APPENDIX P

PERCOLATION TESTS

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APPENDIX P

PERCOLATION TESTS
COLUSA POWER PLANT
FOR RELIANT ENERGY

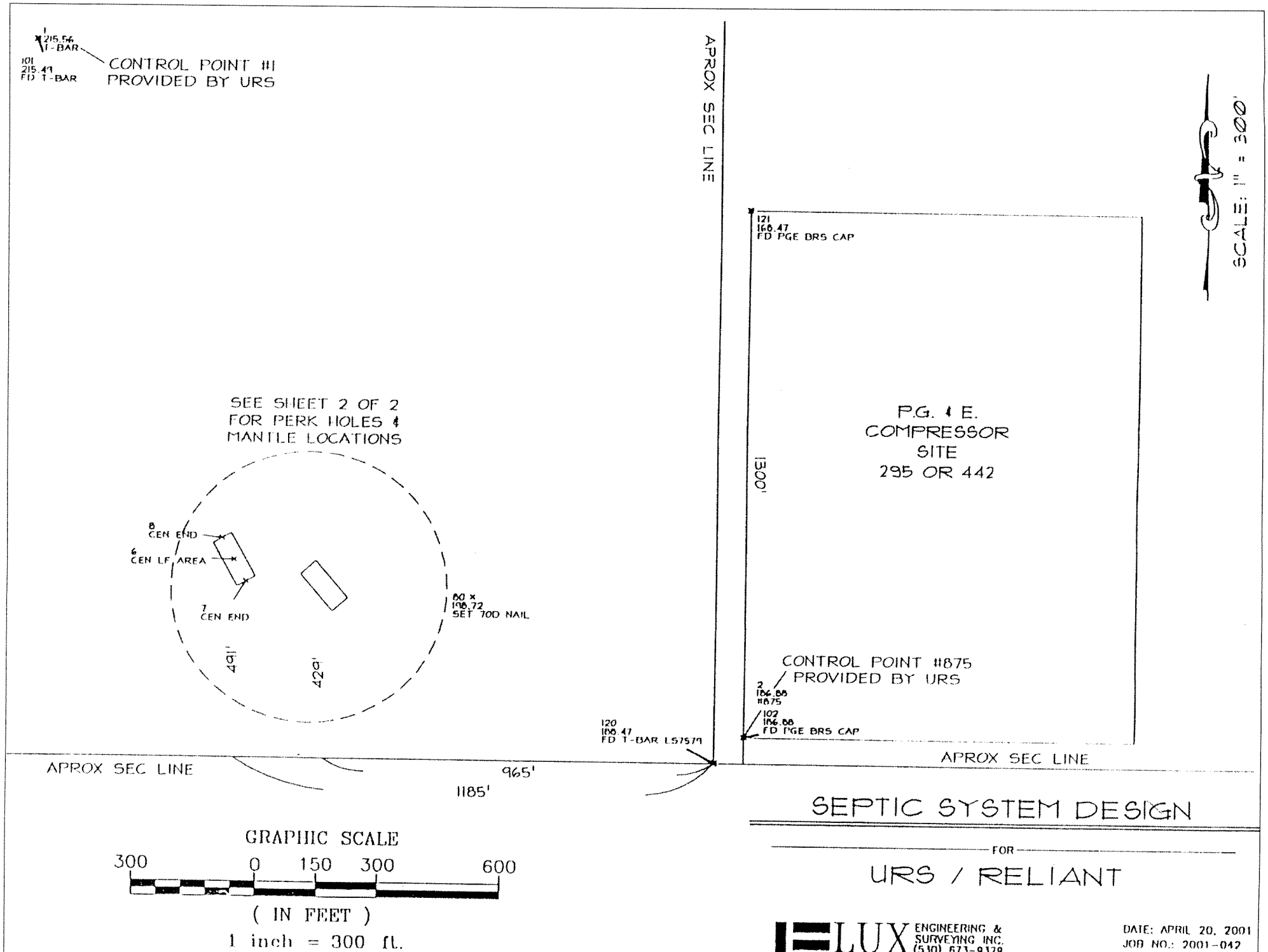
An onsite percolation test program was conducted to provide a design basis for a sanitary wastewater effluent septic tank/leach field system. The work was performed by Lux Engineering & Surveying, Inc. of Yuba City, California acting as a subcontractor to URS Corporation.

A profile of the uppermost 8 feet of soil (soil mantle) was obtained by digging backhoe pits at four locations illustrated on Figures P-1 and P-2 (locations 106, 200, 201, and 211). The logs of these four pits are presented on Table P-1.

Six percolation tests were conducted at the locations indicated on Figure P-2 (locations 202 through 207), in accordance with procedures prescribed by the U.S. Department of Health, Education and Welfare, Public Health Service, *Manual of Septic Tank Practice* (Publication No. 526, Revised 1967). Field logs of the six percolation tests are presented on Attachment P1 (2 pages).

A leach field design will be prepared for approval by the Colusa County Health and Human Services Department, Environmental Health Division, based on the results of the percolation test program.

Table P-1 Soil Mantles for the Colusa Power Plant Site	
Number 106 (Area of Percolation Tests)	
0” to 34”	Dark Brown Clay – Slightly Moist Some Sandy Silt-Roots
34” to 60”	Dark Brown Moist Heavy Clay
60” to 100”	Light Colored Clay (Tan and White) – Friable Dry Not Much Moisture. Breaks into Small Pieces.
End of hole – no water encountered	
Number 200	
0” to 30”	Dark Brown Clay – Moist, Loose and Roots
30” to 48”	Light Brown Clay
48” to 60”	Light Brown Clay, Friable Some Sand
60” to 82”	Light Colored Clay (White) Friable Some Sand
82” to 96”	Light Colored Sandy Clay
End of hole – no water encountered	
Number 201	
0” to 30”	Dark Brown Clay – Slightly Moist Some Sandy Silt – Roots
30” to 66”	Dark Brown Moist Heavy Clay
66” to 84”	Light Colored Clay (Tan) – Friable Dry Not Much Moisture
84” to 96”	Light Colored Clay (Also White in Color, Breaks into Small Pieces)
End of hole – no water encountered	
Number 211	
0” to 39”	Dark Brown Clay – Dry Not Much Moisture Material Loose to 28”
39” to 96”	Clay White in Color, Some Sand, Friable
End of hole – no water encountered	
Notes: See Figures P-1 and P-2 for location of hole numbers Test holes were dug on April 19, 2001.	



SEPTIC SYSTEM DESIGN

FOR

URS / RELIANT

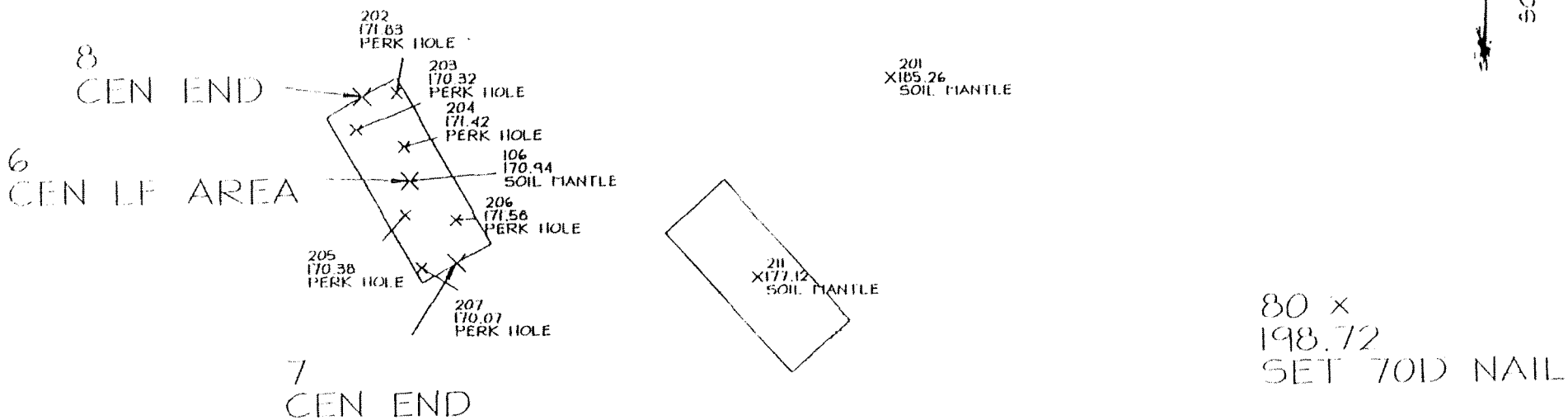
LUX ENGINEERING & SURVEYING INC.
(530) 673-9329
FAX 673-9459 P.O. BOX 3325
990 KLAMATH LANE, SUITE 9
YUBA CITY, CA 95992-3325

BY JBW

DATE: APRIL 20, 2001
JOB NO.: 2001-042

FIGURE P-1

5/15/01 vsa ..\46800-930\Appx\FigP1.cdr



NOTE: ALL ELEVATIONS ARE EXSITING GROUND FOR PERK HOLES & MANTLE LOCATIONS

200
X172.51
SOIL MANTLE

SCALE: 1" = 100'

GRAPHIC SCALE

100 0 50 100 200

(IN FEET)

1 inch = 100 ft.

SEPTIC SYSTEM DESIGN

FOR

URS / RELIANT

AFTER:

LUX ENGINEERING & SURVEYING INC.
(530) 673-9329
FAX 673-9459 P.O. BOX 3325
900 KLAMATH LANE, SUITE 9
YUBA CITY, CA 95992-3325

BY AWH

DATE: APRIL 20, 2001
JOB NO.: 2001-042

FIGURE P-2

5/15/01 vsa ..\46800-930\Appx\FigP2.cdr

ATTACHMENT P1

FIELD LOGS OF PERCOLATION TESTS

6. Now the test may begin. A board should be laid across the hole to give a fixed reference point. Add 6" of water and record the time in Column A and the distance from this reference board to the water in Column B of the chart. In 30 minutes again read the distance from the reference board to the water and record in Column C. Enter the time in Column A of the next time period. Repeat this process for 8 half hour intervals. When it is necessary to bring the water level back to the starting point, (this should be 6" from the bottom) record the distance in Column B of the appropriate time slot.

7. If the hole consistently drains in less than 30 minutes, make the readings at 10 minute intervals for 8 readings.

8. In addition to the percolation tests an eight foot deep soil mantle is to be dug in the area of the leachfield to expose the soil profile. A backhoe excavation is best. This requirement may be waived as allowed by County Ordinance.

Perc Hole ~~#1~~ 202 Total Depth 36"			Perc Hole ~~#2~~ 203 Total Depth 36"			Perc Hole ~~#3~~ 204 Total Depth 36"		
A	B	C	A	B	C	A	B	C
	Depth to Water			Depth to Water			Depth to Water	
Time	6" Fill	Ending	Time	6" Fill	Ending	Time	6" Fill	Ending
9:44A.M	2'4½"		9:46AM	2'4½"		9:48AM	2'5"	
10:14AM	[illegible]	2'4¾"	10:16AM	[illegible]	2'4¾"	10:18AM.		2'5¼"
10:44AM		2'5¼"	10:46AM		2'4¾"	10:48AM		2'5¼"
11:14AM		2'5¾"	11:16AM		2'5"	11:18AM		2'5¾
11:44AM		2'6"	11:46AM		2'5⅛"	11:48AM		2'5¾"
12:14PM		2'6"	12:16PM		2'5¼"	12:18PM		2'6"
12:44PM		2'6"	12:46PM		2'5½"	12:48PM		2'6¼"
1:14PM		2'6¼"	1:16PM		2'5½"	1:18PM		2'6¼"

I HEREBY CERTIFY UNDER PENALTY OF PERJURY THAT THE STATEMENTS MADE ABOVE ARE TRUE AND CORRECT AND THAT THE ABOVE PERCOLATION TESTS WERE DONE IN ACCORDANCE WITH THE INSTRUCTIONS AND THE RESULTS RECORDED ARE TRUE AND CORRECT.

24. APR. 01
Date of Test

CHARLES de St MAURICE
Name of Person Conducting Test

Signature of Registered Person

CA. RCE 17809
Registration or SCL Type and Number

LEO HOLTHOUSE ETAL
Owner (Please Print)

APN: 11-040-24
Assessor Parcel Number

DIRKS RD 1 mile west of DELEVAN RD
Job Address

Domestic Water Source

6. Now the test may begin. A board should be laid across the hole to give a fixed reference point. Add 6" of water and record the time in Column A and the distance from this reference board to the water in Column B of the chart. In 30 minutes again read the distance from the reference board to the water and record in Column C. Enter the time in Column A of the next time period. Repeat this process for 8 half hour intervals. When it is necessary to bring the water level back to the starting point, (this should be 6" from the bottom) record the distance in Column B of the appropriate time slot.

7. If the hole consistently drains in less than 30 minutes, make the readings at 10 minute intervals for 8 readings.

8. In addition to the percolation tests an eight foot deep soil mantle is to be dug in the area of the leachfield to expose the soil profile. A backhoe excavation is best. This requirement may be waived as allowed by County Ordinance.

Perc Hole #1 205 Total Depth 36"			Perc Hole #2 206 Total Depth 32"			Perc Hole #3 207 Total Depth 36"		
A	B	C	A	B	C	A	B	C
Time	Depth to Water 6" Fill	Depth to Water Ending	Time	Depth to Water 6" Fill	Depth to Water Ending	Time	Depth to Water 6" Fill	Depth to Water Ending
9:50AM	2'6 1/4"		9:52AM	1'11 3/4"		9:54AM	2'10 1/4"	
10:20AM		2'6 1/2"	10:22AM		1'11 3/4"	10:24AM		2'10 1/2"
10:50AM		2'6 1/2"	10:52AM		1'11 3/4"	10:54AM		2'11"
11:20AM		2'6 3/4"	11:22AM		1'11 3/4"	11:24AM		2'11 1/4"
11:50AM		2'6 3/4"	11:52AM		2'0"	11:54AM		2'11 1/2"
12:20PM		2'7"	12:22PM		2'0"	12:24PM		2'11 1/2"
12:50PM		2'7 1/2"	12:52PM		2' 1/4"	12:54PM		2'11 3/4"
1:20PM		2'7 3/4"	1:22PM		2' 1/2"	1:24PM		3' 1/4"

I HEREBY CERTIFY UNDER PENALTY OF PERJURY THAT THE STATEMENTS MADE ABOVE ARE TRUE AND CORRECT AND THAT THE ABOVE PERCOLATION TESTS WERE DONE IN ACCORDANCE WITH THE INSTRUCTIONS AND THE RESULTS RECORDED ARE TRUE AND CORRECT.

24 APR 01
Date of Test

CHARLES DG ST. MAURICE
Name of Person Conducting Test

Kenneth P. Kuck
Signature of Registered Person

CA RCE 17809
Registration or SCL Type and Number

LEO HOLTHOUSE ET. AL
Owner (Please Print)

APNo. 11-040-24
Assessor Parcel Number

DARES RD. 1 mile west of Delevan Rd
Job Address

Domestic Water Source