

Bureau of Land Management

Amarillo Field Office

Helium Operations

Statistical Report

for



September - 2018

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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Issued: November 5, 2018

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

Approved for Distribution: Marjore Bourque

Date: November 2, 2018

Table 1 - Summary of Helium Operations

September - 2018

Helium Enrichment Unit Operations

Gas Processed	Month Gross Volume	Month Net Helium	Average Percent	Gross FYTD	Net FYTD
Measured Plant Feed (Mcf*)	508,419	79,535	15.64%	6,361,687	1,018,931
Helium Product (Mcf*)	106,124	78,534	74.00%	1,375,018	1,021,526
Residue Natural Gas (Mcf*)	266,883	0	0.00%	3,418,241	40

* Volumes in Mcf at 14.65 psia & 60°F

Natural Gas & Liquids Produced

Gas Processed	Month	FYTD
Natural Gas Sales (Mcf***)	264,847	3,420,667
NGL Sales (gallons)	104,491	1,228,584

*** 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Total Withdrawn (Mcf*)	512,876	80,181	15.63%	6,373,840	1,020,785
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*)		300,000	315,000	300,000	23,073,063
Conservation Crude Sale Volume Transferred (Mcf*)	0	300,000	315,000	300,000	1,203,477
Conservation Helium in Storage (EOM) (Mcf*)		2,997,042			

* Volumes in Mcf at 14.65 psia & 60°F

In Kind Helium

	Month	FYTD	CYTD	Cumulative
Sale Volumes Transferred (Mcf*)	0	158,560	123,847	3,680,248
Sale Volumes Outstanding (Mcf*)	48,956			

* 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*)	11,310	7,190	63.57%	118523
Crude Disposed (Mcf*)	116,501	85,187	73.12%	1137294
Net Balance (Mcf*)	(105,191)	(77,997)		(1,018,771)
Balance of Stored Helium End Of Month (Mcf*)		3,095,034		

* Volumes in Mcf at 14.65 psia & 60°F

Revenue / Charges

Helium Storage Contracts (Charges Billed (\$))	Month	FYTD
Storage Fees Billed (\$)	\$66,446	\$6,680,451
Reservoir Management Fees Billed (\$)	\$0	\$1,953,272

Conservation Helium - Natural Gas - Liquid Sales

(Charges Billed (\$))	Month	FYTD
Conservation Crude Helium Sales	\$74,540,000	\$76,355,000
In Kind Sales	\$3,600,304	\$14,449,356
Natural Gas & Liquid Sales	\$527,399	\$8,952,324

Helium Resources Evaluation

	Month	FYTD
Revenue Collected from Federal Lease Holds	\$41,055	\$19,152,181
Helium Sample Collection Report for month	Submitted - 0	Received - 0
		Analyzed - 15

*Rounded to nearest dollar

Table 2 - Bush Dome Reservoir Operations

#####

		Gross Withdrawal		Net Helium Withdrawal		Nitrogen		Methane	Methane	Ethane plus		Other (CO2, Ar, H2)	Cumulative
		Month	Cumulative	Month	Cumulative	Month	Cumulative	Month	Cumulative	Month	Cumulative	Month	
TOTAL		512,876	238,794,099	80,181	44,354,366	126,410	58,867,921	271,599	121,242,305	29,654	12,308,655	5,033	2,020,852
BIVINS A-3	Sep-18	0	10,961,113	0	3,548,629	0	2,772,147	0	4,159,384	0	407,301	0	73,653
BIVINS A-6	Sep-18	47,454	12,700,197	19,131	7,369,699	11,870	3,125,362	14,501	1,947,047	1,578	195,103	374	62,987
BIVINS A-13	Sep-18	33,707	9,410,195	10,689	4,765,064	8,454	2,412,280	12,841	1,958,865	1,464	218,029	258	55,957
BIVINS A-14	Sep-18	38,495	10,633,377	10,207	5,810,935	9,502	2,687,901	16,602	1,866,483	1,827	202,073	358	65,986
BIVINS A-4	Sep-18	32,859	14,493,915	3,391	2,502,779	7,856	3,510,660	19,200	7,583,851	2,045	765,558	367	131,067
BUSH A-2	Sep-18	9,328	13,994,638	422	2,019,134	2,327	3,436,824	5,860	7,635,729	659	787,316	60	115,636
Injection	Sep-18	0	66,474,735	0	48,019,788	0	17,121,580	0	780,676	0	0	37	552,655
inj Bivins A-3	Sep-18	0	(25,652,315)	0	(18,384,452)	0	(6,554,549)	0	(332,777)	0	0	0	(380,537)
inj Bivins A-6	Sep-18	0	(24,412,686)	0	(17,669,978)	0	(6,486,588)	0	(143,192)	0	(72)	0	(112,856)
inj Bivins A-13	Sep-18	0	(6,490,417)	0	(4,706,191)	0	(1,656,853)	0	(122,391)	0	(2)	0	(4,980)
inj Bivins A-14	Sep-18	0	(6,501,333)	0	(4,767,421)	0	(1,602,106)	0	(126,303)	0	(7)	0	(5,497)
inj Bivins A-4	Sep-18	0	(2,527,801)	0	(1,848,815)	0	(601,353)	0	(42,016)	0	0	0	(35,617)
inj Bush A-2	Sep-18	0	(867,658)	0	(625,258)	0	(215,406)	0	(13,980)	0	0	0	(13,015)
Production	Sep-18	0	1,254,876	0	924,742	0	270,231	0	48,129	0	3,199	0	8,575
BIVINS A-1	Sep-18	0	2,686,608	0	48,896	0	636,995	0	1,798,415	0	175,704	0	26,597
BIVINS A-2	Sep-18	21,822	14,555,847	724	1,899,604	5,073	3,558,791	14,263	8,159,123	1,542	815,972	220	122,357
BIVINS A-5	Sep-18	26,984	16,777,345	4,791	2,181,245	6,826	4,120,652	13,635	9,383,132	1,514	947,689	219	144,627
BIVINS A-7	Sep-18	15,627	12,165,298	4,609	2,890,910	4,029	3,066,393	6,177	5,551,613	705	567,783	107	88,601
BIVINS A-9	Sep-18	31,003	11,283,356	847	220,292	7,817	2,783,738	19,855	7,421,931	2,209	754,921	276	102,474
BIVINS A-11	Sep-18	20,677	6,956,809	610	154,093	5,168	1,732,702	13,221	4,536,090	1,465	468,137	213	65,786
BIVINS A-15	Sep-18	35,009	10,762,531	591	446,884	8,060	2,558,837	23,442	6,945,424	2,467	698,025	449	113,361
BIVINS B-1	Sep-18	32,822	8,943,931	773	321,099	8,006	2,170,635	21,366	5,764,375	2,262	593,835	415	93,988
BIVINS B-2	Sep-18	29,955	7,458,638	537	140,476	7,254	1,870,431	19,575	4,839,487	2,139	500,302	451	107,942
BUSH A-1	Sep-18	0	5,721,962	0	104,140	0	1,356,677	0	3,830,281	0	374,216	0	56,647
BUSH A-3	Sep-18	30,136	12,935,469	9,499	3,132,487	7,560	3,203,516	11,552	5,887,884	1,270	598,870	256	112,712
BUSH A-4	Sep-18	23,741	9,204,057	2,022	1,629,879	6,044	2,305,500	13,991	4,718,981	1,544	484,348	139	65,349
BUSH A-5	Sep-18	42,627	17,765,671	10,537	4,120,004	10,801	4,464,229	18,911	8,217,054	2,119	841,891	258	122,493
BUSH A-8	Sep-18	17,380	4,776,672	313	87,562	4,243	1,159,631	11,311	3,148,190	1,212	319,134	301	62,155
BUSH A-9	Sep-18	0	3,860,915	0	105,037	0	930,915	0	2,537,187	0	253,463	0	34,312
BUSH A-11	Sep-18	18,163	4,892,749	401	140,139	4,340	1,170,639	11,903	3,199,187	1,259	325,625	261	57,159
BUSH B-1	Sep-18	5,088	3,440,152	88	64,445	1,179	815,932	3,394	2,298,584	375	227,495	52	33,696
FUQUA A-1	Sep-18	0	2,954,098	0	53,854	0	702,798	0	1,975,175	0	193,573	0	28,699
FUQUA A-2	Sep-18	0	132,119	0	2,404	0	31,322	0	88,458	0	8,637	0	1,297
FUQUA A-3	Sep-18	0	9,303,912	0	577,005	0	2,277,687	0	5,790,357	0	583,701	0	75,162
TT Fuel	Sep-18	127	0	2	0	29	0	84	0	9	0	1	0
field-wide pct				15.63%	18.57%	24.65%	24.65%	52.96%	50.77%	5.78%	5.15%	0.98%	0.85%

Latest estimates of reserves and feed to HEU

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

As of EOM Sep-18 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 - 17	101.638	25.237
Injection 2003 - 17	(1.423)	(1.159)
Produced to Date 2018	4.820	0.770
Injected to Date 2018	0.000	0.000
Amount of Raw Gas Available to CHEU	75.529	====> 8.406 total helium in reservoir
Estimated Bottom Hole Pressure	278.208	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

September - 2018

Crude Helium Enrichment Unit Operations

		Gross Withdrawal		Net Helium Withdrawal		Nitrogen		Methane		Ethane plus		Other (CO ₂ , Ar, H ₂)	
		Month	Cumulative	Month	Cumulative	Month	Cumulative	Month	Cumulative	Month	Cumulative	Month	Cumulative
Measured Feed	Sep-18	508,419	103,707,991	79,535	24,319,688	125,303	25,970,863	269,201	47,423,147	29,393	5,087,440	4,987	906,852
Calculated Feed	Sep-18	512,750	103,575,226	80,179	24,314,240	126,380	25,931,016	271,514	47,316,988	29,644	5,103,966	5,032	909,016
Feed to Box	Sep-18	508,460	102,900,439	80,179	24,314,418	126,380	25,931,098	271,514	47,317,034	29,644	5,103,962	742	233,926
Cheu Product	Sep-18	106,124	30,800,925	78,534	23,952,957	24,773	6,026,092	2,101	608,448	4	879	711	212,548
Residue	Sep-18	266,883	47,321,474	0	2,171	6,082	1,157,869	236,832	41,990,960	23,969	4,169,211	0	1,263
Cold Box Vent	Sep-18	73,850	17,021,293	49	90,068	66,485	15,107,164	7,302	1,762,486	0	121	14	61,453
Flare/Boot Strap	Sep-18	73,850	7,537,542	49	50,848	66,485	6,362,166	7,302	1,024,655	0	93,586	14	6,287
Fuel From Cheu	Sep-18	6,380	1,408,309	3	459	165	40,807	5,145	1,141,430	1,066	225,613	0	0
Shrinkage/Loss	Sep-18	3,253	521,760	0	0	0	0	0	0	3,253	521,760	0	0
Unaccounted*	Sep-18	32,189	3,727,709	507	169,108	23,882	2,787,590	7,790	766,056	(0)	1,098	10	3,856

*Before October 2004, the values are estimated

Storage Operations

Inventory (contained helium)

	Government	Private
Beginning inventory	3,297,597	2,874,531
net acceptances + redeliveries	0	0
	0	(77,997)
In Kind Transfers	0	0
Conservation Crude Sales	(300,000)	300,000
Gain/loss	(555)	
Ending Inventory	2,997,042	3,096,534
Total Helium in Reservoir	8,405,986	
Total Helium in Storage	6,093,576	
Helium in native gas	2,312,410	

Crude Helium Pipeline

	Gross	Net Helium	Percent
Beginning inventory	36,607	26,726	73.01%
Measured to Pipeline (Private Plants)	11,310	7,194	63.61%
Measured from Pipeline (Private Plants)	116,501	85,187	73.12%
HEU Production	106,124	78,534	74.00%
Injection	0	0	00.00%
Production	0	0	
Ending Inventory	36,561	26,712	73.06%
Gain/Loss	(978)	(555)	

Tuck Trigg Reservoir Operations

Native Gas (Gross)	Month	Fiscal Year	Since Field
			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

September - 2018

NASA*	Navy*	Army*	Air Force*	DOE*	Other Fed*	Subtotal*	In Kind+	Charges Billed (\$)**		
In Kind Helium (billed quarterly)										
Airgas Merchant Gases, Contract no. INC18-0102										
Month										
FYTD										
Air Liquide Helium America, Inc., Contract no. INC18-0104										
Month										
FYTD										
Air Products, L.P., Contract no. INC18-0105										
Month										
FYTD										
Linde Gas North America, LLC, Contract no. INC18-0106										
Month										
FYTD										
Praxair, Inc., Contract no. INC18-0112										
Month										
FYTD										
Matheson Tri-Gas, Inc., Contract no. INC18-0114										
Month										
FYTD										
Global Gases America, Contract no. INC18-0116										
Month										
FYTD										
Total month										
	25,242	0	0	0	0	17,282	42,523	41,864	\$3,600,304	
Total FYTD										
	97,659	1	0	0	0	74,255	171,916	169,252	\$14,449,356	
Total CYTD										
	82,288	0	0	0	0	55,514	137,802	135,667	\$11,661,801	
Cumulative										
	2,048,451	108,685	450	271,593	422,045	936,558	3,787,780	3,729,129	\$224,380,570	
In Kind Transfers							Month	FYTD	CYTD	Cumulative
Transferred							0	158,560	123,847	3,680,248
Volume outstanding							48,956			

* Volumes in Mcf at 14.7 psia & 70°F

**Rounded to nearest dollar

+ Volumes in Mcf at 14.65 psia & 60°F

Natural Gas / Natural Gas Liquid Sales

	Natural Gas (Mcf)**	NGLs (gal)	Decatherms	Avg Btu Value	Charges Billed (\$)**
El Paso Natural Gas					
Provides Measured Firm/Interruptible Transportation Services (billed monthly)					
Month	264,847	---	291,613	1,101	\$0
FYTD	3,420,667	---	3,702,286	1,082	(\$167,982)
Cumulative	46,871,543	---	50,999,902	1,088	(\$5,088,325)
Minerals Management Service					
No Longer Provides Natural Gas Marketing Services					
Cumulative	---	---	---	---	(\$179,913)
Tenaska					
Purchaser - Natural Gas					
Month	---	---	290,600	\$1.538942	\$447,217
FYTD	---	---	3,742,252	\$2.180750	\$8,160,916
Cumulative	---	---	50,857,139	\$4.272914	\$216,481,642
Sandstone					
Purchaser - Natural Gas Liquids					
Month	---	104,491	11,086	\$7.232785	\$80,183
FYTD	---	1,228,584	132,036	\$7.266123	\$959,390
Cumulative	---	14,456,821	1,539,135	\$10.782283	\$16,595,389
Total					
	Natural Gas (Mcf)**	NGLs (gal)	Purchased (Dth's)	\$\$ Per Unit (\$\$/Dth)	Total (\$)
Total month	264,847	104,491	301,686	\$1.748172	\$527,399
Total FYTD	3,420,667	1,228,584	3,874,288	\$2.310702	\$8,952,324
Total CYTD	2,617,524	949,146	2,959,470	\$2.211282	\$6,544,223
Cumulative	46,871,543	14,456,821	52,396,274	\$4.363580	\$227,808,793

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

**Rounded to nearest dollar

Table 5 - Conservation Crude Sales/Reserve Sell-down

September - 2018

Helium & Natural Gas Sales

	Award Volume*	Outstanding*	Sales*	Charges Billed (\$)** (billed quarterly)	
Conservation Helium					
<u>Air Liquide Helium America, Inc.</u>					
Month	0	0	0	\$0	
FYTD	0	0	0	\$0	
Cumulative	335,217		335,217	\$25,454,815	
<u>Air Products, L.P.</u>					
Month	239,146	(239,146)	239,146	\$63,890,550	
FYTD	239,146	0	239,146	\$63,890,550	
Cumulative	9,201,991		9,201,991	\$735,759,540	
<u>Linde Gas North America, LLC</u>					
Month	21,050	(21,050)	21,050	\$3,683,750	
FYTD	21,050	0	21,050	\$3,683,750	
Cumulative	6,310,276		6,310,276	\$437,286,782	
<u>Keyes Helium Co., LLC</u>					
Month	3,276	(3,276)	3,276	\$573,300	
FYTD	3,276	0	3,276	\$573,300	
Cumulative	1,016,747		1,016,747	\$70,653,572	
<u>Matheson Tri-Gas, Inc.</u>					
Month	1,500	(1,500)	1,500	\$262,500	
FYTD	1,500	0	1,500	\$262,500	
Cumulative	361,534		361,534	\$38,417,646	
<u>Praxair, Inc.</u>					
Month	27,528	(27,528)	27,528	\$4,817,400	
FYTD	27,528	0	27,528	\$4,817,400	
Cumulative	5,577,644		5,577,644	\$426,522,384	
<u>Global Gases America</u>					
Month	1,500	(1,500)	1,500	\$262,500	
FYTD	1,500	0	1,500	\$262,500	
Cumulative	37,767		37,767	\$3,798,165	
<u>Airgas Merchant Gases</u>					
Month	0	0	0	\$0	
FYTD	0	0	0	\$0	
Cumulative	15,667		15,667	\$1,488,365	
<u>IACX Energy</u>					
Month	0	0	0	\$0	
FYTD	0	0	0	\$0	
Cumulative	16,220		16,220	\$1,720,180	
<u>Uniper Global Commodities North America LLC</u>					
Month	1,500	(1,500)	1,500	\$262,500	
FYTD	1,500	0	1,500	\$262,500	
Cumulative	42,834		42,834	\$5,301,246	
<u>Weil Group Resources LLC</u>					
Month	1,500	(1,500)	1,500	\$262,500	
FYTD	1,500	0	16,500	\$2,077,500	
Cumulative	22,500		22,500	\$2,791,500	
<u>NAH USA Helium Marketing, Inc</u>					
Month	1,500	(1,500)	1,500	\$262,500	
FYTD	1,500	0	1,500	\$262,500	
Cumulative	12,834		12,834	\$1,611,246	
<u>Progressive Chemical Technologies LLC</u>					
Month	1,500	(1,500)	1,500	\$262,500	
FYTD	1,500	0	1,500	\$262,500	
Cumulative	1,500		1,500	\$262,500	
Total month					
	300,000	(300,000)	300,000	74,540,000	
Total FYTD					
	300,000	0	315,000	\$76,355,000	
Total CYTD					
	300,000		300,000	\$74,540,000	
Cumulative					
	23,073,063		23,073,063	\$1,762,102,941	
Conservation Crude Transfers					
		Month	FYTD	CYTD	Cumulative
Transferred		300,000	315,000	300,000	1,203,477
Volume outstanding		0			

* Volumes in Mcf at 14.65 psia & 60°F

Table 6 - Helium Resources Evaluation

September - 2018

All Volumes in Mcf at 14.7 psia & 70°F

Revenue Collected From Federal Leaseholds	Month*	FYTD*
Fee Sales & Royalties	\$89,667	\$19,152,181
Natural Gas Royalties (1)	\$0	\$0
Natural Gas Rentals	\$0	\$0
Other	\$41,019	\$499,306
Revenue Collected from Federal Lease Holds	\$41,055	\$19,152,181

*Totals do not sum

Helium Analysis and Evaluation	Month	FYTD
Number of Sample Request Letters Sent	0	0
Number of Samples Received	0	0
Number of Samples Analyzed	0	44
Total Number of Samples Analyzed For Resources Division	0	0
Total Number of Other Samples Analyzed (2)	15	213

U. S. Helium Production

<i>Domestic</i>	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

September - 2018

All Volumes in Mcf at 14.65 psia & 60°F

	Metered Gas			Transferred Gas			Stored Helium EOM	Charges Billed (\$)**	
	Gross Gas	Helium %	Helium	Helium				Month	FYTD
	Month		FYTD	CYTD	Cumulative	Month	Cumulative		
Total All Contracts*									
Crude Acquired	11,310	63.6%	7,190	118,523	82,480	32,235,889	319,263	60,724,944	
Crude Disposed	116,501	73.1%	85,187	1,137,294	852,208	53,854,678	20,763	26,698,279	\$66,446.19 Storage Fees
Grade-A Rdlvrd	0		0	0	0	1,478,718			\$0.00 RMF Fees
Net/Balance	(105,191)		(77,997)	(1,018,771)	(769,728)	(23,097,507)	298,500	34,026,665	3,095,034 \$66,446.19 \$8,633,724
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	
Linde Gas North America, 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									
Pioneer Natural Resources USA, Inc, Contract no. 3286									
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									
Net/Balance									
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	0 ---		0	0	0	0	1500	1500	1500 \$1,500 Storage Fees
Crude Disposed	0 ---		0	0	0	0	0	0	0 RMF Fees
Net/Balance	0		0	0	0	0	1500	0	1500 \$1,500 \$1,500

Government Helium	
Remaining Crude Acquired beginning of the month	3,297,597
Crude Disposed: In Kind Sales transferred for the month	0
Conservation Crude Sales/Reserve Sell Down transferred (nr)	(300,000)
Gains and Losses for the month	(555)
Net/Balance of Purchased Helium Remaining for Sale	2,997,042

*Includes In Kind and Conservation Crude transfers from Government storage

**Rounded to nearest dollar

** New Contracts

Table 8 - Compression & CHEU (Operations)

September - 2018

Field/CHEU Compressor Operations		Month	FYTD	Cumulative
Spot gas fuel price *	\$ per/MMBTU	\$1.54	\$2.20	\$4.63
Fuel used * (now includes field compression well head)	total MMBTU	7,480	96,582	1,907,283
Rental compressor(s) helium in fuel (Mcf)	Mcf	0	0	3645
#1 Compressor run time *	hours	326	7,289	116,848
#2 Compressor run time *	hours	399	7,507	79,630
#3 Compressor run time *	hours	645	1,811	63,819

* Field/CHEU Compressor Operations based on Sep 18 activity

Crude Helium Enrichment Unit (CHEU) CHEU Runtime	Month		FYTD		Cumulative
	Runtime Hrs	Percent	Runtime Hrs	Percent	Runtime Hrs
Processing feed gas	718	99.7%	8,510	97.1%	129,635
Producing residue gas	692	96.1%	8,349	95.3%	126,633
Producing helium product	682	94.7%	8,302	94.8%	122,956
Producing natural gas liquids	691	96.0%	8,338	95.2%	122,038

CHEU Utility Usage	Month	FYTD	Cumulative
CheU Fuel Gas (Mcf) usage Sep 18	2,808	36,893	611,134
CheU Pure Water Usage (gallons) Sep 18	1	6,925	316,164
Electricity Metered (Kwh) consumed Aug 18	2,883,035	31,658,996	178,937,622