

# U.S. Federal Helium Program

Global Helium Summit 2.0

September 13, 2016

Robert Jolley, PE

Bureau of Land Management

New Mexico State Office

Amarillo Field Office



# In This Presentation:

- Federal Helium Program History
- BLM Organization
- Partnerships and Contract Holders
- Current Operations
- Look Ahead



# Federal Helium Program History

1923 – First helium extraction plant built by Fort Worth Helium at Hicks Field to support Navy Department

1925 – Helium Act of 1925 authorized the Bureau of Mines to construct and operate 6 helium plants

1929 – Amarillo Helium Plant built (sold in 2007)

1943 – Exell Helium Plant built (sold in 2011)

Thatcher Helium Plant built (closed in 1944)

Navaho Helium Plant built in (returned to tribe in 1960)

Otis Helium Plant built (closed in 1944)

1957 – Keyes Helium Plant built (closed in 1991)

1960 – Major Helium Legislation – Helium Act Amendments of 1960

1996 – Helium Privatization Act

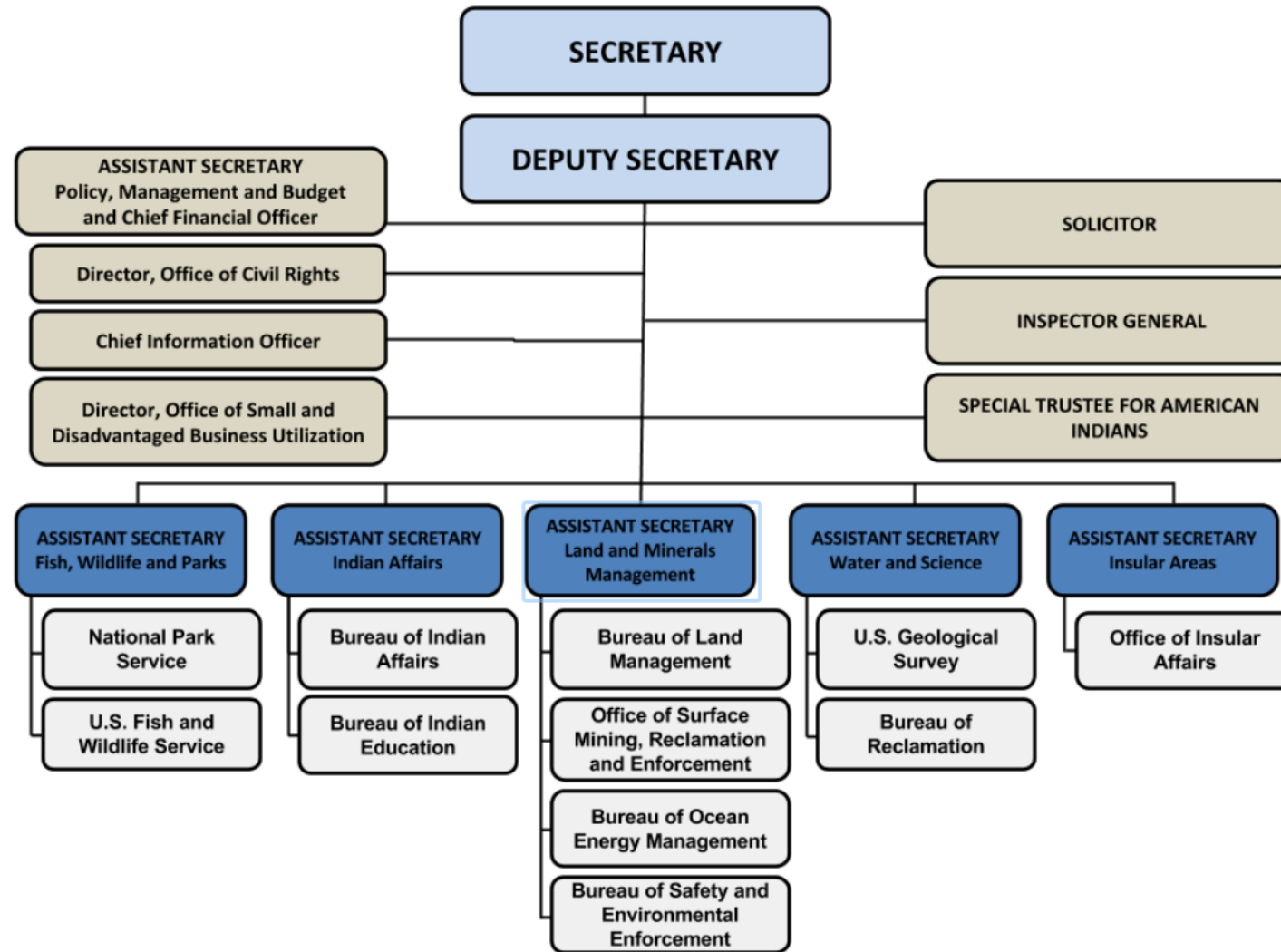
2013 – Helium Stewardship Act

2014 – First Helium Auction

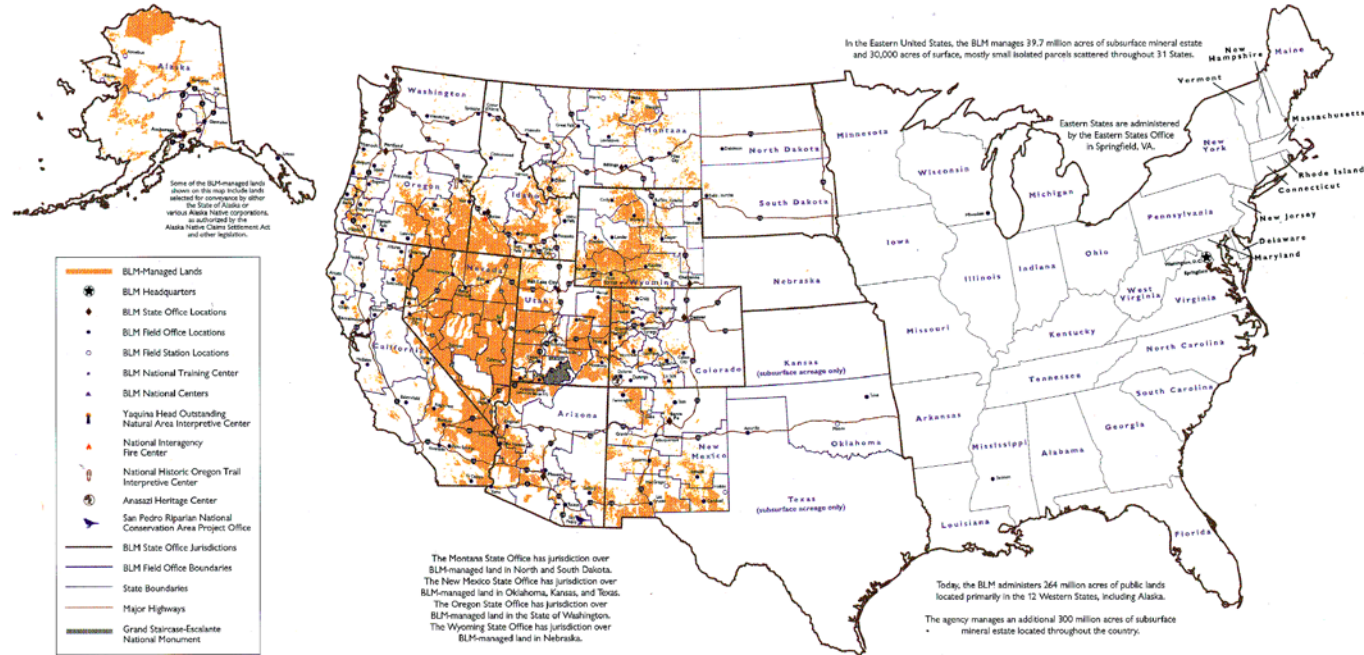
2021 – Scheduled Disposal of the Federal Helium System, per HSA



# Interior Organizational Chart



# Public Lands Managed by the Bureau of Land Management (BLM)



The BLM, a sub unit of the U.S. Department of the Interior manages over 245 million surface acres and over 700 million sub-surface acres



# Amarillo Field Office Organization

## 51 Field Office Employees (Helium Operations)

- Downtown Amarillo Office – 801 S Fillmore
- Cliffside Helium Plant – 12 miles NW of Amarillo, TX
- Satanta Field Station – Satanta, KS

## 15 New Mexico State Office Employees (Helium Resources)

- Manages helium royalties associated with natural gas extraction on Federal lands
- Co-located in the Fillmore Office

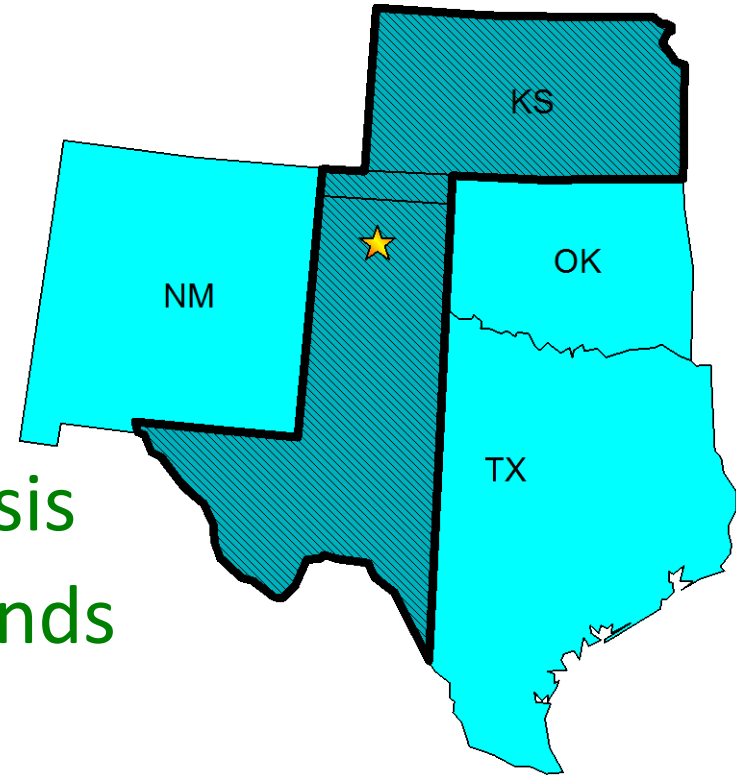
**Approved Employees 66**  
**Current Employees 58**  
**Vacancies 8**



# BLM – Amarillo Field Office

## 4 Main Helium Functions

- Storage & Transmission
- Crude Helium Sales
- Resource Evaluation & Gas Analysis
- Helium Royalties from Federal Lands



# Cliffside Refiners Limited Partnership (CRLP)

- The refiners comprising the CRLP are Air Products, Praxair, and Linde
- Partnership between the BLM and CRLP began in 2003 under a 15-year agreement
- CRLP provided construction capital to construct HEU administered through Cooperative Agreements
- CRLP also provides major maintenance activities during annual plant shutdowns
- BLM – Manages Gas Field Production, Leases and Operates HEU





# Current Storage Contract Holders

## Company

Linde Gas North America, LLC

Praxair, Inc.

Air Products, L.P.

Air Liquide Helium America, Inc.

Pioneer Natural Resources USA, Inc

Keyes Helium Co., LLC

Matheson Tri-Gas, Inc.

Airgas Merchant Gases

Global Gases America

Linn Energy

IACX

## Contract Number

2016-3249

2016-3251

2016-3256

2016-3284

2016-3286

2016-3287

2016-3288

2016-3290

2016-3293

2016-3296

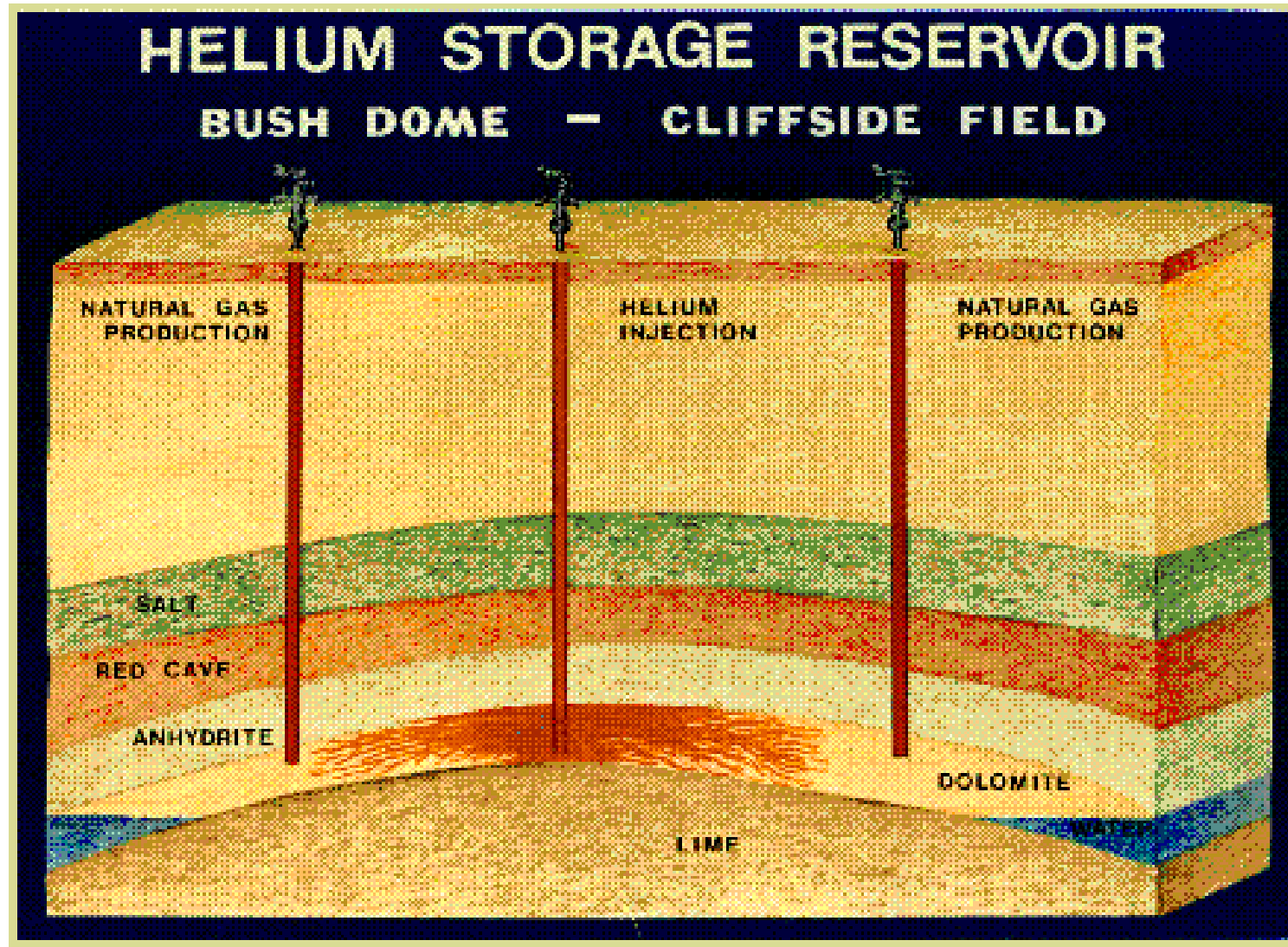
2016-3297



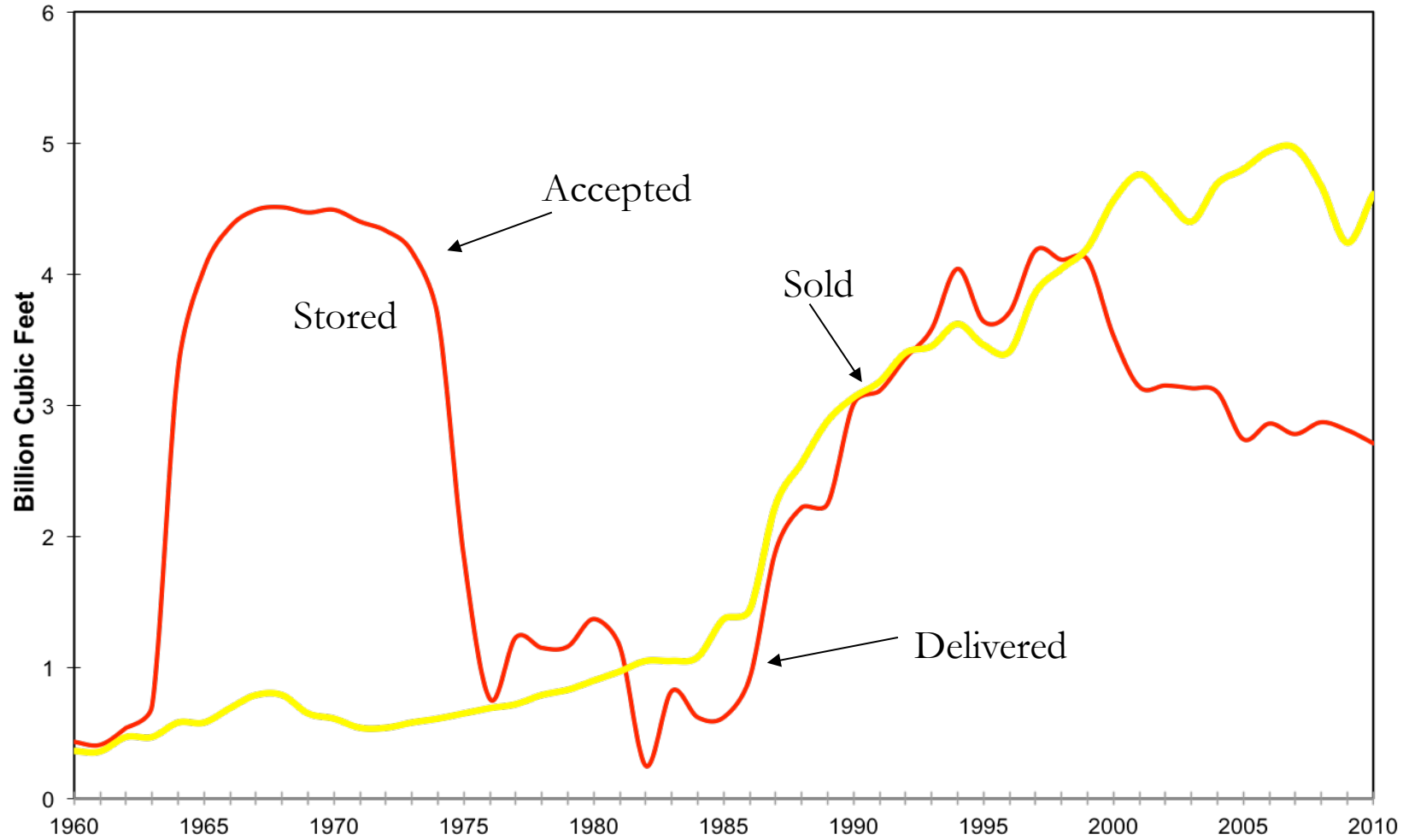
# Cliffside Helium Plant



# Helium Storage Reservoir – Bush Dome



# U.S. Helium Recovery



# Helium Enrichment Unit Cliffside Field



September 2016



# New Crude Helium Compressor



September 2016

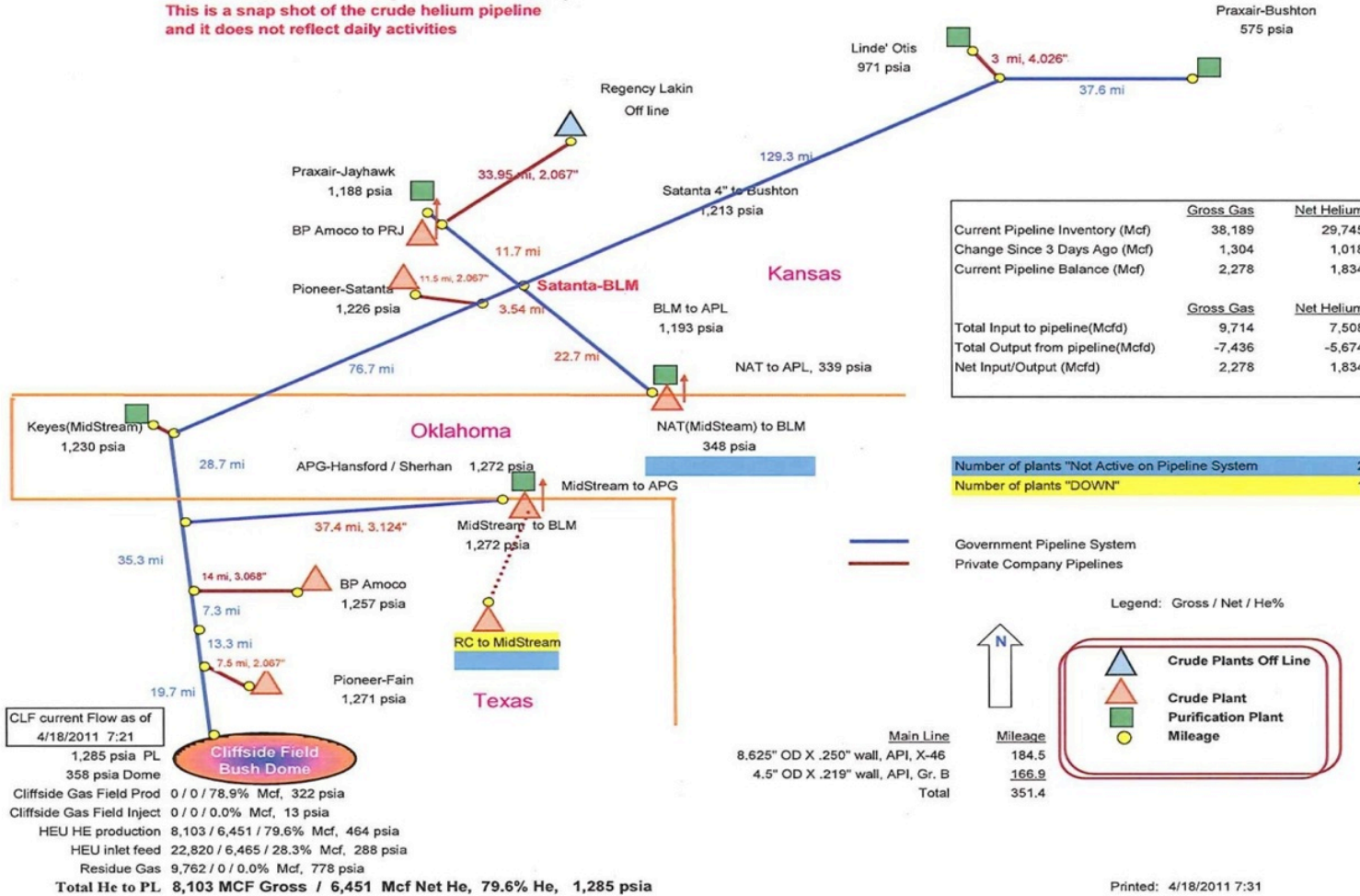


# Daily Pipeline Activity Report

Bureau of Land Management (BLM)  
Crude Helium Pipeline Activity

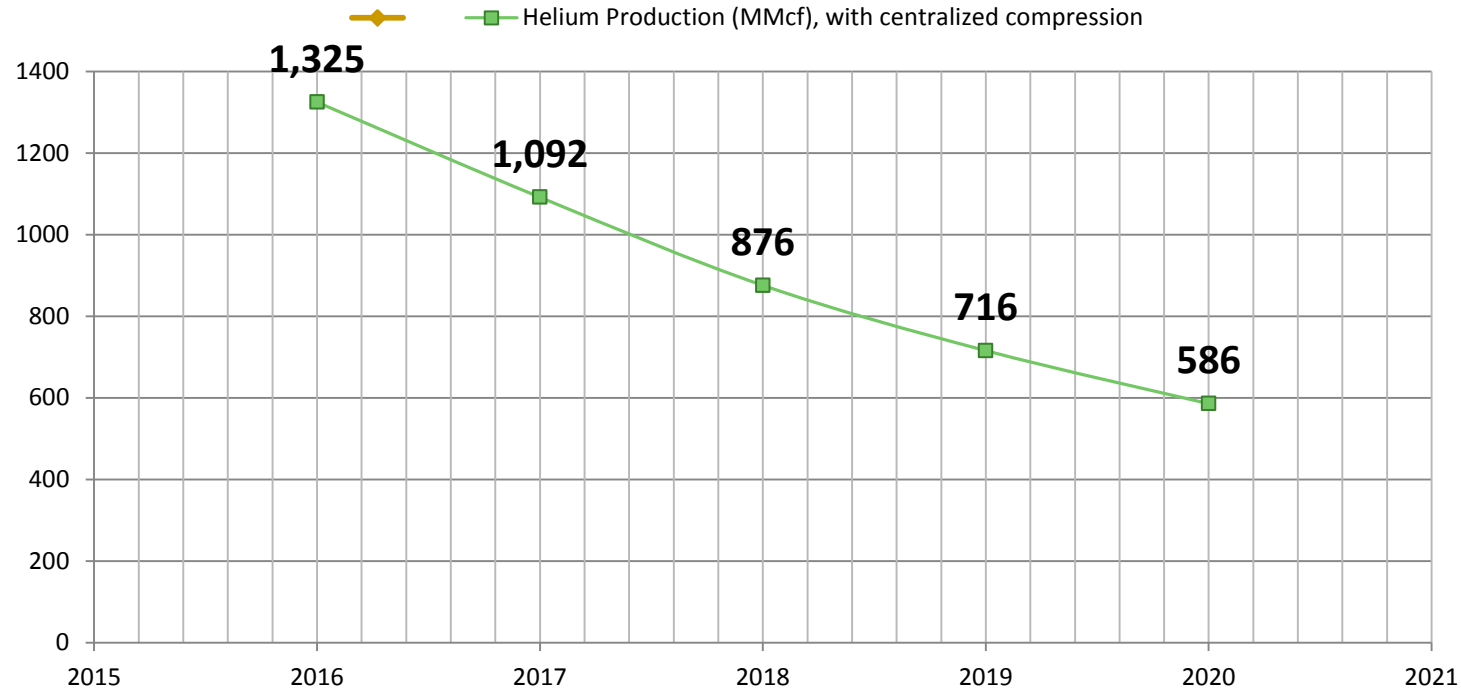
Date: 4/18/2011

This is a snap shot of the crude helium pipeline  
and it does not reflect daily activities



# Production Capacity

FY2016 and beyond production capacity is dependent field pressure



Fiscal Year	Helium Production (MMcf), with centralized compression
2016	1,325
2017	1,092
2018	876
2019	716
2020	586

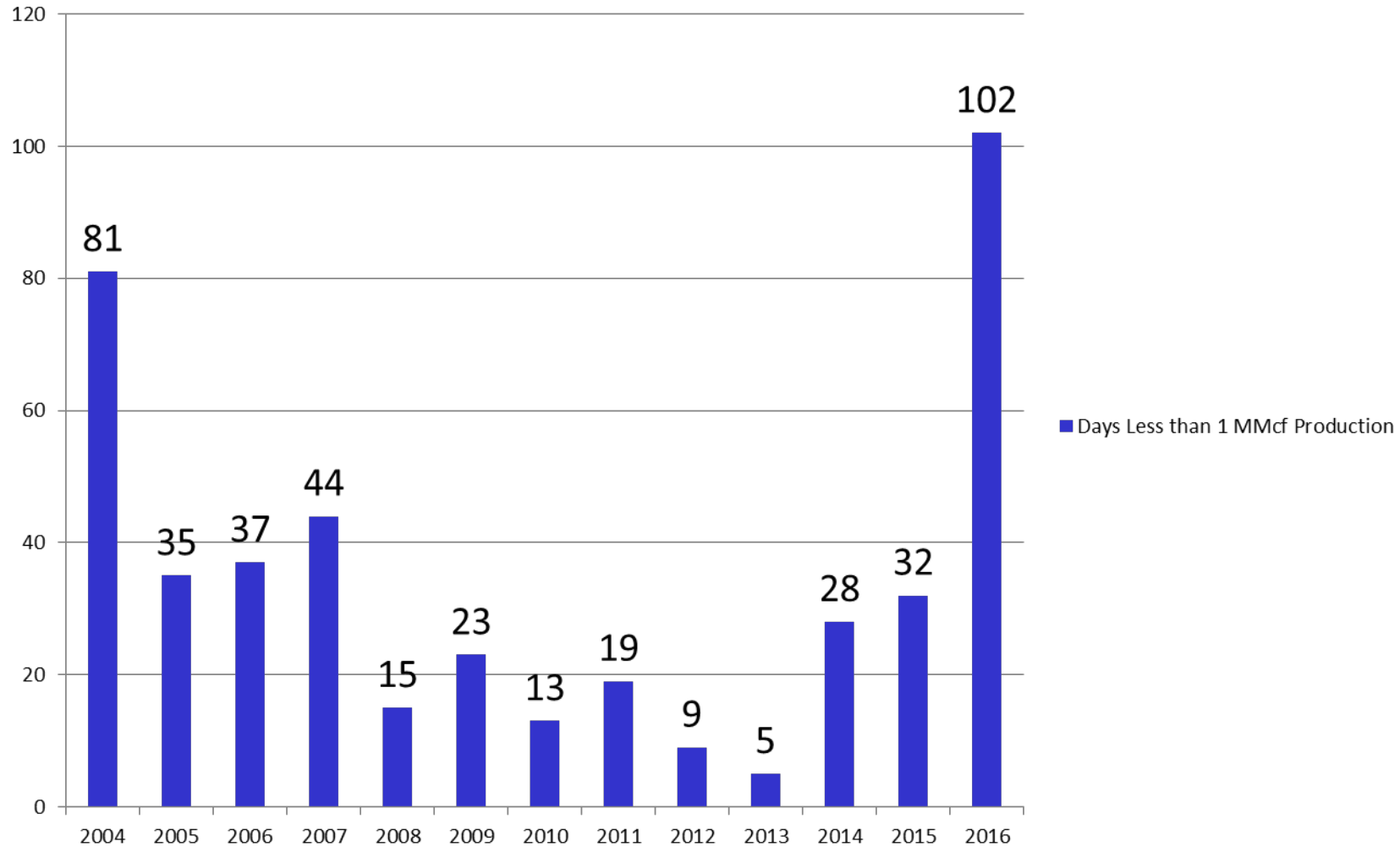
**Total Crude Helium Delivery Capability through 2021 with centralized compression 4,595 MMcf**





# Outages

FY2004 to Present - CHEU Outages



# Key Figures and Dates

■ Total Program Revenue	<b>\$1,876,203,782</b>	
		<b>Bcf</b>
■ *Projected Balance =	<b>8,357,539,000</b>	<b>(8.4)</b>
■ Public	4,537,539,000	(4.5)
■ Private	3,820,000,000	(3.8)
■ Remaining Helium Available for Private Sale	<b>1,537,539,000</b>	<b>(1.5)</b>
■ Remaining Production	<b>4,595,000,000</b>	<b>(4.6)</b>
■ Disposal of Assets	<b>September 30, 2021</b>	
■ Cliffside Gas Field		
■ Federal Helium Pipeline		
■ Federal Helium Reserve		



# Look Ahead

## ■ Short-Term

- October 1 - Leadership Transition
- October 15 – 10-Day Planned Outage
- March 2017 - Central compressor tie-in
- April 2017 – Federal End Users Forum in Amarillo, TX
- June 2017 – 4<sup>th</sup> Auction and Sale of Crude Helium in Amarillo

## ■ Mid-Term

- FY2018 - Final Crude Helium Auction and Sale
- April 2018 – Expiration of the 15-year agreement with the CRLP
- Continued support to Federal end-users and delivery of privately held crude helium

## ■ Long-Term

- Drafting of new In Kind regulations (43 CFR 3195)
- September 30, 2021 – Disposal of the Federal Helium System
  - the Federal Helium Reserve;
  - the Cliffside Field;
  - the Federal Helium Pipeline; and
  - all other infrastructure owned, leased, or managed under contract by the Secretary...



# Questions

Point of Contact for detailed questions pertaining to  
the Federal Helium Program:

Website: [Amarillo Field Office website](http://www.blm.gov/nm/amarillo)

[www.blm.gov/nm/amarillo](http://www.blm.gov/nm/amarillo)

Amarillo Field Manager

801 S. Fillmore, Suite 500

Amarillo, TX 79105

wk: 806-356-1002

cell: 806-683-7730

