

DAFTAR LAMPIRAN

LAMPIRAN 1. Initial Oil in place IOIP untuk reservoir di Karang Ampel

No.	Daerah Penghasil	IOIP MSTB	Pengambilan Maksimum MSTB	Produksi Kumulatif MSTB	Sisa Cadangan MSTB
1	BEKASI	90,700.00	14,693.00	2,398.66	12,294.34
2	INDRAMAYU	903,768.00	224,620.00	132,639.41	91,980.59
3	KARAWANG	631,015.57	209,884.00	194,253.95	15,630.05
4	MAJALENGKA	46,517.00	10,013.00	2,311.97	7,701.03
5	SUBANG	25,004.00	5,119.00	976.88	4,142.12
6	4-12 MIL LAUT	1,689,888.0	426,627.00	399,157.69	27,469.31
7	> 12 MIL LAUT	2,389,360.0	713,246.00	650,122.29	63,123.71

LAMPIRAN 2. Initial Gas in place IGIP untuk reservoir di Karang Ampel

No.	Daerah Penghasil	IGIP MMSCF	Pengambilan Maksimum MMSCF	Produksi Kumulatif MMSCF	Sisa Cadangan MMSCF
1	INDRAMAYU	1,428,744.50	1,087,026.70	610,151.17	476,875.53
2	KARAWANG	650,661.80	505,465.30	276,471.09	228,994.21
3	MAJALENGKA	175,819.00	130,964.00	47,399.50	83,564.50
4	SUBANG	482,385.40	368,173.90	139,351.51	228,822.39
5	4-12 MIL LAUT	1,589,900.00	1,008,400.00	753,664.69	254,735.31
6	> 12 MIL LAUT	N/A	N/A	N/A	N/A
					1,272,991.94

LAMPIRAN 3. Sisa Cadangan Produksi gas dan minyak di Karang Ampel

NO	Nama Lapangan	Minyak + Kondensat				
		IOIP MSTB	Cadangan Terambil MSTB	Produksi Per Tahun MSTB	Produksi Kumulatif MSTB	Sisa Cadangan MSTB
1	RANDEGAN	33,974.80	6,040.60	18.33	810.95	5,229.65
2	PASIR CATANG	4,365.50	1,456.40	18.00	160.90	1,295.50
3	TUGU BARAT	8,175.90	2,515.60	149.80	1,152.80	1,362.80
NO	Nama Lapangan	Gas				
		IGIP BSCF	Cadangan Terambil BSCF	Produksi Per Tahun BSCF	Produksi Kumulatif BSCF	Sisa Cadangan BSCF
1	RANDEGAN	56.79	40.72	2.92	35.72	4.99
2	PASIR CATANG	81.59	61.79	1.17	5.13	56.65
3	TUGU BARAT C	37.44	28.46	0.41	6.51	21.95

LAMPIRAN 4. Jumlah sumur yang tidak produktif

No	Struktur/Wilayah	Jumlah Sumur	Sumur Minyak	Sumur Gas	Sumur Tidak Produktif	Fluida
1.	CEMARA BARAT	18	9	2	7	MGK
2	CEMARA SELATAN	25	3	6	16	MGK
3	CEMARA SELATAN BT	4	0	2	2	K
4	CEMARA TIMUR	10	3	5	2	MGK
5	GANTAR	12	2	6	4	MGK
6	HAURGEULIS	1	0	0	1	G
7	JATIBARANG	163	55	21	87	MGK
8	JATIBARANG BARAT					G
9	KANDANGHAUR BRT	3	0	0	3	MG
10	KANDANGHAUR TMR	11	1	1	9	MG
11	KRASAK	1	0	0	1	
12	MELANDONG	1	0	0	1	
13	PASIR CATANG (60%)	2	1	0	1	MG
14	SAMBIDOYONG	3	0	0	3	MG
15	SINDANG	19	2	14	3	MK
16	SINDANG BLOK TURUN					G
17	SINDANG SARI	1	0	1	0	GK
18	SUKATANI	1	0	0	1	G
19	TANJUNG SARI					
20	TUGU BARAT A	25	6	2	17	M
21	WALED SELATAN	1	0	0	1	
22	WALED UTARA	3	0	3	0	M
23	RANDEGAN	14	1	2	11	MG
24	TUGU BARAT	6	1	1	4	MG
	TOTAL	410	99	92	219	

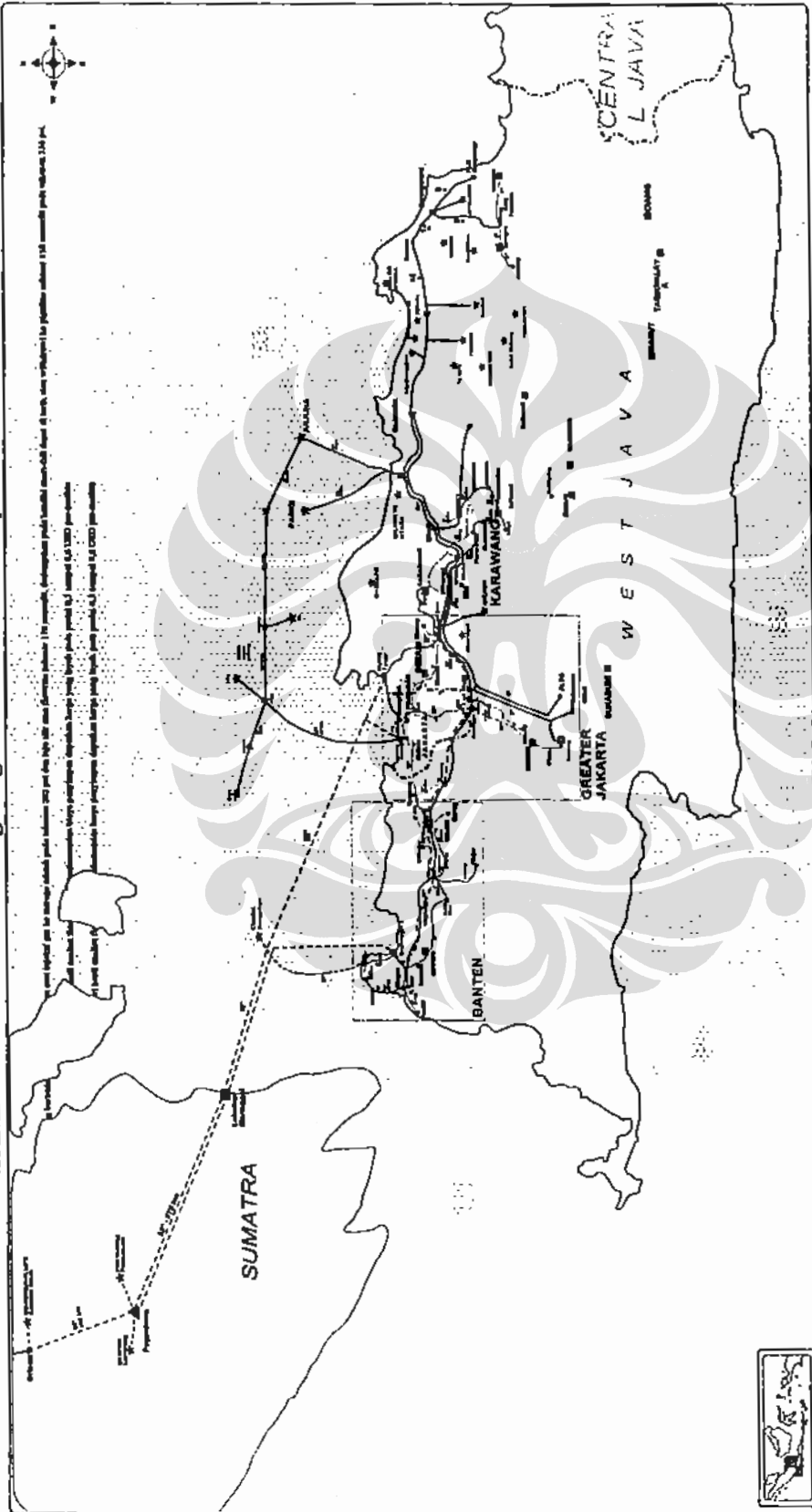
LAMPIRAN 5. Profil cadangan dan sejarah produksi lapangan-lapangan MIGAS di Kabupaten Indramayu pada tanggal 2 Januari 2002

NO	Nama Lapangan	Minyak + Kondensat					Gas				
		MIOIP MSTB	Cadangan Terambil MSTB	Produksi Per Tahun MSTB	Produksi Kumulatif MSTB	Sisa Cadangan MSTB	IGIP BSCF	Cadangan Terambil BSCF	Produksi Per Tahun BSCF	Produksi Kumulatif BSCF	Sisa Cadangan BSCF
1	CEMARA SELATAN	44,561.80	11,542.20	61.90	7,288.60	4,253.60	60.27	40.00	1.44	29.54	18.47
2	CEMARA BRT + TMR	42,825.50	12,263.40	479.40	4,775.90	7,487.50	198.31	124.88	5.18	55.19	69.69
3	GANTAR	1,729.90	2,104.80	86.40	930.45	1,174.35	209.50	176.07	12.59	80.43	95.63
4	PASIR CATANG	4,365.50	1,456.40	18.00	160.95	1,295.45	81.59	61.79	1.17	5.13	36.65
5	SAMBIDYONG	336.70	84.20	0.00	1.89	82.31	0.60	0.39	0.00	0.07	0.32
6	WALIED UTARA	573.90	277.70	10.30	38.60	239.10	24.42	18.92	2.46	3.21	15.71
7	KANDANGHAUR BRT	931.40	186.30	0.00	70.00	116.30	0.66	0.43	0.00	0.41	0.02
8	KANDANGHAUR TMR	11,958.70	2,914.30	44.00	1,452.80	1,461.50	24.34	17.83	0.30	7.94	9.90
9	SINDANG	14,252.30	4,216.60	31.30	372.50	3,344.10	67.77	38.50	0.73	24.52	33.98
10	TUGU BARAT A	43,423.00	12,483.50	130.70	9,575.90	2,909.60	107.19	78.44	2.79	45.86	32.59
11	JATIBARANG	674,418.00	167,439.80	1,416.30	101,487.90	65,941.90	722.99	507.18	10.89	321.09	186.09
12	CEMARA SELATAN BT		280.00	0.00	52.20	227.80	40.93	30.30	0.16	12.81	17.49
13	SINDANG BLK TURUN		7.20	0.00	0.00	7.20	1.66	1.37	0.08	0.43	0.84
14	MALENDONG	10,990.00	3,703.00	42.40	42.40	3,660.60			N/A	N/A	
15	SINDANG SARI		264.70	16.10	61.00	203.70			N/A	N/A	
16	SUKA TANI		66.00	2.00	2.00	64.00					
17	TANJUNG SARI		1,051.00	46.50	118.40	932.60					

LAMPIRAN 6. Ringkasan status sumur lapangan Karang Ampel (Jawa Barat)

No LAPANGAN	Sumur Penghasil				Sumur ditutup					
	Jumlah Sumur Di Bor	Sembar Alam		Sembar Buatan		Ditinggalkan Sementara	Sumur kerin	Jumlah	Ket	
		Mhyak	Gas	Pompa	G. LIFT					
1	JATIBARANG	159	2	24	39	65	22	59	59	94
2	CEMARA SELATAN	24		7	3	10	1	10	10	14
3	CEMARA BARAT	15	4	1	5	10	1	4	4	5
4	CEMARA TIMUR	4		3	1	4	0			0
5	CEMARA BT	4		2		2	0	2	2	2
6	KANDANGHAUR TMR	11				0	1	9	9	11
7	KANDANGHAUR BRT	3				0	2	1	1	3
8	TUGU BARAT	28	9		1	10	5	13	13	18
9	PEGADEN	8				0	5	2	2	8
10	SINDANG	8		5	2	7	0			1
11	PAMANUKAN	3		1		1	2			2
12	RANDEGAN	14	2	1		3	0	9	9	11
13	PASIRJADI	11		9		9	0			2
14	GANTAR	12	1	9		10	0	1	1	2
15	CICAUH	6		6		6	0			0
16	SAMBIDOYONG	1				0	0	1	1	1
17	WALET UTARA	2				0	1	1	1	2
18	CILAMAYA UTARA	7				0	6			7
	Total	320	18	68	51	0	46	112	25	183

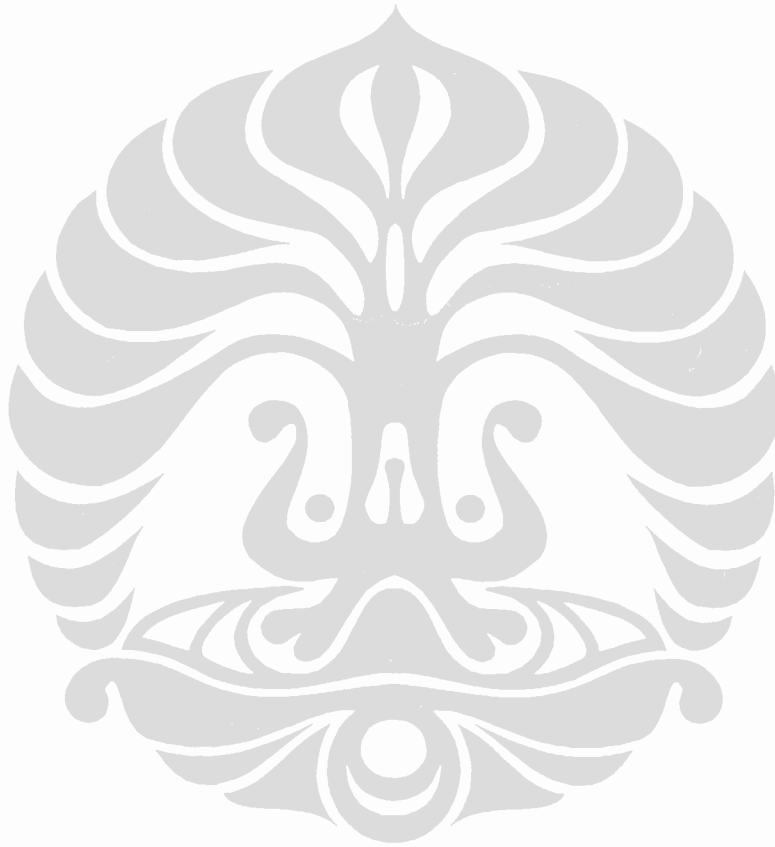
LAMPIRAN 7. UGS terhubung dengan Sumber Gas dan Pipeline distribusi

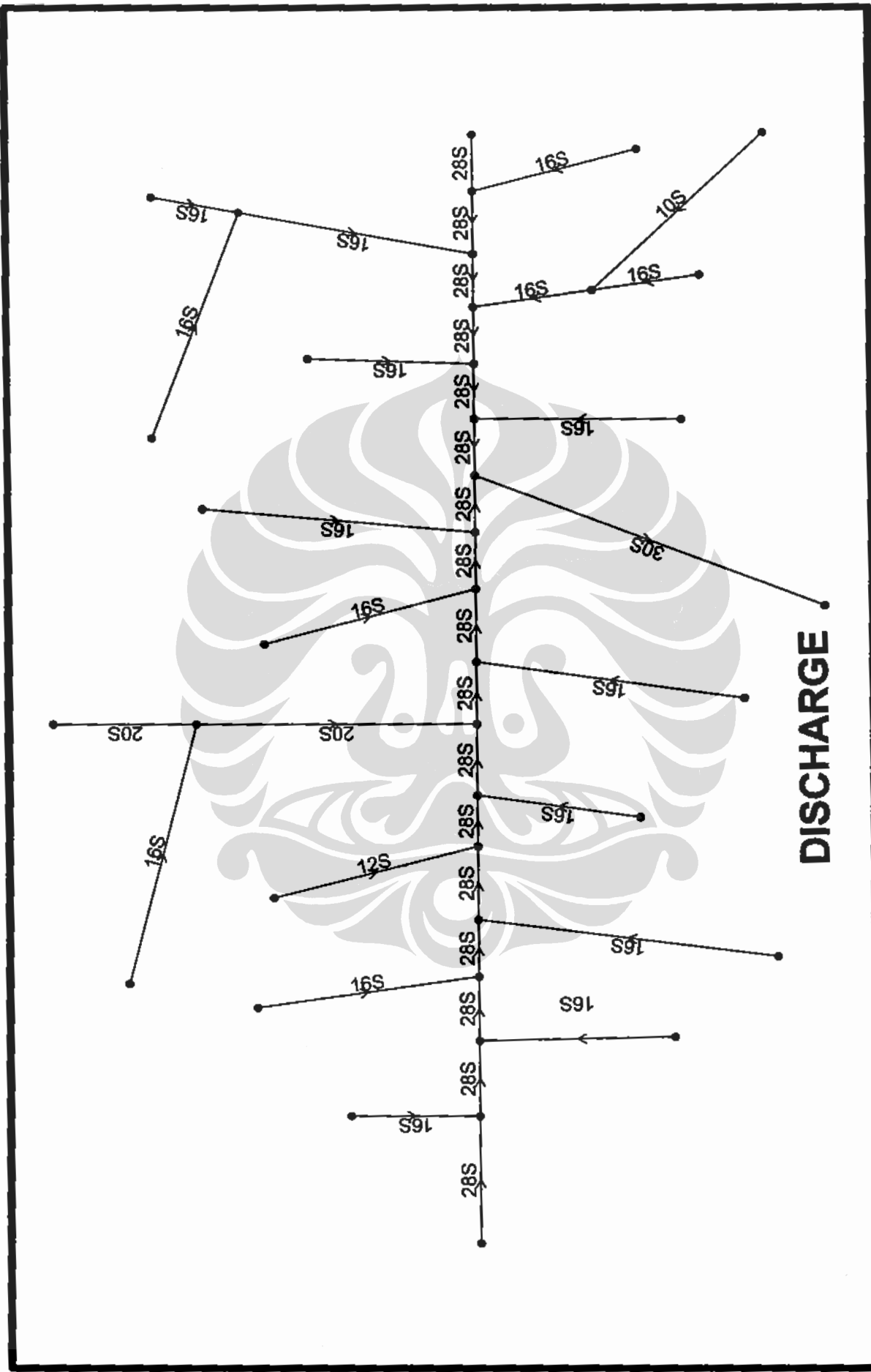


LAMPIRAN – 8

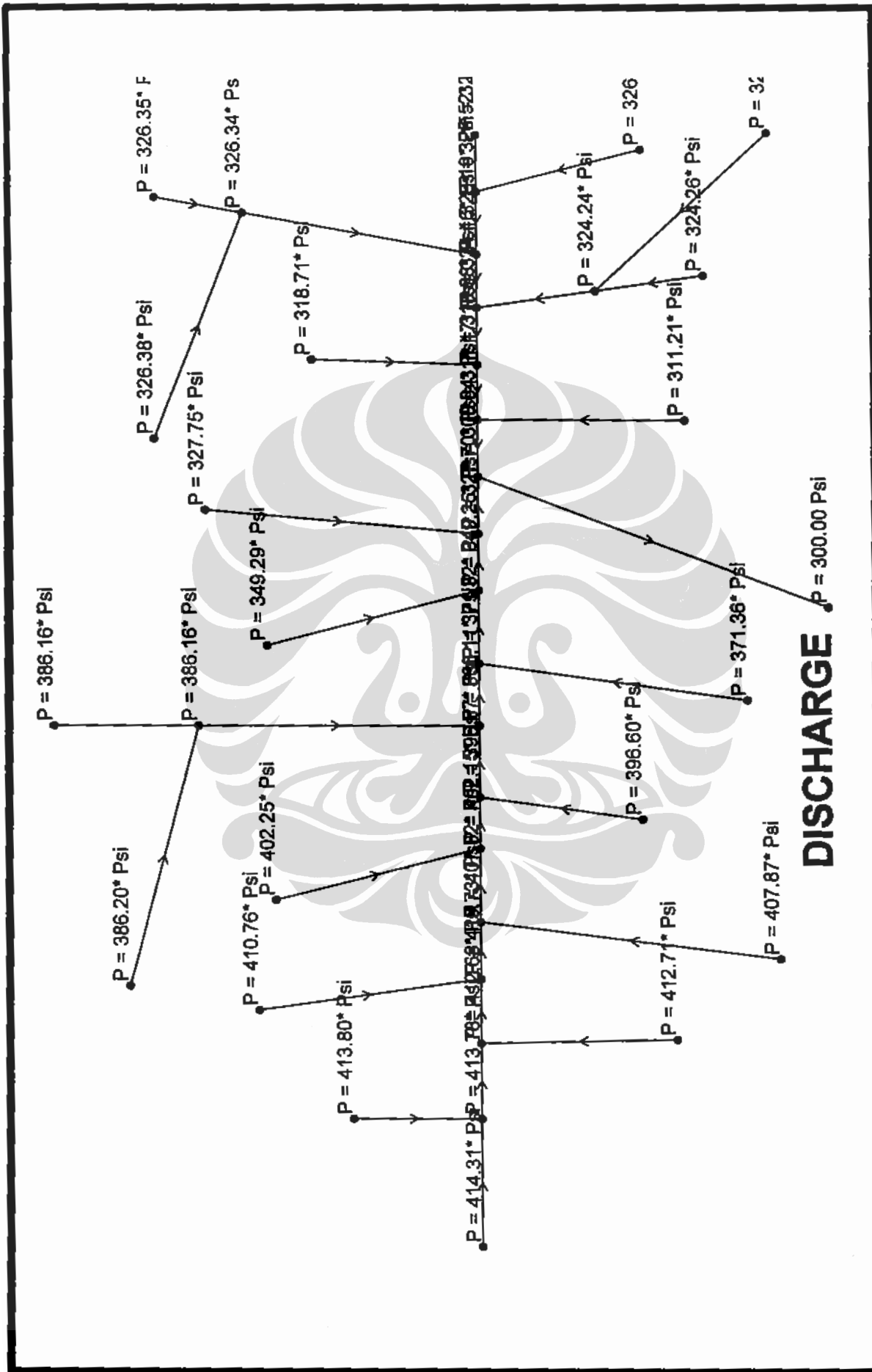
Hasil Analisa Simulasi Jaringan

Dengan software GASWorks

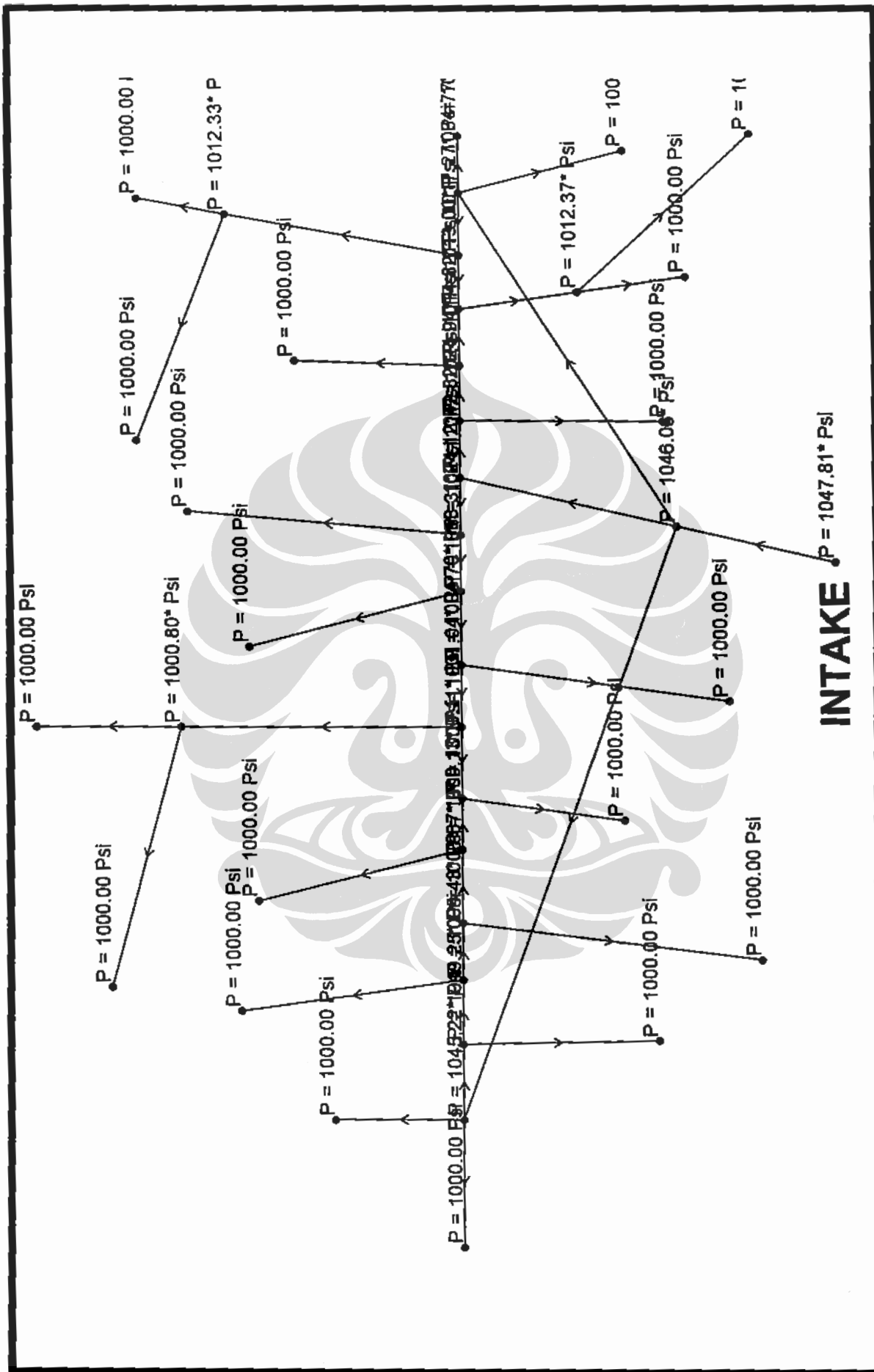




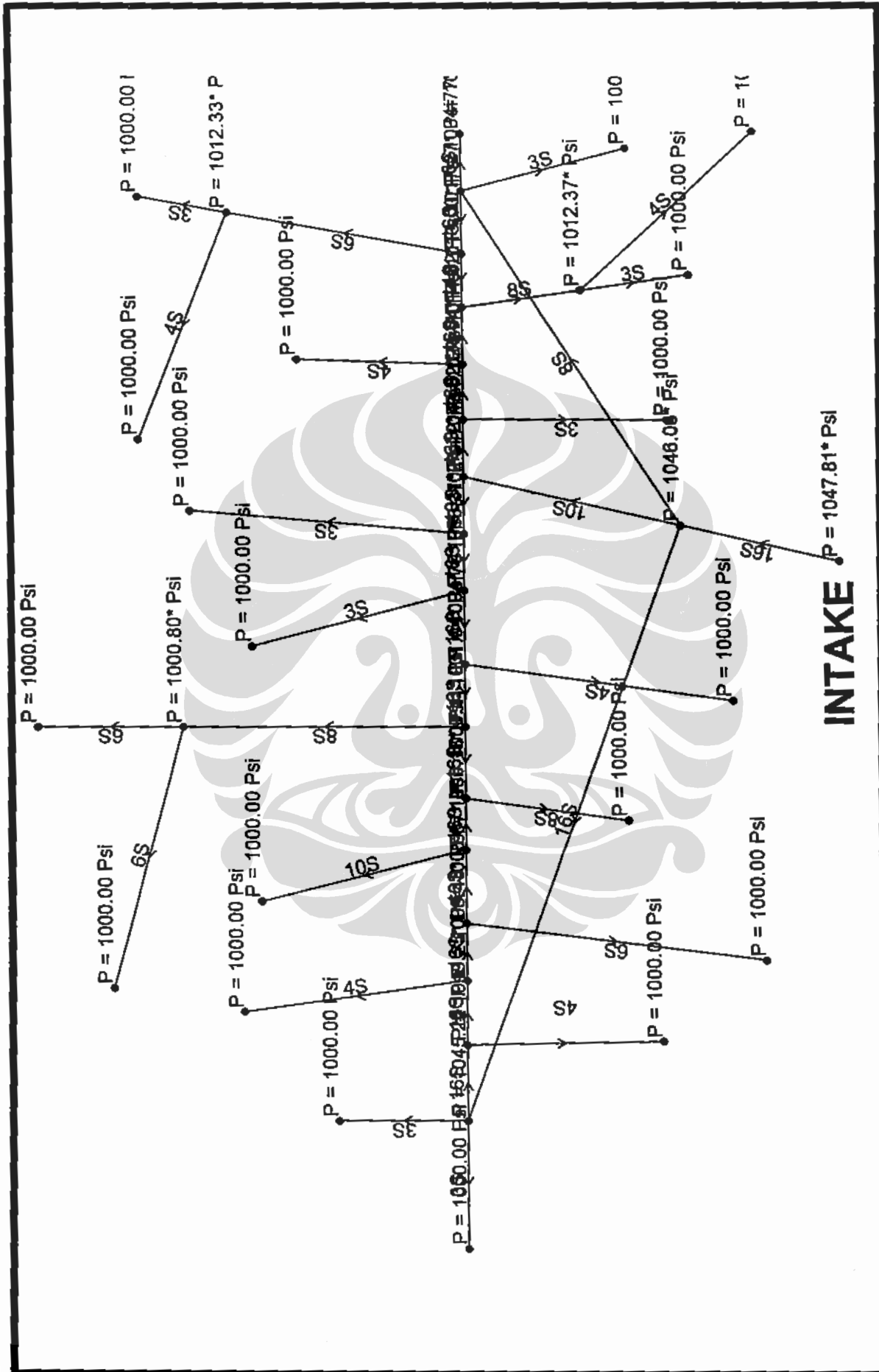
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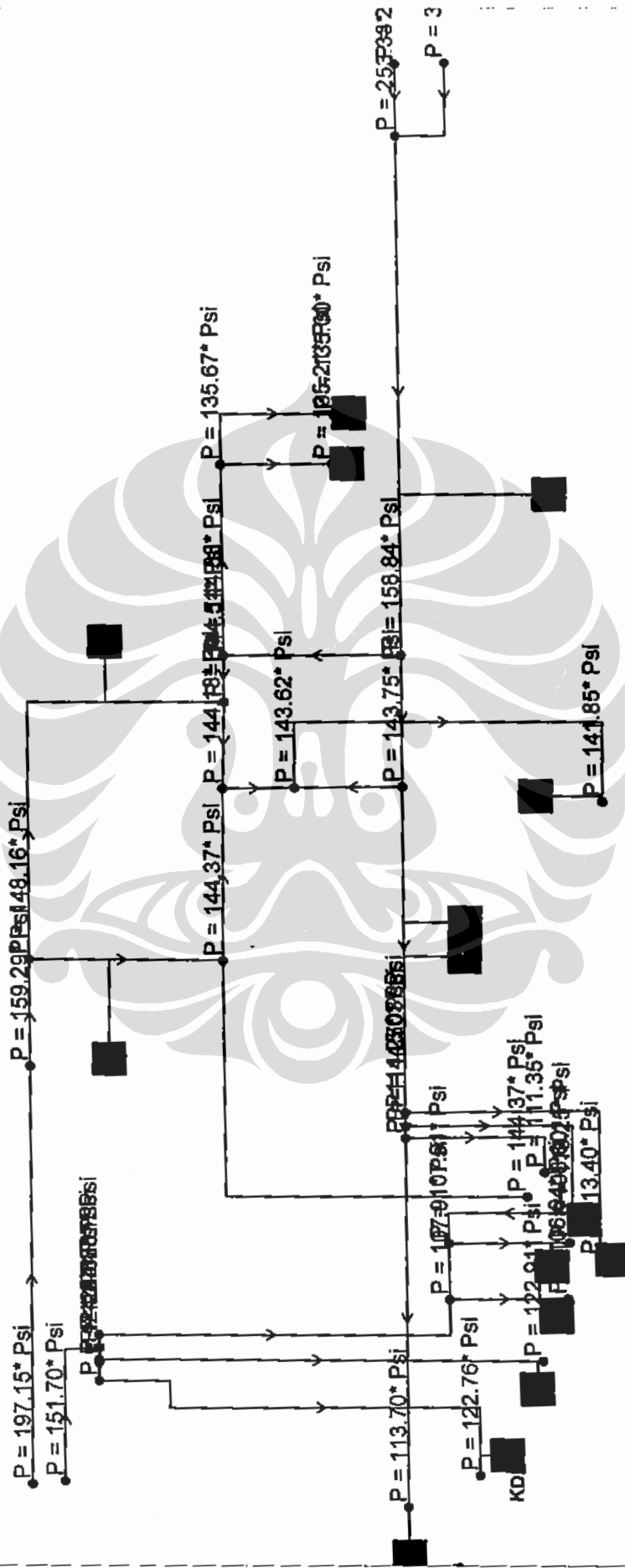
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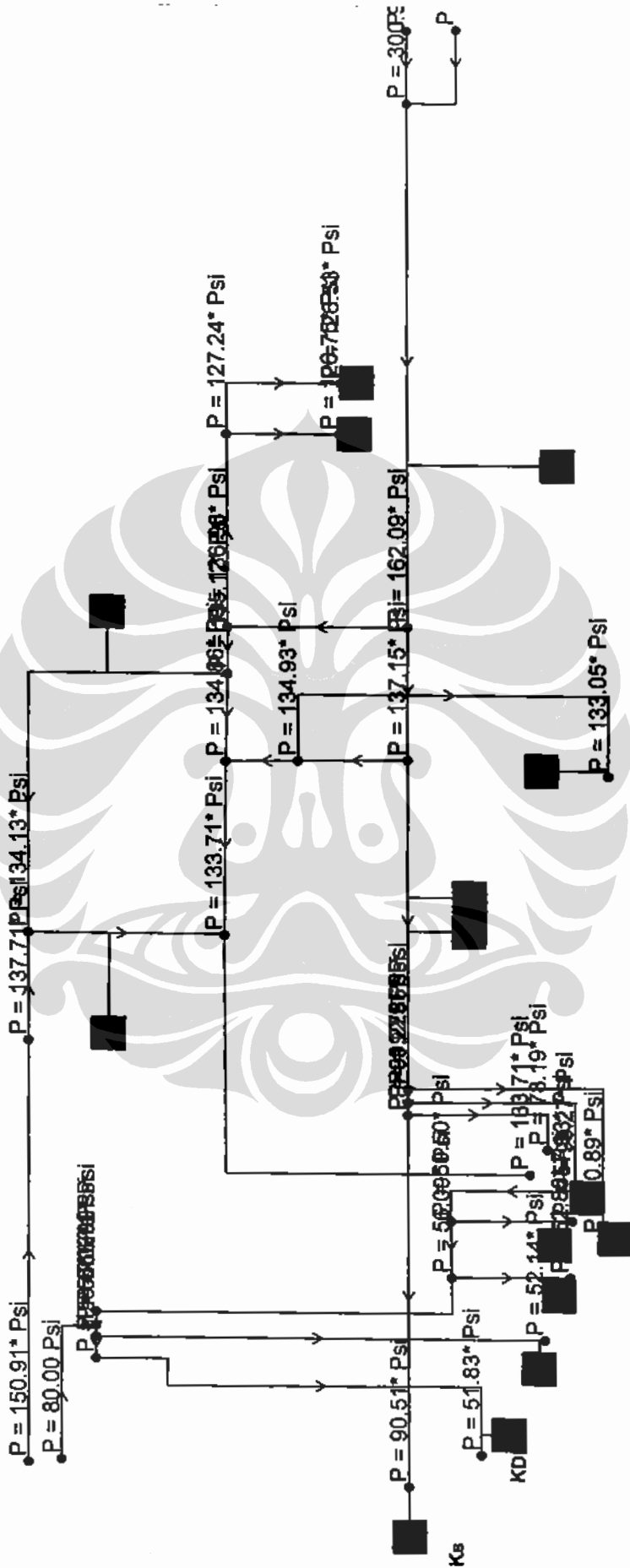
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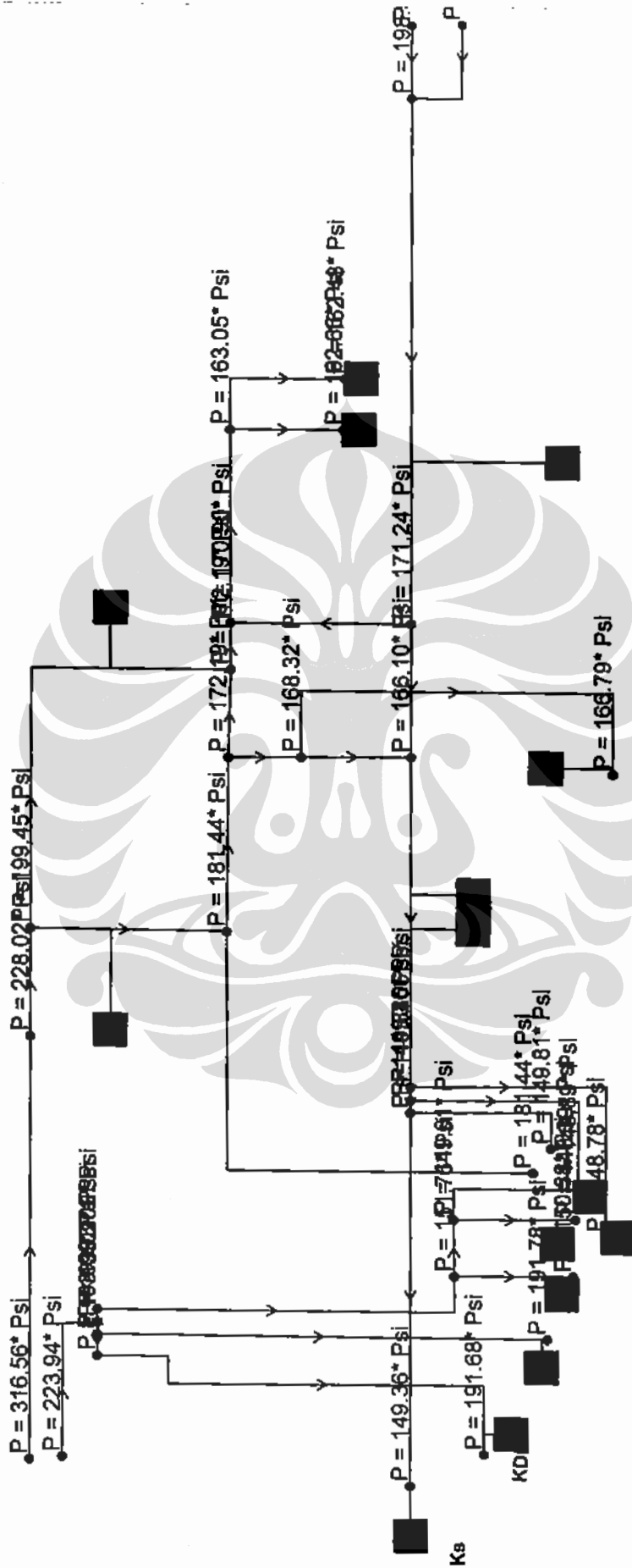
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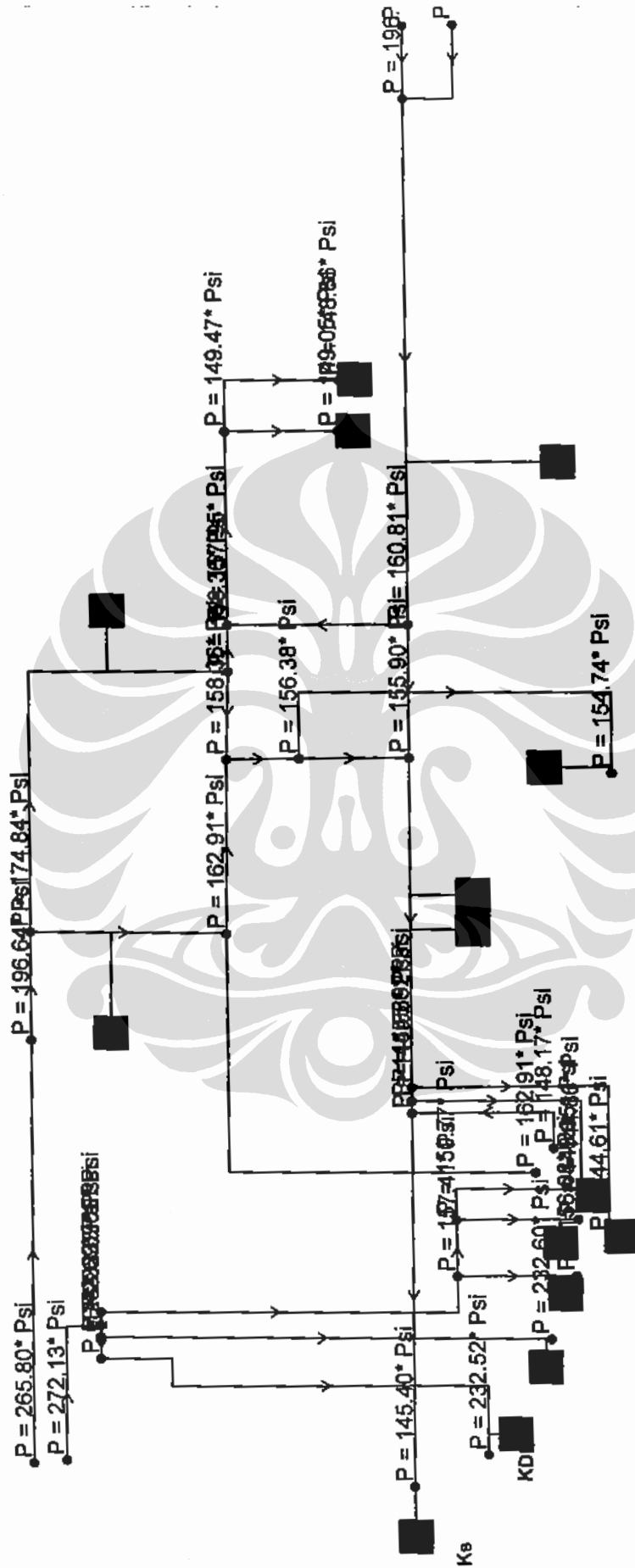
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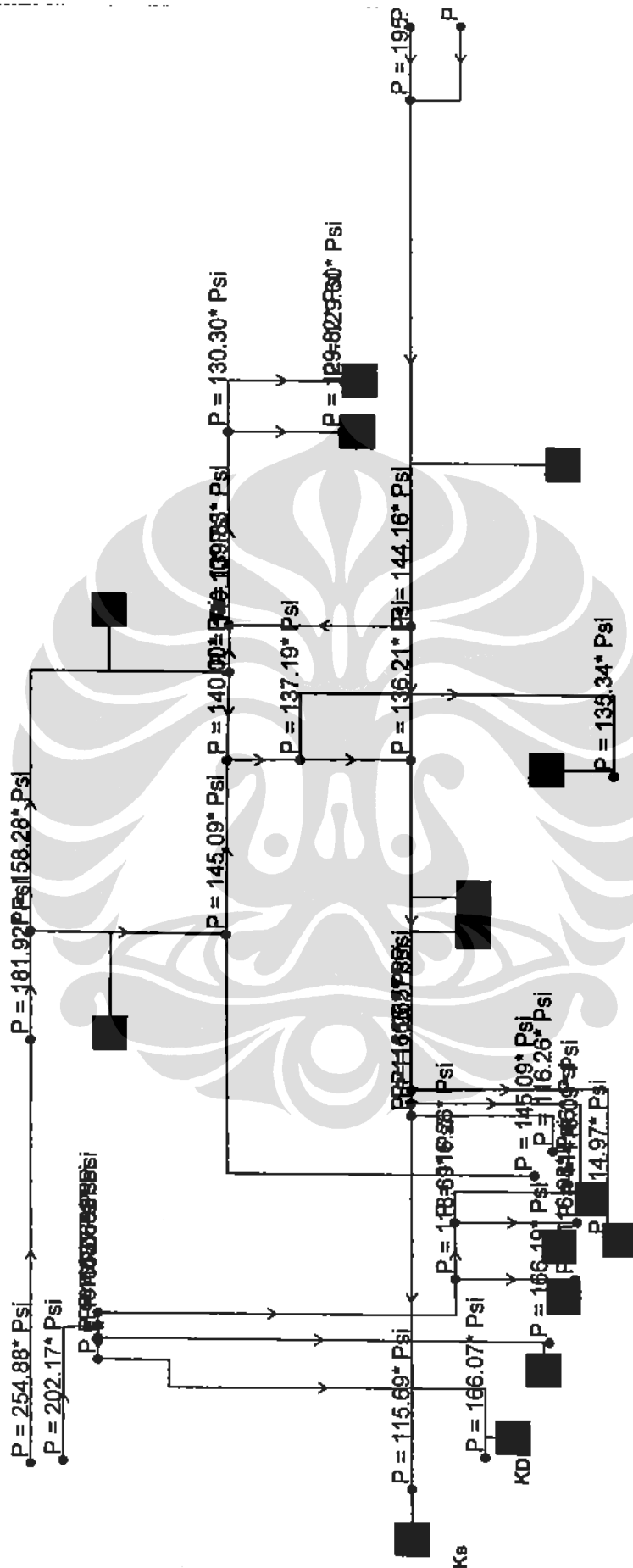
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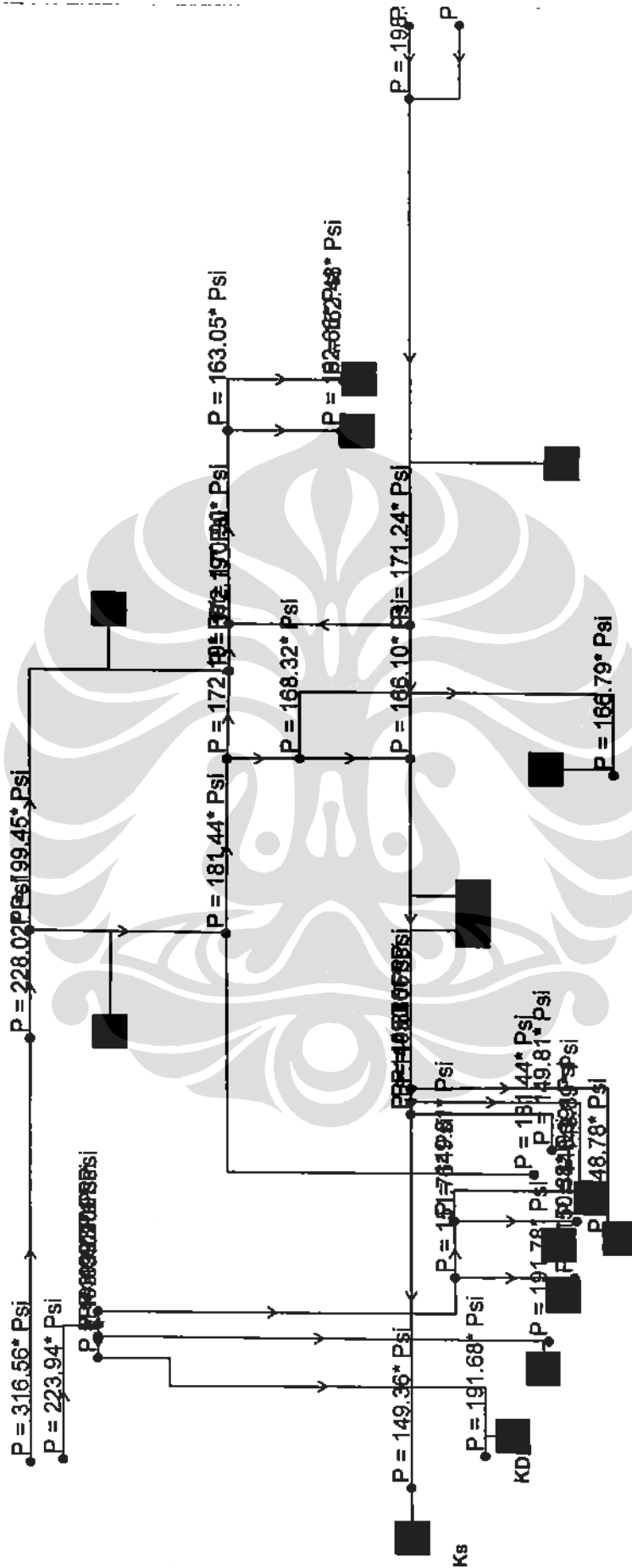
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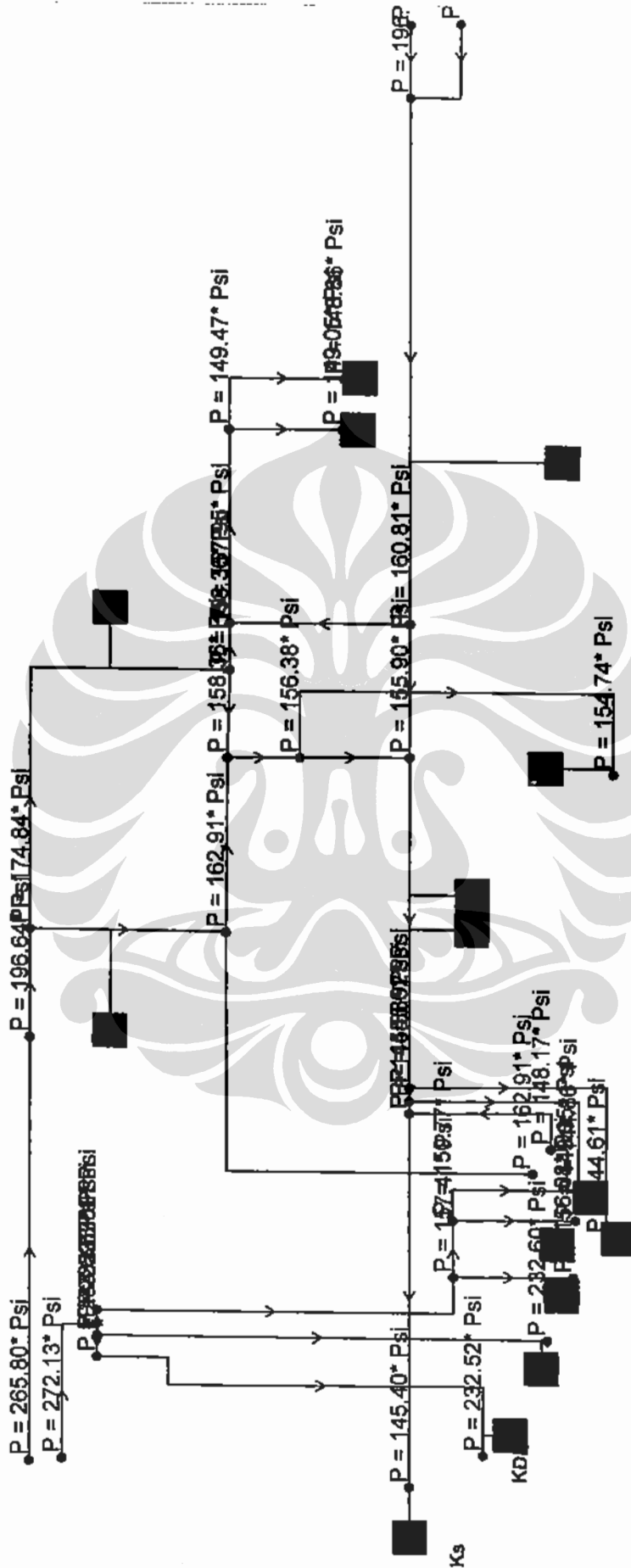
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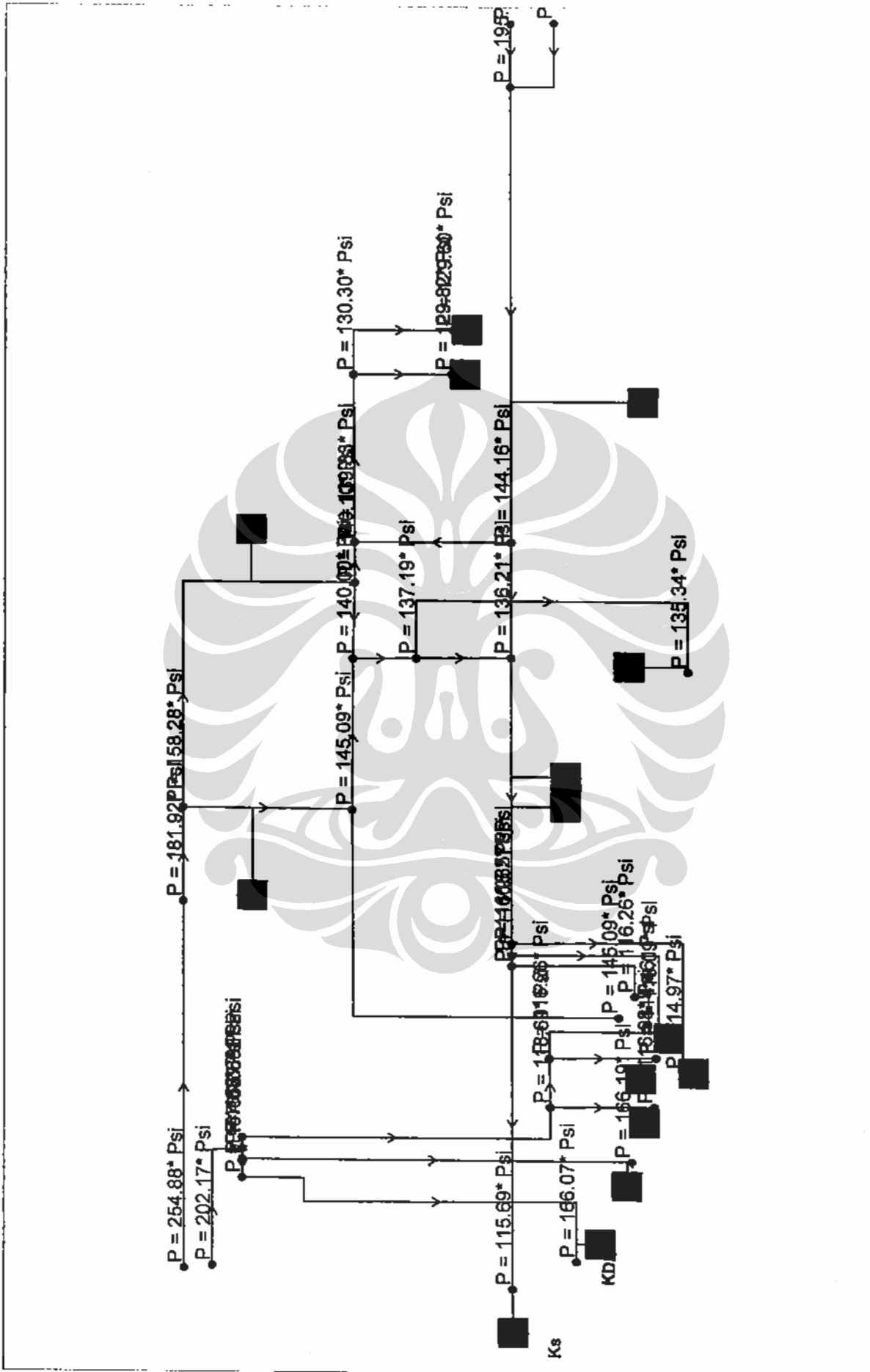
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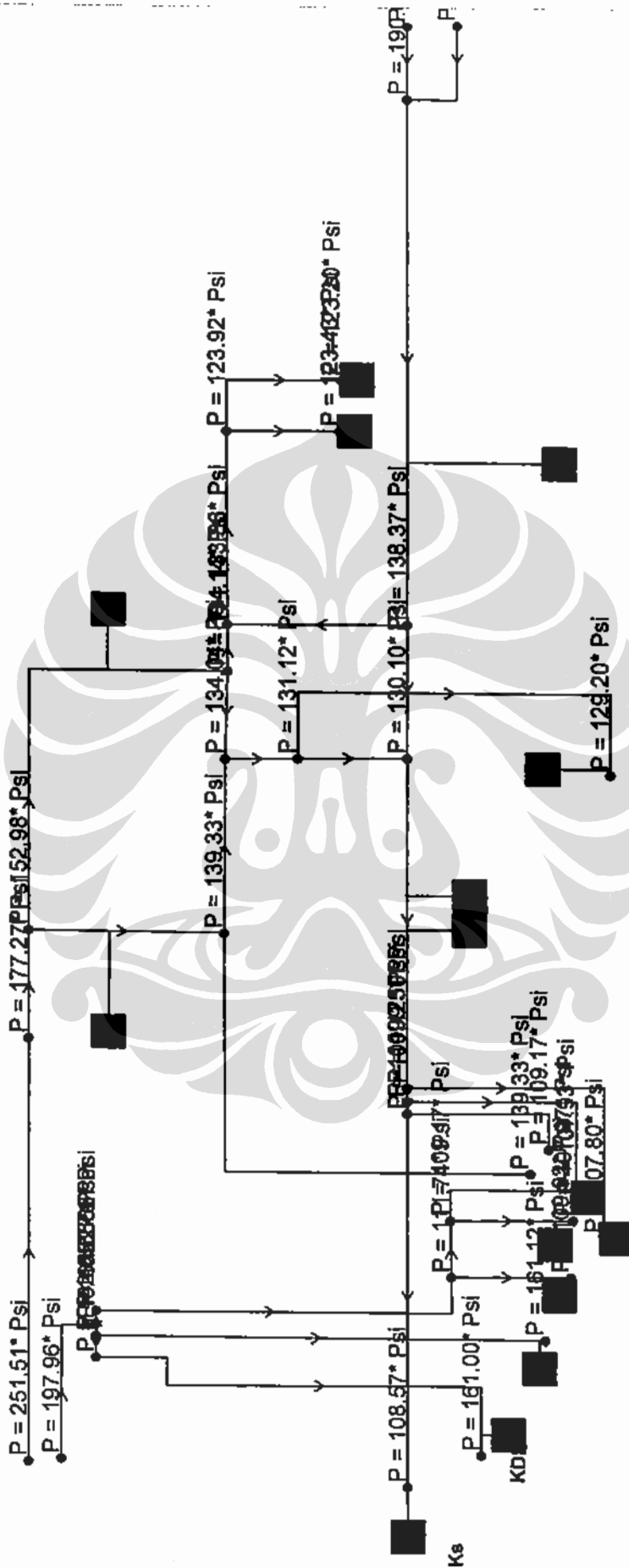
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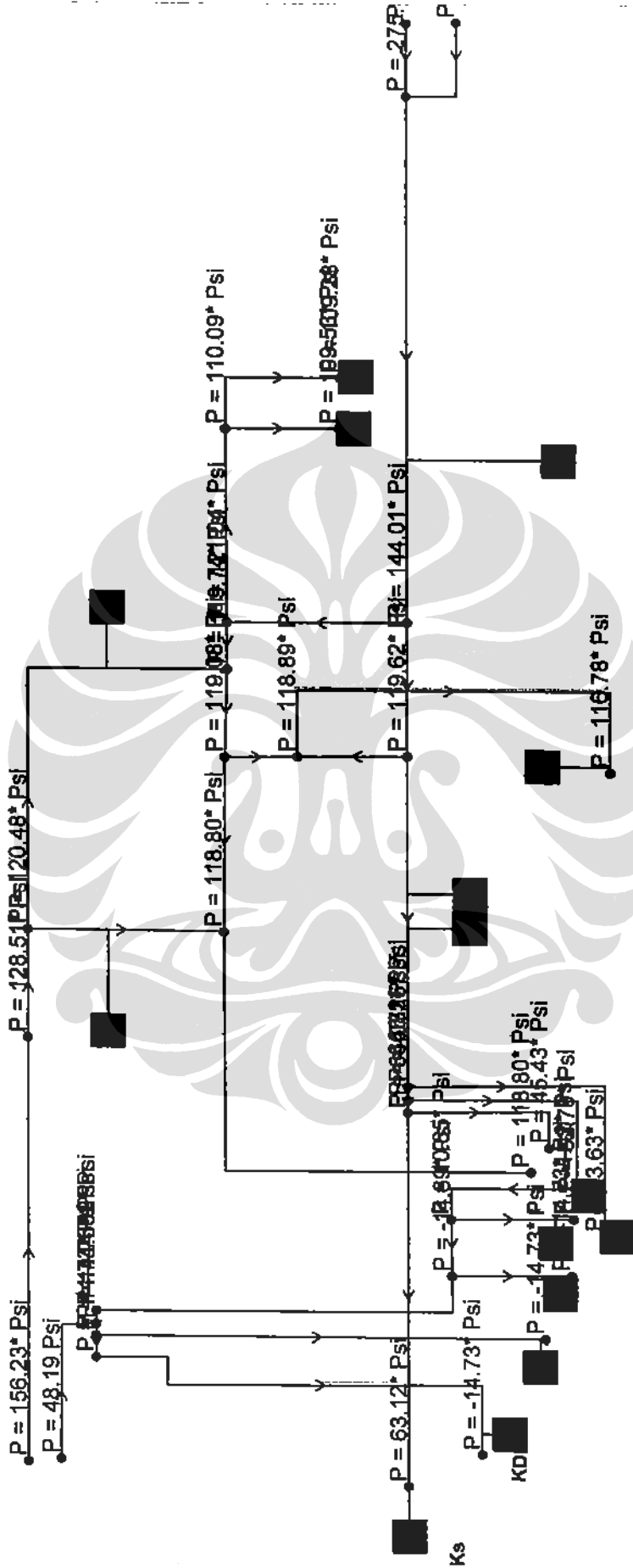
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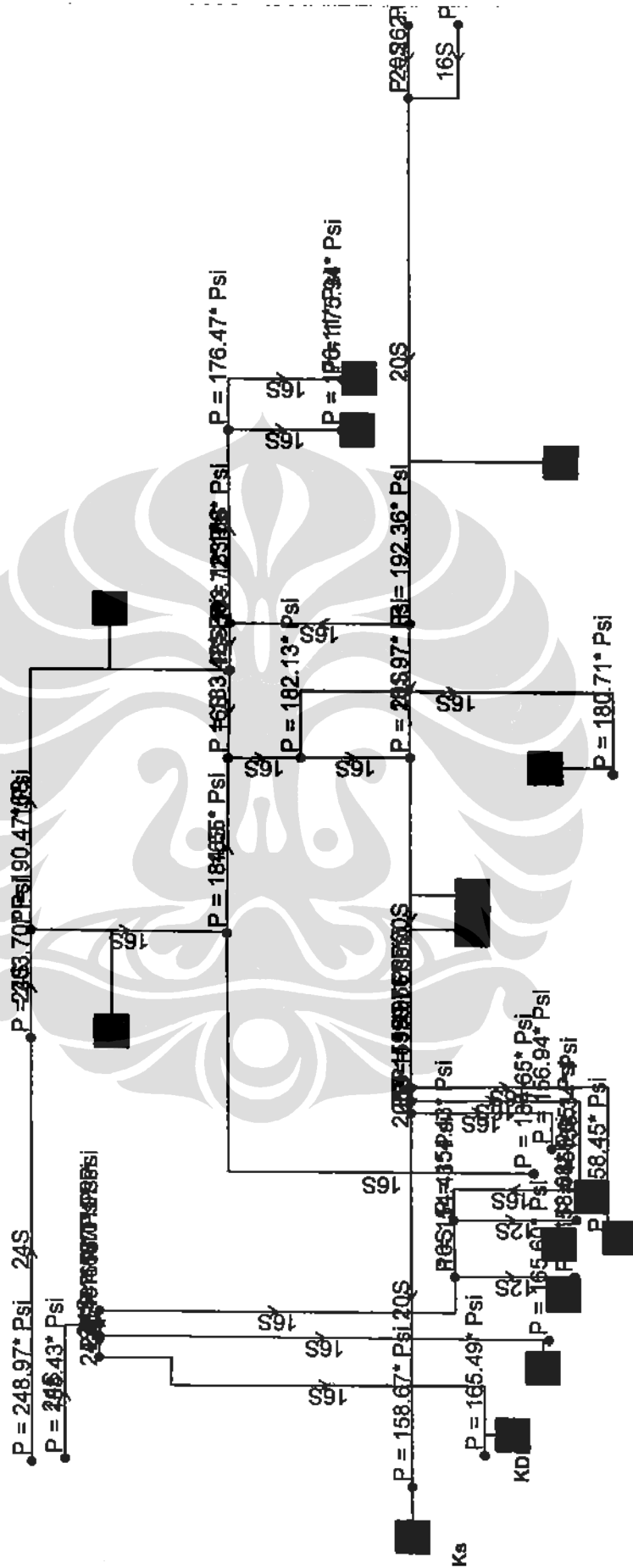
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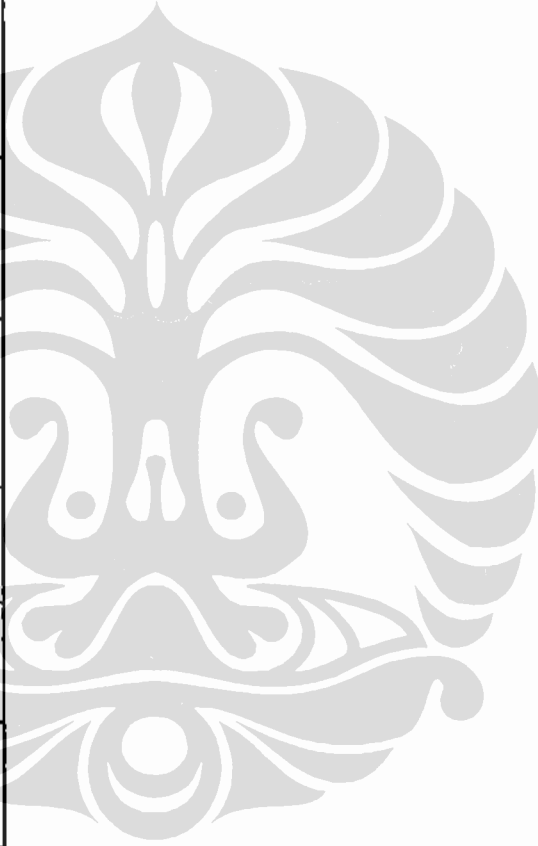
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GW ID	LINK_ID	PIPE_ID	PIPE_NO	NODE_ASGN	TOT_LOAD	TQ_UNIT	COUNT	STATUS	X_COORD	Y_COORD	SX_COORD	SY_COORD	LINK_OK
1		18		BOTH	-50	MMcfd	1	ON	104193.6016	95717.70313	104192.7031	96170.95313	NO
2		18		BOTH	-50	MMcfd	1	ON	104446.2031	95713.84844	104445.2969	96171.45313	NO
6		31		BOTH	-50	MMcfd	1	ON	107853.3984	95065.74219	107851.1953	96177.8125	NO
8		15		BOTH	-50	MMcfd	1	ON	107882.7031	96894.82813	107880.8094	96675.20313	NO
9		14		BOTH	-50	MMcfd	1	ON	108263.5	96548.63281	108255.9297	96665.96094	NO
10		13		BOTH	-50	MMcfd	1	ON	99717.36719	96155.84375	100085.7658	96160.92969	NO
11		10		BOTH	-100	MMcfd	1	ON	103424	98361.21094	104187.5078	98357.58594	NO
12		2		BOTH	-100	MMcfd	1	ON	106553.2889	98376.24219	108099.6172	98375.78906	NO
15		21		BOTH	-50	MMcfd	1	ON	101929.2969	94639.95313	101933.6406	94729.63281	NO
17		22		BOTH	-50	MMcfd	1	ON	102229.7031	94845.65825	102230.125	94935.375	NO
18		26		BOTH	-50	MMcfd	1	ON	101878.1016	95086.60156	102053.8906	95088.14063	NO
19		27		BOTH	-50	MMcfd	1	ON	101602.3984	95052.72856	101635.625	95053.4375	NO
21		28		BOTH	-50	MMcfd	1	ON	100473.2969	95424.5	100473.3359	95625.64063	NO
22		8		BOTH	-50	MMcfd	1	ON	100984.6016	95198.64844	101171.1941	95197.98438	NO
23		37		BOTH	-50	MMcfd	1	ON	105392.2031	95182.90625	105392.2031	94688.125	NO

FROM NODE TO	NODE	FLOW	Q_UNIT	DP	P_UNIT	SIZE TYPE	DIAMETER	D_UNIT	LENGTH	SIZE_OK
5	75	10416.75	Mcfh	45.2661858	Psi	24S	23.25	Inches	15913.23047	Yes
15	10	2513.507813	Mcfh	6.74707937	Psi	18S	15.25	Inches	11115.70996	Yes
25	30	6250.048805	Mcfh	21.3209381	Psi	24S	23.25	Inches	15000	Yes
30	55	4166.700185	Mcfh	0.00504522	Psi	24S	23.25	Inches	6.952274323	Yes
30	45	2093.350098	Mcfh	0.00169315	Psi	24S	23.25	Inches	8.116466522	Yes
45	150	2093.350098	Mcfh	12.6709747	Psi	16S	15.25	Inches	7754.191895	Yes
55	35	2093.350098	Mcfh	0.00272192	Psi	24S	23.25	Inches	13.04772568	Yes
55	65	1041.675049	Mcfh	1.4977107	Psi	16S	15.25	Inches	3289.853027	Yes
75	15	10416.75	Mcfh	13.2302933	Psi	24S	23.25	Inches	4086.769531	Yes
15	85	3736.542236	Mcfh	5.82437944	Psi	16S	15.25	Inches	1436.688965	Yes
85	200	0	Mcfh	7.6883E-15	Psi	16S	15.25	Inches	3999.281982	Yes
85	260	1653.192261	Mcfh	1.22982526	Psi	16S	15.25	Inches	1292.026978	Yes
95	135	-1041.675049	Mcfh	0.42674795	Psi	20S	19.25	Inches	2747.103027	Yes
125	120	1041.675049	Mcfh	0.52635497	Psi	16S	15.25	Inches	1219.078979	Yes
125	130	1041.675049	Mcfh	0.35918769	Psi	16S	15.25	Inches	832.270874	Yes
135	140	-4166.700195	Mcfh	0.16765879	Psi	20S	19.25	Inches	89.33691406	Yes
140	145	-6250.049805	Mcfh	0.39264438	Psi	20S	19.25	Inches	101.0629883	Yes
145	220	-10416.75	Mcfh	22.3096657	Psi	20S	19.25	Inches	2440.583984	Yes
80	135	-2083.350098	Mcfh	2.15463257	Psi	16S	15.25	Inches	1297.910034	Yes
150	155	0	Mcfh	2.6368E-15	Psi	16S	15.25	Inches	1122.88916	Yes
145	185	1041.675049	Mcfh	1.20654595	Psi	16S	15.25	Inches	2543.481934	Yes
140	195	1041.675049	Mcfh	0.92274076	Psi	16S	15.25	Inches	1942.394853	Yes
155	80	-2083.350098	Mcfh	2.50971746	Psi	16S	15.25	Inches	1491.396973	Yes
170	165	-2083.350098	Mcfh	0.18118888	Psi	20S	19.25	Inches	536.2275001	Yes
170	175	-16666.80078	Mcfh	37.1551666	Psi	16S	15.25	Inches	911.428772	Yes
155	205	1041.675049	Mcfh	1.38578737	Psi	12S	12	Inches	897.0266724	Yes
150	210	1041.675049	Mcfh	1.35175014	Psi	12S	12	Inches	875.0827026	Yes
35	215	1041.675049	Mcfh	1.6086359	Psi	16S	15.25	Inches	3532.375	Yes
220	230	-11811.46582	Mcfh	10.3888216	Psi	20S	19.25	Inches	986.4873047	Yes
220	265	-688.6342163	Mcfh	0.16021232	Psi	16S	15.25	Inches	805.0532227	Yes
230	170	-17708.47461	Mcfh	70.4884949	Psi	20S	19.25	Inches	3877.98291	Yes
230	250	4855.333984	Mcfh	8.56503868	Psi	16S	15.25	Inches	1322.403076	Yes
10	250	-688.6339722	Mcfh	0.06833316	Psi	16S	15.25	Inches	346.3515625	Yes
250	125	4166.700195	Mcfh	7.32557249	Psi	18S	15.25	Inches	1430.843994	Yes
260	10	-1118.79187	Mcfh	0.30712536	Psi	16S	15.25	Inches	649.7166138	Yes
265	260	-2771.984131	Mcfh	1.28811204	Psi	16S	15.25	Inches	530.7670288	Yes
265	270	1041.675049	Mcfh	1.4206506	Psi	16S	15.25	Inches	3380.204102	Yes

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GW ID	LINK ID	PIPE ID	PIPE NO	TOT_LOAD	TQ_UNIT	COUNT	STATUS	X_COORD	Y_COORD	SX_COORD	SY_COORD	LINK_OK
1			18	-50	MMcfd	1	ON	104193.6018	95717.70313	104192.7031	96170.95313	NO
2			18	-50	MMcfd	1	ON	104446.2031	95713.84844	104445.2969	96171.45313	NO
6			31	-50	MMcfd	1	ON	107853.3984	95065.74219	107851.1953	96177.8125	NO
8			15	-50	MMcfd	1	ON	107882.7031	95584.82813	107880.6094	96875.20313	NO
9			14	-50	MMcfd	1	ON	108253.5	96548.63281	108255.9297	96665.96094	NO
10			13	-50	MMcfd	1	ON	99717.36719	96155.84375	100085.7656	96160.92969	NO
11			10	-100	MMcfd	1	ON	103424	98361.21094	104167.5078	98357.58594	NO
12			2	-100	MMcfd	1	ON	106553.2969	98376.24219	106089.6172	98375.78906	NO
15			21	-50	MMcfd	1	ON	101929.2869	94639.95313	101933.6408	94729.63281	NO
17			22	-50	MMcfd	1	ON	102229.7031	94845.65625	102230.125	94935.375	NO
18			26	-50	MMcfd	1	ON	101878.1016	95086.60158	102053.8908	95088.14063	NO
19			27	-50	MMcfd	1	ON	101502.3984	95052.72858	101635.825	95059.4375	NO
21			28	-50	MMcfd	1	ON	100473.2869	95424.5	100473.3359	95825.64083	NO
22			8	-50	MMcfd	1	ON	100964.6016	95198.64844	101171.1641	95197.98438	NO
23			37	-50	MMcfd	1	ON	105392.2031	95182.90625	105392.2031	94688.125	NO



FROM NODE	TO NODE	FLOW	Q_UNIT	VELOCITY	DP	P_UNIT	SIZE TYPE	DIAMETER	ROUGHNESS	D_UNIT	LENGTH	L_UNIT	SIZE_OK
5	75	13333.4404	Mcfh	87	74.245224	Psi	24S	23.25	0.0007	Inches	15913.2305	m	Yes
15	10	3885.57104	Mcfh	76	18.8313961	Psi	16S	16.25	0.0007	Inches	11115.71	Feet	Yes
25	30	8333.40039	Mcfh	59	35.3027153	Psi	24S	23.25	0.0007	Inches	15000	m	Yes
30	55	4166.7002	Mcfh	29	0.00517161	Psi	24S	23.25	0.0007	Inches	6.95227432	m	Yes
30	45	4166.7002	Mcfh	29	0.00603764	Psi	24S	23.25	0.0007	Inches	8.11846652	m	Yes
45	150	4166.7002	Mcfh	96	50.9177856	Psi	16S	15.25	0.0007	Inches	7754.19189	m	Yes
55	35	2083.3501	Mcfh	15	0.00279012	Psi	24S	23.25	0.0007	Inches	13.0477257	m	Yes
55	65	1041.67505	Mcfh	17	1.55555715	Psi	16S	15.25	0.0007	Inches	3289.85303	m	Yes
75	15	13333.4404	Mcfh	99	24.2905636	Psi	24S	23.25	0.0007	Inches	4086.76953	m	Yes
15	85	5281.16895	Mcfh	100	13.6445799	Psi	16S	15.25	0.0007	Inches	1438.68896	m	Yes
85	200	0	Mcfh	0	5.6621E-15	Psi	16S	15.25	0.0007	Inches	3999.28188	m	Yes
85	260	3197.81885	Mcfh	62	5.28661904	Psi	16S	15.25	0.0007	Inches	1292.02698	m	Yes
95	135	-1041.67505	Mcfh	15	0.59944725	Psi	20S	19.25	0.0007	Inches	2747.10303	m	Yes
125	120	1041.67505	Mcfh	22	0.72671127	Psi	16S	15.25	0.0007	Inches	1219.07898	m	Yes
125	130	1041.67505	Mcfh	22	0.49571511	Psi	16S	15.25	0.0007	Inches	832.270874	m	Yes
135	140	-2083.3501	Mcfh	31	0.0676328	Psi	20S	19.25	0.0007	Inches	89.3389141	m	Yes
140	145	-4166.7002	Mcfh	61	0.26580039	Psi	20S	18.25	0.0007	Inches	101.062988	m	Yes
145	220	-8333.40039	Mcfh	122	20.5979557	Psi	16S	19.25	0.0007	Inches	2440.59398	m	Yes
80	135	0	Mcfh	0	1.5127E-15	Psi	16S	15.25	0.0007	Inches	1297.91003	m	Yes
150	155	2083.3501	Mcfh	49	2.57241702	Psi	16S	15.25	0.0007	Inches	1122.88916	m	Yes
145	195	1041.67505	Mcfh	25	1.69946063	Psi	16S	15.25	0.0007	Inches	2543.48193	m	Yes
140	195	1041.67505	Mcfh	25	1.29852378	Psi	16S	15.25	0.0007	Inches	1942.39465	m	Yes
155	80	0	Mcfh	0	1.5127E-15	Psi	16S	15.25	0.0007	Inches	1491.39697	m	Yes
170	165	-6666.72021	Mcfh	59	1.97396304	Psi	20S	19.25	0.0007	Inches	536.2276	m	Yes
170	175	-7083.39014	Mcfh	100	11.1841221	Psi	16S	15.25	0.0007	Inches	911.428772	m	Yes
155	205	1041.67505	Mcfh	40	1.89890599	Psi	12S	12	0.0007	Inches	897.026872	m	Yes
150	210	1041.67505	Mcfh	39	1.81387424	Psi	12S	12	0.0007	Inches	875.082703	m	Yes
35	215	1041.67505	Mcfh	17	1.64831262	Psi	16S	15.25	0.0007	Inches	3532.375	m	Yes
220	230	-8786.09887	Mcfh	111	8.268950264	Psi	20S	19.25	0.0007	Inches	986.487305	m	Yes
220	265	-1630.66101	Mcfh	33	1.02241468	Psi	16S	15.25	0.0007	Inches	805.053223	m	Yes
230	170	-12708.4346	Mcfh	151	52.4494286	Psi	20S	19.25	0.0007	Inches	3877.98291	m	Yes
230	250	2880.6709	Mcfh	58	4.50291348	Psi	16S	15.25	0.0007	Inches	1322.40308	m	Yes
10	250	1286.02905	Mcfh	25	0.28043675	Psi	16S	15.25	0.0007	Inches	346.351563	m	Yes
250	125	4166.7002	Mcfh	87	9.93875599	Psi	16S	15.25	0.0007	Inches	1430.84399	m	Yes
260	10	-516.191895	Mcfh	10	0.10180292	Psi	16S	15.25	0.0007	Inches	649.716614	m	Yes
265	260	-3714.01099	Mcfh	74	2.92280865	Psi	16S	15.25	0.0007	Inches	530.767029	m	Yes
265	270	1041.67505	Mcfh	21	1.92325485	Psi	16S	15.25	0.0007	Inches	3380.2041	m	Yes

GW_ID	LINK_ID	PIPE_ID	PIPE_NO	TOT_LOAD	TQ_UNIT	X_COORD	Y_COORD	SX_COORD	SY_COORD	LINK_OK
1			18	-50	MMcfd	104193.6016	95717.70313	104192.7031	96170.95313	NO
2			18	-50	MMcfd	104446.2031	95713.64844	104445.2969	96171.45313	NO
6			31	-50	MMcfd	107653.3984	95065.74219	107651.1853	96177.8125	NO
8			15	-50	MMcfd	107882.7031	96584.82813	107880.6094	96675.20313	NO
9			14	-50	MMcfd	108263.5	96548.63281	108255.9297	96665.98094	NO
10			13	-50	MMcfd	99717.36719	98155.84375	100085.7656	96160.92969	NO
11			10	-100	MMcfd	103424	98361.21094	104167.5078	98357.58594	NO
12			2	-100	MMcfd	106553.2969	98376.24219	106099.6172	98375.78906	NO
15			21	-50	MMcfd	101929.2969	94639.95313	101933.8406	94729.63281	NO
17			22	-50	MMcfd	102229.7031	94845.65625	102230.125	94935.375	NO
18			26	-50	MMcfd	101878.1016	95086.60156	102053.8906	95088.14063	NO
19			27	-50	MMcfd	101502.3984	95052.72856	101635.625	95053.4375	NO
21			28	-50	MMcfd	100473.2969	95424.5	100473.3359	95625.64063	NO
22			8	-50	MMcfd	100964.6016	95198.64844	101171.1641	95197.98438	NO
23			37	-50	MMcfd	105392.2031	95182.90625	105392.2031	94688.125	NO

FROM NOD/TO NOD	FLOW	Q UNIT	VELOCITY	DP	P UNIT	SIZE TYPE	DIAMETER	ROUGHNESS	D UNIT	LENGTH	SIZE OK	
5	75	6250.049805	Mcfh	55	27.71526337	Psl	24S	23.25	0.0007	Inches	15913.23047	Yes
15	10	589.5441895	Mcfh	13	0.744060755	Psl	16S	15.25	0.0007	Inches	11115.70996	Yes
25	30	4166.700195	Mcfh	136770	62.88007355	Psl	24S	23.25	0.0007	Inches	15000	Yes
30	55	4166.700195	Mcfh	0	0.03809144	Psl	24S	23.25	0.0007	Inches	6.952274323	Yes
30	45	0.049142353	Mcfh	2	3.84642E-08	Psl	24S	23.25	0.0007	Inches	8.116466522	Yes
45	150	0.09289033	Mcfh	7	0.000383409	Psl	18S	15.25	0.0007	Inches	7754.191895	Yes
55	35	2083.350098	Mcfh	0	0	Psl	24S	23.25	0.0007	Inches	13.04772568	Yes
55	65	1041.675049	Mcfh	0	0	Psl	18S	15.25	0.0007	Inches	3289.853027	Yes
75	15	6250.049805	Mcfh	58	6.031451225	Psl	24S	23.25	0.0007	Inches	4086.769531	Yes
15	85	1493.805786	Mcfh	33	1.689892072	Psl	16S	15.25	0.0007	Inches	1436.688965	Yes
85	200	0	Mcfh	0	6.14786E-15	Psl	16S	15.25	0.0007	Inches	3999.281982	Yes
85	260	-589.5441895	Mcfh	13	0.286243469	Psl	16S	15.25	0.0007	Inches	1292.026878	Yes
95	135	-1041.675049	Mcfh	24	0.945905685	Psl	20S	18.25	0.0007	Inches	2747.103027	Yes
125	120	1041.675049	Mcfh	24	0.807783604	Psl	16S	15.25	0.0007	Inches	1219.078979	Yes
125	130	1041.675049	Mcfh	24	0.550908804	Psl	16S	15.25	0.0007	Inches	832.270874	Yes
135	140	-8250.049805	Mcfh	145	0.76355858	Psl	20S	18.25	0.0007	Inches	89.33691406	Yes
140	145	-8333.400391	Mcfh	191	1.429359784	Psl	20S	18.25	0.0007	Inches	101.0629883	Yes
145	220	-12500.09961	Mcfh	281	53.36285319	Psl	20S	18.25	0.0007	Inches	2440.583984	Yes
80	135	-4166.700195	Mcfh	201	18.63553047	Psl	16S	15.25	0.0007	Inches	1297.910034	Yes
150	155	-2083.350098	Mcfh	162726	25.34083285	Psl	16S	15.25	0.0007	Inches	1122.86916	Yes
145	185	1041.675049	Mcfh	39	2.631628513	Psl	16S	15.25	0.0007	Inches	2543.481934	Yes
140	195	1041.675049	Mcfh	39	2.036697004	Psl	16S	15.25	0.0007	Inches	1942.394653	Yes
155	80	-4166.700195	Mcfh	477	34.78660202	Psl	16S	15.25	0.0007	Inches	1491.396973	Yes
170	165	-2083.350098	Mcfh	13	0.17349489	Psl	20S	18.25	0.0007	Inches	536.2276001	Yes
170	175	-22916.84961	Mcfh	230	60.90625	Psl	18S	15.25	0.0007	Inches	911.428772	Yes
155	205	1041.675049	Mcfh	367	12.06960669	Psl	12S	12	0.0007	Inches	897.0266724	Yes
150	210	1041.675049	Mcfh	0	0.037207895	Psl	12S	12	0.0007	Inches	875.0827026	Yes
35	215	1041.675049	Mcfh	0	0	Psl	16S	15.25	0.0007	Inches	3532.375	Yes
220	230	-15884.24316	Mcfh	216	24.3846035	Psl	20S	18.25	0.0007	Inches	986.4673047	Yes
220	265	1300.793457	Mcfh	28	0.738603771	Psl	16S	15.25	0.0007	Inches	805.0532227	Yes
230	170	-23958.52539	Mcfh	275	131.1534576	Psl	20S	18.25	0.0007	Inches	3877.98291	Yes
230	250	7032.606445	Mcfh	151	22.98767807	Psl	16S	15.25	0.0007	Inches	1322.403076	Yes
10	250	-2865.906494	Mcfh	62	1.304508686	Psl	16S	15.25	0.0007	Inches	346.3515625	Yes
250	125	4166.700195	Mcfh	97	10.9556036	Psl	16S	15.25	0.0007	Inches	1430.843994	Yes
260	10	-1372.100708	Mcfh	30	0.655387878	Psl	16S	15.25	0.0007	Inches	649.7166138	Yes
265	260	-782.5565786	Mcfh	17	0.195633218	Psl	16S	15.25	0.0007	Inches	530.7670288	Yes
265	270	1041.675049	Mcfh	23	2.102035046	Psl	16S	15.25	0.0007	Inches	3380.204102	Yes

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GW_ID	LINK_ID	PIPE_ID	PIPE_NO	TOT_LOAD	TQ_UNIT	X_COORD	Y_COORD	SX_COORD	SY_COORD	LINK_OK
1			18	-50	MMcfd	104193.6016	95717.70313	104192.7031	96170.95313	NO
2			18	-50	MMcfd	104446.2031	95713.64844	104445.2969	96171.45313	NO
6			31	-50	MMcfd	107653.3984	95065.74219	107651.1953	96177.8125	NO
8			15	-50	MMcfd	107882.7031	96564.82813	107880.6094	96675.20313	NO
9			14	-50	MMcfd	108263.5	96548.63281	108255.9287	96665.96094	NO
10			13	-50	MMcfd	99717.36719	96155.84375	100085.7656	98160.92969	NO
11			10	-100	MMcfd	103424	98361.21094	104167.5078	98357.58594	NO
12			2	-100	MMcfd	106553.2969	98376.24219	106099.6172	98375.78906	NO
15			21	-50	MMcfd	101929.2969	94639.95313	101933.6406	94729.63281	NO
17			22	-50	MMcfd	102229.7031	94845.65625	102230.125	94935.375	NO
18			26	-50	MMcfd	101878.1016	95086.60156	102053.8906	95088.14063	NO
19			27	-50	MMcfd	101502.3984	95052.72656	101635.625	95053.4375	NO
21			28	-50	MMcfd	100473.2969	95424.5	100473.3359	95625.64063	NO
22			8	-50	MMcfd	100964.6016	95198.64844	101171.1641	95197.98438	NO
23			37	-50	MMcfd	106392.2031	95182.90625	105392.2031	94688.125	NO
				-850						

FROM_NODE	TO_NODE	FLOW	Q_UNIT	VELOCITY	DP	P_UNIT	SIZE_TYPE	DIAMETER	D_UNIT	LENGTH	SIZE_OK
5	75	1333.44043	Mcfh	85	72.96742249	Psl	24S	23.25	Inches	15913.23047	Yes
15	10	3685.571045	Mcfh	73	18.18475151	Psl	16S	15.25	Inches	11115.70996	Yes
25	30	8333.400391	Mcfh	57	34.48656092	Psl	24S	23.25	Inches	15000	Yes
30	55	4166.700195	Mcfh	29	0.005029176	Psl	24S	23.25	Inches	6.952274323	Yes
30	45	4166.700195	Mcfh	29	0.005871349	Psl	24S	23.25	Inches	8.116466522	Yes
45	150	4166.700195	Mcfh	81	48.98848834	Psl	16S	15.25	Inches	7754.191895	Yes
55	35	2083.350096	Mcfh	14	0.00271327	Psl	24S	23.25	Inches	13.04772568	Yes
55	65	1041.675049	Mcfh	17	1.492909789	Psl	16S	15.25	Inches	3289.853027	Yes
75	15	1333.44043	Mcfh	96	23.63630486	Psl	24S	23.25	Inches	4086.769531	Yes
15	85	5281.168945	Mcfh	96	13.19098663	Psl	16S	15.25	Inches	1436.688965	Yes
85	200	0	Mcfh	0	4.46886E-15	Psl	16S	15.25	Inches	3999.281882	Yes
85	260	3197.818848	Mcfh	60	5.091650486	Psl	16S	15.25	Inches	1292.026978	Yes
95	135	-1041.675049	Mcfh	15	0.56684649	Psl	20S	19.25	Inches	2747.103027	Yes
125	120	1041.675049	Mcfh	21	0.684624424	Psl	16S	15.25	Inches	1219.078979	Yes
125	130	1041.675049	Mcfh	21	0.473861754	Psl	16S	15.25	Inches	832.270874	Yes
135	140	-2083.350098	Mcfh	29	0.063972823	Psl	20S	19.25	Inches	89.33691406	Yes
140	145	-4166.700195	Mcfh	58	0.251452029	Psl	20S	19.25	Inches	101.0628883	Yes
145	220	-8333.400391	Mcfh	116	18.63566208	Psl	20S	19.25	Inches	2440.583984	Yes
80	135	0	Mcfh	0	4.17721E-15	Psl	16S	15.25	Inches	1297.910034	Yes
150	155	2083.350098	Mcfh	48	2.435752392	Psl	16S	15.25	Inches	1122.88916	Yes
145	185	1041.675049	Mcfh	23	1.606734157	Psl	16S	16.25	Inches	2543.481934	Yes
140	195	1041.675049	Mcfh	23	1.227605482	Psl	16S	15.25	Inches	1942.394653	Yes
155	80	0	Mcfh	0	4.17721E-15	Psl	16S	15.25	Inches	1491.396973	Yes
170	165	-8333.400391	Mcfh	72	2.880830288	Psl	20S	19.25	Inches	536.2276001	Yes
170	175	-5416.709961	Mcfh	75	6.832937241	Psl	16S	15.25	Inches	911.428772	Yes
155	205	1041.675049	Mcfh	38	1.79462409	Psl	12S	12	Inches	897.0286724	Yes
150	210	1041.675049	Mcfh	37	1.718046811	Psl	12S	12	Inches	875.0827026	Yes
35	215	1041.675049	Mcfh	17	1.603476187	Psl	16S	15.25	Inches	3532.375	Yes
220	230	-8786.088667	Mcfh	106	7.951733589	Psl	20S	19.25	Inches	986.4873047	Yes
220	265	-1630.661011	Mcfh	31	0.981288552	Psl	16S	15.25	Inches	805.0532227	Yes
230	170	-12708.43457	Mcfh	146	51.00857654	Psl	20S	19.25	Inches	3877.98291	Yes
230	250	2880.670898	Mcfh	54	4.334017277	Psl	16S	15.25	Inches	1322.403076	Yes
10	250	1286.029053	Mcfh	24	0.269636571	Psl	16S	15.25	Inches	346.3515625	Yes
250	125	4166.700195	Mcfh	83	9.528541969	Psl	16S	15.25	Inches	1430.843994	Yes
260	10	-516.1918335	Mcfh	10	0.097886704	Psl	16S	15.25	Inches	848.7166138	Yes
265	260	-3714.010986	Mcfh	71	2.808177471	Psl	16S	15.25	Inches	530.7670288	Yes
265	270	1041.675049	Mcfh	20	1.845437765	Psl	16S	15.25	Inches	3360.204102	Yes

GW_ID	LINK_ID	PIPE_ID	PIPE_NO	TOT_LOAD	TQ_UNIT	COUNT	STATUS	X_COORD	Y_COORD	SX_COORD	SY_COORD	LINK_OK
1			18	-50	MMcfd	1	ON	104193.6016	95717.70313	104192.7031	96170.95313	NO
2			18	-50	MMcfd	1	ON	104446.2031	95713.64844	104445.2969	96171.45313	NO
6			31	-50	MMcfd	1	ON	107853.3984	95065.74219	107651.1953	96177.8125	NO
8			15	-50	MMcfd	1	ON	107882.7031	96564.82813	107880.6094	96675.20313	NO
9			14	-50	MMcfd	1	ON	108263.5	96548.63281	108255.8287	96685.96094	NO
10			13	-50	MMcfd	1	ON	98717.36719	96155.84375	100085.7656	96160.92869	NO
11			10	-100	MMcfd	1	ON	103424	98381.21084	104167.5078	98357.58594	NO
12			2	-100	MMcfd	1	ON	106553.2869	98378.24218	106098.6172	98375.78906	NO
15			21	-50	MMcfd	1	ON	101828.2869	94639.85313	101933.8406	94729.63281	NO
17			22	-50	MMcfd	1	ON	102228.7031	94845.65625	102230.125	94835.375	NO
18			26	-50	MMcfd	1	ON	101878.1016	95088.60168	102053.8906	95088.14063	NO
19			27	-50	MMcfd	1	ON	101502.3984	95052.72658	101635.625	95053.4375	NO
21			28	-50	MMcfd	1	ON	100473.2868	95424.5	100473.3359	95825.64063	NO
22			8	-50	MMcfd	1	ON	100964.8016	95188.84844	101171.1641	95187.98438	NO
23			37	-50	MMcfd	1	ON	105392.2031	95182.90625	105392.2031	94888.125	NO
				-850								

FROM NODE	TO NODE	FLOW	Q UNIT	VELOCITY	DP	P UNIT	SIZE TYPE	DIAMETER	D UNIT	LENGTH	SIZE OK
5	75	13333.44043	Mcfh	79	69.16477966	Psi	24S	23.25	Inches	15913.2305	Yes
15	10	3891.290527	Mcfh	65	16.48193359	Psi	16S	15.25	Inches	11115.71	Yes
25	30	10416.75	Mcfh	52	38.43108749	Psi	24S	23.25	Inches	15000	Yes
30	55	4166.700195	Mcfh	21	0.00369282	Psi	24S	23.25	Inches	8.95227432	Yes
30	45	6250.049805	Mcfh	31	0.008939509	Psi	24S	23.25	Inches	8.11646652	Yes
45	150	6250.049805	Mcfh	106	76.28234863	Psi	16S	15.25	Inches	7754.19189	Yes
55	35	2083.350098	Mcfh	10	0.001982278	Psi	24S	23.25	Inches	13.0477257	Yes
55	65	1041.675049	Mcfh	12	1.094128443	Psi	16S	15.25	Inches	3269.85303	Yes
75	15	13333.44043	Mcfh	88	21.79218884	Psi	24S	23.25	Inches	4088.78953	Yes
15	85	5275.449707	Mcfh	86	11.93257713	Psi	16S	15.25	Inches	1436.68896	Yes
85	0	0	Mcfh	0	1.05471E-14	Psi	16S	15.25	Inches	3998.28198	Yes
85	260	3192.099365	Mcfh	54	4.651703453	Psi	16S	15.25	Inches	1292.02698	Yes
95	135	-1041.675049	Mcfh	12	0.46200578	Psi	20S	18.25	Inches	2747.10303	Yes
125	120	1041.675049	Mcfh	19	0.613183677	Psi	16S	15.25	Inches	1219.07898	Yes
125	130	1041.675049	Mcfh	18	0.418374628	Psi	16S	15.25	Inches	832.270874	Yes
135	140	0	Mcfh	0	8.08075E-15	Psi	20S	18.25	Inches	89.3389141	Yes
140	145	-2083.350098	Mcfh	24	0.059031531	Psi	20S	18.25	Inches	101.082988	Yes
145	220	-6250.049805	Mcfh	71	9.971593857	Psi	20S	19.25	Inches	2440.58398	Yes
80	135	2083.350098	Mcfh	38	2.301233053	Psi	16S	15.25	Inches	1297.91003	Yes
150	155	4166.700195	Mcfh	73	6.636800199	Psi	18S	15.25	Inches	1122.88916	Yes
145	185	1041.675049	Mcfh	19	1.310507894	Psi	16S	15.25	Inches	2643.48193	Yes
140	195	1041.675049	Mcfh	19	1.000201702	Psi	16S	15.25	Inches	1942.39485	Yes
155	80	2083.350098	Mcfh	37	2.604787588	Psi	16S	15.25	Inches	1491.39897	Yes
170	165	-6666.720215	Mcfh	68	1.9243927	Psi	20S	19.25	Inches	536.2276	Yes
170	175	-5000.040039	Mcfh	69	5.903928849	Psi	16S	15.25	Inches	811.428772	Yes
155	205	1041.675049	Mcfh	30	1.418718364	Psi	12S	12	Inches	897.028672	Yes
150	210	1041.675049	Mcfh	29	1.32822144	Psi	12S	12	Inches	876.082703	Yes
35	215	1041.675049	Mcfh	12	1.174887555	Psi	16S	15.25	Inches	3532.375	Yes
220	230	-7155.612305	Mcfh	78	4.919894896	Psi	20S	19.25	Inches	986.487305	Yes
220	265	-1177.787988	Mcfh	20	0.484415382	Psi	16S	15.25	Inches	805.053223	Yes
230	170	-10625.08496	Mcfh	110	35.28113558	Psi	20S	18.25	Inches	3877.98291	Yes
230	250	2427.797607	Mcfh	41	2.668139313	Psi	16S	15.25	Inches	1322.40308	Yes
10	250	1738.902344	Mcfh	29	0.415092587	Psi	16S	15.25	Inches	346.351563	Yes
250	125	4166.700195	Mcfh	74	8.474543571	Psi	18S	15.25	Inches	1430.84399	Yes
260	10	-69.03544617	Mcfh	1	0.002347826	Psi	16S	15.25	Inches	849.718614	Yes
265	260	-3281.137451	Mcfh	55	1.980086611	Psi	16S	15.25	Inches	530.767029	Yes
265	270	1041.675049	Mcfh	18	1.63635242	Psi	16S	15.25	Inches	3380.2041	Yes

GW_ID	LINK_ID	PIPE_ID	PIPE_NO	TOT_LOAD	TQ_UNIT	X_COORD	Y_COORD	SX_COORD	SY_COORD
1			18	-50	MMcfd	104193.6016	95717.70313	104192.7031	96170.95313
2			18	-50	MMcfd	104446.2031	95713.64844	104445.2969	96171.45313
6			31	-50	MMcfd	107653.3984	95065.74219	107651.1953	96177.8125
8			15	-50	MMcfd	107882.7031	96564.82813	107880.6094	96675.20313
9			14	-50	MMcfd	108263.5	96548.63281	108255.9297	96665.96094
10			13	-50	MMcfd	99717.36719	96155.84375	100085.7656	96160.92969
11			10	-100	MMcfd	103424	98361.21094	104167.5078	98357.58594
12			2	-100	MMcfd	106553.2969	98376.24219	106099.6172	98375.78906
15			21	-50	MMcfd	101929.2969	94639.95313	101933.6406	94729.63281
17			22	-50	MMcfd	102229.7031	94845.65625	102230.125	94935.375
18			26	-50	MMcfd	101878.1016	95086.60156	102053.8906	95088.14063
19			27	-50	MMcfd	101502.3984	95052.72656	101635.625	95053.4375
21			28	-50	MMcfd	100473.2969	95424.5	100473.3359	95625.64063
22			8	-50	MMcfd	100964.6016	95198.64844	101171.1641	95197.98438
23			37	-50	MMcfd	105392.2031	95182.90625	105392.2031	94688.125

FROM NODE	TO NODE	FLOW	Q UNIT	VELOCITY	DP	P UNIT	SIZE TYPE	DIAMETER	ROUGHNESS	D UNIT	LENGTH	SIZE OK
5	75	1666.80078	Mcfh	86	89.53600311	Psi	24S	23.25	0.0007	Inches	15913.23047	Yes
15	10	5444.35887	Mcfh	85	27.26347351	Psi	16S	15.25	0.0007	Inches	11115.70996	Yes
25	30	8333.400391	Mcfh	50	30.84282494	Psi	24S	23.25	0.0007	Inches	15000	Yes
30	55	4166.700195	Mcfh	25	0.00441428	Psi	24S	23.25	0.0007	Inches	6.952274323	Yes
40	45	4166.700195	Mcfh	25	0.005153481	Psi	24S	23.25	0.0007	Inches	8.116466522	Yes
45	150	4166.700195	Mcfh	73	41.3340416	Psi	16S	15.25	0.0007	Inches	7754.191895	Yes
55	35	2083.350098	Mcfh	13	0.002381519	Psi	24S	23.25	0.0007	Inches	13.0472568	Yes
55	65	1041.675049	Mcfh	15	1.309135079	Psi	16S	15.25	0.0007	Inches	3289.853027	Yes
75	15	1666.80078	Mcfh	97	28.56441879	Psi	24S	23.25	0.0007	Inches	4086.769531	Yes
15	85	7055.741211	Mcfh	105	18.01453972	Psi	16S	15.25	0.0007	Inches	1436.888965	Yes
85	200	0	Mcfh	0	5.6626E-15	Psi	16S	15.25	0.0007	Inches	3999.281982	Yes
85	260	4972.391113	Mcfh	77	9.247988701	Psi	16S	15.25	0.0007	Inches	1292.026978	Yes
95	135	-1041.675049	Mcfh	12	0.450898558	Psi	20S	19.25	0.0007	Inches	2747.103027	Yes
125	120	1041.675049	Mcfh	17	0.566210628	Psi	16S	15.25	0.0007	Inches	1219.078979	Yes
125	130	1041.675049	Mcfh	17	0.386358827	Psi	16S	15.25	0.0007	Inches	832.270874	Yes
135	140	-2083.350098	Mcfh	23	0.050932266	Psi	20S	19.25	0.0007	Inches	89.33691406	Yes
140	145	-4166.700195	Mcfh	46	0.200282827	Psi	20S	19.25	0.0007	Inches	101.0529883	Yes
146	220	-8333.400391	Mcfh	92	16.03506951	Psi	20S	19.25	0.0007	Inches	2440.583984	Yes
80	135	0	Mcfh	0	5.60663E-15	Psi	16S	15.25	0.0007	Inches	1297.910034	Yes
150	155	2083.350098	Mcfh	37	1.945588231	Psi	16S	15.25	0.0007	Inches	1122.88916	Yes
145	185	1041.675049	Mcfh	19	1.27733779	Psi	16S	15.25	0.0007	Inches	2543.481934	Yes
140	195	1041.675049	Mcfh	19	0.975765526	Psi	16S	15.25	0.0007	Inches	1942.394653	Yes
155	80	0	Mcfh	0	5.60663E-15	Psi	16S	15.25	0.0007	Inches	1491.396973	Yes
170	165	-6666.720215	Mcfh	57	1.902885318	Psi	20S	19.25	0.0007	Inches	536.2276001	Yes
170	175	-3750.030029	Mcfh	51	3.499415159	Psi	16S	15.25	0.0007	Inches	811.426772	Yes
155	205	1041.675049	Mcfh	30	1.425054908	Psi	12S	12	0.0007	Inches	897.0266724	Yes
150	210	1041.675049	Mcfh	30	1.373664975	Psi	12S	12	0.0007	Inches	875.0827026	Yes
35	215	1041.675049	Mcfh	15	1.405986667	Psi	16S	15.25	0.0007	Inches	3532.375	Yes
220	230	-7571.135254	Mcfh	76	5.139425278	Psi	20S	19.25	0.0007	Inches	986.4873047	Yes
220	265	-2845.614746	Mcfh	46	2.223297834	Psi	16S	15.25	0.0007	Inches	805.0532227	Yes
230	170	-9375.075195	Mcfh	92	27.26431084	Psi	20S	19.25	0.0007	Inches	3877.98291	Yes
230	250	762.2647705	Mcfh	12	0.334591448	Psi	16S	15.25	0.0007	Inches	1322.403076	Yes
10	250	3404.435303	Mcfh	53	1.289759398	Psi	16S	15.25	0.0007	Inches	348.3515625	Yes
250	125	4166.700195	Mcfh	68	7.8559165	Psi	16S	15.25	0.0007	Inches	1430.843894	Yes
260	10	43.41967392	Mcfh	1	0.000944265	Psi	16S	15.25	0.0007	Inches	649.7166138	Yes
265	260	-4928.964844	Mcfh	78	3.872339351	Psi	16S	15.25	0.0007	Inches	530.7670288	Yes
265	270	1041.675049	Mcfh	17	1.528880444	Psi	16S	15.25	0.0007	Inches	3380.204102	Yes

Ske

GW ID	LINK ID	PIPE ID	PIPE NO	TOT LOAD	TQ UNIT	COUNT	STATUS	X COORD	Y COORD	SX COORD	SY COORD
1			18	-50	MMcfd	1	ON	104183.6016	95717.70313	104192.7031	96170.95313
2			18	-50	MMcfd	1	ON	104446.2031	95713.64844	104445.2869	96171.45313
6			31	-50	MMcfd	1	ON	107653.3984	95085.74219	107651.1953	96177.8125
8			15	-50	MMcfd	1	ON	107882.7031	95564.82813	107880.6094	96675.20313
9			14	-50	MMcfd	1	ON	108263.5	95548.63281	108255.9297	96665.96094
10			13	-50	MMcfd	1	ON	99717.36719	96155.84375	100085.7656	96160.92969
11			10	-100	MMcfd	1	ON	103424	96361.21084	104167.5078	96357.58594
12			2	-100	MMcfd	1	ON	106553.2969	98376.24219	106099.6172	98375.78906
15			21	-50	MMcfd	1	ON	101929.2969	94639.95313	101933.6406	94729.63281
17			22	-50	MMcfd	1	ON	102229.7031	94845.65625	102230.125	94935.375
18			26	-50	MMcfd	1	ON	101878.1016	95088.60156	102053.8906	95088.14063
19			27	-50	MMcfd	1	ON	101502.3984	95052.72656	101635.625	95053.4375
21			28	-50	MMcfd	1	ON	100473.2969	95424.5	100473.3359	96625.64063
22			8	-50	MMcfd	1	ON	100964.6018	95198.64844	101171.1641	95197.98438
23			37	-50	MMcfd	1	ON	105392.2031	95182.90625	105392.2031	94668.125



FROM NODE TO NODE	FLOW	Q. UNIT	VELOCITY	DP	P. UNIT	LINK OK	SIZE TYPE	DIAMETER	D. UNIT	LENGTH	SIZE OK
5	75	13333.44043	85	72.96742249	Psi	0	24S	23.25	Inches	15913.23047	Yes
15	10	3885.571045	73	18.18475151	Psi	0	16S	16.25	Inches	11116.70996	Yes
25	30	8333.400391	57	34.48656082	Psi	0	24S	23.25	Inches	15000	Yes
30	55	4166.700195	29	0.005029176	Psi	0	24S	23.25	Inches	6.952274323	Yes
30	45	4166.700195	29	0.005971349	Psi	0	24S	23.25	Inches	8.116466522	Yes
45	150	4166.700195	91	48.98848834	Psi	0	16S	15.25	Inches	7754.191895	Yes
55	35	2083.350098	14	0.00271327	Psi	0	24S	23.25	Inches	13.04772568	Yes
55	65	1041.675049	17	1.492909789	Psi	0	16S	15.25	Inches	3289.853027	Yes
75	15	13333.44043	96	23.63630486	Psi	0	24S	23.25	Inches	4086.769531	Yes
15	85	5281.168945	96	13.19098663	Psi	0	16S	15.25	Inches	1436.688965	Yes
85	200	0	0	4.46885E-15	Psi	0	16S	15.25	Inches	3999.281982	Yes
85	260	3197.818848	60	5.091650488	Psi	0	16S	15.25	Inches	1292.026978	Yes
95	135	-1041.675049	15	0.58884649	Psi	0	20S	19.25	Inches	2747.103027	Yes
125	120	1041.675049	21	0.694624424	Psi	0	16S	15.25	Inches	1218.078979	Yes
125	130	1041.675049	21	0.473867754	Psi	0	16S	15.25	Inches	832.270974	Yes
135	140	-2083.350098	29	0.063972823	Psi	0	20S	19.25	Inches	89.33681406	Yes
140	145	-4166.700195	58	0.251452029	Psi	0	20S	19.25	Inches	101.0628863	Yes
145	220	-8333.400391	116	19.83566208	Psi	0	20S	19.25	Inches	2440.583984	Yes
80	135	0	0	4.17721E-15	Psi	0	16S	15.25	Inches	1297.910034	Yes
150	155	2083.350098	46	2.435752392	Psi	0	16S	15.25	Inches	1122.88916	Yes
145	185	1041.675049	23	1.606734157	Psi	0	16S	15.25	Inches	2543.481934	Yes
140	195	1041.675049	23	1.227605462	Psi	0	16S	15.25	Inches	1842.384653	Yes
155	80	0	0	4.17721E-15	Psi	0	16S	15.25	Inches	1491.366873	Yes
170	165	-8333.400391	72	2.880830288	Psi	0	20S	19.25	Inches	536.2276001	Yes
170	175	-5416.709961	75	6.892937241	Psi	0	16S	15.25	Inches	911.426772	Yes
155	205	1041.675049	38	1.79462409	Psi	0	12S	12	Inches	897.0266724	Yes
150	210	1041.675049	37	1.718048811	Psi	0	12S	12	Inches	876.0827026	Yes
35	215	1041.675049	17	1.603476167	Psi	0	16S	15.25	Inches	3532.375	Yes
220	230	-8786.088867	106	7.951733589	Psi	0	20S	19.25	Inches	988.4873047	Yes
220	265	-1630.661011	31	0.981288592	Psi	0	16S	15.25	Inches	805.0532227	Yes
230	170	-12708.43457	146	51.00657654	Psi	0	20S	19.25	Inches	3877.98291	Yes
230	250	2880.670898	54	4.334017277	Psi	0	16S	15.25	Inches	1322.403076	Yes
10	250	1286.029053	24	0.269636571	Psi	0	16S	15.25	Inches	346.3515625	Yes
250	125	4166.700195	83	9.529541989	Psi	0	16S	15.25	Inches	1430.843994	Yes
260	10	-516.1918335	10	0.097886704	Psi	0	16S	15.25	Inches	649.7166138	Yes
265	260	-3714.010986	71	2.808177471	Psi	0	16S	15.25	Inches	530.7670288	Yes
265	270	1041.675049	20	1.845437765	Psi	0	16S	15.25	Inches	3380.204102	Yes

GW ID	LINK ID	PIPE ID	PIPE NO	TOT_LOAD	TQ_UNIT	COUNT	STATUS	X_COORD	Y_COORD	SX_COORD	SY_COORD	LINK_OK
1			18	-50	MMcfd	1	ON	104183.6016	95717.70313	104182.7031	96170.95313	NO
2			18	-50	MMcfd	1	ON	104446.2031	95713.64844	104445.2969	96171.45313	NO
6			31	-50	MMcfd	1	ON	107653.3984	95065.74219	107651.1953	96177.8125	NO
8			15	-50	MMcfd	1	ON	107882.7031	96564.82813	107880.6094	96675.20313	NO
9			14	-50	MMcfd	1	ON	108263.5	96548.63281	108255.9297	96665.96094	NO
10			13	-50	MMcfd	1	ON	99717.36719	98155.84375	100985.7656	96160.82869	NO
11			10	-100	MMcfd	1	ON	103424	98381.21094	104167.5078	98357.58594	NO
12			2	-100	MMcfd	1	ON	106553.2969	98376.24219	106099.6172	98375.78906	NO
15			21	-50	MMcfd	1	ON	101929.2969	94639.95313	101933.6406	84729.63281	NO
17			22	-50	MMcfd	1	ON	102229.7031	94845.66625	102230.125	84935.375	NO
18			26	-50	MMcfd	1	ON	101878.1016	95086.60156	102053.8906	95088.14063	NO
19			27	-50	MMcfd	1	ON	101502.3984	95052.72856	101635.625	95053.4375	NO
21			28	-50	MMcfd	1	ON	100473.2969	95424.5	100473.3359	95625.84063	NO
22			8	-50	MMcfd	1	ON	100964.6016	95198.64844	101171.1641	95197.88438	NO
23			37	-50	MMcfd	1	ON	105392.2031	95182.90625	105392.2031	94688.125	NO

FROM NODE	TO NODE	FLOW	Q UNIT	VELOCIT	DP	P UNIT	SIZE TYPE	DIAMETER	ROUGHNESS	D UNIT	LENGTH	SIZE OK
5	75	13333.44043	Mcfh	79	89.16477866	Psl	24S	23.25	0.0007	inches	15913.23047	Yes
15	10	3891.290527	Mcfh	85	16.48193359	Psl	16S	15.25	0.0007	inches	11115.70906	Yes
25	30	10416.75	Mcfh	52	38.43108749	Psl	24S	23.25	0.0007	inches	15000	Yes
30	55	4166.700195	Mcfh	21	0.00369282	Psl	24S	23.25	0.0007	inches	6.952274323	Yes
30	45	6250.049805	Mcfh	31	0.008939509	Psl	24S	23.25	0.0007	inches	8.118468522	Yes
45	150	6250.049805	Mcfh	106	76.28234863	Psl	16S	15.25	0.0007	inches	7754.191895	Yes
55	35	2083.350098	Mcfh	10	0.001992279	Psl	24S	23.25	0.0007	inches	13.04772568	Yes
55	65	1041.675049	Mcfh	12	1.094129443	Psl	16S	15.25	0.0007	inches	3289.853027	Yes
75	15	13333.44043	Mcfh	88	21.79218884	Psl	24S	23.25	0.0007	inches	4086.768531	Yes
15	85	5275.449707	Mcfh	86	11.93257713	Psl	16S	15.25	0.0007	inches	1438.888985	Yes
85	200	0	Mcfh	0	1.05471E-14	Psl	16S	15.25	0.0007	inches	3999.281982	Yes
85	260	3192.099365	Mcfh	54	4.551703453	Psl	16S	15.25	0.0007	inches	1282.026978	Yes
95	135	-1041.675049	Mcfh	12	0.462009579	Psl	20S	19.25	0.0007	inches	2747.103027	Yes
125	120	1041.675049	Mcfh	19	0.613183677	Psl	16S	15.25	0.0007	inches	1219.078979	Yes
125	130	1041.675049	Mcfh	18	0.418374628	Psl	16S	15.25	0.0007	inches	832.270874	Yes
135	140	0	Mcfh	0	8.09075E-15	Psl	20S	19.25	0.0007	inches	88.33891408	Yes
140	145	-2083.350098	Mcfh	24	0.059031531	Psl	20S	19.25	0.0007	inches	101.0629883	Yes
145	220	-6250.049805	Mcfh	71	9.971593857	Psl	20S	19.25	0.0007	inches	2440.683984	Yes
80	135	2083.350098	Mcfh	38	2.301233053	Psl	16S	15.25	0.0007	inches	1297.910034	Yes
150	165	4166.700195	Mcfh	73	6.595680199	Psl	16S	15.25	0.0007	inches	1122.88916	Yes
145	185	1041.675049	Mcfh	19	1.310507894	Psl	16S	15.25	0.0007	inches	2543.481934	Yes
140	195	1041.675049	Mcfh	19	1.000201702	Psl	16S	15.25	0.0007	inches	1942.384653	Yes
155	80	2083.350098	Mcfh	37	2.604787588	Psl	16S	15.25	0.0007	inches	1491.396973	Yes
170	165	-8686.720215	Mcfh	58	1.9243927	Psl	20S	19.25	0.0007	inches	536.2276001	Yes
170	175	-5000.040039	Mcfh	69	6.903926849	Psl	16S	15.25	0.0007	inches	911.428772	Yes
155	205	1041.675049	Mcfh	30	1.416718364	Psl	12S	12	0.0007	inches	897.0268724	Yes
150	210	1041.675049	Mcfh	29	1.32822144	Psl	12S	12	0.0007	inches	875.0827026	Yes
35	215	1041.675049	Mcfh	12	1.174987555	Psl	16S	15.25	0.0007	inches	3532.375	Yes
220	230	-7155.612305	Mcfh	76	4.918884695	Psl	20S	19.25	0.0007	inches	888.4873047	Yes
220	265	-1177.787598	Mcfh	20	0.484415382	Psl	16S	15.25	0.0007	inches	805.0532227	Yes
230	170	-10625.08496	Mcfh	110	35.28113556	Psl	20S	19.25	0.0007	inches	3877.98291	Yes
230	250	2427.797607	Mcfh	41	2.888136313	Psl	16S	15.25	0.0007	inches	1322.403076	Yes
10	250	1738.902344	Mcfh	29	0.415092587	Psl	16S	15.25	0.0007	inches	348.3515625	Yes
250	125	4166.700195	Mcfh	74	8.474543571	Psl	16S	15.25	0.0007	inches	1430.843994	Yes
260	10	-89.03544617	Mcfh	1	0.002347925	Psl	16S	15.25	0.0007	inches	648.7166138	Yes
265	260	-3261.137451	Mcfh	55	1.980095611	Psl	16S	15.25	0.0007	inches	550.7670288	Yes
265	270	1041.675049	Mcfh	18	1.63635242	Psl	16S	15.25	0.0007	inches	3380.204102	Yes

GW ID	LINK ID	PIPE ID	PIPE_NO	NODE	ASGN	TOT_LOAD	TQ_UNIT	COUNT	STATUS	X_COORD	Y_COORD	SX_COORD	SY_COORD	LINK_OK
1			18		BOTH	-50	MMctd	1	ON	104193.6016	85717.70313	104192.7031	95170.93313	NO
2			18		BOTH	-50	MMctd	1	ON	104446.2031	95713.64844	104445.2969	96171.45313	NO
6			31		BOTH	-50	MMctd	1	ON	107653.3984	95065.74219	107651.1953	96177.8125	NO
8			15		BOTH	-50	MMctd	1	ON	107882.7031	95564.82813	107880.6094	96675.20313	NO
9			14		BOTH	-50	MMctd	1	ON	108263.5	96548.83281	108265.9297	96665.96094	NO
10			13		BOTH	-50	MMctd	1	ON	98717.36719	96165.84375	100095.7656	96160.92969	NO
11			10		BOTH	-100	MMctd	1	ON	103424	98361.21094	104167.5078	98357.58594	NO
12			2		BOTH	-100	MMctd	1	ON	106553.2969	98376.24219	106099.6172	98376.78908	NO
15			21		BOTH	-50	MMctd	1	ON	101929.2969	94639.85313	101933.6408	94728.63281	NO
17			22		BOTH	-50	MMctd	1	ON	102229.7031	94845.66925	102230.125	94936.375	NO
18			26		BOTH	-50	MMctd	1	ON	101878.1016	95068.60156	102053.8908	95088.14063	NO
19			27		BOTH	-50	MMctd	1	ON	101502.3984	95052.72656	101635.825	95053.4375	NO
21			28		BOTH	-50	MMctd	1	ON	100473.2969	95424.5	100473.3359	95625.84063	NO
22			8		BOTH	-50	MMctd	1	ON	100964.6016	95196.64844	101171.1641	95197.98438	NO
23			37		BOTH	-50	MMctd	1	ON	105392.2031	95182.90625	105392.2031	94688.125	NO

GW_ID	ROM_NOI	TO_NODE	FLOW	Q_UNIT	VELOCITY	DP	P_UNIT	LINK_OK	EQUATION	SIZE_TYPE	DIAMETER	D_UNIT	LENGTH	SIZE_OK
1	5	75	16666.80078	Mcfh	86	88.5300311	Psl	0	IGT-Improved	24S	23.25	Inches	15913.23047	Yes
2	15	10	5444.358887	Mcfh	85	27.26347351	Psl	0	IGT-Improved	16S	15.25	Inches	11115.70996	Yes
4	25	30	8333.400391	Mcfh	50	30.84282484	Psl	0	IGT-Improved	24S	23.25	Inches	15000	Yes
5	30	55	4166.700195	Mcfh	25	0.00441428	Psl	0	IGT-Improved	24S	23.25	Inches	6.952274323	Yes
6	30	45	4166.700195	Mcfh	25	0.005153481	Psl	0	IGT-Improved	24S	23.25	Inches	8.116466522	Yes
8	45	150	4166.700195	Mcfh	73	41.3340416	Psl	0	IGT-Improved	16S	15.25	Inches	7754.191895	Yes
9	55	35	2083.350098	Mcfh	13	0.002381519	Psl	0	IGT-Improved	24S	23.25	Inches	13.04772568	Yes
10	55	65	1041.675049	Mcfh	15	1.309135079	Psl	0	IGT-Improved	16S	15.25	Inches	3289.853027	Yes
12	75	15	16666.80078	Mcfh	97	28.56441879	Psl	0	IGT-Improved	24S	23.25	Inches	4086.769531	Yes
13	15	85	7055.741211	Mcfh	105	18.01463972	Psl	0	IGT-Improved	16S	15.25	Inches	1436.688965	Yes
14	85	200	0	Mcfh	0	8.5626E-15	Psl	0	IGT-Improved	16S	15.25	Inches	3999.281982	Yes
15	85	260	4972.391113	Mcfh	77	9.247988701	Psl	0	IGT-Improved	16S	15.25	Inches	1292.026978	Yes
16	95	135	-1041.675049	Mcfh	12	0.450998558	Psl	0	IGT-Improved	20S	19.25	Inches	2747.103027	Yes
22	125	120	1041.675049	Mcfh	17	0.566210628	Psl	0	IGT-Improved	16S	15.25	Inches	1219.078979	Yes
23	125	130	1041.675049	Mcfh	17	0.386358827	Psl	0	IGT-Improved	16S	15.25	Inches	832.270874	Yes
24	135	140	-2083.350098	Mcfh	23	0.050932266	Psl	0	IGT-Improved	20S	19.25	Inches	89.33691406	Yes
25	140	145	-4166.700195	Mcfh	46	0.200282827	Psl	0	IGT-Improved	20S	19.25	Inches	101.0629883	Yes
26	145	220	-8333.400391	Mcfh	92	16.035066851	Psl	0	IGT-Improved	20S	19.25	Inches	2440.583984	Yes
27	80	135	0	Mcfh	0	5.60663E-15	Psl	0	IGT-Improved	16S	15.25	Inches	1297.910034	Yes
28	150	155	2083.350098	Mcfh	37	1.945588231	Psl	0	IGT-Improved	16S	15.25	Inches	1122.86916	Yes
29	145	185	1041.675049	Mcfh	19	1.2773779	Psl	0	IGT-Improved	16S	15.25	Inches	2543.481934	Yes
31	140	195	1041.675049	Mcfh	19	0.975765528	Psl	0	IGT-Improved	16S	15.25	Inches	1942.394653	Yes
32	155	80	0	Mcfh	0	5.60663E-15	Psl	0	IGT-Improved	16S	15.25	Inches	1491.396973	Yes
35	170	165	-6666.720215	Mcfh	57	1.902985318	Psl	0	IGT-Improved	20S	19.25	Inches	536.2276001	Yes
36	170	175	-3750.030029	Mcfh	51	3.489415159	Psl	0	IGT-Improved	16S	15.25	Inches	911.428772	Yes
42	155	205	1041.675049	Mcfh	30	1.425054908	Psl	0	IGT-Improved	12S	12	Inches	897.0266724	Yes
43	150	210	1041.675049	Mcfh	30	1.373864975	Psl	0	IGT-Improved	12S	12	Inches	875.0827026	Yes
44	35	215	1041.675049	Mcfh	15	1.405986667	Psl	0	IGT-Improved	16S	15.25	Inches	3632.375	Yes
45	220	230	-7571.135254	Mcfh	76	5.139425278	Psl	0	IGT-Improved	20S	19.25	Inches	986.4873047	Yes
46	220	265	-2845.614746	Mcfh	46	2.23297834	Psl	0	IGT-Improved	16S	15.25	Inches	805.053227	Yes
47	230	170	-9375.075195	Mcfh	92	27.26431094	Psl	0	IGT-Improved	20S	19.25	Inches	3877.98291	Yes
48	230	250	762.2647705	Mcfh	12	0.334591448	Psl	0	IGT-Improved	16S	15.25	Inches	1322.403076	Yes
50	10	250	3404.435303	Mcfh	53	1.289759398	Psl	0	IGT-Improved	16S	15.25	Inches	346.3515625	Yes
51	250	125	4166.700195	Mcfh	68	7.8558165	Psl	0	IGT-Improved	16S	15.25	Inches	1430.843994	Yes
52	260	10	43.41967392	Mcfh	1	0.000944265	Psl	0	IGT-Improved	16S	15.25	Inches	649.7166138	Yes
53	265	260	-4928.964844	Mcfh	78	3.872239351	Psl	0	IGT-Improved	16S	15.25	Inches	530.7670288	Yes
54	265	270	1041.675049	Mcfh	17	1.529680444	Psl	0	IGT-Improved	16S	15.25	Inches	3380.204102	Yes

GW ID	LINK ID	PIPE ID	PIPE_NO	NODE_ASGN	TOT_LOAD	TQ_UNIT	COUNT	STATUS	X_COORD	Y_COORD	SX_COORD	SY_COORD	LINK_OK
1			18	BOTH	-50	MMcfd	1	ON	104193.6016	95717.70313	104192.7031	96170.95313	NO
2			18	BOTH	-50	MMcfd	1	ON	104446.2031	95713.64844	104445.2869	96171.45313	NO
6			31	BOTH	-50	MMcfd	1	ON	107693.3984	95066.74219	107651.1953	96177.8125	NO
8			15	BOTH	-50	MMcfd	1	ON	107892.7031	96564.82813	107880.6094	96675.20313	NO
9			14	BOTH	-50	MMcfd	1	ON	108293.6	96548.63281	108255.8287	96665.95094	NO
10			13	BOTH	-50	MMcfd	1	ON	99717.36719	96155.84375	100085.7656	96160.92869	NO
11			10	BOTH	-100	MMcfd	1	ON	103424	96391.21094	104187.6078	96357.58594	NO
12			2	BOTH	-100	MMcfd	1	ON	106553.2969	96376.24219	106099.6172	96376.78906	NO
15			21	BOTH	-50	MMcfd	1	ON	101929.2969	94639.85313	101933.6406	94729.63281	NO
17			22	BOTH	-50	MMcfd	1	ON	102229.7031	94845.65825	102230.125	94935.375	NO
18			26	BOTH	-50	MMcfd	1	ON	101878.1016	95086.60156	102053.8906	95088.14083	NO
19			27	BOTH	-50	MMcfd	1	ON	101502.3984	95032.72656	101635.825	95053.4375	NO
21			28	BOTH	-50	MMcfd	1	ON	100473.2969	95424.5	100473.3359	95625.64063	NO
22			8	BOTH	-50	MMcfd	1	ON	100964.6016	95198.64844	101171.1641	95197.88438	NO
23			37	BOTH	-50	MMcfd	1	ON	105392.2031	95182.90825	105392.2031	94688.125	NO

GW ID	FROM NODE	TO NODE	FLOW	Q. UNIT	VELOCITY	DP	P. UNIT	SIZE. TYPE	DIAMETER	ROUGHNESS	D. UNIT	LENGTH	SIZE OK
1	5	75	16666.80078	Mch	82	85.5640	Psi	24S	23.25	0.0007	Inches	15913.23047	Yes
2	15	10	5448.188242	Mch	78	25.54592	Psi	18S	16.25	0.0007	Inches	11115.70996	Yes
4	25	30	10416.75	Mch	49	38.05247	Psi	24S	23.25	0.0007	Inches	15000	Yes
5	30	55	4166.700195	Mch	19	0.003432	Psi	24S	23.25	0.0007	Inches	6.952274323	Yes
6	30	45	8250.049805	Mch	29	0.008309	Psi	24S	23.25	0.0007	Inches	8.116486522	Yes
8	45	150	8250.049805	Mch	92	68.98893	Psi	18S	16.25	0.0007	Inches	7754.191885	Yes
9	55	35	2083.350098	Mch	10	0.001852	Psi	24S	23.25	0.0007	Inches	13.04772568	Yes
10	55	65	1041.875049	Mch	11	1.016887	Psi	18S	15.25	0.0007	Inches	3289.853027	Yes
12	75	15	16666.80078	Mch	92	27.11832	Psi	24S	23.25	0.0007	Inches	4086.789531	Yes
13	15	85	7051.901855	Mch	98	16.889	Psi	18S	15.25	0.0007	Inches	1436.888965	Yes
14	85	200	0	Mch	0	1.21E-14	Psi	18S	15.25	0.0007	Inches	3998.281882	Yes
15	85	260	4868.551758	Mch	72	8.59148	Psi	18S	15.25	0.0007	Inches	1292.028978	Yes
16	95	135	-1041.675049	Mch	10	0.393581	Psi	20S	19.25	0.0007	Inches	2747.103027	Yes
22	125	120	1041.675049	Mch	16	0.522016	Psi	18S	15.25	0.0007	Inches	1219.078679	Yes
23	125	130	1041.675049	Mch	16	0.358228	Psi	18S	15.25	0.0007	Inches	832.270874	Yes
24	135	140	0	Mch	0	1.24E-14	Psi	20S	19.25	0.0007	Inches	89.33681406	Yes
25	140	145	-2083.350098	Mch	20	0.050311	Psi	20S	19.25	0.0007	Inches	101.0629883	Yes
26	145	220	-6250.048805	Mch	60	8.587924	Psi	20S	19.25	0.0007	Inches	2440.583984	Yes
27	80	135	2083.350098	Mch	32	1.984974	Psi	16S	15.25	0.0007	Inches	1297.810034	Yes
28	150	155	4166.700195	Mch	83	5.728815	Psi	16S	15.25	0.0007	Inches	1122.86916	Yes
29	145	185	1041.675049	Mch	18	1.115708	Psi	16S	15.25	0.0007	Inches	2543.461834	Yes
31	140	195	1041.675049	Mch	16	0.851867	Psi	16S	15.25	0.0007	Inches	1942.384853	Yes
32	155	80	2083.350098	Mch	32	2.233158	Psi	18S	15.25	0.0007	Inches	1481.386873	Yes
35	170	165	-8333.400391	Mch	70	2.791179	Psi	20S	19.25	0.0007	Inches	536.2276001	Yes
36	170	175	0.097011	Mch	0	1.95E-08	Psi	18S	15.25	0.0007	Inches	811.428772	Yes
42	155	205	1041.675049	Mch	26	1.215758	Psi	12S	12	0.0007	Inches	887.0266724	Yes
43	150	210	1041.675049	Mch	25	1.151468	Psi	12S	12	0.0007	Inches	675.0827026	Yes
44	35	215	1041.675049	Mch	11	1.091775	Psi	16S	15.25	0.0007	Inches	3532.375	Yes
45	220	230	-5926.10498	Mch	55	3.054939	Psi	20S	19.25	0.0007	Inches	888.4873047	Yes
46	220	265	2407.294922	Mch	36	1.513561	Psi	16S	15.25	0.0007	Inches	805.0532227	Yes
47	230	170	-7291.725098	Mch	66	16.81515	Psi	20S	19.25	0.0007	Inches	3877.88281	Yes*
48	230	250	320.8448547	Mch	5	0.066672	Psi	16S	15.25	0.0007	Inches	1322.403078	Yes
50	10	250	3842.755127	Mch	56	1.487719	Psi	16S	15.25	0.0007	Inches	348.3515825	Yes
51	250	125	4166.700195	Mch	63	7.267544	Psi	18S	15.25	0.0007	Inches	1430.843684	Yes
52	260	10	477.9068909	Mch	7	0.065438	Psi	16S	15.25	0.0007	Inches	649.7168138	Yes
53	265	260	-4480.64502	Mch	68	3.02788	Psi	18S	15.25	0.0007	Inches	530.7870288	Yes
54	265	270	1041.675049	Mch	15	1.408288	Psi	18S	15.25	0.0007	Inches	3380.204102	Yes

GW ID	LINK ID	PIPE ID	PIPE NO	NODE ASGN	TOT LOAD	TQ_UNIT	COUNT	STATUS	X COORD	Y COORD	SX COORD	SY COORD	LINK_OK
1			18	BOTH	-50	MMcfd	1	ON	104193.6016	85717.70313	104192.7031	86170.95313	NO
2			18	BOTH	-50	MMcfd	1	ON	104446.2031	85713.84844	104445.2868	86171.45313	NO
6			31	BOTH	-50	MMcfd	1	ON	107653.3884	95085.74219	107651.1853	96177.8125	NO
8			15	BOTH	-50	MMcfd	1	ON	107882.7031	96564.82813	107880.6084	96675.20313	NO
9			14	BOTH	-50	MMcfd	1	ON	108263.5	96548.63281	108265.9297	96665.96094	NO
10			13	BOTH	-50	MMcfd	1	ON	99717.96719	96155.84375	100085.7658	96160.92869	NO
11			10	BOTH	-100	MMcfd	1	ON	103424	98381.21084	104167.5078	88357.58594	NO
12			2	BOTH	-100	MMcfd	1	ON	108553.2869	98376.24219	106099.8172	88375.78906	NO
15			21	BOTH	-50	MMcfd	1	ON	101928.2869	84638.95313	101933.8406	84729.63281	NO
17			22	BOTH	-50	MMcfd	1	ON	102228.7031	84845.65825	102230.125	84835.375	NO
18			26	BOTH	-50	MMcfd	1	ON	101878.1016	95086.60168	102053.8908	95088.14083	NO
19			27	BOTH	-50	MMcfd	1	ON	101502.3984	95052.72658	101635.825	95053.4375	NO
21			28	BOTH	-50	MMcfd	1	ON	100473.2869	95424.5	100473.3359	95325.84083	NO
22			8	BOTH	-50	MMcfd	1	ON	100664.6016	95198.84844	101171.1841	95187.98438	NO
23			37	BOTH	-50	MMcfd	1	ON	105392.2031	95182.90625	105392.2031	94688.125	NO

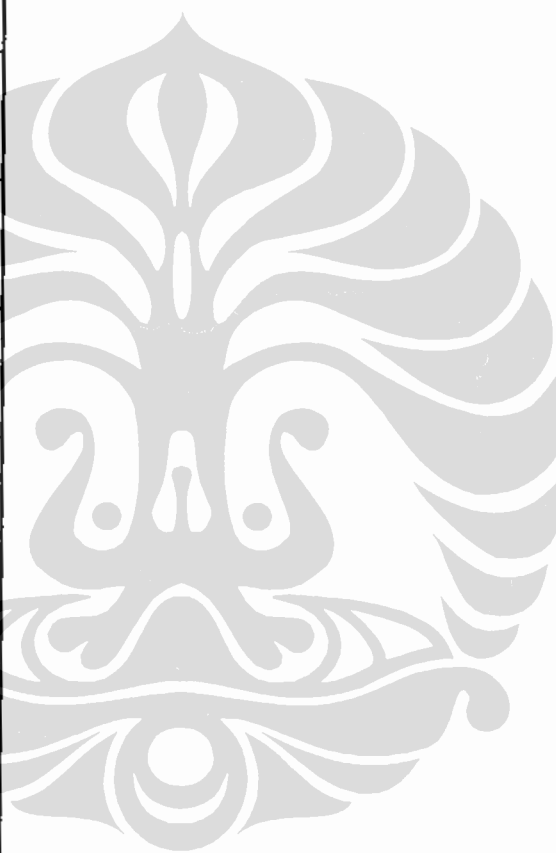


GW_ID	FROM NODE	TO NODE	FLOW	Q_UNIT	VELOCITY	DP	P_UNIT	SIZE	TYPE	DIAMETER	D_UNIT	LENGTH	L_UNIT	EFFICIENCY	E_UNIT	SIZE_OK
1	5	75	4166.704102	Mcfh	34	13.20296478	Psi	24S		23.25	Inches	15913.23047	m	1	Decimal	Yes
2	15	10	-729.9509277	Mcfh	14	0.986439528	Psi	16S		15.25	Inches	11119.70996	Feet	1	Decimal	Yes
4	25	30	4166.695313	Mcfh	74	23.91211319	Psi	24S		23.25	Inches	15000	m	1	Decimal	Yes
5	30	55	4166.700195	Mcfh	74	0.012858176	Psi	24S		23.25	Inches	8.952274323	m	1	Decimal	Yes
6	30	45	-0.079567149	Mcfh	0	4.92177E-11	Psi	24S		23.25	Inches	8.118466522	m	1	Decimal	Yes
8	45	150	0.007601945	Mcfh	0	5.20775E-09	Psi	16S		15.25	Inches	7754.191895	m	1	Decimal	Yes
9	55	35	2083.350098	Mcfh	37	0.00699023	Psi	24S		23.25	Inches	13.04772588	m	1	Decimal	Yes
10	55	65	1041.675049	Mcfh	45	3.939918134	Psi	16S		15.25	Inches	3289.853027	m	1	Decimal	Yes
12	75	15	4166.704102	Mcfh	35	3.579591751	Psi	24S		23.25	Inches	4086.769531	m	1	Decimal	Yes
13	15	85	729.9550171	Mcfh	14	0.420297414	Psi	16S		15.25	Inches	1438.688965	m	1	Decimal	Yes
14	85	200	0	Mcfh	0	1.0672E-14	Psi	16S		15.25	Inches	3999.281982	m	1	Decimal	Yes
15	85	260	-1353.394897	Mcfh	26	1.144601226	Psi	16S		15.25	Inches	1292.026978	m	1	Decimal	Yes
16	95	135	-1041.675049	Mcfh	18	0.701632738	Psi	20S		19.25	Inches	2747.103027	m	1	Decimal	Yes
22	125	120	1041.675049	Mcfh	21	0.709667206	Psi	16S		15.25	Inches	1219.078979	m	1	Decimal	Yes
23	125	130	1041.675049	Mcfh	21	0.464107494	Psi	16S		15.25	Inches	832.270874	m	1	Decimal	Yes
24	135	140	-8250.055176	Mcfh	108	0.569132924	Psi	20S		19.25	Inches	80.33891406	m	1	Decimal	Yes
25	140	145	-8333.405273	Mcfh	143	1.071872893	Psi	20S		19.25	Inches	101.0629883	m	1	Decimal	Yes
26	145	220	-12500.10449	Mcfh	212	44.28956885	Psi	20S		19.25	Inches	2440.583984	m	1	Decimal	Yes
27	80	135	-4166.705078	Mcfh	130	13.02179432	Psi	16S		15.25	Inches	1287.910034	m	1	Decimal	Yes
28	150	155	-2083.35498	Mcfh	85	4.409823325	Psi	16S		15.25	Inches	1122.88916	m	1	Decimal	Yes
29	145	185	1041.675049	Mcfh	29	1.968893315	Psi	16S		15.25	Inches	2543.481934	m	1	Decimal	Yes
31	140	195	1041.675049	Mcfh	29	1.514075758	Psi	16S		15.25	Inches	1942.394653	m	1	Decimal	Yes
32	155	80	-4166.705078	Mcfh	161	17.69643784	Psi	16S		15.25	Inches	1491.396973	m	1	Decimal	Yes
35	170	165	-2083.355957	Mcfh	12	0.159354048	Psi	20S		19.25	Inches	538.2276001	m	1	Decimal	Yes
36	170	175	-25000.19531	Mcfh	230	65.49284626	Psi	16S		15.25	Inches	911.428772	m	1	Decimal	Yes
42	155	205	1041.675049	Mcfh	68	3.170188281	Psi	12S		12	Inches	897.0266724	m	1	Decimal	Yes
43	150	210	1041.675049	Mcfh	72	3.292524576	Psi	12S		12	Inches	875.0827026	m	1	Decimal	Yes
44	35	215	1041.675049	Mcfh	45	4.240032673	Psi	16S		15.25	Inches	3532.376	m	1	Decimal	Yes
45	220	230	-17143.91982	Mcfh	206	24.94245529	Psi	20S		19.25	Inches	888.4873047	m	1	Decimal	Yes
46	220	265	2560.465088	Mcfh	50	2.218900204	Psi	16S		15.25	Inches	805.0632227	m	1	Decimal	Yes
47	230	170	-26041.875	Mcfh	269	136.8145905	Psi	20S		19.25	Inches	3877.98291	m	1	Decimal	Yes
48	230	250	7856.280762	Mcfh	151	25.12947655	Psi	16S		15.25	Inches	1322.403076	m	1	Decimal	Yes
50	10	250	-3688.580811	Mcfh	72	1.841543317	Psi	16S		15.25	Inches	346.3515625	m	1	Decimal	Yes
51	250	125	4166.700195	Mcfh	65	9.721863266	Psi	16S		15.25	Inches	1430.843994	m	1	Decimal	Yes
52	260	10	-876.2799883	Mcfh	17	0.262135655	Psi	16S		15.25	Inches	849.7166138	m	1	Decimal	Yes
53	265	260	477.1149902	Mcfh	9	0.071800329	Psi	16S		15.25	Inches	530.7670288	m	1	Decimal	Yes
54	265	270	1041.675049	Mcfh	20	1.873686552	Psi	16S		15.25	Inches	3360.204102	m	1	Decimal	Yes

GW ID	FROM NODE	TO NODE	FLOW	Q UNIT	VELOCITY	DP	P UNIT	SIZE TYPE	DIAMETER	D UNIT	LENGTH	L UNIT	EFFICIENCY	E UNIT	SIZE OK
1	6	75	4166.704102	Mcfh	34	13.20288478	Psi	24S	23.25	Inches	169113.23047	m	1	Decimal	Yes
2	15	30	-729.9509277	Mcfh	14	0.888439526	Psi	16S	15.25	Inches	11115.70996	Feet	1	Decimal	Yes
4	25	30	4166.895313	Mcfh	74	23.91211318	Psi	24S	23.25	Inches	15000	m	1	Decimal	Yes
5	30	55	4166.700195	Mcfh	74	0.012955176	Psi	24S	23.25	Inches	6.952274323	m	1	Decimal	Yes
6	30	45	-0.079567149	Mcfh	0	4.92177E-11	Psi	24S	23.25	Inches	8.116466522	m	1	Decimal	Yes
8	45	150	0.007601945	Mcfh	0	5.20775E-09	Psi	16S	15.25	Inches	7754.191895	m	1	Decimal	Yes
9	55	35	2083.350088	Mcfh	37	0.00699023	Psi	24S	23.25	Inches	13.04772568	m	1	Decimal	Yes
10	55	65	1041.675049	Mcfh	45	3.939916134	Psi	16S	15.25	Inches	3289.853027	m	1	Decimal	Yes
12	75	15	4166.704102	Mcfh	35	3.579591751	Psi	24S	23.25	Inches	4086.769531	m	1	Decimal	Yes
13	15	85	729.9550171	Mcfh	14	0.420297414	Psi	16S	15.25	Inches	1436.698965	m	1	Decimal	Yes
14	85	200	0	Mcfh	0	1.0672E-14	Psi	16S	15.25	Inches	3399.281982	m	1	Decimal	Yes
15	85	260	-1353.394897	Mcfh	26	1.144601226	Psi	16S	15.25	Inches	1297.910034	m	1	Decimal	Yes
16	95	135	-1041.675049	Mcfh	18	0.701832738	Psi	20S	19.25	Inches	1122.88916	m	1	Decimal	Yes
22	125	120	1041.675049	Mcfh	21	0.709667206	Psi	16S	15.25	Inches	2543.481834	m	1	Decimal	Yes
23	125	130	1041.675049	Mcfh	21	0.484107494	Psi	16S	15.25	Inches	1942.394653	m	1	Decimal	Yes
24	135	140	-6250.055176	Mcfh	108	0.569132924	Psi	20S	19.25	Inches	832.270874	m	1	Decimal	Yes
25	140	145	-8333.405273	Mcfh	143	1.07187263	Psi	20S	19.25	Inches	89.33691406	m	1	Decimal	Yes
26	145	220	-12500.10449	Mcfh	212	44.28956985	Psi	20S	19.25	Inches	101.0629863	m	1	Decimal	Yes
27	80	135	-4166.705078	Mcfh	130	13.02179432	Psi	16S	15.25	Inches	2440.583984	m	1	Decimal	Yes
28	150	155	-2083.35498	Mcfh	85	4.409825325	Psi	16S	15.25	Inches	1297.910034	m	1	Decimal	Yes
29	145	185	1041.675049	Mcfh	29	1.966893315	Psi	16S	15.25	Inches	1122.88916	m	1	Decimal	Yes
31	140	195	1041.675049	Mcfh	29	1.514075756	Psi	16S	15.25	Inches	2543.481834	m	1	Decimal	Yes
32	155	80	-4166.705078	Mcfh	161	17.69643784	Psi	16S	15.25	Inches	1942.394653	m	1	Decimal	Yes
35	170	165	-2083.355957	Mcfh	12	0.159354046	Psi	20S	19.25	Inches	1491.396873	m	1	Decimal	Yes
36	170	175	-25000.19531	Mcfh	230	65.49264526	Psi	16S	15.25	Inches	536.2276001	m	1	Decimal	Yes
42	155	205	1041.675049	Mcfh	58	3.170186281	Psi	12S	12	Inches	911.428772	m	1	Decimal	Yes
43	150	210	1041.675049	Mcfh	72	3.292524576	Psi	12S	12	Inches	897.0266724	m	1	Decimal	Yes
44	35	215	1041.675049	Mcfh	45	4.240032673	Psi	16S	15.25	Inches	875.0827026	m	1	Decimal	Yes
45	220	230	-17143.91992	Mcfh	206	24.94245529	Psi	20S	19.25	Inches	3532.375	m	1	Decimal	Yes
46	220	265	2560.465088	Mcfh	50	2.218900204	Psi	16S	15.25	Inches	986.4873047	m	1	Decimal	Yes
47	230	170	-26041.875	Mcfh	269	138.6145905	Psi	20S	19.25	Inches	805.0532227	m	1	Decimal	Yes
48	230	250	7856.280762	Mcfh	151	25.12947655	Psi	16S	15.25	Inches	3877.98291	m	1	Decimal	Yes
50	10	250	-3669.580811	Mcfh	72	1.841543317	Psi	16S	15.25	Inches	1322.403076	m	1	Decimal	Yes
51	250	125	4166.700195	Mcfh	85	9.721853258	Psi	16S	15.25	Inches	346.3515625	m	1	Decimal	Yes
52	260	10	-876.2799683	Mcfh	17	0.262135655	Psi	16S	15.25	Inches	1430.643994	m	1	Decimal	Yes
53	265	260	477.1149002	Mcfh	9	0.071800329	Psi	16S	15.25	Inches	649.7166139	m	1	Decimal	Yes
54	265	270	1041.675049	Mcfh	20	1.873686552	Psi	16S	15.25	Inches	530.7670288	m	1	Decimal	Yes
											3380.204102	m	1	Decimal	Yes

SKJ

GW ID	LINK ID	PIPE ID	PIPE_NO	NODE_ASGN	TOT_LOAD	TQ_UNIT	COUNT	STATUS	X_COORD	Y_COORD	SX_COORD	SY_COORD	LINK_OK
1		18		BOTH	-50	MMcfd	1	ON	104183.6016	95717.70313	104192.7031	98170.95313	NO
2		18		BOTH	-50	MMcfd	1	ON	104446.2031	95713.84844	104445.2869	96171.45313	NO
6		31		BOTH	-50	MMcfd	1	ON	107653.3984	95065.74219	107651.1953	96177.8125	NO
8		15		BOTH	-50	MMcfd	1	ON	107882.7031	96584.82813	107880.8094	96875.20313	NO
9		14		BOTH	-50	MMcfd	1	ON	108263.5	96548.63281	108265.9297	98665.66084	NO
10		13		BOTH	-50	MMcfd	1	ON	99717.38719	96155.84375	100085.7656	98160.92969	NO
11		10		BOTH	-100	MMcfd	1	ON	103424	98381.21094	104167.5078	98357.58584	NO
12		2		BOTH	-100	MMcfd	1	ON	106553.2969	98376.24219	106099.8172	98375.78908	NO
15		21		BOTH	-50	MMcfd	1	ON	101929.2969	94639.95313	101933.8406	94729.63281	NO
17		22		BOTH	-50	MMcfd	1	ON	102229.7031	94846.65826	102230.125	94935.375	NO
18		26		BOTH	-50	MMcfd	1	ON	101878.1018	95088.60166	102053.9906	95088.14083	NO
19		27		BOTH	-50	MMcfd	1	ON	101502.3984	95052.72856	101635.625	95053.4375	NO
21		28		BOTH	-50	MMcfd	1	ON	100473.2989	95424.5	100473.3359	95625.84083	NO
22		8		BOTH	-50	MMcfd	1	ON	100984.6016	95198.64844	101171.1641	95197.98438	NO
23		37		BOTH	-50	MMcfd	1	ON	105392.2031	95182.90625	105392.2031	94688.125	NO



GW_ID	FROM_NODTO	NODE	STATUS	FLOW	Q_UNIT	VELOCITY	VEL_UNIT	DP	P_UNIT	SIZE_TYPE	DIAMETER	D_UNIT	LENGTH	SIZE_OK
1	5	75	ON	8333.400391	Mcfh	60	Feet/sec	37.85781	Psi	24S	23.25	Inches	15913.23047	Yes
2	15	10	ON	1574.194946	Mcfh	29	Feet/sec	3.844053	Psi	16S	15.25	Inches	11115.70996	Yes
4	25	30	ON	6250.049805	Mcfh	56	Feet/sec	28.82193	Psi	24S	23.25	Inches	15000	Yes
5	30	55	ON	4166.700195	Mcfh	37	Feet/sec	0.006571	Psi	24S	23.25	Inches	8.952274323	Yes
6	30	45	ON	2083.350098	Mcfh	19	Feet/sec	0.002205	Psi	24S	23.25	Inches	8.116466522	Yes
8	45	150	ON	2083.350098	Mcfh	49	Feet/sec	16.95905	Psi	16S	15.25	Inches	7754.191895	Yes
9	55	35	ON	2083.350098	Mcfh	19	Feet/sec	0.003545	Psi	24S	23.25	Inches	13.04772568	Yes
10	55	65	ON	1041.675049	Mcfh	22	Feet/sec	1.958474	Psi	16S	15.25	Inches	3288.853027	Yes
12	75	15	ON	8333.400391	Mcfh	64	Feet/sec	11.13633	Psi	24S	23.25	Inches	4086.769531	Yes
13	15	85	ON	2592.505127	Mcfh	47	Feet/sec	3.792228	Psi	16S	15.25	Inches	1436.888965	Yes
14	85	200	ON	0	Mcfh	0	Feet/sec	1.4E-14	Psi	16S	15.25	Inches	3988.281982	Yes
15	85	260	ON	509.1550293	Mcfh	9	Feet/sec	0.184884	Psi	16S	15.25	Inches	1292.028978	Yes
16	95	135	ON	-1041.675049	Mcfh	15	Feet/sec	0.575612	Psi	20S	19.25	Inches	2747.103027	Yes
22	125	120	ON	1041.675049	Mcfh	20	Feet/sec	0.689708	Psi	16S	15.25	Inches	1219.078979	Yes
23	125	130	ON	1041.675049	Mcfh	20	Feet/sec	0.456888	Psi	16S	15.25	Inches	832.270874	Yes
24	135	140	ON	-4166.700195	Mcfh	59	Feet/sec	0.225828	Psi	20S	19.25	Inches	89.33891406	Yes
25	140	145	ON	-6250.049805	Mcfh	88	Feet/sec	0.528182	Psi	20S	19.25	Inches	101.0828883	Yes
26	145	220	ON	-10416.75	Mcfh	148	Feet/sec	28.72243	Psi	20S	19.25	Inches	2440.583984	Yes
27	80	135	ON	-2083.350098	Mcfh	48	Feet/sec	2.918939	Psi	16S	15.25	Inches	1297.910034	Yes
28	150	155	ON	0	Mcfh	0	Feet/sec	6.38E-15	Psi	16S	15.25	Inches	1122.88916	Yes
29	145	185	ON	1041.675049	Mcfh	24	Feet/sec	1.826138	Psi	16S	15.25	Inches	2543.481934	Yes
31	140	195	ON	1041.675049	Mcfh	24	Feet/sec	1.245102	Psi	16S	15.25	Inches	1942.394853	Yes
32	155	80	ON	-2083.350098	Mcfh	49	Feet/sec	3.439103	Psi	16S	15.25	Inches	1491.396973	Yes
35	170	165	ON	-2083.350098	Mcfh	14	Feet/sec	0.187617	Psi	20S	19.25	Inches	538.2276001	Yes
42	155	175	ON	-18750.15039	Mcfh	203	Feet/sec	46.67181	Psi	16S	15.25	Inches	911.428772	Yes
43	150	210	ON	1041.675049	Mcfh	40	Feet/sec	1.918588	Psi	12S	12	Inches	897.0286724	Yes
44	35	215	ON	1041.675049	Mcfh	40	Feet/sec	1.87129	Psi	12S	12	Inches	875.0827026	Yes
45	220	230	ON	-13038.93164	Mcfh	22	Feet/sec	2.101858	Psi	16S	15.25	Inches	3532.375	Yes
46	220	265	ON	538.831665	Mcfh	150	Feet/sec	15.09179	Psi	20S	19.25	Inches	986.4873047	Yes
47	230	170	ON	-19791.82422	Mcfh	10	Feet/sec	0.128017	Psi	16S	15.25	Inches	805.0532227	Yes
48	230	250	ON	5711.218262	Mcfh	208	Feet/sec	94.4884	Psi	20S	19.25	Inches	3877.98291	Yes
50	10	250	ON	-1544.518188	Mcfh	104	Feet/sec	13.86291	Psi	16S	15.25	Inches	1322.403076	Yes
51	250	125	ON	4166.700195	Mcfh	28	Feet/sec	0.363708	Psi	16S	15.25	Inches	346.3515625	Yes
52	260	10	ON	-1035.363159	Mcfh	81	Feet/sec	9.208199	Psi	16S	15.25	Inches	1430.843984	Yes
53	265	260	ON	-1544.518188	Mcfh	19	Feet/sec	0.33304	Psi	16S	15.25	Inches	648.7166138	Yes
54	265	270	ON	1041.675049	Mcfh	28	Feet/sec	0.560154	Psi	16S	15.25	Inches	530.7670288	Yes
						19	Feet/sec	1.769638	Psi	16S	15.25	Inches	3380.204102	Yes