BGI Sample Testing Report

1. Project Information

Report No.: THKa15121103

Project Name	UW - Sam ***** - Sam White - de-novo genome Ostrea lurida			Project No.	F15FTSUSAT0327		
Customer Name	Steven Roberts			Customer Unit	Univ. of Washington		
Lab Sample Collector	WONGWINGLEUNG			Lab Sample Receiving Date	20151211		
Lab Sample Tester	yutszfung, wongwingleung			Lab Sample Testing Date	20151211		
Reported by	yutszfung	Inspected by	yutszfung	Approved by	Wong Wai Man Vivien	Report Date	20151211

2. Sample Test Method

①Method of concentration determination:■Qubit Fluorometer、□NanoDrop、□Microplate Reader
②Method of sample integrity test:■Agarose Gel Electrophoresis

3. Sample Test Result

No.	Sample Name	Sample Number	Tube No.	Concen-tration(ng/μL)	Volume(μL)	Total Mass(μg)	sample Integrity	Library type	Test result	Remark
1	oyster_01	8521512001643	1	154	160	24.64	Degraded Moderate	10K Mate Pair	Level D	The sample is degraded moderately. the total mass is too low. Proposed to resend the sample.
2	oyster_01	8521512001643	1	154	160	24.64	Degraded slightly	5k/6K Mate Pair	Level B	
3	oyster_01	8521512001643	1	154	160	24.64	Degraded slightly	2K Mate Pair	Level B	
4	oyster_01	8521512001643	1	154	160	24.64	Degraded slightly	PCR-free	Level A	The sample is degraded slightly.
5	oyster_01	8521512001643	1	154	160	24.64	Degraded slightly	≤800bp Insert Size	Level A	
6	oyster_02	8521512001644	1	428	150	64.2	Degraded slightly	≤800bp Insert Size	Level A	
7	oyster_02	8521512001644	1	428	150	64.2	Degraded slightly	PCR-free	Level A	The sample is degraded slightly.
8	oyster_02	8521512001644	1	428	150	64.2	Degraded slightly	2K Mate Pair	Level A	
9	oyster_02	8521512001644	1	428	150	64.2	Degraded Moderate	10K Mate Pair	Level C	The sample is degraded moderately. Proposed to resend the sample.
10	oyster_02	8521512001644	1	428	150	64.2	Degraded slightly	5k/6K Mate Pair	Level A	
11	oyster_03	8521512001645	1	296	53	15.69	Degraded slightly	PCR-free	Level B	The sample is degraded slightly.
12	oyster_03	8521512001645	1	296	53	15.69	Degraded slightly	2K Mate Pair	Level C	The total mass is too low. Proposed to resend the sample.
13	oyster_03	8521512001645	1	296	53	15.69	Degraded slightly	5k/6K Mate Pair	Level D	The total mass is too low. Proposed to resend the sample.
										The sample is degraded

14	oyster_03	8521512001645	1	296	53	15.69	Degraded Moderate	10K Mate Pair	Level D	moderately. the total mass is too low. Proposed to resend the sample.
15	oyster_03	8521512001645	1	296	53	15.69	Degraded slightly	≤800bp Insert Size	Level A	

Note*:

1. The test result based on the 《DNA sequencing sample quality standards》 explains whether the testing sample meets the requirement of library construction.
a) Level A means the sample is qualified, and the amount of sample is sufficient for two or more library constructions.
b) Level B means the sample is qualified, but the amount of sample only satisfies one time library construction.
c) Level C means the sample does not totally meet the requirements of library construction and sequencing. BGI can try to construct the library but the quality of the sequence is not guaranteed
d) Level D means the sample does not meet the requirements of library construction and sequencing. BGI does not suggest in using this sample.
2. According to BGI's data, the one-time successful rate of library construction is more than 95% for samples of level A and level B.
3. According to BGI's data,the risks of library construction for sample of level C or level D are listed below:
a) The deficiency of the quantity: There may be the risk of failure in library construction and the yield of library of experiment may be too low to sequencing,.and the database of low yield for sequencing may lead to poor randomness.
b) Degradation of sample: It may cause high duplication rate of library and insert fragment will be abnormal."
c) Pollution by Protein or Insoluble Impurity: It may affect the fragmentation effect, leads to insert size unstable, influence the SNP analysis
d) RNA contamination: It possibly effects the DNA concentration quantitative accuracy.
4. If the partner insists on using the sample of level C or level D, the risk and responsibility is taken by the cooperative partner.

5. Other notes:
a) Some samples are contaminated by proteins.
b) Some samples are contaminated by RNA.

4. Appendix

Appendix 1: Test results of Qubit Fluorometer or Microplate Reader
Appendix 2: Test results of Agarose Gel Electrophoresis
Appendix 3: Original information of sample

5. Statement

1. The results shown in this report refer only to the sample of the report unless otherwise stated.

2. This test report cannot be copied partly without the prior written permission of the Lab.

Appendix 1: Test results of Qubit Fluorometer or Microplate Reader

1. Pre-treatment

After the sample melted the ice, centrifuged and fully mixed, take appropriate samples for testing.

2.Test Result

Sample Name	Sample Number	Test Instrument	Test Kit	Dilution Ratio(×)	Test Volume (μL)	Test Concentration(ng/μL)	Concentration of original sample(ng/μL)	Remark
oyster_01	8521512001643	Qubit	DNA BR	1	1	154	154	
oyster_01	8521512001643	Qubit	DNA BR	1	1	154	154	
oyster_01	8521512001643	Qubit	DNA BR	1	1	154	154	
oyster_01	8521512001643	Qubit	DNA BR	1	1	154	154	
oyster_01	8521512001643	Qubit	DNA BR	1	1	154	154	
oyster_02	8521512001644	Qubit	DNA BR	1	1	428	428	
oyster_02	8521512001644	Qubit	DNA BR	1	1	428	428	

oyster_02	8521512001644	Qubit	DNA BR	1	1	428	428	
oyster_02	8521512001644	Qubit	DNA BR	1	1	428	428	
oyster_02	8521512001644	Qubit	DNA BR	1	1	428	428	
oyster_03	8521512001645	Qubit	DNA BR	1	1	296	296	
oyster_03	8521512001645	Qubit	DNA BR	1	1	296	296	
oyster_03	8521512001645	Qubit	DNA BR	1	1	296	296	
oyster_03	8521512001645	Qubit	DNA BR	1	1	296	296	
oyster_03	8521512001645	Qubit	DNA BR	1	1	296	296	

Appendix 2: Test results of agarose gel electrophoresis

1. Pre-treatment

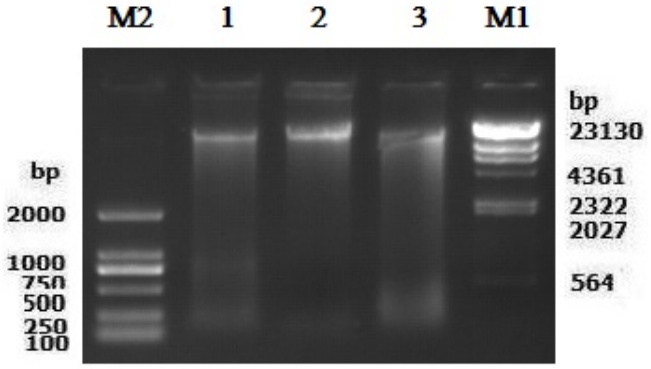
After the sample melted the ice, centrifuged and fully mixed, take appropriate samples for testing.

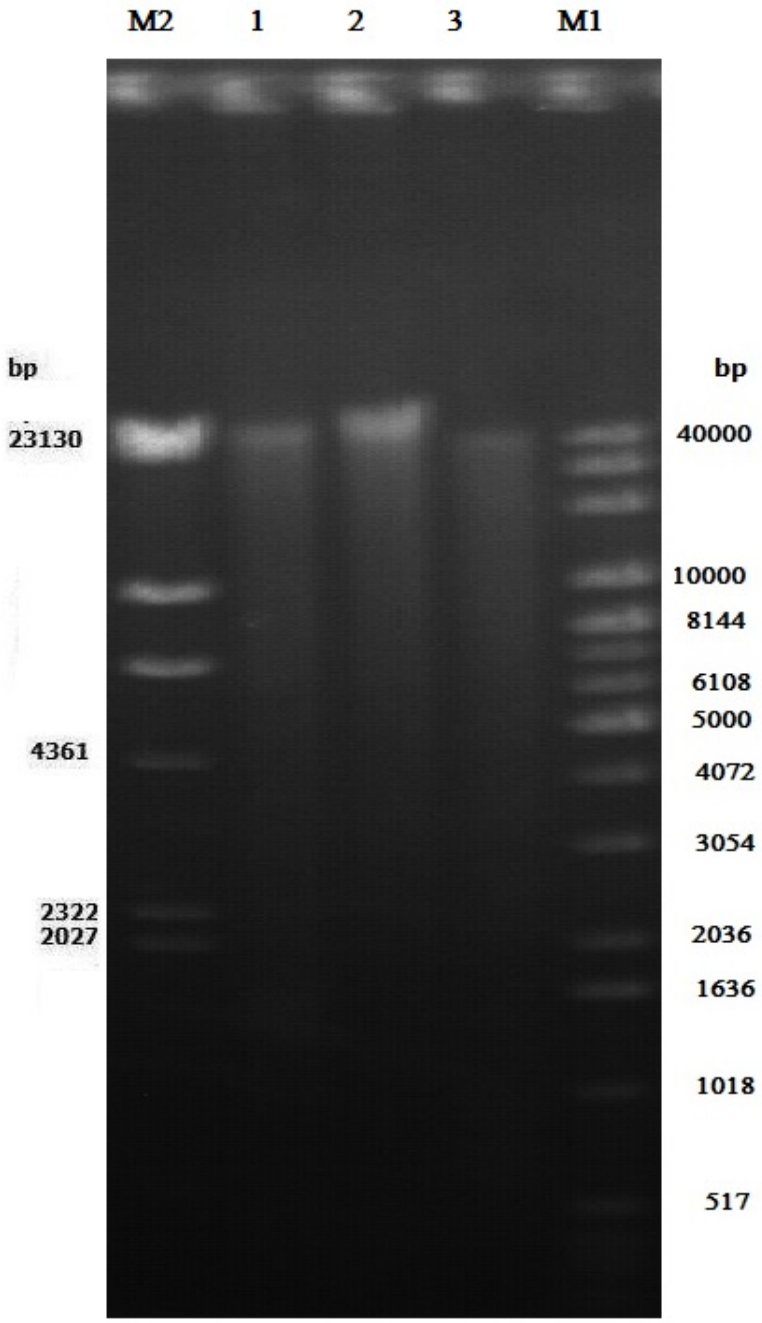
2. Test Parameter

Concentration of Agarose Gel: 1 %; Voltage: 150 V; Electrophoresis Time: 40 min

3. Test Result

(1)Electrophoretogram:





Lane No.	Sample Name	Dilution Ratio(×)	Test Volume(μL)	Sample Integrity	Remark
M1	λ-Hind III digest(Takara)	1	3		
1	oyster_01	1	0.65	Degraded Moderate	RNA contamination
1	oyster_01	1	0.65	Degraded slightly	
1	oyster_01	1	0.65	Degraded slightly	
1	oyster_01	1	0.65	Degraded slightly	
1	oyster_01	1	0.65	Degraded slightly	
2	oyster_02	10	2.34	Degraded slightly	RNA contamination
2	oyster_02	10	2.34	Degraded slightly	
2	oyster_02	10	2.34	Degraded slightly	
2	oyster_02	10	2.34	Degraded Moderate	
2	oyster_02	10	2.34	Degraded slightly	
3	oyster_03	1	0.34	Degraded slightly	RNA contamination
3	oyster_03	1	0.34	Degraded slightly	RNA contamination
3	oyster_03	1	0.34	Degraded slightly	RNA contamination
3	oyster_03	1	0.34	Degraded Moderate	RNA contamination
3	oyster_03	1	0.34	Degraded slightly	RNA contamination
M2	D2000 (Tiangen)	1	6		

Appendix 3: Original information of sample

Sample Type:									
Genome DNA									
Sample status:									
Dissolved in 10mM Tris-HCl									
Further Information:									
Sample Name	Species	No. of Tubes	Concentration(ng/μL)	Volume(μL)	Total Quantity(μg)	Fragment Size	OD260/280	OD260/230	Remark
oyster_01	Ostrea lurida	1	137	200	27.4		0	0	
oyster_01	Ostrea lurida	1	137	200	27.4		0	0	
oyster_01	Ostrea lurida	1	137	200	27.4		0	0	
oyster_01	Ostrea lurida	1	137	200	27.4		0	0	
oyster_01	Ostrea lurida	1	137	200	27.4		0	0	
oyster_02	Ostrea lurida	1	74.3	100	7.4		0	0	
oyster_02	Ostrea lurida	1	74.3	100	7.4		0	0	
oyster_02	Ostrea lurida	1	74.3	100	7.4		0	0	
oyster_02	Ostrea lurida	1	74.3	100	7.4		0	0	
oyster_02	Ostrea lurida	1	74.3	100	7.4		0	0	
oyster_03	Ostrea lurida	1	219	75	16.4		0	0	
oyster_03	Ostrea lurida	1	219	75	16.4		0	0	
oyster_03	Ostrea lurida	1	219	75	16.4		0	0	
oyster_03	Ostrea lurida	1	219	75	16.4		0	0	
oyster_03	Ostrea lurida	1	219	75	16.4		0	0	

Report End