

Heilmann, Mica

Volume 1 - 06/06/2020

Summary Proceeding with Highlighted Clips

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CONFIDENTIAL

NM Direct Designation

Page 00001

01: IN THE SUPREME COURT OF THE UNITED STATES
02: BEFORE THE OFFICE OF THE SPECIAL MASTER
HON. MICHAEL J. MELLOY
03:
04: STATE OF TEXAS)
)
05: Plaintiff,)
) Original Action Case
06: VS.) No. 220141
) (Original 141)
07: STATE OF NEW MEXICO,)
and STATE OF COLORADO,)
08:)
Defendants.)

09:
10:
11: *****
12: REMOTE ORAL AND VIDEOTAPED DEPOSITION OF
13: MICA HEILMANN
14: JUNE 6, 2020

15: *****
16:
REMOTE ORAL AND VIDEOTAPED DEPOSITION of MICA
17: HEILMANN, produced as a witness at the instance of the
Defendant State of New Mexico, and duly sworn, was
18: taken in the above-styled and numbered cause on
June 6, 2020, from 3:44 p.m. to 5:19 p.m., before
19: Heather L. Garza, CSR, RPR, in and for the State of
Texas, recorded by machine shorthand, at the offices
20: of HEATHER L. GARZA, CSR, RPR, The Woodlands, Texas,
pursuant to the Federal Rules of Civil Procedure and
21: the provisions stated on the record or attached
hereto; that the deposition shall be read and signed.

22:
23:
24:
25:

(continued page 00002)

0002

01: R E M O T E A P P E A R A N C E S
02:
03: FOR THE PLAINTIFF STATE OF TEXAS:
04: Ms. Sarah A. Klahn
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05: 2701 Lawrence Street, Suite 113
Denver, Colorado 80205
06: (720) 279-7868
sklahn@somachlaw.com

07: -and-
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09: SOMACH SIMMONS & DUNN, PC
500 Capitol Mall, Suite 1000
10: Sacramento, California 95814
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11: ssomach@somachlaw.com
12: FOR THE DEFENDANT STATE OF NEW MEXICO:
13: Ms. Lisa M. Thompson
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16: lthompson@troutlaw.com
17: -and-
18: Mr. Luis Robles
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19: 500 Marquette Avenue NW, Suite 700
Albuquerque, New Mexico 87102
20: (505) 242-2228
luis@roblesrael.com
21: -and-
22: Mr. John Draper
23: DRAPER & DRAPER, LLC
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24: Santa Fe, New Mexico 87501
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25: john.draper@draperllc.com

(continued page 00003)

0003

01: FOR THE UNITED STATES:
02: Mr. James J. Dubois
U.S. DEPARTMENT OF JUSTICE
03: 999 18th Street, Suite 370
Denver, Colorado 80202
04: (303) 844-1375
james.dubois@usdoj.gov
05: -and-
06: Ms. Shelly Randel
07: U.S. DEPARTMENT OF THE INTERIOR
1849 C Street NW
08: Washington, DC 20240
(202) 208-5432
09: shelly.randel@sol.doi.gov

10:

11: VIDEOGRAPHER:

12: Ms. Kayla Brown

13:

ALSO PRESENT:

14:

Mr. Bryan Thoreson

15:

Mr. Rick Allen

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01: THE VIDEOGRAPHER: The time is 3:44 p.m.

02: We're on the record.

03: MICA HEILMANN,

04: having been first duly sworn, testified as follows:

Page 00009

23: Q. So related to the rebuttal report and your

24: work on the rebuttal report, what are you being

25: qualified as an expert in related to this case?

(continued page 00010)

0010

01: A. I am an expert at land use, land surface

02: analysis, and also soil and water systems

03: (unintelligible).

04: THE REPORTER: I'm sorry. Repeat that

05: last part, please.

06: THE WITNESS: I'm a soil and

07: agricultural scientist, my expertise.

Heilmann, Mica

Volume 1 - 06/06/2020

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Page 00025

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) (Original 141)
07: STATE OF NEW MEXICO,)
and STATE OF COLORADO,)
08:)
Defendants.)
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11: *****
12: ATTORNEYS' EYES ONLY
13: CONFIDENTIAL PORTIONS TO THE
14: REMOTE ORAL AND VIDEOTAPED DEPOSITION OF
15: MICA HEILMANN
16: JUNE 6, 2020
17: PAGE 26 LINE 13 THROUGH PAGE 52 LINE 20
18: *****

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15: Q. (BY MS. THOMPSON) All right. Ms. Heilmann, I
16: am going to ask you now questions about the
17: proprietary -- proprietary document that was disclosed
18: to State of New Mexico, and because we couldn't make
19: it an exhibit because we can't take it off of the
20: thumb drive and duplicate it, I'm going to ask if you
21: could please have that document in front of you. It
22: won't be on the AgileLaw. You will just have it in
23: front of you in your own, you know, personal viewing,
24: and I will also have it in front of me and will

25: probably ask you a few questions about it. Is that

(continued page 00027)

0027

01: okay?

02: A. Yes. That's fine.

03: Q. And do you have it there available to you?

04: A. I do.

05: Q. Great. Good. So, Ms. Heilmann, for this

06: document here, the title of it is, "Land IQ crop and

07: land use mapping process." Was this document

08: developed specifically for this case to be disclosed

09: to the State of New Mexico or was this document, did

10: it exist prior to this case?

11: A. Some of the content existed prior to this

12: case, but the document and this compilation was

13: developed just for this purpose.

Page 00027

22: Q. This document mentions that it's a high level

23: procedures summary. Would you agree with that?

24: A. Yes.

25: Q. It also mentions that the processes are

(continued page 00028)

0028

01: refined and customized for every image, comma, every

02: crop, every date on every area analyzed and is never

03: exactly the same. Is that true?

04: A. Yes. That's true.

05: Q. And then it mentions that there are several

06: steps that are iterative and performed by trained

07: analysts to the point where professional judgment

08: determines an acceptable end point. Is that true?

09: A. That is true.

Page 00028

22: Q. And do you head up the remote sensing section

23: of Land IQ?

24: A. I lead our remote sensing group.

Page 00029

08: Q. There's a statement in the document also that

09: because of the individual expertise woven throughout

10: the analytical process, it is likely impossible to

11: ever exactly replicate the results; is that true?

12: A. Where is that statement?

13: Q. It's on the first page near the bottom of the

14: first paragraph.

15: A. I'm sorry. Did you say the first paragraph

16: on the first page?

17: Q. I did say that. I apologize. I meant to say

18: the second paragraph.

19: A. Yes. The expertise and the specific

20: individual decision points in the process do result

21: in -- it -- it would never be exactly replicated

22: because of the individual photo interpretive

23: components of the process, but the process, in

24: general, can be replicated closely.

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22: Q. And do you have to have what you were saying

23: a variety of different people with different expertise

24: to get to the same accuracy that Land IQ gets to?

25: A. Yes.

(continued page 00031)

0031

01: Q. And so if you don't have all those people

02: with all those expertise, you're not going to get --
03: you're going to get a lower accuracy, I would presume;
04: would you agree?
05: A. I would agree. I think that you need both
06: remote sensing and agronomic expertise.

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11: Q. And as I mentioned to Dr. Kimmelshue
12: yesterday, there's a number of steps -- it was
13: particularly early on, like, image acquisition, field
14: boundary delineation that in review of this document,
15: didn't appear proprietary, and I wanted to understand
16: if you agreed with that?
17: A. Some individual components of the analysis
18: themselves are not proprietary necessarily. It's the
19: combination of those pieces and how we pull all of it
20: together that is -- it's unique to us as far as I
21: know.

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20: Q. And when you were mentioning the models
21: earlier, that they're publicly available, do you take
22: those publicly-available models, though, and input
23: your own algorithms or do you do -- what is it that
24: you do to make it unique?
25: A. We input our own data, and it's the way that

(continued page 00033)

0033

01: we summarize those data and input them, and we adjust
02: some parameters of those models.

Page 00033

11: Q. Okay. So there's no mathematical equation,
12: and there's no code that you feel is proprietary?

13: A. There is code and there are equations and the
14: use and the steps, the way we use them together is
15: proprietary, but the individual pieces are not
16: necessarily unique or not ever used in a different
17: setting in a different way.

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24: Q. I asked Dr. Kimmelshue this, but why would
25: you only -- if you have this process, why would you

(continued page 00048)

0048

01: only pick one year in the '50s and one year in the
02: '60s and one year in the '70s?
03: A. Image availability is less historically.
04: There were not many images that were suitable for
05: detailed analysis, especially historically.
06: Q. So the three years that were selected
07: historically -- or, I guess, I should say '50, '60,
08: '70, '80, '90, once each decade, those were the only
09: years within each of those decades that had good
10: enough quality?
11: A. No. There were other years, maybe more
12: recently, not further back, I think that there's some
13: other years in the '80s or '90s, but -- but we thought
14: to get a good distribution across the study period of
15: remote sensing years.