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## 1. EXECUTIVE SUMMARY

This forensic investigation was conducted following allegations made by **Anise Famke DE BOER** against **Nicolas VALENTINO**, in which she claimed she was drugged and sexually assaulted at his studio on **January 25**, **2024**. Digital evidence was examined from multiple devices seized from VALENTINO's residence, including a **damaged laptop** (**AXA/2**), a destroyed **memory card** (**AXA/1**), and an **external hard drive** (**AXA/3**). Analysis of these devices revealed key artefacts indicating potential premeditation, evidence tampering, and attempts to conceal digital records.

### Key Findings:

Flunitrazepam Research Document (Artefact-1): A research paper detailing methods for detecting Flunitrazepam in beverages was recovered, raising concerns about prior knowledge of the drug's effects.

**Deleted JPEG File (Artefact-2):** A file (**f0045957.jpg**) was in unallocated space, indicating intentional deletion. The absence of metadata suggests deliberate removal to obscure its origin.

**Hidden Audio Files (Artefact-4):** Embedded recordings found within an RTF document contained conversations suggesting a pattern of predatory behaviour.

WhatsApp Messages (Artefact-7): Chat logs included references to past incidents and inappropriate behaviour, with messages from Caitlyn LIN expressing prior concerns regarding VALENTINO's conduct.

**Encrypted SYSTEM File (Artefact-10):** A hidden, VeraCrypt-encrypted file contained indecent images with explicit captions.

**Destroyed Storage Devices (Artefacts AXA/1 & AXA/2):** The laptop exhibited impact marks inconsistent with accidental damage, and its SSD was completely pulverized. A memory card was found cut into two pieces, suggesting intentional destruction of potential evidence.

Steganographic Data in Image Files (Artefact-8): A file (wendigo.png) contained concealed text referencing previous incidents, recovered through steganographic analysis.

Flunitrazepam Image (Artefact-13): An image of Flunitrazepam packaging was found in the suspect's research directory, further reinforcing suspicions of intent and premeditation.

### Overall Summary:

The findings suggest deliberate efforts to delete, encrypt, and conceal digital evidence. The presence of Flunitrazepam-related materials, deleted media, and encrypted files raises concerns about possible premeditation. Additionally, the physical destruction of key digital storage devices indicates an attempt to obstruct forensic recovery efforts.

#### 2. VICTIM AND SUSPECT DETAILS

### 2.1. Victim Details

 Anise Famke DE BOER (DOB 1/Jan/2003) – Undergraduate Student, South Thames Fictional University, New Cross, London.

#### 2.2. Involved Parties

 Caitlyn LIN – 'friend from work', Independent Hair and Make-up Artist, who accompanied DE BOER when attending police station.

### 2.3. Suspect Details

 Nicolas VALENTINO (DOB 1/Jan/1989) – Boutique Fashion Designer and Photographer, Rotherhithe, London.

### 3. CIRCUMSTANCE OF INVESTIGATION

- DE BOER alleges that VALENTINO acted in a sexually inappropriate way to her in the past, making lewd comments about how he would like to dress and undress her, however in her professional capacity as a fashion model she was on the evening of 25/Jan/2024 at the suspect's studio apartment doing a photoshoot/clothing adjustment. There were only the two of them present, and the suspect is alleged to state it would only take a couple of hours to make the photos and do the adjustments. DE BOER had told her friends where she was and had agreed to only work late if a taxi home was provided at the end of the fitting session.
- DE BOER alleges that she drank some champagne, which she thought tasted funny and shortly
  thereafter she believes she passed out, later waking up on the sofa in the apartment covered in a
  blanket.
- She alleges that she was raped whilst unconscious, and as she was in fear for her safety, she immediately left the studio apartment at approximately 05h00. Details of the assault are not included for the digital forensic analyst but have been recorded.
- DE BOER did not report the assault to police at that time as she was worried about her professional reputation, and did not think anyone would believe her, because she was at the suspect's studio late. DE BOER told her friend LIN about the assault approximately 2 weeks later, and LIN convinced her to report to police, and on the 13/Feb/2024 DE BOER and LIN attended Greenwich Police Sexual Offences Unit to give a statement.

## VALENTINO's account of the 25/Jan/2024, made under caution by DC AHMED

• He and DE BOER were working late at the studio on adjusting and photographing an eveningwear collection, stating that she had to work late at night because he wanted to have the background city lights. He states that he had agreed to call her a taxi after they had finished work, but he had warned her that it might be a late session.

- The suspect states that DE BOER had not eaten during the evening, and that he thinks she may have taken cocaine early in the session, as she had been complaining about being tired, but then 'perked up.' He states that he did give her at least half a bottle of champagne whilst they were working and eventually at approximately 02h00 she 'crashed out' on the studio sofa and fell asleep. The suspect states he stopped working at 03h00, and as DE BOER was fast asleep, he covered her with a blanket and went to sleep in his bedroom, in the next room. The next day he claims that he woke between 06h00 or 07h00, and did not find DE BOER present in the apartment. He states that he tried to call her later that morning to find out if she was okay, but she did not answer, and he has not spoken to her since.
- He categorically denies any inappropriate physical contact, or sexual activity took place. He denies supplying her with any drugs or substances other than wine. He denies giving her any drugs or substances without her knowledge or consent.
- VALENTINO alleged that the situation was "a deliberate attempt to damage his reputation" and stated that "she is trying to falsely 'MeToo' me." He referred to the individual as "Kate," who, upon further questioning, was identified as LIN.

#### **Additional Information**

- DC AHMED (in company with PC SHEPPARD) from the specialist Sexual Offences Unit, notes that she attended the suspect's home address during the afternoon of 16/Feb/2024 to respond to DE BOER's allegation. At that time, she asked if there was any CCTV on the premises, which there appears not to be the case. She asked if she could see the camera equipment used by the suspect and found it to be of a 'digital SLR' type, with a removable memory card slot.
- AHMED further notes that she discovered a camera memory card (exhibit AXA/1) in the wastepaper basket, which appeared to be chopped into two (2) parts. Suspect stated that he had accidentally cut into it when using a fabric cutter near his camera.
- AHMED asked to see any computer equipment present on the property and was told that the laptop (exhibit AXA/2) had recently "accidentally been dropped down the stairs of the apartment building", "a few days ago", and as such was not functional. AHMED states that she believes there are impact marks on the centre of the laptop consistent with it being hit by a hammer or heavy object, rather than damage to the edges of the laptop.

- DC AHMED decided to arrest VALENTINO at this point and perform a Section 18 search on the rest of the property. Under the pillows of the sofa in the living room, a black external hard disk drive (exhibit AXA/3) and 'USB' type cable were located. Three (3) additional memory cards were located, and the digital forensic kiosk team have stated these appear to be blank.
- Exhibits AXA/1 and AXA/2 have been retained and not sent for examination at this time, as the kiosk team describe the SSD storage drive in the laptop as 'pulverised'.

### 4. DESCRIPTION OF ABBREVIATIONS AND SHORT FORMS USED IN THE DOCUMENT

The document contains various technical terms, forensic investigation-related abbreviations, and industry-specific short forms that may be unfamiliar to some readers. Below is a list of these terms along with their explanations:

- **AXA/1, AXA/2, AXA/3** References for digital exhibits (e.g., seized storage devices such as memory cards, laptops, and external drives).
- **CCTV** (**Closed-Circuit Television**) A video surveillance system used for security and evidence collection.
- NTFS (New Technology File System) A type of file system used in Windows operating systems to store and manage data.
- **exFAT** (**Extended File Allocation Table**) A file system optimized for flash storage devices like USB drives and memory cards.
- **MD5** (**Message Digest Algorithm 5**) A cryptographic hashing algorithm used to verify data integrity.
- **SHA1** (**Secure Hash Algorithm 1**) Another hashing algorithm used for data verification and digital forensics.
- **Imaging:** A digital forensic technique used to collect and analyse evidence in a manner admissible in court.
- **Metadata:** Descriptive information about a file, including details such as creation date, modification history, author, and file type.
- MIME Type: A standard identifier for file formats (Multipurpose Internet Mail Extensions) that specifies a file's media type.
- Encryption: The process of encoding data to make it unreadable without proper authorization.
- **Decryption:** The act of converting encrypted data back into its original, readable form.
- FTK (Forensic Toolkit Imager) A forensic software used for imaging and analysing digital evidence.
- RTF (Rich Text Format) A document format that supports text and basic formatting but is not as complex as DOCX.
- **JPEG** (**Joint Photographic Experts Group**) A common image format used for storing digital photos.
- **PNG** (**Portable Network Graphics**) Another image format, often used for lossless image compression.
- MFT (Master File Table) A data structure in NTFS that keeps track of all files and directories on a disk.

- **HXD** (**Hex Editor Tool**) A tool used for examining and modifying raw binary data in digital files.
- **Hashing:** Hashing is a widely used technique in computer science that processes data through an algorithm to generate a unique hash value.
- VeraCrypt Encryption software used to secure and hide sensitive files and data.
- **CyberChef** A web-based forensic tool used for decoding, analysing, and transforming digital data.
- **Steganography** The practice of hiding data within images or other files to conceal information.
- **ZIP** (Compressed File Format) A file format used to compress and bundle multiple files into a single archive.

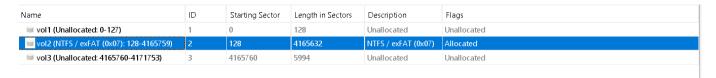
### 5. DETAILS OF EXHIBITS

### 5.1. Exhibit descriptions

 Exhibit AXA/3, a Generic Removable Hard Disk Drive – Imaged as an evidence file 'Operation Redbridge AXA-3. E01'

### 6. TECHNICAL DETAILS OF THE EXHIBITS

## 6.1. Exhibit AXA/3 – File System Details

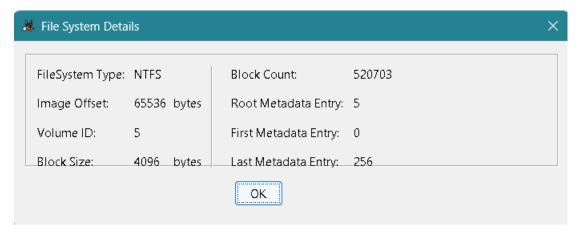


**Figure 1:** The file systems on the device.

Figure 1 shows the file system corresponding to the laptop. It states the file system type is

NTFS/exFAT, however, from further analysis, it is confirmed as NTFS, as shown below in figure 2.

There are three volumes, however, only one of the three is allocated.



**Figure 2:** The file system details of the device, confirming it uses NTFS.

From figure 1.2 the file type has been identified as NTFS. This information corresponds to volume 2, which is the main partition within the device. There are 4096 bytes in the block size, which is the default cluster size for NTFS. The number of bytes within this partition is 2,132,799,488 bytes, which is calculated by multiplying the block size by the block count, as shown below:  $4,096 \times 520703 = 2,132,799,488$  bytes (or a 2.13 GB partition)

## 6.2. Exhibit AXA/3 – Operating System Details

■ N.A.

## 7. PRESERVATION OF EVIDENCE

## 7.1. Exhibit AXA/3 - Imaging of Original Evidence

## Imaged by:

The original exhibit, an unbranded black external USB device, was imaged by A. Adam Adamson on February 15, 2024. The acquisition was performed under Case Number: OpRedbridge 2024, with the evidence tagged as AXA/3.

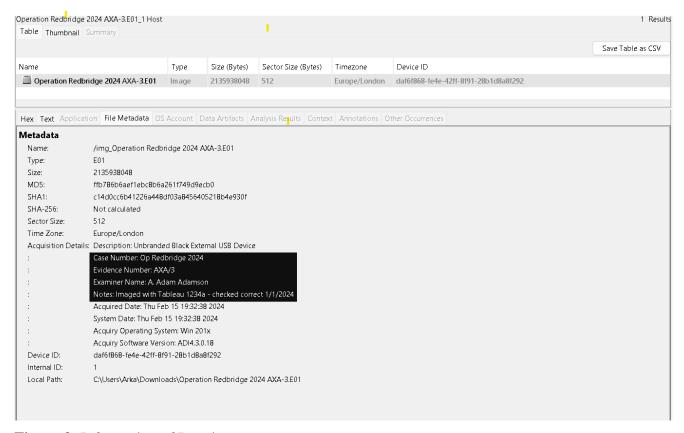


Figure 3: Information of Imaging.

## Details of Imaging

The imaging process was carried out using a Win 201x system, software version: ADI4.3.0.18 ensuring meticulous forensic preservation of the digital evidence.

## Dual tool verification of the Image

### Autopsy:

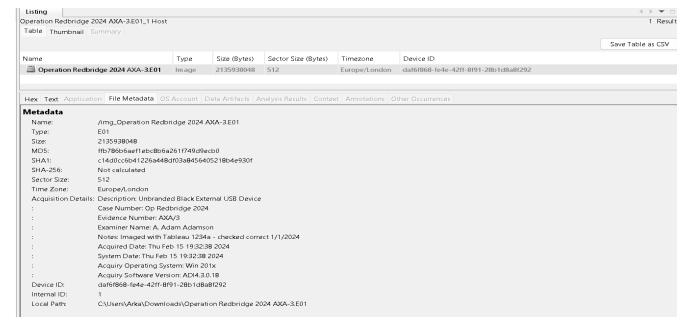
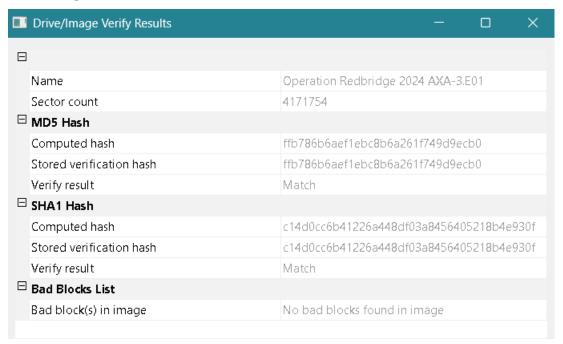


Figure 4: Verification with Autopsy.

## FTK Imager:



**Figure 5:** Verification with FTK Imager.

The MD5 and the SHA1 verification hashes of the original evidence was provided as follows:

MD5 verification hash: ffb786b6aef1ebc8b6a261f749d9ecb0

SHA1 verification hash: c14d0cc6b41226a448df03a8456405218b4e930f

Procedures The evidence file called 'Operation Redbridge 2024 AXA-3. E01' was uploaded into both Autopsy and FTK imager- both of which are forensic imaging software. They provided verification hashes that match that of the original evidence file as shown in the screenshots in section.

#### 8. TOOLS USED

#### 8.1. Software Used:

- **Autopsy version 4.21.0:** This is an open-source digital forensics software which has been used to investigate the Generic Removable Hard Disk Drive (**Exhibit AXA/3**).
- Access Data FTK imager version 4.3.0.18: This is a computer forensics software which only has been used to verify the image (Exhibit AXA/3) in this case study.
- HXD Hex editor version 2.5.0.0 (x86-64): This is a forensics investigation software which has been used in file structure analysis, forensic data recovery.
- **VeraCrypt version 1.26.7 (64-bit):** This is an encryption tool used to secure files and storage volumes, aiding in uncovering hidden and encrypted evidence during forensic analysis.

#### 8.2. Websites Used:

- https://cyberchef.immersivelabs.online- This website has been used to decode hidden messages and extract concealed data.
- https://stylesuxx.github.io/steganography- This website has been used to detect and extract hidden messages embedded within images and other digital files as part of forensic analysis.
- https://en.wikipedia.org/wiki/List\_of\_file\_signatures- This website has been used to identify
  and verify file types by comparing hexadecimal signatures, aiding in detecting disguised or
  altered files during forensic analysis

## 9. RESULTS AND FINDINGS

## 9.1. Artefacts- 1

#### Location:

Operation Redbridge 2024 AXA-3. E01/vol\_vol2/Research/The detection of flunitrazepam in beverages using portable Raman spectroscopy - PubMed\_files/overlay-block.css

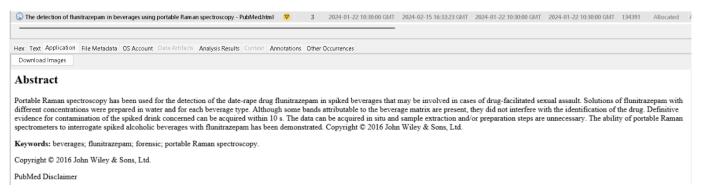


Figure: 1.1

### ■ The Reason Document 1 is Suspicious:

The suspect's behaviour, searching for flunitrazepam and saving an article of detecting in beverages, raises serious concerns. Flunitrazepam, a powerful sedative, is often associated with crimes like sexual assault, and the suspect's interest in this could indicate possible involvement in such activities (pictures of the medicine in figure 13.1 & 13.2). Saving the article suggests the information was intentionally kept for future use, hinting at premeditation. Their focus on portable Raman spectroscopy, a detection tool used by law enforcement, could point to efforts to understand and evade forensic methods. These actions suggest a troubling intent and a desire to avoid detection.

#### ■ The Meta-Data for Document 1 is as follows:

Metadata	
Name:	/img_Operation Redbridge 2024 AXA-3.E01/vol_vol2/Research/The detection of flunitrazepam in beverages using portable Raman spectroscopy - PubMed.htr
Туре:	File System
MIME Type:	text/html
Size:	134391
File Name Allocation	on: Allocated
Metadata Allocatio	n: Allocated
Modified:	2024-01-22 10:30:00 GMT
Accessed:	2024-01-22 10:30:00 GMT
Created:	2024-01-22 10:30:00 GMT
Changed:	2024-02-15 16:33:23 GMT
MD5:	6830654e11567ae59523be909fddca62
SHA-256:	c2b1306e58a4f19a0767d06467f0deaecd1344a6d6a4aba08888af8e435c56cb
Hash Lookup Resul	ts: UNKNOWN
Internal ID:	170

Figure: 1.2

#### Suspected Metadata explanation

The file's creation, modification, and access timestamps all matching (2024-01-22 10:30:00 GMT) suggests the file may have been copied or moved to hide its true history. This is not typical as these timestamps are usually different. The "Changed" date of 2024-02-15 16:33:23 GMT is far from the other timestamps, indicating possible metadata manipulation to make the file seem less

suspicious. Modifying the MFT entry further points to tampering or an attempt to alter the file's origin. The file is marked as 'Hidden' and 'Not Content Indexed', meaning it is harder to find and analyse, likely done to avoid detection. The file has a parent MFT entry (Entry: 71, Sequence: 1), and any irregularities here suggest an effort to conceal the file's true path or source. In summary, the file shows clear signs of tampering and deliberate steps taken to avoid detection.

#### 9.2. Artefacts- 2

#### Location:

Operation Redbridge 2024 AXA-3. E01/vol\_vol2/\$CarvedFiles/1/f0045957.jpg

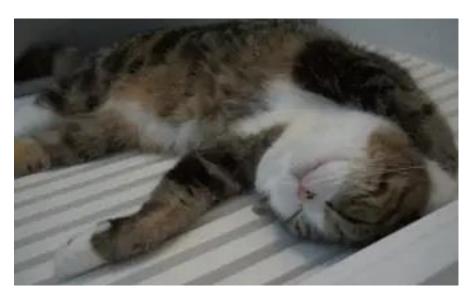


Figure: 2.1

### Reason Why This Evidence is Suspicious:

The file (f0045957.jpg) is a carved JPEG image recovered from unallocated space, which suggests it was intentionally deleted or hidden. The fact that it was found in a folder named \$CarvedFiles indicates it was recovered during forensic analysis, further raising suspicions about its purpose. While the content of the image is not explicitly described, the context of the case (involving allegations of sexual assault and the suspect's suspicious behaviour) makes the presence of a hidden or deleted image file highly concerning. If the image contains indecent or inappropriate content (e.g., related to the "cat" terminology rule, which may be used as code for indecent material), it could be evidence of illegal activity.

The unknown hash and lack of timestamps further suggest the file may have been altered or concealed to avoid detection, which is consistent with the suspect's other actions (e.g., destroying the memory card and damaging the laptop).

#### ■ The Meta-Data for Artefacts-2 is as follows:

#### Metadata

Name: /img\_Operation Redbridge 2024 AXA-3.E01/vol\_vol2/\$CarvedFiles/1/f0045957.jpg

Type: Carved
MIME Type: image/jpeg
Size: 19831
File Name Allocation: Unallocated
Metadata Allocation: Unallocated

 Modified:
 0000-00-00 00:00:00

 Accessed:
 0000-00-00 00:00:00

 Created:
 0000-00-00 00:00:00

 Changed:
 0000-00-00 00:00:00

MD5: ace2df236d54a719a5f64f5462f0cb8f

SHA-256: 926e99b2337ff95c2b73c7e18bcc979a64fbb92535a5a5da8091b1d61ba0159b

Hash Lookup Results: UNKNOWN

Internal ID: 1269

Figure: 2.2

## Suspected Metadata explanation

The creation, modification, accessed, and changed timestamps are all set to 0000-00-00 0000000, which is highly unusual and suggests that the file's metadata has been manipulated or wiped. This could indicate an attempt to hide the file's true origin or when it was last accessed or modified. The file is marked as unallocated in both file name and metadata allocation, meaning it was recovered from unallocated space on the disk. This suggests the file was deleted or hidden and later carved out during forensic analysis. The absence of timestamps further supports the possibility of metadata forgery to obscure the file's history.

The file's unallocated status and the lack of timestamps indicate that the suspect may have attempted to delete or hide the file to evade detection. This is a common anti-forensic technique used to make it harder for investigators to recover or trace the file.

#### 9.3. Artefacts- 3

#### Location:

Operation Redbridge 2024 AXA-3.E01/vol vol2/\$Unalloc/Unalloc 8 1345097728 2132865024

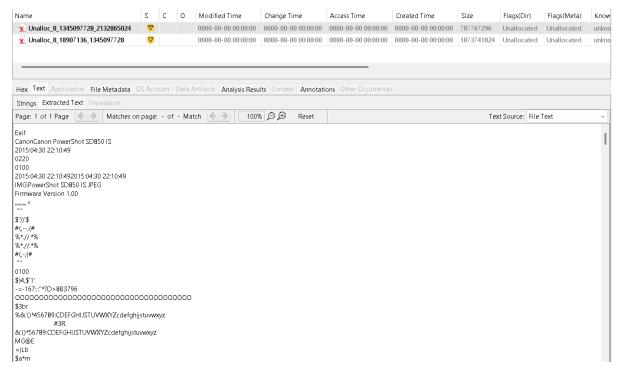


Figure: 3.1

## Reason Why This Evidence is Suspicious:

The data is from unallocated space, which suggests intentional deletion. A memory card was found destroyed (AXA/1) this could indicate attempts to hide or destroy evidence. The EXIF in extracted text suggests image files but the large file size (around 750 MB) indicates multiple images or video

### • The Meta-Data for Artefacts-3 is as follows:

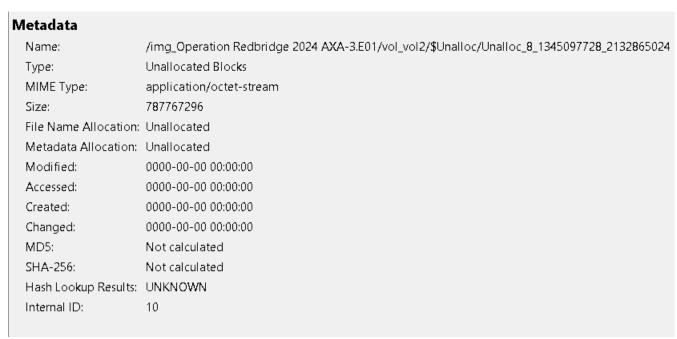


Figure: 3.2

#### 9.4 Artefacts- 4

#### Location:

Operation Redbridge 2024 AXA-3.E01/vol\_vol2/Accountancy Details/Communications with Accountant.docx

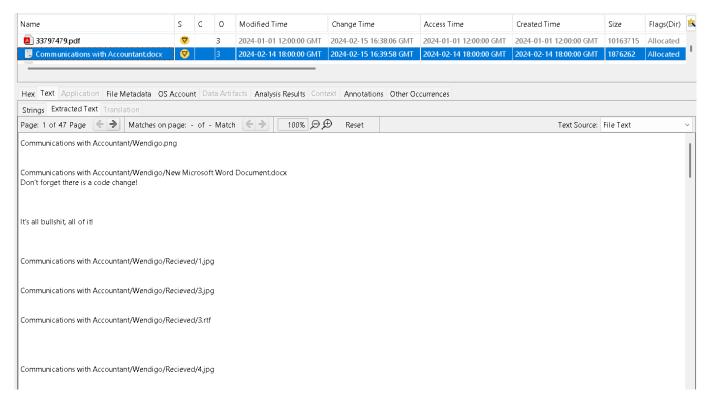


Figure: 4.1

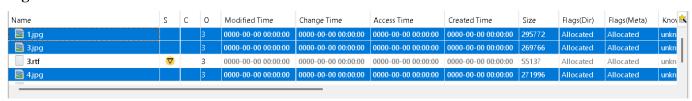


Figure: 4.2

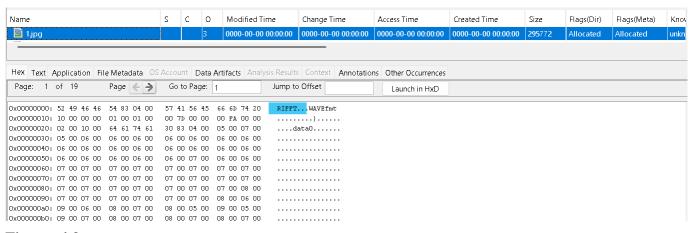


Figure: 4.3

### • Reason Why This Evidence is Suspicious:

The extension of the highlighted 3 files (**Figure: 4.2**) shows this is a jpg which found in the document named "**Communications with Accountant**" (**Figure 4.1**) but the metadata in (**figure: 4.5, 4.6 & 4.7**) shows these are audio files. We managed to verify Waveform Audio file format's signature hex code is same as the hex code of these files. We changed the file extension from jpg to mp3 and managed to recover the audio file.

#### The audio we recovered was-

- "She is hot. You think you can get her like you get the last girl, I want to see that." (**Found** from 1.jpg)
- "She is amazing, better even than the last one. You are devil." (Found from 3.jpg)
- "You made her do it, didn't you? Tell me you took more pictures." (Found from 4.jpg)

We suspect that the document VALENTINO received from someone named "Accountant" contains information about a past incident involving another girl that VALENTINO was involved in. This assumption is based on a few WhatsApp chats (Figure 7.1, 7.2 & 7.3) in which VALENTINO mentioned the same situation.

### • The Meta-Data for Artefacts-4 is as follows:

/letadata	
Name:	/img_Operation Redbridge 2024 AXA-3.E01/vol_vol2/Accountancy Details/Communications with Accountant.doc
Type:	File System
MIME Type:	application/vnd.openxmlformats-officed ocument.word processing ml.document
Size:	1876262
File Name Allocation:	Allocated
Metadata Allocation:	Allocated
Modified:	2024-02-14 18:00:00 GMT
Accessed:	2024-02-14 18:00:00 GMT
Created:	2024-02-14 18:00:00 GMT
Changed:	2024-02-15 16:39:5 <b>8</b> GMT
MD5:	a5b1b <b>8</b> 1ca <b>4</b> c90ce9d92635241de1b <b>8</b> ab
SHA-256:	3d01cec231cb54ccc9d506d6630e5895b145952bb2906594898cac3e3e890af6
Hash Lookup Results:	UNKNOWN
Internal ID:	75

Figure: 4.4

Metadata

Name: /img\_Operation Redbridge 2024 AXA-3.E01/vol\_vol2/Accountancy Details/Communications with Accountant.docx/1.jpg

Type: Derived MIME Type: audio/vnd.wave

Size: 295772
File Name Allocation: Allocated
Metadata Allocation: Allocated

 Modified:
 0000-00-00 00:00:00

 Accessed:
 0000-00-00 00:00:00

 Created:
 0000-00-00 00:00:00

 Changed:
 0000-00-00 00:00:00

MD5: 4496d3017f677620d43ccb1447b01a23

SHA-256: 1ab4af94a7585c8138c10e7732cea8be2d25190fdd38623002332df30c82f271

Hash Lookup Results: UNKNOWN Internal ID: 247

Figure: 4.5

Metadata

Name: /img\_Operation Redbridge 2024 AXA-3.E01/vol\_vol2/Accountancy Details/Communications with Accountant.docx/3.jpg

Type: Derived

MIME Type: audio/vnd.wave

Size: 269766
File Name Allocation: Allocated
Metadata Allocation: Allocated

 Modified:
 0000-00-00 00:00:00

 Accessed:
 0000-00-00 00:00:00

 Created:
 0000-00-00 00:00:00

 Changed:
 0000-00-00 00:00:00

MD5: c0114e7554389e89306a0ec28988fa10

SHA-256: a596b27e6a7e614cf7fc61103656495a1fd1dcd54bd027f61f39c4fae601fa15

Hash Lookup Results: UNKNOWN

Internal ID: 243

Figure: 4.6



Figure: 4.7

#### 9.5 Artefacts-5

#### • Location:

Operation Redbridge 2024 AXA-3.E01/vol\_vol2/Accountancy Details/Communications with Accountant.docx/3.rtf

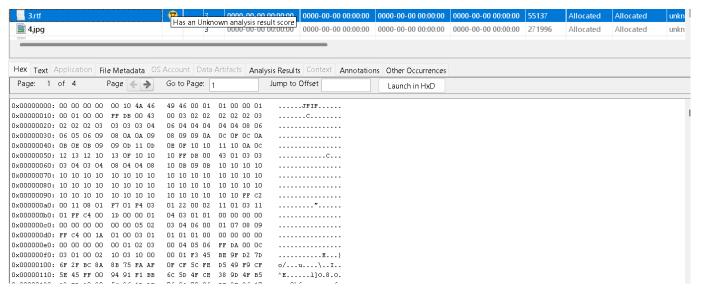


Figure: 5.1

FF D8 FF E0 00 10 4A 46	WANN TETE		
49 46 00 01	ÿ <b>Ø</b> ÿ <b>à</b> nuLBLEJFIFNULSOH	ipq	JPEG raw or in the JFIF

Figure: 5.2



Figure: 5.3

## • Reason Why This Evidence is Suspicious:

We examined the file alongside the other JPG files, but it was displaying as an RTF file type. Using Autopsy and a hex code editor, we confirmed that the RTF file was actually an image. However, the file's format signature in hex code did not correspond to that of a standard image file, indicating that the hex code had been manipulated. Subsequently, we modified the hex code (as shown in the figure: 5.2) to fix the file. Afterwards, we recovered the picture (Figure: 5.3).

• The Meta-Data for Artefacts-5 is as follows:

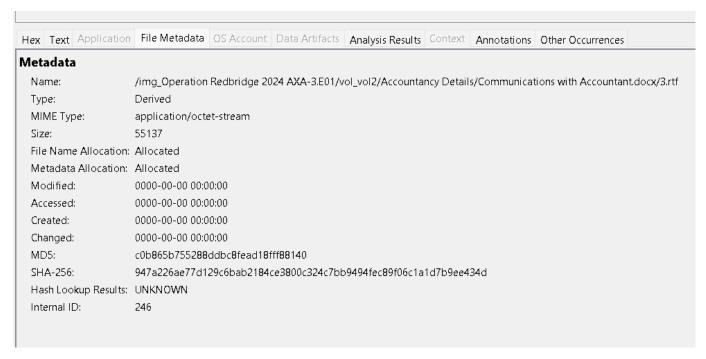


Figure: 5.4

#### 9.6 Artefacts- 6

Location: Operation Redbridge 2024 AXA-3.E01/vol\_vol2/Accountancy
 Details/Communications with Accountant.docx/New Microsoft Word Document.docx

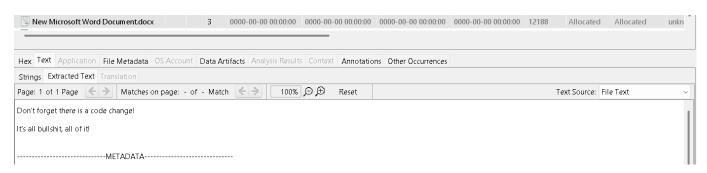


Figure: 6.1

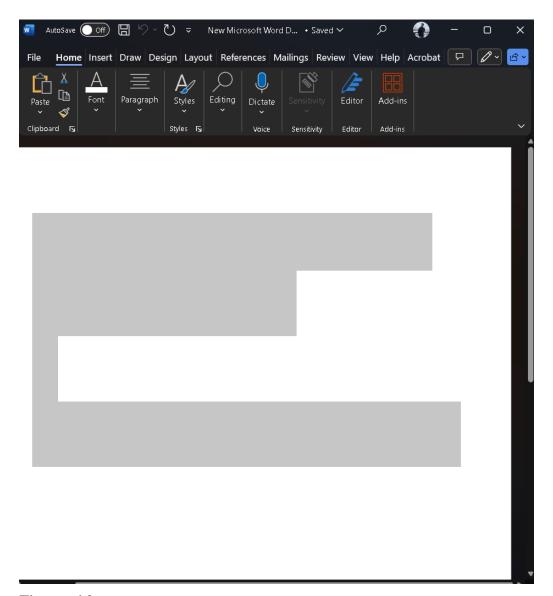


Figure: 6.2

## • Reason Why This Evidence is Suspicious:

We came across a document file and initially opened it in Autopsy, where it displayed the text "Don't forget there is a code change, it's all bullshit all of it "(Figure 6.1). However, when we extracted and opened the file directly, it appeared blank. To investigate further, pressed "CTRL+A" to select all the content, revealing that the text had been hidden by being set to the font colour white on a white background (Figure: 6.2). This suggests that the intention was to obscure the information.

## • The Meta-Data for Artefacts-6 is as follows:

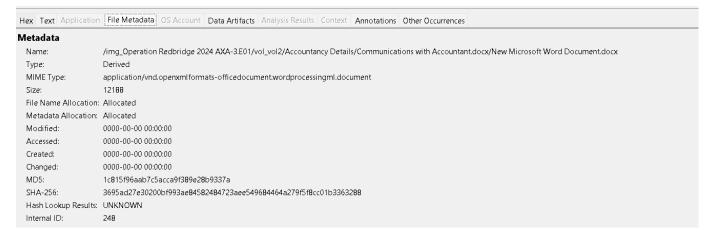


Figure: 6.3

### 9.7 Artefacts- 7:

#### Location:

Operation Redbridge 2024 AXA-3.E01/vol\_vol2/Crazy Bitch Threats/Proof/Screen13122023.png Operation Redbridge 2024 AXA-3.E01/vol\_vol2/Crazy Bitch Threats/Proof/Screen23012024.png Operation Redbridge 2024 AXA-3.E01/vol\_vol2/Crazy Bitch Threats/Screen21022024.png' Operation Redbridge 2024 AXA-3.E01/vol\_vol2/Crazy Bitch Threats/Proof

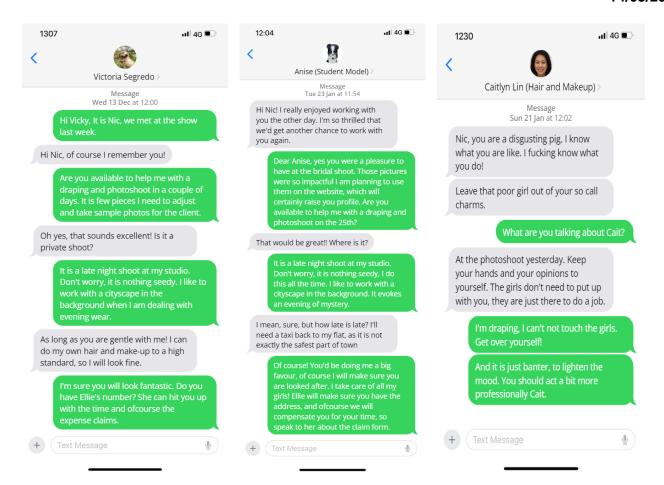


Figure: 7.1 Figure: 7.2 Figure: 7.3

### • Reason Why This Evidence is Suspicious:

The digital evidence, including messages and audio recordings, suggests a pattern in how VALENTINO interacts with models. On December 13, he contacted Victoria Segredo, and a little over a month later, on January 23, he reached out to DE BOER in a similar manner. By January 25, he had invited DE BOER to a private photoshoot, raising concerns that this may be part of a recurring behaviour.

A voicemail was found from VALENTINO's accountant, stating, "She is amazing, better even than the last one. You are devil." [Figure: 4.2 (3.jpg)]. This comment suggests that VALENTINO and his associate may have been evaluating individuals in a way that warrants further investigation. The exact meaning behind the statement remains unclear, but in the context of the case, it raises serious questions.

There were also prior allegations of inappropriate behaviour. On January 21, makeup artist Caitlyn LIN confronted VALENTINO during a photoshoot, accusing him of making the models uncomfortable. She told him, "Keep your hands and opinions to yourself. The girls don't need to deal with you; they are just here to do a job." VALENTINO dismissed her concerns, responding, "I'm draping; I can't touch the girls. Get over yourself!" He later brushed off the

issue as nothing more than "jest" intended to create a relaxed atmosphere.

Taken together, these interactions paint a troubling picture of VALENTINO's behaviour. His dismissive attitude toward concerns raised by others and his repeated interactions with different models suggest a pattern that should be examined further. The way he speaks about and engages with models raises ethical concerns, particularly regarding professional boundaries in the industry.

### • The Meta-Data for Artefacts-7 is as follows:

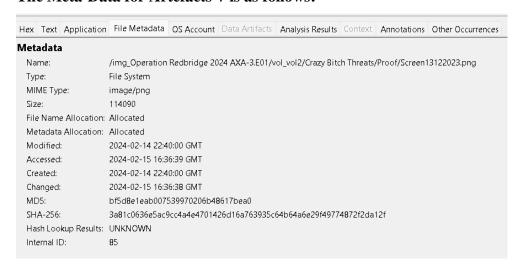


Figure: 7.4

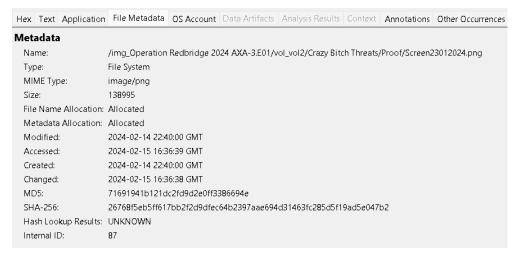


Figure: 7.5



Figure: 7.6

### 9.8 Artefacts-8

• Location: Operation Redbridge 2024 AXA-3.E01/vol\_vol2/Important backups/Websites.txt

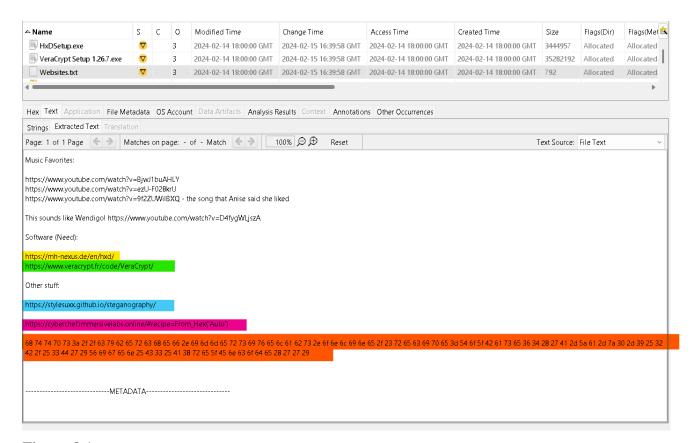


Figure:8.1

### • Reason Why This Evidence is Suspicious:

The tools used for manipulating digital forensic evidence include HXD Editor, VeraCrypt, Steganography, and CyberChef were found in figure artifact

**HXD** (**Hex editor**) is a tool that allows users to view and modify the raw hexadecimal code of files. In this case, it was used to analyse **Artifact 5** (**3.rtf**), where the file's original hex signature was found to be altered. This manipulation was an attempt to disguise or falsify evidence. Refer to **Figure: 5.1, 5.2 & 5.3.** 

**VeraCrypt** is an encryption tool used to secure files and storage volumes. The investigation found that some evidence was stored in a VeraCrypt-encrypted container. Once decrypted, additional manipulated files were uncovered, supporting the suspicion of evidence tampering. The location of this software found is /img\_Operation Redbridge 2024 AXA-3.E01/vol\_vol2/business sensitive information

#### **Online websites:**

**Steganography** is the practice of hiding data within other files, such as images or documents. Analysis suggested that hidden messages were embedded within digital images, requiring specialized extraction techniques to uncover them.

- Within the '/img\_Operation Redbridge 2024 AXA-3.E01/vol\_vol2/ Accountancy Details' folder's a file named wendigo.png (figure 8.2) was discovered inside a document labelled communication withAccountant.Docx
- The image file appeared to be encrypted using steganographic techniques.
- Using the same steganography software, forensic analysts decrypted windigo.png and discovered a hidden key: thewendigo. (figure 8.3)



Figure: 8.2

# Steganography Online

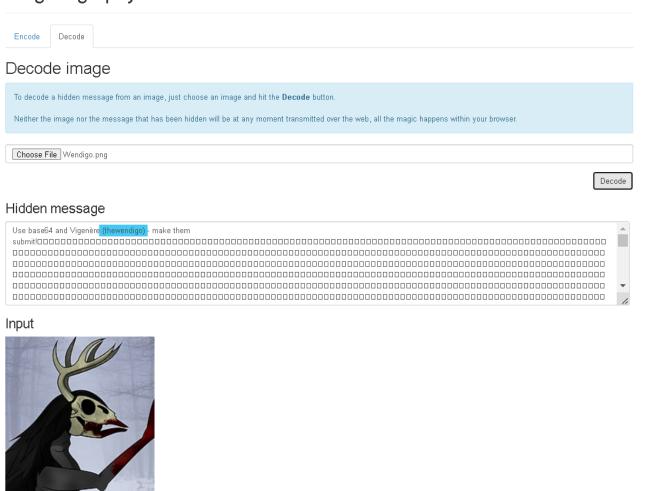


Figure:8.3

Online tools: CyberChef is a web-based tool for analysing and transforming data. It helped decode hidden messages and analyse encrypted structures, revealing irregularities in file formats and encoding methods

- Within websites.txt, a hexadecimal code was discovered. (figure 8.1)
- The link <a href="https://cyberchef.immersivelabs.online/#recipe=From\_Hex('Auto')">https://cyberchef.immersivelabs.online/#recipe=From\_Hex('Auto')</a>) was accessed, and the hex code was entered for analysis. (**figure 8.4**)
- The process led to another encoded link:

  <a href="https://cyberchef.immersivelabs.online/#recipe=To\_Base64('A-Za-z0-9%2B/%3D')Vigen%C3%A8re\_Encode(")">https://cyberchef.immersivelabs.online/#recipe=To\_Base64('A-Za-z0-9%2B/%3D')Vigen%C3%A8re\_Encode(")</a>. Upon opening this link, the transformation recipe suggested that additional hidden data was encoded using Base64 and Vigenère cipher techniques (figure 8.5)</a>
- The exact nature of the hidden data remains unknown and requires further analysis.

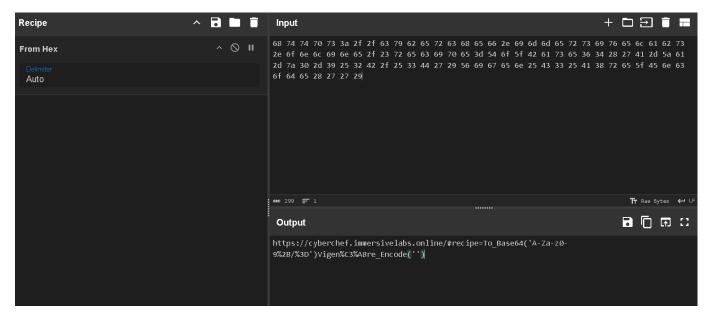


Figure:8.4

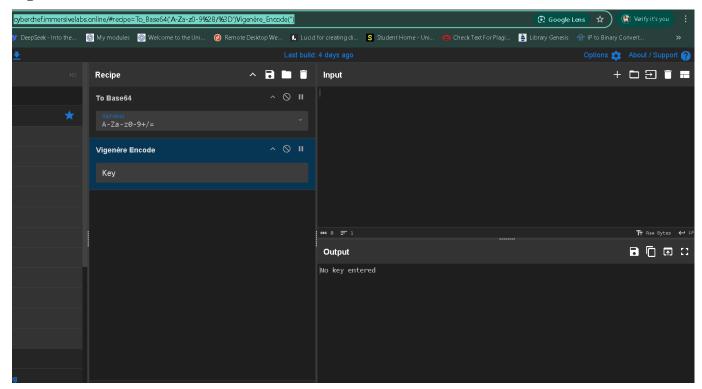


Figure: 8.5

• The Meta-Data for Artefacts-8 is as follows:

Hex Text Application	File Metadata	OS Account	Data Artifacts	Analysis Results	Context	Annotations	Other Occurrences	
Metadata	Metadata							
Name:	/img_Operation Redbridge 2024 AXA-3.E01/vol_vol2/Important backups/Websites.txt							
Type:	File System							
MIME Type:	text/plain							
Size:	792							
File Name Allocation:	Allocated							
Metadata Allocation:	Allocated							
Modified:	2024-02-14 18:00	:00 GMT						
Accessed:	2024-02-14 18:00	:00 GMT						
Created:	2024-02-14 18:00	:00 GMT						
Changed:	2024-02-15 16:39:58 GMT							
MD5:	1b8f9536a6dfae7bef51f74cdcdfe09e							
SHA-256:	09c48b00fdc1749	775fb97 <b>8</b> 52	4ca1e <mark>8</mark> 7b2def42	21e8e0560 <mark>822</mark> 3e9	8db9622b	ac6		
Hash Lookup Results:	UNKNOWN							
Internal ID:	104							

Figure: 8.6

## 9.9 Artefacts-9

■ Location: Operation Redbridge 2024 AXA-3.E01/vol\_vol2/Accountancy Details

## Reason Why This Evidence is Suspicious:

While analysing Accountancy Details 'Communication with Accountant.docx' was found of 47 pages. While the metadata itself shows Type: application/document. (Figure 9.7) upon reviewing the doc file on the 47<sup>th</sup> page the Metadata shows Content-Type: application/zip (Figure 9.1).

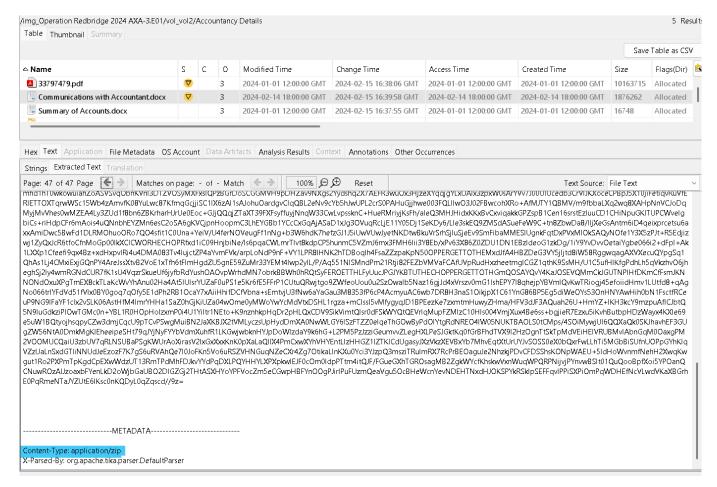


Figure:9.1

Changing the file extension to .zip allowed the extraction of a folder named wendigo and a file named wendigo.png (Figure 9.2)

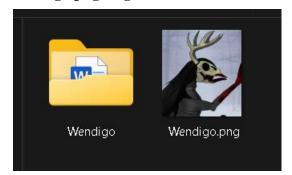


Figure:9.2

Inside the wendigo folder, there were three subfolders: received, send, and a DOCX file. (**Figure 9.3**) The received folder was analysed in Autopsy, refer to figure (4.2)

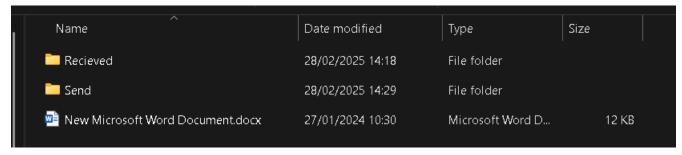


Figure:9.3

The send folder was not detected in Autopsy, but upon manual inspection, it was found to contain four **TXT files.** (**Figure 9.4**)

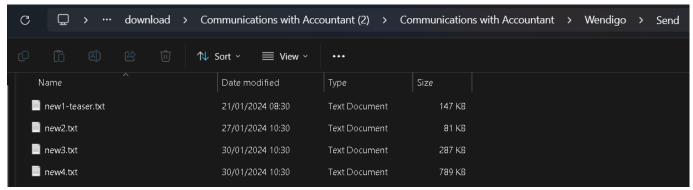


Figure:9.4

Using CyberChef, these TXT files were decrypted using the key thewendigo. Initially, applying Base64 and Vigenère with the key thewendigo did not yield any results. However, it was suspected that the files might be hidden as JPEG (the hexadecimal format of the TXT files indicated a JPEG file structure) By applying the JPEG Convert Format along with the key thewendigo, Base64, and Vigenère decryption, the files were successfully decrypted into images. The first two files, new1-teaser.txt and new2.txt, were recovered as JPEG images (Figure 9.5 and 9.6), while the remaining two TXT files could not be successfully recovered, and their contents remain unknown. Analysis of the recovered images revealed a reference to a dog picture related to the case, specifically an image of DE BOER.

**គ**ាគេខ

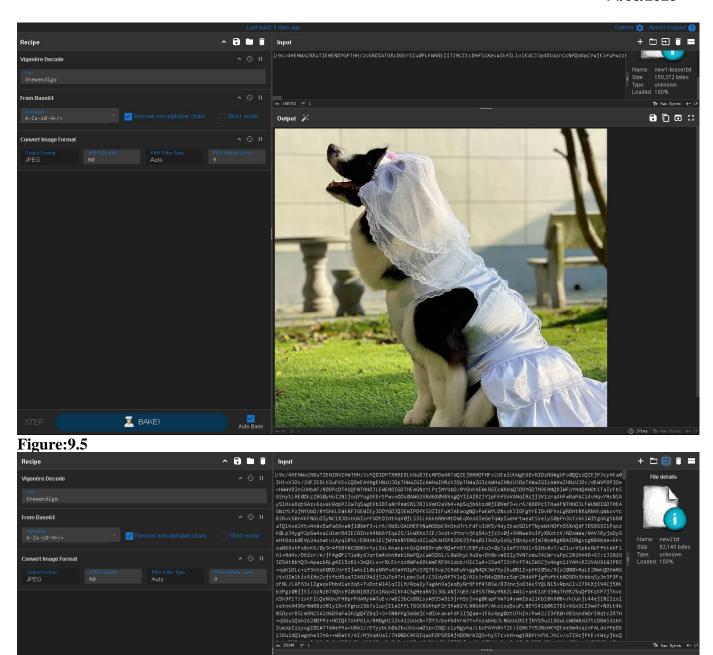


Figure:9.6

🗾 BAKE!

Output 🎉

#### • The Meta-Data for Artefacts-9 is as follows:

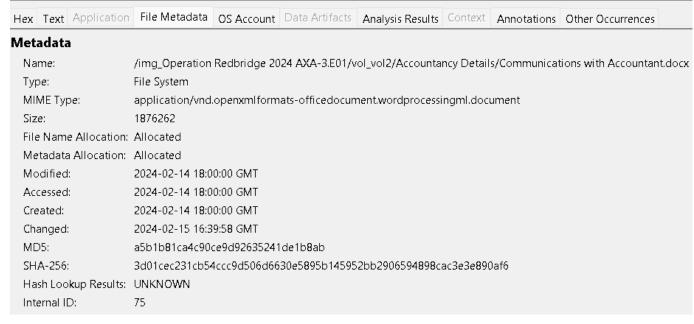


Figure:9.7

### 9.10 Artefacts:10

Location: Operation Redbridge 2024 AXA-3.E01/vol\_vol2/ Important business sensitive information

## Reason Why This Evidence is Suspicious:

At this location SYSTEM file was found which was encrypted (**Figure 10.1**), assuming this was encrypted using VeraCrypt. Upon opening **SYSTEM** file on VeraCrypt it required a password to access it.

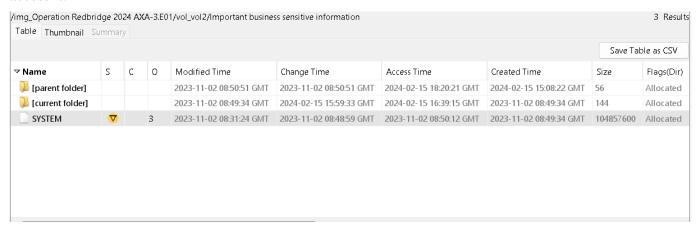


Figure: 10.1

While researching unallocated space of **volume 1** i.e. **Operation Redbridge 2024 AXA-3.E01/vol\_vol1/Unalloc\_3\_0\_65536** it shows **pw:truemen (Figure: 10.2)** which was enough to assume this is a password.

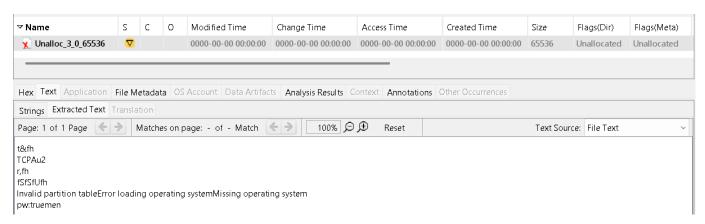


Figure: 10.2

Access to **SYSTEM** file using **truemen** password was authorised and furthermore discovered 3 Folders **A**, **T** & **V** respectively which contained several photos with indecent captions (**Figure 10.3 & 10.4**). Here, "A" refers to **Anise** and "V" refers to **Victoria** (**Victoria**'s picture found on her CV which matches the pictures of the folder "V").

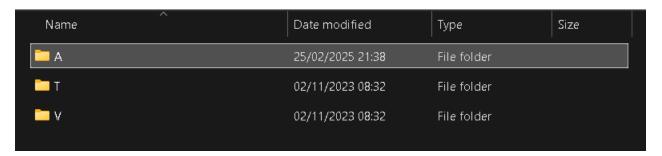
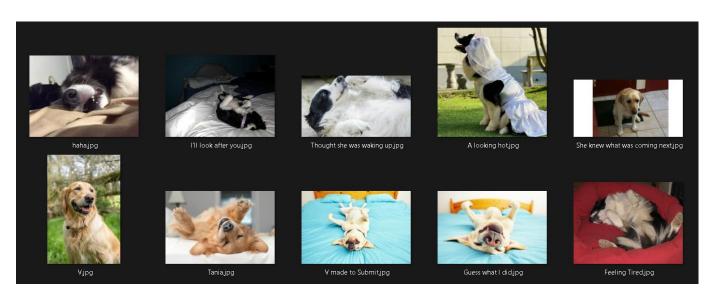
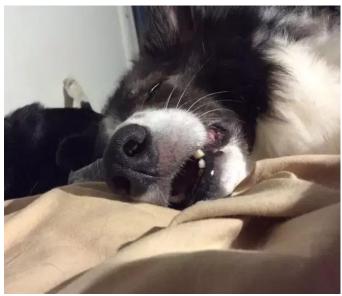
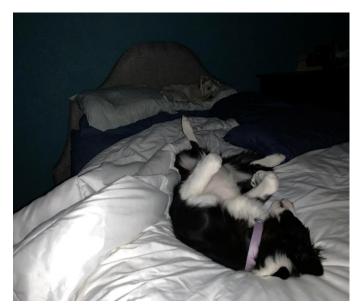


Figure: 10.3











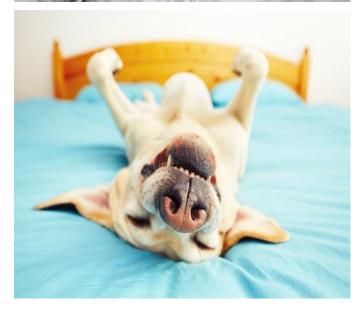








Figure: 10.4

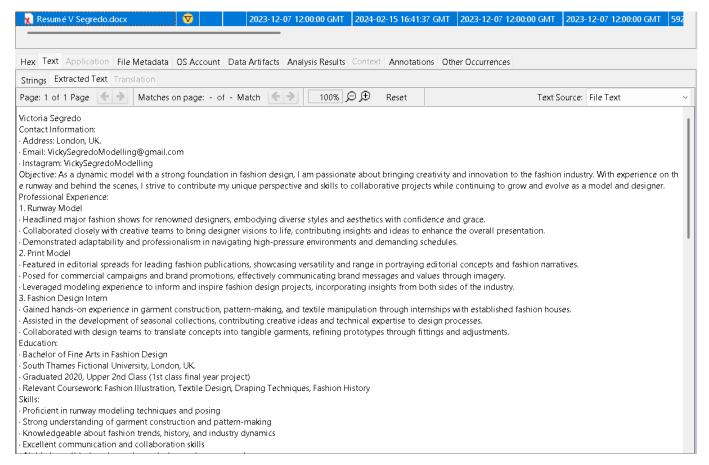
#### • The Meta-Data for Artefacts-10 is as follows:

Hex Text Application File Metadata OS Account Data Artifacts Analysis Results Context Annotations Other Occurrences Metadata Name: /img\_Operation Redbridge 2024 AXA-3.E01/vol\_vol2/Important business sensitive information/SYSTEM Type: File System MIME Type: application/octet-stream Size: 104857600 File Name Allocation: Allocated Metadata Allocation: Allocated Modified: 2023-11-02 08:31:24 GMT Accessed: 2023-11-02 08:50:12 GMT Created: 2023-11-02 08:49:34 GMT 2023-11-02 08:48:59 GMT Changed: MD5: 72b2938fa56a646340ecbcf3f48e0305 SHA-256: 0a741ea31770f54258b188eee1fa1377da71747781d2b11f25f5b9df2b4c7193 Hash Lookup Results: UNKNOWN 109 Internal ID:

**Figure: 10.5** 

#### 9.11 Artefacts-11

- Location: Operation Redbridge 2024 AXA-3.E01/vol\_vol2/ Recent shoots and Models/Models/
- Reason Why This Evidence is Suspicious:
  This item is suspicious as it has been intentionally deleted/hidden and might contain sensitive information. The CV belongs to Victoria and Anise referring back to Figure: 10.3 & 10.4, Indecent photos and captions have been taken. Hence, it can be said that Nicholas Has not only committed one crime but have tricked other girls into his grave crimes. (Figure 7.1)

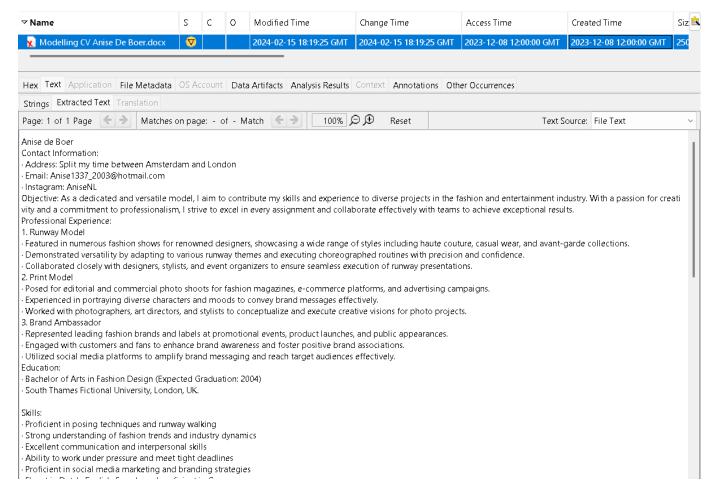


### Figure-11.1

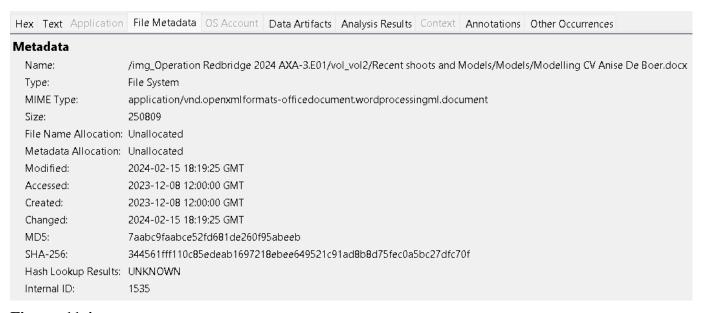
#### The Meta-Data for Artefacts-11 is as follows:

Metadata	
Name:	$/img\_Operation\ Redbridge\ 2024\ AXA-3.E01/vol\_vol2/Recent\ shoots\ and\ Models/Models/Resum\'e\ V\ Segredo.docx$
Type:	File System
MIME Type:	application/vnd.openxmlformats-officedocument.wordprocessingml.document
Size:	59212
File Name Allocation:	Unallocated
Metadata Allocation:	Unallocated
Modified:	2023-12-07 12:00:00 GMT
Accessed:	2023-12-07 12:00:00 GMT
Created:	2023-12-07 12:00:00 GMT
Changed:	2024-02-15 16:41:37 GMT
MD5:	77d8760107c44af23dde5f11d8270b8c
SHA-256:	fe33765234a10a1ae0726f1e7aaba896c0a946c1dc8fd61d8fef2083c7921a0b
Hash Lookup Results:	UNKNOWN
Internal ID:	116

**Figure: 11.2** 



### Figure: 11.3



**Figure: 11.4** 

# 9.12 Artefacts-12

Location: Updates for Websites/General concept stuff.docx

# Reason Why This Evidence is Suspicious:

While analysing this document using autopsy the picture was found with a text which was deliberately added to white text and white background for it to be hidden

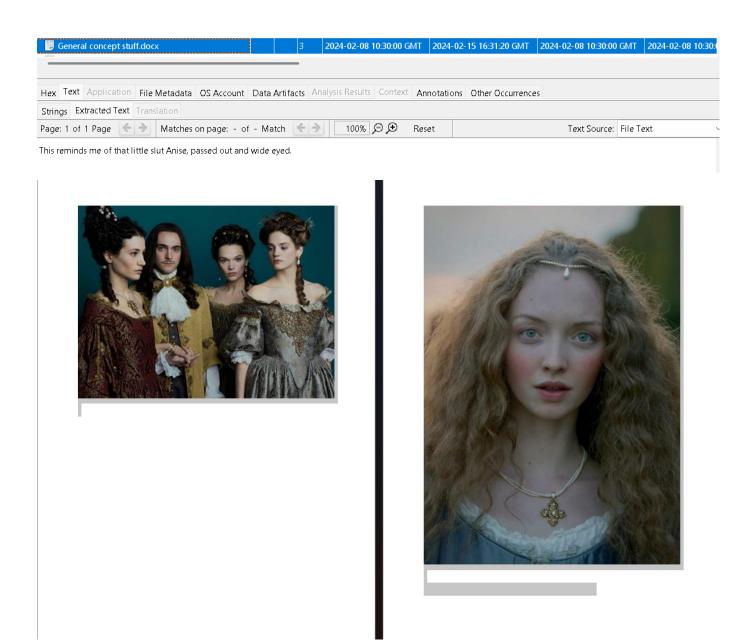


Figure:12.1

The Meta-Data for Artefacts-12 follows: is as Hex Text Application File Metadata OS Account Data Artifacts Analysis Results Context Annotations Other Occurrences Metadata Name: /img\_Operation Redbridge 2024 AXA-3.E01/vol\_vol2/Updates for Website/General concept stuff.docx File System Type: application/vnd.openxmlformats-officedocument.wordprocessingml.document MIME Type: Size: 349847 File Name Allocation: Allocated Metadata Allocation: Allocated Modified: 2024-02-08 10:30:00 GMT Accessed: 2024-02-08 10:30:00 GMT Created: 2024-02-08 10:30:00 GMT 2024-02-15 16:31:20 GMT Changed: MD5: 53376b2c2619698f51383869d30b5442 a3aaffa728a3705a860ad61034a9093fd2eec2026e36beb2df4c6043170add1e SHA-256: Hash Lookup Results: UNKNOWN Internal ID: 230

Figure: 12.2

#### 9.13 Artefacts-13

- Location:vol\_vol2/Research/Flutrazempam-Wikipedia\_files/155px-Iceland\_Flutrazempam\_Mylan\_1mg.png
- Reason Why This Evidence is Suspicious: Flunitrazepam is known to cause sedation, memory impairment, and loss of consciousness. This links directly to Anise Famke DE BOER's allegations, as she reported feeling strange after drinking champagne and later losing consciousness, symptoms consistent with Flunitrazepam use.

The presence of this artefact, along with deleted files, encrypted images, and suspicious WhatsApp messages (Artefact 7), supports the theory that VALENTINO was aware of the drug's effects and may have used it intentionally

**Flunitrazepam** (**Rohypnol**) tablet package, suggests that Nicolas VALENTINO had knowledge of the drug. Combined with **Artefact 1** (a research paper on detecting Flunitrazepam in beverages), it indicates potential premeditation



Figure:13.1





CONTROLLED DRUG RUNITRAZEPAM TABLETS States each containing ing funitrazepam 7E011 EXP. 06/10

**Figure: 13.2** 

The Meta-Data for **Artefacts-12** follows: is as Hex Text Application File Metadata OS Account Data Artifacts Analysis Results Context Annotations Other Occurrences Metadata /img\_Operation Redbridge 2024 AXA-3.E01/vol\_vol2/Research/Flunitrazepam - Wikipedia\_files/155px-lceland\_Flunitrazepam\_Mylan\_1mg.png Name: Type: MIME Type: image/png Size: 24340 File Name Allocation: Allocated Metadata Allocation: Allocated 2024-01-22 10:30:00 GMT Modified: Accessed: 2024-01-22 10:30:00 GMT 2024-01-22 10:30:00 GMT Created: 2024-02-15 16:33:23 GMT Changed: MD5: efaaef8bcdf59a3c5dd9f092679b537d 2dfdf08edb12e94fe3e92fd659322c471546f7ffb1856dc33cd73db4e4cbd2dd SHA-256: Hash Lookup Results: UNKNOWN Internal ID: 137

**Figure: 13.3** 

#### 10. CONCLUSION

#### Overview of the Case:

This investigation centres around allegations made by Anise Famke DE BOER against Nicolas VALENTINO, a boutique fashion designer and photographer. DE BOER claims she was drugged and sexually assaulted during a late-night photoshoot at VALENTINO's studio. She recalls drinking champagne that tasted unusual before passing out and later waking up under a blanket on the studio's sofa.

VALENTINO, on the other hand, insists that DE BOER consumed alcohol voluntarily and may have taken drugs on her own. He claims she simply fell asleep and denies any wrongdoing. However, forensic analysis uncovered deleted files, encrypted data, and evidence of physical damage to digital storage devices, raising serious concerns about possible evidence tampering.

Several digital exhibits were examined, including:

- A destroyed memory card (AXA/1) found in VALENTINO's wastebasket.
- A damaged laptop (AXA/2), which the suspect claims was dropped, though forensic assessment suggests deliberate destruction.
- An external hard drive (AXA/3), where crucial hidden files were recovered.

Findings from these devices strongly suggest an attempt to conceal potentially incriminating material and raise doubts about the suspect's version of events.

#### **Timeline:**

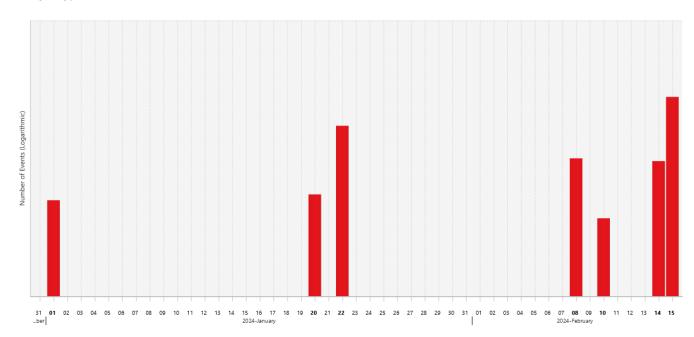


Figure- 6: Timeline of Artefacts (Time Range: 31/12/2023 - 15/02/2024)

The timeline displays file modifications, changes, and access events from **December 31, 2023**, to **February 15, 2024**, based on the artefacts identified in the report. It highlights key activity spikes, indicating potential file tampering, access, or deletion attempts. This timeline serves as key digital evidence in establishing the sequence of events and potential obstruction attempts.

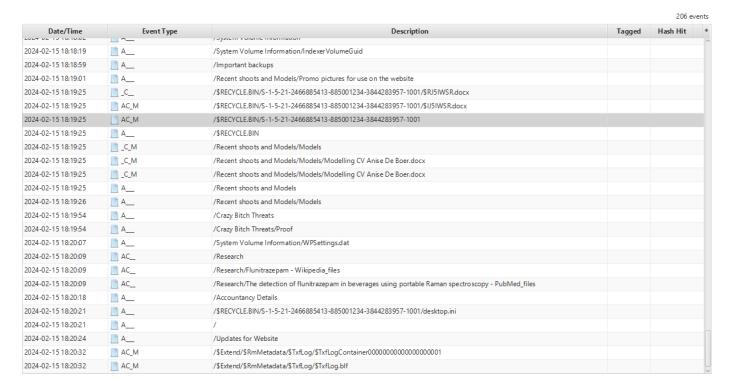


Figure- 7: Autopsy Timeline Tool.

# **Key Artefacts Supporting or Undermining the Investigation**

## **Artefacts That Support the Allegations**

#### • Document on Flunitrazepam (Rohypnol) Detection

A research article on detecting Flunitrazepam in beverages was found on VALENTINO's system.

The presence of this document, especially before the alleged incident, raises suspicions of premeditation.

Flunitrazepam is a well-known date rape drug, which makes this find particularly concerning.

#### Deleted and Recovered JPEG Files

A JPEG file (f0045957.jpg) was recovered from unallocated space, meaning it was deliberately deleted.

The metadata was wiped, removing any trace of when the image was originally created or modified.

This points to manual deletion or anti-forensic activity aimed at hiding its existence.

### • Hidden Audio Files in a Document

Audio recordings were found hidden inside a document disguised as an RTF file.

The recordings contained disturbing conversations about past encounters with women, suggesting a pattern of behaviour.

One voice mentioned "getting the last girl", which raises concerns that this may not be an isolated incident.

## • Encrypted System File with Indecent Images

Using VeraCrypt decryption, a hidden file labelled SYSTEM was unlocked.

Inside, analysts found a folder containing images with explicit captions, which suggests exploitative behaviour.

# • Suspicious WhatsApp Chats

Messages reference selecting models, discussing previous incidents, and attempting to downplay accusations.

Caitlyn LIN, a mutual acquaintance, previously confronted VALENTINO about inappropriate behaviour, which suggests a pattern of misconduct

# **Artefacts That Undermine the Suspect's Defence**

# • Destroyed Memory Card (AXA/1)

Found cut into two pieces in VALENTINO's wastebasket.

This suggests an intentional attempt to destroy evidence.

# Damaged Laptop (AXA/2)

The suspect claimed the laptop was accidentally dropped, but forensic examination revealed impact marks consistent with blunt force damage, likely from a hammer.

The SSD was completely shattered, making recovery impossible—a common tactic for destroying digital evidence.

### Three Memory Cards Found Blank

The forensic team found additional memory cards wiped clean.

This strongly indicates data was erased before the police search.

### **Critical Features to Highlight for the Investigation Team**

# • Clear Evidence of Tampering and Concealment

The destroyed memory card wiped hard drives, and suspiciously blank memory cards strongly suggest intentional destruction of evidence.

The fact that forensic tools recovered deleted and hidden files implies the suspect took deliberate steps to remove or hide incriminating data.

#### Potential Additional Victims

The WhatsApp messages and hidden audio indicate DE BOER may not be the only victim.

References to past incidents suggest VALENTINO's actions may be part of a pattern rather than an isolated event.

The possibility of other victims needs further investigation.

# • Advanced Digital Evasion Techniques Used

VALENTINO used encryption tools (VeraCrypt), steganography, and metadata manipulation, which are common techniques for hiding evidence.

This level of digital obfuscation suggests he was aware of forensic methods and tried to prevent detection.

#### • Contradictions in VALENTINO's Statement

He claimed DE BOER was simply sleeping, yet the presence of deleted and hidden files contradicts this claim.

His destruction of key evidence is inconsistent with someone who has "nothing to hide."

The document on drug detection raises serious questions about his knowledge and intent

### **Opinion:**

The forensic analysis reveals clear efforts to hide, delete, and encrypt data, suggesting that VALENTINO attempted to cover his tracks. The evidence does not explicitly prove guilt, but it raises strong concerns about his credibility and actions.

### **Key points:**

- The deleted images, hidden recordings, and encrypted folders suggest an effort to obscure or erase evidence related to DE BOER's allegations.
- The WhatsApp conversations and recovered audio provide insight into a pattern of behaviour that warrants further scrutiny.
- The destruction of storage devices and manual data wiping indicate deliberate obstruction of the investigation.

#### **Assumptions:**

- The hidden and deleted files suggest premeditation rather than accidental deletion.
- The WhatsApp messages and past digital artifacts imply that DE BOER was not the first person to experience this.
- Given the deliberate digital evasion tactics, it is likely that additional incriminating data exists elsewhere, potentially in cloud backups or external drives.

# **Final Remarks:**

This forensic analysis presents substantial digital evidence that supports the allegations made by DE BOER. The presence of deleted media, hidden recordings, encrypted files, and evidence of digital tampering strongly suggests that VALENTINO engaged in attempts to cover up potential wrongdoing.