

# Experiment 89HX701

Exp Param. 01 Ass. Code.

Exp Param 02 Soil number.

HMS Samples #

100 series numbers air dry  
 200 " " 4.2  
 300 " " 2.0  
 400 " " 1.0  
 500 " " 3.4  
 600 " " oven dry.  
 <100 Surface sample air dry.

900 " " California samples

Treatment Level 1 - soil sample set.

- 1 = Surface samples Hungary
- 2 = Model samples.
- 3 = California samples

Treatment Level 2 - Moisture Level.

1 = air dry.      0 = ~~0.0~~ Oven Dry

6 = PFO.0

2 = 4.2

3 = 3.4

4 = 2.0

5 = 1.0

~~5 = 3.4~~

~~Treatment Level 3~~

- Exp. Parameter 3
- 1 = Rep 1
  - 2 = Rep 2
  - 3 = Rep 3
  - 4 = Rep 4

Replication  
 Replication

~~2.0 2.0~~

# Experimental parameters 2

Exp. par. 1

Soil Number.

uniq #

Model Samples

1-6

California

Treatment level 3

1 = Within  $\pm 0.8\%$  range (moisture)

0 = Outside  $\pm 0.8\%$  range (moisture)

~~Treatment level 5~~

~~Soil Number.~~

June 2, 1989

Moisture

Obs. #	Sample Holder	Moist soil + tare	Oven soil + tare	Tare	Moisture (g) (%)
--------	---------------	-------------------	------------------	------	------------------

	P56	1			
	P57	2			
	P58	3			
	P59	4			
	P60	5			

• 1-1 pF 4.2 6

pF 2.0 7

• pF 1.0 8

2-1 pF 4.2 9

• 2.0 10

1.0 11

3-1 pF 4.2 12

2 13

1 14

4-1 pF 4.2 15

2 16

1 17

• 5-1 pF 4.2 18

2 19

1 20

~~6-1 pF 4.2~~

• 2 21

• 1 22



Moisture

%

± 0.7%

FORM F  
APPROVED FOR USE IN  
PURDUE UNIVERSITY

pF0 44.9

pF1.0 41.6

40

pF2.0 36.0

30

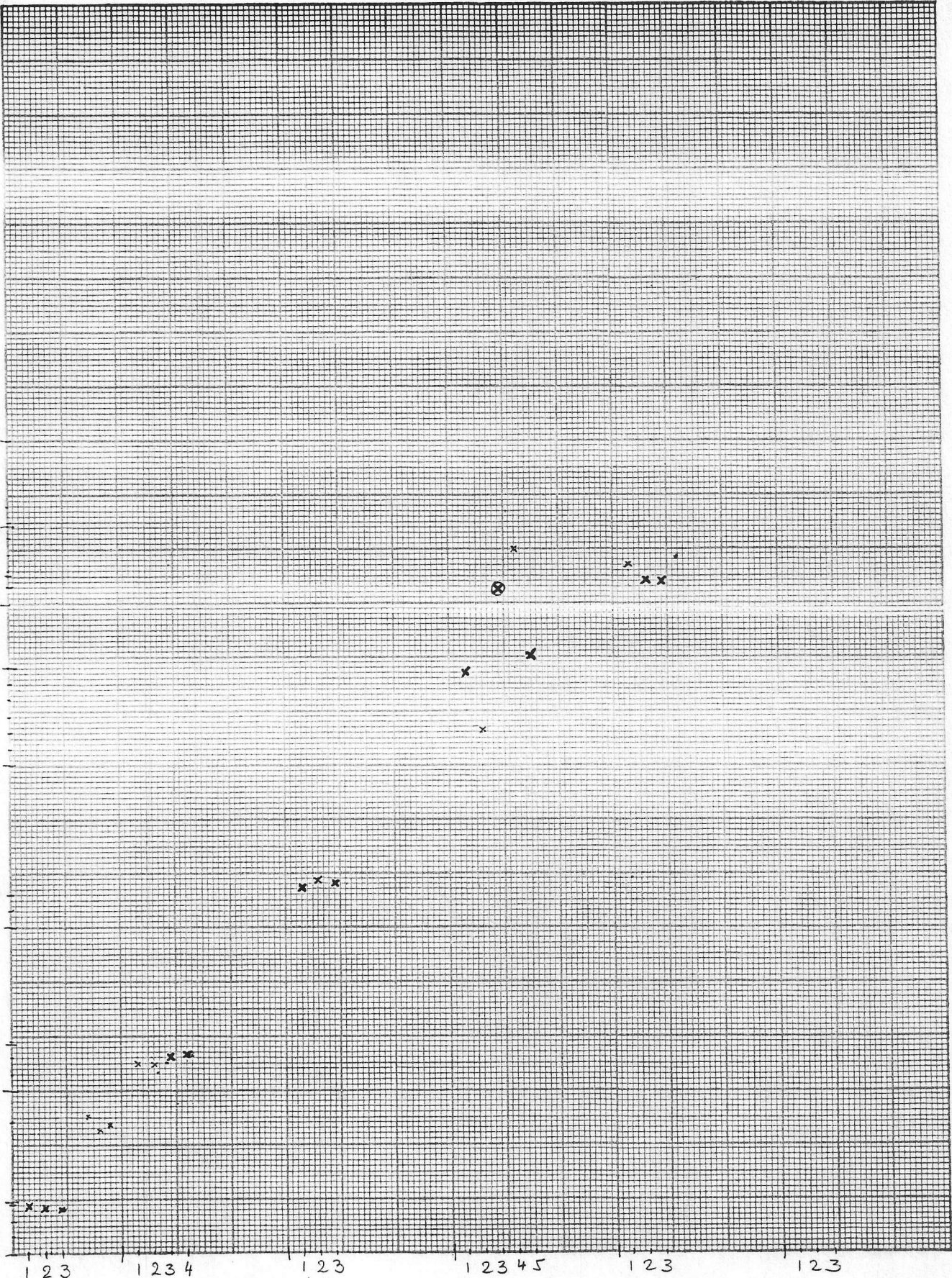
pF3.4 22.0

20

pF4.2 12.9

10

pF 6.2 3.1



1 2 3

1 2 3 4

1 2 3

1 2 3 4 5

1 2 3

1 2 3

air

pF 4.2

pF 3.4

pF 2.0

pF 1.0

pF 0.0



Moisture  
%

FORM F  
APPROVED FOR USE IN  
PURDUE UNIVERSITY

pF0 50  
48.2

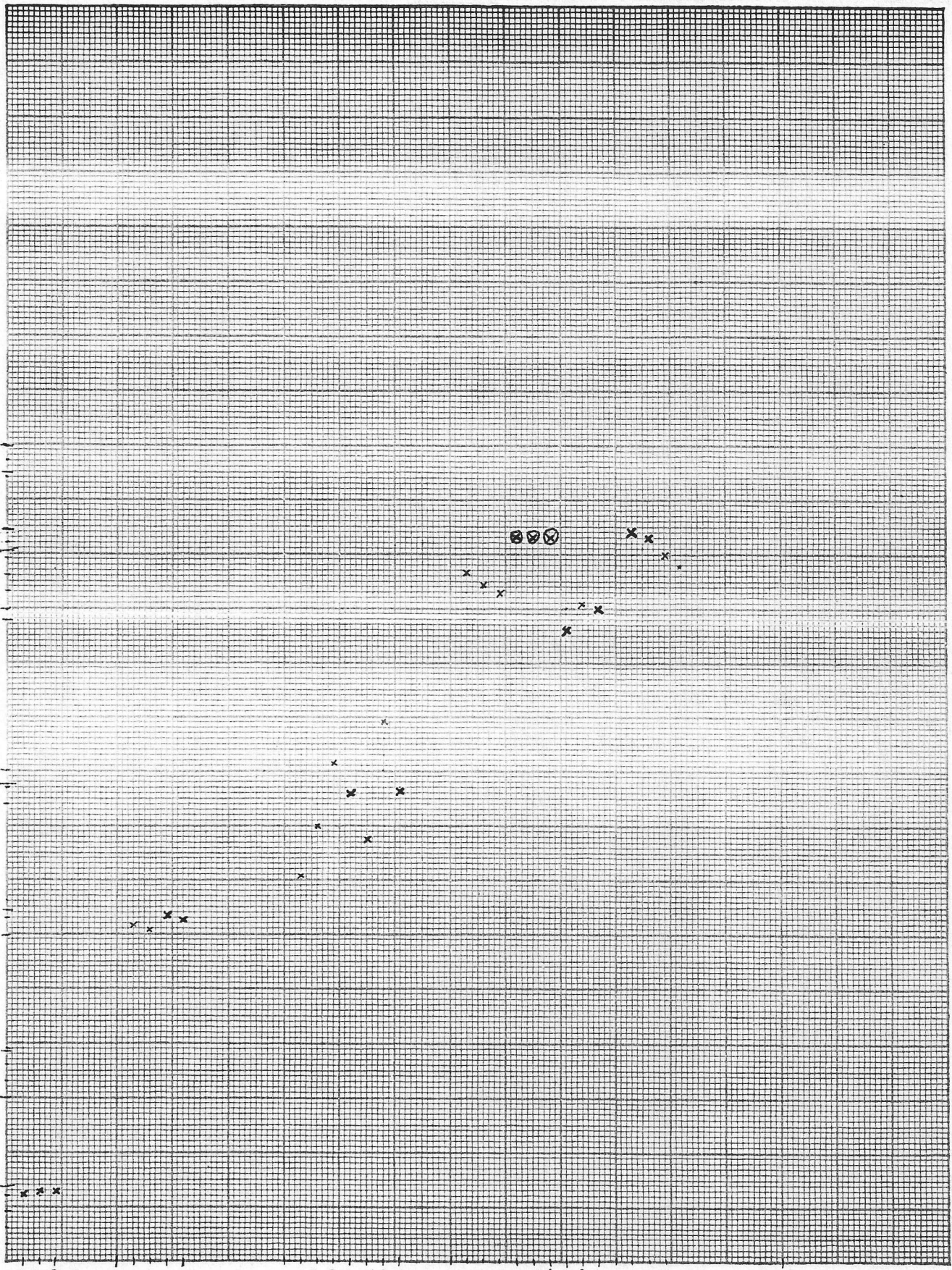
pF1.0 44.8  
42.9

pF2.0 39.3

pF3.4 30  
29.1

pF4.2 21.4  
20

pF6.2 4.5



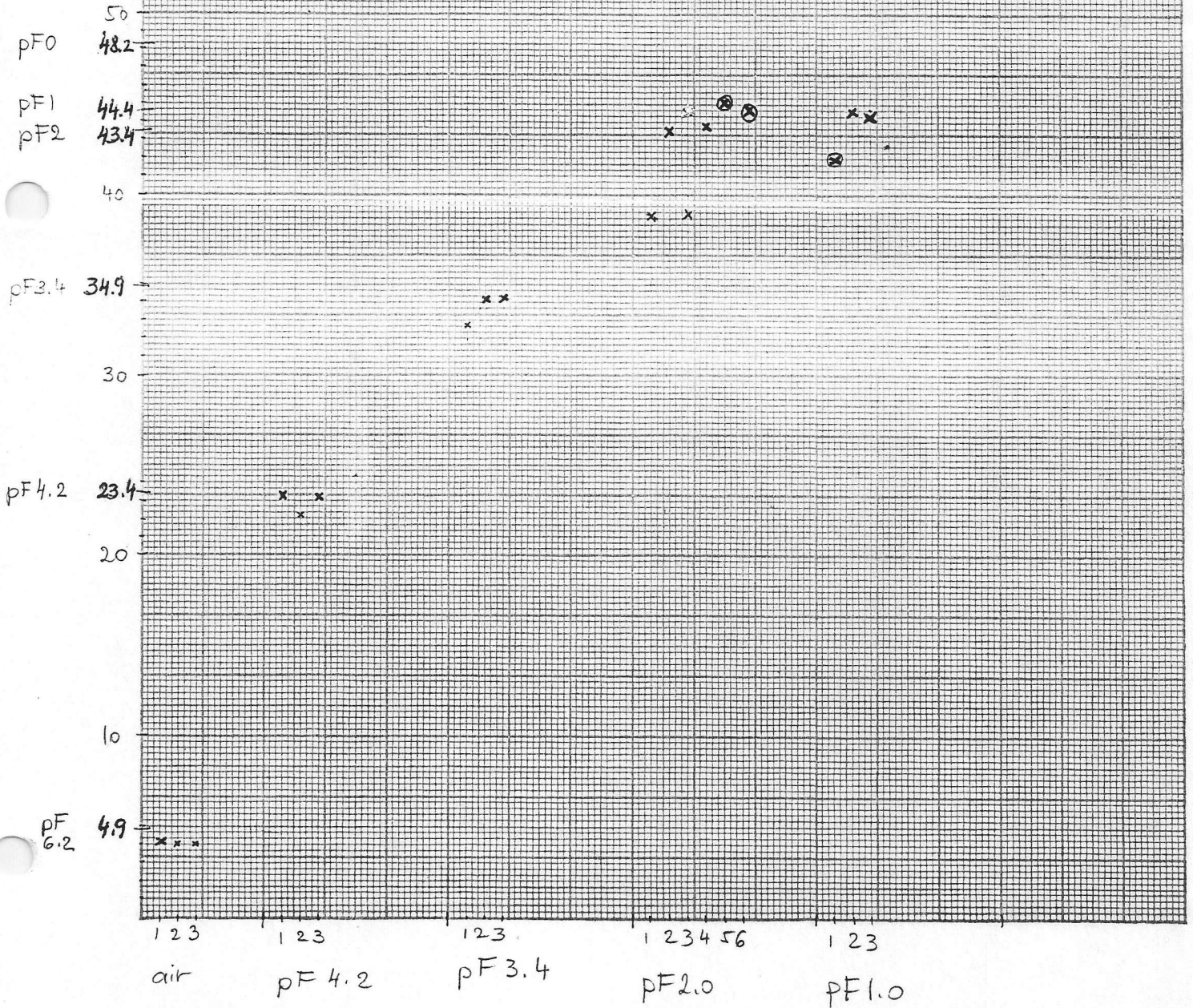
1 2 3      1 2 3 4      1 2 3 4 5 6 7      1 2 3 4 5 6 7 8 9      1 2 3

air      pF 4.2      pF 3.4      pF 2.0      pF 1.0      pF 0



Moisture  
%

FORM F  
APPROVED FOR USE IN  
PURDUE UNIVERSITY





Moisture

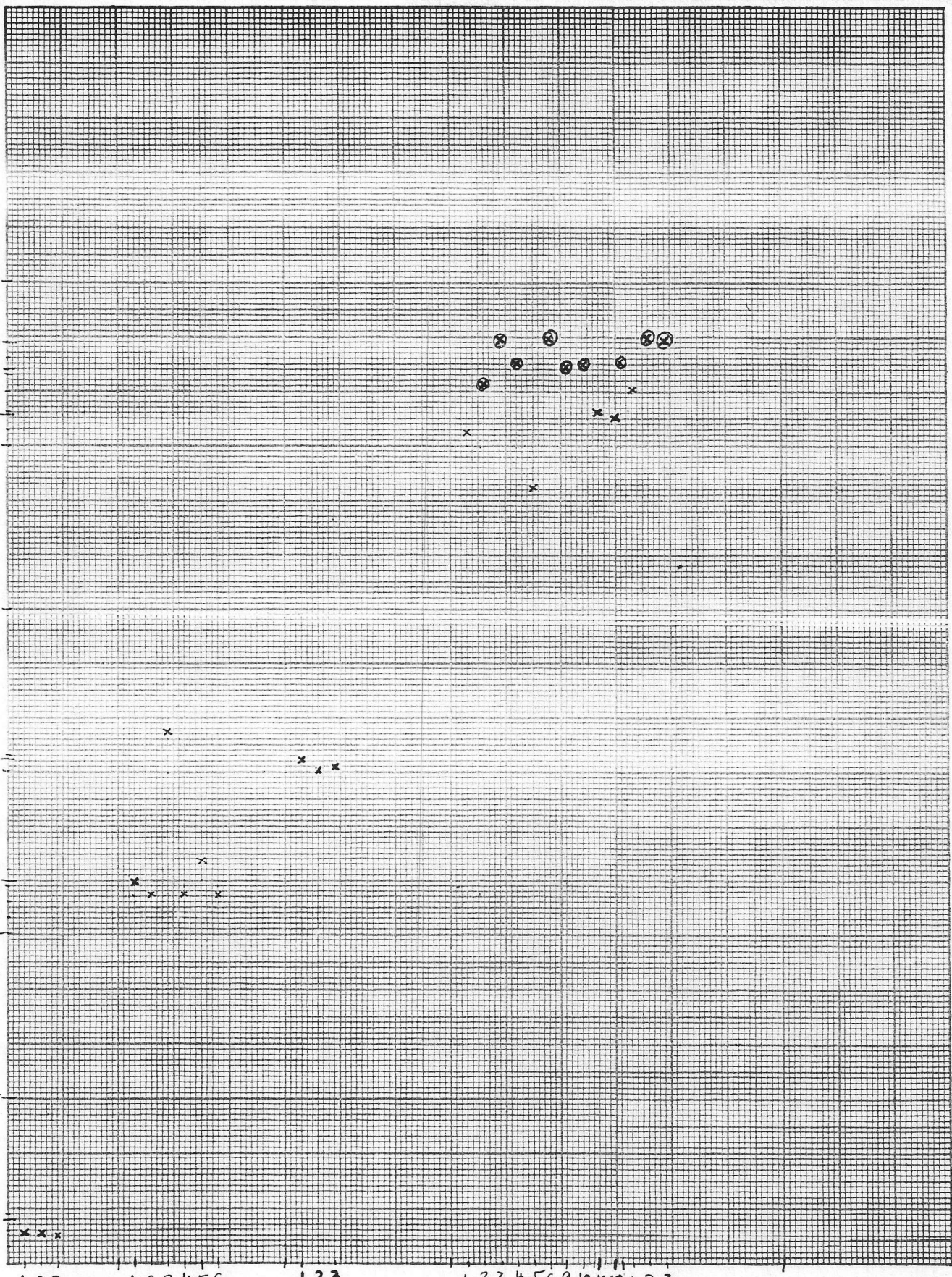
%

APPROVED FOR USE IN  
PURDUE UNIVERSITY  
pF<sub>0</sub> 56.0  
pF<sub>1.0</sub> 54.2  
pF<sub>2.0</sub> 51.9  
50

pF<sub>3.4</sub> 30.7  
30

pF<sub>4.2</sub> 23.3  
20

pF<sub>6.2</sub> 2.6  
10



air      pF<sub>4.2</sub>      pF<sub>3.4</sub>      pF<sub>2.0</sub>      pF<sub>1.0</sub>      pF<sub>0</sub>



Moisture  
%

FORM F  
APPROVED FOR USE IN  
PURDUE UNIVERSITY

pF0 50.3

pF1.0 47.3

pF2.0 45.1

40

30

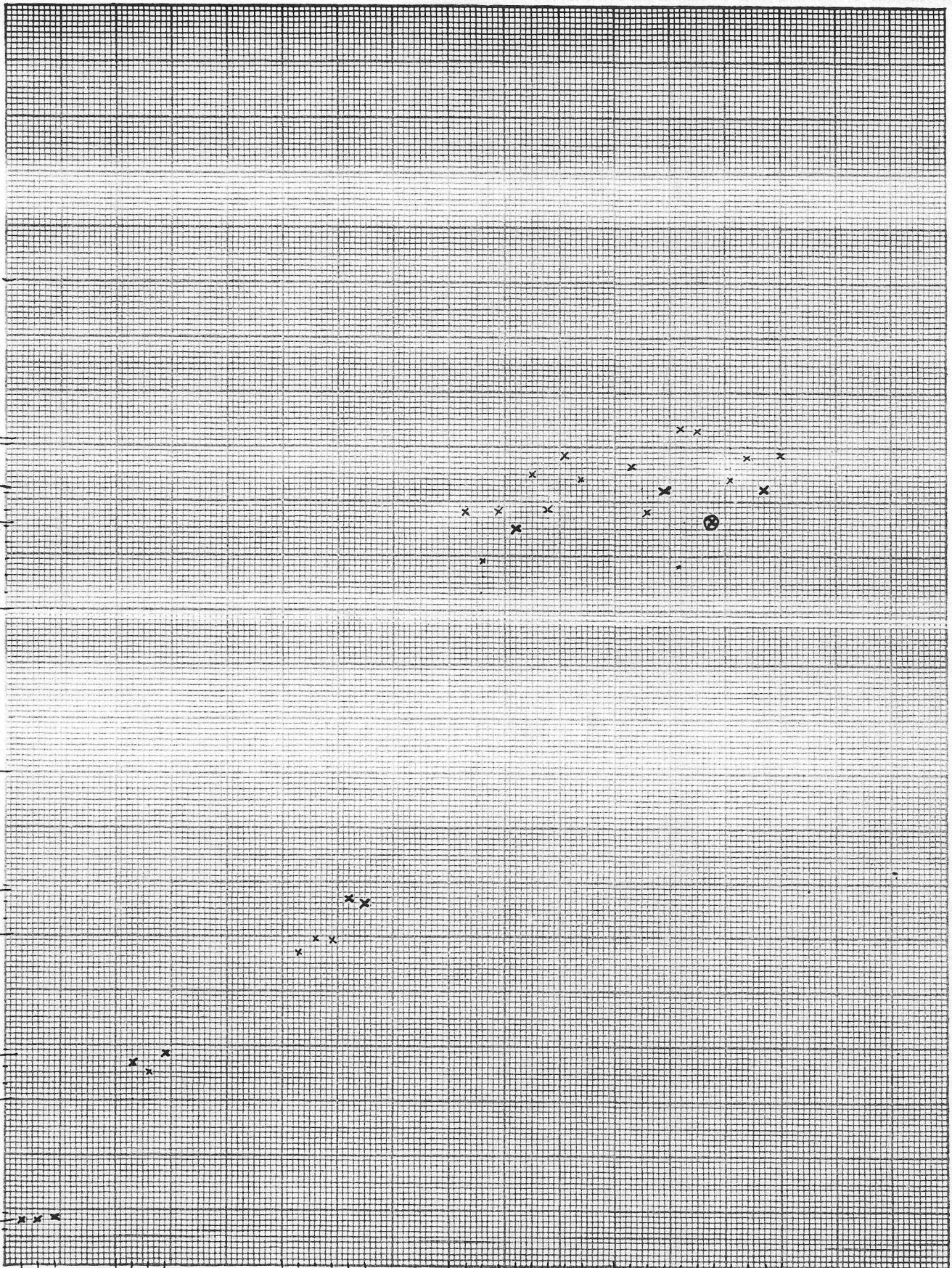
pF3.4 22.7

20

pF4.2 12.7

10

pF  
6.2 2.5



1 2 3

1 2 3

1 2 3 4 5

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8 9 10

air

pF 4.2

pF 3.4

pF 2.0

pF 1.0



Moisture  
%

FORM F  
APPROVED FOR USE IN  
PURDUE UNIVERSITY

50

pF0 44.0

pF1 41.9

pF2.0 39.9

pF3.4 29.4

pF4.2 19.6

pF6.2 2.8

1 2 3

1 2 3 4

1 2 3 4 5 6 7 8 9

1 2 3 4 5 6 7

1 2 3

air

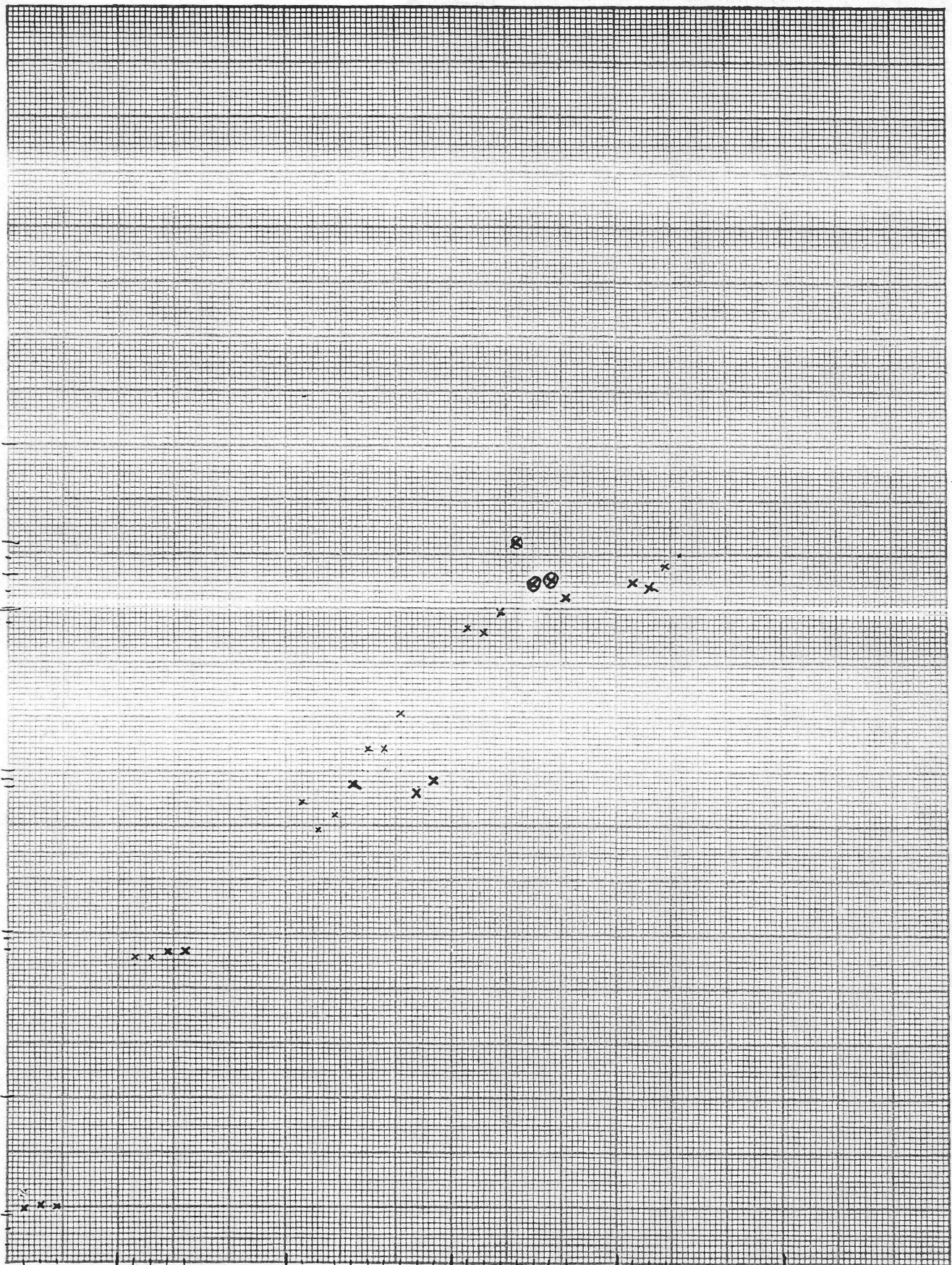
pF 4.2

pF 3.4

pF 2.0

pF 1.0

pF 0



Only Those in range ~~listed~~ <sup>desired</sup>  $\pm 0.2\%$   
 $0.8\%$

Soil ID	Air	pF 4.2	pF 3.4	pF 2	pF 1	pF 0
HMS 1 (2,5,6)	<del>1,2,3</del> 4,5,6	3,4,5,7	1,3,5	1,5	<del>1,2,3,4</del>	= 24
HMS 2 (2,5,6)	<del>1,2,3</del> 4,5,6	3,4,5	4,7,14,15,16	7,9	1,2,4,5,6	= 22
HMS 3 (2,5,6)	<del>1,2,3</del> 4,5,6	1,3,7,8,9	2,3	2,4,7	2,3,4,5	= 21
HMS 4 (2,5,6)	<del>1,2,3</del> 4,5,6	1,4,7,8	1,2,3	11,12	<del>1,2,3,4,5,6,7,8</del> <sup>out</sup> <del>1,2,3,4,23</del> <sup>out</sup> <small>same obs.</small>	
HMS 5 (2,5,6)	<del>1,2,3</del> 4,5,6	1,3,4,5	4,5	4,9	<sup>7</sup> 3,9,13	1,2 21
HMS 6 (2,5,6)	<del>1,2,3</del> 4,5,6	3,4,8,9	4,8,9	3,7	<sup>3</sup> 1,2,4,5	1 22
	✓	✓	✓			69
24	18	25	18	13	26	6 (82)

Updated 4/17/89 Larry Beld



Rename samples

LARRY

Erase

Original

New

Must change in sheet

Erase	Original	New				
HMS	1-3 pF2	1-4 pF1	✓	✓	✓	✓
	1-4 pF2	<del>1-4 pF0</del>	✓	✓	✓	1-5 pF1
HMS	2-4 pF2	2-4 pF1	✓	✓	✓	
	2-5 pF2	2-5 pF1	✓	✓	✓	
	2-6 pF2	2-6 pF1	✓	✓	✓	
HMS	3-5 pF2	3-4 pF1	✓	✓	✓	
	3-6 pF2	3-5 pF1	✓	✓	✓	
	3-1 pF1	3-7 pF2	✓	✓	✓	
HMS	4-3 pF2	4-4 pF3,4	✓	✓	✓	
HMS	4-2 pF2	4-4 pF1	✓	✓	✓	
	-3 pF2	4-1 pF0	✓	✓	✓	
	-4 pF2	4-5 pF1	✓	✓	✓	
	-6 pF2	4-2 pF0	✓	✓	✓	
	-9 pF2	4-6 pF1	✓	✓	✓	
	-10 pF2	4-7 pF1	✓	✓	✓	
	-4-2 pF1	4-3 pF0	✓	✓	✓	
	-3 pF1	4-4 pF0	✓	✓	✓	
	4-14 pF2	4-8 pF1	✓	✓	✓	
HMS	5-6 pF1	5-9 pF2	✓	✓	✓	
	5-4 pF1	5-1 pF0	✓	✓	✓	
	5-5 pF1	5-2 pF0	✓	✓	✓	
HMS	6-4 pF2	6-1 pF0	✓	✓	✓	
	6-5 pF2	6-4 pF1	✓	✓	✓	
	6-6 pF2	6-5 pF1	✓	✓	✓	
		5-5 pF2	✓	✓	✓	5-11 pF1
		5-7 pF2	✓	✓	✓	5-12 pF1
		5-8 pF2	✓	✓	✓	5-13 pF1
		5-2 pF1	✓	✓	✓	5-10 pF2

Label in sheet

Do not process

(29) + used one.

# Soil Correction Schedule

## Change Soil 891XX701 Fill.

- o Sheet 4 / " 323" 223 to 323 ✓
- o Sheet 1 #411 LDF3 from 0 to 1 ✓
- o Sheet 1 #463 LDF3 from 0 to 1 ✓
- o Sheet 1 #457 LDF3 from 0 to 1 ✓
- o Sheet 1 #314 LDF2 from 6 to 5 ✓
- o Sheet 4 #314 EPD3 from 1 to 5 ✓
- o Sheet 1 #452 LDF2 from 5 to 4 ✓
- o Sheet 4 #452 EPD3 from 2 to 10 ✓

## Change Mass. Record Sheet.

6/14 obs 30 & 31 < target description + Obs code ✓

Change target descriptions given on list of changes, ✓

## Change Type

- "ID Edit"
- o 6/14 obs 30 & 31 target & obs code
  - o 7/6 obs 31 H4514 PF2.0 to H4515 PF1.0
  - o 6/9 obs 38 H4511 PF0.0 to H4515 PF1.0
  - o 6/9 obs 38 H4552 PF1.0 to H45510 PF2.0

IN EDT Cont.

3990 to 3993

Overall Summary

RUSF

812 6/9 Obs 38 SCT4 to HMS510 PFD.0

LOF2 to 4  
EPD3 to 10

Dys Code

# 452

767 6/2 Obs 30 LDF3 to 1

411

852 6/14 Obs 36 EDF3 to 1

463

1038 7/28 Obs 24 LDF3 to 1

457

971 7/6 Obs 31 SCT4 to HMS15 PFD.0

LOF2 to 5  
EPD3 to 5

314

846 6/14 Obs 30 SCT4 to HMS44 PFD.0

EPD1 to 443  
LOF2 to 6  
LOF3 to 1  
EPD2 to 4  
EPD3 to 4

443

847 6/14 Obs 31 SCT4 to HMS53 PFD.0

LOF2 to 5  
LOF3 to 1  
EPD1 to 453  
EPD2 to 5  
EPD3 to 3

453





# Changes to Make in Soils

o Changes Names for 2

o Change Soil Sheet File Sheets

o 6/14 d/s 30+31

30 is HM543

31 is HM553

o Change for 3 soils for within  $\pm 0.8\%$

## Name changes

original

changed

new name

1-4 pF2

HMS 1-10 pF0

→

1-5 pF1

5-2 pF1

→

5-10 pF2

last plot :  
with new data

HMS 5 pF1

samples 3, 7, 9



# Soil Corrections

9/14/89

done → Change Sails 891XX701 File.

Sheet # 1/344 LOP3 from 1 to 0 ✓

Sheet # 1/443 LOP3 from 1 to 0 ✓

done → Change Tape IN Edit. 3993 to 3990

RUSE

Obs Code

846	6/14	Obs 30	LOP3 to 0	443
974	7/6	Obs 34	LOP3 to 0	344
1081	8/10	Obs 23	SCTY to HMS413	384

CHAPTER 9: SYSTEM ADMINISTRATOR INFORMATION

TABLE OF CONTENTS

graphs

subsets (code=1) HMS1  
 +  
 average + std. dev.

accept  
 oven dry 1, 2, 5, 6  
 air dry 4, 5, 6  
 pF 4.2 3, 4, 5, 6, 7  
 pF 3.4 1, 3, 5

HMS2 oven dry 1, 2, 5, 6  
 air dry 4, 5, 6  
 pF 4.2 3, 4, 5  
 pF 3.4 4, 7, 14, 15, 16

HMS3 oven dry 1, 2, 5, 6  
 air dry 4, 5, 6  
 pF 4.2 1, 3, 7, 8, 9

HMS4 oven dry, 1, 2, 5, 6  
 air dry, 4, 5, 6  
 pF 4.2 1, 4, 7, 8

HMS5 oven dry 1, 2, 5, 6  
 air dry 4, 5, 6  
 pF 4.2 1, 3, 4, 5

HMS6 oven dry 1, 2, 5, 6  
 air dry 4, 5, 6  
 pF 4.2 3, 4, 8, 9



HMS\_REF2.

organic carbon (US method)

HMS\_REF3.

moisture, bulk density (loose, disturbed soil)  
color, particle size

- Notes:
- LOTUS needs 1 extra <sup>digit</sup> (column) at each column for text, so min. digit is 2
  - starts with date + observation # of measurement
  - after moisture tension column there is 1 extra column for 0 or 1 - accepting a soil moisture within a range of required moisture level at a certain tension  $\pm 0.8\%$  moist
  - ~~XXX~~ COLORS:
    - hue value / Chroma
    - ↑
    - missing; it has a special meaning at LOTUS
    - couldn't use it.
  - soil # > 9 indicated eg. ? 10 ... , so the observation # is different from others
  - pFO soils are listed like the original, planned soils, but at the end of each list of a soil may pF level be changed for pFO ?

11/89

1 1\$891	701	00890519891024
2\$	MEASUREMENTS LAB	ERIKA MICHELI
1112		1.7
1122		1.7
1132		1.7
1142		1.7
1152		1.7
1162		1.7
1212		2.8
1222		2.8
1232		2.8
1242		2.8
1252		2.8
1262		2.8
1312		2.7
1322		2.7
1332		2.7
1342		2.7
1352		2.7
1362		2.7
1412		2.7
1422		2.7
1432		2.7
1442		2.7
1452		2.7
1462		2.7
1512		4.8
1522		4.8
1532		4.8
1542		4.8
1552		4.8
1562		4.8
1612		2.1
1622		2.1
1632		2.1
1642		2.1
1652		2.1
1662		2.1
2112		1.7
2122		1.7
2132		1.7
2142		1.7
2152		1.7
2162		1.7
2172		1.7
2212		2.8
2222		2.8
2232		2.8
2242		2.8
2312		2.7
2322		2.7
2332		2.7
2342		2.7
2352		2.7
2362		2.7
2372		2.7
2382		2.7
2392		2.7

2412	2.7
2422	2.7
2432	2.7
2442	2.7
2452	2.7
2462	2.7
2472	2.7
2482	2.7
2492	2.7
2512	4.8
2522	4.8
2532	4.8
2542	4.8
2552	4.8
2562	4.8
2612	2.1
2622	2.1
2632	2.1
2642	2.1
2652	2.1
2662	2.1
2672	2.1
2682	2.1
2692	2.1
2702	2.1
3112	1.7
3122	1.7
3132	1.7
3142	1.7
3152	1.7
3212	2.8
3222	2.8
3232	2.8
3242	2.8
3252	2.8
3262	2.8
3272	2.8
3282	2.8
3292	2.8
3312	2.7
3322	2.7
3332	2.7
3342	2.7
3352	2.7
3362	2.7
3412	2.7
3422	2.7
3432	2.7
3442	2.7
3452	2.7
3462	2.7
3492	2.7
3512	4.8
3522	4.8
3532	4.8
3542	4.8
3552	4.8
3562	4.8



3572	4.8
3582	4.8
3612	2.1
3622	2.1
3632	2.1
3642	2.1
3652	2.1
3662	2.1
3672	2.1
3812	2.7
3822	2.7
3832	2.7
3852	2.7
4112	1.7
4122	1.7
4132	1.7
4212	2.8
4222	2.8
4232	2.8
4312	2.7
4322	2.7
4332	2.7
4412	2.7
4422	2.7
4432	2.7
4512	4.8
4522	4.8
4532	4.8
4542	4.8
4552	4.8
4562	4.8
4572	4.8
4582	4.8
4592	4.8
4612	2.1
4622	2.1
4632	2.1
4912	4.8
5112	1.7
5122	1.7
5132	1.7
5142	1.7
5152	1.7
5162	1.7
5212	2.8
5222	2.8
5232	2.8
5242	2.8
5252	2.8
5262	2.8
5272	2.8
5282	2.8
5292	2.8
5312	2.7
5322	2.7
5332	2.7
5412	2.7
5422	2.7

5432	2.7
5512	4.8
5522	4.8
5532	4.8
5542	4.8
5552	4.8
5612	2.1
5622	2.1
5632	2.1
5642	2.1
5652	2.1
5662	2.1
5672	2.1
5682	2.1
5692	2.1
5702	2.8
5712	2.8
5722	2.8
5732	2.8
5742	2.8
5752	2.8
5762	2.8
6112	1.7
6122	1.7
6132	1.7
6142	1.7
6152	1.7
6162	1.7
6212	2.8
6222	2.8
6232	2.8
6242	2.8
6252	2.8
6262	2.8
6312	2.7
6322	2.7
6332	2.7
6342	2.7
6352	2.7
6362	2.7
6412	2.7
6422	2.7
6432	2.7
6442	2.7
6452	2.7
6462	2.7
6512	4.8
6522	4.8
6532	4.8
6542	4.8
6552	4.8
6562	4.8
6612	2.1
6622	2.1
6632	2.1
6642	2.1
6652	2.1
6662	2.1





✓ jun	14	89	33	<del>413</del> 313	0.01	1	41.3	1.04	10 yr	3	2	22.5	53	
✓ jun	14	89	28	<del>414</del> 313	0.01	1	40.9	1.04	10 yr	3	2	22.5	53	
✓ jul	7	89	31	<del>415</del> 314	0.01	0	43.3	1.04	10 yr	3	2	22.5	53	
aug	4	89	7	621	oven	1	0	1.04	2.5 y	3	2	2.6	50.6	
aug	4	89	14	622	oven	1	0	1.04	2.5 y	3	2	2.6	50.6	
aug	10	89	12	623	oven	0	0	1.04	2.5 y	3	2	2.6	50.6	
aug	10	89	19	624	oven	0	0	1.04	2.5 y	3	2	2.6	50.6	
oct	9	89	29	625	oven	1	0	1.04	2.5 y	3	2	2.6	50.6	
oct	9	89	36	626	oven	1	0	1.04	2.5 y	3	2	2.6	50.6	
<del>oct</del>	<del>9</del>	<del>89</del>	<del>40</del>	<del>625</del>	<del>oven</del>	<del>1</del>	<del>0</del>	<del>1.04</del>	<del>2.5 y</del>	<del>3</del>	<del>2</del>	<del>2.6</del>	<del>50.6</del>	
<del>oct</del>	<del>9</del>	<del>89</del>	<del>41</del>	<del>625</del>	<del>oven</del>	<del>1</del>	<del>0</del>	<del>1.04</del>	<del>2.5 y</del>	<del>3</del>	<del>2</del>	<del>2.6</del>	<del>50.6</del>	
<del>oct</del>	<del>9</del>	<del>89</del>	<del>42</del>	<del>625</del>	<del>oven</del>	<del>1</del>	<del>0</del>	<del>1.04</del>	<del>2.5 y</del>	<del>3</del>	<del>2</del>	<del>2.6</del>	<del>50.6</del>	
jun	26	89	6	121	air	0	4	1.04	2.5 y	3	2	2.6	50.6	
jun	26	89	13	122	air	0	4.2	1.04	2.5 y	3	2	2.6	50.6	
jun	26	89	21	123	air	0	4.2	1.04	2.5 y	3	2	2.6	50.6	
oct	9	89	4	124	air	1	4.6	1.04	2.5 y	3	2	2.6	50.6	
oct	9	89	11	125	air	1	4.6	1.04	2.5 y	3	2	2.6	50.6	
oct	9	89	18	126	air	1	4.6	1.04	2.5 y	3	2	2.6	50.6	
oct	9	89	43	126	air	1	4.6	1.04	2.5 y	3	2	2.6	50.6	
oct	9	89	44	126	air	1	4.6	1.04	2.5 y	3	2	2.6	50.6	
jun	2	89	18	221		15	0	20.5	1.04	2.5 y	3	2	2.6	50.6
jun	9	89	19	222		15	0	20.2	1.04	2.5 y	3	2	2.6	50.6
jun	14	89	17	223		15	1	21.1	1.04	2.5 y	3	2	2.6	50.6
jul	7	89	23	224		15	1	20.8	1.04	2.5 y	3	2	2.6	50.6
oct	10	89	4	225		15	1	20.8	1.04	2.5 y	3	2	2.6	50.6
oct	10	89	11	226		15	0	20.3	1.04	2.5 y	3	2	2.6	50.6
oct	10	89	20	227		15	0	20.4	1.04	2.5 y	3	2	2.6	50.6
jun	29	89	31	521		2.4	0	23.5	1.04	2.5 y	3	2	2.6	50.6
jun	29	89	38	522		2.4	0	26.6	1.04	2.5 y	3	2	2.6	50.6
jun	29	89	44	523		2.4	0	30.5	1.04	2.5 y	3	2	2.6	50.6
jul	7	89	30	524		2.4	1	28.7	1.04	2.5 y	3	2	2.6	50.6
jul	7	89	28	525		2.4	0	25.9	1.04	2.5 y	3	2	2.6	50.6
jul	13	89	21	526		2.4	0	33	1.04	2.5 y	3	2	2.6	50.6
jul	28	89	10	527		2.4	1	28.7	1.04	2.5 y	3	2	2.6	50.6
oct	13	89	9	528		2.4	0	27.1	1.04	2.5 y	3	2	2.6	50.6
oct	13	89	13	529		2.4	0	27.3	1.04	2.5 y	3	2	2.6	50.6
<del>oct</del>	<del>13</del>	<del>89</del>	<del>11</del>	<del>210</del> 3570		2.4	0	27.1	1.04	2.5 y	3	2	2.6	50.6
<del>oct</del>	<del>16</del>	<del>89</del>	<del>18</del>	<del>211</del> 3571		2.4	0	27.1	1.04	2.5 y	3	2	2.6	50.6
<del>oct</del>	<del>16</del>	<del>89</del>	<del>18</del>	<del>212</del> 3572		2.4	0	27.9	1.04	2.5 y	3	2	2.6	50.6
<del>oct</del>	<del>16</del>	<del>89</del>	<del>17</del>	<del>213</del> 3573		2.4	0	28.1	1.04	2.5 y	3	2	2.6	50.6
<del>oct</del>	<del>24</del>	<del>89</del>	<del>5</del>	<del>214</del> 3574		2.4	1	28.4	1.04	2.5 y	3	2	2.6	50.6
<del>oct</del>	<del>24</del>	<del>89</del>	<del>6</del>	<del>214</del> 3574		2.4	1	28.4	1.04	2.5 y	3	2	2.6	50.6
<del>oct</del>	<del>24</del>	<del>89</del>	<del>7</del>	<del>215</del> 3575		2.4	1	29.3	1.04	2.5 y	3	2	2.6	50.6
<del>oct</del>	<del>24</del>	<del>89</del>	<del>8</del>	<del>216</del> 3576		2.4	1	29	1.04	2.5 y	3	2	2.6	50.6
jun	2	89	24	321		0.1	0	42.1	1.04	2.5 y	3	2	2.6	50.6
jun	9	89	28	322		0.1	0	41.3	1.04	2.5 y	3	2	2.6	50.6
jun	14	89	27	323		0.1	0	41	1.04	2.5 y	3	2	2.6	50.6
jul	28	89	14	327		0.1	1	38.6	1.04	2.5 y	3	2	2.6	50.6
jul	28	89	16	328		0.1	0	40.2	1.04	2.5 y	3	2	2.6	50.6
jul	28	89	21	329		0.1	1	40	1.04	2.5 y	3	2	2.6	50.6
jun	2	89	31	421		0.01	1	44.6	1.04	2.5 y	3	2	2.6	50.6
jun	9	89	35	422		0.01	1	44.4	1.04	2.5 y	3	2	2.6	50.6
jun	14	89	35	423		0.01	0	43.3	1.04	2.5 y	3	2	2.6	50.6
<del>jul</del>	<del>13</del>	<del>89</del>	<del>23</del>	<del>424</del> 3314		0.01	1	44.3	1.04	2.5 y	3	2	2.6	50.6
<del>jul</del>	<del>13</del>	<del>89</del>	<del>26</del>	<del>425</del> 3315		0.01	1	44.3	1.04	2.5 y	3	2	2.6	50.6

-jul	13	89	31	<del>426</del> 346	0.01	1	44.3	1.04	2.5	y	3	2	2.6	50.6		
aug	4	89	3	631	3	oven	1	0	1.09	10	yr	3	1	1.8	47.9	
aug	4	89	8	632	3	oven	1	0	1.09	10	yr	3	1	1.8	47.9	
aug	10	89	8	633	3	oven	0	0	1.09	10	yr	3	1	1.8	47.9	
aug	10	89	13	634	3	oven	0	0	1.09	10	yr	3	1	1.8	47.9	
oct	9	89	25	635	3	oven	1	0	1.09	10	yr	3	1	1.8	47.9	
oct	9	89	30	636	3	oven	1	0	1.09	10	yr	3	1	1.8	47.9	
jun	26	89	23	131	3	air	0	4.2	1.09	10	yr	3	1	1.8	47.9	
jun	26	89	5	132	3	air	0	4.1	1.09	10	yr	3	1	1.8	47.9	
jun	26	89	7	133	3	air	0	4.1	1.09	10	yr	3	1	1.8	47.9	
oct	9	89	20	134	3	air	1	5.3	1.09	10	yr	3	1	1.8	47.9	
oct	9	89	3	135	3	air	1	5.3	1.09	10	yr	3	1	1.8	47.9	
oct	9	89	5	136	3	air	1	5.3	1.09	10	yr	3	1	1.8	47.9	
jun	2	89	19	231	3		15	1	23.4	1.09	10	yr	3	1	1.8	47.9
jun	9	89	20	232	3		15	0	22.1	1.09	10	yr	3	1	1.8	47.9
jun	14	89	18	233	3		15	1	23.3	1.09	10	yr	3	1	1.8	47.9
oct	10	89	18	234	3		15	0	22	1.09	10	yr	3	1	1.8	47.9
oct	10	89	3	235	3		15	0	22.4	1.09	10	yr	3	1	1.8	47.9
oct	10	89	5	236	3		15	0	22.5	1.09	10	yr	3	1	1.8	47.9
oct	13	89	2	237	3		15	1	23.2	1.09	10	yr	3	1	1.8	47.9
oct	13	89	7	238	3		15	1	22.9	1.09	10	yr	3	1	1.8	47.9
oct	13	89	4	239	3		15	1	23.4	1.09	10	yr	3	1	1.8	47.9
jun	29	89	46	531	3		2.4	0	32.8	1.09	10	yr	3	1	1.8	47.9
jun	29	89	30	532	3		2.4	1	34.5	1.09	10	yr	3	1	1.8	47.9
jun	29	89	32	533	3		2.4	1	34.7	1.09	10	yr	3	1	1.8	47.9
jun	2	89	25	331	3		0.1	0	38.8	1.09	10	yr	3	1	1.8	47.9
jun	9	89	29	332	3		0.1	1	43.5	1.09	10	yr	3	1	1.8	47.9
jun	14	89	26	333	3		0.1	0	38.9	1.09	10	yr	3	1	1.8	47.9
jul	7	89	37	334	3		0.1	1	43.8	1.09	10	yr	3	1	1.8	47.9
-jun	2	89	32	<del>337</del> 341	3		0.1	1	42.7	1.09	10	yr	3	1	1.8	47.9
jun	9	89	36	432	3		0.01	1	44.4	1.09	10	yr	3	1	1.8	47.9
jun	14	89	34	433	3		0.01	1	44.2	1.09	10	yr	3	1	1.8	47.9
-jul	7	89	35	<del>434</del> 335	3		0.01	1	45.2	1.09	10	yr	3	1	1.8	47.9
-jul	7	89	32	<del>438</del> 336	3		0.01	1	44.4	1.09	10	yr	3	1	1.8	47.9
aug	4	89	15	641	3	oven	1	0	1.03	10	yr	4	2	6.1	78.6	
aug	4	89	10	642	3	oven	1	0	1.03	10	yr	4	2	6.1	78.6	
aug	10	89	20	643	3	oven	0	0	1.03	10	yr	4	2	6.1	78.6	
aug	10	89	15	644	3	oven	0	0	1.03	10	yr	4	2	6.1	78.6	
oct	9	89	37	645	3	oven	1	0	1.03	10	yr	4	2	6.1	78.6	
oct	9	89	32	646	3	oven	1	0	1.03	10	yr	4	2	6.1	78.6	
jun	26	89	11	141	3	air	0	1.9	1.03	10	yr	4	2	6.1	78.6	
jun	26	89	4	142	3	air	0	1.9	1.03	10	yr	4	2	6.1	78.6	
jun	29	89	16	143	3	air	0	1.8	1.03	10	yr	4	2	6.1	78.6	
oct	9	89	9	144	3	air	1	1.8	1.03	10	yr	4	2	6.1	78.6	
oct	9	89	2	145	3	air	1	1.8	1.03	10	yr	4	2	6.1	78.6	
oct	9	89	21	146	3	air	1	1.8	1.03	10	yr	4	2	6.1	78.6	
jun	2	89	20	241	3		15	1	23.2	1.03	10	yr	4	2	6.1	78.6
jun	9	89	21	242	3		15	0	22.4	1.03	10	yr	4	2	6.1	78.6
jul	7	89	20	244	3		15	1	22.5	1.03	10	yr	4	2	6.1	78.6
jul	13	89	19	245	3		15	0	24.4	1.03	10	yr	4	2	6.1	78.6
jul	28	89	8	246	3		15	0	22.3	1.03	10	yr	4	2	6.1	78.6
oct	10	89	7	247	3		15	1	22.6	1.03	10	yr	4	2	6.1	78.6
oct	10	89	2	248	3		15	1	22.6	1.03	10	yr	4	2	6.1	78.6
oct	10	89	19	249	3		15	0	22.3	1.03	10	yr	4	2	6.1	78.6

jun	29	89	43	541	3	2.4	1	30.7	1.03	10 yr	4	2	6.1	78.6
jun	22	89	27	542	3	2.4	1	30.1	1.03	10 yr	4	2	6.1	78.6
jun	22	89	35	543	3	2.4	1	30.3	1.03	10 yr	4	2	6.1	78.6
- jun	14	89	19	<del>544</del>	3 <sup>243</sup>	2.4	0	32.4	1.03	10 yr	4	2	6.1	78.6
jun	2	89	26	341	3	0.1	0	50.9	1.03	10 yr	4	2	6.1	78.6
jul	7	89	38	345	3	0.1	0	47.5	1.03	10 yr	4	2	6.1	78.6
- aug	4	89	17	<del>711</del>	3 <sup>382</sup>	0.1	1	52.3	1.03	10 yr	4	2	6.1	78.6
- aug	10	89	<del>218</del>	<del>212</del>	3 <sup>383</sup>	0.1	1	51.7	1.03	10 yr	4	2	6.1	78.6
jun	2	89	33	441	3	0.01	<del>10</del>	53.1	1.03	10 yr	4	2	6.1	78.6
- jun	9	89	30	<del>444</del>	3 <sup>342</sup>	0.01	1	53.7	1.03	10 yr	4	2	6.1	78.6
- jul	7	89	34	<del>445</del>	3 <sup>44</sup>	0.01	0	54.8	1.03	10 yr	4	2	6.1	78.6
jul	28	89	20	<del>446</del>	3 <sup>349</sup>	0.01	1	54.5	1.03	10 yr	4	2	6.1	78.6
jul	28	89	12	<del>447</del>	3 <sup>381</sup>	0.01	1	54.6	1.03	10 yr	4	2	6.1	78.6
- aug	10	89	<del>410</del>	<del>448</del>	3 <sup>385</sup>	0.01	1	54.8	1.03	10 yr	4	2	6.1	78.6
o jun	14	89	25	343	3	0.1	<del>10</del>	57.2	1.03	10 yr	4	2	6.1	78.6
o jul	13	89	29	346	3	0.1	1	56.2	1.03	10 yr	4	2	6.1	78.6
o jun	9	89	<del>37</del>	442	3	0.01	<del>10</del>	56.2	1.03	10 yr	4	2	6.1	78.6
o jun	14	89	30	443	3	0.01	<del>10</del>	56.1	1.03	10 yr	4	2	6.1	78.6
aug	4	89	11	651	3	oven	1	0	0.9	10 yr	3	1	7.4	72.5
aug	4	89	4	652	3	oven	1	0	0.9	10 yr	3	1	7.4	72.5
aug	10	89	16	653	3	oven	0	0	0.9	10 yr	3	1	7.4	72.5
aug	10	89	9	654	3	oven	0	0	0.9	10 yr	3	1	7.4	72.5
oct	9	89	33	655	3	oven	1	0	0.9	10 yr	3	1	7.4	72.5
oct	9	89	26	656	3	oven	1	0	0.9	10 yr	3	1	7.4	72.5
jun	26	89	16	151	3	air	0	2.7	0.9	10 yr	3	1	7.4	72.5
jun	26	89	18	152	3	air	0	2.7	0.9	10 yr	3	1	7.4	72.5
jun	29	89	22	153	3	air	0	2.8	0.9	10 yr	3	1	7.4	72.5
oct	9	89	13	154	3	air	1	2.9	0.9	10 yr	3	1	7.4	72.5
oct	9	89	16	155	3	air	1	2.9	0.9	10 yr	3	1	7.4	72.5
oct	9	89	19	156	3	air	1	2.9	0.9	10 yr	3	1	7.4	72.5
jun	2	89	21	251	3	15	1	12.2	0.9	10 yr	3	1	7.4	72.5
jun	9	89	22	252	3	15	0	11.6	0.9	10 yr	3	1	7.4	72.5
jun	14	89	20	253	3	15	1	12.7	0.9	10 yr	3	1	7.4	72.5
oct	10	89	13	254	3	15	1	12.1	0.9	10 yr	3	1	7.4	72.5
oct	10	89	21	255	3	15	1	11.9	0.9	10 yr	3	1	7.4	72.5
oct	10	89	17	256	3	15	0	11.8	0.9	10 yr	3	1	7.4	72.5
jun	29	89	28	551	3	2.4	0	19	0.9	10 yr	3	1	7.4	72.5
jun	29	89	41	552	3	2.4	0	19.9	0.9	10 yr	3	1	7.4	72.5
jun	29	89	45	553	3	2.4	0	19.8	0.9	10 yr	3	1	7.4	72.5
jul	7	89	24	554	3	2.4	1	22.2	0.9	10 yr	3	1	7.4	72.5
jul	7	89	27	555	3	2.4	1	22	0.9	10 yr	3	1	7.4	72.5
jun	2	89	27	351	3	0.1	0	46	0.9	10 yr	3	1	7.4	72.5
jun	9	89	31	352	3	0.1	0	43	0.9	10 yr	3	1	7.4	72.5
jun	14	89	23	353	3	0.1	0	42.9	0.9	10 yr	3	1	7.4	72.5
jul	7	89	39	354	3	0.1	1	45	0.9	10 yr	3	1	7.4	72.5
o jul	13	89	<del>32</del>	356	3	0.1	0	46.5	0.9	10 yr	3	1	7.4	72.5
o jul	28	89	23	<del>359</del>	3 <sup>456</sup>	0.1	1	45.5	0.9	10 yr	3	1	7.4	72.5
- jun	9	89	<del>38</del>	<del>710</del>	3 <sup>452</sup>	0.1	0	46	0.9	10 yr	3	1	7.4	72.5
o jun	2	89	34	451	3	0.01	0	48.7	0.9	10 yr	3	1	7.4	72.5
o jun	14	89	31	453	3	0.01	1	47.3	0.9	10 yr	3	1	7.4	72.5
o jul	28	89	24	457	3	0.01	1	48.1	0.9	10 yr	3	1	7.4	72.5
o aug	4	89	18	458	3	0.01	0	49.3	0.9	10 yr	3	1	7.4	72.5
o aug	4	89	19	459	3	0.01	1	47.2	0.9	10 yr	3	1	7.4	72.5
- aug	4	89	20	<del>210</del>	3 <sup>491</sup>	0.01	0	49.5	0.9	10 yr	3	1	7.4	72.5
- jul	13	89	27	<del>211</del>	3 <sup>355</sup>	0.01	0	48.3	0.9	10 yr	3	1	7.4	72.5



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- jul	28	89	17	<del>712</del>	3357	0.01	0	49.5	0.9	10 yr	3	1	7.4	72.5	
- jul	28	89	22	<del>713</del>	3358	0.01	1	48.1	0.9	10 yr	3	1	7.4	72.5	
- jul	13	89	33	454	3	0.01	1	51.1	0.9	10 yr	3	1	7.4	72.5	
- jul	13	89	34	455	3	0	1	51	0.9	10 yr	3	1	7.4	72.5	
aug	4	89	5	661	3	oven	1	0	1.06	10 yr	3	1	5.7	61	
aug	4	89	13	662	3	oven	1	0	1.06	10 yr	3	1	5.7	61	
aug	10	89	10	663	3	oven	0	0	1.06	10 yr	3	1	5.7	61	
aug	10	89	18	664	3	oven	0	0	1.06	10 yr	3	1	5.7	61	
oct	9	89	27	665	3	oven	1	0	1.06	10 yr	3	1	5.7	61	
oct	9	89	35	666	3	oven	1	0	1.06	10 yr	3	1	5.7	61	
jun	26	89	17	161	3	air	0	3.3	1.06	10 yr	3	1	5.7	61	
jun	26	89	15	162	3	air	0	3.4	1.06	10 yr	3	1	5.7	61	
jun	29	89	12	163	3	air	0	3.3	1.06	10 yr	3	1	5.7	61	
oct	9	89	14	164	3	air	1	3.5	1.06	10 yr	3	1	5.7	61	
oct	9	89	12	165	3	air	1	3.5	1.06	10 yr	3	1	5.7	61	
oct	9	89	10	166	3	air	1	3.5	1.06	10 yr	3	1	5.7	61	
jun	9	89	23	261	3		15	0	18.5	1.06	10 yr	3	1	5.7	61
jun	9	89	24	262	3		15	0	18.5	1.06	10 yr	3	1	5.7	61
jun	14	89	21	263	3		15	1	19.1	1.06	10 yr	3	1	5.7	61
jul	7	89	22	264	3		15	1	18.9	1.06	10 yr	3	1	5.7	61
oct	10	89	16	265	3		15	0	18.7	1.06	10 yr	3	1	5.7	61
oct	10	89	12	266	3		15	0	18.5	1.06	10 yr	3	1	5.7	61
oct	10	89	9	267	3		15	0	18.7	1.06	10 yr	3	1	5.7	61
oct	13	89	3	268	3		15	1	19.2	1.06	10 yr	3	1	5.7	61
oct	13	89	6	269	3		15	1	19.2	1.06	10 yr	3	1	5.7	61
- oct	13	89	5	<del>710</del>	3170		15	0	18.5	1.06	10 yr	3	1	5.7	61
jun	29	89	39	561	3		2.4	0	28.1	1.06	10 yr	3	1	5.7	61
jun	29	89	29	562	3		2.4	0	26.4	1.06	10 yr	3	1	5.7	61
jun	29	89	37	563	3		2.4	0	27.6	1.06	10 yr	3	1	5.7	61
jul	7	89	25	564	3		2.4	1	29.2	1.06	10 yr	3	1	5.7	61
jul	7	89	29	565	3		2.4	0	31.3	1.06	10 yr	3	1	5.7	61
jul	13	89	20	566	3		2.4	0	31.4	1.06	10 yr	3	1	5.7	61
jul	13	89	22	567	3		2.4	0	33.5	1.06	10 yr	3	1	5.7	61
jul	28	89	9	568	3		2.4	1	29.2	1.06	10 yr	3	1	5.7	61
jul	28	89	11	569	3		2.4	1	29.4	1.06	10 yr	3	1	5.7	61
jun	2	89	29	361	3		0.1	0	38.8	1.06	10 yr	3	1	5.7	61
jun	9	89	32	362	3		0.1	0	38.8	1.06	10 yr	3	1	5.7	61
jun	14	89	24	363	3		0.1	1	39.9	1.06	10 yr	3	1	5.7	61
jul	28	89	15	367	3		0.1	1	40.6	1.06	10 yr	3	1	5.7	61
jun	2	89	35	461	3		0.01	1	42	1.06	10 yr	3	1	5.7	61
jun	9	89	39	462	3		0.01	1	41.2	1.06	10 yr	3	1	5.7	61
jun	14	89	38	463	3		0.01	1	42.7	1.06	10 yr	3	1	5.7	61
- jul	13	89	25	<del>464</del>	3365		0.01	1	41.4	1.06	10 yr	3	1	5.7	61
- jul	28	89	18	<del>465</del>	3366		0.01	1	41.7	1.06	10 yr	3	1	5.7	61
- jul	13	89	28	364	3	0	0.1	1	44	1.06	10 yr	3	1	5.7	61

date	obs. no.	obs. cod	d mois	acmoist	bulk	hue	val	chr
			u	tens	co	% dens		
			p	bar		g/cm <sup>3</sup>		
oct 16 89	2	u	air			30	-1	
oct 16 89	3	m32	air			13	332	
oct 16 89	4	m53	air			12	353	
oct 16 89	5	kc52	air			2.7	52	
oct 16 89	6	k51	air			2.6	151	
oct 16 89	8	kc51	air			2.3	251	
oct 16 89	9	k33	air			2.5	133	
oct 16 89	10	m52	air			11.1	332	
oct 16 89	11	k32	air			2.7	132	
oct 16 89	12	m31	air			14.9	331	
oct 16 89	13	k31	air			2.7	131	
oct 16 89	14	m51	air			15.3	351	
oct 24 89	2	m31	air			15.2	331	
oct 24 89	3	m32	air			12.2	332	
oct 24 89	4	m33	air			15.3	333	

← obs code