UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
HOUSTON BRANCH
10625 FALLSTONE RD.
HOUSTON, TEXAS 77099

MEMORANDUM

Date: 9-26-1996

Subject: **Contract Laboratory Program Data Review**

From: Melvin L. Ritter, ESAT RPO, 6MD-HC

To: L. Biasco, 6SF-RA

MLRitter 9/27/96

Site: DELTA SHIPYARD

Case#: 9607G425

SDG#: 07G425

The EPA Region 6 Houston Branch ESAT data validation team has completed a review of the submitted Contract Laboratory Program (CLP) data package for the referenced site. The samples analyzed and reviewed are detailed in the attached Regional data review and assessment report for this case.

The data package was found to be:

( ) Acceptable: No major problems with data package.

(X) Provisional: Use of data requires caution.
Data is acceptable for Regional use. Problems are noted in the review report.

( ) Unacceptable: Some or all of data should not be used.
Problems are noted in the review report.

Questions regarding the data review report can be addressed to me.

Attachments

964845

cc: R. Flores, Region 6 CLP/TPO
M. El-feky, Region 6 Data Coordinator

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MEMORANDUM

DATE: September 23, 1996

TO: Dr. Melvin Ritter, ESAT RPO, Region VI

FROM: Dr. Tom C.H. Chiang, ESAT ETM, Region VI
Tom CH Chiang

SUBJECT: non-CLP Data Review

REF: TDF # 6-6451A ESAT # O-1747

Attached is the data review summary for Case # 9607G425
SDG # 07G425
Site Delta Shipyard

COMMENTS:

I. CONTRACTUAL ASSESSMENT OF THE DATA PACKAGE

Not applicable.

II. TECHNICAL USABILITY ASSESSMENT OF THE DATA PACKAGE

The total number of results reviewed was 1,625 for this data package. The data package is technically provisional because of the following significant problems.

1. BNA samples B01-51-1 and P02-71-1 had low IS responses.

2. Several BNA analytes had low recoveries for the MS/MSD analyses.

3. The laboratory failed to report many pesticides detected above CRQL's in seven samples.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
HOUSTON BRANCH
10625 FALLSTONE ROAD
HOUSTON, TEXAS 77099

ORGANIC REGIONAL DATA ASSESSMENT

CASE NO. 9607G425
LABORATORY WESTON
CONTRACT# N/A
SDG# 07G425
SOW# RAS SOW OLM01.9
ACCT# 6TFAJN86 SF# TFAUZZ

SITE Delta Shipyard
NO. OF SAMPLES 13
MATRIX Sludge
REVIEWER (IF NOT ESD) ESAT
REVIEWER'S NAME Maria Missler and Gene Zhu
COMPLETION DATE September 23, 1996

SAMPLE NO.				
	B01-51-1	B02-51-2	P05-72-1	P02-71-1
	B01-52-1	B02-51-3	P04-71-1	
	B01-51-2	P06-71-1	P03-71-1	
	B02-51-1	P05-71-1	P01-71-1	

DATA ASSESSMENT SUMMARY

	VOA	BNA	PEST
1. HOLDING TIMES	O	O	O
2. GC/MS TUNE/INSTR. PERFORM.	O	O	O
3. CALIBRATIONS	O	O	O
4. BLANKS	O	O	O
5. SMC/SURROGATES	O	O	O
6. MATRIX SPIKE/DUPLICATE	O	M	O
7. OTHER QC	O	O	O
8. INTERNAL STANDARDS	O	M	N/A
9. COMPOUND ID/QUANTITATION	O	O	M
10. PERFORMANCE/COMPLETENESS	O	O	O
11. OVERALL ASSESSMENT	O	M	M

O = Data had no problems.
M = Data qualified due to major or minor problems.
Z = Data unacceptable.
NA = Not applicable.

ACTION ITEMS: Not applicable.

AREA OF CONCERN: Two BNA samples had low IS responses. Several BNA analytes had very low MS/MSD recoveries. The laboratory failed to report many pesticides detected above CRQL's in seven samples. The laboratory reported an incorrect DDE concentration for Pest/PCB sample P04-71-1. Two pesticides were reported without their commonly co-existing pesticides in six samples. Several pesticides had two-column quantitation results differing by more than 25 percent.

NOTABLE PERFORMANCE: The laboratory performed BS/BSD analyses.

COMMENTS/CLARIFICATIONS
REGION VI CLP QA REVIEW

CASE 9607G425 **SDG** 07G425 **SITE** Delta Shipyard **LAB** WESTON

The following is a summary of sample qualifiers used by Region 6 in reporting this CLP data:

No.	Acceptable	Provisional	Unacceptable
VOA	13		
BNA	11	2	
PEST	4	9	

COMMENTS: The case consisted of 13 sludge samples for complete organics analysis following the CLP protocol, SOW OLM01.8. The COC Record did not designate any sample for MS/MSD analyses, but the laboratory performed MS/MSD analyses on sample B01-52-1 for the VOA fraction and sample B01-51-1 for BNA and Pest/PCB fractions.

The case narrative stated that nine VOA samples were analyzed as medium level soils, but the reporting forms indicated a low level analysis with a dilution factor of 125X — equivalent to medium level analyses — for these samples. Since a 125X dilution for a VOA soil sample is practically impossible, this discrepancy is most likely due to reporting errors and does not affect the reported analyte results in the reviewer's opinion. The laboratory analyzed all other VOA and BNA samples following the low level protocol although some BNA samples appeared to be medium level samples.

VOA Nine samples contained high levels of matrix interferences or high concentrations (up to 59,000 µg/kg) of toluene, ethylbenzene, and xylenes. Acetone and 2-butanone were reported in four other samples.

BNA The laboratory diluted (200X to 500X) seven samples because of high concentrations (up to 470,000 µg/Kg) of naphthalene and 2-methylnaphthalene. High concentrations of methylnaphthalene isomers were also reported as TIC's for these samples. Samples B01-51-1 and B01-52-1 were diluted (up to 50X) and analyzed because of high concentrations of 2-methylnaphthalene, phenanthrene, hydrocarbons, or other non-target compounds. Samples B01-51-1 and P02-71-1 had low IS responses. Several BNA analytes had very low MS/MSD recoveries.

Pest/PCB The target analytes reported above CRQL's in eight samples included heptachlor epoxide, endosulfan II, DDE, and DDT. The laboratory diluted (up to 10X) eight samples because of matrix interferences. The laboratory failed to report many pesticides detected above CRQL's in seven samples.

ORGANIC QA REVIEW
CONTINUATION PAGE

CASE 9607G425 **SDG** 07G425 **SITE** Delta Shipyard **LAB** WESTON

COMMENTS: (continued)

Some data are provisional for two BNA and nine Pest/PCB samples because of problems with IS response, MS/MSD performance, compound quantitation, and compound identification. The technical usability of all reported sample results is indicated by ESAT's final data qualifiers in the attached Data Summary Table.

NOTE: CONTRACTUAL EVALUATION WAS NOT REQUIRED AND WAS NOT PERFORMED FOR THIS CASE.

1. **Holding Times:** Acceptable. All samples were extracted and analyzed in a timely manner although no technical holding time criteria exist for soil samples.

2. **Tuning/Performance:** Acceptable. The BFB and DFTPP analyses met ion abundance criteria. Sample analyses met instrument performance guidelines.

3. **Calibrations:** Acceptable. Several VOA and BNA analytes failed technical %D calibration criteria, but sample results were not affected. Other target analytes met technical calibration criteria for all fractions.

4. **Blanks:** Acceptable. All method, storage, and instrument blanks met technical QC guidelines. No laboratory contaminants were reported for the blanks.

5. **System Monitoring Compounds (SMC's)/Surrogates:** Acceptable. All surrogates were diluted out (up to 500X) for nine BNA and seven Pest/PCB sample analyses. The reviewer did not qualify any sample results because the associated method blanks had acceptable surrogate recoveries. Two Pest/PCB samples had low surrogate recoveries on one column. Results were not qualified because the surrogate recoveries were acceptable on the other column. The laboratory reported "I" for three of the four surrogate recoveries in Pest/PCB sample B01-52-1 indicating matrix interferences. Results were not qualified. SMC and surrogate recoveries generally met QC criteria for all other samples.

6. **Matrix Spike/Matrix Spike Duplicate:** Provisional. The BNA MS/MSD samples were diluted (5X) and analyzed, and several analytes had low or zero percent recoveries. The reviewer did not qualify the result for 4-nitrophenol, one of the eight difficult analytes with elevated CRQL's, because of diluting out.

CASE 9607G425 **SDG** 07G425 **SITE** Delta Shipyard **LAB** WESTON

6. Matrix Spike/Matrix Spike Duplicate: (continued) The other acidic and base/neutral spike analytes, however, should be detectable in the MS/MSD samples. The reviewer qualified the 4-chloro-3-methylphenol and 2,4-dinitrotoluene quantitation limits (QL's) as estimated and low biased for the unspiked sample B01-51-1 because these analytes had low and zero percent MS/MSD recoveries, respectively. The MS recovery for n-nitroso-di-N-propylamine and MSD recovery for acenaphthene were below the QC limits. Since the recoveries in the spike duplicate were acceptable for these two analytes, no data were qualified.

The reviewer did not take any action for outlying %RPD's in the BNA MS/MSD analyses and a high heptachlor recovery in the Pest/PCB MS/MSD analyses because the affected analytes were not detected in the unspiked samples. Other MS/MSD results met QC criteria for precision and recovery.

7. Other QC:

Blank Spike/Blank Spike Duplicate (BS/BSD): Acceptable. All BS/BSD analyses had acceptable recovery and %RPD results.

8. Internal Standards (IS): Provisional. The IS performance is acceptable for the VOA and BNA samples with the following exceptions.

VOA The MS/MSD analyses had a low IS3 response. This problem did not appear to affect the MS/MSD and unspiked sample results.

BNA Sample B01-51-1 had low IS3 and IS4 responses, and its MS/MSD analyses repeated the problem. The laboratory reanalyzed sample P02-71-1 because of a low IS6 response, and the reanalysis had the same problem. The reviewer recommends using the original analysis for sample P02-71-1 because of better IS responses. However, the reviewer qualified the QL's as estimated and biased low for the analytes associated with the IS's listed below.

Sample ID	IS's
B01-51-1	IS3 and IS4
P02-71-1	IS6

9. Compound Identity/Quantitation: Provisional.

VOA Medium level samples B01-51-1, B01-52-1, P06-71-1, P05-71-1, P05-72-1, P04-71-1, P03-71-1, P01-71-1, and P02-71-1 contained high levels of matrix interferences or high concentrations (up to 59,000 µg/kg) of toluene, ethylbenzene, and xylenes.

ORGANIC QA REVIEW
CONTINUATION PAGE

CASE 9607G425 **SDG** 07G425 **SITE** Delta Shipyard **LAB** WESTON

9. Compound Identity/Quantitation: (continued) Acetone and 2-butanone were reported above CRQL's in the remaining samples. The submitted spectra met identification criteria.

BNA The laboratory diluted (200X to 500X) the following seven samples because of high concentrations (up to 470,000 µg/Kg) of 2-methylnaphthalene and naphthalene:

P06-71-1, P05-71-1, P05-72-1, P04-71-1, P03-71-1, P01-71-1, and P02-71-1.

High concentrations of methylnaphthalene isomers were also reported as TIC's for these samples. Sample B01-51-1 contained 2-methylnaphthalene and phenanthrene at high concentrations (up to 11,000 µg/Kg) and required a 5X dilution. The laboratory diluted (50X) and analyzed sample B01-52-1 because of high concentrations of non-target compounds. All diluted samples contained hydrocarbon TIC's at high concentrations. All sample spectra met identification criteria for the reported target analytes.

Pest/PCB The laboratory reported the following target analytes above CRQL's in eight samples: heptachlor epoxide, endosulfan II, DDE, and DDT. However, the laboratory did not report the following compounds that met identification criteria and had concentrations above CRQL's.

Sample ID	Pesticides
B01-51-1	endrin aldehyde, γ-BHC, endosulfan sulfate
P06-71-1	endrin ketone, endrin aldehyde, γ-Chlordane
P05-71-1	endrin aldehyde, endrin ketone
P05-72-1	aldrin, endosulfan sulfate, endrin aldehyde, endrin ketone
P04-71-1	aldrin, Chlordanes, DDD, endosulfan sulfate, endrin ketone, methoxychlor
P03-71-1	aldrin
P01-71-1	α-BHC

The reviewer qualified the reported QL's as estimated and biased low for the pesticides listed above. The EPA is notified of this problem (see attached resubmission request).

ORGANIC QA REVIEW
CONTINUATION PAGE

CASE 9607G425 **SDG** 07G425 **SITE** Delta Shipyard **LAB** WESTON

9. Compound Identity/Quantitation: (continued) Other reported results met compound identification criteria. GC/MS confirmation was not required for this case.

The laboratory diluted (up to 10X) the following samples before GPC clean up because of sample matrix problems:

B01-52-1, P06-71-1, P05-71-1, P05-72-1, P04-71-1, P03-71-1, P01-71-1, and P02-71-1.

The quantitation results reflected the dilutions although dilution factors of 1.00 were reported in the header section of the sample result forms.

The reviewer qualified the DDE result as estimated and biased low for sample P04-71-1 because of a quantitation error. The reviewer questioned the identification for the following analytes and assigned "T" flags to the results because of the absence of their commonly co-existing pesticides:

DDE in sample P04-71-1 and

endosulfan II in samples B01-51-1, B01-52-1, P03-71-1, P01-71-1, and P02-71-1.

All laboratory "P" flagged results that were above CRQL's for the samples were qualified as estimated because two-column quantitation results differed by more than 25 percent.

10. Performance/Completeness: Acceptable. The data package was complete but had some deficiencies. A list of issues requiring laboratory corrections and clarification is attached to this report.

11. Overall Assessment: Data are acceptable for all VOA, 11 BNA, and 4 Pest/PCB samples.

BNA Some results are provisional for samples B01-51-1 and P02-71-1 because of problems with IS and MS/MSD performance.

Pest/PCB Some results are provisional for the following samples because of problems with compound quantitation and identification:

B01-51-1, B01-52-1, P06-71-1, P05-71-1, P05-72-1, P04-71-1, P03-71-1, P01-71-1, and P02-71-1.

ORGANIC DATA QUALIFIER DEFINITIONS

The following definitions provide brief explanations of the ESAT-Region 6 qualifiers assigned to results in the Data Summary Table.

U	Not detected at reported quantitation limit.
N	Identification is tentative.
J	Estimated value.
R	Unusable.
^	High biased. Actual concentration may be lower than the concentration reported.
v	Low biased. Actual concentration may be higher than the concentration reported.
F+	A false positive exists.
F-	A false negative exists.
B	This result may be high biased because of laboratory/field contamination. The reported concentration is above 5X or 10X the concentration reported in the method/field blank.
UJ	Estimated quantitation limit.
T	Identification is questionable because of absence of other commonly coexisting pesticides.
*	Result not recommended for use because of associated QA/QC performance inferior to that from other analysis.

ORGANIC DATA SUMMARY

Case No 9607G425 SDG 07G425 Reviewer Maria Missler / Gene Zhu

Laboratory WESTON Matrix SOIL Units ug/Kg

VOLATILES		FLAG		FLAG		FLAG		FLAG		FLAG		FLAG		FLAG
EPA SAMPLE NUMBER	B01-51-1		B01-52-1		B01-51-2		B02-51-1		B02-51-2		B02-51-3		P06-71-1	
Chloromethane	2300	U	2200	U	25	U	19	U	20	U	24	U	2400	U
Bromomethane	2300	U	2200	U	25	U	19	U	20	U	24	U	2400	U
Vinyl chloride	2300	U	2200	U	25	U	19	U	20	U	24	U	2400	U
Chloroethane	2300	U	2200	U	25	U	19	U	20	U	24	U	2400	U
Methylene chloride	2300	U	2200	U	25	U	19	U	20	U	24	U	2400	U
Acetone	2300	U	2200	U	150		270		200		120		2400	U
Carbon disulfide	2300	U	2200	U	25	U	19	U	20	U	24	U	2400	U
1,1-Dichloroethene	2300	U	2200	U	25	U	19	U	20	U	24	U	2400	U
1,1-Dichloroethane	2300	U	2200	U	25	U	19	U	20	U	24	U	2400	U
1,2-Dichloroethene (total)	2300	U	2200	U	25	U	19	U	20	U	24	U	2400	U
Chloroform	2300	U	2200	U	25	U	19	U	20	U	24	U	2400	U
1,2-Dichloroethane	2300	U	2200	U	25	U	19	U	20	U	24	U	2400	U
2-Butanone	2300	U	2200	U	25	U	55		20	U	24	U	2400	U
1,1,1-Trichloroethane	2300	U	2200	U	25	U	19	U	20	U	24	U	2400	U
Carbon tetrachloride	2300	U	2200	U	25	U	19	U	20	U	24	U	2400	U
Bromodichloromethane	2300	U	2200	U	25	U	19	U	20	U	24	U	2400	U
1,2-Dichloropropane	2300	U	2200	U	25	U	19	U	20	U	24	U	2400	U
cis-1,3-Dichloropropene	2300	U	2200	U	25	U	19	U	20	U	24	U	2400	U
Trichloroethene	2300	U	2200	U	25	U	19	U	20	U	24	U	2400	U
Dibromochloromethane	2300	U	2200	U	25	U	19	U	20	U	24	U	2400	U
1,1,2-Trichloroethane	2300	U	2200	U	25	U	19	U	20	U	24	U	2400	U
Benzene	2300	U	2200	U	25	U	19	U	20	U	24	U	2400	U
trans-1,3-Dichloropropene	2300	U	2200	U	25	U	19	U	20	U	24	U	2400	U
Bromoform	2300	U	2200	U	25	U	19	U	20	U	24	U	2400	U
4-Methyl-2-pentanone	2300	U	2200	U	25	U	19	U	20	U	24	U	2400	U
2-Hexanone	2300	U	2200	U	25	U	19	U	20	U	24	U	2400	U
Tetrachloroethene	2300	U	2200	U	25	U	19	U	20	U	24	U	2400	U
1,1,2,2-Tetrachloroethane	2300	U	2200	U	25	U	19	U	20	U	24	U	2400	U
Toluene	2300	U	2200	U	25	U	19	U	20	U	24	U	2400	U
Chlorobenzene	2300	U	2200	U	25	U	19	U	20	U	24	U	2400	U
Ethylbenzene	2300	U	2200	U	25	U	19	U	20	U	24	U	1300	J
Styrene	2300	U	2200	U	25	U	19	U	20	U	24	U	2400	U
Xylenes (total)	2300	U	2200	U	25	U	19	U	20	U	24	U	13000	
Sample wt (g)	5		5		5		5		5		5		5	
%Moisture	46		44		60		48		49		59		49	
Dilution Factor	125		125		1		1		1		1		125	
Level	LOW		LOW		LOW		LOW		LOW		LOW		LOW	
Number of TIC's	10		10		0		1		0		1		10	

Note For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers The ESAT flags indicate the technical usability of the reported results

ORGANIC DATA SUMMARY

Case No	9607G425	SDG	07G425	Reviewer	Maria Missler / Gene Zhu
Laboratory	WESTON	Matrix	SOIL	Units	ug/Kg

VOLATILES	FLAG	FLAG	FLAG	FLAG	FLAG	FLAG	FLAG
EPA SAMPLE NUMBER	P05-71-1	P05-72-1	P04-71-1	P03-71-1	P01-71-1	P02-71-1	
Chloromethane	2300 U	2100 U	1700 U	2100 U	2300 U	2100 U	
Bromomethane	2300 U	2100 U	1700 U	2100 U	2300 U	2100 U	
Vinyl chloride	2300 U	2100 U	1700 U	2100 U	2300 U	2100 U	
Chloroethane	2300 U	2100 U	1700 U	2100 U	2300 U	2100 U	
Methylene chloride	2300 U	2100 U	1700 U	2100 U	2300 U	2100 U	
Acetone	2300 U	2100 U	1700 U	2100 U	2300 U	2100 U	
Carbon disulfide	2300 U	2100 U	1700 U	2100 U	2300 U	2100 U	
1,1-Dichloroethene	2300 U	2100 U	1700 U	2100 U	2300 U	2100 U	
1,1-Dichloroethane	2300 U	2100 U	1700 U	2100 U	2300 U	2100 U	
1,2-Dichloroethene (total)	2300 U	2100 U	1700 U	2100 U	2300 U	2100 U	
Chloroform	2300 U	2100 U	1700 U	2100 U	2300 U	2100 U	
1,2-Dichloroethane	2300 U	2100 U	1700 U	2100 U	2300 U	2100 U	
2-Butanone	2300 U	2100 U	1700 U	2100 U	2300 U	2100 U	
1,1,1-Trichloroethane	2300 U	2100 U	1700 U	2100 U	2300 U	2100 U	
Carbon tetrachloride	2300 U	2100 U	1700 U	2100 U	2300 U	2100 U	
Bromodichloromethane	2300 U	2100 U	1700 U	2100 U	2300 U	2100 U	
1,2-Dichloropropane	2300 U	2100 U	1700 U	2100 U	2300 U	2100 U	
cis-1,3-Dichloropropene	2300 U	2100 U	1700 U	2100 U	2300 U	2100 U	
Trichloroethene	2300 U	2100 U	1700 U	2100 U	2300 U	2100 U	
Dibromochloromethane	2300 U	2100 U	1700 U	2100 U	2300 U	2100 U	
1,1,2-Trichloroethane	2300 U	2100 U	1700 U	2100 U	2300 U	2100 U	
Benzene	2300 U	2100 U	1700 U	2100 U	2300 U	2100 U	
trans-1,3-Dichloropropene	2300 U	2100 U	1700 U	2100 U	2300 U	2100 U	
Bromoform	2300 U	2100 U	1700 U	2100 U	2300 U	2100 U	
4-Methyl-2-pentanone	2300 U	2100 U	1700 U	2100 U	2300 U	2100 U	
2-Hexanone	2300 U	2100 U	1700 U	2100 U	2300 U	2100 U	
Tetrachloroethene	2300 U	2100 U	1700 U	2100 U	2300 U	2100 U	
1,1,2,2-Tetrachloroethane	2300 U	2100 U	1700 U	2100 U	2300 U	2100 U	
Toluene	6400	7400	1700 U	3800	2300 U	2100 U	
Chlorobenzene	2300 U	2100 U	1700 U	2100 U	2300 U	2100 U	
Ethylbenzene	8600	9000	660 J	4500	8700	3500	
Styrene	2300 U	2100 U	1700 U	2100 U	2300 U	2100 U	
Xylenes (total)	56000	59000	2000	28000	27000	23000	
Sample wt (g)	5	5	5	5	5	5	
%Moisture	47	42	26	42	45	40	
Dilution Factor	125	125	125	125	125	125	
Level	LOW	LOW	LOW	LOW	LOW	LOW	
Number of TIC's	10	10	10	10	10	10	

Note For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers The ESAT flags indicate the technical usability of the reported results

ORGANIC DATA SUMMARY

Case No	9607G425	SDG	07G425	Reviewer	Maria Missler / Gene Zhu
Laboratory	WESTON	Matrix	SOIL	Units	ug/Kg

SEMIVOLATILES	FLAG	FLAG	FLAG	FLAG	FLAG	FLAG	FLAG
EPA SAMPLE NUMBER	B01-51-1	B01-52-1	B01-51-2	B02-51-1	B02-51-2	B02-51-3	P06-71-1
Phenol	3000 U	30000 U	820 U	630 U	650 U	790 U	310000 U
bis(2-Chloroethyl)ether	3000 U	30000 U	820 U	630 U	650 U	790 U	310000 U
2-Chlorophenol	3000 U	30000 U	820 U	630 U	650 U	790 U	310000 U
1,3-Dichlorobenzene	3000 U	30000 U	820 U	630 U	650 U	790 U	310000 U
1,4-Dichlorobenzene	3000 U	30000 U	820 U	630 U	650 U	790 U	310000 U
1,2-Dichlorobenzene	3000 U	30000 U	820 U	630 U	650 U	790 U	310000 U
2-Methylphenol	3000 U	30000 U	820 U	630 U	650 U	790 U	310000 U
2,2'-Oxybis(1-chloropropane)	3000 U	30000 U	820 U	630 U	650 U	790 U	310000 U
4-Methylphenol	3000 U	30000 U	820 U	630 U	650 U	790 U	310000 U
N-Nitroso-di-n-propylamine	3000 U	30000 U	820 U	630 U	650 U	790 U	310000 U
Hexachloroethane	3000 U	30000 U	820 U	630 U	650 U	790 U	310000 U
Nitrobenzene	3000 U	30000 U	820 U	630 U	650 U	790 U	310000 U
Isophorone	3000 U	30000 U	820 U	630 U	650 U	790 U	310000 U
2-Nitrophenol	3000 U	30000 U	820 U	630 U	650 U	790 U	310000 U
2,4-Dimethylphenol	3000 U	30000 U	820 U	630 U	650 U	790 U	310000 U
bis(2-Chloroethoxy)methane	3000 U	30000 U	820 U	630 U	650 U	790 U	310000 U
2,4-Dichlorophenol	3000 U	30000 U	820 U	630 U	650 U	790 U	310000 U
1,2,4-Trichlorobenzene	3000 U	30000 U	820 U	630 U	650 U	790 U	310000 U
Naphthalene	2400 J	30000 U	820 U	630 U	650 U	790 U	90000 J
4-Chloroaniline	3000 U	30000 U	820 U	630 U	650 U	790 U	310000 U
Hexachlorobutadiene	3000 U	30000 U	820 U	630 U	650 U	790 U	310000 U
4-Chloro-3-methylphenol	3000 UJv	30000 U	820 U	630 U	650 U	790 U	310000 U
2-Methylnaphthalene	11000	5700 J	240 J	630 U	650 U	790 U	300000 J
Hexachlorocyclopentadiene	3000 UJv	30000 U	820 U	630 U	650 U	790 U	310000 U
2,4,6-Trichlorophenol	3000 UJv	30000 U	820 U	630 U	650 U	790 U	310000 U
2,4,5-Trichlorophenol	7600 UJv	74000 U	2000 U	1600 U	1600 U	2000 U	780000 U
2-Chloronaphthalene	3000 UJv	30000 U	820 U	630 U	650 U	790 U	310000 U
2-Nitroaniline	7600 UJv	74000 U	2000 U	1600 U	1600 U	2000 U	780000 U
Dimethylphthalate	3000 UJv	30000 U	820 U	630 U	650 U	790 U	310000 U
Acenaphthylene	3000 UJv	30000 U	820 U	630 U	650 U	790 U	310000 U
2,6-Dinitrotoluene	3000 UJv	30000 U	820 U	630 U	650 U	790 U	310000 U
3-Nitroaniline	7600 UJv	74000 U	2000 U	1600 U	1600 U	2000 U	780000 U
Acenaphthene	3000 UJv	30000 U	820 U	630 U	650 U	790 U	310000 U
2,4-Dinitrophenol	7600 UJv	74000 U	2000 U	1600 U	1600 U	2000 U	780000 U
4-Nitrophenol	7600 UJv	74000 U	2000 U	1600 U	1600 U	2000 U	780000 U
Dibenzofuran	3000 UJv	30000 U	820 U	630 U	650 U	790 U	310000 U
2,4-Dinitrotoluene	3000 UJv	30000 U	820 U	630 U	650 U	790 U	310000 U
Diethylphthalate	3000 UJv	30000 U	820 U	630 U	650 U	790 U	310000 U
4-Chlorophenyl-phenylether	3000 UJv	30000 U	820 U	630 U	650 U	790 U	310000 U
Fluorene	3000 UJv	30000 U	820 U	630 U	650 U	790 U	310000 U
4-Nitroaniline	7600 UJv	74000 U	2000 U	1600 U	1600 U	2000 U	780000 U
4,6-Dinitro-2-methylphenol	7600 UJv	74000 U	2000 U	1600 U	1600 U	2000 U	780000 U
N-Nitrosodiphenylamine	3000 UJv	30000 U	820 U	630 U	650 U	790 U	310000 U
4-Bromophenyl-phenylether	3000 UJv	30000 U	820 U	630 U	650 U	790 U	310000 U
Hexachlorobenzene	3000 UJv	30000 U	820 U	630 U	650 U	790 U	310000 U
Pentachlorophenol	7600 UJv	74000 U	2000 U	1600 U	1600 U	2000 U	780000 U
Phenanthrene	5700 J	6600 J	93 J	630 U	650 U	790 U	53000 J
Anthracene	3000 UJv	30000 U	820 U	630 U	650 U	790 U	310000 U

ORGANIC DATA SUMMARY

Case No	9607G425	SDG	07G425	Reviewer	Maria Missler / Gene Zhu
Laboratory	WESTON	Matrix	SOIL	Units	ug/Kg

SEMIVOLATILES		FLAG		FLAG		FLAG		FLAG		FLAG		FLAG		FLAG
EPA SAMPLE NUMBER	B01-51-1		B01-52-1		B01-51-2		B02-51-1		B02-51-2		B02-51-3		P06-71-1	
Carbazole	3000	UJv	30000	U	820	U	630	U	650	U	790	U	310000	U
Di-n-butylphthalate	3000	UJv	30000	U	820	U	630	U	650	U	790	U	310000	U
Fluoranthene	3000	UJv	30000	U	820	U	630	U	650	U	790	U	310000	U
Pyrene	1700	J	30000	U	820	U	630	U	650	U	790	U	310000	U
Butylbenzylphthalate	3000	U	30000	U	820	U	630	U	650	U	790	U	310000	U
3,3'-Dichlorobenzidine	3000	U	30000	U	820	U	630	U	650	U	790	U	310000	U
Benzo(a)anthracene	3000	U	30000	U	820	U	630	U	650	U	790	U	310000	U
Chrysene	3000	U	30000	U	820	U	630	U	650	U	790	U	310000	U
bis(2-Ethylhexyl)phthalate	800	J	30000	U	820	U	630	U	650	U	790	U	310000	U
Di-n-octylphthalate	3000	U	30000	U	820	U	630	U	650	U	790	U	310000	U
Benzo(b)fluoranthene	3000	U	30000	U	820	U	630	U	650	U	790	U	310000	U
Benzo(k)fluoranthene	3000	U	30000	U	820	U	630	U	650	U	790	U	310000	U
Benzo(a)pyrene	3000	U	30000	U	820	U	630	U	650	U	790	U	310000	U
Indeno(1,2,3-cd)pyrene	3000	U	30000	U	820	U	630	U	650	U	790	U	310000	U
Dibenz(a,h)anthracene	3000	U	30000	U	820	U	630	U	650	U	790	U	310000	U
Benzo(g,h,i)perylene	3000	U	30000	U	820	U	630	U	650	U	790	U	310000	U
Sample wt (g)	30 1		30 4		31		30 5		30 3		30 6		31 6	
%Moisture	46		44		60		48		49		59		49	
Dilution Factor	5		50		1		1		1		1		500	
Level	LOW		LOW		LOW		LOW		LOW		LOW		LOW	
Number of TIC's	20		20		20		20		20		20		20	

Note For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers The ESAT flags indicate the technical usability of the reported results

ORGANIC DATA SUMMARY

Case No 9607G425 SDG 07G425 Reviewer Maria Missler / Gene Zhu

Laboratory WESTON Matrix SOIL Units ug/Kg

SEMIVOLATILES		FLAG		FLAG		FLAG		FLAG		FLAG		FLAG		FLAG
EPA SAMPLE NUMBER	P05-71-1		P05-72-1		P04-71-1		P03-71-1		P01-71-1		P02-71-1		P02-71-1RE	
Phenol	120000	U	110000	U	90000	U	110000	U	120000	U	110000	U	110000	U *
bis(2-Chloroethyl)ether	120000	U	110000	U	90000	U	110000	U	120000	U	110000	U	110000	U *
2-Chlorophenol	120000	U	110000	U	90000	U	110000	U	120000	U	110000	U	110000	U *
1,3-Dichlorobenzene	120000	U	110000	U	90000	U	110000	U	120000	U	110000	U	110000	U *
1,4-Dichlorobenzene	120000	U	110000	U	90000	U	110000	U	120000	U	110000	U	110000	U *
1,2-Dichlorobenzene	120000	U	110000	U	90000	U	110000	U	120000	U	110000	U	110000	U *
2-Methylphenol	120000	U	110000	U	90000	U	110000	U	120000	U	110000	U	110000	U *
2,2'-Oxybis(1-chloropropane)	120000	U	110000	U	90000	U	110000	U	120000	U	110000	U	110000	U *
4-Methylphenol	120000	U	110000	U	90000	U	110000	U	120000	U	110000	U	110000	U *
N-Nitroso-di-n-propylamine	120000	U	110000	U	90000	U	110000	U	120000	U	110000	U	110000	U *
Hexachloroethane	120000	U	110000	U	90000	U	110000	U	120000	U	110000	U	110000	U *
Nitrobenzene	120000	U	110000	U	90000	U	110000	U	120000	U	110000	U	110000	U *
Isophorone	120000	U	110000	U	90000	U	110000	U	120000	U	110000	U	110000	U *
2-Nitrophenol	120000	U	110000	U	90000	U	110000	U	120000	U	110000	U	110000	U *
2,4-Dimethylphenol	120000	U	110000	U	90000	U	110000	U	120000	U	110000	U	110000	U *
bis(2-Chloroethoxy)methane	120000	U	110000	U	90000	U	110000	U	120000	U	110000	U	110000	U *
2,4-Dichlorophenol	120000	U	110000	U	90000	U	110000	U	120000	U	110000	U	110000	U *
1,2,4-Trichlorobenzene	120000	U	110000	U	90000	U	110000	U	120000	U	110000	U	110000	U *
Naphthalene	130000		160000		48000	J	160000		130000		160000		170000	*
4-Chloroaniline	120000	U	110000	U	90000	U	110000	U	120000	U	110000	U	110000	U *
Hexachlorobutadiene	120000	U	110000	U	90000	U	110000	U	120000	U	110000	U	110000	U *
4-Chloro-3-methylphenol	120000	U	110000	U	90000	U	110000	U	120000	U	110000	U	110000	U *
2-Methylnaphthalene	410000		470000		130000		470000		390000		460000		480000	*
Hexachlorocyclopentadiene	120000	U	110000	U	90000	U	110000	U	120000	U	110000	U	110000	U *
2,4,6-Trichlorophenol	120000	U	110000	U	90000	U	110000	U	120000	U	110000	U	110000	U *
2,4,5-Trichlorophenol	310000	U	270000	U	220000	U	280000	U	300000	U	280000	U	280000	U *
2-Chloronaphthalene	120000	U	110000	U	90000	U	110000	U	120000	U	110000	U	110000	U *
2-Nitroaniline	310000	U	270000	U	220000	U	280000	U	300000	U	280000	U	280000	U *
Dimethylphthalate	120000	U	110000	U	90000	U	110000	U	120000	U	110000	U	110000	U *
Acenaphthylene	120000	U	110000	U	90000	U	110000	U	120000	U	110000	U	110000	U *
2,6-Dinitrotoluene	120000	U	110000	U	90000	U	110000	U	120000	U	110000	U	110000	U *
3-Nitroaniline	310000	U	270000	U	220000	U	280000	U	300000	U	280000	U	280000	U *
Acenaphthene	120000	U	110000	U	90000	U	21000	J	18000	J	21000	J	21000	*
2,4-Dinitrophenol	310000	U	270000	U	220000	U	280000	U	300000	U	280000	U	280000	U *
4-Nitrophenol	310000	U	270000	U	220000	U	280000	U	300000	U	280000	U	280000	U *
Dibenzofuran	120000	U	110000	U	90000	U	25000	J	22000	J	22000	J	23000	*
2,4-Dinitrotoluene	120000	U	110000	U	90000	U	110000	U	120000	U	110000	U	110000	U *
Diethylphthalate	120000	U	110000	U	90000	U	110000	U	120000	U	110000	U	110000	U *
4-Chlorophenyl-phenylether	120000	U	110000	U	90000	U	110000	U	120000	U	110000	U	110000	U *
Fluorene	26000	J	110000	U	90000	U	46000	J	38000	J	40000	J	41000	*
4-Nitroaniline	310000	U	270000	U	220000	U	280000	U	300000	U	280000	U	280000	U *
4,6-Dinitro-2-methylphenol	310000	U	270000	U	220000	U	280000	U	300000	U	280000	U	280000	U *
N-Nitrosodiphenylamine	120000	U	110000	U	90000	U	110000	U	120000	U	110000	U	110000	U *
4-Bromophenyl-phenylether	120000	U	110000	U	90000	U	110000	U	120000	U	110000	U	110000	U *
Hexachlorobenzene	120000	U	110000	U	90000	U	110000	U	120000	U	110000	U	110000	U *
Pentachlorophenol	310000	U	270000	U	220000	U	280000	U	300000	U	280000	U	280000	U *
Phenanthrene	61000	J	79000	J	90000	U	110000	J	91000	J	100000	J	99000	*
Anthracene	120000	U	110000	U	90000	U	22000	J	22000	J	110000	U	110000	U *

ORGANIC DATA SUMMARY

Case No	9607G425	SDG	07G425	Reviewer	Maria Missler / Gene Zhu
Laboratory	WESTON	Matrix	SOIL	Units	ug/Kg

SEMIVOLATILES	FLAG	FLAG	FLAG	FLAG	FLAG	FLAG	FLAG
EPA SAMPLE NUMBER	P05-71-1	P05-72-1	P04-71-1	P03-71-1	P01-71-1	P02-71-1	P02-71-1RE
Carbazole	120000 U	110000 U	90000 U	110000 U	120000 U	110000 U	110000 U *
Di-n-butylphthalate	120000 U	110000 U	90000 U	110000 U	120000 U	110000 U	110000 U *
Fluoranthene	120000 U	110000 U	90000 U	110000 U	120000 U	110000 U	110000 U *
Pyrene	120000 U	110000 U	90000 U	110000 U	120000 U	110000 U	110000 U *
Butylbenzylphthalate	120000 U	110000 U	90000 U	110000 U	120000 U	110000 U	110000 U *
3,3'-Dichlorobenzidine	120000 U	110000 U	90000 U	110000 U	120000 U	110000 U	110000 U *
Benzo(a)anthracene	120000 U	110000 U	90000 U	110000 U	120000 U	110000 U	110000 U *
Chrysene	120000 U	110000 U	90000 U	110000 U	120000 U	110000 U	110000 U *
bis(2-Ethylhexyl)phthalate	120000 U	110000 U	90000 U	110000 U	120000 U	110000 U	110000 U *
Di-n-octylphthalate	120000 U	110000 U	90000 U	110000 U	120000 U	110000 UJv	110000 U *
Benzo(b)fluoranthene	120000 U	110000 U	90000 U	110000 U	120000 U	110000 UJv	110000 U *
Benzo(k)fluoranthene	120000 U	110000 U	90000 U	110000 U	120000 U	110000 UJv	110000 U *
Benzo(a)pyrene	120000 U	110000 U	90000 U	110000 U	120000 U	110000 UJv	110000 U *
Indeno(1,2,3-cd)pyrene	120000 U	110000 U	90000 U	110000 U	120000 U	110000 UJv	110000 U *
Dibenz(a,h)anthracene	120000 U	110000 U	90000 U	110000 U	120000 U	110000 UJv	110000 U *
Benzo(g,h,i)perylene	120000 U	110000 U	90000 U	110000 U	120000 U	110000 UJv	110000 U *
Sample wt (g)	30 4	31 5	30 2	30 2	30 6	30 5	30 5
%Moisture	47	42	26	42	45	40	40
Dilution Factor	200	200	200	200	200	200	200
Level	LOW	LOW	LOW	LOW	LOW	LOW	LOW
Number of TIC's	20	20	20	20	20	20	20

Note For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers The ESAT flags indicate the technical usability of the reported results

ORGANIC DATA SUMMARY

Case No	9607G425	SDG	07G425	Reviewer	Maria Missler / Gene Zhu
Laboratory	WESTON	Matrix	SOIL	Units	g/Kg

PESTICIDES/PCBs	FLAG	FLAG	FLAG	FLAG	FLAG	FLAG	FLAG
EPA SAMPLE NUMBER	B01-51-1	B01-52-1	B01-51-2	B02-51-1	B02-51-2	B02-51-3	P06-71-1
alpha-BHC	3 0 U	7 4 U	4 2 U	3 1 U	3 3 U	3 9 U	33 U
beta-BHC	3 0 U	7 4 U	4 2 U	3 1 U	3 3 U	3 9 U	33 U
delta-BHC	3 0 U	7 4 U	4 2 U	3 1 U	3 3 U	3 9 U	33 U
gamma-BHC (lindane)	3 0 UJv	7 4 U	4 2 U	3 1 U	3 3 U	3 9 U	33 U
Heptachlor	3 0 U	7 4 U	4 2 U	3 1 U	3 3 U	3 9 U	33 U
Aldrin	3 0 U	7 4 U	4 2 U	3 1 U	3 3 U	3 9 U	33 U
Heptachlor epoxide	12 J	19 J	4 2 U	3 1 U	3 3 U	3 9 U	78 J
Endosulfan I	3 0 U	7 4 U	4 2 U	3 1 U	3 3 U	3 9 U	33 U
Dieldrin	6 0 U	15 U	8 4 U	6 2 U	6 6 U	7 8 U	65 U
4,4'-DDE	6 0 U	15 U	8 4 U	6 2 U	6 6 U	7 8 U	65 U
Endrin	6 0 U	15 U	8 4 U	6 2 U	6 6 U	7 8 U	65 U
Endosulfan II	34 T	49 T	8 4 U	6 2 U	6 6 U	7 8 U	65 U
4,4'-DDD	6 0 U	15 U	8 4 U	6 2 U	6 6 U	7 8 U	65 U
Endosulfan sulfate	6 0 UJv	15 U	8 4 U	6 2 U	6 6 U	7 8 U	65 U
4,4'-DDT	6 0 U	10 J	16	6 2 U	6 6 U	4 7 J	65 U
Methoxychlor	30 U	74 U	42 U	31 U	33 U	39 U	330 U
Endrin ketone	6 0 U	15 U	8 4 U	6 2 U	6 6 U	7 8 U	65 UJv
Endrin aldehyde	6 0 UJv	15 U	8 4 U	6 2 U	6 6 U	7 8 U	65 UJv
alpha-Chlordane	3 0 U	7 4 U	4 2 U	3 1 U	3 3 U	3 9 U	33 U
gamma-Chlordane	3 0 U	7 4 U	4 2 U	3 1 U	3 3 U	3 9 U	33 UJv
Toxaphene	300 U	740 U	420 U	310 U	330 U	390 U	3300 U
Aroclor-1016	60 U	150 U	84 U	62 U	66 U	78 U	650 U
Aroclor-1221	120 U	300 U	170 U	120 U	130 U	160 U	1300 U
Aroclor-1232	60 U	150 U	84 U	62 U	66 U	78 U	650 U
Aroclor-1242	60 U	150 U	84 U	62 U	66 U	78 U	650 U
Aroclor-1248	60 U	150 U	84 U	62 U	66 U	78 U	650 U
Aroclor-1254	60 U	150 U	84 U	62 U	66 U	78 U	650 U
Aroclor-1260	60 U	150 U	84 U	62 U	66 U	78 U	650 U
Sample wt (g)	30 7	30 2	30 1	30 9	30	30 9	30
%Moisture	46	45	61	48	49	59	49
Dilution Factor	1	1	1	1	1	1	1

Note For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers The ESAT flags indicate the technical usability of the reported results

ORGANIC DATA SUMMARY

Case No	9607G425	SDG	07G425	Reviewer	Maria Missler / Gene Zhu
Laboratory	WESTON	Matrix	SOIL	Units	g/Kg

PESTICIDES/PCBs	FLAG	FLAG	FLAG	FLAG	FLAG	FLAG	FLAG
EPA SAMPLE NUMBER	P05-71-1	P05-72-1	P04-71-1	P03-71-1	P01-71-1	P02-71-1	
alpha-BHC	31 U	28 U	22 U	28 U	30 UJv	27 U	
beta-BHC	31 U	28 U	22 U	28 U	30 U	27 U	
delta-BHC	31 U	28 U	22 U	28 U	30 U	27 U	
gamma-BHC (lindane)	31 U	28 U	22 U	28 U	30 U	27 U	
Heptachlor	31 U	28 U	22 U	28 U	30 U	27 U	
Aldrin	31 U	28 UJv	22 UJv	28 UJv	30 U	27 U	
Heptachlor epoxide	31 U	28 U	22 U	89 J	110 J	49 J	
Endosulfan I	31 U	28 U	22 U	28 U	30 U	27 U	
Dieldrin	62 U	56 U	44 U	56 U	60 U	55 U	
4,4'-DDE	62 U	56 U	84 TJv	56 U	60 U	55 U	
Endrin	62 U	56 U	44 U	56 U	60 U	55 U	
Endosulfan II	62 U	56 U	44 U	89 T	66 TJ	88 T	
4,4'-DDD	62 U	56 U	44 UJv	56 U	60 U	55 U	
Endosulfan sulfate	62 U	56 UJv	44 UJv	56 U	60 U	55 U	
4,4'-DDT	62 U	56 U	44 U	56 U	60 U	55 U	
Methoxychlor	310 U	280 U	220 UJv	280 U	300 U	270 U	
Endrin ketone	62 UJv	56 UJv	44 UJv	56 U	60 U	55 U	
Endrin aldehyde	62 UJv	56 UJv	44 U	56 U	60 U	55 U	
alpha-Chlordane	31 U	28 U	22 UJv	28 U	30 U	27 U	
gamma-Chlordane	31 U	28 U	22 UJv	28 U	30 U	27 U	
Toxaphene	3100 U	2800 U	2200 U	2800 U	3000 U	2700 U	
Aroclor-1016	620 U	560 U	440 U	560 U	600 U	550 U	
Aroclor-1221	1200 U	1100 U	880 U	1100 U	1200 U	1100 U	
Aroclor-1232	620 U	560 U	440 U	560 U	600 U	550 U	
Aroclor-1242	620 U	560 U	440 U	560 U	600 U	550 U	
Aroclor-1248	620 U	560 U	440 U	560 U	600 U	550 U	
Aroclor-1254	620 U	560 U	440 U	560 U	600 U	550 U	
Aroclor-1260	620 U	560 U	440 U	560 U	600 U	550 U	
Sample wt (g)	30 2	30 7	30 7	30 8	30 6	30 7	
%Moisture	47	42	26	42	45	41	
Dilution Factor	1	1	1	1	1	1	

Note For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers The ESAT flags indicate the technical usability of the reported results

MEMORANDUM

To: Dr. Melvin Ritter

From: Tom C. H. Chiang

Subject: Superfund Case 9607G425
Delta Shipyard
Laboratory Resubmissions

Date: Sept. 23, 1996

Copies: M. Perez
M. El-Feky
File

Ref: MEM1456
O-1747

Attached is a list of issues needing clarification and items needing corrections and omissions for Superfund case 9607G425. The samples in this case were analyzed by:

Weston Environmental Metrics, Inc.
2417 Bond Street
University Park, Illinois 60466-3182

The laboratory resubmission is necessary to enable the Environmental Protection Agency to maximize the usability of the laboratory results in this data package. The laboratory resubmissions should be submitted to:

Ms. Christy Macdowell
U.S. EPA Region 6 Laboratory
10625 Fallstone Rd.
Houston, TX 77099

Ms. Macdowell will then distribute the laboratory resubmission to the appropriate data reviewer who will prepare the resubmission report for this case.

In Reference to Case No(s):
9607G425 SDG: 07G425 (O-1747)

In reference to data for the following fractions:

VOA BNA Pest/PCB

Summary of Questions/Issues:

A. VOA

1. Samples B01-51-1, B01-52-1, P06-71-1, P05-71-1, P05-72-1, P04-71-1, P03-71-1, P01-71-1, and P02-71-1: The case narrative indicated that these samples were medium level analyses, but Form I reported these samples as low level analyses with dilution factors of 125. Please explain the descrepency.

2. Please check the presence of m,p-xylene in samples B01-51-1 and B01-52-1. If necessary, correct the data and reporting form to include these isomers.

3. Please check for the presence of 2-butanone in samples B01-51-2, B02-51-2, and B02-51-3. If the analyte is present above the quantitation limit, make the necessary changes to correct the omission.

B. BNA

1. Sample B01-51-1: The single ion chromatogram showed peak splitting for the 2-methylnaphthalene. Please check the spectra and verify whether or not the other three peaks in that cluster are 2-methylnaphthalene. If necessary, submit spectra and revise the result on Form 1 to include these peaks.

C. Pest/PCB

1. Samples B01-52-1, P06-71-1, P05-71-1, P05-72-1, P04-71-1, P03-71-1, P01-71-1, and P02-71-1: The case narrative indicated that these samples were diluted before GPC clean up because of matrix effects. The laboratory apparently used a dilution factor of 2.5X or 10X to calculate the results and quantitation limits. However, the dilution factor was not reported in the header section of the Form I for these samples. Please revise the reporting forms to include the appropriate dilution factor (2.5X or 10X).

2. Resolution summary, page 150: The reported resolution between DDE and dieldrin (83.9%) met QC criteria and should not be "*" flagged. This reporting form needs to be revised and resubmitted.

In Reference to Case No(s):
9607G425 SDG: 07G425 (O-1747)

Summary of Questions/Issues: (continued)

C. Pest/PCB (continued)

3. The following peaks met identification criteria for the analytes but were not reported. Their concentrations also exceeded the quantitation limits. Please verify and make the necessary corrections and resubmission.

Sample ID	DB-5 RT(min)	RTx-35 RT(min)	Analyte	Final Conc.(µg/Kg)
B01-51-1	13.42	14.16	endrin aldehyde	14
	7.71	6.97	γ-BHC	7.4
	13.99	14.61	endosulfan sulfate	9.1
P06-71-1	15.30	16.62	endrin ketone	100
	13.46	14.09	endrin aldehyde	210
	11.33	10.51	γ-Chlordane	35
P05-71-1	13.45	14.19	endrin aldehyde	160
	15.30	16.62	endrin ketone	83
P05-72-1	9.86	8.67	aldrin	32
	14.00	14.60	endosulfan sulfate	58
	13.45	14.19	endrin aldehyde	220
	15.30	16.62	endrin ketone	110
P04-71-1	9.87	8.66	aldrin	120
	11.32	10.52	γ-Chlordane	93
	11.69	10.96	α-Chlordane	42
	13.06	13.06	DDD	110
	14.00	14.60	endosulfan sulfate	190
	15.31	16.62	endrin ketone	170
	15.69	16.23	methoxychlor	870
P03-71-1	9.84	8.71	aldrin	39
P01-71-1	7.14	6.18	α-BHC	35

4. Sample P04-71-1: The DDE concentration for column DB-5 appeared to be miscalculated on both the injection report (page 108) and the reporting form (page 103). Please verify and make the necessary correction and resubmission.