

Bureau of Land Management

Amarillo Field Office Helium Operations



Statistical Report for August - 2003



Distribution:

Fluid Minerals Group Manager, Washington Office
NMSO, New Mexico State Director
NMSO, Associate State Director
NMSO, Petroleum Engineer
Field Manager, Amarillo Field Office
Assistant Field Managers (3)
Team Leaders
-Federal Leased Lands
-Resources Evaluation & Gas Analysis
-Natural Gas Engineering

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Amarillo, Texas

Issued: October 21, 2003

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Approved for distribution: *Nelson R. Bullard*

Date: 10/21/2003

Table 1 - Summary of Helium Operations

August - 2003

In Kind Sales		NASA*	Navy*	Army*	Air Force*	DOE*	Other Fed*	Subtotal*	In Kind	Charges Billed (\$)**	
Total month		0	0	0	0	0	0	0	0	\$0	
Total FYTD		93,865	(4,682)	58	20,380	25,187	20,535	155,344	152,942	\$7,985,806	
Total CYTD		67,057	3,037	58	12,173	21,015	9,264	112,604	110,862	\$5,819,010	
In Kind Transfers		Month		FYTD		CYTD		Cumulative			
Transferred		53,410		234,520		152,766		1,159,852			
Volume outstanding		176									
Open Market Sales		Award Volume		Outstanding		Sales		Charges Billed (\$)**			
Total month		0		0		0		\$0			
Total FYTD		1,640,000		410,000		1,230,000		\$64,575,000			
Total CYTD		1,640,000				1,230,000		\$64,575,000			
Open Market Transfers		Month		FYTD		CYTD		Cumulative			
Transferred		208,500		1,230,000		1,230,000		1,230,000			
Volume outstanding		0									
Natural Gas/Liquids Sales		Natural Gas (Mcf)		NGLs (gal)		Decatherms		\$/unit		Charges Billed (\$)**	
Total month		313,300		0		317,500		\$4.8175		\$1,522,654	
Total FYTD		1,001,719		0		1,027,370		\$5.0276		\$5,141,149	
Total CYTD		1,001,719		0		1,027,370		\$5.0276		\$5,141,149	
Purchased Helium	Month			Month	FYTD	Month	FYTD	FYTD	CYTD	Cumulative	
	Helium Mixture	Helium Percent	Helium	Low Purity Helium		Below 50% Helium		Contained Helium			
Total purchased										32,176,145	
Helium transferred			261,910					1,464,520	1,382,766	4,375,192	
Purchased helium in storage										27,800,953	
Private Plant Activity											
Accepted in storage system	94,053	63.7%	59,865	4,430	22,885	(555)	(3,814)	582,782	431,650	7,740,958	
Redelivered from storage system	(259,219)	70.8%	(183,412)	0	0	0	249	(1,806,542)	(1,311,689)	(11,462,597)	
Total apparent crude produced^	193,559	70.1%	135,684					1,527,342	1,046,676	7,977,532	
Total apparent crude refined^	(311,460)	72.1%	(224,616)					(2,398,710)	(1,686,355)	(11,699,171)	
Storage Contract Activity	Metered Gas					Transferred Gas		Stored	Charges Billed (\$)**		
	Gross Gas	Helium	Helium	Helium	Helium	Helium	Helium	Helium	Month	FYTD	
	Month	FYTD	CYTD	Cumulative	Month	Cumulative	EOM				
Crude Acquired	93,470	59,310	578,968	428,471	25,112,189	301,112	27,089,139				
Crude Disposed	259,115	183,412	1,806,293	1,311,461	23,287,977	39,202	25,341,700		\$270,601	Storage Fees	
Grade-A Rdlvrd	0	0	0	0	1,478,718	0	0		\$90,634	RMF Fees	
Net/Balance	(165,645)	(124,102)	(1,227,325)	(882,990)	345,494	261,910	1,747,439	2,092,933	\$361,235	\$2,745,987	
Bush Dome Reservoir Operations		Month		Fiscal Year		Since Start of Conservation Program		Since Field Discovery			
Conservation gases from all sources		Gross	Net	Gross	Net	Gross	Net	Gross	Net		
In underground storage, beg. of period		41,621,521	29,986,209	43,146,344	31,097,065	490,620	490,620	0	0		
Net Activity		(172,101)	(124,102)	(1,696,924)	(1,234,958)	40,958,800	29,371,487	41,449,420	29,862,107		
Total in underground storage		41,449,420	29,862,107	41,449,420	29,862,107	41,449,420	29,862,107	41,449,420	29,862,107		
Native Gas		207,108,525		208,721,080		265,724,755		318,727,000			
Total in place, beg. of period											
Net Activity		(487,083)		(2,099,638)		(59,103,313)		(112,105,558)			
Total in place, end of month		206,621,442		206,621,442		206,621,442		206,621,442			
Native Gas plus Conservation Gases		248,730,046		251,867,424		266,215,375		318,727,000			
Total gases in place, beg. of period											
Net Activity		(659,184)		(3,796,562)		(18,144,513)		(70,656,138)			
Total gases in place, end of month		248,070,862		248,070,862		248,070,862		248,070,862			
Helium Resources Evaluation		Month		FYTD							
Revenue Collected from Federal Lease Holds		\$500,055		\$4,814,481							
Helium Sample Collection Report for month		Submitted	0	Received	0						
				Analyzed	153						
Helium Enrichment Unit Operations		Month			FYTD			Cumulative			
Gas Processed	Helium-Gas Mixture	Helium Percent	Helium	Helium-Gas Mixture	Helium Percent	Helium	Helium-Gas Mixture	Helium Percent	Helium		
Plant feed	631,508	18.3%	115,345	2,318,255	12.9%	298,579	2,318,255	12.9%	298,579		
Helium product	148,035	76.4%	113,043	357,219	75.7%	270,297	357,219	75.7%	270,297		
Residue natural gas	347,557	0.0%	1	1,287,578	0.0%	1	1,287,578	0.0%	1		
Vent, flare & plant losses	170,739	1.3%	2,302	993,286	2.8%	28,281	993,286	2.8%	28,281		
Helium recovery efficiency			98.0%			90.5%			90.5%		

* Volumes in Mcf at 14.7 psia & 70°F; all other volumes in 14.65 psia & 60°F

**Rounded to nearest dollar

^ Other sources of helium are accessed but data are not available

Table 2 - In Kind Helium Sales

August - 2003

	NASA*	Navy*	Army*	Air Force*	DOE*	Other Fed*	Subtotal*	In Kind+	Charges Billed (\$)**	
In Kind Helium										
Aeriform, Contract no. INC98-0101 (billed quarterly)										
Month										
FYTD										
AGA Gas, Inc., Contract no. INC98-0102										
Month										
FYTD										
AirGas, Inc., Contract no. INC98-0103										
Month										
FYTD										
Air Liquide S.A., Contract no. INC98-0104										
Month										
FYTD										
Air Products, L.P., Contract no. INC98-0105										
Month										
FYTD										
BOC Gases, Contract no. INC98-0106										
Month										
FYTD										
Corp Brothers, Inc., Contract no. INC98-0107										
Month										
FYTD										
FIBA Technologies, Inc., Contract no. INC98-0108										
Month										
FYTD										
General Air Service & Supply Co., Contract no. INC98-0109										
Month										
FYTD										
Jack B. Kelley Co., Contract no. INC98-0110										
Month										
FYTD										
Portland Welding Supply, Contract no. INC98-0111										
Month										
FYTD										
Praxair, Inc., Contract no. INC98-0112										
Month										
FYTD										
United States Welding, Inc., Contract no. INC98-0113										
Month										
FYTD										
Tri-Gas, Inc., Contract no. INC98-0114										
Month										
FYTD										
Messer Griesheim Ind., Contract no. INC00-0115										
Month										
FYTD										
Total month	0	0	0	0	0	0	0	0	\$0	
Total FYTD	93,865	(4,682)	58	20,380	25,187	20,535	155,344	152,942	\$7,985,806	
Total CYTD	67,057	3,037	58	12,173	21,015	9,264	112,604	110,862	\$5,819,010	
Cumulative	678,387	16,413	58	162,593	177,548	143,270	1,178,270	1,159,953	\$57,793,849	
In Kind Transfers							Month	FYTD	CYTD	Cumulative
Transferred							53,410	234,520	152,766	1,159,852
Volume outstanding							176			

* Volumes in Mcf at 14.7 psia & 70°F
 + Volumes in Mcf at 14.65 psia & 60°F

**Rounded to nearest dollar

COMPANY PROPRIETARY INFORMATION

Table 2.1 - Open Market/Reserve Sell-down
Helium & Natural Gas Sales

August - 2003

	Award Volume*	Outstanding*	Sales*	Charges Billed (\$) **
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Conservation Helium

Air Liquide S.A.

(billed quarterly)

Month	0	0	0	\$0
FYTD	50,000	12,500	37,500	\$1,968,750
Cumulative	50,000		37,500	\$1,968,750

Air Products, L.P.

Month	0	0	0	\$0
FYTD	680,400	170,100	510,300	\$26,790,750
Cumulative	680,400		510,300	\$26,790,750

BOC Gases

Month	0	0	0	\$0
FYTD	834,000	208,500	625,500	\$32,838,750
Cumulative	834,000		625,500	\$32,838,750

Keyes Helium Co.

Month	0	0	0	\$0
FYTD	75,600	18,900	56,700	\$2,976,750
Cumulative	75,600		56,700	\$2,976,750

Total month	0	0	0	\$0
Total FYTD	1,640,000	410,000	1,230,000	\$64,575,000
Total CYTD	1,640,000		1,230,000	\$64,575,000
Cumulative	1,640,000		1,230,000	\$64,575,000

Open Market Transfers

	Month	FYTD	CYTD	Cumulative
Transferred	208,500	1,230,000	1,230,000	1,230,000
Volume outstanding	0			

* Volumes in Mcf at 14.65 psia & 60°F

Natural Gas (Mcf) **	NGLs (gal)	Decatherms	\$/unit	Charges Billed (\$) **
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Natural Gas/Liquids Sales

El Paso Natural Gas

Provides Firm/Interruptible natural gas transportation services

(billed monthly)

Month	314,432		350,680	(\$0.0783)	(\$27,460)
FYTD	957,462		1,062,105	(\$0.1293)	(\$137,301)
Cumulative	957,462		1,062,105	(\$0.1293)	(\$137,301)

Minerals Management Service

Provides natural gas marketing services under a Cooperative Agreement

Month				\$0.0000	\$0
FYTD				\$0.0000	\$0
Cumulative				\$0.0000	\$0

Cenergy Marketing

Month	313,300	0	317,500	\$4.904010	\$1,550,114
FYTD	1,001,719	0	1,027,370	\$5.161226	\$5,278,449
Cumulative	1,001,719	0	1,027,370	\$5.161226	\$5,278,449

Total month	313,300	0	317,500	\$4.817521	\$1,522,654
Total FYTD	1,001,719	0	1,027,370	\$5.027583	\$5,141,149
Total CYTD	1,001,719	0	1,027,370	\$5.027583	\$5,141,149
Cumulative	1,001,719	0	1,027,370	\$5.027583	\$5,141,149

*** Volumes in Mcf at 14.73 psia & 60°F

**Rounded to nearest dollar

Table 3 - Helium Resources Evaluation

August - 2003

All Volumes in Mcf at 14.7 psia & 70°F

	Month*	FYTD*
Revenue Collected From Federal Leaseholds		
Fee Sales & Royalties	\$499,176	\$4,774,638
Natural Gas Royalties (1)	\$770	\$32,963
Natural Gas Rentals	\$0	\$0
Other	\$5,790	\$63,356
Revenue Collected from Federal Lease Holds	\$500,055	\$4,814,481

*Totals do not sum

	Month	FYTD
Helium Analysis and Evaluation		
Number of Sample Request Letters Sent	0	81
Number of Samples Received	0	20
Number of Samples Analyzed	2	21
Total Number of Samples Analyzed For Resources Division	57	248
Total Number of Samples Analyzed (2)	153	2,244

U. S. Helium Production

CYTD

Domestic

1997 Helium Sold	3,853,991
1998 Helium Sold	4,029,755
1999 Helium Sold	4,203,019
2000 Helium Sold	4,564,589
2001 Helium Sold	4,756,719
2002 Helium Sold	4,584,904
2003 Helium Sold (projected)	4,700,000
Estimated Helium Resources (as of 01/01/2001)	323,000,000

	Month	FYTD	CYTD
U.S. Helium Exports (3)	116,776	1,234,238	891,663

(1) Includes drip gas sales & other miscellaneous gas sales.

(2) Includes pipeline, field survey, and other requested analyses.

(3) Data from Department of Commerce - Bureau of the Census statistics as of: July 2003

Table 4 - Federal Acquisition & Storage Operations

August - 2003

All Volumes in Mcf at 14.65 psia & 60°F

	Month		Month	FYTD	Month	FYTD	FYTD	CYTD	Cumulative
	Helium-Gas Mixture	Helium Percent	Helium	Low Purity Helium	Below 50% Helium	Contained Helium			
Purchased									
Cities Service Helex - Jayhawk		---							6,403,147
National Helium Corp. - Liberal		---							11,561,830
Nothern Helex Co. - Bushton		---							4,475,921
Phillips Petroleum - Dumas		---							5,111,036
Phillips Petroleum - Sherman		---							4,624,211
<i>Total purchased</i>									32,176,145

Purchased helium produced/transferred	261,910					1,464,520	1,382,766		4,375,192
Balance of purchased helium in storage									27,800,953

Bureau Plants

Delivery/Handling Credit	0	---	0			0			13,205,259
Withdrawal	0	---	0			5			7,540,255

Private Plants

Helium accepted under terminated contracts (pre-FY96)									16,453,073
Helium redelivered under terminated contracts (pre-FY96)									13,007,062

Pioneer - Fain*									
GPM - Dumas*									
Crescendo - Sunray*									
Air Products - Guymon*									
GPM - Sherhan*									
GPM to APG+									
<i>Total GPM - Sherhan</i>									
Keyes Helium - Sturgis* ^									
Keyes Helium - Sturgis* ^									
<i>Total Keyes Helium - Sturgis* ^</i>									
Pioneer - Satanta*									
Williams - Baker*									
National Helium - Liberal*									
National to APL+									
<i>Total National Helium - Liberal</i>									
Air Products - Liberal*									
Praxair - Jayhawk* ^									
Praxair - Jayhawk* ^									
<i>Total Praxair - Jayhawk* ^</i>									
Amoco to Praxair+									
CIG - Lakin*									
BOC Gases - Otis*									
KN Processing - Bushton*									
KNP to Praxair+									
<i>Total KN Processing - Bushton</i>									
Praxair - Bushton*									

Accepted in storage system	94,053	63.7%	59,865	4,430	22,885	(555)	(3,814)	582,782	431,650	7,740,958
Redelivered from storage system	(259,219)	70.8%	(183,412)			0	249	(1,806,542)	(1,311,689)	(11,462,597)
Total apparent crude produced^	193,559	70.1%	135,684					1,527,342	1,046,676	7,977,532
Total apparent crude refined^	(311,460)	72.1%	(224,616)					(2,398,710)	(1,686,355)	(11,699,171)

- * Denotes CUSTODY TRANSFER activity in to or out of the crude helium pipeline system
- + Denotes activity between private plants that does not enter the crude helium pipeline system
- ^ Other sources of helium are accessed but data are not available

Acquisition & Storage Summary - Contained Helium

	Month	FYTD	Cumulative
Total acquisition	59,865	582,782	69,575,435
Total disposition	183,412	1,806,547	40,939,986
Total stored in conservation system	(123,547)	(1,223,765)	28,635,449
Helium in pipeline system plus apparent losses			(1,226,658)
Helium in underground storage			29,862,107

COMPANY PROPRIETARY INFORMATION

Table 4.1 - Helium Storage Contract Activity

August - 2003

All Volumes in Mcf at 14.65 psia & 60°F

	Metered Gas						Transferred Gas		Stored Helium EOM	Charges Billed (\$)**	
	Gross Gas	Helium %	Helium	Helium			Helium			Month	FYTD
	Month			FYTD	CYTD	Cumulative	Month	Cumulative			
Total All Contracts*											
Crude Acquired	93,470	1	59,310	578,968	428,471	25,112,189	301,112	27,089,139			
Crude Disposed	259,115	1	183,412	1,806,293	1,311,461	23,287,977	39,202	25,341,700		\$270,601	Storage Fees
Grade-A Rdlvrd	0		0	0	0	1,478,718				\$90,634	RMF Fees
Net/Balance	(165,645)		(124,102)	(1,227,325)	(882,990)	345,494	261,910	1,747,439	2,092,933	\$361,235	\$2,745,987
Total Prior Contracts (TERMINATED)											
Crude Acquired				0	0	17,406,129	0	18,196,898			
Crude Disposed				0	0	11,830,863	0	19,148,768			
Grade-A Rdlvrd				0	0	1,478,718					
Number of trailers				0	0	9,834			0		
BOC Gases, Contract no. 1995-3249											
Crude Acquired											
Crude Disposed											
Net/Balance											
Praxair, Inc., Contract no. 1995-3251 months - projected depletion											
Crude Acquired											
Crude Disposed											
Net/Balance											
Air Products, L.P., Contract no. 1995-3256											
Crude Acquired											
Crude Disposed											
Net/Balance											
Oneok Field Services, Contract no. 1995-3258											
Crude Acquired											
Crude Disposed											
Net/Balance											
ExxonMobil Gas Marketing Co., Contract no. 1995-3280											
Crude Acquired											
Crude Disposed											
Net/Balance											
Pioneer, Contract no. 1995-3286											
Crude Acquired											
Crude Disposed											
Net/Balance											
Keys Helium Co., Contract no. 1995-3287 months - projected depletion											
Crude Acquired											
Crude Disposed											
Net/Balance											
Messer Griesheim Ind., Contract no. 1998-3283											
Crude Acquired											
Crude Disposed											
Net/Balance											
Linde Gas AG, Contract no. 2001-3282											
Crude Acquired											
Crude Disposed											
Net/Balance											
Mitsui & Co. (U.S.A.), Inc., Contract no. 2002-3289											
Crude Acquired											
Crude Disposed											
Net/Balance											
Air Liquide S.A., Contract no. 2003-3284											
Crude Acquired											
Crude Disposed											
Net/Balance											
Government Helium											
Crude Acquired							0	32,176,145			
Crude Disposed: In Kind Sales							53,410				
Open Market/Reserve Sell down							208,500	4,375,192			
Net/Balance									27,800,953		

*Includes In Kind and Open Market transfers from Government storage

**Rounded to nearest dollar

COMPANY PROPRIETARY INFORMATION

Table 6 - Helium Enrichment Unit Operations

August - 2003

All Volumes in Mcf at 14.65 psia & 60°F

Gas Processed	Month			FYTD			Cumulative		
	Helium-Gas Mixture	Helium Percent	Helium	Helium-Gas Mixture	Helium Percent	Helium	Helium-Gas Mixture	Helium Percent	Helium
	Plant feed	631,508	18.3%	115,345	2,318,255	12.9%	298,579	2,318,255	12.9%
Helium product	148,035	76.4%	113,043	357,219	75.7%	270,297	357,219	75.7%	270,297
Residue natural gas	347,557	0.0%	1	1,287,578	0.0%	1	1,287,578	0.0%	1
Vent, flare & plant losses	170,739	1.3%	2,302	993,286	2.8%	28,281	993,286	2.8%	28,281
Helium recovery efficiency			98.0%			90.5%			90.5%

Utility Usage	Month			FYTD			Cumulative		
	Gallons/Mcf	KWh	Runtime	Gallons/Mcf	KWh	Runtime	Gallons/Mcf	KWh	Runtime
	Natural gas liquids	0			0			0	
K100 compressor		883,711	740		4,181,264	3,312		4,181,264	3,312
K600 compressor		1,569,805	739		6,349,022	2,902		6,349,022	2,902
K610 compressor			699			2,389			2,389
Other electrical usage		258,958	744		2,081,761	4,120		2,081,761	4,120
Fuel gas	2,968			17,106			17,106		
Water	2,370			12,090			12,090		

HEU Runtime & Charges

Enrichment Unit Runtime

	Month		FYTD		Cumulative	
	Runtime	Percent	Runtime	Percent	Runtime	Percent
Processing feed gas	740	99.5%	3,312	80.4%	3,312	80.4%
Producing helium product	699	94.0%	2,389	58.0%	2,389	58.0%
Producing residue gas	739	99.3%	2,902	70.4%	2,902	70.4%

Enrichment Unit Charges

	Charges Billed (\$)*		
	Month	FYTD	Cumulative
Reservoir Management Fees (RMF)	\$90,634	\$508,622	\$508,622
Total operating costs	(\$889,782)	(\$3,808,848)	(\$3,808,848)
Labor	\$26,695	\$133,475	\$133,475
Compressor fuel	\$9,491	\$17,726	\$17,726
HEU fuel	\$16,247	\$46,158	\$46,158
Electric power	\$102,588	\$218,267	\$218,267
Flare, vent & plant losses	\$267,717	\$1,058,002	\$1,058,002
Other	\$17,250	\$86,250	\$86,250
Sub Total - Items provided by BLM	\$439,988	\$1,559,878	\$1,559,878
Total - Cliffside Refiners, LP, GDA030001	(\$449,794)	(\$2,248,970)	(\$2,248,970)

*Rounded to nearest dollar