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Item ID Number 03924

Not Scanned

Author

Corporate Author

Report/Article Title Memoranda and Notes: Wright State University
Contract with the United States Air Force to support
Herbicide Disposition Activities, 10/14/1976 - 2/14/1978

Journal/Book Title

Year 1976

Month/Day

Color

Number of Images 42

Description Notes All items were filed together under the label, "Proposed
Extensions to WSU Contract"

COT
DFCBS-R (259-2720)

14 Oct 1976

Herbicide Orange Project

AFLC/LOIMP (Mr Sam Heaton)
Wright-Patterson AFB, OH 45433

1. I have attached five copies of the USAFA-TR-76-18 on "Fate of 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) in the Environment: Summary and Decontamination Recommendations." This report has been prepared for AFLC to document studies conducted by the Department of Chemistry and Biological Sciences in support of the AFLC Project on Disposition of Herbicide Orange.
2. A copy of our itinerary for next week's TDY to Gulfport, St Louis, and Wright-Patterson AFB is attached. Maj Thalken and I have prepared a project review for you and Mr Whistler for 21 October. We can at that time also discuss the format for briefing General Waters on 22 October.
3. We would like to visit with Dr. Tiernan and Dr. Taylor at Wright State University if it can be arranged. Depending upon your schedule, perhaps Thursday afternoon would be most convenient for such a visit. Thank you for making room reservations at the Fairborne Holiday Inn. Maj Thalken and I are looking forward to visiting with you again.

ALVIN L. YOUNG, Capt, USAF, PhD
Research Technical Advisor
Dept of Chemistry & Biological Sciences

2 Atch
1. Itinerary
2. USAFA-TR-76-18 (5 cys)

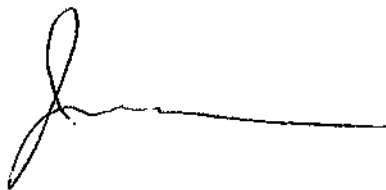
MEMO

from Maj. J. W. Tremblay

To USAF/DFCB Date 11 Nov Time _____

Attn Capt. Young,

A/,
Here's a cy of
AFIC/LOS letter we
discussed.



DEPARTMENT OF THE AIR FORCE
OL AA, USAF OCCUPATIONAL AND ENVIRONMENTAL HEALTH LABORATORY (AFSC)
KELLY AIR FORCE BASE, TEXAS 78241



REPLY TO
ATTN OF:

CC

11 November 1976

SUBJECT: Priorities - Analytical Samples vs. Research Methodology by Wright State University (WSU)

TO: SA-ALC/SFQ
SA-ALC/PPZM
IN TURN

1. Reference is made to HQ AFLC/LOS letter, same subject, dated 29 Oct 76. We concur in the proposed sample priority as stated with one exception. The task to initiate methodology development for TCDD analyses in biological specimens to the lowest possible PPT levels (task priority 5 under the proposed High Resolution - M.S.) should, in our opinion, be given a higher priority. In this regard we recommend that this methodology development be initiated now and that some ongoing effort be made in this area concurrently with the high resolution analyses of the biological and soil samples (High Resolution - M.S. tasks 1-4). We understand in discussions with USAFA personnel that they have provided WSU with extraction techniques and procedures that should permit timely completion of these biological/soil samples.

2. It should be noted that the 100 liquid herbicide samples from Johnston Island (task priority 4 under Low Resolution - M.S.) have been withdrawn from WSU and should be eliminated from this priority listing.

3. The contents of this letter have been verbally coordinated with USAF Academy/DFCB and their concurrence obtained on 10 Nov 76.

FOR THE COMMANDER

WALTER W. MELVIN, JR., Col, USAF, MC
Chief, OL AA, USAF OEHL

Cy to: AFLC/LOS
USAF OEHL
USAFA/DFCB

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR FORCE LOGISTICS COMMAND
WRIGHT-PATTERSON AIR FORCE BASE, OHIO 45433



REPLY TO
ATTN OF:

LOS

29 OCT 1976

SUBJECT:

Priorities - Analytical Samples vs Research Methodology
by Wright State University

TO:

USAFEHL
Kelly AFB TX 78241

1. During a meeting at this office, 21/22 October 1976, representatives from the USAF Academy, Department of Chemistry and Biological Sciences/DFCB, recommended the sample/research priorities shown in the attachment hereto. Any other samples presently on hand at Wright State University (WSU) or any samples shipped to WSU in the future, which are not already identified in the attachment, would be processed next in order, or through an amended sample priority listing.

2. It will be noted the attached includes, 103 samples submitted by the USAF Academy/DFCB, 108 submitted by your OEHL, during October 1976 (includes 6-8 biologicals) from Johnston Island, 23 submitted (October 1976) from NCBC Gulfport MS, as a joint effort of USAFA/DFCB and your OEHL, and 54 additional also from NCBC Gulfport MS, to be submitted during December 1976. This is a net total of 288 samples submitted and/or projected as of 22 October 1976.

3. It is understood that the attached has been coordinated verbally with your OEHL. It is therefore requested that you submit your agreement with the attached, in writing, through SA-ALC/SFQ to SA-ALC/PPZM, for ultimate transmittal to Wright State University, Department of Chemistry, attention: Dr. T. O. Tiernan, 3640 Colonel Glenn Highway, Dayton OH 45431, within contracting officer channels. A copy of your forwarding correspondence should be furnished AFLC/LOS.

FOR THE COMMANDER

STANLEY A. MORROW, Colonel, USAF
Director, Supply & Distr Systems
Office of DCS/Logistics Operations

1 Atch
Sample Priority, TCDD Analysis

Cy to: SA-ALC/SFQ
SA-ALC/PPZM
USAF OEHL
Brooks AFB TX 78235

F41 608 77C 0169
EFF.

AFLC - Lifeline of the Aerospace Team

Wright State University
Sample Priority, TCDD Analysis

Low Resolution - M.S.

1. Analyze 23 soil samples from Gulfport (collected 19 Oct 76). Analyze for 2,4-D, 2,4,5-T, and TCDD. Do deepest samples first and work up to surface samples. (These data are necessary before intensive soil sampling at Gulfport.)
2. Analyze 54 samples from Gulfport (estimated collection date - 1 Dec 76). To be analyzed for 2,4-D, 2,4,5-T, and TCDD. Analyze all 12-18" samples first (18), then all 6-12" samples (18), and lastly the 0-6" samples (18). If 0-6" samples are too contaminated to do without extensive methodology development, proceed with task 3 and hold the contaminated samples for action per task 5.
3. Analyze soil samples WSU-1-2A and 1-3A from Johnston Island.
- ✓ 4. Analyze 100 liquid herbicide samples from Johnston Island. Ten percent of these samples may be contaminated with an unknown solvent(s).
5. Initiate development of clean-up procedures for heavily contaminated soils from Gulfport and Johnston Island storage site.

High Resolution - M.S.

1. Analyze all biological samples from Eglin AFB, Florida (WSU Lab No. 1-282A - 1-301A, 1-303A, and 1-304A and samples submitted 7 Sep 76).
2. Analyze biodegradation soil samples from Eglin AFB, Hill AFB, and Garden City KS (WSU Lab No. 1-4A through 1-22A, 1-156A through 1-164). Also analyze samples from Eglin submitted 2 Sep 75 and 7 Sep 76.
3. Analyze biological samples from Gulfport to the detection limit determined by hydrocarbon contamination.
4. Analyze biological samples from Johnston Island to the detection limit determined by hydrocarbon contamination.
5. Initiate methodology development for detection of TCDD in Gulfport and Johnston Island biological specimens to lowest possible PPT level.

11 Aug 77

At the request of Col Taylor, contacted
Mr. Wayne Vandewater, Kelly EXT.
5-7613

Sole Source is ~~will~~ for
an extension (30 days) of
the existing Wright-Lester
Contract.

Subsequently contacted - Charlie Jones

Kelly 5-4651

include in Sole Source

a. Past USF response of

↳ EPA coverage

c. AT Report on decontam. of

~~SRP~~

DEPARTMENT OF THE AIR FORCE
OL AA; USAF OCCUPATIONAL AND ENVIRONMENTAL HEALTH LABORATORY (AFSC)
KELLY AIR FORCE BASE, TEXAS 78241



REPLY TO
ATTN OF: CC

16 Aug 77

SUBJECT: Sole Source Justification (TCDD Analysis), Wright State University (WSU),
Dayton OH

TO: SA-ALC/SFQ
SA-ALC/PPZM
IN TURN

1. The required services for the analysis of TCDD are in support of the Disposition of Orange Herbicide. Data from these analyses will be used for verification of cleaning procedures for the M/T Vulcanus following the completion of incineration of Orange Herbicide in late September 1977. The numbers of samples required to verify cleaning procedures are as follows:

- 7 liquid samples (rinseates/tank bottom residue)
- 30 swipe samples (interior tank surfaces, deck and quarters)
- 5 scrapings (interior tank scrapings)

2. WSU, 3640 Colonel Glenn Highway, Dayton OH 45431, has had extensive experience in the analysis of TCDD in liquid and swipe samples (USAF Contracts F41608-76-C-0464 and F41608-77-C-0169). Their highly sophisticated instrumentation can obtain the required detection levels for TCDD (0.1 µg/swipe and 5-20 µg/l for liquids).

3. Although a number of laboratories possess the required instrumentation for the analysis of TCDD, Sole Source is required because (a) WSU has previous experience in analyzing the type of samples specified in the Request for Purchase, (b) WSU can perform the analysis within the specified time period of 30 days from receipt of samples, and (c) the U.S. Environmental Protection specified to the Dutch Government (Voorburg, Netherlands, see attachment) that WSU would perform the analysis.

4. It is requested that a contract with WSU be negotiated as soon as possible since receipt of samples from the Vulcanus is anticipated before 1 October 1977.

Gale D. Taylor
GALE D. TAYLOR, Colonel, USAF, VC
Chief, OL AA USAF OEHL

1 Atch
Cmdr JA/FCJ Msg 100115Z Aug 77

MR JONES 54651

MR. VANDEVENTER 57613

26 Aug 77

Talked with Mr Jones & Mr Vandeventer RE:
Wright State University Contract.

As of this date WSLI has expended 92% of
FY 77 Contract. Remaining samples to
be analyzed include

200 ~~Misc~~ - soil, water, air

64 BURN - Two

42 Volcanic certification

306

+ ? BURN three

+ ? Additional for certification

NO biological samples included
in these figures:

Dr TIERNAN proposes they will need
\$42,000 to carry effort thru 31 Oct 77.

Current contract has \$5,000 left; therefore
AFRC will need additional \$37,000.

No discussion of previous message
for \$15,000 extension because those
dollars were to be from funds
left over (HA HA) from FY 77 contract.

A. J. Young

10/10/77
10/10/77

D/39

Cyto: ~~DeJoyer~~
Maj. Hemblay
Maj. Shalke

OLAA USAF TX

Acc/SF

TOR-3020047Z

ROUTINE

MLN-004514

29 OCT 77 01 02

Any you?

RTTUZYUW RULSSGG6330 3012250-UUUU-RUVKAAA

ZNR UUUUU

R 282054Z OCT 77

FM COMSC WASHINGTON DC

TO RUEFHQA/OSAF WASHINGTON DC

INFO RUEFHQA/HQ USAF WASHINGTON DC

~~RUVKAAA/OLAA USAF CEHL KELLY AFB TX~~

~~RUVAAAA/HQ AFLC MPAFB OH~~

~~RUEVFEL/EPA WASHINGTON DC~~

BT

UNCLAS //NO4255//M-32

OSAF FOR ALG/MIO

HQ USAF FOR OBY/SOP

HQ AFLC FOR LO

EPA FOR OSMOD

M/V VULCANUS CLEANING - PACER HO

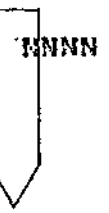
1. FOLLOWING RECEIVED FROM OWNER'S WASH AGENT AND PASSED BY PHONE TO MAJ BULLOCK, USAF BY MR WORRALL, COMSC STAFF 28 OCT 77 QUOTE: ON BEHALF OWNERS, PLEASE BE ADVISED THAT PRELIMINARY (BUT RELIABLE) RESULTS OF ANALYSIS BY THE NETHERLANDS CENTRAL ORGANIZATION FOR APPLIED SCIENTIFIC RESEARCH (TNO) OF SAMPLES TAKEN FROM "VULCANUS" AT PANAMA INDICATE HIGH DIOXIN CONCENTRATION AFTER HEATING UP TO

PAGE 02 RULSSGG6330 UNCLAS

600 DEGREES CENTIGRADE. CONCENTRATION CONSIDERED UNSAFE FOR SHIP YARD WORKERS. FURTHER ANALYSIS AND CONSULTATION WITH TNO TO FOLLOW. FURTHER CONSULTATION WILL RESULT IN EXTRA EXPENSES WHICH WOULD NOT BE INCURRED BUT FOR ABOVE FINDING OF DIOXIN. ALSO, THIS WILL RESULT IN VESSEL DELAY, LABOR, AND HEALTH RISK, ALL OF WHICH EXPENSES TO BE FOR ACCOUNT OF MILITARY SEALIFT COMMAND (MSC). MSC MAY WISH TO DETERMINE WHETHER TO INVESTIGATE AND FOLLOW UP MATTER FOR ITSELF. UNQUOTE.

BT

#6338



USAF ENVIRONMENTAL HEALTH LABORATORY

31 OCT 77 20 7 41

RECEIVED

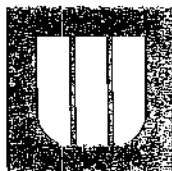


TOR-3020047Z

ROUTINE

MLN-004514

Wright State University



Dayton, Ohio 45431

October 7, 1977

Captain Alvin Young
USAF Environmental Health Laboratory
Kelly Air Force Base, Texas 78241

Dear Captain Young:

This letter confirms our telephone conversation of September 23, 1977 in which the Brehm Laboratory, Wright State University, submitted a verbal quotation to you for performing tetrachlorodibenzo-para-dioxin analyses in certain samples. As we indicated verbally, the costs of the analyses are as follows:

Gas Chromatographic/High Resolution Mass Spectrometric Analyses of 50 biological samples (such as rodent tissue fish tissue, and plant tissue)	\$35,000
--	----------

(Note: This price includes the costs of sample
preparation for 50 biological samples)

Gas Chromatographic/High Resolution Mass Spectrometric Determination of TCDD in 50 soil samples	\$15,000
--	----------

(Note: This price includes the costs of sample
preparation of 50 soil samples)

Grand Total	\$50,000
-------------	----------

The minimum detectable concentration of dioxin applicable to the above analyses is 10 picograms TCDD per gram. However, in certain instances, the minimum detectable concentration may be somewhat higher because of the presence of interfering substances. In these cases, the Brehm Laboratory will make its best effort to minimize the effects of such interferences and will report analytical results in which we have achieved the lowest possible limit of detection which the state-of-the-art will allow.

Regarding the site monitoring analyses which we discussed, we understand that 300 soil samples will be taken over a period of one and one-half years from the Gulfport, Mississippi and Johnston Island sites where herbicide orange was stored. We further understand that 50 samples from each site will be taken at three equally spaced intervals during the one and one-half years

Letter to Capt. Alvin Young, Kelly AFB, Texas, dated Oct. 7, 1977 (Cont'd)

period to yield the total of 300 samples. From our conversation, we understand that you require the levels of butyl 2,4-dichlorophenoxyacetate, butyl 2,4,5-trichlorophenoxyacetate, 2,4-dichlorophenoxyacetic acid, 2,4,5-trichlorophenoxyacetic acid, 2,4-dichlorophenol, 2,4-dichlorophenol and 2,4,5-trichlorophenol, to be determined in soil as well as tetrachlorodibenzo-p-dioxin (TCDD). We further understand that the minimum detectable concentration desired for the herbicide esters, acids and phenols is 10 micrograms per gram. The minimum detectable concentration for TCDD is understood to be 100 picograms per gram. We understand that the intent of this program is a survey and for these purposes gas chromatography and/or gas chromatography low resolution mass spectrometry are suitable techniques for detection and quantitation of compounds of interest.

We propose to address these analyses by using gas chromatography and low resolution mass spectrometry. We propose to utilize gas chromatographic techniques to quantify the esters, acids and phenols mentioned above and gas chromatography-low resolution mass spectrometry to confirm these results. For quantitation of TCDD present in the samples, we propose to utilize gas chromatography low resolution mass spectrometry exclusively. On this basis the Brehm Laboratory of Wright State University is pleased to quote the following:

Determination of butyl 2,4-dichlorophenoxyacetate, butyl 2,4,5-trichlorophenoxyacetate, 2,4-dichlorophenoxyacetic acid, 2,4,5-trichlorophenoxyacetic acid, 2,4-dichlorophenol, 2,4,5-trichlorophenol, at levels of 10 micrograms per gram of soil and higher using a combination of chromatographic techniques and mass spectrometric techniques for 300 samples submitted over a one and one-half year period

\$30,000

(Price includes sample preparation and analysis)

Determination of 100 ppt and greater levels of TCDD in 300 soil samples using gas chromatography low resolution mass spectrometry

\$37,500

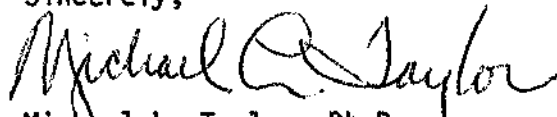
(Price includes sample preparation and analysis by low resolution GC-MS)

It is understood that the stated limits of detection are routinely achieved using established methodology. Occasionally, however, samples do arise which contain interferences which preclude attainment of the stated limits of detection. In these cases, Wright State University will make its best effort to determine the compounds of interest at the lowest possible limits of detection realizable with the methods quoted above. In these cases, the lower limits of detectability actually achieved will be quoted in this report.

Letter to Capt. Alvin Young, Kelly AFB, Texas, dated Oct. 7, 1977 (Cont'd)

We are grateful for this opportunity to quote on these two efforts. We look forward to hearing from you regarding the status of these efforts.

Sincerely,

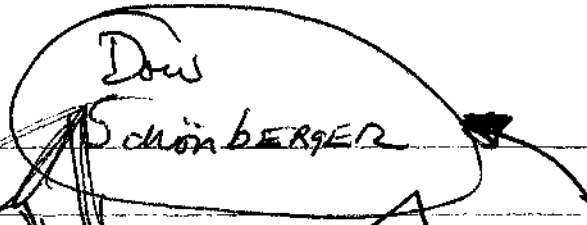
A handwritten signature in cursive script that reads "Michael L. Taylor". The signature is written in black ink and is positioned above the typed name and title.

Michael L. Taylor, Ph.D.
Associate Director of Brehm Laboratory
Associate Professor of Chemistry

MLT/ps

ROUTING/CALL MEMO		INITIAL & DATE	ACTION
1. TO (Name, Office Symbol or Location)	Capt Young		COORDINATION
2.			FILE
3.			INFO
4.			NOTE & RETURN
			PER CONVERSATION
			SEE ME
			SIGNATURE
			<input checked="" type="checkbox"/> MEMO OF CALL
NAME OF CALLER/VISITOR		TEL NO.	TIME
Dr Mike Taylor			1300
<input checked="" type="checkbox"/> PLEASE CALL		<input type="checkbox"/> WILL CALL AGAIN	<input type="checkbox"/> LEFT MSG
REMARKS OR MESSAGE (Use Reverse If Needed)			
weight state union.			
<div style="text-align: right;"> <p>132</p> <p>1300</p> <p>132</p> </div>			
FROM (Name, Office Symbol or Location)		DATE	
JR		31 Oct 77	
		TEL NO.	

1537



Liquid - Chlorinated
Phenol → Trichlorophenol
TetraChloro
PentaChloro
TCP
TCDD

MEYERS
PR with funds

DIMERIZATION
175° - 250°

Tetrachlorobenzene
Alkaline Condition
300°C
NaOH

TCP
TCDD

Predictions
↓
< .001 ppm

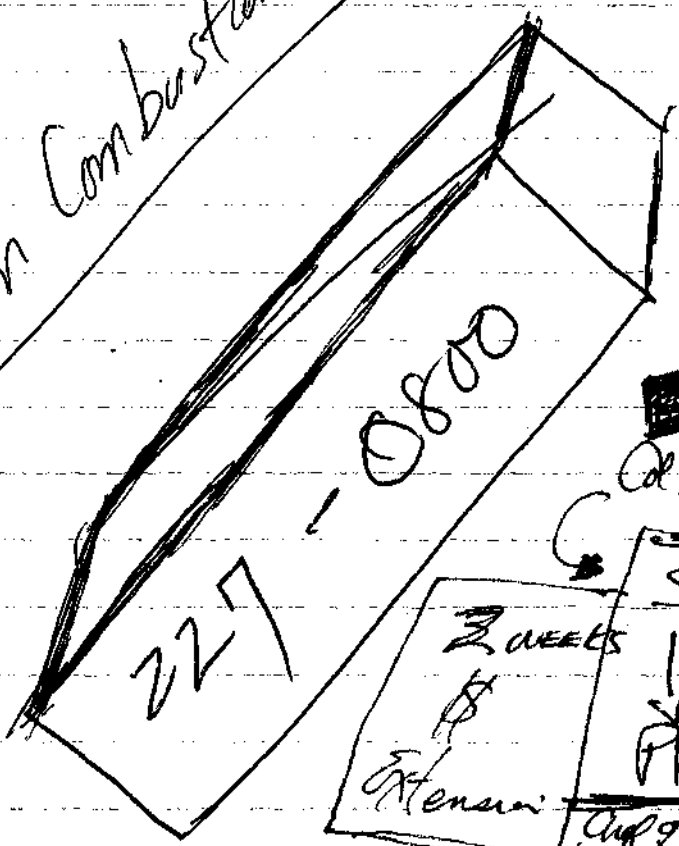
Mr Whistler
(HOME)
233-6897

Com-Pain

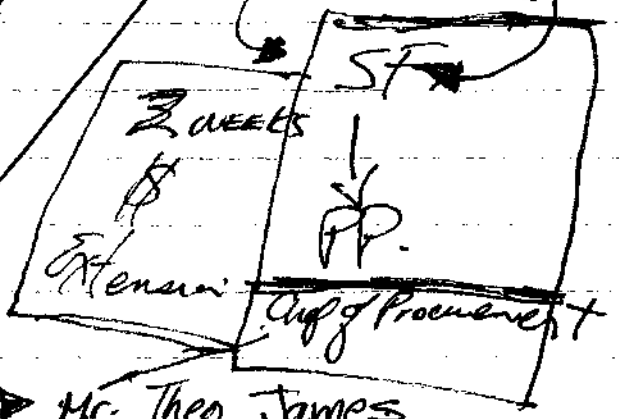
Ocean Combustion Services

MR. THEO
JAMES

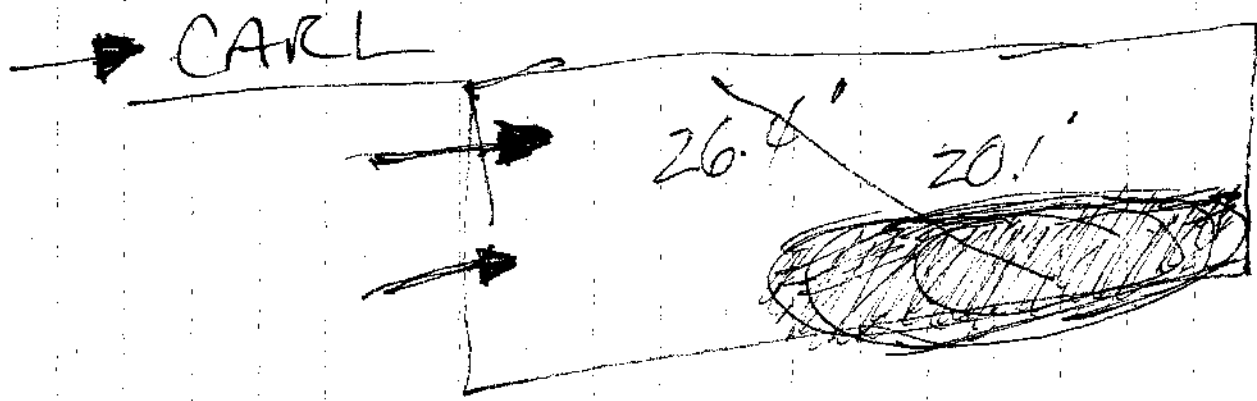
54909
54651



Mr Broom
at Wash.



DEPT → Mr. Theo James
→ Dick Justice



LSAF Testing Program after cleaning I/I
 for use in determining in Best & least
 cost cause of action in interest of
 Chemtreat & Owners.

Chuck

T Assembly

Give
 them
 the
 samples!

TNO FINDING

5 SCRAPE SAMPLES

THI

Phone Call

① Mr Theo JAMES

② 295 Samples

NOV/DEC

- Labor 14,346

- FRIDGE
 OVC

25,536

4,000

~~29,536~~
 29,536

Completed work on
 300 Samples &
 Find Report

Supplies
 etc.

295 }

Col James S. KNOX
SF

G.W.
MR NOBLES - 54218
SAAAC / PPE

Mr Broome - 57613

Amers Rep. Wash. D.C
Friday

Further on Telex

AUFBICH TSAMT
Comm. Cont. Sfty. Off.
for Industrial Work

① 28 Oct initial completion not
expected 3 NOV

② Vessel must idle pending Cabare.

③ Once results known & acceptable
to Comm. Cont. Sfty. Off.

Ship Drydock

④ Repair end safety

⑤ Comm. Cont. Sfty. Off. send as Data

OFFICE No. EOR
MR Whistler AFLC/LO
AV 787-7475/3373

① Final Report - Disposition of Herbicide Orange

Battelle - 3,000

Wright-States - 30,000

Analysis
- 300 samples

\$33,000

② Site Reclamation

Monitoring / Reclamation

96,500

Cylinder Reclamation

1000.00

97,500

③ Air Force Academy Follow-on

AFA Biodegradation Study - ^{Anal.} \$5,000

Microbial Study of Sites - 10,000

Washington State Contract 10,000

Eglin AFB Biological Fate of TOC 35,000

Drum Disposal / Hill 1,000

\$71,000

\$201,000

Meeting with Charles Jones

- Solo Suce
- Purchase Request 1 JAN - 30 June 78
- \$30,000 } — Estimate
- Priority of Samples

→ Technical Representative

CC to Jones

9 Dec Package Due

AFLC SAMPLES

Samples on Hand to be Analyzed:	<u>Unprepared</u>	<u>Prepared</u>
Water	98	21
Water	37	26
Ambient Air	58	9
Chromasorb	22	
Scrapes	5	
Composite Feed	5	
Benzene Impinger	5	
Burner Residue	4	
Swipes	3	
Reagent Blank	1	
Herbicide Orange	1	
	<u>239</u>	<u>56</u>

Number of Samples Analyzed Since Last Quarterly Report, 114, consisting of:

Herbicide Orange Rinse	5	
Line Rinse	5	
Probe Rinse	5	
Reagent Blank	3	
Tank Car Swipe	20	
Ship Swipe	33	} 61
Ship Swipe	28	
Ambient Air	14	
Top V Tank	1	

Capt Young

DEPARTMENT OF THE AIR FORCE
DL AA; USAF OCCUPATIONAL AND ENVIRONMENTAL HEALTH LABORATORY (AFSC)
KELLY AIR FORCE BASE, TEXAS 78241



REPLY TO
ATTN OF: CC

1 NOV 77

SUBJECT: Extension of Wright State University Contract

TO: SA-ALC/SF

1. The attached message (282054Z Oct 77, from COMSC, Washington DC) was received claiming that Dioxin had been found on board the Vulcanus by consultants (TNO) representing the owners. These findings may impact contract between MSC and Ocean Combustion Services (ship owners). A verification on the TNO analytical results may be possible through the analysis of duplicate samples currently awaiting analysis at Wright State University, Dayton, OH. Unfortunately, work under the current contract with Wright State University was discontinued, effective 31 Oct 77, due to lack of funds. Although the immediate priority is for the analyses of five (metal) scrape samples (from within the holding tanks of the Vulcanus), other samples will be required in order to complete the final report on the disposition of Herbicide Orange. The nature and number of these samples are as follows:

Metal scrapings	5
Swipes	3
Burner residue	4
Chromosorb	22
Air samples	67
Liquid samples	<u>194</u>
Total	295

Analysis of the five scrape samples is required NLT 11 Nov 77.
Remainder of samples required NLT 31 Dec 77 for inclusion into final report for EPA in Jan 78.

2. Although other laboratories, (University of Utah, University of Nebraska and Intermountain Laboratories, Salt Lake City, UT) are currently able to analyze soil and biological samples for Dioxin, only Wright State University has had the experience in analyzing scrapings, swipes, and burner residues. They have developed and tested procedures for analyzing TCDD in these kind of substrates. In addition, Wright State University is the only Laboratory that can provide the analyses within the required time period.

3. The estimated funds required for the extension of the Wright State University contract are \$29,536. These funds have been allocated by AFLC/LO, in priority message to you this date. Your assistance in preparing an extension to Wright State contract is appreciated.

GALE D. TAYLOR, COL, USAF, VC
Chief, OL AA USAF OEHL

1 Atch
Msg, 282054Z Oct 77

TOP-3121038Z

*Dr. Taylor
Major Kelly
Major Walker*

POSTAL

MLN-001463

49 Capt Young

RTTUZYUW RULSS002114 3121005-0000--RUVKAAA

ZNR 00000

R 18 2107 NOV 77

FM COMSO WASHINGTON DC
TO RUEFHQA/CSAF WASHINGTON DC
INFO RUEFHQA/HQ USAF WASHINGTON DC
RUVKAAA/ALAA USAF OCHL KELLY AFB TX
RUYAAAA/AFLO WRIGHT PATTERSON AFB OH
RUVKAAE/USAF OCHL CROCKE AFB TX
BT

UNCLAS //NOA255//
OSAF FOR ALO-HIGH HQ USAF FOR OGV/SOP
HQ AFLO FOR LO

M/V VULCANUS CLEANING - PAGE 00

1. FOLLOWING RECEIVED FROM OWNER'S MATH AGENT 3 NOV 77 QUOTE:
RE: VULCANUS POL IS RESULTS OF TWO ANALYSIS OF RUST SAMPLES TAKEN FM
VULCANUS AT ENDON ON 28 OCT 77. BOTTOM AND WALL TANK 2 OF AT LEAST
1.3 MICROGRAM 2,3,7,8-TCDD PER GRAM RUST. BOTTOM AND WALL TANK 3 OF
AT LEAST 0.35 MICROGRAM 2,3,7,8-TCDD PER GRAM RUST. SCRAPING FROM
MAIN DECK: AT LEAST 0.00 MICROGRAM 2,3,7,8-TCDD PER GRAM RUST. WALL'S
DOUBLE BOTTOM UNDER TANK 1: AT LEAST 0.3 MICROGRAM 2,3,7,8-TCDD PER
GRAM RUST. METHOD'S OF ANALYSIS: OVERNIGHT SOLVENT EXTRACTION OF

PAGE 01 RULSS002114 UNCLAS

PULVERIZED RUST WITH TOLUENE-METHANOL ACETOACETIC MIXTURE, CONCENTRA-
TION OF THE EXTRACT TO SMALL VOLUME. GAS CHROMATOGRAPHY OF THE EX-
TRACT ON A CAPILLARY COLUMN, DIRECTLY COUPLED WITH A VARIAN MAT 701
MASS SPECTROMETER. RESOLUTION 8000. ANALYSIS MADE AT M/CI 320 AND
M/EI 322 PEAK MATCHING AT M/EI 320 AND M/EI 322. QUANTIFICATION LI-
MIT 20 PICOGRAM, NO TCDD DETECTABLE IN EXTRACTION BLANK. THE EXTRA-
CTION FROM THE RUST WAS NOT COMPLETELY QUANTITATIVE, BECAUSE SMALL
AMOUNTS OF TCDD WERE EMITTED BY EXTRACTED RUST, WHEN HEATED TO 400
DEGREES C. CHARTERERS ARE ADVISED THAT ALL OF TWO'S ANALYSIS AND
RESULTS ARE AVAILABLE FOR THEIR PERUSAL AND CHECKING AT RIVKINS INSTI-
TUT VOLKSCHEIDWEIN, UTRECHT, THE NETHERLANDS, THE WEEK OF 7-12
NOVEMBER. IN THE INTEREST OF SOLVING MUTUAL PROBLEM, OWNER'S TYPIC-
ALLY SURGEST EXPERIENCED SPECIALIST IN MASS SPECTROSCOPY AND OTHER
SPECIALIST ATTEND ON BEHALF CHARTERERS. VERIFICATION AND EVALUATION
OF TWO'S RESULTS CANNOT BE DONE BY TELE. YOUR FAILURE TO ATTEND
IN PERSON AND VERIFY TEST RESULTS IS DELAYING RESOLUTION OF PROBLEM
AND ADDING TO EXPENSES WHICH IS INCREASING EVERY DAY. UNQUOTE.

2. FOLLOWING RECEIVED FROM OWNER'S AGENT 4 NOV 77 QUOTE: M/V
VULCANUS CONTRACT NO0033770117 DTD 15 MAY 1977. IN VIEW RESULTS
OF ANALYSIS OBTAINED BY THE NETHERLANDS CENTRAL ORGANIZATION FOR

TOP-3121038Z

POSTAL

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PAGE 03 0155002114 UNCLAS
 APPLIED SCIENTIFIC RESEARCH (TNO) SHOWING VULCANUS NOT FREE OF DIOXIN. CHARTERERS HAVE NOT COMPLETED WITH THEIR OBLIGATIONS UNDER THE PERTINENT TERMS AND CONDITIONS OF THE CONTRACT. WE AGAIN REITERATE POSITION STATED IN OWNERS NOTICE OF 27 OCTOBER THAT ALL EXTRA EXPENSES AND COSTS BEING INCURRED WHICH WOULD NOT BE INCURRED BUT FOR THE FINDING OF DIOXIN ARE FOR CHARTERER'S ACCOUNT. 2. OWNERS ARE COMPUTING ADDITIONAL CHARTERER COSTS TO GUN FROM ARRIVAL VESSEL ON 27 OCTOBER LOCAL 22 OCTOBER. 3. IN THE EVENT SCHEDULED SHIPYARD WORK IS NOT PERMITTED IN EUROPE BY APPROPRIATE AUTHORITIES (GOVERNMENTAL OR COMMERCIAL), OWNERS PROPOSE RECEIVING VESSEL TO CHARTERERS SO THAT VESSEL MAY BE RETURNED TO A U.S. EAST COAST COAST SHIPYARD WHERE SCHEDULED WORK TO BE ACCOMPLISHED UNDER CHARTERER'S SOLE RESPONSIBILITY FOR SAFETY AND ENVIRONMENTAL MATTERS. SOME OF THE ANTICIPATED COSTS AND EXPENSES FOR CHARTERER'S ACCOUNT WHICH WILL RESULT ARE: (A) TIME AND EXPENSE OF VESSELS TRANSIT TO AND FROM U.S. YARD. (B) SIX WEEKS OF YARD TIME TO BE FOR OWNERS ACCOUNT WITH ANY YARD TIME IN EXCESS THEREOF TO BE FOR CHARTERER'S ACCOUNT. (C) ANY U.S. SHIPYARD COSTS IN EXCESS OF THOSE QUOTED BY RMW TO OWNERS FOR CHARTERER'S ACCOUNT. (D) TWO COSTS AND COSTS OF OWNERS AND OWNERS' COSTS BEING INCURRED BY OWNERS DUE FAILURE OF CHARTERER CLEANING, TREATING,

PAGE 04 0155002114 UNCLAS
 AND ANALYSIS PROGRAMS, INCLUDING COSTS EXPERIENCED DUE CHARTERER'S INEXTRICABLE DELAY IN OBTAINING RESULTS OF OWN TESTS WITHIN A REASONABLE PERIOD OF TIME. (E) ANY ADDITIONAL COSTS OWNERS INCUR IN OBTAINING ADDITIONAL SHAPE TANK SPACE IN EUROPE FOR WASTE GENERATED BY EUROPEAN CLIENTS WHICH CANNOT BE INCINERATED AS SCHEDULED DUE TO VESSEL'S DELAY. 4. OWNER SHALL HOLD CHARTERERS LIABLE FOR ALL OTHER DAMAGES INCURRED AS A RESULT OF CHARTERER'S BREACH INCLUDING OWNER'S INABILITY TO MEET FUTURE COMMITMENTS, LOST PROFITS, LOSS OF GOOD WILL AND REPUTATION, DECLINE IN VALUE OF THE VESSEL, ETC. 5. OWNERS WILL REPORT RESULTS OF MEETING OF TNO/YARD/CHARTERER AND ST-CHRYSANTH/OWNERS ON 4 NOVEMBER AS SOONAS POSSIBLE. 6. TO EXPEDITE SOLUTION TO PROBLEM, OWNERS PROPOSE MEETING IN WASHINGTON WEEK OF 14 NOVEMBER WITH EPA/CHARTERERS/TNO/USAF. PLEASE ADVISE. WE AGAIN EMPHASIZE SERIOUSNESS OF PROBLEM AND NEED FOR YOUR PROMPT ACTION. PLEASE ACKNOWLEDGE RECEIPT OF THIS TELEX AND ADVISE IMMEDIATELY WHAT ACTION CHARTERERS INTEND TO TAKE TO RESOLVE THIS MATTER. UNCLAS. 3. FOLLOWING RECEIVED FROM OWNER'S AGENT 17 NOV 77 QUOTES: "DIOXIN VULCANUS" REFER OWN TELEX OF 3 NOV 77. OWNERS ADVISE ALL ANALYSING NOW COMPLETED BY TNO, AND BASED ON RESULTS, AUTH CHARTERERS WILL NOT ALLOW SHIP TO REPAIR THERE. THIS DECISION BASED ENTIRELY ON TNO ANALYSIS

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EXTRACT WORKER FROM TANKS IN CASE ACCIDENT DUE SIZE AND CONSTRUCTION-
 NNESS OF PROTECTIVE GEAR NECESSARY PROTECT. DUPLICATE OF DRAM RUST
 SAMPLES TAKEN BALGOVENDEN WILL BE MAILED UPRIGHT STATE UPON REQ BY
 HSC/USAF. SAMPLES TO BE HANDLED AS DANGEROUS DUE HIGH TOXIC CONTENT
 PER COMPAAN. TNO (COMPAAN) CONFIRMS FOR USIT/SPAF 1. HIGHLY TOXIC
 REPT NOT GENERATED IN ANALYSIS. 2. ONE DRAM RUST IS EQUIVALENT TO
 FIVE SQUARE CENTIMETERS SURFACE. 3. TNO UNWILLING HANDLE FURTHER
 SAMPLES BEFORE JANUARY UNTIL LABS ADAPTED TO HIGHER SAFETY STAND-
 ARDS. OWNERS AWAIT REPLY AS TO CHARTERERS ATTENDANCE RIV UTRECHT
 THIS NEED TO VERIFY TNO'S RESULTS. OWNERS ALSO AWAIT CHARTERERS
 CONFIRMATION THAT THEY, USAF, AND EPA AVAILABLE MEET WITH OWNERS
 TNO MORNING OF 19 NOV IN WASHINGTON ON THIS MATTER. PLS ADVISE.
 UNQUOTE.

BT

#2114

NNNN

Data Summary - Scraping Samples - M/T Vulcanus
 Dioxin/HC concentrations per Gram of Scraping (Rust)

Tank No. Location	* J.I. Samples TCDD (Ng/gm)	TNO Samples** TCDD (Ng/gm)	PC Samples*** D&T (mg/gm)	PC Samples Implied TCDD (Ng/gm)
1C	730% 55			
2C	Hatch 240	1,500 (42)	100.3 Hatch	201
3C	190	350 (35)	33.4 wall 27.3 floor	67 55
4C	75			
5C	280			
Deck		90 ND 90		
Ballast Tank		300 (46)		

* J.I. Samples taken on 8 September (WSU Analysis)

** TNO Samples taken at Emden 28 Oct. - 1 Nov. (TNO Analysis)

*** PC Samples taken at Panama 30 Oct. (USAF SAM Analysis)

1	Fan Room	0.75	Inside fan compartment Fans 4, 5 & 6 Composite	N.D. (14.0)
2	Fan Room	0.5	Port side deck - "Paint"	N.D. (8.0)
3	Deck, Fan Tall	0.2	Scale - Paint	N.D. (7.0)
4	Deck, Port	0.1	Near Butterworth hatch Tank 5P, Scale	N.D. (5.0)
5	Deck, Port	0.08	Near Butterworth hatch 3C - Known Spill, Scale	33.0
6	Deck, Starb.	0.05	Near Tank hatch 1C Scale	N.D. (9.0)
7	Deck, Starb	0.1	Near Tank hatch 2S Scale	N.D. (5.0)
8	Deck, Bow	0.1	Anchor Deck "Paint Heavy"	14.0
9	Forecastle	0.1	Inside Forecastle on Deck near Stores Entry	N.D. (2.0)
10	Forecastle	0.75	Inside Forecastle lower level above Water Tank	N.D. (9.5)
11	Pumps Room	—	Composite light powder scale pipe exteriors	N.D. (18.0)
12	Cargo Pipe	—	Op-Deck Cargo loading Pipe - light interior scale	12.1
13	Air Tank Port	1.0	Very light scale - Plate above Ballast WT 2P	N.D. (7.0)
14	Cargo Tank 3S	0.2	Composite wall/shelf Moderate scale	95.0
15	Cargo Tank 3P	0.5	Bottom Only, Light scale	19.0
16	Cargo Tank 4C	0.2	Vertical and Horizontal Beam Supports, mod. Scale	15.0
17	Cargo Tank 2C	0.75	Wall Only - Approx. 4 m. from Deck, Lt. Scale	12.0
18	Cargo Tank 2C	0.1	Ceiling - Heavy Scale	N.D. (10.0)

1. Collected by: J. Tremblay, A. Young (OEHM), A. Dray, S. Woodell (Crew)
 2. Each sample contains approx. one-half of all material
 collected from surface area indicated, Scraping taken
 to "bare metal."

Priority Scraping Sample #17 Vulcanus - Emden Germany
 15 Nov 1977 By OEHLE & Ship's Crew

Sample #	Location	Area (m ²)	Description / Remarks
17	Fan Room	0.75 (130)	Inside fan compartment Fans 4, 5 & 6 Composite
18	Fan Room	0.5 (130)	Port side deck - "Paint"
5	Deck, Fan Tail	0.2 (120)	Scale - Paint
1	Deck, Port	0.1 (150)	Near Butterworth hatch Tank 5P, Scale
3	Deck, Port	0.08 (22.17) (160)	Near Butterworth hatch 3C - Known Spill, Scale
2	Deck, Starb.	0.05 (151)	Near Tank hatch 1C Scale
4	Deck, Starb.	0.1 (130)	Near Tank hatch 2S Scale
6	Deck, Bow	0.1 (179.7) (150)	Anchor Deck "Paint Heavy"
13	Forecastle	0.1 (140)	Inside Forecastle on Deck near Stores Entry
12	Forecastle	0.75 (165)	Inside Forecastle lower level above Water Tank
14	Pump Room	(0.2) (120)	Composite light powder scale Pipe exteriors
15	Cargo Pipe	- (151)	On-Deck Cargo Loading Pipe light interior scale
16	Air Tank Part	1.0 (50)	Very light scale - Plate above Ballast WT 2P
7	Cargo Tank 3S	0.2 (50)	Composite wall/shelf Moderate scale
8	Cargo Tank 3P	0.5 (110)	Bottom Only, light scale
9	Cargo Tank 4C	0.2 (130)	Vertical and Horizontal Beam Supports, Mod. Scale
1	Cargo Tank 2C	0.75 (110)	Wall Only - Approx. 4 m. from Deck, Lt. Scale
18	Cargo Tank 2C	0.1 (150)	Ceiling - Heavy Scale

1. Collected by: J. Tremblay, A. Young (OEHLE), A. Draag, S. Weedell (Crew)
 2. Each sample contains approx. one half of all material collected from surface area indicated. Scraping taken to "bare metal."

Group

12.5
8.06

0.06

Location	Samp. Nr	Area(m ²)	Rust(%)	Rust(g/m ²)	TCDD(Ng/g)	TCDD(Ng/m ²)	MDQ(Ng/g)	
Deck	3	0.2	248	1,243	N.D.		7.0	Deck Mean:
"	4	0.1	301	3,014	N.D.		5.0	Rust (g/m ²) = 4,012
"	5	0.08	443	5,537	33.0	1.39x10 ⁵		TCDD (Ng/g) = 7.83
"	6	0.05	302	6,045	W.D.		9.0	TCDD (Ng/m ²) = 3.14x10 ⁴
"	7	0.1	464	4,640	N.D.		5.0	
"	8	0.1	359	3,590	14.0	2.91x10 ⁴		
Interior - Non Cargo	10	0.75	153	204	N.D.		9.5	Rust (g/m ²) = 158
"	13	1.00	113	113	N.D.		7.0	TCDD N.D.
Cargo Tanks	14	0.2	102	509	95.0	4.84x10 ⁴		Rust (g/m ²) = 371
Walls/Shelvs	16	0.2	46	232	15.0	3.48x10 ³		TCDD 55 Ng/g ; 2.59x10 ⁴ Ng/m ²
Cargo Tank Walls	17	0.75	39.4	52.5				
" " Floors	15	0.50	34.0	68.	19	129		
Fan Room (Fan)	1	0.75						
(Duct)	2	0.5						
Forecastle	9	0.1						
Pump Room	11							

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012000Z NOV 77

3. RESULTS OF DIOXIN ANALYSIS BY TNO OF SAMPLES FROM VULCANUS MAKE IT IMPERATIVE THAT THE WRIGHT STATE UNIVERSITY (WSU) CONTRACT BE EXTENDED THROUGH 31 DEC 77 IN ORDER TO COMPLETE ALL REMAINING VULCANUS/PACER H0 SAMPLES (SCRAPES 5, AIR 67, SWIPES 3, BURNER RESIDUE 4, CHROMASORB 22, LIQUID 194: TOTAL 295). TOP PRIORITY FOR SAMPLES ANALYSIS WILL BE THE 5 SCRAPE SAMPLES. IF CONTRACT EXTENSION IS APPROVED WSU HAS ASSURED OEHL THAT DATA ON SCRAPE SAMPLES WILL BE AVAILABLE NLT 11 NOV 77 FOR TRANSMISSION TO MSC. COST ESTIMATE FOR EXTENSION OF CONTRACT IS \$29,536. DATA FOR REMAINING SAMPLES WILL BE USED IN COMPLETION OF FINAL REPORT ON DISPOSITION OF HERBICIDE ORANGE TENTATIVELY DUE TO EPA, JAN 78. REQUEST AFLC/LO SUPPORT ON WSU CONTRACT EXTENSION.

4. FUNDS FOR WSU EXTENSION INCLUDED UNDER H0 BUDGET SUMMARY FY 78 PROVIDED AFLC/LO. TO CLARIFY PREVIOUS LINE ITEMS REPRESENT THREE EFFORTS: A. COMPLETION OF ALL REMAINING VULCANUS SAMPLES AND FINAL REPORT \$33,000; B. STORAGE SITE MONITORING AND RECLAMATION STUDY \$97,500; C. COMPLETION OF USAF ACADEMY FY 73 - FY 77 EFFORTS ON BIODEGRADATION, FATE OF TCDD AND DRUM DISPOSAL \$71,000. TOTAL FY 78 BUDGET \$201,500.

GALE D. TAYLOR, COL, USAF, VC
CH, OL AA USAF OEHL/56157

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NOV 77

NO

OL AA USAF OEHL KELLY AFB TX/CC

HQ AFLC WPAFB OH/LO

INFO SA-ALC KELLY AFB TX/SF/PPZ {MAIL}

2851 ABG KELLY AFB TX/ACB {MAIL}

HQ USAF WASH DC/SGP/LGY

SAF WASH DC/MIQ

HQ AFSC ANDREWS AFB MD/SGP

USAF OEHL BROOKS AFB TX/CC {MAIL}

COMSC WASH DC

USAF ACADEMY CO/DFCBS

UNCLAS

SUBJ: M/V VULCANUS CLEANING

1. REFERENCE:

A. COMSC WASH DC 282054Z OCT 77 {NOTAL HQ USAF, HQ AFSC, USAF OEHL, USAFA, 2851 ABG, SA-ALC, SAF}.

B. YOUR 271330Z OCT 77 {NOTAL HQ USAF, SA-ALC, COMSC, USAFA, SAF}.

2. REFERENCE A FROM MSC REVEALS THAT POSITIVE TCDD RESULTS FOUND BY SHIP OWNER'S CONSULTANT {TNO}. REFERENCE B FROM AFLC/LO SUMMARIZES FY 78 HO FUNDING REQUIREMENTS.

PRIORITY NEEDED DUE TO CRITICAL
REQUIREMENTS OF PACER HO PROJECT.

GALE D. TAYLOR, COL, USAF, VC
CH, OL AA USAF OEHL/56157

Gale D. Taylor

UNCLASSIFIED

YOR-3392054Z

MLN-010004

5 Dec 77 21 01

Dr Taylor
Mr. [unclear]
[unclear]
Cpt [unclear]

P R I O R I T Y

~~PTUZYUW RULS5DA1606 3392045-0000-RUVKAAA~~

ZNR 00000

P 052022Z DEC 77

FM COMSC WASHINGTON DC

TO RUEFHQA/OSAF WASHINGTON DC

INFO RUEFHRA/HQ USAF WASHINGTON DC

RUVAAA/AFLC WRIGHT PATTERSON AFB OH

RUVKAA/USAF DEHL BROOKS AFB TX

RUVKAAA/DLAA USAF DEHL KELLY AFB TX

BT

UNCLAS//NO3123//

OSAF FOR AIG-MIG

HQ USAF FOR OBY/SOP

AFLC FOR LO

MV VULCANUS CLEANING - PACER HQ

1. FOL REC'D FROM OWNER'S WASH AGENT 5 DEC 77 QUOTE: OWNER'S ADVISE
ETA VULCANUS AZORES ISLANDS PORT PONTA DELGADA ON THE ISLAND SAO
MIGUEL ON THURSDAY DECEMBER 8 PM (AFTERNOON). UNQUOTE.

BT

W1606

NNNN

YOR-3392054Z

MLN-010004

P R I O R I T Y

TOR-3400026Z

MLN-011355

Dr Taylor
Maj Jernblom
Maj Walker
Cpt [unclear]
 6 DEC 77 01 18
 13F
 PRIORITY 4

PTTUZYUW RULSS005915 3400019-UUUU--RUVKAAA

ZNR UUUUU

P 052100Z DEC 77

FM COMSC WASHINGTON DC

TO RUEBPAA/M L NEJOMBORS INC

NINE FOUR NINE EIGHTEENTH STREET

SUITE EIGHT HUNDRED

WASHINGTON DC

INFO RUEFHQA/OSAF WASHINGTON DC

RUVKAAA/DLAA USAF DEHL KELLY AFB TX

RUVAAA/AFLC WRIGHT PATTERSON AFB OH

RUVKAA5/USAF DEHL BROOKS AFB TX

BT

UNCLAS //NO4253/M-10-1

OSAF FOR ALG-MTQ

NO USAF FOR OGY/500

AFLC FOR LO

M/V VULCANUS CLEANING AND ANALYTICAL RESULTS OF SCRAPPING SAMPLES - PAGE 01

1. THIS ACKNOWLEDGES RECEIPT YOUR TLX 1 DEC 77. AS PREVIOUSLY ADVISED IN MEETING OF 29 NOV 1977 AND OUR MESSAGE 232227Z NOV 77 SCHEDULE OF VULCANUS APPEARS TO BE APPROPRIATE AND FEASIBLE.

PAGE 02 RULSS005915 UNCLAS

U.S. GOVERNMENT INTENDS PLACE REPRESENTATIVE ON BOARD DURING CLEANING OPERATIONS AS OBSERVER AND SAMPLE TAKER.

2. THE FOLLOWING MESSAGE HAS BEEN RECEIVED 5 DEC 77 FROM USAF QUOTE:

1. THE FOLLOWING ADDITIONAL ANALYTICAL RESULTS OF SAMPLES TAKEN AT ENDS, 15 NOV 77 ARE PROVIDED. BE ADVISED THAT THE PREVIOUSLY REPORTED RESULTS FOR SAMPLES THREE (3) THROUGH EIGHT (8) HAVE BEEN VERIFIED. THE FOLLOWING RESULTS ARE NOW BEING VERIFIED BY ADDITIONAL ANALYTICAL TESTS:

SAMPLE NO.	LOCATION	TCD (NANOGRAMS PER GRAM SAMPLE)
1.	FAN RM COMPARTMENT	14.0
2.	FAN RM FLOOR	N.D.
3.	FORECASTLE UPPER LVL FLOOR	N.D.
10.	FORECASTLE LOWER LVL FLOOR	N.D.
11.	PUMP RM EXTERNAL SCALE FROM PIPES	N.D.
12.	CARGO LOADING PIPE	131.0
13.	PORT AIR TANK FLOOR	N.D.
14.	CARGO TANK 35 WALL/SHELF	95.0
15.	CARGO TANK 3P FLOOR	19.0

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PRIORITY 4

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PAGE 03 RULSS005915 UNCLAS

16. CARGO TANK 4C VERTICAL AND HORIZONTAL SUPPORTS	13.0
17. CARGO TANK 2C WALL	12.0
18. CARGO TANK 2C CEILING	N.O.

NOTES FOR ABOVE:

A. N.O. MEANS NO DETECTABLE LEVEL FOUND. MINIMUM DETECTABLE QUANTITY (MDQ) WAS 5-18 NANOGRAMS TCDD PER GRAM OF SAMPLE FOR ALL SAMPLES EXCEPT SAMPLE NO. NINE (9), FOR WHICH THE MDQ WAS 2.0 MICROGRAMS TCDD PER GRAM OF SAMPLE.

B. ANALYTICAL RESULTS OF ALL ENDEN SAMPLES HAVE NOW BEEN REPORTED. 2. PREVIOUSLY UNREPORTED DATA FOR SAMPLES TAKEN AT JOHNSTON ISLAND ON 8 SEP ARE AS NOTED BELOW. IN ALL CASES THE SCRAPING SAMPLES WERE TAKEN FROM CARGO TANK WALLS APPROXIMATELY FOUR (4) METERS FROM TANK BOTTOM. IT IS REALIZED THAT SUBSEQUENT CLEANING WAS ACCOMPLISHED WHILE ENROUTE TO PANAMA CANAL AS WELL AS ENROUTE TO EUROPE.

TANK NO.	TCDD (NANOGRAMS PER GRAM SAMPLE)
1C	55.0
2C	240.0
3C	190.0

PAGE 04 RULSS005915 UNCLAS

4C	75.0
5C	280.0

UNQUOTE

J A RAYMOND CAPTAIN SC USN CONTRACTING OFFICER MILITARY SEALIFT
COMMAND SENDS
BT
#5915

NNNN

EC

12 Dec 77

Extension of Wright State University Contract

SA-ALC/SF

Kelly AFB TX 78241

1. In reference to our letter dated 1 Nov 77, it was proposed that the current contract with Wright State University be extended through 31 Dec 77 in order for them to complete five (metal) scrape samples as well as an additional 290 samples collected in support of Project PACER HO. As a result of problems associated with the Vulcanus, Wright State University has been required to give their total supportive analytical efforts to not only the five priority scrape samples but an additional 22 scrape samples collected by OEHL personnel in mid-November. On 15 Dec 77 an additional 20 scrape samples will be provided to Wright State University for priority analyses. The consequence of these latest Vulcanus samples is that Wright State University has been required to devote all contractual funds to samples that were not programmed in our letter of 1 Nov 77.

2. It is imperative that Wright State University be retained on contract through completion of all samples in support of the cleanliness verification of the Vulcanus and the completion of those other samples collected in support of PACER HO. As previously noted, these remaining samples are also required for inclusion into a final report on the disposition of Herbicide Orange. The nature and number of samples to be analyzed for TCDD following the scrape samples presently being collected this date aboard the Vulcanus are as follows:

Swipes	3
Burner residue	4
Chromosorb	22
Air samples	67
Liquid samples	<u>194</u>
Total	290

3. Although other laboratories (University of Utah, University of Nebraska and Intermountain Laboratories, Salt Lake City UT) are currently able to analyze soil and biological samples for dioxin, only Wright State University has had the experience in analyzing scrapings, swipes, and burner residues. They have exclusively developed and tested procedures for analyzing TCDD in these substrates. In addition, Wright State University is the only laboratory that can provide the priority analyses within the required time period for support of the Vulcanus.

4. The estimated funds required for the extension of the Wright State University contract are \$35,000. These funds have been allocated by AFLC/LO, in a priority message to you this date. Your assistance in preparing an extension through September 1978 to the Wright State contract is appreciated.

FOR THE COMMANDER

GALE D. TAYLOR, Colonel, USAF, VC
Chief, Consultant Services Division

10 Jan 78

Dr. Michael L. Taylor
Associate Director
Brahm Laboratory
Wright State University
Dayton OH 45431

Dear Dr. Taylor

On behalf of the USAF Occupational and Environmental Health Laboratory, let me extend our thanks to you and the Brahm Laboratory Staff for the outstanding analytical support provided the the Air Force for the Vulcanus Project. We are hopeful that a satisfactory solution to this problem will now be adopted.

Captain Young has informed me that the extension to the Wright State University Contract was effective 31 Dec 77. The USAF OEHL staff is currently preparing the 1978 analytical requirements. We anticipate two immediate projects: (1) the completion of all rust samples from the Vulcanus, and (2) analysis of remaining samples from Project PACER HO. To complete the rust samples, five additional samples collected in late December 1977 will be hand-carried to your laboratory on 17 Jan 78. We would hope that a final report of all rust samples could be completed by 31 Jan 78. In discussions with Mr Charles Jones (SA-ALC/PPZMA, Kelly AFB TX, Contracting Officer) we obtained his concurrence that a report on the Vulcanus rust samples (including analytical methodology and tabular data) be substituted for a quarterly report. I hope this will be satisfactory with you.

In regard to the analyses of the biological and soil degradation samples at Wright State that were collected by USAF Academy personnel (as discussed with you by Captain Young) I have asked TSgt James Sabian to go to Wright State and remove and hand-carry these samples back to USAF OEHL. We wish to re-evaluate our requirements on these types of samples. Your cooperation in this project is greatly appreciated. TSgt Sabian will be at the Brahm Laboratory on Tuesday morning, 17 Jan 78.

Again my thanks for all your past efforts in support of the "Disposition of Herbicide Orange."

Sincerely

SIGNED
GALE D. TAYLOR, Colonel, USAF, VC
Chief, Consultant Services Division

Cy to: SA-ALC/PPZMA

Maj Tremblay/3991/lmp/13 Feb 78

14 FEB 1978

Dr. Michael L. Taylor
Associate Director
Brehm Laboratory
Wright State University
Dayton OH 45431

Dear Dr. Taylor

Reference is made to my letter of 10 Jan 78. I understand that the analysis of all rust/wipe samples from the Vulcanus are complete at this time. As I requested in my 10 Jan 78 letter, we would ask that you prepare a final report of all Vulcanus rust/wipe samples analyzed since your last quarterly report (Brehm Laboratory Report No. 3-78), including analytical methodology and tabulated data. We will need this report as quickly as possible, and I would appreciate your contacting me at your earliest convenience on an estimated completion date.

Of the approximate 295 samples remaining for analysis in support of the PACER HO project, we have prioritized our data requirements. Attached is a priority listing of samples for analysis, including desired dates by which we need the data. If you anticipate any significant delays, I would appreciate your notifying me as early as possible.

I would also appreciate your providing me with a list of all remaining samples by category so that we may prioritize our analytical needs. We have coordinated this letter with Mr. Charles Jones (SA-ALC/PPZMA, Kelly AFB TX Contracting Officer).

Once again, let me thank you for your past and continuing efforts in support of this vitally important project.

Sincerely

SIGNED

GALE D. TAYLOR, Colonel, USAF, VC
Vice Commander

1 Atch
Priority Listing (4)

Cy to: SA-ALC/PPZMA

PRIORITY LISTING OF AIR FORCE
OEHL HERBICIDE ORANGE
DISPOSAL SAMPLES

Priority 1. Combustion product and feed stack samples for EPA required sampling runs aboard M/T Vulcanus, burns 2 and 3. (TCDD analysis only)
Data Required by: 10 March 1978

a. Burn No. 2 (13 Aug 77)

<u>AF Number</u>	<u>WSU Number</u>
- HO-2-BI-8/13-H-S-W-1005	1-1267
*HO-2-PR-8/13-H-S-W	1-1272
*HO-2-LR-8/13-H-S-W	1-1277
HO-2-CF-8/13-H-S-W	1-1282
HO-2-BLANK-8/13-4-S-W	1-1262

*Analytical data already reported by phone.

b. Burn No. 3 (28 Aug 77)

<u>AF Number</u>	<u>WSU Number</u>
HO-3-LR-828-H-I-W	Not Available
HO-3-CF-828-H-S-W	Not Available
- HO-3-PR-828-H-S-W	Not Available
HO-3-BI-828-H-S-W	Not Available
HO-3-BLANK-828-H-S-W	Not Available

c. Burner Residue (Burn 1 and 2)

<u>AF Number</u>	<u>WSU Number</u>
HO-1-BR-722-H-I-W	1-1220
HO-1-BR-723-H-I-W	1-1221
HO-2-BR-709-H-I-W	1-1260
HO-2-BR-815-H-S-W	1-1261

d. Burn No. 2 (8 Aug 77)

<u>AF Number</u>	<u>WSU Number</u>
*HO-2-PR-8/8-H-S-W	1-1270
*HO-2-LR-8/8-H-S-W	1-1275
HO-2-CF-8/8-H-I-W	1-1280
- HO-2-BI-8/8-H-S-T-0914	1-1265

* - Analytical data already reported. Rerun of sample WSU 1-1270 is requested.

Priority 2. Ambient air samples from Johnston Island (2,4-D, 2,4,5-T and TCDD analyses)

Data Required by: 17 March 1978

<u>AF Number</u>	<u>Sample Code</u>	<u>WSU Number</u>
2005	AD24Y709W	1-1357
2007	AB24Y709W	1-1358
2046	AB28Y700W	1-1324
2047	AD28Y700W	1-1342
2086	AB02T719W	1-1371
2100	AW03T700W	1-1335
2102	AB03T700W	1-1337
2103	AD03T700W	1-1338
2120	AB04T700W	1-1320
2133	AB05T700W	1-1318
2146	AB17T700W	1-1415
2147	AD17T700W	1-1416
2162	AB18T700W	1-1417
2167	AM20T700W	1-1418
2169	AB20T708W	1-1419
2184	AB21T700W	1-1420
2185	AD21T700W	1-1421
2203	AB22T700W	1-1422
2254	AB26T700W	1-1423
2255	AD26T700W	1-1424

(20)

Priority 3. Potable and drainage water samples from NCBC, Gulfport MS
(2,4-D, 2,4,5-T and TCDD analyses)

Data Required by: 24 March 1978

<u>AF Number</u>	<u>Sample Code</u>	<u>WSU Number</u>
1647	D112E7W	1-1308
1648	D212E7W	1-1309
1649	D312E7W	1-1310
1650	D412E7W	1-1311
1651	D512E7W	1-1312
1652	D612E7W	1-1313
775	W104M7W	1-938
795	W205M7W	1-942
865	W305M7W	1-943
867	W405M7W	1-944
869	W505M7W	1-945
1288	W603E7W	1-1056
1352	W104E7W	1-1058
1354	W203E7W	1-1059
1356	W304E7W	1-1060
1358	W404E7W	1-1061
1360	W504E7W	1-1062
1362	W704E7W	1-1063
1637	W112E7W	1-1082
1639	W212E7W	1-1083
1641	W312E7W	1-1305
1643	W412E7W	1-1306
1645	W512E7W	1-1307
1635	W711E7W	1-1081

24

Priority 4. Drainage water samples from Johnston Island (2,4-D, 2,4,5-T and TCDD analyses)

Data Required by: 31 March 1978

<u>AF Number</u>	<u>Sample Code</u>	<u>WSU Number</u>
1726	PI26Y700K	1-1425
1777	WF30Y711K	1-1426
1784	SE130Y700K	1-1426
1792	WS31Y700J	1-1429
1811	SE102T700K	1-1430
1825	SE104T700K	1-1431
1843	SE106T700K	1-1432
1853	SE109T700K	1-1433
1862	SE112T700K	1-1434
1888	SE18T700K	1-1435
1901	WF20T700K	1-1436

(11)