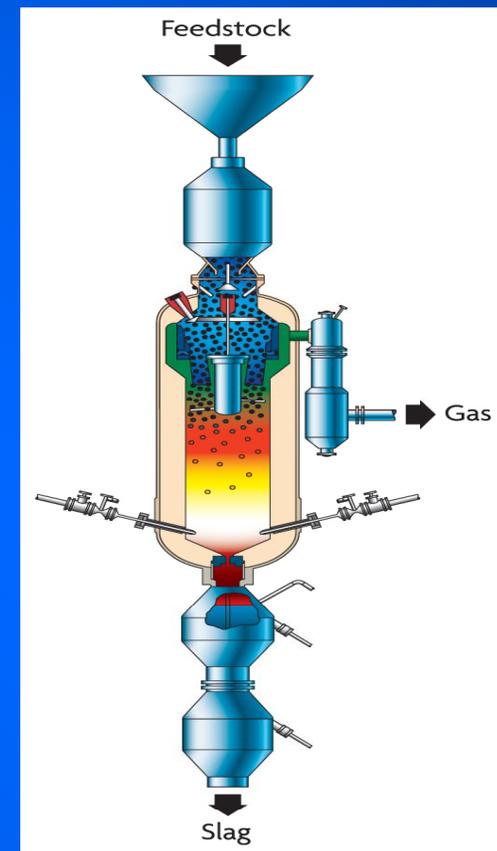




South Heart SNG Project

Gasification Technologies Conference
October 5 - 8, 2008
Washington DC





Strategic Partnership



- Great Northern and Allied Syngas formed a Strategic Partnership in 2006 to commercially exploit Great Northern's lignite and Allied's gasification technology
- Our intent is to implement a replicable design that can be applied to low rank coals worldwide

Committed to Build, Own and Operate business model



Meet our Principals



- **Corbin J. Robertson Jr.**

- ✓ **Quintana Minerals Corporation (private oil & gas interests)**
- ✓ **Natural Resource Partners (NYSE: NRP \$1.5 billion market cap.)**
- ✓ **Quintana Energy Partners, L.P. \$650 million private equity fund**
- ✓ **Great Northern Properties**
 - **Largest private owner of coal reserves in U.S. (20 billion tons)**
 - **5 million mineral and 200,000 surface acres**
- ✓ **Great Northern Power Development (GNPD)**
 - **Focus on commercial development of western coal resources**



Meet our Principals



- **Dr. Heinz Schimmelbusch**

- ✓ **Former CEO of Metallgesellschaft AG, parent of Lurgi**
- ✓ **Safeguard International Fund, L.P. (\$300 million private equity fund)**
- ✓ **Advanced Metallurgical Group N.V. (NYSE Euronext: AMG \$1.0 billion market cap.)**
- ✓ **Allied Resource Corporation (privately owned Climate Technology Group)**
 - **Gasification (Allied Syngas Corp)**
 - **Lube oil refining**
 - **Engineering and environmental services**



Why North Dakota?



- **Pro business outlook- \$10 million project grant**
- **Large reserves of low rank lignite**
- **Active oil and gas industry**
- **Experience with Dakota Gasification SNG Project**
- **Experience with Dakota Gasification CO₂ Sequestration**
- **Active participant in Plains CO₂ Reduction Partnership (PCOR)**



What's the opportunity?



- Think “Tar Sands of Natural Gas”
- Great Northern’s reserves alone represent about 150 T.C.F. of natural gas potential, and about 250 T.C.F. of CO₂ for EOR or geologic sequestration
- 100 plants the size of South Heart could each operate for 40 years
- Our intent is to build a *business*, not just a *project*



South Heart Overview



7 BGL Gasifier SNG Configuration

OUTPUTS

- **SNG Production**
 - ✓ 125 MMSCFD (Gross)
 - ✓ Net depends on amount of internal power generation
- **CO₂ Captured:**
 - ✓ 175 MMSCFD (90% Capture)
 - ✓ Translates into over 20,000 barrels of oil per day!
- **200 MW internal electric load**

INPUTS

- **Lignite – 14,000 TPD or approximately 5 MMTPY**
- **Oxygen – 3,600 TPD**



Participants



- **Great Northern Power Development - Developer/Owner**
- **Allied Syngas Corporation - Developer/Owner**
- **WorleyParsons - Pre-FEED**
- **Envirotherm/Advantica - BGL Licensors**
- **Golder Associates Inc- Mine Permit**
- **Norwest Corporation- Geological studies**
- **TRC - SNG Plant Permits**
- **GTL Energy - Coal beneficiation**



Four Key Building Blocks



- **Low cost, long-term feed stock supply**
 - ✓ While bituminous coal and pet coke prices have spiked, lignite's value tracks its extraction cost
- **Right technologies for a specific application**
 - ✓ Low rank, high sodium coals are not easily gasified
- **High value chemical output**
 - ✓ Fungible products with proximate markets and necessary infrastructure
- **CO₂ as a distinct asset**
 - ✓ CO₂ taxes vs. EOR revenues may be determinative



South Heart Project Mine-Mouth Lignite



- **Land Control: Surface & Coal**
 - ✓ 5,000 acres of contiguous land
 - ✓ Sufficient reserves for life-of-project
- **Lignite Reserve**
 - ✓ Single 17' lignite seam
 - ✓ Low overburden-to-coal ratio: 4.2 : 1
- **Surface Mine (dozer stripping)**
 - ✓ Low & stable life-of-project mine operating costs
- **Delivered Fuel Quality (as mined):**
 - ✓ Recoverable Reserves = 900 million tons
 - ✓ Heat Content = 6,045 Btu/lb
 - ✓ Moisture = 40.95%
 - ✓ S = 0.91%
 - ✓ Ash = 10.1%
 - ✓ Sodium in ash = 5.27%



Commercial Deployment of BGL



- **Six Years of Operation at SVZ**
 - ✓ Single unit commercial facility to produce methanol and electricity
 - ✓ Primary feedstocks - briquetted lignite and pelletized waste
 - ✓ Plant also gasified black coal, pet coke, tires, wood chips and plastics
- **Envirotherm purchased BGL unit at SVZ**
 - ✓ Plant will be dismantled and moved to Turkey
 - ✓ Contracts completed; permitting underway
 - ✓ Lignite will be prime feedstock
 - ✓ Scope includes complete facility from feedstock supply to methanol production
- **BGL Project in China**
 - ✓ 2 + 1 unit ammonia/urea production
 - ✓ License, process design package completed October 2008
 - ✓ Lignite feedstock
 - ✓ Customer will arrange detailed design and construction
 - ✓ Commissioning late 2010



Coal Beneficiation



- **South Heart undertook comprehensive evaluation of drying and briquetting technologies and selected GTL Energy (GTLE)**
- **Benefits:**
 - ✓ **Significantly higher throughput**
 - ✓ **Lower operating costs**
 - ✓ **Moisture captured for process makeup water**
 - ✓ **Uniform feedstock, replicable design**



BGL SNG Advantages

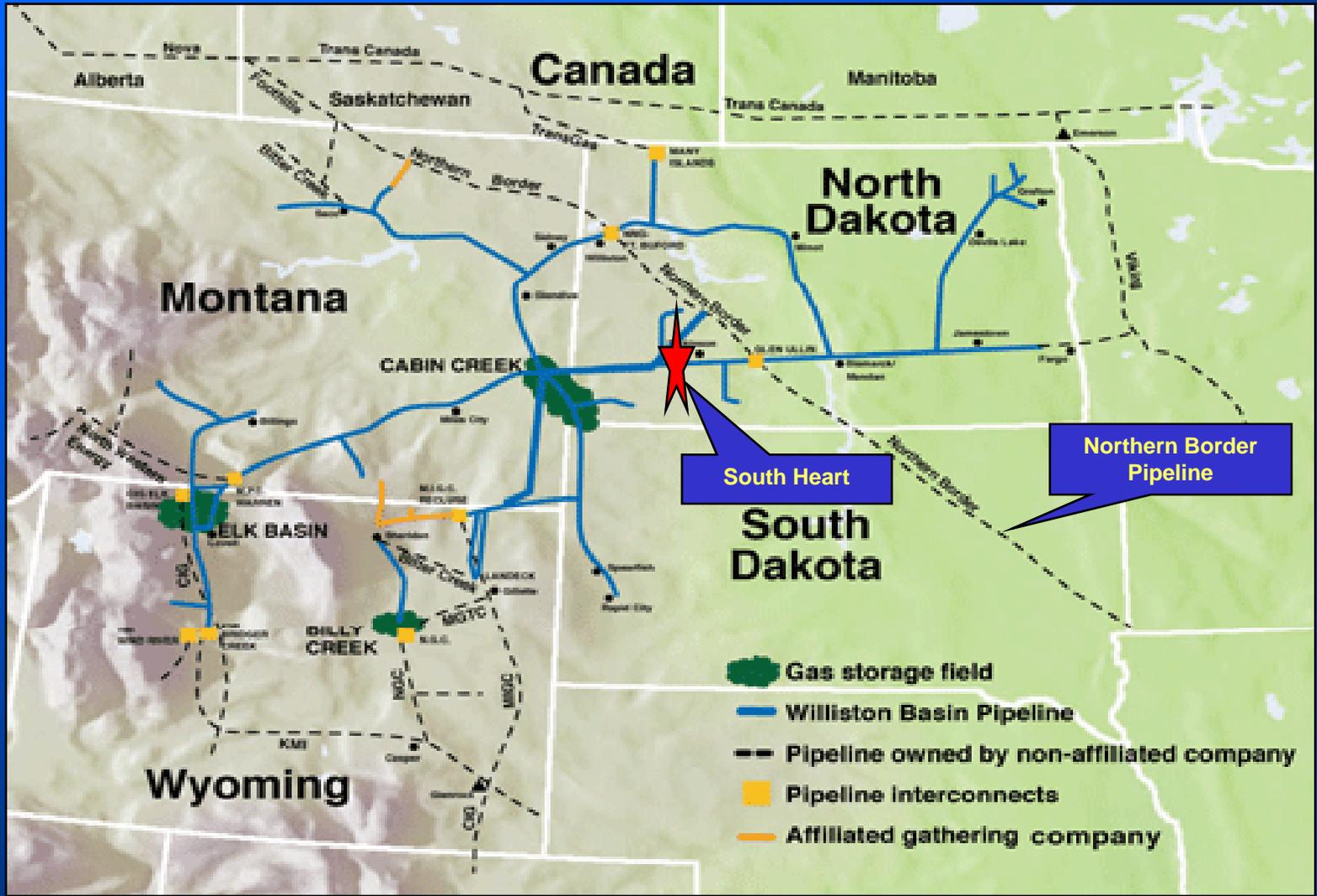


- **British Gas development effort spanned 25 years and \$500MM, based on SNG production**
- **99% carbon conversion**
- **90% gasifier conversion efficiency**
- **5 - 7% methane in syngas**
- **0.4 tons oxygen/ton fuel (briquetted lignite)**
- **Modular reliability**
- **Low rank coals**

The BGL Gasifier predecessor, the Lurgi Mark IV gasifier, has operated at the Dakota Gasification facility for nearly 25 years and in Sasol's Secunda plant for 40 years

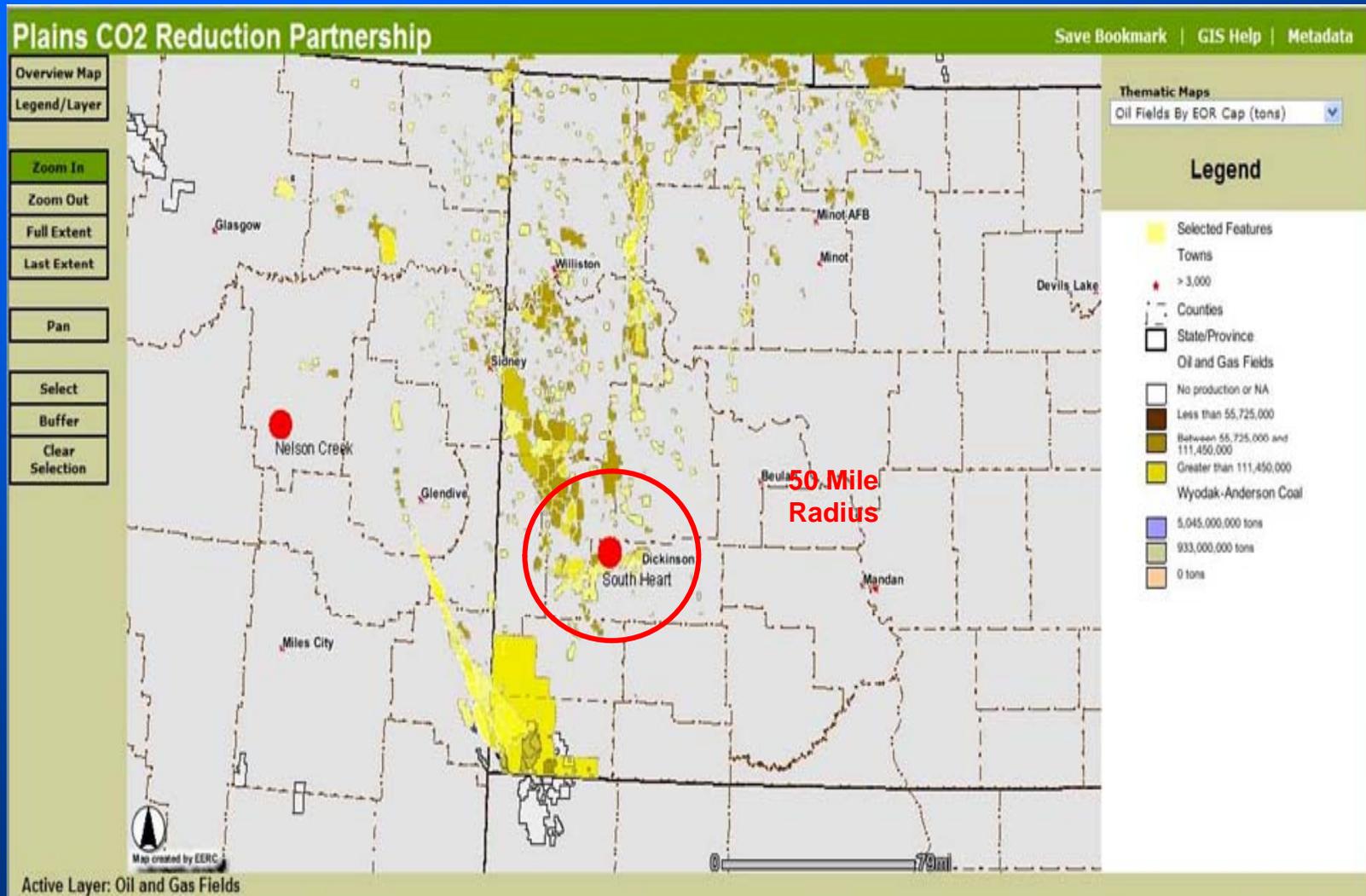


Natural Gas Pipelines





South Heart CO₂ Sequestration/EOR Opportunities





CO₂ Sequestration/EOR



- Working with State of North Dakota to implement workable regulations
- In partnership with Basin/EERC/PCOR on CO₂ sequestration demonstration study
- Sourcing EOR opportunities
- Conducting independent evaluation of geologic sequestration



Near-Term Path Forward



- **Manage Technical Risk**
 - ✓ All key permits to be filed by Q2 2009
 - ✓ Support Q2 2009 operation of GTLE facility
- **Advance Carbon Management Plan**
 - ✓ Push necessary carbon regulations at state and federal level
 - ✓ Establish commercial relationship with EOR partner
- **Define Execution Strategy**
 - ✓ Align with targeted EPCM team prior to FEED
 - ✓ Establish acceptable/workable commercial structure



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