

## Quality of Water of Polluted River stretches in Punjab for the month of September, 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	09.09.2019	SW 900	ZO Lab Ldh	8.02	8.7	<1	252	280	110	BDL	0.23	0.12	B	S
2	River Satluj D/S of Rishab- Paper Mills	1293	09.09.2019	SW 899	ZO Lab Ldh	8.06	7.8	<1	260	490	170	BDL	0.17	0.15	B	S
3	River Satluj U/S Buddha Nallah	1690	10.09.2019	SW 909	ZO Lab Ldh	8.04	6.8	1.8	292	2200	630	BDL	0.19	0.18	C	S
4	River Satluj at 100 mts D/s after Budha Nallah confluence, Ludhiana	1020	10.09.2019	SW 910	ZO Lab Ldh	7.83	5.1	12	316	94000	46000	0.056	0.46	0.22	D	N
5	River Satluj at Boat Bridge, Dharamkot Nakodar Road	1021	12.09.2019	SW 916	ZO Lab Ldh	7.94	5.7	4.0	308	17000	11000	0.054	0.40	0.24	D	N
6	River Satluj at D/s East Bein	1381	12.09.2019	SW 917	ZO Lab Jal.	7.91	5.6	4.2	364	17000	9400	0.050	0.27	0.28	D	N
7	River Satluj at Harike	1022	12.09.2019	SW 918	ZO Lab Ldh	7.88	5.9	2.8	302	7900	3300	0.060	0.29	0.26	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	09.09.2019	SW 900	ZO Lab Ldh	<5	30	24	142	123	9	9	108	28.8	8.7	90	BDL	BDL	1.2	1.0	BDL	0.31	5.4	2.1
2	River Satluj D/S of Rishab- Paper Mills	1293	09.09.2019	SW 899	ZO Lab Ldh	<5	52	38	158	136	8	9	120	32	9.7	78	BDL	BDL	1.3	1.3	BDL	0.38	4.2	2.6
3	River Satluj U/S Buddha Nallah	1690	10.09.2019	SW 909	ZO Lab Ldh	12	68	56	172	152	8	6	124	29.6	12.2	76	BDL	BDL	1.3	1.3	BDL	0.32	4.8	2.5
4	River Satluj at 100 mts D/s after Budha Nallah confluence, Ludhiana	1020	10.09.2019	SW 910	ZO Lab Ldh	38	72	62	191	164	28	16	144	31.2	16.0	98	BDL	1.6	1.5	2.0	0.11	0.42	12.7	3.4
5	River Satluj at Boat Bridge, Dharamkot Nakodar Road	1021	12.09.2019	SW 916	ZO Lab Ldh	24	59	43	190	162	18	14	130	32	12.2	84	BDL	1.2	1.5	1.6	0.12	0.38	10.4	5.7
6	River Satluj at D/s East Bein	1381	12.09.2019	SW 917	ZO Lab Jal.	28	49	38	208	180	16	13	154	32	18.0	90	BDL	1.1	1.5	1.5	0.14	0.30	7.7	4.2
7	River Satluj at Harike	1022	12.09.2019	SW 918	ZO Lab Ldh	20	30	26	181	159	14	12	144	30	16.8	86	BDL	1.4	1.3	1.7	0.09	0.28	7.9	4.2

- 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 September, 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	4/9/19	SW 847	H/o Lab Patiala	7.9	6.2	7	380	22000	2600	4.4	1.37	0.20	D	U
2	Ghaggar at Bhankarpur	1295	4/9/19	SW 848	H/o Lab Patiala	7.3	3.2	21	595	28000	3800	0.13	1.45	0.26	E	U
3	Ghaggar at Chattbir	1698	4/9/19	SW 849	H/o Lab Patiala	7.4	4.0	17	555	24000	2700	0.15	1.51	0.25	D	U
4	Ghaggar at U/s Jharmal Nadi	1702	4/9/19	SW 850	H/o Lab Patiala	7.6	4.0	16	570	21000	2200	0.25	1.35	0.19	D	U
5	Ghaggar at D/s Jharmal Nadi	1701	4/9/19	SW 851	H/o Lab Patiala	7.6	3.1	20	800	24000	3400	0.33	1.62	0.23	E	U
6	Ghaggar at U/s Dhakanshu Nallah	1699	4/9/19	SW 853	H/o Lab Patiala	7.7	4.4	10	532	17000	2100	0.30	1.44	0.17	D	U
7	Ghaggar at D/s Dhakanshu Nallah	1700	4/9/19	SW 854	H/o Lab Patiala	7.6	4.0	14	577	21000	2300	0.27	1.62	0.32	D	U
8	Ghaggar at Rattanheri	1473	12/9/19	SW 890	H/o Lab Patiala	7.6	4.3	10	692	22000	2700	0.36	2.07	0.23	D	U
9	Ghaggar before mixing with Sagar Para drain (U/s Sagar Para Drain)	4159	12/9/19	SW 891	H/o Lab Patiala	7.6	4.0	11	698	28000	3400	0.35	2.23	0.22	D	U
10	Ghaggar after mixing with Sagar Para drain (D/s Sagar Para Drain)	4160	12/9/19	SW 892	H/o Lab Patiala	7.6	3.6	14	750	28000	3900	0.34	2.33	0.27	E	U
11	Ghaggar at Khanauri	1024	12/9/19	SW 895	H/o Lab Patiala	7.7	3.7	12	535	22000	2400	0.34	1.10	0.19	E	U
12	Ghaggar at Moonak	1703	12/9/19	SW 897	H/o Lab Patiala	7.6	3.6	13	577	28000	3300	0.30	1.23	0.20	E	U
13	Ghaggar at U/s Sardulgarh	1705	16/9/19	SW 953	H/o Lab Patiala	7.9	5.2	12	402	14000	2000	0.57	1.38	0.23	D	U
14	Ghaggar at D/s Sardulgarh	1704	16/9/19	SW 954	H/o Lab Patiala	7.7	4.7	13	525	22000	2400	0.41	1.53	0.28	D	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	NO3-N mg/l	TKN mg/l	PO <sub>4</sub> as P mg/l	F mg/l	Na mg/l	K mg/l
1	Ghaggar at Mubarikpur Rest House	1023	4/9/19	SW 847	H/o Lab Patiala	36	340	262	247	210	27	11	97	32	4	180	BDL	9.7	2.39	13.6	2.20	0.32	31	10
2	Ghaggar at Bhankarpur	1295	4/9/19	SW 848	H/o Lab Patiala	103	240	212	357	303	46	14	182	48	15	234	BDL	12.6	1.04	17.6	7.1	0.41	45	17
3	Ghaggar at Chattbir	1698	4/9/19	SW 849	H/o Lab Patiala	82	160	172	332	283	40	12	146	42	10	228	BDL	10.1	0.98	14.1	7.4	0.37	42	13
4	Ghaggar at U/s Jharmal Nadi	1702	4/9/19	SW 850	H/o Lab Patiala	78	30	68	342	291	41	10	166	40	16	240	BDL	1.0	0.87	14.0	4.9	0.28	40	15
5	Ghaggar at D/s Jharmal Nadi	1701	4/9/19	SW 851	H/o Lab Patiala	102	40	71	481	409	84	21	242	64	20	282	BDL	13.3	1.10	18.6	6.7	0.39	58	31
6	Ghaggar at U/s Dhakanshu Nallah	1699	4/9/19	SW 853	H/o Lab Patiala	50	30	57	319	271	40	11	125	35	9	221	BDL	9.9	0.91	13.9	3.6	0.30	37	21
7	Ghaggar at D/s Dhakanshu Nallah	1700	4/9/19	SW 854	H/o Lab Patiala	54	45	64	346	294	43	15	145	40	11	229	BDL	10.6	1.00	14.8	3.1	0.58	45	24
8	Ghaggar at Rattanheri	1473	12/9/19	SW 890	H/o Lab Patiala	48	170	183	415	353	61	17	176	47	14	262	BDL	14.2	0.82	19.9	3.4	0.47	63	22
9	Ghaggar before mixing with Sagar Para drain (U/s Sagar Para Drain)	4159	12/9/19	SW 891	H/o Lab Patiala	51	130	158	419	356	62	18	166	50	10	260	BDL	13.9	0.89	19.5	4.0	0.50	66	24
10	Ghaggar after mixing with Sagar Para drain (D/s Sagar Para Drain)	4160	12/9/19	SW 892	H/o Lab Patiala	64	190	204	450	382	66	20	197	54	15	267	BDL	13.6	0.99	19.0	5.5	0.53	75	26
11	Ghaggar at Khanauri	1024	12/9/19	SW 895	H/o Lab Patiala	59	120	128	321	273	43	10	149	40	12	232	BDL	11.3	0.93	15.8	4.4	0.33	31	14
12	Ghaggar at Moonak	1703	12/9/19	SW 897	H/o Lab Patiala	63	110	120	346	294	45	13	172	47	13	240	BDL	12.1	1.02	16.9	4.5	0.38	37	17
13	Ghaggar at U/s Sardulgarh	1705	16/9/19	SW 953	H/o Lab Patiala	52	20	44	241	121	29	9	62	20	3	193	BDL	12.6	0.61	17.6	1.6	0.21	25	10
14	Ghaggar at D/s Sardulgarh	1704	16/9/19	SW 954	H/o Lab Patiala	60	35	58	315	268	35	12	124	33	10	240	BDL	13.5	0.84	18.9	2.1	0.34	39	17

- 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 September, 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	19/09/19	SW 650	Z.O. Lab Jalandhar	7.4	6.8	2.4	360	3800	1300	0.015	1.13	0.86	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	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	19/8/2019	19/09/19	SW 650	24	38	16	205	172	20	24	98	25	9	129	BDL	1.0	0.9	1.8	0.16	0.19	26	14

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

### 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 Amn. 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	09/09/19	613	ZO Lab Jal.	7.8	7.7	1.2	316	540	350	0.025	0.47	0.26	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	09/09/19	613	ZO Lab Jal.	12	38	24	190	164	12	12	104	33	5	139	BDL	0.7	0.7	1.0	0.08	0.14	11	3.8

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