

0363553

EXHIBIT
WAC-1278

Construction Products Division

GRACE

To: T. P. Feit/Santa Ana

Date: March 5, 1979

From: F. W. Eaton

Subject: Pacific Region Soil
Mix Operation -
Air Sampling Resultscc: W. V. Culver/Auburn
S. Ball/Santa Ana
H. C. Duecker
W. R. Hanlon
B. R. Williams
J. W. Wolter
E. S. Wood
J. C. Yang

During the week of February 5, 1979, air sampling was conducted at 3 soil mix operations in the Pacific Region to determine user exposure to Terra-Lite Vermiculite. Reports have been submitted to W. Culver and S. Ball listing Time Weighted Average (TWA) fiber exposure results of people sampled at their respective accounts. You and/or W. R. Hanlon should notify both Ball and Culver if results are to be submitted to the accounts. If submitted, only the results listed in my memo to them should be made available. To the best of my knowledge, only Ray Holmberg of Soils Inc. indicated that he would like to see the results.

Attached to this memo are field sampling data sheets and laboratory results for each account sampled. The following is for internal information only:

Soils Inc. - Summer Washington

Sampling conditions were not typical as Soils Inc. had not scheduled to run a mix containing vermiculite but did make two batches to accommodate CPD's air sampling. The heavy rains on February 5th also compounded the problem of making this a typical soil mix job site sample.

Based on the 0.67% rock and 0.025% tremolite content in the L-3 Terra-Lite shipped out of Portland, it is evident that this material was properly screened and meets QC Specifications. Because of the rainy conditions during sampling, I was surprised to see the fiber counts as high as they were charging the first batch. Results on the second batch are probably more typical as they include other job functions other than charging vermiculite and peat moss. In a normal days operation utilizing all six mixers and making mixers containing vermiculite, only the first two mixers are utilized for vermiculite containing soil mixes. My general impression was that Soils Inc. is a fairly sloppy operation and Ray Holmberg is rather free with confidential information.

15161368

03635555

Perry Plants - LaPuenta California

The L-4 Terra-Lite used at Perry Plants during this sampling period came out of 1 of 2 cars with rock contents of 14.8 or 17.6%. Based on the laboratory analysis of heavy particle and % tremolite 3.0 and 0.17% respectively, I am assuming that the material came from a car shipped 11/28/78 containing the 14.8% rock. This lower rock content tends to go hand and hand with the relatively low fiber exposures noted on the data sheet especially during the charging cycle.

In calculating the TWA for grower soil mix operations, we have established a 4/8 time factor which means that employees work at this job function 4 hours out of the standard 8 hour workday. In the case of Perry Plants and American Plant Growers during the plant bedding season, this is a full 8 hour or more operation. Because of this, I have deviated from our standards and have used a 7/8 time factor. Based on sampling conditions and material used during the sampling period, no Perry Plants employee should be exposed over the OSHA values for tremolite fibers.

American Plant Growers - Carson California

In my opinion, APG's soil mixing, flat filling, and small packaging operation is very efficient with above average work habits and housekeeping. In making a comparison between Perry Plants and APG with approximately the same quantity of vermiculite per charge and charging of frequency, one would guess with better housekeeping and work practices at APG, the exposure to tremolite fibers would be less. As can be seen from the sampling data sheet, this is not true and the only explanation I have is that the concentrate used to produce this material had 17.3% rock and the laboratory analysis of the expanded material for heavy particle and tremolite content was 10.6 and 0.75% respectively. TWA values for all employees sampled however are far less than the OSHA TLV.

Not knowing the pros and cons of perlite verses vermiculite and fine verses coarse of each in soil mixes, I have turned over samples of APG's mix to Dennis Kirven.

I appreciate the assistance you, Shelley and Bill gave me in conducting these job site samples.



F. W. Eaton

FWE/cc

Attachments

15161369

AMERICAN PLANT GROWERS · CARSON CA 2-8-79Clock No 862

$$\begin{array}{rcl} 50 \times 0.23 & = & 11.5 \\ \hline 30 \times 0.38 & = & 11.4 \\ \hline 80 & & 22.9 \end{array}$$

$$TWA = \frac{22.9}{80} \times \frac{7}{8} = 0.250 \text{ f/cc}$$

Clock No. 723

$$\begin{array}{rcl} 48 \times 0.09 & = & 4.32 \\ 30 \times 0.28 & = & 8.40 \\ \hline 95 \times 0.18 & = & 17.10 \\ \hline 173 & & 29.82 \end{array}$$

$$TWA = \frac{29.82}{173} \times \frac{7}{8} = 0.151 \text{ f/cc}$$

Clock No. 803

$$\begin{array}{rcl} 48 \times 0.09 & = & 4.32 \\ 29 \times 0.29 & = & 8.41 \\ \hline 95 \times 0.14 & = & 13.30 \\ \hline 172 & & 26.03 \end{array}$$

$$TWA = \frac{26.03}{172} \times \frac{7}{8} = 0.132 \text{ f/cc}$$

Clock No. 858

$$\begin{array}{rcl} 44 \times 2.50 & = & 110.00 \\ 31 \times 0.12 & = & 3.72 \\ \hline 97 \times 1.14 & = & 110.58 \\ \hline 172 & & 224.30 \end{array}$$

$$TWA = \frac{224.30}{172} \times \frac{7}{8} = 1.14 \text{ f/cc}$$

Clock No 971

$$1.04 \times \frac{7}{8} = 0.91 \text{ f/cc}$$

← BASED ON ONE
84 MIN SAMPLE, TOTAL
CARGING TIME 36 MIN.
REMAINDER OF TIME BAGGING
8QT APG POTTING SOIL

15161370

CONSTRUCTION

PRODUCTS

DIVISION

03635557

NUMBER: 67027

GROUP: Zonolite - AG/HOR

DATE: 2/13/79

CHARGE NO.: 984

REQUESTOR: E. W. Eaton

MARKETING or MANUFACTURING APPROVAL

NAME: H. A. Eschenbach

APPROVED: H. A. Eschenbach

PAGE 1

REQUEST FOR TECHNICAL SERVICE

PROBLEM TITLE: Environmental Evaluation - Air - Fibrous Materials.

SIGNIFICANCE: The evaluation of workplace air on a periodic basis is necessary to comply with the air sampling section of the OSHA Asbestos Standard.

SPECIFIC OBJECTIVE: Determine fiber counts for filter media.
% Tremolite Determination of Exp. Vermiculite associated with air samples.

SUGGESTED APPROACH: Phase contrast microscopy.

DEADLINE (Last day information will be of value): 2 weeks.

DETAILS OF PROBLEM: Evaluate samples from American Plant Growers/Gabson, CA:
A-1 through A-12

Products and ores involved:

Terra-Lite Fine, Libby #4

ACCEPTED BY RESEARCH DEPT.: [Signature]

DATE: 2/13/79

ASSIGNED TO: C. Wallace, N. Cataldo, J.P. Wallace

ADDITIONAL COPIES: Original to Library; H.C. Duecker, H.A. Eschenbach, W.R. Hanlon, J.W. Wolter, E.S. Wood

CONFIDENTIAL

15161371

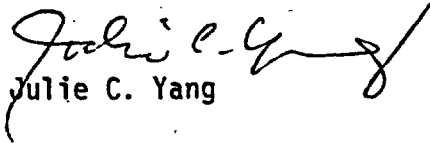
REQUEST FOR TECHNICAL SERVICE

NUMBER:	67027
GROUP:	Ag/Hort
ACTUAL COST:	\$180.00
REPORTING DATE:	Feb. 23, 1979

SUMMARY and RESULTS:

The tremolite content of the expanded vermiculite sample associated with the air sample was determined by flotation concentration and x-ray diffraction method. The rock content was 10.6% and the tremolite content was 0.75% by weight of the total sample.

Twelve air samples on filter were counted, and the results shown in the attached table. Only three samples collected during the mixer charging operation were over one fiber per cc.


Julie C. Yang

JCH:mlr

GRACE

03635559

TERRA-LITE FINE 1-4

AIR SAMPLING RECORD SHEET

PLANT LOCATION AMERICAN PLANT GROWERSSAMPLING CONDITIONS: CABSON CH.CONTAMINANT FIBEROUTSIDE SUNNY 60SSAMPLING BY F.W. EATON

INSIDE DRAFT

DATE: 2-8-79

VISIBLE DUST

Sample Number	Clock # Employee Name	Job Location and Description	Remarks	Pump Number	Pump Off	Pump On	Sampling Time	Flow Rate	Total Sampled Volume	Lab Evaluation
A-1	862 G	DRIVING TRUCK	STACKING FILLED FLATS	5	11:25	10:35	50	1.8		f/c.c. 0.23
A-2	723 R	STACKING FILLED FLATS	FLATS OPERATOR	6	11:26	10:38	48	1.6		0.09
A-3	8030C	LOADING EMPTY FLATS	ON FILLING MACH. CONVEYER	7	11:27	10:39	48	1.6		0.09
A-4	858 B	SEALING BOT HMMART POTTING SOIL PLY BAGS	CHARGING MIXER 1105-1124	8	11:24	10:40	44	1.8		2.50
A-5	SAME	AS A-1		5	11:56	11:26	30	1.8		0.38
A-6	"	A-2		6	11:57	11:27	30	1.6		0.28
A-7	"	A-3		7	11:57	11:28	29	1.6		0.29
A-8	SAME AS A-4	EXCEPT SERLINE APC BQT (SAME MIX AS HMMART) DID NOT CHARGE MIXER		8	11:56	11:25	31	1.8		0.12
A-9	897 #971	BAGGING BQT APC POTTING SOIL CHARGING MIXER 1315-1335	1434	5	14:55	13:41	84	1.8		1.04
A-10	SAME AS A-2	EXCEPT LOADING EMPTY FLATS ON FILLING MACH.		6	14:54	12:59	95	1.6		0.18
A-11	"	A-3	EXCEPT STACKING FILLED FLATS	7	14:34	12:59	95	1.6		0.14
A-12	"	A-4	CHARGING MIXER 1315-1335 1416-1432	8	14:37	13:00	97	1.8		1.14

ADDITIONAL COMMENTS: 12 FILLING 3'x3'x2' CONTAINERS - 12 PZL / FLATLaboratory Evaluation By: John P. WallaceDate: 2/21/79

STARTED CHARGING FIRST BATCH ON FILTERS 8-1234@1105

LOT NO 05891 1-4

CAR SP 493094
SHIPPED 12-29-78
YIELD 56.4 B/T
ROCK 17.3%

HOUSEKEEPING:

EXCELLENT

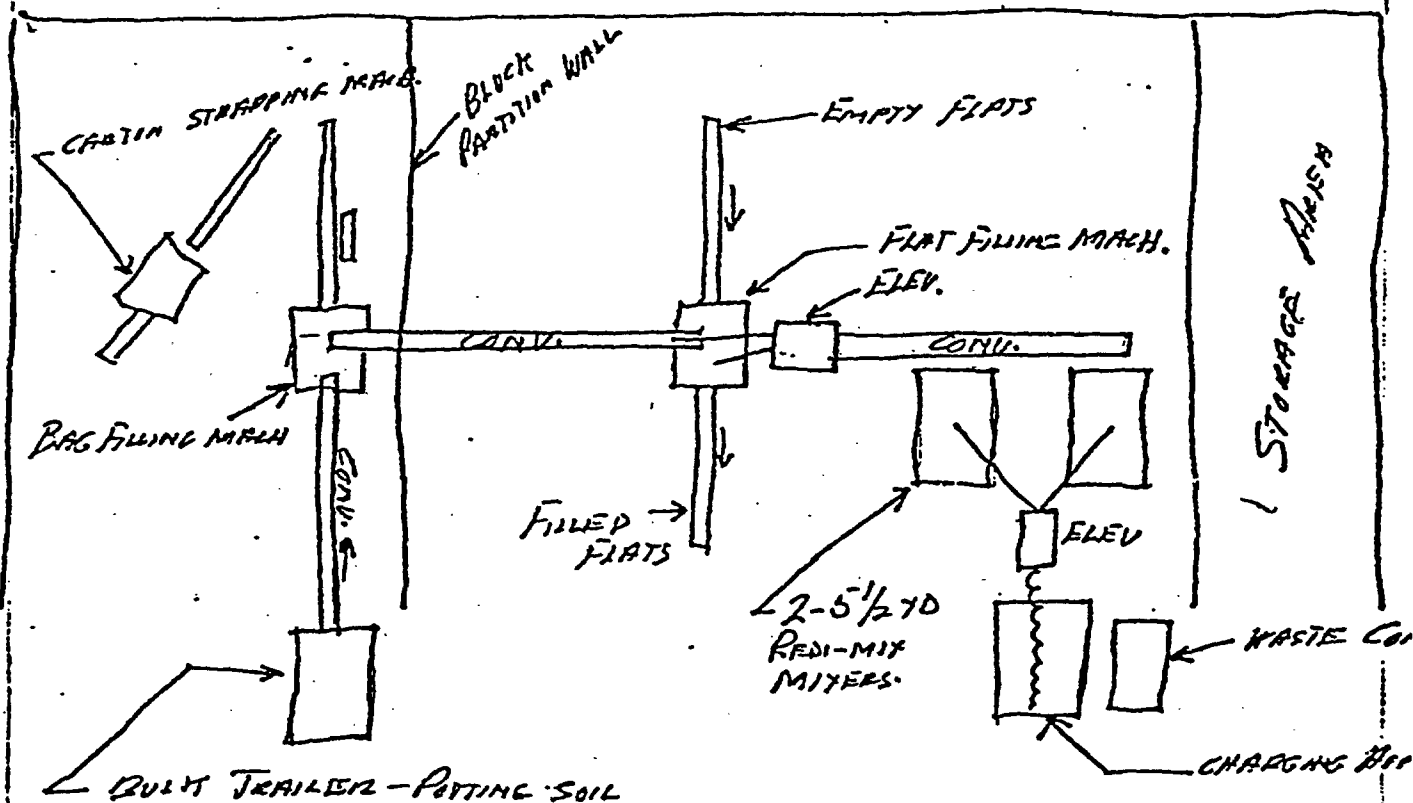
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13 2/5/79

COMMENTS CONT. - AMERICAN PLANT GROWERS.

03635560

3. METAL MIXING BUILDING - ENCLOSED ON 3 SIDES.



4. SOIL MIX CHARGE 2-8-79 USING VERMICULITE

- (a) 4-5CF $\frac{1}{2}$ 4-4CF ~~PEAT~~ (36CF) PEAT
- (b) 3-5CF COARSE $\frac{1}{2}$ 24-5CF FINE (135CF) PERLITE
- (c) 12-4CF TERR-LITE FINE $\frac{1}{2}$ (48CF) VERMICULITE

5. RESPIRATORS ARE WORN BY 2 MEN CHARGING HOPPER $\frac{1}{2}$ MAN ON MIXER DURING CHARGING CYCLE. THE CHARGING HOPPER COVER IS OPEN WHILE CHARGING PEAT $\frac{1}{2}$ VERMICULITE WHEN CHARGING PERLITE, THE COVER IS CLOSED AND BAGS ARE OPENED IN ANGLED ENTRY w/ WATER SPRAY



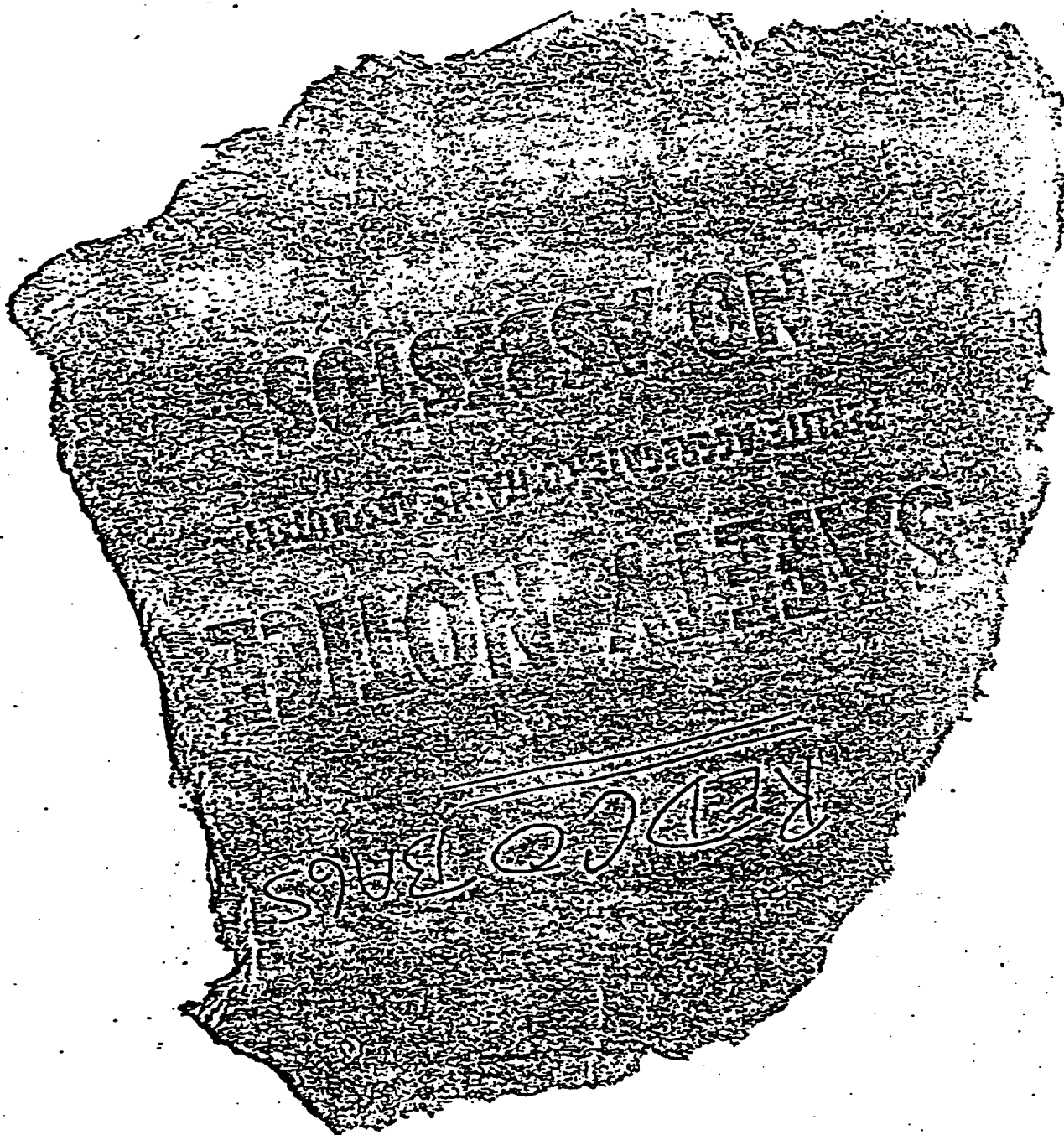
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- ⑥ BOTH PERRY & AMERICAN PLANT GROWERS (APG) USE SOME COARSE PERLITE (POOR QUALITY) BUT MAJORITY IS FINE, SAMPLES HAVE BEEN OBTAINED FOR SCREEN ANALYSIS.
- ⑦ MAJORITY OF APG PERLITE IS SUPPLIED BY REDCO.
 (a) 5 CF BAGS ARE AIR PACKED VALVE BAGS.
 (b) FINE PERLITE IS DAMP & LABEL ON BAG STATES "SPRAYED WITH WATER FOR DUST CONTROL".
 c. ALSO PRINTED ON REDCO BAG

SAFETY NOTICE
 PERLITE AGGREGATE CONTAINS ABSOLUTELY
 NO ASBESTOS

- ⑧ BAGS IN WASTE CONTAINER SPRAYED W/ WATER AFTER PERLITE BAGS ARE EMPTIED.
- ⑨ 1 HR FOR LUNCH.
- ⑩ SAMPLE A-12 ON TOP OF MIXER LEVELING OFF MAT'L DURING CHARGING CYCLE.
- ⑪ TIME TO CHARGE TERRA-LITE - APPROX 3 MIN.
- ⑫ VERY EFFICIENT OPERATION W/ EXCELLENT HOMOGENEIZING.
- ⑬ THE 8 QT BAGGING OPERATION WAS OPERATING DURING THE MIXING & FLAT FILLING OPERATION. THIS MAT'L CONTAINED VERY LITTLE VERMICULITE OR PERLITE & COULD POSSIBLY BE OR CONTAIN RECLAIM MAT'L. THE MAT'L HAD BEEN STERILIZED AS IT WAS HOT IN THE BULK TRAILER. THIS MAT'L WAS BEING BAGGED IN 8 QT POLY 1/2 MAT'L & APG BAGS.
- ⑭ TERRA-LITE WAS LOT NO 05B91 PRODUCED AT SANTA ANA.

03635562



15161376

03635563

PERRY PLANTS LA PUERTA CA 2-7-79

MUNIZO

$$\begin{array}{rcl} 34 \times 0.13 & = & 4.42 \\ 39 \times 0.22 & = & 8.58 \\ \underline{44 \times 0.39} & = & \underline{17.16} \\ 117 & & 30.16 \end{array}$$

$$TWA = \frac{30.16}{117} \times \frac{7}{8} = 0.226 \text{ f/cc}$$

GARCIA

$$\begin{array}{rcl} 26 \times 0.16 & = & 4.16 \\ 73 \times 0.18 & = & 13.14 \\ \underline{18 \times 0.47} & = & \underline{8.46} \\ 117 & & 25.76 \end{array}$$

$$TWA = \frac{25.76}{117} \times \frac{7}{8} = 0.193 \text{ f/cc}$$

YBANES

$$\begin{array}{rcl} 28 \times 0.31 & = & 8.68 \\ 75 \times 0.23 & = & 17.25 \\ \underline{15 \times 0.14} & = & \underline{2.10} \\ 118 & & 28.03 \end{array}$$

$$TWA = \frac{28.03}{118} \times \frac{7}{8} = 0.208 \text{ f/cc}$$

GOMEZ

$$\begin{array}{rcl} 26 \times 0.16 & = & 4.16 \\ 72 \times 0.30 & = & 21.6 \\ \underline{19 \times 0.90} & = & \underline{17.1} \\ 117 & & 42.86 \end{array}$$

$$TWA = \frac{42.86}{117} \times \frac{7}{8} = 0.321 \text{ f/cc}$$

CONSTRUCTION

PRODUCTS

DIVISION

03635564 NUMBER: 67028

GROUP: Zonolite AG/HORT

DATE: 2/13/79

CHARGE NO.: 184

REQUESTOR: F. W. Eaton

MARKETING or MANUFACTURING APPROVAL

NAME: H. A. Eschenbach

APPROVED: H. A. Eschenbach

PAGE 1

REQUEST FOR TECHNICAL SERVICE

PROBLEM TITLE: Environmental Evaluation - Air - Fibrous Materials.

SIGNIFICANCE: The evaluation of workplace air on a periodic basis is necessary to comply with the air sampling section of the OSHA Asbestos Standard.

SPECIFIC OBJECTIVE: Determine fiber counts for filter media.
% Tremolite Determination of Exp. Vermiculite associated with air samples.

SUGGESTED APPROACH: Phase contrast microscopy.

DEADLINE (Last day information will be of value): 2 weeks.

DETAILS OF PROBLEM: Evaluate samples from Perry Plants/La Puente, CA:
P-1 through P-11

Product and ores involved: Terra-Lite Fine
Libby #4

ACCEPTED BY RESEARCH DEPT.: J. C. G. /

DATE: 2/13/79

ASSIGNED TO: C. Wallace / N. Catalano / J. P. Walen

ADDITIONAL COPIES: Original to Library; H.C. Duecker, H.A. Eschenbach, W.R. Hanlon, J.W. Wolter, E.S. Wood

CONFIDENTIAL

15161378

NUMBER: 67028
GROUP: Ag/Hort
ACTUAL COST: \$180.00
REPORTING DATE: Feb. 23, 1979

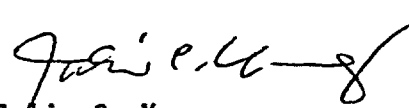
REQUEST FOR TECHNICAL SERVICE

03635565

SUMMARY AND RESULTS:

Fibrous tremolite of the expanded vermiculite associated with air samples was concentrated by flotation and then determined by x-ray diffraction method. The rock and the tremolite fiber contents were 3.0 and 0.17%, respectively.

Twelve air samples on filter were counted and found to have less than one fiber per cc.


Julie C. Yang

JCY:mlr

GRACE

03635566

AIR SAMPLING RECORD SHEET

15161380

PLANT LOCATION

Perry Plants / La Puente Ca.

SAMPLING CONDITIONS:

CONTAMINANT

FIBER

OUTSIDE

FAIR 60's

SAMPLING BY

F. W. EATON

INSIDE DRAFT

HOUSEKEEPING:

FAIR

DATE: 2-7-79

VISIBLE DUST

Sample Number	Employee Name	Job Location and Description	Remarks	Pump Number	Pump Off	Pump On	Sampling Time	Flow Rate	Total Sampled Volume	Lab Evaluation
P-1	CASHIRO MUNIZO	MACH. OPERATOR	FILLING 18" X 18" X 2" FLATS	5	14:34	14:00	34	1.6		0.13
P-2	LORENZO GARCIA	PLACING EMPTY FLATS ON CONVEYER	WITH 1/3 VERMIONIDE 1/3 HEAT	6	14:07	14:01	26			0.16
P-3	MERINIO YDAVES	STACHING FILLED FLATS	1/3 PERLITE MIX. 15-41CF BAGS	7	14:30	14:08	28			0.31
P-4	PAULINO GOMEZ	STACHING FILLED FLATS	OF EACH PER BATCH	8	14:29	14:03	26			0.16
P-5	SAME AS	P-1 SEE NOTES	AT START OF NEW BATCH	6	15:13	14:34	39			0.22
P-6	"	P-2	CHARGE P-6, 7 & 8 ON BALCONY	6	15:41	14:28	73			0.18
P-7	"	P-3	CHARGE MIXER, P-5 LOADING	7	15:46	14:31	75			0.23
P-8	"	P-4	MACH. ON RAISED BALCONY	8	15:42	14:30	72			0.30
P-9	SAMANS	P-3	P-6 & P-8 CHARGED VERMIONIDE, REMAINDER OF SAMPLING PERIOD FILLING FLATS.	7	16:01	15:46	15			0.14
P-10	SAME AS	P-1	START OF CHARGING CYCLE.	5	16:00	15:16	44			0.39
P-11	"	P-2	TOTAL CHARGING TIME 10 MIN	6	16:00	15:46	18			0.47
P-12	"	P-4		8	16:02	15:43	19	✓		0.90

Additional Comments: ① 1-41 LOT 22A.92 SANTA ANA Laboratory Evaluation By: Juan P. Wallace

② BATCH CYCLE NUMBER 144 ③ PERLITE SHIPPED IN CUM BAGS Date: 2/21/79

④ CONSIDERABLE DUST GENERATED BY P-6 & P-8 BAGGING REUSABLE PERLITE BAGS, DISPENSING OF 1500-1102-61

COMMENTS CONT. — PERRY PLANTS

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7/7/79

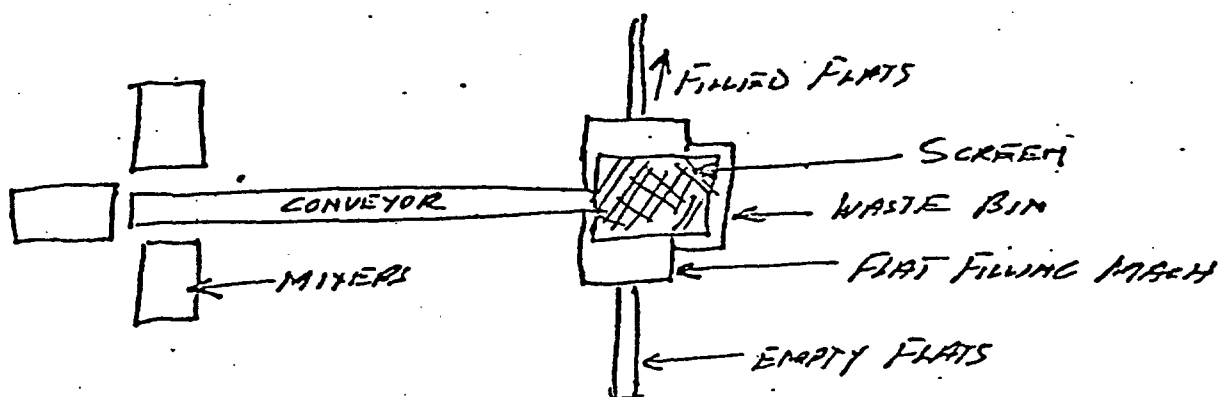
- ⑥ LOT 22A92 PRODUCED FROM TAI POSSIBLE CONCENTRATE SHIPMENTS

SP 493139 BN 455760

CAR SHIPPED	11-28-78	12-12-78
OF ROCK	14.8	17.6
YIELD (NOT ADJUSTED FOR D-18)	60.5	57.8

- ⑦ VERMICULITE IS SOLD AS TERRA-LITE FINE SIZE #1 FOR SOIL MIX. THIS MATERIAL IS NOT SCREENED AND IS NO DIFFERENT THAN AG-#4 OR OTHER #4 PRODUCTS.

- ⑧ MIXING OPERATION CONSISTS OF 2-6 1/2 YD & 1-5 1/2 YD ~~CON~~ REDI-MIX CONCRETE MIXERS CHARGED FROM A BALCONY ABOVE MIXERS. MIXER, CONVEYORS & FLAT FILLING EQUIP IS UNDER SHED RNF, OPEN ON 4 SIDES.



- ⑨ LITTLE DYST GENERATED EMPTYING TERRA-LITE INTO MIXER. HIGHEST FIBER EXPOSURE COULD COME FROM BAG DISPOSAL.

FE
2-28-79

03635568

SOILS INC. SUMMER WA. 2-5-79

RICHARD

$$\begin{array}{rcl} 20 \times 2.35 & = & 47.00 \\ \hline 46 \times 0.46 & = & 21.16 \\ \hline 66 & & 68.16 \end{array}$$

$$TWA = \frac{68.16}{66} \times \frac{1}{8} = 0.516 \text{ f/cc}$$

FLOYD

$$\begin{array}{rcl} 18 \times 1.19 & = & 21.42 \\ \hline 45 \times 0.76 & = & 34.20 \\ \hline 63 & & 55.62 \end{array}$$

$$TWA = \frac{55.62}{63} \times \frac{1}{8} = 0.441 \text{ f/cc}$$

CONSTRUCTION

PRODUCTS

DIVISION

03635569

PAGE 1

REQUEST FOR TECHNICAL SERVICE

NUMBER: 67029

GROUP: ~~Zenolite~~ AG/HORT

DATE: 2/13/79

CHARGE NO.: 984

REQUESTOR: F. W. Eaton

MARKETING or MANUFACTURING APPROVA

NAME: H. A. Eschenbach

APPROVED: H.A. Eschenbach

PROBLEM TITLE: Environmental Evaluation - Air - Fibrous Materials.

SIGNIFICANCE: The evaluation of workplace air on a periodic basis is necessary to comply with the air sampling section of the OSHA Asbestos Standard.

SPECIFIC OBJECTIVE: Determine fiber counts for filter media.
% Tremolite Determination of Exp. Vermiculite associated with air samples.

SUGGESTED APPROACH: Phase contrast microscopy.

DEADLINE (Last day information will be of value): 2 weeks.

DETAILS OF PROBLEM: Evaluate samples from Soils Inc./Summer, WA:
S-1 through S-4 and SE-1

Products and ores involved: Terra-Lite Med.
Libby #3

ACCEPTED BY RESEARCH DEPT.: John C. Y-8

DATE: 2/13/79

ASSIGNED TO: C. Wallach / R. Cataldo / J.R. Wallace

ADDITIONAL COPIES: Original to Library; H.C. Duecker, H.A. Eschenbach, W.R. Hanlon, J.W. Wolter, E.S. Wood

CONFIDENTIAL

15161383

REQUEST FOR TECHNICAL SERVICE

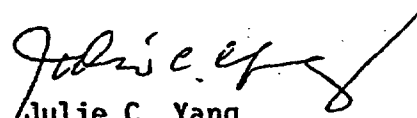
NUMBER: 69029
GROUP: Ag/Hort
ACTUAL COST: \$100.00
REPORTING DATE: Feb. 23, 1979

SUMMARY AND RESULTS:

03635570

The rock and tremolite contents of the expanded vermiculite associated with the air samples were 0.67 and 0.025%, respectively.

Five air samples on filter were counted and the data sheet is attached.


Julie C. Yang

JCY:mlr
attachment

GRACE

TERRA-LITE MIDS 1-3

03635571

15161385

AIR SAMPLING RECORD SHEET

PLANT LOCATION SOILS INC. / SUMMER HUSH SAMPLING CONDITIONS:
 CONTAMINANT FIBER OUTSIDE RAIN - 40°F +
 SAMPLING BY F.L. EATON INSIDE DRAFT
 DATE: 2-5-79 VISIBLE DUST

HOUSEKEEPING:

POOR

Sample Number	Employee Name	Job Location and Description	Remarks	Pump Number	Pump Off	Pump On	Sampling Time	Flow Rate	Total Sampled Volume	Lab Evaluation
S-1	RICHARD	LOADING CHARGING HOPPER	1ST CHARGING 10 YD BATCH	6	0943	0923	20	1.6		Fiber/c.c. 2.35
S-2	FLOYD	"	"	7	0943	0925	18	1.6		1.19
S-3	RICHARD	"	CHARGING 2ND 11 YD BATCH	6	1031	0945	46	1.6		0.46
S-4	FLOYD	"	"	7	1030	0945	45	1.6		0.76
S-5		NOTE: ON 2ND BATCH, INSUFFICIENT PEAT								
S-6		HAD BEEN SCREENED, EXTRA TIME								
S-7		IN CHARGING CYCLE SPENT SCREENING PEAT.								
S-8										
SE-1	ENGINEERING SAMPLE		ON CONVEYOR IN FRONT OF MIXER DURING CHARGE, MIX CYCLE	8	1044	0955	49	1.6		1.05

ADDITIONAL COMMENTS: THIS IS A 60% PEAT 40% Laboratory Evaluation By: John P. Wallace
VERMICULITE MIX. FOR EACH 10 YD BATCH, 27-40% Date: 2/21/79
REMARKS: COMMENTS

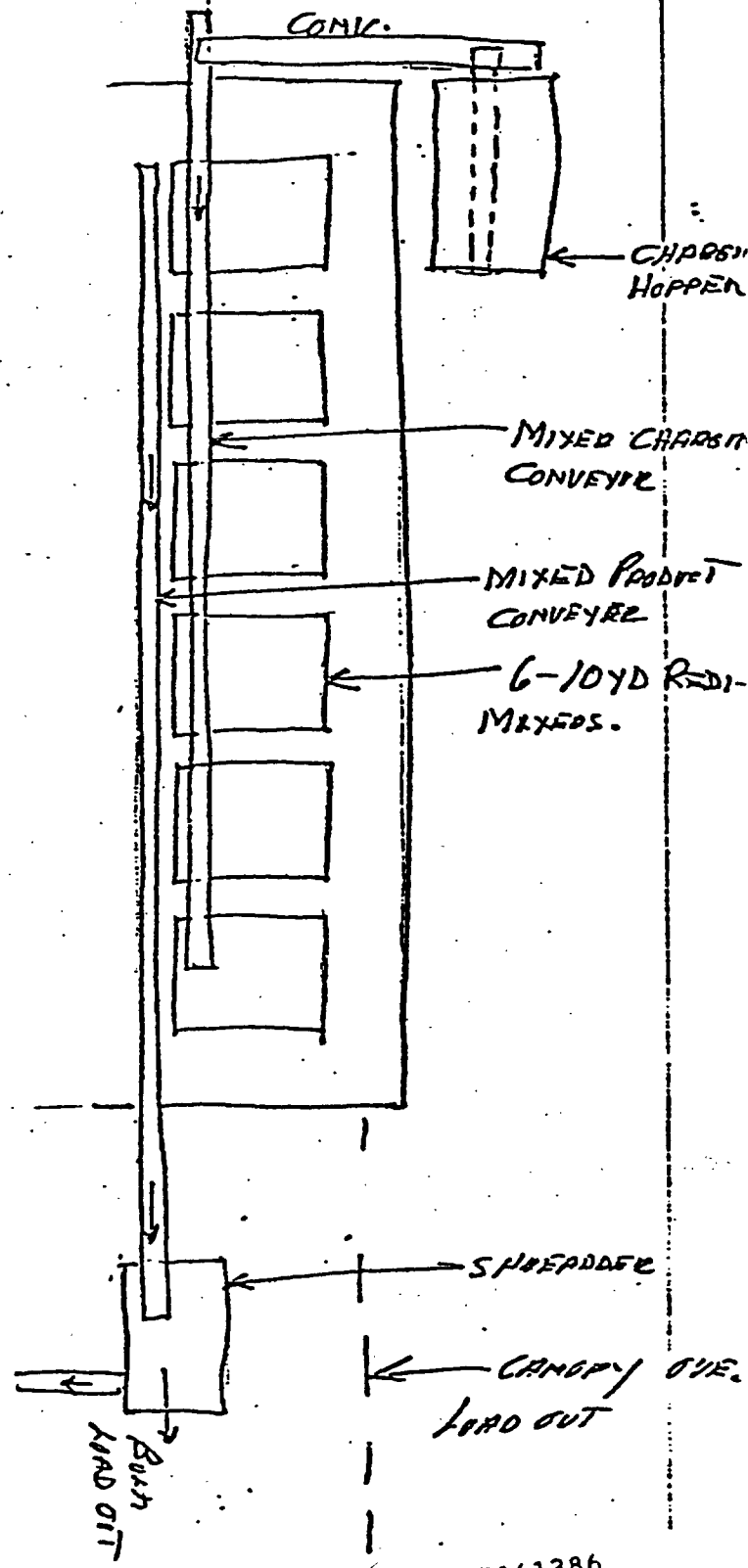
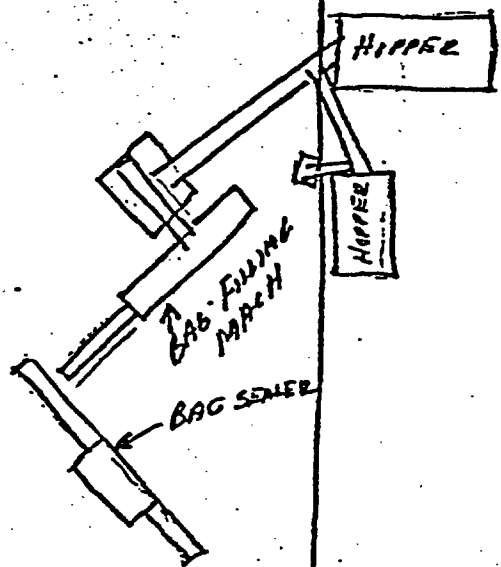
7/3
7/5/19

COMMENTS CONT. - SOILS INC.

03635572

② MIXING / SMALL PACKAGING

POTTING SOIL
SMALL PACKAGING.



15161386

15161386

- ③ FROM A SAMPLING STAND POINT OPERATING CONDITIONS AND RESULTS WILL NOT BE REPRESENTATIVE OF NORMAL OPERATION. SOILS INC. SET UP TO RUN 2-11 YD BATHES FOR AIR SAMPLING. ON TUES 2/5/79 IT RAINED VERY HARD AND THE OUTSIDE YARD A-SEA OF MUD. WEATHER FORECAST WAS FOR RAIN ALL WEEK, SO NO ADDITIONAL TESTS WERE SCHEDULED.
- ④ THE CHARGING HOPPER IS LOCATED OUTSIDE W/ NO WEATHER PROTECTION. 27-4 CF (4 YD) BAGS OF TERRA-LITE ^{MED.} ~~FINE~~ 1-3 ARE CHARGED INTO THE HOPPER FROM A FRONT END LOADER BY 2 MEN. AFTER CHARGING 1-3, 6 YD (BULK) PEAT IS CHARGED INTO THE HOPPER. VERMICULITE CHARGING TIME IS APPROX 8 MIN.
- ⑤ MIXERS ROTATE DURING CHARGING CYCLE PLUS 3-5 MIN.
- ⑥ SOILS INC MIXERS & SMALL PACKAGING EQUIP IS MFG. BY GLEASON OF PORTLAND ORE. BAG FILLING MACH IS A BELT VOLUMETRIC BAGGER. 1 3/4 - 8 QT SIZE @ 20 BAGS / MIN.
- ⑦ SOILS INC. PRIVATE LABELS FOR OCCIDENTAL (BEST BRAND), K MART, SAFEWAY STORES & LILLY.
- ⑧ ADDITIONAL SOILS INC. INFO CAN BE OBTAINED FROM F. EATON.
- ⑨ SOILS INC. CONTACT RAY HOLMBERG.

Copy Feit

GRACE

03635574

Construction Products Division

Industrial Chemicals Group
W.R. Grace & Co.
62 Whittemore Avenue
Cambridge, Mass. 02140

(617) 876-1400

TO: W. V. Culver/CPD-Auburn DATE: 23 February 1979
FROM: R. H. Locke SUBJECT: Soils, Inc.
CC: W. R. Hanlon REF: R. H. Locke memo
W. F. McCord 20 Sept. 1978, "Soils,
R. M. Vining Inc." with seven year
E. S. Wood financial summary

Bill:

This belatedly reports final disposition on CPD's late 1978 discussions with Jack McConkey concerning possible acquisition of Soils, Inc. We (Bill Hanlon and I) had been going to visit Soils, Inc. in December or January but cancelled arrangements because McConkey's pricing expectations were too high.

Initially, McConkey had indicated an asking price of \$350 to \$400 thousand. In our last telephone conversation (7 November 1978), McConkey had moved to \$300 to \$350 asking. My feedback to Jack was that these sorts of expectations were too high to justify the CPD travel involved to get together and discuss matters. Even a \$250 thousand price would have been seventeen times the most recent twelve months net income of \$15 thousand and three times their \$80 thousand net worth. That would be a high price for Soils, Inc., operated as it is on rented land leased month to month. Jack dismissed the idea of \$100 to \$125 thousand out of hand. This seems to be a classic case of a small business being worth more to the private owners than it would be to a buyer such as CPD. Better they should remain as a vermiculite customer.

As a postscript, I have subsequently heard that McConkey and Holmberg are negotiating (as of 8 February) sale to a private individual on a \$100 thousand down, balance earn-out basis. The private individual would replace McConkey's 67-2/3% ownership and Holmberg would remain with the business


R. H. Locke

RHL:rm

ZONOLITE

MAR 2 1979

AUBURN, WA.

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ZONOLITE

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CONSTRUCTION PRODUCTS DIVISION

INTER-OFFICE CORRESPONDENCE

TO: W. V. Culver

DATE: March 9, 1979

FROM: T. P. Feit

SUBJECT: Air Sampling Results -
Soils Inc.

Please do not discuss Eaton's air sampling results (ref. March 2, 1979 mailing from F. W. Eaton) with Soils Inc. If you have a problem with this, let's discuss.

ZONOLITE

MAR 12 1979

ATLANTA

PACIFIC REGION

GRACE

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