TIPRO Summer Conference | San Antonio, TX | August 8th, 2019

TRANSPORTING WORLD-CLASS PERMIAN GROWTH

PLAINS ALL AMERICAN

Forward-Looking Statements & Non-GAAP Financial Measures Disclosure

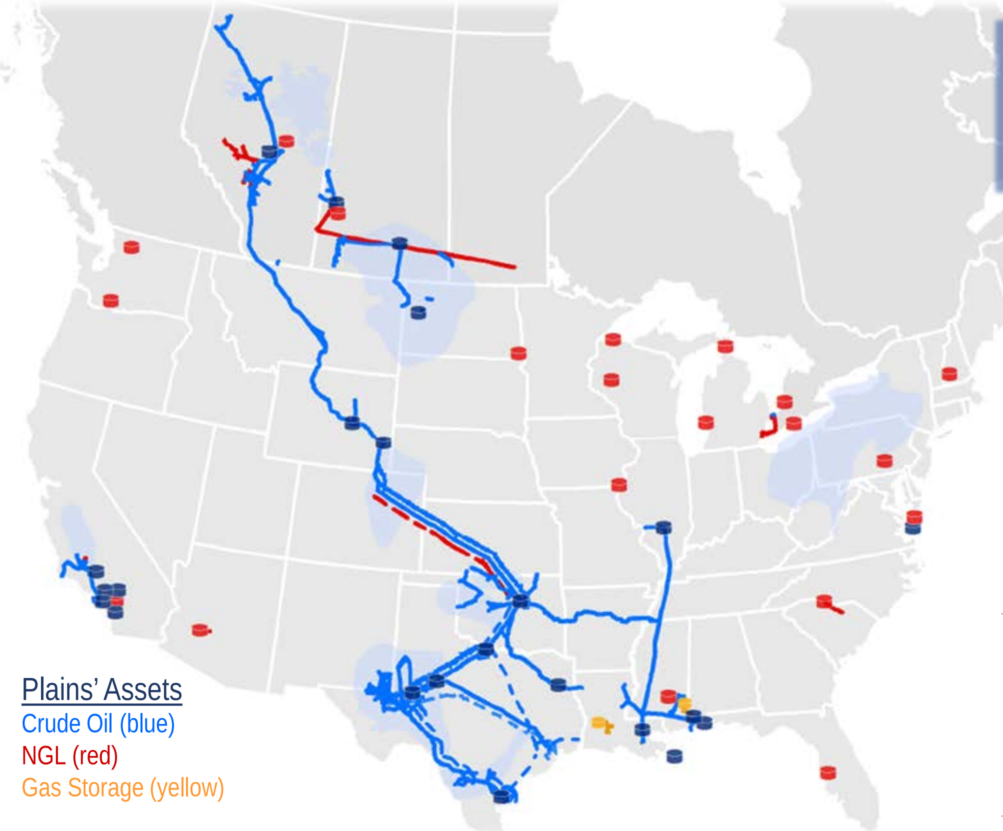
- This presentation contains forward-looking statements, including, in particular, statements about the plans, strategies and objectives for future operations of Plains All American Pipeline, L.P. ("PAA") and Plains GP Holdings, L.P. ("PAGP"). These forward-looking statements are based on PAA's current views with respect to future events, based on what we believe to be reasonable assumptions. PAA and PAGP can give no assurance that future results or outcomes will be achieved. Important factors, some of which may be beyond PAA's and PAGP's control, that could cause actual results or outcomes to differ materially from the results or outcomes anticipated in the forward-looking statements are disclosed in PAA's and PAGP's respective filings with the Securities and Exchange Commission.
- This presentation also contains non-GAAP financial measures relating to PAA, such as Adjusted EBITDA. A reconciliation of these historical measures to the most directly comparable GAAP measures is available in the appendix to this presentation and in the Investor Relations section of PAA's and PAGP's website at www.plainsallamerican.com, select "PAA" or "PAGP," navigate to the "Financial Information" tab, then click on "Non-GAAP Reconciliations." PAA does not provide a reconciliation of non-GAAP financial measures to the equivalent GAAP financial measures on a forward-looking basis as it is impractical to forecast certain items that it has defined as "Selected Items Impacting Comparability" without unreasonable effort.

Discussion Outline

- Plains Overview
- Macro Industry Observations
- Bringing Permian Crude Production to Market
- Closing Thoughts / Key Takeaways

Plains All American: *Providing Value Chain Solutions for Customers…*

Supply aggregation, quality segregation, flow assurance, and access to multiple markets



Built over 20+ years through multiple cycles.

Well positioned for continued growth.

~1 mmb/d 1st Purchase Volumes	~6.5 mmb/d Transportation Volumes	>124 mmb/mo Storage[(1)] & Frac Volumes
$30bln Enterprise Value	~18k Pipeline miles	~140mmbbls Terminalling / storage capacity

Focus Areas

Operational Reliability

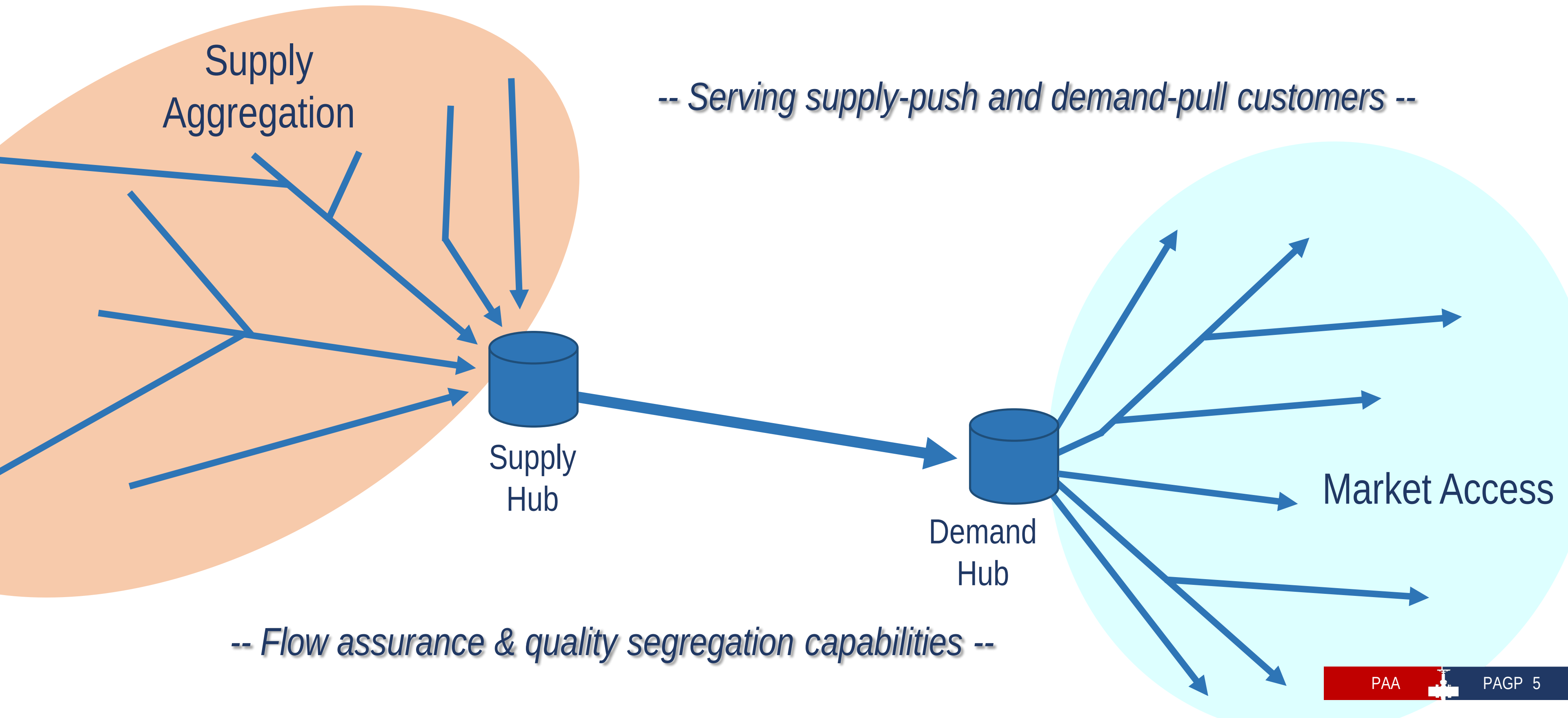
System Optimization

Long-Term Partnerships

Execution

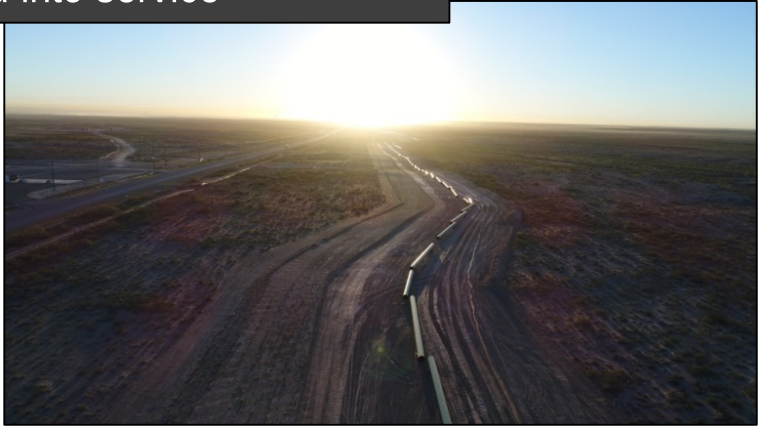
Note: volume data as of 3/31/19; Asset profile data as of 12/31/18; EV based on closing stock price as of 7/10/19. Map contains only most significant PAA assets, including current projects and equity-investments assets. (1) Crude Oil, NGL, and Natural Gas

Optimizing Pipeline & Terminal Systems Through Supply Aggregation & Market Access *(Directional Illustration)*



Safe & Responsible Project Execution: *Focused on delivering projects on time & on budget while minimizing impact to communities & environment*

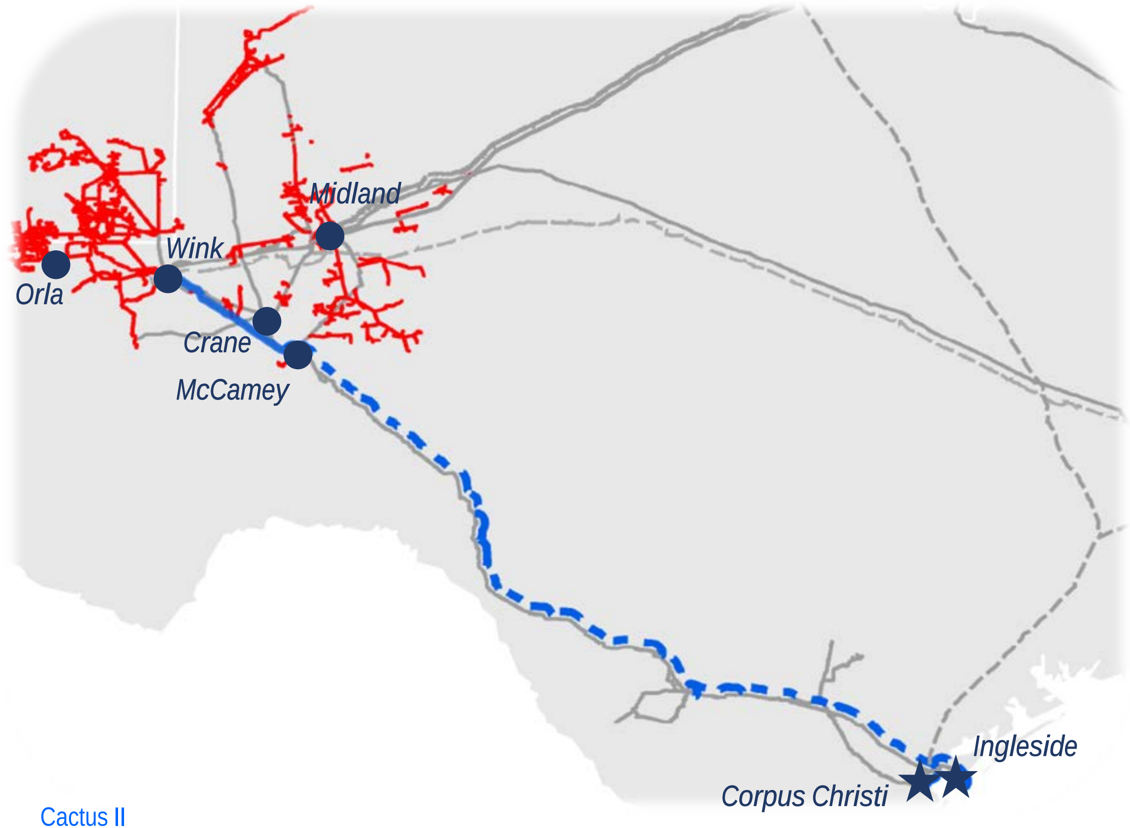
Last 5 Years: > 4,000 miles of pipe placed into service



Next 3 Years:
> 1,800 miles of new pipe

Cactus II

Mechanically complete, initial service expected by August 15th



Cactus II
Plains' Gathering

Project Overview

670 mb/d capacity
(90% contracted on original 585 mb/d)

Targeted In-Service: August 15th
Full-service 1Q20

Origins: Orla, Wink, Midland, Crane, McCamey

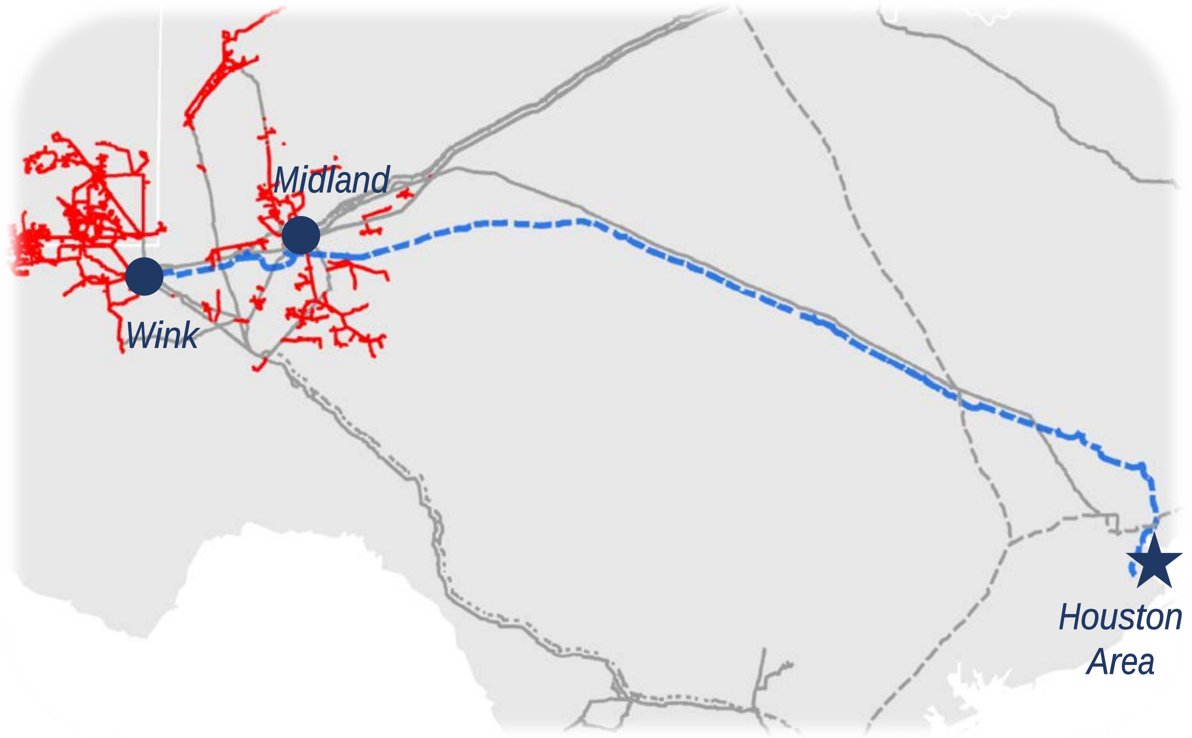
Destinations: Corpus Christi / Ingleside

Multi-grade segregation and batching

PAA Ownership: 65%

Wink to Webster JV

Project sanctioned and progress advancing



Project Overview

Up to 1.5 mmb/d capacity (36”, ~650-miles)

Targeted In-Service: 1H21

Multi-grade segregation and batching

Origins: Wink & Midland

Destinations: Webster, Baytown, Texas City

Status Update

Recently added additional partners

Line pipe & long-lead materials ordered

Several construction contracts awarded

Advancing towards construction commencement

Macro Industry Observations

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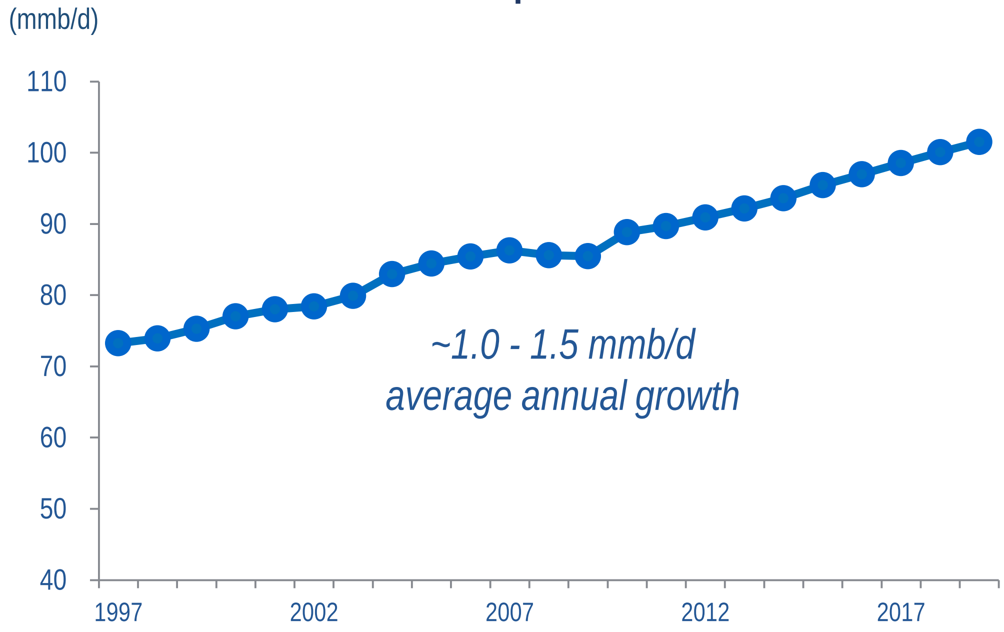
Constructive Global Demand

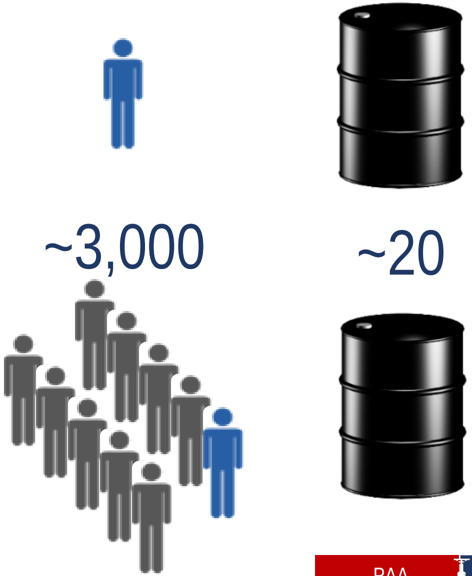
Long-term growth driven by developing nations & Asia

Global Liquids[(1)] Demand



-- current directional illustration[(2)]--

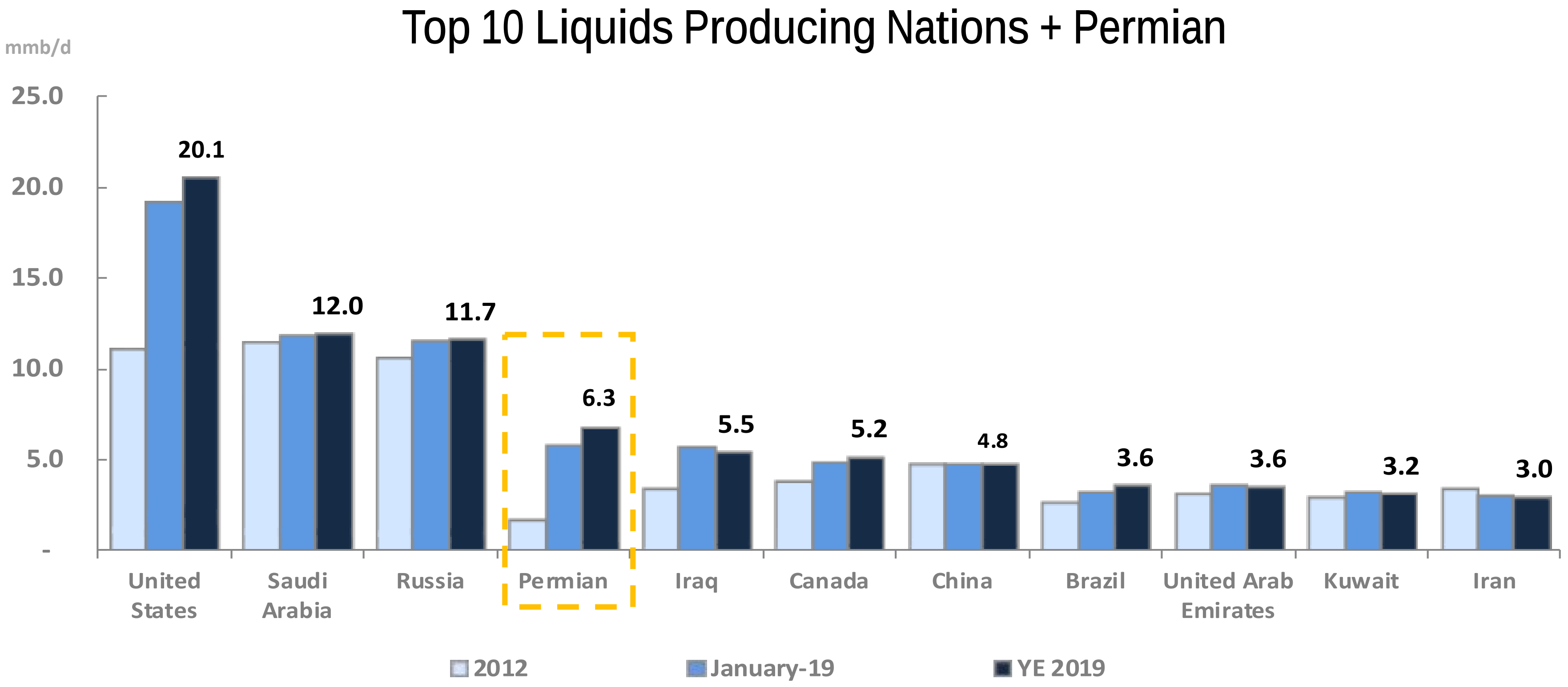
	Population *(millions)*	Consumption *(mmb/d)*
U.S.	~300	~20
China & India	~3,000	~20



Source: Population data: U.S. Census Bureau (July-2018); Consumption data: EIA (April – 2019); PAA current estimates
(1) Liquids includes production of crude oil (including lease condensates), natural gas plant liquids, biofuels, other liquids, and refinery processing gains.
(2) Population data rounded for directional purposes (Actual: US of ~330 million, China & India of ~2.7 billion)

U.S. Leading World Liquids[1] Production

Permian Projected to be a Top 4 Producer by YE 2019

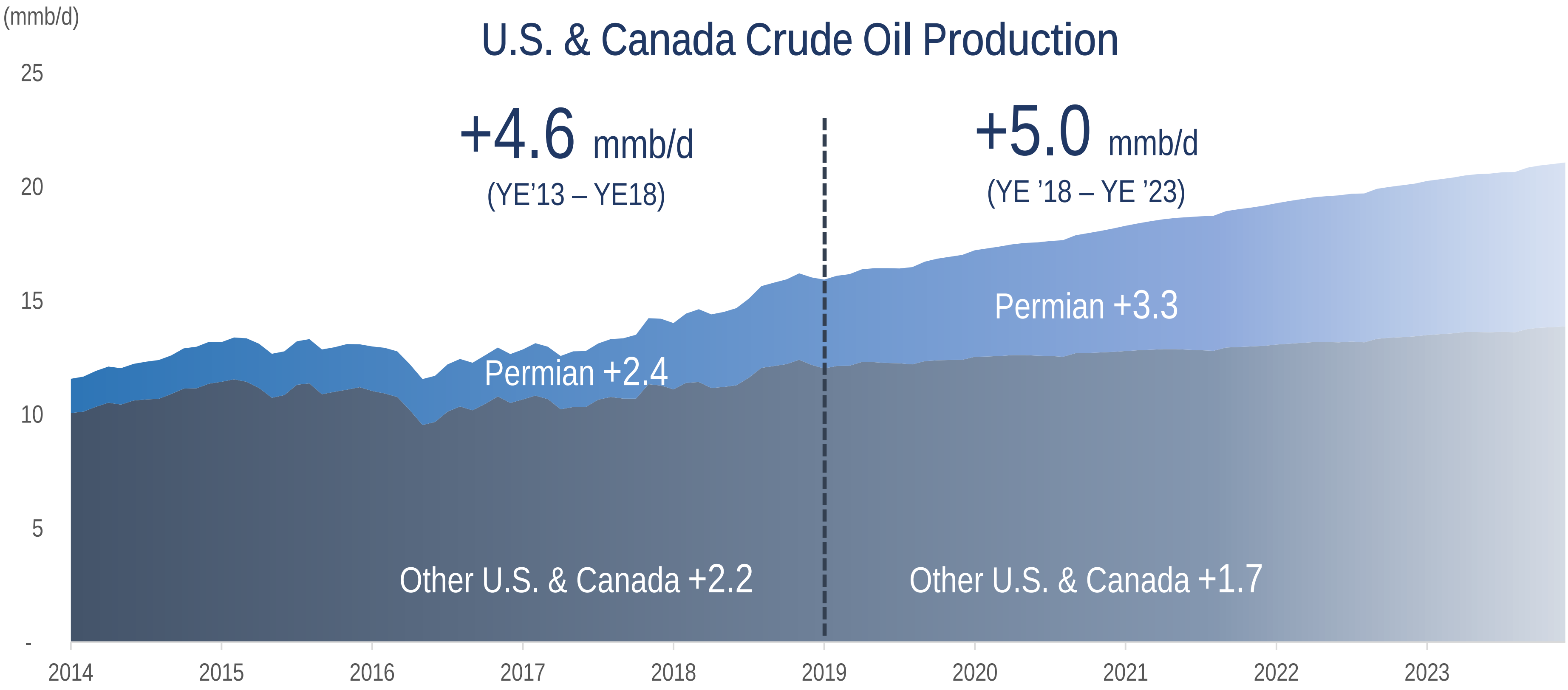


Source: raw data provided by RSEG, EIA, BTU Analytics & PAA Estimates as of June 2019 Investor Day;

(1) Liquids includes production of crude oil (including lease condensates), natural gas plant liquids, biofuels, other liquids, and refinery processing gains.

U.S. & Canada Oil Production to Grow >5 mmb/d by 2023

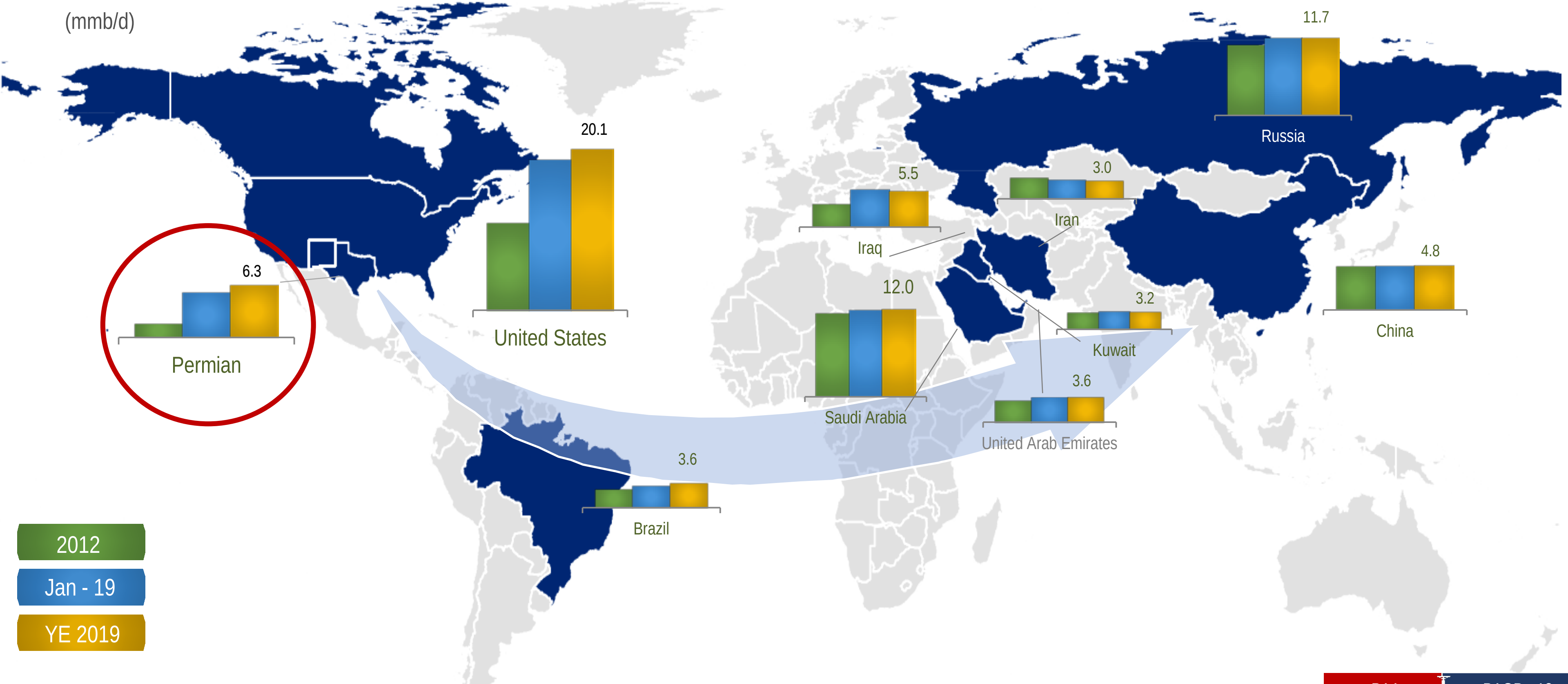
Permian driving growth: >3.3 mmb/d, or >65% of potential total growth



Source: raw data provided by RSEG, EIA, BTU Analytics, NEB and PAA Estimates as of June 2019 Investor Day.

The World Needs U.S. Liquids

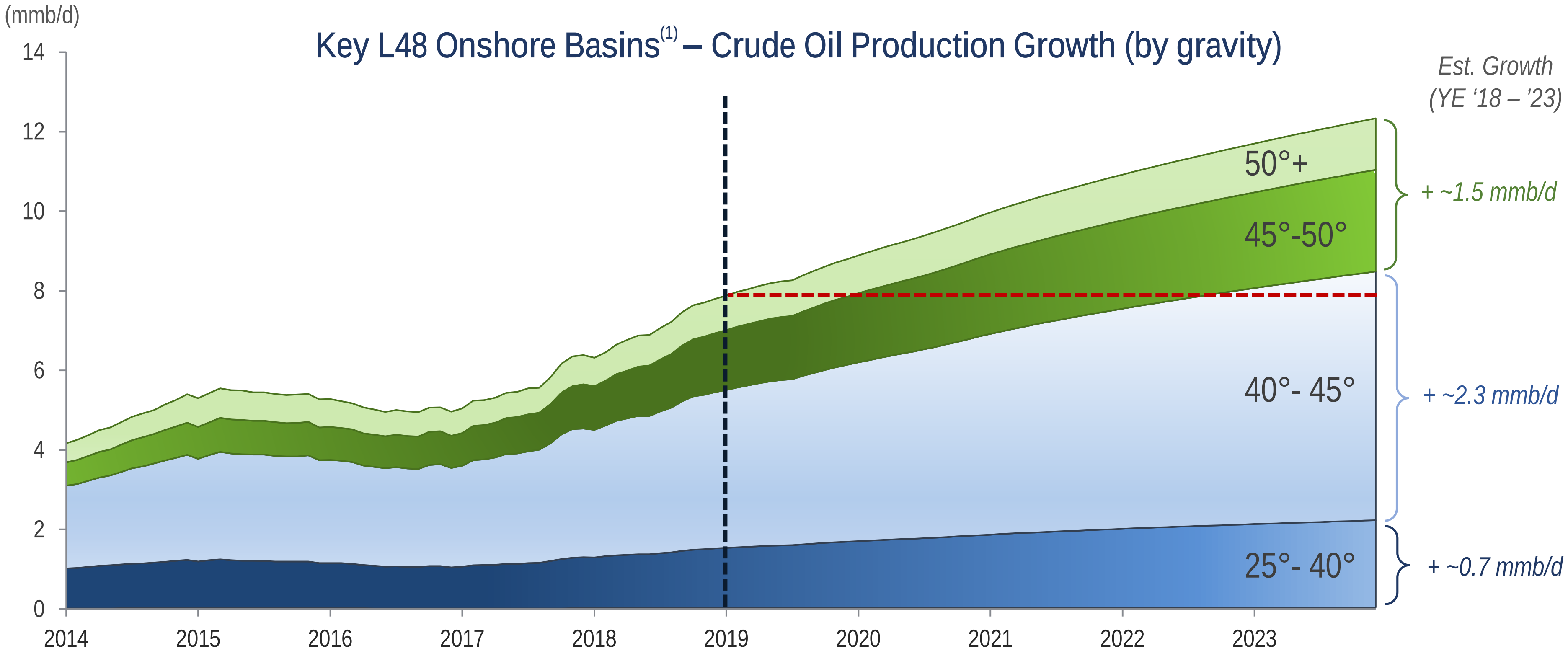
Lift of export ban in 2015 was a landmark event; production growth has made U.S. midstream global infrastructure



Source: raw data provided by RSEG, EIA, BTU Analytics & PAA Estimates as of June 2019 Investor Day;
(1) Liquids includes production of crude oil (including lease condensates), natural gas plant liquids, biofuels, other liquids, and refinery processing gains.

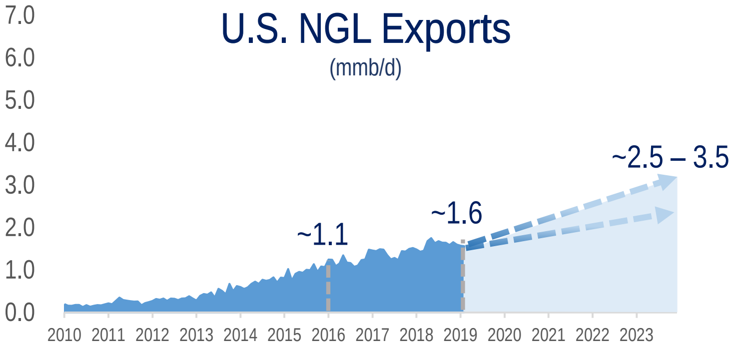
U.S. Refiners Approaching Light-end Limitations

Incremental light-crude production poised for export

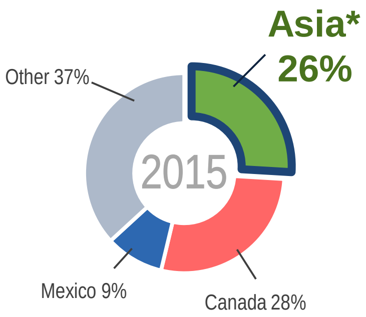


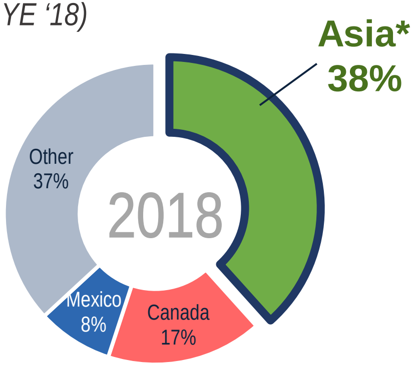
Source: raw data provided by RSEG, EIA, BTU Analytics, NEB and PAA Estimates as of June 2019 Investor Day.
(1) Includes Permian, Eagle Ford, STACK, SCOOP, DJ, Powder River, and Williston Basins.

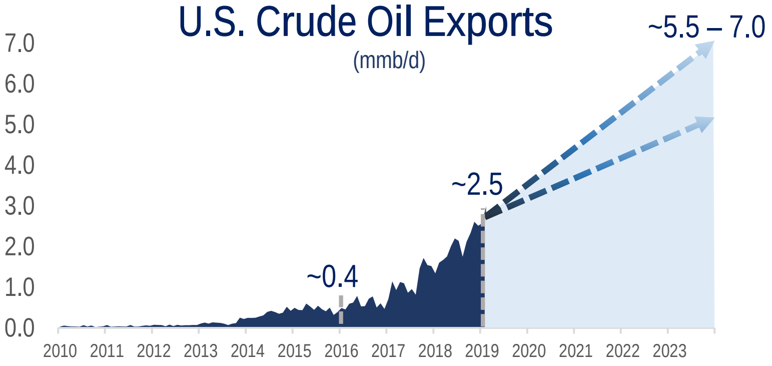
Asia: Growing Demand for U.S. Hydrocarbons



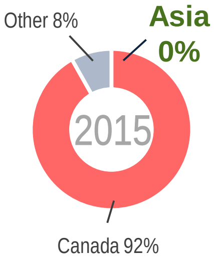
NGL exports to Asia +400 mb/d
(YE '15 vs. YE '18)

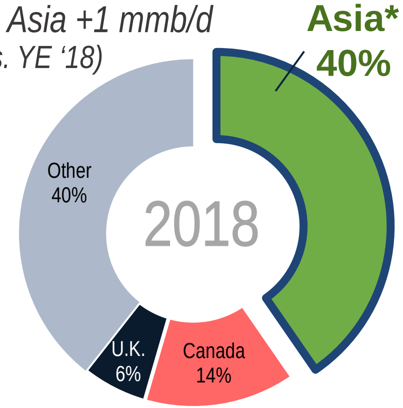






Crude exports to Asia +1 mmb/d
(YE '15 vs. YE '18)





*Sources: EIA, PAA Estimates as of June 2019 Investor Day; *Asia includes: China (Inc. Hong Kong), India, Japan, Korea, Indonesia, Singapore, Malaysia and Taiwan*

The Permian Basin Is Positioned to be a Critical Piece of the Global Crude Supply Chain Going Forward

Global Opportunity: World Needs U.S. Oil

Constructive Industry Fundamentals & Outlook

Incremental Barrel Poised for Export

Local Opportunity: Ability to Deliver Supply

All eyes on the Permian

Ability to Link Permian Supply to Global Export Markets

All Eyes on the Permian

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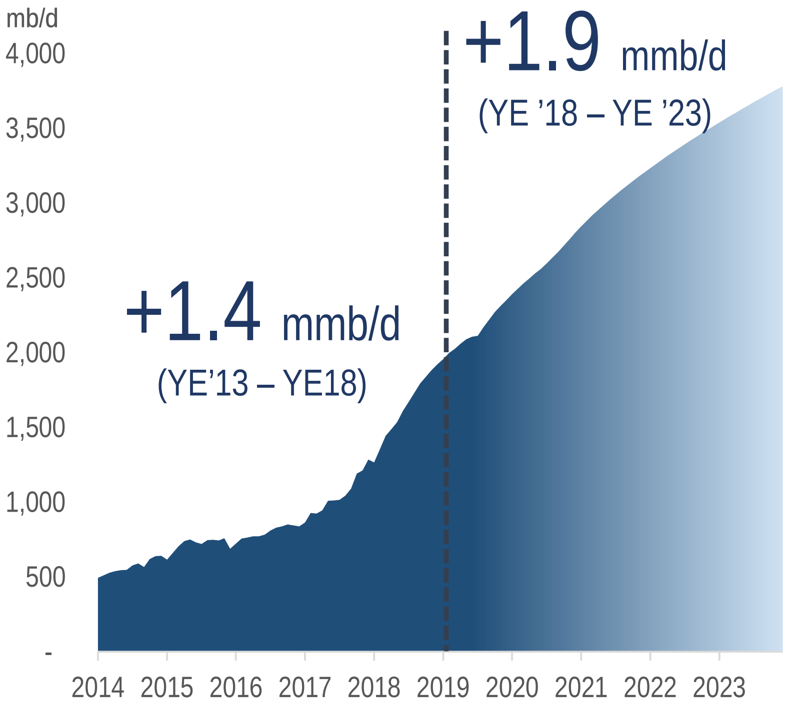
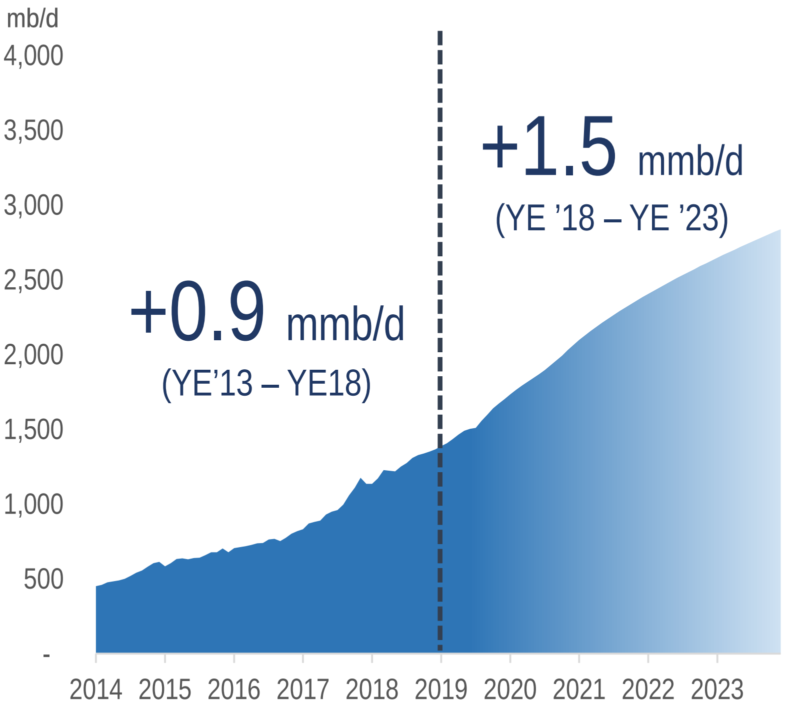
Permian Shifting to Manufacturing Operation

Delaware Basin: Plains' largest asset concentration, highest operating leverage

Delaware Basin Production



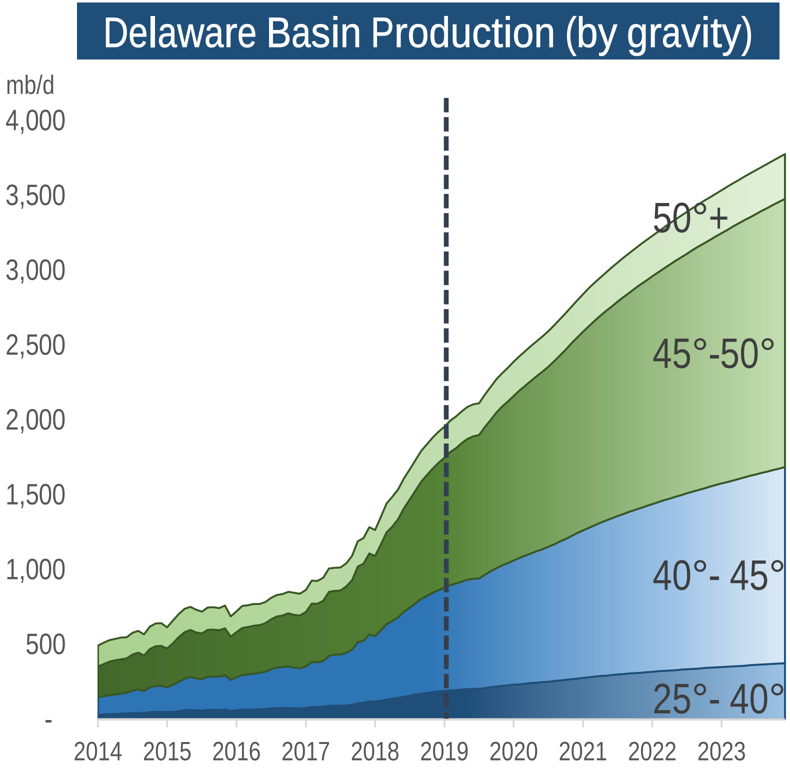
Midland Basin Production

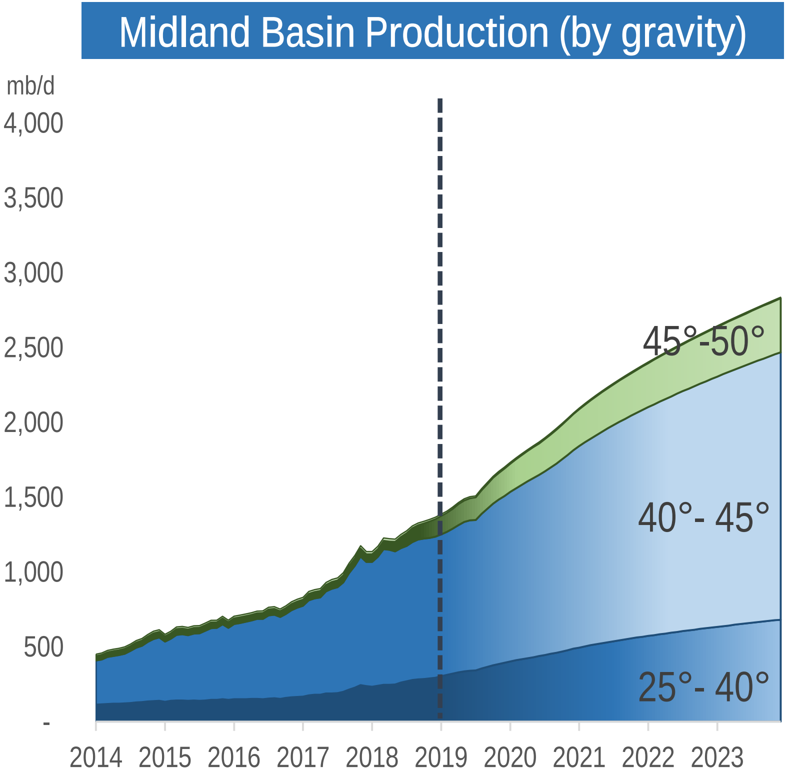


Source: raw data provided by RSEG, EIA, BTU Analytics, NEB and PAA Estimates as of June 2019 Investor Day.

Permian Shifting to Manufacturing Operation

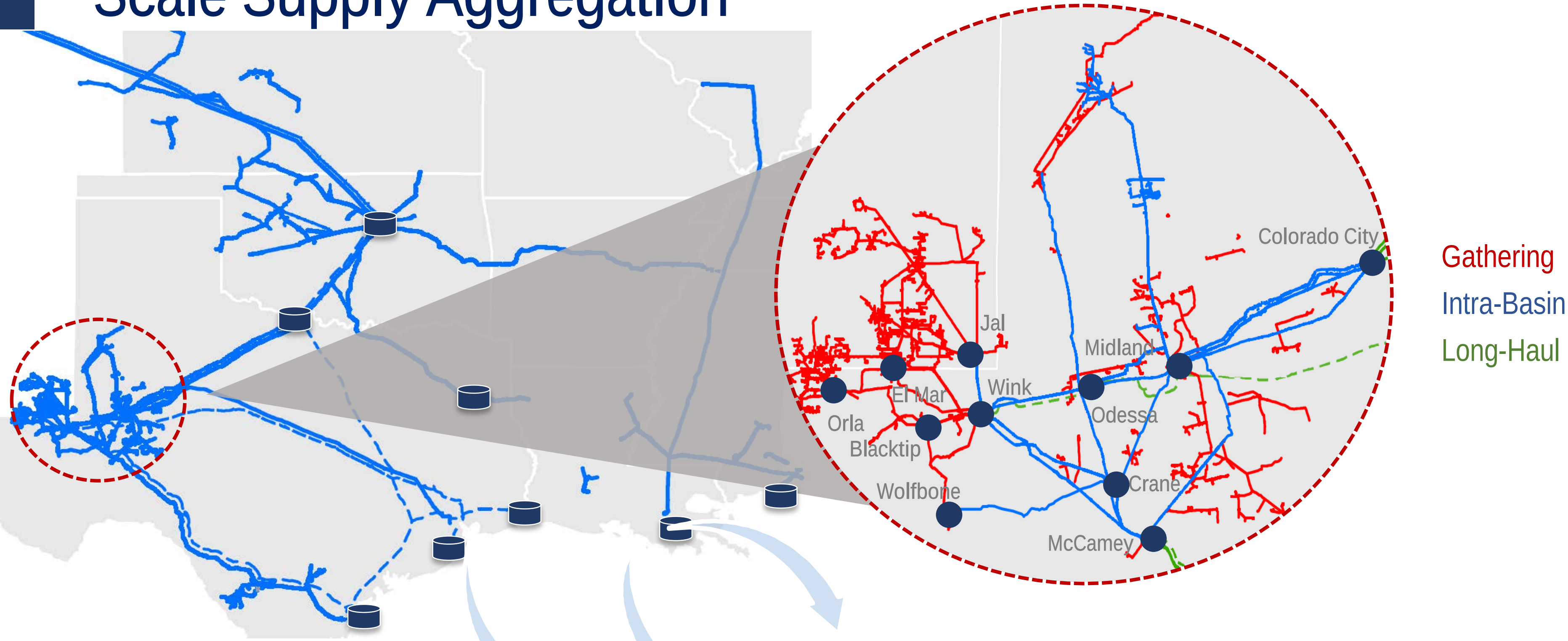
Delaware Basin: Driving light crude Permian production growth





Source: raw data provided by RSEG, EIA, BTU Analytics, NEB and PAA Estimates as of June 2019 Investor Day.

Integrated System & Operating Capabilities Supports Large-Scale Supply Aggregation



Large-scale supply aggregation

Quality control (segregation & batching)

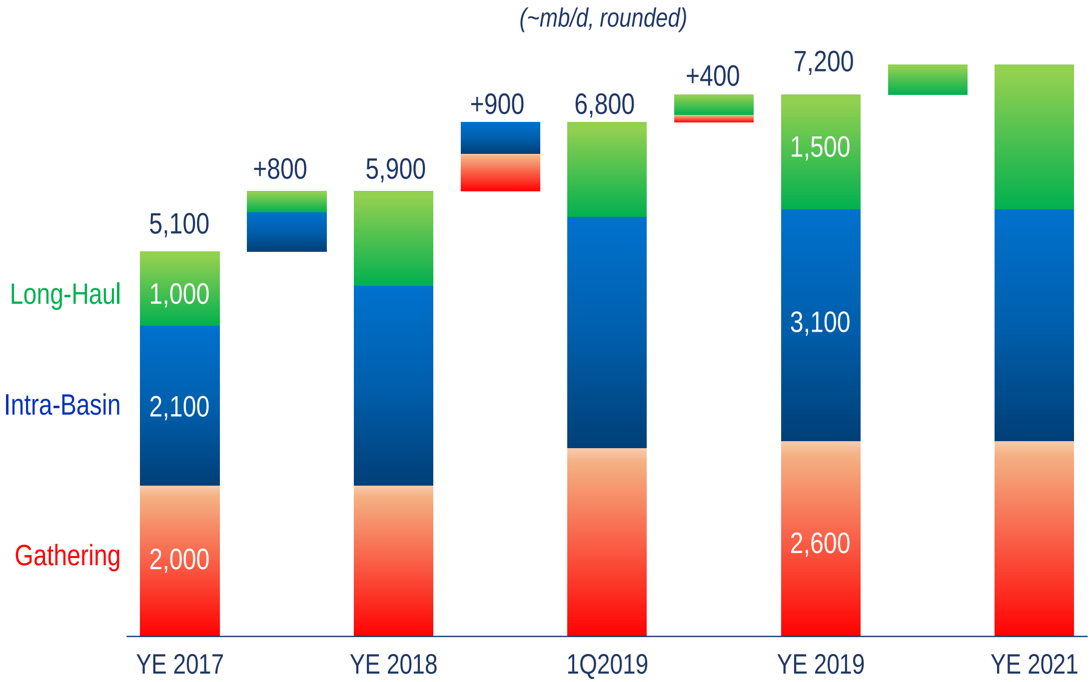
Flow assurance (capacity / flexibility)

Market Access

Expanding Permian System Capacity

Enhancing volume pull-through on broader system

Permian System Capacity



Project Highlights

- Sunrise II ✓
- Cactus II (underway)
- Wink-to-Webster (underway)
- Red Oak (underway)

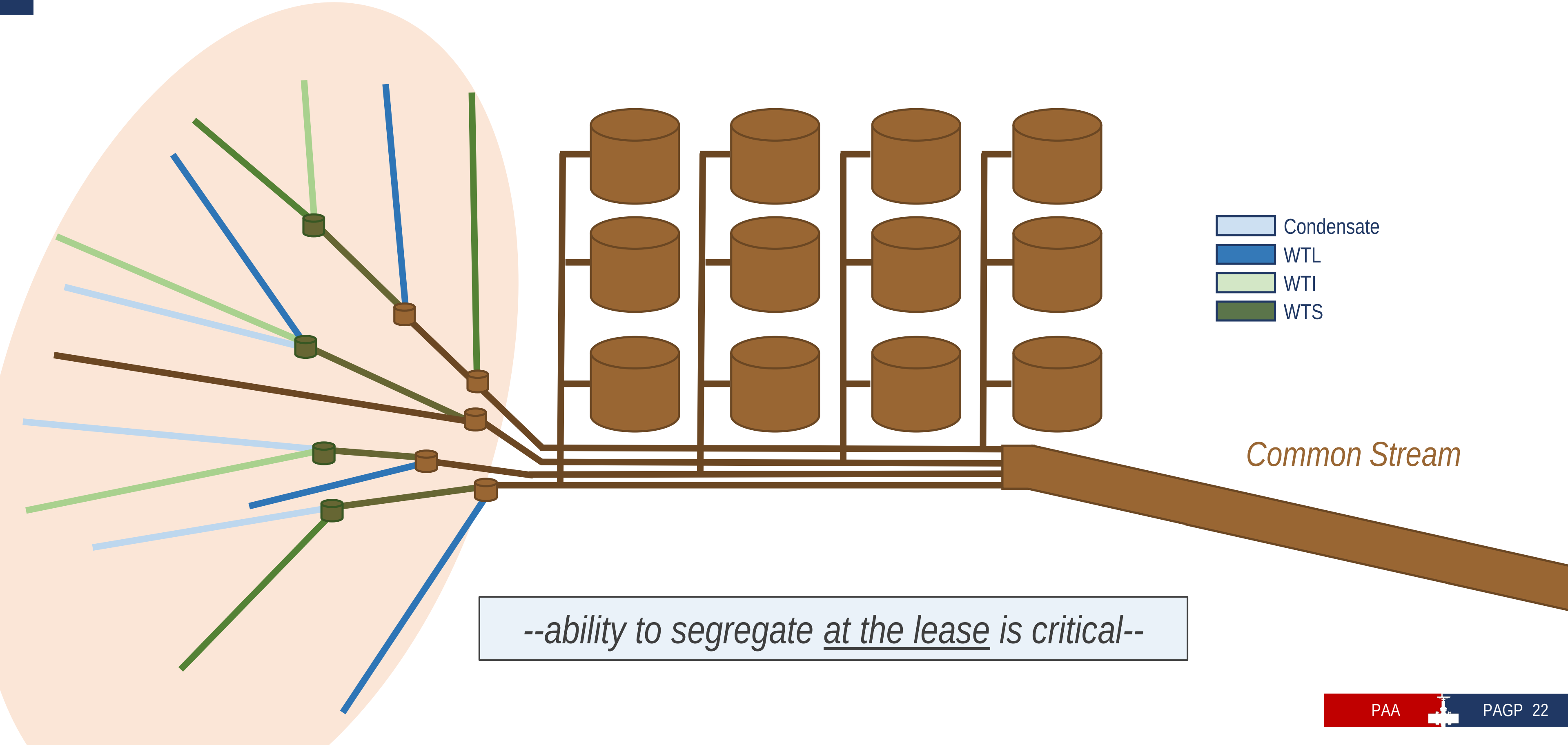
- Crane to McCamey ✓
- Wink to Midland ✓
- Advantage ✓
- Wink to McCamey ✓

- El Mar to Wink ✓

Note: chart reflects capacity additions net to PAA's interest; YE 21 includes Cactus II at full service (1Q20) and pro-forma directional Wink-to-Webster capacity.

Quality Segregation Capability Differentiates System

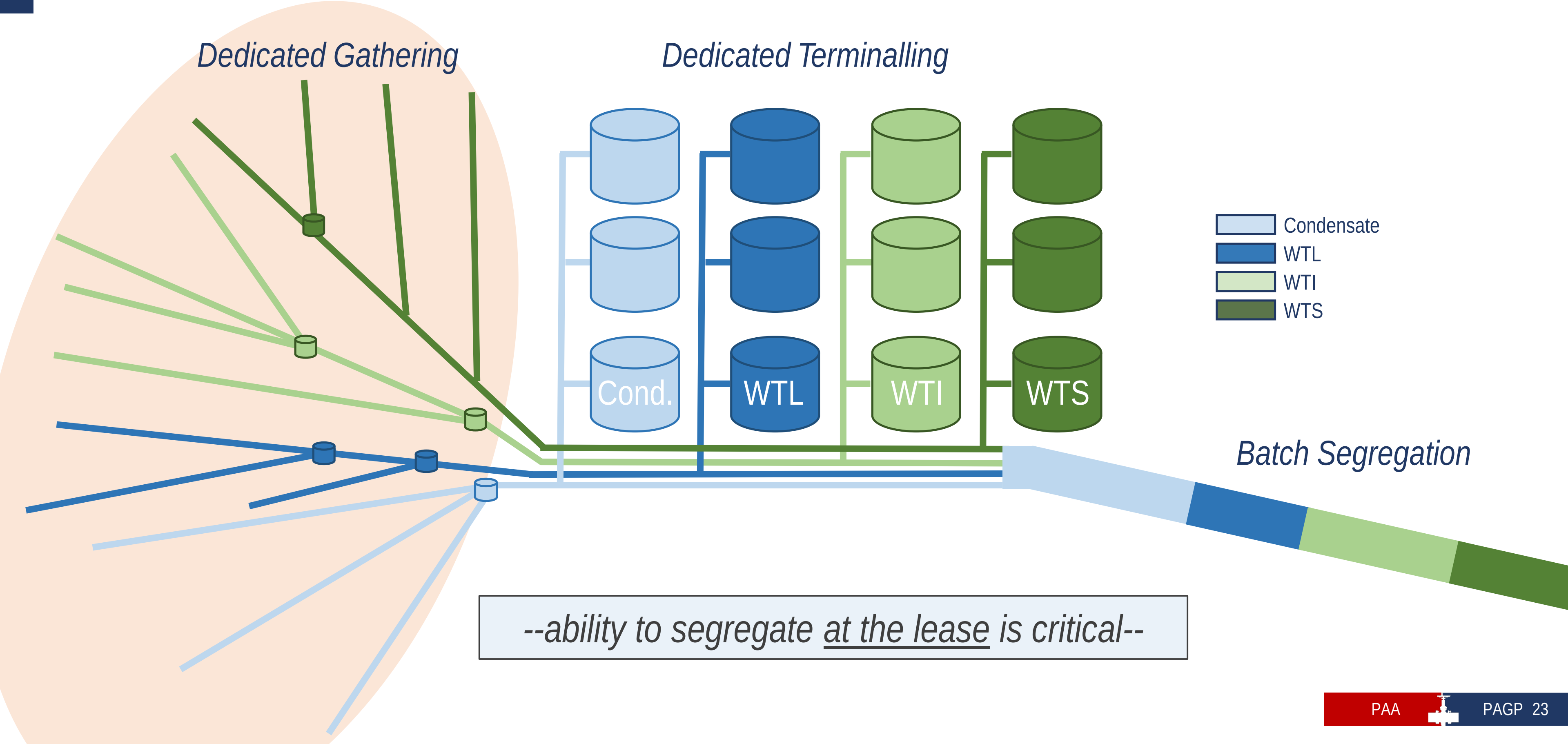
Directional Illustration



--ability to segregate at the lease is critical--

Quality Segregation Capability Differentiates System

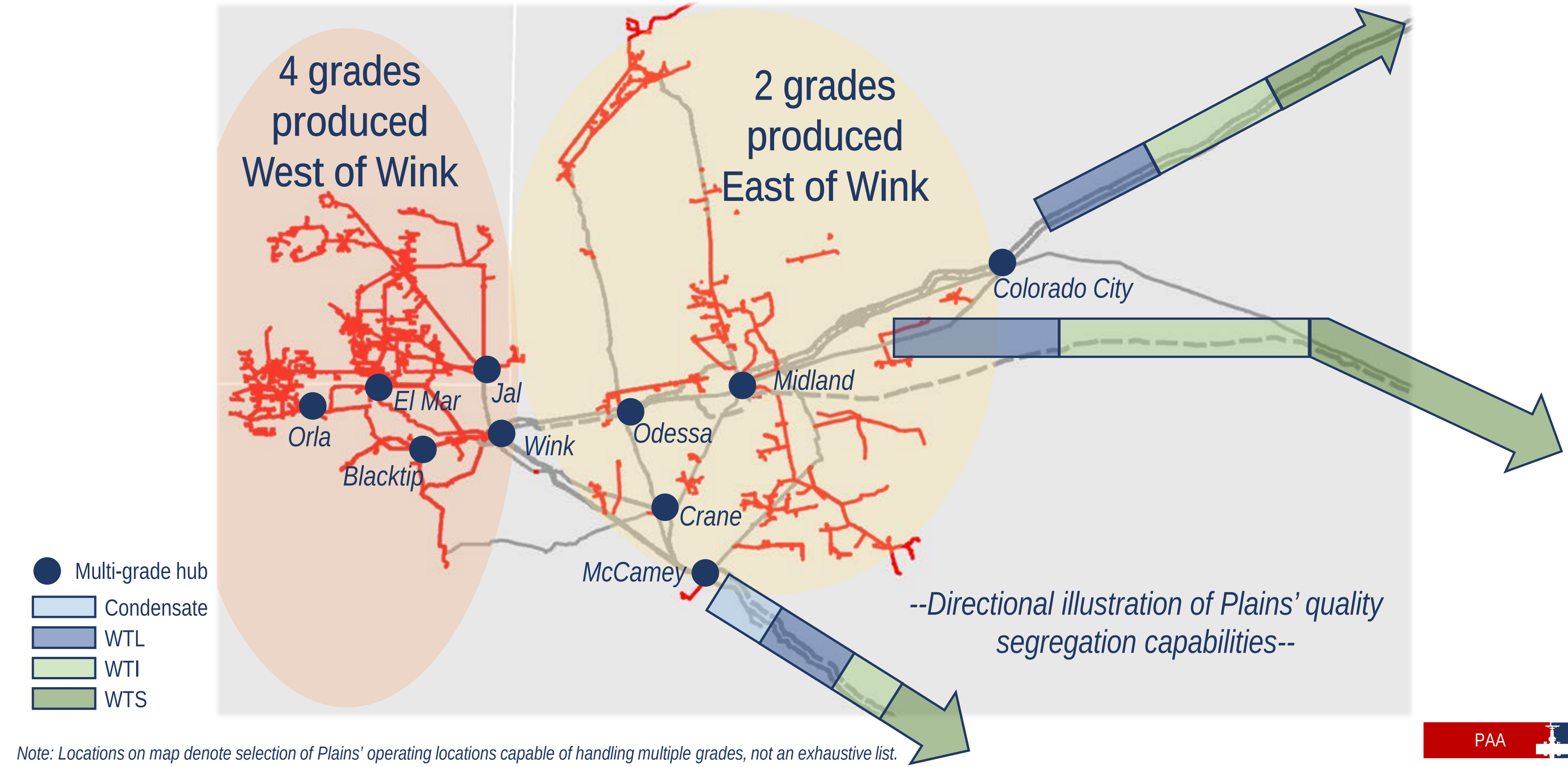
Directional Illustration



--ability to segregate <u>at the lease</u> is critical--

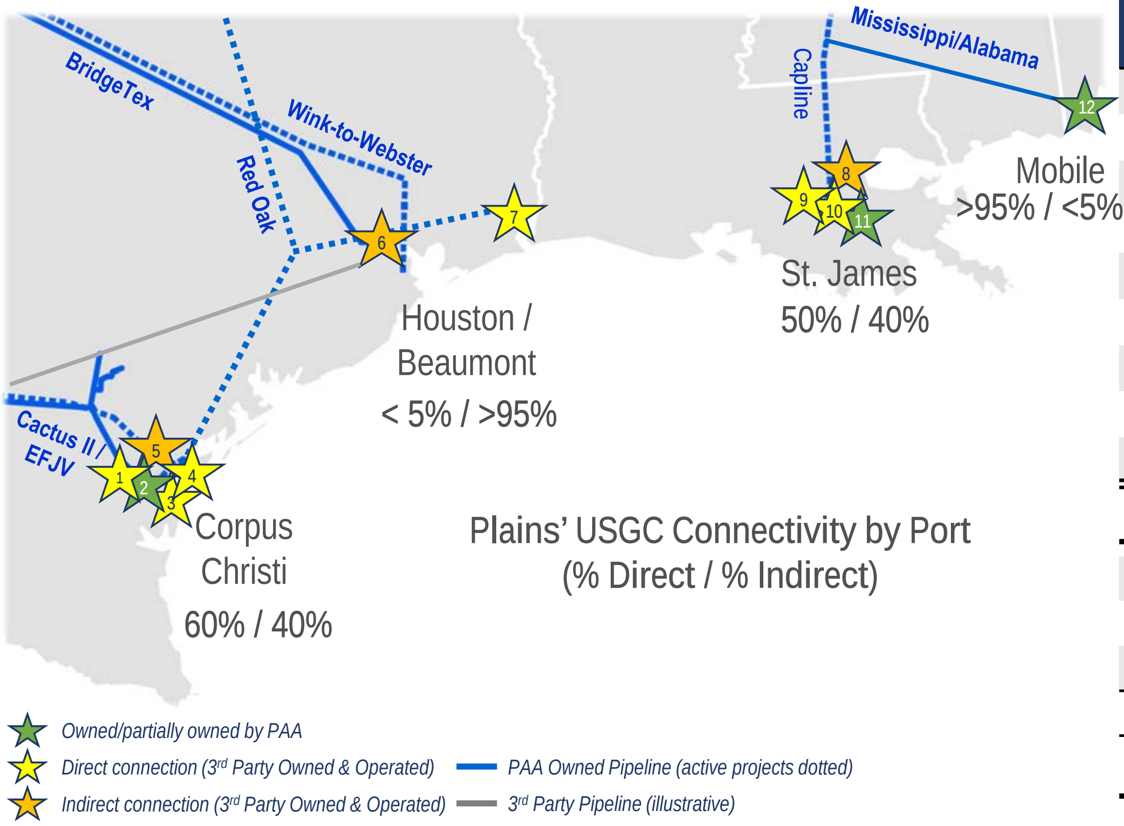
Quality Segregation in Practice – Plains' System

Multi-grade lease segregation, large-scale capacity dedication and batch transportation



Note: Locations on map denote selection of Plains' operating locations capable of handling multiple grades, not an exhaustive list.

Market Access: Direct & Indirect Connectivity to Vast Majority of USGC Dock Capacity



#	Port	PAA Connected Pipeline	Dock / Owner
1	Corpus Christi	Cactus II	BPL/Trafi
2	Corpus Christi	EFJV	PAA/EPD
3	Corpus Christi	Cactus II	NuStar
4	Corpus Christi	Cactus II	Moda
7	Beaumont	W2W	Exxon
9	St. James	Capline	NuStar
10	St. James	Capline	Capline
11	St. James	Capline	PAA
12	Mobile	Mississippi/Alabama	PAA
	Total Direct Connectivity		2,400 (mb/d)
5	Corpus Christi	Cactus II/EFJV	Multiple
6	Houston/Beaumont	EFJV /BridgeTex / W2W	Multiple
8	St. James	Capline	Multiple
	Total Indirect Connectivity		4,950 (mb/d)
	Grand Total (Direct + Indirect Connectivity)		7,350 (mb/d)

Source: Clipper Data, Company disclosures, & PAA Estimates as of June 2019 Investor Day.

Closing Thoughts

Plains' Lease Gathering Business Provides Additional Producer Services

Flow Assurance	▪ Shipper history on pipelines provides flow assurance for producers ▪ Utilizing PAA trucks, rail, barges and/or pipeline connections to move a producers crude oil production
Financial Benefits	▪ PAA provides competitive, market-based pricing in all major oil producing regions ▪ Selling to a third party (PAA) creates a clear demarcation for producers in determining the valuation for royalties and taxes ▪ PAA's balance sheet provides financial security to producers ▪ PAA provides and manages the linefill requirement for shipping on pipelines
Operational Benefits	▪ PAA buys all crude oil produced, aggregates and manages the sales and inventory fluctuations, no price or volume exposure to the producer ▪ We manage and compensate producers for their quality
Administrative Services	▪ Royalty and tax distribution and reporting ▪ Automated dispatch system for truck-gathered production ▪ Pipeline nominations, scheduling and over/short volume fluctuations

Closing Thoughts / Key Takeaways

1. Constructive Long Term Industry Fundamentals & Growth Outlook
   – *World needs U.S. hydrocarbons*
2. All Eyes on the Permian
   – *Key growth engine for world supply*
3. Delaware Basin Driving Permian Growth
   – *Emerging world scale manufacturing operation*
4. Incremental Barrel Poised for Export
   – *Midstream Infrastructure is the Critical Link*

Plains All American: Positioned to serve industry's needs

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