C-2 RESULTS OF WATER QUALITY ANALYSIS - RAINY SEASON (1)

Sample Name		R010	SP001	R011	R012	R013	R014	R015	GW497	GW008	GW009
		Penang river	Penang river Penang river	enang river	Wailevu-	Yaqara river	Tavua basin	Tavua basin	Tavua basin Penang river	Penang river Penang rives	Penang river
negau.		hasin		basin	Narewa	basın			basin	basin	basin
Source		River	Hot Spring	River	River	River	River	River	Borehole	Dug Well	Dug Well
Well Depth Gl-m			•								
leve I r		. •					**				:
	ł	27.5	37.5	27.0	26.2	27.6	27.2	27.5	30.1	28.0	27.2
	6.5-8.5	7.88	8.12	7.80	7.84	7.94	7.51	7.94	7.00	6.92	98.9
pri Flactic Conductivity MS/cm	888	280	310	290	360	150	2400	320	510	540	530
	7.5	7.5	0.0	7.0	2.5	2.5	10.0	30.0	0.0	0.0	0:0
ē		4.70	0.48	1.5	1.2	1.60	8.6	75.0	0.18	0.52	3.9
		171	73	167	198	86	173	150	238	283	270
390		82	44	77	116	48	180	84	170	180	158
,	200	128	48	134	2	74	380	142	240	242	241
		46	4	57	48	56	200	58	70	62	83
	60.3	0.08	0.1	4.0	0.2	0.1	0.7	1	0.1	0.1	0.3
æ (Mn)		0.1	<0.001	<0.001	0.10	<0.001	0.3	0.1	<0.001	<0.001	0.40
		0.40	0.10	0.20	0.20	0.20	0.40	0.60	<0.001	0.01	0.50
	•	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.007	0.13	<0.0002	0.008	<0.0002
(A		<0.001	< 0.001	0.09	0.46	<0.001	<0.001	0.46	<0.001	0.14	0.14
		<0.005	<0.005	<0.005	0.07	0.008	0.00	0.75	<0.005	0.017	0.08
(g	⊽	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0004	0.0003	<0.0002	<0.0002	<0.0002
		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0003	0.0003	<0.0001	<0.0001	<0.0001
T		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	<0.05	<0.001	<0.001	<0.001	<0.001	<0.001	0.00	0.049	<0.001	<0.001	<0.001
	<200	13.0	50.6	17.0	18.5	7.4	357.0	18.5	26.1	19.9	26.8
_		12.0	9.0	2.0	1.2	2.3	22.0	3.2	0.5	9.0	0.7
	<250	11.3	46.3	31.2	21.3	7.2	665.0	12.3	28.8	14.4	27.8
		<0.01	<0.01	0.01	<0.01	<0.01	0.01	0.02	<0.01	0.01	0.01
_	<10	0.20	0.20	0.30	0.20	0.20	0.30	0.30	0:30	0.40	1.20
(##)		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	90.0	<0.02	<0.02
	<0.1	0.001	< 0.001	0.001	<0.001	< 0.001	0.002	<0.001	<0.001	<0.001	<0.001
	<400	9	34	Q,	13	2	120	88	30	40	37
	<1.5	<0.005	<0.005	<0.005	<0.005	<0.005	0.05	<0.005	<0.005	<0.005	<0.005
	<1000	190	210	200	250	100	1600	220	350	351	325
(SiO2)		45.00	36.00	52.00	46.00	32.00	41.00	56.00	34.00	00.89	53.00
ed the St	Ti.	Mn,Al		Fe,AI	Mn,Al	. A1	Turb.,Fe	Col.,Turb.			Fe,Mn,Al
							Mn Al Na	Fe Mn A			
							10 The 10	1 1617176			

C-2 RESULTS OF WATER QUALITY ANALYSIS - RAINY SEASON (2)

Sampling date	01/02/94			3		•	Ý	¥	ŗ	81	0_	ę
Sample No.	KIN	SLANDARD	200	71	C 1	±1 0000	\$ \\ \ \ \	2 (2)	- TOTAL	377/05	COMUSS	GWID3
Sample Name			GW510		G¥014	20076	O WOIG	CW445	OMOTO	0	2000	1
Region			Wailevu-		Yaqara river		Raburu	Tavua basin	Tavua basın	Tavua basın	l avua dasin	I avua oasm
			Narewa	Narewa	basin	coastal plain c	coastal plain			•	;	. !
Source			Borehole	Dug Well	Borehole	Hot Spring	Dug Well	Borehole	Dug Well	Borehole	Dug Well	Dug Well
Well Depth	GL-m										••	-
Groundwater Level	GL-m		į	1	o o	;	. 6	210	000		0.10	386
Water Temperature	رړ		30.2	30.5	30.2	41.9	0.67	31.0	79.0	4.67	6.1.7	0.07
Но		6.5 - 8.5	7.38	7.40	7.49	7.56	7.62	7.02	7.53	7.17	80.8	7.45
Flectric Conductivity	MS/cm		510	530	130	78	290	540	480	510	440	290
Colour	TC 1	<15	0.0	35.0	45.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turbidity	TEN.	\$	0.46	0.71	9.90	0.20	0.16	0.52	0.31	0.2	0.5	0.21
Alkalienty	me/l		204	198	95	24	175	225	237	248	180	284
Ca Handrees	l'au		140	150	30	134	150	145	150	150	118	190
Total Hardness	me/l	000 000 000	240	230	48	164	230	225	250	260	200	330
Mo Hartness	με/J		100	8	18	30	80	08	100	110	82	140
from (Fe)	me/l	<0.3	<0.001	0.10	1.00	<0.001	0.10	0.10	<0.001	<0.001	<0.001	<0.001
Managarese (Ma)	l'au	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	< 0.001
Aluminim (Al)	me/L	<0.2	0.10	0.10	1.10	0.20	0.20	0.20	0.20	0.20	0.05	0.10
I was (Ph)		<0.05	<0.0002	<0.0002	<0.0002	<0.002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Conner (Ca)	me/l	<1.0	0.07	0.03	0.01	0.03	0.10	0.03	90.0	0.02	0.06	<0.001
Zinc (Zn)	me./	\$.0	<0.005	<0.005	<0.005	0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cadmum (Cd)	Vecu	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	< 0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Mercury (He)	mo.V	<0.001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	< 0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chrominan (Cr)	Went.	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Argnic (As)	<i>Тош</i>	<0.05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Sylinm (Na)	me/A	7	17.2	25.9	12.6	97.0	86.4	22.5	15.9	16.0	17.1	20.0
Polescum (K)	mon.		0.5	4.5	2.0	1.4	3.2	0.7	1.2	2.8	1.2	0.7
Chlerine (Cl)	me/l	<250	30.9	41.2	8.4	128.0	47.4	20.6	10.3	16.4	22.3	8.2
Nirrine (NO2)	meA		<0.01	<0.01	0.01	<0.01	0.01	<0.01	<0.01	0.01	0.01	0.01
Nimae (NO3)	med.	<10	1.80	0.20	0.30	0.20	1.80	1.40	1.40	0.40	1.80	1.40
Arrangement (NH4)	WS.W		<0.02	<0.02	90.0	0.15	<0.02	<0.02	<0.02	0.00	<0.02	<0.02
Cvanide (CN)	T/Sur	<0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Sulfate (SCA)	/zm	<400	57	54	m	161	95	8	54	63	57	85
Pluvine (F)	l/sm	<1.5	<0.005	<0.005	<0.005	< 0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TES	me./	<1000	370	360	365	85	540	426	400	375	335	84
Silica (SiO2)	mg/I		94.00	53.00	55.00	48.00	58.00	64.00	62.00	80:00	20.00	73.00
Items Exceeded the Standard	tandard			Coi	Col.,Turb.	ΥΊ	T¥	TY .	¥	¥		
					Fe							

C-2 RESULTS OF WATER QUALITY ANALYSIS - RAINY SEASON (3)

Cit.ms C	Sample Name) ! ! ;	R016	R017	R018	GW020	GW024	GW058	GWO26	R101	GW028
River River River Dig Weil Dug Weil Borchole Borchole River Dug Weil Borchole Borchole River Dug Weil Borchole Borchole River Dug Weil Rorchole River Dug Weil River Dug Weil Rorchole Rorchol	tipe reader		Tavna hasin	Tavua basin	Tavua basin	Tavua basin	Matalevu	Matalevu	Matalevu	Matalevu	Matalevu
River River River Dag Well Dag Well Borehole Brethole River Dag Well	tors					•	uplands	uplands	uplands	nplands	uplands
6.5 8.5 6.9 8.81 8.80 7.62 7.6 7.4 741 7.8 8.42 8.42 1400 7.40 140 480 360 460 220 220 220 1400 1400 140 480 360 460 220 220 220 1400 150 110 23 2.3 0.22 0.2 0.2 17.0 150 110 110 2.3 2.3 0.22 0.2 0.2 17.0 150 143 143 142 142 142 142 142 142 142 142 142 142			River	River	River	Dug Well	Dug Well	Borehole	Borehole	River	Dug Well
6.5 - 8.5 6.9 8.81 2.92 31.0 29.2 29.3 29.2 31.5 4.5 - 8.5 6.9 8.81 8.80 76.2 7.6 7.41 7.8 8.42 4.1 1.400 7.40 1.40 4.80 3.60 4.60 2.20 2.20 4.1 2.20 1.10 2.3 1.23 0.20 0.00 1.50 1.50 4.5 2.20 1.20 1.20 0.0 0.0 0.0 1.50	Hora			•							,
1334 319 292 310 292 293 292 315 315 315 315 316		i F									
6.5 - 8.5 6.9 8.81 8.80 7.62 7.6 7.41 7.8 8.42 1400 140 140 140 140 140 140 140 140 140 140 140 150 170		: :	33.4	31.9	29.2	31.0	29.2	29.3	29.2	31.5	28.5
1400 740 140 480 360 460 220 220	ammaradina a		6.9	8.81	8.80	7.62	7.6	7.41	7.8	8.42	7.25
<15 200 100 300 180 150 0.0 150 150 150 150 150 150 150 150 150 150 170 150 170 <td>and of Constitution</td> <td></td> <td>1400</td> <td>740</td> <td>140</td> <td>480</td> <td>360</td> <td>460</td> <td>230</td> <td>220</td> <td>330</td>	and of Constitution		1400	740	140	480	360	460	230	220	330
\$\leqsit \$\leqsit \text			20.0	10.0	30.0	10:0	15.0	0.0	0.0	15.0	0.0
100 150 112 203 103 240 130 143 143 148			2.80	5.5	11.0	2.3	2.3	0.22	0.2	7.10	1.5
480 200 42 150 128 130 50 60 480 206 276 70 180 150 200 84 96 480 276 70 28 30 120 200 84 96 480 276 70 28 30 120 200 84 96 401 203 0.44 0.80 0.10 0.20 0.10 0.10 0.50 402 1.00 0.30 0.001 0.001 0.001 0.001 0.10 0.00 403 2.30 0.46 0.80 0.10 0.20 0.10 0.10 0.00 405 0.009 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 400 0.008 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 400 0.008 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 400 0.009 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 400 0.009 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 400 0.009 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 400 0.009 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 400 0.009 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 400 0.009 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 400 0.009 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 400 0.009 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 400 0.009 0.000 0.0001 0.001 0.001 0.001 400 0.009 0.000 0.000 0.000 0.000 0.000 0.000 400 0.000 0.000 0.000 0.000 0.000 0.000 0.000 400 0.000 0.000 0.000 0.000 0.000 0.000 0.000 400 0.000 0.000 0.000 0.000 0.000 0.000 0.000 400 0.000 0.000 0.000 0.000 0.000 0.000 0.000 400 0.000 0.000 0.000 0.000 0.000 0.000 0.000 400 0.000 0.000 0.000 0.000 0.000 0.000 0.000 400 0.000 0.000 0.000 0.000 0.000 0.000 400 0.000 0.000 0.000 0.000 0.000 0.000 0.000 400 0.000 0.000 0.000 0.000 0.000 0.000 0.000 400 0.000 0.000 0.000 0.000 0.000 0.000 0.000 400 0.000 0.000 0.000 0.000 0.000 0.000 0.000 400 0.000 0.000 0.000 0.000 0.000 0.000 0.000			90	150	112	203	103	240	130	143	198
180 150 200 84 96 340 76 28 30 22 70 34 96 340 76 28 30 22 70 34 96 340 76 28 0.10 0.20 0.10 0.10 0.10 0.00 0.10 0.00 0.10 0.00 <td></td> <td>. 2 5</td> <td>480</td> <td>200</td> <td>42</td> <td>150</td> <td>128</td> <td>130</td> <td>. 50</td> <td>8</td> <td>112</td>		. 2 5	480	200	42	150	128	130	. 50	8	112
340 76 28 30 22 70 34 36 36 36 36 36 36 36			820	276	70	180	150	200	84	8	160
(0.3 2.30 0.40 0.80 0.10 0.20 0.10 0.10 0.50 (0.1 0.80 0.30 (0.001 (0.001 (0.001 (0.001 0.10 0.50 (0.1 0.80 0.30 (0.001 (0.001 (0.001 (0.001 (0.001 (0.001 (0.001 (0.001 (0.001 (0.001 (0.002 (0.0001 (0.0001 (0.000 (,		340	76	28	30	22	02	34	36	48
Color Colo	ŝ		2.30	0.40	0.80	0.10	0.20	0.10	0.10	0.50	0.10
<0.2 1.00 0.30 0.80 0.10 0.20 <0.001 0.10 0.08 <0.05			0.80	0.30	<0.001	<0.001	<0.001	<0.001	<0.001	0.10	<0.001
<0.05 0.009 <0.0002 0.0002 <0.0002 <0.0002 <0.00002 <0.00002 <0.00002 <0.0000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <th< td=""><td></td><td></td><td>90</td><td>0:30</td><td>0.80</td><td>0.10</td><td>0.20</td><td><0.001</td><td>0.10</td><td>80.0</td><td>0.10</td></th<>			90	0:30	0.80	0.10	0.20	<0.001	0.10	80.0	0.10
Color Colo	ĝ	V	6000	<0.0002	0.008	<0.0002	<0.0002	<0.0002	<0.0002	0.006	<0.0002
<5.0 0.080 0.011 0.05 <0.0005 <0.0005 <0.0009 <td></td> <td></td> <td>0.088</td> <td>0.03</td> <td>0.004</td> <td>0.03</td> <td><0.001</td> <td><0.001</td> <td>0.10</td> <td>0.14</td> <td>0.06</td>			0.088	0.03	0.004	0.03	<0.001	<0.001	0.10	0.14	0.06
60.005 0.0002 60.0002 60.0002 60.0002 60.0002 60.0002 60.0002 60.0002 60.0002 60.0001 60.0001 60.0001 60.0001 60.0001 60.0001 60.0001 60.0001 60.0001 60.0001 60.0001 60.0001 60.0002 60.0002 60.0001 60.001 60.0			0.080	0.011	0.05	<0.005	<0.005	<0.005	<0.005	600.0	0.003
<0.001 0.0002 0.0001 0.0002 0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.0001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001<		⊽	0.005	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
<0.005 0.006 0.008 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <td></td> <td></td> <td>0.0002</td> <td>0.0002</td> <td>0.0001</td> <td>0.0002</td> <td><0.0001</td> <td><0.0001</td> <td><0.0001</td> <td><0.0001</td> <td><0.0001</td>			0.0002	0.0002	0.0001	0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
<0.05 0.803 0.263 0.001 0.001 <0.001 <0.001 <0.001 <0.001 <200	ī		0.005	0.000	0.008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
<200 60.3 64.8 7.6 34.2 20.5 33.1 20.6 12.1 10.0 5.3 1.8 2.3 3.3 4.2 3.2 2.6 10.0 5.3 1.8 2.3 3.3 4.2 3.2 2.6 2.50 92.6 82.0 7.2 17.5 26.7 28.9 9.3 2.6 6.05 0.05 6.001 0.01 0.01 0.01 0.01 0.01 6.1 0.02 0.30 0.30 0.02 0.02 0.02 0.02 6.1 0.03 0.001 0.001 0.001 0.002 0.002 0.002 0.002 0.002 6.15 0.07 0.003 <td></td> <td></td> <td>0.803</td> <td>0.263</td> <td>0.001</td> <td>0.001</td> <td><0.001</td> <td><0.001</td> <td><0.001</td> <td><0.001</td> <td><0.001</td>			0.803	0.263	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
10.0 5.3 1.8 2.3 3.3 4.2 3.2 2.6 256 92.6 82.0 7.2 17.5 26.7 28.9 9.3 9.3 0.05 0.09 <0.01 0.01 0.02 <0.01 <0.01 0.07 0.03 <0.02 0.82 0.10 <0.02 <0.02 <0.02 0.08 <0.001 <0.001 <0.001 <0.001 0.09 <0.001 <0.002 <0.002 <0.002 0.001 <0.001 <0.001 <0.001 0.001 <0.001 <0.001 <0.001 0.001 <0.001 <0.001 <0.001 0.001 <0.001 <0.001 <0.001 0.001 <0.002 <0.002 <0.002 0.002 <0.003 <0.003 <0.003 0.003 <0.005 <0.005 <0.005 0.004 <0.005 <0.005 <0.005 0.005 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.005 <0.005 0.007 <0.			60.3	64.8	7.6	34.2	20.5	33.1	20.6	12.1	25.4
<250 92.6 82.0 7.2 17.5 26.7 28.9 9.3 9.3 0.05 0.09 <0.01 0.01 0.01 0.01 0.01 <10 2.00 1.80 0.30 0.20 1.60 1.40 1.00 0.20 <0.1 0.02 0.02 0.02 0.00 0.00 0.00 <0.1 0.003 <0.001 <0.001 <0.002 <0.002 <0.002 <0.002 <0.1 0.003 <0.001 <0.001 <0.001 <0.002 <0.002 <0.002 <0.1 0.003 <0.001 <0.001 <0.001 <0.001 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <th< td=""><td></td><td></td><td>10.0</td><td>5.3</td><td>1.8</td><td>2.3</td><td>3.3</td><td>4.2</td><td>3.2</td><td>2.6</td><td>1.5</td></th<>			10.0	5.3	1.8	2.3	3.3	4.2	3.2	2.6	1.5
c.10 2.00 c.0.01 0.01 0.02 c.0.01 c.0.01 0.01 c.10 2.00 1.80 0.30 0.20 1.60 1.40 1.00 0.20 c.0.29 c.0.02 0.30 0.20 1.60 1.40 1.00 0.20 c.0.1 0.029 c.0.02 0.10 c.0.02 c.0.02 c.0.02 c.0.02 c.0.1 0.003 c.0.001 c.0.001 c.0.001 c.0.001 c.0.001 c.1.5 0.07 c.0.005 c.0.005 c.0.005 c.0.001 c.0.001 c.100 1,050 500 95 330 275 321 1.60 150 c.100 37.00 38.00 28.00 29.00 53.00 61.00 94.00 49.00 Fe.Mn. Al Fe.Mn. Al Turb. Fe Fe.Mn Fe.Mn Fe.Mn Fe.Mn			92.6	82.0	7.2	17.5	26.7	28.9	9.3	9.3	9.2
<10 2.00 1.80 0.30 0.20 1.60 1.40 1.00 0.20 0.29 <0.02 0.82 0.10 <0.02 <0.02 <0.02 <0.02 <0.1 0.003 <0.001 0.001 <0.001 <0.001 <0.001 <0.001 <0.0 766 193 6 71 81 29 11 8 <1.0 <0.07 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <1.00 1,050 500 95 330 275 321 160 150 <1000 37.00 38.00 28.00 29.00 53.00 61.00 94.00 49.00 Re-Mn-Al Fe-Mn-Al Turb.Fe Col.,Al Turb.re Fe-Mn Fe-Mn			0.05	0.00	<0.01	0.01	0.02	<0.01	<0.01	0.01	<0.01
6.29 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02			2.00	1.80	0:30	0.20	1.60	1.40	1.00	0.20	1.80
<0.1 0.003 <0.001 0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.002 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005	(417)		0.29	<0.02	0.82	0.10	<0.02	<0.02	<0.02	<0.02	<0.02
<400 766 193 6 71 81 29 11 8 <1.5 0.07 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <1000 1,050 500 95 330 275 321 160 150 <1000 37.00 38.00 28.00 29.00 53.00 61.00 94.00 49.00 Fe.Mn.Al Fe.Mn.Al TurbFe TurbFe Fe.Mn Fe.Mn		*	0.003	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001
<1.5 0.07 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005			766	193	9	71	81	53	11	∞	36
<1000 1,050 500 95 330 275 321 160 150 37.00 38.00 28.00 29.00 53.00 61.00 94.00 49.00 Col.,T.H. pH,Turb. pH,Col. Col.,Al Fe.Mn.Al Fe.Mn.Al Turb.Fe			0.07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
37.00 38.00 28.00 29.00 53.00 61.00 94.00 49.00 Col.,T.H. pH,Turb. pH,Col. Col.,Al Col.,Turb. Fe.Mn.Al Fe.Mn.Al TurbFe) 	V	1,050	200	95	330	275	321	160	150	275
Col.,T.H. pH,Turb. pH,Col. Col.,Al Fe.Mn.Al TurbFe			37.00	38.00	28.00	29.00	53.00	61.00	94.00	49.00	43.00
Fe.Mr.Al Fe.Mr.Al Turb.Fe	ms Exceeded the Stan	qard	Col.,T.H.	pH,Turb.	pH,Col.		Col.,Al			Col.,Turb.	
		The participant			1					,	

C-2 RESULTS OF WATER QUALITY ANALYSIS - RAINY SEASON (4)

Sampling date 01/02/94		:						C. Service Control Control Control			
Sample No.	STANDARD	8	32	33	A	8	36	F	38	39	40
Sample Name		R007	R 102	GW671	R008	R006	GW033	GW031	GW032	GW029	GW474
Region		Ba river h	Ba river Moto uplands Moto uplands	oto uplands	Ba river	Ba uplands	Vatia-Lousa	Vatia-Lousa	Vatia-Lousa	Matalevu	Raburu
		lower plain			lower plain		coastal plain	coastal plain	coastal plain	oplands	coastal plain
Source		River	River	Borehole	River	River	Borehole	Borehole	Dug Well	Borehole	Borehole
Well Depth GL-m											
Groundwater Level GL-m	******										
Water Temperature C		29.8	28.9	27.4	27.2	28.8	27.9	28.7	27.9	28.5	28.0
	6.5-8.5	7.42	8.40	6.85	6.70	7.30	6.50	7.15	7.32	7.58	7.50
Electric Conductivity MS/cm		130	39	28	100	110	920	455	260	200	280
	<15	35.0	20.0	12.0	70.0	55.0	40.0	8.0	0.0	0.0	0.0
Turbidity NTU	Δ.	21.00	12.50	20.00	70.00	34.00	41.00	0.75	0.30	0.23	10.1
Alkalinity mg/l		162	70	7	95	78	85	180	219	127	163
Ca. Hardness mg/l		75	28	16	30	24	. 36	106	100	. 56	64
Total Hardness mg/l	~ 2 00	116	43	25	46	42	<u>3</u> 8	150	147		112
Mg. Hardness mg/l		41	15	Φ.	16	18	160	4	47	∞	48
fron (Fe) mg/l	<0.3	1.60	0:20	7.00	2.00	2.60	19.00	0.50	<0.001	0,10	0.10
e (Mn)	⊕.	0.10	<0.001	0:10	0.10	0.10	0.20	0.10	<0.001	<0.001	<0.001
	<0.2	1.40	1.10	<0.001	5.50	3.15	<0.001	< 0.001	<0.001	<0.001	0.10
Lead (Pb) mg/l	<0.05	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.005	<0.0002	<0.0002	<0.0002	0.01
(a,	<1.0	90:0	90.0	<0.001	0.05	0.04	0.08	0.03	0.06	0.04	0.15
	0.5	<0.005	0.005	<0.005	0.08	<0.005	0.007	< 0.005	<0.005	<0.005	0.13
(CG)	<0.005	0.0003	<0.0002	<0.0002	0.0007	60000	0.0002	<0.0002	0.0002	<0.0002	<0.0002
Mercury (Hg) mg/l	<0.001	0.0001	<0.0001	0.0001	0.0002	0.0001	0.0003	<0.0001	< 0.0001	<0.0001	<0.0001
Chramium (Cr) mg/l	<0.05	0.009	<0.005	0.009	0.01	600.0	0.008	< 0.005	0.008	<0.005	<0.005
Arsenic (As) mg/l	<0.05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Socium (Na) mg/l	<200	8.2	4.9	4.0	0.9	8.4	36.2	24.5	22.2	18.8	22.6
Potassium (K) mg/l		2.2	1.1	0.4	2.5	2.7	2.7	21.0	2.3	3.8	1.4
Chlorine (Cl) mg/l	<250	7.2	5.4	7.2	5.1	7.2	106.0	20.6	18.5	15.0	17.5
Nitrite (NO2) mg/l	27	0.02	<0.01	0.36	0.14	0.01	0.54	0.63	<0.01	<0.01	<0.01
Nitrate (NO3) mg/l	<10	0.40	0.15	2.10	0:30	0.30	4.00	0.50	0.20	0:30	0.80
Ammonum (NH4) mg/l		0.41	<0.02	2.37	1.14	0.5	4.0	0.11	<0.02	<0.02	0.09
Cyanide (CN) mg/l	6	0.001	0.001	<0.001	0.007	0.003	0.003	<0.001	<0.001	<0.001	<0.001
Sultare (SO4) mg/l	<400	6	4	36	29	20	88	23	£	4	6
Fluorine (F) mg/I	<1.5	<0.005	<0.005	<0.005	<0.005	0:006	<0.005	<0.005	<0.005	<0.005	<0.005
TDS mg/l	<1000	& &	27	20	70	75	650	330	185	150	200
Silica (SrO2) mg/l		17.00	29.00	9:00	40.00	30.00	81.00	87.00	116.00	89.00	101.00
Items Exceeded the Standard		Col.,Turb.	Col.,Turb.	Turb.,	Col., Turb.	Col., Turb.	Col., Turb.	Fe,Mn			Turb.
		Fe,Mn,Al	Fe,Al	Fe,Mn	Fe,Mn,Al	Fe,Mn,Al	Fe,Mn				

C-2 RESULTS OF WATER QUALITY ANALYSIS - RAINY SEASON (5)

Sampling date U Sample No	01/02/94 STANDARD	41	42	43	44	45	46	47	48	49	8
Sample Name		GW034	R001	R002	R003	R004	GW001	R005	GW002	GW006	GW222
Region		Ba uplands A	Ba uplands Mountainous Mountainous Mountainous	Iountainous M	lountainous	Koronubu	Koronuba	Koronubu	Ba uplands	Ba uplands	Ba uplands
		,	атеа	area	area	uplands	uplands	uplands			
Source		Borehole	River	River	River	River	Dug Well	River	Dug Well	Dug Well	Borehole
Well Deoth G	Ga		:	ē.			٠.	÷			
r [æve]	GL-m				•	٠.					
	۷	27.9	26.1	25.0	25.1	25.9	27.6	28.2	28.2	27.7	29.0
	6.5 - 8.5	7.00	7.34	7.40	7.67	7.60	6.97	7.35	7.00	7.56	6.72
me Conductivity	MSkm	178	198	100	100	81	430	104	74	120	290
	TCU <15	0.0	25.0	55.0	25.0	10.0	25.0	25.0	2.5	25.0	2.5
2		0.22	18.0	33.0	7.4	2.8	3.5	18.0	2.7	24.0	0.24
	me/l	131	134	69	67	50	124	8	30	76	236
SSS	me/l	48	99	32	28	22	164	38	12	16	102
ş	me/l <500	89	98	20	50	42	198		18	35	164
		20	20	18	22	20	34	56	9	19	62
	me.1 <0.3	<0.001	1.6	2.3	0.10	1.7	0.20	1.2	0.20	1.2	0.10
e (Mn)	mg/l <0.1	<0.001	<0.001	<0.001	< 0.001	<0.001	0.20	<0.001	<0.001	<0.001	<0.001
	mg/l <0.2	<0.001	0.34	0.89	60.0	0.29	0.20	2.10	0.40	3.10	0.10
	mg/l <0.05	0.00	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
(3	mg/l <1.0	0.11	0.14	90.0	90.0	0.06	0.08	<0.001	0.08	0.06	0.0
	mg/f <5.0	0.05	0.07	0.05	0.008	<0.005	<0.005	<0.005	<0.005	0.013	<0.005
ව	mg/l <0.005	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Mercury (Hg) m	mg/f <0.001	<0.0001	<0.0001	< 0.0001	<0.0001	<0.0001	<0.0001	0.0002	<0.0001	<0.0001	<0.0001
æ	mg/l <0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	<0.0002	<0.005	<0.005
Arsenic (As) m	mg/l <0.05	<0.001	<0.001	<0.001	<0.001	<0.001	< 0.001	<0.001	<0.001	<0.001	<0.001
	mg/l <200	16.1	13.3	5.1	4.1	3.8	13.4	5.0	8.9	9.5	31.9
_	mg/l	3.5	2.4	2.5	1.9	1.5	3.9	2.4	5.0	11.0	15.0
	mg/l <250	5.2	4.1	5.2	4.1	4.1	14.4	5.2	3.1	6.2	22.7
	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	0.01	90.0	0.01
	mg/l <10	0.40	0.40	0.50	0.30	0.20	0.40	0.30	1.2	1.70	1.60
(H4)	mg/l	0.11	09:0	0.56	0.13	0.5	0.49	0.43	0.04	0.36	0.59
	mg/l <0.1	<0.001	0.001	0.002	<0.001	0.002	0.001	0.001	<0.001	0.001	<0.001
	mg/1 <400	ო	13	12	რ	6	103	12	11	17	ო
	mg/l <1.5	<0.005	0.05	0.05	0.033	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	mg/l <1000	130	140	80	70	99	300	95	52	8	420
(SiO2)	mg/l	93.00	43.00	34.00	33.00	27.00	55.00	31.00	20.00	39.00	85.00
ed the St	Gard		Col.,Turb.	Col.,Turb.	Col.,Turb.	Fe,Al	Col.,Mn,Al	Col.,Turb.	7	Col.,Turb.	
Spilitonia esti propositionia della come	vocatorio de la composición dela composición de la composición de la composición dela composición dela composición dela composición dela composición de la composición de la composición de la composición dela composición		Fe,A1	Fe,Al				Fe,Al		Fe,Al	

C-2 RESULTS OF WATER QUALITY ANALYSIS - RAINY SEASON (6)

Sample No. Sample Name Region Source Well Depth	STANDARD 5	51	23	53	54	55	56	57 R009	58	\$ 50.00 (10.00)	00 80/075
Name pth		00000	700/110	* ((()))	10001	410110	010000	800	ALOUNO.	0701330	CW038
pth		GW003	2000	GW224	S S S	CW21/	CW213	1001	5¥0¥5	C¥043	
		Ba uplands	Ba uplands	Ba uplands M	loto uplands M	oto upiands Me	Ba uplands Moto uplands Moto uplands Moto uplands Moto uplands	to uplands	Tavarau-	Tavarau-	Tavarau-
							Ž.		Raviravi	Raviravi	Raviravi
		Dug Well	Borehole	Borehole	Dug Well	Borehole	Borehole	River	Borehole	Borehole	Dug Well
	GL-m									٠	
	GL#										
		29.3	30.4	32.4	29.9	30.2	29.5	28.7	29.2	29.7	29.4
. Ha	6.5 - 8.5	6.03	6.10	6.57	6.40	8.45	7.51	8.03	7.25	7.00	6.85
tric Conductivity	MS/cm	150	96	350	155	740	530	88	410	180	390
	TCU <15	2.5	7.5	10.0	5.0	5.0	6.0	35.0	5.0	25.0	0.0
Tarbidity N	NTU <5	1.7	15.0	10.0	4.4	1.70	1.9	5.6	2.3	16.0	1.00
	mg/l	49	29	166	50	95	270	52	100	99	205
ess	mg/l	30	19	70	46	52	. 52	22	130	30	108
Total Hardness my	mg/l <500	26	21	106	54	54	74	32	182	40	162
Mg. Harchess my	mg/1	26	<u>ښ</u>	36	œ	64	22	10	52	10	54
	mg/d <0.3	0.10	1.4	0.20	0.30	0.20	0.10	1.6	0.30	0.70	0.20
Manganese (Mn) my	mg/l <0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.20	0.10	<0.001
	mg/l <0.2	0.10	0.20	<0.001	09.0	0:30	0.10	2.40	06'0	2.00	0.10
Lead (Pb) mi	mg/f <0.05	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Copper (Cu) mg/l	2 €0.0	90:0	90:0	90.0	0.05	0.05	90.0	0.08	0.09	0.05	90.0
Zinc (Zn) mg/l		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.00	<0.005	<0.005	<0.005
Cadmium (Cd) mg	mg/l <0.005	<0.0002	<0.0002	<0.0002	<0.0002	< 0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Mercury (Hg) mi	mg/1 <0.001	<0.0001	<0.0001	<0.0061	<0.0001	<0.0001	<0.0001	0.0001	<0.0001	<0.0001	< 0.0001
Chromium (Cr) m	mg/f <0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	mg/l <0.05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Sodium (Na) mg/l	200 200	8.4	5.7	31.7	11.3	129.5	0.96	5.8	23.1	11.9	27.1
_	மதி	6.0	8.0	10.0	2.3	1.8	2.7	1.5	2.1	1.5	6.0
Chlorine (Cl) m	mg/l <250	20.6	38.2	19.5	7.2	45.3	9.3	7.2	13.4	12.3	27.8
Nitrite (NO2) mi	மலி	0.01	90.0	0.55	0.05	96'0	0.06	90.0	0.09	0.03	0.01
	mg/l <10	1.80	1.80	1.20	0.30	0.50	0.50	0.20	0.30	0.30	0.20
(EE)	пр.7	<0.02	0.14	<0.02	0.067	0.34	0.19	0.38	0.04	0.10	0.11
Cyanide (CN) mi	mg/l <0.1	< 0.001	0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	0.001	<0.001
Sulfare (SO4) mg	mg/l <400	7	m	17	36	198	52	12	142	σ.	14
Fluorine (F) mj		<0.005	<0.005	<0.005	<0.005	<0.005	<0.00>	<0.005	<0.005	<0.005	<0.005
TDS mg/l	<1000	100	75	250	110	520	370	65	290	130	260
Silice (SiO2) mg/l	T.	23.00	24.00	146.00	32.00	24.00	52.00	30.00	80.00	47.00	49.00
hems Exceeded the Standard	pun	Hd	pH,Turb.	Turb.	pH,Fe,Al	TV Y		Col.,Fe,Al	Fe,Mn,Ai	Col., Turb.	
		•	Fe.A.							Fe.Mn.Al	

C-2 RESULTS OF WATER QUALITY ANALYSIS - RAINY SEASON (7)

Caracaca Caracacaca Caracacaca Caracacacaca Caracacacacacacaca Caracacacacacacacacacacacacacacacacacaca	CONT. SOURCE	TW010	TWOOS
Tavarau		OTOM I	COOM
Ravitavi Borehole GL-m 30.3	Ba uplands	Raburu	Ba uplands
Borehole		coastal plain	
Gil-in city (Gil-in city) (Gil	ole Borehole	Borehole	Borehole
Continue C C C C C C C C C	1,		
Marchest Carlo Marchest M			
Mail	28.0 27.8	30.4	28.4
National National	7.00 6.81	7.72	6.28
TCU	100 265	330	50
Nittle	0.0 5.0	0.0	100.0
Mail 160	2.5 17.0	34	8.4
160 160	54 103	124	16
Mail Color	28 49	69	15
magel	46 84	86	22
Min) mag/1 All) mag/1 All) mag/1 All) mag/1 All) (0.02	18 35	29	7
Ali	0.10 0.73	2.20	0.83
May May <0.2	<0.001 0.80	<0.001	0.60
mage]	0.10 <0.001	0.00	<0.001
mg/l <1.0 0.06 mg/l <5.0 <0.005 mg/l <0.005 <0.0002 mg/l <0.001 <0.0001 mg/l <0.05 <0.0001 mg/l <0.05 <0.0001 mg/l <2.00 67.2 mg/l <1.00 0.15 mg/l <4.00 44 close <0.0005 <0.0005 close <0.0005 close <0.0005 close <0.0005	<0.0002 <0.0002	0.08	<0.0002
Color Color Color Color	0.05 0.007	1.2	0.003
(a) mg/l	<0.005 <0.005	0.05	0.005
Trigol	<0.0002 <0.0002	<0.0002	<0.0002
Fi	<0.0001 <0.0001	<0.0001	< 0.0001
mg/l <0.05 <0.001 <		<0.005	<0.005
mgd	<0.001 <0.001	<0.001	<0.001
2.0 1 mg/l 1 mg/l 250 83.4 10.01 10.01 10.01 10.01 10.00 1	10.5 7.3	20.0	6.5
mg/l	1.2 0.8	2.0	0.7
mg/l 0.01 0.01	8.0 8.0	17.0	5.0
mg/l		0.47	0.10
NH4) Ug/d 0.32	<0.01 0.10	3.90	0.90
) mg/l <0.1 <0.001 < mg/l <400 44	0.08 0.02	90:0	0.11
mg/l	<0.001 <0.001	0.005	<0.001
mg/f <1.5 <0.005 < mg/f <1000 470	19 6	22	20
ing/d <1000 470	<0.005 <0.005	<0.005	<0.005
00 00	70 150	220	34
Silica (SiO2) mag/l	70.00 53.00	55.00	32.00
ed the Sta	Turb,Fe,Mn	Turb.	pH.Col.

Fe,Mn

C-3 RESULTS OF WATER QUALITY ANALYSIS - TEST WELLS (1)

Sampling date Sample No	STANDARD	-	2	9	4	S	9	٠	ác	•	Ω
Sample Name		TW001	TW002	TW003	TW004	TW005	TW006	TW006A	TW006S	TW008	17W009
area	W	Mountainous	Ba river Mo	Ba river Moto uplands	Ba uplands	Ba uplands	Koronubu	Koronubu	Koronubu	Matalevu	Tavua basin
		area	lower plain				uplands	uplands	uplands	uplands	
Source		BoreHole	BoreHole	BoreHole	BoreHole	BoreHole	Borehole	Borehole	BoreHole	Borehole	Borehole
Well Depth GL-m		76.00					76.00	21.35	18.18	74.45	70.00
rLevel		23.79					SelfFlowing	SelfFlowing	SelfFlowing	1.40	7.72
		27.8	29.0	28.7	26.9	26.1	27.5	27.6	26.7	27.7	29.6
Ha	6.5 - 8.5	8.00	7.11	9.08	99.9	5.88	8.10	7.87	7.80	7.03	7.12
Electric Conductivity MS/cm		115	138	447	188	54	1400	787	290	320	548
	<15	2.5	0.0	100	0.0	100	0.0	10.0	0.0	0.0	40.0
Turbidity NEU	٧	0.2	3.5	15.0	2.3	63.0	8.6	5.5	10.0	1.6	37.0
		13	25	89	35	Ŋ	250	91	92	167	101
888		19	25	89	40	9	215	141	115	165	136
88	<500	25	45	128	65	18	325	170	170	275	179
Mg. Hardness rugd	-	9	21	9	25	12	110	29	55	110	43
	<0.3	0.03	0.42	1.4	0.2	0.5	0.18	0.05	0.03	0.29	0.35
e (Ma)	<0.1	<0.001	0.20	0.10	<0.001	0.25	<0.001	<0.001	<0.001	<0.001	0.11
	<0.2	0.01	0.05	0.27	0.06	0.26	<0.001	<0.001	0.01	0.13	0.15
	<0.05	<0.0002	0.005	0.00	0.005	900.0	0.009	0.007	0.007	0.003	0.005
(A)	<1.0	0.007	0.01	0.008	90.0	0.007	0.02	0.008	0.007	0.01	0.07
	<5.0	<0.005	0.008	0.004	0.009	0.009	0.005	< 0.005	<0.005	0.004	0.008
(Cd)	<0.005	<0.0002	0.0005	0.0003	0.001	0.004	0.0007	<0.0002	<0.0002	<0.0002	<0.0002
	<0.001	<0.0001	<0.0001	< 0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	<0.05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	<200	3.0	8.0	14.0	10.0	4.0	116.0	74.0	35.5	4.6	43.0
Potassum (K) mg/l		0.7	1.3	2.1	1.8	6.0	1.1	2.3	2.1	0.7	3.7
Chlorine (Cl) mg/l	<250	5.0	9	65	9	0.9	170	110.0	. 53	7	70.0
Nurite (NO2) mg/l		0.31	0.02	2.09	90.0	0.51	<0.01	0.13	<0.01	<0.01	1.04
	<10	1.00	1.00	1.00	2.00	3.00	3.00	2.46	<0.01	2.00	1.43
(F)		0.13	0.20	90:0	0.12	0.50	1.60	1.02	<0.02	<0.01	2.45
Cyanide (CN) mg/l	<0.1	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
Sulfare (SO4) mg1	<400	16	23	: 15	49	17	123	8	16	76	100
Fluorine (F) mg/l	<1.5	<0.005	<0.005	< 0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TDS mg/l	<1000	62	75	300	120	. 78	830	490	380	220	320
Silica (SiO2) mg/l		4.9	28	10.6	46.0	4.9	21.6	42.8	49.4	77.6	33.4
ed the St			Fe,Mn C	Col.,Tur.,Fe		Col.,Tur.,Fe	Tur.	Tur.	Tur		Col., Tur., Fe
				Mn,Al		Mn,Al					Mn

C-3 RESULTS OF WATER QUALITY ANALYSIS - TEST WELLS (2)

TW010 TW011 T7 Rabulu Penang river Penang coastal plain basin basin and coastal plain basin basin and coastal plain basin basin and coastal plain basin and colored coastal plain basin and colored coastal plain basin and colored coastal coastal colored coastal colored coastal colored coastal colored coastal coastal colored coastal c	4					
Rabulu Penang river Penang ri	mple Nane		TW010	TW011	TW012	
Constall plain Dasin David	33		Rabulu F	enang river F	enang river	
Borehole Borehole Borehole Borehole Borehole Borehole Borehole Glm		3	oastal plain	basin	basin	
Paragraphy CL-m C	шсе		Borehole	Borehole	Borehole	
Conductivity CL-m			70.2	76.0	76.0	
Femperature C			1.17	6.89	6.15	
Conductivity MS/cm C15 841 7.09 8			30.0	28.4	28.5	
Conductivity MS/cm	_	6.5 - 8.5	8.41	7.09	8.03	
TrCU	tric Conductivity		320	148	230	
try NYTU <5 1.50 1.40 4 for sold sold sold sold sold sold sold sold		<15	2.5	40.0	0.0	
mg/l s mg/l s mg/l s mg/l (-0.3 0.17 70 (-0.3 0.14 70 (-0.01 -0.001 -0.001 (-0.02 -0.002 0.008 -0.00 mg/l mg/l (-0.05 -0.002 0.008 -0.00 (-0.05 -0.002 0.006 -0.00 mg/l mg/l (-0.01 -0.003 0.006 -0.00 (-0.001 -0.003 0.006 -0.00 mg/l mg/l (-0.001 -0.003 0.006 -0.00 (-0.001 -0.0001 -0.000 mg/l (-0.001 -0.0001 -0.00 mg/l (-0.01 -0.001 -0.00 mg/l (-0.001 -0.001 -0.00 mg/l	Ž.	\$	1.50	1.40	4.60	
mg/l			19	50	59	
s mg/l			11	70	54	
mg/l	88	<500	119	140	77	
4a) mg/l			42	70	23	
44a) mg/1		<0.3	0.17	0.14	0.03	
Majora Co. C	e (Ma)	<0.1	< 0.001	<0.001	<0.001	
mg/l		<0.2	0.10	0.30	0.03	
mg/l <1.0 0.003 0.05 0.0 0.00 0.00 0.00 0.00 0.		<0.05	<0.0002	0.008	<0.0002	
mg/1		<1.0	0.003	0.05	0.003	
mg/t		<5.0	<0.005	9000	<0.005	
mg/t		<0.005	<0.0002	0.0008	<0.0002	
mg/l		<0.001	<0.0001	<0.0001	<0.0001	
mg/1 <0.05 <0.001 <0.001 <0.001 <0.001 mg/1 <200 7.0 7.0 7.0 0.8 0.2 0.2 0.8 0.2 0.2 0.2 0.0 0.8 0.2 0.2 0.0 0.8 0.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0		<0.05	<0.005	<0.005	<0.005	
mg/1 <200 7.0 7.0 mg/1 <250 9.5 10.0 1 mg/1 <250 9.5 10.0 1 co.01 0.02 <0 NH4) mg/1 <0.1 <0.01 1.50 <0 mg/1 <0.1 <0.001 <0.001 <0.001 mg/1 <0.1 <0.001 <0.001 <0.001 mg/1 <100 <200 160 mg/1 <1000 200 160 mg/1 <1000 200 160 21		<0.05	<0.001	<0.001	<0.001	
0.8 0.2 mg/l <250 9.5 10.0 1 mg/l <250 9.5 10.0 1 cold cold cold cold cold cold cold cold		<200	7.0	7.0	8.5	
mg/1 <250 9.5 10.0 1 mg/1 color <0.01 0.02 <0 NH4) mg/1 color <0.01 1.50 <0 NH4) mg/1 color <0.01 <0.001 1.50 <0 mg/1 color <0.001 <0.001 <0.001 <0.001 mg/1 color <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005 <0.005			8.0	0.2	0.3	
mg/l		<250	9.5	10.0	11.0	
MH4 mg/l			<0.01	0.02	<0.01	
NH4) mg/l 0.80 2.80 <0 mg/l <0.01 <0.001 <0.001 <0.001 mg/l <400 66 108 mg/l <1.5 <0.005 <0.005 <0.005 mg/l <1000 200 160 23.10 68.60 21		<10	<0.01	1.50	<0.01	
mg/l <0.1 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 co.001 <0.001 co.001 co.001 co.001 co.001 co.002			0.80	2.80	<0.01	
mg/l <400 66 108 mg/l <1.5 <0.005 <0.005 <0.0 mg/l <1000 200 160 mg/l <52.10 68.60 21		<0.1	<0.001	<0.001	<0.001	
mg/l <1.5 <0.005 <0.005 mg/l <1000 200 160 mg/l <210 68.60		<400	98	108	30	
mg/l <1000 200 160 160 mg/l <2.10 68.60		<1.5	<0.005	<0.005	<0.005	
ma/l 52.10 68.60		<1000	200	160	160	
	(\$,02)		52.10	68.60	21.60	

C-4 RESULTS OF AGROCHEMIALS ANALYSIS IN NATURAL WATER - DRY SEASON

Sampling date	20/08/93	•		•	•	,	ı	•	*	NIT: mg/l	
Sample No. Sample Name	1 GW008	J 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	5 GW018	# R018	GW024	GW027	GW007	8 R102	***	GW003 GW004	
Area	RAKIRAKI	RAKIRAKI		TAVUA	TAVUA -BA	TAVUA -BA	ВА	BA		ВА	
Source For Sugar Cane	Dug Well	River	Dug Well	River	Dug Well	Tube Well	Dug Well	River	Dug Well	Tube Well	
dicamba	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
24D	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
diaron	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.01	
paradnat	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
pyphosate	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
hexazinone	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
For Other Crops											
fluazip-buty!	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Oxadiazon	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
benthiocarb	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
propanil	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	

C-5 RESULTS OF AGROCHEMICALS ANALYSIS IN NATURAL WATER - RAINY SEASON

ampling date	31/01/94		33							
Sample No. Sample Name	T CW008	1 2 GW008 R010	5 GW018	4 R018	5 GW024	GW058	GW007	R102	GW003	GW004
Area	RAKIRAKI	RAKIRAKI		TAVUA	TAVUA	TAVUA		BA	BA	BA
Comme	Des Well	Divor		River	-BA-	-BA	Dug Well	River	Duo Well	Tube Well
Sugar Cane	1748 ATT	-	9							
dicamba	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
2,4D	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00	<0.001	<0.001
diuron	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
paraquat	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
glyphosate	<0.001	<0.001	<0.001	<0.001	< 0.001	<0.001	<0.003	<0.001	<0.001	<0.001
hexazinone	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
x Other Crops										
fluazip-butyl	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
охадіахоп	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
benthiocarb	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dromanii	\$000 \$000	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

Sampling date	07-09/09/93,	•	2	ñ	4	ç	9	7	80	6	9
Sample Name		SP001	GW008	R010	R011	GW009	GW010	GW011	R012	GW012	R013
Water Temperature	Ļ	39.0	21.6	24.1	29.8	25.9	23.8	24.9	23.8	26.7	25.0
Ha)	8.16	6.9	7.71	7.46	6.97	7.47	7.22	7.64	7	8.31
Electric Conductivity	MS/cm	280	470	280	6800	530	430	320	470	990	240
Alkalinity	mg/l	. 51	233	187	175	255	131	147	198	276	220
Ca. Hardness	ngd	38	92	8	260	130	80	150	150	150	100
Total Hardness	mg/l	88	370	180	1170	250	160	180	230	291	200
Mg. Hardness	mg/l	52	160	8	910	120	08	30	08	141	100
Sodium (Na)	mg/f	32.4	16.6	3.8	0.069	18.5	18.0	16.7	1.5	18.0	12.0
	med	1.409	0.722	0.165	30.001	0.804	0.783	0.726	0.065	0.783	0.522
Potassium (K)	ng/l	9.0	0.4	0.2	10.2	0.4	6.0	2.8	0.4	0.4	3.2
	meq.1	0.015	0.011	0.004	0.261	6000	0.023	0.072	0.010	0.011	0.081
Calcium (Ca)	றவி	14.4	28.0	36.0	104.1	52.1	32.0	60.1	60.1	60.1	40.0
	meq/l	0.719	1.399	1.798	5.195	2.597	1.598	2.997	2.997	2.997	1.998
Magnesium (Mg)	ng/l	12.6	38.9	21.9	221.1	29.2	19.4	7.3	19.4	34.3	24.3
	meq/I	1.039	3.197	1.798	18.182	2.398	1.598	0.599	1.598	2.817	1.998
Chloride (CI)	mg/l	44.0	17.3	11.0	1650.0	31.0	50.0	50.0	30.0	28.0	10.0
Miles gradient de de la company de la compan	meg/l	1.241	0.488	0.310	46.530	0.874	1.410	1.410	0.846	0.790	0.282
Bicarbonate (HCO3)	mg/l	20.0	284.1	228.0	213.4	310.9	159.7	179.2	241.4	336.5	232.9
	ிற்ற	0.819	4.655	3.736	3,497	5.095	2.617	2.937	3.956	5.514	3.816
Sulfate (SO4)	mg/l	57	54	20	150	25	19	27	28	89	111
	l/gar	1.185	1.124	0.408	3.123	0.521	0.396	0.562	0.583	1.416	0.229
		6		i c	000	. 00	8	306	9	903.7	002 1
Total Cations	meg/!	3.182	5.328	3.703	23.039	2000	4.002	4.393	4.070	0.000	4.399
Total Amons	neo/l	3.245	6.267	4.455	53.150	6.490	4.423	6.909	5.585	07.7	4.32/
Difference	Degr.	7900	65.0	-0.089	0.469	-0.061	0.420	+IC.J.	-0.713	711.1-	1,571
Ionic Balance	f	/6.0	8.10	8.58	0.40	ς γ. α	3	5.55	7.11	0/./	40.0 40.0
Silica (SiO2)	mg/i	2.33	4.44	2.17	2.14	7.60	4.04	4.51	2.80	3.39	2.31
TDS (Measured)	mgA	165	258	961	4500	345	282	210	22.5	417	3
(Calculated)	mg/l	211	439	320	3,039	46/	533	343	381	242	333
Difference	ngd	4	-181	-130	1,461	-122	-14	-133	-61	-128	-183
			(9	9	i i	Ç	
N*+K	. 9	8.4.8	15.8	6. 4. 5. C. 4. 7.	4.00	0.40	20.1	7.01	0.1	0.71	1.61
Cs+Mg	\$	227	7.08	C.C.	45.0	0.00	66/	07.0		000	\$00°
CI+SO4	8 8	74.8	25.7	16.1	93.4	21.5	40.8	40.2	26.5	78.0	11.8
Mg	88	37.6	0.09	47.8	33.9	41.3	39.9	13.6	34.2	42.6	43.4
J	88	22.6	26.2	47.8	6.7	4.7	39.9	68.2	64.2	45.4	43.4
pH4.8Bx	8	25.2	74.3	83.9	9.9	78.5	59.2	8.65	73.5	71.4	88.2
ū	88	38.2	7.8	7.0	87.5	13.5	31.9	28.7	15.7	10.2	6.5
804	æ	36.5	17.9	9.2	5.9	8.0	6.8	11.5	10.8	18.3	5.3
									*		

C-6 RESULTS OF GEOCHEMICAL ANALYSIS IN NATURAL WATER - DRY SEASON (2)

			3		THE MILE	AL ANALI			KESULIS OF GEOCHEMICAL ANALISIS IN NATURAL WAIEN - DAT SEASON (2)	(4)	
Sampling date	07-09/09/93,			· ·	•	• • • • • • • • • • • • • • • • • • •	y	T.	0.1	O.	06
Sample No.		11 GW014	77 GW015	ET COOMS	14 GW016	CM017	GW018	GW019	R014	R015	ž.
Sample realize Water Termenature	} -	28.3	25.0	46.0	24.0	24.6	24.2	24.4	27.8	27.8	
Hu)	9.9	7.15	8.07	7.45	7.33	7.65	7.02	7.8	8.1	
Flectric Conductivity	MS/cm	330	98	510	. 760	1200	550	. 130	17000	8	
Alkalinity	me/l	146	168	27	138	270	280	43	1800	140	
Ca Hardness	me/l	19	170	130	140	280	120	37	200	172	
Total Hardness	[/ou	182	340	150	190	442	240	19	3500	272	
Ma Hardness	. Wow	121	170	50	9	162	120	24	3000	8	
Sodium (Na))	18.0	7.0	110.0	49.0	36.5	15.5	4.0	1865.0	15.0	
Jese Time		0.783	70.0	4.783	2.131	1.587	0.674	0.174	81.090	0.652	
(A)		1.0	1 6	1.6	3.1	6.0	6.0	4.0	10.4	6.0	
AND TIMESCE	. Pierre	0.036	0700	0.041	0.080	0.023	0.024	0.102	0.265	0.023	
الماليس المال		24.4	68.1	52.1	56.1	112.1	48.0	14.8	200.2	689	
)		1.219	3,397	2.597	2.797	5.594	2.398	0.739	9.990	3.437	
Magnesium (Mo)	I ou	29.4	41.3	4.9	12.1	39.4	29.2	5.8	728.9	24.3	
79. 11. 11. 11. 11.) P	2.418	3.397	0.400	0.999	3.237	2.398	0.480	59.940	1.998	
Chloride (Cl)	Vam	25.0	123.0	118.0	0.68	198.0	15.0	4.0	4141.0	43.0	
	meg/l	0.705	3.469	3.328	2.510	5.584	0.423	0.113	116.776	1.213	
Bicarbonate (HCO3) mg/l	"John	178.0	204.8	28.0	168.2	329.2	299.9	52.4	2194.5	170.7	
The section of the section of the	Typear	2.917	3.357	0.460	2.757	5:395	4.915	0.859	35.964	2.797	
Sulfate (SO4)	me/	65	43	<u>1</u>	65	22	20	28	245	125	
	Dean.	1.353	0.895	3.414	1.353	0.458	1.041	0.583	5.101	2.603	
Total Cations	- Wea/I	4.445	7.138	7.820	6.007	10.441	5.493	1.495	151.285	6.110	
Total Anions	/bour	4.975	7.721	7.202	6.620	11.436	6.379	1.555	157.841	6.612	
Difference	med/l	-0.531	-0.583	0.619	-0.614	-0.995	-0.886	-0.060	-6.556	-0.503	
fonic Balance	. 8	5.63	3.92	4.12	4.86	4.55	7.47	1.98	2.12	3.95	
Silica (SiO2)	mg/l	6.30	7.53	2.20	4.29	5.40	4.81	0.99	1.20	1.71	
TDS (Measured)	me/l	240	585	330	4	760	318	80	10880	410	
(Calculated)	nacl.	341	489	479	443	738	459	113	9,385	448	
Difference	mg/l	-101	8	-149	ကု	22	-141	-33	1,495	-38	
X+eZ	8	18.2	8.4	61.7	36.8	15.4	12.7	18.4	53.8	11.1	
Ca+M _o	8	81.8	95.2	38.3	63.2	84.6	87.3	81.6	46.2	88.9	
C+SO4	8	41.4	56.5	93.6	58.4	52.8	23.0	44.7	77.2	57.7	
Me	* &	54.4	47.6	5.1	16.6	31.0	43.7	32.1	39.6	32.7	
,	: 8°	27.4	47.6	33.2	46.6	53.6	43.7	49.5	9.9	299	
oH4 8By	: %	58.6	43.5	6.4	41.6	47.2	0.77	55.3	22.8	42.3	
TODAY.	•										
	8	14.2	44.9	46.2	37.9	48.8	9.9	7.3	74.0	18.3	

Water Temporature C C C C C C C C C	R018			_	GW026	R101	GW028
129 129	080				27.0	26.8	26.0
inc Conductivity MS/CH 440 limity mg/l 249 limity mg/l 195 Hardiness mg/l 195 Hardiness mg/l 14.0 Inc. (Na) mg/l 14.0 Inc. (Na) mg/l 1.6 Silliam (CA) mg/l 1.099 ride (CI) mg/l 1.249 lide (CI) mg/l 2.142 lide (CI) mg/l 2.142 lide (CI) mg/l 2.142 lide (CI) mg/l 1.249 lide (CI) mg/l 2.142 lide (CI) mg/l 1.249 lide (CI) mg/l 2.142 lide (C	e e				8.12	8.51	8.9
Interpretation 195 Hardmess mg/l 195 Hardmess mg/l 140 Hardmess mg/l 140 Hardmess mg/l 140 mecyl mcyl 1.6 mecyl mg/l 1.89 mecyl mg/l 1.099 mecyl mg/l 1.099 mecyl mg/l 1.40 mecyl mg/l 1.249 mecyl mg/l 1.24					210	790	94
Hardness mg/l 195 Hardness mg/l 250 Hardness mg/l 250 Hardness mg/l 140 mcyl mg/l 140 mcyl mg/l 134 mcyl mg/l 134 mcyl mg/l 134 mcyl mg/l 134 mcyl mg/l 140 mcyl mg/l 1249 mcyl mcyl 2564 Amons mcyl 2564 Amons mcyl 259 (Calculated) mg/l 211 may mcyl 259 (Calculated) mg/l 211 may mcyl 259 (Calculated) mg/l 211 may mcyl 259 (Calculated) mg/l 211 mg/l g g g g g g g g g g g g g g g g g g					134	86	245
Hardness mg/l 250 Hardness mg/l 55 mm (Na) mg/l 14.0 month month 0.609 sium (K) mg/l 1.6 month month 1.09 month month 0.395 bonate (HCO3) mg/l 1.09 month month 0.395 bonate (HCO3) mg/l 1.249 te (SO4) mg/l 0.498 te (SO4) mg/l 1.249 Centons month 0.498 te (SO4) mg/l 1.249 Centons month 0.498 te (SO4) mg/l 1.249 Centons month 0.498 te (SO4) mg/l 0.498 te (SO5) mg/l 0.498					72	8	150
Hardness mg/l 55 mm (Na) mg/l 14.0 mcg/l 0.669 snum (K) mg/l 1.6 mcg/l 0.042 um (Ca) mg/l 13.86 csnum (Mg) mg/l 11.099 nde (Cl) mg/l 0.395 bonare (HCO3) mg/l 12.49 re (SO4) mg/l 0.498 te (SO4) mg/l 12.49 Calculance mcg/l 2.142 rence mcg/l 2.142 rence mcg/l 2.142 france mc					128	130	200
14.0 megh 14.0					8	62	S,
medyl 0.609 suum (K) mg/l 1.6 medyl 0.042 um (Ca) mg/l 78.1 medyl 3.896 testum (Mg) mg/l 1.099 nde (Cl) mg/l 0.395 bonate (HCO3) mg/l 0.498 te (SO4) mg/l 0.498 te (SO5)					2.9	18.1	19.9
1.6 mocyl 1.6					0.126	0.787	0.865
um (Ca) mocyl 0.042 um (Ca) mcyl 78.1 mcyl 3.896 resulm (Mg) mg/l 13.4 rice (Cl) mg/l 1.099 rice (Cl) mg/l 0.498 re (SO4) mg/l 0.498 re (SO4) mg/l 0.498 re (SO4) mg/l 1.249 Cations mcyl 2.142 Amount mcyl 2.142 Cationis mcyl 2.173 Cationis mcyl 2.69 Cationis 3.504 2.115 Cationis 3.6 3.6 Cationis 3.6 3.6 Cationis 3.6 3.6 C					0.7	1.2	1.7
13.4 13.4 13.4 13.4 13.4 13.4 13.4 13.4 13.4 13.4 13.4 13.4 13.5					0.018	0.031	0.043
mccyll 3.896					28.8	27.2	60.1
inesium (Mg) mg/l 13.4 inecyl 1.099 ride (CI) mg/l 14.0 inecyl 0.395 bonate (HCO3) mg/l 0.498 is (SO4) mg/l 0.498 is (SO4) mg/l 0.498 is (SO4) mg/l 0.498 is (SO3) mg/l 1.249 Calions mecyl 2.142 Anions mecyl 3.504 Enlance 7 45.00 it (SiO2) mg/l 1.73 (Academical) mg/l 2.113 it (SiO2) mg/l 2.115					1.439	1.359	2.997
ide (CI) mg/l 1.099 ide (CI) mg/l 0.395 bonate (HCO3) mg/l 0.395 bonate (HCO3) mg/l 0.498 te (SO4) mg/l 0.498 te (SO4) mg/l 0.498 te (SO4) mg/l 1.249 Cations men/l 2.142 Amous men/l 2.142 Amous men/l 2.142 (Measured) mg/l 1.73 (Galculated) mg/l 2.99 (Calculated) mg/l 2.115 (Measured) mg/l 2.115					13.6	15.1	12.1
ide (CI) mg/l 14.0 mecyl 0.395 bonate (HCO3) mg/l 0.498 te (SO4) mg/l 0.498 te (SO4) mg/l 1.249 Cations mecyl 2.142 Anons mecyl 3.504 Balance w mocyl 3.504 Cations mg/l 2.142 (Messured) mg/l 2.173 (Messured) mg/l 2.113 (Messured) mg/l 2.113 (Assured) mg/l 2.113					1.119	1.239	0.999
mongh 0.395 bonate (HCO3) mg/l 30.4 mongh 0.498 te (SO4) mg/l 0.498 te (SO4) mg/l 1.249 trace mongh 5.646 Amons mongh 5.646 Amons mongh 3.504 Ealance mongh 3.504 (Measured) mg/l 1.73 (Measured) mg/l 2.69 (Calculated) mg/l 2.69 (C					7.0	11.0	0.9
bonate (HCO3) mg/l 30.4 mcg/l					0.197	0.310	0.169
re (SOd) mg/l 0.498 re (SOd) mg/l 60 Calionis meg/l 1.249 Calionis meg/l 2.142 rence meg/l 3.504 Balance & 45.00 (Calculated) mg/l 1.73 (Measured) mg/l 2.59 (Calculated) mg/l 2.59 (Calculat					156.1	119.5	298.7
re (SO4) magh 60 mengh 1.249 Cations mengh 5.646 Amotes mengh 2.142 cence mengh 3.504 Balance & 1.73 (Menaured) magh 1.73 (Menaured) magh 2.69 (Calculated) magh 2.69					2.557	1.958	4.895
Cations meayl 1.249 Cations meayl 5.646 Annors mocyl 3.504 Balance & 45.00 (Calculated) mg/l 1.73 (Measured) mg/l 269 (Calculated)					56	9	45
Cations model 5.646 Autous model 2.142 cence model 3.504 Balance & 45.00 (.SiO2) mg/l 1.73 (Measured) mg/l 2.69 (Calculated) mg/l 2.11 crace mg/l 2.11 crace mg/l 2.11 crace mg/l 2.11 dg % 11.5 dg % 69.0 BBX % 23.2	0.208 4.997	4.830	1.978 2.	2.498 0.845	0.541	0.625	0.937
Canons medyl 5.646 Antons modyl 2.142 cence medyl 3.504 Balance & 45.00 (.SiO2) mg/l 1.73 (Messured) mg/l 2.69 (Calculated) mg/l 211 cence g 6.00 d 6.00 BX 6.00							
Amoins mocyl 2.142 rence mocyl 3.504 Balance	٠				2.702	3.415	4.904
### 13.504 ###################################					3.296	2.893	00.9
Enlance					-0.594	0.522	-1.097
(Measured) right 1.73 (Measured) right 269 (Calculated) right 269 (Calculated) right 269 for % 11.5 for % 76.8 04 % 76.8 04 % 69.0 8Bx % 23.2	1.87 4.97				9.91	8.28	10.06
(Calculated) nagit 269 (Calculated) nagit 211 frace nagit 211 (Calculated) n					7.13	3.99	2.77
(Calculated) mg/l 211 france mg/l 58					141	500	281
France mark 58 C					235	222	443
46 46 46 46 47 48 47 48 48 48 48 48 48 48 48 48 48 48 48 48					46 -	-22	-162
Ag Ag 11.5 Ag Ag 88.5 O4 Ag 76.8 Ag 19.5 Ag 23.2 Bax 18.4							
46 O4 6 6 6 6 6 6 6 6 6 7 6 6 6 6 7 6 6 7 6 7 8 7 8					5.3	23.9	18.5
04 % 76.8 % 19.5 % 69.0 8Bx % 23.2					7.7	76.1	81.5
% 19.5 % 69.0 8Bx % 23.2				•	22.4	32.3	18.4
% 69.0 8Bx % 23.2 % 18.4					41.4	36.3	20.4
8Bx 4, 23.2					53.2	39.8	61.1
28.	٠				911	2.19	81.6
: 1					0.9	10.7	2.8
SO4 % 58.3 10.0			-	: "	16.4	21.6	15.6

C-6 RESULTS OF GEOCHEMICAL ANALYSIS IN NATURAL WATER - DRY SEASON (4)

Sampling date	07-09/09/93,			e.			-				000000000000000000000000000000000000000
Sample No.		31	32	3	¥	35	92	3	38	36	3
Sample Name		GW029	GW032	GW031	GW042	GW033	R001	K002	K003	KU04	TOMOT CAMODI
Water Temperature	Ļ	29.6	31.2	29.0	27.0	29.0	24.0	24.2	23.0	23.6	23.2
)	7.6	7.31	7.5	69.9	6.9	8.15	8.35	808	∞	7.64
Electric Conductions	MC//m	200	320	240	240	770	280	170	140	120	370
A Beligities	To V	2	92	114	105	158	104	101	08	71	1771
C. Hardress	mo/l	-64	87	89	55	220	8	22	37	43	120
Total Hardness	Jour Land	: 23	. 3 2	104	200	300	80	88	68	17	200
Ma Hantness	mon.	: E	63	36	145	80	28	%	52	28	80
Codium (Na)	l and	6.9	4.0	9.2	8.0	17.0	5.0	3.5	2.3	3.5	14.7
	Jeon J	0.300	0.174	0.400	0.348	0.739	0.217	0.152	0.100	0.152	0.639
Potassium (K)	us.	4.6	0.7	2.8	0.5	3.2	6.0	8.0	9.0	0.2	0.8
	mea/	0.117	0.018	0.071	0.013	0.083	0.024	0.019	0.015	9000	0.020
Calcinm (Ca)	me/l	19.6	34.8	27.2	22.0	88.1	24.0	20.8	14.8	17.2	48.0
	Joon	0.979	1.738	1.359	1.099	4.396	1.199	1.039	0.739	0.859	2.398
Magnesium (Mg)	me/l	8.0	15.3	8.7	35.2	19.4	8.9	8.7	12.6	6.8	19.4
Ď	meq/I	0.659	1.259	0.719	2.897	1.598	0.559	0.719	1.039	0.559	1.598
Chlomide (Cl)	, Valu	5.0	17.0	18.0	15.0	81.0	8.0	8.0	3.0	4.9	0.6
	mea/l	0.141	0.479	0.508	0.423	2.284	0.226	0.226	0.085	0.138	0.254
Bicarbonate (FICO3)	me/l	123.1	195.1	139.0	128.0	192.6	121.9	106.1	5.76	9.98	215.8
	mea/l	2.018	3.197	2.278	2.098	3.157	1.998	1.738	1.598	1.419	3.536
Sulfare (SO4)	me/l	0	∞	8	100	79	6	6	24	14	\$
	7 6	0.181	0.171	0.175	2.082	1.634	0.187	0.196	0.500	0.291	1.332
	300000000000000000000000000000000000000	Š	,	073	1361	4816	000	1 030	1 894	1.577	4.656
Total Cations	meg/l	2.056	3.189	2.549	4.557	0.010	2411	0,70	7 183	1 848	\$ 103
Total Anions	meq/i	2.340	3.847	2.960	4.603	7.07	2.411	0.230	0.280	0.770	-0.467
Difference	meg/l	-0.285	900	-0.411	-0.246	657.0-	-0.411	007:0-	67.5	7.03	4.78
fonic Balance	¥	6.47	939	7.46	2.75	1.87	9.33	2.02	7.03	5.51	07.50
Silice (SiO2)	mg/l	6.39	6.71	6.71	4.41	478	00	130	03.74	17	245
TDS (Measured)	ng/	57	37.6	213	138 206	480	176	157	155	133	372
(Carculated)		5.	-75	; %	-171	-5	18	-27	-62	-62	-127
				-							
Na+K	88	20.3	9.0	18.5	8.3	12.1	12.1	8.9	6.1	10.0	14.2
Ca+Ma	₽%	7.67	94.0	81.5	7:16	87.9	87.9	91.1	93.9	0.06	82.8
CI+SO4	₽€	13.8	16.9	23.1	54.4	55.4	17.1	19.5	26.8	23.2	31.0
Ψe	8	32.1	39.5	28.2	66.5	23.5	28.0	37.3	54.9	35.5	34.3
ے 9	8	47.6	54.5	53.3	25.2	64.5	59.9	53.8	39.0	\$4.5	51.5
pH4.8Bx	8	86.2	83.1	76.9	45.6	44.6	82.9	80.5	73.2	26.8	0.69
Ū	8º	0.9	12.5	17.1	9.2	32.3	4.6	10.4	3.9	7.5	2.0
NO4	₽€	1.7	4.4	5.9	45.2	23.1	7.8	9.1	22.9	15.8	26.0

ımpling date	07-09/09/93,	000000000000000000000000000000000000000	200000000000000000000000000000000000000								077780000000000000000000000000000000000
umple No.		7	42	£ 3	\$	\$	46	*7	•	\$	2
umple Name		R005	GW002	GW003	GW004	GW006	GW005	GW036	GW035	GW034	KOOS
aid Temperature	ؠ	25.6	26.2	25.8	26.4	26.3	25.0	28.1	56.6	Z2.0	26.1
F		7.93	6.31	7.09	9.9	6.62	6.32	7.06	6.81	98.9	7.75
lectric Conductivity	MS/cm	160	62	230	140	120	120	130	340	200	170
<u> kalinity</u>	ng/l	82	23	123	70	5	76	72	165	88	80 80
a. Hardness	fag.7	ጽ	7	55	35	15	30	31	8	8	84
otal Hardness	nac/l	72	27	137	74	41	57	77	250	135	82
ig. Hardness	l/sur	23	70	82	39	5 9	27	46	160	88	*
odiam (Na)		10.5	2.1	5.4	8 .80	4.4	3.9	5.5	10.0	18.0	3.0
	meq1	0.457	0.091	0.235	0.383	0.189	0.169	0.239	0.435	0.783	0.130
stassium (K)	ns/1	9.0	8.3	4.1	1.0	8.3	3.6	3.6	0.2	0.7	3.6
- consequence of the control of the	ne _o	0.016	0.212	0.104	0.025	0.212	0.093	0.093	0.005	810.0	0.091
alcium (Ca)	(/Bus	20.0	2.8	22.0	14.0	6.0	12.0	12.4	36.0	20.0	19.2
	meq/	0.999	0.140	1.099	0.699	0.300	0.599	0.619	1.798	0.999	0.959
agnesium (Mg)	mg/l	5.3	4.9	19.9	9.5	6.3	9.9	11.2	38.9	20.7	8.3
	Tipem	0.440	0.400	1.638	0.779	0.519	0.539	0.919	3.197	1.698	619.0
hlonde (Cl)	/au	6.0	4.0	13.0	4.0	7.5	4.0	6.0	18.0	50.0	7.0
	(fbeet)	0.169	0.113	0.367	0.113	0.212	0.113	0.169	0.508	1.410	0.197
icarbonate (HCO3)	ng/l	100.0	28.0	150.0	85.3	48.8	92.7	87.8	201:2	57.5	107.3
part, herdenmer professormer to dress	medil	1.638	0.460	2.458	1.399	0.799	1.518	1.439	3.297	1.598	1.758
iste (SO4)	mg/l	20	10	31	30	19	· · v o	25	105	37	11
	1. Production of the second	0.416	0.208	0.635	0.625	0.385	0.117	0.521	2.186	0.770	0.221
	***************************************				;						
oral Canons	meg/f	1.911	0.842	3.076	1.886	1.220	1.400	1.870	5.435	3.498	1.860
otal Amons	Eneq.1	2.224	0.781	3.459	2.136	1.396	1.748	2.128	5.990	3.779	2.176
ifference	medyl	-0.313	0.062	-0.383	-0.250	-0.176	-0.348	-0.258	-0.555	-0.281	-0.316
nsc Balance	•	7.58	3.81	5.86	6.22	6.73	11.05	6.45	4.86	3.86	7.84
lica (SiO2)	Visus V	15.90	9.10	10.00	23.10	13.40	16.40	53.70	22.60	29.90	13.20
DS (Measured)	780	110	35	141	90 90	77	20	62	200	135	101
(Calculated)	15eu	162	8	245	153	100	128	151	409	244	159
ifference	ng/	-52	-25	-104	-65	-23	-58	-72	-209	-109	.58
		•							1	•	
r+K	*	24.7	36.0	11.0	21.6	32.8	18.7	17.7	8.1	22.9	11.9
a+Mg	8	75.3	64.0	0.68	78.4	67.2	81.3	82.3	91.9	17.1	88.1
+SO4	8	26.3	41.1	29.0	34.5	42.7	13.1	32.4	45.0	57.7	19.2
G	*	23.0	47.4	53.3	41.3	42.6	38.5	49.1	58.8	48.6	36.5
	8	52.3	16.6	35.7	37.1	24.6	42.8	33.1	33.1	28.6	51.6
14.8Bx	₽°	73.7	58.9	71.0	65.5	57.3	86.9	9.19	55.0	42.3	80.8
	8	7.6	14.5	10.6	5.3	15.2	6.5	8.0	8.5	37.3	9.1
አ	8	18.7	26.7	18.4	29.2	27.6	- 2.9	24.5	36.5	20.4	10.1

RESULTS OF GEOCHEMICAL ANALYSIS IN NATURAL WATER - DRY SEASON (6) Ç

	Sampling date	07-09/09/93,	CONTRACTOR LIBORATA				000000000000000000000000000000000000000	X(2000)			000000000000000000000000000000000000000		
	Sample No.		51	52	53	¥	55	26	21	28	66	8	9
	Sample Name		R006	R007	R009	GW007	GW040	GW044	GW039	GW043	GW037	GW038	R102
	Water Temperature	ب	25.1	25.6	25.0	24.1	26.7	26.5	27.7	27.4	24.8	26.7	23.2
	. Ho	·	7.41	7.33	8.31	7.15	7.33	6.83	7.22	7	6.58	6.75	7.2
	Electric Conductivity	MS/cm	100	140	170	190	390	280	760	340	270	98	\$
	Alkalinity	mg/l	63	76	83	8	198	215	141	220	124	181	32
	Ca. Hardness	me/l	20	98	20	46	8	170	. 45	110	53	95	13
	Total Hardness	mest	47	7.1	70	S	225	365	. 71	285	86	170	33
	Mg. Hardness	mzſ	27	35	20	23	135	195	36	175	45	55	20
	Sodium (Na)	mg/l	8.0	12.0	14.3	33.5	5.0	12.0	27.0	2.0	25.0	25.0	4.2
	West than the second state of the second sec	meq/l	0.348	0.522	0.622	1.457	0.217	0.522	1.174	0.087	1.087	1.087	0.183
	Potassium (K)	mg/l	9.0	3.4	0.3	0.8	2.3	0.1	4.3	0.1	1.2	0.5	1.5
		mea/l	0.015	980'0	0.008	0.020	0.059		0.111	0.001	0.032	0.014	0.037
	Calcium (Ca)	me/l	8.0	14.4	20.0	18.4	36.0	68.1	18.0	44.0	21.2	38.0	5.2
		mea/l	0.400	0.719	0.999	0.919	1.798	3.397	0.899	2.198	1.059	1.898	0.260
	Magnesium (Mg)	me.i	6.6	8.5	4.9	5.6	32.8	47.4	8.7	42.5	10.9	13.4	4.9
		nod/i	0.539	669.0	0.400	0.460	2.697	3.896	0.719	3.497	0.899	1.099	0.400
	Chloride (Cl)	mg/l	5.0	10.0	23.0	4.0	25.0	120.0	8.0	10.0	5.0	0.9	0.9
· C		//bour	0.141	0.282	0.649	0.113	0.705	3.384	0.226	0.282	0.141	0.169	0.169
:-2	Bicarbonate (HCO3)	mg/l	76.8	7.76	84.1	68.3	241.4	262.1	171.9	268.2	151.2	220.7	39.0
3	William State of the Control of the	шеол	1.259	1.518	1.379	1.119	3.956	4.296	2.817	4.396	2.478	3.616	0.639
	Sulfate (SO4)	me/l	*	25	12	88	36	46	20	95	4	28	11
		negal	0.167	0.521	0.250	1.832	0.750	0.958	0.414	1.978	0.916	1.208	0.229
	Ç	t		100	900	2855	4 772	7.814	2 003	5 783	3.077	4 (98	0.879
• .	Total Callons	1/bom	1.502	7.20.7	20.2	30,6	5.411	8.637	3.457	6.656	3.535	4.993	1.038
	Difference		-0.264	-0.294	-0.249	-0.209	-0.639	-0.823	-0.554	-0.873	-0.458	-0.895	-0.158
	Ione Balance	5	9.21	6.77	5.77	3.53	6.27	2.00	8.71	7.02	6.93	9.85	8.26
-	Silica (SiO2)	ಗಿತ್ತಗ	13.30	13.20	14.40	8.70	4.70	3.96	2.34	6.20	17.60	16.50	23.20
-	TDS (Measured)	mg/l	76	8	110	115	256	348	158	220	185	230	43
	(Calculated)	mg/l	113	166	159	219	379	556	258	462	259	362	72
	Difference	mg/l	-37	98,	-49	-104	-123	-208	-100	-242	-74	-132	-29
	X ₈₊ K	8	27.9	30.0	31.1	51.7	5.8	6.7	44.3	1.5	36.4	26.9	25.0
	Ca+Mg	8%	72.1	70.0	689	48.3	94.2	93.3	55.7	586	63.6	73.1	75.0
	C1+SQ4	8	19.6	34.6	39.5	63.5	26.9	50.3	18.5	34.0	29.9	27.6	38.4
	Mg	8	41.4	34.5	19.7	16.1	56.5	49.9	24.8	60.5	29.2	26.8	45.4
	ిచ	88	30.7	35.5	49.2	32.2	37.7	43.5	31.0	38.0	34.4	46.3	29.5
	pH4.8Bx	8 € 1	\$0.4	65.4	50.5	36.5	73.1	49.7	81.5	0.00	70.1	72.4	61.6
	ت ت	5° 8	9.0°	77.2	11.0	n o	0.51	11.1	120	4 6 4 1	0.4.0	4.0 C AC	16. 1. C
	SOS	۶	10.0	* .77	0.11	0,50	2	****) · · · · · · · · · · · · · · · · · · ·	;	6.64	1	1.43

C-7 RESULTS OF GEOCHEMICAL ANALYSIS IN NATURAL WATER - RAINY SEASON (1)

Sampling date	01/02/94			***************************************		000000000000000000000000000000000000000		220000000000000000000000000000000000000		200007000000000000000000000000000000000	3
Sample No.		1	7	£ :	4 6.00	5	9	7	× 50,000	0 oo	00000
Sample Name		ROIO	SHOOT	K011	K012	KOIS	K014	K013	CMAS	986	(A)
Water Temperature	رړ	27.5	37.5	27.0	26.2	27.6	27.2	27.5	30.1	7870	7.17
Hd		7.88	8.12	7.8	7.84	7.94	7.51	7.94	7	6.92	98.9
Electric Conductivity	y MS/cm	280	310	290	360	150	2400	320	510	540	530
Alkalinity	me/l	171	73	167	198	86	173	150	238	283	270
Ca. Hardness	Lau.	82	4	11	116	48	180	84	170	180	158
Total Hardness	me/l	128	84	134	164	74	380	142	240	242	241
Me. Hardness	Nam	46	4	57	48	56	200	28	200	62	83
Sodium (Na)	ne/i	13.0	20.6	17.0	18.5	7.4	357.0	18.5	26.1	19.9	26.8
	uco)	0.565	2.200	0.739	0.804	0.322	15.522	0.804	1.135	0.865	1.165
Potassium (K)	næ/l	12.0	9:0	2.0	1.2	2.3	22.0	3.2	0.5	9.0	0.7
	med]	0.307	0.015	0.051	0.031	0.059	0.563	0.082	0.013	0.015	0.018
Catcium (Ca)	me/l	32.8	17.6	30.8	46.4	19.2	72.1	33.6	68.1	72.1	63.3
	medil	1.638	0.879	1.538	2.318	0.959	3.596	1.678	3.397	3.596	3.157
Magnesium (Mg)	ne.	11.2	1.0	13.8	11.7	6.3	48.6	14.1	17.0	15.1	20.2
	meg/l	0.919	0.080	1.139	0.959	0.519	3.996	1.159	1.399	1.239	1.658
Chloride (Cl)	mg/l	11.3	46.3	31.2	21.3	7.2	665.0	12.3	28.8	14.4	27.8
	l/bom	0.319	1.306	0.880	0.601	0.203	18.753	0.347	0.812	0.406	0.784
Bicarbonate (HCO3)		204.8	89.0	203.6	2414	119.5	210.9	182.9	290.2	345.0	329.2
		3.357	1.459	3.337	3.956	1.958	3.457	2.997	4.755	5.654	5.395
Sulfate (SO4)	f/Buz	9	ጅ	ο.	13	5	120	88	30	40	37
	meq.4	0.125	0.708	0.187	0.271	0.042	2.498	1.832	0.625	0.833	0.770
		6		0776		0.50	22,670	2 77.2	£ 043	317.3	000
lotal Lations	L(cou	3.430	5.174	3.400	4.112	1.039	23.070	3.163	0.400	2.710	0266
Total Anions	J bou	3.800	3.472	4.404	4.827	2.203	24.708	5.I/6	0.192	6.893	6.949
Difference	llpam	-0.371	-0.298	-0.936	-0.716	-0.344	-1.030	-1.453	-0.249	-1.177	-0.951
Some Balance	8	5.13	4.48	11.89	8.00	8.46	2.13	16.32	2.05	9.34	7.34
Silica (SiO2)	ngA	45.00	36.00	52.00	46.00	32.00	41.00	26.00	34.00	08:00	53.00
TDS (Measured)	mgA	190	210	500	520	100	1600	220	350	351	325
(Calculated)	1	291	239	307	354	164	1,496	353	461	207	8
Difference	ng/	-101	-58	-107	-104	\$	<u>\$</u>	-133	-111	-156	-180
×1*2	₩.	25.4	8.69	22.8	20.3	20.5	67.9	23.8	19.3	15.4	19.7
Ca+Mg	· 8°	74.6	30.2	77.2	7.67	79.5	32.1	76.2	80.7	84.6	80.3
CI+SO4	8	11.7	58.0	24.2	18.0	11.1	86.0	42.1	23.2	18.0	22.4
Mg	8	26.8	2.5	32.8	23.3	27.9	16.9	31.1	23.5	21.7	27.6
ి చ	8	47.8	27.7	44.4	8.4	51.6	15.2	45.1	57.2	62.9	52.6
pH4.8Bx	8	88.3	45.0	75.8	82.0	6.88	14.0	57.9	76.8	82.0	77.6
. 5	8 2	8.4	37.6	20.0	12.4	9.2	75.9	6.7	13.1	5.9	11.3
\$0 4	8	3.3	20.4	4.3	5.6	1.9	10.1	35.4	10.1	12.1	11.1

RESULTS OF GEOCHEMICAL ANALYSIS IN NATURAL WATER - RAINY SEASON (2)

Control Control CPASS (CONTROL CONTROL	Sample No.		11	12	13	61.00	CT OASO		17 2.000.0	7.M/48	COW(C)	COMO
V. S.	Sample Name		GWSIO	Cworz Cworz	GW014	3F002	910#5		900	7 00	27.0	286
1,18 1,14 1,14 1,14 1,15	Water Temperature	ر	30.2	30.5	30.2	41.9	0.67		0.02	±.67	V. 14	0.04
NASColom 510 540 540 540 510 440 Particle 1204 139 93 24 150 540 480 510 440 Particle 1204 139 93 24 150 145 150 140 150 140 150 145 150 140 150 184 164 250 225 237 240 150 180 110 80 111 150 160 100 110 80 111 150 126 127 127 128 150 160 170 180 111	Ha		7.38	7.4	7.49	7.56	7.62		7.53	7.17	8	C4.
mage 204 199 95 24 175 225 277 248 180 mage 120 30 184 150 20 145 120 277 248 180 mage 100 80 18 30 86 20 225 250 260 200 mage 172 259 126 97 275 150 160 200 mage 172 259 126 273 284 180 200 mage 173 273 077 172 258 177 mage 273 274 274 274 277 277 277 277 mage 274 274 274 274 274 274 274 274 274 274 274 277 277 277 278 278 277 278 278 277 278 278 278 278 27	Electric Conductivity	MS/cm	510	230	130	78	280		480	510	440	8
140 150 30 134 150 150 115 150 115	Alkalinity	// Varu	204	199	95	24	175		237	248	180	284
Columbia Columbia	C. Handness	l ou	140	150	30	134	150		150	150	118	<u>8</u>
Columbia 100 80 18 30 86 4 225 159 110 111	Total Bullets) [240	230	4 80	164	230		250	260	200	330
	Sec. Mandana	, F	00	- Q2	18	93	80		100	110	82	140
Part	Cally Olay		17.2	25.9	12.6	97.0	86.4		15.9	16.0	17.1	20.0
Columbia Columbia		ا ا	0.748	1.126	0.548	4.218	3.757		0.691	969:0	0.744	0.870
	D	;	0.5	4.5	2.0	1.4	3.2		1.2	2.8	1.2	0.7
(g) SS,1 60.1 12.0 53.7 60.1 58.1 60.1 47.2 (g) map, 1 2.797 2.997 0.599 2.677 2.997 2.897 2.997			0.013	0.115	0.051	0.036	0.082		0.031	0.072	0.031	0.018
Columbia Columbia	Cotenim (Cot	- Veu	56.1	60.1	12.0	53.7	60.1		60.1	60.1	47.2	76.1
Office 194 44 7.3 194 194 24.3 26.7 199 Image 1998 1.598 0.360 0.559 1.598 1.598 2.07 1.99 1.998 Image 30.9 41.2 8.4 128.0 47.4 20.6 1.09 1.638 1.698 1.598 1.598 1.598 1.699 1.998 1.699 1.698 1.124 1.124 <th></th> <th>neo!</th> <th>2.797</th> <th>2.997</th> <th>0.599</th> <th>2.677</th> <th>2.997</th> <th></th> <th>2.997</th> <th>2.997</th> <th>2.358</th> <th>3.796</th>		neo!	2.797	2.997	0.599	2.677	2.997		2.997	2.997	2.358	3.796
mingle 1.998 1.598 0.360 0.369 1.598 1.598 2.198 2.168 mingle 30.9 41.2 8.4 128.0 47.4 20.6 10.9 1.64 22.3 mingle 30.9 41.2 8.4 128.0 47.4 20.6 10.3 10.4 22.3 mingle 40.76 13.6 29.3 21.34 274.3 278.0 0.462 0.629 0.689 1.374 278.0 0.642 0.685 0.689 1.374 4.795 4.717 2.23 4.795 3.417 2.23 2.23 1.374 4.124 6.8 4.496 4.555 4.795 3.417 2.23 2.23 2.24 4.55 3.417 2.24 2.24 4.795 3.417 2.23 2.24 4.55 4.795 3.417 2.22 2.22 2.22 2.24 4.795 3.417 2.22 2.22 2.24 4.795 3.417 2.22 2.22 2.22 2.22<	Wamerium (Mo)	Pour	24.3	19.4	4.4	7.3	19.4		24.3	26.7	19.9	34.0
mg/l 30.9 41.2 8.4 128.0 47.4 20.6 10.3 16.4 22.3 megal 0871 1.162 0.237 36.0 1.337 0.581 0.290 0.462 0.629 megal 248.7 24.6 118.8 0.480 3.437 4.946 4.535 4.795 3.417 megal 57 3.976 1188 0.480 3.497 4.496 4.535 4.795 3.417 megal 1.187 1.124 0.062 3.332 1.978 1.374 1.124 0.629 3.478 3.495 4.795 3.417 megal 1.187 1.124 0.062 3.322 1.978 1.374 1.124 1.137 1.187 megal 6.134 6.262 2.197 7.441 6.811 6.431 5.970 6.450 5.970 6.450 5.970 6.450 5.970 6.450 6.200 6.450 6.200 6.450 6.450 6.450		loon.	1,998	1.598	0.360	0.599	1.598		1.998	2.198	1.638	2.797
megal 0.871 1.162 0.237 3.610 1.337 0.581 0.290 0.462 0.629 megal 4.076 3.976 1.188 0.480 3.497 4.496 4.555 4.795 2.925 2.085 megal 4.076 3.976 1.188 0.480 3.497 4.496 4.555 4.795 2.925 2.085 megal 1.187 1.1124 0.062 3.352 1.978 1.124 1.137 1.187 1.187 1.187 1.187 1.187 1.1124 0.662 2.64 4.55 4.795 3.417 megal 6.134 6.262 2.197 7.441 6.811 6.431 5.902 4.706 5.202 megal 4.03 3.52 1.623 0.959 0.059 0.059 0.059 0.059 0.059 0.059 0.059 0.059 0.059 0.059 0.059 0.059 0.059 0.059 0.059 0.059 0.059 0.059 <t< th=""><th>Chlomide (CB)</th><th>2000</th><td>30.9</td><td>41.2</td><td>8.4</td><td>128.0</td><td>47.4</td><td></td><td>10.3</td><td>16.4</td><td>22.3</td><td>8.2</td></t<>	Chlomide (CB)	2000	30.9	41.2	8.4	128.0	47.4		10.3	16.4	22.3	8.2
Columbia Cast Cas		ž:	0.871	1.162	0.237	3.610	1.337		0.290	0.462	0.629	0.231
modified 4,076 3,976 1,898 0,480 34,97 4,496 4,555 4,795 34,17 modified 57 54 3 161 95 66 54 63 57 modified 1,187 1,124 0,062 3,352 1,978 1,374 1,124 1,312 1,187 modified 5,556 5,837 1,538 7,530 8,434 5,492 5,717 5,962 4,770 modified 6,134 6,262 2,197 7,441 6,811 6,451 5,970 6,569 5,222 modified 94,00 53,00 6,039 1,623 -0,959 -0,253 -0,607 -0,462 modified 94,00 53,00 48,00 58,00 64,00 62,00 80,00 50,00 50 360 365 85 540 426 444 478 378 45 13,7 43 43 45 45	Bicarbonate (HCO4)	шой	248.7	242.6	115.8	29.3	213.4		278.0	292.6	208.5	346.2
magif 57 54 3 161 95 66 54 63 57 model 1.187 1.124 0.062 3.352 1.978 1.374 1.124 1.312 1.187 model model 5.586 5.837 1.558 7.530 8.434 5.492 5.717 5.962 4.770 model model 6.134 6.262 2.197 7.441 6.811 6.451 5.970 6.569 5.222 model 4.95 3.22 17.03 0.59 1.653 0.959 -0.253 -0.667 -0.462 model 4.95 3.22 17.03 0.59 1.653 8.03 2.17 4.85 4.62 color 4.95 3.50 48.00 58.00 64.00 62.00 80.00 50.00 color 4.95 48.0 58.0 64.0 62.0 40.0 37.3 40.0 color 4.95 48.0 48.2 <th></th> <th>mea/l</th> <td>4.076</td> <td>3.976</td> <td>1.898</td> <td>0.480</td> <td>3.497</td> <td></td> <td>4.555</td> <td>4.795</td> <td>3.417</td> <td>5.674</td>		mea/l	4.076	3.976	1.898	0.480	3.497		4.555	4.795	3.417	5.674
modyl 5.556 5.837 1.528 7.530 8.434 5.492 5.717 5.962 4.770 modyl 6.134 6.262 2.197 7.441 6.811 6.431 5.902 4.770 modyl 6.134 6.262 2.197 7.441 6.811 6.451 5.970 6.569 5.232 modyl 4.95 3.52 17.03 0.89 1.623 -0.959 -0.253 -0.607 -0.462 ed. 4.95 3.50 6.069 1.623 -0.959 -0.253 -0.607 -0.462 ed. 4.95 3.50 4.80 6.400 62.00 80.00 50.00 ed. 360 360 365 4.78 525 462 444 478 373 ed. 13.7 21.3 38.4 36.5 13.5 426 400 375 38.3 ed. 13.7 3.2 3.2 4.6 402 444 478	Sulfate (SO4)	ne.	57	54	т	161	95		54	63	57	85
model 5.556 5.837 1.558 7.530 8.434 5.492 5.717 5.962 4.770 model 6.134 6.262 2.197 7.441 6.811 6.451 5.970 6.569 5.232 function 6.134 6.262 2.197 7.441 6.811 6.451 5.970 6.569 5.223 function 4.057 6.262 1.703 0.599 10.653 8.03 2.17 4.85 4.70 function major 370 360 36.0 48.00 58.00 64.00 62.00 80.00 50.00 call major 370 360 36.5 85 540 426 400 375 335 and 435 478 525 462 444 478 373 s 13.7 21.3 38.4 56.5 45.5 81.9 87.4 478 373 g 13.7 21.3 36.3		/bau	1.187	1.124	0.062	3.352	1.978		1.124	1.312	1.187	1.770
model 6.134 6.262 2.197 7.441 6.811 6.451 5.970 6.569 5.232 4 4.05 0.629 1.623 0.089 1.623 0.095 0.0253 0.667 0.462 4 4.95 3.52 17.03 0.59 10.65 8.03 2.17 4.85 4.62 mg1 94.00 53.00 35.0 48.00 58.00 64.00 62.00 80.00 50.00 mg1 435 448 158 478 525 462 444 478 373 mg1 435 48 207 -393 15 -36 444 478 373 mg1 435 478 525 462 444 478 373 45 13.7 21.3 38.4 56.3 45.5 18.0 474 478 373 45 36.0 27.4 27.1 38.3 36.3 37.4 87.1	į	•	75 2	5 277	1 558	7 530	8 434		5.717	5.962	4.770	7.481
Heading Head	Total Canons	mod/l	5.134	6263	2 197	7441	6.811		5.970	6.569	5.232	7.675
Linear	Post Anous		872 0-	-0.425	0630	0.089	1.623		-0.253	-0.607	-0.462	-0.194
sig21 mg/l 94.00 53.00 48.00 58.00 64.00 62.00 80.00 50.00 siculared) mg/l 376 365 85 84 426 400 375 335 alculared) mg/l mg/l 435 448 158 478 525 462 444 478 373 ce mg/l mg/l 435 478 525 462 444 478 373 ce mg/l 13.7 21.3 38.4 56.5 45.5 18.1 12.6 103 -38 g 86.3 78.7 61.6 43.5 54.5 81.9 87.4 87.1 83.8 g 36.0 27.4 23.1 80 19.0 29.1 34.9 36.9 34.3 g 50.3 51.3 35.5 35.5 32.3 22.4 50.3 49.4 g 66.4 63.5 86.4 64 </th <th>Ionic Balance</th> <th>j</th> <th>4.95</th> <th>3.52</th> <th>17.03</th> <th>0.59</th> <th>10.65</th> <th></th> <th>2.17</th> <th>4.85</th> <th>4.62</th> <th>1.28</th>	Ionic Balance	j	4.95	3.52	17.03	0.59	10.65		2.17	4.85	4.62	1.28
Accument might 370 360 365 85 540 426 400 375 335 accument might 435 448 158 478 525 462 444 478 373 ce might -65 -88 207 -393 15 -36 444 478 373 ce might -65 -88 207 -393 15 -36 -44 478 373 g 86.3 78.7 61.6 43.5 54.5 81.9 87.4 87.1 83.8 g 36.0 27.4 23.1 80 19.0 29.1 34.9 36.9 34.3 g 50.3 51.3 38.5 35.5 35.8 52.8 52.4 50.3 49.4 g 50.3 51.3 36.5 35.5 35.5 32.3 49.4 g 66.4 63.5 86.4 64 51.3<	Silva (SiO)	meA	94.00	53.00	55.00	48.00	58.00		62.00	80.00	20.00	73.00
about lateral may (c) 435 448 158 478 525 462 444 478 373 cc may (c) -65 -8 207 -393 15 -36 -44 478 373 cc may (c) -65 -8 207 -393 15 -36 -44 478 373 g 13.7 21.3 38.4 56.5 45.5 18.1 12.6 12.9 16.2 g 36.0 27.4 23.1 8.0 19.0 29.1 34.9 36.9 34.3 g 50.3 51.3 38.5 35.5 35.8 52.8 52.4 50.3 49.4 q 66.4 63.5 86.4 6.4 51.3 69.7 76.3 73.0 65.3 q 19.3 18.6 2.8 45.0 29.0 21.3 18.8 20.0 22.7	Tris (Measured)	med	370	360	365	85	240		400	375	335	440
ge mag/l -65 -88 207 -393 15 -36 -44 -103 -38 g 13.7 21.3 38.4 56.5 45.5 18.1 12.6 12.9 16.2 g 86.3 78.7 61.6 43.5 54.5 81.9 87.4 87.1 83.8 g 36.0 27.4 23.1 80 19.0 29.1 34.9 36.9 34.7 g 50.3 51.3 38.5 35.5 35.8 52.8 52.4 50.3 49.4 g 66.4 63.5 86.4 64 51.3 69.7 76.3 73.0 65.3 g 14.2 18.6 10.8 48.5 19.6 9.0 4.9 7.0 12.0 g 19.3 18.0 2.8 45.0 29.0 21.3 18.8 20.0 22.7	(Calculated)	næ/l	435	448	158	478	525		444	478	373	570
% 13.7 21.3 38.4 56.5 45.5 18.1 12.6 12.9 16.2 % 86.3 78.7 61.6 43.5 54.5 81.9 87.4 87.1 83.8 % 33.6 36.5 13.6 93.6 48.7 30.3 23.7 27.0 34.7 % 36.0 27.4 23.1 8.0 19.0 29.1 34.9 36.9 34.3 % 50.3 51.3 35.6 35.5 52.8 52.4 50.3 49.4 % 66.4 63.5 86.4 6.4 51.3 69.7 76.3 73.0 65.3 % 14.2 18.6 10.8 48.5 19.6 9.0 4.9 7.0 12.0 % 19.3 18.0 2.8 45.0 29.0 21.3 18.8 20.0 22.7	Difference	Long.	59 -	88	207	-393	15		4	-103	-38	-130
4 86.3 78.7 61.6 43.5 54.5 81.9 87.4 87.1 83.8 4 33.6 36.3 36.3 36.3 27.0 34.7 36.3 34.7 4 36.0 27.4 23.1 8.0 19.0 29.1 34.9 36.9 34.3 5 50.3 51.3 38.5 35.5 52.8 52.4 50.3 49.4 6 66.4 63.5 86.4 6.4 51.3 69.7 76.3 73.0 65.3 9 14.2 18.6 10.8 48.5 19.6 9.0 4.9 7.0 12.0 9 19.3 18.0 2.8 45.0 29.0 21.3 18.8 20.0 22.7	N-W	¥	13.7	21.3	38.4	56.5	45.5		12.6	12.9	16.2	11.9
48 36.5 13.6 93.6 48.7 30.3 23.7 27.0 34.7 48 36.0 27.4 23.1 8.0 19.0 29.1 34.9 36.9 34.3 48 50.3 51.3 86.4 6.4 51.3 69.7 76.3 73.0 65.3 49 40 48.5 19.6 9.0 4.9 7.0 12.0 40 19.3 18.0 2.8 45.0 29.0 21.3 18.8 20.0 22.7	Oat Ma	5 P ₈	86,3	78.7	61.6	43.5	54.5	81.9	87.4	87.1	83.8	88.
96 36.0 27.4 23.1 8.0 19.0 29.1 34.9 36.9 34.3 98x 50.3 51.3 38.5 35.6 35.5 52.8 52.4 50.3 49.4 8Bx 56 66.4 63.5 86.4 6.4 51.3 69.7 76.3 73.0 65.3 9 14.2 18.6 10.8 48.5 19.6 9.0 4.9 7.0 12.0 9 19.3 18.0 2.8 45.0 29.0 21.3 18.8 20.0 22.7	CITEC	· 8	33.6	36.5	13.6	93.6	48.7	30.3	23.7	27.0	34.7	76.]
8Bx 46, 50.3 51.3 38.5 35.6 52.8 52.4 50.3 49.4 8Bx 46, 65.4 63.5 86.4 6.4 51.3 69.7 76.3 73.0 65.3 9, 14.2 18.6 10.8 48.5 19.6 9.0 4.9 7.0 12.0 9, 19.3 18.0 2.8 45.0 29.0 21.3 18.8 20.0 22.7	No.	. 2 6	36.0	27.4	23.1	8.0	19.0	29.1	34.9	36.9	34.3	37.4
1,8Bx	ي ۾	· 8º	50.3	51.3	38.5	35.6	35.5	52.8	52.4	50.3	49.4	80.
9, 14.2 18.6 10.8 48.5 19.6 9.0 4.9 7.0 12.0 4 9, 19.3 18.0 2.8 45.0 29.0 21.3 18.8 20.0 22.7	THA 8By	: 16	4.99	63:5	86.4	6.4	51.3	1:69	76.3	73.0	65.3	73.5
4 4, 4, 19.3 18.0 2.8 45.0 29.0 21.3 18.8 20.0 22.7		8	14.2	18.6	10.8	48.5	19.6	9.0	4.9	7.0	12.0	3.(
	5 S	: 8º	19.3	18.0	2.8	45.0	29.0	21.3	18.8	20.0	22.7	23.]

Sampling date	01/02/94		30000000000000000000000000000000000000						1		
Sample No.		21	77	77.52	24	G FEE	97	77	7010	24000	7
Sample Name		KUIO	K017	K018	0.4020	\$20.45 20.50	0CM 0.30	2040	71.6	970 # 5	
Water Temperature	ပ္	33.4	31.9	29.2	31.0	7.67	5.5	7.67	0.45	7.05	•
ᇤ		6.0	8.81	× ×	70.7	0.7	141	0.7	74.0	750	
Electric Conductivity	MS/cm	1400	740	140	480 80	360	3 €.	230	220	06 66	
Alkalinity	mg/l	100	150	112	203	103	240	130	143	198	
Ca. Hardness	Lam.	480	200	42	150	128	130	S S	8	112	
Total Hardness	mg/l	820	276	70	180	150	200	8	8	160	
Mg. Hardness	mg/l	340	76	28	30	23	70	34	36	48	
Sodium (Na.)	mgA	60.3	84.8	7.6	34.2	20.5	33.1	20.6	12.1	25.4	
	Voca	2.622	2.818	0.330	1.487	0.891	1.439	0.896	0.526	1.104	<u>:</u> -
Potassium (K)	mg/i	10.0	5.3	1.8	2.3	3.3	4.2	3.2	2.6	1.5	•
	Wed!	0.256	0.136	0.046	0.059	0.084	0.107	0.082	0.067	0.038	
Calcium (Ca)	me.	192.2	80.1	16.8	60.1	51.3	52.1	20.0	24.0	44.8	
		9.590	3.996	0.839	2.997	2.557	2.597	0.999	1.199	2.238	
Magnesium (Mg)	me/	82.6	18.5	8.9	7.3	5.3	17.0	8.3	8.7	11.7	
	l/batu	6.793	1.518	0.559	0.599	0.440	1.399	0.679	0.719	0.959	
Chloride (Cl)	me/i	92.6	82.0	7.2	17.5	26.7	28.9	9.3	9.3	9.2	
	neg/l	2.611	2.312	0.203	0.494	0.753	0.815	0.262	0.262	0.259	
Bicarbonate (HCO3)	l/aeri	121.9	182.9	121.9	247.5	125.6	292.6	158.5	168.2	241.4	
	meq./	1.998	2.997	1.998	4.056	2.058	4.795	2.597	2.757	3.956	
Sulfate (SO4)	ngd	766	193	9	17	81	29	11	9 0	%	
	l/gam	15,948	4.018	0.125	1.478	1.686	0.604	0.229	0.167	0.750	· .
	***************************************						3				
Total Cations	l/form	19.261	8.468	1.775	5.142	3.973	5,543	2.656	2.511	4.340	: :
Total Anions	i/bem	20.557	9.328	2.326	6.028	4.497	6.214	3.089	3.186	4.965	
Difference	y/bass	-1.296	-0.860	-0.551	-0.885	-0.525	-0.671	-0.433	-0.675	-0.625	
fortic Balance	¥	3.26	4.83	13.43	7.93	6.19	5.71	7.53	11.86	. 6.72	
Silica (SiO2)	ng/l	37.00	38.00	28.00	29.00	53.00	61.00	94.00	49:00	43.00	1
TDS (Measured)	Lgm	1050	200	8	330	275	321	160	150	275	
(Calculated)	nggA	1,326	627	168	440	314	457	231	233	370	
Difference	L _g m	-276	-127	-73	-110	6 .	-136	12-	-83	-95	•
		` .								J	
X+ex	8	14.9	34.9	21.2	30.1	24.6	27.9	36.8	23.6	26.3	1
Ca+Mg	8	85.1	65.1	78.8	6.69	75.4	72.1	63.2	76.4	73.7	٠
CI+SO4	8	903	67.9	14.1	32.7	\$4.2	22.8	15.9	13.5	20.3	
8	8	35.3	17.9	31.5	11.7	11.1	25.2	25.6	28.6	22.1	, ¹
రే	*	49.8	47.2	47.3	58.3	4.4	46.9	37.6	47.7	51.6	
pH4.8Bx	*	6.6	32.1	85.9	67.3	45.8	77.2	84.1	86.5	79.7	·
	В	12.7	24.8	8.7	8.2	16.7	13.1	8.5	8.2	5.2	
SO4	8 °	77.6	43.1	5.4	24.5	37.5	6.7	7.4	5.2	15.1	

C-7 RESULTS OF GEOCHEMICAL ANALYSIS IN NATURAL WATER - RAINY SEASON (4)

Sampling date (01/02/94	31	Ct	11	34	35	. 39	37	38	39	\$
Sample Name		R007	R102	GW67]	R008	R006	GW033	GW031	GW032	GW029	GW474
aftire	Ļ	29.8	28.9	27.4	27.2	28.8	27.9	28.7	27.9	28.5	28.0
)	7.42	8.4	6.85	6.7	7.3	6.5	7.15	7.32	7.58	7.5
mic Conductivity	MS/cm	130	8	28	100	110	920	455	260	200	280
	mg/1	162	70	7	95	78	85	180	219	127	163
ř	me/l	75	78	16	30	24	36	106	100	Ж	\$
7	Jem Jem	116	43	25	. 46	42	196	150	147	8	112
	Jau	41	15	6	16	18	160	4	47	œ	48
	me/1	8.2	4.9	4.0	0.9	4.8	36.2	24.5	22.2	18.8	22.6
	mea/l	0.357	0.213	0.174	0.261	0.365	1.574	1.065	0.965	0.817	0.983
Potassium (K)	me/l	2.2	1.1	0.4	2.5	2.7	2.7	21.0	2.3	3.8	1.4
	Les III	0.056	0.028	0.010	0.064	0.069	690.0	0.537	0.059	0.097	0.036
Calcium (Ca)	me/l	30.0	11.2	6.4	12.0	9.6	14.4	42.4	40.0	22.4	25.6
	mea.f	1.499	0.559	0.320	0.599	0.480	0.719	2.118	1.998	1.119	1.279
Magnesium (Mo)	, w	10.0	3.6	2.2	3.9	4.4	38.9	10.7	11.4	1.9	11.7
	moon	0.819	0.300	0.180	0.320	0.360	3.197	0.879	0.939	0.160	0.959
Chloride (Cl)	mz/l	7.2	5.4	7.2	5.1	7.2	106.0	20.6	18.5	15.0	17.5
	mea/l	0.203	0.152	0.203	0.144	0.203	5.989	0.581	0.522	0.423	0.494
Bicarbonate (HCO3)	mæ/l	197.5	85.3	8.5	115.8	95.1	103.6	219.5	267.0	151.2	198.7
	med/l	3.237	1.399	0.140	1.898	1.558	1.698	3.596	4.376	2.478	3.257
Sulfate (SO4)	mg/l	6	4	36	29	70	88	23	9	4	6
	meg/l	0.187	0.083	0.750	0.604	0.416	1.832	0.479	0.062	0.083	0.187
		i		1000	1044	2	6 550	005 7	1061	2 103	3256
	meg/l	2.730	2007	0.004	1.244	071.0	665.5	4,555	1960	2000	3038
SC.	meg/l	3.627	1.634	1.092	7.040	6.1.7	0.520	0.057	906.4	0.700	0.5.0
	1/5 0 11	-0.897	-0.534	-0.409	-1.402	406.75	106.7	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	11.10	4.37	190.0
	ď	14.10	19.52	23.02	\$6.04 \$7.00 \$7.00	70.20	66.6	6.01	11.19	77:CT	4.5
	mg/l	00.71	29.00	900	40.00	20.00	3.5	07.70	10.00	09:00	3.101
	mg/l	3 . [77	9 ;	2 ;	C ;	930	250	167	255	3 8
ilated)	mg/	5 6	911	8 ;	1/4	/ 4]	96 S	70°C	g g	(17	/97
Difference	mg/l	-I74	2 89	Q	\$ 01-	71-	707	76-	6 /1-	P	0
X+K	*	15.1	21.9	26.9	26.1	34.1	29.6	34.8	25.9	41.7	31.3
Ca+Mg	*	84.9	78.1	73.1	73.9	629	70.4	65.2	74.1	58.3	68.7
CI+SO4	8º	10.8	14.4	87.2	28.3	28.4	74.0	22.8	11.8	17.0	17.3
Mg	*	30.0	27.2	26.3	25.7	28.2	57.5	19.1	23.7	7.3	29.5
ి చ	*	54.9	20.8	46.8	48.2	37.7	12.9	46.0	50.4	51.0	39.3
pH4.8Bx	8	89.2	85.6	12.8	71.7	71.6	26.0	77.2	88.2	83.0	82.7
. 5	8	9.6	9.3	18.6	5.4	9.3	45.8	12.5	10.5	14.2	12.5
SPA	8	5.2	5.1	9.89	22.8	19.1	28.1	10.3	1.3	2.8	4.8

Sampling date	01/02/94		200000000000000000000000000000000000000			•		ı		Ç	
Sample No.		41 41 41	4 2	£ 3	# FUO	C. PUZ	e io	*/ R005	GW002	6W006	GW222
Water Temperature	٤	27.9	26.1	25.0	25.1	25.9	27.6	28.2	28.2	27.7	29.0
The state of the s	,	-	¥.	7.4	19:1	7.6	6.97	7.35	7	7.56	6.72
Electric Conductivity	MS/cm	178	198	901	201	81	430	10 25	74	120	280
Alkalinity	ng/l	131	134	8	67	8	124	8	8	9/	236
Ca. Hardness	mg/l	48	8	32	28	22	1 <u>6</u>	88	12	91	102
Total Hardness	l/Sur	86	98	20	କ୍ଷ	42	198	\$	18	32	<u>7</u>
Mg. Hardness	ne.	20	23	18	22	20	8	58	9	19	62
Sodium (Na.)	ilgin.	16.1	13.3	5.1	4.1	3.8	13.4	5.0	8.9	9.5	31.9
	1/82	0.700	0.578	0.222	0.178	0.165	0.583	0.217	0.296	0.413	1.387
Potassium (K)	nigi.	3.5	2.4	2.5	1.9	1.5	3.9	2.4	5.0	11.0	15.0
	meq.f	0.090	0.061	0.064	0.049	0.038	0.100	0.061	0.128	0.281	0.384
Calcium (Ca)	ng.	19.2	26.4	12.8	11.2	8.8	65.7	15.2	8.4	6.4	40.8
	l/bat	0.959	1.319	0.639	0.559	0.440	3.277	0.759	0.240	0.320	2.038
Magnesium (Mg)	Lgm	4.9	4.9	4.4	5.3	4.9	80 E)	6.3	1.5	4.6	15.1
	1/bours	0.400	0.400	0.360	0.440	0.400	629.0	0.519	0.120	0.380	1.239
Chloride (CI)	l/gm	5.2	4.1	5.2	4.1	4.1	14.4	5.2	3.1	6.2	22.7
and the first design opposed a reveal activities	meq.f	0.147	0.116	0.147	0.116	0.116	0.406	0.147	0.087	0.175	0.640
Bicarbonate (HCO3)	l)am	159.7	156.1	84.1	81.7	61.0	151.2	109.7	36.6	92.7	287.7
	ilpan ineq/i	2.617	2.557	1.379	1.339	0.999	2.478	1.798	0.599	1.518	4.715
Sulfate (SO4)	ngJ	ന	13	12	ĸ	6	103	12	11	17	ب
	₽/bou	0.062	0.271	0.250	0.062	0.187	2.144	0.250	0.229	0.354	0.062
4		2 148	7 358	1 285	1,226	1,043	4.638	1.558	0.783	1.394	5.047
Total Arions		2.826	2.944	1.775	1.517	1.302	5.028	2.195	0.916	2.047	5.418
Difference		-0.678	-0.586	0.490	-0.291	-0.259	-0.390	-0.637	-0.133	-0.654	-0.370
Ionic Balance	*	13.63	11.05	16.03	10.61	11.06	4.03	16.98	7.81	18.99	3.54
Silica (SiO2)	mgA	93.00	43.00	34.00	33.00	27.00	55.00	31.00	20.00	39.00	85.00
TDS (Measured)	ngu	130	140	&	20	8	300	35	52	8	420
(Calculated)	ng.	212	220	126	111	83	360	156	3	147	416
Difference	15	-82	08-	4	-41	-33	Ş	φ.	-17	-57	4
À	8	92	<u>.</u>	,,,	: · · y X	10.5	14.7	17.0	25	40.8	35.
Ca+Mo	. 8e	63.2	72.9	77.8	81.5	80.5	85.3	82.1	45.9	20.5	6.49
70 1 20	8	7.4	13.1	22.3	11.7	23.3	50.7	18.1	34.6	25.8	13.0
Mg	*	18.6	16.9	28.0	35.9	38.3	14.6	33.4	15.3	27.2	24.5
' ರೆ	8	44.6	55.9	49.8	45.6	42.2	9.07	48.7	30.6	22.9	40.4
pH4.8Bx	82	97.6	6.98	17.7	88.3	7.97	49.3	81.9	65.4	74.2	87.0
៦	8	5.2	3.9		9.7	8.9	8.1	6.7	9.5	8.5	11.8
SQ4	82	2.2	9.2	14.1	ं इ.	14.4	42.6	11.4	25.0	17.3	1.2

C-7 RESULTS OF GEOCHEMICAL ANALYSIS IN NATURAL WATER - RAINY SEASON (6)

	CTWOOZ	CWON	CCMD		CW217	GW213	ROOG	GW044	GW043	GW038
North Towns	, s	20 E	32.4	29.9	30.2	29.5	28.7	29.2	29.7	29.4
	603	6.1	6.57	6.4	8.45	7.51	8.03	7.25	7	6.83
Floring Conductivity MS/cm	150	8	350	155	740	530	88	410	180	38
	64	53	166	20	95	270	52	100	8	205
8	8	19	70	45	52	52	22	130	90	108
2	*	21	106	54	54	74	32	182	\$	162
	*	9	36	∞,	73	22	10	52	10	54
	8.4	5.7	31.7	11.3	129.5	0.96	5.8	23.1	11.9	27.1
	0.365	0.248	1.378	0.491	5.631	4.174	0.252	1.004	0.517	1.178
Potassium (K) mg/l	60	8.0	10.0	2.3	1.8	2.7	1.5	2.1	1.5	0.5
	0.023	0.020	0.256	0.059	0.046		0.038	0.054	0.038	0.023
Calcium (Ca) may	12.0	7.6	28.0	18.4	20.8	20.8	90 90	52.1	12.0	43.2
	0.599	0.380	1.399	0.919	1.039	1.039	0.440	2.597	0.599	2.158
Magnesium (Mg) mgd	6.3	0.7	8.7	1.9	0.5	5.3	2.4	12.6	2.4	13.1
7-	0.519	0.060	0.719	0.160	0.040	0.440	0.200	1.039	0.200	1.075
Chloride (Cl) mg/l	20.6	38.2	19.5	7.2	45.3	9.3	7.2	13.4	12.3	27.8
	0.581	1.077	0.550	0.203	1.277	0.262	0.203	0.378	0.347	0.78
Bicarbonate (HCO3) mg/l	59.7	35.4	202.4	61.0	104.8	329.2	63.4	121.9	80.5	249.5
	0.979	0.579	3.317	0.999	1.718	5:395	1.039	1.998	1.319	4.09
Sulfate (SO4) mg/l	-	6	17	8	198	52	12	142	6	14
Proput	0.146	0.062	0.354	0.750	4.122	1.083	0.250	2.956	0.187	0.291
Total Cations month	1507	0 708	3.752	1,629	6.756	5.653	0.930	4.694	1.355	4.438
	1.706	1.719	4.221	1.952	7.118	6.740	1.492	5.332	1.853	5.171
	-0.199	-1.011	-0.469	-0.322	-0.362	-1.087	-0.562	-0.638	-0.498	-0.73
8	6.18	41.67	5.88	9.01	2.61	8.77	23.20	6.36	15.52	7.6
Silica (SiO2) mag/l	23.00	24.00	146.00	32.00	24.00	52.00	30.00	80.00	47.00	49.00
ē	100	75	250	110	220	370	65	290	130	56
- -	115	91	317	138	501	513	101	367	130	376
Difference mg/l	-15	-16	-67	-28	19	-143	-36	μ-	0	-116
Na+K	25.8	37.9	43.6	33.8	84.0	73.8	31.2	22.5	41.0	27.1
Ca+Mg	74.2	62.1	56.4	66.2	16.0	26.2	8.89	77.5	59.0	72.5
CI+SO4	42.6	6.99	21.4	48.8	75.9	20.0	30.4	62.5	28.8	20.
Mg &	34.5	8.5	19.2	8.6	9.0	7.8	21.5	22.1	14.7	24.3
, g	39.8	53.6	37.3	56.4	15.4	18.4	47.3	55.3	44.2	48.0
pH4.8Bx %	57.4	33.7	78.6	51.2	24.1	80.0	9:69	37.5	71.2	79.
, T	34.1	62.7	13.0	10.4	17.9	3.9	13.6	7.1	18.7	15.
800	*	3.6	8	38.4	47.0	16.1	16.7	V >>	101	¥

Case	Columnication CW State CW CW CW CW CW CW CW C	Sample No.	- 61	62 63	3		8		
Contenting C 30.3 28.0 27.8 30.4	California Cal	Jame	GW531	9EM036	TW004	TW010	TW005		
Columnitative Columnitativ	Cartestation Cart	ature	303	28.0	27.8	30.4	28.4		
Case Continentiating Misser Continentiating Misser Continentiating Misser Continentiating Misser Continentiating Misser Continentiating Continentiat	Community Miscram Color		7.18	7	6.81	7.72	6.28		
California	California	, Airin	99	100	265	330	ଝ		
Carte maje 160 28 49 69 Indees maje 672 46 84 98 Indees maje 672 103 73 200 Indees maje 672 103 73 200 Indees maje 672 103 73 200 Indees maje 673 103 73 200 Indees maje 64.1 112 194 200 Indees maje 64.1 1139 0.051 0.051 0.051 Indees maje 64.1 1139 0.051 0.051 0.050 Indees maje 64.1 1139 0.050 0.050 0.050 Indees maje 63.3 0.050 0.050 0.050 Indees Maje Maje Maje 0.050 0.050 Indees Maje Ma	Carte mg/l 160 28 49 69	•	237	2	103	124	91		
California Cal	Case Case As As As As As As As	-	160	28	49	8	15		
Chief Chie	Mail	2	220	46	84	86	22		
California	Ca magning 67.2 10.5 7.3 20.0		8	18	35	29	7		
Cartest	Column		67.2	10.5	7.3	20.0	6.5		
Col. mg/l 2.0 1.2 0.8 2.0 1.2 mg/l 0.051 0.051 0.051 0.050 0.051 0.051 0.050 0.051 0.050 0.051 0.052 0.051 0.052 0.051 0.052 0.051 0.051 0.052 0.051 0.051 0.051 0.052 0.051 0.051 0.051 0.052 0.051 0.052 0.057 0	Column		2.922	0.457	0.317	0.870	0.283		
(Ca) mayf (64.1 11.2 196 27.6 mayf (5.3) mayf (64.1 11.2 196 27.6 mayf (64.1 11.2 196 27.6 1.379 (6.3) mayf (6.3) 11.99 (6.359 6.999 1.379 (6.3) mayf (6.3) 11.99 (6.359 6.999 1.379 (6.3) mayf (6.3)	(Ca) may (641) 112 196 276 may (731) 2137 112 196 276 may (731) 3137 112 196 276 may (731) 3137 1139 1139 1139 1139 may (731) 3137 1139 1139 1139 1139 (Ci) may (731) 3232 1139 1139 1139 SOa) may (731) 3232 1139 1139 1139 1139 SOa) may (731) 3232 1139 1139 1139 1139 SOa) may (731) 3232 1139 1139 1139 1139 Soa (731) 324 1139 1139 1139 1139 Soa (731) 324 1139 1139 1139 1139 Soa (731) 332 1139 1139 1139 1139 Soa (731) 332 1139 1139 1139 1139 Soa (731) 332 1139 1139 Soa (731) 332 1139 1139 Soa (731) 333 134 139 Soa (731) 334 139 Soa (731) 334 139 Soa (731) 334 139 Soa (731) 334 139 Soa (731) 335 134 133 Soa (731) 335 134		2.0	1.2	8.0	2.0	.07		
(Ca) magif 64.1 11.2 19.6 27.6 magy 3.197 0.559 0.579 1.379	(Ca) mg/l 64.1 112 196 27.6 mg/l 113 mg/l 3197 0.559 0.979 1.379 mm (Mg/l mg/l 1.199 0.360 0.699 0.579 1.379 mg/l 2.352 0.226 0.226 0.479 1.370 mg/l 2.352 0.226 0.226 0.479 1.370 mg/l 2.352 0.226 0.226 0.479 1.320 mg/l 4.735 1.079 2.058 2.478 1.079 2.058 2.478 1.079 2.058 1.256 1.312 0.038 1.0396 0.125 0.438 1.0390 0.0396 0.125 0.438 1.0390 0.0396 0.125 0.438 1.0390 0.0396 0.125 0.438 1.0390 0.0396 0.125 0.438 1.0390 0.0396 0.125 0.0396 0.0396 0.125 0.0396 0.0396 0.125 0.0396 0.0396 0.125 0.0396 0.039		0.051	0.031	0.020	0.051			
minor mino	March March 3.197 0.559 0.979 1.37		\$4.1	11.2	19.6	27.6	0.9		
Column	Column		3.197	0.559	0.979	1.379	0.300		
City magn 1.199 0.360 0.699 0.579 0.252 0.226 0.226 0.479 0.226 0.226 0.479 0.226 0.226 0.479 0.226 0.226 0.479 0.226 0.226 0.479 0.226 0.226 0.479 0.226 0.226 0.479 0.226 0.226 0.478 0.226 0.226 0.478 0.226 0.226 0.478 0.226 0.226 0.226 0.478 0.226 0.226 0.226 0.478 0.226	(C) mg/l 83.4 8.0 6.699 0.579 are (HCO3) mg/l 83.4 8.0 8.0 17.0 meg/l 4735 0.226 0.226 0.479 meg/l 4735 1.079 2.058 2.478 SO4) mg/l 6.036 0.125 0.478 some meg/l 7.369 1.406 2.016 2.879 some meg/l 8.003 1.700 2.408 3.415 some meg/l 7.369 1.406 2.016 2.879 some meg/l 7.369 1.406 2.016 2.879 some meg/l 7.369 1.700 2.408 3.415 some meg/l 7.369 1.0294 0.392 0.536 some meg/l 7.369 1.406 2.016 2.879 some meg/l 8.000 7.000 5.300 5.500 some meg/l 7.369 1.406 2.016 2.47 some meg/l 8.00 7.000 5.300 5.500 some meg/l 8.000 7.000 5.300 some meg/l 8.000 7.000 7.000 some meg/l 8.000 7.000 7.000 some meg/l 8.000 some meg/l 8.000 7.000 some meg/l 8.000		14.6	4.4	8.5	7.0	1.7		
(CI) mg/l 834 8.0 8.0 17.0 mg/l 2.352 0.226 0.226 0.479 1.512 mg/l 2.88.9 65.8 125.6 151.2 mg/l 4.735 1.079 2.058 2.478 2.049 mg/l 6.916 0.916 0.396 0.125 0.458 1.512 mg/l 6.916 0.916 0.396 0.125 0.458 1.079 0.396 0.125 0.458 1.099 0.396 0.125 0.458 1.0635 0.0439 0.0396 0.125 0.458 1.413 0.466 8.87 8.52 0.436 0.294 0.392 0.536 0.204 0.392 0.536 0.204 0.392 0.536 0.204 0.392 0.536 0.204 0.392 0.536 0.204 0.392 0.536 0.204 0.392 0.536 0.204 0.392 0.536 0.204 0.392 0.536 0.204 0.392 0.536 0.204 0.392 0.536 0.204 0.392 0.536 0.204 0.392 0.536 0.204 0.392 0.536 0.204 0.392 0.394 0	(CI) mg/l 83.4 8.0 8.0 17.0 mg/l 2352 0.226 0.226 0.479 0.226 0.479 0.226 0.479 0.226 0.479 0.226 0.479 0.236 0.479 0.236 0.479 0.203 0.916 0.916 0.396 0.125 0.458 0.226 0.226 0.458 0.916 0.916 0.916 0.396 0.125 0.458 0.916 0.916 0.396 0.125 0.458 0.916 0.916 0.396 0.125 0.458 0.916 0.916 0.396 0.125 0.458 0.916 0.916 0.396 0.125 0.458 0.916 0.916 0.396 0.125 0.458 0.916 0.396 0.125 0.458 0.916 0.396 0.125 0.458 0.916 0.396 0.125 0.458 0.916 0.916 0.396 0.125 0.458 0.415 0.204 0.392 0.458 0.458 0.415 0.415 0.415 0.415 0.415 0.416 0.415 0.416 0.41		1.199	0.360	0.699	0.579	0.140		
SC47 SC54 Co226 Co479 Co246 Co246 Co479 Co246 Co246 Co249	SO4 mody 2.352 0.226 0.479 mody 4.735 1.079 2.058 2.478 SO4 mody 4.735 1.079 2.058 2.478 SO4 mody 4.735 1.079 2.058 2.478 scale		83.4	8.0	8.0	17.0	5.0		
CO3) mg/l	aux (HCO3) mg/l 288.9 65.8 125.6 151.2 SO4) mg/l 4.735 1,079 2.058 2.478 SO4) mg/l 44 19 6 22 SO4) mg/l 0.916 0.396 0.125 0.458 some 7.369 1.406 2.016 2.879 some 8.003 1.700 2.408 3.415 construct) 8.003 1.700 2.408 3.415 construct) mg/l 4.13 9.46 8.87 8.52 docurrent) mg/l 4.0 70.00 53.00 55.00 casured) mg/l 40.0 70.00 53.00 55.00 casured) mg/l 40.3 3.46 8.87 8.27 casured) 40.3 564 1.20 1.76 2.77 casured) q 40.3 3.46 8.87 8.20 g 40.8 59.7 50.1 <td>2000 CTR</td> <td>2.352</td> <td>0.226</td> <td>0.226</td> <td>0.479</td> <td>0.141</td> <td></td> <td></td>	2000 CTR	2.352	0.226	0.226	0.479	0.141		
SO4) mag/l 4735 1,079 2,058 2,478 2.478 mag/l 44 19 6 22 22 22 22 22 22 22	SO4) meg/l 4.735 1.079 2.058 2.478 2.478 1.9 6 2.2		288.9	65.8	125.6	151.2	19.5		
SO4) mg/l 44 19 6 22	SO4) mg/l 44 19 6 22	000 0	4.735	1.079	2.058	2.478	0.320		
increased 0.916 0.396 0.125 0.458 icons moneys 7.369 1.406 2.016 2.879 icons moneys 1.700 2.408 3.415 icons moneys 4.13 9.46 8.87 3.415 icons moneys 4.13 9.46 8.87 3.415 icons moneys 4.13 9.46 8.87 8.52 icons moneys 4.03 70 150 2.03 icons moneys 4.00 70 150 2.01 icons moneys 4.03 3.46 1.68 2.0 icons 4.03 3.46 16.8 2.0 icons 4.03 3.6.5 14.6 2.7.5 icons 4.03 3.6.5 3.4.7 2.0.1 icons 4.03 3.6.5 3.4.7 2.0.1 icons 4.34 3.9.8 4.8.6 47.9 icons	Image		44	19	ý	22	. 20		٠
bitus medyl 7,369 1,406 2,016 2,879 soms medyl 8,003 1,700 2,408 3,415 c. medyl 4,13 9,46 8,87 8,52 solid 4,13 9,46 8,87 8,52 solid 4,13 9,46 8,87 8,52 solid 4,03 70,00 53,00 55,00 casumed) mg/l 470 70 150 220 casumed) mg/l 470 70 150 220 casumed) mg/l 470 150 220 casumed) mg/l 564 186 27 casumed) 36,4 16,8 32,0 25,0 casumed) 36,7 40,8 36,5 48,6 47,9 casumed) 40,8 36,5 48,6 47,9 casumed) 48,6 48,6 47,9 casumed) 48,6 47,9	bious modyl 7.369 1.406 2.016 2.879 soms modyl 8.003 1.700 2.408 3.415 x. modyl 4.13 9.46 8.87 8.52 sion; migh 88.00 70.00 53.00 55.00 counted) migh 470 70 150 220 accurach) migh 564 120 176 247 accurach) migh 564 183 48 247 accurach) migh 564 163 34.6 16.8 32.0 accurach) accurach) 56.4 83.2 68.0 27.5 accurach) accurach accurach 46.0 47.9 47.9	l/pam	0.916	968:0	0.125	0.458	0.416		
tions modyl 7.369 1.406 2.016 2.879 cons modyl 2.0635 1.700 2.408 3.415 c. modyl 4.13 9.46 8.87 8.52 dance 4. 4. 4. 8. 8. cox mgf 4.0 70.00 53.00 55.00 cox mgf 564 120 176 24 c. mgf 9.4 5.0 -26 -27 c. mgf 40.3 34.6 16.8 32.0 c. 40.3 36.5 16.8 32.0 c. 40.3 36.5 14.6 27.5 c. 40.8 36.5 34.7 20.1 c. 40.8 36.5 48.6 47.9 c. 59.2 25.4 13.0 27.5 c. 50.4 13.3 9.4 14.0 c. 26.4 39.8 48.6<	tions modyl 7.369 1.406 2.016 2.879 toms modyl 8.003 1.700 2.408 3.415 tom modyl 4.13 9.46 8.87 8.52 anox) might 470 70.00 53.00 55.00 countral) might 564 120 176 247 accountral) might 9.46 8.87 8.52 accountral) might 470 70 150 220 accountral) might 9.4 1.20 176 247 accountral) might 9.4 1.6 27.5 accountral) might 9.4 1.6 2.5 accountral) might 9.4 1.6 2.5 accountral) 9.4 1.6 2.5 2.5 1.3 accountral) 9.4 1.4 1.0 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3					. !	į		
source 8.003 1.700 2.408 3.415 cathering -0.635 -0.294 -0.392 -0.536 annec 4 13 9.46 8.87 8.52 602) mgf 88.00 70.00 53.00 55.00 casumed) mgf 470 70 150 220 casumed) mgf -94 120 176 247 cathering 40.3 34.6 16.8 32.0 cathering 40.3 34.6 16.8 32.0 cathering 40.3 36.5 14.6 27.5 cathering 40.3 36.5 14.6 27.5 cathering 40.3 36.5 14.6 27.5 cathering 40.3 36.5 34.7 20.1 cathering 40.3 36.5 34.7 20.1 cathering 40.3 36.5 34.7 20.1 cathering 40.3 40.3 40.	source 8.003 1.700 2.408 3.415 cat recogn -0.635 -0.294 -0.392 -0.536 Lance 4.13 9.46 8.87 8.52 ADD 130 5.00 55.00 55.00 consumed) mg/l 470 120 150 220 consumed) mg/l 564 120 176 247 consumed) mg/l 564 120 176 247 consumed) mg/l 564 120 176 247 consumed) mg/l 564 120 267 267 consumed) mg/l 40.3 34.6 16.8 32.0 consumed) consumed 36.5 14.6 27.5 consumed consumed 36.5 14.6 27.5 consumed consumed 36.5 34.7 20.1 consumed consumed 36.2 34.7 20.1 cons		7.369	1.406	2.016	2.879	0.722		
c. menufactor -0.635 -0.294 -0.392 -0.350 innec 4,13 9.46 8.87 8.52 icOz) mgf 470 70.00 53.00 55.00 cessured) mgf 470 70 150 220 destroid 364 120 176 247 e 40.3 34.6 16.8 32.0 g 40.3 34.6 16.8 32.0 g 40.8 36.5 14.6 27.5 g 43.4 36.5 14.6 27.5 g 43.4 39.8 48.6 47.9 g 59.2 63.5 85.4 72.5 g 59.4 13.3 9.4 14.0 g 59.4 13.3 9.4 14.0 g 59.4 13.3 9.4 14.0 g 59.4 13.3 52 13.4 g 13.3 52	mine 4,13 -0.294 -0.392 -0.336 inne 4,13 9.46 8.87 8.52 io.2) mg/t 870 55.00 foculared) mg/t 564 120 176 247 io. mg/t 9,4 0.3 34.6 16.8 32.0 4,0 3 34.6 16.8 32.0 4,0 3 36.5 14.6 27.5 4,0 40.8 36.5 14.6 27.5 4,0 40.8 36.5 14.6 27.5 4,0 40.8 36.5 14.6 27.5 4,0 59.2 43.4 39.8 48.6 47.9 4,0 59.2 63.5 85.4 14.0 4,0 59.2 63.5 85.4 14.0 4,11,4 23.3 5.2 13.4	u	8.003	1.700	2.408	3,415	0.877	, ž	
innee 4, 13 9.46 8.87 8.52 (OZ) mg/t 470 70.00 53.00 55.00 Liculated) mg/t 564 120 176 247 20	time 4,13 9.46 8.87 8.52 (Q2) right 88.00 70.00 53.00 55.00 essured) right 470 70 150 220 declarated) right 564 120 176 247 est 40.3 34.6 16.8 32.0 est 40.3 34.6 16.8 32.0 est 40.8 36.5 14.6 27.5 est 40.8 36.5 48.6 47.9 est 59.2 43.4 39.8 48.6 47.9 est 29.4 11.0 23.3 5.2 13.4 est 11.4 23.3 5.2 13.4 est 11.4 23.3 5.2 13.4 <td></td> <td>-0.635</td> <td>-0.294</td> <td>-0.392</td> <td>0.536</td> <td>-0.133</td> <td></td> <td></td>		-0.635	-0.294	-0.392	0.536	-0.133		
### 10.00 53.00 53.00 53.00 53.00 53.00 53.00 53.00 53.00 53.00 for ingit	account of the control of the contro		4.13	9.46	8.87	8.52	69.6		
mgf 470 70 150 220 Louisaced mgf 564 120 176 247 2	### 170		88:00	70.00	23.00	55.00	32.00		٠
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40.3 -50 -26 -27 40.3 34.6 16.8 32.0 40.8 59.7 65.4 83.2 68.0 40.8 36.5 14.6 27.5 40.8 36.5 14.6 27.5 40.8 43.4 39.8 48.6 47.9 40.8 59.2 63.5 85.4 72.5 40.8 11.4 23.3 52 13.4	% 40.3 34.6 16.8 32.0 % 40.3 34.6 16.8 32.0 % 40.8 34.6 16.8 32.0 % 40.8 36.5 14.6 27.5 % 43.4 39.8 48.6 47.9 % 59.2 63.5 85.4 72.5 % 29.4 11.4 23.3 5.2 13.4		3 5	120	176	247	66		
% 40.3 34.6 16.8 32.0 % 59.7 65.4 83.2 68.0 % 40.8 36.5 14.6 27.5 % 16.3 25.6 34.7 20.1 % 43.4 39.8 48.6 47.9 % 59.2 63.5 85.4 72.5 % 11.4 23.3 52 13.4	% 40.3 34.6 16.8 32.0 % 59.7 65.4 83.2 68.0 % 40.8 36.5 14.6 27.5 % 43.4 36.5 14.6 27.5 % 43.4 39.8 48.6 47.9 % 59.2 63.5 85.4 72.5 % 11.4 23.3 52 13.4		\$	8	-36	-27	-25		
9 40.3 34.6 16.8 32.0 9 59.7 65.4 83.2 68.0 9 40.8 36.5 14.6 27.5 9 43.4 39.8 48.6 47.9 9 59.2 63.5 85.4 72.5 9 11.4 23.3 52 13.4	9 40.3 34.6 16.8 32.0 9 59.7 65.4 83.2 68.0 9 40.8 36.5 14.6 27.5 9 16.3 25.6 34.7 20.1 9 43.4 39.8 48.6 47.9 9 59.2 63.5 85.4 72.5 9 11.4 23.3 52 13.4						÷	٠	
9, 59,7 65,4 83,2 68,0 9, 40,8 36,5 14,6 27,5 9, 43,4 25,6 34,7 20,1 9, 43,4 39,8 48,6 47,9 9, 59,2 63,5 85,4 72,5 9, 11,4 23,3 5,2 13,4	9, 59,7 65,4 83.2 68.0 9, 40.8 36,5 14,6 27.5 9, 43,4 25,6 34,7 20.1 9, 43,4 39,8 48,6 47.9 9, 59,2 63,5 85,4 72.5 9, 11,4 23,3 52 13.4	8	40.3	34.6	16.8	32.0	39.1		
% 40.8 36.5 14.6 27.5 % 16.3 25.6 34.7 20.1 % 43.4 39.8 48.6 47.9 % 59.2 63.5 85.4 72.5 % 11.4 23.3 5.2 13.4	9, 40.8 36.5 14.6 27.5 9, 43.4 25.6 34.7 20.1 9, 43.4 39.8 48.6 47.9 9, 59.2 63.5 85.4 72.5 9, 11.4 23.3 9.4 14.0 9, 11.4 23.3 5.2 13.4	*	59.7	65.4	83.2	68.0	6.09		
9 16.3 25.6 34.7 20.1 9 43.4 39.8 48.6 47.9 9 59.2 63.5 85.4 72.5 9 29.4 11.4 23.3 5.2 13.4	9. 16.3 25.6 34.7 20.1 9. 43.4 39.8 48.6 47.9 9. 59.2 63.5 85.4 72.5 9. 29.4 11.4 23.3 9.4 14.0 9. 11.4 23.3 5.2 13.4	*	40.8	36.5	14.6	27.5	63.6		
9.8 43.4 39.8 48.6 47.9 9. 59.2 63.5 85.4 72.5 29.4 13.3 9.4 14.0 9. 11.4 23.3 5.2 13.4	9.8 43.4 39.8 48.6 47.9 9.2 59.2 63.5 85.4 72.5 9.4 14.0 9.4 14.0 9.4 14.0 11.4 23.3 5.2 13.4	*	16.3	25.6	34.7	20.1	19.4	*	
46 59.2 63.5 85.4 72.5 47 29.4 14.0 48 11.4 23.3 5.2 13.4	46 59.2 63.5 85.4 72.5 59.4 13.3 9.4 14.0 46 11.4 23.3 5.2 13.4	8	43.4	39.8	48.6	47.9	41.5		٠.
9, 29,4 14.0 9, 11.4 23.3 5.2 13.4	% 29.4 13.3 9.4 14.0 % 11.4 23.3 5.2 13.4	8	59.2	63.5	85.4	72.5	36.4		:
% 11.4 5.2 5.3 5.2 13.4	9. 11.4 July 23.3 Trans. 5.2 Trans. 13.4 July 23.3 Trans. 5.2 Trans. 13.4 July 20.	8	29.4	13.3	9.4	14.0	16.1		
		8	11.4	23.3	5.2	13.4	47.5		

C-8 RESULTS OF GEOCHEMICAL ANALYSIS OF THE TEST WELLS (1)

		-				1000年の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の				h	
Sample Name		TW001	TW002	TW003	TW004	TW005	TW006	TW006A	TW006S	1W008	TW009
Water Termerature	ļ	27.8	29.0	28.7	26.9	26.1	27.5	27.6	26.7	27.7	29.6
He He	j	• • • • • • • • • • • • • • • • • • •	7.11	80.6	99.9	5.88	8.1	7.87	7.8	7.03	7.12
Flectric Conductivity	MS/cm	115	138	447	188	\$	1400	784	280	320	548
Alkalinity	mg/l	13	25	89	35	· S	250	16	8	167	101
Ca. Hardness	l/am	19	24	89	04	9	215	141	115	165	136
Total Hardness	ne/l	\$3	45	128	65	18	325	170	170	275	179
Me. Hardness	me/l	90	21	8	25	12	110	53	55	110	43
Sodium (Na.)	ms/l	3.0	8.0	14.0	10.0	4.0	116.0	74.0	35.5	4.6	43.0
	mea/l	0.130	0.348	0.609	0.435	0.174	5.044	3.218	1.544	0.200	1.870
Potassium (K)	ms/l	0.7	1.3	2.1	1.8	6.0	1.1	2.3	2.1	0.7	3.7
	mce/l	0.018	0.033	0.054	0.046	0.022	0.027	0.059	0.054	0.018	0.095
Calcium (Ca)	, John	7.6	9.6	27.2	16.0	2.4	86.1	56.5	46.0	66.1	54.5
	meq.//	0.380	0.480	1.359	0.799	0.120	4.296	2.817	2.298	3.297	2.717
Magnesium (Mg)	i zu	1.5	5.1	14.6	6.1	2.9	26.7	7.0	13.4	26.7	10.4
6	meq/	0.120	0.420	1.199	0.500	0.240	2.198	0.579	1.099	2.198	0.859
Chloride (C)	mzA	5.0	6. 0	65.0	9.9	0.9	170.0	110.0	53.0	7.0	70.0
	meo/l	0.141	0.169	1.833	0.169	0.169	4.794	3.102	1.495	0.197	1.974
Bicarbonate (HCO3)	mg/l	15.8	30.5	82.9	42.7	6.1	304.8	110.9	112.2	203.6	123.1
The state of the s	mea/I	0.260	0.500	1.359	0.699	0.100	4.995	1.818	1.838	3.337	2.018
Sulfate (SO4)	mg/l	16	23	15	49	71	123	06	91	76	100
	L/bəcu	0.333	0.479	0.312	1.020	0.354	2.561	1.874	1.895	2.020	2.082
Total Contrast	near I	0,648	1 280	3 220	1.780	0.555	11.564	6.673	4.994	5.712	5.541
Total Anions	Ween.	0.734	1.148	3.504	1.889	0.623	12.350	6.794	5.227	5.554	6.074
Difference	. Post	-0.086	0.133	-0.284	-0.109	-0.068	-0.786	-0.121	-0.234	0.159	-0.533
Ionic Balance	. 8	6.23	5.46	4.22	2.98	5.75	3.29	06:0	2.28	1.41	4.59
Silica (SiO2)	1/302	4.90	28.00	10.60	46.00	4.90	21.60	42.80	49.40	77.60	33.40
TDS (Measured)	f/gm	62	75	300	120	78	830	490	380	220	320
(Calculated)	ng/l	\$0	83	221	132	36	828	451	353	2 04	405
Difference	ngfl	12	φ	79	-12	36	7	30	27	-186	-85
X + K	6%	22.9	29.8	20.6	27.0	35.2	43.8	49.1	32.0	3.8	35.5
Ca+Mg	*	77.1	70.2	79.4	73.0	64.8	\$6.2	50.9	0.89	96.2	64.5
CI+SO4	8	64.6	56.5	61.2	63.0	84.0	59.6	73.2	64.8	39.9	8.99
Mg	8	18.5	32.8	37.2	28.1	43.2	19.0	8.7	22.0	38.5	15.5
, చ	₽%	58.6	37.5	42.2	44.9	21.6	37.1	42.2	46.0	57.7	49.0
pH4.8Bx	82	35.4	43.5	38.8	37.0	16.0	40.4	26.8	35.2	60.1	33.2
. ฮ	જ	19.2	14.7	52.3	0.6	27.2	38.8	45.7	28.6	3.6	32.5
804	88	45.4	41.7	6.8	54.0	\$6.8	20:1	27.6	36.2	36.4	34.3

		11		~	7.	13	91	11	×	
Sample No.		TWOID	TWOIL	TW012						
Water Temperature	(-	30.0	28.4	28.5						
H)	8.41	7.09	8.03						
Electric Conductivity	MS/cm	320	148	230						
Alkalinity	l/su	19	20	59						
Ca. Hardness	ligin	11	70	24						
Total Hardness	mg/	119	140	TT.						
Me Hardness	me/l	42	70	23						
Softium (Na)	J/au	7.0	7.0	8.5						
	Joon	0.304	0.304	0.370						
Potassium (K)	"Vam	8.0	0.2	0.3						
	J/oodu	0.020	0.005	0.008					٠	
Calcium (Ca)	me/l	30.8	28.0	21.6						
	/osu	1.538	1.399	1.079				:		
Magnesium (Mo)	ne.l	10.2	17.0	5.6						
	meo/	0.839	1.399	0.460						
Chloride (Cl)		9.5	10.0	11.0						
		0.268	0.282	0.310						
Bicarbonate (HCO3) mg/l	ng/l	81.7	61.0	71.9						
	meq/l	1.339	0.999	1.179						
Sulfate (SO4)	20000	8	108	30						
	Deg/	1.374	2.249	0.625			÷			
	BOW.	2.702	3.107	1.916						
Total Association		2.081	3.530	2.114						
Nifference	· Vocas	-0.278	-0.423	-0.198	J.					
Inne Balance		4.90	6.37	4.91				٠.		
Silice (SiO2)	Vau	52,10	68.60	21.60						
TDS (Measured)	mgA	200	160	160					٠	
(Calculated)	l/su	206	231	149						
Diffeence	15 80	φ	-71	11	•		-			
Na+K	8	12.0	10.0	19.7						
Ca+Mg	8	88.0	0.06	80.3				÷		
CI+SO4	8	55.1	71.7	44.2	1.					
×	8	31.1	45.0	24.0	¥.					
ී ර	8	56.9	45.0	56.3						
pH4.8Bx	8	44.9	28.3	55.8						
. 0	8	0.6	8.0	14.7						

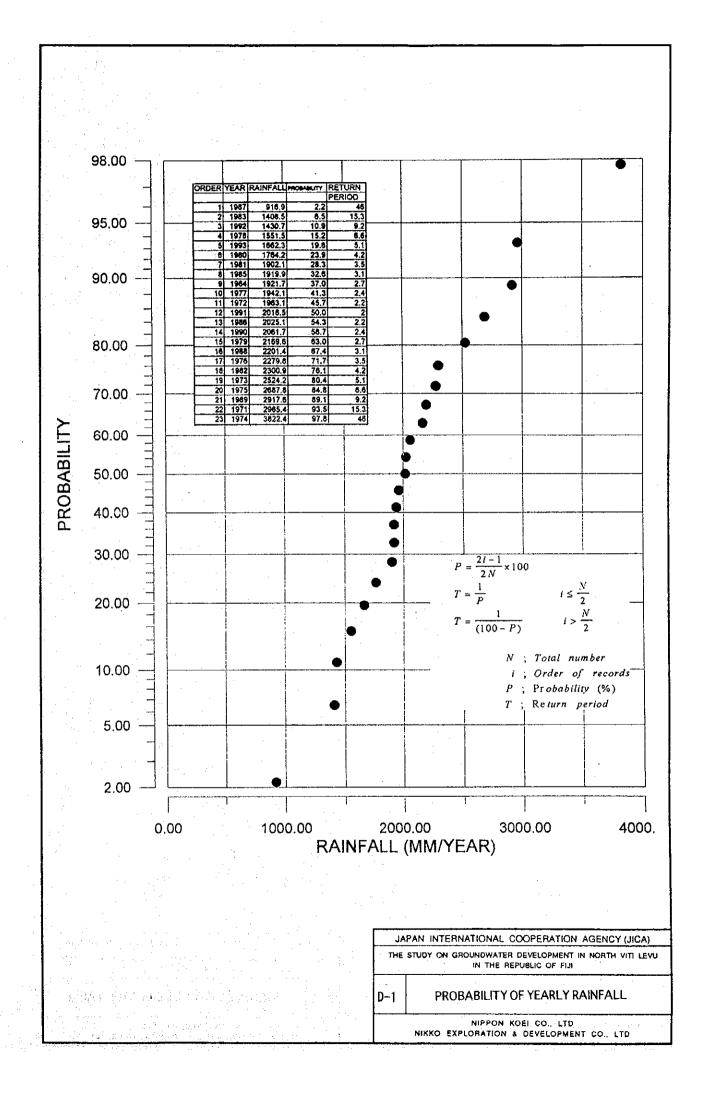
DATA BOOK - D

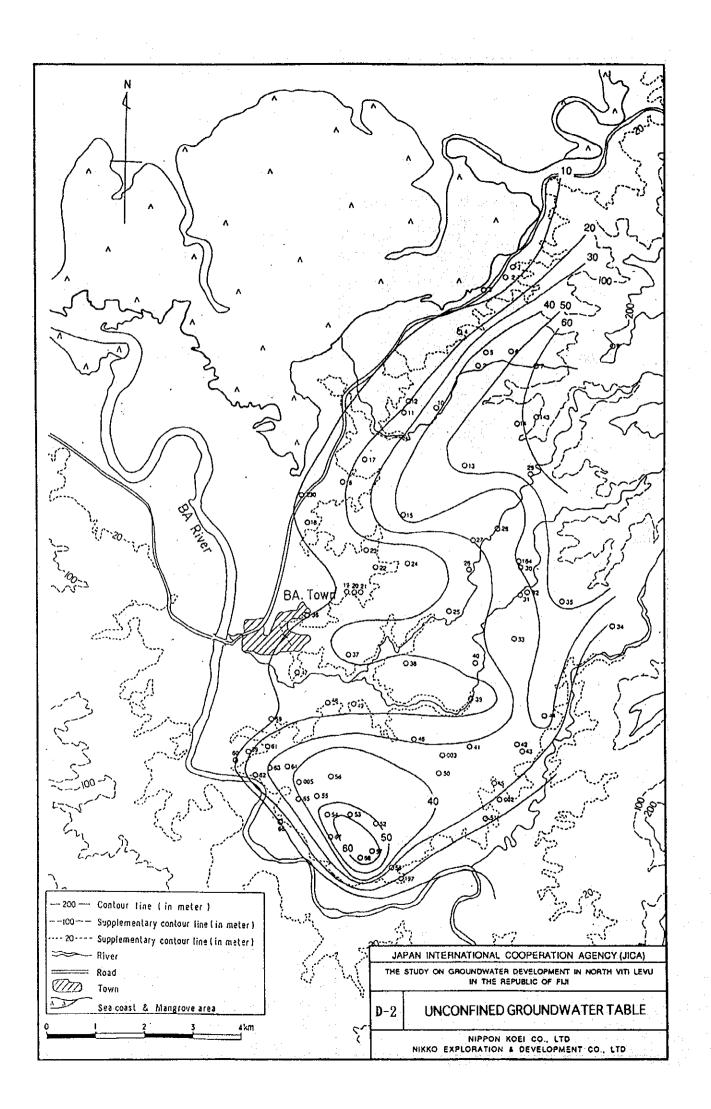
DATA BOOK - D

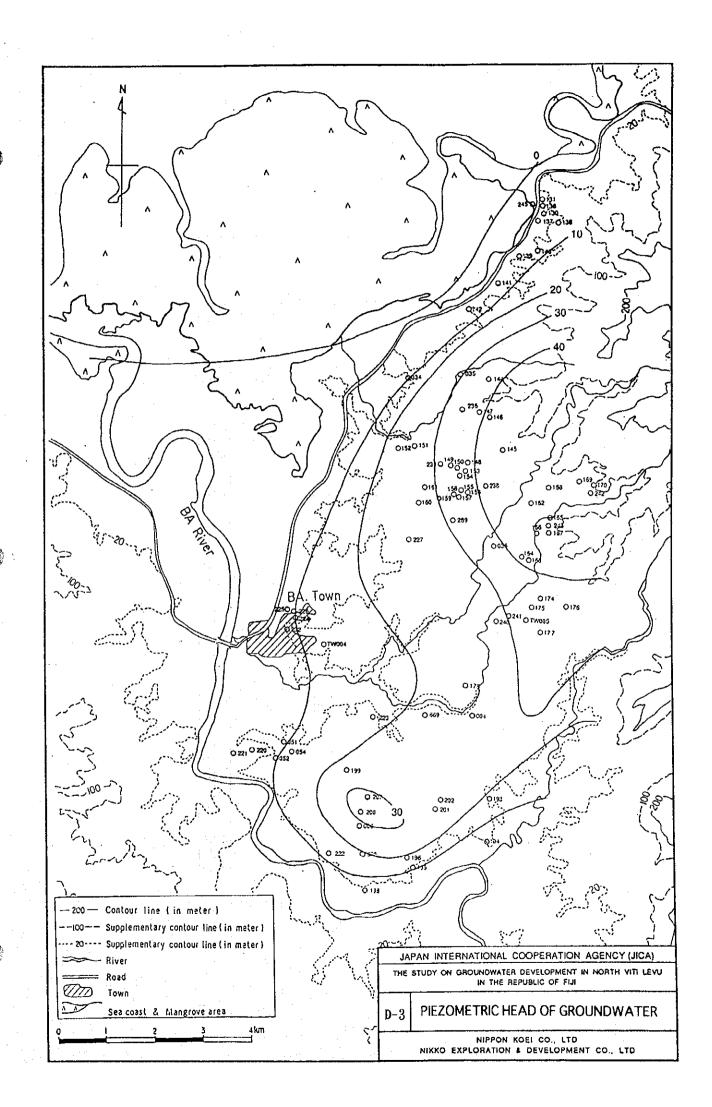
GROUNDWATER SIMULATION

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D-4 GROUNDWITER BALANCE BY TANK MODEL(1993.1-1994.5)

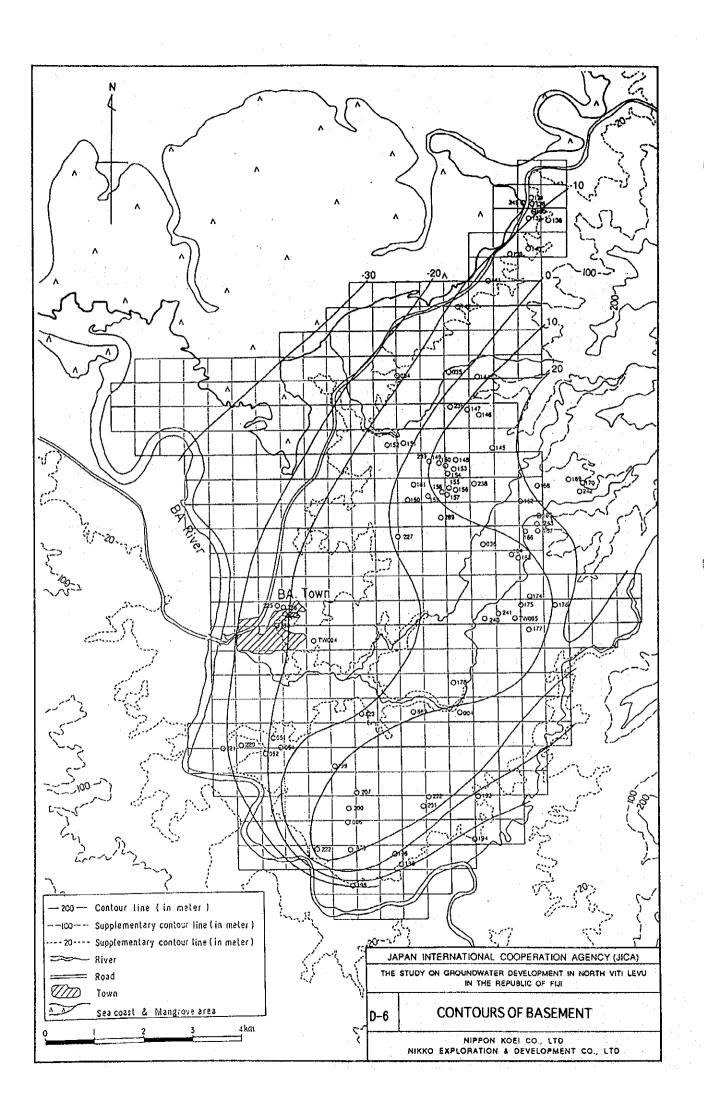
		RAIN	EVAPO	DIRECT	CHANGE	G-WTR	G-WTR	G-WTR	CHANGE
YEAR	MONTH			RUNOFF	SOILMOS	RECHAGE D	DISCHARGE	RUNOFF	G-WTR-STG
1993	-	249.1	71.3	109.4	ιŲ	73.4	31.9	0.1	414
	7	510.7	63	204.9	114.8	128	28.9	1.8	97.3
	က	188.7	124.8	72	-74.9	6.99	34.3	27.5	2
	4	93.4	72.5	32.7	-39.9	28.2	32.8	20.4	-25.1
	មា	167.3	68.4	56.4	4.	38.5	33.4	14.1	<u>ဂ</u>
	မ	0.3	4.4	0	4.4	0	31.7	9	-37.7
	7	2.1	2.1	0	0	0	32	0.3	-32.3
	φ	141	99	45.3	0	29.7	31.6	0	-19
	O)	10.5	10.5	0	0	0	30.2	0	-30.2
	10	τ	-	0	0	0	30.5	0	-30.5
	17	39.8	21.9	7.1	16.2	0	28.9	0	-28.9
	12	258.4	74.1	88.4	38.9	57	29.5	0	27.5
1994	-	294	112.8	122.3	-34.6	93.4	30.9	0	62.5
	7	349	81.6	148.7	8.2	110.5	29.6	6.9	73.9
	ო	272.6	103.4	104.6	-12.5	77	33.4	15.1	28.5
	:- •	114.7	82	29.1	-16.3	19.8	32.5	16	-28.6
	ιΩ	57.8	28	15.5	4.7	9.7	32.9	7.1	-30.3
SUBTOTA 93.1-12	93.1-12	1662.3	580	610.8	50.1	421.7	375.7	70.2	-24.4
TOTAL 9	93.1-94.5	2750.4	987.8	1031	-0.4	732.1	535	115.3	81.6

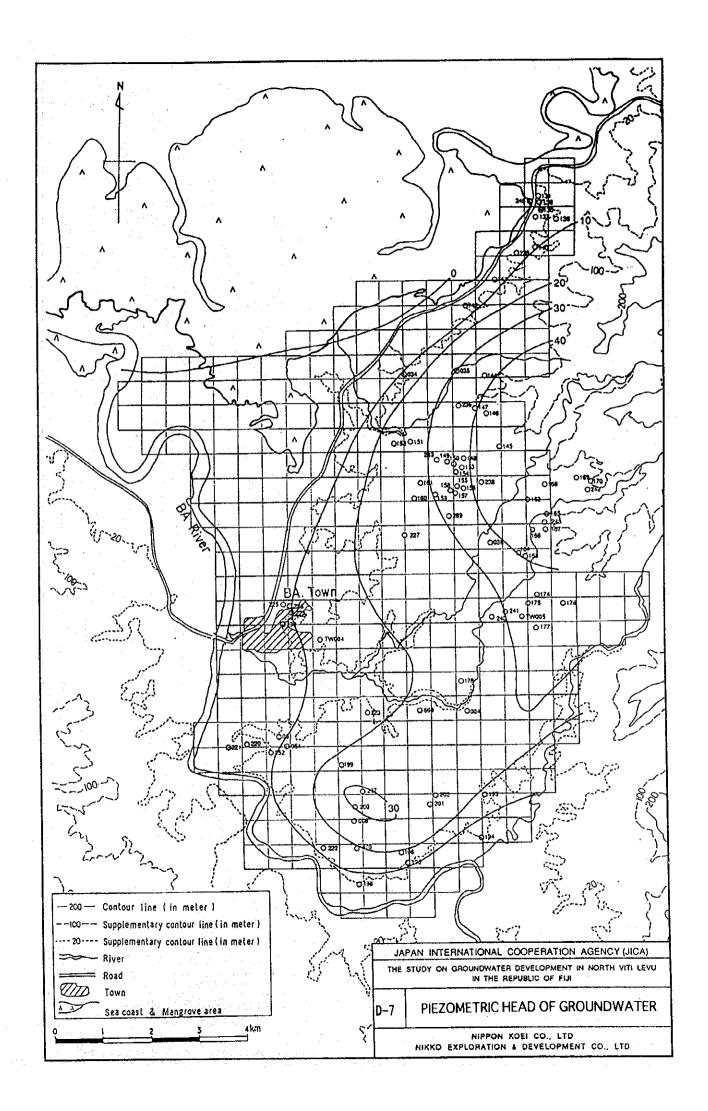
:	\supseteq
GROUNDWTER BALANCE BY TANK MODEL(1991.1-1991.12)	1/2 AVERAGE YEAR (L
4	

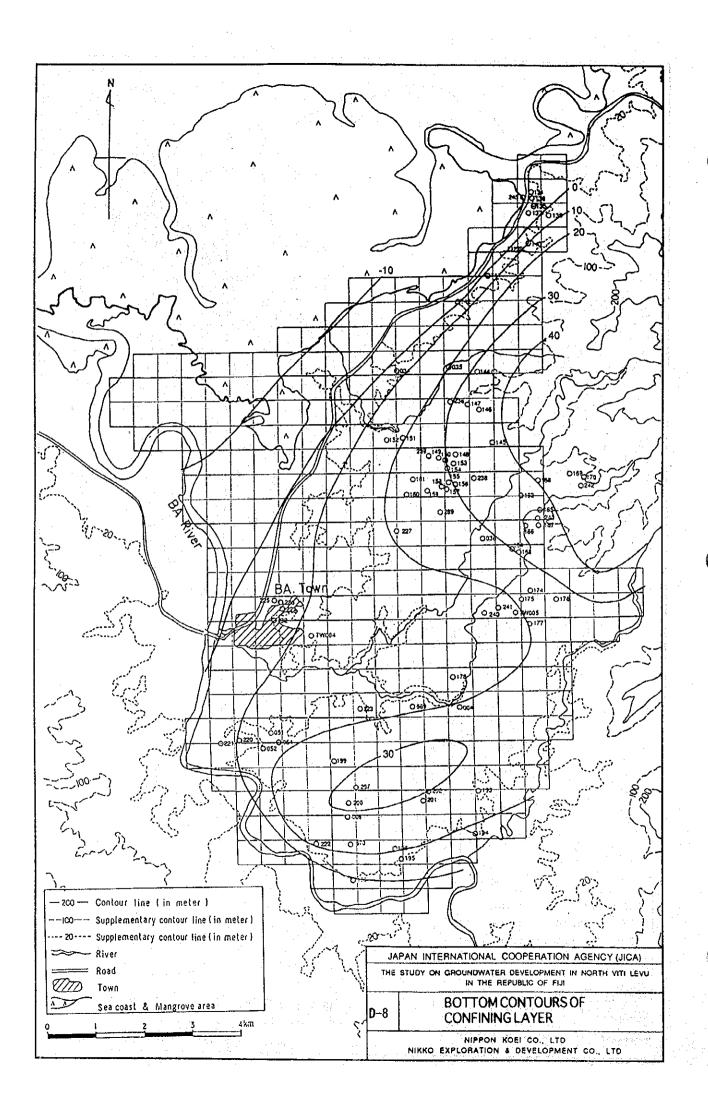
	3		1/2 AVERAGE YEAR		1/2 AVERAGE YEAR	GE YEAR		(UNIT:mm)
	RAIN	EVAPO	DIRECT	CHANGE	G-WTR	G-WTR	G-WTR	CHANGE
MONTH			RUNOFF	SOILMOS	RECHAGE	DISCHARGE	RUNOFF	G-WTR-STG
-	542.8	100.7	245.5	21	175.6		1.8	142.1
2	302.8	72	130.4	-0.3	100.7		20.1	90
က	418.9	78.4	216.6	-34.4	158.3	36.2	52.9	69.3
4	195.2	64.5	60.3	29.8	40.6	34.6	44 9	-38.9
5	33.9	44.7	10.7	-30	8.5	34.6		-57.1
9	39.1	31.9	4.8		2.4	32.3	13.7	-43.6
7	34	30.5	2.7	0	0.0	32.5	2.9	-34.5
8	68.1	35.3	20.1	0	12.7	31.8	0	-19.1
O	147.7	59.7	52	0	98	30.7	0	5.3
10	29.2	29.2	0	0	0	31.4	0	-31.4
7	126.5	83.7	17.2	16.5	9.1	29.8	0	-20.6
12	80.3	60.1	13.9	-2.6	8.8	30.3	0	-21.5
TOTAL	2018.5	690.7	774.2	1.33E-15	553.6	386.5	167.3	-1.4E-14

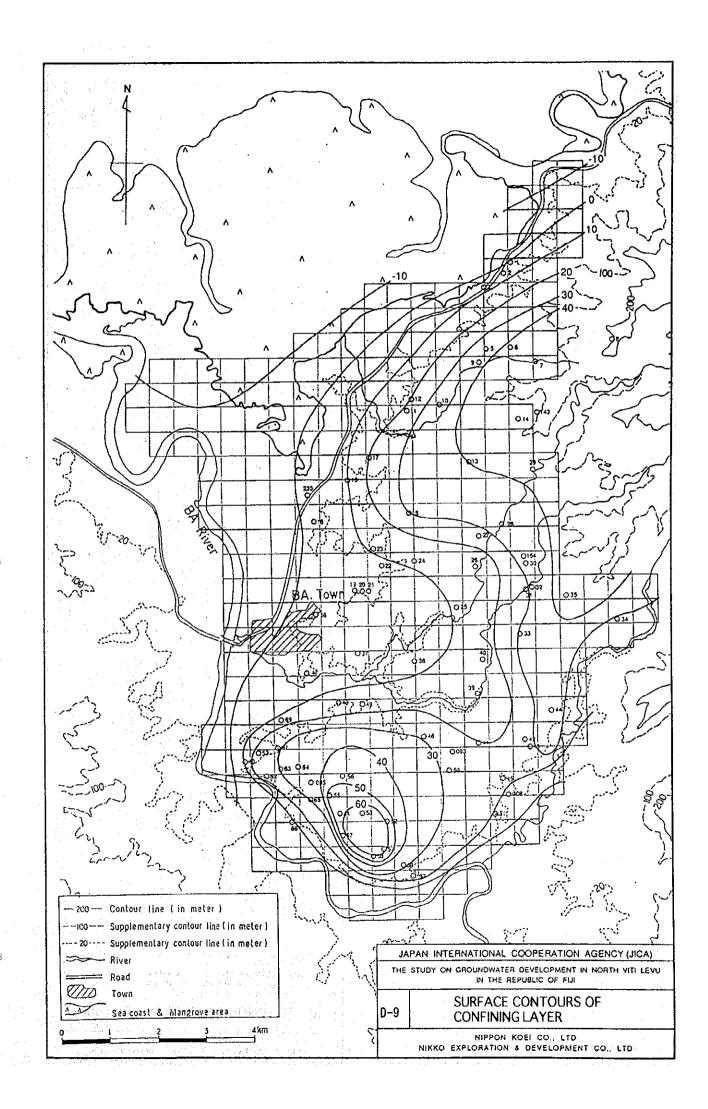
GROUNDWIER BALANCE BY TANK MODEL(1992.1-1992.12)

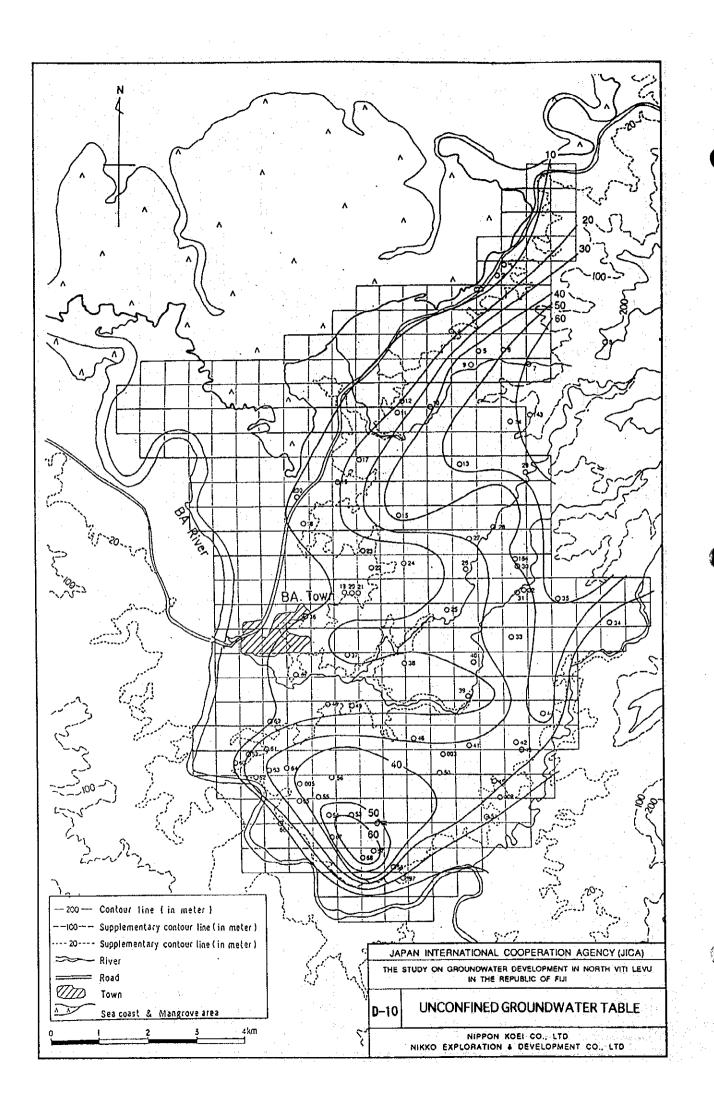
		5020				1100	1	
					1/10 DROUGHT YEAR	SHT YEAR		(UNIT:mm)
	RAIN	EVAPO	DIRECT	CHANGE	G-WTR	G-WTR	G-WTR	CHANGE
MONTH			RUNOFF	SOILMOS	RECHAGE D	DISCHARGE	RUNOFF	G-WTR-STG
-	188	74.1	711.7	-8.4	50.7	30.5	0	20.2
. 7	276.7	82.8	66.2	87.1	40.7	28.4	0	12.3
m	108.4	77.5	67.3	-92.5	56.1	31.6	0	24.5
4	117.2	85.3	7	14.3	9.9	30.1	0	-23.6
5	84.5	38.9	22.4	8.7	14.4	30.8	0	-16.3
9	91.7	73	24.2	-22.4	17	29.5	0	-12.5
7	7.3	7.9	0	9.0-	0	29.8	0	-29.8
80	64.4	19.2	20	12.3	12.9	29.2	0	-16.3
တ	20.6	32.9	0	-12.3	0	27.8	0	-27.8
01.	33	33	0	0	0	28.1	0	-28.1
1	66	55.5	14.3	19.1	10.1	26.6	0	-16.5
12	339.9	141.9	124.1	-13.5	87.4	28.4	0	58.9
TOTAL	1430.7	722	421.2	-8.2	295.9	350.8	0	-55

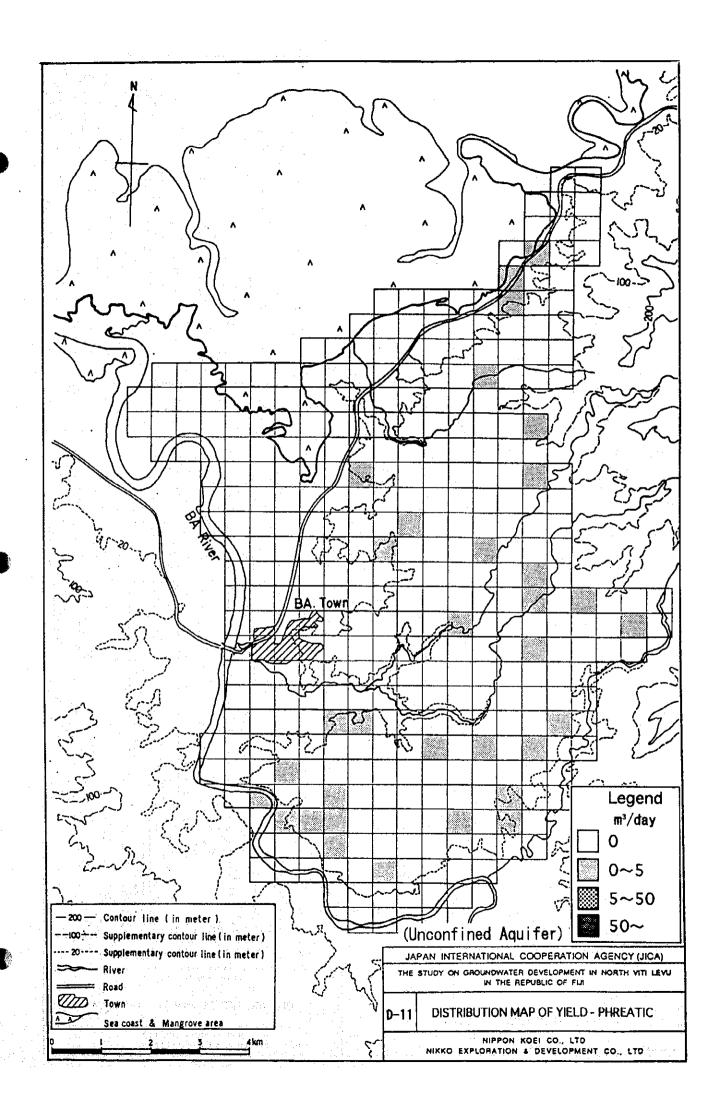


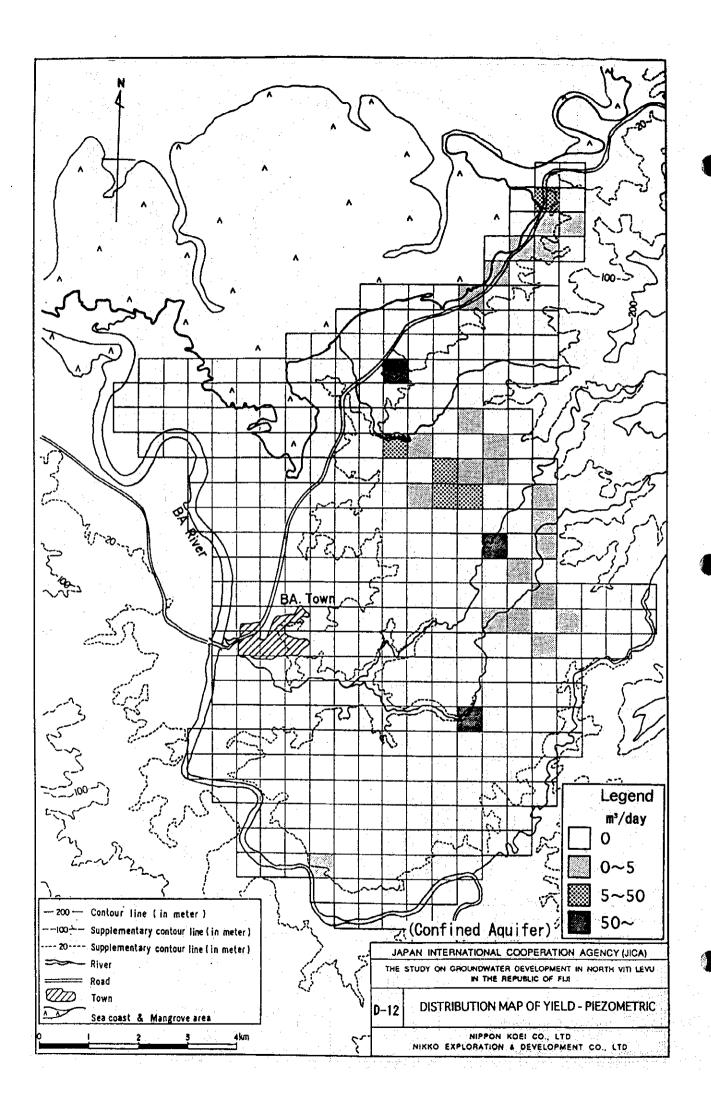


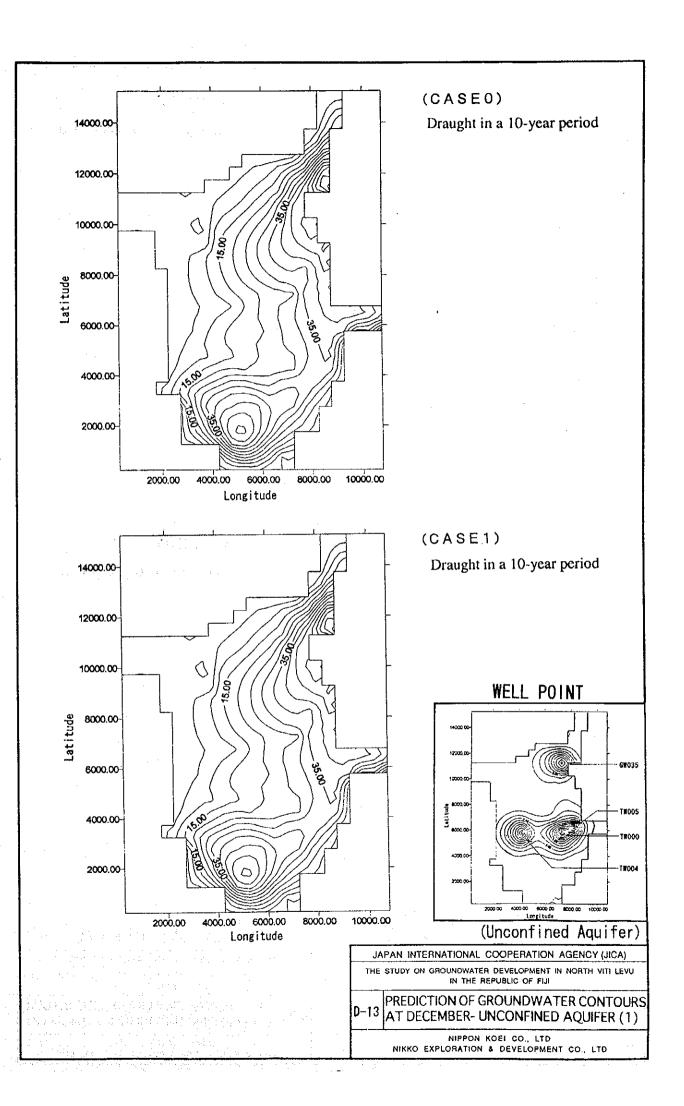


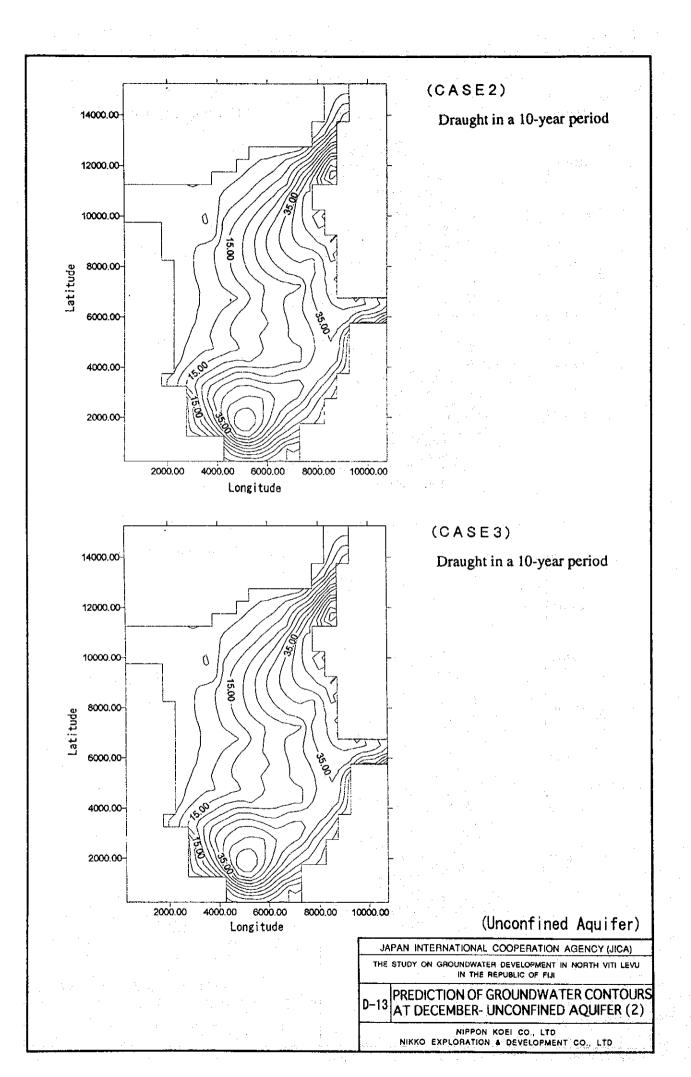


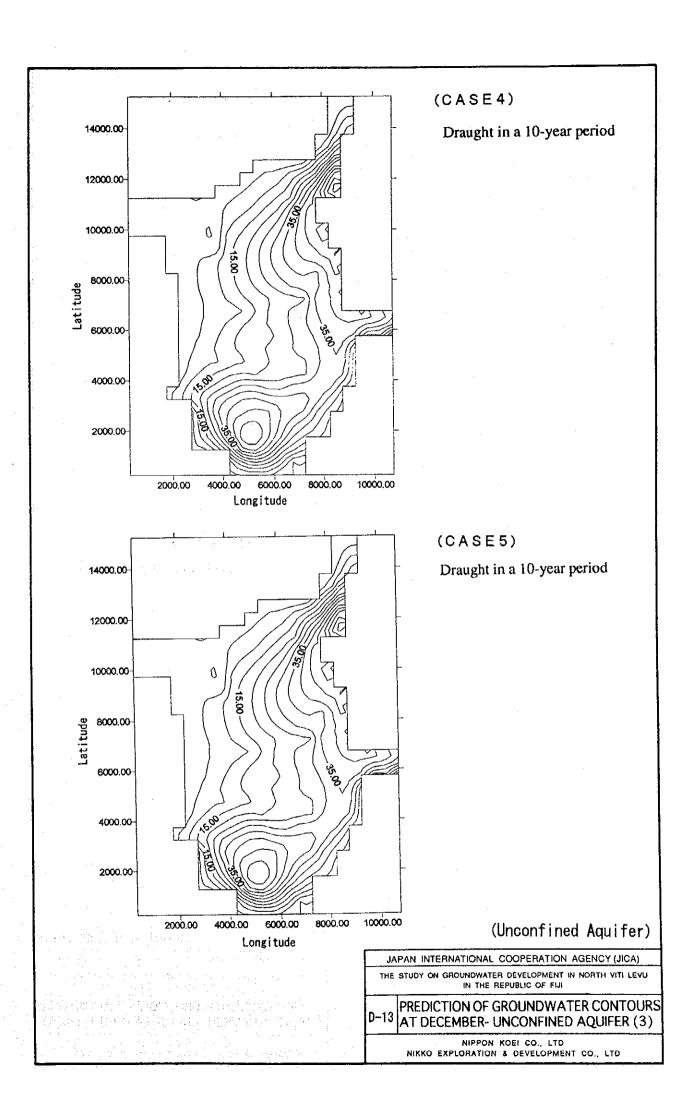


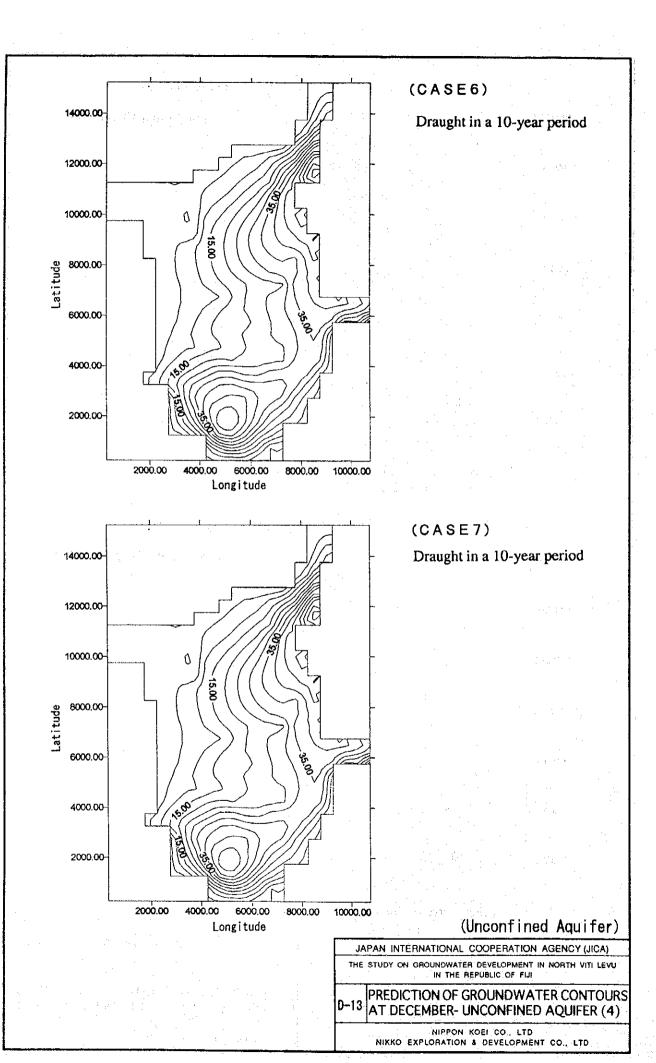


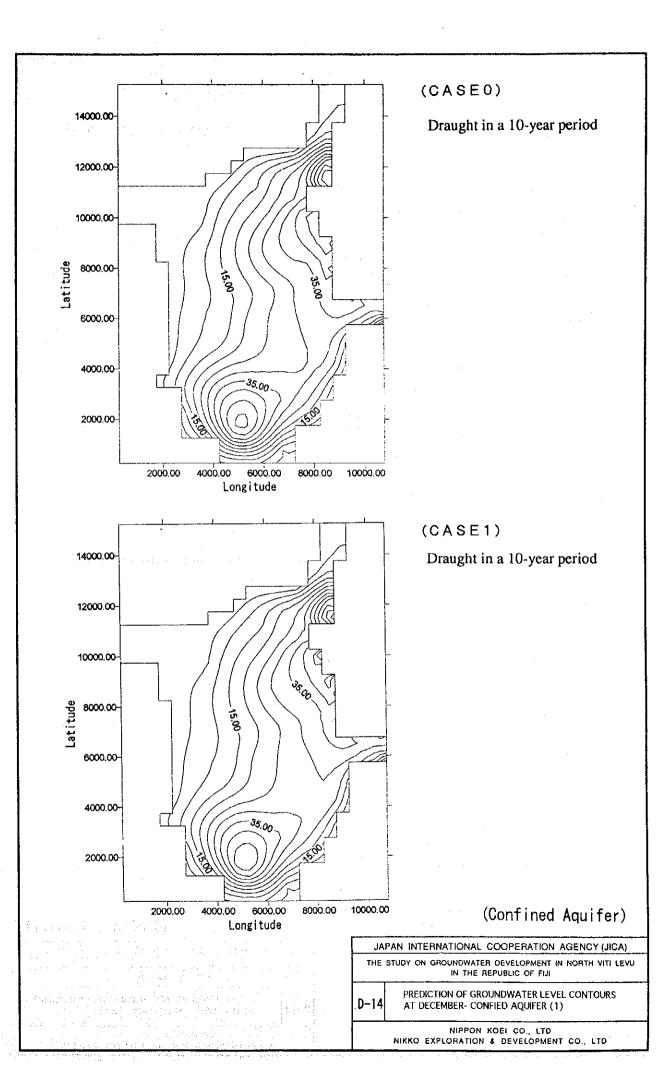


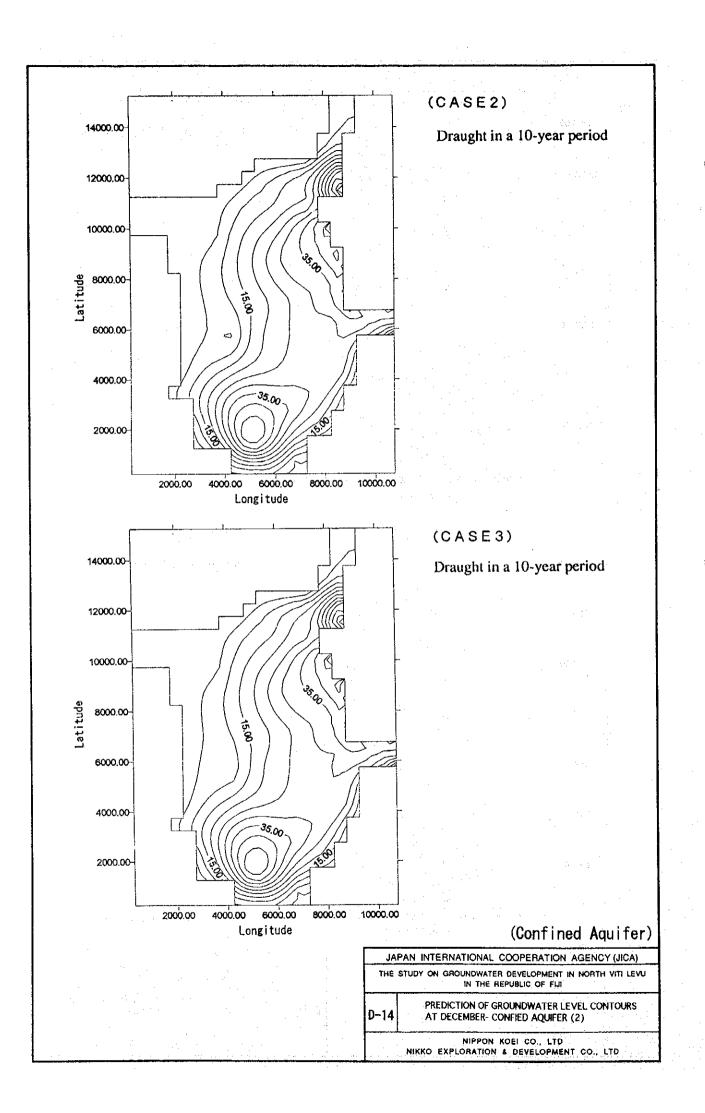


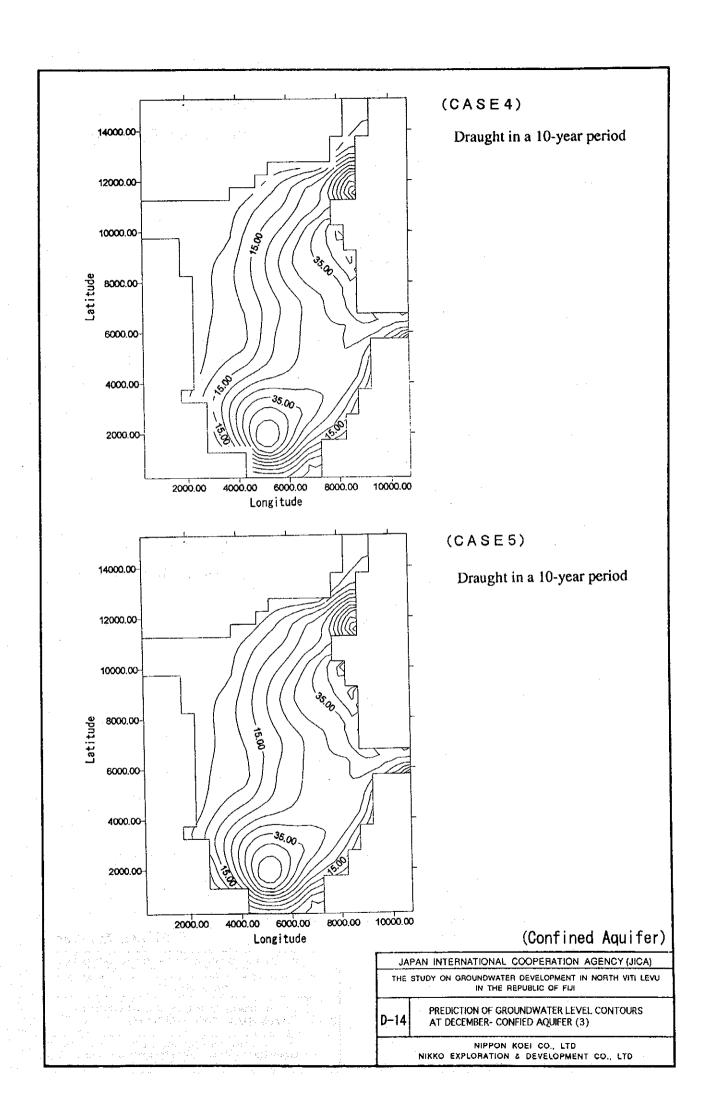


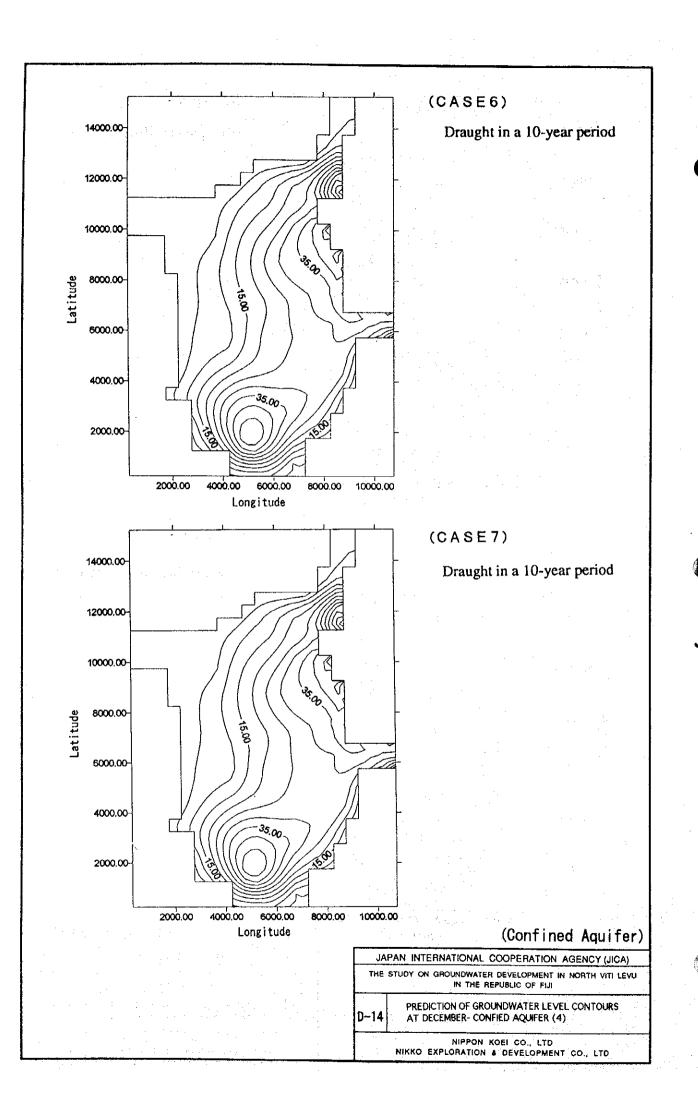


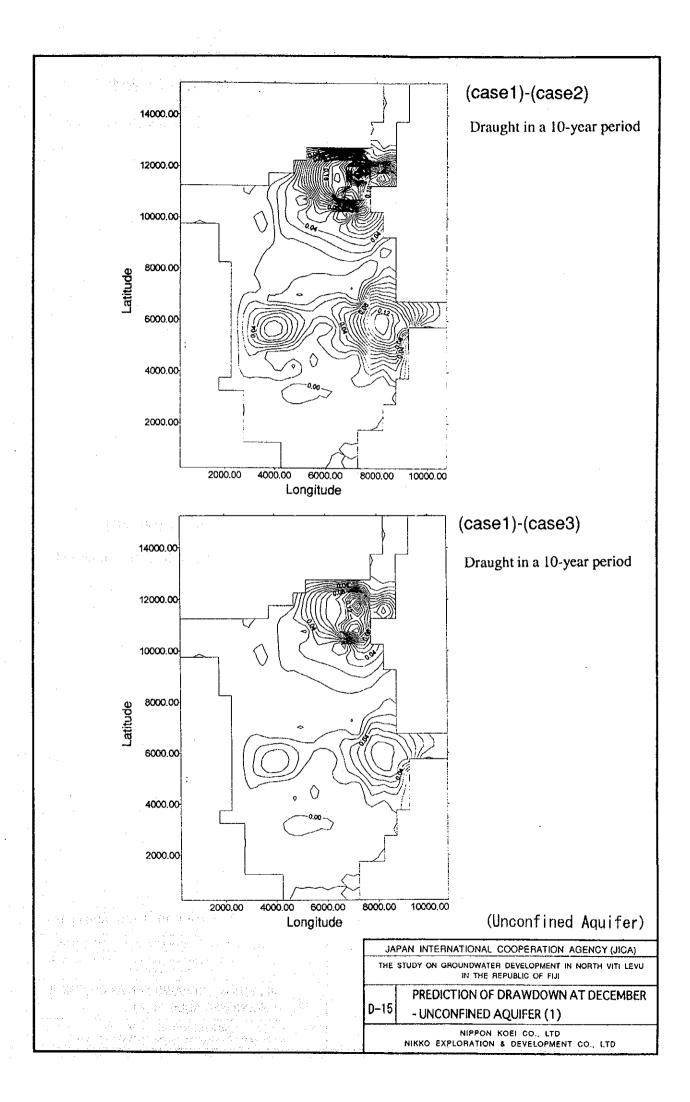


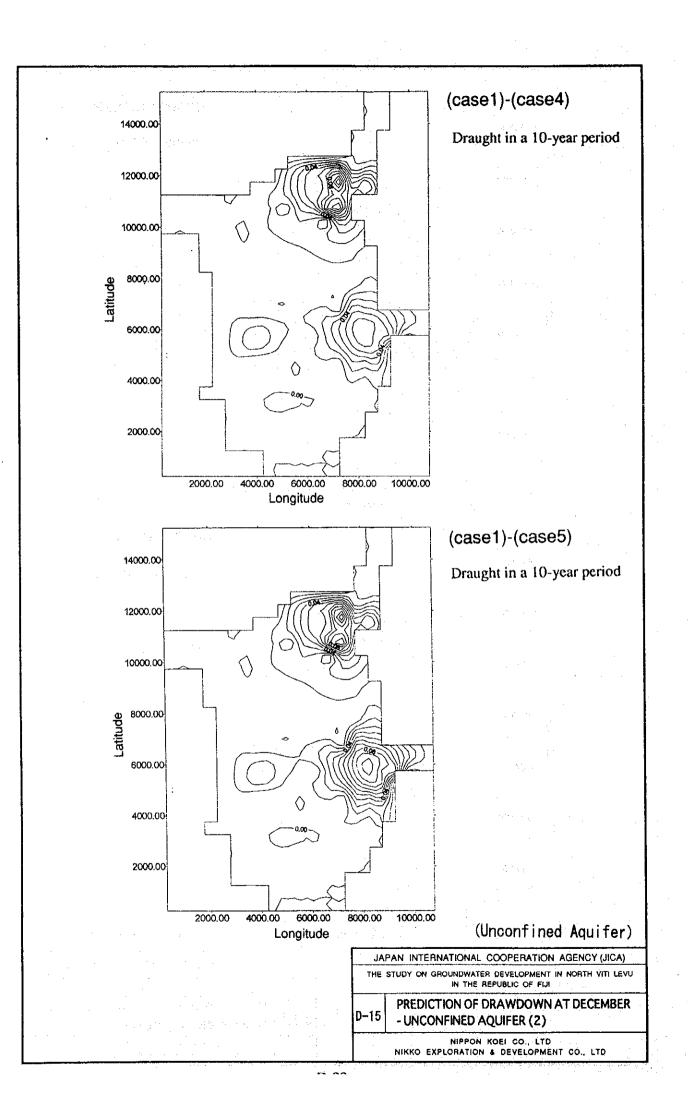


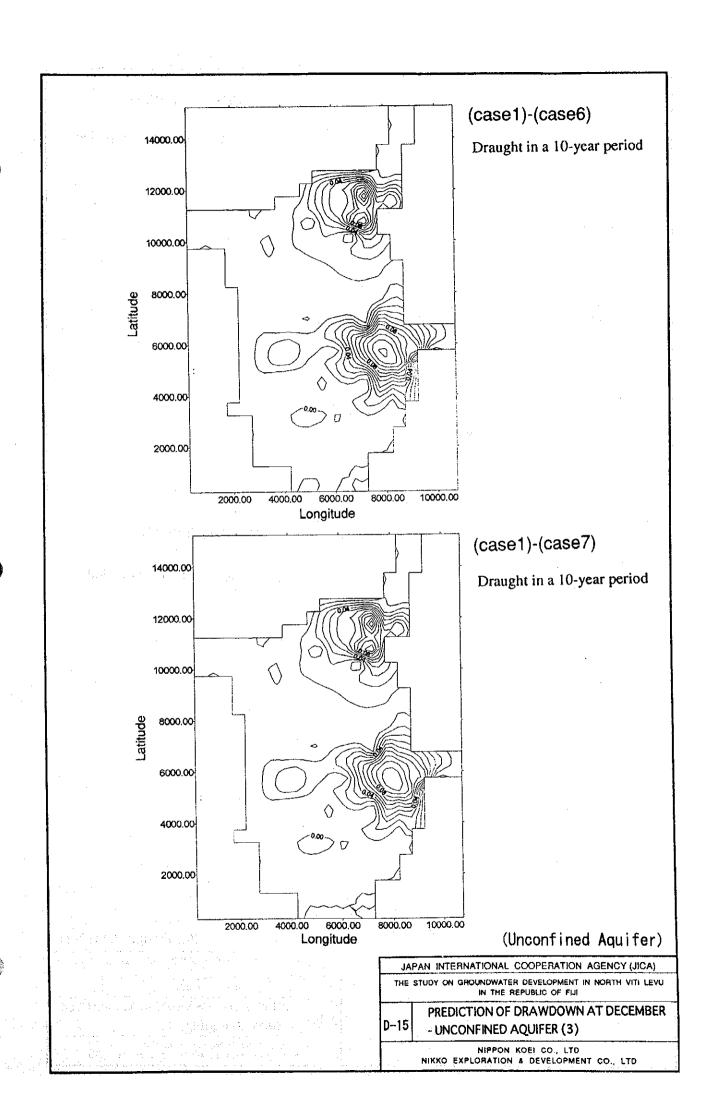


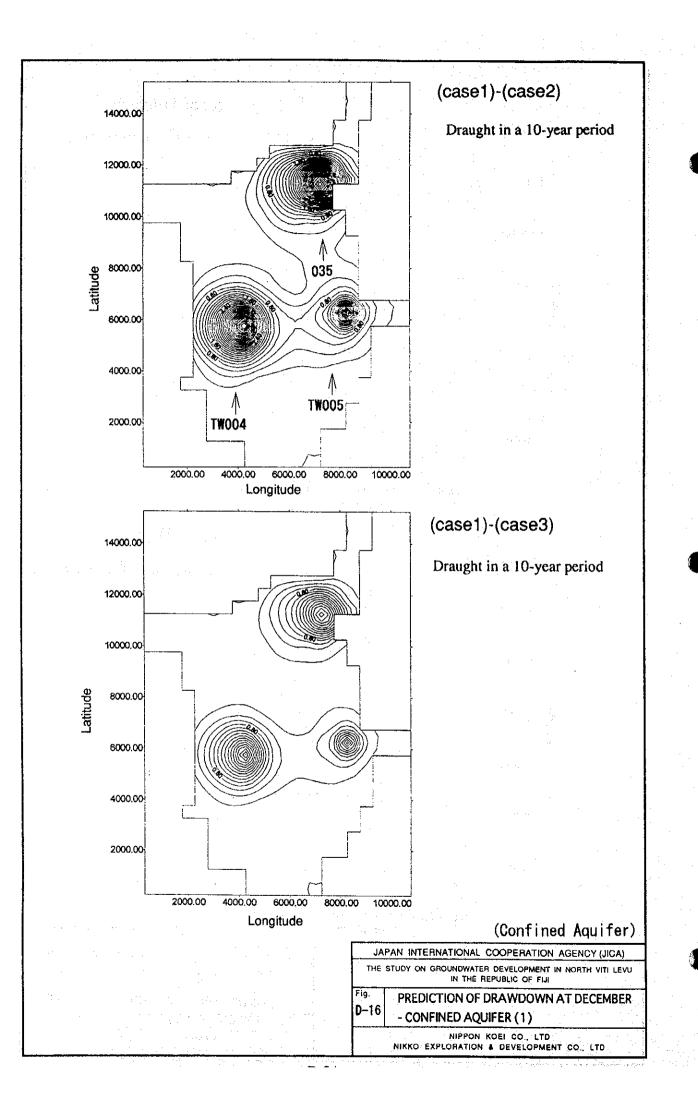


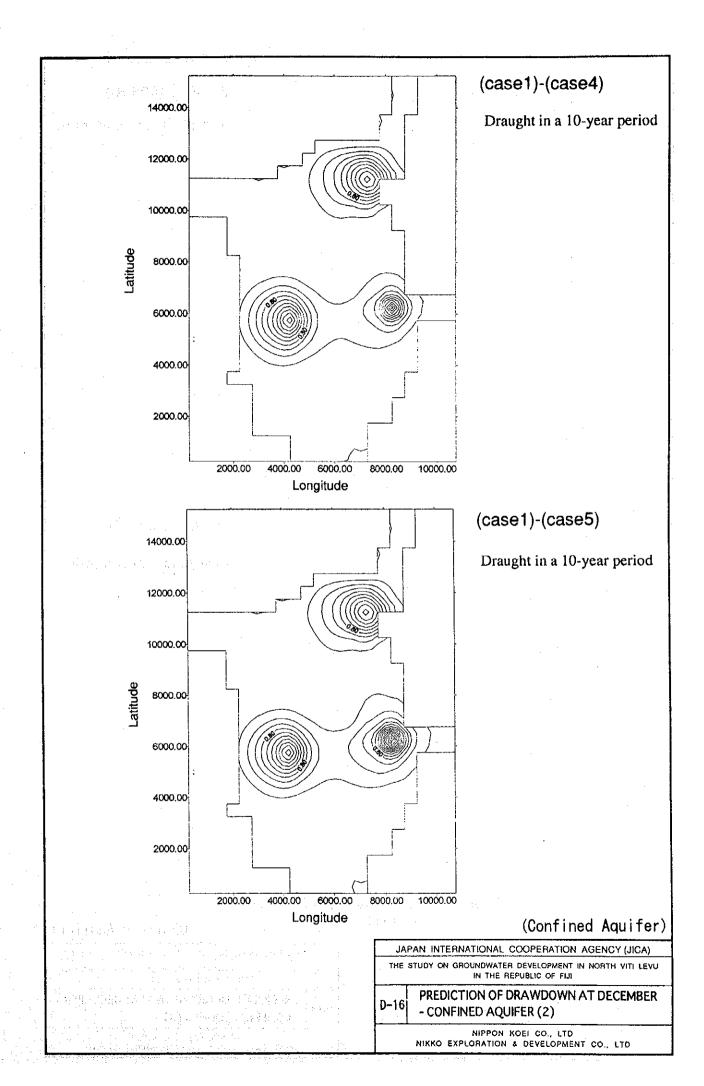


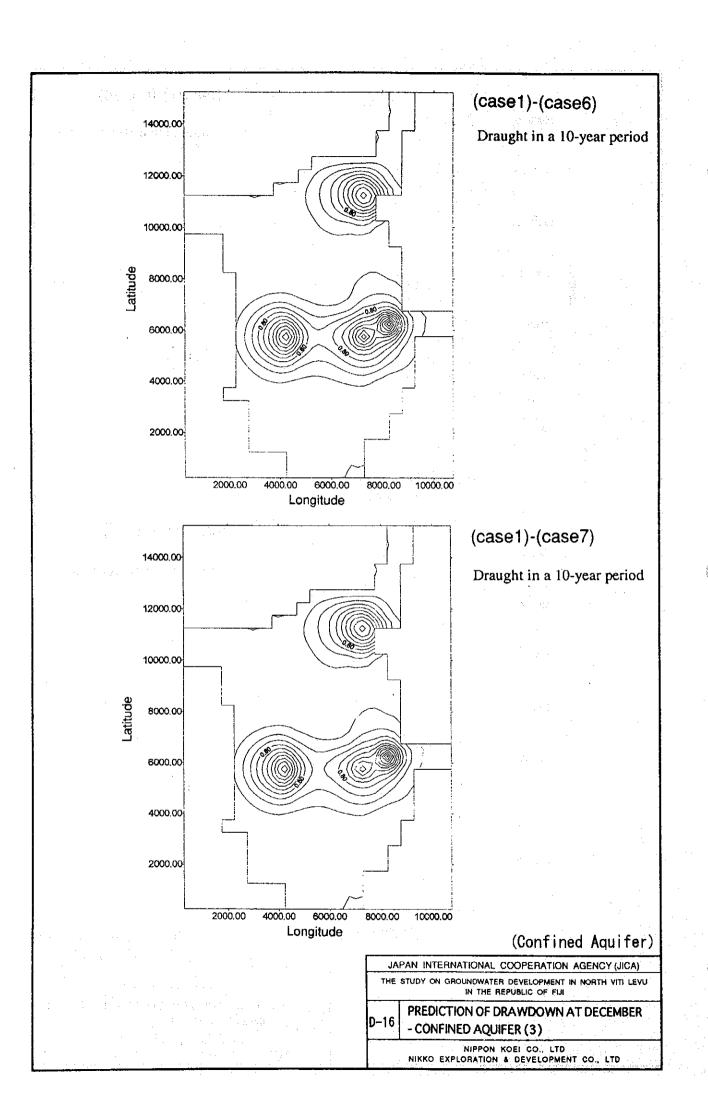


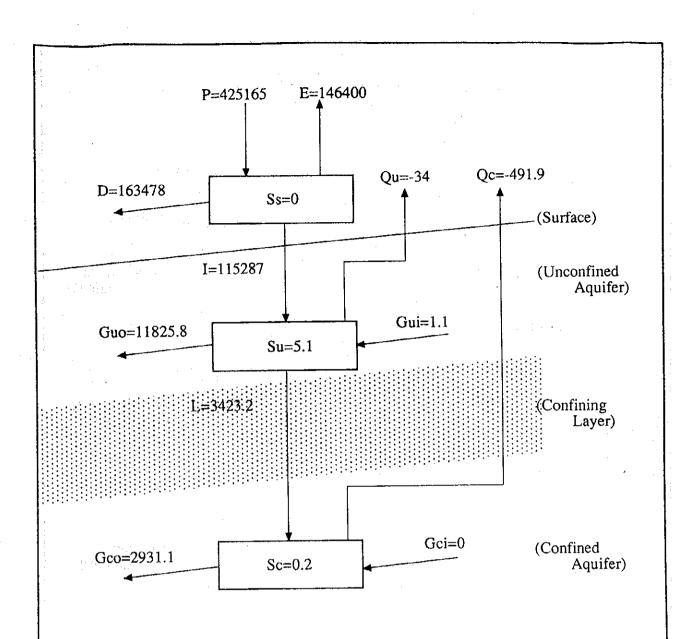












P: Precipitation

E: Evapotranspiration

D : Surface Runoff

I : Groundwater Recharge

L : Leakage

Ss: Change of Surface Storage
Su: Change of Unconfined Water Storage

Sc: Change of Confined Water Storage

Gui: Unconfined Water Inflow

Guo: Unconfined Water Outflow

Qu: Unconfined Water Pumpage Gci: Confined Water Inflow

Gco: Confined Water Outflow
Qc: Confined Water Pumpage

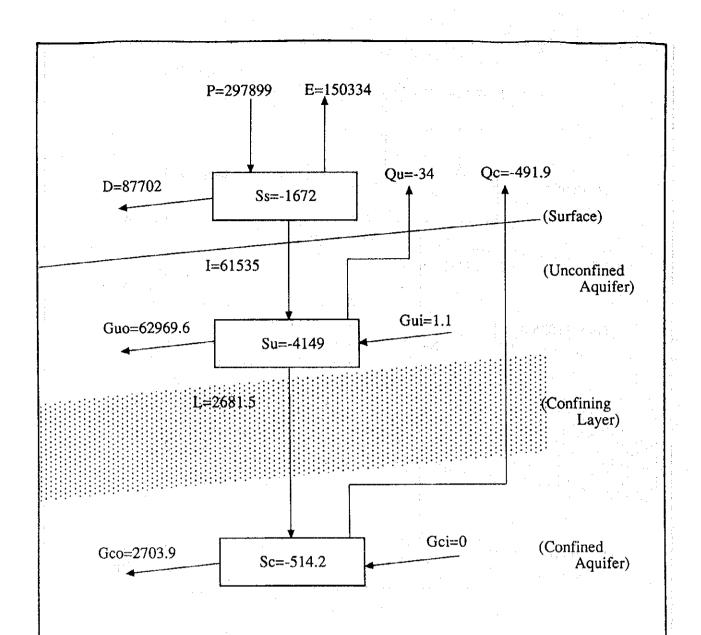
(Unit: m3/day)

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

THE STUDY ON GROUNDWATER DEVELOPMENT IN NORTH VITI LEVU IN THE REPUBLIC OF FUI

Case0

ANNUAL WATER BALANCE FOR THE TRANSIENT SIMULATION (1)



P: Precipitation

E: Evapotranspiration

D : Surface Runoff

I: Groundwater Recharge

L: Leakage

Ss: Change of Surface Storage

Su: Change of Unconfined Water Storage

Sc: Change of Confined Water Storage

Gui: Unconfined Water Inflow

Guo: Unconfined Water Outflow

Ou : Unconfined Water Pumpage

Gci: Confined Water Inflow

Gco: Confined Water Outflow

Qc : Confined Water Pumpage

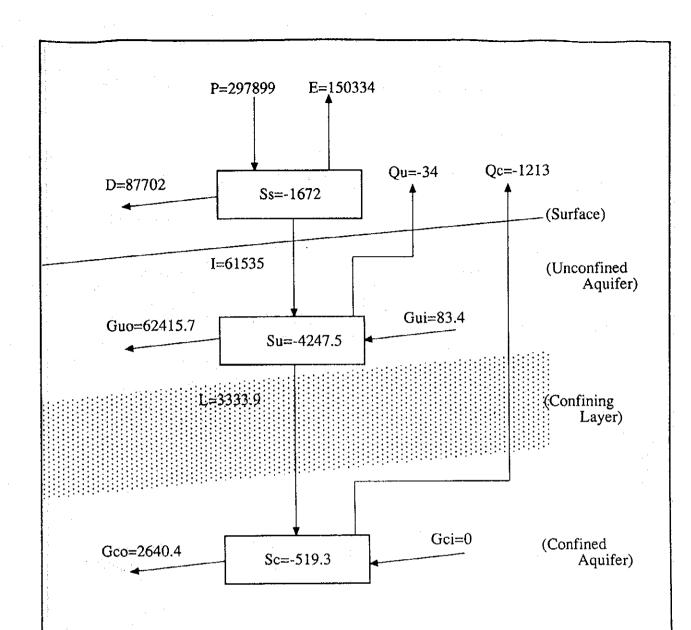
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JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

THE STUDY ON GROUNDWATER DEVELOPMENT IN NORTH VITI LEVU

Case 1 D-17

ANNUAL WATER BALANCE FOR THE TRANSIENT SIMULATION (2)



P : Precipitation

E: Evapotranspiration

D : Surface Runoff

I: Groundwater Recharge

L: Leakage

Ss: Change of Surface Storage
Su: Change of Unconfined Water Storage
Sc: Change of Confined Water Storage

Gui: Unconfined Water Inflow

Guo: Unconfined Water Outflow
Qu: Unconfined Water Pumpage
Gci: Confined Water Inflow

Gco: Confined Water Outflow Qc: Confined Water Pumpage

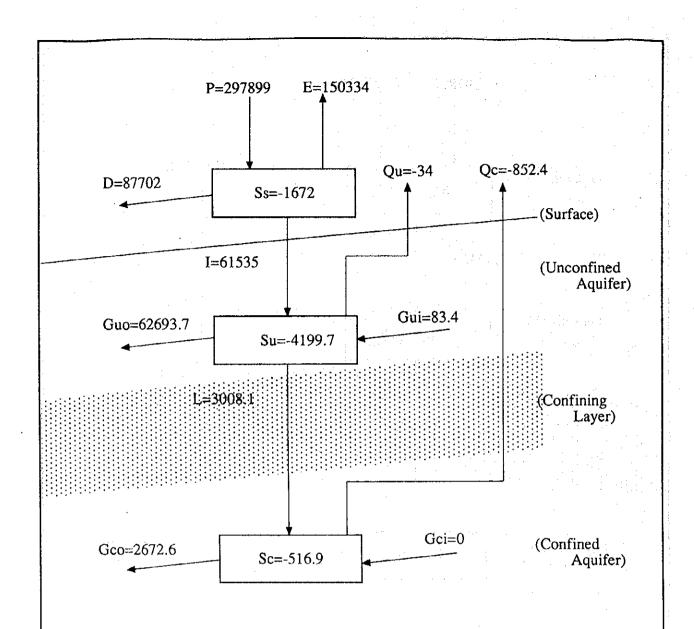
(Unit: m3/day)

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

THE STUDY ON GROUNDWATER DEVELOPMENT IN NORTH VITI LEVU IN THE REPUBLIC OF FUI

Case2 D-17

ANNUAL WATER BALANCE FOR THE TRANSIENT SIMULATION (3)



P: Precipitation

E: Evapotranspiration D: Surface Runoff

I: Groundwater Recharge

L: Leakage

Ss: Change of Surface Storage

Su: Change of Unconfined Water Storage Sc: Change of Confined Water Storage Gui: Unconfined Water Inflow
Guo: Unconfined Water Outflow
Qu: Unconfined Water Pumpage
Gci: Confined Water Inflow
Gco: Confined Water Outflow
Qc: Confined Water Pumpage

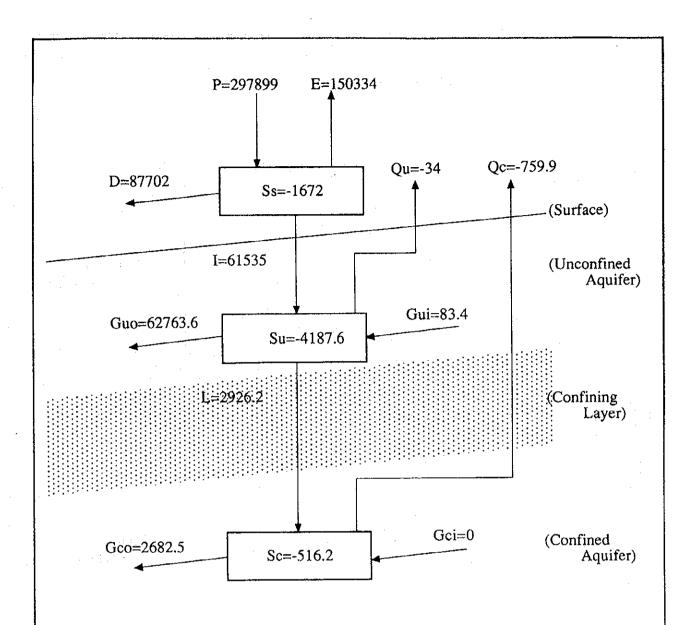
(Unit: m3/day)

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

THE STUDY ON GROUNDWATER DEVELOPMENT IN NORTH VITI LEVU

Case3

ANNUAL WATER BALANCE FOR THE TRANSIENT SIMULATION (4)



P : Precipitation

E: Evapotranspiration

D : Surface Runoff

I: Groundwater Recharge

L: Leakage

Ss: Change of Surface Storage

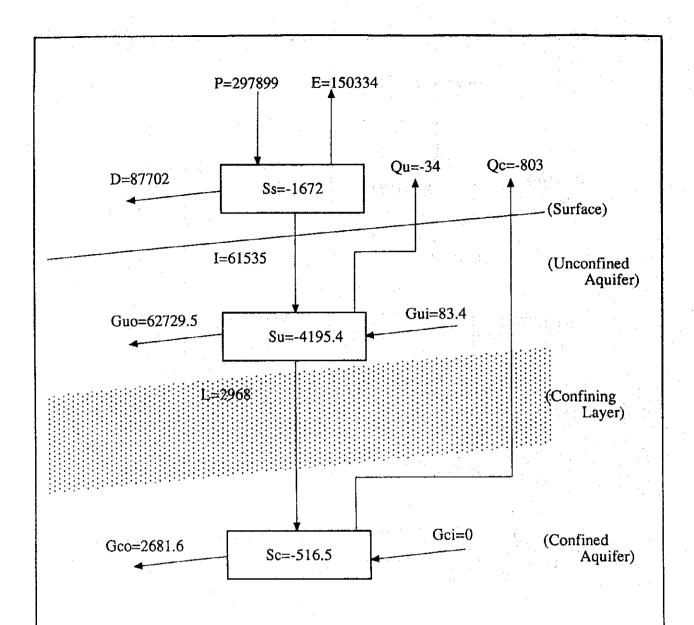
Su: Change of Unconfined Water Storage Sc: Change of Confined Water Storage

Gui: Unconfined Water Inflow Guo: Unconfined Water Outflow Qu: Unconfined Water Pumpage
Gci: Confined Water Inflow
Gco: Confined Water Outflow
Qc: Confined Water Pumpage

(Unit: m3/day)

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) THE STUDY ON GROUNOWATER DEVELOPMENT IN NORTH VITI LEVU IN THE REPUBLIC OF FIJE ANNUAL WATER BALANCE FOR THE TRANSIENT SIMULATION (5) NIPPON KOEL CO., LTD NIKKO EXPLORATION & DEVELOPMENT CO., LTD

Case4



P: Precipitation

E: Evapotranspiration
D: Surface Runoff

I: Groundwater Recharge

L: Leakage

Ss: Change of Surface Storage

Su: Change of Unconfined Water Storage

Sc: Change of Confined Water Storage

Gui: Unconfined Water Inflow Guo: Unconfined Water Inflow
Qu: Unconfined Water Pumpage
Gci: Confined Water Inflow
Gco: Confined Water Outflow
Qc: Confined Water Pumpage

(Unit: m3/day)

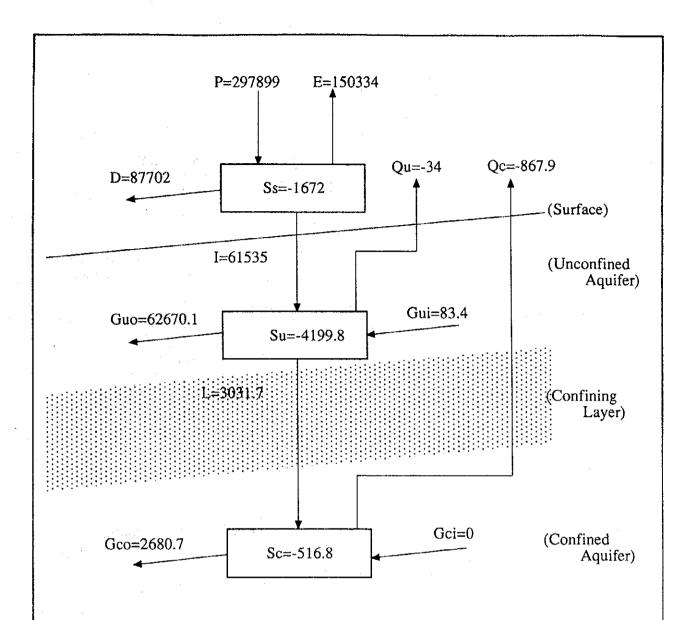
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

THE STUDY ON GROUNDWATER DEVELOPMENT IN NORTH VITI LEVU IN THE REPUBLIC OF FUI

Case5

ANNUAL WATER BALANCE FOR THE TRANSIENT

SIMULATION (6)



Case6

Legend

P: Precipitation

E: Evapotranspiration D: Surface Runoff

I: Groundwater Recharge

L: Leakage

Ss: Change of Surface Storage

Su: Change of Unconfined Water Storage

Sc: Change of Confined Water Storage

Gui: Unconfined Water Inflow
Guo: Unconfined Water Outflow
Qu: Unconfined Water Pumpage
Gci: Confined Water Inflow
Gco: Confined Water Outflow
Qc: Confined Water Pumpage

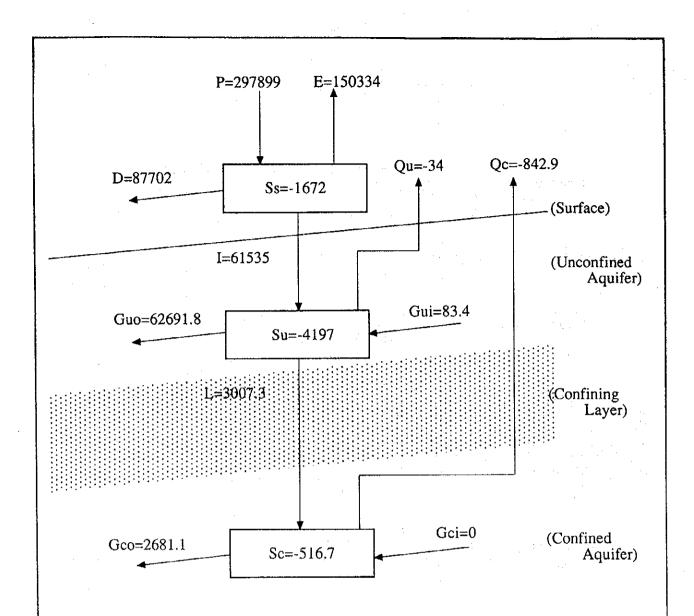
(Unit: m3/day)

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

THE STUDY ON GROUNOWATER DEVELOPMENT IN MORTH VITI LEVU
IN THE REPUBLIC OF FIJI

D-17 ANNUAL WATER BALANCE FOR THE TRANSIENT
SIMULATION (7)

NIPPON KOEL CO., LTD
NIKKO EXPLORATION & DEVELOPMENT CO., LTD



P: Precipitation

E : Evapotranspiration

D: Surface Runoff

I: Groundwater Recharge

L: Leakage

Ss: Change of Surface Storage

Su: Change of Unconfined Water Storage

Sc: Change of Confined Water Storage

Gui: Unconfined Water Inflow

Guo: Unconfined Water Outflow

Ou : Unconfined Water Pumpage

Gci: Confined Water Inflow Gco: Confined Water Outflow

Qc : Confined Water Pumpage

(Unit: m3/day)

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

THE STUDY ON GROUNDWATER DEVELOPMENT IN NORTH VITI LEVU IN THE REPUBLIC OF FIJE

Case7

ANNUAL WATER BALANCE FOR THE TRANSIENT SIMULATION (8)