

## **Frontier Analysis, Ltd**

### **TECHNICAL SERVICE RESPONSE NO.: UT046**

**Subject:** Analysis of a Web-Like Substance Encountered October 14, 2005 and October 17, 2005 in Northeastern Colorado

**Date:** April 7, 2006

**Requested By:** William Phillips  
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#136  
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**Reported By:** P. A. Budinger  
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**Background/Objective:** A massive amount web-like material was observed covering a large area in northeastern Colorado farm country on October 14, 2005 and October 17, 2005. Following are excerpts, with slight modifications, from William Phillip's (the witness) letter of 11/16/2006.

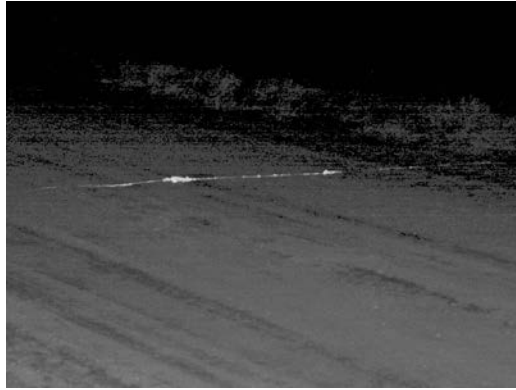
“On October 14<sup>th</sup>, I was traveling in Northeastern Colorado on my way to Holyoke, CO. It was between 9:00 PM and 10:00 PM. As I recall the sky was a little overcast and a slight breeze. I had driven Northeast on I76 from Denver to the Sterling, CO exit. I took US Hwy 6 East towards Holyoke, which is about 50 miles East. Not long after I headed East on Hwy 6 I began to see something floating across the headlights. I couldn't tell what it was but at times it looked wider than the front of the truck. At first I thought it may be cornhusks or something blowing off a truck in front of me, but there were no trucks in sight. I kept seeing this in differing lengths until I reached Phillips County Rd 29, which I turned onto and headed South.

On Rd 29 I kept seeing the same thing only now I was going much slower and the strands were longer. I stopped to see what this was and directly in front of the truck in headlights was a very long strand of web material with clumps of white stuff on it. When I looked to see where it came from it was hanging from a power line and stretched clear across the road. As I looked at the power line I could clearly see many other strands hanging from the lines. Then I noticed it on the fences and weeds. The antenna and grill of the truck was covered with the stuff.

I continued South on Rd 29 for 10 miles to County road 6 where I reached my destination. All along the way I saw the webs across the road and hanging from things. The next morning I drove back down Rd 29 for about 2 miles and saw the webs all over the fences and weeds.

I did not notice anything other than the webs that night such as strange lights, or lots of insects in the air. The only other thing was a low flying, maybe a couple hundred feet, small single engine airplane flew over head about 10:30 or 11:00 PM. I thought that was unusual for the area as I had never heard a plane at night out there in the middle of

nowhere before. I went outside to look as it passed overhead but could not see the plane or any marker lights on it. Following are some photographs of the October 14<sup>th</sup> encounter.”  
(All on-site photographs by William Phillips)



Web-like substance (Sample 1)



Substance on truck



Substance on truck, next morning

“The following Monday morning, October 17, from about 7:30 to 11:30 on a very clear, calm and warm day with very blue skies I noticed a lot of jet planes, I assume airliners, flying overhead with the contrails that do not dissipate behind them. This was unusual, as I had seldom seen jets over this area and never in such numbers. They were everywhere. In the four weeks since then I have not seen this again.

Then about 2:30 or 3:00 in the afternoon I was sitting down looking up at the sky to the West with the sun blocked from direct view and I began to notice webs, some at least 30 feet long, floating down out of the sky. The amount that I saw was not near the volume that had to have fallen on Friday night, assuming they are the same, but was still noticeably falling for about 30 minutes or so.

There were no birds or insects, or anything else of notice, flying around that I could see. Again these webs had clumps of something on them but appeared more hair like than the webs from Friday night. Those clumps seemed to be more concentrated or ball like.” Following is a photograph of the October 17, 2006 encounter.



Web-like substance on ground (sample 2)

### **Conclusions:**

- 1) The web-like material in sample 1 (October 14, 2005) appears primarily as bundles of fine strands combined in rope-like fashion. Some single fine strands are also observed. These bundles are identified as a polymer containing secondary protein amide linkages typical of a protein structure. The strands have very fine droplets adhering to the surface, which is probably indicative of a natural ester. The ester material is most likely responsible for the adhesive properties of the sample. This indicates a biological source is involved in its manufacture. However, at this point the specific source remains unidentified. The spectral data are close to that of silk made by spiders and caterpillars.
- 2) Sample 2 (October 17, 2005) is similar in appearance to sample 1. However, it is composed of at least two components. There is the same protein type strands identified in sample 1. In addition, some silicate mineral (dirt) is present. This component is probably contamination picked up by the adhesive material on the surface of the sample. Note in the above photograph the substance was in contact with the dirt and debris on the ground.
- 3) The protein fibrous material compares to that from “angel hair” falls in Los Gatos, California (October 19-20, 1977), Shenandoah, Iowa (October 4, 1981), Sacramento, California (November 11, 1999), and Burlington, West Virginia (September 19, 2000) which were analyzed by this laboratory. One sample, (Shenandoah Iowa) was associated with multi-witnessed UFO activity. The Burlington, West Virginia sample was associated with a strange sound and physical effects (illness).

### **Procedure:**

Two samples were submitted with the following information in William Phillips words.

•**Sample 1 (October 14, 2006):** “Sample 1 was gathered from the long stand floating across the road. (See the enhanced photograph on page 2.) I wrapped it around a steel wrench, it wasn’t greasy, that I had in the truck and when I arrived home I wrapped it in Saran Wrap in which it stayed until about 2 weeks ago. I then removed it from the wrench with the pine needle and put it in the jar and sealed it.”

•**Sample 2 (October 17, 2006):** “Sample number 2 is what I gathered from off the ground. (See the photograph on page 3.) This was gathered on a stick, put in a zip lock baggie and remained there until about 2 weeks ago until I put it in the jar and sealed it.”

Infrared spectra were obtained from the two samples using the Harrick SplitPea® cell on the Thermo Electron 360 spectrometer. Microscope photographs were obtained using the Leika GZ6 stereomicroscope interfaced to a Kodak Digital Science MDS 120 camera.

### **Results:**

The detailed results of the two samples follow. These results are summarized in the conclusions section of this report.

•**Sample 1 (October 14, 2005)** Microscope photographs of sample 1 (received on a pine needle) show it is made up of extremely fine strands. Most fibers are bundled, rope-like fashion with a few single strands. There are very tiny droplets on the fibers that are similar to the droplets observed on silk derived from spiders and caterpillars. They are more obvious by eye-view through the microscope than in the following photographs. The web-like material adheres well to the pine needle. Note the second photograph.



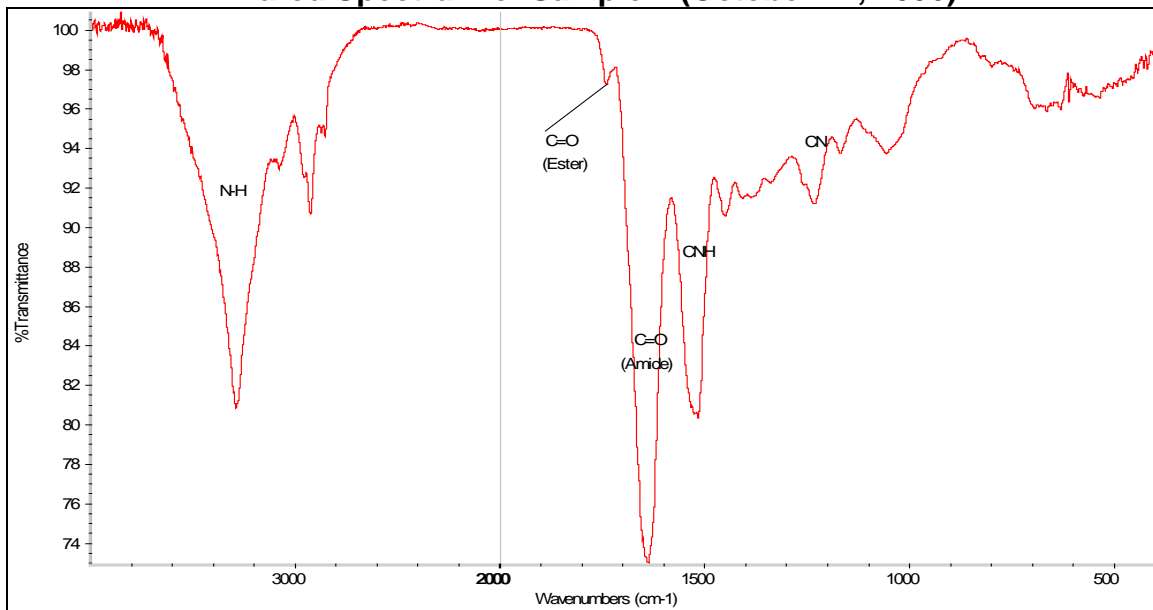
Photograph 1 shows rope-like appearance and some single strands.



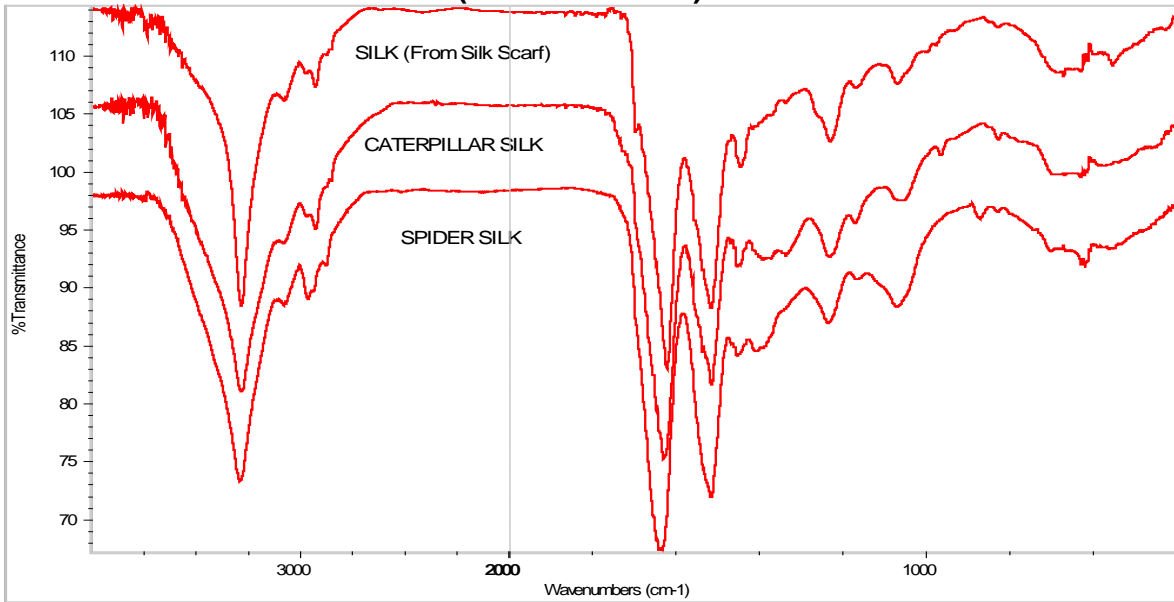
Photograph 2 shows web-like material adhered to the pine needle.

Infrared analysis shows prominent absorption bands due to N-H ( $3700 - 3000 \text{ cm}^{-1}$ ), secondary amide C=O ( $1650 - 1600 \text{ cm}^{-1}$ ) and CNH ( $1580 - 1470 \text{ cm}^{-1}$ ). These, along with other weak to moderate bands, identify the strands as a protein material. There is also very weak ester C=O absorption ( $1740 \text{ cm}^{-1}$ ). This is most likely indicative of a natural ester on the surface of the web, and probably gives it its adhesive property. The spectra are most similar to those of silk from spiders, caterpillars and silkworms. It suggests that the sample source is from a biological origin, i.e. animal. The spectra of the fibrous material from this fall are also similar to those of “angel hair” falls examined by this laboratory. Following is the spectrum of the substance. Also following, for comparison, are spectra of references of ‘silkworm’ silk, tent caterpillar silk, and spider silk, as well as some selected spectra of “angel hair” from other events.

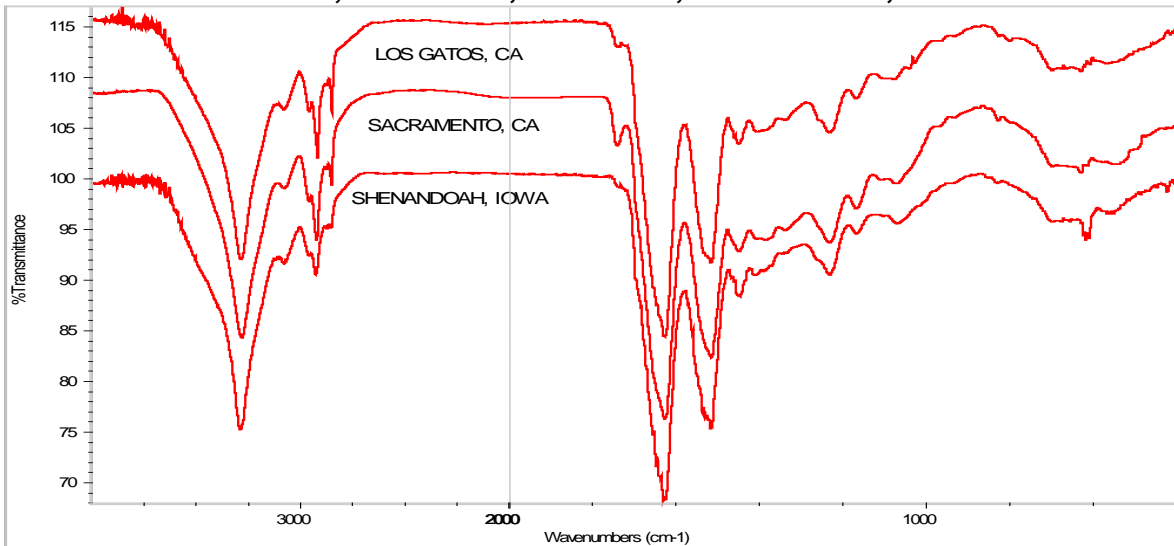
### Infrared Spectrum of Sample 1 (October 14, 2006)



### Reference Infrared Spectra of Spider Silk, Tent Caterpillar Silk, and Silk (from Silk Scarf)



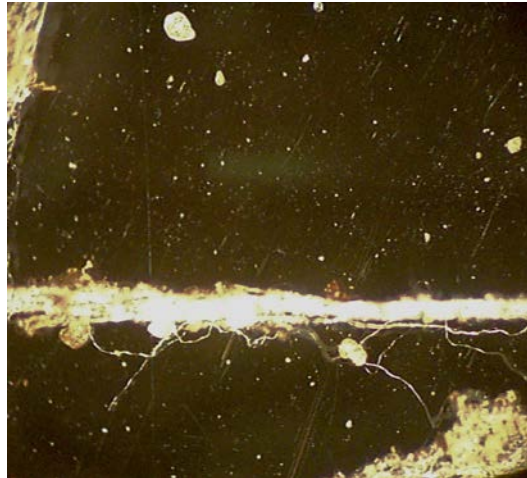
### Infrared Spectra of "Angel Hair" from other events: Sacramento, California; Los Gatos, California; Shenandoah, Iowa



•**Sample 2 (October 17, 2006):** Microscope photographs of the sample 2 (received on a stick) web-like material are similar to those of the sample 1. For the most part, fine strands are bundled in rope-like fashion, and there are some single strands. Tiny droplets are observed. Though, like sample 1, they are not very obvious in the photograph. The material is tightly bonded to the stick due to its adhesive nature. There are also granular debris, which infrared identifies as a silicate mineral, i.e. dirt. (See the infrared analysis below.)



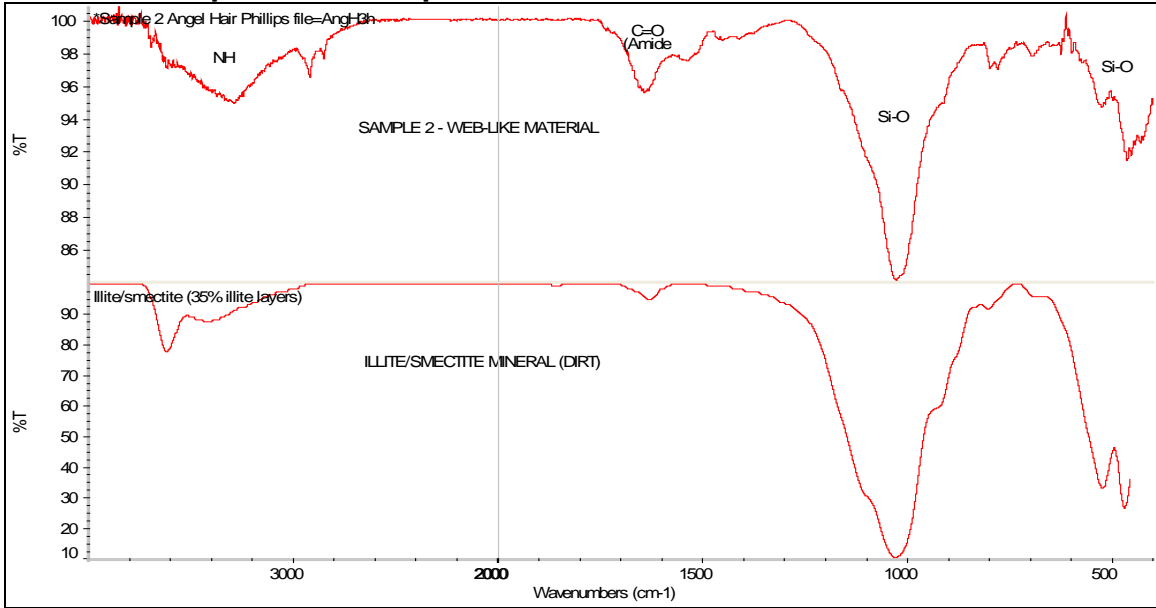
Photograph 1 shows web-like material adhered to a stick.



Photograph 2 shows rope of web-like material and granular debris.

Infrared analysis of this sample shows it is comprised of at least two components. The spectrum shows bands which are typical of the same protein material observed in sample 1. (See above.) These bands compare closest to 'silk' from spiders, caterpillars and silkworms. (See the above spectral references of these materials in the sample 1 discussion.) Other additional bands are noted in which are characteristic silicate mineral, i.e. compare to illite/smectite and quartz type material. That is, material derived from soil/dirt debris. The spectrum from sample 2 is shown below with pertinent bands labeled. Also included is a reference spectrum of Illite/smectite mineral for comparison

### Infrared Spectra of Sample 2 and Reference of Illite/Smectite Mineral



File: TSRUT046.DOC

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Distribution:  
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