

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF KANSAS

LAURA MURRAY CICCO,

Plaintiff,

v.

The NATIONAL AERONAUTICS AND
SPACE ADMINISTRATION,

Defendant.

Civil Action

No. _____

COMPLAINT

Plaintiff states:

Jurisdiction and Venue

1. This is an action pursuant to the Declaratory Judgment Act, 28 U.S.C. § 2201, brought to settle ownership of and title to a vial containing dust from the surface of the moon.

2. Federal courts have long found subject matter jurisdiction “in sustaining suits in equity to quiet title or to remove a cloud on title to personal property.” *Right to quiet title or remove cloud on title to personal property by suit in equity or under declaratory judgment act*, 105 A.L.R. 291 (1936) (citing cases). *See also Stone Street Asset Trust v. Blue*, 821 F. Supp. 2d 672, 675 (D. Del. 2011) (“The right to quiet title or remove cloud upon personal property arises under the DJA”).

3. The United States Code assumes subject matter jurisdiction over actions to quiet title to personal property, stating:

In an action in a district court to enforce any lien upon or claim to, or to remove any incumbrance or lien *or cloud upon the title to, real or personal property within the district*, where any defendant cannot be served within the State, or does not voluntarily appear, the court may order the absent defendant to appear or plead by a day certain.

28 U.S.C. § 1655 (emphasis added).

4. Venue is proper under 28 U.S.C. § 1391(e)(1)(B) which states:

A civil action in which a defendant is an officer or employee of the United States or any agency thereof acting in his official capacity or under color of legal authority, or an agency of the United States, or the United States, may, except as otherwise provided by law, be brought in any judicial district which ... a substantial part of the events or omissions giving rise to the claim occurred, or a substantial part of the property that is the subject of the action is situated.

5. The vial and its contents that are the subject of this action are situated within the District of Kansas and will remain in the district while this action is pending.

Facts

6. Neil Armstrong was an American astronaut and commander of the Apollo 11 mission to the moon.

7. On July 21, 1969, Armstrong became the first person to step on the moon, stating as he did so, "That's one small step for man ... One giant leap for mankind."

8. Armstrong was awarded the Presidential Medal of Freedom, Congressional Space Medal of Honor, and Congressional Gold Medal.

9. Before he was an astronaut, Armstrong served as a naval aviator in the Korean War aboard the aircraft carrier USS Essex.

10. After leaving the space program, Armstrong taught in the Department of Aerospace Engineering at the University of Cincinnati.

11. Armstrong was friends with Tom Murray.

12. Murray was a top pilot in the U.S. Army Air Corps during WWII. He trained pilots for the Boeing B-17 Flying Fortress.

13. In 1962, Murray and his wife had a daughter, Laura Ann Murray.

14. In 1969 or 1970, the Murray family moved to Cincinnati.

15. When Laura was about ten-years old, her mother gave her a glass vial with a rubber stopper full of light grey dust, and one of her father's business cards. A photo of the vial is attached as Exhibit 1.

16. On the back of the business card was a note from Armstrong that said, "To Laura Ann Murray – Best of Luck – Neil Armstrong Apollo 11." A photo of the note is attached as Exhibit 2.

17. Laura's mother told her the vial contained dust from the moon.

18. The signature of Armstrong on the card has been authenticated by an expert.

19. XRD and XRF testing show the glass vial contains lunar material. A copy of the testing report is attached as Exhibit 3.

20. Testing also shows the vial contains some terrestrial material as well.

21. One possible explanation is the contents of the vial were vacuumed or otherwise collected from the space suit of an astronaut who operated on the moon.

Count 1 – Declaratory Judgment (Incorporating ¶¶ 1 through 21)

22. The National Aeronautics and Space Administration or NASA has taken the position that all lunalogic material is the property of NASA. *See Davis v. United States*, case no. 13-0483, 2014 WL 12696368 *3 (C.D. Cal. Nov. 19, 2014) (recognizing NASA's position "that private persons cannot own lunar material").

23. There is no law against private persons owning lunar material. Lunar material is not contraband. It is not illegal to own or possess.

24. Astronaut Neil Armstrong gifted the vial of lunar dust at issue to Laura Ann Murray, now Laura Murray Cicco, when she was a child, and she is the rightful and legal owner of the vial and its contents.

Therefore, she requests judgment declaring her the rightful and legal owner of the vial and its contents, and vesting title in her name.

Jury Demand

Plaintiff demands a jury of 12 members on all issues triable to a jury.

SEIGFREID BINGHAM, PC

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TO LAURA ANN MURRAY -

POST OFFICE -

Neil Murray

Apollo 11

April 2, 2018

**To: Christopher M. McHugh, Esq.**

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2323 Grand Blvd #1000
Kansas City, MO 64108
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From: Tom Tague, Ph.D.

Bruker Corporation
40 Manning Road
Billerica, MA 01821
978-439-9899 e5110

Re: Lunar sample analysis

Dear Chris,

Per your request, I have expanded the analysis of the sample provided by Mr. Chris Cicco. As before, the chemical composition of moon soil has been well described in the literature and will be referenced in this report. X-ray fluorescence (XRF) spectroscopy and x-ray diffraction (XRD) spectroscopy have been utilized in the testing of the sample. XRF spectroscopy is a well-established tool for determining the elemental content of materials and XRD spectroscopy allows the geological content to be more specifically identified. It should also be noted that a research XRF instrument (M4 Tornado) was used to confirm the previous handheld XRF measurements. A research D8 Advance research system was utilized for the XRD measurements.

Validating the scientific instruments

XRF – The established NIST traceable standard 2710a was run to verify the instrument performance of the utilized M4 Tornado research XRF instrument (Bruker Corporation, Billerica, MA).

XRD – The D8 Advance research system instrument response and alignment were verified using a NIST SRM 1976 (Al₂O₃) (corundum) standard.

Experimental Parameters

XRD – The sample was measured on a D8 Advance with a rotation stage and Lynxeye XE-T detector under the following conditions:

Source: Cu (40kV, 40mA)
Divergence slit: 0.6mm
Soller slits: 2.5deg
Scan range: 5-70deg 2theta
Step size: 0.02deg
Time/step: 1 sec
Total time: 1 hour

XRF – 60 second acquisitions for three data collects were performed to ensure reproducibility. An acquisition time of 60 seconds for each was performed.

Results

XRD - The mineralogy is consistent with the known composition of lunar regolith. The absence of olivine, presence of quartz, and high plagioclase content suggest a felsic composition, so likely from the anorthositic highlands and not from the basaltic lunar mare (mafic). There is also a considerable amount of amorphous content (~30%), also consistent with lunar regolith. From an XRD perspective, there is no evidence to rule out a lunar origin. This assessment is based upon careful comparison with the following references:

<https://curator.jsc.nasa.gov/lunar/lsc/74220.pdf>

<https://curator.jsc.nasa.gov/lunar/lsc/74241.pdf>

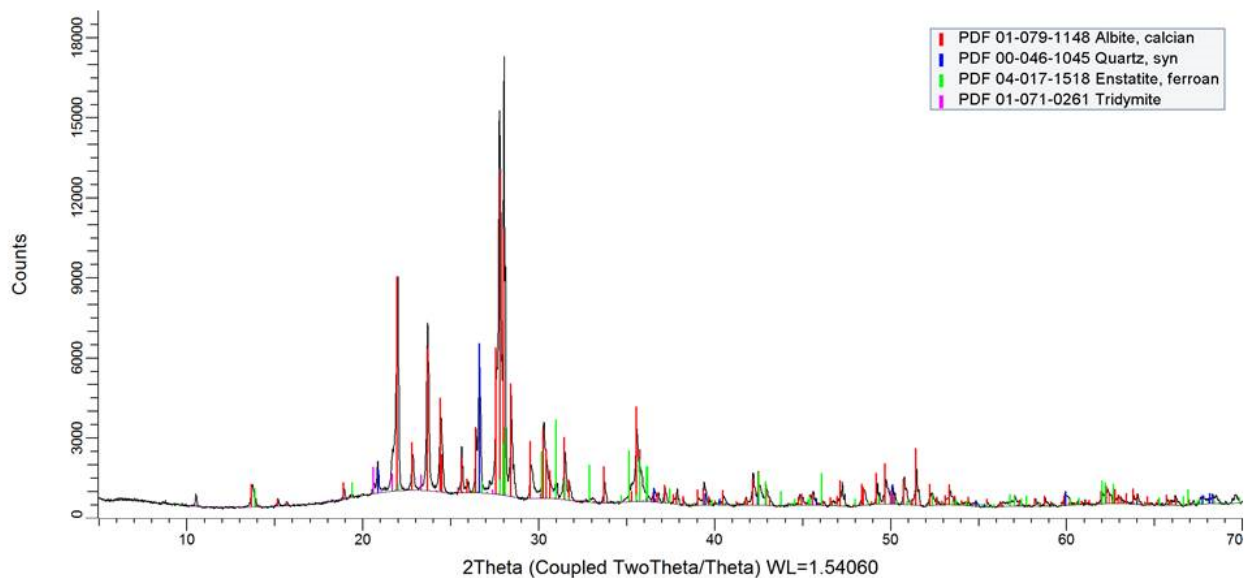
<https://curator.jsc.nasa.gov/lunar/lsc/72431.pdf>

Lunar soil catalog information from NASA

https://curator.jsc.nasa.gov/lunar/catalogs/other/lunar_soils_catalog.pdf

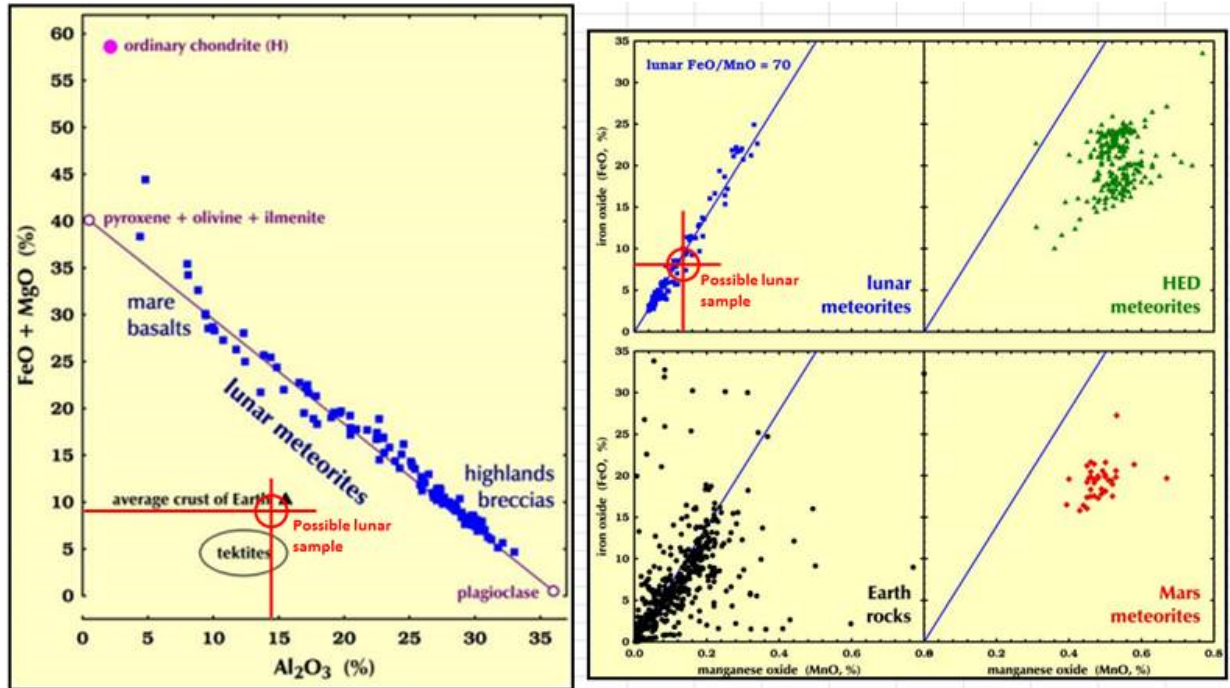
(handbook of lunar soils)

Figure 1: Composite XRD spectrum of moon dust sample



XRF - Bulk XRF analysis had a different result. Plotting FeO + MgO vs Al₂O₃ revealed a composition similar to “average crust of Earth” as shown below and does not follow the lunar meteorite trend. This is in agreement with the previously reported results. FeO vs. MnO does follow the lunar trend, but Earth and lunar systems are not considerably different. We conclude that the chemical composition of the sample is not consistent with lunar regolith. A more conclusive result could likely be obtained by investigating the chemistry of individual pyroxene grains ([Papike et al., 2003](#)).

Figure 2 – Scatter plots of FeO + MgO vs Al₂O₃ and FeO vs MnO with the reported results shown by the applied cross target.



Conclusions:

The XRF data collected in this investigation yielded results very similar to those previously reported. The XRD results would seem to indicate that this sample may have originated from lunar regolith. At this point, it would be difficult to rule out lunar origin. I am speculating, but it may be possible that some dust from the earth became mingled with this likely lunar sample. If there are any questions or concerns, please do not hesitate to contact me.

Sincerely yours,

Tom