

MOS ESTIMATES REPORT: MOS PERIODS; JUNE 2016, JULY 2016 & AUGUST 2016

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1. Introduction

MOS (Market Operator Service) estimates provide a guide of the largest daily increase and decrease MOS quantities that market participants may reasonably expect for each STTM pipeline. The MOS estimate is based on historical data and therefore does not limit the quantity of MOS that may be experienced in the future.

The MOS estimates also determine the value of any overrun MOS. If the MOS estimate (increase or decrease) for an STTM pipeline exceeds the total quantity of MOS offered for that pipeline (increase or decrease respectively), then any overrun MOS is paid at the weighted average price within the relevant MOS stack. Otherwise, if the total quantity of MOS offered for an STTM pipeline exceeds the MOS estimate then overrun MOS is paid at the highest priced offer within the stack.

In accordance with rule 397 of the National Gas Rules (STTM Rules), AEMO publishes MOS increase and decrease estimates for each STTM pipeline prior to the commencement of each monthly MOS period. In determining the MOS estimates for each MOS period, AEMO must use the data specified in Section 5.2 (b) of the STTM Procedures.

2. The MOS period

MOS periods are defined in section 5.1 of the STTM Procedures. The MOS estimates contained in this document relate to: MOS periods June 2016, July 2016 and August 2016.

The MOS quantities for each STTM pipeline and each gas day are as determined in accordance with the published methodology for determining MOS estimates.¹

Sydney and Adelaide hubs

The MOS quantities for these periods are based on 'Method 3'.² This means they are derived using the actual daily MOS allocation quantities for the periods June 2011, 2012, 2013, 2014, 2015; July 2011, 2012, 2013, 2014, 2015; and August 2011, 2012, 2013, 2014, 2015; for the following STTM pipelines:

- Moomba to Sydney Pipeline (MSP) and Eastern Gas Pipeline (EGP) these supply gas to the Sydney STTM hub; and
- Moomba to Adelaide Pipeline (MAP) and SEA Gas pipeline (SEA) these supply gas to the Adelaide STTM hub.

The input data collected from the previous years was combined to create a larger and more representative sample of MOS allocations, as stated under Method 2 in the methodology.

Brisbane hub

The Brisbane STTM hub commenced operations on 1 December 2011. Therefore The MOS quantities for this period are based on 'Method 2' for year 3 to year 6 of an STTM hub.³ This means MOS estimates for the upcoming MOS period for the Roma to Brisbane Pipeline (RBP), the sole

¹ Available at: http://www.aemo.com.au/en/Gas/Wholesale-Gas-Markets/Short-Term-Trading-Market/Market-Operator-Service-MOS.

² Methodology for determining MOS estimates v3.0, 2014; p.22.

³ Methodology for determining MOS estimates v3.0, 2014; p.18.



pipeline that supplies gas to the Brisbane STTM hub are derived using the actual daily MOS allocation quantities for the periods June 2012, 2013, 2014, 2015; July 2012, 2013, 2014, 2015; and August 2012, 2013, 2014, 2015.

Explanation of MOS quantities and summary statistics

Positive MOS quantities indicate the requirements for increase MOS, whereas negative MOS quantities indicate the requirements for decrease MOS.⁴

STTM Rule 397(1)(a) requires AEMO to publish its estimate of the maximum quantity of MOS (by way of increase and decrease) likely to be required on any gas day in the relevant MOS period. This is provided in Table 1 below.

STTM Rule 397(1)(b) requires AEMO to publish its estimate of the range of daily quantities of MOS likely to be required, together with the number of gas days in the MOS period to which each of those estimated quantities applies. This is provided in the following tables and charts:

- Table 2 shows summary statistics of MOS quantity distributions, including the means, standard deviations, 5 and 95 percentile of the distributions, range and inter-quartile range,⁵ and the proportions of days in the MOS period with positive and negative MOS quantities.
- Table 3 shows the daily MOS quantities sorted in descending order and the number of day(s) associated with each estimated quantity.
- Figure 1 displays the curves of daily MOS quantities sorted in descending order from the highest to the lowest values.
- Figure 2 shows the Box plots which provide a graphical summary of the data and are useful tools for comparing the MOS increase and decrease quantities of the different STTM pipelines.

⁴ Note MOS increase and decrease offers must comply with the requirements in section 5.4(b)(ii) and section 5.4(c)(ii) of the STTM Procedures, and should be greater than zero for the purpose of creating the MOS stacks.

⁵ The inter-quartile range is the range of values between the first (25%) and third quartiles (75%) of the distributions.



MOS Period June 2016

	aximun	n MOS (quantiti	es (GJ)		Figure 1	 Curves of daily MOS quantities
MOS increase MOS decrease	Sydney MSP 23,466 34,633	Sydney EGP 7,712 2,723	Adelaide MAP 19,734 7,023	Adelaide SEAGas 147 21,049	Brisbane RBP 7,278 12,474	30,000 - 20,000 - 10,000 - 0 - 9,000 - -20,000 - -30,000 - -40,000 -	MOS Increase
							Day in MOS Period
Table 2 – Si	Immary	(atatio			20	Eiguro 2	Distribution of daths MOO mean titles
	Jinnary	y statis	ics of c)5	Figure 2	- Distribution of daily MOS quantities
quantities	anninai y	y statisi)5	30,000 T	- Distribution of daily MOS quantities
quantities	Sudaay	Summ	ary statistic	cs GJ/d	Drinkana	30,000 -	MOS Increase
quantities	Sydney MSP	Summ Sydney EGP	ary statistic Adelaide MAP	cs GJ/d Adelaide SEAGas	Brisbane RBP	30,000 - 20,000 -	MOS Increase
quantities	Sydney MSP 23,466	Summ Sydney EGP 7,712	ary statistic Adelaide MAP 19,734	cs GJ/d Adelaide SEAGas 147	Brisbane RBP 7,278	30,000 - 20,000 -	MOS Increase
Maximum 95%	Sydney MSP 23,466 10,999	Statist Sydney EGP 7,712 5,657	ICS OT C hary statisti Adelaide MAP 19,734 10,974	cs GJ/d Adelaide SEAGas 147 107	Brisbane RBP 7,278 4,231	30,000 - 20,000 - 10,000 -	MOS Increase
Maximum 95% 75%	Sydney MSP 23,466 10,999 3,056	Summ Sydney EGP 7,712 5,657 3,824	Adelaide MAP 19,734 10,974 6,257	cs GJ/d Adelaide SEAGas 147 107 33	Brisbane RBP 7,278 4,231 1,832	30,000 - 20,000 - 10,000 -	MOS Increase
Maximum 95% 75% 50%	Sydney MSP 23,466 10,999 3,056 -2,723 0,250	Summ Sydney EGP 7,712 5,657 3,824 1,913	10.5 01 0 Adelaide MAP 19,734 10,974 6,257 2,468 476	cs GJ/d Adelaide SEAGas 147 107 33 -1 2 474	Brisbane RBP 7,278 4,231 1,832 -303 2,270	30,000 - 20,000 - 10,000 -	MOS Increase
Maximum 95% 75% 50% 25% 5%	Sydney MSP 23,466 10,999 3,056 -2,723 -9,350 -17,852	Summ Sydney EGP 7,712 5,657 3,824 1,913 -99 -727	Adelaide MAP 19,734 10,974 6,257 2,468 -476 -3 730	cs GJ/d Adelaide SEAGas 147 107 33 -1 -2,174 -8 070	Brisbane RBP 7,278 4,231 1,832 -303 -2,370 -4 918	30,000 - 20,000 - 10,000 -	MOS Increase
Maximum 95% 75% 25% 5% Minimum	Sydney MSP 23,466 10,999 3,056 -2,723 -9,350 -17,852 -34,633	Summ Sydney EGP 7,712 5,657 3,824 1,913 -99 -727 -2 723	Adelaide MAP 19,734 10,974 6,257 2,468 -476 -3,730 -7 023	cs GJ/d Adelaide SEAGas 147 107 33 -1 -2,174 -8,070 -21,049	Brisbane RBP 7,278 4,231 1,832 -303 -2,370 -4,918 -12 474	30,000 - 20,000 - 10,000 - 9 9 0 - 10 ,000 -	MOS Increase
Maximum 95% 75% 50% 25% 5% Minimum Mean	Sydney MSP 23,466 10,999 3,056 -2,723 -9,350 -17,852 -34,633 -3,333	Summ Sydney EGP 7,712 5,657 3,824 1,913 -99 -727 -2,723 2,034	Adelaide MAP 19,734 10,974 6,257 2,468 -476 -3,730 -7,023 3,127	CS GJ/d Adelaide SEAGas 147 107 33 -1 -2,174 -8,070 -21,049 -2,089	Brisbane RBP 7,278 4,231 1,832 -303 -2,370 -4,918 -12,474 -409	30,000 - 20,000 - 10,000 - P 0 -10,000 -	MOS Increase
Maximum 95% 75% 50% 25% 5% Minimum Mean Std deviation	Sydney MSP 23,466 10,999 3,056 -2,723 -9,350 -17,852 -34,633 -3,333 10,946	Summ Sydney EGP 7,712 5,657 3,824 1,913 -99 -727 -2,723 2,034 2,465	Adelaide MAP 19,734 10,974 6,257 2,468 -476 -3,730 -7,023 3,127 5,523	CS GJ/d Adelaide SEAGas 147 107 33 -1 -2,174 -8,070 <u>-21,049</u> -2,089 4,401	Brisbane RBP 7,278 4,231 1,832 -303 -2,370 -4,918 -12,474 -409 3,660	30,000 - 20,000 - 10,000 - -10,000 - -20,000 -	MOS Increase
Maximum 95% 75% 50% 25% 5% Minimum Mean Std deviation % days positive	Sydney MSP 23,466 10,999 3,056 -2,723 -9,350 -17,852 -34,633 -3,333 10,946 37%	Summ Sydney EGP 7,712 5,657 3,824 1,913 -99 -727 -2,723 2,034 2,465 67%	Adelaide MAP 19,734 10,974 6,257 2,468 -476 -3,730 -7,023 3,127 5,523 70%	cs GJ/d Adelaide <u>SEAGas</u> 147 107 33 -1 -2,174 -8,070 <u>-21,049</u> -2,089 4,401 50%	Brisbane RBP 7,278 4,231 1,832 -303 -2,370 -4,918 -12,474 -409 3,660 47%	30,000 - 20,000 - 10,000 - 90 -10,000 - -20,000 -	MOS Decrease
Maximum 95% 75% 50% 25% 5% Minimum Mean Std deviation % days positive % days negative	Sydney MSP 23,466 10,999 3,056 -2,723 -9,350 -17,852 -34,633 -3,333 10,946 37% 63%	Summ Sydney EGP 7,712 5,657 3,824 1,913 -99 -727 -2,723 2,034 2,465 67% 33%	Adelaide MAP 19,734 10,974 6,257 2,468 -476 -3,730 -7,023 3,127 5,523 70% 30%	CS GJ/d Adelaide SEAGas 147 107 33 -1 -2,174 -8,070 -21,049 -2,089 4,401 50% 50%	Brisbane RBP 7,278 4,231 1,832 -303 -2,370 -4,918 -12,474 -409 3,660 47% 53%	30,000 - 20,000 - 10,000 - -10,000 - -20,000 -	MOS Increase MOS Decrease 0.25 0.05 - Min
Maximum 95% 75% 50% 25% 5% Minimum Mean Std deviation % days positive % days negative	Sydney MSP 23,466 10,999 3,056 -2,723 -9,350 -17,852 -34,633 -3,333 10,946 37% 63%	Summ Sydney EGP 7,712 5,657 3,824 1,913 -99 -727 -2,723 2,034 2,465 67% 33%	Adelaide MAP 19,734 10,974 6,257 2,468 -476 -3,730 -7,023 3,127 5,523 70% 30%	CS GJ/d Adelaide SEAGas 147 107 33 -1 -2,174 -8,070 -21,049 -2,089 4,401 50% 50%	Brisbane RBP 7,278 4,231 1,832 -303 -2,370 -4,918 -12,474 -409 3,660 47% 53%	30,000 - 20,000 - 10,000 - 10,000 - -20,000 - -30,000 -	MOS Increase MOS Decrease 0.25 0.05 - Min Mean - Median - Max 0.95 0.75



Table 3 – Daily MOS quantities (GJ/d) for June 2016

No of days	Sydney MSP	Sydney EGP	Adelaide MAP	Adelaide SEAGas	Brisbane RBP
1	23,466	7,712	19,734	147	7,278
1	12,808	5,875	11,742	114	4,649
1	8,789	5,390	10,035	98	3,719
1	6,916	4,909	8,915	85	3,065
1	6,491	4,805	8,431	57	2,917
1	5,316	4,627	7,785	47	2,407
1	4,646	4,363	6,960	42	2,011
1	3,260	3,891	6,358	35	1,931
1	2,445	3,623	5,954	28	1,534
1	2,084	3,374	5,401	25	1,375
1	1,500	3,031	4,985	21	1,285
1	-345	2,886	4,400	16	1,164
1	-1,040	2,666	3,787	9	556
1	-1,654	2,407	3,422	5	291
1	-2,561	2,089	2,816	1	-280
1	-2,884	1,737	2,119	-2	-326
1	-3,953	1,330	1,622	-9	-606
1	-5,067	903	1,214	-130	-827
1	-6,404	721	930	-212	-1,067
1	-7,331	293	640	-390	-1,600
1	-8,071	-7	250	-911	-1,989
1	-8,739	-61	-171	-1,651	-2,179
1	-9,553	-111	-578	-2,348	-2,433
1	-11,140	-157	-1,166	-3,803	-2,584
1	-11,972	-276	-1,826	-4,563	-2,966
1	-12,831	-373	-2,534	-5,816	-3,475
1	-14,233	-474	-3,001	-6,464	-3,922
1	-15,670	-612	-3,292	-7,547	-4,235
1	-19,638	-821	-4,088	-8,497	-5,476
1	-34,633	-2,723	-7,023	-21,049	-12,474



MOS Period July 2016

Table 1 – Maximum MOS quantities (GJ)						Figure 1 – Curves of daily MOS quantities			
						30,000 -		MOS Incroaso	
	Sydney MSP	Sydney EGP	Adelaide MAP	Adelaide SEAGas	Brisbane RBP	20.000 -		WOS Increase	
MOS increase	19,349	6,363	13,929	165	6,314	20,000			
MOS decrease	33,198	3,462	8,067	15,100	11,400	10.000 -			
						10,000			
						0 -			
						P	1	11 21 31	
						10,000			
						-20,000 -		MOS Decrease	
						-30,000 -		Sydney MSP Sydney EGP	
						40.000	E	Brisbane RBP	
						-40,000 -	1	Day in MOS Period	
Table 2 – Si	Immary	v statist	tics of d	laily MC	20	Figure 2	– Distrib	ution of daily MOS quantities	
	anninan y	/ 5141151				i igure z		ation of daily moo quantities	
quantities						30,000 _T			
		Summ	ary statistic	cs GJ/d				MOS Increase	
	Sydney MSP	Sydney EGP	Adelaide MAP	Adelaide SEAGas	Brisbane RBP	20,000 -			
Maximum	19,349	6,363	13,929	165	6,314			<u> </u>	
95%	11,654	5,670	9,315	102	3,787	10,000 -	•		
75%	3,687	2,474	4,104	32	1,169			φ Ι΄ τ Ι	
50%	-1,599	730	576	1	-306				
25%	-6,680	-278	-2,069	-1,164	-1,561	P/r		$\overline{\mathbf{q}}$ $\overline{\mathbf{q}}$ $\overline{\mathbf{q}}$ $\overline{\mathbf{q}}$	
5%	-16,900	-1,780	-4,737	-7,175	-4,374	Ú		I I I	
Minimum	-33,198	-3,462	-8,067	-15,100	-11,400	-10,000 -			
Mean	-2,321	1,197	1,298	-1,449	-426			⊥	
OLU I I I					0.400	1		1	
Std deviation	10,009	2,397	4,807	3,252	3,120	-20,000 -			
% days positive	10,009 42%	2,397 58%	4,807 58%	3,252 52%	45%	-20,000 -		MOS Decrease	
% days positive % days negative	10,009 42% 58%	2,397 58% 42%	4,807 58% 42%	3,252 52% 48%	3,120 45% 55%	-20,000 -		MOS Decrease	
% days positive % days negative	10,009 42% 58%	2,397 58% 42%	4,807 58% 42%	3,252 52% 48%	3,120 45% 55%	-20,000 - -30,000 -		MOS Decrease 0.25 ● 0.05 - Min ♦ Mean - Median - Max	
% days positive % days negative	10,009 42% 58%	2,397 58% 42%	4,807 58% 42%	3,252 52% 48%	3,120 45% 55%	-20,000 - -30,000 -		MOS Decrease 0.25 ● 0.05 - Min ◆ Mean - Median - Max ● 0.95 0.75	
Std devlation % days positive % days negative	10,009 42% 58%	2,397 58% 42%	4,807 58% 42%	3,252 52% 48%	3,120 45% 55%	-20,000 - -30,000 - -40,000 -	Sydney MSP	MOS Decrease 0.25 0.05 - Min Mean -Median -Max 0.95 0.75 Sydney Adelaide Meaa Adelaide SEAGas Brisbane RBP Map 	



Table 3 – Daily MOS quantities (GJ/d) for July 2016

No of days	Svdnev MSP	Svdnev EGP	Adelaide MAP	Adelaide SEAGas	Brisbane RBP
1	19,349	6,363	13,929	165	6,314
1	12,568	5,848	10,401	104	4,163
1	10,739	5,492	8,229	100	3,411
1	7,594	5,217	6,996	97	2,457
1	6,009	4,362	6,271	84	2,064
1	4,643	3,378	5,700	60	1,785
1	4,239	2,804	5,175	46	1,634
1	3,792	2,583	4,456	34	1,337
1	3,582	2,365	3,751	29	1,000
1	3,333	2,125	3,048	23	879
1	2,228	1,514	2,734	11	691
1	1,466	1,359	2,072	8	473
1	393	1,116	1,743	7	198
1	-40	990	1,436	3	23
1	-786	850	1,141	2	-182
1	-1,599	730	576	1	-306
1	-2,706	587	284	-1	-386
1	-3,744	336	14	-3	-563
1	-4,383	-38	-100	-6	-804
1	-4,920	-96	-598	-143	-963
1	-5,605	-129	-786	-345	-1,117
1	-6,080	-167	-1,257	-540	-1,388
1	-6,546	-202	-1,906	-917	-1,477
1	-6,814	-355	-2,231	-1,411	-1,645
1	-7,918	-458	-2,770	-2,014	-1,974
1	-9,916	-597	-3,036	-2,567	-2,459
1	-11,404	-782	-3,599	-3,113	-2,873
1	-12,435	-1,074	-3,893	-5,195	-3,361
1	-16,081	-1,197	-4,446	-6,556	-3,879
1	-17,718	-2,364	-5,027	-7,793	-4,868
1	-33,198	-3,462	-8,067	-15,100	-11,400



MOS Period August 2016

Table 1 – Maximum MOS quantities (GJ)						Figure 1 – Curves of daily MOS quantities			
						30,000			
	Sydney MSP	Sydney FGP	Adelaide MAP	Adelaide SEAGas	Brisbane RBP		MOS Increase		
MOS increase	20,346	7,610	17,141	193	7,953	20,000			
MOS decrease	31,707	3,899	8,877	13,425	7,384	10.000			
						10,000			
						0 +			
							1 11 21 31		
						<u>0</u> 10,000			
						-20,000 -	MOS Decrease		
						-30,000	Sydney MSP Sydney EGP Adelaide MAP Adelaide SEAGas		
						40.000	Brisbane RBP		
						-40,000 -	Day in MOS Period		
Table 2 – Su	ummar	y statis	stics of	daily M	OS	Figure 2 –	- Distribution of daily MOS quantities		
quantities						30,000 —			
		Sumr	nary statist	ics GJ/d			MOS Increase		
	Sydney MSP	Sydney EGP	Adelaide MAP	Adelaide SEAGas	Brisbane RBP	20,000			
Maximum	20,346	7,610	17,141	193	7,953		T I		
95%	13,510	4,480	9,197	118	5,065	10,000			
75%	6,315	2,107	3,835	35	1,886				
50%	-774	491	382	1	148	0			
25%	-7 498	206	0.070	057	1 5 1 4				
	7,100	-300	-2,073	-857	-1,514) Yr			
5%	-16,573	-2,085	-2,073 -5,228	-857 -6,009	-1,514 -3,921	GJ			
5% Minimum	-16,573 -31,707	-2,085 -3,899	-2,073 -5,228 -8,877	-857 -6,009 -13,425	-1,314 -3,921 -7,384	ີ້ ບິ -10,000 —			
5% <u>Minimum</u> Mean	-16,573 -31,707 -1,284	-3,085 -3,899 904	-2,073 -5,228 <u>-8,877</u> 971	-857 -6,009 <u>-13,425</u> -1,184	-1,314 -3,921 -7,384 297	-10,000 —			
5% Minimum Mean Std deviation	-16,573 -31,707 -1,284 10,738	-380 -2,085 -3,899 904 2,279	-2,073 -5,228 -8,877 971 5,121	-857 -6,009 <u>-13,425</u> -1,184 <u>2,837</u>	-1,314 -3,921 -7,384 297 3,022	-10,000 -20,000			
5% Minimum Mean Std deviation % days positive	-16,573 -31,707 -1,284 10,738 45%	-386 -2,085 -3,899 904 2,279 55%	-2,073 -5,228 -8,877 971 5,121 52%	-857 -6,009 <u>-13,425</u> -1,184 <u>2,837</u> 55%	-1,314 -3,921 -7,384 297 3,022 52%	-10,000 -20,000	MOS Decrease		
5% <u>Minimum</u> Mean Std deviation % days positive % days negative	-16,573 -31,707 -1,284 10,738 45% 55%	-386 -2,085 -3,899 904 2,279 55% 45%	-2,073 -5,228 -8,877 971 5,121 52% 48%	-857 -6,009 -13,425 -1,184 2,837 55% 45%	-1,314 -3,921 -7,384 297 3,022 52% 48%	-10,000 -20,000 -30,000	MOS Decrease 0.25 • 0.05 - Min		
5% Minimum Mean Std deviation % days positive % days negative	-16,573 -31,707 -1,284 10,738 45% 55%	-2,085 -2,085 -3,899 904 2,279 55% 45%	-2,073 -5,228 -8,877 971 5,121 52% 48%	-857 -6,009 -13,425 -1,184 2,837 55% 45%	-1,314 -3,921 -7,384 297 3,022 52% 48%	-10,000 -20,000 -30,000	MOS Decrease 0.25 ● 0.05 − Min ◆ Mean − Median − Max		
5% Minimum Mean Std deviation % days positive % days negative	-16,573 -31,707 -1,284 10,738 45% 55%	-2,085 -3,899 904 2,279 55% 45%	-2,073 -5,228 -8,877 971 5,121 52% 48%	-837 -6,009 -13,425 -1,184 2,837 55% 45%	-1,314 -3,921 -7,384 297 3,022 52% 48%	-10,000 -20,000 -30,000	MOS Decrease 0.25 0.05 − Min ◆ Mean − Median − Max 0.95 0.75 0.75		



Table 3 – Daily MOS quantities (GJ/d) for August 2016

No of days	Svdnev MSP	Sydney FGP	Adelaide MAP	Adelaide SEAGas	Brishane RBP
1	20.346	7.610	17.141	193	7.953
1	14.511	4,691	10.824	133	5,586
1	12.508	4,270	7.569	103	4.544
1	11.765	3.408	5.672	93	3.604
1	10,561	3,000	5,353	87	2,959
1	8,629	2,612	4,656	74	2,601
1	7,395	2,386	4,404	64	2,386
1	6,764	2,200	3,948	37	2,048
1	5,866	2,014	3,721	32	1,724
1	3,555	1,985	2,832	28	1,532
1	2,397	1,648	2,042	25	1,378
1	1,656	1,529	1,674	19	1,202
1	1,219	1,276	1,292	10	898
1	449	1,021	954	7	540
1	-299	909	561	4	393
1	-774	491	382	1	148
1	-1,578	187	-265	0	-59
1	-2,734	-51	-614	-2	-325
1	-3,666	-75	-694	-4	-418
1	-4,378	-153	-957	-9	-559
1	-5,426	-181	-1,321	-83	-636
1	-6,454	-221	-1,580	-347	-898
1	-7,040	-332	-1,972	-691	-1,405
1	-7,956	-440	-2,174	-1,023	-1,623
1	-8,395	-574	-2,974	-1,439	-1,805
1	-9,614	-714	-3,284	-1,713	-2,139
1	-10,974	-1,006	-3,657	-2,590	-2,406
1	-13,279	-1,406	-4,095	-4,283	-2,786
1	-14,894	-1,880	-4,740	-5,434	-3,580
1	-18,251	-2,289	-5,716	-6,583	-4,261
1	-31,707	-3,899	-8,877	-13,425	-7,384