Table A.2.1-3

CLASSIFICATION OF CANALS IN FRESH AND SALINE AREAS. SEEPAGE TEST RESULTS, AND SEEPAGE TESTS TO BE DONE

An and Saline Areas, LUC System LCC System 216 1,980.6 399 216 1,980.6 399 221 289 851.9 186 221 289 851.9 186 221 270.4 102 270.4 103 2	Total		יאס. ויפווק	717	586	418	250.4 311 2,881.7	210.1 141 2,053.7	40.3 170 828.0	596.9 406 3,733.6	299.6 158 2,457.2	297.3 248 1,276.4		112.8 39 1,160.1	25.6 11 358.3	87.2 28 801.8	104.7 130 698.8	3.5 40 212.5	101.2 90 486.3	217.5 169 1,858.9	29.1 51 570.8	188.4 118 1,238.1	131.6 53 656.3	56.4 12 399.1	75.2 41 257.2	56.9 20 205.2	30.8 7 147.4	26.1 13 57.8	17 152.5	2 82.0	- 70.5	- 28 274.3	<del>-</del>	21	408.5 288 2,445.5
Category   Classification of Canals in Fresh and Saline Areas.   LUC System   Luc State Area   Luc System   Lu	GROC Syste	No Cooth	. 1					50						4						18					,		,	Ŋ	1		1	 	1	-	
Category   Classification of Canals in Fresh Area   Saline Area   Sali	System	2	Leng								bb-12.1 <b>4</b> -2	·			263.7	, e e e e e e e								237.8		00.61	19.00	1		\$2.0		lanced:	118.3		3 1,329.6
Category   Classification of Canals in Feesh and Seepage Tests to be Done   No.	2													_	69.0											129.3	79.6	31.7	17	7	1				707.4 153
A.1  A.2  A.2  A.2  A.2  A.2  A.2  A.2		3	Š.	216	1.8	129	68	37	23	127	8	-F		4	<i>г</i> о	=	4	21	32	28	ñ	43	8	'n	17	<u> </u>	Ŋ	···	1	l 	I			-	28
D3 D3 C5 B3 A23	DATA CONTRACTOR OF THE PROPERTY OF THE PROPERT	Cassingation of Canals III	s and	Canals in the Study Area	Distributaries	Minors	Canals in the Fresh Area		1 1 - 1 1 - 1	Canals in the Saline Area	Distributaries	Minors	Seepage Tests Completed	Distributanes							•	.:	D.3.2.1 Selected at this F/S Stage	· .	Minors	· ·	Distributaries	Minors			Minors		· · · · · · · · · · · · · · · · · · ·	Minors Company of the	Seepage Tests to be Done (C-D.3.2)
		)			₹.	A.2			3,2			C C		0.1			0.2			03															

•1 Nunber and length of the proposed canals for lining are 45 and 541km, respectively, excluding 8 minors and the existing lined sections.

Table A.2.1-4 (1/26) GROUND WATER QUALITY AND SEEPAGE OF SELECTED CANAL

DATA BASE OF DISTRIBUTARIES

		) .	(I) KIKANA CANAL DIVISION (LIC - 1/4)	ANAL DIV	SION (LIC	1/4)					
(3)	(2)	(3) Left	(S) Head	(6)Tail	<i>(</i> )	(7) Quality of		(8)	(9) Method	(9) Method of Scepage Mesurement	urement
÷ .		Right	Discharge	R.D.	Ö	Groundwater		Recommended	Inflow-Out	Inflow-Outflow Method	Ponding
Head Channel	Distributary	:			WAPDA	MOF	JICA	by PID (1996)			Method
		(L/R)	(cnsecs)	(ft.)	(1671)	(1980-90)	(1996)		Disty.	Willot	
Southern Feeder	1. Faqirian	æ	10.00	13+793	တ	S	S				
	2. Doe Wal	×	80.00	93+024	S	တ	ŭ,	O			
	3. Hujjan	ጸ	207:00	111473	S	S	S	. 0	(O) a		
	4. Jhol Pur	oć	30.60	44+850	u,	S	<b>(L</b> ,				
Southern Branch	5. Bucha	J	33.00	53+612	Œ,	S	ĮŁ,				
	6. Melay	≪	21.00	26+670	μ,	S	红				
	7. Chokera	ፚ	118.00	000+06	Ś	S	S	0	E(X)	ω	BĽ
	8. Lalian	2	375.00	184+000	S	S	S	0	Q a	Q Q	E(0).
÷	9. Kirana	<u>بر</u>	440.68	210+000	<b>5</b>		S	,,0	E(Q)	E(O): E	E(O), CL. R
	10. Malke	ጸ	59.00	63+224	S	S	H	O			
Khadir Branch	II. Bhabra	œ	19.00	28+000	Œ,	S	ĹĻ				
	12. Mamrana	د	5.00	10+670	<u>(</u> Ι,	S	щ				
	13. Midh	<u>.</u> 1	3.00	16+900	Ľ.	S	្ន				
	14. Nasir Pur	∝	7.00	32+650	红	S	ţr.				
	15. Jallap	ፚ	6.25	14+550	ţĽ	S	Ľ				
	16. Badin	٦	6.50	23+050	ſL,	S	<b>[</b> L,				
	17. Boda	œ	24.00	38+136	ĹĮ.	S	<b>5</b> 2.				
	18. Khadir	œ	235.00	273+600	<b>(Σ.</b> ,	S	ĮĽ,				
			Total Length	1,329,102 (ft.)	(ft.)						
				265.82	265.82 (canal mile)	_		٠			
			:								

Notes: S: Saline Ground Water (1,500 ppm or more, Spec. is not available for MOF data)

F; Fresh Ground Water (Jess than 1,500 ppm, Spec. is not available for MOF data)

NA: Data Not Availabed:

E: Measurement of Earth Canal. (O: shows seepage is more than 5 cfs/msf, X: less than 5 cfs/msf)

E.E: Measurement of Earth-Canal. Head and Tail Reaches, or Different Minors

BL; Measurement of Rock Lining Section

CL: Measurement of Concrete Lining section

R; Measurement of Rock Cutting section

A: Description of Concrete Lining section

A: Little Effect of Lining

A: Little Effect of Lining

Selected by other Projects (ADB)

Table A.2.1-4 (2/26) GROUND WATER QUALITY AND SEEPAGE OF SELECTED CANAL DATA BASE OF DISTRIBUTARIES

Notes: S. Saline Ground Water (1,500 ppm or more, Spec. is not available for MOF data)

F. Fresh Ground Water (less than 1,500 ppm, Spec. is not available for MOF data)

NA. Data Not Availabel

E. Measurement of Earth Canal (O: shows seepage is more than 5 cfs/msf, X: less than 5 cfs/msf)

E.E. Measurement of Earth Canal, Read and Tail Reaches, or Different Minors

B.L. Measurement of Brick Lining Section

C.L. Measurement of Concrete Lining section

R. Measurement of Rock Cutting section

R. Selected at this F/S Stage

A: To Be Selected at the Next Stage

4 € ◊

Selected by other Projects (ADB) Little Effect of Lining

Table A.2.1-4 (3/26) GROUND WATER QUALITY AND SEEPAGE OF SELECTED CANAL

DATA BASE OF DISTRIBUTARIES
(3) SARGODHA CANAL DIVISION (11) C - 343)

1. Bitant   Career		Ć	(5)	(s) SARCODIA CANAL DIVISION (LIC - 5/4)	CANAL OF	LSION (L	)(- 5/4)	1-444	(0)	70) Matheway	Canada Ma	
Balant   Right   Distributing   Right   Distributing   Right   Distributing   Right   Distributing   Right   Distributing   Right		3	(2) Lett	(2) मध्य	(o)	<u>&gt;</u> '	Cuality of		( <u>\$</u>	(y) Wiemod o	Jecpage We	urement
1. Bharat   Distributary   CLR   Catology   Converse			Right	Discharge		ان	roundwater		Recommended	Inflow-Out	low Method	Ponding
1. Bhurnt 8 2730 554-988 F S F C E (X) 3. Directal 6 500 254-700 S S S C E (X) 4. Jahanached L 6 500 254-700 F S S S C E (X) 5. Directal 6 500 254-700 F S S S C E (X) 5. Acauched L 300 154-500 F S F F F F F F F F F F F F F F F F F F F F	Head Channel	Distributary	3	(cnsecs)		WAPDA (1971)	MOF (1980-90)	71CA (1996)	by PID (1996)	Disty.	Minor	Method
3. Blockm  4. Manusched  5. Stanishand  6. Farmishand  6. Farmishand  6. Farmishand  7. Chazai  8. Rabinathand  11. Sahwal  11. Sahwal  11. Sahwal  12. Shoot  13. Shoot  14. Charmal  15. Shoot  16. Koot  17. Khatwan  18. New Kharwan  19. Shoot  19. Shoot  20. Mallo Wal  20.	Sulki Branch	1. Bharat	R	27.30	886+55	Œ	s	μ				
A Jahandad 5 Ranalabad 5 Ranalabad 1	·	2. Blochra	ب	2.00	12+500	S	S	S	Ó	Ω(X)		
4. Jahnathada       R. Alahandad       S. W. Habandad       S. W. B. Habandad       S. S. W. B.	· ·		٦	6.50	29+770	S	S	S	0	Q m		
6. Frankland 6. Frankland 7. Ghazari 8. Subana 9. Niner Wala 11. Sakwani 12. Shiwat 11. Sakwani 12. Shiwat 13. Shiwat 14. Charari 15. Shiwat 15. Shiwat 16. Shiwat 17. Shiwat 18. Shiwat 19. Runal 19. Runal 19. Runal 20. Mallo Wali 22. Chirama 24. Shiwat 25. Sharda 26. Shiwat 27. Sharda 28. Sharda 28. Sharda 29. Sharda 29. Sharda 20. Sharda 20. Sharda 20. Sharda 20. Sharda		4. Jahanabad	à.	8:00	15+500	(L	S	S		·		
6. Frucks  2. Chazni  2. Subva  2. Subva  2. Subva  4. I. Sahiwal  1. Sahiwal  1. Sahiwal  2. Chazni  2. Chazni  3. Subva  4. Chazni  3. Subva  4. Chazni  3. Subva  4. Chazni  3. Subva  4. Chazni  3. Subva  5. Subva  5. Subva  6. Subva  7. Chazni  1. Sahiwal  1. Sahiwal  1. Sahiwal  1. Sahiwal  1. Sahiwal  1. Sahiwal  2. Chirau  2. Chirau  3. Subva  4. Subva  5. Subva  5. Subva  5. Subva  6. Subva  7.			Ļ	3.00	8+450	Œ,	S	ĹĮ,				
3. Ghazari       1. Ghazari       1. 235.00 614-600 F       5 F       5 F         9. Nure Walan       1. L       35.00 54-600 F       5 F       5 F         1. Sabiwal       1. Sabiwal       1. Sabiwal       1. Sabiwal       1. Sabiwal       1. Sabiwal         1. Sabiwal       1. Chamili       1. Chamili <td< td=""><td>e week</td><td>6. Faruka</td><td>,,</td><td>106.00</td><td>164000</td><td>Œ,</td><td>S</td><td>(L,</td><td></td><td>•</td><td></td><td></td></td<>	e week	6. Faruka	,,	106.00	164000	Œ,	S	(L,		•		
8. Rabana 9. Nure Wala 10. Kakerni 11. Sahiwal 12. Bakek 12. Bakek 13. Saniwal 14. Chamali 15. Bakek 15. Jani 16. Kakerni 17. Sahiwal 18. New Khanan 19. Runla 20. Mallo Wal 21. Capiwa 22. Chiraur 23. Malgwan 24. Silian Wali 25. Mangwan 26. Silian Wali 26. Silian Wali 27. Randana 28. Sobii 28. Sobii 29. Shananan 20. Jananan 20. Jananan 20. Jananan 20. Jananan 21. Capiwa 22. Mangwan 23. Kot Sultan 24. Silian Wali 25. Mangwan 26. Silian Wali 27. Randana 28. Sobii 28. Sobii 29. Jananan 20. Jananan 20. Jananan 20. Jananan 20. Jananan 20. Jananan 21. Capiwan 22. Mangwan 23. Mangwan 24. Silian Wali 24. Silian Wali 25. Mangwan 26. Nalian Wali 26. Mangwan 27. Randana 28. Sobii 29. Jananan 29. Jananan 20. Ja	25007	7. Ghazni	٦.	235.00	61+600	(ι.,	Ś	μ,				
1. Sahival R 39.00 123+999 F S F S F F S F F S F F S F F S F F S F F S F F S F F S F F S F F S F S F S F F S F F S F F S F F S F F S F F S F F S F F S F F S F S F F S F S F F S F S F F S F S F F S	Ghazni Distributary	8. Rabana	_	35.00	24-000	Œ,	S	(L,				
11. Sahiwati R 39.00 64+080 F S F S F 1. Sahiwati L 5.00 101+700 F S S S S S S S S S S S S S S S S S S	ev-ho		<b>, 1</b>	88.00	123+990	<b>L.</b>	S	ĹĽ				
11. Sahiwal 12. Bakiwal 13. Jani 14. Chamali 15. Jani 15. Jani 16. Chamali 17. Chamali 17. Chamali 18. Khuran 18. Khuran 19. Khuran 19. Kurah 19.			œ	39.00	64+080	(IL,	S	(II.,				
12. Bhck       R       65.00       76-777       S       S       S       E(X)         13. Jani       L       13. Jani       L       17.00       184-955       S       S       S       S       S       S       S       S       S       S       S       S       S       S       C(Y)         14. Charmali       R       3.40       29-400       S       S       S       S       S       S       S       S       S       C(Y)       E(C)       <	Sulki Branch		_	59.00	101+700	ĮJ.	S	ļi,				
♣ 13. Jani       L       17.00       18-9555       S       S       S       B(X)         14. Charnali       L       35.00       29-4530       S       S       S       E(C))         15. Khunan       R       15.00       224-500       S       S       S       E(C))         16. Khunan       R       5.41       8-800       S       S       F       C       E(C))         17. Khatwan       L       11.50       224-500       S       S       F       C       E(C))         20. Mallo Wal       R       5.40       4-500       S       S       F       C       E(C))         21. Gapwa       R       20.00       13-4030       S       S       F       C       C(C)         22. Chirun       R       37.00       4-4500       S       S       F       C(C)       E(C))       E(C))       E(C))         22. Chirun       R       37.00       17-450       S       S       F       C(C)       E(C))       E(C))       E(C))         24. Sillan Wali       L       17.00       17-460       S       S       F       C(C)       E(C)       E(C)       E(C)	Nothern Branch		ፈ	65.00	75+727	S	S	S	0			
13. Chamali L 35.00 29+530 S S S S S S S S S S S S S S S S S S S	4	13. Jani	,_)	17.00	18+955	S	Ø	S	0	(X)		
15. Find;   16.00   224500   15. Find;   16.00   124500   15. Find;   16.00   124500   15. Find;   16. Kbunan   16. Kbunan   17. September   17. September   18. New Khatwan   1. September   17. September   18. New Khatwan   19. Rurala   19. September   19. Rurala   19. September   19. September	ra voi		: ,_)	35.00	29+530	S	S	S				
16. Khunan 16. Khunan 17. Khatwan 18. Runal 18. Runal 19. Runal 19. Runal 20. Mallo Wal 21. Gapwa 22. Gapwa 22. Gapwa 23. Pathan 24. Sillan Wali 25. Mangwana 25. Mangwana 26. Sobii 27. Randana 28. Sobbii 29. Thatta Unita 29. Thatta Unita 29. Thatta Unita 21. Massan 21. Gapwa 22. Sillan Wali 23. Mangwana 24. Sillan Wali 25. Mangwana 26. Sobii 27. Randana 28. Sobbii 28. Sobbii 29. Thatta Unita 29. Thatta Unita 20. Massan 20. Massan 21. Gapwa 22. Sillan Wali 23. Mangwana 24. Sillan Wali 25. Mangwana 26. Sobbii 27. Randana 28. Sobbii 28. Sobbii 29. Thatta Unita 26. Sob Massan 27. Gapwa 28. Sobbii 29. Thatta Unita 26. Sob Massan 26. Massan 27. Capwa 26. Massan 27. Capwa 26. Massan 27. Capwa 27. Capwa 28. Sobbii 29. Thatta Unita 26. Sob Massan 27. Capwa 28. Sobbii 29. Thatta Unita 26. Sob Massan 27. Capwa 27. Capwa 27. Capwa 27. Capwa 27. Capwa 28. Sobbii 29. Thatta Unita 29. Thatta Unita 20. Massan 27. Capwa 27. Capwa 27. Capwa 28. Sobbii 29. Thatta Unita 29. Thatta Unita 20. Massan 27. Capwa 27. Ca	· ·		~	00:91	22+500	S	S	S	0	(Q) Д		
△ 17. Khatwan       L       14.50       26+030       S       F       ○       E(○)         18. New Khatwan       L       11.50       15-773       S       F       ○       E(○)         19. Rurala       R       21.00       29+000       S       S       F       ○       E(○)         20. Mallo Wal       R       37.00       24+500       S       F       ○       F       ○       E(○)       E(○)         21. Gaywa       R       20.00       26+312       S       F       ○       F       ○       C       E(○)       E		16. Khunan	~	5.41	8+800	S	ဟ	ွဲ့				
18. New Khatwan  19. Rurala  20. Mallo Wal  R  21.00  24-600  S  S  S  F  Conversion  22. Chirana  23. Pathan  24. Silian Wali  C  25. Mangwan  R  26. Silian Wali  C  27. Ramdana  C  28. Sobhi  C  29. Thatta Umra  R  20. Obhi  C  20. Mallo Wal  R  20. Massan  C  20. Mallo Wal  R  20. Mallo Wal  R  20. Mangwan  R  20. Mallo Wal  R  20. Mangwan  C  20. Mangwan  R	4	17	<b>ر</b>	14.50	26+030	S	S	ĹĖ	0	() (1)		
19. Rurala 20. Mailo Wal R R 21.00 29+000 S S S F 21. Gapwa  22. Capwa R Code 13+030 S S S F Code 13+030 S S S F Code 13+030 S S S S S S S S S S S S S S S S S S		18. New Khatwan	<b>ب</b>	11.50	15+773	S	Š	(I.,	0			
20. Mallo Wal  R 21. Gapwa 22. Chitraur 23. Pathan 24. Sillan Wali 24. Sillan Wali 25. Mangayan  A 26. Naurang  A 27. Ramdana  A 28. Sobhi  B 29. Thatta Umra  C 29.	-	19. Rurala	લ	21:00	29+000	S	S	S				
21. Gapwa 22. Chitraur 22. Chitraur 23. Pathun 24. Silatan Wali 24. Silatan Wali 25. Mangwana 25. Mangwana 26. Naurang 26. Naurang 27. Ramdana 27. Ramdana 28. Sobhi 29. Thatta Umra 29. Thatta Umra 20. Thatta Umra 21. Massan 22. Chitraur 24. Silatan Wali 25. Mangwana 26. Sobhi 26. Naurang 27. Ramdana 27. Raju Branch 27.	:	20. Malio Wal	~	37.00	4 80 8	S	S	(L				
22. Chitraur R 20.00 26+312 S F F 5.00 8+310 S F F 5.00 171+660 S S F F 5.00 171+660 S S F F 5.00 171+660 S S F 5.00 F F F F 5.00 171+660 S S F 5.00 171+660 F F F F 5.00 171+660 F F F F F F F F F F F F F F F F F F		21. Gapwa	œ	6.00	13+030	S	S	(IL,	O			
23. Pathan 24. Sillan Wali 25. Mangwana 26. Sallan Wali 27. Mangwana 28. Sallan Wali 29. Sobhi 29. Sobhi 20. Jhanda 20. Jhanda 20. Jhanda 20. Jhanda 21. Massan 22. Raju Branch 23. Kot Sultan 23. Kot Sultan 24. Sob Septimis 25. Mangwana 26. Sob Septimis 26. Sobhi 27. Ramdana 27. Ramdana 27. Ramdana 27. Ramdana 27. Ramdana 27. Raju Branch 28. Sobhi 29. Jhanda 29. Jhanda 20. Jhanda 20			2	20.00	26+312	S	Ø	Ŀ,				
24. Sillan Wali			_	8.00	8+310	S	S	Ľ.				
25. Mangwana R 32.00 29+800 S S F C E(○), E C(○), E  △ 26. Naurang R 190.00 171+660 S S S O E(○), E  △ 27. Ramdana L 117.00 18+600 S S F O E(○), E  29. Thatta Umra L 6.00 4+400 F S F  31. Massan L 161.00 173+600 F F F  32. Raju Branch L 61.00 123+600 F F F  33. Kot Sultan L 1635.417 (ft.)  33. Kot Sultan (ft.)	·		ü	17.00	17+580	S	S	比	0			
△ 26. Naurang       R 190.00 171+660 S S S O E(O) E(O), E         △ 27. Ramdana       L 117.00 18+600 S S S O E(O)         △ 28. Sobhi       R 23.17 44+150 S F O E(O)         29. Thatra Umra       L 6.00 4+400 F S F F F F         30. Jhanda       R 26.05 56+600 F F F F F         31. Massan       L 36.00 73+600 F F F F F         32. Raju Branch       L 61.00 173+600 F F F F         1 61.00 123+600 F S F F F F F         33. Kot Sultan       L 61.00 123+600 F S F F		52	æ	32.00	29+800	S	S	<b>(</b> Т,				
A 27. Ramdana L 117.00 184600 S S S O E(O)  A 28. Sobhi R 23.17 444150 S F O E(O)  29. Thatta Umra L 6.00 44400 F S F O E(O)  30. Jhanda R 26.05 564600 F F F F F O E(O)  31. Massan L 161.00 1734000 F F F F F O O O O O O O O O O O O O	<	58	œ	190.00	171+660	S	S	S	0	() () ()	ы (O) Е	
A 28. Sobhi R 23.17 44+150 S F ⊖ E(○) 29. Thatta Umra L 6.00 4+400 F S F G 30. Jhanda R 26.05 56+600 F F F F F 31. Massan L 161.00 173+000 F F F F F F 32. Raju Branch L 36.00 73+600 F F F F F F F F F F F F F F F F F F	<b>→</b>	•	- <b>1</b>	117.00	18+600	S	W	S	Ó	• †	<u>.</u>	E(O).CL
29. Thatta Umra  26.05 56+600 F  30. Jhanda  R  26.05 56+600 F  SI. Massan  L  161.00 173+000 F  F  F  32. Raju Branch  L  61.00 123+000 F  F  F  Total Length  1.635,417 (ft.)	4	28	<b>α</b> .	23.17	44+150	S	v	<u>,</u> ,	0	Q q		
30. Jhanda R 26.05 56+600 F S 31. Massan L 161.00 173+000 F F 32. Raju Branch L 36.00 73+600 F F 33. Kot Sultan L 61.00 123+000 F S Total Length 1,635,417 (ft.)		29. Thatta Umra		8.8	44 004 1400	(I,	S	(L,				
31. Massan L 161.00 173+000 F F F 32. Raju Branch L 36.00 73+600 F F F 533. Kot Sultan L 61.00 123+000 F S Total Length 1,635,417 (ft.)		30. Jhanda	×	26.05	26+600	ÇL,	S	红				
32. Raju Branch L 36.00 73+600 F F F 61.00 123+000 F S S Total Length 1,635,417 (ft.)	e compa	31. Massan	۰	161.00	173+000	į,	<b>(</b> L,	(I.				
L 61.00 123+000 F S Total Length 1,635,417 (ft.) 327.08 (canal mile)	Massan Distributary	32. Raju Branch	.1	36.00	73+600	[14	<b>L</b> L.	ĻI.				
Total Length 1.6	,	33. Kot Sultan		61.00	123+000	<b>U</b> .	S	(L,				
				Total Length	1,635,417 (	<b>.</b>						
					327.08 (	canal mile)						

Notes: S. Saline Ground Water (1,500 ppm or more, Spec. is not available for MOF data)

F. Fresh Ground Water tless than 1,500 ppm, Spec. is not available for MOF data)

NA; Data Not Availabel:

E. Measurement of Carth Canal ( O: shows seepage is more than 5 cfs/msf, X: less than 5 cfs/msf)

E.E. Measurement of Carth Canal, Head and Tail Reaches, or Different Minors

BL: Measurement of Brick Lunny Section

CL: Measurement of Concrete Lining section

R: Measurement of Concrete Lining section

: Selected at this F/S Stage

△: To Be Selected at the Next Stage
♠: Little Effect of Lining
♦: Selected by other Projects (ADB)

Table A.2.1-4 (4/26) GROUND WATER QUALITY AND SEEPAGE OF SELECTED CANAL DATA BASE OF DISTRIBUTARIES

(4) SHAHPUR CANAL DIVISION (LJC - 4/4)

(C)	(2)	(3) Left/	/ (5) Head	(6)Tail		(7) Ouality of		(&)	(9) Method	(9) Method of Scepage Mesurement	surement
•	<u> </u>	Right		R.D.	. 0	Groundwater		Recommended	Inflow-Out	Inflow-Outflow Method	Ponding
Head Channel	Distributary		(cusecs)	£	WAPDA (1971)	MOF (1980-90)	JICA (1996)	by PID (1996)	Disty.	Minor	Method
Shah Por Branch	1. Wester Feeder	α.	61.00	26+000	<u>L</u> .,	8	ţt.				
	2. Rakh Miani	<b>.</b>	19.00	19+000	΄ μ <u>.</u>	S	ſĻ				
	3. Jiwan Wal	,_1	4,00	3+000	Ľ.	S	红				•
	4. Wilhi	<b>,</b>		S+000	(L,	S	(L,				
	5. Awan	œ	11.00	16+663	江	S	Ц.				
	6. Dewas	,,	9.00	11+000	íL,	S	μ,				
	7. Pindi Kut	α.	65.00	43+000	ĮĮ,	S	ŭ,				
	8. Chak Oazi	-1	19.00	21+200	妵	S	ſĽ,				
	9. Khan Mohammad Wala	24	12:00	24+530	ĮJ.	S	ÇL,				
	10. Kot Hamiana	<b>,</b>	11.50	13+500	ţL,	S	Ц				
	11. Chak Misran Ditch	cs.	4.50	2+225	įĻ,	S	ц				
	12. Rani Wah	٦	73.00	48+700	IJ,	Ś	(L,				
	13. Dhai	æ	9.50	17+560	仏	S	ш		,		
	14. Khuda Bux	<u>ب</u>	78.00	74+945	ĮĽ,	S	红				
	15. Nabba	œ	41.8	46+557	ርL,	S	Œ.				
	16. Kalara	ļ	116.00	100+735	<b>IL</b> ,	S	ц				
	17. Saddar	7	210.00	82+000	ŧr.	S	ſL,				
	18. Saidal	£	33.30	35+750	Ľ,	ς	ĮI.,				
	19. Bakkar	æ	10.00	13+815	ርኒ	S	į,				
	20. Hussain Shah	-1	18.60	86-600	tr.	တ	<b>ር</b> ኒ				
a. etil	21. Shah Pur	CK.	51.00	SO+080	<u>(*</u>	S	<u>.</u>				
ruren o			Total Length	751,180 (ft.)	(ft.)						
			)	150.24	150.24 (canal mile)	• •					
		:									
ant.				-							
					. :	1					

Notes: ST: Saline Ground Water (1,500 ppm or more, Spec. is not available for MOF data).

F.: Fresh Ground Water (less than 1,500 ppm, Spec. is not available for MOF data).

NA; Data Not Availabel

E; Measurement of Earth Canal ( O: shows scepage is more than 5 cts/msf, X: less than 5 cts/msf)

E, E; Measurement of Earth Canal, Head and Tail Reaches, or Different Minors

BL; Measurement of Concrete Lining Section

CL: Measurement of Concrete Lining section

R; Measurement of Rock Cutting section

R; Selected at this F/S Stage

To Be Selected at the Next Stage

Little Effect of Lining

440

Selected by other Projects (ADB)

Table A.2.1-4 (5/26) GROUND WATER QUALITY AND SEEPAGE OF SELECTED CANAL DATA BASE OF DISTRIBUTARIES

			3	(5) FAISALABAD CANAL DIVISION (LCC - 1/7)	D CANAL D	AL DIVISION	(LCC-1/7)					
(1)		(5)	(3) Left/	ft/ (5) Head	(6)Tail	i i	(7) Quality of		(8)	(9) Method o	(9) Method of Scepage Mesurement	surement
· · · · · · · · · · · · · · · · · · ·	. :		Right		R.D.		Groundwater		Recommended	Inflow-Outflow Method	low Method	Ponding
Head Channel		Distributary				WAPDA	┝──	rica 1325	by PID (1996)	Distv.	Minor	Method
			(L/R)	) (cusecs)	(IL)	(1971)	(1980-90)	(0661)			-	
Jhang Branch Upper		1. Annah	-1	18.50		ĹΨ.	<b>ር</b> ኒ	S				
	:	2. Tharta Raika	H	6.80	12+630	<b>(11</b> ,	ţ <u>r.</u>	: 14				
wires and the	•	3. Pindi Bhattian	24	119.00	26+900	<b>(L</b> ,	<b>U.</b>	ᄕ				
úu-t-a-mat		4. Noon	œ	9.80	9+920	<b>(11.</b> ,	α,	ţı,				
		5. Beran Wala	1	23.00	29+825	<u>ш</u> ,	ļι,	ĆĽ,				
	٠	6. Mallian	œ	7.70	13+020	<b>μ</b> ,	ÇI4	<b>j</b> L,	٠			
F-13-er-Ca		7. Kubhnka	J	11.00		jı,	S	<b>(</b> L,				
ersoner	:	8. Junian Wala	<b>K</b>	20.12	26+490	L	S	S				
		9. Walanian Wala	œ	21.20	40+225	<u>11</u>	S	ŢĽ,				
		10. Ayal Wala	ᅱ	13.05	3 10+750	<u>г</u>	S	ᄄ				
<i>₽</i> 2.8.40		11. Burali	-1	47.0X	42+014	ii.	S	江				
-		12. Chiniot	2	158.00	161+153	<b>(L</b> ,	Œ	红	0	π(X)		
Chiniot Distributary		13. Kot Ghani	٦	9.50	32+117	(L,	Щ	ĹЦ				
		14. Kot Ahmad Yar	<b>,</b> 1			il,	S	ĮĮ,			300	
Jhang Branch Upper		15. Sarang Wala	À	70.05	\$ 82+079	v	S	S	0	E(Q)		
nive-is i	-!	16. Jamal Jatti	œ	28.70	23+808	Щ	14	ĬŢ,				
~~	◀	17. Gugiana	<b>,</b> 1	28.90		S	S	Ś	Ο'	E(X), $E(X)$		*
		18. Khai	'n	43.00		S	တ	တ		5 7 1	100 May 100 Ma	
	5.1y.03	19. Nasrana	,	273.00	132+621	S	S	S	0			(O) E(O)
<b>X</b> (m-m)		20. Pabber Wala	œ	21.00	27+960	jų,	Ľ,	ĮĮ,	•			
<del>*************************************</del>		21. Kangra	æ	4.80	6+130	Œ,	ц	ĮĽ,				
		22. Madduana	<b>ب</b>	67.90	0 63+200	S	S	Д.				
w. #4.#		23. Wagh Wala	æ	46.00		(L,	ŭ,	ц				
				Total Length	1,034,916 (ft.)	(tr.)						
					206.98	206.98 (canal mile	(c)					

Notes: S: Saline Ground Water (1,500 ppm or more. Spec. is not available for MOF data)

F: Fresh Ground Water (less than 1,500 ppm, Spec. is not available for MOF data)

NA: Data Not Availabet

E: Measurement of Earth Canal, Hoad and Tail Reaches, or Different Minors

E, E: Measurement of Earth Canal, Hoad and Tail Reaches, or Different Minors

BL: Measurement of Brick Laing Section

CL: Measurement of Rock Cutting section

R: Measurement of Rock Cutting section

A: To Be Selected at this F/S Stage

△: To Be Selected at the Next Stage

△: To Be Selected by other Projects (ADB)

Table A.2.1-4 (6/26) GROUND WATER QUALITY AND SEEPAGE OF SELECTED CANAL DATA BASE OF DISTRIBUTARIES

Ponding Method

surement

		9	(6) HAFIZABAD CANAL DIVISION (LCC - 277)	D CANAL DIVISION (LC	J) NOISIA!	CC - 2/7)			
(1)	(2)	(3) Left/	(5) Head	(6)Tail	0	(7) Quality of	(8)	(9) Method	(9) Method of Seepage Mes
		Right	Discharge	O.	O	Groundwater	Recommended		Inflow-Outflow Method
Head Channel	Distributary	C.R.	(casecs)	<b>£</b>	WAPDA (1971)	MOF JICA (1980-90) (1996)	4 by PID (1996) 6)	Disty.	Minor
Lower Chenab Canal	1. Uddoki	, cx	41.60	62+000	jı,	4		÷	
ny pitora	2. Nehrianwala-Cum-Sukheki	œ	00.44	88+458	ĮΙ¢	r.			
Rakh Branch	3. Mochi Wala	ļ	24.90	38+878	S	T.			
y Chin	4. Ratti	œ	8.80	21+195	ţt,	L.			
<b>₽</b> 320	5. Farida	<b>~</b> 1	38.00	7+300	S	u.			
<b>10.340.1</b>	6. Choranwala	'n	19,40	24+000	S	(X)			
	7. Dabora	×	56.77	49+100	ທ	F			
	8. Moranwala		21.00	13+023	S	įL,			
<b></b> ₹₹.00	9. Gilluana	∝	14.80	8+782	S	r.			
	10. Sangla	<u>_</u>	6.10	3+285	S S	ς.			
4		ĸ	62.40	49+290	Ś	S	0	æ(X)	
	12. Akil	u	39,40	49+132	S	S	0		
<del>o-d</del> n'i	13. Arbi	œ	53.10	37+634	တ	S	0		
2.4.4	14. Mukhiana	H	30.20	30+204	S	S			
	15. Lathianwala-I	u	40.90	11+135	S	S			
<b>A</b>	16. Lathianwala-II	J	15.51	13+100	တ	S		•	
·	17. Khair Ali	ત્ય	47,21	46±400	S	S	•		
·*** W	18. Rasulpur	ı	5.40	3+969	S	S			
	19. Gatti	-1	13.00	23+335	S	S			
	20. Lakhuana		128.30	59+205	: S	S			
	21. Gatwala	œ	6.63	16+340	S	ι. L			
	22. Pacca Mari	œ	10.00	14+605	Ś	γ. S			
	23. Sir Wala	ĸ	47.70	33+362	S	S	•		
	24. Tul Wala	<u>.</u>	39.00	38+300	S	S	: 1		
	♦ 25. Dijkot	-1	276.00	144+800	S	S	0	E(O)	<u>Б</u> (О)
			Total Length	886,832	(£)				

Notes: S.; Saline Ground Water (1,300 ppm or more, Spec. is not available for MOF data) F; Fresh Ground Water (less than 1,500 ppm, Spec. is not available for MOF data)

177.37 (canal mile)

F: Fresh Ground Water (less than 1,500 ppm, Spec. is not available for MOF data)

NA: Data Not Availabe!

E: Measurement of Earth Canal ( C: shows seepage is more than 5 cfv/msf, X: less than 5 cfv/msf)

E: Measurement of Earth Canal. Head and Tail Reaches, or Different Minors

BL: Measurement of Brick Lining Section

CL: Measurement of Concrete Lining section

Measurement of Concrete Lining section Measurement of Rock Cutting section Selected at this F/S Stage

△: To Be Selected at the Next Stage
♠: Little Effect of Lining
◇: Selected by other Projects (ADB)

Table A.2.1-4 (7/26) GROUND WATER QUALITY AND SEEPAGE OF SELECTED CANAL DATA BASE OF DISTRIBUTARIES

(7) THANG CANAL DIVISION (LCC - 3/7)

			(1/6-22) MOION IN THURS DUNG!	פו אונו אאני	1011	- 511)					
(1)	(2)	(3) Left	(5) Head	(6)Tail	۵	(7) Quality of	-	(8)	(9) Method of	(9) Method of Seepage Mesurement	urement
		Right	Discharge		Ö	Groundwater		Recommended	Inflow-Outflow Method	ow Method	Ponding
Head Channel	Distributary	(L/R)	(cansecs)	(£)	WAPDA (1971)	MOF (1980-90)	JICA (1996)	by PID (1996)	Disty.	Minor	Method
Bhowana Branch	1. Hibbuana	-1	3.40	898+6	<b>Д</b> .,	AN	<u>і</u> ц.				
	2. Chon Major	ļ	7.40	16+854	ÇL,	Ϋ́	ĮI,				
	3. Langrana Major	œ	5.50	12+450	ţı,	Y Z	ĹĽ,		•		243
	4. Sultan Pakhara		188.00	180+466	щ	ΥN	L	0	Q M	Q Q	
Sultan Pakhara Distributary	5. Mund Wala	,.)	20.60	27+724	Œ	NA	ţı,				
	6. Mochi Wala	٦	51.93	54+230	Œ,	Ϋ́	ļ.				
Feader Major	7. Maghani	∞′	65.60	64+469	[1.	₹ Z	Ė.				
	8. Channu	IJ	76.00	94+78	(Z.,	Ϋ́	Ц				
Bhowana Branch	9. Feeder Major	-1	193,60	87+769	įx.	₹Z	ĹĽ				
Thang Branch Lower	10. Amin Pur	ĸ	11.22	9+432	Œ.	Ν	红				
	11. Gillottan	œ	20.70	50+048	(Ľ	NA A	红	0			
	12. Khan Chand	<u>,</u>	36.80	54+207	ŢĽ,	YZ.	S	,			
in the second se	13. Nila No. 1	د.	5.47	12+638	ц,	NA	S				
· ·	14. Nila No. 2	ø	13.70	15+230	ÇĽ,	ΑN	S				
**************************************	15. Fagir Sar	œ	74.90	80+09	Ľ,	Ϋ́	S				
	16. Pacca Anna	ب	27.00	16+000	红,	Ļī.,	S		٠		
·cc.bras	17. Dhaular	œ	313.00	207+691	Ś	ii.	σį	0	т Х		
want	18. Nawab Wala	œ	10.00	14+000	ŗ,	۲ Z	S				
Dhaular Distributary	19. Darsana	, )	30.00	72+292	S	(ι.,	S	Ö			
Jhang Branch Lower	20. Titran Wala	œ	37.80	42+700	S)	<b>(</b> L	S				
	21. Kathore	ø.	8.00	7+632	S	Щ,	S		•		
		ា	61.21	45,414	တ	tr.	S	Ο	E(O) estimated	78	
		<b>~</b>	24.00	29+365	S	Ú.	S				
	24. Kallar	: ∝	32.78	36+697	S	ĹĻ	S				
agrae again.	25. Shikar	cረ	15.50	20+153	S	ű.	တ				
	26. Ghapni	<b></b> }	8.75	7+750	S	щ	S				
······································	27. Guddian	ъř	35.50	22+900	S	(L	S				2.3
on the second	28. Teku Major	<b>-1</b>	20.00	45+600	S	<b>የ</b> ட	S				
	29. Khewra	<u>, i</u>	390.00	124+100	S	ш	ĹĹ	0	E(O). E(O)		
W94 M	30. Bhangu	~		99+500	Ś		įŁ,	0	(X)		
· Simbolina	:		Total Length	1,546,861 (ft.)	<b>:</b>						
				309.37 (	canal mile)		:				

Notes: S: Saline Ground Water (1,500 ppm or more, Spec. is not available for MOF data). F: Fresh Ground Water (less than 1,500 ppm, Spec, is not available for MOF data)

NA: Data Not Availabel

E. Measurement of Earth Canal ( O.: shows seepage is more than 5 ofs/msf. X: less than 5 ofs/msf)

E. E.; Measurement of Earth Canal, Head and Tail Reaches, or Different Minors

BL: Measurement of Brick Lining Section

CL: Measurement of Rock Cutting section

R: Measurement of Rock Cutting section

Selected at this F/S Stage
△: To Be Selected at the Next Stage
♠: Little Effect of Lining
♦: Selected by other Projects (ADB)

Table A.2.1-4 (3/26) GROUND WATER QUALITY AND SEEPAGE OF SELECTED CANAL DATA BASE OF DISTRIBUTARIES

	e Mesurement	hod Ponding	?			•																							
	(9) Method of Seepage Mesurement	Inflow-Outflow Method	Disty. Minor	-			E(X)										E(O)												
	(6) Me						Э										) E												
	(8)	Recommended	by PID (1996)				0										Ó							•					
	Ţ			(0%(1)	ţı,	Œ,	ţı,	Į,	щ	ű,	ţı,	红	<u>(L,</u>	įŁ,	红	ţ <b>L</b>	ĮL,	ц	ţz,	ц									
.cc - 4/7)	(7) Quality of	Groundwater	MOF	(1980-90)	<u>ъ</u> ,	μ,	ji,	ŢĽ,	ic.	μ,	jī,	<b>נ</b> יג,	ír,	<sub></sub>	ш	<b>,</b> 11	ţı,	ĮĮ,	ÇĽ,	Ú.		_						٠.	
VISION (1	E)	5	WAPDA	(18/1)	ር <mark>ተ</mark>	CL.	ţĮ,	للر	ţ <u>r</u> i	ju.,	Ú.	ţ <b>L</b> ,	jł,	ĆL,	ij,	ĹĽ,	СС.	ţŢ4	ĹĮ,	<u>ц</u> ,	<b>.</b>	163.10 (canal mile)			:				
WORKS DI	(6)Tail	R.D.		(11.)	37+800	46+500	95+044	119+620	31+950	1+218	17+260	91+000	37+016	15+200	59+870	43+000	\$2+850	28 + 891	\$4+305	73+935	815,489 (ft.)	163.10 (			٠				
(8) KHANKI HEADWORKS DIVISION (LCC - 4/7)	(S) Head		(10)	(casecs)	131.00		244:00	283.00	9.60	00.9 9	13.50	221.00	8.00	8.00	21:00	27.00	34.00	12.00	33.00	\$0.00	Total Length					:			
(8) KH/	(3) Left/			(L/K)	~	£	œ	๙	๙	<b>~</b>	<b>,</b>	œ	្នា	ፈ	,J	œ	œ	J	ĸ	œ	J.								
			ary			inei									Channi					: .	٠.							:	
	(2)		Distributary		cher	2. High Level Channel	ķe	Sola	Muradian Kharif	h-j	7. Chak Chatha	Kot Nikka	Jamal	Kot	11. Hafiz Abad Cum Channi		Pur	all a	pora	oki									i i
			ė		1. Mancher	2. High	3. Vanike	4. Gajar Gola	5. Muri	6. Sagar	7. Chak	8. Kot	9. Shah Jamal	10. Prem Kot	11. Haft	12. Kot	13. Jalal Pur	14. Dohatta	15. Medhora	16. Jandoki								:	
			7								-						· .		-										. :
	(1)		Head Channel		Lower Chenab Canal																								ŧ
		See English	I		Lower Ch	-	v. <del>Falar</del> .		<del></del>	/	1 <del>0.25</del>	الرجيدية	<b>4</b> 2		<b>Venezio</b>						-		-			w <b>ate</b>	dw.Jarek	es se	· · · · · · · · · · · · · · · · · · ·

Notes: S.: Saline Ground Water (1,500 ppm or more, Spec. is not available for MOF data). F: Fresh Ground Water (less than 1,500 ppm, Spec. is not available for MOF data).

NA; Data Not Availabel

E: Measurement of Earth Canal ( O: shows seepage is more than 5 cfs/msf, X: less than 5 cfs/msf)

E. E: Measurement of Earth Canal, Head and Tail Reaches, or Different Minors

Measurement of Brick Lining Section Measurement of Concrete Lining section CL.: Measurement of Concrete Lining section R: Measurement of Rock Cutting section

Selected at this F/S Stage
To Be Selected at the Next Stage
Little Effect of Lining

△: To Be Selected at the Next Stage
★: Little Effect of Lining
♦: Selected by other Projects (ADB)

Table A.2.1-4 (9/26) GROUND WATER QUALITY AND SEEPAGE OF SELECTED CANAL DATA BASE OF DISTRIBUTARIES

			DATA BASE OF DISTRIBUTARIES	DATA BASE OF DISTRIBUTARIES	UBUTARE	S. (					
	(6)	1.62.1.69.1	ALLANDO (C)	ייישראי	33.55	10/10	}	(6)	(O) Mathod	Campaca Man	or and an e
3	3	history (C)		(0) att	S (	to formula or		(e) (e)	יייייייייייייייייייייייייייייייייייייי	(a) intention of pectage infernation	חובווובווו
		Right	Discharge	R.D.	Š	Groundwater		Recommended	Inflow-Outflow Method	low Method	Ponding
Head Channel	Distributary			 !		MOF	JICA	by PID (1996)	73.65	Ž.	Method
		(L/R)	(cosecs)	(ft.)	(1971)	(1980-90)	(1996)		.com		
Burala Branch	1. Chakku	ı	3.50	3+000	ĹŦĄ	ſL	<u>፲</u> ኒ				
	2. Dulchi	<b>,</b>	14.00	27+090	ĹĻ,	红	ĹĽ,				
	3. Nupewala	<b>,</b>	47.00	43+300	ţ.L.	ᄄ	IJ.				
₩150-0	4. Rajiana	œ	18.66	29+300	<b>(L</b> .	ĮĮ,	μ				
	5. Pithrana	<b>-</b>	17.50	21+984	£Ė,	<u> </u>	U				
	6. Dauran Wan	œ	12.00	16+080	Œ	红	и,				
	7. Ala	Œ	19.00	28+500	μ,	ſĽ	S				
	8. Naurange	_	38.00	25+394	<u>(</u> Ι.	Ľ.	S				
	9. Anf	œ	20.00	19+300	<b>(Ι.</b> ,	μ.	[£,				
	10. Obhai		14.00	37+415	( <u>L</u> ,	μ.	Ц				
	11. Tandalian Wala	<u>.</u>	385.00	119+875	ţ <u>r</u> ,	ᄕ	S				
Tandalian Wala Distributary	▲ 12. Bahlak Branch	; ,,3	154.00	147+361	S	<b>μ</b> ,	S	0	(X)	ш	
Burala Branch	13. Jhoke	.1	35.00	48+700	щ	¢Ľ	μ,				
	14. Baloch Wala	~	17.00	24+150	S	ርĽ,	ζ <b>ι</b> ,	٠			
	15. Kanya	ád	21:00	33+256	S	щ	щ				
	16. Killian Wala	H	212.30	151+080	S	<u>μ</u> ,	מ	O	(O)	EBL	
Killian Wala Distributary	17. Kanjwani Branch	7	31.80	47+724	(L	ΥZ	S				
Burala Branch	18. Garja	IJ	3.00	20+061	<b>[</b> []	щ	<u> </u>	0			
	A 19. Samundri	æ	42.00	62+288	S	ዩኒ	ÇL	0		() ()	
	20. Munian Wala	<b>X</b>	8.6	24+183	щ	щ	Ś				
one•one	21. Dhodian	a	11.00	36+793	ſĽ	江	S				
the management of the second	22. Bhoja	œ	126.00	88+600	u.	<u>የ</u> ኒ	ξĹį	0			
·	23. Ghark	cŻ	10.00	968+9	ÇĽ.	þ.	ji,				
· · · · · · · · · · · · · · · · · · ·	24. Kamalia	8	49.00	58+000	Œ	ίι,	įs,				
- <del></del>	25. Waghi	84	74.00	85+000	Ľ,	נג	红				
	26. Azmat Shah	લ	9.75	7+263	<b>(LL</b> )	A'	<u>г</u> ц				
Kutzan	27. Ditch Right	œ	14.00	35+870	<u>ц</u>	щ	Ц				
-d/*	28. Ditch Left	<b>,</b> ,	18.00	30+000	<b>СТ</b>	<b>µ</b> .	Щ				
<del>7.001</del>	29. Kalera	, <u>,</u>	37.00	696+05	<u>α</u> ,	<u>፲</u> ٤	ÇĹ,				
**************************************	30. Kallar	ፚ	136.00	32+814	饦	Y Y	щ				
······································	31. Kabir Wala	J	185.00	136+600	щ	ΥZ	ĮJ.,				
***************************************			Total Length	1,498,766	(T.)	299.75 (	299.75 (canal mile)	•			

Notes: S: Saline Ground Water (1,500 ppm or more, Spec. is not available for MOF data)
F: Fresh Ground Water (less than 1,500 ppm, Spec. is not available for MOF data)
NA: Data Not Availabel
E: Measurement of Earth Canal (O: shows seepage is more than 5 cfs/msf, X: less than 5 cfs/msf)
E.E: Measurement of Earth Canal, Head and Tail Reaches, or Different Minors
B.E.: Measurement of Rotic Lining Section
C.L.: Measurement of Rotic Lining section
R: Measurement of Rotic Lining section
A: Netected at this F/S Suge

△: To Be Selected at this F/S Suge

△: To Be Selected by other Projects (ADB)

Table A.2.1-4 (10/26) GROUND WATER QUALITY AND SEEPAGE OF SELECTED CANAL DATA BASE OF DISTRIBUTARIES

(10) LOWER GUGERA CANAL DIVISION (LCC - 6/7)

	(6)	7301	STORY OF THE PROPERTY OF THE P	LEAT(A)	Ć			(8)	(9) Method o	(9) Method of Seepage Mesurement	prement
3	(3)	A13-7 (C)	(2) Ancar	1	<u>ک</u>						
		Right	Discharge	R.D.	Ō	Groundwater		Recommended	Intlow-Out	Inflow-Outflow Method	Ponding
Head Channel	Distributary	ĺ		(4)	WAPDA	MOF	JICA	by PID (1996)	Disty.	Minor	Method
		(L/K)	(cosecs)	(IL)	(17/1)	(1980-90)	(0/4/1)				
Upper Gugera Branch	1. Buchiana	œ	25.00	40+489	ů.	þ.	Ľ.			٠	
Lower Gugera Branch	2. Pauliani	œ	100.00	80+900	Œ,	Ľ1.	S				
	3. Jaran Wala	J	21.00	46+948	Q,	ш	£Ľ,				
nia vend	4. Awagat	æ	29:00	010+89	Ú.	££.	S	0			
	5. Butti Wala	œ	17.50	18+530	ÇL,	ц	S				
- miur	6. Jassuana	J	22.30	32+016	ഥ	የኒ	Ľ,				
mg Alfr Ago	7. Kheo Wala	24	17.00	24+467	<u>ξτ</u>	įt,	ш,				
· · · · · · · · · · · · · · · · · · ·	8. Khanuana	α	8 30	984480	ţı,	IJ.	Ś				
	9. Kaluana	ĸ	19.50	16+310	Įž,	íI.	Œ				
	10. Bhartiana	<u></u>	17.00	25+498	: [14,	ርL,	S				
	11. Satiana	П	32.50	33+350		ÇZ.	ĹĻ				
<del>yra ala</del>	12. Phadiara	ĸ	11.80	31+059	ĹL,	(L,	ርፈ				
······································	13. Talvara	-1	11.50	21+700	S	ĮĮ,	S				
	14. Koru	Ļ	8.00	9+250	S	[IL	S				
	15. Russiana	J	54.00	43+200	Ś	<b>jr.</b> ,	S				
	16. Khatwan	æ	17.00	32+600	S	ĽĽ,	S				
	17. Khushpur	ب	5.70	2+446	S	(L,	S				
	18. Bhail	&	35.30	23+862	Ś	ĹĽ	S	٠ .			
•	▲ 19. Tarkhani	. <b>∔</b> `:	253.00	153+033	S	Ľ.	S	0	ω(X)		
	20. Jani Wala/Hamza	***	8.14	40+643	S	4	S	ò	E(O) estimated	por	
	21. Mungi	1	152.00	121+278	Ġ	Ľ	S	O	E(O), E(O)		
***	22. Bhun		36.00	54+197	S	LL	s				
· ·	23. Yakkar	<b>&amp;</b>	41.50	60+312	S	ţı.	S				
(NeA-vett)	24. Pir Mahal	.1	128.00	156+082	S	ш	S	O			EE(O)
· · · · · ·	25. Dabban Wala	~	8.4.	64+300	S	Œ,	S	0			
•	26. Rajana	J	53.00	37+400	Ś	ţĿ,	ᄄ				
	27. Khikhi	Tail	307.00	142+870	Š	Ś	S				
			Total Length	1,479,240 (ft.)	(E)						
				295.85	295.85 (canal mile)				٠		

Notest: S.: Saline Ground Water (1,500 ppm or more, Spec, is not available for MOF data) F; Fresh Ground Water (less than 1,500 ppm, Spec, is not available for MOF data)

NA: Data Not Availabel

E. Measurement of Earth Canal ( O: shows seepage is more than 5 cfs/msf, X: less than 5 cfs/msf)

E. E. Measurement of Earth Canal, Head and Tail Reaches, or Different Minors

B.L.: Measurement of Brick Lining Section

C.L.: Measurement of Concrete Lining section

R: Measurement of Rock Cutting section

<sup>△;</sup> Selected at this P/S Stage.

Δ.: To Be Selected at the Next Stage

♣; Little Effect of Lining.

♦; Selected by other Projects (ADB)

Table A.2.1-4 (11/26) II GROUND WATER QUALITY AND SEEPAGE OF SELECTED CANAL

(11) UPPER GUGERA CANAL DIVISION (I.CC - 70) DATA BASE OF DISTRIBUTARIES

(E)	(2)	(3) Left	Left/ (5) Head (6)Tail (7) Quality of	(6)Tail	6	(7) Quality of		(8)	(9) Method o	(9) Method of Seepage Mesurement	urement
		Right		R.D.	Ġ	Groundwater		Recommended	Inflow-Outf	Inflow-Outflow Method	Ponding
Head Channel	Distributary				١.,	MOF	JICA	by PID (1996)		;	Method
		(L/R)	(cosecs)	(tr.)	(1971)	(06-0861)	(1996)		Disty.	Minor	
Upper Gugera Branch	1. Pir Kot	æ	3.00	2+927	ĮΤ <sup>4</sup>	Ϋ́Z	ţĹ,				
	2. Junian	œ	49.00	92+000	щ	ζ <b>ι</b> ,	ĻL	0			
	3. Kssoki	~	13.00	34+000	ĮĘ,	A.	ţц				3
	4. Gajiana	œ	93.00	131+164	S	N. A.	Œ	0			
	5. Bath	<u>α</u>	7.00	15+974	ſц	AN	<u>I</u> L,				
ESchart.	6. Manan Wala	∝	160.00	139+775	S	ш,	ţ <b>r.</b> ,				<b>3-3, M</b>
wa taka	7. Ghourdour	æ	43.00	67+900	S	ц	Ĺ	0	Q a	ពា	in Surgings.
	8. Lagar	<b>&amp;</b>	38.00	62+218	S	A A	ርኒ		•		
Chicago	9. Kabbar Wala	<b>K</b>	22.00	12+064	S	NA NA	ĮĽ.				
a comme	10. Innuana	<b>6</b> 4	20.00	17+632	S	ÇL,	<b>г</b> ,				
	11. Nillian Wala	ፈ	25.00	28+652	s,	ĮĮ.	ΙĽ				
	12. Rodi	æ	23.00	24+642	S	<del>የ</del> ኒ	ĮĮ,				
	13. Shark Pur	<b>.</b>	00.66	172+426	S	π·	ſĽ,	0			n pame.
	14. Machhrala	่า	7.50	8+245	S	<b>U.</b>	į,				r-eng
	15. Mohlan	J	9.00	3+274	S	NA	քե				20176
	16. High Level Channel		92.00	135+887	છ	N A	С.				Manageria.
	17. Nehra	٦.	122.00	113+193	μ,	<b>(L</b> ,	<b>L</b> .				
	18. Dangali	J	47.00	85+631	Œ,	N.	ţL,	0			<b>*</b>
Mian Ali Branch	19. Jalaliana	œ	5.00	20+142	μ,	NA A	ĮĽ				
PL-Sk-Act	20. Mallan	<b>∝</b>	92.00	54+195	S	A.	ᅜ				A-70-6
<del></del>	21. Khanga	ଝ	13.00	27+082	S	μı	ú,				to the state of
X.e-con-	22. Kingran wala	ĸ	7.00	3+741	S	N A	<b>j</b> L,				e de la companya de
	23. Mataba	લ	10.00	18+800	S	ŢĻ	ΙĽ				
	24. Mahnian Wala	<b>ب</b> ا	9.00	096+9	S	红	ÇL,				tir n.e.s
×***	25. Khurrian Wala	24 24 3	203.00	123+790	S	ŗ,	S				
*****	26. Shahkot	<b>ы</b>		153+515	<b>μ</b> ,	£L,	S				· · · · · · · · · · · · · · · · · · ·
2-24			Total Length	1,528,829 (£	<b>.</b>						
				305.77 (canal mile)	anal mile)						Ç-Azuru
=											N

Notes: S: Saline Ground Water (1,500 ppm or more, Spec. is not available for MOF data)

F: Fresh Ground Water (less than 1,500 ppm, Spec. is not available for MOF data)

NA: Data Not Availabel

E: Measurement of Earth Canal, Head and Tail Reaches, or Different Minors

BL: Measurement of Earth Canal, Head and Tail Reaches, or Different Minors

BL: Measurement of Concrete Lining Section

CL: Measurement of Concrete Lining section

R: Measurement of Rock Cuting section

CL: Measurement of Lining

A: Little Effect of Lining

A: Little Effect of Lining

Selected by other Projects (ADB)

Table A.2.1-4 (12/26) GROUND WATER QUALITY AND SEEPAGE OF SELECTED CANAL DATA BASE OF DISTRIBUTARIES
(12) LAHORE CANAL DIVISION (CBDC - 1/1)

		-	ביין בייונים לאו						100	3	
Đ	<del>-</del>	(3) Left	(S) Head	(6)Tail	9	(7) Quality of		: 8	(y) Memoria	(9) Memod of Seepage Mesaltering	JICHING III
	13.	Right	Discharge	R.D.	5	Groundwater		Recommended	Inflow-Out	Inflow-Ourflow Method	Ponding
Head Channel	Distributary	(L/R)	(cusecs)	(ft.)	WAPDA (1971)	MOF (1980-90)	JICA (1996)	by PID (1996)	Disty.	Minor	Method
B. R. B. D. Link	1. Pull Right	æ	10.00	2+000	Ú.	N.	ίL				nga gregitan d
	2, Pull Left.	٦	2.60	5+071	ĹĻ,	Ϋ́	Œ.		:		
Labore Branch	3. Shalamar	œ	30.80	30+000	ù,	Ϋ́Z	ÇIL.				
Openstäre	4. Kaura	न	4.8 8.4	36+378	ĮL,	Y Z	Œ				25 38 4
and the second second	5. Government House	ĸ	24.00	000+6	£L,	Ą	Œ,				erinama.
dje Jaçê l	6. Model Town	.1	12.00	8+950	D,	۷ ۲	ÇL,				e Par B
	7. Khamba	-1	21.00	33+400	Ĺ	٧Z	(L				
-	8. Niazbeg	Front	213.50	185+240	(L	Š	S				<i>y</i> -6 Ki
<b></b>	9. Terah	:	13.80	19+213	<u>г</u>	S	ÇI.				er ganne
3. R. B. D. Link	10. High Level Cohava	æ	14,37	17+290	ÇI.	S	ţL,				4
	11. Khaira	<b>∞</b> <	140.62	103+393	ù.	S	íL,				
- 4413	12. Kohnan	_1		34+000	<b>[2.</b>	Z V	Œ				
:	13. Reverse Channel		20.00	15+377	Ç1.,	₹ Z	ĮL,				
	14. Buchar Khana	ćζ	243.33	157+075	ζī.,	٧	S				
	15. Ghawind	J		22+000	JŁ,	٧Z	Ĺt.,				****
	16. Khalra	ρĽ	45.00	27+000	Çi.,	₹ Z	<b>(1.</b>				
	17. Chattianwala	.1	10.00	15+270	ω,	Ą Z	Ţ2.				
400	18. Ditch	<b>د.</b> :	19.00	45+752	ĹL,	Ϋ́Z	μ,				
Main Branch Lower		œ	85.00	102+550	<b>[</b> ].	Y.	<u>L</u>				
		H	224.00	101-420	S	'n	ر د د	Э,	<u> </u>	ĵ	
· · · · ·		<b>x</b>	12.50	32+355	II., (	Ϋ́ς	S)				
		<b>.</b> 1	21.00	27+000	ц	'n,					
		<b>.</b> 1	16.50	16+887	I. {	ď :	J., [				
	_	∝.	7.50	18+500		ď;	ا بد				
~~~	25. Lulliani	<u>:</u> ا	49.91	36+575	ا المراجعة المراجعة ا	<b>₹</b> 1	1. <b>č</b>		N. //-	and the state of t	
	26. Chhina	<b>.</b>	108.00	X3+556	ر د د	<b>L</b> (	<u>ر</u>	2	<b>S</b>		
		<b>α</b> (	62.00	24+656	ys c	· •	ρÓ	(			ξ
	28. Turkwing	۷.	3 8	77427	n i	Š ti	ງ ຍ	)(	W )/4		}
	?;	1	00.195	008+68	a ļ	L }	ι, ε	)(	) (		
	△ 30. Rakh	ez .	202.00	101+000	L, C	₹ <u>\$</u>	L, O	)	S		
	31. Maujoke	ا <b>د</b> .	21.00	201410	n (	<u></u>	٥ ,	(			Ç
		<b>X</b> 1	215.00	83+140	ומ	. ;	n E	)			ų
****	33. Raiwind No. 2	: ≰₁	87.1	154297	L 1	۲ ; ۲ ;	4 5				
B. S. Link	34. Pattoki Left Channel	ez	17.53	25+500	i <b>.</b> .	ď.	n				
<del>M PRC</del>		٠	Total Length		7 (ft.) : (						
		: -		334.24	(camer mine)						
	and a second man of the second									:	

Notes: S.: Saline Cround Water (1,500 ppm or more, Spec. is not available for MOF data). F: Fresh Ground Water (less than 1,500 ppm, Spec. is not available for MOF data).

NA: Data Not Availabel

E. Measurement of Earth Canal ( O: shows seepage is more than 5 cfs/msf. X: less than 5 cfs/msf)

E.E. Measurement of Earth Canal, Read and Tail Reaches, or Different Minors

BL: Measurement of Farch Lining Section

CL: Measurement of Converte Lining section

R; Measurement of Rock Cutting section

Selected at this F/S Stage

△: To Be Selected at the Next Stage
 ▲: Little Effect of Lining
 ♦: Selected by other Projects (ADB)

Table A.2.1-4 (13/26) GROUND WATER QUALITY BASE DATA OF MINORS (1..1) KIRANA CANAL DIVISION (LJC-1.1/4)

(2)	•	Kemarks														**************************************						i The	P-4 W	- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1-	T-Che		o-arse		Service and									
(6) Tail	ж. С.	(ft.)		008-77	22-250	20+785	1,0 0.	\$1,040	0.25	15.872	22.200	W-7-17	3+413	19+500	14+770	4+800	25+665	24+300	32+800	15+000	23+270	27+363	21+604	16+445	12+525	17+545	9+330	19+300	2+800	058+6	207t	13+450	33+330	22+230	13+000	008+61	16+135	13+40
(5) Head	Discharge	(cnsecs)	00 0:	05 01	3.00	15.00	11.85	00.9	000	2.00	2002	**************************************	3.50	5.50	00.6	2.00	2.00	26.00	14.00	5.50	9.50	18.00	10.00	19.00	8.8	27.50	2.00	20.50	4.20	0.00	?	3.5	33.00	13.00	00.6	8.2	14.80	10.00
(4) Left/	Kight	(L/R)				i &4	•	4 &		1 11		1 4	: <b>-</b> 4		œ	α (	œ		<b>-1</b>	ے	<u></u>	×	۵	J	<b>⊣</b>	1	u		. د	्र अपन्य १९८१ - १९८१	4 (	¥.				ĸ	4	
(3)	1,612	Withor													<b>H</b>						•					-3												
			; Abda!	2 Araian	3 Kot Moman	4.Bhikhi	5 Sahowai	6 Kot Raia	7 Manalian	8.Tangu	O Izemai	10.Uppi	11.Wan	12.Channi	▲ 13.Devi Das Pur	▶ 14.Pindi	▶ 15.Qazıan	▲ 16.Assian	17.Daim	18. Lukman	19.Mangni	20.Darya	21.Bhabrana	22.Kandi	23.Bhalian	24.Jalla	25.Kanwen	26.Kohn	Z/Latian	26.Mean	CO VI 1	30.73dda	31 Waikana	32. Wasuana	33.Tandlian	34.Rodian	35.Hunde	36.Killa
(2) Quality of	5	(1980-90) (1986)		8						4. 1		S	ι.		S				ςς LL										1	2					٠			
),	ACGAW		S								•	(L	<b>(L.</b>		Ω				S			:																
(1)	Tender Control		Deowal Distributary	Hujjan Distributary			,					Jhol Pur Distributary	Bucha Distributary		Chokera Distributary			:	Lalian Distributary								:			Kirana Disminutary	Section of the second section of the section of the second section of the section of the second section of the section o				: .			

Table A.2.1-4 (14/26) GROUND WATER QUALITY
BASE DATA OF MINORS
(1.2) KIRANA CANAL DIVISION (LJC-1.2/4)

6	Remarks	(ft.) (canal mile)
(6) Tail	K.D. (ft.)	25,4950 8+720 13+316 5+820 24+000 12,4550 20+700 25,423 16+730 20+050 11,450 11,4976 11,4976 11,4976 11,4976 11,4976
(5) Head	Discharge (cusecs)	14.00 6.50 4.50 4.50 10.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.
(4) Letty	(L/R)	x x x x x ı ı x ı ı ı ı x ı x ı
(3) NIKANA CANAL CIVISION (LUC-	Minor	38.Man Sub-Minor 38.Maina Sub-Minor 39.Maira 40.Dhingran 41.Ahmada 42.Laksin 43.Kot Naja 44.Thatt Chandu 45.Ahmad Nagar 46.Pillo Wall 47.Khai 48.Jabana 49.Walla 50.Pir Panja 51.Brana 52.Wijhalke 53.Kanian 54.Kali
	ODA MOA JICA 71) (1980-90) (1996)	ωα, ω, ω, ω
(1)	Head Channel WAPDA (1971)	Malke Branch Distributary Khadir Branch Babbra Distributary Boda Distributary Khadir Distributary F

Table A.2.1-4 (15/26) GROUND WATER QUALITY

BASE DATA OF MINORS

(2) RASUL HEADWORKS DIVISION (LJC-2/4)

( <i>t</i> )		Remarks	(ft.) (canal mile)
(6) Tail	R.D.	(tr)	13+000 9+500 9+500 13+600 5+820 8+170 15+775 26+080 12+558 6+920
(5) Head	Discharge	(cusecs)	4.50 9.50 9.50 12.50 8.00 8.00 5.50 11.00 12.90 4.00
(4) Letv	Right	(L/R)	жжжыжымы
(2) RASOL HEADWORKS DIVISION (LUC-		JICA Minor (1996)	S 1.Kalyan Pur S 2.Kot Hakim Shah 3.Hathi Wind Sub-Minor S 4.Nabi Shah 5.Bhalwal 6.Civil Station 7.Khizar Hayat 8.Bunga 9.Kbc Wala S 10.Ajnala S 11.Javed 11.Javed
(2) Quality of	Groundwater	MOA (1980-90)	<b>ωω ωω ω</b>
(1)		Head Channel WAPDA (1971)	Lower Jhelum Canal Ratto Kala Distributary Fateh Pur Distributary Mithalak Distributary S Lude Wala Distributary Man Distributary F F F F F F F F F F F F F F F F F F F

Table A.2.1-4 (16/26) GROUND WATER QUALITY BASE DATA OF MINORS

Remarks (canal mile) 0 (f.) 92.73 463,626 12+660 23+350 8+000 14+500 14+400 16+445 16+445 16+445 16+445 16+445 16+445 16+445 16+445 16+445 16+445 16+445 16+445 16+600 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+995 11+ 11+250 6+250 (6) Tail R.D. (ft.) Total Length (5) Head Discharge (cosecs) (4) Let's Right 3 JC-3/4) (3) SARGODHA CANAL DIVISION (L. 10.Sargodba City 11.Sargodba City Sub-Minor Minor 25.Shah Jawana △ 20.Ghaus Pur 24.Inayat Pur .Sheikhana △ 16.Sher Garh △ 17.Lakhuana 9.Nangiana △ 19.Sandrana 13.Bhochra 27.Latif Pur △ 18.Gulbana 26.Kachian 6.Abaghat 7.Akil Pur 4.Sikandri 3.Sharifa 15.Kalyar 8.Gondal △ 21.Sharin 14.Hayat S.Khichi △ 22.Haria 23.Ghon 12.Jaiz JICA (1996) 00 00 (2) Quality of Groundwater MOA (1980-90) WAPDA (1971) Head Channel Raju Branch Distributary Mangwana Distributary Kot Sultan Distributary Nure Wala Distributary Mallo Wal Distributury  $\widehat{\Xi}$ Chamali Distributary Naurang Distributary Sahiwal Distributary Massan Distributary Rabana Distributary Jhanda Distributary Ghazni Distributary Faruka Distributary Sharat Distributary Sobhi Distributary Bhek Distributary Northern Branch

Table A.2.1-4 (17/26) GROUND WATER QUALITY
BASE DATA OF MINORS
(4) SHAHPUR CANAL DIVISION (LJC-4/4)

(1)		(2) Quality of		(3)	(4) Left	(5) Head	(6) Tail	Œ.
		Groundwater			Right	Discharge	R.D.	
Head Channel	WAPDA	MOA	٦ ک	Minor	t			Remarks
	(19/1)	(08-0841)	(1996)		(L/K)	(cusecs)	(11.)	
Western Feeder Distributary	Œ,	'n	1,	LEastern Feeder Minor	1	7.50	18+800	
				2. Wadhan	œ	15.00	31+000	
				3.Bhera	ፈ	00.4	11+000	
	:		: :	4.Lower Jahn Khan	J	3,10	4+000	
Pindi Kot Distributary	Ľ.	S	S	S.Ali Pur	œ	35.00	33+000	
				6.Thatti Walana	ĸ	76.00	21+000	
Rani Wah Distributary	jł,	οğ	Ľ1.	7. Fatch Khan		41.00	23+132	
				8.Nur Pur	∝	8,25	15+557	
				9.Dinga	, i	15.00	20+000	
				10.Sher Wala	٦	9:00	12+800	
Nabba Distributary	<u>г</u> ,	S	ÇL,	11.Sadda	æ	18.00	8+500	
Kalara Distributary	μ.	Ś	ii,	12.Bachera	<b>K</b>	17.00	19+570	
Saddar Distributary	<u>(L</u>	S	S	13.Mekan	.i	12.00	17+000	
	÷			14 Jalal	<b></b> )	106.50	88 4400	
				15.Feroze Sub-Minor	٦	6.30	10+000	
	٠.			16.Jalpana Sub-Minor	œ	28.00	34+200	
				17.Shahzad Sub-Minor	د	3.80	2+500	
		* .		18. Habib Sub-Minor	u	90.9	10+500	
				19. Allah Abad Sub-Minor	œ	8.00	14+350	
				20.Jahanabad Sub-Minor	J	11.50	12+000	
				21.Mehar	J.	8.50	13+000	
				22.Muzaffarabad	u	5.00	2+300	
	:			23.Sher Pur	J	12,00	18+400	
Shaidal Distributary	<b>የ</b> L	S	: [14]	24.Sher Kot	œ	3.50	3+000	
		٠.		25.Kot Maghrab	œ	7.50	12+000	
Hussain Shah Distributary	ĮT.	S	S	26.Ichher	<b>α</b>	9.50	14+000	
				27.Sat Chack	<b>.</b>	11.60	11+910	
rage; jagg			٠.	28.Mango Wal	ፈ	19.00	24+000	
		-		29.Pindi Jaun	ଝ	8.00	2+390	
				30.Sanika	s <b>c</b>	30.00	39+000	
				31.Sultan Pur	<b></b> 1	35.00	32+000	
				32.Rakh Gujranwala Sub-Minor	, <b>.</b> .	7.10	4+100	
				33.Rakh Wadhi Sub-Minor	<b>.</b>	7.00	14+000	
Mark "Sweet	-	:		34. Buslana Sub-Minor	ر نہ	3.50	5,270	
		•		35.Mazatfar	e4	33.50	46+000	-
	٠.			36.Sabo Wal	×	3.50	4+000	
				37.Chakrala	œ	6.10	10+000	
						Total Length	654,679	(tt.)
- "							130.94	(canal mile)
						,	***************************************	

Table A.2.1-4 (18/26) GROUND WATER QUALITY
BASE DATA OF MINORS
(5) FAISALABAD CANAL DIVISION (LCC-1/7)

(2)	Yes Sur-	Remarks		we.z			****	Manager Co	****	<b>3</b>			y. Sa. B.				-			Sections						The control of the co	The state of the s							*** <b>-3e</b> ************************************	<b>B</b> rob	T SO OFFICE		(IL) (com) mile)	(Saliai illis)
(6) Tail	R.D.	(£			75445	4+195	6+802	2+600	2+690	7+650	7+500	8+638	2+820	7+476	11+710	28+452	0.440	2+682	23+183	2+150	9+267	7+623	7+180	4+000	7+250	4+450	7+925	14+532	19+103	12+002	15+097	\$90+81	24+095	4+850	7+000	17+626	*****	346,533 69.31	1000
(5) Head	Discharge	(cnsecs)	20 C	0.00	3	8.	4,11	3.99	2.00	2.00	1.90	3.00	7.64	3.40	4.00	13.90	4.70	3.60	12.50	3.70	2.50	1.50	19.9	7.80	2.50	2.55	4,00	9.80		8.8	8.4	19.20	13.79	7.50	90.9	6.40		lotal Length	
(4) Lety	Right	( <del>%</del> )		, ډ	.1	<b>∝</b>	H	<b>-1</b>	~	24	œ	<b>x</b>	<b>ы</b>	ᆡ	<b>.</b>	<u>,</u>	نر	ı	,a	<u>.</u>	٦	<b>.</b>	<b>ل</b> ـر	æ			ú	4	<b>,</b>	8	à		J	<b>&amp;</b>	ı	ထ			
(3)		Minor																								made commence and commence of the commence of	And the second of the configuration of the configur												
	-			minduana	z.nujjuan	3.Shah Bahlol	4.Ramuana	5.Asroti	6.Badar Ali	7. Pacca	8.Shaikhan	9.Sir Wala	10.Chaun	11.Sathol	12.Kot Wala	13.Kot Wasawa	14.Risalu	15.Thatta Fatch Al	16.Jhamb	17.Sir Nanga	18.Rajota	19. Makku Wala	20.Majid Wala	21.Kamoda	22 Lodhran	23.Badar Din	24.Saidduana	25.Xhilian	26.Nar Wala	27.Sattana	28. Natheri	29.Dumra	30.Sati Wala	31.Karim Pur	32.Riwaz Abad	33. Jain Wala			
(2) Quality of	ater	MOA JICA (1980-90) (1996)		0 t	:	ία. 1/2.	S)		rr S		C)	Ω Γr	S		红红						ir.				S	EL.	S						S			ĮI,			
(2)		WAPDA (1971)	┨	ه د	L, i	μ,	μ,		ÇL,		<b>LL</b> ,	ĮI.	щ		jī.					:	υ.	<b>(L</b>			S	<b>14.</b>	S						S			Ļī.	: .		
(1)		Head Channel	Janes Described Control	mang branch oppor	Films Brautan Dischoulary	Noon Distributary	Beran Wala Distributary		Mallian Distributary		Juian Wala Distributary	Walanian Wala Distributary	Burali Distributary		Chiniot Distributary						Kot Ghani Distributary	Kot Ahmad Yar Distributary			Sarang Wala Distributary	Jamal Jatti Distributary	Nasrana Distributary						Madduana Distributary			Wagh Wala Distributary			

Table A.2.1-4 (19/26) GROUND WATER QUALITY BASE DATA OF MINORS (6) HAFIZABAD CANAL DIVISION (LCC-2/7)

	S	p p	Nemarks	Ph. No.		· scr	. Joseph	k-produce	met 14.0%	erane.	er Gest class	*Crecist	- Marie Carlo	e= 1.4°	*Cuechat	<del></del>		المراجعة	anne de la	~~~	<b>■</b> 1347¢	Lund	~			-,	**************************************	and active h		(f)	Signala ,	(canal mile)		r Puistu			**************************************	-
	(o)		(ft.)		38+470	2+006	23+320	7+600	4+500	4+000	22+666	14+470	18+863	099+		38+796	6+564	11+337	3+282	23+700	11+166	38+500	9+270	23+541	13+025	17+784	12+375	19+445		368,340		73.67	The second section of the second seco		•			
	(2) Head	Discharge	(cusecs)	1	16.03	3.00	9.66	5.10	17.00	12.20	12.36	17.6	16.91	5.40	12.76	36.50	09:6	6.30	6.40	17.60	17.50	43.00		17.00	11.50	21.50	11.00	15.00		Total Length	ò							
	(4) Lett	Kignt	(L/R)	,	<b>.</b>	<b>~</b> 1	,J	æ	'n	œ	લ્લ	ፈ	œ	ų	u	ø.	ωį	ಷ	J	×	J	œ	u	æ	J	લ	J	œ									:	
(6) HAFIZABAD CANAL DIVISION (LCC-Z/	3	Vije	William Commence of the Commen		l.Ratteke	2.Mohan	3. Fatteki	4.Mochiwala	5.11.	6.1R	7.Marh	8.Vanir	9.Theri	O.Rasul Nagar	I.Mohal Wala	2.Dhudi	3.Mohammad Wala	4.Pirana	5. Fatch Din	6.Tut Wala	17.Biloch Wala	18.Tarar	19.Tarar Sub-Minor	20.Churki	21.Sial Wala	22.Butti	23.Dab Wala	24.Kalanjn								• • • • • • • • • • • • • • • • • • • •		
ı	(2) Quality of	Groundwater	(1980-90)		S		Ĺ,	ĮĮ,	EL EL		S)		┥				1.	7	S	S	<b>\Q</b>	¥	21 <b>♦</b>	\$ \$	\$ \$ \\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	<b>2</b> ♦		<b>₹</b>	i .				2					
	3	A O O A VI			tary F	istributary	F	nbutary	S		lary S		8	stributary	butary				stributary	S Sutary S	S																	
		:			Uddoki Distributary	Nehrian Wala Distributary	Sukheki Distributary	Mochiwala Distributary	Farida Distributary		Dabora Distributary	- Zongrega	Aruri Distributary	Rakh Branch Distributary	Lakhuana Distributary	· Varvoin			Rakh Branch Distributary	Tul Wala Distributary	Dijkot Distributary			•			-	200	€ra <b>t</b> ≠	water p	<b>4</b>				-		,	

Table A.2.1-4 (20/26) GROUND WATER QUALITY BASE DATA OF MINORS (7) JHANG CANAL DIVISION (LCC-3/7)

6)	Remarks													:									(ft.) (canal mile)
(6) Taul	(ft.)	8+614 29+000	11+492	000	12+788	19+060	104989	18+700 8+870	9+770 18+000	84972 294650 314500	33+050 33+063	\$0+000 \$0+000	25+450	4+800	568+8 8+895	27+200 10+445	7+062 4+750	10+000	4+918	38+316 14+720	14+574	34+150	680,757 136.15
(5) Head	(cusecs)	14.50	6.61 5.84	8.49 9.49 9.00	8.60	9.04	1.30	05.11 5.00 5.00	10.41	10.70 17.50 30.00	17.60	33.00	9.80 2.80 2.80		71.01	16.00		5.62	20.02	17.50	3.62		Total Length
5//) (4) Lety	rugin (L/R)	-1 &	그니요	4 64 64	(⊥) &	니요		าพา	<b>ଝ</b> ଝ	ᆈᅂᅩ	1 KK KK	( <b></b> ) n	4 <b></b> 1	1 & .	-) <b>0</b> 4	٦ &		(a)	기 따	∝		i a∝	
(3)	Minor				<b>5</b>	ı														· · · · · · · · · · · · · · · · · · ·	900	<b>a</b>	
) JHANG CAN	1	1.Arbi 2.Jhang	3.Gagi 4.Nikka A Phius	6.Bure Wala	8.Nasrat Pur 9.Ahmad Nagar	10.Sarika 11.Danka	12.Didha 13.Balluana	14.Chimran wal 15.Nurka 16.1L	17.Badin Pur 18.Lahore	19.Koti Duggal 20.Khand	22.Bagh	24.Buddunana	26.Qasim	28.Islamabad	29.Bubak 30.Zira	31.Seo Wal		ا دره و	♦ 36.Biwara ♦ 37.Bengal	\$38.Khenora		41.Kakn Bnangu 42.Kakki	
uity of	Mater A JICA 90) (1996)	Ľ.	(14	ĮT.	(xi, )	(LL	(1,	W		ИΥ			·		<b>ω</b> ω		S			. 1 -:	Ĺt.		
to (Z) Quality of	WAPDA MOA (1971) (1980-90)	ч	ί. V	K.	ЯN	n NA	F	K.		tr w					w m		S				S)		
	75				<b>&gt;</b>			•		*	•	٠											
(1)	Head Channel	Sultan Pakhra Distributary	Mund Wali Distributary	Mochi Wala Distributary	Feeder Major Distributary	Maghani Distributary	Ghannu Distributary	Facir Sar Distributary		Pacca Anna Distributary Dhaullar Distributary	erent bind	رسمانو ر	į	Darsana Distributary	Titran Wala Distributary	Teku Major Distributary	Khewra Distributary			and the second	Bhangu Distributary		

Table A.2.14 (21/26) GROUND WATER QUALITY BASE DATA OF MINORS

				(8) KH	(8) KHANKI HEADWORKS DIVISION (LCC-4/7)	KS DIVISIC	N (LCC-4	(2)			
(1)	:		(2) Quality of			(3)		(4) Left/	(5) Head	(6) Tail	(2)
			Groundwater					Right	Discharge	R.D.	
Head Channel		WAPDA	MOA	YOK		Minor		ξ			Remarks
		CI/KD	(1980-90)	(1996)				(L/K)	(casecs)	(ar.)	
Managhan Discontinues	- 1 - 1 - 1 - 1 +	· C	L	£	1 Days Mann			0	22.60	70+162	
wancher Lisuibuday	:	L, !	L.	; 5.	L.Kam Magar	'		۱ ک	07.70	CKIAO	
Q. B. Link	:	Įt.	LL.	<b>[L</b> ,	2.Ram Nagar Trancated	cated	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	×		10+000	
					3.Akal Garh	* * * * * * * * * * * * * * * * * * * *		ឯ	18.00	21+050	
Mancher Distributary		ţı,	(L.	ш,	4.Kot Hara Sub-Mino	inor		ᆈ	5.10	10+000	
High Level Channel		<b>ը</b> ,	<u> </u>	α.	5.1R			œ		7+100	
)					6.2R			~		8+500	
					7.3R			<b>«</b>		2+800	
Vanike Distributary		(Lt,	(L,	Ų,	8.Dhilwan			ų	24.00	15+634	
indone i					9.Chak Ghazi			니	20.00	8+800	
					10.Ramke			u	42.00	18+380	
					11.Kharak Sub-Minor	or so		к.	90.9	4+050	
·			ć		12.Mehdi Abad		-	æ	9.00	10+300	
COR WATER	:				13.Raich Chichra			u	00.6	6+570	
Gajar Gola Distributary		<b>(1</b> 4	μ,	(L,	14.Dhiranke			œ	28.00	000+SI	
an control of					15.Hazira	1		ĸ	7:00	3+200	
·			. *		16.Baura			_1	8.24	4400	
<b>M</b> TMP					17.Bauloo			œ	8.52	5+345	
eroa-er					18.Kot Said Mohammad	mad		J	35.00	36+500	
Hafizabad Cum Channi Distributury	tributary	щ	U.	ţĽ.	19.Batera	٠.	-	æ	90.9	16+280	
<del>colo</del> and "we					20.Qilla Sahib			o,	2.50	4+723	
aryout		•			21.Lakhia			æ	6.53	19+473	
· ·				. :	22.Kariala			J	3.30	4+080	
Kot Distributary		<b>在</b>	<u>(L</u>	٤Ц	23.Ganjianwala			J	3.40	13+135	
Jalal Pur Distributary		щ	(L)	Œ,	24.Fateh Pur			cŁ	9.60	8+813	
Jandoki Distributary		Ľ.	<b>LL</b> ,	ţı.	25.Kassisa			æ	20.00	27+431	
*******		:									
mant no										130 000	,
					-	. *	:		lotal Length	155,625	(11.)
										1	
neroù dr										65.87	(canal mile)
- Table - Tabl											
n demonstra					-		:				
gr.(rain										:	

Table A.2.1-4 (22/26) GROUND WATER QUALITY BASE DATA OF MINORS (9) BURALA CANAL DIVISION (LCC-5/7)

	(cusecs) (ft.) 9,00 12+450 5,00 5+637 5,00 10+308 9,00 13+000 13,00 12+818 17,00 13+939 12,00 10+165 13,30 22+750 9,00 142+000
	RR 5.00 RR 13.00 L 17.00 L 13.00 L 13.00
Minor Kight	iwala)
×	1.Pur 2.Minor-1 3.Minor-2 4.Minor-3 5.Minor-4 6.Minor-5 7.Minor-6 8.Minor-7 9.Minor-8 (Samiwala)
5 <u>5</u>	<u> </u>
	<del></del> _
(1) Head Channel	

Table A.2.1-4 (23/26) GROUND WATER QUALITY BASE DATA OF MINORS (10) LOWER GUGERA CANAL DIVISION (LCC-6/7)

	6		Remarks	5	2	<b>'</b> '\\$	\$	2	8	0	0	<u>φ</u> !		77.5	2 7	. 0	2	0,	Q	2	3	8		0.	2	200	Z.		2 9	~~°°	3.2		t <u>y</u>	22	% (#)	
	(6) Tail	R.D.	(ft.)	10+035	18+000	11+266	24+865	6+242	16+550	6+250	16+520	14+378	2+47	15+652	26248 26248	26+760	33+600	18+87	25+000	\$-029	14-18	10+290	516+51	32+430	52-470	12+276	23+292	31+433	50+722	004-7 004-70	40+600	44454	\$1.45 \$1.45	34+272	621,857	124.37
	(S) Head	Discharge	(cnsecs)	10.00	14.00	4.25	27.00	7.80	12.00	5.40	17.00	8.00	11.00	15.4	8 8	10.00	31.50	16.00	16.00		77.90	7.00	8.00	13.00	34.00	00.9	14.40	18,40	8.8	00.7	27.00	8	80 V	8.50	Total Length	
	(4) Left/	Right	(Z,R)	2	<b>.</b> 1	<u>,</u>	្ន	า	니	<b>, , ,</b>	<b>.</b>	μ,	.;	٦,	1 00	<b>:</b> 0<	ĸ	œ	×	8	4	æ	×	R	×		<b>,</b>	~	∝ ,	-1 F	ם נ	۰	J '	11		
D) LOWER GUGERA CANAL DIVISION (L	©		Minor	I. Cobindpur Minor-1	2.Raispur Minor-2	3.Awagat	4.Jassuana	5.Minor No.1	6.Minor No.2	7.Sher Azam	8.Satiana	9.Bhartiana	10.1 aliara	il Khunan 13 Marri	12 Kakkar	14.Minor-1	15.Sarwali	16.Kaluka	17.Amir Walz	18.Reckal	19 Nungi	20. Yakkar	21 Dea	22.Magneja	23.Junej Wala	24 Jand Wala	25.Bhami Pur	26.Ludhian	27.Shor Kot	20.Nuni 20.00	27 Eagst was 30 Bachhran Wala	31 Sail Wala Sub-Minor	32 Darkhaos Sub-Minor	33. Arauti Sub-Minor		
-	(2) Quality of	ater	MOA JICA (1980-90) (1996)	S			S	(r.		ω,	μ. μ.	S			2 LI		4	4	, o	C)		. A	8				ss.		-							
			Head Channel WAPDA (1971)	ŭ.		4.	S	F		<b>≿</b> ∙	S	S		, c	٠	2			S				S													
	·		Head C	Pauliani Distributary		Awagat Distributary	Lower Gugera Branch	Khanuana Distributary	<u>~</u>	Bhartiana Distributary	Satiana Distributary	Lower Gugera Branch		Kussian Distributary	Bhail Dietributan	Tarkhani Distributary	·		Jam Wala Distributary	Mung Distributary		Yakkar Distributary	Pr Mahal Distributary		ng yazərin		Khikhi Distributary	-				-			Navyan	

Table A.2.1-4 (24/26) GROUND WATER QUALITY BASE DATA OF MINORS

				<u>"</u>	1) UPPER GUGERA CANAL DIVISION (LCC-7/7)	7/7)			
3		•-	(2) Quality of		(3)	(4) Left	(5) Head	(6) Tail	6
·	l		Groundwater	- 6		Right	Discharge	R.D.	
Head Channel	<b>≯</b> `	WAPDA	MOA	JICA	Minor	é	(2000)	 4	Remarks
		(17/61)	(1790-70)	(1990)		(L/K)	(cases)	(11.)	
Jurnian Distributary		ÇL	ĮŁ,	ĮĮ,	1. Wachoki	×	90.9	21+000	
	-	:			2.Shamir	œ	00.9	9+030	
Gajiana Distributary		S	Ϋ́	(L,	3.Salar	<b>*</b>	8.00	11+739	
Manan Wala Distributary		S	μ,	[L	4.Mim	œ	10.00	9+310	
· ·				.*	5.Letan	લ	6.00	10+200	
					6.Karkan	๙	78.00	84+300	
·					7.Kotta Sub-Minor	ద	7.00	7+900	
Lagar Distributary		S	ĄZ	Œ,	8.Jhinda	<u>ដ</u>	9.00	11+309	
Kabbar Wala Distributary		Ś	Υ <sub></sub>	s S	9.Ittan Wala	ᆈ	8.6	8+070	
Shark Pur Distributary		s	ů,	Œ,	10.Nankana	œ	54.00	71+882	
		• • •			11.Jodhke	ħ	45.00	53+856	
			:		12.Mundi Sub-Minor	L	2.00	11+658	
					13.Tashpur Sub-Minor	H	11.00	18+125	
	:				14.Kanwan Wali	د.	10.00	16+250	
-					15.Khair Klan Sub-Minor	ĸ	4.00	4+918	
			-		16.Thatta Isa	ద		5+284	
High Level Channel		S	Y Z	ኴ	17.Watto	H	2.00	2+300	
instruction			٠	-	18.Martanab	ᆸ		7+080	
Positor i				. :	19, Haripur	J	3,40	8+487	
Nahra Distributary		ĹĮ,	<b>L</b> .	ĮĖ,	20, Basi	ډ		61+970	
Dangali Distributary		s,	AN AN	ÇIL,	21.Rejera	نہ	2.00	11+347	
Jalaliana Distributary		124	۲Z	S	22.Meluana	ы	2.00	9+432	
Mallan Distributary		S	۷ Z	íL,	23.Mangat	J		58+510	
· ·					24.Buwana Sub-Minor	⊭	8.00	16+054	
	• .	- -			25.Kolar Sub-Minor	ᆈ	2.00	\$4765	
Khurnian Wala Distributary		S	щ	S	26.Chukeri	ä	25.00	34+930	
t vi ter					27.Raje Wala	αŁ	27.00	28+415	
		: .			28.Rane Wala	ų	11.00	04650	
Shahkot Distributary		Ľ.	ц	S	29,Pacca Dalla	24	90.9	006+6	
· ·					30.Pandwan	ᆈ	7.00	11+000	
			-	:	31.Chutala	-1	6.00	7+700	
:						:	Total Length	638,371 127.67	(ft.) (canal mile)
						1 1			

Table A.2.1-4 (25/26) GROUND WATER QUALITY
BASE DATA OF MINORS
(12.1) I AHORE CANAL DIVISION (CROC-1)

(3)		(2) Quality of Groundwater	.	(12.1) LAHORE CANAL DIVISION (CBDC-1/2) (4) (4)	/2) (4) Left/ Right	(5) Head Discharge	(6) Tail R.D.	(2)
Head Channel	WAPDA	MOA 1980-00)	JICA 1885	Minor	) (g)	(30,0010)	€	Remarks
		Ĺ	1		(3)	,	1 1	**************************************
B.N.E.Link	<b>L</b> ,	L,	Ļ	Lika Kight (Direct) 2 Rai Left (Direct)	<b>K</b> -1	16.00	24-71 484-71	
Kaura Distributary	(II	N.	(L.	3.Cantonement	×		000+8	
Government House Distributary	( <b>L</b> ,	£L,	<b>(1</b> ,	4.Garden	IJ	7.00	4+435	and the
Niaz Beg Distributary	CL.	S	S	5.Ram Kot	<b>.</b> ì		9+200	
			٠.	6.Kamo Gil	e .	17.00	15+988	Constitution (Constitution Constitution Cons
	:			7.Jalleke	ு.	Q+*/ ·	204+400	**************************************
		· ·		8. Thatti Utar	a j	00.00	29,565	
	•	ţ		9.Kode	Front	00:07	20107	6.424
Khaira Distributary	'n	(1.,	'n	10.Upper Gohawa	<b>2</b> 4 0	050	12+148 24-043	AL
	· · · · · · · · · · · · · · · · · · ·	:		11.Comer Constant	۷.	05.8	101401	******
				12 Polor	شر (1	25.50	15-185	
			1	15.50mm	3 cc		2+871	Sart-col
			:	15.Dulu	د، ۲	5.50	6+927	O.3=#
				16.Pindi	œ	-	6+663	.C.Armond
B.R.B.D. Link	ţr.	U.	Œ,	17.New Minor	œ		7+220	
				18.Karbat (Right)	œ	4.50	5+150	
	:			19.Karbat (Left)	<b>ы</b>	2.30	2+620	
Buchar Kahna Distributary	ú.	¥ Z	S	20.Lower Buchar	<b>,</b>	21.90	25+000	
	٠		-	21.Lakhoke Sub-Minor	<b>.</b> } ;	7.70	10+000	
	٠,			22. Ghanakkor 23. Julya	¥ ⊦	15,60	294500	жеа
			:	ZJJUKO 24 DAZZZE	٦.	\$ 8	00+76 00+76	
				24. Sactor	) α	27.00 4.40	000+8	(Teach
				26.Kingra	; <sub>1-1</sub>	30.50	060+97	NC OF THE
				27 Jhedu	'n	00.6	4+013	. 76
				28.Minor-1	μĬ	8.50	9+592	factorie :
				29.Minor-2	ឯ	6.21	\$+030	
			• •	30.Minor-3	ᆈ	15.90	10+015	
Ghawind Distributary	ርዲ ር	Ž.	LL;	31 Jaman	α,	90.9	16+000	
Laten Distributary	I, l	<b>₹</b>	ا مت	32, Vangil	- <b>4</b> (	3.43	108+A	<b>.</b>
Karwind Distributary	II,	K Z	ı.	33.Jhodu Dir	c; ,		18+575	
to become design of the Comment of t				34.Babahana	1	3.00 3.00	810+6	
Thamman Distributary		S		35.Kasur	<b>.</b>		20+065	
				36.Lakhneke Sub-Minor	Section of Report to	16.00	20+535	A second was a second to the second
				37.Kasur Sub-Minor	-1		7+590	
				38.Athi Purc		8.00	74.23	
			×	39. Athil Pur Sub-Minor	à.	30.00	35+590	
: : :	ļ	•	(	40.Sahran		Section of the sectio	23+/63	The second secon
Sirhali Distributary	<u>τ</u> .	S	, Ц	41.Sirhali	니		5+530	
								1

Table A.2.1-4 (26/26). GROUND WATER QUALITY BASE DATA OF MINORS (12.2) LAHORE CANAL DIVISION (CBDC-2/2)

	.	6	7.2.	LAFICAE CANAL DIVISION (CODC-	-2/2)			
3		(2) Cuainty of	:	3	(+) Teld	(5) read	(0) (3)	S
Control of the contro		Groundwater			Right	Discharge	R.D.	
Head Channel	WAPDA (1971)	MOA (1980-90)	JICA (1996)	Minor	(f. /8)	(cnsecs)	(ft.)	Remarks
	,	;	٠,					
Luliiani Distributary	ž,	<b>∢</b> Z.	n	42.Sattoki	.) ,	14.50	27,500	
The second control of			**************************************	45.Mir Monammad		Application of the second of t	33+137	The second secon
Chhina Distributary	S		SO.	44Kale		19.00	25+623	
Zaffarke Distributary	S	μ,	တ	45.Jagoke	-1	10.30	18+150	
Main Branch Lower				46.Paimar No.3	œ	10.05	25+425	
Turkwind Distributary	S	W	Ω	47.Paimar	IJ	17.00	25+425	
		-		48.Man Singh Sub-Minor	-1	90.9	64-683	
				49.Bhoe Asal	ᆈ	10.50	15+630	
Handal Distributary	S	ţt,	μ,	50.Gandian	œ	4.8	2+237	
				51.Minor No.17	<b>_1</b>	7.50	9+250	
Rakh Distributary	(Li	Ϋ́Z	S	52.Patroki	<b>ы</b>	21.00	25+000	
	\$		4	53.Warrar	, 1	19.00	24+465	
		.*	4	54.Halla	<b>≪</b>	8.00	19+025	
···			4	55.Ghuman	_1	6.20	5+223	
			4	S6_Montgomery	લ	11.50	11+800	
Maujoke Distributary	W	X.	S	57.Minor No.1	ដ	13.00	18+800	
				58.Minor No.2	œ	9.50	9+825	
Vahn Distributary	S	<b>ц</b> .	S	59.Rosa	ų	71.00	39+100	
:				60.Sub-Minor No.1	ы <b>і</b>	00.6	13+819	
	:			61.Sub-Minor No.2	 	8.00	2+685	
				62.Minor No.1	<b></b>	14.00	18+650	
				63.Hanjra	ద	25.00	23+350	
				64.Thatta Balara	쏪	15.00	13+190	
				65.Minor No.3	oc.	8.00	8+015	
			-	66.Minor No.4	٦	90.9	8+929	
B.R.B.D.Link	ш	<b>1</b> 14	ŢI.	67.New Kasur (Right)	ĸ	2.00	7+587	
	:			68.New Kasur (Left)	J	3.00	000+9	
							-	
						Total Length	1,106,858	(ft.)
4	_						٠	
							221.37	(canal mile)
			"					
						:		
7		THE R. P. LEWIS CO., Land Low, Low, Low, Low, Low, Low, Low, Low,	-					

## **FIGURES**

• Inflow-Outflow(I/O) **▲** Ponding Average Seepage Rate (All) = 6.32 cfs/msf Fig. A.1.3-1 Frequency Distribution of Seepage Rate of Unlined Distributaries and Minors <u>...</u> ഗ Average Seepage Rate (1/0) = 6.35 cfs/msf Selection Criteria (5 cfs/mst) 4 (Ponding) = 6.13 cfs/msf Average Seepage Rate ന N 0 ဖ 0 ω Ŋ Frequency (nos) ÅF - 1

Fig. A.1.4-1 Inequity of Water Distribution







