**Overview of the Analysis Tool**

**Recalling the Steps of the Analysis Process**

1. Skim the entity view. Remove any spurious entities and create aliases where obviously necessary.
2. Move to the Analysis View. Press “Add All” in the Documents Panel to begin browsing the documents for interesting titles.
3. Notice a document called “E. coli cases suspected”. It seems interesting, so right click and select “Add to Graph” from the context menu.
4. Expand the newly added document in the Graph View.
5. Remove excess nodes. For example, “Alderwood” is far too general to be of use so remove it from the graph.
6. There is an interesting argument in the document between George Prado and Boynton Laboratories. Expand both of those nodes in the graph.
7. Boynton Laboratories is related to three documents. In one the FDA is starting an investigation. In another the FDA is cancelling the same investigation. The third describes some of the breakthroughs in mad cow disease going on at the laboratory.
   1. Right now this doesn’t seem related to the sick kids. Leave it in the graph view and move on for now.
8. Expand the George Prado node.
   1. First document seems benign. Establishes him as a leader in the local farming community who is looking forward to a good year.
   2. Second is interesting. Local teens claim suspicious activity going on at an old missile silo. *One of the teens breaking a bottle resulting in a burn and nausea reaction and a smell like a flower garden.* They report believing Prado is involved.
   3. The third mentions a spill of Lewisite at Groves Chemical Weapons Annex George Prado’s brother, a security guard at the annex, was hospitalized with chemical injuries.
9. At this point, we are interested in the burns that the teens mentioned after breaking the mysterious bottle. Click “Remove All” in the document panel and perform a search for all documents containing “Lewisite”.
10. Search returns a document called “Lewisite Fact Sheet” which describes the symptoms in detail. It’s a perfect match to the symptoms that the teens described, including a “geranium smell”. Furthermore, the document says that Lewisite has no legitimate purpose as anything but a chemical weapon.
11. The factsheet isn’t linked to any other entities, but is still highly relevant. Add the document to the Graph View and position it in a cluster with documents related to the chemical spill and silo incident.
12. We want to know more about this missile silo incident, so we perform a search for “missile silo”. It returns two more documents related to the same incident.
13. Check the timeline view to see a sequence of events. We wonder if the chemical in the silo could be a byproduct of the chemical spill.
    1. The teens posted a description of their adventure in the high school newspaper in January 2004, five months before the chemical spill. *This timeline tells us the presence of the chemical was deliberate and not the result of an accidental spill.*
14. Given George Prado’s family tie to the chemical weapons facility, and the teens’ belief that he is involved, he is now a person of high interest.
15. To find other relatives of Prado, go back to the Entity View. Reverse sort to see last names. See that in addition to Pedro and George, there is also a Ramon Prado.
16. Opening the document related to Ramon, there is a discussion of the death of the leader of a South American revolutionary group, Shining Future. The dead leader’s envoy is Ramon Prado. It’s a tenuous connection right now, but add the document to the graph, expand it, and position it near Prado. Add Ramon Prado to a cluster with the other potential family members.
17. Upon expanding and exploring the new document and a few of the neighbors in the graph, notice a new document called “Port Incident”, connected through the Parazuelan President Arturo Rojas.
    1. The document describes an incident in which a ship carrying apples from Washington headed to Parazuela crashed into a dock. The crates of apples burst open and several workers were hospitalized with the same injuries seen previously.
    2. The ship’s captain made political remarks about Arturo Rojas, and is under investigation for a connection to Shining Future.
18. At this point, we observe the clusters that have appeared in the Graph View. One cluster pertains to the spill at the chemical facility and the adventure in the missile silo. Another cluster pertains to Shining Future and the port incident. A third cluster consists mostly of Prado family members, with George as the most prominent, connecting the other two clusters.
19. We begin to worry about cognitive bias affecting our perception of George. After all there are other apple growers, and the connection is based on the reoccurrence of the family name and a teenager’s testimony.
20. “Remove all” in the document view, start a new search for all documents related to “Shining Future”.
    1. A document describes an intoxicated driver who crashed into a bank and rated about “smelling flowers… but not too much then I die”, and “flowers will bring victory to our shining futures”. Clearly a reference to Lewisite, and strengthens the hypothesis that the Lewisite is shipping to the terrorist organization, but doesn’t strengthen the connection to George Prado.
    2. The search returned a large number of documents, and while scrolling through we notice one with a high view count. It’s the seemingly benign “Busy Summer for Local Orchards” document. In it, Prado is quoted as saying “I'd say our future is as shiny as our apples.” Suspicious, but not concrete.
21. Switch to the Provenance View. Search for high-interaction entities or documents that have escaped our notice.
22. Notice that in the beginning there was high interest in E. Coli-related documents and entities. This helps recall our original though process, which was to figure out what caused the suspected E. Coli outbreak. This prompts us to go back and re-read the E. Coli and Lewisite fact sheets and realize that some of the symptoms may be confused between the two. Possibly, the diagnosis of E. Coli was incorrect. The apple growers may have been incentivized to blame the incident on Boynton labs. Further searching for E. Coli-related documents reveals no additional compelling evidence.
23. End the analysis process.

**Analysis of Competing Hypotheses**

**Analysis Tool Strengths**

**Analysis Tool Weaknesses**

**Collaboration**

**Handling Cognitive Biases**

**Conclusions**