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

February 9, 2001

CERTIFIED LETTER NO. Z 039 740 198 RETURN RECEIPT REQUESTED

Mr. and Mrs. Larry Wright
305 N. Jackson Street
Crystal Springs, MS 39059

RE: 305 N. Jackson Street
Crystal Springs, Copiah County, Mississippi

Dear Mr. and Mrs. Wright:

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,

Tony Russell, Chief
Uncontrolled Sites Section

Kuhlman Electric-305 N. Jackson Street (Wright) SNFA_2-9-01 (gz)

Z 039 740 198

US Postal Service

Receipt for Certified Mail

MR AND MRS LARRY WRIGHT
305 N JACKSON STREET
CRYSTAL SPRINGS MS 39059

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	
TOTAL Postage & Fees	$
Postmark or Date	

PS Form 3800, April 1995

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "*Return Receipt Requested*" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

MR AND MRS LARRY WRIGHT
305 N JACKSON STREET
CRYSTAL SPRINGS MS 39059

4a. Article Number
Z 039 740 198

4b. Service Type
☐ Registered ☒ Certified
☐ Express Mail ☐ Insured
☒ Return Receipt for Merchandise ☐ COD

7. Date of Delivery 2/14/01

5. Received By: *(Print Name)*

6. Signature: *(Addressee or Agent)*
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8. Addressee's Address *(Only if requested and fee is paid)*

PS Form **3811**, December 1994 102595-97-B-0179 **Domestic Return Receipt**

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

February 9, 2001

Mr. and Mrs. Larry Wright
305 N. Jackson Street
Crystal Springs, MS 39059

RE: soil and wipe sampling

Dear Mr. and Mrs. Wright:

Please find attached the report for the soil and wipe sampling conducted at 305 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,

T Russell

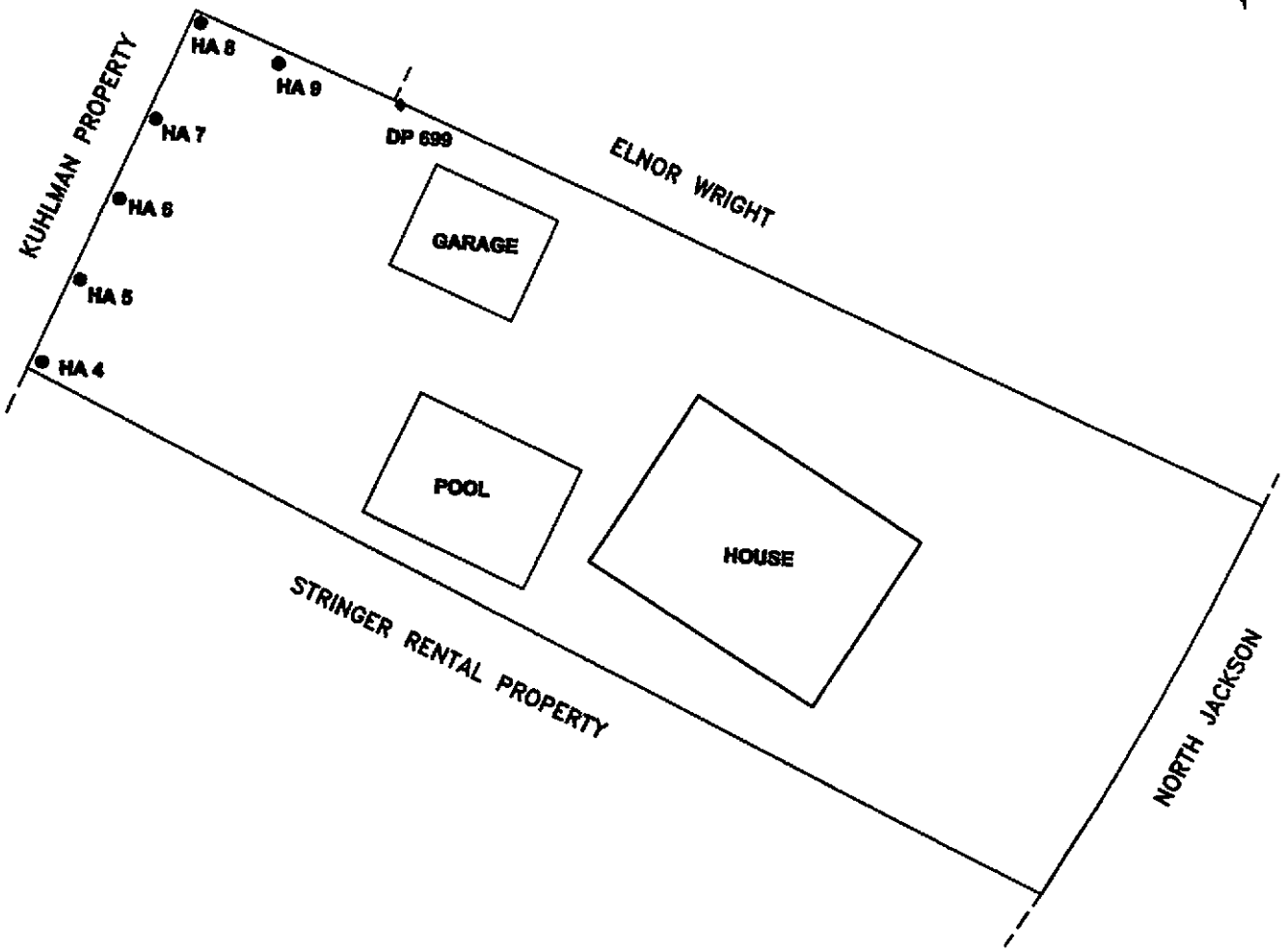
Tony Russell, Chief
Uncontrolled Sites Section

Enclosures

Kuhlman Electric-305 N. Jackson (Wright) report_2-9-01 (gz)

OFFICE OF POLLUTION CONTROL
POST OFFICE BOX 10385 • JACKSON, MISSISSIPPI 39289-0385 • TEL: (601) 961-5171 • FAX: (601) 354-6612 • www.deq.state.ms.us
AN EQUAL OPPORTUNITY EMPLOYER

COPY



LEGEND

◆ SAMPLE POINT
DP 392 SAMPLE POINT NUMBER
● SAMPLE POINT
HA 5 SAMPLE POINT NUMBER

25 0 25 50

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 LARRY WRIGHT PROPERTY 305 NORTH JACKSON

SCALE: AS SHOWN	DR MDI	CHK TF	REV BPS

PREPARED BY:

OGDEN ENVIRONMENTAL AND ENGINEERING SERVICES
200 SOUTH OLD STATESVILLE ROAD • HUNTERSVILLE, NC 28078 • 704-875-3570

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

Soil and Wipe Sample Results
Larry Wright Property
305 North Jackson
Crystal Springs, Mississippi

SOIL SAMPLES (MG/KG)										
Target Analyte	Sample #	HA-4	HA-4	HA-5	HA-5	HA-6	HA-6	HA-7	HA-7	HA-7
	Depth (ft)	0.5	2.5	0.5	2.5	0.5	2.5	0.5	1.5	2.25
	Lab #	123	124	125	126	127	128	129	130	295
PCB as 1260		<0.10	<0.10	<0.10	<0.10	0.10	<0.10	0.11	0.16	<0.10
	Collection Date	8/18/00	8/18/00	8/18/00	8/18/00	8/18/00	8/18/00	8/18/00	8/18/00	8/20/00
	Collection Time	8:39	8:43	8:49	8:54	8:57	9:01	9:05	9:19	10:49
	Injection Date	8/18/00	8/18/00	8/18/00	8/18/00	8/18/00	8/19/00	8/19/00	8/19/00	8/20/00

WIPE SAMPLES (TOTAL UG)					
Target Analyte	Sample #	WWW-1	WWW-2	WWW-3	WWW-4
	Depth				
	Lab #	732	733	734	735
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	12:55	12:56	12:59	13:00
	Injection Date	8/30/00	8/30/00	8/30/00	8/30/00

Notes:

LOCATION:
WWW1: White metal patio table, top surface.
WWW2: Loveseat bench in backyard, rear surface.
WWW3: Brick walkway adjacent to patio table and chairs in backyard.
WWW4: Top section of wooden fence gate leading to backyard.

Soil and Wipe Sample Results
Larry Wright Property
305 North Jackson
Crystal Springs, Mississippi

SOIL SAMPLES (MG/KG)							
Target Analyte	Sample #	HA-8	HA-8	HA-9	HA-9	HA-7	DP-699
	Depth (ft)	0.5	2.25	0.5	2.5	0.1	0.1
	Lab #	296	297	298	299	1115	1111
PCB as 1260		**<2.0	+<0.50J	<1.0	<0.50	1.1*J	0.21
	Collection Date	8/20/00	8/20/00	8/20/00	8/20/00	9/19/00	9/19/00
	Collection Time	10:55	11:04	11:14	11:26	10:20	10:25
	Injection Date	8/20/00	8/20/00	8/20/00	8/20/00	9/19/00	9/19/00

* J Estimated level, due to interference from the presence of Technical Chlordane, DDT, DDD, & DDE.
** Lowest detection level possible due to interference from presence of chlordane, DDT, DDD,& DDE.

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for PCBs
by EPA 8082

Client Sample ID: DP-699-0.5
Client Project ID: Borg Warner Kuhlman Electric
Lab Sample ID: 95950
Lab Project ID: G185-83
Matrix: Soil %SOLIDS: 91.0

Date Collected: 9/19/00
Date Received: 9/22/00
Date Analyzed: 10/2/00
Analyzed By: CLP
Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Arochlor-1016	240	BQL
Arochlor-1221	240	BQL
Arochlor-1232	240	BQL
Arochlor-1242	240	BQL
Arochlor-1248	240	BQL
Arochlor-1254	240	BQL
Arochlor-1260	240	BQL
Arochlor-1262	240	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
TCMX	100	63	63

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

Reviewed By:

PARAGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles
by GCMS 8270

Client Sample ID: DP-699-0.5
Client Project ID: Borg Warner Kuhlman Electric
Lab Sample ID: 95950
Lab Project ID: G185-83
Matrix: Soil %Solids: 91.0

Date Collected: 9/19/00
Date Received: 9/22/00
Date Analyzed: 10/6/00
Analyzed By: MRC
Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acenaphthene	410	BQL
Acenaphthylene	410	BQL
Anthracene	410	BQL
Benzo[a]anthracene	410	BQL
Benzo[a]pyrene	410	BQL
Benzo[b]fluoranthene	410	BQL
Benzo[g,h,i]perylene	410	BQL
Benzo[k]fluoranthene	410	BQL
Benzoic Acid	820	BQL
Bis(2-chloroethoxy)methane	410	BQL
Bis(2-chloroethyl)ether	410	BQL
Bis(2-chloroisopropyl)ether	410	BQL
Bis(2-ethylhexyl)phthalate	410	BQL
4-bromophenyl phenyl ether	410	BQL
Butylbenzylphthalate	410	BQL
4-Chloroaniline	410	BQL
4-Chloro-3-methylphenol	410	BQL
2-Chloronaphthalene	410	BQL
2-Chlorophenol	410	BQL
4-Chlorophenyl phenyl ether	410	BQL
Chrysene	410	BQL
Di-n-Butylphthalate	410	BQL
Di-n-octylphthalate	410	BQL
Dibenzo[a,h]anthracene	410	BQL
Dibenzofuran	410	BQL
1,2-Dichlorobenzene	410	BQL
1,3-Dichlorobenzene	410	BQL
1,4-Dichlorobenzene	410	BQL
3,3'-Dichlorobenzidine	820	BQL
2,4-Dichlorophenol	410	BQL
Diethylphthalate	410	BQL
2,4-Dimethylphenol	410	BQL
Dimethylphthalate	410	BQL
4,6-Dinitro-2-methylphenol	2000	BQL
2,4-Dinitrophenol	2000	BQL
2,4-Dinitrotoluene	410	BQL
2,6-Dinitrotoluene	410	BQL
Fluoranthene	410	**520**
Fluorene	410	BQL
Hexachlorobenzene	410	BQL
Hexachlorobutadiene	410	BQL
Hexachlorocyclopentadiene	820	BQL
Hexachloroethane	410	BQL
Indeno(1,2,3-c,d)pyrene	410	BQL
Isophorone	410	BQL

Results for Semivolatiles
by GCMS 8270

Client Sample ID: DP-699-0.5
Client Project ID: Borg Warner Kuhlman Electric
Lab Sample ID: 95950
Lab Project ID: G185-83
Matrix: Soil %Solids: 91.0

Date Collected: 9/19/00
Date Received: 9/22/00
Date Analyzed: 10/6/00
Analyzed By: MRC
Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
2-Methylnaphthalene	410	BQL
2-Methylphenol	410	BQL
3- & 4-Methylphenol	410	BQL
N-Nitrosodi-n-propylamine	410	BQL
N-Nitrosodiphenylamine	410	BQL
Naphthalene	410	BQL
2-Nitroaniline	410	BQL
3-Nitroaniline	410	BQL
4-Nitroaniline	410	BQL
Nitrobenzene	410	BQL
2-Nitrophenol	410	BQL
4-Nitrophenol	2000	BQL
Pentachlorobenzene	410	BQL
Pentachlorophenol	2000	BQL
Phenanthrene	410	BQL
Phenol	410	BQL
Pyrene	410	440
1,2,3,4-Tetrachlorobenzene	410	BQL
1,2,3,5- & 1,2,4,5-Tetrachlorobenzene	410	BQL
1,2,3-Trichlorobenzene	410	BQL
1,2,4-Trichlorobenzene	410	BQL
1,3,5-Trichlorobenzene	410	BQL
2,4,5-Trichlorophenol	410	BQL
2,4,6-Trichlorophenol	410	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9.3	93
2-Fluorophenol	10	5.1	51
Nitrobenzene-d5	10	8.8	88
Phenol-d6	10	6.4	64
2,4,6-Tribromophenol	10	3.7	37
4-Terphenyl-d14	10	9.1	91

Comments:

Results are corrected for %solids and dilution where applicable.

Flags:

BQL = Below Quantitation Limit.

Reviewed By:

PARAGON ANALYTICAL LABORATORIES, INC.

Results of Library Search for Semivolatile Compounds

by GCMS

Client Sample ID: DP-699-0.5
Client Project ID: Borg Warner Kuhlman Electric
Lab Sample ID: 95950
Lab Project ID: G185-83
Matrix: Soil %SOLIDS: 91.0

Date Collected: 9/19/00
Date Received: 9/22/00
Date Analyzed: 10/6/00
Analyzed By: MRC
Dilution: 1

Num.	Compound	CAS#	Match Probability	Result (ug/KG)
1	Aromatic, Unknown			370
2	Unknown			270
3	Aromatic, Unknown			260
4	Unknown			220
5	Unknown			210
6	Unknown			180
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: _____

PARAGON ANALYTICAL LABORATORIES, INC.

Results for PCBs
by EPA 8082

Client Sample ID: HA-7-0.1
Client Project ID: Borg Warner Kuhlman Electric
Lab Sample ID: 95949
Lab Project ID: G185-83
Matrix: Soil %SOLIDS: 89.4

Date Collected: 9/19/00
Date Received: 9/22/00
Date Analyzed: 10/11/00
Analyzed By: CLP
Dilution: 2

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Arochlor-1016	510	BQL
Arochlor-1221	510	BQL
Arochlor-1232	510	BQL
Arochlor-1242	510	BQL
Arochlor-1248	510	BQL
Arochlor-1254	510	BQL
Arochlor-1260	510	**720**
Arochlor-1262	510	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
TCMX	100	66	66

*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: [signature]

Results for Semivolatiles
by GCMS 8270

Client Sample ID: HA-7-0.1
Client Project ID: Borg Warner Kuhlman Electric
Lab Sample ID: 95949
Lab Project ID: G185-83
Matrix: Soil %Solids: 89.4

Date Collected: 9/19/00
Date Received: 9/22/00
Date Analyzed: 10/6/00
Analyzed By: MRC
Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acenaphthene	510	BQL
Acenaphthylene	510	BQL
Anthracene	510	BQL
Benzo[a]anthracene	510	BQL
Benzo[a]pyrene	510	BQL
Benzo[b]fluoranthene	510	BQL
Benzo[g,h,i]perylene	510	BQL
Benzo[k]fluoranthene	510	BQL
Benzoic Acid	1000	BQL
Bis(2-chloroethoxy)methane	510	BQL
Bis(2-chloroethyl)ether	510	BQL
Bis(2-chloroisopropyl)ether	510	BQL
Bis(2-ethylhexyl)phthalate	510	BQL
4-bromophenyl phenyl ether	510	BQL
Butylbenzylphthalate	510	BQL
4-Chloroaniline	510	BQL
4-Chloro-3-methylphenol	510	BQL
2-Chloronaphthalene	510	BQL
2-Chlorophenol	510	BQL
4-Chlorophenyl phenyl ether	510	BQL
Chrysene	510	BQL
Di-n-Butylphthalate	510	BQL
Di-n-octylphthalate	510	BQL
Dibenzo[a,h]anthracene	510	BQL
Dibenzofuran	510	BQL
1,2-Dichlorobenzene	510	BQL
1,3-Dichlorobenzene	510	BQL
1,4-Dichlorobenzene	510	BQL
3,3'-Dichlorobenzidine	1000	BQL
2,4-Dichlorophenol	510	BQL
Diethylphthalate	510	BQL
2,4-Dimethylphenol	510	BQL
Dimethylphthalate	510	BQL
4,6-Dinitro-2-methylphenol	2500	BQL
2,4-Dinitrophenol	2500	BQL
2,4-Dinitrotoluene	510	BQL
2,6-Dinitrotoluene	510	BQL
Fluoranthene	510	BQL
Fluorene	510	BQL
Hexachlorobenzene	510	BQL
Hexachlorobutadiene	510	BQL
Hexachlorocyclopentadiene	1000	BQL
Hexachloroethane	510	BQL
Indeno(1,2,3-c,d)pyrene	510	BQL
Isophorone	510	BQL

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles
by GCMS 8270

Client Sample ID: HA-7-0.1
Client Project ID: Borg Warner Kuhlman Electric
Lab Sample ID: 95949
Lab Project ID: G185-83
Matrix: Soil %Solids: 89.4

Date Collected: 9/19/00
Date Received: 9/22/00
Date Analyzed: 10/6/00
Analyzed By: MRC
Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
2-Methylnaphthalene	510	BQL
2-Methylphenol	510	BQL
3- & 4-Methylphenol	510	BQL
N-Nitrosodi-n-propylamine	510	BQL
N-Nitrosodiphenylamine	510	BQL
Naphthalene	510	BQL
2-Nitroaniline	510	BQL
3-Nitroaniline	510	BQL
4-Nitroaniline	510	BQL
Nitrobenzene	510	BQL
2-Nitrophenol	510	BQL
4-Nitrophenol	2500	BQL
Pentachlorobenzene	510	BQL
Pentachlorophenol	2500	BQL
Phenanthrene	510	BQL
Phenol	510	BQL
Pyrene	510	BQL
1,2,3,4-Tetrachlorobenzene	510	BQL
1,2,3,5- & 1,2,4,5-Tetrachlorobenzene	510	BQL
1,2,3-Trichlorobenzene	510	BQL
1,2,4-Trichlorobenzene	510	BQL
1,3,5-Trichlorobenzene	510	BQL
2,4,5-Trichlorophenol	510	BQL
2,4,6-Trichlorophenol	510	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.3	83
2-Fluorophenol	10	6	60
Nitrobenzene-d5	10	8	80
Phenol-d6	10	7	70
2,4,6-Tribromophenol	10	5.1	51
4-Terphenyl-d14	10	8.5	85

Comments:

Results are corrected for %solids and dilution where applicable.

Flags:

BQL = Below Quantitation Limit.

Reviewed By: [signature]

PARAGON ANALYTICAL LABORATORIES, INC.

Results of Library Search for Semivolatile Compounds

by GCMS

Client Sample ID: HA-7-0.1
Client Project ID: Borg Warner Kuhlman Electric
Lab Sample ID: 95949
Lab Project ID: G185-83
Matrix: Soil %SOLIDS: 89.4

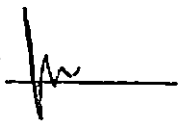
Date Collected: 9/19/00
Date Received: 9/22/00
Date Analyzed: 10/6/00
Analyzed By: MRC
Dilution: 1

Num.	Compound	CAS#	Match Probability	Result (ug/KG)
1	Alkane, Unknown			5800
2	Alkane, Unknown			5300
3	Unknown			3100
4	Unknown			1800
5	Unknown			1900
6	Alcohol, Unknown			1800
7	Carboxylic Acid, Unknown			1500
8	Alkane, Unknown			1200
9	Unknown			1100
10	Unknown			990

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: 

PARAD[redacted]M ANALYTICAL LABORATORIES, [redacted]C.

Results for PCBs
by EPA 8082

Client Sample ID: HA-9-0.5
Client Project ID: Kuhlman
Lab Sample ID: 93917
Lab Project ID: G185-79
Matrix: Soil

%SOLIDS: 92.0

Date Collected: 8/22/00
Date Received: 8/23/00
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	75	75

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

Reviewed By: [signature]

PARA[redacted]M ANALYTICAL LABORATORIES [redacted]C.

Results for Semivolatiles
by GCMS 8270

Client Sample ID: HA-9-0.5
Client Project ID: Kuhlman
Lab Sample ID: 93917
Lab Project ID: G185-79
Matrix: Soil %Solids: 92.0

Date Collected: 8/22/00
Date Received: 8/23/00
Date Analyzed: 8/31/00
Analyzed By: MRC
Dilution: 1

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	630	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	630	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	630	BQL
Hexachloroethane	320	BQL
Indeno(1,2,3-c,d)pyrene	320	BQL
Isophorone	320	BQL

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles
by GCMS 8270

Client Sample ID: HA-9-0.5
Client Project ID: Kuhlman
Lab Sample ID: 93917
Lab Project ID: G185-79
Matrix: Soil %Solids: 92.0

Date Collected: 8/22/00
Date Received: 8/23/00
Date Analyzed: 8/31/00
Analyzed By: MRC
Dilution: 1

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	10.4	104
2-Fluorophenol	10	8.2	82
Nitrobenzene-d5	10	10.3	103
Phenol-d6	10	9.5	95
2,4,6-Tribromophenol	10	9.4	94
4-Terphenyl-d14	10	10.7	107

Comments:

Results are corrected for %solids and dilution where applicable.

Flags:

BQL = Below Quantitation Limit.

Reviewed By:

N.C. Certification #481 S.C. Certification #99029

PARADIGM ANALYTICAL LABORATORIES, INC.

Results of Library Search for Semivolatile Compounds

by GCMS

Client Sample ID:	HA-9-0.5			Date Collected:	8/22/00
Client Project ID:	Kuhlman			Date Received:	8/23/00
Lab Sample ID:	93917			Date Analyzed:	8/31/00
Lab Project ID:	G185-79			Analyzed By:	MRC
Matrix:	Soil	%SOLIDS	92.0	Dilution:	1

Num.	Compound	CAS#	Match Probability	Result (ug/KG)
1	Unknown			50000
2	Unknown			47000
3	Unknown			44000
4				
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: _____

BorgWarner Inc. 200 South Michigan Avenue Chicago Illinois 60604 Telephone 312 322 8500

AH-00-1638

VIA UPS NEXT DAY AIR

BorgWarner

December 20, 2000

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

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

FILE COPY

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

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"™, a unique technology adopted specifically for this purpose. The Air Shovel™ 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 appraised 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 30th 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 McPherson Street
2. Weathersby Property, 101 Forest Street
3. Robert Williams Property (Lonnie Williams' residence), 103 Forest Street
4. Flossie McMurray 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^{c}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:

Property	Highest Detected Concentration
Sojourner	2.6 ppm
Williams rental	30.0 ppm
Harris	1.2 ppm
Welch	8.4 ppm
M^{c}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 appraised 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

Anastasia Hamel
Director, Environmental Programs
BorgWarner Inc.

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 litholgy 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.

Martin & Slagle
GeoEnvironmental Associates LLC

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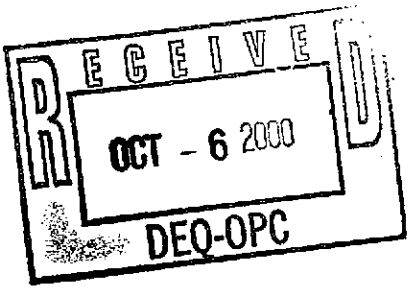


October 5, 2000

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

Robert L. Martin, P.G.
Project Manager

Cc: Anastasia Hamel, BorgWarner Inc.

PO Box 1023
Black Mountain, NC 28711

(828) 669-3929
(828) 669-5289 fax

Soil and Wipe Sample Results
Larry Wright Property
305 North Jackson
Crystal Springs, Mississippi

SOIL SAMPLES (MG/KG)										
Target Analyte	Sample #	HA-4	HA-4	HA-5	HA-5	HA-6	HA-6	HA-7	HA-7	HA-7
	Depth (ft)	0.5	2.5	0.5	2.5	0.5	2.5	0.5	1.5	2.25
	Lab #	123	124	125	126	127	128	129	130	295
PCB as 1260		<0.10	<0.10	<0.10	<0.10	0.10	<0.10	0.11	0.16	<0.10
	Collection Date	8/18/00	8/18/00	8/18/00	8/18/00	8/18/00	8/18/00	8/18/00	8/18/00	8/20/00
	Collection Time	8:39	8:43	8:49	8:54	8:57	9:01	9:05	9:19	10:49
	Injection Date	8/18/00	8/18/00	8/18/00	8/18/00	8/18/00	8/19/00	8/19/00	8/19/00	8/20/00

WIPE SAMPLES (TOTAL UG)					
Target Analyte	Sample #	WWW-1	WWW-2	WWW-3	WWW-4
	Depth				
	Lab #	732	733	734	735
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	12:55	12:56	12:59	13:00
	Injection Date	8/30/00	8/30/00	8/30/00	8/30/00

Notes:

LOCATION:

WWW1: White metal patio table, top surface.
WWW2: Loveseat bench in backyard, rear surface.
WWW3: Brick walkway adjacent to patio table and chairs in backyard.
WWW4: Top section of wooden fence gate leading to backyard.

Soil and Wipe Sample Results
Larry Wright Property
305 North Jackson
Crystal Springs, Mississippi

SOIL SAMPLES (MG/KG)							
Target Analyte	Sample #	HA-8	HA-8	HA-9	HA-9	HA-7	DP-699
	Depth (ft)	0.5	2.25	0.5	2.5	0.1	0.1
	Lab #	296	297	298	299	1115	1111
PCB as 1260		**<2.0	+<0.50J	<1.0	<0.50	1.1*J	0.21
	Collection Date	8/20/00	8/20/00	8/20/00	8/20/00	9/19/00	9/19/00
	Collection Time	10:55	11:04	11:14	11:28	10:20	10:25
	Injection Date	8/20/00	8/20/00	8/20/00	8/20/00	9/19/00	9/19/00

* J Estimated level, due to interference from the presence of Technical Chlordane, DDT, DDD, & DDE.
** Lowest detection level possible due to interference from presence of chlordane, DDT, DDD,& DDE.

FILE COPY

OGDEN ENVIRONMENTAL AND ENGINEERING SERVICES

Mailing Address: PO Box 3142, Huntersville, NC 28070

200 South Old Statesville Road
Huntersville, NC 28078
(704) 875-3570
(704) 875-8718 Fax

FACSIMILE TRANSMITTAL

PLEASE DELIVER THE FOLLOWING PAGES TO:

Name: Gretchen Zmitrovich

Firm: MDEQ

CC:

Fax No.

Total number of pages including this cover page: 2

If all pages are not received, please notify the sender immediately.

Sender: T. Fitzpatrick **Date:** 9-20-00

( ) Originals to follow. ( ) This is the only copy you will receive.

Sample Tracking Form

Date: 11/26/00

Sample Description

Target Analyte	698 011 1103	698 015 1104	698 2 1105	698 4 1106	326 011 1107	328 011 1108	431 011 1109	441 011 1110	699 011 1111	699 015 1112	699 2 1113	699 4 1114	1047 011 1115	339 011 1116	342 011 1117	433 011 1118	452 011 1119	DUP 09/19 1120	304 011 1121	305 011 1122	Blank #65	LCS #65	MS #1104	MSD #1104
1,3,5-TriCB	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	96.4	140	135
1,2,4-TriCB																						94.8	136	132
1,2,3-TriCB																						95.6	135	130
1,2,3,5&1,2,4,5																						99.3	138	134
1,2,3,4-TeCB																						76.2	137	130
Penta-CB																						97.0	133	130
Hexa-CB	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	96.8	131	129
PCB as 1260	5.2	1.5	<0.10	[illegible]	<0.10 111	1.4	0.16	0.15	0.21	0.19	<0.10	<0.10	1.1 J	0.49	0.72	5.0	2.1	0.28	0.37	0.60 *J	<0.10	97.8	21.9	24.7
Surrogate TCMX	135	125	106	128	138	136	130	138	123	135	102	100	133	123	130	131	128	128	130	129	101	97.6	132	131
DCBP	134	134	106	134	134	156	143	161	166	134	97.2	97.3	189	125	136	138	132	151	127	132	101	104	121	140
													confirmed TCL DDT ext			confirmed T4 305 ext				T& High				
DATE	19 20	19	19	19	19	19	19	19	19	19	19	19	19	19	20	20	20	20	20	20	19	19	20 19	20 19

J = Estimated
E = Exceeds calibration range

*J

Taken 20
Analyzed 19

DP 698 is resample of DP 936 @ Medical Clinic

DP 699 is resample of DP 436 @ Larry Wright's house

FILE COPY

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

601 8926496

OGDEN

Job Name: Crystal Springs

Job Number:

Title: Spring Raeves backyard 405 Jackson

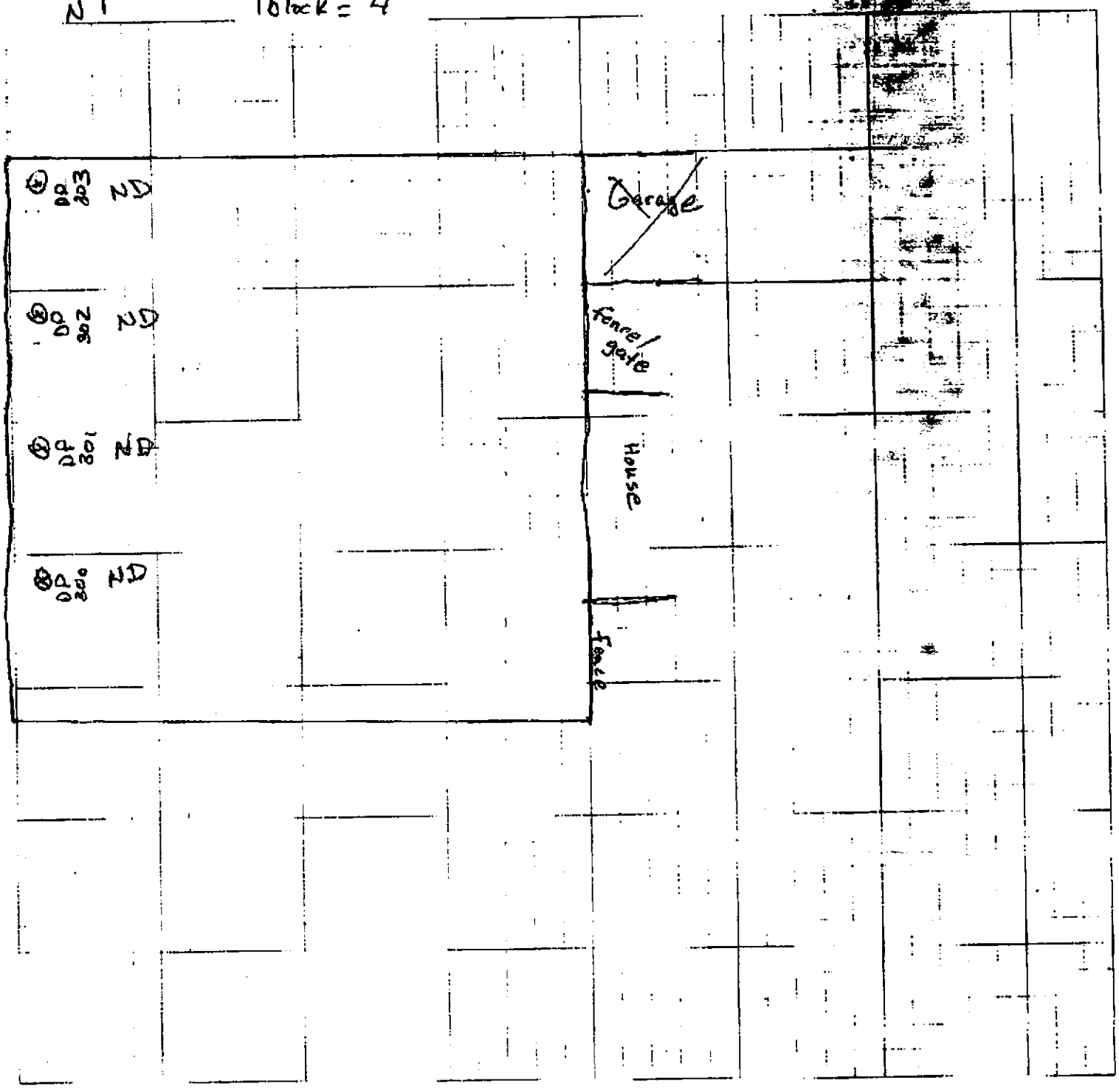
Computed by:

Checked by:

Date: 8/16/2000

Sheet: 1 of 11

N ↑ 1 block = 4'



OGDEN

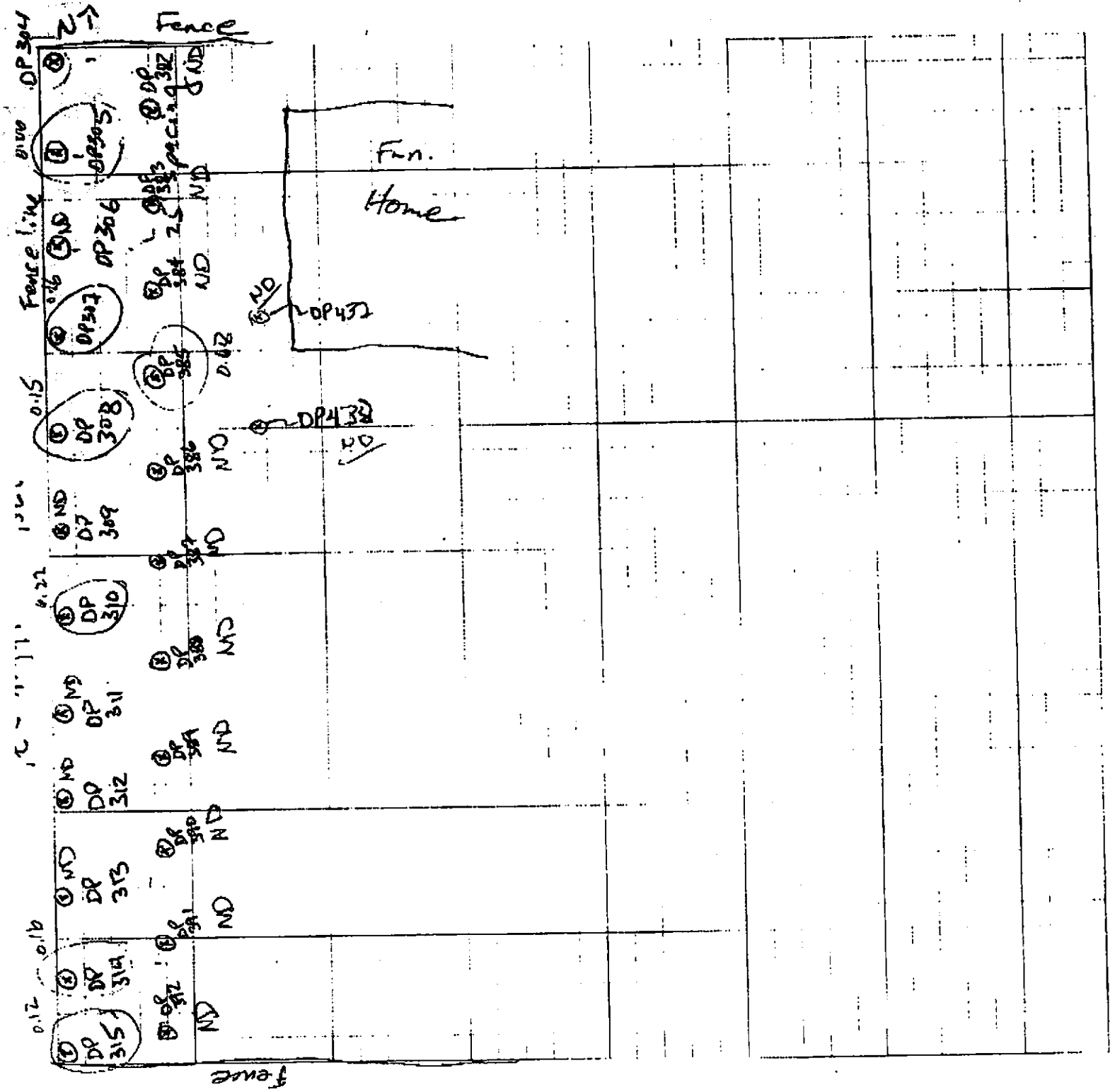
Job Name: Crystal Springs

Job Number:

Title: Stringer Funeral Home

Computed by: Checked by:

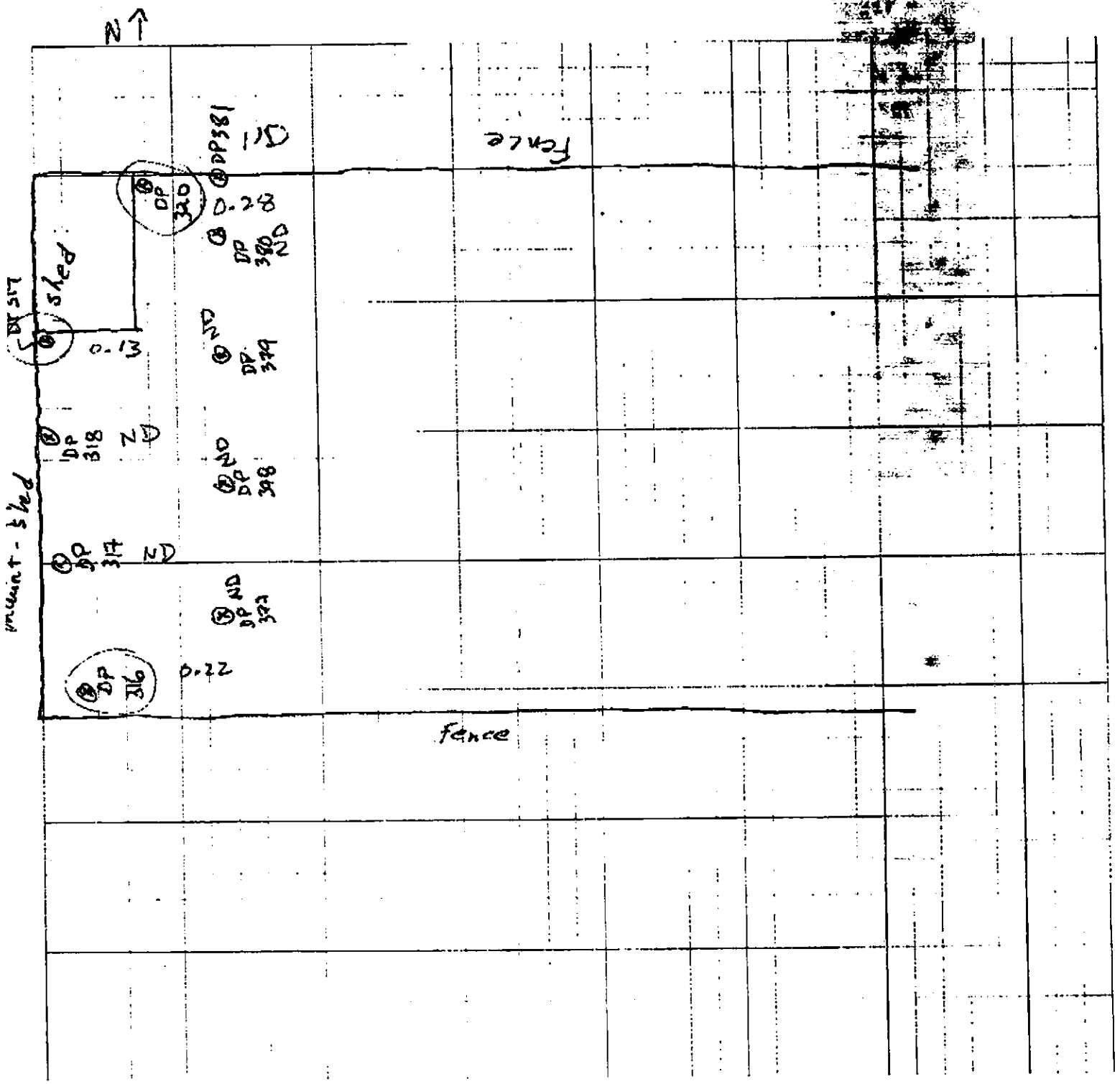
Date: 8-16-2000 Sheet: 2 Of: 11



OGDEN

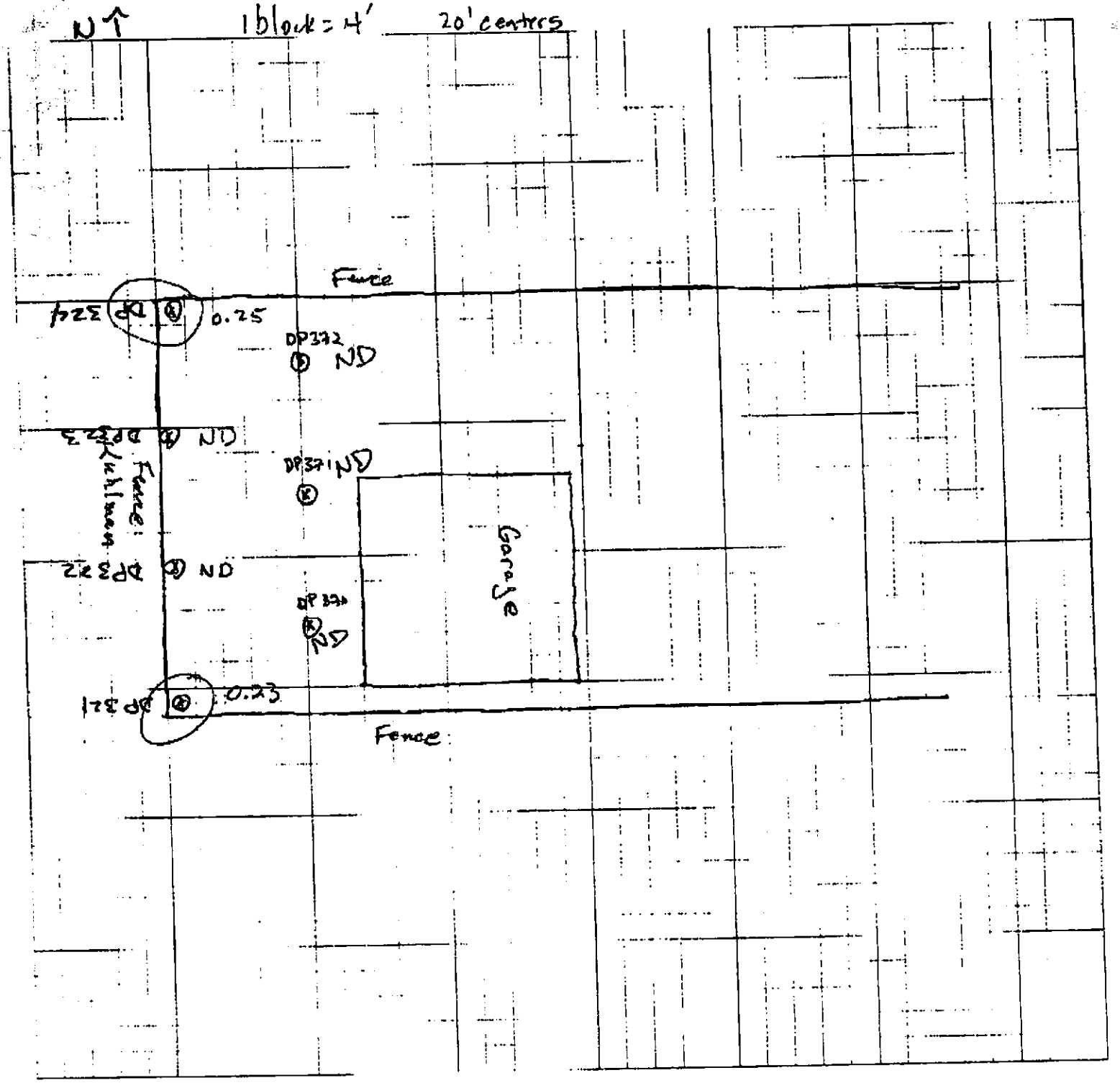
Job Name: Crystal Spring
Job Number:
Title: 401 N. Jackson Elev. Height
Computed by: Checked by:
Date: 8-16-2000 Sheet: 1 of 1

1 block = 4'



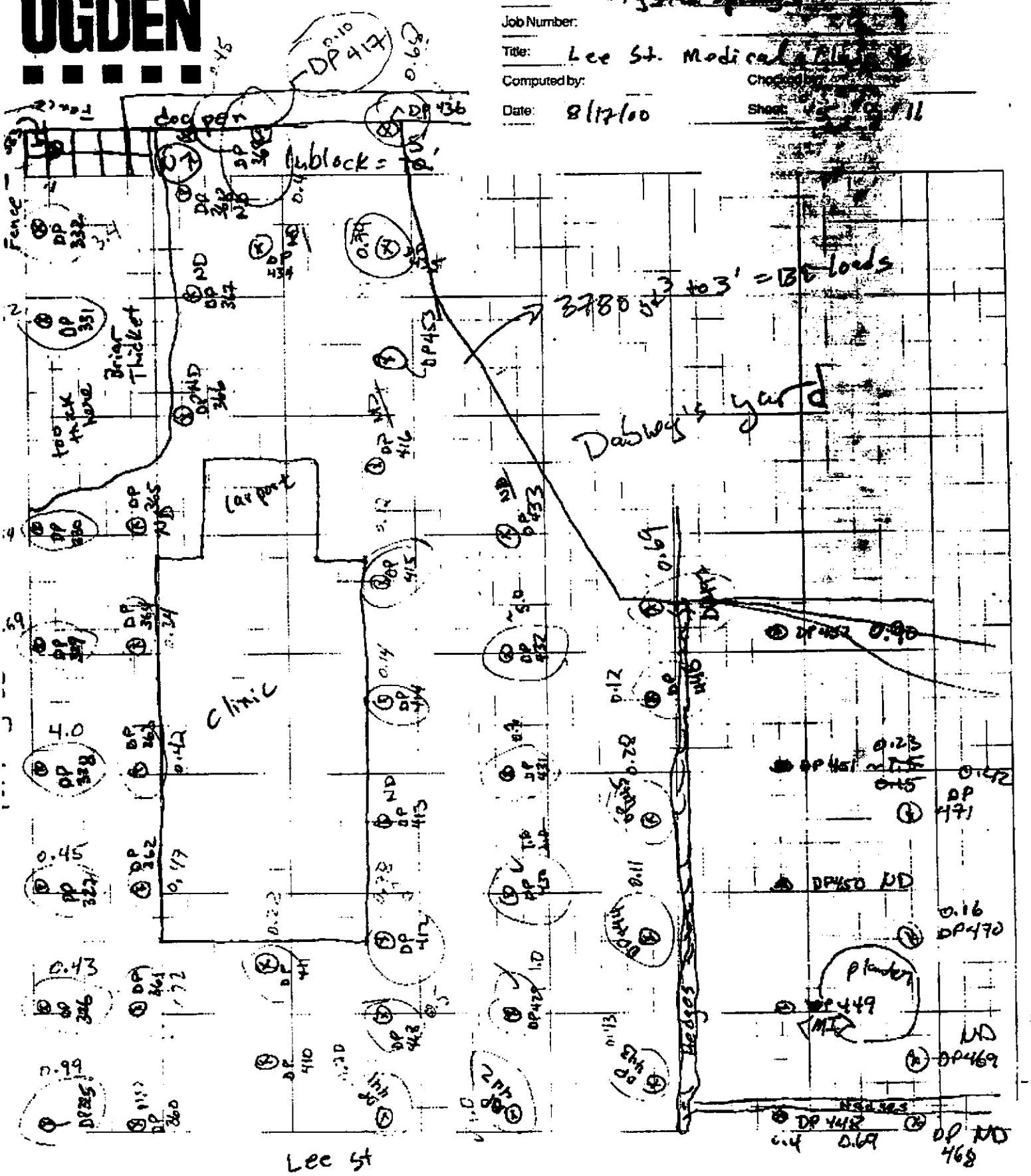
OGDEN

Job Name: Crystal Springs
Job Number:
Title: 407 N. Jackson Louie Lang
Computed by: Checked by:
Date: 8-16-00 Sheet: 4 Of: 11



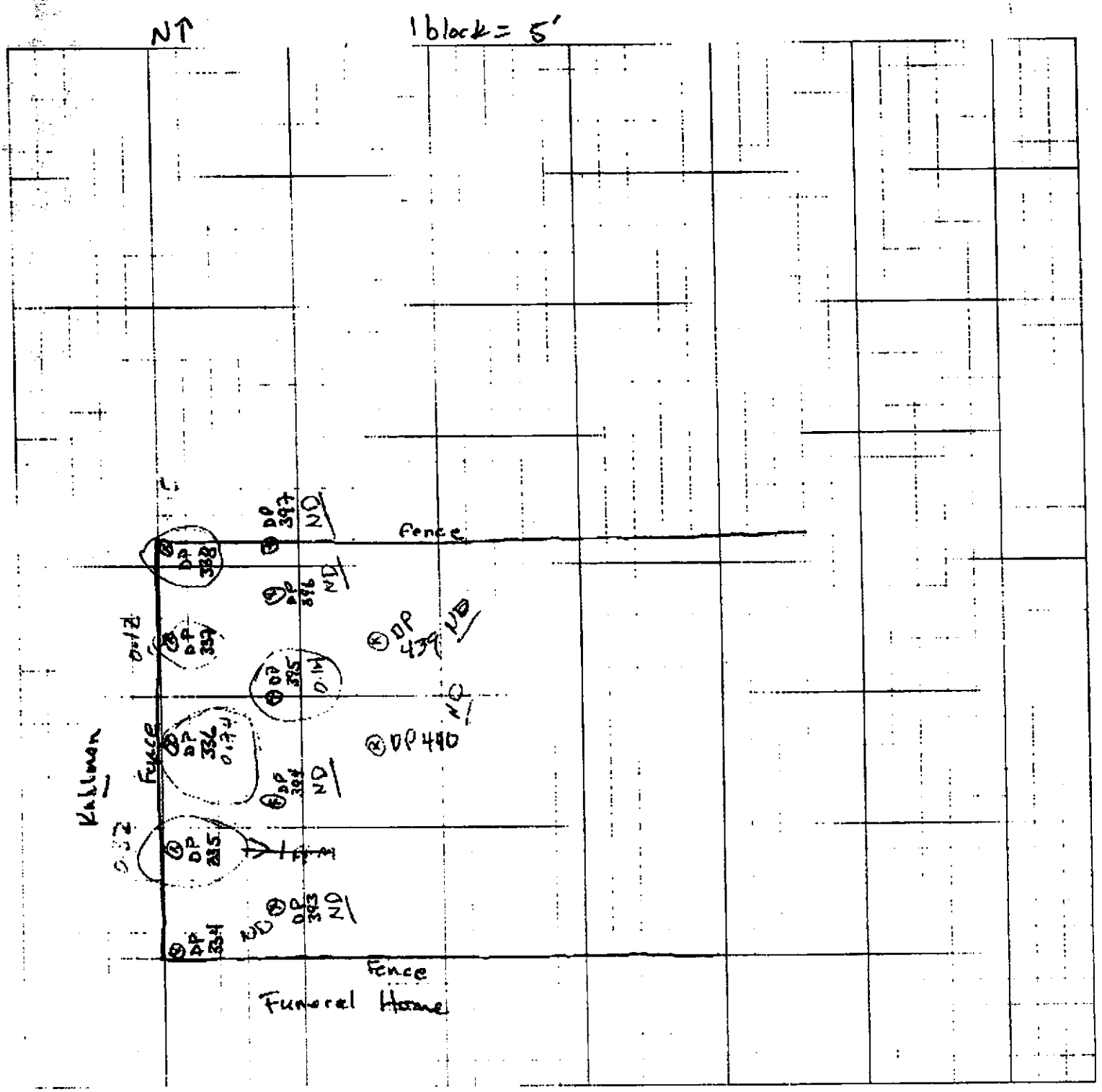
OGDEN

Job Name: Crystal Springs
Job Number:
Title: Lee St. Medical
Computed by: Checked by:
Date: 8/17/00 Sheet: 4 of 11



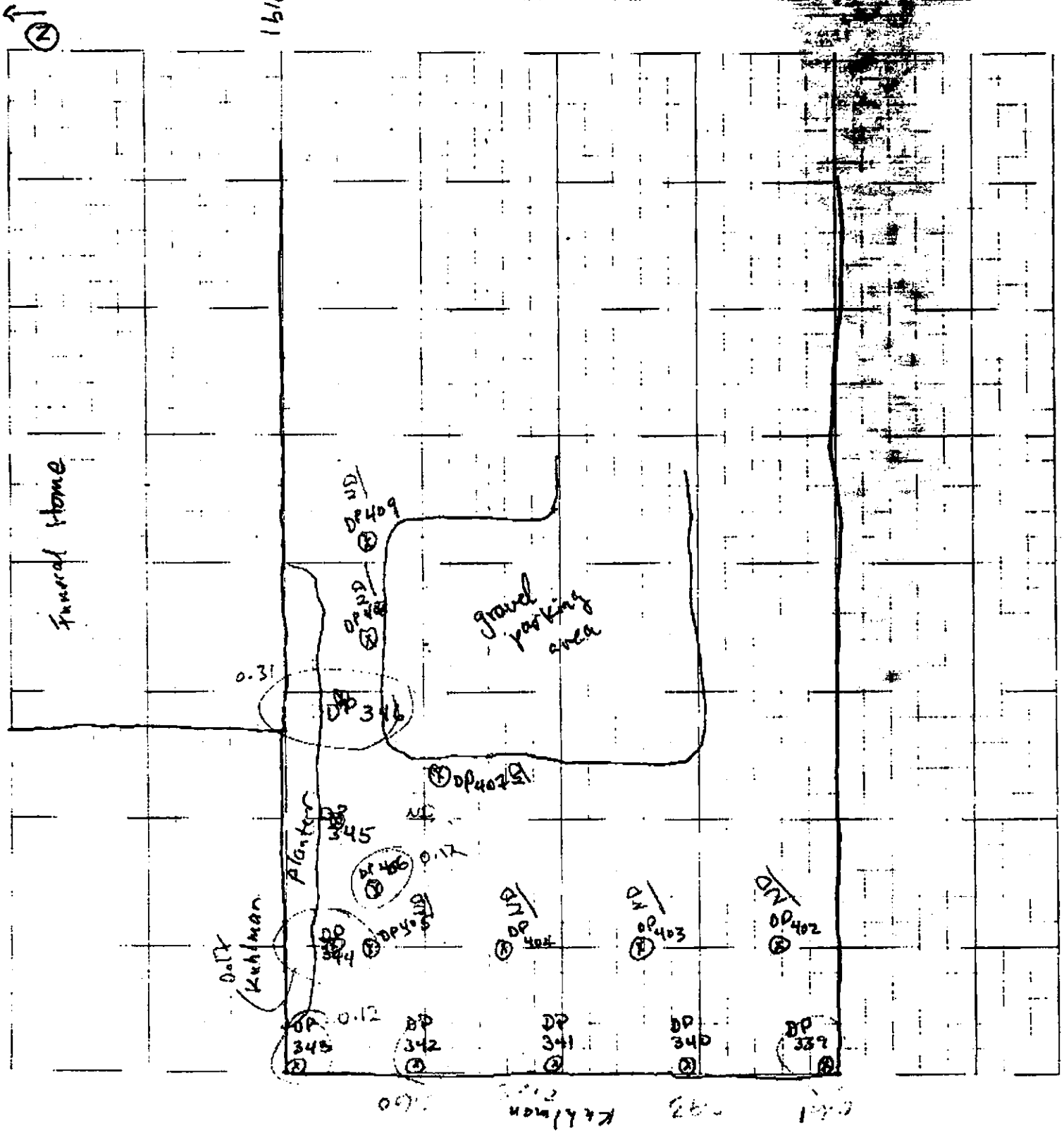
OGDEN

Job Name: Crystal Springs
Job Number:
Title: 303 N. Jackson (stringer)
Computed by: Checked by:
Date: 8-17-00 Sheet: 6 Of: 11



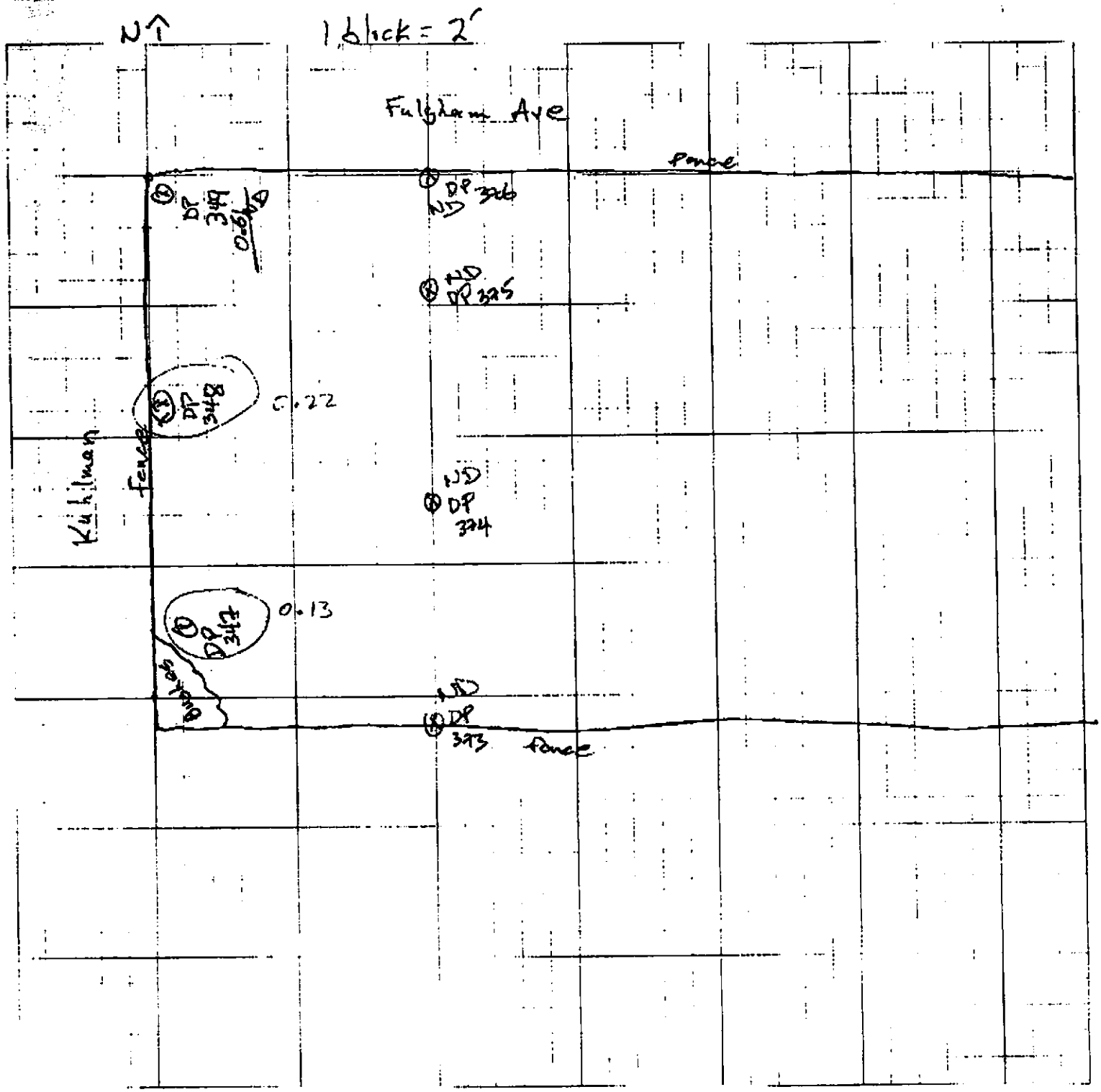
OGDEN

Job Name: Crystal Springs
Job Number:
Title: 219 N. Jackson - Rough Grading
Computed by: TJF
Date: 8-17-00
Checked by:
Sheet 3 of 11



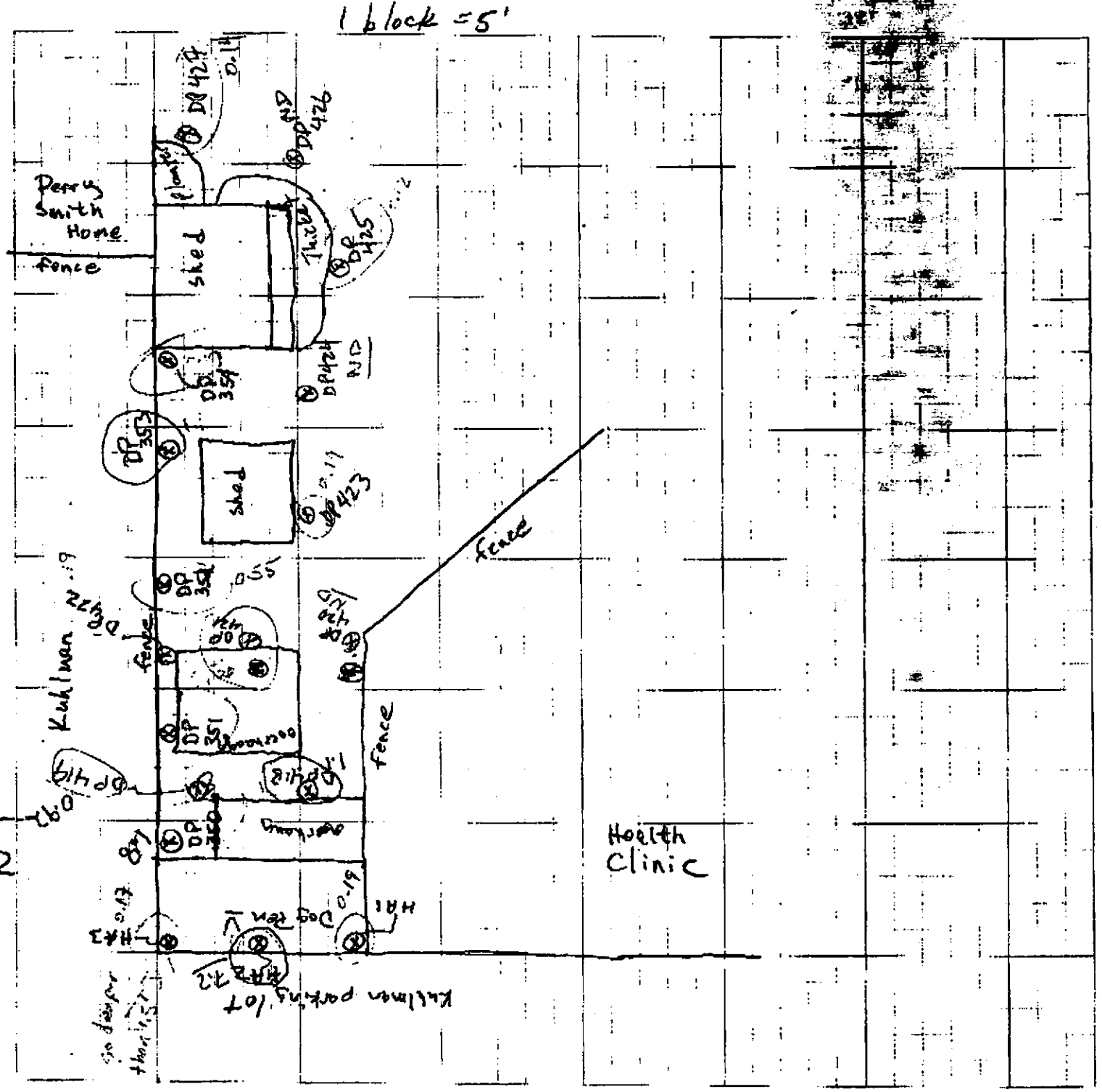
OGDEN

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



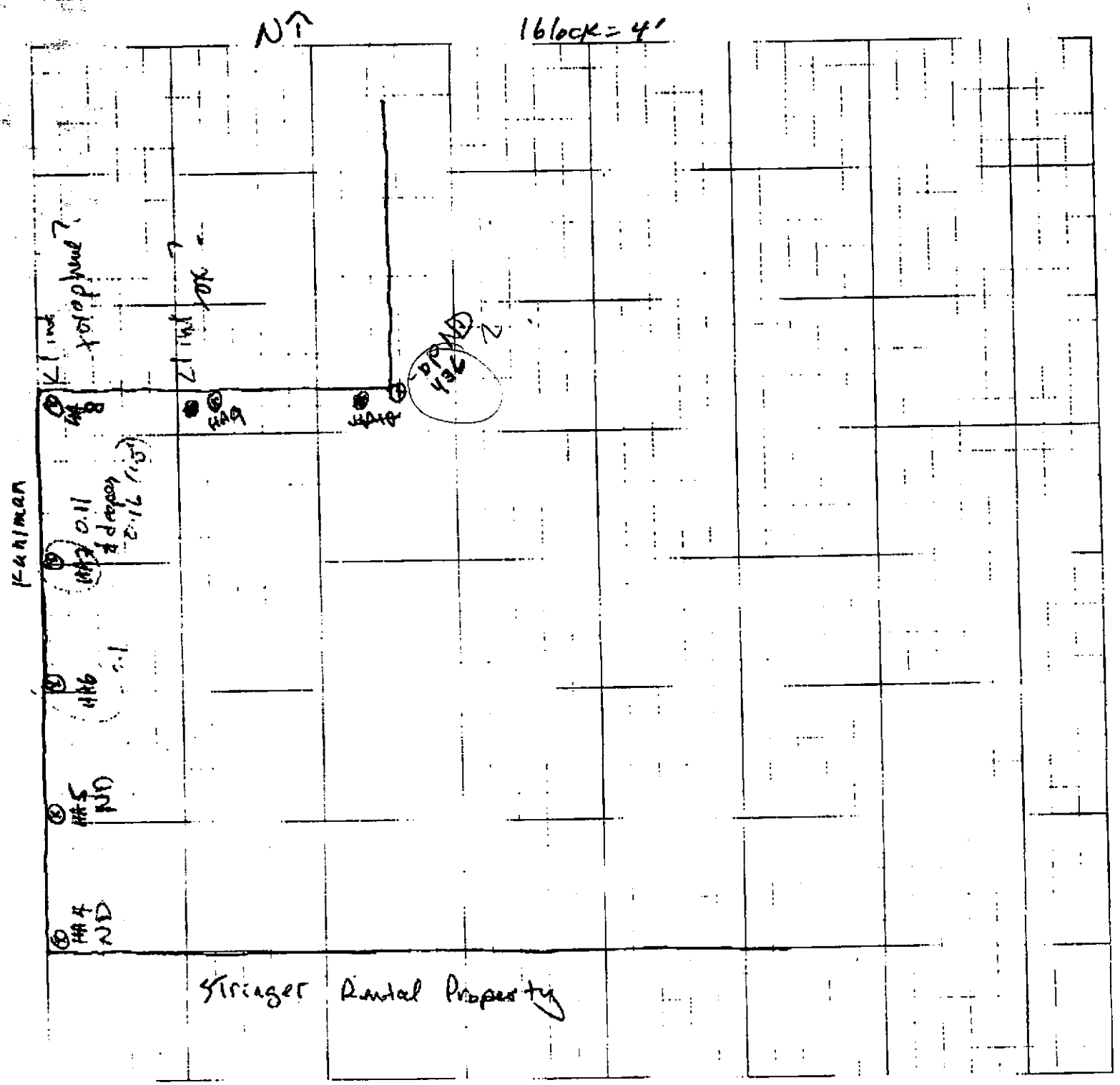
OGDEN

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



OGDEN

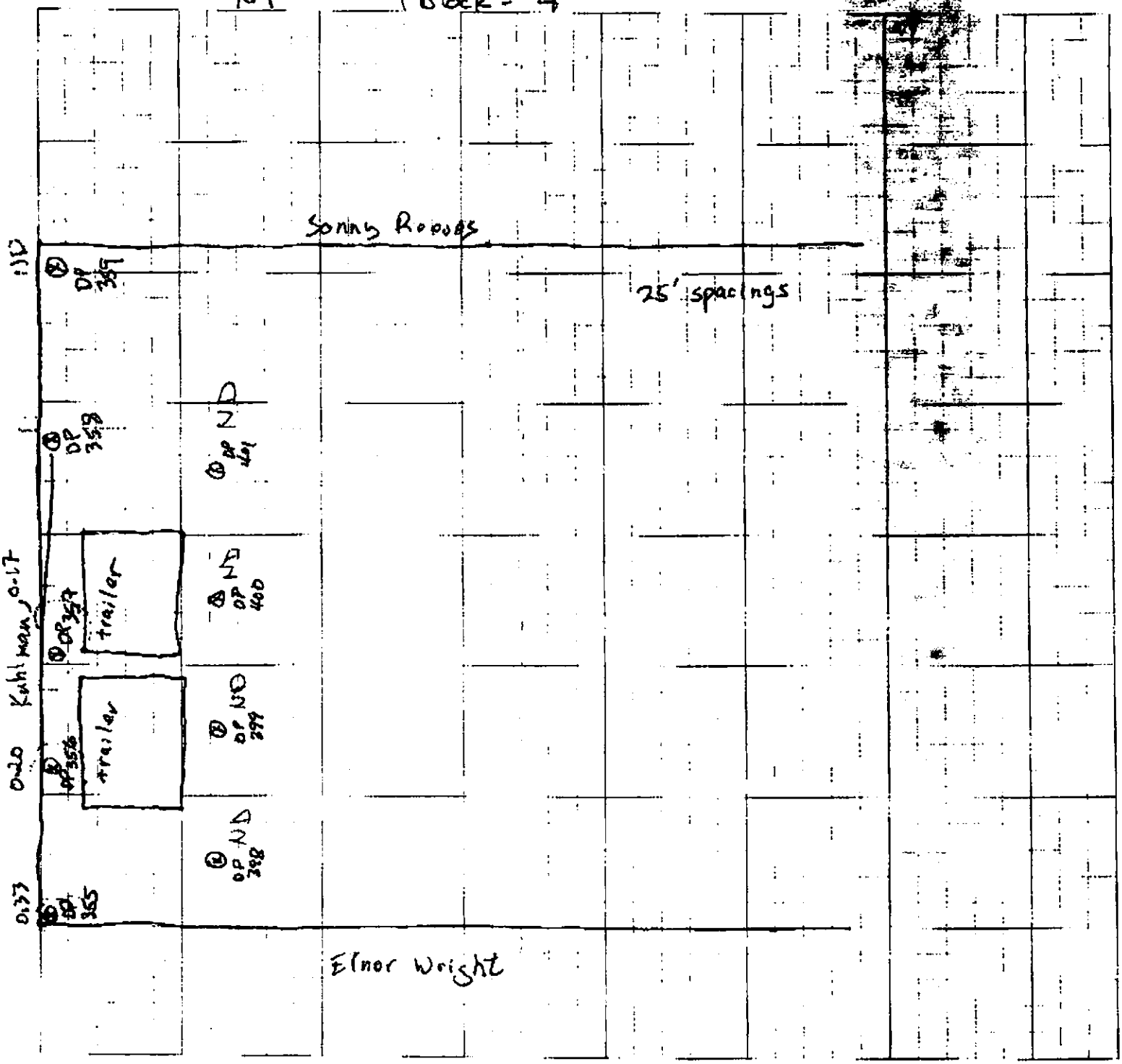
Job Name: Crystal Springs
Job Number:
Title: Wright House
Computed by: Checked by:
Date: 8-18-00 Sheet: 10 Of: 11



OGDEN

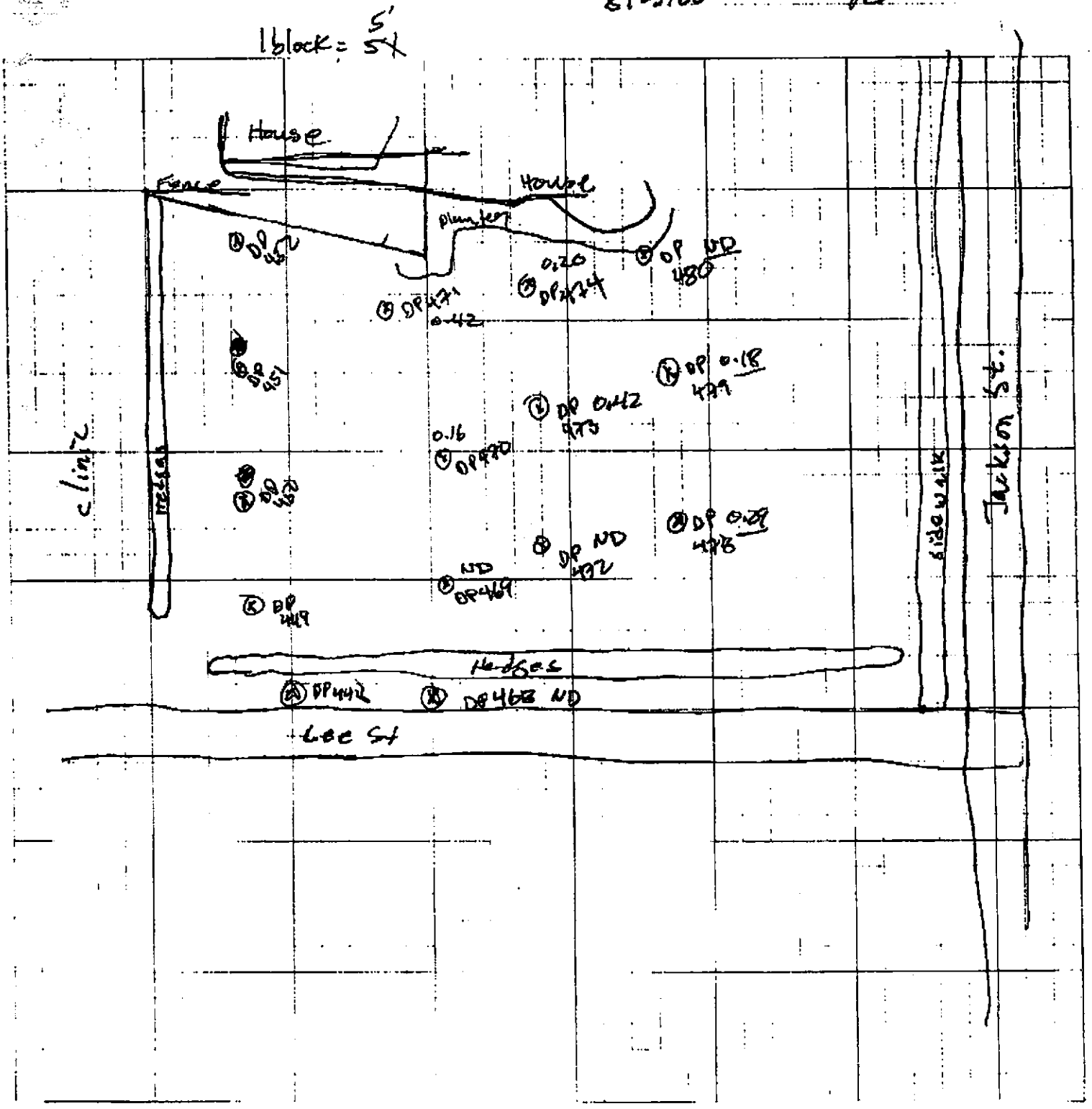
Job Name: Crystal Springs
Job Number:
Title: Harold & Suzanne
Computed by: TJF
Date: 8-18-00
Sheet 11 of 11

NT 1 block = 4'



OGDEN

Job Name:
Job Number:
Title: Dabney yard - south side
Computed by: Checked by:
Date: 8/23/00 Sheet: 12 Of:



OGDEN

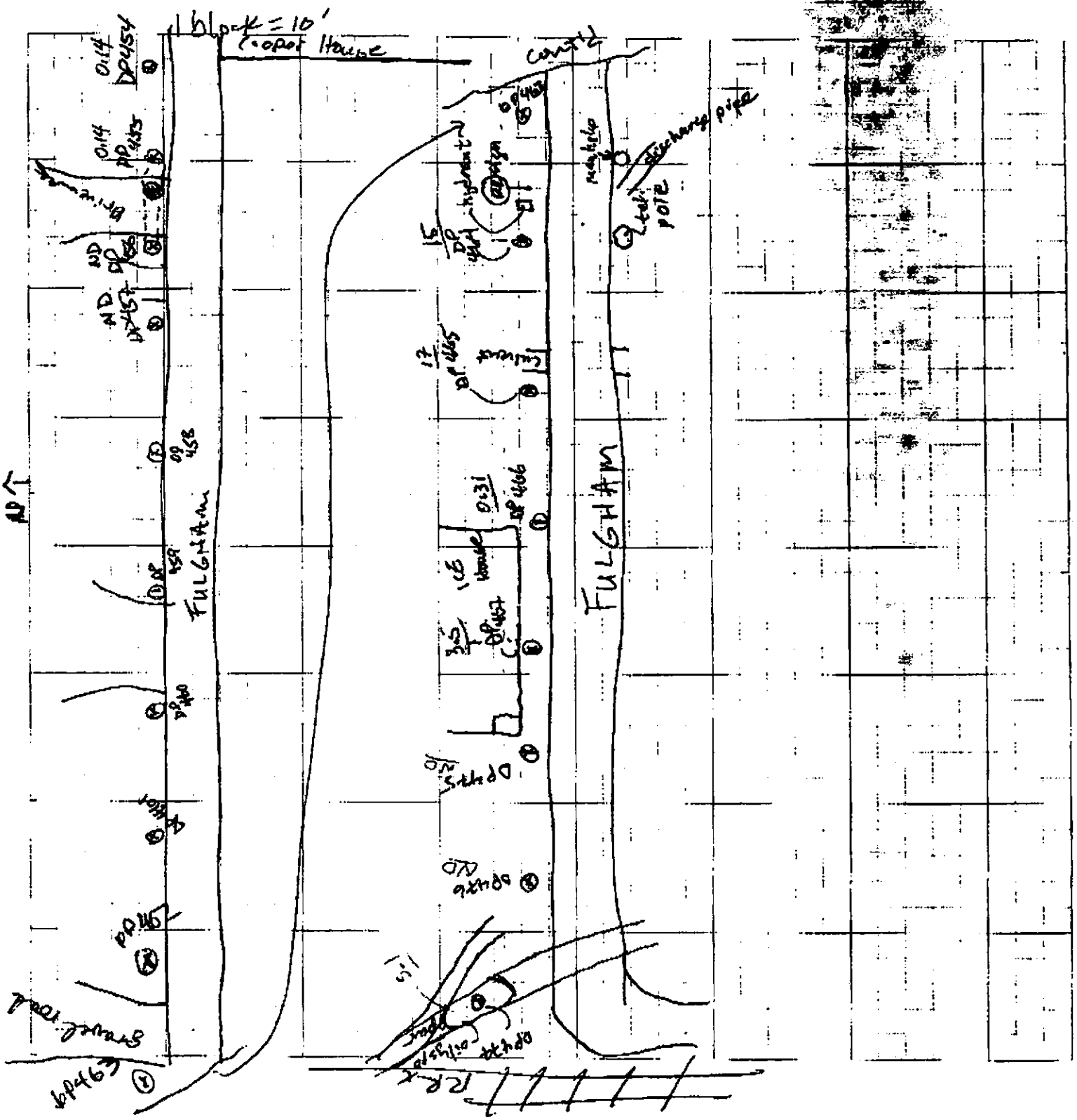
Job Name:

Job Number:

Title: Fulgham Ave

Computed by:

Date:



OGDEN

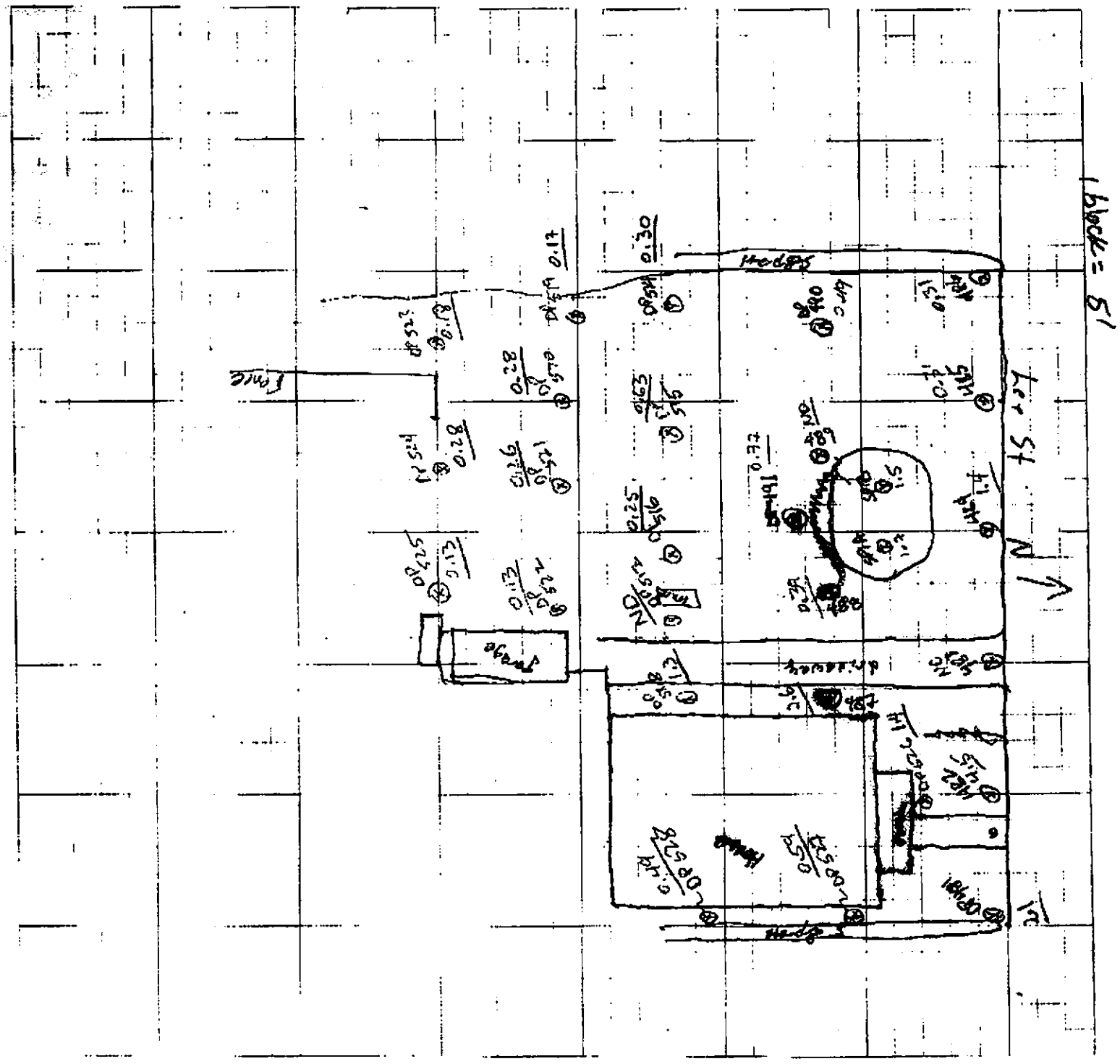
Job Name:

Job Number:

Title: Edwards property

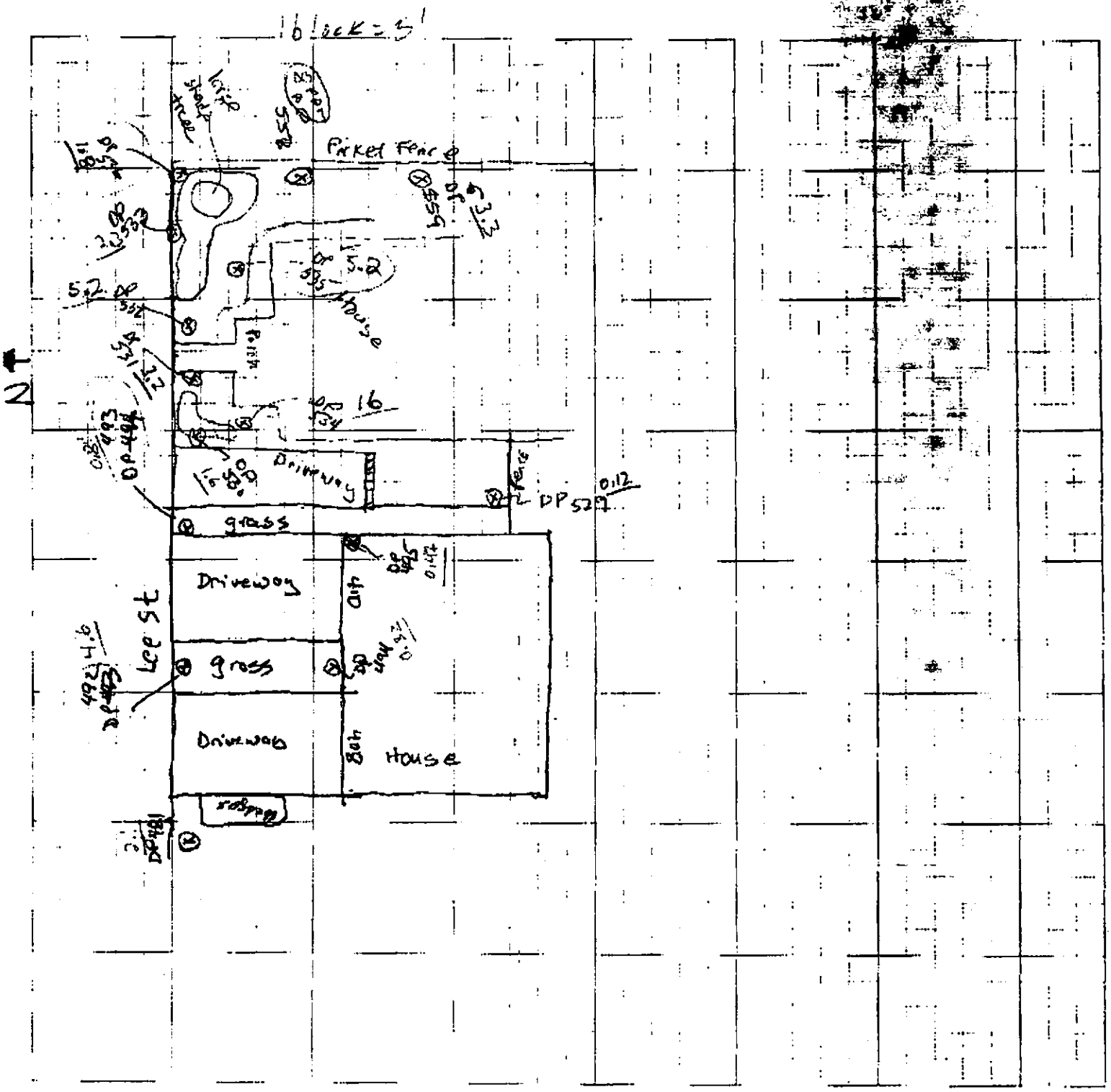
Computed by: TJF Checked by:

Date: 8/24/00 Sheet: 14 Of:



OGDEN

Job Name:
Job Number:
Title: 408/410 Lee St
Computed by: DF
Checked by:
Date: 8/24/00
Sheet: 13



OGDEN

Job Name:

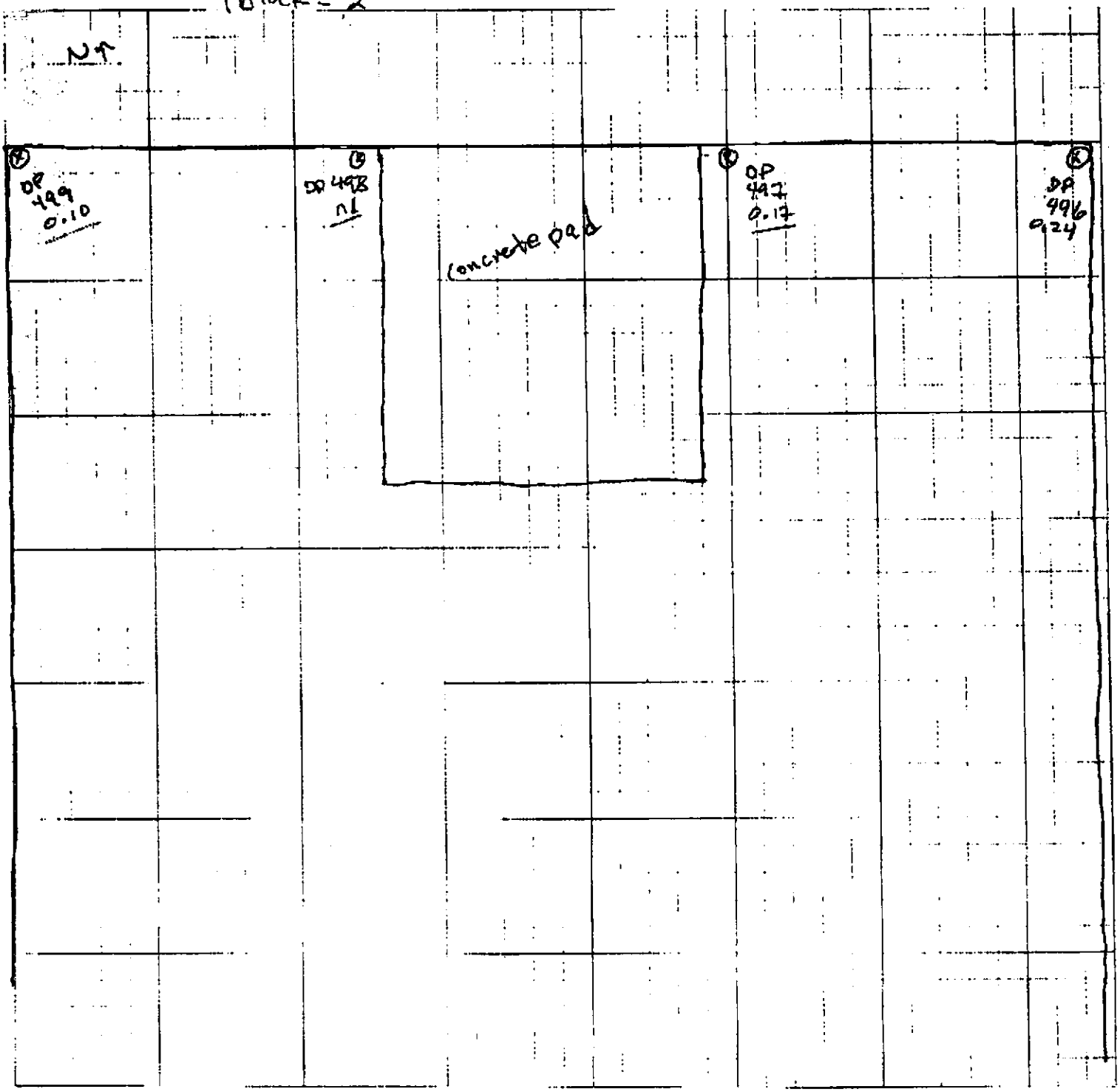
Job Number:

Title: Brent Property Lease St.

Computed by: TJF Checked by:

Date: 8/24/00 Sheet: 16 Of:

1 block = 2'



601 8926496

OGDEN

Job Name:

Job Number:

Title: Frazier Property

Computed by: TJF

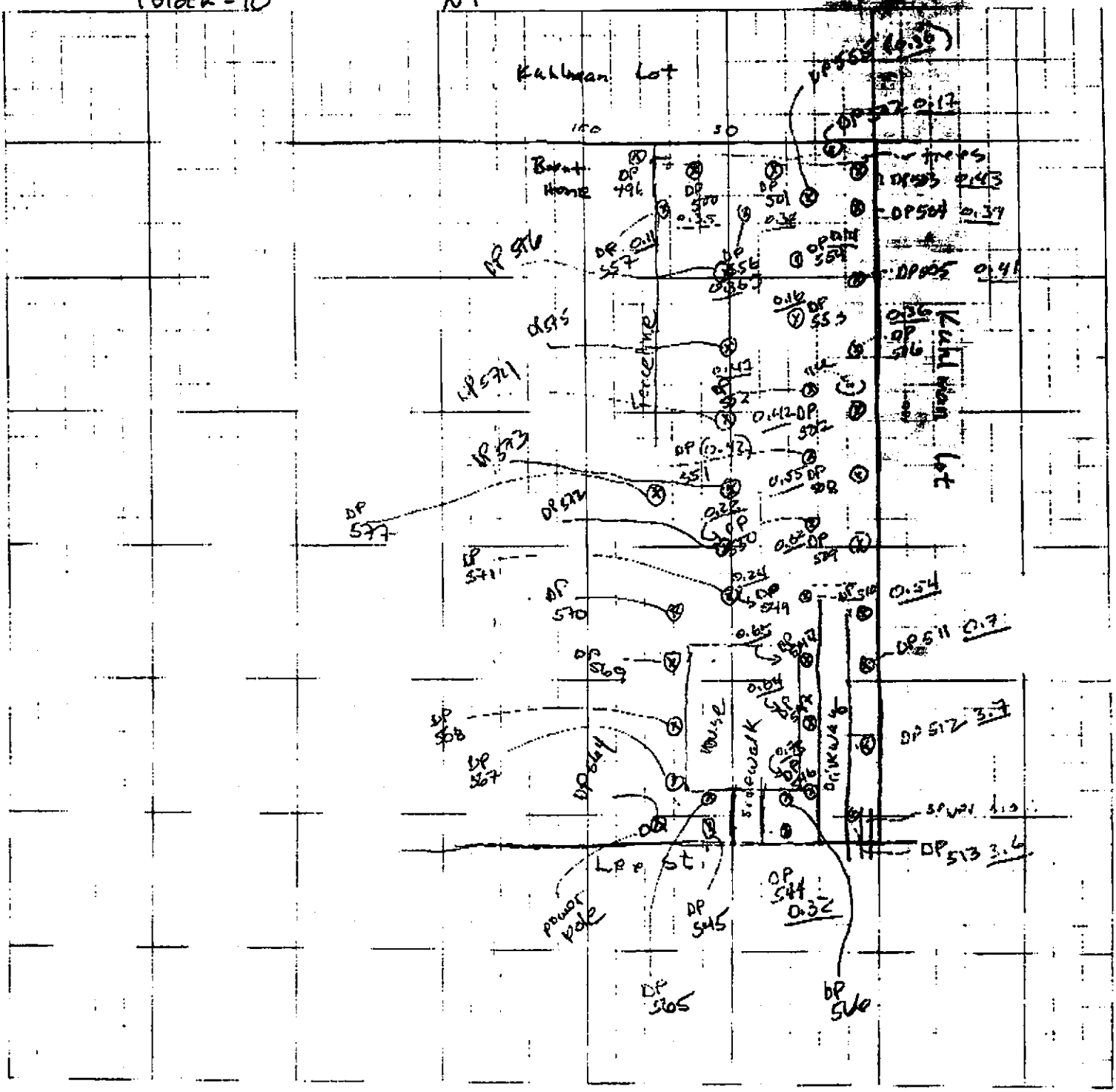
Checked by:

Date: 8/25/00

Sheet 1 of 1

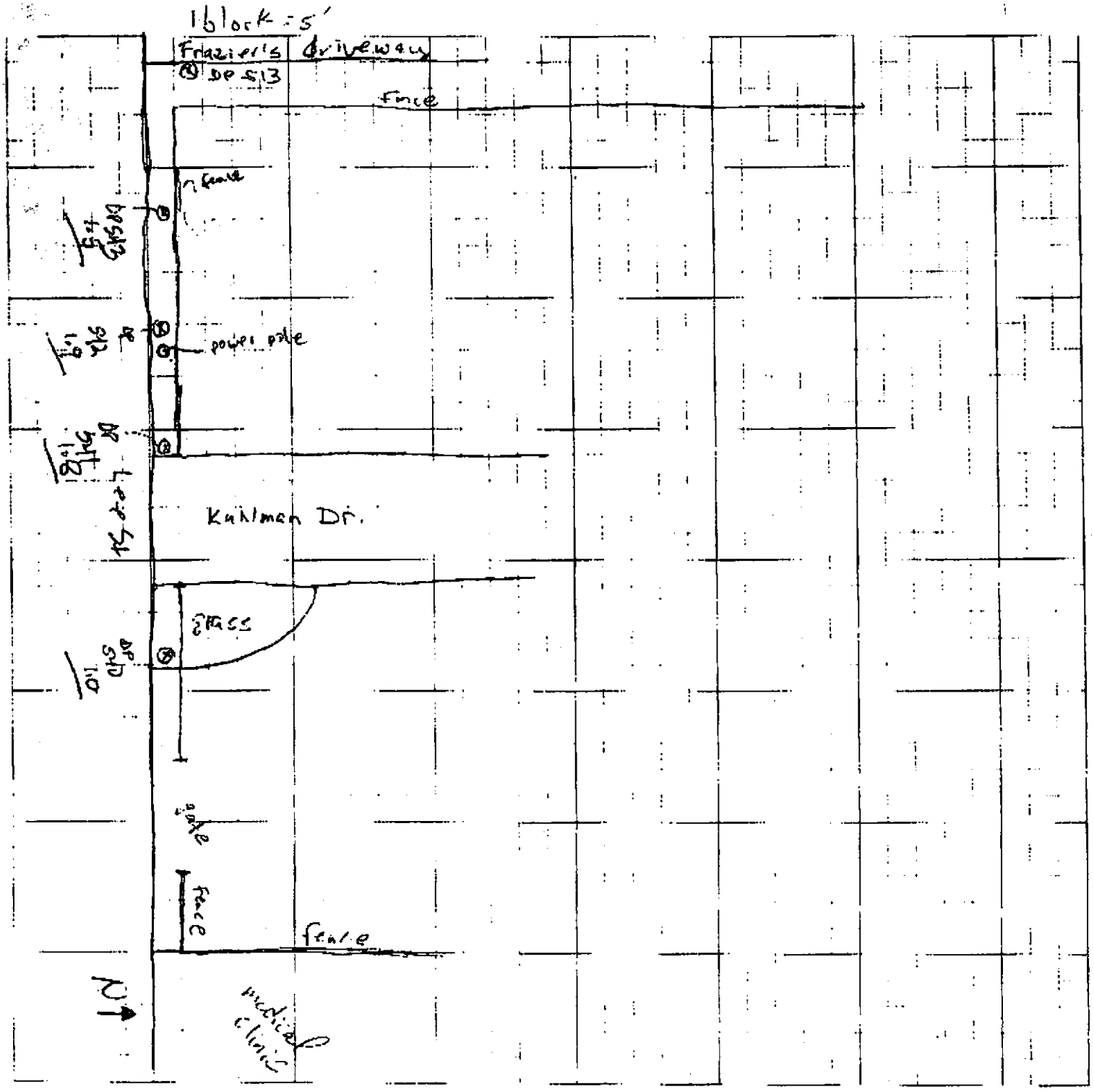
1 block = 10'

NT



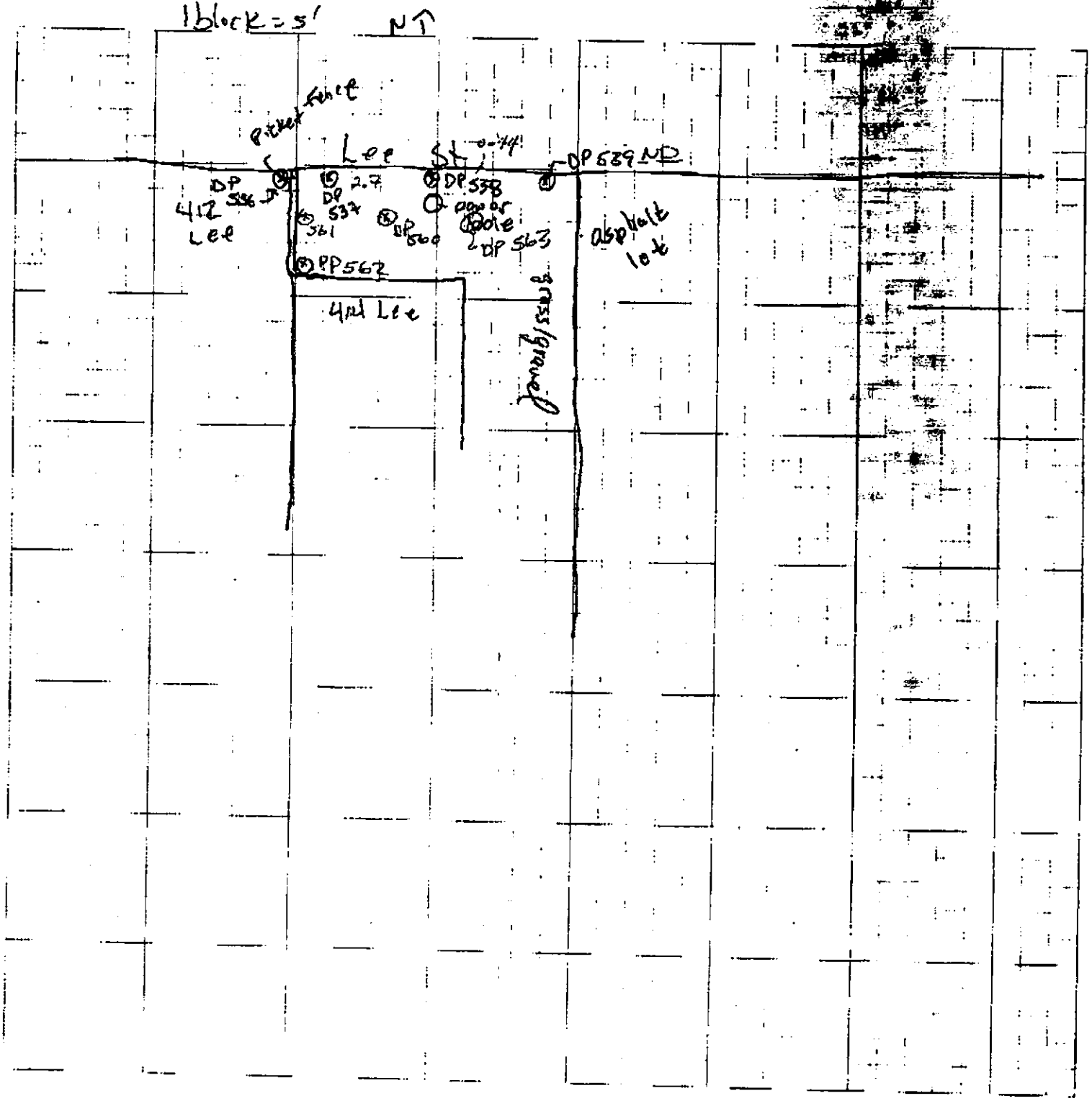
OGDEN

Job Name:
Job Number:
Title: Kuhlman South Parking Lot
Computed by: Checked by:
Date: 8/26/2000 Sheet: 1B Of:



OGDEN

Job Name:
Job Number:
Title: 414 Lee St (GF to Shop)
Computed by: JDF
Date: 8/26/2000
Checked by:
Sheet 1 of



OGDEN

FILE COPY

Job Name:
Job Number:
Title:
Computed by:
Date:
Checked by:
Sheet: of:

To: Gretchin Zmitrovich

From Tim Fitzpatrick

RE: Crystal Springs

31 pages total

Ms. Zmitrovich:

Following are 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

1-20 1-20 1-20

Date: 15 Aug 00

Target Analyte	Sample Description 1	2	3	Blank #1	LCS #1	MS #3	MSD #3
1,3,5-TriCB	<0.10	<0.10	<0.20	<0.01	101	<0.10	<0.20
1,2,4-TriCB					105		
1,2,3-TriCB					102		
1,2,3,5&1,2,4,5					104		
1,2,3,4-TeCB					104		
Penta-CB					106		
Hexa-CB	↓	↓	↓	↓	111	↓	↓
PCB as 1260	10.0	10.5	6.2	<0.10	106	5.1	4.7
						109	
Surrogate TCMX	116	114	110	103	109	152	104
DCBP	125	111	120	118	109		142
	COMBINE						
	1254	1254					
	AS1260	AS1260					
	W.S	W.S					
INT Data	15	15	15	15	15	15	15

J = Estimated
E = Exceeds calibration range

Sample Tracking Form

Date: 16AUG00

Target Analyte	Sample Description	DP300 0.5 4	DP300 4 5	DP301 0.5 6	DP301 4 7	DP302 0.5 8	DP302 4 9	DP303 0.5 10	DP303 40 11	DP304 0.5 12	DP304 4 13	DP305 0.5 14	DP305 4 15	DP306 0.5 16	DP306 4 17	DP307 0.5 18	DP307 4 19	DP308 0.5 20	DP308 4 21	DP309 0.5 22	DP309 4 23	Blank #2	LCS #2	8 MS #	8 MSD #
		ACID		ACID		ACID						ACID				ACID		ACID		ACID				ACID	ACID
1,3,5-TriCB		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	99	145	146
1,2,4-TriCB																							99	141	142
1,2,3-TriCB																							99	140	141
1,2,3,5&1,2,4,5																							102	141	143
1,2,3,4-TeCB																							102	139	141
Penta-CB																							106	138	140
Hexa-CB		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	107	135	136
PCB as 1260		<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.29	<0.10	0.166	<0.10	<0.10	<0.10	0.16	<0.10	0.15	<0.10	<0.10	<0.10	<0.10	103	131	136
Surrogate TCMX		99.6	105	129	104	135	106	137	111	102	85.1	131	97.0	104	96.8	139	118	137	108	127	104	111	104	135	136
DCBP		89.5	100	96.9	101	125	115	130	109	87.9	83.9	129	99.4	101	95.0	140	116	133	107	132	103	111	107	130	130
							3																		
		TRACE					ONES					TWO		TRACE						TRACE					
		1260					BUT					OFF SCALE		1260						1260					
							TOO					U2													
												PEAKS													
												AFTER													
												HCB													
												LOWS													
												ELUTE													
INJ Date		16	16	16	16	16	16	16	16	17	17	1248	17	17	17	17	16	18	16	16	16	16	16	16	16
		AUGUST										1260													
												17													

J = Estimated

E = Exceeds calibration range

601 8926496

Sample Tracking Form

Page 2 of 3

Date: Aug 16, 2000

DP310

Target Analyte	DP310 0.5 24	DP310 4 25	DP311 0.5 26	311 4 27	312 0.5 28	312 4 29	313 0.5 30	313 4 31	314 0.5 32	314 4 33	315 0.5 34	315 4 35	316 0.5 36	316 4 37	317 0.5 38	317 4 39	318 0.5 40	318 4 41	319 0.5 42	319 4 43	~~30~~ Blank #3	~~30~~ LCS #3	MS #30	MSD #30
	ADD Sample Description																							
1,3,5-TriCB	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	97.4	100	104
1,2,4-TriCB																						98.0	101	105
1,2,3-TriCB																						97.0	100	105
1,2,3,5&1,2,4,5																						99.5	103	107
1,2,3,4-TeCB																						99.4	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	~~0.23~~ 0.12	<0.10	0.22	<0.10	<0.10	<0.10	<0.10	<0.10	0.13	<0.10	<0.10	100	112	107
Surrogate TCMX	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
DCBP	115	102	91	79	103	106	109	114	112	105	128	112	129	101	106	107	106	111	108	120	112	107	109	107
			TRACE 1260		TRACE 1260										TRACE 1248 or 1254		TRACE 1260							
INJ Date	16	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17

AUG05T

J = Estimated
E = Exceeds calibration range

Sample Tracking Form

Date: 16 AUG 2000

Target Analyte	Sample Description: ACID 320 0.5 44	ACID 320 4 45	ACID 321 0.5 46	321 2 47	321 4 48	322 0.5 49	322 4 50	323 0.5 51	323 4 52	324 0.5 53	324 4 54	Blank #4	LCS #4	MS #44	MSD #44
1,3,5-TriCB	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	104	150	147
1,2,4-TriCB													104	147	145
1,2,3-TriCB													104	145	143
1,2,3,5&1,2,4,5													103	147	145
1,2,3,4-TeCB													104	143	141
Penta-CB													105	143	141
Hexa-CB	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	102	140	138
PCB as 1260	0.28	<0.10	0.23	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.25	<0.10	<0.10	102	161	137 J6
Surrogate TCMX	141	112	134	107	93.7	103	105	106	104	99.6	107	111	101	139	133
DCBP	155	117	137	111	105	110	116	109	113	104	107	122	104	147	149
			OC PEAK BY OTHER					TRACE 1260							
IS Data	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17

AUG057 00

J = Estimated

E = Exceeds calibration range

Sample Tracking Form

Page 1 of 2

Date: August 17, 2000

Target Analyte	Sample Description																							
	ACID				ACID						ACID				ACID		ACID							
	325 0.5 55	325 4 56	326 0.5 57	326 4 58	327 0.5 59	327 4 60	328 0.5 61	328 4 62	329 0.5 63	329 4 64	330 0.5 65	330 4 66	331 0.5 67	331 4 68	332 0.5 69	332 4 70	333 0.5 71	333 4 72	334 0.5 73	334 4 74	Blank #5	LCS #5	MS #61	MSD #61
1,3,5-TriCB	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	99.8	149	151
1,2,4-TriCB	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	97.4	149	150
1,2,3-TriCB																						98.4	147	148
1,2,3,5&1,2,4,5																						98.4	149	150
1,2,3,4-TeCB																						97.0	148	148
Penta-CB																						98.4	147	147
Hexa-CB																						96.8	141	141
PCB as 1260	0.99	<0.10	0.43	<0.10	0.45	<0.10	4.0	<0.10	0.69	<0.10	0.34	<0.10	0.52	<0.10	3.4	<0.10	6.1	<0.10	<0.10	<0.10	<0.10	108	120	122
Surrogate TCMX	143	103	108	104	109	109	145	104	103	108	107	107	132	104	133	100	137	103	104	105	103	97.4	147	143
DCBP	132	103	107	117	113	115	156	107	103	110	105	110	134	110	140	108	127	113	110	114	116	128	152	132
					107 Peak																			
		TRACE 1260			AT 7289						67 PEAK AT 7782					TRACE 1260			1260					
INJ. Date	17	17	17	17	17	17	17	17	17	17	17	17	18	18	18	18	18	18	18	18	18	18	17	17

J = Estimated
E = Exceeds calibration range

Sample Tracking Form

Date: August 11, 2000

Target Analyte	335 0.5 75	335 4 76	336 ~~0.5~~ 4 ~~78~~ 77	336 ~~4~~ 0.5 ~~77~~ 78	337 0.5 79	337 4 80	338 0.5 81	338 4 82	339 0.5 83	339 4 84	340 0.5 85	340 4 86	341 0.5 87	341 4 88	342 0.5 89	342 4 90	343 0.5 91	343 4 92	344 0.5 93	344 4 94	Blank # 10	LCS # 10	1-20 DL MS # 75	MSD # 75
1,3,5-TriCB	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	97.6	148	146
1,2,4-TriCB																						98.6	146	145
1,2,3-TriCB																						98.2	144	143
1,2,3,5&1,2,4,5																						97.9	146	144
1,2,3,4-TeCB																						97.6	144	142
Penta-CB																						98.6	144	142
Hexa-CB																						97.8	139	138
PCB as 1260	0.32	<0.10	<0.10	0.74	0.12	<0.10	0.25	<0.10	0.60	<0.10	0.73	<0.01	0.25	<0.01	0.60	<0.01	0.12	<0.10	0.17	<0.10	<0.10	97.0		134
Surrogate TCMX	128	107	105	111	110	103	139	110	143	102	105	101e	135	98	133	96	102	99.3	104	103	100	98.2	141	140
DCBP	142	117	115	112	123	109	162	117	153	112	115	111e	146	108	139	101	102	114	108	110	130	110	162	158
																							129	
LLS Data	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18

J = Estimated

E = Exceeds calibration range

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Date: 17AUG00

Sample Tracking Form

ACID — Sample Description

Target Analyte	345 0.5 95	345 4 96	346 0.5 97	346 4 98	347 0.5 99	347 4 100	348 0.5 101	348 4 102	349 0.5 103	349 4 104	Smpl 1.5 105	Smpl 5.5 106	350 0.5 107	350 4 108	351 0.5 109	351 4 110	352 0.5 111	352 4 112	353 0.5 113	353 4 114	Blank # 7	LCS # 7	MS # 95	MSD # 95
1,3,5-TriCB	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01									<0.01	98.2	88.8	96.6
1,2,4-TriCB																						98.4	88.8	96.1
1,2,3-TriCB																						97.2	85.6	96.0
1,2,3,5&1,2,4,5																						99.0	92.1	97.3
1,2,3,4-TeCB																						96.5	91.0	94.8
Penta-CB																						97.5	98.2	97.6
Hexa-CB																						100	101	102
PCB as 1260	<0.10	<0.10	0.31	<0.10	0.13	<0.10	0.22	<0.10	0.61	<0.10	0.29	<0.10									<0.10	104	110	98.9
Surrogate TCMX	106	99.9	99.3	98.7	98.7	99.6	94.5	95.4	122	90.0	105	89.8									114	98.3	94.9	99.8
DCBP	108	108	100	112	107	111	104	107	137	106	121	113									128	114	103	99.9
	TMX 1260							UX M	02 PEAK AFTER MARKER		MIX of 1260 & 1254 w/81													
INJ Date	18	18	18	18	18	18	18	18	18	18	18	18									18 17	18	18	18

J = Estimated AUGUST 00

E = Exceeds calibration range

Sample Tracking Form

Date: 18 Aug 00

Target Analyte	Sample Description																					
	350 0.5 # 107	350 4 # 108	351 0.5 # 109	351 4 # 110	352 0.5 # 111	352 4 # 112	353 0.5 # 113	353 4 # 114	354 0.5 # 115	354 4 # 116	MA-1 0.5 # 117	1 4 # 118	2 0.5 # 119	2 4 # 120	3 0.5 # 121	3 1.5 # 122	4 0.5 # 123	4 2.5 # 124	5 0.5 # 125	5 2.5 # 126	Blank # 8	LCS # 8	MS # 107	MSD # 107
1,3,5-TriCB	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	86.6	140	137
1,2,4-TriCB																						79.9	135	135
1,2,3-TriCB																						79.3	133	131
1,2,3,5&1,2,4,5																						150	133	131
1,2,3,4-TeCB																						64.9	126	124
Penta-CB																						57.3	124	121
Hexa-CB	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	61.0	124	122
PCB as 1260	1.8	<0.10	0.33	<0.10	0.55	<0.10	1.6	<0.10	0.19	<0.10	0.19	<0.10	7.2	<0.10	0.17	0.31	<0.10	<0.10	<0.10	<0.10	<0.10	65.6	121	117
Surrogate TCMX	104	100	96.1	96.4	101	100	114	87.7	114	87.3	90.7	90.6	118	86.7	90.6	87.1	87.3	77.0	82.8	82.9	64.9	65.7	124	117
DCBP	116	114	108	116	114	105	138	112	135	109	101	113	136	114	106	105	104	110	102	104	98.7	92.6	138	129
(WI Dec	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	19	19	18	18

J = Estimated
E = Exceeds calibration range

Sample Tracking Form

Date: 18 Aug 00

Target Analyte	Sample Description: Acid HA-6 0.5 127	Acid 6 2.5 128	Acid 7 0.5 129	Acid 7 1.5 130	Acid 355 0.5 131	Acid 355 4 132	Acid 356 0.5 133	Acid 356 4 134	Acid 357 0.5 135	Acid 357 4 136	Acid 358 0.5 137	Acid 358 4 138	Acid 359 0.5 139	Acid 359 4 140	ACID 360 0.5 141	360 4 142	361 0.5 143	361 4 144	362 0.5 145	362 4 146	Blank #9	LCS #9	MS #128	MSD #128
1,3,5-TriCB	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	95%	81%	89%
1,2,4-TriCB																						89.6	83.6	84.8
1,2,3-TriCB																						88%	82.2	83.2
1,2,3,5&1,2,4,5																						104	78.3	80.2
1,2,3,4-TeCB																						13.5	70.2	71.6
Penta-CB																						66.3	63.8	64.8
Hexa-CB																						77%	67.8	68.4
PCB as 1260	0.10	<0.10	0.11	0.16	0.33	<0.10	0.20	<0.10	0.17	<0.10	<0.10	<0.10	<0.10	<0.10	[illegible]		0.22	<0.10	0.47	<0.10	0.42 <0.10	77.1	73.7	72.3
Surrogate TCMX	107	75.3	103	94.2	130	104.3	120	62.5	96.1	65.4	104.9	62.2	59.2	60.5	98		96	103	127	94.6	112	112%	71.0	72.0
DCBP	129	92.7	130	123	73.8	99.4	281	106	130	96.6	94.4	97.8	107	92.6	101		108	106	135	96.6	129	·	96.7	96.2
																					73.1	71.7		
																					98.4	100		
				MIX																				
				1254																				
				1260																				
				NIL																				
INJ Date	18	18 19	19	19	19	19	19	19	19	19	19	19	19	19	18		18	19	18	19	19	19	19	19

J = Estimated
E = Exceeds calibration range

Sample Tracking Form

Date: 18 Aug 00

Target Analyte	Sample Description: Acid																							
	Acid 363 05 147	Acid 363 4 148	Acid 364 05 149	Acid 364 4 150	Acid 365 05 151	365 4 152	366 05 153	366 4 154	367 05 155	367 4 156	368 05 157	368 4 158	369 05 159	369 4 160	Acid 370 05 161	370 4 162	371 05 163	371 4 164	372 05 165	372 4 166	Blank # 10	LCS # 10	MS # 147	MSD # 147
1,3,5-TriCB	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01		<0.01		<0.01		<0.01	<0.01	<0.01		<0.01		<0.01		<0.01	92	125	127
1,2,4-TriCB	↓	↓	↓	↓	↓		↓		↓		↓		↓	↓	↓		↓		↓		↓	91	125	126
1,2,3-TriCB																						91	122	124
1,2,3,5&1,2,4,5																						177	246	250
1,2,3,4-TeCB																						85	118	121
Penta-CB																						81	116	117
Hexa-CB	↓	↓	↓	↓	↓		↓		↓		↓		↓	↓	↓		↓		↓		↓	80	114	115
PCB as 1260	0.42	<0.10	0.31	<0.10	~~<0.10~~ ~~0.019~~ 0.023		~~0.010~~ <0.10		~~0.09~~ <0.10		~~0.07~~ <0.10		0.45	<0.10	~~0.05~~ <0.10		~~0.03~~ <0.10		~~0.24~~ ~~0.95~~ <0.10		<0.01	81	136	136
Surrogate TCMX	112	92.6	119	89.1	120		87		90		88		115	90.3	116		85		98		89	74	121	120
DCBP	129	99.9	129	91.0	120		103		102		102		124	92.4	130		102		116		107	91	137	132
																			84					
																			100					
	18	19	19		19		19		19		19		19		19		19		19		19	19	18	18

J = Estimated
E = Exceeds calibration range

Sample Tracking Form

Date: 18 Aug 00

Target Analyte	Sample Description																				Blank	LCS	MS	MSD
	373 0.5	373 4	Aug 374 0.5	374 4	Aug 375 0.5	375 4	Aug 376 0.5	376 4	377 0.5	377 4	378 0.5	378 4	379 0.5	379 4	380 0.5	380 4	381 0.5	381 4			#	#	#	#
	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184			11	11	167	167
1,3,5-TriCB	40.01		40.01		40.01		40.01		40.01		40.01		40.01		40.01		40.01				40.01	91	87	88
1,2,4-TriCB																						90	86	86
1,2,3-TriCB																						89	86	86
1,2,3,5&1,2,4,5																						196	188	188
1,2,3,4-TeCB																						88	80	80
Penta-CB																						79	76	76
Hexa-CB																						79	77	77
PCB as 1260	0.05		0.08		0.07		0.09		0.01		0.02		0.01		0.02		40.10				40.01	85	84	88
	4 to 10		2 to 10		2 to 10		2 to 10		2 to 10		2 to 10		2 to 10		2 to 10									
Surrogate TCMX	82		113		110		117		80		81		77		79		85.7				91	82	79	80
DCBP	99		124		120		138		96		99		90		99		108				111	101	97	93
	19		19		19		19		19		19		19		19		19				19	19	19	19

J = Estimated

E = Exceeds calibration range

Sample Tracking Form

Date: 19AUG00

Target Analyte	Sample Description: Acid	382	Acid	383	Acid	384	Acid	385	Acid	386	Acid	387	Acid	388	Acid	389	Acid	390	Acid	391	Acid	Blank	LCS	MS	MSD
		382		383		384		385		386		387		388		389		390		391					
		0.5		4		4		0.5		4		4		4		0.5		4		4					
		185		186		189		191		193		195		197		199		201		203		#12	#12	# 199	# 199
1,3,5-TriCB		<0.01		<0.01		<0.01		<0.01	<0.01	<0.01		<0.01		<0.01		<0.01		<0.01		<0.01		<0.01	91.9	136	132
1,2,4-TriCB																							91.7	136	133
1,2,3-TriCB																							92.2	133	129
1,2,3,5&1,2,4,5																							184	137	132
1,2,3,4-TeCB																							92.9	138	132
Penta-CB																							95.7	140	135
Hexa-CB		↓		↓		↓		↓	↓	↓		↓		↓		↓		↓		↓		↓	95.7	140	134
PCB as 1260		<0.10		<0.10		<0.10		0.68	<0.10	<0.10		<0.10		<0.10		<0.10		<0.10		<0.10		<0.10	94.1	~~144~~ 135	130
Surrogate TCMX		133		139		136		140	116	139		97.7		138		137		103		103		106	94.0	144	139
DCBP		111		126		115		117	82.2	92.1		93.2		111		122		96.9		105		98.9	90.9	121	120
		UI PEAK START 1260		BLANK SI PASS START OF 1260				1254 1260				TRACE 1260		TRACE 1260		TRACE 1260									
		TRACE 1260		TRACE 1260		TRACE 1260		#12		1260 1057 UNDEL LIMIT															
				DI OST STR																					
IDS Data		19		19		19		19	19	19		19		19		19		19		19		19	19	19	19

J = Estimated
E = Exceeds calibration range

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Sample Tracking Form

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Date: 19-Aug-00

Target Analyte	392 0.5 205	392 4 206	393 0.5 207	393 4 208	394 0.5 209	394 4 210	395 0.5 211	395 4 212	396 0.5 213	396 4 214	397 0.5 215	397 4 216	398 0.5 217	398 4 218	399 0.5 219	399 4 220	400 0.5 221	400 4 222	401 0.5 223	401 4 224	Blank #13	LCS #13	MS #205	MSD #205
1,3,5-TriCB	<0.01		<0.01		<0.01		<0.01	<0.01	<0.01		<0.01		<0.01		<0.01		<0.01		<0.01		<0.01	88.9	90.3	92.0
1,2,4-TriCB																						87.1	90.3	92.0
1,2,3-TriCB																						87.5	90.4	92.0
1,2,3,5&1,2,4,5																						125	199	187
1,2,3,4-TeCB																						86.8	92.6	93.5
Penta-CB																						86.3	94.7	95.5
Hexa-CB																						87.1	94.1	98.4
PCB as 1260	<0.10		<0.10		<0.10		0.14	<0.10	<0.10		<0.10		<0.10		<0.10		<0.10		<0.10		<0.10	87.1	93.2	94.5
Surrogate TCMX	103		102	~~99.6~~	99.6		95.6	77.1	92.9		96.9		97.6		93.0		96.0		92.3		97.6	88.4	97.9	98.4
DCBP	95.9		90.8	~~98.5~~	91.5		96.5	82.0	96.0		97.7		130		98.9		98.0		83.1		101	96.3	86.9	98.6
									TRACE 1260															
1ST Det	19		19		19		19		19		19		19		19		19		19		19	19	19	19

J = Estimated
E = Exceeds calibration range

Sample Tracking Form

Date: 19 Aug 00

Target Analyte	Sample Description																						
	402 0.5 225	402 4 226	403 0.5 227	403 4 228	404 0.5 229	404 4 230	405 0.5 231	405 4 232	406 0.5 233	406 4 234	407 0.5 235	407 4 236	408 0.5 237	408 4 238	409 0.5 239	409 4 240	410 0.5 241	410 4 242	411 0.5 243	411 4 244	Blank # 14	LCS # 14	MS # 225	MSD # 225
1,3,5-TriCB	<0.01		<0.01		<0.01		<0.01	<0.01	<0.01	<0.01	<0.01		<0.01		<0.01		<0.01		<0.01	<0.01	<0.01	94%	92%	90.2
1,2,4-TriCB																						92%	91.2	88.2
1,2,3-TriCB																						92%	91.5	88.2
1,2,3,5&1,2,4,5																						92.2	183	88.9
1,2,3,4-TeCB																						91.2	90%	88.0
Penta-CB																						89.4	899	82.6
Hexa-CB																						908	90.4	88%
PCB as 1260	<0.10		<0.10		<0.10		<0.10	0.12	0.12	<0.10	<0.10		<0.10		<0.10		<0.10		0.28	<0.10	<0.10	86.8	93.6	87.8
Surrogate TCMX	93.7		93.7		94.0		95.8		95.4	92.3	94.9		92.2		95.6		92.3		123	93.8	92.9	92.1	89.6	89.5
DCBP	95.3		94.7		93.5		95.0		91.8	98.1	93.1		95.2		91.4		91.2		119	95.5	92.9	92.6	92.4	89.9
INJ Date	19		19		19		19		19	20	19		19		20		19		19	20	20	20	19	19

J = Estimated
E = Exceeds calibration range

Sample Tracking Form

Date: 19 Aug 00

Target Analyte	Sample Description																							
	Aqu																							
	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	418 4	419 0.5	419 4	420 0.5	420 4	421 0.5	421 4	Blank	LCS	MS	MSD
	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	# 15	# 15	# 249	# 249
1,3,5-TriCB	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	89.1	88.6	86.9
1,2,4-TriCB																						88.9	88.3	85.1
1,2,3-TriCB																						89.0	88.2	84.8
1,2,3,5&1,2,4,5																						17.9	17.7	17.1
1,2,3,4-TeCB																						88.6	86.8	83.4
Penta-CB																						89.3	86.3	83.4
Hexa-CB	↓	↓	↓		↓	↓	↓	↓	↓		↓	↓	↓	↓	↓	↓	↓		↓	↓	↓	89.6	87.9	86.5
PCB as 1260	0.78	<0.10	<0.10		0.14	<0.10	<0.10	<0.10	<0.10		<0.10	<0.10	1.1	<0.10	0.92	<0.10	<0.10		0.55	<0.10	<0.10	86.4	94.6	95.5
Surrogate TCMX	126	82.3	91.4		92.1	87.4	78.2	78.5	92.4		94.6	84.6	121	80.3	87.4	88.3	84.1		85.5	77.0	98.4	89.9	93.6	87.9
DCBP	111	91.5	86.1		72.7	95.2	81.7	86.4	89.9		91.8	89.5	107	87.8	85.1	95.6	85.0		85.5	86.4	91.8	85.7	71.0	73.2
							<0.01																	
							↓																	
							0.12																	
							85.6																	
							86.2																	
IND Dec'd	19	20	19		19	20	20		20		20	20	20		20	20	20		20	20	19	19	19	20

J = Estimated

E = Exceeds calibration range

Sample Tracking Form

Date: 19 Aug 00

ACID

Target Analyte	Sample Description												Blank #	LCS #	MS #	M #
	422 0.5 265	422 4 266	423 0.5 267	423 4 268	424 0.5 269	424 4 270	425 0.5 271	425 4 272	426 0.5 273	426 4 274	427 0.5 275	427 4 276				
1,3,5-TriCB	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01		<0.01	<0.01				
1,2,4-TriCB																
1,2,3-TriCB																
1,2,3,5&1,2,4,5																
1,2,3,4-TeCB																
Penta-CB																
Hexa-CB																
PCB as 1260	0.19	<0.10	0.19	<0.10	<0.10		0.12	<0.10	<0.10		0.14	<0.10				
Surrogate TCMX	119	70.3	115	75.0	88.6		84.2	75.6	83.7		80.4	75.7				
DCBP	115	81.9	119	86.1	85.2		83.3	79.7	88.6		91.1	85.1				
MS Data	20	20	20	20	20		20	20	20		20	20				

J = Estimated
E = Exceeds calibration range

Sample Tracking Form

Page ___ of ___

Date: 20 Aug 00

Target Analyte	428 0.5 277	428 4 278	429 0.5 279	429 4 280	430 0.5 281	430 4 282	431 0.5 283	431 4 284	432 0.5 285	432 4 286	433 0.5 287	433 4 288	434 0.5 289	434 4 290	435 0.5 291	435 4 292	436 0.5 293	436 4 294	HA-7 2.25 295	HA-8 2.5 296	Blank # 116	LCS # 116	MS # 277	M #
1,3,5-TriCB	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			Z
1,2,4-TriCB																							89.8	9
1,2,3-TriCB																							87.0	8
1,2,3,5&1,2,4,5																							87.3	83
1,2,3,4-TeCB																							173	17
Penta-CB																							85.1	82
Hexa-CB																							80.4	
																							80.7	
PCB as 1260	0.44	[illegible]	0.89	<0.10	1.6	<0.10	0.70	<0.10	5.1	<0.10	<0.10		<0.10		0.74	<0.10	0.68	<0.10	<0.10	<2.0①	<0.10		110	
Surrogate TCMX	90.3	[illegible]	117	73.4	121	61.4	120	68.3	126	86.5	83.6		86.2		85.7	79.6	130	84.4	85.9	127	87.7		85.2	
DCBP	91.1	[illegible]	120	88.2	123	87.4	118	85.7	123	99.2	96.1		87.9		89.4	93.3	105	90.4	94.6	135	91.6		94.4	
		<0.01					Early VI Peaks		Large VZ KY TCMX				Trace 1260				1250 1260 W112		① elevated limit due to [illegible] Possible 1260 [illegible]					
		<0.10																						
		70.5 85.2																						
INJ Date	20	20	20	20	20	20	20	20	20	20	20		20		20	20	20	20	20	20				

J = Estimated
E = Exceeds calibration range

Sample Tracking Form

Date: 20 Aug 00

Target Analyte	HA8 2.25 #297 (Tox)	HA9 0.5 #298 (Tox, Acid)	HA9 2.5 #299 (Tox, Acid)	DP437 0.5 #300	437 4 #301	438 0.5 #302	438 4 #303	439 0.5 #304	439 4 #305	440 0.5 #306	440 4 #307	441 0.5 #308 (Acid)	441 4 #309	442 0.5 #310 (Acid)	442 4 #311	443 0.5 #312 (Acid)	443 4 #313	444 0.5 #314 (Acid)	448 4 #315	445 0.5 #316 (Acid)	Blank #17	LCS #17	MS #304	MSD #304
1,3,5-TriCB	<0.01	<0.01	<0.01	<0.01		<0.01		<0.01		<0.01		<0.01		<0.01		<0.01		<0.01		<0.01	<0.01	91.0		
1,2,4-TriCB																						87.3		
1,2,3-TriCB																						88.4		
1,2,3,5&1,2,4,5																						174		
1,2,3,4-TeCB																						83.7		
Penta-CB																						81.0		
Hexa-CB	↓	↓	↓	↓		↓		↓		↓		↓		↓		↓		↓		↓	↓	80.9		
PCB as 1260	<0.50 (1)	<1.0 (1)	<0.50 (1)	<0.10		<0.10		<0.10		<0.10		0.70		1.0		0.48		0.11		0.28	<0.10	78.4		
Surrogate TCMX	88.2	110	111	127		108		85.3		90.2		114		112		112		117		110	90.1	86.1		
DCBP	92.4	146	119	109		117		93.7		97.3		117		98.8		110		119		108	97.4	95.1		
	(1) Broad LY Toxaphene																							
	Raise limit to 0.5	Raise limit to 1.0	Raise limit to 0.5																					
INS Date	20	20	20	20		20		20		20		20		20		20		20		20	20	20		

J = Estimated
E = Exceeds calibration range

(1) 2 large UI peaks one by HCB one by TCMX

Sample Tracking Form

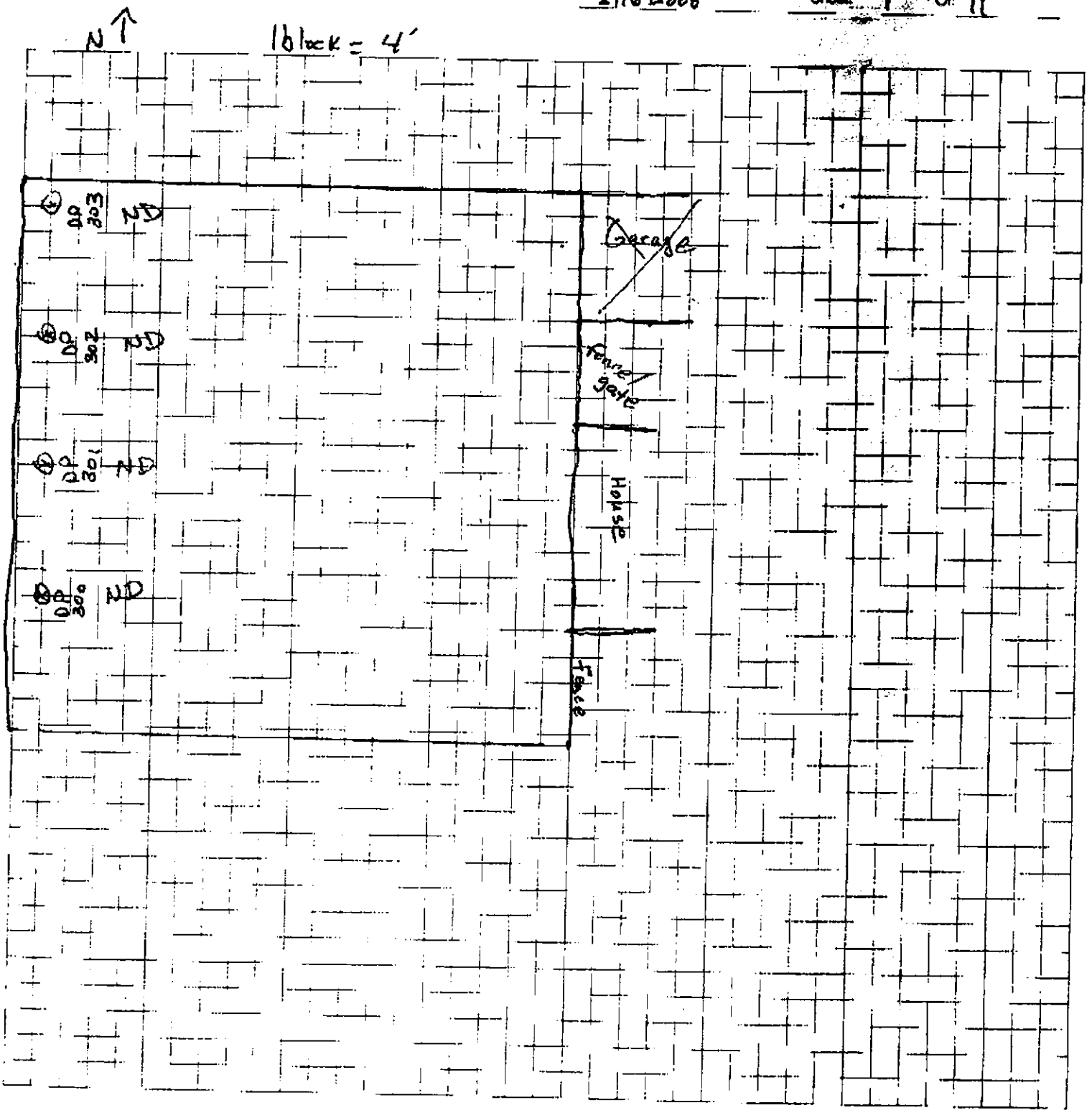
Date: 20 Aug 00

Target Analyte	445 L 317	Aio 446 CS 318	446 L 319	Aio 447 OS 320	447 4 321	Sample Description	Blank #	LCS #	MS #	MSD #
1,3,5-TriCB		<0.01		<0.01		NO LCS/MS/MSD Blank				
1,2,4-TriCB		↓		↓						
1,2,3-TriCB		↓		↓						
1,2,3,5&1,2,4,5		↓		↓						
1,2,3,4-TeCB		↓		↓						
Penta-CB		↓		↓						
Hexa-CB		↓		↓						
PCB as 1260		0.12		0.18						
Surrogate TCMX		112		106						
DCBP		112		98.1						
INST Date		20		20						

J = Estimated
E = Exceeds calibration range

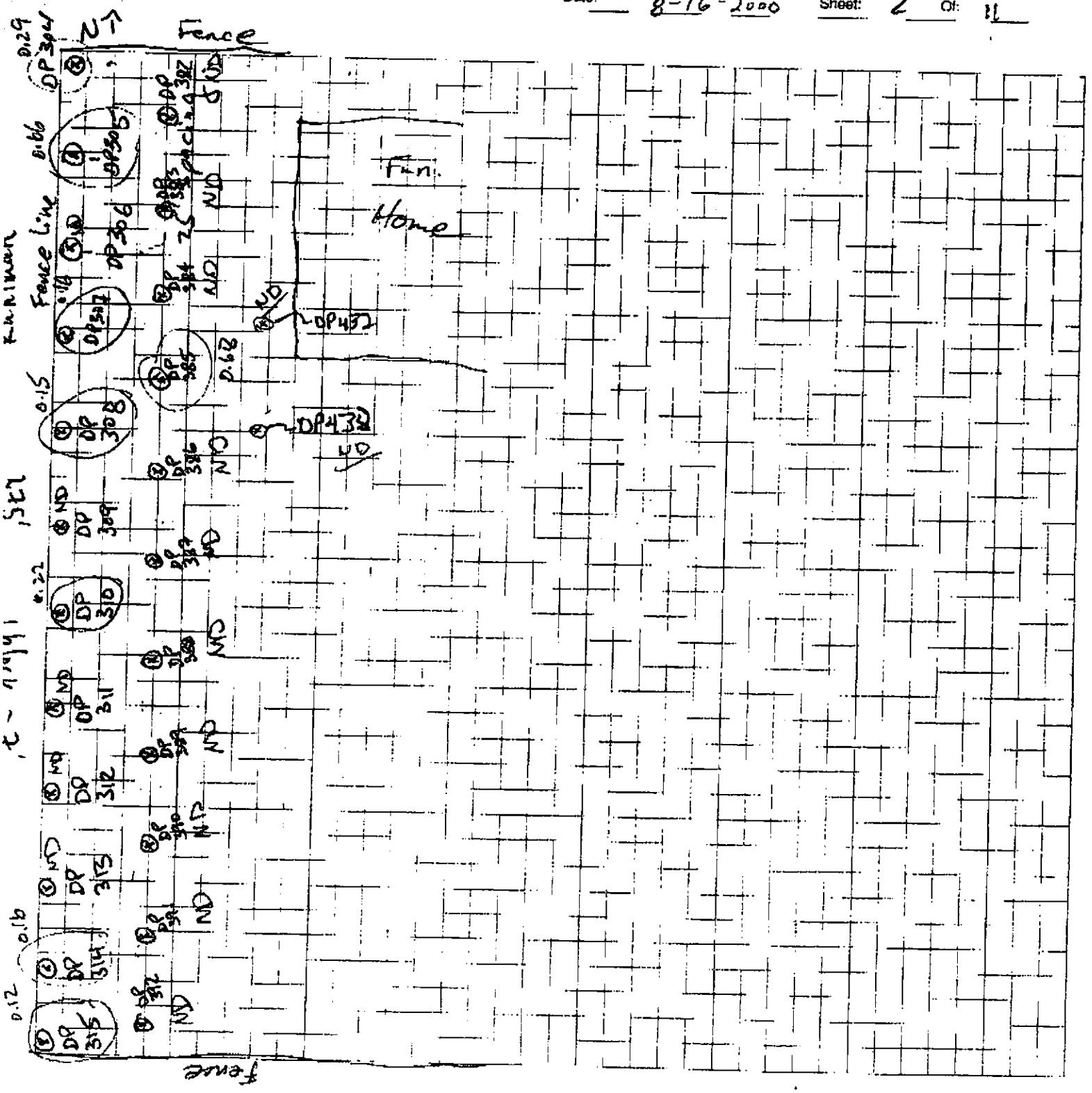
OGDEN

Job Name: Crystal Springs -
Job Number:
Title: Sonny Reeves backyard 405 Jackson
Computed by: Checked by:
Date: 8/16/2000 Sheet 1 Of 11



OGDEN

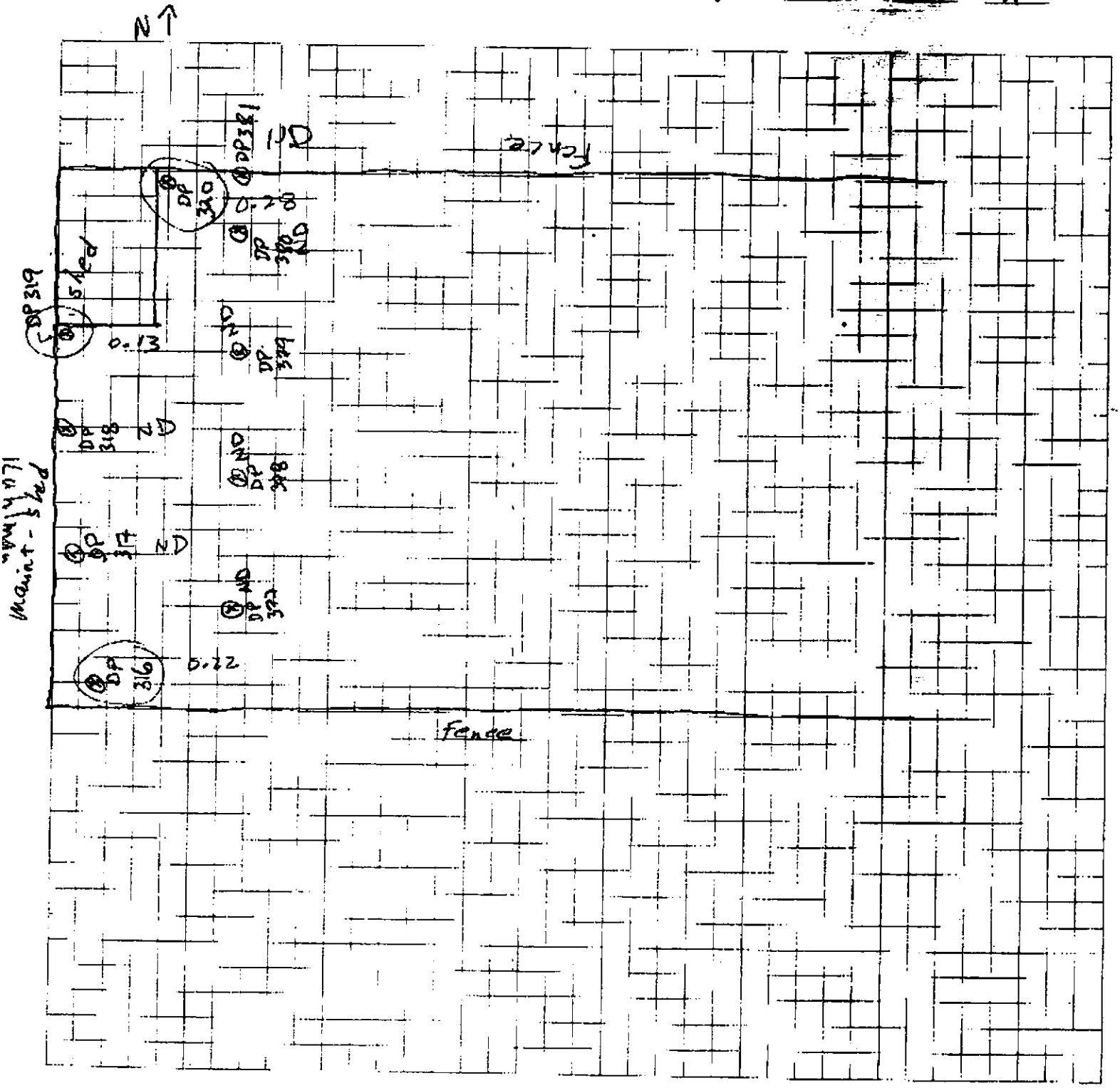
Job Name: Crystal Springs
Job Number:
Title: Stringer Funeral Home
Computed by: Checked by:
Date: 8-16-2000 Sheet: 2 Of: 11



OGDEN

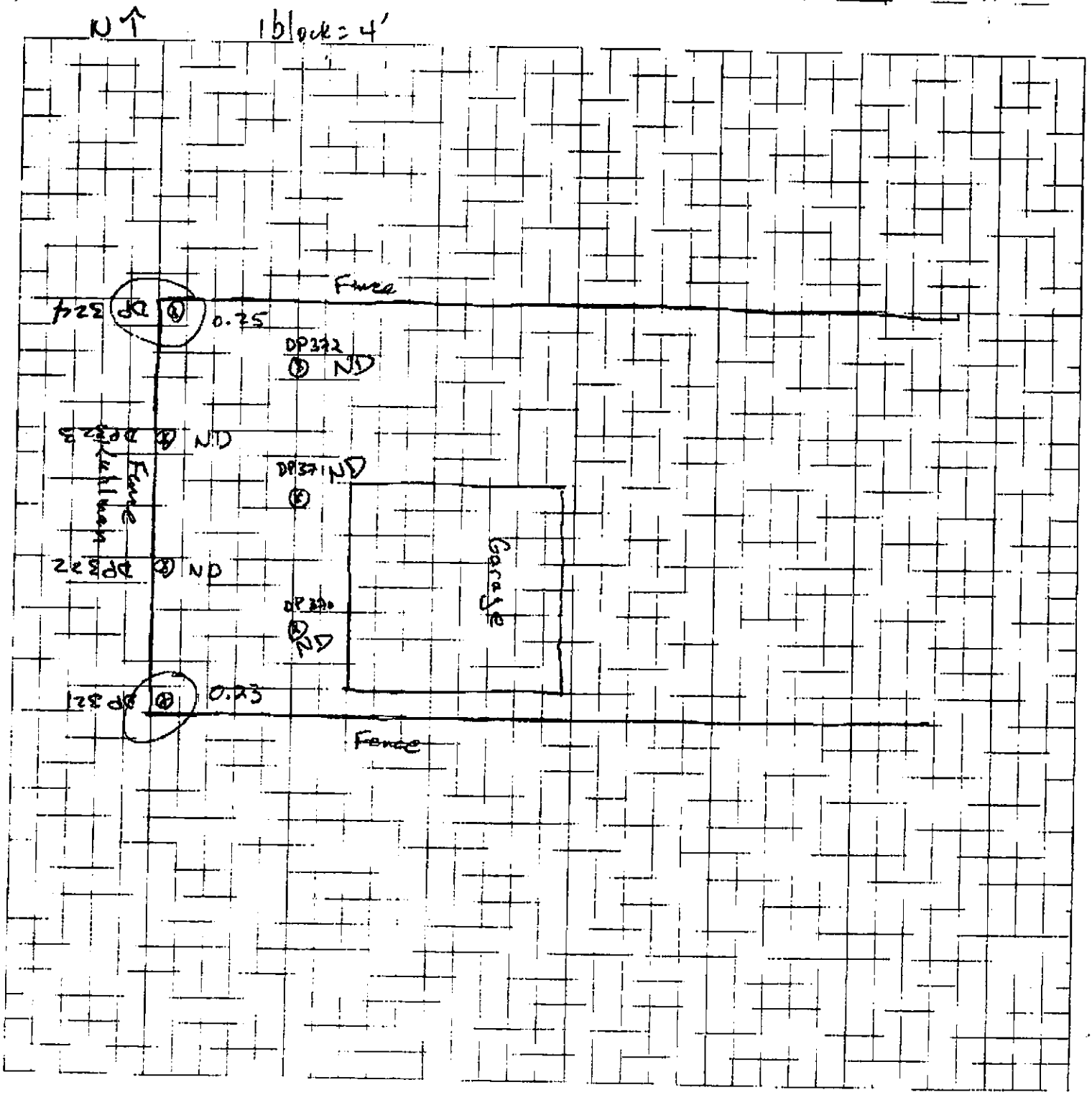
Job Name: Crystal Springs
Job Number:
Title: 401 N. Jackson & Elmer Wright
Computed by: Checked by:
Date: 8-16-2000 Sheet 3 of 11

1 block = 4'



OGDEN

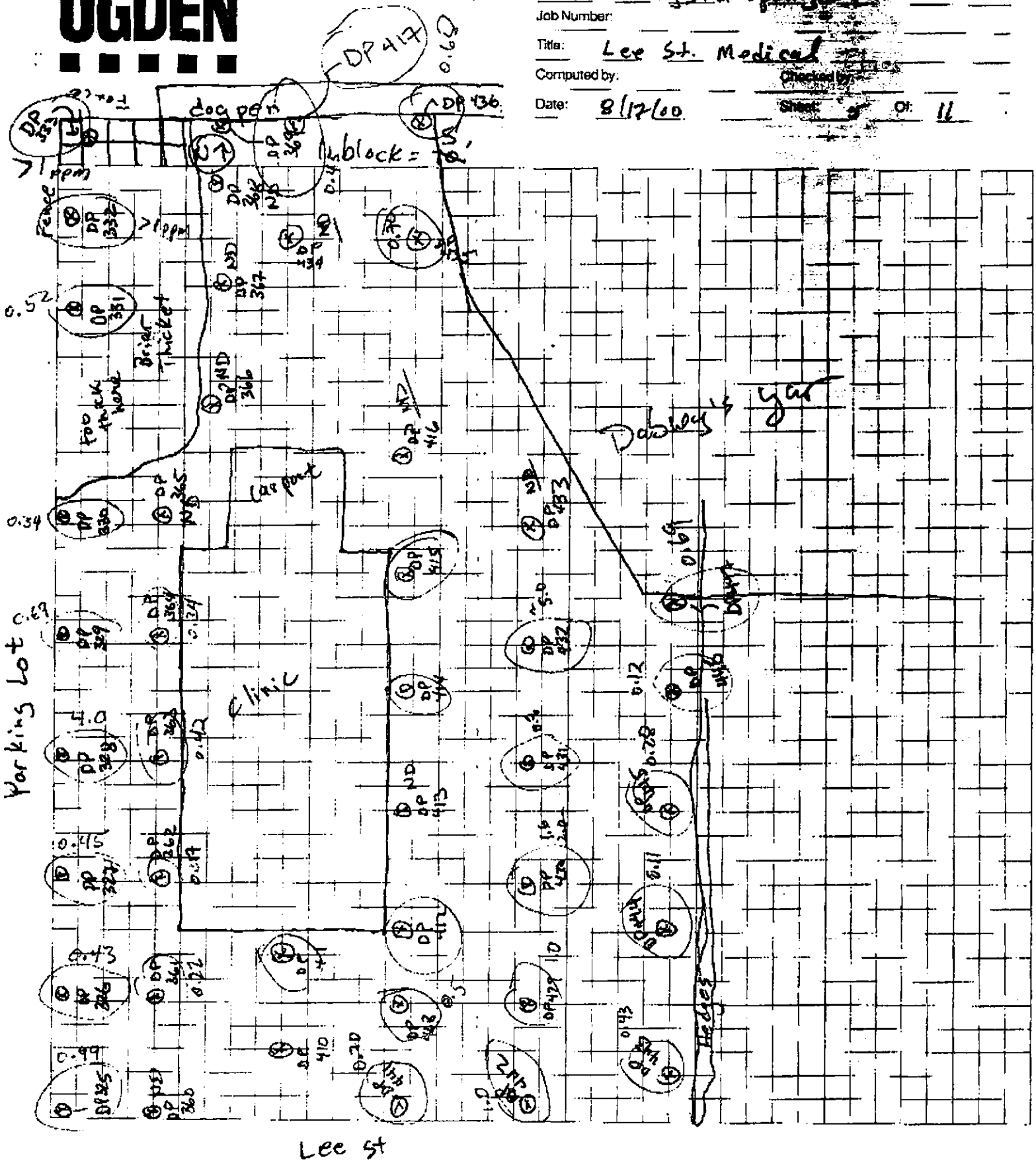
Job Name: Crystal Springs
Job Number:
Title: 407 N. Jackson Louie Lang
Computed by: Checked by:
Date: 8-16-00 Sheet: 4 Of: 11



601 8926496

OGDEN

Job Name: Crystal Springs
Job Number:
Title: Lee St. Medical
Computed by: Checked by:
Date: 8/17/00 Sheet 1 of 11



OGDEN

Job Name: Crystal Springs

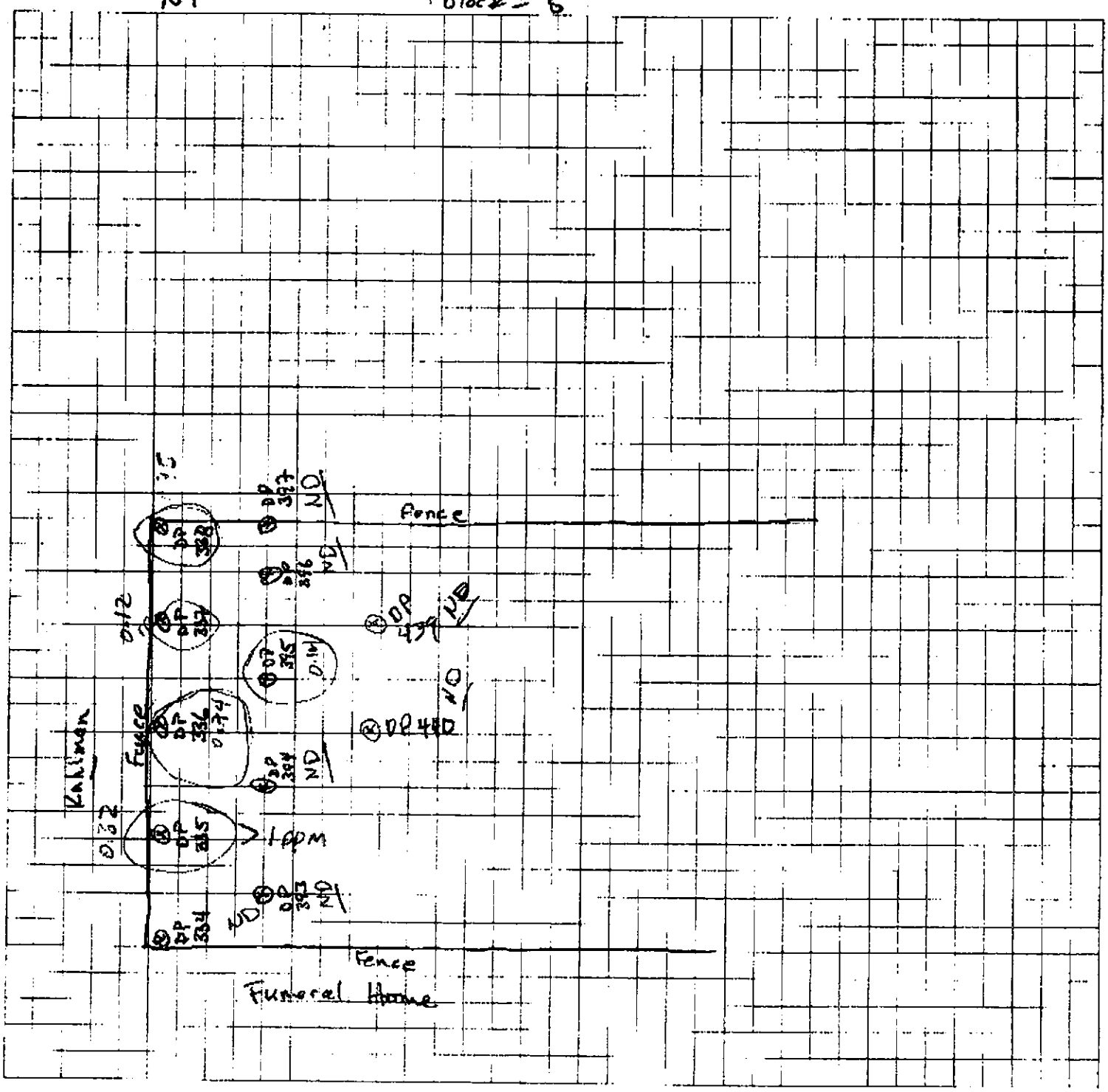
Job Number:

Title: 303 N. Jackson (stringer)

Computed by: Checked by:

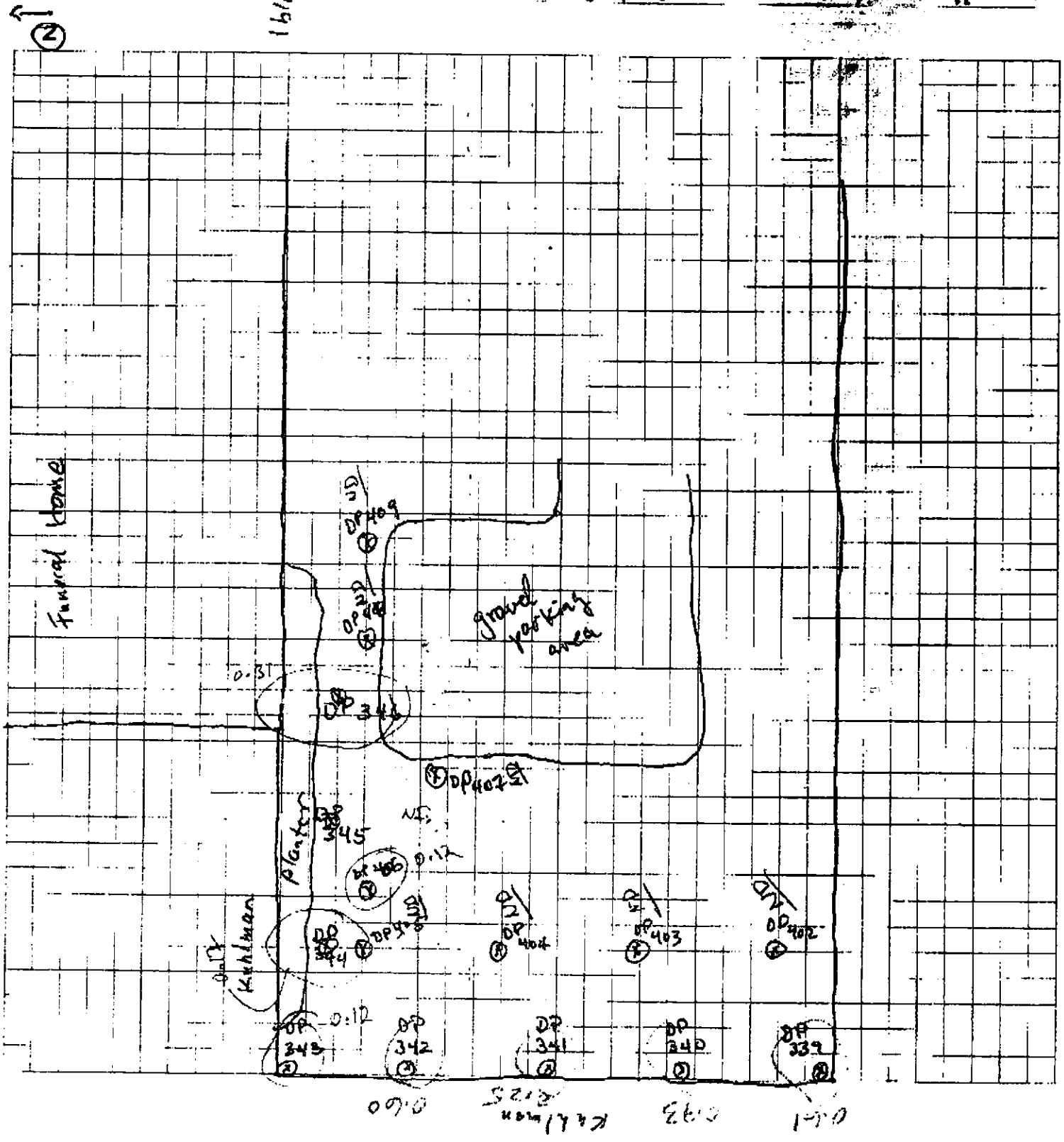
Date: 8-17-00 Sheet: 6 Of: 11

NT 1 block = 5'



OGDEN

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



601 8926496

OGDEN

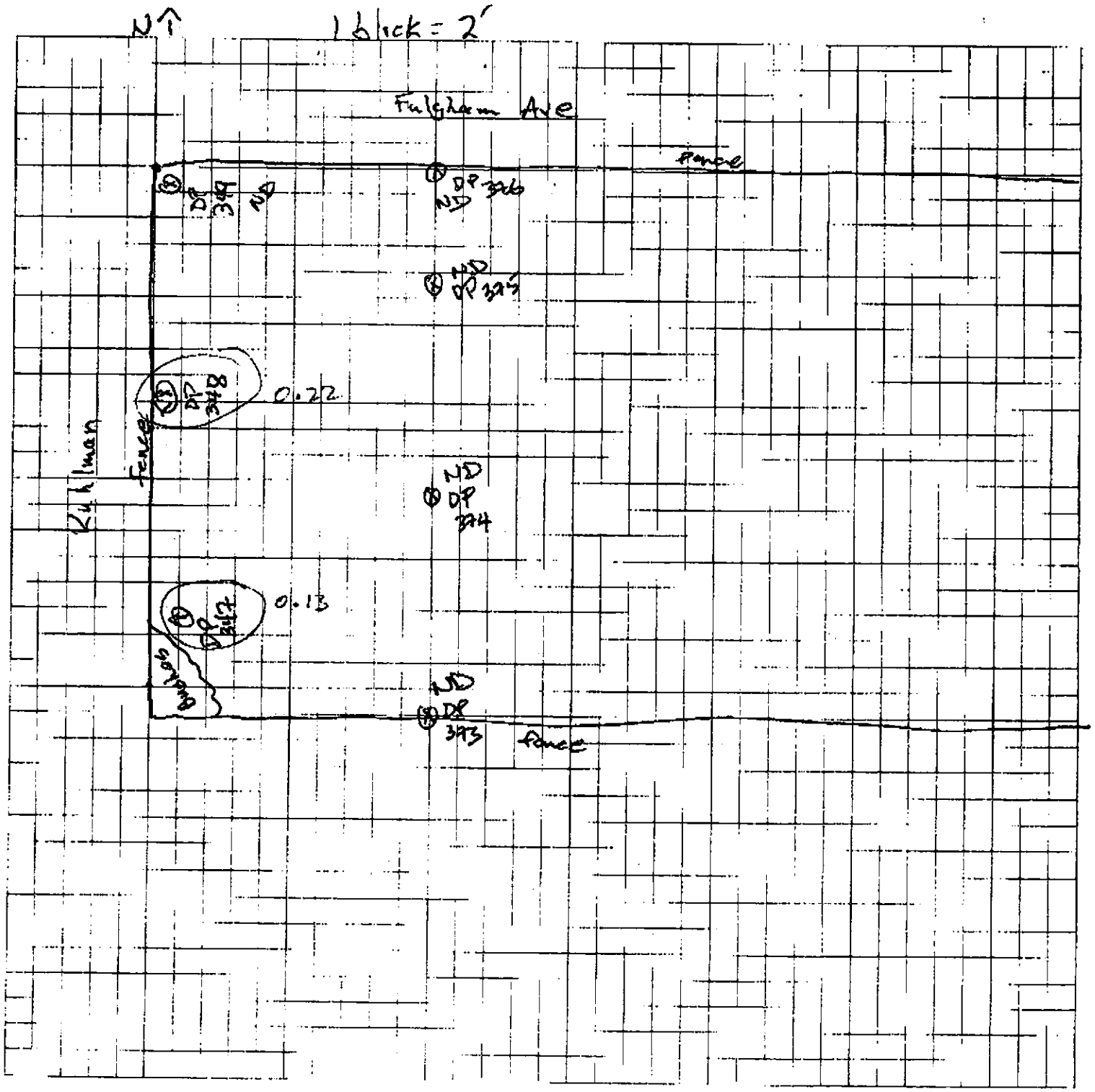
Job Name: Crystal Springs

Job Number:

Title: 409 N. Jackson (Amy Cooper)

Computed by: DF Checked by:

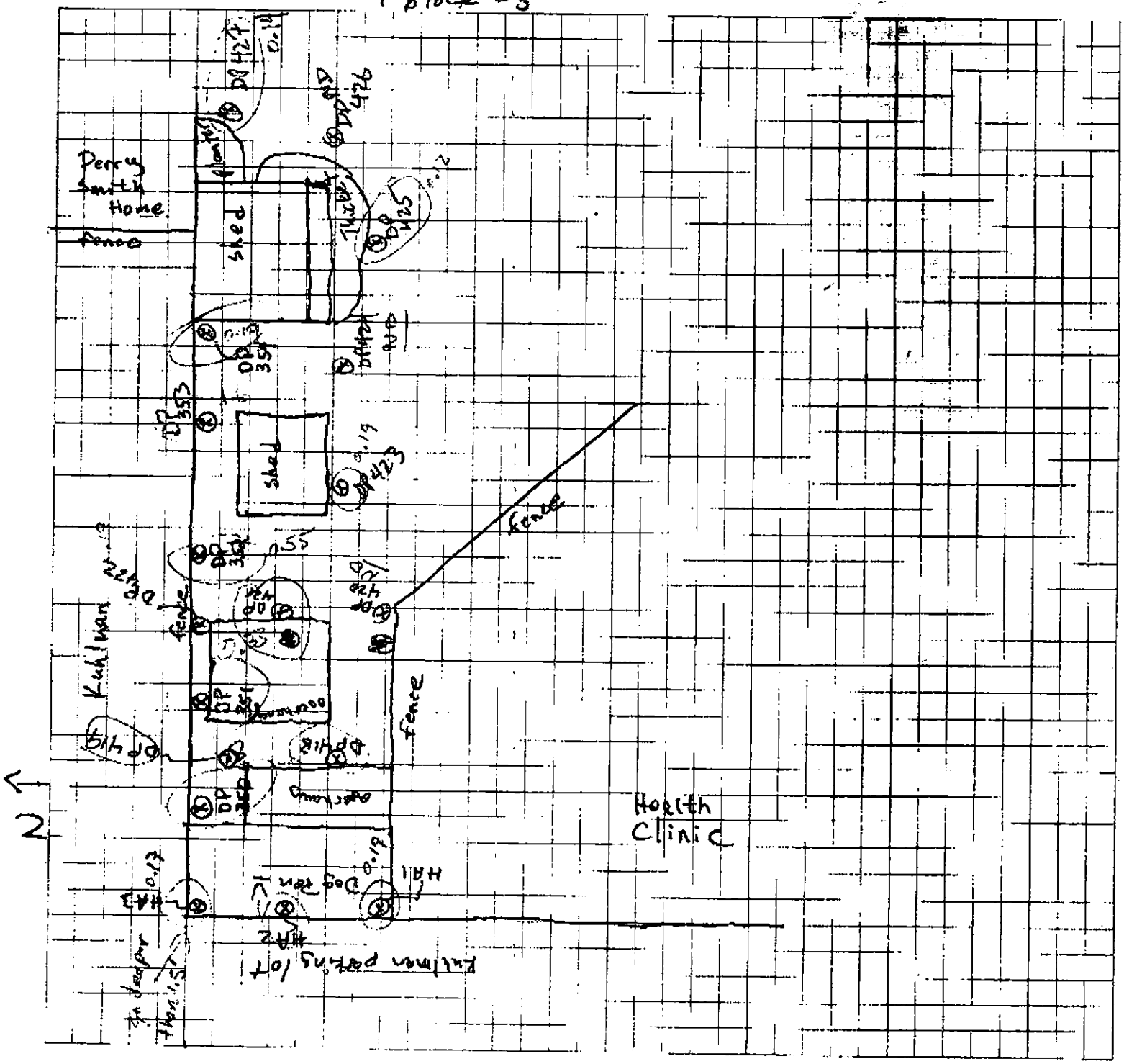
Date: 8-17-00 Sheet: 8 Of: 11



OGDEN

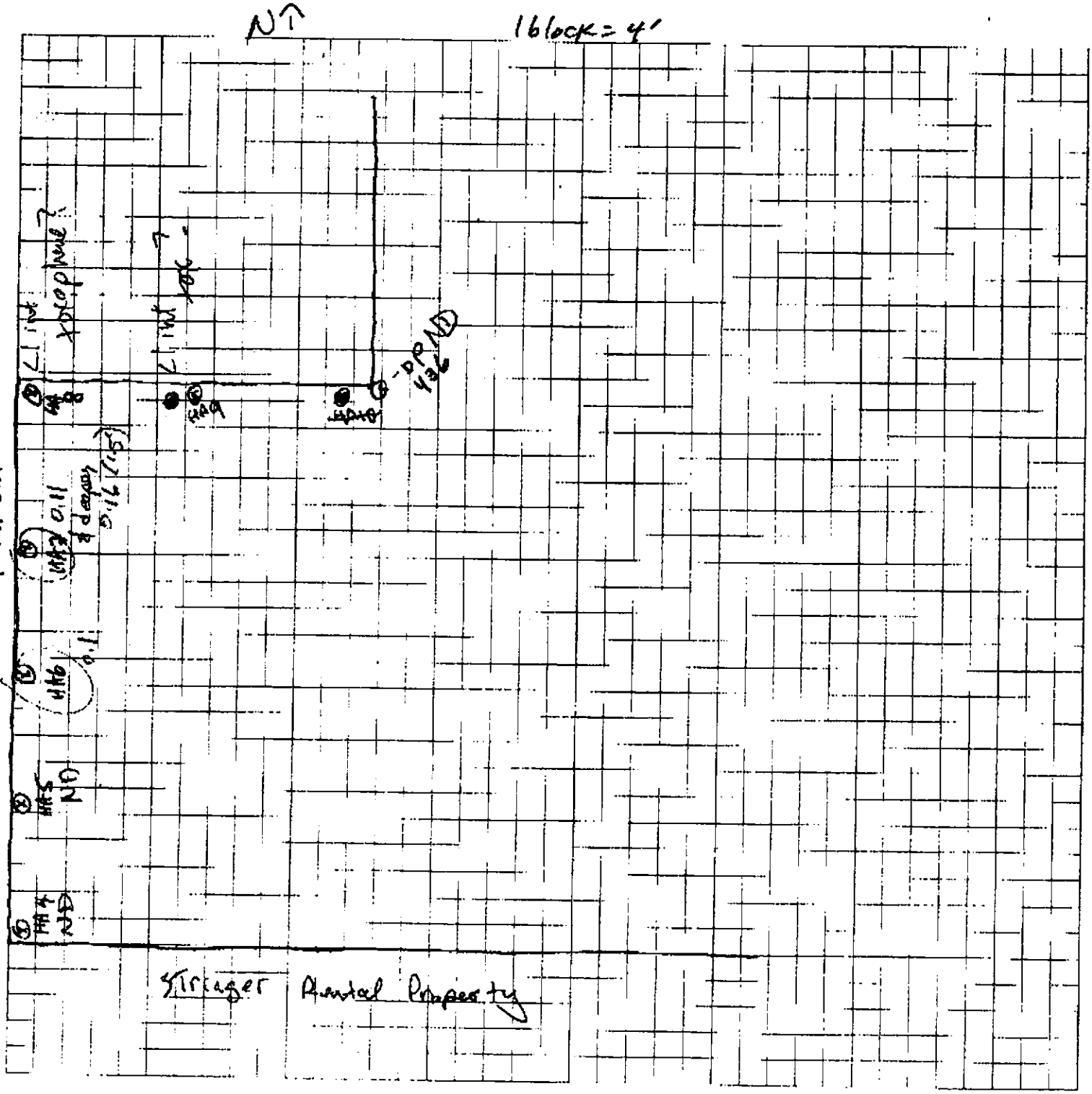
Job Name: Crystal Springs
Job Number:
Title: Dabney Homes - Perry
Computed by: TJF
Checked by:
Date: 8-17-00
Sheet: 9 of: 11

1 block = 5'



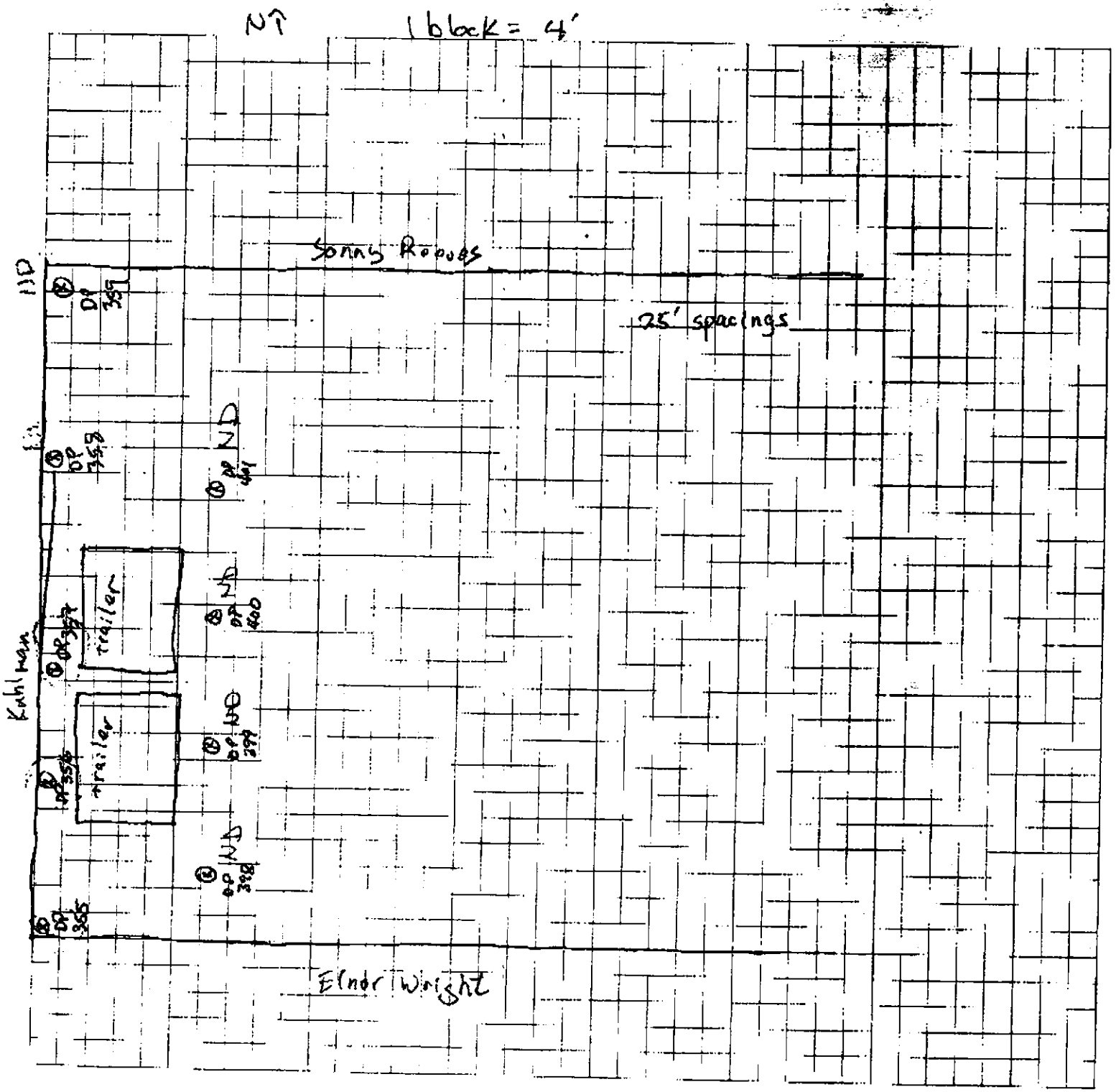
OGDEN

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



OGDEN

Job Name: Crystal Springs
Job Number:
Title: Harold & Suzanne Warren
Computed by: TJF Checked by:
Date: 8-18-00 Sheet 11 of 11



OGDEN

Job Name:
Job Number:
Title:
Computed by:
Checked by:
Date:
Sheet: Of:

FILE COPY

Fax Coversheet

To: Gretchin Zmitrovich
MDEQ

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

Date: 16 AU 00

Target Analyte	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Blank #2	LCS #2	8 MS #	8 MSD #
		ACID			ACID		ACID				ACID				ACID		ACID		ACID				ACID	ACID
Sample Description	DP300 0.5	DP300 4	DP301 0.5	DP301 4	DP302 0.5	DP302 4	DP303 0.5	DP303 40	DP304 0.5	DP304 4	DP305 0.5	DP305 4	DP306 0.5	DP306 4	DP307 0.5	DP307 4	DP308 0.5	DP308 4	DP309 0.5	DP309 4				
1,3,5-TriCB	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	99	145	146
1,2,4-TriCB																						99	141	142
1,2,3-TriCB																						99	140	141
1,2,3,5&1,2,4,5																						102	141	143
1,2,3,4-TeCB																						102	139	141
Penta-CB																						106	138	140
Hexa-CB	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	107	135	136
PCB as 1260	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.29	<0.10	0.66	<0.10	<0.10	<0.10	0.16	<0.10	0.15	<0.10	<0.10	<0.10	<0.10	103	131	136 133
Surrogate TCMX	99.6	105	129	104	135	106	137	111	102	85.1	131	97.0	104	91.8	139	118	137	108	137	104	111	104	135	136
DCBP	89.5	100	96.9	101	125	115	130	109	87.9	83.9	129	99.4	101	95.0	140	116	133	107	132	103	111	107	130	130
	TRACE 1260					3 OVERS by TCHS					TWO OFFSCALE UL PEAKS AFTER HCB LOOKS LIKE ~~1242~~ ~~1260~~ 1248 1260		TRACE 1260						TRACE 1260					

J = Estimated

E = Exceeds calibration range

Sample Tracking Form

Date: Aug 14, 2000

DP310

Sample Description

Target Analyte	~~DP310~~ 0.5 24	DP310 4 25	DP311 0.5 26	311 4 27	312 0.5 28	312 4 29	313 0.5 30	313 4 31	314 0.5 32	314 4 33	315 0.5 34	315 4 35	316 0.5 36	316 4 37	317 0.5 38	317 4 39	318 0.5 40	318 4 41	319 0.5 42	319 4 43	~~30~~ Blank #3	~~30~~ LCS #3	MS #30	MSD #30
1,3,5-TriCB	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	97.4	100	104
1,2,4-TriCB																						98.0	101	105
1,2,3-TriCB																						97.0	100	105
1,2,3,5&1,2,4,5																						99.5	103	107
1,2,3,4-TeCB																						99.4	103	107
Penta-CB																				✓	✓	101	106	108
Hexa-CB	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			103	108	107
PCB as 1260	0.22	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.16	<0.10	~~0.22~~ 0.12	<0.10	0.22	<0.10	<0.10	<0.10	<0.10	<0.10	0.13	<0.10	<0.10	100	112	107
Surrogate rcvy	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
DCBP	115	102	91	79	103	106	109	114	112	105	128	112	129	101	106	107	106	111	108	120	112	107	109	107
			TRACE 1260		TRACE 1260										TRACE 1248 or 1254		TRACE 1260							

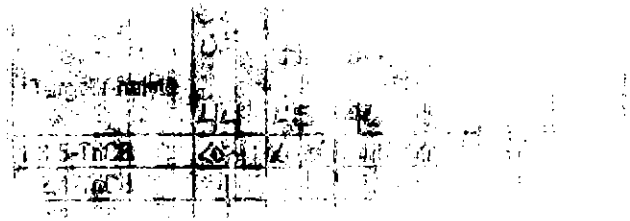
J = Estimated
E = Exceeds calibration range

Sample Tracking Form

Date: 16 AUG 2000

Target Analyte	ACID 320 0.5 44	320 4 45	ACID 321 0.5 46	321 2 47	321 4 48	322 0.5 49	322 4 50	323 0.5 51	323 4 52	324 0.5 53	324 4 54	Blank #4	LCS #4	MS #44	ACID MSD #44
1,3,5-TriCB	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	104	150	147
1,2,4-TriCB													104	147	145
1,2,3-TriCB													104	145	143
1,2,3,5&1,2,4,5													103	147	145
1,2,3,4-TeCB													104	143	141
Penta-CB													105	143	141
Hexa-CB													102	140	138
PCB as 1260	0.28	<0.10	0.23	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.25	<0.10	<0.10	102	161	137
Surrogate TCMX	141	112	134	107	93.7	103	105	106	104	99.6	107	111	101	139	133
DBP	155	117	137	111	105	110	116	109	113	104	107	122	104	147	149
			OF PEAK BY MANUAL					TRACE 1260							

J = Estimated
E = Exceeds calibration range



Sample Tracking Form

pH 1-2 pH 1-5

Page 1 of 3

Date: August 17, 2000

Target Analyte	Sample Description: ACID 325 0.5	ACID 325 4	ACID 326 0.5	ACID 326 4	ACID 327 0.5	ACID 327 4	ACID 328 0.5	ACID 328 4	ACID 329 0.5	ACID 329 4	ACID 330 0.5	ACID 330 4	ACID 331 0.5	ACID 331 4	ACID 332 0.5	ACID 332 4	ACID 333 0.5	ACID 333 4	ACID 334 0.5	ACID 334 4	Blank #5	LCS #5	MS #61	MSD #61
	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74				
1,3,5-TriCB	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	99.8	149	152
1,2,4-TriCB																						99.4	149	150
1,2,3-TriCB																						98.4	147	148
1,2,3,5&1,2,4,5																						98.4	149	150
1,2,3,4-TeCB																						97.0	148	148
Penta-CB																						98.4	147	147
Hexa-CB																					✓	96.8	141	141
PCB as 1260	0.99	<0.10	0.43	<0.10	0.45	<0.10	4.0	<0.10	0.69	<0.10	0.34	<0.10	0.52	<0.10		<0.10		<0.10	<0.10	<0.10	<0.10	108	120	122
Surrogate TCMX	143	103	108	104	109	109	145	104	103	108	107	107	132	104	133	100	137	103	104	105	103	97.4	147	143
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
					07																			
		TRACE 1260			Peak AT 2.789						07 PEAK AT 2.782					TRACE 1260			TRACE 1260					
INT. Std																				18	18	18		

J = Est[illegible]d

Sample Tracking Form

Date: August 11, 2000

Target Analyte	335 0.5 75	335 4 76	336 0.5 4 78 77	336 0.5 4 77 78	337 0.5 79	337 4 80	338 0.5 81	338 4 82	339 0.5 83	339 4 84	340 0.5 85	340 4 86	341 0.5 87	341 4 88	342 0.5 89	342 4 90	343 0.5 91	343 4 92	344 0.5 93	344 4 94	Blank # 10	LCS # 10	1-20 DL MS # 35	MSD # 35
1,3,5-TriCB	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01									<0.01	<0.01	<0.01	<0.01	<0.01	97.6	148	146
1,2,4-TriCB	↓	↓	↓	↓	↓	↓	↓	↓									↓	↓	↓	↓	↓	98.6	146	145
1,2,3-TriCB																						98.2	144	143
1,2,3,5&1,2,4,5																						97.9	146	144
1,2,3,4-TeCB																						97.6	144	142
Penta-CB																						98.6	144	142
Hexa-CB	↓	↓	↓	↓	↓	↓	↓	↓									↓	↓	↓	↓	↓	97.8	139	138
PCB as 1260	0.32	<0.10	<0.10	0.74	0.12	<0.10	0.75	<0.10									0.12	<0.10	0.17	<0.10	<0.10	97.0		134
Surrogate TCMX	128	107	105	111	110	103	139	110									102	99.3	104	103	100	98.2	141	140
DCBP	142	117	115	112	123	109	162	117									102	114	108	110	130	110	162	158
LCS Data	18	18	18	18	18	18	16	16									18	18	18	18	18	18	18	18

J = Estima

E = Exceed calibration range

601 8926496

Sample Tracking Form

Page 2 of ~~4~~ 5

Date: 17AUG00

ACID — Sample Description

Target Analyte	345 0.5 95	345 4 96	346 0.5 97	346 4 98	347 0.5 99	347 4 100	348 0.5 101	348 4 102	349 0.5 103	349 4 104	Smpl 15 105	Smpl 5.5 106	~~350 0.5 107~~	~~350 4 108~~	~~351 0.5 109~~	~~351 4 110~~	~~352 0.5 111~~	~~352 4 112~~	~~353 0.5 113~~	~~353 4 114~~	Blank # 7	LCS # 7	MS # 95	MSD # 95
1,3,5-TriCB	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01									<0.01	98.2	88.8	96.6
1,2,4-TriCB	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		↓									↓	98.4	85.8	96.2
1,2,3-TriCB																						97.2	87.6	96.0
1,2,3,5&1,2,4,5																						99.0	92.1	97.3
1,2,3,4-TeCB																						96.5	91.0	94.8
Penta-CB																						97.5	98.2	97.6
Hexa-CB																						100	101	102
PCB as 1260	<0.10	<0.10	0.31	<0.10	0.13	<0.10	0.22	<0.10	0.61	<0.10		<0.10									<0.10	104	110	98.9
Surrogate TCMX	106	99.9	99.3	98.7	98.7	99.6	94.5	95.4	122	90.0		89.8									114	98.3	74.9	99.8
DCBP	108	108	100	112	107	111	104	107	137	106		113									128	114	103	90.9
	TRACE 1260							UX #	U2 PEAK AFTER MARKER															
5 Date	18	18	18	18	18	18			18	18		18									~~18~~ 17	18	18	18

J = Estim

AUGUST 00

Page 1 of _____

Sample Tracking Form

Date: 18 Aug 00

Target Analyte	350 0.5 107	350 4 108	351 0.5 109	351 4 110	352 0.5 111	352 4 112	353 0.5 113	353 4 114	354 0.5 115	354 4 116	HA-1 0.5 117	1 4 118	2 0.5 119	2 4 120	3 0.5 121	3 1.5 122	4 0.5 123	4 2.5 124	5 0.5 125	5 2.5 126	Blank # 8	LCS # 8	MS # 107	MSD # 107
1,3,5-TriCB	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01																	140	132
1,2,4-TriCB	↓	↓	↓	↓	↓	↓																	135	135
1,2,3-TriCB																							133	131
1,2,3,5&1,2,4,5																							133	131
1,2,3,4-TeCB																							126	124
Penta-CB																							124	121
Hexa-CB	↓	↓	↓	↓	↓	↓																	124	122
PCB as 1260	1.8	<0.10	0.33	<0.10	0.55	<0.10																	121	~~117~~ 124
Surrogate TCMX	104	100	96	96	101	100																	124	117
DCBP	116	114	108	116	114	105																	138	129
INJ DATE	18	18	18	18	18	18																	18	18

J = Estim

601 8926496

OGDEN

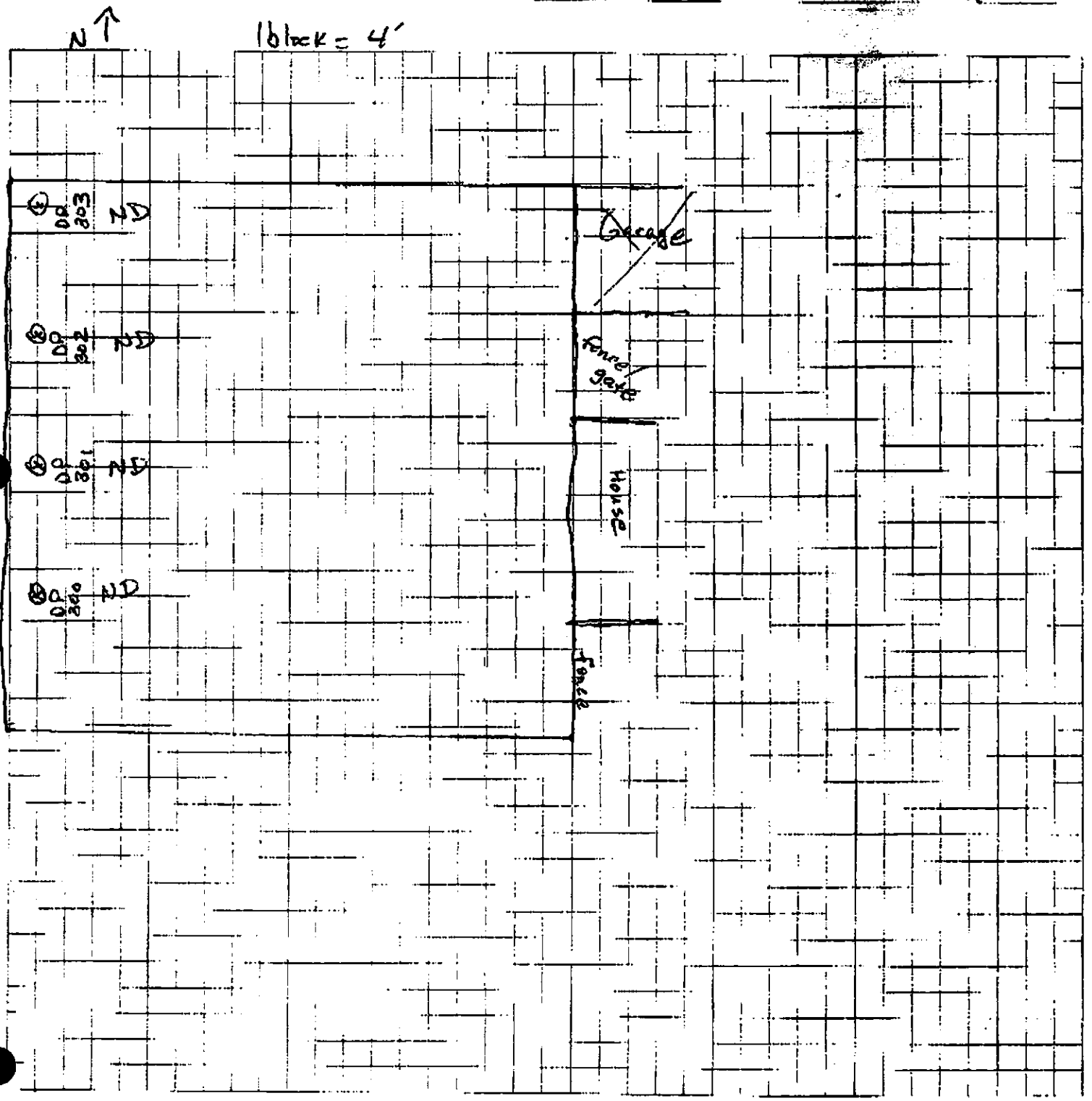
Job Name: Crystal Springs

Job Number:

Title: Sonny Reeves backyard 405 Jackson

Computed by: Checked by:

Date: 8/16 2000 Sheet 1 Of 11



OGDEN

ZERO

200

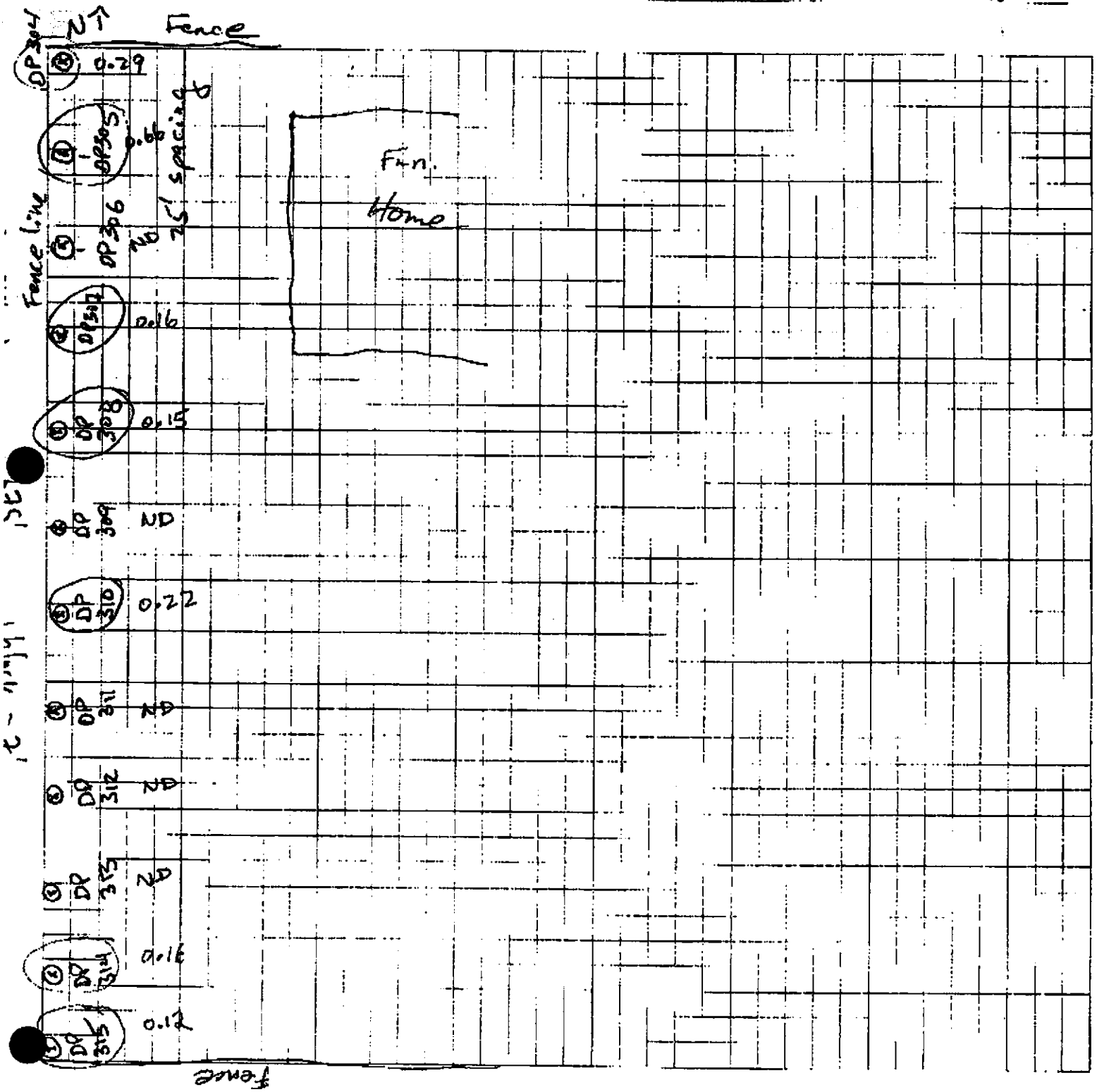
Job Name: Crystal Springs

Job Number:

Title: Stringer Funeral Home

Computed by: Checked by:

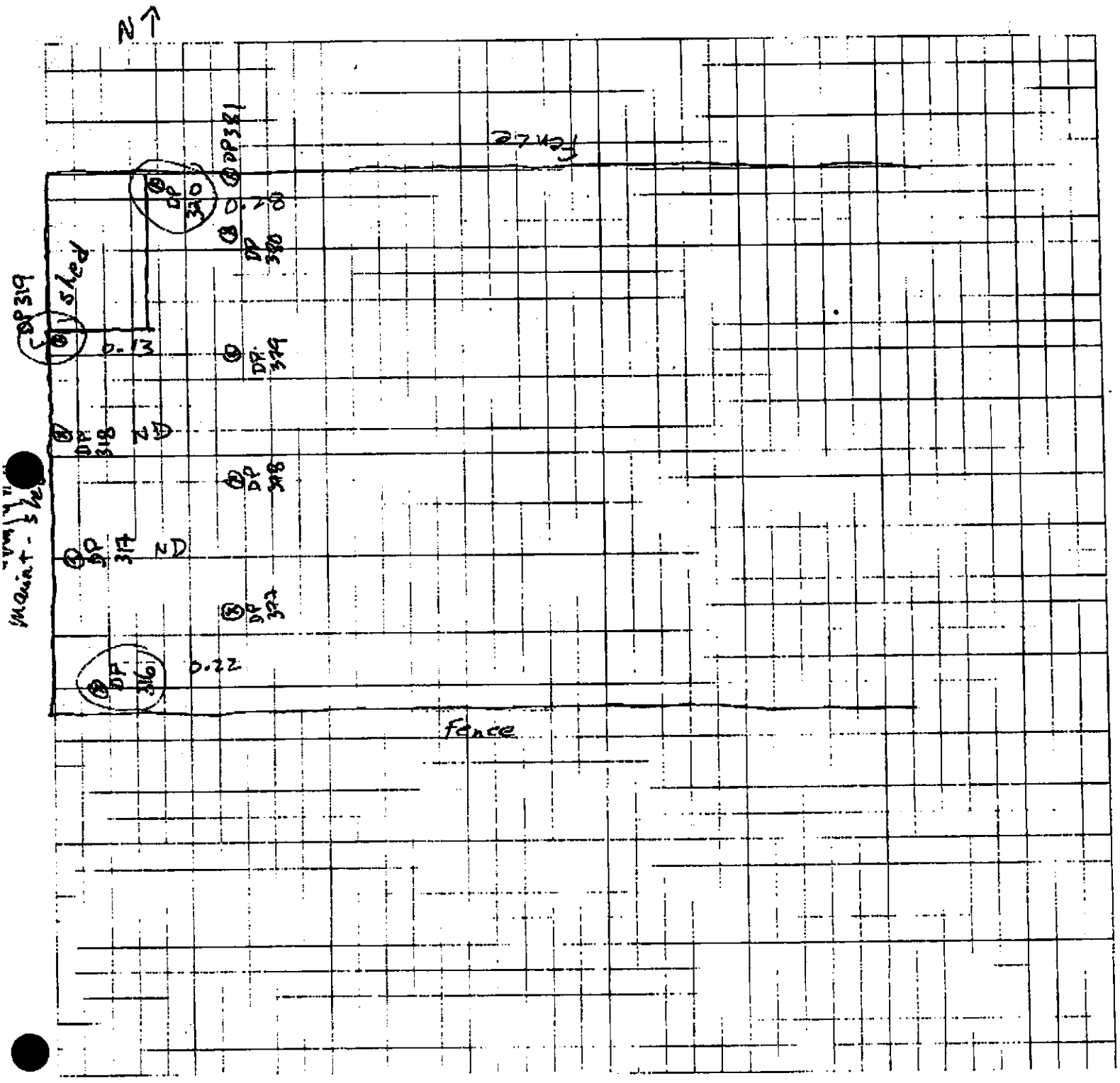
Date: Sheet: 2 Of: 11



OGDEN

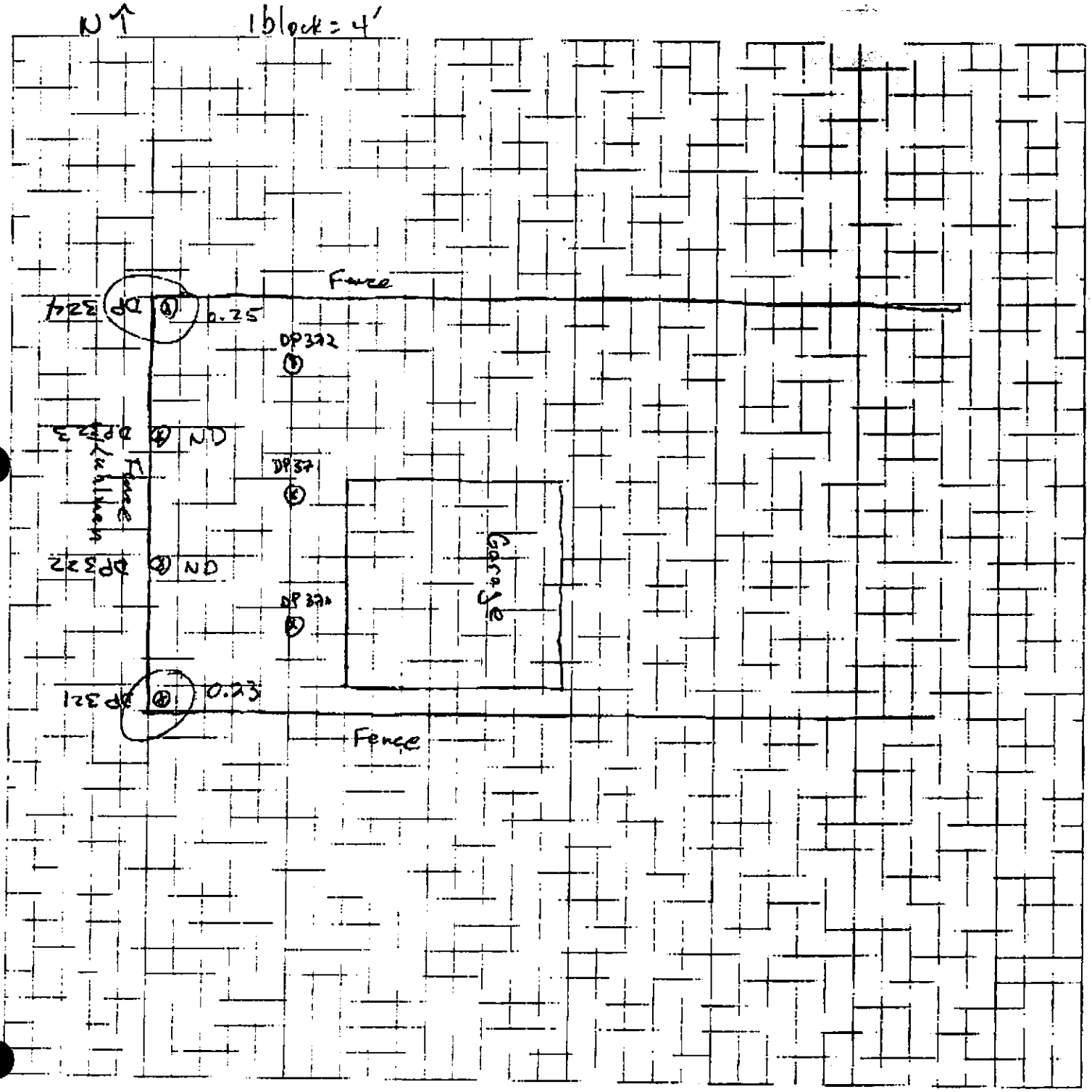
Job Name: Crystal Springs
Job Number:
Title: 401 N. Jackson Elnor Wright
Computed by: Checked by:
Date: 8-16-2000 Sheet: 3 Of: 11

1 block = 4'



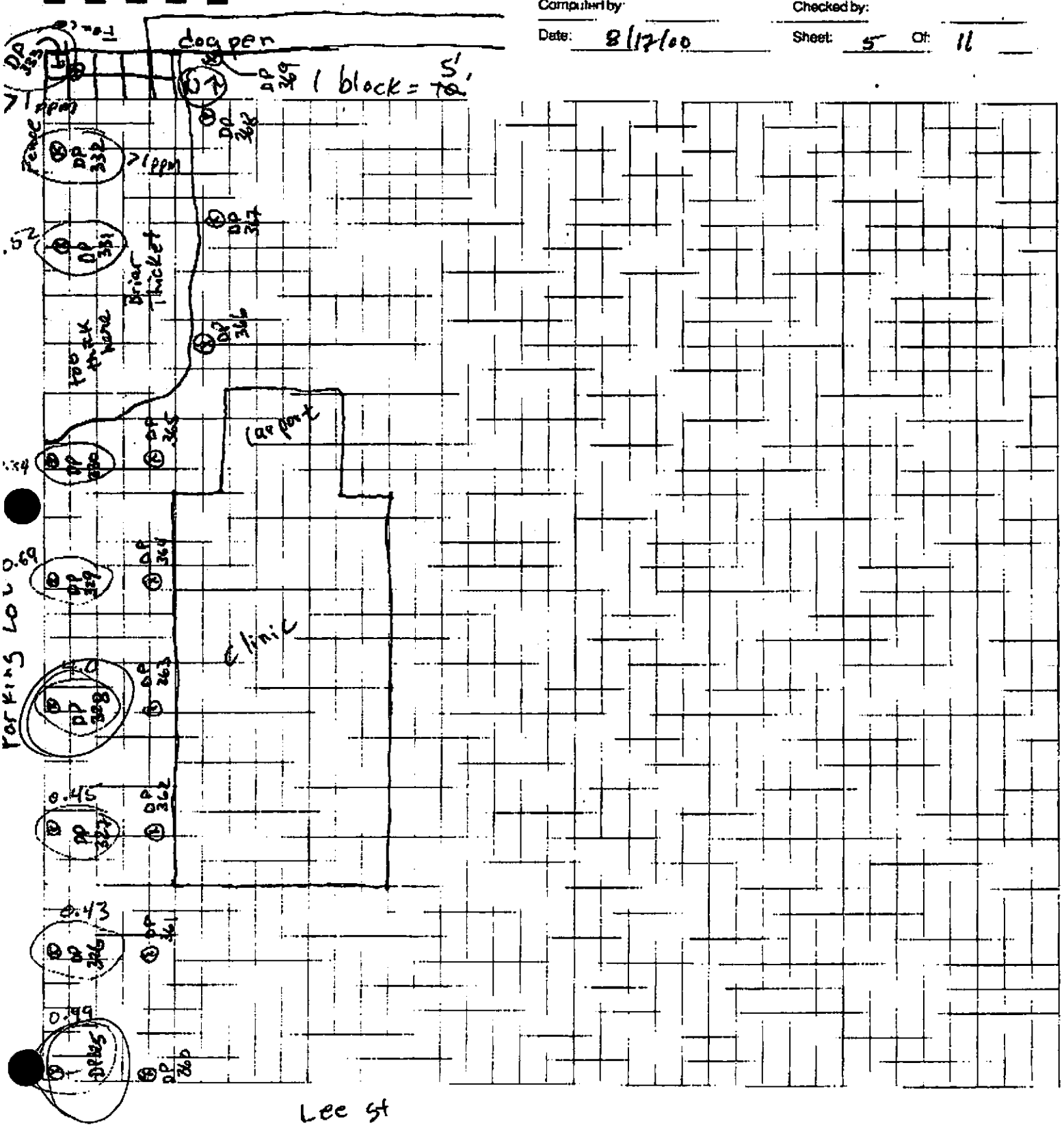
OGDEN

Job Name: Crystal Springs
Job Number:
Title: 407 N. Jackson Louie Lang
Computed by: Checked by:
Date: 8-16-00 Sheet: 4 Of: 11



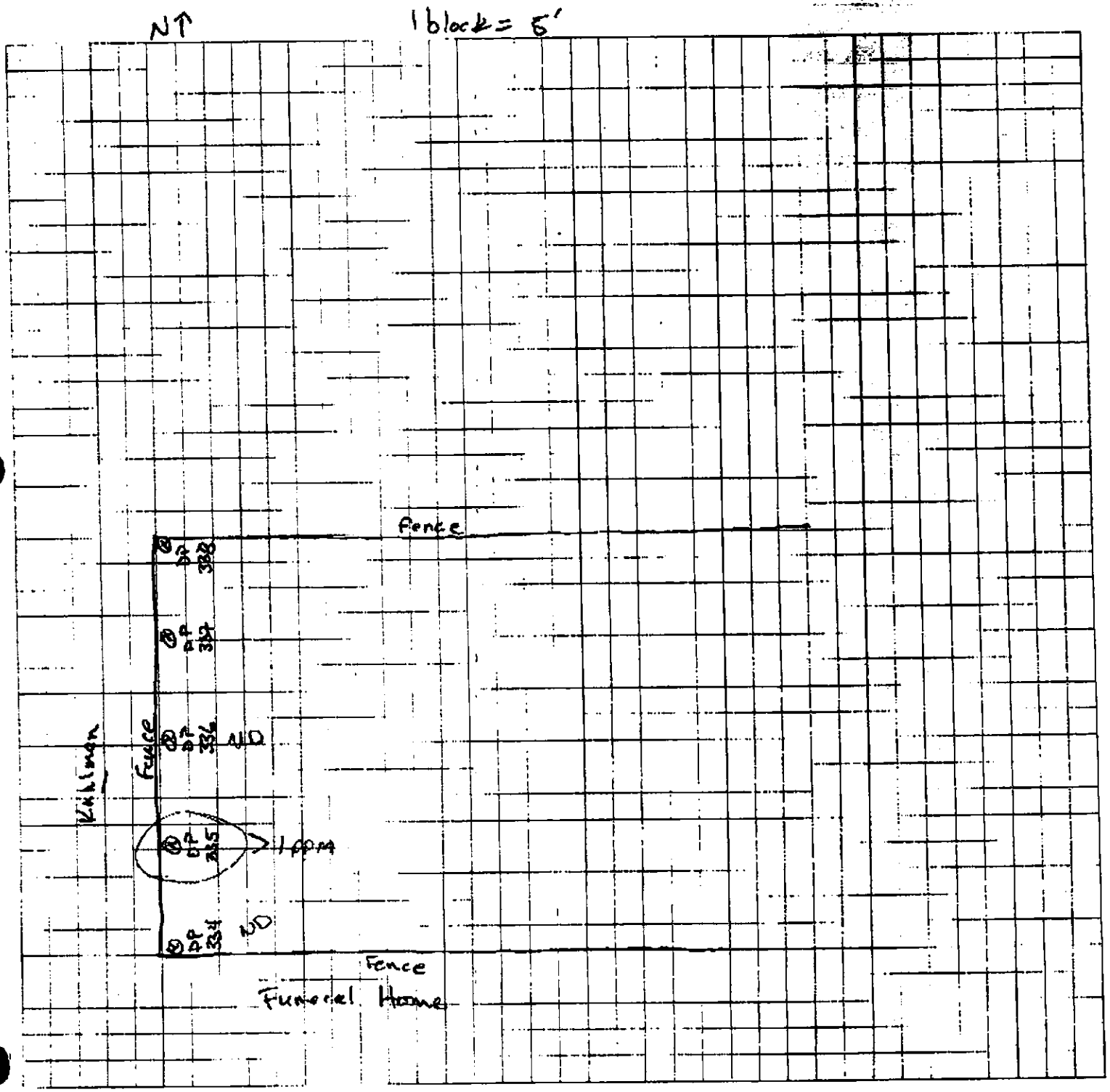
OGDEN

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



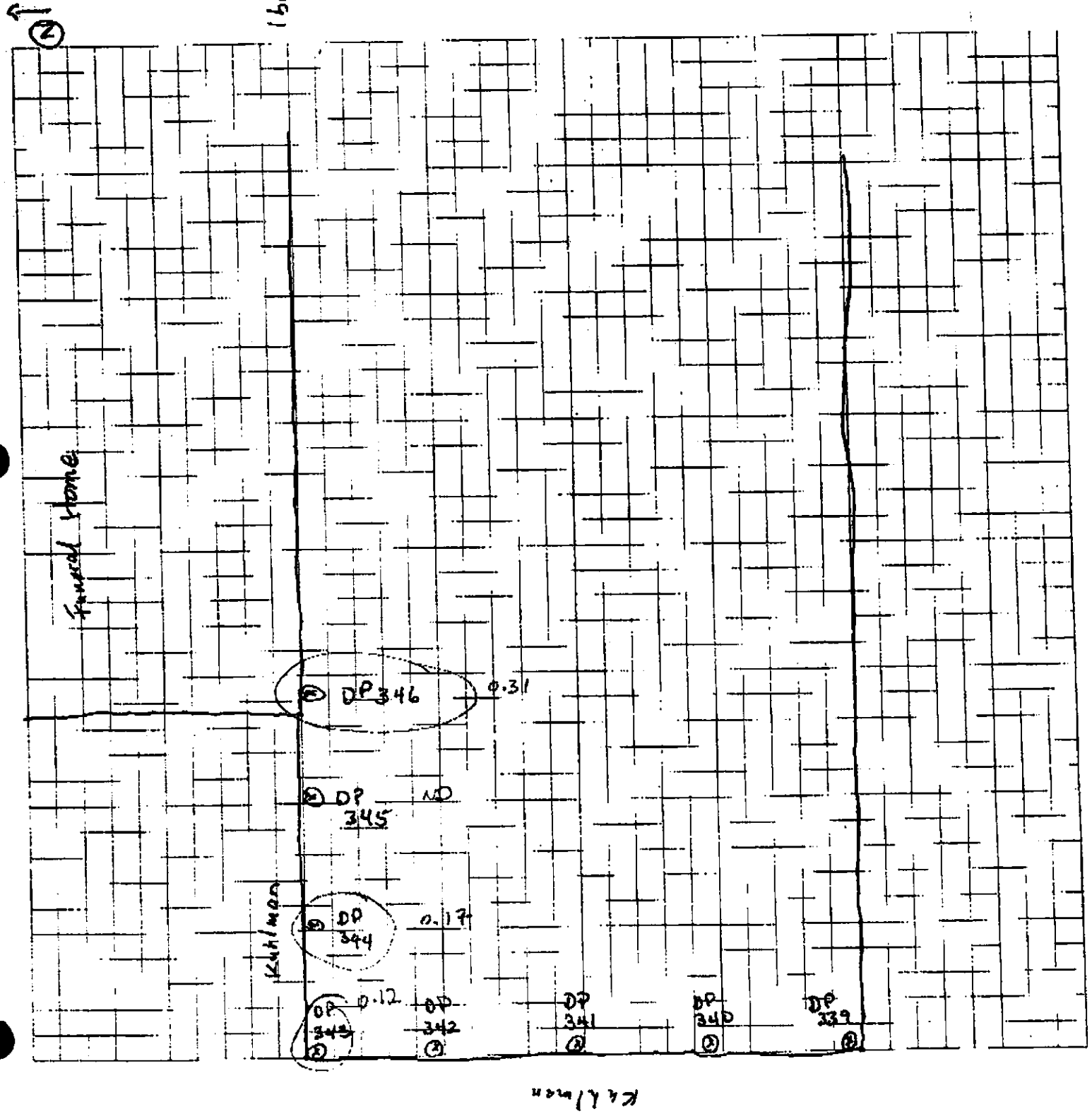
OGDEN

Job Name: Crystal Springs
Job Number:
Title: 303 N. Jackson (Edinger)
Computed by: Checked by:
Date: 8-17-00 Sheet 6 Of: 11



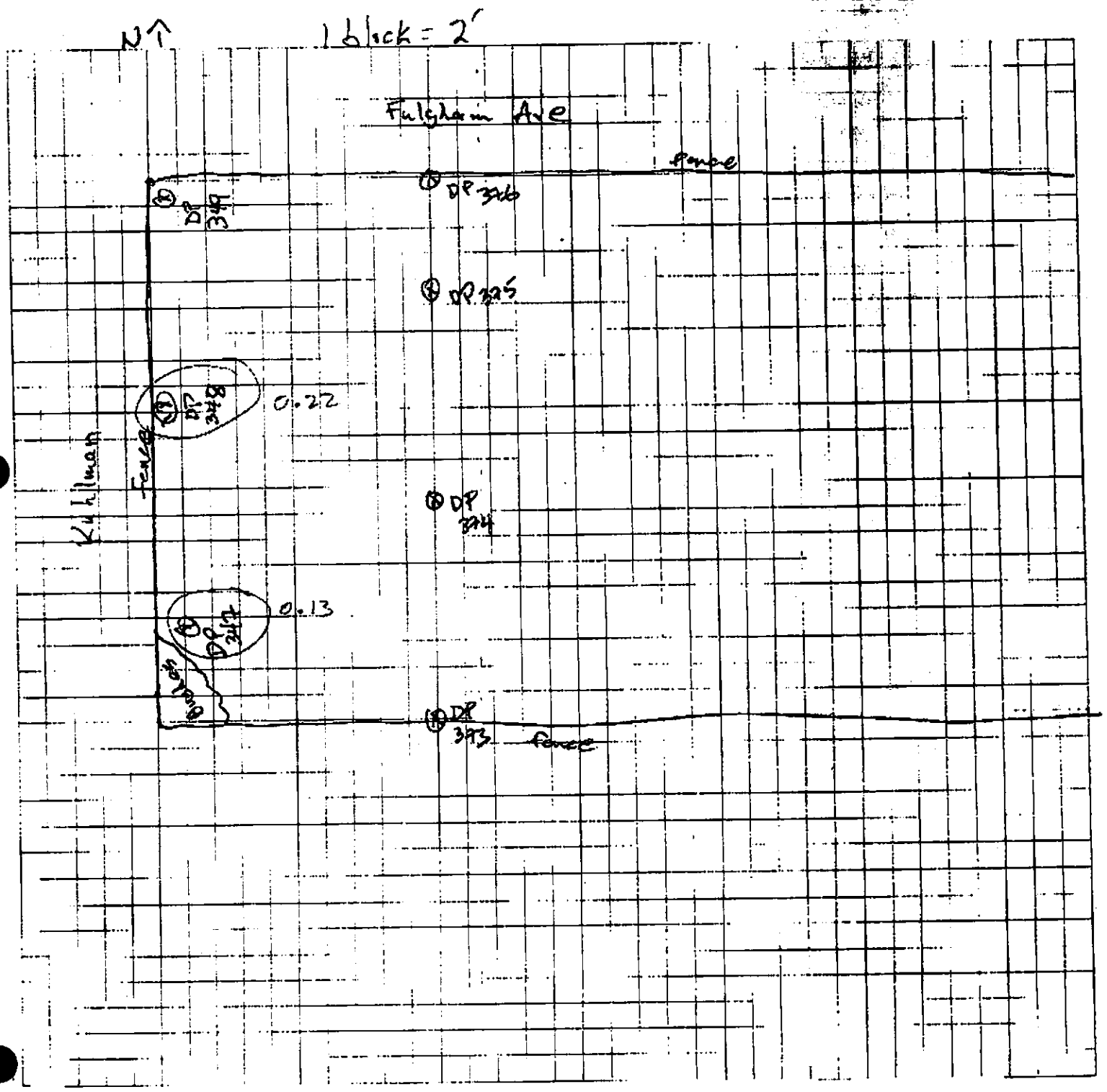
OGDEN

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



OGDEN

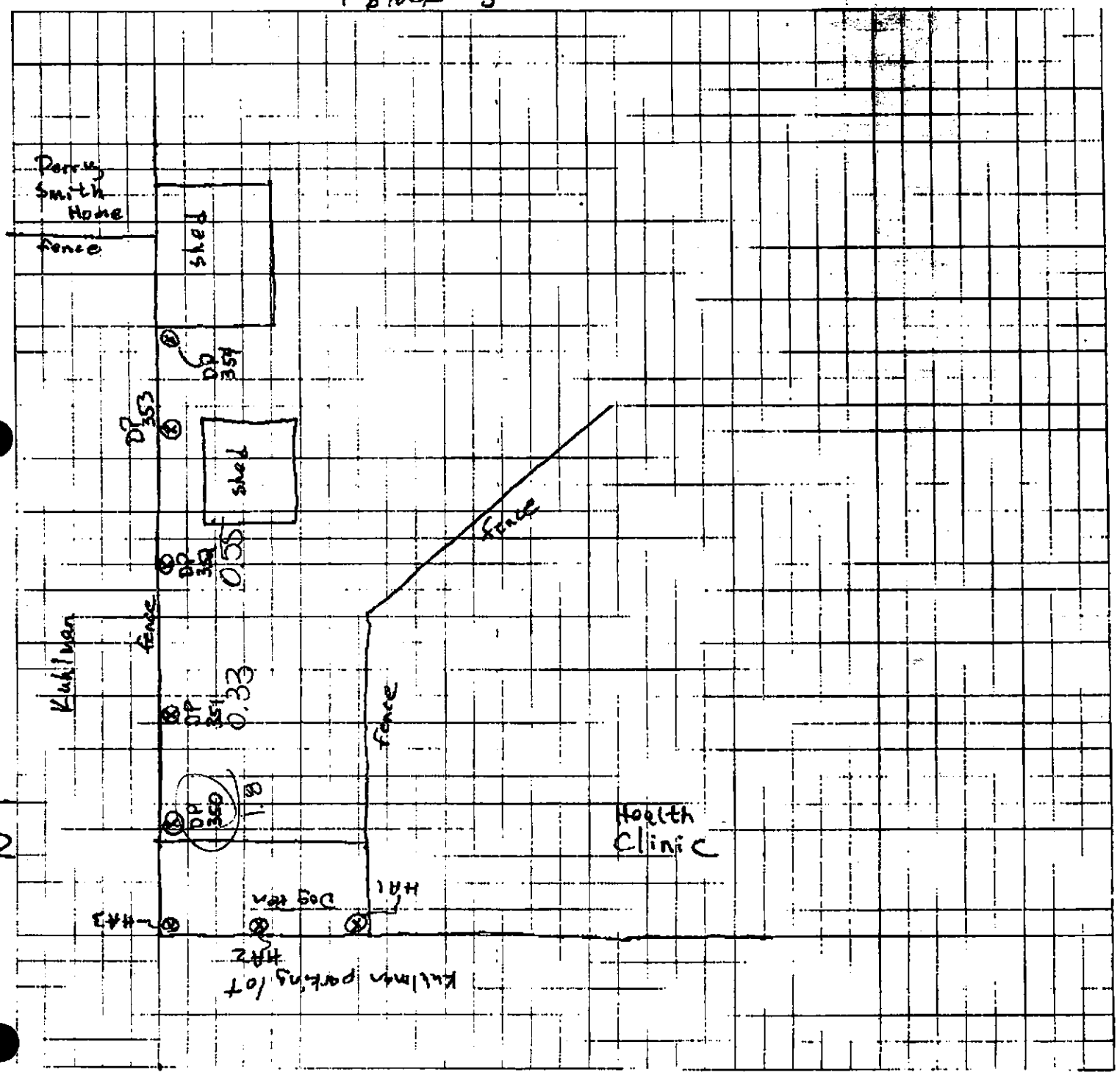
Job Name: Crystal Springs
Job Number:
Title: 409 N. Jackson - (Cindy Cooper)
Computed by: DF Checked by:
Date: 8-17-00 Sheet 8 of 11



OGDEN

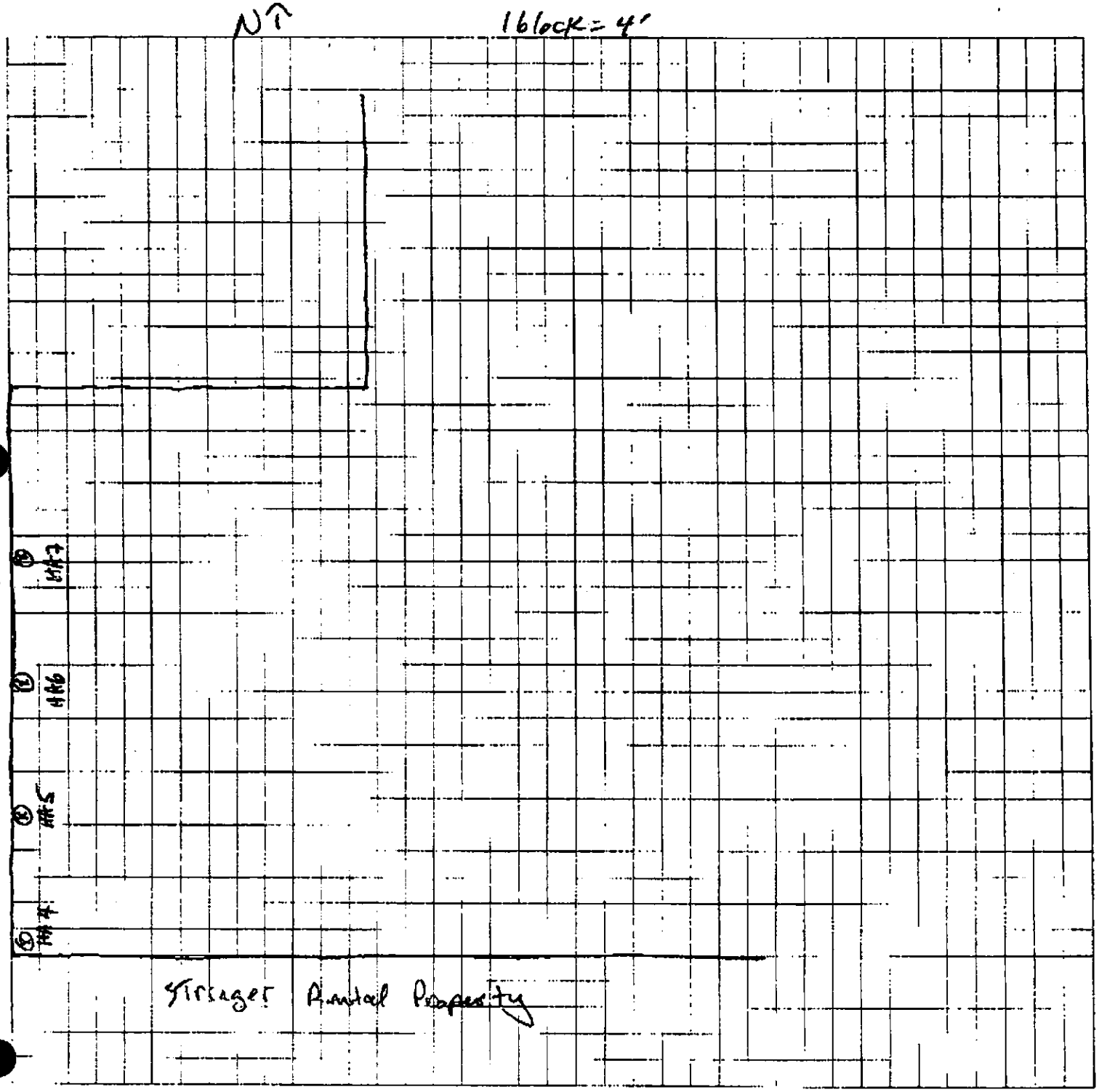
Job Name: Crystal Springs
Job Number:
Title: Dabney Home
Computed by: TJF Checked by:
Date: 8-17-00 Sheet 9 of 11

1 block = 5'



OGDEN

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



OGDEN

Job Name: Crystal Springs
Job Number:
Title: Harold & Suzanne Jones
Computed by: TDF Checked by:
Date: 8-18-00 Sheet: 15 Of: 11

NT 1 block = 4'

Sonny Rhodes

25' spacings

DP 359

DP 358

DP 357

trailer

DP 356

trailer

DP 355

Kuhlman

Elmer Wright