Background Report Reference

AP-42 Section Number: 9.9.1

Background Report Section: 4

Reference Number: 64

Title: Pooled Source Test Data, Farmer's Rice Cooperative

California Warehouse Association
DosPalos Facility, CA

July 1989

FARMERS' RICE COOPERATIVE

September 11, 1990

Mr. Roger A. Isom
Air Quality Engineer
County of Fresno
Department of Health
1221 Fulton Mall
P.O. Box 11867
Fresno, CA. 93775

Dear Mr. Isom:

We respectively submit our required AB2588 Air Toxics Emission Report. We sincerely regret the delays encountered in completing the report. As I explained in my letter of July 3, 1990, the delays were due to ongoing discussions with the TAC to resolve the issues regarding application of the CWA Pooled Source Testing Data. In that letter, I also respectively requested an additional postponement until September 19, 1990. An additional copy is enclosed.

On July 9, 1990, the CWA received a final letter of response to the issues. Although, the response is somewhat inconsistent with the original understandings, the CWA has elected to accept and incorporate the instructions in utilizing the Pooled Source Data.

As you may recall, the CWA initiated sampling during last harvest on the recommendation of the TAC, but without final approval of the protocol by the ARB. The samples were held in chain of custody in the lab until ARB approval was received. Due to the delay in approval, the analysis for hexavalent chromium was considered invalid. Accordingly, the ARB and the TAC has informed the CWA that two options are acceptable. One is to use total chromium for reporting hexavalent chromium, the other is to retest samples this fall for hexavalent chromium. The CWA has elected to retest this fall during harvest. Therefore, we have not reported estimated emissions for hexavalent chromium and will file an amended report once retesting is complete.

For purposes of estimating and reporting emissions of other detected heavy metals, the maximum value from all samples analyzed is used per the TAC's instructions. We objected to this approach, and feel it may result in unduly conservative values. However, we have followed the TAC guidelines and have used the maximum tested values from the nine samples tested from rice milling and drying operations.

Please refer to the worksheet included in the report as it outlines and supports the method of emission estimates. Section I defines our estimated maximum total particulate emissions from each of the two devices or operations. For estimating purposes, we utilized Yolo-Solano APCD values of 0.037 GRPCF for estimated uncontrolled particulate loading in fugitive drier emissions. For Device 02-Grain Cleaning System, we utilized Yolo-Solano APCD values of 0.14 GRPCF for potential uncontrolled particulate loading in process air streams. Estimated maximum controlled particulate emissions were derived by factoring the 85% efficiency factor for the cyclone control devices which are present in each system.

Section II summarizes the analytical data obtained from all of the samples taken from rice drying and milling operations in the pooled source test. In Section III, the actual emission factor for the subject heavy metals are computed by dividing the total annual emission by the total annual process units. Estimated maximum hourly and average annual emissions are derived by factoring the total particulate emissions by the toxic fraction or concentration of the subject metals.

Additionally, we have included a revised flow diagram and plot plan depicting a numbering system for stacks and processes which is consistent with our Air Pollution Operating Permits. This numbering system is used consistently in all required reporting forms.

We hope that the report is complete and clearly organized. If you should have any questions or require additional information, please do not hesitate to contact me.

Sincerely,

FARMERS' RICE COOPERATIVE

Keith L. Hargrove, Jr.
Director
Technical Development & Quality

KLH/cg

cc: J. Mariani - Dos Palos

FARMERS' RICE COOPERATIVE

AIR EMISSIONS

DOS PALOS FACILITY

JULY 27, 1989

EMISSION YEAR 19 89

AIR TOXICS EMISSION DATA SYSTEM REVIEW & UPDATE REPORT
FACILITY DESCRIPTION

FORM **FAC**

FACILITY DATA

COMPANY NAME: FARMERS' RICE COOPERATIVE

ADDRESS: HWY 33 & MERRILL ROAD

CITY: FIREBAUGH

ZIP CODE: 93620

CONTACT PERSON: JOHN MARIANI

TELEPHONE: 209-392-2126

FACILITY SIC: 2048

NUMBER OF EMPLOYEES: 15

MAILING ADDRESS DATA

COMPANY NAME: FARMERS' RICE COOPERATIVE

ADDRESS: PO BOX 1176

CITY: DOS PALOS

STATE: CA

ZIP CODE: 93620

ATTENTION: JOHN MARIANI

FOR OFFICE USE ONLY

COUNTY ID: 10

FACILITY ID: 81

ACTION CODE: A

DISTRICT: FRE

AIR BASIN CODE: SJV

CITY CODE (OPTIONAL): 2630

AQCR (OPTIONAL): 031

SUBCOUNTY ID:

FACD1 (OPTIONAL):

FACD2 (OPTIONAL):

UTM ZONE: 1P

UTM EAST: 724.0

UTM NORTH: 4080.P

ARB/FAC.080285

NAME: KEITH HARGROVE, JR. DATE: 9-11-90

EMISSION YEAR 19 89

AIR TOXICS EMISSION DATA SYSTEM REVIEW & UPDATE REPORT
STACK DATA

FORM **STK**

FOR OFFICE USE ONLY COUNTY ID: 10 FACILITY ID: 81

DO NOT DELETE STACK IF IT SERVES OTHER DEVICES. SEE INSTRUCTIONS

DESC CODE	STACK/VENT CATEGORY	REQUIRED INFORMATION
	AMBIENT TEMP & LOW-VELOCITY EXHAUST (T W/IN 25 F OF AMBIENT & V LT 750 FPM)	
1	RELEASE POINT(RP) AT GROUND-LEVEL	STACK ID & CODE ONLY
2	RELEASE FROM BLDG HVAC ONLY	STACK ID, CODE, & STACK HEIGHT
3	RP W/IN (2.5 X HB) ABOVE GROUND AND W/IN (5 X HB) SIDEWAYS TO NEAREST BLDG	STACK ID, CODE & STACK HEIGHT
4	OTHER STACK/VENT (LOW T,V)	STACK ID, CODE & STACK HEIGHT
	OTHER TEMP & FLOW CONDITIONS	
5	RP W/IN (2.5 X HB) ABOVE GROUND AND W/IN (5 X HB) SIDEWAYS TO NEAREST BLDG	ALL STACK INFORMATION
6	OTHER STACK/VENT (OTHER T,V)	ALL STACK INFORMATION

WHERE HB = HEIGHT OF NEAREST BUILDING AND HVAC = HEATING, VENTILATING AND AIR CONDITIONING

OFC USE ACTION CODE	STACK ID	DESC CODE	HEIGHT ABOVE GROUND (FEET)	DIAMETER (FEET)	EXHAUST GAS TEMP (F)	EXHAUST GAS FLOW RATE (CFM)	EXHAUST GAS VELOCITY (FPM)	*OFC USE ONLY* UTM EAST (KILOMETER)	UTM NORTH (KILOMETER)
A	108	5	15	0.75	AMB	995	2252	726.0	4080.0
A	109	5	26	2.75	AMB	6780	1141	726.0	4080.0
A	110	5	38	3.33	AMB	6530	748	726.0	4080.0
A	111	5	26	2.25	AMB	1427	359	726.0	4080.0

NAME KEITH L. HARGROVE, JR. DATE 9-11-90

ARB-STK-890323

EMISSION YEAR 89

AIR TOXICS EMISSION DATA SYSTEM REVIEW & UPDATE REPORT
STACK DATA

FORM **STK**

FOR OFFICE USE ONLY COUNTY ID: 10 FACILITY ID: [illegible]81

DO NOT DELETE STACK IF IT SERVES OTHER DEVICES. SEE INSTRUCTIONS

DESC CODE	STACK/VENT CATEGORY	REQUIRED INFORMATION
	AMBIENT TEMP & LOW-VELOCITY EXHAUST (T W/IN 25 F OF AMBIENT & V LT 750 FPM)	
1	RELEASE POINT(RP) AT GROUND-LEVEL	STACK ID & CODE ONLY
2	RELEASE FROM BLDG HVAC ONLY	STACK ID, CODE, & STACK HEIGHT
3	RP W/IN (2.5 X HB) ABOVE GROUND AND W/IN (5 X HB) SIDEWAYS TO NEAREST BLDG	STACK ID, CODE & STACK HEIGHT
4	OTHER STACK/VENT (LOW T,V)	STACK ID, CODE & STACK HEIGHT
	OTHER TEMP & FLOW CONDITIONS	
5	RP W/IN (2.5 X HB) ABOVE GROUND AND W/IN (5 X HB) SIDEWAYS TO NEAREST BLDG	ALL STACK INFORMATION
6	OTHER STACK/VENT (OTHER T,V)	ALL STACK INFORMATION

WHERE HB = HEIGHT OF NEAREST BUILDING AND HVAC = HEATING, VENTILATING AND AIR CONDITIONING

STACK ID	DESC CODE	HEIGHT ABOVE GROUND (FEET)	DIAMETER (FEET)	EXHAUST GAS TEMP (F)	EXHAUST GAS FLOW RATE (CFM)	EXHAUST GAS VELOCITY (FPM)	*OFC USE ONLY* UTM EAST (KILOMETER)	UTM NORTH (KILOMETER)
112A	5	29	2.17	AMB	3775	8011	726.0	4080.0
112B	5	29	2.17	AMB	2953	1024	726.0	4080.0
113	5	50	2.25	AMB	2748	1761	726.0	4080.0
114	5	21	2.25	AMB	13125	3301	726.0	4080.0

KEITH L. HARGROVE, JR. DATE 9-11-90

ARB.STK/890323

SSION EAR 89

AIR TOXICS EMISSION DATA SYSTEM REVIEW & UPDATE REPORT
STACK DATA

FORM **STK**

FOR OFFICE USE ONLY COUNTY ID: 10 FACILITY ID: 81

DO NOT DELETE STACK IF IT SERVES OTHER DEVICES. SEE INSTRUCTIONS

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	AMBIENT TEMP & LOW-VELOCITY EXHAUST (T W/IN 25 F OF AMBIENT & V LT 750 FPM)	
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3	RP W/IN (2.5 X HB) ABOVE GROUND AND W/IN (5 X HB) SIDEWAYS TO NEAREST BLDG	STACK ID, CODE & STACK HEIGHT
4	OTHER STACK/VENT (LOW T,V)	STACK ID, CODE & STACK HEIGHT
	OTHER TEMP & FLOW CONDITIONS	
5	RP W/IN (2.5 X HB) ABOVE GROUND AND W/IN (5 X HB) SIDEWAYS TO NEAREST BLDG	ALL STACK INFORMATION
6	OTHER STACK/VENT (OTHER T,V)	ALL STACK INFORMATION

WHERE HB = HEIGHT OF NEAREST BUILDING AND HVAC = HEATING, VENTILATING AND AIR CONDITIONING

STACK ID	DESC CODE	HEIGHT ABOVE GROUND (FEET)	DIAMETER (FEET)	EXHAUST GAS TEMP (F)	EXHAUST GAS FLOW RATE (CFM)	EXHAUST GAS VELOCITY (FPM)	*OFC USE ONLY* UTM EAST (KILOMETERS)	UTM NORTH (KILOMETERS)
115	5	21	2.25	AMB	2748	691	726.0	4080.0
116A	5	2	4.42	AMB	28239	1843	726.0	4080.0
116B	5	4	5.0	AMB	48888	2490	726.0	4080.0
116C	5	2	4.5	AMB	26736	1682	726.0	4080.0

KEITH L. HARGROVE, JR. DATE 9-11-90

ARB/STK.890323

EMISSION YEAR 19 89

AIR TOXICS EMISSION DATA SYSTEM REVIEW & UPDATE REPORT
STACK DATA

FORM **STK**

FOR OFFICE USE ONLY — COUNTY ID: 10 — FACILITY ID: 81

DO NOT DELETE STACK IF IT SERVES OTHER DEVICES. SEE INSTRUCTIONS

DESC CODE	STACK/VENT CATEGORY	REQUIRED INFORMATION
	AMBIENT TEMP & LOW-VELOCITY EXHAUST (T W/IN 25 F OF AMBIENT & V LT 750 FPM)	
1	RELEASE POINT(RP) AT GROUND-LEVEL	STACK ID & CODE ONLY
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	OTHER TEMP & FLOW CONDITIONS	
5	RP W/IN (2.5 X HB) ABOVE GROUND AND W/IN (5 X HB) SIDEWAYS TO NEAREST BLDG	ALL STACK INFORMATION
6	OTHER STACK/VENT (OTHER T,V)	ALL STACK INFORMATION

WHERE HB = HEIGHT OF NEAREST BUILDING AND HVAC = HEATING, VENTILATING AND AIR CONDITIONING

OFC USE ACTION CODE	STACK ID	DESC CODE	HEIGHT ABOVE GROUND (FEET)	DIAMETER (FEET)	********* EXHAUST ********* GAS TEMP (F)	GAS FLOW RATE (CFM)	GAS VELOCITY (FPM)	*OFC USE ONLY* UTM EAST (KILOMETER)	UTM NORTH (KILOMETER)
A	117	5	3	1.0	AMB	2406	3063	726.0	4080.0
A	118	5	3	2.25	AMB	11000	2767	726.0	4080.0
A	119	5	21	2.25	AMB	6988		726.0	4080.0

NAME KEITH L. HARGROVE, JR. DATE 9-11-90

ARB/STK/890323

EMISSION YEAR 19 89

AIR TOXICS EMISSION DATA SYSTEM REVIEW & UPDATE REPORT
DEVICE DESCRIPTION AND DEVICE-STACK RELATIONS

FORM **DEV**

FOR OFFICE USE ONLY

COUNTY ID: 10

FACILITY ID: 61

ACTION CODE	DEVICE ID	DEVICE NAME	NBR OF DEV.	STACK ID	PERMIT ID (IF AVAILABLE)	DEVD1	DEVD2	DEVICE GROUP
A	02	DRYING MACHINE	01	FUGIT	1040310101			
A	02	DRYING MACHINE	01	FUGIT	102			
A	02	DRYING MACHINE	01	FUGIT	103			
A	02	DRYING MACHINE	01	FUGIT	104			
A	02	DRYING MACHINE	01	FUGIT	105			
A	02	DRYING MACHINE	01	FUGIT	106			

***** OFFICE USE ONLY *****
**** EACH ITEM IS OPTIONAL ****

ARB/CEV-240389

NAME KEITH L. HARGROVE, JR. DATE 9-11-90

EMISSION YEAR 19 89

AIR TOXICS EMISSION DATA SYSTEM REVIEW & UPDATE REPORT
DEVICE DESCRIPTION AND DEVICE-STACK RELATIONS

FORM **DEV**

FOR OFFICE USE ONLY

COUNTY ID: 10

FACILITY ID: 87

ACTION CODE	DEVICE ID	DEVICE NAME	NBR OF DEV.	STACK ID	PERMIT ID (IF AVAILABLE)	DEVD1	DEVICE GROUP	DEVD2
A	02	DRYING MACHINE	01	FUGIT	107			
A	01	PIT #1 SCALPERATOR	01	108	108			
A	01	PIT #2 SCALPERATOR	01	109	109			
A	01	PIT #3 SCALPERATOR	01	110	110			
A	01	CRIPPEN CLEANER	01	111	111			
A	01	HUNTLEY CLEANER	01	112	112			

***** OFFICE USE ONLY *****
**** EACH ITEM IS OPTIONAL ***

ARB/DEV/240389

NAME KEITH L. HARGROVE, JR. DATE 9-11-90

MISSION YEAR 19 89

AIR TOXICS EMISSION DATA SYSTEM REVIEW & UPDATE REPORT
DEVICE DESCRIPTION AND DEVICE-STACK RELATIONS

FORM **DEV**

FOR OFFICE USE ONLY

COUNTY ID: 10

FACILITY ID: 81

ACTION CODE	DEVICE ID	DEVICE NAME	NBR OF DEV.	STACK ID	PERMIT ID (IF AVAILABLE)	DEVD1	DEVICE GROUP	DEVD2
	01	ASPIRATOR	01	113	113			
2	01	CLEANUP FAN	01	114	114			
1	01	STORAGE FACILITY	01	115	115			
2	01	BULK WAREHOUSE	01	116	116			
4	01	WOOD STORAGE BIN	01	117	117			
4	01	CONCRETE STORAGE BIN	01	118	118			

****** OFFICE USE ONLY ******
**** EACH ITEM IS OPTIONAL ****

ARB/DEV-240389

NAME KEITH L. HARGROVE, JR. DATE 9-11-90

MISSION YEAR 19 89

AIR TOXICS EMISSION DATA SYSTEM REVIEW & UPDATE REPORT
DEVICE DESCRIPTION AND DEVICE-STACK RELATIONS

FORM DEV

FOR OFFICE USE ONLY

COUNTY ID: 10

FACILITY ID: 61

ACTION CODE	DEVICE ID	DEVICE NAME	NBR OF DEV.	STACK ID	PERMIT ID (IF AVAILABLE)	DEVD1	DEVICE GROUP	DEVD2
A	01	PLANT 2 DUST COLLECTOR	01	119				

***** OFFICE USE ONLY *****
**** EACH ITEM IS OPTIONAL ***

ARB/DEV/240389

NAME KEITH L. HARGROVE, JR. DATE 9-11-90

EMISSION YEAR 19 89

AIR TOXICS EMISSION DATA SYSTEM REVIEW AND UPDATE REPORT
PROCESS AND EMITTENTS DATA

FORM PRO SIDE A

FOR OFFICE USE ONLY

PROCESS DESCRIPTION: GRAIN CLEANING C

SCC NO: 3-02-007-72

COUNTY ID: 10

AIR BASIN: SJV

ACTION CODE: A

PROD1 (OPTIONAL):

PROD2 (OPTIONAL):

FACILITY ID: 81

STOP FILL OUT ANY SUPPLEMENTAL PROCESS FORM(S) FOR THIS PROCESS FIRST. THEN FILL OUT THIS PAGE, SUBMITTING ONE FOR EACH EMITTING PROCESS IN YOUR FACILITY.

SECTION 1
PROCESS DATA

DEVICE I.D.: 01

SIC: 2048

CONFIDENTIAL (Y/N) IF Y CHECK SMALL BOXES AS APPROPRIATE: Y

PROCESS EQUIPMENT DESCRIPTION: GRAIN CLEANING C

FUEL TYPE /OTHER PROCESS INFO: C

NOTE USE 1 SPACE FOR EACH DECIMAL POINT

TOTAL YEARLY PROCESS RATE (UNITS/YR)	MAXIMUM HOURLY PROCESS RATE (UNITS/HR)	PROCESS UNITS	HRS/ DAY	DAYS/ WEEK	WKS/ YEAR
1622.5 X	25 X	PT0.84	8	5	20 X

RELATIVE MONTHLY ACTIVITY (%) C

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
15	20	20	20	20					5		

OFFICE USE ONLY

SECTION 2

EMITTENT DATA — EMISSIONS

Emittent 1

ACTION CODE: A

ALLOWABLE EMIS LBS/YR(OPTIONAL):

EMITTENT ID: As 7440382

EST METH: 10

ACTUAL EMISSIONS FACTOR(LBS/UNIT): 0.000002774 X

ANNUAL AVERAGE EMISSIONS (LBS/YR): 0.043

CONTROL EQPT CODES PRIMARY: 040

SECONDARY:

OVERALL CONTROL EFF(%):

FULL/ PART: F

HOURLY MAX EMISSIONS (LBS/HOUR): 0.000549

Emittent 2

ACTION CODE: A

ALLOWABLE EMIS LBS/YR(OPTIONAL):

EMITTENT ID: Cr-Hv 18540299

EST METH: 10

ACTUAL EMISSIONS FACTOR(LBS/UNIT): RETEST X

ANNUAL AVERAGE EMISSIONS (LBS/YR): RETEST - FALL 90

CONTROL EQPT CODES PRIMARY: 040

SECONDARY:

OVERALL CONTROL EFF(%):

FULL/ PART: F

HOURLY MAX EMISSIONS (LBS/HOUR):

NAME KEITH L. HARGROVE, JR. DATE 9-11-90

ARB.PRO 890327

EMISSION YEAR 19 89

AIR TOXICS EMISSION DATA SYSTEM REVIEW AND UPDATE REPORT
PROCESS AND EMITTENTS DATA
(ADDITIONAL EMITTENTS)

FORM **PRO** SIDE B

OFFICE USE ONLY
O: 10
ACID 81

DEVICE ID: 0 1

ACTION CODE	EMITTENT ID	EST METH	ACTUAL EMISSIONS FACTOR (LBS/UNIT)	ANNUAL AVERAGE EMISSIONS (LBS/YR)	ALLOWABLE EMIS (LBS/YR (OPTIONAL)
A	Cu 7440508	10 C	0.000216 X	0.3398	

CONTROL EQPT CODES PRIMARY	SECONDARY	OVERALL CONTROL EFF(%)	FULL/ PART	HOURLY MAX EMISSIONS (LBS/HOUR)
040 C	C	C	F C	0.000435

ACTION CODE	EMITTENT ID	EST METH	ACTUAL EMISSIONS FACTOR (LBS/UNIT)	ANNUAL AVERAGE EMISSIONS (LBS/YR)	ALLOWABLE EMIS (LBS/YR (OPTIONAL)
A	Pb 7439921	10 C	0.0000456 X	0.0718	

CONTROL EQPT CODES PRIMARY	SECONDARY	OVERALL CONTROL EFF(%)	FULL/ PART	HOURLY MAX EMISSIONS (LBS/HOUR)
040 C	C	C	F C	0.000916

ACTION CODE	EMITTENT ID	EST METH	ACTUAL EMISSIONS FACTOR(LBS/UNIT)	ANNUAL AVERAGE EMISSIONS (LBS/YR)	ALLOWABLE EMIS (LBS/YR (OPTIONAL)
A	Mn 7439965	10 C	0.00178 X	28.00	

CONTROL EQPT CODES PRIMARY	SECONDARY	OVERALL CONTROL EFF(%)	FULL/ PART	HOURLY MAX EMISSIONS (LBS/HOUR)
040 C	C	C	F C	0.0357

ACTION CODE	EMITTENT ID	EST METH	ACTUAL EMISSIONS FACTOR (LBS/UNIT)	ANNUAL AVERAGE EMISSIONS (LBS/YR)	ALLOWABLE EMIS (LBS/YR (OPTIONAL)
A	Zn 7440666	10 C	0.000111 X	1.723	

CONTROL EQPT CODES PRIMARY	SECONDARY	OVERALL CONTROL EFF(%)	FULL/ PART	HOURLY MAX EMISSIONS (LBS/HOUR)
040 C	C	C	F C	0.0022

ACTION CODE	EMITTENT ID	EST METH	ACTUAL EMISSIONS FACTOR (LBS/UNIT)	ANNUAL AVERAGE EMISSIONS (LBS/YR)	ALLOWABLE EMIS (LBS/YR (OPTIONAL)
		C	C		

CONTROL EQPT CODES PRIMARY	SECONDARY	OVERALL CONTROL EFF(%)	FULL/ PART	HOURLY MAX EMISSIONS (LBS/HOUR)
C	C	C	C	

NAME KEITH L. HARGROVE, JR. DATE 9-11-90

ARB-PROB-8903176

EMISSION YEAR 19 89

AIR TOXICS EMISSION DATA SYSTEM REVIEW AND UPDATE REPORT
PROCESS AND EMITTENTS DATA

FORM PRO SIDE A

FOR OFFICE USE ONLY

PROCESS DESCRIPTION: DRYING MACHINE-NAT. GAS C | SCC NO: 1-03-006-03 | COUNTY ID: 10 | AIR BASIN: SJV

ACTION CODE: A | PROD1 (OPTIONAL): | PROD2 (OPTIONAL): | FACILITY ID: 81

STOP FILL OUT ANY SUPPLEMENTAL PROCESS FORM(S) FOR THIS PROCESS FIRST. THEN FILL OUT THIS PAGE. SUBMITTING ONE FOR EACH EMITTING PROCESS IN YOUR FACILITY.

SECTION 1 PROCESS DATA

DEVICE I.D.: 02 | SIC: 2048 | CONFIDENTIAL (Y/N) IF Y CHECK SMALL BOXES AS APPROPRIATE: Y

PROCESS EQUIPMENT DESCRIPTION: 7 DRYING MACHINE XX C | FUEL TYPE /OTHER PROCESS INFO: NATURAL GAS C

NOTE USE 1 SPACE FOR EACH DECIMAL POINT

TOTAL YEARLY PROCESS RATE (UNITS/YR)	MAXIMUM HOURLY PROCESS RATE (UNITS/HR)	PROCESS UNITS	HRS/ DAY	DAYS/ WEEK	WKS/ YEAR
15731 X	6245 X	PT084	12	7	12

RELATIVE MONTHLY ACTIVITY (%) C

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
								40	40	20	

OFFICE USE ONLY

SECTION 2

EMITTENT DATA — EMISSIONS

ACTION CODE: A

EMITTENT ID: As 7440382 | EST METH: 10 C | ACTUAL EMISSIONS FACTOR(LBS/UNIT): 0.00000284 X C | ANNUAL AVERAGE EMISSIONS (LBS/YR): 0.0457

ALLOWABLE EMIS LBS/YR(OPTIONAL):

CONTROL EQPT CODES PRIMARY: 000 C | SECONDARY: C | OVERALL CONTROL EFF(%): C | FULL/ PART: C | HOURLY MAX EMISSIONS (LBS/HOUR): 0.00018155

ACTION CODE: A

EMITTENT ID: Cr - Hv 18540299 | EST METH: 10 C | ACTUAL EMISSIONS FACTOR(LBS/UNIT): RETEST - FALL C | ANNUAL AVERAGE EMISSIONS (LBS/YR): RETEST - FALL 90

ALLOWABLE EMIS LBS/YR(OPTIONAL):

CONTROL EQPT CODES PRIMARY: 000 C | SECONDARY: C | OVERALL CONTROL EFF(%): C | FULL/ PART: C | HOURLY MAX EMISSIONS (LBS/HOUR):

NAME KEITH L. HARGROVE, JR. DATE 9-11-90

ARB/PRO-890327

EMISSION YEAR 1989

AIR TOXICS EMISSION DATA SYSTEM REVIEW AND UPDATE REPORT
PROCESS AND EMITTENTS DATA
(ADDITIONAL EMITTENTS)

FORM PRO SIDE B

OFFICE USE ONLY
NO. 10
ACID 61

DEVICE ID 02

ACTION CODE	EMITTENT ID	EST METH	ACTUAL EMISSIONS FACTOR (LBS/UNIT)	C	ANNUAL AVERAGE EMISSIONS (LBS/YR)	CONTROL EQPT CODES PRIMARY	SECONDARY	OVERALL CONTROL EFF(%)	FULL/PART	HOURLY MAX EMISSIONS (LBS/HOUR)
A	Cu 7440508	10	0.00002238	X	0.3609	000				0.00143
A	Pb 7439921	10	0.00000473	X	0.0762	000				0.000303
A	Mn 7439965	10	0.00184	X	29.74	000				0.118
A	Zn 7440666	10	0.0001135	X	1.8299	000				0.0073

ALLOWABLE EMIS LBS/YR (OPTIONAL)

NAME KEITH L. HARGROVE, JR. DATE 9-11-90

ARB.PROB.8903176

FARMERS' RICE COOPERATIVE
AB 2588 TOXIC EMISSIONS WORKSHEET
DOS PALOS FACILITY
REVISED 9/10/90

I. ESTIMATED PARTICULATE EMISSION RATE FROM STACKS

A. DEVICE 02: GRAIN DRYING MACHINES (1989 PROCESS UNITS: 15,731 TONS)

STACK NO.	Q(GAS) SCFM	A(STACK) SQ.FT.	VELOCITY FPM	U/C PARTICULATE LOADING(GRPCF)	CONTROL EFF(%)	CONTROLLED (GRPCF)	PARTICULATE EMISSIONS(PPH)
101-103	135900	FUGITIVE	N/A	0.037	FUGITIVE	0.037	43.0997
104-105	81200	FUGITIVE	N/A	0.037	FUGITIVE	0.037	25.7520
106	65700	FUGITIVE	N/A	0.037	FUGITIVE	0.037	20.8363
107	35205	FUGITIVE	N/A	0.037	FUGITIVE	0.037	11.1650
TOTAL	318005						100.8530

B. DEVICE 01: GRAIN CLEANING SYSTEM (1989 PROCESS UNITS: 16,122.45 TONS)

STACK NO.	Q(GAS) SCFM	A(STACK) SQ.FT.	VELOCITY FPM	U/C PARTICULATE LOADING(GRPCF)	CONTROL EFF(%)	CONTROLLED (GRPCF)	
108	995	0.4418	2252	0.14	0.85	0.021	0.1791
109	6780	5.94	1141	0.14	0.85	0.021	1.2204
110	6530	8.727	748	0.14	0.85	0.021	1.1754
111	1427	3.976	359	0.14	0.85	0.021	0.2569
112A	2953	3.687	801	0.14	0.85	0.021	0.5315
112B	3775	3.687	1024	0.14	0.85	0.021	0.6795
113	7000	3.976	1761	0.14	0.85	0.021	1.2600
114	13125	3.976	3301	0.14	0.85	0.021	2.3625
115	2748	3.976	691	0.14	0.85	0.021	0.4946
116A	28239	15.32	1843	0.14	0.85	0.021	5.0830
116B	48888	19.63	2490	0.14	0.85	0.021	8.7998
116C	26736	15.9	1682	0.14	0.85	0.021	4.8125
117	2406	0.7854	3063	0.14	0.85	0.021	0.4331
118	11000	3.976	2767	0.14	0.85	0.021	1.9800
119	6983	3.976	1756	0.14	0.85	0.021	1.2569
TOTAL	169585						30.5253

III. CALCULATED TOXIC FRACTION EMISSIONS

A. DEVICE #2: GRAIN DRYING MACHINES

DESC.	CAS I.D.#	MAX SOURCE CONC.(PPM)	TOTAL PARTICULATE EMISSION (PPH)	ESTIMATED TOXIC EMISSION (PPH)	HRS PER YR	AVG. TOXIC EMISSION(PPY)	ACTUAL EMISSION FACTOR (PPPU)
As	7440382	1.80	100.8530	0.00018153	252	0.045746	0.00000284
Be	7440417	0.14	100.8530	0	252	0	0.00000000
Cd	7440439	<2	100.8530	0	252	0	0.00000000
Cr-HV	18540299	RETEST	100.8530	RETEST	252	RETEST	RETEST
Cu	7440508	14.20	100.8530	0.00143211	252	0.360892	0.00002238
Pb	7439921	3.00	100.8530	0.00030255	252	0.076244	0.00000473
Mn	7439965	1170.00	100.8530	0.11799802	252	29.73550	0.00184435
Hg	7439976	0.06	100.8530	0	252	0	0.00000000
Ni	7440020	10.50	100.8530	0	252	0	0.00000000
Se	7782492	<0.2	100.8530	0	252	0	0.00000000
Zn	7440666	72.00	100.8530	0.00726141	252	1.829877	0.00011350
TOTALS			100.8530	0.12717565	252	32.04826	0.00198780

A. DEVICE #1: GRAIN CLEANING SYSTEM

DESC.	CAS I.D.#	MAX SOURCE CONC.(PPM)	TOTAL PARTICULATE EMISSION (PPH)	ESTIMATED TOXIC EMISSION (PPH)	HRS PER YR	AVG. TOXIC EMISSION(PPY)	
As	7440382	1.80	30.5253	0.00005494	784	0.043077	0.00000274
Be	7440417	0.14	30.5253	0	784	0	0.00000000
Cd	7440439	<2	30.5253	0	784	0	0.00000000
Cr-HV	18540299	RETEST	30.5253	RETEST	784	RETEST	RETEST
Cu	7440508	14.20	30.5253	0.00043345	784	0.339832	0.00002160
Pb	7439921	3.00	30.5253	0.00009157	784	0.071795	0.00000456
Mn	7439965	1170.00	30.5253	0.03571460	784	28.00024	0.00177994
Hg	7439976	0.06	30.5253	0	784	0	0.00000000
Ni	7440020	10.50	30.5253	0	784	0	0.00000000
Se	7782492	<0.2	30.5253	0	784	0	0.00000000
Zn	7440666	72.00	30.5253	0.00219782	784	1.723092	0.00010953
TOTALS			30.5253	0.03849240	784	30.17804	0.00191837

III. CALCULATED TOXIC FRACTION EMISSIONS

A. DEVICE 02: GRAIN DRYING MACHINES

DESC.	CAS I.D.#	MAX SOURCE CONC.(PPM)	TOTAL PARTICULATE EMISSION (PPH)	ESTIMATED TOXIC EMISSION (PPH)	HRS PER YR	AVG. TOXIC EMISSION(PPY)	ACTUA FACT
As	7440382	1.80	100.8530	0.00018153	252	0.045746	0.00
Be	7440417	0.14	100.8530	0	252	0	0.00
Cd	7440439	<2	100.8530	0	252	0	0.00
Cr-HV	18540299	RETEST	100.8530	RETEST	252	RETEST	RETE
Cu	7440508	14.20	100.8530	0.00143211	252	0.360892	0.00
Pb	7439921	3.00	100.8530	0.00030255	252	0.076244	0.00
Mn	7439965	1170.00	100.8530	0.11799802	252	29.73550	0.00
Hg	7439976	0.06	100.8530	0	252	0	0.00
Ni	7440020	10.50	100.8530	0	252	0	0.00
Se	7782492	<0.2	100.8530	0	252	0	0.00
Zn	7440666	72.00	100.8530	0.00726141	252	1.829877	0.00
TOTALS			100.8530	0.12717565	252	32.04826	0.00

A. DEVICE 01: GRAIN CLEANING SYSTEM

DESC.	CAS I.D.#	MAX SOURCE CONC.(PPM)	TOTAL PARTICULATE EMISSION (PPH)	ESTIMATED TOXIC EMISSION (PPH)	HRS PER YR	AVG. TOXIC EMISSION(PPY)	
As	7440382	1.80	30.5253	0.00005494	784	0.043077	0.00
Be	7440417	0.14	30.5253	0	784	0	0.00
Cd	7440439	<2	30.5253	0	784	0	0.00
Cr-HV	18540299	RETEST	30.5253	RETEST	784	RETEST	RETE
Cu	7440508	14.20	30.5253	0.00043345	784	0.339832	0.00
Pb	7439921	3.00	30.5253	0.00009157	784	0.071795	0.00
Mn	7439965	1170.00	30.5253	0.03571460	784	28.00024	0.00
Hg	7439976	0.06	30.5253	0	784	0	0.00
Ni	7440020	10.50	30.5253	0	784	0	0.00
Se	7782492	<0.2	30.5253	0	784	0	0.00
Zn	7440666	72.00	30.5253	0.00219782	784	1.723092	0.00
TOTALS			30.5253	0.03849240	784	30.17804	0.00

II. SUMMARY OF RESULTS FROM CWA POOLED SOURCE TESTING - RICE DRYING AND MILLING ONLY

METAL	CAS NO.	BUTTE RICE COOP SAMPLE 1	BUTTE RICE COOP SAMPLE 2	BUTTE RICE COOP SAMPLE 3	COMET RICE SAMPLE 1	COMET RICE SAMPLE 2	COMET RICE SAMPLE 3	FARMERS' RICE SAMPLE 1	FARMERS' RICE SAMPLE 2	FARMERS' RICE SAMPLE 3	AVERAGE	MAXIMUM
As	7440382	0.16	0.38	0.56	1.80	1.70	1.60	0.67	0.85	0.81	0.95	1.80
Be	7440417	0.14	0.13	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.03	0.14
Cd	7440439	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.00	0.00
Cr-HV	18540299										ERR	ERR
Cu	7440508	4.80	4.60	5.00	14.20	12.10	12.20	7.40	6.80	5.80	8.10	14.20
Pb	7439921	1.55	1.82	1.81	2.85	2.85	2.39	3.00	2.40	2.60	2.36	3.00
Mn	7439965	775.00	765.00	812.00	1170.00	1110.00	1110.00	1070.00	1020.00	906.00	970.89	1170.00
Hg	7439976	0.055	0.018	0.033	0.021	0.007	0.010	<.005	<.005	<.005	0.02	0.06
Ni	7440020	<2.0	<2.0	<2.0	10.50	8.60	9.80	<2.0	<2.0	<2.0	3.21	10.50
Se	7782492	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	0.00	0.00
Zn	7440666	68.10	62.70	67.00	60.50	54.30	72.00	63.50	50.90	53.60	61.40	72.00

FARMERS' RICE COOPERATIVE

July 3, 1990

Mr. Roger A. Isom
Air Quality Engineer
County of Fresno
Department of Health
1221 Fulton Mall
P.O. Box 11867
Fresno, CA. 93775

Re: AB2588 Toxic Emission Inventory Report

Dear Mr. Isom:

As a followup to my letter dated May 24, 1990 regarding continued discussions with the TAC about resolving the issues of applying the Pooled Source Test Data. In that letter, I requested an extension of the report submittal deadline until August 1, 1990.

As of this date, we have yet to reach final resolution, and have not yet been informed as to the final acceptance of our recommendations. Accordingly, preparation of the report cannot be completed. The indication from my discussions with the representatives of the the California Warehouse Association is that the final approvals should be forthcoming soon. However, at this time it appears necessary to request an additional extension until September 19, 1990. This date would coincide with 180 days from your date of approval of our plan.

We sincerely regret the continued delays, and assure you of our efforts to bring this issue to a conclusion, and will complete and return the report as soon as possible after the remaining approvals are given. If you should have any questions or need any additional information, please do not hesitate to contact me.

Sincerely,

FARMERS' RICE COOPERATIVE

Keith L. Hargrove, Jr.
Director
Technical Development & Quality

KLH/cg
cc: John Mariani - FRC Dos Palos

TOMAS PARK DRIVE • P O BOX 15223 • SACRAMENTO, CA 95851-0223 • (916) 923-5100 • TELEX 176-955 FRC SAC

Butte County
AIR POLLUTION CONTROL DISTRICT
9287 MIDWAY, SUITE 2D
DURHAM, CALIFORNIA 95938 (916) 891-2882

July 9, 1990

Steve Haskell, President
California Warehouse Association
P.O. Box 355
Knights Landing, CA 95645

Dear Mr. Haskell:

The Butte County Air Pollution Control District is contacting you regarding the results of the CWA pooled source tests for the AB 2588 Air Toxics Regulation. At the recent Technical Advisory Committee (TAC) meeting held in Colusa, the committee agreed that the results of the metal sampling conducted by Harding Lawson Associates would be accepted if the results for facilities that were not actually tested were reported as the maximum value of the tested facilities for both the annual and the hourly averages. The average values may only be used for facilities that were actually tested. If a facility does not use the maximum value, a source test must be conducted on that facility and the average value may be used.

As Mr. Wagoner of our staff has stated in his letter of June 5, 1990, CWA has two options available for the reporting of hexavalent chromium - either to report the hexavalent chromium as total chrome, or to retest the facilities for hexavalent chromium this fall.

I appreciate you patience and cooperation with the TAC in the approval of the pooled source testing plans and results. If you have any questions concerning this matter, please contact this office at 891-2882. Thank you.

Sincerely,

Nancy Norman

Nancy Norman
Deputy Air Pollution Control Officer

NN:nn

cc: Art Osegueda, Harding Lawson Associates
TAC Members

FRESNO COUNTY AIR POLLUTION CONTROL DISTRICT
1221 FULTON MALL, FRESNO, CA PHONE: (209) 445-3239
MAILING ADDRESS: P.O. BOX 11800, FRESNO, CA 93755

INVOICE
PERMIT RENEWAL

RECEIVED DEC 7 1988 BY FARMERS RICE COOPERATIVE

Mailing Address:

Farmers Rice Coop
P.O. Box 1176
Dos Palos, CA 93620

Attn: John Mariani

Renewal Date: 12-7-88

Date: 12-1-88

Subsidiary Co: ____________

Location: Hwy 33 & Merill Rd.

Permit Number	Equipment	Rating	Renewal Fee
1040310101	Dryer #1	2.5 meg Btuh	$ 50.00
1040310102	Dryer #2	2.5 meg Btuh	50.00
1040310103	Dryer #3	2.5 meg Btuh	50.00
1040310104	Dryer #4	2.5 meg Btuh	50.00
1040310105	Dryer #5	2.5 meg Btuh	50.00
1040310106	Dryer #6	2.5 meg Btuh	50.00
1040310107	Dryer #7	2.5 meg Btuh	50.00
1040310108	Pit #1 Scalperator	6 hp	10.00
1040310109	Pit #2 Scalperator	35 hp	15.00
1040310110	Pit #3 Cleaner	50 hp	15.00
1040310111	Crippen Cleaner	13 hp	10.00
1040310112	Huntley Cleaner	20 hp	10.00
1040310113	Aspirator	25 hp	10.00
1040310114	Cleanup fan	40 hp	15.00
1040310115	Storage facility	10 hp	10.00
1040310116	Bulk warehouse	90 hp	25.00
1040310117	Wood storage bin	5 hp	10.00
1040310118	Concrete storage gin	15 hp	10.00
		Total Fee -	$490.00

PAYMENT MUST BE RECEIVED BY 1-7-89 TO AVOID A 50% PENALTY FEE, FURTHER NON PAYMENT MAY RESULT IN REVOCATION OF THE PERMIT.

Please remit invoice with payment to insure proper credit to your account.

George Bleth
Air Pollution Control Officer

BY: *[signature]*

TMA
Thermo Analytical Inc.

TMA/Norcal
2030 Wright Avenue
P.O. Box 4040
Richmond, CA 94804-0040

(415) 235-2633 Fax No (415) 235-0438

March 26, 1990

Harding Lawson Associates
10324 Placer Lane
Sacramento, CA 95827

Attention: Mr. A. M. Osequeda

TMA/Norcal I.D.: 6873-1

Dear Mr. Osequeda:

Attached are the results for eighteen dust samples received on November 13, 1989. Results for all metals, except for the Hexavalent Chromium, were sent to you by FAX on March 8, 1990. Hexavalent Chromium results were sent to you by FAX on March 20, 1990.

All work was performed by TMA/Arli, except for the Hexavalent Chromium which was analyzed by West Coast Analytical. The go-ahead to start work was given on February 14, 1990. In our conversation on February 14, I mentioned that the holding time had been missed for Hexavalent Chromium. The Hexavalent Chromium analysis was run anyway at your request. Three dust samples were not analyzed for Hexavalent Chromium because the Total Chromium results were "none detected" for these samples.

I have given Harding Lawson Associates a number of price breaks for this work. I have billed at our cost for the Hexavalent Chromium. No additional mark-up has been added. Harding Lawson Associates has received a 10% volume discount on all analyses and storage fees. I have reduced our storage fee of $20/sample/month to $10/sample/month on a one-time basis. The first thirty days of storage are free.

Copies of the Chain-of-Custody Forms are attached. If you have any questions please give me a call (415) 235-2633 extension 254.

Sincerely yours,

Robert Fox
Program Manager/Chemist

Attachments: Work Order #89-11-110 (8)
Work Order #A0-03-042 (6)
Chain-of-Custody Forms (6)

CC: California Warehouse Association
9621 Bradhugh Court
Sacramento, CA 95827
Attention: Mr. Steve Haskell

TMA Inc. REPORT Work Order # 89-11-110

Received: 11/16/89 03/08/90 14:15:05

REPORT TO: TMA/NORCAL
2030 Wright Avenue
Richmond, CA 94804

ATTEN: Sample Control

CLIENT: TMA NORCAL SAMPLES: 18
COMPANY: TMA/NORCAL
FACILITY: Richmond, CA

WORK ID: 6873-1 Metals Analysis
TAKEN: By TMA Norcal Staff
TRANS: Federal Express
TYPE: Solid
P. O. #: TMA 7601
INVOICE: under separate cover

PREPARED BY: Thermo Analytical, Inc.
160 Taylor Street
Monrovia, CA 91016

ATTEN: Ms. Carole Harris
PHONE: 818-357-3247

Robert Mazurek
CERTIFIED BY

CONTACT REM

This report is for the sole and exclusive use of the client to whom it is addressed and represents only those samples herein described. Samples not destroyed in testing are retained a maximum of 30 days unless otherwise requested.

Previously Reported on 03/08/90.

SAMPLE IDENTIFICATION

01	6873-1-1 / 8943 BR01
02	6873-1-2 / 8943 BR02
03	6873-1-3 / 8943 BR03
04	6873-1-4 / 8943 CB01
05	6873-1-5 / 8943 CB02
06	6873-1-6 / 8943 CB03
07	6873-1-7 / 8943 CR01
08	6873-1-8 / 8943 CR02
09	6873-1-9 / 8943 CR03
10	6873-1-10 / 8943 SB01
11	6873-1-11 / 8943 SB02
12	6873-1-12 / 8943 SB03
13	6873-1-13 / 8943 TM01
14	6873-1-14 / 8943 TM02
15	6873-1-15 / 8943 TM03
16	6873-1-16 / 8945 FR01
17	6873-1-17 / 8945 FR02
18	6873-1-18 / 8945 FR03

TEST CODES and NAMES used on this report

AS S	Arsenic - Solids
BE S	Beryllium - Solids
CD S	Cadmium - Solids
CR S	Chromium - Solids
CU S	Copper - Solids
HG S	Mercury - Solids
MN S	Manganese - Solids
NI S	Nickel - Solids
PB S	Lead - Solids
SE S	Selenium - Solid
ZN S	Zinc - Solids

Received: 11/16/89 Results by Sample

SAMPLE ID 6873-1-1 SAMPLE # 01 FRACTIONS: A
Date & Time Collected not specified Category

AS_S	0.16 mg/Kg	BE_S	0.14 mg/Kg	CD_S	<1. mg/Kg	CR_S	<2. mg/Kg	CU_S	4.8 mg/Kg	HG_S	0.055 mg/Kg
MN_S	775. mg/Kg	NI_S	<2. mg/Kg	PB_S	1.55 mg/Kg	SE_S	<0.2 mg/Kg	ZN_S	68.1 mg/Kg		

SAMPLE ID 6873-1-2 SAMPLE # 02 FRACTIONS: A
Date & Time Collected not specified Category

AS_S	0.38 mg/Kg	BE_S	0.13 mg/Kg	CD_S	<1. mg/Kg	CR_S	<2. mg/Kg	CU_S	4.6 mg/Kg	HG_S	0.018 mg/Kg
MN_S	765. mg/Kg	NI_S	<2. mg/Kg	PB_S	1.82 mg/Kg	SE_S	<0.2 mg/Kg	ZN_S	62.7 mg/Kg		

SAMPLE ID 6873-1-3 SAMPLE # 03 FRACTIONS: A
Date & Time Collected not specified Category

AS_S	0.56 mg/Kg	BE_S	<0.1 mg/Kg	CD_S	<1. mg/Kg	CR_S	<2. mg/Kg	CU_S	5.0 mg/Kg	HG_S	0.033 mg/Kg
MN_S	812. mg/Kg	NI_S	<2. mg/Kg	PB_S	1.81 mg/Kg	SE_S	<0.2 mg/Kg	ZN_S	67.0 mg/Kg		

SAMPLE ID 6873-1-4 SAMPLE # 04 FRACTIONS: A
Date & Time Collected not specified Category

AS_S	3.9 mg/Kg	BE_S	0.37 mg/Kg	CD_S	<1. mg/Kg	CR_S	53.1 mg/Kg	CU_S	36.5 mg/Kg	HG_S	0.009 mg/Kg
MN_S	484. mg/Kg	NI_S	63.1 mg/Kg	PB_S	9.5 mg/Kg	SE_S	<0.2 mg/Kg	ZN_S	117. mg/Kg		

SAMPLE ID 6873-1-5 SAMPLE # 05 FRACTIONS: A
Date & Time Collected not specified Category

AS_S	4.2 mg/Kg	BE_S	0.43 mg/Kg	CD_S	<1. mg/Kg	CR_S	52.3 mg/Kg	CU_S	37.2 mg/Kg	HG_S	0.019 mg/Kg
MN_S	524. mg/Kg	NI_S	62.3 mg/Kg	PB_S	18.5 mg/Kg	SE_S	0.40 mg/Kg	ZN_S	100. mg/Kg		

SAMPLE ID 6873-1-6 SAMPLE # 06 FRACTIONS: A
Date & Time Collected not specified Category

AS_S	4.7 mg/Kg	BE_S	0.37 mg/Kg	CD_S	<1. mg/Kg	CR_S	47.6 mg/Kg	CU_S	36.0 mg/Kg	HG_S	0.014 mg/Kg
MN_S	476. mg/Kg	NI_S	56.0 mg/Kg	PB_S	9.21 mg/Kg	SE_S	0.51 mg/Kg	ZN_S	98.4 mg/Kg		

SAMPLE ID 6873-1-7 SAMPLE # 07 FRACTIONS: A
Date & Time Collected not specified Category

AS_S	1.8 mg/Kg	BE_S	<0.1 mg/Kg	CD_S	<1. mg/Kg	CR_S	12.2 mg/Kg	CU_S	14.2 mg/Kg	HG_S	0.021 mg/Kg
MN_S	1170. mg/Kg	NI_S	10.5 mg/Kg	PB_S	2.85 mg/Kg	SE_S	<0.2 mg/Kg	ZN_S	60.5 mg/Kg		

SAMPLE ID 6873-1-8 SAMPLE # 08 FRACTIONS: A
Date & Time Collected not specified Category

AS_S	1.7 mg/Kg	BE_S	<0.1 mg/Kg	CD_S	<1. mg/Kg	CR_S	10.1 mg/Kg	CU_S	12.1 mg/Kg	HG_S	0.007 mg/Kg
MN_S	1110. mg/Kg	NI_S	8.6 mg/Kg	PB_S	2.85 mg/Kg	SE_S	<0.2 mg/Kg	ZN_S	54.3 mg/Kg		

SAMPLE ID 6873-1-9 SAMPLE # 09 FRACTIONS: A
Date & Time Collected not specified Category

AS_S	1.6 mg/Kg	BE_S	<0.1 mg/Kg	CD_S	<1. mg/Kg	CR_S	10.2 mg/Kg	CU_S	12.2 mg/Kg	HG_S	0.010 mg/Kg
MN_S	1110. mg/Kg	NI_S	9.8 mg/Kg	PB_S	2.39 mg/Kg	SE_S	<0.2 mg/Kg	ZN_S	72.0 mg/Kg		

SAMPLE ID 6873-1-10 SAMPLE # 10 FRACTIONS: A
Date & Time Collected not specified Category

AS_S	4.5 mg/Kg	BE_S	0.48 mg/Kg	CD_S	<1. mg/Kg	CR_S	48.6 mg/Kg	CU_S	32.8 mg/Kg	HG_S	0.017 mg/Kg
MN_S	527. mg/Kg	NI_S	62.1 mg/Kg	PB_S	9.9 mg/Kg	SE_S	0.23 mg/Kg	ZN_S	121. mg/Kg		

SAMPLE ID 6873-1-11 SAMPLE # 11 FRACTIONS: A
Date & Time Collected not specified Category

AS_S	4.8 mg/Kg	BE_S	0.40 mg/Kg	CD_S	<1. mg/Kg	CR_S	52.9 mg/Kg	CU_S	32.7 mg/Kg	HG_S	0.014 mg/Kg
MN_S	452. mg/Kg	NI_S	63.2 mg/Kg	PB_S	9.9 mg/Kg	SE_S	0.39 mg/Kg	ZN_S	112. mg/Kg		

SAMPLE ID 6873-1-12 SAMPLE # 12 FRACTIONS: A
Date & Time Collected not specified Category

AS_S	5.1 mg/Kg	BE_S	0.32 mg/Kg	CD_S	<1. mg/Kg	CR_S	53.0 mg/Kg	CU_S	32.4 mg/Kg	HG_S	0.021 mg/Kg
MN_S	451. mg/Kg	NI_S	68.9 mg/Kg	PB_S	11.2 mg/Kg	SE_S	0.35 mg/Kg	ZN_S	106. mg/Kg		

SAMPLE ID 6873-1-13 SAMPLE # 13 FRACTIONS: A
Date & Time Collected not specified Category

AS_S	0.55 mg/Kg	BE_S	<0.1 mg/Kg	CD_S	<1. mg/Kg	CR_S	8.1 mg/Kg	CU_S	10.1 mg/Kg	HG_S	0.016 mg/Kg
MN_S	1000. mg/Kg	NI_S	9.5 mg/Kg	PB_S	3.6 mg/Kg	SE_S	<0.2 mg/Kg	ZN_S	73.3 mg/Kg		

SAMPLE ID 6873-1-14 SAMPLE # 14 FRACTIONS: A
Date & Time Collected not specified Category

AS_S	1.1 mg/Kg	BE_S	<0.1 mg/Kg	CD_S	<1. mg/Kg	CR_S	7.5 mg/Kg	CU_S	9.7 mg/Kg	HG_S	0.028 mg/Kg
MN_S	1040. mg/Kg	NI_S	8.5 mg/Kg	PB_S	3.67 mg/Kg	SE_S	0.23 mg/Kg	ZN_S	67.5 mg/Kg		

SAMPLE ID 6873-1-15 SAMPLE # 15 FRACTIONS: A
Date & Time Collected not specified Category

AS_S	0.55 mg/Kg	BE_S	<0.1 mg/Kg	CD_S	<1. mg/Kg	CR_S	6.6 mg/Kg	CU_S	9.7 mg/Kg	HG_S	0.018 mg/Kg
MN_S	1050. mg/Kg	NI_S	9.4 mg/Kg	PB_S	3.53 mg/Kg	SE_S	<0.2 mg/Kg	ZN_S	78.0 mg/Kg		

SAMPLE ID 6873-1-16 SAMPLE # 16 FRACTIONS: A
Date & Time Collected not specified Category

AS_S	0.67 mg/Kg	BE_S	<0.1 mg/Kg	CD_S	<1. mg/Kg	CR_S	4.9 mg/Kg	CU_S	7.4 mg/Kg	HG_S	<0.005 mg/Kg
MN_S	1070. mg/Kg	NI_S	<2. mg/Kg	PB_S	3.0 mg/Kg	SE_S	<0.2 mg/Kg	ZN_S	63.5 mg/Kg		

SAMPLE ID 6873-1-17 SAMPLE # 17 FRACTIONS: A
Date & Time Collected not specified Category

AS_S	0.85 mg/Kg	BE_S	<0.1 mg/Kg	CD_S	<1. mg/Kg	CR_S	3.5 mg/Kg	CU_S	6.8 mg/Kg	HG_S	<0.005 mg/Kg
MN_S	1020. mg/Kg	NI_S	<2. mg/Kg	PB_S	2.4 mg/Kg	SE_S	<0.2 mg/Kg	ZN_S	50.9 mg/Kg		

SAMPLE ID 6873-1-18 SAMPLE # 18 FRACTIONS: A
Date & Time Collected not specified Category

AS_S	0.81 mg/Kg	BE_S	<0.1 mg/Kg	CD_S	<1. mg/Kg	CR_S	3.7 mg/Kg	CU_S	5.8 mg/Kg	HG_S	<0.005 mg/Kg
MN_S	906. mg/Kg	NI_S	<2. mg/Kg	PB_S	2.6 mg/Kg	SE_S	<0.2 mg/Kg	ZN_S	53.6 mg/Kg		

TMA/NORCAL

Methods and Detection Limits

Metal	Method	Detection Limit
As	7060	0.10
Be	210.1	0.1
Cd	7131	1.
Cr	7190	2.
Hg	7470	0.005
Mn	246.1	1.
Ni	7520	2.
Pb	7421	0.10
Se	7740	0.2
Zn	289.1	1.
Cu	220.1	1.

For 7000 series method reference "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods", SW846 3rd Edition US EPA.

For the 200 series methods reference
Method of Chemical Analysis of Water and Wastes EPA-600/4-79-020, US APE 1979.

TMA Inc. REPORT Work Order # A0-03-042

Received: 11/16/89

03/20/90 09:20:02

REPORT TO: TMA/NORCAL
2030 Wright Avenue
Richmond, CA 94804

ATTEN: Sample Control

CLIENT: TMA NORCAL SAMPLES: 15
COMPANY: TMA/NORCAL
FACILITY: Richmond,CA

WORK ID: 6873-1 Metals Analysis/HTL
TAKEN: By TMA Norcal Staff
TRANS: Federal Express
TYPE: Solid
P. O. #: TMA 7601
INVOICE: under separate cover

PREPARED BY: Thermo Analytical, Inc.
160 Taylor Street
Monrovia, CA 91016

ATTEN: Ms. Carole Harris
PHONE: 818-357-3247

Robert Mowbek
CERTIFIED BY

CONTACT REM

This report is for the sole and exclusive use of the client to whom it is addressed and represents only those samples herein described. Samples not destroyed in testing are retained a maximum of 30 days unless otherwise requested.

SAMPLE IDENTIFICATION

01 6873-1-4/8943 CB01
02 6873-1-5/8943 CB02
03 6873-1-6/8943 CB03
04 6873-1-7/8943 CR01
05 6873-1-8/8943 CR02
06 6873-1-9/8943 CR03
07 6873-1-10/8943 SB01
08 6873-1-11/8943 SB02
09 6873-1-12/8943 SB03
10 6873-1-13/8943 TM01
11 6873-1-14/8943 TM02
12 6873-1-15/8943 TM03
13 6873-1-16/8945 FR01
14 6873-1-17/8945 FR02
15 6873-1-18/8945 FR03

TEST CODES and NAMES used on this report

WCHXCR Hexavalent Chromium by IC

SAMPLE ID 6873-1-4/8943 CB01 SAMPLE # 01 FRACTIONS: A
Date & Time Collected not specified Category

WCHXCR	ND	ug/kg

SAMPLE ID 6873-1-5/8943 CB02 SAMPLE # 02 FRACTIONS: A
Date & Time Collected not specified Category

WCHXCR	ND	ug/kg

SAMPLE ID 6873-1-6/8943 CB03 SAMPLE # 03 FRACTIONS: A
Date & Time Collected not specified Category

WCHXCR	ND	ug/kg

SAMPLE ID 6873-1-7/8943 CR01 SAMPLE # 04 FRACTIONS: A
Date & Time Collected not specified Category

WCHXCR	ND	ug/kg

SAMPLE ID 6873-1-8/8943 CR02 SAMPLE # 05 FRACTIONS: A
Date & Time Collected not specified Category

WCHXCR	ND	ug/kg

SAMPLE ID 6873-1-9/8943 CR03 SAMPLE # 06 FRACTIONS: A
Date & Time Collected not specified Category

WCHXCR	ND	ug/kg

SAMPLE ID 6873-1-10/8943 SB01 SAMPLE # 07 FRACTIONS: A
Date & Time Collected not specified Category

WCHXCR	ND	ug/kg

SAMPLE ID 6873-1-11/8943 SB02 SAMPLE # 08 FRACTIONS: A
Date & Time Collected not specified Category

WCHXCR	ND	ug/kg

SAMPLE ID 6873-1-12/8943 SB03 SAMPLE # 09 FRACTIONS: A
Date & Time Collected not specified Category

WCHXCR ND ug/kg

SAMPLE ID 6873-1-13/8943 TM01 SAMPLE # 10 FRACTIONS: A
Date & Time Collected not specified Category

WCHXCR ND ug/kg

SAMPLE ID 6873-1-14/8943 TM02 SAMPLE # 11 FRACTIONS: A
Date & Time Collected not specified Category

WCHXCR ND ug/kg

SAMPLE ID 6873-1-15/8943 TM03 SAMPLE # 12 FRACTIONS: A
Date & Time Collected not specified Category

WCHXCR ND ug/kg

SAMPLE ID 6873-1-16/8945 FR01 SAMPLE # 13 FRACTIONS: A
Date & Time Collected not specified Category

WCHXCR	ND	ug/kg

SAMPLE ID 6873-1-17/8945 FR02 SAMPLE # 14 FRACTIONS: A
Date & Time Collected not specified Category

WCHXCR	ND	ug/kg

SAMPLE ID 6873-1-18/8945 FR03 SAMPLE # 15 FRACTIONS: A
Date & Time Collected not specified Category

WCHXCR	ND	ug/kg

TMA/NORCAL

Hexavalent chrome was determined by EPA Method 7196 using ion chromatography. Samples were extracted with distilled water, sonicated and filtered prior to analysis. The detection limit for this analysis is 0.1 mg/Kg.

Harding Lawson Associates
10324 Placer Lane
Sacramento, California 95827
916/364-0793
Telecopy: 916/364-5633

CHAIN OF CUSTODY FORM

Lab: _____

Samplers: C.M.O

Job Number: P.W. 89-1252.13

Name/Location: Butte Co. Rice Growers - S. Oroville

Project Manager: A.M. Oseguera Recorder: _____ (Signature Required)

SOURCE CODE	MATRIX: Bathtube	Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	SAMPLE NUMBER OR LAB NUMBER: Yr Wk Seq	DATE: Yr Mo Dy Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	Priority Plitnt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	12 metals	SW 846	6010	2196	2471	2240
62	X					X			89 43 BR01	89 10 26 0930	drop box off baghouse									1	8	1	1	1
62	X					X			89 43 BR02	89 10 26 0930	✓ ✓									1	8	1	1	1
62	X					X			89 43 BR03	89 10 26 0930	✓ ✓									1	8	1	1	1
											Hold until notified by HLA, Assoc.													

LAB NUMBER: Yr Wk Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
C.M. Oseguera	[illegible]	11-13-89 4pm
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature)	DATE/TIME

METHOD OF SHIPMENT

Harding Lawson Associates
10324 Placer Lane
Sacramento, California 95827
916/364-0793
Telecopy: 916/364-5633

CHAIN OF CUSTODY FORM

Lab: _____

Samplers: A.M.O.

Job Number: P.W. 89-1252.13

Name/Location: Chico Bean - Chico

Project Manager: A. M. Oseguera

Recorder: _____ (Signature Required)

SOURCE CODE	MATRIX: Potable Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	SAMPLE NUMBER OR LAB NUMBER: Yr Wk Seq	DATE: Yr Mo Dy Time	STATION DESCRIPTION/ NOTES	ANALYSIS REQUESTED: EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	Priority Pllnt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	12 metals	SW 846	6010	7196	2471	7240
62	X				X			89 43 CB01	89 10 26 1130	drop box off bag house.								1	8	1	1	1
62	X				X			89 43 CB02	89 10 26 1130	✓ ✓								1	8	1	1	1
62	X				X			89 43 CB03	89 10 26 1130	✓ ✓								1	8	1	1	1
										Hold with Notified by HLA Assoc.													

LAB NUMBER: Yr Wk Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
A.M. Oseguera	Jim Ku	11-13-91 4pm
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature)	DATE/TIME

Harding Lawson Associates
10324 Placer Lane
Sacramento, California 95827
916/364-0793
Telecopy: 916/364-5633

CHAIN OF CUSTODY FORM

Lab: ____________

Job Number: P.W. 89-1252,13
Name/Location: Comet Rice Coop - Maxwell
Project Manager: A.M. Osegueda

Samplers: A.M.O.
Recorder: ____________ *(Signature Required)*

SOURCE CODE	Matrix: [illegible]	Water	Sediment	Soil	Oil	Unpres.	H_2SO_4	HNO_3	Sample No. Yr	Wk	Seq	Date Yr	Mo	Dy	Time	STATION DESCRIPTION/NOTES
62	X					X			89	43	CR01	89	10	26	1400	Drop box off baghouse
62	X					X			89	43	CR02	89	10	26	1400	✓ ✓
62	X					X			89	43	CR03	89	10	26	1400	✓ ✓

Hold until Notified by HLA Asso.

ANALYSIS REQUESTED

Row	EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	Priority Pllnt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	12 metals (attached Sheet with detection limit)	SW 846	6010	7196	7421	7740
CR01									1	8	1	1	1
CR02									1	8	1	1	1
CR03									1	8	1	1	1

LAB NUMBER Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
A.M. Osegueda	[signature]	11/13/89 4pm
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature)	DATE/TIME

Harding Lawson Associates
10324 Placer Lane
Sacramento, California 95827
916/364-0793
Telecopy: 916/364-5633

CHAIN OF CUSTODY FORM

Lab: _____

Samplers: A.M.O.

Job Number: RW. 89-1252.13

Name/Location: Sutter Basin Bean - Knights Landing

Project Manager: A.M. Oseguera Recorder: _____ (Signature Required)

SOURCE CODE	MATRIX: Bulk/Liquid	Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES
62	X					X			89	43	5801	89	10	25	1100	Cyclone drop-box
62	X					X			89	43	5802	89	10	25	1100	~ ~
62	X					X			89	43	5803	89	10	25	1100	~ ~
																Hold until Notified by H.D., HSSC

ANALYSIS REQUESTED	EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	Priority Pllnt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	12 metals	SW 846	6010	2196	2421	2240
									1	8	1	1	1
									1	8	1	1	1
									1	8	1	1	1

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature) A.M. Oseguera	RECEIVED BY: (Signature) Jink	DATE/TIME 11-13-89 4pm
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature)	DATE/TIME

Harding Lawson Associates
10324 Placer Lane
Sacramento, California 95827
916/364-0793
Telecopy: 916/364-5633

CHAIN OF CUSTODY FORM

Lab: _____

Samplers: A. M. O.

Job Number: PW. 89-1252.13

Name/Location: Tyndall Mound - Knights Landing

Project Manager: A. M. Osegueda Recorder: _____ *(Signature Required)*

SOURCE CODE	MATRIX: Bubble	Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES
62	X					X			89	43	TM01	89	10	25	0945	From Inside Cyclone
62	X					X			89	43	TM02	89	10	25	0945	" "
62	X					X			89	43	TM03	89	10	25	0945	" "
																Hold until Notified by HLA Assoc.

ANALYSIS REQUESTED

EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	Priority Pllnt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	12 METALS	SW 846	6010	2196	2471	2240
								1	8	1	1	1
								1	8	1	1	1
								1	8	1	1	1

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: *(Signature)*	RECEIVED BY: *(Signature)*	DATE/TIME
A. M. Osegueda	[illegible]	11-15-89 [illegible]
RELINQUISHED BY: *(Signature)*	RECEIVED BY: *(Signature)*	DATE/TIME
RELINQUISHED BY: *(Signature)*	RECEIVED BY: *(Signature)*	DATE/TIME
RELINQUISHED BY: *(Signature)*	RECEIVED BY: *(Signature)*	DATE/TIME
DISPATCHED BY: *(Signature)* DATE/TIME	RECEIVED FOR LAB BY: *(Signature)*	DATE/TIME

Harding Lawson Associates
10324 Placer Lane
Sacramento, California 95827
916/364-0793
Telecopy: 916/364-5633

CHAIN OF CUSTODY FORM

Lab: EMA - Norcal

Samplers: AHO

Job Number: P.W. 89 1252.13

Name/Location: Farmer Rice Coop - W. Sacto.

Project Manager: A. H. Osegueda Recorder: _____ (Signature Required)

SOURCE CODE	MATRIX: Liquid	Water	Sediment	Soil	Oil		#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3				SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES
62	X						X						89	45	FR01	89	11	07	0930	Baghouse off Scalpers
62	X						X						89	45	FR02	89	11	07	0930	"
62	X						X						89	45	FR03	89	11	07	0930	"
																				Hold until notified by HLA, Assoc.

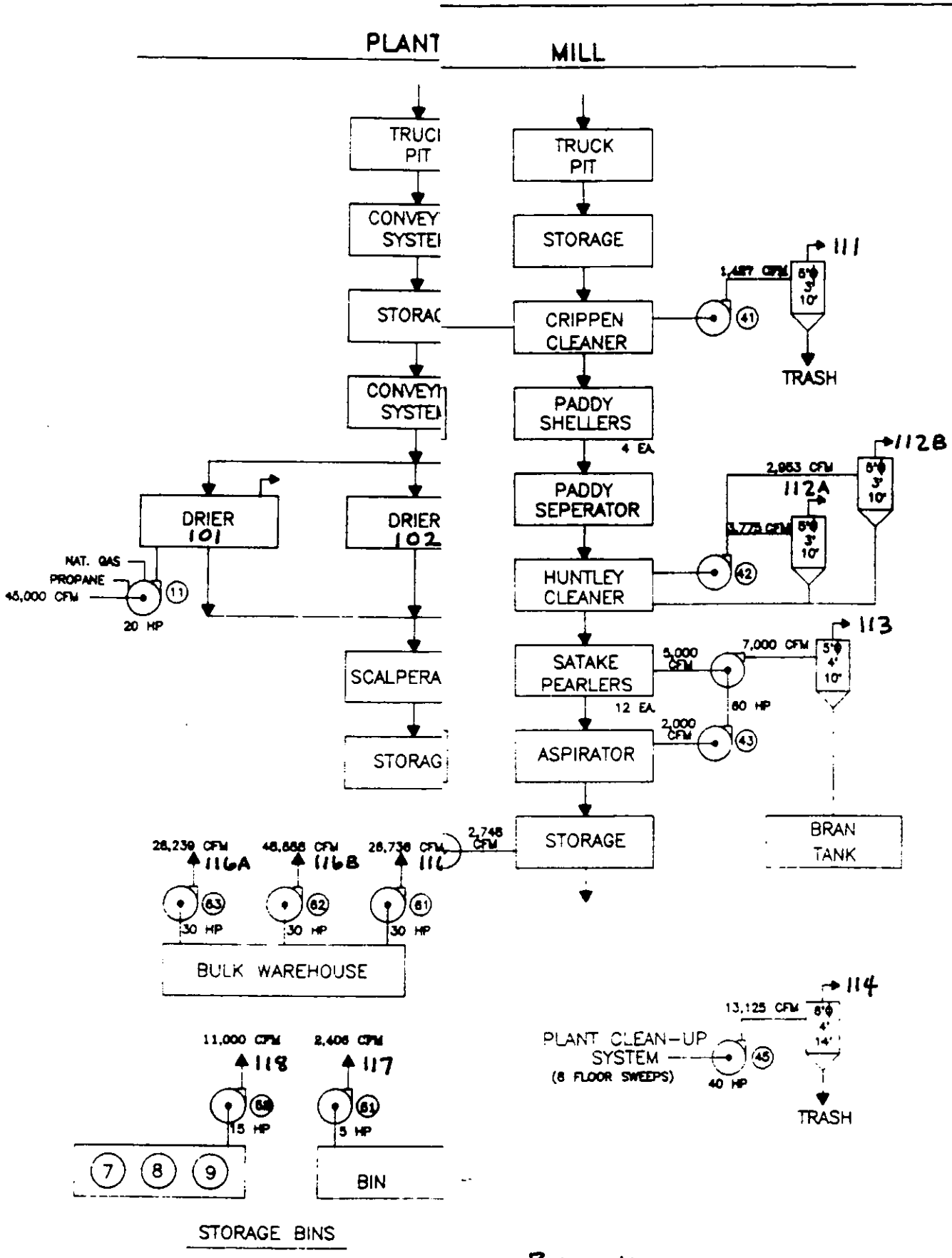
ANALYSIS REQUESTED

EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	Priority Pllnt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	12 metals	SW 846	6010	7196	7421	7240								
								1	8	1	1	1								
								1	8	1	1	1								
								1	8	1	1	1								

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS

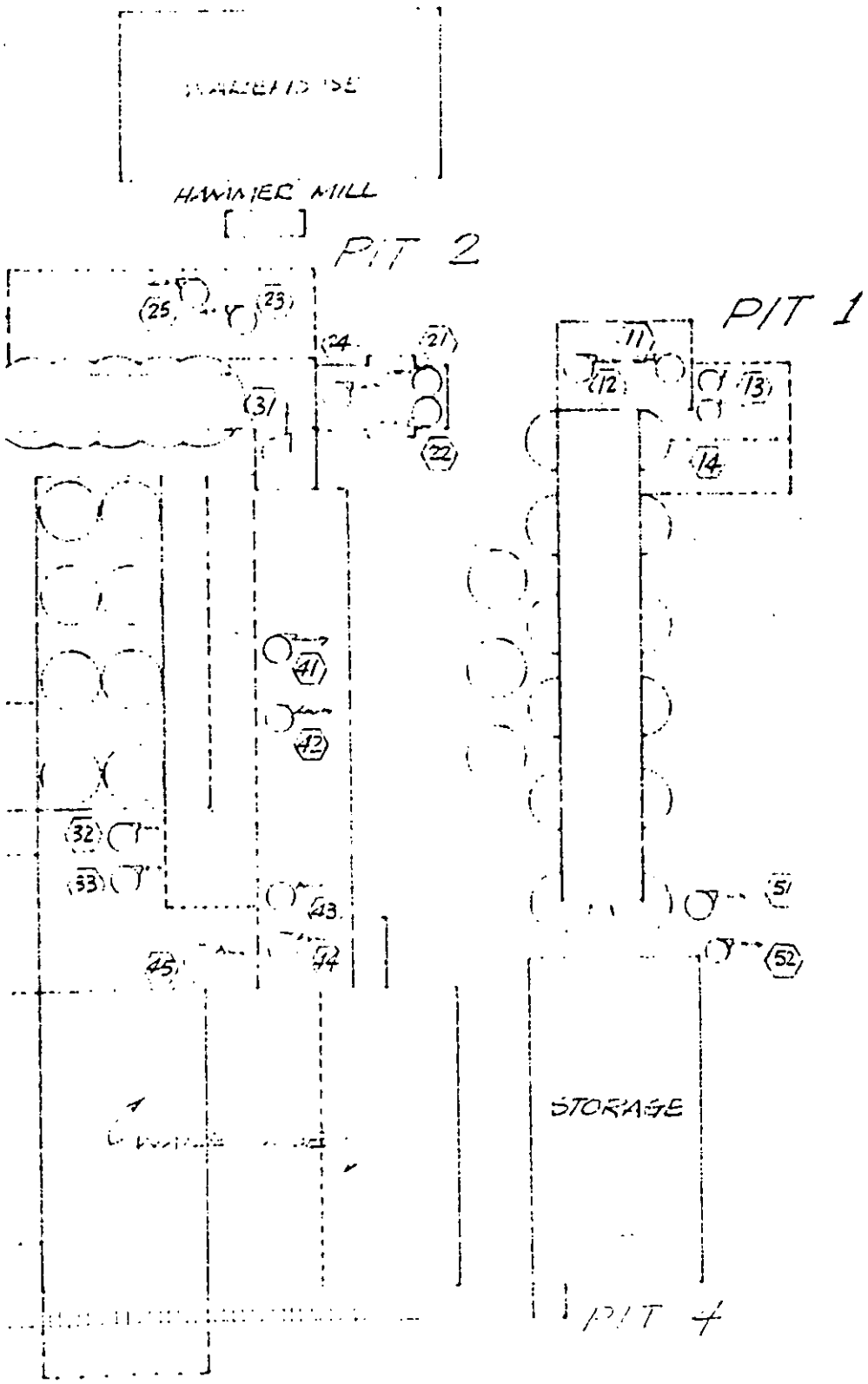
CHAIN OF CUSTODY RECORD

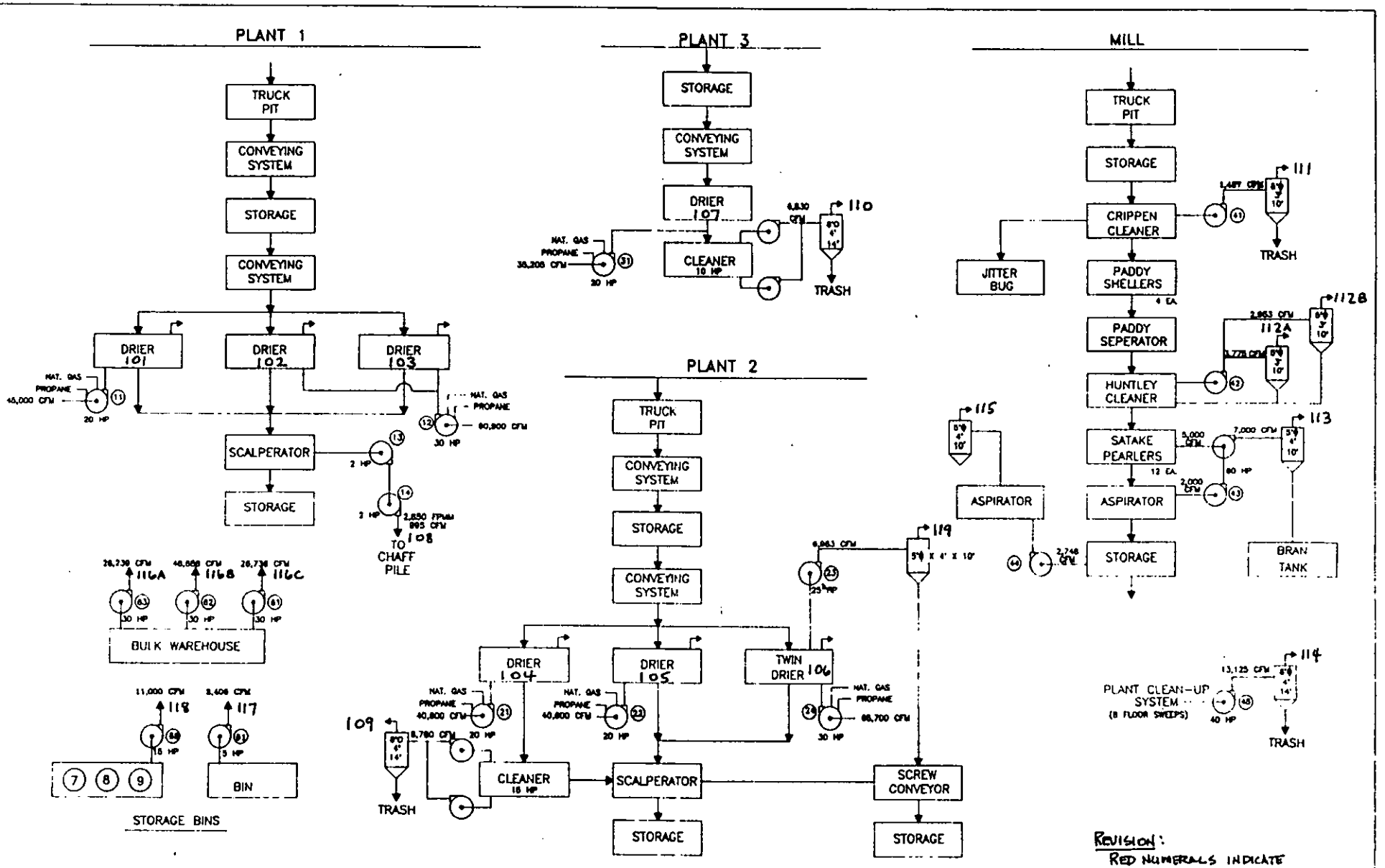
RELINQUISHED BY: (Signature) A. H. Osegueda	RECEIVED BY: (Signature)	DATE/TIME 11-13 16 | 4pm
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature)	DATE/TIME



REVISION:
RED NUMERALS INDICATE PERMIT/STACK I.D.

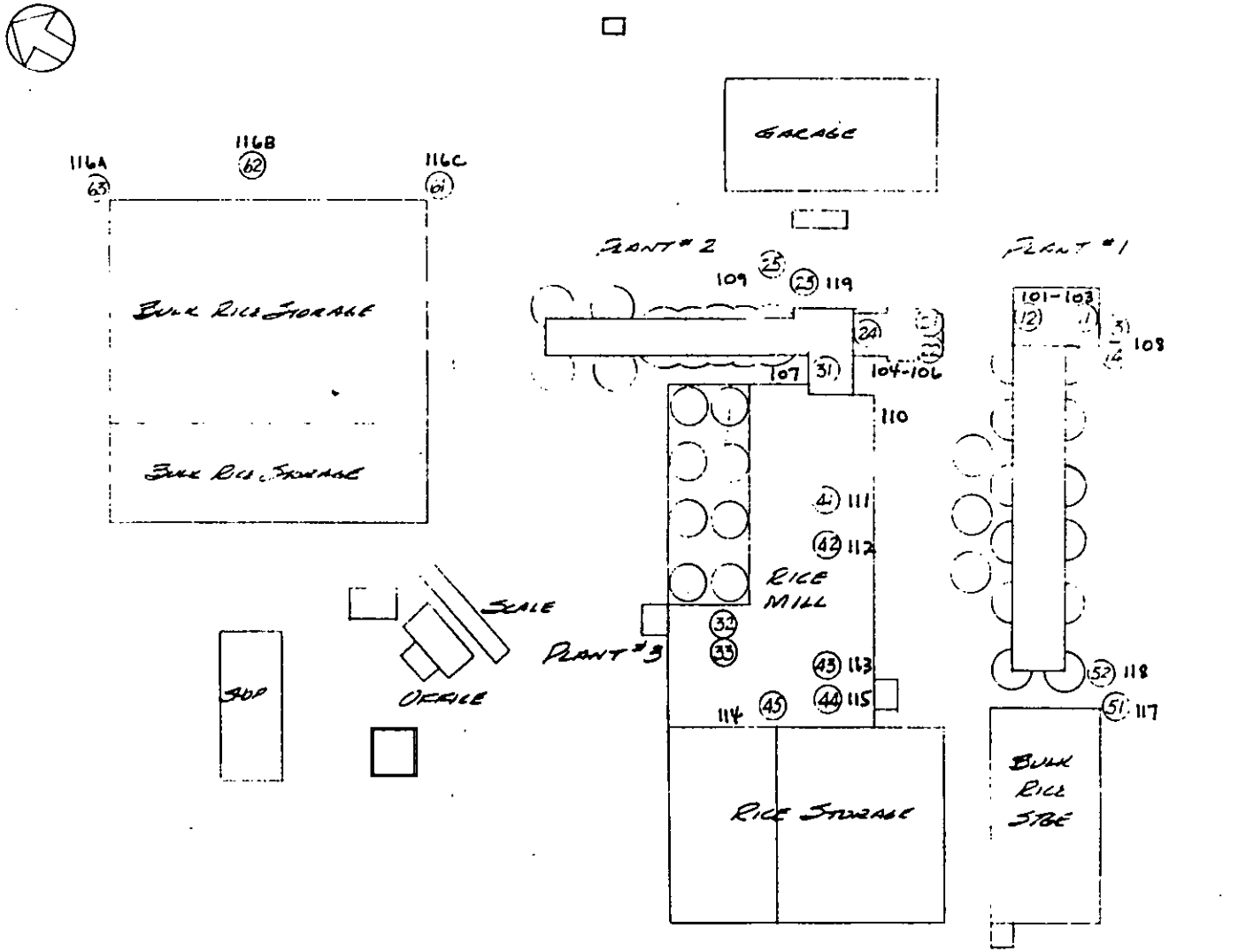
FARM


HAMMER MILL
PIT 2
PIT 1
STORAGE
PIT 4

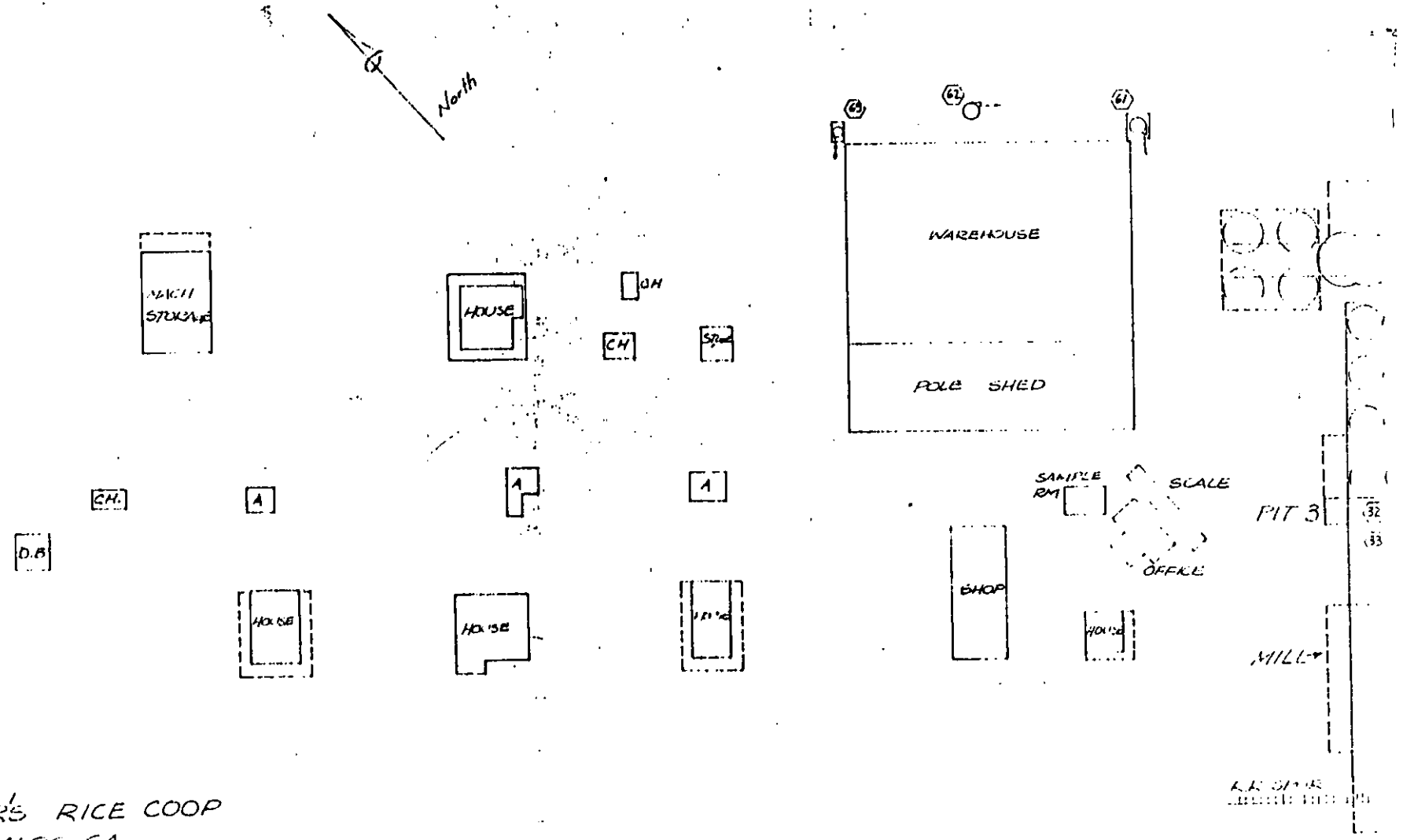


FARMERS' RICE CO-OP ~ DOS PALOS, CA. - FLOW DIAGRAM

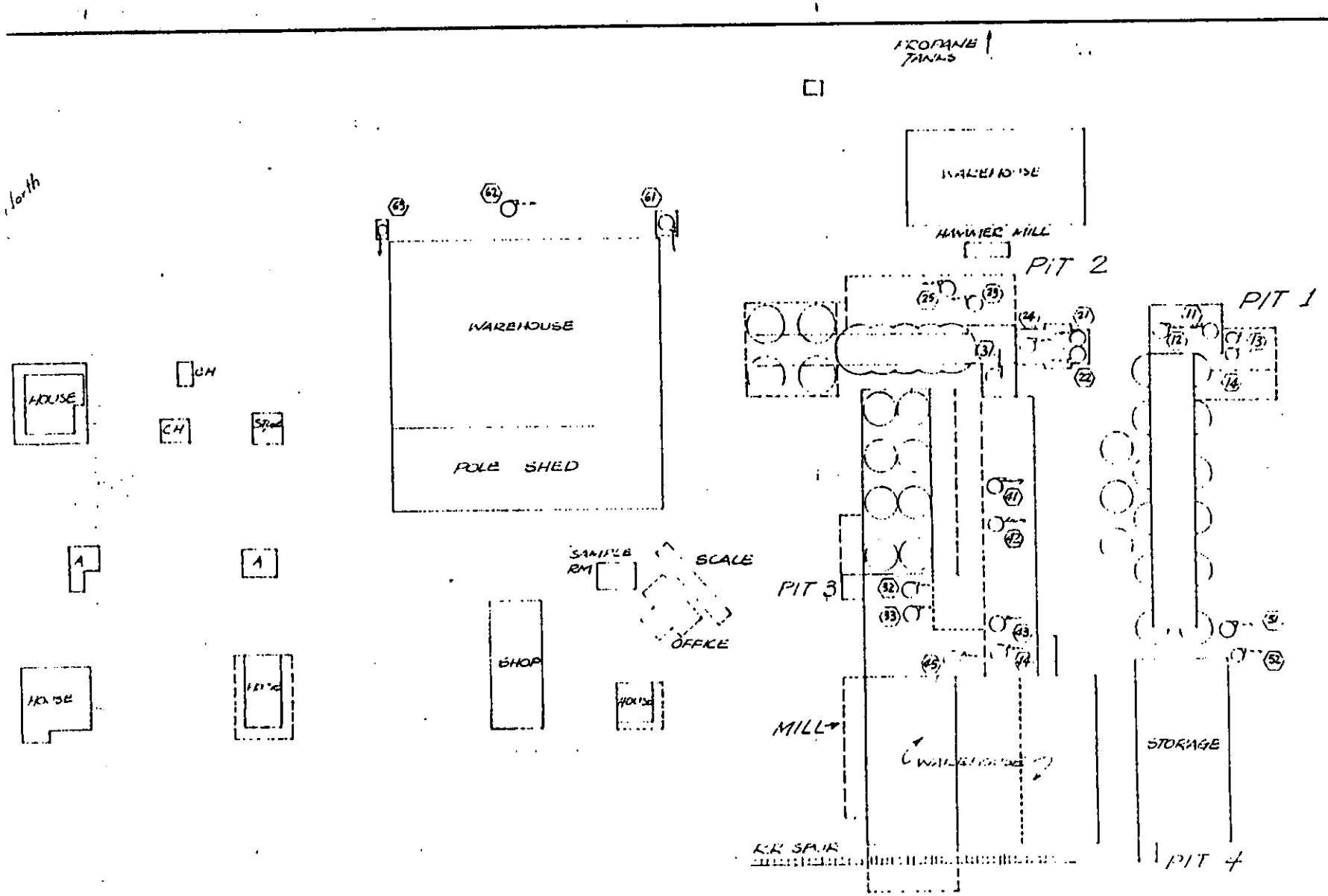
REVISION:
RED NUMERALS INDICATE PERMIT/STACK I.D.



FARMERS RICE COOP
DOS PALOS, CA



FARMER'S RICE COOP
DOS PALOS, CA
PLOT PLAN
1" = 50'


PROPANE TANKS
North
WAREHOUSE
HAMMER MILL
PIT 2
PIT 1
WAREHOUSE
POLE SHED
HOUSE
CH
SAMPLE RM
SCALE
OFFICE
PIT 3
SHOP
MILL
STORAGE
RR SPUR
PIT 4