

Multiple Regression of Gas on Temperature and Insul Interaction Model

Response: Gas

Explanatory: Temp, Insul, Temp*Insul

Summary of Fit

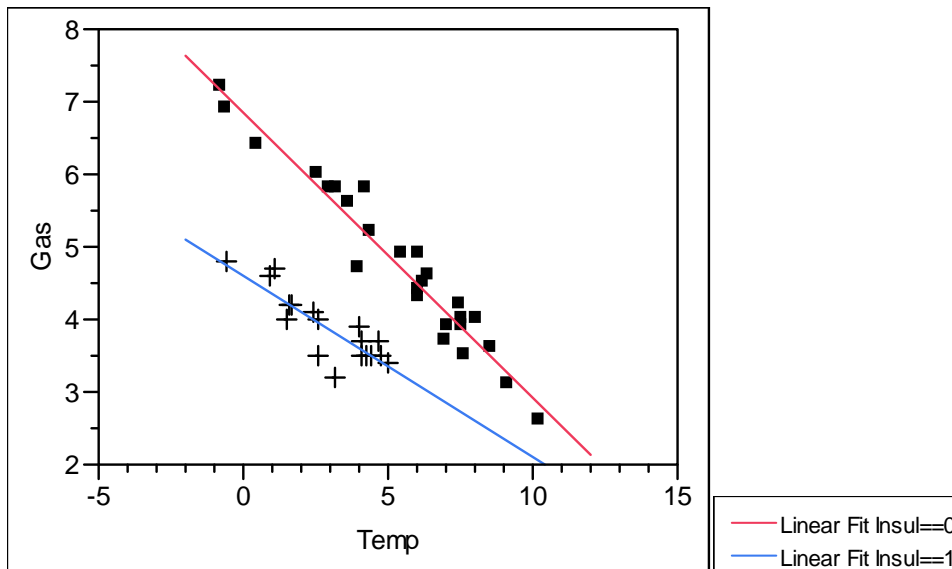
RSquare	0.935929
RSquare Adj	0.931124
Root Mean Square Error	0.269933
Mean of Response	4.397727
Observations (or Sum Wgts)	44

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	3	42.575211	14.1917	194.7701
Error	40	2.914562	0.0729	Prob > F
C. Total	43	45.489773		<.0001

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	6.8538277	0.113625	60.32	<.0001
Temp	-0.393239	0.018792	-20.93	<.0001
Insul	-2.26321	0.172778	-13.10	<.0001
Temp*Insul	0.143612	0.044551	3.22	0.0025



Linear Fit Insul==0

Predicted Gas = 6.8538277 - 0.3932388*Temp

Summary of Fit

RSquare	0.943808
RSquare Adj	0.941467
Root Mean Square Error	0.281334
Mean of Response	4.75
Observations (or Sum Wgts)	26

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	31.905432	31.9054	403.1076
Error	24	1.899568	0.0791	Prob > F
C. Total	25	33.805000		<.0001

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	6.8538277	0.118423	57.88	<.0001
Temp	-0.393239	0.019586	-20.08	<.0001

Linear Fit Insul==1

Predicted Gas = 4.5906175 - 0.2496268*Temp

Summary of Fit

RSquare	0.73274
RSquare Adj	0.716036
Root Mean Square Error	0.251867
Mean of Response	3.888889
Observations (or Sum Wgts)	18

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	2.7827840	2.78278	43.8668
Error	16	1.0149938	0.06344	Prob > F
C. Total	17	3.7977778		<.0001

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	4.5906175	0.121448	37.80	<.0001
Temp	-0.249627	0.03769	-6.62	<.0001