SUPERIOR COURT OF THE STATE OF CALIFORNIA

FOR THE COUNTY OF LOS ANGELES

DEPARTMENT NO. 316 HON. JACK KOMAR, JUDGE

COORDINATION PROCEEDING SPECIAL TITLE (RULE 1550B)	
ANTELOPE VALLEY GROUNDWATER CASES	JUDICIAL COUNCIL COORDINATION NO. JCCP4408
PALMDALE WATER DISTRICT AND QUARTZ HILL WATER DISTRICT, CROSS-COMPLAINANTS, VS. LOS ANGELES COUNTY WATERWORKS, DISTRICT NO. 40, ET AL, CROSS-DEFENDANTS.	SANTA CLARA CASE NO. 1-05-CV-049053

REPORTER'S TRANSCRIPT OF PROCEEDINGS

WEDNESDAY, FEBRUARY 16, 2011

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(SEE APPEARANCE PAGES)

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* * *

I N D E X

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CASE NUMBER: JCCP 4408
CASE NAME: ANTELOPE VALLEY
LOS ANGELES, CALIFORNIA, WEDNESDAY, FEBRUARY 16, 2011
DEPARTMENT NO. 316 HON. JACK KOMAR
REPORTER GINGER WELKER, CSR #5585
TIME: 8:30 A.M.
APPEARANCES: (SEE TITLE PAGE)

THE COURT: COURT IS NOW IN SESSION.

ALL RIGHT. THE WITNESS IS ON THE STAND. THIS IS FURTHER EXAMINATION BY MR. KUHS.

GOOD MORNING, EVERYBODY, AGAIN.

TIMOTHY DURBIN,

CALLED BY THE CITY OF LOS ANGELES AS A WITNESS, HAVING BEEN PREVIOUSLY SWORN, TESTIFIED AS FOLLOWS:

THE WITNESS: MR. KUHS, YESTERDAY I GAVE A RESPONSE THAT WAS INCORRECT.

MR. WILLIAM KUHS: WELL, I THINK, BEFORE WE GO THERE, I HAVE SOME MATTERS THAT I WOULD LIKE TO ADDRESS THE COURT WITH BEFORE WE GET INTO FURTHER CROSS-EXAMINATION.

THE COURT: ALL RIGHT.

MR. WILLIAM KUHS: YOUR HONOR, WE WOULD LIKE TO FILE AS TEJON'S NEXT IN ORDER PAGES 12 -- EXCUSE ME 11, 12, AND 38 FROM THE SUMMARY EXPERT REPORT OUT OF APPENDIX C. THAT WOULD BE SCALMANINI 101, APPENDIX C, AS IN CHARLEY.

THE COURT: SO THAT WILL BE D, DELTA, 37, I BELIEVE, FOR IDENTIFICATION ONLY. MARK IT.

(TEJON EXHIBIT D37 MARKED FOR IDENTIFICATION.)

MR. WILLIAM KUHS: I HAVE ONE COPY FOR THE CLERK AND ONE COPY FOR THE WITNESS.

THE COURT: VERY WELL.

MR. WILLIAM KUHS: THEN I'D ASK THAT THE ORIGINAL DEPOSITION OF MR. DURBIN BE LODGED WITH THE COURT.

THE COURT: I BELIEVE IT HAS ALREADY HAS BEEN. OKAY.

MR. WILLIAM KUHS: I WOULD LIKE TO MARK AS NEXT IN ORDER, WHICH WILL BE D38, A COPY OF EXHIBIT 1 FROM THAT DEPOSITION.

THE COURT: MARK IT FOR IDENTIFICATION.

(TEJON EXHIBIT D38 MARKED FOR IDENTIFICATION.)

MR. WEEKS: THE DEPOSITION OF WHOM?

MR. WILLIAM KUHS: MR. DURBIN.

YOUR HONOR, I WOULD LIKE TO READ A PORTION OF MR. DURBIN'S DEPOSITION.

THE COURT: PAGE?

MR. WILLIAM KUHS: VOLUME ONE, BEGINNING ON PAGE 11, AT LINE 8. AND TO PUT THAT IN CONTEXT, I WOULD NOTE

THAT THE LAWYERS PRESENT AT THAT DEPOSITION WERE BRADLEY HERRERA, JEFFREY DUNN, WARREN WELLEN, W. KEITH LEMIEUX, BOB JOYCE, DOUG EVERTZ, WESLEY MILIBAND, AND JULIE RILEY.

BEGINNING AT PAGE 11, LINE 8, THIS IS A QUESTION FROM MR. HERRERA:

(READING:)

"QUESTION: AND DID YOU REVIEW THE REQUEST FOR PRODUCTION OF DOCUMENTS THAT'S INCLUDED?"

"ANSWER: I DID.

"QUESTION: DID YOU BRING ANY DOCUMENTS WITH YOU TODAY THAT ARE RESPONSIVE TO THOSE REQUESTS?

"ANSWER: I DID.

"QUESTION: AND ARE THOSE THE DOCUMENTS THAT ARE ON THE FLASH DRIVE THAT YOU GAVE ME BEFORE WE GOT STARTED?

"ANSWER: CORRECT.

"QUESTION: ARE THERE ANY REQUESTS THAT YOU DID NOT BRING DOCUMENTS RESPONSIVE TO?

"ANSWER: I BELIEVE THAT EVERYTHING THAT WAS ON THE LIST IS ON HERE.

"QUESTION" --

EXCUSE ME. CONTINUE WITH THE ANSWER:

"ANSWER: WITH RESPECT TO THE FLASH DRIVE, I PRESUME THAT YOU ALREADY HAD MY RESUME, SO IT IS NOT ON THE FLASH DRIVE.

"QUESTION BY MR. JOYCE: I WAS JUST THINKING OF -- UNFORTUNATELY --

THE COURT: IT'S NOT A QUESTION. IT IS COLLOQUY.

MR. WILLIAM KUHS: OKAY. LET'S GO OVER TO -- THEN LET'S CONTINUE OVER TO -- WELL, THERE IS ONE PART OF THAT THAT I THINK IS IMPORTANT, YOUR HONOR. AND LET ME READ IT, IF I MIGHT.

THE COURT: BUT IT HAS GOT TO BE RELATED TO THE TESTIMONY OF THE WITNESS.

MR. WILLIAM KUHS: IT ONLY RELATES TO THE DISPOSITION OF THE FLASH DRIVE. AND IF YOUR HONOR WILL NOTE THAT ON PAGE 12, MR. JOYCE MAKES IT CLEAR AT ABOUT PAGE -- AT LINE 10 THAT THE FLASH DRIVE IS GOING TO BE DELIVERED TO THE OFFICIAL CUSTODY OF THE REPORTER. SO IT WAS LODGED WITH THE REPORTER, NOT LODGED WITH ANY OTHER PERSON.

THE COURT: ALL RIGHT.

MR. WILLIAM KUHS: CONTINUING ON AT LINE 18 ON PAGE 12:

"QUESTION: MR. DURBIN, OTHER THAN THE COPY OF YOUR RESUME THAT WE DISCUSSED, ARE THERE ANY DOCUMENTS THAT ARE RESPONSIVE TO

THE REQUEST IN EXHIBIT 1 THAT YOU DIDN'T BRING WITH YOU TODAY?

"ANSWER: I DON'T BELIEVE SO.

"QUESTION: ARE THERE ANY DOCUMENTS THAT ARE RESPONSIVE TO THOSE REQUESTS THAT YOU WERE ASKED NOT TO BRING WITH YOU TODAY?"

ANSWER ON PAGE 13, LINE 1:

"ANSWER: NO."

WHICH IS WHERE I END WITH THAT COLLOQUY, THEN.

NOW, WE HAVE A COPY OF THE EXTERNAL HARD DRIVE. I'LL REPRESENT TO THE COURT THAT I PERSONALLY REVIEWED THAT, EVERY FILE IN IT THAT I COULD OPEN --

THERE ARE FILES THAT WE CAN'T OPEN, WHICH ARE ESSENTIALLY -- ARE TECHNICAL FILES, MAPPING AND THAT SORT OF THING. IT DOESN'T INCLUDE THAT.

AND THERE IS NO INFORMATION ON THAT EXTERNAL HARD DRIVE RELATING TO ANY CALCULATIONS, ANY FACTORS, ANY EXPONENTS USED BY MR. DURBIN IN ATTEMPTING TO CALCULATE FLOWS BASED UPON THE CHANNEL GEOMETRY WORK.

NOW, ON THAT BASIS -- AND IF YOU'LL NOTE FROM EXHIBIT D38, ALL OF THAT INFORMATION WAS REQUESTED TO BE PRODUCED.

NOW, I STARTED TO GET INTO TESTIMONY, THE USE OF THE EQUATIONS THAT IS SPELLED OUT IN EXHIBIT D33, AND THERE WAS A 352 OBJECTION BY MR. DUNN ON THE BASIS THAT THE WITNESS HAS TESTIFIED HE DID NOT USE THE

EQUATIONS SET FORTH IN D33.

ON THAT BASIS, THE MOTION WAS APPROPRIATE BECAUSE IT WAS NOT APPROPRIATE FOR ME TO EXPLORE THE APPLICATION OF THOSE EQUATIONS IN LIGHT OF THE WITNESS HAVING SAID THAT HE DIDN'T USE THOSE EQUATIONS.

NOW, IF YOU LOOK AT D37 -- AND I'LL WAIT FOR A MOMENT. YOUR HONOR CAN LOOK AT D33.

MR. WEEKS: WHAT IS D37?

MR. WILLIAM KUHS: D37 IS PAGES 11, 12, AND 38 OF APPENDIX C OF THE SUMMARY EXPERT REPORT.

MR. WEEKS: THANK YOU.

THE COURT: GO AHEAD.

MR. WILLIAM KUHS: NOW, IF WE LOOK BACK AT EXHIBIT D37, WHICH IS PART OF THE SUMMARY EXPERT REPORT, AND STARTING IN THE MIDDLE -- APPROXIMATELY IN THE MIDDLE OF PAGE 11, UNDER THE HEADING "STREAMFLOW ESTIMATES FOR CHANNEL -- FROM CHANNEL GEOMETRY DATA" --

MR. ZIMMER: HE HAS IT UP ON THE BOARD, AS WELL, YOUR HONOR.

MR. WILLIAM KUHS: -- I READ IN THE FIRST SENTENCE OF THAT YESTERDAY AS A LEAD-IN QUESTION TO MR. DURBIN AS TO THE MANNER IN WHICH HE CALCULATED OR ESTIMATED STREAMFLOWS FROM THE CHANNEL GEOMETRY DATA AND REFERRED TO THE FIRST SITE WHICH IS HIGHLIGHTED, THE HEDMAN AND THE OSTERKAMP 1982, WHICH IS D33.

THEN YOU GO DOWN TO THE LOWER --

THE COURT: WHY DON'T YOU TELL ME WHERE YOU ARE GOING WITH THIS.

MR. WILLIAM KUHS: I'M MOVING TO STRIKE ALL OF HIS TESTIMONY DEALING WITH CHANNEL GEOMETRY DATA ON THE BASIS THAT THE WITNESS HAS TESTIFIED HE DID NOT USE THE EQUATIONS IN D33. THERE'S NO PLACE -- YESTERDAY, IN HIS EXAMINATION.

THERE IS NO PLACE IN HIS SUMMARY EXPERT REPORT WHERE HE HAS THE CHANNEL WIDTHS, THE SOIL PROPERTIES, THE CONSTANTS, THE EXPONENTS TO APPLY THE EQUATION. AND THERE IS NO EQUATION IN HIS SUMMARY EXPERT REPORT TO CALCULATE THOSE FLOWS. AND THERE HAS BEEN NO EVIDENCE AS TO THE MANNER IN WHICH HE CALCULATED THOSE FLOWS. AND ON THAT BASIS, THERE CAN BE NO SCIENTIFIC SUPPORT FOR ANY OF HIS CONCLUSIONS DEALING WITH THAT APPROACH TO CALCULATING STREAM FLOWS.

MS. RILEY: YOUR HONOR, I OBJECT TO THE MOTION TO STRIKE TESTIMONY. MR. DURBIN HAS TESTIFIED WHAT HIS OPINION IS. IN THE TESTIMONY IN RESPONSE TO MR. KUHS' QUESTION, HE SAID EXACTLY THAT, THE MIDDLE LINE THERE, THAT HE USED THE HEDMAN AND OSTERKAMP REFERENCE TO GET THE GENERAL FORM FOR THE RELATIONS.

HE TESTIFIED THAT HE DID NOT, IN FACT, PROVIDE THIS INFORMATION IN RESPONSE TO A REQUEST FOR PRODUCTION OF DOCUMENTS, YET HE SAID THAT HE PROVIDED ALL OF THE DOCUMENTS THAT HE HAD WITHIN HIS FILES THAT WERE RESPONSIVE.

I WOULD SUGGEST TO THE COURT THAT THIS WOULD GO RATHER TO THE WEIGHT OF THE EVIDENCE RATHER THAN TO STRIKE MR. DURBIN'S TESTIMONY.

THE COURT: WAS HE ASKED AT THE DEPOSITION ABOUT THE CALCULATIONS?

MR. WILLIAM KUHS: YES. THERE WAS GENERAL DISCUSSIONS BY -- QUESTIONS -- EXCUSE ME.

THE COURT: I'M SORRY. I DIDN'T MEAN TO INTERRUPT YOU, BUT I WANT TO KNOW IF HE WAS ASKED THAT VERY SPECIFIC QUESTION ABOUT THE FORMULA OR THE PROCESS THAT HE USED IN CALCULATING THE STREAMFLOW.

MR. WILLIAM KUHS: I'LL LET MR. JOYCE RESPOND, IF I MIGHT. MR. JOYCE WAS THERE.

THE COURT: IF THAT'S THE CASE, I WOULD LIKE TO SEE THE PAGE AND LINE.

MR. JOYCE: YOUR HONOR, IN REALITY, WE WERE PRESENTED WITH THE SUMMARY EXPERT REPORT PRIOR TO THE DEPOSITION. WE HAD THE OPPORTUNITY TO REVIEW IT AT GREAT LENGTH.

IF THE COURT WERE TO LOOK AT IN ITS ENTIRETY WHAT HAS BEEN MARKED BY MR. KUHS AS EXHIBIT B37, AND IF YOU READ THAT EXCERPT IN ITS ENTIRETY, WHAT BECOMES IMMEDIATELY AND ABUNDANTLY CLEAR IS THE FACT THAT THE SUGGESTION BEING MADE BY MR. DURBIN IN THE SUMMARY EXPERT REPORT IS THAT HE USED THE HEDMAN AND OSTERKAMP METHODOLOGY AND THEIR FORMULAS IN ARRIVING AT HIS CONCLUSIONS.

AND, THEREFORE, I ALREADY HAD THAT REPORT FROM HEDMAN AND OSTERKAMP. I KNEW WHAT WAS IN IT. THERE WAS NO NECESSITY TO ACTUALLY GO TO MINUTIA WITH HIM ABOUT IT. IT WAS JUST MERELY TO GO OVER THE

CONCEPTUAL APPROACH.

WHAT HE DID NOT DO, EITHER IN THE SUMMARY EXPERT REPORT NOR AT ANY TIME IN HIS DEPOSITION, OVERTLY OR EVEN BY INTIMATION, SUGGEST THAT HE HAD DONE ANYTHING OTHER THAN RELIED UPON THEIR METHODOLOGY AND THEIR APPROACH.

MORE SIGNIFICANTLY, YOUR HONOR, HE HAS NOT OFFERED TO THIS COURT EITHER THE EXPONENT OR THE COEFFICIENT THAT HE IS SUPPOSEDLY USED IN HIS HYBRID FORMULA, WHATEVER THAT IS. AND IT IS NOT REFLECTED IN THE HARD DRIVE, AND IT'S NOT REFLECTED IN THE SUMMARY EXPERT REPORT. WE HAVE NO WAY OF KNOWING WHAT THOSE NUMBERS ARE THAT HE ACTUALLY USED BECAUSE THEY ARE NOT CONTAINED IN ANYTHING MADE AVAILABLE TO US.

THE COURT: ALL RIGHT. THANK YOU.

MR. JOYCE: AND I DON'T THINK HE CAN AT THE PRESENT TIME EVEN TELL THE COURT WHAT THOSE NUMBERS ARE.

THE COURT: WELL, I DON'T KNOW ABOUT THAT, BUT THANK YOU.

MR. ZIMMER?

MR. ZIMMER: JUST FROM A LEGAL STANDPOINT, I AGREE WITH THE MOTION TO STRIKE, BUT IT IS ON TWO GROUNDS: ONE, THAT DISCOVERY WAS NOT PROVIDED; AND TWO, THAT THERE IS NO LEGAL FOUNDATION AND/OR SCIENTIFIC FOUNDATION, AS MR. KUHS HAS POINTED OUT, FOR THE -- WHAT I CONSIDER TO BE A NEW OPINION.

MR. KUHS, THERE IS LOWER PART ON THIS SAME EXHIBIT HERE WHERE MR. DURBIN, IN FACT, TALKS ABOUT THE

FACT THAT THE -- THIS PART OF THE ANTELOPE VALLEY WAS CLOSE ENOUGH TO THE STUDY AREA SO THAT THE STUDY AREA COULD, IN FACT, BE USED -- SO THAT THOSE RELATIONS COULD, IN FACT, BE USED IN THE ANTELOPE VALLEY.

MR. KUHS CAN PROBABLY FIND THAT WHILE I'M GOING ON HERE.

BUT THE POINT OF THE MATTER IS THAT HE IS NOW -- THIS IS THE SECOND TIME WE'VE HAD A VERY SIMILAR SITUATION. WE WERE PROVIDED WITH AN EXPERT REPORT. WE CROSS-EXAMINED AN EXPERT ON THIS EXPERT REPORT. WE'VE CROSS-EXAMINED THEM ON WHAT THEIR OPINIONS. AND NOW THERE IS A CHANGE.

IF WE ARE TALKING ABOUT AN EXPERT HYDROLOGIST CHANGING CALCULATIONS AND CHANGING THE EQUATIONS UPON WHICH HE HAS BASED HIS OPINION, THEN WE ARE TALKING ABOUT A CHANGE OF AN OPINION.

TO THE EXTENT THAT WE HAVE BEEN DENIED DISCOVERY ON THAT -- IT IS, IN FACT, NOT ON THE HARD DRIVE -- ALONG WITH, I WILL NOTE, THE -- MR. DURBIN ADMITTED YESTERDAY THAT ALSO NOT INCLUDED WAS ANY OF THE INFORMATION TAKEN DOWN BY THE ASSISTANT AS TO THE GRAVEL, ROCK, OR WHATEVER WAS IN THE STREAM CHANNEL IN ORDER TO BE ABLE TO MAKE THE DETERMINATIONS THAT ARE NECESSARY.

BUT MR. JOYCE IS CORRECT. IF YOU GO THROUGH AND IF YOU READ THROUGH THE ANALYSIS BY MR. DURBIN, HE SPECIFICALLY SETS FORTH WHY THE HEDMAN AND OSTERKAMP METHOD -- HE GOES THROUGH WHY THE HEDMAN AND OSTERKAMP

METHOD CAN BE APPLIED TO THE PARTICULAR SITUATION HERE, BASED UPON THE SEDIMENTS, BASED UPON THE PERENNIAL STREAMS OR OTHERWISE. AND HE GOES THROUGH ON A READING OF IT AND EXPLAINS EXACTLY WHY HEDMAN AND OSTERKAMP APPLY HERE.

AND WHEN YOU GET TO THE SENTENCE ABOUT WHY HE APPLIES HEDMAN AND OSTERKAMP AND THE FACT THAT IT IS A PARTICULARLY APPLICABLE STREAM RELATION BECAUSE IT IS CLOSE ENOUGH, THERE'S NO QUESTION THAT THAT IS WHAT HE WAS DOING AT THE TIME.

NOW, AT THIS POINT HE IS DOING SOMETHING COMPLETELY DIFFERENT, AND HE NOW SAYS YESTERDAY, IN HIS CROSS-EXAMINATION, THAT HE HAS SOME -- HE USED SOME NEW EQUATION. "WELL, I DIDN'T USE HEDMAN AND OSTERKAMP, AFTER I WAS CROSS-EXAMINED ON IT," AFTER MR. KUHS CLEARLY SHOWED THAT HE WAS NOT PROPERLY USING OSTERKAMP BECAUSE IT DIDN'T COMPLY WITH WHAT OSTERKAMP PUT DOWN IN TERMS OF THE VALUES. IT WAS VERY CLEAR THAT THAT'S NOT WHAT HE WAS USING.

SO NOW HE IS SAYING, "I USED SOME DIFFERENT EQUATION, AND THAT EQUATION ISN'T ON THE HARD DRIVE. THAT EQUATION ISN'T IN COURT. I CAN'T EVEN TELL YOU WHAT THAT EQUATION WAS."

SO THERE --

THE COURT: ONE OF THE THINGS I'M CONCERNED ABOUT HERE IS THAT THE WITNESS HAS INDICATED HE WANTS TO MAKE A CHANGE OR CORRECTION TO HIS TESTIMONY WHICH WAS GIVEN IN ERROR. I DON'T KNOW IF IT RELATES TO THIS OR NOT.

AND COUNSEL DENIED HIM THE OPPORTUNITY TO DO THAT.

IT SEEMS TO ME I'D WANT TO KNOW WHAT THAT IS BEFORE I HEAR FURTHER ARGUMENT ON THIS MOTION TO STRIKE.

MR. ZIMMER: IF I COULD JUST FINISH THE SENTENCE.

MR. KUHS HANDED ME A SENTENCE THAT SAYS, "THE ANTELOPE VALLEY" -- THIS IS C.2.3.2. AND IT CONCLUDES WITH:

"THE ANTELOPE VALLEY, WHICH IS MARGINALLY WITHIN THE STUDY AREA EVALUATED BY HEDMAN AND OSTERKAMP," PAREN, "(1982). HOWEVER, THE VALLEY IS SUFFICIENT SIMILAR TO THE STUDY AREA TO APPLY THE CHANNEL GEOMETRY RELATIONS."

AND THE CHANNEL GEOMETRY RELATIONS, YOUR HONOR, ARE WHAT WE SAW ON THE TABLE THAT SHOWS YOU WHAT EQUATION TO APPLY.

AND JUST TO RESPOND TO THE COURT'S LAST COMMENT ABOUT HEARING WHAT MR. DURBIN HAS TO SAY, I'M FINE WITH THAT. BUT I WOULD NOTE --

THE COURT: WELL, I'M GLAD.

(LAUGHTER.)

MR. ZIMMER: I APPRECIATE THAT. BUT FROM A FOUNDATIONAL STANDPOINT, YOUR HONOR, I'M NOT SURE THAT IT MAKES ANY DIFFERENCE BECAUSE HE HAS -- HE HAS CHANGED HIS TESTIMONY, AND NOW --

THE COURT: WE DON'T KNOW UNTIL WE HEAR IT.

MR. DURBIN?

THE WITNESS: THE CORRECTION IS UNRELATED TO THIS.

THE COURT: OKAY. THEN WE WILL TAKE IT LATER.

MS. RILEY: YOUR HONOR, IF I MAY RESPOND --

THE COURT: YES.

MS. RILEY: -- TO MR. JOYCE AND MR. ZIMMER.

MR. JOYCE, IN RESPONSE TO YOUR DIRECT QUESTION, DID NOT APPEAR TO POINT TO ANY EVIDENCE IN THE DEPOSITION THAT SHOWED THAT HE WAS EXTENSIVELY QUESTIONING MR. DURBIN ON THE STREAM CHANNEL METHODOLOGY, MR. DURBIN HAS NOT CHANGED HIS OPINION. HE ANSWERED HONESTLY THAT HE -- IN RESPONSE TO MR. KUHS' QUESTION YESTERDAY, THAT HE HAD NOT INCLUDED DOCUMENTS IN THE REQUEST FOR PRODUCTION OF DOCUMENTS BECAUSE, APPARENTLY, THEY WERE NO LONGER IN HIS POSSESSION, AND HE WAS UNABLE TO LOCATE THEM IN THE REQUEST TO THE -- THE REQUEST FOR PRODUCTION OF DOCUMENTS.

I WOULD SUBMIT TO THE COURT THAT MR. DURBIN'S OPINION HAS REMAINED CONSTANT. AND IT IS FOR THE COURT TO DETERMINE, IN WEIGHING THE EVIDENCE, AS TO WHETHER THE EVIDENCE ON THIS STREAM CHANNEL METHODOLOGY IS SUFFICIENT FOR YOUR PURPOSES.

MR. WILLIAM KUHS: I WANT TO BE HEARD BRIEFLY IN RESPONSE, YOUR HONOR.

THE COURT: YES, YOU MAY.

MR. WILLIAM KUHS: I WILL REPRESENT TO THE COURT, I HAVE SPENT A SIGNIFICANT AMOUNT OF TIME ANALYZING APPENDIX C OF SCALMANINI 101. I HAVE DONE THE

CALCULATIONS. WE HAVE LOOKED FOR EVIDENCE. WE HAVE ASSUMED CHANNEL WIDTHS. AND IF YOU PROPERLY APPLY THE EQUATIONS OUT OF THIS AUTHORITY, YOU GET SIGNIFICANTLY DIFFERENT RESULTS.

NOW, TO SUGGEST NOW THAT WE CAN PROCEED WITHOUT KNOWING THAT -- FOR EXAMPLE, HE COULD BE ALLOWED TO COME IN AND DEMONSTRATE TO THE COURT A DIFFERENT EQUATION DURING TRIAL --

YOUR HONOR CORRECTLY NOTED YESTERDAY, THIS IS NOT A DEPOSITION; THIS IS A TRIAL. WE ARE LOCATED IN BAKERSFIELD. WE ARE DOWN HERE IN LOS ANGELES. WE ARE NOT PREPARED TO SIT DOWN AND CALL ALL OF OUR EXPERTS AND DO A SIGNIFICANT AMOUNT OF CALCULATIONS DURING TRIAL, PARTICULARLY GIVEN THE TIME CONSTRAINTS OF THE COURT.

AND SO, IN THE RECORD, TO SUGGEST THAT HIS OPINIONS ARE VALID, WHEN THERE IS NO SCIENTIFIC BASIS ANYWHERE FOR IT, IS BEYOND ME. I HAVE NEVER -- I HAVE NEVER SEEN EXPERT TESTIMONY, SCIENTIFIC TESTIMONY, THAT IS NOT SUPPORTED BY APPROPRIATE DATA, BY APPROPRIATE CALCULATIONS, BY APPROPRIATE FORMULAS, PARTICULARLY IN A CASE LIKE THIS.

MR. JOYCE: YOUR HONOR, JUST ONE COMMENT.

ON THE ISSUE RAISED BY COUNSEL FOR MR. DURBIN, THE ISSUE OF WEIGHT IS NOT REACHED UNTIL THE ISSUE OF ADMISSIBILITY HAS BEEN RESOLVED.

THE COURT: OKAY. I UNDERSTAND THE LAW. YOU DESCRIBED THE KIND OF CROSS-EXAMINATION THAT WE HAVE GOTTEN TO THIS ISSUE AT THE DEPOSITION AS "MINUTIA." I

DON'T THINK THAT IS TRUE. I THINK IT IS PROPER TO INQUIRE IN DETAIL ABOUT AN EXPERT'S BASIS FOR AN OPINION.

YOU DON'T HAVE TO SAY ANYTHING, MR. JOYCE.

AT THIS POINT, I'M GOING TO TAKE THIS UNDER SUBMISSION. I'M GOING TO PERMIT COUNSEL TO ATTEMPT TO REHABILITATE THE WITNESS BECAUSE I THINK THE POINTS THAT MR. KUHS AND OTHER COUNSEL HAVE MADE HAVE SOME VALUE AND VALIDITY TO THEM.

AND I THINK THERE NEEDS TO BE -- PARTICULARLY ON THE ISSUE OF SCIENTIFIC BASIS AND BASIS FOR THE OPINION, I THINK THERE NEEDS TO BE SOME MORE EVIDENCE PRESENTED IF IT IS THERE. IF IT IS NOT THERE, WE WILL DEAL WITH THAT.

I'M NOT AS CONCERNED ABOUT THE DISCOVERY ISSUE BECAUSE I THINK THAT THERE WAS AN OPPORTUNITY TO -- YOU KNEW WHAT HIS OPINION WAS. THERE WAS PLENTY OF OPPORTUNITY TO CROSS-EXAMINE HIM AND TO EXPLORE FURTHER AT HIS DEPOSITION THE BASIS FOR THAT OPINION, TO POINT OUT THE DIFFERENCES BETWEEN THE SCALMANINI REPORT APPENDICES, AND OTHER THINGS.

SO IT IS UNDER SUBMISSION UNTIL AFTER HE HAS BEEN EXCUSED.

MR. JOYCE: YOUR HONOR, I UNDERSTAND THE COURT'S DETERMINATION, BUT FOR THE BENEFIT OF THE RECORD, I HAVE A STATEMENT TO MAKE.

THE COURT NEEDS TO APPRECIATE THAT APPENDIX C TO THE EXHIBIT 101 IS AUTHORED BY MR. DURBIN. WHAT

THE COURT SEES BEFORE IT ARE WORDS PUT ON PAPER BY MR. DURBIN.

THE COURT: I UNDERSTAND THAT.

MR. JOYCE: FOR THE PURPOSE OF RECORD, YOUR HONOR, PRIOR TO THE DEPOSITION, BY CONTEXT AND BY CONTENT, IT WAS ABUNDANTLY CLEAR UPON READING EXHIBIT B37 THAT THE SOURCE AND THE METHODOLOGY AND THE FORMULAS RELIED UPON BY MR. DURBIN WERE AS SET FORTH IN THE HEDMAN AND OSTERKAMP --

THE COURT: THAT IS JUST MORE ARGUMENT.

MR. JOYCE: IT'S NOT ARGUMENT. IT'S FOR THE BENEFIT OF THE RECORD.

THE COURT: IT'S UNDER SUBMISSION. I WANT TO PROCEED WITH TESTIMONY.

MR. JOYCE: I'LL JUST NOTE THAT I HAVE NOT FINISHED MY STATEMENT FOR THE BENEFIT OF THE RECORD.

THE COURT: THAT IS OBVIOUS.

YES?

MR. TOOTLE: YOUR HONOR, MR. KUHS HAS MADE REPRESENTATIONS THAT HE HAS DONE CALCULATIONS AND EVIDENCED THAT MR. DURBIN'S FORMULA DOES NOT WORK. I WOULD REQUEST THAT HE PRODUCE THOSE CALCULATIONS SO THAT WE HAVE THE OPPORTUNITY ON REDIRECT TO SHOW THAT THE FORMULA DOES WORK. BECAUSE, I MEAN, REALLY, WHAT WE'RE TALKING ABOUT HERE --

THE COURT: I'M NOT GOING TO ORDER MR. KUHS TO PROVIDE YOU WITH ANYTHING. HE HAS TO MAKE AN ADEQUATE RECORD IN ORDER TO HAVE HIS --

MR. TOOTLE: OKAY. BUT HE HASN'T MADE THE RECORD. THAT'S ALL I WANTED TO POINT OUT.

THE COURT: LET'S PROCEED WITH TESTIMONY.

DID YOU WANT TO ELICIT THE CORRECTION OF THE TESTIMONY OF THE WITNESS?

MR. WILLIAM KUHS: YES. HE SHOULD BE ALLOWED TO MAKE HIS STATEMENT, YOUR HONOR, WHATEVER IT IS.

THE COURT: GO AHEAD, MR. DURBIN.

THE WITNESS: YESTERDAY THERE WAS SOME QUESTIONING OF ME REGARDING THE RELATIONSHIP I USED TO CALCULATE THE FLOWS ONTO THE PLAYA FROM THE MOUNTAIN FRONT. AND THERE WERE SOME QUESTIONS RELATING TO THE CHARACTERISTICS OF THE CHANNEL REACH THAT I USED TO CALIBRATE THE RELATIONSHIP.

AND YESTERDAY, I HAD INDICATED THAT THE -- THAT THE REACH I USED TO CALIBRATE WAS FROM THE STREAM GAUGING STATION AT BIG ROCK CREEK, NEAR VALYERMO, WHICH IS IN THE CANYON RIGHT AT THE MOUNTAIN FRONT. AND THE OTHER GAUGE STATION WAS DOWN AT HIGHWAY 138.

AND, AGAIN, I WAS ASKED QUESTIONS ABOUT CONDITIONS INTERVENING BETWEEN THOSE TWO LOCATIONS.

LAST NIGHT I REVIEWED MY EXPERT REPORT TO -- ON WHAT I ACTUALLY DID. AND THE -- IN THE CALCULATIONS FOR THE CALIBRATION, I USED ONLY THE LOWER HALF OF THAT OVERALL REACH. AND I USED THE REACH FROM BELOW PALLET CREEK DOWN TO THE HIGHWAY 138 GAUGE. AND THAT IS, AS I SAY, APPROXIMATELY HALF OF THE OVERALL DISTANCE.

AND I PRESUMED, BASED ON HYDROLOGIC

CONDITIONS UPSTREAM, THAT THERE WAS NO RECHARGE THAT OCCURRED. AND THERE WERE TWO REASONS FOR THAT. ONE WAS THAT THERE'S HIGH GROUNDWATER LEVELS IN THE UPSTREAM AREA, AND THERE'S ALSO A PLACE WHERE THE STREAM CROSSES BEDROCK.

SO AGAIN, IN THE CALCULATION, I USED THIS MORE LIMITED REACH THAT IS JUST ENTIRELY UNDERLAIN BY THE ALLUVIAL FAN.

AND THAT -- THERE IS -- IN MY EXPERT REPORT, ON FIGURE C38, THERE'S A MAP THAT SHOWS THE ALLUVIUM AND SOME OF THE GAUGING STATIONS THAT I USED. AND THIS IS ALSO DESCRIBED ON PAGE 31 IN THE TEXT OF MY EXPERT REPORT.

THE COURT: ALL RIGHT. THANK YOU.

MR. KUHS, YOU MAY EXAMINE.

CROSS-EXAMINATION (CONTINUED)

BY MR. WILLIAM KUHS:

Q MR. DURBIN, WITH RESPECT TO YOUR LAST RESPONSE -- OR YOUR LAST CLARIFICATION, IF YOU LOOK AT -- YOU REFERRED TO FIGURE C38 OF APPENDIX C OF THE EXPERT REPORT.

A IF I SAID "38," I MEANT "36."

Q WELL, DOES C36 TELL US ANYTHING ABOUT THE CALIBRATION REACH THAT YOU JUST DESCRIBED?

A NOT BY ITSELF. YOU WOULD HAVE TO COMBINE IT WITH THE TEXT ON PAGE C31 AND THE DESCRIPTION THERE.

Q FIGURE C36 JUST INDICATES THE LOCATION OF

THE GAUGING STATIONS; CORRECT?

A YES. AND ALSO, IT SHOWS THE BASIC GEOLOGY.

Q AND THEN YOUR EXHIBIT -- IF YOU'D TURN TO YOUR EXHIBIT G64. THAT, AS A PICTORIAL MATTER, DEMONSTRATES THE CALIBRATION REACH THAT YOU JUST DESCRIBED?

A IT DESCRIBES THE OVERALL REACH I USED IN THE CALIBRATION PROCESS; CORRECT.

Q AND NOW ARE YOU TELLING US BY WAY OF CORRECTION THAT THE INDICATED CALIBRATION REACH ON EXHIBIT G64 IS NOT ACCURATELY DEPICTED ON THAT EXHIBIT?

A NO. IT IS ACCURATELY DEPICTED. WHAT IS NOT DEPICTED ON THIS IS THE FACT THAT I ONLY USED, IN THE EQUATION DURING THE CALIBRATION, A REACH THAT IS APPROXIMATELY HALF THAT DISTANCE.

Q SO CAN YOU, FOR -- AND YOU ARE SAYING IN WORDS, WITH RESPECT TO EXHIBIT G64, THAT THE MOST SOUTHERLY --

WELL, LET ME ASK THIS QUESTION. ON G64, NORTH IS TO THE TOP OF THE PAGE; CORRECT?

A CORRECT.

Q SO YOU ARE SAYING APPROXIMATELY THE SOUTHERLY HALF OF THE CALIBRATION REACH DEPICTED ON G64 WAS NOT, IN FACT, USED FOR CALIBRATION?

A THE -- THAT OVERALL REACH -- WELL, IT IS NOT -- IT IS -- IN THE CALIBRATION PROCESS, IT IS PRESUMED TO BE A REACH IN WHICH NO RECHARGE OCCURS OR NO CHANNEL LOSSES OCCUR.

Q NOW, WAS THERE A GAUGING STATION WITHIN THAT CALIBRATION REACH, AS DISTINGUISHED FROM EACH END?

A YES. THAT IS THE GAUGE ON BIG ROCK CREEK, ABOVE PALLET CREEK.

Q THAT STATION IS NOT SHOWN ON G64; IS THAT CORRECT?

A NOT THERE. IT IS SHOWN IN MY EXPERT REPORT IN FIGURE 36.

MR. WILLIAM KUHS: I WANT TO MARK AS TEJON'S NEXT IN ORDER A COPY OF TABLE C28 FROM APPENDIX C OF SCALMANINI 101, WHICH IS ENTITLED "ANNUAL GROUNDWATER RECHARGE FOR 1949-2005."

THE COURT: THAT IS 38.

MR. BUNN: EXCUSE ME, YOUR HONOR. I SHOW D38 TO BE EXHIBIT 1 FROM THE DEPOSITION.

THE COURT: THEN IT IS 39.

MR. BUNN: THANK YOU.

(TEJON EXHIBIT D39 MARKED
FOR IDENTIFICATION.)

THE WITNESS: ARE WE TALKING ABOUT C28?

BY MR. WILLIAM KUHS:

Q YES. I WILL HAND YOU A COPY, MR. DURBIN, SO YOU DON'T HAVE TO THUMB THROUGH THE BIG REPORT.

A THANK YOU.

Q NOW, MR. DURBIN, THIS IS A TABLE FROM YOUR REPORT. AND ON THIS TABLE, AMONG OTHER THINGS IN WHAT

I'LL CALL COLUMN 5, WHICH IS HEADED "WATERSHED OUTFLOW DIVERSIONS," AND THEN COLUMN 6, "PLAYA FLOODING" -- I WANT TO REFER TO THOSE TWO COLUMNS IN MY NEXT SERIES OF QUESTIONS. OKAY?

A YES.

Q NOW, WITH RESPECT TO THE DIVERSIONS, AND OVER ON PAGE 2 OF EXHIBIT D39, YOU COME UP WITH AVERAGE DIVERSIONS FROM THE WATERSHED OF 2,400 ACRE-FEET. DO YOU SEE THAT NUMBER?

A I AM -- I'M LOOKING AT D39?

Q NO -- YES, EXHIBIT D39.

A OKAY. I SEE AT THE END OF TABLE, YES.

Q THE LAST ENTRY ON D39 ARE YOUR AVERAGES OF DATA THAT'S SUMMARIZED ABOVE; CORRECT?

A CORRECT. NOW I SEE THAT, YES.

Q NOW, EARLIER IN YOUR REPORT -- WELL, STRIKE THAT.

THOSE DIVERSIONS ARE DIVERSIONS FROM LITTLE ROCK CREEK; IS THAT CORRECT?

A YES.

Q EARLIER IN YOUR REPORT, I SAW A FIGURE OF DIVERSIONS OF APPROXIMATELY 4,000 ACRE-FEET A YEAR. DO YOU RECALL THAT?

A I DON'T. YOU WOULD HAVE TO DIRECT MY ATTENTION TO WHATEVER GRAPH OR TABLE YOU ARE REFERRING TO.

Q OKAY. NOW, WHAT -- WHEN THE WATER IS DIVERTED OUT OF LITTLE ROCK CREEK, AND USING YOUR FIGURE

OF 2400 ACRE-FEET A YEAR, AVERAGE, WHERE DOES THAT WATER GO?

A WELL, IT GOES TO VARIOUS USES. I BELIEVE PART OF IT GOES TO AGRICULTURE, IRRIGATION. AND I THINK OTHER PARTS GO TO A LAKE DOWN BY PALMDALE, AND I THINK IT IS USED --

(DISCUSSION HELD OFF THE RECORD.)

THE WITNESS: FOR AGRICULTURAL USE; AND SOME OF IT GOES TO -- I BELIEVE, GOES TO A POND THAT IS NEAR PALMDALE AND MAYBE -- OR A LAKE, AND PERHAPS SOME OF THAT WATER IS USED FOR M & I. I'M JUST NOT SURE.

BY MR. WILLIAM KUHS:

Q WHAT PORTION OF THOSE DIVERTED FLOWS ARE CONSUMPTIVELY USED AS DISTINGUISHED FROM RESULT IN RECHARGE TO THE AQUIFER?

MS. RILEY: OBJECTION; BEYOND THE SCOPE OF DIRECT.

THE COURT: OVERRULED.

THE WITNESS: THE -- JUST FROM THE TYPE OF USES, SOMETHING ON THE ORDER OF HALF OF IT, MAYBE, IS CONSUMED, AND THE REST WOULD RETURN TO THE HYDROLOGIC SYSTEM. I HAVEN'T EXAMINED WHAT THAT NUMBER IS, BUT THAT WOULD BE A NUMBER THAT WOULD BE TYPICAL OF THOSE SORTS OF USES.

BY MR. WILLIAM KUHS:

Q AND SO WOULD IT NOT BE, THEN, ACCURATE TO -- IF YOU ASSUME THAT IT WAS 50 PERCENT OF THAT WATER

RETURNED TO THE AQUIFER, WOULD IT WOULD NOT BE APPROPRIATE, THEN, TO INCLUDE THAT WATER IN THE LAST COLUMN OF EXHIBIT D39 AS RECHARGE TO THE AQUIFER?

A WELL, IT WOULD BE RECHARGE TO THE AQUIFER, BUT I'M NOT SURE THIS TABLE IS THE RIGHT PLACE TO DO IT. I THINK IT IS SOMETHING MORE APPROPRIATELY CONSIDERED IN THE WORK THAT MR. SCALMANINI DID, WHERE HE IS LOOKING AT RETURN FLOWS FROM VARIOUS USES OF WATER.

Q WELL, I ASKED YOU THE QUESTION, WHAT PORTION WAS -- WOULD BE CONSUMED. AND AT LEAST YOUR TESTIMONY NOW IS PERHAPS 50 PERCENT, AND 50 PERCENT WOULD INFILTRATE.

YOU ARE DEDUCTING IT -- ON EXHIBIT D39, YOU ARE DEDUCTING DIVERSIONS IN YOUR CALCULATIONS IN ORDER TO COME UP WITH GROUNDWATER RECHARGE. SO IF YOU TOOK 50 PERCENT OF THE NUMBER THAT SHOWS UP IN THE FIFTH COLUMN, UNDER DIVERSIONS, AND DID NOT DEDUCT THAT FROM THE RUNOFF AND FROM THE GROUNDWATER OR FROM THE YIELD, THEN THAT WOULD NECESSARILY INCREASE THE LAST COLUMN ON EXHIBIT D39 BY 50 PERCENT OF THOSE DIVERSIONS; CORRECT?

A IF YOU DID THAT CALCULATION, IT WOULD -- IT WOULD INCREASE IT, BUT THAT IS NOT AN APPROPRIATE CALCULATION TO DO.

Q IS IT AN APPROPRIATE CALCULATION TO DEDUCT IT FROM YOUR YIELDS IN THE FOURTH COLUMN OF THIS EXHIBIT?

A IT IS, BECAUSE THAT IS WATER THAT NO LONGER IS AVAILABLE FOR NATURAL RECHARGE. IT BECOMES AVAILABLE

NOW FOR CREATING RETURN FLOWS TO THE GROUNDWATER SYSTEM, BUT THIS TABLE REPRESENTS NATURAL FLOWS, AND I DON'T CONSIDER THE RETURNS FROM AG. AND M & I'S TO BE NATURAL RECHARGE.

Q SOME OF THIS WATER, YOU TOLD US, GOES DOWN INTO A LAKE; CORRECT?

A AT LEAST THAT IS MY UNDERSTANDING, YES.

Q IF IT GOES INTO A LAKE, ARE THE BOTTOMS OF THOSE LAKES LINED WITH CLAY SO YOU HAVE ABSOLUTELY NO INFILTRATION FROM THAT SOURCE OF WATER?

A I DON'T WHAT THAT LAKE IS LIKE, BUT IT IS STILL NOT NATURAL RECHARGE. IT'S RECHARGE FROM AN ARTIFICIALLY CREATED LAKE.

Q BUT IT IS DIRECT RECHARGE OUT OF THE WATERSHED, OUT OF THE FLOWS OF LITTLE ROCK CREEK; CORRECT?

A IT IS.

Q OKAY.

A I MEAN, IT IS WATER THAT ORIGINATED IN LITTLE ROCK CREEK, BUT I MEAN, AS I -- WELL, I'VE SAID A NUMBER OF TIMES IN THIS CONVERSATION THAT I DIDN'T DEFINE IT AS PART OF THE NATURAL RECHARGE BECAUSE IT WAS NO LONGER OCCURRING BY A NATURAL PROCESS.

Q WELL, THE ONLY DIFFERENCE -- IF YOU ASSUME FOR THE PURPOSE OF THIS QUESTION THAT THE WATER IS DIVERTED OUT OF LITTLE ROCK CREEK, IT GOES DOWN ANOTHER CHANNEL -- EITHER IN A MANMADE CONDUIT OR IN AN OPEN, NATURAL CHANNEL -- IT ENDS UP IN A LAKE, AND THE WATER

INFILTRATES INTO THE AQUIFER, WHAT IS THE DIFFERENCE WHETHER IT INFILTRATES OUT OF THE FLOWS OF LITTLE ROCK CREEK OR INFILTRATES OUT OF THE BOTTOM OF A LAKE?

A QUANTITATIVELY, THERE IS NO DIFFERENCE.

Q OKAY. LET'S TALK, THEN, A LITTLE BIT --

WHAT I WOULD LIKE TO MARK AS NEXT IN ORDER, YOUR HONOR -- BECAUSE WE ARE GOING TO GET INTO SOME METRICS. SO WHAT I WOULD LIKE TO MARK AS NEXT ORDER, AND ASK THE COURT TO TAKE JUDICIAL NOTICE OF IT, IS THE CONVERSION FACTORS FROM METRIC TO ENGLISH.

THE COURT: WHAT?

MR. WILLIAM KUHS: METRIC MEASUREMENTS TO ENGLISH.

THE COURT: ENGLISH LANGUAGE?

MR. WILLIAM KUHS: ENGLISH NUMBERS.

THE COURT: OKAY.

MR. WILLIAM KUHS: THIS IS D40.

(TEJON EXHIBIT D40 MARKED FOR IDENTIFICATION.)

BY MR. WILLIAM KUHS:

MR. WILLIAM KUHS: AND THE SOURCE OF THIS IS SIMPLY A COPY OUT OF MR. DURBIN'S 1978 WORK. AND I WOULD ASK THE COURT TO TAKE JUDICIAL NOTICE OF D40.

THE COURT: HAS ANYBODY REVIEWED THIS FOR ACCURACY?

MR. WEEKS: I HAVE NOT -- I DON'T EVEN HAVE A COPY OF IT. I DON'T THINK WE NEED TO TAKE JUDICIAL NOTICE OF

A DOCUMENT TO CONVERT METRIC TO ENGLISH.

THE COURT: I THINK IT IS AN APPROPRIATE ITEM FOR JUDICIAL NOTICE, A FACT.

MS. RILEY: YOUR HONOR, I WOULD BE INTERESTED IN SEEING THE ENTIRE REPORT WITH THIS DOCUMENT IN IT.

THE COURT: WELL, ONLY AS TO THE CONVERSION OF METRIC TO THE ENGLISH UNITS, IT SEEMS TO ME IT IS AN APPROPRIATE SUBJECT FOR JUDICIAL NOTICE, JUST AS CENTIGRADE-TO-FAHRENHEIT AND FAHRENHEIT-TO-CENTIGRADE TABLES AND THE LIKE, BUT I JUST WANT SOMEBODY TO REVIEW IT FOR ACCURACY.

MR. ZIMMER: THESE ARE MATTERS THAT ARE NOT SUBJECT TO REASONABLE DISPUTE CAN BE JUDICIALLY NOTICED. I WILL GIVE THEM AN OPPORTUNITY TO LOOK AT IT.

THE COURT: IF IT IS ACCURATE.

MR. BUNN: YOUR HONOR, IT APPEARS TO BE ACCURATE.

MR. MCLACHLAN: WE HAVE THE AUTHOR IN THE ROOM. HE COULD PROBABLY VERIFY IT.

THE COURT: IF HE VERIFIES IT, THERE'S NO REASON FOR JUDICIAL NOTICE, IS THERE.

MR. WILLIAM KUHS: WOULD YOU LIKE HIM TO VERIFY IT, YOUR HONOR?

THE COURT: IF YOU WANT TO ASK HIM THAT QUESTION.

BY MR. WILLIAM KUHS:

Q MR. DURBIN, DOES EXHIBIT D40 APPEAR TO BE AN ACCURATE -- EXCUSE ME. LET ME DO IT THIS WAY.

IS IT COMMON IN MOST, IF NOT ALL, USGS REPORTS THAT IN THE FRONT OF THE REPORT THERE'S

CONVERSION FACTORS LISTED TO CONVERT FROM METRIC TO ENGLISH, AS WELL AS, PERHAPS, A LOT OF OTHER CONVERSION FACTORS?

A THAT'S CORRECT.

Q AND IN YOUR 1978 REPORT, YOU INCLUDED SUCH A TABLE; CORRECT?

A I DID.

Q AND DOES D40 APPEAR TO BE -- AND I'M ONLY CONCERNED WITH FEET TO METERS AND SQUARE MILES TO SQUARE METERS AND POSSIBLY ACRES TO -- WELL, I DON'T HAVE TO HAVE ACRES TO ACRES. SO JUST THOSE FACTORS.

A THE ONLY ONE THAT I HAVE IN MY HEAD IS THE RELATIONSHIP BETWEEN FEET AND METERS.

THE COURT: WELL, MR. DURBIN, DID YOU PREPARE THIS?

THE WITNESS: I DID, 30 YEARS AGO.

THE COURT: WAS IT ACCURATE AT THE TIME YOU PREPARED IT?

THE WITNESS: I PRESUME IT WAS. ANY OF THESE, I COULD SIT DOWN AND DO A CALCULATION RIGHT NOW, AND IF YOU HAVE A PARTICULAR QUESTION AND WANTED TO CHECK IT. BECAUSE AS I SAY, I ONLY CARRY -- THERE'S ONLY ONE NUMBER ON THERE THAT IS SORT OF A COMMON NUMBER THAT I HAVE IN MY HEAD.

THE COURT: GO AHEAD, MR. KUHS.

MR. WILLIAM KUHS: I WOULD LIKE TO MARK AS DEFENDANT'S NEXT IN ORDER A COPY OF AN ARTICLE THAT IS REFERRED TO AND CITED TO BY MR. DURBIN IN HIS SUMMARY

EXPERT REPORT. IT IS FAIRLY LENGTHY. I ONLY MADE TWO COPIES OF IT, ONE FOR COUNSEL AND ONE TO MARK.

THE COURT: ALL RIGHT. NEXT IN ORDER FOR IDENTIFICATION.

(TEJON EXHIBIT D41 MARKED FOR IDENTIFICATION.)

BY MR. WILLIAM KUHS:

Q I'LL PROVIDE THE WITNESS WITH MY COPY OF THIS REPORT -- WELL, I PREFER --

CAN THE COURT LOAN THE WITNESS THE COPY FOR PURPOSE OF A FEW QUESTIONS?

I'LL JUST ASK YOU, MR. DURBIN, WHETHER YOU ARE FAMILIAR WITH THIS REPORT. AND I'LL REPRESENT TO YOU THAT IT IS -- AS FAR AS I KNOW, IT IS A REPORT REFERRED TO IN YOUR SUMMARY EXPERT REPORT AND INCLUDED AS REFERENCE MATERIALS IN THE EXTERNAL HARD DRIVE.

A YES, I AM FAMILIAR WITH THIS REPORT. AND ACTUALLY, PARTS OF MY WORK, I HAD CONVERSATIONS WITH THE FIRST TWO AUTHORS.

Q OKAY. THAT WOULD BE -- THE FIRST AUTHOR BEING RICHARD FRENCH AND THE SECOND AUTHOR, JULIAN MILLER?

A CORRECT.

Q DID YOU SPEAK WITH EITHER OF THOSE PERSONS IN CONNECTION WITH YOUR INVESTIGATION LEADING TO YOUR TESTIMONY HERE TODAY?

A YES, I DID.

Q ON HOW MANY OCCASIONS DID YOU SPEAK WITH THEM?

A I HAD ONE CONVERSATION WITH BOTH PERSONS.

Q AND DID YOU UNDERSTAND THAT THE PRIMARY PURPOSE OF THIS REPORT WAS TO ESTIMATE THE PLAYA FLOODING ON ROGERS PLAYA?

A I DID.

Q NOW, THESE AUTHORS REFER TO ROGERS PLAYA AND RICH PLAYA, R-I-C-H PLAYA. WHERE IS RICH PLAYA WITH RESPECT TO ROGERS PLAYA, IF YOU KNOW?

A I THINK -- WELL, I'M NOT SURE. I SHOULDN'T -- IT'S EITHER THE ONE IN BETWEEN ROGERS AND ROSAMOND, OR IT IS THE ONE TO THE NORTH OF ROGERS. I'M JUST NOT SURE OF THE NAMES OF THE VARIOUS PLAYAS.

Q IS IT YOUR UNDERSTANDING THAT THOSE TWO PLAYAS ARE ESSENTIALLY ONE?

A RICH AND ROGERS?

Q YES.

A I HAVE NO UNDERSTANDING IN THAT REGARD. I DON'T KNOW.

Q DOES -- DO YOU KNOW WHETHER -- FROM LOOKING AT THIS REPORT, WHETHER WHEN RICH PLAYA GETS INUNDATED THAT THERE'S A SMALL SAND DUNE BECAUSE IT AND ROGERS PLAYA, AND THE FLOWS FROM RICH PLAYA THEN INUNDATE THE ROGERS PLAYA?

A I'M NOT AWARE OF THAT.

Q LOOKING AT PAGE -- AND I'M REFERRING TO THE

PAGES OF THE ARTICLE, WHICH APPEAR EITHER IN THE UPPER RIGHT-HAND CORNER OR THE UPPER LEFT-HAND CORNER.

ON PAGE 148, THERE'S A REPRESENTATION FROM THESE INVESTIGATORS AS TO THE WATERSHED TRIBUTARY TO THE ROGERS PLAYA. DO YOU SEE THAT?

A PAGE 148. ARE WE LOOKING AT THE MAP OR THE TEXT?

Q THE MAP.

A YES, I SEE THE MAP.

Q DO YOU AGREE THAT -- THAT THAT MAP ACCURATELY DEPICTS THE WATERSHED TRIBUTARY TO THE ROGERS PLAYA?

A ACCURATELY OR NOT, I HAVE NO IDEA. IT IS CERTAINLY AN APPROXIMATION OF WHATEVER THE WATERSHED IS. I HAVE NO REASON TO DISPUTE THAT.

Q OKAY. NOW, IN THIS ARTICLE -- AND I REFER YOU TO PAGE 148 -- DID THE AUTHORS INDICATE THE 100-YEAR PRECIPITATION EVENT -- OR WHAT THE MAGNITUDE OF THAT WOULD BE AT THE ROGERS PLAYA?

AND TAKE A LOOK AT THE LAST LINE -- ON PAGE 148, THE LAST LINE IN THE RIGHT-HAND COLUMN.

A YES. THEY HAVE A STATEMENT THERE ON THE -- WHAT THEY BELIEVE WAS THE 100-YEAR 24-HOUR PRECIPITATION DEPTH.

Q WHAT IS THAT DEPTH?

A 90.2 MILLIMETERS.

Q AND LET'S ASSUME FOR THE MOMENT -- BECAUSE WE CAN ALL DO THE MATH LATER -- THAT THAT'S EQUIVALENT

TO 3.55 INCHES OF RAINFALL. OKAY?

A YES. IT WOULD BE ROUGHLY DIVIDED BY 30. SO YES, THAT WOULD BE -- I DON'T KNOW IF YOUR CALCULATION IS EXACTLY RIGHT, BUT THE MAGNITUDE IS RIGHT.

Q OKAY. LET'S JUST SAY ABOUT 3 1/2 INCHES OF RAINFALL IN 24 HOURS.

NOW WHAT'S A STORM WITH A 100-YEAR RETURN PERIOD? I DON'T MEAN IN QUANTITY, BUT FROM A SCIENTIFIC STANDPOINT, WHAT DOES THAT REPRESENT STATISTICALLY?

A IT IS FOR THE SPECIFIED DURATION -- IN THIS CASE, WE ARE TALKING ABOUT A 24-HOUR STORM -- IT IS A STORM THAT HAS THE PROBABILITY OF -- OF 1 PERCENT FOR IT TO OCCUR IN ANY PARTICULAR YEAR.

Q AND IF ALL OF THE STORMS WERE DISTRIBUTED STATISTICALLY, THEN YOU WOULD EXPECT ONE EVENT AT ROBERS PLAYA IN EVERY 100 YEARS TO HAVE A 24-HOUR PRECIPITATION OF ABOUT 3 1/2 INCHES. WOULD THAT BE AN ACCURATE STATEMENT FROM A STATISTICAL STANDPOINT?

A IN THE LONG-TERM AVERAGE, YOU WOULD EXPECT ONE STORM WITHIN -- TO OCCUR IN INTERVALS OF 100 YEARS.

BUT THERE IS A -- THE PROBABILITY THAT MULTIPLE STORMS CAN OCCUR IN THE SAME 100 YEARS IS -- IT DOESN'T MEAN THAT 200 YEARS CAN'T OCCUR, YOU KNOW, IN A 10-YEAR PERIOD OR SOMETHING LIKE THAT.

Q RIGHT.

A BUT WHEN YOU LOOK AT THE LONG-TERM AVERAGE AND THE SPACING BETWEEN THOSE STORMS, ON THE AVERAGE, THEY'RE 100 YEARS APART.

Q OKAY. NOW, IF YOU LOOK AT PAGE 154, CAN YOU TELL US THE DEPTH OF INUNDATION ON THE ROGERS PLAYA ATTRIBUTABLE TO A STORM WHICH HAS A RECURRENCE INTERVAL OF EVERY 100 YEARS?

A IT WOULD TAKE SOME STUDYING ON MY PART OF THIS TABLE TO UNDERSTAND WHERE THAT MIGHT BE. IT IS NOT OBVIOUS TO ME WHERE THAT INFORMATION IS ON HERE.

Q WELL, TAKE A LOOK DOWN IN -- YOU SEE THE RIGHT-HAND COLUMN TOWARDS THE BOTTOM, THE HEADING "HYDROPHOBIC SOIL CONDITIONS"? TOWARDS THE BOTTOM OF THE RIGHT-HAND COLUMN, PARAGRAPH 9.

A SO THAT THE FAR -- SO WE ARE ON PAGE 154?

Q YES.

A AND IT IS THE FAR -- THE RIGHT-HAND COLUMN?

Q TOWARDS THE BOTTOM OF THE PAGE. DO YOU SEE A HEADING, PARAGRAPH 9, ENTITLED "HYDROPHOBIC SOIL CONDITIONS"?

A COULD YOU -- WOULD YOU MIND POINTING IT OUT TO ME. I'M NOT SEEING WHERE YOU ARE ASKING.

Q PARAGRAPH -- 154. YOU'RE ON THE WRONG PAGE.

A WRONG PAGE. THAT'S WHY. OKAY.

Q RIGHT DOWN HERE, THIS HEADING.

DO YOU SEE RIGHT ABOVE THAT, WHERE FRENCH AND OTHERS CONCLUDED -- IT SAYS -- AND I'M READING THE FIRST FULL SENTENCE ABOVE THAT HEADING. IT SAYS:

"THEREFORE, THE 100-YEAR ESTIMATED DEPTH OF WATER IN ROGERS LAKE IS 0.65 METERS."

DO YOU SEE THAT?

A I DO.

Q AND SO FROM THIS REPORT, THEY HAVE CONCLUDED THAT ROGERS LAKE, IN A 100-YEAR STORM, WOULD BE INUNDATED TO THE DEPTH OF 0.65 METERS; CORRECT?

A THAT'S WHAT THEY'RE SAYING, YES.

Q THAT WOULD BE EQUIVALENT TO ABOUT 2.13 FEET?

THE COURT: WAS THAT 0.65 OR --

MR. WILLIAM KUHS: 0.65 METERS; 0.65 OR .65. I HAVE THE HABIT OF PUTTING ZERO IN FRONT OF THE POINT.

THE COURT: AS LONG AS YOU GIVE ME THE "POINT."

BY MR. WILLIAM KUHS:

Q THAT IS EQUIVALENT TO ABOUT 2.13 FEET, MR. DURBIN?

A AGAIN, I CAN'T DO THE CALCULATION IN MY HEAD, BUT IT'S ROUGHLY 2 FEET, YES.

Q SO IF YOU TOOK THE AREA -- WELL, LET'S GO TO THE AREA.

NOW, IF YOU LOOK IN THE AT PAGE 147, FRENCH AND OTHERS GIVE YOU THE AREA OF THE ROGERS LAKE PLAYA. IF YOU LOOK IN THE RIGHT-HAND COLUMN ON PAGE 147, DOWN TOWARDS THE BOTTOM, THERE'S A PARAGRAPH 2. DO YOU SEE THAT -- ENTITLED "OVERVIEW OF APPROACH"?

A I SEE "OVERVIEW OF APPROACH."

Q AND RIGHT ABOVE THAT, THE PARAGRAPH ABOVE THAT, IT SAYS, IN PART:

"ROGERS LAKE HAS A SURFACE AREA OF 114 KILOMETERS SQUARE."

AND THEN BELOW THAT IT SAYS:

"RICH LAKE HAS A SURFACE AREA OF 7.8 KILOMETERS SQUARE."

DO YOU SEE THAT?

A I DO.

Q IF YOU ADDED THOSE TWO NUMBERS TOGETHER, WHICH WOULD BE 121.8 KILOMETERS SQUARE, THAT WOULD GIVE YOU THE SURFACE AREA OF THE ROGERS LAKE PLAYA INCLUDING RICH; CORRECT?

A ACCORDING TO THESE, AUTHORS, YES.

Q OKAY. SO KNOWING THE SURFACE AREA AND KNOWING -- DO YOU HAVE A -- SO IF WE TOOK -- WELL, LET'S GO BACK.

BY USING THE CONVERSION TABLE, WE CAN CALCULATE THE AREA IN ACRES BASED UPON THE AREA IN KILOMETERS SQUARE; CORRECT? YOU CAN GO FROM KILOMETERS SQUARE TO SQUARE MILES, AND THEN YOU CAN MULTIPLY A SQUARE MILE BY 640 ACRES TO GET ACRES?

A THAT IS CORRECT, YES.

Q DOING THAT MATH -- AND WE DON'T NEED TO DO IT HERE -- I'LL REPRESENT TO YOU THAT IT IS 30,112 ACRES. SO KNOWING THE ACRES, SURFACE AREA ACRES, AND KNOWING THE DEPTH OF A -- ON THAT AREA, FROM A 100-YEAR EVENT, WE CAN CALCULATE THE VOLUME OF WATER ON ROGERS PLAYA; CORRECT?

A YES. THERE IS ONE CAVEAT IN WHETHER OR NOT THE 2 FEET OF -- WHAT WAS MEANT BY THE 2 FEET OF FLOODING. BUT PRESUMING IT MEANT AN AVERAGE OVER THE

ENTIRE PLAYA, IF YOU ASSUME THAT'S WHAT THE AUTHORS MEANT, YOUR CALCULATION SEEMS CORRECT. THE NUMERICAL VALUE SEEMS ROUGHLY RIGHT.

Q WELL, DIDN'T THE AUTHORS, TOWARDS THE END OF THIS REPORT, INDICATE THAT THOSE MEASUREMENTS WERE CONSERVATIVE IN THE SENSE THAT THEY ASSUMED ROGERS LAKE PLAYA WAS LEVEL, AND THEY DIDN'T TAKE INTO ACCOUNT ANY UNDULATIONS AND THE LIKE SO THAT THEIR CALCULATIONS OF TOTAL DEPTH WERE CONSERVATIVE IN THE SENSE OF THAT WOULD BE THE MAXIMUM HEIGHT OF WATER CONTEMPLATED BY A 100-YEAR STORM THAT CAUSED INUNDATION OF ROGERS PLAYA? DO YOU RECALL THAT?

A I DON'T RECALL THAT.

Q OKAY. WASN'T THE PURPOSE OF THIS INVESTIGATION TO COMPLY WITH THE CLEAN WATER ACT AND THE REQUIREMENT THAT THE AIR FORCE LOCATE ITS FACILITY OUTSIDE OF THE 100-YEAR FLOOD PLAIN?

A I DON'T RECALL WHY THE REPORT WAS DONE.

Q OKAY. NOW, IF WE DID THE MATH, IF WE MULTIPLIED THE 2.1 FEET BY THE SURFACE AREA OF 30,112 ACRES, WE WOULD GET A TOTAL INUNDATION OF 64,139 ACRE-FEET. AND I'LL REPRESENT TO YOU THAT IT IS -- JUST DO THE MATH.

A YEAH, IT SEEMS ROUGHLY RIGHT.

Q NOW, DID YOU -- DID YOU LIKEWISE REVIEW OR CONSIDER -- LET ME STRIKE THAT.

ARE YOU AWARE THAT ROGERS, MILLERS, AND OTHERS DID A SIMILAR INVESTIGATION FOR ROSAMOND PLAYA?

A WHAT ARE THE NAMES, AGAIN?

Q THE SAME AUTHORS.

A YES. I -- I THINK THAT IS ONE OF THE REPORTS THAT I HAVE IN MY COLLECTION, YES. YOU WOULD HAVE TO SHOW IT TO ME TO MAKE SURE IT'S ONE THAT I HAVE SEEN.

MR. WILLIAM KUHS: I WOULD LIKE TO MARK NEXT IN ORDER, YOUR HONOR, EXHIBIT 42.

THE COURT: ALL RIGHT.

(TEJON EXHIBIT D42 MARKED
FOR IDENTIFICATION.)

THE COURT: DOES MR. DURBIN NEED THIS COPY?

MR. WILLIAM KUHS: FOR THE RECORD, I HAVE PROVIDED COUNSEL WITH A COPY. BECAUSE IT'S RATHER VOLUMINOUS, I ONLY MADE ONE FOR THE COURT AND ONE FOR COUNSEL.

THE COURT: OKAY. MR. DURBIN.

BY MR. WILLIAM KUHS:

Q MY QUESTION, MR. DURBIN: HAVE YOU SEEN OR REVIEWED WHAT HAS BEEN MARKED AS DEFENDANT'S -- OR EXCUSE ME, TEJON'S D42?

THE COURT: MR. KUHS, MAY I SUGGEST THAT PERHAPS YOU COULD ACCOMPLISH YOUR SAME GOAL BY LEADING QUESTIONS OF THIS WITNESS.

MR. WILLIAM KUHS: LEADING QUESTIONS?

THE COURT: LEADING QUESTIONS.

MR. WILLIAM KUHS: LEADING, L-E-A-D-I-N-G?

THE COURT: YES.

MR. WILLIAM KUHS: I'M TRYING TO AVOID CONCLUSIONARY QUESTIONS. AND I APPRECIATE THE TIME IT TAKES TO GET THROUGH IT.

THE COURT: WELL, I THINK, WITH AN EXPERT, ALL PARTIES CAN LEAD THE WITNESS AND FOCUS YOUR CONCLUSIONS. WE'LL CERTAINLY GET THROUGH THIS A LOT FASTER.

MR. WILLIAM KUHS: MY QUESTION THAT IS PENDING IS, HAS THE WITNESS SEEN THIS REPORT.

THE WITNESS: IT LOOKS FAMILIAR. JUST FROM GENERALLY PERUSING THE CONTENTS, IT LOOKS LIKE THEY USED BASICALLY THE SAME METHODOLOGY IN THIS THAT THEY USED IN THE ROGERS PLAYA REPORT.

MR. WILLIAM KUHS: WE CAN FLY THROUGH THIS ONE A LITTLE FASTER, YOUR HONOR, BECAUSE THIS IS IN ENGLISH AND IT'S NOT --

Q THE AUTHORS -- FOR THE 100-YEAR EVENT, THESE AUTHORS ARE USING THE SAME PRECIPITATION EVENT, THAT IS, APPROXIMATELY 3 1/2 INCHES IN 24 HOURS; CORRECT?

A AGAIN, WITHOUT GOING THROUGH THE REPORT, I WOULD -- IF THAT IS WHAT YOU SAY THEY DID, THAT IS -- IT WOULD SEEM REASONABLE.

Q WELL, WHAT I'M GOING TO DO IN THE INTERESTS OF TIME, I'M GOING TO PUT SOME NUMBERS IN, AND YOU WILL HAVE TIME TO REVIEW THE DOCUMENT LATER. THEN I'LL ASK YOU SOME CONCLUSIONARY QUESTIONS AND SEE IF YOU DISAGREE WITH WHAT I'M ASKING YOU TO ASSUME AT THIS POINT. I THINK THAT MAY EXPEDITE THAT.

I WOULD ASK YOU TO REVIEW, AT YOUR LEISURE, D42 AND TELL ME WHETHER YOU AGREE OR DISAGREE WITH THESE FOLLOWING DATA:

THAT THE DEPTH OF FLOW, DEPTH OF INUNDATION OF ROSAMOND PLAYA, THE 100-YEAR EVENT, IS 4.4 FEET;

THAT THE SURFACE AREA OF ROSAMOND PLAYA IS 12,928 ACRES.

THE COURT: 12,900 --

MR. WILLIAM KUHS: 12,928.

Q -- WHICH IS VERY CLOSE TO WHAT YOU TESTIFIED TO EARLIER OF 13,000 ACRES.

THEREFORE, THE INUNDATION VOLUME ON ROSAMOND PLAYA, WITH A DEPTH OF WATER OF 4.4 FEET AND A SURFACE AREA OF ABOUT 30,000 -- EXCUSE ME, 13,000 ACRES, THE INUNDATION VOLUME IS 56,883 ACRE-FEET;

AND THEN THAT THE TOTAL -- IF YOU ADD THE ROSAMOND PLAYA AND ROGERS PLAYA TOGETHER, THE TOTAL INUNDATION VOLUME IS ABOUT 121,000 ACRE-FEET. OKAY.

NOW WE'VE PUT UP -- LET'S MARK AS NEXT IN ORDER WHAT'S ON THE SCREEN.

(DISCUSSION HELD OFF THE RECORD.)

THE COURT: MR. DURBIN, MAKE SURE I GET THOSE FRENCH REPORTS BACK BEFORE YOU LEAVE.

MR. WILLIAM KUHS: THERE'S ONE FOR YOUR HONOR AND ONE FOR THE WITNESS.

THE COURT: ALL RIGHT. THIS IS 43.

(TEJON EXHIBIT D43 MARKED
FOR IDENTIFICATION.)

BY MR. WILLIAM KUHS:

Q NOW, IF WE GO BACK TO -- IF WE GO BACK TO THE FRENCH REPORT, THE FIRST FRENCH REPORT, WHICH IS EXHIBIT D41 -- DO YOU HAVE THAT HANDY?

A YES.

Q NOW, IF YOU TURN TO THE PAGE 156 OF THAT REPORT, OVER ON THE RIGHT-HAND COLUMN --

TELL ME WHEN YOU ARE ON PAGE 156.

THE RIGHT-HAND COLUMN TOWARDS THE BOTTOM, PARAGRAPH 10. DO YOU SEE THAT, ENTITLED "WATER SOURCE"?

A YES, I DO.

Q AND THEN, IF YOU GO TO THE NEXT PAGE, PAGE 157, IS IT TRUE THAT THESE AUTHORS THEN DETERMINED WHAT -- WHERE THE SOURCES OF WATER CAME FROM THAT CAUSED THE INUNDATION OF ROGERS PLAYA?

YOU SEE TABLE 6 AT THE BOTTOM OF THE PAGE?

A I DO.

Q NOW, IN THE FIRST COLUMN OF TABLE 6, THEY HAVE AN ELEVATION INTERVAL, AND THEY GO FROM THE LAKE BED, AT THE LOWEST ELEVATION, UP TO THE HIGH OF AN ELEVATION OF 2560 METERS; CORRECT?

A I CAN SEE THAT RANGE OF ELEVATIONS.

Q AND IF YOU LOOK AT THE NEXT-TO-THE-LOWEST ELEVATION, WHICH IS THE RANGE FROM 610 METERS TO

914 METERS, 914 METERS IS APPROXIMATELY 3,000 FEET; CORRECT?

A ROUGHLY, YES.

Q OKAY. AND I'LL REPRESENT TO YOU THAT IT IS EXACTLY 3,000 FEET.

A OKAY. THANK YOU.

Q SO THESE AUTHORS IN THE RIGHT-HAND COLUMN, THEY INDICATE THE PERCENTAGE OF THE TOTAL 100-YEAR ROGERS LAKE VOLUME IN TERMS OF A PERCENTAGE ATTRIBUTABLE TO VARIOUS ELEVATION RANGES WITHIN THE WATERSHED; DO YOU SEE THAT?

A I DO.

Q AND THEY CONCLUDE THAT THE VOLUME OF WATER FROM THE 100-YEAR STORM ON ROGERS LAKE ATTRIBUTABLE TO RUNOFF FROM ELEVATIONS ABOVE 3,000 FEET IS ONLY 15.5 PERCENT OF THE TOTAL VOLUME OF FLOODING ON THE PLAYA. DO YOU SEE THAT?

A I DON'T. WE ARE LOOKING AT TABLE 6?

Q IF YOU LOOK AT TABLE 6 AND GO TO THE RIGHT-HAND COLUMN, AGGREGATE THE PERCENTAGES ABOVE THE 914-METER INTERVAL, AND THEY WILL TOTAL 15 1/2 PERCENT.

A SO WE'RE LOOKING AT THE THIRD COLUMN --

Q NO, YOU'RE LOOKING AT THE LAST COLUMN.

A THE LAST COLUMN. AND IT'S THE SUM OF THE --

Q THE FIRST FOUR --

A -- EVERYTHING UP ABOVE THE 16, 19, 14 LINE.

Q CORRECT.

A YES.

Q 15 1/2 PERCENT?
A LOOKS ROUGHLY LIKE IT COULD BE THAT.
Q SO THESE AUTHORS CONCLUDE THAT ONLY 15 1/2 PERCENT OF THE WATER THAT INUNDATES THE ROGERS PLAYA COMES FROM THE WATERSHED ABOVE 3,000 FEET?
A IF THAT'S WHAT THEY CONCLUDED, YES.
Q NOW, 3,000 FEET IS ABOUT THE INTERFACE OF THE MOUNTAIN BLOCK AND THE VALLEY FLOOR AREA; CORRECT?
A ROUGHLY. IT VARIES FROM LOCATION TO LOCATION AROUND THE VALLEY.
Q YEAH. BUT BASED ON EARLIER TESTIMONY IN HERE, WE HAVE TALKED ABOUT THE LOW SPOT IN THE BASIN IS 2200 FEET AT THE PLAYAS, WE ARE TALKING ABOUT, AND THE HIGH SPOT MAYBE 9,000; BUT THE VALLEY FLOOR AREA ELEVATIONS ARE IN THE 2500-TO-3500-FOOT RANGE; CORRECT?
A WELL, I CERTAINLY KNOW THE 2200. WHAT YOU SAID ABOUT THE FRINGES OF THE VALLEY ARE ROUGHLY CORRECT. I WOULD HAVE TO EXAMINE A TOPOGRAPHIC MAP TO BE --
Q THEN, IN THE INTEREST OF TIME, I WOULD ASK YOU TO LOOK AT EXHIBIT D42, NOT ON THE WITNESS STAND, BUT LIKEWISE DOING THE SAME -- FOLLOWING THE SAME METHODOLOGY WHICH THIS AUTHOR GIVES IN D42, BUT THEY CONCLUDED THAT 24.7 PERCENT OF THE VOLUME OF WATER THAT INUNDATES THE ROSAMOND PLAYA COMES FROM THE WATERSHED FROM ABOVE 3,000 FEET. OKAY?
A YES.
Q IF YOU ASSUME FOR THE PURPOSES OF THE NEXT

SERIES OF QUESTIONS THAT THE WATER ATTRIBUTABLE -- THE WATER THAT FLOODS THE PLAYAS THAT IT IS ATTRIBUTABLE TO THE WATERSHED ABOVE 3,000 FEET ON A 100-YEAR EVENT IS APPROXIMATELY 24,000 SQUARE FEET -- NO, IT'S 24,000 ACRE-FEET. EXCUSE ME.

NOW, LET'S GO BACK TO YOUR TABLE C28.

THE COURT: ARE YOU TALKING ABOUT EXHIBIT D39?

MR. WILLIAM KUHS: YES, YOUR HONOR -- AS SOON AS I CAN LOCATE IT.

MR. JOYCE: HERE YOU GO.

BY MR. WILLIAM KUHS:

Q NOW, IF WE LOOK AT EXHIBIT D39 AND LOOK AT THE NEXT-TO-THE-LAST COLUMN ON THE RIGHT, WHICH WOULD BE THE SIXTH COLUMN --

ARE YOU THERE, MR. DURBIN?

A I AM.

Q IN HOW MANY YEARS DO YOU ESTIMATE PLAYA FLOODING IN AMOUNTS THAT EXCEED 24,000 ACRE-FEET PER YEAR?

A FIVE YEARS.

Q IF YOU GO TO PAGE 2, IS THAT NUMBER --

A OH, EXCUSE ME. I JUST COUNTED SOME -- SIX.

Q SO IN 6 OF THE YEARS OF THE 57 YEARS THAT YOU REPORTED, IS IT TRUE THAT YOU ATTRIBUTED MORE THAN 24,000 ACRE-FEET OF RUNOFF TO PLAYA FLOODING?

A YES.

Q NOW, IF THE PLAYA FLOODING WAS LESS THAN THE PLAYA FLOODING THAT YOU ARE REPORTING IN EXHIBIT D39,

THEN THAT WOULD DIRECTLY INCREASE THE GROUNDWATER RECHARGE THAT YOU TABULATE IN THE LAST COLUMN ON D39; CORRECT?

A YES, IF YOU -- NOW, D39 IS THIS --

Q NO, TABLE 28 IS D39.

A THE QUESTION, AGAIN? I'M SORRY.

Q IF YOU OVERESTIMATED PLAYA FLOODING, AS REPORTED IN THE NEXT-TO-THE-LAST COLUMN ON D39, THEN YOU UNDERESTIMATED GROUNDWATER RECHARGE, WHICH IS THE LAST COLUMN ON D39; CORRECT?

A THAT IS JUST A MATHEMATICAL CALCULATION. AND IT IS CORRECT, IF YOU WERE -- IF I WERE TO HAVE OVERESTIMATED THE FLOODING, YES.

Q YEAH. NOW, HOW MANY EVENTS DURING THE 57 YEARS THAT YOU INVESTIGATED DO YOU KNOW WHERE THE 24-HOUR PRECIPITATION EXCEEDED THE 100-YEAR RECURRENCE INTERVAL?

A I HAVE NO IDEA.

Q YOU NEVER DID THAT ANALYSIS; CORRECT?

A NO. FROM THE WORK -- THE WAY I APPROACHED THIS, THAT WASN'T A CONSIDERATION.

MR. WILLIAM KUHS: OKAY. NOW, A COUPLE OF LAST QUESTIONS ON STREAM GAUGES.

I WOULD LIKE TO MARK AS TEJON'S NEXT IN ORDER, YOUR HONOR -- THIS IS FIGURE C13 FROM APPENDIX C OF THE SUMMARY EXPERT REPORT, ENTITLED "LOCATION OF STREAM GAUGING STATIONS."

THE COURT: OKAY. THAT IS NEXT IN ORDER, D44.

(TEJON EXHIBIT D44 MARKED
FOR IDENTIFICATION.)

MR. WILLIAM KUHS: I WOULD LIKE TO MARK NEXT IN ORDER, YOUR HONOR, AS D45 A COPY OF TABLE C7 FROM APPENDIX C.

THE COURT: VERY WELL.

(TEJON EXHIBIT D45 MARKED
FOR IDENTIFICATION.)

MR. WILLIAM KUHS: I'LL HAND ONE COPY TO THE WITNESS.

THE COURT: THAT IS ACTUALLY 46 -- NO, 45.

BY MR. WILLIAM KUHS:

Q MR. DURBIN, WHAT HAS BEEN MARKED AS EXHIBITS D44 AND D45 IS, GRAPHICALLY, THE LOCATION OF STREAM GAUGING STATIONS AND THEN, A TABULAR FORM, THE STATION IDENTIFICATION AND ADDITIONAL INFORMATION OF THE STREAMFLOW GAUGING STATIONS WITHIN ANTELOPE VALLEY; CORRECT?

A YES.

Q NOW, I JUST WANT TO ASK YOU IF YOU COULD PULL UP THE SUMMARY EXPERT REPORT -- OR APPENDIX C, AND I WANT TO HAVE YOU TAKE A LOOK AT TABLE 8 SMALL "I."

MR. DUNN: THAT'S TABLE 8-C SMALL "I"?

MR. WILLIAM KUHS: YEAH, THAT'S NOT A CORRECT

REFERENCE.

Q IT IS 8L. THAT'S THE MONTHLY STREAMFLOW FOR SPENCER CANYON CREEK.

A I HAVE THAT.

Q WILL YOU TAKE A LOOK -- THIS PARTICULAR TABLE HAS STREAMFLOWS FOR THE YEARS 1965 THROUGH 1973; CORRECT?

A YES.

Q AND 1969 WAS A BIG YEAR, WET YEAR?

A IT WAS.

Q AND WHAT WAS THE RECORDED TOTAL FLOW FOR THE WHOLE YEAR AT THIS GAUGE IN 1969?

A ACCORDING TO THIS TABLE, IT IS ZERO.

Q DOES THAT SUGGEST TO YOU THAT THAT STREAMFLOW RECORD IS INACCURATE?

A NOT NECESSARILY THE RECORD, BUT THE TABLE MAY BE INACCURATE.

Q OKAY. YOU WOULD EXPECT -- IN A WET YEAR LIKE 1969, YOU WOULD EXPECT FLOWS AT ALL STREAM GAUGING STATIONS, WOULDN'T YOU?

A I WOULD, YES.

MR. WILLIAM KUHS: OKAY. NO FURTHER QUESTIONS, YOUR HONOR.

THE COURT: ALL RIGHT. ANYBODY ELSE GOING TO CROSS-EXAMINE?

I UNDERSTAND, MR. JOYCE, YOU ARE GOING TO --

MR. JOYCE: YES, YOUR HONOR. IF THE COURT WILL BEAR WITH ME FOR ONE MOMENT.

THE COURT: OKAY. WHAT WE WILL DO IS TAKE A TEN-MINUTE RECESS WHILE YOU'RE SETTING UP.

MR. JOYCE: THANK YOU, YOUR HONOR.

(A RECESS WAS TAKEN.)

THE COURT: ALL RIGHT. LET'S GO.

MR. JOYCE: THANK YOU, YOUR HONOR.

CROSS-EXAMINATION

BY MR. JOYCE:

Q GOOD MORNING, MR. DURBIN.

A GOOD MORNING.

Q MY NAME IS BOB JOYCE, AND I REPRESENT DIAMOND FARMING COMPANY, ET AL.

FIRST OF ALL, YOU HAVE WHAT WAS MARKED FOR IDENTIFICATION AS 101 IN MR. SCALMANINI'S TESTIMONY SITTING BEFORE YOU. IF YOU COULD JUST TURN TO THE COVER PAGE AND THE INDEX FOR A QUICK MOMENT IN THE VERY FIRST PORTION.

ACTUALLY, THE COVER PAGE WOULD BE -- I BELIEVE THAT WOULD BE CORRECT. IS THAT THE ONE THAT LISTS THE AUTHORS?

A YES, IT DOES.

Q ALL RIGHT. AND THIS PORTION IS A SUMMARY OF ESSENTIALLY WHAT IS INVESTIGATED IN MORE DETAIL IN THE VARIOUS APPENDICES THAT ARE ATTACHED; IS THAT FAIR?

A YES.

Q YOU ARE LISTED AS ONE OF THE AUTHORS OF THIS SUMMARY, OF THE ENTIRE REPORT?
A I AM.
Q AND ALONG WITH MR. BEEBE?
A YES.
Q MR. LEEVER?
A YES.
Q AND MR. LEFFLER?
A YES.
Q AND MR. SCALMANINI AND MR. WILDERMUTH; CORRECT?
A YES.
Q ALL RIGHT. AND DO YOU KNOW WHICH PORTION OR WHAT PORTIONS OF THE INVESTIGATION WERE UNDERTAKEN BY MR. LEEVER?
A WELL, MR. LEEVER WAS AN ASSISTANT TO MR. WILDERMUTH IN HIS WORK. AT LEAST, THAT IS MY UNDERSTANDING.
Q AND HOW ABOUT MR. LEFFLER?
A HE PROVIDED -- OR DID PART OF THE WORK THAT WAS UTILIZED BY MR. SCALMANINI. AGAIN, THAT IS MY UNDERSTANDING.
Q WOULD THAT BE THE RECYCLED WATER?
A I -- YES, I BELIEVE SO. AT LEAST, THAT IS MY UNDERSTANDING.
Q THEN IF YOU WOULD ALSO GO TO THE INDEX ITSELF.
A ARE YOU REFERRING TO THE TABLE OF CONTENTS?

Q YES, EXACTLY. AND SPECIFICALLY, PAGE LOWER CASE ROMAN NUMERAL III.

ARE YOU AT PAGE ROMAN NUMERAL III?

AND YOU WILL NOTE THERE'S A SECTION LABELED "4.8, PRECISION AND SENSITIVITY." DO YOU SEE THAT?

A YES.

Q AND THEN IT SAYS "4.8.1, DATA AVAILABILITY AND CONSTRAINTS." DO YOU SEE THAT?

A I DO.

Q AND THEN THE NEXT ONE IS "4.8.2," LABELED "SENSITIVITY," WITH A SUBSECTION "4.8.2.1, AGRICULTURAL, IRRIGATION, AND PUMPING"; "4.8.2.2, AGRICULTURAL RETURN FLOWS"; "4.8.2.3, SEWER AND NONSEWER MUNICIPAL WATER USE."

DO YOU SEE THOSE?

A I DO.

Q IS THE CONCEPT OF A SENSITIVITY ANALYSIS THE SAME AS ATTEMPTING TO ASCERTAIN THE EXISTENCE OR NONEXISTENCE OF A MARGIN OF ERROR OR THE STANDARD DEVIATION, AS YOU HAVE USED THE TERMS?

MR. DUNN: OBJECTION; MISCHARACTERIZES THE TESTIMONY, OUTSIDE THE SCOPE OF DIRECT EXAMINATION.

THE COURT: IT SEEMS TO ME IT IS BEYOND THE SCOPE OF THIS WITNESS'S TESTIMONY.

BY MR. JOYCE:

Q YOU TESTIFIED ON DIRECT THAT AS TO YOUR AREAS OF INQUIRY, THAT AS TO EACH OF THE METHODOLOGIES THAT YOU EMPLOYED, THAT YOU UNDERTOOK TO CALCULATE THE

MARGIN OF ERROR OR THE STANDARD DEVIATION; CORRECT?

MR. DUNN: OBJECTION; MISCHARACTERIZES TESTIMONY. "MARGIN OF ERROR" IS NOT "STANDARD DEVIATION."

THE COURT: SUSTAINED.

BY MR. JOYCE:

Q WELL, THEN LET ME ASK THE QUESTION: FROM A LAYMAN'S STANDPOINT, USING THE TERM "MARGIN OF ERROR," DOES THAT MEAN THE SAME THING AS THE "STANDARD DEVIATION" IN THE SCIENTIFIC SENSE?

MR. DUNN: OBJECTION. THAT'S BEYOND THE SCOPE OF THE EXPERT WITNESS TESTIMONY. IT'S IRRELEVANT.

THE COURT: SUSTAINED, WHAT LAY PEOPLE MIGHT THINK.

BY MR. JOYCE:

Q IN ANY EVENT, IS A SENSITIVITY ANALYSIS THE SAME THING AS A CALCULATION FOR STANDARD OF ERROR?

A IT IS NOT.

Q THANK YOU. HAVE YOU EVER SEEN A STANDARD DEVIATION CALCULATED FOR ANY WORK DONE BY MR. SCALMANINI OR ANY WORK DONE BY MR. WILDERMUTH?

MR. DUNN: OBJECTION; BEYOND THE SCOPE OF DIRECT EXAMINATION.

THE COURT: SUSTAINED.

BY MR. JOYCE:

Q LET ME ASK YOU THIS QUESTION, MR. DURBIN: IN WORKING WITHIN THE GROUP, YOU APPARENTLY AT SOME POINT INITIATED THE EFFORT TO GENERATE COLLECTIVELY THIS REPORT; FAIR?

A YES.

Q I PRESUME THAT YOU HAD MEETINGS FROM TIME TO TIME?

A WELL, WE HAD THE TECHNICAL COMMITTEE MEETINGS, SO THOSE WOULD BE THE MEETINGS WHERE THIS WORK, COLLECTIVELY, WAS DONE.

Q OKAY. AND AT SOME POINT, VARIOUS PORTIONS OF THE WORK WERE DELEGATED OUT TO VARIOUS INDIVIDUALS, WHO ULTIMATELY BECAME CO-AUTHORS OF THE SUMMARY REPORT; CORRECT?

A YES.

Q YOU UNDERTOOK TO DO THE THREE APPROACHES TO CALCULATE THE NATURAL RECHARGE; CORRECT?

A CORRECT.

Q AND MR. SCALMANINI UNDERTOOK TO DO AN AREA OF INQUIRY TO ESTIMATE PUMPING, LAND USE ISSUES, THINGS OF THAT NATURE; RIGHT?

A CORRECT.

Q AS WELL AS THE GEOLOGY?

A YES.

Q MR. WILDERMUTH, ON THE OTHER HAND, UNDERTOOK TO DO A CHANGE OF STORAGE CALCULATION AND A WATER BUDGET; RIGHT?

A CORRECT.

Q OKAY. AND OVER TIME, I ASSUME YOU HAD PHONE CONVERSATIONS AND/OR MEETINGS WHERE YOU WOULD -- WHERE YOU DISCUSSED YOUR PROGRESS, HOW THINGS WERE GOING, HOW THE INVESTIGATION WAS COMING ALONG?

A ONLY THE TECHNICAL COMMITTEE MEETINGS. I NEVER HAD A TELEPHONE CONVERSATION ABOUT THE WORK PROGRESS.

Q SO THESE ARE ALWAYS IN-PERSON MEETINGS?

A YES. WITH THE OVERALL TECHNICAL COMMITTEE, YES.

Q OKAY. MR. WILDERMUTH NEEDED THE WORK DONE BY MR. SCALMANINI IN ORDER TO COMPLETE HIS WORK; CORRECT?

A CORRECT.

Q AND MR. SCALMANINI NEEDED THE OUTPUT FROM MR. WILDERMUTH'S WORK IN ORDER TO COMPLETE HIS FINAL ANALYSIS, ALONG WITH YOURS, AS WELL; CORRECT?

A MR. WILDERMUTH -- MR. WILDERMUTH USED SCALMANINI'S WORK. I DON'T THINK IT WENT THE OTHER WAY. AND I DON'T THINK THAT MR. WILDERMUTH HAD ANY NEED FOR MY WORK IN THE WORK THAT HE WAS DOING.

Q I UNDERSTAND THAT. BUT IS IT YOUR UNDERSTANDING THAT MR. SCALMANINI USED BOTH MR. WILDERMUTH'S ESTIMATE OF NATURAL RECHARGE AND YOUR ESTIMATE OF NATURAL RECHARGE IN ORDER TO COME TO HIS ULTIMATE OPINION?

A I DON'T KNOW. I KNOW THAT IN WRITING -- MR. SCALMANINI WROTE MOST OF THE SUMMARY REPORT, AND HE CERTAINLY PULLED TOGETHER ALL OF THE PIECES. WHAT HE UTILIZED TO REACH WHAT CONCLUSION, I HAVE NO IDEA.

Q DO YOU HAVE ANY MEMORY, AS BETWEEN YOURSELF AND MR. WILDERMUTH, WHICH OF THE TWO OF YOU FINISHED

YOUR EVALUATION FIRST?

A I DON'T. THIS IS WAY TOO LONG AGO. THIS WAS FIVE YEARS AGO, OR SOMETHING, WHEN THE TECHNICAL COMMITTEE WAS OPERATING.

Q SO YOU HAVE NO PRESENT MEMORY TODAY, AS BETWEEN THE THREE OF YOU, WHO GOT DONE FIRST?

A I DON'T.

Q DO YOU HAVE ANY MEMORY OF HAVING REPORTED YOUR RESULTS TO THE OTHER PARTICIPANTS?

A I DON'T.

Q DO YOU HAVE ANY MEMORY OF WHETHER OR NOT YOU REPORTED YOUR RESULTS BEFORE MR. SCALMANINI GAVE YOU HIS?

A I JUST DON'T HAVE ANY MEMORY OF WHAT HAPPENED THAT LONG AGO.

Q OKAY. THANK YOU.

AND SINCE IT WAS COMPLETED THAT LONG AGO, HAVE YOU DONE ANYTHING BETWEEN THEN AND TRIAL IN ORDER TO UPDATE OR TO REEVALUATE YOUR OWN WORK?

A I HAVE.

Q OKAY. IF WE COULD TURN TO THE ISSUE CONCERNING THE 8-INCH PRECIPITATION CUTOFF POINT. IF I UNDERSTAND IT -- IF WE WERE TO GO TO EXHIBIT D39, WHICH WAS JUST MARKED A MOMENT AGO BY MR. KUHS.

A CAN YOU TELL ME WHAT -- OH, I SEE IT RIGHT HERE; D39. I'VE GOT IT.

Q AND THIS IS A TABLE THAT WAS CREATED BY YOU; CORRECT?

A CORRECT.

Q IT WAS INCLUDED IN YOUR SUMMARY EXPERT REPORT THAT WAS PROVIDED PRIOR TO DEPOSITION AND TRIAL?

A CORRECT.

Q BUT IT WAS NOT USED IN YOUR DIRECT EXAMINATION HERE?

A WELL, IT WAS USED INDIRECTLY IN THAT THERE IS A GRAPH THAT SHOWS ALL THE ANTELOPE VALLEY USE, BUT THIS TECH TABLE IS NOT IN MY DIRECT TESTIMONY.

Q OKAY. BUT THIS TABLE, THEN, IS THE SOURCE OF THE INFORMATION WHICH CREATED THE GRAPH?

A CORRECT.

Q ALL RIGHT. AND BY "GRAPH," I ASSUME WE ARE REFERRING TO WHAT WAS MARKED IN YOUR DIRECT EXAMINATION AS EXHIBIT D16; IS THAT CORRECT?

A (REVIEWS DOCUMENTS.)

NO.

Q OKAY. THAT IS NOT CORRECT; RIGHT?

A D16 IS NOT RELATED TO -- OR EXHIBIT G16 IS NOT RELATED TO EXHIBIT D39.

Q GOT YOU.

JUST SO WE ARE CLEAR, IF WE LOOK AT D39 AND IF WE LOOK AT D16 -- D16 IS A BAR GRAPH REFLECTING ANNUAL PRECIPITATION; FAIR?

A CORRECT.

Q AND IF I UNDERSTOOD YOUR TESTIMONY ON DIRECT, AS WELL AS ON CROSS, YOU HAVE ASSUMED IN YOUR ANALYSIS THAT ANY PRECIPITATION OCCURRING WITHIN THE

AREA OF ADJUDICATION BELOW THE 8-INCH PRECIPITATION LINE AROUND THE VALLEY RESULTED IN NO GROUNDWATER RECHARGE; FAIR?

A YES.

Q AND IF WE GO TO D39 AND WE LOOK AT THE FAR RIGHT-HAND COLUMN FOR EACH OF THE YEARS COMMENCING IN 1949 AND ENDING IN 2005, WITHIN THAT QUANTIFICATION OF YOUR GROUNDWATER RECHARGE, FOR EACH AND EVERY YEAR THE ASSUMPTION IS THAT THERE IS ZERO RECHARGE FROM ANY PRECIPITATION EVENT THAT OCCURRED INSIDE THE 8-INCH PRECIPITATION CONTOUR; CORRECT?

A YES.

Q SO IF WE WERE TO ASSUME THAT NATURAL RECHARGE WAS ACTUALLY OCCURRING DURING THIS PERIOD OF TIME WITHIN THE 8-INCH PRECIPITATION CONTOUR, THAT NATURAL RECHARGE IS NOT INCLUDED IN EXHIBIT B39; IS IT?

A SO IF WE SIMPLY ASSUME THAT IT DID OCCUR AND --

Q ASSUMING THAT, IN REALITY, RAIN EVENTS OCCURRED; AND AS A RESULT OF THOSE RAIN EVENTS, THERE WAS NATURAL RECHARGE OCCURRING, THAT IS NOT INCLUDED IN YOUR CALCULATION?

A NO, IT IS NOT.

Q OKAY. AND IN DOING YOUR ANALYSIS, YOU ACCESSED THE USGS DATABASE; CORRECT -- FOR THE VARIOUS PRECIPITATION -- FOR PRECIPITATION GAUGE STATIONS THAT YOU RELIED UPON?

A WHEN YOU SAY MY "ANALYSIS," COULD YOU BE

MORE SPECIFIC ABOUT JUST WHAT PART OF IT YOU ARE --

Q LET ME WITHDRAW AND RESTATE.

IN YOUR EFFORT TO GATHER DATA IN ORDER TO INITIATE YOUR ASSESSMENT, YOU WENT TO THE USGS TO FIND OUT WHAT THEY HAD AVAILABLE THAT WOULD BE OF VALUE TO YOU IN DOING THAT; CORRECT?

A CORRECT.

Q AND YOU DOWNLOADED A LOT OF THE USGS RAIN GAUGE PRECIPITATION STATION DATA; FAIR?

A THE PRECIPITATION -- THERE IS A "NO" TO THAT BECAUSE THE PRECIPITATION DATA CAME FROM THE NATIONAL WEATHER SERVICE THROUGH THE WESTERN REGIONAL CLIMATIC CENTER.

Q DID THEY HAVE, AS PART OF THE DATA SET AVAILABLE, THE DAILY PRECIPITATION VALUES?

A NO, THEY DON'T HAVE THE DAILIES. THOSE WE OBTAINED FROM THE NATIONAL WEATHER SERVICE.

Q THE NATIONAL WEATHER SERVICE HAD AVAILABLE WITHIN ITS DATABASE THE DAILY PRECIPITATION VALUES; CORRECT?

A CORRECT.

Q YOU DOWNLOADED THOSE; CORRECT?

A SOME OF THEM.

Q OKAY. AND ON THE HARD DRIVE THAT YOU PROVIDED AT THE TIME OF YOUR DEPOSITION, THOSE DAILY PRECIPITATION VALUES ARE INCLUDED THEREIN, ARE THEY NOT?

A THEY'RE NOT, BECAUSE THEY WERE DOWNLOADED AS PART OF EVENTUAL REBUTTAL AND CROSS-EXAMINATION OF OTHER

EXPERTS.

Q SO THEY WERE NOT -- THE ONES THAT YOU ARE THINKING OF ARE NOT INCLUDED ON YOUR HARD DRIVE?

A CORRECT.

Q ARE THERE DAILY PRECIPITATION VALUES INCLUDED WITHIN YOUR HARD DRIVE?

A THERE ARE NOT.

Q ALL RIGHT. AND THEY CERTAINLY WERE AVAILABLE, WERE THEY NOT?

A THEY WERE.

Q YOU DID NOT USE THEM, THOUGH, IN YOUR ANALYSIS -- AT LEAST, NOT DIRECTLY?

A NOT EVEN -- WELL, INDIRECTLY, IN THE SENSE THAT THE AVERAGE ANNUAL IS ULTIMATELY THE AVERAGE OF THE DAILY EVENTS.

Q OKAY. I UNDERSTAND THAT, INDIRECTLY, THEY WOULD HAVE BEEN INCLUDED; BUT YOU WERE LOOKING FOR THE ANNUAL AVERAGE AS OPPOSED TO ANY DAILY OR EVEN HOURLY EVENTS?

A CORRECT.

Q WHAT IS THE PURPOSE IN MEASURING OR TAKING DATA ON A DAILY OR AN HOURLY BASIS?

A I'M JUST A LITTLE STYMIED BY THE QUESTION. WHY DOES THE NATIONAL WEATHER SERVICE DO IT OR --

Q LET ME WITHDRAW THE QUESTION.

A WHOSE PURPOSE?

Q YOU ARE AWARE OF THE CONCEPT WITHIN HYDROLOGY OF INTENSITY, DURATION, AND FREQUENCY, ARE YOU

NOT?

A I AM, YES.

Q AND INTENSITY, DURATION, AND FREQUENCY REALLY ADDRESSES THE SIGNIFICANCE OR THE MAGNITUDE OF A GIVEN STORM EVENT, DOESN'T IT?

A WELL, SORT OF.

Q FROM AN INTENSITY STANDPOINT, AREN'T WE TALKING ABOUT THE AMOUNT OF PRECIPITATION OCCURRING IN UNITS OF TIME?

A CORRECT.

Q LIKE 1 INCH IN 1 HOUR VERSUS 1 INCH OVER 36 HOURS? THAT IS A CONTRAST IN INTENSITY, IS IT NOT?

A 1 INCH PER HOUR -- YEAH. WELL, THE 1 INCH OVER 36 HOURS WOULD BE OF LOWER INTENSITY THAN THE 1 INCH PER 1 HOUR.

Q CORRECT.

DO YOU RECALL AT THE TIME OF YOUR DEPOSITION THAT YOU CONCEDED THAT IF YOU WERE TO HAVE DONE -- OR STRIKE THAT. LET ME RESTATE THE QUESTION.

AT THE TIME OF YOUR DEPOSITION, DID YOU NOT CONCEDE THAT THE INTENSITY OF A SINGLE STORM EVENT WOULD HAVE AN INFLUENCE ON WHETHER OR NOT IT WAS MORE LIKELY THAN NOT THAT THE STORM EVENT ITSELF WOULD RESULT IN NATURAL RECHARGE?

MR. DUNN: OBJECTION; ARGUMENTATIVE --

THE COURT: SUSTAINED.

MR. DUNN: -- AS TO "CONCEDE."

BY MR. JOYCE:

Q LET ME, IF I COULD, GO TO YOUR DEPOSITION.

THE COURT: WHY DON'T YOU ASK HIM THE QUESTION WITHOUT THE "CONCESSION" PART.

BY MR. JOYCE:

Q DID YOU, AT YOUR DEPOSITION, TESTIFY THAT THE INTENSITY OF A STORM EVENT WOULD HAVE A BEARING UPON WHETHER OR NOT THE STORM EVENT WOULD RESULT IN NATURAL RECHARGE?

A IF I DIDN'T, IT IS PROBABLY ONE OF THE THINGS I WOULD HAVE SAID, BECAUSE IT IS CORRECT.

Q ALL RIGHT. THAT IS EVEN INCLUDED WITHIN THE AREA INSIDE THE 8-INCH PRECIPITATION ELEVATION CONTOURS; CORRECT?

A IT IS NOT.

Q OKAY. SO IT IS STILL YOUR TESTIMONY THAT WITHIN THE 8-INCH PARAMETER -- I.E., THE VALLEY FLOOR -- NO TOMORROW EVENT OF ANY PARTICULAR MAGNITUDE RESULTS IN ANY NATURAL RECHARGE?

A CORRECT -- OR NO RECHARGE THAT WITH BE LARGE ENOUGH TO JUSTIFY INCLUDING ON THE TABLE IN D39. I MEAN, IT'S NOT -- IT MAY NOT BE ABSOLUTELY ZERO, BUT IT IS SO SMALL THAT IT WOULD BE NOT ON THIS TABLE.

Q WELL, LET ME BE SURE. FOR THE PURPOSES OF WHAT YOU ASSUMED AND IN DOING YOUR ANALYSIS, IT WAS ZERO, WAS IT NOT?

A IT WAS ZERO, YES.

Q WELL, IS THAT A REFLECTION OF REALITY?

A THAT IS A REFLECTION OF REALITY.
Q SO IT IS ALWAYS ZERO, NO MATTER WHAT?
A IT IS -- WELL, NOW, THE "NO MATTER WHAT," LET'S -- IF THERE WERE 8 INCHES OF PRECIPITATION ON A SAND DUNE, I COULD IMAGINE THAT THERE MIGHT BE SOME WATER THAT WOULD GO THROUGH THE SAND DUNE. FOR THE SOILS AND VEGETATIONS WE HAVE IN ANTELOPE VALLEY, IT IS ZERO.
Q WHAT IF THERE WERE 6 INCHES OF PRECIPITATION IN 48 HOURS?
A IT WOULD BE ZERO.
Q IT'S STILL ZERO?
A YES. THERE'S NOTHING TO SUGGEST THAT FOR THESE LOWER PRECIPITATION VALUES THAT THERE IS RECHARGE. I THINK AS I SAID, THE PREPONDERANCE OF THE EVIDENCE THAT HAS BEEN COLLECTED AROUND DESERT REGIONS IS THAT 8 INCHES AND BELOW GENERALLY DOES NOT -- OR ESSENTIALLY, DOES NOT PRODUCE RECHARGE.
Q LET'S GO, IF WE COULD, TO -- DO YOU HAVE YOUR EXHIBIT -- YOUR APPENDIX C?
A I DO.
Q CAN YOU GO TO TABLE C.2, LOWER CASE "O."
A SAY THAT AGAIN, PLEASE.
Q THAT WOULD BE YOUR TABLE C.2 LOWER CASE "O," LABELED "ADJUSTED MONTHLY PRECIPITATION FOR PALMDALE, CALIFORNIA."
A I HAVE THAT TABLE.
Q FIRST OF ALL, WHEN YOU GENERATE EXHIBIT 16,

THAT IS AN ANNUAL AVERAGE, MEANING THAT THE TOTAL QUANTITY OF PRECIPITATION THAT OCCURRED WITHIN THAT 12 MONTHS IS AVERAGED OUT OVER THE ENTIRE 365 DAYS; CORRECT?

A WELL, EXHIBIT D39 ARE MY TABLE C28, THAT IS --

Q NO, I'M REFERRING TO DURBIN G16, FOR THE MOMENT, WHICH IS WHAT YOU HAVE OPEN BEFORE YOU THERE.

A YES. G16 IS THE TOTAL PRECIPITATION FOR THE YEAR.

Q OKAY. AND YOU USE IT IN YOUR ASSESSMENT ON AN AVERAGE BASIS?

A CORRECT.

Q "AVERAGE," MEANING IT'S SPREAD OUT OVER THE ENTIRE YEAR OF 365 DAYS?

A NO, THAT'S NOT HOW I USED IT. I USED THE AVERAGE ANNUAL VALUE, WHICH WOULD BE THE AVERAGE OF ALL THE YEARS.

Q OKAY. DAYS OR MONTHS?

A WELL, I DON'T THINK IT MATTERS HOW YOU DO THE CALCULATION. THE RESULT WOULD BE THE SAME IF IT WAS DONE PROPERLY.

Q LET'S LOOK AT YOUR TABLE 2 AT C.2 LOWER CASE "O," "ADJUSTED MONTHLY PRECIPITATION FOR PALMDALE, CALIFORNIA." DO YOU SEE THAT?

A I DO.

Q OKAY. I PRESUME YOU CONCEDE THAT THAT PRECIPITATION STATION IS INSIDE OF THE 8-INCH

PRECIPITATION CONTOUR; CORRECT?

MR. DUNN: OBJECTION; ARGUMENTATIVE. HE USED THE TERM "CONCEDE."

THE COURT: SUSTAINED.

BY MR. JOYCE:

Q IS THAT RAIN GAUGE STATION LOCATED INSIDE OR OUTSIDE OF THE 8-INCH PRECIPITATION CONTOUR?

A JUST SLIGHTLY IN. I THINK THE AVERAGE ANNUAL PRECIP. IS A LITTLE OVER 7 INCHES.

Q AND IF YOU'LL ALSO LOOK AT C1, WHICH IS LABELED TABLE C.2J, WHICH IS THE ADJUSTED MONTHLY PRECIPITATION FOR LANCASTER.

A I SEE THAT TABLE.

Q OKAY. IS THAT PRECIPITATION STATION LOCATED WITHIN OR OUTSIDE OF THE 8-INCH PRECIPITATION CONTOUR?

A YOU KNOW, I'M NOT SURE. I WOULD TO HAVE LOOK UP ON ONE OF MY MAPS WHERE THE -- WHERE THAT STATION IS. I KNOW THEY ARE ALL VERY CLOSE THERE, AND SO IT MAY BE IN OR OUT. I'M JUST NOT SURE.

Q FOR PURPOSES OF MY FOLLOWING QUESTIONS, I WANT YOU TO ASSUME IT IS WITHIN THE 8-INCH PRECIPITATION CONTOUR.

A THAT'S FINE. SURE. OKAY.

Q LET'S TURN BACK TO THE ONE FOR PALMDALE, INITIALLY, IF WE COULD.

A PALMDALE?

Q PALMDALE.

A PALMDALE.

Q AND THESE ARE VALUES THAT ARE REPORTED ON A MONTHLY BASIS AS FAR AS THE BREAKDOWNS ARE CONCERNED; CORRECT?

A YES.

Q YOU'VE GOT OCTOBER, NOVEMBER, DECEMBER, JANUARY, FEBRUARY, ALL THE WAY THROUGH SEPTEMBER AGAIN; CORRECT?

A CORRECT.

Q IS THAT CONSIDERED TO BE A WATER YEAR?

A YES.

Q ALL RIGHT. AND LET'S JUST LOOK AT SOME EXAMPLES. IF WE LOOK AT THE YEAR 1952, YOU HAVE A REPORTED TOTAL PRECIPITATION FOR THAT YEAR OF 18.26 INCHES; ISN'T THAT TRUE?

A THAT IS WHAT IS IN THE TABLE, YES.

Q OKAY. YOU HAD A HIGH OF 6.25 DURING THE MONTH OF JANUARY OF THAT YEAR; IS THAT ALSO TRUE?

A YES.

Q AND GIVEN THAT THIS IS BEING PRESENTED TO US IN A MONTHLY BASIS, I PRESUME THAT THAT 6.25, FOR YOUR ASSUMPTION PURPOSES, IS ASSUMED TO HAVE OCCURRED OVER THE ENTIRE MONTH?

A THAT IS THE TOTAL FOR THE MONTH.

Q OKAY. BUT YOU CANNOT, AS YOU SIT HERE TODAY, TELL US WHETHER OR NOT THAT STORM EVENT OR MULTIPLE STORM EVENTS OCCURRED IN 24 HOURS, 48 HOURS, OR ANY PARTICULAR DURATION OF STORM EVENT ITSELF, CAN YOU?

A I CANNOT, BECAUSE THAT IS NOT DATA THAT I

USE.

Q AND THAT IS BECAUSE FROM YOUR VANTAGE POINT, THE INTENSITY AND THE DURATION OF THE STORM ITSELF HAVE NO BEARING, IN YOUR MIND, ON WHETHER OR NOT THERE WOULD BE A LIKELIHOOD FOR NATURAL RECHARGE TO OCCUR AS A CONSEQUENCE OF THAT PARTICULAR STORM?

A THAT'S NOT A CORRECT STATEMENT.

Q WELL, DID YOU DO ANY ANALYSIS -- DID YOU GO BACK TO SEE WHETHER OR NOT THERE WERE ANY PARTICULAR UNIQUE STORM EVENTS THAT WOULD HAVE MORE LIKELY THAN NOT RESULTED IN A RECHARGE OF SOME MAGNITUDE?

A THE ANALYSIS THAT I DID INCORPORATES ALL OF THE VARIABILITY IN THE DATA. I DID NOT GO BACK AND LOOK AT INDIVIDUAL STORMS BECAUSE THE EFFECT OF DIFFERENT STORMS ENDS UP GETTING REPRESENTED IN THE OVERALL RELATIONSHIPS THAT I DEVELOP.

Q LET ME RESTATE MY QUESTION. DID YOU YOURSELF GO BACK AND LOOK AT ANY OF THE DAILY PRECIPITATION DATA TO SEE IF YOU COULD ISOLATE OR VISUALIZE A STORM THAT HAD OCCURRED WITHIN THE 8 INCH PRECIPITATION CONTOUR WHICH WOULD HAVE MORE LIKELY THAN NOT RESULTED IN CREATING NATURAL RECHARGE?

A I DIDN'T, BECAUSE IT WASN'T RELEVANT TO MY ANALYSIS.

MS. RILEY: OBJECTION, YOUR HONOR; CUMULATIVE TO THE LINE OF QUESTIONING THAT MR. KUHS ALREADY EXPLORED.

MR. ZIMMER: OBJECTION; NONRESPONSIVE AFTER THE WORD NO.

THE REPORTER: EXCUSE ME?

MR. ZIMMER: THE OBJECTION WAS, IT WAS NONRESPONSIVE AFTER THE WORD --

THE COURT: OVERRULED.

BY MR. JOYCE:

Q IF WE LOOK AT THAT SAME YEAR OF 1952, IT APPEARS THAT ROUGHLY 16 INCHES OF THE 18.26 INCHES OF PRECIPITATION IN THAT YEAR OCCURRED IN THE MONTHS OF NOVEMBER, DECEMBER, JANUARY, FEBRUARY, AND MARCH. DO YOU AGREE?

A I DON'T KNOW THE PERCENTAGE, BUT CERTAINLY MOST OF IT OCCURRED THERE, WHICH IS SORT OF TYPICAL THAT DURING THE WINTER SOME PRECIPITATION OCCURS.

Q IF WE GO DOWN AND WE LOOK AT THE YEAR 1958, YOU REPORT A TOTAL OF 14.42 INCHES; CORRECT?

A CORRECT.

Q AND AGAIN, VIRTUALLY -- OR MOST -- BETTER THAN 87 PERCENT OF THAT OCCURRED IN DECEMBER, JANUARY, FEBRUARY, MARCH, AND APRIL. AGREED?

A JANUARY -- YES.

Q OKAY. AND IF WE GO TO THE YEAR 1969, YOU HAVE 10.18 INCHES REPORTED. AND ALMOST ALL OF THAT OCCURRED IN THE MONTHS OF DECEMBER, JANUARY, FEBRUARY, MARCH, AND APRIL; CORRECT?

A YES.

Q OKAY. AND IF WE GO TO THE YEAR 1978, YOU HAVE 14.73 INCHES THAT OCCURRED AT THAT STATION. AND AGAIN, YOU HAVE VIRTUALLY -- OR IF NOT, BETTER THAN

90 PERCENT OF THE TOTAL OCCURRING IN DECEMBER, JANUARY, FEBRUARY, MARCH, AND APRIL?

A WHAT YEAR, AGAIN?

Q THIS WOULD BE 1978.

A CORRECT.

Q AND IN 1983 --

MR. DUNN: YOUR HONOR, 352. WE WILL STIPULATE THAT MOST OF THE RAIN IN THE ANTELOPE VALLEY FALLS IN THE WINTER AND SPRING MONTHS.

THE COURT: THE TESTIMONY IS WHAT THE TESTIMONY IS. IT SEEMS TO ME IT IS GETTING NOT PRODUCTIVE.

BY MR. JOYCE:

Q WELL, LET'S JUST GO TO A COUPLE MORE YEARS, JUST BY WAY OF ILLUSTRATION. AND I'LL JUST LOOK AT THE TOTAL NUMBERS HERE FOR A MOMENT.

LET'S LOOK AT 1983. YOU GOT 15.25 INCHES THAT YEAR. DO YOU SEE THAT?

A I DO.

Q AND OF THAT, IN MARCH ALONE, 5.37 INCHES; CORRECT?

A WELL, 5.22 IS WHAT I READ.

Q I'M SORRY.

A BUT I COULD SEE THAT IT IS HARD TO READ. YES.

Q 5.22. AND AGAIN, THAT IS AN EXAMPLE OF A STORM EVENT THAT YOU DON'T KNOW OVER WHAT PERIOD OF TIME THAT PRECIPITATION OCCURRED?

A OR IT MAY HAVE BEEN MULTIPLE STORMS, BUT

THEY SUMMED UP TO THAT.

Q OKAY. AND IF WE LOOK AT THE YEAR 1993, YOU HAVE 17.17 INCHES REPORTED FOR THAT TOTAL YEAR. DO YOU SEE THAT?

A I DO.

Q AND MORE THAN A THIRD OF THAT OCCURRED IN ONE SINGLE MONTH, THAT BEING JANUARY OF THAT YEAR; IS THAT CORRECT?

A WELL, I DON'T KNOW IF IT'S A THIRD, BUT --

Q WELL, DOESN'T --

A -- 7.5 INCHES FELL IN JANUARY.

Q 7.5 INCHES OF THE TOTAL OF 17.17 OCCURRED IN ONE MONTH; CORRECT?

A CORRECT.

Q AND AGAIN, IT'S AN EXAMPLE OF WHERE YOU HAVE NO IDEA OF WHAT THE INTENSITY OR DURATION OF THOSE STORM EVENTS WERE?

A I DON'T --

Q YOU COULDN'T SAY, AS YOU ARE SITTING HERE TODAY, THAT THAT DIDN'T -- THAT THAT 7.5 INCHES DIDN'T FALL IN ONE STORM OVER A TWO-DAY PERIOD?

MR. DUNN: OBJECTION; ARGUMENTATIVE.

THE COURT: SUSTAINED.

CAN'T WE MOVE ON, MR. JOYCE.

BY MR. JOYCE:

Q MR. DURBIN, IF WE WERE TO LOOK BACK AT THE PRECIPITATION FOR LANCASTER, THAT STATION, AS WELL, YOU WILL SEE SIMILAR PATTERNS. IN ONE CASE, YOU WILL SEE

WHERE THE ANNUAL WAS ALMOST 20 INCHES, THAT BEING THE YEAR OF 1993?

A LANCASTER, AGAIN, WAS J; IS THAT CORRECT?

Q C.2 LOWER CASE "J."

A I FOUND THE TABLE.

Q AND IF YOU LOOK AT THE YEAR 1994 -- EXCUSE ME. I TAKE IT BACK. 1993. DO YOU SEE THAT?

A YES, I SEE THE NUMBERS THERE. THERE'S OBVIOUSLY A TYPO THERE. NO, I'M LOOKING AT LAKE ARROWHEAD. EXCUSE ME. I SAW A REALLY HIGH PRECIPITATION.

WHAT TABLE, AGAIN? J; I'M SORRY. YES.

Q .2J, THE YEAR 1993, REPORTED TOTAL PRECIPITATION 19.49; RIGHT?

A CORRECT.

Q AND IN THE MONTH OF JANUARY, DO YOU HAVE A REFLECTED 7.46 INCHES DURING THAT MONTH ALONE; CORRECT?

A YES.

Q THERE ARE NUMEROUS OTHER EXAMPLES IN ALL THESE PRECIPITATION LEVELS WHERE YOU HAVE ANNUAL PRECIPITATION WELL OVER 13, 14 INCHES IN ANY PARTICULAR YEAR; ISN'T THAT TRUE?

A CORRECT.

Q AND ALL WITHIN THE 8-INCH PRECIPITATION CONTOUR?

A THERE'S A LITTLE UNCERTAINTY THAT WE ARE SIMPLY PRESUMING THAT LANCASTER IS INSIDE. I WOULD ACKNOWLEDGE THAT IF IT ISN'T INSIDE, IT IS ONLY SLIGHTLY

OUTSIDE.

Q WHEN IT RAINS WITHIN THE VALLEY AREA, I ASSUME THAT PRECIPITATION FALLS ON AGRICULTURAL PROPERTIES THAT ARE BEING FARMED?

A THAT WOULD BE PART OF THE LAND SURFACE.

Q I ASSUME THAT IT FALLS ON AGRICULTURAL PROPERTIES THAT ARE BEING IRRIGATED?

A CORRECT.

Q OKAY. AND YOU ARE AWARE THAT IN DOING THE ANALYSIS, MR. SCALMANINI CALCULATED RETURN FLOWS FROM APPLIED IRRIGATION WATER; CORRECT?

A AM I AWARE THAT HE DID THAT?

Q YES.

A YES, I AM.

Q BUT IT IS YOUR TESTIMONY THAT PRECIPITATION INSIDE THE 8-INCH PRECIPITATION CONTOUR FALLING ON IRRIGATED AGRICULTURAL PROPERTY RESULTS IN NO RETURN FLOW -- I MEAN, RESULTS IN NO NATURAL RECHARGE; CORRECT?

A THAT WOULDN'T BE MY TESTIMONY. IT WOULD BE -- MY TESTIMONY IS RELATED TO THE NATURAL LANDSCAPE ON THE VALLEY FLOOR, AND THERE'S QUITE A DIFFERENT SITUATION ON FARM LAND.

Q WELL, CERTAINLY, THEN, IF THERE IS RAINFALL OCCURRING ON CULTIVATED AGRICULTURAL REAL PROPERTY INSIDE THE 8-INCH PRECIPITATION CONTOUR, AT ANY TIME DURING YOUR STUDY PERIOD, IS THE NATURAL RECHARGE OCCURRING IN THOSE LOCATIONS INCLUDED IN THE TOTALS REFLECTED ON YOUR EXHIBIT 39?

A NO, BECAUSE IT IS NOT A NATURAL PROCESS.

Q OKAY. AND PRESUMABLY, IF THERE IS PRECIPITATION FALLING ON DEVELOPED URBANIZED AREAS THAT IT IS THEN RUNNING OFF AND BEING COLLECTED AND DISCHARGED, AND THAT RETURN BECOMING A SOURCE OF NATURAL RECHARGE, THAT'S NOT INCLUDED, EITHER, IS IT?

A THE RUNOFF --

Q WITHIN THE URBAN AREAS; FROM THE STREETS, CURBS, GUTTERS, ROOFTOPS, THAT ARE ALL MAKING ITS WAY INTO SOME COLLECTION SYSTEM AND WILL ULTIMATELY BE DISCHARGED. YET THAT RESULT IN NATURAL RECHARGE TO THE GROUNDWATER TABLE, THAT'S NOT CALCULATED?

A IT WOULD NOT BE ACCOUNTED FOR. AGAIN, IT IS NOT A NATURAL PROCESS.

Q ANY PRECIPITATION FALLING ON PONDS, SPREADING PONDS, HOLDING OR IMPOUNDING, THAT IS RESULTING IN NATURAL RECHARGE, THAT'S NOT INCLUDED, EITHER?

A IT IS NOT.

Q OKAY. AND YOU ARE NOT TESTIFYING THAT, IN REALITY, PRECIPITATION WITHIN THE 8-INCH PRECIPITATION CONTOUR RESULTS IN VIRTUALLY ZERO NATURAL RECHARGE, ARE YOU?

A WELL, NOW THAT YOU HAVE EXPANDED IT TO DEVELOPED AREAS, IT MAY OR MAY NOT; BUT CERTAINLY, IN THE AGRICULTURAL AREAS, I'M SURE IT IS CONTRIBUTING TO RECHARGE. THE TOPIC OF MY ANALYSIS IS THE NATURAL RECHARGE.

Q OKAY. IMPLICIT IN YOUR ANALYSIS WAS THE ASSUMPTION THAT IT IS BARE DESERT, NO HUMAN BEINGS, NO AGRICULTURE, NOTHING OTHER THAN JUST THE SAND AND THE TUMBLEWEEDS AND WHATEVER ELSE?

A CORRECT. AND THEN THESE PROCESSES ON THE DEVELOPED LANDS WERE TAKEN UP BY MR. SCALMANINI'S WORK.

Q OKAY. BUT IN YOUR CONCLUSIONS, YOU DON'T INCLUDE ANY OF THE NATURAL RECHARGE WHICH WOULD OCCUR FROM A PRECIPITATION EVENT INSIDE THE 8-INCH PRECIPITATION CONTOUR BECAUSE OF THE FACT THAT, AS WE SIT HERE TODAY, IT IS NOT IN A NATURAL STATE. IT'S, IN FACT, IN A DEVELOPED STATE. FAIR?

A I WOULD -- BEFORE ANSWERING, I WOULD DO A LITTLE MODIFICATION OF YOUR QUESTION. YOU CHARACTERIZED IT AS NATURAL RECHARGE THAT IS ON DEVELOPED LAND. AND BY MY DEFINITION, THAT'S NOT NATURAL RECHARGE.

Q SO PRECIPITATION FALLING ON A FARMED AGRICULTURAL FIELD, WORKING ITS WAY INTO THE SOIL, PAST THE ROOTS, GOING INTO THE VADOSE ZONE, THAT IS NOT NATURAL RECHARGE?

A NOT IN THE CONTEXT OF MY EXPERT REPORT, IT IS HOT.

Q AND THEREFORE, TO WHATEVER MAGNITUDE OR EXTENT THAT IS, IT IS NOT QUANTIFIED BY YOU?

A NO, BUT OTHERS HAVE QUANTIFIED THOSE THINGS.

Q AND AT LEAST, THAT'S YOUR ASSUMPTION?

A THAT IS MY ASSUMPTION. IT WAS OUTSIDE THE SCOPE OF, CERTAINLY, MY ASSIGNMENT.

Q THAT IS MY POINT; THAT IS, IF IT GOT ACCOUNTED FOR ANYWHERE, IT WAS NOT BY YOU BUT BY SOMEBODY ELSE?

A CORRECT.

MR. JOYCE: YOUR HONOR, I JUST WANT TO READ INTO THE RECORD TWO PORTIONS OF MR. DURBIN'S DEPOSITION TESTIMONY.

THE COURT: PAGE AND LINE.

MR. JOYCE: THE FIRST, YOUR HONOR, WOULD BE FROM PAGE 245, COMMENCING AT LINE 16.

MS. RILEY: IS THAT VOLUME 2?

MR. JOYCE: YES. I BELIEVE THAT IS CORRECT.

THE COURT: AGAIN, THE LINE?

MR. JOYCE: THAT WOULD BE LINE 16, YOUR HONOR.

THE COURT: ALL RIGHT. GO AHEAD.

MR. JOYCE: STARTING AT THAT LINE AND ENDING ON PAGE 246, LINE 2.

STRIKE THAT, YOUR HONOR. ACTUALLY, I'M GOING DOWN AND FINISHING ON PAGE 246 AT LINE 14. QUOTE:

"QUESTION: WHAT DO YOU UNDERSTAND THE CONCEPT 'STORM INTENSITY' TO MEAN?

"ANSWER: IT HAS TO DO WITH THE PRECIPITATION RATES DURING A STORM.

"QUESTION: IN OTHER WORDS, THE AMOUNT OF WATER MEASURED AGAINST UNITS OF TIME?

"ANSWER: CORRECT.

"QUESTION: AND DO YOU AGREE THAT NOT ONLY RUNOFF BUT ALSO ULTIMATELY RECHARGE ARE AFFECTED BY THE INTENSITY OF THE PRECIPITATION EVENTS THAT OCCUR IN ANY AREA?

"ANSWER: YES.

"QUESTION: CAN YOU TELL ME WHICH FORMULA I LOOK AT IN YOUR APPENDIX C THAT REFLECTS HOW YOU TOOK INTO CONSIDERATION INTENSITY OF THE STORM EVENTS THAT OCCURRED WITHIN THE ANTELOPE VALLEY.

"ANSWER: THE APPROACHES THAT I TOOK DON'T INVOLVE LOOKING AT THAT. THEY LOOK AT THE END RESULTS OF THOSE PROCESSES.

"QUESTION: OKAY. FOR INSTANCE, WHEN YOU ASSUME THAT ON THE VALLEY FLOOR, WHERE ANNUAL AVERAGE PRECIPITATION IS EQUAL TO OR LESS THAN 8 INCHES A YEAR, YOU ASSUME NO RECHARGE; CORRECT?

"ANSWER: CORRECT."

MR. JOYCE: THEN, YOUR HONOR, I WOULD MOVE TO PAGE 247, LINE 15, ENDING ON PAGE 248, LINE 14. QUOTE:

"QUESTION: NO. I'M TALKING

ABOUT, IN YOUR EXHIBIT 3, ANY PRECIPITATION ON THE VALLEY FLOOR, IN YOUR VIEW, IS WHOLLY CONSUMED AND LOST BY EVAPOTRANSPIRATION; I.E., IT NEVER GETS BELOW THE ROOT ZONE, AND THEREFORE IT NEVER BECOMES RECHARGE; AM I CORRECT?

"ANSWER: YES, BUT I WANT TO CLARIFY ONE THING. THEIRS -- ARE YOU ASKING ME ABOUT MY UNDERSTANDING OF PROCESSES OR WHAT I DID IN MY ANALYSIS?

"QUESTION: WELL, IN YOUR ANALYSIS, YOU ASSUMED NO RECHARGE FOR VALLEY FLOOR PRECIPITATION?

"ANSWER: CORRECT."

"IN YOUR THEORETICAL APPROACH TO PROCESSES" --

THE COURT: THAT IS A QUESTION.

MR. JOYCE: I'M SORRY. YOU'RE CORRECT, YOUR HONOR. LET ME BACK UP. THE ANSWER WAS:

"ANSWER: CORRECT.

"QUESTION: IN YOUR THEORETICAL APPROACH TO PROCESSES, AS I UNDERSTOOD IT, YOU ACCEPTED THE BASIC PROPOSITION TRANSPOSED FROM SOME WORK DONE IN NEVADA AND APPLIED IT TO THIS AREA AND

CONCLUDED THAT IF THE ANNUAL AVERAGE PRECIPITATION WAS LESS THAN 8 INCHES PER YEAR ON THE VALLEY FLOOR IN THOSE LOCATIONS, THERE WAS NO RECHARGE?

"ANSWER: IN MY ANALYSIS, I ASSUMED THERE WAS -- I CERTAINLY WOULD -- IN DESCRIBING PROCESSES, NOTHING IS EVER ZERO. AND SO THAT IN THE BELOW 8 INCHES, I'M SURE WE CAN IMAGINE EVENTS WHERE THERE WOULD BE SOME. BUT IN MY ANALYSIS, I BASED IT ON THE CONCLUSION THAT THOSE EVENTS WERE NOT IMPORTANT TO THE ANALYSIS."

AND FINALLY --

THE COURT: SO FAR, MR. JOYCE, YOU ARE JUST REITERATING WHAT HE HAS TESTIFIED TO HERE TODAY. IS YOUR NEXT EXCERPT SOMETHING THAT IS DIFFERENT?

MR. JOYCE: ACTUALLY, THAT IS SUFFICIENT FOR MY PURPOSES, YOUR HONOR.

THE COURT: ALL RIGHT. ARE YOU DONE, THEN?

MR. JOYCE: ONE MOMENT, YOUR HONOR.

BY MR. JOYCE:

Q MR. WILDERMUTH (SIC) --

THE COURT: MR. DURBIN.

MR. JOYCE: I APOLOGIZE.

Q MR. DURBIN, IF YOU'D TURN TO YOUR EXHIBIT 111, PLEASE.

DO YOU HAVE EXHIBIT 111 BEFORE YOU?

A I DO.

Q AND IF YOU COULD LOOK AT WHAT WAS MARKED IN MR. KUHS' CROSS-EXAMINATION AS D30.

A TO HELP ME FIND IT, WHAT KIND OF THING AM I LOOKING FOR?

Q IT WOULD BE YOUR FIGURE C14.

THE COURT: IT'S ON THE SCREEN.

MR. JOYCE: THAT'S CORRECT, YOUR HONOR.

Q DO YOU HAVE BOTH OF THOSE AVAILABLE TO YOU?

A I DO.

Q AND IF WE LOOK AT EXHIBIT 111, YOU HAVE AT THE CONCLUSION OF THAT TABLE WHAT'S IDENTIFIED AS WHAT YOU CALL THE "BASIN REMAINDER." DO YOU SEE THAT?

A I DO.

Q AND YOU ASCRIBE A YIELD OF 25,777 ACRE-FEET. DO YOU SEE THAT?

A YES.

Q AND IF YOU'D LOOK AT D30. IF I UNDERSTOOD YOUR TESTIMONY CORRECTLY, THE BASIN REMAINDER IS EVERYTHING BUT WHAT APPEARS ABOVE IT IN EXHIBIT 111; CORRECT?

A YES, WITH THE ADDITIONAL SPECIFICATION THAT IT'S EVERYTHING ABOVE THE 8-INCH CONTOUR LINE.

Q I UNDERSTAND THAT. IT IS EVERYTHING ABOVE THE 8-INCH CONTOUR LINE UP TO THE WATERSHED BOUNDARY AND

EXCLUDING THE AREAS IDENTIFIED WITH THE SEPARATE SUBWATERSHEDS IN THE PRECEDING ENTRIES ON TABLE 111; CORRECT?

A YES.

Q AND GOING TO D30, THEN, THOSE OTHER AREAS ARE IDENTIFIED BY SUBAREAS IN RED; CORRECT?

A YES.

Q DO YOU KNOW WHAT THE PERCENTAGE RELATIONSHIP IS OF WHAT WAS DESCRIBED AS SUBWATERSHED AREAS VERSUS THE ENTIRETY OF THE BALANCE OF THE PERIMETER AREAS?

A IT IS -- THAT INFORMATION IS IN THE REPORT, BUT IT WOULD TAKE SOME DIGGING TO EXTRACT WHAT THAT AREA IS.

Q OKAY. AND I NOTICE THAT YOU HAVE NO WATERSHED AREAS IDENTIFIED -- OR SUBWATERSHED AREAS IDENTIFIED UP NORTH OF EDWARDS, IN THAT AREA UP THERE; CORRECT?

A BECAUSE THERE ARE NO GAUGES UP THERE, BUT THERE IS -- THAT WOULD BE -- PART OF THAT IS WITHIN THE BASIN REMAINDER.

Q THAT IS MY POINT, IS THAT YOU DIDN'T SEPARATELY ANALYZE ANY SUBWATERSHED AREAS UP IN THAT AREA.

A CORRECT.

Q OKAY. AND IF I UNDERSTOOD IT CORRECTLY, AS FAR AS WHERE YOU ACTUALLY WENT OUT AND DID YOUR OWN FIELD INVESTIGATIONS, YOU DIDN'T DO ANY FIELD INVESTIGATION IN THAT AREA, EITHER?

A THE VERY NORTH CORNER OF THE WATERSHED AREA?
Q YES.
A I DID NOT.
Q OKAY. AND AS TO THE CHARACTERISTICS OF ALL OF THE STREAMS THAT WOULD BE EMBRACED WITHIN THE, QUOTE-UNQUOTE, BASIN REMAINDER, I ASSUME THAT YOU APPLIED THE SAME GENERALIZED CONCEPTUAL RELATIONSHIP TO ALL OF IT, AS A SINGLE GROUP?
A THE SAME RELATIONSHIP WAS APPLIED EVERYWHERE; CORRECT.
Q YEAH. AND THAT WOULD ALSO, THEN, PRESUPPOSE THAT THEY ALL SHARED COMMON OR SIMILAR CHARACTERISTICS?
A IT -- WHAT IT IS BASED ON IS THAT ALL OF THE BASINS, ON AN AVERAGE ANNUAL BASIS, RESPOND SIMILARLY TO THE AVERAGE ANNUAL PRECIPITATION, EVEN THOUGH THE WATERSHEDS HAVE DIFFERENT GEOLOGY, DIFFERENT SOILS, DIFFERENT VEGETATION.

BUT WE FIND THAT IN DEVELOPING THIS AVERAGE ANNUAL RELATIONSHIP, IT FITS EQUALLY TO A WIDE RANGE OF WATERSHEDS. AND AS I TESTIFIED YESTERDAY, THE PRINCIPAL DRIVING FORCE IS THE AVERAGE ANNUAL PRECIPITATION.

NOW, PART OF WHY THIS OCCURS IS THAT PRECIPITATION IS A DETERMINATIVE OF VEGETATION, SO PLACES WITH SIMILAR PRECIPITATION HAVE SIMILAR VEGETATION. BUT THE END RESULT IS THAT THE DATA SHOWS THEY RESPOND SIMILARLY, FOR WHATEVER REASON.

Q IF YOU COULD GO BACK AND REFER TO EXHIBIT D33 FOR A MOMENT. THAT IS THE USGS WATER SUPPLY PAPER

2193.

DO YOU HAVE THAT BEFORE YOU?

A I DO.

Q IF YOU WOULD JUST GO TO PAGE 13. YOU'LL NOTICE THIS IS THE TABLE THAT MR. KUHS SHOWED YOU HAD THE VARIOUS FORMULAS AND THE LIKE FOR DOING UNCHANNELED STREAM GEOMETRY CALCULATIONS -- UNGAUGED STREAM CHANNEL CALCULATIONS.

YOU NOTICE THAT THE AUTHORS, AS TO THEIR OWN METHODOLOGY AND CALCULATION, ASSIGNED A STANDARD ERROR OF ESTIMATE. DO YOU SEE THAT?

A I DO.

Q ANYWHERE FROM 28 UPWARDS OF 75 PERCENT. DO YOU SEE THAT?

A CORRECT.

MR. JOYCE: OKAY.

MR. ZIMMER: WHAT WAS THE REFERENCE ON THAT?

MR. JOYCE: THAT WAS D33.

Q AND YOURSELF, YOU REFERENCED YOUR EQUATION ON EXHIBIT 25; AM I CORRECT -- G25.

IS THAT CORRECT?

A CORRECT.

Q OKAY. AND YOU, IF I UNDERSTOOD YOU CORRECTLY, MADE NO DISTINCTION BETWEEN PERENNIAL, INTERMITTENT, OR EPHEMERAL STREAMS. YOU USE A SINGLE EQUATION TO APPLY TO ALL THREE; IS THAT CORRECT?

A CORRECT.

Q AS WE SIT HERE RIGHT NOW, WE DON'T KNOW WHAT

THE "A" COEFFICIENT OR THE "B" EXPONENT IS, DO WE?

A NO.

Q AS WE SIT HERE RIGHT NOW, DO WE KNOW WHAT YOUR STANDARD DEVIATION WAS AS TO YOUR FORMULA?

A WE DO.

Q WHAT IS THAT?

A I WOULD HAVE TO GO TO THE SCATTER DIAGRAM.

THE SCATTER DIAGRAM IS SHOWN ON EXHIBIT G29. AND WITH THE EXCEPTION OF BIG ROCK CREEK, WHICH I DISCUSSED YESTERDAY AS BEING AN OUTLIER, THERE'S A VERY CLOSE CORRELATION BETWEEN THE RELATIONSHIP THAT I DEVELOPED AND THE ACTUAL MEASUREMENTS WITHIN R SQUARE OF 99.

THE AVERAGE FLOW OF ALL THE DATA IS MAYBE DOWN AROUND 5,000 OR SOMETHING LIKE THAT. AND FROM THIS GRAPH, YOU CAN SEE THAT THE SCATTER AMOUNT IS MAYBE 500 ACRE-FEET. SO IT IS ABOUT A 10 PERCENT OR SOMETHING LIKE THAT.

Q SO YOU HAVE A 10 PERCENT STANDARD ERROR -- OR STANDARD DEVIATION ASSIGNED TO YOUR FORMULA AS CONTRASTED TO THE STANDARD DEVIATIONS ASSIGNED BY THE AUTHORS OF THE PAPER 2193 OF 50 TO 70 PERCENT?

A YEAH. AND THE REASON FOR THAT IS THAT I'M FITTING THE RELATIONSHIP TO A SPECIFIC GEOGRAPHIC AREA. AND IN THIS TABLE, THEY ARE TRYING TO GENERALIZE RELATIONSHIPS OVER THE ENTIRE WESTERN UNITED STATES. SO IT'S NOT SURPRISING THAT I WOULD GET BETTER RESULTS THAN THEY DO.

Q AND MY LAST AREA OF INQUIRY IS, WHEN YOU WERE WORKING COLLECTIVELY WITH MR. SCALMANINI AND MR. WILDERMUTH, I PRESUME THAT YOU HAD SOME APPRECIATION FOR THE WORK THEY WERE DOING?

A IN GENERAL. I MEAN, I HAVE THE REPORTS; I HAVE PARTICIPATED IN THE MEETINGS. AND SO I -- I HAVE A FAIR UNDERSTANDING OF WHAT THEY HAVE DONE.

Q DID YOU EVER DISCUSS WITH THOSE TWO GENTLEMEN DOING A SIMILAR STANDARD DEVIATION CALCULATION AS TO THEIR END PRODUCT?

A I HAVE NOT.

Q YOU DID NOT.

I JUST WANT TO READ TO YOU FROM MR. SCALMANINI'S TESTIMONY, STARTING AT PAGE 938 AND CONCLUDING AT -- EXCUSE ME, 938, LINE 2, I BELIEVE --

LET ME GET THIS CORRECT. I THINK IT IS 2; I'M NOT REAL SURE. AND I BELIEVE IT ENDS AT PAGE 939, LINE 2.

MR. DUNN: I'M SORRY, MR. JOYCE. COULD YOU GIVE US THE STARTING REFERENCE AGAIN.

MR. JOYCE: IT'S PAGE 938 -- IF YOU HAVE IT, I WILL GET YOU THE EXACT LINE NUMBER. I BELIEVE IT IS LIKE 15 OR 16, BUT MY NOTES ARE NOT REAL GOOD. BUT IT ENDS ON PAGE 939, LINE 2.

THIS WAS A QUESTION POSED BY MR. FIFE TO MR. SCALMANINI. QUOTE:

"QUESTION: IS THERE A MARGIN OF ERROR ON YOUR SUSTAINABLE YIELD

ANALYSIS?

"ANSWER: NO.

"QUESTION: AND BY 'NO,' DO YOU MEAN THAT YOUR SUSTAINABLE YIELD NUMBER IS PRECISELY CORRECT?

"ANSWER: NO.

"QUESTION: BUT NO MARGIN OF ERROR EXISTS?

"ANSWER: AS THE OTHER QUESTIONS YOU ASKED ME BEFORE ABOUT MARGIN OF ERROR, IN ORDER TO GET TO 'ERROR,' ONE HAS TO KNOW WHAT THE PRECISE OR RIGHT ANSWER IS AS CONTRASTED TO THE ANSWER THAT WE CALCULATED, AND THAT IS NOT KNOWN. AND SO I CAN'T EXPRESS A MARGIN OF ERROR FOR THIS -- THESE RESULTS VIS-A-VIS SOME KNOWN 'RIGHT' ANSWER."

Q IS THAT CORRECT TO SAY, MR. DURBIN, THAT YOU HAVE TO KNOW WHAT THE PRECISELY CORRECT ANSWER IS BEFORE YOU CAN CALCULATE A MARGIN OF ERROR OR STANDARD DEVIATION?

A WELL, FIRST OF ALL, ON THE QUESTION THAT WAS ASKED OF MR. SCALMANINI, THE "TERM MARGIN OF ERROR" WAS USED. AND I THINK EARLIER IN THIS CROSS-EXAMINATION, I SAID THAT I DON'T KNOW WHAT THAT MEANS. IT IS A LAY TERM.

Q IF THE PERSON WERE TO ASK "STANDARD DEVIATION," IS THE ANSWER THE SAME?

MR. DUNN: OBJECTION. THAT ASSUMES FACTS NOT IN EVIDENCE. THERE IS NO TESTIMONY AS TO THAT.

THE COURT: SUSTAINED.

MR. JOYCE: THANK YOU.

MR. DURBIN, I HAVE NO FURTHER QUESTIONS.

THE COURT: MR. SLOAN.

(A RECESS WAS TAKEN.)

CROSS-EXAMINATION

BY MR. SLOAN:

Q GOOD MORNING, MR. DURBIN. MY NAME IS WILLIAM SLOAN. I'M COUNSEL FOR US BORAX IN THIS CASE. I WOULD LIKE TO QUICKLY START OFF JUST BY ASKING YOU ABOUT PRECIPITATION.

DID YOU DEVELOP A LONG-TERM ANNUAL AVERAGE ESTIMATE FOR PRECIPITATION FOR THE ANTELOPE VALLEY WATERSHED?

A IF YOU ARE REFERRING TO THE MAP THAT I DEVELOPED, YES.

Q WHAT I WAS CURIOUS ABOUT IS A TOTAL. DID YOU HAVE A TOTAL ANNUAL ESTIMATE FOR THE WATERSHED? HOW MUCH PRECIPITATION HAPPENED?

A FOR THE TOTAL VOLUME?

Q YES.

A I EXTRACTED THOSE SORTS OF NUMBERS FROM THE

MAP.

Q DO YOU RECALL WHAT THAT NUMBER WAS?

A ACTUALLY, I MAY HAVE A TABULATION.

ACTUALLY, I DON'T. IT'S IN THE HOTEL ROOM.

Q DO YOU RECALL, IS IT SOMEWHERE IN THE NEIGHBORHOOD OF 600,000 ACRE-FEET PER YEAR?

A INCLUDING THE VALLEY FLOOR?

Q YES.

A THAT SOUNDS SORT OF RIGHT, YES.

Q AND PRECIPITATION IS THE STARTING POINT FOR THE VARIOUS APPROACHES THAT YOU USED IN CALCULATING NATURAL RECHARGE; IS THAT CORRECT?

A OR INPUT. I'M NOT SURE WHICH COMES FIRST IN THE PROCESS; BUT IT IS AN INPUT, YES.

Q BUT PRECIPITATION DOES FACTOR INTO THE EVAPOTRANSPIRATION METHOD, THE PRECIPITATION YIELD METHOD, AND THE CHLORIDE METHOD?

A IT DOES.

Q DID YOU CALCULATE A STANDARD ERROR FOR YOUR ESTIMATE OF PRECIPITATION?

A WELL, YES. AND THAT IS REFLECTED ON THE SCATTER DIAGRAM THAT I SHOWED ON HOW WELL THE -- THE MAP THAT IS THE DATA.

Q AND WHEN YOU -- WHEN YOU PROVIDED TO US THE STANDARD ERROR FOR YOUR NATURAL RECHARGE ESTIMATES, YOU DESCRIBED THEM AS PLUS OR MINUS SOME CERTAIN AMOUNT OF ACRE-FEET. DO YOU RECALL THAT TESTIMONY?

A YES.

Q DO YOU HAPPEN TO KNOW WHAT THE STANDARD ERROR WAS FOR YOUR PRECIPITATION ESTIMATES?

A DO YOU NEED A PRECISE ANSWER, OR CAN I JUST TELL YOU ABOUT WHAT IT IS?

Q ABOUT IS FINE.

A BECAUSE I COULD GO LOOK THAT UP IN ONE OF THE EXHIBITS.

THE STANDARD ERROR, I BELIEVE, IS ABOUT 6/10 OF AN INCH, SOMETHING LIKE THAT. AND THE AVERAGE PRECIPITATION OVER THE VALLEY IS, YOU KNOW, 15 INCHES OR SOMETHING. THAT WOULD REPRESENT -- I DON'T KNOW WHAT THE RATIO IS, BUT IT IS A PRETTY SMALL PERCENTAGE.

Q AND THERE'S A FAIR AMOUNT OF VARIABILITY IN PRECIPITATION FROM ONE YEAR TO THE NEXT; IS THAT CORRECT?

A THERE IS, YES.

Q WITH RESPECT TO PLAYA FLOODING, THAT ALSO FACTORS INTO YOUR EVAPOTRANSPIRATION AND YOUR PRECIPITATION YIELD METHODS; IS THAT CORRECT?

A YES. THAT IS ONE OF THE INPUTS TO GETTING FROM YIELD TO RECHARGE.

Q AND DID YOU CALCULATE A STANDARD ERROR FOR YOUR PLAYA FLOODING ESTIMATE OF -- IT WAS APPROXIMATELY 9,000 ACRE-FEET?

A I DID.

Q DO YOU RECALL WHAT THAT STANDARD ERROR WAS?

A IT'S ON THE ORDER OF PLUS OR MINUS 20 PERCENT.

Q WITH RESPECT TO PLAYA FLOODING, THE ESTIMATES THAT YOU DEVELOPED ALSO HAVE A RELATIVELY HIGH DEGREE OF VARIABILITY; IS THAT CORRECT?

A YES.

Q AND IN FACT, WITH RESPECT TO YOUR ESTIMATES, AT SOME POINT YOU ESTIMATED THAT PLAYA FLOODING WAS ZERO; IS THAT CORRECT?

A YOU MEAN, IN SOME YEARS?

Q YES.

A YES.

Q IN OTHER YEARS, YOU ESTIMATED AS HIGH AS 112,000 ACRE-FEET; IS THAT CORRECT?

A WITHOUT LOOKING AT THE GRAPH -- THAT SEEMS REASONABLE. I DON'T KNOW EXACTLY WHAT THE NUMBER MIGHT BE.

Q SO FOR YOUR ESTIMATES, SOMETIMES PLAYA FLOODING WAS ZERO; IN SOME YEARS, IT WAS 112,000 ACRE FEET. YOU THEN DEVELOPED A LONG-TERM AVERAGE ESTIMATE OF 9,000 ACRE-FEET?

A CORRECT.

Q IF I COULD -- ON DIRECT TESTIMONY, YOU WERE ASKED ABOUT THE AVAILABILITY OF DATA. DO YOU RECALL THAT QUESTION?

A UM --

Q OR THE ADEQUACY OF THE DATA THAT YOU HAD AVAILABLE TO YOU FOR YOUR ANALYSIS.

A I DON'T REMEMBER THE QUESTION.

Q DO YOU RECALL TESTIFYING THAT YOU FELT YOU

HAD ADEQUATE DATA TO CONDUCT THE ANALYSIS THAT YOU PERFORMED?

A IF I DIDN'T SAY IT, I WOULD SAY IT NOW.

Q OKAY. COULD I PLEASE TURN YOU TO EXHIBIT G14.

DO YOU HAVE THAT EXHIBIT IN FRONT OF YOU?

A I DO.

Q IF I RECALL YOUR TESTIMONY CORRECTLY, THE REASON THAT YOU HAVE DEPICTED HERE PRECIPITATION STATIONS OUTSIDE OF THE WATERSHED WAS BECAUSE YOU DIDN'T HAVE ENOUGH DATA WITHIN THE WATERSHED TO CONDUCT YOUR ANALYSIS; IS THAT CORRECT?

A YES. IT HELPED BETTER TO FIND THE PRECIPITATION ALTITUDE PART OF THE OVERALL RELATIONSHIP.

Q AND IN ORDER TO DO THAT ALTITUDE CALCULATION OR DEVELOP THAT RELATIONSHIP, YOU HAD TO RELY ON SOME OF THESE STATIONS THAT WERE OUTSIDE THE WATERSHED; IS THAT CORRECT?

A YES.

Q IF I COULD NEXT TURN YOU TO EXHIBIT G16. THIS IS A DEPICTION OF PRECIPITATION -- ANNUAL PRECIPITATION OF THE PALMDALE STATION; IS THAT CORRECT?

A YES.

Q THIS EXHIBIT SHOWS US THE DATA FROM THAT STATION FROM 1949 THROUGH 2005, AND THAT IS THE STUDY PERIOD THAT YOU USED FOR YOUR ANALYSIS; IS THAT CORRECT?

A THAT'S CORRECT.

Q WERE YOU INVOLVED IN THE SELECTION OF THE

YEARS THAT ULTIMATELY BECAME THE STUDY PERIOD, OR DID SOMEONE TELL YOU "I'D LIKE YOU TO USE 1949 TO 2005"?

A YOU KNOW, I DON'T REMEMBER THE PROCESS. THIS IS SOMETHING THAT CAME OUT OF THE TECHNICAL COMMITTEE, AND IT WAS A -- ULTIMATELY, AS I RECALL, A GROUP DECISION; BUT I DON'T REMEMBER THE PARTICULAR DYNAMICS OF WHO INFLUENCED WHAT.

MR. ZIMMER: OBJECTION TO THAT PORTION OF THE ANSWER THAT IT'S A GROUP DECISION. THAT IS CONFIDENTIAL INFORMATION OF THE TECHNICAL COMMITTEE, AND IT'S NOT ACCURATE. MOVE TO STRIKE THE ASPECT OF IT THAT SAID "GROUP DECISION."

MR. ROBERT KUHS: JOIN.

MR. SLOAN: I WOULD JOIN IN THAT.

THE COURT: ALL RIGHT. I'LL STRIKE THE REFERENCE TO THE TECHNICAL COMMITTEE.

(LAUGHTER)

BY MR. SLOAN:

Q ALSO, ON THIS EXHIBIT YOU HAVE A RED LINE DEPICTING THE AVERAGE. IS THAT THE AVERAGE OR THE MEAN OF THE DATA THAT IS SHOWN HERE?

A YES, THE AVERAGE OF THE -- AVERAGE ANNUAL PRECIPITATION.

Q ARE YOU FAMILIAR WITH A PROCESS CALLED -- OR THE DEPICTION OF DATA CALLED THE "CUMULATIVE DEPARTURE FROM MEAN"?

A I AM, YES.

Q AND IF I UNDERSTAND THAT DEPICTION, RATHER THAN SHOWING DATA AS IT RELATES TO THE AVERAGE, IF, FOR EXAMPLE, IN THE FIRST ENTRY HERE IN 1949 IT IS BELOW THE AVERAGE, YOU START AT A ZERO POINT, AND THEN YOU MOVE DOWN -- MEANING, YOU -- A RELATIVE AMOUNT BELOW AVERAGE THAT YOU HAVE IN THAT GIVEN YEAR. IS THAT YOUR UNDERSTANDING OF IT?

A IT IS.

Q IF YOU WOULD FOR ME, WOULD YOU LOOK AT EXHIBIT G16, AND JUST FOR THE PERIOD 1950 THROUGH 1960, JUST THOSE TEN YEARS. HOW MANY YEARS ARE ABOVE AVERAGE?

A FIVE YEARS.

Q SO IF WE ARE DOING THE CUMULATIVE DEPARTURE FROM MEAN, YOU WOULD HAVE FIVE OF THE TEN YEARS WHERE YOUR TRAJECTORY WOULD GO UP, AND THEN FOR THE OTHER FIVE IT WOULD GO DOWN; IS THAT RIGHT -- IF WE WERE DOING CUMULATIVE DEPARTURE FROM MEAN?

A YES.

MR. SLOAN: YOUR HONOR, I'M HAPPY TO DO THIS WITH EITHER EXHIBIT, BUT THIS WAS MARKED AS WILDERMUTH EXHIBIT 6, AND IT IS ALSO SCALMANINI EXHIBIT 101, FIGURE 4.7-2. I WOULD PREFER TO USE THE WILDERMUTH EXHIBIT, BUT I DON'T KNOW IF THE COURT HAS THAT.

THE COURT: YES.

MR. SLOAN: OKAY. I HAVE A COPY THAT I'M HAPPY TO PROVIDE TO MR. DURBIN, IF THAT IS ALL RIGHT.

THE COURT: YES. WHAT NUMBER IS IT?

MR. SLOAN: THIS IS WILDERMUTH EXHIBIT 6.

THE COURT: OKAY.

MR. SLOAN: FOR BENEFIT OF COUNSEL HERE, IT IS THE BASE PERIOD BASED ON PRECIPITATION, WATERSHED, CUMULATIVE DEPARTURE FROM MEAN, ANNUAL PRECIPITATION, ANTELOPE VALLEY, ACTON STATION GAUGE.

FOR COUNSEL THAT HAVE ONLY THE EXHIBIT 101, IT IS FIGURE 4.7-2.

Q AND I HAVE A FAIRLY SIMPLE QUESTION: JUST FOR THE SAME PERIOD, 1950 TO 1960, WOULD YOU TELL ME HOW MANY YEARS YOU HAVE THE TRAJECTORY GOING UP.

MR. WEEKS: OBJECTION; OUTSIDE THE SCOPE OF HIS DIRECT.

MR. SLOAN: THIS GOES TO ESTABLISHING WHY HE IS USING THAT STUDY PERIOD. HE TESTIFIED ABOUT HIS STUDY PERIOD, YOUR HONOR.

THE COURT: ALL RIGHT. OVERRULED.

THE WITNESS: AT THIS PARTICULAR PRECIPITATION GAUGE, IT LOOKS LIKE THERE'S JUST TWO THAT -- DURING THAT PERIOD THAT GO UP.

BY MR. SLOAN:

Q OKAY. THANK YOU.

NOW, YOU USED PRECIPITATION DATA TO MAKE ADJUSTMENTS TO VARIOUS OTHER DATA THAT WAS MISSING FOR THE PURPOSES OF YOUR ANALYSIS; IS THAT CORRECT?

A WELL, I USED PRECIPITATION DATA TO MAKE ADJUSTMENTS TO OTHER PRECIPITATION RECORDS, BUT THAT DIDN'T -- I MEAN, THE PRECIPITATION WASN'T INVOLVED IN

STREAMFLOW OR SOMETHING LIKE THAT.

Q OKAY. DID YOU MAKE ADJUSTMENTS FOR OTHER PRECIPITATION DATA BASED ON WHETHER OR NOT IT WAS A WET YEAR OR A DRY YEAR?

A I DID -- OR MORE APPROPRIATELY, WHETHER IT WAS -- THE RECORD AT THE STATION REPRESENTED, OVERALL, A WET -- A WET PART OF THE LONGER RECORD OR A DRY PART OF THE LONGER RECORD. SO IT IS KIND OF A YEAR-BY-YEAR ADJUSTMENT.

Q IN DEVELOPING THAT RELATION -- IF YOU COULD TURN TO EXHIBIT G18. THIS IS AN EXHIBIT THAT YOU PREPARED IN ORDER TO SHOW HOW, ULTIMATELY, THE PRECIPITATION MAP YOU DEVELOPED COMPARED TO THE STATION DATA; IS THAT CORRECT?

A THAT IS CORRECT.

Q I AM INTERESTED IN THE HORIZONTAL AXIS IN THIS EXHIBIT. IT SAYS AS "ADJUSTED ANNUAL AVERAGE STATION PRECIPITATION IN INCHES"; IS THAT CORRECT?

A YES.

Q SO YOU COMPARED IT AGAINST THE ADJUSTED DATA THAT -- OR THE DATA AFTER YOU HAD MADE THE ADJUSTMENT? IS THAT HOW YOU DID THAT COMPARISON?

A CORRECT.

Q WOULD YOU PLEASE TURN TO EXHIBIT G19. AND ALSO EXHIBIT G20.

A I HAVE THOSE.

Q ON THE HORIZONTAL AXIS THERE, YOU HAVE "MEASURED STATION PRECIPITATION"; IS THAT CORRECT?

A YES, BUT THAT IS THE ADJUSTED VALUE IN EACH CASE.

Q SO IT WAS YOUR ADJUSTMENTS THAT YOU COMPARED TO THESE OTHER MAPS THAT HAVE BEEN PREPARED; IS THAT CORRECT?

A CORRECT.

Q IF YOU WOULD NOW PLEASE TURN TO EXHIBIT G24. IT IS AN EXHIBIT ENTITLED "AVERAGE STREAMFLOW AT USGS SITES." DO YOU HAVE THAT IN FRONT OF YOU?

A I DO.

Q I'M INTERESTED IN DIRECTING YOUR ATTENTION SPECIFICALLY TO THE COLUMN -- IT IS THE FIFTH COLUMN -- WHICH SAYS "RECORD PERIOD." DO YOU SEE THAT COLUMN?

A I DO.

Q AND WITH RESPECT TO THE RECORD PERIOD, YOU HAVE A -- AM I CORRECT IN UNDERSTANDING THAT THAT IS HOW MANY YEARS BETWEEN 1959 AND 2005 THAT YOU ACTUALLY HAD RECORDED DATA FROM THAT PARTICULAR LOCATION?

A YES.

Q AND SO, FOR EXAMPLE, THE LAST ENTRY, MESCAL CREEK, THE RECORD PERIOD IS THREE. SO YOU HAD THREE YEARS OUT OF MARCH 1949 TO 2005 WHERE YOU HAD MEASURED DATA?

A THAT'S CORRECT.

Q AND THEN YOU MADE -- THE AVERAGE -- THE NEXT COLUMN SHOWS THE AVERAGE DISCHARGE. AND THAT IS, I'D ASSUME, FOR THE PERIOD THAT YOU HAVE RECORDED DATA?

A CORRECT.

Q AND THEN YOU MADE AN ADJUSTMENT BECAUSE YOU ONLY HAD THREE YEARS. AND PRESUMABLY, THERE MAY HAVE BEEN WET YEARS THAT AREN'T SHOWN BY -- DURING THE RECORDED PERIOD, AND THERE MAY HAVE BEEN DRY YEARS. SO YOU TRIED TO MAKE AN ADJUSTMENT, BASED ON YOUR UNDERSTAND OF THE ENTIRE 1949 TO 2005 PRECIPITATION; IS THAT CORRECT?

A YES.

Q SO ULTIMATELY, WITH MESCAL CREEK, YOU MADE THAT ADJUSTMENT. AND RATHER THAN THE 2,100 ACRE-FEET, YOU WENT TO 1,155 ACRE-FEET. IN EFFECT, YOU ESTIMATED THAT THE LONG PERIOD, IT WAS ABOUT 55 PERCENT OF WHAT WAS THE RECORDED PERIOD; IS THAT CORRECT?

A YES.

Q AND ULTIMATELY, THESE ADJUSTED DISCHARGES ARE THEN ADDED INTO -- THE ADJUSTED DISCHARGE ON AN ACRE-FEET-PER-YEAR BASIS IS THEN ADDED INTO, ULTIMATELY, WHAT BECOMES YOUR NATURAL RECHARGE CALCULATION; IS THAT CORRECT?

A WELL, THEY'RE AN INPUT TO THE PRECIPITATION YIELD METHOD. I DON'T KNOW WHAT YOU MEAN BY "ADDED IN."

Q THE SUM OF THESE ADJUSTED DISCHARGES ARE ADDED INTO WHAT ULTIMATELY IS THE TOTAL NATURAL RECHARGE UNDER YOUR PRECIPITATION YIELD METHOD; IS THAT CORRECT?

A NO. I THINK WE WOULD HAVE TO REFER TO ANOTHER TABLE THAT -- FOR BIG ROCK CREEK AND LITTLE ROCK CREEK --

Q I THINK --

A DO I NEED TO PROCEED?

Q NO. I SUSPECT -- I SUSPECT THAT YOU ARE REFERRING TO AN EXHIBIT LATER, WHERE YOU MADE A FURTHER ESTIMATE OFF OF THOSE ADJUSTED MEASUREMENTS?

A RIGHT. AND FOR MY BEST -- WHAT I CALL MY "BEST ESTIMATE," I DON'T ALWAYS USE THE MEASUREMENT.

Q WE WILL GET TO THAT.

JUST SO I CAN TRY TO GET THROUGH THIS AS QUICKLY AS POSSIBLE, IF YOU WOULD PLEASE TURN TO EXHIBIT G25. NOW, WITH RESPECT TO CHANNEL GEOMETRY MEASUREMENTS, YOU ALSO HAD TO DEVELOP A RELATION BASED ON GAUGE SITES. YOU SEE THE THIRD BULLET THERE.

THAT WAS, AGAIN, FOR SITUATIONS WHERE YOU DIDN'T ACTUALLY HAVE RECORDED DATA, YOU DEVELOPED THIS RELATIONSHIP SO THAT YOU COULD ULTIMATELY ESTIMATE HOW MUCH WATER WAS COMING THROUGH THESE VARIOUS CHANNELS THAT NO ONE HAD ACTUALLY MEASURED ON THE GROUND; IS THAT CORRECT?

A YES, IF I UNDERSTAND HOW YOU DESCRIBE WHAT I DID. MAYBE I SHOULD GIVE BACK TO YOU JUST WHAT'S LISTED ON THIS EXHIBIT. BUT BASED ON THE GAUGE STATIONS, I DEVELOPED A RELATIONSHIP AND THEN USED THAT RELATIONSHIP TO ESTIMATE THE STREAMFLOW FOR A COLLECTION OF SMALL WATERSHEDS. I THINK THERE WERE FIVE OR SIX OF THEM.

Q AND IF WE JUST MOVE AHEAD ONE EXHIBIT, TO G26. ULTIMATELY, IT'S THOSE CIRCLES WITHOUT THE TRIANGLES WHERE YOU DID THAT; CORRECT?

A YES.

Q AND EXHIBIT G30, THAT HAS THOSE SEVEN LOCATIONS AND THE ESTIMATES THAT YOU CAME UP WITH FOR THOSE LOCATIONS; IS THAT CORRECT?

A YES. THERE ARE SEVEN LOCATIONS, AND THESE ARE THE ESTIMATES IN THIS TABLE.

Q OKAY. NOW, YOU ALSO DEVELOPED A BASIN REMAINDER, DID YOU NOT?

A YES.

Q DID YOU USE THE SAME RELATIONSHIP THAT YOU DID FOR THESE UNNAMED CHANNELS FOR THAT CALCULATION?

A NO. THERE'S -- I CAN SEE THAT THERE IS A HUGE CONFUSION HERE RIGHT NOW. THE CHANNEL GEOMETRY EQUATION THAT YOU -- THAT WAS ON A PREVIOUS EXHIBIT, THAT EQUATION WAS SIMPLY USED TO ESTIMATE STREAMFLOW AT THESE SEVEN SMALL WATERSHEDS.

AND THE DATA FOR THOSE SEVEN WENT INTO THE LARGER COLLECTION OF WHAT I WOULD SORT OF, QUOTE-UNQUOTE, CALL "MEASURED STREAMFLOW," WHICH THEN WAS USED TO DEVELOP A RELATIONSHIP BETWEEN PRECIPITATION AND RUNOFF.

SO THAT THE ONLY CONNECTION WITH RESPECT TO CHANNEL GEOMETRY AND THE PRECIPITATION YIELD METHOD IS THAT THE CHANNEL GEOMETRY WAS USED TO ESTIMATE THESE FLOWS FOR THESE SMALL WATERSHEDS, AND THEY WERE INCORPORATED INTO THE BROADER ANALYSIS.

Q I ACTUALLY WASN'T ASKING WITH RESPECT TO -- HOPEFULLY, THERE WAS NO CONFUSION.

YOU DID ESTIMATE THE BASIN REMAINDER; IS

THAT CORRECT?

A YES, BUT --

Q I WASN'T SUGGESTING THAT YOU USED THE FORMULA.

A OKAY. GREAT. THANK YOU.

Q BUT THE BASIN REMAINDER WAS ANOTHER ESTIMATE THAT YOU HAD TO DEVELOP, ULTIMATELY, TO COME UP WITH YOUR PRECIPITATION YIELD RESULT; IS THAT CORRECT?

A CORRECT, YES.

Q OKAY. IF I COULD TURN YOU TO EXHIBIT G46 -- I'M SORRY, EXHIBIT G36. THIS EXHIBIT REFERS TO THE POTENTIAL EVAPOTRANSPIRATION DATA THAT -- THE PREPARATION OF THAT DATA THAT WAS INVOLVED; IS THAT CORRECT?

A YES.

Q AND AGAIN, HERE YOU HAD TO RELY ON -- I BELIEVE YOU REFER TO IT AS CIMIS DATA; IS THAT CORRECT?

A YES.

Q AND IN THIS INSTANCE, THERE WERE -- I BELIEVE YOUR TESTIMONY WAS THAT THERE WERE TEN YEARS OF DATA FOR CIMIS; IS THAT CORRECT?

A ROUGHLY THAT. THERE'S A TABLE IN MY EXPERT REPORT, I THINK, FOR EACH STATION THAT SAYS WHAT DATA ARE AVAILABLE. THERE ARE DIFFERENT PERIODS -- OR RECORD LINKS FOR INDIVIDUAL ONES, BUT THEY'RE ROUGHLY TEN YEARS.

Q ROUGHLY TEN YEARS. OKAY.

AND THEN YOU HAD TO TAKE THAT DATA AND

EXTEND THE RECORD PERIOD FOR THE ENTIRE 1949-TO-2005 PERIOD; IS THAT CORRECT?

A CORRECT.

Q AND YOU MADE ADJUSTMENTS. AND I THINK YOU SAID YOU USED TEMPERATURE AS ONE OF THE FACTORS YOU HAD TO USE FOR ADJUSTMENTS?

A WELL, TEMPERATURE WAS USED IN THE EXTENSION OF THE PALMDALE RECORD FROM THE CIMIS DATA PERIOD TO THE OVERALL STUDY PERIOD.

Q AND SO, ULTIMATELY, IN EXHIBIT G38, IT IS TEN OF THOSE YEARS THAT ARE RECORDED DATA, AND THE REMAINDER ARE YOUR ESTIMATES?

A CORRECT.

Q NOW, IF I COULD MOVE YOU TO EXHIBIT G46. EXHIBIT G46, ULTIMATELY, WHAT I'M INTERESTED IN IS AT BOTTOM, WHERE IT SAYS "NDVI STAR EQUALS KC." AND THAT I BELIEVE YOU REFERRED TO AS A CROP COEFFICIENT; IS THAT CORRECT?

A CORRECT.

Q ULTIMATELY, YOU HAD TO TAKE THE POTENTIAL EVAPOTRANSPIRATION, THE TOP FORMULA, MULTIPLY IT BY THAT CROP COEFFICIENT, AND THAT GAVE YOU THE EVAPOTRANSPIRATION THAT YOU USED FOR YOUR EVAPOTRANSPIRATION METHOD?

A YES.

ONE OF THE THINGS I JUST NOTICED: THE SLIDE UP ON THE WALL, I THINK THERE HAVE BEEN CORRECTIONS MADE TO THAT, BUT IT'S -- IT'S THE BOTTOM EQUATIONS. "NDVI"

IS "NDVI STAR" IN BOTH CASES. AND I'M NOT SURE, IN YOUR QUESTION, WHAT YOU SAID.

Q YEAH. I DID SAY "NDVI STAR."

A OH, YOU DID.

Q YOU ARE CORRECT; WE DID GET SUBSTITUTES.

NOW, THE WAY THAT YOU DEVELOPED NDVI STAR WAS THROUGH THE ANALYSIS OF SATELLITE IMAGERY; IS THAT CORRECT?

A YES.

Q AND IN THE SUMMARY EXPERT REPORT, DO YOU RECALL -- LET ME START OVER.

ARE YOU AWARE THAT MR. SCALMANINI PERFORMED SATELLITE IMAGERY ANALYSIS FOR CROP ACREAGE?

A I AM.

Q AND IN THE SUMMARY EXPERT REPORT, IT'S ACTUALLY BEEN MARKED AS EXHIBIT E1. I BELIEVE IT IS -- I DON'T HAVE THE FIGURE NUMBER OFFHAND, BUT IT IS IN EXHIBIT 101, THE SUMMARY EXPERT REPORT.

HE REPORTED THE VARIATION BETWEEN SATELLITE IMAGERY INTERPRETATION OF CROP ACREAGE VERSUS THE REPORTED CROP ACREAGE IN THE COUNTY CROP REPORTS. ARE YOU FAMILIAR WITH THAT?

A I DON'T RECALL THAT.

Q ARE YOU FAMILIAR WITH THE ACCURACY INVOLVED WITH SATELLITE IMAGERY INTERPRETATIONS?

A IN THE APPLICATIONS THAT I USE. I CAN'T GO BEYOND THAT.

Q OKAY. COULD WE MOVE FORWARD, THEN, TO

EXHIBIT G54. G54 REFERS TO AVERAGE GROUNDWATER CHLORIDE. AND HERE YOU USED THE STATIONS DEPICTED IN THE UPPER LEFT-HAND OVAL FOR THE TEHACHAPI MEASUREMENT AND THEN, BELOW THAT, THE SAN GABRIEL MEASUREMENT; IS THAT CORRECT?

A YES.

Q AND WITH RESPECT TO PRECIPITATION CHLORIDE, ON THE NEXT EXHIBIT, G55, YOU USED THE THREE DOTS, THREE BLUE DOTS, ACCOMPANIED BY THE OVAL DEPICTED THERE, FOR THE SAN GABRIEL PRECIPITATION CHLORIDE MEASUREMENT?

A YES.

Q AND YOU ALSO USED THAT MEASUREMENT FOR THE TEHACHAPI PRECIPITATION CHLORIDE MEASUREMENT?

A I DID.

Q I'M TRYING TO GET TO THE END HERE.

WILL YOU PLEASE TURN TO EXHIBIT G110. THIS EXHIBIT SHOWS HOW YOU DEVELOPED THE GROUNDWATER FLOW RELATION, OR DEPICTS THE RELATION FIT FOR THE GROUNDWATER FLOW; IS THAT CORRECT?

A IT IS, YES.

Q ULTIMATELY, YOU ONLY HAD THREE DATA POINTS, IS THAT CORRECT, FOR DETERMINING THAT THE R SQUARED WAS APPROXIMATELY 73 PERCENT; IS THAT RIGHT?

A CORRECT.

Q IF I HEARD YOU CORRECTLY, THAT MEANT THAT ROUGHLY 73 PERCENT OF THE TIME, AT LEAST IN COMPARISON TO THE MEASURED DATA THAT YOU HAVE HERE, YOU WOULD EXPECT TO PREDICT ACTUAL MEASUREMENTS. IS THAT A FAIR

WAY OF CHARACTERIZING IT?

A IT IS A LITTLE DIFFERENT THAN THAT. WHAT I SAID YESTERDAY IS THAT WHAT THE 73 PERCENT REPRESENTS, IF YOU JUST LOOK AT VARIABILITY OF THE DATA BY ITSELF AND THEN LOOK AT THE -- AND THEN DEVELOP A RELATIONSHIP, AND WHAT IS THE VARIABILITY AROUND THE RELATIONSHIP.

AND THIS SAYS THAT, OF THAT TOTAL VARIABILITY IN THE DATA, THAT THE RELATIONSHIP EXPLAINS 73 PERCENT; AND THE REMAINING 27 PERCENT IS BEING INFLUENCED BY FACTORS THAT ARE NOT REPRESENTED IN THE RELATIONSHIP.

Q SO WHAT THAT MEANS IS, MAYBE STATED IN ANOTHER WAY, IS THAT 73 PERCENT OF THE TIME, IF YOU ADHERE TO THIS RELATION FIT -- WELL, STRIKE THAT.

BUT YOU USED THIS RELATION FIT BASED ON THESE -- OR AFTER DETERMINING THE QUALITY OF THE RELATION FIT FOR THE ESTIMATES THAT YOU MADE IN THE FOLLOWING EXHIBIT, G111; IS THAT CORRECT?

A YES.

Q AND IN THE FIRST COLUMN -- SORRY; IN THE FIRST COLUMN IS THE NAMES OF THE VARIOUS GAUGED AND UNGAUGED WATERSHEDS; IS THAT CORRECT?

A YES.

Q IN THE SECOND COLUMN AT THE TOP, FOR THE SECOND -- FOR THE SECOND, THIRD, AND FORTH COLUMNS, YOU HAVE THE TERM "MEASURED," AND THEN YOU HAVE "RUNOFF," AND THE RUNOFF VALUES FOR EACH OF THE WATERSHEDS TALLIED DOWN; IS THAT CORRECT?

A YES.

Q AND IF YOU SEE MESCAL, FOR EXAMPLE, YOU HAVE THE VALUE OF 1,155. NOW, IN EXHIBIT G24 I, BELIEVE THE ACTUAL MEASURED VALUE WAS ROUGHLY DOUBLE THAT, BUT YOU MADE AN ADJUSTMENT AND -- FOR THE PERIOD OF RECORD, AND THAT IS WHY YOU HAVE THAT 1,155; IS THAT CORRECT?

A I BELIEVE SO. I CAN TELL YOU -- YOU REFERRED BACK TO THE OTHER TABLE. I WASN'T SURE WHETHER THESE VALUES WERE THE ACTUAL MEASURED OR THE ADJUSTED, BUT I CAN SEE HERE BY THE REFERENCE THESE ARE THE ADJUSTED VALUES.

Q OKAY. SO THEY ARE NOT ACTUALLY MEASURED. THEY ARE ADJUSTED BASED ON THE ESTIMATING THAT YOU DID IN EXHIBIT 24 THAT WE DISCUSSED; IS THAT CORRECT?

A WHAT WAS EXHIBIT 24?

Q SORRY, EXHIBIT G24. THAT WAS --

A THAT WAS THE ORIGINAL ONE WHERE THE ADJUSTMENT FACTORS --

Q YES.

A YES. SO THESE ARE THE VALUES OF THE MEASURED FLOWS THAT HAVE BEEN ADJUSTED FOR THEIR PERIOD OF RECORD.

Q AND THEN YOU MADE A FURTHER -- WHERE YOU DIDN'T HAVE A MEASURE FOR GROUNDWATER OR YIELD, YOU HAD TO DO A SIMULATION BASED ON THIS 73 PERCENT RELATION FIT SHOWN IN EXHIBIT G110 TO SIMULATE WHAT GROUNDWATER WOULD BE; IS THAT CORRECT? AND IN SOME INSTANCES, ALSO WHAT RUNOFF MIGHT BE?

A I THINK IN BOTH INSTANCES. SO UNDER THE THREE COLUMNS UNDER THE GENERAL COLUMN OF "SIMULATED," THESE ARE THE VALUES THAT COME FROM THE RELATIONSHIPS THAT WERE DEVELOPED.

Q SO, ULTIMATELY, YOU HAVE ADJUSTED RUNOFF, AND THEN YOU DO A SIMULATION ON THOSE ADJUSTMENTS. AND ULTIMATELY, THEN YOU COME UP WITH THE BEST ESTIMATE TOTALS THAT ARE DEPICTED THERE?

A WELL, IT IS NOT -- IT'S NOT THAT.

THE PROCESS WAS DEVELOPING A RELATIONSHIP AND INPUT TO DEVELOPMENT OF THAT RELATIONSHIP FOR THE ADJUSTED STREAMFLOW VALUES. AND THAT YIELD LEADS TO THE RUNOFF AND THE GROUNDWATER YIELD RELATIONSHIPS. THEN THOSE RELATIONSHIPS ARE USED WITH THE PRECIPITATIONS ON THE WATERSHEDS TO DEVELOP THE COLUMNS UNDER "SIMULATED."

Q IF I COULD FINALLY JUST TURN YOU TO EXHIBIT G122. AND UNDERSTANDING -- AND EXHIBIT G122 HAD TO HAVE CORRECTIONS TO IT, SO WE CAN'T PUT IT UP ON THE SCREEN.

THIS WAS YOUR FINAL EXHIBIT SHOWING THE UNCERTAINTY IN NATURAL RECHARGE. DO YOU RECALL THIS EXHIBIT?

A YES. AND YESTERDAY, THERE WAS A COUPLE OF TYPOS THAT WERE REVISED.

Q AND IF I RECALL CORRECTLY, YOU HAD TO CORRECT THE PRECIPITATION YIELD RECHARGE, THE PRECIPITATION YIELD STANDARD ERROR. AND ULTIMATELY, NOBODY ASKED YOU, BUT THAT PRESUMABLY MIGHT IMPACT YOUR COMBINATION TOTALS?

A NO, IT DOESN'T.
Q OKAY.
A I THINK THE ONLY THING THAT WAS CHANGED WAS THAT THE PRECIPITATION YIELD VALUE --
Q WENT TO 59,000 ACRE-FEET?
A YES. THE YIELD OF 68- AND THE 59-, BECAUSE IT HAD BEEN IMPROPERLY BROUGHT FORWARD FROM THE PREVIOUS.
AND I THINK THERE WAS ANOTHER TYPO THAT --
Q STANDARD ERROR WAS 13,000?
A 13,000 RATHER THAN 11,000. I THINK THAT'S ALL THAT WAS HANDED OUT YESTERDAY.
Q MY ONLY OTHER QUESTION I HAVE IS -- OR TWO QUESTIONS. YOU DID ALSO ANALYZE VARIABILITY, YEAR OVER YEAR, IN NATURAL RECHARGE; IS THAT CORRECT?
A ARE YOU TYING IT TO -- I'M NOT SURE WHAT THE QUESTION IS. PART OF THE ANSWER IS "YES." I MEAN, I HAVE A TABLE WHERE I TRANSLATE THE AVERAGE ANNUAL VALUES INTO --
Q INDIVIDUAL YEARS?
A -- INDIVIDUAL YEARS, BUT THAT IS NOT PART OF THIS TABLE ANYMORE.
Q DO YOU HAPPEN TO RECALL WHAT THE LOW AND HIGH OF THOSE INDIVIDUAL YEAR ESTIMATES ARE, JUST IN A GENERAL --
A I WOULD HAVE TO LOOK AT THE -- BUT THERE IS A LARGE VARIABILITY.
Q COULD IT BE AS LOW AS 6,000 ACRE-FEET AND AS

HIGH AS 200,000 ACRE-FEET?

A IF YOU WERE TO REPRESENT TO ME THAT THAT'S WHAT IS ON MY TABLE, I WOULD SAY THAT SOUNDS REASONABLE; BUT TO BE ABSOLUTELY SURE, IF IT IS NECESSARY, I CAN GO LOOK AT THE GRAPH.

MR. SLOAN: OKAY. I HAVE NO FURTHER QUESTIONS. THANK YOU.

THE COURT: ALL RIGHT. WE WILL STOP FOR LUNCH.

(THE NOON RECESS WAS TAKEN.)

CASE NUMBER: JCCP 4408
CASE NAME: ANTELOPE VALLEY
LOS ANGELES, CALIFORNIA, WEDNESDAY, FEBRUARY 16, 2011
DEPARTMENT NO. 316 HON. JACK KOMAR
REPORTER GINGER WELKER, CSR #5585
TIME: 1:30 P.M.
APPEARANCES: (SEE TITLE PAGE)

CROSS-EXAMINATION

BY MR. MCLACHLAN:

Q GOOD AFTERNOON, MR. DURBIN. MY NAME IS MIKE MCLACHLAN. AND I REPRESENT ONE OF THE CLASS ACTIONS IN THIS CASE CALLED THE SMALL PUMPERS, SPECIFICALLY RICHARD WOOD. IF YOU COULD FOR A MOMENT, COULD YOU TURN TO EXHIBIT G16. THE POWERPOINT EXHIBITS THAT WERE OFFERED BY YOUR COUNSEL IN REGARD TO THE EXAMINATION, WERE THOSE ALL PREPARED BY YOURSELF?

A YES. YES, THEY WERE. I MEAN, LET ME GIVE YOU A LITTLE QUALIFICATION. THERE IS -- IN SOME OF THE POWERPOINTS, THERE IS A SORT OF SCHEMATIC CROSS-SECTION OF THE WATERSHED. ONE OF MY STAFF PREPARED THAT AS SORT OF BASIC BACKGROUND THAT I HAD BEEN UTILIZING IN CONSTRUCTING THEM INTO SLIDES.

Q BUT YOU YOURSELF PUT THE DATA AND THE INFORMATION INTO THE POWERPOINT PRESENTATION?

A I DID.

Q AND DID YOU GO THROUGH ANY PROCESS OF GOING

THROUGH TO DOUBLE CHECK THE INFORMATION THAT YOU INCLUDED IN YOUR POWERPOINT FOR ACCURACY?

A WELL, I CHECKED IT VARIOUS TIMES. I OBVIOUSLY MISSED SOME THINGS IN THE CHECKING PROCESS.

Q IN EXHIBIT 16 DO I UNDERSTAND CORRECTLY THAT THE ANNUAL DATA THAT IS REFERENCED THERE FOR THE PALMDALE STATION, IS THE ADJUSTED NUMBERS, IS THAT RIGHT, THE ADJUSTED ANNUAL PRECIPITATION?

A YES.

Q OKAY. AND THE ADJUSTMENT PROCESS WAS SOMETHING YOU HAD DO TO REMOVE A BIAS FROM A MISSING DAY OR DAYS OF WATER READINGS WERE NOT RECORDED, PRECIPITATION READINGS RATHER, WERE NOT RECORDED?

A I DON'T CALL THAT ADJUSTMENT. THAT WAS THE ADJUSTMENT THAT IS THE TERM I USE FOR CORRECTING FOR WET AND DRY PERIODS. I FILLED IN THE MISSING DATA FOR DAYS THAT -- THAT THERE WERE NO DATA AVAILABLE.

Q WHAT GENERALLY ARE THE REASONS, IF YOU HAVE AN UNDERSTANDING, AS TO WHY THERE WOULD BE NO READINGS OR NO DATA AVAILABLE FOR PARTICULAR DAYS?

A WELL, THERE ARE TWO BASIC REASONS. THERE MAY BE OTHERS BUT I -- TWO BASIC ONES. ONE IS A MALFUNCTIONING OF THE GAUGE AND SOME OF THESE GAUGES ARE MAINTAINED ON A DAILY BASIS BY AN INDIVIDUAL. AND THEY CAN NEGLECT TO GO OUT AND COLLECT THE DATA ON A PARTICULAR DAY SO THOSE DAYS END UP BEING MISSING.

MR. MCLACHLAN: COULD YOU TURN TO THE SUMMARY EXPERT REPORT, AND I WANT TO REFER YOU TO AN EXHIBIT

THAT MR. JOYCE USED WITH YOU. IT IS TABLE C.20.

AND, YOUR HONOR, BEFORE I FORGET TO DO IT, I'M GOING TO -- I BELIEVE I'M F; RIGHT?

THE COURT: THAT IS CORRECT.

MR. MCLACHLAN: SO I'LL MARK EXHIBIT 2C0 AND C2J. AND, UNFORTUNATELY, I LEFT MY COPIES AT THE OFFICE, BUT I WILL MARK MY INDIVIDUAL COPY AS WHATEVER NEXT IN ORDER IS FOR F.

THE COURT: LET'S FIGURE OUT WHAT THAT IS.

MR. MCLACHLAN: JUST SO WE ARE CLEAR THERE WAS AN EXHIBIT I IDENTIFIED, SOMEBODY CORRECTED IT -- IT HAS BEEN IDENTIFIED TWICE IN SOMEONE ELSE'S RANGE, AND WE MOVED IT, AND THAT'S WHY I DON'T REMEMBER THE EXACT NUMBER. IT IS EITHER FOUR OR FIVE.

THE CLERK: SERIES F, EXHIBIT 2 WHICH IS A F-2 ON FEBRUARY 9TH THAT WAS ENTERED.

MR. MCLACHLAN: WHY DON'T WE JUST PICK F4.

THE COURT: WE MAY ALREADY HAVE ONE, SO IT WOULD BE F5.

MR. MCLACHLAN: SO THESE TWO PAGES WILL BE F5.

(SMALL PUMPERS CLASS/R.WOOD EXHIBIT F5 MARKED.)

BY MR. MCLACHLAN:

Q MR. DURBIN, LOOKING AT THE PALMDALE DATA WHICH IS TABLE C.20?

MR. DUNN: I'M SORRY, YOUR HONOR. IT'S ACTUALLY

TABLE C DOT -- OKAY. THERE IS A SEPARATE TABLE.

MR. MCLACHLAN: I'M SORRY. IT'S RIGHT. IT'S "O" AS IN OSCAR. MR. DUNN IS CORRECT.

Q NOW THIS TABLE, MR. DURBIN, IS AT LEAST IN TERMS OF FAR RIGHT-HAND CORNER, THE ANNUAL DATA, THE DATA THAT WOULD CORRESPOND TO YOUR EXHIBIT G16; IS THAT RIGHT?

A YES, THE -- THE TOTAL COLUMN.

Q NOW, ON G16 THE AVERAGE NUMBER, I BELIEVE YOU TESTIFIED, WAS SOMEWHERE IN THE RANGE OF 7.4. DO YOU RECALL THAT?

A SOMETHING LIKE THAT, I'M NOT SURE OF THE EXACT NUMBER.

Q AND THAT NUMBER WOULD HAVE BEEN CALCULATED FROM THE DATA THAT WE SEE LISTED IN THE RIGHT-HAND COLUMN OF TABLE C.2O RATHER?

A YES. THE GRAPH WAS NOT PRODUCED LITERALLY OR DIRECTLY FROM THIS TABLE. THIS WAS CREATED FROM A SIMILAR TABLE.

Q ARE YOU SURE THAT AVERAGE NUMBER IS RIGHT?

A I DON'T KNOW. I PRESUMED IT WAS RIGHT, BUT IT SEEMS TO FIT IN WITH WHAT THE CONDITIONS ARE AT PALMDALE.

Q I WOULD LIKE TO CROSS-REFERENCE YOUR CHART EXHIBIT G16 IN A FEW SPOTS WITH THE TABLE IN C.2O. I DID THIS LAST NIGHT, AND I'LL REPRESENT TO YOU THAT MOST OF THE DATA POINTS IN YOUR -- YOUR TRIAL EXHIBIT ARE WRONG. AND, FOR EXAMPLE, IF YOU LOOK AT 1995 -- OR I'M

SORRY 2005, YOU HAVE ALMOST AN ANNUALIZED NUMBER OF 21.

WHEREAS IN YOUR TRIAL EXHIBIT G16 THE NUMBER IS WHAT, IT'S SOMEWHERE BELOW 15, IS THAT RIGHT, CAN YOU LOOK AT THOSE TWO POINTS?

A WHICH YEARS?

Q 2005, IF YOU COULD LOOK AT BOTH OF THOSE. CORRESPONDING NUMBERS IN THESE TWO EXHIBITS.

THE COURT: YOU ARE TALKING ABOUT F5 AND G16? IS THAT WHAT YOU ARE TALKING ABOUT?

MR. MCLACHLAN: THAT IS CORRECT, YOUR HONOR, AND I'M LOOKING AT THE YEAR OF 2005.

THE WITNESS: I CAN SEE THAT.

BY MR. MCLACHLAN:

Q THERE IS ABOUT A 5-INCH DIFFERENCE BETWEEN THOSE TWO?

A SO 2005 ON THE GRAPH IS A LITTLE OVER 14 AND ONE HALF, AND IT IS DIFFERENT, 20 INCHES ON THIS ONE.

Q OKAY. IT IS SIMILARLY JUST -- IN 19 -- JUST TAKING THE HIGH POINTS IN 1952, YOU HAVE OVER 18 INCHES SHOWN THERE, WHICH AGAIN WOULD BE OFF THE GRAPH THAT WE SEE ON G16; IS THAT CORRECT?

A WHICH YEAR AGAIN?

Q 1952?

A '52 ... THERE'S A DIFFERENCE THERE, ALSO. THE REASON FOR THE DIFFERENCE IS THAT THE GRAPH IS BASED ON A TABLE THAT WAS REVISED, AND THE REVISED TABLE WAS PROVIDED ON THE DISK AT MY DEPOSITION, AND WHAT'S PLOTTED IS WHAT WAS PROVIDED ON MY DEPOSITION AND NOT

WHAT IS IN THE EXPERT REPORT.

Q SO WHICH OF THE TWO WOULD BE CORRECT, THE TRIAL EXHIBIT OR THE TABLE THAT WE ARE USING IN EXHIBIT F5?

A THE TRIAL EXHIBIT BECAUSE IT IS BASED ON THE UPDATED VALUE -- IN THE WORKBOOK THAT FOR WHICH -- WAS IN THE EXPERT REPORT THERE WAS A MISTAKE MADE IN HOW THE SUMS WERE DONE AND THAT THAT WAS SUBSEQUENTLY CORRECTED.

Q COULD YOU ELABORATE A LITTLE BIT ON THIS MISTAKE. WHAT DID THAT INVOLVE?

A WELL, THERE IS -- IN EXCEL THERE IS SOME FUNCTION THAT PULLS SOME DESIGNATED GROUP OF NUMBERS AND THAT THAT SUM FUNCTION REFERENCED THE WRONG CELLS.

Q DID THAT REQUIRE YOU TO GO BACK AND REDO ANY OF YOUR ANALYSIS?

A I DID NOT.

Q IF YOU MIGHT, I DON'T WANT TO SPEND A LOT OF TIME WITH THIS, BUT PERHAPS IF YOU COULD JUST, LET'S PICK THE PERIOD BETWEEN '95 AND THE PRESENT IN BOTH OF THESE EXHIBITS, THAT'S F5 AND G16. AND IF YOU COULD JUST TAKE A MOMENT AND GO DOWN THERE AND CONFIRM THAT MOST ALL OF THOSE YEARS DIFFER BETWEEN THOSE TWO EXHIBITS.

A ACTUALLY, THEY DO BECAUSE THERE WAS -- THIS TABLE ISN'T WHAT IS PLOTTED ON THE EXHIBIT.

Q ALL RIGHT. DO I UNDERSTAND CORRECTLY THAT THE DATA THAT WAS USED TO GENERATE G16 IS WHAT WAS PRESENTED AT YOUR DEPOSITION?

A YES.

Q OKAY. THE -- BEFORE WE LEAVE EXHIBIT F5 IN THIS PARTICULAR PALMDALE PRECIPITATION CHART, I NOTE THAT IT HAD DATA GOING THROUGH 2009. DO YOU SEE THAT?

A YES.

Q NOW, WAS THERE ANY PARTICULAR REASON THAT YOU STOPPED YOUR ANALYSIS IN 2005?

A WELL, THERE -- THE WORK WAS DONE SEVERAL YEARS AGO AND -- OR A NUMBER OF YEARS AGO NOW, UNFORTUNATELY. AND AT THAT TIME THAT WAS THE PERIOD OF DATA THAT WERE AVAILABLE.

WE COMPILED ADDITIONAL DATA BUT THE -- NOTHING WAS DONE AS FAR AS REANALYZING THE DATA WITH THE ADDITIONAL DATA.

Q WOULD IT HAVE BEEN DIFFICULT TO UPDATE YOUR NUMBERS USING THE YEARS THAT YOU HAVE AFTER 2005?

A IT WOULD HAVE TAKEN SUBSTANTIAL WORK TO DO THAT -- AND CHOSE NOT TO.

Q OKAY. IT IS UNCLEAR TO ME FROM YOUR PRIOR TESTIMONY WHY EXACTLY WAS IT THAT THE ANALYSIS FOR YOURSELF AND MR. SCALMANINI AND MR. WILDERMUTH WAS CUT OFF AT 2005?

A WELL, JUST AS I DESCRIBED THAT WHEN ALL THIS WORK WAS GOING ON IN THE TECHNICAL COMMITTEE THAT I THINK THAT MUST HAVE BEEN JUST SLIGHTLY AFTER 2005 OR SOMETHING LIKE THAT, AS FAR AS PUBLISHED DATA, THAT THIS WAS A PERIOD OF RECORD THAT WAS AVAILABLE.

Q I WANT TO RETURN FOR A MOMENT TO THIS 8-INCH

ISSUE THAT WE HAVE BEEN KICKING AROUND LIKE A SOCCER BALL BRIEFLY. DID YOU CONSIDER DOING ANY SORT OF A SENSITIVITY ANALYSIS IF YOU CHANGE THAT ASSUMPTION OF 8 INCHES EQUATING TO NO RECHARGE. IF YOU CHANGE THAT AND YOU MADE IT BETWEEN SEVEN INCHES OR SIX INCHES, DID YOU CONSIDER TRYING TO RUN THOSE NUMBERS AND DO A SENSITIVITY ANALYSIS AND SEE WHAT WOULD HAPPEN TO YOUR ULTIMATE OPINION?

A WELL, I DIDN'T DO A FORMAL SENSITIVITY ANALYSIS. I HAVE AN UNDERSTANDING OR AN OPINION, BUT WHAT THOSE DIFFERENCES MIGHT BE.

Q COULD YOU ELABORATE?

A WELL, ON THE PRECIPITATION YIELD METHOD, IF THE THRESHOLD VALUES HAD BEEN SIX INCHES OR SOMETHING LIKE THAT, THERE WOULD HAVE BEEN A RESULTING SLIGHT SHIFT IN THE PARAMETERS FOR THE RUNOFF AND GROUNDWATER RELATIONSHIPS THAT I DEVELOPED.

BUT THERE WOULD ALSO BE A CORRESPONDING CHANGE IN THE AMOUNT OF PRECIPITATION AND IN THE END RESULT WITH THOSE THINGS WOULD BE A WASH. YOU WOULD GET THE SAME RESULT BECAUSE WE ARE DEVELOPING A RELATIONSHIP THAT MATCHES THE STREAMFLOW, AND THE STREAMFLOW DOESN'T CHANGE WITH A -- A CHANGE IN THAT AREA.

WITH RESPECT TO THE EVAPOTRANSPIRATION METHOD, IT WOULD HAVE ADDED ADDITIONAL PRECIPITATION, BUT IT WOULD ALSO HAVE ADDED ADDITIONAL EVAPOTRANSPIRATION; AND IN THAT LOW PRECIPITATION RANGE, THERE'S EVAPOTRANSPIRATION AND THE PRECIPITATION ARE

ALMOST IDENTICAL SO THAT THERE WOULD BE VERY LITTLE EFFECT OF MAKING SUCH A CHANGE.

Q NOW, DO I UNDERSTAND CORRECTLY THAT THE ORIGIN OF THIS 8-INCH ANNUAL PRECIPITATION THRESHOLD IS SOMETHING THAT ORIGINATED FROM A STUDY IN NEVADA; IS THAT RIGHT?

A WELL, IT IS MORE THAN A STUDY, AND IT'S MORE THAN NEVADA, BUT IT DOES START WITH THE ORIGINAL WORK BY MAXEY EAKIN IN NEVADA WHERE THEY ADOPTED THAT VALUE. SO IF THAT IS WHAT YOU ARE REFERRING TO A STUDY IN NEVADA, THAT WOULD BE THE STARTING POINT OF THAT.

Q NOW, WHEN MAXEY EAKIN ADOPTED THAT VALUE, WAS THAT BASED UPON ANY PHYSICAL TESTING THEY DID IN A GEOLOGICAL ENVIRONMENT, OR WAS THAT JUST MATHEMATICAL ANALYSIS OF DATA?

A NO, IT WAS BASED ON DATA THEY HAD FOR A CERTAIN SELECTION OF GROUNDWATER BASINS IN SORT OF CENTRAL, EAST CENTRAL NEVADA, AND THEY HAD INFORMATION IN SORT OF A DIRECT ESTIMATE OF THE RECHARGE AND BACKED OUT THE RELATIONSHIP THAT VALLEY BY VALLEY FITTED AND CAME UP WITH THE 8-INCHES BASED ON THAT EMPIRICAL STUDY.

Q DO YOU KNOW WHAT A INFILTRATION TEST IS?

A WELL, I CAN IMAGINE -- THAT IS SORT OF A VERY GENERAL TERM. IT COULD MEAN A LOT OF THINGS.

Q YEAH, I'M MEANING TO REFER TO A TEST THAT WOULD INVOLVE, A PHYSICAL TEST IN THE FIELD OF THE ABILITY OF THE NATIVE SOILS TO BE INFILTRATED BY CERTAIN QUANTITY OF WATER AND THEN TESTING OF THE DEPTH TO SEE

HOW FAR DOWN THAT WATER WOULD GO, THAT GIVEN QUANTITY, HAVE YOU EVER SEEN ANY STUDIES THAT DO THAT KIND OF WORK?

A YES.

Q HAVE YOU EVER PERFORMED THAT KIND OF WORK IN THE FIELD?

A I HAVE.

Q IS IT VERY DIFFICULT TO DO?

A IT DEPENDS UPON THE DESIGN OF THE STUDY. SOME OF THEM ARE QUITE SIMPLE TO DO AND OTHERS ARE MORE COMPLICATED.

Q DO YOU KNOW WHETHER ANY OF THOSE SORT OF TESTS HAVE EVER BEEN DONE IN THE ANTELOPE VALLEY?

A I'M SURE THEY HAVE BEEN DONE AT VARIOUS PLACES. I WOULD BE SURPRISED IF THEY HADN'T BEEN DONE.

MR. MCLACHLAN: WELL, I AM GOING TO MOVE TO STRIKE AS NONRESPONSIVE.

Q MY QUESTION WAS WHETHER OR NOT YOU KNOW IF SUCH TESTS HAVE EVER BEEN DONE IN THE ANTELOPE VALLEY?

A I DO NOT.

Q OKAY. IS THERE ANY REASON WHY YOU DIDN'T DO ANY OF THOSE TESTS IN YOUR WORK IN THIS MATTER?

A BECAUSE THE TESTS OF THAT SORT WOULDN'T YIELD ANY INFORMATION ON THAT ISSUE OF RECHARGE FROM PRECIPITATION.

Q WHY IS THAT?

A ALL IT TELLS -- BECAUSE IT -- THE ONLY INFORMATION YOU GET ON THESE TESTS ARE THE PHYSICAL

PROPERTIES OF THE SOIL AND THE PROCESS -- I MEAN, THE PROCESSES THAT DETERMINE WHETHER OR NOT INFILTRATION OR RECHARGE OCCURS ARE MUCH BROADER THAN JUST THAT ONE ISSUE.

Q NOW DO I RECALL CORRECTLY THAT YOUR ESTIMATE OF THE AREA WITHIN THE 8-INCH PRECIPITATION CONTOUR WAS APPROXIMATELY 1 MILLION ACRES? THIS IS GOING BACK TO YOUR TESTIMONY WITH MR. FIFE.

A YES, SOMETHING OF THAT ORDER.

Q DID YOU DO ANY ANALYSIS TO TRY TO DETERMINE IF, IN FACT, YOU ARE WRONG ABOUT THIS ZERO RECHARGE BELOW 8-INCHES OF ANNUAL AVERAGE PRECIPITATION -- WELL, LET ME STRIKE THE QUESTION.

HAVE YOU EVER SEEN ANY STUDIES IN SOUTHWESTERN DESERTS CLIMATE THAT ESTIMATE IN THE NATURAL DESERT SETTING THAT ANYWHERE BETWEEN A 10TH AND 5 PERCENT OF THE PRECIPITATION WILL ULTIMATELY REACH THE GROUNDWATER? THESE ARE -- I'M GOING TO FURTHER CLARIFY THAT THESE ARE ALL ENVIRONMENTS WITH 8-INCHES OR LOWER IN PRECIPITATION.

A THOSE ARE NOT STUDIES THAT I EXAMINED AS PART OF MY WORK.

Q ARE YOU FAMILIAR WITH A STUDY ALONG THOSE LINES FROM SCANLON IN 2006?

A I AM NOT.

Q OKAY. YOU DO -- IT SOUNDS LIKE FROM YOUR TESTIMONY FAIRLY CONVERSANT IN A LOT OF THE STUDIES, PARTICULARLY IN THIS AREA OF THE STATE -- IN ANTELOPE

VALLEY; IS THAT RIGHT?

A PROBABLY NO MORE THAN THE AVERAGE PERSON, BUT I'M NOT CLAIMING TO KNOW EVERYTHING.

Q I WANT TO JUST BRIEFLY TRY TO RECAST OR MAKE SURE I UNDERSTAND YOUR TESTIMONY ON THE PLAYA FLOODING ISSUE. UNDER YOUR FORMULA IF HYPOTHETICALLY THE FLOODING ON THE PLAYAS IS DUE TO -- WELL, LET ME STRIKE THAT. I WANT TO ASK A FOUNDATIONAL QUESTION.

DID YOU DO ANY RESEARCH OR ANALYSIS DETERMINED WHETHER ANY OF THE PRECIPITATION THAT IS FALLING ON THE VALLEY FLOORS DURING YEARS OF PLAYA FLOODING IS REACHING THE PLAYAS AND ACCOUNTING FOR SOME OF THE WATER THAT YOU SAW ON SATELLITES ON THOSE PLAYAS?

A THE -- I DID NOT DO SPECIFIC STUDIES.

Q DID YOU LOOK FOR ANY PHYSICAL EVIDENCE THAT WATER THAT WAS -- PRECIPITATION THAT WAS FALLING ON THE VALLEY FLOOR IN WETTER YEARS MAY HAVE BEEN CONTRIBUTING TO THE PLAYA FLOODING?

A I -- YES, THE ANSWER IS YES.

Q AND YOUR CONCLUSION WAS THAT YOU DIDN'T FIND ANY SUCH EVIDENCE?

A WELL, THERE ISN'T -- EXCEPT FOR THE MAJOR STREAM CHANNELS THERE IS NOT EVIDENCE OF A -- OF A LOT OF LOCAL RECHARGE COMING INTO AT LEAST THE ROSAMOND PLAYA. AND THE BASES OF THAT HAS TO DO WITH THE CHARACTERISTICS OF THE CHANNEL IN THE UPLANDS IMMEDIATELY AROUND THE PLAYA THAT THEY ARE -- WHEN YOU GO OUT IN THE FIELD AND LOOK AT THOSE CHANNELS, THEY ARE

NOT WELL-DEVELOPED CHANNELS. CERTAINLY, THERE IS SOME CONTRIBUTION TO THE PLAYA FLOODING THAT IS COMING FROM LOCAL RUNOFF, BUT MY OPINION WOULD BE THAT IS A SMALL AMOUNT.

Q WITH REGARD TO THIS LITTLE BIT MORE THAN 9,000 AVERAGE ANNUAL ACRE-FEET THAT IS DISCHARGED TO THE PLAYAS, DO I UNDERSTAND CORRECTLY THAT TO THE EXTENT SOME PORTION OF THAT 9,000 ACRE-FEET ON AVERAGE PER YEAR COMES FROM SOURCES OTHER THAN THE CREEKS, SUCH AS SANITATION DISTRICTS OR LOCAL RUNOFF FROM THE VALLEY FLOOR THAT THAT WOULD HAVE A CORRESPONDING INCREASE IN YOUR NATURAL RECHARGE NUMBER?

MS. RILEY: OBJECTION. ASKED AND ANSWERED.

THE COURT: OVERRULED.

BY MR. MCLACHLAN:

Q DO YOU UNDERSTAND THE QUESTION?

A I THINK SO. SO YOU ARE ASKING --

Q LET'S SAY 5,000 ACRE-FEET OF THAT 9,000 AVERAGE ANNUAL PLAYA FLOODING NUMBER WAS FROM SANITATION DISTRICTS AND LOCAL VALLEY RUNOFF AND ANYTHING ELSE THAT WE CAN THINK OF, IT WASN'T FROM THE CREEKS, IT DIDN'T COME FROM THE MOUNTAIN FRONT RECHARGE, WOULD THAT 5,000 HAVE TO BE ADDED ON TO YOUR NUMBER FOR NATURAL RECHARGE?

A WELL, THE DIFFICULTY IN THE QUESTION IS THAT THE 9,000 COMES FROM ROOTING THE MOUNTAIN FRONT RUNOFF DOWN TO THE PLAYA. SO ANY CONSIDERATION OF, YOU KNOW, LOCAL RUNOFF THAT MIGHT BE OCCURRING SIMPLY ADDS TO THE LEVEL OF PLAYA FLOODING, BUT IT DOES NOT CHANGE THE

AMOUNT OF THE MOUNTAIN RUNOFF THAT REACHES THE PLAYA.

Q SO THE VOLUMES OF WATER THAT YOU CALCULATED ON THE PLAYA IS BASED UPON THE SATELLITE IMAGINING DOESN'T BEAR UPON THE AMOUNT OF DISCHARGE FROM THE MOUNTAIN FRONTS?

A THE VOLUME THAT IS SHOWN ON THE -- WELL, YES, THE ANSWER IS THAT THOSE SATELLITE IMAGES THERE IS NOTHING THERE THAT IMPACTS IN ANY WAY THE 9,000 ACRE-FEET AND THAT WHATEVER THE SOURCES OF WATER THAT FLOODING THE 9,000 ACRE-FEET IS AS IT IS.

MR. MCLACHLAN: I HAVE NO FURTHER QUESTIONS.

THE COURT: ALL RIGHT. MR. ZIMMER.

CROSS-EXAMINATION

BY MR. ZIMMER:

Q MY EXAMINATION WILL BE RELATIVELY BRIEF, CERTAINLY NOT AS INTELLECTUALLY STIMULATING OR INSIGHTFUL FROM AN ENGINEERING PERSPECTIVE AS MR. KUHS IS PERHAPS, BUT I WANT TO GO OVER A FEW GENERAL IDEAS WITH YOU. FIRST OF ALL, THE POTENTIAL OF EVAPOTRANSPIRATION AS IT IS CALLED THAT'S CALLED POTENTIAL EVAPOTRANSPIRATION, RIGHT, IT IS NOT ACTUAL?

A CORRECT.

Q POTENTIAL EVAPOTRANSPIRATION YOU ARE LOOKING AT TO SEE HOW MUCH OF THE RAINFALL IS BASICALLY TAKEN UP BY VEGETATION IN THE MOUNTAIN FRONT AREA, TRUE?

A WELL, HOW MUCH POTENTIALLY CAN BE TAKEN OFF,

NOT HOW MUCH ACTUALLY IS.

Q EXACTLY, POTENTIALLY TAKEN UP. NOW POTENTIAL EVAPOTRANSPIRATION IN THE MOUNTAIN BLOCK AREA IS GOING TO IN SOME RESPECT DEPENDENT UPON THE TYPE OF VEGETATION; CORRECT?

A NOW, THIS IS A QUESTION ABOUT POTENTIAL?

Q YES, POTENTIAL EVAPOTRANSPIRATION?

A OKAY. SO I JUST WANT TO MAKE THAT CLEAR AS YOU ASK THE QUESTION WHAT -- I'M SORRY FOR INTERRUPTING.

Q THAT'S ALL RIGHT. POTENTIAL EVAPOTRANSPIRATION IS IN SOME MEASURE DEPENDENT UPON THE TYPE OF VEGETATION WHERE THE PRECIPITATION IS FALLING; TRUE?

A YES.

Q IT IS ALSO PARTIALLY DEPENDENT UPON WHETHER THE PLANTS ARE DORMANT OR ACTIVE, AN ACTIVE GROWING CYCLE WHEN THE PRECIPITATION FALLS; TRUE?

A THE -- NOT THE POTENTIAL -- POTENTIAL EVAPOTRANSPIRATION LIKE AT CIMIS STATIONS IS DEFINED WITH RESPECT TO WHAT THEY CALL A REFERENCE CROP; AND FOR ALL FOUR OF THESE STATIONS THAT REFERENCE CROP IS A -- I THINK A GRASS THAT IS FULLY COVERING, THAT IS 6-INCHES TALL OR SOMETHING LIKE THAT.

Q DO YOU KNOW WHAT KIND OF GRASS IT WAS?

A NO, IT IS MORE OF A THEORETICAL THING THAT THE -- THAT -- AND WHAT KIND OF COVER THE CIMIS DATA ARE INTENDED TO REPRESENT.

Q DOES THE EVAPOTRANSPIRATION DEPEND IN PART

ON WATER AVAILABILITY?

A NOW, WE ARE TALKING ABOUT ACTUAL OR POTENTIAL?

Q POTENTIAL EVAPOTRANSPIRATION?

A POTENTIAL DOES NOT DEPEND ON WATER AVAILABILITY.

Q DOES THE POTENTIAL EVAPOTRANSPIRATION DEPEND AT ALL ON WIND TRANSPORT OR HEAT?

A IT DOES.

Q DOES IT DEPEND AT ALL UPON HUMIDITY AND TEMPERATURE?

A IT DOES.

Q IF WE COULD PUT UP EXHIBIT 27, G27. MR. DURBIN, WHILE HE IS PUTTING IT UP ON THE SCREEN, YOU PRODUCED SOME PHOTOGRAPHS FOR AT TRIAL. DO YOU RECALL THOSE OF A STREAM? A COUPLE OF PHOTOGRAPHS OF A STREAM. YOU SAID ON DIRECT EXAMINATION THAT YOUR ASSISTANT -- YOU HAD TAKEN THE PHOTOGRAPHS AND YOUR ASSISTANT WAS IN THE STREAM BED. DO YOU RECALL THAT?

A I DO, YES.

Q THOSE PHOTOGRAPHS OBVIOUSLY WERE TAKEN BEFORE YOUR DEPOSITION; CORRECT?

A NO, THEY WERE TAKEN WHEN WE WERE OUT IN THE FIELD.

Q WAS THAT BEFORE YOUR DEPOSITION?

A YES, IT WOULD BE A NUMBER OF YEARS AGO.

Q THOSE PHOTOGRAPHS WERE NOT PRODUCED AT THE TIME OF YOUR DEPOSITION; CORRECT?

A I DIDN'T KNOW THAT.

Q LET'S TALK ABOUT THE PHOTOGRAPHS FOR A MINUTE. WHAT YOU HAVE DONE THERE, I BELIEVE, IS YOU HAVE TAKEN A PICTURE OF A STREAM BED, AND YOU HAVE A RED ARROW ACROSS THE STREAM BED, AND YOU HAVE SOMETHING THAT SAYS ACTIVE WIDTH WRITTEN ACROSS THE TOP OF THAT ARROW; CORRECT?

A CORRECT.

Q YOU ARE DOING THAT TO ESTIMATE STREAM FLOW; IS THAT CORRECT?

A NO, TO MEASURE -- WELL, ULTIMATELY TO ESTIMATE STREAMFLOW THROUGH THE -- TO A PARTICULAR RELATIONSHIP, BUT SIMPLY TO GATHER INFORMATION ON THAT WIDTH AT VARIOUS LOCATIONS IN THE FIELD.

Q NOW WHAT IS THE EFFECT -- WE HAVE IT UP ON THE SCREEN NOW. WE HAVE THIS ACTIVE WIDTH. WHAT IS THE EFFECT IF WE HAD DRAWN THIS RED ARROW, LET'S SAY WE DREW IT WIDER, AND WE TOOK IT INTO ACCOUNT MORE OF THE ROCK AREA IN THIS STREAM BED THAN YOU HAVE INDICATED ON EXHIBIT G27, WHAT WOULD THE EFFECTS ON THE NATURAL RECHARGE NUMBERS BE?

A NOW WITH THIS QUESTION, YOU ARE CHASING ALL THE WAY THROUGH TO ESTIMATING STREAMFLOW VERSUS SMALL WATERSHEDS ALL THE WAY TO THE END PRODUCT -- AND THAT IS THE QUESTION?

Q WELL, LET'S SAY WITH THIS WATERSHED RIGHT HERE. IF THIS RED ARROW WAS WIRED, YOU TOOK INTO ACCOUNT MORE OF THE STREAM BED, WOULD THE WATER FLOWING

THROUGH THAT WATERSHED BE GREATER OR LESS?

A WHAT I MEASURED WOULD HAVE NO EFFECT ON WHAT WAS FLOWING THROUGH IT.

Q WITH THE CALCULATION OF NATURAL RECHARGE TO THE EXTENT THAT IT IS DEPENDENT ON WATER FROM THAT WATERSHED BE GREATER OR LESS?

A IT WOULD HAVE NO EFFECT.

Q SO WHY PUT THE ARROW ON HERE? WHY ARE YOU TRYING TO FIGURE OUT THE ACTIVE WIDTH OF THE STREAM CHANNEL?

A THE ACTIVE WIDTH -- WELL, I'M GOING TO HAVE TO SORT OF BACK UP AGAIN AND EXPLAIN HOW THIS INFORMATION WAS UTILIZED OR WHAT WORK PRODUCT CAME OUT OF IT. THE CHANNEL GEOMETRY MEASUREMENTS WERE DONE IN ORDER TO ULTIMATELY ESTIMATE STREAMFLOW FOR A COLLECTION OF SEVEN SMALL WATERSHEDS.

AND SO WE GO OUT IN THE FIELD AND MEASURE THIS WIDTH AND THEN AT A VARIETY OF SITES AND SITES WHERE THERE ARE ALREADY IS A STREAM GAUGING STATION SO WE KNOW THAT THERE IS A -- A SET OF WIDTHS AND A SET OF MEASURED STREAM FLOWS THAT GO TOGETHER. OUT OF THAT IS DEVELOPED A RELATIONSHIP.

NOW IF -- LET'S SAY THAT ALL -- WE DOUBLE ALL THE WIDTHS. SO WHAT WE MADE HERE RATHER THAN WHAT IS SHOWN IN HERE, WE MEASURED SOMETHING THAT IS TWICE AS WIDE WHICH IS GETTING A LITTLE BIT INTO THE REALM OF RIDICULOUSNESS; BUT WHEN THAT GOES INTO DEVELOPING THE RELATIONSHIP, THERE IS A CORRESPONDING ADJUSTMENT OF THE

RELATIONSHIP SO THAT FOR THAT DEFINITION OF THE ACTIVE WIDTH YOU REPRODUCE WHAT WAS MEASURED.

SO IN THE END AS LONG AS THERE'S A CONSISTENCY FROM AMONGST ALL THE MEASUREMENTS AT THE GAUGE SITES THE -- ALL THAT DOES -- AND WHETHER THAT CONSISTENCY IS TO HAVE A WIDER OR NARROWER CHANNELS END UP IN A SLIGHTLY DIFFERENT RELATIONSHIP.

BUT THE RELATIONSHIP PREDICTS EXACTLY THE SAME THING.

Q SO REGARDLESS OF HOW WIDE YOU DETERMINE THIS ACTUAL WIDTH TO BE WOULD HAVE NO BEARING ON YOUR ULTIMATE ANALYSIS OF NATURAL RECHARGE?

A WELL, "REGARDLESS" IS QUITE A BROAD TERM. I MEAN, IF RATHER THAN 20 FEET OR SO, I MADE IT A THOUSAND FEET, YES, I THINK IT WOULD HAVE SOME STRANGE EFFECTS ON THE RESULTS.

Q WELL, REGARDLESS OF THE QUANTIFICATION WHICH WE WON'T DO, WHAT WOULD THE RESULT BE IF IT WAS WIDER?

A I JUST EXPLAINED THAT; THAT THE RESULTS WOULD BE NO EFFECT.

Q SO IT WOULD HAVE NO EFFECT ON YOUR NATURAL RECHARGE NUMBERS AT ALL?

A WELL, CERTAINLY NO EFFECT ON THE NATURAL RECHARGE NUMBERS, AND IT ALSO WOULD HAVE NO EFFECT ON THE ESTIMATES OF STREAMFLOW FOR THESE SEVEN SMALL WATERSHEDS.

Q IN THE HARD COPY THAT I HAVE -- WERE ANY OF THESE PHOTOGRAPHS ENHANCED?

A NO, THEY ARE JUST TAKEN WITH A DIGITAL CAMERA.

Q IN THE HARD COPY I HAVE, IT ALMOST SHOWS A YELLOW COLORING HERE IN THE AREA BACK OF THE WIDTH; IT DOESN'T APPEAR WHEN YOU ACTUALLY PULL IT UP ON THE COMPUTER LIKE MR. KUHS IS LOOKING AT, THERE WASN'T ANY INTENTION OF ANY YELLOW COLORING THERE?

A THERE WAS NOT.

Q WE TAKE A LOOK AT EXHIBIT 64. NOW ON EXHIBIT 64, THIS CALIBRATION REACH THAT IS SHOWN HERE, WHATEVER THIS CALIBRATION REACH THAT IS SHOWN ON EXHIBIT 64, IT IS NOT ACCURATE TO DEPICT A CALIBRATION REACH OF WHAT YOU USED FOR PURPOSES OF YOUR CALCULATION; IS THAT TRUE?

A NO, IT IS ACCURATE.

Q I THOUGHT YOU SAID YOU ONLY USED A PART OF THIS CALIBRATION REACH, THE LOWER PLAYA LEVEL, I THINK IS THE WAY YOU DESCRIBED IT?

A WHAT WAS THE LAST TERM YOU USED?

Q I THOUGHT YOU SAID YOU ONLY USED THE PORTION OF IT THAT WAS ON THE PLAYA?

A THE PLAYA IS WAY NORTH. I ONLY USED THE MOST NORTHERN PART OF WHAT IS LABELED AS THE "REACH," CALIBRATION REACH AS THE PART OF THAT OVERALL REACH IN WHICH INFILTRATION CAN ACTUALLY OCCUR.

THE CALIBRATION INVOLVED THE ROOTING THE STREAMFLOW FROM THE UPPER END OF THE REACH TO THE LOWER END OF THE REACH, BUT AGAIN TAKING INTO ACCOUNT IN THE

UPPER REACH THAT THERE WAS VERY LITTLE RECHARGE THAT WOULD -- OR CHANNEL LOSS THAT WOULD BE OCCURRING IN THAT AREA.

Q SO YOU ARE SAYING THIS IS THE CALIBRATION REACH THAT YOU LOOKED AT, BUT YOU DIDN'T CONSIDER THE UPPER PORTION OF IT BECAUSE YOU DIDN'T FEEL THERE WAS MUCH INFILTRATION THERE?

A WELL, I DID CONSIDER IT. I CONSIDERED IT AS AN AREA OF ZERO INFILTRATION.

Q YOU DIDN'T DO ANY TESTS TO DETERMINE THAT; CORRECT?

A WELL, EXAMINING THE STREAMFLOW RECORDS AND I THINK IT'S DESCRIBED IN MY EXPERT REPORT CAME TO THE CONCLUSION THAT EXCEPT FOR LOW STREAMFLOWS THAT THE FLOWS FROM THE BIG ROCK CREEK GAUGE MORE OR LESS TRANSLATED DOWNSTREAM WITHOUT LOSS TO THE PALLETT CREEK LOCATION.

Q LET'S TAKE A LOOK AT EXHIBIT 69. I THINK WHAT YOU ARE TELLING US IN SATELLITE IMAGES IN MORE LAYMAN TERMS IS THAT YOU WERE LOOKING AT SATELLITE IMAGES TO DETERMINE AREAS OF PLAYA FLOODING; TRUE?

A CORRECT.

Q YOU WERE DOING THAT BY SATELLITE IMAGE AND SOMEWHAT BY COLOR; CORRECT?

A WELL, IT IS MORE THAN JUST COLOR. I MEAN, ON THE IMAGES CERTAIN COLORS ARE DISPLAYED, BUT IT'S A LITTLE MORE DEPTH OF ANALYSIS THAN SIMPLY COLOR.

Q NOW, I ASSUME WHAT YOU ARE SAYING IS THAT

WHERE WATER GOES OUT ON TO THE PLAYA, YOU HAVE ASSUMED THERE IS NO RECHARGE IN THOSE AREAS, AND IT IS JUST EVAPORATING OFF?

A I DIDN'T ULTIMATELY ASSUME THAT. WELL, I WILL SAY THAT INITIALLY THAT WAS MY ASSUMPTION, BUT WHEN I EXAMINED PAIRS OF IMAGES FOR THE PLAYAS DURING THE SAME YEAR AND HOW THE VOLUME OF WATER DECREASED WITH TIME, AS I SAID IN MY DIRECT TESTIMONY THAT -- THAT THAT LOSS OF WATER EXPLAINED BY THE EVAPORATION RATE THAT WOULD APPLY ON THE PLAYA.

Q NOW THE IDEA IS THAT ON THE PLAYA WHEREVER THAT HAPPENS TO BE GEOLOGICALLY THE FINE-GRAINED MATERIALS THAT ACCUMULATE THERE PROVIDE LESS ABILITY FOR WATER TO PERCOLATE DOWN, WOULD THIS BE GENERALLY CORRECT?

A YES, THE FINER GRAINED -- THE FINER THE GRAINS AND THE SEDIMENT ARE THE LESS INFILTRATION CAPACITY IT MAY HAVE.

Q AND YOU DIDN'T DO ANY ACTUAL TESTS OF DOING ANY BORING TO -- OR A TEST TO SEE WHAT THE ACTUAL INFILTRATION LEVEL WAS ON THE PLAYA; TRUE?

A NO, ON THE ONLY THING THAT I DID WITH RESPECT TO GEOLOGY OF THE PLAYA, I LOCATED A PREVIOUS STUDY WHERE A NUMBER OF BORINGS HAVE BEEN DONE ON THE PLAYA SURFACE. AND WHILE THAT REPORT DOESN'T HAVE ANY INFILTRATION TESTS ASSOCIATED WITH IT, IT DOES DESCRIBE THE LITHOLOGY OF THE MATERIALS.

Q MY QUESTION WAS WHETHER YOU HAVE DONE IT?

A I HAVE NOT DONE IT. THE ONLY THING IS I DID WAS REFERENCE THIS OTHER WORK.

Q THE AREA WHERE THE FINE-GRAINED MATERIALS ARE, THE PLAYA WHERE THIS EVAPORATION IS OCCURRING, THAT DOESN'T COVER THE WHOLE BASIN, RIGHT, OTHERWISE YOU WOULDN'T HAVE MUCH FARMING GOING ON. THE FINE-GRAINED MATERIALS IN THE PLAYA ARE LIMITED TO CERTAIN AREAS OF THE BASIN; CORRECT? THE FINE-GRAINED MATERIALS DON'T COVER THE ENTIRE BASIN; CORRECT?

A IS THE QUESTION ABOUT THE SURFACE -- ON THE SURFACE?

Q I'LL REPHRASE. THE FINE-GRAINED MATERIALS FROM WHICH YOU ARE INDICATING EVAPORATION IS OCCURRING, THOSE FINE-GRAINED MATERIALS WHERE THIS EVAPORATION IS OCCURRING WHERE THE PLAYA FLOODING IS OCCURRING DOESN'T COVER THE ENTIRE SURFACE OF THE GROUNDWATER BASIN; CORRECT?

A I WAS -- I WASN'T SURE WHETHER YOU WERE TALKING ABOUT SURFACE OR SUBSURFACE. THAT'S WHY I WAS ASKING. NO, IT DOES NOT.

Q NOW, THERE ARE AREAS THAT DON'T HAVE THESE FINE-GRAINED MATERIALS THAT ARE BETWEEN THE MOUNTAINS WHERE THE RUNOFF OCCURS AND WHERE THE EVAPORATION OCCURS; RIGHT?

A THAT THEY ARE COURSE-GRAINED MATERIALS, THAT'S THE QUESTION?

Q RIGHT.

A YES, YES.

Q AS A MATTER OF FACT BETWEEN WHERE THE MOUNTAINS ARE AND WHERE THE EVAPORATION TAKES PLACE, THERE IS A WHOLE WIDE VARIETY OF DIFFERENT MATERIALS IN BETWEEN THERE, CORRECT, WITH DIFFERENT PERMEABILITIES?

A CORRECT.

Q LET ME GO TO EXHIBIT G115. MR. DURBIN, YOU MADE A COMMENT DURING YOUR DIRECT EXAMINATION TESTIMONY, I BELIEVE, THAT YOU HAD VARYING NUMBERS IN TERMS OF STREAMFLOWS. AND I THINK THAT WAS BECAUSE -- STREAMFLOW GAUGES ARE LOCATED AT DIFFERENT LOCATIONS; RIGHT?

A SO THE QUESTION IS, DO DIFFERENT GAUGING SITES HAVE DIFFERENT FLOWS?

Q WELL, LET ME REPHRASE IT. DEPENDING UPON THE LOCATION OF A PARTICULAR STREAMFLOW GAUGE, IT MAY OR MAY NOT PICK UP FLOW FROM THE MOUNTAINS?

A IF THE WATERSHED EXTENDED INTO THE MOUNTAINS, IT WOULD BE MEASURING RUNOFF FROM THE MOUNTAINS; IF THE WATERSHED DIDN'T, IT WOULDN'T BE.

Q I WILL GIVE YOU AN EXAMPLE.

A OKAY.

Q ON EXHIBIT 115 YOU HAVE THIS BASE LOW, SEE THIS HERE. YOU HAVE GOT AN ARROW. WHAT THAT IS, THE WAY I UNDERSTAND IT IS WATER IS FLOWING ON THE MOUNTAINS, IT'S INFILTRATING IN THE BEDROCK AND IT'S MAKING ITS WAY TO THE SURFACE BEFORE IT REACHES THE PLAYA; CORRECT?

A YES. AND I THINK I'M UNDERSTANDING YOUR QUESTION NOW.

Q IT TAKES A WHILE. I'M NOT QUITE AS PRECISE AS MR. KUHS. WHAT I AM SAYING IS IF YOUR STREAMFLOW GAUGE IS ABOVE WHERE THIS BASE FLOW IS COMING OUT OR ANY WATER IS COMING OFF THE MOUNTAIN, IF THE PLACE WHERE THE WATER IS MAKING ITS WAY TO THE SURFACE IS BELOW THE STREAMFLOW GAUGE, THE STREAMFLOW GAUGE IS NOT GOING TO PICK IT UP; CORRECT?

A CORRECT. THE AMOUNT OF BASE FLOW THAT YOU MEASURE AT A SITE DEPENDS ON THE LOCATION OF THE SITE.

Q IF WE COULD GO TO EXHIBIT D30. IN THE ENTIRE ANTELOPE VALLEY, MR. DURBIN, HOW MANY STREAMFLOW GAUGES DID YOU RELY ON?

A YOU NEED AN EXACT NUMBER OR JUST APPROXIMATELY?

Q APPROXIMATELY WILL BE FINE.

A 15 OR 20, SOMETHING LIKE THAT.

Q I THOUGHT IT WAS D30. MAYBE I GOT IT LABELED INCORRECTLY. D AS IN DAVID. SO YOU SAID 15 MAYBE?

A YES, I WOULD HAVE TO COUNT THEM ON THE -- YOU KNOW, ON MY EXHIBIT TO BE SURE, LOOK AT ONE OF THE TABLES THAT IS NOT A NUMBER THAT I HAVE IN MY HEAD.

Q SO IN THE ENTIRE ANTELOPE VALLEY OUT OF ALL THESE STREAMS WE SEE DEPICTED HERE ON D30, YOU ONLY HAVE STREAMFLOW DATA FOR MAYBE 15?

A IF THAT IS THE CORRECT COUNT, YES.

MR. ZIMMER: THANK YOU, MR. DURBIN.

I HAVE NO FURTHER QUESTIONS, YOUR HONOR.

THE COURT: OKAY. I THINK WE'VE GOT ALL THE CROSS-EXAMINATIONS DONE. REDIRECT?

REDIRECT EXAMINATION

BY MS. RILEY:

Q MR. DURBIN, GOOD AFTERNOON. AS A PRELIMINARY MATTER, YESTERDAY YOU POINTED OUT ERRORS ON THREE OF YOUR SLIDES, IS THAT CORRECT, ON SLIDES EXHIBITS G112, G120 AND G122 WHERE THERE WERE MISREPRESENTATIONS OF YOUR RECHARGE NUMBERS?

A CORRECT.

Q THANK YOU. IF THE COURT WILL ACCEPT THREE SUBSTITUTE SLIDES, WE HAVE MARKED THEM AS AMENDED AS OF FEBRUARY 15TH OF 2011, AND WE BROUGHT COPIES FOR COUNSEL. I BELIEVE THESE WERE ALL PROBABLY HAND CORRECTED BY THE PARTIES.

THE COURT: OKAY. WE CAN CERTAINLY ADD THEM IN. HAVE MR. DURBIN VERIFY.

MS. RILEY: THANK YOU.

MR. ZIMMER: JUST SO WE DO HAVE A COMPLETE RECORD OF WHAT HAPPENED AND A CHANGE, IT MIGHT BE HELPFUL TO HAVE ONE MARKED AS ORIGINAL SUCH-AND-SUCH A AND SUCH-AND-SUCH B.

THE COURT: LET'S HAVE THEM VERIFIED, AND WE WILL SEE WHAT HAPPENS.

BY MS. RILEY:

Q MR. DURBIN, IF YOU COULD TURN TO YOUR EXHIBIT BOOK AND PLEASE READ THE CHANGES ON EACH OF

THESE EXHIBITS?

A THE FIRST CHANGE IS ON EXHIBIT 112 AND IT'S -- ON THE VERY BOTTOM OF THE EXHIBIT WHERE THE RECHARGE -- OR THE CALCULATED YIELD VALUE IS STATED, IT WAS 65,000. NOW IT IS 68,000. THERE ARE SOME -- I BELIEVE AN EXHIBIT BEFORE AND AFTER THIS EXHIBIT THAT HAD THE 68, BUT THIS ONE HAD A TYPOGRAPHICAL ERROR THAT 65 WAS ON HERE.

THE COURT: OKAY. YOU TESTIFIED TO THAT YESTERDAY.

MS. RILEY: THANK YOU, MR. DURBIN.

Q 68,000 REPRESENTS YOUR ACTUAL OPINION?

A THAT IS MY OPINION, YES.

Q THANK YOU.

A THE NEXT EXHIBIT IS 120 AND IS SIMPLY TO BRING THE CORRECTED 68,000 ON TO THIS EXHIBIT, AND THEN ON 122 IT IS THE SAME THING. THERE IS AN ADDITIONAL CORRECTION ON 122 IN THAT THE STANDARD ERROR I THINK ON THE ORIGINAL WAS STATED 11,000, ON HERE IT IS 13,000.

THE COURT: ALL RIGHT. THE WITNESS TESTIFIED TO THOSE ITEMS YESTERDAY. AND, IN FACT, I HAVE NOTES ON COPIES OF THE EXHIBITS TO THAT EFFECT. SO I THINK WHAT WE WILL DO IS JUST SUBSTITUTE -- NOT SUBSTITUTE, BUT ADD IN 112 WOULD BE 112A, AND 120 WOULD BE 120A, AND 122 WOULD BE 122A. THAT WAY THE RECORD WILL BE CLEAR AS TO WHAT HAPPENED.

MS. RILEY: THANK YOU, YOUR HONOR. IF I MY APPROACH THE WITNESS TO MAKE THOSE CORRECTIONS?

THE COURT: YES.

(CITY OF LOS ANGELES EXHIBIT G112A, G120A AND G122A MARKED.)

MR. ZIMMER: WE WOULD STIPULATE TO DO THAT AT A LATER TIME OFF THE RECORD OR WHATEVER.

THE COURT: OKAY.

MR. SLOAN: YOUR HONOR, MAY I ASK THE "A" DESIGNATIONS WOULD BE THE CORRECTED VERSIONS?

THE COURT: YES -- ACTUALLY IF YOU WILL JUST HAND THOSE TO THE CLERK, SHE WILL TAKE CARE OF THEM FOR YOU. 112, 120 AND 122.

MS. RILEY: I'LL -- I HAVE ADDED "A" TO EACH OF THOSE, AND I'LL HAND THEM TO THE CLERK.

THE COURT: THAT IS FINE.

BY MS. RILEY:

Q MR. DURBIN, IN ORDER TO CALCULATE THE STREAMFLOW OF THE SEVEN NONGAUGED STREAMS, DID YOU USE THE FORMULA SHOWN ON EXHIBIT G25?

A I DID.

Q IS THAT THE SAME FORMULA THAT APPEARS ON PAGE C11 OF THE SUMMARY EXPERT REPORT THAT YOU AUTHORED?

A IT IS.

Q THAT SECTION YOU AUTHORED. IS IT THE SAME FORMULA THAT WAS PREVIOUSLY SHOWN TO YOU BY MR. KUHS?

MR. ZIMMER: VAGUE AS TO FORMULA. WHAT FORMULA ARE WE TALKING ABOUT?

THE COURT: SUSTAINED. GO AHEAD AND CLARIFY.
BY MS. RILEY:
Q MR. DURBIN, IF YOU COULD LOOK AT EXHIBIT G25, COULD YOU PLEASE READ US THE FORMULA?
A EXHIBIT G25 IS THE SAME AS IS SHOWN ON THE SCREEN RIGHT NOW. AND THE BASIC FORMULA IS THAT THE DISCHARGE EQUALS THE ACTIVE CHANNEL WIDTH RAISED TO THE POWER OF B AND MULTIPLIED BY THE COEFFICIENT A.
Q THANK YOU. MR. DURBIN, IS THAT THE SAME FORMULA THAT WAS PREVIOUSLY SHOWN TO YOU BY MR. KUHS ON CROSS-EXAMINATION OF WHICH I BELIEVE IS CONTAINED IN EXHIBIT D33?
A AND THAT IS THE USGS WATER SUPPLIER PAPER 2193?
Q YES. THAT'S THE STREAMFLOW CHARACTERISTICS RELATING TO CHANNEL GEOMETRY OF STREAMS IN WESTERN UNITED STATES?
A YES.
Q IS THIS THE SAME FORMULA THAT WAS SHOWN IN THE -- YOUR HONOR, I WOULD LIKE TO MARK AS NEXT IN ORDER FOR THE CITY OF LOS ANGELES WHAT APPEARS TO BE PAGE TWO OF THE ENTIRE REPORT OF PAGE -- EXHIBIT D33?
THE COURT: ALL RIGHT.
MS. RILEY: I HAVE A COUPLE -- TWO EXTRA COPIES I COULD HAND TO MR. KUHS TO SHARE WITH ... IF I MAY APPROACH THE WITNESS?
THE COURT: YES.
MS. RILEY: I BELIEVE THIS WILL BE EXHIBIT G123.

(CITY OF LOS ANGELES EXHIBIT G123 MARKED.)

BY MS. RILEY:

Q MR. DURBIN, LOOKING AT WHAT I HAVE JUST PLACED BEFORE YOU, THE EXHIBIT G123, IS THAT THE SAME FORMULA THAT YOU USED TO CALCULATE THE STREAMFLOW FOR THE UNGAUGED STREAMS?

A YES, THE EQUATION SECTION ON THE SHEET IS THE EQUATION THAT IS ON THE SCREEN AND THE EQUATION THAT I USED.

Q DID YOU FOLLOW THE SAME SCIENTIFIC METHOD TO COMPUTE THE COEFFICIENT AND THE EXPONENT IN THIS FORMULA AS THE AUTHORS OF PAPER -- YOU CALLED IT PAPER 2193 WHICH IS EXHIBIT D33?

A YES, THAT GENERAL PROCEDURE INVOLVED COLLECTING DATA ON ACTIVE WIDTH THAT SITES WITH GAUGE STREAM GAUGING STATIONS AND DEVELOPING A RELATIONSHIP BETWEEN DISCHARGE AND WIDTH.

MR. ZIMMER: YOUR HONOR, COULD WE HAVE THAT READ BACK? I DIDN'T HEAR OR UNDERSTAND THE QUESTION AND ANSWER.

THE COURT: WHY DON'T WE START IT AGAIN. ASK YOUR QUESTION AGAIN.

BY MS. RILEY:

Q MR. DURBIN, DID YOU FOLLOW THE SAME SCIENTIFIC METHOD TO COMPUTE THE COEFFICIENT AND

EXPONENT IN THIS FORMULA AS THE AUTHORS OF PAPER 2193?

MR. ZIMMER: VAGUE.

THE COURT: OVERRULED.

THE WITNESS: YES, I DID, AND THAT -- AND VERY SUMMARY FORM WHERE THAT METHODOLOGY IS, IS TO COLLECT INFORMATION IN THE FIELD ON CHANNEL WIDTH, ADD STREAM GAUGING -- LOCATIONS WITH STREAM GAUGING STATIONS, DEVELOP -- AND THEN DEVELOP A RELATIONSHIP BETWEEN WIDTH AND DISCHARGE BASED ON THE WIDTH MEASUREMENT AND THE STREAM GAUGING DATA.

BY MS. RILEY:

Q AND DOES YOUR FORMULA WORK FOR ALL TYPES OF STREAMS IN THE ANTELOPE VALLEY?

MR. ZIMMER: VAGUE AS TO WHAT FORMULA. YOUR FORMULA -- WE STILL HAVEN'T SEEN ANY FORMULAS.

THE COURT: YOU CAN CLARIFY.

BY MS. RILEY:

Q MR. DURBIN, CAN YOU EXPLAIN THE METHOD -- THE SCIENTIFIC METHOD YOU FOLLOWED AND WHAT YOUR RESULT WAS FROM FOLLOWING THAT SCIENTIFIC METHOD?

A THE METHOD WAS --

MR. WILLIAM KUHS: MAY I OBJECT AT THIS POINT?

THE COURT: YOU CERTAINLY MAY OBJECT.

MR. WILLIAM KUHS: WELL, SHE WAS IN THE MIDDLE OF THE QUESTION, AND I DIDN'T KNOW WHETHER YOU WANTED THE QUESTION FINISHED.

THE COURT: LET HER FINISH SO THAT WE KNOW WHETHER IT SHOULD BE SUSTAINED OR IS AN OVERRULED OBJECTION.

MR. WILLIAM KUHS: MY OBJECTION IS IF THIS WITNESS IS NOW GOING TO DEVELOP A COEFFICIENT A AND B FOR THIS EQUATION WHICH HAS NOT BEEN DISCLOSED AT ANY TIME PRIOR TO TODAY, THEN, WE OBJECT ON THE BASIS THAT THIS WITNESS IS NOW PROPOSING TO MODIFY PRIOR OPINIONS, PRIOR REPORTS IN THE MIDDLE OF TRIAL.

THE COURT: OVERRULED.

BY MS. RILEY:

Q MR. DURBIN, WHAT WAS THE RESULT OF FOLLOWING THE SCIENTIFIC METHOD?

A SO WE ARE ASKING ABOUT -- WHAT WAS THE FINAL RESULTS? THERE WERE TWO RESULTS: ONE WAS A -- THE RELATIONSHIP BETWEEN THE ACTIVE CHANNEL DISCHARGE DEVELOPED FROM THE GAUGING STATIONS.

AND THEN THE APPLICATION OF THAT RELATIONSHIP TO SOME UNGAUGED WATERSHEDS WITHIN ANTELOPE VALLEY TO ESTIMATE THE STREAMFLOW FOR THOSE WATERSHEDS. THOSE RESULTS ARE SHOWN IN TABLES WITH RESPECT TO THE PARTICULAR ESTIMATED VALUES FOR THE WATERSHEDS, AND THEY ARE ALSO SHOWN ON A SCATTER DIAGRAM REPRESENTING HOW WELL THE RELATIONSHIP I DEVELOPED FIT THE MEASURED STREAMFLOWS.

Q AND DID THE RELATIONSHIP YOU DEVELOPED, WAS IT APPLICABLE TO ALL OF THE STREAMS IN THE ANTELOPE VALLEY?

A YES.

MR. WILLIAM KUHS: VAGUE AS TO THE RELATIONSHIP BECAUSE THE RELATIONSHIP HASN'T BEEN DESCRIBED.

MR. JOYCE: OR ESTABLISHED.
THE COURT: OVERRULED.
MS. RILEY: THANK YOU.
THE WITNESS: THE -- WHAT IS DEMONSTRATED BY THE SCATTER DIAGRAM IS THAT -- WHILE THERE ARE A VARIETY OF WATERSHEDS WITH RESPECT TO SIZES AND OTHER CHARACTERISTICS, THE SAME RELATIONSHIP FITS THE OBSERVED STREAMFLOWS WELL, AND ON THAT SCATTER DIAGRAM I THINK THE "R" SQUARED VALUE IS SOMETHING LIKE .9, SO THE RELATIONSHIP IS AS EXPLAINING --
Q COULD YOU POINT US TO THAT EXHIBIT, THE SCATTER DIAGRAM?
A THE SCATTER DIAGRAM IS EXHIBIT 29 AND I'M CORRECT THAT ACTUALLY OUR SQUARED VALUE IS .99 SO THE RELATIONSHIP EXPLAINS 99 PERCENT OF THE VARIABILITY IN THE OVERALL SET OF DATA. AND, AGAIN, THESE VARIOUS POINTS INCLUDE WATERSHEDS AND STREAMS WITH VARIOUS CHARACTERISTICS AND -- BUT THEY ARE -- THERE'S A SINGLE RELATIONSHIP THAT IS APPLICABLE TO ALL OF THEM.
MR. JOYCE: YOUR HONOR, COULD WE HAVE THAT EXHIBIT NUMBER AGAIN?
THE COURT: WHICH ONE?
MR. JOYCE: THE SCATTER DIAGRAM.
THE COURT: 29.
MR. JOYCE: THANK YOU, YOUR HONOR.
THE COURT: G29.
BY MS. RILEY:
Q MR. DURBIN, WHY DIDN'T YOU SIMPLY APPLY THE

COEFFICIENT AND EXPONENT THAT ARE SHOWN IN THE PAPER 2193?

A BECAUSE THOSE EXPONENTS AND COEFFICIENTS WERE -- REPRESENT BROAD GENERALIZATIONS OF THE WESTERN UNITED STATES, AND I THINK -- I THINK IN ONE OF THE QUESTIONS FROM MR. JOYCE AND IN LOOKING AT THE RESULTS OF THE USGS STUDY THAT THE CENTERED ERROR WAS QUITE HIGH, VARIED FROM THAT PARTICULAR TABLE THAT I WAS -- THAT HE POINTED OUT FROM 28 TO 75 PERCENT, AND SO I -- I EMBARKED ON DEVELOPING A RELATIONSHIP THAT APPLIED JUST TO THE ANTELOPE VALLEY BECAUSE OF HOW ROUGH THESE REGIONAL RELATIONSHIPS WERE.

Q AND OF YOUR OVERALL CALCULATION OF STREAMFLOW FOR STREAMS IN THE ANTELOPE VALLEY, WHAT PERCENTAGE OF STREAMS WERE CALCULATED USING THIS METHODOLOGY?

A REMEMBERING THAT AT THIS METHODOLOGY WAS USED TO ESTIMATE STREAMFLOW FOR SEVEN SMALL WATERSHEDS AND THE ESTIMATED FLOWS FROM THOSE WATERSHEDS REPRESENTS ABOUT 4 PERCENT OF THE STREAMFLOW MEASURED AT ACTUALLY USGS SITES AROUND THE -- AROUND THE VALLEY.

Q ALL RIGHT. EARLIER MR. ZIMMER ASKED YOU ABOUT EXHIBIT 27 WHICH SHOWED A PHOTOGRAPH OF SOMEONE OUT IN THE STREAM. WAS THAT INTENDED BY YOU TO BE ANYTHING OTHER THAN A DEMONSTRATION OF HOW YOU TOOK CHANNEL GEOMETRY MEASUREMENTS?

A YES. IT DOESN'T IN ANY WAY RELATE TO MY -- THE OPINIONS THAT I DEVELOPED. IT WAS SIMPLY TO PROVIDE

A GRAPHIC THAT DISPLAYS WHAT I WOULD HAVE SAID IN WORDS OTHERWISE.

Q PRIOR TO YOUR TESTIMONY DURING CROSS-EXAMINATION YESTERDAY BY MR. KUHS, WERE YOU EVER ASKED TO PROVIDE THE COEFFICIENT OR EXPONENT FOR THE CHANNEL GEOMETRY MEASUREMENTS?

A I WAS NOT.

Q MOVING TO --

MR. WILLIAM KUHS: OBJECT AS INCONSISTENT WITH HIS PRIOR TESTIMONY THAT IT WAS ASKED TO PRODUCE ALL HIS CALCULATIONS OF WORK PAPERS.

THE COURT: WELL, HAVE YOU HAD -- I'M SORRY. I UNDERSTAND YOUR ARGUMENT, BUT OVERRULED.

BY MS. RILEY:

Q MR. DURBIN, STARTING WITH YOUR CROSS-EXAMINATION YESTERDAY, STARTING WITH MR. FIFE, YOU WERE ASKED SEVERAL QUESTIONS REGARDING YOUR DECISION TO UTILIZE ONLY AREAS THAT RECEIVED MORE THAN 8-INCHES OF PRECIPITATION. DO YOU REMEMBER THAT?

A I DO.

Q COULD I ASK YOU TO TURN TO YOUR EXPERT REPORT APPENDIX C OF THE -- I BELIEVE IT IS EXHIBIT SCALMANINI 101 UNDER THE HEADING OF SECTION C.3.0

A WHAT IS THE PAGE?

Q IT IS PAGE 19.

A 19.

Q COULD I ASK YOU TO LOOK AT THE SECOND FULL PARAGRAPH ON THAT PAGE STARTING WITH THE SENTENCE "IS

BICKEY" -- DO YOU SEE THAT?

A YES, AND ABOUT SIX LINES DOWN.

Q THANK YOU. COULD YOU READ THAT AND THE FOLLOWING SENTENCE?

A "IS BICKY AND OTHERS 2000 CONCLUDED FROM MY STUDY WITHIN THE WESTERN MOJAVE DESERT THAT RECHARGE DID NOT OCCUR WHEN THE AVERAGE ANNUAL PRECIPITATION IS 7-INCHES. DETTINGER IN 1989 STUDY REGIONAL GROUNDWATER RECHARGE IS BICKY" --

THE REPORTER: OKAY. SORRY, MR. DURBIN, BUT YOU NEED TO SLOW DOWN WHEN YOU'RE READING, PLEASE.

MR. ZIMMER: THIS IS HEARSAY.

THE COURT: WELL, IF IT IS -- IT IS FROM HIS REPORT.

MR. ZIMMER: I UNDERSTAND, BUT WHAT IS IT BEING OFFERED FOR? IT IS CUMULATIVE AND HEARSAY.

MR. DUNN: THE EVIDENCE CODE SECTION 356 ALLOWS THIS WITNESS TO TAKE A PREVIOUS SENTENCE FROM HIS REPORT AND PUT IT IN CONTEXT WITH THE REPORT ITSELF.

THE COURT: WELL, SOMETIMES.

MR. ZIMMER: IF THE REPORT IS IN EVIDENCE.

THE COURT: HAS THIS BEEN TESTIFIED TO PREVIOUSLY?

THE WITNESS: THIS GENERAL TOPIC HAS BEEN TESTIFIED TO, I THINK, THAT --

THE COURT: MISS RILEY, WHY DON'T YOU GIVE ME AN OFFER OF PROOF.

MS. RILEY: MR. FIFE QUESTIONED HIM EXTENSIVELY ABOUT DIFFERENT STUDIES THAT HAVE TAKEN PLACE DEALING

WITH PRECIPITATION AND ASKING HIM WHY HE DIDN'T CHOOSE A LOWER THRESHOLD.

THE COURT: MAYBE YOU CAN GO DIRECTLY TO THAT QUESTION.

MS. RILEY: I WILL. THANK YOU, YOUR HONOR.

Q MR. DURBIN, YOU REVIEWED LITERATURE BEFORE YOU DETERMINED THAT 8-INCHES WOULD BE THE THRESHOLD FOR PRECIPITATION IN YOUR NATURAL RECHARGE STUDIES; CORRECT?

A I DID.

Q AND IN ANY OF THE LITERATURE THAT YOU REVIEWED, DID YOU FIND ANY SUPPORT FOR UTILIZING A PARAMETER OF LESS THAN 8-INCHES TO -- LESS THAN 8-INCHES?

A I DID NOT.

Q THANK YOU. MOVING ON, YOU WERE PREVIOUSLY ASKED TO REVIEW, TO LOOK AT EXHIBITS D41 AND D42. D AS IN DOG. THERE WERE TWO REPORTS. DID YOU RELY UPON EITHER ONE OF THESE REPORTS IN FORMING YOUR CONCLUSION ON PLAYA FLOODING?

A I DID NOT.

Q AND DO YOU -- DO YOU FIND THAT EXHIBIT D41 IS APPLICABLE TO YOUR WORK ON PLAYA FLOODING?

A IT IS NOT.

Q WHY NOT?

A THE -- A FEW THINGS ABOUT THESE REPORTS. FIRST OF ALL, THE FLOODING ON THE PLAYA IS NOT THE RESULT OF A SINGLE STORM IN A YEAR. IT IS TYPICALLY AN ACCUMULATION OF FLOODING THAT OCCURS FROM A -- A SERIES

OR A NUMBER OF STORMS THAT OCCUR DURING THE FALL, WINTER AND SPRING OF THE PARTICULAR YEAR OF INTEREST. THESE REPORTS JUST LOOK AT A SINGLE HYPOTHETICAL EVENT, 24-HOUR PRECIPITATION EVENT, THAT HAVE A TURN PERIOD OF 100 YEARS.

ONE OF THE ELEMENTS OF BOTH OF THESE REPORTS IS A CALCULATION OF CHANNEL LOSSES FROM THE MOUNTAIN FRONT DOWN TO THE PLAYA AND IN CONTRAST WITH THE WORK THAT I DID THE -- THOSE CALCULATIONS ARE ENTIRELY THEORETICAL AND ARE NOT BASED ON INFORMATION PARTICULAR TO ANTELOPE VALLEY.

AND THEN THE FINAL POINT THAT I WOULD MAKE IS THAT DURING CROSS-EXAMINATION THERE IS -- IT WAS EXHIBIT D43, OR I SEE AN "X" WRITTEN ON HERE. IS IT DX43 OR D43, OR MAYBE MR. KUHS THAT WASN'T --

Q I BELIEVE IT'S D43.

A THERE IS AN X ON HERE. I WAS CONFUSED BY THAT. SO ON EXHIBIT D43 WHICH IS A SUMMARY OF THE RESULTS OF THESE TWO REPORTS ON THIS EXHIBIT IT SHOWS ABOUT 57,000 ACRE-FEET OF RECHARGE, OR NOT RECHARGE, BUT FLOODING THAT OCCURS ON THE -- ON THE PLAYA.

Q MR. DURBIN, COULD I INTERRUPT YOU? MY QUESTION SPECIFICALLY ASKED HOW EXHIBIT D41 WAS INAPPLICABLE TO YOUR WORK ON PLAYA FLOODING. THE REASONS THAT YOU HAVE JUST GIVEN US ARE EQUALLY APPLICABLE TO WHY D42 WAS NOT APPLICABLE TO YOUR WORK?

A YES. THE SAME CONSIDERATIONS APPLY TO BOTH REPORTS.

Q OKAY. GO AHEAD.

A BUT, ANYWAY, ON EXHIBIT D43 THE --

MR. WILLIAM KUHS: I OBJECT. THERE IS NO QUESTION PENDING WITH RESPECT TO D43.

THE COURT: WELL, HE WAS IN THE PROCESS OF EXPLAINING WHY THAT WAS NOT APPLICABLE TO HIM. WE'LL LET HIM FINISH DOING THAT.

MR. WILLIAM KUHS: OKAY.

THE WITNESS: SO AGAIN ON D43 THE SUMMARY RESULT FROM THE EXHIBIT 42 WORK ARE -- D42 WORK IS 100-YEAR FLOODING OF ABOUT 57,000 ACRE-FEET PER YEAR; AND PRESUMABLY THIS WOULD BE AN EVENT THAT WOULD OCCUR ONCE IN 100 YEARS ON THE AVERAGE.

NOW THAT VALUE IS -- INCLUDES FLOODING FROM NOW D43 FLOODING FROM ALL SOURCES WHETHER IT BE THE MOUNTAIN, RAINFALL, PLAYA OR LOCALLY. AS MATTER OF FACT ON THIS PARTICULAR VENUE, IT GIVES SOME PERCENTAGE OF CONTRIBUTION FROM THE MOUNTAIN VERSUS THE TOTAL.

NOW IF YOU LOOK AT EXHIBIT G70 WHICH REPRESENTS THE LEVEL OF FLOODING THAT WAS ON THE PLAYA IN 1993, THE PLAYA FLOODING THEN WAS 54,000 ACRE-FEET. SO VERY CLOSE TO WHAT THE WORK IN EXHIBIT D43 WOULD PREDICT TO BE ONE IN 100-YEAR EVENT.

Q WHY IS THAT SIGNIFICANT?

A WELL, THE SIGNIFICANCE IS THAT -- NOW IN 2005 IF WE GO TO EXHIBIT G79 THE FLOODING ON THE PLAYA IS 62,000 ACRE-FEET PER YEAR. SO WITH JUST THE ANALYSIS OF THESE TWO IMAGES OR TWO SETS OF IMAGES IN A 15-YEAR

PERIOD WE HAVE TWO EVENTS THAT ARE SUPPOSED TO BE -- THAT ARE SIMILAR TO WHAT IS REPRESENTED ON D43 AS SOMETHING THAT WILL OCCUR ONCE IN 100 YEARS.

AND SO THERE IS A INCONSISTENCY THERE WITH HOW RARE THE -- SUCH FLOODING EVENTS ARE AND BRINGS INTO SIGNIFICANT QUESTION THE APPLICABILITY OF THESE TWO REPORTS, EXHIBITS D41 AND D42, TO THE WORK THAT I HAVE, BUT THEN THERE'S ALL THE PREVIOUS THINGS THAT I JUST MENTIONED THAT INDICATE THAT IT IS -- THIS IS NOT WORK TO BE COMPARED WITH MINE, AND THERE IS A VARIETY OF REASONS WHY IT SHOULDN'T.

Q AND YOU DID NOT RELY ON IT?

A I DID NOT RELY UPON IT.

Q THANK YOU. MR. MCLACHLAN HAD A QUESTION FOR YOU RELATING TO EXHIBIT G16, AND I AM GOING TO FORGET THE NUMBER, F5, AND HE BROUGHT UP EXHIBIT F5 WHICH IS TABLE C.2 LETTER O, AND ASK YOU WHY THE TWO NUMBERS WERE INCONSISTENT. DO YOU RECALL THAT?

A WHY THE GRAPH AND THE TABLE ARE INCONSISTENT?

Q YES. AND MY QUESTION IS IN RESPONSE TO MR. MCLACHLAN. YOU SAID THAT YOU HAD PROVIDED THE DATA THAT WENT INTO MAKING THIS GRAPH TO COUNSEL AT YOUR DEPOSITION; IS THAT CORRECT?

A THAT'S CORRECT.

Q WAS THE DATA THAT YOU PROVIDED TO COUNSEL ALSO THE DATA THAT YOU USED TO CREATE THE PRECIPITATION MAPS?

A IT WAS.

MS. RILEY: THANK YOU. I HAVE NO FURTHER QUESTIONS.

THE COURT: IS THERE ANYTHING ELSE OF THIS WITNESS?

MR. WILLIAM KUHS: I HAVE SOME.

THE COURT: OKAY. THIS IS RECROSS-EXAMINATION.

MR. WILLIAM KUHS: YES.

THE COURT: IN NEW MATTERS. GO AHEAD.

RECROSS-EXAMINATION

BY MR. WILLIAM KUHS:

Q WE PUT UP ON THE SCREEN WHAT I UNDERSTAND TO BE G25. THIS IS THE EQUATION, MR. DURBIN, WE TALKED ABOUT IT A LITTLE BIT. NOW IN YOUR REDIRECT EXAMINATION, YOU TALKED ABOUT A RELATIONSHIP BASED ON CHANNEL GEOMETRY MEASUREMENTS. WE HAVE AN EQUATION ON THE BOARD 2 EQUALS A W B. AND AM I STILL CORRECT THAT AS OF THIS MOMENT, 2:45 ON WEDNESDAY, THIS DAY, IN FEBRUARY, YOU STILL HAVE NOT TOLD ANY OF US OR THE COURT WHAT "A" IS IN THE EQUATION OR IDENTIFIED THE "W" FOR EACH OF THE PARTICULAR WATER FORCES OR IDENTIFIED THE "B" WHICH IS THE EXPONENT SO THAT ANYONE IN THIS COURTROOM OR ANY EXPERT OUTSIDE THIS COURTROOM CAN CHECK WHETHER OR NOT THIS RELATIONSHIP OR THESE CALCULATIONS SHED ANY LIGHT ON STREAMFLOWS, ANNUAL STREAMFLOWS FROM SMALL WATER FORCES?

MR. WEEKS: OBJECTION. ARGUMENTATIVE.
THE COURT: SUSTAINED.
BY MR. WILLIAM KUHS:
Q HAVE YOU TOLD US YET WHAT "A" IS?
MR. WEEKS: OBJECTION. ARGUMENTATIVE.
THE COURT: SUSTAINED.
MR. WILLIAM KUHS: YOUR HONOR.
THE COURT: IT IS TO THE FORM OF THE QUESTION.
MR. WILLIAM KUHS: SAY AGAIN?
THE COURT: IT IS TO THE FORM OF THE QUESTION.
BY MR. WILLIAM KUHS:
Q DO YOU KNOW WHAT "A" IS?
A I DO NOT.
Q DO YOU KNOW WHAT "B" IS?
A I DO NOT.
Q DOES ANYONE KNOW WHAT "A" IS?
MR. WEEKS: OBJECTION. CALLS FOR SPECULATION.
BY MR. WILLIAM KUHS:
Q DO YOU KNOW OF ANYONE WHO KNOWS WHAT "A" IS?
A I DON'T.
Q DO YOU KNOW OF ANYONE WHO KNOWS WHAT "B" IS?
A I DO NOT.
Q DO YOU KNOW OF ANYONE WHO KNOWS WHAT "W" IS?
A I DO NOT.
Q NOW WITH RESPECT TO FLOODING OF PLAYAS, YOU SAID THAT USUALLY OCCURS WHEN A SERIES OF STORMS AS DISTINGUISHED FROM ONE STORM, OR WORDS TO THAT EFFECT. HAVE YOU MADE ANY ANALYSIS SO THAT YOU CAN IDENTIFY BY

MONTH AND YEAR THE SERIES OF STORMS THAT MAY HAVE RESULTED IN ANY PLAYA FLOODING IN ANY OF THE YEARS WHERE YOU HAVE LOOKED AT SATELLITE IMAGING?

A GONE THROUGH DAY BY DAY EXAMINATION OF FROM FLOOD THAT MIGHT OCCUR, IS THAT SORT OF WHAT THE QUESTION IS?

Q WELL, LET ME REPHRASE IT. WHAT'S THE BASIS OF YOUR STATEMENT THAT IT IS A SERIES OF STORMS THAT CAUSE THAT PLAYA FLOODING?

A FIRST OF ALL, I DIDN'T MEAN THAT IT WAS EXCLUSIVELY, IT CAN BE A SINGLE STORM OR A SERIES OF STORMS THAT CAUSES IT, BUT IT IS MORE -- BUT WHEN YOU CONSIDER MORE THAN JUST ONE HYPOTHETICAL FLOOD EVENT. AND SO IT'S THE TOTALITY OF WHAT HAPPENS OVER THE WINTER TIME THAT ULTIMATELY DETERMINES THE LEVEL OF FLOODING.

NOW I HAD NOT IN INDIVIDUAL YEARS GONE IN TO ASSESS AND ACCOUNT HOW MANY LOCALIZED EVENTS MAY HAVE BEEN THE -- BEEN THE CAUSE OF THE FLOODING IN PARTICULAR YEARS.

Q OKAY. WELL, FOR EXAMPLE, IF ONE OF THE SERIES OF SATELLITE IMAGES THAT YOU PUT UP WAS FOR THE YEAR 2005; CORRECT?

A IT WAS.

Q AND THE YEAR 2005 WAS A BIG YEAR, WASN'T IT, IN TERMS OF WATERSHED -- WATER FLOW?

A WELL, BASED ON THE AMOUNT OF FLOODING, I PRESUME IT WAS, BUT WITHOUT REFERRING TO THE SPECIFIC --

Q IF WE WENT TO YOUR TABLE 28 -- AND I DON'T

RECALL THE EXHIBIT NUMBER. IT IS A "D" EXHIBIT NUMBER, BUT TABLE C28 WHERE YOU DEDUCT A PLAYA FLOODING AND ULTIMATELY DETERMINED NATURAL RECHARGE THAT THE LARGEST PLAYA FLOODING THAT YOU HAD WAS IN THE YEAR 2005; IS THAT TRUE?

A I -- NOW IF YOU WANT ME TO BE SURE I NEED TO GO LOOK AT A TABLE, BUT IF THAT IS -- IF YOU WILL REPRESENT TO ME THAT THAT IS WHAT IN FACT IS ON THE TABLE I WOULDN'T DISAGREE WITH IT.

Q WELL, IN ANY EVENT, 2005 WAS A BIG WATER YEAR IN TERMS OF PLAYA FLOODING, WOULD YOU AGREE WITH THAT STATEMENT?

A IT SOUNDS LIKE I BETTER LOOK AT THE TABLE.

Q WELL, DO YOU HAVE D39 HANDY? AND I THINK YOU ARE CORRECT. LET'S LOOK AT SOME NUMBERS?

A YES.

Q ON D39 IN 2005 YOU ATTRIBUTED 74,500 ACRE-FEET OF WATERSHED RUNOFF TO PLAYA FLOODING; CORRECT?

A YES.

Q THE ONLY BIGGER YEAR WITH REFERENCE TO EXHIBIT D39 WOULD BE 1978 WHERE YOU ATTRIBUTED -- THE ONLY BIGGER YEAR WITH REFERENCE TO EXHIBIT D39 WOULD BE THE YEAR 1978 WHERE YOU ATTRIBUTED 112,200 ACRE-FEET OF PLAYA FLOODING; CORRECT?

A CORRECT.

Q NOW, YOU DON'T KNOW WHETHER IN THE YEAR 2005 THE PLAYA FLOODING THAT YOU SAW OR THAT YOU OBSERVED BY

EXAMINATION OF SATELLITE IMAGES WAS ATTRIBUTABLE TO ONE STORM EVENT OR A SERIES OF STORMS; IS THAT TRUE?

MR. DUNN: OBJECTION. BEYOND THE SCOPE OF REDIRECT.

THE COURT: WELL, IT SEEMS TO ME WE ARE COVERING GROUNDS THAT HAS BEEN COVERED AT LEAST THREE TIMES.

MR. WILLIAM KUHS: DURING REDIRECT THE WITNESS, YOUR HONOR, TESTIFIED THAT THE PLAYA FLOODING WAS ATTRIBUTABLE TO A SERIES OF STORMS, AND I'M ASKING THIS WITNESS, DOES HE KNOW THAT IT WAS ATTRIBUTABLE IN THE YEARS EXAMINED TO A SERIES OF STORMS OR TO ONE EVENT.

MR. DUNN: FURTHER OBJECTION. ASKED AND ANSWERED.

THE COURT: I'M GOING TO LET HIM ANSWER IT, BUT ESSENTIALLY HE HAS TOLD US THAT IT DOESN'T MAKE ANY DIFFERENCE IN HIS OPINION WHETHER A SINGLE STORM OR A SERIES OF STORMS OR -- ARE EVENLY DISTRIBUTED OVER THE ENTIRE MONTH. THAT IS HIS OPINION.

MR. WILLIAM KUHS: I'LL STIPULATE THAT HE DOESN'T KNOW WHETHER IT WAS A SERIES OF STORMS, AND WE CAN MOVE ON.

THE COURT: GOOD.

BY MR. WILLIAM KUHS:

Q NOW YOU ALSO TESTIFIED ON REDIRECT THAT WITH RESPECT TO EXHIBITS D41 AND D42, THE TWO STUDIES THAT WERE DONE BY FRENCH AND OTHERS, THAT FOR CHANNEL LOSSES THEY USED A THEORETICAL ANALYSIS FOR CHANNEL LOSSES WHICH ARE NOT BASED ON INFORMATION IN ANTELOPE VALLEY.

DO YOU RECALL THAT TESTIMONY?

A I DO.

Q I TAKE IT THAT YOU DISAGREE WITH THE METHODOLOGY THAT THOSE INVESTIGATORS USED TO CALCULATE CHANNEL LOSSES?

A I'M NOT SURE THAT I AGREE OR DISAGREE WITH THE METHODOLOGY. WHAT I WOULD BE CONCERNED ABOUT AND AS THE SATELLITE IMAGE COMPARISON SUGGESTS IS THAT THE NUMERICAL VALUES THAT THEY PUT INTO THEIR CHANNEL LOSS RELATIONSHIP SOMEHOW WASN'T APPROPRIATE BECAUSE WE SEE FLOODS OF THE MAGNITUDE THAT THEY DESCRIBE AS 100 YEAR OCCURRING RELATIVELY FREQUENTLY.

Q WELL, THAT COULD BE BECAUSE THEY APPEAR RELATIVELY FREQUENTLY COULD BE A RESULT OF TWO THINGS; CORRECT? IT COULD BE, NUMBER ONE, A SERIES OF STORMS AS DISTINGUISHED FROM ONE EVENT WHICH YOU TESTIFIED TO; CORRECT?

A NO, IT IS UNRELATED TO THAT ISSUE. I MEAN I FIND THAT A DEFICIENCY IN THEIR FLOODING ANALYSIS THAT THEY CONSIDER ONE 24-HOUR EVENT AND DON'T CONSIDER THE WIDER POPULATION OF STORMS.

AND THEIR METHODOLOGY THEY HAVE TO DEAL WITH THE DETAILS OF WHAT HAPPENED IN MY METHODOLOGY. THAT IS NOT THE CASE.

Q YOU DON'T DEAL WITH DETAILS WHEN YOU ARE DOING AN EMPIRICAL PROCESS; CORRECT?

A IN MANY OF THE WORK THAT I HAVE DESCRIBED OVER THE LAST FEW DAYS, THERE WAS NO NECESSITY WHATSOEVER TO DEAL WITH TIME SCALES OF A DAY OR LESS

THAN A DAY. BUT IN THE CASE OF THE EXHIBITS D41 AND D42 THEY HAVE TO GET INTO THOSE SORT OF TEMPORAL DETAILS.

Q OKAY. NOW DO YOU DISAGREE WITH THE CONCLUSION REACHED BY FRENCH AND OTHERS WITH RESPECT TO THE -- AND I'M LOOKING AT D, WHAT IS ON THE SCREEN, LOOKING AT D43. DO YOU DISAGREE WITH THOSE AUTHOR'S CONCLUSIONS THAT WITH RESPECT TO THE STORMS, THE 100-YEAR FLOOD EVENT THAT THEY EXAMINED, THAT ABOUT 15 AND A HALF PERCENT OF THE VOLUME OF INUNDATION ON THE ROGERS PLAYA WAS ATTRIBUTABLE TO RUNOFF FROM THE MOUNTAIN FRONT?

A I DISAGREE WITH THAT.

Q DO YOU LIKEWISE DISAGREE WITH RESPECT TO THE ROSAMOND PLAYA THAT ABOUT 25 PERCENT OF THE RUNOFF THAT INUNDATED THE PLAYAS IS ATTRIBUTABLE TO RUNOFF FROM THE WATERSHED ABOVE 3,000 FEET?

A I DO.

MR. WILLIAM KUHS: I HAVE NO OTHER QUESTIONS, YOUR HONOR.

THE COURT: OKAY.

THERE WAS A MOTION TO STRIKE. ANY FURTHER ARGUMENT ON THAT?

MR. WILLIAM KUHS: WELL, YES, IN THIS -- FOR TWO REASONS, YOUR HONOR. THE WITNESS, WITH RESPECT TO THIS EQUATION -- CAN YOU THROW THE EQUATION BACK ON, G25 IS IT?

THE COURT: IT IS 25.

MR. WILLIAM KUHS: AS A DISCOVERY MATTER THERE HAS

BEEN NO PRODUCTION OF THE THREE NECESSARY COMPONENTS ON THE RIGHT SIDE OF THE EQUATION, THE "A", THE "W" AND THE "B". NONE OF THAT INFORMATION HAS BEEN PROVIDED TO COUNSEL FOR REVIEW PRIOR TO TRIAL. NONE OF IT HAS BEEN PROVIDED TODAY, AS OF TODAY.

SO THIS WITNESS HAS CONSTRUCTED EITHER INTENTIONALLY OR THROUGH INADVERTENCE A RELATIONSHIP WHICH HE CANNOT EVEN DESCRIBE TODAY IN COURT AND TELL US WHAT THE "A", "W" AND "B" ARE, SO THAT IT IS IMPOSSIBLE AT LEAST FOR THIS DUMB LAWYER TO CROSS-EXAMINE THIS WITNESS AS TO WHETHER HIS CALCULATIONS ARE TOO HIGH, TOO LOW, OR IN FACT ARE VALID AT ALL.

THE COURT: MR. ZIMMER.

MR. ZIMMER: YOUR HONOR, I GO BACK TO WHAT I RAISED EARLIER. THIS IS DIFFERENT. MR. BUNN BROUGHT UP WITH MR. WILDERMUTH THAT IT WAS SIMPLY A QUESTION OF HIS CREDIBILITY. THIS IS FOUNDATIONAL TO THIS WITNESS'S TESTIMONY. IF HE DOES NOT HAVE "A" AND HE DOESN'T HAVE "B", AND HE DOESN'T HAVE "W" AND HE HAS NO IDEA WHO HAS IT, THEN THERE IS SIMPLY NO FOUNDATION FOR THE OPINION. THAT IS FROM A FOUNDATIONAL STANDPOINT, EITHER LEGALLY OR FACTUALLY.

FROM A DISCOVERY STANDPOINT, MR. KUHS REFERENCED THAT. THERE'S ABSOLUTELY NO WAY TO BE ABLE TO EVALUATE -- OR TO EFFECTIVELY CROSS-EXAMINE A WITNESS WHO REFUSES TO GIVE YOU THE COMPONENT PARTS OF THE EQUATION THAT HE IS USING TO PRESENT THE OPINION IN COURT. IT SHOULD HAVE BEEN PROVIDED AT THE DEPOSITION.

IT WASN'T.

IT SHOULD HAVE BEEN PROVIDED HERE IN COURT AND IT WASN'T. IN FACT, IT APPEARS THAT THERE HAS BEEN A CHANGE ORIGINALLY WAS RELYING ON THIS REPORT WITH THE ACTUAL CALCULATIONS, AND THEN THAT WAS CHANGED OVER SOME TIME.

BUT PUTTING ASIDE THE MOTIVES BEHIND IT, IT DOESN'T CHANGE THE FACT THAT THERE IS NO FOUNDATION LEGALLY FOR THE OPINION THAT IS EXPRESSED HERE IN COURT; AND IT DOESN'T CHANGE THE FACT THAT WE HAVE BEEN DENIED THE ABILITY TO EFFECTIVELY CROSS-EXAMINE HIM, DENIED THE ABILITY TO DEPOSE HIM IN A MEANINGFUL WAY WHICH IS REQUIRED BY THE CODE.

THE COURT: OKAY.

MR. TOOTLE: YOUR HONOR, I BELIEVE THAT MR. ZIMMER HAS MISSTATED THE WITNESS'S TESTIMONY. I DON'T BELIEVE HE EVER STATED HE USED THE FORMULAS IN TABLE TWO. I BELIEVE THAT HE VERY CLEARLY STATED IN HIS EXPERT REPORT THE FORMULA AND THE METHODOLOGY THAT HE WENT ABOUT IN EXPRESSING AN ANALYSIS THAT HE NEVER EXPRESSED. HE UNDERTOOK -- IT IS A SIMILAR METHODOLOGY, BUT HE NEVER STATED AND NEVER RELIED UPON THAT REPORT. HE NEVER EXPLICITLY STATED THAT.

MS. RILEY: YOUR HONOR, I RETURN TO -- WHEN WE STARTED THIS DISCUSSION OVER THE MOTION TO STRIKE THIS MORNING, MR. DURBIN BELIEVED THAT HE COMPLIED WITH REQUEST FOR PRODUCTION OF DOCUMENTS AND TURNED OVER ALL THE DOCUMENTS THAT HE HAD IN HIS POSSESSION AT THE TIME

OF THE DEPOSITION IN NOVEMBER.

MR. DURBIN PERFORMED THESE CHANNEL GEOMETRY MEASUREMENTS SEVERAL YEARS AGO, AND HE FOLLOWED A VALID SCIENTIFIC METHOD USING THE GENERAL FORM FROM HEDMAN AND OSTERKAMP TO ARRIVE AT HIS CONCLUSIONS. NOTHING HAS CHANGED IN HIS OPINION THAT HE OFFERED REGARDING THE CHANNEL GEOMETRY MEASUREMENTS.

WE WOULD SUBMIT TO THE COURT THAT HIS TESTIMONY, IF THERE ARE ANY DEFICIENCIES IN HIS TESTIMONY THOSE SHOULD BE WEIGHED BY THE COURT RATHER THAN BE STRICKEN FROM THE RECORD.

THE COURT: OKAY.

MR. WEEKS: I ALSO ADD THE FOUNDATION FOR THIS IS DATA THAT EVERYBODY HAS. HOW THAT DATA WAS APPLIED, THEIR OWN EXPERTS COULD LOOK AT DATA AND APPLY WHATEVER EQUATIONS THEY WANT TO APPLY TO THESE. MR. DURBIN APPLIED THESE EQUATIONS.

THIS IS INTERMEDIARY TO THE FINAL OPINION WHICH THEY ALSO HAVE. THEY HAVE THE DATA, AND THEY COULD HAVE APPLIED TO THEIR OWN EQUATIONS, WHICH APPARENTLY THEY DID. I GATHER FROM THE NATURE OF THEIR QUESTIONS, THEY DID THAT.

THE COURT: OKAY. WELL, I WILL TELL YOU THAT I AM CONFUSED BY THIS TESTIMONY.

MR. WILLIAM KUHS: YOUR HONOR, I COULDN'T HEAR YOU.

THE COURT: I'M CONFUSED BY THIS TESTIMONY. IN PARTICULAR WITH REGARD TO THE FORM THAT IS CONTAINED ON

EXHIBIT 25. WHAT IS YOUR VIEW OF WHAT THAT FORMULA STANDS FOR AND WHAT ITS RELEVANCE IS TO YOUR WORK?

THE WITNESS: I'M SO SORRY. (CELL PHONE GOES OFF)

THE COURT: YOUR OPINION ABOUT THE STREAMFLOW.

THE WITNESS: WELL, ULTIMATELY, AS I TESTIFIED TO, I THINK ON REDIRECT, THERE ARE SEVEN SMALL WATERSHEDS AND THEY REPRESENT 4 PERCENT OF THE FLOW SO THEY HAVE VERY LITTLE --

THE COURT: THAT I UNDERSTAND. WHAT I DON'T UNDERSTAND IS WHERE THIS FORMULA FITS IN.

THE WITNESS: WELL, IT'S A -- FOR THE SEVEN WATERSHEDS HAVE NO GAUGING STATIONS ON THEM, AND SO THE FORMULA IS A TECHNIQUE FOR GOING TO THOSE SEVEN STATIONS WITH -- OR SEVEN WATERSHEDS WITH NO GAUGING STATIONS AND MEASURING THE WIDTH AND COMING UP WITH AN ESTIMATE OF WHAT THE FLOW IS.

THE COURT: WHAT NUMBERS DID YOU USE IN USING THIS FORMULA TO COME UP WITH THAT RELATIONSHIP?

THE WITNESS: WELL, I USED -- THE RELATIONSHIP WAS DEVELOPED BY ALSO GOING TO STREAMS LOCATIONS WHERE THERE ARE STREAM GAUGING STATIONS AND MEASURING THE WIDTH THERE AND USING THE NATIVE STREAM FLOW AND THE MEASURED WIDTH TO DEVELOP THE RELATIONSHIP.

BUT, I MEAN, IT IS QUITE CORRECT THAT AT THIS POINT IN TIME, I DON'T KNOW THE SPECIFICS OF THIS RELATIONSHIP BECAUSE OF THEIR INTERVENING. I CLOSED A BUSINESS AND COMPUTERS WENT AWAY. IT IS JUST GONE, SO I CAN'T TELL ANYBODY WHAT "A" IS AT THIS POINT.

THE COURT: DO YOU KNOW AT THE TIME THAT YOU USED IT?

THE WITNESS: OH, YES, AT THE TIME I USED IT, I DID.

THE COURT: DID THAT COME FROM SOFTWARE OR WHERE -- WHO DEVELOPED THAT FORMULA?

THE WITNESS: WELL, THE FORMULA, WHAT I REFERRED TO AS THE FORM OF THE FORMULA -- AND BY "FORM," I MEAN IT IS A POWER EQUATION. THERE'S AN EXPONENT AND A COEFFICIENT. AND SO THE FORM OF THE FORMULA COMES FROM VARIOUS USGS REPORTS INCLUDING THE OSTERKAMP AND HEDMAN REPORT.

THE COEFFICIENTS COMES FROM DOING SOMETHING CALLED REGRESSION ANALYSIS, WHICH IS A STATISTICAL TECHNIQUE FOR FITTING AN EQUATION TO DATA. AND THROUGH THAT PROCESS COME UP WITH THE PARTICULAR COEFFICIENT VALUES.

AND WHILE I HAVE LOST THE BASIC DATA THAT WENT INTO DEVELOPING THIS RELATIONSHIP, THE END RESULTS OF APPLYING THE RELATIONSHIP ARE IN MY EXPERT REPORT AND ALSO IN THE EXPERT REPORT IS HOW WELL THE RELATIONSHIP FITS THE LOCATIONS WHERE THERE ARE USGS STREAM GAUGING STATIONS.

THE COURT: AND I TAKE IT FROM YOUR TESTIMONY THAT IT WOULD BE IMPOSSIBLE FOR YOU TO EVER RECOVER THE DATA THAT YOU USED TO MAKE THESE DETERMINATIONS?

THE WITNESS: MAYBE NOT IMPOSSIBLE, MY WIFE AT HOME HAS BEEN GOING THROUGH ARCHIVE MATERIAL FROM THE

OLD BUSINESS AND TRYING TO FIND THESE. BUT IN THE LAST COUPLE OF DAYS, SHE HAS HAD NO LUCK.

THE COURT: WHEN YOU LEAVE HERE TODAY, YOU ARE GOING TO GO HOME, AREN'T YOU?

THE WITNESS: I HOPE SO.

THE COURT: WHAT I'M GOING TO DO WITH THIS IS THINK ABOUT IT. THERE IS NO QUESTION IT GOES TO THE WEIGHT. BUT I AM GOING TO ASK YOU IF YOU CAN DURING THE NEXT TWO WEEKS, OR I GUESS WE WILL BE OUT OF SESSION FOR ABOUT FOUR WEEKS, I WOULD LIKE TO SEE IF YOU CAN COME UP WITH THOSE NUMBERS AND REPORT TO YOUR ATTORNEY AS TO WHETHER OR NOT YOU HAVE THEM OR NOT.

THE WITNESS: I WILL DO THAT.

THE COURT: OKAY. AND IN THE MEANTIME IT WILL REMAIN UNDER SUBMISSION PENDING THE FINAL ORDER ON THAT. OKAY. AND IT IS NOT BASED UPON THE FAILURE TO PROVIDE THE INFORMATION AT THE DEPOSITION AS I'M -- IT'S BASED ON WHAT HAS BEEN PRESENTED TO ME. IT SOUNDS AS THOUGH HE WAS NOT ASKED AT THAT TIME ABOUT THAT.

BUT IT IS OF SOME CONCERN TO ME AS TO THE SCIENTIFIC BASIS FOR THE OPINION BECAUSE IT MUST HAVE SOME BASIS, IN FACT, IN ORDER TO BE SCIENTIFICALLY JUSTIFIABLE, AND THAT IS FRANKLY MY CONCERN.

SO WE WILL BE IN RECESS FOR ABOUT 15 MINUTES.

(A RECESS WAS TAKEN.)

THE COURT: BACK ON THE RECORD.

MS. RILEY: IF I COULD FIRST MAKE A REQUEST. I MAKE A REQUEST OF EXHIBITS G1 THROUGH 123 BE ENTERED INTO EVIDENCE.

THE COURT: WHY DON'T WE DO THIS ANOTHER TIME? I THINK -- THERE'S CLEARLY GOING TO BE SOME OBJECTION BASED ON THE MOTION TO STRIKE, SO THAT IS GOING TO HAVE GET SORTED OUT. I WOULD RATHER NOT HAVE TO DEAL WITH THAT UNTIL WE HAVE A LITTLE MORE INFORMATION.

MS. RILEY: THANK YOU, YOUR HONOR. I JUST WANTED A PENDING MOTION.

THE COURT: YES, THANK YOU.

MR. ROBERT KUHS: YOUR HONOR, SHOULD WE ALSO DEFER MOVING THE EXHIBITS INTO CROSS?

THE COURT: YES, I AM PARTICULARLY INTERESTED IN HAVING THIS WITNESS ON AND GET STARTED AND HOPEFULLY BE DONE. MR. ZIMMER?

MR. ZIMMER: FOR THE SAKE OF TIME AND AS AN EVIDENTIARY ISSUE, I TALKED TO MR. MILIBAND ABOUT THE PROPOSED TESTIMONY FROM MR. HARDER. I HAVE SOME QUESTIONS IN TERMS OF RELEVANCE, BUT I'M HAPPY TO DEFER THOSE TO THE TESTIMONY. WE CAN TAKE IT UP THEN, BUT ON A MORE BROAD BASIS, MR. HARDER WAS DESIGNATED TO TESTIFY REGARDING THE HYDROGEOLOGICAL SETTING -- I AM READING FROM THE DESIGNATION.

"THE HYDROGEOLOGICAL SETTING OF THE PINON HILLS SERVICE AREA GROUNDWATER EXTRACTIONS FROM THE PROPOSED ANTELOPE VALLEY AREA OF ADJUDICATION BY EDACFD

VIA WELL 14 AND THE EFFECTS OF PUMPING FROM WELL 14 AND OTHER PPHCSD WELLS ON GROUNDWATER LEVELS AND GROUNDWATER FLOW IN THE PROPOSED ANTELOPE VALLEY AREA OF ADJUDICATION."

AND AN EXHIBIT WAS ATTACHED TO THE EXPERT DESIGNATION. I'VE TALKED TO MR. MILIBAND ABOUT THE PROPOSED TESTIMONY. MR. MILIBAND ADVISED ME THAT HE INTENDS TO SEEK AN OPINION FROM MR. HARDER ON SAFE YIELD AND OVERDRAFT.

HE WAS NOT DESIGNATED TO TESTIFY AS TO SAFE YIELD OR OVERDRAFT. AND IN THE EXPERT REPORT WHICH WAS THE PART OF THE EXPERT DESIGNATION, HE DOES NOT OPINE AS TO SAFE YIELD OR OVERDRAFT. AND, IN FACT, OPINES THAT GROUNDWATER LEVELS IN THE AREA THAT HE IS GOING TO BE TESTIFYING ABOUT WERE RELATIVELY STABLE.

SO THERE IS NO -- THERE IS NO DESIGNATION AS AN EXPERT ON SAFE YIELD OR OVERDRAFT. THE REPORT THAT IS A PART OF THE EXPERT DESIGNATION IS NOT DESIGNATING HIM AS AN EXPERT TESTIFYING ON SAFE YIELD OR OVERDRAFT. ON THAT BASIS, I DON'T THINK HE SHOULD BE ENTITLED TO TESTIFY ON SAFE YIELD OR OVERDRAFT.

MR. MILIBAND: YOUR HONOR, FOR THE RECORD, WESLEY MILIBAND APPEARING ON BEHALF OF PHELAN PINON HILLS COMMUNITY SERVICES DISTRICT. AND UNLESS THE COURT PREFERS OTHERWISE, I INTEND TO REFER TO MY CLIENT AS PHELAN FOR SIMPLICITY.

THE COURT: THAT'S FINE.

MR. MILIBAND: THANK YOU, YOUR HONOR. NOW, TO

ADDRESS MR. ZIMMER'S POINTS; FIRST, I NEVER MADE A REPRESENTATION AS TO SAFE YIELD. MR. HARDER'S ANTICIPATED TESTIMONY OR OPINIONS DO NOT RELATE SPECIFICALLY TO SAFE YIELD. FOR OVERDRAFT, YES.

AND IN THE DESIGNATION, IT DOES READ IN PARAGRAPH 6 "THROUGH THIS DESIGNATION IN PART THAT MR. HARDER WILL TESTIFY REGARDING THE HYDROGEOLOGICAL SETTING OF THE PPHCSD SERVICE AREA," AND TWO LINES BELOW THAT, IT CONTINUES ON TO SAY THAT -- "THE EFFECTS OF PUMPING ON GROUNDWATER LEVELS AND GROUNDWATER FLOW IN THE PROPOSED ANTELOPE VALLEY AREA OF ADJUDICATION."

THAT IS ESSENTIALLY WHAT MR. HARDER INTENDS TO TESTIFY TO, AT LEAST IN PART. NOW, FUNDAMENTALLY THERE ARE A FEW POINTS I WOULD LIKE TO MAKE TO THE COURT, PARTICULARLY MR. ZIMMER'S STATEMENTS THAT HE MIGHT HAVE SOME OBJECTIONS ABOUT RELEVANCY.

FIRST AND FOREMOST, THIS IS PHELAN'S FIRST OPPORTUNITY TO PARTICIPATE IN THE TRIAL IN THIS ADJUDICATION. THE COUNTY IS A PREDECESSOR TO PHELAN. AND FOR WHATEVER REASON OR REASONS DID NOT PARTICIPATE IN EARLIER PHASES.

SINCE OUR COMING INTO THE CASE, WE HAVE FILED A CROSS-COMPLAINT. WE DO BEAR A BURDEN OF PROOF. WE DO INTEND TO COMPLY WITH THE COURT'S ORDERS AND PRESENT EVIDENCE CONSISTENT WITH THE COURT'S ORDERS.

AND SPECIFICALLY THERE WAS AN ORDER FOLLOWING -- I BELIEVE IT WAS THE NOVEMBER 18TH, 2010 CMC IN WHICH THE COURT SAID THAT IT MAY HEAR EVIDENCE AT

THIS PHASE OF TRIAL ABOUT DIFFERENT PARTS OF THE BASIN AND THE CONDITIONS THEREOF OR THEREIN SO LONG AS IT RELATES TO THE OVERALL STATUS OF OVERDRAFT AND SAFE YIELD. THAT IS WHAT WE INTEND TO OFFER.

MR. ZIMMER: GOING BACK, YOUR HONOR, MR. MILIBAND LEFT OUT PROBABLY THE MOST IMPORTANT OF THAT PORTION OF THE EXPERT'S DESIGNATION. MR. MILIBAND SAID, "AND THE EFFECTS OF PUMPING." WHAT HE LEFT OFF WAS, AND IT SAYS, "AND THE EFFECTS OF PUMPING FROM WELL 14. AND OTHER PPHSCD WELLS." SO --

THE COURT: CAN I SEE THE EXPERT DISCLOSURE, PLEASE?

MR. MILIBAND: YOUR HONOR, IF I MAY APPROACH, I AM HAPPY TO SUBMIT MY COPIES EXCEPT A COUPLE OF DELINEATED NOTES OF MINE. THANK YOU.

THE COURT: I'M NOT GOING TO NOT PERMIT THE WITNESS TO BE SWORN, BECAUSE I WILL PERMIT THE WITNESS TO BE SWORN. I AM HOPING THAT WE WILL HAVE A STIPULATION CONCERNING HIS QUALIFICATIONS BASED UPON HIS CV.

AND THEN I'LL EVALUATE AS YOU GO WHETHER OR NOT THE QUESTIONS WOULD BE APPROPRIATE. ONE OF THE CONCERNS THAT I HAVE IS THAT WE ARE INTERESTED IN THE OVERALL CONDITION OF THE AQUIFER. AND TO THE EXTENT THAT HE HAS AN OPINION CONCERNING THAT, IT SEEMS TO ME THAT IS AN OPINION THAT I WANT TO HEAR.

SAFE YIELD IS ALMOST IMPOSSIBLE TO ESTABLISH -- I SHOULD SAY OVERDRAFT IS ALMOST IMPOSSIBLE

TO ESTABLISH WITHOUT SAFE YIELD. IT IS KIND OF THE OTHER END OF THE EQUATION IN A SENSE. SO LET'S HAVE THE WITNESS SWORN FIRST, AND I'LL DEAL WITH THE OBJECTIONS AS THEY ARE MADE.

MR. MILIBAND: YOUR HONOR, I APPRECIATE THE COURT'S COMMENTS, AND I'LL TABLE AND RESERVE ANY OTHER RESPONSES I MIGHT HAVE. BUT FIRST THE QUESTION IS TO THE STIPULATION REGARDING QUALIFICATIONS. IS THE COURT REQUESTING THAT THE PARTIES STIPULATE TO THE QUALIFICATIONS?

THE COURT: I WANT TO HEAR IF THERE IS AN OBJECTION OR THERE IS A STIPULATION?

MR. ZIMMER: I WOULD STIPULATE, YOUR HONOR.

THE COURT: YOU HAVE ALL SEEN HIS CV, I TAKE IT?

MR. ZIMMER: I'LL STIPULATE THAT HE IS QUALIFIED TO TESTIFY AS AN EXPERT ON WATER ISSUES AND STIPULATE THAT YOU CAN INTRODUCE HIS CV.

THE COURT: ANYONE THAT DOES NOT JOIN IN THAT STIPULATION? HEARING NONE, I'LL FIND THAT HE IS QUALIFIED, AND HE MAY TESTIFY. STEP FORWARD, SIR, AND BE SWORN.

MR. MILIBAND: YOUR HONOR, I WAS HOPING TO DEVELOP THAT A LITTLE BIT, BUT THE STIPULATION BEING IN PLACE, I'M COMFORTABLE ENOUGH WITH THAT. CAN I SPECIFICALLY REQUEST THE STIPULATION RELATING TO HYDROGEOLOGICAL CHARACTERISTICS AT LEAST IN THE SOUTHEAST PORTION OF THE BASIN IN WHICH IT ALSO ALLOWS FOR MR. HARDER TO POTENTIALLY TESTIFY AS TO OVERDRAFT.

THE COURT: YES. HE HAS A BACHELOR'S DEGREE IN GEOLOGY, AND HE HAS GOT A MASTERS IN GEOLOGY AND EMPHASIS ON HYDROGEOLOGY. I BELIEVE THAT IS SUFFICIENT QUALIFICATIONS.

MR. MILIBAND: THANK YOU, YOUR HONOR.

THE COURT: SWEAR THE WITNESS, PLEASE.

THE CLERK: PLEASE RAISE YOUR RIGHT HAND TO BE SWORN.

YOU DO SOLEMNLY STATE THAT THE TESTIMONY YOU MAY GIVE IN THE CAUSE NOW PENDING BEFORE THIS COURT SHALL BE THE TRUTH, THE WHOLE TRUTH, AND NOTHING BUT THE TRUTH, SO HELP YOU GOD.

THE WITNESS: I DO.

THE CLERK: THANK YOU. PLEASE BE SEATED. PLEASE STATE AND SPELL YOUR NAME FOR THE RECORD.

THE WITNESS: THOMAS EDWIN HARDER.

THE CLERK: THANK YOU. SPELL YOUR LAST NAME.

THE WITNESS: H-A-R-D-E-R.

THE CLERK: THANK YOU.

THE COURT: OKAY. WILL YOU PLEASE GIVE US YOUR BUSINESS ADDRESS.

THE WITNESS: MY BUSINESS ADDRESS IS THOMAS HARDER AND COMPANY, 601 EAST YORBA LINDA BOULEVARD, SUITE 3A; PLACENTIA, CALIFORNIA 92870.

THE COURT: OKAY. THANK YOU. YOU MAY PROCEED.

MR. MILIBAND: THANK YOU, YOUR HONOR. FIRST AS MATTER OF HOUSEKEEPING, I HAVE PREMARKED A NUMBER OF EXHIBITS AND DISTRIBUTED COPIES TO THE COURT AND

COUNSEL. I BELIEVE THE NEXT LETTER IN ORDER IS "H" AS IN HERO. AND MR. HARDER'S CV HAS BEEN PREMARKED AS H1.

THE COURT: ALL RIGHT.

(PHELAN PINON HILLS EXHIBIT H1 PREMARKED.)

THOMAS EDWIN HARDER,

CALLED BY PHELAN PINON HILLS AS A WITNESS, WAS SWORN AND TESTIFIED AS FOLLOWS:

DIRECT EXAMINATION

BY MR. MILIBAND:

Q GOOD AFTERNOON, MR. HARDER.

A GOOD AFTERNOON.

Q WERE YOU HIRED BY PHELAN FROM MS. TRAGER'S OFFICE TO UNDERTAKE A STUDY OF THE AQUIFER FROM WHICH PHELAN PUMPS GROUNDWATER?

A I WAS.

Q WAS PART OF THAT INITIAL ENGAGEMENT TO EVALUATE PHELAN'S PUMPING AND ITS HYDROGEOLOGICAL RELATIONSHIP TO THE ANTELOPE VALLEY ADJUDICATION AREA?

A YES.

Q WAS YOUR STUDY DONE FOR PURPOSES OF OFFERING EVIDENCE ABOUT THE CONDITION OF THE ANTELOPE VALLEY GROUNDWATER BASIN AND HOW PUMPING IN THE SOUTHEAST PORTION OF THE GROUNDWATER BASIN INFLUENCES THE CONDITION OF THE ADJUDICATION AREA?

A YES, THAT IS CORRECT.

Q DID YOU CONFINE YOUR STUDY TO THE SOUTHEAST EAST AREA OF ANTELOPE VALLEY GROUNDWATER BASIN?

A YES. YOU KNOW, FOR CLARIFICATION, WE REVIEWED THE ENTIRE ANTELOPE VALLEY GROUNDWATER BASIN FOR CONTEXT. BUT THE GENERAL AREA OF OUR STUDY IS LOCATED AS SHOWN ON THE EXHIBIT. IT IS ON THE WALL THERE ENTITLED GROUNDWATER BASIN. THAT IS THE GENERAL AREA OF OUR STUDY.

Q WE WILL COME BACK TO THAT IN JUST A MOMENT, BUT WHEN YOU SAY "WE," TO WHOM ARE YOU REFERRING TO?

A I'M SORRY. I SHOULD SAY I. I WAS THE PERSON.

Q WOULD YOU PLEASE DESCRIBE THE SCOPE OF THE STUDIES THAT YOU HAVE UNDERTAKEN FOR PHELAN?

A WELL, ON AN OVER-ARCHING BASIS, THE PURPOSE OF THE STUDY WAS TO DESCRIBE THE HYDROGEOLOGIC SETTING AND EVALUATE THE CONDITIONS OF THE AQUIFERS FROM WHICH PHELAN PUMPS GROUNDWATER. THERE WERE MULTIPLE GENERAL COMPONENTS TO THIS STUDY, HOWEVER.

AND THE FIRST COMPONENT WAS TO FIRST IDENTIFY THE STUDY AREA ITSELF. THE SECOND COMPONENT WAS TO DEVELOP AN UNDERSTANDING OF PHELAN'S GROUNDWATER LEVELS, THE LOCATION OF THE WELLS, HOW DEEP THEY WERE, WHICH AQUIFERS THEY WERE PUMPING OUT OF, HOW MUCH THEY WERE PUMPING.

A THIRD COMPONENT WOULD BE TO DESCRIBE THE PHYSICAL SETTING OF PHELAN'S WELLS INCLUDING THE GEOLOGY

OF THE AREA, THE CHARACTER OF THE ROCKS, THE HYDROLOGY OF THE AREA INCLUDING THE SURFACE WATER CHARACTERISTICS AND FEATURES; AND THEN WE ALSO LOOK AT HYDROGEOLOGY OF THE AREA. EXCUSE ME.

Q NOW AS PART OF THAT COMPONENT OF DESCRIBING THE PHYSICAL SETTING, DID YOU ALSO LOOK AT GROUNDWATER OCCURRENCE?

A YEAH, WELL, IN THE HYDROGEOLOGY WE LOOKED AT GROUNDWATER OCCURRENCE AND FLOW. WE LOOKED AT HISTORICAL GROUNDWATER LEVELS, AND WE LOOKED AT GROUNDWATER PUMPING SOURCES OF DISCHARGE HISTORICALLY. WE ALSO LOOKED AT GROUNDWATER RECHARGE INCLUDING RETURN FLOW RECHARGE.

Q DID YOU ALSO LOOK AT SEPTIC SYSTEM RETURN FLOW?

A WELL, RETURN FLOW RECHARGE INCLUDED SEPTIC SYSTEM RETURNS.

Q AND YOU MAY HAVE MENTIONED THIS, BUT DID YOU ALSO LOOK AT GROUNDWATER DISCHARGE AND PUMPING OPERATIONS?

A YES.

Q WERE THERE ANY OTHER COMPONENTS TO YOUR STUDY?

A WELL, I SUPPOSE THE FINAL COMPONENT WOULD BE TO EVALUATE THE EFFECT OF PHELAN'S PUMPING ON GROUNDWATER LEVELS AND THEN THE OVERALL CONDITION OF ANTELOPE VALLEY ADJUDICATION AREA.

Q NOW, THE FIRST COMPONENT YOU MENTIONED

DEFINING THE STUDY AREA; IS THAT CORRECT?

A YES.

Q WHAT CRITERIA DID YOU USE TO DEFINE THE STUDY AREA?

A WELL, INITIALLY, WHAT WE DID WAS LOOKED AT BACKGROUND REPORTS AND DOCUMENTS FOR THE AREA. WE WANTED TO PICK AN AREA LARGE ENOUGH TO PROVIDE CONTEXT FOR THE GROUNDWATER FLOW REGIME TO DEVELOP GROUNDWATER CONTOUR MAPS SO WE CAN ASSESS GROUNDWATER FLOW DIRECTIONS NOT ONLY ON PHELAN'S AREA, BUT ACROSS THE ADJUDICATION BOUNDARY. SO IT WAS REALLY JUST PROFESSIONAL JUDGMENT TO COME UP WITH THE STUDY AREA THAT IS SHOWN ON THE EXHIBIT REFERRED TO AS GROUNDWATER BASIN.

Q LET'S TURN TO THAT EXHIBIT. IT HAS BEEN PREMARKED FOR IDENTIFICATION PURPOSES AS H2 IN THE LOWER RIGHT-HAND CORNER.

(PHELAN PINON HILLS EXHIBIT H2 MARKED.)

BY MR. MILIBAND:

Q **IT SAYS GROUNDWATER BASINS. DO YOU HAVE EXHIBIT H2 IN FRONT OF YOU, MR. HARDER?**

A I CAN SEE IT ON THE WALL, YES.

Q EITHER WAY, EITHER WITH THE PACKET OF EXHIBITS IN FRONT OF YOU OR ON THE WALL?

A UH-HUH.

Q DOES EXHIBIT H2 ILLUSTRATE THE STUDY AREA AS YOU DEFINED IT?

A YES.

Q WOULD YOU PLEASE ELABORATE AND DESCRIBE THAT STUDY AREA AS YOU HAVE DEFINED IT?

A WELL, IN GENERAL THE SOUTHERN BOUNDARY OF THE STUDY AREA IS THE SAN GABRIEL MOUNTAINS. THE WESTERN BOUNDARY IS ROUGHLY BIG ROCK CREEK WHICH IS ON THE EXHIBIT, IS SHOWN AS ABOUT RIGHT THERE. THE NORTHERN BOUNDARY IS WHAT I WOULD REFER TO AS THE AREA OF THE BUTTES, THIS WOULD BE SADDLEBACK BUTTE UP HERE AND THIS IS PIUTE BUTTE.

THE NORTHERN BOUNDARY TOWARD THE CENTRAL PORTION WOULD BE APPROXIMATELY ONARUS (PHONETIC) DRY LAKE, AND THEN THE EASTERN BOUNDARY WOULD BE OVER IN VICTORVILLE IN THIS AREA.

Q WAS EXHIBIT H2 PREPARED BY YOU OR AT YOUR DIRECTION?

A IT WAS PREPARED IN MY OFFICE BY MY STAFF AT MY DIRECTION, YES.

Q WHAT DATA OR INFORMATION WAS USED TO ASSEMBLE THIS EXHIBIT?

A WELL, THE EXHIBIT WAS PREPARED USING GEOGRAPHIC INFORMATION SOFTWARE STARTING WITH A BASE MAP WHICH IS THE SATELLITE OR AERIAL PHOTO IMAGE IN THE BACKGROUND. AND THEN WE OVERLAID ON THAT VARIOUS -- WHAT IS REFERRED TO AS SHAPE FILES, G.I.S. SHAPE FILES, SHOWING THE COUNTY BOUNDARY, THE PHELAN'S SURFACE AREA

BOUNDARY WHICH IS SHOWN HERE ON YELLOW.

WE OVERLAID ON THAT THE GROUNDWATER BASIN BOUNDARY WHICH ARE SHOWN ON THE LEFT AS THE ANTELOPE VALLEY GROUNDWATER BASIN.

AND IN THE MIDDLE IS THE EL MIRAGE; M-I-R-A-G-E. AND THEN TO THE FAR RIGHT IS THE UPPER MOJAVE RIVER VALLEY GROUNDWATER BASIN. AND THEN WE ALSO OVERLAYED THERE, AS YOU CAN SEE, PHELAN'S GROUNDWATER PRODUCTION WELLS ARE SHOWN IN BLUE.

PHELAN HAS A NUMBER OF GROUNDWATER PRODUCTION WELLS, SIX OF WHICH OCCUR IN THE ANTELOPE VALLEY GROUNDWATER BASIN AND ONE OF WHICH, WELL 14, OCCURS ON THE LOS ANGELES SIDE OF THE COUNTY BOUNDARY AND WITHIN THE ANTELOPE VALLEY ADJUDICATION AREA.

Q MR. HARDER, DESCRIBING WHAT DATA AND INFORMATION WAS USED TO ASSEMBLE THIS EXHIBIT -- YOU HAVE TO SOME EXTENT IDENTIFIED HOW THIS EXHIBIT WAS PREPARED. IS THERE ANYTHING ADDITIONAL THAT YOU WOULD WANT TO ADD IN TERMS OF HOW THIS PARTICULAR EXHIBIT WAS PREPARED?

A NO.

Q WHY DID YOU DEFINE THE STUDY AREA AS ILLUSTRATED IN EXHIBIT H2?

A WELL, AS I SAID BEFORE, WE WANTED AN AREA LARGE ENOUGH THAT WE COULD DRAW -- DRAWING THE CONTOUR MAP INSTEAD OF, SAY, REGIONAL GROUNDWATER FLOW DIRECTION AS A MEANS OF IDENTIFYING SOURCES OF RECHARGE AND SOURCES OF DISCHARGE THAT MIGHT AFFECT THE ADJUDICATION

AREA IRREGARDLESS OF THE COUNTY BOUNDARY.

Q WOULD YOU DESCRIBE THE AREA THAT LOOKS TO BE A BROWN OR LIGHT BROWN AREA, THE LEFT PORTION OF THE EXHIBIT H2, AS BEING THE ANTELOPE VALLEY GROUNDWATER BASIN AS DEFINED BY THE DEPARTMENT OF WATER RESOURCES BULLETIN 118?

A THAT'S CORRECT.

MR. ZIMMER: VAGUE. I'M NOT SURE WHERE HE IS TALKING ABOUT EXACTLY.

THE WITNESS: THIS AREA RIGHT HERE.

MR. ZIMMER: OKAY. SO FOR THE RECORD HE IS USING A LASER POINTER TO DIFFERENTIATE THE LEFT SIDE OF THE DIAGRAM FROM APPROXIMATELY THE COUNTY LINE TO THE WEST.

MR. MILIBAND: FOR THE RECORD, THERE IS A MAP FEATURED LEGEND ON PAGE 2 THAT IDENTIFIED THAT SAME COLOR TO BE ANTELOPE VALLEY GROUNDWATER BASIN.

MR. ZIMMER: I'M NOT SURE THAT IS CONSISTENT WITH THE ANTELOPE VALLEY GROUNDWATER BASIN DETERMINED IN PHASE II.

MR. MILIBAND: I DON'T KNOW IF THERE IS AN OBJECTION PENDING OR IF MR. ZIMMER IS EDITORIALIZING, YOUR HONOR.

MR. ZIMMER: THIS IS A LITTLE UNUSUAL. WE ARE SOMEWHAT GOING BACK TO PHASE II IN TERMS OF DEFINING GROUNDWATER BASINS. I'M SIMPLY ASKING WHAT THIS DIAGRAMS DEPICTS IS IN FACT THE BOUNDARIES FOR THE ANTELOPE VALLEY GROUNDWATER BASIN.

THE COURT: WELL, LET ME ASK YOU THIS QUESTION:

DO I UNDERSTAND THAT THIS IS THE LOS ANGELES COUNTY LINE?

MR. MILIBAND: YES, YOUR HONOR.

THE COURT: I'M POINTING TO THE BLACK LINE RUNNING FROM THE TOP TO THE BOTTOM WITH THE SLIGHT JOG IN IT. DO I UNDERSTAND THAT YOUR CLIENT HAS ESSENTIALLY TWO WELLS THAT ARE RIGHT ON THE LINE?

MR. MILIBAND: ONE WELL, YOUR HONOR, IS ACTUALLY WITHIN THE ADJUDICATION AREA, AND THAT IS WELL 14.

THE COURT: OKAY. AND THE COURT IN ESTABLISHING THE ADJUDICATION AREA BASED ON TESTIMONY THAT WAS PROVIDED THAT -- AT THAT TIME CONCLUDED NOT TO INCLUDE A SIGNIFICANT AMOUNT OR MOST OF THE AMOUNT OF YOUR JURISDICTIONAL AREA WITHIN THE VALLEY. IN FACT WITHIN THE ADJUDICATION AREA -- IN FACT THE ONLY PART OF IT IS RIGHT ON THE EDGE WHERE THE WELL IS; RIGHT?

MR. MILIBAND: CORRECT, YOUR HONOR.

THE COURT: SO YOUR CLIENT IS PUMPING IN THE ANTELOPE VALLEY ADJUDICATION AREA, BUT MOST OF THE WATER OR ALL THE WATER IS GOING OUT OF THE ADJUDICATION AREA. IT SEEMS TO ME THAT THE CRITICAL TESTIMONY THAT WE OUGHT TO BE HEARING IS THE CONDITION OF THAT WELL AT THIS POINT BEFORE WE START GOING BROAD-BASE INTO THE ENTIRE ADJUDICATION AREA.

MR. MILIBAND: UNDERSTOOD, YOUR HONOR. AND A LOT OF THIS IS FOUNDATIONAL, IF FOR NO OTHER REASON. AND PART OF THIS IS FOR NOT HAVING THAT OPPORTUNITY TO HAVE BEEN HERE FOR PHASE I AND II.

THE COURT: AND I UNDERSTAND THAT, AND I SUPPOSE IT IS ALSO POSSIBLE THAT THE COURT WOULD DRAW THE LINE A LITTLE BIT FURTHER TO THE LEFT.

MR. MILIBAND: OR TO THE RIGHT -- INTO THE EAST.

(LAUGHTER)

THE COURT: I DON'T WANT MOJAVE; BUT IN ANY EVENT, WHY DON'T YOU FOCUS ON THAT WELL FOR -- TO GET TO IT TO SEE WHERE WE ARE GOING.

MR. MILIBAND: UNDERSTOOD, YOUR HONOR, AND AGAIN A LOT OF THIS IS FOUNDATIONAL TO BE ABLE TO GET TO THAT POINT, NOT ONLY TO HAVE A CLEAR BASIS FOR THESE OPINIONS, BUT ALSO TO HOPEFULLY LIMIT THE OBJECTIONS THAT MIGHT OTHERWISE COME IF I DON'T ELICIT THIS TYPE OF TESTIMONY.

THE COURT: OKAY.

MR. JOYCE: YOUR HONOR, JUST A POINT OF CLARIFICATION, IF I UNDERSTAND IT CORRECTLY, THE ENTIRETY OF THE SERVICE AREA FOR PHELAN IS OUTSIDE OF THE ADJUDICATION.

THE COURT: THAT IS WHAT THE MAP LOOKS LIKE.

MR. JOYCE: THANK YOU, YOUR HONOR.

MR. ZIMMER: YOUR HONOR, JUST TO ADDRESS MR. MILIBAND'S CONCERN ABOUT FOUNDATION IF HE GETS -- IT WOULD BE NICE TO FINISH THIS WITNESS THIS AFTERNOON BECAUSE WE WILL PROBABLY HAVE MISS OBERDORFER HERE IN THE MORNING, AND I DON'T REALLY HAVE ANY OBJECTION OF

JUMPING INTO EXACTLY WHAT THE COURT SUGGESTED, AND THAT IS A DISCUSSION ABOUT THIS WELL AND WHAT IS HAPPENING AT THAT WELL.

THE COURT: YEAH, I MEAN THAT -- THAT IS A VERY SIGNIFICANT FACTOR IN TERMS OF WHAT THE IMPACT OF THE WHOLE LITIGATION IS, SO MAYBE WE COULD GO THERE DIRECTLY.

MR. MILIBAND: IF THOSE ARE THE COURT'S WISHES AND MY UNDERSTANDING IS AS AN OFFER OF PROOF IS THAT MR. HARDER HAS ALSO LOOKED AT OTHER WELLS IN THE AREA, SO THAT MORE INFORMATION CAN BECOME KNOWN TO THE COURT.

THE COURT: WELL, I UNDERSTAND THAT YOU ARE A LATE-COMER. YOUR CLIENT IS A LATE-COMER TO THIS LITIGATION AND -- WITH YOUR FIRM, SO IT IS UNDERSTANDABLE THAT WOULD BE A LACK OF CERTAINTY.

MR. MILIBAND: I'LL TRY TO SPEED IT UP AND FOCUS, YOUR HONOR, BUT IF I MAY, I WOULD LIKE TO ASK ONE OR TWO MORE QUESTIONS.

THE COURT: YOU MAY.

MR. MILIBAND: THANK YOU. I APPRECIATE IT.

MR. WILLIAM KUHS: SUBJECT TO MR. JOYCE'S OBJECTIONS.

MR. JOYCE: WHAT?

THE COURT: OF COURSE.

MR. MILIBAND: POSSIBLY MR. KUHS AS WELL.

(LAUGHTER)

BY MR. MILIBAND:

Q MR. HARDER, IF YOU COULD PLEASE DESCRIBE HOW YOU DEVELOPED AN UNDERSTANDING OF THE WATER DEMAND AND SUPPLY AND THE WELLS IN YOUR STUDY AREA AS DEPICTED IN EXHIBIT H2?

A WELL, PRIMARILY THE WATER DEMAND AND THE WATER SUPPLY INFORMATION PROVIDED FOR PHELAN WELL WERE PROVIDED BY PHELAN, THEIR STAFF. WE ALSO LATER ON IN OUR STUDY LOOKED AT WATER DEMAND TO THE NORTHWEST AND DOWN-GRADIENT OF WELL 14.

Q WHAT TASKS DID YOU UNDERTAKE TO CARRY OUT THESE VARIOUS COMPONENTS OF YOUR STUDY?

A WELL, THE FIRST TASK WAS TO COMPILE AND REVIEW BACKGROUND INFORMATION, REGIONAL AND HYDROLOGICAL INFORMATION ON THE ANTELOPE VALLEY GROUNDWATER BASIN AS A WHOLE, FROM VARIOUS RESOURCES INCLUDING THE U.S. GEOLOGICAL SURVEY, DEPARTMENT OF WATER RESOURCES.

FOR OUR STUDY AREA, WE FOCUSSED ON A NUMBER OF OTHER RESOURCES INCLUDING CONSULTANT REPORTS, U.S. GEOLOGICAL SURVEY REPORTS AS WELL, AND SOME REPORTS BY CAL STATE FULLERTON WHO HAD DONE SOME WORK IN THE AREA.

AND WE ALSO COMPILED AERIAL PHOTOS AND SATELLITE IMAGES AND REVIEWED THOSE. WE LOOKED AT, LIKE I SAID, ARC-GIS MAPS DATA INCLUDING POLITICAL BOUNDARIES, GROUNDWATER BASIN BOUNDARIES, WELL LOCATIONS, SOIL PROPERTIES. WE LOOKED AT GEOLOGY MAPS FOR THE AREA. AND, THEN, WE ALSO COMPILED HYDROGEOLOGICAL DATA INCLUDING GROUNDWATER LEVELS,

GROUNDWATER PRODUCTION, PRIMARILY THOSE TWO. BUT WE ALSO LOOKED AT PRECIPITATION, EVAPOTRANSPIRATION AND THOSE THINGS.

THAT WAS TASK ONE.

Q WHAT WOULD BE TASK TWO?

A TASK TWO WE CONDUCTED NUMEROUS FIELD INVESTIGATIONS OF THE AREA INCLUDING PHELAN'S AREA, THE AREA OF SAN GABRIEL MOUNTAINS TO THE SOUTH AND THEN ALSO PHELAN'S INVESTIGATIONS OF THE AREA TO THE NORTHWEST AND THE AREA OF THE BUTTES.

Q IS THERE A TASK THREE?

A YES, TASK THREE WOULD BE TO TAKE THE INFORMATION FROM TASK ONE AND TWO AND COMPILE A NUMBER OF MAPS INCLUDING GROUNDWATER CONTOUR MAPS, HYDROGRAPHS TO EVALUATE FLOW DIRECTIONS AND HISTORICAL GROUNDWATER LEVELS.

WE ALSO COMPILED THE GROUNDWATER PRODUCTION DATA TO SEE WHAT THE TOTAL GROUNDWATER PRODUCTION FOR THE AREA WAS. AND, THEN, WE ALSO DID AN EVALUATION OF RETURN FLOW RECHARGE FOR THE PORTION OF PHELAN SERVICE AREA THAT OVERLAPS THE ANTELOPE VALLEY GROUNDWATER BASIN.

Q OF ALL THE LITERATURE THAT YOU REVIEWED IN CONNECTION WITH YOUR STUDY, DID YOU FIND ANY OTHER STUDY THAT FOCUSSED ON THIS SAME STUDY AREA?

A THERE ARE A NUMBER OF STUDIES INCLUDING LEIGHTON AND PHILLIPS AND IN OTHER REGIONAL STUDIES BY BLOYD THAT TOUCHED ON THE AREA OF THE BOUNDARY BETWEEN

THE COUNTIES, BUT WE NEVER SAW -- I DIDN'T FIND ANY REPORTS THAT DETAILED SPECIFICALLY ANALYSIS OF THIS AREA.

Q YOU MENTIONED THAT YOU CONDUCTED FIELD INVESTIGATIONS. WHAT DID YOU OBSERVE DURING THESE INVESTIGATIONS IN CONNECTION WITH THE DIFFERENT COMPONENTS OF YOUR STUDY?

A WELL, FOR THE FIRST FIELD INVESTIGATION, WE WENT OUT AND LOOKED AT THE WELLS THEMSELVES AND INSPECTED PHELAN WELLS, AND WE HAD -- I WENT OUT WITH ONE OF THEIR OPERATORS TO INTERVIEW HIM ALSO ON THEIR PRODUCTION WITH SPECIFICALLY ON WELL 14 WE VERIFIED THEIR LOCATIONS. AND WE ALSO LOOKED AT THEIR -- SOME OTHER WELLS IN THE AREA TO VERIFY THEIR LOCATIONS.

A SECOND FIELD TRIP WAS INTO THE SAN GABRIEL MOUNTAINS THEMSELVES. WE LOOKED AT A FEW SPRINGS UP THERE, AND I ALSO INSPECTED THE NATURE OF THE ROCKS AND SOME OF THE OTHER FEATURES, THE WASHES THAT EMANATE OUT OF THE MOUNTAINS.

AND THEN I TOOK TWO FIELD TRIPS UP TO THE AREA OF BUTTES, THE LA GEORGE (PHONETIC) BUTTE, OVER TO BLACK BUTTE AND THEN THE AREA BETWEEN BLACK BUTTE AND THE COUNTY BOUNDARY WHICH IT IS AN AREA REFERRED TO AS THE GRAY BUTTE FIELD. IT IS AN AIRSTRIP. IT'S AN OLD WORLD WAR II AIRSTRIP WHICH THEY ARE NOW TESTING PREDATORS. INSPECTED THE LAND USE CONDITIONS UP THERE AND ALSO IDENTIFIED A NUMBER OF AGRICULTURAL WELLS IN THAT AREA, AND THEN WE ALSO LOOKED AT THE PHYSICAL

FEATURES OF THE AREA INCLUDING THE PLAYA DEPOSITS. AND THERE'S AN OLD SPRING THAT HAS BEEN LISTED IN THE LITERATURE, WE WENT IN AND INSPECTED THAT.

Q TO YOUR KNOWLEDGE, DOES PHELAN PURCHASE ANY IMPORTED WATER FROM THE STATE WATER CONTRACTOR OR ANY OTHER ENTITY?

A NOT TO MY KNOWLEDGE.

Q IS GROUNDWATER THE ONLY SOURCE OF WATER CURRENTLY AVAILABLE FOR PHELAN?

MR. WILLIAM KUHS: OBJECT AS IRRELEVANT.

THE COURT: SUSTAINED.

MR. MILIBAND: YOUR HONOR, I OFFER THAT QUESTION TO ELICIT TESTIMONY JUST TO RELATE TO WHAT RECHARGE MIGHT OR MIGHT NOT EXIST.

THE COURT: IT IS IRRELEVANT FOR OUR PURPOSES TODAY.

BY MR. MILIBAND:

Q MR. HARDER, HAVE YOU CONDUCTED ANY ANALYSIS FROM RETURN FLOW IRRIGATION?

A I HAVE.

Q YOU HAVE?

A OH, YES.

Q HOW SO?

A WELL, RETURN FLOW IRRIGATION, I SHOULD SAY WE CONDUCTED ANALYSIS OF RETURN FLOW FROM INDIVIDUAL SEPTIC TANKS. PHELAN DOES NOT HAVE A WASTE WATER DISPOSAL, A FORMAL WASTE WATER DISPOSAL PLAN. THEY'RE FORMER WASTE WATER DISPOSAL IS THROUGH INDIVIDUAL SEPTIC

TANKS; AND I GUESS THROUGH IRRIGATION, WE EVALUATED THE PORTION OF THEIR WATER SUPPLY OR WATER TO THOSE HOMES THAT WAS USED FOR IRRIGATION AS OPPOSED TO WHAT MIGHT BE DISCHARGED TO INDIVIDUAL SEPTIC SYSTEMS.

Q SO WHEN YOU SAY YOU DON'T HAVE A RETURN FLOW INVESTIGATION, YOU ARE RELATING THAT TO THE SEPTIC SYSTEM; IS THAT CORRECT?

A YES.

Q BUT NOT TO IRRIGATION; IS THAT CORRECT?

A THAT IS CORRECT.

Q WHY NOT TO IRRIGATION?

A WELL, IRRIGATION, THEY DON'T -- THERE IS HARDLY ANY LANDSCAPE IRRIGATION IN THE PHELAN AREA. IN OTHER WORDS, PEOPLE DON'T KEEP LAWNS IN PHELAN. THEY DON'T USE WATER FOR IRRIGATION. IT IS ALMOST COMPLETELY USED FOR INDOOR USE.

MR. MILIBAND: MR. HARDER, WILL YOU PLEASE TURN TO WHAT HAS BEEN PREMARKED FOR IDENTIFICATION PURPOSES AS EXHIBIT H3?

(PHELAN PINON HILLS EXHIBIT H3 PREMARKED.)

MR. MILIBAND: YOUR HONOR, DO YOU MIND IF I TRAVERSE THE WELL AS NEEDED?

THE COURT: NO, GO AHEAD, BUT I HAVE A QUESTION. SEPTIC TANKS, WHERE ARE THEY LOCATED, IN THE MOJAVE COUNTY OR L.A. COUNTY?

THE WITNESS: THEY ARE LOCATED WITHIN PHELAN'S SERVICE AREA IN SAN BERNARDINO COUNTY.

MR. ZIMMER: YOUR HONOR, THAT WAS MY QUESTION AS TO THE RELEVANCE OF THIS TESTIMONY TO THE ANTELOPE VALLEY AND THE QUESTION FOR THE COURT AS TO SAFE YIELD AND OVERDRAFT OF THE ANTELOPE VALLEY AREA OF ADJUDICATION.

IF YOU JUST CUT TO THE CHASE OF WHAT IS REALLY HAPPENING IS PHELAN WANTS TO BE SEPARATED OUT FROM THIS LAWSUIT, AND THAT IS WHAT REALLY WHAT THIS TESTIMONY IS PROBABLY DIRECTED TO. THE COURT HAS SAID ON NUMEROUS PREVIOUS OCCASIONS THAT IF -- IF THE COURT WOULD RECONSIDER ITS EARLIER DETERMINATION OF THE ANTELOPE VALLEY AREA OF ADJUDICATION BOUNDARIES IF ANY PARTY REQUESTED THE COURT TO DO THAT.

SO I THINK CERTAINLY THERE IS A MECHANISM FOR PHELAN TO MAKE APPLICATION TO THE COURT, ASK FOR HEARING FOR WHATEVER THEY WANT TO DO AND TO TRY AND MAKE A SHOWING THAT THEY SHOULD BE EXCLUDED FROM LAWSUIT. BUT IN TERMS OF THE CONTEXT OF THIS CASE AND THE RELEVANT ISSUES IN THIS CASE AS TO THE STATE OF SAFE YIELD AND OVERDRAFT OF THE ENTIRE BASIN SEEMS TO ME LIKE THE MOST THIS TESTIMONY PROBABLY IS NOT DIRECTED TO THAT AND I -- I WOULD THINK THAT IF WE REALLY WANT TO HAVE THAT DISCUSSION, WE NEED TO HAVE IT IN A DIFFERENT FORUM; AND WE NEED TO HAVE OTHER EXPERTS LOOKING AT IT AS WELL. AND MAYBE THERE WON'T BE A --

THE COURT: MY RECOLLECTION IS THAT WE CHOSE THE

LA COUNTY LINE AS THE ADJUDICATION AREA BORDER ON THE -- I GUESS, IT IS THE EAST. AND THE REASON WE DID THAT WAS BECAUSE THERE WAS SUBSTANTIAL AMOUNT OF TESTIMONY THAT THERE WAS VERY NOMINAL FLOW FROM THE ANTELOPE VALLEY INTO THE MOJAVE HALF OF THE VALLEY OR DESERT AREA, SO THAT IT WAS PURELY A FLUKE THAT THIS WELL, AND I DON'T WANT TO JUMP TOO FAR AHEAD WITH ANY KIND OF A JUDGMENT IN THIS CASE ABOUT THAT, BUT IT WAS A FLUKE AS WELL HAPPENS TO BE RIGHT ON THE LINE. SO THAT IS -- IT IS BASICALLY PUMPING INTO AN AREA THAT DOES NOT HAVE A LOT OF CONDUCTIVITY WITH THE MOJAVE VALLEY, BUT IS BEING USED FOR THAT AREA.

SO I'M NOT -- I THINK MR. ZIMMER HAS GOT A POINT IN TERMS OF WHERE THIS OUGHT TO BE GOING, BUT I SUPPOSE THAT I NEED TO HEAR SOME EVIDENCE THAT REALLY RELATES TO THAT ISSUE BEFORE WE CAN MAKE THAT KIND OF A DECISION. AND IF THE COURT MAKES THAT KIND OF A DECISION, THEN, OBVIOUSLY, THERE IS GOING TO BE A LITTLE CUT AROUND THAT WELL SO THAT IT IS YOURS AND NOT THEIRS.

MR. MILIBAND: WELL, YOUR HONOR, FIRST, I DON'T NECESSARILY WANT TO INDULGE MR. ZIMMER'S COMMENT AT THIS POINT ABOUT WHAT PHELAN WANTS TO BE OR DOES NOT WANT TO BE IN THIS LAWSUIT. THE FACT IS WE ARE HERE. IN FACT, WE EVEN REQUESTED TO BECOME PART OF IT. IT IS TRUE, PROCEDURAL HISTORY BEHIND IT.

THE COURT: I REMEMBER THAT.

MR. MILIBAND: SO I DON'T EVEN WANT TO GO ANY FURTHER WITH THAT UNLESS THE COURT WISHES TO HAVE MORE

DISCUSSION ON THAT AT THIS POINT.

THE COURT: WHAT I DON'T WANT TO DO IS WASTE YOUR TIME OR ANYBODY ELSE'S TIME BY INDULGING IN AN EXTENSIVE EVALUATION THAT MAY NOT BE NECESSARY AT THIS POINT.

MR. MILIBAND: OUR APPROACH IS SIMPLER AND PERHAPS NOT ELICITED WELL ENOUGH AT THIS POINT, BUT THE IDEA IS THAT THE HYDROGEOLOGICAL BASIN OF THE ANTELOPE VALLEY NEEDS TO BE LOOKED AT, AT LEAST IN THIS PORTION TO HAVE A BETTER UNDERSTANDING AND ADDRESS THE COURT'S ISSUES THAT ARE PENDING AS TO OVERDRAFT, AND THAT IS WHY MR. HARDER HAS LOOKED SPECIFICALLY OVER THE COUNTY LINE TO BE ABLE TO ADDRESS WHAT THE HYDROGEOLOGIST -- WHAT THE HYDROGEOLOGICAL CONDITION IS OF THE BASIN.

THE COURT: THAT LEADS ME TO MAYBE WHERE WE SHOULD START AS AN OFFER OF PROOF OF WHAT IT IS YOU INTEND TO ESTABLISH BY TESTIMONY OF YOUR WITNESS AND WHATEVER OTHER DOCUMENTS THAT YOU HAVE.

MR. MILIBAND: THE OFFER OF PROOF, YOUR HONOR, WOULD BE ON THE FOUNDATIONAL MATTER THAT THIS AREA HAS NOT BEEN LOOKED AT BEFORE, BUT MR. HARDER DOES AGREE WITH THE ANTELOPE VALLEY GROUNDWATER BASIN AS IT IS DEFINED IN BULLETIN 118, WHICH THIS COURT PREVIOUSLY FOUND DOES DEFINE THE BASIN EVEN IF THAT DOES NOT DEFINE THE ADJUDICATION AREA, BUT TO ADDRESS THE SPECIFIC ISSUES PENDING FOR THIS PHASE OF TRIAL.

THE COURT: WHAT ARE YOU GOING TO PROVE?

MR. MILIBAND: MR. HARDER WOULD ULTIMATELY OPINE THAT OVERDRAFT MAY EXIST. I MIGHT NOT BE ARTICULATING

QUITE AS HE WOULD, BUT THE ESSENCE OF IT IS THAT AT LEAST IN THIS PORTION OF THE BASIN OVERDRAFT MAY EXIST. THAT IS CONSISTENT WITH THE COURT'S ORDER FROM NOVEMBER 19TH, 2010 IN WHICH THE COURT DID SAY THAT IT WOULD HEAR EVIDENCE OR MAY HEAR EVIDENCE WAS ACTUALLY THE COURT'S LANGUAGE AS TO VARIOUS CONDITIONS OF THE BASIN.

THE COURT: WELL, YOU CAN'T TALK ABOUT BASINS AND OVERDRAFT WITHOUT TALKING ABOUT THE WHOLE BASIN IN THAT SENSE BUT -- BECAUSE I HAVE MADE SOME FINDINGS ABOUT A SINGLE AQUIFER HERE.

MR. MILIBAND: THEN I SUPPOSE I WOULD LEAVE THAT TO THE COURT TO INTERPRET HOWEVER IT DEEMS APPROPRIATE, MR. HARDER'S OPINION AS TO WHETHER OVERDRAFT EXISTS JUST IN THIS PART POTENTIALLY OR TO ALL OF IT.

THE COURT: YOU JUST SAID YOU INTEND TO ESTABLISH THE THING IS -- OVERDRAFT DOES EXIST.

MR. MILIBAND: OR MAY EXIST.

THE COURT: WELL, SO FAR I HAVE -- DON'T WANT TO GET TOO FAR INTO THIS, BUT INFORMAL ARGUMENTS, FORMAL ARGUMENTS IN THE COURTROOM LAWYERS, I HAVE NOT HEARD ANYBODY SAY THERE IS NOT AN OVERDRAFT. I DON'T KNOW IF ANYONE HAS TRIED TO ESTABLISH THAT THERE ISN'T OR NOT AT THE MOMENT.

MR. ZIMMER: YOUR HONOR, IF I MAY GO BACK TWO THINGS: FIRST THE COURT ALREADY HAS MADE A DETERMINATION OF THE BASIN IN THIS CASE AND THE BASIN FOR PURPOSES OF THE DETERMINING WHETHER THERE IS

OVERDRAFT AND WHAT SAFE YIELD IS, IS THE FOCUS OF THIS TRIAL.

SECOND, THIS WITNESS WAS NOT DESIGNATED TO TESTIFY REGARDING OVERDRAFT IN THIS AREA OR ANYWHERE ELSE. HE WAS SIMPLY DESIGNATED TO TESTIFY ABOUT PUMPING FROM WELL 14.

THIRD, THE EXPERT REPORT PROVIDED BY THIS WITNESS ATTACHED TO HIS EXPERT DECLARATION DOES NOT MENTION THE WORD OVERDRAFT OR SAFE YIELD ANYWHERE.

THIRD OR FORTH, WHEREVER I AM, WOULD BE COMPLETELY UNFAIR TO MR. KUHS' CLIENT WHO WOULD -- PRECLUDED FROM TALKING ABOUT OVERDRAFT IN SEPARATE AREAS OF THE BASIN TO NOW ALLOW MR. MILIBAND TO GO INTO THAT ISSUE IN SEPARATE AREAS OF THE BASIN AS IF IT WAS A SEPARATE AQUIFER WHICH IT IS NOT.

TAKING ME BACK TO MY INITIAL POINT, AND THAT IS WHAT WE ARE REALLY TRYING TO DO HERE WITH -- MR. MILIBAND IS REALLY TRYING TO DO IS TO EXCISE PHELAN FROM THIS BASIN. IF HE WANTS TO TRY TO EXCISE PHELAN FROM THIS AREA OF THE BASIN, THEN, HE HAS TO MAKE THE APPROPRIATE MOTION WITH APPROPRIATE ISSUES BEFORE THE COURT AND HAVE THAT ISSUE HEARD, BUT THAT IS NOT WHAT THE ISSUE IS HERE.

MR. MILIBAND: YOUR HONOR, I WILL INDULGE THAT LAST COMMENT ONLY TO THE EXTENT TO SAY THAT IS NOT MY INTENT. WE ARE HERE TO EXCISE OUR -- OUR OPPORTUNITY TO PRESENT EVIDENCE AS WE DEEM APPROPRIATE FOR SUBJECT TO THE COURT'S RULINGS BUT AS WE DEEM APPROPRIATE TO THESE

ISSUES PENDING BEFORE THE COURT.

MR. WILLIAM KUHS: YOUR HONOR, MAY I BE HEARD BRIEFLY?

THE COURT: YES.

MR. WILLIAM KUHS: I WAS A PROPONENT BACK AT THE CASE MANAGEMENT CONFERENCE IN NOVEMBER OF AN AMENDMENT TO YOUR PRIOR HONOR'S ORDER DEALING WITH SCOPE OF THE PHASE III TRIAL. I PROPOSED AT THAT POINT IN TIME THAT -- I'LL CALL THEM REGIONAL ISSUES, THAT IS THE EFFECT OF PUMPING IN ONE PORTION OF THE AQUIFER AND ITS EFFECT ON OTHER PORTIONS.

I WAS A PROPONENT TO CARVE THAT OUT TO A LATER PHASE SO THAT WE DEALT WITH THE BASIN AS A WHOLE IN PHASE III. YOUR HONOR'S ORDER -- AND I THINK MOST OF THE OTHER COUNSEL THAT I TALKED TO WERE AGREEABLE TO CARVING THAT ISSUE OUT. YOUR HONOR'S ORDER LEFT SOME OF US IN A DILEMMA BECAUSE YOUR HONOR'S ORDER SAID PEOPLE MAY -- PARTIES MAY INTRODUCE EVIDENCE INDICATING THE EFFECT OF PUMPING IN ONE PORTION OF THE BASIN ON OTHERS.

SO TEJON, FOR EXAMPLE, WAS IN A DILEMMA ABOUT PHRASE III AND THAT ISSUE AND BY NECESSITY IS PREPARED TO OFFER EVIDENCE OF THE EFFECT OF PUMPING IN WHAT WE CALL THE WEST BASIN ON THE BALANCE OF THE BASIN, BUT YOUR ORDER DID NOT GO TO THE POINT OF SAYING -- BECAUSE I DON'T KNOW THAT THERE'S ANY SUCH DEFINITION OF REGIONAL OVERDRAFT AS A LEGAL PROPOSITION.

THE COURT: I DON'T KNOW WHAT THAT WOULD BE.

MR. WILLIAM KUHS: SO TO TALK ABOUT OVERDRAFT IN A

PORTION OF THE BASIN, I DON'T THINK LEADS THIS COURT TO ANY -- SHEDS ANY LIGHT ON WHAT YOUR HONOR'S RESPONSIBILITY IS GOING TO BE AT THE END OF PHASE III.

THE COURT: WELL, ULTIMATELY, THE DIFFERENCES IN THE WATER LEVELS AT VARIOUS PARTS OF THE VALLEY EVEN THOUGH THERE MAY BE CONDUCTIVITY MAY RESULT IN DIFFERENT MANAGEMENT ORDERS WITH REGARD TO THOSE AREAS AND -- BUT AS LONG AS THEY ARE CONNECTED USING LAY TERMS, THEN IT SEEMS TO ME IF -- IF A SINGLE AQUIFER AND IF THE COURT IS GOING TO EXERCISE EQUITABLE JURISDICTION OVER THE AQUIFER, IT HAS GOT TO INCLUDE EVERYBODY WITHIN THAT, NOT KNOWING TO WHAT EXTENT THERE WILL BE THOSE DIFFERENCES.

AND I GUESS THE THING THAT I'M CONCERNED ABOUT NOW IS NOT SPENDING TOO MUCH TIME TALKING ABOUT THE DIFFERENCES, AND I GUESS THAT WAS WHAT YOU ASKED TO BE SEPARATED OUT, AND IT WAS MY UNDERSTANDING THAT ESSENTIALLY WE WERE; BUT I DID NOT KNOW WHAT THE TESTIMONY OR EVIDENCE WAS GOING TO BE WITH REGARD TO THE VARIOUS LEVELS OF WATER WITHIN THE AQUIFER.

WE HAVE A LOT OF TESTIMONY ABOUT CONTOURS NOW FROM ONE SIDE AND I EXPECT TO HEAR FURTHER EVIDENCE ABOUT THAT FROM THE OTHER SIDE. AND THAT IS WHY I DIDN'T SAY WE ARE NOT GOING TO HEAR DIFFERENCES IN PUMPING ABOUT VARIOUS SECTIONS OF THE WELL.

MR. WILLIAM KUHS: BUT ONLY FOCUSED ON THIS WITNESS THEN, BUT TO THE POINT OF TRYING TO GET AN OFFER OF PROOF AND WHAT THE OFFER MAY BE IF THE OFFER IS SOME

SORT OF REGIONAL OVERDRAFT, I THINK THAT IS IRRELEVANT AND NOT A PROPER SUBJECT IN PHASE III.

MR. MILIBAND: YOUR HONOR, THE SIMPLEST WAY TO ADDRESS THAT IS THE STUDY AREA THAT MR. HARDER STUDIED FOR THE ANTELOPE VALLEY, AT LEAST THE PORTION OF THE STUDY AREA THAT'S THE ANTELOPE VALLEY GROUNDWATER BASIN. NOW IF SOMEONE WANTS TO SAY THAT IS SUB-REGIONALIZING OR GETTING AHEAD, SO BE IT. BUT OUR INTENTION, UNLIKE MR. KUHS'S CLIENT, ISN'T TO BE REMOVED FROM THE ADJUDICATION AND OUR --

MR. WILLIAM KUHS: I OBJECT TO THE CHARACTERIZATION OF WHAT MY CLIENT'S INTENTION IS BECAUSE THIS COUNSEL HAS ABSOLUTELY NO KNOWLEDGE OF MY CLIENT'S INTENTION.

MR. MILIBAND: CERTAINLY NO OFFENSE INTENDED, BUT FORGIVE THE MISCHARACTERIZATION FOR WHATEVER EXTENT IT EXISTS. THE BOTTOM LINE IS THAT WE ARE JUST LOOKING TO MAKE THIS OFFER OF PROOF AND ACTUALLY SUBMIT THE TESTIMONY THROUGH MR. HARDER AS IT RELATES TO THE ANTELOPE VALLEY GROUNDWATER BASIN IN HIS STUDY AREA.

IT IS REALLY THAT SIMPLE, YOUR HONOR. AND IF SOME IS GOING TO LOOK AT IT AND SAY THAT THAT'S NOT APPROPRIATE AT THIS PHASE, I WOULD SUBMIT THAT MR. HARDER SHOULDN'T BE PRECLUDED FROM SAYING THAT SIMPLY BECAUSE THE STUDY AREA IS CONFINED TO ONLY A PORTION OF THE ANTELOPE VALLEY GROUNDWATER BASIN.

THE COURT: WELL, HIS -- HIS STUDY AREA, IF I'M LOOKING AT THIS CORRECTLY, STOPS AT THE COUNTY LINE; IS

THAT RIGHT?

MR. MILIBAND: NO, SIR. IT IS -- IT IS WHAT -- HIS STUDY AREA IS ILLUSTRATED BY EXHIBIT H2. I'M POINTING AT H3, THAT IS THE DEMONSTRATIVE EVIDENCE HERE IN THE COURTROOM, BUT EXHIBIT H2 ILLUSTRATES THE STUDY AREA.

THE COURT: THE ENTIRE PICTURE IS THE STUDY AREA?

MR. MILIBAND: YES, IT IS. BUT HIS OPINION AS TO OVERDRAFT RELATES TO THE ANTELOPE VALLEY GROUNDWATER BASIN.

MR. EVERTZ: YOUR HONOR, DOUG EVERTZ FOR THE CITY OF LANCASTER AND ROSAMOND COMMUNITY SERVICES DISTRICT. I WAS CONFERRING WITH MR. BUNN AND MR. DUNN, IF I MAY APPROACH? WE WERE ALL INVOLVED IN THE MOJAVE RIVER ADJUDICATION. THIS AREA, SAN BERNARDINO COUNTY, THAT IS, APPARENTLY IS PART OF THE ANTELOPE VALLEY GROUNDWATER BASIN ACCORDING TO THIS EXHIBIT -- PART OF THE ADJUDICATION AREA IN THE MOJAVE RIVER ADJUDICATION SO THE EXCESSIVE BROWN AREA IN THE SAN BERNARDINO SECTION OF THIS EXHIBIT.

THE COURT: LET ME GET THAT EXHIBIT.

MR. MILIBAND: THAT IS H3, YOUR HONOR.

THE COURT: YEAH, I SEE IT.

MR. EVERTZ: H3 REFERENCES THE ANTELOPE VALLEY GROUNDWATER BASIN IN BROWN, PORTIONS OF WHICH ARE IN SAN BERNARDINO COUNTY. THIS AREA IN SAN BERNARDINO COUNTY THAT IS IDENTIFIED AS BEING PART OF THE ANTELOPE VALLEY GROUNDWATER BASIN SUBJECT TO THE JURISDICTION OF THE

COURT IN MOJAVE RIVER ADJUDICATION.

MR. MILIBAND: TWO THINGS, YOUR HONOR.

MR. EVERTZ: THAT IS THE REASON THE LINE WAS DRAWN HERE.

THE COURT: YES, THAT IS CORRECT.

MR. MILIBAND: TWO THINGS, IF I MAY, YOUR HONOR. THIS AREA WAS NOT -- AND I DON'T HAVE PERSONAL KNOWLEDGE AS TO FULL EXTENT OF HOW THAT WAS ADJUDICATED IN MOJAVE, BUT I DO KNOW GENERALLY WHAT HAS BEEN REPRESENTED TO ME THAT THIS AREA WAS NOT LOOKED AT. ESSENTIALLY WAS ADJUDICATED TO THE LINE WITHOUT ANY KIND OF -- ANY KIND OF CONSIDERATION FOR THE NEEDS IN THAT AREA.

AND TWO, THE PURPOSE HERE IS TO ADDRESS THE COURT'S QUESTION ABOUT THE CONDITION OF THE ANTELOPE VALLEY GROUNDWATER BASIN; AND TO DO THAT, WE SUBMIT THAT THE COURT NEEDS TO HEAR EVIDENCE ABOUT THE ENTIRE HYDROGEOLOGICAL ANTELOPE VALLEY GROUNDWATER BASIN.

THAT IS THE BASIS AND THE PURPOSE FOR WHICH WE HAVE OFFERED EXHIBITS AND INTEND TO ELICIT TESTIMONY ABOUT PARTS -- THIS PART OF THE BASIN THAT IS EAST OF THE ADJUDICATION AREA.

THE COURT: BUT YOU ARE ASKING THE COURT TO HEAR EVIDENCE CONCERNING THE MOJAVE VALLEY.

MR. MILIBAND: NO, WHAT WE ARE ASKING FOR IS FOR THE COURT TO HEAR ABOUT THE HYDROGEOLOGICAL ANTELOPE GROUNDWATER BASIN THAT HAPPENS TO BE OVERLAIN BY THE MOJAVE ADJUDICATION AREA.

THE COURT: BUT THAT WAS NOT THE ADJUDICATION

AREA, DID NOT GO INTO MOJAVE VALLEY.

MR. MILIBAND: I UNDERSTAND, BUT AGAIN WHAT THE PURPOSE FOR WHICH WE ARE OFFERING THIS IS TO HELP THE COURT IN MAKING A DETERMINATION AS TO WHAT THE CONDITION OF THE ANTELOPE VALLEY GROUNDWATER BASIN IS; AND TO DO THAT, MR. HARDER'S OPINION IS THAT THE COURT WOULD NEED TO HEAR EVIDENCE AS TO THE ENTIRE ANTELOPE VALLEY GROUNDWATER BASIN FROM A HYDROGEOLOGICAL PERSPECTIVE.

THE COURT: BUT YOU ARE EXPANDING THAT BEYOND THE ADJUDICATION BOUNDARIES. YOU ARE GOING WELL INTO MOJAVE COUNTY, AREN'T YOU, SAN BERNARDINO COUNTY?

MR. MILIBAND: IT DOES GO INTO SAN BERNARDINO COUNTY, BUT WE ARE NOT BEYOND EL MIRAGE. THE STUDY AREA IS AS LARGE AS DEPICTED IN H2.

THE COURT: THAT'S MY CONCERN.

MR. MILIBAND: BUT THE OPINION AS TO OVERDRAFT RELATES TO DATA AND INFORMATION COMPILED AND ANALYZED BY MR. HARDER AS IT RELATES STRICTLY TO THE ANTELOPE VALLEY GROUNDWATER BASIN.

THE COURT: THAT'S NOT WHAT I JUST HEARD. WHAT I HEARD WAS THAT THE PHELAN SERVICE DISTRICT WHERE ALL THE RETURN FLOWS WERE COMING FROM SEPTIC TANKS, AND I'M ASSUMING THAT HE IS GOING TO BE TALKING ABOUT GROUNDWATER LEVELS IN THAT AREA. AND, FRANKLY, THE EVIDENCE THAT I HAVE HEARD THUS FAR MAKES THAT IRRELEVANT BECAUSE THERE IS NOMINAL IMPACT INTO THE ANTELOPE VALLEY FROM THAT AREA.

NOW THIS IS RE-OPENING ISSUES THAT WERE

DECIDED AT THE TIME THE COURT, FIRST OF ALL, MADE ITS DETERMINATION OF WHO IS GOING TO BE INVOLVED IN THE ADJUDICATION AND WE WERE TRYING TO PUT SOME REASONABLE LIMITS ON IT BASED UPON THE REAL WORLD; AND THEN, SECONDLY, BASED UPON THE FACT THAT THERE WAS VERY NOMINAL INTERRELATIONSHIP BETWEEN THE GROUNDWATER ON EITHER SIDE OF THAT LINE.

IN OTHER WORDS, IT WAS FAIRLY STATIC ON BOTH SIDES OF THE LINE SUCH THAT IT WOULD BE REASONABLE TO CUT IT OFF AT THAT POINT.

AND AM I REMEMBERING CORRECTLY?

MR. WILLIAM KUHS: YES, YOUR HONOR.

MR. JOYCE: YES, YOUR HONOR.

MR. MILIBAND: BUT THAT MAY NOT BE SO NOW. AND MR. HARDER COULD TESTIFY AS TO WHAT THE GROUNDWATER FLOW DIVIDE IS. AGAIN, IT'S THE HYDROGEOLOGICAL BASIN ITSELF.

THE COURT: WELL, FIRST OF ALL, I DON'T BELIEVE THAT IT WOULD BE APPROPRIATE FOR THIS COURT TO EXPAND THE JURISDICTION OF THE ADJUDICATION AREA TO INCLUDE MOJAVE OR SAN BERNARDINO COUNTY. THERE IS AN ADJUDICATION THAT HAS OCCURRED THERE. AS I UNDERSTAND IT, THE COURT HAS CONTINUING JURISDICTION IN THAT MATTER.

AND I DON'T THINK THAT IT'S IN ANYBODY'S BEST INTEREST AT THIS POINT TO EXPAND THIS LITIGATION BY JOINING WITH THAT ADJUDICATION. I THINK THAT WOULD TAKE US INTO THE 22ND CENTURY.

MR. MILIBAND: WE ARE NOT ASKING FOR THAT, YOUR HONOR.

THE COURT: I KNOW YOU ARE NOT.

(LAUGHTER)

THE COURT: I'M NOT GOING THERE ONE WAY OR ANOTHER.

MR. ZIMMER: PROBABLY NONE OF US ARE GOING INTO THE 22ND CENTURY.

THE COURT: ALTHOUGH I WOULDN'T MIND. SO, SERIOUSLY, I GUESS WHAT I WOULD BE INTERESTED IN HEARING FROM YOU AND YOUR CLIENT IS A MOTION DESCRIBING WHAT IT IS THAT YOU WANT THE RELATIONSHIP BETWEEN YOUR SERVICE DISTRICT AND ANTELOPE VALLEY ADJUDICATION TO BE.

PERHAPS SOME TESTIMONY CONCERNING WATER LEVELS IN THE WELL NUMBER 14, A POSSIBILITY THAT YOU WOULD LIKE TO BE EXCLUDED FROM THIS ADJUDICATION IF THAT IS YOUR DESIRE. BUT WHAT I DO NOT WANT NOW IS TO START GETTING INTO TESTIMONY CONCERNING GROUNDWATER LEVELS THAT EXTEND OUTSIDE OF THIS ADJUDICATION AREA, NOR DO I WANT TO IN ANTICIPATION, I THINK AT THIS POINT, IS THAT WE COULD RUN OUT OF TIME LONG BEFORE WE GET THERE TO GO MUCH BEYOND AN UNDERSTANDING OF WHAT IS HAPPENING WITH WELL 14 AND WHETHER THERE IS A PUMPING DEPRESSION THERE OR WHETHER IT IS BLOWING OFF SIGNIFICANT WATER FROM THE VALLEY ADJUDICATION AREA SUCH THAT THE COURT WANTS TO START MANAGING THAT WELL, OR NOT.

MR. WILLIAM KUHS: YOUR HONOR, MY CONCERN BECAUSE THERE HAS BEEN AMBIGUITY USING THE PHRASE ANTELOPE VALLEY GROUNDWATER BASIN AS DISTINGUISHED FROM ANTELOPE VALLEY AREA OF ADJUDICATION. AND I AM GETTING THE DISTINCT FEELING THAT THIS IS A DISGUISED EFFORT TO BRING IN A WITNESS TO TESTIFY TO SAFE YIELD AND OVERDRAFT IN THE ENTIRE ANTELOPE VALLEY AREA OF ADJUDICATION. A WITNESS THAT WAS NOT DISCLOSED FOR THAT PURPOSE AND SOME OF US INTENTIONALLY DID NOT ATTEND HIS DEPOSITION -- NOBODY ATTENDED HIS DEPOSITION.

MR. MILIBAND: BECAUSE NOBODY NOTICED IT.

MR. ZIMMER: THAT DEPOSITION WAS NOT NOTICED BECAUSE THERE WAS A DESIGNATION THAT DID NOT HAVE ANYTHING TO DO WITH OVERDRAFT OR SAFE YIELD AND IT ONLY DEALT WITH WELL 14 WHICH NOBODY REALLY WAS CONCERNED ABOUT.

MR. JOYCE: AND MORE SPECIFICALLY, YOUR HONOR, THE ACTUAL REPORT APPENDED WITH THE DESIGNATIONS MENTIONED NOTHING ABOUT OVERDRAFT OR SAFE YIELD.

THE COURT: LET ME SEE YOUR DESIGNATION, YOUR DISCLOSURE AGAIN, PLEASE.

MR. MILIBAND: MAY I APPROACH THE CLERK, YOUR HONOR?

THE COURT: YES. ALL RIGHT. THE DISCLOSURE AS I'M READING IT SAYS THIS: THAT MR. HARDER WILL TESTIFY REGARDING THE HYDROGEOLOGICAL SETTINGS OF THE PHELAN SERVICE AREA. THAT IS NUMBER ONE.

THAT IS ESSENTIALLY IRRELEVANT BECAUSE THE

SERVICE AREA IS NOT WITHIN THE AREA OF ADJUDICATION.

AND GROUNDWATER EXTRACTIONS FROM THE PROPOSED AREA OF ADJUDICATION BY PHELAN VIA WELL 14 THAT IS CERTAINLY WOULD HAVE SOME RELEVANCE, AND THE EFFECT OF PUMPING FROM WELL 14 ON GROUNDWATER LEVELS AND GROUNDWATER FLOW IN THE AREA OF ADJUDICATION. YOU HAVE INDICATED OTHER PHELAN WELLS. I AM NOT SURE THAT THAT IS REALLY PERTINENT GIVEN THE FINDINGS THE COURT HAS MADE UNLESS YOU ARE GOING TO TRY TO EXPAND THE AREA OF ADJUDICATION.

SO AT THIS POINT, IT SEEMS TO ME THAT PERHAPS YOUR CLIENT SHOULD REFOCUS WHERE IT REALLY WANTS TO GO WITH THIS, PARTICIPATION IN THIS LITIGATION. I HAVE NO PROBLEM HEARING EVIDENCE CONCERNING WHATEVER LEVELS AT WELL 14 THAT MAY HAVE SOME VALUE HERE; BUT BEYOND THAT, I DON'T THINK THAT -- THAT HE HAS BEEN DISCLOSED ADEQUATELY ON THE AREAS THAT YOU HAVE OFFERED AS AN OFFER OF PROOF.

EFFECTIVE PUMPING FROM WELL 14 ON THE GROUNDWATER LEVELS, I WOULD BE HAPPY TO HEAR THAT.

MR. MILIBAND: UNDERSTOOD, YOUR HONOR, A COUPLE OF NOTES I WOULD LIKE TO MAKE ARE, NUMBER ONE: I MEAN PHELAN IS FOCUSSED ON WHAT IT WANTS, AND IT'S NOT AS IT IS SUGGESTED OR STATED OR IMPLIED BY OTHER COUNSEL HERE TODAY.

THE OTHER THING THAT IS MR. HARDER HAS BEEN AVAILABLE FOR DEPOSITION. HE CLEARLY IS QUALIFIED TO TALK ABOUT ALL THESE DIFFERENT ISSUES THAT HAVE BEEN THE

SUBJECT OF TESTIMONY FOR THESE MANY WEEKS.

BUT, AGAIN, OUR TRIAL BRIEF THAT PROVIDED A BLUE PRINT OF WHAT TODAY'S TESTIMONY WOULD HAVE BEEN, SO PERHAPS A LOT OF TIME AND CONCERN AND WHATNOT COULD HAVE BEEN SAVED HAD THAT BEEN GIVEN THE APPROPRIATE ATTENTION.

BUT MORE IMPORTANTLY, MR. HARDER, I DO OFFER, COULD TESTIFY AS TO GROUNDWATER LEVELS WITHIN THE ADJUDICATION AREA, WHETHER IT RELATES TO WELL 14 OR OTHER WELLS GENERALLY IN THAT AREA.

THE COURT: YES, BUT I DON'T THINK THAT I WANT TO HEAR EVIDENCE CONCERNING THE WELLS THAT ARE IN THE PHELAN SERVICES DISTRICT TODAY.

MR. MILIBAND: I UNDERSTAND, YOUR HONOR, BUT I MEAN OTHER WELLS WITHIN THE ADJUDICATION AREA THAT ARE NOT PHELAN WELLS. JUST WELLS THAT DO PUMP FROM THE BASIN WITHIN THE ADJUDICATION AREA.

MR. SLOAN: YOUR HONOR, WILLIAM SLOAN FOR U.S. BORAX. I BELIEVE THAT IS OUTSIDE THE SCOPE OF HIS DESIGNATION. THAT IS PRECISELY THE PROBLEM THAT WE ARE HAVING. WE KEEP HEARING AN OFFER OF PROOF THAT HE IS GOING TO OFFER TESTIMONY ABOUT THIS AREA. AND THAT AREA IS NOT PROBATIVE FOR WHAT WE ARE DOING HERE WHICH IS WHETHER OR NOT THE ENTIRE ADJUDICATION AREA IS IN OVERDRAFT.

THE COURT: WELL, THE DESIGNATION WAS FOR WELL 14 AND OTHER WELLS THAT PHELAN PUMPS FROM IN THE VALLEY, BUT THEY ARE NOT WITHIN THE ADJUDICATION AREA. SO THAT

FROM THE EFFECT OF PUMPING FROM THESE WELLS ON THE ANTELOPE VALLEY AND I JUST -- I WANT YOUR CLIENT TO HAVE DUE PROCESS. I DON'T WANT TO FORECLOSE PARTICIPATION IN THIS LITIGATION IN ANY WAY, BUT I DON'T THINK WE ARE AT THE POINT WHERE IT WOULD BE FAIR TO ANYBODY TO START HEARING THAT EVIDENCE CONCERNING THE PHELAN DISTRICT AND WHAT IS GOING ON IN THERE IN THAT DISTRICT. WELL 14 IS OBVIOUSLY A RELEVANT WELL. I DON'T KNOW HOW MATERIAL THAT IS, BUT IT IS RELEVANT. AND OFFERING TESTIMONY ABOUT THAT WITH -- WOULD BE OF SOME VALUE, I SUPPOSE.

MR. MILIBAND: ALL RIGHT. THEN, YOUR HONOR, TO TRY TO MOVE IT ALONG, I WOULD BE HAPPY TO ASK THE NEXT QUESTION. IF SOMEONE WANTS TO OBJECT, THEY WILL OBJECT, AND I WILL DEAL WITH IT.

THE COURT: THEN YOU MAY PROCEED.

MR. MILIBAND: THANK YOU, YOUR HONOR.

Q MR. HARDER, CAN I DIRECT YOUR ATTENTION TO WHAT HAS BEEN PREMARKED FOR IDENTIFICATION PURPOSES AS EXHIBIT H4.

(PHELAN PINON HILLS EXHIBIT H4 PREMARKED.)

BY MR. MILIBAND:

Q WAS THIS EXHIBIT PREPARED BY YOU OR AT YOUR DIRECTION, MR. HARDER?

A YES.

Q WHAT DATE OR INFORMATION WAS USED TO

ASSEMBLE EXHIBIT H4?

MR. ZIMMER: OBJECTION, RELEVANCE, YOUR HONOR, IN THE ABSENCE OF SOME INDICATION THAT THIS IS TO WELL 14.

THE COURT: AT THIS POINT I'M GOING TO OVERRULE.

THE WITNESS: THE DATA THAT WAS USED TO DEVELOP THIS CONTOUR MAP ARE GROUNDWATER LEVELS FROM U.S. GEOLOGICAL SURVEY WELLS AND PHELAN'S WELLS.

BY MR. MILIBAND:

Q HOW WAS THIS EXHIBIT PREPARED?

A THIS IS A GROUNDWATER CONTOUR MAP THAT SHOWS LINES OF EQUAL GROUNDWATER ELEVATION. IT WAS PREPARED BY TAKING THE ELEVATIONS THAT CONTROL ELEVATIONS AT THOSE WELLS FROM MARCH OF 2010 AND CONTOURING THE DATA, INTERPRETING THE WATER LEVEL, THE CONTOURS BETWEEN THE POINTS OF CONTROL.

Q WHAT DOES EXHIBIT H4 ILLUSTRATE AS IT RELATES TO THE ANTELOPE VALLEY ADJUDICATION AREA?

MR. WILLIAM KUHS: OBJECT AS IRRELEVANT. BEYOND SCOPE OF HIS DESIGNATION.

MR. ZIMMER: I MISSED THE QUESTION. COULD I HAVE IT READ BACK?

THE COURT: YES.

(RECORD READ.)

MR. ZIMMER: I JOIN MR. KUHS'S OBJECTION. IT IS ALSO VAGUE.

THE COURT: WELL, HE CAN ANSWER.

THE WITNESS: THIS EXHIBIT SHOWS GROUNDWATER FLOW DIRECTIONS IN THE VICINITY OF THE COUNTY LINE, AND WHAT IT SHOWS IS THAT GROUNDWATER FLOW IN THE ANTELOPE VALLEY GROUNDWATER BASIN ON THE EAST SIDE OF THE LINE FLOWS TO THE NORTH AND NORTHWEST AND ULTIMATELY INTO ANTELOPE VALLEY ADJUDICATION AREA. WHAT THAT MEANS IS THAT FOR WELL 14 --

MR. WILLIAM KUHS: OBJECT AS NONRESPONSIVE AT THIS POINT.

THE COURT: ASK THE NEXT QUESTION.

BY MR. MILIBAND:

Q MR. HARDER, DOES EXHIBIT H4 DEPICT ANYTHING ELSE IN ADDITION TO WHAT YOU HAVE ALREADY DESCRIBED?

A WELL, IT SHOWS WELL 14'S LOCATION WITH RESPECT TO THE FLOW LINES.

Q HOW SO?

A WELL 14 IS LOCATED BY THE YELLOW DOT RIGHT HERE, SO GROUNDWATER FLOW UPGRADIENT IT IS RECEIVING RECHARGE FROM THE MOUNTAIN FRONT AND UPGRADIENT INCLUDING THE AREA OF THE ANTELOPE VALLEY GROUNDWATER BASIN, AND IT IS INTERCEPTING GROUNDWATER THAT WOULD OTHERWISE FLOW DOWN-GRADIENT AND INTO THE ADJUDICATION AREA.

(PHELAN PINON HILLS EXHIBIT H5
PREMARKED.)

BY MR. MILIBAND:

Q MR. HARDER, IF I COULD DIRECT YOUR ATTENTION TO WHAT HAS BEEN PREMARKED FOR IDENTIFICATION PURPOSES AS H5. SIR, WOULD YOU PLEASE DESCRIBE -- FIRST OF ALL, DID YOU HAVE THIS EXHIBIT PREPARED BY YOURSELF OR AT YOUR DIRECTION?

A IT WAS PREPARED AT MY DIRECTION.

Q WHAT DATE OR INFORMATION WAS USED TO PREPARE THIS EXHIBIT?

A WELL, WHAT THIS EXHIBIT SHOWS ARE GROUNDWATER LEVELS --

MR. WILLIAM KUHS: OBJECTION, NONRESPONSIVE.

MR. ZIMMER: IT IS NONRESPONSIVE AND IRRELEVANT. THE QUESTION WAS SOMETHING DIFFERENT.

THE COURT: WELL, THE QUESTION WAS WHAT DOES THIS EXHIBIT SHOW.

MR. ZIMMER: I THOUGHT THE QUESTION WAS SOMETHING ELSE.

THE COURT: THERE WERE TWO PARTS OF IT.

MR. MILIBAND: I'LL WITHDRAW AND START OVER.

Q MR. HARDER, WHAT DATA OR INFORMATION WAS USED TO ASSEMBLE THIS EXHIBIT?

A THE DATA ARE GROUNDWATER LEVELS FROM WELLS LOCATED WITHIN THE STUDY AREA.

Q HOW WAS THIS EXHIBIT PREPARED?

A THE EXHIBIT WAS PREPARED BY DEVELOPING HYDROGRAPHS OF WATER LEVELS OVER TIME FOR INDIVIDUAL WELLS AND THEN APPLYING THOSE. AND WHAT IT SHOWS ARE

HYDROGRAPHS. THE HYDROGRAPHS POINT TO THE INDIVIDUAL WELLS FOR WHICH THEY REPRESENT.

MR. ZIMMER: OBJECTION, YOUR HONOR, IRRELEVANT UNLESS THEY ARE PHELAN WELLS BEYOND THE SCOPE OF EXPERT DESIGNATION AND EXPERT REPORT. MOTION TO STRIKE.

THE COURT: WELL, HE HAS GOT FIVE WELLS ON HERE. FIVE HYDROGRAPHS, BUT ONE OF THEM IS WELL 14.

MR. ZIMMER: MOTION TO STRIKE ALL BUT WELL 14.

MR. ROBERT KUHS: YOUR HONOR, IF I READ THAT EXHIBIT CORRECTLY, I DON'T THINK THERE IS A HYDROGRAPH OF WELL 14. HYDROGRAPH OF THE WELL DUE EAST OF WELL 14.

MR. MILIBAND: I COULD CLARIFY.

Q MR. HARDER, IS THERE A HYDROGRAPH ON THIS EXHIBIT OF WELL 14?

A NO.

Q WHAT ARE THESE HYDROGRAPHS?

MR. ZIMMER: WELL, I'LL RENEW MY OBJECTION.

THE COURT: OBJECTION SUSTAINED.

MR. ZIMMER: MOTION TO STRIKE.

THE COURT: OH, I SEE -- WELL, YEAH. THERE IS HYDROGRAPH AT WELL 14 ANY WHERE?

MR. MILIBAND: NOT ON THIS, YOUR HONOR. AND IN RESPONSE TO THE MOTION TO STRIKE.

MR. ZIMMER: IT IS ELSEWHERE.

MR. MILIBAND: TO RESPOND, YOUR HONOR.

MR. ZIMMER: SORRY.

MR. MILIBAND: HE WAS DESIGNATED TO SPEAK TO THE HYDROGEOLOGICAL CONDITIONS IN THE BASIN. THESE

HYDROGRAPHS SPEAK TO THAT.

THE COURT: HE ALSO HAS WELLS THAT ARE NOT IN THE ANTELOPE VALLEY AND AT THIS POINT I REALLY WOULD LIKE YOU TO ESTABLISH THE EVIDENCE CONCERNING WELL 14. I WOULD LIKE TO HEAR THAT EVIDENCE.

MR. MILIBAND: SO, IS YOUR HONOR NOT GOING TO ALLOW TESTIMONY ON THESE OTHER HYDROGRAPHS EVEN THOUGH THEY DO RELATE TO THE DESIGNATION?

THE COURT: I DON'T KNOW. RIGHT NOW I WANT TO HEAR EVIDENCE TO WELL 14. THE PROBLEM IS WE ARE RUNNING OUT OF TIME HERE. WE ARE GOING TO RECESS IN ABOUT FIVE MINUTES, AND THERE IS ANOTHER WITNESS TO START TOMORROW MORNING AT 8:30. AND I DON'T THINK THAT WITNESS WILL BE COMPLETED BEFORE THE CLOSE OF BUSINESS TOMORROW, AND IF THAT.

AND SO WHAT WE ARE GOING TO END UP DOING IS GOING OVER, AND I WOULD LIKE TO HEAR MORE EVIDENCE FROM YOUR WITNESS CONCERNING WELL 14 AND WHAT IS HAPPENING GENERALLY IN THAT AREA OF THE VALLEY SO, YOU KNOW -- BUT I DO HAVE SOME CONCERNS ABOUT THE DISCLOSURE, AND I HAVE SOME CONCERNS ABOUT THE TIMING OF THIS PRESENTATION. SO I GATHER THAT YOU DON'T HAVE THE DATA ON WELL 14 TODAY; IS THAT RIGHT?

THE WITNESS: NO, WELL 14 WAS CONSTRUCTED IN 2004, SO IT DOESN'T HAVE A LONG-TERM HYDROGRAPH RECORD.

THE COURT: I DON'T SUPPOSE WE COULD CAP IT, CAN WE?

(LAUGHTER)

MR. MILIBAND: NO PRESSURE, YOUR HONOR.

MR. ROBERT KUHS: ALL IN FAVOR.

MR. JOYCE: IF WE ALL JOIN IN, WE MIGHT AS WELL PUT IN A REPLACEMENT WELL.

THE COURT: I'M SORRY, I DON'T WANT THIS TO TURN INTO A FARCE.

MR. MILIBAND: YOUR HONOR, WHAT I WOULD REQUEST AT THIS POINT JUST GIVEN HOW THINGS TRANSPIRED IN THE LAST HOUR AND GIVEN THAT IT'S 4:27 ACCORDING TO THE COURT'S CLOCK -- MY UNDERSTANDING IS THAT DR. OBERDORFER WILL START HER TESTIMONY TOMORROW. AND I WOULD LIKE TO RESERVE THE OPPORTUNITY FOR WHEN THE TRIAL RESUMES, IF NOT SOONER THROUGH SOME BRIEFING IF THAT BECOMES NECESSARY, BUT AT LEAST RESERVE THE OPPORTUNITY TO READDRESS THESE ISSUES.

THE COURT: I THINK THAT IS AN APPROPRIATE SUGGESTION, AND IN ALL SERIOUSNESS YOUR CLIENT DOES HAVE AN INTEREST.

MR. MILIBAND: ABSOLUTELY.

THE COURT: AS A RESULT OF THE OWNERSHIP OF THAT WELL AND -- WE NEED TO DEAL WITH IT AND ADDRESS IT. AND EVERYBODY IS ENTITLED TO DUE PROCESS AND TO BE HEARD. SO LET'S MAKE SURE THAT YOU HAVE THAT OPPORTUNITY AND DON'T -- DON'T TAKE AWAY FROM TODAY'S SESSION THE COURT IS NOT INTERESTED IN HEARING THAT TESTIMONY. I AM.

MR. MILIBAND: UNDERSTOOD. THANK YOU, YOUR HONOR.

THE COURT: THAT IS JUST -- THIS IS NOT THE TIME FOR US TO DO THAT.

SO, MR. HARDER, YOU CAN STEP DOWN. I KNOW I WILL SEE YOU AGAIN. WE WILL BE IN RECESS UNTIL TOMORROW MORNING AT 8:30.

MR. ZIMMER: 8:30 TOMORROW?

THE COURT: 8:30, DR. OBERDORFER WILL BE TESTIFYING. I TOLD YOU WE HAVE TO RECESS TOMORROW, AND IT IS GOING TO BE, UNFORTUNATELY, MIDAFTERNOON FOR THE DAY. AND SO I AM GOING TO ASK COUNSEL TO SEE IF WE CAN FOCUS EXAMINATION AND CROSS-EXAMINATION ON HER TESTIMONY AND SEE IF WE CAN CONCLUDE IT TOMORROW.

MR. ZIMMER: MY SUGGESTION ON THAT, YOUR HONOR, IF THE COURT IS INTERESTED TO ENTERTAIN AN OFFER OF PROOF IN DISCUSSING THE SCOPE OF IT AND THEN DEPENDING ON HOW COURT RULES ON THAT WE WILL KNOW EXACTLY WHAT IS GOING TO BE DISCUSSED, AND THAT WILL TAKE CARE OF THE CROSS AND DIRECT IN A MORE EFFICIENT MATTER.

THE COURT: AS LONG AS WE DON'T SPEND MORE THAN ONE HALF HOUR IN THE DISCUSSION.

MR. MILIBAND: YOUR HONOR, MAY I HAVE THE EXPERT DISCLOSURE BACK?

THE COURT: YES.

THE CLERK: HERE IT IS.

MR. MILIBAND: THANK YOU.

THE COURT: AND YOUR EXHIBITS ARE MARKED FOR IDENTIFICATION.

(PHELAN PINON HILLS CSD EXHIBIT H6 PREMARKED.)

MR. MILIBAND: YES, THANK YOU, YOUR HONOR.

(THE PROCEEDINGS WERE THEN CONCLUDED.)

SUPERIOR COURT FOR THE STATE OF CALIFORNIA

COUNTY OF LOS ANGELES

DEPARTMENT NO. 4 HON. JACK KOMAR, JUDGE

COORDINATION PROCEEDING SPECIAL TITLE (RULE 1550B)	
ANTELOPE VALLEY GROUNDWATER CASES	JUDICIAL COUNCIL COORDINATION NO. JCCP4408
PALMDALE WATER DISTRICT AND QUARTZ HILL WATER DISTRICT, CROSS-COMPLAINANTS, VS. LOS ANGELES COUNTY WATERWORKS, DISTRICT NO. 40, ET AL, CROSS-DEFENDANTS.	SANTA CLARA CASE NO. 1-05-CV-049053

STATE OF CALIFORNIA)
) SS.
COUNTY OF LOS ANGELES)

I, GINGER WELKER, OFFICIAL REPORTER OF THE SUPERIOR COURT OF THE STATE OF CALIFORNIA, FOR THE COUNTY OF LOS ANGELES, DO HEREBY CERTIFY THAT THE TRANSCRIPT DATED FEBRUARY 16, 2011 COMPRISES A FULL, TRUE, AND CORRECT TRANSCRIPT OF THE PROCEEDINGS HELD IN THE ABOVE ENTITLED CAUSE.

DATED THIS 16TH DAY OF FEBRUARY, 2011.

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OFFICIAL REPORTER, CSR #5585