SLIDES: Adaptive Management and Best Management Practices on the Southern Ute Indian Reservation

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Adaptive Management and Best Management Practices on the Southern Ute Indian Reservation

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BC Forest Practices Branch – Adaptive Management

- Systematic process for continually improving management policies and practices by learning from the outcomes of operational programs.
- Its most effective form- “active” adaptive management-employs management programs that are designed to experimentally compare selected policies or practices, by evaluating alternative hypotheses about the system being managed.
Southern Ute Indian Tribe

BC Forest Service – Adaptive Management
Insanity

Doing the same thing again and again and expecting a different outcome.
Southern Ute Indian Tribe History

- 2 Ute Bands - Mouache and Capote
- Ranged widely across Colorado, Utah and New Mexico
- 1860 Reservation – 12 million acres
- Current reservation:
  - 700,000 acres
  - Tribal surface 310,000 acres
  - Tribal minerals 330,000 acres
Southern Ute Indian Reservation Location
Southern Ute Conundrum

- Tribe’s financial needs do not end.
- Energy reserves and revenues are finite.
Short Term Solution

- Maximize the Tribe’s economic benefit from its nonrenewable resources

- Obtain a greater proportion of the value of the gas at the burner tip.
Red Willow Production Company

Hypothesis:

If the Tribe initiates a program of buying back existing leases on the reservation, it can operate those leases at a profit and retain that added part of the value of the gas for the benefit of the membership.
Red Willow Production Company

Design Phase:
• In 1991, we developed a business plan to implement an on reservation lease acquisition program.

Implementation:
• From February 1992, to date, we have been acquiring leases on the reservation.
Red Willow – Early History (’92-’94)

• Started by Tribal Council in 1992
• Started as a small, very conservative company
  • On Reservation
  • Bought existing wells only
  • Conventional gas only, no coalbed methane
  • Low risk => low rate of return on investment
  • Little activity other than operating, accounting
  • Few employees
Southern Ute Indian Tribe

Red Willow – Middle History (’95-’01)

• Grew deliberately with success and opportunity
  • Coalbed methane (CBM) ownership, operations
    • 1995 McKenzie Methane Bankruptcy
    • 1999 CBM ownership lawsuit settlement
    • 1999 Cedar Ridge purchase
    • CBM more important than conventional
    • Operating greater volumes
    • Began drilling new (infill) wells
  • 2000: Stepped off the Reservation
  • Using 3D seismic
  • Had to add staff in all disciplines
Red Willow – Recent History (’02-’03)

• A “big” small company
  • Own interest in nearly 1000 wells, operate 450
  • Active Off-Reservation
    • operating in New Mexico, DJ Basin
    • participating in Gulf of Mexico, Canada
  • Operating 175 million cubic feet per day (mmcf/d)
  • Marketing 200 mmcf/d
  • $100+ million annual EBITDA
  • Must replace 40-50 billion cubic feet (bcf) per year
  • Continuously looking for new opportunities
  • 65 employees in 8 functions
Southern Ute Indian Tribe

RED WILLOW GROSS WELL COUNT

- OPERATED BY OTHERS
- RED WILLOW OPERATED

DATE

WELL COUNT

- CONOCO
- ARCO
- MISC.
- MCKENZIE
- SAWMILL
- CEDAR RIDGE
- AMOCO INFILL
- BRIGGS II
- SHOTGUN CK
- KUKUI
- QUESTAR

Jan-93 - Jul-06
Southern Ute Indian Tribe

Red Willow Operated and OBO CBM wells
Southern Ute Indian Tribe

Red Willow Capital Program

RED WILLOW OPERATED CBM PRODUCTION

- Dowmill
- Ute 200
- Animas
- Walker Flats
- Cox Canyon
- Animas
- Trail Canyon

$6,060,000
- 7 well upgrades
- 3 cavity compl.
- 1 infill well
- 5 compressors
- 2 H2O transfer

$1,625,000
- 6 well upgrades
- 3 SWD automation
- T.O. SWD repair

$275,000
- 1 Compressor
- 1 re-Fac
- 6 more wells on

$3,304,000
- 1 well upgrade
- 1 cavity compl.
- 1 infill well
- 2 compressors

$4,523,000
- 1 well upgrade
- 7 cavity compl.
- 1 cavity C.O.
- 4 compressors
- 1 YH4 comp.
- 1 booster comp.
- 2 well debottleneck

$3,925,000
- 6 infill wells
- 2 cavity compl.
- sidetrack frac.
- polycore
- wellbore upgrade
- compressors

$4,791,163
- 4 refracs
- 2 gathering system expansions
- 7 water transfer pumps

$10,208,762
- 14 infill wells
- 10 refracs
- 2 cavity compl.
- 1 booster comp.

$8,110,146
- 14 infill wells
Red Willow Production Company

Evaluation – never ends

Adjust – see Evaluation

Assess problem – Bring problem definition up to date and start the whole cycle again.
Problem:

- In the early 1991’s the Gathering system capacity on the reservation was completely inadequate for the anticipated coalbed methane production.
- El Paso and NWPL controlled gathering on the reservation.
- El Paso and NWPL were slow, unresponsive and risk averse.
- Wells required to be drilled by year end 1992 to qualify for Section 29 tax credit.
Hypothesis:

The Tribe will benefit from more competition in gas gathering on the reservation.
Southern Ute Indian Tribe

Proposed Solution:
• Reach agreement with WestGas to accelerate infrastructure development.

Implementation:
• Entered into such agreement in 1990

Monitor:
• Agreement worked well for several years.

Evaluate:
• We were forced to reevaluate our position when WestGas’ parent company decided to sell the company.

New Problem:
• Our aggressive competitor may be swallowed up by the very companies it was supposed to compete against.

At a minimum control, will pass to another distant corporation.
Proposed Solution:
• Buy it.

New Problem:
• We don’t have the money.

Proposed Solution:
• Find a partner with deep pockets.

Implementation:
• Negotiated partnership agreement.

Successfully negotiated purchase and sale agreement.
Monitor:
• Seats on the Board.

Monitor responsiveness, speed of development, key economic indicators.

Evaluate:

Adjust:
• Increase ownership at every opportunity.

New Situation:
• Tribe owns 51% of the gathering system which gathers and treats 85% of the Tribe’s royalty gas, and 80% of Red Willow’s operated gas.
Southern Ute Indian Tribe

Red Cedar Gathering Company Annual Throughput

BCF PER YEAR (000's)

AVG. DAILY MMCF

Legend:
- BCF
- AVG. DAILY

Year:
- 1995
- 1996
- 1997
- 1998
- 1999
- 2000
- 2001
- 2002
- 2003
- 2004

Projected (Proj)
Southern Ute Indian Tribe

Red Cedar Capital Expenditures 1994 – 2002 (est.)

~$153 MILLION
Southern Ute Indian Tribe

Red Cedar Gathering Company EBITDA (Net 51%)

$ million

Long Term Problem:

• No matter how large a percentage of the gas’s value the Tribe realizes, the gas will eventually run out.

Proposed Solution:

• Invest off the reservation in diverse industries.
Growth Fund EBITDA vs. Royalty

Growth Fund EBITDA vs. Royalty + Severance Tax + Tax Credit

- Royalty + Severance Tax + Tax Credit*
- Royalty + Severance Tax
- Growth Fund EBITDA

* - Tax Credit expires end of 2002
Southern Ute Indian Tribe

Southern Ute Growth Fund
Best Management Practices (BMPs)

Straw Mulching & Crimping & Erosion Control

Coyote Gas Plant Storm Water Pond
Southern Ute Indian Tribe

Southern Ute Growth Fund
Best Management Practices (BMPs)

Use of Cover Crop in Reclamation Practices.

Good Housekeeping Practices
Southern Ute Indian Tribe

Southern Ute Growth Fund
Best Management Practices (BMPs)

Good Housekeeping Practices

Good Housekeeping Practices
Southern Ute Indian Tribe

Southern Ute Growth Fund
Best Management Practices (BMPs)

Drum Caddy Secondary Containment

Disposal Bins for Oily Rugs & Filters
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Southern Ute Growth Fund
Best Management Practices

Metal Ring Secondary Containment

Signage to Reduce Speed & Dust on Pit Haul Roads
Southern Ute Indian Tribe

Southern Ute Growth Fund
Best Management Practices (BMPs)

Rock Retaining Wall for Slope Stabilization
Erosion Control Geotextile for Slope Stabilization
Southern Ute Indian Tribe

Southern Ute Growth Fund
Best Management Practices (BMPs)

Rock Armored Road Side Ditch

Rock Armored Sediment Control Ditch