California
Underground Storage
Tank Program

AB2886 Electronic Reporting

August 13, 2001

Anne M. Happel, Ph.D.
EcoInteractive, Inc
ahappel@ecointeractive.com

What Type of Data Must Be Electronically Reported?

AB2886 Electronic Data Deliverables

Begins September 1, 2001

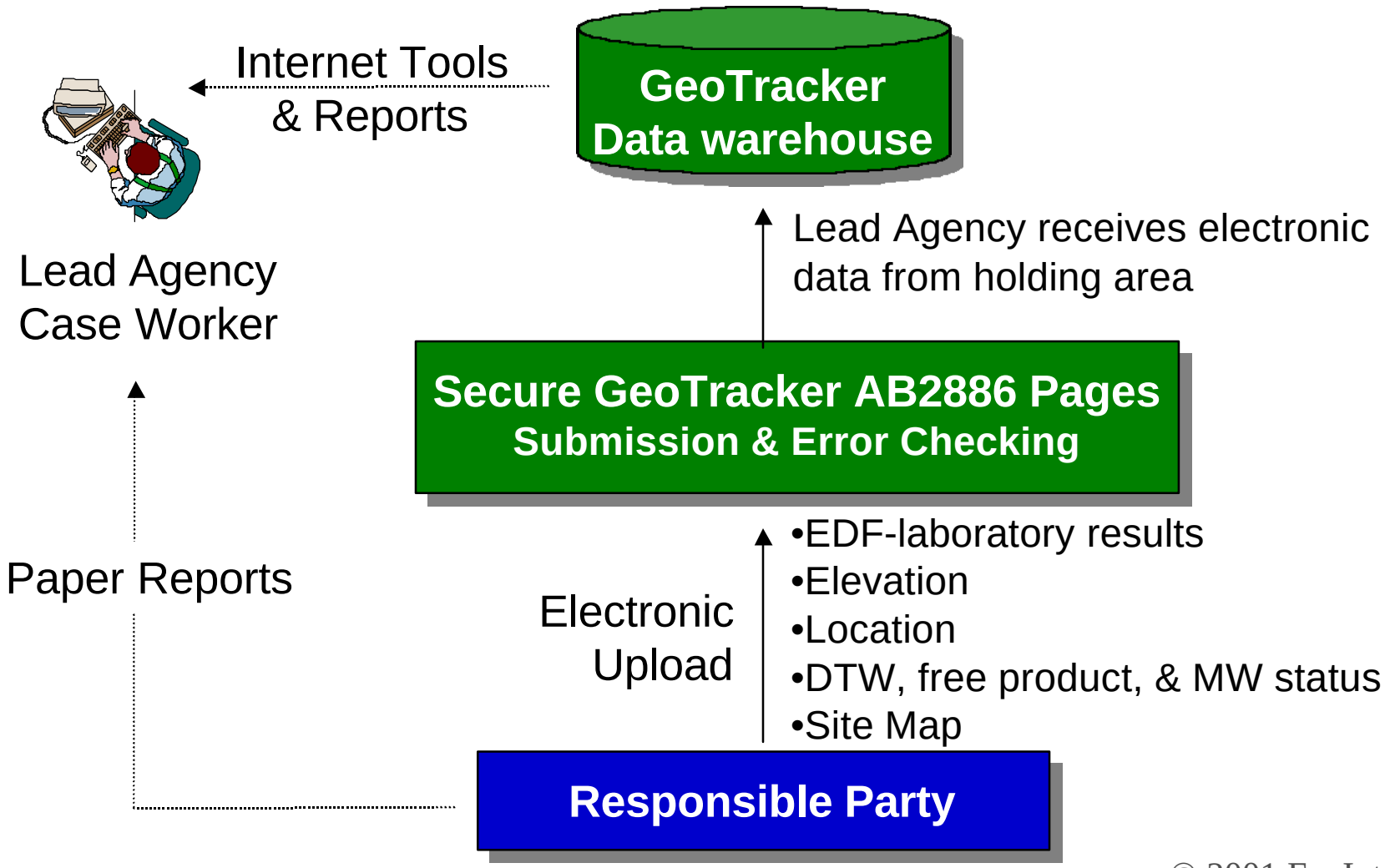
- Laboratory Soil and Groundwater Sample Results

Begins January 1, 2002

- Sample Locations (latitude/longitude)
- Monitoring Well Elevation Data
- Groundwater Well Data (DTW, free product & status)
- Site Map

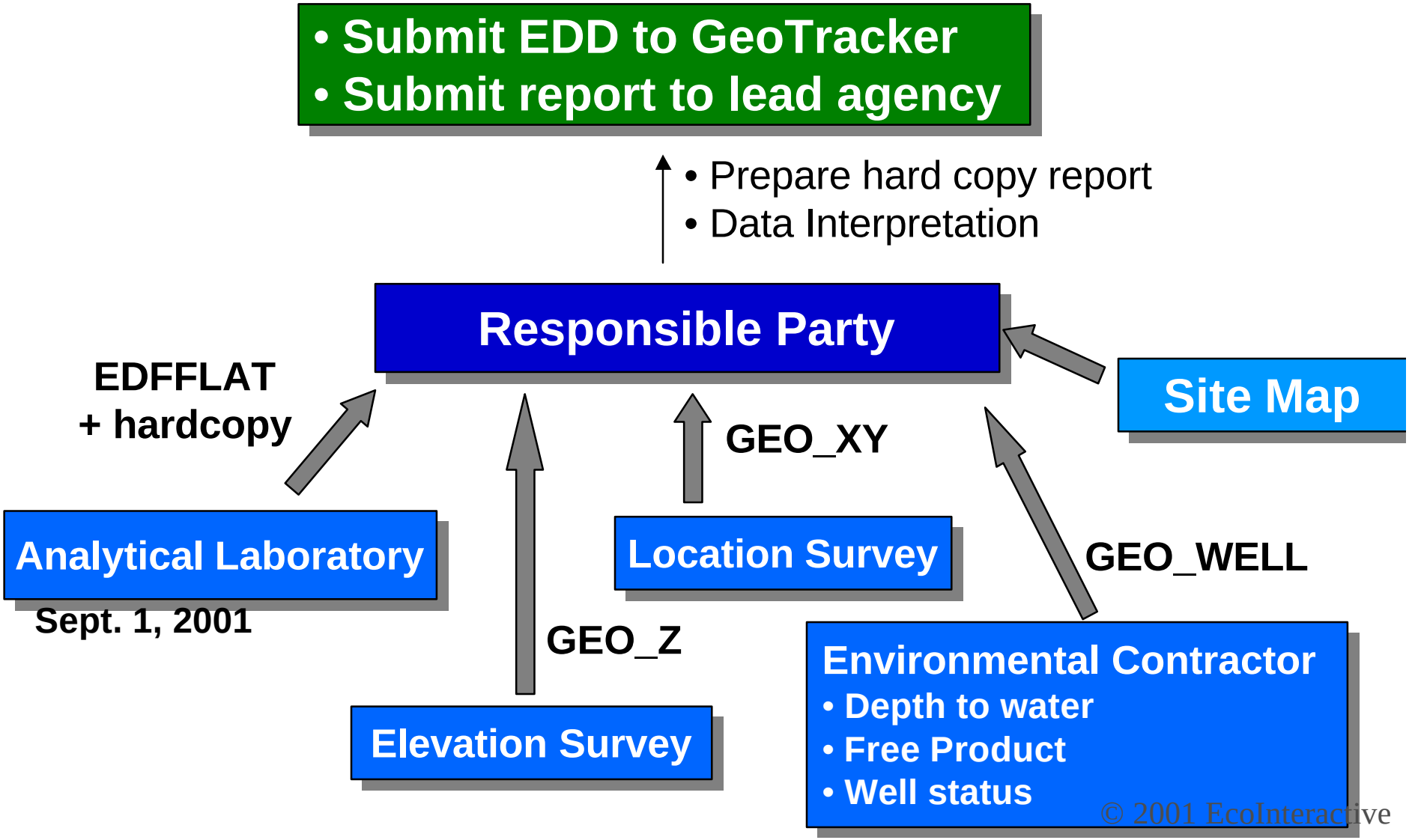
© 2001 EcoInteractive

AB2886 Data Flow



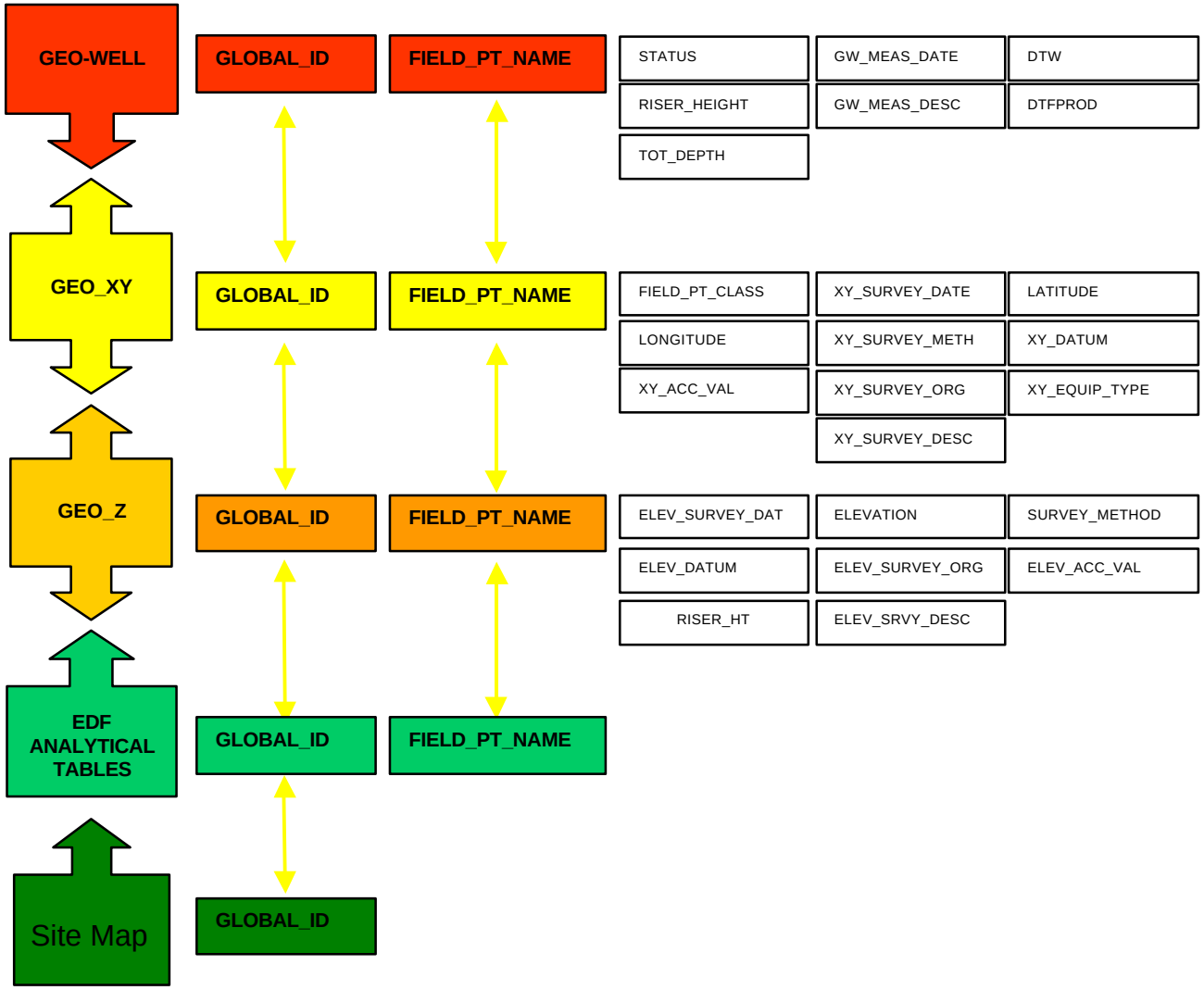
© 2001 EcoInteractive

Potential RP Data Flow



© 2001 EcoInteractive

GeoTracker EDD Relational Files



Electronic Reporting of Analytical Laboratory Data

Begins September 1, 2001

What Laboratory Data Is Required?

- Soil
- Groundwater

For all UST samples

Laboratory Sample Results- What is EDF?

- A way to transfer laboratory and field information electronically
- The electronic version of a laboratory report
- Includes:
  - Chain-of custody information
  - Laboratory results
  - Quality assurance information

© 2001 EcoInteractive

Examples of EDF Contents

Analytical Results

- Laboratory Ids
- Analysis Date
- Preparation batch
- Results

QA/QC data

- Control Limits
- Surrogates
- Blanks
- Spikes

Chain-of-Custody Data

- Global ID
- Field Point Name
- Sample Ids
- Collection Date/Time
- Preservation

How Laboratories Produce and Reporting EDF Data

- Laboratory exports data from their LIMS
- Data is converted into EDF1.2i upload format with
  - Laboratory LIMS software tools
  - COELT software provided by EDF Program
- EDD is verified with error checking tools
  - GeoTracker web tool
  - EDCC software provided by EDF Program
- Electronic EDF data is transferred to client with hard copy report

© 2001 EcoInteractive

EDCC Error Checking Program

Format Errors

- Fields submitted in incorrect order
- Incorrect valid values

Logic Errors, such as…

- Analysis date prior to sample date
- Test without results

Content Errors

- Detection limits greater than reporting limits

Available Support For EDF

- Guidelines & Restrictions- Documentation
- Laboratory Training- Ten (3-day) sessions state-wide
- Desktop Software Tools:
  - COELT- COE Loading Tool
  - EDCC- Electronic Deliverable Consistency Checker (also GeoTracker web version)
- Help Desk Support 1-800-506-3887

© 2001 EcoInteractive

Electronic Reporting of LUST Sampling Locations

Begins January 1, 2002

GeoTracker Help

1 800 506 9118

geotrackerhelp@ecointeractive.com

Location Data

- Requires Survey Quality Locations
- Sub-meter accuracy-

  Latitude/Longitude (decimal degrees, HPGN NAD83)
- State Business and Professions Code Sec. 8726 8726 (a, b, f, m), Sec. 6731.1 (a, b, c)
- Requires submission of metadata

  Survey XY_Z Restriction & Guidelines

© 2001 EcoInteractive

Location Survey Methods

- Use of survey quality GPS technology
  - Do not use Mapping grade 1 to 5 meter GPS units
  - Do not use recreational/navigational GPS units
- Classical Survey Techniques combined with HPGN reference points
  - Triangulation
  - Traverse (Federal Geodetic Control Subcom. 3rd order)
  - Trilateration
- Classical Survey Techniques combined with GPS

Electronic Reporting of Elevation Data

Begins January 1, 2002

Elevation Data Potential Issues

- Requires
  - Measured elevation to top of well casing
  - Measure riser height (for new surveys)
- Use of licensed surveyor required
- Requires submission of metadata
  - Survey XY_Z Restriction & Guidelines

© 2001 EcoInteractive

Elevation Survey Methods

- Digital differential leveling
- Differential leveling (NON-digital)
- Differential leveling using HPGN GPS vertical reference points

  $\geq$ 3 surrounding reference points

How to Find a Surveyor

http://www.dca.ca.gov/pels/l_lookup.htm

Get Ready For Electronic Reporting

- Verify that your analytical lab can produce EDF
  - Review/modify your laboratory contracts
  - Test your lab's EDF format by using the desktop EDCC application from SWRCB AB2886 web site
- Plan ahead for location and elevation data
- Check GeoTracker "AB2886" link for new documents and information

© 2001 EcoInteractive

http://geotracker.swrcb.ca.gov/

© 2001 EcoInteractive

GeoTracker Electronic Reporting Tools

Security, Error-checking, Internet EDD Submission

Security Identification

- Responsible parties will need to obtain a password to submit data
- RPs can request a password on-line

To access or modify your sites, please enter your username and password below:

Username: **Password:** Login

If you do not have a username and password, request one using our Password Request page.

© 2001 EcoInteractive

On-line Password Request

AB2886 Electronic Delivery

Main Menu | Request Facility | View Associated Facilities

Requesting a Password
Step 1: Submit Contact Information

User Information:
User Type: Username: Password:

Contact Infomation:
Name:
Address:
City: State: Zip:
Phone Number: (XXX-XXX-XXXX) Email Address:

Comments/Questions:

Submit Request

AB2886 Electronic Delivery

Main Menu | Request Facility | View Associated Facilities

- User name required.
- Password required.
- Name required.
- Street address required.
- City required.
- State required.
- Zip code required.
- User type required.
- Phone number not in required format (###-###-####).
- Proper email address.

Requesting a Password
Step 1: Submit Contact Information

User Information:
User Type: Username: Password:

Contact Infomation:
Name:

Permission for Consultants to Submit Data

RP or authorized consultant

Obtains Password

↓

Request Facilities

↓

Assigns Consultants

Site 1	Site 2	Site 3
• Consultant 1 • Consultant 2 • Consultant 3	• Consultant 1 • Consultant 2 • Consultant 5	• Consultant 1 • Consultant 4 • Consultant 5

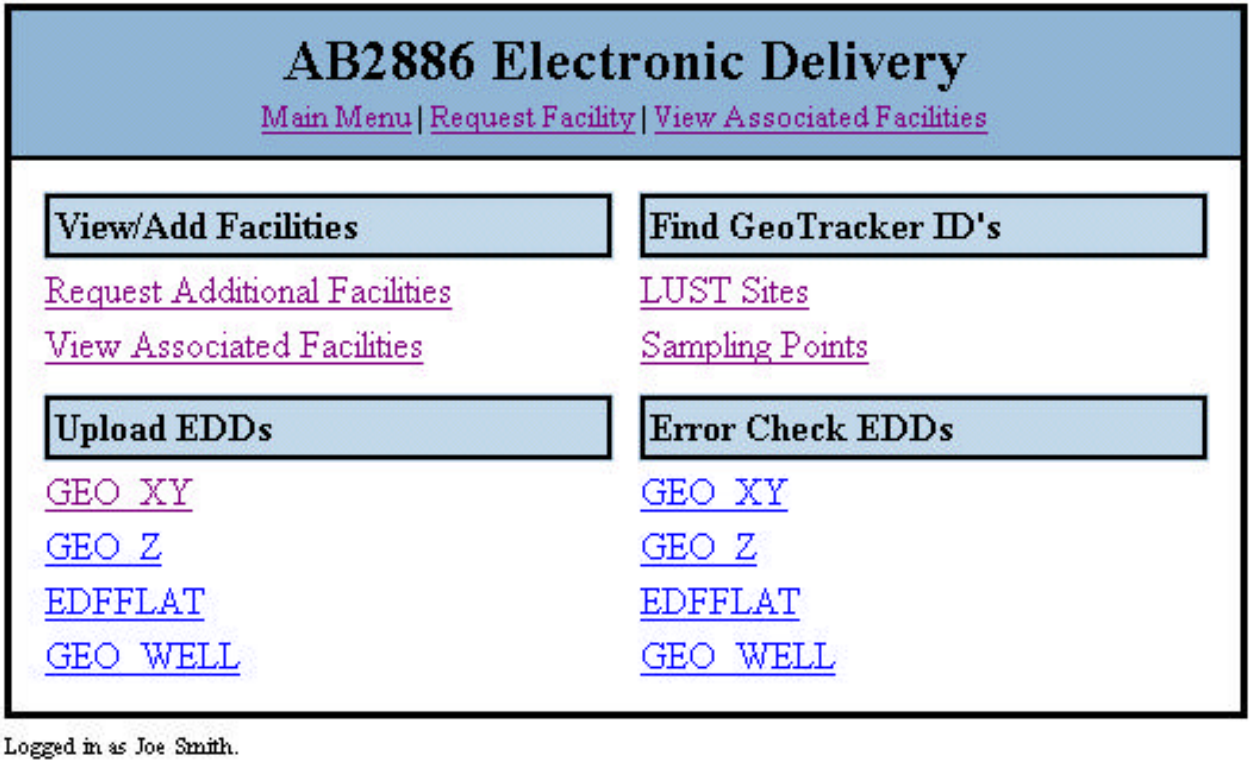
Responsible Party Electronic Reporting Interface

1. Request/view LUST sites associated with RP

2. Find GeoTracker LUST site and well Ids

- Use error checking tools & get error reports

- Upload/submit EDDs



© 2001 EcoInteractive

RPs Request Permission to Submit EDD for Sites

AB2886 Electronic Delivery

Main Menu | Request Facility | View Associated Facilities

Search for a Facility Below:

Facility Name

chevron

Street Name

City

Search For Facility

Logged in as Joe Smith.

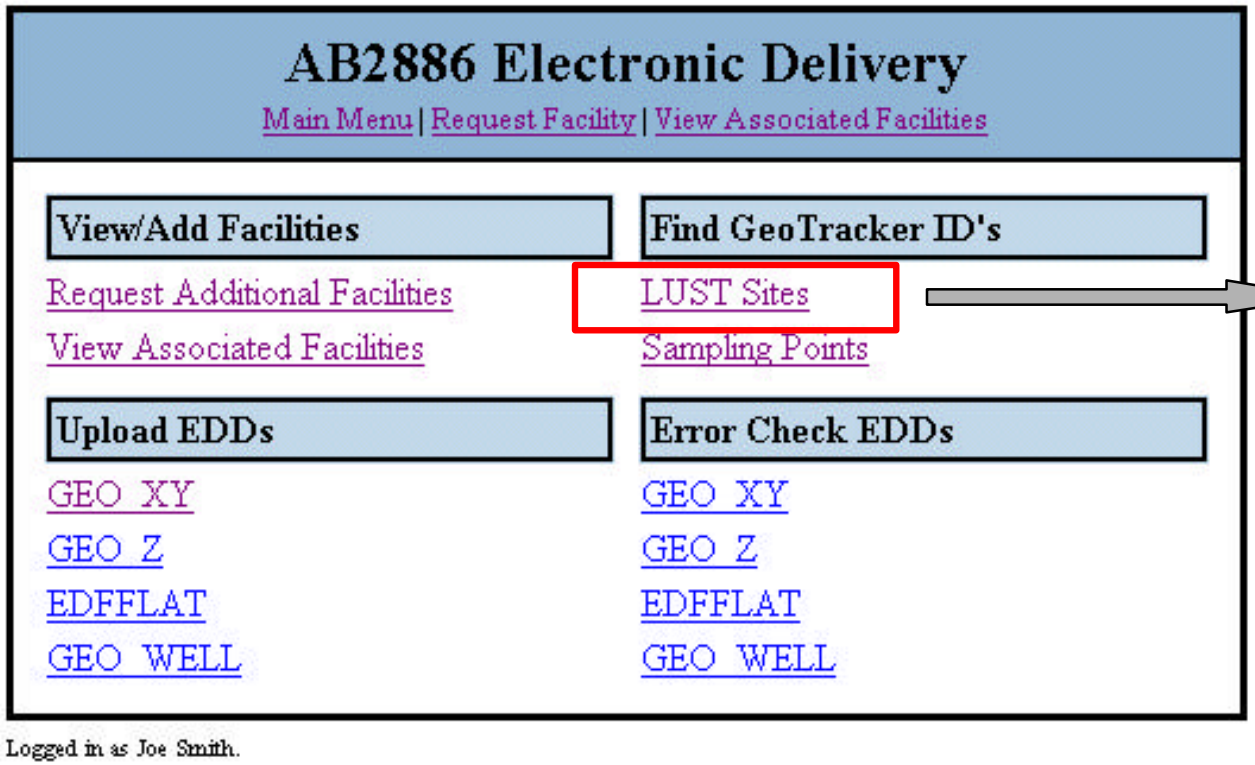
AB2886 Electronic Delivery

Main Menu | Request Facility | View Associated Facilities

Select the Facilities You Wish to Request:

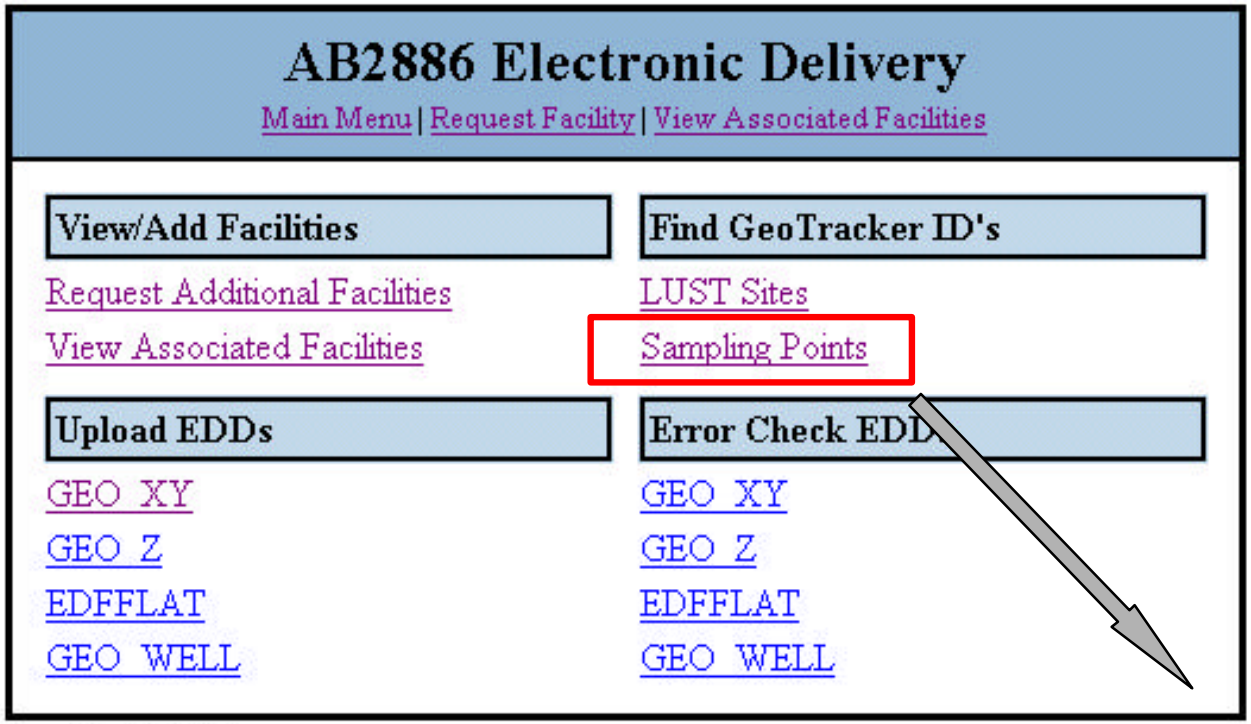
Add	Facility Name	Address	City
☐	CHEVRON	1805 YGNACIO VALLEY RD	WALNUT CREEK
☐	CHEVRON	699 YGNACIO VALLEY RD	WALNUT CREEK
☐	CHEVRON	1490 WINTON AVE W	HAYWARD
☐	CHEVRON	2950 WOODSIDE RD	WOODSIDE
☐	CHEVRON	710 WOODSIDE RD	REDWOOD CITY
☐	CHEVRON	3400 WILLOW PASS RD	CONCORD
☐	CHEVRON	2380 WILLOW PASS RD	CONCORD
☐	CHEVRON	2001 WILLOW PASS RD	CONCORD
☐	CHEVRON	3405 WINCHESTER BLVD S	CAMPBELL
☐	CHEVRON	1301 WINCHESTER BLVD S	SAN JOSE
☐	CHEVRON	585 WHIPPLE AVE	REDWOOD CITY
☐	CHEVRON	600 WHIPPLE AVE	REDWOOD CITY
☐	CHEVRON	1790 WHIPPLE RD	UNION CITY
☐	CHEVRON	2801 WHITE RD S	SAN JOSE
☐	CHEVRON	1440 WASHINGTON ST E	PETALUMA
☐	CHEVRON	1802 WEBSTER ST	ALAMEDA
☐	CHEVRON	990 VETERANS BLVD	REDWOOD CITY
☐	CHEVRON	9401 VILLAGE PKWY	SAN RAMON

Obtain Global IDs and Sampling Point Names



Download Global IDs only for Sites associated with a RP's password

Upload Sampling Point Names

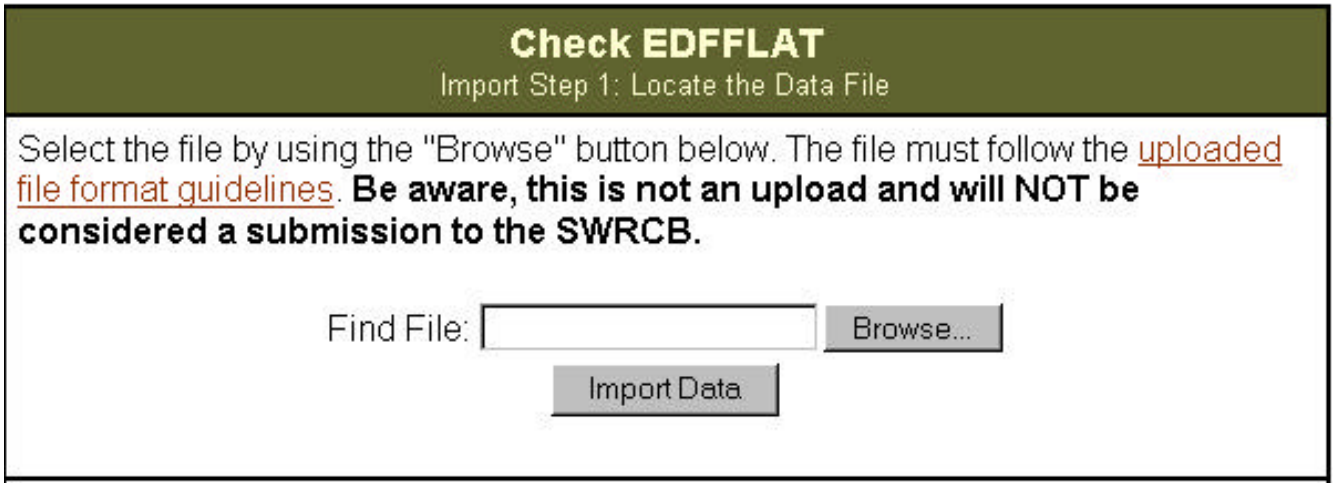


Logged in as Joe Smith.

Global ID	Field Pt Name	Facility ID
122446	MW-01	C366
122446	MW-02	C366
213356	MW-01	CR112

Error Check Before Submission

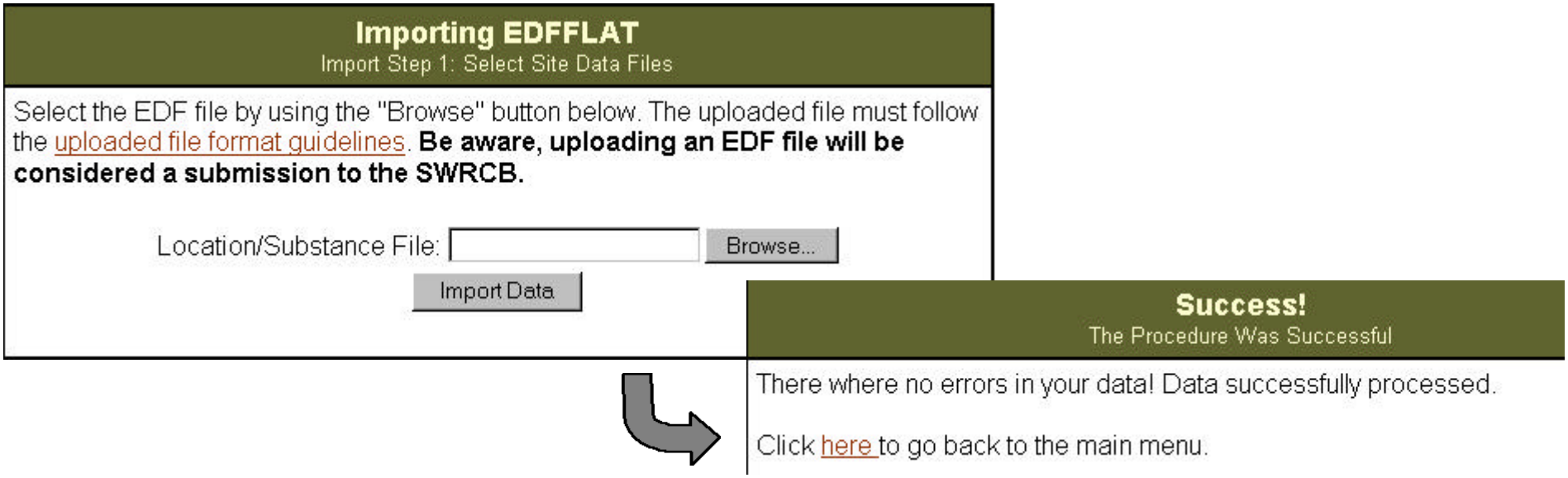
- The “browse” button will let you choose a file from your computer
- The “import” button will submit the file to error checking program
- Dynamic error check reports will be returned



© 2001 EcoInteractive

Uploading Data For Submission

- The “browse” button will let you choose a file from your computer
- The “import” button will submit the file to the SWRCB
- All data will be “error checked” and data must pass the error check to be submitted
- Confirmation number will be returned



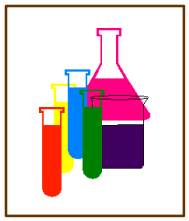
What Is the GeoTracker Solution?

A data warehouse that integrates data across environmental programs via the internet

- Is the choice of the SWRCB to manage the MTBE problem
- Provides public access and supports business-to-government transactions
- Facilitates decentralized data management-lead agencies “own” and manage their data
- Simplifies data exchange and improves data quality

© 2001 EcoInteractive

Electronic Reporting



Analytical Data

On-line permitting & compliance reporting

Environmental Contractors

Regulatory Tracking & GIS Coverages

Government Agencies

- State
- Local
- Federal

GeoTracker

- Data warehouse
- Integration Hub
- Data Exchange Center
- Seamless GIS interface

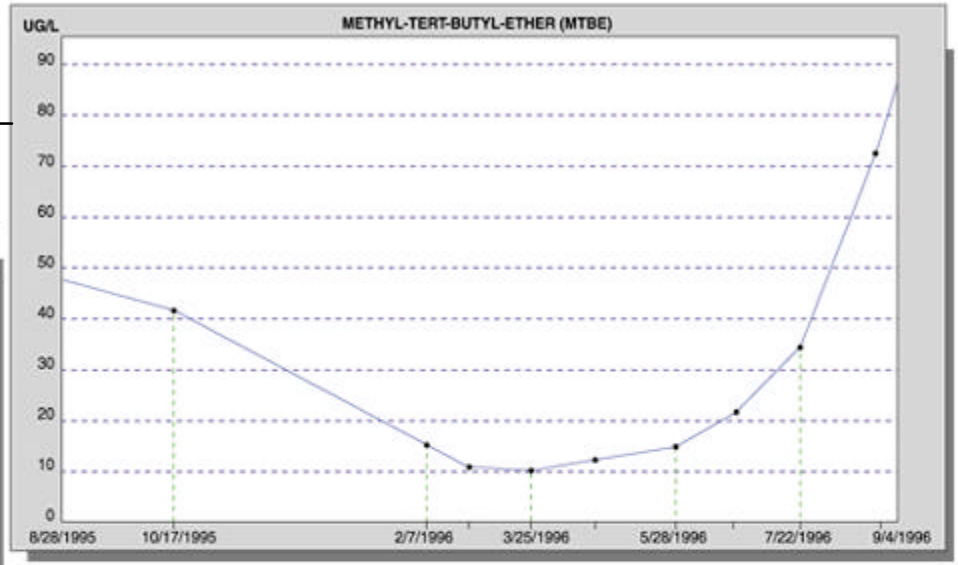
Decision Support

- Financial
- Technical
- Regulatory

Public Access

© 2001 EcoInteractive

Integrated Access



UNDERGROUND STORAGE TANK UNAUTHORIZED RELEASE / CONTAMINATION SITE REPORT

REPORT DATE: (MM/DD/YYYY)

HAZARDOUS MATERIAL INCIDENT REPORT FILED WITH OES? : NO

I. REPORTED BY

REPORTING INDIVIDUAL: (First and Last Name)

FAX: (###-###-####)

EMAIL:

PHONE: (###-###-####)

REPORTING INDIVIDUAL TYPE:(select all that apply - hold down ctrl to select multiple)

- Business Owner
- Owner-Agent
- Operator
- Tank Owner
- Fee Title/Property Owner
- Local Agency

ORGANIZATION NAME:

MAILING ADDRESS:

STREET ADDRESS: | APT/SUITE/ BUILDING #: | CITY: | STATE: | ZIP:

Leaking Underground Fuel Tank Report for:
GAS STATION
1000 MAIN BLVD
SAN MILLER, CA 97944

Site Info: (regulatory history) | (locational information) | (detailed site info)

Regional Board:	LOS ANGELES RWQCB (REGION 4)
Local Agency (lead agency):	SAN MILLER LOCAL AGENCY

Leak Info: (more detailed release information)

Substance Released:	GASOLINE
Remediation on site:	

4 Public Water Well(s) Estimated to be Within 1/2 Mile: (detailed well info)
Show this Site on Map

- Database integration
- Optimized web performance
- On-line permitting and public reporting
- Download data from the web
- On-line analysis & GIS tools
- Tools to position facilities on-line
- On-line reports and database edit screens

© 2001 EcoInteractive Inc

Internet Access to Site Data

Leaking Underground Fuel Tank Report

ROTTEN ROBBIE (SOUTH LAKE TAHOE)
2601 LAKE TAHOE BLVD.
SOUTH LAKE TAHOE , CA 96150
(Show this Site on Map)

Regional Board (lead agency)
LAHONTAN RWQCB (REGION 6T)
Local Agency
EL DORADO DEPT. OF ENV. HEALTH MANAGEMEN

Choose a Report To View

Site Info:
- Regulatory History
- Locational Information
- Analytical Data

Leak Info:
- Detailed Release Information
- Remediation on Site

Additional Info:
- **10 Monitoring Wells For This LUFT Site**
- **11 Public Water Well(s) Estimated to be Within 1/2 Mile of this LUFT Site**

© 2001 EcoInteractive

View/Graph Monitoring Well Data

Monitoring Well MW-4 Report

ROTTEN ROBBIE (SOUTH LAKE TAHOE)
2601 LAKE TAHOE BLVD.
SOUTH LAKE TAHOE , CA 96150
(Show this Site on Map)

Regional Board (lead agency)
LAHONTAN RWQCB (REGION 6T)
Local Agency
EL DORADO DEPT. OF ENV. HEALTH MANAGEMEN

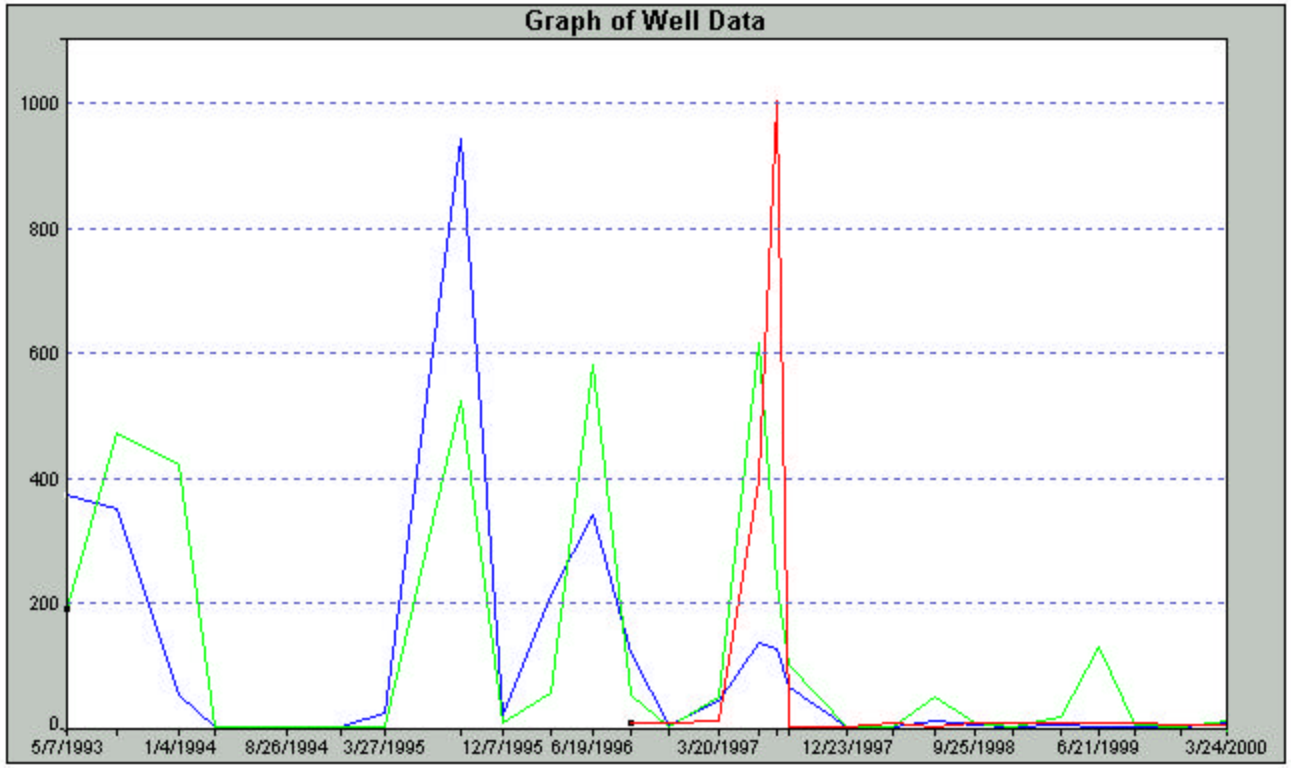
Plot Selected Chemicals | Reset Boxes | **Note: You may select up to 6 chemicals.**

(All Data) | (Most Recent) | (Maximum Concentrations)

Date	Parameter	Qualifier	Result	Units	Plot
NA	TOLUENE		5540		☐
NA	BENZENE		940		☑
NA	ETHYLBENZENE		613		☑
NA	XYLENES (TOTAL)		6100		☐
NA	METHYL-TERT-BUTYL-ETHER (MTBE)		1000		☑
NA	TRIBROMOACETIC ACID (TBAA)		5		☐

© 2001 EcoInteractive

Plot Trends



Chemical	Color
BENZENE	Blue
ETHYLBENZENE	Green
METHYL-TERT-BUTYL-ETHER (MTBE)	Red

© 2001 EcoInteractive

Examine Drinking Water Quality

Well Concentrations Search Form

Water System Name

City

Chemical METHYL-TERT-BUTYL-ETHER (MTBE)

Qualifier > **Value** 5

Search

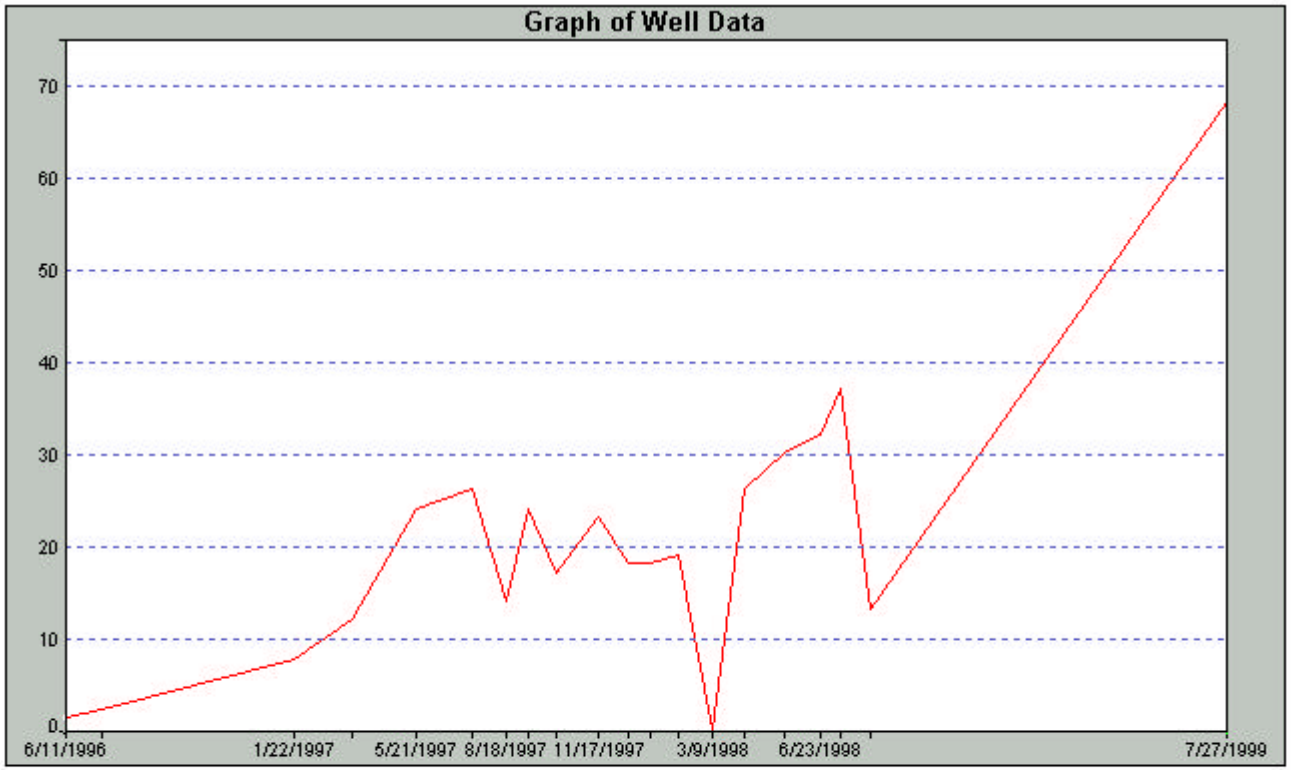
Records 21 - 40 of 51 Records

METHYL-TERT-BUTYL-ETHER (MTBE) Findings

Well Name	PWS System	City	Max Value		
19 TH STREET GAC - TREATED	SAN BERNARDINO, CITY OF	SAN BERNARDINO	11	Show on Map	Graph
EL CAPITAN LAKE - RAW	SAN DIEGO CITY OF (WATER DEPARTMENT)	SAN DIEGO	11.2	Show on Map	Graph
VERDUGO WELL 02	BRUCE KUEBLER	LOS ANGELES	13	Show on Map	Graph
CANYON LAKE - RAW	ELSINORE VALLEY M W D	LAKE ELSINORE	14	Show on Map	Graph
LAKE PERRIS (EFFLUENT OR SURFACE)		LA VERNE	15	Show on Map	Graph
ARCADIA WELL 04 - STANDBY	SANTA MONICA - CITY	SANTA MONICA	19.6	Show on Map	Graph
AIR STRIPPING TOWER T-200B (S) INFLUENT	BURBANK-CITY, WATER DEPT	BURBANK	20	Show on Map	Graph
LOPEZ TREATMENT PLANT RAW	LOPEZ PROJECT	SAN LUIS OBISPO	20	Show on Map	Graph
TRAVIS WTP - TREATED	EXEQUIEL GANDING JR	VALLEJO	22	Show on Map	Graph
WELL 06 - ABANDONED	PRESIDIO OF SAN FRANCISCO	SAN FRANCISCO	23	Show on Map	Graph
WELL 11 - INACTIVE	FRUITRIDGE VISTA WATER CO	SACRAMENTO	25	Show on Map	Graph
CONCERTO 01 - INACTIVE	SOUTHERN CALIF WC -YORBA LINDA	ANAHEIM	40.9	Show on Map	Graph
WELL 05 - INACTIVE	SOUTHERN PACIFIC COMPANY	BLOOMINGTON	46	Show on Map	Graph
WELL 01	GARY DRILLING WATER SYSTEM	BAKERSFIELD	47	Show on Map	Graph

Graph Drinking Water Quality

SOUTH TAHOE PUD - MAIN (SOUTH LAKE TAHOE)
TATA WELL 04 (ANGORA WELL 10)
State Well Number: 12N/18E-05R02 M



Date	Parameter	Qualifier	Result	Units	MCL
7/27/1999	METHYL-TERT-BUTYL-ETHER (MTBE)		68	UG/L	5
8/10/1998	METHYL-TERT-BUTYL-ETHER (MTBE)		13	UG/L	5
7/13/1998	METHYL-TERT-BUTYL-ETHER (MTBE)		37	UG/L	5
6/23/1998	METHYL-TERT-BUTYL-ETHER (MTBE)		32	UG/L	5

© 2001 EcoInteractive

Expected Benefits

- Enable easy exchange of information between the regulatory agencies, industry, and the public
- Builds an information network to integrate data- Supports other programs
- Provides statewide access to permit, compliance, and enforcement actions- Integrated easy access
- Moves agencies and regulated businesses to electronic reporting- Improves data quality
- Allows analysis of previously unknown relationships- Better decisions

© 2001 EcoInteractive

GeoTracker LUST Data

- MTBE reported maximum concentrations
  - Present historic data is hand-entered by regulators
  - Will be derived from EDF data
  - Will improve as lab results (EDF) are electronically reported
- Regulatory tracking
  - Regulators enter these fields
  - Improving as agencies move on-line

© 2001 EcoInteractive

GeoTracker LUST Data

- Location data
  - Estimated by geocoding site address (median error ~380 feet)
  - On-line tools allow lead agency case workers to edit the site location on the GeoTracker maps
  - RPs will report sampling locations
  - Will improve as latitude/longitude data is electronically reported and as regulators position sites on maps

© 2001 EcoInteractive

GeoTracker Public Drinking Water Source Data

- Historical location data is of poor quality
  - Originally obtained from DHS records (estimated from township range maps)
    - Only 30% estimated to be within 1000 feet
  - Improved data by using state well name to position some wells to the center of the quarter quad
  - For single well systems, estimated by geocoding facility address

© 2001 EcoInteractive

GeoTracker Public Drinking Water Source Data

- The SWRCB is working with DHS to improve drinking source locations
  - On-line tools allow well owners to edit the site location on the GeoTracker maps
  - SWRCB provides DHS with new locations
  - Improved locations of ~4,000 public wells
- DHS is moving to requiring electronic reporting of water quality data

© 2001 EcoInteractive