Bureau of Land Management



Amarillo Field Office **Helium Operations** Statistical Report for

June - 2019

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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Compiled by: Joan Grochowina Amarillo, Texas Issued: October 2, 2019

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

Approved for Distribution: Amanda L. Clark October 1, 2019 Date:

Table 1 - Summary of Helium Operations

June - 2019

Helium Enrichment Unit Operations Gas Processed	Month Gross Volume	Month Net Helium	Average Percent	Gross FYTD	Net FYTD
Measured Plant Feed (Mcf*)	458,331	68,360	14.92%	4,212,197	649,493
Helium Product (Mcf*)	94,208	67,958	72.14%	883,981	645,201
Residue Natural Gas (Mcf*)	228,360	0	0.00%	2,176,120	0
* Volumes in Mcf at 14.65 psia & 60°F			•		

Natural Gas & Liquids Produced

Gas Processed	Month	FYTD
Natural Gas Sales (Mcf***)	226,358	2,157,958
NGL Sales (gallons)	82,944	807,041

^{***} 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Total Withdrawn (Mcf*)	456,432	68,058	14.91%	4,218,999	650,420
Crude Injection (Mcf*)	0	0	00.00%	0	0
Crude Production (Mcf*)	0	0	00.00%	0	0

^{*} 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	0	0	23,073,063
Conservation Crude Sale Volume Transferred (Mcf*)	0	0	0	0	1,203,477
Conservation Helium in Storage (EOM) (Mcf*)		2,855,656			

^{*} Volumes in Mcf at 14.65 psia & 60°F

In Kind Helium	Month	FYTD	CYTD	Cumulative
Sale Volumes Transferred (Mcf*)	1,156	129,889	88,025	3,810,137
Sale Volumes Outstanding (Mcf*)	46,699			

^{*} Volumes in Mcf at 14.65 psia & 60°F

Private Company Helium Storage Contracts	Month	Month		Annual
Contact Activity	Gross Volume	Net Helium	Average Percent	Helium FYTD
Crude Acquired (Mcf*)	8,861	6,238	70.40%	93388
Crude Disposed (Mcf*)	100,631	72,377	71.92%	722600
Net Balance (Mcf*)	(91,770)	(66,139)		(629,212)
Balance of Stored Helium End Of Month (Mcf*)		2,597,211	_	

^{*} Volumes in Mcf at 14.65 psia & 60°F

Revenue / Charges

Helium Storage Contracts (Charges Billed (\$)	Month	FYTD
Storage Fees Billed (\$)	\$454,283	\$4,440,053
Resource Management Fees Billed (\$)	\$312,458	\$2,499,669
Total Storage and RMF Collected	\$766.741	\$6.939.722

Conservation Helium - Natural Gas - Liquid Sales	(Charges Billed (\$)	Month	FYTD
Conservation Crude Helium Sales		\$0	\$0
In Kind Sales		\$3,759,263	\$11,704,092
Natural Gas & Liquid Sales		\$138,435	\$3,476,332

Helium Resources Evaluation	Month	FYTD		
Revenue Collected from Federal Lease Holds			\$1,852,650	\$18,152,531
Helium Sample Collection Report for month	Submitted - 0	Received - 0	Analyzed -	17

Table 2 - Bush Dome Reservoir Operations

June - 2019

		Gross V	Vithdrawal	Net Helium	n Withdrawal	Nitro	ogen	Methane	Methane	Ethan	e plus	Other (CO2, Ar, H2)	1
		Month	Cumulative	Month	Cumulative	Month	Cumulative	Month	Cumulative	Month	Cumulative	Month	Cumulativ
TOTAL		456,432	243,013,098	68,058	<u>45,004,786</u>	112,655	59,909,702	243,986	123,480,570	27,039	12,555,147	<u>4,694</u>	2,062,893
BIVINS A-3	Jun-19	0	10,961,114	0	3,548,629	0	2,772,147	0	4,159,384	0	407,301	0	73,653
BIVINS A-6	Jun-19	42,143	13,098,683	15,601	7,522,946	10,510	3,224,901	14,121	2,075,455	1,575	209,243	336	66,139
BIVINS A-13	Jun-19	30,864	9,694,029	9,418	4,853,642	7,730	2,483,423	12,082	2,068,248	1,396	230,581	237	58,135
BIVINS A-14	Jun-19	35,302	10,955,189	8,381	5,891,238	8,670	2,767,161	16,110	2,009,784	1,806	218,002	335	69,005
BIVINS A-4	Jun-19	29,211	14,764,938	2,777	2,529,753	6,955	3,575,331	17,259	7,743,059	1,879	782,629	341	134,166
BUSH A-2	Jun-19	7,953	14,064,934	342	2,022,213	1,980	3,454,337	4,999	7,679,920	578	792,365	52	116,099
Injection	Jun-19	0	66,474,735	0	48,019,788	0	17,121,580	0	780,676	0	37	0	552,655
inj Bivins A-3	Jun-19	0	(25,652,315)	0	(18,384,452)	0	(6,554,549)	0	(332,777)	0	0	0	(380,537
inj Bivins A-6	Jun-19	0	(24,412,686)	0	(17,669,978)	0	(6,486,588)	0	(143,192)	0	(72)	0	(112,856
inj Bivins A-13	Jun-19	0	(6,490,417)	0	(4,706,191)	0	(1,656,853)	0	(122,391)	0	(2)	0	(4,980
inj Bivins A-14	Jun-19	0	(6,501,333)	0	(4,767,421)	0	(1,602,106)	0	(126,303)	0	(7)	0	(5,497
inj Bivins A-4	Jun-19	0	(2,527,801)	0	(1,848,815)	0	(601,353)	0	(42,016)	0	0	0	(35,617
inj Bush A-2	Jun-19	0	(867,658)	0	(625,258)	0	(215,406)	0	(13,980)	0	0	0	(13,01
Production	Jun-19	0	1,254,876	0	924,742	0	270,231	0	48,129	0	3,199	0	8,57
BIVINS A-1	Jun-19	0	2,686,608	0	48,896	0	636,995	0	1,798,415	0	175,704	0	26,59
BIVINS A-2	Jun-19	17,466	14,723,396	546	1,904,984	4,062	3,597,568	11,411	8,268,056	1,267	828,687	180	124,10°
BIVINS A-5	Jun-19	23,399	16,995,138	4,091	2,219,859	5,906	4,175,786	11,861	9,493,372	1,345	959,691	196	146,43
BIVINS A-7	Jun-19	14,109	12,296,027	4,176	2,929,726	3,626	3,100,037	5,559	5,603,045	650	573,710	99	89,509
BIVINS A-9	Jun-19	26,746	11,533,717	771	227,367	6,780	2,847,225	17,055	7,581,609	1,903	772,814	237	104,702
BIVINS A-11	Jun-19	17,482	7,121,785	525	159,025	4,389	1,774,157	11,150	4,641,254	1,237	479,855	180	67,494
BIVINS A-15	Jun-19	31,687	11,053,716	534	451,815	7,325	2,626,239	21,193	7,139,989	2,227	718,559	408	117,114
BIVINS B-1	Jun-19	30,393	9,220,615	705	327,576	7,394	2,238,009	19,755	5,944,314	2,135	613,108	404	97,607
BIVINS B-2	Jun-19	26,979	7,696,013	503	144,982	6,789	1,929,134	17,301	4,992,738	1,870	517,437	516	111,722
BUSH A-1	Jun-19	0	5,721,962	0	104,140	0	1,356,677	0	3,830,281	0	374,216	0	56,647
BUSH A-3	Jun-19	26,106	13,183,786	8,124	3,210,065	6,521	3,265,675	10,072	5,983,572	1,158	609,574	231	114,900
BUSH A-4	Jun-19	21,244	9,404,132	1,651	1,646,302	5,402	2,356,589	12,638	4,837,791	1,425	496,981	127	66,469
BUSH A-5	Jun-19	38,491	18,123,828	9,192	4,206,984	9,729	4,554,834	17,339	8,377,189	1,990	860,068	241	124,754
BUSH A-8	Jun-19	15,525	4,920,190	284	90,174	3,831	1,195,019	10,057	3,241,160	1,072	329,107	281	64,730
BUSH A-9	Jun-19	0	3,860,915	0	105,037	0	930,915	0	2,537,187	0	253,463	0	34,312
BUSH A-11	Jun-19	15,744	5,041,327	339	143,389	3,754	1,206,168	10,304	3,296,700	1,112	335,866	235	59,20
BUSH B-1	Jun-19	5,587	3,478,404	97	65,108	1,301	824,842	3,719	2,324,041	412	230,322	58	34,09
FUQUA A-1	Jun-19	0	2,954,098	0	53,854	0	702,798	0	1,975,175	0	193,573	0	28,69
FUQUA A-2	Jun-19	0	132,119	0	2,404	0	31,322	0	88,458	0	8,637	0	1,29
FUQUA A-3	Jun-19	0	9,303,912	0	577,005	0	2,277,687	0	5,790,357	0	583,701	0	75,16
TT Fuel	Jun-19	255	0	4	0	60	0	170	0	19	0	3	
field	-wide pcts			14.91%	18.52%	24.68%	24.65%	53.46%	50.81%	5.92%	5.17%	1.03%	0.85

Latest estimates of reserves and feed to HEU

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

est z-factor 0.980

				HOIII WITEC	s interim report	
As of EOM	Jun-19	Volumes in BCF				
Initial Gas In P	lace		330.040			
Produced 1924	1 to 1961		48.830			
Injected 1924 t	o 1961		0.450			
Remaining Gas	s In Place 1961		281.660			
Left Behind Pip	oe, 1961		82.060	====>	1.500	BCF of contained helium
Remaining in F	Place, 1961		199.600			
Gas In Place 1	961		199.600			
Produced 1961	I to July 2002		82.450			
Injected 1961 t	o July 2002		64.510		Net Helium	
Remaining Gas	s In Place July 200	02	181.660		33.997	
Produced July	2002 through Dec	2002	1.096		0.743	
Production 200	3 - 18		108.029		26.256	
Injection 2003	- 18		(1.423)		(1.159)	
Produced to Da	ate 2019		2.648		0.401	
Injected to Dat	e 2019		0.000		0.000	
Amount of Rav	v Gas Available to	CHEU	71.310	====>	7.756	total helium in reservoir
Estimated Bott	om Hole Pressure)	262.687			

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

Crude Helium Enrichment Unit Operations

		Gross V	Gross Withdrawal Net Helium Withdrawal		Nitr	Nitrogen		hane	Ethan	e plus	Other (CO2, Ar, H2)		
		Month	Cumulative	Month	Cumulative	Month	Cumulative	Month	Cumulative	Month	Cumulative	Month	Cumulative
Measured Feed	Jun-19	458,331	107,920,187	68,360	24,969,181	113,127	27,010,997	244,981	49,657,689	27,149	5,333,513	4,714	948,808
Calculated Feed	Jun-19	456,177	107,791,965	68,054	24,964,620	112,595	26,972,269	243,816	49,553,750	27,020	5,350,292	4,691	951,034
Feed to Box	Jun-19	452,114	107,081,170	68,054	24,964,799	112,595	26,972,351	243,816	49,553,796	27,020	5,350,287	629	239,938
Cheu Product	Jun-19	94,208	31,684,906	67,958	24,598,158	23,584	6,240,072	2,064	627,440	1	913	601	218,323
Residue	Jun-19	228,360	49,497,594	0	2,172	5,845	1,204,713	201,699	43,923,349	20,816	4,366,096	0	1,265
Cold Box Vent	Jun-19	66,705	17,655,851	124	90,838	57,873	15,663,717	8,694	1,839,591	0	121	14	61,584
Flare/Boot Strap	Jun-19	66,705	8,172,100	124	51,617	57,873	6,918,719	8,694	1,101,760	0	93,586	14	6,417
Fuel From Cheu	Jun-19	5,570	1,466,661	3	488	144	42,318	4,492	1,188,491	931	235,364	0	0
Shrinkage/Loss	Jun-19	4,524	556,278	0	0	0	0	0	0	4,524	556,278	0	0
Unaccounted*	Jun-19	41,573	4,046,048	(665)	169,189	22,081	2,990,899	20,149	880,934	(0)	1,099	9	3,927

^{*}Before October 2004, the values are estimated

Storage Operations

Helium in native gas

Inventory (contained helium)		
	Government	Private
Beginning inventory	2,858,207	2,662,194
net acceptances +	0	0
redeliveries	0	(66,139)
In Kind Transfers	(1,156)	1,156
Conservation Crude Sales	0	0
Gain/loss	(1,395)	
Ending Inventory	2,855,656	2,597,211
Total Helium in Reservoir	7,755,566	
Total Helium in Storage	5,452,867	

Crude Helium Pipeline

Crude Hellum Pipeline			
_	Gross	Net Helium	Percent
Beginning inventory	27,278	19,279	70.68%
Measured to Pipeline (Private Plants)	8,861	6,283	70.91%
Measured from Pipeline (Private Plant	100,631	72,377	71.92%
HEU Production	94,208	67,958	72.14%
Injection	0	0	00.00%
Production	0	0	
Ending Inventory	27,437	19,748	71.98%
Gain/Loss	(2,279)	(1,395)	

Tuck Trigg Reservoir Operations

Since Field

	_	_	•
Native Gas (Gross)	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

2,302,700

^{*} All volumes on Table 3 are reported in Mcf at 14.65 psia & $60^{\circ}F$

Table 4 - In Kind Helium Sales

June - 2019

	NASA*	Navy*	Army*	Air Force*	DOE*	Other Fed*	Subtotal*	In Kind+	Charges I	Billed (\$)**
				In Kind He	elium					(billed quarterly)
Airgas Merchant C Month FYTD	Gases, Contra	ct no. INC	18-0102							
Air Liquide Helium Month FYTD										
Air Products, L.P., Month FYTD	, Contract no.	INC18-010)5							
Messer, LLC, Con Month FYTD	tract no. INC1	18-0106								
Praxair, Inc., Cont Month FYTD	ract no. INC1	8-0112								
Matheson Tri-Gas Month FYTD	, Inc., Contrac	ct no. INC1	8-0114							
Global Gases Ame Month FYTD	erica, Contrac	t no. INC1	8-0116							
Total month	14,197	69	0	0	0	25,964	40,230	39,607		\$3,759,263
Total FYTD	62,363	69	0	_	0	67,208	129,640	127,632		\$11,704,092
Total CYTD	35,609	69	0	0	0	46,837	82,516	81,238		\$7,714,208
Cumulative	2,110,814	108,754	450	271,593	422,045	1,003,765	3,917,419	3,856,761		\$236,084,662
In Kind Trans Transferred Volume outstanding	fers						Month 1,156 46,699	FYTD 129,889	CYTD 88,025	3,810,137

^{*} Volumes in Mcf at 14.7 psia & 70°F

**Rounded to nearest dollar

Natural Gas / Natural Gas Liquid Sales

	Natural Gas (Mcf)***	NGLs (gal)	Decatherms	Avg Btu Value	Charges I	Billed (\$)**
El Paso Natural Gas		Provides Measure	nsportation Services		(billed monthly)	
Month	226,358		248,997	1,100	\$0	
FYTD	2,157,958		2,379,498	1,103	\$0	
Cumulative	48,845,534		53,176,548	1,089	(\$5,088,325)	
Minerals Manageme	ent Service	No Longer Provides Na	itural Gas Marketing Ser	vices		
Cumulative					(\$179,913)	
ETC Marketing Ltd		Purchaser - Natural Ga	s	\$\$/Unit		
Month			258,500	\$0.408926	\$105,708	
FYTD			2,428,486	\$1.242128	\$3,016,490	
Cumulative			53,045,025	\$4.146552	\$219,127,412	
<u>Sandstone</u>		Purchaser - Natural Ga	- Natural Gas Liquids			
Month		82,944	8,982	\$3.643716	\$32,728	
FYTD		807,041	87,445	\$5.258651	\$459,843	
Cumulative		15,181,613	1,617,609	\$10.515158	\$17,009,414	
	Natural Gas (Mcf)***	NGLs (gal)	Purchased (Dth's)	\$\$ Per Unit (\$\$/Dth)		Total (\$\$)
Total month	226,358	82,944	267,482	\$0.517550		\$138,435
Total FYTD	2,157,958	807,041	2,515,931	\$1.381728		\$3,476,332
Total CYTD	1,133,538	435,531	1,302,733	\$0.853766		\$1,112,230
Cumulative	48,845,534	15,181,613	54,662,634	\$4.238638		\$230,868,588

^{***} Volumes in Mcf at 14.73 psia & 60°F

⁺ Volumes in Mcf at 14.65 psia & 60°F

Table 5 - Conservation Crude Sales/Reserve Sell-down

June - 2019

Helium & Natural Gas Sales

Conservation Helium	1		& Natural Gas S		O.L.	D:II.a. al. (\$**	
Air Liquide Helium America, Inc. Motion Moti		Award Volume*	Outstanding*	Sales*	Charges Billed (\$)**		
Membry		Conservatio	n Helium			(billed quarterly)	
EVECUTE O	Air Liquide Helium America, Inc.						
Compatible 336,217 336,217 \$26,454,815	Month	0	0	0	\$0		
Air Producties, L.P.	FYTD	0	0	0	\$0		
Month	Cumulative	335,217		335,217	\$25,454,815		
EVERTION O O O O O O O O O O O O O O O O O O	Air Products, L.P.						
Section Sect	Month	0	0	0	\$0		
Section Sect	FYTD	0	0	0	\$0		
Moster LLC	Cumulative	9,201,991		9,201,991			
Month		2, 2 ,22		2, 2, 72.2	, , , , , , ,		
EVTD	_	0	0	0	\$0		
Comutative 6,310,276 6,310,276 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,286,782 8,437,2							
New Part			U				
Morth FYTT		0,310,270		0,310,270	ψ437,200,702		
EVTD					60		
Matheson Tri-Gas, Inc.				_			
Matheson Tri-Gas, Inc.			0	_			
Month		1,016,747		1,016,747	\$70,653,572		
EVERT Section Sectio							
Dominative 361,534 361,534 538,417,646							
Present Inc.			0	_	· ·		
Month	Cumulative	361,534		361,534	\$38,417,646		
EYTD	Praxair, Inc.						
Significant	Month	0	0	0	\$0		
Minch	FYTD	0	0	0	\$0		
Month	Cumulative	5,577,644		5,577,644	\$426,522,384		
Part	Global Gases America						
FYTD	Month	0	0	0	\$0		
Comulative 37,767 37,767 37,798,165	FYTD	0	0	0			
Airgas Merchant Gases				37.767	· ·		
Month		01,101		01,101	φο, ι σο, ι σο		
FYTD 0 0 0 0 0 0 \$0 \$1,488,385		0	0	0	€ 0		
Cumulative							
Month			U	_			
Month		15,667		15,667	\$1,488,365		
FYTD 0 0 0 0 0 0 \$0 \$1,720,180 \$		_					
Cumulative							
Uniper Global Commodities North America LLC Month			0				
Month	Cumulative			16,220	\$1,720,180		
Cumulative Complete Cumulative Cumul	Uniper Global Commodities North Americ	a LLC					
Cumulative 42,834 42,834 \$5,301,246 Weil Group Resources LLC Month 0 0 0 \$0 FYTD 0 0 0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 <td< td=""><td>Month</td><td>0</td><td>0</td><td>0</td><td>\$0</td><td></td></td<>	Month	0	0	0	\$0		
Weil Group Resources LLC Month	FYTD	0	0	0	\$0		
Month	Cumulative	42,834		42,834	\$5,301,246		
Month	Weil Group Resources LLC						
FYTD 0 0 0 \$0 Cumulative 22,500 \$2,791,500 NAH USA Helum Marketing, Inc 0 0 0 \$0 Month 0 0 0 \$0 FYTD 0 0 0 \$0 Cumulative 12,834 12,834 \$1,611,246 Progressive Chemical Technologies LLC 0 0 \$0 Month 0 0 \$0 \$0 FYTD 0 0 \$0 \$0 Cumulative 1,500 \$262,500 \$0 Total month 0 0 \$0 \$0 Total FYTD 0 0 \$0 \$0 Total CYTD 0 0 \$0 \$0 Cumulative 23,073,063 \$1,762,102,941 \$1,762,102,941 Conservation Crude Transfers Month FYTD CYTD Cumulative Transferred 0 0 0 0 1,203,477	Month	0	0	0	\$0		
Cumulative 22,500 22,500 \$2,791,500	FYTD						
NAH USA Helum Marketing, Inc Month	Cumulative				· ·		
Month		22,000		22,000	ΨΞ,101,000		
Cumulative	I	_	^	_	\$ 0		
Cumulative							
Progressive Chemical Technologies LLC Month				_	· ·		
Month 0 0 0 \$0 FYTD 0 0 0 \$0 Cumulative 1,500 \$262,500 \$0 Total month 0 0 0 \$0 Total FYTD 0 0 0 \$0 Total CYTD 0 0 \$0 \$0 Cumulative 23,073,063 \$1,762,102,941 \$0 Conservation Crude Transfers Month FYTD CYTD Cumulative Transferred 0 0 0 1,203,477 Volume outstanding 0 0 0 1,203,477		12,834		12,834	\$1,611,246		
Cumulative					0.5		
Cumulative 1,500 1,500 \$262,500 Total month 0 0 0 0 Total FYTD 0 0 0 \$0 Total CYTD 0 0 0 \$0 Cumulative 23,073,063 23,073,063 \$1,762,102,941 Conservation Crude Transfers Month FYTD CYTD Cumulative Transferred 0 0 0 1,203,477 Volume outstanding 0 0 0 1,203,477							
Total month			0	•			
Total FYTD 0 0 0 \$0 Total CYTD 0 0 0 \$0 Cumulative 23,073,063 23,073,063 \$1,762,102,941 Conservation Crude Transfers Month FYTD CYTD Cumulative Transferred 0 0 0 1,203,477 Volume outstanding 0 0 0 1,203,477	Cumulative	1,500		1,500	\$262,500		
Total FYTD 0 0 0 \$0 Total CYTD 0 0 0 \$0 Cumulative 23,073,063 23,073,063 \$1,762,102,941 Conservation Crude Transfers Month FYTD CYTD Cumulative Transferred 0 0 0 1,203,477 Volume outstanding 0 0 0 1,203,477							
Total CYTD 0 0 \$0 Cumulative 23,073,063 23,073,063 \$1,762,102,941 Conservation Crude Transfers Month FYTD CYTD Cumulative Transferred 0 0 0 0 1,203,477 Volume outstanding 0 0 0 1,203,477		0	0	0		0	
Cumulative 23,073,063 23,073,063 \$1,762,102,941 Conservation Crude Transfers Month FYTD CYTD Cumulative Transferred 0 0 0 0 1,203,477 Volume outstanding 0 0 0 0 1,203,477	Total FYTD	0	0	0		\$0	
Conservation Crude TransfersMonthFYTDCYTDCumulativeTransferred0001,203,477Volume outstanding0001,203,477	Total CYTD	0		0		\$0	
Transferred 0 0 0 1,203,477 Volume outstanding 0 0 0 0 1,203,477	Cumulative	23,073,063		23,073,063		\$1,762,102,941	
Transferred 0 0 0 1,203,477 Volume outstanding 0 0 0 0 1,203,477	Conservation Crude Transfers		Month	FYTD	CYTD	Cumulative	
Volume outstanding 0							
				0	0	1,203,477	
	volume outstanding	4111		2005			

^{*} Volumes in Mcf at 14.65 psia & 60°F

All Volumes in Mcf at 14.7 psia & 70°F

Revenue Collected From Federal Leaseholds	Month*	FYTD*
Fee Sales & Royalties	\$1,855,601	\$18,104,580
Natural Gas Royalties (1)	\$0	\$0
Natural Gas Rentals	\$0	\$0
Other	\$47,950	<u>\$580,189</u>
Revenue Collected from Federal Lease Holds	\$1,852,650	\$18,152,531

^{*}Totals do not sum

Helium Analysis and Evaulation	Month	FYTD
Number of Sample Request Letters Sent	0	0
Number of Samples Received	0	0
Number of Samples Analyzed	0	0
Total Number of Samples Analyzed For Resources Division	0	0
Total Number of Other Samples Analyzed (2)	17	164

U. S. Helium Production

Domestic	FY Volume	CY Volume
2013 Helium Sold	4,725,187	4,623,130
2014 Helium Sold	4,279,765	4,166,708
2015 Helium Sold	3,815,746	3,463,698
2016 Helium Sold	3,282,185	3,466,014
2017 Helium Sold	4,559,100	4,644,278
Estimated Helium Resources as of 12/31/2016 (Mcf)		723,000,000

	FY-2017	CY-2017
U.S. Helium Exports (3)	2,520,645	2,451,207
US Helium Imports	731,407	666,908

- (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

June - 2019

All Volumes in Mcf at 14.65 psia & 60°F Metered Gas Transferred Gas Stored Charges Billed Helium h Cumulative Gross Gas Helium % Helium CYTD Cumulative Helium Helium (\$)* FYTD Month **FYTD** Month EOM Total All Contracts* Crude Acquired 8,861 70.4% 6,238 93,388 67,330 27,433,552 8,980 61,064,863 Crude Disposed 100,631 71.9% 72,377 722,600 466,815 54,577,278 7,824 26,815,249 \$454,282,99 Storage Fees Grade-A Rdlvrd 0 0 0 0 1,478,718 \$312,457.68 RMF Fees 1,156 34,249,614 \$6,939,722 Net/Balance (91,770)(66,139) (629,212) (399,485) (28,622,444) 2,597,211 \$766,740.67 **Total Prior Contracts (TERMINATED)** 0 0 17,406,129 0 18,196,898 Crude Acquired 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 Messer, LLC, Contract no. 3249 Crude Acquired Crude Disposed Net/Balance Praxair, Inc., Contract no. 3251 Crude Acquired Crude Disposed Net/Balance Air Products, L.P., Contract no. 3256 Crude Acquired Crude Disposed Net/Balance Air Liquide Helium America, Inc., Contract no. 3284 Crude Acquired Crude Disposed Net/Balance Keyes Helium Co., LLC, Contract no. 3287 Crude Acquired Crude Disposed Net/Balance Matheson Tri-Gas, Inc., Contract no. 3288 Crude Acquired Crude Disposed Net/Balance Airgas Merchant Gases, Contract no. 3290 Crude Acquired Crude Disposed Net/Balance Global Gases America, Contract no. 3293 Crude Acquired Crude Disposed Net/Balance Linn Operating, Inc., Contract no. 3296 Crude Acquired Crude Disposed Net/Balance IACX Energy, Contract no. 3297 Crude Acquired Crude Disposed Net/Balance Uniper Global Commodities North America LLC, Contract no. 3298 Crude Acquired Crude Disposed Weil Group Resources LLC, Contract no. 3299 Crude Acquired Crude Disposed Net/Balance NAH USA Helum Marketing, Inc, Contract no. 3300 Crude Acquired Crude Disposed Net/Balance Progressive Chemical Technologies LLC, Contract no. 3301 Crude Acquired Crude Disposed

Government Helium				
Remaining Crude	Acquired beginning of the month	2,858,207		
Crude Disposed:	In Kind Sales transferred for the month	(1,156)		
	Conservation Crude Sales/Reserve Sell Down transferred (ı	0		
	Gains and Loses for the month	(1,395)		
Net/Balance of Pu	rchased Helium Remaining for Sale	2,855,656		

Net/Balance

Table 8 - Compression & CHEU (Operations)

June - 2019

Field/CHEU Compressor Operations		Month	FYTD	Cumulative
Spot gas fuel price ∗	\$ per/MMBTU	\$0.41	\$1.37	\$4.52
Fuel used * (now includes field compression well head)	total MMBTU	6,652	66,680	1,973,963
#1 Compressor run time *	hours	671	4,827	121,675
#2 Compressor run time *	hours	634	2,440	82,070
#3 Compressor run time *	hours	41	4,218	68,037

^{*} Field/CHEU Compressor Operations based on Jun 19 activity

Crude Helium Enrichment Unit (CHEU)	Month		FYTD		Cumulative
CHEU Runtime	Runtime Hrs	Percent	Runtime Hrs	Percent	Runtime Hrs
Processing feed gas	703	97.6%	6,278	95.8%	135,913
Producing residue gas	690	95.9%	6,129	93.5%	132,762
Producing helium product	639	88.8%	5,976	91.2%	128,932
Producing natural gas liquids	683	94.8%	6,085	92.9%	128,123

CHEU Utility Usage	Month	FYTD	Cumulative
Cheu Fuel Gas (Mcf) usage Jun 19	2,879	26,383	637,517
Cheu Pure Water Usage (gallons) Jun 19	1,277	5,244	321,408
Electricity Metered (Kwh) consumed May 19	2,883,035	25,947,315	204,884,937