REPUBLIC OF THE PHILIPPINES

NATIONAL IRRIGATION ADMINISTRATION

FEASIBILITY STUDY
ON
THE MATUNO RIVER DEVELOPMENT PROJECT

VOLUME 5
DATA BOOK

FEBRUARY 1984

JAPAN INTERNATIONAL COOPERATION AGENCY

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I AGRICULTURE COMPONENT

CONTENTS

MONTHLY EVAPORATION AT TALICTIC

Unit: mm

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1957	91.9	151.5	211.0	248.5	296.5	225.0	175.0	163.2	163.2	123.2	115.7	87.5	2,005.2
1958	89.6	128.5	200.0	248.0	260.0	131.0	155.0	124.1	142.3	82.3	92.2	88.1	1,741.1
1959	99.0	120.0	121.0	232.5	193.5	168.5	185.0	101.3	126.7	129.0	99.3	84.7	1,660.5
1960	113.5	96.0	192.5	147.8	213.6	145.0	123.0	136.3	114.6	136.1	122.1	122.4	1,662.9
1961	122.6	116.5	181.8	185.0	185.0	177.5	172.1	142.5	117.4	106.0	115.5	111.1	1,671.2
1962	115.5	127.8	191.2	224.2	192.5	185.0	124.1	146.8	176.8	160.6	113.1	121.2	1,878.8
1963	118.9	103.6	108.5	220.0	249.0	155.5	180.0	186.6	181.9	190.9	155.5	132.4	1,982.6
1964	113.3	95.8	174.6	219.5	248.0	154.0	205.9	172.7	137.4	130.2	124.5	96.1	1,772.0
1965	110.0	100.5	203.4	215.0	149.0	122.0	129.0	112.0	134.4	112.6	131.3	121.6	1,540.8
1966	199.5	168.0	205.0	209.5	123.5	156.0	161.0	138.8	161.5	164.7	90.5	138.2	1,845.2
1967	154.0	138.0	186.2	158.5	188.0	166.4	226.7	199.8	91.6	105.9	92.9	99.0	1,728.0
1968	91.2	141.4	210.3	299.0	182.2	143.0	180.9	127.0	131.0	131.2	113.3	126.6	1,807.1
1969	125.8	152.3	196.2	229.7	263.6	207.4	168.9	157.5	122.6	108.3	99.3	79.1	1,895.5
1970	80.2	118.7	162.5	193.0	204.5	137.0	182.0	135.3	128.9	129.9	81.4	83.6	1,637.0
1971	101.1	111.3	170.4	222.0	147.9	146.1	126.9	189.4	126.4	119.4	117.4	77.6	1,655.9
1972	101.9	131.2	128.7	147.7	165.7	209.2	136.6	128.2	142.2	174.0	144.0	144.0	1,753.4
1973	142.0	202.0	235.0	315.0	302.0	233.0	203.0	133.0	161.0	156.0	107.0	102.0	2,291.0
1974	169.0	157.0	197.0	221.0	216.0	137.0	157.0	223.0	189.0	209.0	107.0	102.0	2,079.0
1975	105.0	116.0	140.0	183.0	304.0	181.0	140.0	158.0	174.0	172.0	107.0	102.0	1,882.0
1976	108.2	137.6	182.1	261.6	221.7	206.0	226.2	157.3	156.6	129.7	114.5	89.3	1,990.8
Mean	118.1	130.1	179.9	202.7	215.7	176.5	162.5	145.8	142.7	139.9	106.8	101.0	1,817.9

MONTHLY EVAPORATION AT TUGUEGARAO

Unit:mm

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1957	128.8	181.4	234.4	267.0	309.6	241.1	202.3	191.8	156.6	162.5	150.2	125.2	2,35559
1958	127.4	161.8	224.4	266.9	277.3	163.6	185.0	157.8	173.8	121.2	129.4	126.0	2,114.6
1959	135.2	154.1	154.9	252.6	218.6	197.1	211.8	137.7	159.9	161.7	138.0	122.8	2,044.4
1960	146.3	138.9	217.4	191.1	236.0	182.2	167.4	168.2	199.2	168.2	155.6	156.0	2,126.5
1961	155.9	146.3	266.5	211.7	204.9	200.2	173.9	151.9	170.8	156.6	149.8	144.1	2,132.6
1962	149.6	156.2	217.0	245.0	218.1	211.5	157.9	177.6	204.4	189.9	147.7	155.0	2,230.5
1963	153.0	139.3	223.2	242.0	266.9	185.7	207.0	213.1	208.9	217.0	185.9	164.7	2,406.7
1964		183.6	202.3	241.7	266.4	184.2	229.8	230.4	181.8	(162.9)	133.8	171.2	(2,188.1)
1965	164.3	166.3	227.8	237.7	222.6	211.1	193.1	185.3	185.3	189.8	203.9		(2,199.9)
1966	153.7	196.6	228.8	232.7	176.6	186.2	190.3	170.9	190.9	193.9	128.3	170.0	2,218.9
1967													
1968	135.8	168.4	233.4	245.4	211.2	171.3	195.0	144.6	182.3	179.3	157.7	165.4	2,189.8
1969	185.9	182.2	218.4	246.2	313.6	247.7	165.5	179.6	171.2	148.9	138.2	98.9	2,116.3
1970	120.9	141.3	180.9	206.5	237.5	165.0	195.5	153.8	177.6	178.2	113.8	110.2	1,981.2
1971	149.9	132.4	188.7	238.6	170.5	175.6	137.5	213.4	178.9	146.6			

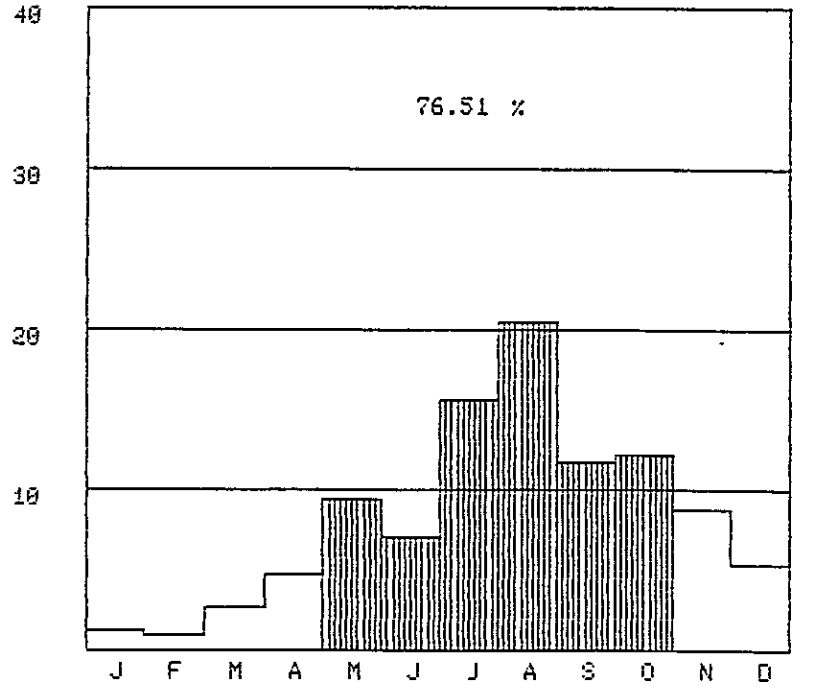
REVISED EVAPORATION IN TALICTIC

Unit: mm

		1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	mean
JAN	F	36.7	38.0	32.4	38.1	30.9	36.1	55.2	42.0	23.6	36.8	16.4	32.7	27.2	38.8	46.1	28.7	33.6	34.9
	M	37.1	41.6	40.9	38.5	37.3	32.8	69.7	50.7	28.4	35.8	27.7	33.0	39.8	46.7	55.6	34.5	29.2	40.0
	L	39.8	43.0	42.2	42.3	45.1	41.1	74.6	61.3	39.2	53.2	36.1	35.5	34.9	56.5	67.3	41.8	45.4	47.0
FEB	F	37.6	42.5	40.1	37.5	33.0	33.8	62.1	43.2	47.0	48.9	32.2	33.1	43.9	63.2	47.6	36.3	40.6	42.5
	M	32.8	42.4	46.8	37.9	37.2	38.7	61.0	47.1	46.4	64.3	45.0	32.8	44.8	68.9	51.8	39.6	54.7	46.6
	L	25.6	31.6	40.9	28.2	25.6	28.0	44.9	47.7	48.0	49.1	41.5	45.4	42.4	69.9	52.6	40.1	42.3	41.4
MAR	F	65.4	56.7	53.9	33.8	51.2	60.8	65.6	54.5	49.6	69.5	45.3	55.7	34.5	68.8	57.7	41.0	45.3	53.5
	M	67.8	57.1	60.4	34.5	56.0	61.3	66.8	58.3	70.7	45.5	59.7	50.5	45.4	73.6	61.7	43.8	57.6	57.1
	L	59.3	68.0	76.9	40.2	67.3	81.3	72.6	73.4	90.0	91.2	57.5	64.2	48.4	92.6	77.6	55.2	79.2	70.3
APR	F	43.0	59.4	75.3	70.1	71.4	75.9	69.3	48.5	90.5	50.8	53.9	69.9	47.9	96.4	67.6	56.0	76.4	66.0
	M	49.5	63.3	77.1	73.0	73.1	71.6	72.3	55.5	81.9	82.4	78.6	68.0	46.8	110.2	77.4	54.0	80.9	71.5
	L	55.3	62.3	71.8	76.9	75.0	67.5	67.9	54.5	56.0	96.5	60.5	84.1	53.0	108.4	76.0	63.0	95.3	72.0
MAY	F	72.3	62.2	60.8	76.9	69.9	48.4	36.2	62.0	52.5	89.1	75.5	41.4	59.5	99.7	71.3	100.3	92.0	68.8
	M	70.4	57.9	62.0	79.2	92.7	46.3	40.1	60.2	74.9	79.0	59.8	43.6	51.3	96.6	69.1	97.3	77.8	68.1
	L	70.9	57.4	69.7	92.9	85.3	54.3	56.2	65.8	54.8	95.5	69.2	62.9	54.8	105.7	75.6	106.4	51.9	68.6
JUN	F	36.4	53.2	63.5	58.9	47.3	41.5	52.3	50.9	36.7	59.6	51.9	42.4	67.6	71.3	41.9	55.4	87.8	54.0
	M	61.5	62.8	61.4	49.6	43.5	39.8	52.3	63.1	58.6	65.9	35.9	37.6	70.5	74.3	43.7	57.7	61.0	55.2
	L	47.1	56.1	60.1	47.0	63.2	40.7	51.4	62.4	47.7	81.9	49.2	66.1	71.1	87.4	51.4	67.9	57.2	59.3
JUL	F	34.5	48.3	51.9	62.5	69.3	42.0	62.3	71.1	70.5	77.6	48.4	50.7	31.3	73.5	56.8	50.7	75.2	57.4
	M	45.1	35.7	37.2	53.3	64.9	40.0	46.1	88.0	58.8	53.8	48.4	30.7	52.7	66.0	51.0	45.5	89.9	53.4
	L	43.4	58.5	35.0	64.2	71.7	47.0	52.6	67.6	51.6	37.5	54.5	45.5	52.6	63.5	49.2	43.8	61.1	52.9
AUG	F	42.4	39.4	52.1	61.9	53.9	37.2	60.0	35.1	48.9	37.8	47.6	56.6	40.2	41.4	69.3	49.1	48.4	48.3
	M	41.3	35.6	43.8	58.0	54.0	34.7	39.3	40.0	40.5	51.2	33.0	55.1	40.2	40.3	67.6	47.9	47.5	45.3
	L	52.6	42.4	50.9	66.7	54.8	40.1	39.5	44.8	37.6	68.6	54.5	77.6	47.8	51.3	86.1	61.0	61.4	55.2
SEP	F	38.1	33.1	58.0	60.6	49.0	44.7	59.3	26.4	38.6	47.0	46.7	43.9	52.6	55.4	65.0	59.8	55.4	49.0
	M	38.8	34.7	61.0	60.9	49.2	45.5	50.8	31.3	43.7	39.8	46.8	39.8	42.0	52.8	62.0	57.1	53.0	45.3
	L	37.7	38.3	57.8	60.4	39.2	44.2	51.4	33.9	48.7	35.8	35.4	42.7	47.4	52.8	62.0	57.1	48.2	46.6
OCT	F	53.8	43.6	56.8	62.3	35.9	37.0	59.5	20.9	47.2	26.0	39.1	30.8	49.0	43.1	57.7	47.5	51.1	44.8
	M	34.6	29.9	54.8	61.1	47.0	34.7	48.2	34.8	41.3	40.2	50.3	48.1	62.8	56.3	75.4	62.1	42.5	48.5
	L	47.7	49.7	49.0	67.5	47.3	40.9	57.0	50.2	42.7	42.1	40.0	40.5	63.2	56.6	75.9	62.4	36.1	48.7
NOV	F	39.7	43.5	39.6	53.2	43.5	43.8	38.8	24.0	43.8	44.1	26.6	37.4	50.2	37.4	37.4	37.4	38.4	39.9
	M	33.2	43.3	36.9	49.4	39.8	42.1	11.4	36.0	32.9	24.8	24.5	43.2	46.1	34.2	34.2	34.2	40.5	35.7
	L	49.2	28.7	36.6	52.9	41.2	45.4	40.3	32.9	36.6	30.4	30.2	36.8	47.7	35.4	35.4	35.4	35.6	38.3
DEC	F	39.9	38.7	38.0	43.6	30.2	43.3	53.7	23.9	48.0	36.5	29.3	28.8	51.4	36.4	36.4	36.4	32.0	38.0
	M	38.7	33.8	38.9	39.8	31.8	33.0	54.1	36.1	38.3	18.3	16.3	17.3	39.0	27.6	27.6	27.6	27.9	32.1
	L	43.8	38.6	44.3	49.0	34.1	45.2	30.4	39.0	40.3	24.3	38.0	31.5	53.6	38.0	39.0	38.0	29.4	38.0

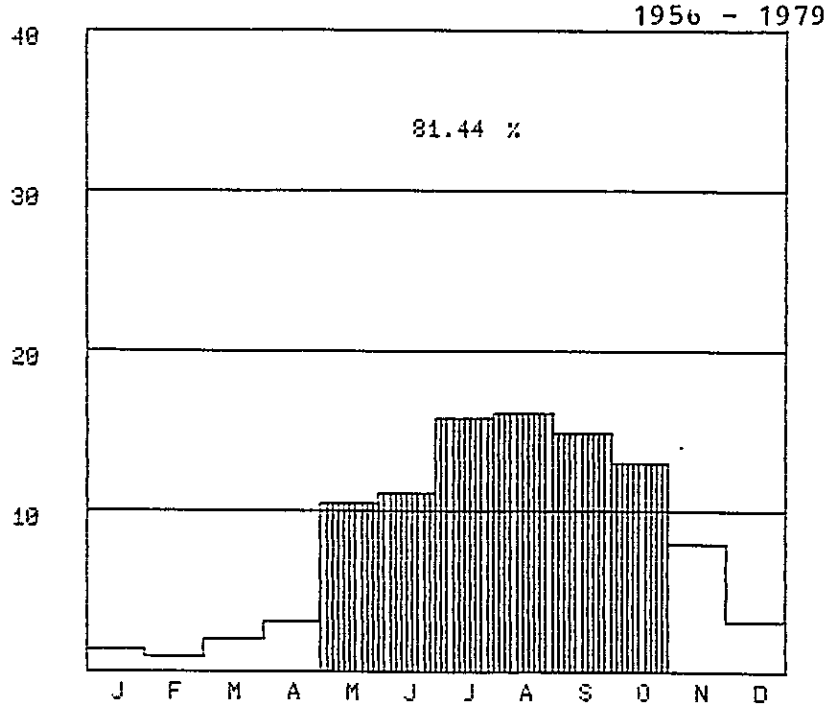
MONTHLY RAINFALL DISTRIBUTION AT SALINAS

1956 - 1976



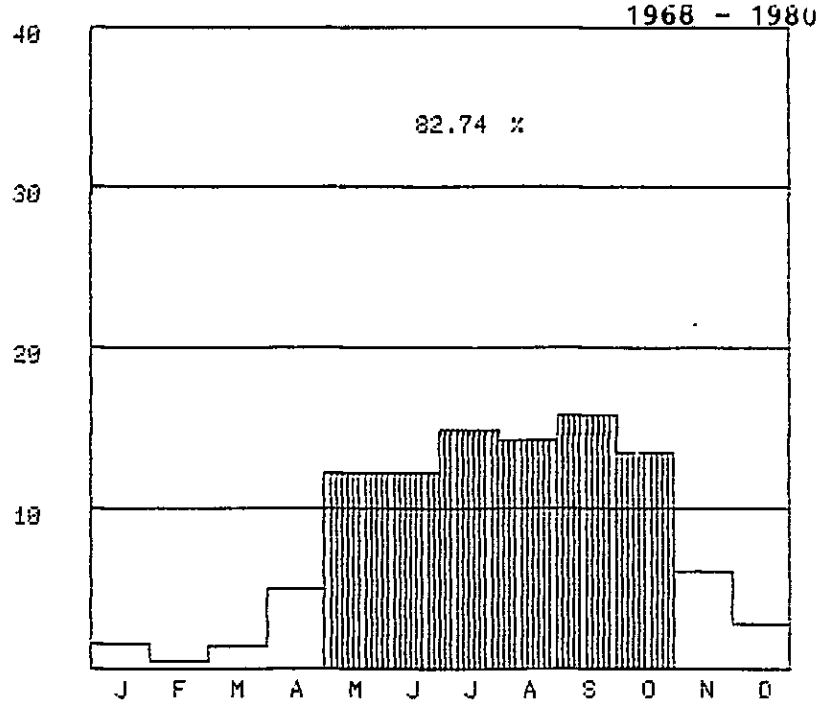
MONTHLY RAINFALL DISTRIBUTION AT CONSUELO

1956 - 1979



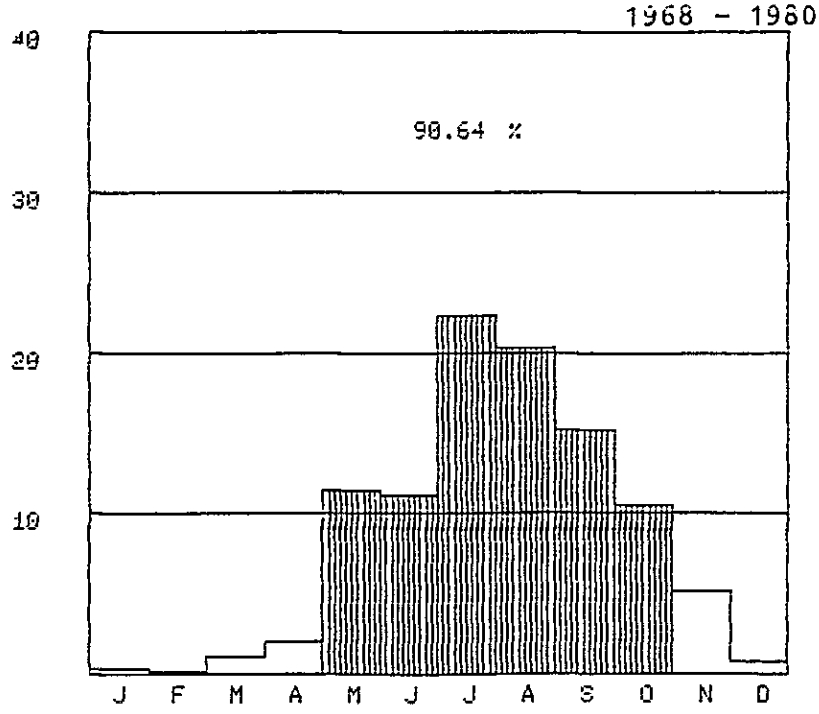
MONTHLY RAINFALL DISTRIBUTION AT DUPAX

1968 - 1980



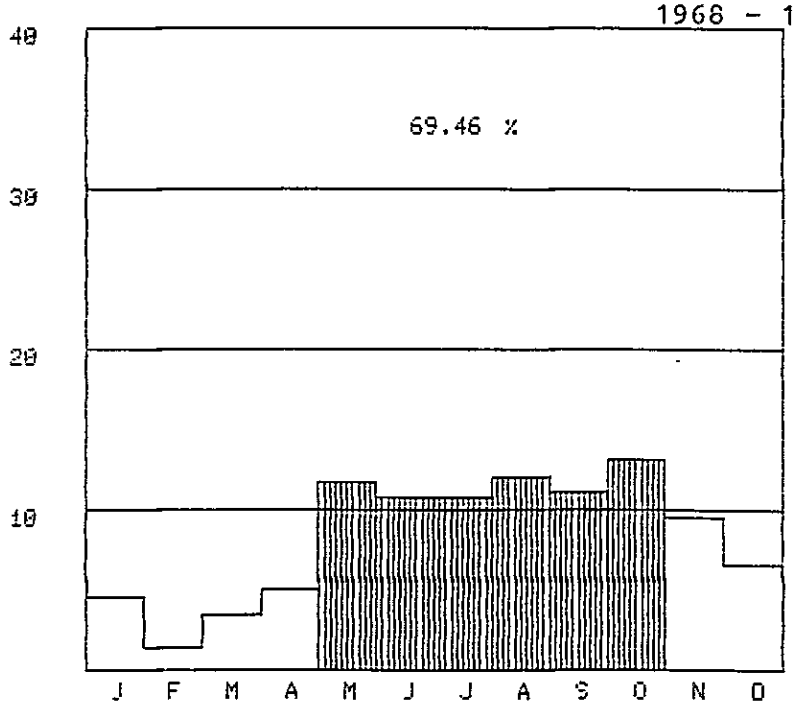
MONTHLY RAINFALL DISTRIBUTION AT BOKOD

1968 - 1980



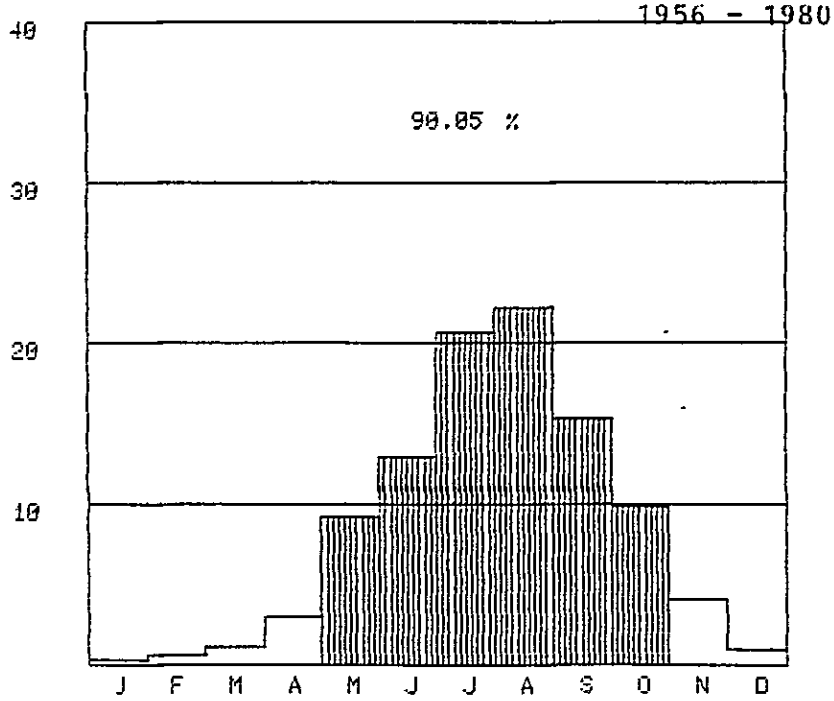
MONTHLY RAINFALL DISTRIBUTION AT LAMUT

1968 - 1980



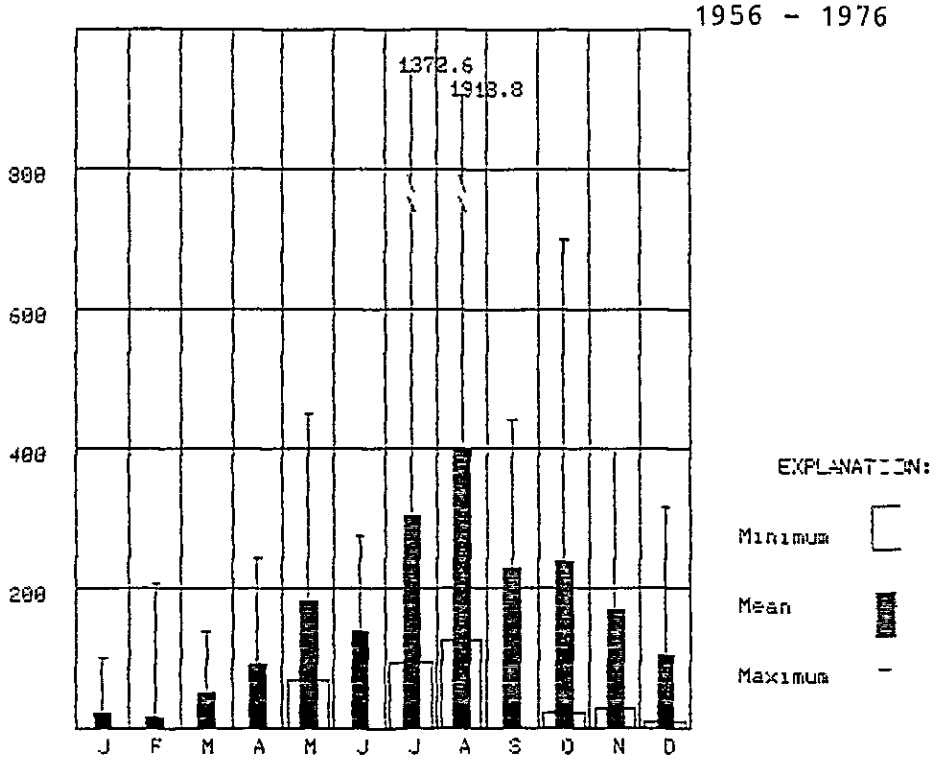
MONTHLY RAINFALL DISTRIBUTION AT ITOGON

1956 - 1980



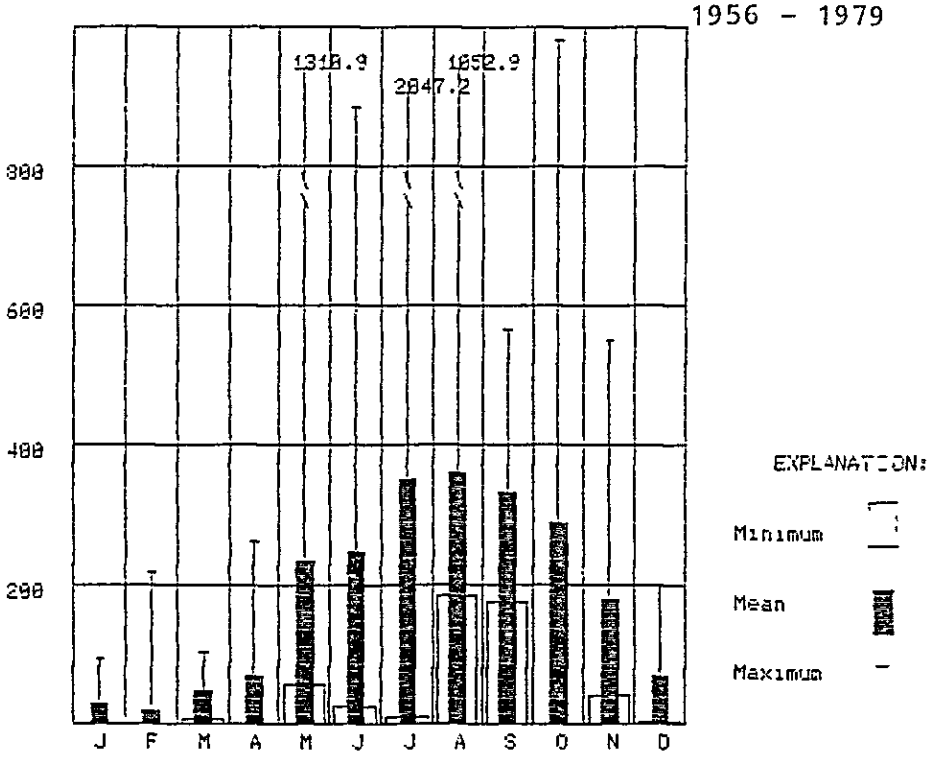
MONTHLY MAX., MIN., MEAN RAINFALL AT SALINAS

1956 - 1976



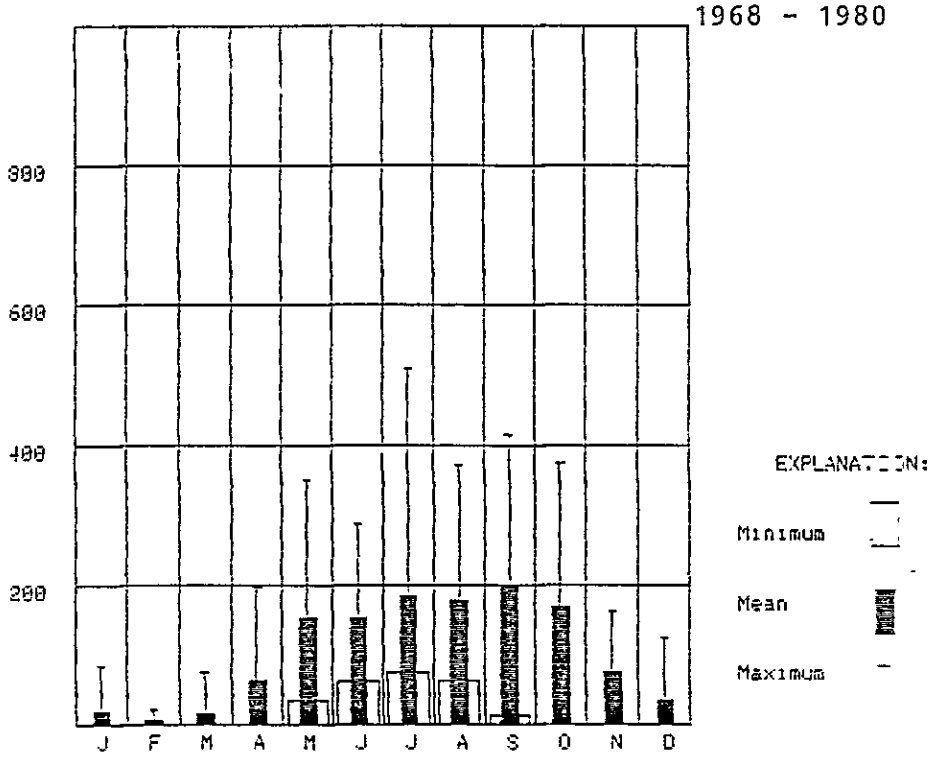
MONTHLY MAX., MIN., MEAN RAINFALL AT CONSUELO

1956 - 1979



MONTHLY MAX., MIN., MEAN RAINFALL AT DUPAX

1968 - 1980



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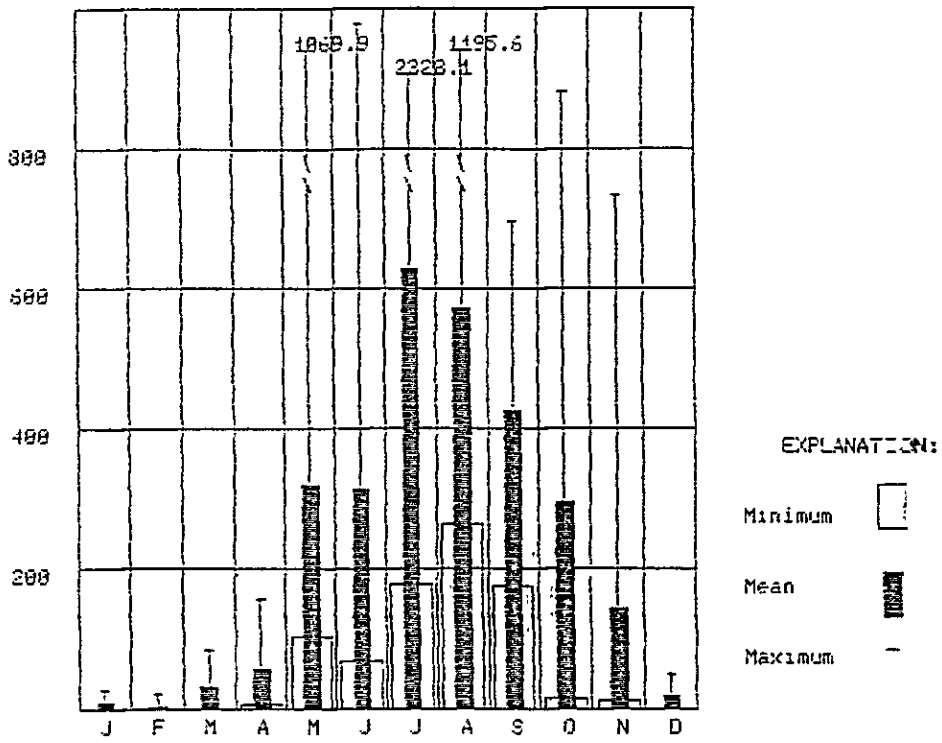
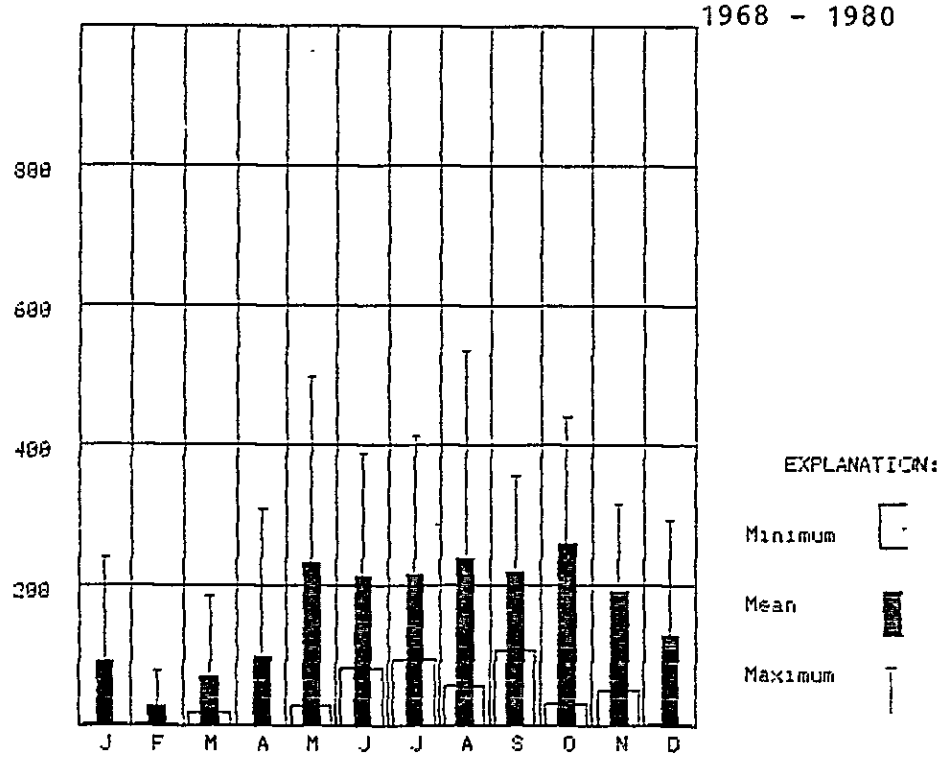
1968 - 1980



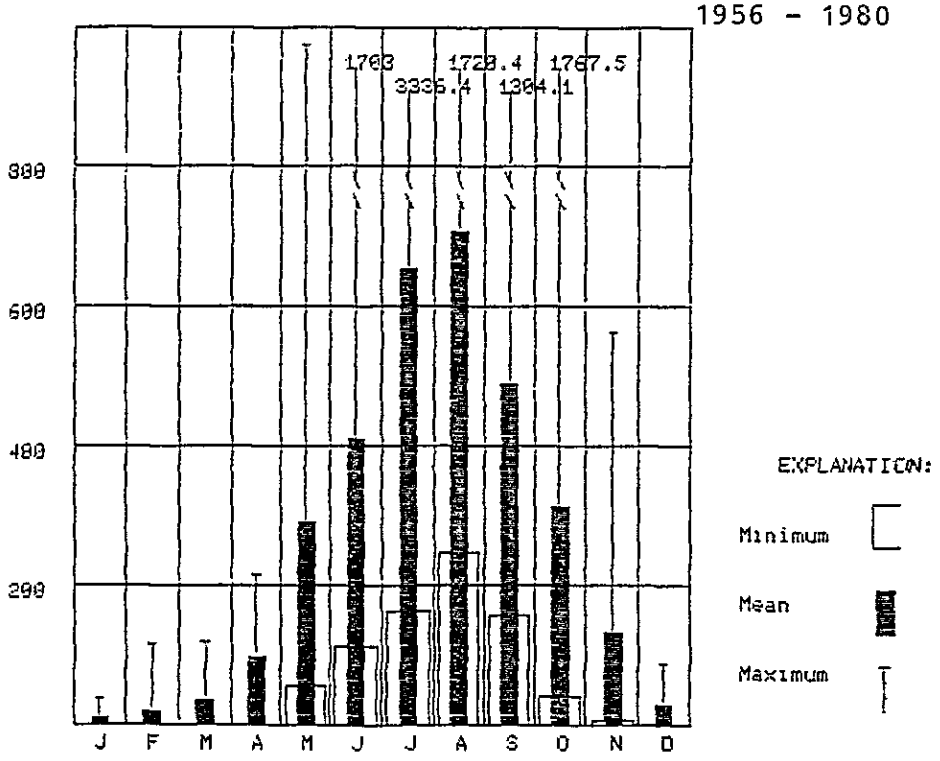
MONTHLY MAX., MIN., MEAN RAINFALL AT LAMUT

1968 - 1980



MONTHLY MAX., MIN., MEAN RAINFALL AT ITOGON

1956 - 1980



10-DAY RAINFALL AT SALINAS

YEAR		1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1972	1973	1974	1975	MEAN
JAN.		10.2	25.4	-	15.2	10.3	2.0	11.3	14.4	4.5	26.4	15.8	34.9	-	0.0	45.9	99.1	0.0	7.1	31.8	18.5
	1)	0.0	25.4	1.8	0.0	6.4	0.0	11.3	2.0	4.5	0.0	8.9	6.4	0.0	0.0	34.5	99.1	0.0	0.0	0.0	10.0
	2)	10.2	0.0	-	0.0	1.3	2.0	0.0	9.4	0.0	0.0	0.0	14.5	0.0	0.0	11.4	0.0	0.0	0.0	0.0	2.6
	3)	0.0	0.0	-	15.2	2.6	0.0	0.0	3.0	0.0	26.4	6.9	14.0	-	0.0	0.0	0.0	0.0	7.1	31.8	5.9
FEB.		-	0.0	-	13.2	207.7	0.0	6.4	15.7	1.8	9.6	0.0	14.8	0.0	1.8	29.7	0.0	-	0.0	0.0	18.1
	1)	-	0.0	2.5	2.5	31.8	0.0	0.0	4.3	0.0	6.3	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8
	2)	-	0.0	0.0	4.3	33.1	0.0	0.0	11.4	0.0	0.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
	3)	-	0.0	-	6.4	142.8	0.0	6.4	0.0	1.8	3.3	0.0	5.9	0.0	1.8	29.7	0.0	-	0.0	0.0	12.4
MAR.		12.7	-	1.0	87.8	3.8	137.0	70.4	63.7	11.9	-	53.3	14.9	-	42.2	102.1	81.3	-	0.0	63.1	47.9
	1)	7.6	-	0.2	42.4	0.0	67.1	4.1	0.0	4.3	3.3	33.0	3.5	38.1	0.0	85.1	0.0	0.0	0.0	0.0	15.5
	2)	0.0	-	0.0	25.4	0.0	69.9	4.6	23.6	4.5	0.0	0.0	6.2	0.0	42.2	9.6	30.5	0.0	0.0	49.1	14.6
	3)	5.1	50.8	0.8	20.0	3.8	0.0	61.7	40.1	3.1	-	20.3	5.2	-	0.0	7.4	50.8	-	0.0	14.0	17.9
APL.		113.8	107.7	85.9	55.2	154.3	109.7	135.9	0.0	33.8	102.7	-	115.9	72.4	64.3	141.8	244.0	-	129.6	-	96.3
	1)	35.5	48.0	0.0	6.9	101.6	0.0	3.8	0.0	1.8	3.8	-	52.4	0.0	61.2	68.4	63.6	0.0	0.0	31.3	25.9
	2)	2.1	14.0	68.6	23.4	15.2	42.4	50.6	0.0	19.0	52.6	-	55.6	0.0	3.1	11.2	45.8	-	101.4	-	29.7
	3)	76.2	45.7	17.3	24.9	37.5	67.3	81.5	0.0	13.0	46.3	0.0	7.9	72.4	0.0	62.2	134.6	-	28.2	-	40.6
MAY.		71.9	137.2	165.4	256.2	188.7	122.5	63.3	84.3	226.4	117.8	450.1	241.1	136.4	178.4	268.5	175.6	69.3	160.1	202.4	182.6
	1)	69.6	0.0	50.0	44.2	19.3	21.1	2.5	0.0	45.5	67.5	101.6	46.9	46.8	83.9	37.0	75.7	43.4	26.9	69.6	47.2
	2)	0.0	12.7	8.7	71.5	62.2	92.8	14.0	71.6	91.7	19.8	122.4	120.9	41.4	85.1	80.0	54.6	25.9	75.2	21.3	61.5
	3)	2.3	124.5	106.7	140.5	107.2	8.6	46.8	12.7	89.2	30.5	226.1	73.3	48.2	9.4	151.5	45.3	0.0	58.0	111.5	73.9
JUN.		239.3	132.1	104.4	130.3	274.5	176.3	90.0	165.4	156.9	111.5	117.4	220.5	20.8	72.6	233.3	76.2	155.8	0.0	108.0	138.3
	1)	30.5	30.5	76.7	3.8	43.1	44.9	2.5	72.0	34.3	29.5	76.7	77.1	8.1	49.4	137.2	25.4	0.0	0.0	11.4	43.3
	2)	21.3	30.5	23.6	83.8	92.9	29.7	35.3	25.9	68.0	25.6	30.8	40.3	12.7	16.3	38.9	0.0	85.7	0.0	36.9	36.2
	3)	187.5	71.1	4.1	42.7	138.5	101.7	52.2	67.5	54.6	56.4	10.7	103.1	0.0	6.9	57.2	50.8	70.1	0.0	59.7	58.8
JUL.		165.3	156.4	118.8	173.7	191.7	337.8	334.2	285.2	131.5	184.6	166.0	213.4	114.1	1372.6	270.0	989.9	207.5	-	169.5	299.7
	1)	4.3	18.3	36.0	17.5	85.8	146.3	11.4	92.2	36.8	87.4	54.3	40.7	0.0	205.6	62.2	325.1	109.1	9.7	41.7	71.0
	2)	140.7	118.6	54.1	15.6	59.4	138.7	167.9	144.6	17.8	93.4	71.5	59.3	28.7	238.6	56.4	372.6	35.6	-	48.5	107.6
	3)	20.3	19.5	28.7	140.6	46.5	52.8	154.9	48.4	76.9	3.8	40.2	113.4	85.4	928.4	151.4	292.2	62.8	42.5	79.3	121.1
AUG.		185.3	237.8	393.7	236.7	429.0	123.5	224.2	-	241.0	356.2	288.5	311.7	-	1966.5	560.6	423.9	341.2	164.2	311.5	396.0
	1)	105.3	45.7	217.0	25.9	182.7	17.8	37.8	35.1	65.5	0.0	144.6	73.9	75.3	899.5	106.9	146.6	152.6	43.3	124.3	127.5
	2)	7.6	55.4	12.9	144.4	168.1	100.2	143.3	163.0	88.6	133.1	34.0	120.9	-	478.9	253.0	145.9	103.4	115.1	31.2	133.3
	3)	72.4	136.7	163.8	66.4	78.2	5.5	43.1	-	86.9	223.1	109.9	116.9	219.8	588.1	200.7	131.4	85.2	5.8	156.0	135.2
SEP.		187.9	331.4	318.9	-	337.8	69.0	222.6	189.6	259.8	203.3	77.6	333.8	220.5	228.4	383.7	310.1	117.2	154.0	16.5	227.3
	1)	101.6	189.0	106.0	55.1	219.6	4.5	12.4	116.0	50.6	25.4	37.4	97.7	53.9	59.7	216.8	39.4	21.1	31.0	0.0	76.7
	2)	16.5	134.8	78.7	18.0	99.4	45.5	71.5	29.7	86.9	131.2	37.9	64.9	125.2	88.2	127.0	194.5	48.6	26.5	0.0	75.4
	3)	69.8	7.6	134.2	-	18.8	19.0	138.7	43.9	122.3	46.7	2.3	171.2	41.4	80.5	39.9	76.2	47.5	96.5	16.5	75.2
OCT.		135.9	169.1	310.7	-	233.1	213.9	21.6	25.4	380.0	97.9	82.8	253.3	41.5	163.6	700.6	88.1	509.7	273.3	133.7	231.9
	1)	54.6	92.7	83.8	-	67.3	87.4	8.9	12.2	262.9	62.7	14.5	163.4	37.8	60.9	440.6	50.3	163.8	53.7	0.0	114.8
	2)	28.0	76.4	86.0	-	163.3	114.3	12.7	8.7	39.4	15.3	21.6	82.8	3.7	94.8	166.9	37.8	279.8	112.1	110.1	80.9
	3)	53.3	0.0	140.9	-	2.5	12.2	0.0	4.5	77.7	19.9	46.7	7.1	0.0	7.9	93.1	0.0	66.1	107.5	23.6	36.1
NOV.		238.8	101.6	-	190.1	-	130.6	60.3	27.4	254.5	101.7	198.8	416.2	35.6	174.5	227.5	170.5	173.5	259.9	139.7	174.1
	1)	40.6	25.4	70.9	12.4	-	19.1	36.9	7.6	93.2	42.2	65.1	146.4	0.0	49.7	106.7	119.4	13.5	126.3	124.7	58.4
	2)	99.1	76.2	20.8	169.6	-	0.0	5.6	0.0	139.2	48.0	41.9	185.2	25.4	73.3	71.9	10.7	143.7	84.9	15.0	78.3
	3)	99.1	0.0	-	8.1	2.5	111.5	17.8	19.8	22.1	11.5	91.8	84.6	10.2	51.5	48.9	40.4	16.3	48.7	0.0	37.4
DEC.		169.4	17.5	9.4	-	14.7	129.1	8.9	98.1	139.5	33.3	-	303.3	27.9	53.8	302.4	57.6	34.6	157.3	145.4	109.0
	1)	73.4	1.3	2.8	54.5	7.6	0.0	8.9	33.6	3.6	0.0	24.3	89.0	0.0	7.1	75.8	33.8	5.6	51.6	24.8	26.2
	2)	47.1	16.2	6.6	19.0	4.6	0.0	0.0	64.5	135.9	7.9	5.8	108.5	27.9	0.0	144.3	23.8	22.9	96.6	75.7	40.4
	3)	48.9	0.0	0.0	-	2.5	129.1	0.0	0.0	0.0	25.4	-	105.8	0.0	46.7	82.3	0.0	6.1	9.1	44.9	42.4
TOTAL		-	-	-	-	-	1551.4	1249.1	-	1841.6	-	-	2473.8	-	4318.7	3266.1	2716.3	-	-	-	1939.5

10-DAY RAINFALL AT CONSUELO

YEAR		1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1977	1978	1979	MEAN
JAN.		28.4	41.0	40.1	26.5	79.9	12.3	20.6	30.3	4.5	26.4	30.3	7.3	29.0	-	33.8	2.5	71.0	26.8	30.4	-	7.6	1.3	3.8	29.5
	1)	0.5	37.1	2.8	0.0	44.4	0.0	6.9	11.7	4.5	0.0	4.1	0.9	7.4	1.8	30.3	2.5	30.4	22.9	8.9	-	1.3	1.3	3.8	10.2
	2)	21.8	2.1	1.5	2.1	11.3	10.5	4.6	9.4	0.0	0.0	15.5	4.8	5.1	2.0	3.5	0.0	2.5	0.0	2.5	30.5	2.5	0.0	0.0	5.7
	3)	6.1	1.8	35.8	24.4	24.2	1.8	9.1	9.2	0.0	26.4	10.7	1.6	16.5	-	0.0	0.0	38.1	3.9	19.0	66.0	3.8	0.0	0.0	13.6
FEB.		5.8	6.3	4.1	24.1	219.3	11.1	33.0	43.3	1.8	9.6	21.0	10.2	0.8	-	-	30.4	7.6	17.8	5.1	0.0	7.6	3.9	0.0	21.6
	1)	0.0	0.0	1.8	0.0	25.4	9.8	3.3	20.0	0.0	6.3	10.4	1.7	0.0	4.8	1.7	0.0	5.1	14.0	1.3	0.0	0.0	1.3	0.0	4.6
	2)	5.3	6.3	1.0	20.8	50.1	0.0	0.0	17.7	0.0	0.0	0.0	6.4	0.0	0.0	-	15.2	2.5	0.0	0.0	0.0	7.6	0.0	0.0	6.0
	3)	0.5	0.0	1.3	3.3	143.8	1.3	29.7	5.6	1.8	3.3	10.6	2.1	0.8	-	-	15.2	0.0	3.8	3.8	0.0	0.0	2.6	0.0	10.9
MAR.		29.5	104.2	20.2	93.8	68.9	90.8	22.1	5.3	11.9	-	75.7	4.9	26.3	-	-	38.1	52.8	22.9	-	48.3	49.6	26.6	45.5	44.8
	1)	26.5	30.4	9.1	45.1	0.0	55.9	2.3	0.0	4.3	3.3	44.9	3.3	25.5	0.0	18.1	0.0	2.5	0.0	57.1	1.3	0.0	13.9	1.3	15.0
	2)	3.0	34.2	0.0	47.6	0.0	19.1	13.0	0.0	4.5	0.0	0.0	1.4	0.0	0.0	-	12.7	22.3	0.0	19.0	10.2	8.9	8.9	29.2	10.6
	3)	0.0	39.6	11.1	1.1	68.9	15.8	6.8	5.3	3.1	-	30.8	0.2	0.8	-	28.1	25.4	28.0	22.9	-	36.8	40.7	3.8	15.0	19.2
APL.		262.1	67.8	68.8	23.4	90.2	86.0	86.6	16.5	33.8	102.7	32.8	80.8	62.4	13.2	144.8	43.1	48.2	73.6	-	8.9	1.3	35.6	84.5	66.7
	1)	75.5	54.1	0.5	21.6	30.8	0.0	17.3	0.0	1.8	3.8	25.4	28.4	1.5	4.6	31.3	0.0	8.9	0.0	-	6.4	1.3	1.3	0.5	14.3
	2)	55.1	13.7	53.6	1.8	1.8	33.5	35.8	14.0	19.0	52.6	3.6	18.1	9.7	0.0	0.0	10.2	12.7	2.5	-	0.0	0.0	25.4	42.1	18.4
	3)	131.5	0.0	14.7	0.0	57.6	52.5	33.5	2.5	13.0	46.3	3.8	34.3	31.2	8.6	113.5	32.9	26.6	71.1	-	2.5	0.0	8.9	41.9	34.0
MAY.		218.0	69.4	205.2	137.1	170.4	139.1	50.6	167.2	226.4	117.8	658.1	58.1	178.3	183.2	162.4	340.1	208.2	134.7	186.5	263.2	185.4	114.5	144.3	197.6
	1)	138.7	0.0	92.9	48.7	27.2	39.4	2.8	43.2	45.5	67.5	85.0	0.2	29.0	13.7	12.9	111.7	46.9	17.8	34.2	80.2	7.6	3.8	23.1	42.9
	2)	17.3	21.1	0.0	55.1	70.4	77.3	19.1	72.1	91.7	19.8	380.3	48.3	108.9	113.7	.86.3	137.1	81.3	77.5	55.9	69.9	74.9	1.3	62.4	75.7
	3)	58.0	48.3	112.3	33.3	72.8	22.4	28.7	51.9	89.2	30.5	192.8	9.6	40.4	55.8	63.2	91.3	80.0	39.4	96.4	113.1	102.9	109.4	58.8	69.6
JUN.		203.1	313.7	291.3	93.0	279.7	316.7	144.5	630.6	156.9	111.5	145.4	23.4	102.9	149.0	406.2	261.3	214.7	235.1	-	136.0	167.2	154.3	361.0	219.2
	1)	88.9	103.4	197.5	0.0	67.2	37.4	55.6	382.5	34.3	29.5	17.3	15.4	39.4	49.8	160.0	22.7	101.7	78.8	-	52.1	63.5	85.6	154.7	83.5
	2)	63.0	43.4	30.8	42.8	7.8	63.5	24.4	84.3	68.0	25.6	66.3	2.3	43.9	46.5	187.8	182.8	19.1	94.0	36.8	48.4	40.1	47.1	139.1	61.2
	3)	51.2	166.9	63.0	50.2	204.7	215.8	64.5	163.8	54.6	56.4	61.8	5.7	19.6	52.7	58.4	55.8	93.9	62.3	22.9	35.5	63.6	21.6	67.2	74.4
JUL.		268.3	258.6	250.0	176.5	206.9	480.6	623.7	144.2	131.5	188.6	191.6	26.1	387.4	503.1	234.5	540.8	2047.2	166.3	-	137.1	317.6	256.1	244.8	355.3
	1)	68.1	74.1	44.3	45.0	103.0	210.8	79.0	35.9	36.8	87.4	67.5	3.2	39.1	55.6	41.8	175.1	581.5	72.5	40.7	26.7	47.0	73.2	143.6	93.6
	2)	113.9	139.8	175.7	47.7	58.7	233.4	447.2	70.6	17.8	93.4	82.2	1.9	76.1	93.3	116.7	238.8	649.0	53.2	231.1	43.1	146.1	69.0	46.1	141.1
	3)	86.3	44.7	30.0	83.8	45.2	36.4	97.5	39.7	76.9	3.8	41.9	21.0	272.2	354.2	76.0	126.9	816.7	40.6	-	67.3	124.5	113.9	55.1	120.7
AUG.		338.7	309.7	317.4	249.5	1052.9	302.2	411.4	189.0	241.0	356.2	268.6	429.5	474.0	338.8	271.7	276.6	521.2	200.1	-	284.6	260.1	640.5	225.5	361.8
	1)	138.4	123.4	209.8	64.8	430.9	33.8	97.3	33.1	65.5	0.0	88.8	166.7	89.9	164.7	73.6	96.4	132.6	78.7	-	92.8	149.8	95.4	49.0	115.2
	2)	79.3	132.0	14.0	79.3	417.3	170.6	88.9	108.5	88.6	133.1	114.6	144.2	97.1	50.2	83.8	60.9	253.1	31.9	-	63.5	54.5	444.2	61.2	133.5
	3)	122.0	54.3	93.6	105.4	204.7	97.8	225.2	47.4	86.9	223.1	65.2	118.6	287.0	123.9	114.3	119.3	135.5	89.5	-	128.3	55.8	100.9	115.3	113.1
SEP.		252.8	275.7	334.4	171.3	447.0	260.9	-	429.1	259.8	203.3	314.7	419.2	564.3	307.0	472.4	279.2	288.5	413.0	208.4	307.7	377.4	468.0	316.6	341.3
	1)	81.8	93.2	147.1	72.5	227.6	31.1	115.6	244.1	50.6	25.4	194.6	96.5	175.3	225.8	307.3	40.5	31.5	76.2	81.4	144.9	29.2	71.8	34.7	113.0
	2)	64.8	105.5	56.1	15.5	143.8	156.7	-	68.7	86.9	131.2	87.1	203.3	184.5	68.7	45.7	40.7	219.2	170.5	27.9	114.4	250.2	137.4	108.5	113.0
	3)	106.2	77.0	131.2	83.3	76.4	73.1	251.7	116.3	122.3	46.7	33.0	119.4	204.5	12.5	119.4	198.0	37.8	166.3	99.1	48.4	98.0	258.8	173.4	115.3
OCT.		284.4	169.0	237.1	-	211.2	158.8	139.3	25.3	380.0	97.9	64.3	314.2	-	194.9	429.3	642.3	0.0	556.4	1103.0	255.3	50.7	653.4	227.9	284.5
	1)	108.1	65.9	50.6	67.5	67.8	38.9	94.8	11.2	262.9	62.7	8.6	145.3	11.5	69.1	94.1	454.5	0.0	309.9	146.0	45.8	24.1	222.6	190.2	111.0
	2)	76.9	96.2	111.5	-	143.1	104.9	29.6	4.4	39.4	15.3	45.5	168.6	20.3	109.8	175.2	120.6	0.0	227.4	393.0	168.9	22.8	42.6	28.6	97.5
	3)	99.4	6.9	75.0	-	0.3	15.0	14.9	9.7	77.7	19.9	10.2	0.3	-	16.0	160.0	67.2	0.0	19.1	564.0	40.6	3.8	388.2	9.1	76.1
NOV.		444.4	218.5	98.2	225.7	56.8	81.2	123.3	41.1	254.5	101.7	-	345.5	115.8	117.3	205.5	243.8	133.3	199.3	427.0	52.1	274.1	39.3	56.8	185.8
	1)	31.2	55.8	64.3	12.0	13.0	13.7	107.0	9.6	93.2	42.2	93.8	331.8	1.5	0.0	43.0	63.5	124.5	48.2	179.1	19.0	15.2	14.0	21.2	60.7
	2)	284.7	158.1	29.6	193.1	37.9	16.6	2.5	13.2	139.2	48.0	282.6	2.3	11.0	56.1	81.2	33.0	5.0	93.9	113.2	17.9	257.6	20.3	32.6	83.9
	3)	128.5	4.6	4.3	20.6	5.9	50.9	13.8	18.3	22.1	11.5	-	11.4	103.3	61.2	81.3	147.3	3.8	57.2	134.7	15.2	1.3	5.0	3.0	41.1
DEC.		151.5	-	-	-	17.5	7.4	5.1	151.3	139.5	33.3	90.4	25.3	2.7	50.9	69.8	151.0	39.2	39.5	199.4	135.9	6.3	104.5	39.3	71.2
	1)	18.8	29.0	5.9	43.9	1.3	0.0	3.8	40.6	3.6	0.0	26.6	12.0	0.0	16.0	14.0	27.9	24.0	17.9	22.8	30.5	0.0	31.5	16.7	16.8
	2)	106.9	14.9	0.0	29.4	4.6	0.0	1.3	108.2	135.9	7.9	21.4	1.8	1.2	10.2	55.8	32.9	15.2	17.8	135.9	63.5	2.5	55.2	2.0	35.8
	3)	25.8	-	-	-	11.6	7.4	0.0	2.5	0.0	25.4	42.4	11.5	1.5	24.7	0.0	90.2	0.0	3.8	40.7	41.9	3.8	17.8	20.6	18.6
TOTAL		2483.0	-	-	-	2900.7	1947.1	-	1875.2	1841.6	-	-	1744.5	-	-	-	2949.2	3631.9	2085.5	-	-	1704.9	2498.0	1750.0	2169.3

10-DAY RAINFALL AT DUPAX

YEAR		1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	MEAN
JAN.		25.4	0.0	28.1	-	-	0.0	0.0	0.0	83.7	57.1	0.0	-	0.0	18.9
	1)	10.2	0.0	16.7	-	25.7	0.0	0.0	0.0	59.4	57.1	0.0	0.0	0.0	14.1
	2)	0.0	0.0	11.4	-	-	0.0	0.0	0.0	24.3	0.0	0.0	0.0	0.0	3.2
	3)	15.2	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	1.5
FEB.		2.5	-	15.3	34.0	-	0.0	-	-	0.0	-	0.0	0.0	0.0	6.4
	1)	2.5	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	-	0.0	0.0	0.0	0.2
	2)	0.0	-	0.0	10.2	-	0.0	-	-	0.0	-	0.0	0.0	0.0	1.3
	3)	0.0	-	15.3	23.8	-	0.0	-	-	0.0	-	0.0	0.0	0.0	4.9
MAR.		0.0	12.2	-	22.2	-	0.0	-	21.6	75.5	-	0.0	0.0	-	27.8
	1)	0.0	0.0	74.9	0.0	0.0	0.0	-	21.6	0.0	0.0	0.0	0.0	0.0	8.0
	2)	0.0	4.1	-	22.2	-	0.0	-	0.0	49.8	-	0.0	0.0	0.0	8.5
	3)	0.0	8.1	67.6	0.0	-	0.0	-	0.0	25.7	-	0.0	0.0	-	11.3
APL.		-	103.2	-	19.1	196.2	53.3	110.2	-	12.7	0.0	-	55.9	-	80.1
	1)	0.0	53.1	0.8	0.0	38.1	0.0	11.9	0.0	12.7	0.0	-	0.0	0.0	9.7
	2)	-	3.1	-	6.6	34.0	0.0	50.0	-	0.0	0.0	72.3	10.2	0.0	17.6
	3)	196.7	47.0	-	12.5	124.1	53.3	48.3	-	0.0	0.0	0.0	45.7	-	52.8
MAY.		241.1	139.8	-	376.8	168.5	125.5	143.5	253.3	148.6	51.8	33.5	66.3	76.2	149.3
	1)	34.9	68.9	0.0	85.1	65.0	22.6	25.4	119.1	0.0	0.0	0.0	0.0	0.0	32.4
	2)	174.0	53.1	-	152.0	66.6	25.4	45.7	19.8	0.0	0.0	0.0	66.3	0.0	50.2
	3)	32.2	17.8	66.3	139.7	36.9	77.5	72.4	114.4	148.6	51.8	33.5	0.0	76.2	66.7
JUN.		207.7	66.6	275.4	176.9	86.2	-	-	-	205.5	73.7	143.5	174.0	66.0	142.5
	1)	34.1	22.5	100.1	18.8	55.2	44.2	69.3	-	0.0	41.7	36.9	36.9	12.7	39.4
	2)	58.2	7.4	99.6	114.9	0.0	8.6	19.8	-	78.0	19.3	106.6	106.6	30.5	54.1
	3)	115.4	36.7	75.7	43.2	31.0	-	-	43.2	127.5	12.7	0.0	30.5	22.8	49.0
JUL.		188.2	260.2	-	203.9	510.4	133.4	152.2	78.8	-	63.7	171.4	96.3	181.8	184.8
	1)	80.9	22.7	0.0	112.3	168.9	59.0	0.0	22.9	-	50.3	0.0	0.0	46.3	46.9
	2)	64.1	105.4	-	46.9	186.6	24.2	99.4	0.0	-	13.4	88.9	54.1	49.1	66.6
	3)	43.2	132.1	111.3	44.7	154.9	50.2	52.8	55.9	-	0.0	82.5	42.2	86.4	71.4
AUG.		371.3	232.1	168.6	141.1	178.5	260.9	161.3	-	-	85.6	-	55.9	129.5	180.0
	1)	113.8	74.4	44.0	48.3	64.3	65.3	79.0	-	-	31.8	-	55.9	0.0	57.7
	2)	59.5	76.5	74.0	35.4	103.3	81.3	48.0	-	-	0.0	-	0.0	11.4	48.9
	3)	198.0	81.2	50.6	57.4	10.9	114.3	34.3	-	-	53.8	88.9	0.0	118.1	73.4
SEP.		253.7	132.1	428.6	157.2	346.8	140.6	12.5	304.0	155.8	140.8	136.5	155.8	161.6	194.3
	1)	28.2	73.2	283.2	32.5	0.0	29.4	0.0	149.1	50.8	26.6	88.2	50.8	109.5	70.9
	2)	119.0	28.7	30.5	23.2	242.9	61.4	12.5	66.0	105.0	74.0	0.0	105.0	52.1	70.8
	3)	106.5	30.2	114.9	101.5	103.9	49.8	0.0	88.9	0.0	40.2	48.3	0.0	0.0	52.6
OCT.		-	152.2	327.9	375.1	0.0	152.8	-	-	-	47.7	193.0	-	93.0	166.6
	1)	-	72.3	77.1	341.1	0.0	104.6	19.6	-	127.0	31.2	61.0	127.0	0.0	87.4
	2)	-	72.8	137.5	5.8	0.0	31.2	38.3	-	0.0	16.5	40.6	63.3	40.6	40.6
	3)	-	7.1	113.3	28.2	0.0	17.0	-	-	-	0.0	91.4	-	52.4	38.7
NOV.		-	46.7	200.2	126.6	-	57.4	45.7	-	41.9	61.0	0.0	-	135.2	86.6
	1)	0.0	0.0	52.9	0.0	127.0	9.9	10.7	-	24.1	0.0	0.0	36.8	135.2	33.1
	2)	-	27.4	89.4	26.9	-	14.5	19.8	-	17.8	61.0	0.0	-	0.0	28.5
	3)	-	19.3	57.9	99.7	-	33.0	15.2	-	0.0	0.0	0.0	-	0.0	25.0
DEC.		0.0	19.0	78.5	95.2	-	-	-	-	24.3	-	-	0.0	0.0	32.1
	1)	0.0	7.6	27.5	18.3	29.8	0.0	0.0	0.0	24.3	0.0	0.0	0.0	0.0	8.3
	2)	0.0	0.0	51.0	9.4	-	0.0	18.3	47.0	0.0	-	-	0.0	0.0	12.6
	3)	0.0	11.4	0.0	67.5	-	-	-	-	0.0	-	-	0.0	0.0	11.3
TOTAL		-	-	-	-	-	-	-	-	-	-	-	-	-	1269.4

10-DAY RAINFALL AT BOKOD

YEAR	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	MEAN
JAN.	-	1.5	28.7	-	10.7	1.0	-	14.2	17.2	-	0.0	0.0	2.5	7.9
1)	-	0.0	28.7	-	1.0	1.0	-	0.2	17.2	0.0	0.0	0.0	0.0	4.8
2)	-	1.5	0.0	-	0.0	0.0	-	0.0	0.0	-	0.0	0.0	2.5	0.4
3)	-	0.0	0.0	-	9.7	0.0	-	14.0	0.0	-	0.0	0.0	0.0	2.6
FEB.	-	4.8	22.1	-	0.0	0.0	0.0	0.0	1.5	0.0	0.5	0.0	0.0	2.6
1)	0.0	4.8	1.5	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
2)	-	0.0	0.0	-	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.1
3)	-	0.0	20.6	-	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	1.9
MAR.	-	-	85.7	-	29.5	1.3	39.3	48.9	43.3	-	22.5	1.5	39.3	32.4
1)	-	0.0	2.8	-	0.0	0.0	0.0	16.0	16.5	-	12.4	0.0	0.0	4.8
2)	-	3.8	0.0	-	5.6	0.0	1.6	13.8	16.1	-	10.1	0.0	0.0	5.1
3)	9.1	-	82.9	-	23.9	1.3	37.7	19.1	10.7	-	0.0	1.5	39.3	22.6
APL.	36.2	54.1	77.6	-	-	15.0	158.1	32.5	38.3	3.5	91.1	77.2	-	60.8
1)	0.0	34.0	7.0	-	-	0.0	38.8	3.5	22.1	0.0	4.3	9.1	0.0	10.8
2)	34.9	0.0	0.0	-	66.9	0.0	73.9	0.0	16.2	0.2	60.9	6.4	-	23.6
3)	1.3	20.1	70.6	-	42.7	15.0	45.4	29.0	0.0	3.3	25.9	61.7	2.5	26.5
MAY.	-	231.7	167.5	-	248.3	378.9	191.7	308.5	1069.9	224.7	118.9	246.0	334.3	317.7
1)	36.1	65.8	15.7	-	59.6	180.2	50.0	92.2	128.1	2.8	0.0	10.9	46.9	57.4
2)	86.8	124.2	101.1	-	79.3	121.1	7.5	93.0	47.8	114.1	0.8	157.3	156.8	90.8
3)	-	41.7	50.7	-	109.4	77.6	134.2	123.3	894.0	107.8	118.1	77.8	130.6	169.6
JUN.	245.3	216.1	424.8	-	218.3	263.5	484.7	188.5	977.0	255.6	385.9	106.9	70.1	319.7
1)	62.0	120.1	197.4	-	150.4	83.4	369.4	26.6	7.8	103.2	73.1	51.7	43.5	107.4
2)	27.6	59.6	220.8	-	22.1	75.4	35.8	44.8	189.4	47.3	230.8	11.2	0.0	80.4
3)	155.7	36.4	6.6	-	45.8	104.7	79.5	117.1	779.8	105.1	82.0	44.0	26.6	131.9
JUL.	676.3	762.0	408.2	656.8	2328.1	179.5	327.6	257.9	380.0	-	445.0	494.7	683.8	626.5
1)	118.4	76.8	78.8	95.3	492.2	25.9	69.8	83.0	87.5	87.2	187.1	195.6	147.0	134.2
2)	162.2	176.1	75.4	355.1	938.4	113.3	237.2	39.2	60.5	-	57.1	88.8	132.7	203.0
3)	395.7	509.1	254.0	206.4	897.5	40.3	20.6	135.7	232.0	254.4	200.8	210.3	404.1	289.3
AUG.	1195.6	483.7	382.6	435.8	697.6	394.0	919.0	522.8	261.7	529.5	834.8	412.0	290.2	566.1
1)	167.6	301.1	130.9	170.4	281.7	130.3	127.3	188.1	103.7	141.6	137.2	136.2	46.9	158.7
2)	379.7	78.7	78.6	161.5	287.6	92.4	456.8	185.3	32.0	223.1	151.1	175.1	147.5	188.4
3)	648.3	103.9	173.1	103.9	128.3	171.3	334.9	149.4	126.0	164.8	546.5	100.7	95.8	219.0
SEP.	698.4	443.9	439.7	233.5	327.2	163.4	286.4	455.0	414.9	585.7	520.1	323.5	618.3	423.8
1)	216.7	205.0	296.0	55.4	39.3	95.2	95.2	90.3	129.8	52.1	202.9	49.6	197.9	132.7
2)	122.9	190.4	67.9	77.6	165.2	36.0	18.2	115.3	149.0	398.1	143.5	19.6	249.1	134.8
3)	358.8	48.5	75.8	100.5	122.7	32.2	173.0	249.4	136.1	135.5	173.7	254.3	171.3	156.3
OCT.	44.0	165.6	358.0	457.8	15.3	517.9	937.2	232.4	117.9	-	336.5	113.7	244.8	281.0
1)	44.0	94.9	176.0	384.3	15.3	293.6	210.8	72.4	98.8	43.0	184.3	79.7	87.6	137.3
2)	0.0	41.0	134.6	64.1	0.0	217.7	316.4	118.0	16.8	5.6	113.6	21.3	0.0	80.7
3)	0.0	29.7	47.4	9.4	0.0	6.6	410.0	42.0	2.3	-	38.6	12.7	157.2	63.0
NOV.	28.9	-	99.6	89.3	-	-	261.8	12.1	22.0	191.2	9.1	19.0	734.9	136.6
1)	0.0	-	2.5	25.7	88.9	1.8	130.3	6.6	5.1	9.1	0.0	19.0	714.8	83.7
2)	0.0	-	67.8	16.8	0.0	29.4	22.0	5.5	14.6	178.3	9.1	0.0	20.1	30.3
3)	28.9	28.7	29.3	46.8	-	-	109.5	0.0	2.3	3.8	0.0	0.0	0.0	22.7
DEC.	0.0	2.0	13.9	50.2	6.2	-	42.1	28.1	3.3	0.0	26.2	-	-	16.4
1)	0.0	0.0	0.0	2.8	5.4	-	0.2	2.0	1.5	0.0	2.3	1.5	-	1.4
2)	0.0	0.0	13.9	0.0	0.8	-	41.9	8.6	0.0	0.0	22.6	0.0	-	8.0
3)	0.0	2.0	0.0	47.4	0.0	-	0.0	17.5	1.8	0.0	1.3	-	-	7.0
TOTAL	-	-	2508.4	-	-	-	-	2100.9	3347.0	-	2790.6	-	-	2791.6

10-DAY RAINFALL AT LAMUT

YEAR		1968	1969	1970	1971	1972	1973	1974	1975	1977	1978	1979	1980	MEAN
JAN.		-	18.3	239.8	86.7	156.1	-	75.6	171.0	84.6	3.9	33.3	35.9	90.5
	1)	-	0.0	214.9	78.3	63.2	-	14.3	23.2	19.3	2.6	22.6	0.0	43.8
	2)	-	18.3	24.9	8.4	7.9	-	33.3	107.2	27.1	0.0	2.0	9.9	23.9
	3)	-	0.0	0.0	0.0	85.0	-	28.0	40.6	38.2	1.3	8.7	26.0	22.8
FEB.		2.0	11.9	63.2	78.7	11.4	42.3	14.8	49.1	28.5	39.7	-	34.9	34.2
	1)	0.0	11.9	0.0	5.3	6.1	42.3	0.0	0.0	12.0	3.1	-	11.7	8.4
	2)	0.5	0.0	0.0	0.0	0.0	0.0	5.4	45.0	16.5	5.3	-	23.2	8.7
	3)	1.5	0.0	63.2	73.4	5.3	0.0	9.4	4.1	0.0	31.3	-	0.0	17.1
MAR.		51.1	-	64.5	111.7	19.3	69.2	11.2	-	41.2	28.7	32.3	183.8	60.4
	1)	51.1	-	39.6	15.0	0.0	0.0	0.5	14.2	3.3	5.6	11.9	25.9	15.2
	2)	0.0	35.6	0.0	85.6	8.9	0.0	0.0	-	19.1	17.5	3.6	5.3	16.0
	3)	0.0	1.8	24.9	11.1	10.4	69.2	10.7	-	18.8	5.6	16.8	152.6	29.3
APL.		309.9	27.4	27.7	3.3	-	0.0	66.4	183.9	-	151.9	141.6	91.1	105.6
	1)	0.0	20.8	21.6	0.0	47.8	0.0	0.0	86.2	45.8	18.8	3.6	0.0	20.4
	2)	0.0	0.0	0.0	3.3	-	0.0	57.7	0.0	-	36.1	80.0	89.1	26.6
	3)	309.9	6.6	6.1	0.0	-	0.0	8.7	97.7	-	97.0	58.0	2.0	58.6
MAY.		149.6	-	111.5	437.9	266.7	159.5	26.9	-	285.7	129.4	319.3	235.2	196.4
	1)	87.1	-	25.9	107.7	42.6	5.1	0.0	26.7	25.9	2.8	5.4	5.1	30.4
	2)	15.3	-	23.6	308.1	127.6	101.6	26.9	5.3	40.8	0.0	153.8	115.4	83.5
	3)	47.2	6.9	62.0	22.1	96.5	52.8	0.0	-	219.0	126.6	160.1	114.7	82.5
JUN.		386.5	94.0	238.3	120.0	-	231.9	-	54.0	124.7	184.4	279.1	-	197.1
	1)	122.3	28.5	158.2	28.7	45.2	20.6	88.1	28.2	21.8	90.1	135.1	-	69.7
	2)	67.1	65.5	80.1	57.7	-	142.5	142.3	14.0	62.0	86.7	37.1	-	75.5
	3)	197.1	0.0	0.0	33.6	-	68.8	-	11.8	40.9	7.6	106.9	-	51.9
JUL.		262.7	185.9	157.4	413.4	277.9	94.5	-	136.0	249.5	172.8	224.7	247.6	220.2
	1)	70.1	7.9	0.0	139.4	118.1	45.7	-	53.3	69.4	2.8	57.7	56.0	56.4
	2)	21.9	36.0	54.0	118.8	104.4	0.0	-	66.2	76.2	95.8	56.5	116.9	67.9
	3)	170.7	142.0	103.4	155.2	55.4	48.8	-	16.5	103.9	74.2	110.5	74.7	95.9
AUG.		458.0	54.6	164.9	220.7	318.9	534.4	117.6	90.0	280.3	279.3	172.7	-	244.7
	1)	164.1	22.6	21.4	16.5	100.3	80.6	2.8	38.1	162.0	29.2	128.5	-	69.6
	2)	185.1	0.0	30.8	0.0	208.2	151.4	92.9	2.0	25.6	11.1	28.2	-	66.8
	3)	108.8	32.0	112.7	204.2	10.4	302.4	21.9	49.9	92.7	239.0	16.0	-	108.2
SEP.		169.5	157.3	234.1	267.1	107.7	156.0	189.2	136.0	167.6	318.1	395.2	-	208.9
	1)	135.6	72.7	121.9	111.0	82.5	87.6	77.2	103.4	36.6	56.7	75.2	-	87.3
	2)	0.0	2.3	61.9	92.8	25.2	9.4	0.0	22.9	104.4	139.3	85.1	-	49.4
	3)	33.9	82.3	50.3	63.3	0.0	59.0	112.0	9.7	26.6	122.1	234.9	-	72.2
OCT.		98.9	111.8	424.9	417.5	31.4	343.6	450.5	-	-	416.2	142.8	-	257.4
	1)	37.9	91.5	34.8	370.8	18.0	134.9	0.0	14.0	46.3	131.4	81.5	-	87.4
	2)	41.2	12.2	272.8	18.0	0.0	148.2	230.8	85.9	-	71.1	47.8	-	92.8
	3)	19.8	8.1	117.3	28.7	13.4	60.5	219.7	-	-	213.7	13.5	-	77.2
NOV.		49.3	94.5	395.3	331.4	136.3	-	170.7	-	245.8	137.5	196.1	-	205.9
	1)	18.1	0.8	49.8	66.3	96.1	-	51.1	-	39.6	103.9	61.6	-	54.1
	2)	14.5	1.0	129.8	36.6	10.4	-	28.7	-	192.2	12.2	61.3	-	54.1
	3)	16.7	92.7	215.7	228.5	29.8	194.3	90.9	-	14.0	21.4	73.2	-	97.7
DEC.		-	-	-	-	4.1	-	177.0	-	-	84.0	54.6	-	92.2
	1)	-	16.0	92.2	23.2	2.6	0.0	27.7	-	10.7	24.5	17.3	-	23.8
	2)	-	66.6	114.4	46.2	0.5	14.6	137.4	-	-	8.9	4.6	-	49.2
	3)	0.0	-	-	-	1.0	-	11.9	-	-	50.6	32.7	-	19.2
TOTAL		-	-	-	-	-	-	-	-	-	1945.9	-	-	1913.5

10-DAY RAINFALL AT ITOGON

YEAR		1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	MEAN
JAN.		-	7.9	-	10.4	37.6	0.0	2.5	4.0	0.0	-	27.4	0.0	1.0	0.0	-	2.5	12.2	-	19.1	-	17.5	1.5	-	-	0.0	8.6
	1)	-	7.9	-	0.0	0.0	0.0	2.5	1.5	0.0	-	27.4	0.0	0.0	0.0	13.3	0.0	4.1	0.0	0.0	0.0	17.5	0.0	-	-	0.0	3.7
	2)	-	0.0	-	0.0	0.0	0.0	0.0	2.5	0.0	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	1.0	-	-	0.0	0.2
	3)	-	0.0	-	10.4	37.6	0.0	0.0	0.0	0.0	-	0.0	0.0	1.0	0.0	-	2.5	8.1	-	19.1	-	0.0	0.5	-	-	0.0	4.7
FEB.		21.9	-	-	-	116.7	-	-	0.0	0.3	-	18.3	16.5	-	0.0	-	24.4	-	0.0	0.0	0.0	61.5	-	-	-	3.8	20.0
	1)	0.0	-	-	-	1.8	0.0	0.0	0.0	0.0	-	0.0	0.0	-	0.0	0.0	11.2	0.0	0.0	0.0	0.0	0.0	-	-	-	0.0	0.8
	2)	21.9	-	-	-	39.7	-	-	0.0	0.0	-	0.0	0.0	-	0.0	-	0.5	-	0.0	0.0	0.0	61.5	-	-	-	3.8	9.8
	3)	0.0	-	-	-	73.2	-	-	0.0	0.3	-	18.3	16.5	-	0.0	-	12.7	-	0.0	0.0	0.0	0.0	-	-	-	0.0	9.5
MAR.		41.4	86.4	-	34.0	4.8	118.2	16.5	-	15.7	96.9	35.8	2.6	25.9	-	-	18.8	33.8	0.0	0.0	35.3	63.1	-	17.3	1.8	-	34.7
	1)	1.8	35.3	-	3.8	0.0	99.9	16.5	-	2.8	2.1	32.0	1.3	23.4	-	30.5	0.0	4.1	0.0	0.0	7.6	14.5	-	2.0	0.0	8.1	13.6
	2)	16.0	44.7	-	12.2	0.0	17.0	0.0	-	2.0	0.0	0.0	0.0	2.5	-	-	1.0	7.8	0.0	0.0	6.9	45.0	-	15.3	1.8	-	9.1
	3)	23.6	6.4	-	18.0	4.8	1.3	0.0	-	10.9	94.8	3.8	1.3	0.0	-	-	17.8	21.9	0.0	0.0	20.8	3.6	-	0.0	0.0	-	12.1
APL.		202.2	-	-	6.9	143.2	92.5	162.0	21.9	-	151.9	62.0	153.7	109.0	90.2	-	95.7	150.7	71.6	130.3	-	0.0	20.4	47.8	215.6	52.8	98.2
	1)	20.8	51.5	-	0.0	35.9	0.0	72.1	0.0	-	0.0	16.7	118.8	0.0	53.6	0.0	33.5	33.5	0.0	52.8	13.7	0.0	20.4	19.6	41.7	0.0	23.4
	2)	24.7	24.4	-	6.9	25.4	9.7	0.0	21.9	-	47.8	7.9	23.9	44.7	0.0	0.0	0.0	45.7	6.1	43.1	-	0.0	0.0	14.5	19.3	32.8	19.1
	3)	154.7	-	-	0.0	81.7	82.8	89.9	0.0	62.0	104.1	37.4	11.0	64.3	36.6	-	62.2	71.5	65.5	34.4	-	0.0	0.0	13.7	154.6	0.0	53.6
MAY.		250.9	74.8	331.8	239.7	302.3	249.3	183.9	77.0	320.3	397.5	777.2	118.4	236.5	244.0	327.3	173.2	224.6	185.7	199.3	249.3	974.0	119.6	178.1	275.3	574.7	292.3
	1)	135.3	0.0	173.8	66.3	74.9	50.3	13.5	0.0	42.7	69.1	100.8	2.5	90.2	85.1	43.7	74.1	33.6	106.2	27.2	56.5	75.7	2.5	33.3	4.6	18.2	55.2
	2)	16.8	16.4	20.3	122.0	66.6	93.1	19.8	21.3	128.9	30.5	518.0	56.9	119.0	115.3	203.0	54.1	61.3	29.4	7.1	47.6	86.7	26.5	32.3	156.0	446.0	99.7
	3)	98.8	60.4	137.7	51.4	160.8	105.9	150.6	55.7	148.7	297.9	158.4	59.0	27.3	65.6	80.6	45.0	129.7	50.1	165.0	145.2	811.6	90.6	112.5	114.7	110.5	137.3
JUN.		190.3	576.9	435.7	227.7	392.6	505.3	212.1	950.3	515.0	337.9	175.6	-	144.0	271.2	500.7	560.0	301.8	306.2	678.8	186.8	1703.0	252.4	196.1	143.1	111.9	428.3
	1)	54.6	103.0	335.0	91.4	131.3	52.1	106.9	499.4	196.2	120.0	59.5	600.3	79.9	184.9	103.0	174.2	192.2	77.2	506.3	50.4	15.8	109.6	65.7	59.9	97.4	162.6
	2)	46.5	44.7	70.5	37.9	72.0	14.0	59.0	140.8	86.6	57.7	54.6	-	21.6	75.4	342.1	272.5	25.7	101.9	112.0	92.3	105.9	70.4	67.5	17.0	2.0	84.6
	3)	89.2	409.2	30.2	78.4	189.3	439.2	46.2	310.1	232.2	160.2	61.5	146.3	42.5	10.9	55.6	113.3	83.9	127.1	60.5	44.1	1581.3	72.4	62.9	66.2	12.5	181.0
JUL.		233.1	366.1	684.5	344.5	161.9	868.0	1273.6	388.6	199.4	905.9	283.9	314.2	862.9	932.8	478.2	819.5	3336.4	246.3	488.2	252.2	298.7	524.3	533.3	534.4	1296.1	645.1
	1)	48.1	102.4	150.9	58.9	53.8	277.8	137.1	65.3	54.4	79.8	166.2	128.8	75.6	56.8	62.0	49.1	527.8	30.6	79.8	59.7	99.2	88.1	203.0	274.3	209.4	125.6
	2)	149.7	229.7	408.7	91.8	60.9	437.3	669.9	196.6	76.4	728.5	54.9	20.7	142.2	133.6	182.0	585.8	1335.8	134.6	264.3	51.4	41.7	166.9	49.0	79.6	137.4	258.0
	3)	35.3	34.0	124.9	193.8	47.2	152.9	466.6	126.7	68.6	97.6	62.8	164.7	645.1	722.4	234.2	184.6	1472.8	81.1	144.1	141.1	157.8	269.3	281.3	180.5	949.3	281.5
AUG.		617.0	354.4	451.0	327.8	1720.4	434.2	447.9	408.0	1529.8	247.3	405.1	928.0	1599.1	518.3	430.9	514.0	880.7	426.1	1152.3	615.3	505.3	546.2	1141.0	718.4	292.7	696.4
	1)	160.2	117.0	174.5	99.5	328.7	68.4	83.9	42.9	765.3	100.3	173.3	258.5	238.2	325.1	107.8	228.8	443.2	163.6	173.5	243.3	219.5	36.5	178.9	317.3	0.0	201.9
	2)	235.4	307.3	64.6	110.9	1086.9	129.1	74.7	266.8	623.0	69.9	161.1	286.3	400.4	116.6	81.7	183.4	353.3	85.6	512.0	286.2	50.1	364.2	152.9	312.7	81.9	255.9
	3)	221.4	130.1	211.9	117.4	304.8	236.7	289.3	98.3	141.5	77.1	70.7	383.2	960.5	76.6	241.4	101.8	84.2	176.9	466.8	85.8	235.7	145.5	809.2	88.4	210.8	238.6
SEP.		702.4	576.9	443.8	215.6	401.1	400.4	567.8	831.3	368.7	427.9	442.3	257.2	1304.1	628.9	564.1	270.9	286.2	128.6	308.5	299.4	473.1	891.5	423.0	335.3	558.8	484.3
	1)	388.4	112.3	229.7	134.0	148.9	71.8	303.3	582.3	269.3	117.0	324.2	81.3	604.9	289.4	367.8	37.8	39.0	42.5	72.7	103.1	230.5	144.3	138.8	62.3	157.0	202.1
	2)	121.2	358.9	104.2	32.8	191.5	242.4	99.4	141.2	64.8	192.1	106.4	113.4	68.9	248.5	87.2	93.8	70.3	48.0	38.9	136.9	148.4	584.0	128.0	108.2	305.3	153.4
	3)	192.8	105.7	109.9	48.8	60.7	86.2	165.1	107.8	34.6	118.8	11.7	62.5	630.3	91.0	109.1	139.3	176.9	38.1	196.9	59.4	94.2	163.2	156.2	164.8	96.5	128.8
OCT.		234.0	-	118.4	-	186.6	116.8	141.8	43.1	-	101.9	67.4	696.9	-	114.8	206.4	477.3	43.7	646.4	1769.3	434.7	121.6	53.3	621.5	102.9	201.1	304.9
	1)	43.7	63.1	54.9	25.1	44.2	82.6	63.8	15.0	332.8	78.7	9.7	78.1	36.3	70.9	111.0	409.5	43.2	430.3	449.3	56.7	68.3	39.4	199.6	64.8	112.4	119.3
	2)	69.6	68.1	14.0	53.8	111.7	34.2	63.0	11.9	153.4	3.8	21.2	614.5	-	25.8	80.2	63.9	0.0	216.1	586.0	331.9	52.5	13.9	218.6	9.7	4.4	117.6
	3)	120.7	-	49.5	-	30.7	0.0	15.0	16.2	-	19.4	36.5	4.3	-	18.1	15.2	3.9	0.5	0.0	734.0	46.1	0.8	0.0	203.3	28.4	84.3	67.9
NOV.		135.4	-	-	224.5	42.4	33.5	-	7.3	187.8	41.7	223.0	204.2	-	27.9	-	114.3	-	48.6	298.4	-	23.0	-	-	28.3	562.6	122.8
	1)	17.5	51.5	4.6	2.3	4.3	0.0	15.5	0.0	47.3	14.5	40.6	204.2	-	0.0	46.2	29.6	42.7	0.0	247.9	3.3	11.0	0.0	-	11.7	557.5	58.8
	2)	62.5	0.0	-	222.2	38.1	0.0	0.0	7.3	98.9	27.2	120.7	0.0	-	0.0	-	9.1	-	18.1	28.7	-	11.7	167.7	-	16.6	5.1	43.9
	3)	55.4	-	-	0.0	0.0	33.5	-	0.0	41.6	0.0	61.7	0.0	-	27.9	13.5	75.6	-	30.5	21.8	-	0.3	-	0.0	0.0	0.0	20.1
DEC.		16.5	-	-	3.6	-	-	-	-	83.0	0.0	-	-	0.0	-	40.2	56.9	6.3	0.3	33.5	28.3	28.2	-	-	-	1.8	27.0
	1)	11.2	-	-	3.6	0.0	0.0	-	15.7	2.5	0.0	3.9	0.0	0.0	0.0	0.0	10.9	6.3	0.0	1.0	0.8	27.2	-	0.0	0.0	1.8	4.0
	2)	5.3	-	-	0.0	-	0.0	-	71.8	80.5	0.0	12.8	0.0	0.0	0.0	40.2	0.0	0.0	0.0	31.7	8.4	1.0	-	3.3	-	0.0	13.4
	3)	0.0	-	-	0.0	-	-	-	-	0.0	0.0	-	-	0.0	-	0.0	46.0	0.0	0.3	0.8	19.1	0.0	-	-	67.5	0.0	9.6
TOTAL		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3127.5	-	-	5077.7	-	4269.0	-	-	-	-	3182.5

DAILY RAINFALL FOR THE SERVICE AREA

1956

DAY	JAN.	FEB.	MAR.	APL.	MAY.	JUN.	JLY.	AUG.	SEP.	OCT.	NOV.	DEC.
1	0.0	0.0	0.0	1.0	63.5	0.0	0.0	30.5	0.0	7.6	12.7	33.0
2	0.0	0.0	0.0	1.3	0.0	0.0	0.0	20.3	0.0	8.9	7.6	4.8
3	0.0	0.0	0.0	1.8	0.0	10.2	0.0	3.8	0.0	5.1	20.3	0.0
4	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	15.2	0.0	5.1
5	0.0	0.0	0.0	0.0	0.0	13.2	0.0	15.2	0.0	0.0	0.0	10.2
6	0.0	0.0	0.0	0.0	2.0	0.0	2.0	7.6	0.0	0.0	0.0	8.9
7	0.0	0.0	7.6	0.0	0.0	0.0	0.0	20.3	0.0	0.0	0.0	11.4
8	0.0	0.0	0.0	2.0	0.0	7.1	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	27.9	0.0	0.0	0.0	2.5	50.8	10.2	0.0	0.0
10	0.0	0.0	0.0	0.0	4.1	0.0	2.3	5.1	50.8	7.6	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	0.0	26.2	7.6	5.1	0.0	0.0	10.2
12	0.0	0.0	0.0	1.3	0.0	8.6	25.6	0.0	0.0	0.0	0.0	7.6
13	0.0	0.0	0.0	0.0	0.0	0.0	20.3	0.0	0.0	0.0	15.2	6.4
14	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	10.2	7.6
15	0.0	0.0	0.0	0.0	0.0	12.7	0.0	0.0	0.0	22.9	33.0	5.1
16	0.0	2.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.2
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.2	0.0
18	10.2	0.0	0.0	0.0	0.0	0.0	30.5	0.0	0.0	0.0	0.0	0.0
19	0.0	0.8	0.0	0.0	0.0	0.0	38.1	0.0	11.4	0.0	30.5	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	76.2	0.0	0.0	0.0	0.0	0.0	50.8	0.0	8.9
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.2	2.5	0.0	10.7
23	0.0	0.0	0.0	0.0	0.0	26.7	0.0	0.0	7.6	0.0	0.0	6.4
24	0.0	0.0	0.0	0.0	1.3	14.0	0.0	5.1	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	1.0	0.0	0.0	38.1	2.5	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	10.7	0.0	0.0	3.8	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	14.7	0.0	7.6	0.0	0.0	10.2	0.0
28	0.0	0.0	0.0	0.0	0.0	50.8	0.0	10.2	12.7	0.0	20.3	12.7
29	0.0	0.5	0.0	0.0	0.0	38.1	20.3	11.4	15.2	0.0	58.1	10.2
30	0.0		5.1	0.0	0.0	32.5	0.0	0.0	17.8	0.0	10.2	0.0
31	0.0		0.0		0.0		0.0	0.0		0.0		0.0
T.	10.2	5.8	12.7	113.8	71.9	239.3	165.3	185.3	187.9	135.9	238.8	169.1

1957

DAY	JAN.	FEB.	MAR.	APL.	MAY.	JUN.	JLY.	AUG.	SEP.	OCT.	NOV.	DEC.
1	17.8	0.0	0.0	0.0	0.0	0.0	20.3	0.0	34.3	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	15.2	16.5	20.3	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	50.8	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	10.2	1.3	0.0	6.4	0.0	0.0	0.0
5	0.0	0.0	0.0	8.9	0.0	0.0	0.0	0.0	47.5	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	5.1	50.8	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	7.6	0.0	0.0	15.2	1.3	0.0	0.0
8	0.0	0.0	0.0	12.4	0.0	0.0	0.5	0.0	33.0	5.3	0.0	0.0
9	7.6	0.0	0.0	0.0	0.0	5.1	0.8	29.2	10.7	3.8	0.0	0.0
10	0.0	0.0	0.0	26.7	0.0	7.6	0.0	0.0	0.0	30.5	0.0	1.3
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	25.4	0.0
12	0.0	0.0	0.0	0.0	12.7	10.2	22.9	0.0	10.9	27.9	76.2	0.0
13	0.0	0.0	12.7	8.9	0.0	0.0	24.6	0.0	0.0	27.9	0.0	11.4
14	0.0	0.0	0.0	0.0	0.0	17.8	45.7	0.0	2.5	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	12.7	0.0	0.0	14.0	0.0	2.0
16	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	114.3	0.0	0.0	0.0
17	0.0	0.0	7.6	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0
18	0.0	0.0	0.0	5.1	0.0	0.0	11.4	55.4	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	3.8	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	6.6	0.0	2.8
21	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	35.6	50.8	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	30.5	0.0	15.2	1.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	30.5	0.0	0.0	0.0	0.8	3.8	0.0	0.0	0.0
27	0.0	0.0	40.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	10.2	15.2	58.4	0.0	0.0	6.6	2.5	0.0	0.0	0.0
29	0.0		0.0	0.0	0.0	0.0	0.0	8.4	0.0	0.0	0.0	0.0
30	0.0		0.0	0.0	0.0	0.0	0.0	39.9	0.0	0.0	0.0	0.0
31	0.0		0.0		0.0		0.0	45.7		0.0		0.0
T.	25.4	0.0	73.6	107.7	137.2	111.8	176.7	203.5	365.7	169.1	101.6	17.5

DAILY RAINFALL FOR THE SERVICE AREA

1958

DAY	JAN.	FEB.	MAR.	APL.	MAY.	JUN.	JLY.	AUG.	SEP.	OCT.	NOV.	DEC.
1	0.0	0.0	15.2	0.0	10.9	8.1	1.3	25.4	1.8	18.0	0.0	0.0
2	0.0	0.0	0.2	0.0	9.6	0.0	0.0	1.5	0.0	6.9	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.8	7.6	13.2	0.0	0.0
4	1.3	0.0	0.0	0.0	0.0	0.0	0.0	6.4	5.1	0.0	0.0	0.0
5	0.0	2.5	0.0	0.0	24.6	4.3	0.0	14.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	10.7	0.0	0.0	27.9	40.6	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	4.3	0.0	3.0	69.6	20.3	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.8	37.6	0.0	34.8	15.8	53.3	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	16.5	0.0	14.0	10.2	10.4	15.0	0.0
10	0.5	0.0	0.0	0.0	0.0	18.3	12.7	0.0	6.4	0.0	55.9	0.0
11	0.0	0.0	0.0	0.0	0.0	0.0	20.3	0.0	0.0	0.0	0.0	2.8
12	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	5.8	6.6
13	0.0	0.0	0.0	0.0	0.0	0.0	12.7	2.3	0.0	24.6	11.2	0.0
14	0.0	0.0	0.0	50.3	0.0	0.0	5.3	0.0	0.0	3.3	0.0	0.0
15	0.0	0.0	0.0	14.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	4.3	2.3	0.0	14.5	0.0	0.0	7.1	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	18.0	0.8	0.0	43.2	2.0	3.8	0.0
19	1.0	0.0	0.0	0.0	0.0	5.6	9.6	3.0	7.6	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	6.4	0.0	5.8	0.0	27.9	0.0	0.0	0.0
21	0.8	0.0	0.0	0.0	0.0	0.0	1.8	7.6	0.0	49.0	0.0	0.0
22	1.5	0.0	0.0	0.0	0.0	0.0	0.0	71.1	17.8	80.8	0.0	0.0
23	1.8	0.0	0.0	0.0	0.0	0.0	0.0	4.3	6.4	3.8	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	54.6	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.4	6.4	0.0	0.0	0.0
26	0.0	0.5	0.0	0.0	1.5	0.0	0.0	7.6	0.0	40.6	0.0	0.0
27	10.2	11.9	0.8	0.0	45.0	0.0	0.8	40.6	7.6	0.5	0.0	0.0
28	1.3	0.0	0.0	0.0	52.1	0.0	0.0	2.5	6.9	12.7	0.0	0.0
29	0.0		0.0	0.0	0.0	0.0	2.5	5.1	16.5	2.5	0.0	0.0
30	0.0		0.0	6.4	0.0	2.8	0.0	14.0	0.0	0.0	0.0	0.0
31	0.0		0.0		0.0		0.0	5.3		0.0		0.0
T.	18.4	14.9	16.2	75.0	168.2	111.2	94.7	417.3	302.7	328.7	91.7	9.4

1959

DAY	JAN.	FEB.	MAR.	APL.	MAY.	JUN.	JLY.	AUG.	SEP.	OCT.	NOV.	DEC.
1	0.0	2.5	0.0	0.0	0.0	0.0	12.7	11.4	1.3	0.0	0.0	0.0
2	0.0	0.0	8.4	0.0	0.0	0.0	2.0	12.4	17.8	0.0	0.0	0.0
3	0.0	0.0	7.4	0.0	0.0	0.0	2.5	0.0	2.5	3.3	0.0	2.5
4	0.0	0.0	17.0	0.0	0.0	0.0	0.0	0.0	4.6	26.9	0.0	21.6
5	0.0	0.0	5.3	0.0	38.9	0.0	0.0	0.0	12.7	21.6	0.0	0.0
6	0.0	0.0	0.0	0.0	5.3	0.0	0.0	10.7	0.5	15.7	0.0	19.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.4	0.0	8.6	11.4
8	0.0	0.0	0.0	6.9	0.0	3.8	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0	4.1	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	3.8	2.8	7.6	0.0	3.0	0.0
11	0.0	0.0	4.3	0.0	0.0	0.0	5.1	0.0	0.0	0.0	0.8	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	2.0	36.3	9.6	5.1	12.7	0.0
13	0.0	4.3	13.2	0.5	0.0	0.0	0.0	2.0	2.8	0.0	8.4	0.0
14	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	2.0	0.0	41.9	0.0
15	0.0	0.0	1.8	0.0	1.8	10.2	8.6	0.0	0.0	0.0	9.6	0.0
16	0.0	0.0	8.9	0.0	14.0	0.0	2.5	47.0	0.0	0.0	37.3	0.0
17	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	1.3	0.0	59.7	12.7
18	0.0	0.0	0.0	0.0	10.7	14.7	0.0	0.0	0.0	21.3	0.0	2.5
19	0.0	0.0	0.0	9.9	7.6	50.8	0.0	40.6	0.0	1.5	0.0	0.0
20	0.0	0.0	0.0	13.0	30.5	0.0	0.0	16.0	2.3	0.0	0.0	3.8
21	0.0	0.0	0.0	0.0	6.9	8.1	2.5	2.5	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	5.3	0.0	0.0	0.0	12.2	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	5.1	0.0	2.5	0.0	25.9	0.0	3.0	0.0
24	0.0	0.0	0.0	0.0	6.4	0.0	26.7	0.0	3.8	0.0	0.0	0.0
25	15.2	0.0	0.0	0.0	0.0	0.0	2.5	0.0	25.9	0.0	1.3	0.0
26	0.0	0.0	15.2	0.0	0.0	0.0	19.0	42.7	19.3	16.5	3.3	0.0
27	0.0	6.4	4.8	0.0	6.4	0.0	0.0	13.5	7.6	0.0	0.0	0.0
28	0.0	0.0	0.0	11.4	94.7	11.7	31.0	2.0	0.0	0.0	0.0	0.0
29	0.0		0.0	13.5	20.8	2.5	17.8	6.9	3.0	0.0	0.0	0.0
30	0.0		0.0	0.0	1.8	15.8	24.6	0.0	0.0	0.0	0.0	0.0
31	0.0		0.0		0.0		5.1	0.0		0.0		4.3
T.	15.2	13.2	87.8	55.2	256.2	117.6	175.0	246.8	172.1	111.9	190.1	77.8

DAILY RAINFALL FOR THE SERVICE AREA

1960

DAY	JAN.	FEB.	MAR.	APL.	MAY.	JUN.	JLY.	AUG.	SEP.	OCT.	NOV.	DEC.
1	3.6	0.0	0.0	20.3	2.5	0.0	12.7	8.9	15.2	0.0	0.0	0.0
2	0.0	0.0	0.0	3.8	1.3	5.1	0.0	48.8	9.4	0.0	0.0	0.0
3	0.0	0.0	0.0	14.0	0.0	2.5	0.0	6.4	33.0	44.4	0.0	0.0
4	0.0	0.0	0.0	58.4	0.0	12.7	0.0	4.3	35.3	0.0	0.0	0.0
5	0.0	1.3	0.0	0.0	0.0	0.0	0.0	31.8	34.3	0.0	0.0	0.0
6	1.3	0.0	0.0	1.3	0.0	3.8	0.0	33.0	0.0	0.0	0.0	2.5
7	0.0	29.2	0.0	0.0	0.0	19.0	60.4	29.2	38.1	14.0	0.0	3.8
8	1.3	1.3	0.0	1.3	0.0	0.0	12.7	0.0	0.0	8.9	0.0	1.3
9	0.0	0.0	0.0	2.5	1.3	0.0	0.0	11.2	20.3	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	14.2	0.0	0.0	9.1	34.0	0.0	3.1	0.0
11	1.3	0.0	0.0	0.0	12.7	0.0	8.6	0.0	0.0	24.9	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.5	38.4	57.4	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	7.6	0.0	36.1	0.0	55.6	2.5	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.2	9.9	6.4	5.1	4.6
15	0.0	26.7	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	27.4	0.0	32.5	0.0	3.8	0.0	0.0
17	0.0	1.3	0.0	15.2	0.0	26.7	0.0	14.5	15.8	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	19.8	0.0	5.8	24.6	15.2	0.0	0.0
19	0.0	0.0	0.0	0.0	49.5	0.0	7.1	9.1	0.0	0.0	0.0	0.0
20	0.0	5.1	0.0	0.0	0.0	11.4	43.7	38.6	10.7	0.0	0.0	0.0
21	0.0	3.8	0.0	0.0	10.2	5.6	0.0	24.1	14.5	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	84.3	0.0	22.1	24.6	0.0	0.0	0.0	0.0
23	0.0	1.3	0.0	31.2	0.0	7.4	0.0	14.2	4.3	0.0	0.0	0.0
24	1.3	41.9	0.0	2.5	0.0	13.5	0.0	0.0	0.0	2.5	0.0	0.0
25	0.0	21.6	0.0	1.3	0.0	49.0	8.4	0.0	0.0	0.0	0.0	0.0
26	0.0	50.3	0.0	0.0	0.0	12.2	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	23.9	0.0	2.5	0.0	21.6	0.0	0.0	0.0	0.0	0.0	2.5
28	0.0	0.0	2.5	0.0	12.7	17.3	0.0	0.0	0.0	0.0	2.5	0.0
29	1.3	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0		0.0	0.0	0.0	11.9	10.9	8.9	0.0	0.0	0.0	0.0
31	0.0		0.0		0.0		5.1	6.1		0.0		0.0
T.	10.3	207.7	3.8	154.3	188.7	274.5	191.7	429.0	337.8	233.1	13.2	14.7

1961

DAY	JAN.	FEB.	MAR.	APL.	MAY.	JUN.	JLY.	AUG.	SEP.	OCT.	NOV.	DEC.
1	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	20.3	5.1	0.0	0.0	14.2	12.7	0.0
3	0.0	0.0	1.3	0.0	0.0	21.6	50.8	0.0	2.5	0.0	0.0	0.0
4	0.0	0.0	14.7	0.0	13.7	0.0	12.2	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	2.3	0.0	0.0	0.0	5.8	0.0	2.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	5.1	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	2.5	0.0	0.0	0.0	33.0	0.0	0.0	14.7	6.4	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.8	0.0	0.0	0.0	0.0
9	0.0	0.0	36.6	0.0	0.0	0.0	30.5	0.0	0.0	31.8	0.0	0.0
10	0.0	0.0	4.6	0.0	7.4	0.0	3.8	0.0	0.0	26.7	0.0	0.0
11	0.0	0.0	5.1	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	26.7	31.8	0.0	0.0	17.3	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	21.3	12.7	2.0	29.2	0.0	0.0
14	0.0	0.0	0.0	0.0	6.9	0.0	9.4	18.5	0.0	16.5	0.0	0.0
15	2.0	0.0	0.0	5.8	8.4	0.0	0.0	0.0	0.0	2.5	0.0	0.0
16	0.0	0.0	0.0	0.0	21.6	0.0	16.0	0.0	0.0	2.0	0.0	0.0
17	0.0	0.0	0.0	2.0	12.7	0.0	60.2	30.7	0.0	14.2	0.0	0.0
18	0.0	0.0	0.0	0.0	13.5	0.0	0.0	24.1	0.0	19.6	0.0	0.0
19	0.0	0.0	31.0	0.0	6.1	0.0	0.0	9.6	26.2	6.1	0.0	0.0
20	0.0	0.0	38.9	29.0	23.6	3.0	0.0	0.0	0.0	4.6	0.0	0.0
21	0.0	0.0	0.0	5.6	0.0	0.0	0.0	4.6	17.3	2.3	0.0	0.0
22	0.0	0.0	0.0	30.2	0.0	0.0	5.1	0.0	0.0	8.4	24.6	0.0
23	0.0	0.0	0.0	27.7	2.5	0.0	20.3	0.0	0.0	1.3	24.9	129.1
24	0.0	0.0	0.0	0.0	6.1	0.0	24.9	0.0	0.0	2.5	24.1	0.0
25	0.0	0.0	0.0	0.0	0.0	34.5	0.0	2.5	19.0	0.0	22.9	0.0
26	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	15.0	0.0
27	0.0	0.0	0.0	0.0	0.0	14.2	2.5	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0		0.0	7.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0		0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
31	0.0		0.0		0.0		0.0	0.0		0.0		0.0
T.	2.0	0.0	137.0	107.4	124.8	176.3	337.8	123.5	69.0	213.9	130.6	129.1

DAILY RAINFALL FOR THE SERVICE AREA

1962

DAY	JAN.	FEB.	MAR.	APL.	MAY.	JUN.	JLY.	AUG.	SEP.	OCT.	NOV.	DEC.
1	5.8	0.0	6.4	2.0	19.0	2.0	2.0	0.0	0.0	0.0	0.0	12.7
2	0.0	0.0	4.1	3.8	2.5	0.0	2.5	0.0	0.0	5.1	0.0	6.4
3	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	2.5
4	2.5	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	10.7	0.0
6	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	3.8	17.3	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.4	9.1	0.0	3.3	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	0.0	8.9	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	4.6	0.0	0.0	0.0	2.0	3.3	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	25.9	0.0	17.5	0.0	10.4	2.5	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	8.9	14.7	5.1	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	2.3	0.0	31.8	9.1	0.0	0.0	0.0
16	0.0	0.0	0.0	4.6	0.0	0.0	0.0	7.1	24.6	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	0.0	12.2	15.8	21.1	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	0.0	4.8	2.0	0.0	5.1	5.6	0.0
19	0.0	0.0	0.0	20.1	14.0	1.8	9.9	4.1	0.0	2.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	51.6	49.0	0.0	5.6	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	13.7	78.5	5.1	9.1	0.0	0.0	0.0
22	0.0	0.0	3.8	8.9	0.0	10.7	78.5	21.8	14.2	0.0	0.0	0.0
23	0.0	0.0	55.9	0.0	0.0	0.0	24.1	0.0	24.9	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.1	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.0	0.0	2.0	0.0
26	0.0	0.0	0.0	0.0	0.0	24.1	2.0	0.0	46.5	0.0	1.3	0.0
27	0.0	0.0	0.0	49.0	0.0	3.8	50.3	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0
29	0.0		0.0	0.0	20.3	2.0	0.0	7.1	0.0	0.0	0.0	0.0
30	0.0		0.0	4.6	24.5	9.6	0.0	14.2	0.0	0.0	0.0	0.0
31	0.0		0.0		0.0		0.0	0.0		0.0		0.0
T.	11.3	0.0	74.8	118.9	80.3	90.0	336.2	224.2	222.6	21.6	47.6	21.6

1963

DAY	JAN.	FEB.	MAR.	APL.	MAY.	JUN.	JLY.	AUG.	SEP.	OCT.	NOV.	DEC.
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.4	0.0	0.0	7.6	0.0
3	0.0	2.0	0.0	0.0	0.0	0.0	31.2	21.3	1.3	0.0	0.0	0.0
4	0.0	2.3	0.0	0.0	0.0	0.0	0.0	4.6	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	16.0	0.0	2.8	61.5	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	6.4	0.0	0.0	1.3	0.0	0.0	2.8
7	0.0	0.0	0.0	0.0	0.0	22.9	0.0	0.0	14.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	26.7	0.0	0.0	0.0	12.2	0.0	0.0
9	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	39.4	0.0	21.6	0.0	0.0	4.1
11	0.0	0.0	0.0	0.0	0.0	0.0	21.6	0.0	16.3	0.0	0.0	26.7
12	0.0	0.0	0.0	0.0	66.8	0.0	17.8	3.8	7.6	0.0	0.0	24.9
13	3.8	2.5	0.0	0.0	4.8	0.0	0.0	49.5	0.0	3.6	0.0	14.0
14	5.6	1.8	0.0	0.0	0.0	0.0	22.6	97.3	0.0	0.0	0.0	2.3
15	0.0	0.0	0.0	0.0	0.0	21.6	48.3	0.0	4.3	0.0	0.0	21.3
16	0.0	0.0	0.0	0.0	0.0	0.0	22.6	0.0	8.9	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	2.3	0.0	4.6	3.8	0.0	0.0	0.0
18	0.0	3.8	0.0	0.0	0.0	0.0	0.0	5.8	0.0	0.0	0.0	2.0
19	0.0	1.3	0.0	0.0	0.0	0.0	0.0	2.0	5.1	0.0	0.0	0.0
20	0.0	2.0	0.0	0.0	0.0	0.0	31.8	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	23.6	0.0	0.0	2.0	1.5	0.0	0.0	5.1	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	15.2	0.0	0.0	2.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	2.3	16.5	3.8	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	1.5	10.9	11.2	0.0	0.0	0.0	0.0
25	0.0	0.0	31.2	0.0	0.0	0.0	2.5	0.0	2.5	0.0	0.0	0.0
26	0.0	0.0	8.9	0.0	0.0	0.0	2.0	1.3	27.4	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	33.0	5.3	16.5	1.3	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	33.0	10.2	0.0	8.9	0.0	0.0	0.0
29	0.0		0.0	0.0	12.7	0.0	0.0	0.0	0.0	0.0	19.8	0.0
30	3.0		0.0	0.0	0.0	0.0	0.0	4.1	0.0	0.0	0.0	0.0
31	0.0		0.0		0.0		0.0	0.0		2.5		0.0
T.	14.4	15.7	63.7	0.0	84.3	165.4	285.2	247.7	205.6	25.4	27.4	98.1

DAILY RAINFALL FOR THE SERVICE AREA

1964

DAY	JAN.	FEB.	MAR.	APL.	MAY.	JUN.	JLY.	AUG.	SEP.	OCT.	NOV.	DEC.
1	0.0	0.0	0.0	0.0	0.0	0.0	14.7	0.0	0.0	14.5	21.6	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	9.9	0.0	5.1	0.0	2.0	0.0
3	0.0	0.0	3.0	0.0	0.0	0.0	0.0	22.9	0.0	0.0	0.0	0.0
4	2.0	0.0	1.3	0.0	0.0	0.0	0.0	23.6	0.0	29.7	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.0	0.0	135.9	0.0	0.0
6	0.0	0.0	0.0	0.0	20.3	30.5	0.0	0.0	4.6	6.4	2.8	3.6
7	2.5	0.0	0.0	1.8	25.2	0.0	0.0	0.0	0.0	0.0	51.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0	36.1	44.4	4.6	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	12.2	0.0	4.8	26.7	11.2	0.0
11	0.0	0.0	2.5	0.0	0.0	36.8	0.0	7.6	1.3	9.9	18.8	4.1
12	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	10.2
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	56.6	15.0	13.2	31.8	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	10.4	2.8	4.3	109.7
15	0.0	0.0	0.0	0.0	37.6	0.0	5.6	0.0	16.5	0.0	7.1	11.9
16	0.0	0.0	0.0	0.0	2.5	31.2	0.0	4.6	0.0	0.0	18.3	0.0
17	0.0	0.0	0.0	0.0	0.0	0.0	4.1	1.3	13.7	0.0	0.0	0.0
18	0.0	0.0	0.0	2.5	0.0	0.0	8.1	3.8	0.0	0.0	1.3	0.0
19	0.0	0.0	0.0	0.0	51.6	0.0	0.0	12.2	14.5	0.0	30.7	0.0
20	0.0	0.0	0.0	16.5	0.0	0.0	0.0	0.0	15.5	13.5	25.6	0.0
21	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	20.3	19.8	2.3	0.0
22	0.0	0.0	0.0	0.0	3.0	13.5	0.0	5.8	15.3	1.1	0.5	0.0
23	0.0	0.0	0.0	0.0	54.9	3.3	0.0	12.2	6.9	0.0	0.0	0.0
24	0.0	0.0	1.3	0.0	4.1	0.0	34.0	4.6	15.5	0.0	0.0	0.0
25	0.0	0.0	1.8	0.0	12.7	0.0	0.0	2.3	0.0	2.8	0.0	0.0
26	0.0	1.8	0.0	0.0	9.6	11.4	0.0	6.6	38.6	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.8	0.0	33.3	0.0	0.0	0.0	12.2	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55.4	0.0	0.0	5.1	0.0
29	0.0	0.0	0.0	0.0	0.0	16.3	9.6	0.0	25.2	0.0	0.0	0.0
30	0.0		0.0	13.0	0.0	9.6	0.0	0.0	0.0	4.8	2.0	0.0
31	0.0		0.0		1.8		0.0	0.0		47.2		0.0
T.	4.5	1.8	11.9	33.8	226.4	156.9	131.5	241.0	259.8	380.0	254.5	139.5

1965

DAY	JAN.	FEB.	MAR.	APL.	MAY.	JUN.	JLY.	AUG.	SEP.	OCT.	NOV.	DEC.
1	0.0	2.0	0.0	0.0	0.0	0.0	50.3	0.0	0.0	12.4	0.0	0.0
2	0.0	4.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	2.0	0.0	2.0	0.0	2.0	0.0	0.0	4.6	0.0	0.0
4	0.0	0.0	0.0	3.8	0.0	24.4	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	2.5	45.6	6.6	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0	0.0
7	0.0	0.0	0.0	0.0	33.5	0.0	0.0	0.0	0.0	7.9	14.7	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	18.3	0.0	17.8	0.0	4.1	0.0
9	0.0	0.0	0.0	0.0	0.0	5.1	6.1	0.0	0.0	1.8	2.8	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	50.3	0.0	5.1	2.8	0.0	0.0
11	0.0	0.0	0.0	0.0	32.0	0.0	10.2	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	12.7	0.0	0.0	6.1	27.2	3.6
13	0.0	0.0	0.0	0.0	0.0	7.1	45.7	0.0	0.0	0.0	9.9	0.0
14	0.0	0.0	0.0	1.5	19.8	5.3	30.5	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	12.2	5.6	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0	2.0	122.4	0.0	2.8	0.0	1.3
17	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.8	9.1	2.5
18	0.0	0.0	0.0	17.8	0.0	0.0	0.0	0.0	22.9	0.0	1.8	0.0
19	0.0	0.0	0.0	22.4	0.0	0.0	0.0	0.0	30.5	0.0	0.0	0.0
20	0.0	0.0	0.0	7.9	0.0	13.2	0.0	0.0	43.2	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.7	22.4	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	4.3	0.0	34.0	7.9	0.0	1.8	0.0
23	3.8	0.0	0.0	0.0	0.0	0.0	2.5	0.0	1.8	0.0	7.9	0.0
24	2.3	0.0	0.0	7.9	0.0	0.0	0.0	0.0	5.3	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	4.6	0.0	1.8	0.0
26	0.0	0.0	9.9	0.0	0.0	0.0	0.0	0.0	0.0	13.5	0.0	0.0
27	18.3	3.3	25.9	0.0	2.0	0.0	0.0	0.0	14.7	6.4	0.0	0.0
28	0.0	0.0	0.0	0.0	12.2	0.0	1.3	2.5	0.0	0.0	0.0	9.9
29	0.0		0.0	0.0	7.4	0.0	0.0	58.4	0.0	0.0	0.0	15.5
30	0.0		0.8	38.4	8.9	0.0	0.0	78.7	0.0	0.0	0.0	0.0
31	2.0		0.0		0.0		0.0	49.5		0.0		0.0
T.	26.4	9.6	39.9	102.7	117.8	61.2	234.9	356.2	190.9	110.3	101.7	33.3

DAILY RAINFALL FOR THE SERVICE AREA

1966

DAY	JAN.	FEB.	MAR.	APL.	MAY.	JUN.	JLY.	AUG.	SEP.	OCT.	NOV.	DEC.
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.8	5.3	0.0	0.0	2.3
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	2.0	0.0	0.0	1.3
3	0.0	0.0	0.0	0.0	0.0	41.9	0.0	10.7	1.3	0.0	0.0	6.9
4	0.0	0.0	33.0	0.0	0.0	0.0	0.0	18.8	3.8	0.0	0.0	9.7
5	0.0	0.0	0.0	0.0	0.0	34.8	10.4	10.9	0.8	0.0	0.0	2.0
6	0.0	0.0	0.0	23.4	0.0	0.0	0.0	0.0	10.2	0.0	0.0	1.3
7	1.8	0.0	0.0	0.0	0.0	0.0	0.0	45.5	8.1	0.0	0.0	3.1
8	7.1	0.0	0.0	0.0	39.6	0.0	2.0	26.9	0.0	5.6	38.9	0.0
9	0.0	0.0	0.0	0.0	37.1	0.0	0.0	12.7	0.0	8.9	16.5	0.0
10	0.0	0.0	0.0	0.0	24.9	0.0	16.0	15.5	0.0	0.0	9.7	0.0
11	0.0	0.0	0.0	2.0	0.0	0.0	25.9	0.0	11.2	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	10.4	6.1	22.4	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	6.6	0.0	0.8	5.1	1.8	0.0	3.8	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.3	0.0	3.8	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	21.1	2.5	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	0.0	33.4	0.0	0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	5.3	0.0	0.0	0.0	5.3	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	17.5	13.5	0.0	0.0	8.4	0.0	0.0	0.0
20	0.0	0.0	0.0	50.3	48.0	16.5	2.0	0.0	0.0	13.2	0.0	5.8
21	0.0	0.0	0.0	21.6	45.0	0.0	3.3	0.0	0.0	4.6	38.1	0.0
22	6.9	0.0	0.0	0.0	34.5	0.0	4.6	0.0	0.0	2.0	40.6	0.0
23	0.0	0.0	0.0	0.0	37.6	0.0	14.0	8.1	0.0	23.4	14.2	0.0
24	0.0	0.0	0.0	0.0	44.2	0.0	0.0	13.7	2.3	19.3	2.5	0.0
25	0.0	0.0	12.7	0.0	52.1	10.7	0.0	63.8	0.0	0.0	9.1	0.0
26	0.0	0.0	7.6	0.0	23.6	0.0	0.0	5.8	0.0	0.0	6.4	0.0
27	0.0	0.0	0.0	0.0	20.6	0.0	0.0	0.0	0.0	0.0	2.8	8.6
28	0.0	0.0	0.0	0.0	13.5	0.0	0.0	0.0	0.0	0.0	0.2	3.6
29	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	3.3
30	0.0		0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	9.4	0.0
31	0.0		0.0		0.0		1.8	10.7		2.0		0.0
T.	15.8	0.0	53.3	100.9	450.1	117.4	146.2	303.0	82.9	82.8	196.5	47.9

1967

DAY	JAN.	FEB.	MAR.	APL.	MAY.	JUN.	JLY.	AUG.	SEP.	OCT.	NOV.	DEC.
1	0.9	0.5	0.0	0.0	0.6	10.1	6.7	19.3	0.6	0.0	0.9	17.5
2	1.3	0.7	0.0	0.0	1.6	0.2	4.8	0.5	31.5	14.5	1.0	4.6
3	2.0	1.1	0.3	0.0	0.4	0.0	0.3	0.0	13.2	14.3	0.3	3.8
4	1.3	0.3	0.5	0.0	7.1	22.4	27.6	10.7	1.4	11.9	130.7	5.1
5	0.9	0.0	0.0	0.0	6.1	25.9	1.6	0.6	0.6	29.5	0.5	2.5
6	0.0	0.5	0.0	1.9	2.0	5.8	0.3	1.5	1.5	25.4	2.5	14.5
7	0.0	0.7	1.9	0.2	0.0	0.0	0.0	30.7	17.3	0.6	2.6	17.3
8	0.0	1.1	0.2	6.6	14.5	4.3	1.7	20.8	25.7	0.9	7.1	31.8
9	0.0	0.2	0.0	0.0	14.3	3.2	1.0	1.6	0.1	9.1	1.0	8.4
10	0.0	0.9	0.0	0.0	0.9	0.0	0.6	0.4	6.1	50.6	0.4	0.0
11	0.0	0.0	0.6	43.7	0.0	15.3	2.8	7.1	0.3	6.6	0.3	1.0
12	0.0	0.3	1.4	0.6	0.3	0.6	6.6	1.8	4.3	3.8	7.3	21.1
13	0.0	0.5	0.7	1.4	0.0	0.0	5.3	19.3	0.8	2.3	15.2	11.2
14	0.3	0.0	0.4	0.8	10.4	29.2	1.6	20.8	4.6	2.5	5.1	1.0
15	11.9	0.0	0.2	0.0	13.7	0.0	1.1	1.5	4.1	1.8	30.5	1.3
16	0.0	0.0	0.3	0.4	62.2	0.0	0.0	41.4	1.3	0.3	48.3	0.3
17	0.5	0.3	0.2	16.0	30.0	4.6	5.8	13.7	20.1	66.3	10.2	13.0
18	0.1	0.7	0.9	0.2	4.3	5.1	16.5	15.5	13.2	0.9	0.0	34.0
19	0.5	0.9	0.2	5.8	0.0	0.0	18.5	5.8	14.2	0.0	0.0	14.7
20	0.7	0.5	1.4	2.8	0.0	0.0	0.8	0.5	0.3	0.3	30.5	5.6
21	6.4	0.0	0.5	27.6	0.0	0.8	3.1	0.6	2.0	4.6	38.1	5.8
22	1.8	0.0	0.0	0.3	0.0	0.0	0.0	23.4	9.9	0.0	2.0	10.4
23	1.3	0.0	0.0	1.3	0.0	6.6	4.6	2.5	0.3	0.8	7.1	0.0
24	1.1	0.7	0.0	3.6	0.2	0.7	2.0	4.6	10.9	4.3	2.0	3.0
25	0.3	0.0	0.0	0.2	0.0	1.3	4.6	38.9	3.1	0.3	0.0	6.1
26	0.0	0.2	0.0	0.0	1.0	78.7	44.7	20.1	4.3	0.0	7.1	5.6
27	0.5	2.6	0.0	0.2	35.6	2.0	0.0	1.5	59.9	0.5	1.3	2.0
28	1.1	2.4	2.6	1.4	26.4	0.0	19.1	23.9	51.8	0.3	6.4	34.3
29	0.9		2.4	0.3	0.0	7.1	18.8	1.0	27.2	0.0	11.2	29.5
30	0.5		0.2	0.0	0.0	0.0	0.0	0.1	3.8	0.0	30.0	3.3
31	0.1		0.0		0.0		0.3	0.3		0.0		5.8
T.	34.9	14.8	14.9	115.3	231.6	223.9	200.8	330.4	334.4	252.4	399.6	315.0

DAILY RAINFALL FOR THE SERVICE AREA

1968

DAY	JAN.	FEB.	MAR.	APL.	MAY.	JUN.	JLY.	AUG.	SEP.	OCT.	NOV.	DEC.
1	0.0	0.0	0.0	0.0	25.7	9.6	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	12.9	0.0	0.0	32.3	0.0	2.4	0.0	0.0
3	0.0	0.0	0.0	0.0	3.5	0.0	0.0	28.3	0.0	4.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	8.7	7.0	12.2	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	3.8	17.8	6.9	10.7	24.3	0.0	0.0
6	5.1	0.0	0.0	0.0	0.0	1.9	0.0	0.0	10.3	2.6	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	5.4	0.0	8.7	17.5	4.7	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0	7.4	15.1	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	12.1	0.0	0.0	0.0	0.0	8.6	0.0	14.0
12	0.0	0.0	0.0	0.0	0.0	7.8	0.0	0.0	0.0	3.7	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1	15.9	1.3	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.2	22.8	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	21.3	0.0	0.0	3.5	5.7	3.3	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.7	0.0	5.6	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.8	0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	7.6	0.0	0.0	10.2	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.0	4.4	17.1	0.0	0.0	0.9	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0	0.0	0.0	1.0	0.0
21	0.0	0.0	0.0	48.3	0.0	0.0	7.5	13.3	0.0	0.0	0.3	0.0
22	0.0	0.0	0.0	0.0	0.0	34.1	28.9	0.0	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	19.7	0.0	0.0	10.1	0.0	0.0	0.0	0.5	0.0
24	0.0	0.0	0.0	22.6	4.3	0.0	19.7	20.8	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	15.3	19.8	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	24.5	0.0	0.0	0.0	16.2	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.0	6.0	1.1	0.0	0.0
28	11.2	0.0	0.0	16.7	0.0	0.0	0.0	24.0	16.0	0.0	5.1	0.0
29	0.0	0.0	0.0	23.6	19.0	0.0	0.0	24.4	16.6	0.0	0.0	0.0
30	0.0		0.0	23.4	7.8	0.0	0.0	21.2	4.9	4.3	21.5	0.0
31	14.6		0.0		0.0		0.0	9.4		1.6		0.0
T.	30.9	0.0	0.0	178.8	114.5	62.7	136.5	364.0	155.9	70.2	29.3	14.0

1969

DAY	JAN.	FEB.	MAR.	APL.	MAY.	JUN.	JLY.	AUG.	SEP.	OCT.	NOV.	DEC.
1	0.0	0.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0	12.2	0.0	0.0
2	0.0	0.0	0.0	6.4	20.3	10.7	0.0	0.0	0.0	6.1	0.0	0.0
3	0.0	0.0	0.0	4.2	0.0	4.3	7.6	45.0	2.5	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.9	4.0	0.0	0.0
6	0.0	0.0	0.0	0.0	6.6	0.0	0.0	0.0	28.2	49.9	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	5.9	0.0	0.0	0.0	8.2	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	2.8	0.0	46.1	1.7	0.0	0.0	0.0
9	0.0	0.0	0.0	11.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	13.5	4.9	0.0	19.6	24.5	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	20.9	0.0	0.0	35.4	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	13.7	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0
15	0.0	0.0	0.0	0.0	13.0	0.0	6.5	10.3	0.0	9.6	0.0	0.0
16	0.0	0.0	9.8	0.0	0.0	0.0	32.6	0.0	0.0	5.7	0.0	0.0
17	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	4.4	0.0	0.0	25.9	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	5.7	0.0	0.0	50.9	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.1	5.7	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0	20.1	0.0	6.2	0.0	5.1	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0	2.2	0.0
23	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	8.3	0.0
24	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.8	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	37.9	0.0	13.8	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	6.5	42.1	40.6	0.0	0.0	7.9	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	90.7	40.1	0.0	2.5	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	38.6	0.0	0.0	4.3	0.0	0.0
29	0.0		0.0	0.0	0.0	0.0	33.7	25.4	10.1	0.0	0.0	0.0
30	0.0		0.0	0.0	0.0	0.0	24.6	50.0	0.0	0.0	0.0	24.2
31	0.0		0.0		0.0		37.8	15.2		0.0		15.6
T.	0.0	0.9	24.2	38.5	91.8	31.6	401.9	409.5	75.2	120.1	50.8	39.9

DAILY RAINFALL FOR THE SERVICE AREA

1970

DAY	JAN.	FEB.	MAR.	APL.	MAY.	JUN.	JLY.	AUG.	SEP.	OCT.	NOV.	DEC.
1	0.0	0.0	20.6	0.0	7.6	3.7	0.0	10.1	25.9	12.0	5.2	45.7
2	0.0	0.0	0.0	0.0	0.0	25.2	0.0	0.0	10.1	17.5	18.3	7.6
3	19.8	0.0	9.3	0.0	0.0	13.5	0.0	0.0	5.3	14.1	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	10.6	20.2	0.0	0.0
5	8.0	0.0	0.0	0.0	0.0	26.5	0.0	4.1	0.0	0.0	14.2	0.0
6	0.0	0.0	0.0	20.5	0.0	11.9	0.0	16.5	0.0	0.0	0.0	0.0
7	0.0	0.0	9.1	0.0	0.0	25.5	0.0	8.6	0.0	0.0	12.7	0.0
8	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9	0.0	0.0	0.0	26.7
10	0.0	0.0	0.0	0.0	11.2	15.7	0.0	0.0	56.9	21.2	0.0	13.3
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	113.5	42.9	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	54.2	46.9	0.0	0.0
13	0.0	0.0	0.0	0.0	0.9	38.4	6.2	7.7	0.0	41.1	0.0	0.0
14	0.0	0.0	0.0	0.0	3.3	0.0	29.4	5.7	0.0	44.1	0.0	7.4
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	11.4	24.9	0.0	33.9
16	0.0	0.0	0.0	0.0	0.0	0.0	9.0	0.0	0.0	20.3	23.4	13.0
17	0.0	0.0	0.5	0.0	21.5	7.2	0.0	15.6	0.0	10.5	11.8	24.7
18	0.0	0.0	0.9	0.0	10.9	0.0	0.0	8.8	0.0	0.0	0.0	5.5
19	0.0	0.0	1.4	0.0	7.2	0.0	11.5	0.0	0.0	0.0	15.0	0.0
20	0.0	0.0	2.0	0.0	0.0	22.2	0.0	0.0	0.0	0.0	7.1	0.0
21	0.0	0.0	0.0	4.7	0.0	0.0	0.0	29.2	0.0	0.0	21.5	0.0
22	0.0	0.0	0.0	1.7	0.0	29.1	5.1	31.1	0.0	9.9	0.0	0.0
23	0.0	0.0	0.0	6.5	0.0	0.0	0.0	16.8	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	4.7	23.7	0.0	0.0	0.0	0.0	10.1	0.0	0.0
25	0.0	0.0	0.0	0.0	12.5	0.0	0.0	13.6	0.0	9.3	4.7	0.0
26	0.0	8.5	0.0	5.6	0.0	2.8	0.0	8.1	0.0	18.2	0.0	0.0
27	0.0	5.3	0.0	0.0	16.7	0.0	0.0	0.0	0.0	10.9	19.5	0.0
28	0.0	0.0	7.2	18.0	5.2	0.0	28.1	0.0	0.0	0.0	0.0	0.0
29	0.0		22.5	0.0	0.0	0.0	16.9	0.0	5.0	0.0	0.0	0.0
30	0.0		0.0	18.6	10.4	0.0	0.0	13.4	20.8	0.0	0.0	0.0
31	0.0		0.0		0.0		37.8	2.9		0.0		0.0
T.	31.6	13.8	73.5	81.2	131.1	221.7	143.9	207.4	313.8	374.0	153.3	177.8

1971

DAY	JAN.	FEB.	MAR.	APL.	MAY.	JUN.	JLY.	AUG.	SEP.	OCT.	NOV.	DEC.
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	43.9	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.5	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.9	28.3	0.0	0.0
4	27.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60.1	0.0	0.0
5	12.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.9	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.8	0.0	0.0
7	0.0	0.0	0.0	0.0	35.1	0.0	17.3	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	8.3	0.0	0.0	0.0	0.0	30.6	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	11.3	26.4	0.0	0.0	99.9	0.0	0.0
10	0.0	0.0	0.0	0.0	27.4	0.0	30.5	0.0	4.1	51.0	17.5	8.4
11	0.0	0.0	0.0	0.0	9.7	0.0	0.0	0.0	0.0	28.9	0.0	0.0
12	0.0	0.0	3.3	0.0	35.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	33.0	0.0	11.2	9.1	28.3	27.7	0.0	0.0	0.0	0.0
14	0.0	0.0	3.4	0.0	38.5	2.8	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	12.2	21.6	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	3.3	22.7	13.8	26.2	0.0	0.0	0.0	0.0	0.0
17	4.2	0.0	0.0	0.0	38.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	41.7	0.0
19	0.0	0.0	0.0	0.0	0.0	17.3	0.0	0.0	9.6	0.0	26.1	0.0
20	0.0	5.1	0.0	0.0	43.2	0.0	19.1	0.0	22.3	0.0	0.0	0.0
21	0.0	36.7	0.0	0.0	11.7	0.0	0.0	0.0	0.0	12.2	0.0	0.0
22	0.0	0.0	0.0	0.0	8.0	0.0	18.3	0.0	16.1	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.8	0.0	0.0
24	0.0	0.0	0.0	0.0	25.6	0.0	0.0	0.0	23.7	0.0	14.3	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.6	25.8	0.0
26	0.0	0.0	0.0	6.1	0.0	0.0	0.0	0.0	0.0	0.0	10.7	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.3	0.0	13.4	0.0
28	0.0	6.0	0.0	0.0	0.0	17.9	0.0	0.0	28.1	0.0	13.8	0.0
29	0.0		2.8	0.0	13.1	0.0	0.0	0.0	25.8	0.0	0.0	17.0
30	0.0		0.0	0.0	0.0	0.0	27.6	28.5	0.0	0.0	0.0	46.5
31	0.0		0.0		0.0		14.8	33.2		0.0		31.1
T.	43.4	47.8	42.5	9.4	329.1	84.3	230.0	89.3	260.2	406.1	163.4	102.9

DAILY RAINFALL FOR THE SERVICE AREA

1972

DAY	JAN.	FEB.	MAR.	APL.	MAY.	JUN.	JLY.	AUG.	SEP.	OCT.	NOV.	DEC.
1	0.0	0.0	0.0	10.6	0.0	0.0	0.0	9.5	0.0	0.0	0.0	0.0
2	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	9.9	0.0	0.0	0.0	0.0	0.0	0.0	18.8	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	11.9	0.0	11.5	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.0	0.0	0.0	22.4	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	33.4	0.0	0.0	0.0	43.4	0.0
7	0.0	0.0	0.0	0.0	0.0	16.7	33.6	0.0	0.0	11.2	42.4	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	21.6	0.0	20.1	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0	27.4	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	7.8	0.0	0.0	39.7	8.4	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.8	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	21.4	0.0	0.0	0.0	0.0	0.0	0.0	4.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.6	10.8	0.0	0.0	2.2
14	0.0	0.0	0.0	14.8	0.0	0.0	9.0	23.8	0.0	0.0	0.0	0.0
15	4.0	0.0	0.0	0.0	0.0	0.0	12.0	9.8	22.5	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	8.3	0.0	34.9	31.0	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	2.6	22.1	0.0	59.5	0.0	0.0	0.0	0.0	0.0
18	0.0	0.0	4.2	0.0	0.0	0.0	28.6	6.9	25.4	0.0	0.0	0.0
19	0.0	0.0	3.8	5.1	0.0	0.0	22.1	8.5	17.9	0.0	2.6	0.0
20	0.0	0.0	11.7	0.0	0.0	0.0	11.0	22.8	21.4	0.0	5.5	0.0
21	0.0	0.0	0.0	5.1	0.0	7.6	0.0	0.0	14.4	0.0	5.0	0.0
22	0.0	0.0	5.2	34.0	0.0	0.0	0.0	0.0	21.2	0.0	0.7	0.0
23	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	5.9	0.0
24	24.5	0.0	0.0	21.3	12.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	38.4	0.0	0.0	0.0	0.0	0.0	0.0	6.4	0.0
26	8.2	0.0	0.0	12.3	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0
27	0.0	2.7	0.0	2.6	0.0	0.0	28.8	0.0	0.0	0.0	12.9	0.0
28	9.8	0.0	0.0	5.1	6.7	16.9	39.6	10.8	0.0	0.0	0.9	0.0
29	0.0	0.0	0.0	0.0	0.0	0.0	34.8	4.3	0.0	0.0	0.0	0.5
30	0.0		0.0	9.4	0.0	0.0	29.3	0.0	0.0	0.0	0.0	0.0
31	0.0		0.0		0.0		10.2	0.0		0.0		0.0
T.	61.1	2.7	24.9	170.2	70.8	55.7	475.4	211.7	170.2	11.2	151.3	6.7

1973

DAY	JAN.	FEB.	MAR.	APL.	MAY.	JUN.	JLY.	AUG.	SEP.	OCT.	NOV.	DEC.
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	16.3	0.0	0.0	13.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	20.1	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.7	35.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	8.8	0.0	0.0	0.0	0.0	4.0	0.0	0.0
6	0.0	0.0	0.0	0.0	2.6	0.0	0.0	11.4	0.0	19.1	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.2	0.0	9.1	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	8.9	0.0	0.0	38.3	2.6	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0	3.0	16.9	0.0	19.7	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	0.0	0.0
11	0.0	0.0	0.0	0.0	12.3	18.6	0.0	11.6	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	3.9	0.0	0.0	0.0	0.0	0.0	2.4	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.1	0.0	3.7	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	61.8	3.8	0.0
16	0.0	0.0	0.0	0.0	0.0	23.4	0.0	0.0	0.0	32.8	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.2	0.0	0.3	6.9	0.0
18	0.0	0.0	0.0	0.0	14.9	0.0	0.0	15.3	5.3	0.3	2.9	0.0
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	11.6	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	19.5	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.7	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.2	0.0	0.3	9.3	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.4	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.8	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.5	0.0	0.0	0.3	0.0
26	0.0	0.0	0.0	0.0	0.0	6.1	0.0	91.5	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0		0.0	21.8	0.0	21.8	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0		0.0	0.0	0.0	0.0	0.0	11.6	0.0	0.0	0.0	0.0
31	0.0		0.0		0.0		9.3	0.0		0.0		0.0
T.	0.0	0.0	0.0	21.8	42.5	69.9	57.5	242.1	84.1	209.8	95.8	0.0

DAILY RAINFALL FOR THE SERVICE AREA

1974

DAY	JAN.	FEB.	MAR.	APL.	MAY.	JUN.	JLY.	AUG.	SEP.	OCT.	NOV.	DEC.
1	0.0	0.0	0.0	0.0	10.2	0.0	0.0	0.0	0.0	0.0	21.8	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.7	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.4	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.9	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	12.5	14.8	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	12.1	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.4	0.0	12.8
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1	0.0	10.7
11	0.0	0.0	0.0	0.0	0.0	10.4	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.4	0.0	0.0	0.0	39.3	3.5	0.0	7.7	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	18.2	0.0	0.0	0.0	0.0	16.5	16.2	0.0
14	0.0	0.0	0.0	0.0	17.4	0.0	0.0	3.7	0.0	11.6	21.3	0.0
15	0.0	0.0	0.0	36.2	7.2	0.0	8.3	7.8	0.0	13.6	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.4	0.0	8.6	0.0	20.6
17	0.0	0.0	0.0	0.0	0.0	0.0	7.7	18.8	0.0	25.2	0.0	18.2
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.0	15.1	0.0	0.0	0.0	0.0	0.0
20	0.0	2.3	0.0	0.0	0.0	0.0	27.2	0.0	0.0	0.0	0.0	12.8
21	0.0	0.0	0.0	0.0	0.0	0.0	30.4	0.0	0.0	0.0	6.3	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	5.2	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	9.5	0.0	8.1	0.0	13.4	0.0	0.0	0.0	0.0
25	8.9	0.0	0.0	0.0	0.0	5.4	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	16.5	0.0	5.9	0.0	17.8	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	43.1	0.0	0.0
28	0.0	0.0	5.3	0.0	0.0	0.0	0.0	0.0	0.0	37.7	38.7	0.0
29	0.0		0.0	0.0	14.0	0.0	11.7	0.0	0.0	0.0	0.0	0.0
30	0.0		0.0	0.0	0.0	0.0	23.8	0.0	0.0	0.0	0.0	0.0
31	0.0		0.0		0.0		0.0	0.0		7.0		0.0
T.	8.9	2.7	5.3	45.7	96.0	83.2	138.2	87.0	25.5	183.2	152.4	75.0

1975

DAY	JAN.	FEB.	MAR.	APL.	MAY.	JUN.	JLY.	AUG.	SEP.	OCT.	NOV.	DEC.
1	0.0	0.0	0.0	0.0	0.0	18.9	3.4	0.0	0.0	8.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1	0.0
3	0.0	0.0	0.0	9.5	0.0	0.0	0.0	0.0	15.1	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	75.7	0.0
5	0.0	0.0	0.0	12.9	0.0	0.0	12.2	13.7	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	9.9	1.3
7	0.0	0.0	0.0	0.0	0.0	0.0	13.2	0.0	9.4	0.0	20.1	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.5	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0	11.2	15.0	8.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	8.3	0.0	0.0	15.9	0.0	0.0	9.9	8.8
11	0.0	0.0	0.0	0.0	36.7	0.0	0.0	1.9	0.0	0.0	0.0	2.4
12	0.0	0.0	0.0	0.0	8.9	0.0	0.0	0.0	0.0	0.0	0.0	4.9
13	0.0	0.0	0.0	0.0	0.0	20.4	0.0	0.0	0.0	0.3	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	20.1	11.6	0.0	0.0	0.0	2.6
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.2	0.0	1.3
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	9.7	0.0	0.0	0.0	3.8	15.0	1.3
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.3	40.7	0.0	11.5
19	0.0	0.0	0.0	0.0	0.0	0.0	2.1	4.1	0.0	20.3	0.0	33.7
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	19.5	0.0	6.4
21	0.0	2.1	13.1	0.0	0.0	0.0	0.0	0.0	0.0	15.7	0.0	0.0
22	0.0	0.0	0.0	0.0	19.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	28.5	0.0	0.0	0.0	10.7	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	11.2	0.0	0.0	0.0	8.5	0.0	0.0	0.0	12.3
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.7	0.0	0.0	0.0	5.4
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.2	0.0	0.0	0.0	13.3
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.3	0.0	0.0	0.0	6.4
29	0.0		0.0	0.0	16.7	0.0	0.0	17.3	7.2	0.0	0.0	0.0
30	0.0		0.0	29.0	33.3	0.0	0.0	21.6	0.0	0.0	0.0	0.0
31	0.0		0.0		0.0		0.0	0.0		0.0		0.0
T.	0.0	2.1	13.1	91.1	123.1	49.0	62.3	163.7	88.4	118.9	139.7	111.1

DAILY RAINFALL FOR THE SERVICE AREA

1976

DAY	JAN.	FEB.	MAR.	APL.	MAY.	JUN.	JLY.	AUG.	SEP.	OCT.	NOV.	DEC.
1	0.0	0.0	0.0	0.0	0.0	0.0	25.7	9.9	0.0	0.0	0.0	3.4
2	42.9	0.0	0.0	0.0	0.0	0.0	0.0	66.8	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	10.9	5.3	9.3	0.0	24.5	10.5
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	0.0	0.0	1.7
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.1	16.9	5.1	0.0	6.1
6	7.6	0.0	0.0	0.0	0.0	0.0	0.0	11.9	0.0	3.4	0.0	0.0
7	8.9	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	12.2	0.0	0.0
8	0.0	0.0	0.0	8.5	0.0	0.0	0.0	9.6	0.0	38.4	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0	5.3	0.0	0.0	19.7	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.4	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.7	0.0	0.0	0.0	0.0
12	0.0	0.0	8.1	0.0	0.0	0.0	0.0	62.8	29.3	0.0	0.0	0.0
13	15.2	0.0	16.9	0.0	0.0	0.0	0.0	0.0	16.5	0.0	0.0	0.0
14	9.1	0.0	0.0	0.0	0.0	33.9	2.0	0.0	19.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	18.1	9.7	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0	0.3	3.1	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.6	14.4	0.0	4.0	0.0
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.9	23.8	0.0	12.9	0.0
19	0.0	0.0	14.9	0.0	0.0	0.0	0.0	3.3	0.0	0.0	5.1	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	32.5	0.0	2.3	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	39.3	0.0	2.0	24.4	0.0	0.0	0.0	0.0
23	0.0	0.0	13.5	0.0	38.4	0.0	3.1	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	12.2	0.0	46.9	0.0	6.9	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	39.4	23.5	0.0	3.8	0.0	12.2	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	40.1	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	8.5	5.3	0.0	0.0	14.7	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	17.3	71.1	5.6	0.0	0.0	0.0	0.0
29	0.0	0.0	0.0	0.0	0.0	21.1	0.0	6.9	0.0	0.0	0.0	0.0
30	0.0		0.0	0.0	0.0	20.7	8.1	6.1	0.0	0.0	0.0	0.0
31	0.0		0.0		0.0		0.0	0.0		0.0		0.0
T.	83.7	0.0	65.7	8.5	196.6	183.3	152.7	258.4	136.9	126.0	46.4	21.6

DRILLING CORE LOG

Name of Project Matuno

No. of Hole BC－1

Location Lower side of dam axis on the river bed

Depth of Bedrock 9.00 m

Bore Hole Dia. mm

Depth of Hole 50.00 m

Elevation 365.0 m

Core Recovery 86.1 %

Type of Drill Machine rotary

Operator

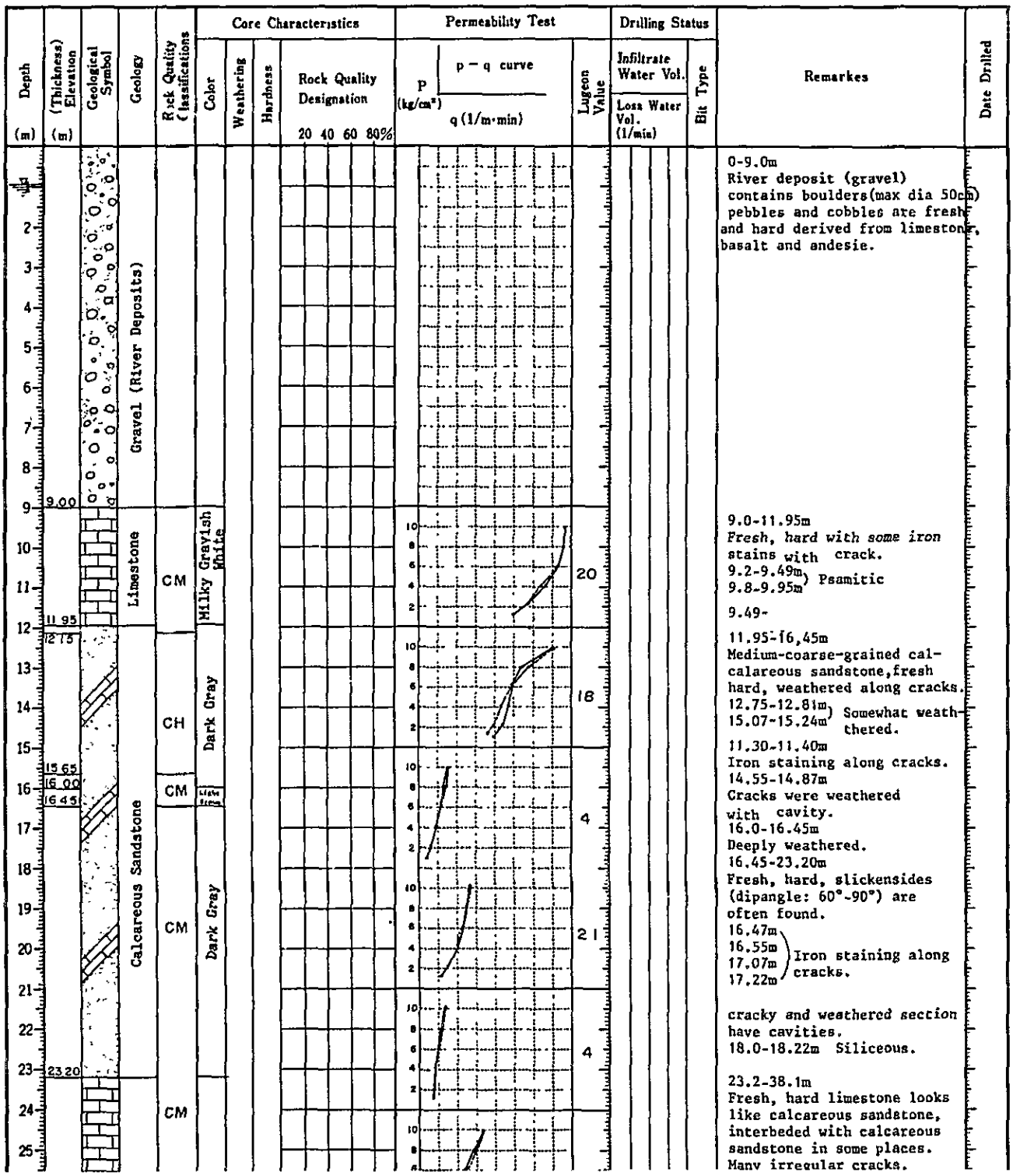
Direction

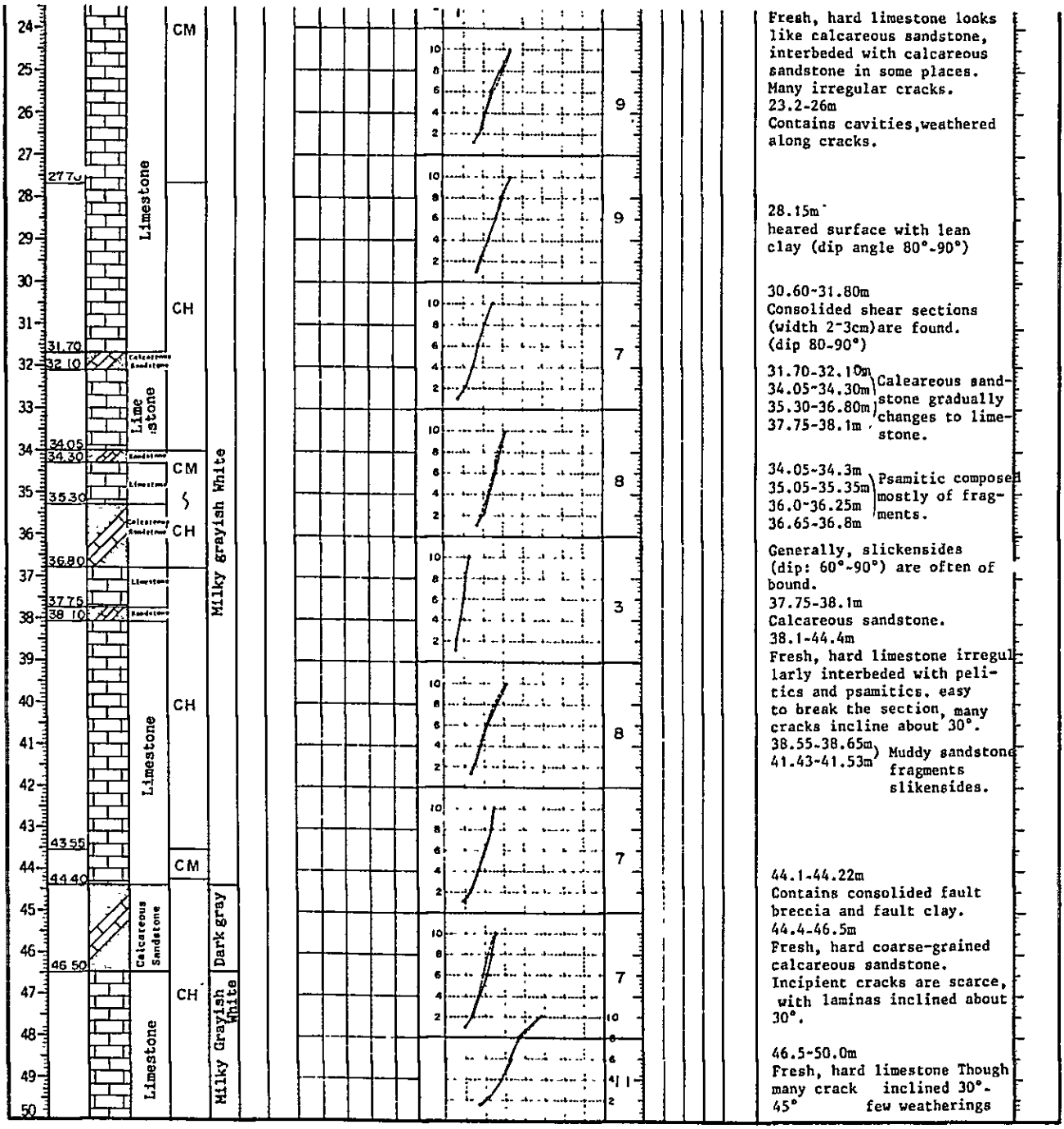
Underground Water Table 0.94 m

Capacity of Pump l/min

Supervisor

Inclination Vertical





Fresh, hard limestone looks like calcareous sandstone, interbeded with calcareous sandstone in some places. Many irregular cracks.
23.2-26m
Contains cavities, weathered along cracks.

28.15m
heared surface with lean clay (dip angle 80°-90°)

30.60-31.80m
Consolided shear sections (width 2-3cm) are found. (dip 80-90°)

31.70-32.10m
34.05-34.30m
35.30-36.80m
37.75-38.1m
Calcareous sandstone gradually changes to limestone.

34.05-34.3m
35.05-35.35m
36.0-36.25m
36.65-36.8m
Psamitic composed mostly of fragments.

Generally, slickensides (dip: 60°-90°) are often of bound.
37.75-38.1m
Calcareous sandstone.
38.1-44.4m
Fresh, hard limestone irregularly interbeded with pelitics and psamitics, easy to break the section, many cracks incline about 30°.
38.55-38.65m
41.43-41.53m
Muddy sandstone fragments slikensides.

44.1-44.22m
Contains consolided fault breccia and fault clay.
44.4-46.5m
Fresh, hard coarse-grained calcareous sandstone. Incipient cracks are scarce, with laminas inclined about 30°.

46.5-50.0m
Fresh, hard limestone Though many crack inclined 30°-45° few weatherings and cavities are found. Slickensides are scarcely found.

DRILLING CORE LOG

Name of Project: Matuno

No. of Hole: BC – 2

Location: Upper Side Dan Axis at the Left Side on The Mountain

Depth of Bedrock: 0 m

Bore Hole Dia.: NQ ~ BQ mm

Depth of Hole: 100.00 m

Elevation: 524.0 m

Core Recovery: 70.00 %

Type of Drill Machine: Rotary

Operator: A. Tupaz

Direction

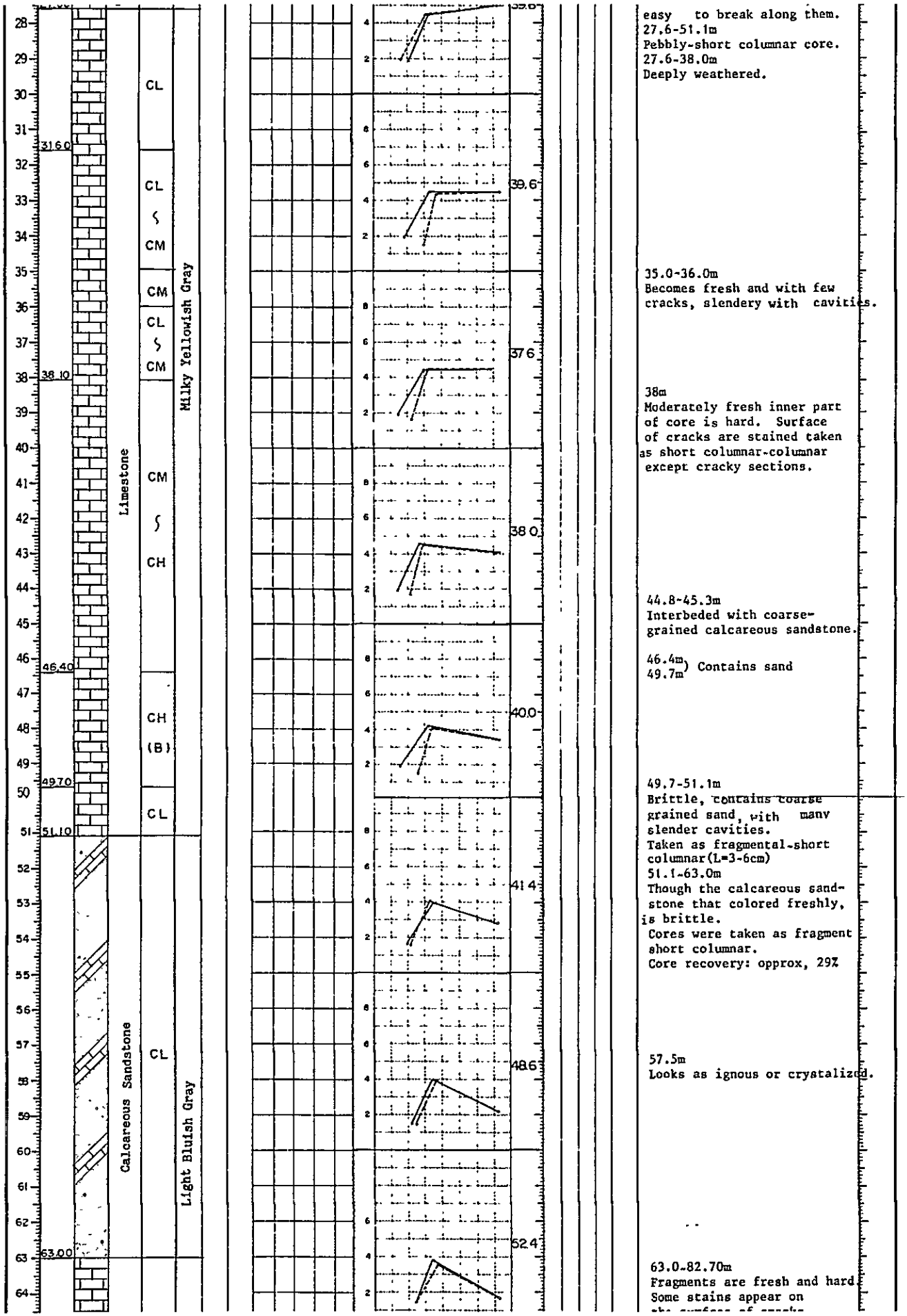
Inclination: 45°

Underground Water Table: 12.50 m

Capacity of Pump: 100 l/min

Supervisor

Depth (m)	(Thickness) Elevation (m)	Geological Symbol	Geology	Rock Quality Classifications	Core Characteristics: Color	Weathering	Hardness	Rock Quality Designation (20 40 60 80%)	Permeability Test: P (kg/cm²) / q (l/m·mn) p – q curve	Lugeon Value	Drilling Status: Infiltrate Water Vol. / Loss Water Vol. (l/min)	Bit Type	Remarks	Date Drilled
1–13	13.40		Limestone	D I ~ CL	Gray ~ Milky Yellowish Gray					56.2			0.0~13.40m yellowish strongly weathered taken as fragmentary-short columnar(l=3-12cm). core recovery: approx, 40% it seems that the limestone was soften, with crack and cavity.	
13–18	18.20		Psamitic Limestone	CL ~ CM	Milky yellowish Gray~(bluish Greenish) Gray					41.2			6.8m Short columnar core has some cavity(ϕ13~20m/m). 10.20m many cracks. 13.4-21.9m The limestone is locally interbeded with lean sandstone. In proportion to depth, weatherness becomes weaker. Some stains that colored yellowish brown are found along cracks. The portion of psamitic is easy to break, the columnar core becomes shorter. 16.0~16.6m)Cracky 20.6-21.0m)Cracky	
18–19	19.00			D I									18.2-19.0m Psamitic. Many fragments of shells are found, easy to break with hand. 15.5m cavity as worm-eaten.	
19–21	21.90			CL ~ CM						50.0			21.9~24.0m Some stains are found along the crack.	
21–24	24.00		Limestone	CM ~ CH	Milky Yellowish Gray					30.4			24.0m-25.0m Ciarse-grained calcarecous sandstone soften. 25.0-25.7m Fresh, hard, columnar. 25.7-27.6m Irregularly interbeded with mudstone and sandstone, easy to break along them. 27.6-51.1m	
24–25	25.00		Calcareous Sandstone	CL										
25–26	25.70		Limestone	CH (B)	Milky Yellowish Gray					39.6				
26–27	27.60		Pelitic Limestone	CM	Light Bluish Gray									
27–28														



easy to break along them.
27.6-51.1m
Pebbly-short columnar core.
27.6-38.0m
Deeply weathered.

35.0-36.0m
Becomes fresh and with few cracks, slendery with cavities.

38m
Moderately fresh inner part of core is hard. Surface of cracks are stained taken as short columnar-columnar except cracky sections.

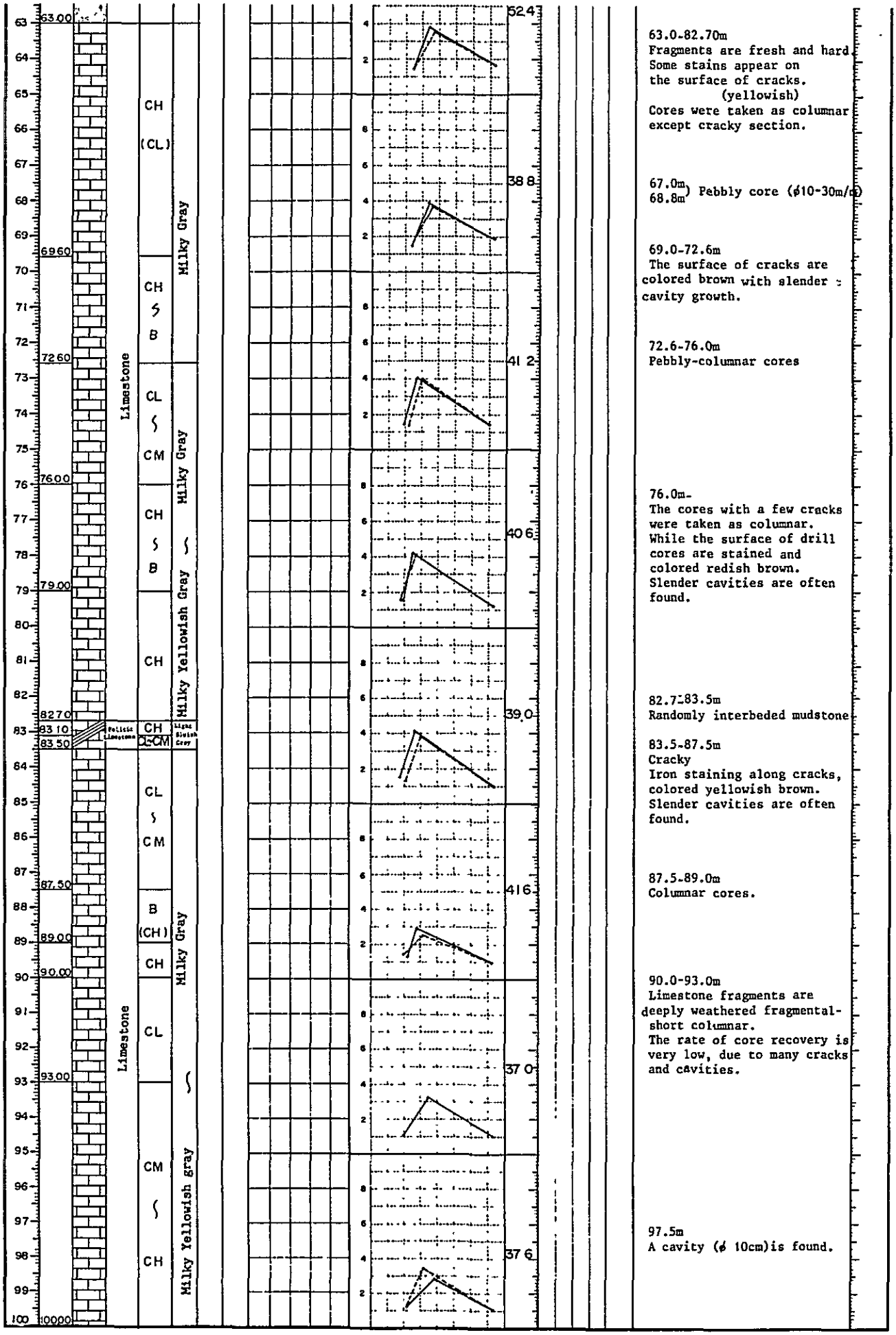
44.8-45.3m
Interbeded with coarse-grained calcareous sandstone.

46.4m
49.7m) Contains sand

49.7-51.1m
Brittle, contains coarse grained sand, with many slender cavities.
Taken as fragmental-short columnar(L=3-6cm)
51.1-63.0m
Though the calcareous sandstone that colored freshly, is brittle.
Cores were taken as fragment short columnar.
Core recovery: opprox, 29%

57.5m
Looks as ignous or crystalized.

63.0-82.70m
Fragments are fresh and hard. Some stains appear on



63.0-82.70m
Fragments are fresh and hard. Some stains appear on the surface of cracks. (yellowish)
Cores were taken as columnar except cracky section.

67.0m-68.8m) Pebbly core (ϕ10-30m/m)

69.0-72.6m
The surface of cracks are colored brown with slender cavity growth.

72.6-76.0m
Pebbly-columnar cores

76.0m-
The cores with a few cracks were taken as columnar. While the surface of drill cores are stained and colored redish brown. Slender cavities are often found.

82.7-83.5m
Randomly interbeded mudstone

83.5-87.5m
Cracky
Iron staining along cracks, colored yellowish brown. Slender cavities are often found.

87.5-89.0m
Columnar cores.

90.0-93.0m
Limestone fragments are deeply weathered fragmental-short columnar.
The rate of core recovery is very low, due to many cracks and cavities.

97.5m
A cavity (ϕ 10cm)is found.

DRILLING CORE LOG

Name of Project Matuno

No. of Hole B - 1

Location B'-site Left Bank

Depth of Bedrock m

Bore Hole Dia mm

Depth of Hole 50.00 m

Elevation 514.458 m

Direction

Core Recovery %

Type of Drill Machine Rotary

Operator

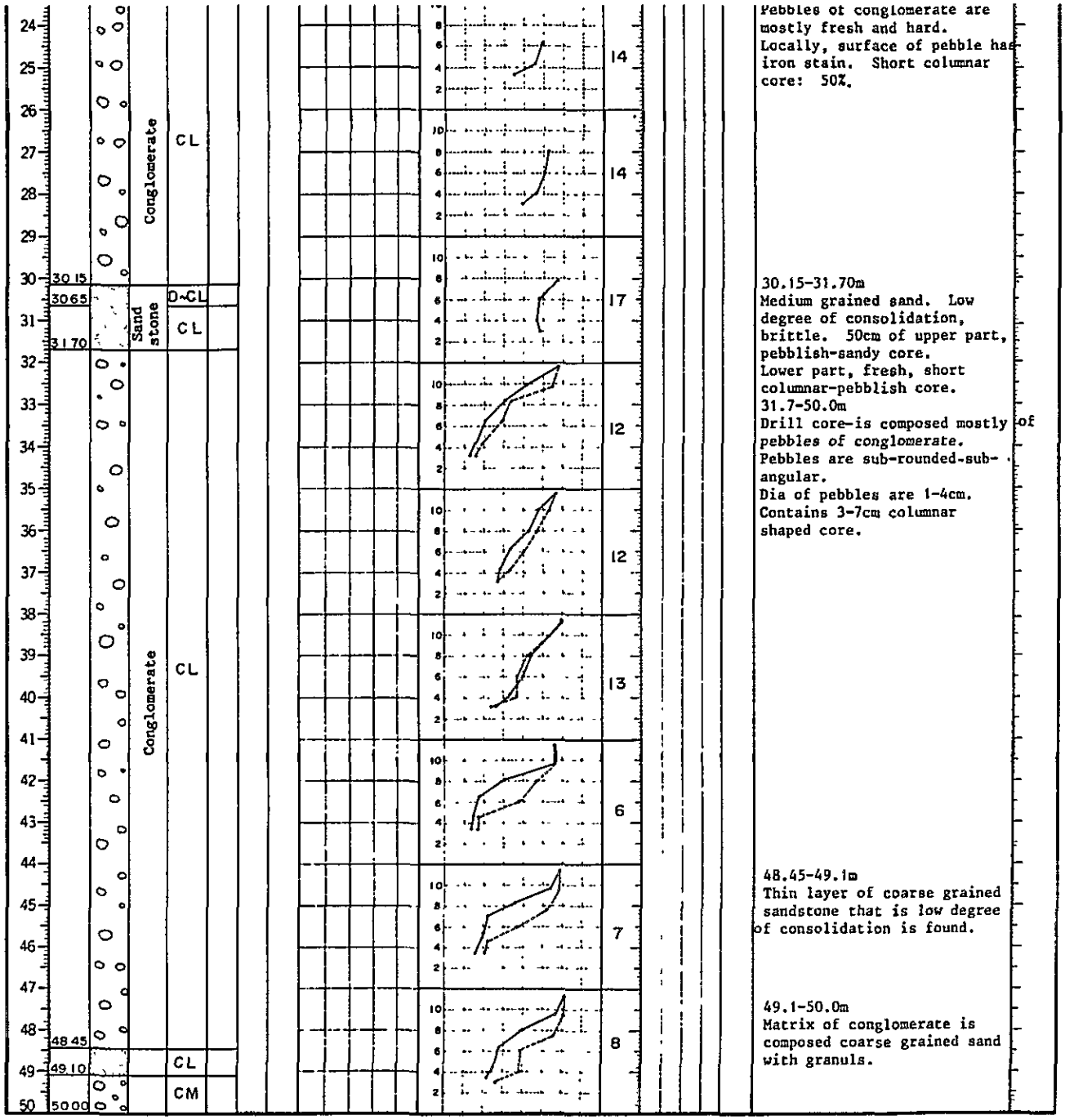
Inclination Vertical

Underground Water Table 61 - 23.25 m

Capacity of Pump l/min

Supervisor

Depth (m)	(Thickness) Elevation (m)	Geological Symbol	Geology	Rock Quality Classifications	Core Characteristics: Color	Weathering	Hardness	Rock Quality Designation (20 40 60 80%)	Permeability Test: P (kg cm²) p - q curve q (l m·min)	Lugeon Value	Drilling Status: Infiltrate Water Vol. / Loss Water Vol (l/min)	Bit Type	Remarkes	Date Drilled
1	1.50		Sand stone	D2	Light brown								1.0-1.5m Contains decatyd pebbles, looks like med.-coarse grained sand.	
2													1.5-15.75m Matrix is lost. Diameter of pebbles range 1-4cm. max dia. 10cm. Pebbles are generally fresh and hard, but weathered along the cracks. Iron stains are found.	
3														
4														
5														
6														
7														
8														
9			Conglomerate	D1										
10														
11														
12														
13														
14														
15	15.75													
16			Carbonic Sandstone	D1 ~ CL	Black								15.75-18.70m Fine grained carbonic sandstone. Carbonic sandstone has few cracks, but is brittle.	
17														
18	18.70													
19			Conglomerate	CL									18.7-21.75m Matrix is lost. Pebbles are composed of fresh, hard sub-rounded-sub-angular.	
20														
21	21.75													
22			Sand stone	D ~ CL									21.75-23.0m Composed of granules and sand.	
23	23.00													
24									10 8 6 4 2	14			23.0-30.15m Pebbles of conglomerate are mostly fresh and hard. Locally, surface of pebble has iron stain. Short columnar core: 50%.	
25														


Conglomerate
Sand stone
Conglomerate
CL
D-CL
CL
CL
CM
30.15
30.65
31.70
48.45
49.10
50.00
14
14
17
12
12
13
6
7
8
Pebbles of conglomerate are mostly fresh and hard. Locally, surface of pebble has iron stain. Short columnar core: 50%.
30.15-31.70m
Medium grained sand. Low degree of consolidation, brittle. 50cm of upper part, pebblish-sandy core.
Lower part, fresh, short columnar-pebblish core.
31.7-50.0m
Drill core-is composed mostly of pebbles of conglomerate.
Pebbles are sub-rounded-sub-angular.
Dia of pebbles are 1-4cm.
Contains 3-7cm columnar shaped core.
48.45-49.1m
Thin layer of coarse grained sandstone that is low degree of consolidation is found.
49.1-50.0m
Matrix of conglomerate is composed coarse grained sand with granuls.

DRILLING CORE LOG

Name of Project Matuno

No. of Hole B - 2

Location B'-Site, Left Bank

Depth of Bedrock m

Bore Hole Dia. mm

Depth of Hole 70.00 m

Elevation 525.306 m

Core Recovery %

Type of Drill Machine Rotary

Operator

Direction

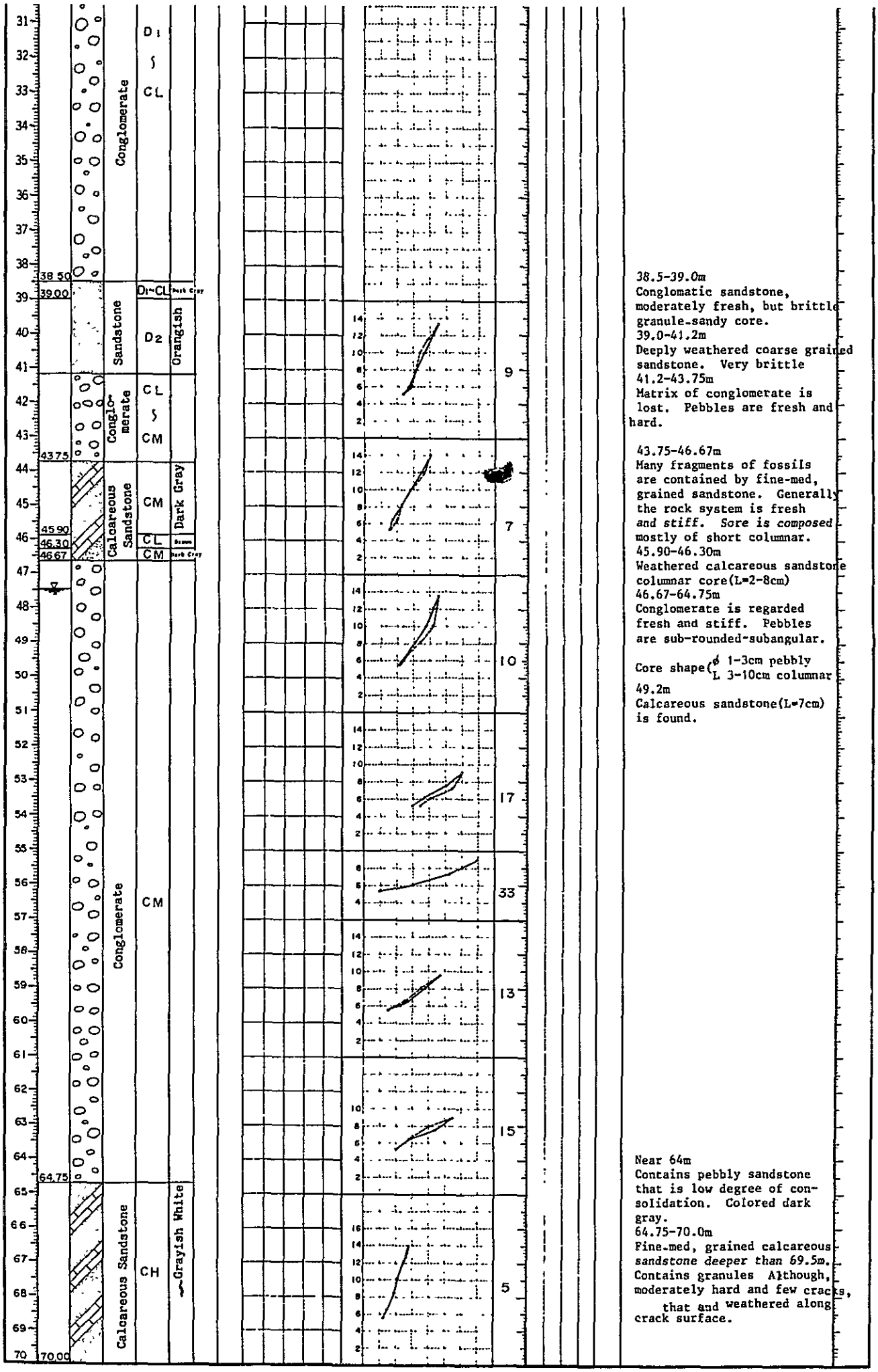
Inclination Vertical

Underground Water Table GL - 47.46 m

Capacity of Pump l/min

Supervisor

Depth (m)	(Thickness) Elevation (m)	Geological Symbol	Geology	Rock Quality Classifications	Core Characteristics: Color	Weathering	Hardness	Rock Quality Designation (20 40 60 80%)	Permeability Test: P (kg/cm²) p − q curve q (l·m·min)	Lugeon Value	Drilling Status: Infiltrate Water Vol. / Loss Water Vol (l min)	Bit Type	Remarkes	Date Drilled
1	0.90		Conglomerate / Sandstone	D2	Light Brown								0-0.9m Sand with decayed pebbles. 0.9-1.9m Looks like sand. 1.9-9.15m Drill core is consisted largely of pebbles of conglomerate. Pebbles dia:1-3cm. Contains columnar(L=5-8cm) core. Generally, pebbles are fresh and hard, but have some iron stains.	
2	1.90													
3														
4														
5			Conglomerate	D1										
6														
7														
8														
9	9.15													
10	10.70		Sand stone	D2	Brown								9.15-10.70m The upper limit of layer is questionable. Drill core is composed of fine grained weathered sandstone. 10.7-16.0m Drill core is consisted of pebbles of conglomerate.	
11			Conglomerate	D1										
12														
13														
14														
15														
16	16.00													
17	16.80		Sandstone	D2	Brown								16.0-16.8m Sandy core that is weathered fine grained sandstone.	
18			Conglomerate	D1										
19														
20														
21														
22														
23														
24														
25														
26														
27	27.00													
	27.40		Sandstone	D2	Brown								27.0-27.4m Brownish sandstone.	
28														
29														
30														
31				D1										
32				∫										



38.5-39.0m
Conglomatic sandstone, moderately fresh, but brittle granule-sandy core.
39.0-41.2m
Deeply weathered coarse grained sandstone. Very brittle
41.2-43.75m
Matrix of conglomerate is lost. Pebbles are fresh and hard.

43.75-46.67m
Many fragments of fossils are contained by fine-med, grained sandstone. Generally the rock system is fresh and stiff. Sore is composed mostly of short columnar.
45.90-46.30m
Weathered calcareous sandstone columnar core(L=2-8cm)
46.67-64.75m
Conglomerate is regarded fresh and stiff. Pebbles are sub-rounded-subangular.

Core shape{ ϕ 1-3cm pebbly
L 3-10cm columnar

49.2m
Calcareous sandstone(L=7cm) is found.

Near 64m
Contains pebbly sandstone that is low degree of consolidation. Colored dark gray.
64.75-70.0m
Fine-med, grained calcareous sandstone deeper than 69.5m. Contains granules Although, moderately hard and few cracks, that and weathered along crack surface.

DRILLING CORE LOG

Name of Project: Matuno

No. of Hole: B – 3

Location: B'-Site, Left Bank

Depth of Bedrock: m

Bore Hole Dia.: mm

Depth of Hole: 50.00 m

Elevation: 534.57 m

Core Recovery: %

Type of Drill Machine: Rotary

Operator:

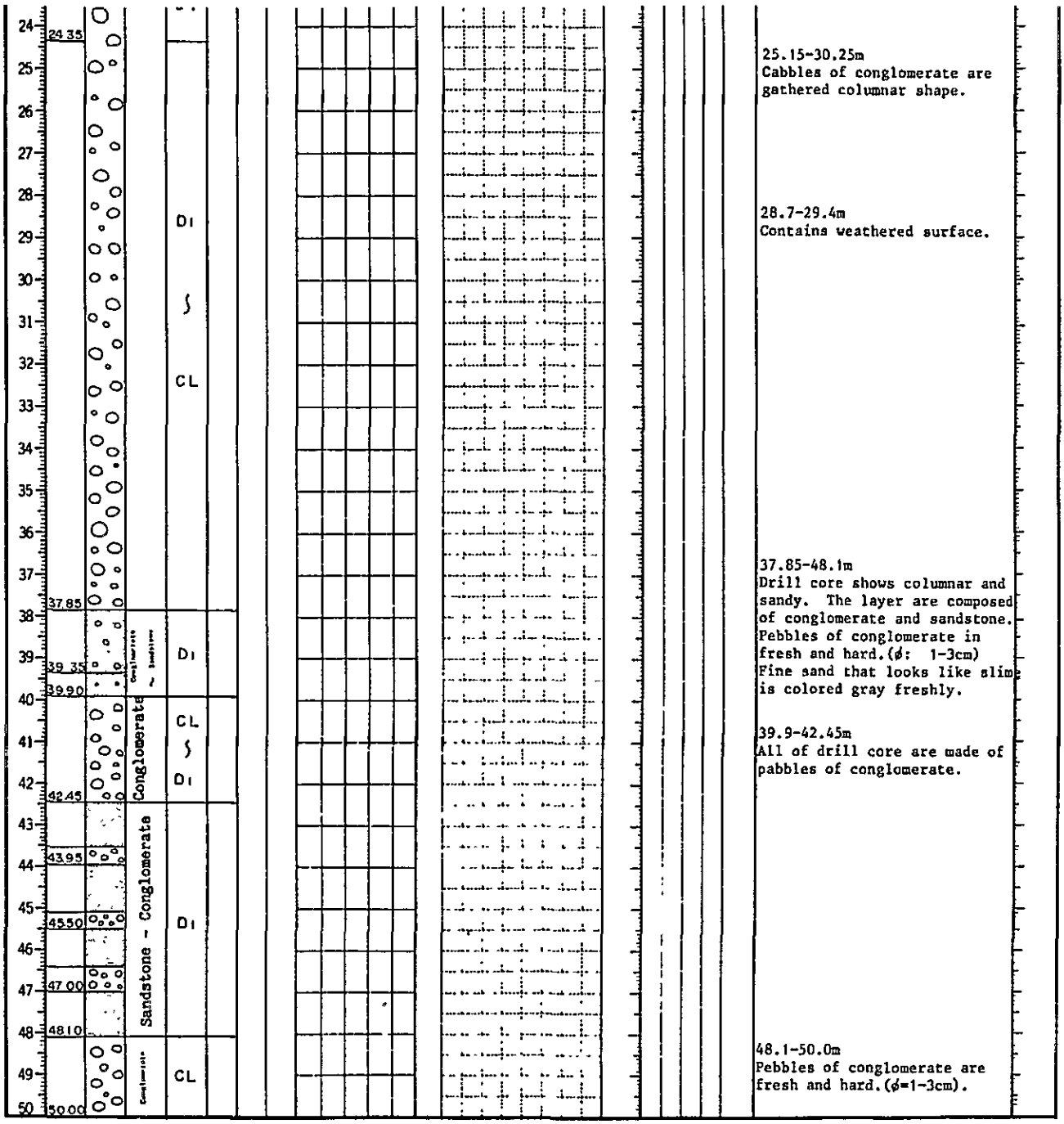
Direction / Inclination: Vertical

Underground Water Table: m

Capacity of Pump: l/min

Supervisor:

Depth (m)	(Thickness) Elevation (m)	Geological Symbol	Geology	Rock Quality Classifications	Core Characteristics: Color	Weathering	Hardness	Rock Quality Designation (20 40 60 80%)	Permeability Test: p – q curve, p (kg/cm²), q (l/m·min)	Lugeon Value	Drilling Status: Infiltrate Water Vol. / Loss Water Vol (l/min)	Bit Type	Remarkes	Date Drilled
1			Sandstone	D2	Light Brown								0-4.10m Weathered sandstone looks like soil, fine-med, grained sand-stone. Almost core shape present fine-med, grained sand	
2														
3	3.70													
4	4.10			D1									3.7-4.10m Strongly weathered siltstone fragments are very brittle. 4.1-37.85m Prill cores are composed of pebbles of conglomerate. 4.1-8.85m Weathered pebble(ϕ 2cm)	
5														
6														
7														
8														
9				D2									8.85-13.3m Fresh, hard pebbles. Some stains on the surface of the pebbles are often found, pebbles dia: 1-3cm.	
10														
11														
12														
13	13.30													
14													Under 13.3m Composed mostly of pebbles with some columnar.	
15													14.95-16.25m Graysh slime.	
16				D1										
17				∫										
18														
19				CL										
20														
21			Conglomerate											
22	22.50												22.5-24.35m Gray clayey-sandy slime.	
23				D1										
24	24.35												25.15-30.25m Cabbles of conglomerate are	
25														


24.35
37.85
39.35
39.90
42.45
43.95
45.50
47.00
48.10
50.00
Sandstone - Conglomerate
Conglomerate
Di
CL
Di
CL
Di
Di
CL
25.15-30.25m
Cabbles of conglomerate are gathered columnar shape.
28.7-29.4m
Contains weathered surface.
37.85-48.1m
Drill core shows columnar and sandy. The layer are composed of conglomerate and sandstone. Pebbles of conglomerate in fresh and hard.(ϕ: 1-3cm) Fine sand that looks like slime is colored gray freshly.
39.9-42.45m
All of drill core are made of pabbles of conglomerate.
48.1-50.0m
Pebbles of conglomerate are fresh and hard.(ϕ=1-3cm).

DRILLING CORE LOG

Name of Project: Matuno

No. of Hole: B - 4

Location: B'-Site, Left Bank

Depth of Bedrock: m

Bore Hole Dia.: mm

Depth of Hole: 60.00 m

Elevation: 491.165 m

Core Recovery: %

Type of Drill Machine: Rotary

Operator:

Direction

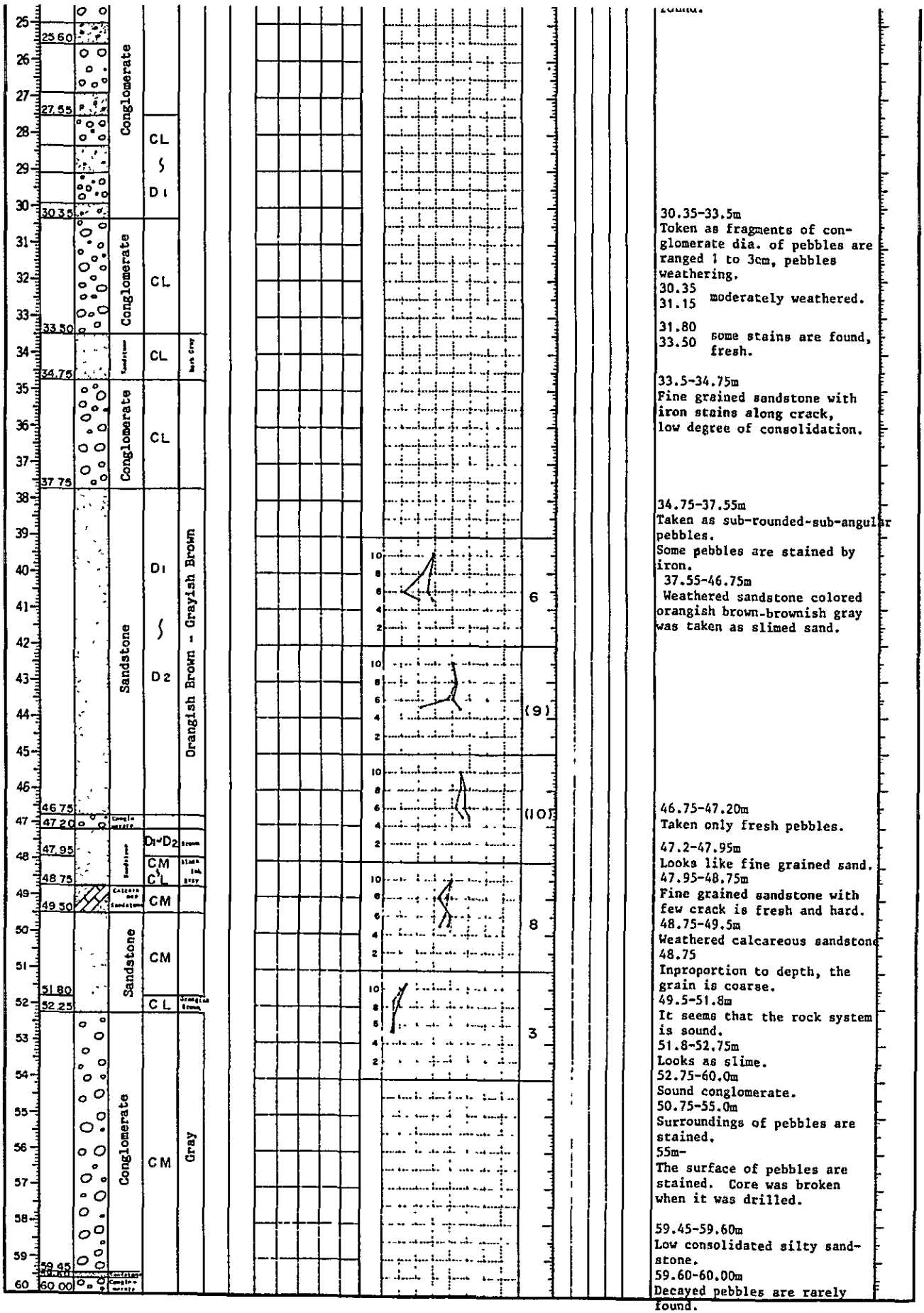
Inclination: Vertical

Underground Water Table: m

Capacity of Pump: l/min

Supervisor:

Depth (m)	(Thickness) Elevation (m)	Geological Symbol	Geology	Rock Quality Classifications	Core Characteristics: Color	Weathering	Hardness	Rock Quality Designation (20 40 60 80%)	Permeability Test: P (kg/cm²) / p − q curve / q (l/m·min)	Lugeon Value	Drilling Status: Infiltrate Water Vol. / Loss Water Vol. (l/min)	Bit Type	Remarks	Date Drilled
1													0-4.5m Strong meathered conglomerate. 0-1.7m Whally weathered looks like soil. 1.7-4.5m Taken as decated pebble(ø1-4cm)	
2														
3				D2										
4	4.50				Yellowish Brown									
5													4.5-16.9m Gathered core is composed mostly of pebbes and cobbles are geverally hard, but the surface of them are stained with oxidated iron.	
6														
7			Conglomerate											
8														
9														
10														
11				D1										
12													12.45-13.10m Contains weathered matrix of coglomerate.	
13														
14													12.45-14.10m Columnar core(L=3-8cm)	
15														
16														
17	16.90 17.40												16.90-19.65m Weathered fine grained sand-stone, looks like slime. It seems sandwitched sandstone with conglomerates.	
18	18.30			D1	Light Brown									
19	18.90 19.65													
20	20.00												19.65-30.35m Conglomerate was taken as pebbles and sand. Interbeded conglomerate and conglomeratie sandstone.	
21					Gray									
22	22.70													
23													22.7-30.35m Almost conglomerate with coarse grained sandstone is locally found.	
24														
25	25.60													
26														



30.35-33.5m
Token as fragments of conglomerate dia. of pebbles are ranged 1 to 3cm, pebbles weathering.
30.35 - 31.15 moderately weathered.
31.80 - 33.50 some stains are found, fresh.

33.5-34.75m
Fine grained sandstone with iron stains along crack, low degree of consolidation.

34.75-37.55m
Taken as sub-rounded-sub-angular pebbles.
Some pebbles are stained by iron.
37.55-46.75m
Weathered sandstone colored orangish brown-brownish gray was taken as slimed sand.

46.75-47.20m
Taken only fresh pebbles.

47.2-47.95m
Looks like fine grained sand.
47.95-48.75m
Fine grained sandstone with few crack is fresh and hard.
48.75-49.5m
Weathered calcareous sandstone
48.75
Inproportion to depth, the grain is coarse.
49.5-51.8m
It seems that the rock system is sound.
51.8-52.75m
Looks as slime.
52.75-60.0m
Sound conglomerate.
50.75-55.0m
Surroundings of pebbles are stained.
55m-
The surface of pebbles are stained. Core was broken when it was drilled.

59.45-59.60m
Low consolidated silty sandstone.
59.60-60.00m
Decayed pebbles are rarely found.

DRILLING CORE LOG

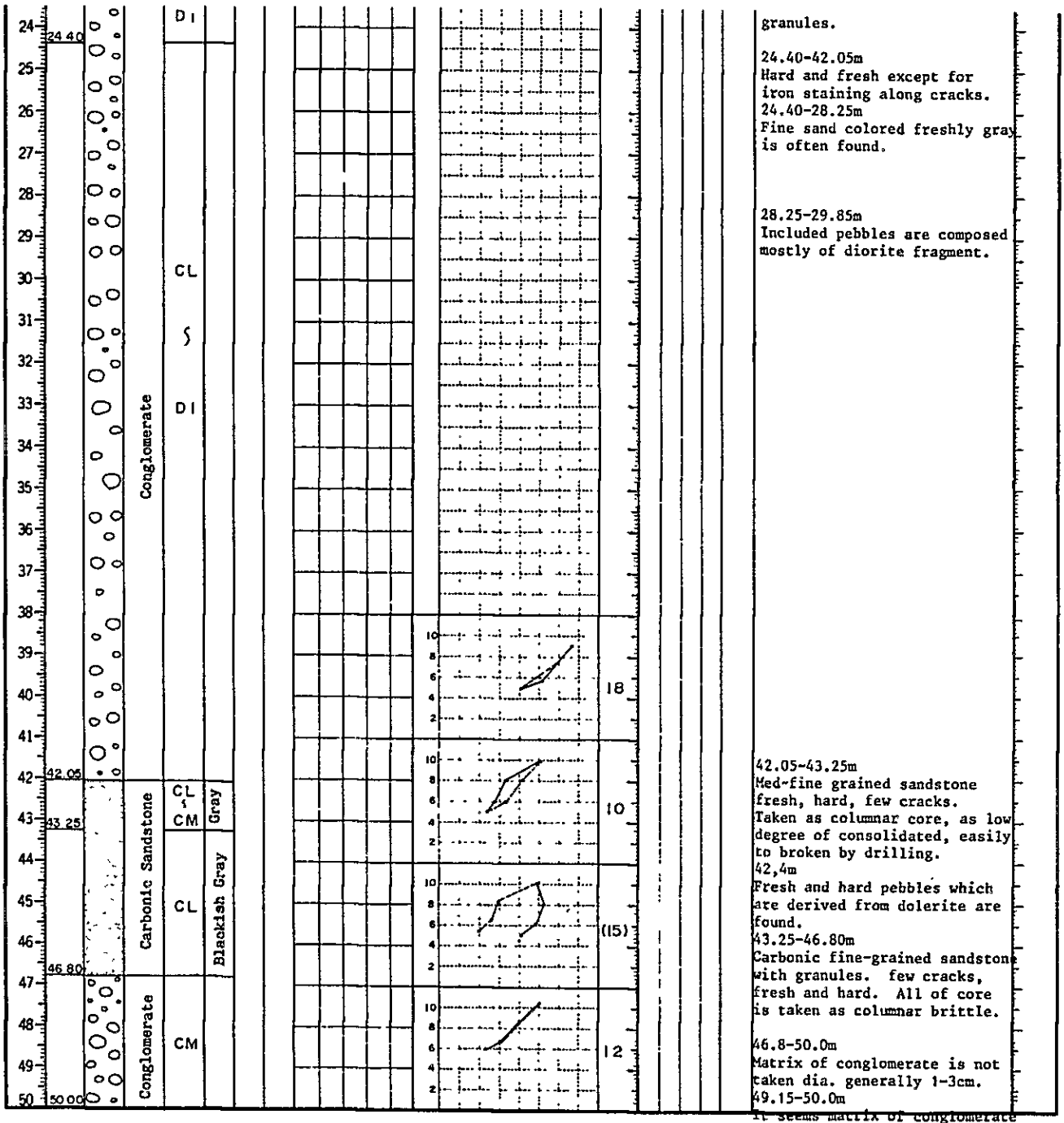
Name of Project: Matuno — No. of Hole: B – 5

Location: B'-Site, Left Bank — Depth of Bedrock: m — Bore Hole Dia.: NX 56 mm — Depth of Hole: 50.00 m

Elevation: 528.201 m — Core Recovery: 28.80 % — Type of Drill Machine: Rotary BB-450 — Operator:

Direction / Inclination: Vertical — Underground Water Table: Lost of Water m — Capacity of Pump: l/min — Supervisor:

Depth (m)	(Thickness) Elevation (m)	Geological Symbol	Geology	Rock Quality Classifications	Core Characteristics: Color	Weathering	Hardness	Rock Quality Designation 20 40 60 80%	Permeability Test: P (kg/cm²) p – q curve q (l/m·min)	Lugeon Value	Drilling Status: Infiltrate Water Vol. / Loss Water Vol. (l/min)	Bit Type	Remarkes	Date Drilled
1	1.00		Gravel	D2	Orangish Brown								0-1.0m Weathered conglomerate is taken as pebbles and sand.	
2			Sandstone										1.0-3.0m Strongly weathered sandstone, taken as fine-grained sand.	
3	2.00													
4													3.0-21.15m Weathered coglomerate. Pebbles included conglomerate are derived from andesite, basalt and diorite. Sub-rounded to sub-angular, dia. 1-3cm 50% weathered. Fresh pebbles are stained along cracks.	
5														
6														
7														
8														
9														
10														
11			Conglomerate	D1										
12														
13														
14														
15														
16														
17														
18														
19														
20														
21	21.25												21.25-22.85m Looks fine-grained sand.	
22			Sand stone	D2	Light brown									
23	22.85			D1									22.85-24.40m Contains weathered sand granules.	
24	24.40												24.40-42.05m Hard and fresh except for iron staining along cracks	
25														



granules.

24.40-42.05m
Hard and fresh except for iron staining along cracks.
24.40-28.25m
Fine sand colored freshly gray is often found.

28.25-29.85m
Included pebbles are composed mostly of diorite fragment.

42.05-43.25m
Med-fine grained sandstone fresh, hard, few cracks.
Taken as columnar core, as low degree of consolidated, easily to broken by drilling.
42,4m
Fresh and hard pebbles which are derived from dolerite are found.
43.25-46.80m
Carbonic fine-grained sandstone with granules. few cracks, fresh and hard. All of core is taken as columnar brittle.

46.8-50.0m
Matrix of conglomerate is not taken dia. generally 1-3cm.
49.15-50.0m
It seems matrix of conglomerate that is composed of fresh sand.

DRILLING CORE LOG

Name of Project: Matuno

No. of Hole: B – 6

Location: B'-Site, Light Bank

Depth of Bedrock: m

Bore Hole Dia.: mm

Depth of Hole: 50.00 m

Elevation: 479,092 m

Core Recovery: %

Type of Drill Machine: Rotary

Operator:

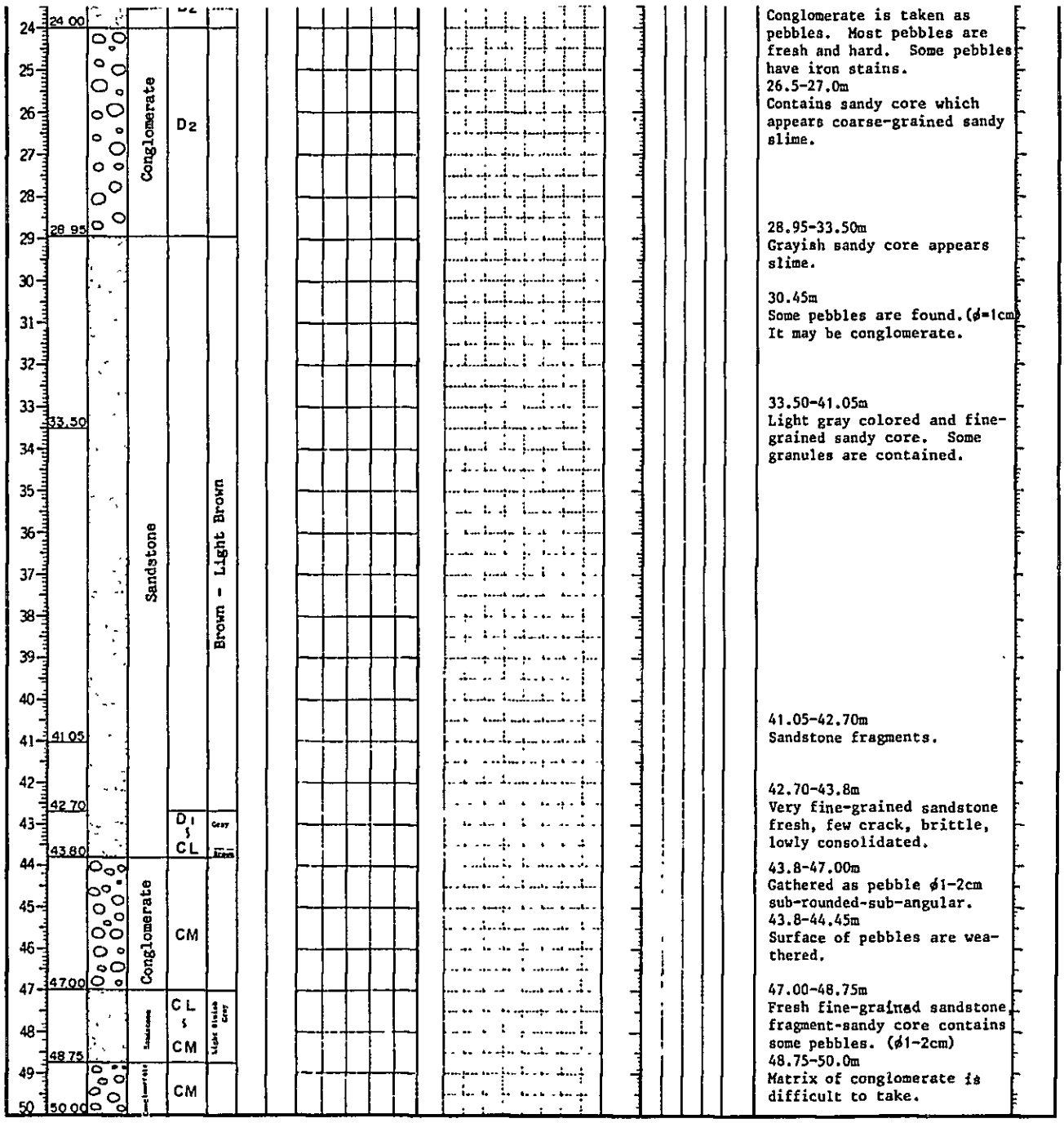
Direction / Inclination: Vertical

Underground Water Table: m

Capacity of Pump: l/min

Supervisor:

Depth (m)	(Thickness) Elevation (m)	Geological Symbol	Geology	Rock Quality Classifications	Core Characteristics: Color	Weathering	Hardness	Rock Quality Designation (20 40 60 80%)	Permeability Test: P (kg/cm²) p – q curve q (l/m·min)	Lugeon Value	Drilling Status: Infiltrate Water Vol / Loss Water Vol. (l/min)	Bit Type	Remarkes	Date Drilled
1–19			Conglomerate	D2									0.0–19.95m Pebbles that included in conglomerate are taken.(ϕ1–3cm). It seems that the conglomerate is deeply weathered. Taken pebbles are composed of sub-round-sub-angular, divied from andesite and basalt. 6m– Composed mostly of fresh and hard pebbles with minor amount of stained ones at upper part	
19.95														
20			Sandstone	D2	Light brown								19.95–21.00m Weathered fine-grained sand.	
21.00														
21–22			Conglomerate	D2									21.0–23.0m Taken as pebbles(ϕ1–2cm) weathered conglomerate.	
23.00														
23			Sandstone	D2	Light brown								23.0–24.0m Weathered sandy core.	
24.00													24.0–28.95m Conglomerate is taken as pebbles. Most pebbles are fresh and hard. Some pebbles have iron stains.	
24–25			te										26.5–27.0m	


24.00
28.95
33.50
41.05
42.70
43.80
47.00
48.75
50.00
Conglomerate
Sandstone
Conglomerate
Sandstone
Conglomerate
D2
D1 ~ CL
CM
CL ~ CM
CM
Brown - Light Brown
Conglomerate is taken as pebbles. Most pebbles are fresh and hard. Some pebbles have iron stains.
26.5-27.0m
Contains sandy core which appears coarse-grained sandy slime.
28.95-33.50m
Grayish sandy core appears slime.
30.45m
Some pebbles are found. (ϕ=1cm) It may be conglomerate.
33.50-41.05m
Light gray colored and fine-grained sandy core. Some granules are contained.
41.05-42.70m
Sandstone fragments.
42.70-43.8m
Very fine-grained sandstone fresh, few crack, brittle, lowly consolidated.
43.8-47.00m
Gathered as pebble ϕ1-2cm sub-rounded-sub-angular.
43.8-44.45m
Surface of pebbles are weathered.
47.00-48.75m
Fresh fine-grained sandstone fragment-sandy core contains some pebbles. (ϕ1-2cm)
48.75-50.0m
Matrix of conglomerate is difficult to take.

DRILLING CORE LOG

Name of Project Matuno

No of Hole B－7

Location B'-Site

Depth of Bedrock 15.10 m

Bore Hole Dia. NX. mm

Depth of Hole 60.00 m

Elevation 389.67 m

Core Recovery %

Type of Drill Machine Rotary

Operator

Direction

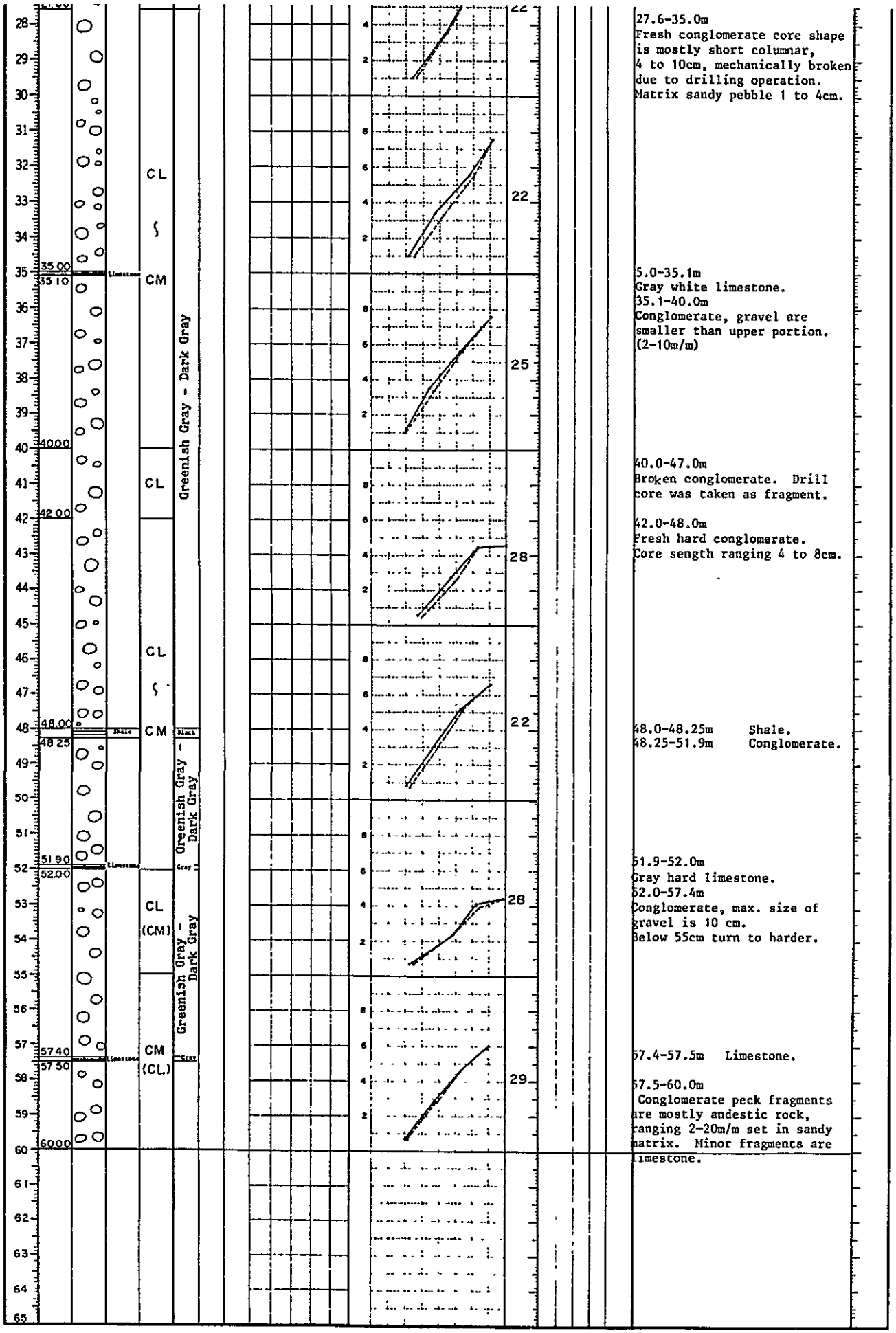
Inclination Vertical

Underground Water Table GL-0.05 m

Capacity of Pump l/min

Supervisor

Depth (m)	(Thickness) Elevation (m)	Geological Symbol	Geology	Rock Quality Classifications	Core Characteristics: Color	Weathering	Hardness	Rock Quality Designation (20 40 60 80%)	Permeability Test: P (kg/cm²) p－q curve q (l/m·min)	Lugeon Value	Drilling Status: Infiltrate Water Vol. / Loss Water Vol. (l/min)	Bit Type	Remarks	Date Drilled
1–14			River Deposit (Gravel)		Dark Gray - Greenish Gray								0-15.1m River deposit cobble -pebble 0-5.0m max. dia. 20cm 5.0-7.0m gevel with silt 7.0-15.1m 3-5cm Rock name of gravel diorite porphyrite andesite sandstone conglomerate limestone	
15	15.10													
15–17			Conglomerate	CH	Dark Green								15.1-16.9m Conglomerate, fresh hard, with very little crack, core length max. 70cm.	
16.90														
17–19				CM					19				16.9-19.0m Broken to short core, 5 to 8cm	
19.00														
19–27				CL ⟩ (CM)	Dark Green - Greenish Gray				20				19.0-27.6m Conglomerate mostly short columnar core, 3-5cm or fragmented core. Core recovery 50% more less.	
27.60														
27–35									22				27.6-35.0m Fresh conglomerate core shape is mostly short columnar, 4 to 10cm, mechanically broken due to drilling operation	


CL
CM
CL
CL
CM
CL
(CM)
CM
(CL)
Greenish Gray - Dark Gray
Greenish Gray - Dark Gray
Greenish Gray - Dark Gray
35.00
35.10
40.00
42.00
48.00
48.25
51.90
52.00
57.40
57.50
60.00
22
22
25
28
22
28
29
27.6-35.0m
Fresh conglomerate core shape is mostly short columnar, 4 to 10cm, mechanically broken due to drilling operation. Matrix sandy pebble 1 to 4cm.
35.0-35.1m
Gray white limestone.
35.1-40.0m
Conglomerate, gravel are smaller than upper portion. (2-10m/m)
40.0-47.0m
Broken conglomerate. Drill core was taken as fragment.
42.0-48.0m
Fresh hard conglomerate. Core sength ranging 4 to 8cm.
48.0-48.25m Shale.
48.25-51.9m Conglomerate.
51.9-52.0m
Gray hard limestone.
52.0-57.4m
Conglomerate, max. size of gravel is 10 cm.
Below 55cm turn to harder.
57.4-57.5m Limestone.
57.5-60.0m
Conglomerate peck fragments are mostly andestic rock, ranging 2-20m/m set in sandy matrix. Minor fragments are limestone.

DRILLING CORE LOG

Name of Project Matuno

No. of Hole B－8

Location

Depth of Bedrock 0.00 m

Bore Hole Dia. mm

Depth of Hole 70.30 m

Elevation 507.826 m

Core Recovery %

Type of Drill Machine Rotary

Operator

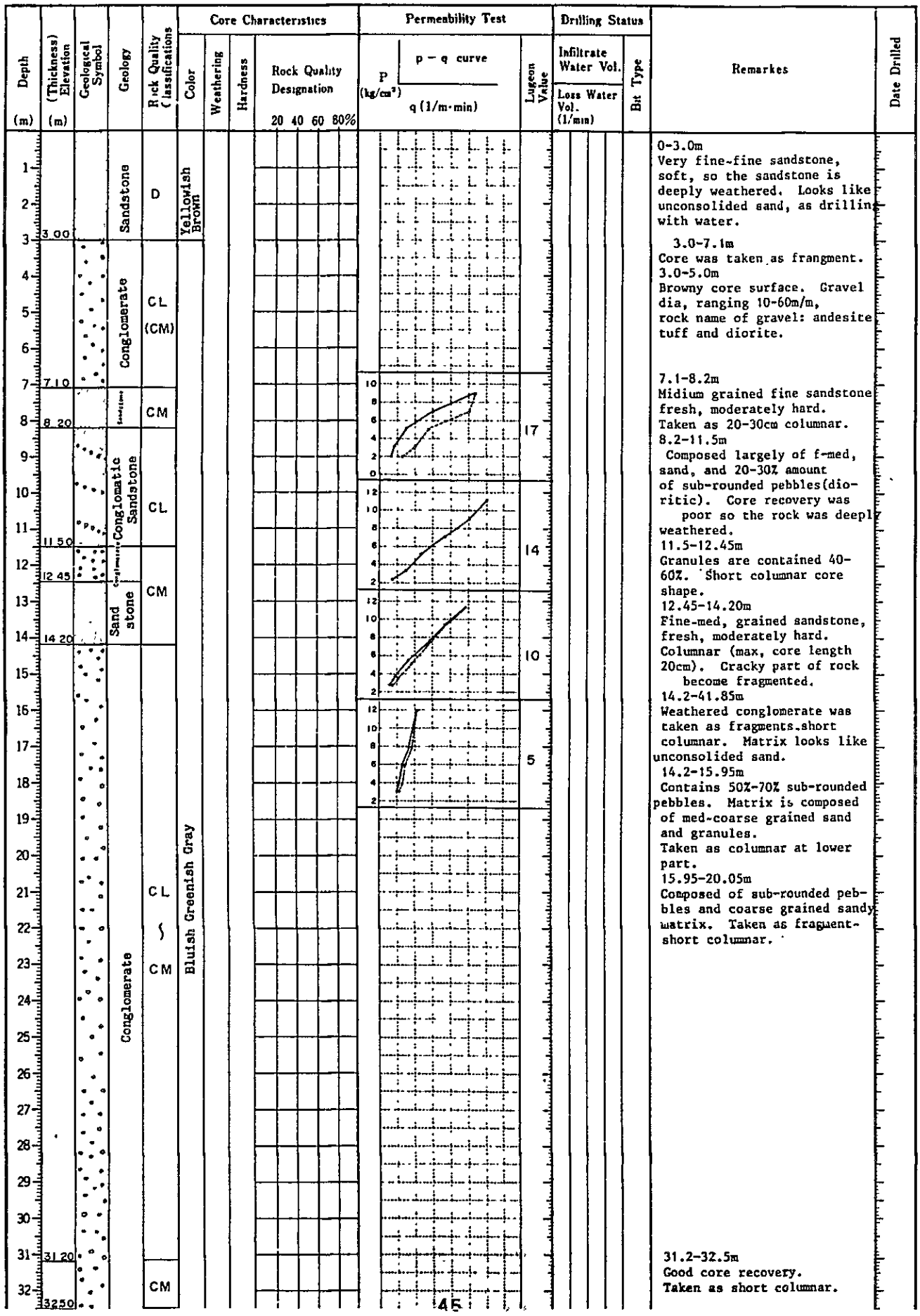
Direction

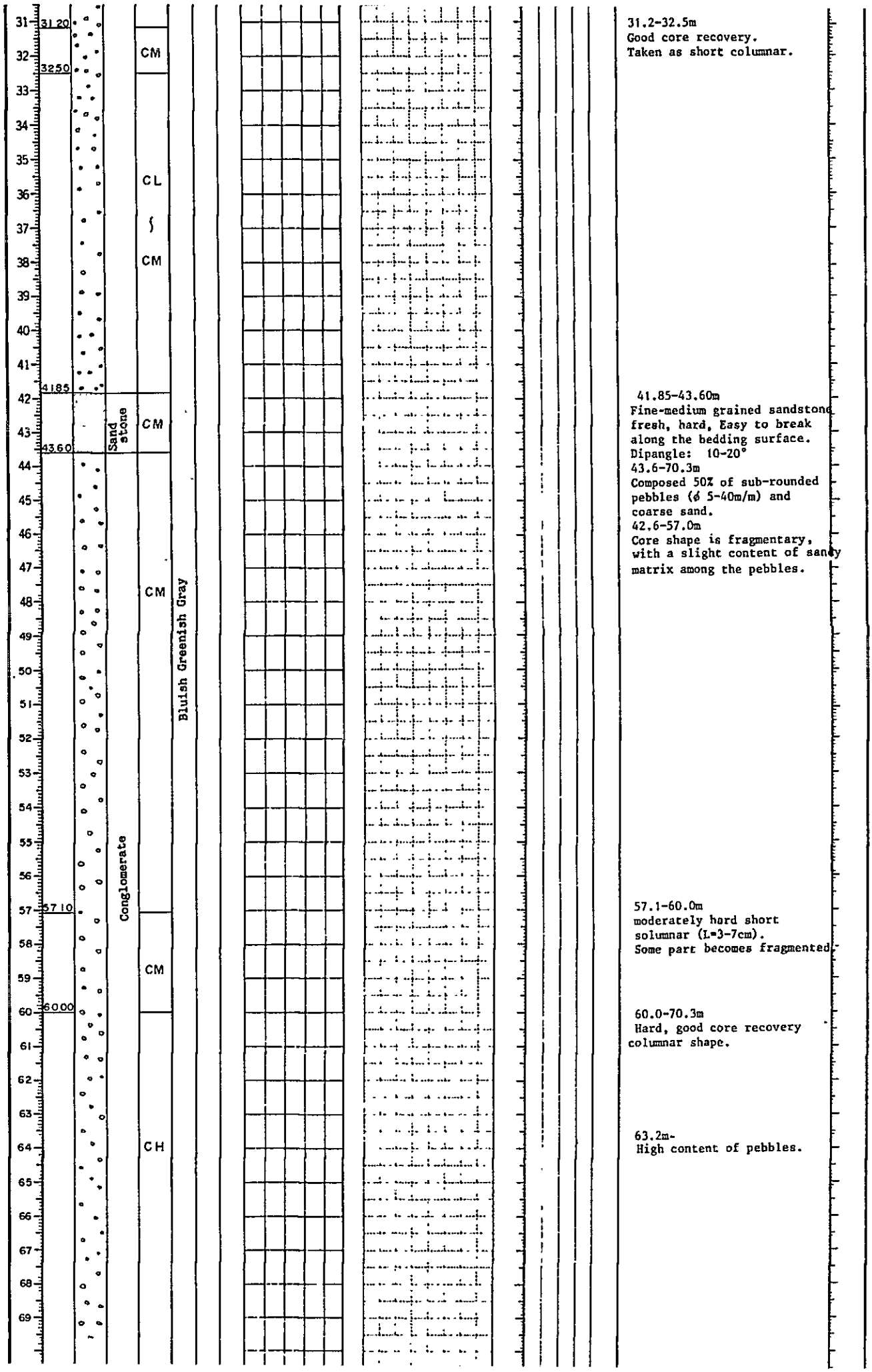
Underground Water Table GL － 32.07 m

Capacity of Pump l/min

Supervisor

Inclination Vertical




31.20
32.50
41.85
43.60
57.10
60.00
CM
CL
CM
CM
CM
CH
Sand stone
Conglomerate
Bluish Greenish Gray
31.2-32.5m
Good core recovery.
Taken as short columnar.
41.85-43.60m
Fine-medium grained sandstone
fresh, hard, Easy to break
along the bedding surface.
Dipangle: 10-20°
43.6-70.3m
Composed 50% of sub-rounded
pebbles (ϕ 5-40m/m) and
coarse sand.
42.6-57.0m
Core shape is fragmentary,
with a slight content of sandy
matrix among the pebbles.
57.1-60.0m
moderately hard short
solumnar (L=3-7cm).
Some part becomes fragmented.
60.0-70.3m
Hard, good core recovery
columnar shape.
63.2m-
High content of pebbles.

DRILLING CORE LOG

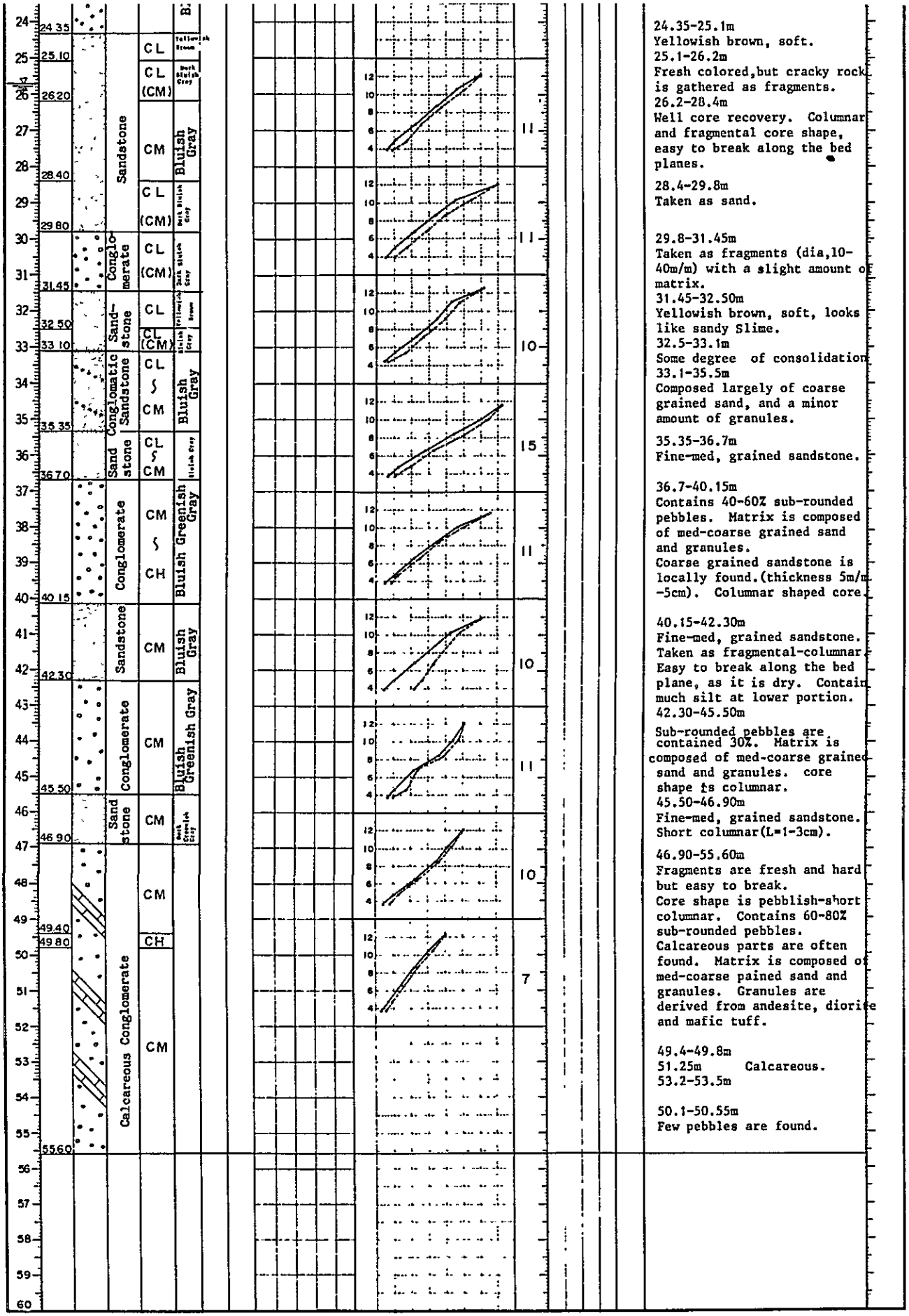
Name of Project Matuno — No. of Hole B – 9

Location — Depth of Bedrock 2.95 m — Bore Hole Dia. — mm — Depth of Hole 55.60 m

Elevation 544.997 m — Core Recovery — % — Type of Drill Machine Rotary — Operator

Direction / Inclination Vertical — Underground Water Table GL – 25.75 m — Capacity of Pump — l/min — Supervisor

Depth (m)	(Thickness) Elevation (m)	Geological Symbol	Geology	Rock Quality Classifications	Core Characteristics: Color	Weathering	Hardness	Rock Quality Designation (20 40 60 80%)	Permeability Test: P (kg/cm²) p – q curve q (l/m·min)	Lugeon Value	Drilling Status: Infiltrate Water Vol. / Loss Water Vol. (l/min)	Bit Type	Remarkes	Date Drilled
1			Talus (gravel)		Yellowish Brown								0–2.95m Talus is composed of sub-rounded pebbles and f-co, grained sand. Pebbles are erived from andesite, tuff and diorite.	
2	2.95												2–2.95m Looks like weathered sandston	
3			Sand-stone	D									2.95–4.45m Fine-med, grained sandstone. Drilling with water, the weathered rock is taken as sandy slime.	
4	4.45												4.45–7.50m Conglomatic coarse grained sandstone strongly weathered, soft.	
5			Conglomatic Sandstone	D	Yellowish Gray									
6														
7	7.50												7.5–11.3m Fine-coarse grained sandstone. strongly weathered, soft. Taken as sandy slime.	
8			Sandstone	D	Yellowish Gray									
9														
10													11.3–12.9m Core recovery is very poor because the rock is strongly weathered. Taken as a small amount of fragments.	
11	11.30													
12	12.90		Conglomatic	D	Yellowish Gray								12.9–14.0m Fine-med, grained sandstone, soft, sandy slime.	
13			Sandstone	D	Yellowish Gray									
14	14.00		Sandstone Conglomeratic	D	Yellowish Bluish Gray								14.0–15.2m Gathered without matrix. Poor recovery.	
15	15.20												15.2–19.0m Soft because deeply weathered Taken as sandy slime with pebble.	
16			Conglomatic Sandstone	D	Yellowish Gray									
17														
18														
19	19.00												19.0–24.35m Become firm, Taken without matrix. Gathered core is consisted mostly of pebbles.	
20			Conglomerate	CL	Bluish Yellowish Gray									
21														
22														
23														
24	24.35												24.35–25.1m Yellowish brown, soft.	
25	25.10			CL									25.1–26.2m Fresh colored,but cracky rock	
				CL										


24.35
25.10
26.20
28.40
29.80
31.45
32.50
33.10
35.35
36.70
40.15
42.30
45.50
46.90
49.40
49.80
55.60
Sandstone
Conglo-merate
Sand-stone
Conglomatic Sandstone
Sand stone
Conglomerate
Sandstone
Conglomerate
Sand stone
Calcareous Conglomerate
CL
CL (CM)
CM
CL (CM)
CL (CM)
CL (CM)
CL ~ CM
CL ~ CM
CM ~ CH
CM
CM
CM
CH
CM
Bluish Gray
Bluish Gray
Bluish Greenish Gray
Bluish Gray
Bluish Greenish Gray
11
11
10
15
11
10
11
10
7
24.35-25.1m
Yellowish brown, soft.
25.1-26.2m
Fresh colored,but cracky rock is gathered as fragments.
26.2-28.4m
Well core recovery. Columnar and fragmental core shape, easy to break along the bed planes.
28.4-29.8m
Taken as sand.
29.8-31.45m
Taken as fragments (dia,10-40m/m) with a slight amount of matrix.
31.45-32.50m
Yellowish brown, soft, looks like sandy Slime.
32.5-33.1m
Some degree of consolidation
33.1-35.5m
Composed largely of coarse grained sand, and a minor amount of granules.
35.35-36.7m
Fine-med, grained sandstone.
36.7-40.15m
Contains 40-60% sub-rounded pebbles. Matrix is composed of med-coarse grained sand and granules.
Coarse grained sandstone is locally found.(thickness 5m/m -5cm). Columnar shaped core.
40.15-42.30m
Fine-med, grained sandstone.
Taken as fragmental-columnar
Easy to break along the bed plane, as it is dry. Contain much silt at lower portion.
42.30-45.50m
Sub-rounded pebbles are contained 30%. Matrix is composed of med-coarse grained sand and granules. core shape is columnar.
45.50-46.90m
Fine-med, grained sandstone.
Short columnar(L=1-3cm).
46.90-55.60m
Fragments are fresh and hard but easy to break.
Core shape is pebblish-short columnar. Contains 60-80% sub-rounded pebbles.
Calcareous parts are often found. Matrix is composed of med-coarse pained sand and granules. Granules are derived from andesite, diorite and mafic tuff.
49.4-49.8m
51.25m Calcareous.
53.2-53.5m
50.1-50.55m
Few pebbles are found.

DRILLING CORE LOG

Name of Project Matuno — No. of Hole BM - 2

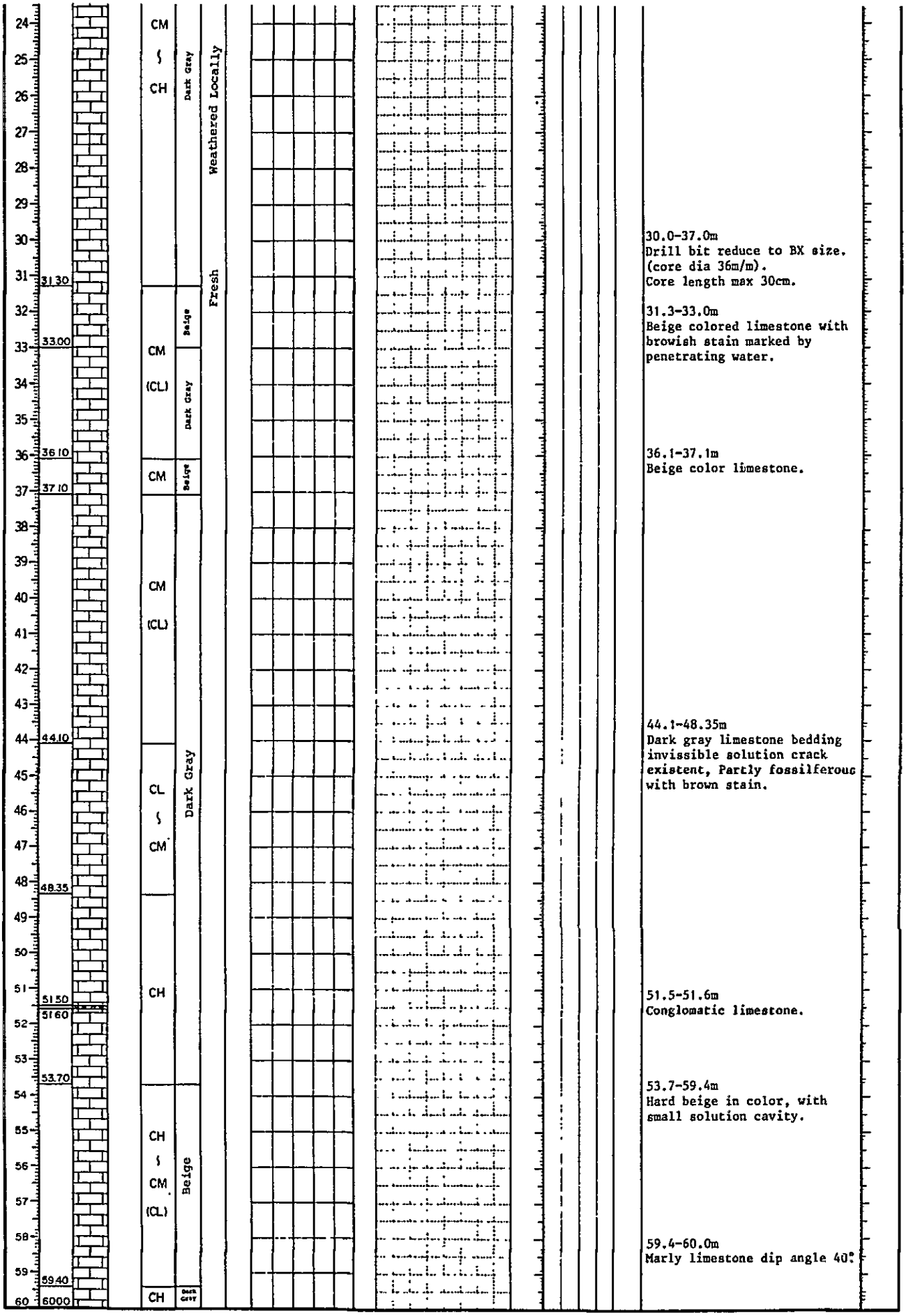
Location B'ante, Right Bank — Depth of Bedrock 2.00 m — Bore Hole Dia. NX, BX mm — Depth of Hole 60.00 m

Elevation 486.48 m — Core Recovery % — Type of Drill Machine Rotary — Operator

Direction — Underground Water Table Loss of Water m — Capacity of Pump l/min — Supervisor

Inclination Vertical

Depth (m)	(Thickness) Elevation (m)	Geological Symbol	Geology	Rock Quality Classifications	Core Characteristics: Color	Weathering	Hardness	Rock Quality Designation 20 40 60 80%	Permeability Test: P (kg/cm²) p − q curve q (l/m·min)	Lugeon Value	Drilling Status: Infiltrate Water Vol / Loss Water Vol. (l/min)	Bit Type	Remarkes	Date Drilled
1		Talus			Black - Gray								0-2.0m Talus consists of limestone fragment with humic soil.	
2	2.00	Limestone											2.0-7.1m Deeply weathered limestone fragment, 1 to 4cm in size mixed with clay.	
3				CL ~ (D)		Deeply Weathered								
4														
5														
6														
7	7.10				Yellowish Gray - Beige								7.10-10.0m Yellowish(beige) limestone, seekly seathered brownish stains appear along cracks core length are mostly 10cm, more than 20cm rare. dip angle 45-50°.	
8				CL										
9						Weekly Weathered								
10	10.00			CM									10.0-11.0m Hard limestone core length 20 to 25cm.	
11	11.00													
12				CL										
13														
14	14.25													
15				CL ~ CM										
16	16.30												16.0-30.0m Rock classificaion mostly CM-HM. Dark gray to yellowish gray in color. Partly araneceous lime stone with badding plane. Max core length 30cm, partly broken at 24.65-24.75m.	
17														
18				CM										
19														
20														
21	21.10				Beige									
22														
23														
24				CM ~										
25					Gray	ally								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54
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56
57
58
59
60
31.30
33.00
36.10
37.10
44.10
48.35
51.50
51.60
53.70
59.40
60.00
CM
⟆
CH
Dark Gray
Beige
CM
(CL)
Dark Gray
CM
Beige
CM
(CL)
CL
⟆
CM
Dark Gray
CH
CH
⟆
CM
(CL)
Beige
CH
Weathered Locally
Fresh
30.0-37.0m
Drill bit reduce to BX size.
(core dia 36m/m).
Core length max 30cm.
31.3-33.0m
Beige colored limestone with
browish stain marked by
penetrating water.
36.1-37.1m
Beige color limestone.
44.1-48.35m
Dark gray limestone bedding
invissible solution crack
existent, Partly fossilferous
with brown stain.
51.5-51.6m
Conglomatic limestone.
53.7-59.4m
Hard beige in color, with
small solution cavity.
59.4-60.0m
Marly limestone dip angle 40°

DRILLING CORE LOG

Name of Project: Matuno
No of Hole: BM - 3
Location: Bante Right Band
Depth of Bedrock: 23.00 m
Bore Hole Dia.: mm
Depth of Hole: 30.00 m
Elevation: 407.63 m
Core Recovery: %
Type of Drill Machine: Rotary
Operator: D. Bayon
Direction / Inclination: Vertical
Underground Water Table: m
Date: Dec. 11 Dec. 17, 1982
Supervisor:

Scale (m)	Elevation (m)	Depth (m)	Thickness (m)	Geological Symbol	Geology	Color	Remarks	Standard Penetration Test: Test Depth (m)	N-Value	Knocking Times per 10cm: cm 10	cm 20	cm 30	Knocking Times: 10 20 30 40 50	Sampling: Sample No.	Sample Depth (m)	Sampler
		0.30	0.30		Sand	Blackish Brown	Humush sand, conposed largely of fine-medium sand.									
1		1.20	0.90		Gravel with clay		contain about 10% humus. gravel is composed largely of 10-80m/m limestone. Andesite gravel(ϕ10-20 m/m) contain is several place.									
2																
3																
4						Milky Gray										
5					Pebbles with Sand		Contain about 80% sub angler poorly sorted grauel(ϕ20-60m/m, max 400m/m)									
6						Yellowish Gray										
7							The formation contain limestone as a major, and ba fasalt, andesite and tuff asminos, gravel.									
8																
9																
10																
11																
12																
13																
14																
15		15.10	13.90													
16						Yellowish brown	Contain about 60% sub-anguler gravel(ϕ5-40m/m) Gravel composition is same bot limestones is slightly lers than upper layer.									
17																
18					Gravel		Matrix is loose medium to coarse sand.									
19							20m. Boulder limestone(ϕ300m/m)									
20																
21							20-23m. Gravels are increasing.									
22																
23		23.00	7.90													
24						Dark Yellowish Brown	Mostly 5 to 30m/m dia subroumded gravel. Gravel are consite of andesite, diorite, basalt and tuff as majors. limestone is a rare gravel.									
25					Gravel (Weathered Conglomerate)											
26																
27							Matrix is pooly sorted medium to coarse sand.									
28																
29																
30		30.00	7.00													

DRILLING CORE LOG

Name of Project Matuno — No. of Hole BM – 5

Location Bante Right Bank — Depth of Bedrock m — Bore Hole Dia. mm — Depth of Hole 20.20 m

Elevation 389.60 m — Core Recovery % — Type of Drill Machine Rotary — Operator G. Gomez

Direction — Underground

Inclination Vertical — Water Table m — Date Dec. 8 – Dec. 15 — Supervisor

Depth (m)	Thickness (m)	Geology	Color	Remarks
0.50	0.50	Clayey Sand	Blackish Brown	Mostly fine to medium-sand. Contain plant roots and humus.
		Pebbles with Sand	Milky Gray	20 to 100m/m dia. subrounded pebbles. This layer is regarded as contain sand. Contain limestone as a major. Nearly 4.5m and 9.7m contain porphyry. 4.6m to 6.0m pebble is 15 to 20m dieneter (mostly 60 to 80%) 6.5m to 8.95m the layer. Contain many redish limestones which is due to silicfred and iron stain.
			Milky Redish Gray	
10.60	10.10	Gravel	Yellow-ish Brown	Contain 10 to 40m/m diameter subrounded gravel(60%). Matrix is fine to medium sand as a major(20-40%) Gravel compostion is similar to conglomerate. They are compose of limestone, as a minor, andesite and basic tuff, as major. Contain very five to sand (20-40%). Blacky humus sand constitute the upper part of the layer. Mainly 10 to 60m/m diameter subrounded gravel (contain 40-60%) Matrix is fine to medium well sorted sandstone. Gravel composition is similar to conglomerate, They are composed of limestone, as minor, andestite and tuff as a major.
14.50	3.90	Clay With Sand	Yellow-ish Brown	
16.60	2.10	Gravel	Yellow-ish Gray	
20.20	3.60			

Standard Penetration Test: Test Depth (m); N-Value; Knocking Times per 10cm (cm 10, cm 20, cm 30); Knocking Times (10, 20, 30, 40, 50)

Sampling: Sample No.; Sample Depth (m); Sampler

DRILLING CORE LOG

Name of Project Matuno — No of Hole BM – 7

Location Bante Right Bank — Depth of Bedrock m — Bore Hole Dia. mm — Depth of Hole 10.00 m

Elevation 378.65 m — Core Recovery % — Type of Drill Machine Rotary — Operator C. Gomez

Direction — Underground

Inclination Vertical — Water Table m — Date — Supervisor

Scale (m)	Elevation (m)	Depth (m)	Thickness (m)	Geological Symbol	Geology	Color	Remarks
1–4					Gravel with Clay	Blackish Brown / Brown	Contain 2 to 40mm diameter subangler limestone grave. (50 to70) Matrix, contain a little clay, is poorly sorted fine to coarse sand. 0 to 30cm larger contain plants roots and humus (farming soil).
5		5.00	5.00				Contain 5 to 30mm
5		5.80	0.80		Gravel	Yellowish Brown	diameter subrounded limestone and andesite gravel.
6–7		7.00	1.20		Gravel With Clay	Blackish Brown	Mainly limestone & andesite(5-60mm dia)
7–10		10.00	3.00		Pebbles with Sand	Milky Yellowish Gray / Milky Redish Brown	Matrix contain humus as a major, and clay, as a minor. Matrix contain about 20% sand. Silicified red limestone(10 to 300mm diameter).
10–30							9.20m to bottom increase boulder limestone. 9.70m Contain andesite gravel.

Standard Penetration Test

Test Depth (m)	N-Value	Knocking Times per 10cm: cm 10	cm 20	cm 30	Knocking Times: 10	20	30	40	50

Sampling

Sample No	Sample Depth (m)	Sampler

DRILLING CORE LOG

Name of Project Maruno — No. of Hole BM - 8

Location Bante Right Bank — Depth of Bedrock m — Bore Hole Dia. mm — Depth of Hole m

Elevation 392.44 m — Core Recovery % — Type of Drill Machine Rotary — Operator D. Bayon

Direction / Inclination Vertical — Underground Water Table m — Date Dec. 4 - Dec. 6 — Supervisor

Scale (m)	Elevation (m)	Depth (m)	Thickness (m)	Geological Symbol	Geology	Color	Remarks
1		0.80	0.80		Clayey Sand	Blackish Brown	Humus, fine to medium sand is dominated and contain many clay. Contain limestone, tuff and andesite pebbles about 10%. (10-30m/m diameter).
2					Pebbles with Sand	Milky Yellowish Gray	Taken fragmentary (20 to 40 mm dia) and columnar (20-35cm length)
3							
4						Milky Gray	
5							Contain limestone, as a major, andesite and basic tuff as minor. Pebble content is 60 to 80% regarded as talus deposit.
6							
7							
8							
9							
10		10.00	9.20				
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

Standard Penetration Test							Sampling		
Test Depth (m)	N-Value	Knocking Times per 10cm: cm 10	cm 20	cm 30	Knocking Times: 10 20 30 40 50		Sample No.	Sample Depth (m)	Sampler

DRILLING CORE LOG

Name of Project Matuno

No. of Hole BM - 9

Location Bante Right Bank

Depth of Bedrock 2.00 m

Bore Hole Dia. mm

Depth of Hole 60 .00 m

Elevation 490.69 m

Core Recovery %

Type of Drill Machine

Operator G. Gomez

Direction

Inclination Vertical

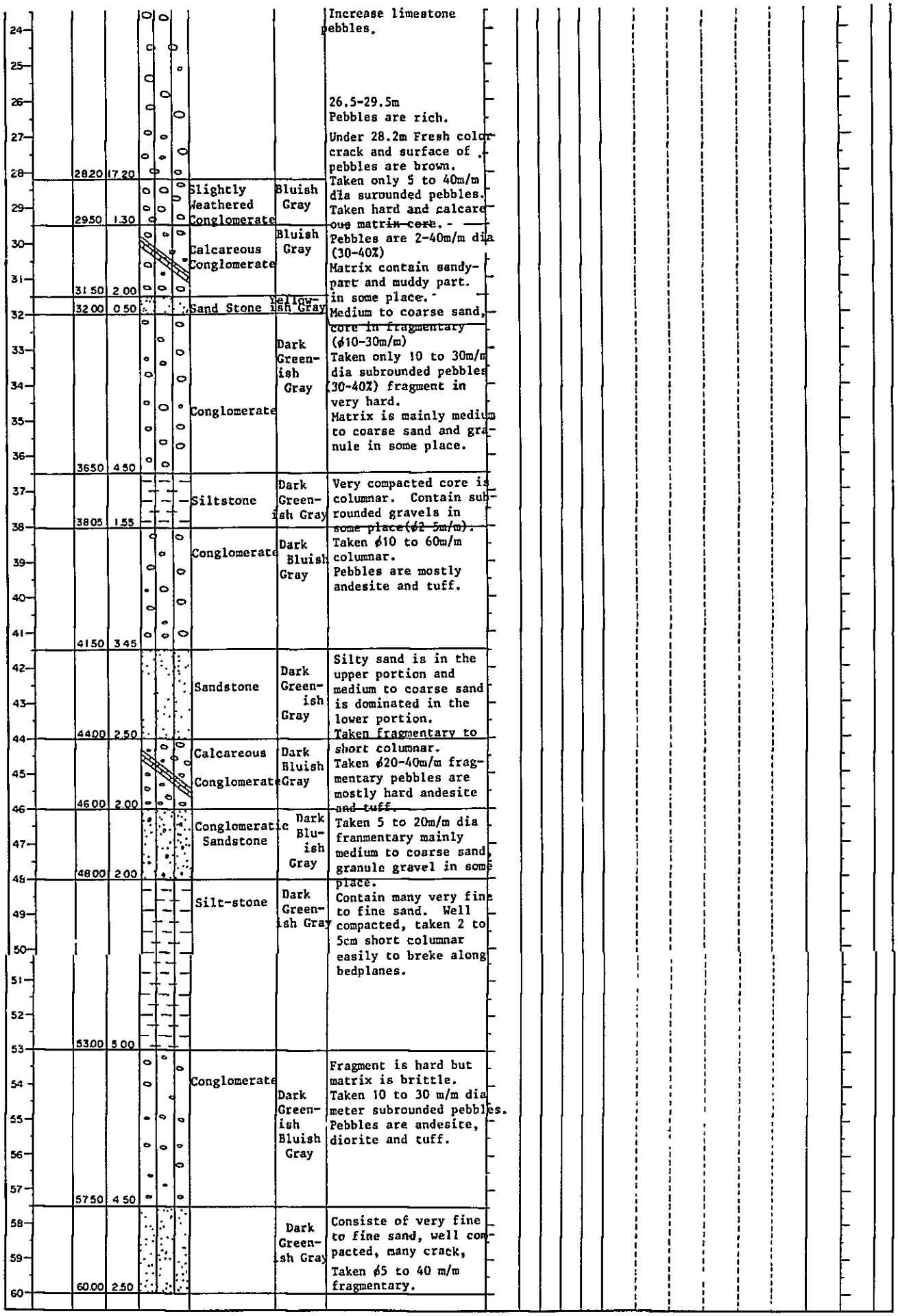
Underground Water Table m

Date Jan. 6 - Jan. 18, 1983

Supervisor

Scale (m)	Elevation (m)	Depth (m)	Thickness (m)	Geological Symbol	Geology	Color	Remarks
1					Sand with Clay	Yellowish Brown	Mainly medium to coarse sand contain small amount of clay. Pebbles are mainly weathered limestone. Contain 2 to 10m/m diameter subanguler pebbles.
2		2.00	2.00				
3					Deeply Weathered Conglomerate	Yellowish Brown	Contain many 10 to 60m/m dia subrounded decayed pebbles/ Matrix is compacted fine to medium sand. Nonwater drilling core looks like compacted sand. 5.0-6.4m Matrix increase coarse sand (20%) contain subrounded hard pebbles in some place. (φ2-20m/m)
4							
5							
6							
7							
8							
9							
10							
11		11.00	9.00				Under 11m weakly eathered drilling with water, fine clements are lost. Taken 10 to 60m/m subrounded pebbles.
12					Weekly Weathered Conglomerate	Yellowish Brown	
13							
14						Yellowish Gray	
15							Pebbles are mainly andesite, diorite and tuff. 11.0-12.8m Increase limestone pebbles.
16							
17							
18							
19							19.5-23.4m Decrease pebbles.
20							
21							
22							
23							3.4-23.5m Increase limestone pebbles.
24							
25							

Standard Penetration Test											Sampling		
Test Depth (m)	N-Value	Knocking Times per 10cm			Knocking Times						Sample No	Sample Depth (m)	Sampler
		cm 10	cm 20	cm 30	10	20	30	40	50				


Increase limestone pebbles.
26.5-29.5m
Pebbles are rich.
Under 28.2m Fresh color crack and surface of pebbles are brown.
28.20 17.20
Slightly Weathered Conglomerate
Bluish Gray
Taken only 5 to 40m/m dia surounded pebbles. Taken hard and calcareous matrix core. -
29.50 1.30
Calcareous Conglomerate
Bluish Gray
Pebbles are 2-40m/m dia (30-40%)
Matrix contain sandy-part and muddy part. in some place. -
31.50 2.00
Sand Stone
Yellowish Gray
32.00 0.50
Medium to coarse sand, core in fragmentary
Conglomerate
Dark Greenish Gray
(ϕ10-30m/m)
Taken only 10 to 30m/m dia subrounded pebbles (30-40%) fragment in very hard.
Matrix is mainly medium to coarse sand and granule in some place.
36.50 4.50
Siltstone
Dark Greenish Gray
Very compacted core is columnar. Contain subrounded gravels in some place(ϕ2-5m/m).
38.05 1.55
Conglomerate
Dark Bluish Gray
Taken ϕ10 to 60m/m columnar.
Pebbles are mostly andesite and tuff.
41.50 3.45
Sandstone
Dark Greenish Gray
Silty sand is in the upper portion and medium to coarse sand is dominated in the lower portion.
Taken fragmentary to short columnar.
44.00 2.50
Calcareous Conglomerate
Dark Bluish Gray
Taken ϕ20-40m/m fragmentary pebbles are mostly hard andesite and tuff.
46.00 2.00
Conglomeratic Sandstone
Dark Bluish Gray
Taken 5 to 20m/m dia franmentary mainly medium to coarse sand, granule gravel in some place.
48.00 2.00
Silt-stone
Dark Greenish Gray
Contain many very fine to fine sand. Well compacted, taken 2 to 5cm short columnar easily to breke along bedplanes.
53.00 5.00
Conglomerate
Dark Greenish Bluish Gray
Fragment is hard but matrix is brittle.
Taken 10 to 30 m/m diameter subrounded pebbles.
Pebbles are andesite, diorite and tuff.
57.50 4.50
Dark Greenish Gray
Consiste of very fine to fine sand, well compacted, many crack,
Taken ϕ5 to 40 m/m fragmentary.
60.00 2.50

DRILLING CORE LOG

Name of Project Matuno — No. of Hole BM - 10

Location Bante Right Bank — Depth of Bedrock m — Bore Hole Dia. mm — Depth of Hole 29.30 m

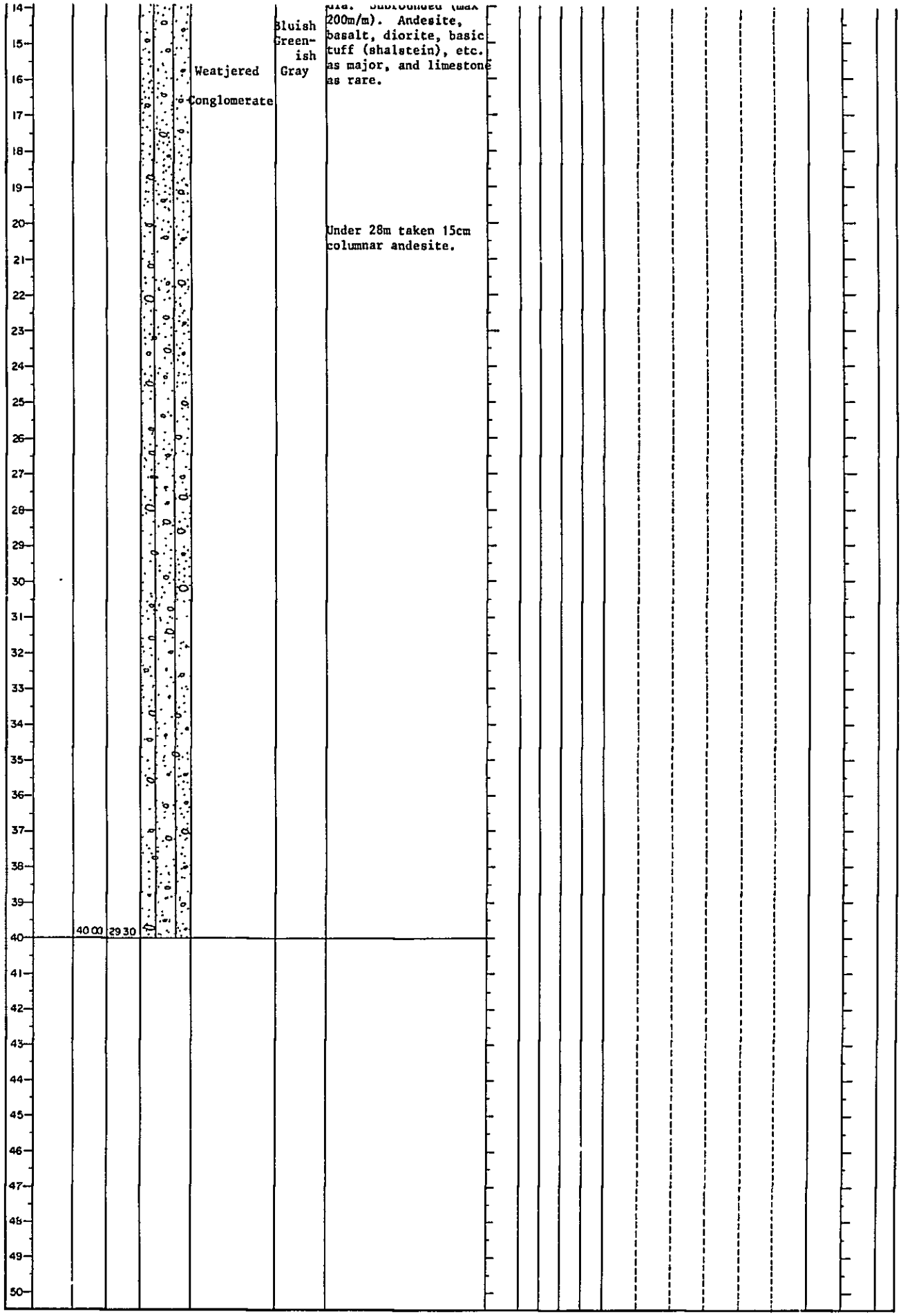
Elevation 478.02 m — Core Recovery % — Type of Drill Machine Rotary — Operator G. Gomez

Direction — Underground

Inclination Vertical — Water Table m — Date Dec. 24 - Dec. 29, 1982 — Supervisor

Scale (m)	Elevation (m)	Depth (m)	Thickness (m)	Geological Symbol	Geology	Color	Remarks
		0.90	0.90		Gravel	Brown	Mostly ϕ10 to 60m/m subanguler contain roots of plant. Pebbles are limestone, andesite and diorite. Matrix is fine to medium sand and slighly clay 15%).
					Gravel (Weathered Conglomerate)	Brown	Decayded pebbles Pebbles are diorite, andesite, basalt, basic tuff (shelstein) and limestone.
						Yellowish Brown	
		10.70	9.80		Weatjered Conglomerate	Bluish Greenish Gray	Taken only pebbles, matrix is almost lost. Matrix is medium sand with ϕ2-10m/m subrounded gravels(50-70%) Pebbles are 20 to 80m/m dia. Subrounded (max 200m/m). Andesite, basalt, diorite, basic tuff (shalstein), etc. as major, and limestone as rare. Under 28m taken 15cm columnar andesite.

Standard Penetration Test											Sampling		
Test Depth (m)	N-Value	Knocking Times per 10cm cm 10	cm 20	cm 30	Knocking Times 10	20	30	40	50		Sample No.	Sample Depth (m)	Sampler


Weatjered
Conglomerate
Bluish Green-ish Gray
200m/m). Andesite, basalt, diorite, basic tuff (shalstein), etc. as major, and limestone as rare.
Under 28m taken 15cm columnar andesite.
40 00
29 30

DRILLING CORE LOG

Name of Project Matuno — No. of Hole BM – 11

Location Bante Right Bank — Depth of Bedrock 0.50 m — Bore Hole Dia. mm — Depth of Hole 60.00 m

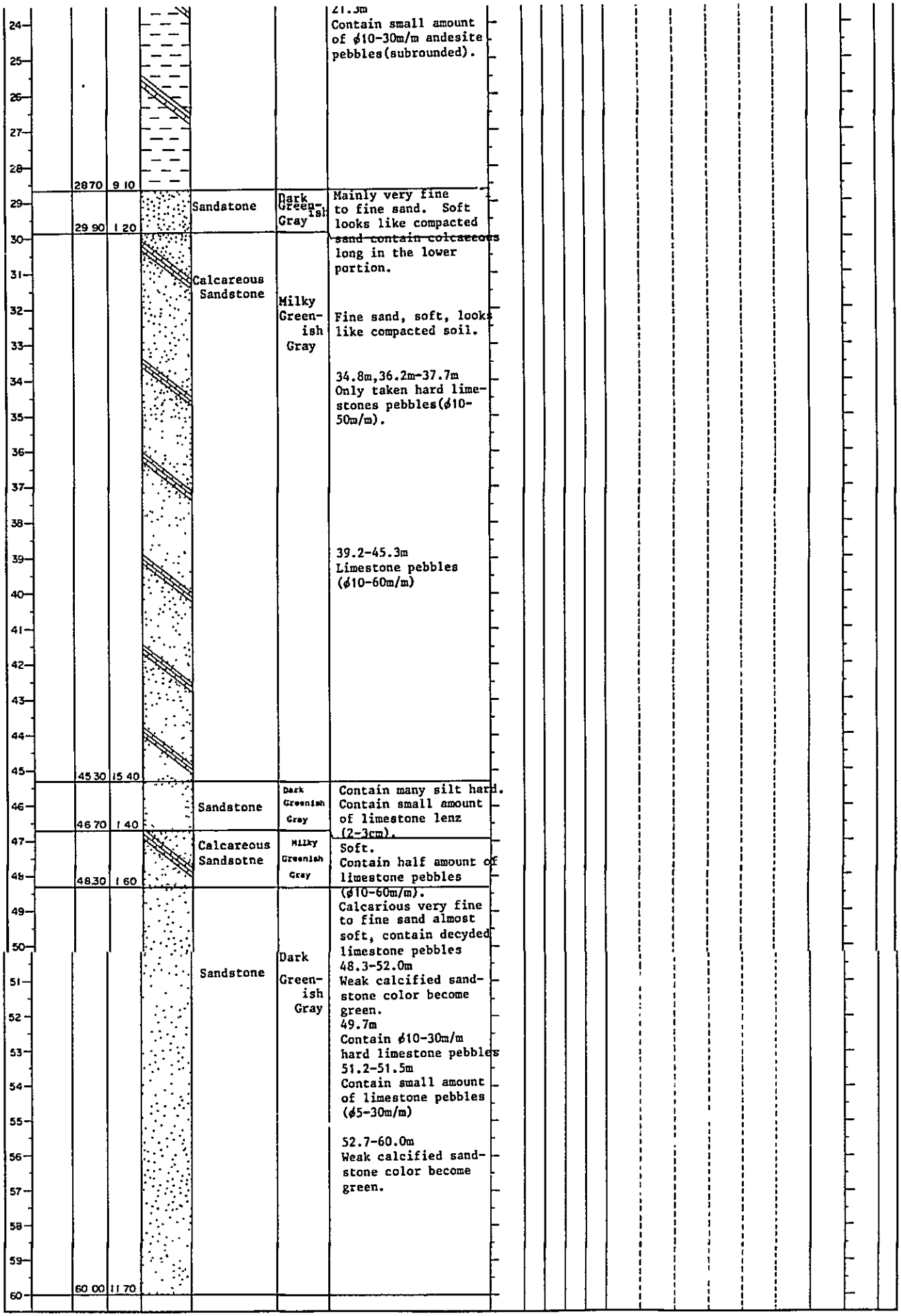
Elevation 511.60 m — Core Recovery % — Type of Drill Machine Rotary — Operator D. Bayon

Direction — Underground Water Table m — Date Jan. 4 – Jan. 17, 1983 — Supervisor

Inclination Vertical

Scale (m)	Elevation (m)	Depth (m)	Thickness (m)	Geological Symbol	Geology	Color	Remarks
		0.50	0.50		Sand with Gravel	Yellowish Brown	Poorly sorted fine to coarse sand, contain small amount of gramule upper 5cm humus.
1–2		2.00	1.50		Sandstone	Yellowish Brown ↓ Gray	
2–5		5.70	4.20		Deeply Weathered Limestone	Milky Yellowish Gray	Weathered contain small amount of decyded gravel looks like compacted sand.
6–19		19.60	13.90		Weekly Weathered Limestone	Milky Gray	aken ϕ30-80m/m fragmentary and shatler by drilling. 8.2m Taken 5cm long columnar. 14.0-19.6m Taken fragmentary (ϕ10-80m/m).
20–25					Calcareous Siltstone	Dark Bluish Greenish Gray	Contain ϕ2-10m/m limestone gravel and 2-5m/m thick limestone lenz. Almost soft looks like compacted silt. Easily broken by fingers. 21.3m Contain small amount of ϕ10-30m/m andesite pebbles(subrounded).

Standard Penetration Test												Sampling		
Test Depth (m)	N-Value	Knocking Times per 10cm: cm 10	cm 20	cm 30	Knocking Times: 10	20	30	40	50	Sample No	Sample Depth (m)	Sampler


21.3m
Contain small amount of ϕ10-30m/m andesite pebbles(subrounded).
28 70 9 10
Sandstone
Dark Green-ish Gray
Mainly very fine to fine sand. Soft looks like compacted sand contain colcareous long in the lower portion.
29 90 1 20
Calcareous Sandstone
Milky Green-ish Gray
Fine sand, soft, looks like compacted soil.
34.8m,36.2m-37.7m
Only taken hard limestones pebbles(ϕ10-50m/m).
39.2-45.3m
Limestone pebbles (ϕ10-60m/m)
45 30 15 40
Sandstone
Dark Greenish Gray
Contain many silt hard.
Contain small amount of limestone lenz (2-3cm).
46 70 1 40
Calcareous Sandsotne
Milky Greenish Gray
Soft.
Contain half amount of limestone pebbles (ϕ10-60m/m).
48 30 1 60
Sandstone
Dark Green-ish Gray
Calcarious very fine to fine sand almost soft, contain decyded limestone pebbles
48.3-52.0m
Weak calcified sandstone color become green.
49.7m
Contain ϕ10-30m/m hard limestone pebbles
51.2-51.5m
Contain small amount of limestone pebbles (ϕ5-30m/m)
52.7-60.0m
Weak calcified sandstone color become green.
60 00 11 70

DRILLING CORE LOG

Name of Project Matuno

No of Hole BM-12

Location Bante Right Bank

Depth of Bedrock 27.0 m

Bore Hole Dia mm

Depth of Hole 40.0 m

Elevation 411.81 m

Core Recovery %

Type of Drill Machine Rotary

Operator D. Bayon

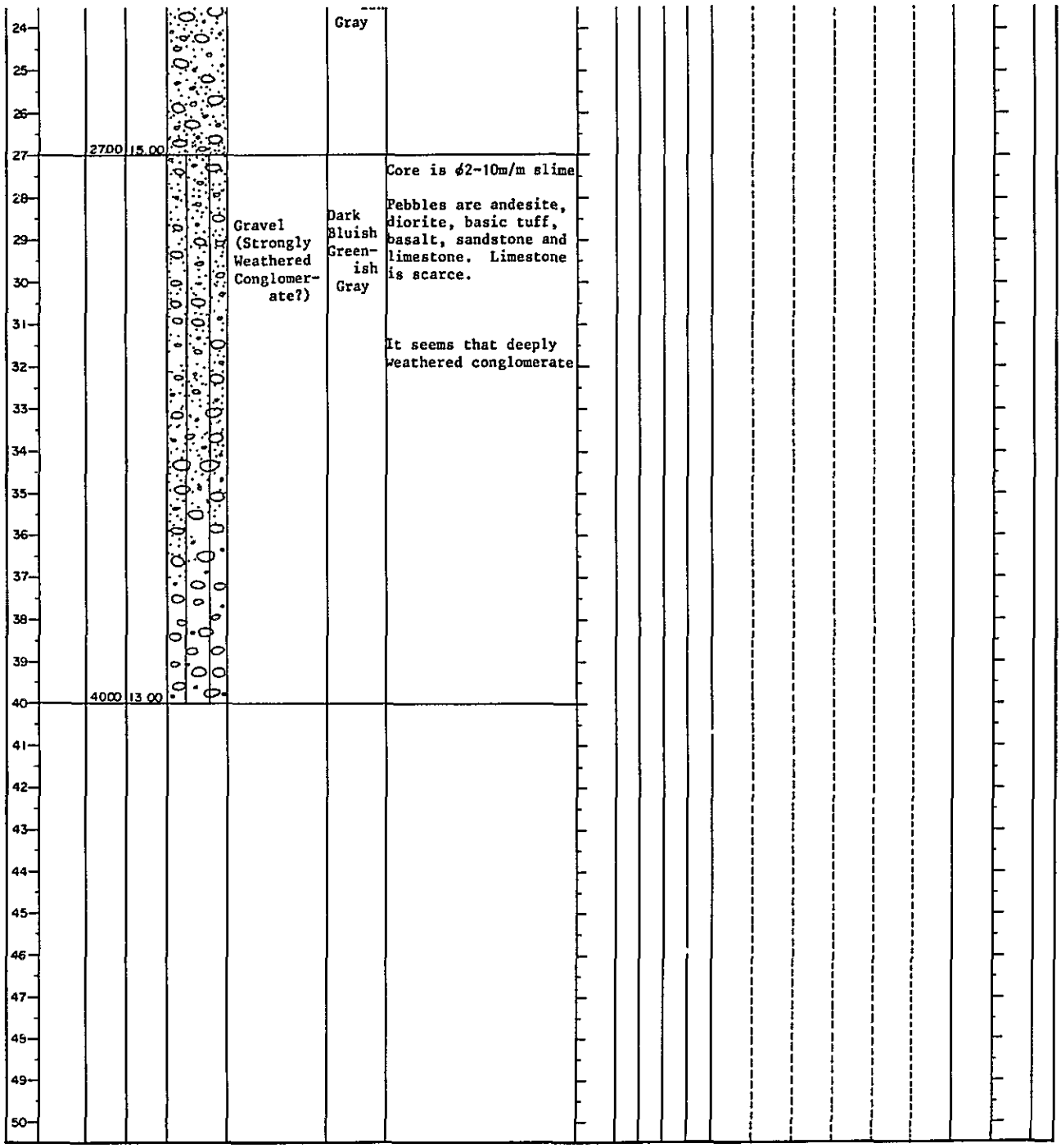
Direction / Inclination Vertical

Underground Water Table m

Date Dec. 23 - Dec. 28, 1982

Supervisor

Scale (m)	Elevation (m)	Depth (m)	Thickness (m)	Geological Symbol	Geology	Color	Remarks	Standard Penetration Test: Test Depth (m)	N-Value	Knocking Times per 10cm: cm 10	cm 20	cm 30	Knocking Times: 10 20 30 40 50	Sampling: Sample No.	Sample Depth (m)	Sampler
1					Clay with Sand.	Blackish Brown	Humus. Countain very fine to medium-grain sand. (20%) φ10 to 30m/m limestone pebbles in some place. 2.50-3.00 Increase pebbles.									
2																
3		3.00	3.00													
4					Pebbles	Milky Gray	Taken only limestone pebbles (φ10-40m/m) φ10 to 40m/m fragmentary and 10-15cm long columnary. Matrix is regarded as contain small amount of sand.									
5																
6																
7																
8																
9																
10																
11		11.10	8.10													
12		12.00	0.90		Sand with Clay	Yellowish Brown	Mainly fine to coarse sand with small amount of clay.									
13					Gravel	Dark Gray (Bluish)	Matrix is poorly-sorted fine-grain to coarse-grain sand.									
14																
15						Yellowish Gray	Contain φ10-40mm subrounded limestone.									
16							12.00-14.50m Matrix contain clay which color is blish dark grey.									
17																
18																
19																
20							20.00-22.50m Pebbls are decrease, sands are increase.									
21						Yellowish Brown										
22																
23						Yellowish Gray										
24																
25																


Gray
2700 15.00
Core is φ2-10m/m slime
Pebbles are andesite, diorite, basic tuff, basalt, sandstone and limestone. Limestone is scarce.
Gravel (Strongly Weathered Conglomerate?)
Dark Bluish Green-ish Gray
It seems that deeply weathered conglomerate
4000 13.00

DRILLING CORE LOG

Name of Project Matuno

No. of Hole BM – 13

Location Bante Left Bank

Depth of Bedrock 1.30 m

Bore Hole Dia. mm

Depth of Hole 40.00 m

Elevation 578.50 m

Core Recovery %

Type of Drill Machine Rotary

Operator A. Tupaz

Direction

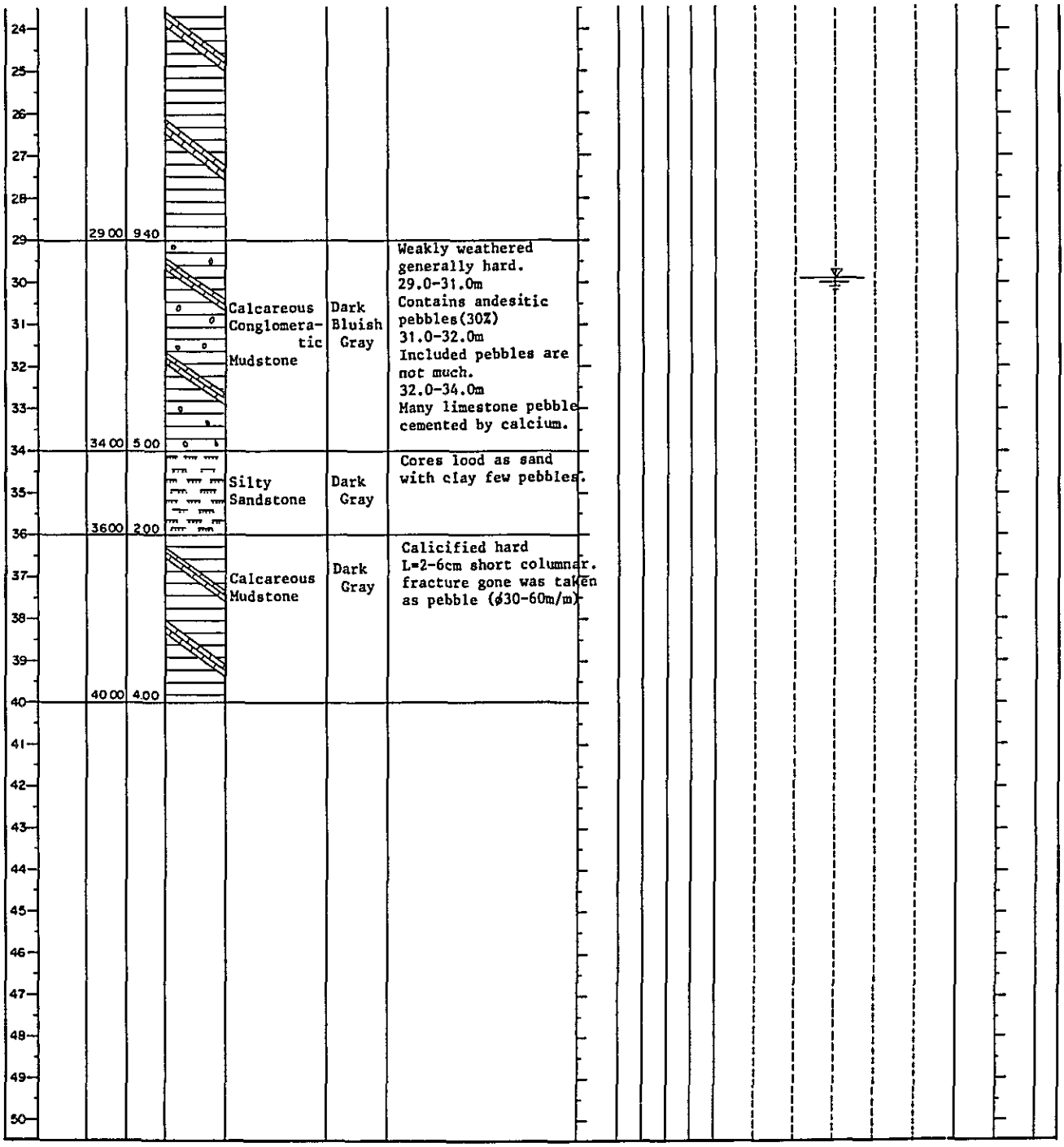
Inclination Vertical

Underground Water Table GL-30.0 m

Date Jan. 23-Jan. 26, 1983

Supervisor

Scale (m)	Elevation (m)	Depth (m)	Thickness (m)	Geological Symbol	Geology	Color	Remarks	Standard Penetration Test: Test Depth (m)	N-Value	Knocking Times per 10cm: cm 10	cm 20	cm 30	Knocking Times: 10 20 30 40 50	Sampling: Sample No	Sample Depth (m)	Sampler
		0.50	0.50		Clayey sand	Yellowish Brown	Contains 20-30% clay.									
1		1.80	1.30		gravel	Yellowish Gray	Decayed limestone fragment(ϕ2-20m/m) and andesitic pebbles, stiffly filled up with fine med, grained sand.									
2		2.10	0.30		Conglomerate	Yellowish Brown										
3							Andesite sub-rounded pebbles brittle weathered matrix. Composed of fine-medium-grained sand. weathered weal. 4.1m Contains andesite pebbles(ϕ30m/m) Calcareous sections are found.									
4																
5					Sandstone	Yellowish Brown										
6																
7																
8		8.40	6.30													
9		9.00	0.60		Calcarious Conglomerate	Milky Yellowish Brown	Taken as pebbles(30-40%) columnar.									
10							Brittle matrix due to weathing Dia of pebbles ranged from 2 to 20m/m Matrix is conposed of mediumrained sand. Contains many andesite pebbles (ϕ20-40m/m).									
11					Conglomerate	Yellowish Brown										
12																
13																
14		14.00	5.00													
15							Colored fresh but weak contains 10-20% sub-rounded andesitic pebbles. Consolidated clayey-sandy shaped cores are easily to break with hands. 17.2m Moderately fresh columnar core(L=10cm)									
16						Bluish Greenish gray										
17																
18					Calcareous Mudstone											
19		19.00	5.00													
20		19.60	0.60			Blackish Gray	19.0-19.6m Composed of granules and coarse-grained sand. 20.5-21.1m, 22.5-25.1m Calcareous milky grayish.									
21						Bluish Greenish Gray										
22																
23																
24																
25																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29.00 9.40
34.00 5.00
36.00 2.00
40.00 4.00
Calcareous Conglomera-tic Mudstone
Dark Bluish Gray
Weakly weathered generally hard.
29.0-31.0m
Contains andesitic pebbles(30%)
31.0-32.0m
Included pebbles are not much.
32.0-34.0m
Many limestone pebble cemented by calcium.
Silty Sandstone
Dark Gray
Cores lood as sand with clay few pebbles.
Calcareous Mudstone
Dark Gray
Calicified hard
L=2-6cm short columnar.
fracture gone was taken as pebble (ϕ30-60m/m)

DRILLING CORE LOG

Name of Project Matuno

No of Hole BM - 14

Location Bante Left Bank

Depth of Bedrock 0 m

Bore Hole Dia. mm

Depth of Hole 40.0 m

Elevation 600.00 m

Core Recovery %

Type of Drill Machine Rotary

Operator A. Tupaz

Direction

Inclination Vertical

Underground Water Table GL-20.0 m

Date Jan. 11 - Jan. 16, 1983

Supervisor

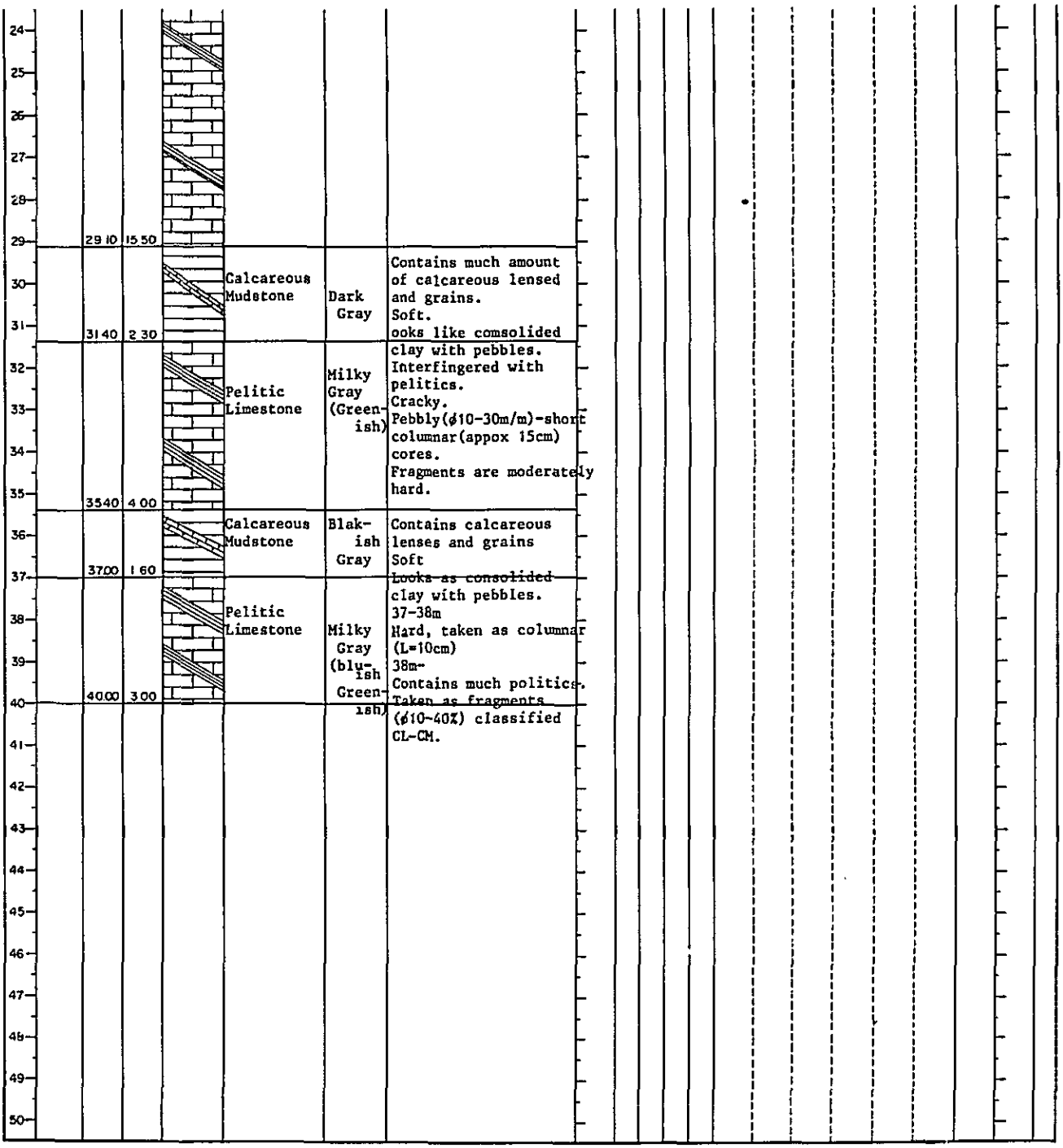
Scale (m)	Elevation (m)	Depth (m)	Thickness (m)	Geological Symbol	Geology	Color	Remarks
1–13		13.60	13.60		Limestone	Milky Gray	Though fragments are hard, stained along cracks. Cracky ken as pebble-columnar clasified CL-CM. 0-3.0m Cracky moderately weathered. Cavities which look like worm-eaten are found at severalplaces.
14–25					Pelitic Limestone	Milky Gray (Greenish)	In general, irregularly interfingered with politics. Moderatelh colored fresh, but fragments are weak. Taken as pebble (ø5-40m/m) -short columnar.

Standard Penetration Test

Test Depth (m)	N-Value	Knocking Times per 10cm: cm 10	cm 20	cm 30	Knocking Times: 10 20 30 40 50

Sampling

Sample No.	Sample Depth (m)	Sampler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46
47
48
49
50
29 10
15 50
31 40
2 30
35 40
4 00
37 00
1 60
40 00
3 00
Calcareous Mudstone
Dark Gray
Contains much amount of calcareous lensed and grains.
Soft.
ooks like comsolided
clay with pebbles.
Pelitic Limestone
Milky Gray (Green-ish)
Interfingered with pelitics.
Cracky.
Pebbly(ϕ10-30m/m)-short columnar(appox 15cm) cores.
Fragments are moderately hard.
Calcareous Mudstone
Blak-ish Gray
Contains calcareous lenses and grains
Soft
Looks as consolided
clay with pebbles.
Pelitic Limestone
Milky Gray (blu-ish Green-ish)
37-38m
Hard, taken as columnar (L=10cm)
38m-
Contains much politics.
Taken as fragments
(ϕ10-40%) classified CL-CM.

DRILLING CORE LOG

Name of Project Matuno

No of Hole B I – 1

Location Colocol Intake

Depth of Bedrock 7.00 m

Bore Hole Dia. mm

Depth of Hole 15.00 m

Elevation 275.98 m

Core Recovery %

Type of Drill Machine Rotary

Operator R. Sayson

Direction

Underground Water Table GL-0.10 m

Inclination

Date Jan. 5 ~ Jan. 6 1983

Supervisor

Scale (m)	Elevation (m)	Depth (m)	Thickness (m)	Geological Symbol	Geology	Color	Remarks	Standard Penetration Test: Test Depth (m)	N-Value	Knocking Times per 10cm: cm 10	cm 20	cm 30	Knocking Times	Sampling: Sample No.	Sample Depth (m)	Sampler
1					Clay with Sand	Yellowish Brown	The clay contains medium-grained sand (limestone fragments) in 20 to 40%. Contain limestone fragment (ø5-10m/m), at several place.	1.70 ~ 2.00	4	1	1	2	10 20 30 40 50			
2																
3	272 48	3.50	3.50					3.70 ~ 4.00	52	10	12	30				
4					Gravel with Clay	Yellowish Brown	The layer consists of limestone sub-angular pebbles(ø10-40m/m) and clatey medium-coarse-grained sand. 5.0-7.0m Redish silicate limestone pebbles(max. dia. 150m/m).									
5																
6						Milky Gray										
7	268 98	7.00	3.50													
8					Andesite	Dark Gray	Granular andesite contains many phenocryst of deldspar, looks like welded. Fragmental shape(ø10-60m/m) Hard andesite fragment. Redish brown stains appear along cracks.									
9																
10																
11																
12																
13																
14																
15	260 98	15.00	8.00													
16																
17																
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30																

DRILLING CORE LOG

Name of Project: Matuno — No. of Hole: BI - 2

Location: Colocol Intake — Depth of Bedrock: m — Bore Hole Dia.: mm — Depth of Hole: 25.00 m

Elevation: 274.76 m — Core Recovery: % — Type of Drill Machine: Rotary — Operator: R. Sayson

Direction / Inclination — Underground Water Table: GL-1.90 m — Date: Dec. 15 - Dec. 20 — Supervisor

Scale (m)	Elevation (m)	Depth (m)	Thickness (m)	Geological Symbol	Geology	Color	Remarks	Standard Penetration Test: Test Depth (m)	N-Value	Knocking Times per 10cm: cm 10	cm 20	cm 30	Knocking Times	Sampling: Sample No.	Sample Depth (m)	Sampler
1	273 76	1 00	1 00		Gravel	Yellowish Gray	0.0-0.3m Micro-fine grained sand									
2					Pebbles with Sand	Dark Bluish Gray	0.3-1.0m ϕ5-40m/m sub-rounded pebbles 30-40% Consists of andesite, limestone, tuff and diorite. Contains sand 10-20% pebbles ϕ5-40m/m 40-60% ϕ2-4m/m 20-30% Sub-rounded pebbles consist of andesite and tuff mainly.	1 70 – 2 00	46	9	18	19	10 20 30 40 50			
3								3 70 – 4 00	41	13	14	14				
4																
5								5 70 – 5 95	50/25	25	25/5					
6	268 46	6 30	5 30													
7	267 76	7 00	7 00		Sand	Yellowish Gray	Well sorting fine-mde. grained sand. Coarse sand and pebbles are contain. (5%)	7 70 – 8 00	50	16	16	18				
8																
9							Composed largely of sub-rounded pebbles and cobbles with minor amount of sand.	9 70 – 9 90	50/25	26	24					
10																
11							According to depth, dia. of pebbles are changeable. (Especially dia. of pebbles are large, more than 15m depth.)	11 70 – 11 95	50/25	16	20	15/5				
12					Pebbles with Sand	Dark Bluish Gray (Greenish)	The pebbles are mostly from andesite and maffic tuff. Core sample is composed of pebbles mainly Sand is lost. Core shape. 7-8m ϕ20-40m/m pebbles 8-10.5m Mostly slime 10.5-11.6m ϕ20-40m/m pebbles 11.6-13.0m ϕ20-40m/m 13.0-15.0m Mostly slime and ϕ20-40m/m pebbles(10-20%) 15.0-25.0m Contain cobble(ϕ100-50m/m) and										
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																
25	249 76	25 00	18 00													
26																
27																
28																
29																
30																

DRILLING CORE LOG

Name of Project Matuno — No of Hole BI - 3

Location Sto. Domingo — Depth of Bedrock 9.00 m — Bore Hole Dia. mm — Depth of Hole 15.00 m

Elevation 328.72 m — Core Recovery % — Type of Drill Machine Rotary — Operator R. Sayson

Direction — Underground Water Table GL-1.00 m — Date Nov. 29 - Dec. 31 — Supervisor

Scale (m)	Elevation (m)	Depth (m)	Thickness (m)	Geological Symbol	Geology	Color	Remarks
1	327.72	1.00	1.00		Sand with Pebbes	Yellowish Gray	Composed largely of fine-med sand(well sorted) with small amount ~~of sub-rounded pebbles~~ (ϕ5-40m/m) Consist largely of sub rounded pebbles and cabbles. Since coring with water drill core is composed largely of pebbles. Pebbles are derived from andesite, mafic tuff.
2							
3					Gravel	Dark Bluish Gray	
4							
5							
6							
7	321.42	7.40	6.40				
8					Gravel with Clay	Dark Gray	Pebbles are composed largely of weathered diorite.
9	319.72	9.00	1.60				~~Firm matrix is made of~~ sand with clay.
10					Conglomerate	Bluish Greenish Gray	Weathered conglomerate (CL-CM class) Drill core shape is pebbly to columnar. The pebbles are mostly from andesite, diorite and mafic tuff. The matrix is made of well sorted med. sand.
11							
12							
13							
14							
15	313.72	15.00	6.00				
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

Standard Penetration Test

Test Depth (m)	N-Value	Knocking Times per 10cm: cm 10	cm 20	cm 30
1.70	50/18			
1.88				
3.70				
4.00	18	6	6	6
6.00	50/17			
6.17				
9.00	50/28	11	19	20/8
9.28				

Knocking Times: 10 20 30 40 50

Sampling

Sample No.	Sample Depth (m)	Sampler

DRILLING CORE LOG

Name of Project Matuno — No. of Hole BI - 4

Location Sto. Domingo — Depth of Bedrock m — Bore Hole Dia. mm — Depth of Hole 15.00 m

Elevation 356.00 m — Core Recovery % — Type of Drill Machine Rotaly — Operator R. Sayson

Direction — Underground Water Table GL-2.50 m — Date Dec. 8 - Dec. 12 — Supervisor

Inclination

Scale (m)	Elevation (m)	Depth (m)	Thickness (m)	Geological Symbol	Geology	Color	Remarks	Standard Penetration Test: Test Depth (m)	N-Value	Knocking Times per 10cm: cm 10	cm 20	cm 30	Knocking Times	Sampling: Sample No.	Sample Depth (m)	Sampler
1					Gravel	Yellowish Gray	Sub-rounded aebbles φ5-40m/m=30-40% φ60-200mm=10-20% Med.-coarse sand fills up among the pebbles.	1.70					10 20 30 40 50			
2								2.00	15	2	3	10				
3						Bluish Greenish Gray	Clay is locally found.	3.70								
4								4.00	38	11	15	12				
5							5.7-7.0m Boulder of limestone is scattered.									
6								6.00								
7								6.30	28	6	10	12				
8							The gravel is composed largely of andestic pebbles and tufficeors ones.									
9																
10																
11	345 00	11 00	11 00													
12					Pebbles with Sand	Bluish Greenish Gray	Contain the boulder in 20-30%. The pebbles are derived from andesite, mefic tuff, and diorite.									
13																
14																
15	341 00	15 00	4 00													
16																
17																
18																
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30																

DRILLING CORE LOG

Name of Project Matuno — No. of Hole BI - 5

Location Birtauan — Depth of Bedrock m — Bore Hole Dia. mm — Depth of Hole 15.00 m

Elevation 231.18 m — Core Recovery % — Type of Drill Machine Rotary — Operator R. Sayson

Direction — Underground Water Table GL-1.50 m — Date Jan. 24 - Jan. 25 — Supervisor

Scale (m)	Elevation (m)	Depth (m)	Thickness (m)	Geological Symbol	Geology	Color	Remarks
1	230.18	1.00	1.00		Sandy Clay with Pebbles	Yellowish Brown	Sub-round pebbles 10-20% sand 10-30%
2–15					Gravel	Dark Yellowish Gray	The layer contains few clay. sub-rounded pebbles (ϕ5-60m/m) is 60-80% contained. Med-coarse sand is filled up loosely among pebbles. The pebbles is derived from andesite, tuff basalt and limestone. Drill with water, pebbles turn into slime 11.5-15.0m Many pebbles(ϕ20-30m/m) Gravel looks like conglomerate at deeper than 15m. Contains various kinds of pebbles(ϕ5-4m/m)
	216.18	15.00	14.00				

Standard Penetration Test					Sampling		
Test Depth (m)	N-Value	Knocking Times per 10cm: cm 10	cm 20	cm 30	Sample No.	Sample Depth (m)	Sampler
1.70							
2.00	23	7	6	10			
3.70							
4.00	58	17	17	24			
5.70							
6.00	42	18	10	14			
7.70	59/20	38	21				
7.90							

Knocking Times: 10 20 30 40 50

DRILLING CORE LOG

Name of Project Matuno

No. of Hole BI - 6

Location Buenavista

Depth of Bedrock m

Bore Hole Dia. mm

Depth of Hole 10.00 m

Elevation 282.64 m

Core Recovery %

Type of Drill Machine Rotary

Operator

Direction

Underground

Inclination Vertical

Water Table GL-1.00 m

Date Dec. 26 - Dec. 29

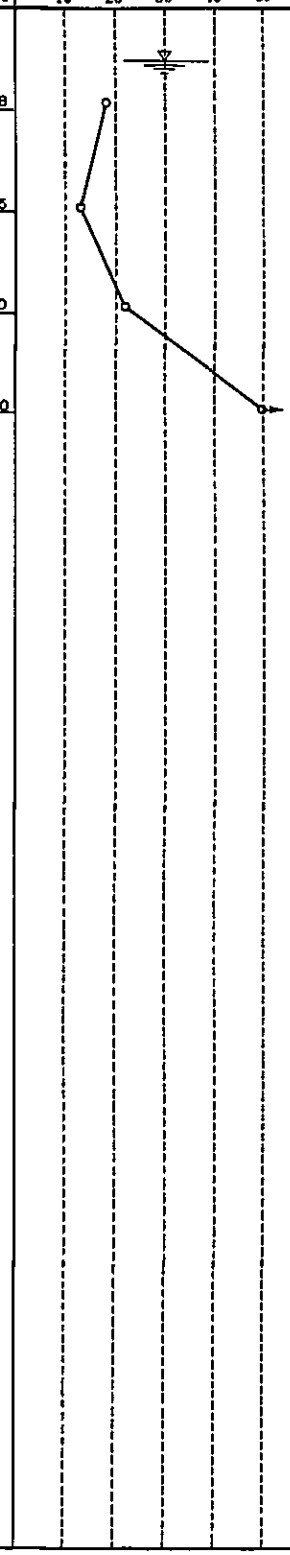
Supervisor

Scale (m)	Elevation (m)	Depth (m)	Thickness (m)	Geological Symbol	Geology	Color	Remarks
1	281.64	1.00	1.00		Sand	Yellowish Brown	Fine-medium grained sand.
2					Gravel	Yellowish Brown	The layer is composed mostly sub-rounded pebbles. Accompanied ith much sand at upper part. Pebble type(derived from) limestone, diorite, andesite basalt, rhyorite.
3							
4	278.14	4.50	3.50				
5					Pebbles with Clay	Yellowish Brown	Pebbles are accompanied with clay. It is composed largely of subrounded pebbles with minor amount of clay.
6							
7	275.44	7.20	2.70				
8					Brown	Yellowish Brown	Contains clay among pebbles. Filled up closely by sand.
9							
10	272.64	10.00	2.80				

Standard Penetration Test

Test Depth (m)	N-Value	Knocking Times per 10cm 10 cm	20 cm	30 cm
1.70				
2.00	42	13	11	18
3.70				
4.00	13	4	4	5
5.70				
6.00	22	6	6	10
7.70				
2.95	55	12	13	30

Knocking Times



Sampling

Sample No.	Sample Depth (m)	Sampler

DRILLING CORE LOG

Name of Project Matuno — No of Hole BI - 7

Location Byebavust — Depth of Bedrock m — Bore Hole Dia. mm — Depth of Hole 10.00 m

Elevation 299.36 m — Core Recovery % — Type of Drill Machine Rotary — Operator R. Sayson

Direction — Underground

Inclination Vertical — Water Table No Data m — Date Dec. 31 - Jan. 2 — Supervisor

Scale (m)	Elevation (m)	Depth (m)	Thickness (m)	Geological Symbol	Geology	Color	Remarks	Standard Penetration Test: Test Depth (m)	N-Value	Knocking Times per 10cm: cm 10	cm 20	cm 30	Knocking Times	Sampling: Sample No	Sample Depth (m)	Sampler
1	277.66	1.70	1.70		Gravel	Dark Gray	Sub-rounded cobble (ϕ40-80m/m). Contains a few clay. It is presumed the gravel contains 30-50% sand. Med-coarse sand is contained. A minor amount of lomestone pebbles is locally found. The pebbles divide into hard and weathered.	1.70								
2								2.00	13	4	4	5				
3					Clay wity Sand	Yellowish Brown		3.70								
4								4.00	9	3	3	3				
5								5.70								
6								6.00	9	3	3	3				
7	292.06	7.30	5.60					7.70								
8					Gravel with Clay	Yellowish Gray	Contains 10-30% clay. Composed largely of sub-rounded limestone pebbles (ϕ2-40m/m). The fragment is deeply weathered.	8.00	11	3	4	4				
9								9.70								
10	289.36	10.00	2.70					10.00	35	12	11	12				

DRILLING CORE LOG

Name of Project Matuno — No of Hole BI - 8

Location La Torre — Depth of Bedrock m — Bore Hole Dia. mm — Depth of Hole 10.00 m

Elevation 274.86 m — Core Recovery % — Type of Drill Machine Rotary — Operator R. Sayson

Direction Vertical — Underground Water Table GL-5.70 m — Date Dec. 3 - Jan. 4 — Supervisor

Scale (m)	Elevation (m)	Depth (m)	Thickness (m)	Geological Symbol	Geology	Color	Remarks
1					Gravey with Clay	Radish Brown	The gravel contains 20-30% clay. Sub-rounded pebbles derived from limestone and andesite and 30-40% contained.
2	272.66	2.20	2.20				
3					Clay with Sand	Redish Brown	Fine sand is 10-30% contained. Iron stains are found randamly.
4						Yellowish Gray	
5							
6	268.86	6.00	3.80				
6					Felsic Tuff	Yellowish Brown	Felsic medium grained tuff. Breaks at easily hammer plows. Many pyrite grains are found. 6.0-7.0m Deeply weathered yellowish brown.
7							
8						Milky Gray	
9							
10	264.86	10.00	4.00				

Standard Penetration Test						Sampling		
Test Depth (m)	N-Value	Knocking Times per 10cm cm 10	cm 20	cm 30	Knocking Times 10 20 30 40 50	Sample No.	Sample Depth (m)	Sampler
1.70								
2.00	29	14	10	5				
3.70								
4.00	23	7	7	9				
5.70								
6.00	12	4	4	4				
7.70								
8.00	23	6	8	9				
9.70								
10.00	58	11	22	25				

DRILLING CORE LOG

Name of Project Matuno — No. of Hole BI - 9

Location Bintauan — Depth of Bedrock m — Bore Hole Dia. mm — Depth of Hole 15.00 m

Elevation 266.57 m — Core Recovery % — Type of Drill Machine Rotary — Operator R. Sayson

Direction / Inclination Vertical — Underground Water Table L-3.00 m — Date Jan. 19 - Jan. 22 — Supervisor

Scale (m)	Elevation (m)	Depth (m)	Thickness (m)	Geological Symbol	Geology	Color	Remarks
	265.57	1.00	1.00		Clay Sand	Brown	Micro fine grained sand. Consists a lot of clay. Scattered limestone fragment. Contains 30-40% sub-rounded pebbles and 20 % fine sand.
					Sandly Clay with Pebbles	Brown	
	264.27	2.30	1.30		Gravel	Yellowish Brown	Composed of sub-rounded pebbles and cobbles Deeply weathered pebbles are found at upper part. Coarse sand and granules are found among pebbles. Firmly filled up by fine-med sand. Deeper than 4m fine compornents are lost, because drilled with mater. Pebbles are derived from andesite, tuff, diorite, limestone and conglomerate.
	251.57	15.00	12.70				

Standard Penetration Test						Sampling		
Test Depth (m)	N-Value	Knocking Times per 10cm cm 10	cm 20	cm 30	Knocking Times 10 20 30 40 50	Sample No.	Sample Depth (m)	Sampler
1.70								
2.00	33	10	10	13				
3.70								
4.00	82/20	31	31					

DRILLING CORE LOG

Name of Project Matuno — No. of Hole BI - 10

Location La Torre — Depth of Bedrock m — Bore Hole Dia. mm — Depth of Hole 10.00 m

Elevation 273.24 m — Core Recovery % — Type of Drill Machine Rotary — Operator R. Sayson

Direction — Underground

Inclination Vertical — Water Table GL-2.15 m — Date Jan. 8 - Jan. 8 — Supervisor

Scale (m)	Elevation (m)	Depth (m)	Thickness (m)	Geological Symbol	Geology	Color	Remarks	Standard Penetration Test: Test Depth (m)	N-Value	Knocking Times per 10cm: cm 10	cm 20	cm 30	Sampling: Sample No.	Sample Depth (m)	Sampler
	269.24	0.40	0.40		Pebbles with Clay	Reddish Yellow	Compose of mostly sub-angular limestone pebbles.								
1					Clay with Sand	Yellowish Brown	Gravel is composed of sub-rounded pebbles and fine-medium grained sand.	1.70 – 2.00	11	3	3	5			
2	270.64	2.60	2.20												
3					Gravel	Dark Yellowish Gray	Pebbles drive from limestone and andesite.	3.70 – 4.00	25	6	11	8			
4															
5								5.70 – 6.00	19	5	7	7			
6															
7								7.70 – 8.00	31	11	11	13			
8	265.24	8.00	5.40												
	264.84	8.40	0.40		Clay	Dark Gray	Soft clay but cohesive.								
9					Clay with Pebbles	Dark Bluish Gray	Moderately firm. Here and there, contains deeply weathered limestone pebbles.	9.70 – 10.00	22	6	8	8			
10	263.24	10.00	1.60												
11															
12															
13															
14															
15															
16															
17															
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21															
22															
23															
24															
25															
26															
27															
28															
29															
30															

Knocking Times: 10 20 30 40 50

DRILLING CORE LOG

Name of Project Matuno — No of Hole B I - 11

Location La Torre — Depth of Bedrock m — Bore Hole Dia. mm — Depth of Hole 10.00 m

Elevation 273.31 m — Core Recovery % — Type of Drill Machine Rotary — Operator R. Sayson

Direction / Inclination Vertical — Underground Water Table GL-3.90 m — Date Jan. 9 - Jan. 10 — Supervisor

Scale (m)	Elevation (m)	Depth (m)	Thickness (m)	Geological Symbol	Geology	Color	Remarks	Standard Penetration Test: Test Depth (m)	N-Value	Knocking Times per 10cm: cm 10	cm 20	cm 30	Knocking Times (10 20 30 40 50)	Sampling: Sample No.	Sample Depth (m)	Sampler
1					Clay	Yellowish Gray	Moderately firm clay. (Diluvium stage?) 0-0.3m	1.70								
2							A few amount of sand in contained.	2.00	12	4	4	4				
3						Dark (Bluish) Gray	4.5-4.7m Bluish gray.	3.70								
4								4.00	6	2	2	2				
5								5.70								
6	267.31	6.00	6.00					6.00	17	4	6	7				
7					Clay with Sand	Bluish Gray	Med-fine grained sand is contained at several places. Graveles are derived from limestone 6.0-6.3m	7.70								
8	264.71	8.60	2.60				Many pebbles derive from limestone.	8.00	14	4	5	5				
9					Clay	Yellowish Brown / Dark Gray	Hard clay deeper than 9m bluish.	9.70								
10	263.31	10.00	1.40					10.00	14	5	4	4				

DRILLING CORE LOG

Name of Project Matuno — No. of Hole BI - 12

Location La Torre — Depth of Bedrock m — Bore Hole Dia. mm — Depth of Hole 10.00 m

Elevation 272.91 m — Core Recovery % — Type of Drill Machine Rotary — Operator R. Sayson

Direction — Underground

Inclination Vertical — Water Table No Data m — Date Jan. 11 - Jan. 12 — Supervisor

Scale (m)	Elevation (m)	Depth (m)	Thickness (m)	Geological Symbol	Geology	Color	Remarks	Standard Penetration Test: Test Depth (m)	N-Value	Knocking Times per 10cm: cm 10	cm 20	cm 30	Knocking Times	Sampling: Sample No.	Sample Depth (m)	Sampler
1	271.31	1.60	1.60		Clay with Sand	Blackish Brown	Humus contains largely of fine-med sand.	1.70								
2					Clay	Yellowish Brown	Contains 10-20% of fine-med sand. 3.10-3.70m bluish.	2.00	3	1	1	1				
3	269.21	3.70	2.10					3.70								
4					Clay	Yellowish Brown	Contains 40-60% of sub-angular pabbles. Matrix is composed of f-co sand.	4.00	17	1	6	10				
5	267.71	5.20	1.50					5.70								
6					Gravel (Weathered Conglomerate?)	Bluish Gray	Moderately hard clay. A few-co sand is contained.	6.00	14	3	5	6				
7	265.31	7.60	2.40					7.70								
8							Gravel is composed of sub-angular pebbles and med-co sand. Porous concreted cement.	8.00	32	10	11	11				
9								9.70								
10	262.91	10.00	2.40				Few limestone pebbles are contained.	10.00	60	20	20	20				

DRILLING CORE LOG

Name of Project: Matuno — No. of Hole: BI - 13

Location: Mabaina Cr. — Depth of Bedrock: m — Bore Hole Dia.: mm — Depth of Hole: 10.00 m

Elevation: 282.28 m — Core Recovery: % — Type of Drill Machine: Rotary — Operator: R. Sayson

Direction / Inclination: Vertical — Underground Water Table: GL-1.60 m — Date: Jan. 14 - Jan. 15 — Supervisor:

Scale (m)	Elevation (m)	Depth (m)	Thickness (m)	Geological Symbol	Geology	Color	Remarks	Standard Penetration Test: Test Depth (m)	N-Value	Knocking Times per 10cm: cm 10	cm 20	cm 30	Knocking Times (10 20 30 40 50)	Sampling: Sample No.	Sample Depth (m)	Sampler
1	281.28	1.00	1.00		Sand		Composed largely of very fine-fine sand. scattered sub-angular pebbles. Contains ~~locally massive clay~~ (ϕ20m/m)	1.70								
2								2.00	13	4	4	5				
3					Gravel	Dark (Bluish Gray	Cabbles and pebbles are irregular in size. Contains sub-anglar pebbles(30-50%) and cabbles (10-30%) Fine sand fills up losely among pebbles. Pebbles derive from limestone, dacite, andesite, diorite and tuff. 5.50-9.00m Contains bluish gray clay(thickness: 2-5cm)	3.70								
4								4.00	31	13	9	9				
5								5.70								
6								6.00	60	30	20	10				
7								7.70								
8								8.00	25	8	8	9				
9								9.70								
10	272.28	10.00	9.00					10.00	57	20	22	15				
11																
12																
13																
14																
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FUTURE LOBOR DISTRIBUTION

WET SEASON PADDY

Man/Animal Labor Distribution for Wet Season Paddy Cultivation (Future)
(Unit: man/animal-man-day per hectare)

Items		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total H. L.	Total A. L.
1. Seed Bedding						0.92	0.92	0.78						2.62	
2. Land Preparation	H					6.78	6.78	5.66						19.22	
	A					6.78	6.78	5.66							19.22
3. Repair of Dikes						0.35	2.09	1.75						4.19	
4. Transplanting						1.60	9.62	8.02						19.24	
5. Care of Plant															
Weeding							2.93	5.87	5.87	2.93				17.60	
Fertilizing						0.21	1.29	1.08	1.29	1.29				5.16	
Spraying							0.25	0.50	0.50	0.50				1.75	
Water Manage						0.10	0.50	0.50	0.50	0.50				2.10	
6. Harvesting									1.98	14.82	12.84			29.64	
7. threshing									1.07	8.04	6.96			16.07	
8. Hauling	H								0.37	2.81	2.81	0.57		6.56	
	A								0.37	2.81	2.81	0.57			6.56
9. Drying									0.40	3.02	3.02	0.61		7.05	
Total H. L.						9.96	24.38	24.16	11.98	33.91	25.63	1.18		131.20	
Total A. L.						6.78	6.78	5.66	0.37	2.81	2.81	0.57			25.78

Note: H. L. / H :- Human Labor
A. L. / H :- Animal Labor

WET SEASON CORN

Man/Animal Labor Distribution for Wet Season Corn Cultivation (Future)
(Unit: man/animal-man-day per hectare)

Items		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total H. L.	Total A. L.
1. Land Preparation															
Plowing	H						1.81	11.19						13.00	
	A						1.81	11.19							13.00
Harrowing	H						0.97	5.03						6.00	
	A						0.97	5.03							6.00
Furrowing	H						0.48	2.52						3.00	
	A						0.48	2.52							3.00
2. Sowing								5.00						5.00	
3. Care of Plant															
Fertilizing								0.50		0.50				1.00	
Spraying									0.70	0.70	0.35			1.75	
Inter Tillage	H								0.82	3.90	1.28			6.00	
	A								0.82	3.90	1.28				6.00
4. Harvesting												33.60		33.60	
5. Hauling	H											4.23	2.49	6.72	
	A											4.23	2.49		6.72
6. Husking												12.69	7.47	20.16	
7. Drying												8.46	4.98	13.44	
Total H. L.							3.26	24.24	1.52	5.10	1.63	58.98	14.94	109.67	
Total A. L.							3.26	18.74	0.82	3.90	1.28	4.23	2.49		34.72

Note: H. L. / H :- Human Labor
A. L. / A :- Animal Labor

FUTURE LABOR DISTRIBUTION

DRY SEASON CORN

Man/Animal Labor Distribution for Dry Season Corn Cultivation-(Future)
(Unit: man/animal-man-day per hectare)

Items		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total H. L.	Total A. L.
1. Land Preparation															
Plowing	H	5.57											7.43	13.00	
	A	5.57											7.43		13.00
Harrowing	H	2.28											3.72	6.00	
	A	2.28											3.72		6.00
Furrowing	H	1.14											1.86	3.00	
	A	1.14											1.86		3.00
2. Sowing		5.00												5.00	
3. Care of Plant															
Fertilizing		0.50		0.50										1.00	
Spraying			0.70	0.70	0.35									1.75	
Inter Tillage	H		0.82	3.90	1.28									6.00	
	A		0.82	3.90	1.28										6.00
4. Harvesting						42.00								42.00	
5. Hauling	H					8.40								8.40	
	A					8.40									8.40
6. Husking						25.20								25.20	
7. Drying						16.80								16.80	
Total H. L.		14.49	1 52	5.10	1.63	92.40							13.01	128.15	
Total A. L.		8.99	0.82	3.90	1.28	8.40							13.01		36.40

Note: H. L. / A :- Human Labor
A. L. / A :- Animal Labor

MUNG BEAN

Man/Animal Labor Distribution for Mung Bean Cultivation (Future) (Unit: man/animal-man-day per hectare)

Items		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total H. L.	Total A. L.
1. Land Preparation															
Plowing	H		13.00											13.00	
	A		13.00												13.00
Harrowing	H		6.00											6.00	
	A		6.00												6.00
Furrowing	H		3.00											3.00	
	A		3.00												3.00
2. Sowing			5.00											5.00	
3. Soil Coverage	H		2.00											2.00	
	A		2.00												2.00
4. Care of Plant															
Spraying				1.00	1.00									2.00	
Inter Tillage	H			3 00	3.00									6.00	
	A			3.00	3.00										6.00
Fertilizing			0.50											0.50	
5. Harvesting					7.50	2.50								10.00	
6. Hauling	H				1.50	0.50								2.00	
	A				1.50	0.50									2.00
7. Threshing/Drying					5.25	1.75								7.00	
Total H. L.			29.50	4.00	18.25	4.75								56.50	
Total A. L.			24.00	3.00	4.50	0.50									32.00

Note: H. L. / H :- Human Labor
A. L. / A :- Animal Labor

FUTURE LABOR DISTRIBUTION

PEANUT

Man/Animal Labor Distribution for Peanut Cultivation (Future) (Unit: man/animal-man-day per hectare)

Items		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total H. L.	Total A. L.
1. Land Preparation															
Plowing	H	5.57											7.43	13.00	
	A	5.57											7.43		13.00
Harrowing	H	2.28											3.72	6.00	
	A	2.28											3.72		6.00
Furrowing	H	1.14											1.86	3.00	
	A	1.14											1.86		3.00
2. Planting															
Sowing		5.00												5.00	
Soil Coverage	H	2.00												2.00	
	A	2.00													2.00
3. Liming		1.14											1.86	3.00	
4. Care of Plant															
Intertillage x 2	H		1.50	1.50										3.00	
	A		1.50	1.50											3.00
Hill up/Weeding				4.00										4.00	
5. Spraying			2.00	2.00	2.00									6.00	
6. Harvesting															
Pulling/Picking						20.00								20.00	
Hauling	H					2.00								2.00	
	A					2.00									2.00
Drying/Packing						3.00								3.00	
Total H. L.		17.13	3.50	7.50	2.00	25.00							14.87	70.00	
Total A. L.		10.99	1.50	1.50		2.00							13.01		29.00

Note: H. L. / H :- Human Labor
A. L. / A :- Animal Labor

VEGETABLE

Man/Animal Labor Distribution for Vegetable Cultivation (Future) (Unit: man/animal-man-day per hectare)

Items		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total H. L.	Total A. L.
1. Seed Bedding															
Land Preparation	H											2.00	2.00	4.00	
	A											0.25	0.25		0.50
Care of Seedlings		1.25										1.25	2.50	5.00	
2. Land Preparation															
Plowing x 2	H	5.57											7.43	13.00	
	A	5.57											7.43		13.00
Harrowing x 4	H	6.84											9.16	16.00	
	A	6.84											9.16		16.00
Plotting	H	1.00												1.00	
	A	1.00													1.00
3. Transplanting															
Preparation of Seedlings		5.00												5.00	
Transplanting/ Replanting		40.00												40.00	
4. Fertilization															
Basic Dose		0.86											1.14	2.00	
Side Dressing			0.50	0.50	1.00									2.00	
5. Hulling	H	19.00												19.00	
	A	2.00													2.00
6. Spraying x 12		4.00	5.00	5.00	5.00	5.00								24.00	
7. Irrigation		4.29	4.29	4.29	4.29	2.84								20.00	
8. Harvesting							20.00							20.00	
9. Hauling	H						2.00							2.00	
	A						2.00								2.00
10. Drying/Curing							7.50	7.50						15.00	
11. Grading							5.00	5.00						10.00	
12. Bundling							7.50	7.50						15.00	
Total H. L.		87.81	9.79	9.79	10.29	7.84	42.00	20.00				3.25	22.23	213.00	
Total A. L.		15.41					2.00					0.25	16.84		34.50

Note: H. L. / H :- Human Labor
A. L. / A :- Animal Labor
Vegetable is represented by Onion

VALUE OF CHEMICALS APPLIED TO PADDY STRATIFIED BY YIELDS LEVEL

Yield (t/ha)	Dry Season Insecticides (₱)	Herbicides (₱)	Rodenticides (₱)	Total (₱)	Wet Season Insecticides (₱)	Herbicides (₱)	Rodenticides (₱)	Total (₱)
1.5 - 1.75	22.5	11.3	5.6	39.4	20.0	9.1	5.3	34.4
1.75 - 2.0	52.1	28.6	5.6	86.3	40.0	33.4	5.3	88.7
2.0 - 2.5	81.7	42.8	5.6	130.1	80.0	57.7	5.3	143.0
2.5 - 3.0	111.2	57.1	5.6	173.9	110.0	82.0	5.3	197.3
3.0 - 3.5	140.8	71.4	5.6	217.8	140.0	106.4	5.3	251.7
3.5 - 4.0	170.5	85.7	5.6	261.8	170.0	13.7	5.3	360.3
4.0 - 4.5	200.0	100.0	5.6	305.6	200.0	155.0	5.3	360.3

TARGET ONLAND COMPENSATION

Municipality	Landowner	Tenant-tiller	Parcel	Area (ha)
1. Solano	58	447	847	811.0392
2. Bayombong	31	194	385	251.5412
3. Quezon	3	94	192	111.9715
Total	92	735	1,424	1,174.5519

Source: MAR. Solano, N.V.

ACCOMPLISHMENT ON LAND COMPENSATION

Municipality	Landowner	Tenant-tiller	Parcel	Area (ha)
1. Solano	4	78	133	132.5473
2. Bayombong	-	-	-	-
3. Quezon	-	-	-	-
Total	4	78	133	132.5473

Source: MAR. Solano, N.V.

ACCOMPLISHMENT ON CLT DISTRIBUTION*

Municipality	Landowner	Tenant-tiller	Parcel	Area (ha)
1. Solano	9	117	181	183.1180
2. Bayombong	6	50	86	51.8939
3. Quezon	1	7	10	3.02
Total	16	174 (23.7%)	277	238.0319

Source: MAR. Solano, N.V.

Note: Landowners subject to Operation Land Transfer (OLT) are still under the process of verification whether they are really covered by OLT or not.

* Certificate of Land Transfer

TARGET ON LEASEHOLD CONVERSION

Municipality	Landowner	Tenant-tiller	Parcel	Area (ha)
1. Solano	1,245	1,495	2,615	1,868.7421
2. Bayombong	749	755	1,594	1,012.0559
3. Quezon	111	208	427	274.6128
Total	2,105	2,458	4,636	3,155.4108

Source: MAR. Solano, N.V.

ACCOMPLISHMENT

Municipality	Landowner	Tenant-tiller	Parcel	Area (ha)
1. Solano	1,230	1,468	2,566	1,832.7921
2. Bayombong	726	718	1,531	972.8359
3. Quezon	102	186	378	252.4028
Total	2,058	2,372 (96.5%)	4,475	3,058.0308

Source: MAR. Solano, N.V.

UNDER COURT DECISIONS

Municipality	Landowner	Tenant-tiller	Parcel	Area (ha)
1. Solano	15	27	49	35.95
2. Bayombong	23	37	63	39.22
3. Quezon	-	-	-	-
Total	38	64	112	75.17

Source: MAR. Solano, N.V.

LEASEHOLD AREA

(Municipality of Bambang)

Particulars	Scope	Accomplishment
No. of Parcels	1,368	1,255
No. of Landowners involved	677	656
No. of tenants involved	947	866 (91.4%)
Total area covered (ha)	987.44878	859.3165

Source: MAR. Solano, N.V.

OPERATION LAND TRANSFER

Particulars	Scope	Accomplishment (CLT Distribution)
No. of Parcels	115	54
No. of Landowners involved	13	8
No. of tenants involved	81	39 (48.1%)
Total area covered (ha)	94.5715	51.8598

Note: Accomplishment includes accomplishments of previous years up to the present. (1972-1982)

LEASEHOLD CONVERSION

ACCOMPLISHMENT

		BAGABAG	DIADI	VILLAVERDE	TOTAL
Scope	Landowner	676	46	293	1,015
	Tenant-tiller	912	65	363	1,340
	Parcel	1,503	97	654	2,254
	Area (ha)	1,263.915	91.715	593.8627	1,949.4927
Beg. up to Dec. 1981	Landowner	557	34	204	795
	Tenant-tiller	726	51	264	1,041
	Parcel	1,182	78	444	1,704
	Area (ha)	1,049.435	69.465	415.6567	1,534.5567
Jan. - Nov. 1982	Landowner	138	12	79	229
	Tenant-tiller	170	16	93	279
VS/CD/OC	Parcel	223	16	123	362
	Area (ha)	121.980	14.350	128.6500	264.9800
	Landowner	7	-	4	11
	Tenant-tiller	12	-	13	25
	Parcel	82	-	18	100
	Area (ha)	75.000	-	9.0360	84.0360
Backlog	Landowner	+26	-	6	+20
	Tenant-tiller	4	+2	+7	+5
	Parcel	16	3	69	88
	Area (ha)	17.500	7.900	40.5200	65.9200

VS = Voluntary surrender
CD = Court decision
OC = Owner cultivator

CERTIFICATE OF AGR. LEASEHOLD GENERATION

		BAGABAG	DIADI	VILLAVERDE	TOTAL
Scope	Landowner	676	46	293	1,015
	Tenant-tiller	912	65	363	1,340
	Parcel	1,503	97	654	2,254
	Area (ha)	1,263.9150	91.715	593.8627	1,949,4927
Beg. up to Dec. 1981	Landowner	483	39	168	690
	Tenant-tiller	536	52	127	715
	Parcel	552	72	130	754
	Area (ha)	768.8004	63.475	187.9046	1,020.1800
Jan. - Nov. 1982	Landowner	140	4	105	249
	Tenant-tiller	192	4	91	287
	Parcel	261	4	165	430
	Area (ha)	211.5500	5.140	150.4581	367.1481
Backlog*	Landowner	46	3	16	645
	Tenant-tiller	172	9	132	313
	Parcel	608	21	341	970
	Area (ha)	208.5646	23.100	246.4640	478.1286

* Backlog: VS/OC/Court Desision already deducted

Source: MAR. Solano, N.V.

CLT DISTRIBUTED

ACCOMPLISHMENT

		BAGABAG	DIADI	VILLAVERDE	TOTAL
Received	Landowner	137	6	61	204
	Tenant-tiller	368	21	202	591
	Parcel	685	43	340	1,068
	Area (ha)	469.3864	53.1151	352.677	875.1785
Beg. up to Dec. 1981	Landowner	15	3	10	28
	Tenant-tiller	74	15	72	161
	Parcel	94	27	97	218
	Area (ha)	101.9274	33.4751	91.0575	226.4600
Jan. - Nov. 1982	Landowner	1	-	-	1
	Tenant-tiller	1	-	-	1
	Parcel	3	-	-	3
	Area (ha)	3.9200	-	-	3.9200
Backlog*	Landowner	19	(2)	3	22
	Tenant-tiller	34	1	7	42
	Parcel	111	2	9	122
	Area (ha)	16.1167	4.1600	11.3000	31.5767

* CLTs on Hand

CAL ISSUANCE

ACCOMPLISHMENT

		BAGABAG	DIADI	VILLAVERDE	TOTAL
Received	Landowner	213	5	107	325
	Tenant-tiller	302	13	129	444
	Parcel	421	16	193	630
	Area (ha)	431.5323	30.16	187.27	648.9623
Beg. up to Dec. 1981	Landowner	81	2	80	163
	Tenant-tiller	96	7	93	196
	Parcel	65	9	126	200
	Area (ha)	222.0675	19.35	136.69	378.1075
Jan. - Nov. 1982	Landowner	113	3	26	142
	Tenant-tiller	178	5	34	217
	Parcel	313	6	65	384
	Area (ha)	170.7942	9.31	50.05	230.1542
Backlog	Landowner	-	-	-	-
	Tenant-tiller	-	-	-	-
	Parcel	-	-	-	-
	Area (ha)	-	-	-	-

LAND VALUATION

ACCOMPLISHMENT

		BAGABAG	DIADI	VILLAVERDE	TOTAL
Scope	Landowner	18	5	33	56
	Tenant-tiller	166	22	303	491
	Parcel	212	25	376	613
	Area (ha)	853.3172	44.3750	1,072.1000	1,969.7922
Beg. up to Dec. 1981	Landowner	-	1	3	4
	Tenant-tiller	-	7	19	26
	Parcel	-	7	24	31
	Area (ha)	-	10.2230	47.9297	58.1527
Jan. - Nov. 1982	Landowner	1	-	-	1
	Tenant-tiller	8	-	-	8
	Parcel	8	-	-	8
	Area (ha)	8.5010	-	-	8.5010
Backlog	Landowner	17	4	30	51
	Tenant-tiller	158	15	284	457
	Parcel	204	18	352	574
	Area (ha)	844.8162	34.1520	1,024.1703	1,903.1385

ARBA MEMBERSHIP

ACCOMPLISHMENT

	BAGABAG	DIADI	VILLAVERDE	TOTAL
Scope				1,854
Beginning to Dec. 1981				1,283
Jan. - Nov. 1982				304

ARBA COLLECTION

ACCOMPLISHMENT

	BAGABAG	DIADI	VILLAVERDE	TOTAL
Scope				
Beginning to Dec. 1981				
Jan. - Nov. 1982				₱1,874

IMELDA PROJECTS

	BAGABAG	DIADI	VILLAVERDE	TOTAL
Jan. - Nov. 1982	654	180	122	965 Projs.

Backlog: ARBA Membership: 267

ARBA: Aquarium Reform Beneficuries Assocation

EMANCIPATION PATENT FINAL SURVEY

ACCOMPLISHMENT FROM January-November 1982

MUNICIPALITY	Landowner	Tenant-tiller	Parcel	Area (ha)
1. BAGABAG	-	-	-	-
2. DIADI	-	-	-	-
3. VILLAVERDE	2	23	40	14.5735
Total	2	23	40	14.5735

Source: MAR. Solano, N.V.

LAND TENURE OF PALAY LAND IN THE PROJECT AREA

Barrio/ Municipality	Total		Leased Land		Amortizing Owner		Share Tenant	
	No.	Area (has)	No.	Area (has)	No.	Area (has)	No.	Area (has)
BAMBANG								
1. Sto. Domingo	83	95.15	55	54.44	2	2.08	26	38.63
BAGABAG								
1. Bakit	106	142.54	70	102.04	2	4.77	34	35.73
2. Baretbet	86	94.88	70	64.68	9	9.10	7	21.10
3. Carab	91	86.14	72	69.56	19	16.58	-	-
4. Lantap	90	62.50	72	38.75	-	-	18	23.75
5. Nurong	142	164.04	80	97.03	1	4.00	61	63.01
6. Nagalisan	102	112.00	80	70.62	9	15.90	13	25.48
7. Paniki	229	296.66	141	205.02	-	-	88	91.64
8. Pogonsino	110	91.52	92	66.98	-	-	18	24.54
9. Sta. Cruz	88	130.82	73	106.91	-	-	15	23.91
10. Sta. Lucia	21	27.40	17	21.28	3	5.39	1	0.73
11. Tuao	115	133.19	101	116.38	-	-	14	16.81
12. San Geronimo	62	76.19	43	55.22	19	20.97	-	-
13. San Pedro	66	85.77	51	62.23	-	-	15	23.34
14. Villa Qurino	110	117.92	87	88.04	-	-	23	29.88
15. Villa Coloma	70	123.28	46	85.03	-	-	24	38.25
Total	488	1,744.85	1,095	1,249.77	62	76.71	331	418.37
BAYOMBONG								
1. Dist. I	-	-	-	-	-	-	-	-
2. Dist. II	-	-	-	-	-	-	-	-
3. Dist. III	116	140.68	99	123.63	-	-	17	17.05
4. Dist. IV	-	-	-	-	-	-	-	-
5. Bonfal East	22	13.46	22	13.46	-	-	-	-
6. Buenavista	70	94.40	39	56.30	-	-	31	38.10
7. Busilac	72	75.29	63	60.23	-	-	9	15.06
8. Casat	119	125.32	97	101.34	1	0.87	21	25.11
9. Magsaysay	76	81.36	61	61.19	-	-	15	20.17
10. Magapuy	28	30.38	22	28.69	-	-	6	1.69
11. Masoc	55	33.02	46	119.12	-	-	9	13.90
12. Bonfal Proger	100	80.82	90	70.67	2	1.90	8	8.25
13. La Torre	304	247.05	282	222.42	-	-	22	24.63
14. Bonfal West	236	131.24	231	125.06	1	1.82	4	4.36
Total	1,198	1,053.02	1,052	982.11	4	4.59	142	168.77

continued:

LAND TENURE OF PALAY LAND IN THE PROJECT AREA

Barrio/ Municipality	Total		Leased Land		Amortizing Owner		Share Tenant	
	No.	Area (has)	No.	Area (has)	No.	Area (has)	No.	Area (has)
SOLANO								
1. Poblacion North	-	-	-	-	-	-	-	-
2. Poblacion South	-	-	-	-	-	-	-	-
3. Osmeña	88	113.78	67	88.86	-	-	21	24.92
4. Roxas	209	284.74	155	206.68	1	0.74	53	77.32
5. Quezon	86	95.27	75	81.55	-	-	11	13.72
6. Quirino	156	306.32	117	275.13	-	-	39	31.19
7. Uddiawan	294	351.43	160	190.64	51	114.80	83	45.99
8. San Luis	215	295.21	162	221.38	1	2.82	52	71.01
9. Aggul	118	117.35	95	83.30	4	7.89	19	26.16
10. Tucal	132	295.59	109	263.15	5	6.20	18	26.24
11. Bangar	64	72.10	53	56.50	-	-	11	15.60
12. Lactawan	101	120.89	73	-	-	-	-	-
13. Curifang	73	128.56	43	84.40	13	20.73	17	23.43
14. Dadap	69	70.10	54	53.22	-	-	15	16.88
15. San Juan	156	152.31	109	80.32	5	9.11	42	62.88
16. Bangaan	40	63.78	12	38.53	3	3.90	25	21.35
17. Bascaran	139	107.69	88	43.87	1	0.61	50	63.21
18. Wakal	86	111.31	69	88.49	-	-	17	22.82
Total	2,026	2,586.43	1,441	1,856.02	84	166.8	473	542.72
VILLAVERDE								
1. Nagbitin	73	139.80	34	60.55	5	13.10	34	66.15
2. Turod	113	150.52	74	86.40	-	-	39	64.12
3. Sawmill	41	31.90	41	31.90	-	-	-	-
4. Ibung	192	248.64	138	189.13	54	59.51	-	-
5. Pieza	81	114.87	81	114.87	-	-	-	-
6. Bintawan	159	210.10	137	126.00	20	31.76	2	52.54
Total	659	895.83	505	608.85	79	104.37	75	182.61

Source: Barangay Survey, Matuno River Multi-Purpose Project, NIA - JICA, 1982

FLOOD CONTROL CALCULATION (100-YEAR RETURN PERIOD)

* MAX. CONTROL = 500.0 (CM/S)
* ONTROL CUT D. = 2,096.3 (CM/S)
* S.CAPACITY = 48,181.5*1000 (CM)

HRS	D.S.INFLOW (CM/S)	C.OUTFLOW (CM/S)	STRAGE (10^3 CM)	MG.RUN-OFF (CM/S)	ST.RUN-OFF (CM/S)	T.RUN-OFF (CM/S)
0)	50.0	50.0	0.0	118.1	168.1	168.1
2)	74.3	54.7	70.7	198.2	252.9	272.5
4)	169.7	73.0	489.2	413.1	486.1	582.7
6)	380.5	113.6	1,797.7	967.5	1,081.2	1,348.0
8)	829.0	200.0	5,022.8	2,612.2	2,812.2	3,441.2
10)	1,994.9	424.6	12,940.5	4,209.0	4,633.6	6,203.9
12)	2,646.3	550.0	26,140.3	3,635.0	4,185.0	6,281.3
14)	1,790.8	550.0	38,153.9	2,586.7	3,136.7	4,377.5
16)	1,109.2	550.0	44,633.8	1,870.9	2,420.9	2,980.1
18)	758.9	550.0	47,399.1	1,409.5	1,959.5	2,168.5
20)	558.4	550.0	48,181.5	1,081.2	1,631.2	1,639.6
22)	418.0	550.0	47,736.8	801.8	1,351.8	1,219.9
24)	290.6	550.0	46,328.1	593.8	1,143.8	884.4
26)	200.2	550.0	44,135.0	466.7	1,016.7	666.9
28)	152.9	550.0	41,446.2	383.2	933.2	536.1
30)	125.0	550.0	38,486.9	325.3	875.3	450.4
32)	107.2	550.0	35,362.8	283.6	833.6	390.8
34)	95.0	550.0	32,130.7	252.5	802.5	347.5
36)	86.4	550.0	28,823.7	228.7	778.7	315.1
38)	80.0	550.0	25,462.7	210.1	760.1	290.1
40)	75.2	550.0	22,061.4	195.2	745.2	270.4
42)	71.4	550.0	18,629.2	183.2	733.2	254.6
44)	68.5	550.0	15,172.8	173.3	723.3	241.8
46)	66.1	550.0	11,697.2	165.1	715.1	231.2
48)	50.0	550.0	8,155.1	158.2	708.2	208.2

* MAX. CONTROL = 1,000.0 (CM/S)
* ONTROL CUT D. = 1,596.3 (CM/S)
* S.CAPACITY = 31,199.0*1000 (CM)

HRS	D.S.INFLOW (CM/S)	C.OUTFLOW (CM/S)	STRAGE (10^3 CM)	MG.RUN-OFF (CM/S)	ST.RUN-OFF (CM/S)	T.RUN-OFF (CM/S)
0)	50.0	50.0	0.0	118.1	168.1	168.1
2)	74.3	59.4	53.8	198.2	257.6	272.5
4)	169.7	96.1	372.5	413.1	509.2	582.7
6)	380.5	177.3	1,368.9	967.5	1,144.8	1,348.0
8)	829.0	350.1	3,824.8	2,612.2	2,962.2	3,441.2
10)	1,994.9	799.1	9,854.0	4,209.0	5,008.1	6,203.9
12)	2,646.3	1,050.0	19,905.5	3,635.0	4,685.0	6,281.3
14)	1,790.8	1,050.0	28,319.0	2,586.7	3,636.7	4,377.5
16)	1,109.2	1,050.0	31,199.0	1,870.9	2,920.9	2,980.1
18)	758.9	1,050.0	30,364.3	1,409.5	2,459.5	2,168.5
20)	558.4	1,050.0	27,546.7	1,081.2	2,131.2	1,639.6
22)	418.0	1,050.0	23,502.1	801.8	1,851.8	1,219.9
24)	290.6	1,050.0	18,493.3	593.8	1,643.8	884.4
26)	200.2	1,050.0	12,700.3	466.7	1,516.7	666.9
28)	152.9	1,050.0	6,411.5	383.2	1,433.2	536.1
30)	125.0	1,050.0	0.0	325.3	1,375.3	450.4
32)	107.2	107.2	0.0	283.6	390.8	390.8
34)	95.0	95.0	0.0	252.5	347.5	347.5
36)	86.4	86.4	0.0	228.7	315.1	315.1
38)	80.0	80.0	0.0	210.1	290.1	290.1
40)	75.2	75.2	0.0	195.2	270.4	270.4
42)	71.4	71.4	0.0	183.2	254.6	254.6
44)	68.5	68.5	0.0	173.3	241.8	241.8
46)	66.1	66.1	0.0	165.1	231.2	231.2
48)	50.0	50.0	0.0	158.2	208.2	208.2

FLOOD CONTROL CALCULATION (100-YEAR RETURN PERIOD)

* MAX. CONTROL = 1,500.0 (CM/S)
* ONTROL CUT O. = 1,096.3 (CM/S)
* S.CAPACITY = 18,484.2*1000 (CM)

HRS	D.S.INFLOW (CM/S)	C.OUTFLOW (CM/S)	STRAGE (10^3 CM)	MG.RUN-OFF (CM/S)	ST.RUN-OFF (CM/S)	T.RUN-OFF (CM/S)
0)	50.0	50.0	0.0	118.1	168.1	168.1
2)	74.3	64.1	37.0	198.2	262.2	272.5
4)	169.7	119.1	255.8	413.1	532.2	582.7
6)	380.5	240.9	940.2	967.5	1,208.5	1,348.0
8)	829.0	500.1	2,626.8	2,612.2	3,112.2	3,441.2
10)	1,994.9	1,173.7	6,767.5	4,209.0	5,382.7	6,203.9
12)	2,646.3	1,550.0	13,670.6	3,635.0	5,185.0	6,281.3
14)	1,790.8	1,550.0	18,484.2	2,586.7	4,136.7	4,377.5
16)	1,109.2	1,550.0	17,764.2	1,870.9	3,420.9	2,980.1
18)	758.9	1,550.0	13,329.5	1,409.5	2,959.5	2,168.5
20)	558.4	1,550.0	6,912.1	1,081.2	2,631.2	1,639.6
22)	418.0	1,550.0	0.0	801.8	2,351.8	1,219.9
24)	290.6	290.6	0.0	593.8	884.4	884.4
26)	200.2	200.2	0.0	466.7	666.9	666.9
28)	152.9	152.9	0.0	383.2	536.1	536.1
30)	125.0	125.0	0.0	325.3	450.4	450.4
32)	107.2	107.2	0.0	283.6	390.8	390.8
34)	95.0	95.0	0.0	252.5	347.5	347.5
36)	86.4	86.4	0.0	228.7	315.1	315.1
38)	80.0	80.0	0.0	210.1	290.1	290.1
40)	75.2	75.2	0.0	195.2	270.4	270.4
42)	71.4	71.4	0.0	183.2	254.6	254.6
44)	68.5	68.5	0.0	173.3	241.8	241.8
46)	66.1	66.1	0.0	165.1	231.2	231.2
48)	50.0	50.0	0.0	158.2	208.2	208.2

* MAX. CONTROL = 2,000.0 (CM/S)
* ONTROL CUT O. = 596.3 (CM/S)
* S.CAPACITY = 8,649.3*1000 (CM)

HRS	D.S.INFLOW (CM/S)	C.OUTFLOW (CM/S)	STRAGE (10^3 CM)	MG.RUN-OFF (CM/S)	ST.RUN-OFF (CM/S)	T.RUN-OFF (CM/S)
0)	50.0	50.0	0.0	118.1	168.1	168.1
2)	74.3	68.7	20.1	198.2	266.9	272.5
4)	169.7	142.2	139.2	413.1	555.3	582.7
6)	380.5	304.6	511.4	967.5	1,272.1	1,348.0
8)	829.0	650.1	1,428.8	2,612.2	3,262.3	3,441.2
10)	1,994.9	1,548.2	3,681.0	4,209.0	5,757.2	6,203.9
12)	2,646.3	2,050.0	7,435.7	3,635.0	5,685.0	6,281.3
14)	1,790.8	2,050.0	8,649.3	2,586.7	4,636.7	4,377.5
16)	1,109.2	2,050.0	4,329.4	1,870.9	3,920.9	2,980.1
18)	758.9	2,050.0	0.0	1,409.5	3,459.5	2,168.5
20)	558.4	558.4	0.0	1,081.2	1,639.6	1,639.6
22)	418.0	418.0	0.0	801.8	1,219.9	1,219.9
24)	290.6	290.6	0.0	593.8	884.4	884.4
26)	200.2	200.2	0.0	466.7	666.9	666.9
28)	152.9	152.9	0.0	383.2	536.1	536.1
30)	125.0	125.0	0.0	325.3	450.4	450.4
32)	107.2	107.2	0.0	283.6	390.8	390.8
34)	95.0	95.0	0.0	252.5	347.5	347.5
36)	86.4	86.4	0.0	228.7	315.1	315.1
38)	80.0	80.0	0.0	210.1	290.1	290.1
40)	75.2	75.2	0.0	195.2	270.4	270.4
42)	71.4	71.4	0.0	183.2	254.6	254.6
44)	68.5	68.5	0.0	173.3	241.8	241.8
46)	66.1	66.1	0.0	165.1	231.2	231.2
48)	50.0	50.0	0.0	158.2	208.2	208.2

FLOOD CONTROL CALCULATION (75-YEAR RETURN PERIOD)

* MAX. CONTROL = 485.2 (CM/S)
* ONTROL CUT O. = 2,034.4 (CM/S)
* S.CAPACITY = 46,924.1*1000 (CM)

HRS	D.S.INFLOW (CM/S)	C.OUTFLOW (CM/S)	STRAGE (10^3 CM)	MG.RUN-OFF (CM/S)	ST.RUN-OFF (CM/S)	T.RUN-OFF (CM/S)
0)	50.0	50.0	0.0	117.4	167.4	167.4
2)	73.4	54.5	67.9	194.3	248.8	267.6
4)	165.2	72.2	470.6	400.5	472.7	565.7
6)	368.6	111.4	1,731.5	933.4	1,044.8	1,302.0
8)	802.6	194.9	4,845.3	2,514.3	2,709.2	3,316.9
10)	1,929.4	411.9	12,495.9	4,065.6	4,477.5	5,995.0
12)	2,569.7	535.2	25,282.8	3,536.7	4,072.0	6,106.4
14)	1,751.9	535.2	36,986.7	2,532.3	3,067.5	4,284.1
16)	1,090.0	535.2	43,363.9	1,836.8	2,372.0	2,926.8
18)	746.3	535.2	46,121.0	1,383.2	1,918.4	2,129.5
20)	547.3	535.2	46,924.1	1,060.6	1,595.9	1,607.9
22)	409.0	535.2	46,513.1	788.5	1,323.8	1,197.5
24)	285.4	535.2	45,159.3	586.0	1,121.2	871.4
26)	197.6	535.2	43,044.5	461.7	996.9	659.3
28)	151.5	535.2	40,447.5	379.8	915.0	531.3
30)	124.1	535.2	37,586.0	322.9	858.2	447.1
32)	106.6	535.2	34,562.8	281.9	817.1	388.4
34)	94.6	535.2	31,433.3	251.2	786.4	345.8
36)	86.1	535.2	28,229.9	227.7	762.9	313.8
38)	79.8	535.2	24,973.2	209.3	744.5	289.0
40)	75.0	535.2	21,676.6	194.6	729.8	269.6
42)	71.3	535.2	18,349.5	182.7	717.9	254.0
44)	68.3	535.2	14,998.5	172.9	708.1	241.2
46)	66.0	535.2	11,628.3	100.0	635.2	166.0
48)	50.0	535.2	8,192.1	100.0	635.2	150.0

* MAX. CONTROL = 970.5 (CM/S)
* ONTROL CUT O. = 1,549.2 (CM/S)
* S.CAPACITY = 30,346.0*1000 (CM)

HRS	D.S.INFLOW (CM/S)	C.OUTFLOW (CM/S)	STRAGE (10^3 CM)	MG.RUN-OFF (CM/S)	ST.RUN-OFF (CM/S)	T.RUN-OFF (CM/S)
0)	50.0	50.0	0.0	117.4	167.4	167.4
2)	73.4	59.0	51.7	194.3	253.3	267.6
4)	165.2	94.4	358.4	400.5	494.9	565.7
6)	368.6	172.7	1,318.5	933.4	1,106.1	1,302.0
8)	802.6	339.9	3,689.6	2,514.3	2,854.1	3,316.9
10)	1,929.4	773.9	9,515.4	4,065.6	4,839.5	5,995.0
12)	2,569.7	1,020.5	19,252.5	3,536.7	4,557.2	6,106.4
14)	1,751.9	1,020.5	27,462.6	2,532.3	3,552.7	4,284.1
16)	1,090.0	1,020.5	30,346.0	1,836.8	2,857.3	2,926.8
18)	746.3	1,020.5	29,609.3	1,383.2	2,403.7	2,129.5
20)	547.3	1,020.5	26,918.7	1,060.6	2,081.1	1,607.9
22)	409.0	1,020.5	23,013.9	788.5	1,809.0	1,197.5
24)	285.4	1,020.5	18,166.4	586.0	1,606.5	871.4
26)	197.6	1,020.5	12,557.8	461.7	1,482.2	659.3
28)	151.5	1,020.5	6,467.1	379.8	1,400.3	531.3
30)	124.1	1,020.5	111.8	322.9	1,343.4	447.1
32)	106.6	1,020.5	0.0	281.9	1,302.3	388.4
34)	94.6	94.6	0.0	251.2	345.8	345.8
36)	86.1	86.1	0.0	227.7	313.8	313.8
38)	79.8	79.8	0.0	209.3	289.0	289.0
40)	75.0	75.0	0.0	194.6	269.6	269.6
42)	71.3	71.3	0.0	182.7	254.0	254.0
44)	68.3	68.3	0.0	172.9	241.2	241.2
46)	66.0	66.0	0.0	100.0	166.0	166.0
48)	50.0	50.0	0.0	100.0	150.0	150.0

FLOOD CONTROL CALCULATION (75-YEAR RETURN PERIOD)

* MAX. CONTROL = 1,455.7 (CM/S)
* ONTROL CUT O. = 1,063.9 (CM/S)
* S.CAPACITY = 17,938.5*1000 (CM)

HRS	D.S.INFLOW (CM/S)	C.OUTFLOW (CM/S)	STRAGE (10^3 CM)	MG.RUN-OFF (CM/S)	ST.RUN-OFF (CM/S)	T.RUN-OFF (CM/S)
0)	50.0	50.0	0.0	117.4	167.4	167.4
2)	73.4	63.5	35.5	194.3	257.8	267.6
4)	165.2	116.5	246.1	400.5	517.0	565.7
6)	368.6	234.1	905.5	933.4	1,167.5	1,302.0
8)	802.6	484.8	2,533.9	2,514.3	2,999.1	3,316.9
10)	1,929.4	1,135.8	6,535.0	4,065.6	5,201.4	5,995.0
12)	2,569.7	1,505.7	13,222.2	3,536.7	5,042.4	6,106.4
14)	1,751.9	1,505.7	17,938.5	2,532.3	4,038.0	4,284.1
16)	1,090.0	1,505.7	17,328.2	1,836.8	3,342.5	2,926.8
18)	746.3	1,505.7	13,097.7	1,383.2	2,888.9	2,129.5
20)	547.3	1,505.7	6,913.4	1,060.6	2,566.4	1,607.9
22)	409.0	1,505.7	0.0	788.5	2,294.2	1,197.5
24)	285.4	285.4	0.0	586.0	871.4	871.4
26)	197.6	197.6	0.0	461.7	659.3	659.3
28)	151.5	151.5	0.0	379.8	531.3	531.3
30)	124.1	124.1	0.0	322.9	447.1	447.1
32)	106.6	106.6	0.0	281.9	388.4	388.4
34)	94.6	94.6	0.0	251.2	345.8	345.8
36)	86.1	86.1	0.0	227.7	313.8	313.8
38)	79.8	79.8	0.0	209.3	289.0	289.0
40)	75.0	75.0	0.0	194.6	269.6	269.6
42)	71.3	71.3	0.0	182.7	254.0	254.0
44)	68.3	68.3	0.0	172.9	241.2	241.2
46)	66.0	66.0	0.0	100.0	166.0	166.0
48)	50.0	50.0	0.0	100.0	150.0	150.0

* MAX. CONTROL = 1,941.0 (CM/S)
* ONTROL CUT O. = 578.7 (CM/S)
* S.CAPACITY = 8,414.4*1000 (CM)

HRS	D.S.INFLOW (CM/S)	C.OUTFLOW (CM/S)	STRAGE (10^3 CM)	MG.RUN-OFF (CM/S)	ST.RUN-OFF (CM/S)	T.RUN-OFF (CM/S)
0)	50.0	50.0	0.0	117.4	167.4	167.4
2)	73.4	68.0	19.3	194.3	262.3	267.6
4)	165.2	138.7	133.9	400.5	539.2	565.7
6)	368.6	295.4	492.5	933.4	1,228.8	1,302.0
8)	802.6	629.8	1,378.3	2,514.3	3,144.0	3,316.9
10)	1,929.4	1,497.8	3,554.5	4,065.6	5,563.4	5,995.0
12)	2,569.7	1,991.0	7,191.8	3,536.7	5,527.7	6,106.4
14)	1,751.9	1,991.0	8,414.4	2,532.3	4,523.2	4,284.1
16)	1,090.0	1,991.0	4,310.3	1,836.8	3,827.7	2,926.8
18)	746.3	1,991.0	0.0	1,383.2	3,374.1	2,129.5
20)	547.3	547.3	0.0	1,060.6	1,607.9	1,607.9
22)	409.0	409.0	0.0	788.5	1,197.5	1,197.5
24)	285.4	285.4	0.0	586.0	871.4	871.4
26)	197.6	197.6	0.0	461.7	659.3	659.3
28)	151.5	151.5	0.0	379.8	531.3	531.3
30)	124.1	124.1	0.0	322.9	447.1	447.1
32)	106.6	106.6	0.0	281.9	388.4	388.4
34)	94.6	94.6	0.0	251.2	345.8	345.8
36)	86.1	86.1	0.0	227.7	313.8	313.8
38)	79.8	79.8	0.0	209.3	289.0	289.0
40)	75.0	75.0	0.0	194.6	269.6	269.6
42)	71.3	71.3	0.0	182.7	254.0	254.0
44)	68.3	68.3	0.0	172.9	241.2	241.2
46)	66.0	66.0	0.0	100.0	166.0	166.0
48)	50.0	50.0	0.0	100.0	150.0	150.0

FLOOD CONTROL CALCULATION (50-YEAR RETURN PERIOD)

* MAX. CONTROL = 464.6 (CM/S)
* ONTROL CUT O. = 1,947.8 (CM/S)
* S.CAPACITY = 45,012.2*1000 (CM)

HRS	O.S.INFLOW (CM/S)	C.OUTFLOW (CM/S)	STRAGE (10^3 CM)	MG.RUN-OFF (CM/S)	ST.RUN-OFF (CM/S)	T.RUN-OFF (CM/S)
0)	50.0	50.0	0.0	115.7	165.7	165.7
2)	71.1	54.1	61.4	186.0	240.0	257.1
4)	155.7	70.3	429.9	377.5	447.9	533.2
6)	347.2	107.2	1,601.0	876.6	983.8	1,223.8
8)	759.5	186.6	4,527.3	2,368.9	2,555.5	3,128.4
10)	1,835.0	393.8	11,778.0	3,860.7	4,254.5	5,695.7
12)	2,462.3	514.6	23,978.3	3,393.5	3,908.1	5,855.9
14)	1,694.9	514.6	35,239.5	2,448.2	2,962.8	4,143.1
16)	1,059.1	514.6	41,449.1	1,784.3	2,298.9	2,843.5
18)	726.7	514.6	44,173.3	1,350.4	1,865.0	2,077.1
20)	535.5	514.6	45,012.2	1,036.7	1,551.3	1,572.2
22)	399.8	514.6	44,674.1	771.3	1,285.9	1,171.1
24)	278.8	514.6	43,411.9	575.8	1,090.4	854.6
26)	194.4	514.6	41,410.3	455.1	969.7	649.5
28)	149.6	514.6	38,943.9	375.3	889.9	525.0
30)	123.0	514.6	36,220.5	319.8	834.3	442.8
32)	105.8	514.6	33,339.2	279.5	794.1	385.3
34)	94.1	514.6	30,353.8	249.4	764.0	343.5
36)	85.7	514.6	27,296.0	226.3	740.9	312.0
38)	79.5	514.6	24,185.7	208.2	722.8	287.7
40)	74.8	514.6	21,036.1	193.7	708.3	268.5
42)	71.1	514.6	17,856.4	182.0	696.5	253.1
44)	68.2	514.6	14,653.0	172.3	686.9	240.5
46)	65.9	514.6	11,430.8	100.0	614.6	165.9
48)	50.0	514.6	8,143.0	100.0	614.6	150.0

* MAX. CONTROL = 929.1 (CM/S)
* ONTROL CUT O. = 1,483.2 (CM/S)
* S.CAPACITY = 29,040.0*1000 (CM)

HRS	O.S.INFLOW (CM/S)	C.OUTFLOW (CM/S)	STRAGE (10^3 CM)	MG.RUN-OFF (CM/S)	ST.RUN-OFF (CM/S)	T.RUN-OFF (CM/S)
0)	50.0	50.0	0.0	115.7	165.7	165.7
2)	71.1	58.1	46.7	186.0	244.1	257.1
4)	155.7	90.7	327.4	377.5	468.2	533.2
6)	347.2	164.5	1,219.2	876.6	1,041.0	1,223.8
8)	759.5	323.3	3,447.5	2,368.9	2,692.2	3,128.4
10)	1,835.0	737.5	8,968.8	3,860.7	4,598.2	5,695.7
12)	2,462.3	979.1	18,259.1	3,393.5	4,372.7	5,855.9
14)	1,694.9	979.1	26,175.3	2,448.2	3,427.4	4,143.1
16)	1,059.1	979.1	29,040.0	1,784.3	2,763.5	2,843.5
18)	726.7	979.1	28,419.3	1,350.4	2,329.5	2,077.1
20)	535.5	979.1	25,913.3	1,036.7	2,015.9	1,572.2
22)	399.8	979.1	22,230.3	771.3	1,750.5	1,171.1
24)	278.8	979.1	17,623.1	575.8	1,554.9	854.6
26)	194.4	979.1	12,276.6	455.1	1,434.3	649.5
28)	149.6	979.1	6,465.3	375.3	1,354.5	525.0
30)	123.0	979.1	396.9	319.8	1,298.9	442.8
32)	105.8	979.1	0.0	279.5	1,258.7	385.3
34)	94.1	94.1	0.0	249.4	343.5	343.5
36)	85.7	85.7	0.0	226.3	312.0	312.0
38)	79.5	79.5	0.0	208.2	287.7	287.7
40)	74.8	74.8	0.0	193.7	268.5	268.5
42)	71.1	71.1	0.0	182.0	253.1	253.1
44)	68.2	68.2	0.0	172.3	240.5	240.5
46)	65.9	65.9	0.0	100.0	165.9	165.9
48)	50.0	50.0	0.0	100.0	150.0	150.0

FLOOD CONTROL CALCULATION (50-YEAR RETURN PERIOD)

* MAX. CONTROL = 1,393.7 (CM/S)
* ONTROL CUT O. = 1,018.6 (CM/S)
* S.CAPACITY = 17,111.2*1000 (CM)

HRS	O.S.INFLOW (CM/S)	C.OUTFLOW (CM/S)	STRAGE (10^3 CM)	MG.RUN-OFF (CM/S)	ST.RUN-OFF (CM/S)	T.RUN-OFF (CM/S)
0)	50.0	50.0	0.0	115.7	165.7	165.7
2)	71.1	62.2	32.1	186.0	248.2	257.1
4)	155.7	111.0	224.8	377.5	488.6	533.2
6)	347.2	221.7	837.3	876.6	1,098.3	1,223.8
8)	759.5	459.9	2,367.6	2,368.9	2,828.8	3,128.4
10)	1,835.0	1,081.3	6,159.5	3,860.7	4,942.0	5,695.7
12)	2,462.3	1,443.7	12,539.9	3,393.5	4,837.2	5,855.9
14)	1,694.9	1,443.7	17,111.2	2,448.2	3,891.9	4,143.1
16)	1,059.1	1,443.7	16,631.0	1,784.3	3,228.0	2,843.5
18)	726.7	1,443.7	12,665.4	1,350.4	2,794.1	2,077.1
20)	535.5	1,443.7	6,814.5	1,036.7	2,480.4	1,572.2
22)	399.8	1,443.7	0.0	771.3	2,215.0	1,171.1
24)	278.8	278.8	0.0	575.8	854.6	854.6
26)	194.4	194.4	0.0	455.1	649.5	649.5
28)	149.6	149.6	0.0	375.3	525.0	525.0
30)	123.0	123.0	0.0	319.8	442.8	442.8
32)	105.8	105.8	0.0	279.5	385.3	385.3
34)	94.1	94.1	0.0	249.4	343.5	343.5
36)	85.7	85.7	0.0	226.3	312.0	312.0
38)	79.5	79.5	0.0	208.2	287.7	287.7
40)	74.8	74.8	0.0	193.7	268.5	268.5
42)	71.1	71.1	0.0	182.0	253.1	253.1
44)	68.2	68.2	0.0	172.3	240.5	240.5
46)	65.9	65.9	0.0	100.0	165.9	165.9
48)	50.0	50.0	0.0	100.0	150.0	150.0

* MAX. CONTROL = 1,858.3 (CM/S)
* ONTROL CUT O. = 554.0 (CM/S)
* S.CAPACITY = 8,047.1*1000 (CM)

HRS	O.S.INFLOW (CM/S)	C.OUTFLOW (CM/S)	STRAGE (10^3 CM)	MG.RUN-OFF (CM/S)	ST.RUN-OFF (CM/S)	T.RUN-OFF (CM/S)
0)	50.0	50.0	0.0	115.7	165.7	165.7
2)	71.1	66.3	17.5	186.0	252.2	257.1
4)	155.7	131.4	122.3	377.5	508.9	533.2
6)	347.2	279.0	455.4	876.6	1,155.5	1,223.8
8)	759.5	596.5	1,287.8	2,368.9	2,965.4	3,128.4
10)	1,835.0	1,425.0	3,350.3	3,860.7	5,285.8	5,695.7
12)	2,462.3	1,908.3	6,820.7	3,393.5	5,301.8	5,855.9
14)	1,694.9	1,908.3	8,047.1	2,448.2	4,356.5	4,143.1
16)	1,059.1	1,908.3	4,221.9	1,784.3	3,692.6	2,843.5
18)	726.7	1,908.3	0.0	1,350.4	3,258.7	2,077.1
20)	535.5	535.5	0.0	1,036.7	1,572.2	1,572.2
22)	399.8	399.8	0.0	771.3	1,171.1	1,171.1
24)	278.8	278.8	0.0	575.8	854.6	854.6
26)	194.4	194.4	0.0	455.1	649.5	649.5
28)	149.6	149.6	0.0	375.3	525.0	525.0
30)	123.0	123.0	0.0	319.8	442.8	442.8
32)	105.8	105.8	0.0	279.5	385.3	385.3
34)	94.1	94.1	0.0	249.4	343.5	343.5
36)	85.7	85.7	0.0	226.3	312.0	312.0
38)	79.5	79.5	0.0	208.2	287.7	287.7
40)	74.8	74.8	0.0	193.7	268.5	268.5
42)	71.1	71.1	0.0	182.0	253.1	253.1
44)	68.2	68.2	0.0	172.3	240.5	240.5
46)	65.9	65.9	0.0	100.0	165.9	165.9
48)	50.0	50.0	0.0	100.0	150.0	150.0