

DAFTAR PUSTAKA

- Asdak C. 2002. *Hidrologi dan Pengelolaan Daerah Aliran Sungai*. Yogyakarta.
- Badan Pusat Statistik Provinsi Sulawesi Selatan. 2012. *Kota Makassar dalam Angka 2012*. Makassar.
- Clark, J. W., Warren Viessman, Jr. And Mark J.Hammer. 1997. *Water Supply and Pollution Control*. Harper & Row Publishers, New York.
- Departemen Permukiman dan Prasarana Wilayah Badan Penelitian dan Pengembangan Sumber Daya Air. 2002. *Pedoman/Petunjuk Teknik dan Manual Air Minum Perkotaan*. Jakarta.
- Edzwald, J.K. 2011. Sixth Edition. *Water Quality & Treatment. A Handbook on Drinking Water*. Mc Graw Hill, New York.
- Effendi, H. 2003. *Telaah Kualitas Air* . Kansius. Yogyakarta.
- Japan Internastional Cooperation Agency. 2011. *Ministry of Public Works, South Sulawesi Province, PDAM Makassar, PDAM Gowa, PDAM Maros and PDAM Takalar*. Japan.
- Keputusan Direktur Cipta karya Nomor 61/KPTS/CK/1998. 1998. *Petunjuk Teknis Perencanaan, Pelaksanaan dan Pengawasan Pembangunan Pengelolaan Sistem Penyediaan Air Minum*. Jakarta.
- Keputusan Menteri Kesehatan RI No. 492/Menkes/Per/VII/2010. 2010. *Persyaratan Kualitas Air Minum*. Jakarta.
- Kodoatie, R.J. 2005. *Pengantar Manajemen Infrastruktur*. Pustaka Pelajar, Yogyakarta.
- Kodoatie, R.J dan Sjarief Roestam. 2005. *Pengelolaan Sumber Daya Air Terpadu*. Andi. Yogyakarta.
- Kotijah. S. 2009. *Kelembagaan Pengelolaan Sumber Daya Air*. (diakses tanggal 6 Februari 2012).
- Lebang. 2006. *Analisis Ketersediaan Prasarana Air Bersih PDAM Wilayah Pelayanan Timur Kecamatan Biringkanaya Kota Makassar*. Tugas Akhir. Universitas Hasanuddin.

- Montgomery, J.M. 1985. *Water Treatment Principle and Design*. John Wiley & Sons. New York.
- Nasir. 2005. *Tingkat Pelayanan Air Bersih Perusahaan Daerah Air Minum (PDAM) Kota Makassar Unit Pengolahan Antang*. Tugas Akhir. Universitas Hasanuddin.
- Peraturan Menteri Kesehatan nomor: 416/MEN.KES/PER/IX/1990. 1990. *Syarat-syarat dan Pengawasan kualitas Air*. Jakarta.
- Peraturan Menteri Pekerjaan Umum Nomor: 18/PRT/M/2007. 2007. *Penyelenggaraan Pengembangan Sistem Penyediaan Air Minum*. Jakarta.
- Peraturan Pemerintah Republik Indonesia Nomor 16 Tahun 2005. 2005. *Pengembangan sistem Penyediaan Air Minum*. Jakarta.
- Peraturan Pemerintah Republik Indonesia Nomor 20 Tahun 1990. 1990. *Pengendalian Pencemaran Air*. Jakarta.
- Program Pascasarjana Universitas Hasanuddin. 2011. *Pedoman Penulisan Tesis dan Disertasi Edisi 4*. Makassar.
- Selintung, M. 2011. *Pengenalan Sistem Penyediaan Air Minum*. ASPublishing. Makassar.
- Silaban. 2005. *Studi Pelayanan Air Bersih Pdam Kecamatan Tamalanrea Kota Makassar*. Tugas Akhir, Universitas Hasanuddin.
- Sjarief R. 2002. *Jurnal Konstruksi Dan Desain* , Jilid 1, Litbang Kimpraswil, Jakarta. (diakses tanggal 6 Februari 2012).
- Subana, M., Sudrajat. 2005. *Dasar-dasar Penelitian Ilmiah*. Pustaka Setia. Bandung.
- Triatmadja, R. 2009. *Hidraulika Sistem Jaringan Perpipaan Air Minum*. Beta Offset, Yogyakarta.
- Victoria University and Department of Sustainability and Enviroment. 2005. *REALM user Manual*. Australia.
- Wisjnuprpta dan Mohajit. 1992. *Prinsip Dasar Pengendalian Pencemaraan Air*. Pusat Antar Universitas Bioteknologi ITB. Bandung.

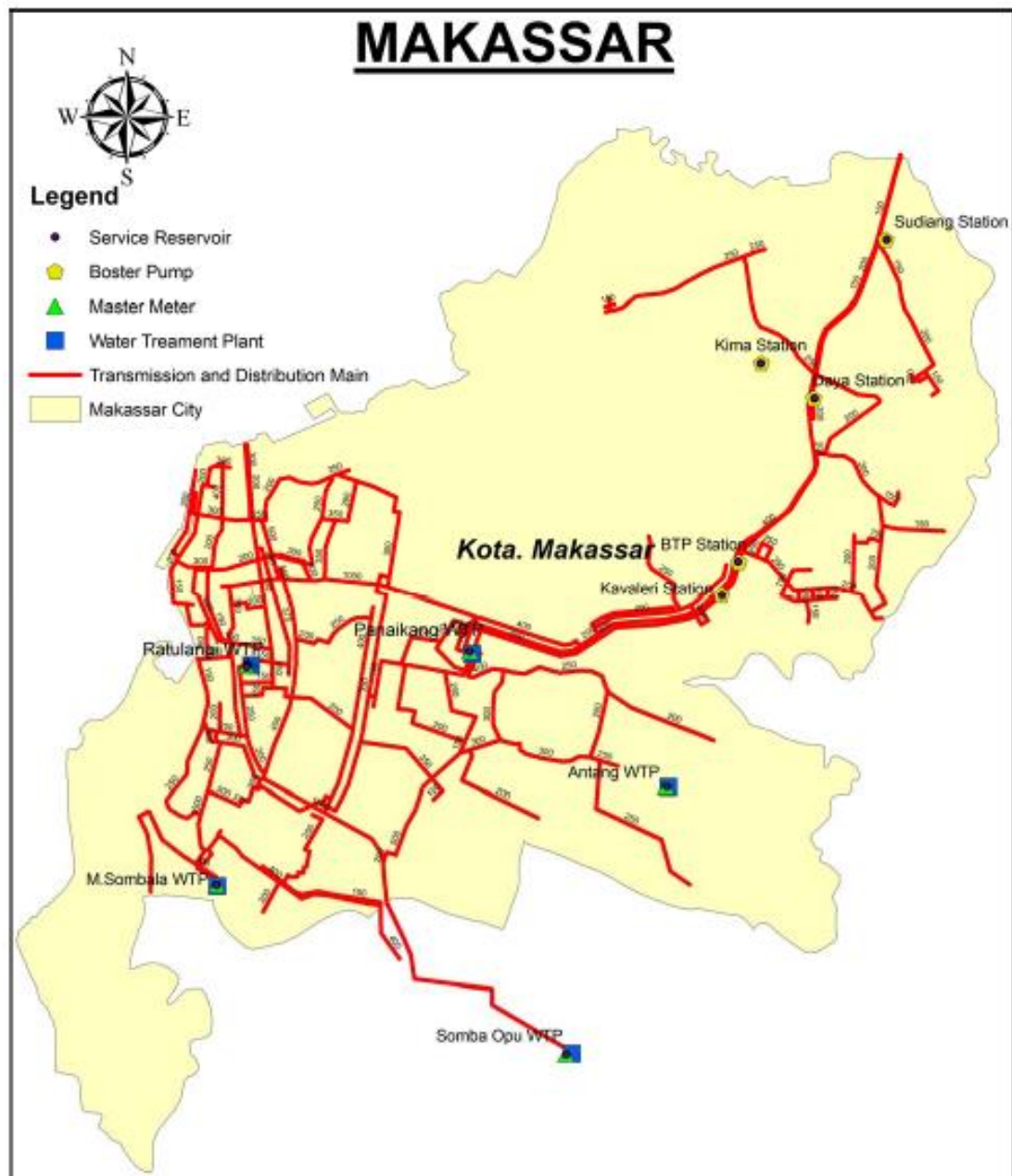
LAMPIRAN - LAMPIRAN



Bendungan Bili-bili



Kanal Lekopancing



Gambar jaringan distribusi PDAM Makassar (Laporan JICA, 2011)

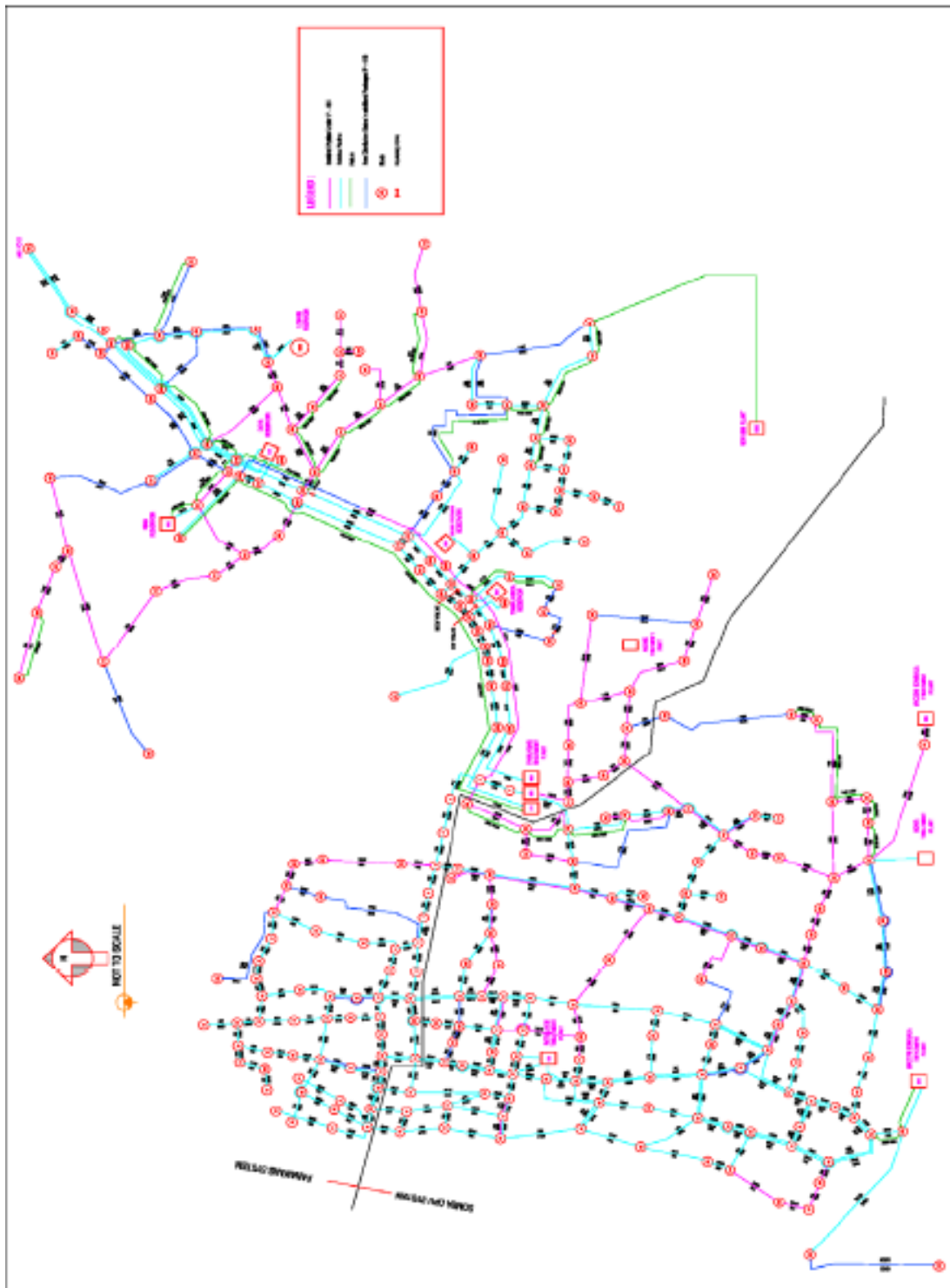
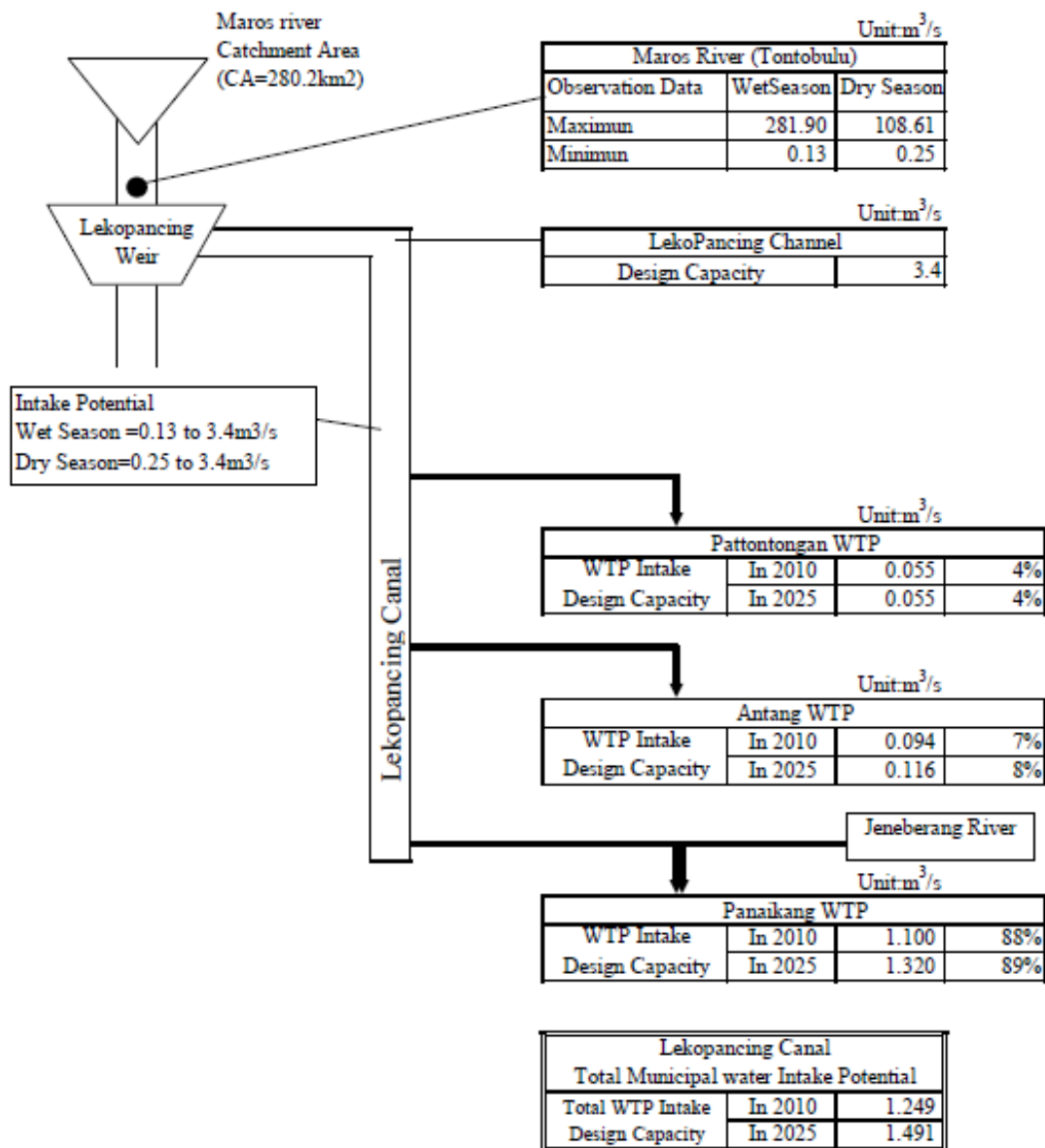


Diagram jaringan distribusi (Laporan JICA, 2011)



Pasokan air baku potensial Kanal Lekopancing (Laporan JICA, 2011)

PERUSAHAAN DAERAH AIR MINUM
KOTA MAKASSAR

REKAPITULASI PRODUKSI AIR BAKU & AIR BERSIH TAHUN 2012

B U L A N	BATILANGI		PAMAKANG		ANTANG		M. SOMBALA		SOMBA DPU		JUNLAB	
	AIR BAKU M ³	AIR BERSIH M ³	AIR BAKU M ³	AIR BERSIH M ³	AIR BAKU M ³	AIR BERSIH M ³	AIR BAKU M ³	AIR BERSIH M ³	AIR BAKU M ³	AIR BERSIH M ³	AIR BAKU M ³	AIR BERSIH M ³
JANUARI	181.369,80	164.881,60	3.399.216,00	3.161.834,00	243.909,00	222.475,00	290.917,00	274.450,00	3.449.200,00	3.335.855,00	7.584.611,80	7.159.485,60
FEBRUARI	171.251,10	155.682,80	3.414.984,00	3.409.897,60	245.086,00	223.062,00	307.670,00	290.255,00	3.347.814,00	3.279.007,00	7.486.805,10	7.357.904,40
MARET	158.702,40	144.274,90	3.292.434,00	3.167.369,00	221.475,00	199.743,00	298.307,00	281.421,00	3.172.829,00	2.839.087,00	7.093.747,40	6.631.894,90
APRIL	157.312,00	143.010,90	3.638.811,00	3.398.209,00	240.468,00	217.697,00	276.020,00	260.395,00	3.470.949,00	3.306.285,00	7.783.560,00	7.325.606,90
M E I	147.687,54	134.261,40	3.522.253,00	3.289.532,00	236.104,00	212.855,00	291.463,00	274.966,00	3.270.576,00	3.242.530,00	7.468.083,54	7.154.144,40
J U N I	137.210,40	124.736,70	3.606.835,00	3.389.979,00	243.015,00	219.322,00	267.846,00	252.685,00	3.662.536,00	3.437.760,00	7.917.442,40	7.424.482,70
J U L I	127.098,51	115.544,10	3.479.297,00	3.232.089,00	232.879,00	210.420,00	251.903,00	237.644,00	3.429.562,00	3.317.614,00	7.520.739,51	7.113.311,10
A G U S T U S	120.882,97	109.902,70	3.608.042,00	3.374.681,30	229.352,00	205.779,00	323.781,00	305.454,00	3.643.240,00	3.475.595,00	7.925.307,97	7.471.412,00
S E P T E M B E R	112.972,20	102.702,00	3.583.634,00	3.353.101,00	235.377,00	210.723,00	470.596,00	427.850,00	3.634.108,00	3.485.096,00	8.036.687,20	7.579.472,00
O K T O B E R	132.928,87	120.844,43	3.455.915,00	3.205.665,00	230.807,00	204.193,00	555.480,00	504.072,00	3.529.949,00	3.383.150,00	7.905.079,87	7.417.924,43
N O P E M B E R	112.817,29	102.561,20	3.676.917,00	3.413.996,00	227.288,00	196.378,00	589.066,00	517.333,00	3.660.381,00	3.496.370,00	8.266.489,29	7.726.636,20
D E S E M B E R	123.772,31	112.520,30	3.514.131,00	3.213.595,00	231.385,00	212.654,00	540.757,00	491.537,00	3.539.680,00	3.457.413,00	7.949.625,31	7.487.719,30
J U M L A H	1.684.015,39	1.530.923,03	42.192.469,00	39.609.947,90	2.817.145,00	2.535.301,00	4.443.806,00	4.118.062,00	41.780.724,00	40.055.772,00	92.918.159,39	87.650.005,93
RATA-RATA	140.334,62	127.576,92	3.516.039,08	3.300.828,99	234.762,08	211.275,08	370.317,17	343.171,83	3.481.727,00	3.337.981,00	7.743.179,95	7.320.833,83

PERUSAHAAN DAERAH AIR MINUM
KOTA MAKASSAR

REKAPITULASI PRODUKSI AIR BAKU & AIR BERSIH TAHUN 2013

BULAN	BATILANGI		PAVAKANG		ANFANG		M. SEMBALA		SOMBIA OPT		JUJULAH	
	AIR BAKU l/dt	AIR BERSIH l/dt	AIR BAKU l/dt	AIR BERSIH l/dt	AIR BAKU l/dt	AIR BERSIH l/dt	AIR BAKU l/dt	AIR BERSIH l/dt	AIR BAKU l/dt	AIR BERSIH l/dt	AIR BAKU l/dt	AIR BERSIH l/dt
JANUARI	53,07	48,24	1.352,41	1.235,77	87,34	79,07	183,94	157,22	1.251,12	1.184,63	2.928,08	2.714,93
FEBRUARI	52,80	48,00	1.331,77	1.201,96	88,59	81,14	171,72	156,11	1.400,46	1.277,89	3.051,34	2.765,10
MARET	40,12	36,48	1.367,20	1.236,53	87,11	79,28	174,90	159,00	1.387,83	1.241,52	3.067,17	2.752,80
APRIL	41,20	37,45	1.356,82	1.239,65	81,89	78,22	152,64	166,04	1.409,04	1.280,77	3.077,60	2.902,14
MAY	58,70	50,38	1.276,09	1.230,42	50,23	86,26	189,94	181,76	1.426,43	1.370,89	3.051,39	2.922,64
JUNI	54,64	49,67	1.295,66	1.243,73	50,98	87,17	207,90	189,00	1.417,87	1.389,85	3.057,05	2.859,42
JULI	52,91	48,10	1.271,63	1.229,80	91,73	86,69	204,53	185,94	1.429,07	1.407,10	3.049,87	2.857,63
AGUSTUS												
SEPTEMBER												
OKTOBER												
NOPEMBER												
DESEMBER												
JUMLAH	353,44	321,31	9.241,38	8.617,87	618,07	577,82	1.325,59	1.205,08	9.737,62	9.152,65	21.276,30	19.874,72
RATA-RATA	50,48	45,90	1.320,20	1.231,12	88,30	82,55	189,37	172,15	1.391,12	1.307,52	3.039,47	2.839,25

Makassar, Juli 2013
Bagian Produksi & Instalasi


K. Kartini Boertan,
Kepala Bagian

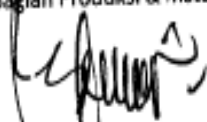
PERUSAHAAN DAERAH AIR MINUM
KOTA MAKASSAR





REKAPITULASI PEMAKAIAN BAHAN KIMIA BULAN JULI 2013




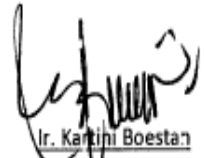
1	INSTALASI PENGENDAHANGIR (IPA)	PEMAKAIAN BAHAN KIMIA (Kg)						Ret.
		ALUMINAT (TAWAS)	KAPORIT	SAS CHLOR	KAPER	PAC	Magnalok LT 525	
2	3	4	5	6	7	8	9	
1	IPA I RATULANGI	5.000,0		81,0				
2	IPA III ANTIANG	5.250,0		88,0				
3	IPA IV M. SOMBALA							
4	IPA V S. OPU							
JUMLAH		10.250,0	0,0	169,0	0,0	0,0	0,0	0,0


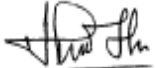


1	BULAN	3	4	5	6	7	8	9	10
1	JANUARI	11.550,0	0,0	213,0	0,0	0,0	0,0	0,0	
2	FEBRUARI	10.050,0		145,0					
3	MARET	6.150,0		121,0					
4	APRIL	6.000,0		140,0					
5	MEL	9.600,0		173,0					
6	JUNI	10.781,0		173,0					
7	JULI	10.250,0		169,0					
8	AGUSTUS								
9	SEPTEMBER								
10	OKTOBER								
11	NOPEMBER								
12	DESEMBER								
JUMLAH		64.381,0	0,0	1.134,0	0,0	0,0	0,0	0,0	

Makassar, Juli 2013
Bagian Produksi & Instalasi


V. Kattini Boestan.
Kepala Bagian

 PT. TIRTA DHARMA Jl. OK. San Ratulangi No. 3 "Maha" - Prop. Sulsel, Telp. 0411.80081		HASIL PEMERIKSAAN KUALITAS AIR PADA PELANGGAN					No. Dokumen : F-PDAMMKS-LA-B-01-03 Tanggal diterbitkan : 20 Oktober 2011 Revisi : 00				
BULAN : JULI 2013											
NO	HARI	PERIODE TGL PENCATATAN	LOKASI	ZONE	S.CHLGR (mg/l)	KEKERUHAN (NTU)	pH	KESIMPULAN		SUMBER PELAYANAN	KETERANGAN
								M	T		
1	Jumat	5 Juli 2013	Jl. Kerung-kerung No.62D	13	0.10	2.91	7.15	V		IPA II Panaikang	
2	Jumat	5 Juli 2013	Jl. Nusantara (Berdikari)	2	0.10	2.36	7.17	V		IPA II Panaikang	
3	Jumat	5 Juli 2013	Jl. Landak Baru No.88A	15	0.30	3.75	7.19	V		IPA V Somba Opu	
4	Jumat	5 Juli 2013	AsPol Toddopuli F/38	22	0.30	2.89	7.14	V		IPA V Somba Opu	
5	Jumat	5 Juli 2013	Jl. Rappocini Irg.5 No.384	15	0.10	4.12	7.29	V		IPA V Somba Opu	
6	Jumat	12 Juli 2013	Jl. Terompe: Blok H No.23	35	0.37	1.08	7.18	V		IPA III Antang	
7	Jumat	12 Juli 2013	Jl. Raya Antang Blok 5 No.3	35	0.33	0.98	7.19	V		IPA III Antang	
8	Jumat	12 Juli 2013	Jl. Suling I No.1	35	0.40	1.11	7.14	V		IPA III Antang	
9	Senin	15 Juli 2013	Jl. Baji Ati No.18	18	0.20	2.18	7.00	V		IPA IV M.Sombala	
10	Senin	15 Juli 2013	Jl. Baji Ateka No.8	8	0.20	2.07	7.00	V		IPA IV M.Sombala	
11	Senin	15 Juli 2013	Jl. Pemuda No.3	18	0.20	2.30	7.00	V		IPA IV M.Sombala	
12	Selasa	16 Juli 2013	Jl. Amirullah Ir.2 No.8	7	0.20	1.25	7.40	V		IPA I Ratulangi	
13	Selasa	16 Juli 2013	Jl. Pelanduk No.65	5	0.20	1.30	7.35	V		IPA I Ratulangi	
14	Selasa	16 Juli 2013	Jl. Sungai Kelara	3	0.20	2.58	7.38	V		IPA I Ratulangi	
15	Kamis	18 Juli 2013	Chrysent	23	0.30	2.39	7.20	V		IPA V Somba Opu	
16	Kamis	18 Juli 2013	Azalea	23	0.30	2.42	7.20	V		IPA V Somba Opu	
17	Kamis	18 Juli 2013	Golden Park	23	0.30	2.40	7.20	V		IPA V Somba Opu	
18	Kamis	18 Juli 2013	Bukit Villa Mas	23	0.30	2.33	7.20	V		IPA V Somba Opu	
Dibuat :				Diperiksa :				Disetujui :			
 Lisda J. Pasaribu Analis Laboratorium				 Syamsiah, ST Kasie Laboratorium				 Ir. Kattiji Boestian Kabag. Produksi & Instalasi			

 TIRTA DHARMA <small>Jl. DR. Sam Ratulangi No. 3 Makassar Prov. Sulawesi Telp. 0411 859381</small>		FORMAT ISIAN ANALISA MUTU AIR LENGKAP			No. Dokumen : F-PDAMMKS-LAB-01-07 Tanggal ditetapkan : 20 Oktober 2011 Revisi : 01 Halaman : 1 dari 1		
Sumber Air / IPA : SUNGAI JENNEBERANG/IPA I RATULANGI Hari/Tanggal : Jumat/12 Juli 2013							
No	Parameter	Satuan	Standar		Hasil Analisa		Metode
			AIR BAKU GOL. B	AIR MINUM	AIR BAKU	AIR MINUM	
1	Bau		-	Tidak Berbau	Traces	Tak Berasa	Organoleptik
2	Zat Padat Terlarut (TDS)	mg/l	1000	500	125	60	Elektrometri
3	Kekeruhan	NTU	15,0	5	258	1.59	Turbidimetri
4	Rasa	-	-	Tidak Berasa	Traces	Tak Berasa	Organoleptik
5	Suhu	°C	Suhu Udara ±5°C	Suhu Udara ±3°C	26	26	Pemuaian
6	Warna	PtCo	25,0	15	4	1	Spektrofotometri
B KIMIA							
1	Amoniak (NH ₄ ⁺)	mg/l	0,05	1,5	0.03	0.02	Spektrofotometri
2	Besi (Fe)	mg/l	2,5	0,3	0.02	0.012	Spektrofotometri
3	Klorida (Cl ⁻)	mg/l	500	250	6	5	Spektrofotometri
4	Cromium (Cr ₆ ⁺)	mg/l	0,05	0,05	0.013	0.001	Spektrofotometri
5	Kesadahan Total (CaCO ₃)	mg/l	600	500	8	6.5	Titrimetri
6	Nitrat (NO ₃ ⁻)	mg/l	44,3	50	0.3	0.15	Spektrofotometri
7	Nitrit (NO ₂ ⁻)	mg/l	0,3	3	0.06	0.005	Spektrofotometri
8	pH		5,0 - 9,0	6,5-8,5	7.16	7.25	Elektrometri
9	Sulfat (SO ₄)	mg/l	400,0	250	18	28	Spektrofotometri
10	Tembaga (Cu)	mg/l	1,0	2	0.11	0.03	Spektrofotometri
11	Sisa Chlor (Cl ₂)	mg/l	-	5	-	0.45	DPD
12	Zat Organik (KMnO ₄)	mg/l	20,0	10	8	5	Titrimetri
C BAKTERIOLOGI							
1	Total Koliform	/100ml	10,000	0	500	0	MPN
2	Koliform Tinja	/100ml	2,000	0	400	0	MPN
Keterangan * Semua parameter yang dianalisa memenuhi standar air minum sesuai PERATURAN MENTERI KESEHATAN RI NOMOR 492/MENKES/PER/IV/2010							
Dibuat :  Uliyahi Analis Laboratorium		Diperiksa :  Syamsiah, ST Kasie Laboratorium		Disetujui :  Ir. Kartiwi Boestari KaBag Produksi & Instalasi			

 TIRTA DHARMA <small>Jl. DR. Sam Ratulangi No. 3 MANASSA Prop. Sulawesi Telp. 0411.950842</small>		FORMAT ISIAN ANALISA MUTU AIR LENGKAP		No. Dokumen : F-POAMMKS-LAB-01-07 Tanggal ditetapkan : 20 Oktober 2011 Revisi : 01 Halaman : 1 dari 1			
Sumber Air / IPA : SUNGAI LEKOPACCING/IPA III ANTANG Hari/Tanggal : Jumat/12 Juli 2013							
No	Parameter	Satuan	Standar		Hasil Analisa		Metode
			AIR BAKU GOL. B	AIR MINUM	AIR BAKU	AIR MINUM	
A FISIK							
1	Bau		-	Tidak Berbau	Traces	Tak Berasa	Organoleptik
2	Zat Padat Terlarut (TDS)	mg/l	1000	500	90	65	Elektrometri
3	Kekeruhan	NTU	15,0	5	94.6	1.03	Turbidimetri
4	Rasa	-	-	Tidak Berasa	Traces	Tak Berasa	Organoleptik
5	Suhu	°C	Suhu Udara ±5°C	Suhu Udara ±3°C	25.9	25.8	Pemuaian
6	Warna	PtCo	25,0	15	5	1	Spektrofotometri
B KIMIA							
1	Amoniak (NH ₄ ⁺)	mg/l	0,05	1,5	0.032	0.03	Spektrofotometri
2	Besi (Fe)	mg/l	2,5	0,3	0.03	0.015	Spektrofotometri
3	Klorida (Cl ⁻)	mg/l	500	250	10	8	Spektrofotometri
4	Cromium (Cr ₆ ⁺)	mg/l	0,05	0,05	0.012	0.003	Spektrofotometri
5	Kesadahan Total (CaCO ₃)	mg/l	600	500	10	8	Titrimetri
6	Nitrat (NO ₃ ⁻)	mg/l	44,3	50	1	0.25	Spektrofotometri
7	Nitrit (NO ₂ ⁻)	mg/l	0,3	3	0.05	0.008	Spektrofotometri
8	pH		5,0 - 9,0	6,5-8,5	7.48	7.16	Elektrometri
9	Sulfat (SO ₄)	mg/l	400,0	250	18	30	Spektrofotometri
10	Tembaga (Cu)	mg/l	1,0	2	0.1	0.04	Spektrofotometri
11	Sisa Chlor (Cl ₂)	mg/l	-	5	-	0.58	DPD
12	Zat Organik (KMnO ₄)	mg/l	20,0	10	8.5	6	Titrimetri
C BAKTERIOLOGI							
1	Total Koliform	/100ml	10,000	0	600	0	MPN
2	Koliform Tinja	/100ml	2,000	0	500	0	MPN
Keterangan * Semua parameter yang dianalisa memenuhi standar air minum sesuai PERATURAN MENTERI KESEHATAN RI NOMOR 492/MENKES/PER/1/2010							
Dibuat :  Hj. Diah Indria Sari Analis Laboratorium		Diperiksa :  Syamsiah, ST Yasis Laboratorium		Disetujui :  Ir. Kartini Boestan KaBag Produksi & Instalasi			

####2
INFLOW DATA (ML)
REALM MAKASSAR
HISTORICAL DATA
DATE: 17 AGUSTUS 2013
(I2,I9,F11.2)
3
SEASON
YEAR
LEKOPANCING

1	2003	30399.84
2	2003	30264.19
3	2003	95351.04
4	2003	10031.04
5	2003	10633.25
6	2003	6531.84
7	2003	5062.18
8	2003	2437.34
9	2003	1503.36
10	2003	11972.45
11	2003	48237.12
12	2003	295722.14
1	2004	155427.55
2	2004	92632.03
3	2004	95886.72
4	2004	70269.12
5	2004	34685.28
6	2004	16614.72
7	2004	11195.71
8	2004	2437.34
9	2004	1503.36
10	2004	11972.45
11	2004	48237.12
12	2004	295722.14
1	2005	30399.84
2	2005	30264.19
3	2005	95351.04
4	2005	10031.04
5	2005	10633.25
6	2005	6531.84
7	2005	5062.18
8	2005	2437.34
9	2005	1503.36
10	2005	11972.45
11	2005	48237.12
12	2005	295722.14

1	2006	86940.86
2	2006	209405.95
3	2006	95351.04
4	2006	10031.04
5	2006	10633.25
6	2006	24649.92
7	2006	33988.90
8	2006	30828.38
9	2006	10160.64
10	2006	5115.74
11	2006	48237.12
12	2006	20114.78
1	2007	30399.84
2	2007	164433.02
3	2007	159900.48
4	2007	131362.56
5	2007	41943.74
6	2007	36313.92
7	2007	18936.29
8	2007	17382.82
9	2007	18636.48
10	2007	17650.66
11	2007	35225.28
12	2007	73816.70
1	2008	62888.83
2	2008	92206.08
3	2008	41247.36
4	2008	23561.28
5	2008	23918.11
6	2008	9331.20
7	2008	8811.94
8	2008	7178.11
9	2008	4536.00
10	2008	5276.45
11	2008	40253.76
12	2008	34792.42
1	2009	135098.50
2	2009	129523.97
3	2009	74272.03
4	2009	53291.52
5	2009	85173.12
6	2009	86158.08
7	2009	7231.68
8	2009	4901.47
9	2009	3602.88
10	2009	66933.22

11	2009	56583.36
12	2009	33533.57
1	2010	75263.04
2	2010	11926.66
3	2010	11784.96
4	2010	7335.36
5	2010	19123.78
6	2010	19854.72
7	2010	21802.18
8	2010	12427.78
9	2010	15992.64
10	2010	23677.06
11	2010	83099.52
12	2010	43229.38
1	2011	52014.53
2	2011	64786.18
3	2011	124786.66
4	2011	80507.52
5	2011	70013.38
6	2011	6531.84
7	2011	6669.22
8	2011	3937.25
9	2011	4484.16
10	2011	11972.45
11	2011	48237.12
12	2011	295722.14
1	2012	30399.84
2	2012	30264.19
3	2012	95351.04
4	2012	10031.04
5	2012	10633.25
6	2012	6531.84
7	2012	5062.18
8	2012	2437.34
9	2012	1503.36
10	2012	11972.45
11	2012	48237.12
12	2012	295722.14
1	2013	30399.84
2	2013	30264.19
3	2013	95351.04
4	2013	10031.04
5	2013	10633.25
6	2013	6531.84
7	2013	5062.18
8	2013	2437.34

9	2013	1503.36
10	2013	11972.45
11	2013	48237.12
12	2013	295722.14
1	2014	30399.84
2	2014	30264.19
3	2014	95351.04
4	2014	10031.04
5	2014	10633.25
6	2014	6531.84
7	2014	5062.18
8	2014	2437.34
9	2014	1503.36
10	2014	11972.45
11	2014	48237.12
12	2014	295722.14
1	2015	30399.84
2	2015	30264.19
3	2015	95351.04
4	2015	10031.04
5	2015	10633.25
6	2015	6531.84
7	2015	5062.18
8	2015	2437.34
9	2015	1503.36
10	2015	11972.45
11	2015	48237.12
12	2015	295722.14
1	2016	30399.84
2	2016	30264.19
3	2016	95351.04
4	2016	10031.04
5	2016	10633.25
6	2016	6531.84
7	2016	5062.18
8	2016	2437.34
9	2016	1503.36
10	2016	11972.45
11	2016	48237.12
12	2016	295722.14
1	2017	30399.84
2	2017	30264.19
3	2017	95351.04
4	2017	10031.04
5	2017	10633.25
6	2017	6531.84

7	2017	5062.18
8	2017	2437.34
9	2017	1503.36
10	2017	11972.45
11	2017	48237.12
12	2017	295722.14
1	2018	30399.84
2	2018	30264.19
3	2018	95351.04
4	2018	10031.04
5	2018	10633.25
6	2018	6531.84
7	2018	5062.18
8	2018	2437.34
9	2018	1503.36
10	2018	11972.45
11	2018	48237.12
12	2018	295722.14
1	2019	30399.84
2	2019	30264.19
3	2019	95351.04
4	2019	10031.04
5	2019	10633.25
6	2019	6531.84
7	2019	5062.18
8	2019	2437.34
9	2019	1503.36
10	2019	11972.45
11	2019	48237.12
12	2019	295722.14
1	2020	30399.84
2	2020	30264.19
3	2020	95351.04
4	2020	10031.04
5	2020	10633.25
6	2020	6531.84
7	2020	5062.18
8	2020	2437.34
9	2020	1503.36
10	2020	11972.45
11	2020	48237.12
12	2020	295722.14
1	2021	30399.84
2	2021	30264.19
3	2021	95351.04
4	2021	10031.04

5	2021	10633.25
6	2021	6531.84
7	2021	5062.18
8	2021	2437.34
9	2021	1503.36
10	2021	11972.45
11	2021	48237.12
12	2021	295722.14
1	2022	30399.84
2	2022	30264.19
3	2022	95351.04
4	2022	10031.04
5	2022	10633.25
6	2022	6531.84
7	2022	5062.18
8	2022	2437.34
9	2022	1503.36
10	2022	11972.45
11	2022	48237.12
12	2022	295722.14
1	2023	30399.84
2	2023	30264.19
3	2023	95351.04
4	2023	10031.04
5	2023	10633.25
6	2023	6531.84
7	2023	5062.18
8	2023	2437.34
9	2023	1503.36
10	2023	11972.45
11	2023	48237.12
12	2023	295722.14
1	2024	30399.84
2	2024	30264.19
3	2024	95351.04
4	2024	10031.04
5	2024	10633.25
6	2024	6531.84
7	2024	5062.18
8	2024	2437.34
9	2024	1503.36
10	2024	11972.45
11	2024	48237.12
12	2024	295722.14
1	2025	30399.84
2	2025	30264.19

3	2025	95351.04
4	2025	10031.04
5	2025	10633.25
6	2025	6531.84
7	2025	5062.18
8	2025	2437.34
9	2025	1503.36
10	2025	11972.45
11	2025	48237.12
12	2025	295722.14
1	2026	30399.84
2	2026	30264.19
3	2026	95351.04
4	2026	10031.04
5	2026	10633.25
6	2026	6531.84
7	2026	5062.18
8	2026	2437.34
9	2026	1503.36
10	2026	11972.45
11	2026	48237.12
12	2026	295722.14
1	2027	30399.84
2	2027	30264.19
3	2027	95351.04
4	2027	10031.04
5	2027	10633.25
6	2027	6531.84
7	2027	5062.18
8	2027	2437.34
9	2027	1503.36
10	2027	11972.45
11	2027	48237.12
12	2027	295722.14

####2

INFLOW DATA (ML)

REALM MAKASSAR

HISTORICAL DATA

DATE: 17 AGUSTUS 2013

(I2,I9,F13.2)

3

SEASON

YEAR

BILI-BILI

1	2003	195737.47
2	2003	176795.13
3	2003	195737.47
4	2003	189423.36
5	2003	195737.47
6	2003	189423.36
7	2003	195737.47
8	2003	195737.47
9	2003	189423.36
10	2003	195737.47
11	2003	189423.36
12	2003	195737.47
1	2004	195737.47
2	2004	183109.24
3	2004	195737.47
4	2004	189423.36
5	2004	195737.47
6	2004	189423.36
7	2004	195737.47
8	2004	195737.47
9	2004	189423.36
10	2004	195737.47
11	2004	189423.36
12	2004	195737.47
1	2005	195737.47
2	2005	176795.13
3	2005	195737.47
4	2005	189423.36
5	2005	195737.47
6	2005	189423.36
7	2005	195737.47
8	2005	195737.47
9	2005	189423.36
10	2005	195737.47
11	2005	189423.36
12	2005	195737.47

1	2006	195737.47
2	2006	176795.13
3	2006	195737.47
4	2006	189423.36
5	2006	195737.47
6	2006	189423.36
7	2006	195737.47
8	2006	195737.47
9	2006	189423.36
10	2006	195737.47
11	2006	189423.36
12	2006	195737.47
1	2007	195737.47
2	2007	176795.13
3	2007	195737.47
4	2007	189423.36
5	2007	195737.47
6	2007	189423.36
7	2007	195737.47
8	2007	195737.47
9	2007	189423.36
10	2007	195737.47
11	2007	189423.36
12	2007	195737.47
1	2008	195737.47
2	2008	183109.24
3	2008	195737.47
4	2008	189423.36
5	2008	195737.47
6	2008	189423.36
7	2008	195737.47
8	2008	195737.47
9	2008	189423.36
10	2008	195737.47
11	2008	189423.36
12	2008	195737.47
1	2009	195737.47
2	2009	176795.13
3	2009	195737.47
4	2009	189423.36
5	2009	195737.47
6	2009	189423.36
7	2009	195737.47
8	2009	195737.47
9	2009	189423.36
10	2009	195737.47

11	2009	189423.36
12	2009	195737.47
1	2010	195737.47
2	2010	176795.13
3	2010	195737.47
4	2010	189423.36
5	2010	195737.47
6	2010	189423.36
7	2010	195737.47
8	2010	195737.47
9	2010	189423.36
10	2010	195737.47
11	2010	189423.36
12	2010	195737.47
1	2011	195737.47
2	2011	176795.13
3	2011	195737.47
4	2011	189423.36
5	2011	195737.47
6	2011	189423.36
7	2011	195737.47
8	2011	195737.47
9	2011	189423.36
10	2011	195737.47
11	2011	189423.36
12	2011	195737.47
1	2012	195737.47
2	2012	183109.24
3	2012	195737.47
4	2012	189423.36
5	2012	195737.47
6	2012	189423.36
7	2012	195737.47
8	2012	195737.47
9	2012	189423.36
10	2012	195737.47
11	2012	189423.36
12	2012	195737.47
1	2013	195737.47
2	2013	176795.13
3	2013	195737.47
4	2013	189423.36
5	2013	195737.47
6	2013	189423.36
7	2013	195737.47
8	2013	195737.47

9	2013	189423.36
10	2013	195737.47
11	2013	189423.36
12	2013	195737.47
1	2014	195737.47
2	2014	176795.13
3	2014	195737.47
4	2014	189423.36
5	2014	195737.47
6	2014	189423.36
7	2014	195737.47
8	2014	195737.47
9	2014	189423.36
10	2014	195737.47
11	2014	189423.36
12	2014	195737.47
1	2015	195737.47
2	2015	176795.13
3	2015	195737.47
4	2015	189423.36
5	2015	195737.47
6	2015	189423.36
7	2015	195737.47
8	2015	195737.47
9	2015	189423.36
10	2015	195737.47
11	2015	189423.36
12	2015	195737.47
1	2016	195737.47
2	2016	183109.24
3	2016	195737.47
4	2016	189423.36
5	2016	195737.47
6	2016	189423.36
7	2016	195737.47
8	2016	195737.47
9	2016	189423.36
10	2016	195737.47
11	2016	189423.36
12	2016	195737.47
1	2017	195737.47
2	2017	176795.13
3	2017	195737.47
4	2017	189423.36
5	2017	195737.47
6	2017	189423.36

7	2017	195737.47
8	2017	195737.47
9	2017	189423.36
10	2017	195737.47
11	2017	189423.36
12	2017	195737.47
1	2018	195737.47
2	2018	176795.13
3	2018	195737.47
4	2018	189423.36
5	2018	195737.47
6	2018	189423.36
7	2018	195737.47
8	2018	195737.47
9	2018	189423.36
10	2018	195737.47
11	2018	189423.36
12	2018	195737.47
1	2019	195737.47
2	2019	176795.13
3	2019	195737.47
4	2019	189423.36
5	2019	195737.47
6	2019	189423.36
7	2019	195737.47
8	2019	195737.47
9	2019	189423.36
10	2019	195737.47
11	2019	189423.36
12	2019	195737.47
1	2020	195737.47
2	2020	183109.24
3	2020	195737.47
4	2020	189423.36
5	2020	195737.47
6	2020	189423.36
7	2020	195737.47
8	2020	195737.47
9	2020	189423.36
10	2020	195737.47
11	2020	189423.36
12	2020	195737.47
1	2021	195737.47
2	2021	176795.13
3	2021	195737.47
4	2021	189423.36

5	2021	195737.47
6	2021	189423.36
7	2021	195737.47
8	2021	195737.47
9	2021	189423.36
10	2021	195737.47
11	2021	189423.36
12	2021	195737.47
1	2022	195737.47
2	2022	176795.13
3	2022	195737.47
4	2022	189423.36
5	2022	195737.47
6	2022	189423.36
7	2022	195737.47
8	2022	195737.47
9	2022	189423.36
10	2022	195737.47
11	2022	189423.36
12	2022	195737.47
1	2023	195737.47
2	2023	176795.13
3	2023	195737.47
4	2023	189423.36
5	2023	195737.47
6	2023	189423.36
7	2023	195737.47
8	2023	195737.47
9	2023	189423.36
10	2023	195737.47
11	2023	189423.36
12	2023	195737.47
1	2024	195737.47
2	2024	183109.24
3	2024	195737.47
4	2024	189423.36
5	2024	195737.47
6	2024	189423.36
7	2024	195737.47
8	2024	195737.47
9	2024	189423.36
10	2024	195737.47
11	2024	189423.36
12	2024	195737.47
1	2025	195737.47
2	2025	176795.13

3	2025	195737.47
4	2025	189423.36
5	2025	195737.47
6	2025	189423.36
7	2025	195737.47
8	2025	195737.47
9	2025	189423.36
10	2025	195737.47
11	2025	189423.36
12	2025	195737.47
1	2026	195737.47
2	2026	176795.13
3	2026	195737.47
4	2026	189423.36
5	2026	195737.47
6	2026	189423.36
7	2026	195737.47
8	2026	195737.47
9	2026	189423.36
10	2026	195737.47
11	2026	189423.36
12	2026	195737.47
1	2027	195737.47
2	2027	176795.13
3	2027	195737.47
4	2027	189423.36
5	2027	195737.47
6	2027	189423.36
7	2027	195737.47
8	2027	195737.47
9	2027	189423.36
10	2027	195737.47
11	2027	189423.36
12	2027	195737.47

####3

DEMAND DATA FILE (ML)

REALM MAKASSAR

HISTORICAL DATA

DATE: 17 AGUSTUS 2013

(I2,I8,F11.2,F12.2,F11.2,F12.2,F12.2)

7

SEASON

YEAR

RAT

PKG

ANT

MAC

SOP

1	2003	203.94	4167.37	136.43	1020.61	3353.84
2	2003	184.20	3764.08	123.23	921.84	3029.28
3	2003	203.94	4167.37	136.43	1020.61	3353.84
4	2003	197.36	4032.94	132.03	987.68	3245.65
5	2003	203.94	4167.37	136.43	1020.61	3353.84
6	2003	197.36	4032.94	132.03	987.68	3245.65
7	2003	203.94	4167.37	136.43	1020.61	3353.84
8	2003	203.94	4167.37	136.43	1020.61	3353.84
9	2003	197.36	4032.94	132.03	987.68	3245.65
10	2003	203.94	4167.37	136.43	1020.61	3353.84
11	2003	197.36	4032.94	132.03	987.68	3245.65
12	2003	203.94	4167.37	136.43	1020.61	3353.84
1	2004	204.07	4245.93	141.52	1047.38	3388.88
2	2004	190.91	3972.00	132.39	979.81	3170.24
3	2004	204.07	4245.93	141.52	1047.38	3388.88
4	2004	197.49	4108.97	136.95	1013.60	3279.56
5	2004	204.07	4245.93	141.52	1047.38	3388.88
6	2004	197.49	4108.97	136.95	1013.60	3279.56
7	2004	204.07	4245.93	141.52	1047.38	3388.88
8	2004	204.07	4245.93	141.52	1047.38	3388.88
9	2004	197.49	4108.97	136.95	1013.60	3279.56
10	2004	204.07	4245.93	141.52	1047.38	3388.88
11	2004	197.49	4108.97	136.95	1013.60	3279.56
12	2004	204.07	4245.93	141.52	1047.38	3388.88
1	2005	207.97	4307.21	141.69	1050.81	3430.44
2	2005	187.85	3890.38	127.98	949.12	3098.47
3	2005	207.97	4307.21	141.69	1050.81	3430.44
4	2005	201.26	4168.26	137.12	1016.91	3319.78
5	2005	207.97	4307.21	141.69	1050.81	3430.44
6	2005	201.26	4168.26	137.12	1016.91	3319.78
7	2005	207.97	4307.21	141.69	1050.81	3430.44
8	2005	207.97	4307.21	141.69	1050.81	3430.44

9	2005	201.26	4168.26	137.12	1016.91	3319.78
10	2005	207.97	4307.21	141.69	1050.81	3430.44
11	2005	201.26	4168.26	137.12	1016.91	3319.78
12	2005	207.97	4307.21	141.69	1050.81	3430.44
1	2006	209.03	4449.50	147.98	1080.86	3481.25
2	2006	188.80	4018.90	133.66	976.26	3144.35
3	2006	209.03	4449.50	147.98	1080.86	3481.25
4	2006	202.29	4305.97	143.21	1045.99	3368.95
5	2006	209.03	4449.50	147.98	1080.86	3481.25
6	2006	202.29	4305.97	143.21	1045.99	3368.95
7	2006	209.03	4449.50	147.98	1080.86	3481.25
8	2006	209.03	4449.50	147.98	1080.86	3481.25
9	2006	202.29	4305.97	143.21	1045.99	3368.95
10	2006	209.03	4449.50	147.98	1080.86	3481.25
11	2006	202.29	4305.97	143.21	1045.99	3368.95
12	2006	209.03	4449.50	147.98	1080.86	3481.25
1	2007	211.02	4492.10	149.40	1091.22	3514.49
2	2007	190.60	4057.38	134.94	985.62	3174.37
3	2007	211.02	4492.10	149.40	1091.22	3514.49
4	2007	204.21	4347.19	144.58	1056.02	3401.12
5	2007	211.02	4492.10	149.40	1091.22	3514.49
6	2007	204.21	4347.19	144.58	1056.02	3401.12
7	2007	211.02	4492.10	149.40	1091.22	3514.49
8	2007	211.02	4492.10	149.40	1091.22	3514.49
9	2007	204.21	4347.19	144.58	1056.02	3401.12
10	2007	211.02	4492.10	149.40	1091.22	3514.49
11	2007	204.21	4347.19	144.58	1056.02	3401.12
12	2007	211.02	4492.10	149.40	1091.22	3514.49
1	2008	214.19	4558.73	151.62	1107.10	3567.61
2	2008	200.37	4264.62	141.84	1035.68	3337.44
3	2008	214.19	4558.73	151.62	1107.10	3567.61
4	2008	207.28	4411.67	146.73	1071.39	3452.52
5	2008	214.19	4558.73	151.62	1107.10	3567.61
6	2008	207.28	4411.67	146.73	1071.39	3452.52
7	2008	214.19	4558.73	151.62	1107.10	3567.61
8	2008	214.19	4558.73	151.62	1107.10	3567.61
9	2008	207.28	4411.67	146.73	1071.39	3452.52
10	2008	214.19	4558.73	151.62	1107.10	3567.61
11	2008	207.28	4411.67	146.73	1071.39	3452.52
12	2008	214.19	4558.73	151.62	1107.10	3567.61
1	2009	217.38	4626.72	153.88	1123.59	3620.80
2	2009	196.34	4178.97	138.99	1014.86	3270.40
3	2009	217.38	4626.72	153.88	1123.59	3620.80
4	2009	210.37	4477.47	148.92	1087.35	3504.00
5	2009	217.38	4626.72	153.88	1123.59	3620.80
6	2009	210.37	4477.47	148.92	1087.35	3504.00

7	2009	217.38	4626.72	153.88	1123.59	3620.80
8	2009	217.38	4626.72	153.88	1123.59	3620.80
9	2009	210.37	4477.47	148.92	1087.35	3504.00
10	2009	217.38	4626.72	153.88	1123.59	3620.80
11	2009	210.37	4477.47	148.92	1087.35	3504.00
12	2009	217.38	4626.72	153.88	1123.59	3620.80
1	2010	209.96	4910.32	179.29	1242.99	3713.03
2	2010	189.64	4435.12	161.94	1122.70	3353.70
3	2010	209.96	4910.32	179.29	1242.99	3713.03
4	2010	203.19	4751.92	173.51	1202.90	3593.25
5	2010	209.96	4910.32	179.29	1242.99	3713.03
6	2010	203.19	4751.92	173.51	1202.90	3593.25
7	2010	209.96	4910.32	179.29	1242.99	3713.03
8	2010	209.96	4910.32	179.29	1242.99	3713.03
9	2010	203.19	4751.92	173.51	1202.90	3593.25
10	2010	209.96	4910.32	179.29	1242.99	3713.03
11	2010	203.19	4751.92	173.51	1202.90	3593.25
12	2010	209.96	4910.32	179.29	1242.99	3713.03
1	2011	211.96	4957.12	181.00	1254.83	3748.41
2	2011	191.45	4477.40	183.34	1133.40	3385.66
3	2011	211.96	4957.12	181.00	1254.83	3748.41
4	2011	205.12	4797.21	175.16	1214.36	3627.49
5	2011	211.96	4957.12	181.00	1254.83	3748.41
6	2011	205.12	4797.21	175.16	1214.36	3627.49
7	2011	211.96	4957.12	181.00	1254.83	3748.41
8	2011	211.96	4957.12	181.00	1254.83	3748.41
9	2011	205.12	4797.21	175.16	1214.36	3627.49
10	2011	211.96	4957.12	181.00	1254.83	3748.41
11	2011	205.12	4797.21	175.16	1214.36	3627.49
12	2011	211.96	4957.12	181.00	1254.83	3748.41
1	2012	212.85	5044.87	185.95	1280.86	3792.25
2	2012	199.12	4719.39	173.95	1198.22	3547.59
3	2012	212.85	5044.87	185.95	1280.86	3792.25
4	2012	205.99	4882.13	179.95	1239.54	3669.92
5	2012	212.85	5044.87	185.95	1280.86	3792.25
6	2012	205.99	4882.13	179.95	1239.54	3669.92
7	2012	212.85	5044.87	185.95	1280.86	3792.25
8	2012	212.85	5044.87	185.95	1280.86	3792.25
9	2012	205.99	4882.13	179.95	1239.54	3669.92
10	2012	212.85	5044.87	185.95	1280.86	3792.25
11	2012	205.99	4882.13	179.95	1239.54	3669.92
12	2012	212.85	5044.87	185.95	1280.86	3792.25
1	2013	213.74	5132.62	190.90	1306.89	3836.09
2	2013	193.06	4635.91	172.43	1180.41	3464.86
3	2013	213.74	5132.62	190.90	1306.89	3836.09
4	2013	206.85	4967.05	184.74	1264.73	3712.35

5	2013	213.74	5132.62	190.90	1306.89	3836.09
6	2013	206.85	4967.05	184.74	1264.73	3712.35
7	2013	213.74	5132.62	190.90	1306.89	3836.09
8	2013	213.74	5132.62	190.90	1306.89	3836.09
9	2013	206.85	4967.05	184.74	1264.73	3712.35
10	2013	213.74	5132.62	190.90	1306.89	3836.09
11	2013	206.85	4967.05	184.74	1264.73	3712.35
12	2013	213.74	5132.62	190.90	1306.89	3836.09
1	2014	214.63	5220.37	195.85	1332.91	3879.93
2	2014	193.86	4715.17	198.39	1203.92	3504.46
3	2014	214.63	5220.37	195.85	1332.91	3879.93
4	2014	207.71	5051.97	189.54	1289.91	3754.77
5	2014	214.63	5220.37	195.85	1332.91	3879.93
6	2014	207.71	5051.97	189.54	1289.91	3754.77
7	2014	214.63	5220.37	195.85	1332.91	3879.93
8	2014	214.63	5220.37	195.85	1332.91	3879.93
9	2014	207.71	5051.97	189.54	1289.91	3754.77
10	2014	214.63	5220.37	195.85	1332.91	3879.93
11	2014	207.71	5051.97	189.54	1289.91	3754.77
12	2014	214.63	5220.37	195.85	1332.91	3879.93
1	2015	215.53	5308.12	200.81	1358.94	3923.77
2	2015	194.67	4794.43	181.37	1227.43	3544.05
3	2015	215.53	5308.12	200.81	1358.94	3923.77
4	2015	208.57	5136.89	194.33	1315.10	3797.20
5	2015	215.53	5308.12	200.81	1358.94	3923.77
6	2015	208.57	5136.89	194.33	1315.10	3797.20
7	2015	215.53	5308.12	200.81	1358.94	3923.77
8	2015	215.53	5308.12	200.81	1358.94	3923.77
9	2015	208.57	5136.89	194.33	1315.10	3797.20
10	2015	215.53	5308.12	200.81	1358.94	3923.77
11	2015	208.57	5136.89	194.33	1315.10	3797.20
12	2015	215.53	5308.12	200.81	1358.94	3923.77
1	2016	216.42	5395.87	205.76	1384.96	3967.62
2	2016	202.45	5047.74	192.48	1295.61	3711.64
3	2016	216.42	5395.87	205.76	1384.96	3967.62
4	2016	209.44	5221.80	199.12	1340.28	3839.63
5	2016	216.42	5395.87	205.76	1384.96	3967.62
6	2016	209.44	5221.80	199.12	1340.28	3839.63
7	2016	216.42	5395.87	205.76	1384.96	3967.62
8	2016	216.42	5395.87	205.76	1384.96	3967.62
9	2016	209.44	5221.80	199.12	1340.28	3839.63
10	2016	216.42	5395.87	205.76	1384.96	3967.62
11	2016	209.44	5221.80	199.12	1340.28	3839.63
12	2016	216.42	5395.87	205.76	1384.96	3967.62
1	2017	217.31	5483.61	210.71	1410.99	4011.46
2	2017	196.28	4952.94	190.32	1274.44	3623.25

3	2017	217.31	5483.61	210.71	1410.99	4011.46
4	2017	210.30	5306.72	203.91	1365.47	3882.05
5	2017	217.31	5483.61	210.71	1410.99	4011.46
6	2017	210.30	5306.72	203.91	1365.47	3882.05
7	2017	217.31	5483.61	210.71	1410.99	4011.46
8	2017	217.31	5483.61	210.71	1410.99	4011.46
9	2017	210.30	5306.72	203.91	1365.47	3882.05
10	2017	217.31	5483.61	210.71	1410.99	4011.46
11	2017	210.30	5306.72	203.91	1365.47	3882.05
12	2017	217.31	5483.61	210.71	1410.99	4011.46
1	2018	218.20	5571.36	215.66	1437.01	4055.30
2	2018	197.08	5032.20	194.79	1297.95	3662.85
3	2018	218.20	5571.36	215.66	1437.01	4055.30
4	2018	211.16	5391.64	208.71	1390.66	3924.48
5	2018	218.20	5571.36	215.66	1437.01	4055.30
6	2018	211.16	5391.64	208.71	1390.66	3924.48
7	2018	218.20	5571.36	215.66	1437.01	4055.30
8	2018	218.20	5571.36	215.66	1437.01	4055.30
9	2018	211.16	5391.64	208.71	1390.66	3924.48
10	2018	218.20	5571.36	215.66	1437.01	4055.30
11	2018	211.16	5391.64	208.71	1390.66	3924.48
12	2018	218.20	5571.36	215.66	1437.01	4055.30
1	2019	219.09	5659.11	220.61	1463.04	4099.14
2	2019	197.89	5111.46	199.26	1321.45	3702.45
3	2019	219.09	5659.11	220.61	1463.04	4099.14
4	2019	212.02	5476.56	213.50	1415.84	3966.91
5	2019	219.09	5659.11	220.61	1463.04	4099.14
6	2019	212.02	5476.56	213.50	1415.84	3966.91
7	2019	219.09	5659.11	220.61	1463.04	4099.14
8	2019	219.09	5659.11	220.61	1463.04	4099.14
9	2019	212.02	5476.56	213.50	1415.84	3966.91
10	2019	219.09	5659.11	220.61	1463.04	4099.14
11	2019	212.02	5476.56	213.50	1415.84	3966.91
12	2019	219.09	5659.11	220.61	1463.04	4099.14
1	2020	219.98	5746.86	225.57	1489.06	4142.98
2	2020	205.79	5376.10	211.01	1392.99	3875.69
3	2020	219.98	5746.86	225.57	1489.06	4142.98
4	2020	212.89	5561.48	218.29	1441.03	4009.33
5	2020	219.98	5746.86	225.57	1489.06	4142.98
6	2020	212.89	5561.48	218.29	1441.03	4009.33
7	2020	219.98	5746.86	225.57	1489.06	4142.98
8	2020	219.98	5746.86	225.57	1489.06	4142.98
9	2020	212.89	5561.48	218.29	1441.03	4009.33
10	2020	219.98	5746.86	225.57	1489.06	4142.98
11	2020	212.89	5561.48	218.29	1441.03	4009.33
12	2020	219.98	5746.86	225.57	1489.06	4142.98

1	2021	220.87	5834.61	230.52	1515.09	4186.82
2	2021	199.50	5269.97	208.21	1368.47	3781.64
3	2021	220.87	5834.61	230.52	1515.09	4186.82
4	2021	213.75	5646.40	223.08	1466.21	4051.76
5	2021	220.87	5834.61	230.52	1515.09	4186.82
6	2021	213.75	5646.40	223.08	1466.21	4051.76
7	2021	220.87	5834.61	230.52	1515.09	4186.82
8	2021	220.87	5834.61	230.52	1515.09	4186.82
9	2021	213.75	5646.40	223.08	1466.21	4051.76
10	2021	220.87	5834.61	230.52	1515.09	4186.82
11	2021	213.75	5646.40	223.08	1466.21	4051.76
12	2021	220.87	5834.61	230.52	1515.09	4186.82
1	2022	221.76	5922.36	235.47	1541.11	4230.66
2	2022	200.30	5349.23	212.68	1391.97	3821.24
3	2022	221.76	5922.36	235.47	1541.11	4230.66
4	2022	214.61	5731.32	227.87	1491.40	4094.19
5	2022	221.76	5922.36	235.47	1541.11	4230.66
6	2022	214.61	5731.32	227.87	1491.40	4094.19
7	2022	221.76	5922.36	235.47	1541.11	4230.66
8	2022	221.76	5922.36	235.47	1541.11	4230.66
9	2022	214.61	5731.32	227.87	1491.40	4094.19
10	2022	221.76	5922.36	235.47	1541.11	4230.66
11	2022	214.61	5731.32	227.87	1491.40	4094.19
12	2022	221.76	5922.36	235.47	1541.11	4230.66
1	2023	222.66	6010.11	240.42	1567.14	4274.50
2	2023	201.11	5428.49	217.16	1415.48	3860.84
3	2023	222.66	6010.11	240.42	1567.14	4274.50
4	2023	215.47	5816.24	232.67	1516.59	4136.61
5	2023	222.66	6010.11	240.42	1567.14	4274.50
6	2023	215.47	5816.24	232.67	1516.59	4136.61
7	2023	222.66	6010.11	240.42	1567.14	4274.50
8	2023	222.66	6010.11	240.42	1567.14	4274.50
9	2023	215.47	5816.24	232.67	1516.59	4136.61
10	2023	222.66	6010.11	240.42	1567.14	4274.50
11	2023	215.47	5816.24	232.67	1516.59	4136.61
12	2023	222.66	6010.11	240.42	1567.14	4274.50
1	2024	223.55	6097.86	245.37	1593.16	4318.34
2	2024	209.12	5704.45	229.54	1490.38	4039.74
3	2024	223.55	6097.86	245.37	1593.16	4318.34
4	2024	216.34	5901.16	237.46	1541.77	4179.04
5	2024	223.55	6097.86	245.37	1593.16	4318.34
6	2024	216.34	5901.16	237.46	1541.77	4179.04
7	2024	223.55	6097.86	245.37	1593.16	4318.34
8	2024	223.55	6097.86	245.37	1593.16	4318.34
9	2024	216.34	5901.16	237.46	1541.77	4179.04
10	2024	223.55	6097.86	245.37	1593.16	4318.34

11	2024	216.34	5901.16	237.46	1541.77	4179.04
12	2024	223.55	6097.86	245.37	1593.16	4318.34
1	2025	224.44	6185.61	250.33	1619.19	4362.18
2	2025	202.72	5587.00	226.10	1462.49	3940.04
3	2025	224.44	6185.61	250.33	1619.19	4362.18
4	2025	217.20	5986.08	242.25	1566.96	4221.47
5	2025	224.44	6185.61	250.33	1619.19	4362.18
6	2025	217.20	5986.08	242.25	1566.96	4221.47
7	2025	224.44	6185.61	250.33	1619.19	4362.18
8	2025	224.44	6185.61	250.33	1619.19	4362.18
9	2025	217.20	5986.08	242.25	1566.96	4221.47
10	2025	224.44	6185.61	250.33	1619.19	4362.18
11	2025	217.20	5986.08	242.25	1566.96	4221.47
12	2025	224.44	6185.61	250.33	1619.19	4362.18
1	2026	225.33	6273.36	255.28	1645.21	4406.03
2	2026	203.52	5666.26	230.57	1486.00	3979.64
3	2026	225.33	6273.36	255.28	1645.21	4406.03
4	2026	218.06	6070.99	247.04	1592.14	4263.90
5	2026	225.33	6273.36	255.28	1645.21	4406.03
6	2026	218.06	6070.99	247.04	1592.14	4263.90
7	2026	225.33	6273.36	255.28	1645.21	4406.03
8	2026	225.33	6273.36	255.28	1645.21	4406.03
9	2026	218.06	6070.99	247.04	1592.14	4263.90
10	2026	225.33	6273.36	255.28	1645.21	4406.03
11	2026	218.06	6070.99	247.04	1592.14	4263.90
12	2026	225.33	6273.36	255.28	1645.21	4406.03
1	2027	225.33	6273.36	255.28	1645.21	4406.03
2	2027	203.52	5666.26	230.57	1486.00	3979.64
3	2027	225.33	6273.36	255.28	1645.21	4406.03
4	2027	218.06	6070.99	247.04	1592.14	4263.90
5	2027	225.33	6273.36	255.28	1645.21	4406.03
6	2027	218.06	6070.99	247.04	1592.14	4263.90
7	2027	225.33	6273.36	255.28	1645.21	4406.03
8	2027	225.33	6273.36	255.28	1645.21	4406.03
9	2027	218.06	6070.99	247.04	1592.14	4263.90
10	2027	225.33	6273.36	255.28	1645.21	4406.03
11	2027	218.06	6070.99	247.04	1592.14	4263.90
12	2027	225.33	6273.36	255.28	1645.21	4406.03