



California Underground Storage Tank Program

AB2886 Electronic Reporting

September 9, 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

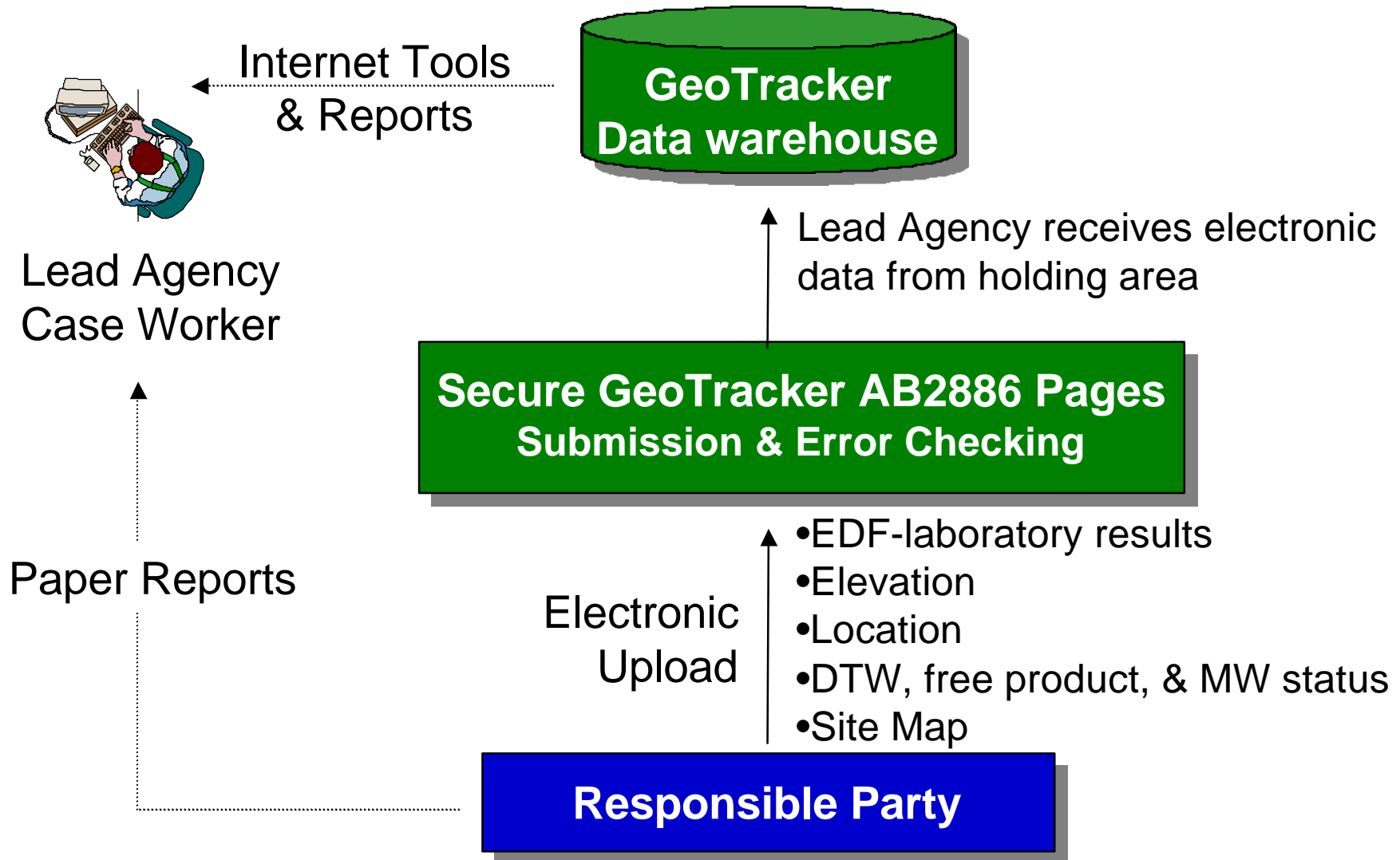
- Laboratory Soil and Groundwater Sample Results

Begins January 1, 2002

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



AB2886 Data Flow

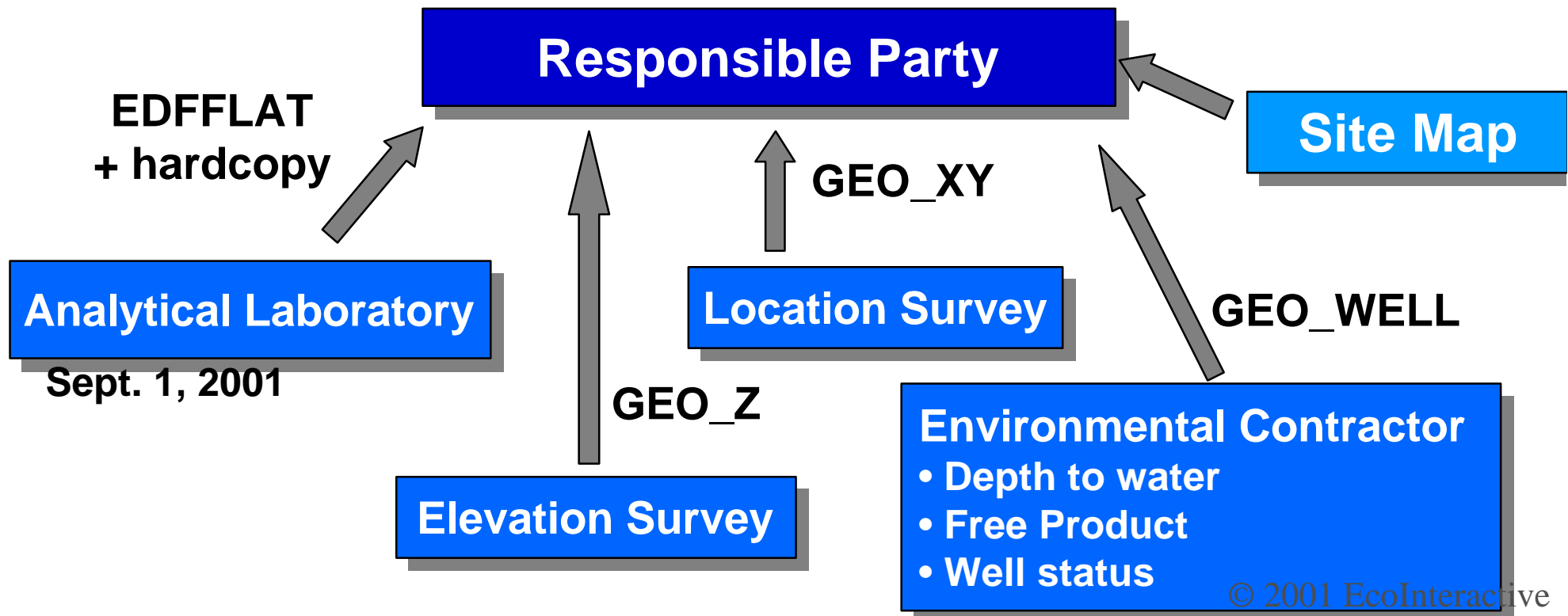




Potential RP Data Flow

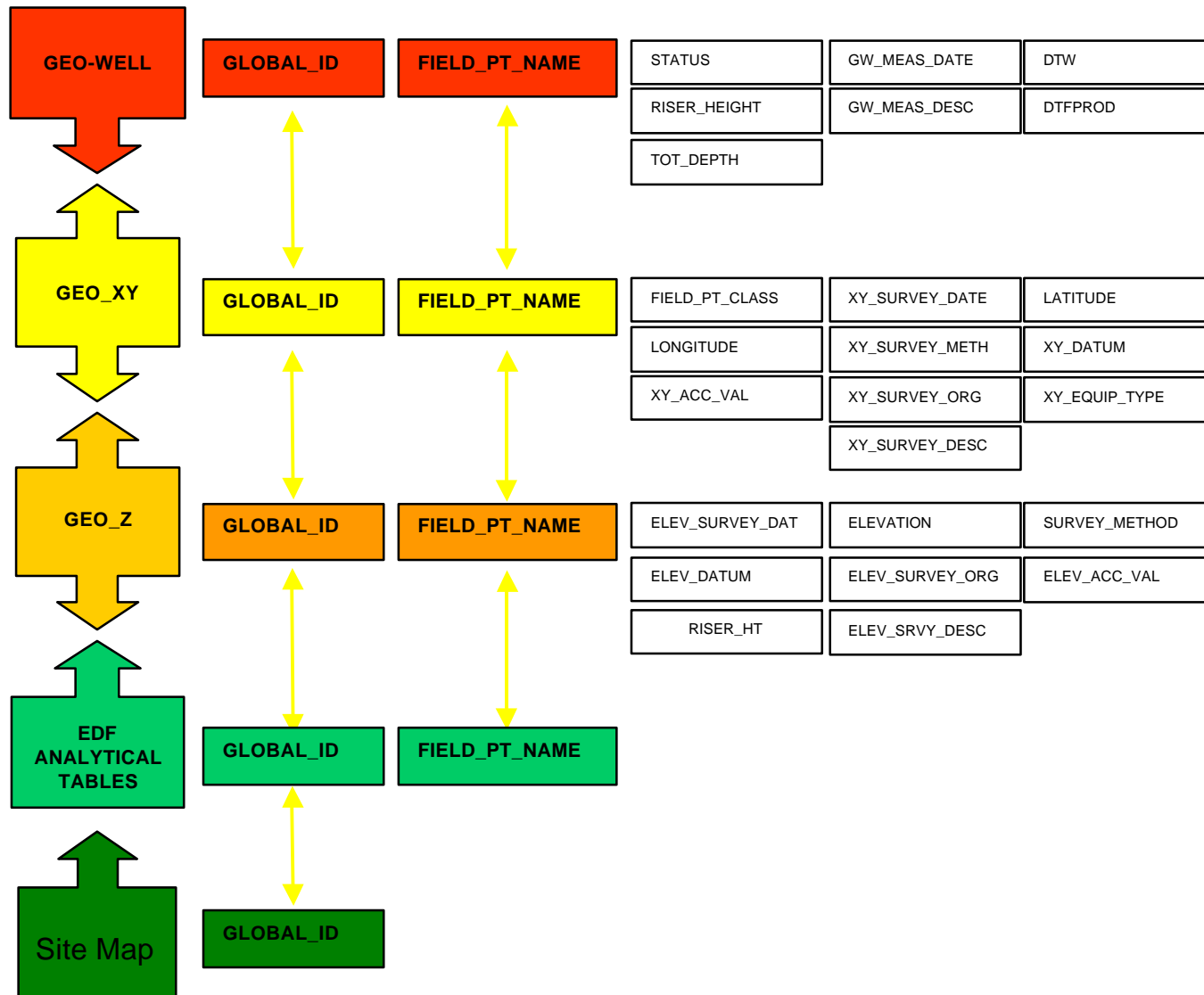
- Submit EDD to GeoTracker
- Submit report to lead agency

- Prepare hard copy report
- Data Interpretation





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



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



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



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 (a, b, f, m), Sec. 6731.1 (a, b, c)
- Requires submission of metadata
Survey XY_Z Restriction & Guidelines



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



Elevation Survey Methods

- Digital differential leveling
- Differential leveling using HPGN GPS vertical reference points
 - ≥ 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



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

The screenshot shows the GeoTracker website interface. On the left is a blue sidebar with search fields and a map button. The main content area has a map background with the 'GeoTracker' logo and a list of links under 'TOOLS' and 'INFORMATION' sections. The link 'AB2886' is highlighted with a red box.

Map Address:
Address:
City:
Zip:
Regional Map:
County:

GeoTracker
Your link to environmental data for regulated facilities in California

TOOLS	INFORMATION
Site/Facility Finder	About GeoTracker
Well Concentrations	Hot News
Case Finder	Drinking Water Quality
MTBE/Case Reports	MTBE Reports
GeoTracker Demo	Subsurface Investigations
GeoTracker	AB2886

[Contact Us](#) [SWRCB](#) [GeoTracker](#)



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.



On-line Password Request

AB2886 Electronic Delivery

[Main Menu](#) | [View/Add Facilities](#) | [Upload EDD](#) | [Check EDD](#)

Requesting Login

Step 1: Submit Contact Information

User Information:

Username:

Password:

User Type:

Responsible Party
Contractor
Laboratory
Authorized RP Agent

Confirm Password:

Address:

City:

Stat

Phone Number: (XXX-XXX-XXXX) Email Address:

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 Information:

Name:



Permission for Consultants to Submit Data

RP or authorized consultant

Obtains Password



Request Facilities

→ Reg. Yes/No



Consultants Request Facilities

→ RP Yes/No

Site 1

- Consultant 1
- Consultant 2
- Consultant 3

Site 2

- Consultant 1
- Consultant 2
- Consultant 5

Site 3

- Consultant 1
- Consultant 4
- Consultant 5



Responsible Party Electronic Reporting Interface

- Request/view LUST sites associated with RP
- Find GeoTracker LUST site and well Ids
- Use error checking tools & get error reports
- Upload/submit EDDs

AB2886 Electronic Delivery	
Main Menu View/Add Facilities Upload EDD Check EDD	
View/Add Facilities	Upload EDDs
Monitor Site Requests	Error Check EDDs

Logged in as test

CONTACT SITE [ADMINISTRATOR](#)



RPs Request Permission to Submit EDD for Sites

AB2886 Electronic Delivery

[Main Menu](#) | [View/Add Facilities](#) | [Upload EDD](#) | [Check EDD](#)

[Request Facilities](#)

[View Associated Facilities](#)

[View Pending Facilities](#)

[View Denied Facilities](#)

[Download Associated Global IDs](#)

[Download Field Point Names](#)

[Upload Field Point Names](#)

Logged in as test

CONTACT SITE [ADMINISTRATOR](#).



RPs Request Permission to Submit EDD for Sites

AB2886 Electronic Delivery
[Main Menu](#) | [View/Add Facilities](#) | [Upload EDD](#) | [Check EDD](#)

Request Facilities
Step 1: Search For Facilities (use * for wildcard searches)

Facility Name

Street Name

City

County

Facility Type

AB2886 Electronic Delivery
[Main Menu](#) | [View/Add Facilities](#) | [Upload EDD](#) | [Check EDD](#)

Request Facilities
Step 2: Check the facilities you wish to request 68 Facilities found page 1 of 2

Add	Facility Name	Address	City
<input type="checkbox"/>	A E HARTER INC	5100 CHILES RD	DAVIS
<input type="checkbox"/>	AILEEN OLSON LABOR CAMP	COUNTY RD 34 A	DAVIS
<input type="checkbox"/>	ANTIBODIES INC	CO RD 95	DAVIS
<input type="checkbox"/>	ARCO #05332	705 RUSSELL BLVD	DAVIS
<input type="checkbox"/>	ARCO (FORMER)	1800 OLIVE DR	DAVIS
<input type="checkbox"/>	BP (FORMER EXXON)	400 MACE BLVD	DAVIS
<input type="checkbox"/>	CA DEPT OF FORESTRY & FIRE	5950 CHILES RD	DAVIS
<input type="checkbox"/>	CABLE CAR WASH	904 3RD ST	DAVIS
<input type="checkbox"/>	CAMPBELL SOUP CO	1314 MACE BLVD	DAVIS
<input type="checkbox"/>	CAMPBELL SOUP CO AG RS	28605 RD 104	DAVIS
<input type="checkbox"/>	CHEVRON #9-1420	1935 ANDERSON RD	DAVIS
<input type="checkbox"/>	CHEVRON #9-5631	980 OLIVE DR	DAVIS
<input type="checkbox"/>	CHEVRON #9-9148	4475 CHILES RD	DAVIS
<input type="checkbox"/>	CIRCLE-K #01914	1930 LAKE BLVD	DAVIS
<input type="checkbox"/>	CITY OF DAVIS	23 RUSSELL BLVD	DAVIS



Approve/Deny Permission to Submit EDD for Sites

AB2886 Electronic Delivery

[Main Menu](#) | [View/Add Facilities](#) | [Upload EDD](#) | [Check EDD](#)

Select the Facilities you wish to approve:

Approve	Deny	User	Facility Name	Address	City
<input type="checkbox"/>	<input type="checkbox"/>	Danman	KENITA ENTERPRISES	24961 WHISLER DR	LAKE FOREST
<input type="checkbox"/>	<input type="checkbox"/>	Danman	KENITA ENTERPRISES	24961 WHISLER DR	LAKE FOREST

Approve All

Deny All

Reset Checkboxes

Approve/Deny Facilities

Logged in as test

CONTACT SITE [ADMINISTRATOR](#)



Obtain Global IDs and Sampling Point Names

AB2886 Electronic Delivery	
Main Menu View/Add Facilities Upload EDD Check EDD	
Facility Tools	Download/Upload
Request Facilities	Download Associated Global IDs
View Associated Facilities	Download Field Point Names
View Pending Facilities	Upload Field Point Names
View Denied Facilities	



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

Logged in as chu chu

CONTACT SITE [ADMINISTRATOR](#).



Upload Sampling Point Names

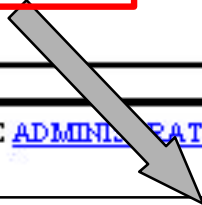
AB2886 Electronic Delivery

[Main Menu](#) | [View/Add Facilities](#) | [Upload EDD](#) | [Check EDD](#)

Facility Tools	Download/Upload
Request Facilities	Download Associated Global IDs
View Associated Facilities	Download Field Point Names
View Pending Facilities	Upload Field Point Names
View Denied Facilities	

Logged in as chui chui

CONTACT SITE [ADMINISTRATOR](#).



Global ID	Field Pt Name	Facility ID
122446	MW-01	C366
122446	MW-02	C366
122446	MW-03	C366
213356	MW-01	CR112`
213356	MW-02	CR112



Error Check Before Submission

AB2886 Electronic Delivery

[Main Menu](#) | [View/Add Facilities](#) | [Upload EDD](#) | [Check EDD](#)

Error Checking EDD Menu

GEO_XY

[EDF](#)

GEO_Z

GEOWELL

AB2886 Electronic Delivery

[Main Menu](#) | [View/Add Facilities](#) | [Upload EDD](#) | [Check EDD](#)

Uploading EDF File - Associated Facilities

You Must First Search for Associated Facilities

(use * for wildcard)

Facility Name

Street Name

City

County

Facility Type

LUFT Sites

Search For Facility



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

Check EDFLAT
Import Step 1: Locate the Data File

Select the file by using the "Browse" button below. The file must follow the [uploaded file format guidelines](#). **Be aware, this is not an upload and will NOT be considered a submission to the SWRCB.**


Find File:



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

Importing EDFFLAT	
Import Step 1: Select Site Data Files	
Select the EDF file by using the "Browse" button below. The uploaded file must follow the uploaded file format guidelines . Be aware, uploading an EDF file will be considered a submission to the SWRCB.	
Location/Substance File:	<input type="text"/> <input type="button" value="Browse..."/>
<input type="button" value="Import Data"/>	
Success! The Procedure Was Successful	
There were no errors in your data! Data successfully processed.	
Click here to go back to the main menu.	



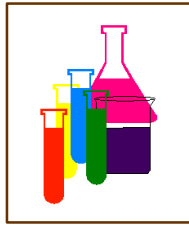


What Is the GeoTracker Solution?

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

Electronic Reporting



Analytical Data

A screenshot of a web-based reporting form. The title is "UNDERGROUND STORAGE TANK (UNAUTHORIZED RELEASE - CONTAMINATION SITE) REPORT". It includes fields for "REPORT DATE (MM/DD/YYYY)", "REPORTED BY (Name and Last Name)", "PHONE (Area and Number)", "FAX (Area and Number)", "EMAIL", "REPORTING INDIVIDUAL TYPE (select all that apply - hold down ctrl to select multiple)", "ORGANIZATION NAME", "MAILING ADDRESS", and "CITY ADDRESS". There are also dropdown menus for "STATE" and "ZIP".

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

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

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

EMAIL:

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:

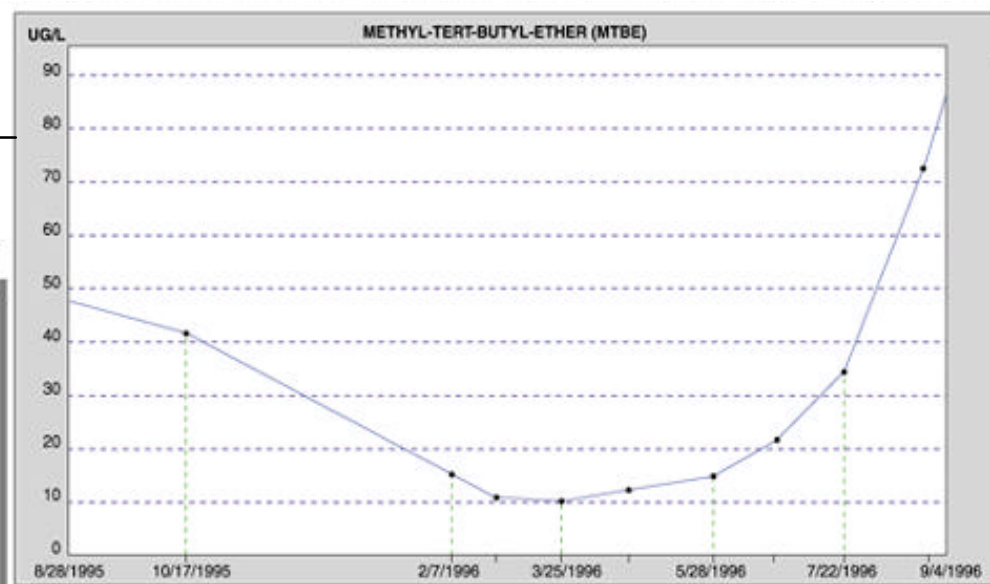
STREET ADDRESS:

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



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:

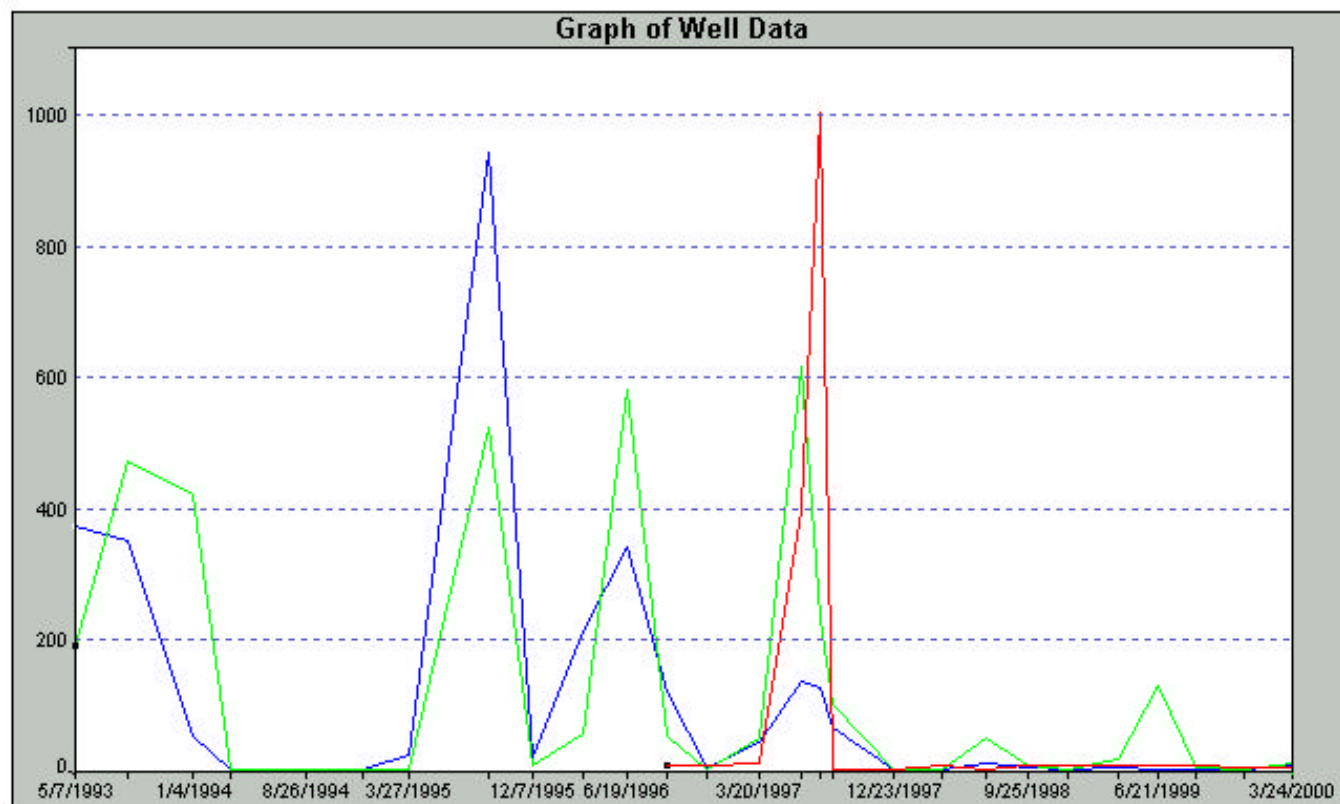
- [10 Monitoring Wells For This LUFT Site](#)
- [11 Public Water Well\(s\) Estimated to be Within 1/2 Mile of this LUFT Site](#)



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		
<input type="button" value="Plot Selected Chemicals"/>		<input type="button" value="Reset Boxes"/>		Note: You may select up to 6 chemicals.	
<div>(All Data) (Most Recent) (Maximum Concentrations)</div>					
<u>Date</u>	<u>Parameter</u>	<u>Qualifier</u>	<u>Result</u>	<u>Units</u>	<u>Plot</u>
NA	TOLUENE		5540		<input type="checkbox"/>
NA	BENZENE		940		<input checked="" type="checkbox"/>
NA	ETHYLBENZENE		613		<input checked="" type="checkbox"/>
NA	XYLENES (TOTAL)		6100		<input type="checkbox"/>
NA	METHYL-TERT-BUTYL-ETHER (MTBE)		1000		<input checked="" type="checkbox"/>
NA	TRIBROMOACETIC ACID (TBAA)		5		<input type="checkbox"/>

Plot Trends



Chemical

[BENZENE](#)

[ETHYLBENZENE](#)

[METHYL-TERT-BUTYL-ETHER \(MTBE\)](#)

Color

Blue

Green

Red



Examine Drinking Water Quality

Well Concentrations Search Form

Water System Name

City

Chemical

METHYL-TERT-BUTYL-ETHER (MTBE)

Qualifier

Value

>

5

Records 21 - 40 of 51 Records

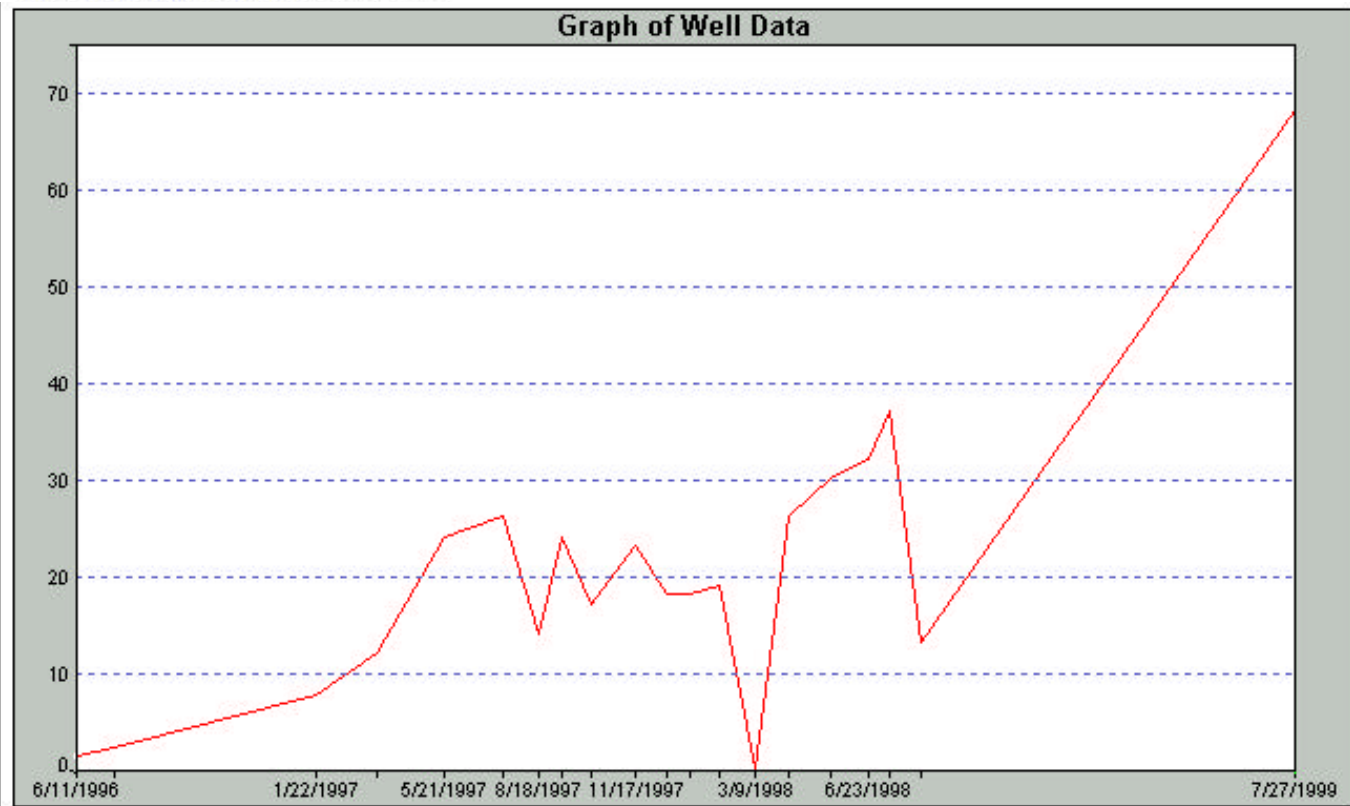
METHYL-TERT-BUTYL-ETHER (MTBE) Findings

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)		37	UG/L	5



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](#)



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



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



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



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