# Microbiological Survey of Kebabs

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Appendix - Questionnaire
Acknowledgements

The Department of Human Services, Food Safety Victoria would like to thank the following people for their assistance with this project.

- The Environmental Health Officers at the local authorities for their assistance in collecting the samples from the kebab premises and completing the questionnaire.

- The following Local Government Authorities from the Northern, Western and Southern Metropolitan Regions
  
  City of Banyule  
  City of Darebin  
  City of Hobson’s Bay  
  City of Hume  
  City of Maribyrnong  
  City of Moonee Valley  
  City of Moreland  
  City of Nillumbik  
  City of Stonnington  
  City of Wyndham

- The public analysts, Dunn Son & Stone and Bernard Heath & Associates.

- The owners of the Kebab businesses.
Summary

Kebabs are a traditional Middle Eastern meat dish made by stacking layers of meat such as chicken, beef and lamb, which is seasoned, marinated, and sliced or minced, onto a vertical skewer to form a cone or cylinder shape. The skewer rotates in front of a heat source as the outer layer of meat is cooked, it is carved off in slices. The meat is then served in flat bread together with salads and dips.

The survey was conducted due to a number of cases of illness that had circumstantial links to the consumption of kebabs

In this survey we wish to establish whether or not illnesses can be transmitted through kebabs. From the information obtained, we can then determine if further cooking steps are necessary after meat has been cut off the vertical spit prior serving to the public.

In October 2001, Local Government Environmental Health Officers sampled raw meat and cooked meat (chicken, lamb, beef) from vertical spits. The majority of businesses involved in the kebab survey were concentrated in the Northern and Western Regions, with 5 businesses from the Southern Metropolitan Region.

A three-page questionnaire was used to identify and record selected control points in each premise. The critical control points surveyed were, the internal and surface temperature of the meat on the spit, whether the meat is subsequently cooked prior to serving, what happens to leftover meat from the spit, and any observation of pink/raw meat being cut.

A total of seventy – six (76) samples of cooked meat were sampled, 36 chicken, 34 lamb and 6 beef. **Chicken** - 2 (5.6%) samples failed, both were detected with E.coli. **Lamb** – 3 (8.8%) samples failed, 2 samples had E.coli, and one sample contaminated with Clostridium perfringens and **Beef** – All samples passed.

Out of 12 samples of meat sampled from the drip tray 4 failed. A lamb sample failed with Clostridium perfringens, one lamb sample failed with E.coli, and two chicken samples failed also with E.coli.

89.3% of the kebabs had a deep internal temperature of less than 75°C. These temperatures do not contravene any food regulations, as the meat theoretically is still cooking, however it does pose a potential risk of contamination of raw meat with cooked meat when slicing meat off the skewer. Only 58.9% of the meat kebabs reached a surface temperature of more than 75°C.

More than half (64.5%) of the businesses surveyed **do not** further cook the meat after it has been sliced off the vertical spit and prior to serving. Pink or raw meat was being cut off the spit in 22.6% of the premises. 80% of the proprietors discarded the left over meat.
A recommendation was made that a second cook step be introduced to destroy bacteria which may have survived the first cook step.

1.00 Introduction

Kebabs are a traditional Middle Eastern meat dish made by stacking layers of meat such as chicken, beef and lamb, which is seasoned, marinated, and sliced or minced, onto a vertical skewer to form a cone or cylinder shape. The skewer rotates in front of a heat source as the outer layer of meat is cooked, and it is carved off in slices. The meat is then served in flat bread together with salads and dips.

Rotating spits use heat from the burners and the rotation of the spit to cook the meat. The system cooks the meat from the outside to the inside, so the system’s temperature needs to be high to ensure all bacteria are killed.

The Department’s Senior Medical Advisor instigated a survey on vertical spits in the kebab industry. The survey was conducted due to a number of cases of illness that had circumstantial links to the consumption of kebabs

In this survey we wish to establish whether or not illnesses can be transmitted through kebabs and, if so, what the conditions are that will allow the transmission of illness. From the information obtained, we can determine if further cooking steps are necessary in the process, and if so, a directive to the kebab industry will be issued to introduce a kill step after meat has been cut off the vertical spit prior serving to the public.

It is hypothesised that a further cooking step after meat has been cut off the spit may greatly reduce the risk of transmission of pathogens.

Kebabs have become a very popular type of convenience take away food. The preparation and cooking practices of kebabs have the potential to allow the persistence of pathogenic bacteria.

2.00 Aims

The aims of this survey is to:
1. Determine the current range of processes in the kebab industry.
2. Determine if further cooking steps are necessary in the process, and if so,
3. Issue directive to kebab industry to introduce a kill step after meat has been cut off the vertical spit and prior to serving.

3.00 Methods

In October 2001, Local Government Environmental Health Officers sampled raw meat and cooked meat (chicken, lamb, beef) from vertical spit. Cooked meat and juices from the drip tray were also sampled.
3.10 Distribution of premises

The majority of businesses involved in the kebab survey were concentrated in the Northern and Western Regions, with 5 businesses from the Southern Metropolitan Region.

Ten Local Government Authorities participated in this survey.

<table>
<thead>
<tr>
<th>Local Council</th>
<th>No. Premises</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banyule</td>
<td>3</td>
</tr>
<tr>
<td>Darebin</td>
<td>Unknown</td>
</tr>
<tr>
<td>(No Questionnaire returned)</td>
<td></td>
</tr>
<tr>
<td>Hobson’s Bay</td>
<td>2</td>
</tr>
<tr>
<td>Hume</td>
<td>7</td>
</tr>
<tr>
<td>Maribyrnong</td>
<td>4</td>
</tr>
<tr>
<td>Mooney Valley</td>
<td>3</td>
</tr>
<tr>
<td>Moreland</td>
<td>2</td>
</tr>
<tr>
<td>Nillumbik</td>
<td>1</td>
</tr>
<tr>
<td>Stonnington</td>
<td>5</td>
</tr>
<tr>
<td>Wyndham</td>
<td>4</td>
</tr>
</tbody>
</table>

Total 31

A total of thirty – one (31) businesses were sampled and surveyed. No questionnaires were received from the City of Darebin, and we were therefore unable to determine the number of premises surveyed in this municipality. Food Safety Victoria did receive analyst results for the City of Darebin.

3.20 Sampling

Environmental Health Officers randomly selected and sampled businesses selling meat cooked on a vertical rotating spit. The samples were submitted for analysis to a NATA registered public analyst. The Environmental Health Officers also completed a questionnaire (see Appendix 1) for each premises at the time of sampling.

3.30 Testing Regime

Two public analysts were used in this kebab survey, and to ensure laboratory continuity the following testing regime was used.

<table>
<thead>
<tr>
<th>TEST</th>
<th>METHOD</th>
<th>Limit of Detection Required.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cl perfringens</td>
<td>AS1766.2.8.91</td>
<td>&lt;100</td>
</tr>
<tr>
<td>Coliforms</td>
<td>AS1766.2.3.92</td>
<td>&lt;10</td>
</tr>
<tr>
<td>E.coli</td>
<td>AS1766.2.3.92</td>
<td>&lt;3</td>
</tr>
<tr>
<td>Salmonella sp</td>
<td>AS1766.2.5.91</td>
<td>Presence or Absence in 25</td>
</tr>
</tbody>
</table>
3.40 Questionnaire

A three-page questionnaire (see Appendix 1) was used to identify and record selected control points in each premise. The critical control points surveyed were (i) the internal and surface temperature of the meat on the spit, (ii) whether the meat is subsequently cooked prior to serving, (iii) what happens to leftover meat from the spit, and (iv) observation of pink/raw meat being cut.

4.00 Results

4.10 Analyst Results

- Seventeen (17) samples of juice from the drip tray were obtained for analysis.
- Twelve (12) samples of meat from the drip tray were sampled
- A total of eighty-seven (87) meat samples (raw and cooked) were submitted for analysis. Meat samples included chicken, beef and lamb.

**Raw Meat Sampled**

<table>
<thead>
<tr>
<th>RAW MEAT SAMPLED</th>
<th>RESULTS</th>
<th>PASS</th>
<th>FAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chicken</td>
<td>6</td>
<td>1 (16.7%)</td>
<td>5 (83.3%)</td>
</tr>
<tr>
<td>Lamb</td>
<td>5</td>
<td>3 (60%)</td>
<td>2 (40%)</td>
</tr>
<tr>
<td>Beef</td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Eleven samples of raw meat were sampled, 4 passed and 7 failed. Analyst results detected high levels of Coliforms, E.coli, Salmonella and Clostridium perfringens. Salmonella were detected in the raw chicken, Clostridium perfringens were detected in one sample of raw chicken and two samples of raw lamb.

**Cooked Meat Sampled**

<table>
<thead>
<tr>
<th>COOKED MEAT SAMPLED</th>
<th>RESULTS</th>
<th>PASS</th>
<th>FAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chicken</td>
<td>36</td>
<td>34 (94.4%)</td>
<td>2 (5.6%)</td>
</tr>
<tr>
<td>Lamb</td>
<td>34</td>
<td>31 (91.2%)</td>
<td>3 (8.8%)</td>
</tr>
<tr>
<td>Beef</td>
<td>6</td>
<td>6 (100%)</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>76</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A total of seventy – six (76) samples of cooked meat were sampled, 36 chicken, 34 lamb and 6 beef.

**Chicken** - 2 (5.6%) samples failed, both were detected with E.coli.
**Lamb** – 3 (8.8%) samples failed, 2 samples had E.coli, and one sample contaminated with *Clostridium perfringens*.

**Beef** – All samples passed.

Out of the seventy-six (76) cooked meat samples, twelve (12) were obtained from the drip tray.

<table>
<thead>
<tr>
<th>MEAT IN DRIP TRAY</th>
<th>RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PASS</td>
</tr>
<tr>
<td>12 Samples</td>
<td>8 (66.7%)</td>
</tr>
</tbody>
</table>

Out of 12 samples of meat sampled from the drip tray 4 failed. A lamb sample failed with *Clostridium perfringens*, one lamb sample failed with E.coli detected, and two chicken samples failed also with E.coli.

**Meat Juices Sampled**

<table>
<thead>
<tr>
<th>JUICES IN DRIP TRAY</th>
<th>RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PASS</td>
</tr>
<tr>
<td>17 Samples</td>
<td>16 (94.1%)</td>
</tr>
</tbody>
</table>

One sample out of 17 failed with a high coliform count (5.9%)

**Time of sampling**

<table>
<thead>
<tr>
<th>Time of sampling</th>
<th>AM</th>
<th>PM</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 Businesses</td>
<td>11 (35.5%)</td>
<td>19 (61.3%)</td>
<td>1 (3.2%)</td>
</tr>
</tbody>
</table>

The majority of the businesses (61.3%) were sampled in the afternoon (after 12 noon). Over half of the businesses commenced cooking the meat on the spit between 9.00am –10.00am. Some businesses start as early as 8.00am and others as late as 10.45am.

4.20 Questionnaire Analysis

**Temperature of meat**

Cooking kills bacteria, as long as the food gets hot enough. The temperature food needs to reach for bacteria to be killed is 75°C

<table>
<thead>
<tr>
<th>Temperature of Meat on the Vertical Spit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deep Internal</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>&lt; 5°C</td>
</tr>
<tr>
<td>6°C – 75°C</td>
</tr>
</tbody>
</table>
Temperature of 56 meat kebabs were measured and recorded. 
Deep internal temperature = 3 kebabs unknown (5.3%) 
Surface temperature = 1 kebab unknown (1.8%) 

89.3% of the kebabs had a deep internal temperature of less than 75°C, although this does not contravene to any food regulations, as the meat theoretically is still cooking, it does however pose a potential risk for contamination of raw meat with cooked meat when slicing meat off the skewer. 

58.9% of the meat kebabs reached a surface temperature of more than 75°C. Although this is just over half of the samples, it is not satisfactory. 

From the questionnaires completed by the Environmental Health Officers it was found that premises cook the kebab meat on the vertical spit from a range of times of 10 minutes to 21/2 hours before the first customer is served. Most premises cook the meat for one hour or less with the majority of the businesses cooking meat on the spit for one hour before the first customer is served. 

It is noted that one premises cooks the meat on the vertical spit for ten (10) minutes, from a frozen state, before it is served to the public. This is a major concern given that the proprietor does not subsequently cook the meat prior to serving. Although the thin external layer of meat may be cooked, the internal meat layers may still be raw, therefore there is a potential risk of cross contamination.

Subsequently cooked prior to serving – kill step

<table>
<thead>
<tr>
<th>Is the meat subsequently cooked prior to serving?</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 Premises</td>
<td>11 (35.5%)*</td>
<td>20 (64.5%)</td>
</tr>
</tbody>
</table>

More than half (64.5%) of the businesses surveyed do not further cook the meat after it has been sliced off the vertical spit and prior to serving. 

*Out of the 11 businesses that further cook the meat, four (4) premises cook the meat on the grill only if the meat is not cooked properly or the customer requests it. 

Raw/pink meat

<table>
<thead>
<tr>
<th>Pink/ raw meat being cut</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 Premises</td>
<td>7 (22.6%)</td>
<td>24 (77.4%)</td>
</tr>
</tbody>
</table>

According to the questionnaires, the Environmental Health Officers noticed pink or raw meat being cut off the spit in 22.6% of the premises.
### Leftover meat

<table>
<thead>
<tr>
<th>Leftover meat at the end of the day</th>
<th>Yes</th>
<th>Percent (%)</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Take home or discard</td>
<td>25</td>
<td>80.6 %</td>
<td>1 (3.3 %)</td>
</tr>
<tr>
<td>Cooled and reused the following day</td>
<td>5</td>
<td>16.1 %</td>
<td></td>
</tr>
</tbody>
</table>

80% of the proprietors discarded the left over meat.

### 5.00 Discussion

#### 5.10 Results of Meat Analysis

**Cooked Meat**

Seventy – six (76) samples of cooked meat were obtained and submitted for analysis, 36 chicken, 34 lamb and 6 beef.

Two out of the 36 chicken samples (5.6%) failed, both samples detected with *E.coli*.

Three out of 34 lamb samples (8.8%) failed. Two failed samples detected with *E.coli* and one sample contaminated with *Clostridium perfringens*.

All the beef samples passed.

Out of the 76 cooked meats sampled, 12 were obtained from the drip tray where the meat was already sliced and stored. Out of the 12 samples from the drip tray, 4 failed. One lamb and 2 chicken samples were detected with *E.coli*, and one lamb contaminated with *Clostridium perfringens*. Slicing meat off the skewer and storing it in the drip tray has the potential to cause cross contamination of raw to cooked food. The cooked meat is contaminated with bacteria and blood from the juices of raw meat.

The presence of *E.coli* is indicative of poor hygiene and a potential danger to a consumer. *E.coli* should be eliminated via adequate cooking.

*Clostridium perfringens* is a bacteria, which forms spores. These spores can survive cooking and grow in inadequately cooked food or food not stored at the appropriate temperatures. These spores germinate and these bacteria release toxins, which are not destroyed by further cooking and can cause food poisoning.

The Environmental Health Officers found it difficult to obtain enough juices from the drip tray for laboratory to conduct all the tests outlined in the testing regime. Only 17 samples were submitted for analysis. Out of the 17 only one failed with a high coliform count.
Raw Meat

Eleven samples of raw meat were sampled, 4 passed and 7 failed. Analyst results detected high levels of Coliforms, E.coli, Salmonella and Clostridium perfringens. Salmonella were detected in raw chicken, Clostridium perfringens were detected in one sample of raw chicken and two samples of raw lamb.

In this survey raw meat was sampled simply to determine if pathogenic bacteria found in raw meat is also detected in the cooked meat product. Given the nature of the kebab cooking process, there is a potential risk of raw meat with pathogenic bacteria cross contaminating cooked meat. From the analyst results it was found that in one premise, raw chicken had E coli and it was also found in the cooked chicken which was hot held in the drip tray at 30°C.

It is difficult to conclude that this will always be the case as the critical issue being that if meat is adequately cooked with the internal temperature reaching 74°C or above and hot held at the appropriate temperature of 60°C or above, then cross contamination is not an issue.

5.20 Meat Temperature.

Cooking destroys most food poisoning bacteria and makes food safe to eat as long as it is served quickly or rapidly cooled and refrigerated. Cooking food to an adequate internal temperature is essential to kill bacteria.

The Temperature Danger Zone is between 5°C and 60°C. This is where bacteria grow the fastest. Bacteria are gradually destroyed at temperatures above 70°C. Poultry and meat are safest when core temperatures reach 75°C.

50 meat kebabs out of 56 (89.3%) had a deep internal temperature of less than 75°C. The cooking process of this food product allows the outer layers of the meat to be thoroughly cooked. There is a potential risk of undercooked meat being sliced off the vertical spit and served to a customer.

Results show that only 33 out of 56 kebabs (58.8%) attained a surface temperature of meat on the skewer of 75°C or more. This means that only 33 meat kebabs reached sufficient temperatures to reliably destroy any vegetative pathogenic food poisoning bacteria that may have been in the meat. The other 22 kebabs (39.3%) did not attain adequate temperatures to destroy these bacteria.

The way the kebab is designed, where the meat cooks from the outside to the inside, even when the surface temperature may reach above 75°C, the internal temperature of the meat could potentially be in the danger zone of 5 to 60°C. This will provide an ideal temperature for pathogenic bacteria to multiply. Even if the surface temperature attained is high enough to destroy food poisoning bacteria, the meat can still be cross-contaminated during slicing.
It is also worth noting that a significant amount of the premises surveyed (64.5%) did not subsequently cook the meat after it had been sliced off the vertical spit prior to serving, and in 7 out of 31 premises (22.6%), it was noticed that pink or raw meat was being cut off the spit.

Foods are properly cooked when they are heated for a long enough time and at a high enough temperature to kill harmful bacteria that cause foodborne illness. Results show that there are inadequate cooking temperatures/times, improper hot holding of cooked meat and cross-contamination of raw to cooked foods.

It takes thorough cooking to kill harmful bacteria. Results from this survey indicate that a second cook step needs to be introduced to further cook meat on a hot plate/grill prior to serving. There is a potential risk of partly cooked meat and chicken being served to a customer. A kill step will address this issue by destroying bacteria that would have survived the first cook step however, it will not destroy the toxins produced by spore forming bacteria.

### 5.30 Leftover meat

Even when food has been thoroughly cooked, it is still important to prevent it from being cross-contaminated by raw food, utensils and food handlers. It was encouraging to note that 25 out of 31 premises (80.6%) discarded the left over meat at the end of the trading day.

Out of the 5 premises that re-use the meat from the previous day, all cool the meat and refrigerate it overnight for use the next day. The next day, the cooked meat is used first. One proprietor reheats the meat on the grill prior to serving.

During a visit to a kebab premises in the afternoon, an Environmental Health Officer found one premises displaying exceptionally poor food safety practices. It was found that the food handling staff were stacking raw meat on the bottom of the same skewer where cooked meat was stored. The cooked meat was leftover from the morning trade. In other words, cooked meat and fresh raw meat was placed on the same skewer to cook on the spit; cooked meat on the top half of the skewer and raw meat on the bottom half of the skewer.

The spit is usually put on to cook at approximately 8.00am. At the time of sampling, approximately 3.00pm, the deep internal temperature of the cooked chicken (top of spit) was measured at 63.2°C and the part raw chicken (bottom of spit) was measured at 7.4°C. The surface temperature of the cooked chicken (top of spit) was measured at 82.8°C and the part raw chicken (bottom of spit) was measured at 12°C. The same practice is followed with lamb vertical spits.

There is no griller on the premises, and therefore the meat is not subsequently cooked after being cut off the spit and prior to serving. The Local Environmental Health Officer has taken this issue further with the owner of the business. This practice has now ceased, staff training manuals have been modified to accommodate the changes in food preparation and cooking, all staff underwent food handling training, and the business (chain store) owner is in the process of purchasing and installing grillers for further cooking of meat.
5.40 Limitations of the survey

Environmental Health Officers found it difficult to obtain enough juices from the drip tray in order for the analytical laboratory to conduct all the tests outlined in the testing regime.

As the majority of Environmental Health Officers sampled in the afternoon, raw kebab meat was unavailable and therefore only 11 samples of raw meat were obtained and submitted for analysis. A sample of raw meat for every sample of cooked meat would have been ideal. Nevertheless, from the results received we were able to confirm that pathogenic bacteria in raw meat can be found in cooked meat given appropriate conditions of inadequate cooking and inappropriate hot holding conditions.

6.00 Conclusion

Results from this survey show that there are inadequate cooking temperatures/times, improper hot holding of cooked meat and cross-contamination of raw to cooked foods. It is evident that the nature of the process involved with cooking the meat on the vertical skewer poses a potential risk to causing food poisoning. The heat source cooks the meat from the outside to the inside. The internal temperature of the meat is still partly raw, therefore there is a potential risk of cross – contamination of raw meat to cooked meat and/or undercooked meat being sliced and served to a customer.

7.00 Recommendation

1. Use thinner cuts of meat on the skewer to ensure the meat reaches temperatures of above 75°C.

2. Encourage businesses to measure the internal temperature of the meat with a probe thermometer.

3. Introduce a second cook step to further cook the meat on a hot plate/grill prior to serving, to destroy bacteria that would have survived the first cook step however, it will not destroy the toxins produced by spore forming bacteria.
APPENDIX 1

QUESTIONNAIRE
Kebabs Survey 2001 – Rotating Vertical Spits

To be completed by the Environmental Health Officer for each premises sampled.

Q1 How is meat put on the spit?
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

Q2 Where is meat prepared – on site or delivered prepared?
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

Q3 Is meat cooked from a refrigerated or frozen state?
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

Q4 What time is the spit put on to cook? (beef, chicken, lamb)
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

Q5 What time did the meat go on the spit(s) this morning?
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

Q6 How long does the meat have to cook before the first customer can be served? (beef, chicken, lamb)
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

Q7 How is meat cut from the spit?

_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

Q8 Is excessive amounts of meat cut from the spit and kept in the drip tray?

_____________________________________________________________________

Q9 Are dedicated implements used for each type of meat on a spit?

_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

Q10 Does the meat fall directly into the drip tray after cutting from the spit, or is it directly cut on to a scoop or plate?

_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

Q11 Is the meat subsequently cooked (after cutting from the spit) prior to assembling the kebab? If it is further cooked, where is it cooked?

_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

Q12 What were the meat temperatures at the time of sampling? (chicken, beef & lamb)
Deep internal

_____________________________________________________________________
_____________________________________________________________________

Surface
Q13 When cutting the meat, did you observe coloured juices or any pink/raw meat being cut?
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
Q14 Did you notice any coloured juices in the drip tray?
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
Q15 What time was sampling done?
_____________________________________________________________________
Q16 What happens to unsold meat on the spit at the end of the day?
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
Q17 Was the meat on the spit sampled fresh that day or had it been recooked?
_____________________________________________________________________
Q18 How long do the different meats need to cook?
Lamb on a vertical spit _________________________________________________
Beef on a vertical spit _________________________________________________
Chicken on a vertical spit _______________________________________________

*Please complete contact details, in case further clarification is required.*

Thank you.

Environmental Health Officer: ____________________________________________
Telephone: ___________________________________________________________
LGA: ________________________________________________________________
Sample Number/s: _____________________________________________________