

Z 2,78 184 439

MR WENDELL STRINGER  
 STRINGER FUNERAL HOME  
 301 N JACKSON STREET  
 CRYSTAL SPRINGS MS 39059

Post Office, State, & ZIP Code	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
<b>TOTAL Postage &amp; Fees</b>	<b>\$</b>
Postmark or Date	

PS Form 3800, April 1995

Stick postage stamps to article to cover First-Class postage, certified mail fee, and charges for any selected optional services (See front).

1. If you want this receipt postmarked, stick the gummed stub to the right of the return address leaving the receipt attached, and present the article at a post office service window or hand it to your rural carrier (*no extra charge*)
2. If you do not want this receipt postmarked, stick the gummed stub to the right of the return address of the article, date, detach, and retain the receipt, and mail the article.
3. If you want a return receipt, write the certified mail number and your name and address on a return receipt card, Form 3811, and attach it to the front of the article by means of the gummed ends if space permits. Otherwise, affix to back of article. Endorse front of article **RETURN RECEIPT REQUESTED** adjacent to the number.
4. If you want delivery restricted to the addressee, or to an authorized agent of the addressee, endorse **RESTRICTED DELIVERY** on the front of the article
5. Enter fees for the services requested in the appropriate spaces on the front of this receipt. If return receipt is requested, check the applicable blocks in item 1 of Form 3811
6. Save this receipt and present it if you make an inquiry.

SENDER: COMPLETE THIS SECTION

COMPLETE THIS SECTION ON DELIVERY

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

MR WENDELL STRINGER  
STRINGER FUNERAL HOME  
301 N JACKSON STREET  
CRYSTAL SPRINGS MS 39059

2. Article Number (Copy from service label)

L 278 184 437

A. Received by (Please Print Clearly) Wendell Stringer B. Date of Delivery 10-13-2000

C. Signature [Signature]  Agent  
 Addressee

D. Is delivery address different from item 1?  Yes  
If YES, enter delivery address below:  No

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

UNITED STATES POSTAL SERVICE



First-Class Mail  
Postage & Fees Paid  
USPS  
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

MS DEPT OF ENVIRONMENTAL QUALITY  
PO BOX 10385  
JACKSON MS 39289-0385  
ATTENTION: GRETCHEN ZMITROVICH

39289





STATE OF MISSISSIPPI  
DAVID RONALD MUSGROVE, GOVERNOR  
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY  
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

October 11, 2000

**CERTIFIED LETTER NO. Z 278 184 439 RETURN RECEIPT REQUESTED**

Mr. Wendell Stringer  
Stringer Funeral Home  
301 N. Jackson Street  
Crystal Springs, Mississippi 39059

RE: 301 N. Jackson Street  
Crystal Springs, Copiah County, Mississippi

Dear Mr. Stringer:

The Uncontrolled Sites Section of the Mississippi Department of Environmental Quality (MDEQ) has completed a review of the sampling report prepared by Ogden Environmental and Engineering for the above referenced property. The MDEQ requires no further action at this site at this time.

If cleanup standards change or additional data becomes available for the site, then MDEQ will notify the appropriate parties of the need for any additional investigation(s) or remedial action(s). These actions will be consistent with our need to protect human health, welfare, and/or the environment.

If you have any questions, concerning this matter, please contact Gretchen Zmitrovich at (601) 961-5240.

Sincerely,

A handwritten signature in black ink, appearing to read "Tony Russell".

Tony Russell, Chief  
Uncontrolled Sites Section

Kuhlman Electric-301 N. Jackson (Funeral Home) SNFA\_10-11-00 (gz)



**FILE COPY**

**STATE OF MISSISSIPPI**  
DAVID RONALD MUSGROVE, GOVERNOR  
**MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY**  
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

October 11, 2000

Mr. Wendell Stringer  
Stringer Funeral Home  
301 N. Jackson Street  
Crystal Springs, Mississippi 39059

RE: soil and wipe sampling

Dear Mr. Stringer:

Please find attached the report for the soil and wipe sampling recently conducted at 301 N. Jackson Street, Crystal Springs, MS. The report includes the following:

1. a map showing the sampling locations,
2. a table containing the sample results for the analysis conducted by the mobile laboratory, Environmental Chemistry Consulting Services, and
3. data sheets containing the split sample results for the analysis conducted by the fixed laboratory, Paradigm Analytical Laboratories, Inc.

In addition, please find enclosed a letter from the MDEQ stating that, based on the information collected to date, no further investigative or remedial action is required on your property in regard to contamination from the Kuhlman facility.

Please contact Gretchen Zmitrovich at 601-961-5240 if you have any questions regarding this report.

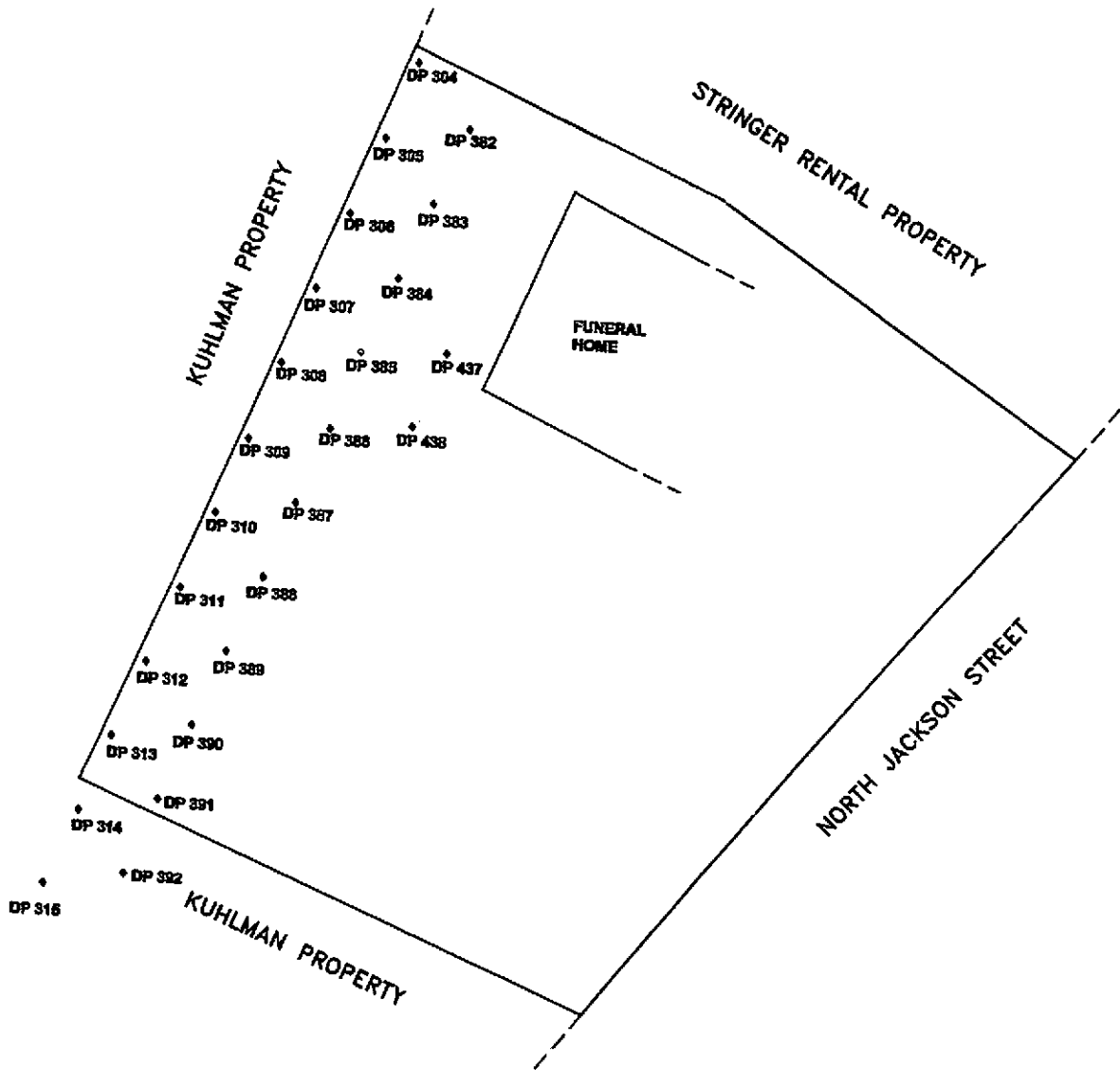
Sincerely,

Tony Russell, Chief  
Uncontrolled Sites Section

Enclosures

Kuhlman Electric-301 N. Jackson (Funeral Home) report\_10-11-00 (gz)

# COPY



**LEGEND**  
♦ SAMPLE POINT  
DP 392 SAMPLE POINT NUMBER

- 1) ALL DISTANCES ARE ESTIMATED
- 2) THIS MAP WAS PREPARED FROM RECORD MAPS
- 3) THIS MAP HAS BEEN PREPARED FOR PRESENTATION PURPOSES ONLY

<b>SAMPLE LOCATIONS FOR STRINGER FUNERAL HOME 301 NORTH JACKSON</b>				
SCALE: AS SHOWN		DR MDJ	CHK TF	REV
PREPARED BY: <b>OGDEN</b> ENVIRONMENTAL AND ENGINEERING SERVICES				
200 SOUTH OLD STATEVILLE ROAD • HUNTERSVILLE, NC 28078 • 704-875-3370				
PROJ: 079350000	DATE: 09/24/00	SHEET 1 OF 1		

Soil and Wipe Sample Results  
 Stringer Funeral Home  
 301 North Jackson  
 Crystal Springs, Mississippi

SOIL SAMPLES (MG/KG)										
Target Analyte	DP-304	DP-304	DP-305	DP-305	DP-306	DP-306	DP-307	DP-307	DP-308	DP-308
	0.5	4	0.5	4	0.5	4	0.5	4	0.5	4
	12	13	14	15	16	17	18	19	20	20
	0.29	<0.10	0.66	<0.10	<0.10	<0.10	0.16	<0.10	<0.10	0.15
PCB as 1260										
	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00
	10:46	10:50	10:52	10:55	10:59	11:03	11:12	11:16	11:20	11:20
	8/17/00	8/17/00	8/17/00	8/17/00	8/17/00	8/17/00	8/17/00	8/17/00	8/17/00	8/18/00

WIPE SAMPLES (TOTAL UG)				
Target Analyte	SFH-1	SFH-2	SFH-3	SFH-4
	736	737	738	739
	<0.50	<0.50	<0.50	<0.50
PCB as 1260				
	8/30/00	8/30/00	8/30/00	8/30/00
	13:15	13:16	13:22	13:25
	8/30/00	8/30/00	8/30/00	8/30/00

**LOCATIONS:** SFH1: Double glass doors, entry from hearse parking.  
 SFH2: Wooden fence slat, 40' south of north fence line, 4' above ground surface.  
 SFH3: North handrail of stairs on north side of building, leading to second story. Taken from third step up from ground level.  
 SFH4: Double glass doors, south side entrance.



Soil and Wipe Sample Results  
 Stringer Funeral Home  
 301 North Jackson  
 Crystal Springs, Mississippi

SOIL SAMPLES (MG/KG)												
Target Analyte	Sample #	DP-308	DP-309	DP-310	DP-310	DP-310	DP-310	DP-311	DP-311	DP-311	DP-312	DP-312
	Depth (ft)	4	4	0.5	0.5	4	4	0.5	0.5	4	0.5	4
	Lab #	21	23	22	24	25	26	27	28	27	28	29
PCB as 1260		<0.10	<0.10	<0.10	0.22	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
	Collection Date	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00
	Collection Time	11:22	11:30	11:26	11:47	11:50	11:55	12:00	12:05	12:00	12:05	12:09
	Injection Date	8/16/00	8/16/00	8/16/00	8/16/00	8/17/00	8/17/00	8/17/00	8/17/00	8/17/00	8/17/00	8/17/00

SOIL SAMPLES (MG/KG)												
Target Analyte	Sample #	DP-313	DP-314	DP-314	DP-314	DP-315	DP-315	DP-315	DP-315	DP-382	DP-382	DP-383
	Depth (ft)	0.5	4	0.5	4	0.5	0.5	4	4	0.5	4	0.5
	Lab #	30	32	32	33	34	35	35	185	185	186	187
PCB as 1260		<0.10	<0.10	0.16	<0.10	0.12	<0.10	<0.10	<0.10	<0.10	NA	<0.10
	Collection Date	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/19/00	8/19/00	8/19/00
	Collection Time	12:12	12:14	12:17	12:20	12:22	12:25	12:25	8:15	8:15	8:16	8:25
	Injection Date	8/17/00	8/17/00	8/17/00	8/17/00	8/17/00	8/17/00	8/17/00	8/18/00	8/18/00	NA	8/19/00

Notes:

NA Indicates Sample Not Analyzed

Soil and Wipe Sample Results  
 Stringer Funeral Home  
 301 North Jackson  
 Crystal Springs, Mississippi

SOIL SAMPLES (MG/KG)		DP-383	DP-384	DP-385	DP-386	DP-387	DP-387	DP-387
Target Analyte	Sample #	4	4	0.5	4	0.5	4	4
	Depth (ft)	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	Lab #	188	190	191	193	194	195	196
PCB as 1260		NA	NA	0.68	<0.10	NA	<0.10	NA
	Collection Date	8/19/00	8/19/00	8/19/00	8/19/00	8/19/00	8/19/00	8/19/00
	Collection Time	8:26	8:32	8:45	8:54	8:56	9:01	9:02
	Injection Date	NA	NA	8/19/00	8/19/00	NA	8/19/00	NA

Notes:

NA Indicates Sample Not Analyzed

SOIL SAMPLES (MG/KG)		DP-388	DP-389	DP-389	DP-390	DP-391	DP-391	DP-392
Target Analyte	Sample #	0.5	0.5	4	4	0.5	4	0.5
	Depth (ft)	0.5	0.5	0.5	4	0.5	4	0.5
	Lab #	187	199	200	202	203	204	205
PCB as 1260		<0.10	<0.10	NA	NA	<0.10	NA	<0.10
	Collection Date	8/18/00	8/19/00	8/19/00	8/19/00	8/19/00	8/19/00	8/19/00
	Collection Time	9:09	9:10	9:17	9:20	9:22	9:24	9:26
	Injection Date	8/19/00	NA	NA	NA	8/19/00	NA	8/19/00

Notes:

NA Indicates Sample Not Analyzed

Soil and Wipe Sample Results  
 Stringer Funeral Home  
 301 North Jackson  
 Crystal Springs, Mississippi

SOIL SAMPLES (MG/KG)		DP-392	DP-437	DP-437	DP-438	DP-438	DP-304	DP-305	DP-385
Target Analyte	Sample #	4	0.5	4	0.5	4	0.1	0.1	0.1
	Depth (ft)	206	300	301	302	303	1121	1122	1123
	Lab #								
PCB as 1260		NA	<0.10	NA	<0.10	NA	0.37	0.60*J	0.10
	Collection Date	8/19/00	8/20/00	8/20/00	8/20/00	8/20/00	9/19/00	9/19/00	9/19/00
	Collection Time	9:27	13:20	13:22	13:35	13:36	11:40	11:42	11:45
	Injection Date	NA	8/20/00	NA	8/20/00	NA	9/20/00	9/20/00	9/20/00

Notes:

NA Indicates Sample Not Analyzed  
 \* J Estimated level, due to interference from the presence of Technical Chlordane, DDT, DDD, & DDE.

PAR **IGM ANALYTICAL LABORATORY** INC.

**Results for PCBs  
by EPA 8082**

Client Sample ID: DP304 - 0.5'  
Client Project ID: Kuhlman Electric  
Lab Sample ID: 93676  
Lab Project ID: G185-78  
Matrix: Soil

%SOLIDS: 86.5

Date Collected: 8/18/00  
Date Received: 8/18/00  
Date Analyzed: 8/30/00  
Analyzed By: CLP  
Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Arochlor-1016	180	BQL
Arochlor-1221	180	BQL
Arochlor-1232	180	BQL
Arochlor-1242	180	BQL
Arochlor-1248	180	BQL
Arochlor-1254	180	BQL
Arochlor-1260	180	340
Arochlor-1262	180	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
TCMX	100	64	64

\*Sample was quantitated as Arochlor 1260, but appears to contain a mixture of Arochlor 1260 and Arochlor 1262.

**Comments:**

BQL = Below Quantitation Limit

NA = Not applicable, surrogate diluted out.

Reviewed By: 

Results for Semivolatiles  
by GCMS 8270

Client Sample ID: DP304 - 0.5'  
Client Project ID: Kuhlman Electric  
Lab Sample ID: 93676  
Lab Project ID: G185-78  
Matrix: Soil

Date Collected: 8/16/00  
Date Received: 8/18/00  
Date Analyzed: 8/30/00  
Analyzed By: MRC  
Dilution: 1

%Solids: 86.5

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acenaphthene	360	BQL
Acenaphthylene	360	BQL
Anthracene	360	BQL
Benzo[a]anthracene	360	BQL
Benzo[a]pyrene	360	BQL
Benzo[b]fluoranthene	360	BQL
Benzo[g,h,i]perylene	360	BQL
Benzo[k]fluoranthene	360	BQL
Benzoic Acid	720	BQL
Bis(2-chloroethoxy)methane	360	BQL
Bis(2-chloroethyl)ether	360	BQL
Bis(2-chloroisopropyl)ether	360	BQL
Bis(2-ethylhexyl)phthalate	360	BQL
4-bromophenyl phenyl ether	360	BQL
Butylbenzylphthalate	360	BQL
4-Chloroaniline	360	BQL
4-Chloro-3-methylphenol	360	BQL
2-Chloronaphthalene	360	BQL
2-Chlorophenol	360	BQL
4-Chlorophenyl phenyl ether	360	BQL
Chrysene	360	BQL
Di-n-Butylphthalate	360	BQL
Di-n-octylphthalate	360	BQL
Dibenzo[a,h]anthracene	360	BQL
Dibenzofuran	360	BQL
1,2-Dichlorobenzene	360	BQL
1,3-Dichlorobenzene	360	BQL
1,4-Dichlorobenzene	360	BQL
3,3'-Dichlorobenzidine	720	BQL
2,4-Dichlorophenol	360	BQL
Diethylphthalate	360	BQL
2,4-Dimethylphenol	360	BQL
Dimethylphthalate	360	BQL
4,6-Dinitro-2-methylphenol	1800	BQL
2,4-Dinitrophenol	1800	BQL
2,4-Dinitrotoluene	360	BQL
2,6-Dinitrotoluene	360	BQL
Fluoranthene	360	BQL
Fluorene	360	BQL
Hexachlorobenzene	360	BQL
Hexachlorobutadiene	360	BQL
Hexachlorocyclopentadiene	720	BQL
Hexachloroethane	360	BQL
Indeno(1,2,3-c,d)pyrene	360	BQL
Isophorone	360	BQL

Results for Semivolatiles  
by GCMS 8270

Client Sample ID: DP304 - 0.5'  
Client Project ID: Kuhiman Electric  
Lab Sample ID: 93676  
Lab Project ID: G185-78

Date Collected: 8/16/00  
Date Received: 8/18/00  
Date Analyzed: 8/30/00  
Analyzed By: MRC  
Dilution: 1

Matrix: Soil %Solids: 86.5

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
2-Methylnaphthalene	360	BQL
2-Methylphenol	360	BQL
3- & 4-Methylphenol	360	BQL
N-Nitrosodi-n-propylamine	360	BQL
N-Nitrosodiphenylamine	360	BQL
Naphthalene	360	BQL
2-Nitroaniline	360	BQL
3-Nitroaniline	360	BQL
4-Nitroaniline	360	BQL
Nitrobenzene	360	BQL
2-Nitrophenol	360	BQL
4-Nitrophenol	1800	BQL
Pentachlorobenzene	360	BQL
Pentachlorophenol	1800	BQL
Phenanthrene	360	BQL
Phenol	360	BQL
Pyrene	360	BQL
1,2,3,4-Tetrachlorobenzene	360	BQL
1,2,3,5- & 1,2,4,5-Tetrachlorobenzene	360	BQL
1,2,3-Trichlorobenzene	360	BQL
1,2,4-Trichlorobenzene	360	BQL
1,3,5-Trichlorobenzene	360	BQL
2,4,5-Trichlorophenol	360	BQL
2,4,6-Trichlorophenol	360	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	10	100
2-Fluorophenol	10	9.5	95
Nitrobenzene-d5	10	9.9	99
Phenol-d6	10	10.1	101
2,4,6-Tribromophenol	10	10.6	106
4-Terphenyl-d14	10	9.8	98

Comments:

Results are corrected for %solids and dilution where applicable.

Flags:

BQL = Below Quantitation Limit.

Reviewed By: 

Results of Library Search for Semivolatile Compounds  
by GCMS

Client Sample ID: DP304 - 0.5'	Date Collected: 8/16/00
Client Project ID: Kuhlman Electric	Date Received: 8/18/00
Lab Sample ID: 93676	Date Analyzed: 8/30/00
Lab Project ID: G185-78	Analyzed By: MRC
Matrix: Soil      %SOLIDS      86.5	Dilution: 1

Num.	Compound	CAS#	Match Probability	Result (ug/KG)
1	Alkane, Unknown			1700
2	Unknown			1100
3	Alkane, Unknown			960
4	Carboxylic Acid, Unknown			860
5	Alkane, Unknown			790
6	Unknown			700
7	Unknown			430
8	Unknown			370
9	Unknown			340
10	Vanillin	000121-33-5	91	340

**Comment:**

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak height of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak height is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: 

Results for PCBs  
by EPA 8082

Client Sample ID: DP305 - 0.5'  
Client Project ID: Kuhlman Electric  
Lab Sample ID: 93677  
Lab Project ID: G185-78  
Matrix: Soil

%SOLIDS: 81.5

Date Collected: 8/16/00  
Date Received: 8/18/00  
Date Analyzed: 8/30/00  
Analyzed By: CLP  
Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Arochlor-1016	190	BQL
Arochlor-1221	190	BQL
Arochlor-1232	190	BQL
Arochlor-1242	190	BQL
Arochlor-1248	190	BQL
Arochlor-1254	190	BQL
Arochlor-1260	190	BQL
Arochlor-1262	190	390 BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
TCMX	100	69	69

\*Sample was quantitated as Aroclor 1260, but appears to contain a mixture of Aroclor 1260 and Aroclor 1262.

Comments:

BQL = Below Quantitation Limit

NA = Not applicable, surrogate diluted out.

Reviewed By: 



PARSONS ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles  
by GCMS 8270

Client Sample ID: DP305 - 0.5'  
Client Project ID: Kuhlman Electric  
Lab Sample ID: 93677  
Lab Project ID: G185-78  
Matrix: Soil

%Solids: 81.5

Date Collected: 8/16/00  
Date Received: 8/18/00  
Date Analyzed: 8/31/00  
Analyzed By: MRC  
Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acenaphthene	380	BQL
Acenaphthylene	380	BQL
Anthracene	380	BQL
Benzo[a]anthracene	380	BQL
Benzo[a]pyrene	380	440
Benzo[b]fluoranthene	380	530
Benzo[g,h,i]perylene	380	450
Benzo[k]fluoranthene	380	380
Benzoic Acid	760	BQL
Bis(2-chloroethoxy)methane	380	BQL
Bis(2-chloroethyl)ether	380	BQL
Bis(2-chloroisopropyl)ether	380	BQL
Bis(2-ethylhexyl)phthalate	380	BQL
4-bromophenyl phenyl ether	380	BQL
Butylbenzylphthalate	380	BQL
4-Chloroaniline	380	BQL
4-Chloro-3-methylphenol	380	BQL
2-Chloronaphthalene	380	BQL
2-Chlorophenol	380	BQL
4-Chlorophenyl phenyl ether	380	BQL
Chrysene	380	BQL
Di-n-Butylphthalate	380	BQL
Di-n-octylphthalate	380	BQL
Dibenzo[a,h]anthracene	380	BQL
Dibenzofuran	380	BQL
1,2-Dichlorobenzene	380	BQL
1,3-Dichlorobenzene	380	BQL
1,4-Dichlorobenzene	380	BQL
3,3'-Dichlorobenzidine	760	BQL
2,4-Dichlorophenol	380	BQL
Diethylphthalate	380	BQL
2,4-Dimethylphenol	380	BQL
Dimethylphthalate	380	BQL
4,6-Dinitro-2-methylphenol	1900	BQL
2,4-Dinitrophenol	1900	BQL
2,4-Dinitrotoluene	380	BQL
2,6-Dinitrotoluene	380	BQL
Fluoranthene	380	520
Fluorene	380	BQL
Hexachlorobenzene	380	BQL
Hexachlorobutadiene	380	BQL
Hexachlorocyclopentadiene	760	BQL
Hexachloroethane	380	BQL
Indeno(1,2,3-c,d)pyrene	380	BQL
Isophorone	380	BQL

Results for Semivolatiles

by GCMS 8270

Client Sample ID: DP305 - 0.5'  
 Client Project ID: Kuhlman Electric  
 Lab Sample ID: 93677  
 Lab Project ID: G185-78  
 Matrix: Soil

Date Collected: 8/16/00  
 Date Received: 8/18/00  
 Date Analyzed: 8/31/00  
 Analyzed By: MRC  
 Dilution: 1

%Solids: 81.5

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
2-Methylnaphthalene	380	BQL
2-Methylphenol	380	BQL
3- & 4-Methylphenol	380	BQL
N-Nitrosodi-n-propylamine	380	BQL
N-Nitrosodiphenylamine	380	BQL
Naphthalene	380	BQL
2-Nitroaniline	380	BQL
3-Nitroaniline	380	BQL
4-Nitroaniline	380	BQL
Nitrobenzene	380	BQL
2-Nitrophenol	380	BQL
4-Nitrophenol	1900	BQL
Pentachlorobenzene	380	BQL
Pentachlorophenol	1900	BQL
Phenanthrene	380	BQL
Phenol	380	BQL
Pyrene	380	420
1,2,3,4-Tetrachlorobenzene	380	BQL
1,2,3,5- & 1,2,4,5-Tetrachlorobenzene	380	BQL
1,2,3-Trichlorobenzene	380	BQL
1,2,4-Trichlorobenzene	380	BQL
1,3,5-Trichlorobenzene	380	BQL
2,4,5-Trichlorophenol	380	BQL
2,4,6-Trichlorophenol	380	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9.1	91
2-Fluorophenol	10	5.2	52
Nitrobenzene-d5	10	9.1	91
Phenol-d6	10	7.5	74
2,4,6-Tribromophenol	10	6.6	66
4-Terphenyl-d14	10	9.7	97

Comments:

Results are corrected for %solids and dilution where applicable.

Flags:

BQL = Below Quantitation Limit.

Reviewed By: 



Results for PCBs  
by EPA 8082

Client Sample ID: DP307 - 0.5'  
Client Project ID: Kuhlman Electric  
Lab Sample ID: 93678  
Lab Project ID: G185-78  
Matrix: Soil

%SOLIDS: 95.2

Date Collected: 8/16/00  
Date Received: 8/18/00  
Date Analyzed: 8/30/00  
Analyzed By: CLP  
Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Arochlor-1016	160	BQL
Arochlor-1221	160	BQL
Arochlor-1232	160	BQL
Arochlor-1242	160	BQL
Arochlor-1248	160	BQL
Arochlor-1254	160	BQL
Arochlor-1260	160	BQL
Arochlor-1262	160	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
TCMX	100	72	72

Comments:

BQL = Below Quantitation Limit

NA = Not applicable, surrogate diluted out.

Reviewed By: 

Results for Semivolatiles  
by GCMS 8270

Client Sample ID: DP307 - 0.5'  
Client Project ID: Kuhlman Electric  
Lab Sample ID: 93678  
Lab Project ID: G185-78  
Matrix: Soil

Date Collected: 8/16/00  
Date Received: 8/18/00  
Date Analyzed: 8/31/00  
Analyzed By: MRC  
Dilution: 1

%Solids: 95.2

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acenaphthene	320	BQL
Acenaphthylene	320	BQL
Anthracene	320	BQL
Benzo[a]anthracene	320	BQL
Benzo[a]pyrene	320	BQL
Benzo[b]fluoranthene	320	BQL
Benzo[g,h,i]perylene	320	BQL
Benzo[k]fluoranthene	320	BQL
Benzoic Acid	640	BQL
Bis(2-chloroethoxy)methane	320	BQL
Bis(2-chloroethyl)ether	320	BQL
Bis(2-chloroisopropyl)ether	320	BQL
Bis(2-ethylhexyl)phthalate	320	BQL
4-bromophenyl phenyl ether	320	BQL
Butylbenzylphthalate	320	BQL
4-Chloroaniline	320	BQL
4-Chloro-3-methylphenol	320	BQL
2-Chloronaphthalene	320	BQL
2-Chlorophenol	320	BQL
4-Chlorophenyl phenyl ether	320	BQL
Chrysene	320	BQL
Di-n-Butylphthalate	320	BQL
Di-n-octylphthalate	320	BQL
Dibenzo[a,h]anthracene	320	BQL
Dibenzofuran	320	BQL
1,2-Dichlorobenzene	320	BQL
1,3-Dichlorobenzene	320	BQL
1,4-Dichlorobenzene	320	BQL
3,3'-Dichlorobenzidine	640	BQL
2,4-Dichlorophenol	320	BQL
Diethylphthalate	320	BQL
2,4-Dimethylphenol	320	BQL
Dimethylphthalate	320	BQL
4,6-Dinitro-2-methylphenol	1600	BQL
2,4-Dinitrophenol	1600	BQL
2,4-Dinitrotoluene	320	BQL
2,6-Dinitrotoluene	320	BQL
Fluoranthene	320	BQL
Fluorene	320	BQL
Hexachlorobenzene	320	BQL
Hexachlorobutadiene	320	BQL
Hexachlorocyclopentadiene	640	BQL
Hexachloroethane	320	BQL
Indeno(1,2,3-c,d)pyrene	320	BQL
Isophorone	320	BQL

Results for Semivolatiles  
by GCMS 8270

Client Sample ID: DP307 - 0.5'  
Client Project ID: Kuhlman Electric  
Lab Sample ID: 93678  
Lab Project ID: G185-78  
Matrix: Soil

Date Collected: 8/16/00  
Date Received: 8/18/00  
Date Analyzed: 8/31/00  
Analyzed By: MRC  
Dilution: 1

%Solids: 95.2

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
2-Methylnaphthalene	320	BQL
2-Methylphenol	320	BQL
3- & 4-Methylphenol	320	BQL
N-Nitrosodi-n-propylamine	320	BQL
N-Nitrosodiphenylamine	320	BQL
Naphthalene	320	BQL
2-Nitroaniline	320	BQL
3-Nitroaniline	320	BQL
4-Nitroaniline	320	BQL
Nitrobenzene	320	BQL
2-Nitrophenol	320	BQL
4-Nitrophenol	1600	BQL
Pentachlorobenzene	320	BQL
Pentachlorophenol	1600	BQL
Phenanthrene	320	BQL
Phenol	320	BQL
Pyrene	320	BQL
1,2,3,4-Tetrachlorobenzene	320	BQL
1,2,3,5- & 1,2,4,5-Tetrachlorobenzene	320	BQL
1,2,3-Trichlorobenzene	320	BQL
1,2,4-Trichlorobenzene	320	BQL
1,3,5-Trichlorobenzene	320	BQL
2,4,5-Trichlorophenol	320	BQL
2,4,6-Trichlorophenol	320	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	10.7	107
2-Fluorophenol	10	9.1	91
Nitrobenzene-d5	10	10.6	106
Phenol-d6	10	9.9	99
2,4,6-Tribromophenol	10	9	90
4-Terphenyl-d14	10	11.1	111

Comments:

Results are corrected for %solids and dilution where applicable.

Flags:

BQL = Below Quantitation Limit.

Reviewed By: 

Results of Library Search for Semivolatile Compounds  
by GCMS

Client Sample ID: DP307 - 0.5'  
Client Project ID: Kuhlman Electric  
Lab Sample ID: 93678  
Lab Project ID: G185-78

Date Collected: 8/16/00  
Date Received: 8/18/00  
Date Analyzed: 8/31/00  
Analyzed By: MRC  
Dilution: 1


Matrix: Soil      %SOLIDS      95.2

Num.	Compound	CAS#	Match Probability	Result (ug/KG)
1	Unknown			380
2	Unknown			190
3	Unknown			150
4	Unknown			150
5	Unknown			130
6				
7				
8				
9				
10				

**Comment:**

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak height of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak height is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: 

Results for PCBs  
by EPA 8082

Client Sample ID: DP310 - 0.5'  
Client Project ID: Kuhlman Electric  
Lab Sample ID: 93679  
Lab Project ID: G185-78  
Matrix: Soil

%SOLIDS: 83.7

Date Collected: 8/16/00  
Date Received: 8/18/00  
Date Analyzed: 8/30/00  
Analyzed By: CLP  
Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Arochlor-1016	190	BQL
Arochlor-1221	190	BQL
Arochlor-1232	190	BQL
Arochlor-1242	190	BQL
Arochlor-1248	190	BQL
Arochlor-1254	190	BQL
Arochlor-1260	190	BQL
Arochlor-1262	190	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
TCMX	100	71	71

Comments:

BQL = Below Quantitation Limit  
NA = Not applicable, surrogate diluted out.

Reviewed By: 



Results for Semivolatiles  
by GCMS 8270

Client Sample ID: DP310 - 0.5'  
Client Project ID: Kuhlman Electric  
Lab Sample ID: 93679  
Lab Project ID: G185-78  
Matrix: Soil

Date Collected: 8/16/00  
Date Received: 8/18/00  
Date Analyzed: 8/31/00  
Analyzed By: MRC  
Dilution: 1

%Solids: 83.7

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acenaphthene	370	BQL
Acenaphthylene	370	BQL
Anthracene	370	BQL
Benzo[a]anthracene	370	BQL
Benzo[a]pyrene	370	BQL
Benzo[b]fluoranthene	370	BQL
Benzo[g,h,i]perylene	370	BQL
Benzo[k]fluoranthene	370	BQL
Benzoic Acid	730	BQL
Bis(2-chloroethoxy)methane	370	BQL
Bis(2-chloroethyl)ether	370	BQL
Bis(2-chloroisopropyl)ether	370	BQL
Bis(2-ethylhexyl)phthalate	370	BQL
4-bromophenyl phenyl ether	370	BQL
Butylbenzylphthalate	370	BQL
4-Chloroaniline	370	BQL
4-Chloro-3-methylphenol	370	BQL
2-Chloronaphthalene	370	BQL
2-Chlorophenol	370	BQL
4-Chlorophenyl phenyl ether	370	BQL
Chrysene	370	BQL
Di-n-Butylphthalate	370	BQL
Di-n-octylphthalate	370	BQL
Dibenzo[a,h]anthracene	370	BQL
Dibenzofuran	370	BQL
1,2-Dichlorobenzene	370	BQL
1,3-Dichlorobenzene	370	BQL
1,4-Dichlorobenzene	370	BQL
3,3'-Dichlorobenzidine	730	BQL
2,4-Dichlorophenol	370	BQL
Diethylphthalate	370	BQL
2,4-Dimethylphenol	370	BQL
Dimethylphthalate	370	BQL
4,6-Dinitro-2-methylphenol	1800	BQL
2,4-Dinitrophenol	1800	BQL
2,4-Dinitrotoluene	370	BQL
2,6-Dinitrotoluene	370	BQL
Fluoranthene	370	BQL
Fluorene	370	BQL
Hexachlorobenzene	370	BQL
Hexachlorobutadiene	370	BQL
Hexachlorocyclopentadiene	730	BQL
Hexachloroethane	370	BQL
Indeno(1,2,3-c,d)pyrene	370	BQL
Isophorone	370	BQL

Results for Semivolatiles  
by GCMS 8270

Client Sample ID: DP310 - 0.5'  
Client Project ID: Kuhiman Electric  
Lab Sample ID: 93679  
Lab Project ID: G185-78  
Matrix: Soil

Date Collected: 8/16/00  
Date Received: 8/18/00  
Date Analyzed: 8/31/00  
Analyzed By: MRC  
Dilution: 1

%Solids: 83.7

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
2-Methylnaphthalene	370	BQL
2-Methylphenol	370	BQL
3- & 4-Methylphenol	370	BQL
N-Nitrosodi-n-propylamine	370	BQL
N-Nitrosodiphenylamine	370	BQL
Naphthalene	370	BQL
2-Nitroaniline	370	BQL
3-Nitroaniline	370	BQL
4-Nitroaniline	370	BQL
Nitrobenzene	370	BQL
2-Nitrophenol	370	BQL
4-Nitrophenol	1800	BQL
Pentachlorobenzene	370	BQL
Pentachlorophenol	1800	BQL
Phenanthrene	370	BQL
Phenol	370	BQL
Pyrene	370	BQL
1,2,3,4-Tetrachlorobenzene	370	BQL
1,2,3,5- & 1,2,4,5-Tetrachlorobenzene	370	BQL
1,2,3-Trichlorobenzene	370	BQL
1,2,4-Trichlorobenzene	370	BQL
1,3,5-Trichlorobenzene	370	BQL
2,4,5-Trichlorophenol	370	BQL
2,4,6-Trichlorophenol	370	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9.5	95
2-Fluorophenol	10	8.2	82
Nitrobenzene-d5	10	9.9	99
Phenol-d6	10	9.3	93
2,4,6-Tribromophenol	10	7.1	71
4-Terphenyl-d14	10	10.3	103

Comments:

Results are corrected for %solids and dilution where applicable.

Flags:

BQL = Below Quantitation Limit.

Reviewed By: 



Results for PCBs  
by EPA 8082

Client Sample ID: DP314 - 0.5'  
Client Project ID: Kuhlman Electric  
Lab Sample ID: 93680  
Lab Project ID: G185-78  
Matrix: Soil

%SOLIDS: 80.7

Date Collected: 8/16/00  
Date Received: 8/18/00  
Date Analyzed: 8/30/00  
Analyzed By: CLP  
Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Arochlor-1016	190	BQL
Arochlor-1221	190	BQL
Arochlor-1232	190	BQL
Arochlor-1242	190	BQL
Arochlor-1248	190	BQL
Arochlor-1254	190	BQL
Arochlor-1260	190	BQL
Arochlor-1262	190	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
TCMX	100	64	64

**Comments:**

BQL = Below Quantitation Limit

NA = Not applicable, surrogate diluted out.

Reviewed By: 

Results for Semivolatiles  
by GCMS 8270

Client Sample ID: DP314 - 0.5'  
Client Project ID: Kuhlman Electric  
Lab Sample ID: 93680  
Lab Project ID: G185-78

Date Collected: 8/16/00  
Date Received: 8/18/00  
Date Analyzed: 8/31/00  
Analyzed By: MRC  
Dilution: 1

Matrix: Soil %Solids: 80.7

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acenaphthene	390	BQL
Acenaphthylene	390	BQL
Anthracene	390	BQL
Benzo[a]anthracene	390	BQL
Benzo[a]pyrene	390	BQL
Benzo[b]fluoranthene	390	BQL
Benzo[g,h,i]perylene	390	BQL
Benzo[k]fluoranthene	390	BQL
Benzoic Acid	770	BQL
Bis(2-chloroethoxy)methane	390	BQL
Bis(2-chloroethyl)ether	390	BQL
Bis(2-chloroisopropyl)ether	390	BQL
Bis(2-ethylhexyl)phthalate	390	BQL
4-bromophenyl phenyl ether	390	BQL
Butylbenzylphthalate	390	BQL
4-Chloroaniline	390	BQL
4-Chloro-3-methylphenol	390	BQL
2-Chloronaphthalene	390	BQL
2-Chlorophenol	390	BQL
4-Chlorophenyl phenyl ether	390	BQL
Chrysene	390	BQL
Di-n-Butylphthalate	390	BQL
Di-n-octylphthalate	390	BQL
Dibenzo[a,h]anthracene	390	BQL
Dibenzofuran	390	BQL
1,2-Dichlorobenzene	390	BQL
1,3-Dichlorobenzene	390	BQL
1,4-Dichlorobenzene	390	BQL
3,3'-Dichlorobenzidine	770	BQL
2,4-Dichlorophenol	390	BQL
Diethylphthalate	390	BQL
2,4-Dimethylphenol	390	BQL
Dimethylphthalate	390	BQL
4,6-Dinitro-2-methylphenol	1900	BQL
2,4-Dinitrophenol	1900	BQL
2,4-Dinitrotoluene	390	BQL
2,6-Dinitrotoluene	390	BQL
Fluoranthene	390	BQL
Fluorene	390	BQL
Hexachlorobenzene	390	BQL
Hexachlorobutadiene	390	BQL
Hexachlorocyclopentadiene	770	BQL
Hexachloroethane	390	BQL
Indeno(1,2,3-c,d)pyrene	390	BQL
Isophorone	390	BQL

Results for Semivolatiles  
by GCMS 8270

Client Sample ID: DP314 - 0.5'  
Client Project ID: Kuhlman Electric  
Lab Sample ID: 93680  
Lab Project ID: G185-78

Date Collected: 8/16/00  
Date Received: 8/18/00  
Date Analyzed: 8/31/00  
Analyzed By: MRC  
Dilution: 1

Matrix: Soil %Solids: 80.7

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
2-Methylnaphthalene	390	BQL
2-Methylphenol	390	BQL
3- & 4-Methylphenol	390	BQL
N-Nitrosodi-n-propylamine	390	BQL
N-Nitrosodiphenylamine	390	BQL
Naphthalene	390	BQL
2-Nitroaniline	390	BQL
3-Nitroaniline	390	BQL
4-Nitroaniline	390	BQL
Nitrobenzene	390	BQL
2-Nitrophenol	390	BQL
4-Nitrophenol	1900	BQL
Pentachlorobenzene	390	BQL
Pentachlorophenol	1900	BQL
Phenanthrene	390	BQL
Phenol	390	BQL
Pyrene	390	BQL
1,2,3,4-Tetrachlorobenzene	390	BQL
1,2,3,5- & 1,2,4,5-Tetrachlorobenzene	390	BQL
1,2,3-Trichlorobenzene	390	BQL
1,2,4-Trichlorobenzene	390	BQL
1,3,5-Trichlorobenzene	390	BQL
2,4,5-Trichlorophenol	390	BQL
2,4,6-Trichlorophenol	390	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9.9	99
2-Fluorophenol	10	3.2	32
Nitrobenzene-d5	10	10.1	101
Phenol-d6	10	5.8	58
2,4,6-Tribromophenol	10	1.5	15
4-Terphenyl-d14	10	10.2	102

Comments:

Results are corrected for %solids and dilution where applicable.

Flags:

BQL = Below Quantitation Limit.

Reviewed By: 

**PARADIGM ANALYTICAL LABORATORIES INC.**  
**Results of Library Search for Semivolatile Compounds**  
*by GCMS*

Client Sample ID: DP314 - 0.5'  
 Client Project ID: Kuhlman Electric  
 Lab Sample ID: 93680  
 Lab Project ID: G185-78

Date Collected: 8/16/00  
 Date Received: 8/18/00  
 Date Analyzed: 8/31/00  
 Analyzed By: MRC  
 Dilution: 1

Matrix: Soil      %SOLIDS      80.7

Num.	Compound	CAS#	Match Probability	Result (ug/KG)
1	Alkane, Unknown			930
2	Alkane, Unknown			850
3	Unknown			800
4	Alkane, Unknown			650
5	Unknown			540
6	Alkane, Unknown			470
7	Unknown			390
8	Vanillin	000121-33-5	90	320
9	Alkane, Unknown			280
10	Unknown			200

**Comment:**

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak height of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak height is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: 

Results for PCBs  
by EPA 8082

Client Sample ID: DP315 - 0.5'  
Client Project ID: Kuhlman Electric  
Lab Sample ID: 93681  
Lab Project ID: G185-78  
Matrix: Soil

%SOLIDS: 90.8

Date Collected: 8/16/00  
Date Received: 8/18/00  
Date Analyzed: 8/30/00  
Analyzed By: CLP  
Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Arochlor-1016	170	BQL
Arochlor-1221	170	BQL
Arochlor-1232	170	BQL
Arochlor-1242	170	BQL
Arochlor-1248	170	BQL
Arochlor-1254	170	BQL
Arochlor-1260	170	BQL
Arochlor-1262	170	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
TCMX	100	74	74

**Comments:**

BQL = Below Quantitation Limit

NA = Not applicable, surrogate diluted out.

Reviewed By: 



Results for Semivolatiles  
by GCMS 8270

Client Sample ID: DP315 - 0.5'  
Client Project ID: Kuhlman Electric  
Lab Sample ID: 93681  
Lab Project ID: G185-78  
Matrix: Soil

Date Collected: 8/16/00  
Date Received: 8/18/00  
Date Analyzed: 8/31/00  
Analyzed By: MRC  
Dilution: 1

%Solids: 90.8

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acenaphthene	340	BQL
Acenaphthylene	340	BQL
Anthracene	340	BQL
Benzo[a]anthracene	340	BQL
Benzo[a]pyrene	340	BQL
Benzo[b]fluoranthene	340	BQL
Benzo[g,h,i]perylene	340	BQL
Benzo[k]fluoranthene	340	BQL
Benzoic Acid	690	BQL
Bis(2-chloroethoxy)methane	340	BQL
Bis(2-chloroethyl)ether	340	BQL
Bis(2-chloroisopropyl)ether	340	BQL
Bis(2-ethylhexyl)phthalate	340	BQL
4-bromophenyl phenyl ether	340	BQL
Butylbenzylphthalate	340	BQL
4-Chloroaniline	340	BQL
4-Chloro-3-methylphenol	340	BQL
2-Chloronaphthalene	340	BQL
2-Chlorophenol	340	BQL
4-Chlorophenyl phenyl ether	340	BQL
Chrysene	340	BQL
Di-n-Butylphthalate	340	BQL
Di-n-octylphthalate	340	BQL
Dibenzo[a,h]anthracene	340	BQL
Dibenzofuran	340	BQL
1,2-Dichlorobenzene	340	BQL
1,3-Dichlorobenzene	340	BQL
1,4-Dichlorobenzene	340	BQL
3,3'-Dichlorobenzidine	690	BQL
2,4-Dichlorophenol	340	BQL
Diethylphthalate	340	BQL
2,4-Dimethylphenol	340	BQL
Dimethylphthalate	340	BQL
4,6-Dinitro-2-methylphenol	1700	BQL
2,4-Dinitrophenol	1700	BQL
2,4-Dinitrotoluene	340	BQL
2,6-Dinitrotoluene	340	BQL
Fluoranthene	340	BQL
Fluorene	340	BQL
Hexachlorobenzene	340	BQL
Hexachlorobutadiene	340	BQL
Hexachlorocyclopentadiene	690	BQL
Hexachloroethane	340	BQL
Indeno(1,2,3-c,d)pyrene	340	BQL
Isophorone	340	BQL

PARSONS ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles  
by GCMS 8270

Client Sample ID: DP315 - 0.5'  
Client Project ID: Kuhlman Electric  
Lab Sample ID: 93681  
Lab Project ID: G185-78  
Matrix: Soil

%Solids: 90.8

Date Collected: 8/16/00  
Date Received: 8/18/00  
Date Analyzed: 8/31/00  
Analyzed By: MRC  
Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
2-Methylnaphthalene	340	BQL
2-Methylphenol	340	BQL
3- & 4-Methylphenol	340	BQL
N-Nitrosodi-n-propylamine	340	BQL
N-Nitrosodiphenylamine	340	BQL
Naphthalene	340	BQL
2-Nitroaniline	340	BQL
3-Nitroaniline	340	BQL
4-Nitroaniline	340	BQL
Nitrobenzene	340	BQL
2-Nitrophenol	340	BQL
4-Nitrophenol	1700	BQL
Pentachlorobenzene	340	BQL
Pentachlorophenol	1700	BQL
Phenanthrene	340	BQL
Phenol	340	BQL
Pyrene	340	BQL
1,2,3,4-Tetrachlorobenzene	340	BQL
1,2,3,5- & 1,2,4,5-Tetrachlorobenzene	340	BQL
1,2,3-Trichlorobenzene	340	BQL
1,2,4-Trichlorobenzene	340	BQL
1,3,5-Trichlorobenzene	340	BQL
2,4,5-Trichlorophenol	340	BQL
2,4,6-Trichlorophenol	340	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	10.4	104
2-Fluorophenol	10	9	90
Nitrobenzene-d5	10	10.5	105
Phenol-d6	10	9.9	99
2,4,6-Tribromophenol	10	9	90
4-Terphenyl-d14	10	10.9	109

Comments:

Results are corrected for %solids and dilution where applicable.

Flags:

BQL = Below Quantitation Limit.

Reviewed By:

**Results of Library Search for Semivolatile Compounds**  
by GCMS

Client Sample ID: DP315 - 0.5'

Date Collected: 8/16/00

Client Project ID: Kuhlman Electric

Date Received: 8/18/00

Lab Sample ID: 93681

Date Analyzed: 8/31/00

Lab Project ID: G185-78

Analyzed By: MRC

Matrix: Soil      %SOLIDS      90.8

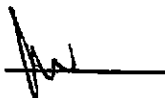
Dilution: 1

Num.	Compound	CAS#	Match Probability	Result (ug/KG)
1	Unknown			440
2	Unknown			400
3	Unknown			260
4	Unknown			160
5				
6				
7				
8				
9				
10				

**Comment:**

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak height of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak height is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

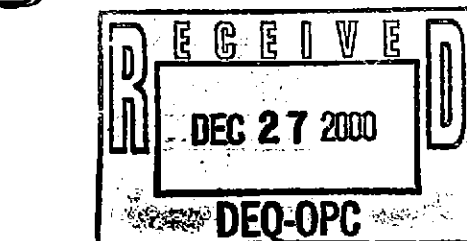
Reviewed by: 

AH-00-1638

VIA UPS NEXT DAY AIR

December 20, 2000

Ms. Gretchen Zmitrovich  
Mississippi Department of Environmental Quality  
Office of Pollution Control  
101 West Capitol Street  
Jackson, Mississippi 39201



**BorgWarner**

Anastasia Hamel  
Director, Environmental Programs  
BorgWarner Inc.  
11955 East Nine Mile Road  
Warren, Michigan 48089

Re: **Progress Report of Assessment and Remediation Activities  
Kuhlman Electric Corporation and Residential Properties  
Crystal Springs, Mississippi**

**FILE COPY**

Dear Ms. Zmitrovich:

This is a progress report to summarize the assessment and remediation activities related to PCB contamination at Crystal Springs, Mississippi. BorgWarner's last update was October 31, 2000. As you are aware, pursuant to the indemnity agreement between Kuhlman Electric Corporation (KEC) and BorgWarner Inc., BorgWarner has continued the assessment at the KEC plant and began the assessment of residential properties along a drainage channel downgradient of the plant. BorgWarner has also been actively remediating those properties adjacent to the KEC plant for which access was previously granted and sampling was complete.

BorgWarner, as it stated in its October 31, 2000 letter to the Mississippi Department of Environmental Quality (MDEQ), remains committed to working closely with MDEQ, USEPA, local government and KEC in a cooperative manner to accomplish the tasks necessary for the protection of human health and the environment, to the extent that the circumstances are covered by its contractual indemnity to KEC. BorgWarner will continue to seek MDEQ's guidance and direction in its current and future intended activities and to promptly share information.

**ACTIONS TAKEN AND PLANNED**

**1. Delineation of Residential Properties along Jackson and Lee Avenues**

BorgWarner promptly and voluntarily began sampling and delineation activities at the residential and commercial properties, adjoining the KEC plant that appeared to or reportedly have been affected by runoff or by the removal of soil from the KEC plant prior to October 6, 1999.

Under MDEQ's supervision, BorgWarner conducted delineation activities of these properties during the month of August, 2000. A total of eighteen (18) properties were investigated, which were:

1. Perry Smith, 219 North Jackson Street
2. Stringer Funeral Home, 301 North Jackson Street
3. Stringer Rental Property, 303 North Jackson Street
4. Harold and Suzanne Warren, 403 North Jackson Street
5. Elnor Wright, 401 North Jackson Street
6. Sonny Reeves, 405 North Jackson Street
7. Brent Property, 403 Lee Avenue
8. Louie Lang/David Vinson, 407 North Jackson Street
9. Jerry Youngblood, 100 Lamar St.
10. Medical Clinic, Lee Avenue
11. Edwards Property, 406 Lee Avenue
12. Garment Shop, 414 Lee Avenue
13. Frazier Property, 405 Lee Avenue
14. Duplex Property, 408/410 Lee Avenue
15. Kellum Property, 412 Lee Avenue
16. Dabney/Smith Property, 215 North Jackson
17. Cooper Property, 409 North Jackson
18. Larry and Carol Wright, 305 North Jackson

BorgWarner acted under the continuous guidance and direction of the MDEQ with respect to delineation activities at the residential and commercial properties adjoining the KEC plant. Split samples were analyzed and QA/QC procedures were implemented by two laboratories experienced with polychlorinated biphenyl analysis. Samples were frequently split with on-site MDEQ representatives for MDEQ's independent analysis, which to our knowledge consistently correlated with BorgWarner's on-site and off-site laboratory analytical results.

The delineation activities were conducted utilizing the "US EPA, Region IV Environmental Investigations Standard Operating Procedures and Quality Assurance Manual," May 1996 (EISOPQAM), sampling and analytical protocols. A copy of the work plan with procedures used in the field and applicable sections of the EISOPQAM are attached to this report for reference purposes.

Upon completing the delineation activities, BorgWarner compiled and submitted the analytical results on October 2, 2000 to MDEQ and US EPA, Region IV. Subsequently, BorgWarner began to schedule the remediation of residential and commercial properties adjacent to the KEC plant and along Jackson and Lee Avenues for which access was granted with the assistance of MDEQ and City of Crystal Springs Mayor Webb and where an attorney and/or an independent consultant were not involved in performing conflicting sampling activities.

## 2. Remediation of Residential Properties

On October 16, 2000 BorgWarner initiated remediation activities at the Medical Center and the Dabney/Smith properties, which are adjacent to the KEC plant. Remediation of the Newman Duplex, on Lee Avenue, began on November 30, 2000. Remediation of these properties involved excavation and disposal of all soil containing 1.0 part per million (ppm) or greater of PCBs in accordance with MDEQ's established clean-up criteria for residential properties. All soils containing greater than 1 ppm PCBs but less than 50 ppm PCBs were profiled and disposed of at the BFI's "Little Dixie" Subtitle D Landfill in Madison County, Mississippi after MDEQ and US EPA, Region IV approvals were obtained.

Following excavation, all excavated areas were sampled to confirm that impacted soil had been removed. In correspondence regarding disposal requirements, Craig Brown of US EPA, Region IV, stated that the excavated soils did not meet the definition of "PCB remediation waste." Under this definition, the remediation activities fell under the management criteria and guidelines set by MDEQ. As a result, the remediation and confirmation of clean-up standards established by MDEQ guidance were adopted and implemented in all of BorgWarner's residential remediation activities. A grid with ten-foot (10) sampling point centers was used to confirm that impacted soils had been removed at each site.

The remediation of the Dabney/Smith, the Medical Center and the Newman duplex property resulted in the removal of 1400 tons of soil, which was disposed of at the BFI "Little Dixie" Subtitle D Landfill and replaced with 1500 tons of certified clean soil. During the remediation activities, the on-site laboratory analyzed 324 soil samples in the month of November and the fixed-base laboratory analyzed 32 quality control samples.

Vegetation, such as live oak trees, was treated with specialty equipment for maximum protection and to minimize damage to the root systems. Soil surrounding the live oak tree roots was removed using an "Air Shovel"<sup>™</sup>, a unique technology adopted specifically for this purpose. The Air Shovel<sup>™</sup> uses a pressure spray to dislodge soil from around the roots while a vacuum system removes the soil and water by vacuuming into a tank. This method of soil removal has performed effectively with minimal damage to the tree's root system as was confirmed by the landscaping contractor and arborist. However, this process, regardless of its effectiveness, is very tedious and as a result only the tree on the Dabney/Smith property was completed during the second half of November. One other live oak tree, located on the Medical Center property, remains to be treated in a similar fashion and is scheduled for January 2001.

Landscaping and replacement of structures (sheds, car ports, etc.) on both the Medical Center and the Dabney/Smith properties are continuing and will most likely be completed by the end of December 2000. Both properties have been surveyed and the fence between the Dabney/Smith and Medical Center properties is currently being re-installed. Landscaping has been completed on the Newman duplex property.

Third party independent sampling activities commissioned by the Nutt & Associates Law Firm have interfered with planned remediation activities along Lee Avenue, specifically at the Frazier's, Edward's, and Kellum's properties. The Garment Shop is a more complicated matter for two reasons. First, the impacted soil at the Garment Shop is located at the property line between it and the Kellum residence and second, the Kellum elm tree roots extend to the Garment Shop property itself. BorgWarner has filed a Freedom of Information Act request to MDEQ in an effort to obtain a copy of the recently submitted report generated by these independent parties.

BorgWarner, after its evaluation of the sampling results and data contained within the third party report, will begin discussions with the attorney(s) representing each resident (mentioned above) along Lee Avenue in an attempt to resolve the matter, including confirmation that all sampling results have been disclosed, and whether further sampling is necessary, and confirm access to then remediate those properties. BorgWarner also plans to keep MDEQ apprised of any developments and any progress or if no progress is being made with the attorney(s) involved.

BorgWarner will schedule delineation activities for the Gas Station, which is at the corner of Lee Avenue next to the Garment Shop, Mayor Webb's residence and the drainage pathway to the south. BorgWarner will inform MDEQ of the timing for those activities.

### **3. Drainage Channel Properties**

Beginning on October 30<sup>th</sup> through the end of November, BorgWarner collected and analyzed soil samples from nine properties situated along the drainage channel leading from the north side of KEC's plant site to Lake Chautauqua. The properties were:

1. Sojourner Property, 111 M<sup>e</sup>Pherson Street
2. Weathersby Property, 101 Forest Street
3. Robert Williams Property (Lonnie Williams' residence), 103 Forest Street
4. Flossie M<sup>e</sup>Murray Property (Ralph Williams residence), 104 Forest Street
5. Ralph Williams Rental Property, 107 Forest Street
6. Richard Williams Property, 102 Forest Street
7. Roberta Fitzgerald Estate Property, (R.P Edwards point of contact) 108 Tucker Street  
Property currently is being rented to the Kendrick family.
8. Welch Property, 501 Camp Street
9. Orister Harris Property, 311 West Railroad Avenue

A total of 650 soil samples was collected from these properties and analyzed by the on-site laboratory. The fixed-base laboratory analyzed an additional 65 samples for confirmation and quality control purposes. These preliminary assessment activities were conducted in the same manner as the Kuhlman plant preliminary site assessment and the KEC plant adjacent residential properties; and utilizing the "EPA, Region IV Environmental Investigations Standard Operating

Procedures and Quality Assurance Manual", May 1996 (EISOPQAM), **sampling and analytical protocols.**

Preliminary results available at this time indicate that six of the nine **properties that were sampled** will require certain remediation. Four properties, including the **Sojourner, Williams' rental, Harris and Welch properties**, will require remediation under the **MDEQ guidelines** since the highest concentrations detected are less than 50 ppm. Two properties, including the **M<sup>s</sup>Murray and R. P. Edwards properties**, have soil with PCB concentrations **greater than 50 ppm** and therefore will require remediation under the TSCA rules. **The following is a list of properties where concentrations greater than 1.0 ppm PCB were detected as well as the highest detected concentration on each property:**

<u>Property</u>	<u>Highest Detected Concentration</u>
Sojourner	2.6 ppm
Williams rental	30.0 ppm
Harris	1.2 ppm
Welch	8.4 ppm
M <sup>s</sup> Murray	70.0 ppm
R. P. Edwards	51.0 ppm

Data from this sampling event are being evaluated and once quality control measures are completed the data will be tabulated. Site-specific reports containing collected data, maps of sampling locations, and work plans for remediation, if required, for each individual site are also being prepared and will be submitted to MDEQ and US EPA, Region IV by January 12, 2001.

It is anticipated that additional sampling will be required along the drainage channel. Several undeveloped properties, either abutting the drainage channel or through which the drainage channel runs, will be sampled to delineate the extent of possibly impacted soil and determine the potential for future runoff to Lake Chautauqua. The Department will be kept apprised as to the timing for this additional investigation and sampling activity.

#### 4. KEC Plant

After an initial phase of sampling in the areas identified by KEC's construction activities and the related equipment decontamination zone, BorgWarner conducted further, substantial sampling activities in the south and north parking lot areas as well as the former above ground storage tank area. These delineation activities, other than any possible data gaps, have been completed. The results are currently being tabulated and compared for correlation purposes between the on-site and off-site laboratories, prior to being issued to MDEQ. Should any data gaps exist, BorgWarner will conduct further sampling activities.



This additional data will be incorporated as an addendum to the *Preliminary Site Assessment Report*, submitted to MDEQ in July 2000. Comments to the *Preliminary Site Assessment Report* made by MDEQ will also be addressed and included in the addendum submittal. It is anticipated that the addendum report will be submitted to MDEQ by February 12, 2001.

## 5. Lake Chautauqua

BorgWarner intends to consider delineation of the sediments at Lake Chautauqua, ecological assessment, and surface water sampling, to the extent appropriate after receipt of the pending "Task Force" report. These activities will not begin on any great scale until the Task Force report is evaluated.

## 6. Groundwater Delineation

BorgWarner intends to delineate the nature and extent of any groundwater contamination relative to the KEC plant. Groundwater delineation will take place at the time that remediation at the KEC plant commences. It is critical that the protective cover at the KEC plant site is not disturbed for the time being and that the groundwater investigation is addressed when BorgWarner is actively remediating on the KEC plant property. This approach will ensure that sediments from the KEC Plant do not travel to the drainage channel and Lake Chautauqua.

BorgWarner remains dedicated to continuing its open communication with MDEQ and US EPA, Region IV and looks forward to the meeting with MDEQ and City of Crystal Springs Mayor Webb and other Crystal Springs representatives on January 17, 2001 (at 8:30 a.m.) to further discuss any of the above and share its plans for future activities.

Should you have any questions or comments, please contact me directly at (810) 497-4503 at your earliest convenience.

Very truly yours,



Anastasia Hamel  
Director, Environmental Programs  
BorgWarner Inc.

Ms. Gretchen Zmitrovich, IDEQ

December 20, 2000

Page 7 of 7

**Attachments:**

1. Work Plan – Preliminary Assessment and Remediation
2. Craig Brown, US EPA, Region IV letter to BFI

cc: J. Banks, MDEQ  
T. Russell, MDEQ  
K. Dowell, Esq., MDEQ  
C. Brown, US EPA Region IV  
H. Webb, Mayor Crystal Springs  
Laurene H. Horiszny, Esq.  
Robert Martin, MSGA  
Thomas D. Lupo, Esq.  
Scott E. Schang, Esq.  
Mickey Crockett, KEC  
Al Thomas, KEC

**WORKPLAN FOR THE PRELIMINARY  
ASSESSMENT AND REMEDIATION OF PCB CONTAMINATION IN SOIL  
KUHLMAN ELECTRIC CORPORATION FACILITY  
AND RESIDENTIAL COMMERCIAL PROPERTIES  
IN CRYSTAL SPRINGS, MISSISSIPPI**

As established by the Mississippi Department of Environmental Quality (MDEQ) guidelines in connection with this project, all work related to the preliminary assessment of the extent of contamination at the Kuhlman Electric Corporation (KEC) facility and work related to the preliminary assessment and confirmation of remedial actions at KEC adjacent residential/commercial properties and residential properties along the drainage channel (leading from the north side of KEC's facility to Lake Chautauqua) has been performed in accordance with the *Environmental Protection Agency (EPA), Region IV "Environmental Investigations, Standard Operating Procedures and Quality Assurance Manual"*, May 1996 (EISOPQAM).

Copies of relevant and applicable portions of the EISOPQAM are maintained on site during all field activities and all field personnel are trained in its implementation. Remedial action confirmation sampling grids were established using *MDEQ Guidance Document, Verification of Soil Remediation, Environmental Response Division, Waste Management Division, April 1994, Revision 1*. Specifically, sampling grids were based on Part 2-Medium and Large Site Soil Cleanup Verification, "Establishing Grid Interval."

Field operations were performed under the site-specific Health and Safety Plan guidelines. Modified Level "D" Personal Protective Equipment (PPE) was utilized by all personnel working within the investigative area.

## Sampling Objectives

The soil-sampling objective is to establish the vertical and horizontal extent of contamination resulting from historical facility operations. In the KEC facility case, the soil-sampling objective included historical use of polychlorinated biphenyl (PCB). All sampling procedures were conducted in accordance with the US EPA, Region IV EISOPQAM. Sampling procedures included the collection of soil samples on a twenty foot triangular grid, where possible, at discreet depth intervals. Surface and subsurface soil samples were collected using GeoProbe® MacroProbe™ direct push sampling equipment. The GeoProbe® system uses a hydraulically driven hammer to advance a hollow, split-barrel sampler to the desired depth. The sampler contains an acetate liner in which a sample of the cored soil is retained. The MacroProbe™ corer retains a 1.25-inch diameter continuous 4 feet in length core sample. Once sampling is completed, the direct-push boring holes are backfilled with bentonite chips in unpaved areas, and with grout in parking lots and other paved areas.

Throughout the delineation activities each direct-push boring was sampled at 0.5-3.0 feet below ground surface (bgs) and at 3.0-6.0 feet bgs. Selected borings were completed to depths varying from 8-12 feet bgs and sampled in these deeper intervals to evaluate the vertical distribution of contaminants.

Additional sampling of dust, stream and drainage ditch sediments, surface water and ground water were collected, as warranted, in accordance with applicable EISOPQAM guidelines.

### **Analytical Methods**

Samples that were collected were analyzed for PCBs by the on-site mobile laboratory, Environmental Chemistry Consulting Services (ECCS) of Madison, Wisconsin. Initially soil samples were also analyzed for chlorinated benzenes until data confirmed that chlorinated benzene contamination is not at issue in samples with low concentrations of PCBs (generally <20 ppm). At least 10% of all samples were split and sent to a fixed-base laboratory, Paradigm Analytical Laboratories, Inc. (PAL) of Wilmington, North Carolina for analysis of the same parameters as for the on-site mobile laboratory to corroborate the results of laboratory analyses for quality control and quality assurance measures. Both the on-site and fixed-base laboratories used the same standard EPA approved analytical methods. PCBs were analyzed by Modified Environmental Protection Agency (EPA) Method 8080/81 and chlorinated benzene compounds were analyzed by EPA Method 8270. Volatile organic compounds (VOCs) were analyzed by EPA Method 8260 for samples suspected of being impacted by other industrial processes solvents unrelated to PCBs. Select soil samples were also analyzed for silver, by EPA Method 6010B, and cyanide, by EPA Method 9012A.

Surface water samples were analyzed by PAL for PCBs using EPA Method 8080/81. Semivolatile organic compounds (SVOCs) were analyzed by EPA Method 8270, Volatile Organic Compounds (VOCs) were analyzed by EPA Method 8260, silver by EPA Method 6010B, and cyanide using Standard Method 4500 Cn-E. Perched ground water was analyzed for PCBs, SVOCs, and VOCs by the same methods as indicated above for surface water.

**Quality Control**

The following is the list of key personnel dedicated to this project:

**Project Manager:**

Mr. Robert Martin, Martin & Slagle GeoEnvironmental Associates, LLC

**Duties:**

Responsible for management of project **including** all field coordination efforts.

**Field Sample Custodian:**

Mr. Robert Martin, Christine Slagle, Martin & Slagle GeoEnvironmental Associates, LLC

**Duties:**

Maintaining custody of samples, completing sample labels, Chain-of-Custody record.

**Field Team Leader:**

Mr. Robert Martin, Martin & Slagle GeoEnvironmental Associates, LLC

**Duties:**

Responsible for all activities related to the collection of samples.

**Samplers:**

Tim Fitzpatrick, Christine Slagle, Robert Martin

**Duties:**

Individuals responsible for the actual collection of samples.

**Laboratory Sample**

**Custodian:**

Mr. Michael Linskens, ECCS

Mr. Nicolas Schertz, ECCS

Ms. Erin Staagard, PAL

**Duties:**

Individuals responsible for accepting custody of samples from the field sample custodian.

## Quality Assurance Objectives for Data

Data for this project is being generated by two separate entities. The on-site data is generated by ECCS in their mobile laboratory. The fixed-base laboratory, PAL in Wilmington, North Carolina, generates the analytical results for the split samples.

The data quality objectives are pre-defined for the ECCS data in that Mississippi considers all mobile lab data screening level data. ECCS uses the same equipment and methodology as the fixed-base laboratories with the exception of the mini-extraction modification. Mobile laboratory data is validated by comparison of a minimum of 10% split samples with PAL. Following this procedure, the data qualifies as screening data with definitive confirmation under US EPA, Region IV EISOPQAM guidelines.

All samples sent to PAL were collected as follows: The sample was transferred from the GeoProbe® clean, unused, acetate sample liner into the labeled 4 ounce (oz) amber glass soil jar. The sample jar was then transferred to the mobile lab where ECCS personnel homogenized the sample prior to taking an aliquot for analysis. Due to the limited sample volume required by the ECCS mini-extraction and the low volatility of the chemicals of concern, the initial sampling jar was resealed (after ECCS personnel removed the amount of sample needed for their analysis), refrigerated and then sent to PAL; meaning PAL analyzed the sample from the exact same sample jar as ECCS.

Equipment rinsate samples were collected for evaluation of cross-contamination potential from ineffective decontamination procedures. These were prepared by pouring distilled water over the sampling equipment after decontamination and collecting and preserving the rinsate that was generated. Equipment rinseate samples were collected in accordance with the EPA, Region IV EISOPQAM guidelines.

Field blank samples were collected by filling sampling containers that were kept in the transition zone with distilled water. Field blanks determine the presence of ambient contaminants that may not be directly related to concentrations of contaminants in the sample media.

Blind duplicate soil samples were collected for analysis and sent to both laboratories. Blind duplicates were collected by homogenizing an aliquot of sample in a disposable plastic container and splitting the homogenized sample into two containers. After ECCS took their aliquot of these samples, the remainder of the sample was sent to PAL for analysis.

## **SAMPLE CONTROL AND FIELD RECORDS**

### **Sample Identification**

All samples sent to PAL for analysis conform to the labeling requirements under section 3.2.1 of the EISOPQAM.

#### **8.3.1 Chain of Custody Procedures**

Samples were logged as they were collected from the geoprobe liners. Date, time and sample lithology were recorded on each log. Samples were then transferred to 4 oz amber glass jars and the jars transferred to a small sample cooler, which was taken to the mobile lab by field personnel in charge of sample handling. Sample identification (ID), date and time sampling occurred were recorded in the field logbook before transferring the samples to the mobile lab. Upon arrival at the mobile lab, the samples were transferred to the ECCS sample custodian who logged each sample on ECCS chain of custody forms. Each sample was assigned a unique ECCS internal ID number for tracking purposes. After analysis, the samples were transferred to either a sample refrigerator in the mobile lab or stored in coolers with ice until they were either shipped to PAL for confirmation analysis or readied for disposal. For samples sent to PAL, a new chain of custody form was completed by field personnel in charge of sample handling.

#### **8.3.2 Field Records**

Field records were kept in accordance with procedures and guidelines specified in section 3.5 of EISOPQAM.



#### **8.4 Analytical Procedures**

For analysis of samples in the field, ECCS used EPA Method 8082m, modified for quantitation of chlorinated benzenes and the mini extraction procedure.

PAL used EPA Method 8082 for quantitation of PCBs. For chlorinated benzenes, it used EPA Method 8270. While Method 8270 does not cover all the chlorinated benzenes, it provides confirmation of the ones it does detect and has the added benefit of supplying an analysis of a broad range of other semivolatile organic compounds.

For the analysis of cyanide EPA Method 9012A was employed and for silver EPA Method 6010B.

Selected samples were analyzed by EPA Method 8260, primarily to confirm that volatile organic compounds were not present in the samples or part of the site contaminants.

#### **8.5 Laboratory Quality Assurance/Quality Control (QA/QC)**

QA/QC procedures for both labs were found to be virtually identical. Summaries of each laboratory procedures follow.

*ECCS:*

- ◆ Continuous calibration standards analyzed every ten samples or less and at the end of a run.
- ◆ Blank samples and laboratory control samples (LCS) analyzed every twenty samples or less with a minimum of one per day.
- ◆ Matrix Spike/Matrix Spike Duplicate (MS/MSD) samples analyzed every twenty samples or less with a minimum of one per day.

PAL:

- ◆ Continuous calibration standards analyzed at least once every 12 hour **shift plus a minimum** of every 20 samples gas chromatography/mass spectroscopy (GC/MS) **criteria** follows method specific tuning requirements per EPA Method 8270.
- ◆ Blank and LCS samples analyzed every 20 samples or less with a **minimum of one per day**.
- ◆ MS/MSD samples analyzed every 20 samples or less with a **minimum of one per day**.

### **8.6 Data Validation and Reporting**

As discussed in section 8.2, the primary validation of the ECCS data was **accomplished** through comparison with the data from PAL.

Since Hexachlorobenzene and 1,2,4-Trichlorobenzene are the only chlorinated benzenes on the standard Method 8270 list, these two compounds and total PCBs were the **parameters tracked** for the data validation procedure.

Overall, the correlation to this point of the investigation and remediation activities has been excellent with the majority of sample splits showing Relative Percent Differences (RPDs) of less than 100. Considering the inherent variability of soil as a matrix, achieving 93% acceptable split data spanning several orders of magnitude of concentration serves to justify the use of the on-site data as definitive quality.

19 pages w/cover

TO:  
Gretchen Zmitrovich  
MDEQ

From:  
Tim Fitzpatrick  
Ogden Environmental

Gretchen: Following are my field maps - I hope  
you can read them! Data will follow shortly.

Please call after you receive this fax.

Thanks,

Tim



Job Name: Crystal Springs-

Job Number:

Title: Sony Reeves backyard 405 Jackson

Computed by:

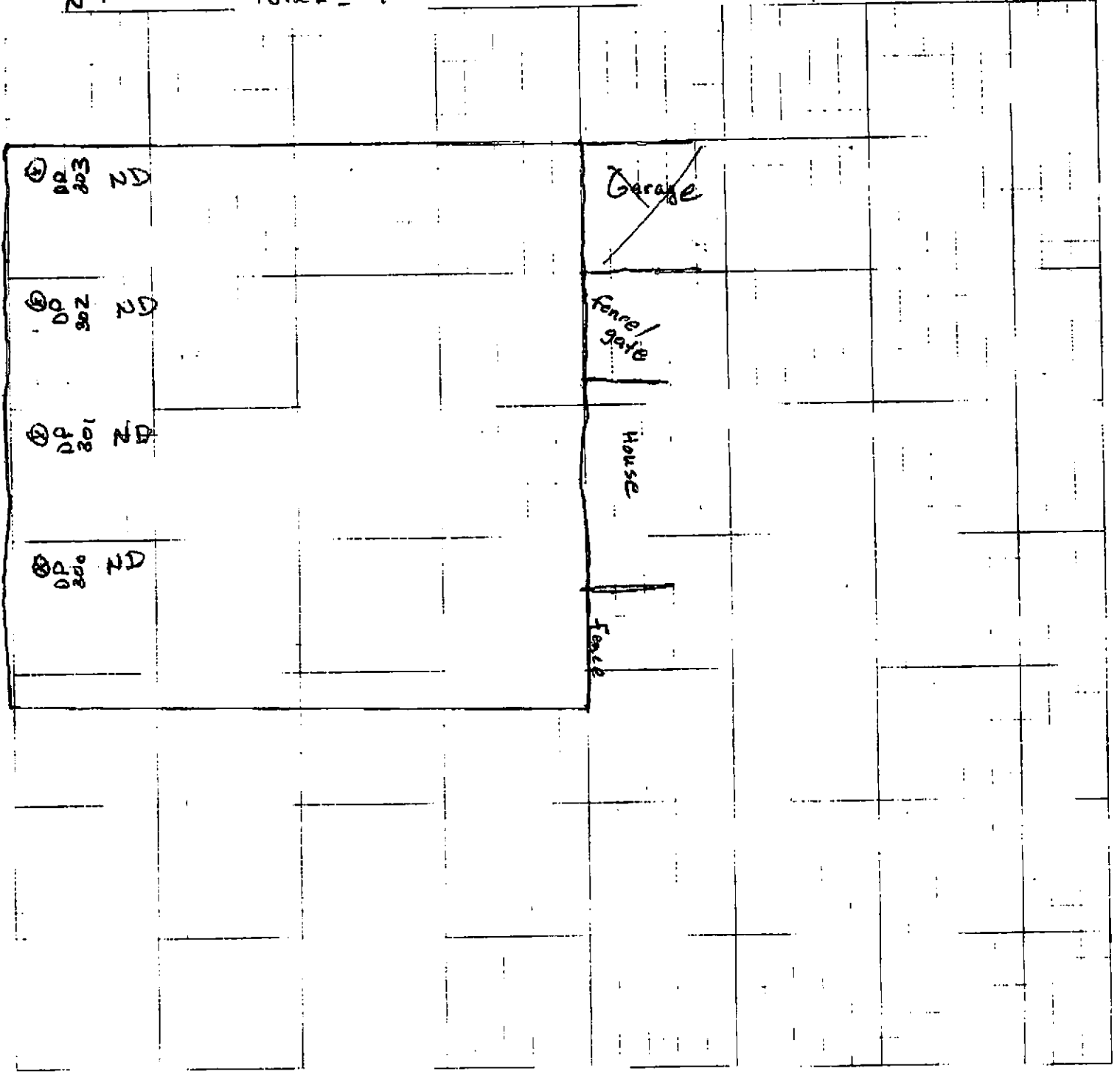
Checked by:

Date: 2/16/2000

Sheet: 1 Of: 11

N ↑

1 block = 4'





DP 280  
200  
7

Job Name:

Crystal Springs

Job Number:

Title:

Stringer Funeral Home

Computed by:

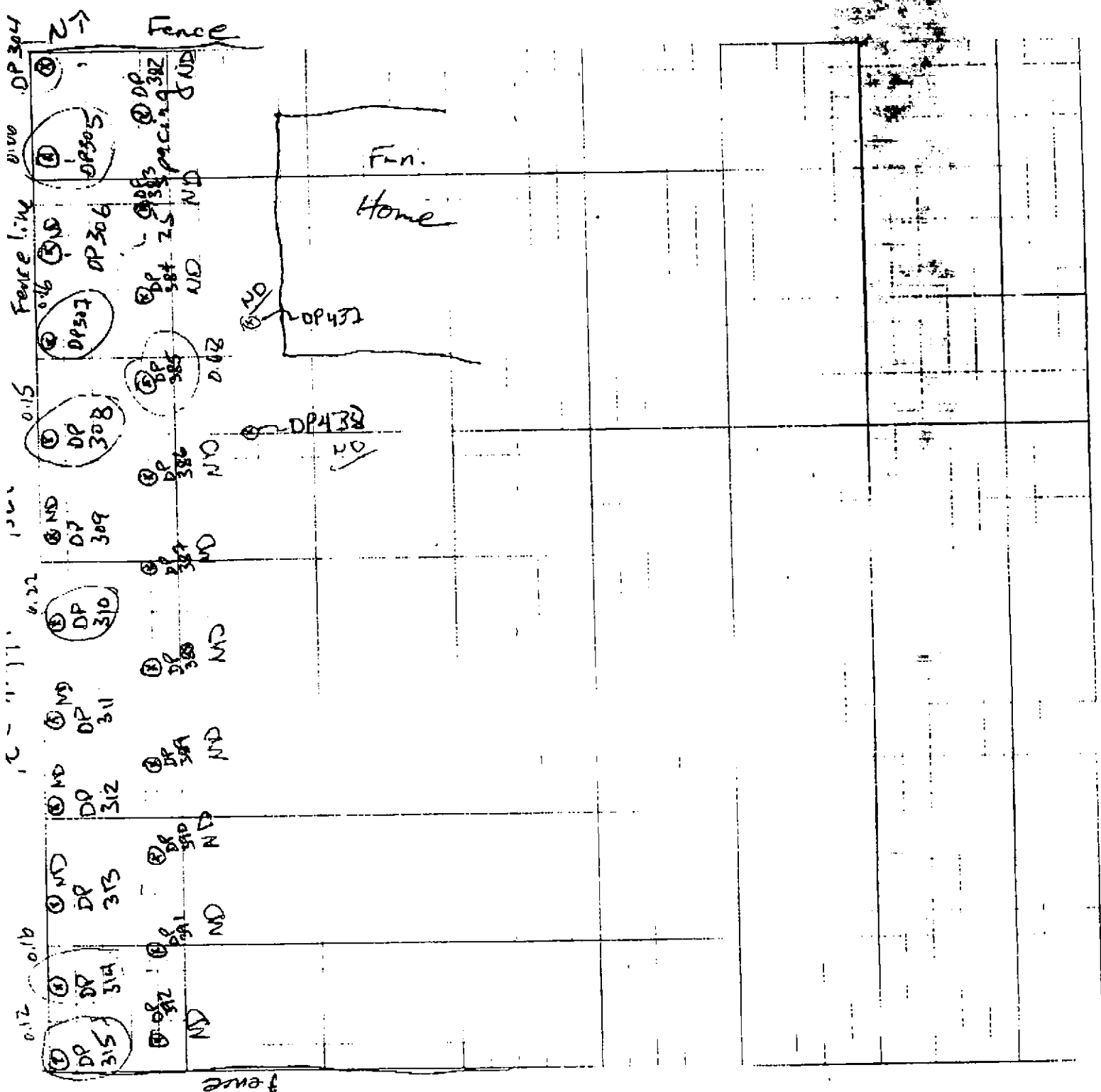
Checked by:

Date:

8-16-2000

Sheet:

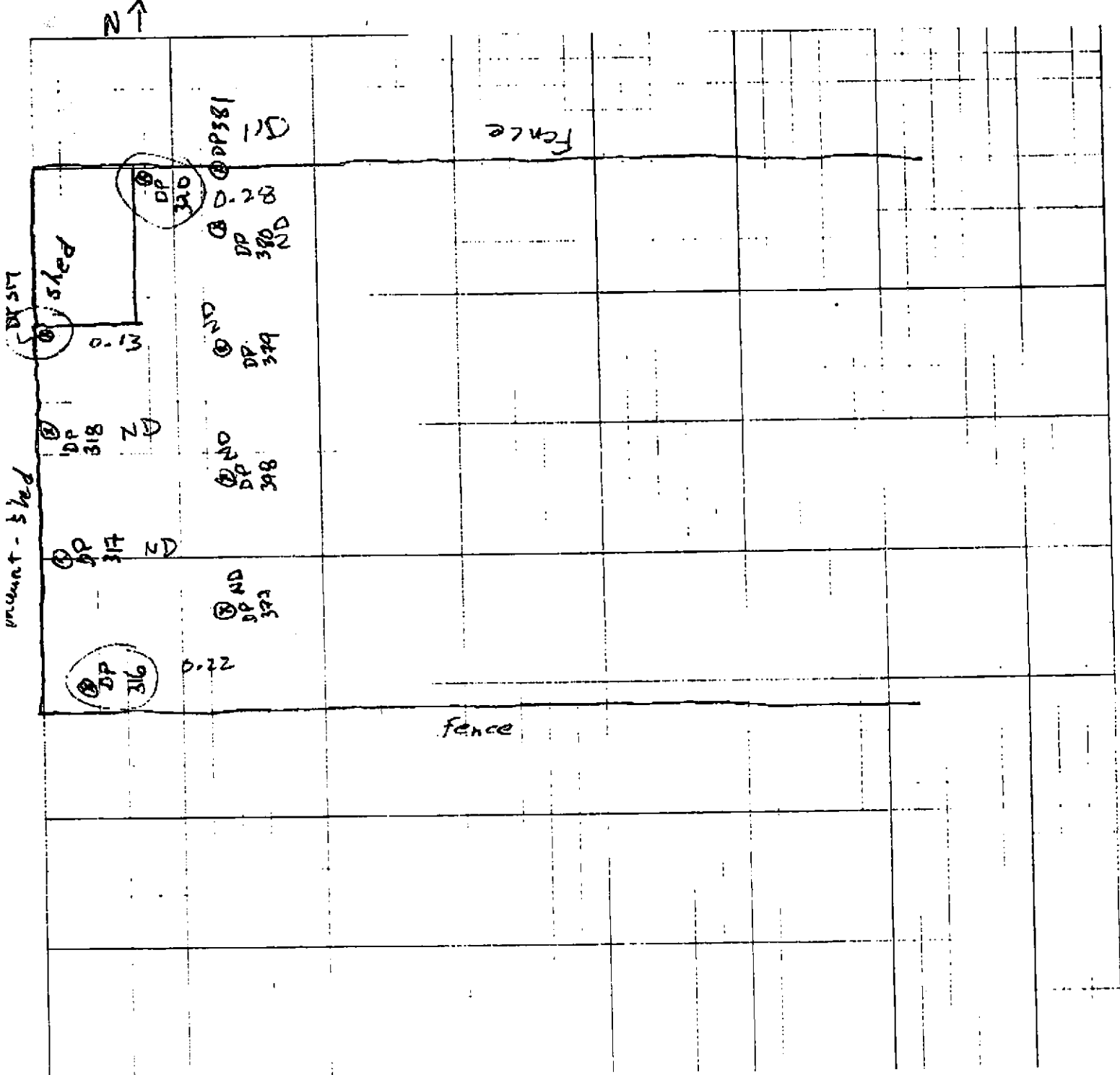
2 of 11





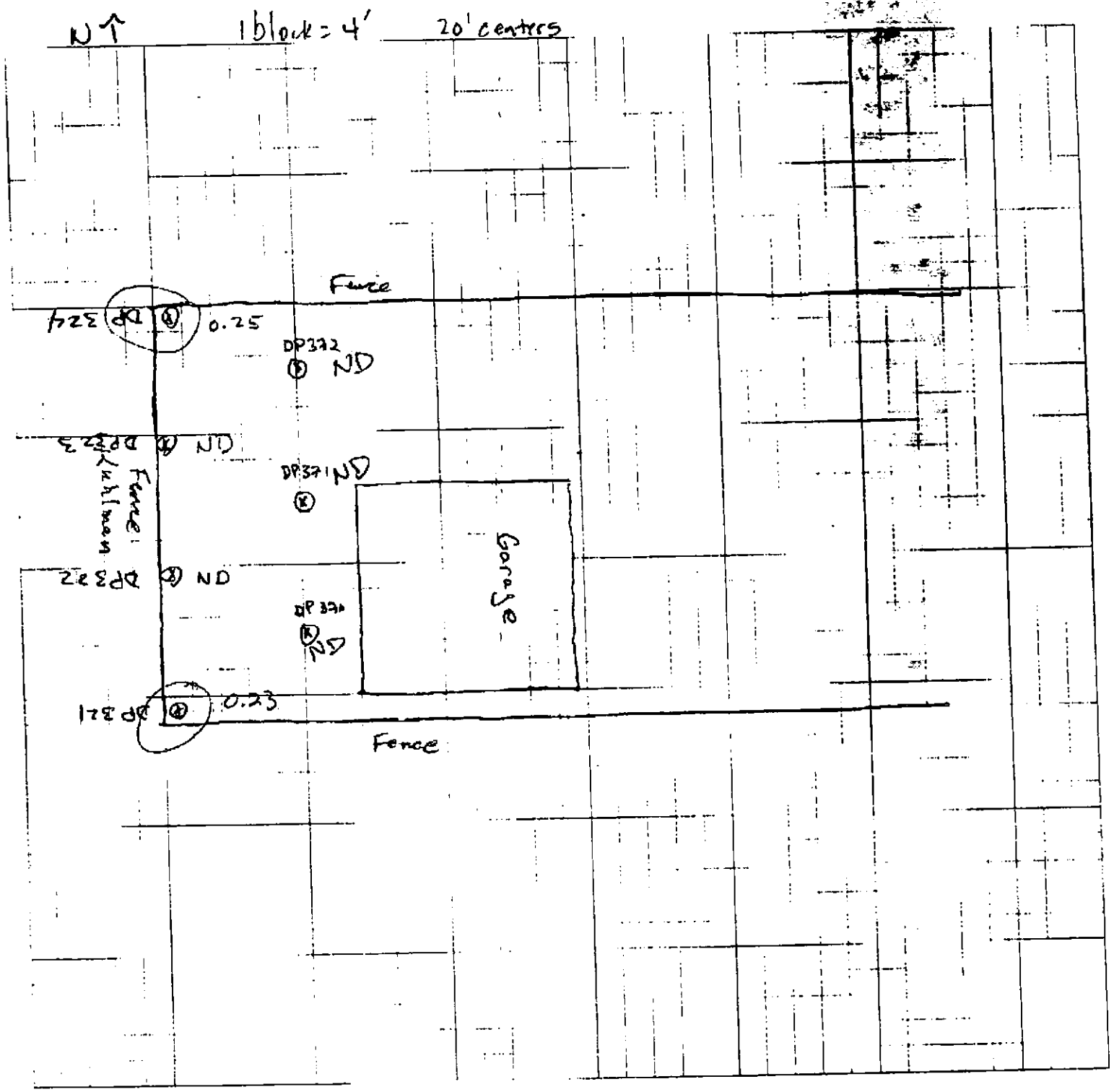
Job Name: Crystal Springs  
Job Number:  
Title: 401 N. Jackson Elnor Wright  
Computed by: \_\_\_\_\_ Checked by:  
Date: 8-16-2000 Sheet: 3 Of: 11

1 block = 4'



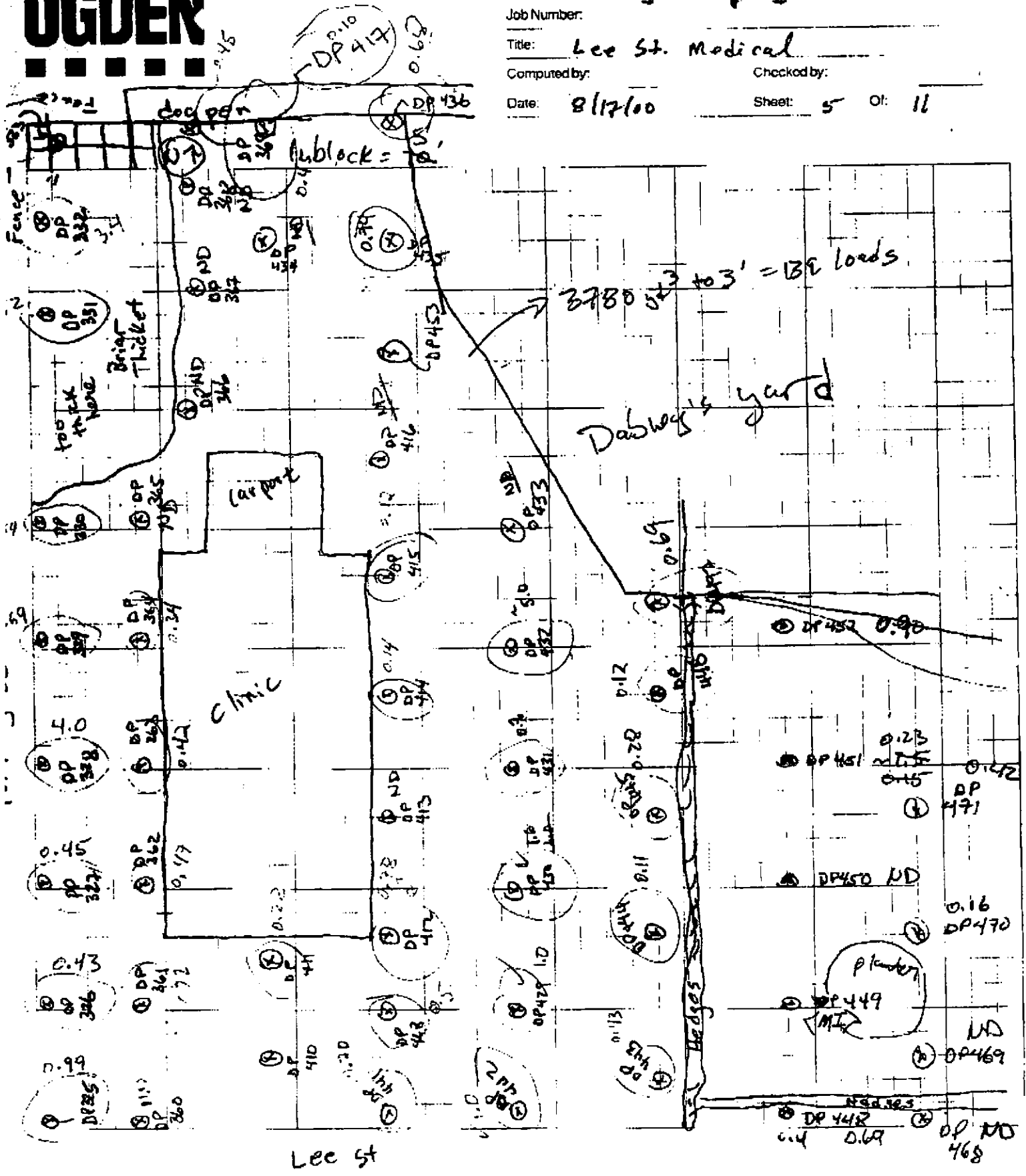


Job Name: Crystal Springs  
Job Number:  
Title: 407 N. Jackson Louis Lang  
Completed by:  
Date: 8-16-00  
Checked by:  
Sheet: 4 of 11



# OGDEN

Job Name: Crystal Springs  
 Job Number: \_\_\_\_\_  
 Title: Lee St. Medical  
 Computed by: \_\_\_\_\_ Checked by: \_\_\_\_\_  
 Date: 8/17/00 Sheet: 5 Of: 11







Job Name:

Crystal Springs

Job Number:

Title:

303 N. Jackson (Storage)

Computed by:

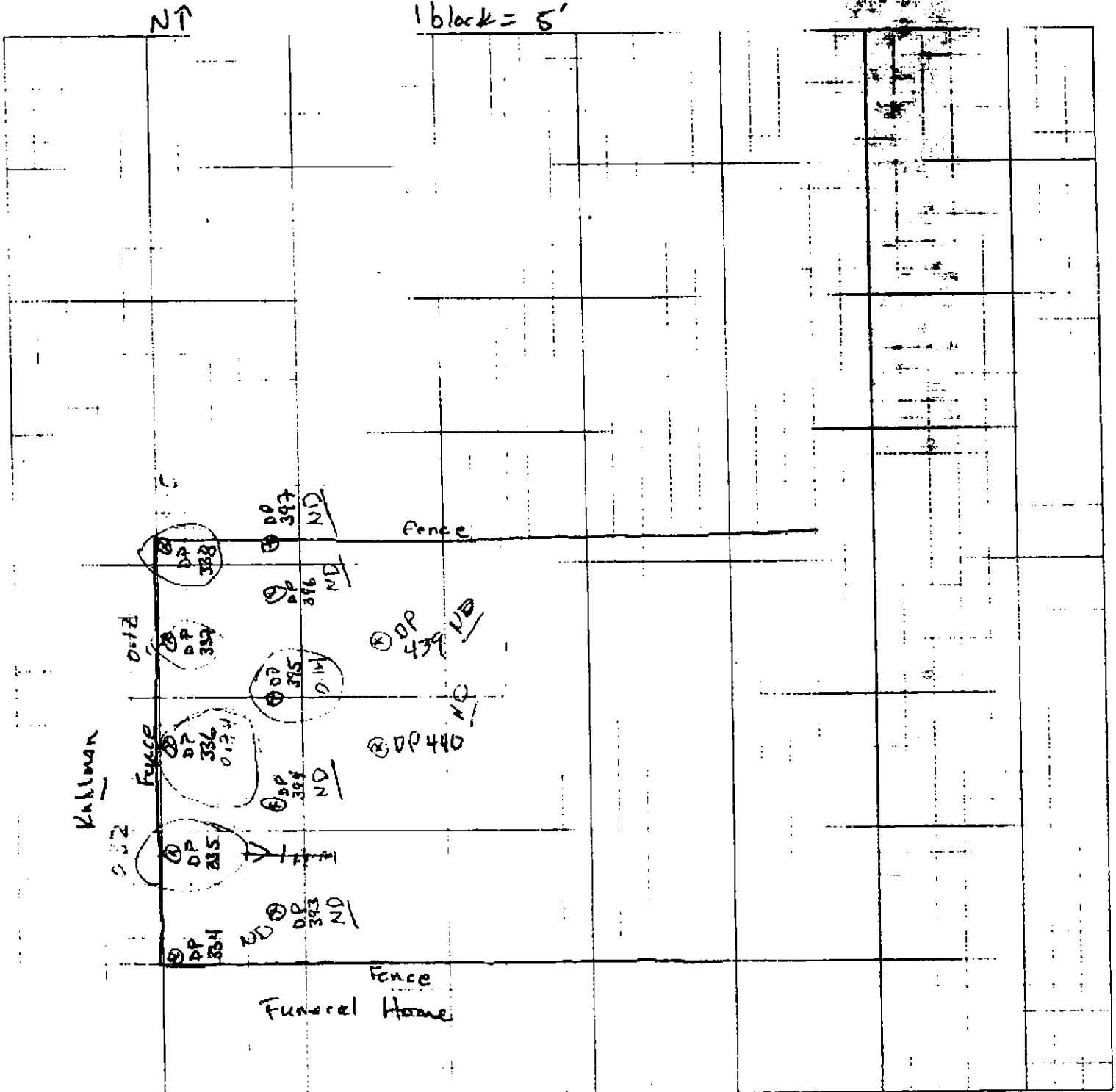
Checked by:

Date:

8-17-00

Sheet:

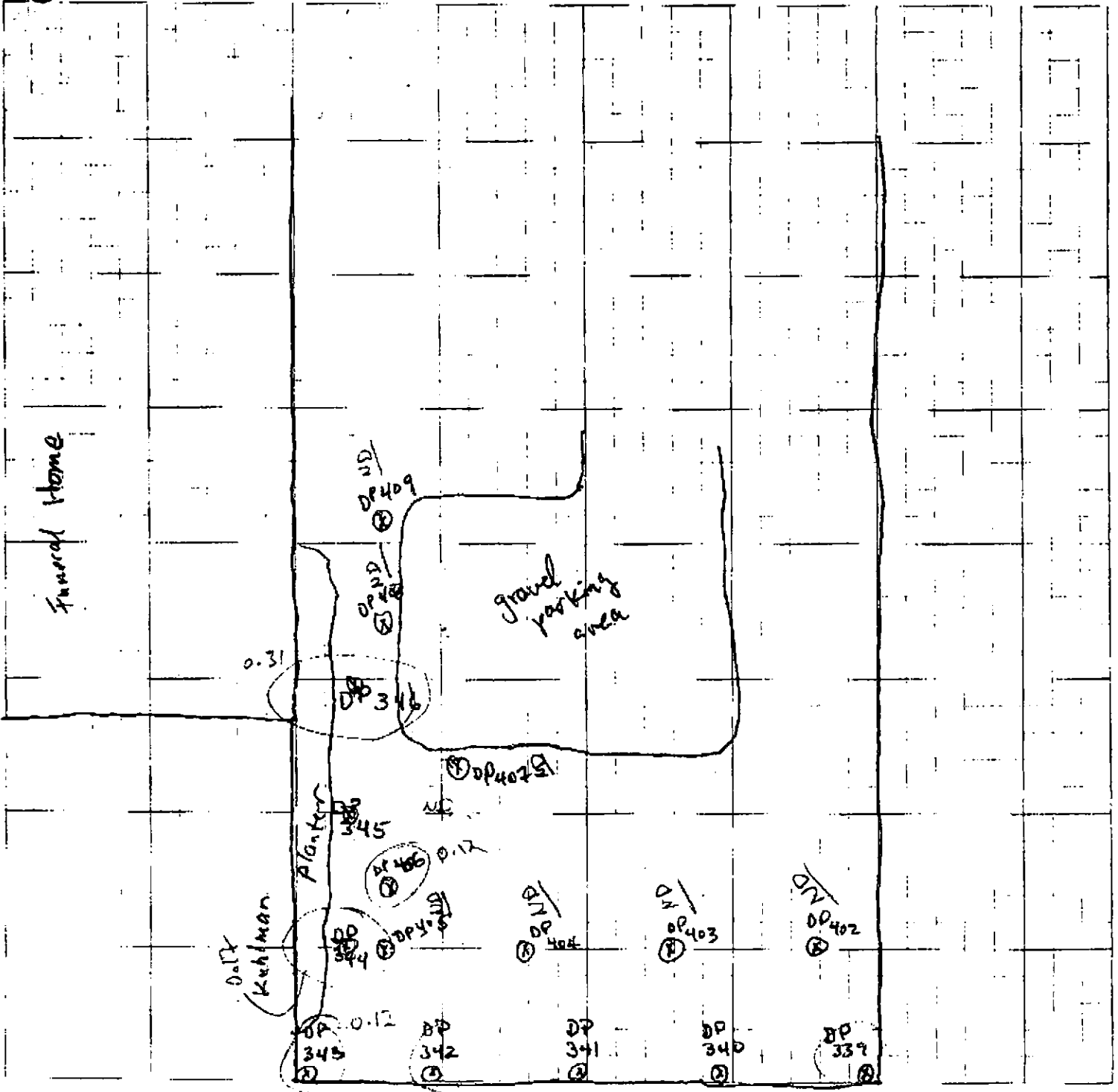
16 of 11





Job Name: Crystal Springs  
Job Number: \_\_\_\_\_  
Title: 219 N-Jackson - Perry Smith  
Computed by: TJF Checked by: \_\_\_\_\_  
Date: 8-17-00 Sheet: 7 Of: 11

1 block = 5'



0.17  
Kuhlman

Plankton

Gravel parking area

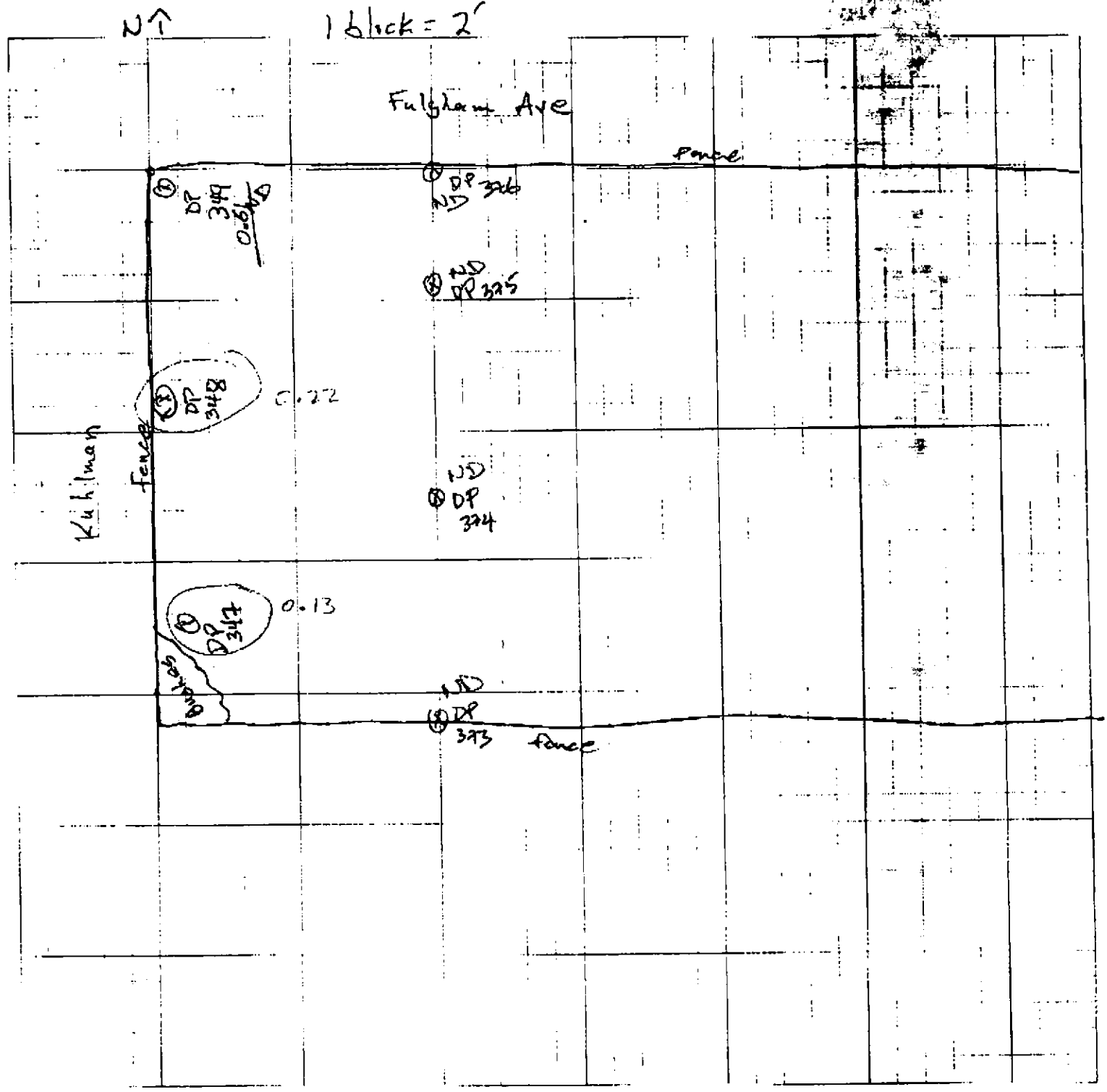
Funeral Home

2

0.00  
Kuhlman



Job Name: Crystal Springs  
Job Number:  
Title: 409 N. Jackson (Amy Cooper)  
Computed by: BF  
Date: 8-17-00  
Checked by:  
Sheet: 8 of 11





Job Name: Crystal Springs

Job Number:

Title: Dabney Home

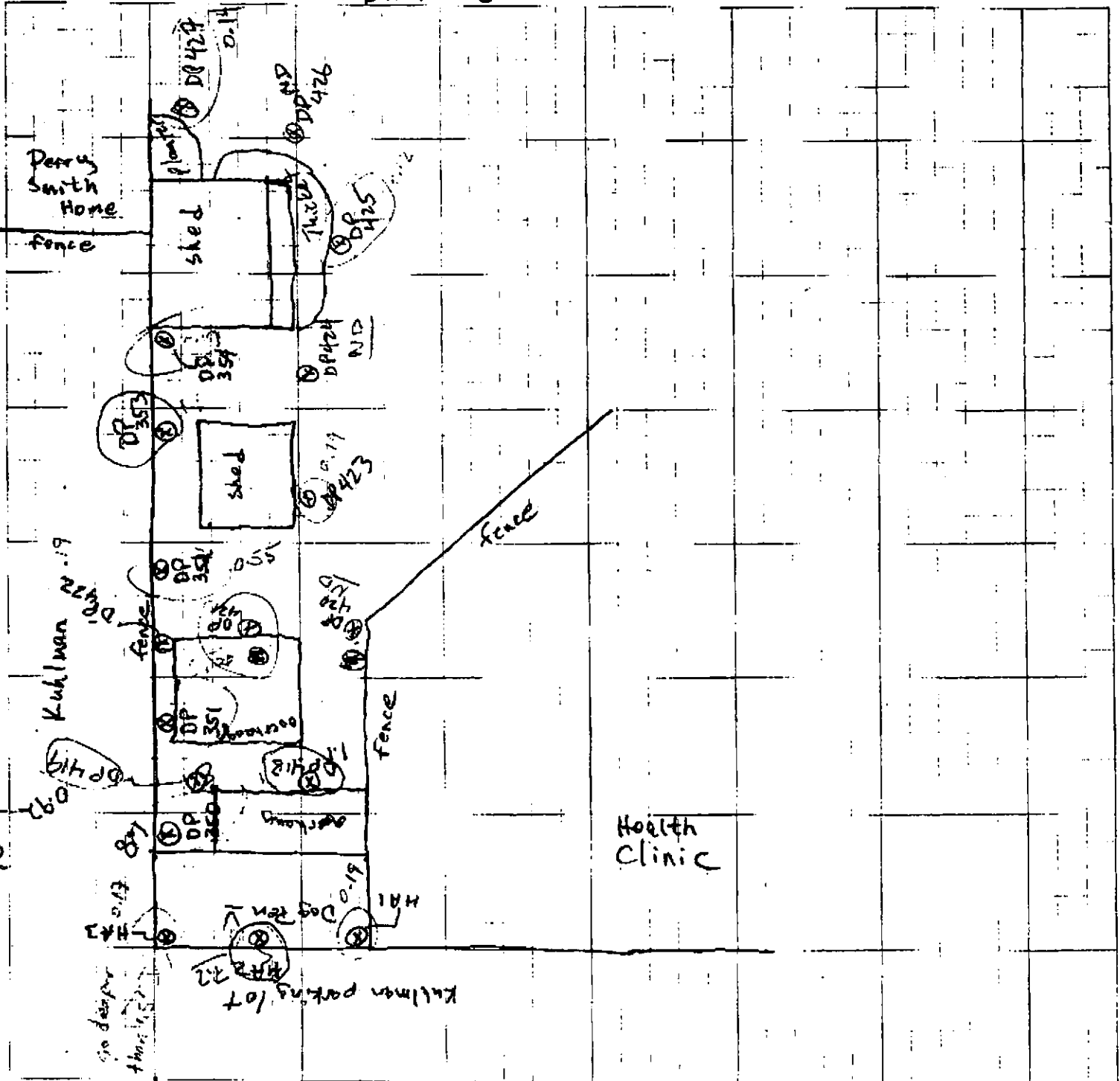
Computed by: TJE

Checked by:

Date: 8-17-00

Sheet: 9 Of: 11

1 block = 5'

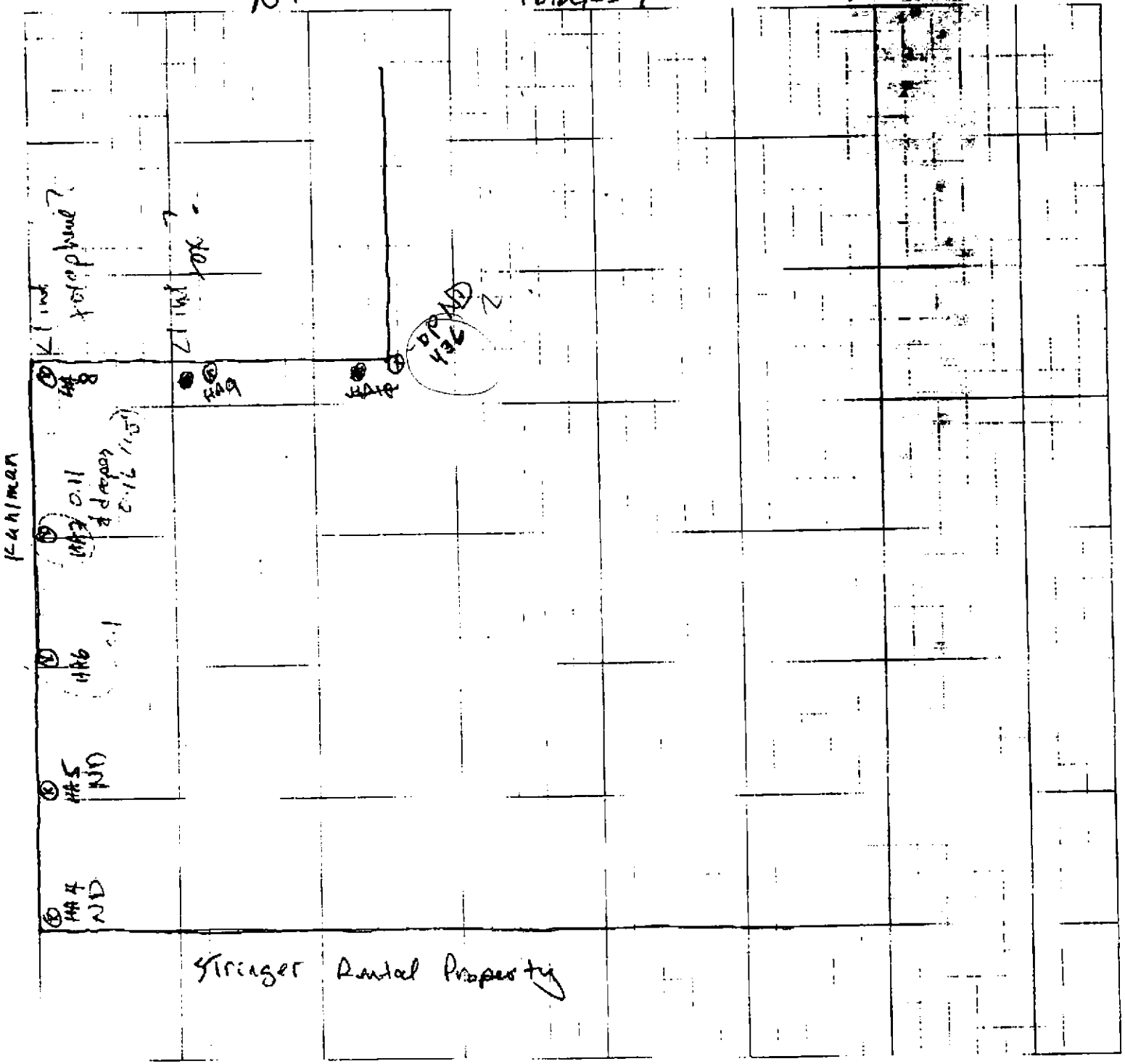




Job Name: Crystal Springs  
Job Number:  
Title: Wright House  
Computed by: Checked by:  
Date: 8-18-00 Shoot: 10/0/11

NT

1 block = 4'



Kuhlman

11 inch  
polyphosph?

11 inch  
polyphosph?

2  
4410  
4410

⑧ #8

⑧ #9

⑧ #10

④ #7  
0.11  
K  
7/12  
K  
2/16 (15)

④ #6

④ #5  
ND

④ #4  
ND

Stringer Rental Property



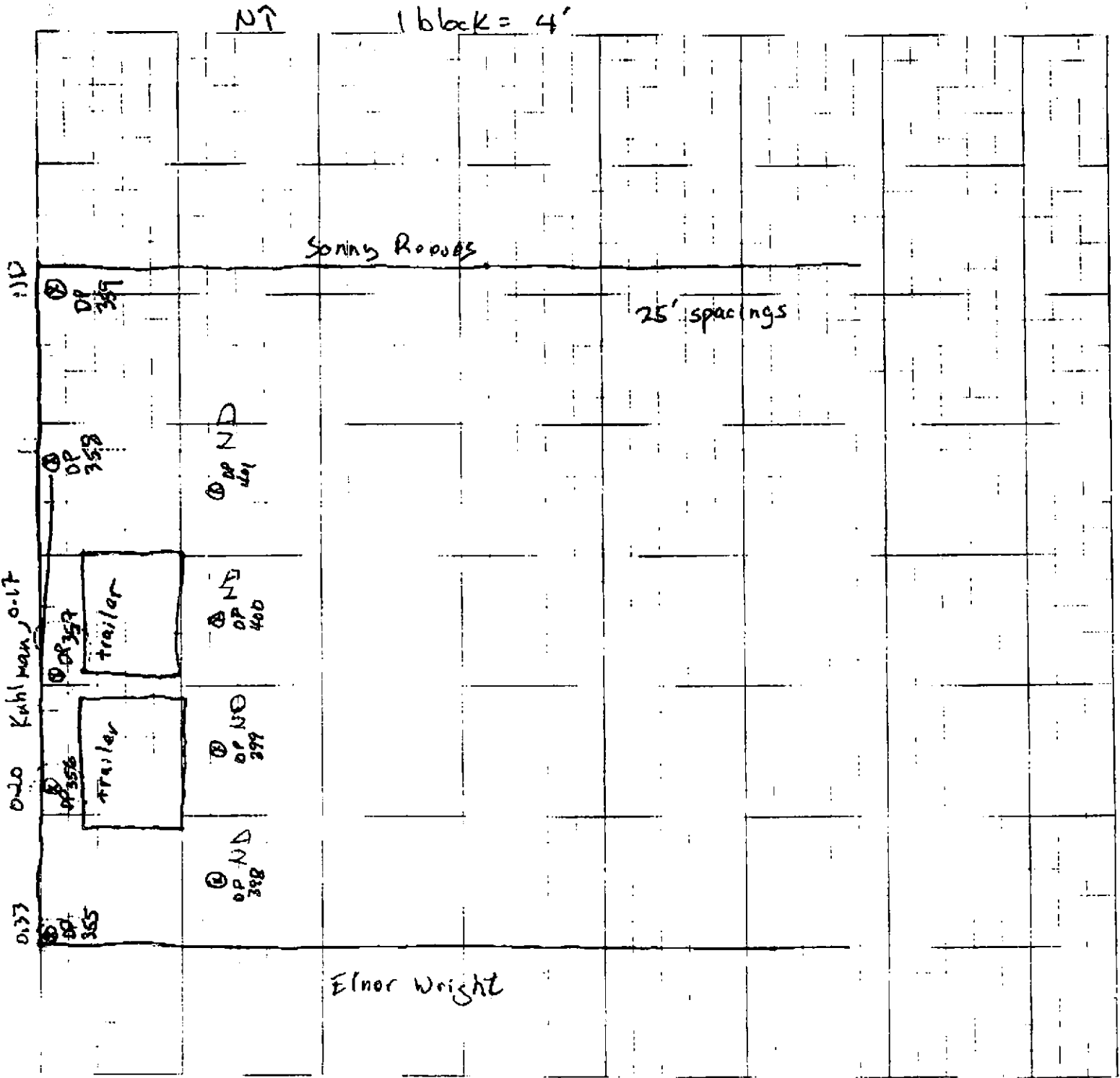
Job Name: Crystal Springs

Job Number:

Title: Harold & Suzanne Warren

Computed by: TBF Checked by:

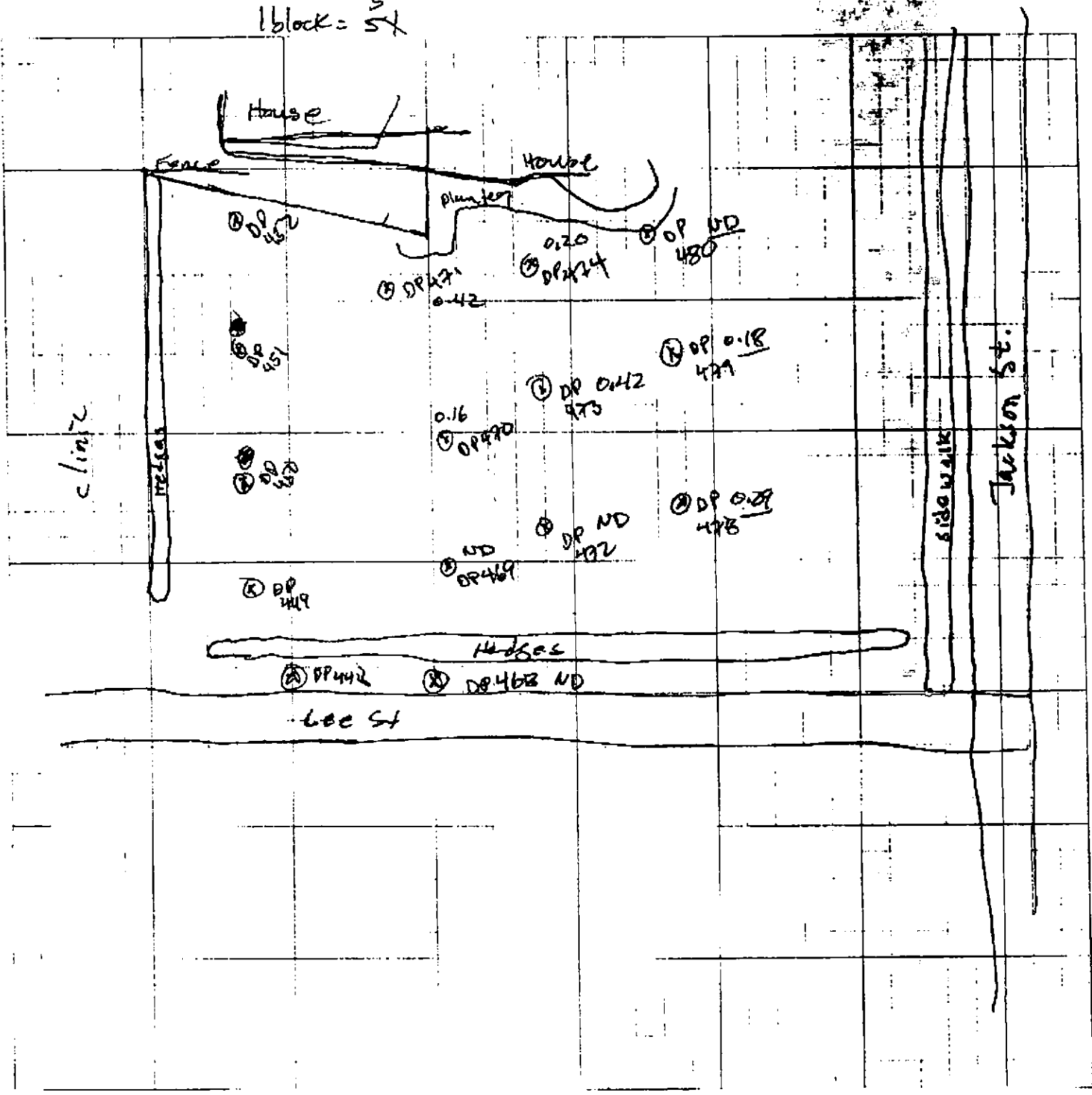
Date: 8-18-00 Sheet: 11 Of: 12





Job Name: \_\_\_\_\_  
 Job Number: \_\_\_\_\_  
 Title: Dabney yard - south side  
 Computed by: \_\_\_\_\_ Checkout by: \_\_\_\_\_  
 Date: 8/23/00 Sheet: 620 of 71

1 block = 5'





Job Name:

Job Number:

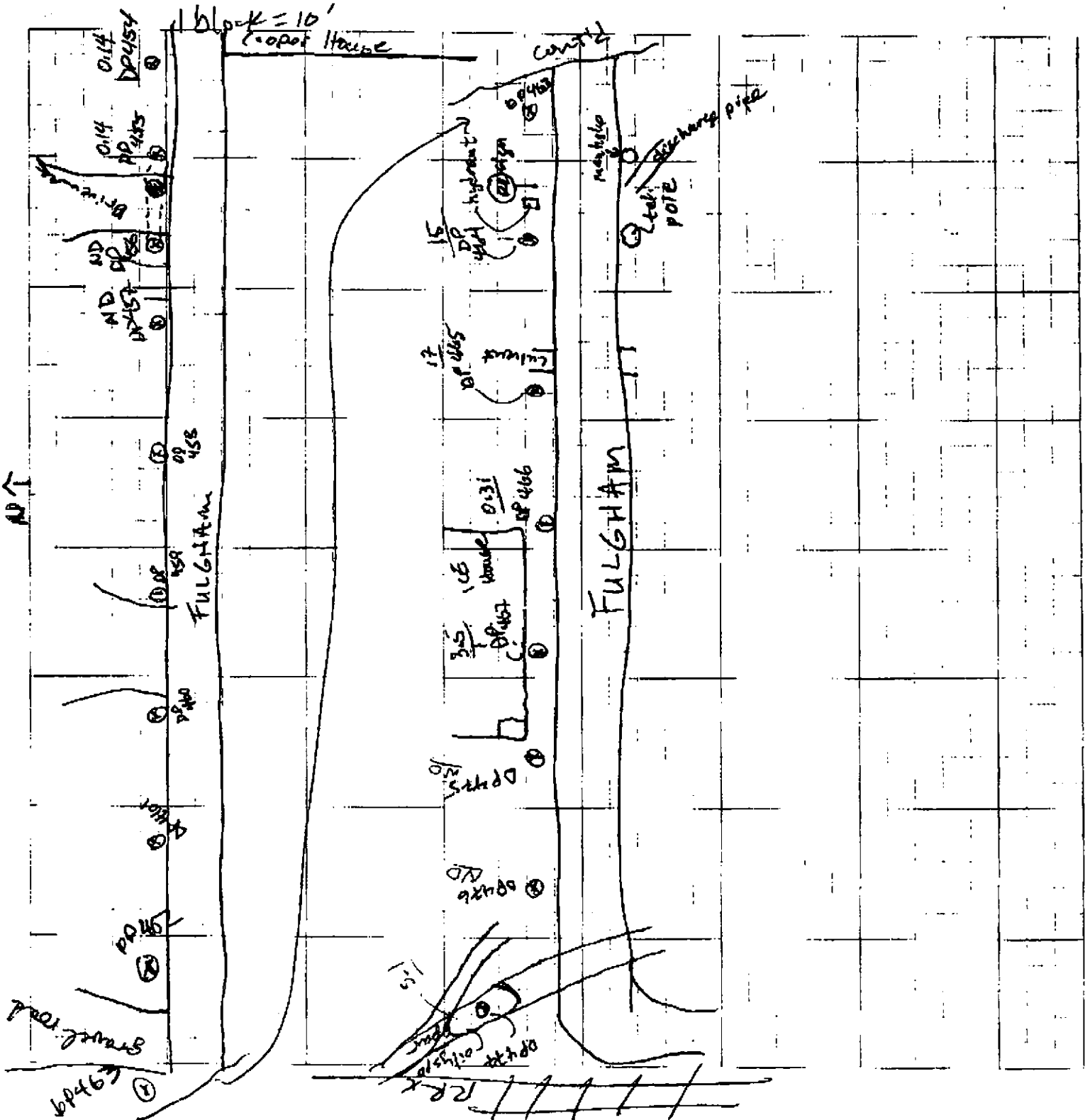
Title: Fulgham Ave

Computed by:

Checked by:

Date:

Sheet: 13 Of:

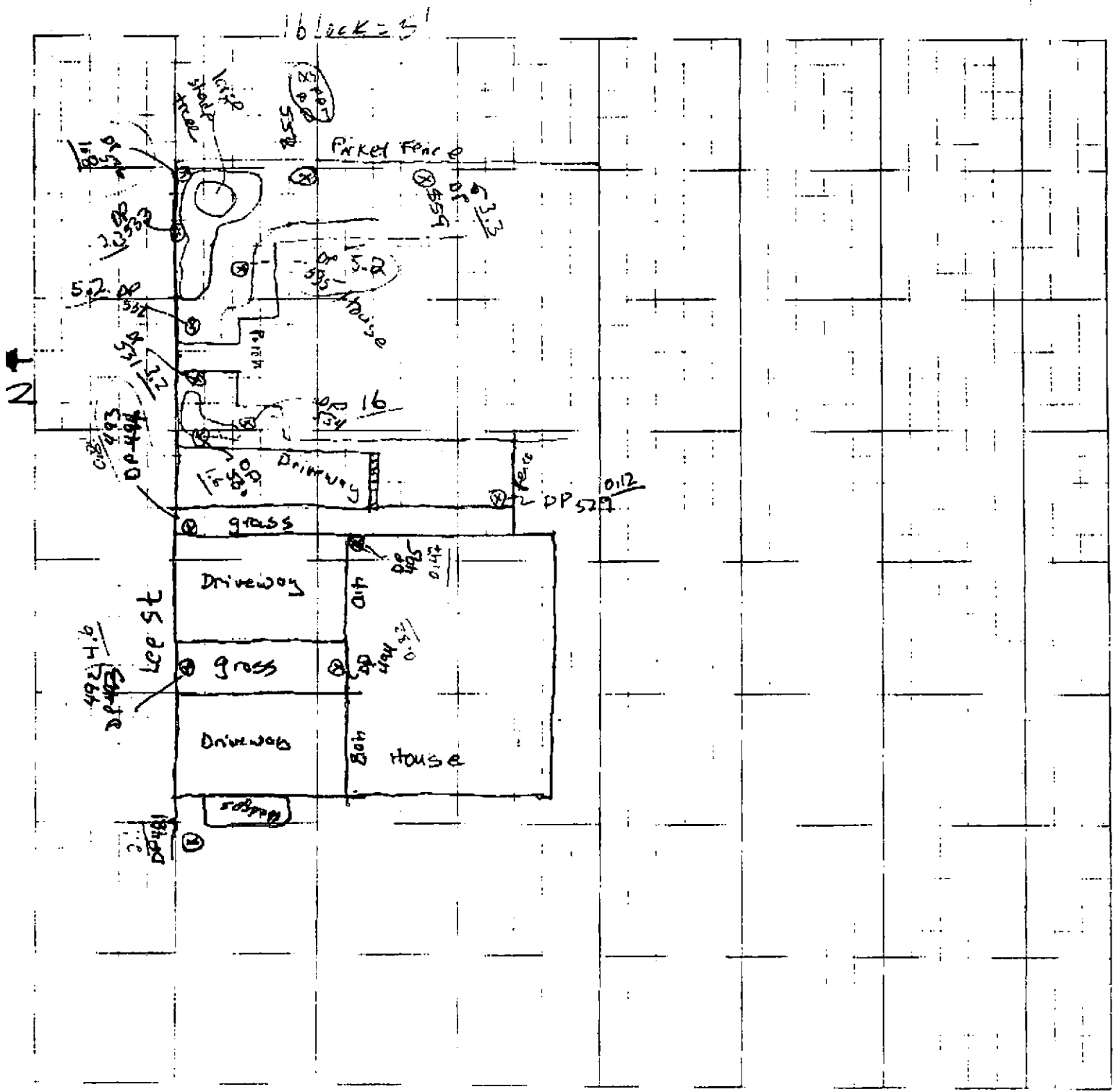








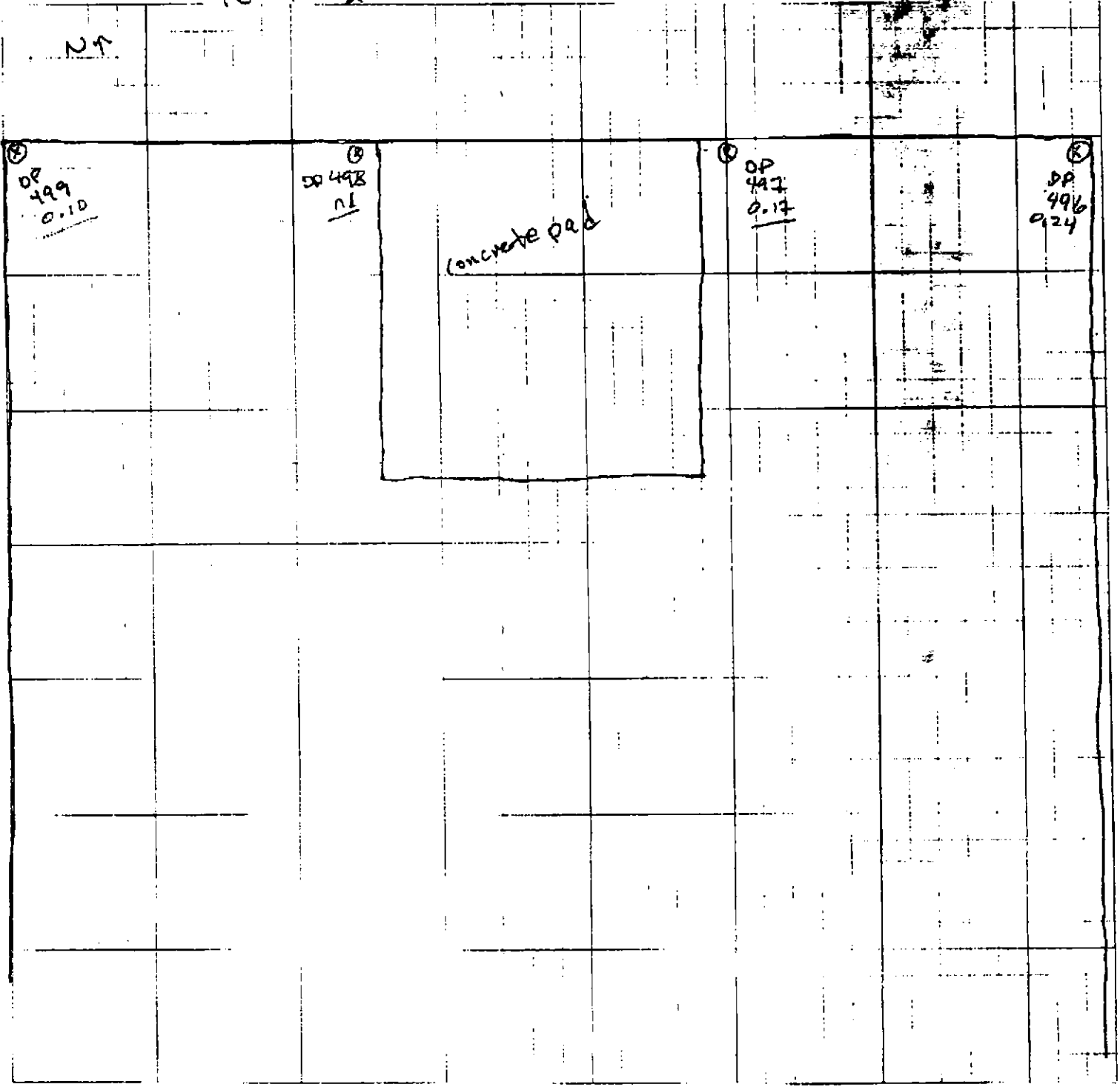
Job Name: \_\_\_\_\_  
 Job Number: \_\_\_\_\_  
 Title: 408/410 Lee St.  
 Computed by: DF Checked by: \_\_\_\_\_  
 Date: 8/24/00 Sheet: 15 Of: \_\_\_\_\_





Job Name:  
Job Number:  
Title: Brent Property Leo St.  
Computed by: T J F  
Date: 8/24/00  
Checked by:  
Sheet: 16 of 17

1 block = 2'





1



Job Name:

Job Number:

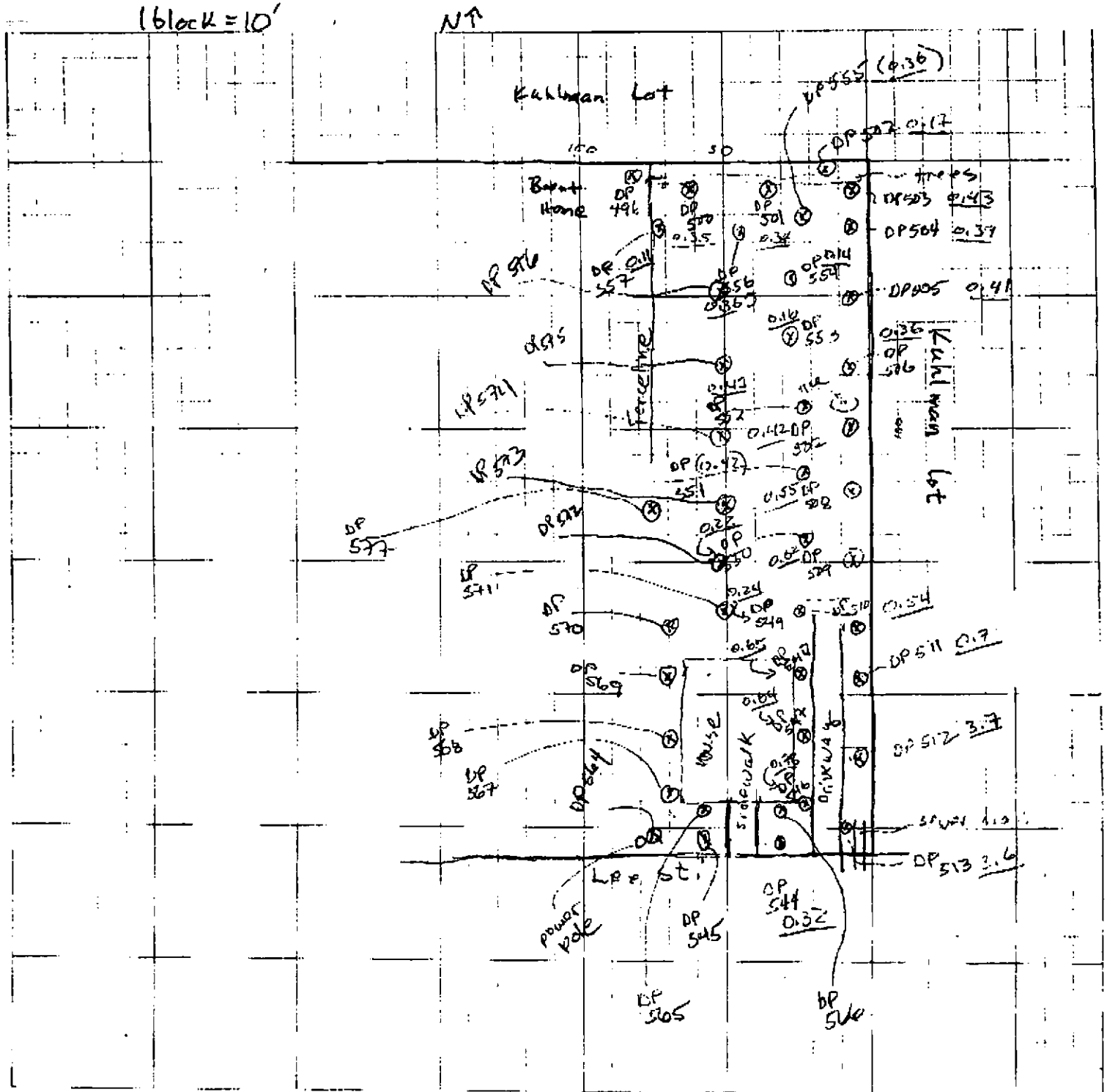
Title: Frazier Property

Computed by: TJF

Checked by:

Date: 8/25/00

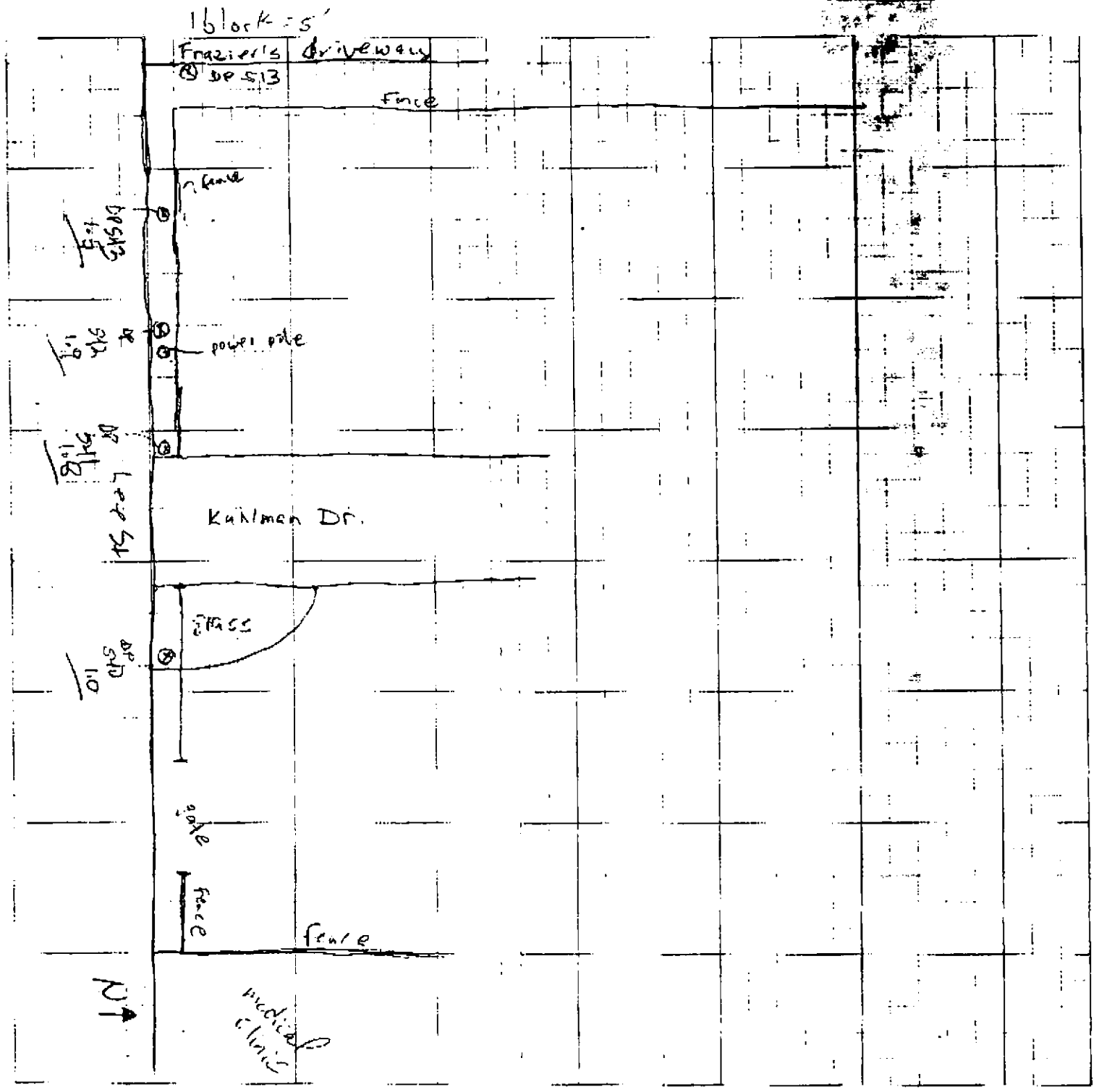
Sheet: 17 Of:





Job Name: \_\_\_\_\_  
 Job Number: \_\_\_\_\_  
 Title: Kuhlman South Parking Lot  
 Computed by: \_\_\_\_\_  
 Date: 8/26/2000

Checked by: \_\_\_\_\_  
 Sheet: 18







Job Name:  
Job Number:  
Title:  
Computed by:  
Date:

FILE COPY

Checked by:  
Sheet # of:

To: Gretchin Zmitrovich

From Tim Fitzpatrick

RE: Crystal Springs

31 pages total

Ms. Zmitrovich:

Following ~~are~~<sup>are</sup> data & maps from our investigation.  
We are complete at this time. Please forward the  
data to Mr. Robert Martin & Ms. Anastasia Hanel  
as well. Thank you

Tim Fitzpatrick

704 236 3496 (cell)



Sample Tracking Form

Date: 15 Aug 02

1-20 1-20 1-20

Target Analyte	1	2	3	Sample Description	Blank #	LCS #	MS #	MSD #
1,3,5-TrCB	1010	1010	1020		101	101	101	101
1,2,4-TrCB						105		
1,2,3-TrCB						102		
1,2,3,5,8,1,2,4,5						104		
1,2,3,4-TeCB						104		
Penta-CB						106		
Hexa-CB						111		
PCB as 1260	1010	1015	1020		1010	106	51	47
Surrogate-TMK	116	114	110		103	109	152	104
DEBP	125	111	120		118	109		142
COPIA, 125								
1254 1254								
MS 1260 125 1260								
125 1215								
UNT Data	15	15	15		15	15	15	15

J = Estimated  
E = Exceeds calibration range





Date: 16 AUG 2000

Sample Tracking Form

Target Analyte	ACID		Sample Description										ACID	
	ACID	MSD	Blank #	LCS #	MS #	MSD #	Blank #	LCS #	MS #	MSD #	Blank #	LCS #	MS #	MSD #
1,3,5-TrCB	320	4	44	104	150	147	104	104	147	145	143	104	104	147
1,2,4-TrCB	321	0.5	46	104	104	145	104	104	147	145	143	104	104	147
1,2,3-TrCB	321	0.5	47	104	104	145	104	104	147	145	143	104	104	147
1,2,3,5&1,2,4,5	321	2	48	104	104	145	104	104	147	145	143	104	104	147
1,2,3,4-TeCB	321	4	48	104	104	145	104	104	147	145	143	104	104	147
Penta-CB	321	4	48	104	104	145	104	104	147	145	143	104	104	147
Hexa-CB	321	4	48	104	104	145	104	104	147	145	143	104	104	147
PCB as 1260	0.28	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
Surrogate TCMX	144	112	134	107	103	105	106	104	99.6	107				
DIBP	155	117	137	111	105	110	116	109	113	104	107			
			OT				TOPE	1260						
			PEAK											
			BY											
			PHASE											
	17	17	17	17	17	17	17	17	17	17	17	17	17	17

J = Estimated  
E = Exceeds calibration range

AUG 05 00



Sample Tracking Form

Date: August 11, 2000

Target Analyte	MSD		MS		LCS		Blank		Sample Description																		
	#	MSD	#	MS	#	MS	#	MS	344	344	343	343	342	342	341	341	340	340	339	338	338	337	337	336	336	335	335
1,3,5-TrCB	75	146	10	148	10	148	10	148	344	344	343	343	342	342	341	341	340	340	339	338	338	337	336	336	335	335	335
1,2,4-TrCB		146		148		148		148																			
1,2,3-TrCB		145		146		146		146																			
1,2,3,5&1,2,4,5		143		144		144		144																			
1,2,3,4-TeCB		144		146		146		146																			
Penta-CB		142		144		144		144																			
Hexa-CB		139		139		139		139																			
PCB as 1260	0.32	134		134		134		134																			
Surrogate TECA	128	140		140		140		140																			
DCBP	142	158		158		158		158																			

J = Estimated  
E = Exceeds calibration range

Sample Tracking Form

Date: 17 AUG 80

Target Analyte	ACID										Sample Description	Blank #	LCS #	MS #	MSD #		
	345	346	347	348	349	349	349	349	349	349							
1,3,5-TrCB	345 0.5 95	346 0.5 97	347 0.5 99	348 0.5 101	349 0.5 102	349 0.5 103	349 0.5 104	349 0.5 105	349 0.5 106	349 0.5 107	349 0.5 108	349 0.5 109	349 0.5 110	349 0.5 111	349 0.5 112	349 0.5 113	349 0.5 114
1,2,4-TrCB																	
1,2,3-TrCB																	
1,2,3,5&1,2,4,5																	
1,2,3,4-TeCB																	
Penta-CB																	
Hexa-CB																	
PCB as 1260																	
Surrogate TCM	106 97.2	98.0 97.3	98.7 97.6	99.5 98.5	101 99.5	102 98.1	103 96.7	104 95.1	105 93.5	106 91.9	107 90.3	108 88.7	109 87.1	110 85.5	111 83.9	112 82.3	113 80.7
DGBP	108 108	112 100	117 107	124 104	131 101	138 98	145 95	152 92	159 89	166 86	173 83	180 80	187 77	194 74	201 71	208 68	215 65

18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18

17

J = Estimated  
E = Exceeds calibration range







# Sample Tracking Form

Date: 18 Aug 00

SENT BY: KUHLMAN ELECTRIC CORPORATION

601 8926496

601 8926496;

AUG-20 10:13AM;

PAGE 11

Target Analyte	AC10		AC10		AC10		AC10		AC10		AC10		AC10		AC10		AC10		AC10		AC10		AC10		AC10		AC10		AC10		AC10		AC10		AC10						
	QTY	WT	QTY	WT	QTY	WT	QTY	WT	QTY	WT	QTY	WT	QTY	WT	QTY	WT	QTY	WT	QTY	WT	QTY	WT	QTY	WT	QTY	WT	QTY	WT	QTY	WT	QTY	WT	QTY	WT	QTY	WT					
1,3,5-TrCB	47	4001	48	4001	49	4001	50	4001	51	4001	52	4001	53	4001	54	4001	55	4001	56	4001	57	4001	58	4001	59	4001	60	4001	61	4001	62	4001	63	4001	64	4001	65	4001			
1,2,4-TrCB																																									
1,2,3-TrCB																																									
1,2,3,5,8,1,2,4,5																																									
1,2,3,4-TeCB																																									
Penta-CB																																									
Hexa-CB																																									
PCB as 1280	42	4001	43	4001	44	4001	45	4001	46	4001	47	4001	48	4001	49	4001	50	4001	51	4001	52	4001	53	4001	54	4001	55	4001	56	4001	57	4001	58	4001	59	4001	60	4001	61	4001	
Surrogate TCMY	112	9266	113	9266	114	9266	115	9266	116	9266	117	9266	118	9266	119	9266	120	9266	121	9266	122	9266	123	9266	124	9266	125	9266	126	9266	127	9266	128	9266	129	9266	130	9266	131	9266	
Surrogate DMBP	129	999	130	999	131	999	132	999	133	999	134	999	135	999	136	999	137	999	138	999	139	999	140	999	141	999	142	999	143	999	144	999	145	999	146	999	147	999	148	999	

J = Estimated  
E = Exceeds calibration range

Sample Tracking Form

Date: 18 Aug 00

Target Analyte	400		400		400		400		400		400		400		400		400		Blank #	LCS #	MS #	MSD #
	373	374	374	375	375	376	377	378	378	379	379	380	380	381	381	381	381	381				
1,3,5-TrCB	107	108	109	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	4001	91	87	88
1,2,4-TrCB																			4001	90	86	86
1,2,3-TrCB																			4001	89	86	86
1,2,3,5,8,1,2,4,5																			4001	196	188	165
1,2,3,4-TeCB																			4001	88	80	80
Penta-CB																			4001	79	76	76
Hexa-CB																			4001	79	77	77
PCB as 1260	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	4001	207	84	88	
Surrogate TNC	82	113	117	110	112	117	117	117	117	117	117	117	117	117	117	117	117	117	91	82	79	80
DUR	99	124	133	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	111	101	97	93

J = Estimated  
E = Exceeds calibration range

Sample Tracking Form

Date: 19AUG00

Target Analyte	Acid										Acid											
	382	382	383	384	384	385	386	387	388	388	389	389	390	390	391	391	Blank	LCS	MS #	MSD #		
1,3,5-TrCB	0.5	185	187	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	#12	#12	99
1,2,4-TrCB	0.5	186	187	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	#12	#12	99
1,2,3-TrCB	0.5	186	187	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	#12	#12	99
1,2,3,5,8,1,2,4,5	0.5	186	187	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	#12	#12	99
1,2,3,4-TeCB	0.5	186	187	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	#12	#12	99
Hexa-CB	0.5	186	187	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	#12	#12	99
PCB as 1260	0.5	186	187	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	#12	#12	99
Surrogate Comp	0.5	133	139	136	136	140	146	139	138	138	138	138	138	137	137	137	137	137	137	137	137	137
OCBP	0.5	111	126	115	115	117	122	122	111	111	111	111	111	122	122	122	122	122	122	122	122	122
DI	0.5	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126
PEAK	0.5	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126
START OF	0.5	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126
TRACE	0.5	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126
DI	0.5	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126
DI	0.5	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126
DI	0.5	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126
DI	0.5	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126
DI	0.5	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126
DI	0.5	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126
DI	0.5	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126
DI	0.5	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126
DI	0.5	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126
DI	0.5	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126

J = Estimated  
E = Exceeds calibration range



# Sample Tracking Form

Date: 19 Aug 20

SENT BY: KUHLMAN ELECTRIC CORPORA

601 8926496

601 8926496;

AUG- 10:14AM;

PAGE 15/31

Target Analyte	Sample Description		9(10)																					
	402 0.5	403 0.5	403 0.5	404 0.5	405 0.5	405 0.5	406 0.5	406 0.5	407 0.5	407 0.5	408 0.5	408 0.5	409 0.5	409 0.5	410 0.5	410 0.5	410 0.5	411 0.5	411 0.5	411 0.5	Blank #	LCS #	MS #	MSC #
1,3,5-TrCB	225	227	228	229	230	231	232	233	234	235	286	237	238	239	240	241	242	243	244	401	41	14	225	225
1,2,4-TrCB	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	928	929	929
1,2,3-TrCB	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	928	912	912
1,2,3,5&1,2,4,5	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	928	915	915
1,2,3,4-TeCB	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	922	183	183
Penta-CB	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	922	183	183
Hexa-CB	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	922	183	183
PCB as 1280	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401
Surrogate TCB	937	937	937	940	938	938	938	938	943	949	922	922	956	956	923	923	923	123	938	929	929	921	896	895
DDEP	947	947	947	935	930	930	930	930	981	981	982	982	914	914	912	912	912	119	955	929	929	924	924	892
INS	19	19	19	19	19	19	19	19	20	19	19	19	20	20	19	19	19	19	20	20	20	20	19	19

J = Estimated  
E = Exceeds calibration range

Sample Tracking Form

Date: 19 Aug 00

Target Analyte	Sample Description																							
	412 0.5	412 4	413 0.5	413 4	414 0.5	414 4	415 0.5	415 4	416 0.5	416 4	417 0.5	417 4	418 0.5	419 0.5	419 4	420 0.5	420 4	421 0.5	421 4	Blank #	LCS #	MS #	MSD #	
1,3,5-TrCB	246	240	247	248	249	250	251	252	253	254	255	256	258	259	260	261	262	263	264	264	15	15	249	249
1,2,4-TrCB																								
1,2,3-TrCB																								
1,2,3,5&1,2,4,5																								
1,2,3,4-TeCB																								
Penta-CB																								
Hexa-CB																								
PCB as 1260	0.78	0.44	0.10	0.11	0.11	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10				
Surrogate TCM 126	823	92.1	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931				
DCBP III	915	72.7	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828				

J = Estimated  
E = Exceeds calibration range

Sample Tracking Form

Date: 19 Aug 00

ACID

Target Analyte	Sample Description										
	422 0.5	422 266	423 4	423 268	423 4	424 424	424 4	425 4	425 4	426 4	427 4
1,3,5-TrCB	265	266	267	268	269	270	271	272	273	274	275
1,2,4-TrCB	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
1,2,3-TrCB											
1,2,3,5,1,2,4,5											
1,2,3,4-TeCB											
Penta-CB											
Hexa-CB											
PCB as 1260	0.19	0.19	0.19	0.19	0.19	0.19	0.12	0.10	0.10	0.10	0.10
Surrogate TCMX	119	70.3	115	75.0	88.6		84.2	75.6	88.7	80.4	75.7
DDEP	15	81.9	119	86.1	85.2		83.3	79.7	88.6	94.1	85.1
Blank #											
LCS #											
MS #											
M #											

see Appendix  
R2005

1.15 Data

J = Estimated  
E = Exceeds calibration range





Sample Tracking Form

Date: 20 Aug 00

↓ ↓ ↓  
TOX Test TOX

Target Analyte	Acid		Acid		Acid		Acid		Acid		Acid		MS #	MSD #																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
	HA	HA	HA	HA	HA	HA	HA	HA	HA	HA	HA	HA																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
1,3,5-TrCB	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000

2. Large US Probe one by HCB one by TOX

J = Estimated  
E = Exceeds calibration range

Sample Tracking Form

Date: 20 Aug 00

Target Analyte	MS #	LCS #	Blank #	MS #	MSC #	Sample Description
1,3,5-TrCB	446	446	447	447	447	<p><i>NO LCS/MS/MSD</i></p> <p><i>Blank</i></p>
1,2,4-TrCB	C.S	4	0.5	4	4	
1,2,3-TrCB	317	318	319	320	321	
1,2,3,5,8,1,2,4,5	<0.01		<0.01			
1,2,3,4-TeCB						
Penta-CB						
Hexa-CB						
FCB as 1260	0.12		0.12			
Surrogate TCDFX	112		10%			
PCBD	112		98.1			
1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100						

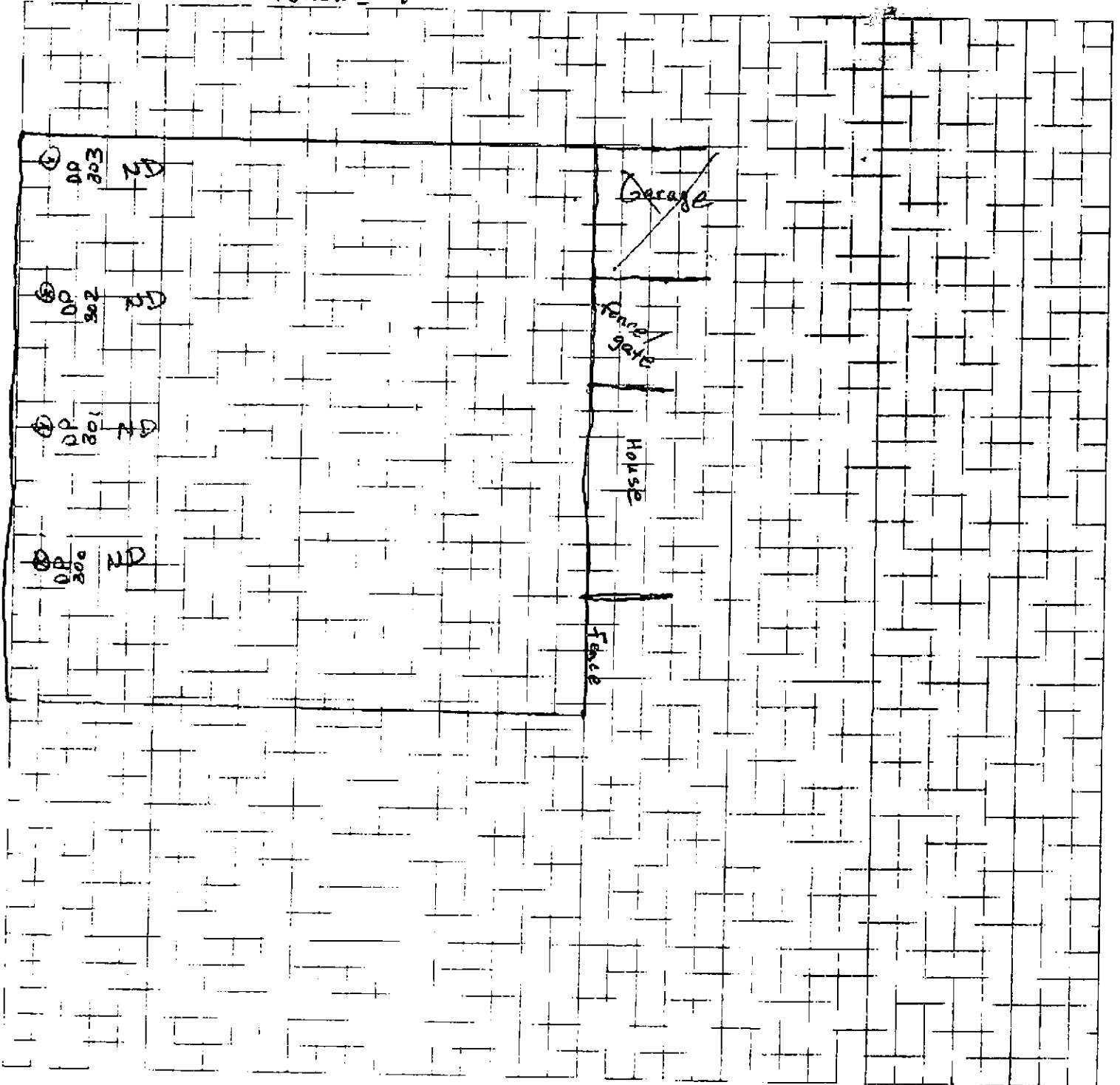
J = Estimated  
E = Exceeds calibration range



Job Name: Crystal Springs  
 Job Number: \_\_\_\_\_  
 Title: Sony Reeves backyard 405 Jackson  
 Computed by: \_\_\_\_\_ Checked by: \_\_\_\_\_  
 Date: 2/16/2000 Sheet 1 of 11

N ↑

1 block = 4'

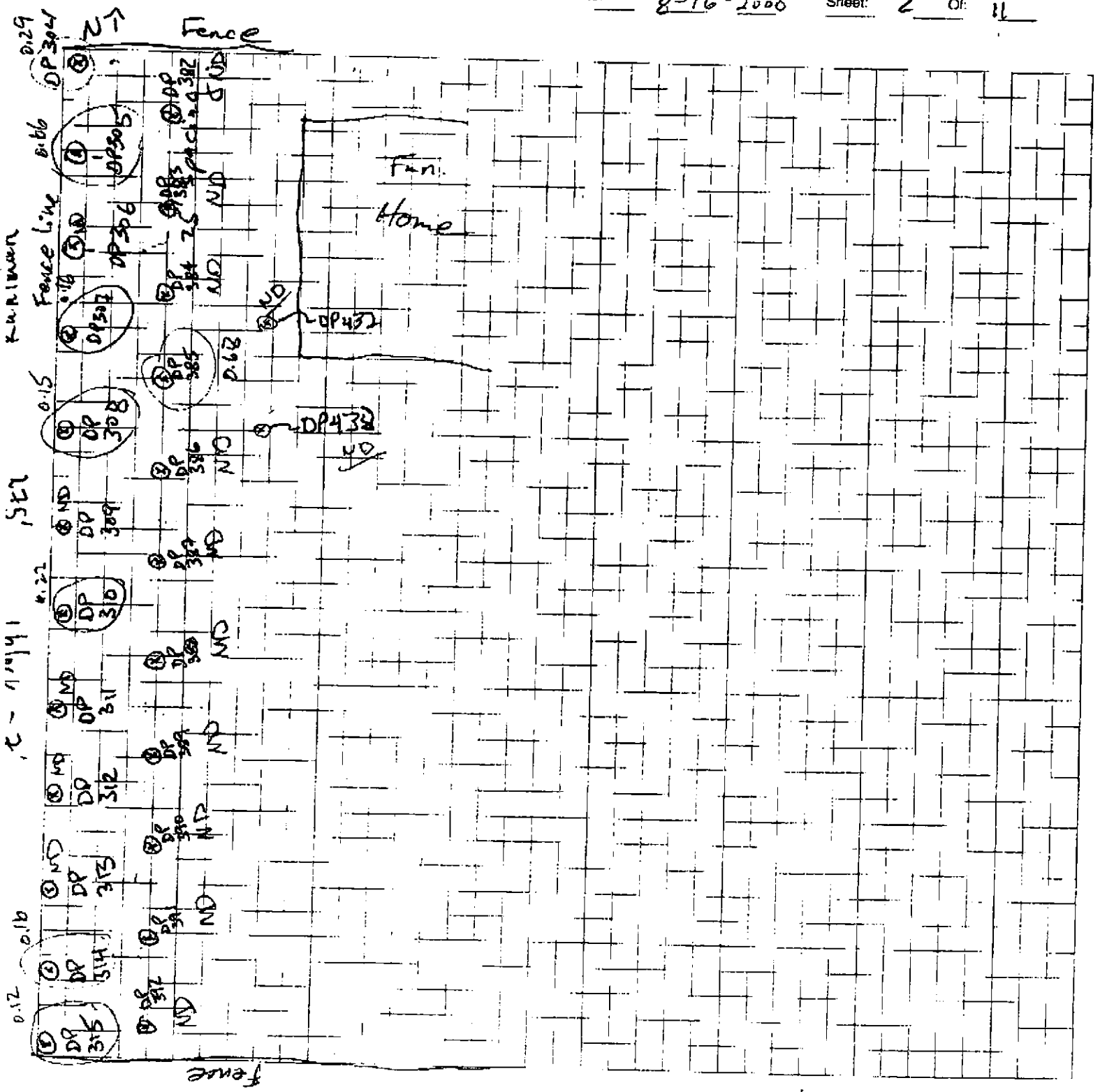


Kuhlman



DP 280  
200  
7

Job Name: Crystal Springs  
Job Number: \_\_\_\_\_  
Title: Stringer Funeral Home  
Computed by: \_\_\_\_\_ Checked by: \_\_\_\_\_  
Date: 8-16-2000 Sheet: 2 Of: 11

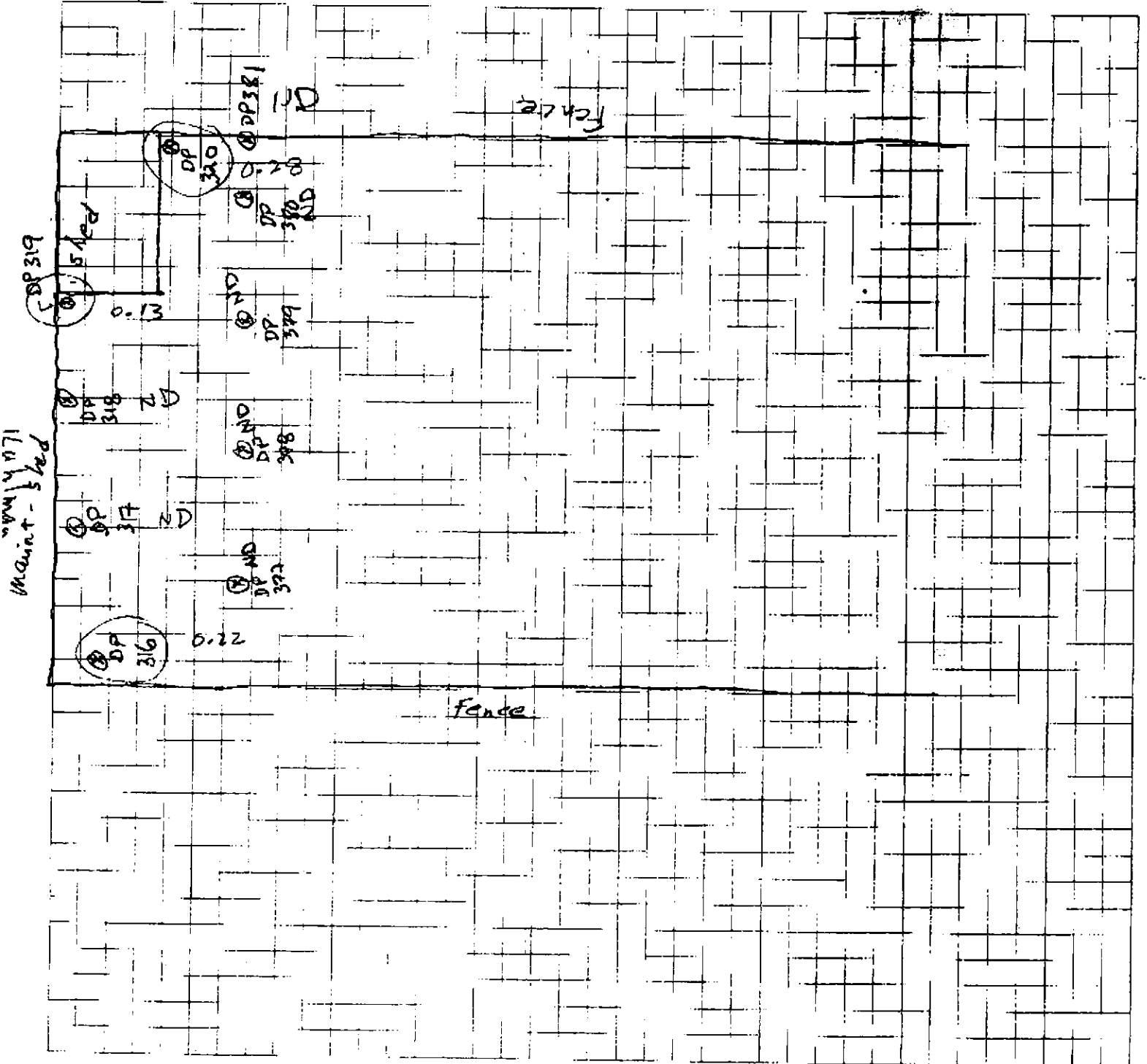




Job Name: Crystal Springs  
Job Number:  
Title: 401 N. Jackson, Elmer Wright  
Computed by: Checked by:  
Date: 8-16-2000 Sheet 3 of 11

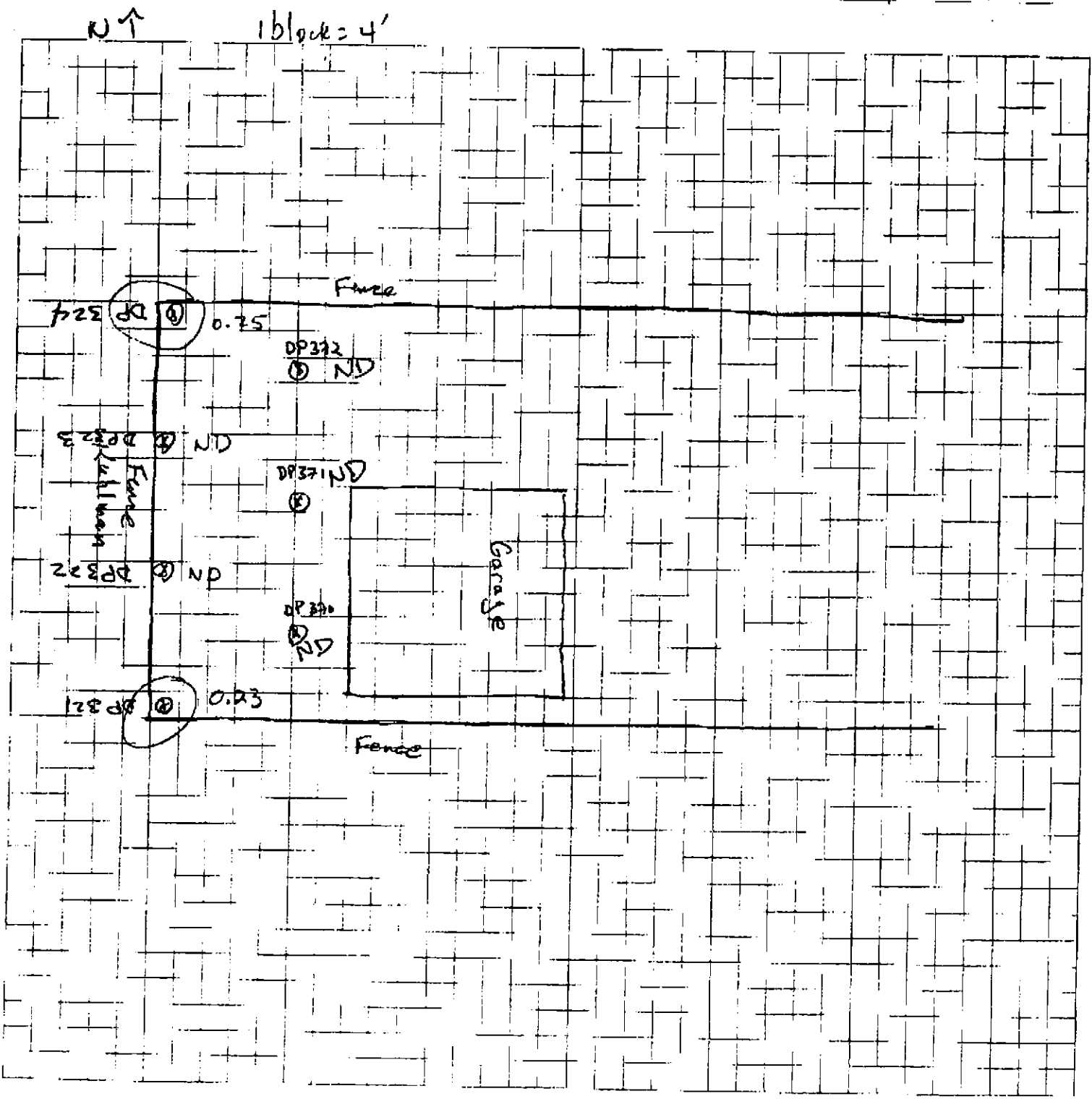
1 block = 4'

N ↑



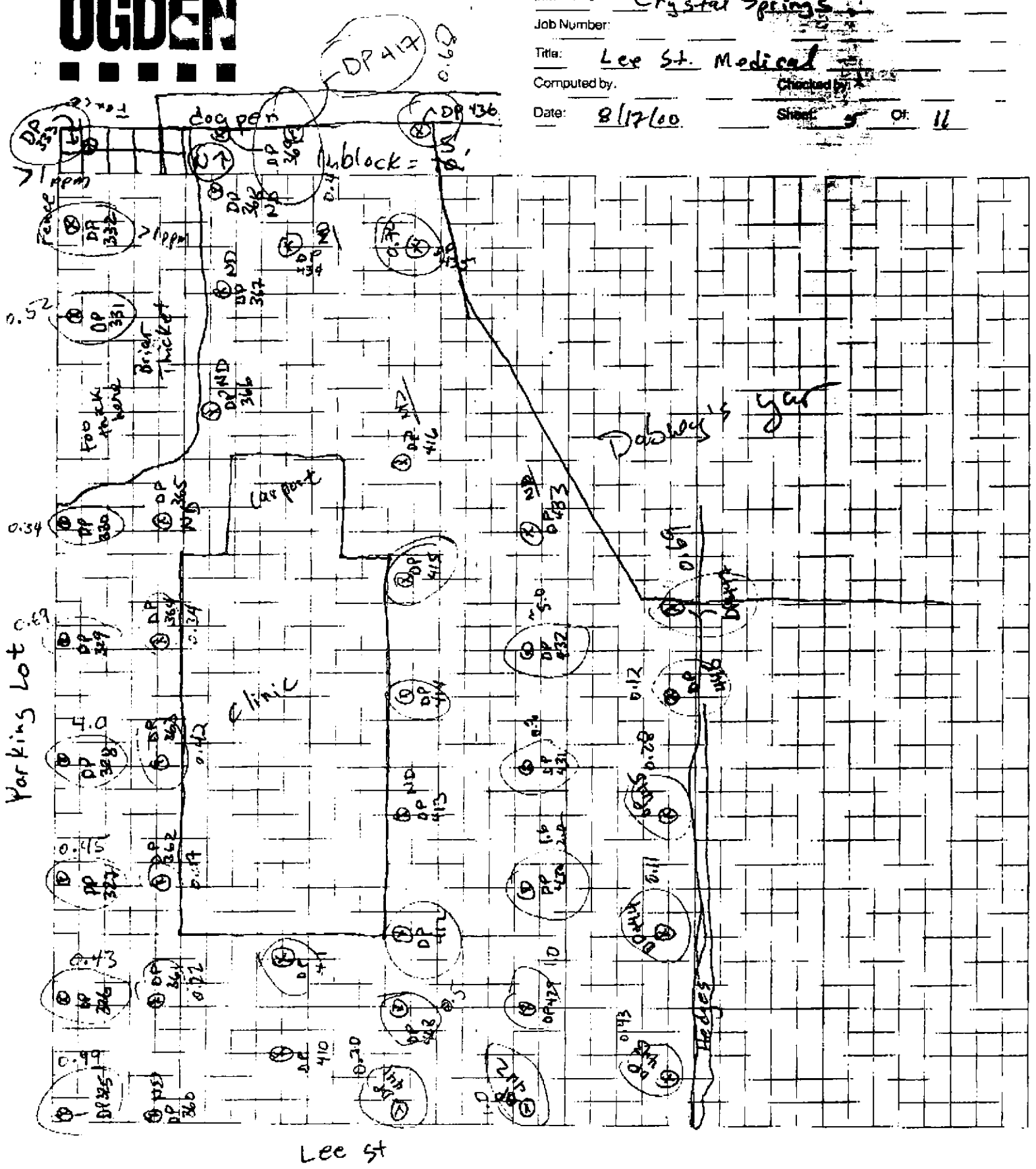


Job Name: Crystal Springs  
Job Number: \_\_\_\_\_  
Title: 407 N. Jackson Louie Lang  
Computed by: \_\_\_\_\_ Checked by: \_\_\_\_\_  
Date: 8-16-06 Sheet: 4 of: 11





Job Name Crystal Springs  
 Job Number: \_\_\_\_\_  
 Title: Lee St. Medical  
 Computed by: \_\_\_\_\_ Checked by: \_\_\_\_\_  
 Date: 8/17/00 Sheet 5 Of 11







Job Name: Crystal Springs

Job Number: \_\_\_\_\_

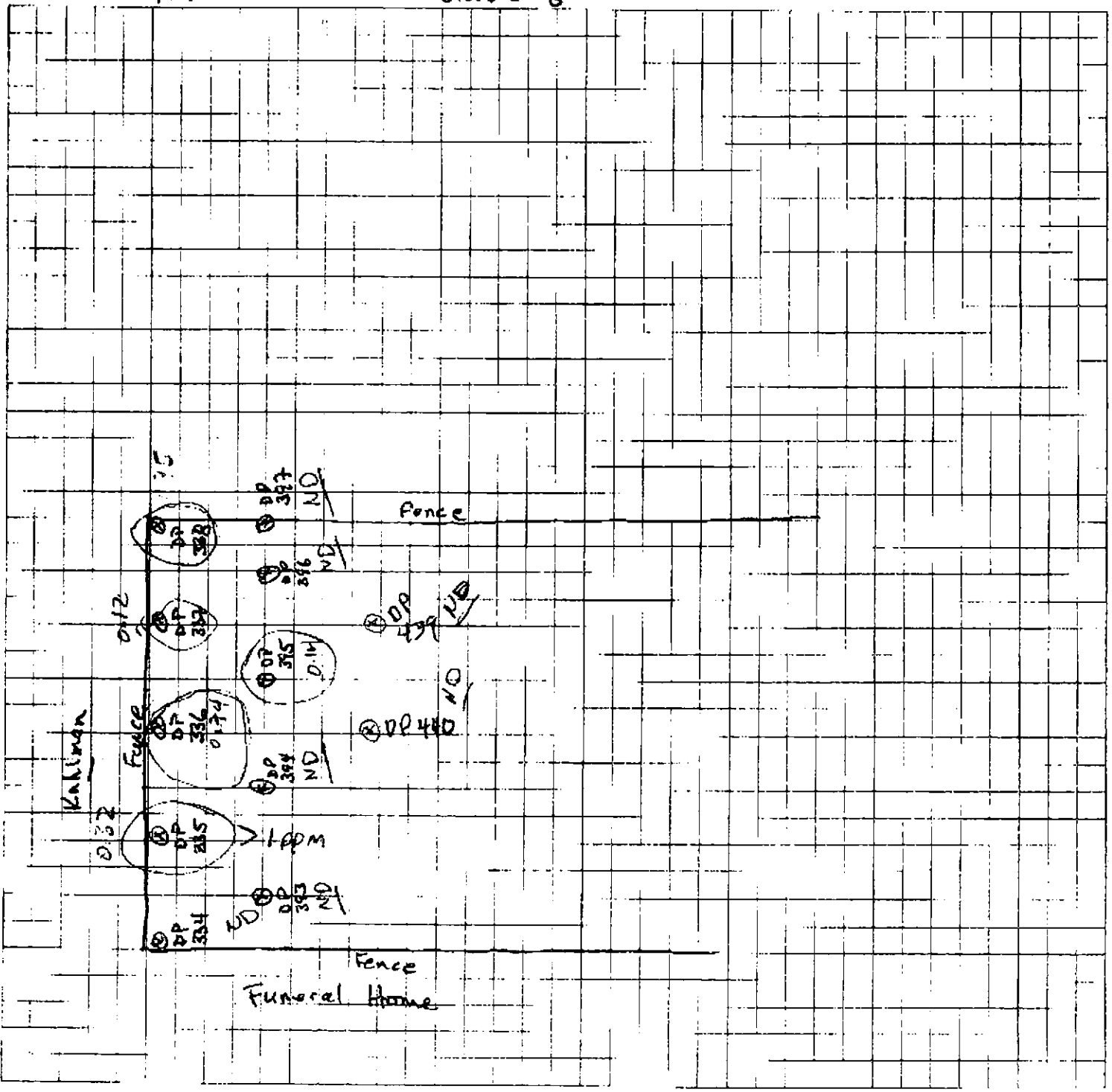
Title: 303 N. Jackson (stringer)

Computed by: \_\_\_\_\_ Checked by: \_\_\_\_\_

Date: 8-17-00 Sheet: 6 Of: 11

NT

1 block = 5'

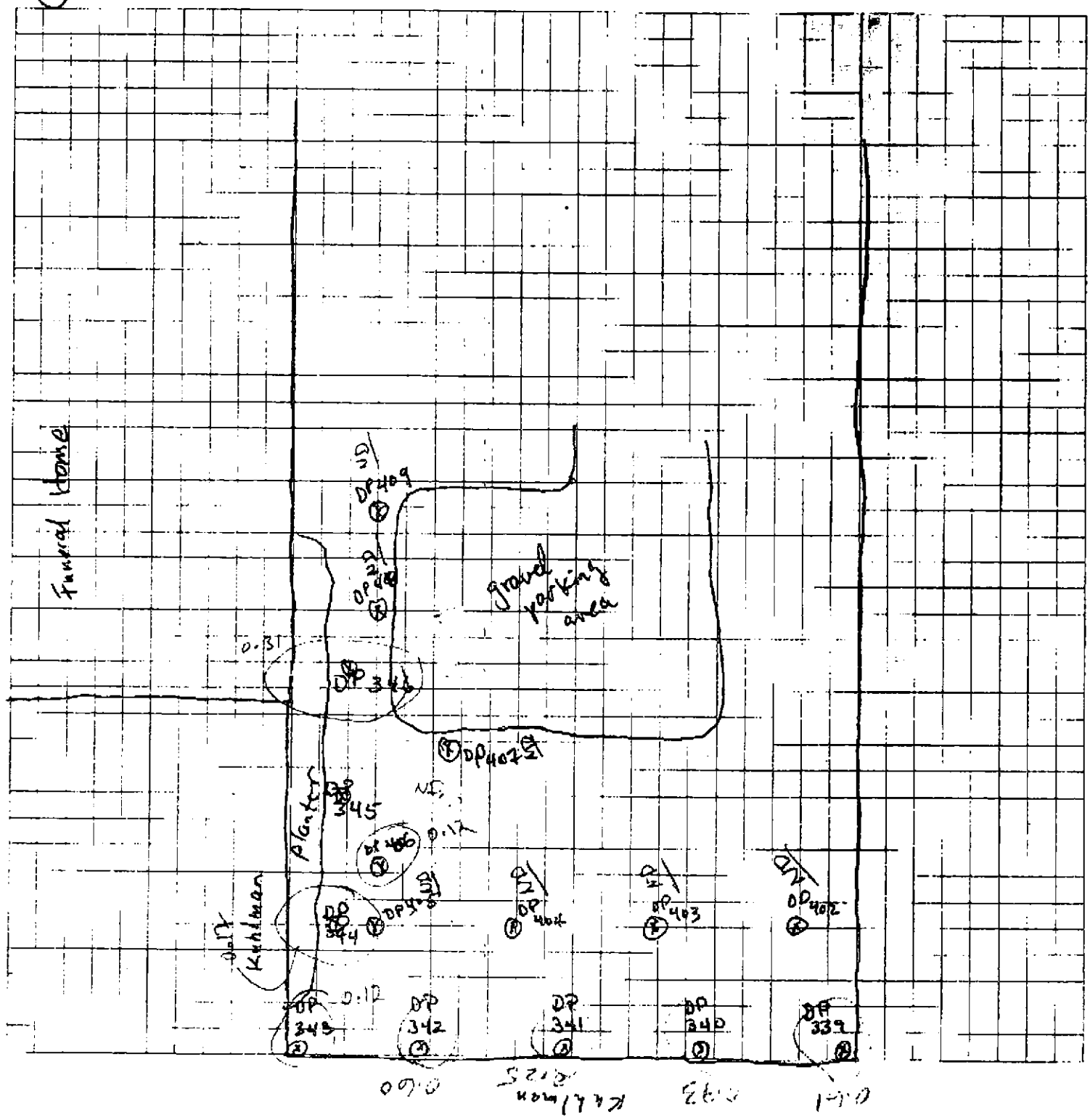




Job Name: Crystal Springs  
 Job Number: \_\_\_\_\_  
 Title: 219 N. Jackson - Perry Smith  
 Computed by: TJF Checked by: \_\_\_\_\_  
 Date: 8-17-00 Sheet: 7 Of: 11

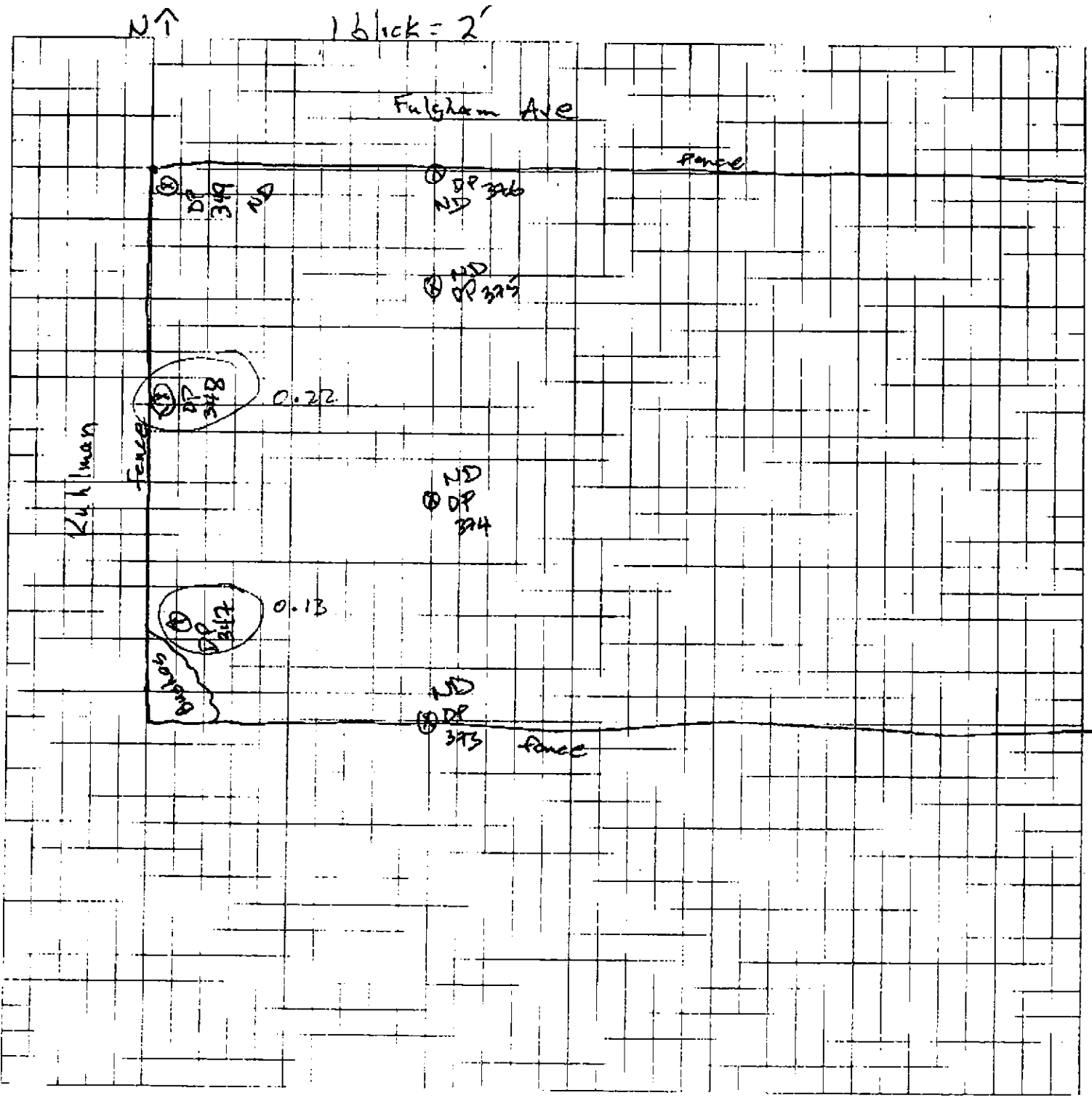
1 block = 5'

②





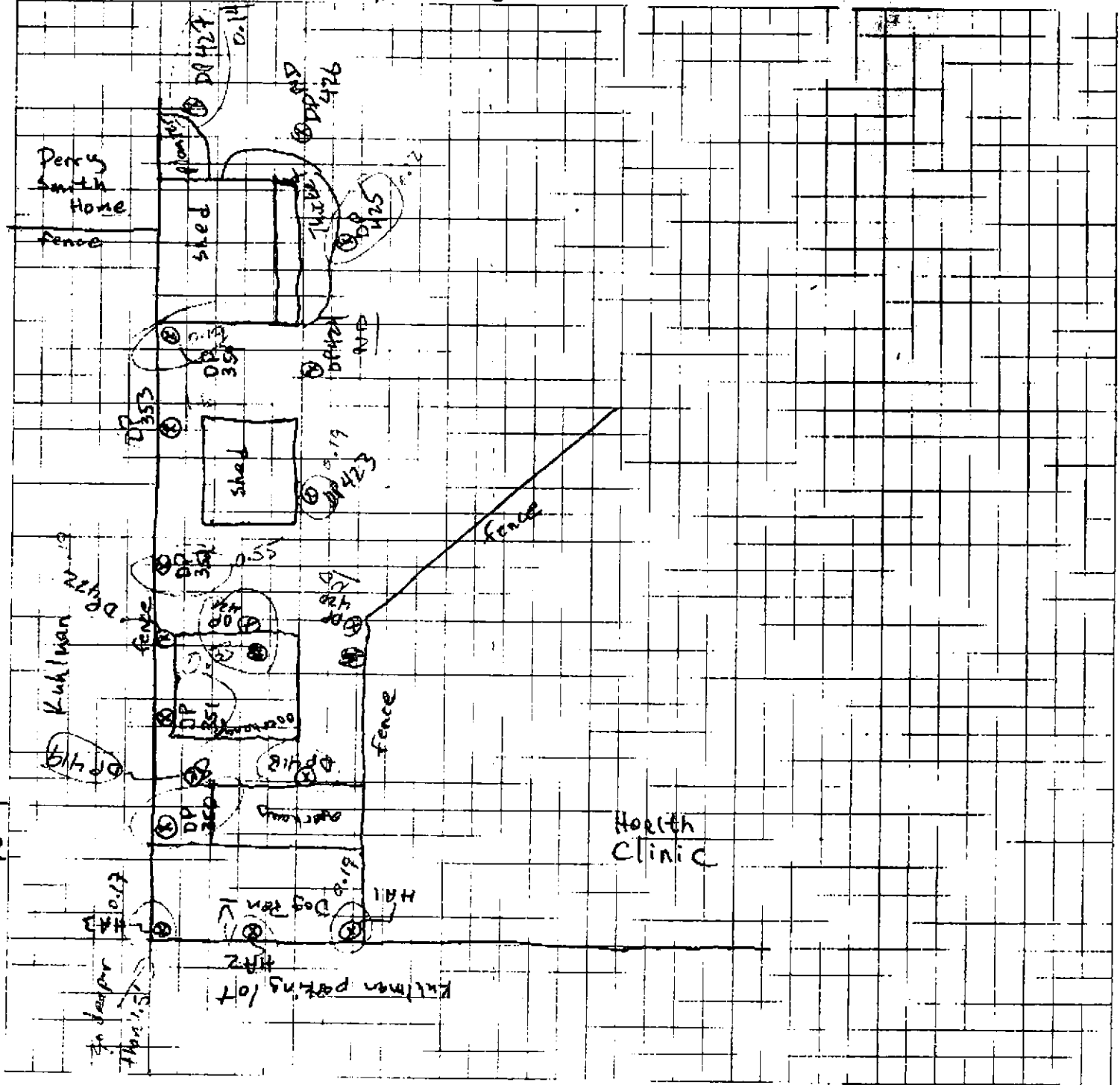
Job Name: Crystal Springs  
 Job Number: \_\_\_\_\_  
 Title: 409 N. Jackson (Army Cooper)  
 Computed by: RF Checked by: \_\_\_\_\_  
 Date: 8-19-00 Sheet: 8 of 11





Job Name Crystal Springs  
 Job Number: \_\_\_\_\_  
 Title: Dabney Home Perry  
 Computed by: TJE Checked by: \_\_\_\_\_  
 Date: 8-17-00 Sheet 9 of 11

1 block = 5'

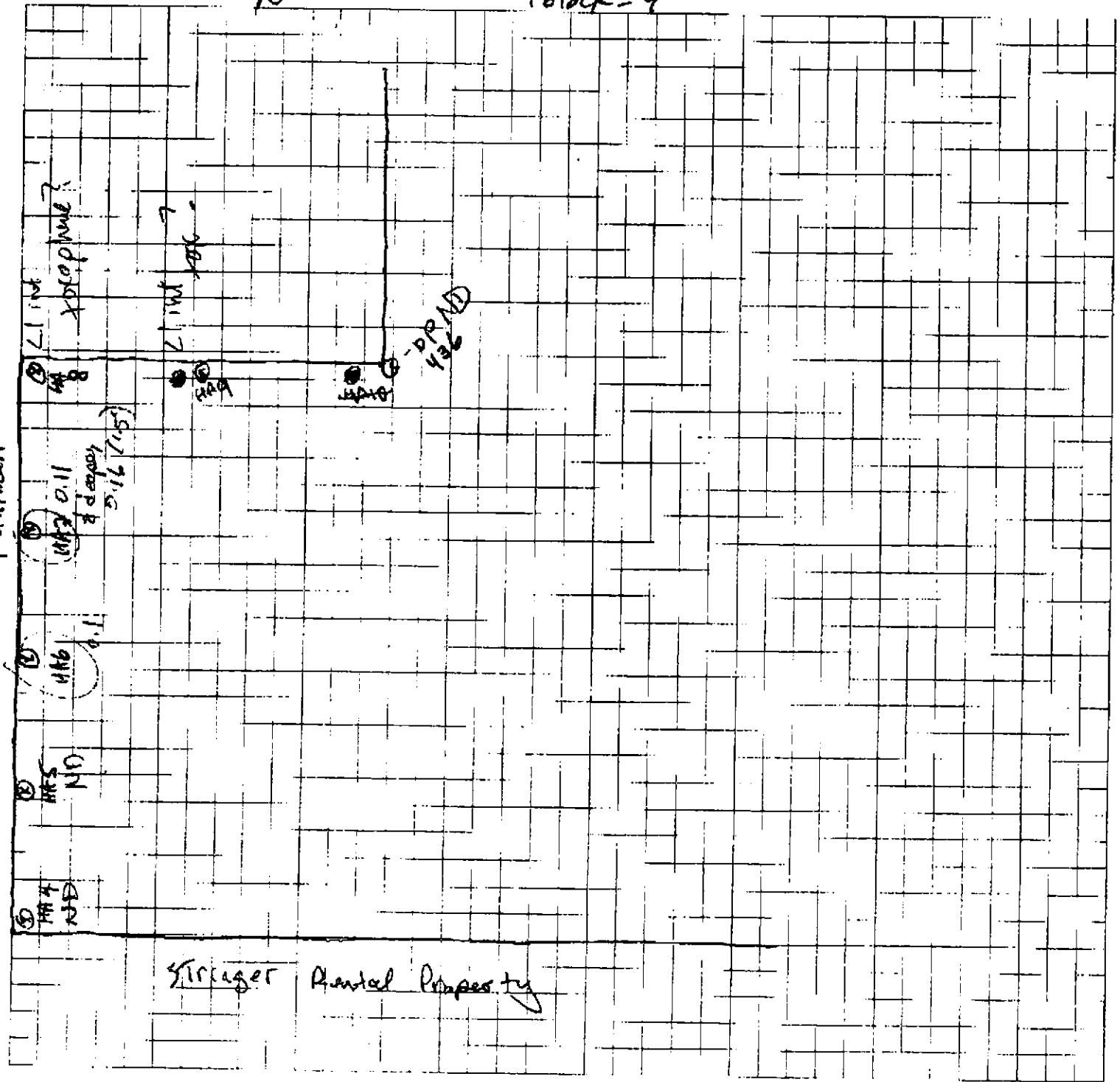




Job Name: Crystal Springs  
Job Number: \_\_\_\_\_  
Title: Wright House  
Computed by: \_\_\_\_\_ Checked by: \_\_\_\_\_  
Date: 8-18-00 Sheet: 10 of: 11

NT

1 block = 4'



Kuhlman

21 int  
drop pipe?

21 int  
drop pipe?

21 int  
drop pipe?

(5) 71.5  
11  
11  
11  
11

446

Mrs. N...

444

Stranger Rental Property



Job Name Crystal Springs

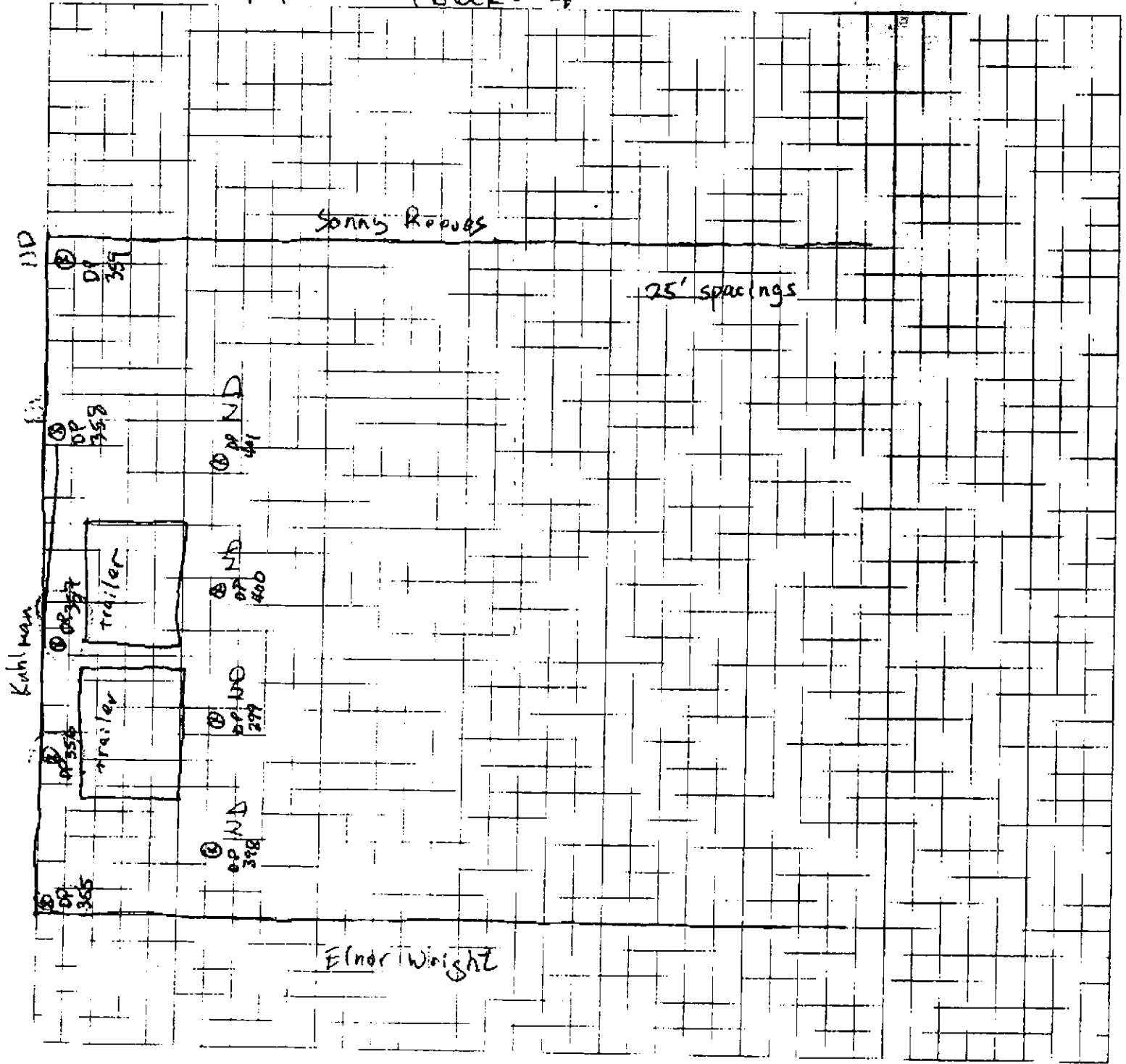
Job Number: \_\_\_\_\_

Title: Harold & Suzanne Warren

Computed by: TJF Checked by: \_\_\_\_\_

Date: 8-18-00 Sheet 11 of 11

N ↑ 1 block = 4'





1



Job Name:  
Job Number:  
Title:  
Computed by:  
Date:

FILE COPY  
COPY

Checked by:  
Sheet: Of:

Fax Coversheet

To: Gretchin Zmitrovich  
MDEC

19 pages  
total

From: Tim Fitzpatrick  
Ogden Environmental

Re: Crystal Springs Data Summary

Ms. Zmitrovich:

Following is all the data available as of 5:30 PM on Friday Aug 18. The mobile lab had autosampler malfunctions the previous two nights and are thus still somewhat behind. We will be working through the weekend and you can reach me on my cell at 704-236-3496 if you like.

Best Regards,  
Tim Fitzpatrick





Sample Tracking Form

Page 2 of 2  
Date: Aug 14, 2000

Target Analyte	Sample Description													Blank	LCS	MS	MSD							
	05	06	07	08	09	10	11	12	13	14	15	16	17											
1,3,5-TrCB	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	714	100	104	
1,2,4-TrCB																					98.0	101	105	
1,2,3-TrCB																					97.0	100	105	
1,2,3,6,8,1,2,4,5																					97.5	103	107	
1,2,3,4-TeCB																					97.4	103	107	
Penta-CB																					101	106	108	
Hexa-CB																					103	108	109	
PCB as 1260	0.22	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.16	0.10	0.12	0.10	0.22	0.10	0.10	0.10	0.10	0.10	0.13	0.10	100	112	107	
Surrogate Peak	101	83.8	96	74	111	93	110	107	112	99	134	107	127	98.0	107	103	109	102	106	112	104	100	103	107
DCB	115	102	91	79	103	106	109	114	112	105	128	112	129	101	106	107	104	111	108	120	112	107	109	107
			TRACE		TRACE										TRACE									
			1260		1260										1268						1254			

J = Estimated  
E = Exceeds calibration range

Sample Tracking Form

	A410		A410		Sample Description										Blank # A	LCS # 4	MS # 44	MSD # 44	
	320	05	320	41	321	015	321	2	321	4	322	015	322	4					323
<b>Total Average</b>	411	415	416	471	478	491	501	50	57	52	53	54							
1,3,5-TCB	<LO	<LO	<LO	<LO	<LO	<LO	<LO	<LO	<LO	<LO	<LO	<LO	<LO	<LO	<LO	<LO	<LO	<LO	<LO
1,2,4-TCB																			
1,2,3,5-TCB																			
1,2,3,5,8,1,2,4,6																			
1,2,3,4,TeCB																			
Penta-CB																			
Hexa-CB																			
PCB as 1280	0.12	0.10	0.12	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.125	<LO	<LO						
Surrogate TCN	141	112	134	107	937	103	105	106	104	99.6	107								
DIBP	155	117	137	111	105	110	116	109	113	104	107								
			OC					TRAC											
			PEM					1200											
			SP																
			CHLOR																

J = Estimated  
E = Exceeds calibration range

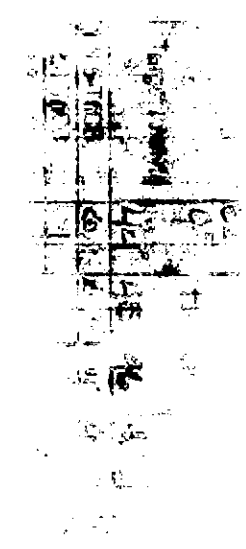
### Sample Tracking Form

Part 1-2 P/W 1-5

Page 1 of 5  
Date: August 17, 2000

Target Analyte	ACID			Sample Description										ACID			ACID			ACID									
	325 0.5	325 4	326 0.5	326 4	327 0.5	327 4	328 0.5	328 4	329 0.5	329 4	330 0.5	330 4	331 0.5	331 4	332 0.5	332 4	333 0.5	333 4	334 0.5	334 4	335 0.5	335 4	336 0.5	336 4	Blank #5	LCS #5	MS #6	MSD #6	
1,3,5-TrCB																													
1,2,4-TrCB																													
1,2,3-TrCB																													
1,2,3,5&1,2,4,5																													
1,2,3,4-TeCB																													
Penta-CB																													
Hexa-CB																													
PCB as 1260																													
Surrogate 7C/MK	143	103	109	104	109	109	145	104	103	108	107	107	132	104	133	100	137	103	104	105	103	103	128	152	137				
DcBP	132	103	107	117	113	115	156	107	103	110	105	110	134	110	140	108	127	113	110	114	116	128	152	137					
					01																								
					02																								
					03																								
					04																								
					05																								
					06																								
					07																								
					08																								
					09																								
					10																								
					11																								
					12																								
					13																								
					14																								
					15																								
					16																								
					17																								
					18																								
					19																								
					20																								

J= Est 1



Sample Tracking Form

Date: August 11 2000  
Page 6 of 2

Target Analyte	Sample Description										Blank #	LCS #	1-20 MS #	MSD #											
	335	335	336	336	337	337	338	338	339	339															
1,3,5-TrICB	75	70	78	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	10	10	15	15	
1,2,4-TrICB																									
1,2,3-TrICB																									
1,2,3,5,8,1,2,4,5																									
1,2,3,4-TeCB																									
Penta-CB																									
Hexa-CB																									
PCB as 1260	0.32	0.10	0.10	0.07	0.12	0.10	0.25	0.10									0.12	0.10	0.17	0.10	0.10	970			
Sumogate TePA	128	107	105	111	110	103	139	110									102	983	104	103	100	982	141	140	
DCBP	142	117	115	112	123	109	162	117									102	114	108	110	130	110	112	158	
125 Date	18	18	18	18	18	18	18	18									18	18	18	18	18	18	18	18	18

J = Estima  
C = Evaluation  
Liberation canna

J = Estim  
August 60

Target Analyte	ACID										Sample Description													
	305 015	305 4	346 015	346 4	347 0.5	347 4	348 0.5	348 4	349 0.5	349 4	Sample 15	Sample 505	350 0.5	350 4	351 0.5	351 4	352 0.5	352 4	353 0.5	353 4	Blank # 7	LCS # 7	MS # 95	MSD # 95
1,3,5-TCB	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
1,2,4-TCB	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
1,2,3-TCB	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
1,2,3,5,8,1,2,4,5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
1,2,3,4-TeCB	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Penta-CB	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Hexa-CB	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PCB as 1260	2010	4010	0131	4010	013	4010	0122	4010	0101	4010	010	4010	010	4010	010	4010	010	4010	010	4010	010	4010	010	4010
Surogale TCMX	186	971	973	987	987	986	985	984	122	980	81.8	114	983	141	978	128	114	103	989	114	983	141	978	128
D3BP	108	108	100	112	107	111	104	107	137	106	113													
THX	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
W60	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
U2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PGM	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
AFM	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
IND	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Sample Tracking Form

Page 2 of 3  
Date: 17 AUG 60

Sample Tracking Form

Date: 18 Aug 00

Page 1 of 1

ACID

ACID

ACID

ACID

Sample Description

ACID

ACID

Target Analyte	350 0.5	350 4	351 0.5	351 4	352 0.5	352 4	353 0.5	353 4	354 0.5	354 4	HR-1 0.5	1 4	2 0.5	2 4	3 0.5	3 1.5	4 0.5	4 2.5	5 0.5	5 2.5	Blank # 8	LCS # 8	MS # 107	MSD # 103		
1,3,5-TrCB	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126			140	137		
1,2,4-TrCB	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			135	135	
1,2,3-TrCB	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			133	131	
1,2,3,5,8,1,2,4,5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			126	124	
1,2,3,4-TeCB	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			124	121	
Penta-CB	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			124	122	
Hexa-CB	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			121	119	
FCB as 1260	118	120	123	120	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121			124	117	
Surrogate Tenyl	104	100	101	104	101	101	101	101	101	101	101	101	101	101	101	101	101	101	101	101	101			138	129	
DCBP	116	114	108	116	114	105																			138	118

J = Estim



Job Name: Crystal Springs-

Job Number: \_\_\_\_\_

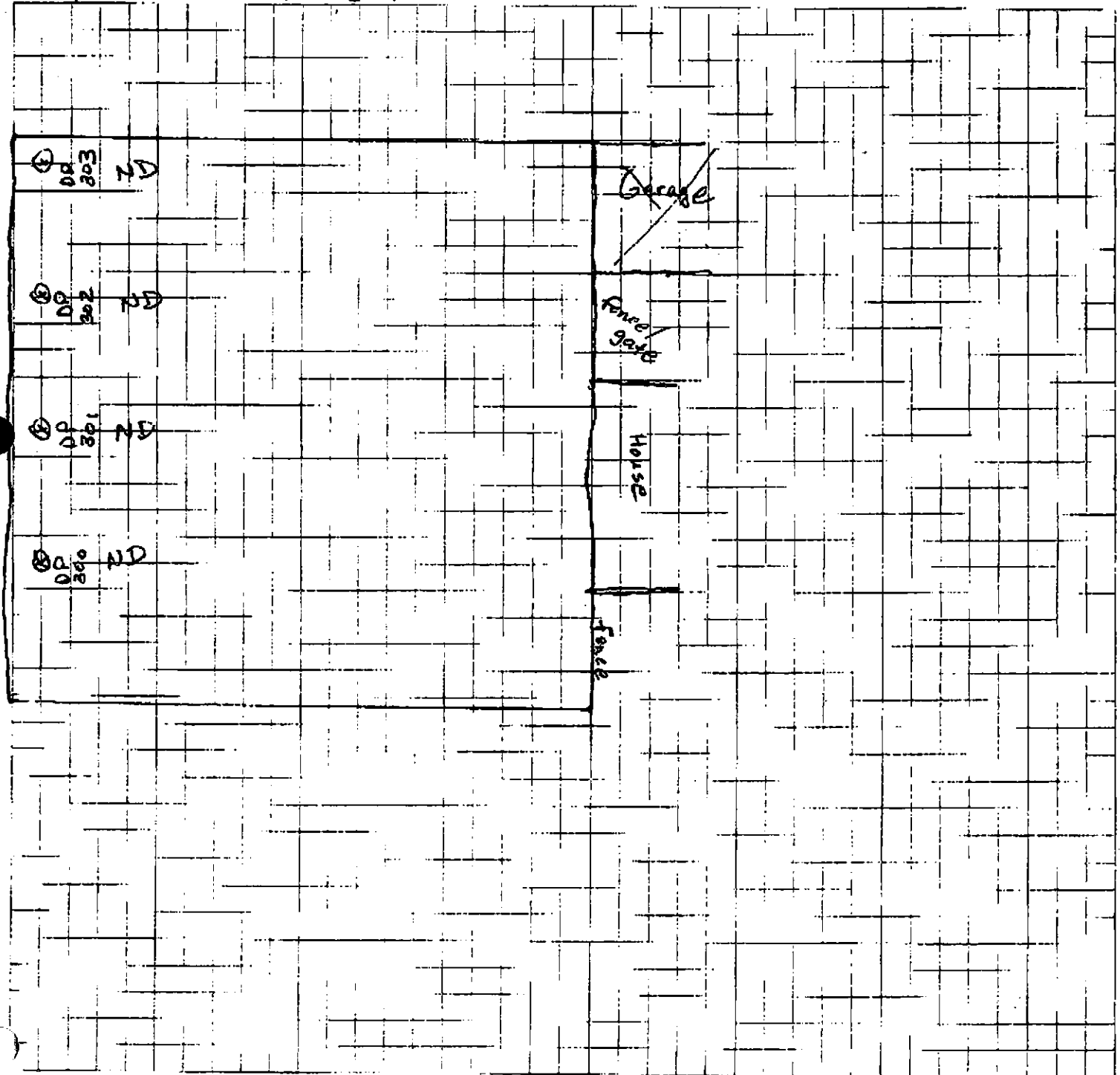
Title: Sony Reeves backyard 405 Jackson

Computed by: \_\_\_\_\_ Checked by: \_\_\_\_\_

Date: 2/16/2000 Sheet: 1 Of: 11

N ↑

1 block = 4'







200  
200  
7

Job Name: Crystal Springs

Job Number:

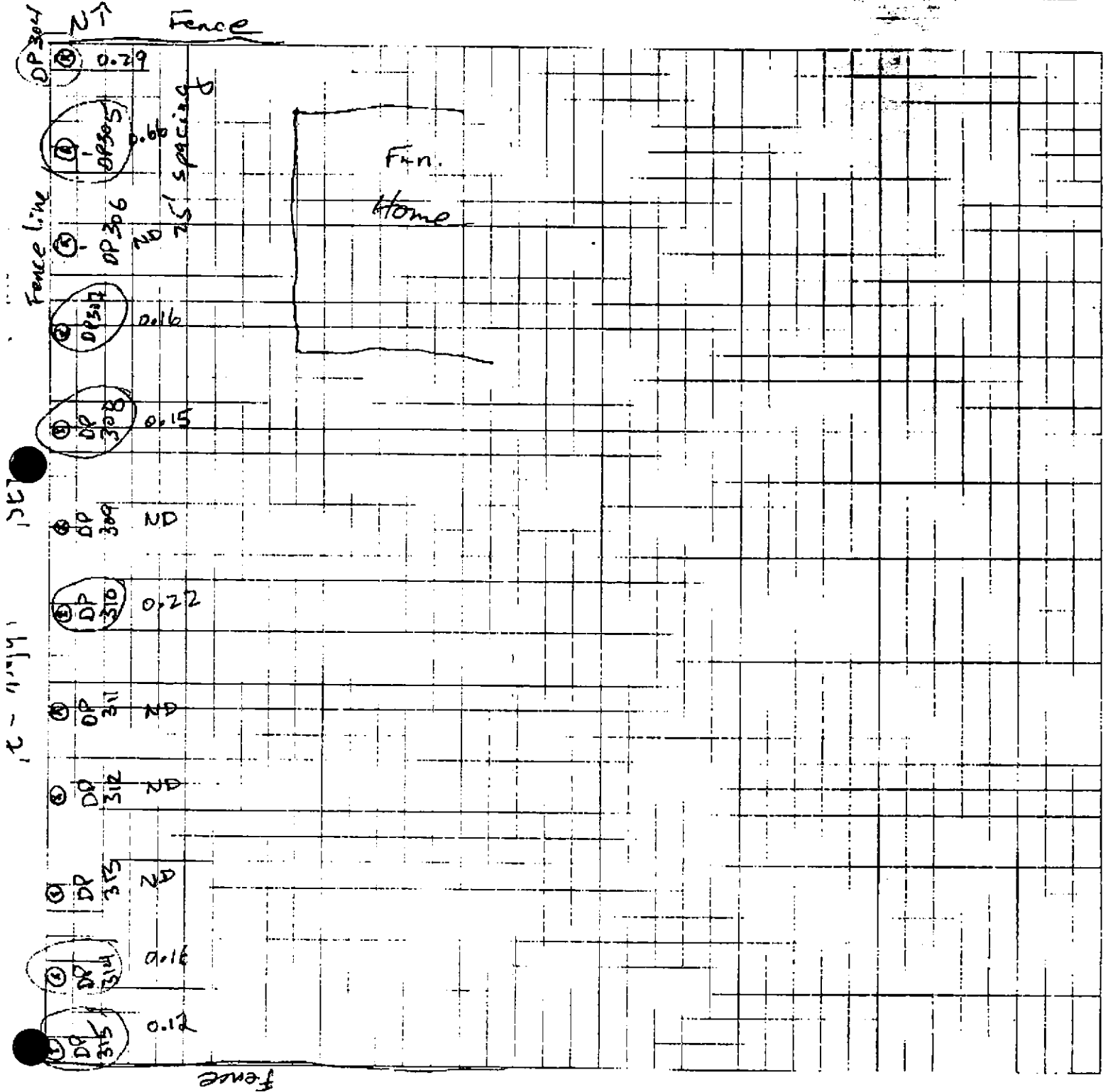
Title: Stringer Funeral Home

Computed by:

Checked by:

Date:

Sheet 2 of 11





Job Name: Crystal Springs

Job Number:

Title: 401 N. Jackson Elnor Wright

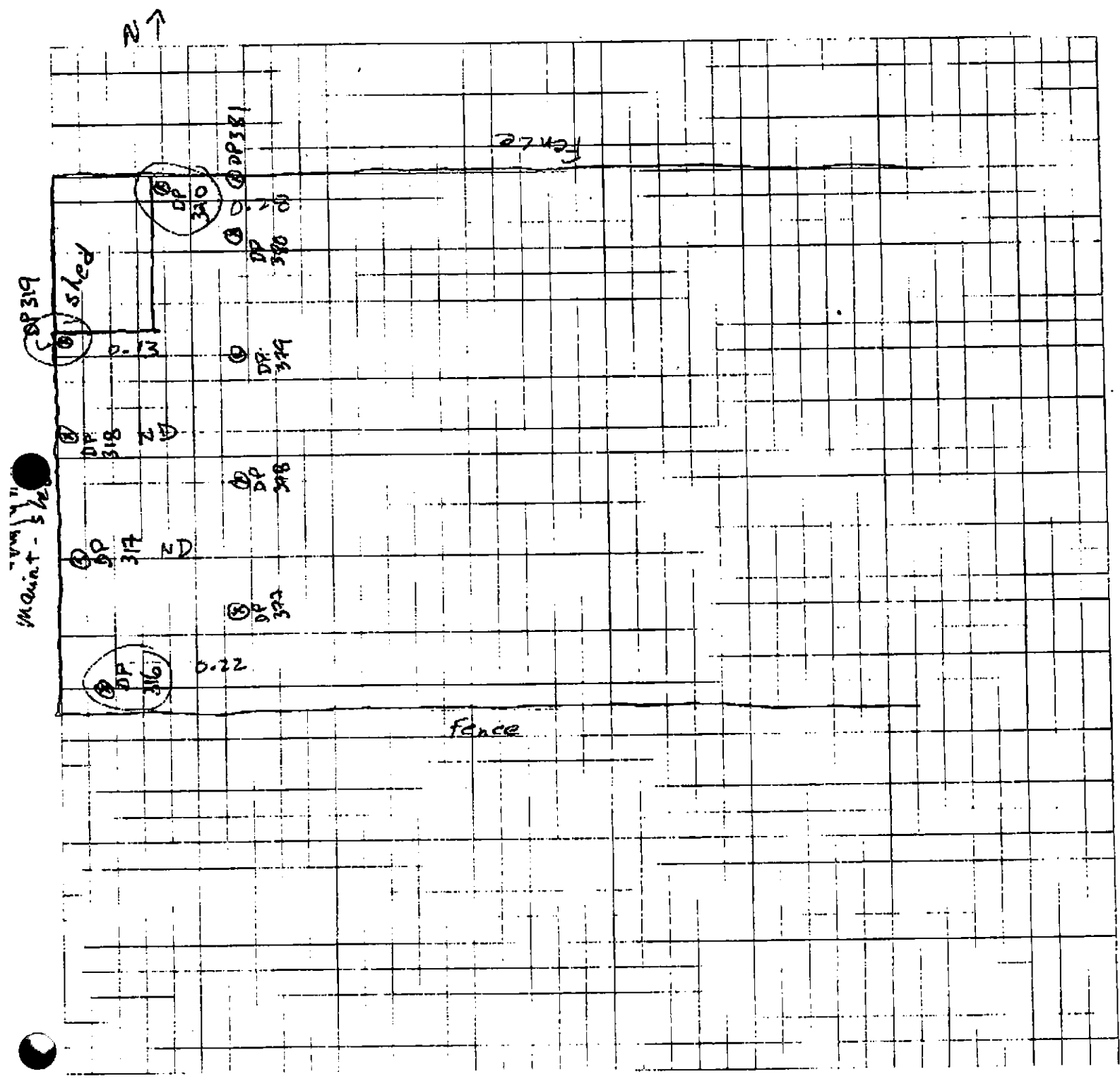
Computed by:

Checked by:

Date: 8-16-2000

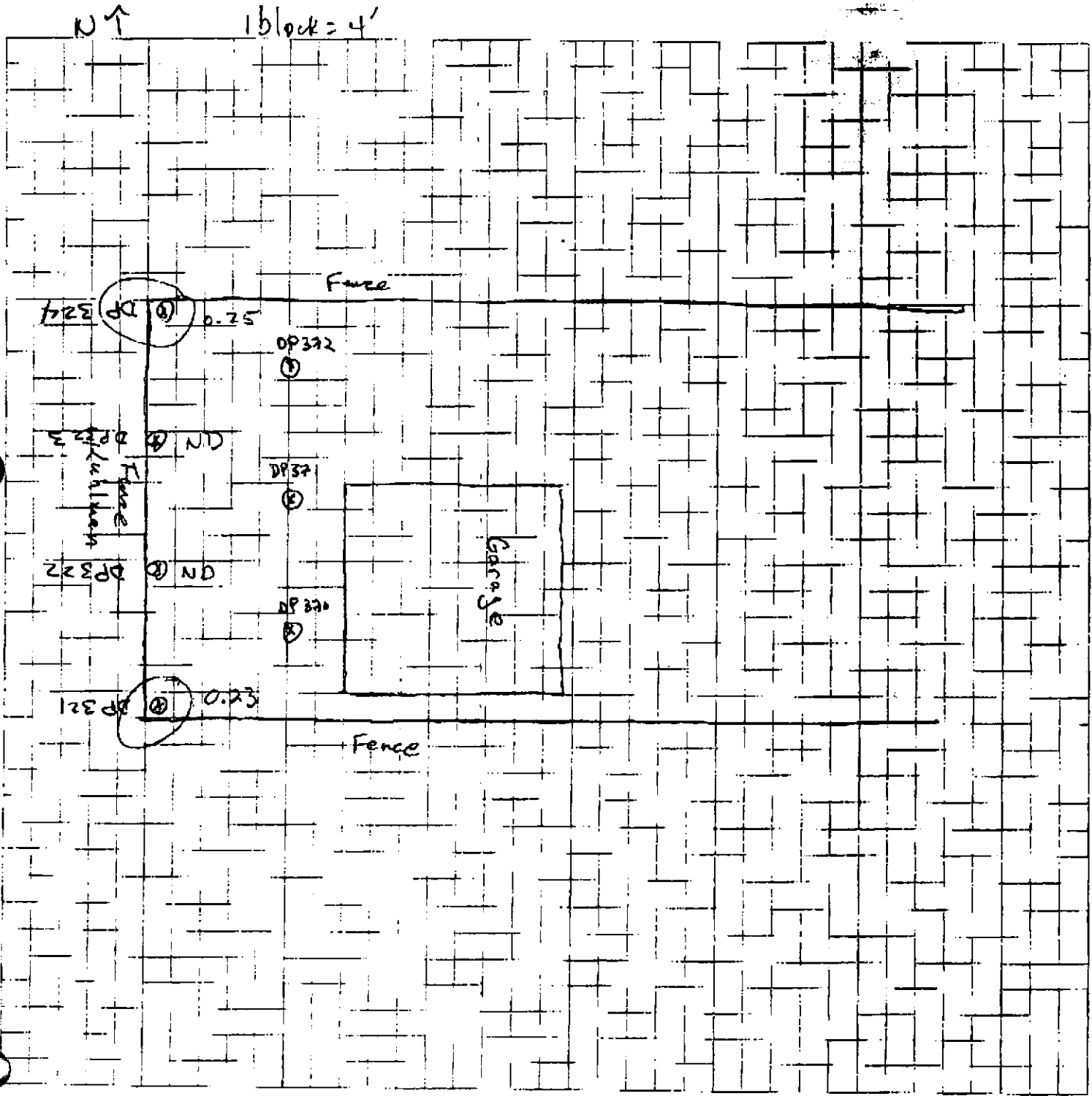
Sheet: 3 Of: 11

1 block = 4'





Job Name: Crystal Springs  
Job Number: \_\_\_\_\_  
Title: 407 N. Jackson Louie Lang  
Computed by: \_\_\_\_\_ Checked by: \_\_\_\_\_  
Date: 8-16-06 Sheet 4 of 11





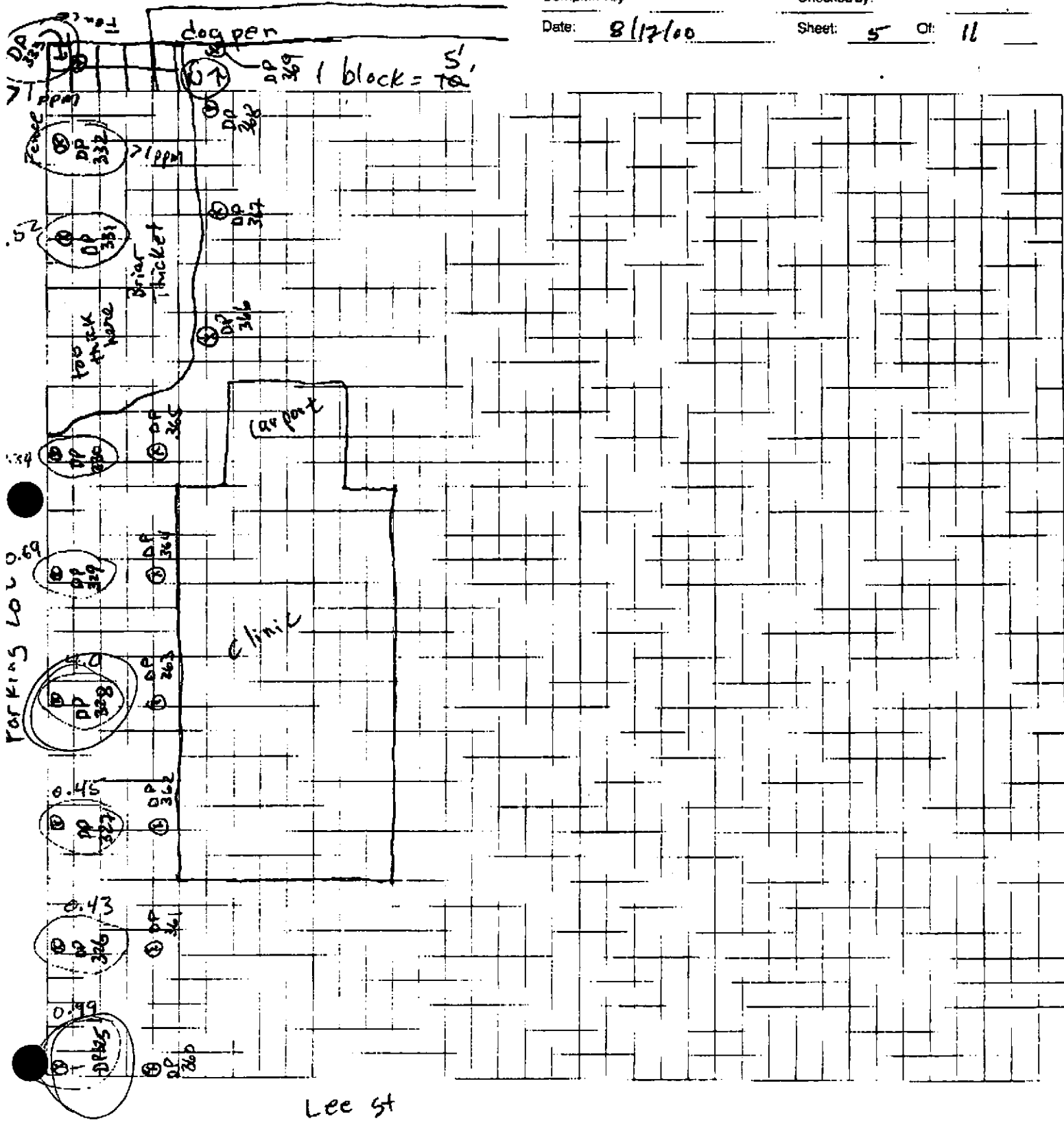
Job Name: Crystal Springs

Job Number: \_\_\_\_\_

Title: Lee St. Medical

Computed by: \_\_\_\_\_ Checked by: \_\_\_\_\_

Date: 8/17/00 Sheet: 5 Of: 11





Job Name: Crystal Spring

Job Number:

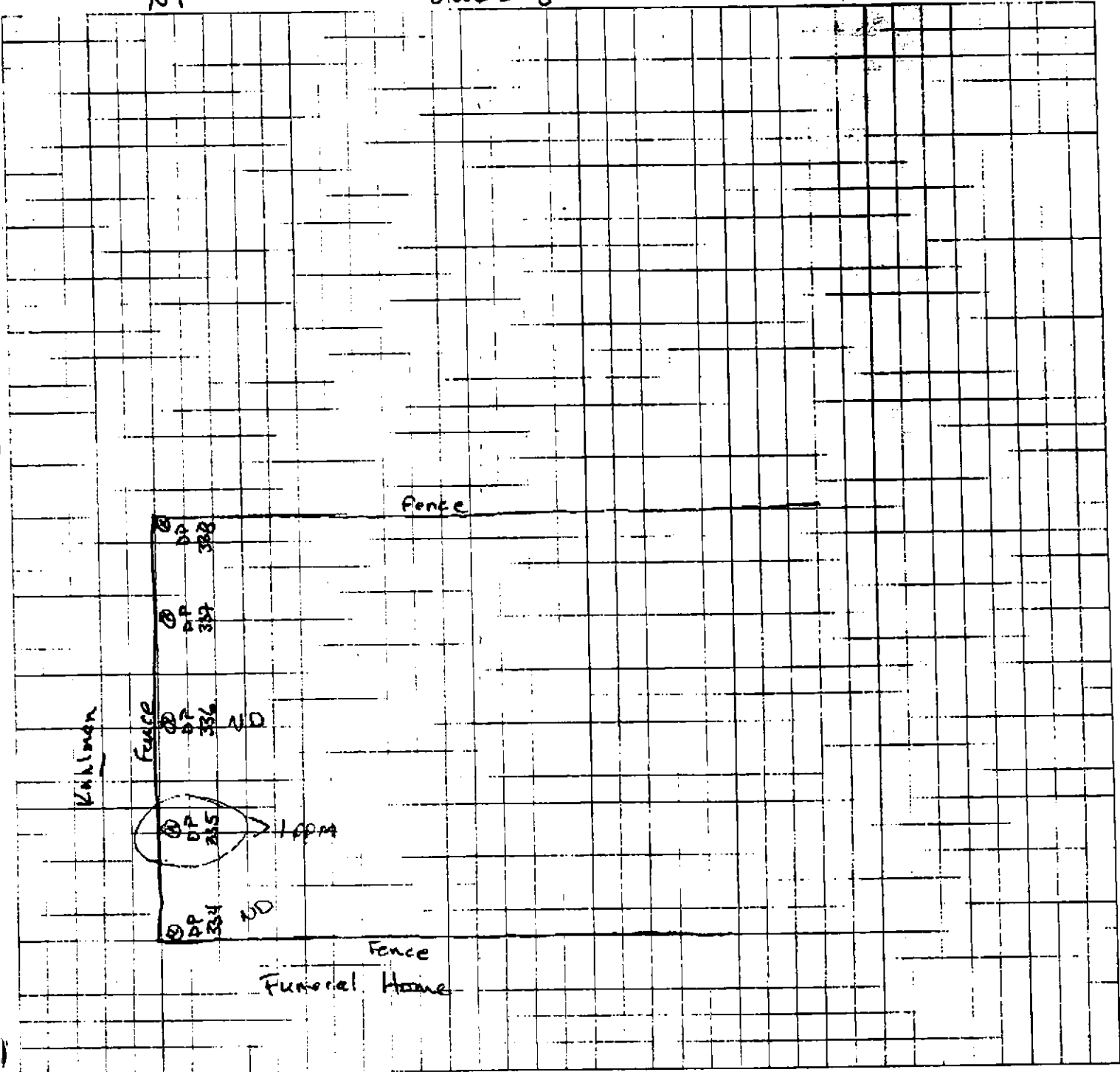
Title: 303 N. Jackson (stringer)

Computed by: Checked by:

Date: 8-17-00 Sheet 6 of 11

NT

1 block = 5'





Job Name: Crystal Springs

Job Number: \_\_\_\_\_

Title: 219 N. Jackson - Percy Smith

Computed by: TJF Checked by: \_\_\_\_\_

Date: 8-17-00 Sheet: 7 Of: 11

1 block = 5'

② ↑

framed home

Kuhlman

⊙ DP 346 0.31

⊙ DP 345 ND

⊙ DP 344 0.17

⊙ DP 343 0.12 DP 342

⊙ DP 341

⊙ DP 340

⊙ DP 339

Kuhlman



Job Name: Crystal Springs

Job Number: \_\_\_\_\_

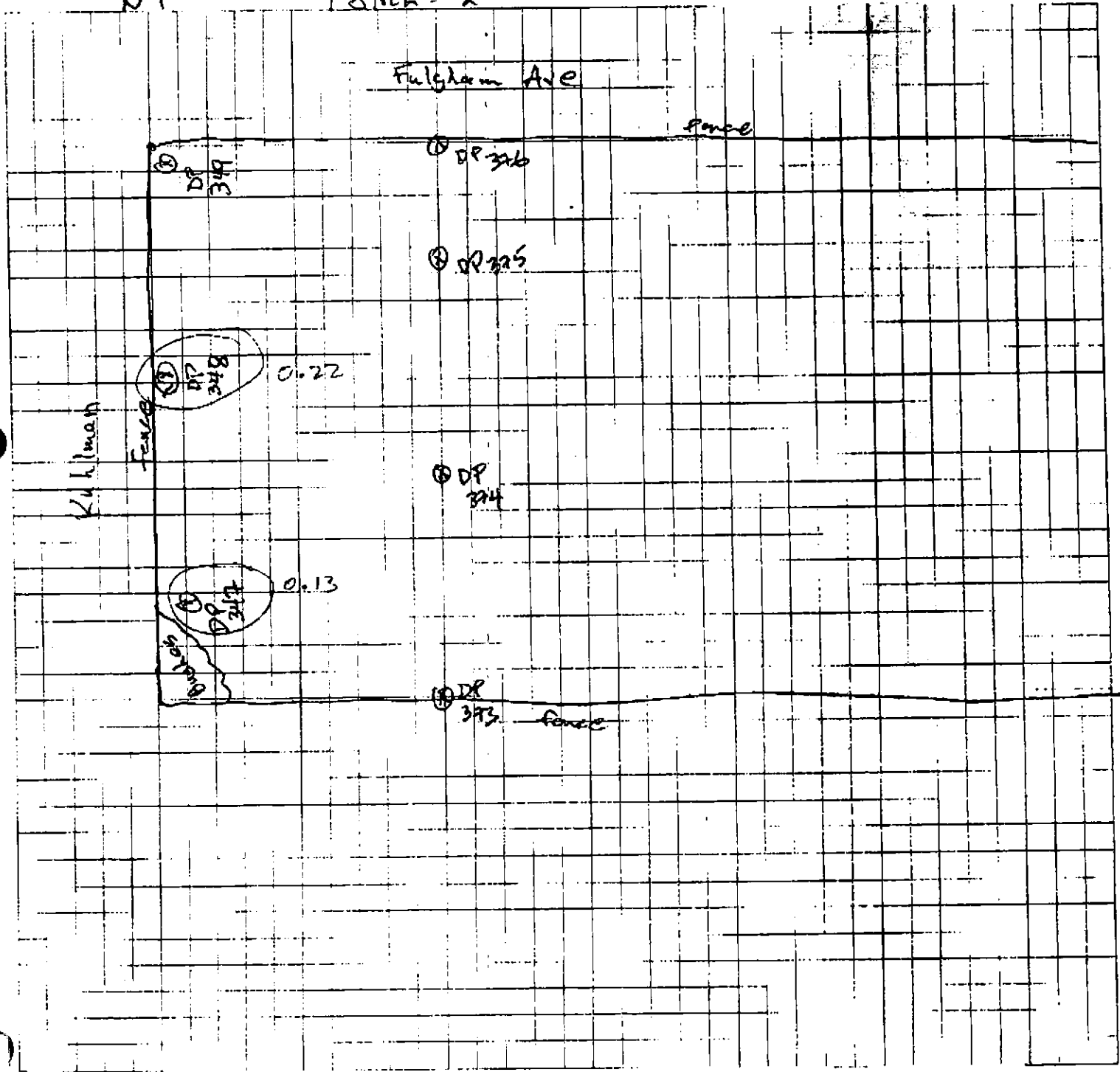
Title: 409 N. Jackson (Andy Cooper)

Computed by: DF Checked by: \_\_\_\_\_

Date: 8-17-00 Sheet 8 of 11

N ↑

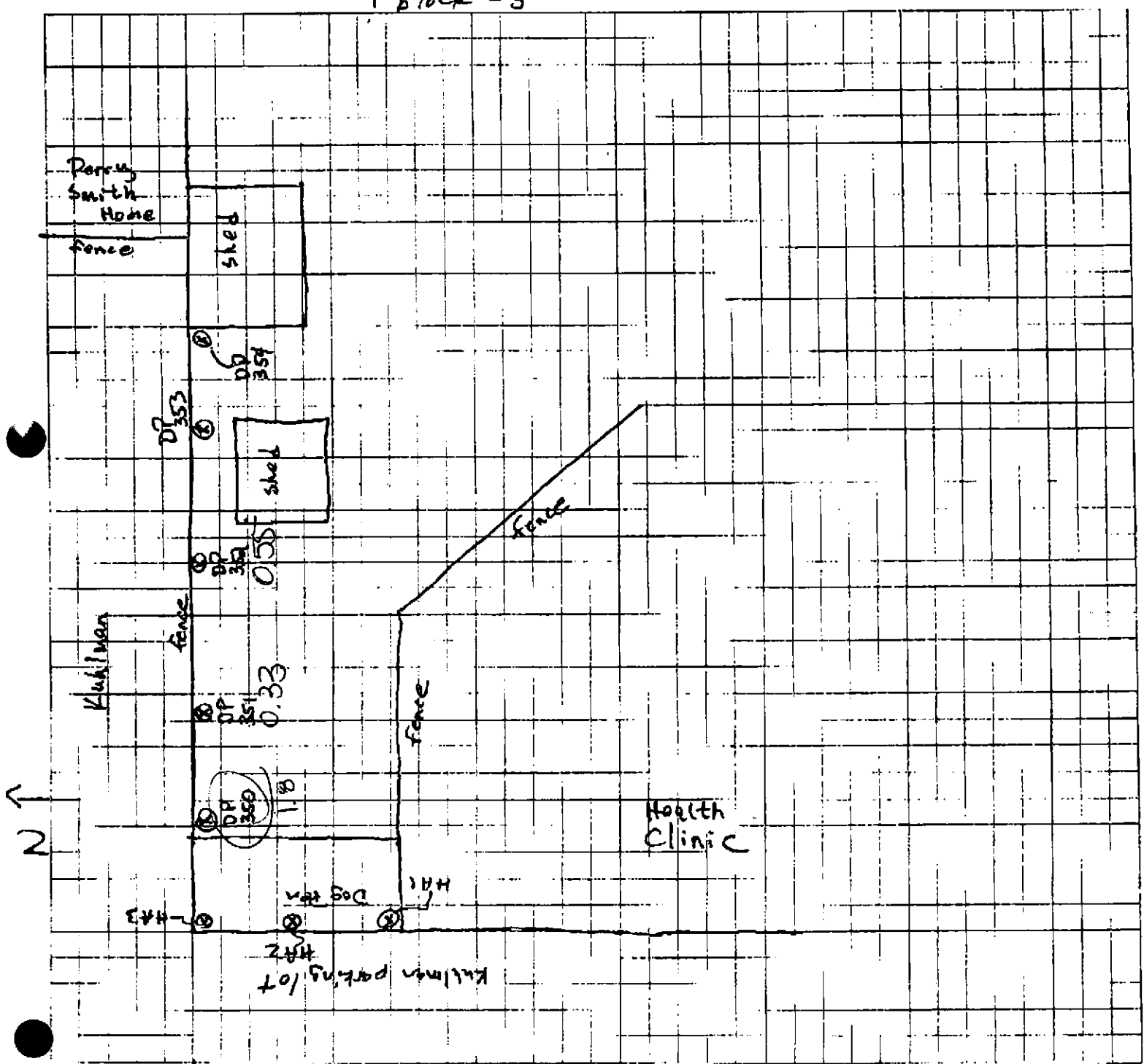
1 block = 2'





Job Name: Crystal Springs  
 Job Number: \_\_\_\_\_  
 Title: Dabney Home  
 Computed by: TJF Checked by: \_\_\_\_\_  
 Date: 8-17-00 Sheet: 9 Of: 11

1 block = 5'







Job Name: Crystal Springs

Job Number: \_\_\_\_\_

Title: Weight House

Computed by: \_\_\_\_\_ Checked by: \_\_\_\_\_

Date: 8-18-00 Sheet: 10 of: 11

N ↑

1 block = 4'

Kuhlman

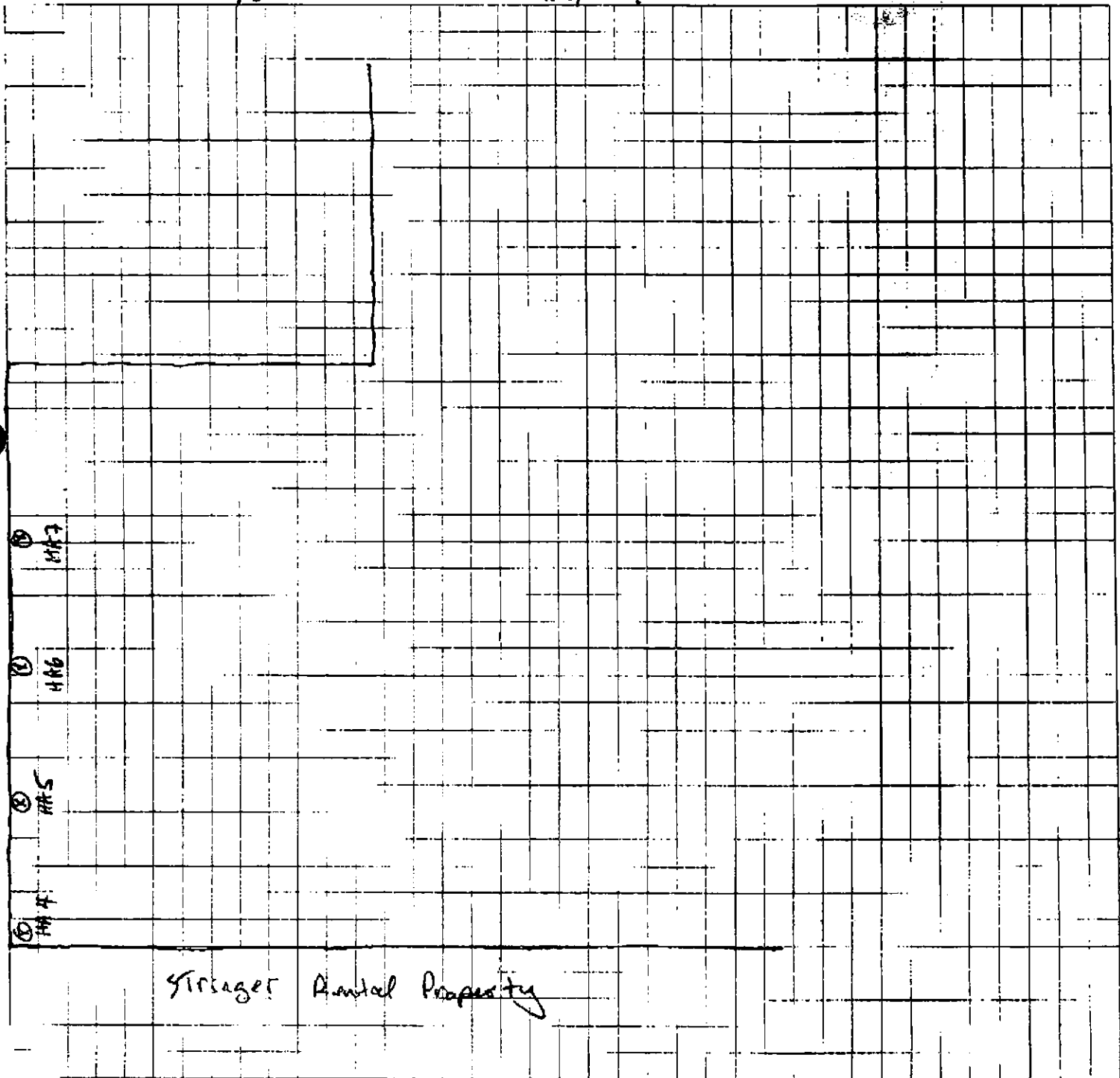
① H17

② H16

③ H15

④ H14

Stranger Rental Property





Job Name: Crystal Springs

Job Number: \_\_\_\_\_

Title: Harold & Suzanne Womera

Computed by: TJF Checked by: \_\_\_\_\_

Date: 8-18-00 Sheet: 11 Of: 11

NT 1 block = 4'

Sony's Roads

75' spacing

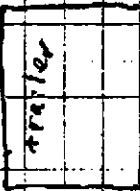
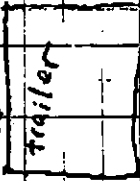
DP 357

DP 358

DP 359

DP 356

DP 355



Kuhlman

Elmer Wright

**OGDEN**  
■■■■■

Job Name: \_\_\_\_\_

Job Number: \_\_\_\_\_

Title: \_\_\_\_\_

Computed by: \_\_\_\_\_

Date: \_\_\_\_\_

**FILE COPY**

Checked by: \_\_\_\_\_

Sheet: \_\_\_\_\_

Of: \_\_\_\_\_

8-17-00

**FAX COVER SHEET**

To: Anastasia Hamel / Gretchen Zmitrovich

From: Tim Fitzpatrick (704-236-3496)

Total pages including cover sheet: 10

— Ms. Hamel &amp; Ms. Zmitrovich:

Following is all data available at this point w/ location maps. As stated, the mobile lab experienced troubles w/ their auto-sampler last night and as a result they are somewhat behind, but should be able to catch up by tomorrow AM. — Please call me on my cell phone if I can help any further (number listed above).

Best Regards:

Tim Fitzpatrick

Sr. Environmental Chemist.

Sample Tracking Form

Page 2 of 3  
Date: Aug 16 2000

Target Analyte	Sample Description																				Blank	LCS	MS #30	MSD #30													
	PP340	PP350	DP311	311	312	312	312	313	313	313	313	314	314	314	315	315	315	316	317	317					317	318	318	319	319	319	319	319	319				
1,3,5-TrICB	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43																	
1,2,4-TrICB	4901		4901	4901	4901	4901	4901	4901	4901	4901	4901	4901	4901	4901	4901																						
1,2,3-TrICB																																					
1,2,3,5,8,1,2,4,5																																					
1,2,3,4-TeCB																																					
Penta-CB																																					
Hexa-CB																																					
PCB as 1260	0.22		4901	4910	4910	4910	4910	4910	4910	4910	4910	4910	4910	4910	4910																						
Surrogate FCW	101		96	74	111	93	110	107	112	99	134	107	127																								
DCW	115		91	79	103	106	109	114	112	105	128	112	129																								
			THZ																																		
			1260																																		

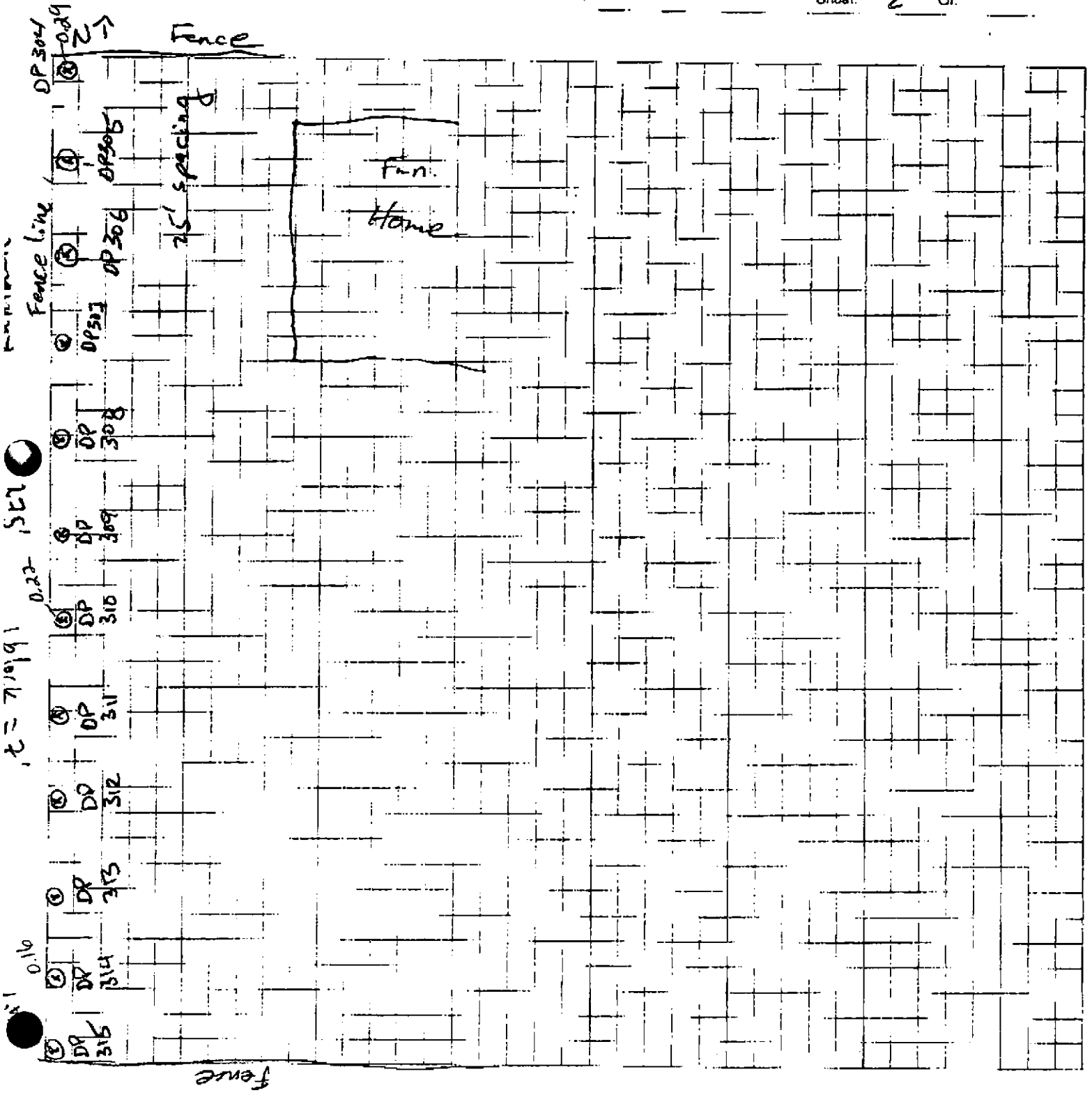
J = Estim  
F = Error  
Information from





280  
200  
7

Job Name: Crystal Springs  
Job Number: \_\_\_\_\_  
Title: Stringer Funeral Home  
Computed by: \_\_\_\_\_ Checked by: \_\_\_\_\_  
Date: \_\_\_\_\_ Sheet: 2 Of: \_\_\_\_\_



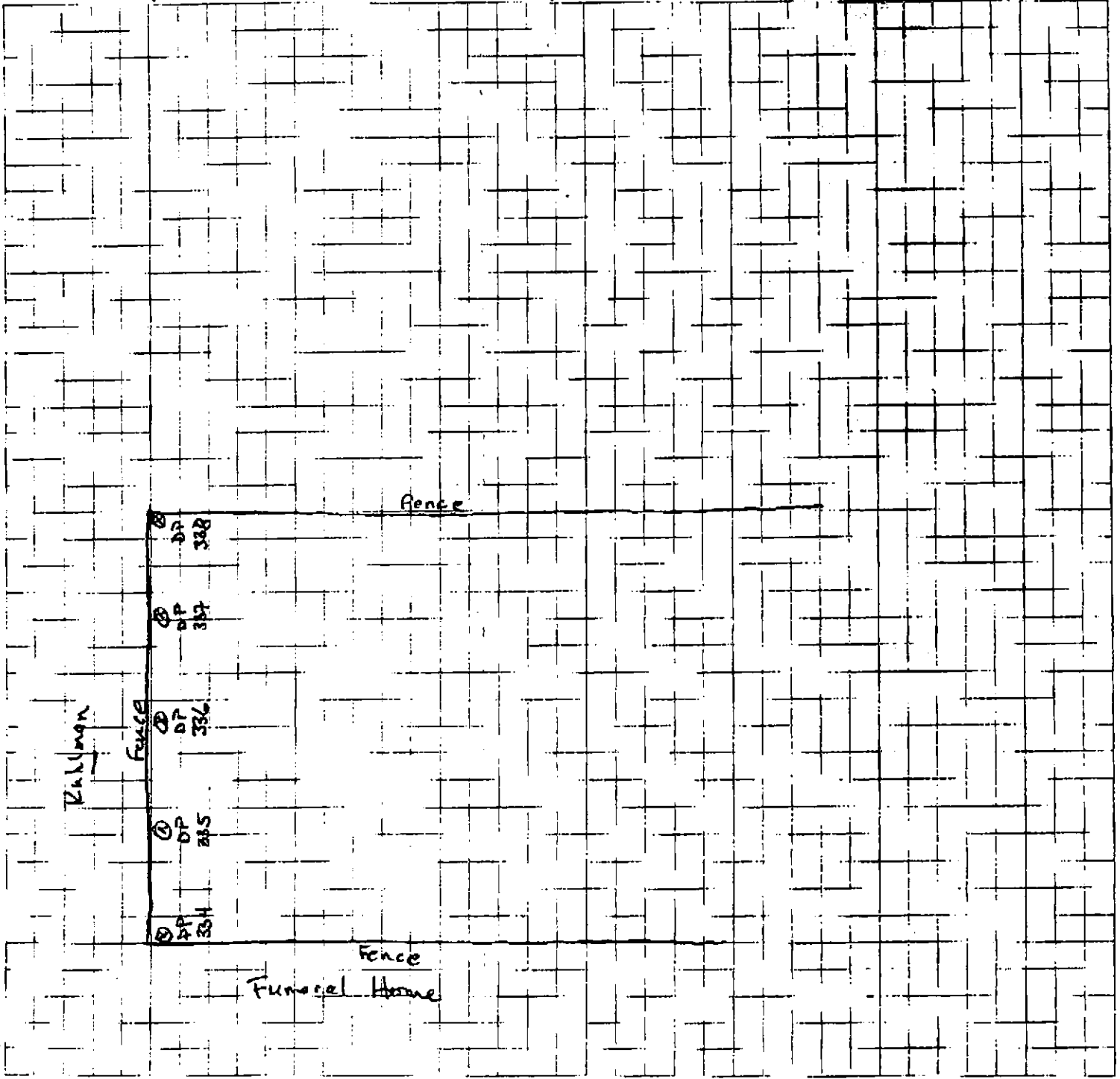
12/20



Job Name: Crystal Spring S  
Job Number: \_\_\_\_\_  
Title: 303 N. Jackson (stringer)  
Computed by: \_\_\_\_\_ Checked by: \_\_\_\_\_  
Date: 8-17-00 Sheet: 6 of \_\_\_\_\_

NT

1 block = 5'



Kullman

Fence

Fence

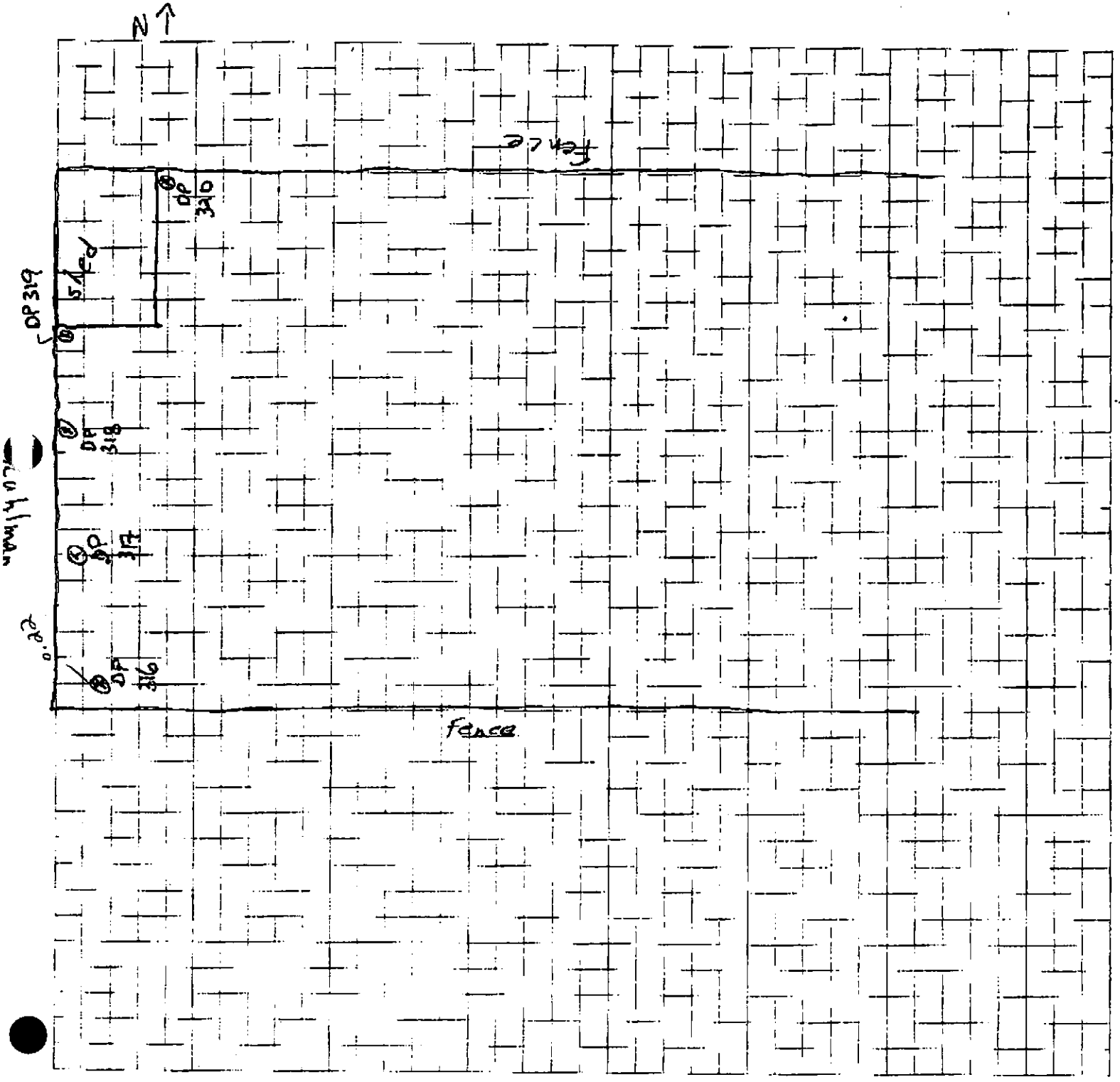
Fence  
Funeral Home

- DP 388
- DP 387
- DP 386
- DP 385
- DP 384



Job Name: Crystal Springs  
Job Number: \_\_\_\_\_  
Title: 401 N. Jackson Elnor Wright  
Computed by: \_\_\_\_\_ Checked by: \_\_\_\_\_  
Date: 8-16-2000 Sheet: 3 Of: \_\_\_\_\_

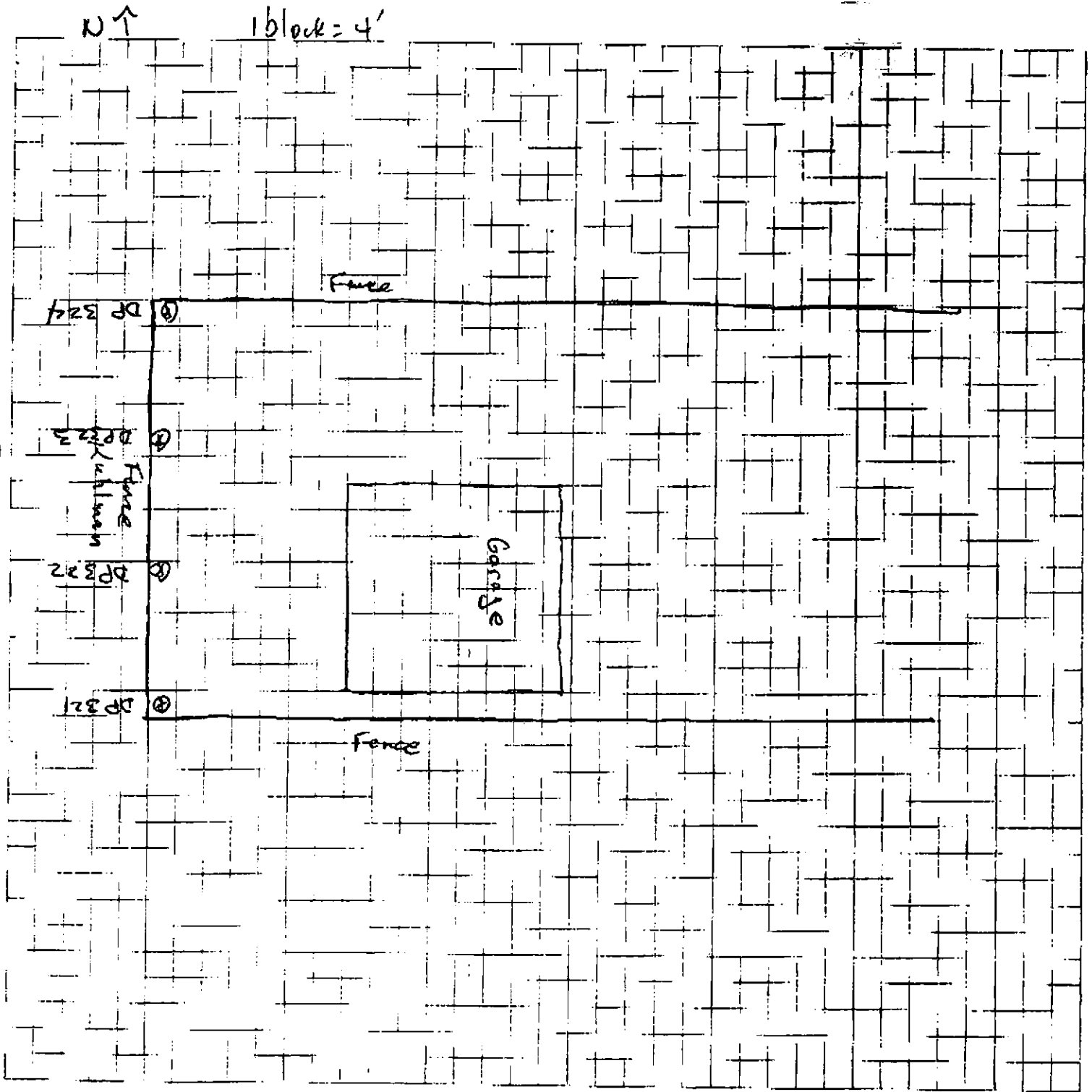
1 block = 4'





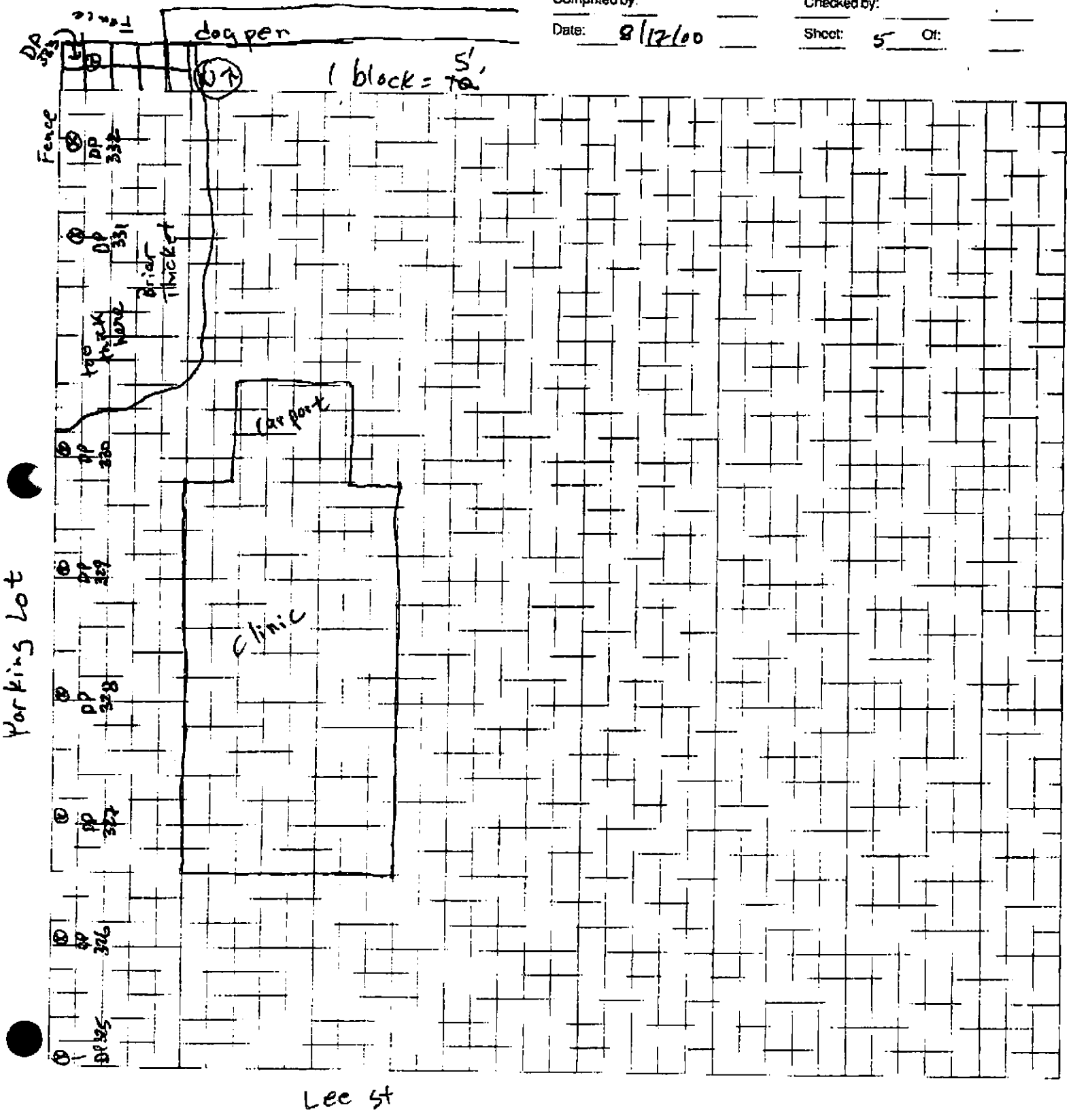


Job Name: Crystal Springs  
 Job Number: \_\_\_\_\_  
 Title: 407 N. Jackson Louis Lang  
 Computed by: \_\_\_\_\_ Checked by: \_\_\_\_\_  
 Date: 8-16-06 Sheet 4 of \_\_\_\_\_





Job Name: Crystal Springs  
 Job Number: \_\_\_\_\_  
 Title: Lee St. Medical  
 Computed by: \_\_\_\_\_ Checked by: \_\_\_\_\_  
 Date: 8/17/00 Sheet: 5 Of: \_\_\_\_\_

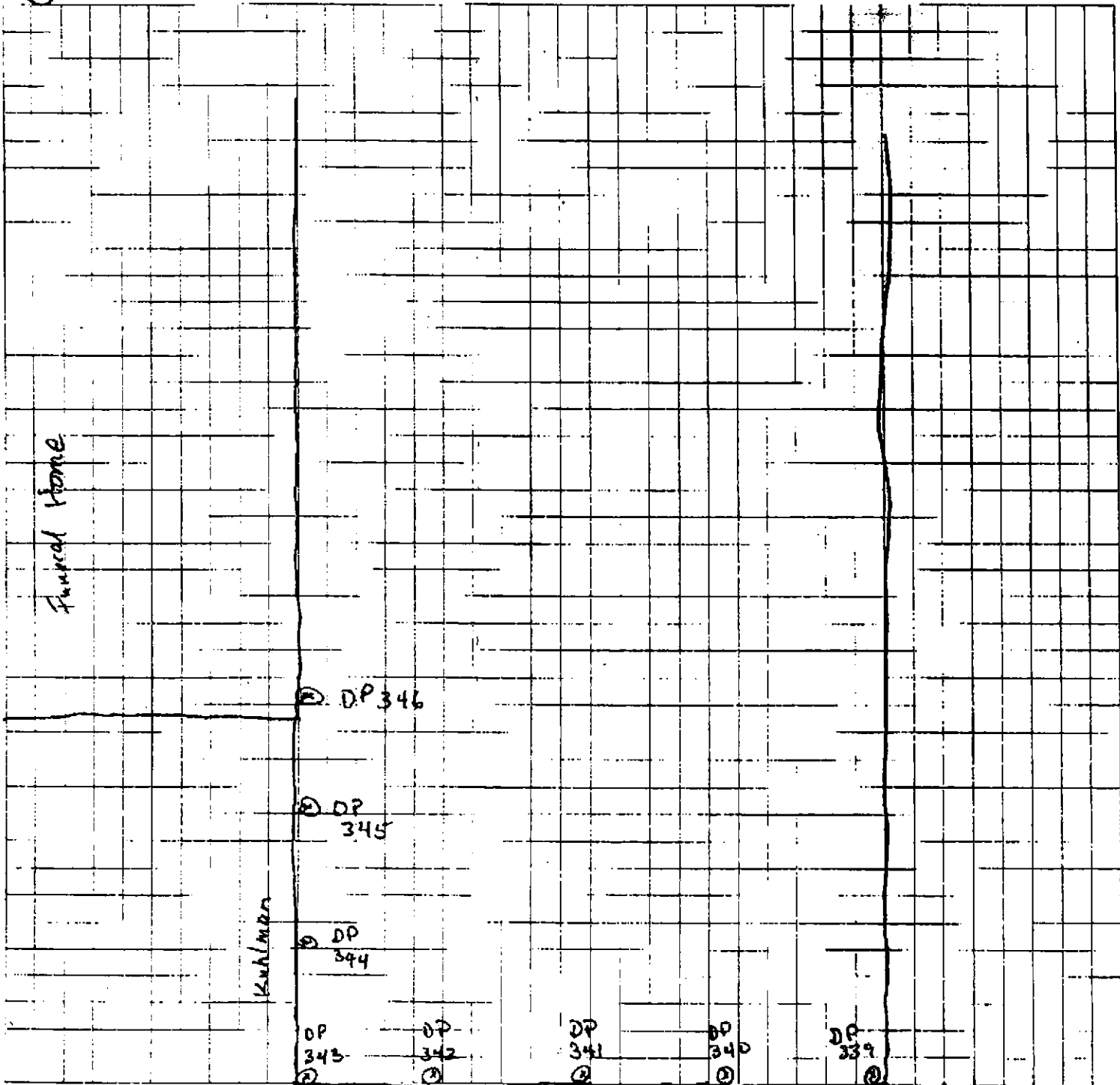




Job Name: Crystal Springs  
Job Number: \_\_\_\_\_  
Title: 219 N. Jackson - Perry Smith  
Computed by: TJF Checked by: \_\_\_\_\_  
Date: 8-17-00 Sheet: 7 of: \_\_\_\_\_

1 block = 5'

↑  
②



Kuhlman



Job Name: Crystal Springs-

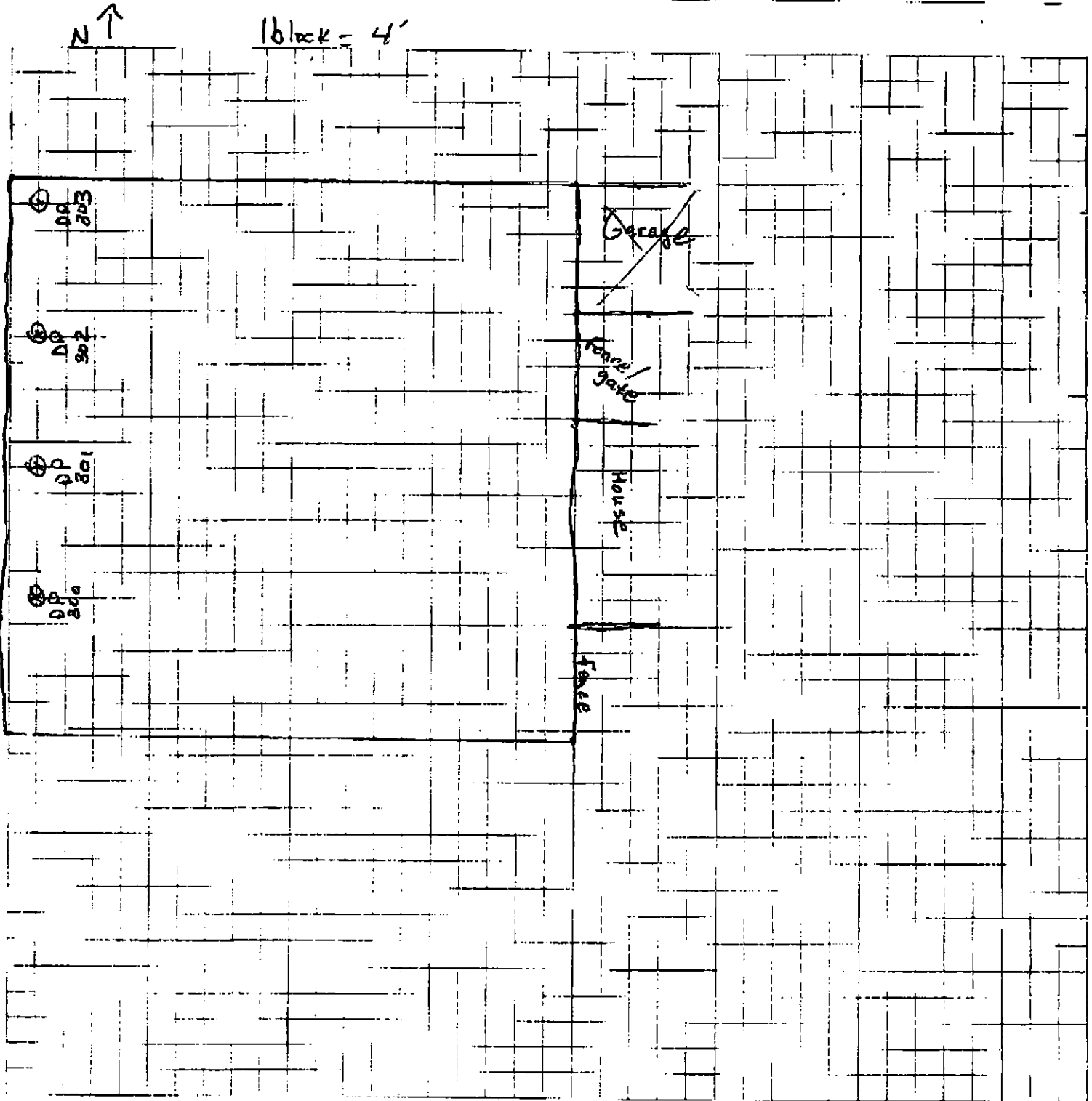
Job Number: \_\_\_\_\_

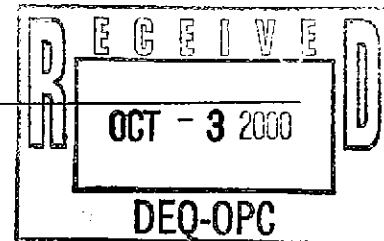
Title: Spring Reeves backyard 405 Jackson

Computed by: \_\_\_\_\_ Checked by: \_\_\_\_\_

Date: 2/16/00 Sheet: 1 Of: \_\_\_\_\_

Kuhlman





October 2, 2000

Ms. Gretchen Zmitrovich  
Office of Pollution Control  
Mississippi Department of  
Environmental Quality  
P.O. Box 10385  
Jackson, Mississippi 39289-0385

**FILE COPY**

**SUBJECT: Transmittal of Analytical Data for Residences  
Kuhlman Electric Corporation  
Crystal Springs, Mississippi**

---

Dear Ms. Zmitrovich:

Attached are site plans and spreadsheets showing sampling locations and analytical results from sampling of soils by Ogden Environmental and Energy Services. The soil samples were collected from residential properties surrounding Kuhlman Electric Corporation. Samples were collected from various depths ranging from ground surface to 4 feet below grade and analyzed by an on-site laboratory. Split samples were sent to Paradigm Analytical Laboratories for confirmation of on-site lab results.

The following properties have concentrations of PCB 1260 less than 1 mg/kg.

1. Perry Smith Property at 219 North Jackson Street
2. Stringer Funeral Home at 301 North Jackson Street
3. Stringer Rental Property at 303 North Jackson Street
4. Harold and Suzanne Warren Property at 403 North Jackson Street
5. Elnor Wright Property at 401 North Jackson Street
6. Sonny Reeves Property at 405 North Jackson Street

October 2, 2000

Page 2

---

7. Brent Property at 403 Lee Avenue
8. Louie Lang / David Vinson at 407 North Jackson
9. Jerry Youngblood at 100 Lamar Street

Please contact me at 828-669-3929 if you have any questions or comments concerning these results.

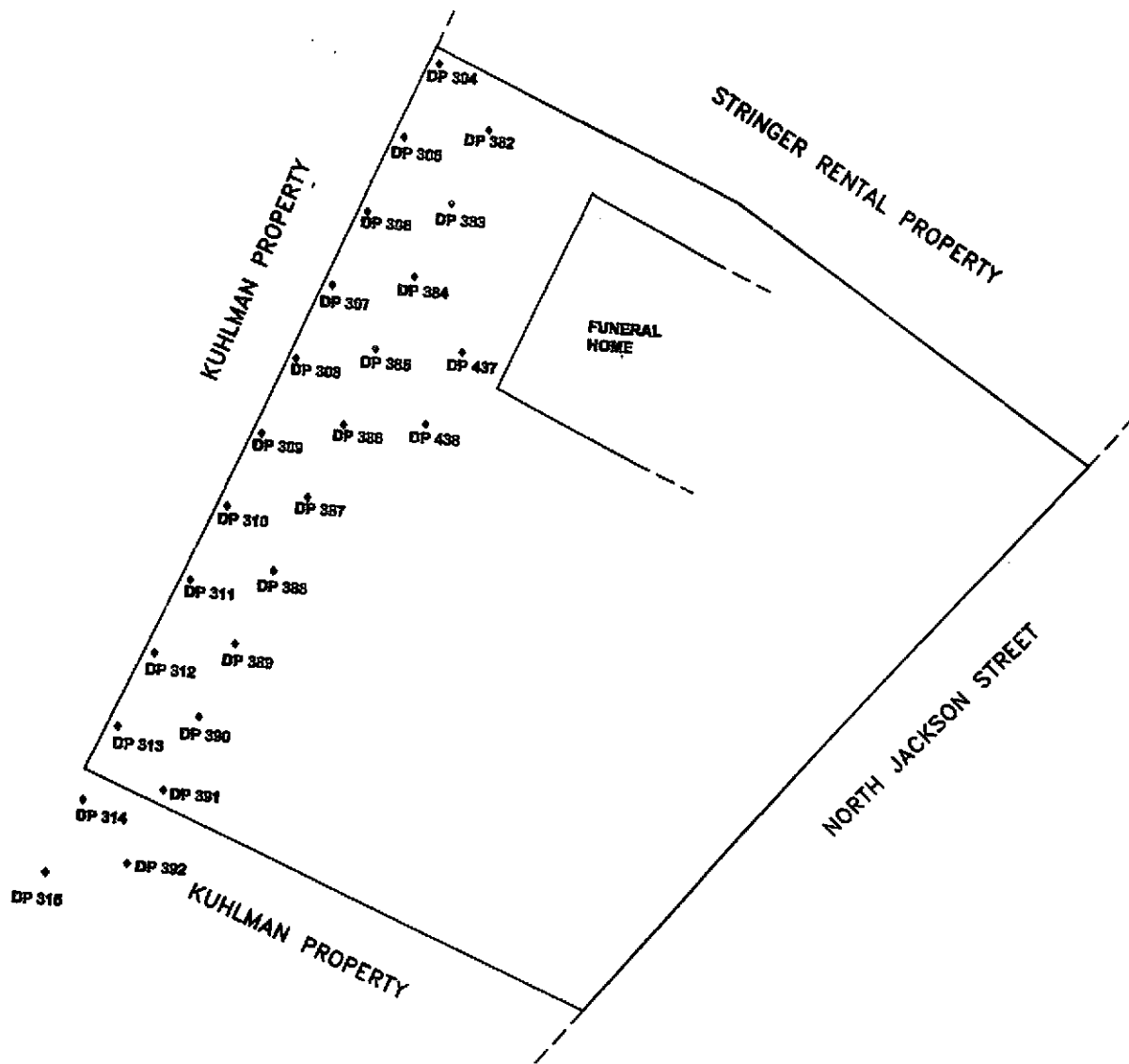
Sincerely,

Martin and Slagle GeoEnvironmental Associates, LLC



Robert L. Martin, P.G.  
Project Manager

Cc: Anastasia Hamel, Borg Warner Inc.



**LEGEND**

- SAMPLE POINT
- DP 302 SAMPLE POINT NUMBER



- 1) ALL DISTANCES ARE ESTIMATED
- 2) THIS MAP WAS PREPARED FROM RECORD MAPS
- 3) THIS MAP HAS BEEN PREPARED FOR PRESENTATION PURPOSES ONLY

**SAMPLE LOCATIONS FOR  
STRINGER FUNERAL HOME  
301 NORTH JACKSON**

SCALE: AS SHOWN

DR	MDI	CHEK	TF	REV
----	-----	------	----	-----

PREPARED BY:

**OGDEN** ENVIRONMENTAL AND ENGINEERING SERVICES

200 SOUTH OLD STATEVILLE ROAD • HUNTERSVILLE, NC 28078 • 704-875-3570

PROJ: 073350000	DATE: 09/24/00	SHEET 1 OF 1
-----------------	----------------	--------------

Soil and Wipe Sample Results  
 Stringer Funeral Home  
 301 North Jackson  
 Crystal Springs, Mississippi

SOIL SAMPLES (MG/KG)										
Target Analyte	Sample #	DP-304	DP-304	DP-305	DP-305	DP-306	DP-306	DP-307	DP-307	DP-308
PCB as 1260	Depth	0.5	4	0.5	4	4	0.5	4	0.5	0.5
	Lab #	12	13	14	15	16	17	18	19	20
		0.29	<0.10	0.66	<0.10	<0.10	<0.10	0.16	<0.10	0.15
	Collection Date	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00
	Collection Time	10:46	10:50	10:52	10:55	10:59	11:03	11:12	11:16	11:20
	Injection Date	8/17/00	8/17/00	8/17/00	8/17/00	8/17/00	8/17/00	8/17/00	8/16/00	8/18/00

WIPE SAMPLES (TOTAL UG)					
Target Analyte	Sample #	SFH-1	SFH-2	SFH-3	SFH-4
PCB as 1260	Depth	736	737	736	739
	Lab #				
		<0.50	<0.50	<0.50	<0.50
	Collection Date	8/30/00	8/30/00	8/30/00	8/30/00
	Collection Time	13:15	13:16	13:22	13:25
	Injection Date	8/30/00	8/30/00	8/30/00	8/30/00

LOCATIONS:  
 SFH1: Double glass doors, entry from hearse parking.  
 SFH2: Wooden fence slat, 40' south of north fence line, 4' above ground surface.  
 SFH3: North handrail of stairs on north side of building, leading to second story. Taken from third step up from ground level.  
 SFH4: Double glass doors, south side entrance.



Soil and Wipe Sample Results  
 Stringer Funeral Home  
 301 North Jackson  
 Crystal Springs, Mississippi

SOIL SAMPLES (MG/KG)											
Target Analyte	Sample #	DP-308	DP-309	DP-309	DP-310	DP-310	DP-310	DP-310	DP-311	DP-311	DP-312
	Depth	4	0.5	4	0.5	4	0.5	4	0.5	4	4
	Lab #	21	22	23	24	25	26	27	28	29	29
PCB as 1260		<0.10	<0.10	<0.10	0.22	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
	Collection Date	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00
	Collection Time	11:22	11:26	11:30	11:47	11:50	11:55	12:00	12:05	12:09	12:09
	Injection Date	8/16/00	8/16/00	8/16/00	8/16/00	8/17/00	8/17/00	8/17/00	8/17/00	8/17/00	8/17/00

SOIL SAMPLES (MG/KG)											
Target Analyte	Sample #	DP-313	DP-313	DP-314	DP-314	DP-314	DP-315	DP-315	DP-315	DP-382	DP-382
	Depth	0.5	4	0.5	4	4	0.5	4	4	0.5	4
	Lab #	30	31	32	33	34	35	185	186	187	187
PCB as 1260		<0.10	<0.10	0.16	<0.10	0.12	<0.10	<0.10	<0.10	<0.10	NA
	Collection Date	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/19/00	8/19/00
	Collection Time	12:12	12:14	12:17	12:20	12:22	12:25	8:15	8:16	8:15	8:25
	Injection Date	8/17/00	8/17/00	8/17/00	8/17/00	8/17/00	8/17/00	8/17/00	8/17/00	8/19/00	8/19/00

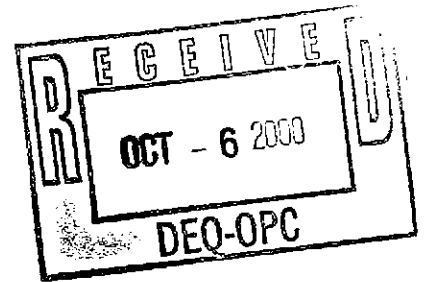
Soil and Wipe Sample Results  
 Stringer Funeral Home  
 301 North Jackson  
 Crystal Springs, Mississippi

SOIL SAMPLES (MG/KG)										
Target Analyte	DP-383	DP-384	DP-384	DP-385	DP-385	DP-386	DP-386	DP-387	DP-387	DP-387
	4	0.5	4	0.5	4	0.5	4	0.5	4	4
	188	189	190	191	192	193	194	195	196	196
PCB as 1260	NA	<0.10	NA	0.68	<0.10	<0.10	NA	<0.10	NA	NA
Collection Date	8/19/00	8/19/00	8/19/00	8/19/00	8/19/00	8/19/00	8/19/00	8/19/00	8/19/00	8/19/00
Collection Time	8:26	8:31	8:32	8:45	8:46	8:54	8:56	9:01	9:02	9:02
Injection Date	NA	8/19/00	NA	8/19/00	8/19/00	8/19/00	NA	8/19/00	8/19/00	NA

SOIL SAMPLES (MG/KG)										
Target Analyte	DP-388	DP-388	DP-389	DP-389	DP-390	DP-390	DP-391	DP-391	DP-392	DP-392
	0.5	4	0.5	4	4	4	0.5	4	0.5	0.5
	197	198	199	200	202	203	204	204	205	205
PCB as 1260	<0.10	NA	<0.10	NA	NA	<0.10	NA	NA	<0.10	<0.10
Collection Date	8/19/00	8/19/00	8/19/00	8/19/00	8/19/00	8/19/00	8/19/00	8/19/00	8/19/00	8/19/00
Collection Time	9:09	9:10	9:15	9:17	9:20	9:22	9:24	9:24	9:26	9:26
Injection Date	8/19/00	NA	8/19/00	NA	8/19/00	8/19/00	NA	8/19/00	8/19/00	8/19/00

October 5, 2000

Ms. Gretchen Zmitrovich  
Office of Pollution Control  
Mississippi Department of  
Environmental Quality  
Office of Pollution Control  
P.O. Box 10385  
Jackson, Mississippi 39289-0385



**SUBJECT: Transmittal of Revised Analytical Data Tables for Residences  
Kuhlman Electric Corporation  
Crystal Springs, Mississippi**

---

Dear Ms. Zmitrovich:

Attached is one complete set of revised spreadsheets showing analytical results from sampling of soils by Ogden Environmental and Energy Services. The tables were revised based on your review and comments. Results for split samples are being prepared into tables and will be forwarded to you by Monday at the latest.

Please contact me at 828-669-3929 if you have any questions or comments concerning these results.

Sincerely,

**Martin and Slagle GeoEnvironmental Associates, LLC**

A handwritten signature in cursive script that reads "Robert L. Martin".

Robert L. Martin, P.G.  
Project Manager

Cc: Anastasia Hamel. BorgWarner Inc.

Soil and Wipe Sample Results  
 Stringer Funeral Home  
 301 North Jackson  
 Crystal Springs, Mississippi

SOIL SAMPLES (MG/KG)											
Target Analyte	Sample #	DP-304	DP-304	DP-305	DP-305	DP-306	DP-306	DP-307	DP-307	DP-308	DP-308
	Depth (ft)	0.5	4	0.5	4	0.5	4	0.5	4	0.5	4
	Lab #	12	13	14	15	16	17	18	19	20	20
PCB as 1260		0.29	<0.10	0.66	<0.10	<0.10	<0.10	0.16	<0.10	<0.10	0.15
	Collection Date	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00
	Collection Time	10:46	10:50	10:52	10:55	10:59	11:03	11:12	11:16	11:20	11:20
	Injection Date	8/17/00	8/17/00	8/17/00	8/17/00	8/17/00	8/17/00	8/17/00	8/17/00	8/17/00	8/18/00

WIPE SAMPLES (TOTAL UG)					
Target Analyte	Sample #	SFH-1	SFH-2	SFH-3	SFH-4
	Depth				
	Lab #	736	737	738	739
PCB as 1260		<0.50	<0.50	<0.50	<0.50
	Collection Date	8/30/00	8/30/00	8/30/00	8/30/00
	Collection Time	13:15	13:18	13:22	13:25
	Injection Date	8/30/00	8/30/00	8/30/00	8/30/00

LOCATIONS: SFH1: Double glass doors, entry from hearse parking.  
 SFH2: Wooden fence slat, 40' south of north fence line, 4' above ground surface.  
 SFH3: North handrail of stairs on north side of building, leading to second story. Taken from third step up from ground level.  
 SFH4: Double glass doors, south side entrance.

Soil and Wipe Sample Results  
 Stringer Funeral Home  
 301 North Jackson  
 Crystal Springs, Mississippi

SOIL SAMPLES (MG/KG)										
Target Analyte	DP-308	DP-309	DP-309	DP-310	DP-310	DP-310	DP-311	DP-311	DP-311	DP-312
	4	0.5	4	0.5	4	0.5	4	0.5	4	4
	21	22	23	24	25	26	27	28	29	28
PCB as 1260	<0.10	<0.10	<0.10	0.22	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Collection Date	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00
Collection Time	11:22	11:28	11:30	11:47	11:50	11:55	12:00	12:05	12:09	12:09
Injection Date	8/16/00	8/16/00	8/16/00	8/16/00	8/17/00	8/17/00	8/17/00	8/17/00	8/17/00	8/17/00

SOIL SAMPLES (MG/KG)										
Target Analyte	DP-313	DP-313	DP-314	DP-314	DP-314	DP-315	DP-315	DP-315	DP-382	DP-383
	0.5	4	0.5	4	4	0.5	4	0.5	4	0.5
	30	31	32	33	33	34	35	185	186	187
PCB as 1260	<0.10	<0.10	0.16	<0.10	<0.10	0.12	<0.10	<0.10	NA	<0.10
Collection Date	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/16/00	8/19/00	8/19/00
Collection Time	12:12	12:14	12:17	12:20	12:20	12:22	12:25	8:15	8:16	8:25
Injection Date	8/17/00	8/17/00	8/17/00	8/17/00	8/17/00	8/17/00	8/17/00	8/19/00	NA	8/19/00

Notes:

NA Indicates Sample Not Analyzed

Soil and Wipe Sample Results  
 Stringer Funeral Home  
 301 North Jackson  
 Crystal Springs, Mississippi

SOIL SAMPLES (MG/KG)												
Target Analyte	Sample #	DP-383	DP-384	DP-384	DP-385	DP-385	DP-386	DP-386	DP-388	DP-387	DP-387	DP-387
	Depth (ft)	4	0.5	4	0.5	4	0.5	4	4	0.5	4	4
	Lab #	188	189	190	191	192	193	194	194	185	185	186
PCB as 1260		NA	<0.10	NA	0.88	<0.10	<0.10	NA	NA	<0.10	<0.10	NA
	Collection Date	8/19/00	8/19/00	8/19/00	8/19/00	8/19/00	8/19/00	8/19/00	8/19/00	8/19/00	8/19/00	8/19/00
	Collection Time	8:26	8:31	8:32	8:45	8:48	8:54	8:56	8:56	9:01	9:01	9:02
	Injection Date	NA	8/19/00	NA	8/19/00	8/19/00	8/19/00	NA	NA	8/19/00	8/19/00	NA

Notes:

NA Indicates Sample Not Analyzed

SOIL SAMPLES (MG/KG)												
Target Analyte	Sample #	DP-388	DP-388	DP-389	DP-389	DP-389	DP-390	DP-390	DP-391	DP-391	DP-391	DP-392
	Depth (ft)	0.5	4	0.5	4	0.5	4	0.5	4	0.5	4	0.5
	Lab #	197	198	199	200	201	202	203	204	204	204	205
PCB as 1260		<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10	NA	<0.10
	Collection Date	8/19/00	8/19/00	8/19/00	8/19/00	8/19/00	8/19/00	8/19/00	8/19/00	8/19/00	8/19/00	8/19/00
	Collection Time	9:09	9:10	9:15	9:17	9:19	9:20	9:22	9:24	9:24	9:26	9:26
	Injection Date	8/19/00	NA	8/19/00	NA	8/19/00	NA	8/19/00	NA	8/19/00	NA	8/19/00

Notes:

NA Indicates Sample Not Analyzed

Soil and Wipe Sample Results  
 Stringer Funeral Home  
 301 North Jackson  
 Crystal Springs, Mississippi

SOIL SAMPLES (MG/KG)		DP-392	DP-437	DP-437	DP-438	DP-438	DP-438	DP-304	DP-305	DP-385
Target Analyte	Sample #	4	0.5	4	0.5	4	0.1	0.1	0.1	0.1
	Depth (ft)									
	Lab #	206	300	301	302	303	1121	1122	1122	1123
PCB as 1260		NA	<0.10	NA	<0.10	NA	0.37	0.60*J	0.10	0.10
	Collection Date	8/19/00	8/20/00	8/20/00	8/20/00	8/20/00	9/19/00	9/19/00	9/19/00	9/19/00
	Collection Time	9:27	13:20	13:22	13:35	13:36	11:40	11:42	11:45	11:45
	Injection Date	NA	8/20/00	NA	8/20/00	NA	9/20/00	8/20/00	8/20/00	8/20/00

Notes:

NA Indicates Sample Not Analyzed

\* J Estimated level, due to interference from the presence of Technical Chlordane, DDT, DDD, & DDE.