

# International Paper

**MINERAL RESOURCES**  
**Houston, Texas**

Geopressure/Geothermal Resource  
Opportunities

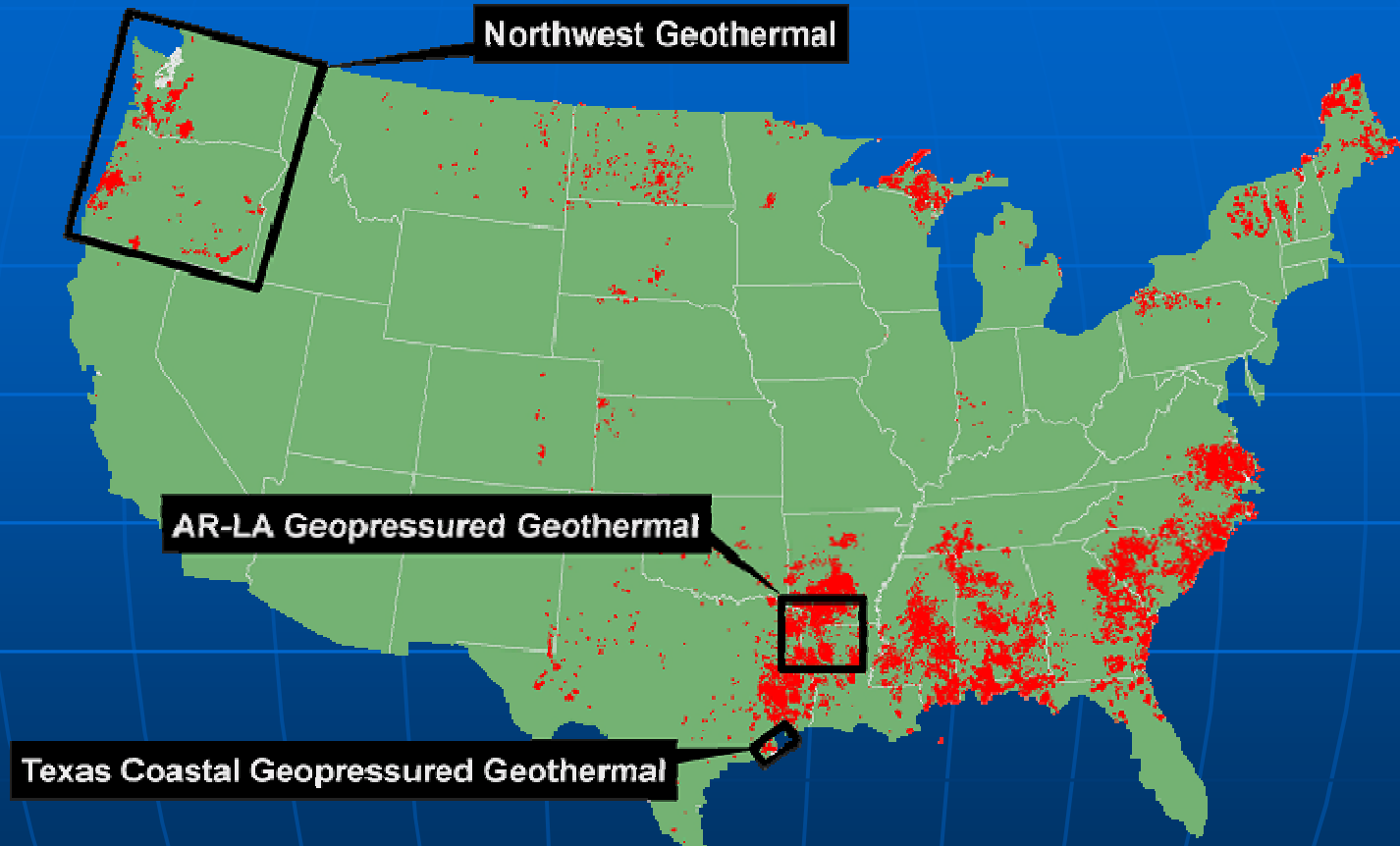
# Geothermal Resource Development

## *Why International Paper?*

- International Paper has acquired minerals primarily as land & timber acquisitions have occurred over the past 105+ years. Within the Forest Products sector, IP has been a leader in the minerals business. (Oil & Gas, coal, coalbed methane, geothermal, industrial minerals, aggregates, metals, etc).
- 1975 IP acquired General Crude Oil Company, an Oil, Gas & Minerals Company formed in 1926 located in Houston, TX. Purpose was to acquire a business entity with professional minerals management staff.
- IP Mineral Resources has operated under various names over the years (GCO Minerals, IP Petroleum, IP Petroleum & Minerals).
- IP has controlled over 16.5 Million acres of mineral estate historically.
- IP is poised to capitalize on retained high value mineral estate.



# Focus Regions

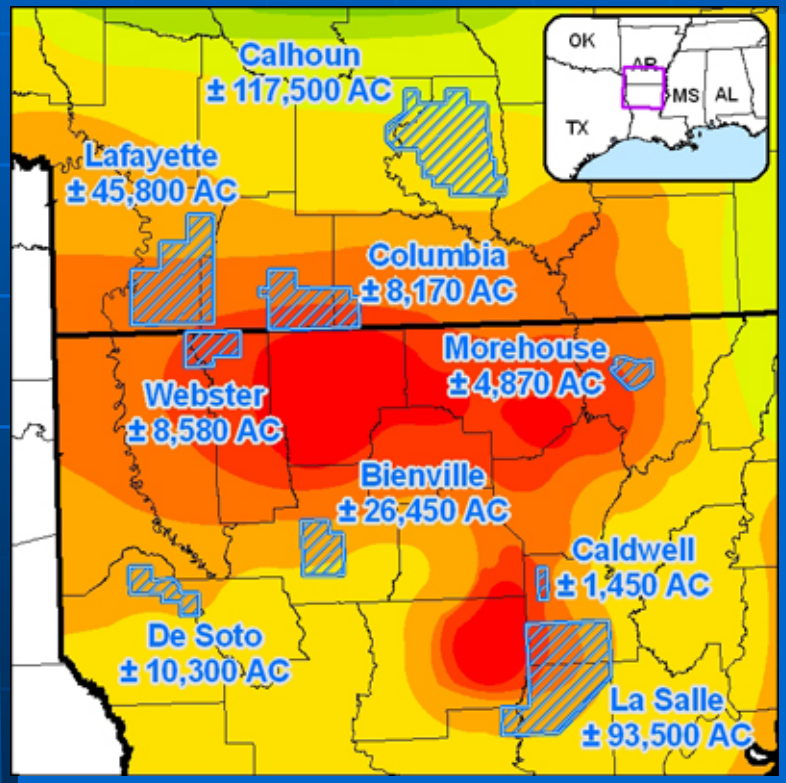
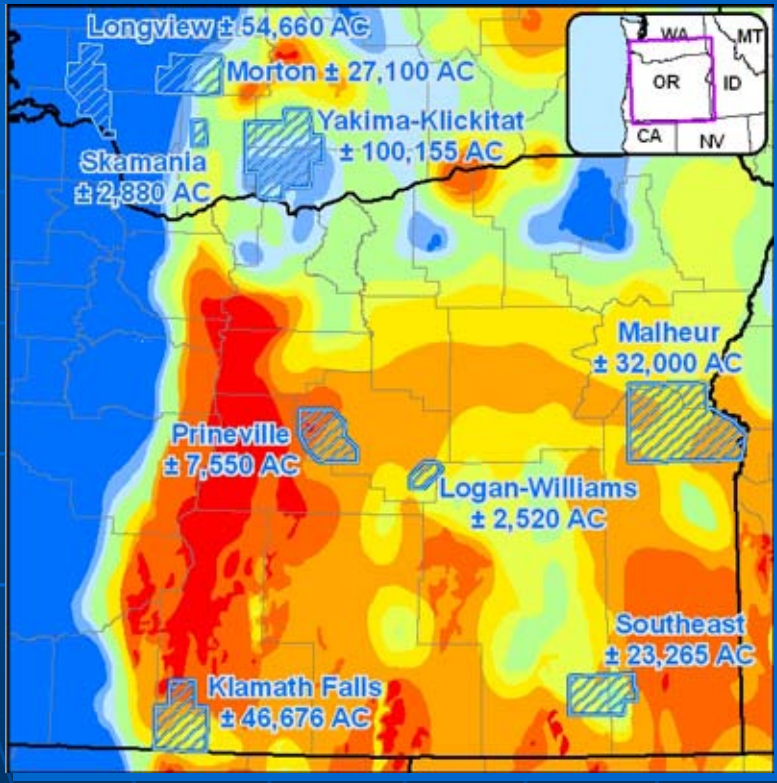


## > 3.5 MM AC of Geothermal Mineral Estate

- 715,000 AC: Identified as Areas of Interest
- 435,400 AC: Actively Promoting (Prospects)
- 55,000 AC: Proven Resource

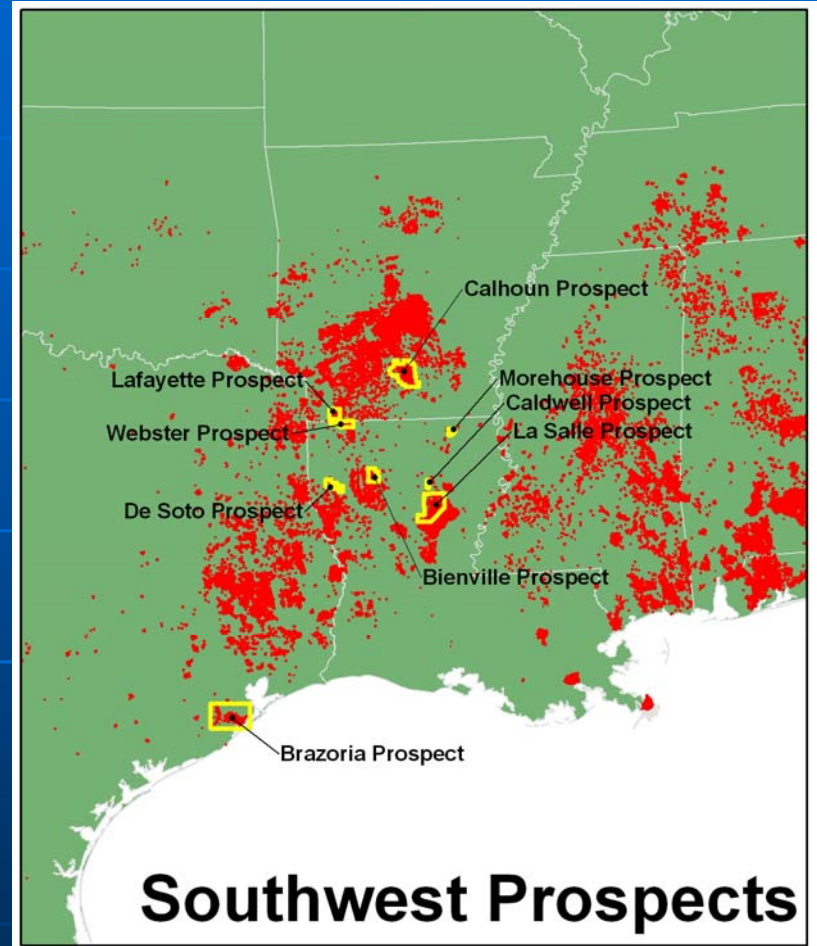
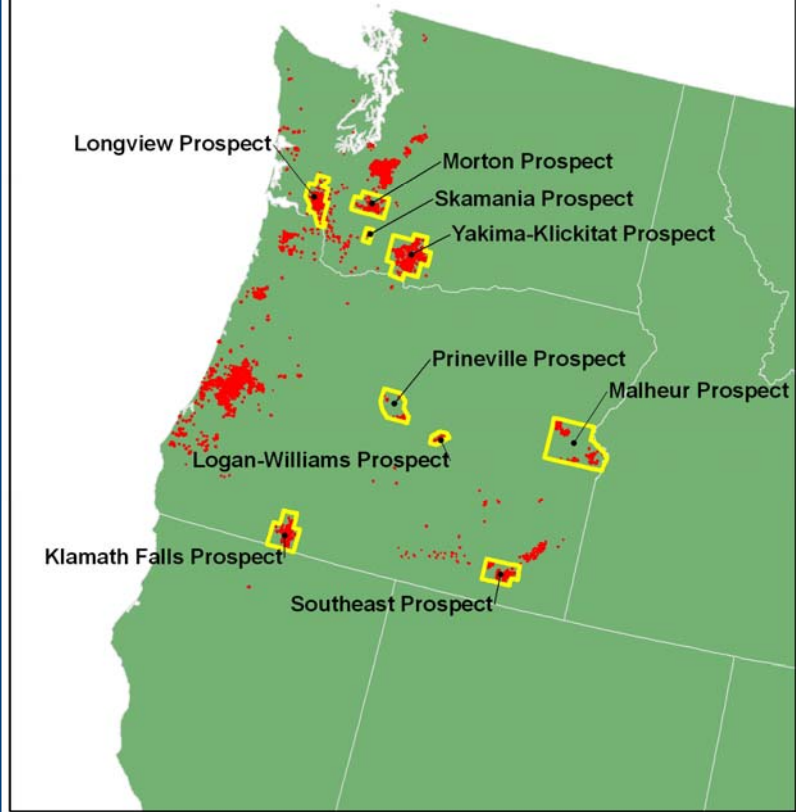


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# Geothermal Prospects

## Northwest Prospects

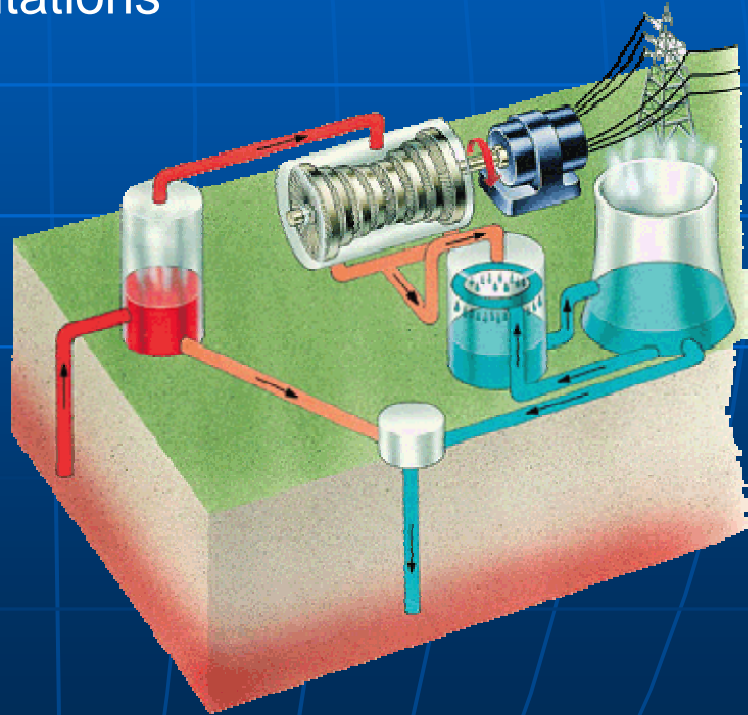


33 Geothermal Areas of Interest Identified  
18 Geothermal Prospects  
***Information available at booth***

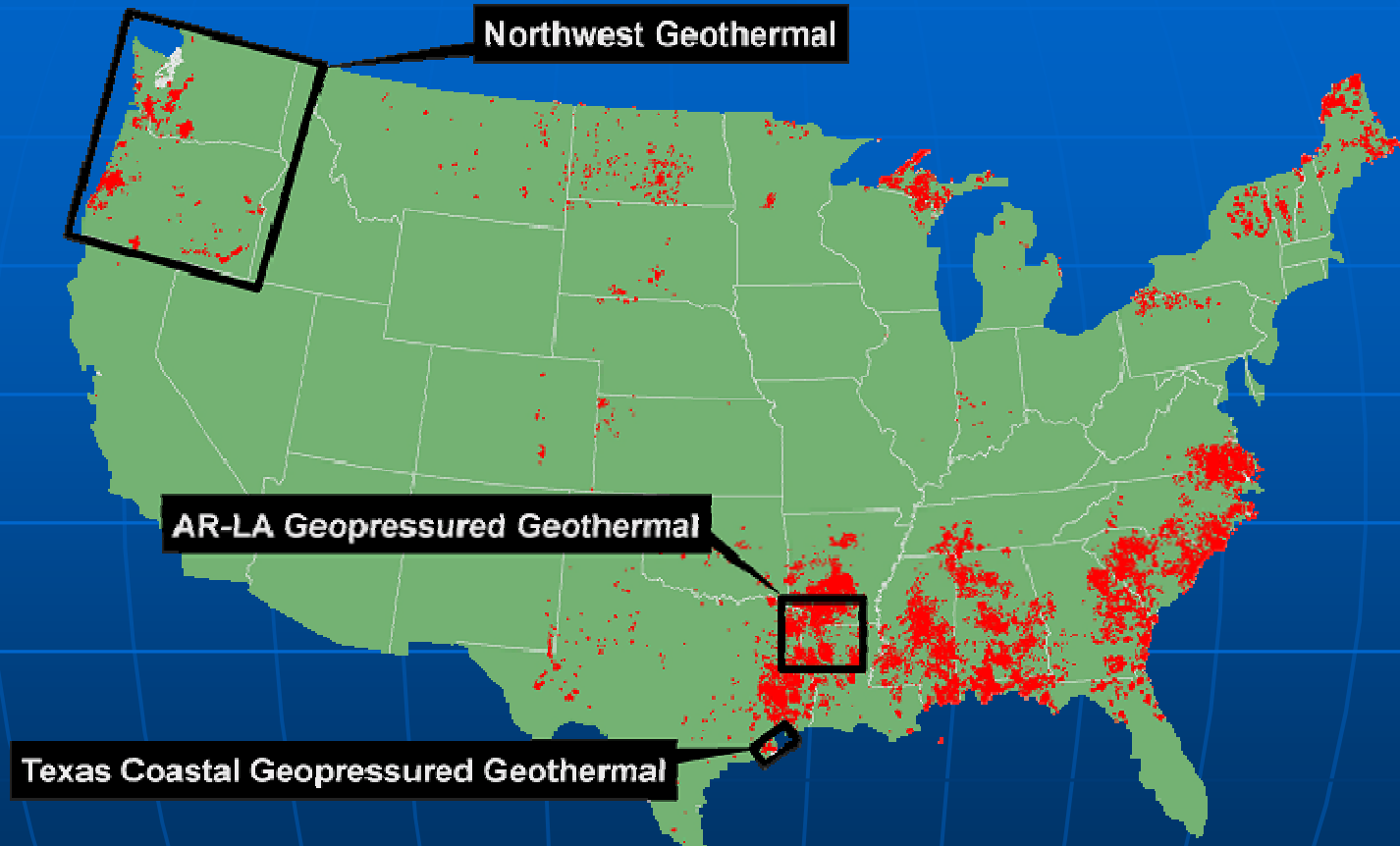
# Development Focus

## Northwest Geothermal Resources

1. Existing interest and development
2. Effective existing implementations
3. Current production
4. Established Opportunity
5. Reduced exploration risk



# Focus Regions

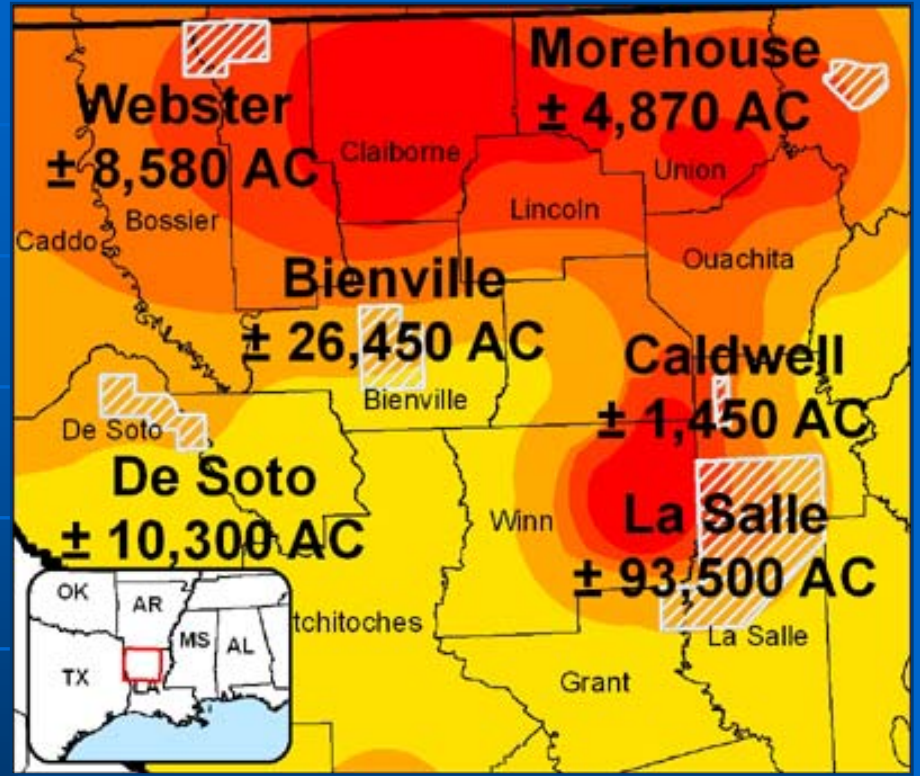
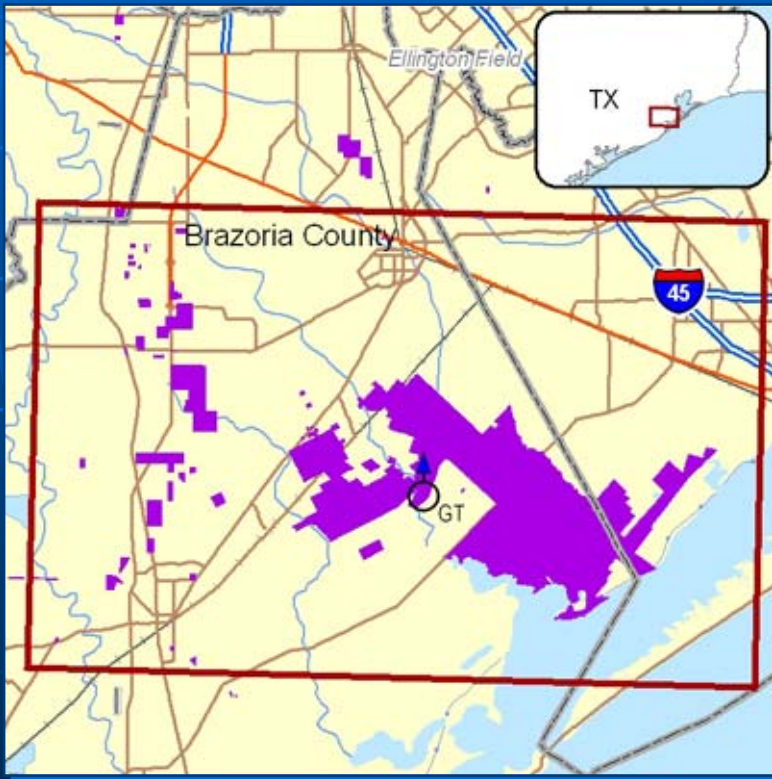


## > 3.5 MM AC of Geothermal Mineral Estate

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## Pleasant Bayou (Proven Geopressure Resource)



## Northern Louisiana (Geopressure Region)

# Development Focus

## Southwest Geopressured Geothermal Resources

- Multiple energy sources (geothermal & entrained gas)
- Multiple revenue streams
- Hospitable political environment
- Private resource ownership
- Deregulation/competition
- Transmission accessibility
- Local Industry sales
- Permitting

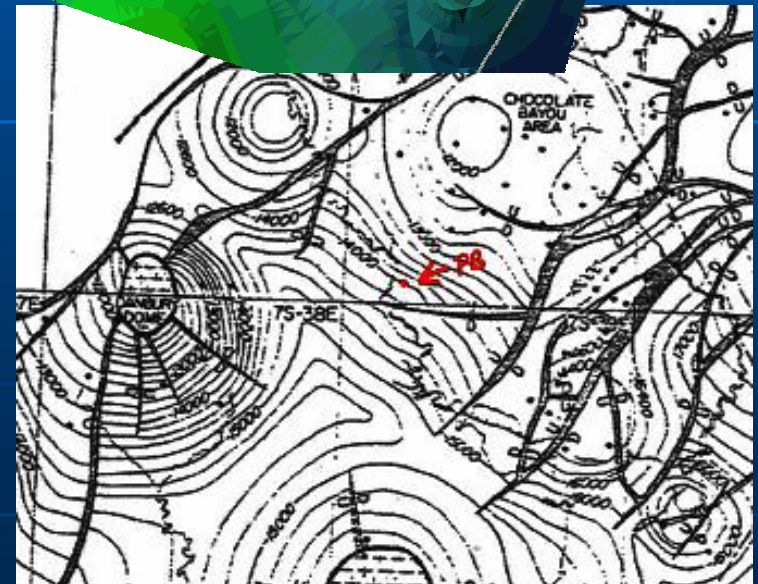
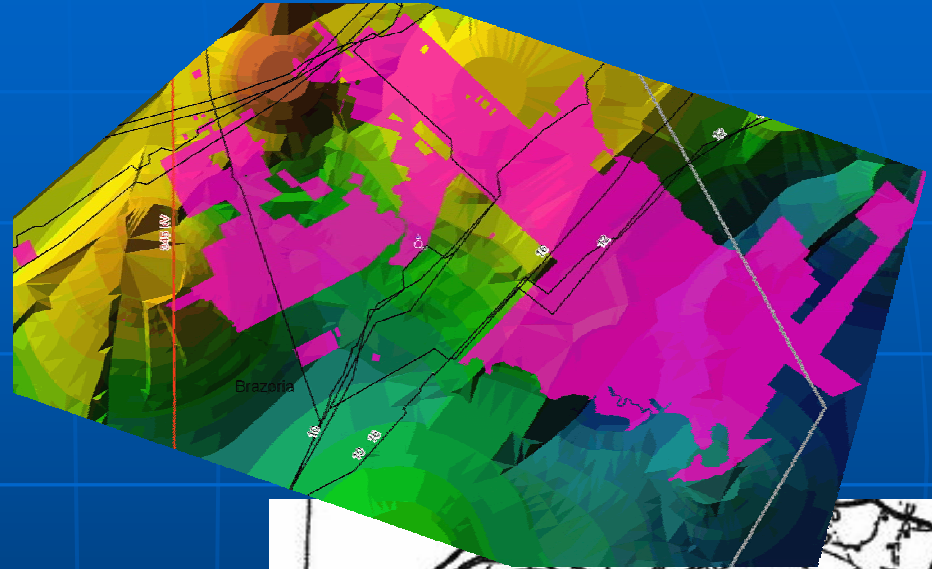
Pleasant Bayou 1MW Plant



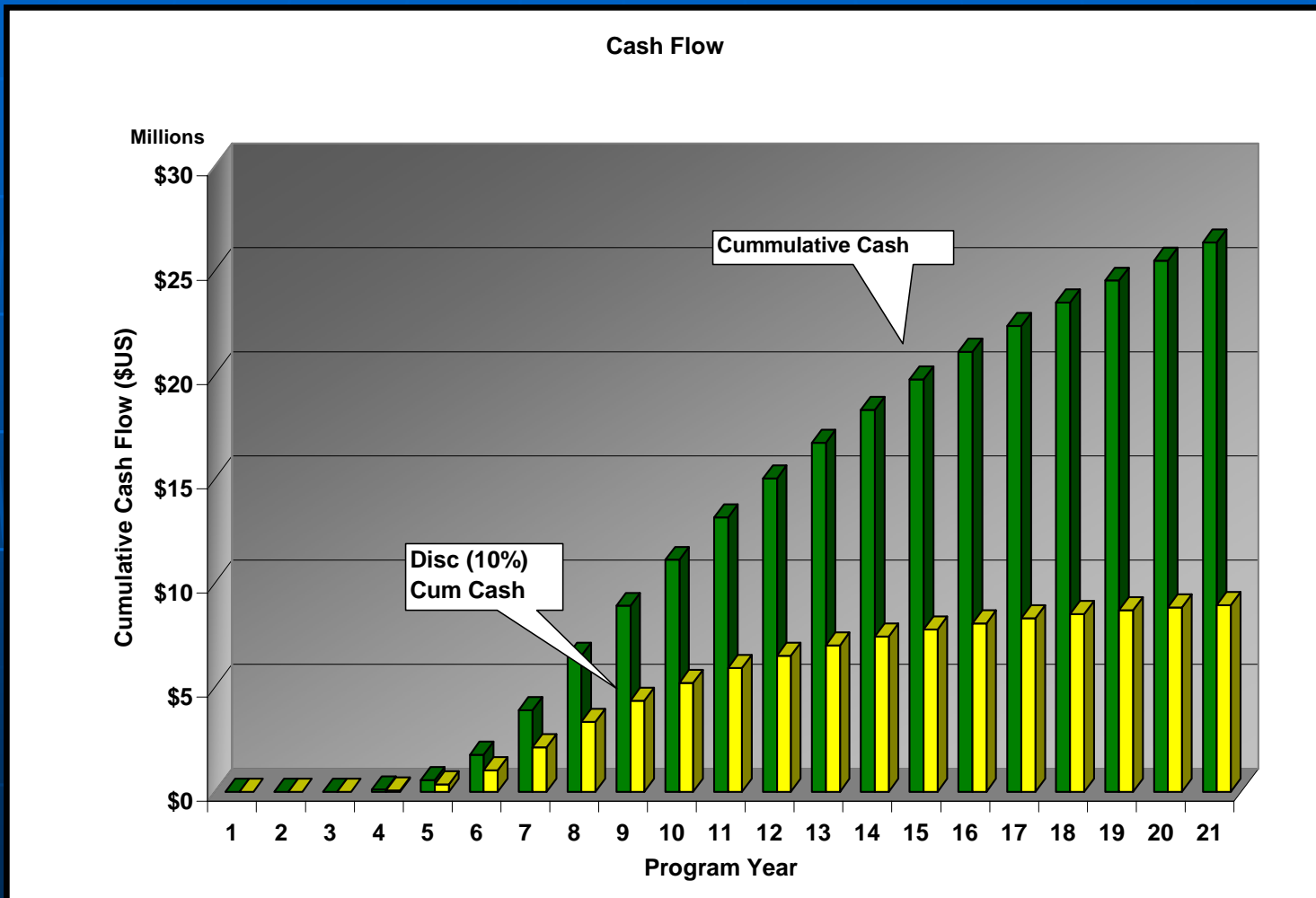
# Brazoria Prospect

## Pleasant Bayou #2

- Produced 1988-1992
- 16,465 ft
- 9800 psi
- 302° F (BH)
- 272° F (WH)
- Salinity: 127,000 ppm TDS
- Gas/Brine Ratio: 24 scf/stb
- Max Flow Rate: 25,000 BPD
- Methane: 85 (mol%)
- CO<sub>2</sub>: 10 (mol%)
- Other Gases: 5 (mol%)
- Porosity: 19%
- Permeability: 200 mD
- Plugged at various depths
- Numerous wells in area at depth
- Close proximity to electric transmission
- Close proximity to pipeline transport



# Brazoria Prospect

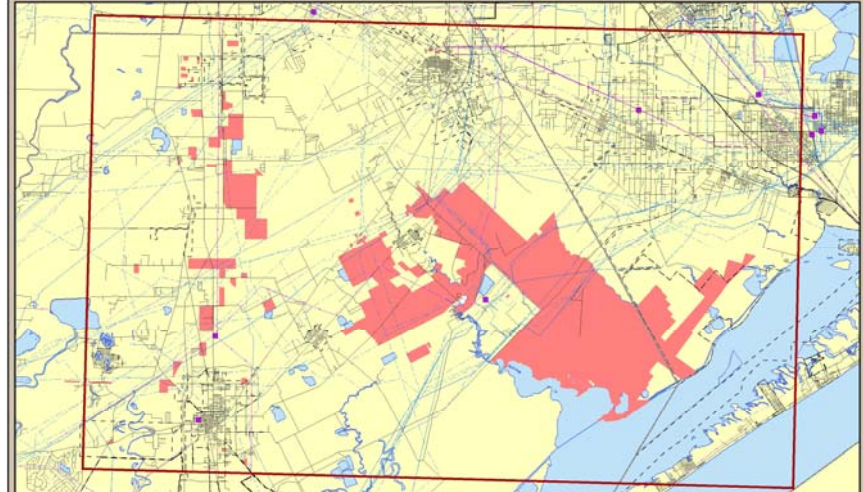




# Brazoria Prospect

# Lafayette Prospect

## Brazoria Geopressured Geothermal Resource

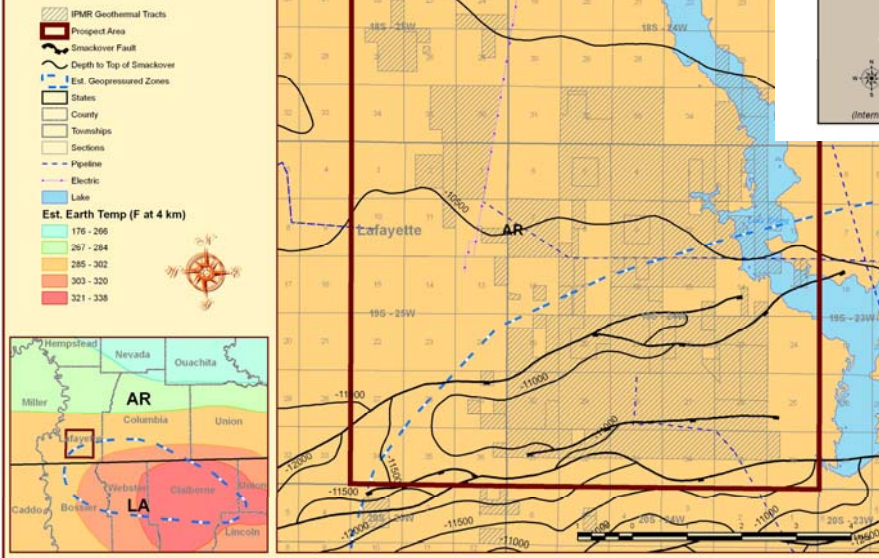


± 53,526 TOTAL Acres Within Prospect  
 (Calculated acreage including royalty tracts)  
 ± 50,957 Acres - Gross Geothermal Mineral Interest  
 (Stated acreage; does not include royalty only tracts)  
 ± 47,534 Acres - Net Geothermal Mineral Interest  
 (Stated acreage; does not include royalty only tracts)  
 ± 3,425 Acres - 7% Geothermal Royalty  
 (Stated royalty only tracts)

(International Paper Mineral Resources provides this map as a representation of what is understood to be its mineral ownership interest and does not warrant the information on this map.)

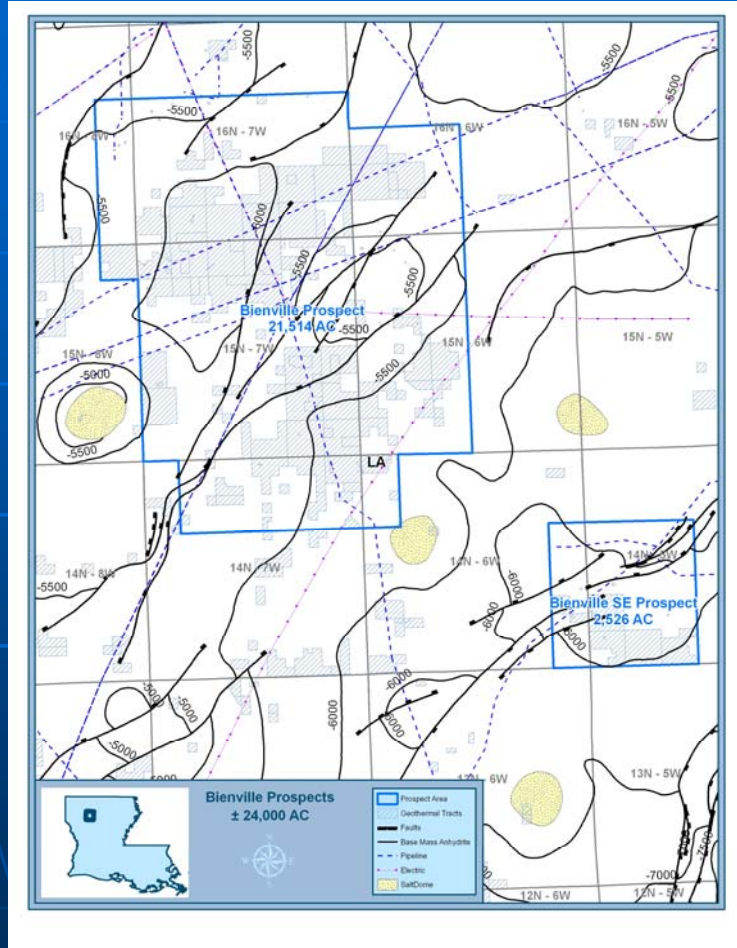
## Lafayette Geothermal Prospect

± 25,620 AC

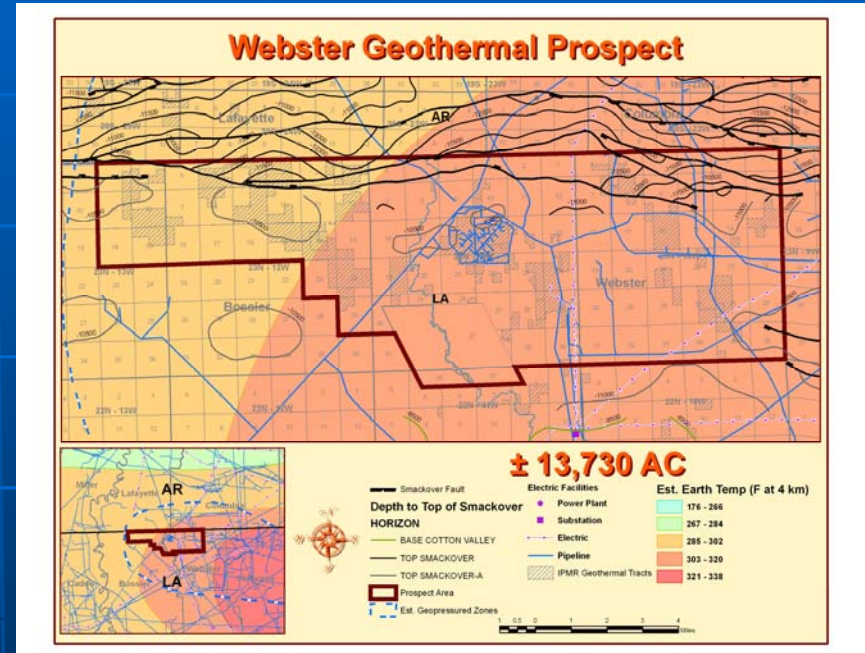




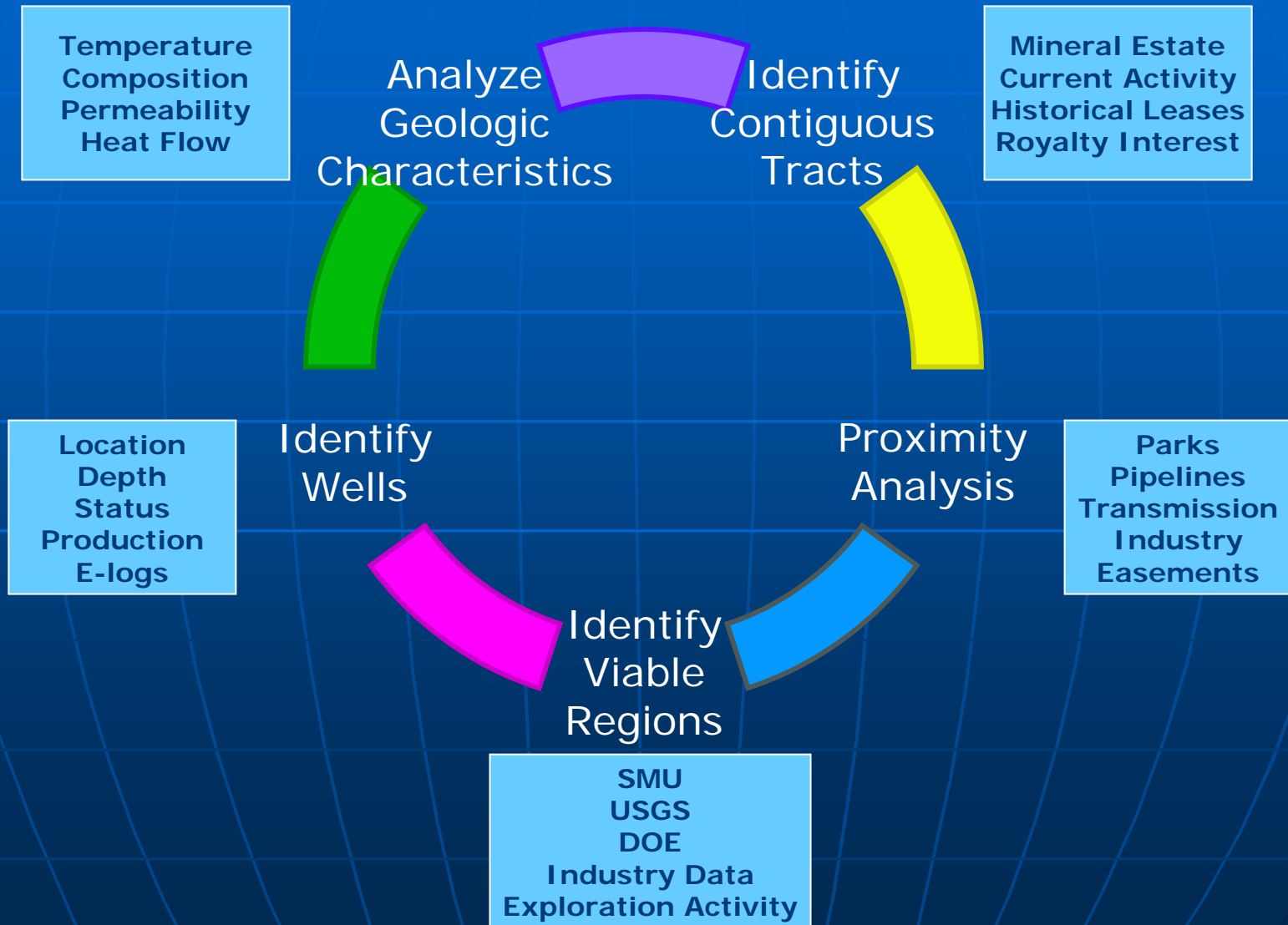
# Bienville Prospect



# Webster Prospect

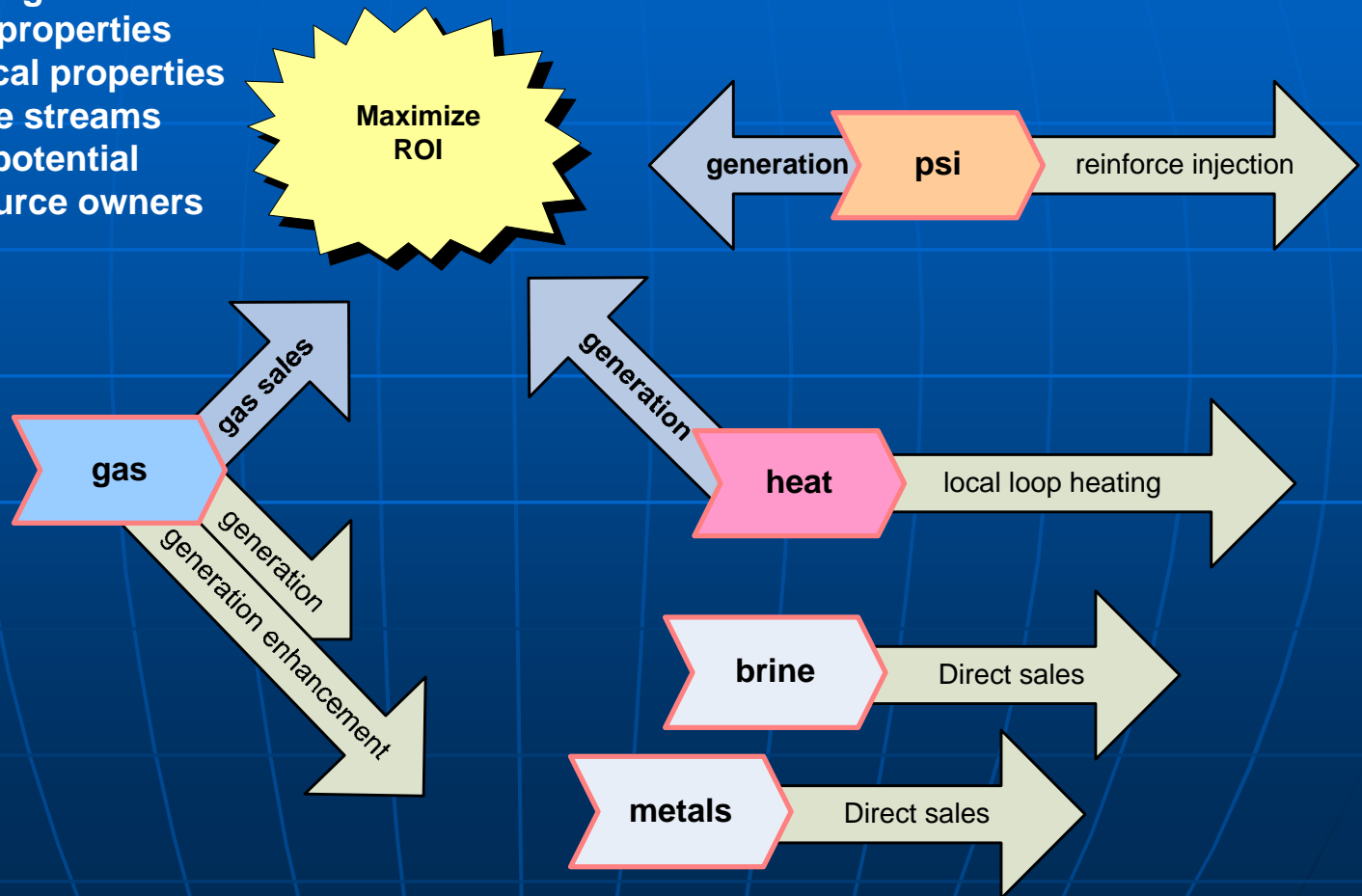


# Prospect Development



# What does the Southwest offer?

- + Multiple energy sources
  - + Entrained gases
  - + Thermal properties
  - + Mechanical properties
- + Multiple revenue streams
- + Re-completion potential
- + Compliant resource owners



# What we look for...

- Partnership
- Viable business models
- Geotechnical data sharing
- Aggressive resource development
- Solid financial commitments

# How we structure deals...

1. Under Confidentiality Agmt
2. Option Agreement
  - (Data Sharing or Payment for Exclusivity)*
3. Lease Agreement Variations
  - a. Annual Per AC Lease Payment
  - b. Modest Drilling Bonus
  - c. Committed, Aggressive Exploration
  - d. Limited Term
4. Royalty on Production
5. Passive JV Role



# www.ipmineralresources.com

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Mineral Resources

Geothermal

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- Mineral Listing
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- Coal Bed Methane
- Coal / Lignite
- Geothermal
  - Arkansas Geothermal
  - Louisiana Geothermal
  - Oregon Geothermal
  - Texas Geothermal
  - Washington Geothermal

Northwest Geothermal Prospects

A total of 9 geothermal prospects in the northwest identified as potential producers of geothermal resources. Accounting for ±300,000 gross mineral acres of geothermal estate, International Paper is providing attractive opportunities for electric generation using this renewable energy resource.

Longview ± 54,660 AC

Morton ± 27,100 AC

Related Links

- Contact Information

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