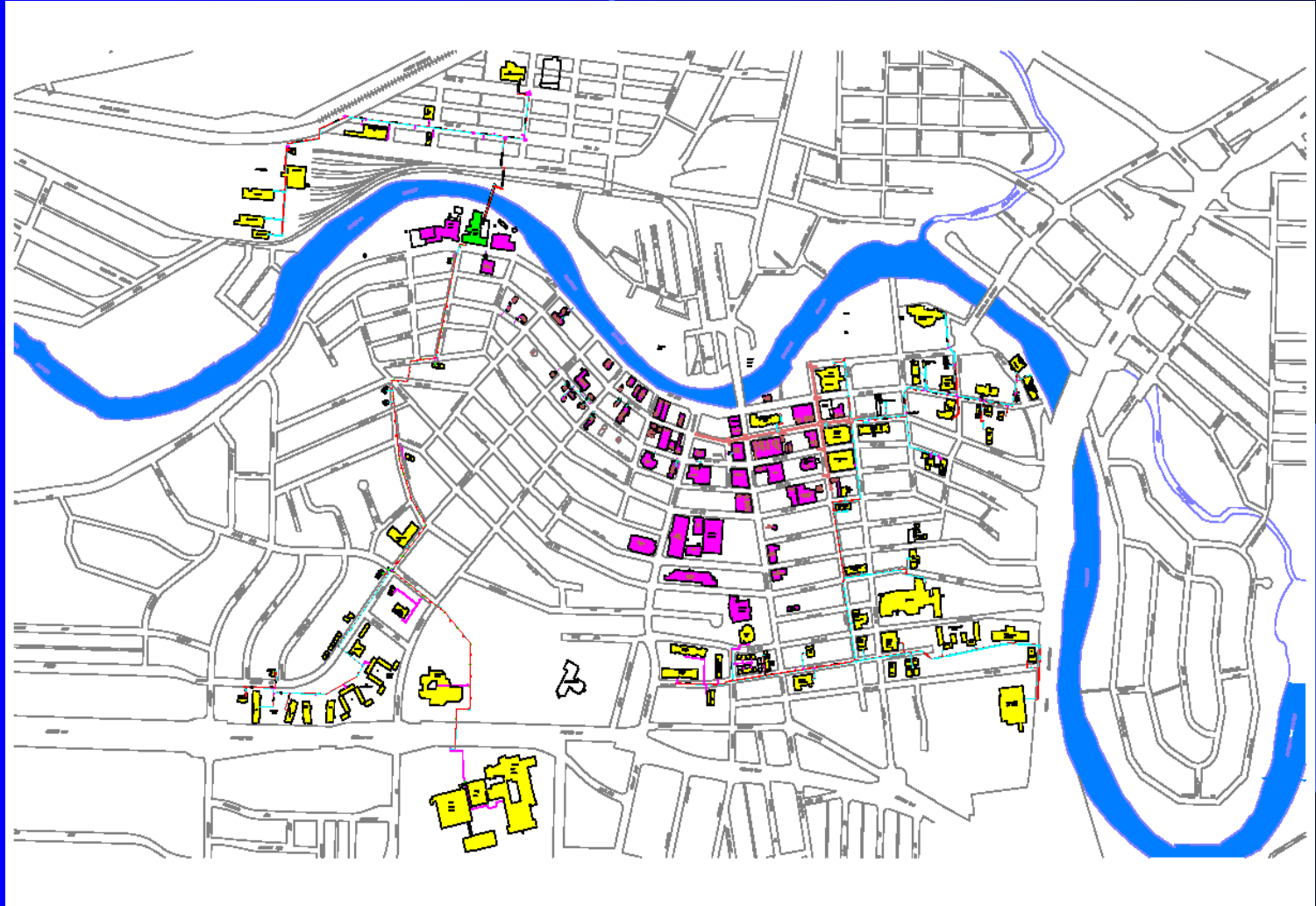
4. UAF

5. Aurora Energy, LLC



Cogeneration = Electricity and Heat

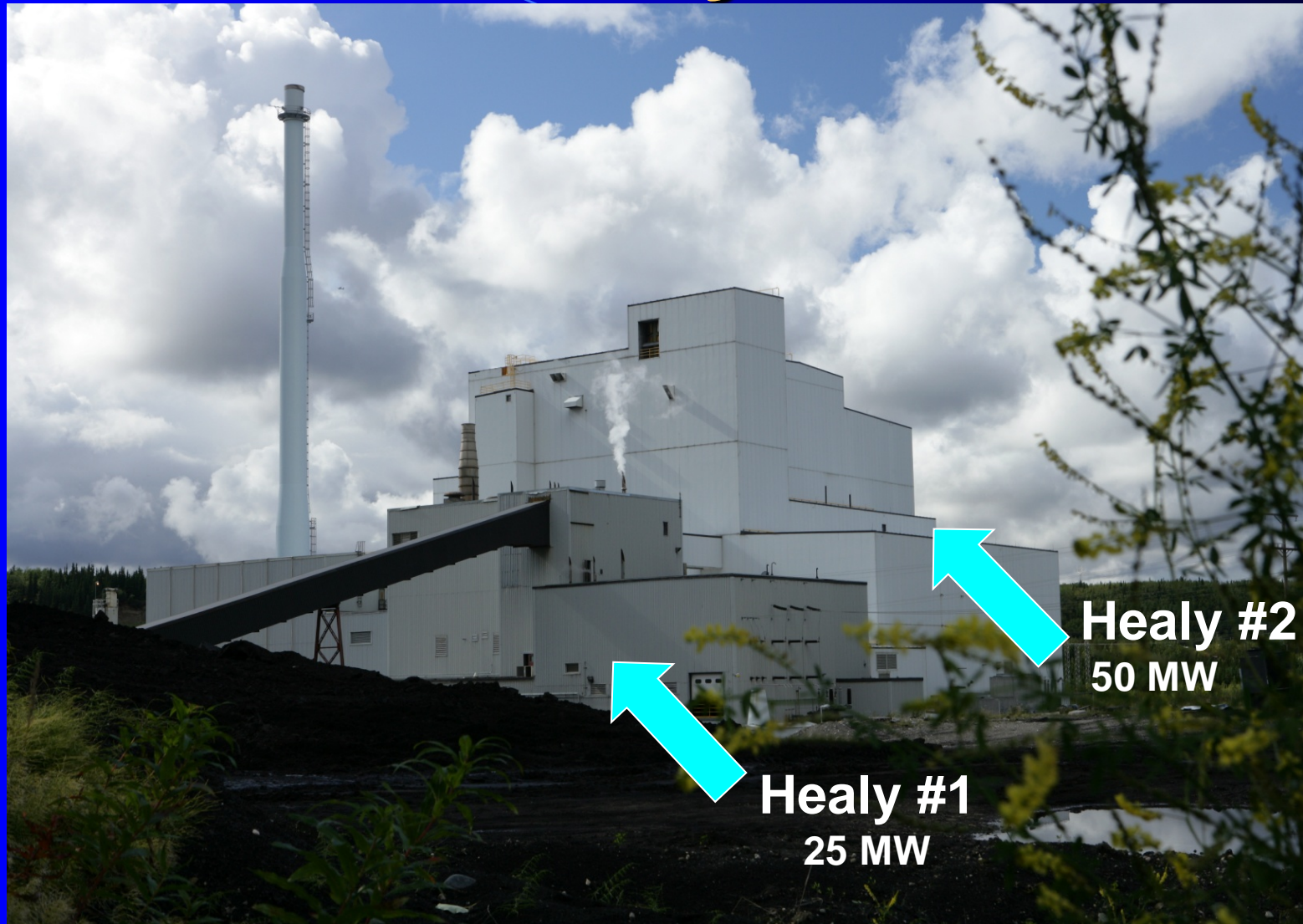
District Heat Provided by Aurora Energy



Yellow = hot water

Red = steam

6. GVEA Healy #1 and #2



Mine Mouth Power Plant

Coal Export Markets

- **South Korea**
 - **15 million tons since 1984**
- **Chile**
 - **Four million tons to date**
 - **Emerging market**
- **Previous “Test” Shipments:**
 - **Taiwan**
 - **Japan**
 - **Russia**
 - **China**
- *Aurora Energy Services, LLC - Port of Seward*
 - *1 January 2007 , AES became coal terminal operator*



Coal

■ Abundant



Facts

- The U.S. has 27% of the world's coal reserves.
- Alaska has 50% of the U.S. coal reserves.
- Railbelt of Alaska, > 1,000 years coal reserves at current rate

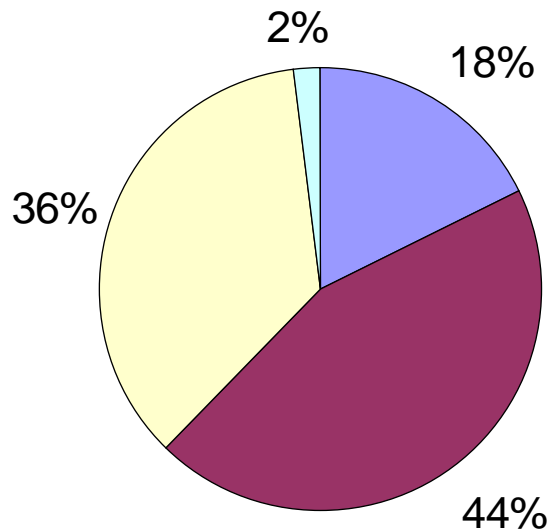
Coal

- Affordable

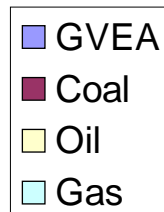
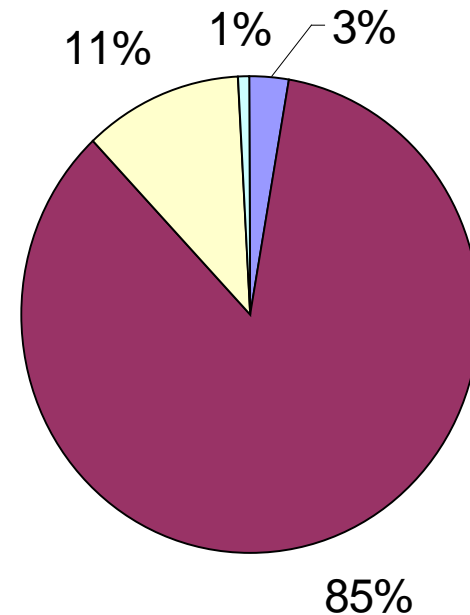
\$

Coal - Affordable – UAF

Energy costs



Campus energy input



Reclamation Process



We Are Proud of Our Environmentally Stewardship

Poker Flats

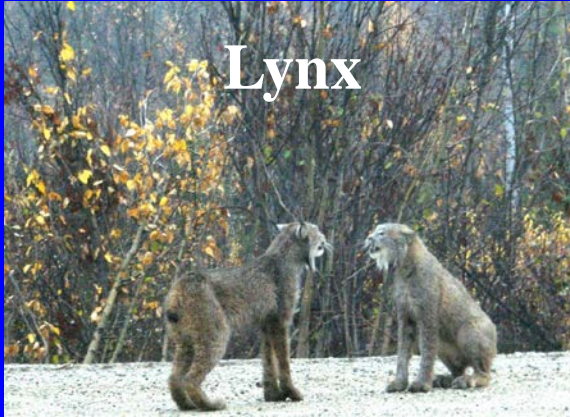


10 Years
Later

Final Land Use ?

Wildlife on the Mine Site

Lynx



Ptarmigan



Coyote



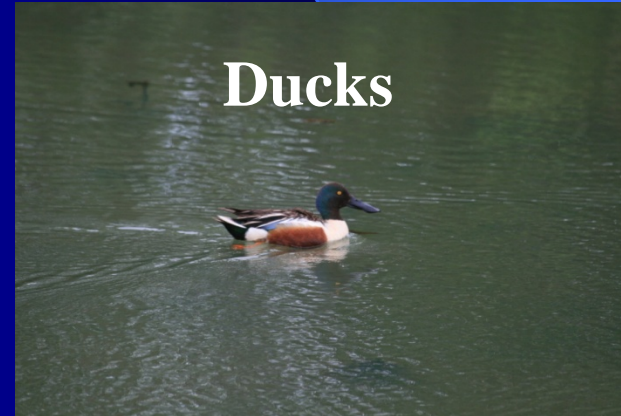
Beaver



Moose



Ducks



Support of the Community

- **The Usibelli Foundation**
 - **Education**
 - **Health and Social Services**
 - **Youth Services**
 - **Arts**
 - **Civic Organization and Activities**
- **Usibelli Foundation matching to United Way**
- **Tri-Valley High School Scholarships**
- **UAF Scholarships – Honors Program, Mining, CTC**
- **Emil Usibelli Distinguished Awards for Teaching, Research, and Service**
- **UAF Museum of the North**
- **Support to more than 100 organizations or activities**



In Summary Coal Is:

- Abundant
- Affordable
- Environmentally Sound

