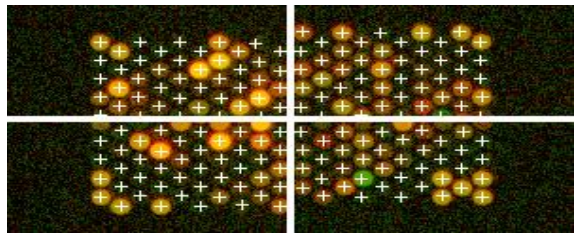


QC Report - Agilent Technologies : 2 Color Gene Expression

Date	Thursday, May 24, 2018 - 11:35	BG Method	No Background
Image	SG15074465_257480913948_S001 [2_3]	Background Detrend	On(FeatNCRRange, LoPass)
Protocol	GE2_1200_Jun14_PEG200_JRmod	Multiplicative Detrend	True
	(Editable)		
User Name	Admin	Dye Norm	Linear
Grid	ExternalFullGEML_074809_D_F_20171030	Linear DyeNorm Factor	8.02(Red) 62.1(Green)
FE Version	12.0.1.1	Additive Error	13(Red)111(Green)
Sample(red/green)		Saturation Value	776684 (r), 777880 (g)
DyeNorm List	NA		
No of Probes in DyeNorm List	NA		

Spot Finding of the Four Corners of the Array

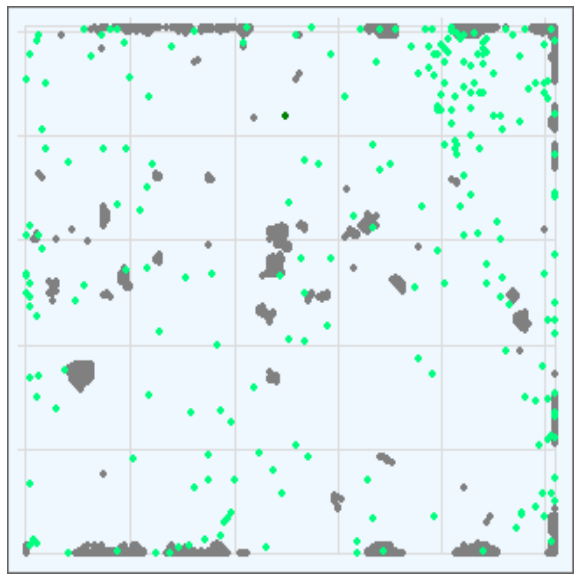


Grid Normal

	Feature		Local Background	
	Red	Green	Red	Green
Non Uniform	0	1	1976	0
Population	343	230	5083	1109

Spatial Distribution of All Outliers on the Array

384 rows x 164 columns

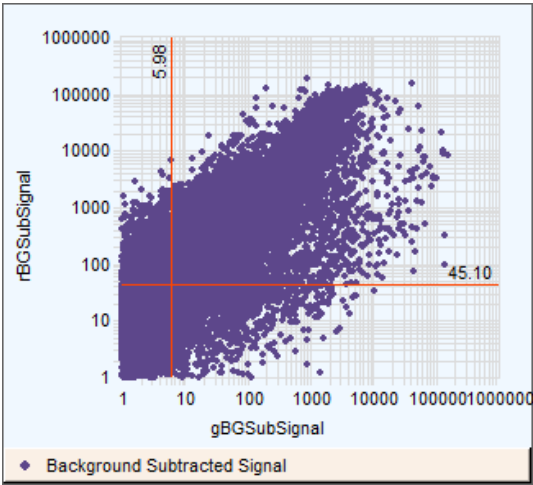


Net Signal Statistics

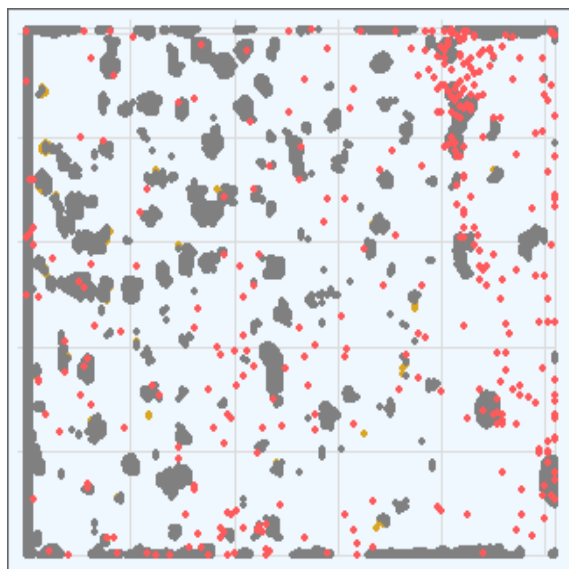
Non-Control probes:		
	Red	Green
# Saturated Features	0	0
99% of Sig. Distrib.	59265	3236
50% of Sig. Distrib.	58	26
1% of Sig. Distrib.	10	16

Negative Control Stats		
	Red	Green
Average Net Signals	10.85	18.15
StdDev Net Signals	1.17	1.85
Average BG Sub Signal	-1.60	-2.00
StdDev BG Sub Signal	1.14	1.61

Red and Green Background Corrected Signals (Non-Control Inliers)



# Features (NonCtrl) with BGSubSignals < 0: 4214 (Red); 12062 (Green)



# FeatureNonUnif (Red or Green) = 1(0.00%)

# GeneNonUnif (Red or Green) = 1 (0.002 %)

- BG NonUniform
- Red FeaturePopulation
- Green FeaturePopulation
- BG Population
- Red Feature NonUniform
- Green Feature NonUniform

### Local Bkg (inliers)

Red

Green

Number	57818	61867
Avg	23.52	22.48
SD	1.87	0.78

### Foreground Surface Fit

Red

Green

RMS_Fit	0.30	0.78
RMS_Resid	1.63	1.78
Avg_Fit	22.46	30.16

### Reproducibility: %CV for Replicated Probes

Median %CV Signal (inliers)

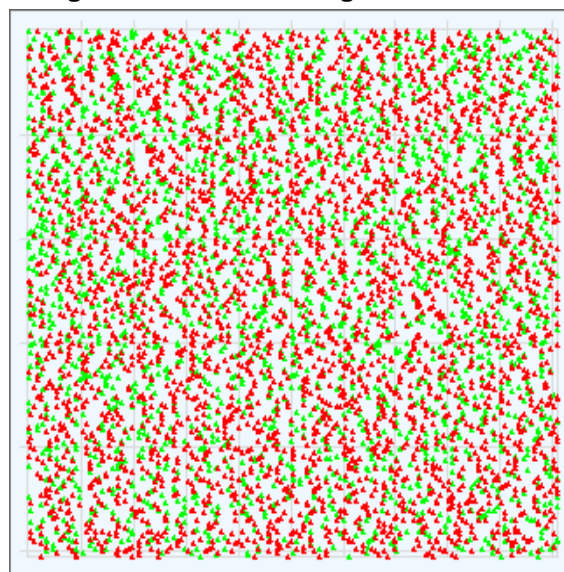
Non-Control probes

Red

Green

BGSubSignal	4.89	5.16
ProcessedSignal	4.01	3.29

## Spatial Distribution of Significantly Up-Regulated and Down-Regulated Features

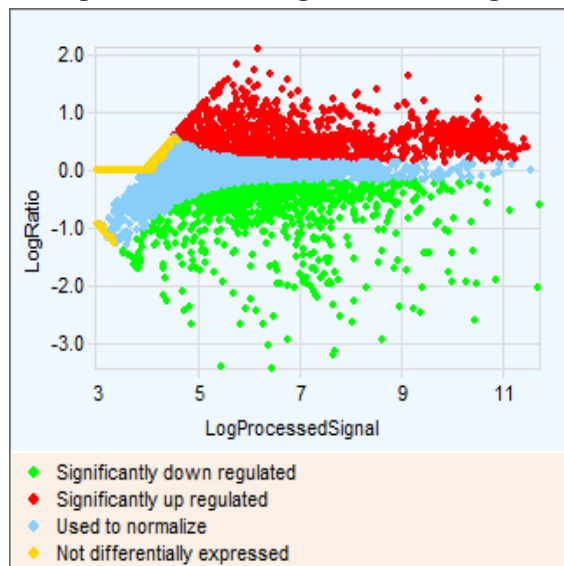


#Up-Regulated:13216 (Red) ; #Down-Regulated:8659 (Green)

● Up-Regulated ● Down-Regulated

Up Reg: 22.28% of NonCtrl Features : Random (Value 0.68)  
Down Reg: 14.60% of NonCtrl Features : Random (Value 1.22)

### LogRatio Versus Log Processed Signal



Array Uniformity: LogRatios

Non-Control

AbsAvgLogRatio	0.56
AverageS/N	48.73

Evaluation Metrics for GE2\_QCMT\_Jun14

Good (8) ; Evaluate (1)				
Metric Name	Value	Excellent	Good	Evaluate
IsGoodGrid	1.00		>1	<1
AnyColorPrcntFeatNonU...	0.00		<1	>1
gNegCtrlAveBGSubSig	-2.00		-20 to 10	<-20 or >10
gNegCtrlSDevBGSubSig	1.61		<15	>15
rNegCtrlAveBGSubSig	-1.60		-20 to 4	<-20 or >4
rNegCtrlSDevBGSubSig	1.14		<6	>6
gNonCntrlMedCVBkSubSi..	5.16		0 to 18	<0 or >18
rNonCntrlMedCVBkSubSi...	4.89		0 to 18	<0 or >18
gE1aMedCVBkSubSignal	-		0 to 18	<0 or >18
rE1aMedCVBkSubSignal	-		0 to 18	<0 or >18
absE1aObsVsExpCorr	-		>0.86	<0.86
absE1aObsVsExpSlope	-		>0.85	<0.85
LogRatioImbalance	-18.82	-0.26 to 0.26	(-0.75 to -0.2...	<-0.75 or >0.75

● Excellent ● Good ● Evaluate