Resolute

Energy Corporation

Resolute Energy is a regionally diversified growth oriented E&P company focused on long-lived domestic oil producing assets

An update on the Greater Aneth Field
Midland CO_2 conference

December 7, 2012

Forward looking statements

Statements in this presentation, other than statements of historical fact, are “forward-looking statements” within the meaning of the safe harbor provisions of the United States Private Securities Litigation Reform Act of 1995. Words such as “expect,” “estimate,” “project,” “budget,” “forecast,” “target”, “anticipate,” “intend,” “plan,” “may,” “will,” “could,” “should,” “poised”, “believes,” “predicts,” “potential,” “continue,” and similar expressions are intended to identify such forward-looking statements. Forward-looking statements in this presentation include among other things, statements regarding our production, capital expenditures and cost guidance for 2011and beyond; our operating, drilling, development and exploration plans for 2011; statements regarding timing of future capital projects; anticipated capital expenditures and; future reserve estimates. Forward looking statements include matters that involve known and unknown risks, uncertainties and other factors that may cause actual results, levels of activity, performance or achievements to differ materially from results expressed or implied by this presentation. Such risk factors include, among others: the volatility of oil and gas prices; inaccuracy in reserve estimates and expected production rates; discovery, estimation, development and replacement of oil and gas reserves; the future cash flow, liquidity and financial position of Resolute; the success of the business and financial strategy, hedging strategies and plans of Resolute; the amount, nature and timing of capital expenditures of Resolute, including future development costs; availability and terms of capital; the effectiveness of Resolute’s CO_2 flood program; the potential for downspacing or infill drilling in the Williston Basin of North Dakota or obstacles thereto; the timing of issuance of permits and rights of way; the timing and amount of future production of oil and gas; availability of drilling, completion and production, personnel, supplies and equipment; potential delays in the completion schedule of Resolute’s compression facility construction; operating costs and other expenses of Resolute; the success of prospect development and property acquisition of Resolute; the success of Resolute in marketing oil and gas; competition in the oil and gas industry; the impact of weather and the occurrence of disasters, such as fires, floods and other events and natural disasters; government regulation and taxation of the oil and gas industry, including the potential for increased regulation of underground injection operations; the completion and success of exploratory drilling in the Bakken trend, the Mowry shale in Wyoming and the Permian Basin in Texas; anticipated supply of CO_2, which is currently sourced exclusively under contract with Kinder Morgan CO_2 Company, L.P.; Resolute’s relationship with Navajo Nation and the local Navajo community in the area in which Resolute operates; operational problems or unsecured or under insured losses affecting Resolute’s operations or financial results; developments in oil-producing and gas-producing countries; and the success of strategic plans, expectations and objectives for future operations of Resolute. More information about the risks and uncertainties relating to the Company’s forward-looking statements may be found in the Resolute’s SEC filings, including under the heading “Risk Factors” in the Company’s Annual Report on Form 10-K for the year ended December 31, 2010 and subsequent SEC filings. Actual results may differ materially from those contained in the forward-looking statements in this presentation. Resolute undertakes no obligation and does not intend to update these forward-looking statements to reflect events or circumstances occurring after the date of this presentation. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this presentation. All forward-looking statements are qualified in their entirety by this cautionary statement.

Non-GAAP financial measures: This presentation includes certain non-GAAP financial measures.

Greater Aneth Field

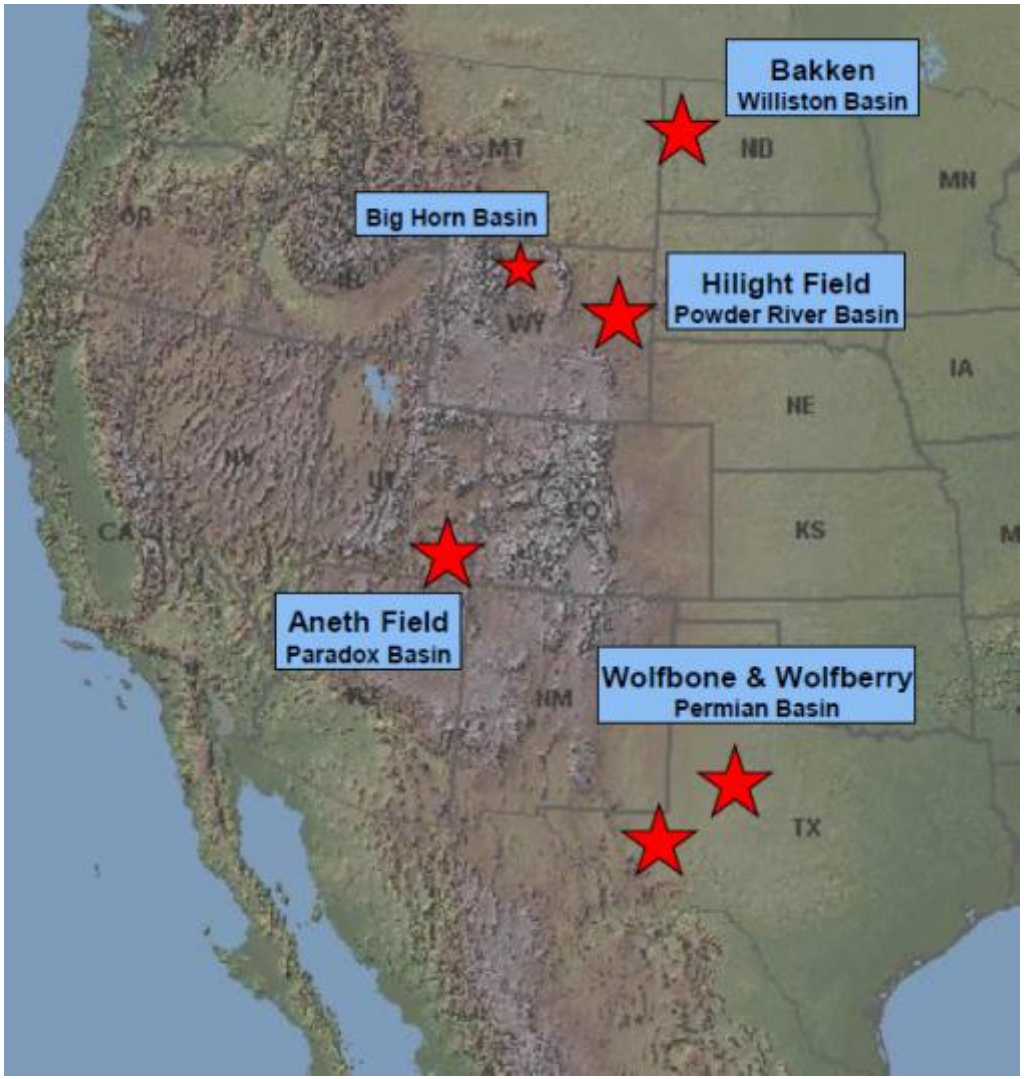
Outline

- Geology
- History
- Current and future CO_2 projects
- Aneth Unit Phase 1,2,3 performance
- Some things we have observed
- Residual oil zone
- Summary

Resolute Energy

Areas of operation

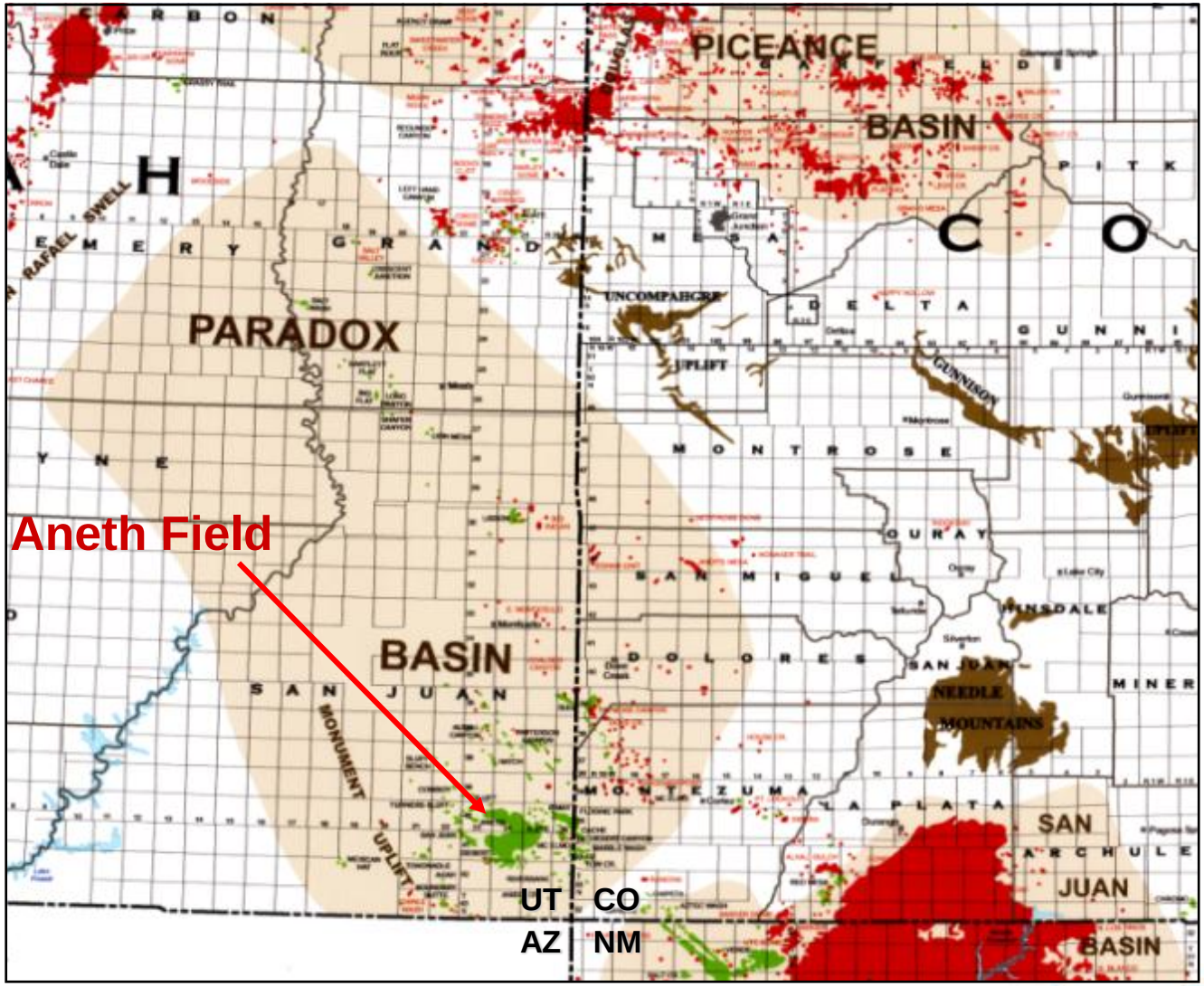
- Oil weighted portfolio – 91% liquids
  - 65 MMBoe proved*
- Visible 15% production growth
- Aneth and Hilight fields provide growth and reliable cash flow for investing in the Permian Basin and the Bakken trend
- Strong technical staff
- Strong financial position



* Year-end 2011 SEC case

Greater Aneth Field

Location map

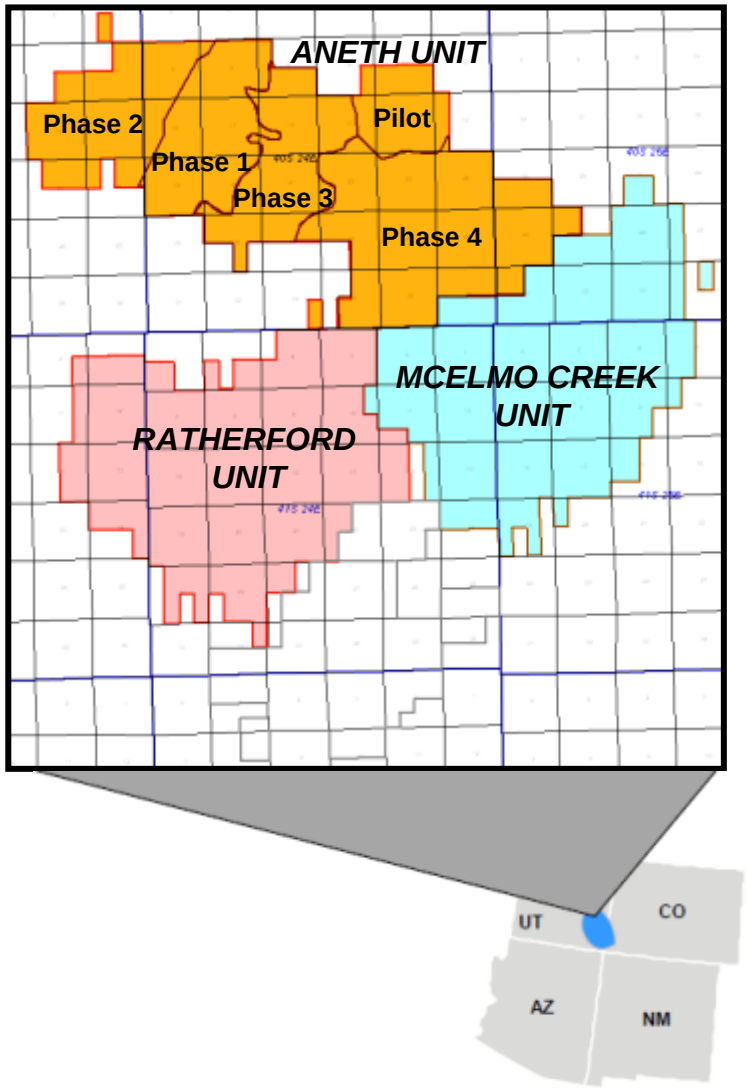


Greater Aneth Field

30 miles

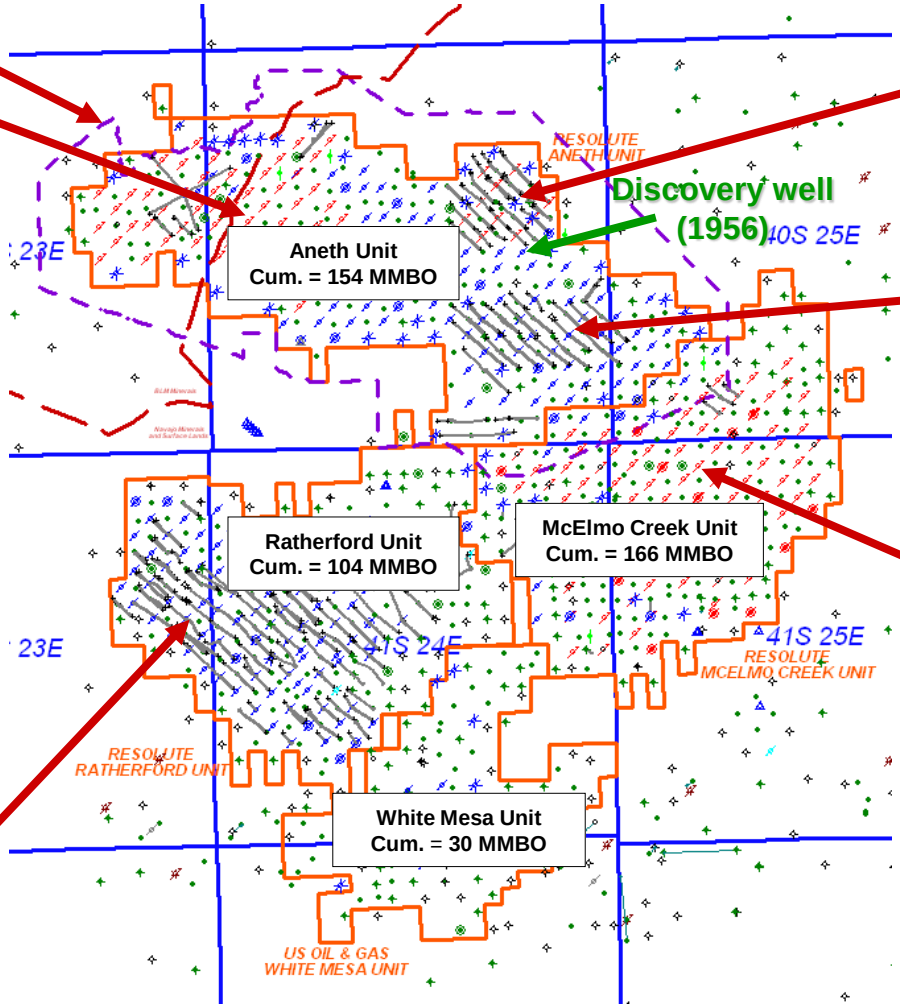
Greater Aneth Field

- Mature, long-lived oil producing field in San Juan County, Utah
  - Giant oil field - 1.5 BBbl OOIP
  - Production through 2011 was 426 MMBbl (29% recovery)
  - Incremental 1% recovery adds more than 15 MMBbl
  - Expanding 27 year old CO_2 flood
- Readily accessible CO_2 source at McElmo Dome
  - 28-mile CO_2 to McElmo Dome



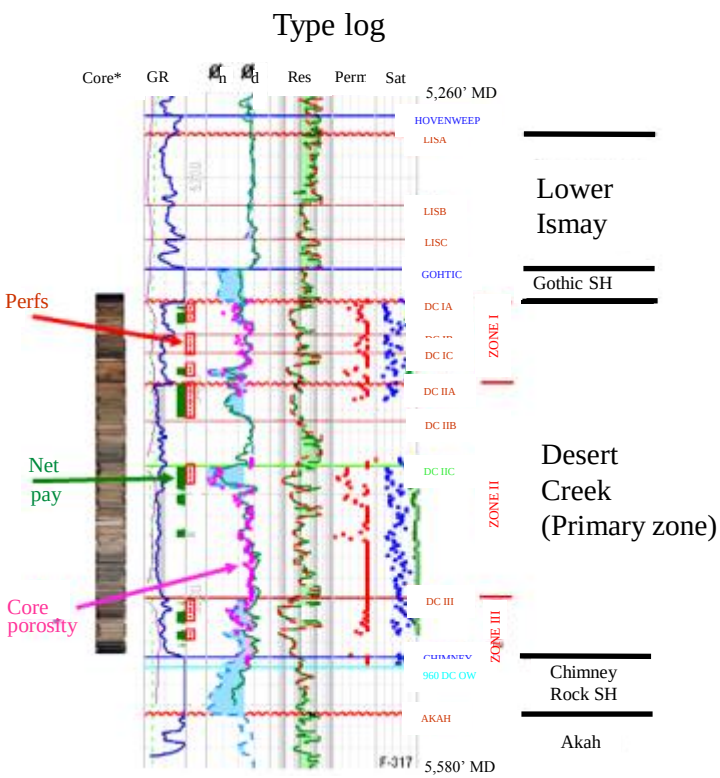
Greater Aneth Field

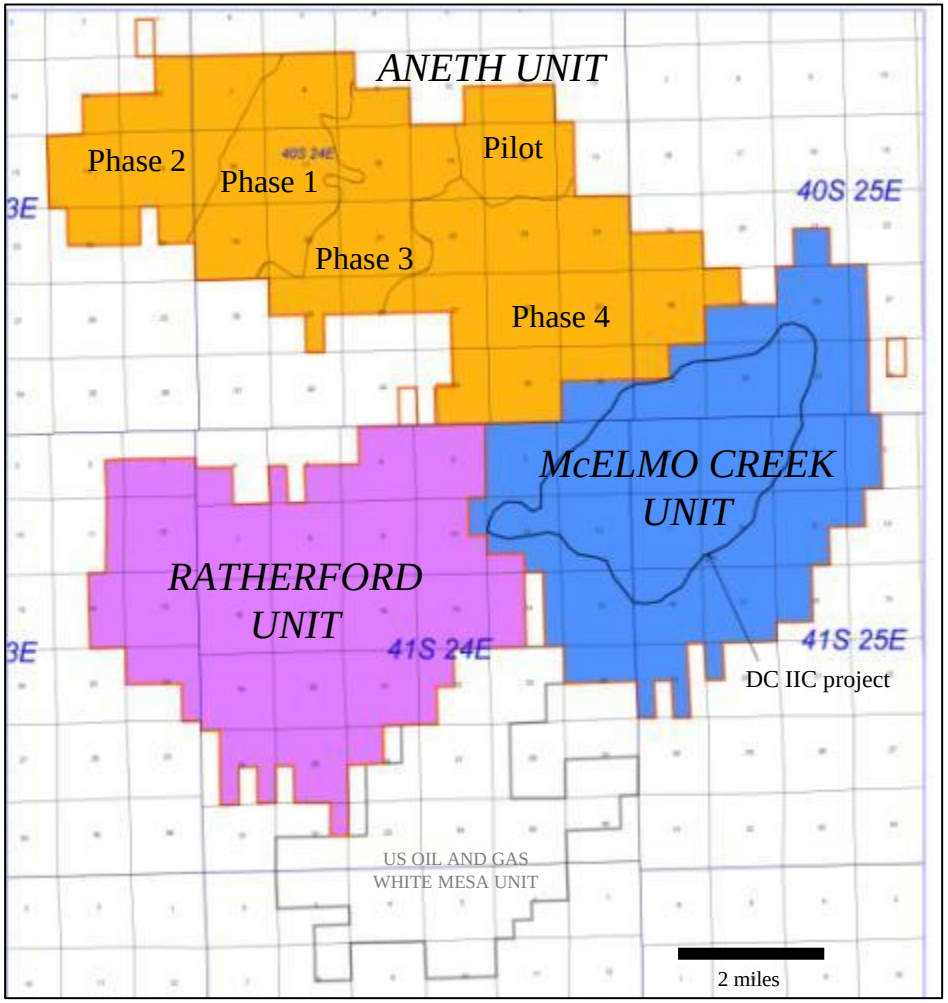
- Discovered in 1956
- Stratigraphic trap
- Peak rate ~100,000 BOPD in 1959
- Fully delineated on 80-acres by 1961
- Unitization in 1961
- Waterflood initiated in 1961
- Infilled to 40-acres in 1970s
- CO_2 initiated in 1985
- Horizontal drilling initiated in 1994



Greater Aneth Field

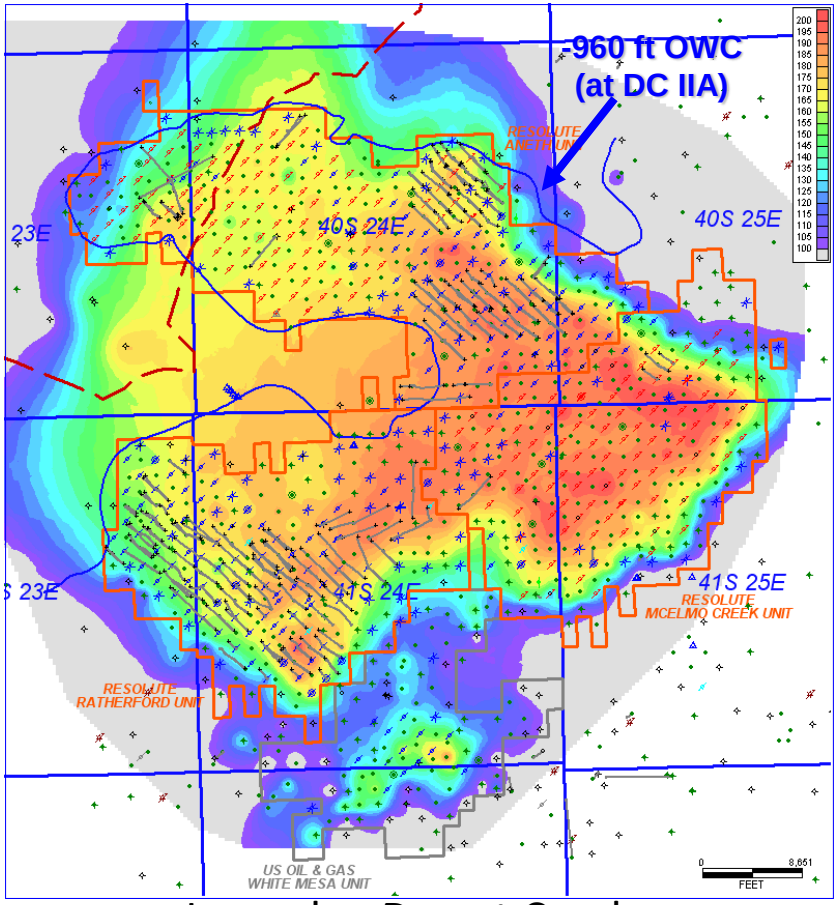
Type log



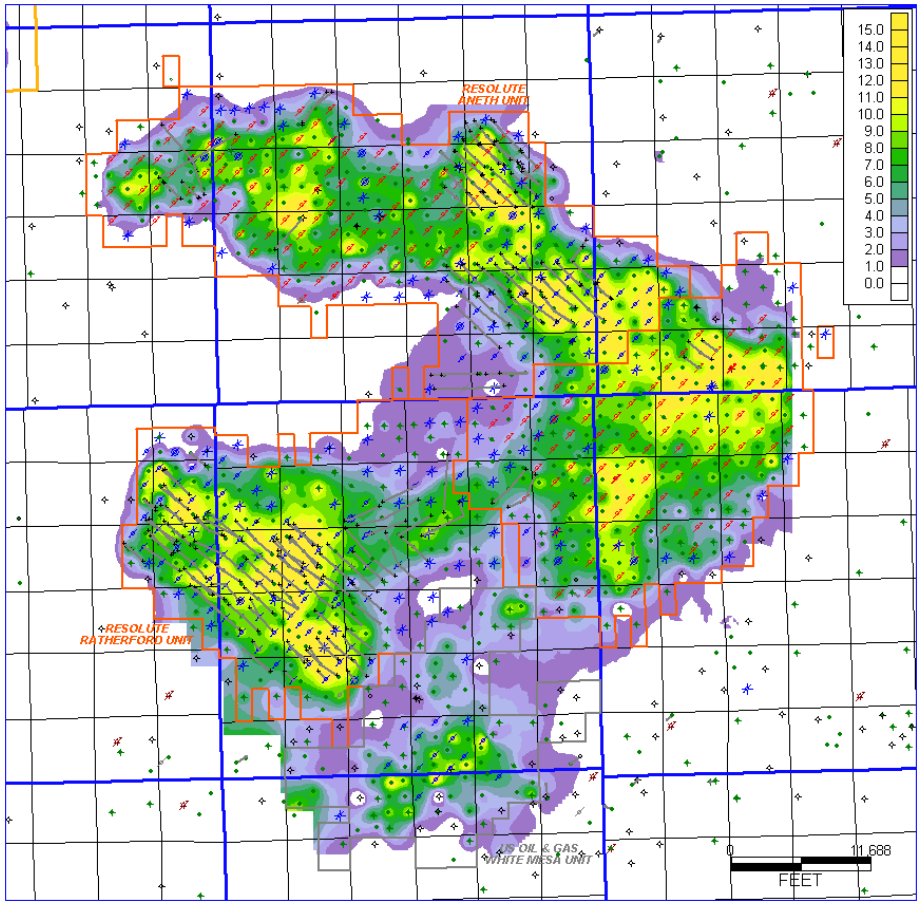


Greater Aneth Maps

Isopach and Phi H maps



Isopach – Desert Creek

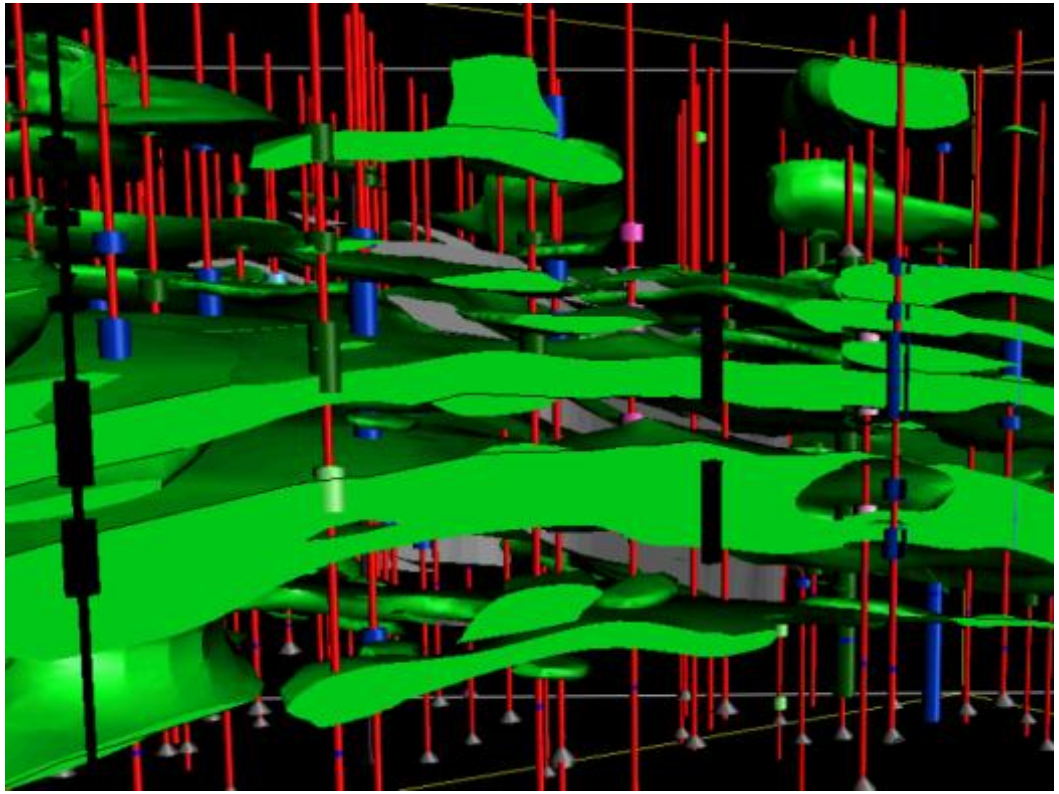


Phi H – Desert Creek

The Greater Aneth Field is a stratigraphic trap of a Pennsylvanian age carbonate mound that produces from the Desert Creek member

3-D geologic model – Aneth Unit

- The oolitic and algal reservoirs have local heterogeneity
- Three dimensional geologic models help to identify sweep inefficiencies



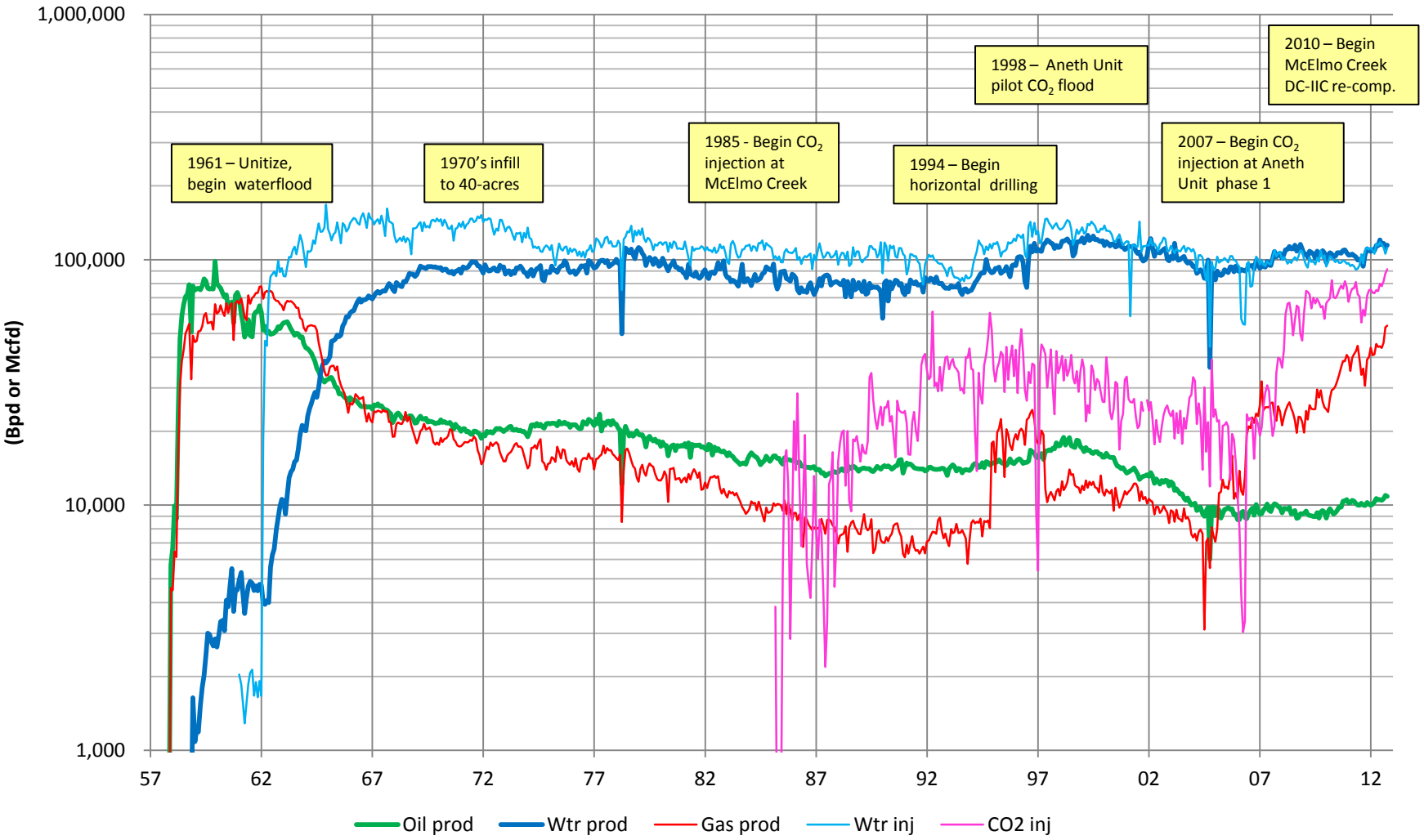
Greater Aneth Field

Reservoir properties

- Depth to pay (Desert Creek) = 5,500 ft
- Solution gas drive
- Initial reservoir pressure = 2,200 psi
- Well spacing = 40 acres
- CO_2 miscibility pressure = 2,000 psi
- Reservoir temperature = 135 F
- Formation volume factor = 1.326
- Initial water saturation = 21%
- Oil gravity = 40 API
- Average porosity = 10%
- Average permeability = 15 md
- Reservoir thickness – 150’ gross and 50’ net

Greater Aneth Field

Historical production plot



Greater Aneth Field

Cumulative production and recovery efficiency

Unit	Cumulative Oil Production* (MMBO)	Original Oil-in-Place (MMBO)	Recovery Efficiency (%)
Aneth	156.4	534	29.3
McElmo Creek	166.2	487	34.1
Ratherford	103.6	435	23.8
Total	***426.2***	***1,456***	***29.3***

*As of 12/31/2011

Each incremental 1% increase in recovery efficiency equals 15 MMBO

Greater Aneth Field

October 2012 production and injection data

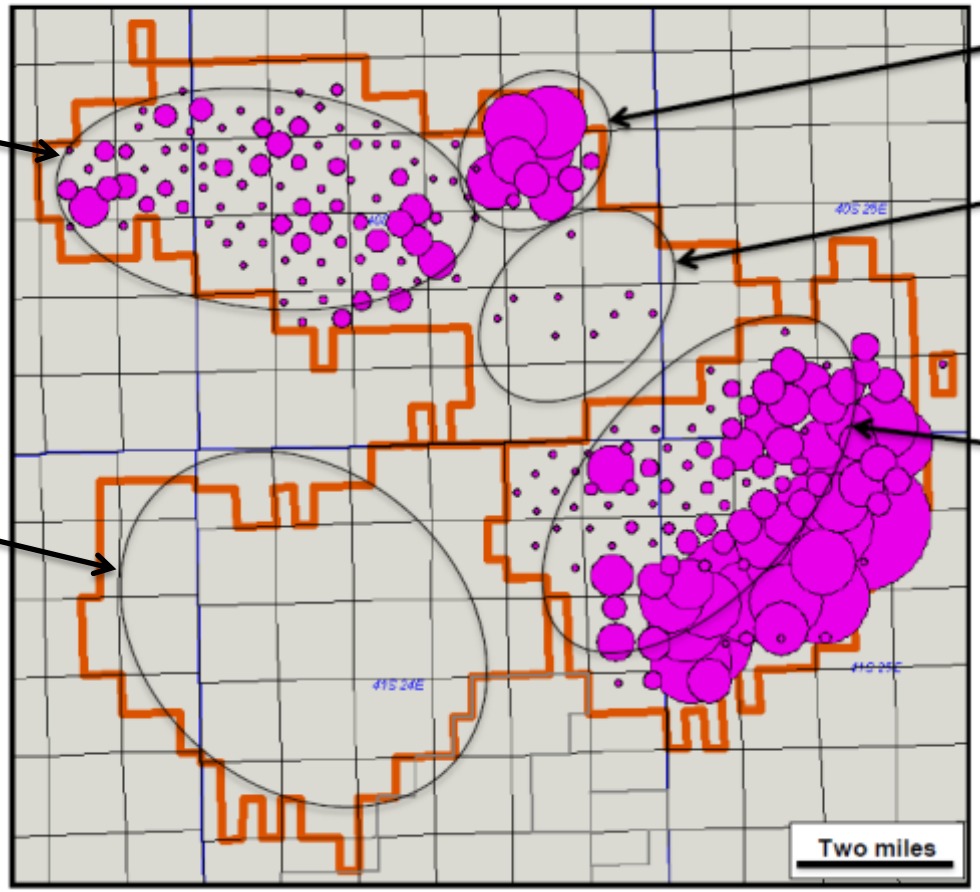
October 2012 Average daily production and injection				
	Aneth Unit	McElmo Creek Unit	Ratherford Unit	**Total**
Oil production (Bopd)	4,982	4,135	2,200	**11,317**
Water production (Bwpd)	53,600	36,100	24,900	**114,600**
Gas prod (Mcfd)	38,900	13,500	1,400	**53,800**
CO_2 injection (Mcfd)	72,600	18,900	0	**91,500**
Water injection (Bwipd)	47,600	38,600	25,700	**111,900**

Cumulative CO_2 injection

Aneth Unit Phases 1, 2 and 3: Injection initiated in 2008; demonstrated CO_2 response

Ratherford Unit: no CO_2 related reserves have been booked, area under study; plans for Ratherford yet to be implemented

Aneth cumulative CO_2 injection



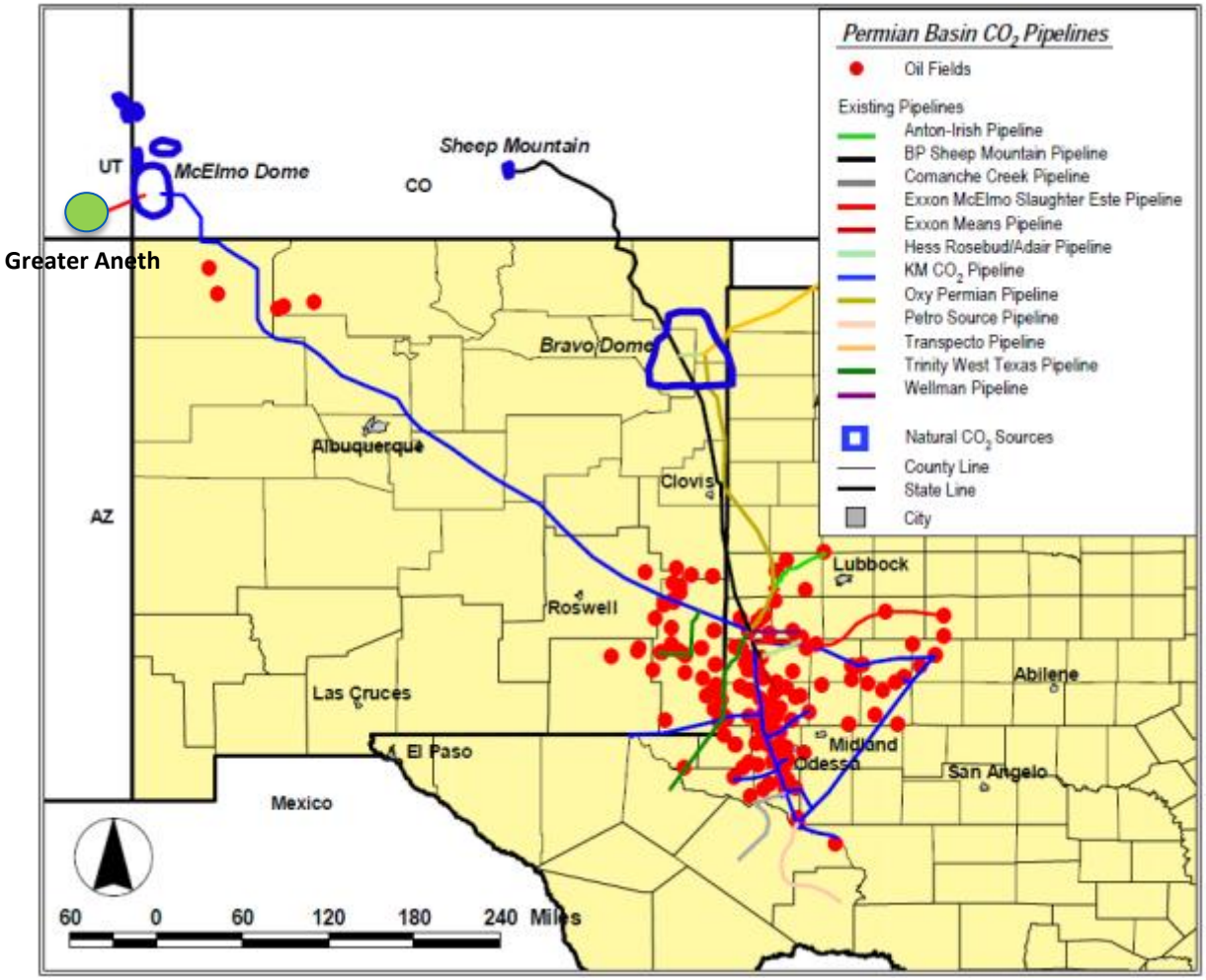
Successful 1998 pilot project

Aneth Unit Phase 4: injection initiated in 2011; seeing CO_2 at some producer wellheads

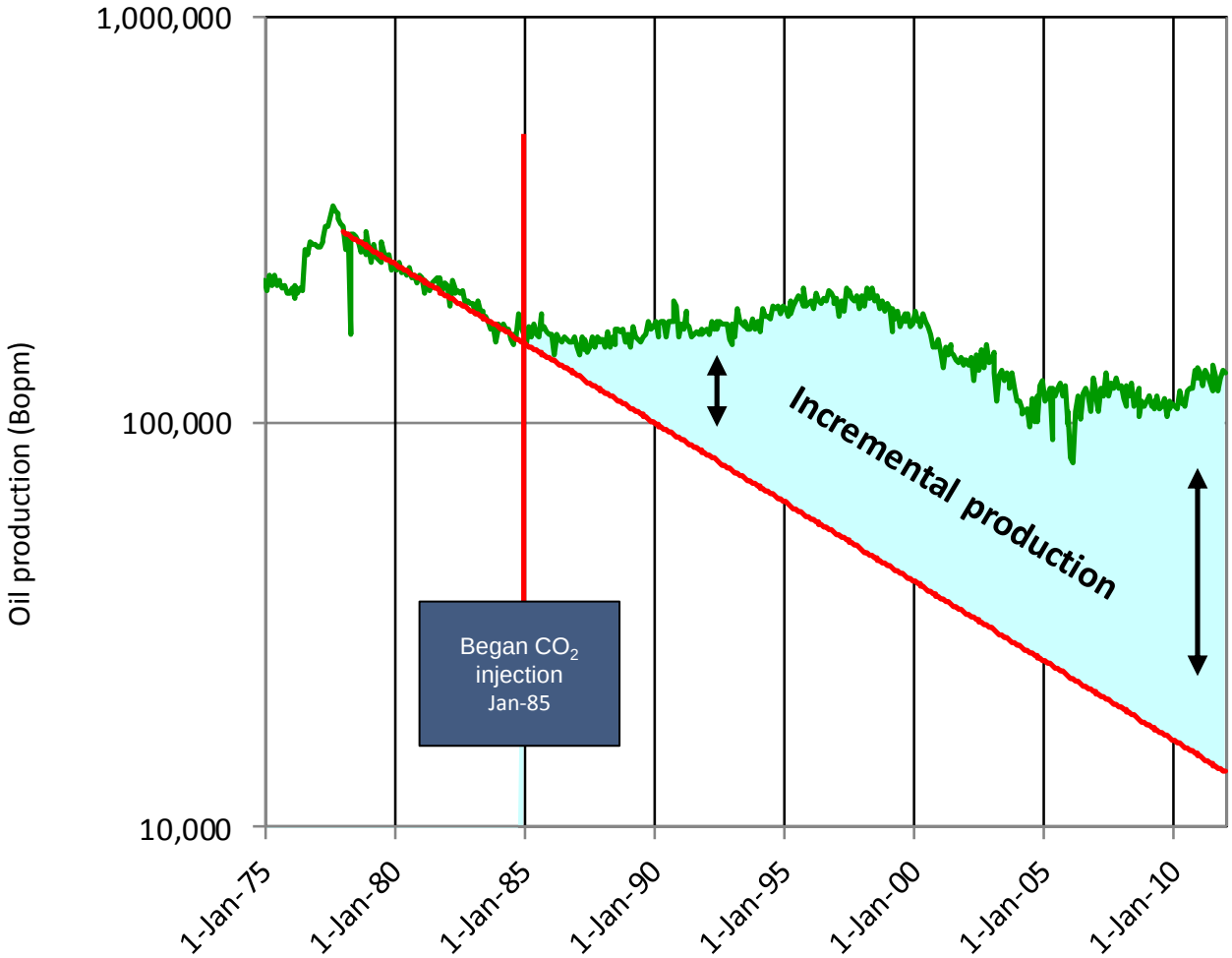
McElmo Creek Unit: CO_2 injection initiated 1985; reinitiated waterflood in DC IIC with CO_2 injection to begin in 2013

CO_2 access

- Proximity to McElmo dome provides readily accessible CO_2
- 28-mile CO_2 pipeline



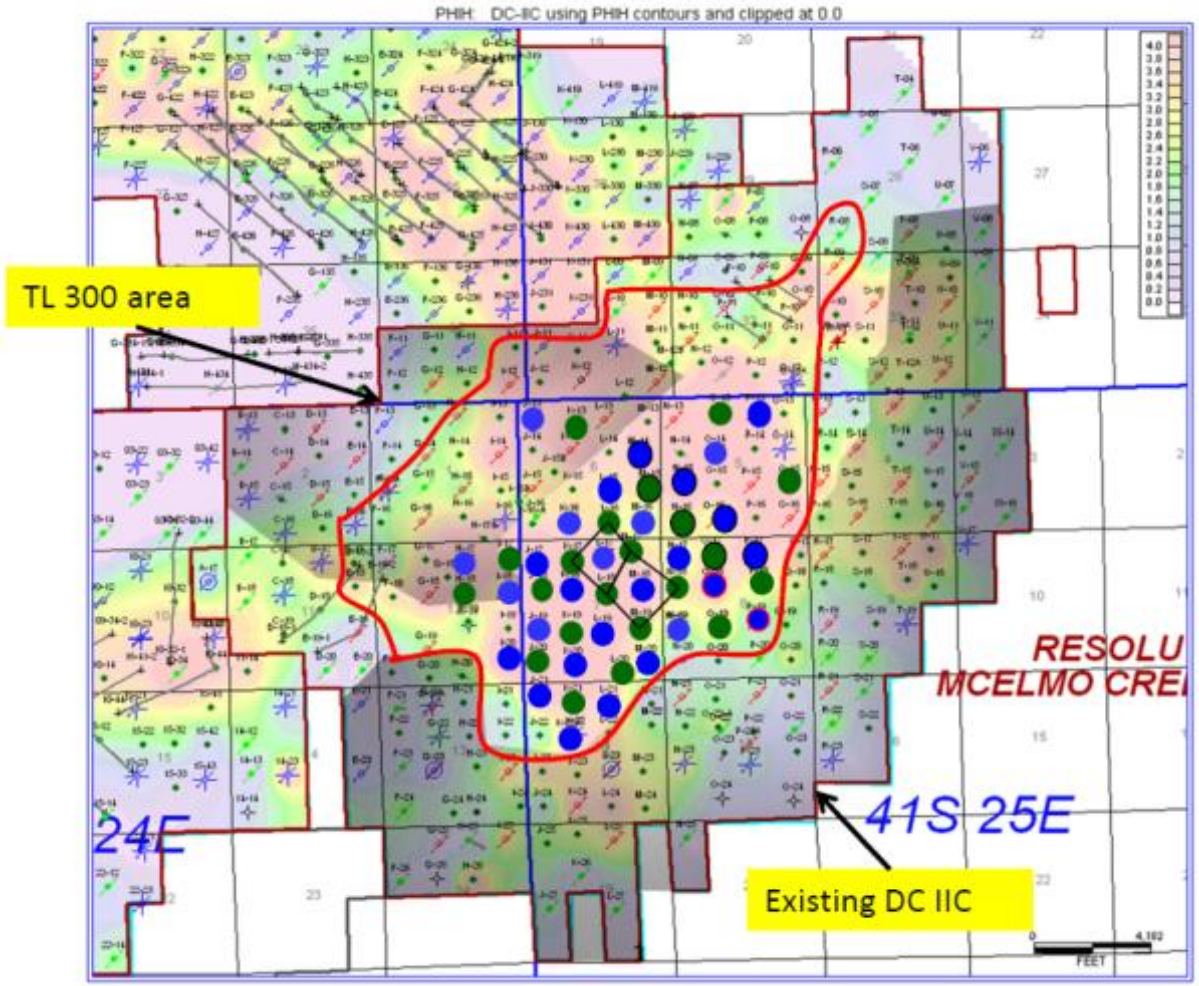
25 years of CO_2 response at McElmo Creek Unit



Anticipated recovery due to CO_2 flood = 11.9% of OOIP in zones flooded

McElmo Creek Unit

DC-IIC project



- DC-IIC zone was waterflooded in 60's and 70's
- Zone was abandoned
- Recent re-completion in this zone has encountered unswept and CO_2 mobilized oil
- 21 producers have been re-completed: Average IP = 125 Bopd, 905 Bwpd
- Future target for CO_2 flooding

Producer

Injector

Injector (previously completed)

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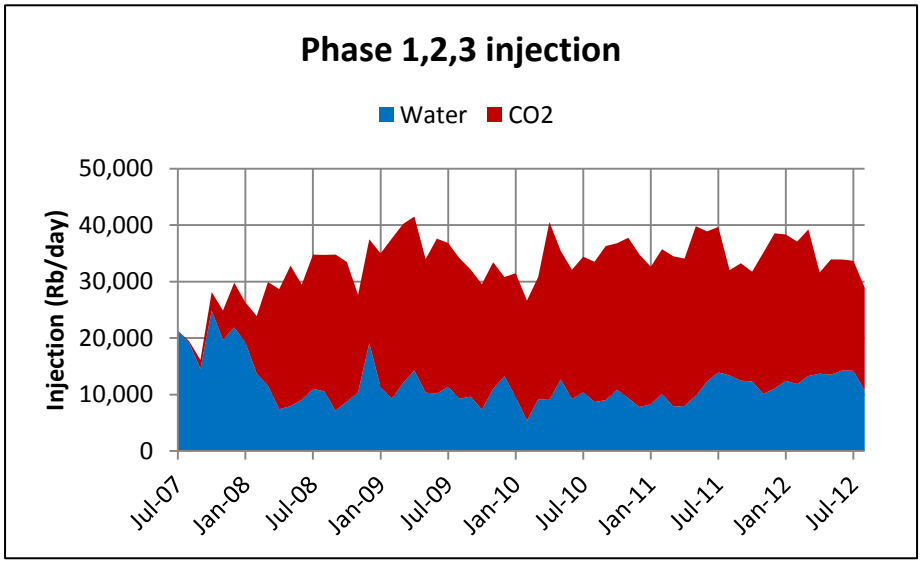
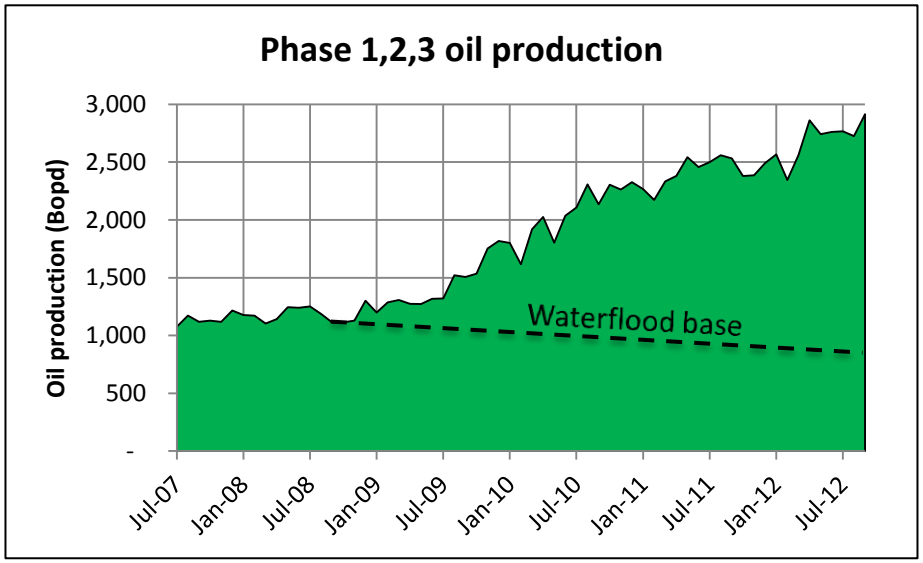
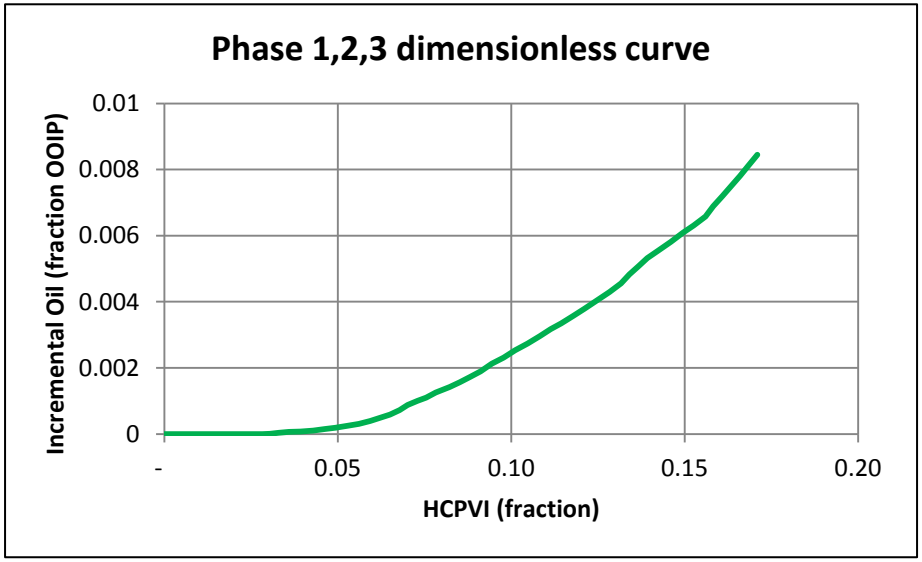
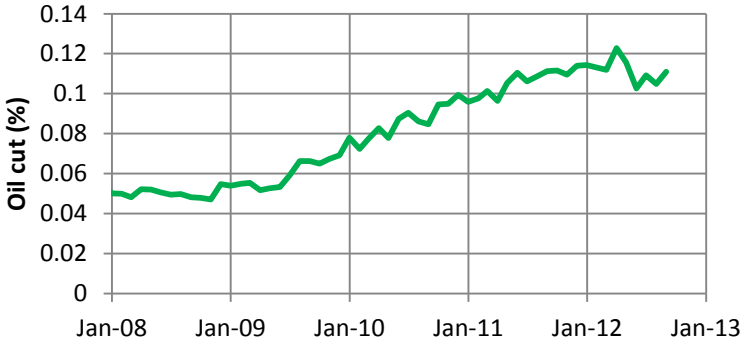
Phase 1,2,3 injection and production









- Current incremental oil rate 1,962 Bopd
- Cumulative incremental oil = 1.5 MMBo
- Current CO_2 injection rate = 51 Mmcfd
- Cumulative CO_2 injection = 82 Bcf

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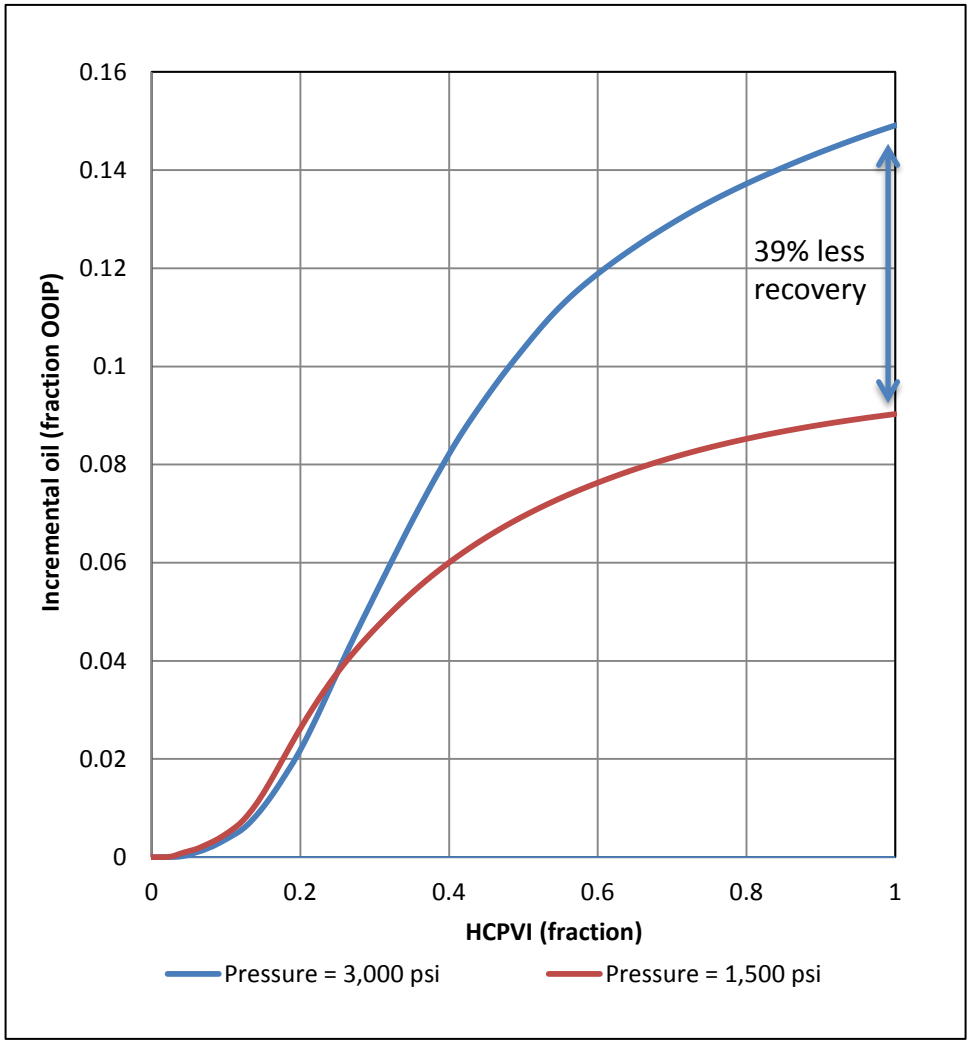
Greater Aneth Field

Some things we have observed

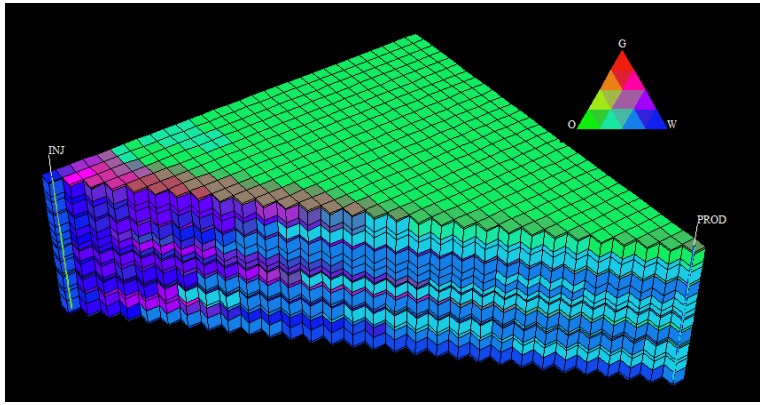
- Reservoir pressure and voidage are important
- Processing rate is important
- CO_2 injection
  - CO_2 injects at a 25% higher rate than water on a reservoir barrel basis
  - WAGing to water can significantly lower the processing rate
  - Recycle gas has a lower density that reduces bottom-hole injection pressure
- Conformance is important
  - Injectivity surveys
  - Sidetracks
- Eliminate bottlenecks
  - Injection chokes
  - Production flow lines

Minimum miscibility

Effect of reservoir pressure on dimensionless recovery



- Minimum miscibility pressure (MMP) of Greater Aneth oil = 2,000 Psi
- If pressure drops to 500 Psi below MMP
- Simulation indicates at 1 Hydrocarbon pore volume of CO_2 injection, incremental recovery will be 39% less



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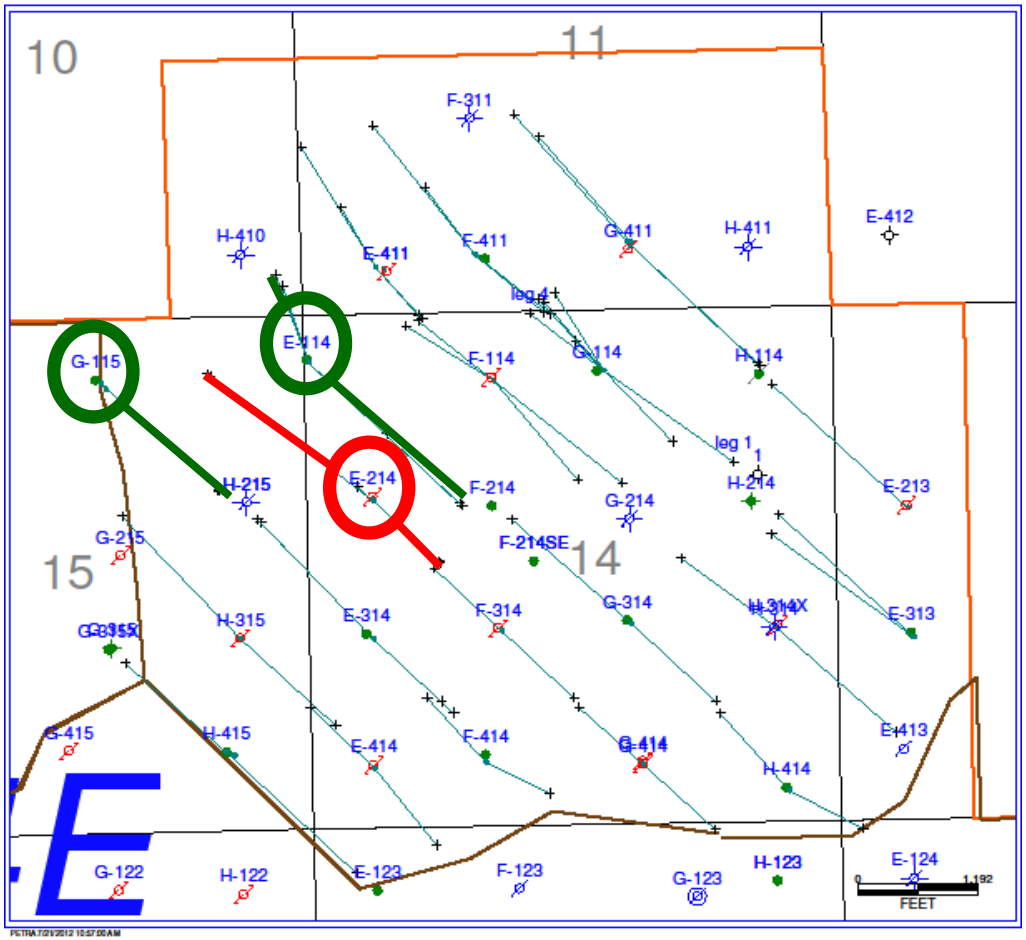
Aneth Unit – pilot area

Effect of pressure and voidage on production



- Very little CO_2 in E-214 for since 2003
- E-114 producer: 13 Bopd, 2,518 Bwpd, 63 Mcfd on ESP (failed 8/11)
- Voidage ratio was 0.7
- Converted E-114 to flowing well
- Inject CO_2 in E-214 on 1:1 WAG - one month cycles (4 cycles to date)
- Produce E-114 only on water cycles

	Before	After
Voidage ratio	0.7	1.1
Pressure	1,500 Psi	2,500 Psi
E-114	13 Bopd	193 Bopd
G-115	64 Bopd	146 Bopd
Pilot area	436 Bopd	640 Bopd
Oil cut	5.9%	8.0%

+ 204 Bopd

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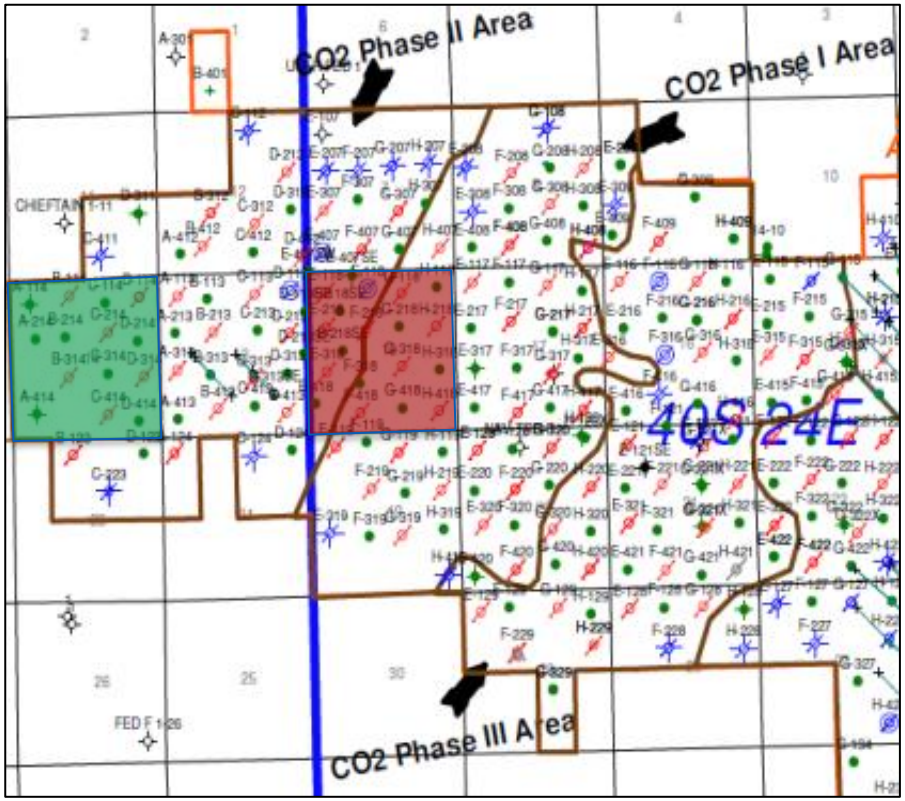
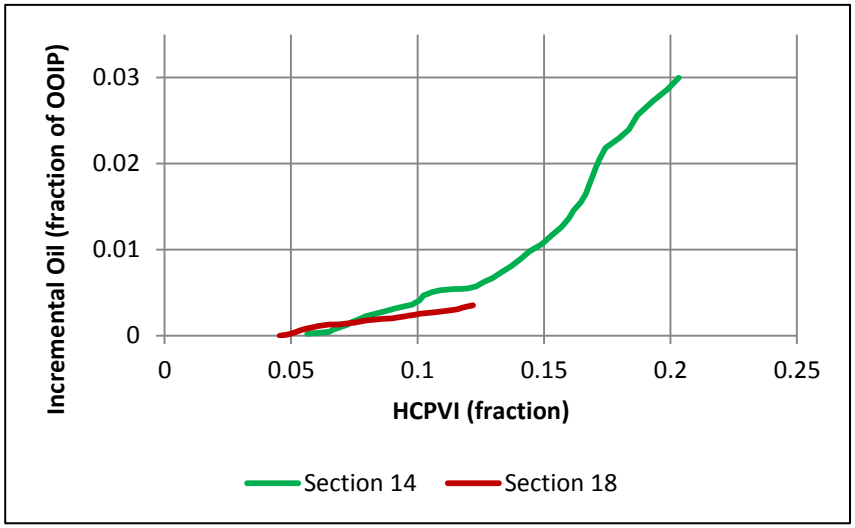
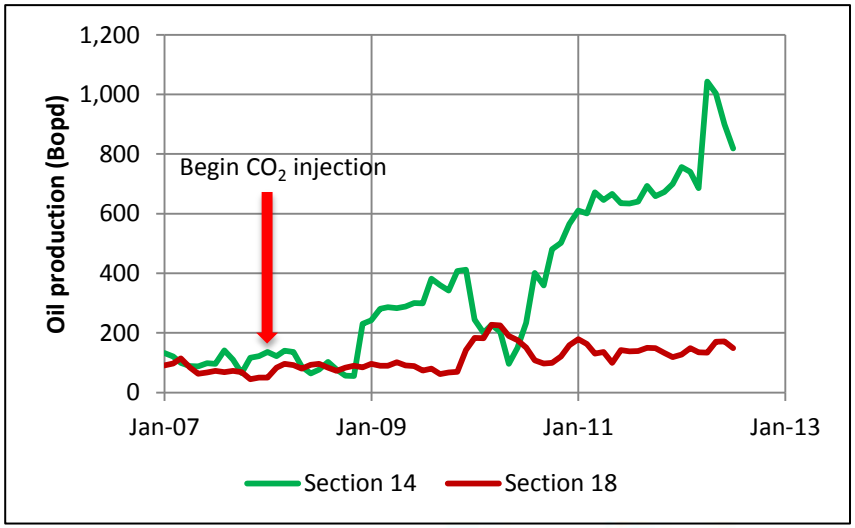
Processing rate

Processing rate is important

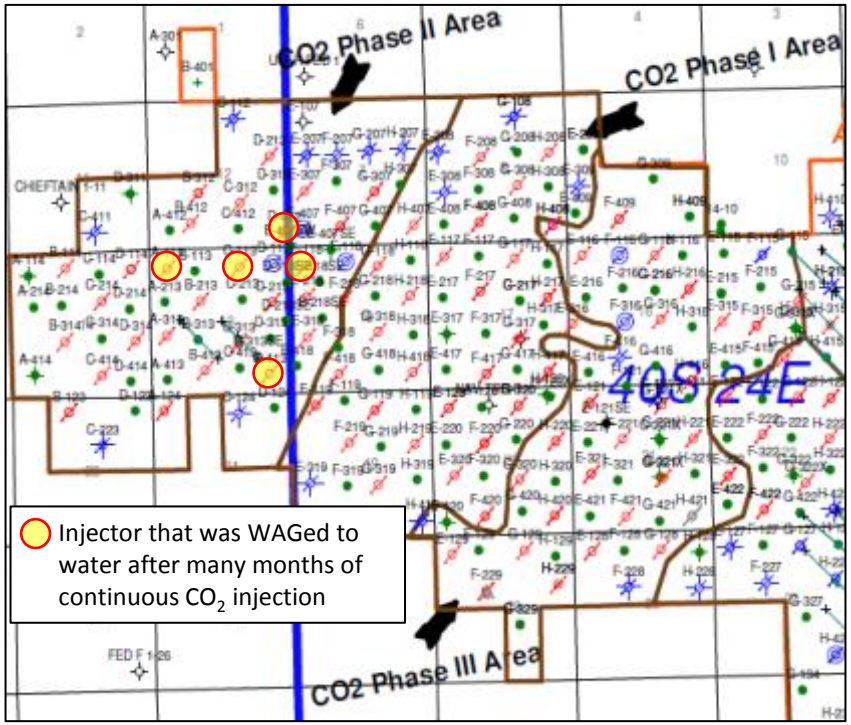


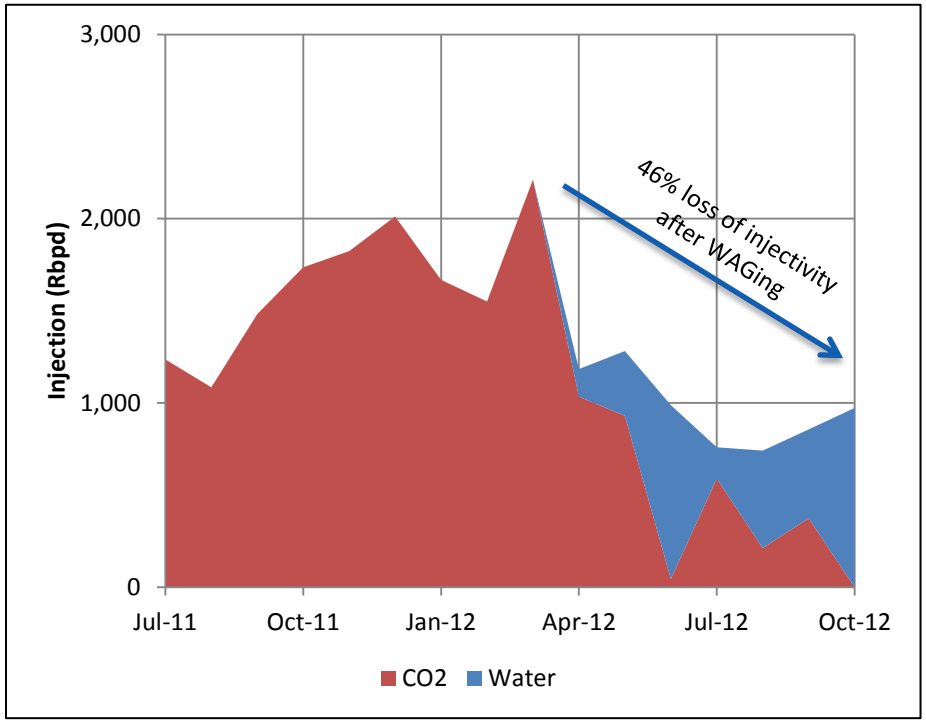




- Section 14 processes at 8% hydrocarbon pore volume per year (average injector = 690 Rbpd) **Incremental = 800 Bopd**
- Section 18 processes at 3% hydrocarbon pore volume per year (average injector = 260 Rbpd) **Incremental = 100 Bopd**

CO_2 injectivity

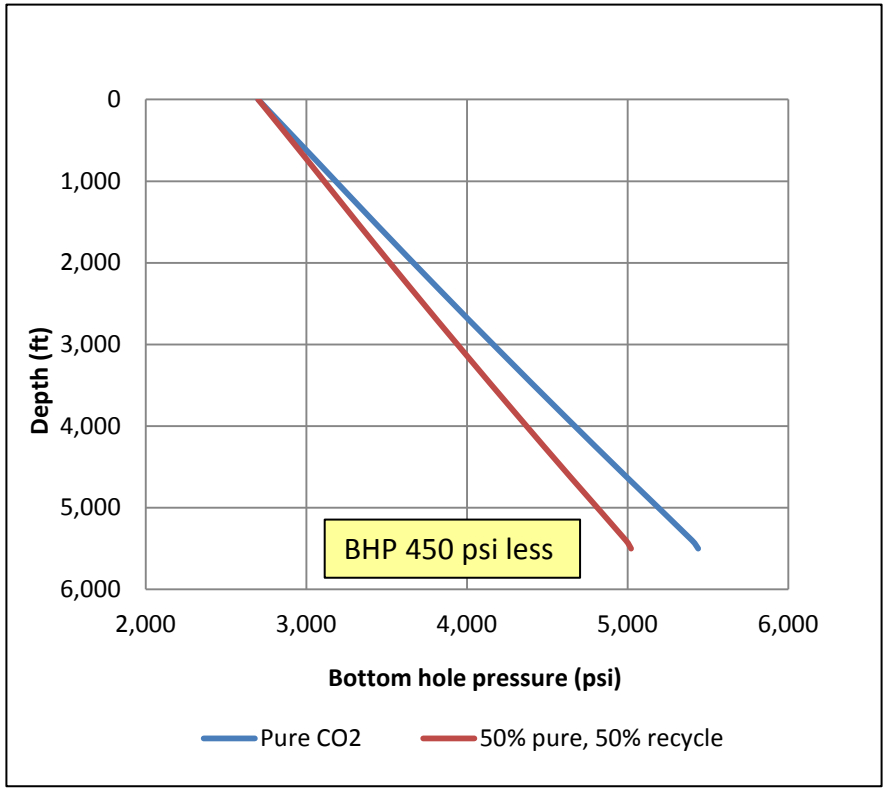




- CO_2 injects at 25% higher reservoir reservoir barrel rate than water
- WAGing to water after continuous injection significantly reduces total injection
- More noticeable in low rate injectors
- Solution: leave low rate injectors on continuous CO_2 injection or lengthen the WAG half cycles

CO_2 injectivity

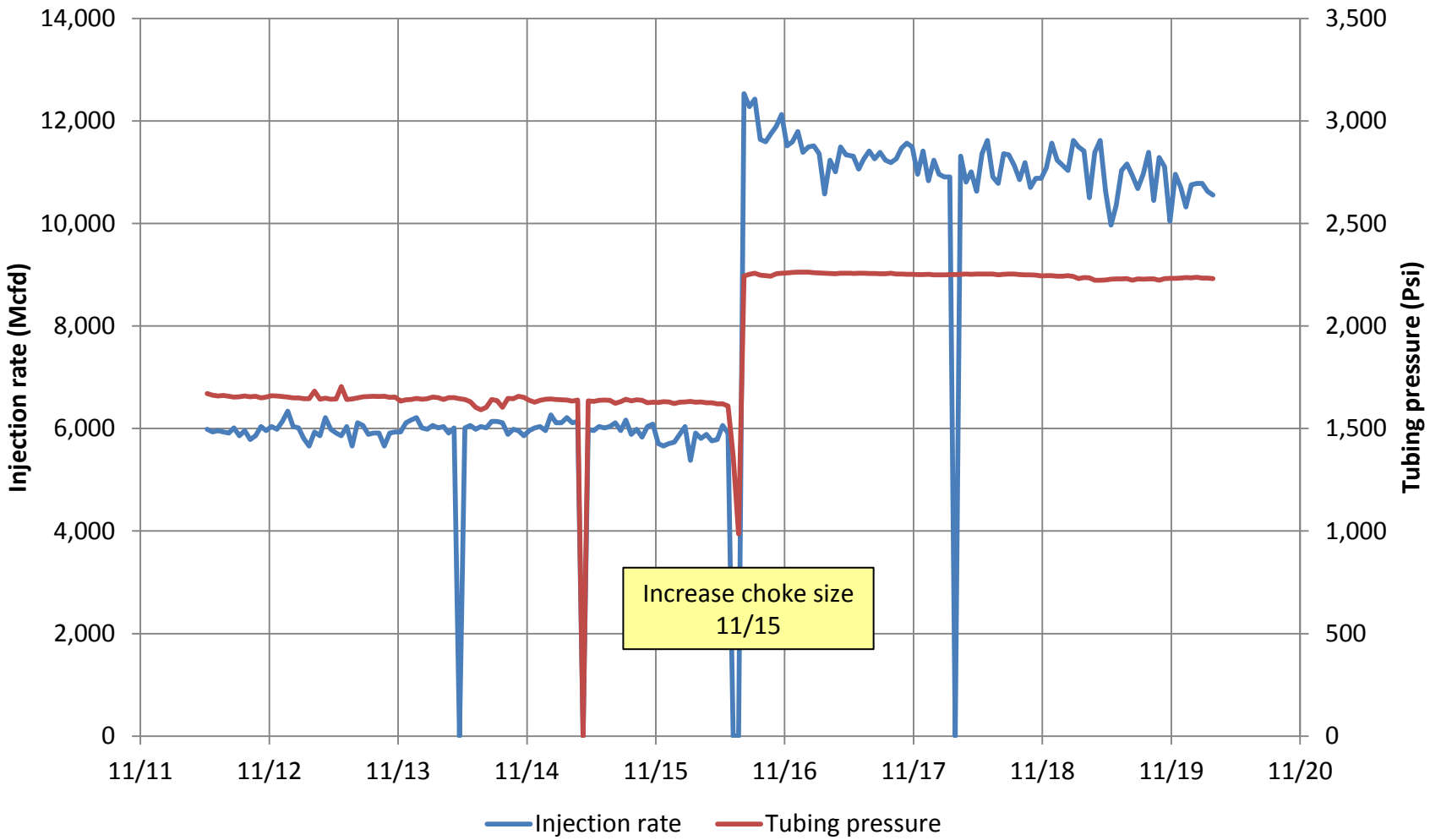
Effect of recycle gas on bottom-hole pressure



- When CO_2 injection began in Phase 1,2,3, injection was with relatively pure CO_2 with a density of 58 lb/cu ft at 2,700 psi
- Today the injection stream is about 50% recycle gas and 50% pure CO_2
- The lighter methane reduces the density of the injected gas to 52 lb/cu ft
- The result is a 450 psi lower bottom hole injection pressure

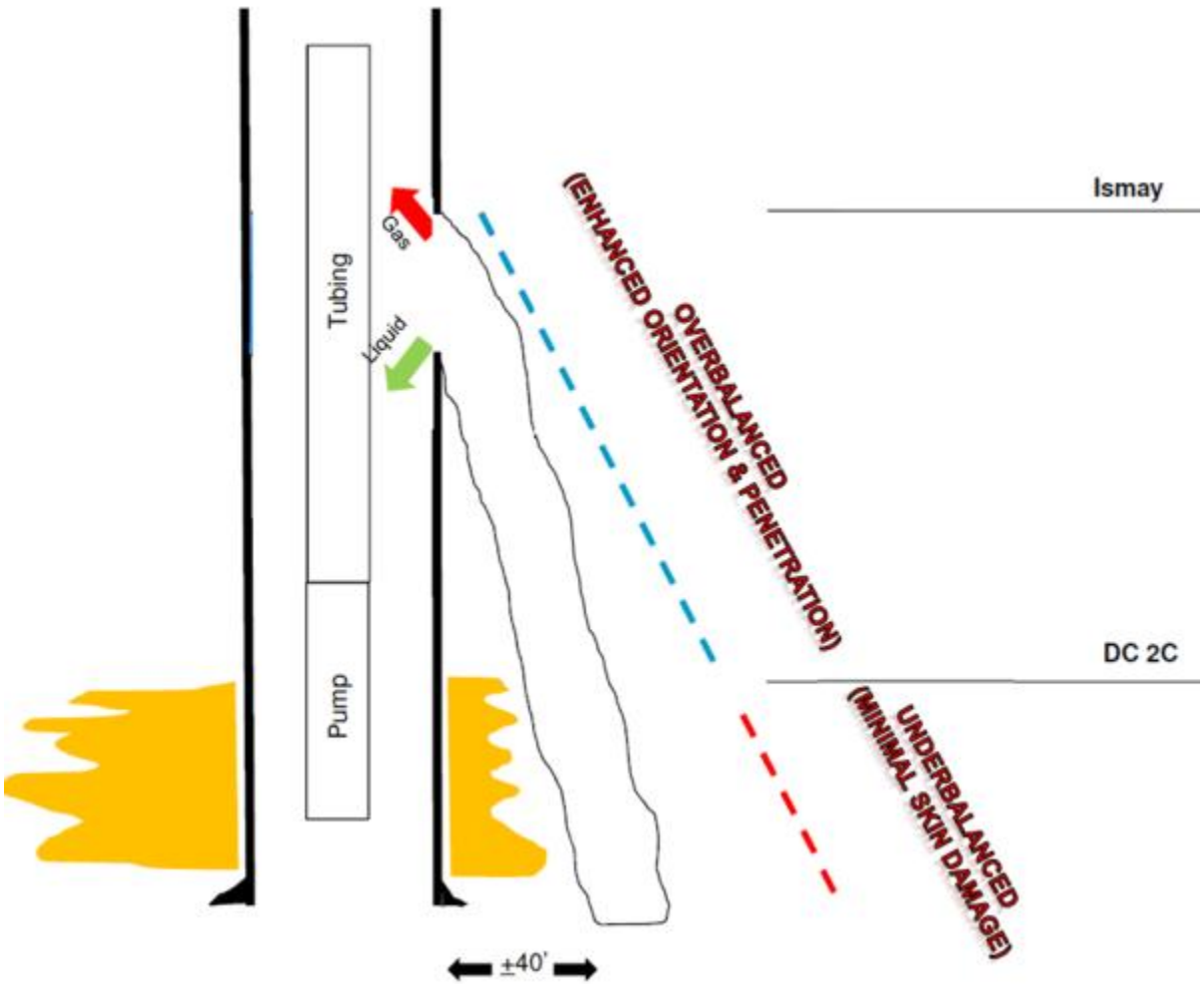
CO_2 injection

Bottle-necks: Under-sized chokes



Vertical conformance

Sidetracks



- In many producers, the DC-IIC was cement squeezed to shut-off water production in the 1970's and 80's
- This is the highest processing zone and a prime CO_2 target
- Perforating sometimes fails to penetrate the cement sheath and fails to establish communication with the DC-IIC zone
- Sidetracks have been effective in getting beyond the cement damaged zone
- Cost = $600,000
- Results +300 Bfpd, 25 Bopd

Aneth Unit refrigeration plant

- A propane refrigeration plant was installed in 2011
- Current recovery is 250 Bcpd from a produced gas stream of 39 Mmcfd
- The recycle gas stream is 79% CO_2

Residual oil zone potential?

- Steve Melzer: Melzer Consulting
- Residual oil zone exists below the main pay below the oil-water contact
- In the Permian basin, this saturation can exist more than 300 feet below the oil water contact
- Oil saturation in this zone can be 30% or more
- Recoveries are between 20-30% when mobilized with CO_2
- In Aneth Unit, this would result in 175 – 260 Mbo recoverable per 80-acre pattern
- Eleven active projects in the Permian basin
  - Occidental, Hess, Chevron and Legado are some operators with successful ROZ projects

Aneth Unit TB-21 G-221X phase 3 producer

Summary

- Greater Aneth Field is a giant 1.5 BBbl OOIP resource
- Current recovery is just 29%
- Each 1% increase in recovery is 15 Mmbo
- CO_2 flooding is effective, recovering an estimated 11.9% incremental
- Facilities in place to CO_2 supply at McElmo Dome
- Opportunities to expand the flood
    - McElmo Creek DC-IIC
    - Aneth Unit Phase 4
    - Ratherford Unit
- Continue to learn and improve the existing flood
- Residual oil zone potential

- Questions?