

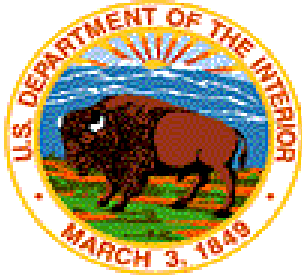
# Bureau of Land Management

Amarillo Field Office

Helium Operations

Statistical Report

for



April - 2016

## *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

-Division Of Helium Operations, -

Engineering and Technical Support

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Amarillo, Texas

Compiled by: Joan Grochowina

Issued: September 13, 2016

**"Please Note: Data in this report is accurate as of print date; however all data is subject to change."**

Approved for Distribution: Samuel R. M. Burton

Date: August 26, 2016

Table 1 - Summary of Helium Operations

April - 2016

**Helium Enrichment Unit Operations**

Gas Processed	Month Gross Volume	Month Net Helium	Average Percent	Gross FYTD	Net FYTD
Measured Plant Feed (Mcf*)	368,329	74,336	20.18%	2,067,417	362,368
Helium Product (Mcf*)	96,565	72,071	74.63%	463,155	343,809
Residue Natural Gas (Mcf*)	170,579	0	00.00%	924,143	128

\* Volumes in Mcf at 14.65 psia & 60°F

**Natural Gas & Liquids Produced**

Gas Processed	Month	FYTD
Natural Gas Sales (Mcf***)	168,661	918,565
NGL Sales (gallons)	59,049	250,355

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

**Bush Dome Reservoir Operations**

Conservation gases from all sources	Month Gross Volume	Month Net Helium	Average Percent	Gross FYTD	Net FYTD
Total Withdrawn (Mcf*)	361,191	68,954	19.09%	2,146,718	383,330
Crude Injection (Mcf*)	3,825	2,847	74.43%	69,888	51,737
Crude Production (Mcf*)	0	0	00.00%	37,008	27,164

\* Volumes in Mcf at 14.65 psia & 60°F

**Storage Operations**

Conservation Helium	Volume Outstanding	Month	FYTD	CYTD	Cumulative
Conservation Crude Sale Volume Sold/Paid (Mcf*)		0	886,000	0	20,952,729
Conservation Crude Sale Volume Transferred (Mcf*)	15,000	0	886,000	0	20,937,729
Conservation Helium in Storage (EOM) (Mcf*)		5,579,204			

\* Volumes in Mcf at 14.65 psia & 60°F

**In Kind Helium**

	Month	FYTD	CYTD	Cumulative
Sale Volumes Transferred (Mcf*)	26,321	81,871	57,106	3,345,413
Sale Volumes Outstanding (Mcf*)	4,086			

\* Volumes in Mcf at 14.65 psia & 60°F

**Private Company Helium Storage Contracts**

Contact Activity	Month Gross Volume	Month Net Helium	Average Percent	Annual Helium FYTD
Crude Acquired (Mcf*)	55,430	38,181	68.88%	280,963
Crude Disposed (Mcf*)	137,831	99,612	72.27%	564,577
Net Balance (Mcf*)	(82,401)	(61,431)		(283,614)
Balance of Stored Helium End Of Month (Mcf*)		2,933,570		

\* Volumes in Mcf at 14.65 psia & 60°F

**Revenue / Charges**

Helium Storage Contracts (Charges Billed (\$))	Month	FYTD
Storage Fees Billed (\$)	\$407,880	\$2,846,883
Reservoir Management Fees Billed (\$)	\$254,561	\$1,527,364

**Field Compressor Charges (Charges Billed (\$))**

	Month	FYTD
Funded by the Refiners (provides for booster compression services)	\$0	(\$217,296)
Cliffside Refiners, LP, by Agreement #GDA010003 (reimburses BLM for fuel, labor, supplies, etc.)	\$0	\$88,817
Net-Total (Funded by the Refiners for compression costs.)	\$0	(\$128,479)

**Enrichment Unit Charges (Charges Billed (\$))**

	Month	FYTD
Reservoir Management Fees (RMF)	\$254,561	\$1,527,364
Total operating costs	(\$842,331)	(\$5,699,385)
Sub Total - Items provided by BLM	\$343,250	\$2,205,820
Total - Cliffside Refiners, LP, GDA030001	(\$499,081)	(\$3,493,564)

**Conservation Helium - Natural Gas - Liquid Sales (Charges Billed (\$))**

	Month	FYTD
Conservation Crude Helium Sales	\$0	\$0
In Kind Sales	\$0	\$4,665,420
Natural Gas & Liquid Sales	\$316,077	\$1,735,093

**Helium Resources Evaluation**

	Month	FYTD
Revenue Collected from Federal Lease Holds	\$1,472,121	\$10,728,038
Helium Sample Collection Report for month	Submitted - 0	Received - 0
		Analyzed - 10

\*Rounded to nearest dollar

Table 2 - Bush Dome Reservoir Operations

April - 2016

		Gross Withdrawal		Net Helium Withdrawal		Nitrogen		Methane	Methane	Ethane plus		Other (CO2, Ar, H2)	
		Month	Cumulative	Month	Cumulative	Month	Cumulative	Month	Cumulative	Month	Cumulative	Month	Cumulative
<b>TOTAL</b>		<b>361,191</b>	<b>223,785,248</b>	<b>68,954</b>	<b>41,892,627</b>	<b>89,745</b>	<b>55,138,665</b>	<b>179,925</b>	<b>113,416,587</b>	<b>19,191</b>	<b>11,461,909</b>	<b>3,377</b>	<b>1,875,460</b>
BIVINS A-3	Apr-16	0	10,961,112	0	3,548,629	0	2,772,147	0	4,159,383	0	407,301	0	73,653
BIVINS A-6	Apr-16	24,506	11,399,314	16,272	6,783,210	5,733	2,800,865	2,142	1,603,299	192	158,682	168	53,256
BIVINS A-13	Apr-16	27,732	8,457,381	9,445	4,450,970	6,985	2,174,850	9,933	1,604,616	1,158	178,140	211	48,806
BIVINS A-14	Apr-16	33,656	9,508,708	10,490	5,484,828	8,411	2,411,007	12,999	1,404,866	1,456	152,096	300	55,912
BIVINS A-4	Apr-16	30,421	13,423,787	3,461	2,383,377	7,338	3,252,665	17,487	6,968,265	1,817	700,119	318	119,362
BUSH A-2	Apr-16	35,627	13,088,251	3,331	1,945,581	8,952	3,208,971	20,840	7,096,992	2,263	727,287	240	109,420
Injection	Apr-16	3,825	66,462,962	2,847	48,011,071	868	17,118,859	85	780,418	0	36	25	552,579
inj Bivins A-3	Apr-16	0	(25,652,315)	0	(18,384,452)	0	(6,554,549)	0	(332,777)	0	0	0	(380,537)
inj Bivins A-6	Apr-16	(3,825)	(24,400,913)	(2,847)	(17,661,262)	(868)	(6,483,865)	(85)	(142,935)	0	(71)	(25)	(112,781)
inj Bivins A-13	Apr-16	0	(6,490,417)	0	(4,706,191)	0	(1,656,853)	0	(122,391)	0	(2)	0	(4,980)
inj Bivins A-14	Apr-16	0	(6,501,333)	0	(4,767,421)	0	(1,602,106)	0	(126,303)	0	(7)	0	(5,497)
inj Bivins A-4	Apr-16	0	(2,527,801)	0	(1,848,815)	0	(601,353)	0	(42,016)	0	0	0	(35,617)
inj Bush A-2	Apr-16	0	(867,658)	0	(625,258)	0	(215,406)	0	(13,980)	0	0	0	(13,015)
Production	Apr-16	0	1,254,876	0	924,742	0	270,231	0	48,129	0	3,199	0	8,575
BIVINS A-1	Apr-16	0	2,686,608	0	48,896	0	636,995	0	1,798,415	0	175,704	0	26,597
BIVINS A-2	Apr-16	8,712	13,968,678	290	1,879,568	2,028	3,421,568	5,712	7,775,878	596	775,199	87	116,465
BIVINS A-5	Apr-16	18,289	15,997,039	3,445	2,036,481	4,673	3,921,500	9,055	8,995,108	976	905,442	140	138,507
BIVINS A-7	Apr-16	8,097	11,787,669	2,570	2,778,833	2,115	2,968,138	3,025	5,403,453	333	551,138	53	86,107
BIVINS A-9	Apr-16	16,206	10,379,416	362	197,740	4,176	2,553,421	10,425	6,842,040	1,111	691,495	133	94,721
BIVINS A-11	Apr-16	87	6,406,609	3	137,956	22	1,593,664	56	4,184,825	6	429,830	1	60,333
BIVINS A-15	Apr-16	26,935	9,774,086	470	429,808	6,335	2,328,657	17,961	6,285,222	1,842	629,322	326	101,076
BIVINS B-1	Apr-16	26,009	7,984,739	580	298,897	6,382	1,934,792	16,988	5,141,586	1,752	527,537	308	81,928
BIVINS B-2	Apr-16	21,405	6,633,640	407	124,996	5,458	1,662,178	13,714	4,309,769	1,446	443,569	380	93,127
BUSH A-1	Apr-16	0	5,721,962	0	104,140	0	1,356,677	0	3,830,281	0	374,216	0	56,647
BUSH A-3	Apr-16	23,071	12,077,382	7,911	2,848,804	5,874	2,986,199	8,199	5,572,593	897	564,240	190	105,546
BUSH A-4	Apr-16	9,263	8,618,965	845	1,577,809	2,375	2,155,676	5,414	4,376,789	578	446,681	52	62,009
BUSH A-5	Apr-16	32,347	16,545,680	8,710	3,803,753	8,281	4,152,972	13,675	7,691,326	1,492	782,675	190	114,954
BUSH A-8	Apr-16	9,976	4,228,979	185	77,501	2,484	1,024,211	6,469	2,792,853	674	281,599	163	52,814
BUSH A-9	Apr-16	0	3,860,915	0	105,037	0	930,915	0	2,537,187	0	253,463	0	34,312
BUSH A-11	Apr-16	5,832	4,539,142	120	132,502	1,402	1,085,674	3,836	2,967,548	393	301,344	81	52,075
BUSH B-1	Apr-16	3,020	3,322,537	58	62,377	721	788,385	1,996	2,220,285	209	218,966	36	32,525
FUQUA A-1	Apr-16	0	2,954,098	0	53,854	0	702,798	0	1,975,175	0	193,573	0	28,699
FUQUA A-2	Apr-16	0	132,119	0	2,404	0	31,322	0	88,458	0	8,637	0	1,297
FUQUA A-3	Apr-16	0	9,303,909	0	577,005	0	2,277,687	0	5,790,357	0	583,701	0	75,160
TT Fuel	Apr-16	0	0	0	0	0	0	0	0	0	0	0	0
field-wide pct's				19.09%	18.72%	24.85%	24.64%	49.81%	50.68%	5.31%	5.12%	0.93%	0.84%

Latest estimates of reserves and feed to HEU

Based on NITEC's 2003 reserves study from NITEC's interim report

As of EOM Apr-16 Volumes in BCF

Initial Gas In Place	330.040	
Produced 1924 to 1961	48.830	
Injected 1924 to 1961	0.450	
Remaining Gas In Place 1961	281.660	
Left Behind Pipe, 1961	82.060	=====> 1.500 BCF of contained helium
Remaining in Place, 1961	199.600	
Gas In Place 1961	199.600	
Produced 1961 to July 2002	82.450	
Injected 1961 to July 2002	64.510	Net Helium
Remaining Gas In Place July 2002	181.660	33.997
Produced July 2002 through Dec 2002	1.096	0.743
Production 2003 - 15	90.147	23.308
Injection 2003 - 15	(1.394)	(1.137)
Produced to Date 2016	1.257	0.237
Injected to Date 2016	(0.017)	(0.013)
Amount of Raw Gas Available to CHEU	90.571	=====> 10.859 total helium in reservoir
Estimated Bottom Hole Pressure	333.548	est z-factor 0.980

\* All volumes on Table 2 are reported in Mcf at 14.65 psia & 60°F

### Table 3 - Gas Volumes & Inventory

April - 2016

#### Crude Helium Enrichment Unit Operations

		Gross Withdrawal		Net Helium Withdrawal		Nitrogen		Methane		Ethane plus		Other (CO2, Ar, H2)	
		Month	Cumulative	Month	Cumulative	Month	Cumulative	Month	Cumulative	Month	Cumulative	Month	Cumulative
Measured Feed	Apr-16	368,329	88,805,811	74,336	21,884,101	91,222	22,271,103	180,195	39,655,916	19,155	4,230,383	3,422	764,308
Calculated Feed	Apr-16	368,742	88,557,771	74,561	21,860,083	91,468	22,204,293	180,094	39,489,283	19,193	4,240,399	3,426	763,714
Feed to Box	Apr-16	365,982	88,006,052	74,561	21,860,262	91,468	22,204,375	180,094	39,489,329	19,191	4,240,399	669	211,688
Cheu Product	Apr-16	96,565	27,551,942	72,071	21,532,448	21,750	5,286,884	2,110	540,673	2	582	634	191,355
Residue	Apr-16	170,579	39,499,274	0	1,910	4,046	975,890	151,168	35,046,862	15,366	3,473,360	0	1,253
Cold Box Vent	Apr-16	61,919	14,969,091	43	88,825	51,637	13,251,476	10,228	1,567,621	0	118	11	61,051
Flare/Boot Strap	Apr-16	61,919	5,485,340	43	49,604	51,637	4,506,478	10,228	829,790	0	93,583	11	5,885
Fuel From Cheu	Apr-16	7,374	1,210,592	4	360	191	35,686	5,947	981,971	1,232	192,575	0	0
Shrinkage/Loss	Apr-16	2,403	433,105	0	0	0	0	0	0	2,403	433,105	0	0
Unaccounted*	Apr-16	26,592	2,849,134	2,434	151,194	13,518	2,129,809	10,454	563,310	162	1,371	24	3,451

\*Before October 2004, the values are estimated

#### Storage Operations

##### Inventory (contained helium)

	Government	Private
Beginning inventory	5,613,245	2,968,680
net acceptances +	0	0
redeliveries	0	(61,431)
In Kind Transfers	(26,321)	26,321
Conservation Crude Sales	0	0
Gain/loss	(7,720)	
Ending Inventory	5,579,204	2,933,570
Total Helium in Reservoir	10,859,008	
Total Helium in Storage	8,512,774	
Helium in native gas	2,346,234	

##### Crude Helium Pipeline

	Gross	Net Helium	Percent
Beginning inventory	42,687	31,329	73.39%
Measured to Pipeline (Private Plants)	55,430	38,266	69.03%
Measured from Pipeline (Private Plant)	137,831	99,612	72.27%
HEU Production	96,565	72,071	74.63%
Injection	3,825	2,847	74.43%
Production	0	0	
Ending Inventory	43,468	31,488	72.44%
Gain/Loss	(9,560)	(7,720)	

#### Tuck Trigg Reservoir Operations

Native Gas (Gross)	Since Field		
	Month	Fiscal Year	Discovery
Total in place, beg. of period	5,198,688	5,198,688	5,890,000
Recoverable in place, beg. of period	4,528,688	4,528,688	5,220,000
Production during period to date	0	0	691,312
Total in place, end of month	5,198,688	5,198,688	5,198,688
Recoverable in place, end of month	4,528,688	4,528,688	4,528,688

\* All volumes on Table 3 are reported in Mcf at 14.65 psia & 60°F

Table 4 - In Kind Helium Sales

April - 2016

	NASA*	Navy*	Army*	Air Force*	DOE*	Other Fed*	Subtotal*	In Kind+	Charges Billed (\$)**	
<b>In Kind Helium</b>										
<b>AirGas South West, Contract no. INC98-0101</b>									(billed quarterly)	
Month										
FYTD										
<b>AirGas North Central, Contract no. INC98-0102</b>										
Month										
FYTD										
<b>AirGas Intermountain, Contract no. INC98-0103</b>										
Month										
FYTD										
<b>Air Liquide Helium America, Inc., Contract no. INC98-0104</b>										
Month										
FYTD										
<b>Air Products, L.P., Contract no. INC98-0105</b>										
Month										
FYTD										
<b>Linde Gas North America, LLC, Contract no. INC98-0106</b>										
Month										
FYTD										
<b>Corp Brothers, Inc., Contract no. INC98-0107</b>										
Month										
FYTD										
<b>FIBA Technologies, Inc., Contract no. INC98-0108</b>										
Month										
FYTD										
<b>General Air Service &amp; Supply Co., Contract no. INC98-0109</b>										
Month										
FYTD										
<b>Praxair, Inc., Contract no. INC98-0112</b>										
Month										
FYTD										
<b>United States Welding, Inc., Contract no. INC98-0113</b>										
Month										
FYTD										
<b>Matheson Tri-Gas, Inc., Contract no. INC98-0114</b>										
Month										
FYTD										
<b>GT &amp; S, Contract no. INC00-0115</b>										
Month										
FYTD										
<b>Global Gases America, Contract no. INC13-0116</b>										
Month										
FYTD										
<b>Total month</b>	0	0	0	0	0	0	0	0	\$0	
<b>Total FYTD</b>	25,533	0	0	0	0	33,656	59,189	58,277	\$4,665,420	
<b>Total CYTD</b>	13,461	0	0	0	0	15,118	28,579	28,139	\$2,374,932	
<b>Cumulative</b>	1,840,619	108,674	450	271,584	421,753	759,032	3,402,112	3,349,424	\$192,303,403	
<b>In Kind Transfers</b>							Month	FYTD	CYTD	Cumulative
Transferred							26,321	81,871	57,106	3,345,413
Volume outstanding							4,086			

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

\*\*Rounded to nearest dollar

Table 5 - Conservation Crude Sales/Reserve Sell-down

April - 2016

## Helium &amp; Natural Gas Sales

	Award Volume*	Outstanding*	Sales*	Charges Billed (\$)**	
<b>Conservation Helium</b>					
<b>(billed quarterly)</b>					
<b>Air Liquide Helium America, Inc.</b>					
Month	0	0	0	\$0	
FYTD	20,000	0	50,000	\$5,230,000	
Cumulative	335,217		335,217	\$25,454,815	
<b>Air Products, L.P.</b>					
Month	0	0	0	\$0	
FYTD	193,875	0	318,875	\$33,038,000	
Cumulative	8,029,436		8,029,436	\$565,835,027	
<b>Linde Gas North America, LLC</b>					
Month	0	0	0	\$0	
FYTD	140,021	0	140,021	\$14,562,184	
Cumulative	6,030,653		6,030,653	\$404,691,853	
<b>Keyes Helium Co., LLC</b>					
Month	0	0	0	\$0	
FYTD	21,000	0	21,000	\$2,184,000	
Cumulative	977,113		977,113	\$66,015,798	
<b>Matheson Tri-Gas, Inc.</b>					
Month	0	0	0	\$0	
FYTD	68,000	0	68,000	\$7,072,000	
Cumulative	107,000		107,000	\$10,569,500	
<b>Praxair, Inc.</b>					
Month	0	0	0	\$0	
FYTD	183,104	0	273,104	\$28,407,816	
Cumulative	5,219,676		5,219,676	\$384,489,780	
<b>Linde Gas, LLC discontinued 10 2008</b>					
Month	0	0	0	\$0	
FYTD	0	0	0	\$0	
Cumulative	200,000		200,000	\$11,035,000	
<b>Global Gases America</b>					
Month	0	0	0	\$0	
FYTD	0	0	0	\$0	
Cumulative	22,967		22,967	\$2,112,565	
<b>Airgas Merchant Gases</b>					
Month	0	0	0	\$0	
FYTD	0	0	0	\$0	
Cumulative	15,667		15,667	\$1,488,365	
<b>IACX Energy</b>					
Month	0	0	0	\$0	
FYTD	0	0	15,000	\$1,575,000	
Cumulative	15,000		15,000	\$1,575,000	
<b>Total month</b>	0	0	0		0
<b>Total FYTD</b>	626,000	0	886,000		\$0
<b>Total CYTD</b>	0		0		\$0
<b>Cumulative</b>	20,952,729		20,952,729		\$1,473,267,703
<b>Conservation Crude Transfers</b>					
		Month	FYTD	CYTD	Cumulative
Transferred		0	886,000	0	20,937,729
Volume outstanding		15,000			

\* Volumes in Mcf at 14.65 psia &amp; 60°F

## Natural Gas/Liquid Sales

	Natural Gas (Mcf)***	NGLs (gal)	Decatherms	Avg Btu Value	Charges Billed (\$)**	
<b>El Paso Natural Gas</b>						
		Provides Measured Firm/Interruptible Transportation Services			(billed monthly)	
Month	168,661	---	186,011	1,103	(\$27,997)	
FYTD	918,565	---	1,013,163	1,103	(\$195,979)	
Cumulative	38,876,549	---	42,656,022	1,097	(\$4,444,394)	
<b>Minerals Management Service</b>						
		No Longer Provides Natural Gas Marketing Services				
Cumulative	---	---	---	---	(\$179,913)	
<b>Tenaska</b>						
		Purchaser - Natural Gas			\$/Unit	
Month	---	---	187,700	\$1.690637	\$317,333	
FYTD	---	---	1,022,891	\$1.783907	\$1,824,742	
Cumulative	---	---	42,340,104	\$4.644555	\$195,824,397	
<b>Sandstone</b>						
		Purchaser - Natural Gas Liquids				
Month	---	59,049	6,332	\$4.223189	\$26,741	
FYTD	---	250,355	26,790	\$3.968994	\$106,329	
Cumulative	---	11,714,654	1,246,465	\$11.836290	\$14,753,521	
	Natural Gas (Mcf)***	NGLs (gal)	Purchased (Dth's)	\$\$ Per Unit (\$\$/Dth)	Total (\$\$)	
<b>Total month</b>	168,661	59,049	194,032	\$1.628993	<b>\$316,077</b>	
<b>Total FYTD</b>	918,565	250,355	1,049,681	\$1.652971	<b>\$1,735,093</b>	
<b>Total CYTD</b>	535,137	117,609	590,114	\$1.538468	<b>\$907,872</b>	
<b>Cumulative</b>	38,876,549	11,714,654	43,586,569	\$4.744126	<b>\$205,953,611</b>	

\*\*\* Volumes in Mcf at 14.73 psia &amp; 60°F

\*\*Rounded to nearest dollar

## Table 6 - Helium Resources Evaluation

April - 2016

All Volumes in Mcf at 14.7 psia & 70°F

<b>Revenue Collected From Federal Leaseholds</b>	Month*	FYTD*
Fee Sales & Royalties	\$1,475,141	\$10,687,784
Natural Gas Royalties (1)	\$0	\$0
Natural Gas Rentals	\$0	\$0
Other	\$39,754	\$286,245
<b>Revenue Collected from Federal Lease Holds</b>	<b>\$1,472,121</b>	<b>\$10,728,038</b>

\*Totals do not sum

<b>Helium Analysis and Evaluation</b>	Month	FYTD
Number of Sample Request Letters Sent	0	0
Number of Samples Received	0	0
Number of Samples Analyzed	2	2
Total Number of Samples Analyzed For Resources Division	2	3
Total Number of Other Samples Analyzed (2)	10	57

### U. S. Helium Production

<i>Domestic</i>	FY Volume	CY Volume
2011 Helium Sold	4,531,140	4,645,930
2012 Helium Sold	4,725,187	4,623,130
2013 Helium Sold	4,279,765	4,166,708
2014 Helium Sold	3,815,746	3,466,014
2015 Helium Sold	4,559,100	4,644,278
Estimated Helium Resources as of 12/31/2006 (Mcf)		732,000,000

	FY-2015	CY-2015
<b>U.S. Helium Exports</b> (3)	2,423,915	2,334,648

(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.

# Table 7 - Helium Storage Contract Activity

April - 2016

All Volumes in Mcf at 14.65 psia & 60°F

	Metered Gas					Transferred Gas Helium		Stored Helium EOM	Charges Month	Billed (\$)** FYTD
	Gross Gas Month	Helium %	Helium	FYTD	Helium CYTD	Cumulative	Month			
<b>Total All Contracts*</b>										
Crude Acquired	55,430	68.9%	38,181	280,963	180,980	30,646,920	77,865	54,829,740		
Crude Disposed	137,831	72.3%	99,612	564,577	374,755	50,953,632	51,544	30,078,986	\$407,880	Storage Fees
Grade-A Rdlvrd	0		0	0	0	1,478,718			\$254,561	RMF Fees
Net/Balance	(82,401)		(61,431)	(283,614)	(193,775)	(21,785,430)	26,321	24,750,754	\$662,441	\$4,374,247
<b>Total Prior Contracts (TERMINATED)</b>										
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		
<b>Linde Gas North America, LLC, Contract no. 3249</b>										
Crude Acquired										
Crude Disposed										
Net/Balance										
<b>Praxair, Inc., Contract no. 3251</b>										
Crude Acquired										
Crude Disposed										
Net/Balance										
<b>Air Products, L.P., Contract no. 3256</b>										
Crude Acquired										
Crude Disposed										
Net/Balance										
<b>IACX Energy, Contract no. 3297</b>										
Crude Acquired										
Crude Disposed										
Net/Balance										
<b>Pioneer Natural Resources USA, Inc, Contract no. 3286</b>										
Crude Acquired										
Crude Disposed										
Net/Balance										
<b>Keyes Helium Co., LLC, Contract no. 3287</b>										
Crude Acquired										
Crude Disposed										
Net/Balance										
<b>Air Liquide Helium America, Inc., Contract no. 3284</b>										
Crude Acquired										
Crude Disposed										
Net/Balance										
<b>Matheson Tri-Gas, Inc., Contract no. 3288</b>										
Crude Acquired										
Crude Disposed										
Net/Balance										
<b>Airgas Merchant Gases, Contract no. 3290</b>										
Crude Acquired										
Crude Disposed										
Net/Balance										
<b>Global Gases America, Contract no. 3293</b>										
Crude Acquired										
Crude Disposed										
Net/Balance										
<b>Linn Operating, Inc., Contract no. 3296</b>										
Crude Acquired										
Crude Disposed										
Net/Balance										

<b>Government Helium</b>	
Remaining Crude Acquired beginning of the month	5,613,245
Crude Disposed: In Kind Sales transferred for the month	(26,321)
Conservation Crude Sales/Reserve Sell Down transferred (month)	0
Gains and Loses for the month	(7,720)
Net/Balance of Purchased Helium Remaining for Sale	5,579,204

\*Includes In Kind and Conservation Crude transfers from Government storage

\*\*Rounded to nearest dollar



## Table 8 - Compression & CHEU (Charges & Operations)

April - 2016

Field/CHEU Compressor Operations		Month	FYTD	Cumulative
Spot gas fuel price *	\$ per/MMBTU	\$1.69	\$1.77	\$4.94
Fuel used * (now includes field compression well head)	total MMBTU	8,525	45,677	1,674,966
Field Compression Fuel Cost *	\$dollars	\$0	\$4,049	\$658,447
CHEU Compression Fuel Cost *	\$dollars	\$9,856	\$47,445	\$4,251,604
CHEU Process Fuel Cost *	\$dollars	\$4,551	\$29,335	\$2,836,760
Rental compressor(s) fuel consumed (well head)	\$dollars	\$0	\$0	\$207,234
Rental Compressor(s) helium in fuel (Mcf x \$\$)	\$dollars	\$0	\$0	\$315,893
Rental compressor(s) helium in fuel (Mcf)	Mcf	0	0	3645
#1 Compressor run time *	hours	720	4,082	99,401
#2 Compressor run time *	hours	691	2,999	62,763
#3 Compressor run time *	hours	32	1,065	59,045

\* Field/CHEU Compressor Operations based on Apr 16 activity

Field Compressor Charges	Charges Billed (\$)*		
Linde Gas North America, LLC, Contract no. 3249			
Praxair, Inc., Contract no. 3251			
Air Products, L.P., Contract no. 3256			
Keyes Helium Co., LLC, Contract no. 3287			
SubTotal - Cliffside Refiners, LP (provides booster compression services)	\$0	(\$217,296)	(\$11,422,651)
Cliffside Refiners, LP, GDA010003 (BLM provided fuel *, labor, supplies, etc.)	\$0	\$88,817	\$2,880,795
<b>Net Total - Cliffside Refiners, LP</b>	<b>\$0</b>	<b>(\$128,479)</b>	<b>(\$8,541,856)</b>

\* BLM provided fuel cost is based on Mar 16 fuel consumed

**\*Rounded to nearest dollar**

Crude Helium Enrichment Unit (CHEU) CHEU Runtime	Month		FYTD		Cumulative
	Runtime Hrs	Percent	Runtime Hrs	Percent	Runtime Hrs
Processing feed gas	720	100.0%	4,631	90.6%	108,995
Producing residue gas	720	100.0%	3,786	74.1%	106,504
Producing helium product	720	100.0%	3,629	71.0%	103,194
Producing natural gas liquids	720	100.0%	3,706	72.5%	102,064

CHEU Charges	Charges Billed (\$)*		
	Month	FYTD	Cumulative
Reservoir Management Fees (RMF)	\$254,561	\$1,527,364	\$31,032,566
Total operating costs	(\$842,331)	(\$5,699,385)	(\$132,923,891)
Labor	\$130,284	\$911,991	\$13,687,194
Compressor fuel cost Mar 16	\$10,270	\$53,058	\$4,288,242
HEU fuel cost Mar 16	\$4,148	\$29,929	\$2,870,016
Electrical power cost Mar 16	\$127,215	\$711,509	\$20,062,613
Other	\$71,333	\$499,334	\$12,716,590
Sub Total - Items provided by BLM	\$343,250	\$2,205,820	\$56,834,009
Total - Cliffside Refiners, LP, GDA030001	(\$499,081)	(\$3,493,564)	(\$76,089,882)

**\*Rounded to nearest dollar**

CHEU Utility Usage	Month	FYTD	Cumulative
Cheu Fuel Gas (Mcf) usage Apr 16	2,330	15,121	525,855
Cheu Pure Water Usage (gallons) Apr 16	357	4,880	289,803
Electricity Metered (Kwh) consumed Mar 16	2,701,676	15,525,627	112,223,498