

STATEMENT OF Robin John FALCONER - 21st September 1995

I am a Bachelor of Science, a Chartered Biologist and a Member of the Institute of Biology, I have been employed in the Forensic Services Service for over 21 years during which time I have dealt with many cases involving the evidence types described in this statement.

Background Information

From details provided by the Humberside Police my understanding of the main circumstances surrounding the submission of items in this case is as follows:

1. At about 15.30 hours on 9th February 1995 Margaret WILSON was walking alone along a country road between the villages of Rudston and Burton Fleming in Humberside. Witnesses describe a male occupant of a passing motor vehicle (believed to be an Austin Montego) stopping his car, jogging back towards Mrs WILSON and attacking her from behind. The man ran back to his car and drove off.
2. The witnesses found the body of Mrs WILSON on the grass verge at the site of the attack. It was later confirmed at a post mortem examination that Mrs WILSON had had her throat cut.
3. During a scene of crime examination and search of the area surrounding the body, various items were found, including a knife and several footwear marks. These were subsequently submitted to the laboratory.
4. In the course of the investigations into the incident many further items, some apparently stained with blood, were recovered by investigating officers.

Receipt of Items

On the dates shown below the following items were received at the laboratory from the Humberside Police at Driffield:-

10th February 1995

JCC1	Left hand bag)	
)	
JCC2	Right hand bag)	
)	
JCC5	Skirt)	
)	
JCC9	Left glove)	
)	
JCC10	Right glove)	
)	
JCC15	Coat)	Margaret WILSON
)	
JCC16	Cardigan)	
)	
JCC18	Blouse)	
)	
JCC21	Body bag)	
)	
JCC26	Pair of vaginal swabs)	
)	
JCC27	Blood sample)	

12th February 1995

TTL1	Knife - Scene		
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14th February 1995

Twenty three items, including the following:-

JCC8	Panties)	
)	
JCC3	Right boot)	Margaret WILSON
)	
JCC4	Left boot)	
)	
HKM1	Blood sample)	
)	Edwin WILSON
HKM2	Blood sample)	
)	
MJH29	Front passenger seat - Motor vehicle, C832 FNC		

16th February 1995

DNW1	Right trainer)	
)	
DNW2	Left trainer)	
)	
LAB1	Pair of trainers)	Steven SILVESTER
)	
RW2	Pair of shoes)	
)	
AICB2	Pair of boots - Living room, 27 Stockleigh Close, Bransholme)	

28th February 1995

JA01	Glove - 400 yards from Rudston junction)	
JA02	Glove - 300 yards from Rudston junction)	
TTL1	Knife - Scene (resubmission))	
AGH2	Pair of trainers - Sands Wood, Woldgate)	

13th March 1995

MH4	Piece of stained cloth)	
)	
MH5	Piece of stained cloth)	27 Stockleigh Close,
)	Bransholme, Hull
MH6	Glove)	
)	
AICB3	Blazer)	

20th March 1995

Twelve items including the following:-

TTL1	Knife - Scene (resubmission))	
SPW2	Right pump)	
)	
SPW3	Left pump)	
)	
SPW4	Right training shoe)	Volvo motor vehicle,
)	EBT 154W
SPW5	Left training shoe)	
)	
KJ1	Bloodstained tissue)	
)	
KJ2	Map)	

21st April 1995

RMR1	Pair of shoes - Staxton Roundabout
JDS2	T-shirt)
JDS3	Paper filter) Room 2,
JDS4	Jacket) 18 Trinity Road,
) Bridlington
)

2nd May 1995

TTL1	Knife - Scene (resubmission)
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15th June 1995

JAC1	Coat - Cranwell Street Car Park, Driffield
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4th July 1995

MPR2	Knife - McCains Foods
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Purpose of Examination

In examining these items I have sought to determine whether or not:-

- there is any scientific evidence on the items from the deceased and the scene which might provide assistance to the police investigation;
- there is scientific evidence to link any of the other items submitted to the events surrounding the death of Margaret WILSON.

Examination and Results

My examination has been conducted with the assistance of scientific support staff. A full record of the work undertaken is contained within case notes made at the time of the examination and these are available for inspection, if necessary, at the laboratory.

Items relating to Margaret WILSON

Semen is present on the vaginal swab (JCC26). In addition traces of seminal staining are present in the crutch region of the panties (JCC8). These findings are consistent with Margaret

WILSON having participated in an act of sexual intercourse within the period of 2-3 days prior to the swab (JCC26) being taken.

The traces of semen found in the crutch region of the panties (JCC8) probably represent vaginal drainage following an act of sexual intercourse. STR profiling tests have shown that the semen on the swab (JCC26) almost certainly originates from Edwin, the husband of Margaret WILSON - see statement of my colleague, Jonathan Whitaker. No seminal staining has been found on any of the remaining items of clothing (JCC5, 9, 10, 15, 16, 18).

The outer clothing, notably the coat (JCC15) and gloves (JCC9, 10), is very heavily and extensively stained with blood. There is very little in the way of 'runs' or 'trickles' of blood down the front of the coat to suggest that the deceased had been upright, or at least partially upright, when bleeding heavily. Further smaller areas of heavy bloodstaining are present on the neck and shoulder regions of the blouse (JCC18) and the cardigan (JCC16). The left cuff of both these items is also stained with blood. Small, lighter areas of bloodstaining are present on the outside front of the skirt (JCC5) and on the outer and inner aspects of the left boot (JCC4). Having considered the nature and distribution of the bloodstaining on the clothing of the deceased I have not tested any of the blood further since there is nothing to suggest that Mrs WILSON's attacker has bled during the incident. All of the staining on the clothing would be consistent with it originating from the wearer herself, i.e. Mrs WILSON. Had her attacker bled it would have been reasonable to expect some indication of this during testing of blood on the knife (see later in this statement), or perhaps to have found blood spots on the road along the route taken by the attacker back to his motor vehicle. No bloodstaining has been found on the right boot (JCC3), the panties (JCC8) or the vaginal swab (JCC26).

Both the panties (JCC8) and skirt (JCC5) bear urine staining which appears to have diluted the small areas of bloodstaining on the skirt to some extent. It is not unusual to find urine staining on the underclothes of murder victims.

There is some minor cut damage to the left side of the collar of the coat (JCC15) and some similar damage to the right side of the collar of the blouse. In both instances the damage appears to have been caused recently by a sharp-edged instrument such as the blade of a knife. It would seem reasonable to assume therefore that the damage to the collars of the coat and

blouse was caused at the time the wearer had her throat cut. I have not found any damage of obvious significance to any of the remaining items of clothing and footwear.

Superficial fibres and loose debris have been recovered from all of the items of clothing taken from Mrs WILSON and these are being retained at the laboratory. This material has been searched for any population of highly distinctive fibres that could prove useful to the investigation. No such population has been found amongst the material collected.

The blood sample (JCC27) of Margaret WILSON has been grouped and the results recorded, along with results from bloodstained items, in a summary blood grouping table to be found later in this report.

Items relating to the scene

Knife (TTL1)

The knife (TTL1) comprises a fixed blade in a black plastic handle which bears the manufacturer's details - "J. ADAMS, SHEFFIELD , ENGLAND". The knife is slightly over 21 cm (8.4 inches) in length, the blade representing 11 cm (4.3 inches) of the distance, and measures 2.2 cm (0.85 inches) at its widest point.

The tip of the blade is not particularly sharp although the single cutting edge is very sharp.

The blade of the knife is blackened in many areas, suggesting it may have been heated, or subject to some other form of treatment or use. Microscopically the blade can also be seen to be reasonably rusty.

Moderately heavy areas of bloodstaining were present on one side of the knife (the side without any manufacturer's detail). The majority of the blood was on the blade of the knife although a small amount could be seen at the junction of the blade with the moulded handle, and also mid way along the plastic handle itself. Only a few microscopic stains were found on the reverse side of the knife blade. All of the blood was swabbed from the knife prior to its return (16th February) to the Humberside Police for fingerprint analysis work. I did not observe any potential fingerprint ridge detail in blood during my initial microscopic examination of the knife (TTL1). STR profiling tests carried out by my colleague, Jonathan Whitaker, have shown that the blood on the knife blade matched the blood sample of

Margaret WILSON. There was no indication from the STR profiling tests that any DNA material was present from a second individual.

A small tuft of what appeared to be very pale fibres was recovered from the handle of the knife close to its junction with the blade. However on more detailed examination these were found to be strands of vegetation, possibly from a thistle or similar plant. Given that the knife had been recovered from the grass verge this finding was unlikely to be of any significance. In addition several fragments of grass were recovered from the top of the handle. These fragments were adhering loosely to the handle. Again these are most likely to have originated from the location in which the knife was found.

No other fibres were recovered from the knife.

The knife was re-submitted to the laboratory on 28th February 1995 following fingerprint examination. At this stage examinations were focused on efforts to locate any traces of material which might indicate the origin or use of the knife. Several temporary microscopic slides were prepared from swabs taken of the knife blade but no obvious materials/debris of significance were noted on these slides, when using high power light microscopy. A number of starch grains were found but these were of the maize type rather than potato. Maize starch is used in laboratory gloves which were worn during the initial examination of the knife in order to prevent the deposition of fingerprints on the knife. It is highly likely that these gloves represent the source of the maize starch grains. The knife was returned to Humberside Police on 13th March 1995 and then re-submitted on 20th March 1995.

One of the reasons that knives with blackened blades are seen in this laboratory is that the blade has been heated in order to cut easily through blocks of cannabis resin. This process is often referred to as "hot-kniving". Accordingly on 31st March 1995 the knife was submitted to Peter Miatt of this laboratory who carried out tests for any traces of cannabis resin. I am aware that the results of this testing were negative. Subsequently on 7th April 1995 the knife was again returned to the Humberside Police in order that the knife could be examined by, amongst others, Dr Alan Wirth of Sheffield (Hallam) University. The type of scanning electron microscope available to Dr Wirth enabled him to examine the knife blade at much higher magnification than was possible at this laboratory.

On 2nd May 1995 the knife was re-submitted to the laboratory in the light of Dr. Wirth's findings. Specifically he had mentioned a possible fragment of fibre/hair and fragment of clear polyester. I was unable to detect any such material by light microscopy in order to confirm these findings. The material which had previously been used to swab blood off the knife blade (known as an "onsert") was examined as potential source of the polyester fragment but the material was found to comprise viscose and cotton fibres, neither of which was found on the knife blade.

The knife was returned to Dr Wirth for further work which led to a meeting at South Yorkshire Police Headquarters on 23rd June 1995 at which, amongst other things, the subject of starch grains was discussed. As a result of the meeting it was agreed that Dr Ashley Wilson (York University) and I would jointly examine the knife blade (TTL1) - now separated from its handle TTL1A - for any traces of potato starch. This examination was conducted on 27th June 1995 and the preparations recovered from the knife blade at that stage were subsequently taken by Dr Wilson for examination at his university facilities. During our joint examination at this laboratory we were still able to recognise the occasional maize starch grain which had been recovered from the knife blade but only one possible potato starch grain was noted.

The knife (TTL1, 1A) was returned to Humberside Police on 28th June 1995.

A second knife (MPR2), of similar make and design to (TTL1), was submitted to the laboratory on 4th July 1995. I was informed that this knife originated from McCain's Food Factory and had been used in processing potatoes in the factory production. The item had been subject to fingerprinting examination (the same 'superglue' process as the knife (TTL1) had undergone) prior to its submission.

The blade of the knife (MPR2) was 'blackened' on the blade although this characteristic tended to be more widespread and more uniform than that noted on the knife (TTL1). Several microscopic slides prepared from both sides of the blade of the knife (MPR2) revealed numerous potato starch grains.

Gloves from Burton Fleming Road. Rudston

The gloves (JAO1, 2) do not form a pair. Item (JAO1) is a dark red, rubber left glove of wrist length. The material cuff has deteriorated badly and it would appear that the material area of

the glove has been rotting for some considerable time. No bloodstaining has been found on the glove (JAO1).

Item (JA02) is a reddish/orange coloured, rubber right glove which would cover the lower forearm when worn. It has no material at the cuff. No bloodstaining has been found on the glove (JAO2).

There are a number of dark coloured stains on the gloves (JAO1, 2) but these are not blood.

Item relating to motor vehicle. C832 FNC

The front passenger seat (MJH29) bears several small, downward drips of blood on the front edge of the seat squab. The blood has been tested and found to be human in origin but of a different group to that of Margaret WILSON's. (See Blood Grouping Table). The blood has not therefore originated from Margaret WILSON.

Items relating to Steven SILVESTER

The trainers (DNW1, 2), the pair of trainers (LAB1) and the pair of brown suede shoes (RW2) have all been examined for blood but none has been detected.

Items relating to 27 Stockliegh Close, Bransholme

No bloodstaining has been detected on the pair of trekking boots (AICB2), or on the blazer (AICB3).

Both of the pieces of cloth (MH4, 5) and the glove (MH6) are heavily bloodstained. Some of the blood has been tested from each of these items, found to be of human origin in all three cases but of a different group to Margaret WILSON. None of the blood tested from the three items can originate therefore from Margaret WILSON .

Items relating to Sands Wood, Woldgate

No blood has been detected on either of the trainers (AGH2).

Items relating to Volvo. EBT I54W

No bloodstaining has been detected on the map (KJ2) or on any of the items of footwear (SPW2-5).

The tissue (KJ1) bears a large area of slightly diluted bloodstaining near the centre. Although the blood has been found to be of human origin, grouping tests on the blood have proved unsuccessful.

Item relating to Staxton roundabout, North Yorkshire

Item (RMR1) comprises a shoe box which contains a magazine, a sock and a pair of almost new black shoes which are marked 'SIZE 8'. No bloodstaining has been detected on the magazine, sock or shoes. Several small areas of moderately heavy bloodstaining have been found on the inside of the shoe box itself. Attempts have been made to test two areas of blood but none of these tests have been successful. These results infer that the blood is not human in origin.

Items relating to Room 2, 18 Trinity Road. Bridlington

Several areas of light to moderately heavy bloodstaining are present on the front of the T-shirt (JDS2). In addition areas of moderately heavy bloodstaining are present on the lower right front of the jacket (JDS4). Some of the blood has been tested and found to originate from a dog.

Blood from two areas of the T-shirt has been tested and found to be human in origin but grouping tests proved to be unsuccessful. STR profiling tests yielded no reportable results - see statement of Jonathan Whitaker (dated 11th May 1995).

Item relating to Cranwell Street Car Park, Driffield

No bloodstaining has been detected on the coat (JAC1). There are several areas of staining on the lower right sleeve and on the inside of the right cuff. None of these stains is blood. There are no obvious markings on the coat which might be of assistance in identifying the owner/wearer of the coat.

Other items submitted

The knife (RF5 - Ford Sierra, DLA 253Y) has not been examined since it was requested that the knife should only be looked at if the knife (TTL1) did not appear to be related to the enquiry.

It has not been necessary to examine a filter paper (JDS3) which was used in the course of a presumptive test for blood on item (JDS2).

Blood Grouping Summary Table

<u>Item</u>		<u>PGM</u>	<u>HP</u>
JCC27	Blood sample (Margaret WILSON)	2+1+	1
MJH29	Car seat (C832 FNC)	-	2
MH4	Cloth	1+	NR
MH5	Cloth	-	2-1
MH6	Glove	-	2-1
JDS2	T-shirt (lower front)	NR	NR
JDS2	T-shirt (upper front)	NR	NR

- Notes:
- (i) All blood tested is human in origin
 - (ii) NR = No Result obtained
 - (iii) - = Not tested

Transfer of Items for Further Work

In the course of my examinations I have liaised closely with Jonathan Whitaker who has conducted STR profiling tests. On the dates specified I passed the following items to Dr Whitaker:

12th February 1995

- TTL1 Knife - blood swabbed from blade
- JCC27 Blood sample - Margaret WILSON

13th February 1995

- JCC26 Vaginal swabs from Margaret WILSON

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4. The vaginal swab bears semen which matches Mrs WILSON's husband, Edwin. These findings are consistent with sexual intercourse having taken place in the 2-3 day period prior to the swab being taken.
5. There is no suggestion from examination of the blood on the knife blade that the assailant has bled at any stage, or that any DNA material from the assailant is present on the knife.
6. No bloodstaining which could originate from Margaret WILSON has been found on any of the items examined which are not from the immediate location of the incident.
7. Fibres and other debris have been recovered from the clothing of Mrs WILSON. These are being retained at the laboratory should they be required for comparison purposes at a later date.