Varian, Inc.
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Varian MS Workstation
Version 9

EnviroPro Operation Manual

QUALITY SYSTEM ISO 9001 CERTIFIED

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Quality Systems At Varian, Inc.

The ISO 9000 series standards were created in Geneva in 1987 to cut through a morass of conflicting quality definitions. These standards define a model for quality assurance systems in product design, development, manufacturing, installation, service, and customer support. They are now the worldwide quality assurance benchmark used to gauge the strength of a company's commitment to quality, and the value of its quality systems.

Various organizations around the world, such as the British Standards Institution (BSI), provide certified, objective auditors to scrutinize quality procedures, product development, manufacturing processes, and customer satisfaction programs. No company can claim ISO 9000 series registration unless it receives a stamp of approval from the demanding quality assessors of BSI or similar accredited examining body. ISO 9000 series registration constitutes an objective third-party report to determine the level of a supplier's commitment to quality.

In 1992, Varian, Inc., Analytical Instruments became registered to the most comprehensive of the ISO 9000 series standards — ISO 9001. ISO 9001 registration means that every stage of our quality system, including product development, manufacturing, final test, shipping, and parts and supplies has been rigorously examined against the most exacting set of internationally recognized standards. It means we live up to a standard of quality that you can count on today, and into the future. Our Quality System has received ISO 9001 certification number FM21797.

The quality systems that earned us ISO 9001 registration have direct benefits for our customers:

- We can speed instruments to you faster than ever before. Emergency orders can be processed even faster.
- We fill your orders promptly and completely.
- We have implemented a system of continuous feedback from our customers — we are aware of your needs today and tomorrow.
- We have improved your productivity by cutting systems failure rates in half and speeding service response time.
- We have embedded continuous improvement into the fabric of our organization so that we can achieve even higher levels of quality in the future.
- We are embedding GLP requirements into our products and services to help you meet your regulatory compliance requirements.

ISO 9001 registration is not enough. For us, quality is defined by our customers. We are not satisfied unless you are satisfied. We are striving to understand customer needs, using independent surveys, user groups, customer advisory boards, and our “Hallmark of Quality” response program, in addition to individual face-to-face customer contact. Our products and our processes are configured to meet those needs.

We know that you are seeking more than the most advanced processes and top-notch applications expertise. You want to join forces with a partner committed to delivering world-class quality, reliability, and value — on time, every time.

QUALITY SYSTEM ISO 9001 CERTIFIED

Our overriding aim is to be that partner.

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Qualitätssysteme bei Varian, Inc.

Die Standards der ISO 9000 Serien wurden 1987 in Genf mit dem Ziel geschaffen, das Durcheinander gegensätzlicher Qualitätsbestimmungen zu entwirren. Diese Standards legen ein Modell für Qualitätssicherungssysteme hinsichtlich Produktdesign, Entwicklung, Herstellung, Installation, Service und Kundenbetreuung fest. Sie sind nun die weltweiten Maßstäbe der Qualitätssicherung, die die Anstrengungen eines Unternehmens bezüglich der Qualität und der Bedeutung seiner Qualitätssysteme messen.

Verschiedene Organisationen in der ganzen Welt, wie die British Standards Institution (BSI), stellen ausgebildete, objektive Prüfer zur Begutachtung von Qualitätsmaßnahmen, Produktentwicklung, Herstellungsprozessen und von Programmen zur Erforschung der Kundenzufriedenheit zur Verfügung. Kein Unternehmen kann die ISO 9000 Registrierung beantragen, ohne die Genehmigung von den beauftragten Qualitätsgutachtern der BSI oder einer ähnlichen akkreditierten Stelle erhalten zu haben. Die ISO 9000 Registrierung bildet einen objektiven Bericht von dritter Seite, um den Grad der Qualitätsanstrengung eines Lieferanten zu bestimmen.

1992 wurden die Varian, Inc., Analytical Instruments nach den umfassendsten Standards der ISO 9000 Serie registriert — ISO 9001. Die ISO 9001 Registrierung bedeutet, daß jedes Stadium unseres Qualitätssystems, einschließlich Produktentwicklung, Herstellung, Endkontrolle, Versand, sowie Teile und Zubehör rigoros gegen die anspruchsvollste Serie international anerkannter Standards geprüft worden ist. Das bedeutet, daß wir einen Qualitätsstandard bieten, auf den Sie heute und in Zukunft rechnen können. Unser Qualitätssystem hat die ISO 9001 Zertifikatnummer FM21797 erhalten.

Die Qualitätssysteme der ISO 9001 Registrierung haben für unsere Kunden direkte Vorteile:

- Wir können Instrumente schneller denn je zu Ihnen schicken. Eilbestellungen werden noch schneller durchgeführt.
- Wir erfüllen Ihre Bestellungen pünktlich und vollständig.
- Wir haben ein System kontinuierlichen Informationsrückflusses von unseren Kunden aufgebaut—wir kennen Ihre Anforderungen von heute und von morgen.
- Wir haben Ihre Produktivität durch Halbierung der Systemfehlerraten und durch Verkürzung unserer Reaktionszeit im Service verbessert.
- Wir haben kontinuierliche Verbesserungen in unserer Organisationsstruktur verankert, so daß wir künftig eine noch höhere Qualität erreichen können.
- Wir haben die GLP Anforderungen in unsere Produkte und Dienstleistungen eingeführt, um Ihnen bei der Erfüllung Ihres behördlichen Abnahmeprotokolls zu helfen.

Die ISO 9001 Registrierung ist nicht genug. Für uns wird Qualität durch unsere Kunden definiert. Wir sind nicht zufrieden, wenn Sie es nicht auch sind. Wir bemühen uns, die Anforderungen unserer Kunden durch unabhängige Untersuchungen, Anwendergruppen, Kundenberatungsgremien und unser Antwortprogramm “Gütesiegel der Qualität” zu verstehen, zusätzlich zu persönlichen Kundenkontakten. Unsere Produkte und unsere Prozesse sind so gestaltet, daß sie diese Anforderungen erfüllen.

Wir wissen, daß Sie mehr als fortschrittliche Prozesse und ausgezeichnetes Anwendungswissen suchen. Sie suchen einen Partner, der Qualität von Weltklasse, Verläßlichkeit und Nutzen für Sie liefert— pünktlich und jederzeit.

Unser oberstes Ziel ist, für Sie dieser Partner zu sein.

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Systèmes de qualité chez Varian, Inc.

Les normes ISO série 9000 ont été créées à Genève, en 1987, pour remédier à la confusion dans la définition des normes de qualité. Ces normes définissent un modèle de contrôle de qualité dans le domaine de la conception produit, du développement, de la production, des installations, des services et du support client. Elles constituent à présent la référence mondiale en matière de contrôle de qualité utilisée aux fins d'évaluation du niveau d'engagement d'une entreprise dans ce domaine et la valeur de ses systèmes de qualité.

Plusieurs organisations de par le monde, telle la British Standards Institution (BSI) offrent les services d'auditeurs qualifiés et objectifs, chargés d'examiner les procédures de qualité, le développement de produit, les procédés de fabrication et les programmes de satisfaction du client.

Aucune société ne peut se prévaloir de l'homologation ISO 9000, sans avoir reçu l'approbation des évaluateurs rigoureux de la BSI ou d'un organisme accréditif similaire. L'homologation ISO 9000 constitue une évaluation objective d'un tiers afin de déterminer le niveau d'engagement d'un fournisseur dans le domaine de la qualité.

En 1992, Varian, Analytical Instruments a reçu l'homologation ISO 9001, normes des plus complètes de la série IS0 9000. En d'autres termes, chaque étape du processus de qualité, notamment le développement produit, la fabrication, le test final, l'expédition et les fournitures de pièces a étés oumis à un contrôle rigoureux par rapport à des normes extrêmement strictes, reconnues au niveau international. Nous sommes donc à même de vous garantir et de maintenir un niveau de qualité. Lesdites procédures ont reçu l'homologation ISO 9001 numéro FM21797.

Les systèmes de qualité qui ont reçu l'homologation ISO 9001 présentent des avantages directs pour nos clients :

- Nous sommes en mesure de vous livrer les instruments et de traiter les commandes en urgence dans des délais record.
- Nous répondons pleinement et de manière rapide à vos commandes.
- Nous avons mis en place un système de feedback continu de la part de nos clients et sommes conscients de vos attentes présentes et futures.
- Nous avons amélioré votre productivité en réduisant de moitié les Temps de panne et en accélérant les temps de réponse.
- Nous avons apporté des améliorations constantes au sein de notre structure, afin d'atteindre des niveaux de qualité optima, à l'avenir.
- Nos produits et services reflètent les exigences BPL pour vous permettre de répondre aux impératifs de respect de la règlementation.

Toutefois, nous ne nous contentons pas de l'homologation ISO 9001. Pour nous, la qualité est définie par nos clients. Nous ne sommes satisfaits que lorsque nos clients le sont. Nous nous efforçons de comprendre vos besoins, à l'aide d'évaluations externes, de groupes d'utilisateurs, de comités de conseil clients, et de notre programme “Hallmark of Quality”, outre les contacts directs que nous établissons avec chacun de nos clients. Nos produits et nos procédés sont conçus pour répondre à vos attentes.

Nous n'ignorons pas que vous recherchez plus que des processus évolués et un savoir-faire d'exception dans le domaine des applications. Vous souhaitez conjuguer vos forces avec un partenaire s'étant engagé à offrir une qualité, une fiabilité et une valeur optimales, au moment où il faut et quand il faut.

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Notre principal objectif : devenir votre partenaire !

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I sistemi di qualità della Varian, Inc.

La serie degli standard ISO 9000 è stata presentata nel 1987 a Ginevra con lo scopo di mettere ordine in un groviglio di definizioni contrastanti sulla qualità. Tali standard definiscono un modello che assicura la qualità nella progettazione, nello sviluppo, nella fabbricazione, nell'installazione e nella manutenzione dei prodotti nonché nel servizio assistenza clienti. Oggi come oggi essi costituiscono il punto di riferimento, a livello mondiale, ai fini della valutazione dell'impegno delle diverse aziende sul fronte della qualità e della validità dei sistemi di qualità da esse adottati.

Diverse organizzazioni internazionali, come la British Standard Institution (BSI), dispongono d'ispettori certificati e imparziali per la valutazione delle procedure di qualità, dello sviluppo dei prodotti, dei processi di fabbricazione e dei programmi di soddisfazione del cliente. Nessuna azienda può asserire d'essere in possesso della certificazione ISO 9000 finché non dispone del marchio d'approvazione concesso dai rigorosi ispettori di qualità della BSI o di altri enti di controllo riconosciuti. La certificazione di conformità agli standard ISO 9000 costituisce un'attestazione imparziale di terzi del grado d'impegno di una determinata azienda nei confronti della qualità.

Nel 1992 la Varian, Inc., Analytical Instruments ha ottenuto l'omologazione allo standard più completo della serie ISO 9000, l'ISO 9001. L'omologazione ISO 9001 significa che ogni singola fase del nostro sistema di qualità - compresi lo sviluppo del prodotto, la fabbricazione, le prove finali, la spedizione, i componenti e le forniture - è stata rigorosamente esaminata a fronte della serie più esigente di standard riconosciuti a livello mondiale, il che significa che rispondiamo pienamente ad uno standard qualitativo sul quale il cliente può contare oggi come nel futuro. Il nostro Sistema di Qualità ha ottenuto la certificazione ISO 9001 col numero FM21797.

I sistemi di qualità per i quali abbiamo ottenuto l'omologazione ISO 9001 comportano dei vantaggi diretti per i nostri clienti, ovvero:

- Siamo in grado di consegnare gli strumenti più rapidamente rispetto al passato, con la possibilità di evadere le richieste d'emergenza con una rapidità ancora maggiore.
- Gli ordini vengono evasi tempestivamente ed in modo completo.
- Abbiamo messo a punto un sistema di riscontro costante con la clientela, in modo da poter essere sempre perfettamente informati sulle esigenze attuali e future del cliente.
- Abbiamo migliorato la produttività del cliente riducendo della metà il tasso di guasti dei sistemi e velocizzando i tempi d'intervento della manutenzione.
- Abbiamo introdotto un costante miglioramento nella nostra struttura organizzativa in modo da poter conseguire in futuro livelli qualitativi ancor più elevati.
- Stiamo adeguando i nostri prodotti e servizi agli standard GLP per poter aiutare i clienti a soddisfare i requisiti di conformità posti loro dagli enti normativi.

Ma l'omologazione ISO 9001 non è tutto. Per quanto ci riguarda, la qualità viene definita dai nostri clienti: noi siamo soddisfatti solo se lo è il cliente. Ci adoperiamo al massimo per comprendere le esigenze del cliente, ricorrendo ad indagini di società private, gruppi di utenti, associazioni di consumatori e con il nostro programma di risposta Hallmark of Quality - il marchio di garanzia di qualità - oltre che col contatto diretto coi singoli clienti. I nostri prodotti ed i nostri processi sono configurati per rispondere a tali esigenze.

Sappiamo che a Voi i processi più avanzati e l'esperienza delle applicazioni di prim'ordine non bastano. Sappiamo che intendete unire le vostre forze con quelle d'un partner impegnato a fornire livelli qualitativi internazionali, affidabilità e valore, in modo tempestivo e costante.

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Quel partner vogliamo essere noi.

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Sistemas de calidad en Varian, Inc.

Las normas ISO 9000 fueron creadas en Ginebra en 1987 para acabar con una multitud de definiciones de calidad contradictorias. Estas normas constituyen un modelo de sistemas de garantía de calidad en el diseño, desarrollo, fabricación, instalación, mantenimiento y asistencia técnica de productos. Se han convertido en el banco de pruebas de garantía de calidad a nivel mundial y miden el grado de compromiso de una empresa con la calidad, así como el alcance de sus sistemas de calidad.

Diversas organizaciones mundiales, como la British Standards Institution (BSI), proporcionan expertos titulados de probada objetividad para investigar procedimientos de calidad, desarrollo de productos, procesos de fabricación y programas de servicio al cliente.

Varian, Inc., Analytical Instruments fue registrada en 1992 con la norma más exhaustiva de la serie ISO 9000: la ISO 9001. La certificación por la norma ISO 9001 significa que todas las etapas de nuestro sistema de calidad, como el desarrollo del producto, la fabricación, las pruebas finales, la expedición, así como los suministros y recambios, han sido examinados rigurosamente respecto a las normas más exigentes reconocidas internacionalmente. Significa que nos comprometemos a mantener un nivel de calidad con el que podrá siempre contar, hoy y en el futuro. Il nostro Sistema di Qualità ha ottenuto la certificazione ISO 9001 col numero FM21797.

Los sistemas de calidad que nos valieron la certificación ISO 9001 representan beneficios directos para nuestros clientes:

- haremos llegar nuestros aparatos más rápidamente que nunca. Podemos cumplir con pedidos urgentes aún más deprisa.
- Atenderemos sus pedidos de forma rápida y completa.
- Aplicamos un sistema de retorno de información permanente con nuestros clientes: siempre somos conscientes de sus necesidades, actuales o futuras.
- Hemos mejorado la productividad de nuestros clientes, disminuyendo el índice de defectos a la mitad y acortando el tiempo de respuesta del servicio de mantenimiento.
- Hemos integrado sistemas de mejora continuada en nuestra organización, de forma que podremos obtener niveles de calidad aún superiores en un futuro.
- Estamos integrando los requerimientos GLP en nuestros productos y servicios para ayudarle a cumplir con requerimientos de conformidad obligatorios.

La conformidad con ISO 9001 no nos basta. Para nosotros, los criterios de calidad los definen nuestros clientes. No estaremos satisfechos hasta que usted lo esté. Intentamos comprender las necesidades de nuestros clientes, a través de entidades independientes, grupos de usuarios, oficinas de asesoramiento a usuarios y nuestro programa de respuesta “Hallmark of Quality”, además de los contactos directos con nuestros clientes. Nuestros productos y procedimientos están diseñados para poder corresponder a sus necesidades.

Sabemos que nuestros clientes buscan más que experiencia en procesos avanzados y aplicaciones punteras. Se trata de unir fuerzas con un socio que se compromete a entregar calidad reconocida a nivel mundial, fiabilidad y valor, a tiempo, siempre.

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Nuestra meta principal es ser ese socio.

Contents

Introduction

EnviroPro is a flexible, Microsoft Access 2000 based reporting software package. It generates the numerous graphic and text report formats commonly used in the environmental market and offers reporting capabilities for all kind of analysis.

EnviroPro reports data from files processed in MS Workstation version 6.2 or later. The reports support analysis by EPA methods 524, 525, 624, 625, 8240, 8250, 8260, 8270, and CLP Volatile, and CLP Semi-volatile methods. (EnviroPro reports are not designed for direct submission to the EPA Contract Laboratory Program.)

Use internal and external standard calculations to generate reports.

Generate quality control and summary reports.

Target and tentatively identified compounds have different reports options.

Preview and print reports or save them as ASCII.

Generate reports as a sample analysis is completed, or generate reports for as a post run operation.

Use report templates to generate separate templates for each type of reporting requirement.

The template size increases after the generation of numerous reports.
Use the Repair/Compact command (last entry in the menu shown when the MS CUS Icon  is clicked) to restore the original template size.

Several EnviroPro reports include fields based on statistical calculations. The calculation of such quantities as average RRF, relative standard deviation, control limits, and MDL are based on full precision values from MS Workstation data files. The values used in the statistical calculations are reported to less than full precision on reports. An independent recalculation of these statistical quantities based on the lower precision printed values of MS Workstation data files results in statistical results that differ somewhat from EnviroPro reported results based on full precision numbers.

Help

To see help on a specific field in an EnviroPro form, position the mouse cursor over the item of interest and click the right mouse button. Select the "What's This?" item from the floating menu.

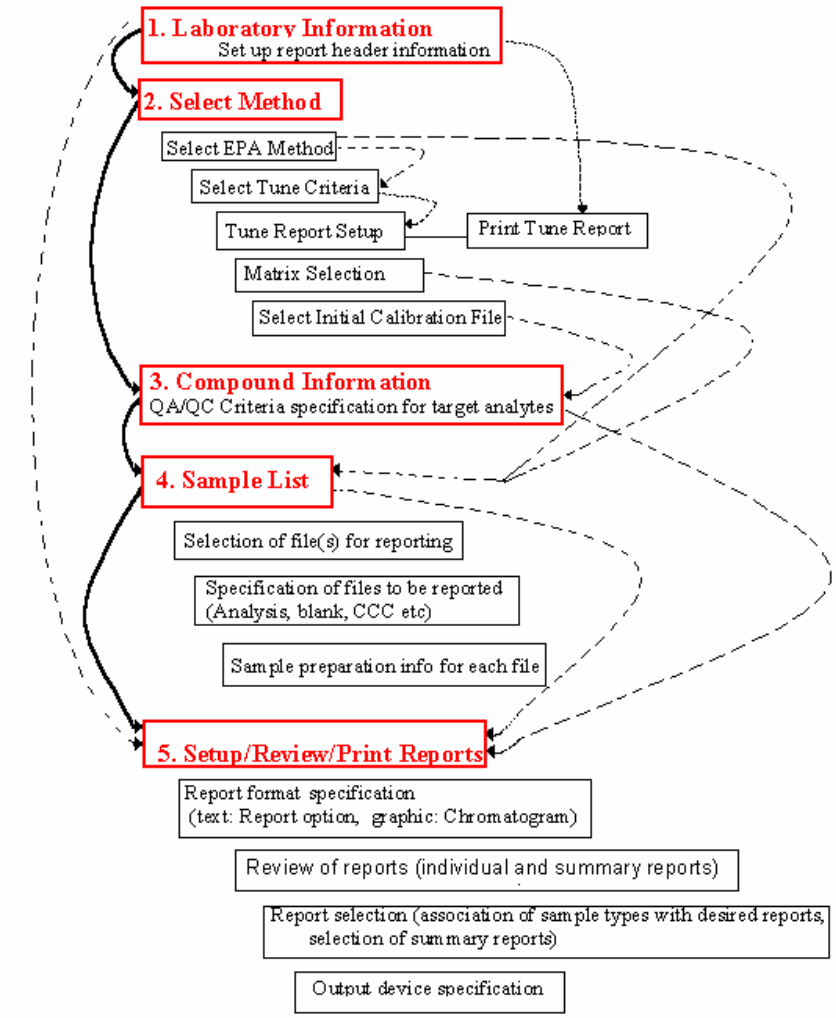
Overview

Components

EnviroPro has five major components. These sections interact with each other. Therefore the method should be configured in the order shown below.

1. Laboratory Information
2. Select Method
3. Compound Information
4. Sample list
5. Setup/Review/Print Reports

Work Flow



Solid line: Order of template preparation

Dotted line: Information propagation from one section to the other

1. Laboratory Information

Enter information about the laboratory. This information is included in the report headers.

2. Select Method

The Select Method form includes:

- EPA method
- Tune criteria (BFB or DFTPP)
- Matrix (water or soil)
- Initial Calibration File (ICC)

The following options determine report formats.

- The selected EPA method initiates the appropriate tune criteria for review and acceptance (or edit).
- The compound list from the ICC is automatically entered into the Compound information table.
- The selected method and matrix determine the sample descriptors in reports. These descriptors are set up in the sample list.
- The selection of a new matrix reinitializes the Sample list.
- The selection of a new EPA method or an ICC file (processed by a different *.mth method than the previous ICC file) reinitializes the Compound Information and the Sample List.

3. Compound Information

Compound Information forms set up criteria used in reporting specific target compounds. Select from the following criteria:

- Calibration (Initial and Continuing)
- Analysis report limits (max and min. concentration, min area, min Fit, and min S/N, MDL)
- Quality Control: recovery limits (surrogates and control samples), Specification of surrogate compounds
- Matrix Spike (Recovery and Duplicate recovery)

4. Sample List

This section identifies the data files to be reported and their attributes.

File Selection

Do one of the following to add files to the list:

- Add all files from a selected directory that are compatible with the ICC file (existing files).
- Add all files from a Recalc List that are compatible with the ICC file (existing files).
- Select a single data file (existing data file).
- Set-up Sample Ids for files to be acquired (see automation section).

Type of Files

Select the type of each file. The default type is A or analysis. Other types are Blank, CCC, Quality Control, Spike matrix, Matrix spike, and Matrix spike duplicate. The type specifies how the file is used in reports and summary reports.

Other Attributes

Other attributes depend on the EPA method and Sample Matrix in the Select Method segment. These attributes are printed on report headers and may be used to compute the compound amounts. (Sample correction factor)

5. Setup/Preview/Print Reports

This controls the configuration of the report formats and the selection of reports printed for each sample type. Use it to preview and/or print individual reports for any file in the Sample List or to print all selected reports for all files in the sample list.

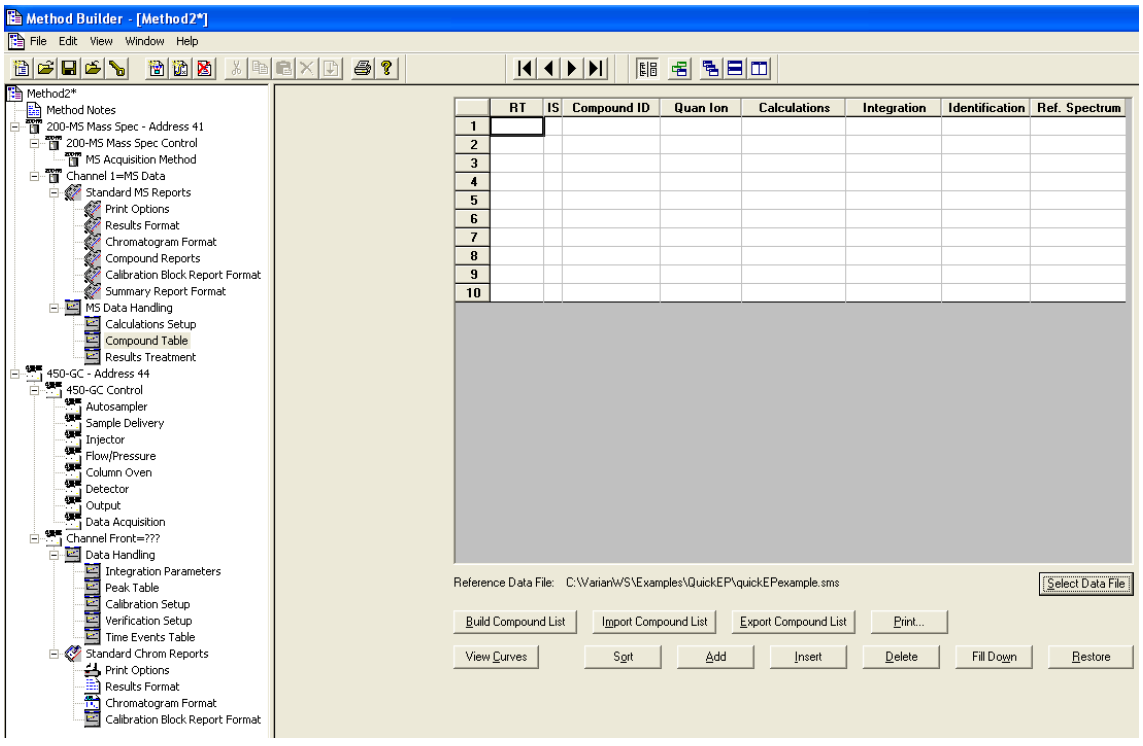
Before Starting EnviroPro

Getting Started

EnviroPro reports the results of data files processed in MS Workstation version 6.2 or later. (Converted data generated with prior versions to the version 6.2 format to the current format.)

EnviroPro reports the results stored in the MS workstation data files. It does not calculate or store data itself.

Before using EnviroPro, a MS Workstation Method (.mth) must be built, calibrated, and used to analyze the appropriate samples. In the Compound Table, the compound identification, integration, calculation, and quantitation parameters must be optimized. Review the compound table integration and identification parameters such as, peak width, slope sensitivity, tangent %, and peak window width before calibration is done. Verify and adjust as necessary the curve fitting options (including the handling of the origin and the regression weighting parameters).



MS Method Builder: Compound Table

Calculation Setup must be completed to identify compounds.

With the exception of the tune file, all data files to be processed with an EnviroPro template must be quantitated with the same workstation method (*.mth). Files processed using a different method are rejected.

Calculations Setup

The following describes the fields and the recommended settings.

General

Measurement Type: Area or Height: Area is typical used. EnviroPro does not support the " %(None)" type.

Calibration type: Internal or External STD: There are limitations to External STD, which include that target Compound Report 1 is not available.

Report Missing peaks: Yes (checked). If not checked, EnviroPro will not report target Compounds which were not found, even if the EnviroPro Report Option "Include Compounds not found" is enabled.

Report Unknown peaks: Click yes to report TICs.

Normalize results: no (not checked)

Ignore Calibration data: no (not checked)

Scale Air Flow Samples: no (not checked)

Chromatogram Processing

Tentative Identification

Library Search Unknown peaks: Click yes to report TICs.

Identify libraries and search parameters from the following:

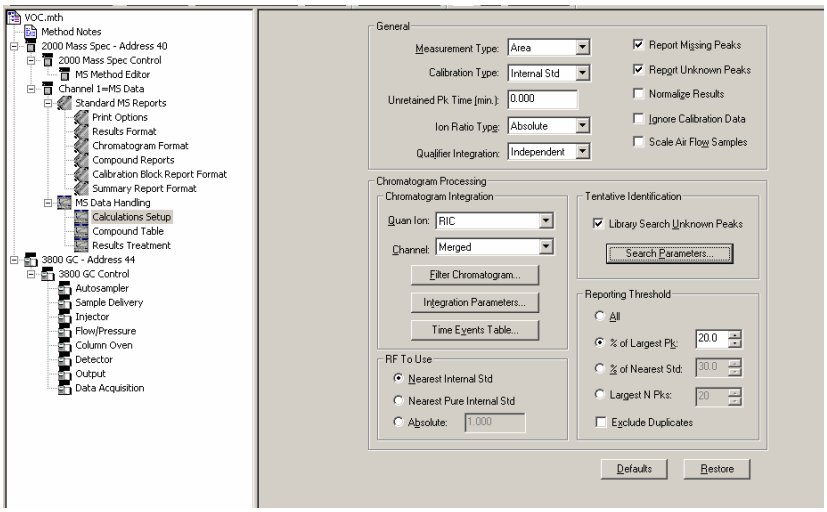
- Specify Quan ion for TICS (usually RIC)
- Specify Integration Parameters for TICs
- Specify RF to Use (quantitation) parameters for TICs

Reporting Threshold

Exclude Duplicates: no (not checked)

If exclude duplicates is checked, some fields in the EnviroPro TIC report incomplete data for Internal Standard peaks. All EnviroPro TIC compounds will report complete data.

Peaks excluded by the other Report Threshold parameters are excluded from EnviroPro reports, regardless of the EnviroPro Report Option settings. Limit peaks according to size and to the number of TIC peaks reported in EnviroPro Report Options. Any TIC peak included in the data file with these parameters becomes a peak label in the TIC chromatogram report, even if the peak was excluded in the report body by EnviroPro Report Option parameters, as long as the peak was identified in a library search.



Calculation Setup

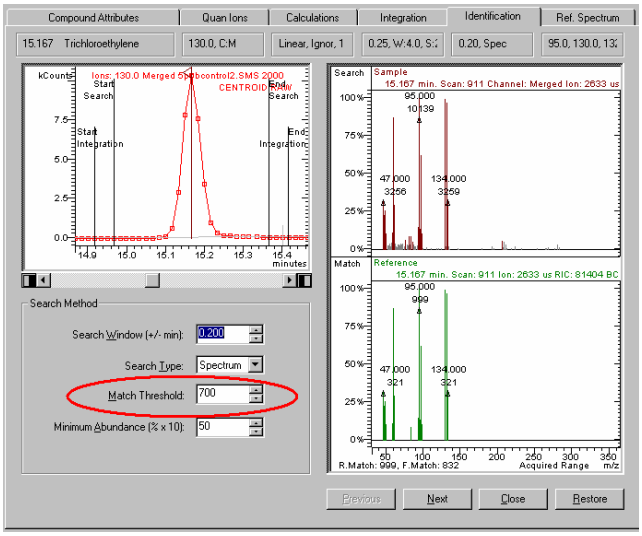
Compound Table Setup

The parameters of the Compound table determine the way target analytes are reported.

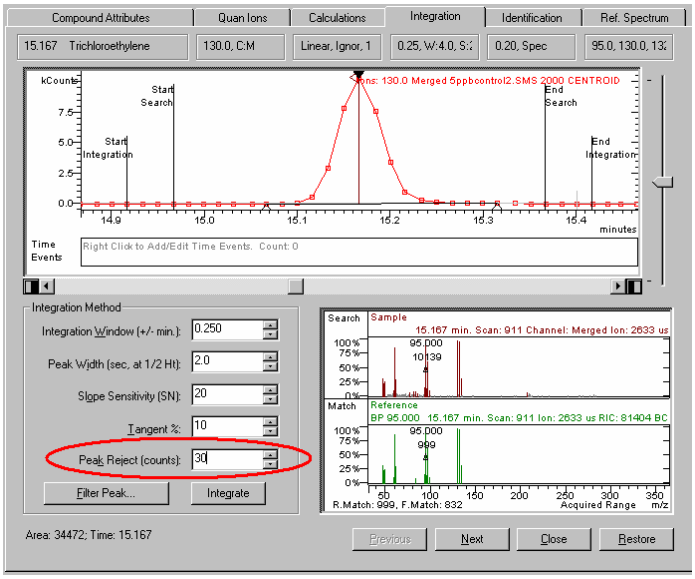
Target compounds excluded by these threshold parameters are excluded from reports, regardless of the target Compound "Analysis Report Inclusion Limits" or the "Report Option" settings.

Coordinate the following parameters in the *.mth method and in the EnviroPro template.

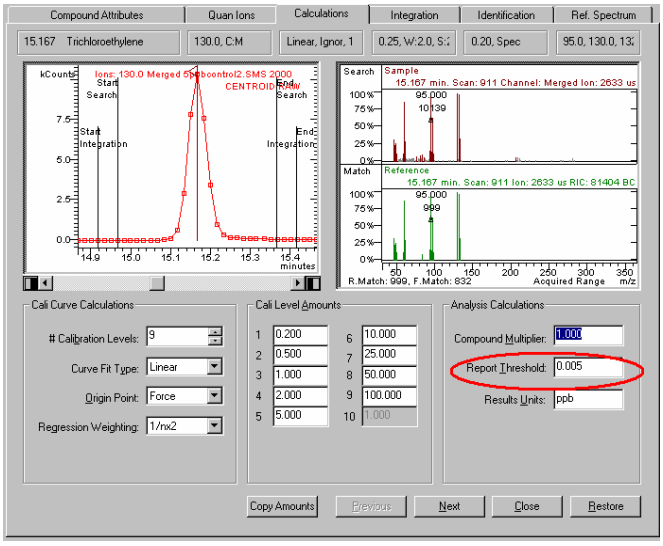
- Identification or Match threshold
- Peak Area/Height rejection threshold
- Report rejection (amount) threshold
- Qualifier Ion Ratios (Do not use qualifier ions with EnviroPro.)



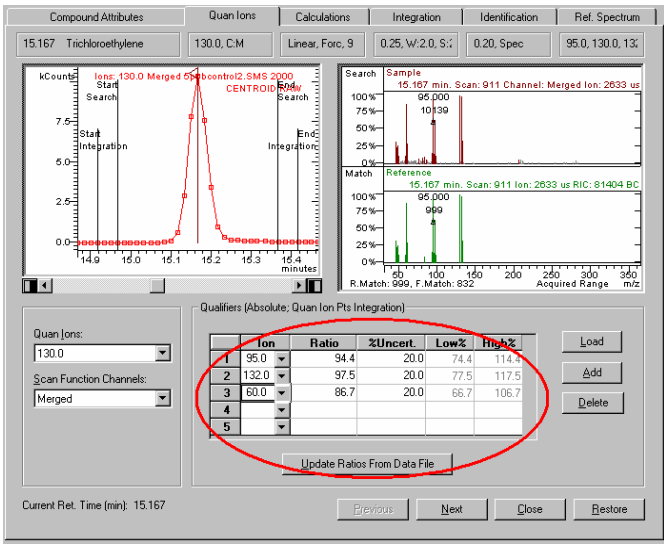
Identification (Match threshold)



Peak Area/Height Rejection (counts)



Report Threshold (Calculated amount)



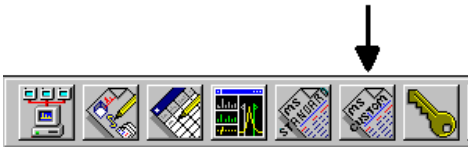
Qualifier Ion Ratios (if any) limits

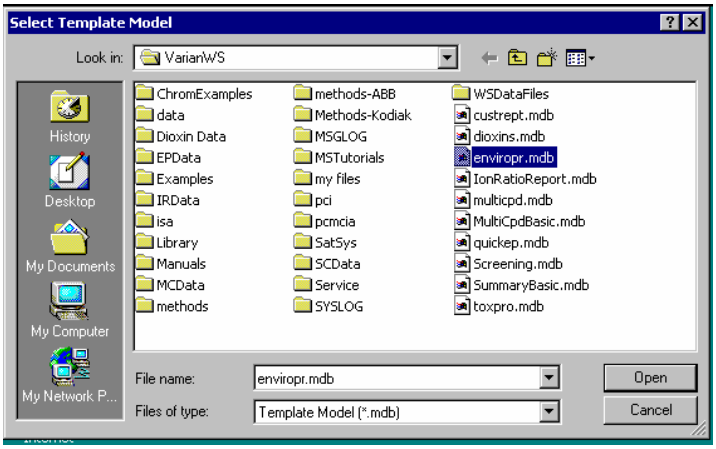
Start: Main Page

Launching EnviroPro

Reporting can only occur if there is a completed method. Be sure to configure the data handling section before creating reports.

Click the **MS CUSTOM** icon in the MS Workstation toolbar to open EnviroPro.





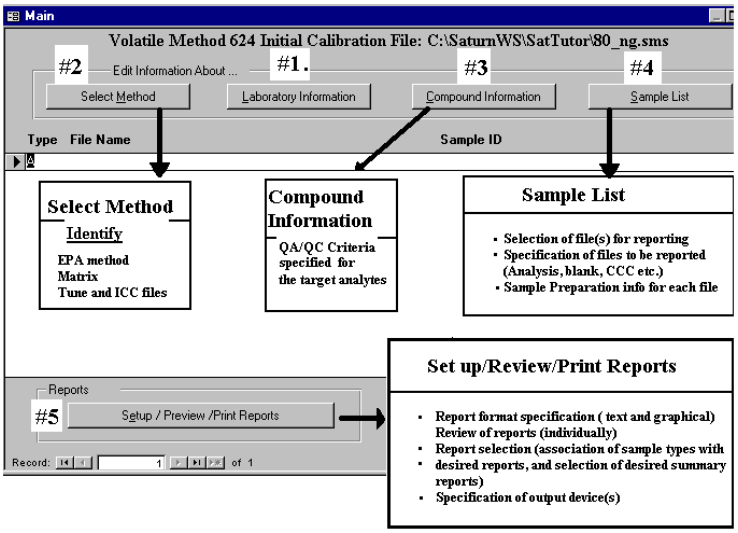
When creating a new report template, select the ENVIROPR.MDB model template. Save the template with a new name. Template files have an *.swt extension.

Main Page

To create a new EnviroPro template, follow this procedure.

1. Click the **Laboratory Information** button and enter the information.
2. Click the **Select Method** button and select an EPA Method, Tune Criteria and a Tune file, and an Initial Calibration file
3. Click the **Compound Information** button and completed the section. Specify all QA/QC criteria for the target analytes.
4. Click the **Sample List** button, and configure the list of files to report.

5. Select a current file to report by clicking the report selector button which is on the left of the file name.
6. Click the **Setup/Print/Preview Reports** button to configure report options, preview and print individual reports, or configure and generate report sets to export to ASCII files or print. You can select another file in the Sample list to review or report.



Main Page of EnviroPro

Buttons: Main Page

Help: Position the cursor over the item of interest and click the right mouse button. Select the "What's This?" item from the menu which appears.

Select Method: Click to open the Select Method form, which allows the selection of an EPA method, and setup of the method tune criteria, the tune report, the matrix, and the Initial Calibration Check filename.

Laboratory Information: Click the Laboratory Information button to open the Laboratory Information form to edit report header information.

Compound Information: Click the **Compound Information** button to open the Initialize Compounds form to edit compound specific information controlling report content.

Sample List: Click the Sample List button to open the Sample List form, and edit sample specific information.

Setup/Preview/Print Reports: Click the Setup/Preview/Print Reports button to open the Setup/Preview/Print Reports form to designate the currently selected record as the "Current File" Use Setup/Print/Preview Reports to configure reports, select reporting options, preview and print individual reports, or configure and generate report sets to be exported to ASCII files or printed. Open this form to configure and print reports in response to an AutoLink invocation from System Control or print reports in response to a MS Workstation toolbar print file command.

Exit: Click the Exit button to close EnviroPro.

Fields: Main Page

The following fields are entered or edited in the Sample List page.

SampleID: The content of the SampleID field.

File name: The MS Workstation data file name for the sample.

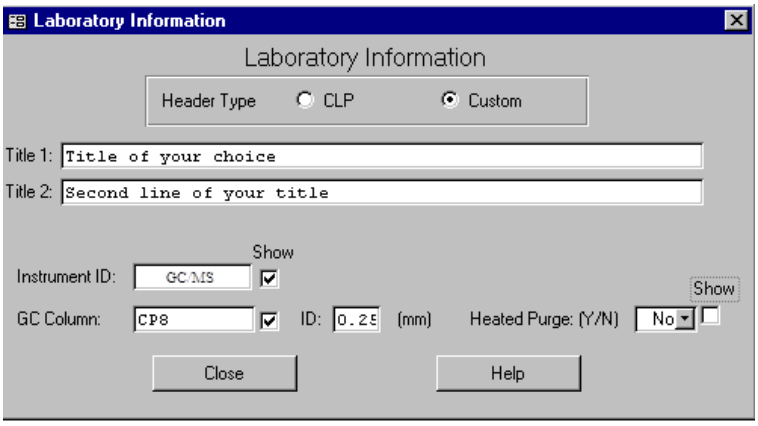
Type: The Sample Type. The options are: A for Analysis, B for Blank, C for CCC or Continuing Calibration Check, Q for Quality Control sample (known compound concentrations), S for Spike Matrix, 1 for 1st Spike (Matrix Spike), 2 for 2nd Spike (Matrix Spike Duplicate).

Laboratory Information

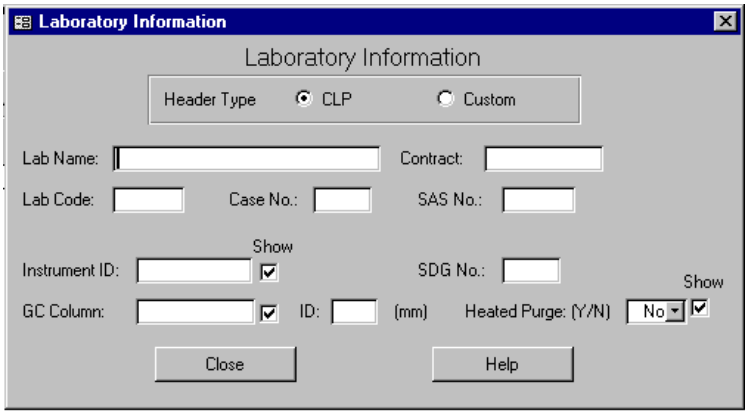
Use **Laboratory Information** to enter parameters for the headers of reports.

There are two header options, CLP or Custom.

- Custom Report: the user has two 60 character title lines for their information. The font size and style are preset. Titles are center aligned with the main report title.
- CLP: content is based on the CLP reporting format.



Custom Laboratory Information page



CLP Laboratory Information page

Buttons: Laboratory Information

Header Type: CLP or Custom group: Select between CLP and Custom. CLP headers show Laboratory Name, Contract, Lab Code, Case No, SDG No, and SAS No. Custom headers offer two centered title lines.

Close: Click to close the page.

Text Boxes: CLP Type Header

Lab Name: text field of up to 25 characters

Contract: text field of up to 11 characters

Lab Code: text field of up to 6 characters

Case No.: (Case Number), text field of up to 5 characters

SAS No.: (Special Analytical Services Number), text field of up to 6 characters.

Instrument ID: text field of up to 10 characters.

Show Instrument ID: display the Instrument ID label and value in reports.

SDG No.:(Sample Delivery Group Number), text field of up to 5 characters

GC Column: text field of up to 10 characters.

Show GC Column and ID checkbox: display the GC Column and ID on reports.

ID: (GC Column ID), text field of up to 4 characters.

Heated Purge: (Y/N) a Yes/No field.

Show Heated Purge checkbox: display the Heated Purge label and value on report headers.

Text Boxes: Custom Type Header

Title 1 text box: This text is displayed in the top subtitle of the Custom header. The field has a maximum of 60 characters (upper or lower case). The font size and style are preset. Titles are center aligned with the main report title.

Title 2 text box: This text is displayed in the bottom subtitle of the Custom header. The Custom Title 2 field has a maximum of 60 characters (upper or lower case). The font size and style are preset. Titles are center aligned with the main report title.

Instrument ID: text field of up to 10 characters.

Show Instrument ID checkbox: display the Instrument ID label and value in reports

GC Column: a text field of up to 10 characters.

Show GC Column and ID checkbox: display the GC Column and ID on reports.

ID (GC Column ID): Text field of up to 4 characters.

Heated Purge (Y/N): is a Yes/No field.

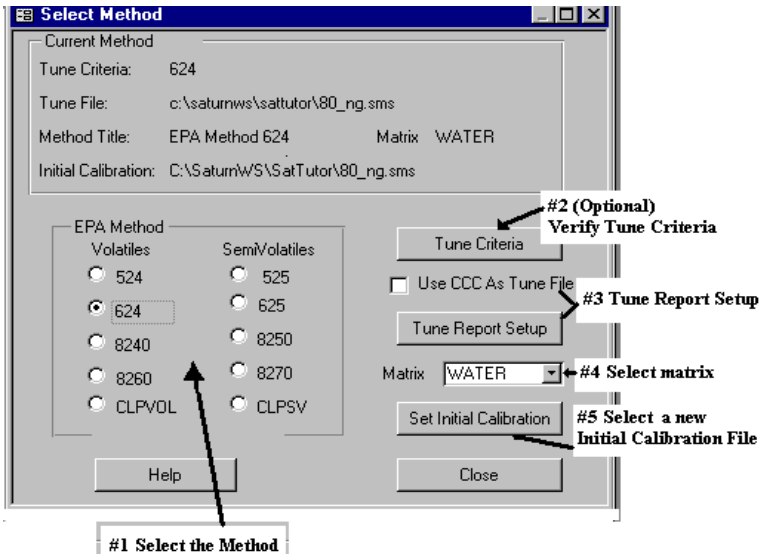
Show Heated Purge checkbox: display the Heated Purge label and value on report headers.

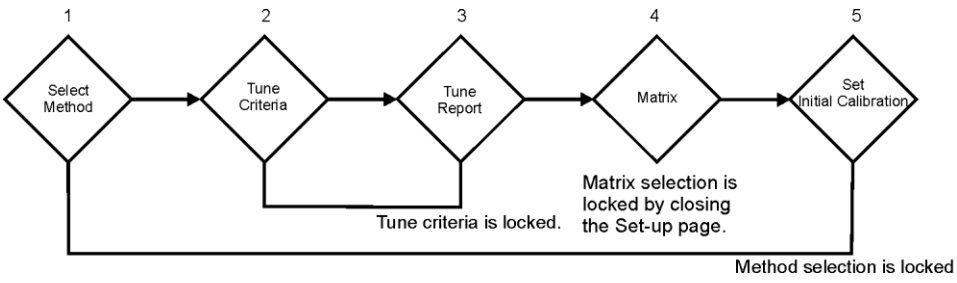
Select Method

The following outlines method selection.

1. Select the EPA method
2. (Optional) Verify Tune Criteria (BFB or DFTPP)
3. Select data file for Tune Report Setup
4. Select Matrix: water or soil
5. Select the data file for the Initial Calibration File (ICC) test.

The options determine the report format. The calibration information in the ICC file defines the target analyte list in the reports. The compound list from the ICC is automatically entered into the Compound information table. The selected EPA method and matrix determines what sample preparation fields are in the Sample list section and printed in report headers. These sections may also change the calculation of compound concentrations.





Sequence of the Setup page preparation

To select a method do the following.

1. Select the EPA method. Do not lock the method selection until a file is selected for ICC in step 5.
2. (Optional) Verify Tune Criteria. The test procedure has tune criteria for each EPA method (BFB or DFTPP). Verify or edit the specifications. The tune criteria selection is not "locked" until a tune data file is selected in the next step.
3. Select data file for the tune test. The selection of the data file "locks" the selected tune criteria. The Tune Criteria is updated in the Current method display. This section also allows the specifications to select the scan for the tune test and to perform and print the tune test results. The software “Find Tune” feature allows the automatic identification of a passing tune. This finds the scan, does scan averaging (if selected), and applies background correction. If the CCC file is also a tune file, check the "Use CCC As tune file" box. The CCC file is selected as the source for tune report/summary tune report.
4. Select Matrix: Select water or soil as the matrix of the samples. (Methods 524, 525, 624, and 625 do not support the SOIL option.) The matrices have different sample attributes in the sample list. Changing the matrix does not require file selection.
5. Select the data file for the ICC test. The selection of the data file "locks" the selected EPA method. The Method Title field is updated in the Current Method display, and the software returns to the main page.

Hints for selecting an ICC file

Select either:

- The file must be the last data file entry in the calibration process with method xxx.mth or,
- An analysis run quantitated using the method xxx.mth containing the information of all calibration entries.
- If manual integration was performed on a calibration run, process an analysis run with the method including the manual corrections, and use that analysis file for the ICC file. (If there are no analysis runs, copy one of the calibration runs and process it as an analysis sample. The sample type before processing must be changed to analysis.)

Compatibility

The list and order of analytes and IS (Internal Standards) in the EnviroPro template is extracted from the ICC file. Therefore, when a new ICC file is selected:

- The new ICC file must have the same list and order of analytes and Internal Standards (IS) as the original or
- A new compound information section must be prepared.

Similarly, only data files which were processed by a method (*.mth) containing the same list and order of analytes and IS as the method used to process the ICC cannot be reported in EnviroPro.

NOTE: The EPA method setting for tune criteria does not need to match the setting for the Initial Calibration. They should both be either Volatile or Semi-volatile.

Fields: Select Method

Current Method: When the Select Method form is opened, the current method shows the settings in use, (default settings on a new template). These settings remain "locked" (are shown in the current method fields) until an action locks a different parameter. The reporting template is based on files and parameters shown in the Current Method field.

Tune Criteria: Tune Criteria is used to generate tune reports.
To change, activate the "EPA Method" group button corresponding to the desired Tune Criteria set, and then click the Tune Report Setup button. Select and accept a Tune File (a *.sms file).

Tune File: Data file that is the source of data for tune reports.
To change the file selection, click the Tune Report Setup button.

Method Title: The title of the currently established EPA method. Click the Close button to use.
To change the method, select the "EPA Method" group button of interest, and then click the Set Initial Calibration button.

Current Method Matrix: Matrix ("WATER" or "SOIL") in the current EnviroPro method. If the Close button was clicked, this matrix is used.
To change the matrix, select the desired matrix in the Matrix combo box, and then click Close. If the matrix was changed, the Sample List section is erased.

NOTE: Methods 524, 525, 624, and 625 do not support the SOIL option.

Initial Calibration: Shows the data file from which the compound data and calibration was read when the EnviroPro method was last created.
To use this file as the base of the reporting method, click Close.
To change the EPA method, select the appropriate "EPA Method" group button, and then click the Set Initial Calibration button.

Buttons: Select Method

Tune Criteria: Click to open the Tune Criteria form, which has the tune criteria of the active button of EPA Method group. These criteria can be edited.

Tune Report Setup: Select a new tune file and/or lock a selected EPA tune criteria.

To compare a mass spectrum against the system performance check criteria, click the Tune Report Setup button associated with the active "EPA Method" button. The "Select Data File" dialog opens. Select a MS data file.

After the data file is selected, the "Tune Report Setup" form opens. Select the specific mass spectrum (scan(s)), or use the “Find Tune” feature to automatically find the passing scan(s). The EPA Method criteria selected for tune reports does need not to correspond with the EPA method selected for other reports. (See the Tune report Set-up section)

Use CCC as Tune File: Often during analysis the CCC file also has the tuning compound. Select this to allow the system to automatically select the CCC file (specified in the sample list) as a tune file, and to generate the summary tune report.

If the CCC file does not have the tuning compound, do not check this field. The appropriate tune file must be specified for the tune report or summary tune report to be generated.

Set Initial Calibration: Select a new ICC file and/or lock a selected EPA method. The selected ICC file is used to construct the calibration and compound tables.

To select a different initial calibration file do the following:

- To report a different EPA method.
  Different methods have different qualitative, quantitative and reporting requirements; therefore the same initial calibration file cannot be used. By selecting a new initial calibration file, the new EPA Method is recorded and used to configure reports and forms. The Compound Information and Sample List must be reentered.
- To generate a new initial calibration using the same EPA method.
  If the continuous calibration file criteria are not met, (after instrument maintenance) a new initial calibration data set is generated. Only the quantitative information changes, the same template may be used, and the Compound Information and Sample List do not need to be reentered. When Set Initial Calibration is clicked, the selections for a new EPA Method are recorded and used to configure reports and forms. All prior method dependent information is erased and reconstructed. The sample table is also erased. Use Open to select the initial calibration file. Select the data file that was the last entry in the calibration process. This file includes calibration information about all the data files that used for calibration. (After initial calibration is established, you may select a continuing calibration check data file that was quantitated as an analysis sample using a fully calibrated MS Workstation method.) EnviroPro uses the selected file to construct the calibration and compound tables from the method stored in this file. After a new method is created, the Select Method form closes, and the Main form opens.

Compatibility: The list and order of analytes and the IS in the template are extracted from the ICC file. To maintain the compound information tables, when selecting a new ICC file, the new ICC file must have the same list and order of analytes and IS as the original ICC had, or select a new compound information section.

Only data files processed by a method (*.mth) containing the same list and order of analytes and IS as the method, used to process the ICC, can be reported in EnviroPro.

NOTE: The file selected as the EnviroPro Initial Calibration File is a data file (*.sms or *.xms), not a MS Method file (*.mth). The calibration data, including the method name and all data files used in the calibration, are read from the data file designated as the EnviroPro Initial Calibration File. Since a continuing calibration check sample is an analysis of one of the initial calibration sample levels, it is convenient to use the same file as the Initial Calibration Check sample, and the Continuing Calibration Check sample.

Close: Click to close the Select Method form and open the Main form. The new reporting template is based on parameters in the current method segment. If the status of the Matrix Combo box was changed the sample list is erased (after prompting). Use this to return to the Main form without recreating the method.

EPA Method Button Group

The EPA method determines:

- The tune criteria used for tune reports
- The information on report headers and
- The information on the sample list form.
- Also, it may control the calculation of report concentrations.

The active button in the EPA method group is read:

- When the Tune Report Setup button selects the file or
- When the Set Initial calibration button selects the Initial calibration file.

EPA Methods

The following EPA Methods are supported:

Volatiles:

- 524 Measurement of Purge able Organic Compounds in Drinking Water By Capillary Column Gas Chromatography/Mass Spectrometry
- 624 EPA Test Method Purgeables: Method 624
- 8240 Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)
- 8260 Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS):Capillary Column Technique
- CLPVOL US EPA Contract Laboratory Program: GC/MS Analysis of Volatiles

Semi-volatiles:

- 525 Determination of Organic Compounds in Drinking Water by Liquid-Solid Extraction and Capillary Column Gas Chromatography/Mass Spectrometry
- 625 EPA Test Method Base/Neutrals and Acids: Method 625
- 8250 Semi-volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)
- 8270 Semi-volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)
- CLPSV US EPA Contract Laboratory Program - GC/MS Analysis of Semi-volatiles

Matrix: Sample Matrix (SOIL or WATER). Methods 524, 525, 624, and 625 do not support the SOIL option.

The sample list must be rebuilt if a different matrix is selected. Select a different matrix after the setup window is closed. It is not necessary to select a file to switch the matrix.

Tune Criteria

In Tune Criteria, edit the criteria used to generate Tune reports. There are ten sets of criteria. One set for each of the EPA Method choices. The title bar shows the method.

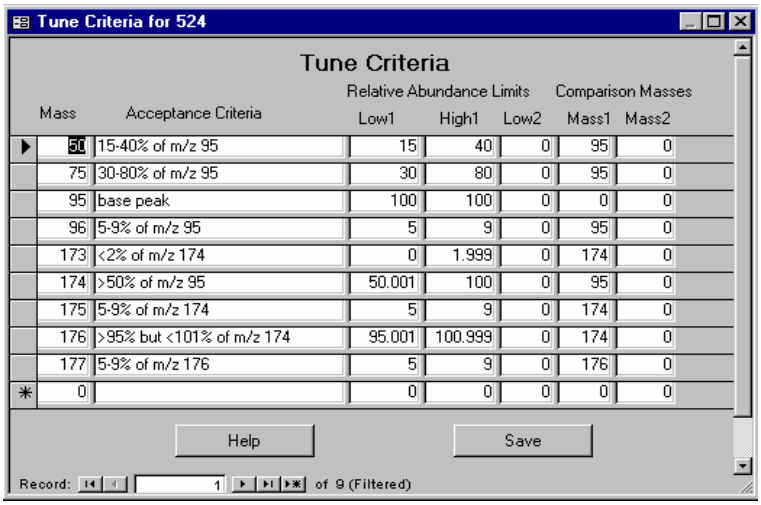
Pass Acceptance criteria:

- The tune acceptance criteria is "PASS" if the ratio of the "Mass" intensity to the "Mass1" intensity, expressed as percentage, is greater than or equal to "Low1" and less than "High1".
- If "Mass2" is greater than zero, then the tune acceptance criteria will "PASS" if the "Mass1" ratio test passes or if the ratio of the "Mass" intensity to the "Mass2" intensity, expressed as percentage, is greater than the "Low2" value.
- If "Mass1" is zero, the base peak intensity is substituted for "Mass1" intensity.

To add a criteria record, set up the * empty record at the end of the table.

To delete a criteria record, put the cursor in the selector button at the left edge of the record to be deleted, click the left mouse button, and then click Delete.

Changes are effective when the edited field loses the focus. There is no undo operation.



Mass: The m/z value to be tested.

Acceptance Criteria: Text string that describes the test criteria. This is printed in Tune reports, but is not used in computing the criteria result.

Low1: Relative Abundance, Limit Low1 is the lower acceptance value for the ratio of "Mass" intensity to "Mass1" intensity, expressed as percentage. If the ratio is less this value the Tune Acceptance Criterion will FAIL.

High1: Relative Abundance. High1 is the upper acceptance limit for the ratio of the intensity of "Mass" to the intensity of "Mass1", expressed as a percentage. If the ratio is equal to or greater than the High1 value, the Tune Acceptance Criterion will FAIL.

Low2: Relative Abundance. Low2 is the lower acceptance limit for the ratio of "Mass" intensity to "Mass2" intensity, expressed as percentage. If the ratio is less this value the Tune Acceptance Criterion will FAIL.

Mass1: Comparison Masses. The Mass1 value is the mass to charge ratio whose intensity is used in ratio testing against Low1 and High1. If this value is zero, the base mass intensity is used.

Mass2: The Comparison Masses. The Mass2 value is the mass to charge ratio whose intensity is used in ratio testing against Low2. If 0, the comparison of the ratio of "Mass" intensity to "Mass2" intensity is not used to determine if the Tune Acceptance Criterion status is PASS or FAIL.

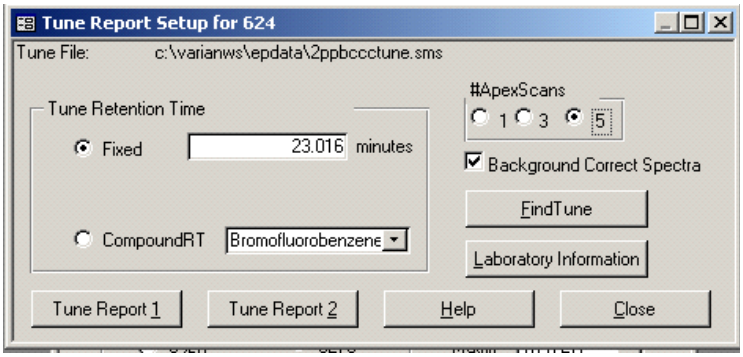
Tune Report Setup

The selection of a tune file "locks" the tune criteria. The selected file is tested against these criteria. Perform the tune test automatically or manually.

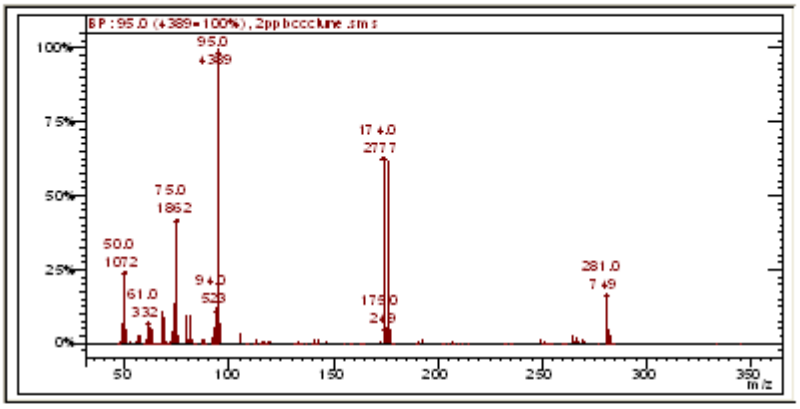
Tune Reports show the result of testing a spectrum from the tune data file against m/z abundance criteria specified in the EPA method. EnviroPro Tune reports cannot use profile mode data files.

Two Tune Report options are available for viewing and or printing.

Tune Report 2 is reported with the Tune Summary Report.



BFB 524.2 Report



Lab File ID 2ppbcctune.sms
Injection Date: 1/15/1999
Tune Scan #: 1382
Injection Time: 4:39
Tune RT: 23.02

m/z	Acceptance Criterion	Value	Pass/Fail
50	15-40% of m/z 95	24.42	PASS
75	30-80% of m/z 95	42.42	PASS
95	Base peak	100.00	PASS
96	5-9% of m/z 95	6.97	PASS
173	<2% of m/z 174	1.15	PASS
174	>50% of m/z 95	63.27	PASS
175	5-9% of m/z 174	8.97	PASS
176	>95% and <101% of m/z 174	97.98	PASS
177	5-9% of m/z 176	7.83	PASS

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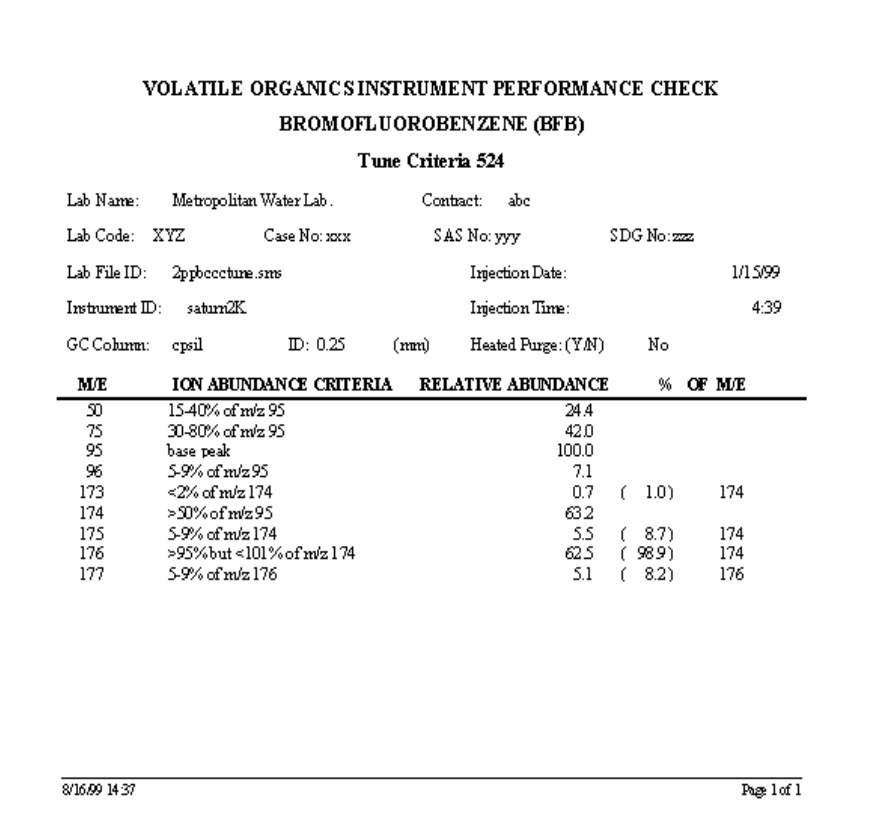
Tune Report 1.



VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Tune Criteria 524

Lab Name: Metropolitan Water Lab. Contract: abc

Lab Code: XYZ Case No: xxx SAS No: yyy SDG No: zzz

Lab File ID: 2ppbccctune.sms Injection Date: 1/15/99

Instrument ID: saturn2K Injection Time: 4:39

GC Column: cpsil ID: 0.25 (mm) Heated Purge: (Y/N) No

M/E	ION ABUNDANCE CRITERIA	RELATIVE ABUNDANCE	%	OF M/E
50	15-40% of m/z 95	24.4		
75	30-80% of m/z 95	42.0		
95	base peak	100.0		
96	5-9% of m/z 95	7.1		
173	<2% of m/z 174	0.7	(1.0)	174
174	>50% of m/z 95	63.2		
175	5-9% of m/z 174	5.5	(8.7)	174
176	>95% but <101% of m/z 174	62.5	(98.9)	174
177	5-9% of m/z 176	5.1	(8.2)	176

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Tune Report 2.

Buttons

Find Tune: The passing scan(s) can be identified automatically using this feature. Once the Tune Retention Time is identified (either by selecting the Fixed time and entering the retention time or selecting the Compound RT) the system will monitor 20 scans before and 20 scans after the specified retention time. It will use background corrected spectra, but will vary spectrum averaging and “step through” the peak to find the passing tune until one is identified and will display a “Tune Report 1”. Upon closing the report display, the Retention time in the Fixed retention time window will be updated to the location where the passing tune was taken and the #ApexScans will display the averaging of the scans, identifying how the passing tune was generated. These parameters may be used to manually reproduce the passing tune. If no passing tune was identified, the system will display the results of scan(s) closest to the passing criteria.

Laboratory Information: Laboratory Information parameters are reported in the Tune Report 2 header and selected other reports. The button opens up the same template which is accessed from the main page. Edited it before printing the tune report

Tune Report 1: Click to preview the first tune report. This report displays the tune spectrum, and for each tune criterion, the tested m/z value, a text description of the criterion, the test results, and if the criterion was met.

Tune Report 2: Preview the second tune report. This report displays the laboratory and data file information in the header. The body of the report shows tested m/z value, the test criterion, and relative abundance information for the tested m/z value. This report is also incorporated in the Tune Summary Report.

Close: Click to close the Tune Report Setup form.

Tune Retention Time Group

Tune Retention Time Group: Tune criteria are tested against the spectrum at the time specified by this box.

If the **Fixed** radio button is selected, the spectrum nearest the time entered in the text box is used.

If the **Compound RT** radio button is selected, the spectrum corresponding to the apex retention time of the specified target compound is used. The drop down list in the combo box shows the available target compounds in the tune file quantitation results. Select the tune compound to report from this list. When a report is generated using Compound RT option, the retention time and integration method channel specification used are set into the retention time and channel specification text boxes.

Apex Scans Box

Apex Scans Box: The average of 1, 3, or 5 spectral scans, centered at the retention time specified, may be used to generate the tune spectrum.

Background Correct Spectra

Background Correct Spectra: If the Background Correct Spectra checkbox is checked, the background correction points bounding the tune spectrum retention time are used to background correct the tune spectrum. Manually edit the background correction points in MS Data Review (Background menu).

Compound Information

This section contains the target analyte list, which was automatically imported from the selected ICC file. Specify QA/QC criteria in this section for all or for selected target analytes.

Criteria can be specified for:

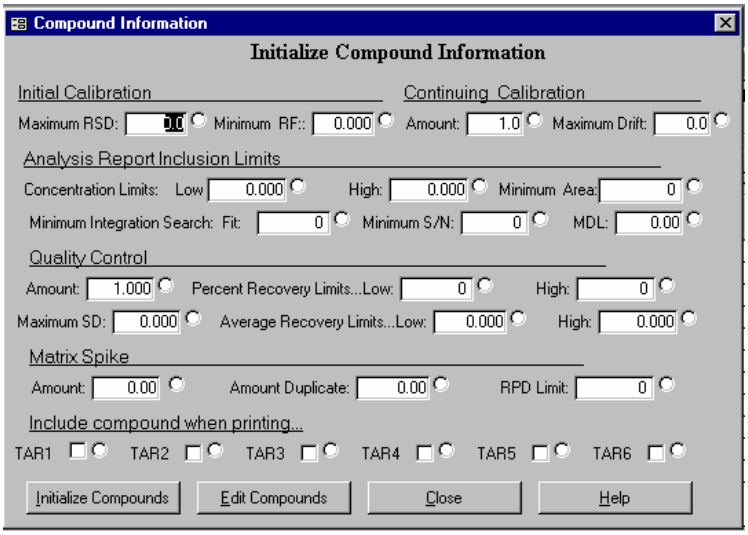
- Initial and Continuous Calibration
- Analysis report inclusion limits
- Quality Control
- Matrix spike
- Include compounds when printing Target Compound Reports

The first page of Compound Information is used to initialize fields for a particular value for all compounds in the EnviroPro Compound Table.

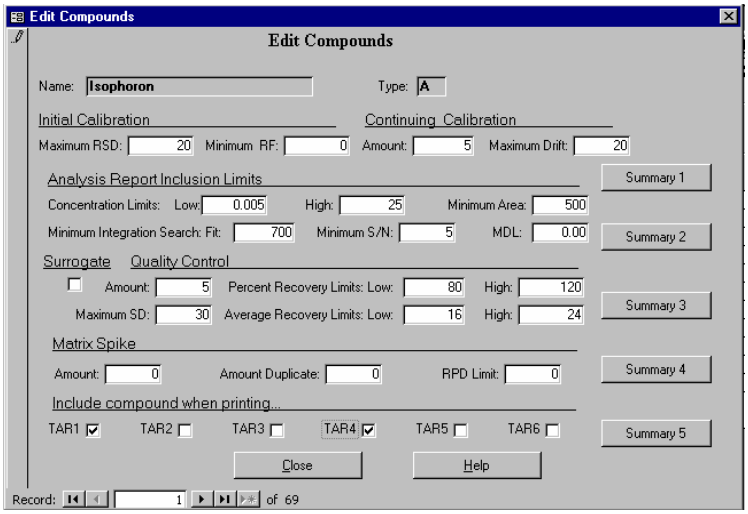
1. To initialize selected fields, do the following:
2. Set the buttons to the right of the chosen fields to the True state (black dot in the middle), and set the fields to the desired values.
3. Click the Initialize Compounds button. To edit parameters of particular compounds, click the Edit Compounds button. In the Edit compound page edit all parameters for each compound, or use the Summary buttons, to view a selection of parameters and edit and print them for all compounds.

In the summary section all parameters can be specified in the individual compound pages, or can be set in the summary form. The Summary pages allow fill down and edit functions which are easier for entering the parameters.

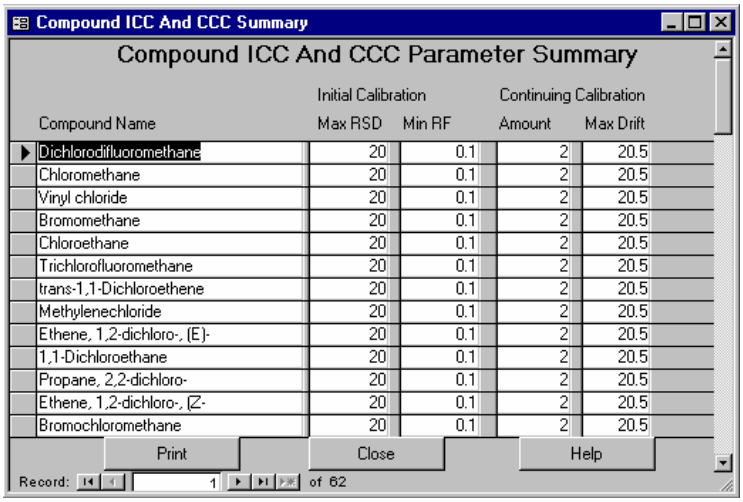
For more information or how and where these parameters are used, see the help for individual reports in Setup/Preview/Print Reports, Preview Target Compound Reports, and Report Options.



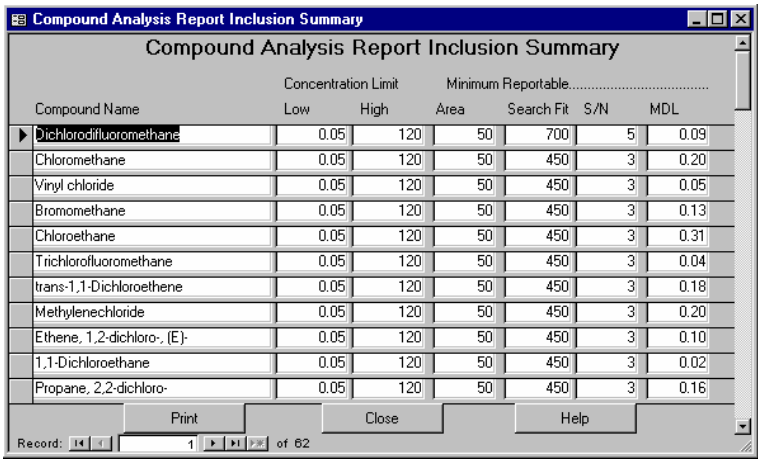
Initialize Compound Information page



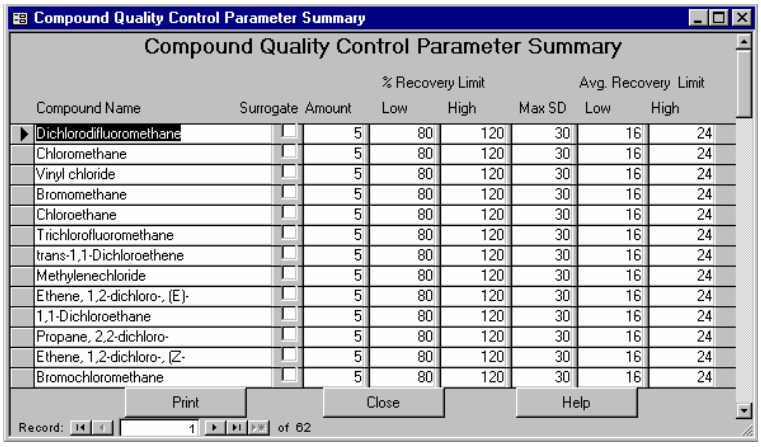
Edit Compounds page



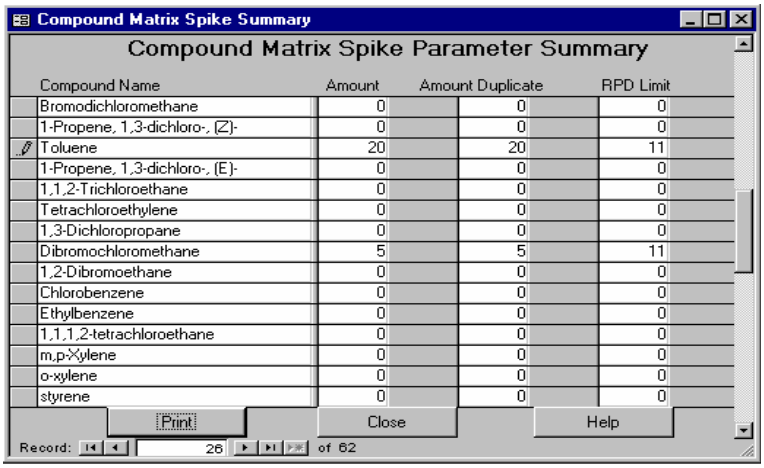
Compound Calibration Summary page (Summary 1)



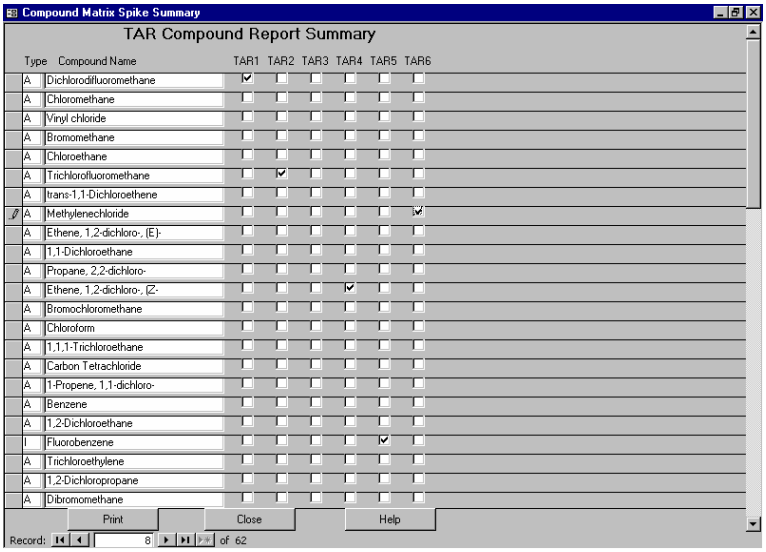
Compound Analysis Report Inclusion Summary (Summary 2)



Compound Quality Control Parameter Summary (Summary 3)



Compound Matrix Spike Parameter Summary (Summary 4)



TAR Compound Report (print) Selection Summary (Summary 5)

Buttons: Compound Information

Initialize Compounds: Clicked to scan the form for fields, with radio buttons selected. The value set for each such field is copied into the corresponding field of each entry in the compound table.

Edit Compounds: Click to close the Initialize Compounds form and open th e Edit Compound form to edit the fields of individual compound records.

Close: Click to close the Initialize Compounds form and return control to the Main form.

Initial Calibration Text Boxes

During Initial Calibration the quality of the calibration is checked.

Two parameters can be specified:

- Maximum RSD
- Minimum RF

Maximum % RSD: Enter the maximum percent relative standard deviation of relative response factors at the different levels in the initial calibration set for the calibration to be acceptable.

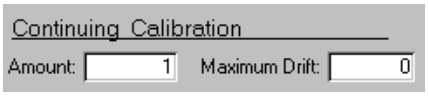
NOTE: Some methods allow linear quadratic, and cubic curve fitting for quantitation. Select the "Include COD (r^2) in Initial Calibration" report in the Report Options section if other than the average RRF calculation is used during quantitation. If selected, the COD values will be printed on the ICC report.

Minimum RF: Enter the minimum relative response factor acceptable for Initial Calibration and the following calibration reports.

Continuing Calibration Text Boxes

The daily (or other periodic) single point calibration results are compared to the initial calibration data. Criteria can be specified for:

- Amount
- Maximum Drift



Amount: Known amount or concentration of compound injected in continuing calibration check samples (in the units used for the initial calibration).

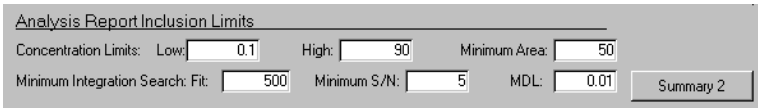
Maximum Drift: The maximum allowed absolute value of the expression:

100*(ci - cc)/ci, where ci is either the average relative response factor from the initial calibration or the known concentration in the sample and cc is either the measured relative response factor for this sample or the measured concentration for this sample, depending on the report type. In continuing calibration reports, the relative response factors are used in SPCC reports concentrations.

Analysis Report Inclusion Limits Text Boxes

Some results are not included in the report or are marked if they are outside the reporting specification listed in this section. Criteria can be specified for:

- Concentration Limits
- Minimum Area
- Minimum Integration Search Fit
- Minimum S/N
- MDL



Concentration Limits: Low, High: The lowest and highest concentrations for reporting purposes. Concentrations outside these limits may be excluded or flagged for reporting purposes. It is suggested that the low concentration be set at the minimum detectable concentration limit or the lowest concentration calibration level, and the high limit be set at the highest concentration calibration level.

Amounts less than the report threshold, specified in the workstation method (*.mth), Compound table, or Calculation section are not reported. Make sure that the report thresholds specified in the workstation method are compatible with the concentration "low" limit specified here.

NOTE: The Low Concentration Limit, not the MDL is used in report MRL columns controlled by the "Show Minimum Amount Limits" report option.

Minimum Area: A compound is excluded if the area (counts) is less than this value. Areas less than the Minimum Peak area specified in the workstation method (*.mth), Compound table, or Integration section are not reported. Make sure that the Peak area reject values in the workstation method are compatible with the minimum area.

Minimum Integration Search Fit: The minimum degree of spectral match between the calibration file spectrum and the quantitation file for inclusion in the report. A perfect fit is 1000. MS integration sets the search result compared to this parameter during quantitation by using Search by Mass Spectrum.

Compounds with values that are less than the Spectral match threshold value specified in the workstation method (*.mth), Compound table, or Identification section are not reported. Make sure that the Spectral match threshold values in the workstation method are compatible with the minimum Integration Search fit parameters.

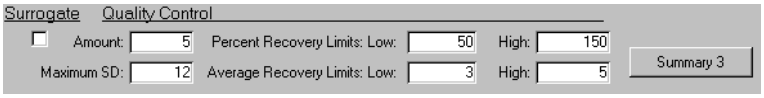
Minimum S/N: The actual S/N of a peak is recorded during quantitation by MS Workstation integration search by time. A peak with an actual signal to noise value less than this threshold may be excluded from quantitation reports.

MDL: Minimum Detection Level. This field may be computed and set during preview of the MDL Summary report, or set manually. Peaks with values less than this may be reported as being "Below MDL".

Quality Control Text Boxes

Some results are not included in the report or are marked if they are outside the reporting specification listed in this section. Criteria can be specified for:

- Amount
- Percent Recovery Limits (Low/High)
- Maximum SD
- Average Recovery Limits (Low/High)



Amount: The known concentration of the compound in the sample in reporting units. It is used to compute recovery.

Percent Recovery Limits: Low/High: These limits are set to the minimum and maximum recovery allowed by the method for the analysis to be considered within control limits. These limits are also used by the matrix spike, matrix spike duplicate report, and by the matrix spike recovery report.

Maximum SD: Set to the method maximum standard deviation (in concentration reporting units) allowed for the compound. Used when reporting summaries of QC Samples.

Average Recovery Limits: Low and High: Set to the lowest and highest acceptable recovery (in units of reported concentration) allowed by the method for quality control samples.

Matrix Spike Text Boxes

Criteria set for matrix spike and matrix spike duplicate recovery acceptance. Criteria can be set for:

- Amount
- Amount Duplicate
- RPD Limit

Amount: Known concentration of the spike in a spiked matrix sample for the Matrix Spike/Matrix Spike Duplicate Recovery Report. Also the concentration of the spike in samples included in the Matrix Spike Recovery Summary Report. Applies to samples coded as Sample Type 1. Compounds with 0 for this parameter are not reported in either report type.

Amount Duplicate: Known concentration of the spike in a spiked matrix duplicate sample. Applies only to Matrix Spike/Matrix Spike Duplicate reports. Applies to samples coded as Sample Type 2. Compounds with 0 for this parameter are not reported.

RPD Limit: The method QC limit for relative percent difference between the matrix spike recovery and the matrix spike duplicate recovery. Applies only to Matrix Spike/Matrix Spike Duplicate reports.

Include Compounds When Printing Target Reports

When target reports are printed, one page is dedicated to each target compound. You may print the target compound report for some or all of the analyte targets. The selection or omission of the target compound report type (TAR1-TAR6) for each compound allows the printing of the desired reports for the selected analytes. TAR reports that are not marked are not printed during batch processing. (They may be printed in manual mode.)

Edit Compounds

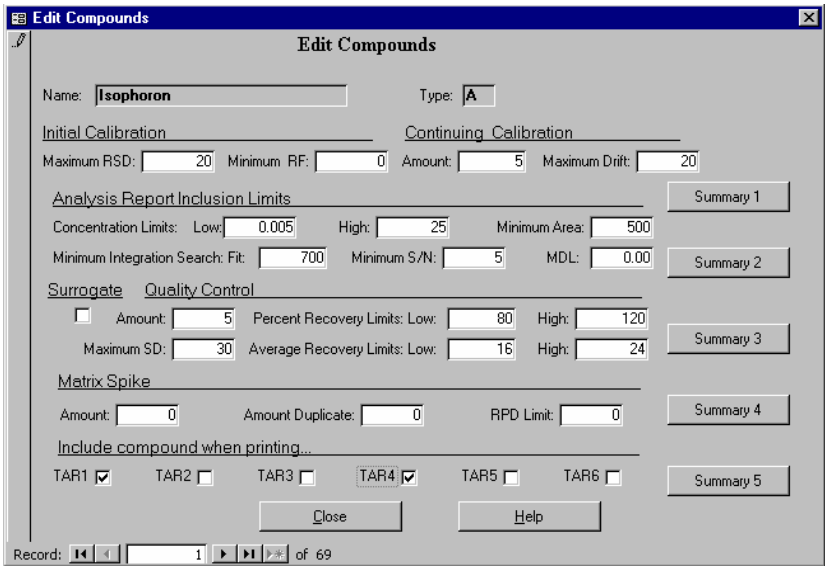
Review and edit information about individual compounds in the EnviroPro Compound Table. The number of compounds, their ordering, and the compound name and type are read from the Initial Calibration file when the Initial Calibration is set. They cannot be edited. Other field may be edited for each compound. The data entered controls if compounds appear in specific reports and if reported concentrations, response factors, and recoveries are within acceptance bounds for various types of reports.

The criteria accessed and specified in the first page of the Compound information section are identical. The only difference is the selection of the surrogate compounds in the "edit" section. Criteria can be specified for:

- Initial and Continuous Calibration
- Analysis report inclusion limits
- Quality Control
- Matrix spike
- Surrogate specification(s)
- Target compound report printing

Beside the individual pages, where parameters for each analytes can be specified, there are five summary pages in which selected parameters can be edited, previewed, or printed for all compounds. All parameters can be specified in the individual compound pages, or all can be set in the summary form

For details, see help for the specific fields. See help for Report Options and help for specific report preview buttons in Setup/Print/Preview Reports and Preview Target Compound Reports for more information.



Buttons: Edit Compounds

Summary 1: Open the edit and/or review page for the initial and continuing calibration entries for all compounds

Summary 2: Open the edit and/or review page for the Analysis Report Inclusion Limit entries for all compounds

Summary 3: Open the edit and/or review page for Quality Control entries for all compounds

Summary 4: Open the edit and/or review page for the Matrix Spike information entries for all compounds

Summary 5: Open the edit and/or review of target compound selection for automated, batch printing by the various target compound reports formats (TAR1-TAR6). Only compounds marked for report(s) are printed.

Close: Click to close the Edit Compounds form.

Text Boxes

Name: the compound name as read from the MS Workstation Method. This field is not editable in EnviroPro

Type: This is not editable in EnviroPro. It designates the sample type as one of the following:

- A : Analyte quantitated by an internal standard method.
- E: Analyte quantitated by an external standard method.
- I : Internal Standard compound.

Initial Calibration Text Boxes

During Initial Calibration the quality of the calibration is checked.

Two parameters can be selected:

- Maximum RSD
- Minimum RF

Maximum % RSD: Maximum percent relative standard deviation of relative response factors in the initial calibration replicate set for the calibration to be acceptable.

[Some methods allow linear, quadratic or cubic curve fitting for quantitation. Select the “Include COD (r^2) in Initial Calibration” in the Report Options section if other than the average RRF calculation is used during quantitation. If selected, the COD (r^2) will be printed on the ICC report.]

Minimum RF: Minimum relative response factor acceptable for Initial Calibration and continuing calibration reports.

Continuing Calibration Text Boxes

In this section the daily (or other periodic) single point calibration results are compared to the initial calibration data. Criteria can be specified for:

- Amount
- Maximum Drift

Amount: Known amount or concentration of compound injected in continuing calibration check samples (in the units used for the initial calibration).

Maximum Drift: The maximum allowed absolute value of the expression:

100*(ci - cc)/ci, where ci is either the average relative response factor from the initial calibration or the known concentration in the sample, and cc is either the measured relative response factor for this sample or the measured concentration for this sample, depending on the report type. In continuing calibration reports, use relative response factors. In SPCC reports, use concentrations.

Analysis Report Limits

Some results are not included in the report or are marked if they are outside the reporting specification listed in this section. Criteria can be specified for:

- Concentration Limits
- Minimum Area
- Minimum Integration Search Fit
- Minimum S/N
- MDL

Concentration Limits: Low, High: The lowest and highest calibrated concentrations for reporting. Concentrations outside these limits may be excluded or flagged. Set the low concentration at the minimum reportable concentration limit or the lowest concentration calibration level, and the high limit at the highest concentration calibration level.

NOTE: The Low Concentration Limit, not the MDL is used in report MRL columns controlled by the "Show Minimum Amount Limits" report option.

Amounts less than the report threshold specified in the workstation method (*.mth), Compound table, or Calculation section are not reported. Make sure that the report thresholds specified in the workstation method are compatible with the concentration "low" limit specified.

Minimum Area: The minimum area (counts) below which a compound may be excluded. Areas less than the Peak area rejects value specified in the workstation method (*.mth), Compound table, or Integration section are not reported. Make sure that the Peak area reject values in the workstation method are compatible with the minimum area specified here.

Minimum Integration Search Fit: The minimum degree of spectral match between the calibration file spectrum and the quantitation file for inclusion in the report. Perfect fit =1000. The search result compared to this parameter is set during quantitation by MS Workstation integration using Search by Mass Spectrum.

Compounds below the Spectral match threshold value specified in the workstation method (*.mth), Compound table, or Identification section are not reported. Make sure that the Spectral match threshold values in the workstation method are compatible with the minimum Integration Search fit parameters specified.

Minimum S/N: The actual S/N of a peak is recorded during quantitation by MS Workstation integration search by time. A peak with an actual signal to noise value less than this threshold may be excluded from quantitation reports.

MDL: Minimum Detection Level. This field may be computed and set during the preview of the MDL Summary report, or set manually. Peaks less than this value may be reported as being "Below MDL".

Surrogate

Surrogate Check Box: If checked (true), the compound is treated as a Surrogate.

Quality Control

Certain results are not included in the report or are marked if they are outside the reporting specification. Criteria can be specified for:

- Amount
- Percent Recovery Limits (Low/High)
- Maximum SD (Low/High)
- Average Recovery Limits

Amount: The known concentration of the compound in the sample in reporting units. It is used to compute recovery.

Percent Recovery Limits: Low/High: These limits are set to the minimum and maximum recovery set in the method for the analysis to be considered within control limits. These limits are also used by the matrix spike, matrix spike duplicate report, and by the matrix spike recovery report.

Maximum SD: The method maximum standard deviation (in concentration reporting units) allowed for the compound. Used when reporting summaries of QC Samples.

Average Recovery Limits: Low and High: Set to the lowest and highest allowed recovery (in units of reported concentration) allowed by the method for quality control samples.

Matrix Spike

Criteria for matrix spike and matrix spike duplicate recovery acceptance. Criteria can be set for:

- Amount
- Amount Duplicate
- RPD Limit

Amount: Known concentration of the spike in a spiked matrix sample for the matrix spike/matrix spike duplicate. Also, the concentration of the spike in the Matrix Spike Recovery Samples. Applies to samples coded as Sample Type 1. Compounds with 0 for this parameter are not reported in either report type.

Amount Duplicate: Known concentration of the spike in a spiked matrix duplicate sample. Applies only to Matrix Spike/Matrix Spike Duplicate reports. Applies to samples coded as Sample Type 2. Compounds with 0 for this parameter are not reported.

RPD Limit: The method QC limit for relative percent difference between the matrix spike recovery and the matrix spike duplicate recovery. Applies only to Matrix Spike/Matrix Spike Duplicate reports.

Include Compounds When Printing Target Reports

When printing one of the 6 available target reports, one page is dedicated to each target compound. Often, only some of the targets need to have a report printed. The selection or omission of the target compound report type (TAR1-TAR6) for each compound results in the printing of the reports for only the selected analytes. TAR reports not marked are not printed during batch processing. (They still may be printed in manual mode.) MissingTAR compounds are not printed in graphic form.

Sample List

Identify the data files to be reported and their attributes. Select the data files as follows:

- Add all files from a directory that is compatible with the ICC file.
- Add all files from a Recalc List that is compatible with the ICC file.
- Select a single data file.

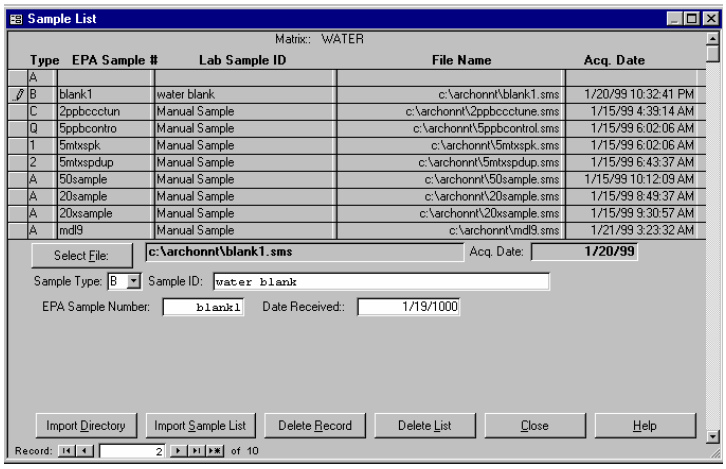
The default data file type is "A" or analysis. Other types are Blank, Quality Control, CCC, Spike matrix, Matrix spike, Matrix spike duplicate. Type specifies how the file is treated in summary reports

The Sample List controls parameters specific to a single data file or sample. These parameters depend on the current EPA Method, matrix, and level selected. This Information is displayed on report headers. The Sample Type parameter determines how each file is used in reports.

Reports are only based on data files that are in the sample list. (Tune file and ICC files are the only exemptions.)

The File name and Acq. date fields cannot be edited directly and are automatically extracted from the selected files. The Sample ID field is the same as the sample name (see the Sample name filed in the System Control Sample List). This field can be edited. EPA Sample Number can be edited. If no EPA Sample Number is specified for a file, the default is the sample file name that was automatically imported from the data file.

An EnviroPro sample list can be set up for files that have not been acquired. This sample list is used to help generate reports immediately after data acquisition, when using AutoLink to invoke EnviroPro. See the Automation and the Sample ID sections for details.



Buttons: Sample List

Import Directory: When this is clicked, a dialog opens in which you select a directory. All the MS Workstation data files (*.sms or *.xms) in the selected directory are scanned. The files that are compatible with the Initial Calibration file are added to the end of the Sample List. Files are always compatible if the same calibrated and unmodified MS Workstation method quantitated them as analysis samples as it was used to generate the initial calibration.

The fields that are not imported from stored data file parameters use the values stored in the first entry in the sample list. The exception is Sample Type, which is always initialized to "A". Therefore, if the sample preparation information is identical for all the samples, set the sample information parameters on the first line before importing the directory. This allows the automatic propagation of the sample preparation information to all imported samples files.

Import Recalc List: Click the Import Recalc List button to open a dialog to select a Recalc List (*.rcl) file. After a Recalc List file is selected, the MS Workstation files are scanned for compatibility with the Initial Calibration file. The compatible files are appended to the end of the Sample List. Files are always compatible if the same calibrated and unmodified MS Workstation method was used to quantitate them as analysis samples as it was used for the ICC.

Fields not set from stored data file parameters are set to the values stored in the first entry in the Sample List. The exception is Sample Type, which is always initialized to "A". Therefore, if the sample preparation information is identical for all the samples, set the sample information parameters on the first line before importing the directory. This will allow the automatic propagation of the sample preparation information to all imported samples files.

Delete Record: Click to delete (or clear) the currently selected record in the Sample List.

Delete List: Click to delete all files in the Sample List.

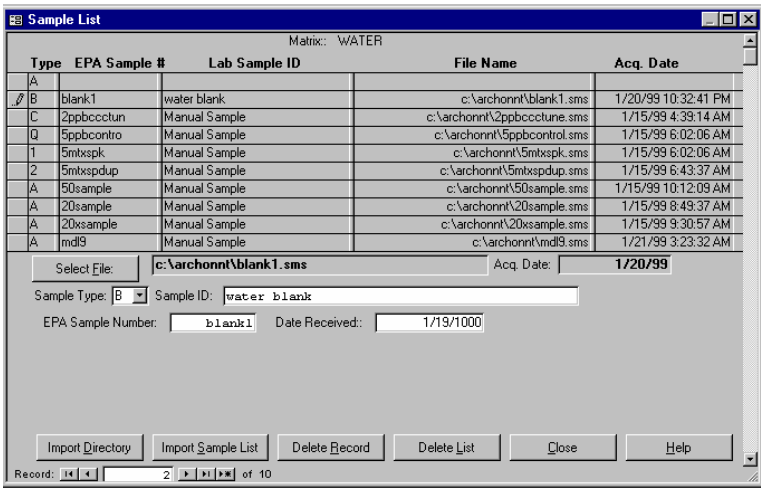
Close: Cli**ck to close t**he form.

Select File button: Click to open the Select File dialog. Use this to select a data file for this entry in the Sample List. (Only files collected in the centroid mode are processed.) The file should have been quantitated using the same MS Workstation Method used to quantitate the file listed as the Initial Calibration file.

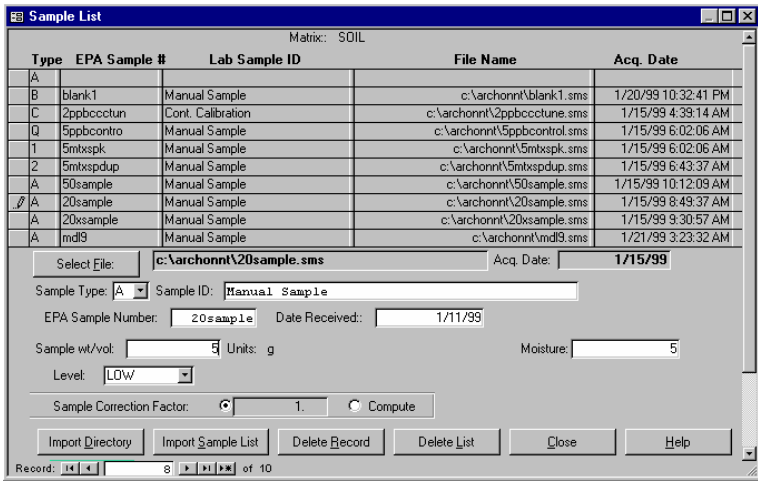
NOTE: Make sure that the arrow at the left of the sample list table is at an empty line when selecting a new file; otherwise the existing sample entry will be overwritten by the newly selected file.

Fields: Sample List

The fields are dependent on the method and matrix.



Sample List page: Fields for 524 method; water is the only allowed matrix.



Sample List page: Fields for the CLPVOA method, soil matrix

File Name: The full path name of the MS Workstation data file. This file name is automatically read from the file. Click the **Select File** button to the left of the text box to select a new file.

Acq. Date: The date the data file was acquired, as read from the data file. It is not editable.

Sample Type: This defines the type of sample. It defaults to "A" (Analysis Sample). The choices are:

- A: Analysis sample of unknown composition.
- B: Blank file. Compounds reported in this sample may be flagged on all analytical samples when using the "Include CLP like letter codes" report option. (analytes being present in the Blank at detectable quantities) This file is also listed on the Blank summary report as the method blank. Only one file in the sample list should be this type.
- C: Continuing Calibration Check (CCC). The standard concentration of sample analyzed to confirm validity of the initial calibration. It is the Control Sample in the Control Sample Summary report. Only one file

in the sample list should be of this type. T Enter the concentrations in the Compound Edit form in the Continuing Calibration Amount field.

- Q: Quality control sample. There may be multiple samples in the Sample List with this sample type. All samples with this type are used to generate the MDL Summary Report and/or the QC Recovery Summary Report. Enter the concentrations in the Compound Edit form in the Quality Control Amount field.
- S: Spike Matrix. The unsliced matrix used to prepare are the Matrix Spike (Sample Type: 1st spike) and Matrix Spike Duplicate (Sample Type: 2nd spike) sample(s). There should be only one sample of this Sample Type in a sample list.
- 1: Matrix Spike. Use this sample type for multiple files. Enter the spike concentration of compounds in the Matrix Spike Amount field of the Compound Edit form. Up to 30 samples of this type may be used to generate a Matrix Spike Recovery Report, or a single sample of this type may be reported on the Matrix Spike/Matrix Spike Duplicate Report.
- 2: Matrix Spike Duplicate. Only one of this sample type should be in the sample list. Enter the amounts of compounds in this sample in the Matrix Spike Amount Duplicate field of the Compound Edit form. This sample type is used by the Matrix Spike/Matrix Spike Duplicate Summary Report.

Sample ID: The Sample Name field of the Sample List. When the Select File button is used to choose a data file and this field is empty, the Sample Name from the file is entered. If there is an entry in the Sample ID field, the field content is not changed.

When the Import Directory or Import Recalc List buttons are used, this field will always be the Sample Name stored in the data file.

This field identifies sample parameters during AutoLink of EnviroPro reports processing. When a file goes to EnviroPro, the file name is compared to all the filenames in the EnviroPro sample list.

- If a match is found, EnviroPro uses that entry to prepare reports.
- If a match is not found, EnviroPro searches for a Sample ID that matches the data file Sample Name, and, if found, uses that sample list entry.
- If a matching Sample ID is not found, the first sample entry in the list is used.

If each Sample ID is unique, and only one file with each Sample ID is processed, the EnviroPro sample list can be created before the data files are acquired. EnviroPro can generate reports immediately after data acquisition.

If a duplicated Sample Name is entered in EnviroPro. EnviroPro overwrites the Sample List Entry of the first Sample ID that matches the file Sample Name.

EPA Sample Number: Ten character alphanumeric field in report headers. Report customer sample identifiers.

Date Received: Date sample was received. Although the date may be entered in any Windows date format, it is transformed to the short date format MM/DD/YY. (month/day/year)

Date Extracted: Date sample was extracted. Although the date may be entered in any Windows date format, it is transformed to the short date format MM/DD/YY. (month/day/year)

Sample wt/vol: Sample amount. Units are automatically selected based on the method and matrix selected.

Dilution Factor: As defined for the selected EPA Method, Matrix, and Level. Default value =1.0 (no dilution)

Moisture: Percent moisture in soil sample, if concentrations are to be reported on dry weight basis. Enter 0 if reporting on wet weight basis.

Dry Weight: Entered as dry weight fraction or % dry weight. To enter % value, append % to end of entry. Displayed as % dry weight.

Level: SOIL matrices, enter LOW or MED. WATER matrices are always LOW.

Extract Volume: Volume of the concentrated extract.

Injection Volume: Volume of extract added to the purge container.

GPC Cleanup (Y/N): Yes or No

Decanted (Y/N): Yes or No

pH: pH value

Sample Correction Factor: "Ignore"(Text Box) or "Compute".

- Ignore (Text Box): The concentrations reported on EnviroPro reports are from the MS data files. The concentrations are in the report headers, and do not affect calculations.
    - The text box displays the value of the multiplier/divisor ratio from the data file. The multiplier and divisor are from the sample list or recalc list when the data file was last processed.
    - When selected, the value in the text box, when a data file is ready to be reported, should match the sample correction factor computed from the parameters entered in the sample list. If they do not match, the CLP like letter code "S" is printed on reports if the Report Option parameter "Include CLP like letter codes" is set True. If this option is selected the parameter "Apply Sample Correction factor to Surrogates?" has no effect.
- Compute: The analyte concentrations on EP4 reports are computed from the concentrations from the MS data files by multiplying by the sample correction factor. The sample correction factor is computed from the data entered on the EnviroPro Sample List form.
    - If this option is selected, the value in the text box should be 1, such as when the multiplier and divisor parameters in the MS Workstation sample list or recalc list were 1 (default values).
    - If it is not 1, the CLP like letter code "S" is printed in the report concentration fields when the Report Option parameter "Include CLP like letter codes" is set True. If "Apply Sample Correction factor to Surrogates" is true, surrogate compound concentrations from the MS data file are multiplied by the sample correction factor, otherwise the surrogate compound concentrations from the MS data file are reported without modification.

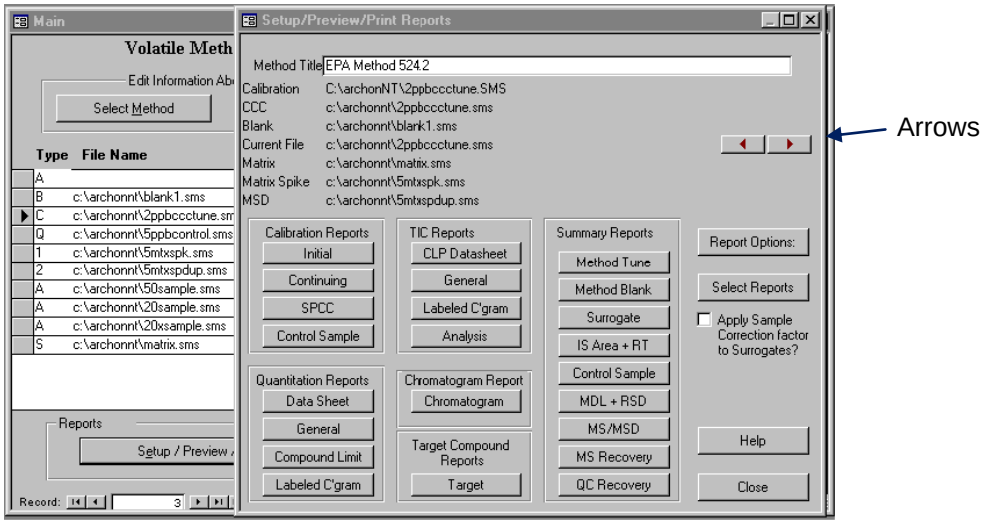
Setup/Preview/Print Reports

To review this page, the other sections of the template, including the sample list must be completed. The Initial Calibration and Tune criteria report are the only reports, which can be viewed without completing the sample list, since those files are specified in the "Select Method" section.

The files in the figure were selected:

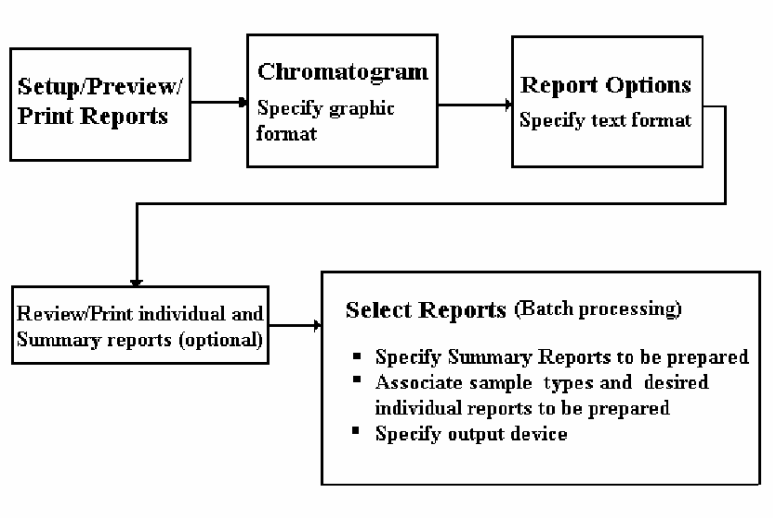
- By setting the Initial Calibration file in "Select Method" and
- By specifying the appropriate sample type in the Sample list page.

The current file is the base of the reports. To switch to a different file within the sample list, use the arrows, in the upper right, to select the next or previous file.



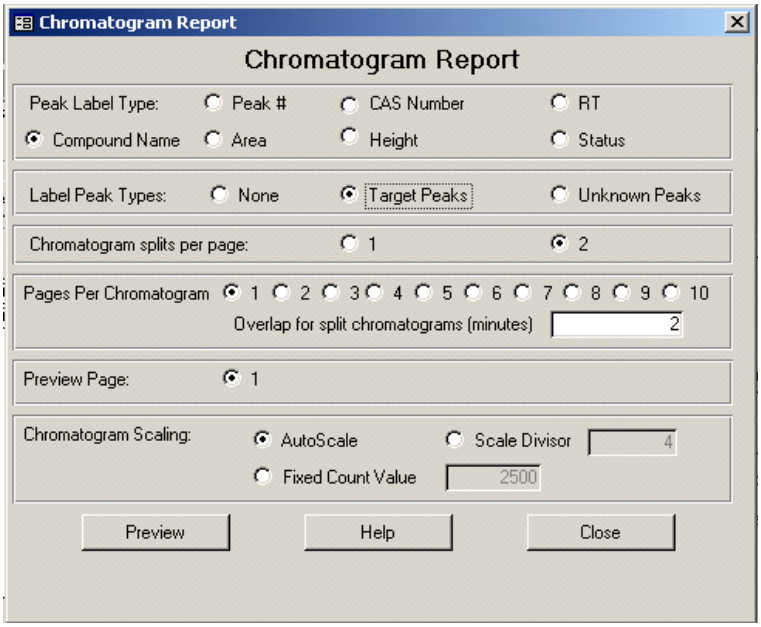
Setup/Preview/Print Report

The following outlines the process create the reports of your choice.

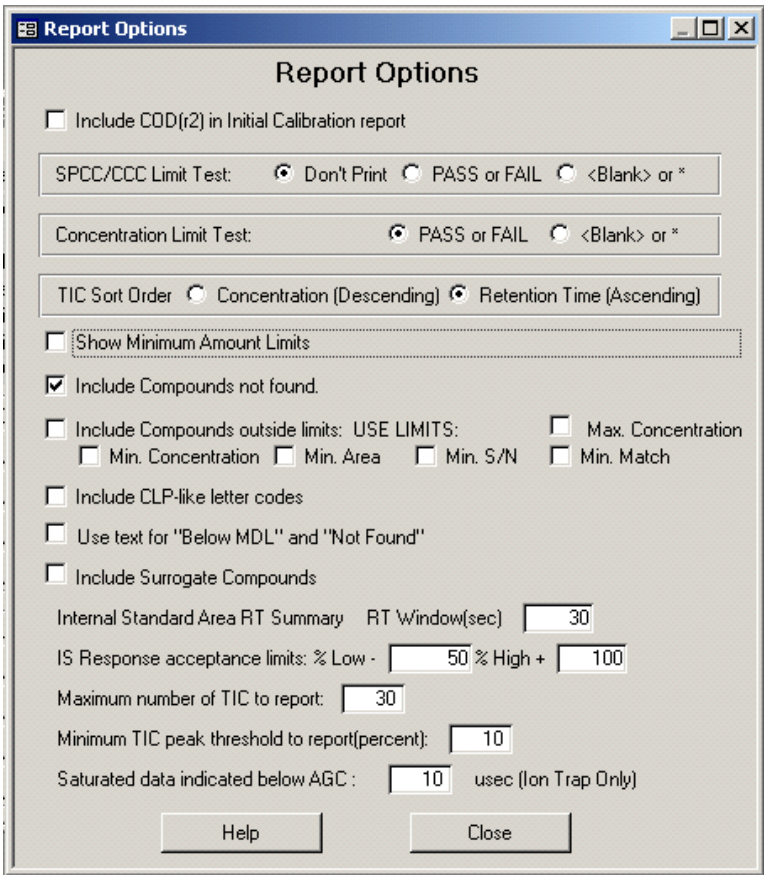


Setup/Preview/Print page Order of Configuration

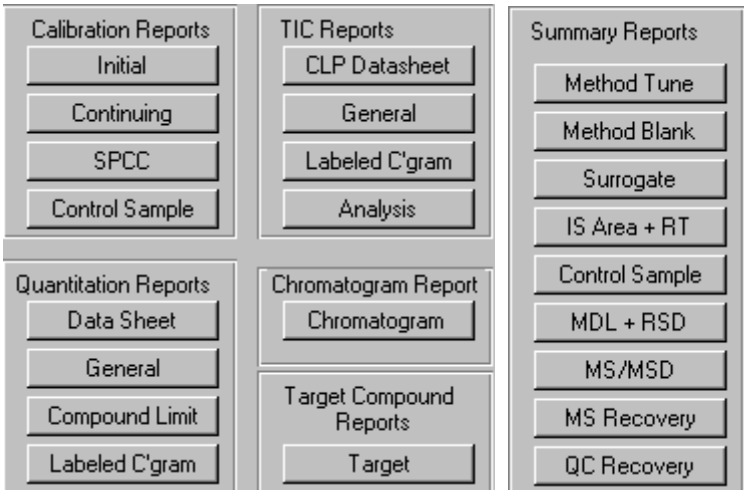
1. Click the **Chromatogram** button to select graphic formatting.



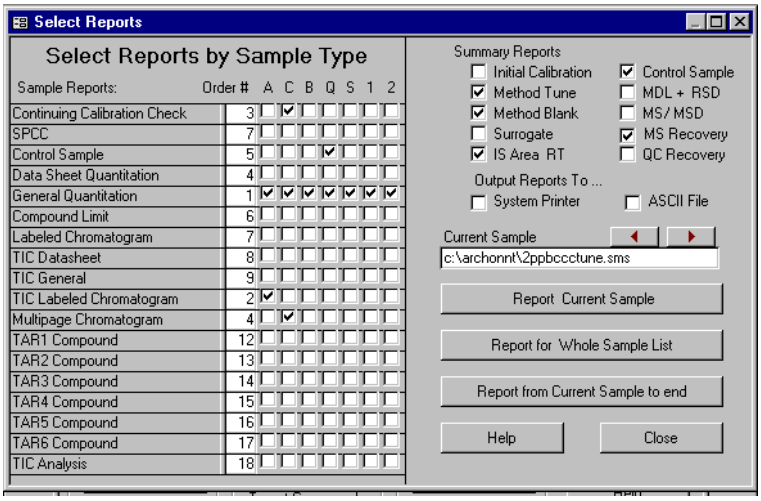
2. Click the **Report Option** button to select text formatting.



3. After specifying the reporting options, review the individual and summary reports. The reports generated by this process are discussed in more detail in a later section.

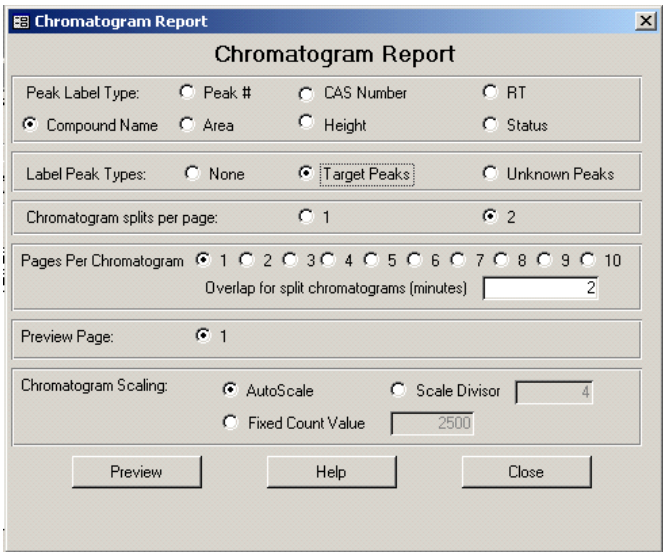


4. **Select Reports by Sample Type**, which are the report generation specifications for batch processing.



Chromatogram Report

The **Chromatogram Report** form configures the parameters for the multi-page Chromatogram Report. When the Chromatogram Report is printed, the multi-page report is generated. Individual pages can be shown and printed.



Preview

Click **Preview** to display the page of the Chromatogram Report that was selected in the "Preview Page" group.

Chromatogram Splits per Page

The **Chromatogram Splits per Page** group selects:

- one 5.5 in high by 9 in wide chromatogram section per page or
- two 2.75 in high by 9 in wide chromatogram sections per page.

The time range is determined by the formula, [length of the data acquired in the file (minutes)]/[[Chromatogram splits per page]*[Pages per Chromatogram]].

The user may specify the time overlap between the splits.

Peak Label Type

Use the **Peak Label Type** group to select the type of text label that is shown on peaks in the chromatogram trace.

Label Peak Type

Use the **Label Peak Type** group to select the type of peaks that is labeled with the selection in the **Peak Label Type** group.

- Select "None" to disable peak annotation.
- Select "Target Peaks" to label peaks defined in the Method Compound Table.
- Select "Unknown Peaks" to label peaks that are integrated with parameters from the Calculation Setup page of the Method Editor.

Pages per Chromatogram

Use the **Pages per Chromatogram** group to select the number of pages in the Chromatogram Report. The chromatogram time axis length may be scaled from 9 inches (1 page per chromatogram, 1 chromatogram split per page) to 180 inches (10 pages per chromatogram, 2 chromatogram splits per page).

The user may specify the time overlap between the pages.

Preview Page

Use the **Preview Page** group to select the page of the multi-page Chromatogram Report to display when the Preview button is clicked.

Display Intensity Range

Use the **Display Intensity Range** text box to control the vertical (amplitude) scale of the Chromatogram Report.

Auto: Make the largest peak on any page of the report approximately full scale. The scale is fixed to the same value for all pages of the report.

Scale Divisor: Amplify the scale by the entered value so smaller peaks can be seen in presence of a larger one (such as the internal standard).

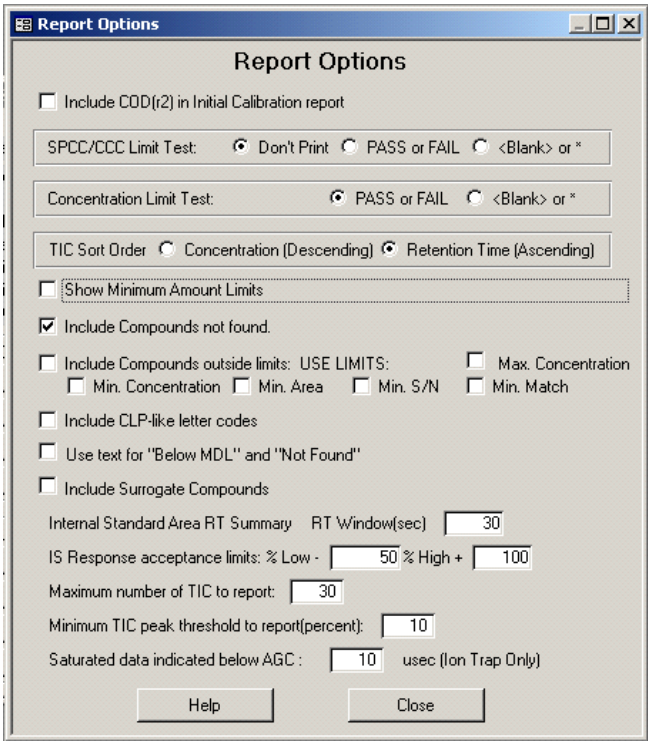
Fixed Count Value: Scale the display to entered value, regardless of the size of the peaks.

Close

Click **Close** to close the Chromatogram Report form.

Report Options

This section defines the report options.



Check Boxes

Include COD (r^2) in Initial Calibration Reports:

If selected, the COD (r2) results are printed on the ICC report.

The calculated COD (r2) is based on the parameters selected in the “Calculation” section of the compound table in the data handling method (*.mth). The selection of curve fitting, handling of the origin and regression weighting parameters influence the values of the COD.

NOTE: the COD calculated is the unweighted Coefficient of Determination.

SPCC/CCC Limit Test:

SPCC/CCC System Performance Check Compound and Calibration Check Compound) Limit test.

The options are "Don't Print", "PASS or FAIL", "<Blank>", or *". This applies to the rightmost columns of the Initial Calibration, Continuing Calibration and SPCC reports as follows:

- Initial Calibration:
  - SPCC fails if the average response factor is less than the Minimum RF.
  - CCC fails if the relative standard deviation of the relative response factor is not less than the Maximum RSD.
- Continuing Calibration report
  - SPCC fails if the RRF is less than the Minimum RRF.
  - CCC fails if the drift based on RRF is greater than the Max%Drift.
- SPCC Report
  - SPCC fails if the RRF is less than the Minimum RRF.
  - CCC fails if the drift in concentration value between the measured and the known concentration is greater than the Max%Drift.

Concentration Limit Test:

"PASS/FAIL" or "<blank>/*" .Applies to Control Sample Report.

TIC Sort Order:

The order of TIC compounds in the reports is based as follows:

- Use **Concentration** to list the TICs in order of their descending concentrations. The list starts with the largest peak.
- Use **Retention time** to list the TICs on their retention time, starting with the shortest retention time.

Show minimum amount limits:

True or False. If True, the minimum concentration report limit is shown on the right edge of reports. This applies to the following report types; Control Sample Report, General Quantitation Report, Analysis Data Sheet Report

Include compounds not found:

True or False. If True, compounds not labeled as "Identified" are reported. This parameter is active if the MS data system parameters were set to write compounds not found into the data file. If **Include Compounds Not Found** is selected, analytes are listed in the text reports, but the TAR reports are not generated for analytes not identified.

This applies to the following report types; Control Sample Report, General Quantitation Report, Analysis Data Sheet Report, Compound Limit Report, Labeled Chromatogram Report, Report 1, Report 2, Report 3, Report 4, Report 5, and Report 6.

Include compounds outside limits:

The options are:

- Minimum concentration True/False
- Maximum Concentration True/False
- Minimum Area True/False,
- Minimum Integration Search Fit True/False, or
- Minimum S/N True/False.

If "Include Compounds outside limits" is True, then the reports contain all compounds. If false, then compounds outside the specific limits set True in the USE LIMITS group are reported in the Compound Limit Report, but not the other reports. The specific limit values tested are in the Analysis Report Inclusion Limits group of the Compound Edit form on an individual compound basis.

This applies to the following report types; Control Sample Report, General Quantitation Report, Analysis Data Sheet Report, Compound Limit Report, Labeled Chromatogram Report, Report 1, Report 2, Report 3, Report 4, Report 5, Report 6.

Max Concentration:

Select to test the compound concentration against the Analysis Report Inclusion Limits: Concentration Limit: High value for the compound entered on the Compound Edit form.

Min Concentration:

Select to test the compound concentration against the Analysis Report Inclusion Limits: Concentration Limit: Low value for the compound entered on the Compound Edit form.

Min Area:

Select to test the compound area against the Analysis Report Inclusion Limits: Minimum Area value for the compound entered on the Compound Edit form.

Min S/N:

Select to test the compound S/N value against the Analysis Report Inclusion Limits: Minimum S/N value for the compound entered on the Compound Edit.

Min Fit:

Select to test the compound Fit value against the Analysis Report Inclusion Limits: Minimum Integration Search Fit value for the compound entered on the Compound Edit form.

Include CLP like letter codes:

True/False. If True the following letter codes may be appended to reported concentrations:

- "D" if the sample table shows a dilution factor that is not unity.
- "B" if the compound was quantitated in the file whose sample type is "B". (NOTE: This code is not reported for TIC compounds.)
- "J" if the concentration is less than the Low Quantitation Report Limit, adjusted for dilution and Moisture if either or both of these factors are used in the Sample Correction Factor. (NOTE: %Dry Weight does not affect this calculation.)

- "E" if the concentration exceeds the High Quantitation Report Limit.
- "U" if the compound was not found during quantitation. The concentration reported in this case is the Quantitation Low Report Limit, adjusted for Dilution and Moisture if shown on the Sample Edit form for the method and sample. (Dry Weight entries do not affect the concentration calculation).
- "JN" if compound was quantitated as a Tentatively Identified Compound".
- "S" if peak concentration is not consistent with sample parameters reported in the header. This may happen when:
    - The Sample Correction Factor option on the Sample List form is set to "Compute" for this sample and the multiplier/divisor ratio read from the file is not 1, or
    - The Sample Correction Factor option on the Sample List form is set to the text box for this sample and the mismatch between the multiplier/divisor ratio from the data file and the Sample Correction Factor for this sample is greater than 1%.

NOTE: The "Below MDL" and "Not Found" messages take precedence over CLP like Qualifier codes if "Use Text for Below MDL and "Not Found" is True.

This applies to the following report types; Control Sample Report, General Quantitation Report, Analysis Data Sheet Report, Labeled Chromatogram Report, Report 1, Report 2, CLP TIC Report, General TIC Report.

Use text for "Below MDL" and "Not Found":

True/False. If true, "Below MDL" is substituted for the measured concentration if the concentration is less than the amount entered in the MDL field of the compound form. If the compound was not quantitated, and the compound record is included in the quantitation file, the concentration field is reported as "Not Found".

This applies to the following report types; Control Sample Report, General Quantitation Report, Analysis Data Sheet Report, Labeled Chromatogram Report, Report 1, Report 2.

Include Surrogate Compounds:

True/False. If True, Surrogate compounds are included in the specified reports. If false, Surrogate compounds are excluded. Surrogate compounds are compounds for which the Surrogate box is selected in compound records.

This applies to the following report types; Control Sample Report, General Quantitation Report, Analysis Data Sheet Report, Compound Limit Report, Labeled Chromatogram Report, Report 1, Report 2, Report 3, Report 4, Report 5, Report 6, Internal Standard Area and RTg Summary Report, MDL and RSD Summary Report, QC Recovery Report

Internal Standard Area and RT Summary

RT Window (sec): Specify the acceptable RT shifts for Internal Standards, expressed in seconds.

IS Response Acceptance Limits: **%Low-** or **%High+**. Specify the acceptable area count variation of the internal standards in percent. The acceptable low and high values can be specified from the methodology requirements.

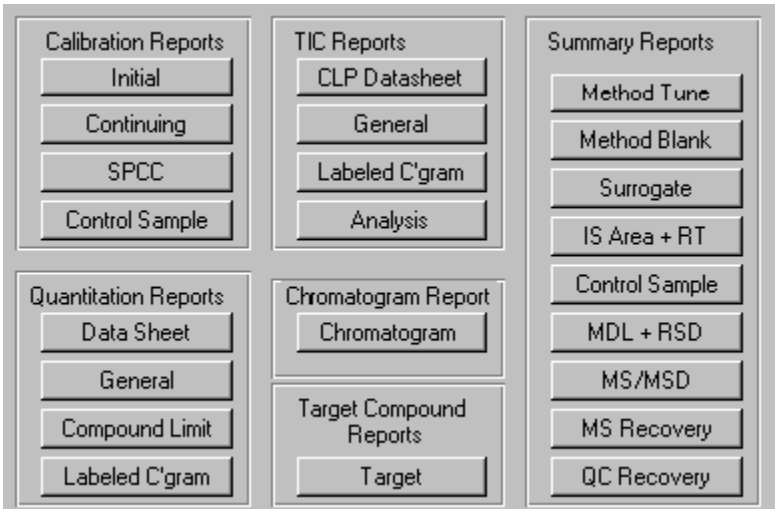
Maximum number of TIC to report: **Number**, Specify the maximum number of tentatively identified compounds to report. The TIC must be quantitated and saved into the quantitation file outside EnviroPro to be reported, regardless of the value of this parameter. This applies to the following report types; CLP TIC, General TIC Reports.

Minimum TIC peak threshold to report: **Number.** This defines the percentage of the amount of the assigned internal standard peak of the TIC that the TIC peak must exceed to be reported. This parameter is not useful when external standard calibration is used. This applies to the following report types; CLP TIC, General TIC Reports

Saturated data indicated below AGC: **Number.** This applies to the Labeled Chromatogram Report. If the AGC Ionization time at the peak apex is less than this number, the peak is marked “failing”. If the option “Include Compounds Not Found” is true, target compounds that were not located appear in the report. These compounds have an AGC value of "?" and are marked as failing this test unless the value of this parameter is 0.

Report Types

This section provides detailed information about the various report types.



Calibration Reports

The four calibration reports are:

- Initial
- Continuing
- SPCC
- Control Sample

Initial

VOLATILE ORGANICS INITIAL CALIBRATION DATA

EPA Method 524.2

Lab Name: Your laboratory Contract: ABC

Lab Code: XYZ Case No.: 123 SAS No: 456 SDG No:

Instrument ID: Saturn Calibration Date(s): 1/15/99 10/7/99

Heated Purge (Y/N): No Calibration Time(s): 3:16 12:58

GC Column: CP624 ID: .32 (mm)

Calibration File: D:\fromC\524\8260data\analcombi.sms

Index: 1	Level: 1	Replicate: 1	Acquired: 1/15/99 3:16	File: c:\524\8260data\1ppb.sms
Index: 2	Level: 2	Replicate: 1	Acquired: 1/15/99 4:39	File: c:\524\8260data\2ppb.sms
Index: 3	Level: 3	Replicate: 1	Acquired: 1/15/99 8:07	File: c:\524\8260data\10ppb.sms
Index: 4	Level: 4	Replicate: 1	Acquired: 1/15/99 8:49	File: c:\524\8260data\25ppb.sms
Index: 5	Level: 5	Replicate: 1	Acquired: 1/15/99 11:34	File: c:\524\8260data\100ppb.sms

RRF = (Area(sample)/(Amount(sample))/(Area(standard)/Amount(standard))

Compound	RRF1	RRF2	RRF3	RRF4	RRF5	Avg RRF	% RSD	CCC	SPCC
Dichlorodifluoromethane	0.096	0.077	0.084	0.083	0.096	**0.087**	**9.5**		
Chloromethane	0.131	0.138	0.127	0.133	0.149	**0.136**	**6.2**		
Vinyl chloride	0.118	0.129	0.120	0.114	0.134	**0.123**	**6.8**		
⋮									
Benzene, 1,2,4-trichloro-	0.463	0.413	0.383	0.370	0.415	**0.409**	**8.8**		
1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	0.847	0.793	0.843	0.880	0.882	**0.849**	**4.3**		
Naphthalene	0.448	0.496	0.405	0.373	0.439	**0.432**	**10.7**		
Benzene, 1,2,3-trichloro-	0.357	0.298	0.290	0.260	0.325	**0.310**	**10.0**		
						Average %RSD	**9.2**		

Title: (SEMI)VOLATILE ORGANICS INITIAL CALIBRATION DATA

Description: Summarizes (relative) response factors for up to 30 calibration entries. Reports average and percent relative standard deviations for all calibrated compounds.

Source file: Initial Calibration File.

Report Option controls: SPCC/CCC (System Performance Check Compound and Calibration Check Compound) Limit Test, **COD report.**

NOTE: Average %RSD is included with the ICC report.

Compound Parameters: Maximum RSD, Minimum RF.

Continuing

VOLATILE CONTINUING CALIBRATION CHECK

EPA Method CLP-VOA

Lab Name: Metropolitan Water Lab. Contract: abc

Lab Code: XYZ Case No.: xxx SAS No.: yyy SDG No.: zzz

Instrument ID: saturn2K Continuing Calibration Date: 1/15/99 Time: 4:39

Heated Purge (Y/N): No Initial Calibration Date: 1/15/99 1/15/99

GC Column: cpsil ID: 0.25 (mm) Initial Calibration Time: 0:30 11:34

Initial Calibration File: C:\archonNT\2ppbccctune.SMS

Lab File ID: c:\archonnt\2ppbccctune.sms

RRF = (Area(sample)/Amount(sample))/(Area(standard)/Amount(standard))

Compound	AvgRRF	RRF	MinRRF	% D	Max %D	CCC	SPCC
Dichlorodifluoromethane	0.093	0.078	0.010	15.8	20.5	PASS	PASS
Chloromethane	0.082	0.089	0.010	-7.9	20.5	PASS	PASS
Vinyl chloride	0.119	0.132	0.010	-10.6	20.5	PASS	PASS
Bromomethane	0.083	0.075	0.010	9.7	20.5	PASS	PASS
Chloroethane	0.045	0.040	0.010	11.5	20.5	PASS	PASS
Trichlorofluoromethane	0.400	0.406	0.010	-1.3	20.5	PASS	PASS
trans-1,1-Dichloroethene	0.225	0.235	0.010	-4.8	20.5	PASS	PASS

Title: (SEMI)VOLATILE CONTINUING CALIBRATION CHECK

Description: Shows Average RRF (from ICC), the RRF is from the file, minimum RRF, % Drift, Maximum allowable drift for all calibrated compounds.

Source file: The Current File when previewing individual reports, or during batch processing all Sample Types which are specified to be reporting in the "select reports" section.

Report Option Controls: SPCC/CCC Limit Test

Compound Parameters: Minimum RF, Maximum Drift, and Continuing Calibration Amount

NOTE: Appropriate for methods 524, 525, and CLP.

SPCC

VOLATILE CONTINUING CALIBRATION CHECK

EPA Method CLP-VOA

Lab Name: Metropolitan Water Lab. Contract: abc

Lab Code: XYZ Case No.: xxx SAS No.: yyy SDG No.: zzz

Instrument ID: saturn2K Continuing Calibration Date: 1/15/89 Time: 4:39

Heated Purge (Y/N): No Initial Calibration Date: 1/15/89 1/15/89

GC Column: cpsil ID: 0.25 (mm) Initial Calibration Time: 0:30 11:34

Initial Calibration File: C:\archonNT\2ppbccctune.SMS

Lab File ID: c:\archonnt\2ppbccctune.sms

RRF = (Area(sample)/Amount(sample))/(Area(standard)/Amount(standard))

Compound	RRF	MinRRF	Ci	Cc	% D	Max %D	CCC	SPCC
Dichlorodifluoromethane	0.078	0.010	2.00	1.68	15.8	20.5	PASS	PASS
Chloromethane	0.089	0.010	2.00	2.16	-7.9	20.5	PASS	PASS
Vinyl chloride	0.132	0.010	2.00	2.21	-10.6	20.5	PASS	PASS
Bromomethane	0.075	0.010	2.00	1.81	9.7	20.5	PASS	PASS
Chloroethane	0.040	0.010	2.00	1.77	11.5	20.5	PASS	PASS
Trichlorofluoromethane	0.406	0.010	2.00	2.03	-1.3	20.5	PASS	PASS
trans-1,1-Dichloroethene	0.235	0.010	2.00	2.10	-4.8	20.5	PASS	PASS

Title: (SEMI)VOLATILE CONTINUING CALIBRATION CHECK

Description: Summarizes file RRF, minimum RRF, the known concentration, the analyzed concentration, the % Drift, and the maximum allowed drift for all compounds.

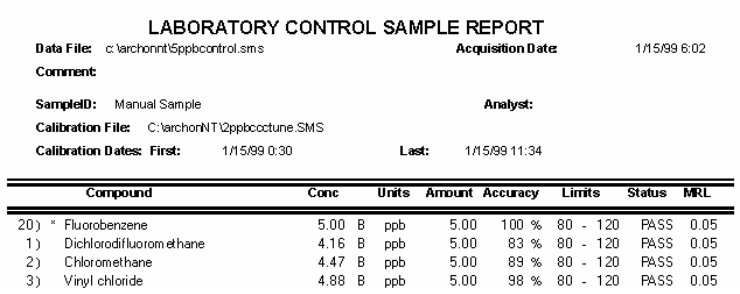
Source file: Current File or during batch processing all Sample Types which are specified to be reported in the "select reports" section.

Report Option controls: SPCC/CCC Limit Test

Compound parameters: Continuing Calibration Amount, Maximum Drift

NOTE: Appropriate for methods 8240, 8260, 8250, and 8270

Control Sample



LABORATORY CONTROL SAMPLE REPORT

Data File: c:\archonnt\5ppbcontrol.sms **Acquisition Date:** 1/15/99 6:02

Comment:

SampleID: Manual Sample **Analyst:**

Calibration File: C:\archonNT\2ppbccctune.SMS

Calibration Dates: First: 1/15/99 0:30 **Last:** 1/15/99 11:34

	Compound	Conc		Units	Amount	Accuracy	Limits	Status	MRL
20)	* Fluorobenzene	5.00	B	ppb	5.00	100 %	80 - 120	PASS	0.05
1)	Dichlorodifluoromethane	4.16	B	ppb	5.00	83 %	80 - 120	PASS	0.05
2)	Chloromethane	4.47	B	ppb	5.00	89 %	80 - 120	PASS	0.05
3)	Vinyl chloride	4.88	B	ppb	5.00	98 %	80 - 120	PASS	0.05

Title: LABORATORY CONTROL SAMPLE REPORT

Description: Reports analysis of samples of known concentration. Shows determined amount, known amount, % accuracy, allowed accuracy range, and pass/fail status.

Source file: Current File

Report Option Controls: Concentration Limit Test, Show minimum amount limits, Include compounds not found, Include compounds outside limits, Include CLP like letter codes, Use text for "Below MDL" and "Not found", Include Surrogate compounds.

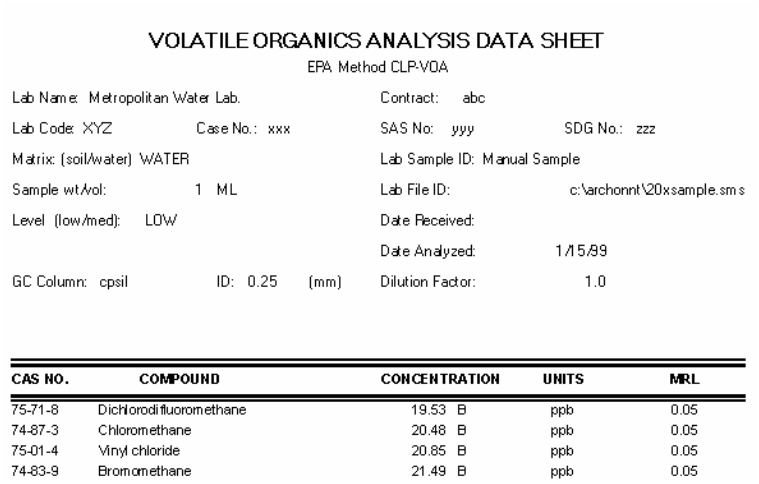
Compound parameters: Quality Control Amount, Percent Recovery Limits Low & High, Analysis Report Inclusion Limits - all items, Surrogates.

Quantitation Reports

The four quantitation reports are:

- Data Sheet
- General
- Compound Limit
- Labeled C'gram

Data Sheet



VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA Method CLP-VOA

Lab Name: Metropolitan Water Lab. Contract: abc

Lab Code: XYZ Case No.: xxx SAS No: yyy SDG No.: zzz

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

Sample wt/vol: 1 ML Lab File ID: c:\archonnt\20xsample.sms

Level (low/med): LOW Date Received:

Date Analyzed: 1/15/89

GC Column: cpsil ID: 0.25 (mm) Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION	UNITS	MRL
75-71-8	Dichlorodifluoromethane	19.53 B	ppb	0.05
74-87-3	Chloromethane	20.48 B	ppb	0.05
75-01-4	Vinyl chloride	20.85 B	ppb	0.05
74-83-9	Bromomethane	21.49 B	ppb	0.05

Title: (SEMI)VOLATILE ORGANICS ANALYSIS DATA SHEET

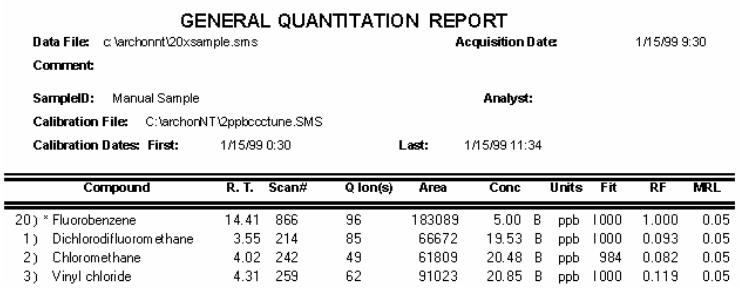
Description: Show target compound concentrations of samples on unknown composition. Shows CAS number, compound name, concentration and concentration units.

Source file: Current File

Report Option controls: Show minimum amount limits, Include compounds outside limits, Include CLP like letter codes, Use text for "Below MDL" and "Not Found", Include Surrogate compounds, Apply sample concentration factor to surrogates

Compound parameters: Analysis Report Inclusion Limits - all items, Surrogate.

General



GENERAL QUANTITATION REPORT

Data File: c:\archonnt\20xsample.sms Acquisition Date: 1/15/99 9:30

Comment:

SampleID: Manual Sample Analyst:

Calibration File: C:\archonNT\2ppbccctune.SMS

Calibration Dates: First: 1/15/99 0:30 Last: 1/15/99 11:34

	Compound	R. T.	Scan#	Q Ion(s)	Area	Conc		Units	Fit	RF	MRL
20)	* Fluorobenzene	14.41	866	96	183089	5.00	B	ppb	1000	1.000	0.05
1)	Dichlorodifluoromethane	3.55	214	85	66672	19.53	B	ppb	1000	0.093	0.05
2)	Chloromethane	4.02	242	49	61809	20.48	B	ppb	984	0.082	0.05
3)	Vinyl chloride	4.31	259	62	91023	20.85	B	ppb	1000	0.119	0.05

Title: GENERAL QUANTITATION REPORT

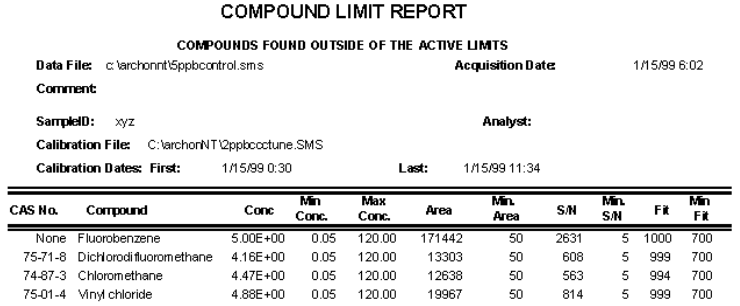
Description: Summarizes the target compound analysis for one sample. The Fields reported are compound name, retention time, apex scan number, ion(s) used to quantitate, peak area or height, concentration, units, peak identification fit result, and response factor.

Source file: Current File

Report Option controls: Show minimum amount limits, Include compounds not found, Include compounds outside limits (all limits), Include CLP like letter codes, Use text for "Below MDL" and "Not Found", Include Surrogate compounds, Apply sample concentration factor to surrogates.

Compound parameters: Analysis Report Inclusion Limits (all items), Surrogate.

Compound Limit



COMPOUND LIMIT REPORT

COMPOUNDS FOUND OUTSIDE OF THE ACTIVE LIMITS

Data File: c:\archonnt\5ppbcontrol.sms Acquisition Date: 1/15/99 6:02

Comment:

SampleID: xyz Analyst:

Calibration File: C:\archonNT\2ppbccctune.SMS

Calibration Dates: First: 1/15/99 0:30 Last: 1/15/99 11:34

CAS No.	Compound	Conc	Min Conc.	Max Conc.	Area	Min. Area	S/N	Min. S/N	Fit	Min Fit
None	Fluorobenzene	5.00E+00	0.05	120.00	171442	50	2631	5	1000	700
75-71-8	Dichlorodifluoromethane	4.16E+00	0.05	120.00	13303	50	608	5	999	700
74-87-3	Chloromethane	4.47E+00	0.05	120.00	12638	50	563	5	994	700
75-01-4	Vinyl chloride	4.88E+00	0.05	120.00	19967	50	814	5	999	700

Title: COMPOUND LIMIT REPORT

Description: Shows the limits set in the compound table (for minimum and maximum concentration, minimum area, minimum signal to noise, and minimum fit), the compound values for these items, and flags showing the violated limit(s).

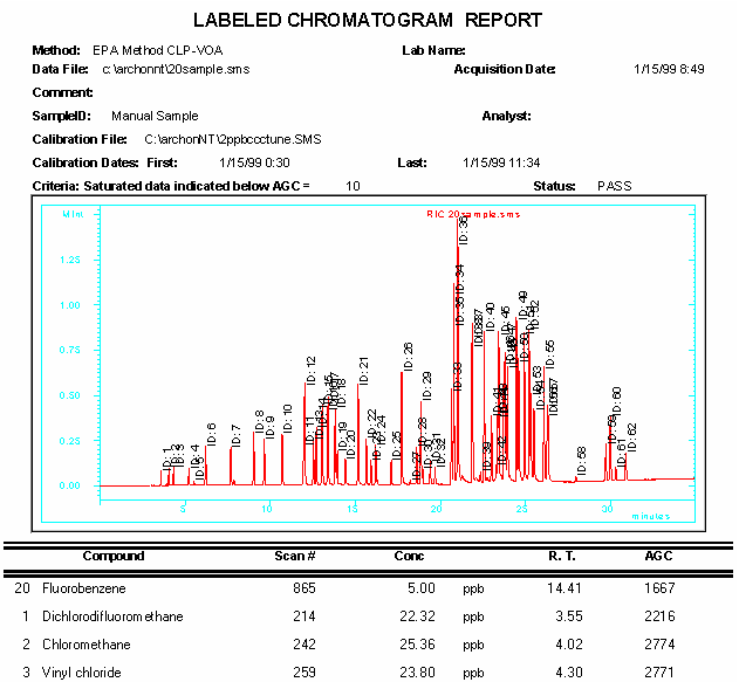
Source file: Current File

Report Option controls: Include compounds not found, Include compounds outside limits, Include Surrogate Compounds, Apply sample correction factors to surrogates.

Compound parameters: Analysis Report Inclusion Limits - all items, Surrogate

NOTE: If Include Compounds Outside Limits is set True, then compounds are shown in this report whether or not they are outside limits.

Labeled C'gram



LABELED CHROMATOGRAM REPORT

Method: EPA Method CLP-VOA **Lab Name:**
Data File: c:\archonnt\20sample.sms **Acquisition Date:** 1/15/99 8:49
Comment:
SampleID: Manual Sample **Analyst:**
Calibration File: C:\archonNT\2ppbcoctune.SMS
Calibration Dates: First: 1/15/99 0:30 **Last:** 1/15/99 11:34
Criteria: Saturated data indicated below AGC = 10 **Status:** PASS

	Compound	Scan #	Conc		R. T.	AGC
20	Fluorobenzene	865	5.00	ppb	14.41	1667
1	Dichlorodifluoromethane	214	22.32	ppb	3.55	2216
2	Chloromethane	242	25.36	ppb	4.02	2774
3	Vinyl chloride	259	23.80	ppb	4.30	2771

Title: LABELED CHROMATOGRAM REPORT

Description: Shows the chromatogram with peak labels on all identified and failed peaks. The body of the report shows compound name, scan #, concentration, units, retention time, and AGC ionization time for each included compound.

Source file: Current File

Report Option controls: Include compounds not found, Include compounds outside limits, Include CLP like letter codes, Use text for "Below MDL" and "Not Found", Include Surrogate Compounds, Apply sample correction factors to surrogates.

Compound parameters: Analysis Report Inclusion Limits - all items, Surrogate

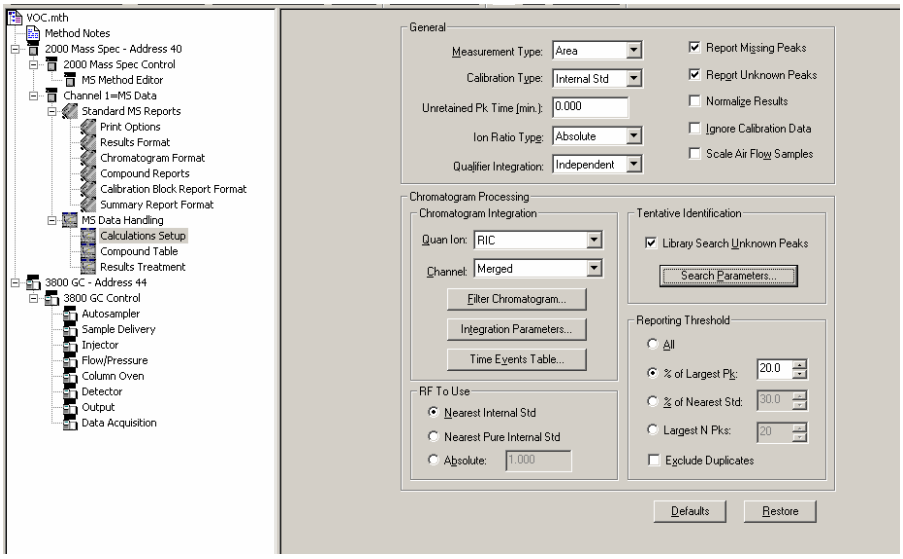
TIC Reports

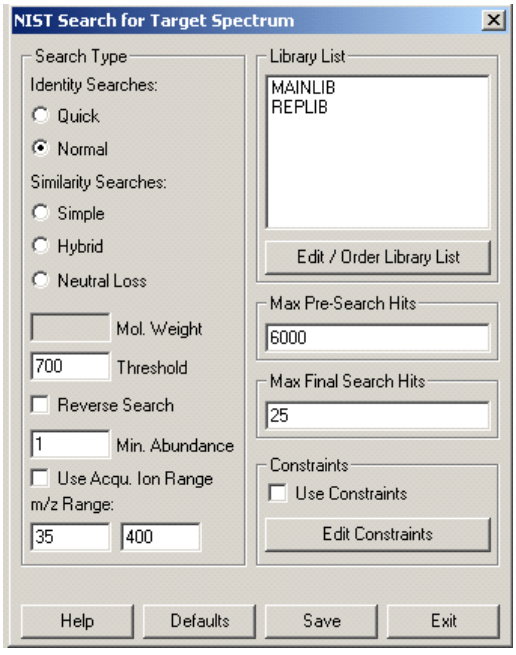
The four TIC reports are:

- CLP Datasheet
- General
- Labeled C'gram
- Analysis

The Tentatively Identified Compounds (TICs or non-target analytes) are reported when this report option is selected.

TIC reports are available only if the *.mth method is set up properly. In the MS Data handling section of the method the Calculation setup section must be set to Report Unknown peaks and the appropriate library and library search parameters must be identified, as in the following figure. In the Report Option section of EnviroPro the maximum number of TICs reported and their reporting threshold (intensity) must be specified for proper reporting.





CLP Datasheet

TENTATIVELY IDENTIFIED COMPOUNDS
VOLATILE ORGANICS ANALYSIS DATA SHEET
EPA Method CLP-VOA

Lab Name: Varian — Contract: ABC
Lab Code: xyz — Case No.: 123 — SAS No: 555 — SDG No.:
Matrix: (soil/water) SOIL — Lab Sample ID: Manual Sample
Sample wt/vol: 1 g — Lab File ID: c:\archonnt\sample_x.sms
Level (low/med): LOW — Date Received:
% Moisture: not dec: 0 — Date Analyzed: 1/15/89
GC Column: CP8 — ID: 0.25 (mm)

Number of TICs Found 6

CAS NO.	COMPOUND NAME	RT	EST. CONC.	
149-73-5	Methane, trimethoxy-	7.86	0.33	ppb
52806-35-6	Methanone, (4-methoxyphenyl)(6-methyl-	26.70	0.26	ppb
29743-33-7	4,6-Octadiyn-3-one, 2-methyl-	21.28	0.26	ppb
103148-59-0	cis-Bicyclo[4.2.0]octa-3,7-diene	22.08	0.22	ppb
19788-52-4	Propionic acid, 2-mercapto-, isopropyl e	16.29	0.18	ppb

Title: TENTATIVELY IDENTIFIED COMPOUNDS (SEMI)VOLATILE ORGANICS DATASHEET

Description: Shows CAS Number, Compound Name, Retention Time and Estimated Concentration for all TIC peak records that meet the acceptance criteria.

Source file: Current File

Report Option controls: Include CLP like letter codes, Maximum number of TIC to report, and Minimum TIC peak threshold (percent)

Compound parameters: None

General

TENTATIVELY IDENTIFIED COMPOUNDS
VOLATILE ORGANICS ANALYSIS DATA SHEET
EPA Method CLP-VOA

Lab Name: Varian		Contract: ABC	
Lab Code: xyz	Case No.: 123	SAS No: 555	SDG No.:
Matrix: (soil/water) SOIL		Lab Sample ID: Manual Sample	
Sample wt/vol:	1 g	Lab File ID:	c:\archonnt\sample_x.sms
Level (low/med): LOW		Date Received:	
% Moisture: not dec:	0	Date Analyzed:	1/15/99
GC Column: CP8	ID: 0.25 (mm)		

Number of TICs Found: 6

	COMPOUND NAME	RT	SCAN #	EST. CONC.		PEAK AREA	REF
*	Fluorobenzene	14.41	865	5.00	ppb	?	26
	Methane, trimethoxy-	7.86	473	0.33	ppb	23496	26
	Methanone, (4-methoxyphenyl)(6-meth	26.70	1603	0.26	ppb	18770	26
	4,6-Octadiyn-3-one, 2-methyl-	21.28	1278	0.26	ppb	18601	26
	cis-Bicyclo[4.2.0]octa-3,7-diene	22.08	1326	0.22	ppb	15672	26
	Propionic acid, 2-mercapto-, isopropyl	16.29	979	0.18	ppb	12672	26

Title: TENTATIVELY IDENTIFIED COMPOUNDS (SEMI)VOLATILE ORGANICS DATASHEET

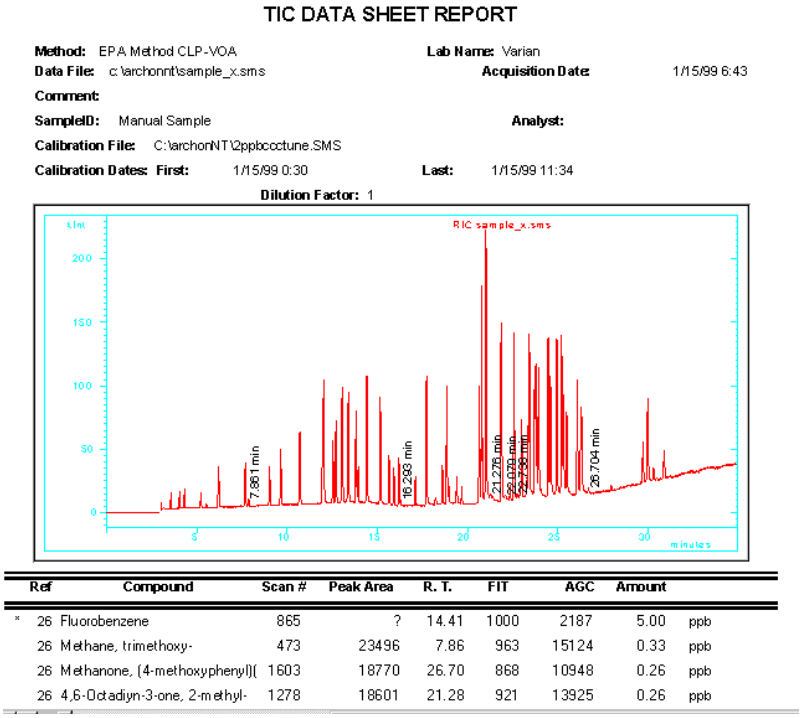
Description: Shows for each internal standard and TIC meeting the report criteria, the fields Compound Name, RT, Scan #, Estimated Concentration (with units), peak area or height, and internal standard reference, if applicable.

Source file: Current File or during batch process, all Sample Types that were specified to be reported in the "Select reports" section.

Report Option controls: Include CLP like letter codes, Maximum number of TIC to report, Minimum TIC peak threshold (percent), Order of TIC compounds (concentration or retention time).

Compound parameters: None

Labeled C'gram


TIC DATA SHEET REPORT

Method: EPA Method CLP-VOA **Lab Name:** Varian
Data File: c:\archonnt\sample_x.sms **Acquisition Date:** 1/15/99 6:43
Comment:
SampleID: Manual Sample **Analyst:**
Calibration File: C:\archonNT\2ppbcoctune.SMS
Calibration Dates: First: 1/15/99 0:30 **Last:** 1/15/99 11:34
Dilution Factor: 1

RIC sample_x.sms
7.861 min
16.293 min
21.276 min
26.704 min
minutes

	Ref	Compound	Scan #	Peak Area	R. T.	FIT	AGC	Amount	
*	26	Fluorobenzene	865	?	14.41	1000	2187	5.00	ppb
	26	Methane, trimethoxy-	473	23496	7.86	963	15124	0.33	ppb
	26	Methanone, (4-methoxyphenyl)(	1603	18770	26.70	868	10948	0.26	ppb
	26	4,6-Octadiyn-3-one, 2-methyl-	1278	18601	21.28	921	13925	0.26	ppb

Title: TIC DATA SHEET REPORT

Description: Shows Internal Standard Reference number (if appropriate), Compound Name, Scan #, Peak Area or Height, Retention Time, AGC Ionization time, and Amount with units. The chromatogram trace is included, and it is annotated by the retention times of tentatively identified compounds. (The format is specified in the "Chromatogram" page.)

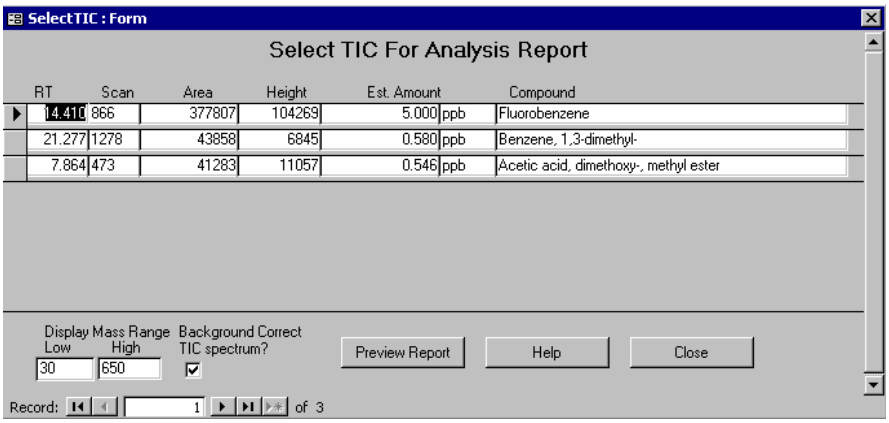
Source file: Current File or during batch process all Sample Types which are specified to be reported in the "Select reports" section.

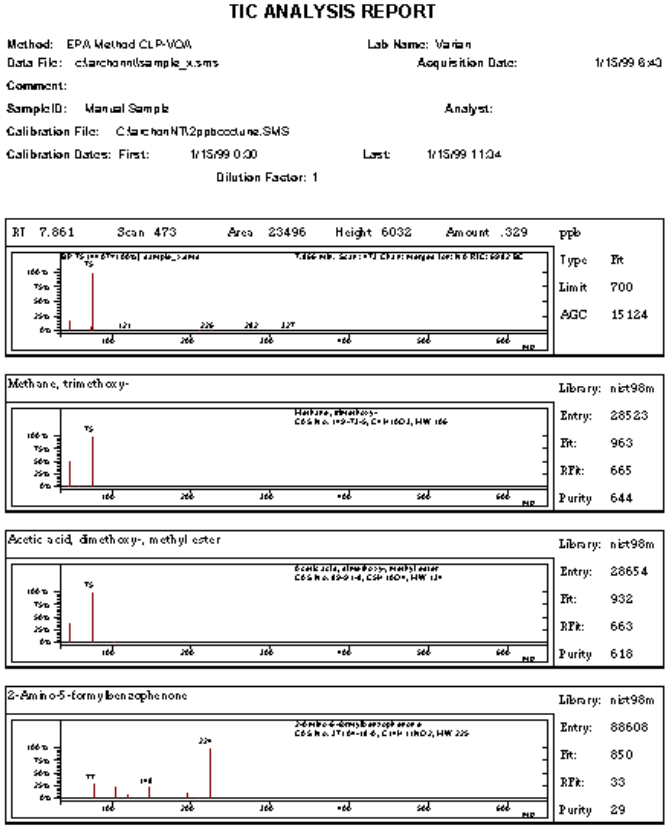
Report Option controls: Include CLP like letter codes, Maximum number of TIC to report, Minimum TIC peak threshold (percent), and Order of TIC compounds (concentration or retention time).

Compound parameters: None

Analysis

When EnviroPro is run interactively, click the TIC Reports Analysis button to display the "Select TIC for Analysis Report" dialog. Select the TIC record for the report. This screen has options for selecting background correction and the mass range for the TIC's spectum plot. Click the Preview Report button to display the TIC Analysis Report.





Title: TIC ANALYSIS REPORT

Description: Shows the spectrum (background corrected or unaltered, as specified by the user) of each TIC and the three (or fewer) best library matches from the library the user identified in the *.mth method.

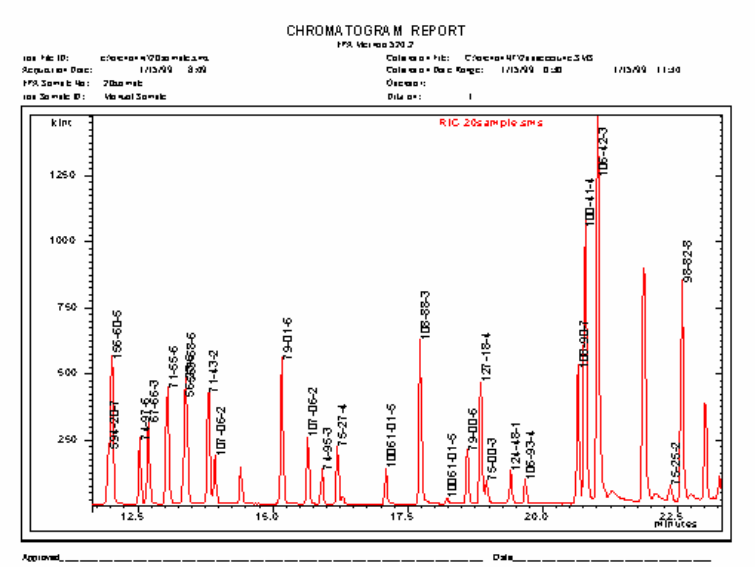
Source file: Current File or during batch process all Sample Types which are specified for this reporting in the "Select reports" section.

Report Option controls: Maximum number of TICs to report, Minimum TIC peak threshold (percent). Order of TIC compounds (concentration or retention time).

Compound parameters: None

Chromatogram Report

Click the Chromatogram button to open the Chromatogram Report form. Use this to configure the annotations and the number of pages. Also you can preview the individual pages.



Target Compound Reports

Click the Target button to open the Preview Target Compound Reports form. Select a specific compound and preview any of the six target compound confirmation reports for that compound.

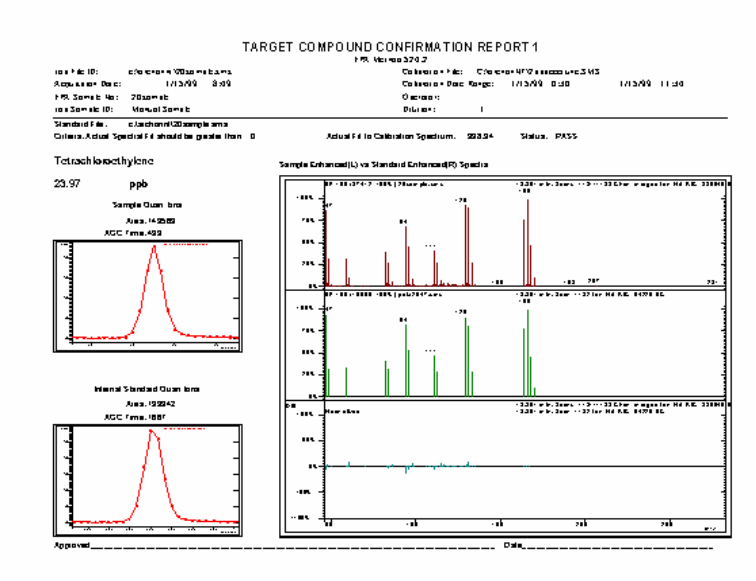
Preview Target Compound Reports

To preview a target compound report:

1. Select the compound record to report.
2. Click the Report button of the desired report.

To see a summary of the Compound table and Report Option variables that control a report, refer to the topics Report 1 through Report 6. The TAR reports are not available if the analyte is not identified/missing.

NOTE: All compounds may be previewed and printed individually, but only the ones selected for TAR1-TAR6 printing in the “Compound Information” section are printed during batch processing.



Buttons: Preview Target Compound Reports

Report 1

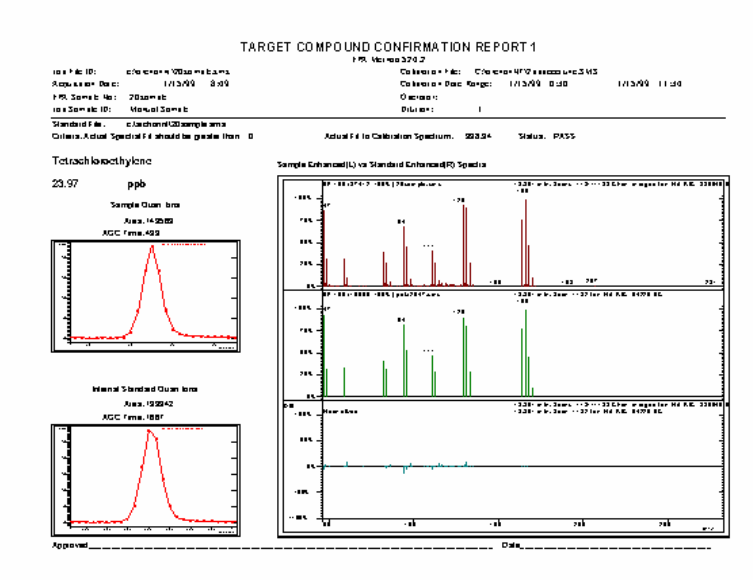
Title: TARGET COMPOUND CONFIRMATION REPORT 1

Description: For the selected compound, the quantitation ion(s) profile for the internal standard peak and the target compound peak are displayed. Also shows the target compound peak apex spectrum, the method reference spectrum, and their difference

Source file: Current File

Report Option controls: Include compounds outside limits, Include CLP like letter codes, Use text for "Below MDL" and "Not Found", Include Surrogate Compounds, Apply sample correction factors to surrogates.

Compound parameters: Analysis Report Inclusion Limits - all items, Surrogate



Report 2

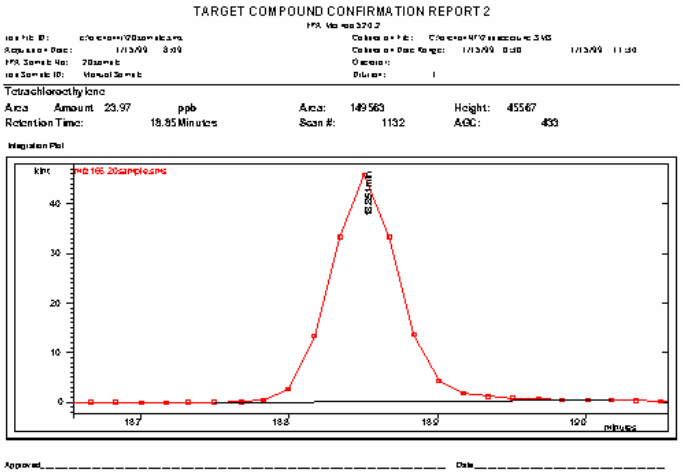
Title: TARGET COMPOUND CONFIRMATION REPORT 2

Description: Shows the quantitation ion(s) profile for the selected peak with a drawn baseline.

Source file: Current File

Report Option controls: Include compounds not found, Include compounds outside limits, Include CLP like letter codes, Use text for "Below MDL" and "Not Found", Include Surrogate Compounds, Apply sample correction factors to surrogates.

Compound parameters: Analysis Report Inclusion Limits - all items, Surrogate



Report 3

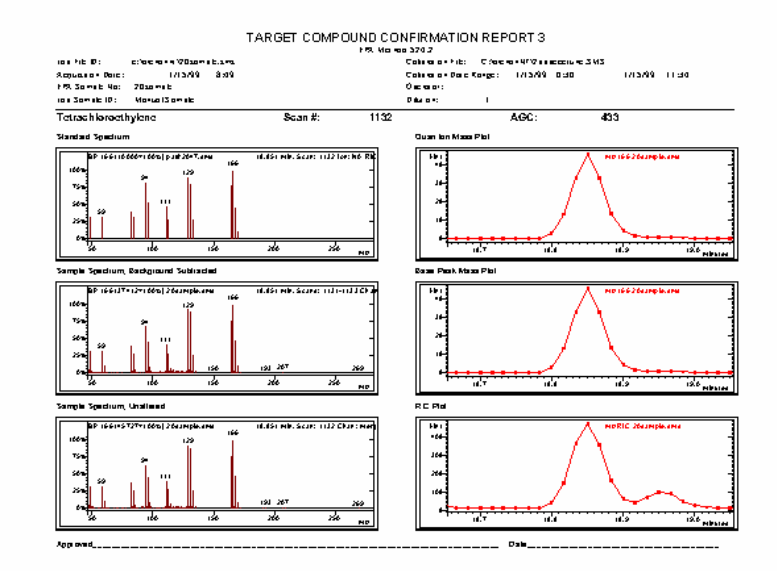
Title: TARGET COMPOUND CONFIRMATION REPORT 3

Description: Shows the target compound standard spectrum, the sample background corrected spectrum, the sample raw spectrum, the quan ion(s) peak profile, the base ion peak profile, and the RIC peak profile.

Source file: Current File

Report Option controls: Include compounds not found, Include compounds outside limits, Include Surrogate Compounds, Apply sample Correction factors to surrogates.

Compound parameters: Analysis Report Inclusion Limits - all items, Surrogate



Report 4

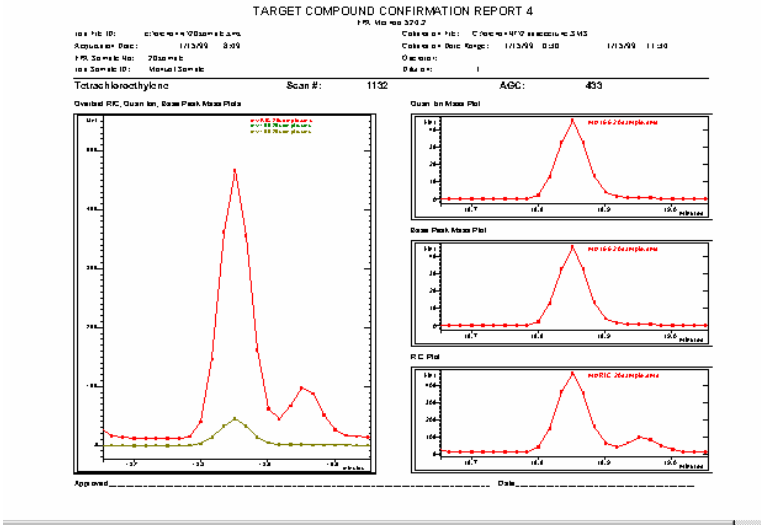
Title: TARGET COMPOUND CONFIRMATION REPORT 4

Description: Shows overlaid and individual target compound peak profile plots of quan ion(s), base ion, and RIC.

Source file: Current File

Report Option controls: Include compounds not found, Include compounds outside limits, Include Surrogate Compounds, Apply sample correction factors to surrogates.

Compound parameters: Analysis Report Inclusion Limits - all items, Surrogate



Report 5

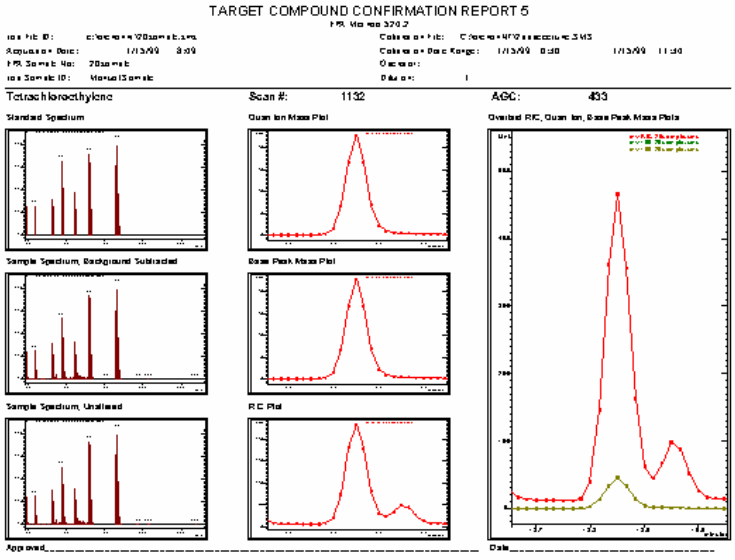
Title: TARGET COMPOUND CONFIRMATION REPORT 5

Description: Shows the standard spectrum, background corrected spectrum, and raw spectrum of target compound peak apex. Shows separate and overlaid plots of the quan ion(s), base peak, and RIC peak profile of the target compound.

Source file: Current File

Report Option controls: Include compounds not found, Include compounds outside limits, Include Surrogate Compounds, Apply sample correction factors to surrogates.

Compound parameters: Analysis Report Inclusion Limits - all items, Surrogate



Report 6

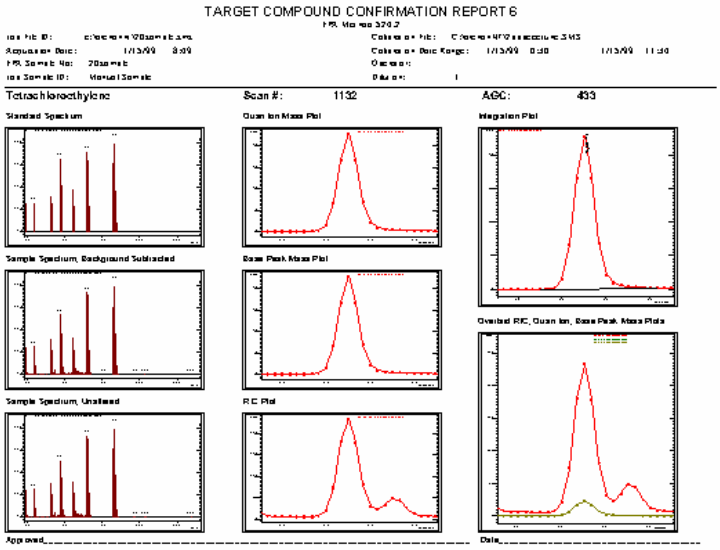
Title: TARGET COMPOUND CONFIRMATION REPORT 6

Description: Shows the standard spectrum, background corrected spectrum, and raw spectrum of target compound peak apex, and separate and overlaid plots of the quan ion(s), base peak, and RIC peak profile of the target compound, and the quan ion(s) peak profile with integration baseline.

Source file: Current File

Report Option controls: Include compounds not found, Include compounds outside limits, Include CLP like letter codes, Use text for "Below MDL" and "Not Found", Include Surrogate Compounds, Apply sample correction factors to surrogates.

Compound parameters: Analysis Report Inclusion Limits - all items, Surrogate



Close

Close: Click to close the form.

Fields: Preview Target Compound Reports

#(Calibration Record Number) is the index number of the compound in the method (*.mth) used to quantitate the data file at the time the data file was quantitated.

Result Type describes the result of target compound peak identification. The allowed values are Identified (target compound peak was located and met the peak identification criteria in the method), Failed (target compound peak was located, but did not meet the peak identification criteria), or Missing (target compound peak could not be located.)

B (Blank): Checked if this compound was detected in the Method Blank sample.

S (Surrogate): Checked if this compound has been designated as a Surrogate Compound in the EnviroPro compound table.

T (Compound Type) specifies the type of quantitation used to compute the Amount. The types are as follows:

- A (analyte quantitated by internal standard method),
- E (analyte quantitated by external standard method), and
- I (internal standard peak of known concentration).

Compound Name for this peak that is in the method that quantitated the data file.

Actual RT (Actual Retention Time) is the time (in minutes) of the apex of the identified peak in the profile of integration mass abundance vs. time.

Calib. RT is the calibration retention time (in minutes) reported in the data file for this compound.

Fit is a measure of the similarity between the compound spectrum stored in the method used to quantitate this data file and the apex spectrum of the reported peak.

Peak Area reports the peak area, measured in counts, which was read from the data file.

Peak Height reports the peak height, measured in counts, which was read from the data file.

Amount shows either the analyte concentration in the sample or an error message. If the analyte concentration was computed without a detected error, the field contains the numerical concentration.

If the following Report Options are set, numerical field may be modified as follows:

Report Option: Include CLP like letter codes: True/False. If True the following letter codes may be appended to reported concentrations:

- "D" if the sample table shows a dilution factor that is not unity.
- "B" if the compound was found in the method blank.
- "J" if the concentration is less than the Low Quantitation Report Limit, adjusted for dilution and Moisture if either or both of these factors is used in the Sample Correction Factor. (NOTE: %Dry Weight does not affect this calculation.)
- "E" if the concentration exceeds the High Quantitation Report Limit.
- "U" if the compound was not found during quantitation. The concentration reported in this case is the Quantitation Low Report Limit, adjusted for Dilution and Moisture if shown on the Sample Edit form for the method and sample. (Dry Weight entries do not affect the concentration calculation).
- "JN" if compound was quantitated as a Tentatively Identified Compound".
- "S" if peak concentration is not consistent with sample parameters reported in the header. This can happen for one of two reasons: Either the Sample Correction Factor option on the Sample List form is set to "Compute" for this sample and the multiplier/divisor ratio read from the file is not 1; -or- the Sample Correction Factor option on the Sample List form is set to the text box for this sample and the mismatch between the multiplier/divisor ratio read from the data file

and the Sample Correction Factor computed from the entries made in the Sample List for this sample is greater than 1%.

NOTE: The "Below MDL" and "Not Found" messages take precedence over CLP like Qualifier codes if the "Use Text for Below MDL and Not Found" is True.

Report Option: Use text for "Below MDL" and "Not Found". True/False
If true, "Below MDL" is substituted for the measured concentration if the concentration is less than the amount entered in the MDL field of the compound form. If the compound was not quantitated, but the compound record is included in the data file, the concentration field is reported as "Not Found".

Report Options

Click the Report Options button to open the Report Options form. This form configures the optional information on reports and the criteria for including peaks in the reports.

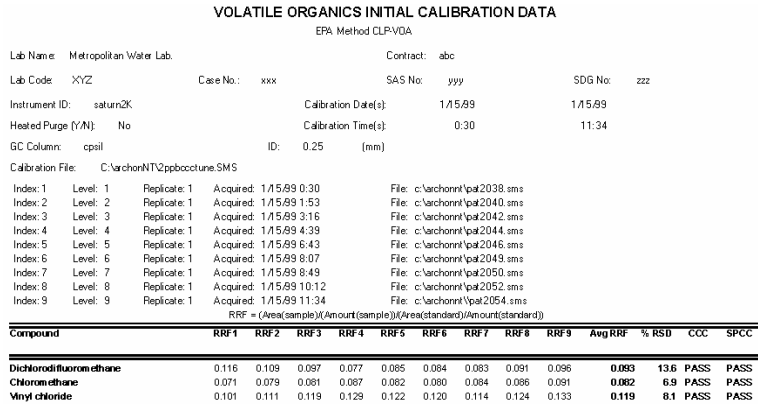
Summary Reports

The following summary reports are available:

- Initial Calibration
- Method Tune
- Method Blank
- Surrogate
- IS Area & RT
- Control Sample
- MDL&RSD
- MS/MSD
- MS Recovery
- QC Recovery

Initial Calibration

Same report as in the individual setup.



VOLATILE ORGANICS INITIAL CALIBRATION DATA

EPA Method CLP-VOA

Lab Name: Metropolitan Water Lab. Contract: abc

Lab Code: XYZ Case No.: xxx SAS No: yyy SDG No: zzz

Instrument ID: saturn2K Calibration Date(s): 1/15/99 1/15/99

Heated Purge (Y/N): No Calibration Time(s): 0:30 11:34

GC Column: cpsil ID: 0.25 (mm)

Calibration File: C:\archonNT\2ppbccctune.SMS

Index: 1	Level: 1	Replicate: 1	Acquired: 1/15/99 0:30	File: c:\archonnt\pat2038.sms
Index: 2	Level: 2	Replicate: 1	Acquired: 1/15/99 1:53	File: c:\archonnt\pat2040.sms
Index: 3	Level: 3	Replicate: 1	Acquired: 1/15/99 3:16	File: c:\archonnt\pat2042.sms
Index: 4	Level: 4	Replicate: 1	Acquired: 1/15/99 4:39	File: c:\archonnt\pat2044.sms
Index: 5	Level: 5	Replicate: 1	Acquired: 1/15/99 6:43	File: c:\archonnt\pat2046.sms
Index: 6	Level: 6	Replicate: 1	Acquired: 1/15/99 8:07	File: c:\archonnt\pat2049.sms
Index: 7	Level: 7	Replicate: 1	Acquired: 1/15/99 8:49	File: c:\archonnt\pat2050.sms
Index: 8	Level: 8	Replicate: 1	Acquired: 1/15/99 10:12	File: c:\archonnt\pat2052.sms
Index: 9	Level: 9	Replicate: 1	Acquired: 1/15/99 11:34	File: c:\archonnt\\pat2054.sms

RRF = (Area(sample)/(Amount(sample))/(Area(standard)/Amount(standard))

Compound	RRF1	RRF2	RRF3	RRF4	RRF5	RRF6	RRF7	RRF8	RRF9	Avg RRF	% RSD	CCC	SPCC
Dichlorodifluoromethane	0.116	0.109	0.097	0.077	0.085	0.084	0.083	0.091	0.096	**0.093**	**13.6**	PASS	PASS
Chloromethane	0.071	0.079	0.081	0.087	0.082	0.080	0.084	0.086	0.091	**0.082**	**6.9**	PASS	PASS
Vinyl chloride	0.101	0.111	0.119	0.129	0.122	0.120	0.114	0.124	0.133	**0.119**	**8.1**	PASS	PASS

Title: (SEMI)VOLATILE ORGANICS INITIAL CALIBRATION DATA

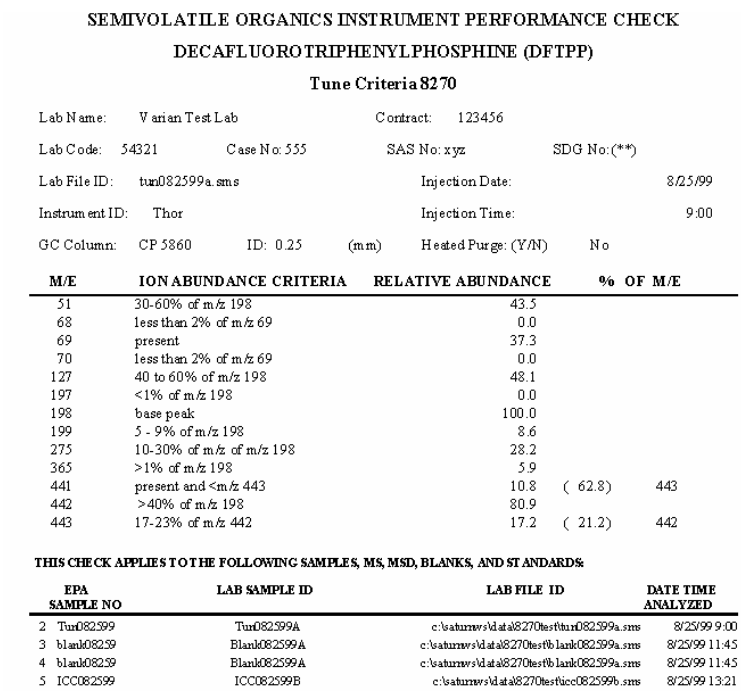
Description: Summarizes (relative) response factors for up to 30 calibration entries. Reports average and percent relative standard deviation for all calibrated compounds.

Source file: Initial Calibration File

Report Option controls: SPCC/CCC (System Performance Check Compound and Calibration Check Compound) Limit Test

Compound parameters: Maximum RSD, Minimum RF

Method Tune



SEMIVOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Tune Criteria 8270

Lab Name: Varian Test Lab Contract: 123456

Lab Code: 54321 Case No: 555 SAS No: xyz SDG No: (**)

Lab File ID: tun082599a.sms Injection Date: 8/25/99

Instrument ID: Thor Injection Time: 9:00

GC Column: CP 5860 ID: 0.25 (mm) Heated Purge: (Y/N) No

M/E	ION ABUNDANCE CRITERIA	RELATIVE ABUNDANCE	% OF M/E	
51	30-60% of m/z 198	43.5		
68	less than 2% of m/z 69	0.0		
69	present	37.3		
70	less than 2% of m/z 69	0.0		
127	40 to 60% of m/z 198	48.1		
197	<1% of m/z 198	0.0		
198	base peak	100.0		
199	5 - 9% of m/z 198	8.6		
275	10-30% of m/z of m/z 198	28.2		
365	>1% of m/z 198	5.9		
441	present and <m/z 443	10.8	(62.8)	443
442	>40% of m/z 198	80.9		
443	17-23% of m/z 442	17.2	(21.2)	442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO	LAB SAMPLE ID	LAB FILE ID	DATE TIME ANALYZED
2	Tun082599	Tun082599A	c:\saturnws\data\8270test\tun082599a.sms	8/25/99 9:00
3	blank08259	Blank082599A	c:\saturnws\data\8270test\blank082599a.sms	8/25/99 11:45
4	blank08259	Blank082599A	c:\saturnws\data\8270test\blank082599a.sms	8/25/99 11:45
5	ICC082599	ICC082599B	c:\saturnws\data\8270test\icc082599b.sms	8/25/99 13:21

Title: (SEMI)VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK

Description: Compares the selected spectrum from the current tune file to the currently selected tune criteria. A summary of the sample list follows.

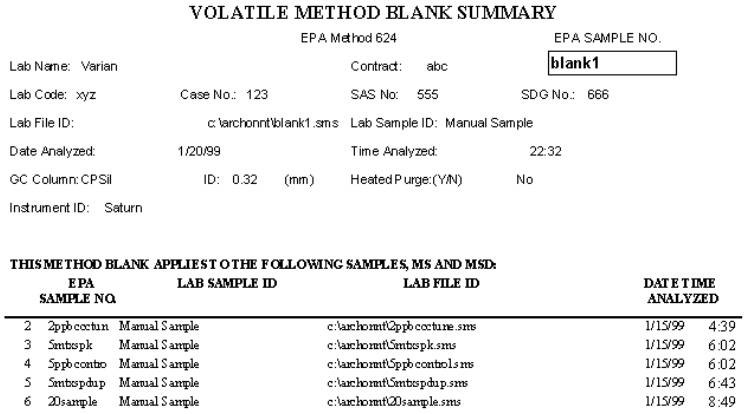
Source file: Current Tune File

Report Option controls: None

Compound parameters: None

NOTE: To select tune criteria, tune file, or tune spectrum, return to the main form and click the Select Method button. Select the method criteria set by selecting the appropriate EPA Method radio button, and then click the Tune Report Setup button. Selecting the tune file name and click the open button. Click the Tune Report Setup form to select the tune spectrum. Click the Tune Report 2 button to displays the data shown in the top half of this report. If the CCC file is used for tune file select the "Use CCC as tune file" button. The tune file does not need to be specified; the CCC file automatically becomes the tune file.

Method Blank



VOLATILE METHOD BLANK SUMMARY

EPA Method 624 — EPA SAMPLE NO.: blank1

Lab Name: Varian — Contract: abc

Lab Code: xyz — Case No.: 123 — SAS No: 555 — SDG No.: 666

Lab File ID: c:\archonnt\blank1.sms — Lab Sample ID: Manual Sample

Date Analyzed: 1/20/99 — Time Analyzed: 22:32

GC Column: CPSil — ID: 0.32 (mm) — Heated Purge: (Y/N) No

Instrument ID: Saturn

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE TIME ANALYZED
2	2ppbcctun	Manual Sample	c:\archonnt\2ppbcctune.sms	1/15/99 4:39
3	5mtbspk	Manual Sample	c:\archonnt\5mtbspk.sms	1/15/99 6:02
4	5ppbcontro	Manual Sample	c:\archonnt\5ppbcontrol.sms	1/15/99 6:02
5	5mtbspdup	Manual Sample	c:\archonnt\5mtbspdup.sms	1/15/99 6:43
6	20sample	Manual Sample	c:\archonnt\20sample.sms	1/15/99 8:49

Title: (SEMI)VOLATILE METHOD BLANK SUMMARY

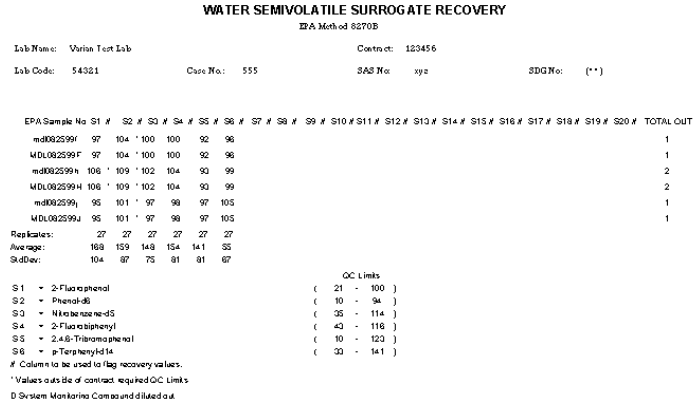
Description: The header has laboratory information and information about the first sample of sample type "B" in the sample list. The body of the report has a summary of the sample list, in the order of acquisition date and time.

Source files: Files in sample list. First sample list entry of sample type "B" is source of header information.

Report Option controls: None

Compound parameters: None

Surrogate



WATER SEMIVOLATILE SURROGATE RECOVERY

EPA Method 8270B

Lab Name: Varian Test Lab Contract: 123456

Lab Code: 54321 Case No.: 555 SAS No: xyz SDG No: (**)

EPA Sample No	S1 #	S2 #	S3 #	S4 #	S5 #	S6 #	S7 #	S8 #	S9 #	S10 #	S11 #	S12 #	S13 #	S14 #	S15 #	S16 #	S17 #	S18 #	S19 #	S20 #	TOTAL OUT
mdl082599f	97	104	' 100	100	92	96															1
MDL082599F	97	104	' 100	100	92	96															1
mdl082599h	106	' 109	' 102	104	93	99															2
MDL082599H	106	' 109	' 102	104	93	99															2
mdl082599j	95	101	' 97	99	97	105															1
MDL082599J	95	101	' 97	99	97	105															1
Replicates:	27	27	27	27	27	27															
Average:	168	159	148	154	141	55															
StdDev:	104	87	75	81	81	67															

		QC Limits
S1	2-Fluorophenol	(21 - 100)
S2	Phenol-d6	(10 - 94)
S3	Nitrobenzene-d5	(35 - 114)
S4	2-Fluorobiphenyl	(43 - 116)
S5	2,4,6-Tribromophenol	(10 - 123)
S6	p-Terphenyl-d14	(33 - 141)

Column to be used to flag recovery values.

' Values outside of contract required QC Limits

D System Monitoring Compound diluted out

Title: {WATER|SOIL}(SEMI)VOLATILE SURROGATE RECOVERY

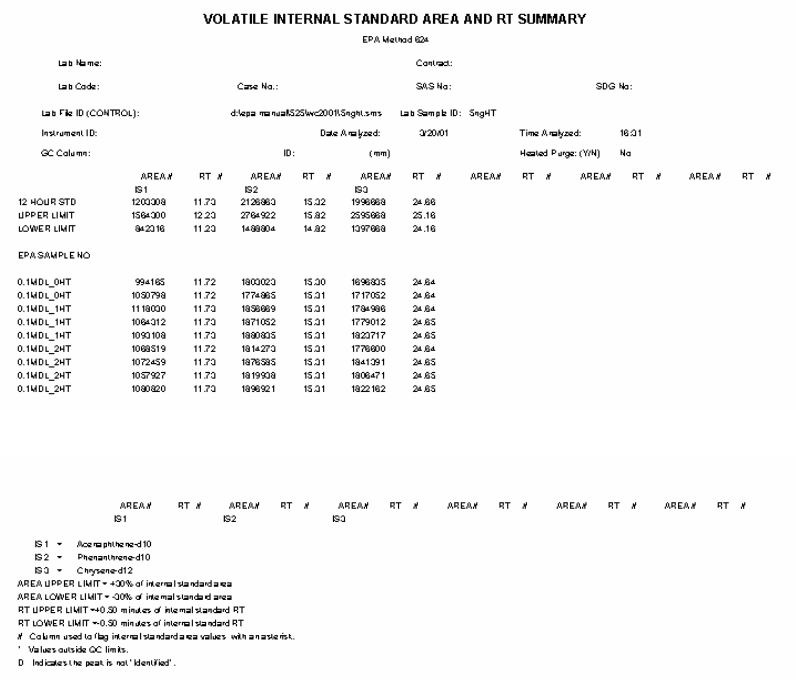
Description: Summarizes surrogate recoveries for up to 20 surrogate compounds for the sample list files. Surrogate compounds are marked as surrogates in the EnviroPro compound table.

Source files: Files in sample list.

Report Option controls: None

Compound parameters: Surrogate, Quality Control Amount, Percent Recovery Limits Low & High

IS Area & RT



VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

EPA Method 624

Lab Name: Contract:

Lab Code: Case No.: SAS No: SDG No:

Lab File ID (CONTROL): d:\epa manual\5253\wc2001\Sng#t.s\ms Lab Sample ID: Sng#T

Instrument ID: Date Analyzed: 3/20/01 Time Analyzed: 16:31

GC Column: ID: (mm) Heated Purge: (Y/N) No

	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
	IS1		IS2		IS3							
12 HOUR STD	1200308	11.73	2128863	15.32	1996869	24.86						
UPPER LIMIT	1584300	12.23	2764922	15.82	2595869	25.16						
LOWER LIMIT	842316	11.23	1492804	14.82	1397869	24.16						
EPA SAMPLE NO												
0.1MDL_0HT	994165	11.72	1803023	15.30	1696935	24.84						
0.1MDL_0HT	1030798	11.72	1774965	15.31	1717052	24.84						
0.1MDL_1HT	1118030	11.73	1836869	15.31	1794986	24.84						
0.1MDL_1HT	1064312	11.73	1871052	15.31	1779012	24.85						
0.1MDL_1HT	1093108	11.73	1880925	15.31	1820717	24.85						
0.1MDL_2HT	1068519	11.72	1814273	15.31	1778600	24.84						
0.1MDL_2HT	1072459	11.73	1876395	15.31	1841291	24.85						
0.1MDL_2HT	1057927	11.73	1819938	15.31	1806471	24.85						
0.1MDL_2HT	1080820	11.73	1896921	15.31	1822162	24.85						

	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
	IS1		IS2		IS3							

IS 1 - Acenaphthene-d10

IS 2 - Phenanthrene-d10

IS 3 - Chrysene-d12

AREA UPPER LIMIT = +30% of internal standard area

AREA LOWER LIMIT = -30% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.

' Values outside QC limits.

D Indicates the peak is not 'Identified'.

Title: (SEMI)VOLATILE INTERNAL STANDARD AND RT SUMMARY

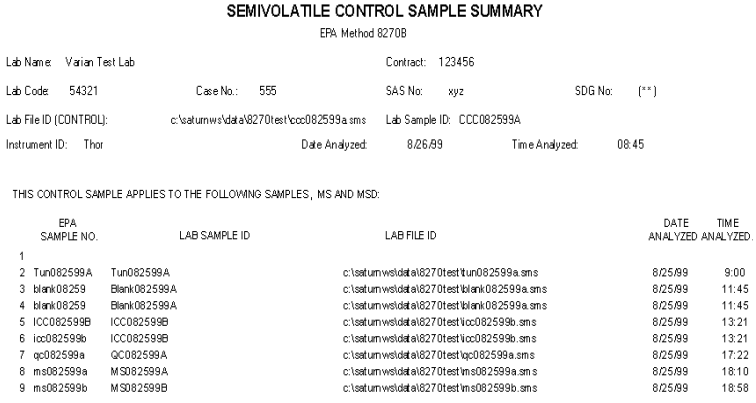
Description: Summarizes Area and RT of Internal Standards and optionally Surrogate compounds versus the Continuing Calibration Check (CCC) sample

Source files: Files in Sample List. The file of sample type "C" is used as the reference file.

Report Option controls: Include Surrogate compounds and RT window (in seconds) and Area precision (%).

Compound parameters: Surrogate

Control Sample



SEMIVOLATILE CONTROL SAMPLE SUMMARY

EPA Method 8270B

Lab Name: Varian Test Lab Contract: 123456

Lab Code: 54321 Case No.: 555 SAS No: xyz SDG No: (**)

Lab File ID (CONTROL): c:\saturnws\data\8270test\ccc082599a.sms Lab Sample ID: CCC082599A

Instrument ID: Thor Date Analyzed: 8/26/99 Time Analyzed: 08:45

THIS CONTROL SAMPLE APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1					
2	Tun082599A	Tun082599A	c:\saturnws\data\8270test\tun082599a.sms	8/25/99	9:00
3	blank08259	Blank082599A	c:\saturnws\data\8270test\blank082599a.sms	8/25/99	11:45
4	blank08259	Blank082599A	c:\saturnws\data\8270test\blank082599a.sms	8/25/99	11:45
5	ICC082599B	ICC082599B	c:\saturnws\data\8270test\icc082599b.sms	8/25/99	13:21
6	icc082599b	ICC082599B	c:\saturnws\data\8270test\icc082599b.sms	8/25/99	13:21
7	qc082599a	QC082599A	c:\saturnws\data\8270test\qc082599a.sms	8/25/99	17:22
8	ms082599a	MS082599A	c:\saturnws\data\8270test\ms082599a.sms	8/25/99	18:10
9	ms082599b	MS082599B	c:\saturnws\data\8270test\ms082599b.sms	8/25/99	18:58

Title: (SEMI)VOLATILE CONTROL SAMPLE SUMMARY

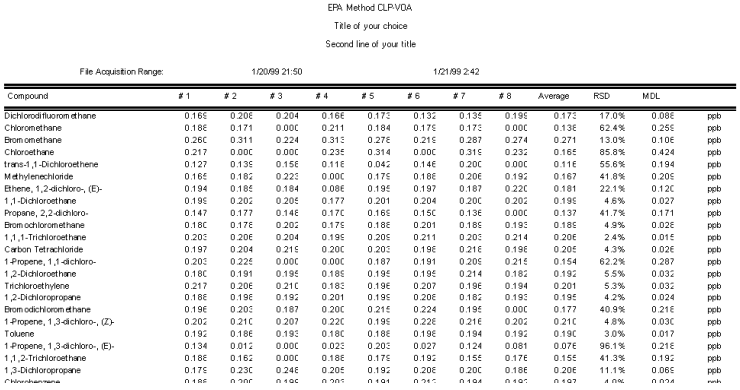
Description: Shows the Continuing Calibration Check sample in the header, followed by a summary of the sample list.

Source files: Files in the Sample List. The file of sample type "C" is used as the Continuing Calibration Check sample.

Report Option controls: None

Compound parameters: None

MDL&RSD



VOLATILE MDL AND RSD SUMMARY

EPA Method CLP-VOA

Title of your choice

Second line of your title

File Acquisition Range: 1/20/99 21:50 1/21/99 2:42

Compound	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	Average	RSD	MDL	
Dichlorodifluoromethane	0.16E	0.20E	0.20J	0.16E	0.17J	0.13J	0.13E	0.19E	0.17E	17.0%	0.08E	ppb
Chloromethane	0.18E	0.17E	0.00C	0.21E	0.18J	0.17E	0.17E	0.00C	0.13E	62.4%	0.25E	ppb
Bromomethane	0.26E	0.31E	0.22J	0.31E	0.27E	0.21E	0.28J	0.27J	0.27E	13.0%	0.10E	ppb
Chloroethane	0.21J	0.00C	0.00C	0.23E	0.31J	0.00C	0.31E	0.23J	0.16E	85.8%	0.42J	ppb
trans-1,1-Dichloroethene	0.12J	0.13E	0.15E	0.11E	0.04J	0.14E	0.20C	0.00C	0.11E	55.6%	0.19J	ppb
Methylenechloride	0.16E	0.18J	0.22E	0.00C	0.17E	0.18E	0.20E	0.19J	0.16J	41.8%	0.20E	ppb
Ethene, 1,2-dichloro-, (E)-	0.19J	0.18E	0.18J	0.08E	0.19E	0.19J	0.18J	0.22C	0.18J	22.1%	0.12C	ppb
1,1-Dichloroethane	0.19E	0.20J	0.20E	0.17J	0.20J	0.20J	0.20C	0.20J	0.19E	4.6%	0.02J	ppb
Propane, 2,2-dichloro-	0.14J	0.17J	0.14E	0.17C	0.16E	0.15C	0.13E	0.00C	0.13J	41.7%	0.17J	ppb
Bromochloromethane	0.18C	0.17E	0.20J	0.17E	0.18E	0.20J	0.18E	0.19E	0.18E	4.9%	0.02E	ppb
1,1,1-Trichloroethane	0.20J	0.20E	0.20J	0.19E	0.20E	0.21J	0.20C	0.21J	0.20E	2.4%	0.01E	ppb
Carbon Tetrachloride	0.19J	0.20J	0.21E	0.20C	0.20J	0.19E	0.21E	0.19E	0.20E	4.3%	0.02E	ppb
1-Propene, 1,1-dichloro-	0.20J	0.22E	0.00C	0.00C	0.18J	0.19J	0.20E	0.21E	0.15J	62.2%	0.28J	ppb
1,2-Dichloroethane	0.18C	0.19J	0.19E	0.18E	0.19E	0.19E	0.21J	0.18J	0.19J	5.5%	0.03J	ppb
Trichloroethylene	0.21J	0.20E	0.21C	0.18E	0.19E	0.20J	0.19E	0.19J	0.20J	5.3%	0.03J	ppb
1,2-Dichloropropane	0.18E	0.19E	0.19J	0.20J	0.19E	0.20E	0.18J	0.19E	0.19E	4.2%	0.02J	ppb
Bromodichloromethane	0.19E	0.20J	0.18J	0.20C	0.21E	0.22J	0.19E	0.00C	0.17J	40.9%	0.21E	ppb
1-Propene, 1,3-dichloro-, (Z)-	0.20J	0.21C	0.20J	0.22C	0.19E	0.22E	0.21E	0.20J	0.21C	4.8%	0.03C	ppb
Toluene	0.19J	0.18E	0.19E	0.18C	0.18E	0.19E	0.19J	0.19J	0.19C	3.0%	0.01J	ppb
1-Propene, 1,3-dichloro-, (E)-	0.13J	0.01J	0.00C	0.02E	0.20J	0.02J	0.12J	0.08J	0.07E	96.1%	0.21E	ppb
1,1,2-Trichloroethane	0.18E	0.16J	0.00C	0.18E	0.17E	0.19J	0.15E	0.17E	0.15E	41.3%	0.19J	ppb
1,3-Dichloropropane	0.17E	0.23C	0.24E	0.20E	0.19J	0.20E	0.20C	0.18E	0.20E	11.1%	0.06E	ppb
Chlorobenzene	0.18E	0.20C	0.19E	0.20J	0.19J	0.21C	0.19J	0.19C	0.19J	4.0%	0.02J	ppb

Title: (SEMI)VOLATILE MDL AND RSD SUMMARY

Description: Summarizes concentrations of target compounds by sample for up to 30 samples. Shows average, RSD and MDL (minimum detection level). This summarizes replicate analyses of samples of known composition, which are coded as QC samples (Sample Type "Q") in the sample list.

Source files: Sample list entries of sample type "Q"

Report Option controls: Include Surrogate Compounds

Compound parameters: Surrogate

NOTE: MDL is computed as Standard Deviation * Student t test value for 0.01 tail area probability and (replicates - 1) degrees of freedom.

MS/MSD

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

EPA Method CLP-VOA

Title of your choice

Second line of your title

Matrix Spike - EPA Sample No blank1 Level:(low/med): LOW

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	#	QC LIMITS REC
1,1-Dichloroethane	5.0	0.1	3.6	69		61 - 145
1,1,1-Trichloroethane	5.0	0.2	5.5	108		71 - 120
Benzene	5.0	0.2	4.5	86		76 - 127
Toluene	5.0	0.2	4.4	84		50 - 150
Chlorobenzene	5.0	0.2	5.0	97		75 - 130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	#	% RPD	#	QC LIMITS RPD	REC
1,1-Dichloroethane	5.0	6.4	126.0		58	*	14	61 - 145
1,1,1-Trichloroethane	5.0	6.3	122.8	*	13		14	71 - 120
Benzene	5.0	4.8	91.7		7		11	76 - 127
Toluene	5.0	4.8	92.3		10		11	50 - 150
Chlorobenzene	5.0	5.4	104.7		8		13	75 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 1 out of 5 outside limits

Spike Recovery: 1 out of 10 outside limits

Title: (WATER or SOIL)(SEMI)VOLATILE MATRIX SPIKE, MATRIX SPIKE DUPLICATE RECOVERY

Description: Reports recovery of spike and spike duplicate amounts of compounds from a sample matrix. Compounds are only included if the Compound parameters Matrix Spike Amount and Amount Duplicate are not zero.

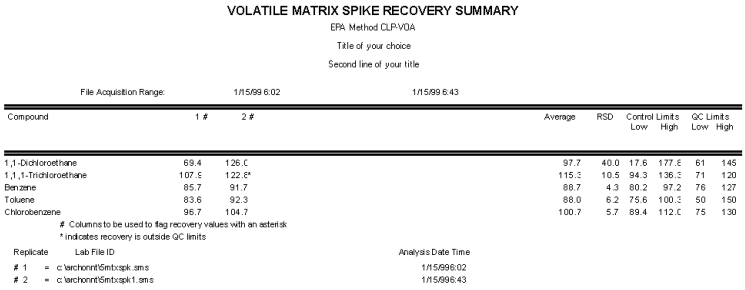
Source files: Sample list entries of sample type "S" (Sample Matrix), "1" (Matrix Spike) and "2" (Matrix Spike Duplicate). There should be only one sample of each of type present in the sample list.

Report Option controls: None

Compound parameters: Matrix Spike Amount, Amount Duplicate, RPD Limit, Quality Control Percent Recovery Limits Low & High

NOTE: Column label units are determined by the sample matrix and may not agree with the units reported by other quantitation reports, in which the units were determined by the Workstation method and quantitation.

MS Recovery



VOLATILE MATRIX SPIKE RECOVERY SUMMARY

EPA Method CLP-VOA

Title of your choice

Second line of your title

File Acquisition Range: 1/15/99 6:02 1/15/99 6:43

Compound	1 #	2 #	Average	RSD	Control Limits Low	Control Limits High	QC Limits Low	QC Limits High
1,1-Dichloroethane	69.4	126.0	97.7	40.0	17.6	177.8	61	145
1,1,1-Trichloroethane	107.9	122.8*	115.3	10.5	94.3	136.3	71	120
Benzene	85.7	91.7	88.7	4.3	80.2	97.2	76	127
Toluene	83.6	92.3	88.0	6.2	75.6	100.3	50	150
Chlorobenzene	96.7	104.7	100.7	5.7	89.4	112.0	75	130

Columns to be used to flag recovery values with an asterisk
* indicates recovery is outside QC limits

Replicate	Lab File ID	Analysis Date Time
# 1 =	c:\archonnt\5mtxspk.sms	1/15/996:02
# 2 =	c:\archonnt\5mtxspk1.sms	1/15/996:43

Title: (SEMI)VOLATILE MATRIX SPIKE RECOVERY SUMMARY

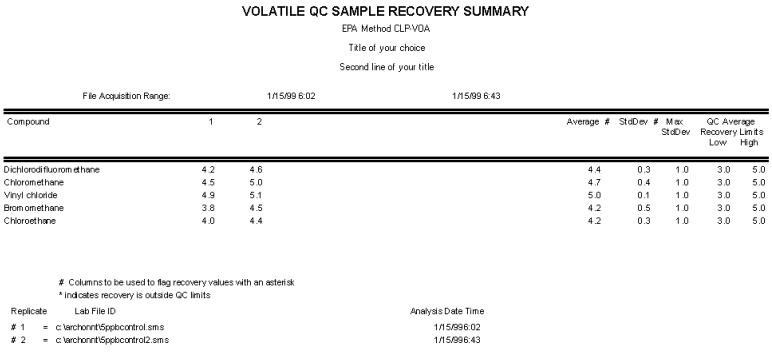
Description: Summarizes matrix spike recovery for up to 30 samples for each compound if the parameter Matrix Spike Amount is not zero. The average recovery, standard deviation, and computed control limits are also shown. Control limits are calculated as the average recovery +/- 2*Relative Standard Deviation.

Source files: Sample list entries of sample type "1" (Matrix Spike), maximum of one sample of sample type "S" (Sample Matrix).

Report Option controls: None

Compound parameters: Matrix Spike Amount, Quality Control Percent Recovery Limits Low & High

QC Recovery



VOLATILE QC SAMPLE RECOVERY SUMMARY

EPA Method CLP-VOA

Title of your choice

Second line of your title

File Acquisition Range: 1/15/99 6:02 1/15/99 6:43

Compound	1	2	Average	#	StdDev	# Max StdDev	QC Average Recovery Limits Low	QC Average Recovery Limits High
Dichlorodifluoromethane	4.2	4.6	4.4		0.3	1.0	3.0	5.0
Chloromethane	4.5	5.0	4.7		0.4	1.0	3.0	5.0
Vinyl chloride	4.9	5.1	5.0		0.1	1.0	3.0	5.0
Bromomethane	3.8	4.5	4.2		0.5	1.0	3.0	5.0
Chloroethane	4.0	4.4	4.2		0.3	1.0	3.0	5.0

Columns to be used to flag recovery values with an asterisk
* indicates recovery is outside QC limits

Replicate	Lab File ID	Analysis Date Time
# 1 =	c:\archonnt\5ppbcontrol.sms	1/15/996:02
# 2 =	c:\archonnt\5ppbcontrol2.sms	1/15/996:43

Title: (SEMI)VOLATILE QC SAMPLE RECOVERY SUMMARY

Description: Summarizes concentrations of target compounds for up to 30 samples, the average, standard deviation, maximum allowed standard deviation, and Quality Control Average Recovery Limits - Low and High. Average and standard deviation values that are out of limits are flagged.

Source files: Sample list entries of sample type "Q"

Report Option controls: Include Surrogate Compounds

Compound parameters: Quality Control Maximum SD, Average Recovery Limits- Low & High, Surrogate

Select Reports

Click to open the Select Reports form. This form configures reports to be printed for each sample type and configures the summary report set. It can print the selected report set for one file or for all files in the sample list. This form also configures the report set to be printed when a data file goes to this application for printing from a MS Workstation Toolbar button or from System Control through an AutoLink call during Sample List or Recalc List processing.

Use the two red arrows in the upper right corner of the page allow to select a different current file from the sample list. Right arrow moves down, left arrow moves up from the current "current sample" position in the sample list.

Apply sample correction factor to surrogates. True or False: This parameter is effective only for the samples with the "Compute" option set to "Sample Correction Factor". If true, all analyte concentrations are multiplied by the sample correction factor derived from sample table entries. If False, concentrations of compounds, which have the Surrogate box checked are not multiplied by the sample correction factor.

Close: Click to close the form.

Fields: Setup/Preview/Print Reports

Method Title: An editable string printed as a subtitle on most reports. It defaults to the EPA Method number currently in use.

Calibration: The full path name of the MS data file from which calibration data is read. The Initial Calibration Report uses data from this file.

CCC: The first sample list entry with sample type "C". This is the continuing calibration check/system performance check sample.

Blank: The first sample list entry with sample type "B". This should be a method blank. The file is reported as the Method Blank on the Method Blank Summary Report. Compounds that are detected in this file are tagged with a "B" on all quantitation report concentration fields, if the "Include CLP like letter codes" option is selected on the Report Options form.

Current File: This is the file selected on the Main form before this form is opened. It is the file which is reported by all reports which can be previewed using the buttons on this form, except for initial calibration and summary reports.

Matrix: This is the first sample list entry with sample type "S". It is the file that is reported as the Matrix in the Matrix Spike/Matrix Spike Duplicate report. It is also used by the Matrix Spike Recovery report. The concentrations of compounds in this file are subtracted from the corresponding compound concentrations in the Matrix Spike files (Sample Type 1 and 2) when Matrix Spike Recovery reports are computed.

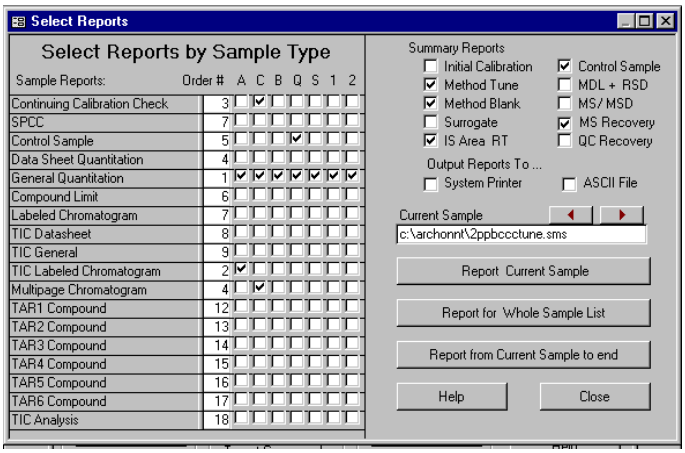
Matrix Spike: This is the first sample table entry with sample type "1", and is reported as the matrix spike sample in the Matrix Spike/Matrix Spike Duplicate report.

MSD: The file that is reported as the Matrix Spike Duplicate in the Matrix Spike/Matrix Spike Duplicate report is the first file in the sample table with the sample type coded as "2".

Select Reports

Use Select Reports to configure reporting profiles for each sample type. When a file is reported, EnviroPro checks the Sample List to determine the sample type. All reports of this sample type are then generated in sequence order. The sequence order and selected reports by type are set in the left side of this form.

Use this form to generate a sequence of reports based on the EnviroPro sample list and selected "Current File". Summary reports are based on all files currently in the sample list and their sample types. They are produced at the end of the reporting sequence. Summary reports are not produced when an individual file report set is generated by AutoLink call, MS Workstation Toolbar command, or the Report Current Sample button.



Summary Reports Check Boxes

Select the types of summary reports that are printed in the summary report.

Initial Calibration: Check to generate the "Initial Calibration Data" report.

Method Tune: Check to generate the "Instrument Performance Check Summary" report.

Method Blank: Check to generate the "Method Blank Summary" report.

Surrogate: Check to generate the "Surrogate Recovery" report.

IS Amount & RT: Check to generate the "Internal Standard Area and RT Summary" report.

Control Sample: Check to generate the "Control Sample Summary" report.

MDL & RSD: Check to generate the "MDL and RSD Summary" report.

MS/MSD: Check to generate the "Matrix Spike/Matrix Spike Duplicate Recovery" report.

MS Recovery: Check to generate the "Matrix Spike Recovery" report.

QC Recovery: Check to generate the "QC Sample Recovery" report.

Output Reports: Check Boxes

System Printer: Check to print reports to the system default printer. Select the system default printer on the Start-Settings-Printer menu. The printer must support graphics and True Type fonts.

ASCII File: Check to have an ASCII file written to disk in the same directory as the data file. The file name is the same as the data file being processed with an extension that reflects the type of report, as shown. Summary reports are stored under the Initial Calibration file name.

1A1 CLP Data Sheet

1A2 General Quantitation Report

1A3 Compound Limit Report

1A4 Labeled Chromatogram Report

1E1 CLP TIC Report

1E2 General TIC Report

1E3 TIC Data Sheet Report

2A1 Surrogate Recovery Summary

3A1 Matrix Spike/Matrix Spike Duplicate Recovery

3A2 Matrix Spike Recovery Summary

3B1 QC Recovery Summary

4A1 Method Blank Summary

4A2 Control Sample Summary

5A1 Instrument Performance Check

5B1 Instrument Performance Check Summary Report

6A1 Initial Calibration Data Report

7A1 Continuing Calibration Check (CCC)

7A2 Continuing Calibration Check (SPCC)

7A3 Laboratory Control Sample Report

8A1 Internal Standard Area & RT Summary

Buttons: Select Reports

Report for Whole Sample List: Click to process the EnviroPro sample list file by file. For each file, the reports selected for the file Sample Type are produced. When completed, the selected summary reports are produced.

Report Current Sample: Click to produce the reports selected for the sample type of the current file. No summary reports are generated.

Report from Current Sample to End: Click to produce the selected reports for the sample types of each file from the current file to the end of the sample list. The selected summary reports are generated.

Two Arrows to Allow Current Sample Selection: The two red arrows in the upper right corner of the page allow the selection of a different "current file" from the sample list. Right arrow moves down, left arrow moves up from the current "current sample" position in the sample list.

Close: Click to close the form.

Sample Reports Fields

Sample Reports: The name of one of the reports that may be printed when a data file is printed.

Order #: The order in which per sample reports are generated and printed. When a Target Compound report is printed, one page for each reportable compound in the sample is printed consecutively before another report type is processed.

- A: Generate the report named in the row for each sample list entry processed with a sample type of "A" (Analysis).
- C: Generate the report named in the row for each sample list entry processed with a sample type of "C" (Continuing Calibration Check).
- B: Generate the report named in the row for each sample list entry processed with a sample type of "B" (Method Blank).
- Q: Generate the report named in the row for each sample list entry processed with a sample type of "Q" (Quality Control).
- S: Generate the report named in the row for each sample list entry processed with a sample type of "S" (Sample Matrix).
- 1: Generate the report named in the row for each sample list entry processed with a sample type of "1" (Matrix Spike).
- 2: Generate the report named in the row for each sample list entry.

Automation

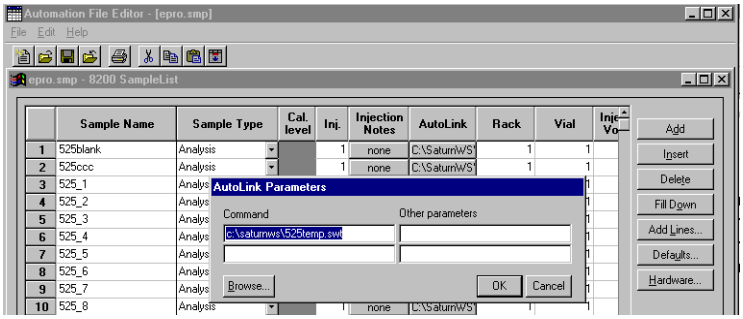
Before online reporting occurs, the reporting template (*.swt) must be completed. The Laboratory information, Method setup, Compound Information, Sample List and Reporting specifications must be entered. The name of the completed EnviroPro template (*.swt) is used in the Auto Link field of the Sample List of the core MS software.

EnviroPro reports may be generated immediately after the file acquisition is completed. If this is the desired report generation format, the sample list used in system control to execute data acquisition and the Sample List in EnviroPro must be coordinated.

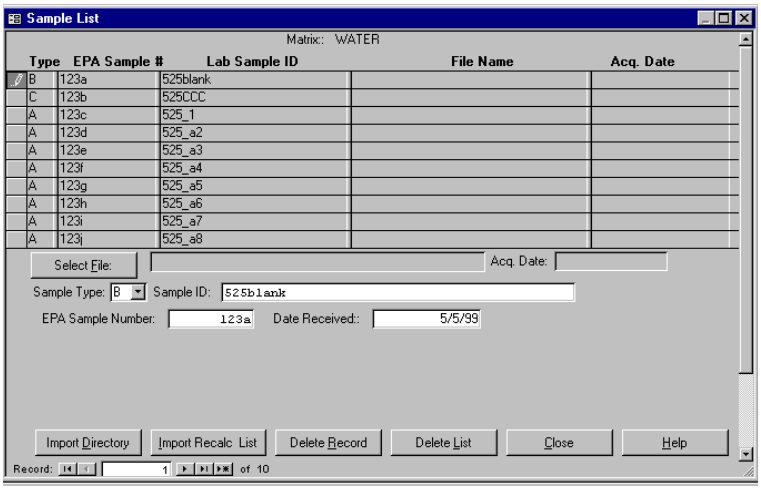
System Control Sample List

The Sample List is the of injections to be executed by System Control.

Complete the Sample List for data acquisition and specify unique sample names. In the Auto Link field enter the name of the EnviroPro template to use for reporting after the acquisition is completed.



Sample List in EnviroPro

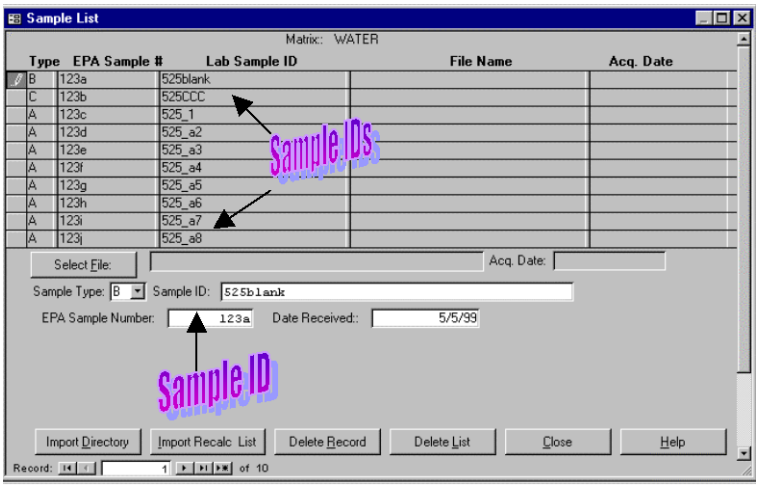


The sample list in the *.swt method (used in the Auto Link) must be completed to generate complete reports. The "Sample Name" specified in the automation sample list file must be entered into the "Sample ID" field (will be displayed in the "Lab Sample ID" field) in the EnviroPro sample list. This is the link between the data files to be acquired and the reporting specifications for them. The other sample parameters (EPA sample number, date received on the form shown above) also must be entered for each sample.

Sample ID

This field identifies sample parameters during the AutoLink invocation of EnviroPro reports during System Control processing of Sample Lists. When a file is sent to EnviroPro by a MS Workstation Toolbar print button or a System Control AutoLink call, EnviroPro searches for a Sample ID that matches the data file Sample Name, and, if found, uses that sample list entry. If no match is found, parameters from the first sample entry in the list are used to create a new entry.

As long as each Sample ID is unique in the sample list, and only one file with each Sample ID is processed, the EnviroPro sample list may be set up before data files are acquired. EnviroPro generates the reports immediately after data acquisition. If a Sample Name is duplicated, EnviroPro overwrite the Sample List Entry of the first Sample ID found which matches the file Sample Name.


Sample List
Matrix: WATER
Type
EPA Sample #
Lab Sample ID
File Name
Acq. Date
B 123a 525blank
C 123b 525CCC
A 123c 525_1
A 123d 525_a2
A 123e 525_a3
A 123f 525_a4
A 123g 525_a5
A 123h 525_a6
A 123i 525_a7
A 123j 525_a8
Sample IDs
Select File:
Acq. Date:
Sample Type: B
Sample ID: 525blank
EPA Sample Number: 123a
Date Received:: 5/5/99
Sample ID
Import Directory
Import Recalc List
Delete Record
Delete List
Close
Help
Record: 1 of 10

Appendix A

EPA Methods

The following is a lists of EPA methods.

524.2 Revision 3, 1989

"Measurement of Purgeable Organic Compounds in Water by Capillary Column Chromatography/Mass Spectrometry"

Method Section & Title	EnviroPro Report
9.2.2 Initial Calibration	Tune Reports
9.2.4 Initial Calibration	Chromatogram Report
9.2.6 Initial Calibration	Initial Calibration Report
9.3.1 Continuing Calibration Check	Tune Reports
9.3.3 Continuing Calibration Check	Chromatogram Report
9.3.4 Continuing Calibration Check	Internal Standard Area and RT Summary
9.3.5 Continuing Calibration Check	Continuing Calibration Report
10.3.2 – 10.3.3 Quality Control	MS Recovery, MDL and RSD Summary Reports
12 Calculations	Quantitation Reports

Sample Correction factor = 1

624 July 1982

"Purgeables"

Method Section and Title	EnviroPro Report
7.4.3 Calibration	Initial Calibration Report
8.2.3 Quality Control	Matrix Spike Recovery
8.3.1 Quality Control	Surrogate Recovery
10.3 Daily GC/MS Performance Tests	Tune Reports
13. Calculations	Quantitation Reports
14 Method Performance	MDL and RSD Summary

Sample Correction factor =1

NOTE: 624 Method accuracy is defined as R+/-s. Method Accuracy is reported in the Matrix Spike Recovery report as R+/- 2s.

8240B Revision 2, September 1994

"Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)"

Method Section & Title	EnviroPro Report
7.2.7-7.2.9 Initial Calibration	Initial Calibration Report
7.3.1 Daily GC/MS Calibration	Tune Reports
7.3.3 –7.3.4 Daily GC/MS Calibration	SPCC Report
7.3.5 Daily GC/MS Calibration	Internal Standard Area & RT Summary
7.4.1.4 GC/MS analysis	Tune Reports
7.5 Data Interpretation	Quantitation and Compound Graphical Reports
8.3 Quality Control	Graphical Compound Reports (TAR1-TAR6)
8.4.1 Quality Control	Tune Reports
8.5.4 Quality Control	QC Recovery Report
8.6-8.8 Quality Control	MS Recovery Report
8.9 Quality Control	Surrogate Recovery

Relationship of 8240 method terminology and EnviroPro Sample List form and Report Headers:

8240	Sample List form	Report Header
V_t = Volume of total extract(μL)	Extract Vol	Soil Extract Volume(μL)
V_o = volume of water purged, taking into consideration any dilutions made	Sample wt/vol, Units : mL	Sample wt/vol (mL)
V_i= Volume of extract added for purging(μL)	Injection Vol	Soil Aliquot Volume(μL)
D = % dry weight/100 or 1 for wet weight basis	% Dry Weight	% Dry Weight
W_s = Weight of sample extracted or purged(g)	Sample wt/vol, Units g	Sample wt/vol (g)

Water:

Sample Correction factor = 1/(Sample wt/vol)

Soil:

Sample Correction factor = (Extract Vol))/((Injection Vol)(Sample wt/vol)(Dry Weight fraction))

8260A Revision 2, September 1994

"Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Column Technique"

Method Section & Title	EnviroPro Report
7.3 Initial Calibration	Initial Calibration Report
7.4.1 Daily GC/MS Calibration	Tune Reports
7.4.2 –7.4.4 Daily GC/MS Calibration	SPCC Report
7.4.5 Daily GC/MS Calibration	Internal Standard Area & RT Summary
7.6 Data Interpretation	Quantitation and Compound Graphical Reports
8.3.4 Quality Control	QC Recovery

Relationship between 8260 method terminology and EnviroPro Sample List form and Report Headers:

8260	Sample List form	Report Header
V_t = Volume of total extract(μL)	Extract Vol	Soil Extract Volume(μL)
V_o = volume of water purged, taking into consideration any dilutions made	Sample wt/vol , Units : mL	Sample wt/vol (mL)
V_i= Volume of extract added for purging (μL)	Injection Vol	Soil Aliquot Volume(μL)
D = % dry weight/100 or 1 for wet weight basis	% Dry Weight	% Dry Weight
W_s = Weight of sample extracted or purged(g)	Sample wt/vol, Units g	Sample wt/vol (g)

Water:

Sample Correction factor = 1/(Sample wt/vol)

Soil:

Sample Correction factor = (Extract Vol))/((Injection Vol)(Sample wt/vol)(Dry Weight fraction))

CLP- VOA

"USEPA CONTRACT LABORATORY PROGRAM, STATEMENT OF WORK FOR ORGANICS ANALYSIS", IFB DU0043R1, ATTACHMENT A, GV/MS ANALYSIS OF VOLATILES

Method Section & Title	EnviroPro Report
6.4.4 – 6.4.5 Instrument Operating Conditions	Tune Reports
7 Calibration	Initial Calibration Report
7.4.7 Calibration	Continuing Calibration Report
7.4.8	Internal Standard Area & RT Summary
10 Quantitative Analysis	Quantitation and Compound Graphical Reports
10.8 Quantitative Analysis	Surrogate Recovery
10.9 Quantitative Analysis	MS/MSD Report

Relationship between CLP-VOA method terminology and EnviroPro Sample List form and Report Headers:

CLP-VOA	Sample List form	Report Header
V_t = Total Volume of methanol extract(mL)	Extract Vol (enter in μL)	Soil Extract Volume(μL)
V_o = volume of water purged, in mL	Sample wt/vol , Units : mL	Sample wt/vol (mL)
V_a= Volume of the aliquot of methanol extract added to reagent water for purging(μL)	Injection Vol (enter in μL)	Soil Aliquot Volume(μL)
% moisture	% Moisture	% Moisture
Df = Dilution Factor	Dilution Factor	Dilution Factor
W_s = Weight of soil extracted (g)	Sample wt/vol, Units g	Sample wt/vol (g)

Water:

Sample Correction factor = (Dilution Factor)/ (Sample wt/vol)

Low Soil:

Sample Correction factor = 1/ ((Sample wt/vol) (0.01*(100 -% Moisture)))

Medium Soil (*CAUTION- enter Extract Vol in μL)*

Sample Correction factor = (Extract Vol) (Dilution Factor) /

((Injection Vol) (Sample wt/vol) (0.01*(100-% Moisture)))

NOTE: EnviroPro reports are not designed for compliance with submission requirements for the EPA Contract Laboratory Program.

525.1 Revision 2.2, May 1991

"Determination of Organic Compounds in Drinking Water by Liquid-Solid Extraction and Capillary Column Gas Chromatography/Mass Spectrometry"

Method Section & Title	EnviroPro Report
9.2.2 Initial Calibration	Tune Reports
9.2.4 Initial Calibration	Graphical Compound Reports
9.2.6.1 Initial Calibration	Initial Calibration Report
9.3 .1 Continuing Calibration Check	Tune Reports
9.3.3 Continuing Calibration Check	Graphical Compound Reports
9.3.4 Continuing Calibration Check	Internal Standard Area and RT Summary
9.3.5 Continuing Calibration Check	Continuing Calibration Report
10.3.2 – 10.3.3, 10.7 Quality Control	MS Recovery, MDL and RSD Summary Reports
12 Calculations	Quantitation Reports

Relationship between 525.1 method terminology and EnviroPro Sample List form and Report Headers:

525.1	Sample List form	Report Header
V = original water sample volume in L	Sample wt/vol , Units : L	Sample wt/vol (L)

Water:

Sample Correction factor = 1/ (Sample wt/vol)

625 July 1982

"Base/Neutrals and Acids"

Method Section and title	EnviroPro Report
7.3.2 Calibration	Initial Calibration Report
8.2.3 Quality Control	Matrix Spike Recovery
8.3.1 Quality Control	Surrogate Recovery
12.3 Daily GC/MS Performance Tests	Tune Reports
15.2. Calculations	Quantitation Reports
16 Method Performance	MDL and RSD Summary

Relationship between 625 method terminology and EnviroPro Sample List form and Report Headers:

625	Sample List form	Report Header
V_o = volume of water extracted (L)	Sample wt/vol, Units: L	Sample wt/vol (L)

Water:

Sample Correction factor = 1/(Sample wt/vol)

NOTE: 625 Method accuracy is defined as R+/-s. Method Accuracy is reported in the Matrix Spike Recovery report as R+/- 2s.

8250A Revision 1, September 1994

"Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)"

Method Section & Title	EnviroPro Report
7.3 Initial Calibration	Initial Calibration Report
7.4.1 Daily GC/MS Calibration	Tune Reports
7.4.2 –7.4.4 Daily GC/MS Calibration	SPCC Report
7.4.5 Daily GC/MS Calibration	Internal Standard Area & RT Summary
7.6 Data Interpretation	Quantitation and Compound Graphical Reports
8.5 Quality Control	QC Recovery
8.6-8.8 Quality Control	MS Recovery
8.9 Quality Control	Surrogate Recovery Report

Relationship between 8250 method terminology and EnviroPro Sample List form and Report Headers:

8250	Sample List form	Report Header
V_{ex} = extract volume (mL)	Extract Vol	Concentrated Extract Volume
V_o = volume of liquid extracted, (L)	Sample wt/vol, Units : L	Sample wt/vol
W_s = Sample Weight(kg)	Sample wt/vol, Units kg	Sample wt/vol

Sample Correction factor = (Extract Vol)/(Sample wt/vol)

8270 Revision 2, September, 1994

"Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS): Capillary Column Technique"

Method Section & Title	EnviroPro Report
7.3 Initial Calibration	Initial Calibration Report
7.4.1 Daily GC/MS Calibration	Tune Reports
7.4.2 –7.4.4 Daily GC/MS Calibration	SPCC Report
7.4.5 Daily GC/MS Calibration	Internal Standard Area & RT Summary
7.6 Data Interpretation	Quantitation and Compound Graphical Reports
8.5 Quality Control	QC Recovery
8.6-8.8 Quality Control	MS Recovery
8.9 Quality Control	Surrogate Recovery Report

Relationship between 8270 method terminology and EnviroPro Sample List form and Report Headers:

8270	Sample List form	Report Header
V_{ex} = extract volume (mL)	Extract Vol	Concentrated Extract Volume
V_o = volume of liquid extracted, (L)	Sample wt/vol , Units : L	Sample wt/vol
W_s = Sample Weight(kg)	Sample wt/vol, Units kg	Sample wt/vol

Sample Correction factor = (Extract Vol)/(Sample wt/vol)

CLP-SV

"USEPA CONTRACT LABORATORY PROGRAM, STATEMENT OF WORK FOR ORGANICS ANALYSIS", IFB DU0043R1, ATTACHMENT A, GC/MS ANALYSIS OF SEMIVOLATILES

Method Section & Title	EnviroPro Report
4.3.3 Instrument Operating Conditions	Tune Reports
5.4-5.6 Calibration	Initial Calibration Report
5.7 Calibration	Continuing Calibration Report
5.8 & 8.1 Calibration	Internal Standard Area & RT Summary
8.2 Quantitative Analysis	Quantitation and Compound Graphical Reports
8.5 Quantitative Analysis	Surrogate Recovery
8.6 Quantitative Analysis	MS/MSD Report

Relationship between CLP-SV method terminology and EnviroPro Sample List form and Report Headers:

CLP-SV	Sample List Form	Report Header
V_t = Total Volume of methanol extract (μL)	Extract Vol	Concentrated Extract Volume (μL)
V_o = volume of water extracted in mL	Sample wt/vol , Units : mL	Sample wt/vol (mL)
V_i= Volume of extract injected (μL)	Injection Vol	Injection Volume (μL)
% moisture	% Moisture	% Moisture
Df = Dilution Factor	Dilution Factor	Dilution Factor
W_s = Weight of soil extracted (g)	Sample wt/vol, Units g	Sample wt/vol (g)

Water:

Sample Correction factor = ((Extract Vol) (Dilution Factor)) / ((Sample wt/vol) (Injection Vol))

Soil

Sample Correction factor = (Extract Vol) (Dilution Factor) /

((Injection Vol) (Sample wt/vol) (0.01*(100-% Moisture)))

NOTE: EnviroPro reports are not designed for compliance with submission requirements for the EPA Contract Laboratory Program.