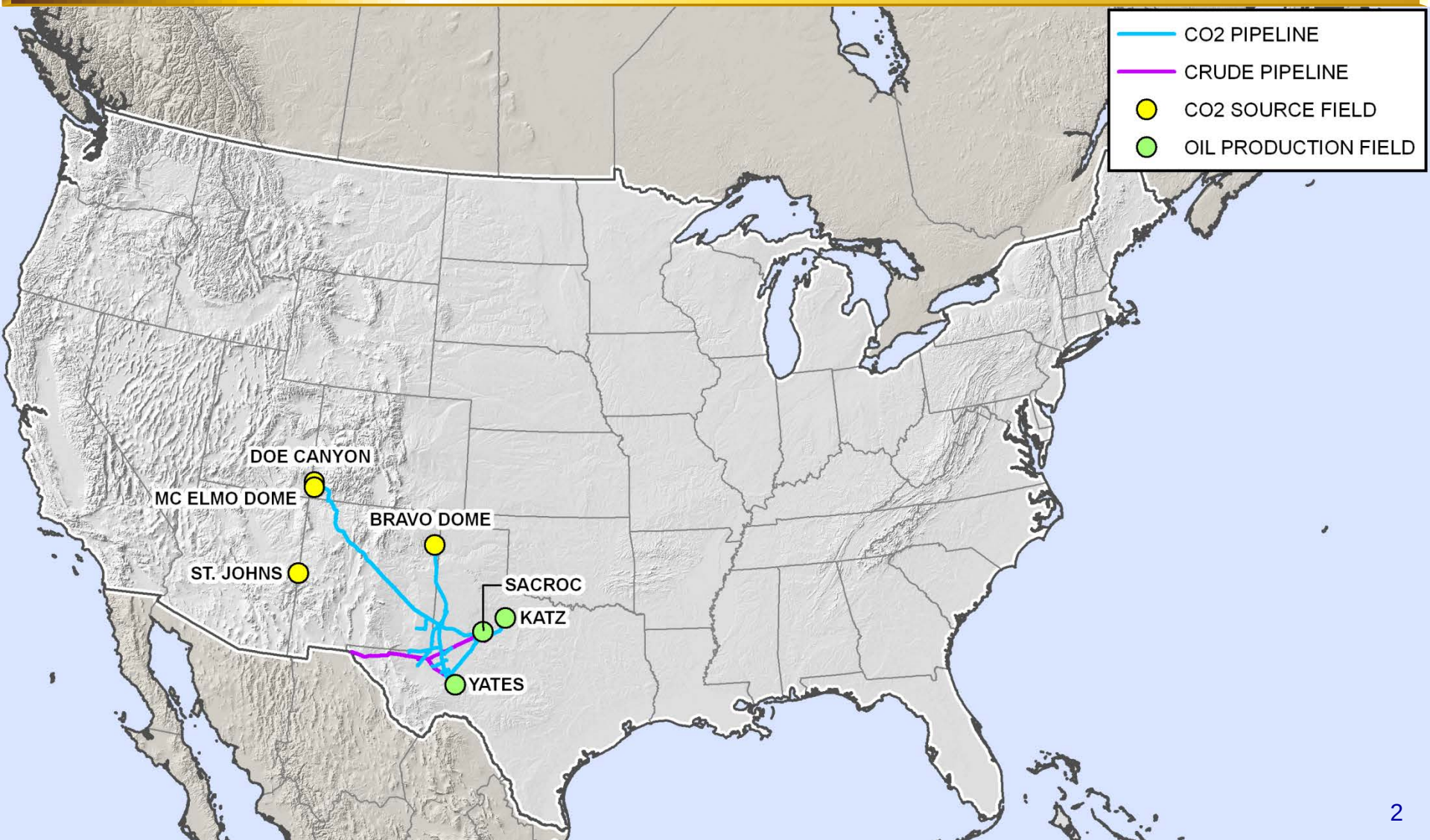
KINDER MORGAN

CO_2

Tim Bradley &
Jim Wuerth

President CO_2 Group

Kinder Morgan CO_2 Asset Map

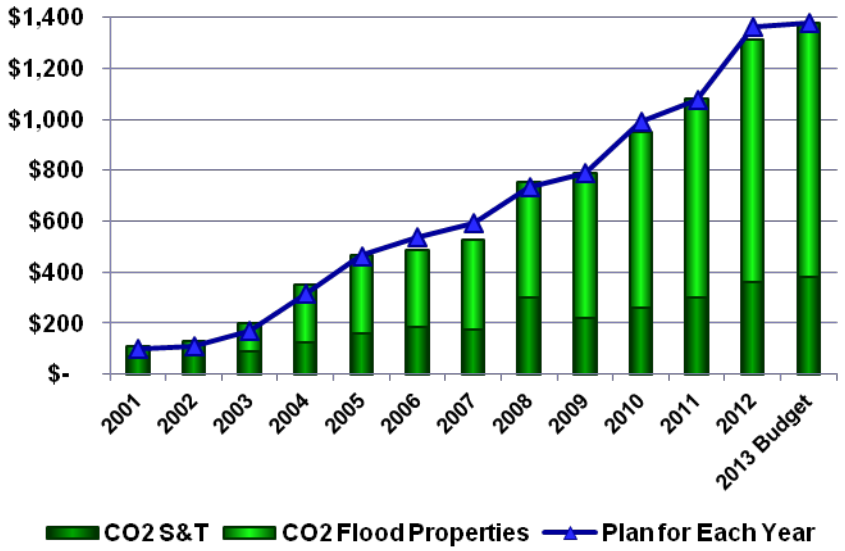


History of CO_2 Group and Looking Forward

Track Record – Consistently very close to budget despite inherent volatility

- Shell CO_2 formed in 1998, KM share 20%
- Acquired remaining 80% in April 2000
- Acquired SACROC interests June 2000
- Acquired Yates interests in 2001 and 2003
- Ramped up developments at SACROC 2003+
  - Constructed Centerline pipeline in 2003
  - Constructed power plant in 2005
  - Increased oil production 3X+
- Acquired Wink pipeline in 2004
- Acquired Katz field 2006
- Increased SW Colorado CO_2 capacity 30% 2008
- Katz CO_2 project: CO_2 injection commenced Dec-2010
- Doe Canyon expansion announced 2012

DCF ($MM) (a)



Our assets, resources and technologies provide us with growth opportunities

- Strong growth in CO_2 demand – new developments are underway
- Continued developments at SACROC, Yates, and Katz
- Emerging oil and gas opportunities

(a) CO_2 Sales and Transportation includes Yates Oil Gathering System (YOGS), CO_2 sales profit on own use has not been eliminated

2012 Performance Recap

Beat plan operationally; NGL prices hurt

2012 DCF:

$1,365MM plan

$1,315MM actual

-$59 MM price impact

SACROC [(a)]

- DCF $706MM vs. $747MM plan
- Oil: 28,968 Bbl/d vs. 27,868 Bbl/d
- NGLs: 18,825 Bbl/d vs. 17,361 Bbl/d
- NGL Price 22% below plan: $59 MM impact

CO_2 Source and Transportation

- DCF $358MM vs. $350MM plan
- CO_2Production: 1212 MMCF/d vs 1264 MMCF/d

Yates

- DCF $240MM vs. $240MM plan
- 20,839 Bbl/d vs. 20,986 Bbl/d

Katz

- DCF $9.8MM vs $27.6 MM plan
- 1,722 Bbl/d vs 2,267 Bbl/d

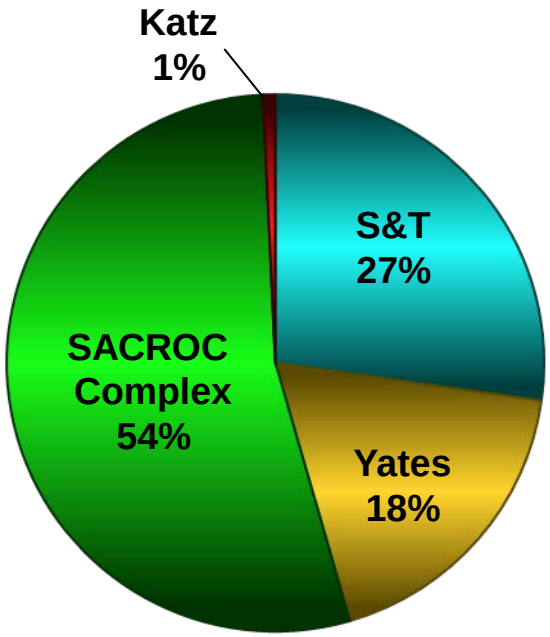
Capex

- Capex $443MM actual vs. $437MM plan
- CO_2 Purchases slightly higher

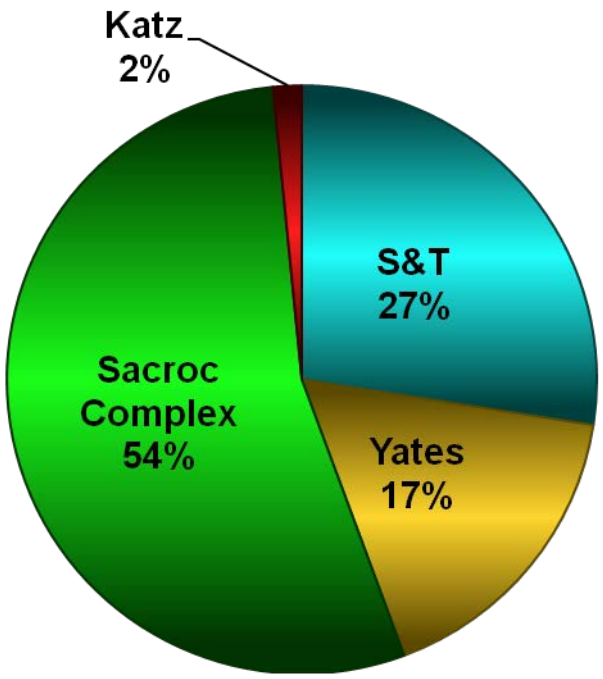
(a) Including SACROC Services and remaining oil and gas assets

2012 and 2013 DCF by Asset Group [a]

2012 DCF
= $1,315 MM



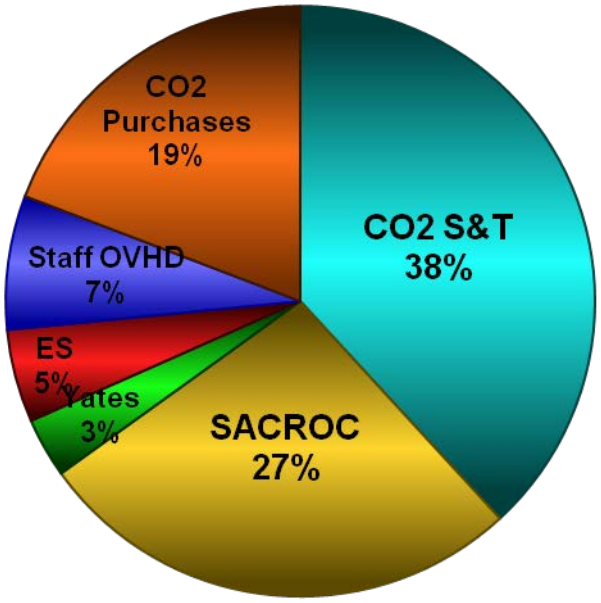
2013 DCF
= $1,380 MM



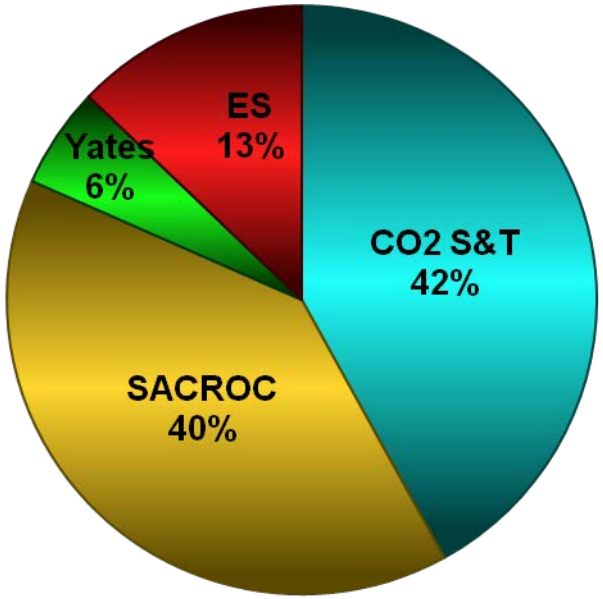
(a) Segments shown without elimination

2013 Expansion Capital Budget - $632 Million

Staff overhead and CO_2 purchases – aggregated



CO_2 purchases and staff overhead allocated to assets



Note: ES refers to Eastern Shelf properties including Katz field development and Residual Oil Zone (ROZ) development.

2013 Executive Summary

Capex Program $632 MM [a]

CO_2 S&T – $241 MM — **$379MM DCF**

- Drill 6 new wells, 6 Re-Completion and Seismic
- Order Additional Compression (70,000 horsepower)
- Produce 1,275 MMcf/d
- St Johns Unit and Lobos PL Pre-Development
- Increase Oil Transportation Capacity to 145 BOPD

SACROC Complex – $170 MM [b,c] — **$743MM DCF**

- Activate 24 patterns
- Continue Infill, Harvest and Beyond Tertiary Efforts
- Initiate work for Platform 3 North
- Purchase 120 MMcf/d CO_2, Produce 30.7 MBbl/d oil, 19.2 MBbl/d NGL

Yates – $21 MM [c] — **$236 MM DCF**

- Drill 30 wells (15 East, 15 West)
- Add 10 CO_2 injectors
- Purchase 115 MMcf/d CO_2, Produce 20.2 MBbl/d oil

Eastern Shelf – $32 MM [c] — **$22MM DCF**

- Activate 22 patterns
- Purchase 89 MMcf/d CO_2, Produce 2,850 Bbl/d oil

Total 464 MM capex (exc overhead / CO_2 purchases) [a] — **Total $1,380MM DCF**

(a) Included in $632 million total capex program are overhead and CO_2 purchases, in the aggregate, of approximately $168 million
(b) Includes minor properties, unallocated costs
(c) Includes secondary objectives

Impact of Oil Price / Volume Variance on 2013 DCF

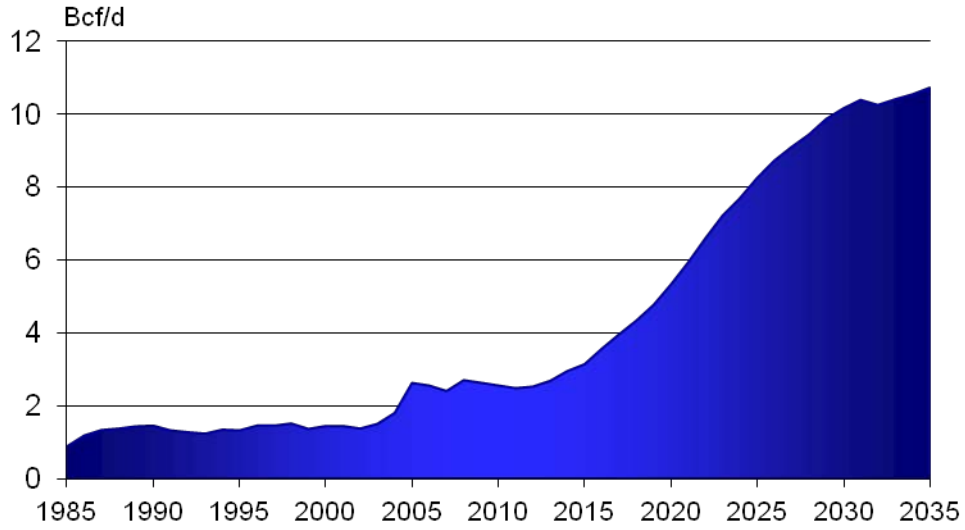
2013 Budget:		**$1,380MM**
Volume +/– 1,000 Bbl/d		
SACROC / Katz		$26.4MM
Yates		$13.8MM
CO_2 Volume +/– 50 MMCF/d		**$9.8MM**
Oil Price +/– $1/Bbl WTI		**$5.9MM**
NGL	$2.1MM	
CO_2	$2.0MM	
Crude	$1.8MM	
NGL Price +/- $1/Bbl		**$3.9 MM**

Notes:
Unhedged WTI price presumed to average $91.67/b; WTI-WTS spread = $1.42/Bbl / Midland-Cushing spread = $2.70 (total spread for WTS = $4.12)
NGL price presumed to be $47.67 (52% WTI)

CO_2 S&T Growth Opportunities

Demand is strong and continues to increase

Domestic EOR Projected CO_2 Demand [(a)]



We have a simple plan:

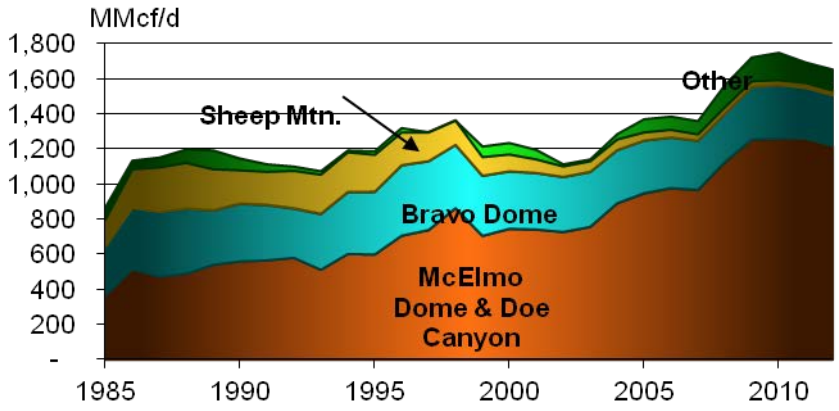
1. **Sign Contracts securing the demand**
2. **Develop the supply to meet those contracts**
   - Options: 400-600 MMcf/d for $1-2 Billion

(a) Source: AEO 2011 Forecast

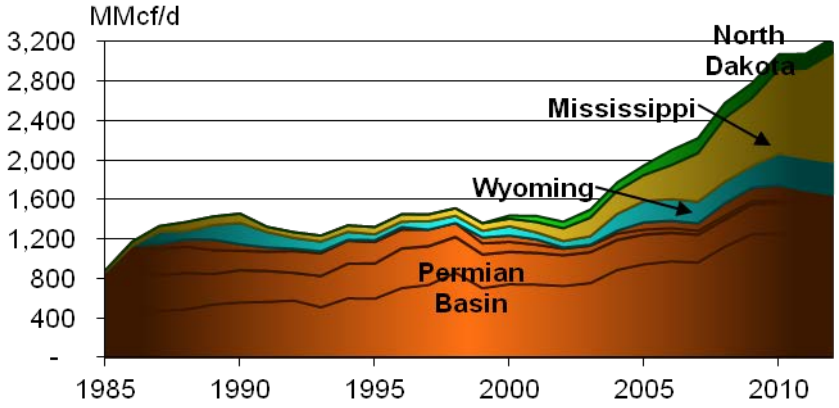
CO_2 Source & Transportation

Growing Business Opportunities

Permian Basin CO_2 Deliveries



Domestic CO_2 Deliveries



Permian Basin

- 2012 supplies were at capacity, customers were being pro-rated
- Permian Basin demand is growing via new projects, extensions of existing projects, and ROZ projects

Domestic EOR

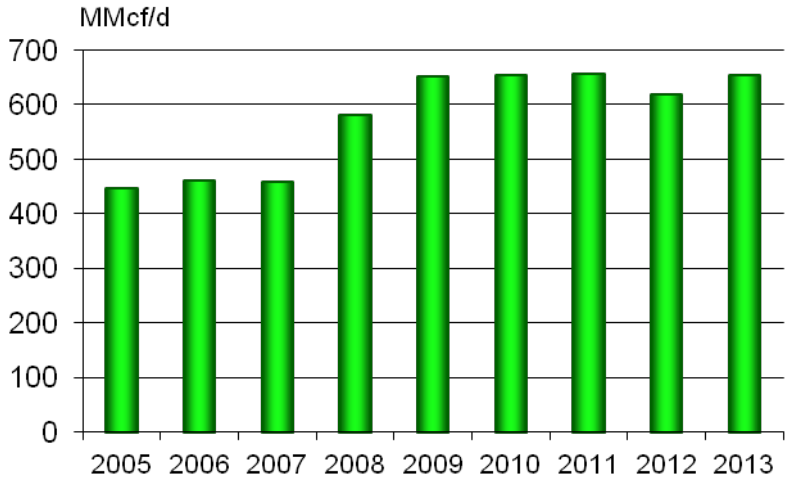
- Industry CO_2 EOR activity is increasing
- Naturally occurring sources are being expanded to ultimate capacity
- Several regions have potential
  - Gulf Coast, California, Mid-continent, Canada

Sources: KM estimates, Oil and Gas Journal, EIA, XOM, Dakota Gasification, DRI

CO_2 Entitlement Volumes

Produced and Sold to our Customers

CO_2 KM-share



Significant growth since 2005:

- CAGR: volumes +5.2%, price +13.1%
- 2013 vs 2012: volumes +5.2%, price +3.1%

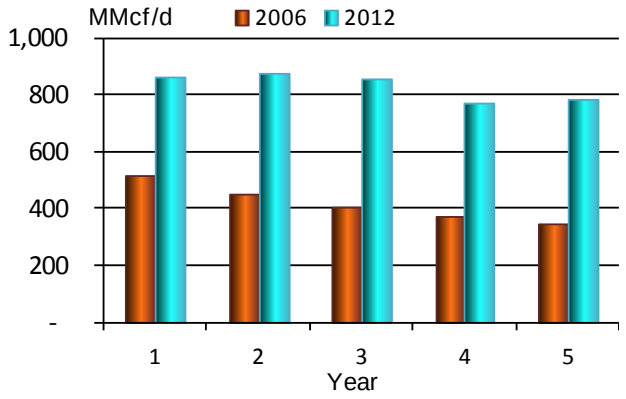
And, just to be clear:

- Although our customer deliveries often have and will exceed our entitlement, sales revenues are based on our working interest entitlement and not deliveries
- KM share of EOR demand consumes ~37% of our entitled production in 2013
- Elimination: consolidation results in eliminating profit on sales to ourselves, however we view our S&T and O&G businesses independently, and price sales to ourselves at market prices

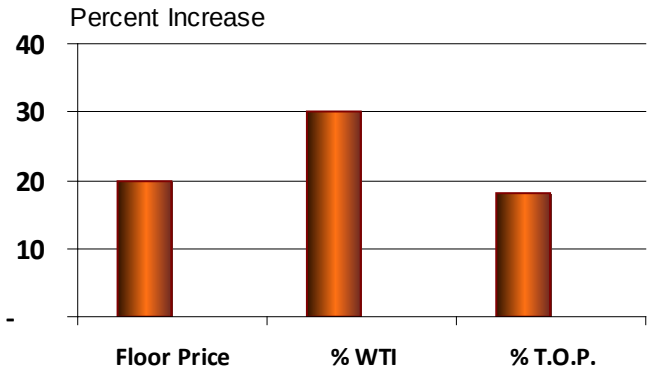
Demand Growth and Regeneration

5-year Contracted CO_2 Volumes

CO_2 Daily Contract Quantities



Contract Terms Improvement [(a)]



High oil prices have increased long-term demand for CO_2

Total contract quantities signed in 2006-2012 represents 3.4 times our entitled production during that period

- Weighted average contract life with 3rd parties is 10.3 years

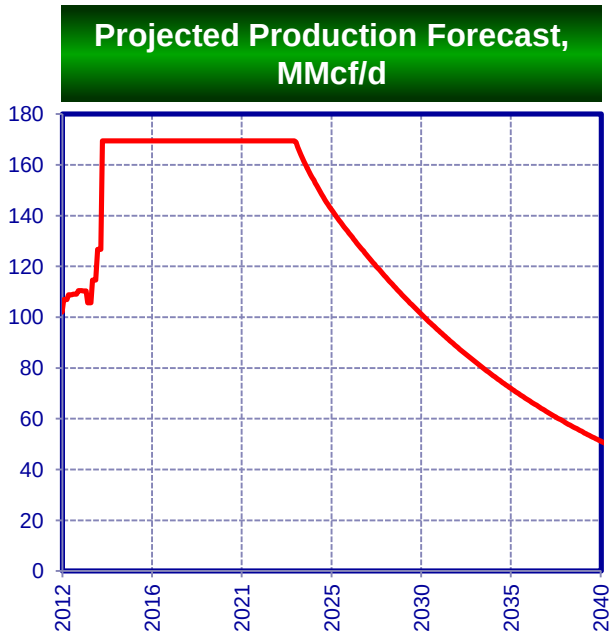
High CO_2 demand has improved contract terms

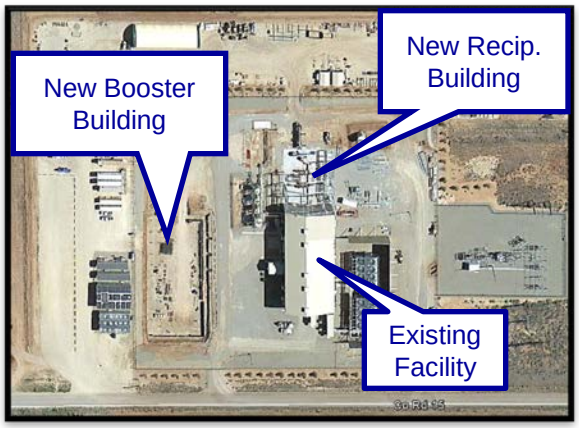
- Higher floor prices
- Increased upside to oil price
- Higher take-or-pay (T.O.P.) requirements

(a) 2010-2012 relative to 2006-2009

Doe Canyon Field Expansion

$255 MM, 65 MMcf/d CO_2 increase

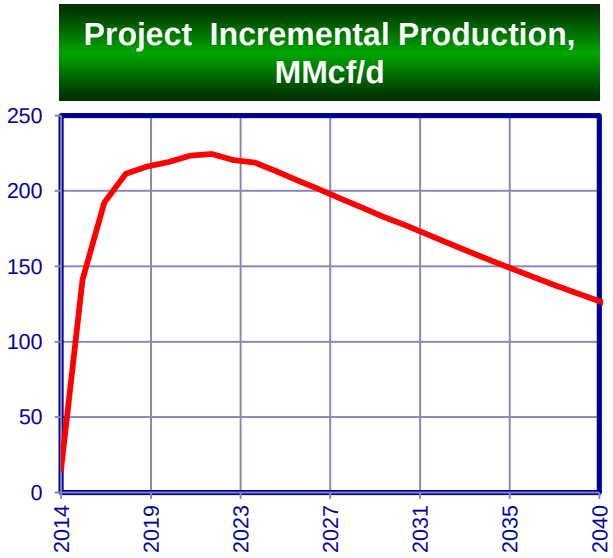


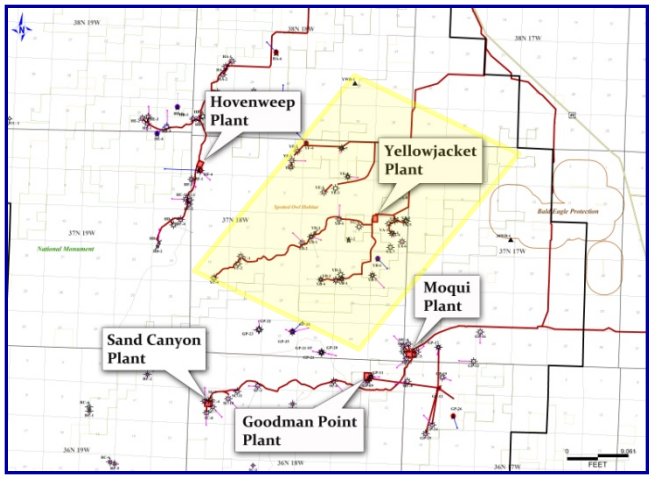


- **170 MMcf/d (from 105 MMcf/d)**
  - Adds 750 Bcf reserves
- **Timing : 2nd Quarter 2014**
  - Drilling underway
  - Parallel Compression Q4 2013
  - 170 MMCFD YE 2013
  - Booster Compression Q2 2014
- **Project delivers attractive returns based on contracts recently executed and currently being negotiated**

McElmo Dome Field Expansion

Yellow Jacket Area – 1.23Bcf/d CO_2 Targeted McElmo Production

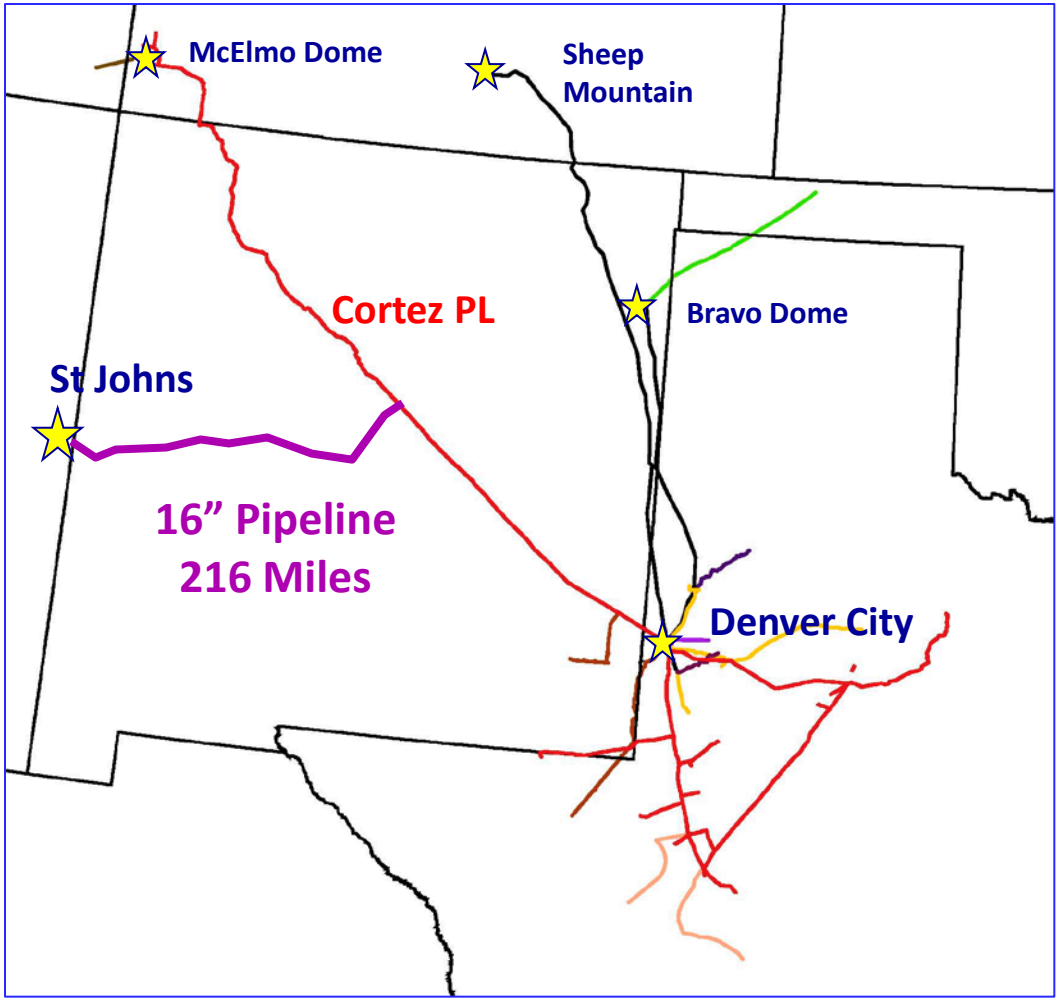




- **Target Rate of 1.23 Bcf/d Extended for ~2 yrs**
  - Add 1.7 TCF reserves
- **Timing : 4th Quarter 2014**
- **Project Costs $243 MM**
  - Compression $141 MM
  - Facilities $68 MM
  - SWD Wells $15 MM
  - 2013 Drilling $19 MM
- **Proposed to Partners in 4th Qtr**
- **Project delivers attractive returns based on contracts recently executed and currently being negotiated**

St. John's CO_2 Source Opportunity

Assessment drilling and testing ongoing

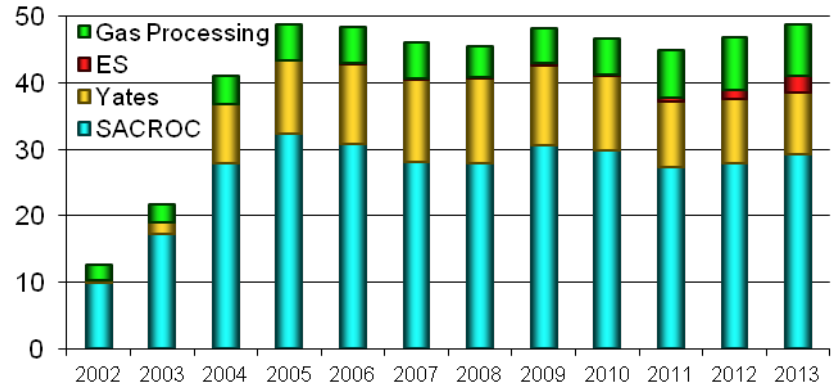


- **Evaluating pipeline & field development options**
  - 200 MMCFD ~$0.6 B
  - 450 MMCFD ~$1.3 B
- **Drilled/Recompleted 14 wells**
- **Established good deliverability in Granite Wash**
- **Deliverability in Amos Wash is being evaluated**
  - Testing completion strategies
- **Core analysis, log evaluation, geological/reservoir characterization and mapping is ongoing**
- **Target in service date 2016-17**

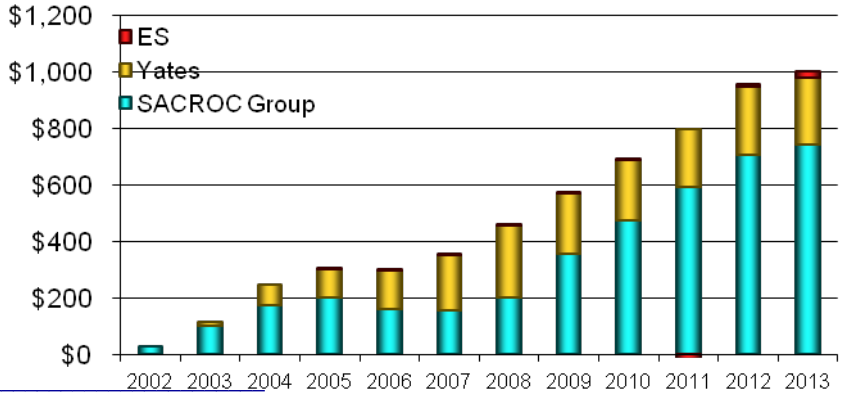
Oil and Gas Segment

Production and DCF

Net Hydrocarbon Production (Mboe/d)



DCF ($MM)



Original oil in place (billion Bbls)

- SACROC 2.8
- Yates 5.0
- ES 0.23

Gross production (Bbl/d) [b]	**2012**	**2013**
SACROC oil	28,998	30,726
SGP NGLs	18,825	19,233
Yates	20,839	20,212
ES	1,722	2,846

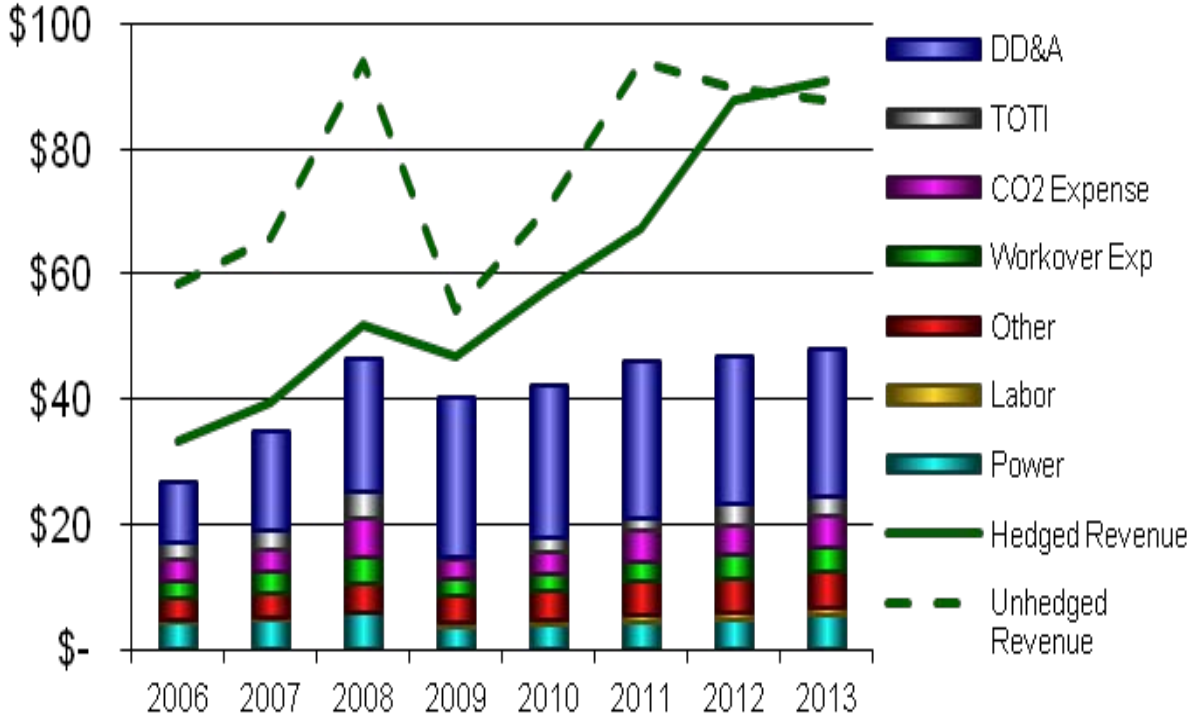
DCF [b] **($MM, without Elimination)**	**2012**	**2013**
SACROC Group [a,b]	706	743
Yates [b]	240	236
ES [b]	10	22

Notes: Yates DCF does not include contribution from MKM
Boe: Oil and NGL =1:1, Residue gas sales = 6:1
Gas Processing includes net Boe attributable to our plant interests and processing agreements but excluded from reserve report
(a) Includes other minor oil and gas properties near SACROC
(b) Includes Secondary Objectives

Oil & Gas

Margins and Cost Structure

Oil & Gas All-in Cost Structure [a] ($/Net Boe)



O&G cost structure has strong correlation to energy prices

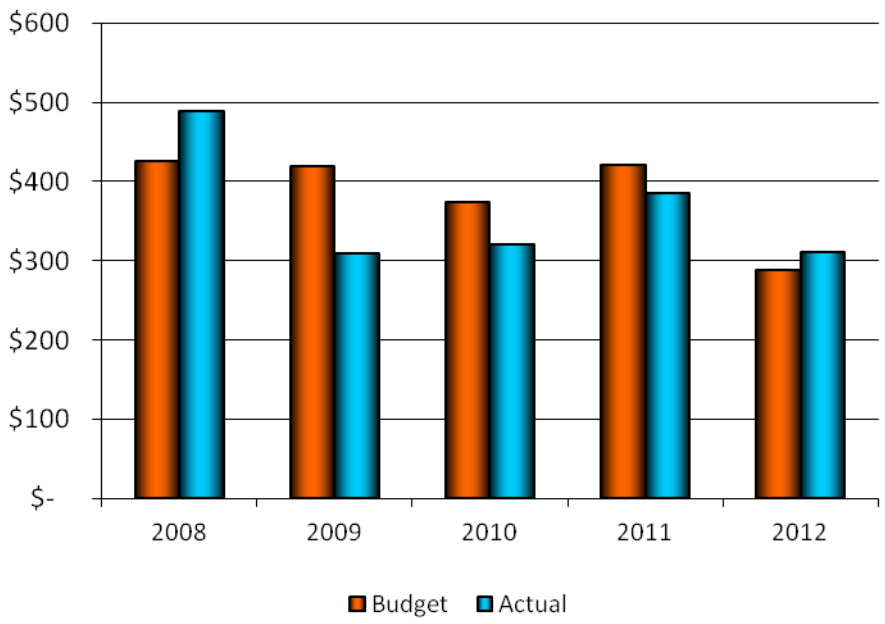
- Power is tied to gas prices
- High activity levels have increased staffing and other service costs
- Well-work and rig contracts now being tied to oil prices
- Purchased CO_2 and TOTI [b] are strongly correlated to oil prices

(a) Costs and Revenue per net Boe, including hedges where applicable; includes acquisition and all development costs
(b) Taxes other than income taxes

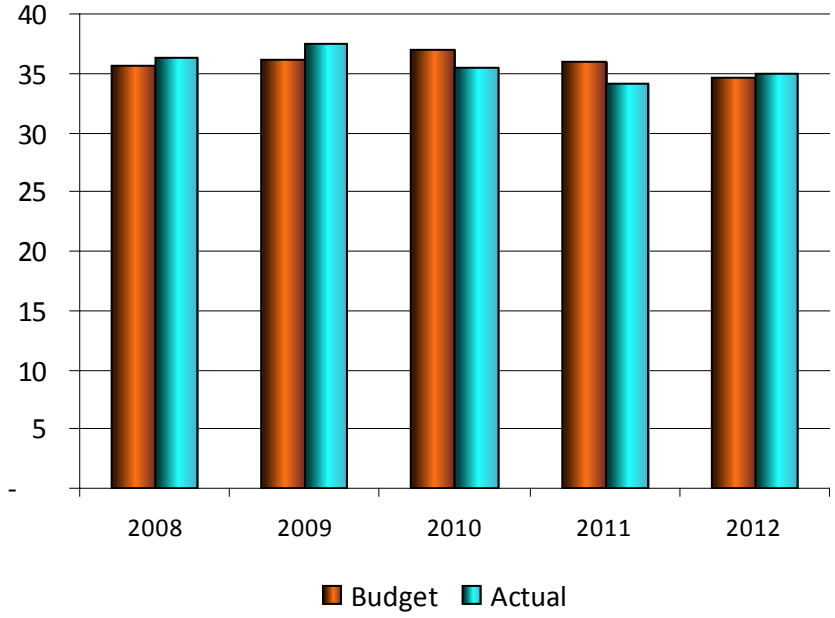
Oil and Gas Segment

Over past 5 years, capex 6% below plan, oil production 0.5% below plan

Capex ($MM)



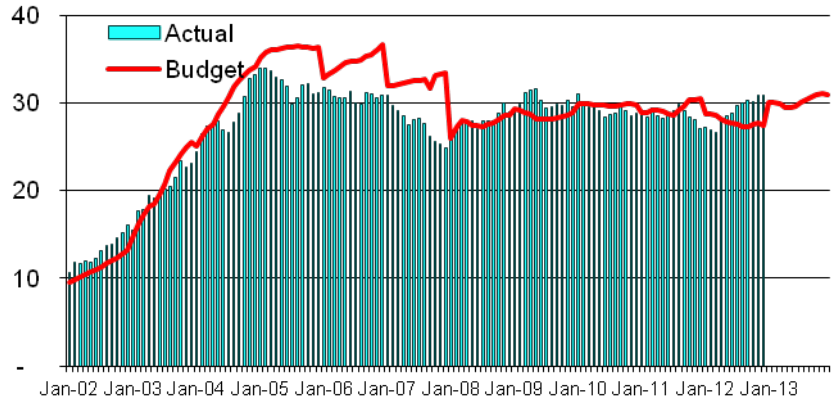
Net Oil Production (MBbl/d)



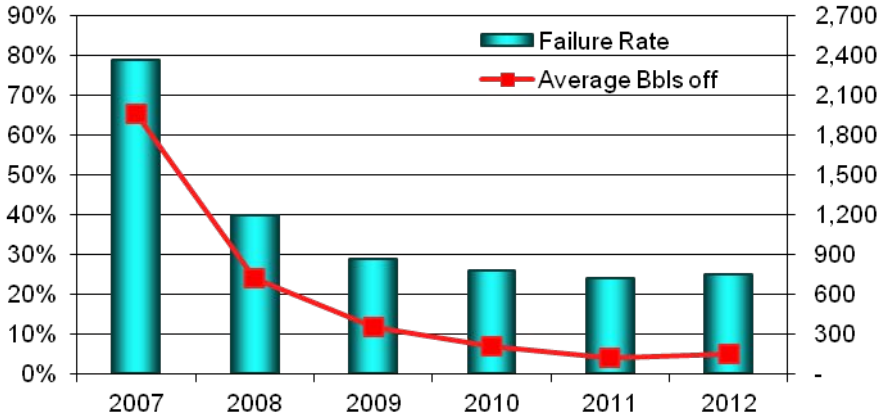
Note: Capex includes CO2 purchases and capitalized overhead

SACROC Production & Operations Highlights

Oil Production 2002-2013 (MBbl/d)



Sub-pump Improvements



2012 – Review

- **Oil production 3.9% above plan**
  - Harvest better than expected
  - Good results from infill program
  - Platform 2 meeting oil expectations
  - GOR under control
  - Sub Pump and Compressor performance on target
- **Costs above plan**
  - Opex/sustaining capex: $6MM above plan
    - Increased power congestion charges
  - Expansion capex: $14.5MM above plan
    - Harvest project – capital and opex (well count)

2013 – Focus

- **Evaluate additional harvest opportunities**
- **Continue infill / Green Zone lateral program**
- **Evaluate Cisco / Wolfcamp / Cline opportunities**
- **Add Platform 2 and Platform 3 patterns at the right pace – manage gas volumes**

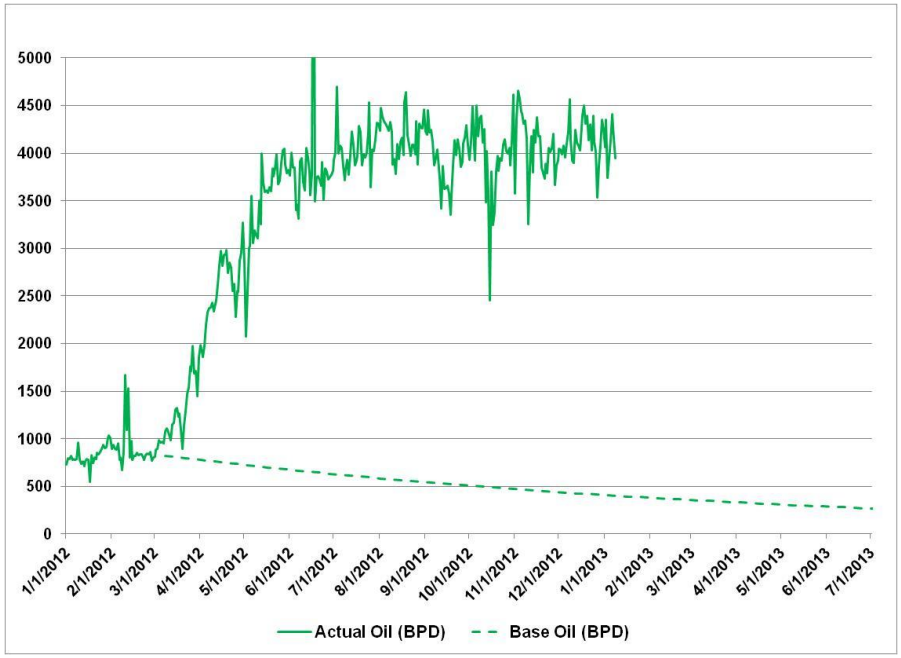
SACROC Unit Harvest Project:

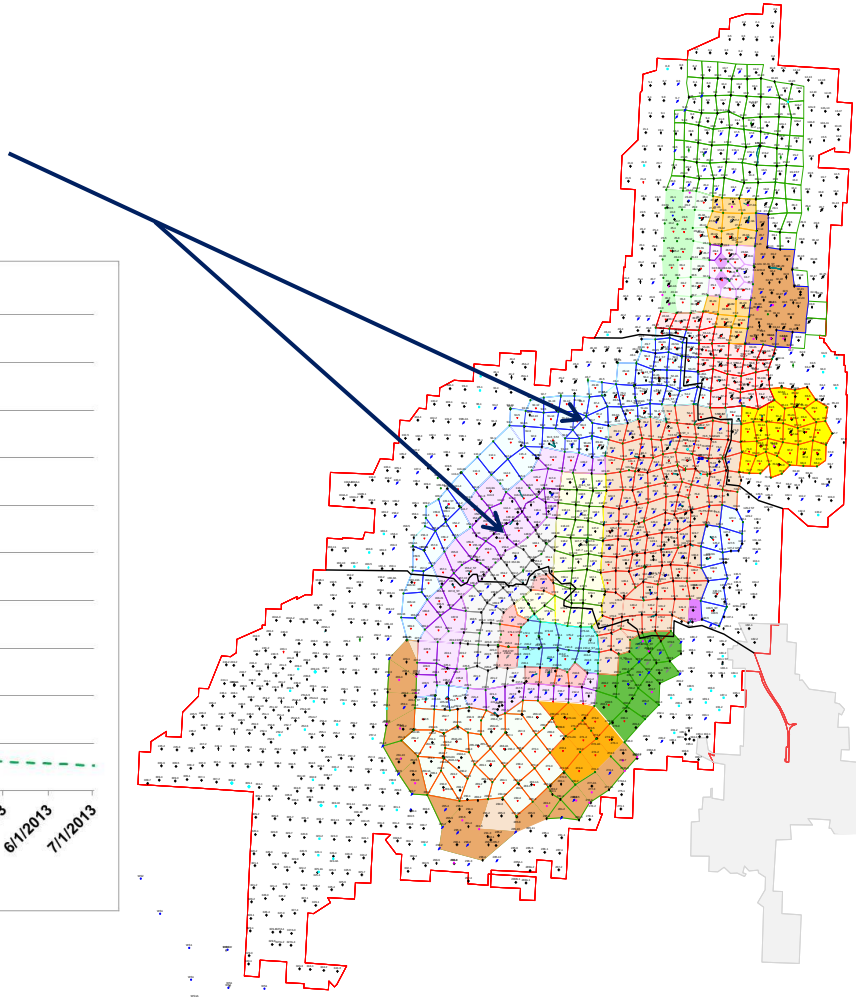
3,000 b/d of incremental oil and ~40MMCF of additional recycled CO_2 to inject

Harvest Production – older projects

- Pump upsizes and reactivations

CR 1 and CR2 Primary Areas of Wellwork



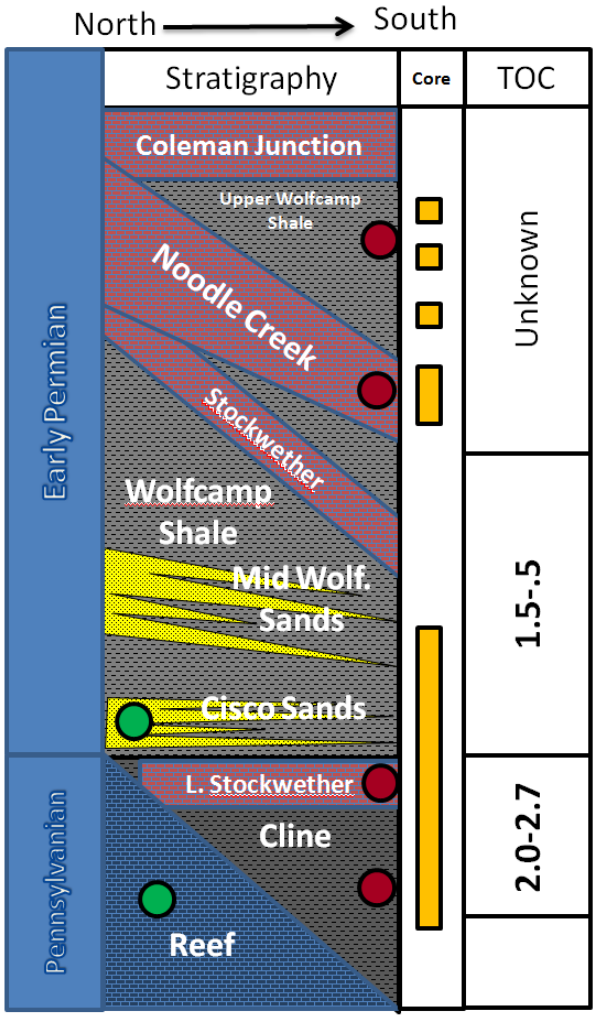


SACROC Unit -- Emerging Opportunities

Big Fields get Bigger

- **Canyon Reef (SACROC Unit)**
  - Horizontal producing and injection wells
  - West end development
  - Middle Canyon re-development
  - Infill Drilling – pinchouts and mounds

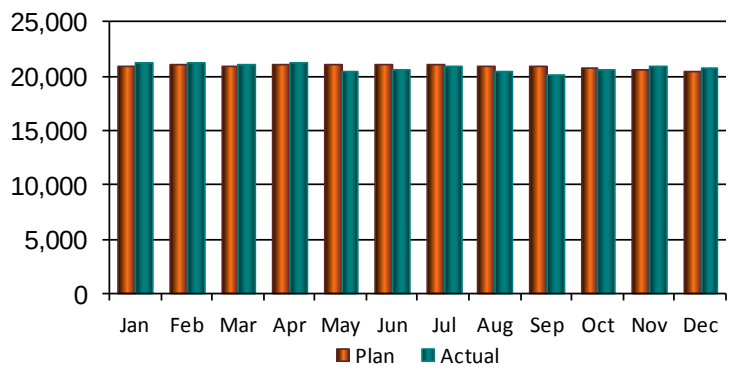
- **Other Horizons – (20,000+ acres of base leases)**
  - Currently testing Cisco Sands
    - 2 wells recompleted to date
  - Analyzing cores cut in the Wolfcamp/Cline shales
  - Noodle Creek test – A.E. Dennis #6 (92-6)
  - Horizontal well proposed for “Cisco Sand”
  - Evaluating seismic for deep opportunities
  - Plan includes 470 bopd



Yates Production

Steady

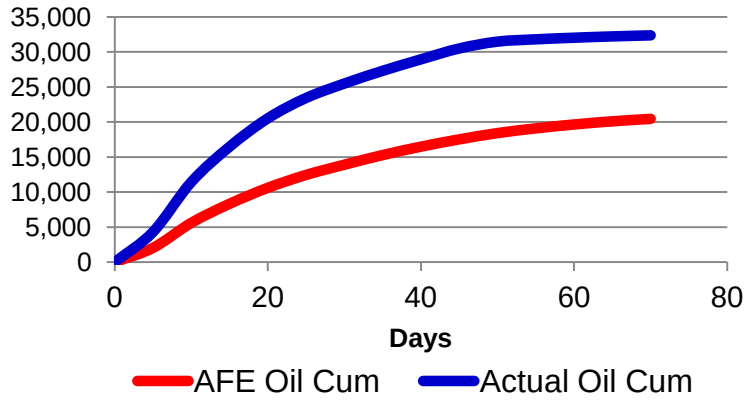
2012 Production (MBbl/d)



Yates oil slightly below plan in 2012 (0.7%)

- Oil column thinned at half rate (0.8') of previous year.
- Stable production
- Renewed East Side drilling
  - Deeper/polymer gel to control gas
- West Side Horizontals waning, fewer in 2013
  - Waterflooding West Side to augment Horizontals

Yates East Side Horizontals (Cum Oil, Bbls)



Strategies to add long-term reserves include:

- Continuing to raise reservoir pressure to increase CO_2 solubility: this will increase swelling and reduce oil viscosity
- Expand use of CO_2 injectors to increase CO_2 / Oil contact
- Expand East Side deep drilling

Katz CO_2 Project

The Second Year

Investment

- $202MM project total, $158MM thru 2012

Oil Response

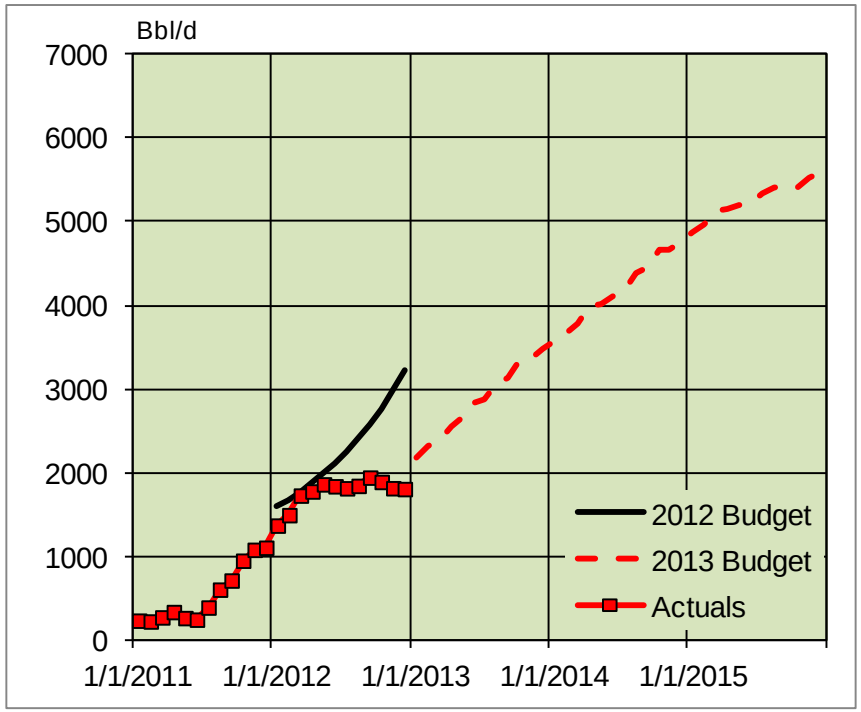
- Oil Rate up from 1104 to 1806 Bbl/d (Dec to Dec)
- 2012 plan 2,267 vs. Actual 1,722 Bbl/d
- Phase 1 Underperforming
- Effect was 417 Bbl/d (77% of short fall)

Recent Operation Challenges

- Asphaltene, Scale, Pump failures
- Effect was 84 Bbl/d (15% of short fall)

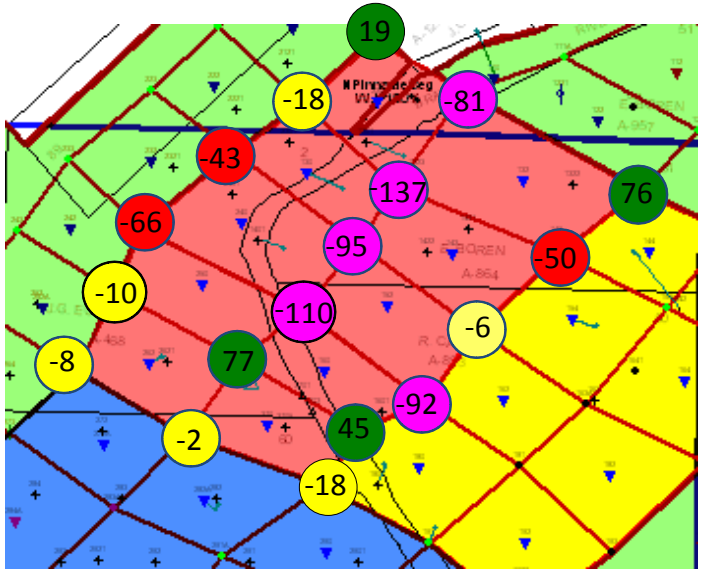
2013 Expected Production – 2,850 Bbl/d

- Phase 2 & 3 response on track
- Increase pattern activations by 96% (23-45)
- Increase CO_2 purchases by 44% (62-89 MMcf/d)



Katz CO_2 Project

Solid oil response but Phase 1 Stalled

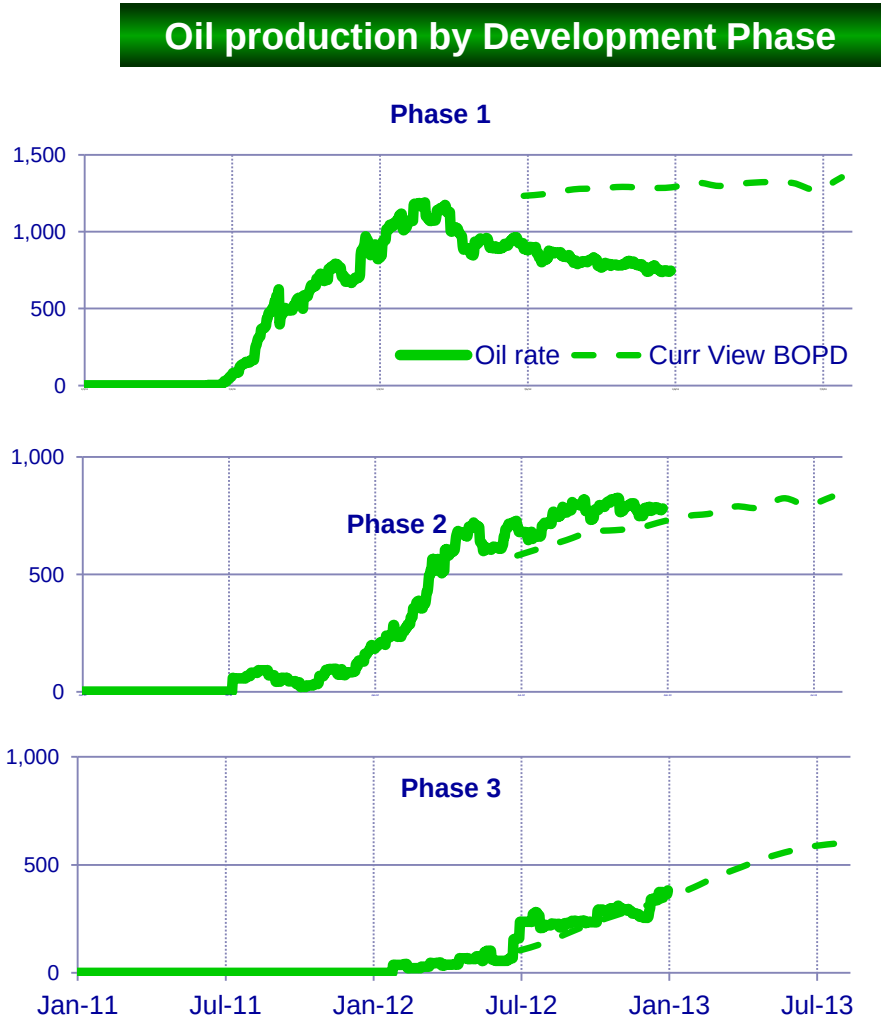


Phase 1 Poor Performance in 6 Wells

- Near wellbore cleanouts had mixed results, Moving to fracture stimulate
- Total Phase Productivity 43% Low

Good Indicators

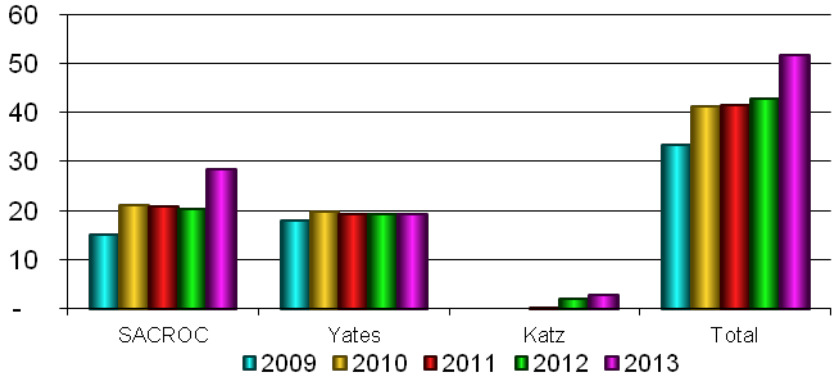
- Petrophysics, oil cut, pressure and containment continue to encourage
- Sub-pump redesign has improved failure rate
  - Flow and gas assist more wells



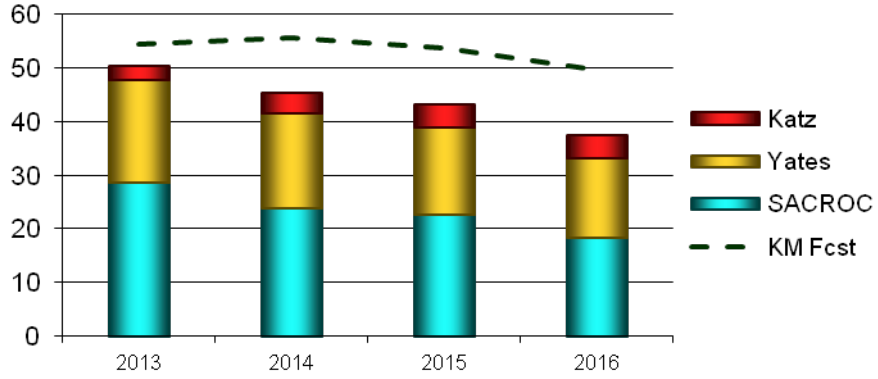
Oil and Gas Segment Production Forecasts

Production expectations tend to grow over time

Evolution of Forecasted 2013 Production [(a)] over Time (MBbl/d, 8/8ths)



Proved Reserves Production Forecast [(a)] (MBbl/d, 8/8ths)



We have replaced 105% of our Hydrocarbon production (net Boe) with new proved reserves for the past 3 years

We expect production to exceed our reserve report over the long-term

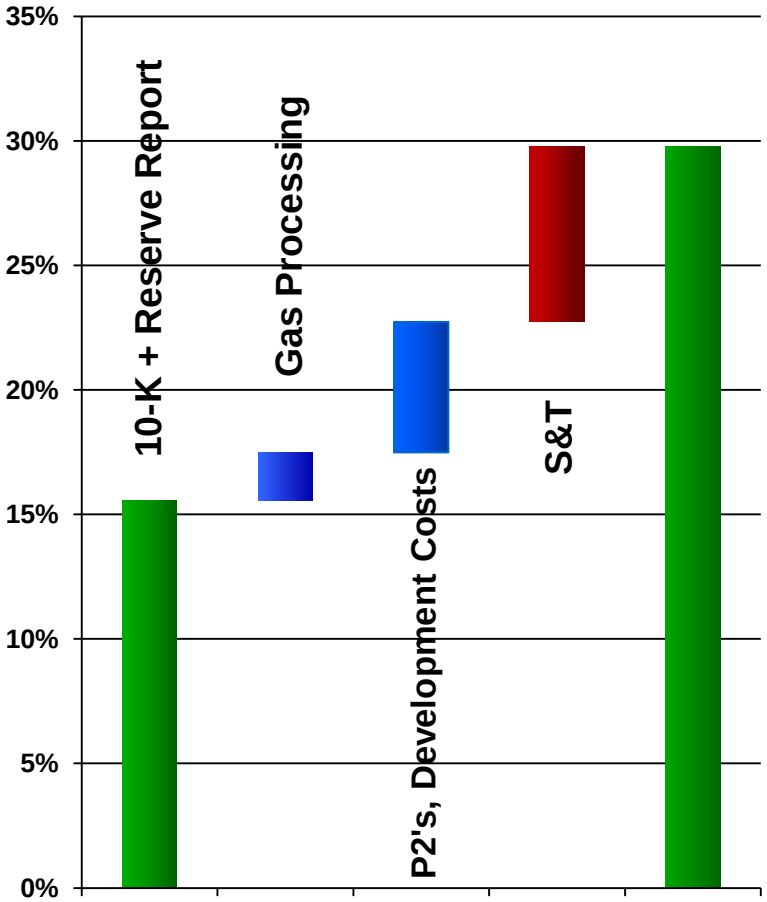
- Higher recoveries and additional targets added to inventory at SACROC and Katz

Current challenge: slow the decline

- More efficient operations
- New opportunities

(a) Forecasts based on independent consultant NSAI Reserve Report. Excludes minor properties

Oil & Gas, and Business Unit IRR



All-in O&G IRR (2000-2022) ~22.7%

- Required disclosures in 10-K plus proved reserves cash flows: 15.6%
  - With unhedged prices, IRR would have been 40.2%
- Adding in Gas Processing excluded from disclosures increases IRR to 16.8%
- Adding in reserves discounted to P2 by NSAI, and using planned development costs increases return to 22.7%

Total business IRR (2000-2022) ~30%

- Includes S&T assuming volumes increase with higher capacity, valued at market prices

As of 12/31/12, CO_2 Segment cumulative free cash flow is $2.6B+ (net of cumulative invested capital)

- As of 12/31/13 expect cumulative FCF of $3.4B

Note: Segments shown without elimination

KM CO_2 Current Outlook

Development Plans 2013-2022

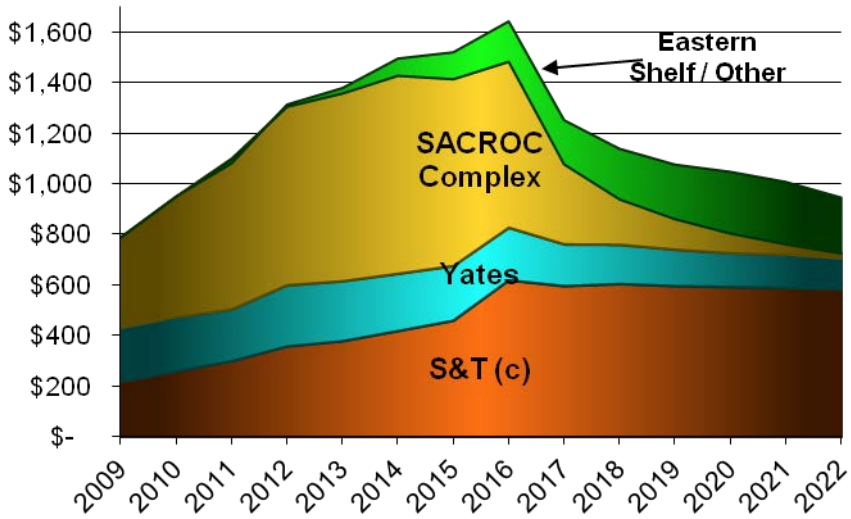
1. **SACROC Group Forecast**
   - 55 MMBoe net [(a)], $1,210MM KM-share capex ($258MM Capitalized CO_2)
     - 5 Year Capex $606MM
   - Continue platform development plan; production forecast is based on existing recovery expectations
   - Forecast assumes deteriorating inlet gas quality impacting NGL production volumes

2. **Yates Base Case**
   - 29 MMBoe net [(a)], $335MM KM-share capex ($85MM Capitalized CO_2)
     - 5 Year Capex $97MM
   - Continue HDH programs and gravity drainage depletion plan; no upside potential included from infill or surfactant

3. **Eastern Shelf / Other**
   - 30MMBoe net [(a)], $870MM KM-share capex ($538MM Capitalized CO_2)
     - 5 Year Capex $228MM
   - Continue development plans at Katz
   - Claytonville CO_2 project not included

4. **CO_2 S&T**
   - $1,842MM KM-share capex, 1.84 Bcf/d capacity
     - 5 Year Capex $1,446MM
   - Maintain aggressive CO_2 sales program and increase facilities capacity (production sustained by in-fill drilling and inlet compression

DCF ($MM) [(b)]

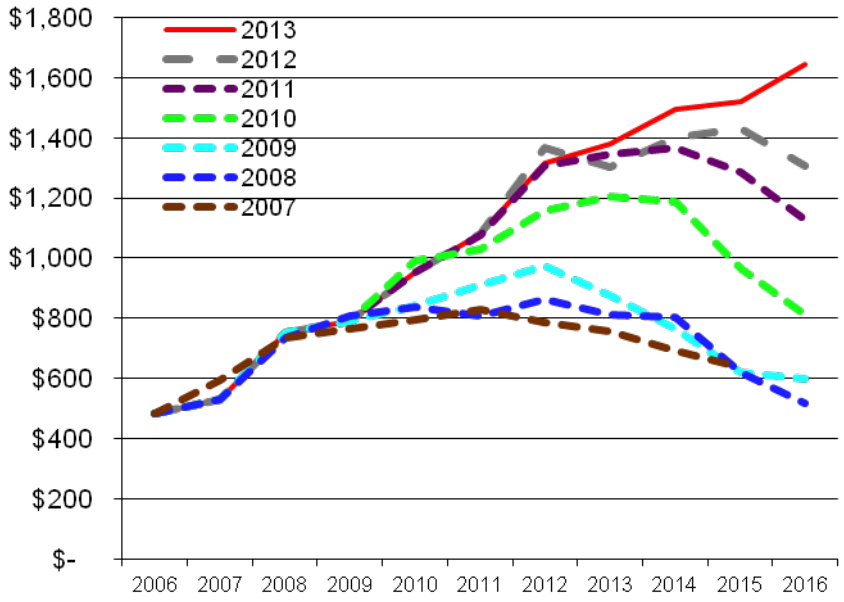


(a) Net Boe = Net Crude plus NGLs plus Residue Gas sold divided by 6.
(b) 2013 = Budget, 2014+ at $95/Bbl; cost metrics based on 2012 run rate; development plans may change in different price scenarios
(c) CO_2 profits not eliminated from S&T

Historical Long-term Outlook

The best is yet to come

Historical DCF Projections ($MM)



CO_2 segment outlook has continued to grow over past 5 years

- Oil prices have decreased from $100 to $95/Bbl
  - Increased costs but also opportunities
- Higher CO_2 volumes and prices
  - Increased demand, improved contract terms
- Higher ultimate recoveries being achieved
  - Improved operating practices, new areas to exploit