EXHIBIT "X"

1	SUPERIOR COURT OF THE STATE OF CALIFORNIA			
2	FOR THE COUNTY OF LOS ANGELES			
3	DEPARTMENT NO. 316 HON. JACK KOMAR, JUDGE			
4	COORDINATION PROCEEDING)			
5	SPECIAL TITLE (RULE 1550B)) JUDICIAL COUNCIL			
6	ANTELOPE VALLEY GROUNDWATER CASES) COORDINATION) NO. JCCP4408			
7	PALMDALE WATER DISTRICT AND) SANTA CLARA CASE NO.			
8	QUARTZ HILL WATER DISTRICT,) 1-05-CV-049053			
9	CROSS-COMPLAINANTS,)			
10	vs.)			
11	LOS ANGELES COUNTY WATERWORKS,) DISTRICT NO. 40, ET AL,)			
12) CROSS-DEFENDANTS.)			
13)			
14				
15	REPORTER'S TRANSCRIPT OF PROCEEDINGS			
16	FRIDAY, MARCH 25, 2011			
17				
18	APPEARANCES:			
19	(SEE APPEARANCE PAGES)			
20				
21				
23				
24				
25				
26				
27	GINGER WELKER, CSR #5585			
28	OFFICIAL REPORTER			

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5	PETER LEFFLER	DIRECT	CROSS	REDIRECT	RECROSS
6	(RESUMED)				
7	BY MR. WAYNE LEMIEUX	1			
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9	BY MR. FIFE		15		
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18	WITNESS	DIRECT	CROSS	REDIRECT	RECROSS
19	MARK WILDERMUTH				
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ASSIGNING ARBITRARY VALUES TO ADJACENT CELLS.

YOU CAN SEE THAT ON THIS FIRST SLIDE WHERE I TALK ABOUT THE AREAS, ASSIGNING .5 TO A CELL THAT HAS NO DATA IN IT, BASED ON ELEVATIONS IN ADJACENT CELLS, WHERE THE OTHER CELLS ADJACENT TO IT HAVE MUCH DIFFERENT ELEVATIONS.

COULD WE GO TO THE NEXT ONE.

AND WHEN YOU USE THAT METHOD, YOU ARE

BASICALLY ADDING -- TAKING THE VALUE IN EACH CELL AND

ADDING THEM ALL UP AND DIVIDING BY THE NUMBER OF CELLS

TO GET THE AVERAGE. THAT MEANS THAT THE CELLS HAVE TO

HAVE THE SAME WEIGHT. AND IN MR. BACHMAN'S CASE, THEY

DON'T.

THE COURT: NO. 13?

THE WITNESS: YES, YOUR HONOR.

MR. BACHMAN STATED THAT THESE WERE

2-MILE-BY-2-MILE GRIDS, AND THAT WOULD MEAN THAT WE

WOULD EXPECT THE AREAS TO BE 4 SQUARE MILES EACH.

WE ANALYZED THOSE GRIDS, AND THEY RANGE FROM ABOUT 3.1 TO ABOUT 3.8 SQUARE MILES. SO WHEN YOU APPLY THIS METHOD, YOU DON'T HAVE EQUAL WEIGHTS TO ALL OF THAT.

AND THE VALUES THAT ARE ON THE BOUNDARIES,
HE MADE AN ARBITRARY ASSESSMENT OF WHAT THE WEIGHT
SHOULD BE. AND THE WAY WE TELL IT'S ARBITRARY IS THAT A
WEIGHT SHOULD EITHER BE 1 OR SOMETHING LESS THAN 1, 1
BEING 4 SQUARE MILES.

AND WHEN WE LOOK AT THE BOUNDARIES, THE

```
WEIGHTS ARE ALL INTEGER MULTIPLES OF .05; FOR EXAMPLE,
 1
 2
    .45, .65. NONE OF THEM -- THEY DON'T LOOK RANDOM, AND
    THEY OUGHT TO BE RANDOM IF THEY WERE DIGITIZED. SO WE
 3
    ASSUME THAT THEY WERE EYEBALLED IN.
 4
    BY MR. BUNN:
 5
 6
               ALL RIGHT. LET'S GO TO SLIDE 14.
          Q
 7
                WHAT DOES THIS SLIDE REPRESENT?
 8
          Α
                THIS SLIDE REPRESENTS WHAT A 4 SQUARE MILE
 9
    WOULD LOOK LIKE SUPERIMPOSED ON TOP OF DR. BACHMAN'S
10
    SLIDE. FOR REFERENCE PURPOSES, WE MADE THIS THE ORIGIN,
11
    WHERE I'M POINTING; SO GOING NORTH, SOUTH, EAST, AND
12
    WEST FROM THAT POINT.
13
          MR. JOYCE: COULD I SEE THE POINT OF ORIGIN AGAIN.
14
          THE WITNESS: RIGHT ABOUT HERE.
15
          MR. BUNN: IT'S IN THE UPPER -- NOT QUITE IN UPPER
    LEFT-HAND CORNER, BUT IN THE UPPER LEFT-HAND AREA OF
16
17
    PAGE 14.
18
          MR. WILLIAM KUHS: COULD IT BE IDENTIFIED AS THE
    GRID THAT HAS A 3.49 IN IT?
19
20
          MR. BUNN: IT'S THE LOWER RIGHT-HAND CORNER, AS I
21
    UNDERSTAND IT --
22
          THE WITNESS: THAT MAY NOT BE UNIQUE, MR. KUHS.
23
    THERE ARE SEVERAL --
24
          MR. WILLIAM KUHS: OKAY. I'M SORRY.
          THE WITNESS: FOR SCALE PURPOSES, YOU CAN SEE --
25
26
    IN BOTH THE PRIOR EXHIBIT AND THIS ONE, THERE'S A SCALE
27
    THAT SHOWS WHAT 2 MILES LOOKS LIKE.
```

28

1 BY MR. BUNN: WHAT DO THE PURPLE LINES REPRESENT? 2 3 Α THE PURPLE LINES REPRESENT WHAT A 4 4-SQUARE-MILE OR 2-MILE-BY-2-MILE GRID WOULD LOOK LIKE. 5 ONE OF THE INTERESTING THINGS ABOUT HAVING 6 SORT OF A RANDOM GRID, WHICH IS WHAT YOU ARE SEEING UP 7 HERE IN DR. BACHMAN'S CASE, IS THAT THE ASSIGNMENT OF A 8 WELL TO A GRID COULD CHANGE BY MOVING JUST THE BOUNDARY 9 OF THE GRID. 10 IN OTHER WORDS, A RED DOT SHOWING UP IN ONE GRID CELL MAY BELONG IN ANOTHER GRID CELL BECAUSE THE 11 GRID CELLS ARE VARYING. IT MAY MEAN HE HAS GOT -- HE 12 13 COULD LOSE DATA POINTS THIS WAY, OR GAIN DATA POINTS. 14 Q OKAY. CAN WE GO TO PAGE 15, PLEASE. 15 SEVERAL LANDOWNER WITNESSES MENTIONED A 16 STUDY BY IZBICKI WHICH MEASURED -- ACTUALLY MEASURED LAG 17 TIME IN VICTORVILLE. HAVE YOU REVIEWED THAT STUDY? 18 YES. Α 19 O IS IT APPROPRIATE TO USE THE IZBICKI STUDY 20 IN RELATION TO LAG TIMES OF AGRICULTURE RETURN FLOWS? 21 Α NO. 22 WHY NOT? Q 23 THE IZBICKI IS -- WAS TO DETERMINE TRAVEL 24 TIME AND INFILTRATION RATES IN RECHARGE BASINS IN THAT 25 AREA. SO THE HYDRAULIC LOADING RATES, WHICH ARE NOT 26 USED IN MY DIRECT TESTIMONY, IS EXTREMELY HIGH. 27 AND IF YOU -- WHEN WE TAKE HIS EXPERIMENTAL

28

DATA --

THE REPORTER: YOU'VE GOT TO SLOW DOWN. IT'S SO

TECHNICAL. WHEN WE TAKE THE "EXPERIMENT," THEN WHAT DID

YOU SAY? SLOW DOWN, PLEASE.

THE WITNESS: I APOLOGIZE AGAIN.

MR. IZBICKI HAD A VERY SMALL BASIN, AND HE HAD THREE DIFFERENT RECHARGE PERIODS. HE WOULD STOP THE RECHARGE IN THE MIDDLE OF THESE THINGS AND CLEAN THEM UP AND KEEP THE RECHARGE GOING.

HIS EQUIVALENT RECHARGE OR INFILTRATION RATE
WAS 665 FEET PER YEAR. OUR ANNUAL INFILTRATION RATES
WHERE ALL THE ROOTS ARE WAS BETWEEN 1 AND 2 FEET PER
YEAR. SO THEY ARE NOT COMPARABLE IN ANY WAY.

IN FACT, YOU CAN GO AS FAR AS TO SAY THAT
HIS LAG TIMES WERE GENERALLY -- IT WOULD BE LESS THAN A
YEAR FOR A WELL-DEVELOPED BASIN, AND THOSE ARE ENTIRELY
CONSISTENT WITH OUR ASSUMPTIONS ABOUT THE TIME OF TRAVEL
FOR RECHARGE BASINS.

BY MR. BUNN:

Q REMIND US WHAT ASSUMPTIONS YOU DID USE FOR TIME OF TRAVEL FROM RECHARGE DISTANCE.

A FOR COMPUTATIONAL PURPOSES, WE ASSUMED THEY WOULD BE WITHIN A YEAR. WE SOMETIMES CALLED IT A "ZERO LAG TIME."

Q OKAY. NOW, SEVERAL WITNESSES TALKED, AGAIN,
ABOUT CONFINED AND UNCONFINED AQUIFERS. MY QUESTION IS,
ARE THERE WAYS THAT YOU USED TO TELL WHETHER A WATER
LEVEL THAT YOU USED IN YOUR CALCULATION WAS FROM AN
UNCONFINED OR A CONFINED AQUIFER?

- 1 Α YES. 2 WOULD YOU DESCRIBE THAT. 3 SURE. REALLY, THE MOST STRAIGHTFORWARD WAY Α 4 IS INFORMATION ON EITHER HOW THE WELL IS CONSTRUCTED OR 5 THE BOREHOLE DEPTH. AND THAT INFORMATION WAS AVAILABLE 6 FOR MOST OF THE WELLS THAT WE LOOKED AT. 7 THERE ARE OTHER WELLS --8 EXCUSE ME. HOW DO YOU USE THE WELL 0 CONSTRUCTION OR BOREHOLE DEPTH TO DETERMINE WHETHER 9 10 YOU'RE IN UNCONFINED OR CONFINED? 11 WELL, WE HAVE VERY DETAILED 12 HYDROSTRATIGRAPHIC SECTIONS OR CROSS-SECTIONS THROUGH 13 THE AREA WHERE WE ARE CONCERNED ABOUT THE DISTINCTION 14 BETWEEN CONFINED AND UNCONFINED AQUIFERS. AND WE 15 COMPARE THE WELL CONSTRUCTION INFORMATION TO THOSE 16 CROSS-SECTIONS TO DETERMINE IF THOSE WELLS ARE 17 CONSTRUCTED IN THE UNCONFINED, OR LACUSTRINE DEPOSIT, OR 18 WHETHER CONSTRUCTED IN THE CONFINED OR IT'S CONSTRUCTED 19 ACROSS ALL OF THEM. THAT IS WHAT WE USE THAT WELL 20 CONSTRUCTION INFORMATION FOR. 21 ALL RIGHT. ARE THERE OTHER WAYS TO TELL? Q 22 YES. WE DO HAVE WELL LEVEL INFORMATION FOR 23 SOME OF THE PURVEYOR WELLS THAT ARE PERFORATED IN THE 24 CONFINED AQUIFER. AND WE ARE ABLE -- WE BASICALLY HAVE 25 GROUNDWATER LEVEL INFORMATION FOR WELLS IN THE CONFINED 26 ZONE.
 - WE CAN COMPARE -- FOR WELLS THAT WE HAVE NO CONSTRUCTION INFORMATION ON, WE CAN COMPARE WATER LEVEL

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2	COUNTY OF LOS ANGELES			
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13)			
14				
15	STATE OF CALIFORNIA)) SS.			
16	COUNTY OF LOS ANGELES)			
17	T GINGED HELVED GERTGIN DEDONED OF THE			
18	I, GINGER WELKER, OFFICIAL REPORTER OF THE			
19 20	SUPERIOR COURT OF THE STATE OF CALIFORNIA, FOR THE			
21	COUNTY OF LOS ANGELES, DO HEREBY CERTIFY THAT THE			
22	TRANSCRIPT DATED MARCH 25, 2011 COMPRISES A FULL, TRUE, AND CORRECT TRANSCRIPT OF THE PROCEEDINGS HELD IN THE			
23	ABOVE ENTITLED CAUSE.			
24	DATED THIS 28TH DAY OF MARCH, 2011.			
25	Bill Bill of Immon, 2011.			
26				
27				
28	OFFICIAL REPORTER, CSR #5585			
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