

TENNESSEE GAS PIPELINE COMPANY
COMPRESSOR STATION 254
NASSAU, NEW YORK

O&M ACTIVITY LOG FORM

Personnel Performing O&M Activity

W. Kolanko

Date:

4-9-97



Drainline A Excavation – Provide Description of Activity (Include sketch as attachment)

N/A

Drainline Component Removed? (Yes/No)

Drainline Component and Surrounding Soil Disposed? (Yes/No) (Attach Manifest)

Repairs Made to Exposed Drainlines? (Yes/No) Describe:



Air Receiver Tank Cap Excavation – Provide Description of Activity (include sketch as attachment)

N/A

Excavation Below Cap Performed? (Yes/No)

Excavated Materials Disposed Off-Site? (Yes/No) (Attach Manifest)

Cap Restored to Original Condition? (Yes/No) Describe:



Drainage Area A Inspection – Rip-Rap Providing Adequate Erosion Protection? (Yes/No)

Repairs Made? (Yes/No) Describe:



Service Road Area – Areal Coverage and Thickness of Stone Layer Adequate? (Yes/No)

Repairs Made? (Yes/No) Describe:

NO - Cover Not Disturbed



Groundwater Monitoring – Groundwater Sampling Performed? (Yes/No) (Attach Summary Report and Analytical Results) -4-30-97



Surface Water Monitoring – Surface Water Sampling Performed? (Yes/No) (Attach Summary Report and Analytical Results) -4-30-97 (ON-P time)

Drum Inventory Tracking Record

Project Name: 97 El Paso Groundwater Program
Location: New York Station 254
Collector: Kelly Pogue/Brandon Cooley

Identification Number	Date Generated	Content Origin	Quantity	Drum Contents	Comments
254-01	4/30/97	MW03	6.25 gals.	MW03 groundwater & soil.	
* 254-02	4/30/97	DECON AREA	4 gals.	DECON WATER AND LIQUINOR SOAP.	
* 254-03	4/30/97	DECON/SAMPLING	1/2 gals.	Nylon rope, ALUMINUM FOIL, EMPTY 1 liter AMBER BOTTLES, plastic pallet, plastic filter.	
		* - CONTACT	with	groundwater.	

Wayne,
 IF you have any questions, please contact
 Lori Clarke @ 1800-665-9985.

Thanks,
 Brandon Cooley

Eco-Systems, Inc.
Environmental Engineers and Scientists



FAX

DATE: 4-29-97

TO: Larry Grebert/Wayne Kolanko

COMPANY: Tennessee Gas Pipeline

FAX NUMBER: (518) 766-3626

FROM: Lori D. Clarke

No. Pages (including cover): 4

COMMENTS: Current Field Schedule: El Paso Groundwater Program

This document is confidential and intended only for the use of the person identified above. If there are any problems in the transmission of this document please call (972) 381-1414. Thank you.

FROM: LORI CLARKE

ECO-SYSTEMS
Tenneco Groundwater Program
Current Schedule as of 4-29-97

TEAM #1

TEAM #2

"AT BAT":	Station <u>87</u>	Station <u>237</u>
	<u>Portland, TN</u>	<u>Clifton Springs, NY</u>
	estimated arrival date <u>5/13</u>	estimated arrival date <u>4/29</u>
	<u>1</u> day(s) of work	<u>3-4</u> day(s) of work

"ON DECK":	Station <u>860</u>	Station <u>254</u>
	<u>Centerville, TN</u>	<u>Nassau, NY</u>
	estimated arrival date <u>5/14</u>	estimated arrival date <u>5/1 or 5/2</u>
	<u>4-5</u> day(s) of work	<u>2-3</u> day(s) of work

"IN THE HOLE":	Station <u>79</u>	Station _____
	<u>Lobelville, TN</u>	_____
	estimated arrival date <u>5/20</u>	estimated arrival date _____
	<u>2-3</u> day(s) of work	_____ day(s) of work

CONSECUTIVE ORDER OF REMAINING STATIONS:

Station 71 (estimated 5/22 arrival date)

NOTE: This schedule will be updated and distributed regularly. Should you need the most current schedule or have any questions, please call me at 1(972) 381-1414 or page me (Lori Clarke) at: 1(800) 999-6710 ID # 997-0606.

ECO-SYSTEMS**Tenneco Groundwater Program
Current Schedule as of 4/29/97
Schedule of Activities by Station Number**

<u>Station #</u>	<u>Planned Work</u>
1 - Agua Dulce, TX	Micropurge/sample 2 wells 4/15
9 - Victoria, TX	Micropurge/sample 3 wells 4/17
17 - E. Bernard, TX	Micropurge/sample 4 wells 4/21
25 - Cleveland, TX	Micropurge/sample 2 wells 4/22
32 - Jasper, TX	Micropurge/sample 3 wells 4/24
237 - Clifton Springs, NY	Sample 5 wells
254 - Nassau, NY	Sample 1 well and 3 surface water locations
71 - Middleton, TN	Sample 3 wells
79 - Lobelville, TN	Sample 4 wells
87 - Portland, TN	Sample 1 well
860 - Centerville, TN	Sample 14 wells

NOTE TO STATION PERSONNEL:

55 - gallon drums from Greif Brothers Container Corp. and coolers with sample jars will arrive before we reach your station. Please hold the drums and store the coolers in an office area or control room.

THANK YOU

Team #1: Rodney Sartor and Heather Richardson

Team #2: Brandon Cooley and Kelly Pogue

DISTRIBUTION LIST:

<u>Name</u>	<u>Location</u>	<u>Fax Number</u>
Howdy McCracken	Houston	(713) 757-8758
Brian Black	Houston	(713) 757-8758
Sandy Marlin	Houston	(713) 757-8758
Ed Schaper	Houston	(713) 757-8758
Wanda Brooks	Houston	(713) 492-0157
Don Curry	Brentwood	(615) 661-5551
Steve Morawski	Enfield	(860) 763-6041
Jack Braden	237	(315) 462-5054
Larry Grebert/Wayne Kolanko	254	(518) 766-3626
Johnny Russell/Mike Smith	87	(615) 325-6722
Ray Spears/Fred Bowman	860	(615) 729-4989
Ronnie Stewart/Harry Barfoot	79	(615) 593-3390
Earl Bowden/George Weir	71	(901) 376-9958
Larry Brannen	EPA Region IV Atlanta	(404) 562-8693
Ed Fendley	IT-Houston	(713) 757-8758



MEMORANDUM
VIA FAX

DATE: April 25, 1997
TO: Jim Moras, NYSDEC
Charles Amento, NYSDOH
FROM: Lori Clarke, *Eco-Systems* *LDC*
RE: Groundwater and Creek Sampling
Tennessee Gas Pipeline Compressor Stations

On behalf of Tennessee Gas Pipeline Company, *Eco-Systems* will be sampling at the following New York Compressor Stations in the next two weeks.

<u>Station Number</u>	<u>Dates</u>	<u>Scope</u>
Station 237	4/29 to 5/1	Perimeter wells only
Station 254	5/1 to 5/5	Monitoring Well MW-3 3 locations in Kinderhook Creek

If you have any questions or would like to visit a station with our field team, please do not hesitate to contact me at (972) 381-0126 or Chris Ridgway at (800) 665-9985.

cc: Steve Morawski, El Paso Division F
Ed Schaper, Houston
Jack Braden, Station 237
Wayne Kolanko, Station 254
Larry Grebert, Station 254



Fax Cover Sheet

DATE: 4/25/97

TIME: 10:02 AM

TO: Wayne Kolanko
Larry Grebert

PHONE: (518) 766-3611
FAX: (518) 766-3626

FROM: Lori Clarke

PHONE: (800) 665-9985 } TODAY ONLY
FAX: (334) 621-9980 }

RE: Scheduling for New York TGPL Stations

CC:

Number of pages including cover sheet: 2

Gentlemen,
Please feel free to call me next week
at (972) 381-0126 if you have any questions.
Thanks,
Lori

This document is confidential and intended only for the use of the person identified above. If there are any problems in the transmission of this document please call (334) 621-9989. Thank you.

DRUM DISPOSAL
STATION 254
Nassau, New York

Drum #	Well Number	Detected Compounds	Suggested Disposal Method
254-01	MW03	PCBs not detected	Pour out water and reuse drum ✓
	OC01	PCBs not detected	
	OC02	PCBs not detected	
	OC03	PCBs not detected	
254-02	All Wells	see above	Soapy water, dispose per TGPL guidelines ✓
254-03	All Wells	see above	Empty drum into solid waste dumpster and reuse drum ✓

* = Greater than MCL

ug/L = micrograms per liter (parts per billion)

Disposal completed
6/13/97
LHG

Eco-Systems, Inc.
Environmental Engineers and Scientists



DATE: 6/4/97

TO: WAYNE KOLANKO / STEVE MORMWSKI

COMPANY: TAPL 254 / EL PASO

FAX NUMBER: 518-766-3626 / 860-763-6041

FROM: CHRIS RIDGWAY

Number of pages (including cover): 2

COMMENTS: _____

ENCLOSED IS THE DRUM REPORT W/ ANALYTICAL RESULTS

FOR THE MOST RECENT SAMPLING EVENT. PLEASE CALL ME

IF YOU HAVE ANY QUESTIONS.

THANKS.

CHRIS

This document is confidential and intended only for the use of the person identified above. If there are any problems in the transmission of this document, please call (334)621-9989.

6475 Van Buren Street, Suite 201
Daphne, AL 36526
Phone (334)621-9989 Fax (334)621-9980



RECEIVED
AUG 26 1997
TGPL STATION 254

LHG

August 21, 1997

Mr. Gerald Rider
Chief, Operation and Maintenance Section
Bureau of Hazardous Site Control
Division of Environmental Remediation
50 Wolf Road
Room 252
Albany, New York 12233-7010

Re: Tennessee Gas Pipeline Company Compressor Station 254
Order on Consent #A4-0329-9503
Letter Report - May 1997 Groundwater and Kinderhook Creek Sampling Results

Dear Mr. Rider:

Tennessee Gas Pipeline Company (TGPL) is pleased to submit this letter report documenting the activities of the groundwater and surfacewater monitoring event during May, 1997 at TGPL Compressor Station 254 in Nassau, New York. These activities were conducted in accordance with Attachment 9: Soil/Drainline Remediation Operations and Maintenance Plan of the Final Documentation (Order on Consent #A4-0329-9503) as revised in correspondence from Blasland, Bouck, & Lee (BBL) on December 9, 1996. The scope of this monitoring event included collection of a groundwater sample from onsite Monitoring Well MW-3 and a one-time stream sample event from Kinderhook Creek. A brief description of the sampling methodology and results are presented below.

Monitoring Program - April 1997

A. Scope and Methodology

Groundwater Sample Collection

Monitoring Well MW-3 was sampled by *Eco-Systems* on April 30, 1997. Groundwater sampling and analysis was conducted in accordance with the procedures specified in the *Quality Assurance Project Plan for Soil/Drainline Remediation, New York Compressor Stations* (QAPP, BBL, May 1995).

Surface Water Sample Collection

Kinderhook Creek was sampled by *Eco-Systems* on April 30, 1997. Three locations were sampled: near Seep E01, near Seep E02, and upstream of the rip-rap area. To prevent

sediment disturbance in the water from effecting subsequent sample collection, samples were collected from the most downstream location first. In addition, the sampling team stood in the creek downstream of the location which was being sampled.

All samples were retained in new containers with Teflon-lined lids supplied by RECRA. Appropriate volumes were collected to ensure that the required quantitation limit could be met. Samples were immediately placed on ice in a cooler to ensure that the samples remained at or below 4 °C. All sampling equipment were decontaminated in accordance with the procedures and specifications presented in the QAPP.

Quality Assurance/Quality Control Samples

In order to determine the accuracy, precision, completeness, comparability, and representativeness of the groundwater samples, quality assurance/quality control (QA/QC) samples were collected in accordance with the QAPP and sent to RECRA for analysis. QA/QC samples included equipment rinsate blanks, field duplicates, matrix spikes (MS), and matrix spike duplicates (MSD).

Laboratory Analyses

All samples were analyzed for total PCBs (filtered) using USEPA Method 608 at a reporting limit of 1.0 µg/L. The laboratory analyses were performed by RECRA.

B. Data Validation

Eco-Systems validated the analytical data prepared by RECRA. The data packages were validated according to the guidelines presented in the QAPP. The primary purpose of data validation was to determine if any quantitative problems were evident from the laboratory QA/QC data, not to verify whether the laboratory-reported QA/QC information was correct. The analytical data QA/QC review report is provided as Attachment A.

C. Analytical Results

Table 2 presents a summary of analytical results for PCBs during the first sampling event (April, 1997). The analytical data from RECRA are included in the data validation reports in Attachment A. PCBs were not detected in Monitoring Well MW-3 or in the three samples from Kinderhook Creek near Seeps E01 and E02 or upstream of the rip-rap area.

D. Recommendations and Schedule of Additional Work

Under the O&M Plan, the Kinderhook Creek Sampling is a single sampling event. This sampling data, as well as Biota & Fish Sampling data taken by the DEC in Oct. 1996,

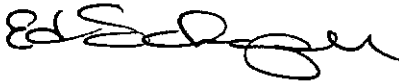
Mr. Gerald Rider
Page 3
08/22/97

show that PCBs are not an issue in the Kinderhook Creek, accordingly no further sampling in the creek is scheduled.

Monitoring Well MW-3 will be sampled annually as required by the O&M Plan. The next annual sampling event for Monitoring Well MW-3 is scheduled for the spring of 1998. Your office will be notified prior to field team mobilization in the event that a NYSDEC representative intends to monitor the event and/or split samples.

If you have any questions regarding the information presented herein, please call me at (713) 757-2753.

Sincerely,



Ed Schaper
Principal Environmental Engineer

cc: Sandy Marlin, El Paso-Houston
Steve Morawski, El Paso-Northern Division
Larry Grebert, TGPL Compressor Station 254
A. Tim Webster, Harris Beach & Wilcox
John Hogue, *Eco-Systems, Inc.*
Lori Clark, *Eco-Systems, Inc.*
File, El Paso-Houston

TABLES

TABLE 1
Summary of Field Sampling Data, April 1997
Tennessee Gas Pipeline Company
Station 254, Nassau, New York

	MW-3	near Seep E01	near Seep E02	Upstream of Rip-Rap
Purge Date	4/30/97	4/30/97	4/30/97	4/30/97
Purge Method	Stainless Steel Bailer	NA	NA	NA
Initial DTW (ft-btoc)	18.15	NA	NA	NA
Total Depth (ft-btoc)	30.91	NA	NA	NA
Casing Volume (gal)	2.08	NA	NA	NA
Approx. Volume Purged (gal)	6.25	NA	NA	NA
<hr/>				
pH	6.6	NM	NM	NM
Temperature (°F)	54	NM	NM	NM
Specific Conductance (µS)	270	NM	NM	NM
<hr/>				
Sample Collection Date	4/30/97	4/30/97	4/30/97	4/30/97
Sample Collection Time	15:40	16:49	16:30	17:00
Sample Collection Method	PVC Bailer (filtered)	PVC Bailer (filtered)	PVC Bailer (filtered)	PVC Bailer (filtered)
Sample ID	254-MW03-A-043097	254-OC02-DFA-001	254-OC01-DFA-001	254-OC03-DFA-001
Sample Appearance	Clear	Clear	Clear	Clear

Notes:
gal = gallons
NA = Not applicable
NM = data not collected
ft-btoc = feet below top of casing

TABLE 2
Summary of PCB Analytical Results for Filtered Groundwater and Stream Samples, April 1997
Tennessee Gas Pipeline Company
Station 254, Nassau, New York

Location	Sample ID	Date Collected	PCBs (µg/L)	Comments
MW-3	254-MW03-A-043097	4/30/97	ND	
MW-3DUP	254-FD-A-043097	4/30/97	ND	Field Duplicate
near Seep E01	254-0C02-DFA-001	4/30/97	ND	
near Seep E02	254-0C01-DFA-001	4/30/97	ND	
upstream of Rip-rap	254-0C03-DFA-001	4/30/97	ND	
RINSATE	254-RS-A-043097	4/30/97	ND	Equipment Rinsate

Notes:

ND = Not detected (detection limit 1.0 µg/L)

ATTACHMENT A

Analytical QA/QC Review Report

**ANALYTICAL DATA QA/QC REVIEW:
TENNESSEE GAS PIPELINE
COMPRESSOR STATION 254
RECRA SDG A97-1504**

Reviewer: Laura Weihing, Project Scientist

Date: May 21, 1997

Laboratory: RECRA Environmental Services, Inc.
Audubon Business Center
10 Hazelwood Drive
Amherst, NY 14228-2298

Sampling Location: Tennessee Gas Pipeline
Compressor Station 254
Nassau, New York

1.0 Introduction

1.1 Samples Reviewed

Eco-Systems, Inc. (Eco-Systems) collected 6 groundwater samples (including QA/QC samples) from Station 254 for analysis of polychlorinated biphenyls (PCBs). These samples were received by RECRA Environmental Services, Inc. (RECRA) on May 1, 1997. RECRA submitted a data package to *Eco-Systems* that contained the results and QA/QC data for each of the samples received and analyzed. The data package underwent a full data review following the criteria set forth in the QA Project Plan (Tenneco 1994), as well as the EPA document "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review" (EPA 1994b). Table 1 lists the samples that underwent the full data review, the analytes or analyte groups that were requested on the chain-of-custody form for each sample, as well as the day the analyses were run.

Table 1. Samples Collected from Station 254

<u>Sample</u>	<u>PCBs</u>
354-MW03-A-043097	05/06/97
254-RS-A-043097	05/06/97
254-FD-A-043097	05/06/97
254-OC01-DFA-001	05/06/97
254-OC02-DFA-001	05/06/97
254-OC03-DFA-001	05/06/97

This data review is divided into three sections: Introduction, Volatile Organics (PCBs), and a Summary. Section 2.0 describes what parameter(s) is being evaluated, the criteria being used to evaluate the data, and the results of the full data review. Section 3.0, Summary, provides a table that lists all the qualifiers given in Section 2.0 to facilitate the addition of the required qualifiers to the data. The qualifiers have been added to the laboratory data analysis sheets that are provided in Attachment A. Copies of the data validation summary sheets are provided in Attachment B.

1.2 References

U.S. Environmental Protection Agency, *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, Office of Solid Waste and Emergency Response, EPA 540/R-94-012, February 1994b.

Tenneco Gas, Quality Assurance Project Plan, Revision 2, December 1994.

2.0 Volatile Organics (PCBs)

2.1 Holding Times

The technical holding time criteria for aroclors in cooled (4°C) water samples is seven days from sample collection to extraction and then 40 days from sample extraction to analysis. All holding times were met; although it was not noted in the narrative at what pH the sample were upon receipt. The temperature of the samples was 2°C. Therefore, no qualification of the data is required.

2.2 Initial Calibration

Compliance requirements for satisfactory initial calibration are established to ensure that the instrument is capable of producing acceptable qualitative and quantitative data for PCB compounds on the Target Compound List (TCL). Initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of the analytical sequence and of producing a linear calibration curve.

An initial calibration is determined using five calibration standards. A calibration factor is calculated for each standard using the total area of the peaks and the weight injected. The percent relative standard deviation (%RSD) of the calibration factors must be no greater than 20%. For the two surrogates, the % RSD must be no greater than 30%.

There were no problems noted with the initial calibration.

2.3 Continuing Calibration

Compliance requirements for satisfactory instrument calibration are established to ensure that the instrument is capable of producing acceptable qualitative and quantitative data. Calibration verification checks and documents satisfactory performance of the instrument over specific time periods during sample analysis. To confirm the calibration and evaluate instrument performance, calibration verification is performed, consisting of the analysis of instrument blanks.

There were no problems noted with the continuing calibration.

2.4 Surrogate Spikes

Laboratory performance on individual samples is established by means of spiking samples prior to extraction and analysis to determine surrogate spike recoveries. All samples are spiked with tetrachloro-m-xylene (TCMX) and decachlorobiphenyl (DCBP) prior to sample extraction. The evaluation of the recovery results of these surrogate spikes is not necessarily straightforward. The sample itself may produce effects due to such factors as interferences and high concentrations of target and/or non-target analytes. Since the effects of the sample matrix are frequently outside the control of the laboratory and may present relatively unique problems, the evaluation and review of data based on specific sample results are often subjective. The EPA data validation guidelines have set QC limits of 30-150% for both compounds.

The surrogate recovery of DCBP was below the QA/QC advisory limits for the sample from MW03. The recovery of TCMX was acceptable, however. Because the recovery of the DCBP in MW03 was above 30% and the other surrogate, TCMX, was within its acceptance limits, no qualification of the data is necessary based on surrogate recoveries.

2.5 Blanks

The purpose of laboratory (or field) blanks is to determine the existence and magnitude of contamination problems resulting from laboratory (or field) activities. The criteria for evaluation of laboratory blanks apply to any blank associated with the samples (e.g., method blanks, instrument blanks, sulfur cleanup blanks). If problems with any blank exist, all associated data must be carefully evaluated to determine whether or not there is an inherent variability in the data, or if the problem is an isolated occurrence not affecting the other data.

No target analytes were detected in any of the field or laboratory blanks.

2.6 Matrix Spike/Matrix Spike Duplicates

Data for matrix spikes (MS) and matrix spike duplicates (MSD) are generated to determine long-term accuracy and precision of the analytical method on various matrices. No action is taken on MS/MSD data alone. However, the MS/MSD results can be used in conjunction with other QC criteria and determine the need for qualification.

All MS/MSD recoveries were within the QA/QC advisory limits.

2.7 Target Compound Identification

Qualitative criteria for compound identification have been established to minimize the number of erroneous identifications of compounds. An erroneous identification can either be a false positive (reporting a compound that is not present) or a false negative (not reporting a compound that is present).

Samples 254-OC02 and 254-OC03 exhibited trace amounts of Aroclor 1260 (below IDL), however, the laboratory noted in their data package narrative that the detections were due to laboratory contamination. Therefore, the samples were reanalyzed provided that the reanalysis was still within holding times for PCB samples. There were no problems noted with the target compound identification in the reanalysis, therefore, no qualification of the data is needed. The reanalysis results will be used for reporting since they were analyzed within holding times and there is no suspicion of laboratory contamination.

2.8 Compound Quantitation

Compound quantitation, as well as the adjustment of the contract required quantitation limit (CRQL), must be calculated according to the correct equation. Compound area responses must be calculated based on the internal standard associated with that compound. The compound quantitation must be based on the CF from the appropriate daily calibration standard.

There were no problems noted with compound quantitation.

2.9 Field Duplicates

Field duplicates are collected and analyzed as an indicator of the laboratory's overall precision. These analyses measure both the field and laboratory precision; therefore, the results may have more variability than laboratory duplicates which measure only laboratory performance.

No PCBs were detected in either the original sample or the field duplicate.

3.0 Summary

A full data review of PCB results was performed on the data package submitted for Station 254. There were no major problems that would prohibit the use of the data and no qualifiers are necessary. Based on the data package reviewed, there is sufficient information to conclude that the data are acceptable for use.

**ATTACHMENT A
DATA SHEETS**

EL PASO ENERGY
METHOD 608 - POLYCHLORINATED BIPHENYLS
ANALYSIS DATA SHEET

Client No.

254-MW03-A-043097

Lab Name: Recra LabNet

Contract: _____

Lab Code: RECN

Case No.: 260GA

SAS No.: _____

SDG No.: 254

Matrix: (soil/water) WATER

Lab Sample ID: A7150401RE

Sample wt/vol: 1000.00 (g/mL) ML

Lab File ID: LA49120.TX0

% Moisture: _____ decanted: (Y/N) N

Date Samp/Recv: 04/30/97 05/01/97

Extraction: (SepF/Cont/Sonc/Soxh): SEPF

Date Extracted: 05/05/97

Concentrated Extract Volume: 1000(uL)

Date Analyzed: 05/06/97

Injection Volume: 1.00(uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.00

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:
(ug/L or ug/Kg)

CAS NO.	COMPOUND	UG/L	Q
12674-11-2----	Aroclor-1016	1.0	U
1104-28-2----	Aroclor-1221	1.0	U
141-16-5----	Aroclor-1232	1.0	U
53469-21-9----	Aroclor-1242	1.0	U
12672-29-6----	Aroclor-1248	1.0	U
11097-69-1----	Aroclor-1254	1.0	U
11096-82-5----	Aroclor-1260	1.0	U

EL PASO ENERGY
 METHOD 608 - POLYCHLORINATED BIPHENYLS
 ANALYSIS DATA SHEET

000003

Client No.

254-RS-A-043097

Lab Name: Recra LabNet

Contract: _____

Lab Code: RECN

Case No.: 260GA

SAS No.: _____

SDG No.: 254

Matrix: (soil/water) WATER

Lab Sample ID: A7150402RE

Sample wt/vol: 900.00 (g/mL) ML

Lab File ID: LA49128.TX0

% Moisture: _____ decanted: (Y/N) N

Date Samp/Recv: 04/30/97 05/01/97

Extraction: (SepF/Cont/Sonc/Soxh): SEPF

Date Extracted: 05/05/97

Concentrated Extract Volume: 1000(uL)

Date Analyzed: 05/06/97

Injection Volume: 1.00(uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.00

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
12674-11-2----	Aroclor-1016		1.0	U
11104-28-2----	Aroclor-1221		1.0	U
141-16-5----	Aroclor-1232		1.0	U
5469-21-9----	Aroclor-1242		1.0	U
12672-29-6----	Aroclor-1248		1.0	U
11097-69-1----	Aroclor-1254		1.0	U
11096-82-5----	Aroclor-1260		1.0	U

EL PASO ENERGY
 METHOD 608 - POLYCHLORINATED BIPHENYLS
 ANALYSIS DATA SHEET

000010

Client No.

254-FD-A-043097

Lab Name: Recra LabNet

Contract: _____

Lab Code: RECN

Case No.: 260GA

SAS No.: _____

SDG No.: 254

Matrix: (soil/water) WATER

Lab Sample ID: A7150403RE

Sample wt/vol: 1000.00 (g/mL) ML

Lab File ID: LA49129.TX0

% Moisture: _____ decanted: (Y/N) N

Date Samp/Recv: 04/30/97 05/01/97

Extraction: (SepF/Cont/Sonc/Soxh): SEPF

Date Extracted: 05/05/97

Concentrated Extract Volume: 1000(uL)

Date Analyzed: 05/06/97

Injection Volume: 1.00(uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.00

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:
 (ug/L or ug/Kg)

CAS NO.	COMPOUND	UG/L	Q
12674-11-2----	Aroclor-1016	1.0	U
104-28-2----	Aroclor-1221	1.0	U
141-16-5----	Aroclor-1232	1.0	U
53469-21-9----	Aroclor-1242	1.0	U
12672-29-6----	Aroclor-1248	1.0	U
11097-69-1----	Aroclor-1254	1.0	U
11096-82-5----	Aroclor-1260	1.0	U

EL PASO ENERGY
 METHOD 608 - POLYCHLORINATED BIPHENYLS
 ANALYSIS DATA SHEET

000011

Client No.

254-OC01-DFA-001

Lab Name: Recra LabNet

Contract: _____

Lab Code: RECN

Case No.: 260GA

SAS No.: _____

SDG No.: 254

Matrix: (soil/water) WATER

Lab Sample ID: A7150404RE

Sample wt/vol: 950.00 (g/mL) ML

Lab File ID: LA49123.TX0

% Moisture: _____ decanted: (Y/N) N

Date Samp/Recv: 04/30/97 05/01/97

Extraction: (SepF/Cont/Sonc/Soxh): SEPF

Date Extracted: 05/05/97

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 05/06/97

Injection Volume: 1.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.00

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:
 (ug/L or ug/Kg)

CAS NO.

COMPOUND

UG/L

Q

CAS NO.	COMPOUND	UG/L	Q
12674-11-2----	Aroclor-1016	1.0	U
11104-28-2----	Aroclor-1221	1.0	U
1141-16-5----	Aroclor-1232	1.0	U
3469-21-9----	Aroclor-1242	1.0	U
12672-29-6----	Aroclor-1248	1.0	U
11097-69-1----	Aroclor-1254	1.0	U
11096-82-5----	Aroclor-1260	1.0	U

EL PASO ENERGY
 METHOD 608 - POLYCHLORINATED BIPHENYLS
 ANALYSIS DATA SHEET

0C0014

Client No.

254-OC02-DFA-001

Lab Name: Recra LabNet

Contract: _____

Lab Code: RECNY

Case No.: 260GA

SAS No.: _____

SDG No.: 254

Matrix: (soil/water) WATER

Lab Sample ID: A7150405RE

Sample wt/vol: 1000.00 (g/mL) ML

Lab File ID: LA49130.TX0

% Moisture: _____ decanted: (Y/N) N

Date Samp/Recv: 04/30/97 05/01/97

Extraction: (SepF/Cont/Sonc/Soxh): SEPF

Date Extracted: 05/05/97

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 05/06/97

Injection Volume: 1.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.00

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
12674-11-2----	Aroclor-1016	1.0	U
11104-28-2----	Aroclor-1221	1.0	U
11141-16-5----	Aroclor-1232	1.0	U
469-21-9----	Aroclor-1242	1.0	U
12672-29-6----	Aroclor-1248	1.0	U
11097-69-1----	Aroclor-1254	1.0	U
11096-82-5----	Aroclor-1260	1.0	U

000015

EL PASO ENERGY
METHOD 608 - POLYCHLORINATED BIPHENYLS
ANALYSIS DATA SHEET

Client No.

254-OC03-DFA-001

Lab Name: Recra LabNet

Contract: _____

Lab Code: RECNVCase No.: 260GA

SAS No.: _____

SDG No.: 254Matrix: (soil/water) WATERLab Sample ID: A7150406RESample wt/vol: 1000.00 (g/mL) MLLab File ID: LA49131.TX0% Moisture: _____ decanted: (Y/N) NDate Samp/Recv: 04/30/97 05/01/97Extraction: (SepF/Cont/Sonc/Soxh): SEPFDate Extracted: 05/05/97Concentrated Extract Volume: 1000(uL)Date Analyzed: 05/06/97Injection Volume: 1.00(uL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: 7.00Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
12674-11-2----	Aroclor-1016		1.0	U
11104-28-2----	Aroclor-1221		1.0	U
11141-16-5----	Aroclor-1232		1.0	U
1469-21-9----	Aroclor-1242		1.0	U
12672-29-6----	Aroclor-1248		1.0	U
11097-69-1----	Aroclor-1254		1.0	U
11096-82-5----	Aroclor-1260		1.0	U

ATTACHMENT B
DATA VALIDATION SUMMARY SHEETS

STATUS

DATA VALIDATION CRITERIA

I. HOLDING TIMES

- 1. Compare the sample dates on the EPA Sample Traffic Report with the dates of analysis on Form I-PEST. ✓ Sample date = 4/30
extract. date = 5/5
analysis date = 5/6 or 5/7
- 2. Compare the dates of extraction on the sample extraction sheets with the dates of analysis on Form I-PEST. ✓
- 3. Verify that the samples were received intact and iced. ✓ Cooler = 2°C

III. INITIAL CALIBRATION

- 1. Individual Standard Mixture
 - a. Verify from the Form VIII-PEST that the Individual Standard Mixtures A and B were analyzed at the proper frequency on each GC column and instrument used for analysis. Check the raw data for each standard to verify that each of the standards was analyzed at the required concentration levels.
 - b. Check Forms VII-PEST-6 and PEST-7 with the raw data and determine that the midpoint standard concentration is 4 times the concentration of the low point standard concentration and verify that the resolution is greater than 90%.
 - c. Check the Individual Standards Mixtures A and B data and Form VI-PEST-1 and review the calculated retention time windows for calculation and transcription errors.
 - d. Check the chromatograms and verify that at least on chromatogram from each of the Individual Standard Mixtures A and B yields peaks registering recorder/printer deflections between 50 and 100% full scale.

NA



DATA VALIDATION CRITERIA

III. INITIAL CALIBRATION (continued)

- e. Verify that the concentrations of the low, medium and high level standards of Individual Mixtures A and B meet the criteria in PEST Section III.C.1 above.
- f. Check the Individual Mixtures A and B data and Form VI-PEST-2 to verify that the %RSD for the calibration factors in each of the single component pesticides and surrogates in the initial calibration analyses on both columns are in compliance with the criteria in PEST Section III.C above. Check and recalculate the calibration factors and %RSD for one or more pesticides; verify that the recalculated values agree with the reported values. If errors are detected, more comprehensive recalculation and review should be performed.

NA
↓

- 2. Multi-component Target Compounds
 - a. Verify from the Form VIII-PEST that each of the multi-component target compounds were analyzed at the required frequency. Check the raw data for the standards to verify that the multi-component analytes were analyzed at the required concentration. ✓
 - b. Check the data for the multi-component target compounds and Form VI-PEST-3 to verify that at least three peaks were used for calibration and that the retention time windows were calculated as required. ✓ (4)
 - c. Check the data to verify that calibration factors have been determined for each selected peak. ✓

DATA VALIDATION CRITERIA

III. CALIBRATION VERIFICATION

Raw Data

✓

1. Check the Form VII-PEST to verify that the instrument blanks, PEMs, and Individual Standard Mixtures were analyzed at the required frequency and that no more than 12 hours was elapsed between continuing calibration brackets in an ongoing analytical sequence.

NA

2. Check Forms VI-PEST-6 and PEST-7 and the data for the midpoint concentration of Individual Standard Mixtures A and B to verify that the resolution between any two adjacent peaks is greater than or equal to 90%.

✓

3. Check the data for each of the single component pesticides and surrogates in the midpoint concentration of the Individual Mixtures A and B and Form VII-PEST-2 to verify that the absolute retention times are within the appropriate retention time windows.

✓

4. Check the data from the midpoint concentration of Individual Standard Mixtures A and B and Form VII PEST-2 to verify that the percent difference between the calculated amount and the true amount for each of the pesticides and surrogates must be within +/-25%.

V. BLANKS

R61 = U

1. Review the results of all associated blanks on the Form I-PEST and Form IV-PEST and raw data to evaluate the presence of target and non-target compounds in the blanks.

DATA VALIDATION CRITERIASTATUS**V. BLANKS (continued)**

2. Verify that a method blank analysis has been reported per SDG, per matrix, per concentration level, for each extraction batch and for each GC system used to analyze samples. ✓ MRB ≠ U
3. Verify that the method blank analysis contains less than the CRQL of any target pesticide or Aroclor/Toxaphene or any interfering peak. ✓ = U
4. Verify that the instrument blank analysis has been performed every 12 hours as the first analysis of the continuing calibration sequence. All acceptable sample analysis are to be bracketed by acceptable instrument blanks. Additionally, the instrument blank must follow sample analysis which contain an analyte at high concentration. Evaluate the results from various instrument blanks to verify that they do not contain any target analytes above one-half the CRQL values for water samples (assuming a 1-L extraction of water sample). NA
5. Verify that the sulfur clean-up blanks were analyzed at the required frequency and that (assuming a 1-L extraction of water sample) the sulfur blanks do not contain any target compound above the CRQL. If a separate sulfur cleanup blank was prepared, one version of Form IV-PEST should be completed associating all the samples with the method blank, and a second version of Form IV-PEST should be completed listing only those samples associated with the separate sulfur cleanup blank. NA

DATA VALIDATION CRITERIA

STATUS

V. SURROGATE SPIKES

No action
6/6/03
6/20/03
6/23/03
6/24/03
6/25/03
6/26/03
6/27/03
6/28/03
6/29/03
6/30/03
7/1/03
7/2/03
7/3/03
7/4/03
7/5/03
7/6/03
7/7/03
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7/9/03
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12/31/03

1. Check the raw data to verify the surrogate spike recoveries on Form II-PEST.

Check for any calculation or transcription errors.

action req'd if b/w 10-30

2. If recoveries are not within limits, check the raw data for possible interferences which may have affected surrogate recoveries. If low surrogate recoveries are observed, the reviewer should investigate whether the low recoveries were a result of sample dilution.

3. Check the raw data to verify that the retention times on Form VIII-PEST are accurate and within retention time windows.

4. If retention times were not met, check the raw data for possible misidentification of GC peaks. Non-recovery of surrogates may also be due to shifts in retention times.

VI. MATRIX SPIKE/MATRIX SPIKE DUPLICATES

1. Verify that MS and MSD samples were analyzed at the required frequency and that results are provided for each sample matrix.

2. Check raw data and Forms III-PEST-1 and PEST-2 to verify that the results for matrix spike recoveries were calculated and transcribed correctly.

3. Check raw data and Forms III-PEST-1 and PEST-2 to verify that the results for matrix spike relative percent difference were calculated and transcribed correctly.

MW03 - DCBP was outside QC limits. TCMX was in.

✓ - not due to dilution

N/A

N/A

✓ 1 for MW's
1 for OC'S

✓

✓

DATA VALIDATION CRITERIA

STATUS

VI. MATRIX SPIKE/MATRIX SPIKE DUPLICATES (continued)

- 4. Compare %RSD results of non-spiked compounds between the original result, MS and MSD.

✓

VII. TARGET COMPOUND IDENTIFICATION

1. Review Form I-PEST, the associated raw data and Form X-PEST-1 and PEST-2. Confirm reported detected analytes by comparing the sample chromatograms to the tabulated results and verifying peak measurements and retention times. Confirm reported non-detected analytes by a review of the sample chromatograms. Check the associated blank data for potential interferences and check the calibration data for adequate retention time windows.

*No action
No action
No action*

- 2. For multi-component target compounds (Toxaphene and Aroclors), the retention times and relative peak height ratios of major component peaks should be compared against the appropriate standard chromatogram.

- 3. Verify that GC/MS confirmation was performed for pesticide concentrations in the final extract which exceeded 10 ng/uL.

*Callahan - * Multiple data sheets for M1003 and O001.
over
5/17
2000*

*7150407 RE "C"
"D"*

The samples were reanalyzed due to lab contamination. Reanalysis data is reported

OC02 and OC03 exhibited trace amts of 1260 detect below 1DL.

NA — no analytes found in samples

*— Reanalysis of MS
→ Reanalysis of MS
→ Reanalysis of MSD*

Station # 254

SDG# A971-1504

DATA VALIDATION CRITERIA

STATUS

X. COMPOUND QUANTITATION AND REPORTED CRQLS

1. Raw data should be examined to verify the correct calculation of all sample results reported by the laboratory. Data system printouts, chromatograms, and sample preparation log sheets should be compared to the reported positive sample results and quantitation limits. Verify that the sample values are reported correctly.
2. Verify that the CRQLs have been adjusted to reflect all sample dilutions, splits, clean-up activities, and dry weight factors that area not accounted for by the method.

✓ CRQL = 1.0

✓