

```
feature_name = {'含沙量', '淤泥含量', '粘土含量', '有机物', 'PH 值'};
file_path = 'D:\文件\大作业\数据.xlsx';
sheet = 'Sheet1';
data = readtable(file_path, 'Sheet', sheet, 'Range', 'A1:E20');
data.Properties.VariableNames = feature_name;
```

```
X = data{:, 1:end-1};
Y = selected_data(:, 5);
X = table2array(data{:, 1:end-1});
%拟合
model = fitlm(X, Y);
```

```
disp(model);
coeffTable = model.Coefficients;
disp(coeffTable);
```

运行结果：

线性回归模型：

$$y \sim 1 + x_1 + x_2 + x_3 + x_4$$

估计系数：

	Estimate	SE	tStat	pValue
	_____	_____	_____	_____
(Intercept)	-57.908	92.957	-0.62296	0.54267
x1	0.64175	0.92701	0.69228	0.49934
x2	0.63226	0.91889	0.68807	0.50191
x3	0.67567	0.9633	0.70141	0.49378
x4	0.10541	0.19555	0.53904	0.59777

观测值数目: 20, 误差自由度: 15

均方根误差: 0.571

R 方: 0.0396, 调整 R 方 -0.217

F 统计量(常量模型): 0.155, p 值 = 0.958

	Estimate	SE	tStat	pValue
	_____	_____	_____	_____
(Intercept)	-57.908	92.957	-0.62296	0.54267
x1	0.64175	0.92701	0.69228	0.49934
x2	0.63226	0.91889	0.68807	0.50191
x3	0.67567	0.9633	0.70141	0.49378
x4	0.10541	0.19555	0.53904	0.59777