

3.1.2 Facility Questionnaire

(1) Facility Questionnaire Form

CUESTIONARIO PARA CALDERAS

FORMA No. 1

No. _____

NOMBRE DE LA COMPAÑIA			
LOCALIZACION		CAPITAL SOCIAL	
NUMERO DE EMPLEADOS		INICIO DE OPERACIONES	
NOMBRE DEL RESPONSABLE		fecha	
NOMBRE DE LA PLANTA			
PRODUCTO			
VOLUMEN DE VAJOR	CAPACIDAD	T/H	CAPACIDAD NORMAL T/H
VAJOR	PRESION	kg/cm ²	TEMP. °C
	ENTALPIA	kcal/kg	
CALDERA	MODELO	TIPO	MARCA PLANOS
TIPO DE COMBUSTIBLE EMPLEADO			COMPOSICION DEL COMBUSTIBLE
CONSUMO	kg/H	GAS	Nm ³ /H
CONTENIDO CALORICO	kcal/kg	GAS	kcal/Nm ³
RELACION DE LA MEZCLA	%	GAS	%
FRECUENCIA DEL CALENTADOR	%		
CARGA CALORIFICA EN EL HORNO	kcal/m ³ /H	PRESION EN EL HORNO mmH ₂ O	
TIPO Y ESTRUCTURA DEL HORNO	MODELO	TIPO	PLANOS
CAPACIDAD DEL QUEMADOR	CAPACIDAD	kg/H	CAPACIDAD NORMAL kg/H
	CAPACIDAD	Nm ³ /H	CAPACIDAD NORMAL Nm ³ /H
CALENTAMIENTO DE COMBUSTIBLE	TEMP.	°C	PRESION mmH ₂ O
GAS: PRESION DEL QUEMADOR	PRESION	mmH ₂ O	
ASPERSOR	VAPOR O AIRE COMPRIMIDO		VAPOR AIRE COMPRIMIDO
CONSUMO PROMEDIO DE COMBUSTIBLE	kg/H	PRESION	kg/cm ²
PRECALENTADOR DE AIRE	TEMP.	°C	
AGUA ALIMENTADA	TEMP.	°C	
TIPO DE SUAVIZANTE DE AGUA			
AIRE EN EXCESO			
CONTROLADOR AUTOMATICO			
TEMPERATURA DE GAS DE DESFOQUE	°C		
RECUPERADOR	ENTRADA	°C	SALIDA °C
ECONOMIZADOR	ENTRADA	°C	SALIDA °C
COMPOSICION DE LOS GASES DE DESFOQUE			
CHIMENEA	ALTURA	mts	DIAMETRO mts.
EXISTENCIA DE FUERTOS DE MUESTREO			
SOPORTE TECNICO DE LA COMPAÑIA			
OBSERVACIONES GENERALES			
NOMBRE DEL FUNCIONARIO :			

CUESTIONARIO PARA HORNOS DE CEMENTO

FORMA No. 2

No. _____

NOMBRE DE LA COMPAÑIA			
LOCALIZACION		CAPITAL SOCIAL	
NUMERO DE EMPLEADOS		INICIO DE OPERACIONES	
HOMBRE DEL RESPONSABLE		FECHA	
HOMBRE DE LA PLANTA			
CAPACIDAD DE PRODUCCION	CAPACIDAD	T/ H	CAPACIDAD NORMAL T/H
HORARIO DE OPERACION		H/D	
TEMPERATURA DE COCCION	TEM. MAX.	°C	
TEM DE SALIDA DEL CLINKER	TEM.	°C	
TIPO Y ESTRUCTURA DEL HORNO	MODELO	TIPO	MARCA
			PLANOS
TIPO DE COMBUSTIBLE CONSUMIDO.			COMPONENTES DEL COMBUSTIBLE.
CONSUMO		Kg/H	GAS Nm3/ H
CAPACIDAD CALORIFICA		Kcal/kg	GAS Kcal/Nm3
CONSUMO DE COMBUSTIBLE POR UNIDAD DE PRODUCTO			
TIPO DEL QUEMADOR	MODELO	TIPO	PLANOS
CAPACIDAD DEL QUEMADOR	CAPACIDAD	Kg/ H	CAPACIDAD NORMAL Kg/H
	CAPACIDAD	Nm3/H	CAPACIDAD NORMAL Nm3/ H
CALENTAMIENTO DE COMBUSTIBLE	TEMP.	°C	PRESION mmH2O
GAS PRESION EN EL QUEMADOR	PRESION	mmH2O	
ATOMIZADOR	VAPOR O AIRE COMPRIMIDO		VAPOR AIRE COMPRIMIDO
CONSUMO PROMEDIO DEL COMBUSTIBLE		Kg/ H.	PRESION Kg/cm2
REGLAMENTADOR DEL AIRE	ENTRADA DE AIRE	°C	SALIDA DE AIRE °C
APARATO DE PRECALENTAMIENTO DE MATERIALES	TEMP.	°C	SISTEMA DE ENFRIAMIENTO °C °C
AIRE EN EXCESO			
TEMPERATURA DE GASES DE DESFOGUE		°C	°C
		°C	°C
		°C	°C
COMPONENTES DE LOS GASES DE DESFOGUE			
CHIMENEA			
EXISTENCIA DE PUERTOS DE MUESTREO			
COLINDANCIAS DEL PUNTO DE MEDICION			
SOPORTE TECNICO DE LA COMPAÑIA			
OBSERVACIONES GENERALES:			
FUNCIONARIOS:			

CUESTIONARIO PARA HORNO DE FUNDICION DE VIDRIO

FORMA No. 3

No. _____

NOMBRE DE LA COMPAÑIA			
LOCALIZACION	CAPITAL SOCIAL		
NUMERO DE EMPLEADOS	INICIO DE OPERACIONES		
NOMBRE DEL RESPONSABLE	FECHA		
NOMBRE DE LA PLANTA			
CAPACIDAD DE PRODUCCION	CAPACIDAD	T/ H	T/ D
COMPONENTE DEL VIDRIO			
TEMPERATURA DE EXTRACCION Y FUNDICION	AREA DE FUNDICION	°C.	AREA DE TRABAJO °C
HORNO DE FUNDICION	MODELO TIPO MARCA	PLANOS	
TIPO DE COMBUSTIBLE UTILIZADO.			COMPOSICION DEL COMBUSTIBLE.
CONSUMO			
VALOR CALORICO			
CONSUMO DE COMBUSTIBLE POR UNIDAD PRODUCIDA	Kcal/T		
TIPO Y ESTRUCTURA DE QUEMADOR	MODELO	TIPO	PLANOS
CAPACIDAD DEL QUEMADOR	CAPACIDAD	Kg/ h	CAPACIDAD NORMAL Kg/h
PRECALENTAMIENTO DE COMBUSTIBLE	TEMP	°C	PRESION mmH2O
ATOMIZADOR	VAPOR C. AIRE COMPRIMIDO	VAPOR	AIRE COMPRIMIDO
CONSUMO PROMEDIO DE COMBUSTIBLE		Kg/h	PRESION Kg/cm²
AIRE PRECALENTADO	TEMP.	°C	
PROMEDIO DE EXCESO DE AIRE			
CONTROLADOR AUTOMATICO			
TEMPERATURA EN EL HORNO	AREA DE FUNDICION	°C	AREA DE TRABAJO °C
	DESFOGUE DE GASES EN LA ENTRADA DEL REGENERADOR °C		
	AIRE °C		
	DESFOGUE DE GASES EN LA SALIDA DEL REGENERADOR °C		
COMPOSICION DE LOS GASES DE SALIDA			
CHIMENEA			
EXISTENCIA DE PUERTOS DE MUESTREO			
PUNTOS PARA MUESTREO PERIMETRAL			
SOPORTE TECNICO : DE LA COMPAÑIA			
OBSERVACIONES GENERALES:			
FUNCIONARIOS:			

**CUESTIONARIO PARA HORNO DE FUNDICION DE METALES
(HORNO ELECTRICO CUBILOTE)**

HORNO PARA FUNDICION DE HIERRO

FORMA Hro. 4

No. _____

NOMBRE DE LA COMPAÑIA				
LOCALIZACION	CAPITAL SOCIAL			
No. DE EMPLEADOS	INICIO DE OPERACIONES			
NOMBRE DEL RESPONSABLE	FECHA			
NOMBRE DE LA PLANTA				
PRODUCTO				
CAPACIDAD DE FUNDICION	TON/CARGA		TON/ HORA	
TIEMPO DE FUNDICION	CARGA	H	REFINACION	H
	FUNDICION	H	TOTAL	H
TEMP. DEL HIERRO Y ACERO	°C			
TIPO Y ESTRUCTURA	MODELO	TIPO	MARCA	PLANOS
FUENTE DE CALENTAMIENTO USADA			COMPOSICION DEL COMBUSTIBLE	
CONSUMO	kwh/carga		kg/carga	
CONTENIDO CALORICO POR UNIDAD DE PRODUCTO	kwh/T		kg/T	
TEMP.Y PRESION MAXIMAS	TEMPERATURA	°C	PRESION	mmH2O
EXISTENCIA DE PRECALENTAMIENTO PARA CARGAS	HORNO ELECTRICO °C			
TEMPERATURA DE LOS GASES DE DESFOQUE	ALIMENTACION °C			
	DERRETIDO °C			
	TERMINADO °C			
COMPOSICION DE LOS GASES DE DESFOQUE	EL DERRETIDO			
	EL TERMINADO			
EXISTENCIA DE PUESTOS DE MUESTREO				
SOPORTE TECNICO DE LA COMPAÑIA				
OBSERVACIONES GENERALES				
NOMBRE DEL FUNCIONARIO :				

CUESTIONARIO PARA HORNOS DE CEMENTO

FORMA No. 5

No. _____

NOMBRE DE LA COMPAÑIA			
LOCALIZACION	CAPITAL SOCIAL		
NUMERO DE EMPLEADOS	INICIO DE OPERACIONES		
NOMBRE DEL RESPONSABLE	FECHA		
NOMBRE DE LA PLANTA			
PRODUCTO			
CAPACIDAD DE PRODUCCION	<div style="display: flex; justify-content: space-between;"> 1 TON KG </div>		
	TAMAÑO NORMAL DE MATERIAL mm x mm x mm x		
CAPACIDAD DE ENCENDIDO	T/H		T/D
TEMPERATURA DE ENCENDIDO	TEMP. MAX.	°C	
CURVA TERMICA DE OPERACION DEL PROCESO.			
TIPO Y ESTRUCTURA DEL HORNO	MODELO	TIPO	PLANOS
TIPO DE COMBUSTIBLE EMPLEADO.	COMPOSICION DEL COMBUSTIBLE		
CONSUMO	kg/H	GAS	Nm ³ /H
CAPACIDAD CALORIFICA	kcal/kg	GAS	kcal/Nm ³
MEZCLA PROMEDIO DE COMBUSTION	%	GAS	%
CONSUMO DE COMBUSTIBLE POR UNIDAD DE PRODUCTO	kcal/T		
QUEMADOR	MODELO	TIPO	PLANOS
CAPACIDAD DEL QUEMADOR	CAPACIDAD	kg/H	CAPACIDAD NORMAL kg/H
	CAPACIDAD	Nm ³ /H	CAPACIDAD NORMAL Nm ³ /H
CALENTAMIENTO DE COMBUSTIBLE	TEMP.	°C	PRESION mmH ₂ O
GAS: PRESION DEL QUEMADOR	PRESION	mmH ₂ O	
ATOMIZADOR	VAPOR O AIRE COMPRIMIDO	VAPOR	AIRE COMPRIMIDO
CONSUMO PROMEDIO DE COMBUSTIBLE	kg/H	PRESION	kg/cm ²
AIRE PRECALENADO	TEMP.	°C	
PROMEDIO DE AIRE EN EXCESO			
TEMPERATURA DE GASES DE SALIDA	PRECALENT.	°C	ENCENDIDO °C
	ENFRIAMIENTO	°C	PROMEDIO °C
COMPOSICION DE GASES DE SALIDA			
CHIMENEA			
EXISTENCIA DE PUERTOS DE MUESTREO			
PUNTOS PARA MEDICION AMBIENTAL	POSIBLES : de		
SOPORTE TECNICO DE LA COMPAÑIA			
OBSERVACIONES Y COMENTARIOS			
NOMBRE DEL FUNCIONARIO :			

CUESTIONARIO DE HORNO DE SECADO

FORMA No. 6

No.

NOMBRE DE LA COMPAÑIA			
LOCALIZACION	CAPITAL SOCIAL		
NUMERO DE EMPLEADOS	INICIO DE OPERACIONES		
NOMBRE DEL RESPONSABLE	FECHA		
NOMBRE DE LA PLANTA			
MATERIALES POR SECAR	NOMBRE DEL MATERIAL		COMPONENTES
	HUMEDAD	%	
CAPACIDAD DE SECADO	T/H		T/D
HORAS DE OPERACION	H/D		
HORNO DE SECADO	MODELO TIPO	MARCA	PLANOS
TEMP. DEL HORNO O DESOPLADO	°C		
TIPO DE COMBUSTIBLE CONSUMIDO.			COMPOSICION DEL COMBUSTIBLE
CONSUMO	Kg/H	GAS	Nm ³ /H
CAPACIDAD CALORIFICA	Kcal/Kg	GAS	Kcal/Nm ³
RELACION DE LA MEZCLA DE COMB.	%	GAS	5
CONSUMO DE COMBUSTIBLE POR UNIDAD DE PRODUCTO	Kcal/Kg		Kcal/ T
TIPO Y ESTRUCTURA DEL QUEMADOR	MODELO	TIPO	PLANOS
CAPACIDAD DEL QUEMADOR	CAPACIDAD	Kg/ H	CAPACIDAD NOMIAL Kg/H
CALENTAMIENTO DE COMBUSTIBLE	TEMP.	°C	PRESION mmH ₂ O
ATOMIZADOR			
CONSUMO PROMEDIO DEL COMBUSTIBLE	kg/H	PRESION	Kg/cm ²
TEM. DE GASES DE DESFOGUE	°C		
COMPONENTE DE LOS GASES DE DESFOGUE			
CHIMENEA ALTURA	ALTURA	M/trs	DIAMETRO M/trs.
EXISTENCIA DE PUERTOS DE MUESTREO			
COLINDANCIAS DEL PUNTO DE MEDICION			
SOPORTE TECNICO DE LA COMPAÑIA			
OBSERVACIONES GENERALES:			
FUNCIONARIOS:			

NOMBRE DE LA COMPAÑIA				
LOCALIZACION	CAPITAL SOCIAL			
NUMERO DE EMPLEADOS	INICIO DE OPERACIONES			
NOMBRE DEL RESPONSABLE	FECHA			
NOMBRE DE LA PLANTA				
MATERIAL DE INCINERACION	COMPONENTES	%		%
	HUMEDAD	%	COMBUSTIBLE	kcal/kg
CAPACIDAD DE INCINERACION	T/H		T/D	
HORAS DE OPERACION	H/D			
TEMPERATURA DEL HORNO EN CADA PUNTO	°C		°C	
	°C		°C	
TIPO Y ESTRUCTURA DEL HORNO	MODELO	TIPO?	MARCA	PLANOS
TIPO DE COMBUSTIBLE EMPLEADO			COMPONENTE DEL COMBUSTIBLE	
CONSUMO	kg/H		GAS	Nm ³ /H
CAPACIDAD CALORIFICA	kcal/kg		GAS	kcal/Nm ³
RELACION DE MEZCLA DE COMBUSTIBLE	%		GAS	%
CONSUMO DEL COMBUSTIBLE POR UNIDAD DE PRODUCTO	kcal/T			
QUEMADOR	MODELO	TIPO	PLANOS	
CAPACIDAD DEL QUEMADOR	CAPACIDAD	kg/H	CAPACIDAD NORMAL	kg/H
	CAPACIDAD	Nm ³ /H	CAPACIDAD NORMAL	Nm ³ /H
CALENTAMIENTO DEL COMBUSTIBLE	TEMP.	°C	PRESION	mmH ₂ O
PRESION DEL QUEMADOR	PRESION	mmH ₂ O		
ASPERSOR	VAPOR O AIRE COMPRIMIDO		VAPOR	AIRE COMPRIMIDO
CONSUMO PROMEDIO DE COMBUSTIBLE	kg/H		PRESION	kg/cm ²
PRECALENTADOR DE AIRE	TEMP.	°C		
AIRE EN EXCESO				
CONTROLADOR AUTOMATICO				
TEMP. DE LOS GASES DE DESFOQUE		°C		°C
COMPONENTE DE LOS GASES DE DESFOQUE				
CHIMENEA	ALTURA	mts	DIAMETRO	mts
EXISTENCIA DE PUERTOS DE MUESTREO				
COLINDANCIA DEL PUNTO DE MEDICION				
SOPORTE TECNICO DE LA COMPAÑIA				
TIPO DEL COLECTOR DE POLVOS	MODELO	TIPO		
CONCENTRACION DE POLVO	ENTRADA	g/m ³	SALIDA	g/m ³
OBSERVACIONES GENERALES				
NOMBRE DEL FUNCIONARIO:				

CUESTIONARIO PARA HORNO DE CALENTAMIENTO EN GENERAL

FORMA No. 8.-

No. _____

NOMBRE DE LA COMPAÑIA			
LOCALIZACION	CAPITAL SOCIAL		
NUMERO DE EMPLEADOS	INICIO DE OPERACIONES		
NOMBRE DEL RESPONSABLE	FECHA:		
NOMBRE DE LA PLANTA			
MATERIALES HORNEADOS			
CAPACIDAD DE CALENTAMIENTO	T / H.	T/D	
HORAS DE OPERACION	H / D		
TIEMPO DE FUNDICION	H.		
TEMP. DE CALENTAMIENTO DE MATE.	°C	°C	
TIPO Y ESTRUCTURA DEL HORNO	MODELO TIPO MARCA	PLANOS	
TIPO DE COMBUSTIBLE UTILIZADO		COMPOSICION DEL COMBUSTIBLE.	
CONSUMO	Kg/H	GAS	Nm3/H
CONTENIDO CALORICO	Kcal/Kg	GAS	Kcal/Nm3
RELACION DE LA MEZCLA DE COMB.	%	GAS	%
CONSUMO DE COMBUSTIBLE POR UNIDAD DE PRODUCTO	Kcal/T		
QUEMADOR	MODELO TIPO	PLANOS	
CAPACIDAD DEL QUEMADOR	CAPACIDAD	Kg/H	CAPACIDAD NORMAL Kg/H
	CAPACIDAD	Nm3/H	CAPACIDAD NORMAL Nm3/H
CALENTAMIENTO DE COMBUSTIBLE	TEMP.	°C	PRESION mmH2O
GAS PRESION DEL QUEMADOR	PRESION	mmH2O	
ASPERSOR			
CONSUMO PROMEDIO DEL COMBUSTIBLE	Kg/H	PRESION	Kg/cm2
PRECALENTADOR DE AIRE	TEMP.	°C	
AIRE EN EXCESO			
CONTROLADOR AUTOMATICO			
TEMP. EN EL HORNO Y EN LOS GASES DE DESFOGUE	HORNO	°C	GAS DE DESFOGUE °C
COMPOSICION DE LOS GASES DE DESFOGUE			
TIPO DE RECUPERACION			
CHIMENEA	ALTURA		DIAMETRO INT.
EXISTENCIA DE PUERTOS DE MUESTREO			
COLINDANCIAS DEL PUNTO DE MEDICION			
BOPORTE TECNICO DE LA COMPAÑIA			
OBSERVACIONES GENERALES:			
FUNCIONARIOS:			

(2) Instruction for Facility Questionnaire

INSTRUCCIONES PARA LLENAR LA FORMULA DE LA ENCUESTA SOBRE HORNOS

- 1) Si hay varios tipos de hornos, llene los datos de uno representativo
- 2) Llene cada ítem en lo posible. También llene aquellos ítems cuyas medidas fueron hechas con anterioridad.
- 3) Solicite planos de hornos estructurales.
- 4) Referenciar la composición de combustible, indique :

Combustible sólido :

Porcentaje de C, H, S, N, O, humedad, material volátil, carbono fijo y ceniza , granulometría.

Combustible líquido :

Porcentaje de C, H, S, N, O, humedad, carbono residual y contenido de ceniza, gravedad específica y viscosidad.

Combustible en gas :

Porcentaje de H_2 , CH_4 , C_2H_6 , C_3H_8 , CO, CO_2 , N_2 y O_3 , contenido de alquitrán en g/m³.

Indicar el contenido de humedad en términos de valor externo en %

Indicar la viscosidad en términos de Cst a 50° C.

- 5) Indique el poder calorífico de combustible en términos de KCal bruto
- 6) Referente al tipo de quemador, diferencien los tipos premezcla y no premezcla.

Presentar planos de quemador y de boquilla. Especificar grado de inclinación óptimos.

- 7) Si están disponibles varios quemadores, indique la capacidad de cada unidad y el consumo por hora.

- 8) Indique si el control automático es disponible. En caso afirmativo - indique todos los sistemas de control uno por uno sobre los de temperatura, de relación aire-combustible y de presión de horno.

- 9) Indique la composición de gas expulsado : CO_2 , O_2 , CO, N_2 en porcentaje, SO_2 , NO_2 , y HC en ppm y polvo en g/m³. Indicar la localización donde efectuaron la medición.

- 10) Indicar el diámetro de chimenea en su parte superior y su altura en metros. Si hay disponible un ventilador de expulsión, indicar la presión de succión en mmH₂O. Indicar si el flujo es positivo o negativo.

- 11) Indique el modelo, tipo y valores medidos en la entrada y la salida en caso de que esté instalado un equipo de control de contaminación

RECOGIDA DE LA MUESTRA

Aprovechando las visitas debe recoger las muestras del combustible.

- a) Cantidad requerida : líquido 250 cc aproximadamente.
sólido 3 Kg aproximadamente.
- b) Envase / empaque : Debe utilizar los que suministra la Misión del Estudio.
- c) Identificación a anotar : El código de la fábrica
El código del equipo
Nombre del combustible
Lugar de la procedencia
Fecha de la recogida
- d) Punto del cuidado : Líquido - llenar en envase sin dejar espacio

Todas las muestras a recoger deben ser de las de actual consumo.

Sólido - debe contener de diferentes tamaños.

3.1.3 Factory List

Factory List (1)

No.	CODE	NAME
	NEW	OLD
001	103.L	34.L
002	123.L	139.L
003	173.L	169.L
004	350.L	76.L
005	5.L	5.L
006	138.L	154.L
007	220.L	150.L
008	106.L	32.L
009	216.L	289.L
010	84.L	109.L
011	133.L	162.L
012	61.L	12.L
013	200.L	144.L
014	78.L	203.L
015	312.L	176.L
016	88.L	248.L
017	203.L	201.L
018	165.L	63.L
019	100.L	112.L
020	266.L	204.L
021	134.L	171.L
022	142.L	158.L
023	122.L	127.L
024	101.L	30.L
025	269.L	146.L
026	108.L	128.L
027	76.L	111.L
028	211.L	136.L
029	263.L	166.L
030	67.L	261.L
031	139.L	122.L
032	264.L	174.L
033	171.L	123.L
034	164.L	145.L
035	90.L	331.L
036	186.L	335.L
037	194.L	186.L
038	317.L	226.L
039	242.L	134.L
040	129.L	220.L
041	288.L	197.L
042	226.L	230.L
043	56.L	302.L
044	300.L	244.L
045	86.S	106.L
046	75.L	25.L
047	244.L	70.L
048	128.L	151.L
049	3.L	3.L
050	265.L	187.L
051	308.L	55.L
052	271.L	98.L
053	326.L	103.L
054	309.L	95.L
055	52.L	291.L
056	86.L	215.L
057	69.L	138.L

058	17.L	247.L	American Pipe and Construcción
059	351.L	267.L	Empaques Industriales
060	190.L	173.L	Azul k LTDA
061	282.L	179.L	Renosa S.A.
062	169.L	46.L	Incolcar
063	310.L	96.L	Textiles Ascot LTDA
064	45.L	118.L	Cirofaxt
065	159.L	44.L	Icasa
066	49.L	160.L	Clinica David Rostrepo
067	178.L	172.L	Imacu S.A.
068	104.L	33.L	Empacor S.A.
069	111.L	170.L	Chocolates Luker Quezada
070	172.L	131.L	Industria Gran Colombia
071	109.L	35.L	Fabrica de Cauchos Eterna
072	2.L	2.L	Alimentos Tulipan S.A.
073			
074	247.L	74.L	Pasteurizadora el Jardin
075	209.L	142.L	La Campaña S.A.
076	156.L	287.L	Hospital San José
077	100.S	109.S	Ladrillos Moore S.A.
078	332.L	282.L	Caja Nacional de Previsión
079	77.L	116.L	Compañia Nacional de Chocolates
080	89.S	95.S	Oleaginosas Alvarado
081	15.L	152.L	Productos de Aluminio Manual
082	161.L	180.L	Icobordados
083	341.L	341.L	Imal S.A.
084	37.S	41.S	Ianini cia LTDA (SIDEL)
085	69.S	74.S	Proder LTDA
086	133.S	133.S	Oleopalma
087	145.L	205.L	Hotel Dann Colonial
088	84.S	90.S	Ladrillera Helios LTDA
089	342.L	342.L	Industrias Filcalz
090	196.L	115.L	Laboratorios Fsifer
091	30.L	286.L	Bundy de Colombia S.A.
092	10.S	10.S	Cegress
093	32.S	36.S	Tubos San Marcos
094	17.S	33.S	Industrias el Tabor LTDA
095	189.L	318.L	Instituto Nacional de Salud
096	72.L	155.L	Comapan
097	82.S	82.S	AceGracol Velmar
098	116.L	37.L	Fibra Nova
099	58.L	308.L	Clinica Infantil Colsubsidio
100	136.L	188.L	Hilaturas de Colombia
101	147.L	195.L	Hotel Continental
102	337.L	320.L	Acero Estructural LTDA
103	30.S	32.S	Ladrillera los Tejares
104	160.L	271.L	Icollantas S.A.
105	65.S	69.S	Ima S.A.
106	163.L	48.L	Incoltapas LTDA
107	55.S	59.S	Diasa S.A.
108	89.L	185.L	Croydon S.A.
109	9.L	9.S	Tubos Monserrate
110	243.L	87.L	Panaderia Palace LTDA
111	181.L	163.L	Italmex LTDA
112	126.L	126.L	Instituto Neurologico
113	201.L	157.L	Laboratorios Artibel
114	24.L	137.L	Bavaria S.A.
115	92.S	100.S	Cerveceria del Litoral
116	94.S	102.S	Muebles Artecto
117	253.L	236.L	Pricoma
118	139.L	4.L	Hotel Bogota Plaza

119	324.L	324.L	Vidrio Arte
120	221.L	52.L	Masapan LTDA
121	62.S	66.S	Golosinas de Colombia
122	5.S	5.S	Tubos el Condor
123	26.S	28.S	Ladrillera San Cristobal
124	113.S	125.S	Bocadillos los Guayabos
125	6.S	6.S	Tubos Moore
126	119.S	133.S	Ervico LTDA
127	45.S	49.S	Ladrillera Santa Fe
128	76.S	81.S	Corrugados de Colombia
129	2.S	2.S	Tubos Roca
130	19.S	21.S	Ladrillos Sur LTDA
131	36.S	85.S	Ladrillera Alemana
132	79.S	84.S	Ladrillera Zigurat
133	301.L	239.L	Sigra S.A.
134	56.S	60.S	Jabones el Tigre y Roca LTDA
135	80.L	16.L	Compañia Nacional de Cebos
136	1.S	1.S	Tubos Gressa
137	132.S	70.S	Fabrica de Jabones Rioka
138	25.S	114.S	Tubos el Arco
139	8.S	18.S	Tubos el Dorado
140	47.S	51.S	Ladrillera Yomasa
141	1.L	1.L	Acegrasas S.A.
142	66.L	126.L	Cogra lever
143	12.L	253.L	Aeronautica civil
144	224.L	62.L	Meals de Colombia
145	298.L	88.L	Suramericana de frutas
146	72.L	77.S	Jobones Reno
147	283.L	114.L	Reencauchadora Master G.
148	167.L	207.L	Induacero
149	63.S	67.S	Bocadillos los Comuneros
150	239.L	28.L	Niver S.A.
151	46.L	18.L	Clínica Marly
152	99.L	147.L	Discos CBS S.A.
153	183.L	181.L	Inversiones Omega S.A.
154	338.L	322.L	Quala
155	94.L	319.L	Club Campestre el Rancho

3.1.4 Outline of the Facilities

NOTATION OF THE LIST

1. Número para arreglo
2. Código de la empresa
3. Clasificación de la empresa
4. No. de equipo del proceso
5. Código del proceso
6. Fecha de inicio de operación
7. Código de combustible
 - 1 ACPM
 - 2 Crudo de Castilla
 - 5 Querosene
 - 6 Fuel oil
 - 7 Aceite quemado
 - 11 Carbón mineral
 - 12 Carbón coque
 - 13 Madera
 - 22 Gas propano
8. Consumo anual del combustible
9. Unidad
 - 1 galón
 - 2 tonelada
10. La hora de inicio
11. Numero de las horas de operación
12. Numero del días de operación en enero
13. Numero promedio del días de operación en el período de febrero a noviembre
14. Numero del días de operación en diciembre
15. Total annual de horas de operación
16. Código de la Alcaldia menor
17. Eje X
18. Eje Y
19. Caballo de vapor
20. Para calderas
 - 1 maquinal
 - 0 manual

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1 L 34 341	1	0103	1985	2			468000	1	0	24	30	30	30	8640	9	8	20	150	0
1 L 34 341	2	0103	1988	11			192	2	0	8	2	2	2	182	9	8	20	100	1
1 L 34 341	3	1106	1988	1			10000	1	0	24	30	30	30	8640	9	8	20	0	0
1 L 34 341	4	1106	1988	1			10000	1	0	24	30	30	30	8640	9	8	20	0	0
1 L 34 341	5	1106	1988	1			10000	1	0	24	30	30	30	8640	9	8	20	0	0
1 L 34 341	6	1106	1988	1			10000	1	0	24	30	30	30	8640	9	8	20	0	0
1 L 34 341	7	1106	1988	1			10000	1	0	24	30	30	30	8640	9	8	20	0	0
1 L 34 341	8	1106	1988	1			10000	1	0	24	30	30	30	8640	9	8	20	0	0
2 L 139 311	1	0103	1970	2			190000	1	0	24	25	25	24	7176	9	7	20	300	0
3 L 169 311	1	0103	1990	1			12960	1	5	12	30	30	30	4320	11	15	28	250	0
3 L 169 311	1	0103	1990	2			73440	1	5	12	30	30	30	4320	11	15	28	250	0
3 L 169 311	2	0103	1990	1			8640	1	5	12	30	30	30	4320	11	15	28	250	0
3 L 169 311	2	0103	1990	2			48960	1	5	12	30	30	30	4320	11	15	28	250	0
4 L 76 311	1	0103	1980	2			55440	1	6	11	28	28	28	3696	14	15	12	100	0
4 L 76 311	2	0103	1980	1			4695	1	6	1	1	30	12	313	14	15	12	100	0
5 L 5 311	1	0102	1984	2			1600000	1	22	24	25	25	25	7200	16	14	13	1100	0
5 L 5 311	2	0103	1984	1			120000	1	22	24	25	25	25	7200	16	14	13	70	0
5 L 5 311	3	0103	1980	2			350000	1	22	24	25	25	25	7200	16	14	13	230	0
5 L 5 311	4	0103	1982	1			400000	1	22	24	25	25	25	7200	16	14	13	230	0
5 L 5 311	5	0103	1978	1			200000	1	22	24	25	25	25	7200	16	14	13	120	0
5 L 5 311	6	0102	1972	2			1250000	1	22	24	25	25	25	7200	16	14	13	860	0
6 L 154 502	1	0103	1966	2			229681	1	4	24	30	30	30	8640	3	17	12	720	0
6 L 154 502	2	0103	1965	2			319	1	4	1	1	1	1	12	3	17	12	300	0
7 L 150 321	1	0103	1970	2			54000	1	0	24	30	30	30	8640	16	12	16	100	0
7 L 150 321	2	0103	1970	2			432000	1	0	24	30	30	30	8640	16	12	16	300	0
7 L 150 321	3	0103	1984	2			157248	1	0	24	26	26	26	7488	16	12	16	200	0
7 L 150 321	4	0103	1972	2			69120	1	0	24	30	30	30	8640	16	12	16	100	0
8 L 32 355	1	0103	1986	2			91931	1	21	24	15	26	20	7080	16	17	11	150	0
9 L 289 313	1	0103	1989	2			266231	1	0	24	0	30	28	7872	16	14	13	500	0
9 L 289 313	2	0103	1980	2			532934	1	0	24	0	30	28	7872	16	14	13	250	0
10 L 109 371	1	0103	1984	1			5840	1	6	16	24	24	24	4608	6	9	10	300	0
10 L 109 371	1	0103	1984	2			23360	1	6	16	24	24	24	4608	6	9	10	300	0
10 L 109 371	2	0608	1972	1			23360	1	6	24	24	24	24	6912	6	9	10	0	0
10 L 109 371	2	0608	1972	2			93440	1	6	24	24	24	24	6912	6	9	10	0	0
11 L 162 321	1	0103	1974	2			120000	1	21	24	25	25	25	7200	16	12	15	150	0
12 L 12 313	1	0103	1987	2			241920	1	4	24	30	30	30	8640	0	7	11	300	0
13 L 144 352	1	0103	1980	2			94850	1	12	24	20	24	11	8504	0	12	20	400	0
14 L 203 352	1	0103	1978	1			20400	1	7	16	18	21	17	3888	9	11	20	100	0
15 L 176 321	1	0103	1973	2			130560	1	6	24	20	30	20	8160	9	12	16	100	0
16 L 248 321	1	0103	1976	2			81900	1	6	24	8	25	15	6552	0	12	15	200	0
17 L 201 351	1	0103	1977	2			135000	1	1	24	15	22	15	6000	16	12	15	300	0
17 L 201 351	1	0103	1977	1			15000	1	1	24	15	22	15	6000	16	12	15	300	0
17 L 201 351	2	0103	1980	2			135000	1	2	24	15	22	15	6000	16	12	15	300	0
17 L 201 351	2	0103	1980	1			15000	1	2	24	15	22	15	6000	16	12	15	300	0
17 L 201 351	3	0103	1962	8			22325	1	9	9	15	20	15	2070	16	12	15	100	0
17 L 201 351	3	0103	1962	1			1175	1	9	9	15	20	15	2070	16	12	15	100	0
18 L 63 312	1	0103	1980	1			84000	1	0	24	25	30	25	8400	0	14	13	80	0
18 L 63 312	2	0103	1989	1			7000	1	0	4	25	30	25	1400	0	14	13	80	0
19 L 112 311	1	0103	1975	1			36000	1	6	16	30	30	30	5760	0	14	13	30	0
19 L 112 311	2	1304	0	1			7200	1	13	2	30	30	30	720	0	14	13	0	0
20 L 204 312	1	0103	1978	2			94080	1	7	5	28	28	28	1680	9	14	14	100	0
21 L 171 321	1	0103	1968	2			127458	1	22	24	10	27	11	6984	7	4	11	350	0
21 L 171 321	2	0103	1972	2			127458	1	22	24	10	27	11	6984	7	4	11	300	0
22 L 158 502	1	0103	1979	1			65664	1	8	12	30	30	30	4320	0	20	23	50	0
23 L 127 312	1	0103	1970	2			270000	1	6	24	25	25	25	7200	7	8	10	300	0
24 L 30 311	1	0103	1972	2			44352	1	0	24	4	4	0	1056	8	5	13	350	0
25 L 146 314	1	0103	1974	2			74800	1	6	16	30	30	30	5760	0	5	10	200	0
25 L 146 314	2	0103	1974	2			74800	1	6	16	30	30	30	5760	0	5	10	200	0
26 L 128 311	1	0103	1986	6			36000	1	6	18	25	25	25	5400	0	12	16	200	0
27 L 111 312	1	0103	1988	1			64800	1	6	8	30	30	30	2880	9	8	20	150	0
28 L 136 321	1	0103	1970	2			676170	1	0	24	23	29	18	7944	13	15	14	600	0
28 L 136 321	2	0103	1970	2			21120	1	0	24	23	29	18	7944	13	15	14	225	0
28 L 136 321	3	0103	1979	2			12800	1	0	24	23	29	18	7944	13	15	14	225	0
28 L 136 321	4	0103	1979	2			61440	1	0	24	23	29	18	7944	13	15	14	225	0
28 L 136 321	5	0103	1971	2			25344	1	0	24	23	29	18	7944	13	15	14	225	0
28 L 136 321	6	0103	1971	2			25344	1	0	24	23	29	18	7944	13	15	14	225	0
28 L 136 321	7	0103	1973	2			14784	1	0	24	23	29	18	7944	13	15	14	225	0
28 L 136 321	8	0103	1973	2			14784	1	0	24	23	29	18	7944	13	15	14	225	0
28 L 136 321	9	0103	1975	2			63360	1	0	24	23	29	18	7944	13	15	14	225	0
28 L 136 321	10	0103	1975	2			52800	1	0	24	23	29	18	7944	13	15	14	225	0
29 L 166 311	1	0103	1985	2			48000	1	6	24	20	20	10	5520	0	9	10	40	0
30 L 261 390	1	0103	1971	2			456000	1	22	24	26	26	0	6864	0	8	9	200	0
30 L 261 390	2	0103	1979	2			456000	1	6	11	22	22	0	2662	0	8	9	500	0
31 L 122 502	1	0103	1972	1			358400	1	4	18	30	30	30	6480	4	17	11	100	0
32 L 174 311	1	0103	0	1			121176	1	5	17	12	24	12	4488	0	15	13	100	0
32 L 174 311	2	0103	0	2			94248	1	5	17	12	24	12	4488	0	15	13	100	0
32 L 174 311	3	1004	0	22			55042	1	5	17	12	24	12	4488	0	15	13	0	0
33 L 123 311	1	1004	0	1			19219	1	0	24	24	24	22	6864	9	12	16	0	0
33 L 123 311	2	1004	0	1			19219	1	0	24	24	24	22	6864	9	12	16	0	0
33 L 123 311	3	1004	0	1			19219	1	0	24	24	24	22	6864	9	12	16	0	0
33 L 123 311	4	1004	0	1			19219	1	0	24	24	24	22	6864	9	12	16	0	0
3																			

34	L	145	390	1	0103	1989	2	102000	1	6	24	30	30	30	8640	9	7	21	150	0
34	L	145	390	2	0103	1989	2	102000	1	6	24	30	30	30	8640	9	7	21	150	0
34	L	145	390	3	0103	1989	2	102000	1	6	24	30	30	30	8640	9	7	21	150	0
35	L	331	390	1	1106	1970	22	160000	1	8	15	15	22	15	3750	8	10	11	0	0
36	L	335	390	1	0505	1973	6	24000	1	7	13	15	20	15	2990	14	15	10	0	0
37	L	186	311	1	0103	1970	2	226800	1	0	24	22	22	22	6336	16	12	15	100	0
38	L	226	321	1	0103	1978	1	174580	1	6	15	15	25	20	4275	0	4	10	200	0
38	L	226	321	1	0103	1978	2	698320	1	6	15	15	25	20	4275	0	4	10	200	0
38	L	226	321	2	0103	1978	11	946	2	6	15	15	25	20	4275	0	4	10	200	1
39	L	134	351	1	0103	1971	6	39060	1	18	10	10	25	15	2750	0	15	13	100	0
39	L	134	351	1	0103	1971	1	2940	1	18	10	10	25	15	2750	0	15	13	100	0
39	L	134	351	2	1304	1989	1	3000	1	5	10	10	25	15	2750	0	15	13	0	0
40	L	220	313	1	0103	1971	2	226080	1	5	16	27	26	27	5024	0	13	14	300	0
41	L	197	356	1	0202	1970	22	40000	1	7	8	15	25	15	2240	16	12	16	0	0
41	L	197	356	2	0202	1970	22	40000	1	7	8	15	25	15	2240	16	12	16	0	0
41	L	197	356	3	0202	1970	22	40000	1	7	8	15	25	15	2240	16	12	16	0	0
41	L	197	356	4	0202	1970	22	40000	1	7	8	15	25	15	2240	16	12	16	0	0
42	L	230	332	1	1106	1976	1	664128	1	6	24	20	20	20	5760	16	14	12	0	0
42	L	230	332	2	1106	1976	1	664128	1	6	24	20	20	20	5760	16	14	12	0	0
42	L	230	332	3	1106	1976	1	664128	1	6	24	20	20	20	5760	16	14	12	0	0
42	L	230	332	4	0504	1976	12	1230	2	6	24	20	20	20	5760	16	14	12	0	0
42	L	230	332	5	0504	1976	12	1230	2	6	24	20	20	20	5760	16	14	12	0	0
42	L	230	332	6	0504	1976	12	1230	2	6	24	20	20	20	5760	16	14	12	0	0
42	L	230	332	7	0504	1976	12	1230	2	6	24	20	20	20	5760	16	14	12	0	0
43	L	302	501	1	0103	1976	1	117288	1	4	24	31	30	31	8688	11	17	21	100	0
44	L	244	351	1	0103	1970	1	54000	1	7	17	20	20	20	4080	16	14	15	100	0
44	L	244	351	2	0103	1970	1	5040	1	7	6	7	7	7	504	16	14	15	100	0
44	L	244	351	3	1304	1980	1	5040	1	7	6	7	7	7	504	16	14	15	100	0
45	L	106	390	1	2103	1988	1	17250	1	6	12	10	28	10	3600	19	5	10	0	0
46	L	25	323	1	0103	1983	1	22000	1	6	11	22	22	0	2662	19	8	9	200	0
47	L	70	312	1	0103	1958	1	22680	1	4	3	30	30	30	1080	1	20	28	100	0
47	L	70	312	2	0103	1988	6	42120	1	6	13	30	30	30	4680	1	20	28	100	0
48	L	151	313	1	0103	0	2	16000	1	5	12	24	24	24	3456	0	14	13	300	0
49	L	3	369	1	0103	1965	1	44928	1	6	24	26	26	26	7488	8	9	11	100	0
49	L	3	369	2	0103	1965	1	119808	1	6	24	26	26	26	7488	8	9	11	100	0
50	L	187	311	1	0103	1980	1	205200	1	0	24	26	26	26	7488	9	12	16	80	0
50	L	187	311	2	0103	1980	1	205200	1	0	24	26	26	26	7488	9	12	16	80	0
50	L	187	311	3	0103	1980	1	3420	1	0	24	26	26	26	7488	9	12	16	80	0
50	L	187	311	4	0103	1980	1	3420	1	0	24	26	26	26	7488	9	12	16	80	0
51	L	55	321	1	0103	0	2	109200	1	6	24	25	25	25	7200	16	14	13	70	0
52	L	98	321	1	0103	1973	11	284	2	0	24	15	24	16	6504	9	12	19	1000	1
52	L	98	321	2	0103	1973	11	284	2	0	24	15	24	16	6504	9	12	19	100	1
52	L	98	321	3	0103	1975	11	284	2	0	24	15	24	16	6504	9	12	19	100	1
52	L	98	321	4	0103	1975	11	284	2	0	24	15	24	16	6504	9	12	19	100	1
52	L	98	321	5	0103	1978	2	62535	1	0	24	15	24	16	6504	9	12	19	100	0
52	L	98	321	6	0103	1975	1	43775	1	0	24	15	24	16	6504	9	12	19	100	0
52	L	98	321	6	0103	1975	2	18760	1	0	24	15	24	16	6504	9	12	19	100	0
52	L	98	321	7	0103	1975	2	62535	1	0	24	15	24	16	6504	9	12	19	100	0
52	L	98	321	8	0103	1980	2	62535	1	0	24	15	24	16	6504	9	12	19	100	0
52	L	98	321	9	0103	1980	2	62535	1	0	24	15	24	16	6504	9	12	19	100	0
52	L	98	321	10	0103	1980	2	62535	1	0	24	15	24	16	6504	9	12	19	100	0
52	L	98	321	11	0103	1989	1	62535	1	0	24	15	24	16	6504	9	12	19	100	0
53	L	103	352	1	0103	1974	1	82500	1	0	24	31	30	31	8688	9	12	19	175	0
53	L	103	352	2	0103	1974	1	82500	1	0	24	31	30	31	8688	9	12	19	175	0
53	L	103	352	3	1003	1980	1	82500	1	0	24	31	30	31	8688	9	12	19	0	0
53	L	103	352	4	1003	1974	1	82500	1	0	24	31	30	31	8688	9	12	19	0	0
54	L	95	321	1	0103	0	2	635000	1	0	24	15	30	15	7920	0	13	14	600	0
54	L	95	321	2	0103	0	2	190000	1	0	24	10	10	10	2880	0	13	14	300	0
55	L	291	501	1	0103	1984	6	78000	1	6	18	15	15	15	3240	16	16	13	150	0
55	L	291	501	2	0103	1985	6	78000	1	6	18	15	15	15	3240	16	16	13	150	0
56	L	215	371	1	0608	1980	1	240000	1	6	24	20	20	20	5760	0	13	16	150	0
56	L	215	371	2	0608	1970	1	240000	1	6	24	20	20	20	5760	0	13	16	150	0
56	L	215	371	3	0103	1970	2	18000	1	6	24	20	20	20	5760	0	13	16	150	0
56	L	215	371	4	0103	1970	2	24000	1	6	24	20	20	20	5760	0	13	16	150	0
57	L	138	404	1	0103	1975	1	216000	1	5	18	20	20	20	4320	16	14	13	400	0
58	L	247	390	1	0103	1955	2	72039	1	9	18	0	21	30	4320	1	22	29	100	0
58	L	247	390	2	0103	1955	2	20000	1	9	18	0	21	30	4320	1	22	29	100	0
59	L	267	341	1	0103	1983	2	224264	1	8	16	25	24	23	4608	9	8	21	100	0
59	L	267	341	2	0103	1983	2	224264	1	8	16	25	24	23	4608	9	8	21	100	0
60	L	173	354	1	0103	1985	2	132000	1	6	22	15	24	15	5940	6	8	10	200	0
60	L	173	354	2	0103	1990	2	132000	1	6	22	15	24	15	5940	6	8	10	200	0
61	L	179	404	1	0103	1985	1	14700	1	4	11	10	22	20	2750	16	14	14	50	0
61	L	179	404	2	1106	1985	1	6300	1	4	8	8	8	8	768	16	14	14	0	0
62	L	46	312	1	0103	1983	1	3958	1	7	8	0	16	12	1376	16	14	13	50	0
62	L	46	312	1	0103	1983	2	15824	1	7	8	0	16	12	1376	16	14	13	50	0
62	L	46	312	2	1004	1977	22	1290	1	7	8	0	12	9	1032	16	14	13	0	0
62	L	46	312	3	1004	1977	22	1290	1	7	8	0	12	9	1032	16	14	13	0	0
62	L	46	312	4	1004	1977	22	1290	1	7	8	0	12	9	1032	16	14	13	0	0
62	L	46	312	5	1004	1977	22	1290	1	7	8	0	12	9	1032	16	14	13	0	0
62	L	46	312	6	1004	1977	22	1290	1	7	8	0	12	9	1032	1				

62	L	46	312	11	1004	1977	22	1290	1	7	8	0	12	9	1032	16	14	13	0	0
63	L	96	321	1	0103	1978	2	185856	1	7	8	15	22	15	2000	16	12	15	100	0
64	L	118	321	1	0103	1973	1	1168	1	7	8	9	21	18	1896	0	14	13	100	0
64	L	118	321	1	0103	1973	7	10512	1	7	8	9	21	18	1896	0	14	13	100	0
65	L	44	390	1	0103	1962	2	101000	1	6	24	20	20	20	5760	0	12	14	150	0
65	L	44	390	2	0103	1978	2	101000	1	6	24	20	20	20	5760	0	12	14	100	0
65	L	44	390	3	0914	0	1	89584	1	6	24	20	20	20	5760	0	12	14	0	0
66	L	160	501	1	0103	1960	2	45000	1	7	11	30	30	30	3960	0	18	16	150	0
67	L	172	323	1	0103	1980	2	168000	1	4	24	20	20	20	5760	0	13	19	600	0
68	L	33	390	1	0103	1981	2	134784	1	5	16	25	25	25	4800	9	12	16	200	0
69	L	170	311	1	0103	1981	2	85000	1	3	18	25	25	25	5400	16	12	15	40	0
69	L	170	311	2	1004	1985	2	5400	1	7	12	25	25	25	3600	16	12	15	0	0
69	L	170	311	3	1004	1985	2	5400	1	7	12	25	25	25	3600	16	12	15	0	0
69	L	170	311	4	1004	1985	2	5400	1	7	12	25	25	25	3600	16	12	15	0	0
69	L	170	311	5	1004	1985	2	5400	1	7	12	25	25	25	3600	16	12	15	0	0
69	L	170	311	6	1004	1970	2	5400	1	7	12	25	25	25	3600	16	12	15	0	0
69	L	170	311	7	1004	1970	2	5400	1	7	12	25	25	25	3600	16	12	15	0	0
70	L	131	311	1	0103	1970	2	110208	1	6	16	14	14	14	2688	16	15	13	150	0
70	L	131	311	2	0103	1970	2	115200	1	22	16	30	30	30	5760	16	15	13	150	0
71	L	35	355	1	0103	1972	2	80000	1	3	22	22	25	15	6314	16	12	14	100	0
71	L	35	355	2	0103	1972	2	80000	1	3	22	22	25	15	6314	16	12	14	70	0
71	L	35	355	3	0103	1989	1	43050	1	14	24	22	25	15	6888	16	12	14	80	0
71	L	35	355	4	0103	1989	1	17220	1	3	19	22	25	15	5453	16	12	14	60	0
72	L	2	311	1	0103	1960	1	14400	1	5	16	12	12	12	2304	0	9	11	100	0
72	L	2	311	2	0103	1962	2	21600	1	5	16	12	12	12	2304	0	9	11	80	0
74	L	74	311	1	0103	1982	2	26040	1	6	8	30	30	30	2880	0	12	21	100	0
75	L	142	311	1	0103	1982	2	120000	1	6	12	30	30	30	4320	16	14	14	150	0
76	L	287	501	1	0103	1977	2	152040	1	4	15	30	30	30	5400	14	16	11	200	0
77	S	109	361	1	0907	1940	11	600	2	0	24	4	4	4	1152	4	16	9	0	0
77	S	109	361	2	0907	1940	11	600	2	0	24	4	4	4	1152	4	16	9	0	0
77	S	109	361	3	0907	1940	11	600	2	0	24	4	4	4	1152	4	16	9	0	0
77	S	109	361	4	0907	1940	11	600	2	0	24	4	4	4	1152	4	16	9	0	0
77	S	109	361	5	0906		11	1260	2	0	24	30	30	30	8640	4	16	9	0	0
78	L	282	501	1	0103	1970	1	115840	1	17	16	30	30	30	5760	10	14	17	150	0
79	L	116	311	1	0103	1975	2	38000	1	5	16	25	25	30	4880	16	12	15	75	0
79	L	116	311	2	0103	1989	11	340	2	5	16	25	25	30	4880	16	12	15	75	0
79	L	116	311	3	1304	1987	2	1200	1	14	1	25	25	30	305	16	12	15	0	0
80	S	95	311	1	0103	1979	11	240	2	6	16	24	30	22	5536	0	9	11	75	0
81	L	152	372	1	0505	1986	5	84000	1	10	12	20	20	20	2880	16	10	11	0	0
82	L	180	321	1	0103	1978	1	15000	1	6	16	0	30	0	4800	16	12	15	200	0
82	L	180	321	1	0103	1978	6	33000	1	6	16	0	30	0	4800	16	12	15	200	0
83	L	341	384	1	0608	1970	1	200000	1	16	24	20	25	0	6480	9	8	21	0	0
83	L	341	384	2	0608	1970	1	200000	1	16	24	20	25	0	6480	9	8	21	0	0
83	L	341	384	3	0608	1970	1	200000	1	16	24	20	25	0	6480	9	8	21	0	0
83	L	341	384	4	0608	1970	1	200000	1	16	24	20	25	0	6480	9	8	21	0	0
83	L	341	384	5	0608	1970	1	200000	1	16	24	20	25	0	6480	9	8	21	0	0
83	L	341	384	6	0608	1970	1	200000	1	16	24	20	25	0	6480	9	8	21	0	0
83	L	341	384	7	0608	1970	1	200000	1	16	24	20	25	0	6480	9	8	21	0	0
83	L	341	384	8	0608	1988	1	200000	1	16	24	20	25	0	6480	9	8	21	0	0
83	L	341	384	9	0608	1988	1	200000	1	16	24	20	25	0	6480	9	8	21	0	0
83	L	341	384	10	0608	1988	1	200000	1	16	24	20	25	0	6480	9	8	21	0	0
83	L	341	384	11	0608	1988	1	200000	1	16	24	20	25	0	6480	9	8	21	0	0
83	L	341	384	12	0608	1988	1	200000	1	16	24	20	25	0	6480	9	8	21	0	0
83	L	341	384	13	0608	1988	1	200000	1	16	24	20	25	0	6480	9	8	21	0	0
83	L	341	384	14	0608	1988	1	200000	1	16	24	20	25	0	6480	9	8	21	0	0
83	L	341	384	15	0608	1988	1	200000	1	16	24	20	25	0	6480	9	8	21	0	0
83	L	341	384	16	0608	1988	1	200000	1	16	24	20	25	0	6480	9	8	21	0	0
83	L	341	384	17	0608	1988	1	200000	1	16	24	20	25	0	6480	9	8	21	0	0
83	L	341	384	18	0608	1988	1	200000	1	16	24	20	25	0	6480	9	8	21	0	0
83	L	341	384	19	0608	1988	1	200000	1	16	24	20	25	0	6480	9	8	21	0	0
83	L	341	384	20	0608	1988	1	200000	1	16	24	20	25	0	6480	9	8	21	0	0
84	S	41	361	1	0907	1960	11	1800	2	0	24	30	30	30	8640	0	16	6	0	0
85	S	74	311	1	0103	0	11	2160	2	16	24	24	24	24	6912	0	9	11	0	0
85	S	74	311	2	0103	0	11	90	2	16	24	1	1	5	384	0	9	11	0	0
86	S	133	311	1	0103	1981	11	120	2	7	10	10	10	10	1200	0	10	11	200	1
87	L	205	502	1	0103	1978	1	5400	1	5	12	30	30	30	4320	0	17	11	20	0
87	L	205	502	2	0103	1978	1	5400	1	6	12	30	30	30	4320	0	17	11	20	0
88	S	90	361	1	0914	1975	11	2190	2	6	24	30	30	30	8640	5	13	1	0	0
88	S	90	361	2	0914	1971	11	2555	2	6	24	30	30	30	8640	5	13	1	0	0
89	L	342	324	1	0103	1990	1	9983	1	7	9	12	20	10	1998	14	16	12	50	0
90	L	115	352	1	0103	1960	2	10200	1	7	8	15	20	10	1800	0	7	10	50	0
90	L	115	352	1	0103	1960	1	1800	1	7	8	15	20	10	1800	0	7	10	50	0
90	L	115	352	2	0103	1975	2	10200	1	7	8	15	20	10	1800	0	7	10	50	0
90	L	115	352	2	0103	1975	1	1800	1	7	8	15	20	10	1800	0	7	10	50	0
91	L	286	354	1	0703	1981	22	864	1	17	10	10	18	12	2020	0	9	11	0	0
91	L	286	354	2	0703	1981	22	864	1	17	10	10	18	12	2020	0	9	11	0	0
91	L	286	354	3	0703	1981	22	864	1	17	10	10	18	12	2020	0	9	11	0	0
91	L	286	354	4	0703	1981	22	864	1	17	10	10	18	12	2020	0	9	11	0	0
91	L	286	354	5	0703	1981	22	19200	1	17	10	10	18	12	2020	0	9	11	0	0
91	L	286	354	6	0703	1981	22	19200	1	17	10	10	18	12	2020	0	9	11	0	0
91	L	286	354	7</																

92 S	10	361	3	0907	1987	11	720	2	8	24	3	3	3	864	0	16	6	0	0
92 S	10	361	4	0907	1987	11	720	2	8	24	3	3	3	864	0	16	6	0	0
92 S	10	361	5	0907	1987	11	720	2	8	24	3	3	3	864	0	16	6	0	0
93 S	36	361	1	0914	1980	11	48	2	0	24	26	26	26	7488	0	16	7	0	0
93 S	36	361	2	0914	1980	11	48	2	0	24	26	26	26	7488	0	16	7	0	0
93 S	36	361	3	0914	1980	11	48	2	0	24	26	26	26	7488	0	16	7	0	0
93 S	36	361	4	0914	1980	11	48	2	0	24	26	26	26	7488	0	16	7	0	0
93 S	36	361	5	0914	1980	11	48	2	0	24	26	26	26	7488	0	16	7	0	0
94 S	33	361	1	0914	1981	11	192	2	8	24	3	3	3	864	4	16	6	0	0
94 S	33	361	2	0914	1981	11	192	2	8	24	3	3	3	864	4	16	6	0	0
94 S	33	361	3	0914	1981	11	192	2	8	24	3	3	3	864	4	16	6	0	0
94 S	33	361	4	0914	1981	11	192	2	8	24	3	3	3	864	4	16	6	0	0
95 L	318	501	1	0103	1968	6	119680	1	8	15	20	20	20	3600	10	15	16	200	0
96 L	155	311	1	0103	1970	1	23961	1	14	24	26	26	26	7488	16	14	13	60	0
96 L	155	311	2	1004	1990	1	23962	1	14	24	26	26	26	7488	16	14	13	0	0
96 L	155	311	3	1004	1990	1	23962	1	14	24	26	26	26	7488	16	14	13	0	0
96 L	155	311	4	1004	1990	1	23962	1	14	24	26	26	26	7488	16	14	13	0	0
96 L	155	311	5	1004	1990	1	23962	1	14	24	26	26	26	7488	16	14	13	0	0
97 L	343	312	1	0103	1987	2	168000	1	6	24	28	28	30	8112	8	9	11	200	0
98 L	37	321	1	0103	1978	1	42400	1	8	8	10	24	15	2120	7	5	11	100	0
99 L	308	501	1	0103	1981	1	66480	1	4	24	30	30	30	8640	2	18	17	150	0
100 L	188	321	1	0103	1987	2	26125	1	0	24	12	25	13	8600	0	12	16	500	0
100 L	188	321	2	0103	1988	2	26125	1	0	24	12	25	13	8600	0	12	16	500	0
101 L	195	502	1	0103	1950	2	24000	1	6	8	15	15	15	1440	0	17	11	125	0
101 L	195	502	2	0103	1960	1	24000	1	6	8	15	15	15	1440	0	17	11	120	0
102 L	320	371	1	0608	0	1	83000	1	7	19	30	30	30	6840	0	10	11	0	0
103 S	32	361	1	0906	1989	11	730	2	6	24	30	30	30	8640	5	13	1	0	0
104 L	271	324	1	0103	1972	6	60000	1	6	24	29	29	29	8352	0	12	14	100	0
105 S	69	331	1	0103	1989	13	983	2	0	24	15	28	15	7440	9	12	16	60	0
106 L	48	372	1	0008	0	1	60000	1	7	15	10	10	10	1800	0	8	21	0	0
107 S	59	311	1	0103	1966	11	1040	2	0	24	24	24	24	6912	0	15	13	100	1
108 L	185	324	1	0103	0	2	204000	1	7	24	25	28	25	7920	0	9	10	200	0
109 S	9	361	1	0914	1965	11	1500	2	0	24	30	28	28	8112	0	6	10	0	0
109 S	9	361	2	0914	1965	11	1500	2	0	24	30	28	28	8112	0	6	10	0	0
109 S	9	361	3	0914	1965	11	1500	2	0	24	30	28	28	8112	0	6	10	0	0
109 S	9	361	4	0914	1965	11	1500	2	0	24	30	28	28	8112	0	6	10	0	0
109 S	9	361	5	0914	1965	11	1500	2	0	24	30	28	28	8112	0	6	10	0	0
109 S	9	361	6	0914	1965	11	1500	2	0	24	30	28	28	8112	0	6	10	0	0
110 L	87	311	1	0103	1964	1	70000	1	5	12	26	26	26	3744	0	14	13	150	0
110 L	87	311	2	0103	1964	1	70000	1	5	12	26	26	26	3744	0	14	13	150	0
111 L	163	352	1	0103	1967	2	24300	1	7	10	14	22	9	2430	10	12	20	100	0
111 L	163	352	2	0103	1967	2	24300	1	7	10	14	22	9	2430	10	12	20	100	0
112 L	126	501	1	0103	1972	2	54000	1	6	12	30	30	30	4320	0	18	14	100	0
113 L	157	352	1	0103	1980	1	8712	1	7	10	11	22	11	2420	16	12	16	40	0
113 L	157	352	2	0103	1975	1	4356	1	7	10	11	22	11	2420	16	12	16	10	0
114 L	137	313	1	0103	1971	2	5400000	1	8	24	30	30	30	8640	0	10	15	2560	0
114 L	137	313	2	0103	1971	2	5400000	1	8	24	30	30	30	8640	0	10	15	2560	0
114 L	137	313	3	0103	11	18000	2	8	24	30	30	30	8640	0	10	15	1500	0	
114 L	137	313	4	0103	11	18000	2	8	24	30	30	30	8640	0	10	15	1500	0	
115 S	100	313	1	0103	0	11	15600	2	0	24	30	28	30	8160	16	16	13	300	1
116 S	102	331	1	0103	1945	11	1426	2	0	24	15	20	15	5520	16	16	14	150	1
116 S	102	331	1	0103	1945	13	1742	2	0	24	15	20	15	5520	16	16	14	150	1
117 L	236	331	1	0103	1988	11	168	2	22	24	15	15	15	4320	0	5	11	200	1
117 L	236	331	2	0103	1980	11	72	2	6	16	15	15	15	2880	0	5	11	150	1
118 L	4	502	1	0103	1982	2	21600	1	5	20	30	30	30	7200	0	19	20	125	0
119 L	324	362	1	0916	1990	2	240975	1	7	14	15	24	15	3780	4	18	8	0	0
120 L	52	311	1	0103	1978	1	16800	1	7	24	26	26	26	7488	0	13	12	100	0
120 L	52	311	1	0103	1978	2	67200	1	7	24	26	26	26	7488	0	13	12	100	0
120 L	52	311	2	0103	1978	1	16800	1	7	24	26	26	26	7488	0	13	12	100	0
120 L	52	311	2	0103	1978	2	67200	1	7	24	26	26	26	7488	0	13	12	100	0
121 S	66	311	1	0103	1970	11	185	2	7	14	15	19	15	3080	0	10	11	75	0
122 S	5	361	1	0914	1950	11	96	2	5	24	8	8	8	2304	0	17	9	0	0
122 S	5	361	2	0914	1952	11	96	2	5	24	8	8	8	2304	0	17	9	0	0
122 S	5	361	3	0914	1957	11	120	2	7	24	4	4	4	1152	0	17	9	0	0
123 S	28	361	1	0914	1976	11	1268	2	24	24	22	22	22	6336	4	17	8	0	0
123 S	28	361	2	0914	1976	11	492	2	0	24	4	4	4	1152	4	17	8	0	0
124 S	125	312	1	0103	1982	11	54	2	8	8	12	12	6	1104	0	13	11	50	0
125 S	6	361	1	0906	1946	11	576	2	8	24	9	9	9	2592	4	14	7	0	0
125 S	6	361	2	0906	1946	11	576	2	8	24	9	9	9	2592	4	14	7	0	0
125 S	6	361	3	0906	1946	11	576	2	8	24	9	9	9	2592	4	14	7	0	0
125 S	6	361	4	0906	1946	11	576	2	8	24	9	9	9	2592	4	14	7	0	0
125 S	6	361	5	0906	1946	11	576	2	8	24	9	9	9	2592	4	14	7	0	0
125 S	6	361	6	0906	1946	11	576	2	8	24	9	9	9	2592	4	14	7	0	0
125 S	6	361	7	0906	1946	11	576	2	8	24	9	9	9	2592	4	14	7	0	0
125 S	6	361	8	0906	1946	11	576	2	8	24	9	9	9	2592	4	14	7	0	0
125 S	6	361	9	0906	1946	11	576	2	8	24	9	9	9	2592	4	14	7	0	0
125 S	6	361	10	0906	1946	11	576	2	8	24	9	9	9	2592	4	14	7	0	0
125 S	6	361	11	0906	1946	11	576	2	8	24	9	9	9	2592	4	14	7	0	0
125 S	6	361	12	0906	1946	11	576	2	8	24	9	9	9	2592	4	14	7	0	0
125 S	6	361	13	0906	1984	11	576	2	8	24	9	9	9	2592	4	14	7	0	0
125 S	6	361	14	0906	1984	11	576	2	8	24	9	9	9	2592	4	14	7	0	0
125 S	6	361	15	0906	1984	11	576	2	8	24	9	9	9	2592	4	14	7	0	0
125 S	6	361	16	0906	1984	11	576	2	8	24	9	9	9	2592	4	14	7	0	0
125 S	6	361	1																

125 S	6	361	18	0906	1984	11	576	2	8	24	9	9	9	2592	4	14	7	0	0
125 S	6	361	19	0906	1984	11	576	2	8	24	9	9	9	2592	4	14	7	0	0
125 S	6	361	20	0906	1984	11	576	2	8	24	9	9	9	2592	4	14	7	0	0
125 S	6	361	21	0906	1984	11	576	2	8	24	9	9	9	2592	4	14	7	0	0
125 S	6	361	22	0906	1984	11	576	2	8	24	9	9	9	2592	4	14	7	0	0
125 S	6	361	23	0906	1984	11	576	2	8	24	9	9	9	2592	4	14	7	0	0
126 S	133	332	1	1106	1965	13	49	2	7	24	20	20	20	5760	16	12	15	0	0
126 S	133	332	2	1106	1965	13	49	2	7	24	20	20	20	5760	16	12	15	0	0
127 S	49	361	1	0907	1956	11	3600	2	6	24	30	30	30	8640	0	12	4	0	0
127 S	49	361	1	0907	1956	2	118260	1	6	24	30	30	30	8640	0	12	4	0	0
127 S	49	361	2	0906	1973	11	5040	2	6	24	30	30	30	8640	0	12	4	0	0
127 S	49	361	2	0906	1973	2	118260	1	6	24	30	30	30	8640	0	12	4	0	0
127 S	49	361	3	0906	1963	11	5040	2	6	24	30	30	30	8640	0	12	4	0	0
127 S	49	361	3	0906	1963	2	118260	1	6	24	30	30	30	8640	0	12	4	0	0
127 S	49	361	4	0906	1968	11	5040	2	6	24	30	30	30	8640	0	12	4	0	0
127 S	49	361	4	0906	1968	2	118260	1	6	24	30	30	30	8640	0	12	4	0	0
127 S	49	361	5	0906	1987	11	5040	2	6	24	30	30	30	8640	0	12	4	0	0
127 S	49	361	5	0906	1987	2	118260	1	6	24	30	30	30	8640	0	12	4	0	0
127 S	49	361	6	0906	1987	11	5040	2	6	24	30	30	30	8640	0	12	4	0	0
127 S	49	361	6	0906	1987	2	118260	1	6	24	30	30	30	8640	0	12	4	0	0
128 S	81	341	1	0103	1965	11	800	2	10	24	28	28	28	8064	9	8	19	120	0
128 S	81	341	2	0103	1965	11	800	2	10	24	28	28	28	8064	9	8	19	120	0
129 S	2	361	1	0907	1963	11	240	2	6	24	9	9	9	2592	4	17	6	0	0
129 S	2	361	2	0907	1978	11	240	2	6	24	9	9	9	2592	4	17	6	0	0
130 S	21	361	1	0907	1966	11	600	2	0	24	30	30	30	8640	6	11	4	0	0
131 S	85	361	1	0907	1960	11	2200	2	8	24	30	30	30	8640	0	13	2	0	0
132 S	84	361	1	0914	1972	11	1620	2	0	24	30	30	30	8640	5	13	2	0	0
132 S	84	361	2	0914	1985	11	1620	2	0	24	30	30	30	8640	5	13	2	0	0
133 L	239	311	1	0103	1985	2	120000	1	4	24	15	20	15	5520	16	12	16	100	0
134 S	60	390	1	0103	1980	11	65	2	6	8	6	6	6	576	0	4	9	150	0
135 L	16	312	1	0103	1982	11	300	2	21	14	25	25	25	4200	6	9	11	100	0
136 S	1	361	1	0907	1968	11	190	2	0	24	3	3	3	864	4	15	6	0	0
136 S	1	361	2	0907	1972	11	190	2	0	24	3	3	3	864	4	15	6	0	0
136 S	1	361	3	0907	1978	11	190	2	0	24	3	3	3	864	4	15	6	0	0
137 S	70	390	1	0103	1978	11	94	2	7	5	28	28	28	1680	16	10	11	120	0
138 S	114	361	1	0907	0	11	175	2	5	24	14	14	14	4032	3	17	9	0	0
138 S	114	361	2	0907	0	11	175	2	5	24	14	14	14	4032	3	17	9	0	0
139 S	18	361	1	0907	1965	11	64	2	8	24	11	11	9	3120	4	17	9	0	0
139 S	18	361	2	0907	1965	11	64	2	8	24	2	3	1	792	4	17	9	0	0
139 S	18	361	3	0907	1965	11	64	2	8	24	2	3	1	792	4	17	9	0	0
140 S	51	361	1	0914	1956	11	540	2	7	24	6	6	6	1728	5	13	1	0	0
140 S	51	361	2	0914	1963	11	550	2	7	24	6	6	6	1728	5	13	1	0	0
140 S	51	361	3	0914	1965	11	560	2	7	24	6	6	6	1728	5	13	1	0	0
140 S	51	361	4	0914	1978	11	555	2	7	24	6	6	6	1728	5	13	1	0	0
140 S	51	361	5	0914	1980	11	1480	2	7	24	30	30	30	8640	5	13	1	0	0
141 L	1	311	1	0103	1969	2	432000	1	0	24	24	24	24	6912	0	9	10	300	0
141 L	1	311	2	0103	1971	2	432000	1	0	24	24	24	24	6912	0	9	10	300	0
141 L	1	311	3	0103	1971	2	432000	1	0	24	24	24	24	6912	0	9	10	300	0
141 L	1	311	4	0103	1971	2	432000	1	0	24	24	24	24	6912	0	9	10	300	0
141 L	1	311	5	0103	1981	1	120960	1	0	24	28	28	28	8064	0	9	10	50	0
142 L	126	311	1	0103	0	2	891000	1	7	24	26	26	11	7128	16	14	14	700	0
142 L	126	311	2	0103	0	2	59600	1	7	12	13	13	6	1788	16	14	14	600	0
142 L	126	311	3	0103	0	1	445500	1	7	24	26	26	11	7128	16	14	14	900	0
143 L	253	508	1	1301	1988	1	24000	1	9	5	30	30	30	1800	9	22		0	
144 L	62	311	1	0103	1988	1	15000	1	0	24	25	25	25	7200	17	21			
144 L	62	311	1	0103	1988	2	135000	1	0	24	25	25	25	7200	17	21			
145 L	88	311	1	0103	1988	1	8400	1	8	8	8	22	22	2000	10	13			
146 S	77	352	1	0103		11	120	2	8	10	15	15	15	1800	16	14	13		
147 L	114	355	1	0103	1967	1	197568	1	5	14	24	24	24	4032	16	15	13	100	
147 L	114	355	2	0103	1983	1	197568	1	5	14	24	24	24	4032	16	15	13	60	
148 L	207	371	1	0103	1955	2	147000	1	10	18	10	22	15	4410	0	14	13	150	0
149 S	67	311	1	0103	1970	11	100	2	7	9	16	16	16	1728	16	14	12	60	1
150 L	28	390	1	1106	1973	1	20400	1	5	8	22	22	22	2112	7	7	11		
150 L	28	390	2	1106	1979	22	14400	1	5	8	22	22	22	2112	7	7	11		
151 L	18	501	1	0103		2	12500	1	6	24	24	24	24	6912	18	15			
151 L	18	501	2	0103		2	12500	1	6	24	24	24	24	6912	18	15			
152 L	147	390	1	0103	1968	2	124800	1	5	13	20	20	20	3120	0	9	10	150	0
152 L	147	390	2	0103	1978	2	124800	1	5	13	20	20	20	3120	0	9	10	150	0
153 L	181	331	1	0103	1985	1	14553	1	6	16	12	21	12	3744	9	10	20	50	
154 L	322	311	1	0103	1990	1	33288	1	4	5	24	24	24	1440	15	14		50	
154 L	322	311	2	0103	1990	1	43800	1	11	24	24	24	24	6912	15	14		20	
155 L	319	508	1	0103	1982	1	13500	1	7	10	25	25	25	3000	0	20	29	50	0

3.1.5 Outline of the Stacks

NOTATION OF THE LIST

1. Número para arreglo
2. Código de la empresa
3. Clasificación de la empresa
4. No. de chimenea
5. Eje X
6. Eje Y
7. Distancia x (milímetro) en el mesh (XY) 1/2500
8. Distancia y (milímetro) en el mesh (XY) 1/2500
9. Altura de la chimenea
10. Clasificación de chimenea
 - 1 cuadrada
 - 0 redonda
11. Diámetro en caso de chimenea redonda (centímetro)
Longitud en caso de chimenea cuadrada(centímetro)
12. Anchura de la chimenea(centímetro)
13. Temperatura de gas emitido (°C)
14. Cantidad de gas emitido (m³/min)

1	2	3	4	5	6	7	8	9	10	11	12	13	14
001	L	34	341	01	08	20	13.00	3.00	15	45		240	
001	L	34	341	02	08	20	13.40	3.00	15	30			
001	L	34	341	03	08	20	13.40	5.00	6	1	30	30	
001	L	34	341	04	08	20	13.40	5.00	6	1	30	30	
001	L	34	341	05	08	20	13.40	5.00	6	1	30	30	
001	L	34	341	06	08	20	13.41	5.00	6	1	30	30	
001	L	34	341	07	08	20	13.41	5.00	6	1	30	30	
001	L	34	341	08	08	20	13.41	5.00	6	1	30	30	
002	L	139	311	01	07	20	4.20	2.10	18	65		205	
003	L	169	311	01	15	28	30.00	28.50	15	48			
003	L	169	311	02	15	28	30.24	28.50	15	48			
004	L	76	311	01	15	12	3.00	6.00	10	80		274	
004	L	76	311	02	15	12	3.00	6.64	10	30		293	
005	L	5	311	01	14	13	13.88	16.88	18	91			
005	L	5	311	02	14	13	14.00	17.00	18	91			
005	L	5	311	03	14	13	18.00	17.00	25	91		140	
005	L	5	311	04	14	13	18.00	16.88	25	91		140	
005	L	5	311	05	14	13	18.10	15.70	25	91		140	
005	L	5	311	06	14	13	13.60	18.60	18	91			
006	L	154	502	01	17	12	17.00	26.00	69	1	120	140	
006	L	154	502	02	17	12	15.67	27.33	69	1	150	250	
007	L	150	321	01	12	16	22.00	14.00	15	58		53	
007	L	150	321	02	12	16	22.40	13.60	15	46		130	
007	L	150	321	03	12	16	21.80	13.80	15	63			
007	L	150	321	04	12	16	21.70	13.80	15	43			
008	L	32	355	01	17	11	15.00	13.00	15	1	100	100	121
009	L	289	313	01	14	13	12.00	7.00	20	68			
009	L	289	313	02	14	13	11.80	7.00	20	55			
010	L	109	371	01	09	10	17.00	29.00	20	70		253	
010	L	109	371	02	09	10	15.8	29.00	20	70		300	
011	L	162	321	01	12	15	1.00	8.00	17	114			
012	L	12	313	01	07	11	12.00	6.00	15	57			
013	L	144	352	01	12	20	6.00	26.00	8	61		174	
014	L	203	352	01	11	20	32.00	9.00	17	35		195	1702
015	L	176	321	01	12	16	34.00	10.00	18	70		265	
016	L	248	321	01	12	15	18.00	9.00	20	45			
017	L	201	351	01	12	15	23.00	7.00	15	60		320	
017	L	201	351	02	12	15	23.48	7.00	15	60		320	
017	L	201	351	03	12	15	25.74	9.26	15	60		320	
018	L	63	312	01	14	13	6.00	10.00	15	30		496	57044
018	L	63	312	02	14	13	6.00	10.06	15	30			
019	L	112	311	01	14	13			15	25			
019	L	112	311	02	14	13			15	16			
020	L	204	312	01	14	14	20.00	21.00	18	70		120	
021	L	171	321	01	04	11	26.00	12.00	15	57		92	5029
021	L	171	321	02	04	11	26.01	12.00	15	57		105	5220
022	L	158	502	01	20	23	25.00	1.00	21	31		249	
023	L	127	312	01	08	10	34.00	32.00	15	46		400	
024	L	30	311	01	05	13	6.00	18.00	17	70			8130
025	L	146	314	01	05	10	27.00	36.00	18	44		220	
025	L	146	314	02	05	10	26.84	36.00	15	40		220	
026	L	128	311	01	12	16	9.00	17.00	15	45		230	
027	L	111	312	01	08	20	14.00	27.00	12	71		250	
028	L	136	321	01	15	14	37.50	20.00	16	70		217	
028	L	136	321	02	15	14	37.50	18.80	16	1	50	50	132
028	L	136	321	03	15	14	37.90	18.40	18	1	50	50	132
028	L	136	321	04	15	14	37.66	18.80	18	28		358	
028	L	136	321	05	15	14	37.66	20.32	15	38		89	
028	L	136	321	06	15	14	37.82	20.32	15	38		89	
028	L	136	321	07	15	14	37.90	20.32	15	38		89	
028	L	136	321	08	15	14	38.06	20.32	15	38		89	
028	L	136	321	09	15	14	38.14	19.80	15	28		362	
028	L	136	321	10	15	14	38.14	19.40	15	29		246	
029	L	166	311	01	09	10	7.00	19.00	12	20			
030	L	261	390	01	08	9	13.16	28.84	12	66			
030	L	261	390	02	08	9	13.80	28.84	14	80			
031	L	122	502	01	17	11	25.00	32.00	45	40			
032	L	174	311	01	15	13	9.00	12.00	15	40			
032	L	174	311	02	15	13	9.14	11.86	15	40			
032	L	174	311	03	15	13	9.28	11.72	15	40			
033	L	123	311	01	12	16	19.00	3.00	15	30		120	
033	L	123	311	02	12	16	19.14	3.14	15	30		130	
033	L	123	311	03	12	16	19.28	3.28	15	30		123	
033	L	123	311	04	12	16	19.42	3.42	15	30		132	
033	L	123	311	05	12	16	19.56	3.56	15	35		128	
034	L	145	390	01	07	21	22.04	2.28	13	30		130	
034	L	145	390	02	07	21	22.20	2.32	8	15		130	
034	L	145	390	03	07	21	22.32	2.28	8	15		130	
035	L	331	390	01	10	11	4.28	10.28	10	40			
036	L	335	390	01	15	10	17.00	17.00	6	20			
037	L	186	311	01	12	15	20.00	35.00	13	18		150	
038	L	226	321	01	04	10	6.00	35.00	14	30		220	

038	L	226	321	02	04	10	6.40	35.00	20	60	122
039	L	134	351	01	15	13	10.00	20.00	14	48	405
039	L	134	351	02	15	13	10.00	20.40	14	48	250
040	L	220	313	01	13	14	13.00	16.00	15	56	180
041	L	197	356	01	12	16	32.00	17.00	15	30	70
041	L	197	356	02	12	16	31.80	17.20	15	40	70
041	L	197	356	03	12	16	32.00	17.40	15	45	70
041	L	197	356	04	12	16	31.80	17.20	15	35	70
042	L	230	332	01	14	12	6.00	33.00	16	100	1300
042	L	230	332	02	14	12	6.32	33.24	16	100	1300
042	L	230	332	03	14	12	6.32	33.40	16	100	1300
042	L	230	332	04	14	12	5.36	33.00	16	50	1300
042	L	230	332	05	14	12	5.68	33.00	16	50	1300
042	L	230	332	06	14	12	6.32	33.72	16	250	1300
042	L	230	332	07	14	12	6.32	34.04	16	250	1300
043	L	302	501	01	17	21	30.00	28.00	12	22	320
044	L	244	351	01	14	15	15.00	1.00	15	33	
044	L	244	351	02	14	15	8.20	5.40	15	33	
044	L	244	351	03	14	15	7.00	1.00	15	33	
045	L	106	390	01	05	10	38.00	39.00	15	33	50 1247
046	L	25	323	01	08	9	21.00	27.00	15	70	
047	L	70	312	01	20	28	37.20	2.80	15	35	299
047	L	70	312	02	20	28	37.00	2.80	15	25	271
048	L	151	313	01	14	13	34.00	33.00	15	70	182
049	L	3	369	01	09	11	27.00	4.00	18	20	
049	L	3	369	02	09	11	29.28	6.26	18	25	
050	L	187	311	01	12	16	10.00	34.00	15	70	
050	L	187	311	02	12	16	9.92	33.92	15	70	
050	L	187	311	03	12	16	9.84	33.84	15	61	
050	L	187	311	04	12	16	9.84	33.52	15	30	
051	L	55	321	01	14	13	14.00	33.00	15	40	149
052	L	98	321	01	12	19	26.00	14.00	21	64	280
052	L	98	321	02	12	19	25.86	14.14	21	64	280
052	L	98	321	03	12	19	25.78	14.22	21	78	95 280
052	L	98	321	04	12	19	25.72	14.16	21	78	95 280
052	L	98	321	05	12	19	25.66	14.10	21	86	350
052	L	98	321	06	12	19	25.44	14.44	21	86	185
052	L	98	321	07	12	19	25.38	14.38	21	86	185
052	L	98	321	08	12	19	25.44	14.52	15	72	85 160
052	L	98	321	09	12	19	25.36	14.60	15	72	85 160
052	L	98	321	10	12	19	25.28	14.68	15	72	85 160
052	L	98	321	11	12	19	25.36	14.88	12	30	220
053	L	103	352	01	12	19	18.00	25.00	15	24	175
053	L	103	352	02	12	19	18.12	25.12	15	20	
053	L	103	352	03	12	19	18.24	25.24	15	24	
053	L	103	352	04	12	19	18.36	25.12	15	24	
054	L	95	321	01	13	14	1.00	36.00	18	46	
054	L	95	321	02	13	14	0.86	36.14	18	46	
055	L	291	501	01	16	13	16.00	34.00	40	200	200
055	L	291	501	02	16	13	15.86	33.86	40	200	200
056	L	215	371	01	13	16	13.00	13.00	12	12	
056	L	215	371	02	13	16	9.61	9.61	15	18	
056	L	215	371	03	13	16	12.01	9.61	15	18	
056	L	215	371	04	13	16	8.71	7.11	15	18	
057	L	138	404	01	14	13	26.00	30.00	17	70	
058	L	247	390	01	22	29	13.30	8.50	15	40	205
058	L	247	390	02	22	29	13.70	8.50	15	40	252
059	L	267	341	01	08	21	33.00	5.00	15	45	220
059	L	267	341	02	08	21	33.00	5.08	15	45	220
060	L	173	334	01	08	10	35.00	18.00	15	51	300
060	L	173	334	02	08	10	35.20	18.00	15	51	300
061	L	179	404	01	14	14	30.00	0.20	17	29	
061	L	179	404	02	14	14	30.60	0.60	17	29	
062	L	46	312	01	14	13	6.00	10.00	6	32	100
062	L	46	312	02	14	13	5.30	10.20	4	32	80
062	L	46	312	03	14	13	5.34	10.20	4	32	80
062	L	46	312	04	14	13	5.38	10.20	4	32	80
062	L	46	312	05	14	13	5.42	10.20	4	32	80
062	L	46	312	06	14	13	5.54	10.20	4	32	80
062	L	46	312	07	14	13	5.58	10.20	4	32	80
062	L	46	312	08	14	13	5.62	10.20	4	32	80
062	L	46	312	09	14	13	5.66	10.20	4	32	80
062	L	46	312	10	14	13	5.70	10.20	4	32	80
062	L	46	312	11	14	13	5.74	10.20	4	32	80
063	L	96	321	01	12	15	13.00	28.00	13	50	
064	L	118	321	01	14	13	24.00	6.00	24	40	225
065	L	44	390	01	12	14			15	35	270
065	L	44	390	02	12	14			15	35	
065	L	44	390	03	12	14			15	35	
066	L	160	501	01	18	16	29.00	25.00	18	60	
067	L	172	323	01	13	19	37.00	35.00	15	50	
068	L	33	390	01	12	16	27.00	4.00	15	38	350
069	L	170	311	01	12	15	21.00	28.00	10	30	
069	L	170	311	02	12	15	20.72	28.28	15	30	

069	L	170	311	03	12	15	20.86	28.42	15	30		
069	L	170	311	04	12	15	21.00	28.56	15	30		
069	L	170	311	05	12	15	21.14	28.70	15	30		
070	L	131	311	01	15	13	20.00	22.00	15	50		
070	L	131	311	02	15	13	20.08	21.92	15	40		
071	L	35	355	01	12	14	10.00	29.00	16	33	387	539
071	L	35	355	02	12	14	9.86	29.14	16	35	348	545
071	L	35	355	03	12	14	10.14	29.28	16	35	274	650
071	L	35	355	04	12	14	9.86	29.21	16	35	274	650
072	L	2	311	01	09	11	14.00	37.00	18	28	560	
072	L	2	311	02	09	11	14.00	37.02	18	28	560	
074	L	74	311	01	12	21	31.00	2.00	15	90		
075	L	142	311	01	14	14	32.00	21.00	15	38		
076	L	287	501	01	16	11	2.00	31.00	15	185	150	
077	S	109	361	01	16	9	26.00	36.00	20	100		
077	S	109	361	02	16	9	26.80	36.00	40	150		
077	S	109	361	03	16	9	28.00	36.00	20	100		
077	S	109	361	04	16	9	25.20	33.30	20	100		
077	S	109	361	05	16	9	28.00	33.30	40	100		
078	L	282	501	01	14	17	9.00	30.00	10	30	250	
079	L	116	311	01	12	15	30.00	7.00	15	12		
079	L	116	311	02	12	15	30.28	6.72	15	12		
079	L	116	311	03	12	15	32.82	4.17	15	12		
080	S	95	311	01	09	11	16.00	7.00	14	45		
081	L	152	372	01	10	11	35.00	24.00	18	80		
082	L	180	321	01	12	15	14.00	38.00	15	48	350	
083		384	01	08	21	12.00	37.00	16	25			
083		384	02	08	21	12.10	37.00	16	25			
083		384	03	08	21	12.20	37.00	16	25			
083		384	04	08	21	12.30	37.00	16	25			
083		384	05	08	21	12.40	37.00	16	25			
083		384	06	08	21	12.00	37.10	16	25			
083		384	07	08	21	12.10	37.10	16	25			
083		384	08	08	21	12.20	37.10	16	25			
083		384	09	08	21	12.30	37.10	16	25			
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083		384	11	08	21	12.00	37.20	16	25			
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083		384	15	08	21	12.40	37.20	16	25			
083		384	16	08	21	12.00	37.30	16	25			
083		384	17	08	21	12.10	37.30	16	25			
083		384	18	08	21	12.20	37.30	16	25			
083		384	19	08	21	12.30	37.30	16	25			
083		384	20	08	21	12.40	37.30	16	25			
084	S	41	361	01	16	6	9.00	1.30	20	1	50	
085	S	74	311	01	09	11	19.00	25.00	15	70		
085	S	74	311	02	09	11	19.24	25.00	15	70		
086		311	01	10	11	13.00	4.00	15	40			
087	L	205	502	01	17	11	26.00	11.00	3	15		
087	L	205	502	02	17	11	26.01	11.00	3	15		
088	S	90	361	01	13	1	23.00	6.06	15	1	100	35 18000
088	S	90	361	02	13	1	19.0	38.06	15	1	100	35 18000
089		324	01	16	12	29.00	22.00	7	25		80	
090	L	115	352	01	07	10	22.00	36.00	18	31		
090	L	115	352	02	07	10	22.10	36.00	18	31		
091	L	286	354	01	09	11	31.00	16.00	15	45	145	
091	L	286	354	02	09	11	30.92	16.00	15	45	145	
091	L	286	354	03	09	11	30.84	16.00	15	45	145	
091	L	286	354	04	09	11	31.00	15.92	15	45	145	
091	L	286	354	05	09	11	30.92	15.92	15	45	80	
091	L	286	354	06	09	11	30.84	15.92	15	45	80	
091	L	286	354	07	09	11	31.20	15.80	15	45	80	
091	L	286	354	08	09	11	31.20	15.60	15	45	80	
092	S	10	361	01	16	6	22.00	34.00	25	150		
092	S	10	361	02	16	6	21.20	34.00	25	150		
092	S	10	361	03	16	6	20.40	34.00	25	150		
092	S	10	361	04	16	6	19.60	34.00	25	150		
093	S	36	361	01	16	7	35.00	5.00	13	70		
093	S	36	361	02	16	7	36.00	4.20	15	70		
093	S	36	361	03	16	7	36.00	4.40	15	70		
093	S	36	361	04	16	7	36.00	6.40	15	70		
093	S	36	361	05	16	7	36.00	6.80	15	70		
094	S	33	361	01	16	6	15.00	29.00	30	150		
094	S	33	361	02	16	6	15.00	27.40	30	150		
095	L	318	501	01	15	16	7.00	2.00	10	60	450	
096	L	155	311	01	14	13	16.00	38.00	15	40		
096	L	155	311	02	14	13	15.78	38.22	15	40		
096	L	155	311	03	14	13	15.88	38.33	15	40		
096	L	155	311	04	14	13	15.99	38.44	15	40		
096	L	155	311	05	14	13	16.10	38.55	15	40		
097		312	01	09	11	34.00	9.00	20	80	180		
098	L	37	321	01	05	11	35.00	0.10	15	10		

099	L	308	501	01	18	17	34.00	5.00	20	20	
100	L	188	321	01	12	16	21.00	34.00	14	100	
100	L	188	321	02	12	16	21.20	34.00	14	100	
101	L	195	502	01	17	11	36.00	24.00	16	80	
101	L	195	502	02	17	11	36.01	24.01	16	80	
102	L	320	371	01	10	11	10.00	18.00	15	50	500
103	S	32	361	01	13	1	2.40	32.70	15	40	
104	L	271	324	01	12	14	13.00	17.00	17	14	
105	S	69	331	01	12	16	3.00	10.00	17	60	
106	L	48	372	01	08	21	17.00	31.00	15	30	
107	S	59	311	01	15	13	25.00	34.00	18	24	
108	L	185	324	01	09	10	1.00	30.00	15	56	160
109	S	9	361	01	06	10	3.00	7.00	13	220	
109	S	9	361	02	06	10	3.00	7.01	11	220	
109	S	9	361	03	06	10	3.00	7.21	13	220	
109	S	9	361	04	06	10	3.00	7.37	13	220	
109	S	9	361	05	06	10	3.00	7.57	12	220	
109	S	9	361	06	06	10	3.00	7.77	12	220	
110	L	87	311	01	14	13	27.00	22.00	10	25	
110	L	87	311	02	14	13	27.08	22.00	10	25	
111	L	163	352	01	12	20	5.00	1.00	15	36	250
111	L	163	352	02	12	20	5.06	1.06	15	39	300
112		501	01	18	14	28.00	3.00	25	1	60	40
113	L	157	352	01	12	16	10.00	1.00	12	25	
113	L	157	352	02	12	16	10.20	1.20	12	25	
114	L	137	313	01	10	15	29.00	28.00	25	120	221
114	L	137	313	02	10	15	29.80	28.00	25	120	221
114	L	137	313	03	10	15	30.60	28.00	25	120	221
114	L	137	313	04	10	15	30.40	28.00	25	120	221
115	S	100	313	01	16	13	1.00	34.00	31	170	151
116	S	102	331	01	16	14	13.00	21.00	30	80	
117	L	236	331	01	05	11	30.00	8.00	30	51	120
117	L	236	331	02	05	11	30.00	8.10	25	51	120
118	L	4	502	01	19	20	37.00	38.00	55	70	
119		362	01	16	8	22.00	7.00	6	90	1400	
120	L	52	311	01	13	12	22.00	3.00	20	18	
120	L	52	311	02	13	12	22.10	3.00	20	14	
121	S	86	311	01	10	11	23.00	38.00	15	61	
122	S	5	361	01	17	9	3.00	4.00	16	60	
122	S	5	361	02	17	9	3.00	2.40	16	60	
122	S	5	361	03	17	9	3.00	0.80	18	100	
123	S	28	361	01	17	8	3.00	5.00	40	90	
123	S	28	361	02	17	8	4.20	5.00	15	80	
124	S	125	312	01	13	11	18.00	16.00	16	24	
125	S	6	361	01	14	7	30.00	8.00	23	1	120 120 300
125	S	6	361	02	14	7	29.36	8.00	23	1	120 120 300
125	S	6	361	03	14	7	28.72	8.00	23	1	120 120 300
125	S	6	361	04	14	7	30.00	7.68	23	1	120 120 300
125	S	6	361	05	14	7	29.36	7.68	23	1	120 120 300
125	S	6	361	06	14	7	30.00	7.36	23	1	120 120 300
125	S	6	361	07	14	7	29.36	7.36	23	1	120 120 300
125	S	6	361	08	14	7	29.04	7.36	23	1	120 120 300
125	S	6	361	09	14	7	28.40	7.36	23	1	120 120 300
125	S	6	361	10	14	7	30.00	7.04	23	1	120 120 300
125	S	6	361	11	14	7	29.36	7.04	23	1	120 120 300
125	S	6	361	12	14	7	28.72	7.04	23	1	120 120 300
125	S	6	361	13	14	7	27.76	7.36	23	1	120 120 300
126	S	133	332	01	12	15	2.00	37.00	10	15	
126	S	133	332	02	12	15	1.86	36.84	10	15	
127	S	49	361	01	12	4	12.00	33.00	20	1	180 180
127	S	49	361	02	12	4	13.13	31.86	20	1	180 180
127	S	49	361	03	12	4	14.26	30.73	20	1	180 180
127	S	49	361	04	12	4	14.66	30.73	20	1	180 180
127	S	49	361	05	12	4	15.06	30.73	20	1	180 180
127	S	49	361	06	12	4	15.46	30.73	20	1	180 180
128	S	81	341	01	08	19	7.00	14.00	15	64	
128	S	81	341	02	08	19	7.00	13.92	15	64	
129	S	2	361	01	17	6	6.00	32.00	15	1	100 100
129	S	2	361	02	17	6	6.00	31.84	50	1	100 100
130	S	21	361	01	11	4	14.50	2.40	12	57	58 359
131	S	85	361	01	13	2	35.10	1.20	16	1	90 100 43 44612
132	S	84	361	01	13	2	24.20	10.90	15	1	100 100
132	S	84	361	02	13	2	21.08	7.70	15	1	100 100
133	L	239	311	01	12	16	20.00	9.00	18	55	200
134	S	60	390	01	04	9	31.00	27.00	18	30	
135	L	16	312	01	09	11	12.00	21.00	15		
136	S	1	361	01	15	6	3.00	14.00	17	50	
136	S	1	361	02	15	6	3.00	13.52	17	50	
136	S	1	361	03	15	6	2.68	13.52	17	50	
137	S	70	390	01	10	11	16.00	8.00	15	45	310
138	S	114	361	01	17	9	18.00	8.00	20	1	100 100
138	S	114	361	02	17	9	18.00	7.68	20	1	100 100
139	S	18	361	01	17	9	8.00	8.00	16	1	100 100
139	S	18	361	02	17	9	8.00	7.92	16	1	100 100

139	S	18	361	03	17	9	8.00	7.68	16	1	100 100
140	S	51	361	01	13	1	32.70	24.20	15	1	180 180
140	S	51	361	02	13	1	31.22	26.32	15	1	180 180
140	S	51	361	03	13	1	32.70	23.40	15	1	180 180
140	S	51	361	04	13	1	31.22	23.40	15	1	180 180
140	S	51	361	05	13	1	30.42	23.40	15	1	190 180
141	L	1	311	01	09	10	23.00	38.00	15	74	270
141	L	1	311	02	09	10	23.00	38.32	15	74	270
141	L	1	311	03	09	10	23.16	38.00	15	74	270
141	L	1	311	04	09	10	23.16	38.32	15	74	270
141	L	1	311	05	09	10	23.00	36.00	15	40	
142	L	126	311	01	14	14	4.00	8.00	27	144	
142	L	126	311	02	14	14	4.00	8.00	27	144	
142	L	126	311	03	14	14	4.20	8.20	27	144	
143	L	253	508	01	09	22	21.00	1.00	12	150	
144	L	62	311	01	17	21	10.00	14.00	12	61	
145	L	88	311	01	10	13	34.00	3.00	15	24	110
146	S	77	352	01	14	13	38.00	4.00	20	80	
147	L	114	355	01	15	13	4.00	7.00	15	50	
147	L	114	355	02	15	13	3.86	6.86	15	50	
148	L	207	371	01	14	13	27.00	35.00	18	30	170
149	S	67	311	01	14	12	22.00	5.00	15	60	
150	L	28	390	01	7	11	28.00	35.00	30	38	
150	L	28	390	02	7	11	28.00	34.56	10	25	
151	L	18	501	01	18	15	29.00	5.00	20	70	
151	L	18	501	02	18	15	29.40	5.00	20	70	
152	L	147	390	01	09	10	35.00	32.00	16	42	600
152	L	147	390	02	09	10	35.01	32.00	16	42	600
153	L	181	331	01	10	20	35.00	21.50	5	40	
154	L	322	311	01	15	14	5.00	17.00	12	40	
154	L	322	311	02	15	14	5.00	15.00	12	40	
155	L	319	311	01	20	29	35.10	19.40	12	40	

3.1.6 Correspondence between the Facilities and Stacks

1. Numero para arreglo
2. Codigo de la empresa
3. Clasificacion de la empresa
4. No. del Equipo de proceso
5. No. de la chimenea

1 2 3 4 5

1 L 34 341 1 01
 1 L 34 341 2 02
 1 L 34 341 3 03
 1 L 34 341 4 04
 1 L 34 341 5 05
 1 L 34 341 6 08
 1 L 34 341 7 07
 1 L 34 341 8 08
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 3 L 169 311 1 01
 3 L 169 311 2 02
 4 L 76 311 1 01
 4 L 76 311 2 02
 5 L 5 311 1 01
 5 L 5 311 2 02
 5 L 5 311 3 03
 5 L 5 311 4 04
 5 L 5 311 5 05
 5 L 5 311 6 06
 6 L 154 502 1 01
 6 L 154 502 2 02
 7 L 150 321 1 01
 7 L 150 321 2 02
 7 L 150 321 3 03
 7 L 150 321 4 01
 8 L 32 355 1 01
 9 L 289 313 1 01
 9 L 289 313 2 02
 10 L 109 371 1 01
 10 L 109 371 2 02
 11 L 162 321 1 01
 12 L 12 313 1 01
 13 L 144 352 1 01
 14 L 203 352 1 01
 15 L 176 321 1 01
 16 L 248 321 1 01
 17 L 201 351 1 01
 17 L 201 351 2 02
 17 L 201 351 3 03
 18 L 63 312 1 01
 18 L 63 312 2 02
 19 L 112 311 1 01
 19 L 112 311 2 02
 20 L 204 312 1 01
 21 L 171 321 1 01
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 22 L 158 502 1 01
 23 L 127 312 1 01
 24 L 30 311 1 01
 25 L 146 314 1 01
 25 L 146 314 2 02
 26 L 128 311 1 01
 27 L 111 312 1 01
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 33 L 123 311 5 05

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 34 L 145 390 2 02
 34 L 145 390 3 03
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 36 L 335 390 1 01
 37 L 186 311 1 01
 38 L 226 321 1 01
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 39 L 134 351 1 01
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 93 S 36 361 2 02
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 93 S 36 361 4 04
 93 S 36 361 5 05

94 S	33	361	1	01	127 S	49	361	4	04
94 S	33	361	2	01	127 S	49	361	5	05
94 S	33	361	3	02	127 S	49	361	6	06
94 S	33	361	4	02	128 S	81	341	1	01
95 L	318	501	1	01	128 S	81	341	2	02
96 L	155	311	1	01	129 S	2	361	1	01
96 L	155	311	2	02	129 S	2	361	2	02
96 L	155	311	3	03	130 S	21	361	1	01
96 L	155	311	4	04	131 S	85	361	1	01
96 L	155	311	5	05	132 S	84	361	1	01
97 L	343	312	1	01	132 S	84	361	2	02
98 L	37	321	1	01	133 L	239	311	1	01
99 L	308	501	1	01	134 S	60	390	1	01
100 L	188	321	1	01	135 L	16	312	1	01
100 L	188	321	2	02	136 S	1	361	1	01
101 L	195	502	1	01	136 S	1	361	2	02
101 L	195	502	2	02	136 S	1	361	3	03
102 L	320	371	1	01	137 S	70	390	1	01
103 S	32	361	1	01	138 S	114	361	1	01
104 L	271	324	1	01	138 S	114	361	2	02
105 S	69	331	1	01	139 S	18	361	1	01
106 L	48	372	1	01	139 S	18	361	2	02
107 S	59	311	1	01	139 S	18	361	3	03
108 L	185	324	1	01	140 S	51	361	1	01
109 S	9	361	1	01	140 S	51	361	2	02
109 S	9	361	2	02	140 S	51	361	3	03
109 S	9	361	3	03	140 S	51	361	4	04
109 S	9	361	4	04	140 S	51	361	5	05
109 S	9	361	5	05	141 L	1	311	1	01
109 S	9	361	6	06	141 L	1	311	2	02
110 L	87	311	1	01	141 L	1	311	3	03
110 L	87	311	2	02	141 L	1	311	4	04
111 L	163	352	1	01	141 L	1	311	5	05
111 L	163	352	2	02	142 L	128	311	1	01
112 L	126	501	1	01	142 L	128	311	2	02
113 L	157	352	1	01	142 L	126	311	3	03
113 L	157	352	2	02	143 L	253	508	1	01
114 L	137	313	1	01	144 L	62	311	1	01
114 L	137	313	2	02	145 L	88	311	1	01
114 L	137	313	3	03	146 S	77	352	1	01
114 L	137	313	4	04	147 L	114	355	1	01
115 S	100	313	1	01	147 L	114	355	2	02
116 S	102	331	1	01	148 L	207	371	1	01
117 L	236	331	1	01	149 S	67	311	1	01
117 L	236	331	2	02	150 L	28	390	1	01
118 L	4	502	1	01	150 L	28	390	2	02
119 L	324	362	1	01	151 L	18	501	1	01
120 L	52	311	1	01	151 L	18	501	2	02
120 L	52	311	2	02	152 L	147	390	1	01
121 S	66	311	1	01	152 L	147	390	2	02
122 S	5	361	1	01	153 L	181	331	1	01
122 S	5	361	2	02	154 L	322	311	1	01
122 S	5	361	3	03	154 L	322	311	2	02
123 S	28	361	1	01	155 L	319	311	1	01
123 S	28	361	2	02					
124 S	125	312	1	01					
125 S	6	361	1	04					
125 S	6	361	2	06					
125 S	6	361	3	04					
125 S	6	361	4	06					
125 S	6	361	5	05					
125 S	6	361	6	07					
125 S	6	361	7	05					
125 S	6	361	8	07					
125 S	6	361	9	09					
125 S	6	361	10	08					
125 S	6	361	11	10					
125 S	6	361	12	10					
125 S	6	361	13	11					
125 S	6	361	14	11					
125 S	6	361	15	12					
125 S	6	361	16	12					
125 S	6	361	17	01					
125 S	6	361	18	01					
125 S	6	361	19	02					
125 S	6	361	20	02					
125 S	6	361	21	03					
125 S	6	361	22	03					
125 S	6	361	23	13					
126 S	133	332	1	01					
126 S	133	332	2	02					
127 S	49	361	1	01					
127 S	49	361	2	02					
127 S	49	361	3	03					

3.1.7 List of the Pollutant Emission Rate from the Stacks

1. Numero para arreglo
2. Codigo de la empresa
3. Clasification de la empresa
4. No. de la chimenea
5. Eje X
6. Eje Y
7. Total anual de horas de operacion
8. Altura de chimenea (m)
9. Temperatura de gas emitido para simulacion (C)
10. Cantidad de gas emitido (m3/h)
11. Dust(ante tratamiento)(Nm3/h)
12. Dust(despues tratamiento)(Nm3/h)
13. NOx(Nm3/h)
14. SOx(Nm3/h)

Note The values of Dust,NOx and SOx are the total annual emissions divided by 8760(the total hours in a year).

1	2	3	4	5	6	7	8	9	10	11	12	13	14
1 L 34 341	1	8	20	8640	15	176	3617.	1.87	1.87	0.52	3.19		
1 L 34 341	2	8	20	192	15	162	32951.	0.26	0.26	0.05	0.07		
1 L 34 341	3	8	20	8640	6	80	534.	0.01	0.01	0.02	0.01		
1 L 34 341	4	8	20	8640	6	80	534.	0.01	0.01	0.02	0.01		
1 L 34 341	5	8	20	8640	6	80	534.	0.01	0.01	0.02	0.01		
1 L 34 341	6	8	20	8640	6	80	534.	0.01	0.01	0.02	0.01		
1 L 34 341	7	8	20	8640	6	80	534.	0.01	0.01	0.02	0.01		
1 L 34 341	8	8	20	8640	6	80	534.	0.01	0.01	0.02	0.01		
2 L 139 311	1	7	20	7176	16	176	1768.	0.76	0.76	0.21	1.30		
3 L 169 311	1	15	28	4320	15	176	1135.	0.30	0.30	0.09	0.51		
3 L 169 311	2	15	28	4320	15	176	756.	0.20	0.20	0.06	0.34		
4 L 76 311	1	15	12	3696	10	176	1002.	0.22	0.22	0.06	0.38		
4 L 76 311	2	15	12	313	10	176	943.	0.00	0.00	0.00	0.00		
5 L 5 311	1	14	13	7200	18	176	14840.	6.41	6.41	1.78	10.91		
5 L 5 311	2	14	13	7200	18	176	1048.	0.03	0.03	0.08	0.13		
5 L 5 311	3	14	13	7200	25	176	3246.	1.40	1.40	0.39	2.39		
5 L 5 311	4	14	13	7200	25	176	3493.	0.10	0.10	0.25	0.42		
5 L 5 311	5	14	13	7200	25	176	1746.	0.05	0.05	0.13	0.21		
5 L 5 311	6	14	13	7200	18	176	11594.	5.01	5.01	1.39	8.52		
6 L 154 502	1	17	12	8640	69	176	1775.	0.92	0.92	0.26	1.57		
6 L 154 502	2	17	12	12	69	176	1775.	0.00	0.00	0.00	0.00		
7 L 150 321	1	12	16	8640	15	176	952.	0.49	0.49	0.14	0.84		
7 L 150 321	2	12	16	8640	15	176	3339.	1.73	1.73	0.48	2.95		
7 L 150 321	3	12	16	7488	15	176	1402.	0.63	0.63	0.17	1.07		
8 L 32 355	1	17	11	7080	15	176	867.	0.37	0.37	0.10	0.63		
9 L 289 313	1	14	13	7872	20	176	2258.	1.07	1.07	0.30	1.81		
9 L 289 313	2	14	13	7872	20	176	4521.	2.13	2.13	0.59	3.63		
10 L 109 371	1	9	10	4608	20	176	358.	0.10	0.10	0.03	0.17		
10 L 109 371	2	9	10	6912	20	172	4206.	0.06	0.06	0.02	0.66		
11 L 162 321	1	12	15	7200	17	176	1113.	0.48	0.48	0.13	0.82		
12 L 12 313	1	7	11	8640	15	176	1870.	0.97	0.97	0.27	1.65		
13 L 144 352	1	12	20	6504	8	176	974.	0.38	0.38	0.11	0.65		
14 L 203 352	1	11	20	3888	17	176	330.	0.01	0.00	0.01	0.02		
15 L 176 321	1	12	16	8160	18	176	1068.	0.52	0.18	0.15	0.89		
16 L 248 321	1	12	15	6552	20	176	835.	0.33	0.11	0.09	0.56		
17 L 201 351	1	12	15	6000	15	178	1423.	0.54	0.54	0.16	0.94		
17 L 201 351	2	12	15	6000	15	176	1423.	0.54	0.54	0.16	0.94		
17 L 201 351	3	12	15	2070	15	200	654.	0.09	0.09	0.03	0.16		
18 L 63 312	1	14	13	8400	15	176	629.	0.02	0.02	0.05	0.09		
18 L 63 312	2	14	13	1400	15	176	314.	0.00	0.00	0.00	0.01		
19 L 112 311	1	14	13	5760	15	176	393.	0.01	0.01	0.02	0.04		
19 L 112 311	2	14	13	720	15	118	1930.	0.06	0.06	0.00	0.01		
20 L 204 312	1	14	14	1680	18	176	3740.	0.38	0.38	0.10	0.64		
21 L 171 321	1	4	11	6984	15	176	2437.	1.02	1.02	0.28	1.74		
22 L 158 502	1	20	23	4320	21	176	956.	0.02	0.02	0.04	0.07		
23 L 127 312	1	8	10	7200	15	176	2504.	1.08	1.08	0.30	1.84		
24 L 30 311	1	5	13	1056	17	176	2805.	0.18	0.18	0.05	0.30		
25 L 148 314	1	5	10	5760	16	176	867.	0.30	0.30	0.08	0.51		
25 L 148 314	2	5	10	5760	15	176	867.	0.30	0.30	0.08	0.51		
26 L 128 311	1	12	16	5400	15	200	503.	0.14	0.14	0.04	0.26		
27 L 111 312	1	8	20	2880	12	176	1414.	0.02	0.02	0.04	0.07		
28 L 136 321	1	15	14	7944	16	176	5684.	2.71	0.94	0.75	4.61		
28 L 136 321	2	15	14	7944	16	176	178.	0.08	0.00	0.02	0.14		
28 L 136 321	3	15	14	7944	18	176	108.	0.05	0.05	0.01	0.09		
28 L 136 321	4	15	14	7944	18	176	516.	0.25	0.25	0.07	0.42		
28 L 136 321	5	15	14	7944	15	176	213.	0.10	0.10	0.03	0.17		
28 L 136 321	6	15	14	7944	15	176	213.	0.10	0.10	0.03	0.17		
28 L 136 321	7	15	14	7944	15	176	124.	0.08	0.08	0.02	0.10		
28 L 136 321	8	15	14	7944	15	176	124.	0.08	0.08	0.02	0.10		
28 L 136 321	9	15	14	7944	15	176	533.	0.25	0.25	0.07	0.43		
28 L 136 321	10	15	14	7944	15	176	444.	0.21	0.21	0.06	0.36		
29 L 166 311	1	9	10	5520	12	176	581.	0.19	0.19	0.05	0.33		
30 L 261 390	1	8	9	6864	12	176	4436.	1.83	1.83	0.51	3.11		

30	L	261	390	2	8	9	2662	14	176	11439.	1.83	1.83	0.51	3.11
31	L	122	502	1	17	11	6480	45	176	3458.	0.09	0.09	0.22	0.38
32	L	174	311	1	15	13	4488	15	176	1687.	0.03	0.03	0.08	0.13
32	L	174	311	2	15	13	4488	15	176	1402.	0.38	0.38	0.10	0.64
32	L	174	311	3	15	13	4488	15	118	8087.	0.01	0.01	0.02	0.00
33	L	123	311	1	12	16	6864	15	118	861.	0.01	0.01	0.01	0.02
33	L	123	311	2	12	16	6864	15	118	861.	0.01	0.01	0.01	0.02
33	L	123	311	3	12	16	6864	15	118	861.	0.01	0.01	0.01	0.02
33	L	123	311	4	12	16	6864	15	118	861.	0.01	0.01	0.01	0.02
33	L	123	311	5	12	16	6864	15	118	861.	0.01	0.01	0.01	0.02
34	L	145	390	1	7	21	8640	13	176	788.	0.41	0.41	0.11	0.70
34	L	145	390	2	7	21	8640	8	176	788.	0.41	0.41	0.11	0.70
34	L	145	390	3	7	21	8640	8	176	788.	0.41	0.41	0.11	0.70
35	L	331	390	1	10	11	3750	10	80	39568.	0.01	0.01	0.04	0.00
36	L	335	390	1	15	10	2990	6	172	2023.	0.15	0.15	0.02	0.17
37	L	186	311	1	12	15	6336	13	176	2390.	0.91	0.91	0.25	1.55
38	L	226	321	1	4	10	4275	14	176	11551.	2.84	2.84	0.89	4.84
38	L	226	321	2	4	10	4275	20	162	7292.	1.30	1.30	0.25	0.33
39	L	134	351	1	15	13	2750	14	200	871.	0.16	0.16	0.05	0.28
39	L	134	351	2	15	13	2750	14	118	211.	0.03	0.03	0.00	0.00
40	L	220	313	1	13	14	5024	15	176	3005.	0.91	0.91	0.25	1.54
41	L	197	356	1	12	16	2240	15	516	5128.	0.00	0.00	0.01	0.00
41	L	197	356	2	12	16	2240	15	516	5128.	0.00	0.00	0.01	0.00
41	L	197	356	3	12	16	2240	15	516	5128.	0.00	0.00	0.01	0.00
41	L	197	356	4	12	16	2240	15	516	5128.	0.00	0.00	0.01	0.00
42	L	230	332	1	14	12	5760	16	80	53155.	0.52	0.52	1.34	0.70
42	L	230	332	2	14	12	5760	16	80	53155.	0.52	0.52	1.34	0.70
42	L	230	332	3	14	12	5760	16	80	53155.	0.52	0.52	1.34	0.70
42	L	230	332	4	14	12	5760	16	740	2800.	0.38	0.38	0.08	0.40
42	L	230	332	5	14	12	5760	16	740	2800.	0.38	0.38	0.08	0.40
42	L	230	332	6	14	12	5760	16	740	2800.	0.38	0.38	0.08	0.40
42	L	230	332	7	14	12	5760	16	740	2800.	0.38	0.38	0.08	0.40
43	L	302	501	1	17	21	8688	12	176	849.	0.03	0.03	0.07	0.12
44	L	244	351	1	14	15	4080	15	176	832.	0.01	0.01	0.03	0.06
44	L	244	351	2	14	15	504	15	176	629.	0.00	0.00	0.00	0.01
44	L	244	351	3	14	15	504	15	118	1930.	0.04	0.04	0.00	0.01
45	L	106	390	1	5	10	3600	15	740	313.	0.01	0.00	0.03	0.02
46	L	25	323	1	8	9	2662	15	176	520.	0.01	0.01	0.01	0.02
47	L	70	312	1	20	28	1080	15	176	1320.	0.01	0.01	0.01	0.02
47	L	70	312	2	20	28	4680	15	200	679.	0.17	0.17	0.05	0.30
48	L	151	313	1	14	13	3456	15	176	309.	0.06	0.06	0.02	0.11
49	L	3	369	1	9	11	7488	18	176	377.	0.01	0.00	0.03	0.05
49	L	3	369	2	9	11	7488	18	176	1006.	0.03	0.00	0.08	0.13
50	L	187	311	1	12	16	7488	15	176	1723.	0.05	0.05	0.13	0.22
50	L	187	311	2	12	16	7488	15	176	1723.	0.05	0.05	0.13	0.22
50	L	187	311	3	12	16	7488	15	176	29.	0.00	0.00	0.00	0.00
50	L	187	311	4	12	16	7488	15	176	29.	0.00	0.00	0.00	0.00
51	L	55	321	1	14	13	7200	15	176	1013.	0.44	0.44	0.12	0.74
52	L	98	321	1	12	19	6504	21	162	1439.	0.39	0.39	0.08	0.10
52	L	98	321	2	12	19	6504	21	162	1439.	0.39	0.39	0.08	0.10
52	L	98	321	3	12	19	6504	21	162	1439.	0.39	0.39	0.08	0.10
52	L	98	321	4	12	19	6504	21	162	1439.	0.39	0.39	0.08	0.10
52	L	98	321	5	12	19	6504	21	176	642.	0.25	0.25	0.07	0.43
52	L	98	321	6	12	19	6504	21	176	616.	0.09	0.09	0.05	0.17
52	L	98	321	7	12	19	6504	21	176	642.	0.25	0.25	0.07	0.43
52	L	98	321	8	12	19	6504	15	176	642.	0.25	0.25	0.07	0.43
52	L	98	321	9	12	19	6504	15	176	642.	0.25	0.25	0.07	0.43
52	L	98	321	10	12	19	6504	15	176	642.	0.25	0.25	0.07	0.43
52	L	98	321	11	12	19	6504	12	176	604.	0.02	0.02	0.04	0.07
53	L	103	352	1	12	19	8688	15	176	597.	0.02	0.02	0.05	0.09
53	L	103	352	2	12	19	8688	15	176	597.	0.02	0.02	0.05	0.09
53	L	103	352	3	12	19	8688	15	118	2918.	0.06	0.06	0.17	0.09
53	L	103	352	4	12	19	8688	15	118	2918.	0.06	0.06	0.17	0.09
54	L	95	321	1	13	14	7920	18	176	5354.	2.54	0.88	0.71	4.33
54	L	95	321	2	13	14	2880	18	176	4406.	0.76	0.26	0.21	1.30
55	L	291	501	1	16	13	3240	40	200	1815.	0.31	0.31	0.09	0.55
55	L	291	501	2	16	13	3240	40	200	1815.	0.31	0.31	0.09	0.55
56	L	215	371	1	13	16	5760	12	172	9879.	0.12	0.12	0.05	0.25
56	L	215	371	2	13	16	5760	15	172	9879.	0.12	0.12	0.05	0.25
56	L	215	371	3	13	16	5760	15	176	209.	0.07	0.07	0.02	0.12
56	L	215	371	4	13	16	5760	15	176	278.	0.10	0.10	0.03	0.16
57	L	138	404	1	14	13	4320	17	176	3143.	0.05	0.05	0.14	0.23
58	L	247	390	1	22	29	4320	15	176	1114.	0.29	0.29	0.08	0.49
58	L	247	390	2	22	29	4320	15	176	309.	0.08	0.08	0.02	0.14
59	L	267	341	1	8	21	4608	15	176	3250.	0.90	0.90	0.25	1.53
59	L	267	341	2	8	21	4608	15	176	3250.	0.90	0.90	0.25	1.53
60	L	173	334	1	8	10	5940	15	176	1484.	0.53	0.53	0.15	0.90
60	L	173	334	2	8	10	5940	15	176	1484.	0.53	0.53	0.15	0.90
61	L	179	404	1	14	14	2750	17	176	336.	0.00	0.00	0.01	0.02
61	L	179	404	2	14	14	768	17	80	3782.	0.00	0.00	0.01	0.01
62	L	46	312	1	14	13	1376	6	176	813.	0.06	0.06	0.02	0.11
62	L	46	312	2	14	13	1032	4	118	824.	0.00	0.00	0.00	0.00
62	L	46	312	3	14	13	1032	4	118	824.	0.00	0.00	0.00	0.00
62	L	46	312	4	14	13	1032	4	118	824.	0.00	0.00	0.00	0.00

62 L	46	312	5	14	13	1032	4	118	824.	0.00	0.00	0.00	0.00
62 L	46	312	6	14	13	1032	4	118	824.	0.00	0.00	0.00	0.00
62 L	46	312	7	14	13	1032	4	118	824.	0.00	0.00	0.00	0.00
62 L	46	312	8	14	13	1032	4	118	824.	0.00	0.00	0.00	0.00
62 L	46	312	9	14	13	1032	4	118	824.	0.00	0.00	0.00	0.00
62 L	46	312	10	14	13	1032	4	118	824.	0.00	0.00	0.00	0.00
62 L	46	312	11	14	13	1032	4	118	824.	0.00	0.00	0.00	0.00
63 L	96	321	1	12	15	2000	13	176	6206.	0.74	0.74	0.21	1.27
64 L	118	321	1	14	13	1896	24	176	351.	0.04	0.04	0.01	0.08
65 L	44	390	1	12	14	5760	15	176	1171.	0.40	0.40	0.11	0.69
65 L	44	390	2	12	14	5760	15	176	1171.	0.40	0.40	0.11	0.69
65 L	44	390	3	12	14	5760	15	131	4609.	0.32	0.32	0.16	0.09
66 L	160	501	1	18	16	3960	16	176	759.	0.18	0.18	0.05	0.31
67 L	172	323	1	13	19	5760	15	176	1948.	0.67	0.23	0.19	1.15
68 L	33	390	1	12	16	4800	15	176	1875.	0.54	0.19	0.15	0.92
69 L	170	311	1	12	15	5400	10	176	804.	0.26	0.26	0.07	0.44
69 L	170	311	2	12	15	3600	15	118	979.	0.04	0.02	0.01	0.07
69 L	170	311	3	12	15	3600	15	118	979.	0.04	0.02	0.01	0.07
69 L	170	311	5	12	15	3600	15	118	979.	0.04	0.04	0.01	0.07
70 L	131	311	1	15	13	2688	15	176	2738.	0.44	0.44	0.12	0.75
70 L	131	311	2	15	13	5760	15	176	1336.	0.46	0.46	0.13	0.79
71 L	35	355	1	12	14	6314	16	176	846.	0.32	0.32	0.09	0.55
71 L	35	355	2	12	14	6314	16	176	846.	0.32	0.32	0.09	0.55
71 L	35	355	3	12	14	6888	16	176	393.	0.01	0.01	0.03	0.05
71 L	35	355	4	12	14	5453	16	176	199.	0.00	0.00	0.01	0.02
72 L	2	311	1	9	11	2304	18	176	383.	0.00	0.00	0.01	0.02
72 L	2	311	2	9	11	2304	18	176	626.	0.09	0.09	0.02	0.15
74 L	74	311	1	12	21	2880	15	176	604.	0.10	0.10	0.03	0.18
75 L	142	311	1	14	14	4320	15	176	1855.	0.48	0.48	0.13	0.82
76 L	287	501	1	16	11	5400	15	176	1880.	0.61	0.61	0.17	1.04
77 S	109	361	1	16	9	1152	20	131	32734.	0.56	0.56	0.28	0.27
77 S	109	361	2	16	9	1152	40	131	32734.	0.56	0.56	0.28	0.27
77 S	109	361	3	16	9	1152	20	131	32734.	0.56	0.56	0.28	0.27
77 S	109	361	4	16	9	1152	20	131	32734.	0.56	0.56	0.28	0.27
77 S	109	361	5	16	9	8640	40	131	9166.	1.18	1.18	0.58	0.58
78 L	282	501	1	14	17	5760	10	176	1264.	0.03	0.03	0.07	0.12
79 L	116	311	1	12	15	4880	15	176	493.	0.14	0.14	0.04	0.25
79 L	116	311	2	12	15	4880	15	162	2296.	0.47	0.47	0.09	0.12
79 L	116	311	3	12	15	305	15	118	807.	0.01	0.01	0.00	0.01
80 S	95	311	1	9	11	5536	14	162	1429.	0.33	0.33	0.06	0.08
81 L	152	372	1	10	11	2880	18	172	6385.	1.55	1.55	0.03	0.02
82 L	180	321	1	12	15	4800	15	176	562.	0.14	0.14	0.05	0.25
83	384	1	8	21	6480	16	172	7318.	0.10	0.10	0.04	0.21	
83	384	2	8	21	6480	16	172	7318.	0.10	0.10	0.04	0.21	
83	384	3	8	21	6480	16	172	7318.	0.10	0.10	0.04	0.21	
83	384	4	8	21	6480	16	172	7318.	0.10	0.10	0.04	0.21	
83	384	5	8	21	6480	16	172	7318.	0.10	0.10	0.04	0.21	
83	384	6	8	21	6480	16	172	7318.	0.10	0.10	0.04	0.21	
83	384	7	8	21	6480	16	172	7318.	0.10	0.10	0.04	0.21	
83	384	8	8	21	6480	16	172	7318.	0.10	0.10	0.04	0.21	
83	384	9	8	21	6480	16	172	7318.	0.10	0.10	0.04	0.21	
83	384	10	8	21	6480	16	172	7318.	0.10	0.10	0.04	0.21	
83	384	11	8	21	6480	16	172	7318.	0.10	0.10	0.04	0.21	
83	384	12	8	21	6480	16	172	14635.	0.21	0.21	0.08	0.42	
83	384	14	8	21	6480	16	172	7318.	0.10	0.10	0.04	0.21	
83	384	15	8	21	6480	16	172	7318.	0.10	0.10	0.04	0.21	
83	384	16	8	21	6480	16	172	7318.	0.10	0.10	0.04	0.21	
83	384	17	8	21	6480	16	172	7318.	0.10	0.10	0.04	0.21	
83	384	18	8	21	6480	16	172	7318.	0.10	0.10	0.04	0.21	
83	384	19	8	21	6480	16	172	7318.	0.10	0.10	0.04	0.21	
83	384	20	8	21	6480	16	172	7318.	0.10	0.10	0.04	0.21	
84 S	41	361	1	16	6	8640	20	131	13094.	1.68	1.68	0.83	0.82
85 S	74	311	1	9	11	6912	15	162	10297.	2.96	0.16	0.57	0.76
85 S	74	311	2	9	11	384	15	162	7723.	0.12	0.12	0.02	0.03
86	311	1	10	11	1200	15	162	3295.	0.16	0.00	0.03	0.04	
87 L	205	502	1	17	11	4320	3	176	79.	0.00	0.00	0.00	0.01
87 L	205	502	2	17	11	4320	3	176	79.	0.00	0.00	0.00	0.01
88 S	90	361	1	13	1	8640	15	131	15931.	2.04	2.04	1.01	1.00
88 S	90	361	2	13	1	8640	15	131	18586.	2.39	2.39	1.18	1.17
89	324	1	16	12	1998	7	176	314.	0.00	0.00	0.01	0.01	
90 L	115	352	1	7	10	1800	18	176	378.	0.04	0.04	0.01	0.07
90 L	115	352	2	7	10	1800	18	176	378.	0.04	0.04	0.01	0.07
91 L	286	354	1	9	11	2020	15	516	123.	0.01	0.01	0.00	0.00
91 L	286	354	2	9	11	2020	15	516	123.	0.01	0.01	0.00	0.00
91 L	286	354	3	9	11	2020	15	516	123.	0.01	0.01	0.00	0.00
91 L	286	354	4	9	11	2020	15	516	123.	0.01	0.01	0.00	0.00
91 L	286	354	5	9	11	2020	15	516	2730.	0.30	0.30	0.01	0.00
91 L	286	354	6	9	11	2020	15	516	2730.	0.30	0.30	0.01	0.00
91 L	286	354	7	9	11	2020	15	516	2730.	0.30	0.30	0.01	0.00
91 L	286	354	8	9	11	2020	15	516	2730.	0.30	0.30	0.01	0.00
92 S	10	361	1	16	6	864	25	131	52375.	0.67	0.67	0.33	0.33
92 S	10	361	2	16	6	864	25	131	52375.	0.67	0.67	0.33	0.33
92 S	10	361	3	16	6	864	25	131	52375.	0.67	0.67	0.33	0.33
92 S	10	361	4	16	6	864	25	131	104750.	1.34	1.34	0.67	0.66

93 S	36	361	1	16	7	7488	13	131	403.	0.04	0.04	0.02	0.02
93 S	36	361	2	16	7	7488	15	131	403.	0.04	0.04	0.02	0.02
93 S	36	361	3	16	7	7488	15	131	403.	0.04	0.04	0.02	0.02
93 S	36	361	4	16	7	7488	15	131	403.	0.04	0.04	0.02	0.02
93 S	36	361	5	16	7	7488	15	131	403.	0.04	0.04	0.02	0.02
94 S	33	361	1	16	6	1728	30	131	13967.	0.36	0.36	0.18	0.18
94 S	33	361	2	16	6	1728	30	131	13967.	0.36	0.36	0.18	0.18
95 L	318	501	1	15	16	3600	10	200	2507.	0.48	0.48	0.13	0.85
96 L	155	311	1	14	13	7488	15	176	201.	0.01	0.01	0.02	0.03
96 L	155	311	2	14	13	7488	15	118	984.	0.01	0.01	0.01	0.03
96 L	155	311	3	14	13	7488	15	118	984.	0.01	0.01	0.01	0.03
96 L	155	311	4	14	13	7488	15	118	984.	0.01	0.01	0.01	0.03
96 L	155	311	5	14	13	7488	15	118	984.	0.01	0.01	0.01	0.03
97	312	1	9	11	8112	20	176	1383.	0.67	0.67	0.19	1.15	
98 L	37	321	1	5	11	2120	15	176	1257.	0.01	0.01	0.03	0.04
99 L	308	501	1	18	17	8640	20	176	484.	0.02	0.02	0.04	0.07
100 L	188	321	1	12	16	6600	14	176	264.	0.10	0.10	0.03	0.18
100 L	188	321	2	12	16	6600	14	176	264.	0.10	0.10	0.03	0.18
101 L	195	502	1	17	11	1440	16	176	1113.	0.10	0.10	0.03	0.16
101 L	195	502	2	17	11	1440	16	176	1048.	0.01	0.01	0.02	0.03
102 L	320	371	1	10	11	8640	15	172	2877.	0.04	0.04	0.02	0.09
103 S	32	361	1	13	1	8640	15	131	5310.	0.68	0.68	0.34	0.33
104 L	271	324	1	12	14	8352	17	200	542.	0.24	0.24	0.07	0.43
105 S	69	331	1	12	16	7440	17	230	4057.	0.25	0.01	0.08	0.00
106 L	48	372	1	8	21	1800	15	118	10245.	0.05	0.05	0.12	0.06
107 S	59	311	1	15	13	6912	18	162	4958.	1.42	0.00	0.28	0.37
108 L	185	324	1	9	10	7920	15	176	1720.	0.82	0.82	0.23	1.39
109 S	9	361	1	6	10	8112	13	131	11622.	1.40	1.40	0.69	0.69
109 S	9	361	2	6	10	8112	11	131	11622.	1.40	1.40	0.69	0.69
109 S	9	361	3	6	10	8112	13	131	11622.	1.40	1.40	0.69	0.69
109 S	9	361	4	6	10	8112	13	131	11622.	1.40	1.40	0.69	0.69
109 S	9	361	5	6	10	8112	12	131	11622.	1.40	1.40	0.69	0.69
109 S	9	361	6	6	10	8112	12	131	11622.	1.40	1.40	0.69	0.69
110 L	87	311	1	14	13	3744	10	176	1175.	0.02	0.02	0.04	0.07
110 L	87	311	2	14	13	3744	10	176	1175.	0.02	0.02	0.04	0.07
111 L	163	352	1	12	20	2430	15	176	668.	0.10	0.10	0.03	0.17
111 L	163	352	2	12	20	2430	15	176	668.	0.10	0.10	0.03	0.17
112	501	1	18	14	4320	25	176	835.	0.22	0.00	0.06	0.37	
113 L	157	352	1	12	16	2420	12	176	226.	0.00	0.00	0.01	0.01
113 L	157	352	2	12	16	2420	12	176	113.	0.00	0.00	0.00	0.00
114 L	137	313	1	10	15	8640	25	176	26712.	13.84	13.84	3.84	23.56
114 L	137	313	2	10	15	8640	25	176	26712.	13.84	13.84	3.84	23.56
114 L	137	313	3	10	15	8640	25	162	68648.	24.66	24.66	4.78	6.35
114 L	137	313	4	10	15	8640	25	162	68648.	24.66	24.66	4.78	6.35
115 S	100	313	1	16	13	8160	31	162	62994.	21.37	5.51	4.15	5.51
116 S	102	331	1	16	14	5520	30	162	20668.	2.40	0.01	0.52	0.50
117 L	236	331	1	5	11	4320	30	162	1281.	0.23	0.23	0.04	0.06
117 L	236	331	2	5	11	2880	25	162	824.	0.10	0.10	0.02	0.03
118 L	4	502	1	19	20	7200	55	176	200.	0.09	0.09	0.02	0.15
119	362	1	16	8	3780	6	172	16056.	0.51	0.51	0.29	1.64	
120 L	52	311	1	13	12	7488	20	176	635.	0.27	0.27	0.09	0.48
120 L	52	311	2	13	12	7488	20	176	740.	0.27	0.27	0.09	0.48
121 S	66	311	1	10	11	3080	15	162	1979.	0.25	0.25	0.05	0.07
122 S	5	361	1	17	9	2304	16	131	2619.	0.09	0.09	0.04	0.04
122 S	5	361	2	17	9	2304	16	131	2619.	0.09	0.09	0.04	0.04
122 S	5	361	3	17	9	1152	18	131	6547.	0.11	0.11	0.06	0.05
123 S	28	361	1	17	8	6336	40	131	12578.	1.18	1.18	0.59	0.58
123 S	28	361	2	17	8	1152	15	131	26842.	0.46	0.46	0.23	0.23
124 S	125	312	1	13	11	1104	16	162	1612.	0.07	0.07	0.01	0.02
125 S	6	361	1	14	7	5184	23	131	13967.	1.08	1.08	0.53	0.53
125 S	6	361	2	14	7	5184	23	131	13967.	1.08	1.08	0.53	0.53
125 S	6	361	3	14	7	5184	23	131	13967.	1.08	1.08	0.53	0.53
125 S	6	361	4	14	7	5184	23	131	13967.	1.08	1.08	0.53	0.53
125 S	6	361	5	14	7	5184	23	131	13967.	1.08	1.08	0.53	0.53
125 S	6	361	6	14	7	5184	23	131	13967.	1.08	1.08	0.53	0.53
125 S	6	361	7	14	7	5184	23	131	13967.	1.08	1.08	0.53	0.53
125 S	6	361	8	14	7	2592	23	131	13967.	0.54	0.54	0.27	0.26
125 S	6	361	9	14	7	2592	23	131	13967.	0.54	0.54	0.27	0.26
125 S	6	361	10	14	7	5184	23	131	13967.	1.08	1.08	0.53	0.53
125 S	6	361	11	14	7	5184	23	131	13967.	1.08	1.08	0.53	0.53
125 S	6	361	12	14	7	5184	23	131	13967.	1.08	1.08	0.53	0.53
125 S	6	361	13	14	7	2592	23	131	13967.	0.54	0.54	0.27	0.26
126 S	133	332	1	12	15	5760	10	80	537.	0.01	0.00	0.00	0.00
126 S	133	332	2	12	15	5760	10	80	537.	0.01	0.01	0.00	0.00
127 S	49	361	1	12	4	8640	20	131	30497.	3.78	3.78	1.87	2.46
127 S	49	361	2	12	4	8640	20	131	40972.	5.12	5.12	2.53	3.12
127 S	49	361	3	12	4	8640	20	131	40972.	5.12	5.12	2.53	3.12
127 S	49	361	4	12	4	8640	20	131	40972.	5.12	5.12	2.53	3.12
127 S	49	361	5	12	4	8640	20	131	40972.	5.12	5.12	2.53	3.12
127 S	49	361	6	12	4	8640	20	131	40972.	5.12	5.12	2.53	3.12
128 S	81	341	1	8	19	8064	15	162	3269.	1.10	1.10	0.21	0.28
128 S	81	341	2	8	19	8064	15	162	3269.	1.10	1.10	0.21	0.28
129 S	2	361	1	17	6	2592	15	131	5819.	0.22	0.22	0.11	0.11
129 S	2	361	2	17	6	2592	50	131	5819.	0.22	0.22	0.11	0.11

130 S	21	361	1	11	4	8640	12	131	4365.	0.56	0.56	0.28	0.27
131 S	85	361	1	13	2	8640	16	131	16003.	2.05	2.05	1.02	1.01
132 S	84	361	1	13	2	8640	15	131	11784.	1.51	1.51	0.75	0.74
132 S	84	361	2	13	2	8640	15	131	11784.	1.51	1.51	0.75	0.74
133 L	239	311	1	12	16	5520	16	176	1452.	0.48	0.48	0.13	0.82
134 S	60	390	1	4	9	576	18	162	3718.	0.09	0.09	0.02	0.02
135 L	16	312	1	9	11	4200	15	162	2354.	0.41	0.41	0.08	0.11
136 S	1	361	1	15	6	864	17	131	13821.	0.18	0.18	0.09	0.09
136 S	1	361	2	15	6	864	17	131	13821.	0.18	0.18	0.09	0.09
136 S	1	361	3	15	6	864	17	131	13821.	0.18	0.18	0.09	0.09
137 S	70	390	1	10	11	1680	15	162	1844.	0.13	0.13	0.02	0.03
138 S	114	361	1	17	9	4032	20	131	2728.	0.16	0.16	0.08	0.08
138 S	114	361	2	17	9	4032	20	131	2728.	0.16	0.16	0.08	0.08
139 S	18	361	1	17	9	3120	16	131	1289.	0.06	0.06	0.03	0.03
139 S	18	361	2	17	9	792	16	131	5079.	0.06	0.06	0.03	0.03
139 S	18	361	3	17	9	792	16	131	5079.	0.06	0.06	0.03	0.03
140 S	51	361	1	13	1	1728	15	131	19641.	0.50	0.50	0.25	0.25
140 S	51	361	2	13	1	1728	15	131	20004.	0.51	0.51	0.25	0.25
140 S	51	361	3	13	1	1728	15	131	20368.	0.52	0.52	0.26	0.26
140 S	51	361	4	13	1	1728	15	131	20186.	0.52	0.52	0.26	0.25
140 S	51	361	5	13	1	8640	15	131	10620.	1.36	1.36	0.67	0.67
141 L	1	311	1	9	10	6912	15	176	4174.	1.73	1.73	0.48	2.95
141 L	1	311	2	9	10	6912	15	176	4174.	1.73	1.73	0.48	2.95
141 L	1	311	3	9	10	6912	15	176	4174.	1.73	1.73	0.48	2.95
141 L	1	311	4	9	10	6912	15	176	4174.	1.73	1.73	0.48	2.95
141 L	1	311	5	9	10	8064	15	176	943.	0.03	0.03	0.08	0.13
142 L	126	311	1	14	14	7128	27	176	8347.	3.57	3.57	0.99	6.07
142 L	126	311	2	14	14	1788	27	176	2226.	0.24	0.24	0.07	0.41
142 L	126	311	3	14	14	7128	27	176	3929.	0.11	0.11	0.28	0.47
143 L	253	508	1	9	22	1800	12	118	2573.	0.21	0.21	0.01	0.03
144 L	62	311	1	17	21	7200	12	176	1186.	0.54	0.54	0.16	0.94
145 L	88	311	1	10	13	2000	15	176	264.	0.00	0.00	0.01	0.01
146 S	77	352	1	14	13	1800	20	162	2197.	0.16	0.16	0.03	0.04
147 L	114	355	1	15	13	4032	15	176	3080.	0.05	0.05	0.12	0.21
147 L	114	355	2	15	13	4032	15	176	3080.	0.05	0.05	0.12	0.21
148 L	207	371	1	14	13	4410	18	176	2226.	0.59	0.59	0.16	1.00
149 S	67	311	1	14	12	1728	15	162	1907.	0.14	0.00	0.03	0.04
150 L	28	390	1	7	11	2112	30	80	4453.	0.02	0.02	0.04	0.02
150 L	28	390	2	7	11	2112	10	80	6744.	0.00	0.00	0.00	0.00
151 L	18	501	1	18	15	6912	20	176	121.	0.05	0.05	0.01	0.09
151 L	18	501	2	18	15	6912	20	176	121.	0.05	0.05	0.01	0.09
152 L	147	390	1	9	10	3120	16	176	2671.	0.50	0.50	0.14	0.85
152 L	147	390	2	9	10	3120	16	176	2671.	0.50	0.50	0.14	0.85
153 L	181	331	1	10	20	3744	5	176	244.	0.00	0.00	0.01	0.02
154 L	322	311	1	15	14	1440	12	176	1453.	0.01	0.01	0.02	0.04
154 L	322	311	2	15	14	6912	12	176	398.	0.01	0.01	0.03	0.05
155 L	319	311	1	20	29	3000	12	176	283.	0.00	0.00	0.01	0.01

3.1.8 Air Pollutant Emissions by Factory

AIR POLLUTANT EMISSIONS BY FACTORY

1. Numero para arreglo
2. Codigo de la empresa
3. Dust(ante tratamiento)
4. Dust(despues tratamiento)
5. NOx
6. SOx

		(unit:ton/year)							
1	2	3	4	5	6	73	74	75	76
1 L 34	19.1	19.1	12.5	83.1	74 L 74	0.9	0.9	0.5	4.4
2 L 139	6.7	6.7	3.8	32.4	75 L 142	4.2	4.2	2.4	20.5
3 L 169	4.3	4.3	2.7	21.5	76 L 287	5.3	5.3	3.0	25.9
4 L 76	2.0	2.0	1.2	9.6	77 S 109	29.9	29.9	30.4	42.0
5 L 5	113.9	113.9	72.1	565.0	78 L 282	0.3	0.3	1.3	3.1
6 L 154	8.1	8.1	4.6	39.2	79 L 116	5.4	5.4	2.4	9.4
7 L 150	25.0	25.0	14.2	121.5	80 S 95	2.9	2.9	1.1	2.1
8 L 32	3.2	3.2	1.8	15.7	81 L 152	13.6	13.6	0.5	0.6
9 L 289	28.0	28.0	16.0	136.4	82 L 180	1.2	1.2	0.8	6.3
10 L 109	1.4	1.4	1.0	20.7	83 L 341	18.2	18.2	15.1	105.4
11 L 162	4.2	4.2	2.4	20.5	84 S 41	14.7	14.7	15.0	20.6
12 L 12	8.5	8.5	4.8	41.3	85 S 74	27.0	2.5	10.8	19.9
13 L 144	3.3	3.3	1.9	16.2	86 S 133	1.4	0.0	0.6	1.1
14 L 203	0.0	0.0	0.2	0.5	87 L 205	0.0	0.0	0.1	0.3
15 L 176	4.6	1.6	2.6	22.3	88 S 90	38.8	38.8	39.4	54.4
16 L 248	2.9	1.0	1.6	14.0	89 L 342	0.0	0.0	0.1	0.3
17 L 201	10.3	10.3	6.2	50.9	90 L 115	0.7	0.7	0.4	3.6
18 L 63	0.2	0.2	1.0	2.4	91 L 286	11.0	11.0	0.5	0.0
19 L 112	0.6	0.6	0.5	1.1	92 S 10	29.4	29.4	29.9	41.3
20 L 204	3.3	3.3	1.9	16.1	93 S 36	2.0	2.0	2.0	2.8
21 L 171	8.9	8.9	5.1	43.5	94 S 33	6.3	6.3	6.4	8.8
22 L 158	0.1	0.1	0.7	1.7	95 L 318	4.2	4.2	2.4	21.3
23 L 127	9.5	9.5	5.4	46.1	96 L 155	0.5	0.5	0.8	3.2
24 L 30	1.6	1.6	0.9	7.6	97 L 343	5.9	5.9	3.4	28.7
25 L 146	5.2	5.2	3.0	25.5	98 L 37	0.1	0.1	0.5	1.1
26 L 128	1.3	1.3	0.7	6.4	99 L 308	0.1	0.1	0.7	1.8
27 L 111	0.1	0.1	0.7	1.7	100 L 188	1.8	1.8	1.0	8.9
28 L 136	34.0	17.8	19.3	165.2	101 L 195	0.9	0.9	0.8	4.7
29 L 166	1.7	1.7	1.0	8.2	102 L 320	0.4	0.4	0.3	2.2
30 L 261	32.0	32.0	18.2	155.6	103 S 32	6.0	6.0	6.1	8.4
31 L 122	0.8	0.8	4.0	9.4	104 L 271	2.1	2.1	1.2	10.7
32 L 174	3.6	3.6	3.5	19.3	105 S 69	2.2	0.1	1.4	0.0
33 L 123	0.4	0.4	0.5	2.5	106 L 48	0.4	0.4	2.2	1.6
34 L 145	10.7	10.7	6.1	52.2	107 S 59	12.5	0.0	5.0	9.2
35 L 331	0.1	0.1	0.8	0.0	108 L 185	7.2	7.2	4.1	34.8
36 L 335	1.3	1.3	0.3	4.3	109 S 9	73.6	73.6	74.8	103.2
37 L 186	8.0	8.0	4.5	38.7	110 L 87	0.3	0.3	1.6	3.7
38 L 226	36.2	36.2	20.4	132.1	111 L 163	1.7	1.7	1.0	8.3
39 L 134	1.6	1.6	0.8	7.1	112 L 126	1.9	0.0	1.1	9.2
40 L 220	7.9	7.9	4.5	38.6	113 L 157	0.0	0.0	0.1	0.3
41 L 197	0.1	0.1	0.8	0.0	114 L 137	674.5	674.5	310.2	1497.4
42 L 230	26.9	26.9	78.3	92.9	115 S 100	187.2	48.3	74.6	137.8
43 L 302	0.3	0.3	1.3	3.1	116 S 102	21.0	0.1	9.3	12.6
44 L 244	0.5	0.5	0.7	1.7	117 L 236	2.9	2.9	1.1	2.1
45 L 106	0.1	0.0	0.6	0.5	118 L 4	0.8	0.8	0.4	3.7
46 L 25	0.0	0.0	0.2	0.6	119 L 324	4.5	4.5	5.2	41.1
47 L 70	1.5	1.5	1.1	8.1	120 L 52	4.8	4.8	3.1	23.8
48 L 151	0.6	0.6	0.3	2.7	121 S 66	2.2	2.2	0.9	1.6
49 L 3	0.4	0.0	1.9	4.3	122 S 5	2.6	2.6	2.6	3.6
50 L 187	0.9	0.9	4.7	11.0	123 S 28	14.4	14.4	14.6	20.2
51 L 55	3.8	3.8	2.2	18.6	124 S 125	0.6	0.6	0.3	0.5
52 L 98	25.5	25.5	13.3	69.4	125 S 6	108.4	108.4	110.1	152.0
53 L 103	1.5	1.5	7.9	8.7	126 S 133	0.2	0.1	0.1	0.0
54 L 95	28.9	10.0	16.5	140.8	127 S 49	257.6	257.6	261.6	451.4
55 L 291	5.5	5.5	3.1	27.8	128 S 81	19.2	19.2	7.6	14.1
56 L 215	3.7	3.7	2.7	19.8	129 S 2	3.9	3.9	4.0	5.5
57 L 138	0.5	0.5	2.4	5.7	130 S 21	4.9	4.9	5.0	6.9
58 L 247	3.2	3.2	1.8	15.7	131 S 85	18.0	18.0	18.3	25.2
59 L 267	15.7	15.7	9.0	76.5	132 S 84	26.5	26.5	26.9	37.2
60 L 173	9.3	9.3	5.3	45.0	133 L 239	4.2	4.2	2.4	20.5
61 L 179	0.1	0.0	0.4	0.6	134 S 60	0.8	0.8	0.3	0.6
62 L 46	0.6	0.6	0.4	2.8	135 L 16	3.6	3.6	1.4	2.7
63 L 96	6.5	6.5	3.7	31.7	136 S 1	4.7	4.7	4.7	6.5
64 L 118	0.4	0.4	0.2	1.9	137 S 70	1.1	1.1	0.4	0.8
65 L 44	9.9	9.9	6.9	36.8	138 S 114	2.9	2.9	2.9	4.0
66 L 160	1.6	1.6	0.9	7.7	139 S 18	1.6	1.6	1.6	2.2
67 L 172	5.9	2.0	3.4	28.7	140 S 51	30.0	30.0	30.5	42.0
68 L 33	4.7	1.6	2.7	23.0	141 L 1	60.9	60.9	35.9	298.0
69 L 170	3.4	2.9	1.9	16.6	142 L 126	34.3	34.3	24.0	173.9
70 L 131	7.9	7.9	4.5	38.5	143 L 253	1.8	1.8	0.1	0.6
71 L 35	5.7	5.7	3.9	28.9	144 L 62	4.8	4.8	2.9	23.4
72 L 2	0.8	0.8	0.6	4.1	145 L 88	0.0	0.0	0.1	0.2
					146 S 77	1.4	1.4	0.6	1.1
					147 L 114	0.9	0.9	4.5	10.4
					148 L 207	5.2	5.2	2.9	25.1
					149 S 67	1.2	0.0	0.5	0.9
					150 L 28	0.1	0.1	0.8	0.5
					151 L 18	0.9	0.9	0.5	4.3
					152 L 147	8.8	8.8	5.0	42.6
					153 L 181	0.0	0.0	0.2	0.4
					154 L 322	0.2	0.2	0.9	2.0
					155 L 319	0.0	0.0	0.2	0.4
					TOTAL	2449.8	2198.3	1687.7	6503.8

Table 3.1.9 Factory Plan on Business Expansion and Air Pollution Control

Code	Industry	Number	Business expansion	Factory movement	Dust and soot emitting facilities			Complaints Received
					New or Additional	Renovst	Repair	
311	Fabricación de productos alimenticios, excepto bebidas	29	7	3	4			2
312	Fabricación de productos alimenticios, excepto bebidas	1	3					
313	Industria de bebidas	6	1		1	1	1	
314	Industria de tabaco	1						
321	Fabricación de textiles	14		2				2
323	Industria del cuero y productos de cuero y sucedáneos del cuero y pieles, excepto calzado y otras prendas de vestir	2	1			1		
324	Fabricación de calzado, excepto el de caucho vulcanizado o moldeado, o de plástico	3		1				
331	Industria de la madera y productos de madera y de corcho, excepto muebles	4		1				
332	Fabricación de muebles y accesorios, excepto los que son principalmente metálicos	2						
341	Fabricación de papel y productos de papel	2	1					1
351	Fabricación de sustancias químicas industriales	3						
352	Fabricación de otros productos químicos	7				1		
354	Fabricación de productos diversos derivados del petróleo y del carbón	2	1					
355	Fabricación de productos de caucho	3	1					1
356	Fabricación de productos plásticos	1						
361	Fabricación de objetos de barro, loza y porcelana	19	3	1	3			3
362	Fabricación de vidrio y productos de vidrio	1						
369	Fabricación de productos minerales no metálicos	1						1
371	Industrias básicas de hierro y acero	4						
372	Industrias básicas de metales no ferrosos	2	1			1		
384	Fabricación de equipo y material de transporte	1						
396	Otros industrias manufactureras	12						1
404	Industria automotriz	2	1		1	2		1
501	Hospitales	9	2		1		2	1
502	Hoteles	6						
508	Otros establecimientos	2	1					
Total		114	23	8	10	5	3	14

Countermeasures	Factory Type		Total
	with complaints	without complaints	
Factory movement		8	8
Renewal of the facilities	2	5	7
Repair of the facilities	1	4	5
Fuel Conversion	3	14	17
from oil to natural gas	1	8	9
from coal to oil		2	2
from oil to propane		1	1
from propane to natural gas		1	1
use of good-quality oil	2		2
use of fine coal		2	2
Change of the materials	1		1
Installation of flue gas treatments	8	5	13
bag filter, cyclone or electric precipitator	6	3	9
traps, damper or canals de sedimentación	2	2	4
Improvement of the burning equipments or burning method	3	6	9
Raising of the stack height	2	4	6

Specific requests to National Government and Bogota City

Training courses on air pollution control measures and facilities
 Regional air pollution control
 Guidance on combustion control
 Supply of natural gas
 Technical guidance on use of natural gas
 Guidance on improvement of working condition
 Financing to pollution control facilities

3.2 Factory Flue Gas Measurement

Table 3.2 Flue Gas Measurement Result

No.	Name of Plant	Dust concentration g/m ³ -N	SO _x concentration ppm	NO _x concentration ppm	O ₂ concentration ppm	Flue gas temperature °C	Flue gas volume (Wet) m ³ /h	Flue gas volume (Dry) m ³ /h	Kind of facility	Kind of fuel
1	141 ACEGRASAS	0.15	1200	190	5.9	200	3400	3000	300HP BOILER	CRUDO
2	142 COGRA LEVER	0.38	1100	220	9.0	120	16600	15600	700HP BOILER	CRUDO
3	3 LEVAPAN	0.53	1200	165	5.6	288	2500	2200	250HP BOILER	CRUDE+ACPM
4	32 SLENDID DULCES	0.30	270	103	12.2	241	2500	2200	100HP BOILER	CRUDO
5	10 COLMENA S.A.	0.99	850	57	4.4	130	1400	300	100HP BOILER	CRUDO
6	5 ACEITELES S.A.	0.60	270	296	11.6	181	17400	16500	1100HP BOILER	CRUDO
7	12 COCACOLA SUR	0.24	1300	200	5.1	185	3600	3300	300HP BOILER	CRUDO
8	23 FIRGORIFICO GUADALUPE	0.83	1000	15	15.6	183	2900	2800	300HP BOILER	CRUDO
9	21 HILANDERIAS BOGOTA	0.51	670	41	8.6	184	3400	3000	300HP BOILER	CRUDO
10	17 LABORETORIOS WYTH	0.88	520	289	7.2	162	2900	2500	300HP BOILER	CRUDO+ACPM
11	13 LABORETORIOS ABBOT	0.86	1100	193	3.7	173	1300	1100	400HP BOILER	CRUDO
12	15 TEXTILES ROMANOS	0.081	620	80	12.7	222	2900	2600	100HP BOILER	CRUDO
13	48 GASEOSAS COLOMBIANAS	0.84	1390	64	4.3	177	3000	2700	300HP BOILER	CRUDO
14	114 BAVARIA S.A.	0.65	810	87	11.6	242	38200	35000	2560HP BOILER	CRUDO
15	25 PROTABAGO	1.8	1020	190	5.0	209	2500	2300	200HP BOILER	CRUDO
16	29 PROD. ALIMENTICIOS RIKA	0.37	700	19	3.6	112	1200	1100	150HP BOILER	CRUDO
17	9 LICORES CUNDINAMARCA	0.21	1370	681	3.0	144	1800	1500	500HP BOILER	CRUDO
18	108 CROYDON	0.97	1020	569	8.1	234	3700	3300	300HP BOILER	CRUDO
19	14 UNIPHARMA S.A.	0.047	810	117	3.4	175	6200	5600	100HP BOILER	ACPM
20	26 CARULLA S.A.	0.15	460	199	13.6	200	1400	1200	200HP BOILER	FUEL OIL
21	104 ICOLLANTAS S.A.	0.25	420	210	4.9	199	870	830	100HP BOILER	FUEL OIL
22	116 MUEBLES ARTECTO	0.14	35	93	16.9	200	4600	4400	150HP BOILER	CARBON+WOOD
23	137 JABONES RIKA	0.02	220	31	15.7	62	12600	12300	100HP BOILER	CARBON
24	124 BOCADILLOS LOS GUAYABOS	0.34	137	141	14.3	215	1600	1500	50HP BOILER	CARBON
25	128 CORRUGADOS DE COLOMBIA	0.73	81	81	15.4	244	2700	2600	120HP BOILER	CARBON
26	115 CERVECERIA DEL LITORAL	0.20	150	48	16.1	28	58800	56800	300HP BOILER	CARBON
27	85 PRODER LTDA	0.22	40	510	17.0	85	5100	4800	150HP BOILER	CARBON
28	80 OLEAGINOSAS ALVARADO	0.28	5	62	16.3	111	1600	1500	175HP BOILER	CARBON
29	121 GOLOSINAS DE COLOMBIA	0.62	119	71	12.8	220	1700	1700	75HP BOILER	CARBON

No.	Name of Plant	Dust concentration g/m ³ N	SOx concentration ppm	NOx concentration ppm	O ₂ concentration ppm	Flue gas temperature °C	Flue gas volume (Wet) m ³ /hr	Flue gas volume (Dry) m ³ /hr	Kind of facility	Kind of fuel
30	121 COLOSINAS DE COLOMBIA	2.70	160	63	9.7	230	1800	1700	75HP BOILER	CARBON
31	117 PRICOMA	0.084	N.D.	26	17.3	230	5500	5100	350HP BOILER	WOOD
32	127 LADRILLERA SANTAFE	0.39	180	118	18.6	126	35100	33300	BRICK KILN	CARBON+ACPM
33	131 LADRILLERA ALEMANA	0.028	95	42	17.7	75	26400	25100	BRICK KILN	CARBON
34	132 LADRILLERA ZIGURAT	0.031	110	76	18.8	110	19600	18600	BRICK KILN	CARBON
35	140 LADRILLERA YOMASA	0.078	72	49	19.6	87	15100	14400	BRICK KILN	CARBON
36	103 LADRILLERA LOS TEJARES	0.067	66	12	19.5	72	24400	23000	BRICK KILN	CARBON
37	77 LADRILLOS MOORE	0.13	100	40	18.5	116	11800	11300	BRICK KILN	CARBON
38	109 TUBOS MONSERRATE	0.015	11	11	19.8	28	11100	10400	CLAY PIPE KILN	CARBON
39	125 TUBOS MOORE	0.034	N.D.	27	15.0	429	5500	5300	CLAY PIPE KILN	CARBON
40	122 TUBOS EL CONDOR	0.75	66	27	16.3	133	2500	2500	CLAY PIPE KILN	CARBON
41	122 TUBOS EL CONDOR	1.90	99	19	18.3	148	2600	2400	CLAY PIPE KILN	CARBON
42	49 ATLANTIC MINERALS PRODUCTS	0.53	5	29	19.0	75	1200	1200	DRYER	ACPM
43	70 CHOCOLATES LUKER QUEZADA	0.11	11	33	19.5	67	2800	2800	DRYER	ACPM
44	126 ERVICO LTDA	0.70	N.D.	(4)	18.9	88	540	520	DRYER	WOOD
45	35 CROWN LITOMETAL	0.023	N.D.	(3)	19.8	97	3000	2800	DRYER	PROPANE GAS
46	37 KELLOGG'S DE COLOMBIA	0.013	N.D.	(3)	18.5	74	2000	1800	DRYER	PROPANE GAS
47	19 DISTRACO	0.068	N.D.	N.D.	19.8	91	2300	2200	INCINERATOR	ACPM
48	44 SHELL DE COLOMBIA	0.75	53	30	13.4	144	910	820	INCINERATOR	ACPM
49	56 CORPACERO	0.025	180	10	17.5	172	3200	3000	GALVANIZING FURNACE	ACPM
50	33 INDUSTRIA COLOMBIA DE CAFE	0.068	20	61	18.3	118	4900	4500	ROSTER	ACPM
51	83 IMAL S.A.	0.011	48	53	14.8	516	3800	3500	HEAT TREATING FURNACE	ACPM
52	34 INCOLBESTOS	0.045	N.D.	N.D.	20.4	122	330	290	ELECTRIC ARC FURNACE	ELECTRICITY
53	156 FUNDICIONES VULCANO	21.0	300	N.D.	8.3	740	8400	8100	CUPOLA	COOQUE

Remarks: 1) The values in parentheses for NOx concentration are for reference because they are less than the quantification lower limit value.

2) The results of measurement for No.30 and 41 are values during feeding of coals.

3.3 Fuel Analysis

Table 3.3.1 Analysis of Fuel Used

NO.		Factoria	combustible	C %	H %	S %	N %	M %	A %	H V kcal/kg	densidad g/ml
1	141	ACEGRASAS	C R U D O	87.7	10.8	2.3	0.60	-	-	10182	0.998
2	142	COGRA LEVER	C R U D O	86.9	10.8	2.3	0.60	-	-	10166	0.979
3	32	SPLENDID DULCES	C R U D O	87.5	10.6	2.3	0.40	-	-	10173	0.977
4	10	COLMENA S. A.	C R U D O	83.5	10.8	2.3	0.40	-	-	9741	0.979
5	5	ACEITELES S. A.	C R U D O	86.8	10.9	2.2	0.30	-	-	10116	0.978
6	12	COCACOLA SUR	C R U D O	88.5	10.9	2.3	0.30	-	-	10181	0.978
7	23	FIRGORIFICO GUADALUPE	C R U D O	87.6	10.7	2.2	0.37	-	-	10148	0.943
8	21	HILANDERIAS BOGOTA	C R U D O	87.8	10.7	2.3	0.40	-	-	10212	0.987
9	13	LABORETORIOS ABBOT	C R U D O	87.9	10.9	2.3	0.40	-	-	10154	0.982
10	15	TEXTILES ROMANOS	C R U D O	87.5	10.8	2.3	0.30	-	-	10181	0.990
11	48	CASEOSAS COLOMBIANAS	C R U D O	87.7	10.8	2.4	0.40	-	-	10117	0.984
12	114	BAVARIA S. A.	C R U D O	87.7	10.7	2.3	0.70	-	-	10168	0.991
13	25	PROTABACO	C R U D O	88.6	11.8	1.2	0.10	-	-	10425	0.906
14	29	PROD. ALIMENTICIOS RIOKA	C R U D O	88.2	10.6	2.3	0.40	-	-	10235	0.987
15	9	LICORES CUNDAMARCA	C R U D O	87.6	10.9	2.4	0.30	-	-	10139	0.968
16	7	MANUFACTURAS ELIOT	C R U D O	87.00	10.80	2.30	0.30	-	-	10133	0.983
17	34	INCOLBESTOS S. A.	C R U D O	87.50	10.70	2.30	0.40	-	-	10166	0.978
18	112	INSTITUTO NEUROLOGICO	C R U D O	87.10	10.70	2.40	0.70	-	-	10226	0.973
19	115	CERVECERIA DEL LITORAL	C R U D O	88.30	10.70	2.30	0.70	-	-	10172	0.991
20	65	ICASA	C R U D O	87.50	10.80	2.20	0.70	-	-	10091	0.978
21	30	COLCURTIDOS	C R U D O	87.80	10.70	2.40	0.40	-	-	10222	0.982
22	26	CARULLA S. A.	FUEL OIL	87.7	10.9	2.2	0.40	-	-	10238	0.953
23	11	FUEL OIL NO. 6	FUEL OIL	86.20	10.80	2.51	0.32	-	-	10176	0.990
24	14	UNITIPIARWA S. A.	A C P M	89.3	13.0	0.4	0	-	-	10832	0.869
25	19	DISTRACO	A C P M	88.3	12.9	0.4	0	-	-	10811	0.866
26	83	INAL S. A.	A C P M	88.1	12.7	0.4	0	-	-	10804	0.871
27	44	SHELL DE COLOMBIA	A C P M	85.5	12.8	0.4	0.10	-	-	10781	0.868
28	45	MINERALES VENCEDOR	A C P M	88.40	12.90	0.40	0	-	-	10825	0.870
29	143	AEROCIVIL	A C P M	88.80	12.90	0.40	0	-	-	10806	0.866
30	57	CIA COLOMBIANA AUTOMOTREZ	A C P M	89.00	12.90	0.40	0	-	-	10802	0.862
31	49	ATLANTIC MINERALS PRODUC	A C P M	88.10	12.90	0.30	0	-	-	10735	0.869
32	18	PETCOL	A C P M	88.50	12.90	0.40	0	-	-	10792	0.867
33	3	LEVEPAN	CRUDO + ACPM	87.7	11.1	2.0	0.20	-	-	10326	0.962
34	17	LABORETORIOS WYTH	CRUDO + ACPM	87.6	10.8	2.2	0.30	-	-	10176	0.975
35	127	LADRILLERA SANTAPE	CRUDO + ACPM	78.30	5.08	0.70	1.89	0.38	13.65	7720	1.470
36	A	COCINOL COLGAS SAN CARLOS	COCINOL	86.85	13.81	0.09	0	-	-	11880	0.920
37	B	COCINOL COLGAS TUNJUELITO	COCINOL	86.89	13.77	0.06	0	-	-	11940	0.913
38	G	KEROSENE ALUMINIOS	KEROSENE	87.20	13.30	0.12	0	-	-	11744	0.935
39	C	GASOLINA CORRIENTE TEXACO	GASOLINA	86.55	13.31	0.06	0	-	-	11456	0.902
40	D	GASOLINA CORRIENTE ESSO	GASOLINA	77.43	11.76	0.06	0	-	-	11770	0.906
41	E	GASOLINA EXTRA ESSO	GASOLINA	78.12	11.41	0.06	0	-	-	11615	0.882
42	F	GASOLINA EXTRA MOBIL	GASOLINA	78.95	11.62	0.07	0	-	-	11748	0.903
43	125	TUBOS MOORE	C A R B O N	76.85	5.08	0.69	1.89	0.335	15.16	7462	-
44	131	LADRILLERS ALEMANA	C A R B O N	64.51	4.62	0.59	1.67	1.64	26.97	6384	-
45	116	MUEBLES ARTECTO	CARBIMADE	80.46	5.54	0.49	1.98	1.15	10.38	7874	1.760
46	117	PRICOMA	C A R B O N	4.9	0.3	3.4	0.3	-	-	-	1.530
47	137	JABONES RIOKA	C A R B O N	65.33	5.46	0.88	1.76	2.49	24.08	6822	1.320
48	132	LADRILLERA ZIGURAT	C A R B O N	77.30	5.2	0.80	1.70	-	-	6959	1.000
49	124	BOGADILLOS LOS GUAYABOS	C A R B O N	70.33	5.18	0.49	1.76	2.18	20.06	6923	-
50	128	CORRUGADOS DE COLOMBIA	C A R B O N	84.49	5.45	0.50	1.98	0.83	6.75	8205	1.300
51	140	LADRILLERA YOMASA	C A R B O N	58.56	4.58	0.57	1.53	4.62	30.14	5683	1.380
52	115	CERVECERIA DEL LITORAL	C A R B O N	84.55	5.17	0.50	2.09	0.53	7.16	8311	1.550
53	107	DIASA	C A R B O N	75.60	5.05	0.99	1.99	1.05	15.47	7485	-
54	92	CEGRES LTDA	C A R B O N	77.82	5.15	0.69	1.88	0.99	13.47	7527	-
55	93	TUBOSY LADRILLOS SAN MARCOS	C A R B O N	79.69	5.37	0.99	1.99	0.62	11.34	7783	1.130
56	123	LADRILLERA SAN CRISTOBAL	C A R B O N	86.89	5.70	0.49	2.07	1.60	3.25	6807	-
57	109	TUBOS MONSERRATE	C A R B O N	77.11	5.41	0.49	1.97	1.64	13.38	7542	-
58	139	TUBOS EL DORADO	C A R B O N	65.93	4.84	1.18	1.68	1.30	25.43	6466	1.250

3.4 Traffic Volume Survey

3.4.1 Resume of Traffic Volume Survey

Table 3.4.1 Survey Points of Traffic Volume at Roadsides

Point No.	Name of Road	Observation Point		Observation Period
1	Ave. ELDORADO	Cra. 75	Modelia	① Sep. 29 (Sat) 6:00 ~ 6:00
2	Autopista SUR	Apogeo		
3	Autopista AL LLANO	Cra. 5A	San Isidro	
4	Ave. CENTENARIO	Cra. 80	Renault	② Sep. 30 (Sun) 6:00 ~ 6:00
5	Ave. BOYACA	Cll. 75	Bonanza	
6	Ave. 68	Cll. 22	Espectador	
7	Ave. JIMENEZ	Cra. 20	Sabana	③ Oct. 3 (Wed) 6:00 ~ 6:00
8	Ave. DE LAS AMERICAS	Cra. 69	Marsella	
9	Carrera 30	Cll. 49	Igac	
10	Ave. 7	Cll. 131		
11	Carrera 11	Cll. 96	Chico Norte	① Oct. 1 (Mon) or Oct. 2 (Tue) 6:00 ~ 22:00
12	Carrera 10	Cll. 22 Sur		
13	Carrera 30	Cll. 21 Sur	Sena	
14	Carrera 86	Cll. 12	Bosconia	② Oct. 7 (Sun) 6:00 ~ 22:00
15	Ave. SUBA	Cll. 132	Comfenalco	
16	Carrera 15	Cll. 95		
17	Ave. 68	Cll. 95	Cafam	① Oct. 1 (Mon) or Oct. 2 (Tue) 6:00 ~ 22:00
18	Calle 27 Sur	Ave. CARACAS		
19	Carrera 13	Cll. 95		
20	Calle 81	Cra. 62	Ferias	② Oct. 7 (Sun) 6:00 ~ 22:00
21	Ave. BOYACA	Cll. 36 Sur		
22	Calle 44 Sur	Cra. 48	Venecia	
23	Calle 26	Cra. 25	Colsubsidio	① Oct. 1 (Mon) or Oct. 2 (Tue) 6:00 ~ 22:00
24	Calle 68	Cra. 31		
25	Ave. 63	Cra. 49	Club Emp. Ofic.	
26	Carrera 30	Cll. 14	Sena	② Oct. 7 (Sun) 6:00 ~ 22:00
27	Ave. 116	Transversal 13		
28	Ave. 116	Transversal 33	Alhambra	
29	Ave. CARACAS	Cll. 42 Sur		① Oct. 1 (Mon) or Oct. 2 (Tue) 6:00 ~ 22:00
30	Carrera 9	Cll. 75	G. Moderno	
31	Ave. CIRCUNVALAR	Parque Nacional		
32	Ave. JIMENEZ	Cra. 8	Gobernacion	Oct. 4 (Thu) 6:00 ~ 22:00
33	Calle 34	Cra. 16		
34	Ave. CARACAS	Cll. 11		
35	Calle 19	Cra. 21	Paloquemao	Oct. 4 (Thu) 6:00 ~ 22:00
36	Ave. 1 DE MAYO	Cra. 61	Rancho Grande	
37	Calle 6	Cra. 19		
38	Ave. CHILE	Cra. 28	Alcazares	Oct. 4 (Thu) 6:00 ~ 22:00
39	Ave. 78	Cra. 31		
40	Calle 3	Cra. 42		
41	Carrera 13	Cll. 39		Oct. 4 (Thu) 6:00 ~ 22:00
42	Calle 22 Sur	Cra. 20	Restrepo	
43	Carrera 86	Cll. 51 Sur	Casablanca	
44	Carrera 19	Cll. 131		Oct. 4 (Thu) 6:00 ~ 22:00
45	Ave. LARA BONILLA	Cra. 41	Balan	
46	Carrera 10	Cll. 22		① Nov. 9 (Fri) 6:00 ~ 22:00
				② Nov. 11 (Sun) 6:00 ~ 22:00

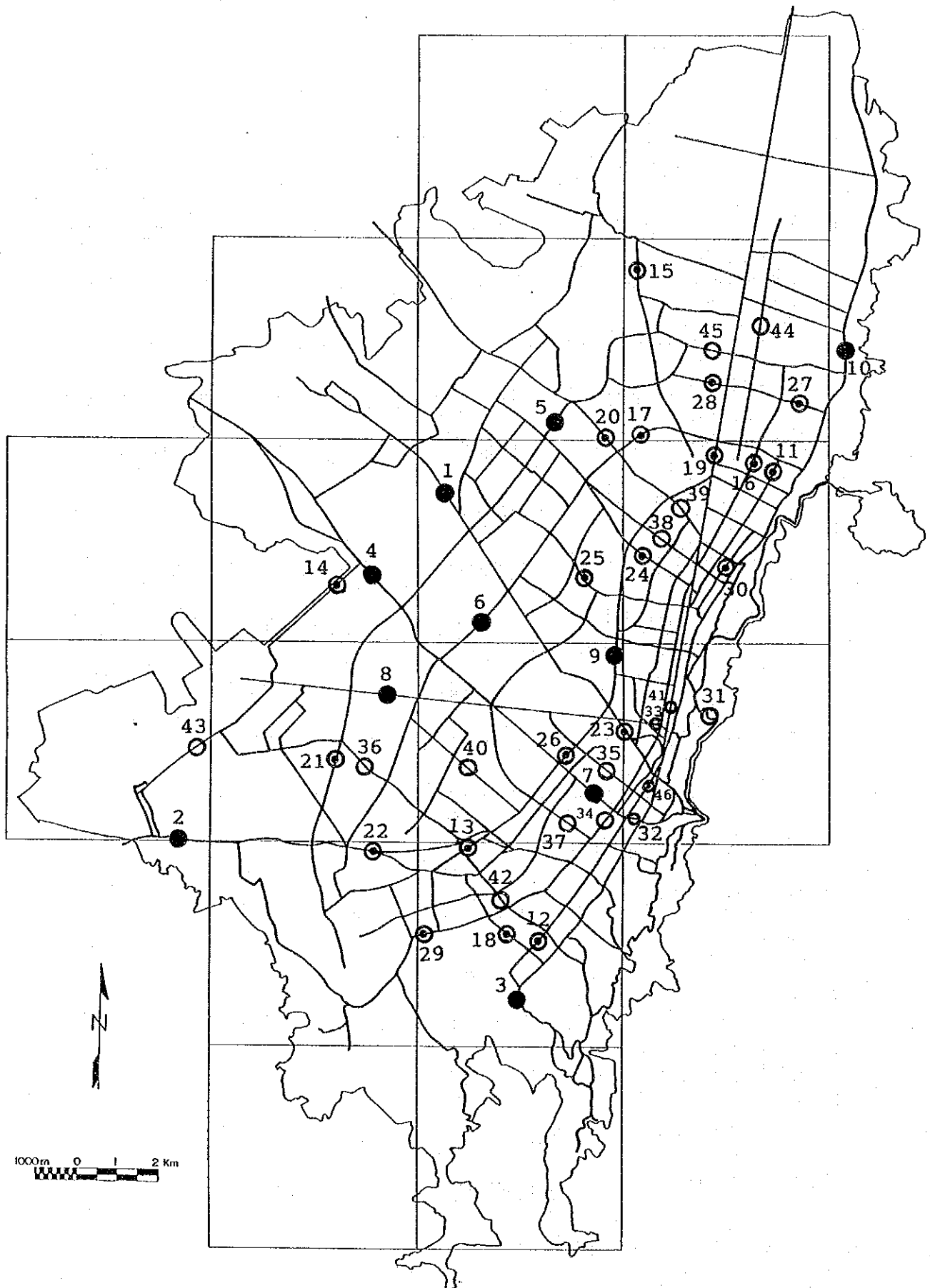


Fig. 3.4.1 Location Map of Traffic Volume Survey

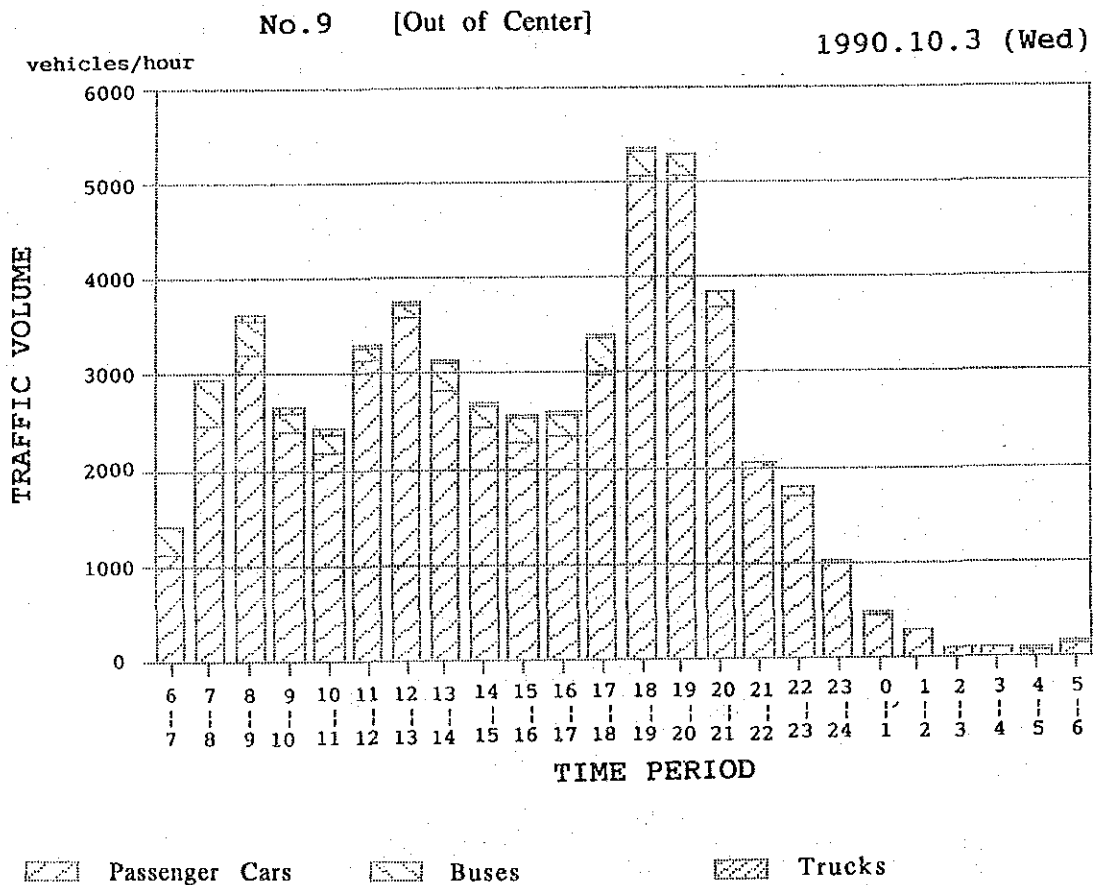
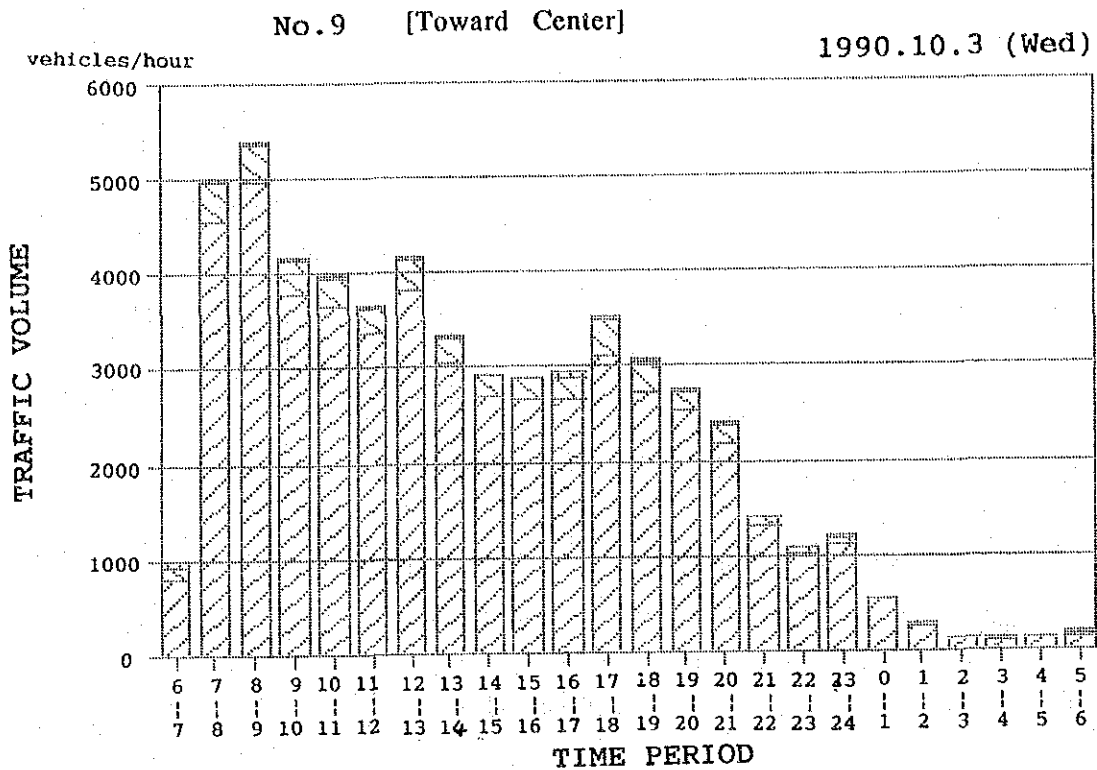
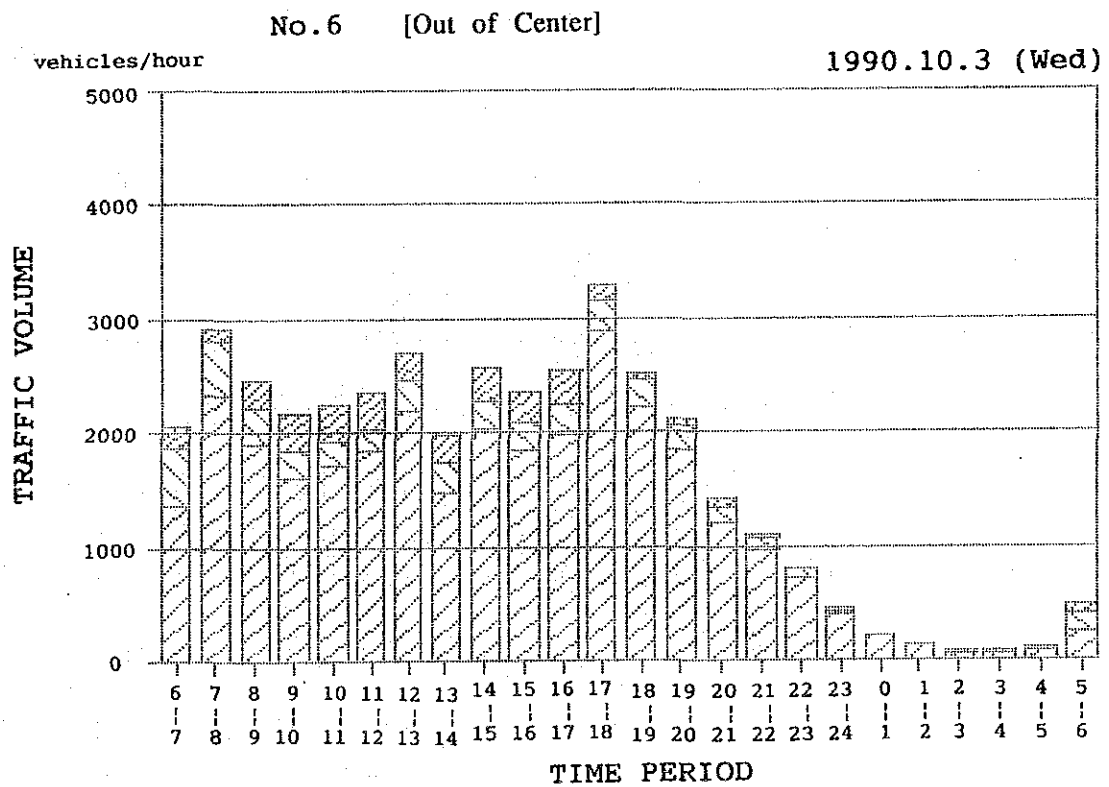
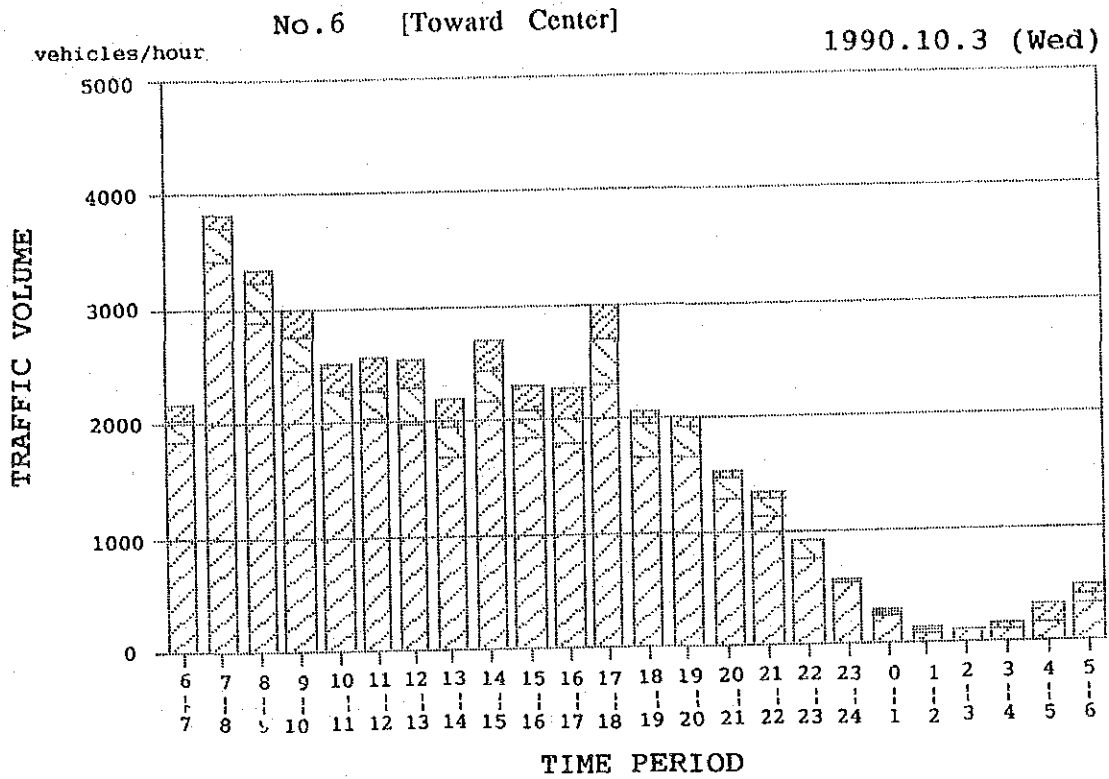
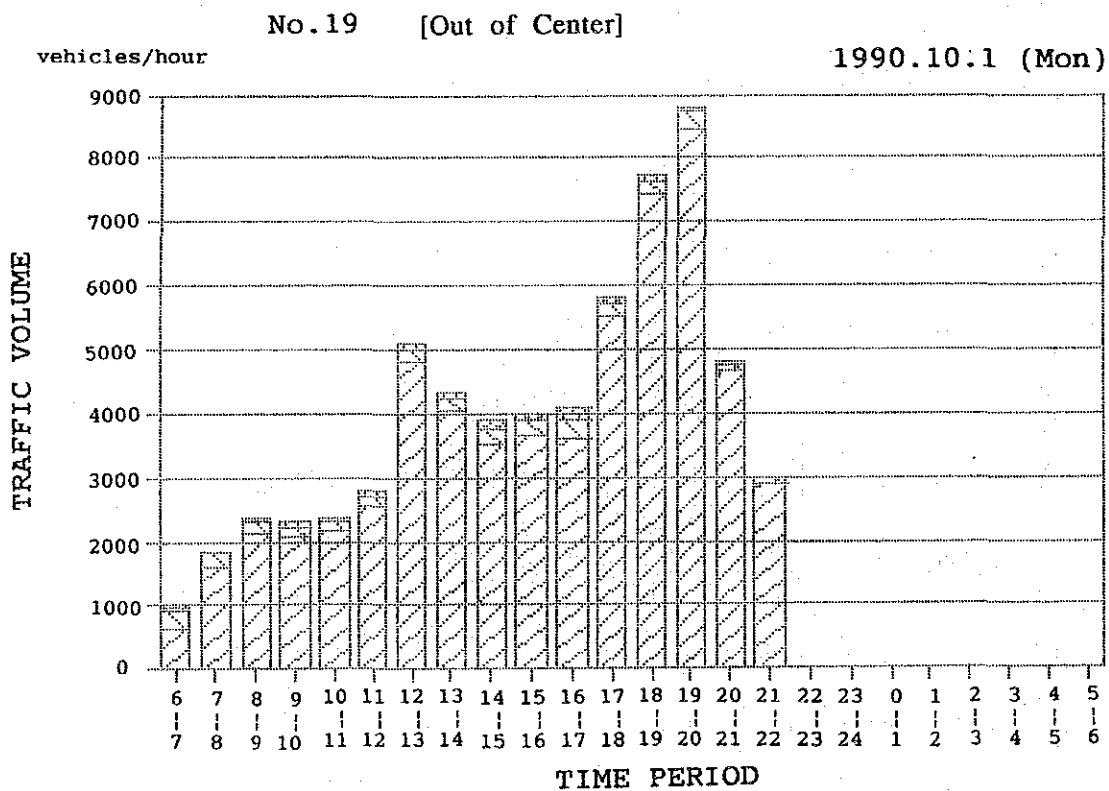
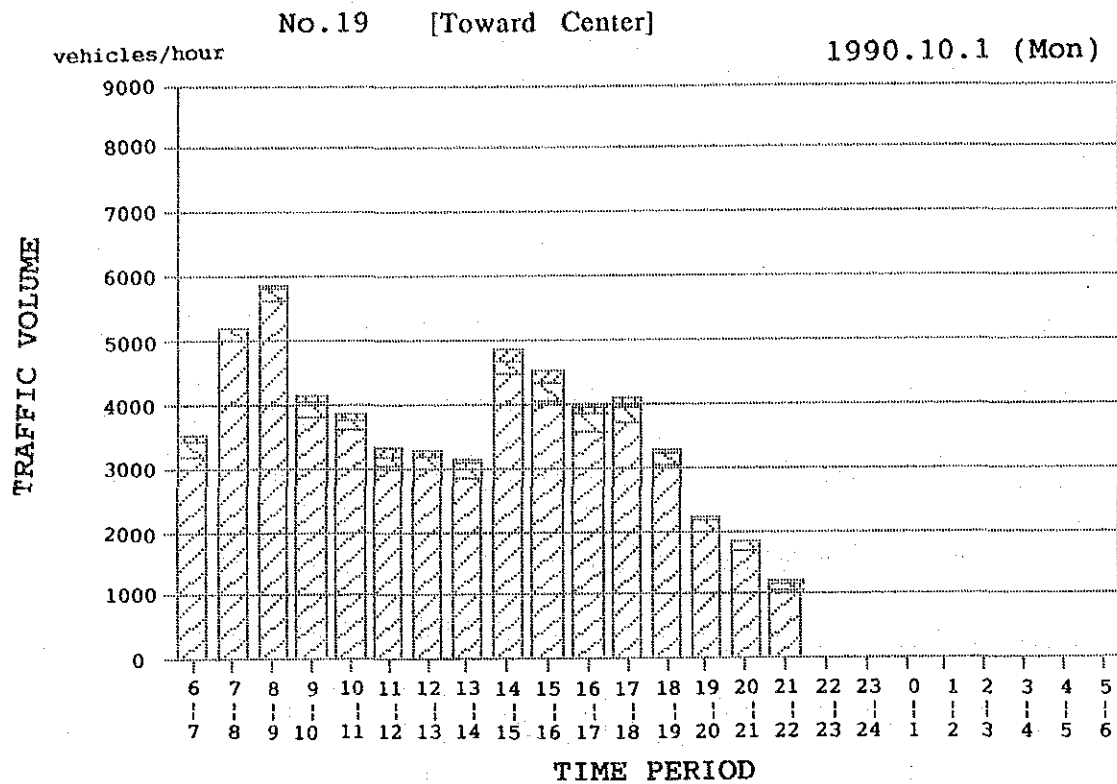


Fig. 3.4.3 Typical Hourly Fluctuation of Radial Road (Weekday)



Passenger Cars
 Buses
 Trucks

Fig. 3.4.4 Typical Hourly Fluctuation of the Road Restricted Trucks to Drive into (Weekday)






 Passenger Cars
  Buses
  Trucks

Fig. 3.4.5 Typical Hourly Fluctuation with the Heaviest Traffics (Weekday)

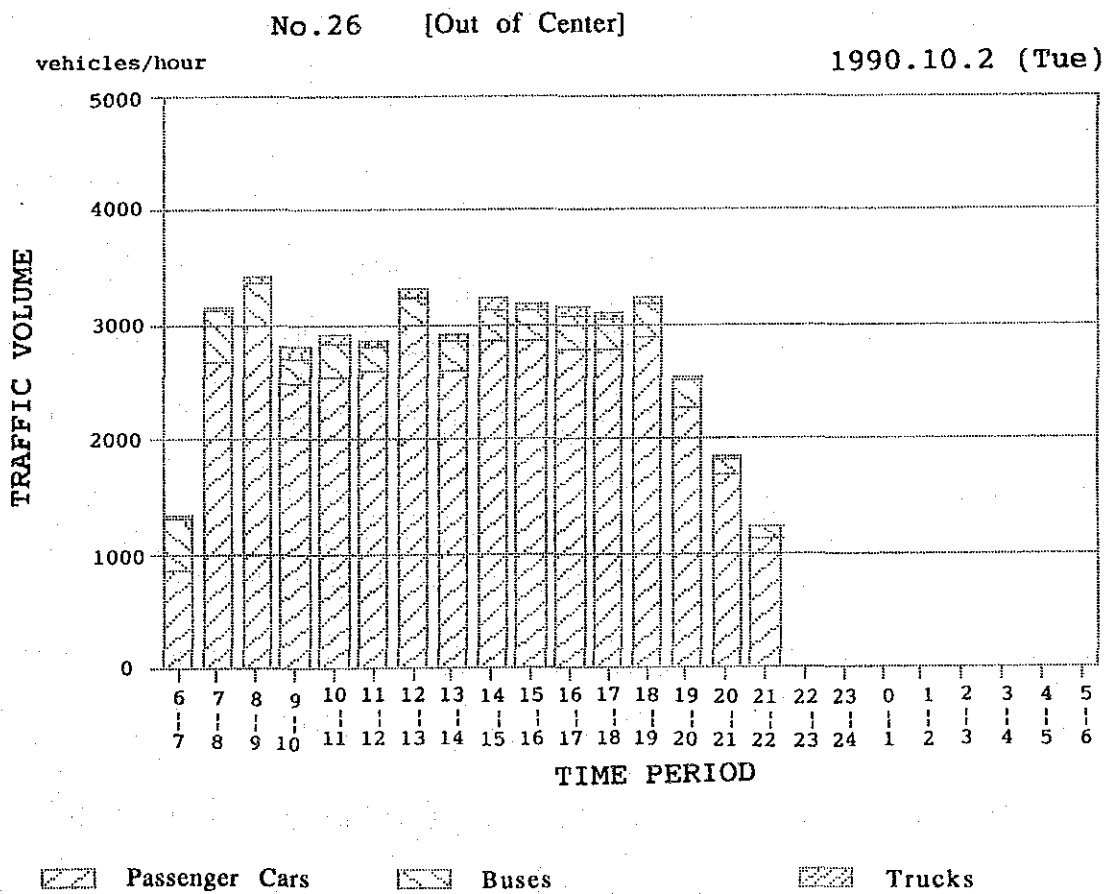
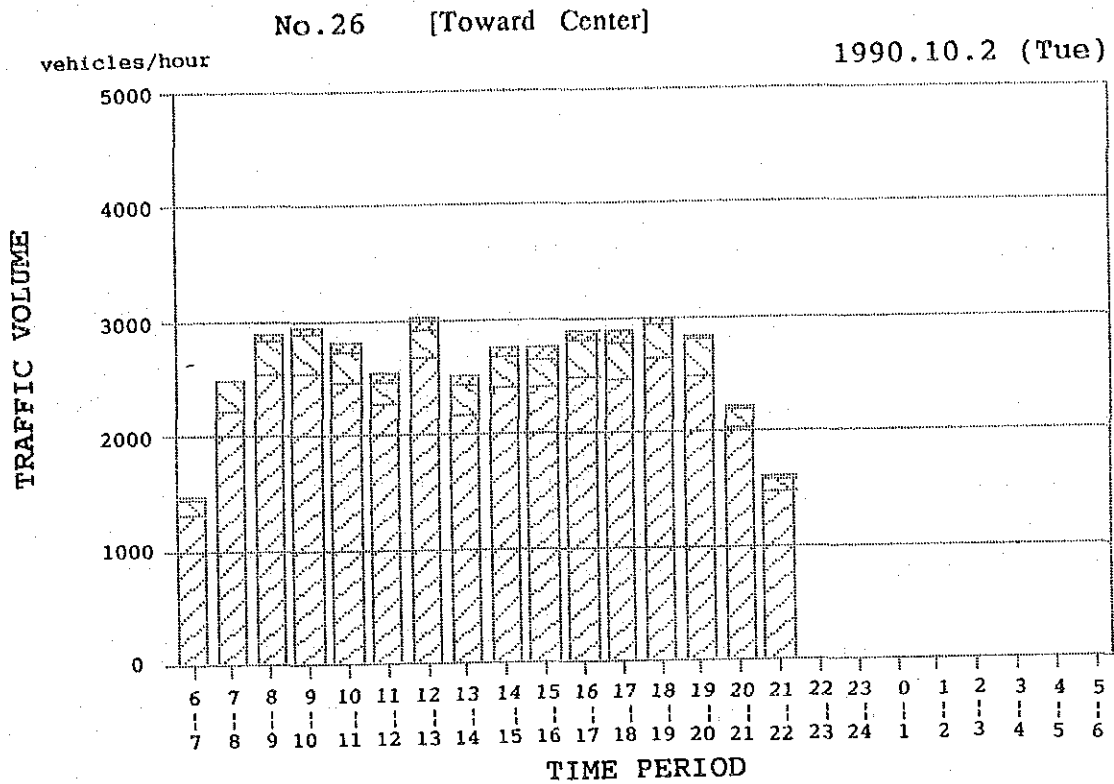


Fig. 3.4.6 Typical Hourly Fluctuation in the Central Zone (Weekday)

Table 3.4.2 Ratio of 16 Hour Traffic Volume to 24 Hour Traffic Volume
(Weekday)

Survey Point No.	Traffic Flow Direction	Traffic Volume		Ratio (16 hours to 24 hours)
		16 hours (6:00 ~ 22:00)	24 hours (6:00 ~ 6:00)	
1	S → N	31,330	33,244	0.942
	N → S	40,934	43,320	0.945
	Total	72,264	76,564	0.944
2	E → W	20,082	22,580	0.889
	W → E	15,898	18,140	0.876
	Total	35,980	40,720	0.884
3	N → S	5,084	6,352	0.800
	S → N	5,250	6,306	0.833
	Total	10,334	12,658	0.816
4	S → N	20,442	22,142	0.923
	N → S	18,830	20,426	0.922
	Total	39,272	42,568	0.923
5	S → N	31,332	33,734	0.929
	N → S	27,248	29,808	0.914
	Total	58,580	63,542	0.922
6	S → N	36,818	39,246	0.938
	N → S	39,380	42,396	0.929
	Total	76,198	81,642	0.933
7	E → W	20,024	21,626	0.926
	W → E	19,476	20,696	0.941
	Total	39,500	42,322	0.933
8	E → W	39,710	44,622	0.890
	W → E	39,044	41,580	0.939
	Total	78,754	86,202	0.914
9	S → N	51,112	55,242	0.925
	N → S	52,664	56,458	0.933
	Total	103,776	111,700	0.929
10	S → N	25,086	27,664	0.907
	N → S	26,748	28,664	0.933
	Total	51,834	56,328	0.920

Table 3.4.3 Classified Daily Traffic Volume (Weekday)

Survey Point No.	Type A		Type B		Type C		Total
	Daily Traffic Volume	Ratio (to Total)	Daily Traffic Volume	Ratio (to Total)	Daily Traffic Volume	Ratio (to Total)	Daily Traffic Volume
1	68,686	0.897	4,868	0.064	3,010	0.039	76,564
2	24,842	0.610	9,362	0.230	6,516	0.160	40,720
3	6,348	0.502	4,506	0.356	1,804	0.143	12,658
4	29,726	0.698	6,254	0.147	6,588	0.155	42,568
5	53,862	0.848	5,086	0.080	4,594	0.072	63,542
6	65,876	0.807	9,052	0.111	6,714	0.082	81,642
7	30,474	0.720	10,038	0.237	1,810	0.043	42,322
8	69,684	0.808	11,252	0.131	5,266	0.061	86,202
9	102,090	0.914	8,530	0.076	1,080	0.010	111,700
10	48,660	0.864	5,888	0.105	1,780	0.032	56,328
11	28,035	0.906	2,619	0.085	287	0.009	30,941
12	16,304	0.616	8,794	0.332	1,374	0.052	26,472
13	26,967	0.732	7,637	0.207	2,231	0.061	36,835
14	4,550	0.528	1,595	0.185	2,468	0.287	8,613
15	27,510	0.812	4,606	0.136	1,750	0.052	33,866
16	28,669	0.911	2,399	0.076	397	0.013	31,465
17	75,308	0.861	6,147	0.070	6,032	0.069	87,487
18	13,048	0.721	3,750	0.207	1,297	0.072	18,095
19	122,397	0.926	6,921	0.052	2,872	0.022	132,190
20	46,244	0.807	8,325	0.145	2,710	0.047	57,279
21	27,668	0.761	4,656	0.128	4,041	0.111	36,365
22	28,386	0.712	8,259	0.207	3,198	0.080	39,843
23	69,987	0.890	7,340	0.093	1,338	0.017	78,665
24	14,199	0.779	3,400	0.187	632	0.035	18,231
25	41,657	0.935	1,821	0.041	1,098	0.025	44,576
26	81,465	0.880	9,085	0.098	2,024	0.022	92,574
27	32,071	0.958	919	0.027	503	0.015	33,493
28	44,229	0.962	1,001	0.022	751	0.016	45,981
29	21,526	0.610	11,031	0.313	2,742	0.078	35,299
30	19,508	0.948	811	0.039	261	0.013	20,580
*31	25,014	0.989	147	0.006	138	0.005	25,299
*32	12,522	0.753	3,830	0.230	287	0.017	16,639
33	12,796	0.727	4,332	0.246	475	0.027	17,603
34	33,329	0.731	10,162	0.223	2,114	0.046	45,605
35	27,776	0.828	4,636	0.138	1,131	0.034	33,543
36	35,687	0.724	10,147	0.206	3,471	0.070	49,305
37	29,182	0.832	3,517	0.100	2,388	0.068	35,087
38	23,176	0.936	759	0.031	822	0.033	24,757
39	38,132	0.761	10,528	0.210	1,450	0.029	50,110
40	20,354	0.790	3,763	0.146	1,652	0.064	25,769
41	26,306	0.780	7,074	0.210	363	0.011	33,743
42	24,503	0.734	6,960	0.208	1,937	0.058	33,400
43	14,487	0.550	8,837	0.336	2,997	0.114	26,321
44	35,275	0.930	2,008	0.053	641	0.017	37,924
45	50,986	0.837	5,812	0.095	4,084	0.067	60,882
46	10,831	0.327	22,091	0.667	211	0.006	33,133

Note: Type A - Automovil, Campero, Camioneta, Microbus
Type B - Bus, Buseta
Type C - Camion, Volqueta, Tractomula

* - Inadequate data because of some obstruction.

Daily traffic volumes of No. 11~46 were estimated by 16 hours' (6:00~22:00) traffic volumes.

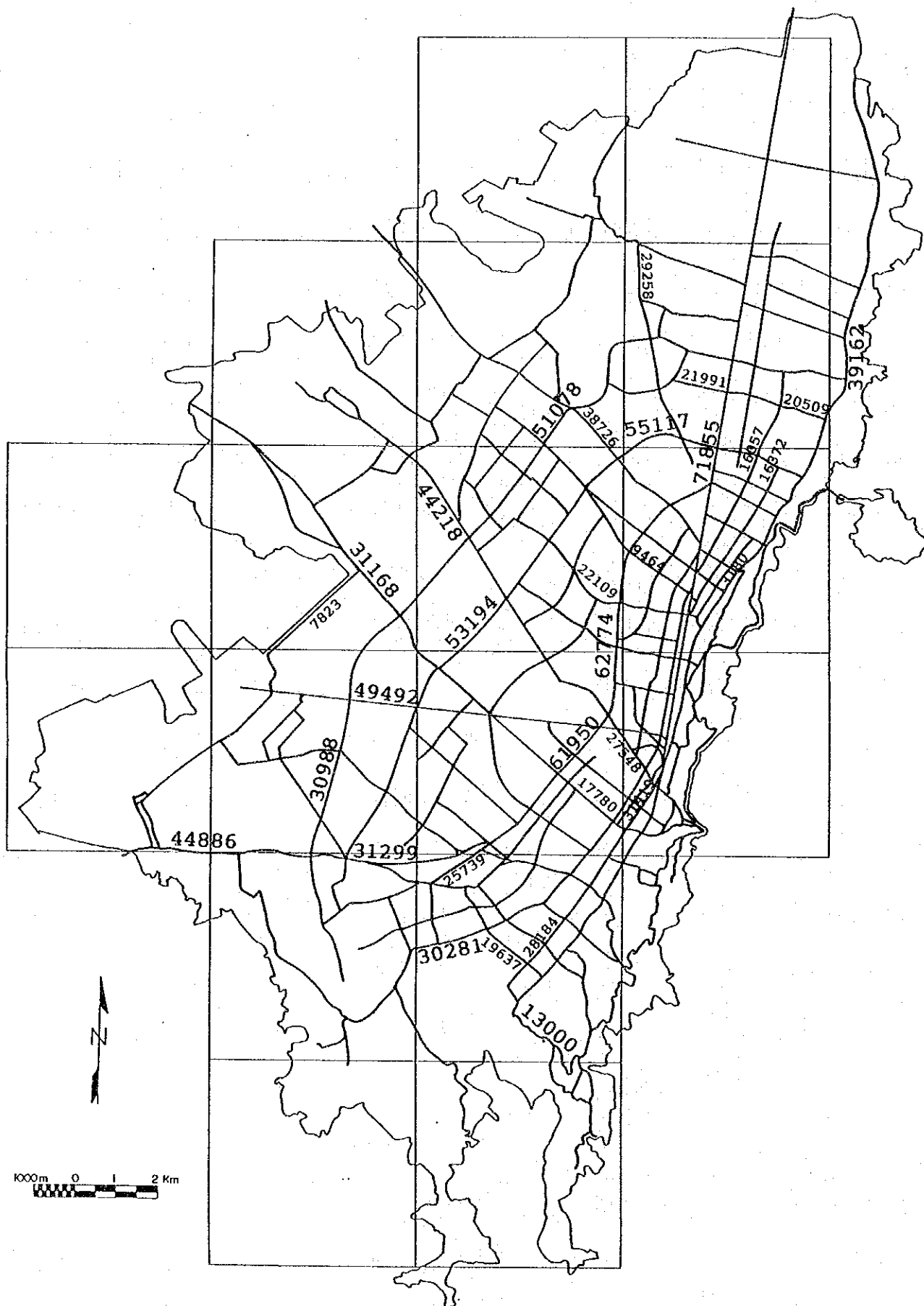


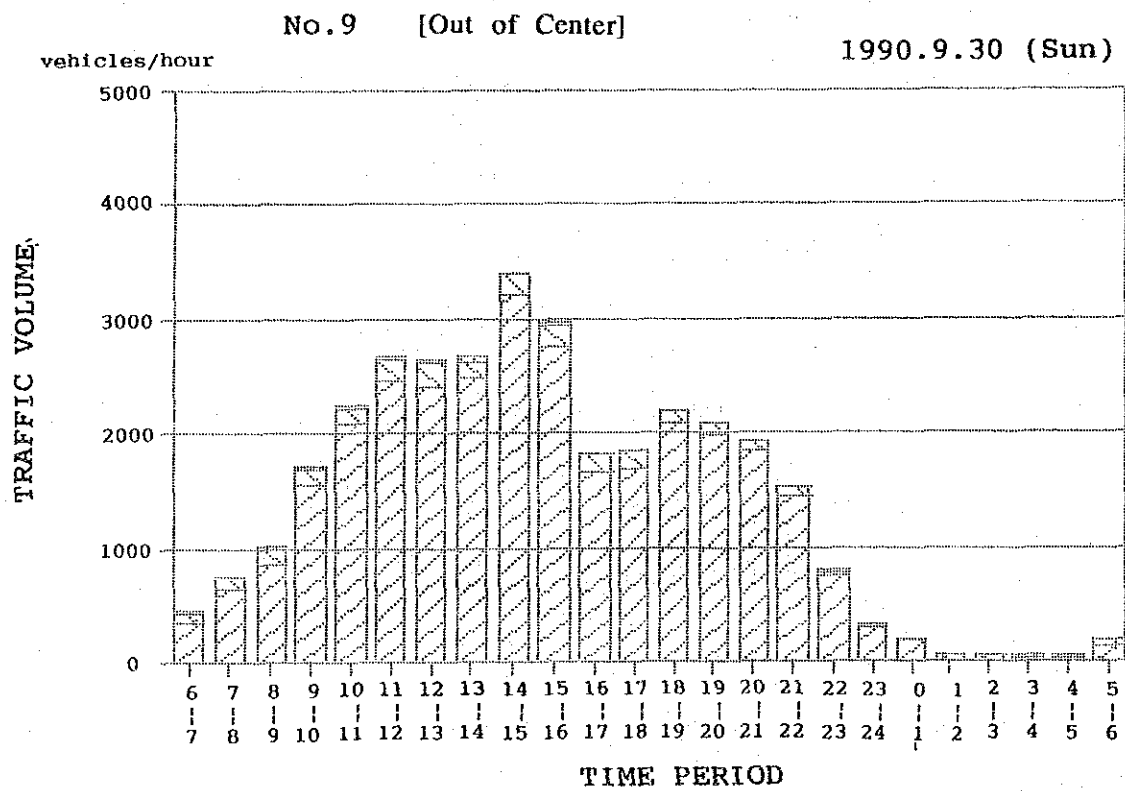
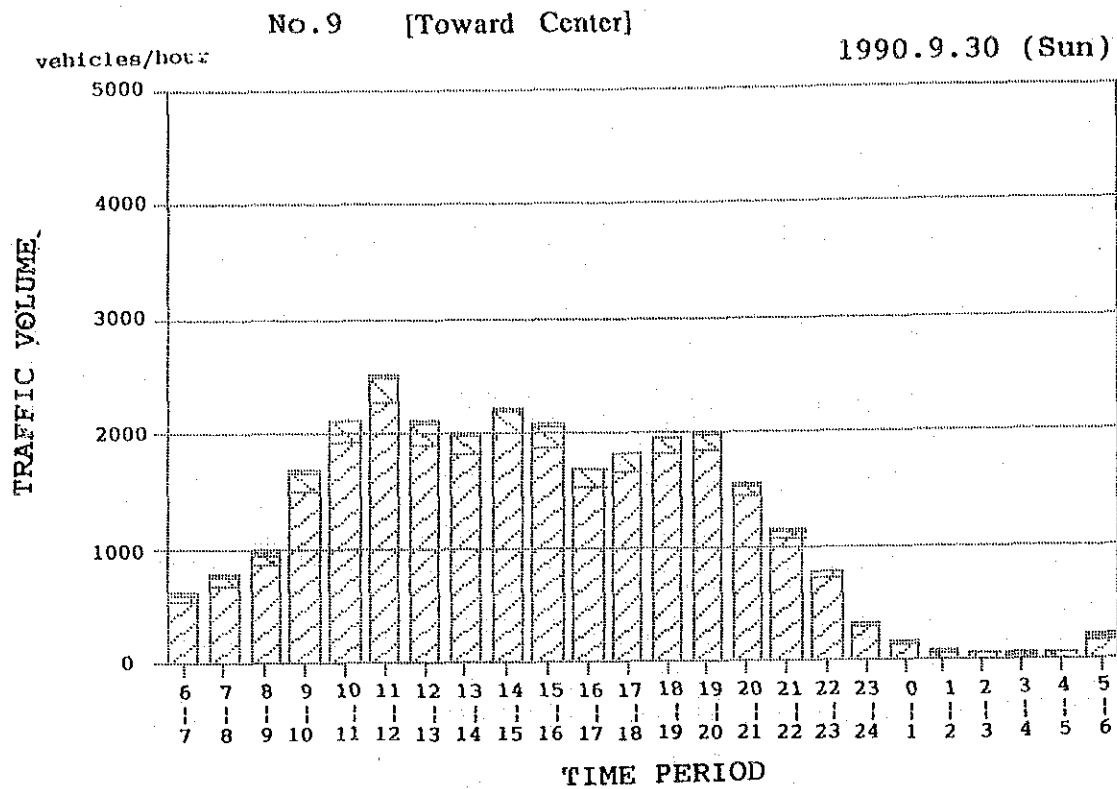
Fig. 3.4.7 Daily Traffic Volume (Sunday)

Table 3.4.4 Weekly Fluctuation of Daily Traffic Volume

Survey Point No.	Weekday Daily (24 h) Traffic Volume	Sunday		Saturday	
		Daily (24 h) Traffic Volume	Ratio (to Weekday)	Daily (24 h) Traffic Volume	Ratio (to Weekday)
1	76,564	44,218	0.58	62,376	0.81
2	40,720	44,886	1.10	46,202	1.13
3	12,658	13,000	1.03	14,508	1.15
4	42,568	31,168	0.73	41,798	0.98
5	63,542	*51,078	0.80	*55,026	0.87
6	81,642	53,194	0.65	76,384	0.94
7	42,322	17,780	0.42	34,022	0.80
8	86,202	49,492	0.57	78,072	0.91
9	111,700	62,774	0.56	98,742	0.88
10	56,328	39,162	0.70	64,344	1.14
11	30,941	16,372	0.53	-	-
12	26,472	28,184	1.06	-	-
13	36,835	25,739	0.70	-	-
14	8,613	7,823	0.91	-	-
15	33,866	29,258	0.86	-	-
16	31,465	16,057	0.51	-	-
17	87,487	55,117	0.63	-	-
18	18,095	19,637	1.09	-	-
19	132,190	71,855	0.54	-	-
20	57,279	38,726	0.68	-	-
21	36,365	*30,988	0.85	-	-
22	39,843	31,299	0.79	-	-
23	78,665	27,548	0.35	-	-
24	18,231	9,464	0.52	-	-
25	44,576	22,109	0.50	-	-
26	92,574	61,950	0.67	-	-
27	33,493	20,509	0.61	-	-
28	45,981	21,991	0.48	-	-
29	35,299	30,281	0.86	-	-
30	20,580	3,180	0.15	-	-
46	33,133	31,419	0.95	-	-

Note: Daily traffic volumes of No. 11 ~ 30, 46 were estimated by 16 hours' (6:00 ~ 22:00) traffic volumes.

* - Inadequate data because of some obstruction






 Passenger Cars
  Buses
  Trucks

Fig. 3.4.8 Typical Hourly Fluctuation of Radial Road (Sunday)

Table 3.4.5 Ratio of 16 Hour Traffic Volume to 24 Hour Traffic Volume
(Sunday)

Survey Point No.	Traffic Flow Direction	Traffic Volume		Ratio (16 hours to 24 hours)
		16 hours (6:00 ~ 22:00)	24 hours (6:00 ~ 6:00)	
1	S → N	17,980	19,236	0.935
	N → S	23,408	24,982	0.937
	Total	41,388	44,218	0.936
2	E → W	19,260	21,076	0.914
	W → E	21,730	23,810	0.913
	Total	40,990	44,886	0.913
3	N → S	5,830	7,018	0.831
	S → N	5,160	5,982	0.863
	Total	10,990	13,000	0.845
4	S → N	13,750	15,002	0.917
	N → S	14,686	16,166	0.908
	Total	28,436	31,168	0.912
*5	S → N	21,086	23,016	0.916
	N → S	26,482	28,062	0.944
	Total	47,568	51,078	0.931
6	S → N	24,752	27,028	0.916
	N → S	23,710	26,166	0.906
	Total	48,462	53,194	0.911
7	E → W	8,500	9,410	0.903
	W → E	7,496	8,370	0.896
	Total	15,996	17,780	0.900
8	E → W	21,548	23,574	0.914
	W → E	24,306	25,918	0.938
	Total	45,854	49,492	0.926
9	S → N	31,968	33,746	0.947
	N → S	27,264	29,028	0.939
	Total	59,232	62,774	0.944
10	S → N	17,578	18,708	0.940
	N → S	19,192	20,454	0.938
	Total	36,770	39,162	0.939

Note: * - Inadequate data because of some obstruction

Table 3.4.6 Classified Daily Traffic Volume (Sunday)

Survey Point No.	Type A		Type B		Type C		Total
	Daily Traffic Volume	Ratio (to Total)	Daily Traffic Volume	Ratio (to Total)	Daily Traffic Volume	Ratio (to Total)	Daily Traffic Volume
1	41,620	0.941	2,138	0.048	460	0.010	44,218
2	32,980	0.735	9,724	0.217	2,182	0.049	44,886
3	7,848	0.604	4,254	0.327	898	0.069	13,000
4	23,666	0.759	5,764	0.185	1,738	0.056	31,168
*5	45,512	0.891	4,252	0.083	1,314	0.026	51,078
6	44,046	0.828	7,202	0.135	1,946	0.037	53,194
7	10,768	0.606	6,782	0.381	230	0.013	17,780
8	42,056	0.850	5,736	0.116	1,700	0.034	49,492
9	57,506	0.916	4,596	0.073	672	0.011	62,774
10	35,408	0.904	3,384	0.086	370	0.009	39,162
11	14,935	0.912	1,323	0.081	114	0.007	16,372
12	19,433	0.689	8,288	0.294	463	0.016	28,184
13	20,002	0.777	5,312	0.206	425	0.016	25,739
14	5,430	0.694	1,399	0.179	994	0.127	7,823
15	25,614	0.875	3,097	0.106	547	0.019	29,258
16	15,165	0.944	829	0.052	63	0.004	16,057
17	49,271	0.894	3,896	0.071	1,950	0.035	55,117
18	14,692	0.748	4,443	0.226	502	0.026	19,637
19	66,581	0.927	4,477	0.062	797	0.011	71,855
20	31,437	0.812	6,536	0.169	753	0.019	38,726
*21	24,677	0.796	5,219	0.168	1,092	0.035	30,988
22	24,572	0.785	5,705	0.182	1,022	0.033	31,299
23	23,623	0.858	3,657	0.133	268	0.010	27,548
24	6,897	0.729	2,447	0.259	120	0.013	9,464
25	20,967	0.948	870	0.039	272	0.012	22,109
26	53,721	0.867	7,214	0.116	1,015	0.016	61,950
27	20,220	0.986	173	0.008	116	0.006	20,509
28	21,871	0.995	50	0.002	70	0.003	21,991
29	18,020	0.595	10,903	0.360	1,358	0.045	30,281
30	2,969	0.934	145	0.046	66	0.021	3,180
46	12,820	0.408	18,445	0.587	154	0.005	31,419

Note: Daily traffic volumes of No. 11~30, 46 were estimated by 16 hours' (6:00~22:00) traffic volumes.

* - Inadequate data because of some obstruction.



Fig. 3.4.9 Daily Traffic Volume (Saturday)

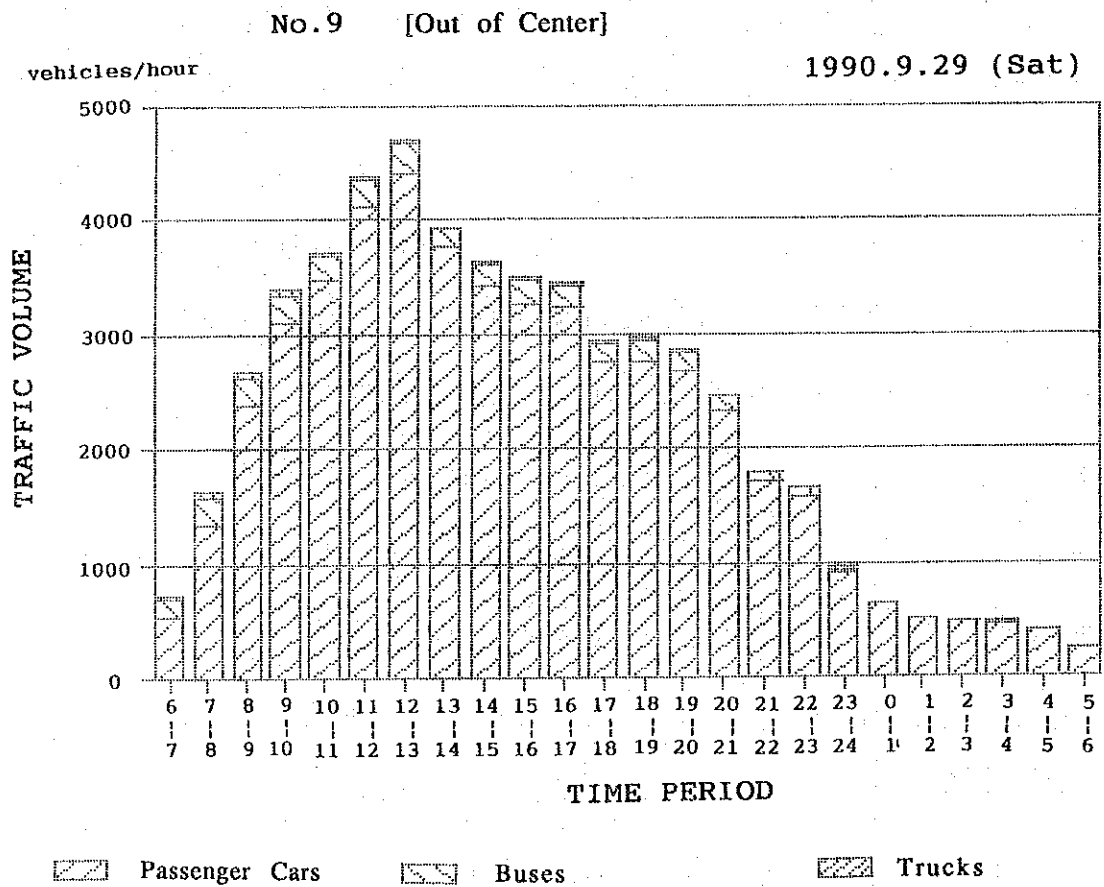
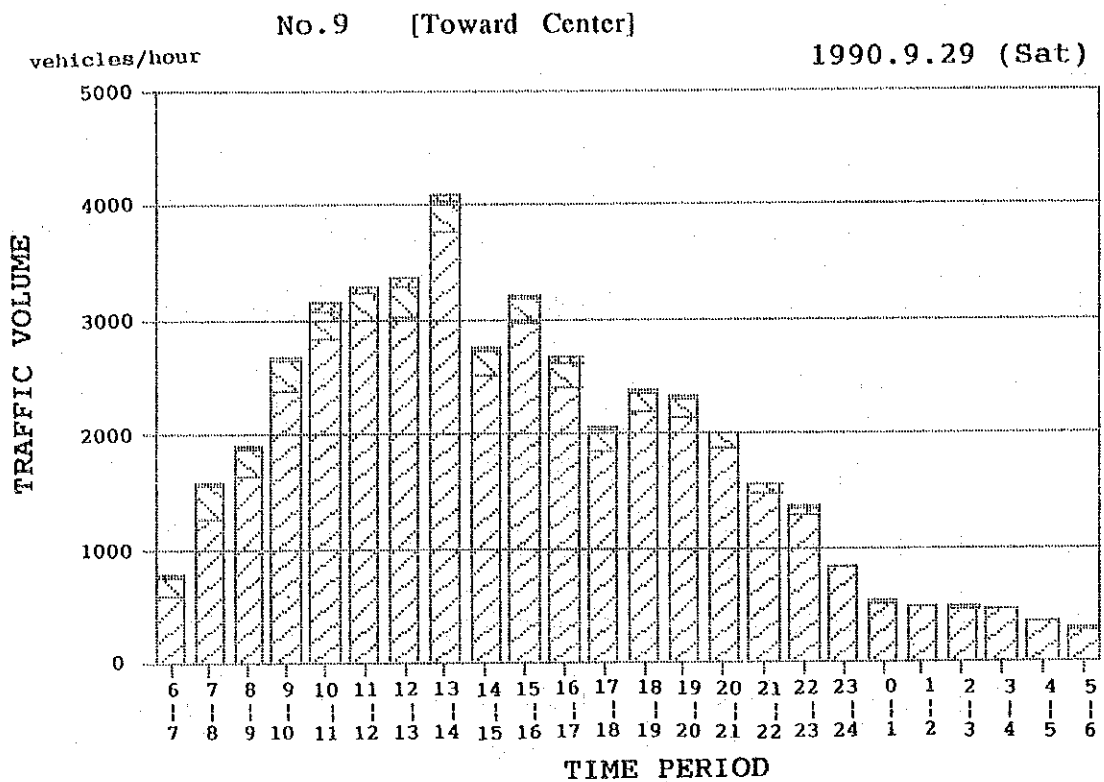


Fig. 3.4.10 Typical Hourly Fluctuation of Radial Road (Saturday)

Table 3.4.7 Ratio of 16 Hour Traffic Volume to 24 Hour Traffic Volume
(Saturday)

Survey Point No.	Traffic Flow Direction	Traffic Volume		Ratio (16 hours to 24 hours)
		16 hours (6:00 ~ 22:00)	24 hours (6:00 ~ 6:00)	
1	S → N	24,830	27,486	0.903
	N → S	31,816	34,890	0.912
	Total	56,646	62,376	0.908
2	E → W	22,980	26,462	0.868
	W → E	16,902	19,740	0.856
	Total	39,882	46,202	0.863
3	N → S	5,766	7,334	0.786
	S → N	5,646	7,174	0.787
	Total	11,412	14,508	0.787
4	S → N	19,282	21,682	0.889
	N → S	17,622	20,116	0.876
	Total	36,904	41,798	0.883
*5	S → N	23,842	27,934	0.854
	N → S	22,206	27,092	0.820
	Total	46,048	55,026	0.837
6	S → N	32,142	36,056	0.891
	N → S	35,628	40,328	0.883
	Total	67,770	76,384	0.887
7	E → W	16,232	17,738	0.915
	W → E	14,712	16,284	0.903
	Total	30,944	34,022	0.910
8	E → W	33,780	39,090	0.864
	W → E	34,806	38,982	0.893
	Total	68,586	78,072	0.878
9	S → N	48,718	54,148	0.900
	N → S	39,758	44,594	0.892
	Total	88,476	98,742	0.896
10	S → N	25,434	29,800	0.853
	N → S	30,500	34,544	0.883
	Total	55,934	64,344	0.869

Note: * - Inadequate data because of some obstruction

Table 3.4.8 Classified Daily Traffic Volume (Saturday)

Survey Point No.	Type A		Type B		Type C		Total
	Daily Traffic Volume	Ratio (to Total)	Daily Traffic Volume	Ratio (to Total)	Daily Traffic Volume	Ratio (to Total)	Daily Traffic Volume
1	57,300	0.919	3,140	0.050	1,936	0.031	62,376
2	31,128	0.674	10,164	0.220	4,910	0.106	46,202
3	8,750	0.603	4,444	0.306	1,314	0.091	14,508
4	31,134	0.745	5,854	0.140	4,810	0.115	41,798
*5	47,762	0.868	4,102	0.075	3,162	0.057	55,026
6	63,244	0.828	8,588	0.112	4,552	0.060	76,384
7	24,282	0.714	8,510	0.250	1,230	0.036	34,022
8	64,982	0.832	9,330	0.120	3,760	0.048	78,072
9	91,088	0.922	6,590	0.067	1,064	0.011	98,742
10	58,136	0.904	4,458	0.069	1,750	0.027	64,344

Note: * - Inadequate data because of some obstruction.