

# Bode Technology.

10430 Furnace Road, Suite 107  
Lorton, VA 22079  
Phone: 703-646-9740

## STR Forensic DNA Case Report September 27, 2007

To: Donald Horgan  
523 Octavia Street  
San Francisco, CA 94102

BodeCase # 2S04-114  
Agency ID# 1993-WVS-05716; 93-05-0666

### List of Evidence received on April 5, 2007 for DNA analysis:

Bode #	Agency Item ID	Description
2S04-114-40	93-05716/ME-329-93	Labeled as "Pulled Hair Sample James M. Moore"
2S04-114-41	93-05716/ME-329-93	Labeled as "Dried Bld Sample James M. Moore"
2S04-114-42	93-05717/ME-330-93	Labeled as "Pulled Hair Sample Steve Branch"
2S04-114-43	93-05717/ME-330-93	Labeled as "Dried Blood Sample Steve Branch"
2S04-114-44	93-05718/ME-331-93	Labeled as "Pulled Hair Sample Christopher Byers"
2S04-114-45	93-05718/ME-331-93	Labeled as "Dried Blood Sample Christopher Byers"

### List of Evidence Received on October 12, 2006 for DNA analysis:

Bode #	Description
2S04-114-37	Labeled as "reference buccal swabs (ECHOLS)"
2S04-114-38	Labeled as "reference buccal swabs (MISSKELLEY)"
2S04-114-39	Labeled as "reference buccal swabs (BALDWIN)"

### List of Evidence Received on July 7, 2004 for DNA analysis:

Bode #	Item ID	Description
2S04-114-01	93-05716 FP2	Labeled as "Left hand nail scrapings from M. Moore."
2S04-114-02	93-05716 FP3	Labeled as "Right hand nail scrapings from M. Moore."
2S04-114-03	93-05716 FP6	Labeled as "Hair from M. Moore ligature."
2S04-114-03A		Slide with two hairs (-03Aa and -03Ab).
2S04-114-03B		Slide with one hair.
2S04-114-04	93-05716 FP6-Q39	Labeled as "Possible tissue from ligature from M. Moore."
2S04-114-05	93-05716 Q1 - Q4	Labeled as "Swabs from M. Moore."
2S04-114-05A		Three "oral" swabs.
2S04-114-05B		Three "rectal" swabs.
2S04-114-05C		Two "nasal" swabs.
2S04-114-05D		Two "penile" swabs.

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List of Evidence Received on July 7, 2004 for DNA analysis (cont.):

2S04-114-06	93-05717 FP3	Labeled as "Left hand nail scrapings from S. Branch."
2S04-114-07	93-05717 FP4	Labeled as "Right hand nail scrapings from S. Branch."
2S04-114-08	93-05717 FP5	Labeled as "Two dark Caucasian hairs from S. Branch."
2S04-114-08A		Slide with one hair.
2S04-114-08B		Slide with two hairs (-08Ba and -08Bb).
2S04-114-09	93-05717 FP6	Labeled as "Hair from ligature from S. Branch (skin, tissue, hair from ligature)."
2S04-114-10	93-05717 K1, Q1 - Q4	Labeled as "Blood sample and swabs from S. Branch."
2S04-114-10A		Stained string.
2S04-114-10B		Three "oral" swabs.
2S04-114-10C		Three "rectal" swabs.
2S04-114-10D		Three "nasal" swabs.
2S04-114-10E		Two "penile" swabs.
2S04-114-11	93-05718 FP3	Labeled as "Hair found on C. Byers's body."
2S04-114-11A through -11Z		Slide with 26 hairs (-11A through -11Z).
2S04-114-12	93-05718 FP4	Labeled as "Left hand nail scrapings from C. Byers."
2S04-114-13	93-05718 FP5	Labeled as "Right hand nail scrapings from C. Byers."
2S04-114-14	93-05718 FP6	Labeled as "Hair from lower body of C. Byers."
2S04-114-15	93-05718 FP8	Labeled as "Hair from C. Byers ligature."
2S04-114-16	93-05718 Q4	Labeled as "Possible tissue from C. Byers ligature (skin, tissue, hair from ligature)."
2S04-114-17	93-05718 FP9	Labeled as "Hair from perineum of C. Byers ligature."
2S04-114-18	93-05718 FP10	Labeled as "Negroid hair from white sheet." [slide with 9 hairs]
2S04-114-18A		Hair from sheet, described as "Negroid hair frag."
2S04-114-18B		Hair from sheet.
2S04-114-18C		Hair from sheet.
2S04-114-18D		Hair from sheet.
2S04-114-18E		Hair from sheet.
2S04-114-18F		Hair from sheet.
2S04-114-18G		Hair from sheet, described as "animal hair."
2S04-114-18H		Hair from sheet.
2S04-114-18I		Hair from sheet.
2S04-114-19	93-05718 Q1-Q3	Labeled as "Swabs from C. Byers"
2S04-114-19A		Three "oral" swabs.
2S04-114-19B		Three "rectal" swabs.
2S04-114-19C		Three "nasal" swabs.
2S04-114-20	93-05716 E3	Labeled as "Hair from E3."
2S04-114-20A		Slide with two hairs (-20A and -20B).
2S04-114-21	93-05716 E5	Labeled as "Hair from scout cap."
2S04-114-21A		Slide with two hairs (-21A and -21B).
2S04-114-22	93-05716 E126	Labeled as "Hair from knife."
2S04-114-23	93-05716 E127 LS1-QH	Labeled as "Hair from tree stump."

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Date: September 27, 2007

List of Evidence Received on July 7, 2004 for DNA analysis, cont.:

Bode #	Item ID	Description
2S04-114-24	93-05716 E147	Labeled as "Hair from knife."
2S04-114-24		Slide with two hairs (-24A and -24B).
2S04-114-25	93-05716 E3 Q10	Labeled as "Cutting from blue pants."
2S04-114-26	93-05716 E7 Q6	Labeled as "Cutting from jeans."
2S04-114-27	93-05717 FP7	Labeled as "Dyed hair from white sheet used to cover S. Branch."
2S04-114-28	93-05716 E27	Labeled as "Hair from knife."
2S04-114-29	93-05716 E28	Labeled as "Hair from butterfly knife."
2S04-114-30	93-05716 E134	Labeled as "Hair from knife."
2S04-114-31	93-05716 E178	Labeled as "Kershaw folding knife."
2S04-114-32	93-05716 E1A	Labeled as "Bag of clothing."
2S04-114-32A		Pair of white socks.
2S04-114-32B		Leather (or vinyl) pull tab of unknown origin.
2S04-114-32C		Plastic bag "Time Saver."
2S04-114-32D		Tan button down shirt.
2S04-114-32E		Black thermal shirt.
2S04-114-32F		Cargo style jeans.
2S04-114-32G		One "BIC" disposable razor.
2S04-114-32H		One "BIC" disposable razor.
2S04-114-33	93-05718 FP8 L1	Labeled as "Ligature between L-leg and L-wrist and R-leg and R-wrist [Byers]."
2S04-114-33A		Left side.
2S04-114-33B		Right side.
2S04-114-34	93-05717 FP6 L2	Labeled as "Ligature between ankles and wrist, L-leg, L-wrist, R-leg, R-wrist [Branch]."
2S04-114-34A		Left side.
2S04-114-34B		Right side.
2S04-114-35	93-05717 FP6 L3	Labeled as "Ligature, L-leg, L-wrist, R-leg, R-wrist [Moore]."
2S04-114-35A		Left side.
2S04-114-35B		Right side.
2S04-114-36	93-05716 E17	Labeled as "Three tree branches."

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Bode Case #: 2S04-114  
Agency ID# 1993-WVS-05716; 93-05-0668  
**CASE PROCESSING AND RESULTS:**

Date: September 27, 2007

The following items were processed for DNA typing by analysis of the 13 CODIS Short Tandem Repeat (STR) loci, the D2S1338 locus, the D19S433 locus, and the gender determination locus, Amelogenin, using the ABI Identifier kit

2S04-114-41 (Reference Sample-Moore)  
2S04-114-43 (Reference Sample-Branch)  
2S04-114-45 (Reference Sample-Byers)

**CONCLUSIONS:**

1. The profile obtained from reference sample 2S04-114-41 (Moore) matches the following evidence sample profiles: 2S04-114-05A SF, 2S04-114-05A NSF, 2S04-114-05B NSF, 2S04-114-05C SF, and 2S04-114-05C NSF.
2. The profile obtained from reference sample 2S04-114-43 (Branch) matches the following evidence sample profiles: 2S04-114-10A, 2S04-114-10B SF, 2S04-114-10B NSF, 2S04-114-10C SF, and 2S04-114-10D NSF.
3. The profile obtained from reference sample 2S04-114-45 (Byers) is consistent with the following evidence sample profiles: 2S04-114-11R, 2S04-114-11S, 2S04-114-11T, and 2S04-114-13.
4. The profile obtained from reference sample 2S04-114-45 (Byers) matches the following evidence sample profiles: 2S04-114-19A SF, 2S04-114-19A NSF, 2S04-114-19B SF, 2S04-114-19B NSF, 2S04-114-19C SF, and 2S04-114-19C NSF.

**NOTES:**

1. Appropriate positive and negative controls were used concurrently throughout the analysis. The DNA profiles reported in this case were determined by procedures that have been validated according to standards established by the Scientific Working Group on DNA Analysis Methods (SWGAM) and adopted as Federal Standards.
2. Any references to body fluids in evidence descriptions are based on the written descriptions of the samples by the submitting agency.
3. Samples 2S04-114-40, -42, and -44 were not processed at this time.
4. A supplemental STR case report was issued due to additional submission of evidence. Previous STR reports contain additional information. Please refer to STR reports dated: January 2, 2007 and December 30, 2005.
5. The remaining evidence and extracts will be returned to the Arkansas State Crime Lab.

Report is submitted by:

*Amy Jeanguenat*

Amy Jeanguenat, MFS  
DNA Analyst II

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Table One Summary of STR Results

LOCUS	01 Lt nails Moore	02 Rt nails Moore	01_02 L/Rt nails Moore (combined)	03B Hair from ligature Moore	05A SF Oral swab Moore	05A NSF Oral swab Moore	05B SF Rectal swab Moore	05B NSF Rectal swab Moore	05C SF Nasal swab Moore	05C NSF Nasal swab Moore
D3S1358	Inc		Inc		14, 18	14, 18		14, 18	14, 18	14, 18
TH01					8, 9.3	8, 9.3		8, 9.3	8, 9.3	8, 9.3
D21S11					29, 32.2	29, 32.2		29, 32.2	29, 32.2	29, 32.2
D18S51					14, 16	14, 16		14, 16	14, 16	14, 16
Penta E					Inc	12, 12		12, 12	12, 12	12, 12
D5S818			9, 10*		9, 13	9, 13		9, 13	9, 13	9, 13
D13S317					11, 12	11, 12		11, 12	11, 12	11, 12
D7S820					8, 9	8, 9		8, 9	8, 9	8, 9
D16S539					9, 13	9, 13		9, 13	9, 13	9, 13
CSF1PO					Inc	10, 10		10, 10	10, 10	10, 10
Penta D					Inc	9, 10		9, 10	9, 10	9, 10
Amelogenin	Inc	X, Y	X, Y		X, Y	X, Y	Inc	X, Y	X, Y	X, Y
vWA		Inc	Inc		18, 19	18, 19		18, 19	18, 19	18, 19
D8S1179					12, 14	12, 14		12, 14	12, 14	12, 14
TPOX			Inc		8, 8	8, 8		8, 8	8, 8	8, 8
FGA					22, 23	22, 23		22, 23	22, 23	22, 23
D2S1338	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
D19S433	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT

Inc = Inconclusive Gray Area = No Results \*Possible peaks below analysis cut-off present NT = Not Tested

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Table One: Summary of STR Results

LOCUS	05D SF Penile swab Moore	05D NSF Penile swab Moore	06 Lt nails Branch	07 Rt nails Branch	06_07 Lt/Rt nails Branch (combined)	09 Hair from ligature Branch	10A Stained string Branch	10B SF Oral swab Branch	10B NSF Oral swab Branch	10C SF Rectal swab Branch
D3S1358		Inc					14, 17	14, 17	14, 17	14, 17
TH01							6, 9.3	6, 9.3	6, 9.3	6, 9.3
D21S11							29, 29	29, 29	29, 29	29, 29
D18S51							12, 15	12, 15	12, 15	Inc
Penta E							5, 13	5, 13	5, 13	Inc
D5S818		9, 12, 13					10, 12	10, 12	10, 12	10, 12
D13S317		Inc					8, 11	8, 11	8, 11	8, 11
D7S820							8, 10	8, 10	8, 10	8, 10
D16S539							9, 12	9, 12	9, 12	9, 12
CSF1PO		Inc					12, 12	12, 12	12, 12	
Penta D							6, 9	6, 9	6, 9	Inc
Amelogenin	Inc	X, Y	X, Y			Inc	X, Y	X, Y	X, Y	X, Y
vWA		Inc					18, 19	18, 19	18, 19	18, 19
D8S1179		Inc					12, 13	12, 13	12, 13	12, 13
TPOX		Inc					8, 11	8, 11	8, 11	8, 11
FGA							21, 24	21, 24	21, 24	Inc
D2S1338	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
D19S433	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT

Inc = Inconclusive Gray Area = No Results NT = Not Tested

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Table O Summary of STR Results

LOCUS	10C NSF Rectal swab Branch	10D SF Nasal swab Branch	10D NSF Nasal swab Branch	10E SF Penile swab Branch	10E NSF Penile swab Branch	11R Hair on body Byers	11S Hair on body Byers	11T Hair on body Byers	12 Lt nails Byers	13 Rt nails Byers
D3S1358	14, 17	Inc	14, 17			14, 16	14, 16	14, 16		14, 16
TH01	6, 9.3		6, 9.3			9.3, 9.3	9.3, 9.3	9.3, 9.3		9.3, 9.3
D21S11	29, 29		29, 29			Inc				Inc
D18S51	12, 15		12, 15	Inc						
Penta E	5, 13		Inc							
D5S818	10, 12	Inc	10, 12	Inc			11, 12	11, 12		11, 12
D13S317	8, 11		8, 11			8, 12	Inc	8, 12		8, 12
D7S820	8, 10		8, 10							
D16S639	9, 12		9, 12	8, 11		Inc				Inc
CSF1PO	12, 12	Inc	12, 12				Inc			
Penta D	6, 9		6, 9							
Amelogenin	X, Y	X, Y	X, Y	X, Y	Inc	Inc	X, Y	X, Y		X, Y
vWA	18, 19		18, 19			17, 19	17, 19	17, 19		17, 19
D8S1179	12, 13		12, 13			Inc				
TPOX	8, 11		8, 11	Inc		Inc	8, 8	Inc		Inc
FGA	21, 24		21, 24				Inc			
D2S1338	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
D19S433	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT

Inc = Inconclusive Gray Area = No Results NT = Not tested

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Table One: Summary of STR Results

LOCUS	18E Hair from sheet	18F Hair from sheet	18I Hair from sheet	19A SF Oral swab Byers	19A NSF Oral swab Byers	19B SF Rectal swab Byers	19B NSF Rectal swab Byers	19C SF Nasal swab Byers	19C NSF Nasal swab Byers
D3S1358				14, 16	14, 16	14, 16	14, 16	14, 16	14, 16
TH01				9.3, 9.3	9.3, 9.3	9.3, 9.3	9.3, 9.3	9.3, 9.3	9.3, 9.3
D21S11				30, 32.2	30, 32.2	30, 32.2	30, 32.2	30, 32.2	30, 32.2
D18S51				12, 17	12, 17	12, 17	12, 17	12, 17	12, 17
Penta E				11, 11	11, 11	11, 11	11, 11	11, 11	11, 11
D5S818				11, 12	11, 12	11, 12	11, 12	11, 12	11, 12
D13S317				8, 12	8, 12	8, 12	8, 12	8, 12	8, 12
D7S820				9, 12	9, 12	9, 12	9, 12	9, 12	9, 12
D16S539				9, 11	9, 11	9, 11	9, 11	9, 11	9, 11
CSF1PO				10, 13	10, 13	10, 13	10, 13	Inc	Inc
Penta D				9, 10	9, 10	9, 10	9, 10	9, 10	9, 10
Amelogenin				X, Y	X, Y	X, Y	X, Y	X, Y	X, Y
vWA				17, 19	17, 19	17, 19	17, 19	17, 19	17, 19
D8S1179				12, 14	12, 14	12, 14	12, 14	12, 14	12, 14
TPOX				8, 8	8, 8	8, 8	8, 8	8, 8	8, 8
FGA				22, 25	22, 25	22, 25	22, 25	22, 25	22, 25
D2S1338	NT	NT	NT	NT	NT	NT	NT	NT	NT
D19S433	NT	NT	NT	NT	NT	NT	NT	NT	NT

Inc = Inconclusive Gray Area = No Results NT = Not Tested

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Table One: Summary of STR Results

LOCUS	20B Hair	25 SF Cutting from blue pants	25 NSF Cutting from blue pants	31A1 Knife (blade)	31A2 Knife (handle)	31A3 Knife (hinge)	31B1 Knife (blade)	31B2 Knife (handle)	31B3 Knife (hinge)	32G Razor Blade	32H Razor Blade	33A Ligatures Byers
D3S1358							Inc					
TH01							Inc	Inc				
D21S11							Inc					
D18S51							Inc					
Penta E							NT	NT	NT			
D5S818							Inc					
D13S317							Inc					
D7S820							Inc					
D16S539							Inc					
CSF1PO							Inc					
Penta D							NT	NT	NT			
Amelogenin			Inc		Inc		Inc					
vWA							Inc					
D8S1179							Inc					
TPOX							Inc					
FGA							Inc					
D2S1338	NT	NT	NT	NT	NT	NT	Inc			NT	NT	NT
D19S433	NT	NT	NT	NT	NT	NT	Inc			NT	NT	NT

Inc = Inconclusive Gray Area = No Results NT = Not Tested

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ADD00154

Table O Summary of STR Results

LOCUS	33B Ligatures Byers	33AB Ligatures Byers (combined)	34A Ligatures Branch	34B Ligatures Branch	34AB Ligatures Branch (combined)	35A Ligatures Moore	35B Ligatures Moore	35AB Ligatures Moore (combined)
D3S1358					14,17			
TH01								
D21S11				Inc	Inc			
D18S51								
Penta E								
D5S818					10,11,12			Inc
D13S317					8,11			Inc
D7S820								
D16S539								
CSF1PO					Inc			
Penta D					6, 9			
Amelogenin				X,Y	X,Y			X,Y
vWA				18,19	Inc			
D8S1179					Inc			
TPOX								
FGA					Inc			
D2S1338	NT	NT	NT	NT	NT	NT	NT	NT
D19S433	NT	NT	NT	NT	NT	NT	NT	NT

Inc = Inconclusive Gray Area = No Results NT = Not Tested ( ) = minor allele

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Table One: Summary of STR Results

LOCUS	37A Reference sample for ECHOLS	38A Reference sample for MISSKELLEY	39A Reference sample for BALDWIN	41A Reference sample for MOORE	43A Reference sample for BRANCH	45A Reference sample for BYERS
D3S1358	14,15	15,17	16,17	14,18	14,17	14,16
TH01	7,9.3	9.3,9.3	6,7	8,9.3	6,9.3	9.3,9.3
D21S11	29,31	29,31.2	28,31.2	29,32.2	29,29	30,32.2
D18S51	14,17	12,17	13,17	14,16	12,15	12,17
Penta E	NT	NT	NT	NT	NT	NT
D5S818	11,12	11,12	9,9	9,13	10,12	11,12
D13S317	8,11	9,12	9,11	11,12	8,11	8,12
D7S820	10,12	11,12	11,11	8,9	8,10	9,12
D16S539	11,12	11,12	11,11	9,13	9,12	9,11
CSF1PO	10,11	10,12	10,12	10,10	12,12	10,13
Penta D	NT	NT	NT	NT	NT	NT
Amelogenin	X,Y	X,Y	X,Y	X,Y	X,Y	X,Y
vWA	16,20	15,17,(18)	16,18	18,19	18,19	17,19
D8S1179	12,13	13,15	11,12	12,14	12,13	12,14
TPOX	8,8	8,11	9,11	8,8	8,11	8,8
FGA	21,24	21,22	24,24	22,23	21,24	22,25
D2S1338	24,24	23,23	24,25	17,23	23,24	18,24
D19S433	13,16	13,2,14	14,15	14,14	14,17	14,15

Inc = Inconclusive Gray Area = No Results NT = Not Tested ( ) = minor allele

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ADD00156

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ADD00157

**Don Horgan**

**From:** "Amy Jeanguenat" <Amy.Jeanguenat@bodetech.com>  
**To:** "Don Horgan" <don@riordan-horgan.com>  
**Sent:** Thursday, August 16, 2007 12:06 PM  
**Subject:** 2S04-114 possible mixed samples/foreign alleles

Dear Don:

Now that the defendant's and victim's reference samples have been processed we are able to determine if there are any foreign alleles present in any of the samples.

-The profile obtained from sample 2S04-114-34AB (Branch ligatures combined) suggest there is a possible mixture present; this is specifically suggested at the D5S818 locus. The swabs used to swab the ligature were consumed during processing however there may be liquid extract available for further testing. Bode can go back to the original extract tube and measure the volume left.

-The profile obtained from sample 2S04-114-05D (Penile swab Moore) suggest there is a possible mixture present; this is specifically suggested at the D5S818 locus in the -05D NSF. Bode can go back to the original extract tube and measure the volume remaining. However according to analyst's notes Bode received two swabs and only one was processed. Extracting the remaining swab could give us more information.

-The profile obtained from sample 2S04-114-10E (Penile swab Branch) suggest there is a foreign allele present that could not have come from the victim's or defendant's; specifically the '8' allele at the D16S539 locus in the -10E SF. According to analyst's notes Bode received two swab and only one was processed. Extracting the remaining swab could give us more information.

-The above samples may also benefit from a new technology introduced in the field called mini STRs. Mini STR technology is very beneficial for degraded and/or inhibited samples. Bode has validated MiniFiler and training for analysts is expected to begin next week. Within 6-8 weeks or sooner we should be able to begin using MiniFiler for casework.

Please let me know if you need any further clarification.

Amy

Amy Jeanguenat, MFS  
DNA Analyst II  
10430 Furnace Rd, Suite 107  
Lorton, VA 22079  
703.646.9745  
amy.jeanguenat@bodetech.com

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10/27/2007

ADD00158

000160

**Subj:** Fw: 2S04-114-10E-SF clarification  
**Date:** 5/20/2008 1:50:10 P.M. Pacific Daylight Time  
**From:** don@riordan-horgan.com  
**To:** JPhilipsbo@aol.com

— Original Message —

**From:** Don Horgan  
**To:** Michael Burt  
**Cc:** Nancy Pemberton  
**Sent:** Tuesday, May 20, 2008 12:08 PM  
**Subject:** Fw: 2S04-114-10E-SF clarification

— Original Message —

**From:** Amy Jeanguenat  
**To:** Don Horgan  
**Sent:** Wednesday, April 09, 2008 12:19 PM  
**Subject:** 2S04-114-10E-SF clarification

Dear Don:

In an August 16th email I stated

The profile obtained from sample 2S04-114-10E (Penile swab Branch) suggest there is a foreign allele present that could not have come from the victim's or defendant's; specifically the '8' allele at the D16S539 locus in the 10E SF.

To clarify the partial profile obtained from 2S04-114-10E-SF is low level and may contain more than one contributor however, the '8' allele at the D16S539 locus indicates a contributor foreign to Echols, Misskelley, Baldwin, Moore, Branch, and Byers contributed the '8.'

LOCUS	37A Reference sample for ECHOLS	38A Reference sample for MISSKELLEY	39A Reference sample for BALDWIN	41A Reference sample for MOORE	43A Reference sample for BRANCH	45A Reference sample for BYERS	10E SF Penile swab Branch
D16S539	11,12	11,12	11,11	9,13	9,12	9,11	8,11

Please let me know if you need further clarification.

Amy

Tuesday, May 20, 2008 AOL: JPhilipsbo

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ADD00160