DATASET ACTIVATE DataSet2.

ONEWAY Temperatue Turbidity Length River\_Depth Velocity Dischage Area Dissolved\_Oxygen
 Total\_Nitrate Total\_Phosphate pH\_Level Distance Conductivity Width BY Stream
 /STATISTICS DESCRIPTIVES HOMOGENEITY
 /PLOT MEANS
 /MISSING ANALYSIS
 /CRITERIA=CILEVEL(0.95)
 /POSTHOC=TUKEY BTUKEY ALPHA(0.05).

### Oneway

#### **Notes**

Output Created	30-JUN-2024 03:39:09	
Comments		
Input	Data	D:\Hunter\Data Works\Godiva\Data Model.sav
	Active Dataset	DataSet2
	Filter	<none></none>
	Weight	<none></none>
	Split File	<none></none>
	N of Rows in Working Data File	3
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.

#### **Notes**

Syntax		ONEWAY Temperatue Turbidity Length River_Depth Velocity Dischage Area Dissolved_Oxygen Total_Nitrate Total_Phosphate pH_Level Distance Conductivity Width BY Stream /STATISTICS DESCRIPTIVES HOMOGENEITY /PLOT MEANS /MISSING ANALYSIS /CRITERIA=CILEVEL (0.95) /POSTHOC=TUKEY BTUKEY ALPHA(0.05).
Resources	Processor Time	00:00:01.81
	Elapsed Time	00:00:01.84

[DataSet2] D:\Hunter\Data Works\Godiva\Data Model.sav

#### **Warnings**

Post hoc tests are not performed for Temperature because at least one group has fewer than two cases.

Post hoc tests are not performed for Turbidity because at least one group has fewer than two cases.

Post hoc tests are not performed for Length because at least one group has fewer than two cases.

Post hoc tests are not performed for River Depth because at least one group has fewer than two cases.

Post hoc tests are not performed for Velocity because at least one group has fewer than two cases.

Post hoc tests are not performed for Discharge because at least one group has fewer than two cases.

Post hoc tests are not performed for Area because at least one group has fewer than two cases.

Post hoc tests are not performed for Dissolved Oxygen because at least one group has fewer than two cases.

Post hoc tests are not performed for Total Nitrates because at least one group has fewer than two cases.

#### **Warnings**

Post hoc tests are not performed for Total Phosphates because at least one group has fewer than two cases.

Post hoc tests are not performed for pH Level because at least one group has fewer than two cases.

Post hoc tests are not performed for Distance because at least one group has fewer than two cases.

Post hoc tests are not performed for Conductivity because at least one group has fewer than two cases.

Post hoc tests are not performed for Width because at least one group has fewer than two cases.

All absolute deviations are constant within each cell. Levene F statistics cannot be computed.

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		N	Mean	Std. Deviation	Std. Error
Temperature	UPSTREAM	1	31.70000		
	MIDSTREAM	1	29.06700		
	DOWNSTREAM	1	31.26700		
	Total	3	30.67800	1.411865	.815141
Turbidity	UPSTREAM	1	55.95000		
	MIDSTREAM	1	34.15000		
	DOWNSTREAM	1	12.05000		
	Total	3	34.05000	21.950171	12.672937
Length	UPSTREAM	1	55.60000		
	MIDSTREAM	1	43.59000		
	DOWNSTREAM	1	5.47000		
	Total	3	34.88667	26.173751	15.111422
River Depth	UPSTREAM	1	2.70000	-	
	MIDSTREAM	1	.62700	-	
	DOWNSTREAM	1	3.91000		
	Total	3	2.41233	1.660297	.958573
Velocity	UPSTREAM	1	.431200		
	MIDSTREAM	1	.363000		
	DOWNSTREAM	1	.040000		
	Total	3	.278067	.2089728	.1206505
Discharge	UPSTREAM	1	151.54900		
	MIDSTREAM	1	85.12900		
	DOWNSTREAM	1	1.06000		
	Total	3	79.24600	75.416789	43.541903
Area	UPSTREAM	1	351.948000		
	MIDSTREAM	1	234.514000		
	DOWNSTREAM	1	27.080000		
	Total	3	204.514000	164.4986455	94.9733372
Dissolved Oxygen	UPSTREAM	1	99.300		
	MIDSTREAM	1	95.700		
	DOWNSTREAM	1	26.500		
	Total	3	73.833	41.0314	23.6895
Total Nitrates	UPSTREAM	1	1.000		
	MIDSTREAM	1	1.100		

		95% Confidence	Interval for Mean		
		Lower Bound	Upper Bound	Minimum	Maximum
Temperature	UPSTREAM			31.700	31.700
	MIDSTREAM			29.067	29.067
	DOWNSTREAM			31.267	31.267
	Total	27.17073	34.18527	29.067	31.700
Turbidity	UPSTREAM			55.950	55.950
	MIDSTREAM			34.150	34.150
	DOWNSTREAM			12.050	12.050
	Total	-20.47725	88.57725	12.050	55.950
Length	UPSTREAM			55.600	55.600
	MIDSTREAM			43.590	43.590
	DOWNSTREAM			5.470	5.470
	Total	-30.13253	99.90587	5.470	55.600
River Depth	UPSTREAM			2.700	2.700
	MIDSTREAM			.627	.627
	DOWNSTREAM			3.910	3.910
	Total	-1.71207	6.53674	.627	3.910
Velocity	UPSTREAM			.4312	.4312
	MIDSTREAM			.3630	.3630
	DOWNSTREAM			.0400	.0400
	Total	241050	.797184	.0400	.4312
Discharge	UPSTREAM			151.549	151.549
	MIDSTREAM			85.129	85.129
	DOWNSTREAM			1.060	1.060
	Total	-108.09969	266.59169	1.060	151.549
Area	UPSTREAM			351.9480	351.9480
	MIDSTREAM			234.5140	234.5140
	DOWNSTREAM			27.0800	27.0800
	Total	-204.123289	613.151289	27.0800	351.9480
Dissolved Oxygen	UPSTREAM			99.3	99.3
	MIDSTREAM			95.7	95.7
	DOWNSTREAM			26.5	26.5
	Total	-28.094	175.761	26.5	99.3
Total Nitrates	UPSTREAM			1.0	1.0
	MIDSTREAM			1.1	1.1

		N	Mean	Std. Deviation	Std. Error
	DOWNSTREAM	1	.900		
	Total	3	1.000	.1000	.0577
Total Phosphates	UPSTREAM	1	2.0500		
	MIDSTREAM	1	.8500		
	DOWNSTREAM	1	2.5000		
	Total	3	1.8000	.85294	.49244
pH Level	UPSTREAM	1	7.8000		
	MIDSTREAM	1	7.7000		
	DOWNSTREAM	1	7.9400		
	Total	3	7.8133	.12055	.06960
Distance	UPSTREAM	1	20.81300		
	MIDSTREAM	1	46.10000		
	DOWNSTREAM	1	1.46000		
	Total	3	22.79100	22.385637	12.924354
Conductivity	UPSTREAM	1	172.3000		
	MIDSTREAM	1	193.5000		
	DOWNSTREAM	1	248.0000		
	Total	3	204.6000	39.05163	22.54647
Width	UPSTREAM	1	.50000		
	MIDSTREAM	1	5.38000		
	DOWNSTREAM	1	4.95000		
	Total	3	3.61000	2.701907	1.559947

		95% Confidence	Interval for Mean		
		Lower Bound	Upper Bound	Minimum	Maximum
	DOWNSTREAM			.9	.9
	Total	.752	1.248	.9	1.1
Total Phosphates	UPSTREAM			2.05	2.05
	MIDSTREAM			.85	.85
	DOWNSTREAM			2.50	2.50
	Total	3188	3.9188	.85	2.50
pH Level	UPSTREAM			7.80	7.80
	MIDSTREAM			7.70	7.70
	DOWNSTREAM			7.94	7.94
	Total	7.5139	8.1128	7.70	7.94
Distance	UPSTREAM			20.813	20.813
	MIDSTREAM			46.100	46.100
	DOWNSTREAM			1.460	1.460
	Total	-32.81801	78.40001	1.460	46.100
Conductivity	UPSTREAM			172.30	172.30
	MIDSTREAM			193.50	193.50
	DOWNSTREAM			248.00	248.00
	Total	107.5904	301.6096	172.30	248.00
Width	UPSTREAM			.500	.500
	MIDSTREAM			5.380	5.380
	DOWNSTREAM			4.950	4.950
	Total	-3.10191	10.32191	.500	5.380

### **ANOVA**

		Sum of Squares	df	Mean Square	F	Sig.
Temperature	Between Groups	3.987	2	1.993		
	Within Groups	.000	0			
	Total	3.987	2			
Turbidity	Between Groups	963.620	2	481.810		
	Within Groups	.000	0			
	Total	963.620	2			
Length	Between Groups	1370.130	2	685.065		
	Within Groups	.000	0			
	Total	1370.130	2			
River Depth	Between Groups	5.513	2	2.757		
	Within Groups	.000	0			
	Total	5.513	2			
Velocity	Between Groups	.087	2	.044		
	Within Groups	.000	0			
	Total	.087	2			
Discharge	Between Groups	11375.384	2	5687.692		
	Within Groups	.000	0			
	Total	11375.384	2			
Area	Between Groups	54119.609	2	27059.804		
	Within Groups	.000	0			
	Total	54119.609	2			
Dissolved Oxygen	Between Groups	3367.147	2	1683.573		
	Within Groups	.000	0			
	Total	3367.147	2			
Total Nitrates	Between Groups	.020	2	.010		
	Within Groups	.000	0			
	Total	.020	2			
Total Phosphates	Between Groups	1.455	2	.727		
	Within Groups	.000	0			
	Total	1.455	2			
pH Level	Between Groups	.029	2	.015		
	Within Groups	.000	0			
	Total	.029	2			

## **ANOVA**

		Sum of Squares	df	Mean Square	F	Sig.
Distance	Between Groups	1002.234	2	501.117		
	Within Groups	.000	0			
	Total	1002.234	2			
Conductivity	Between Groups	3050.060	2	1525.030		
	Within Groups	.000	0			
	Total	3050.060	2			
Width	Between Groups	14.601	2	7.300		
	Within Groups	.000	0			
	Total	14.601	2			

## **Means Plots**

















