

## Quality of Water of Polluted River stretches in Punjab for the month of June, 2019

### Satluj : Roop Nagar to Harike Bridge : Priority I

S.N.	Point of Sample Collection	Code	Date of receipt in lab	Lab Sample No.	Sample Collected & Analyzed by	pH	DO mg/l	BOD mg/l	Cond $\mu$ s/Cm	T.Coli MPN/ 100ml	F. Coli MPN/ 100ml	Free Amm. mg/l	SAR	B mg/l	Quality of water as per DBU	Water Quality Index
1	Ropar Head-Works	1019	11.06.19	724	ZO Lab Ldh	8.48	8.9	<1	256	400	130	0.20	0.22	0.17	B	S
2	River Satluj D/S of Rishab- Paper Mills	1293	11.06.19	725	ZO Lab Ldh	8.49	8.2	<1	259	470	170	0.20	0.18	0.17	B	S
3	River Satluj U/S Buddha Nallah	1690	12.06.19	733	ZO Lab Ldh	7.56	8.0	<1	301	930	370	0.05	0.25	0.2	C	S
4	River Satluj at 100 mts D/s after Budha Nallah confluence, Ludhiana	1020	12.06.19	735	ZO Lab Ldh	7.26	4.6	10	700	11,00,000	2,30,000	0.11	1.60	0.28	D	N
5	River Satluj at Boat Bridge, Dharamkot Nakodar Road	1021	13.06.19	744	ZO Lab Ldh	7.43	5.8	3.2	398	84,000	31,000	0.05	0.50	0.51	D	N
6	River Satluj at D/s East Bein	1381	13.06.19	747	ZO Lab Jal.	7.58	5.4	3.4	527	21,000	7900	0.06	2.36	0.43	D	N
7	River Satluj at Harike	1022	13.06.19	748	ZO Lab Ldh	7.42	5.8	2.1	280	9400	2600	0.015	0.42	0.43	D	N

S.N.	Point of Sample Collection	Code	Date of receipt in lab	Lab Sample No.	Sample Collected & Analyzed by	COD mg/l	Turb NTU	TSS mg/l	TDS mg/l	FDS mg/l	Cl mg/l	SO <sub>4</sub> mg/l	TH mg/l	Ca mg/l	Mg mg/l	T.Alkn mg/l	P.Alkn mg/l	AmnN mg/l	NO <sub>3</sub> -N mg/l	TKN mg/l	PO <sub>4</sub> as P mg/l	F mg/l	Na mg/l	K mg/l
1	Ropar Head-Works	1019	11.06.19	724	ZO Lab Ldh	<5	11	12	154	132	20	12	104	25.6	9.7	102	BDL	1.4	0.99	2.6	0.30	0.14	5.1	3.7
2	River Satluj D/S of Rishab- Paper Mills	1293	11.06.19	725	ZO Lab Ldh	<5	12	14	161	142	22	14	110	26.4	10.4	106	BDL	1.4	1.13	2.8	0.32	0.15	4.3	3.2
3	River Satluj U/S Buddha Nallah	1690	12.06.19	733	ZO Lab Ldh	8	18	24	187	164	22	14	128	33.6	10.8	110	BDL	2.0	1.28	3.6	0.34	0.16	6.4	4.4
4	River Satluj at 100 mts D/s after Budha Nallah confluence, Ludhiana	1020	12.06.19	735	ZO Lab Ldh	48	56	39	413	358	86	42	224	57.6	19.6	180	BDL	11	2.02	23	1.8	0.19	55	11
5	River Satluj at Boat Bridge, Dharamkot Nakodar Road	1021	13.06.19	744	ZO Lab Ldh	20	26	22	248	213	42	28	168	40.8	16	132	BDL	3.0	1.44	5.2	0.5	0.16	15	5
6	River Satluj at D/s East Bein	1381	13.06.19	747	ZO Lab Jal.	22	24	20	322	284	36	22	162	40	15.1	134	BDL	2.5	2.32	4.0	0.42	0.20	69	5
7	River Satluj at Harike	1022	13.06.19	748	ZO Lab Ldh	18	12	18	168	148	20	10	108	25.6	10.6	96	BDL	1.0	1.18	2.4	0.12	0.18	10	5.2

Note. 1. BDL means Below Method Detection Limit

2. DBU means Designated Best Use (Class-A,B,C,D & E)

3. Water Quality Index ( S means Satisfactory, U means Unsatisfactory)

4. U/s means Upstream , D/s means Downstream

## Quality of Water of Polluted River stretches in Punjab for the month of June, 2019

### Ghaggar: Mubarkpur to Sardulgarh: Priority I

S.N.	Point of Sample Collection	Code	Date of receipt in lab	Lab Sample No.	Sample Collected & Analyzed by	pH	DO mg/l	BOD mg/l	Cond $\mu$ S/Cm	T.Coli MPN/ 100ml	F. Coli MPN/ 100ml	Free Amm. mg/l	SAR	B mg/l	Quality of water as per DBDU	Water Quality Index
1	Ghaggar at Mubarikpur Rest House	1023	11/6/19	SW 334	H/o Lab Patiala	7.6	4.3	17	518	28,000	3900	0.29	0.91	0.23	D	U
2	Ghaggar at Bhankarpur	1295	11/6/19	SW 335	H/o Lab Patiala	7.7	2.7	50	816	63,000	9200	0.35	0.99	0.19	E	U
3	Ghaggar at Chattbir	1698	11/6/19	SW 336	H/o Lab Patiala	7.8	1.9	28	802	49,000	6800	0.35	1.17	0.24	E	U
4	Ghaggar at U/s Jharmal Nadi	1702	11/6/19	SW 337	H/o Lab Patiala	7.7	3.1	21	857	24,000	3400	0.22	1.58	0.22	E	U
5	Ghaggar at D/s Jharmal Nadi	1701	11/6/19	SW 338	H/o Lab Patiala	7.8	2.8	25	1002	35,000	5800	0.36	1.96	0.24	E	U
6	Ghaggar at U/s Dhakanshu Nallah	1699	11/6/19	SW 340	H/o Lab Patiala	7.6	2.7	21	991	35,000	6300	0.24	1.51	0.21	E	U
7	Ghaggar at D/s Dhakanshu Nallah	1700	11/6/19	SW 341	H/o Lab Patiala	7.7	2.3	26	1200	41,000	6800	0.35	1.83	0.23	E	U
8	Ghaggar at Rattanheri	1473	12/6/19	SW 351	H/o Lab Patiala	7.7	1.8	27	1390	28,000	5800	0.30	3.86	0.36	E	U
9	Ghaggar before mixing with Sagar Para drain (U/s sagar para Drain)	4159	12/6/19	SW 352	H/o Lab Patiala	7.0	1.6	59	1840	46,000	6100	BDL	3.46	0.37	E	U
10	Ghaggar after mixing with Sagar Para drain (D/s Sagar Para Drain)	4160	12/6/19	SW 353	H/o Lab Patiala	7.0	BDL	66	2040	48,000	8200	BDL	4.15	0.36	E	U
11	Ghaggar at Khanauri	1024	12/6/19	SW 356	H/o Lab Patiala	7.9	2.0	35	1236	24,000	3400	0.42	2.77	0.56	E	U
12	Ghaggar at Moonak	1703	12/6/19	SW 358	H/o Lab Patiala	7.8	2.2	31	1330	35,000	4100	0.32	2.62	0.57	E	U
13	Ghaggar at U/s Sardulgarh	1705	14/6/19	SW 379	H/o Lab Patiala	7.7	3.6	16	1390	22,000	2600	0.24	2.53	0.31	E	U
14	Ghaggar at D/s Sardulgarh	1704	14/6/19	SW 380	H/o Lab Patiala	7.8	3.1	20	1410	35,000	4,000	0.33	2.58	0.42	E	U

S.N.	Point of Sample Collection	Code	Date of receipt in lab	Lab Sample No.	Sample Collected & Analyzed by	COD mg/l	Turb NTU	TSS mg/l	TDS mg/l	FDS mg/l	Cl mg/l	SO <sub>4</sub> Mg/l	TH mg/l	Ca mg/l	Mg mg/l	T.Alkn mg/l	P.Alkn mg/l	AmnN mg/l	NO <sub>3</sub> -N mg/l	TKN mg/l	PO <sub>4</sub> P mg/l	F mg/l	Na mg/l	K mg/l
1	Ghaggar at Mubarikpur Rest House	1023	11/6/19	SW 334	H/o Lab Patiala	86	610	714	337	286	38	14	194	56	13	228	BDL	11.0	2.40	15.4	1.57	0.42	29	8
2	Ghaggar at Bhankarpur	1295	11/6/19	SW 335	H/o Lab Patiala	204	390	528	530	451	75	20	277	81	18	362	BDL	11.6	1.1	16.2	2.99	0.40	38	15
3	Ghaggar at Chattbir	1698	11/6/19	SW 336	H/o Lab Patiala	140	205	510	521	443	60	21	258	83	12	357	BDL	10.0	0.90	14.0	1.80	0.48	43	14
4	Ghaggar at U/s Jharmal Nadi	1702	11/6/19	SW 337	H/o Lab Patiala	106	170	391	557	473	86	25	238	77	11	373	BDL	7.2	0.70	10.1	1.30	0.30	56	13
5	Ghaggar at D/s Jharmal Nadi	1701	11/6/19	SW 338	H/o Lab Patiala	126	200	498	651	553	86	26	292	84	20	402	BDL	10.4	1.2	14.6	1.72	0.90	77	30
6	Ghaggar at U/s Dhakanshu Nallah	1699	11/6/19	SW 340	H/o Lab Patiala	108	130	104	644	547	70	21	281	81	19	371	BDL	9.6	0.60	13.4	1.57	0.40	58	23
7	Ghaggar at D/s Dhakanshu Nallah	1700	11/6/19	SW 341	H/o Lab Patiala	132	145	131	780	663	92	31	363	99	28	413	BDL	11.6	1.2	16.2	1.95	0.7	80	35
8	Ghaggar at Rattanheri	1473	12/6/19	SW 351	H/o Lab Patiala	134	70	156	904	768	145	46	359	104	24	428	BDL	10.0	0.60	14.0	1.80	0.42	168	47
9	Ghaggar before mixing with Sagar Para drain (U/s sagar para Drain)	4159	12/6/19	SW 352	H/o Lab Patiala	270	280	210	1210	1030	178	52	468	128	36	1096	BDL	10.0	0.98	14.2	1.88	0.40	172	62
10	Ghaggar after mixing with Sagar Para drain (D/s Sagar Para Drain)	4160	12/6/19	SW 353	H/o Lab Patiala	301	310	234	1520	1310	212	71	553	142	48	1245	BDL	11.0	1.1	15.4	5.26	0.48	224	78
11	Ghaggar at Khanauri	1024	12/6/19	SW 356	H/o Lab Patiala	177	115	112	803	683	78	41	309	94	18	541	BDL	9.4	0.90	13.2	4.35	0.40	112	30
12	Ghaggar at Moonak	1703	12/6/19	SW 358	H/o Lab Patiala	156	90	108	865	735	91	48	412	117	29	570	BDL	9.0	0.98	12.6	4.47	0.40	122	33
13	Ghaggar at U/s Sardulgarh	1705	14/6/19	SW 379	H/o Lab Patiala	82	40	97	834	709	88	27	395	87	19	613	BDL	8.0	0.60	11.2	1.02	0.36	100	29
14	Ghaggar at D/s Sardulgarh	1704	14/6/19	SW 380	H/o Lab Patiala	102	50	104	847	720	95	31	321	92	22	624	BDL	9.4	0.80	13.1	1.46	0.28	106	32

**Note. 1. BDL means Below Method Detection Limit**

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## Quality of Water of Polluted River stretches in Punjab for the month of June, 2019

### Kali Bein (Sultanpur Lodhi to Confluence to Beas) : Priority IV

S.N.	Point of Sample Collection	Code	Date of receipt in lab	Lab Sample No.	Sample Collected & Analyzed by	pH	DO mg/l	BOD mg/l	Cond $\mu$ s/Cm	T.Coli MPN/100ml	F.Coli MPN/100ml	Free Amm. mg/l	SAR	B mg/l	Water quality as per DBU	Water Quality Index
1	Kali Bein into Beas	2913	18/6/19	485	Z.O. Lab Jalandhar	7.6	6.4	3.4	273	2200	1100	0.25	1.27	0.34	D	N

S.N.	Point of Sample Collection	Code	Date of receipt in lab	Lab Sample No.	Sample Collected & Analyzed by	COD mg/l	Turb NTU	TSS mg/l	TDS mg/l	FDS mg/l	Cl mg/l	SO <sub>4</sub> Mg/l	TH mg/l	Ca mg/l	Mg mg/l	T.Alkn mg/l	p.Alkn mg/l	Amn-N mg/l	NO <sub>3</sub> -N mg/l	TKN mg/l	PO <sub>4</sub> as P mg/l	F mg/l	Na mg/l	K mg/l
1	Kali Bein into Beas	2913	18/6/19	485	Z.O. Lab Jalandhar	20	40	24	272	218	18	14	132	35	8	160	BDL	1.0	1.2	1.9	0.15	0.16	32	3.1

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### Beas (along Mukerian) : Priority V

S.N.	Point of Sample Collection	Code	Date of receipt in lab	Lab Sample No.	Sample Collected & Analyzed by	pH	DO mg/l	BOD mg/l	Cond $\mu$ s/Cm	T. Coli MPN/100ml	F. Coli MPN/100ml	Free Amm. mg/l	SAR	B mg/l	Quality of water as per DBU	Water Quality Index
1	River Beas 1 Km D/S effluent discharge point at Mukerian	1294	04.06.19	451	ZO Lab Jal.	7.8	6.8	1.3	258	580	250	0.025	0.19	0.80	C	S

S.N.	Point of Sample Collection	Code	Date of receipt in lab	Lab Sample No.	Sample Collected & Analyzed by	COD mg/l	Turb NTU	TSS mg/l	TDS mg/l	FDS mg/l	Cl mg/l	SO <sub>4</sub> Mg/l	TH mg/l	Ca mg/l	Mg mg/l	T.Alkn mg/l	P.Alkn mg/l	AmnN mg/l	NO <sub>3</sub> -N mg/l	TKN mg/l	PO <sub>4</sub> as P mg/l	F mg/l	Na mg/l	K mg/l
1	River Beas 1 Km D/S effluent discharge point at Mukerian	1294	04.06.19	451	ZO Lab Jal.	14	56	28	160	132	10	16	91	28	5	132	BDL	0.7	0.5	1.4	0.09	0.15	4.2	2.6

Note. 1. BDL means Below Method Detection Limit

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3. Water Quality Index ( S means Satisfactory, U means Unsatisfactory)

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