

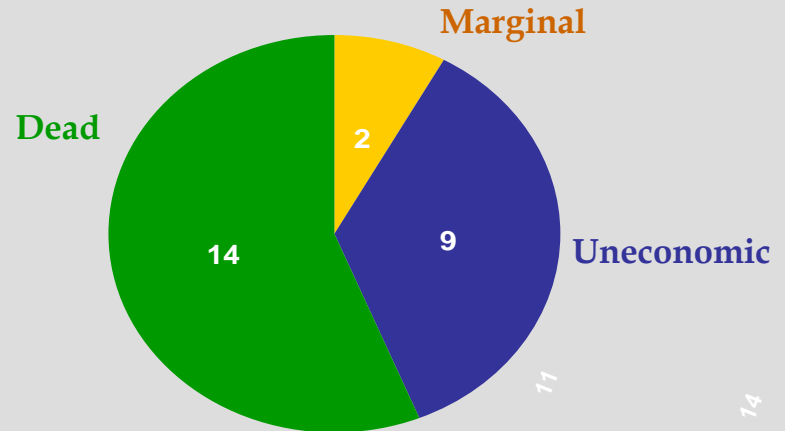
Calliope Gas Recovery System

Calliope Well Backgrounds

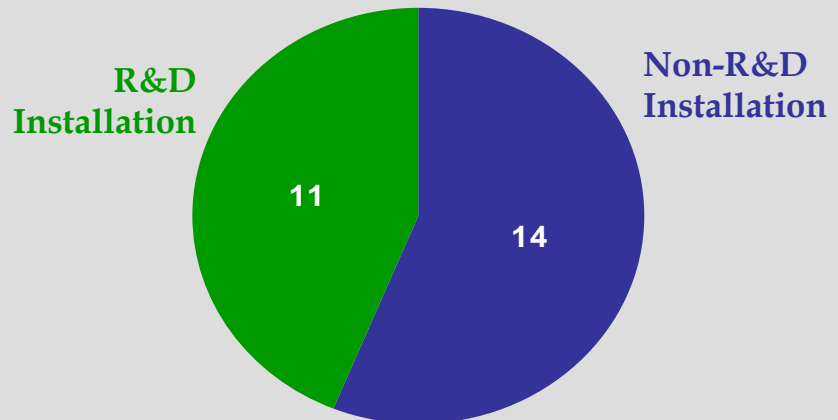
Candidate Well Summary

- Of the 25 Calliope installations to date, the majority have been completed successfully on less-than-ideal candidates
 - Shut-in and abandoned by operator
 - Many had not produced for several years
 - Compromised wellbore integrity and damaged reservoir from “parting shots”
- Calliope has produced effective results in sandstone and carbonate reservoirs with varying porosity and permeability
- Based on this substantial data set and associated learning curve, Credo has fine-tuned the process of identifying suitable candidate wells and reservoirs

Well Status at Acquisition



Type of Installation



Calliope Track Record

Summary of Historical Results (Multi-Step Process)

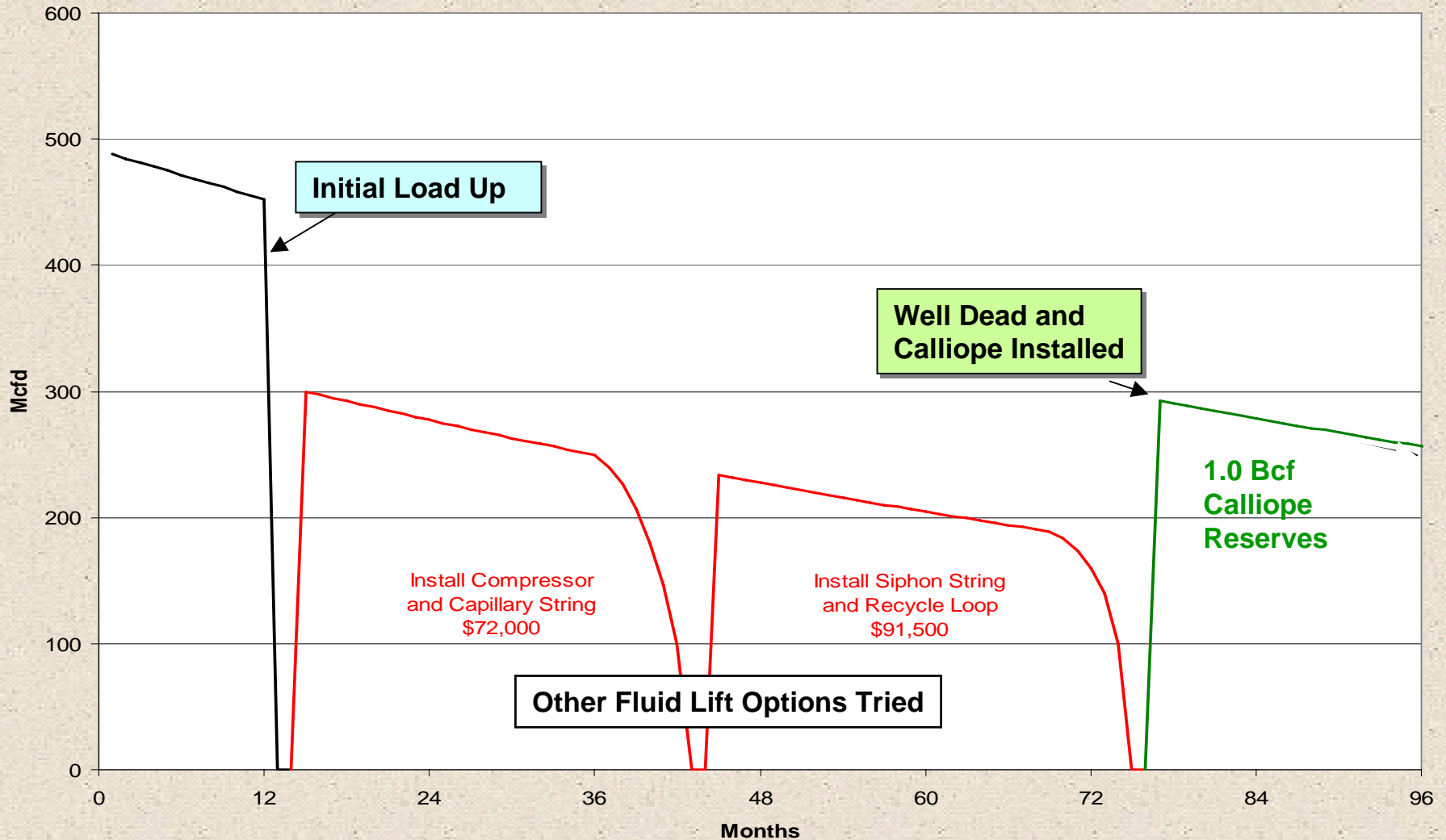
On average, Calliope has achieved impressive economics across the entire group with compelling results on go forward applications.

14 Non-R&D Wells

- Averaging 6 Mcfd when Calliope installed
- Cumulative Calliope production to date is 4.1 Bcf
- Total Calliope reserves are about 11.0 Bcf

Group	No. of Wells	F&D (Per Mcf)	LOE (Per Mcf)	“All In” (Per Mcf)	Reserves Per Well (MMcfe)	Prod to Date (MMcfe)	Total Reserves (MMcfe)
Non R&D Wellbores	14	\$0.41	\$0.61	\$1.02	972	3,431	13,619
R&D Wellbores	11	\$2.73	\$1.42	\$4.15	180	580	1,401
All Wells	25	\$0.68	\$0.76	\$1.44	600	4,010	15,011

Calliope Installed After Other Options Exhausted



J.C. Carroll #1-20

Section 20-T11N-R9W, Canadian County, Oklahoma

Background

Existing dead well scheduled to be plugged

11,800'; Morrow reservoir pressure depleted to 290 psi

Application of Calliope

Immediately restored production to 650 Mcfpd

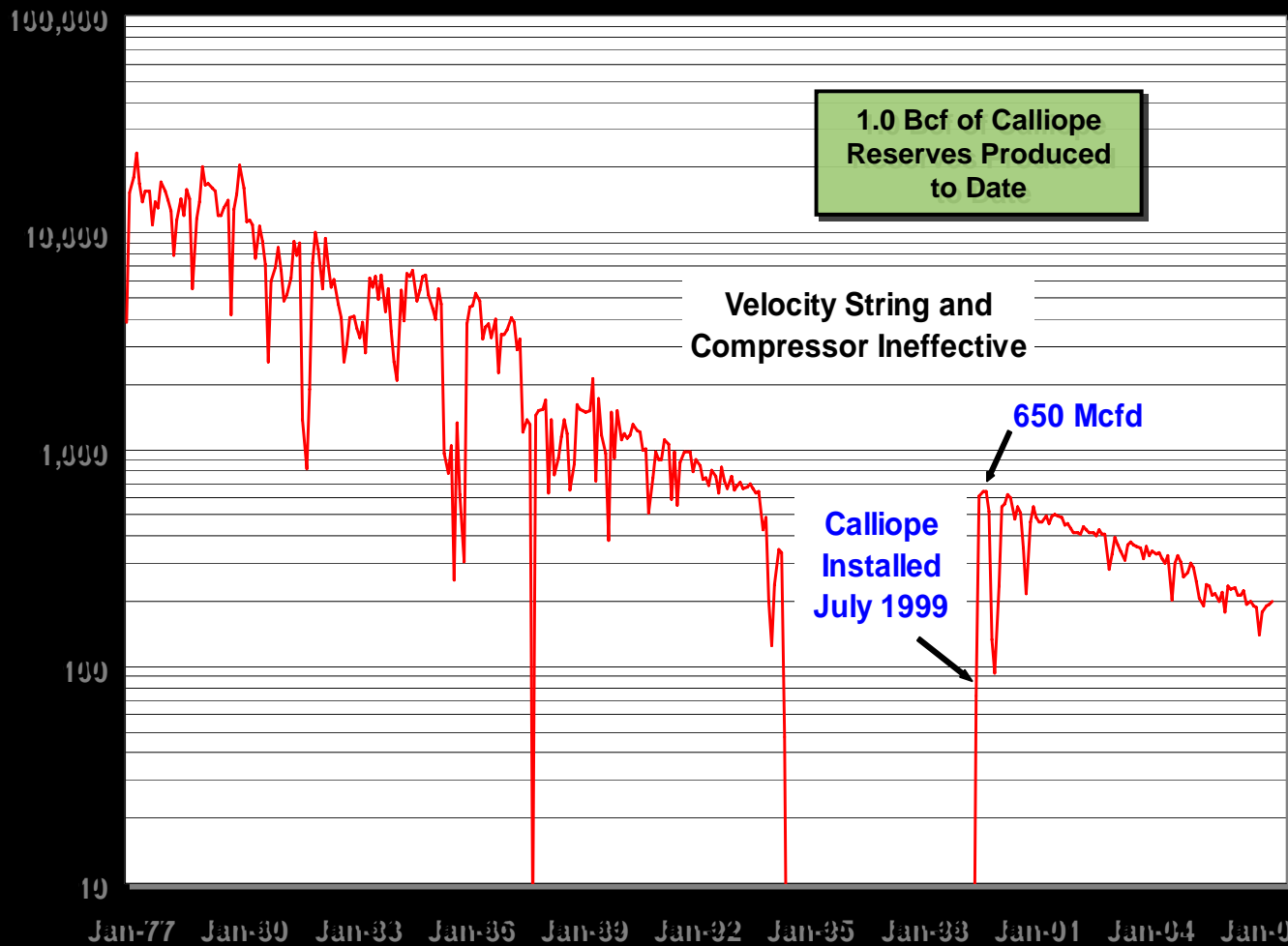
Long-Term Results

Calliope Production has surpassed 1.0 Bcf

Based on Calliope production alone, well now ranks in top 20% of all onshore U.S. gas wells

Incremental Calliope reserves estimated to total 1.4 to 1.7 Bcf

Production Curve (Morrow) (Mcfpd)



Bradford #1-28

Section 28-T9N-R8W, Grady County, Oklahoma

Background

Springer reservoir pressure depleted to 366 psi at 12,800'

Operator declared the well dead and recommended that it be plugged

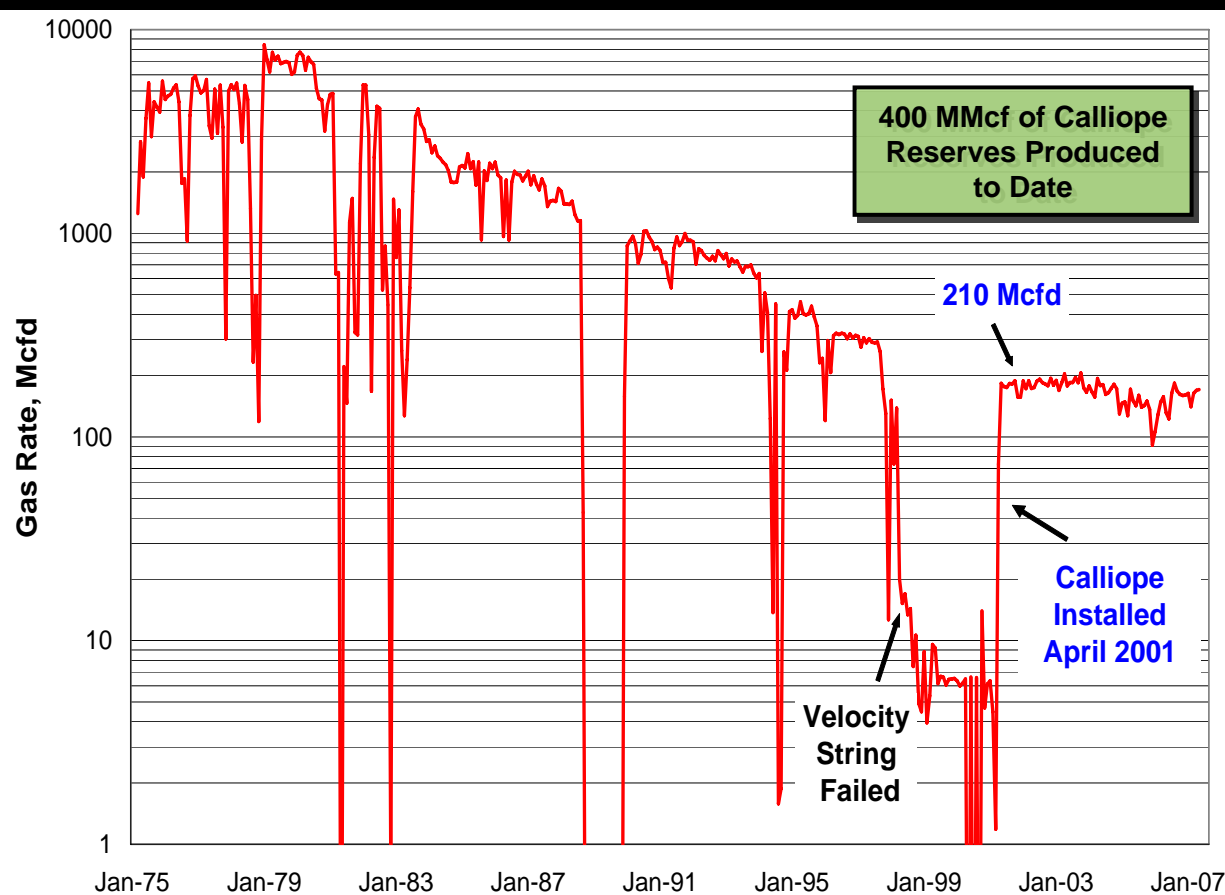
Application of Calliope

Calliope immediately restored production to 210 Mcfpd

Long-Term Results

The well paid out in 24 months and has produced approximately 400 MMcf of Calliope reserves to date

Production Curve (Springer) (Mcfpd)



Endicott #1-25

Section 25-T17N-R12W, Blaine County, Oklahoma

Production Curve (Morrow) (Mcfpd)

Background

Dead well

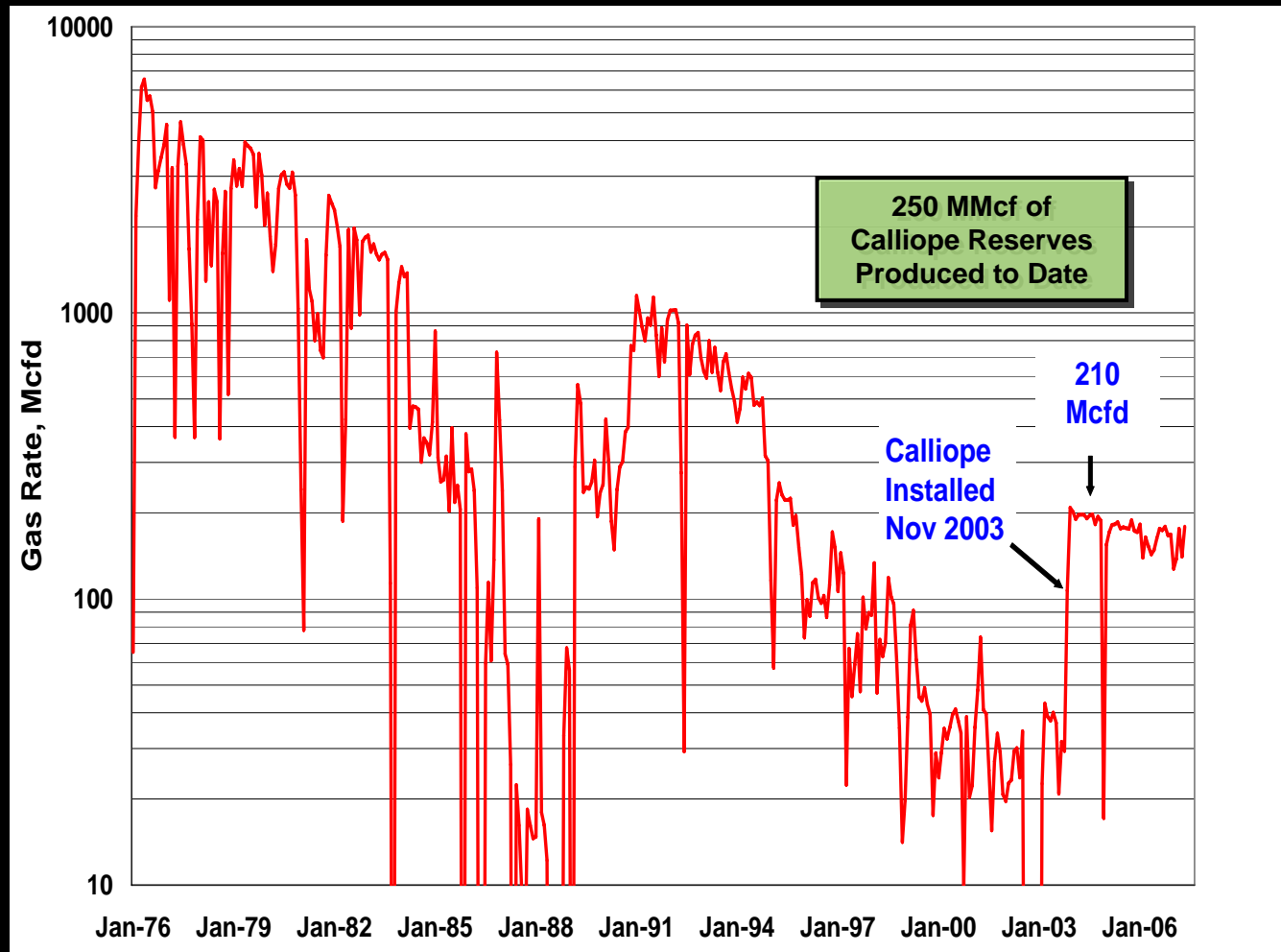
Morrow reservoir pressure depleted to 237 psi at 8,700'

Application of Calliope

Calliope immediately restored production to 210 Mcfpd

Long-Term Results

The well paid out in 13 months and has produced about 250 MMcf of Calliope reserves to date

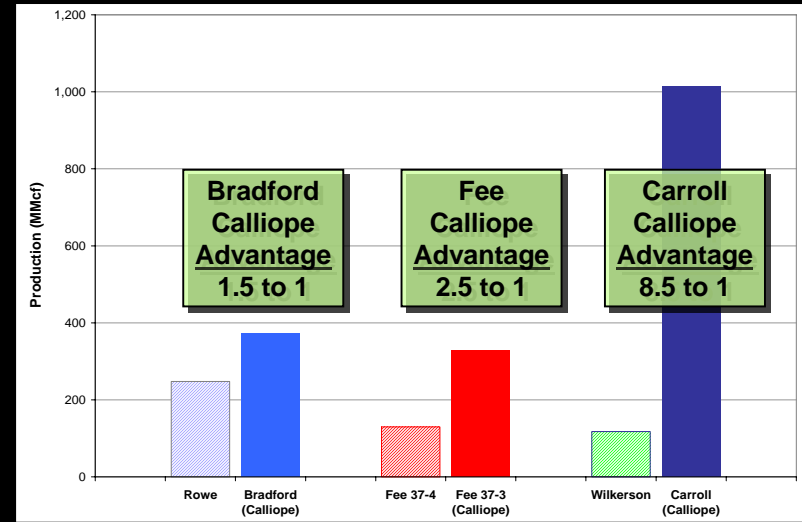


The Last Well Standing – Calliope

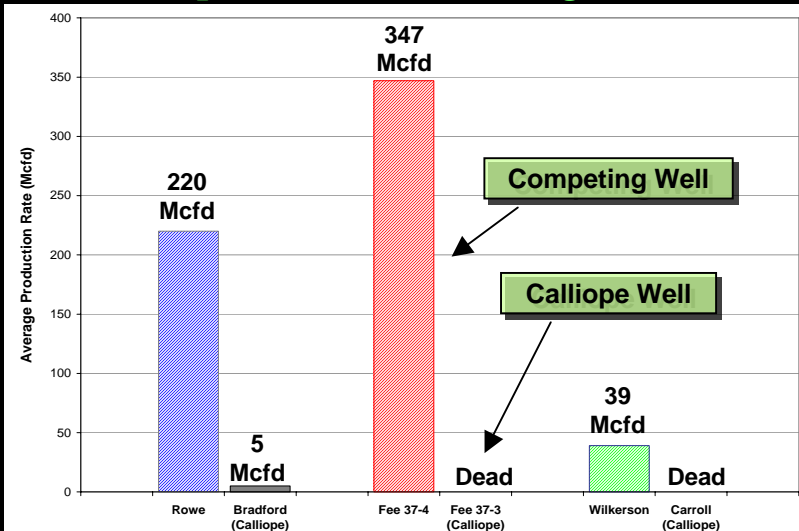
The Last Well Standing

- Calliope captures incremental reserves that would otherwise go to the competition
- Calliope has significantly outperformed nearby wells in competitive reservoirs
- All of the competitive wells had reservoir advantage over the Calliope wells, such as structural position, porosity or feet of pay
- At the time Calliope was installed on dead (or near wells), all of the competitive wells were producing economically

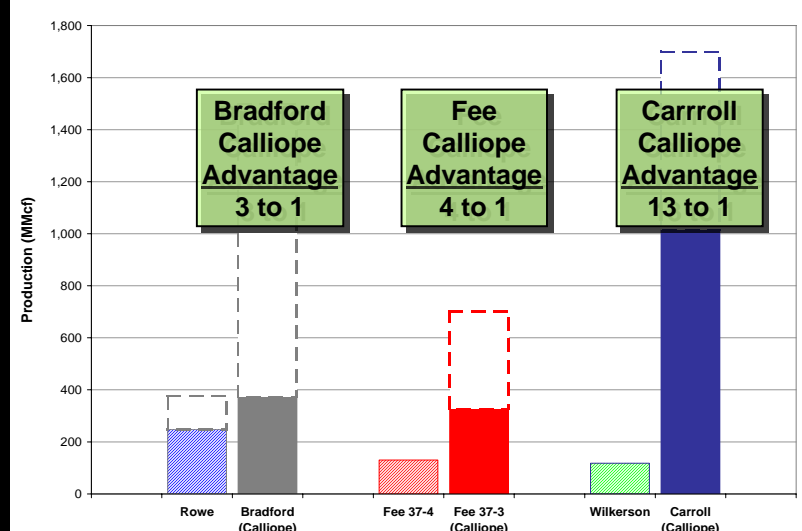
Post-Calliope Production to Date



Pre-Calliope Install - 12 Mo. Avg. Production



Post Calliope - Projected Total Production

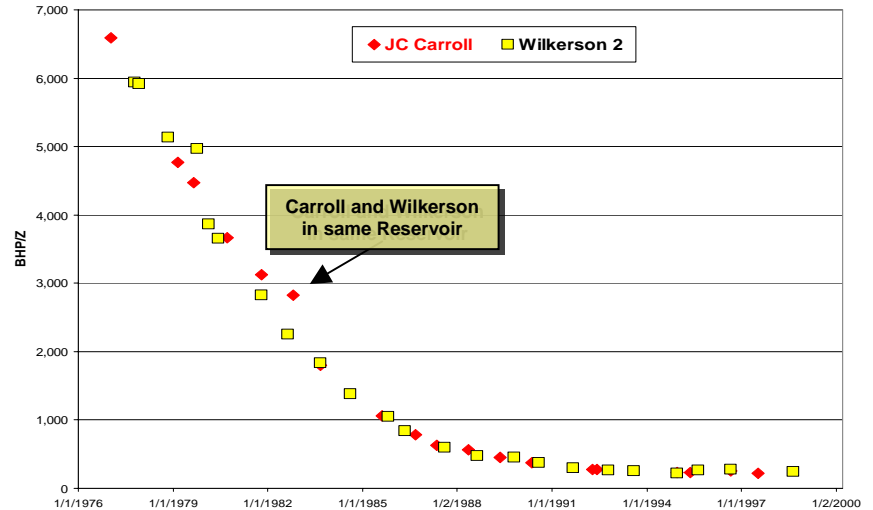


The Last Well Standing – J. C. Carroll #1-20

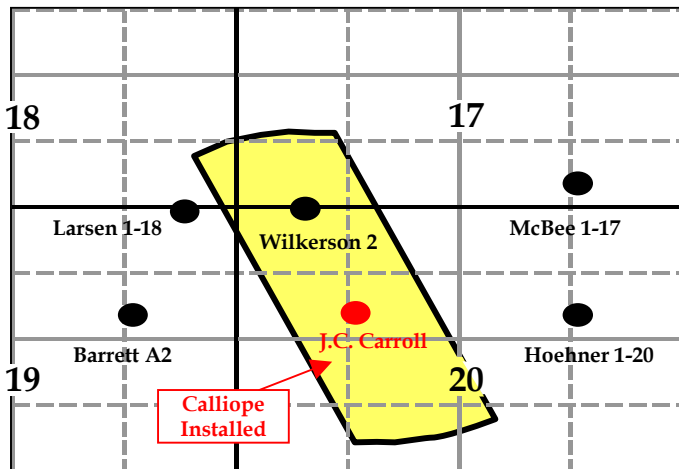
Canadian County, Oklahoma

- Two well Morrow reservoir
 - Carroll: Dead; lowest well on structure 200 feet down-dip from Wilkerson; more feet of pay
 - Wilkerson: Producing approximately 20 Mcfd; best structural position in reservoir
- Results since Calliope installation
 - Calliope Carroll: 1,015 MMcfe
 - Wilkerson: 118 MMcfe
 - Calliope advantage: 10 times more gas to date
 - Current status: Carroll producing ~200 Mcfd; Wilkerson prod. > than 10 Mcfd

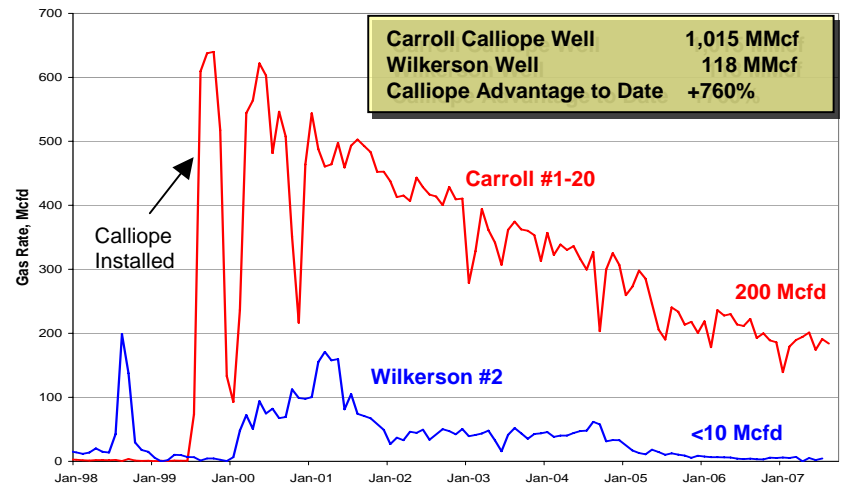
Morrow Reservoir Pressure



Well Plat



Calliope Production Period



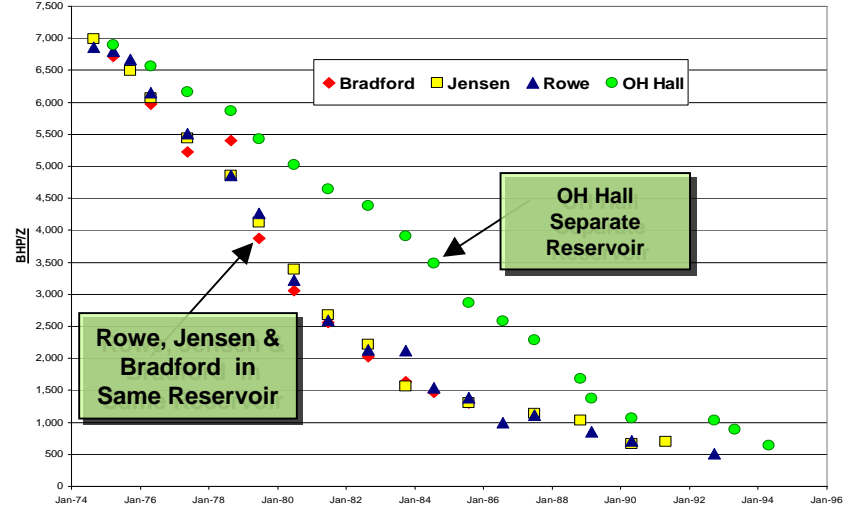
Calliope current production rate 20 times greater than competitor rate

The Last Well Standing – Bradford #1-28

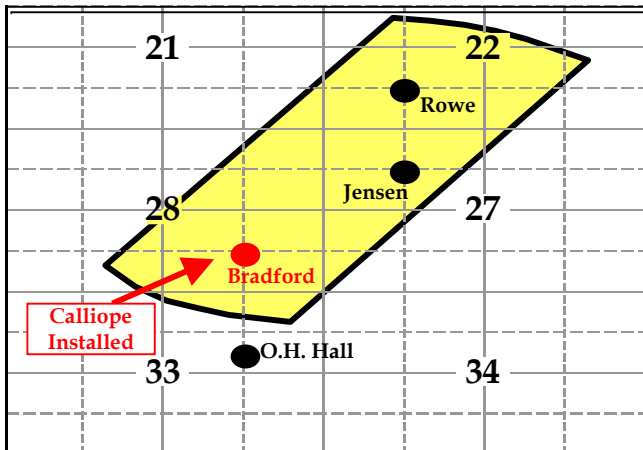
Grady County, Oklahoma

- Three well Springer reservoir
 - Bradford: Dead; lowest well on structure 491 feet down-dip from Rowe well; Jensen: Dead
 - Rowe: Producing about 175 Mcfd; best structural position in reservoir with best porosity
- Results since Calliope installation
 - Calliope Bradford: 373 MMcfe
 - Rowe: 248 MMcfe
 - Calliope advantage: +50% to date
 - Current status: Bradford producing over 160 Mcfd; Rowe producing 65 Mcfd

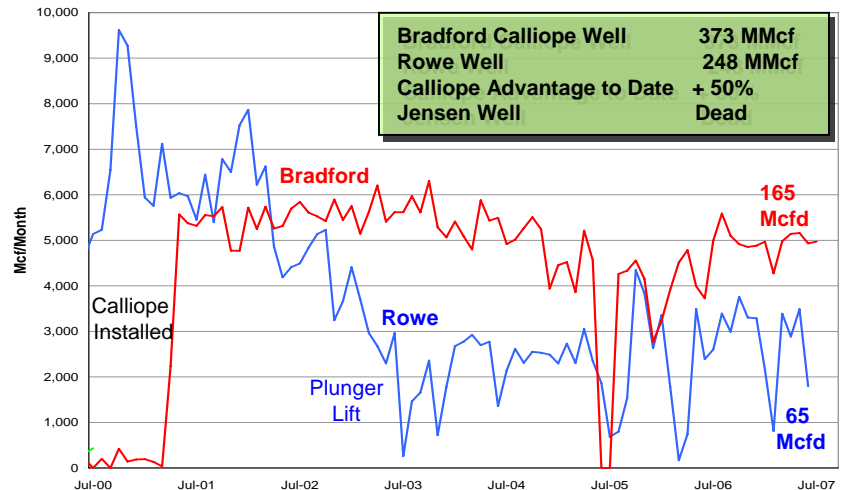
Springer Reservoir Pressure



Well Plat



Calliope Production Period



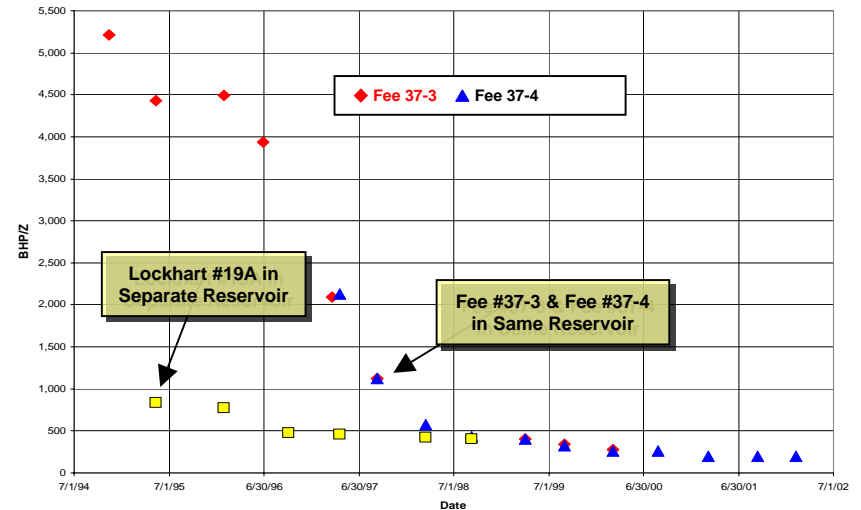
Calliope current production rate 154% greater than competitor rate

The Last Well Standing – Fee #37-3

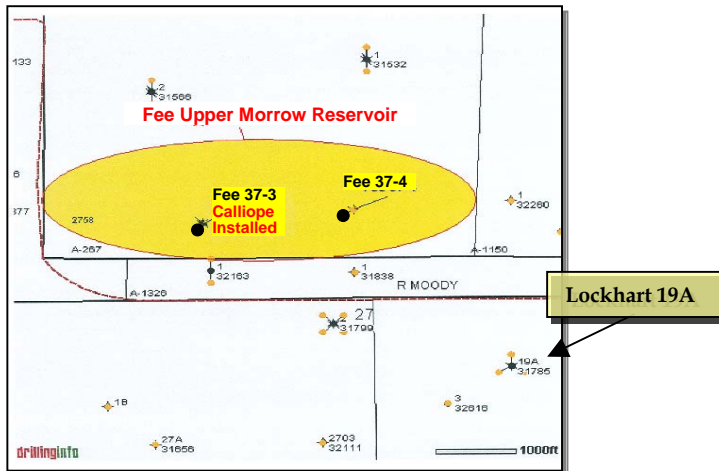
Hemphill County, Texas

- Two well Morrow reservoir
 - Fee #37-3: Dead, lowest well on structure 22 feet down-dip from Fee #37-4; also less pay and less porosity
 - Fee #37-4: Producing 75 Mcfd; best structural position, pay and porosity
- Results since Calliope installation
 - Calliope Fee: **328 MMcf**
 - Fee #37-4: **130 MMcf**
 - Calliope advantage: **2.5 times more gas to date**
 - Current status: **Fee #37-3 producing more than 100 Mcfd; Fee #37-4 is dead**

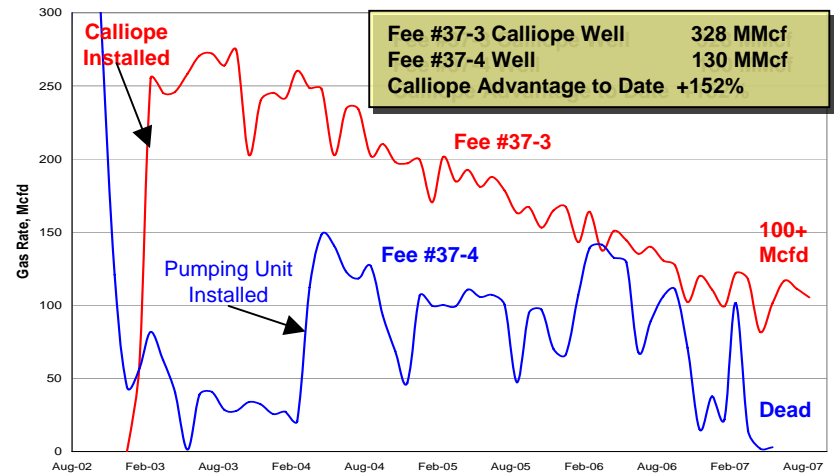
Morrow Reservoir Pressure



Well Plat



Calliope Production Period



Calliope current production rate 100+ Mcfd and competitor dead

Calliope Installed – Single Step Solution

