TENNESSEE GAS PIPELINE COMPANY
COMPRESSOR STATION 254
NASSAU, NEW YORK

O&M ACTIVITY LOG FORM

Personnel Performing O&M Activity: L.H. Grebert

Date: 8/3/00

☑ Drainline A Excavation – Provide Description of Activity (include sketch as attachment)
NO ACTIVITY

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)
CAP NOT DISTURBED

Excavation Below Cap Performed? (Yes/No)
Excavated Materials Disposed Off-Site? (Yes/No) (Attach Manifest)
Cap Restored to Original Condition? (Yes/No) Describe: N/A

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

Repairs Made? (Yes/No) Describe:
NO CHANGES

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

Repairs Made? (Yes/No) Describe:
NO CHANGES

☑ Groundwater Monitoring – Groundwater Sampling Performed? (Yes/No) (Attach Summary Report and Analytical Results)

☒ N/A Surface Water Monitoring – Surface Water Sampling Performed? (Yes/No) (Attach Summary Report and Analytical Results) (One-time) completed 4/30/97

FACSIMILE TRANSMISSION COVER SHEET

Eco-Systems, Inc.
Consultants, Engineers, and Scientists

17171 Park Row, Suite 120 · Houston, Texas 77084 · Phone (281) 646-1886 · Fax (281) 646-1176

TO: Larry Grebert
COMPANY: TGPL Station 254
FAX NUMBER: 518-766-3626
PHONE NUMBER: 518-766-3611
CC:

FROM: Mike Fuentes
DATE: July 10, 2000
PAGES, INCLUDING COVER: 2
ORIGINAL TO FOLLOW: No

Attached, please find the drum report for the June 2000 Groundwater Sampling event at Station 254. If you have any questions please call Rodney Sartor or me at 281-646-1886.

Thank you,

Mike Fuentes

DRUM DISPOSAL
STATION 254
Nassau, New York

Drum #	Well Number	Detected Compounds	Suggested Disposal Method
254-MW03-01	MW03	No Detections	Pour Out Contents and Reuse Drum
254-Decon01	MW03	No Detections	Pour Out Contents and Reuse Drum

Eco-Systems, Inc.

Consultants, Engineers, and Scientists

17171 Park Row, Suite 120 • Houston, TX 77084 • Phone (281) 646-1886 • Fax (281) 646-1176

DRUM INVENTORY TRACKING RECORD

Project Name: El Paso Energy Groundwater Program

Location: Tennessee Gas Compressor Station 254 - Nassau, NY

Collector: M. Fuentes / A. Waddail

Identification Number	Date Generated	Content Origin	Quantity	Drum Contents	Comments
254-MW03-01	5/31/00	MW03	8 gal	Purge water	
254-Decon-01	5/31/00	Decontamination area	1/2 full	Sampling waste	

An analysis will be performed on the samples and the results will be sent to your office within one month. At that time, recommendations for disposal will be given. If you have any questions, please feel free to call us at (281) 646-1886.

Thank you,

Mike Fuentes

LHG

TENNESSEE GAS PIPELINE
an El Paso Energy company

August 18, 2000

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 2000 Groundwater Sampling Results – Year Four

Dear Mr. Rider:

Tennessee Gas Pipeline Company (TGPL) is pleased to submit this letter report documenting the activities of the May 2000 groundwater monitoring event at TGPL Compressor Station 254 in Nassau, New York. These activities were conducted in accordance with the *Final Documentation Report for Soil, Sediment, and Drainline Remediation Activities, Attachment 9, Operations and Maintenance Plan*, as revised in correspondence from Blasland, Bouck & Lee (O&M Plan, BB&L) on December 9, 1996. The May 2000 monitoring event included collection of filtered and unfiltered groundwater samples from the onsite Monitoring Well MW-3 for analysis of polychlorinated biphenyls (PCBs). A brief description of the scope of work, results, and future scheduled sampling events are presented below.

Scope of Work

Groundwater samples from Monitoring Well MW-3 were collected by *Eco·Systems, Inc.* (*Eco·Systems*), on May 31, 2000. A site map and monitoring well location is not available. Table 1 includes monitoring well purging and sampling data from the monitoring well. 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* (BB&L, May 1995 and TGPL, February 1996) (QAPP). Severn Trent Laboratories (STL) analyzed the samples for PCBs utilizing USEPA Method 608. The reporting limit for Method 608 is 0.065 µg/L.

Results

The analytical data package from Compressor Station 254 was reviewed according to the guidelines presented in the QAPP. The analytical data was validated and determined to be acceptable for its intended purpose. The analytical data validation report is presented in Attachment A.

The analytical data from the May 2000 sampling event indicates PCBs were not detected in the filtered, unfiltered, or duplicate samples from Monitoring Well MW-3. Table 2 presents the analytical results for PCBs for this monitoring event. In addition, historic analytical results presented in Table 3 indicate that PCBs have not been detected in the filtered or unfiltered samples from Monitoring Well MW-3 for the past four consecutive monitoring events.

Schedule

Monitoring Well MW-3 will be monitored annually as required by the O&M Plan. The next annual monitoring event for Monitoring Well MW-3, scheduled for May 2001, represents the fifth and final annual groundwater monitoring event as outlined in the O&M Plan. Your office will be notified prior to field team mobilization in the event that a NYSDEC representative intends to monitor the event.

If you have any questions regarding the information presented herein, please call me at (713) 420-5566 or Rodney Sartor at (281) 646-1886.

Sincerely,

Ian Yanagisawa, P.E.
Principal Environmental Engineer

Tables & Attachments

cc: Steve Morawski, El Paso-Northern Division
Eric Hamilton, NYSDEC - Region 4
Larry Grebert, TGPL Compressor Station 254
Central File, El Paso
Central File, *Eco·Systems*

TABLES

TABLE 1
Summary of Field Sampling Data, May 2000
Tennessee Gas Pipeline Company
Station 254 - Nassau, New York

FIELD PARAMETERS	MW-3, MW-3F
Purge Date	5/31/00
Purge Method	Disposable Teflon Bailer
Initial DTW (ft-btoc)	17.95
Total Depth (ft-btoc)	30.92
Casing Volume (gal)	2.2
Approx. Volume Purged (gal)	6.6
pH	7.83
Temperature (°C)	14.8
Specific Conductance (mS/cm)	0.077
Turbidity (NTU)	1
Sample Collection Date	5/31/00
Sample Collection Time	15:50
Sample Collection Method	Disposable Teflon Bailer
Sample ID	254-MW03-D-053100 254-MW3F-D-053100
Sample Appearance	Clear

Notes:
gal = gallons
ft-btoc = feet below top of casing
NTU = Nephelometric Turbidity Units
mS/cm = milliSiemens per centimeter

TABLE 2
Groundwater Analytical Results, May 2000
Tennessee Gas Pipeline Company
Station 254 - Nassau, New York

LOCATION	SAMPLE ID	DATE COLLECTED	PCBs (µg/L)	NY ROD ACTION LEVEL (µg/L)	COMMENTS
MW-3	254-MW03-D-053100	5/31/00	U	0.09	Unfiltered
MW-3F	254-MW3F-D-053100	5/31/00	U	0.09	Filtered
MW-3DUP	254-FD1-D-053100	5/31/00	U	0.09	Field Duplicate
RINSATE	254-RS1-D-053100	5/31/00	U	0.09	Equipment Rinsate

Notes:
"U" indicates the parameter was sampled for, but not detected above the reported numerical value.
NY ROD Action Levels are equal to NYS groundwater quality standards per 6NYCRR Part 703.

Table 3
Historic Groundwater Analytical Results
Tennessee Gas Pipeline Company
Station 254 - Nassau, New York

PARAMETERS	MW-3				MW-3(DUP)				MW-3(Filtered)				NY ROD or Action Levels
	4/97	6/98	5/99	5/00	4/97	6/98	5/99	5/00	4/97	6/98	5/99	5/00	
PCBs(Total)	U	U	U	UJ	U	U	UJ	UJ	U	U	U	U	**0.09**

NY ROD action levels are equal to NYS groundwater quality standards per 6NYCRR Part 703

"U" indicates parameter was sampled for, but not detected above the reported numerical value.

"J" indicates the concentration is estimated.

"DUP" indicates Duplicate Sample.

All data in micrograms per liter (µg/L).

ATTACHMENT A

Analytical QA/QC Review Report

ANALYTICAL DATA QA/QC REVIEW:
TENNESSEE GAS PIPELINE
COMPRESSOR STATION 254
STL SDG A00-3775

Reviewer: Patty Sartor, Project Scientist

Date: July 19, 2000

Laboratory: Severn Trent Laboratories, 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 Severn Trent Laboratories, Inc. (STL) on June 2, 2000. STL 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 "SW-846 On-line Test Methods for Evaluating Solid Waste Physical/Chemical Methods - 8000 Series Methods" (EPA Revision 2, December 1996). 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 date the analyses were run.

Table 1. Samples Collected from Station 254

Sample	PCBs
254-FD1-D-053100	6/10/00
254-MW03-D-053100	6/10/00
254-MW3F-D-053100	6/10/00
254-RS1-D-053100	6/10/00

This data review is divided into three sections: Introduction, 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. The qualifiers, if any, 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-94-013, February 1994b.

U.S. Environmental Protection Agency. *SW-846 On-line Test Methods for Evaluating Solid Waste Physical/Chemical Methods 8000 Series Methods.* Office of Solid Waste. Revision 2, December 1996.

Tenneco Gas, Quality Assurance Project Plan, Revision 2, November 1997.

2.0 PCBs

2.1 Holding Times

The technical holding time criteria for PCBs in cooled (4°C±2°C) water samples is seven days from sample collection to time of extraction and then 40 days from sample extraction to analysis.

The holding times were met. No qualification of data is necessary.

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 Calibration Verification

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 verification samples.

There were no problems noted with the calibration verification.

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 (DCB) 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 interference 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 surrogate QC limits have been set as historical laboratory values, which are 22-128 for DCBP and 22-120 for TCMX .

TCMX was below recommended QC limits for the matrix spike blank sample. This does not affect our samples. No qualification is necessary.

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.

None of the PCB target compounds were detected in the rinsate or method blank samples.

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.

The MS/MSD recoveries were inside the QC acceptance 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).

There were no target compounds detected in any of the samples. No qualification of data is needed.

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 ICAL response factor for the standard associated with that compound.

There were no problems noted with the compound quantitation.

2.9 Field Duplicates

Field duplicates are collected and analyzed as an indicator of the sampling and analytical precision. Since these analyses measure both the field and laboratory precision, the results may have more variability than laboratory duplicates which measure only laboratory performance.

A field duplicate was collected with MW03 for PCB analysis. All results were nondetect.

3.0 Summary

A full data review of PCBs was performed on the data package submitted for Station 254. There were no major problems that would prohibit the use of the data. Based on the data reviewed, there is sufficient information to conclude that the data are acceptable for use as stated in this report.

ATTACHMENT A
DATA SHEETS

EL PASO ENERGY
METHOD 608 - POLYCHLORINATED BIPHENYLS
ANALYSIS DATA SHEET

000005

Client No.

254-FD1-D-053100

Lab Name: STL Buffalo Contract: ECOSYS

Lab Code: RECNY Case No.: ____ SAS No.: ____ SDG No.: 254

Matrix: (soil/water) WATER Lab Sample ID: A0377503

Sample wt/vol: 1070.00 (g/mL) ML Lab File ID: SA79213.TX0

% Moisture: ____ decanted: (Y/N) N Date Samp/Recv: 05/31/2000 06/02/2000

Extraction: (SepF/Cont/Sonc/Soxh): SEPF Date Extracted: 06/04/2000

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/10/2000

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 6.00 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (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
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

000006
Client No.

254-MW03-D-053100

Name: STL Buffalo Contract: ECOSYS

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: 254

Matrix: (soil/water) WATER Lab Sample ID: A0377501

Sample wt/vol: 1050.00 (g/mL) ML Lab File ID: SA79207.TX0

% Moisture: _____ decanted: (Y/N) N Date Samp/Recv: 05/31/2000 06/02/2000

Extraction: (SepF/Cont/Sonc/Soxh): SEPF Date Extracted: 06/04/2000

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/10/2000

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 6.00 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (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
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

000007

Client No.

254-MW3F-D-053100

Name: STL Buffalo Contract: ECOSYS

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: 254

Matrix: (soil/water) WATER Lab Sample ID: A0377502

Sample wt/vol: 1040.00 (g/mL) ML Lab File ID: SA79212.TX0

% Moisture: _____ decanted: (Y/N) N Date Samp/Recv: 05/31/2000 06/02/2000

Extraction: (SepF/Cont/Sonc/Soxh): SEPF Date Extracted: 06/04/2000

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/10/2000

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 6.00 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (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
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

000008 Client No.

254-RS1-D-053100

Name: STL Buffalo Contract: ECOSYS

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: 254

Matrix: (soil/water) WATER Lab Sample ID: A0377504

Sample wt/vol: 1050.00 (g/mL) ML Lab File ID: SA79214.TX0

% Moisture:_____ decanted: (Y/N) N Date Samp/Recv: 05/31/2000 06/02/2000

Extraction: (SepF/Cont/Sonc/Soxh): SEPF Date Extracted: 06/04/2000

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/10/2000

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 6.00 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (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
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

ATTACHMENT B
DATA VALIDATION SUMMARY SHEETS

STL Committed To *Your* Success

Report To: Patty Sarler
Contact:
Company: Eco·Systems
Address: 17171 Park Row
Houston, TX
Phone: (281) 646-1886
Fax: (281) 646-1176
E-Mail:

Bill To:
Contact:
Company:
Address:
Phone:
Fax:
POI: Quote:

Internal Use Only
NY6A6227 NY/2

Sampler Name: M. Fuentes
Signature: Mike Fuentes
Project Name: El Paso Groundwater
Project Number: EP97-760
Project Location: Nassau, NY
Date Required:

INDICATE PRESERVATIVE BY USING KEY BELOW (Optional)
INDICATE CONTAINER BY USING KEY BELOW (Optional)

STL Sample No.	Client Sample ID	Sampling Date	Sampling Time	MATRIX	COMP/GRAB	PCBs	Additional Analyses / Remarks
	254-MW03-D-053100	5/31/00	1650	W	G	X	ms/msD
	254-MW3F-D-053100	5/31/00	1550	W	G	X	Filtered
	254-FD1-D-053100	5/31/00	—	W	G	X	field duplicate
	254-RS1-D-053100	5/31/00	1505	W	G	X	rinsate

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
M. Fuentes	Eco·Systems	6/1/00	9:45	[signature]		6/2/00	1015

Matrix Key
WW = Wastewater
W = Water
S = Soil
SL = Sludge
MS = Miscellaneous Solids
OL = Oil
A = Air
O =

Container Key
1. Plastic
2. VOA Vial
3. Sterile Plastic
4. Amber Glass
5. Widemouth Glass
6. Other

Preservative Key
1. HCl, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn Acetate, Cool to 4°
6. Cool to 4°
7. None

COMMENTS:
Airbill #
819B 1499 3515
cooler 5°C/4°C

Courier:

Bill of Lading:

000019

Station # 254

SDG# A00-3775

DATA VALIDATION CRITERIA **STATUS**

I. HOLDING TIMES

Sampled 5/31/00
Received 6/2/00
Extracted 6/4/00
Analyzed 6/10/00

1. Compare the sample dates on the EPA Sample Traffic Report with the dates of analysis on Form I-PEST.

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 @ 5±4°C

II. INITIAL CALIBRATION

1. Multi-component Target Compounds (.005, .01, .05, .1, .15)
   a. Verify 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 to verify that at least three peaks were used for calibration and that the retention time windows were calculated as required.
   c. Check the data to verify that calibration factors have been determined for each selected peak.

CF = 1309231 / .15 = 8728206.67

Lab = 8728205.73 close ✓

III. CALIBRATION VERIFICATION

1. Verify that the instrument blanks, PEMs, and Individual Standard Mixtures were analyzed at the required frequency and that no more than 12 hours elapsed between continuing calibration brackets in an ongoing analytical sequence. ✓

Station # 254

SDG# A00-3775

DATA VALIDATION CRITERIA **STATUS**

IV. BLANKS

1. Review the results of all associated blanks on the Form I-GC EXT and raw data to evaluate the presence of target and non-target compounds in the blanks. RSI=U

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. ✓

3. Verify that the method blank analysis contains less than the CRQL of any target analyte or any interfering peak. MB=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). ✓

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-GC EXT should be completed associating all the samples with the method blank, and a second version of Form IV-GC EXT should be completed listing only those samples associated with the separate sulfur cleanup blank. NO SH for

Station # 254

SDG# A00-3775

DATA VALIDATION CRITERIA **STATUS**

V. SURROGATE SPIKES

1. Check the raw data to verify the surrogate spike recoveries on Form II-GC EXT. ✓ Check for any calculation or transcription errors.

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.

   TCMX is below limits for MSB. This does not affect our samples.

   RT= TCMX 3F = 5.38 ICAL: 3,40 - .02 ✓

3. Check the raw data to verify that the retention times are accurate and within retention time windows.

   TCMX = $\frac{.0099}{2}$ = 49.5 Lb: 50 ✓

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. ✓

   MS%Rec = $\frac{.336-0}{.476}$ x100 = 70.6 Lb=71 ✓

2. Check raw data and Form III-GC EXT to verify that the results for matrix spike recoveries were calculated and transcribed correctly.

   %RPD = $\frac{71-62}{66.5/2}$ x100 = $\frac{9}{66.5}$ x100 = 13.5 Lb=14 ✓

3. Check raw data and Form III-GC EXT to verify that the results for matrix spike relative percent difference were calculated and transcribed correctly. ✓

Station #

254

SDG#

A00-3775

DATA VALIDATION CRITERIA **STATUS**

VI. MATRIX SPIKE/MATRIX SPIKE DUPLICATES (continued)

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

They were all consistent "4".

VII. TARGET COMPOUND IDENTIFICATION

1. Review Form I-GC EXT and the associated raw data to confirm reported detected analytes by comparing the sample chromatograms to the tabulated results and verifying peak measurements and retention times.

There were no detections in any samples

2. 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.

NA

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.

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DATA VALIDATION CRITERIA	STATUS

VIII. 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. ✓

IX. FIELD DUPLICATES

1. Compare the results reported for each sample and calculate the relative percent difference (RPD), if appropriate.

FD1 = U

MW3 = U