United States
Environmental Protection
Agency

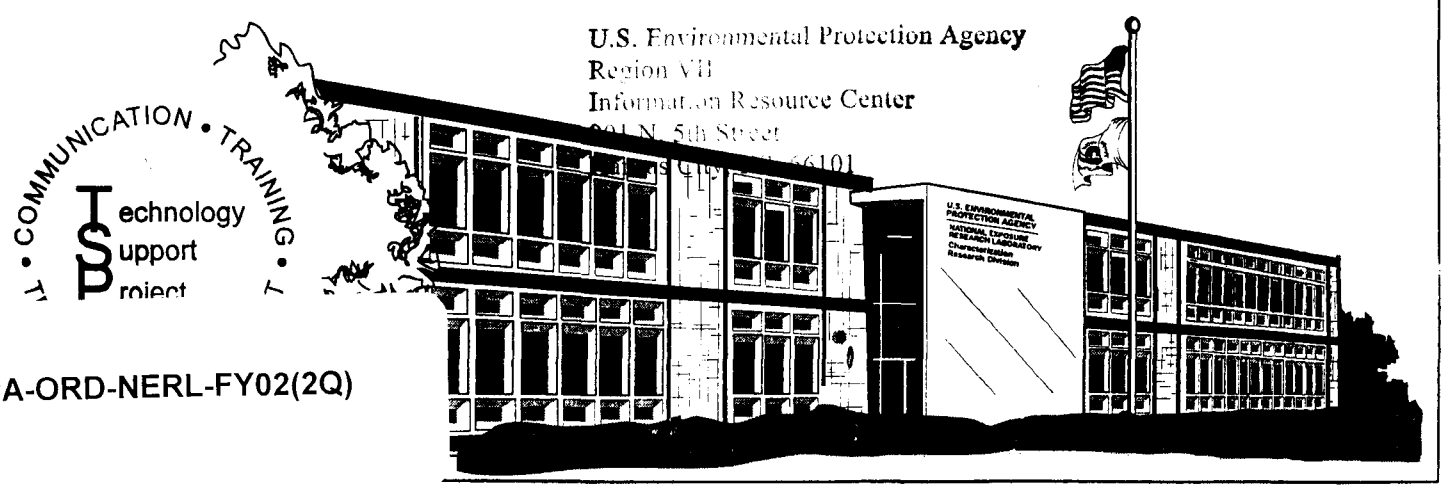
Office of Research and Development
National Exposure Research Laboratory
Environmental Sciences Division
P. O. Box 93478
Las Vegas, NV 89193-3478

March 2002

National Exposure Research Laboratory
Environmental Sciences Division
Superfund Technology
Support Project

Technology Support Center for Monitoring and Site Characterization FY02 Second Quarter Report

January - March 2002



EPA-ORD-NERL-FY02(2Q)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NATIONAL EXPOSURE RESEARCH LABORATORY
P.O. BOX 93478 • LAS VEGAS, NV 89193-3478

APR 30 2001

OFFICE OF
RESEARCH AND DEVELOPMENT

MEMORANDUM

SUBJECT: National Exposure Research Laboratory
Environmental Sciences Division
FY02 Second Quarter Report

FROM: Kenneth W. Brown, Director, Technology Support Center (TSC)
Characterization and Monitoring Branch, ESD

TO: Richard Steimle, Project Manager (5102W)
Superfund Technology Support Project

Dan Powell (5102W)
Technology Innovation Office

Attached is the FY02 Second Quarter Report pertaining to the activities of the Environmental Sciences Division-Las Vegas, (ESD) Technology Support Center, (TSC). This quarterly report includes the months of January, February and March 2002. The total Superfund resources spent for those projects identified in the attached report were $158,958 TSC and $7,200 PC&B.

A total of eleven new projects were started this quarter. The following projects were completed during the second quarter of FY02 and are, therefore, deleted from this quarterly report: Ottatti and Goss/Kingston Steel Drum, Diamond Alkali, Vieques Puerto Rico, Ogden Rail Yard, San Fernando, Valeteria Dry Cleaners, Yuma (MCASY), Camp Bonneville, Methamphetamine Multi Laboratory and UVA Hillside Disposal Area.

If you have any questions about this report, please give me a call at (702) 798-2270.

Attachment

cc: John G. Lyon, ODC
J. Gareth Pearson, ODC
Kathie Stephens-Landers, ODC
Jane Denne, NERL-ESD-LV
Christian Daughton, ECB
Connie Petullo, ORIA
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Regional Scientists
STLP Designees
Forum Co-Chairs
Sharon Frey, OSWER
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Connie Bosma, ORD (8104R)
Randy Wentsel, ORD (8623D)

Bruce Jones, LEB
Brian Schumacher, CMB
Kim Rogers, HERB

Ken Moor, INEEL
Trish St. Clair, DOE
A. K. Singh, UNLV

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(Indexed by Site Name)

SUPERFUND

REGION 1

- Project Name: GE
  Site: GE Housatonic River S. F. Site
  Site ID:

  Type Lead:
  Requested by: Margaret McDonough (617) 918-1276
  Lead Scientist: Anita Singh (702) 897-3234

  Start Date: November 2001
  Expected Completion Date: July 2002
  Revised Completion Date:

  Estimated Budget:$15,000
  Revised Budget:$
  Major Contaminants: PCB's

  Total Expenses:$6,117
  Total FY02 Expenses:$6,117
  Total 2nd. Qtr. Expenses:$6,117

  The Regional RPM requested that the ESD-LV TSC provide assistance in reviewing the statistical and data assessment procedures and methods that are being utilized by the PRP's to assess site data.

  Substantial progress has been made over the past year on the cleanup of the Housatonic River. Much of the focus has been on removing PCB-contaminated river sediments and bank soils from the upper ½-mile reach of the Housatonic River in Pittsfield, MA. As of 2001, more that 10,700 cubic yards of contaminated river sediments and bank soils have been removed. The upper ½ mile cleanup is scheduled to be done by March 2002.

  A number of site documents were provided to the TSC for review. Following the review of these documents the TSC provided the Region with the report titled "Review of Alternative Methods Proposed by GE for Calculating the Exposure Point Concentrations for the Housatonic River Site, Pittsfield, MA." Additional support is anticipated.

- Project Name: Loring
  Site: Loring AFB S. F. Site
  Site ID:

  Type Lead:
  Requested by: Mike Daly (617) 918-1386
  Lead Scientist: Anita Singh (702) 897-3234

  Start Date: November 2001
  Expected Completion Date: May 2002
  Revised Completion Date:

  Estimated Budget:$19,000
  Revised Budget:$30,000
  Major Contaminants: Organics

  Total Exps:$25,859 PC&B:$2,600
  Total FY02 Exps:$2,692 PC&B:$300
  Total 2nd Qtr. Exps:$500 PC&B$300

The Regional RPM requested that the ESD-LV TSC provide assistance in reviewing the statistical and data assessment methods and procedures that are being utilized by the PRP's contractor to evaluate seasonal contaminant trends in groundwater.

The 9,000-acre Loring Air Force Base located in Maine has operated as an active military installation since 1952. An estimated 1,200 people obtain drinking water from wells within 3 miles of hazardous substances on the base. The nearest well is less that 500 feet from where transformers were buried. Hazardous wastes generated on the base include waste oils, fuels cleaned from aircraft and vehicles, spent solvents (many are chlorinated organic chemicals) polychlorinated biphenyls (PCBs), and pesticides. Historically, wastes have been burned or buried in landfills. There are on-site landfills, some of which are old gravel pits. Landfills #2 and #3 were used for disposal of hazardous wastes from 1956 to the early 1980s.

Tests of monitoring wells indicate that the groundwater on the base is contaminated with volatile organic compounds (VOCs) such as methylene chloride, trichloroethylene (TCE), and carbon tetrachloride and heavy metals including barium. Soils in the Flightline Area contain significant amounts of fuel, oil, and various VOCs.

The TSC received a "Technical Memorandum Operable Unit (OU) 12 Annual Report Statistical Methodology, Loring AFB" dated November 20, 2001. Following a review of this document, the TSC provided comments and recommendations to the RPM.

- Project Name: Camp Edwards (Otis AFB)
  Site: Military Reservation (Massachusetts) S. F. Site
  Site ID:

  Type Lead:
  Requested by: Mike Jasinski (617) 918-1352, Paul Marchessault (617) 918-1388 T. Borci (617) 918-1358
  Lead Scientist: Bob Starr (208) 526-0174, Jeff Sondrup (208)526-8396, Art Rood (208) 526-1678

  Start Date: July 1998
  Expected Completion Date: April 1999
  Revised Completion Date: August 2002

Estimated Budget: $40,000	Total Exps:$85,231	PC&B:$3,700
Revised Budget: $89,000	Total FY02 Exps:$1,530	PC&B:$400
Major Contaminants: Organics	Total 2nd Qtr. Exps:$598	PC&B:$400

  The Regional RPM requested that the ESD-LV TSC provide assistance in evaluating the feasibility of implementing natural attenuation as the remedial remedy for groundwater contamination at this site.

  The Otis Air National Guard Base (NGB) and Camp Edwards covers approximately 3,900 acres on a 22,000-acre parcel of land, today known as the Massachusetts Military Reservation (MMR).

  In 1984, the U. S. Geological Survey detected contaminants in the monitoring wells downgradient of the plant. In 1983 and 1984, the Air Force detected volatile organic compounds (VOCs) in on-site monitoring wells near the Base Landfill and Current Fire Training Area. Monitoring by the Air National Guard and the State Department of Environmental Quality has detected VOCs in more than 200 private wells.

  TSC reviewed the Focused Feasibility Study for Landfill-1 (draft) to address several issues including evaluating the evidence that: natural attenuation of chlorinated ethenes was occurring in the aquifer downgradient of Landfill-1, natural attenuation would be sufficient as a sole remedy for managing the plume of contaminated groundwater emanating from Landfill-1, active remedial measures (such as pump-and-treat) would inhibit

biodegradation of chlorinated ethenes, decreasing concentration trends are the result of installation of a landfill cap instead of natural attenuation, and finally, reviewed the cost estimates of various remedial alternatives. In spite of the extremely short review period, the TSC (INEEL) participated in two meetings at the site with regulators and the Air Force, as well as numerous tele-conferences in which natural attenuation and other remedial alternatives were discussed. At the request of Region I, a series of documents was provided that describe a groundwater remediation program at the INEEL Test Area North facility. The TSC reviewed the addendum to the focused feasibility study for Landfill-1 and participated in a number of tele-conferences and attended a meeting to discuss TSC comments and suggestions. The RPM provided the TSC with extraction/treatment system data for review. The TSC received a request to assist in the establishment of conservative soil concentration for explosive residues and other contaminants based on leaching to groundwater. An evaluation of the SESOIL Model was completed. In addition, a data report titled "Soil Action Levels for Massachusetts Military Reserve Northern Impact Area" was provided to the Region.

The TSC was requested to review DoD's site specific fate and transport measurement Task 2000. The TSC completed a review of the modeling portion of the RI for the chemical spill-19 (CS-19) area. The TSC calculated some additional soil screening concentrations that were provided to the Region. TSC reviewed "Contaminant of Concern Identification Demolition Area 1" and the "Draft Modeling Strategy for the Camp Edwards Impact Area Groundwater Quality Study." The TSC responded to a request dealing with a fate and transport model and attenuation factors and provided the report titled "Contaminant of Concern Identification for Demolition Area 1 Soil Operable Unit of the Camp Edwards Impact Area, Massachusetts Military Reservation, Cape Cod, MA." The TSC received some additional information from the Region pertaining to RDX soil cleanup levels.

- Project Name: Savage Well
  Site: Savage Well Municipal Water Supply OU-2 S. F. Site
  Site ID:

  Type Lead:
  Requested by: Richard Goehlert (617) 918-1335
  Lead Scientist: Lance Peterson (208) 528-8718 x170, Bob Starr (208) 526-0174

  Start Date: May 1999
  Expected Completion Date: December 1999
  Revised Completion Date: September 2002

  Estimated Budget: $20,000
  Revised Budget: $38,000
  Major Contaminants: Organics

  Total Expenditures:$29,697
  Total FY02 Expenditures:$2.571
  Total 2nd Qtr. Expenditures:$471

  The RPM requested that the ESD-LV TSC provide assistance in reviewing aquifer models that are and/or will be used to determine appropriate remedial approaches.

  The Savage Well site covers about 30 acres west of the center of Milford, NH and consists of a municipal well. The underlying aquifer, the water-bearing layer of rock and gravel from which the Town of Milford gets its water. The Savage Municipal Well site operated from 1960 to 1983, during which time it supplied 40% to 45% of Milford's water. The remainder of the water came from the Keyes and Kokko Wells. During Savage's years of operation, several metal industries opened plants near the well along the Souhegan River. Investigations at the site identified the source of contaminants, which also were present in water samples taken at the nearby industries.

  The groundwater is contaminated with VOCs, including TCE and vinyl chloride and heavy metals, including lead, chromium, and mercury. The soil is contaminated with VOCs. The stream on site is contaminated with

VOCs and lead. As previously identified the TSC has been involved at OU-1 with the "Surfactant-Enhances Aquifer Remediation of PCE at Neutral Buoyancy" Project."

The PRPs have modeled the Savage Well aquifer and evaluated several remedial scenarios. They have come to the conclusion that monitored natural attenuation remedy will result in a clean aquifer in about the same time as an engineered remedy. This does not seem to make sense given the complexity of the aquifer and the broad extent of contamination in OU-2. OU-1 is a fund lead slurry wall, with pump and treatment system, SVE air sparging, and air stripping. OU-2 is a dissolved plume downgradient from the OU-1 area.

Numerous reports were received on hydrologic modeling of Savage Well OU-2 site. The hydrologic site conceptual model review and a numerical model review were completed. Questions and comments were formulated. The TSC has performed an initial review on the QST Draft Modeling report and the Remedial Design Report. The modeling review was completed and the report titled "Comments Regarding Modeling and Interpretations on the OU-2 Savage Well Site" was provided to the Region. The TSC received the 1999 USGS groundwater modeling report. The report was reviewed and was considered satisfactory. Discussion with the RPM pertaining to the transport models "ModFlow" and ModFlow/MTSD occurred.

The TSC reviewed the document "An Evaluation of June and August 2000 Sampling Results: Biotic Transformation of Chlorinated Organic Compounds Within the Extended Plume, Savage Well ESE." A number of conference calls pertaining to modeling questions were held with the RPM. Following a review of an ES&E Nov. 2000 Draft Report, the TSC provided the Region with the report titled "Draft Evaluation of June and August 2000 Sampling Results: Biotic Transformations of Chlorinated Organic Compounds Within the Extended Plume." The TSC responded to a request from the RPM pertaining to the use of diffusion sampling procedures to identify vertical contaminant zones in long-screened wells.

- Project Name: South Weymouth
  Site: South Weymouth Naval Air Station S. F. Site
  Site ID:

  Type Lead:
  Requested by: Cynthia Hanna (617) 918-1446 Patti Whitemore (617) 894-3234
  Lead Scientist: Anita Singh (702) 8973234

  Start Date: July 1998
  Expected Completion Date: March 1999
  Revised Completion Date: August 2002

  Estimated Budget:$10,000
  Revised Budget:$45,000
  Major Contaminants: Metals/Acids

  Total Expenses:$35,403
  Total FY02 Expenses:$4,552
  Total 2nd Qtr. Expenses:$4,552

  The Regional RPM requested that the ESD-LV TSC provide assistance in a statistical assessment of false positive and false negative data as defined and used in the site's QAPP. South Weymouth Naval Air Station (SWNAS) is located at the southern end of Weymouth, Norfolk County, Massachusetts. SWNAS is approximately 1500 acres in size. Station generated waste is disposed of in three on-site landfills. The West Gate landfill operated from 1969 to 1972, The Rubble Disposal area and the Small landfill operated from 1972 until the mid 1980's. Flammable liquid wastes were reportedly burned in the on-site fire fighting training area. Small amounts of waste battery acid, possibly containing lead, may have been disposed of in a site leach field.

  The TSC reviewed the QAPP and site data. Following the review and site documents assessment the TSC provided the Region with the report titled "Review of Statistical Approached Proposed for South Weymouth Superfund Site." Following a review of additional data, the TSC provided the Region with two reports titled "

Review of Statistical Approaches Proposed for the South Weymouth Naval Air Station NPL Site" and "Review Comments on the Approach Proposed by the Navy for Background and Review Action Item Concentration Comparison, South Weymouth NPL Site.) Following a PRP/EPA conference call an additional assessment of site data was prepared and the report titled "Review of Statistical Approaches Proposed for South Weymouth Naval Air Station NPL Site, 5-19-99 was provided to the Region. In July, the TSC was provided a Phase II EBS-Data Analysis Update-RTN-#3-2621, dated July 7, 1999. Following a review of additional site date and documents, the TSC provided the following reports to the Region ":Use of SWNAS Background Data Set for Evaluation of the Environmental Base Line Study Item Area Data" dated December 9, 1999 and "Background Data Set Development for NAS South Weymouth Revision No. 2". A number of letter reports were provided to the Region. These reports included comments on the draft human health risk assessment work plan, background UPL computations and the issue of outliers. The TSC is currently reviewing the PRP's approach for the background screening comparison used for the "small landfill."

The TSC completed a review of a PRP proposed statistical approach for assessing risk. Following a number of conference calls the TSC participated in finalizing the "Statistical Design Criteria for NAS South Weymouth EBS Phase II Streamlined Risk Assessments. Because of the possible use of a solid phase electron donor to remediate site groundwater the RPM was provided with information and a proposal that may assist in the biological degradation of the contamination.

- Project Name: Union Chemical
  Site: Union Chemical Company S. F. Site
  Site ID:

  Type Lead:
  Requested by: Terry Connelly (617) 918-1373
  Lead Scientist: Lance Peterson (208) 528-8718 x170 Jennifer Martin (208) 528-8718 x147

  Start Date: October 2001
  Expected Completion Date: July 2002
  Revised Completion Date:

  Estimated Budget:$20,000
  Revised Budget:$35,000
  Major Contaminants: Organics

  Total Expenditures:$23,027
  Total FY02 Expenditures:$2,606
  Total 2nd Qtr. Expenditures:$1,006

  The Regional RPM requested that the ESD-LV TSC provide assistance in reviewing a closure plan for groundwater.

  The Union Chemical Company, located in South Hope, Maine, occupied approximately twelve acres in a rural residential area, with most of the activities occurring within a two-acre portion of the property. The business began operations in 1967 as a paint stripping and solvent manufacturing business. The company subsequently expanded to include recycling of used stripping compounds using a distillation unit. The operation further expanded, first with an on-site boiler and the fluidized-bed incinerator to treat the hazardous wastes. Groundwater and surface water contamination was first discovered in 1979. EPA and Maine DEP performed a removal action in 1984, taking offsite the contents of over 2000 55 gallon drums and 28 liquid storage tanks. Maine DEP closed the hazardous waste treatment at the site in June 1984. The RI, performed in 1987 - 1988, delineated contamination horizontally and vertically throughout the two-acre portion. The FS established depths for remediation, typically to the water table for most of the site, and six feet beneath the water table in an area between a leach field and interceptor trench.

The TSC received a number of documents (i.e. "Declaration for the Explanation of Significant Differences" and is currently reviewing them. Following an initial review of the provided documents the TSC and the INEEL scientists participated in a number of conference calls with the RPM.

REGION 2

- Project Name: Caldwell
  Site: Caldwell Trucking Co. S. F. Site
  Site ID:

  Type Lead:
  Requested by: Jon Josephs (212) 637-4317 Rick Robinson (212) 637-4371
  Lead Scientist: Kent Sorenson (208) 528-8718 x120, Lance Peterson (208) 528-8718 x170

  Start Date: December 2001
  Expected Completion Date: July 2002
  Revised Completion Date:

  Estimated Budget:$15,000
  Revised Budget:$
  Major Contaminants: Organics/Inorganics

  Total Expenditures:$3,232
  Total FY02 Expenditures:$3,232
  Total 2nd Qtr. Expenditures:$732

  The Regional RPM requested that the ESD-LV TSC provide assistance in reviewing a remedial design work plan for a bioremediation system for contaminated bed rock.

  This 11-acre site, located in Fairfield Township, N. J., is on an extensive 100-year flood plain of the Passaic River. From the 1950's to 1984 septic wastes were deposited in unlined lagoons and later in steel holding tanks. EPA investigations indicated on-site soil and a municipal well were contaminated with VOCs, PCBs and metals. Groundwater remains contaminated because of a TCE-contaminated plume which extends 4,000 feet toward the river.

  A second remedial action addresses off-site groundwater contaminated with VOCs including TCE. The selected remedy includes pumping and treatment of off-site groundwater using air stripping with off-site discharge to the river; installation of a drainage system to eliminate surface exposure to contaminated groundwater; sealing groundwater wells; and groundwater monitoring.

  The TSC received the document titled "Caldwell Trucking Fate and Transport of Chlorinated Ethanes" for review. Because of the similarities between the Caldwell Trucking site and the sub-surface contamination at INEEL, the RPM was provided a sampling and analysis plan that has been used in the in-situ bioremediation project at INEEL for possible use at the Caldwell site.

- Project Name: Ciba
  Site: Ciba-Geigy S. F. Site
  Site ID:

  Type Lead:
  Requested by: Marian Olsen (212) 637-4313
  Lead Scientist: Anita Singh (702) 897-3234

  Start Date:
  Expected Completion Date: July 1998
  Revised Completion Date: August 2002

Estimated Budget:$10,000
Revised Budget:$20,000
Major Contaminants: Organics

Total Expenses:$12,883
Total FY02 Expenses:$4,040
Total 2nd Qtr. Expenses:$4,040

The Regional RPM requested that the ESD-LV TSC provide assistance in reviewing statistical approaches that are being utilized by the PRP to assess Ciba-Geigy data for site characterization and remedial purposes that are being utilized by the PRP to assess Ciba-Geigy data for site characterization and remedial purposes.

This 1400-acre site includes 320 acres of developed area and a remaining wooded area. The manufacturing facility which has operated since 1952 is composed of numerous buildings, an industrial waste water treatment plant, and a lined reservoir for emergency storage of treated and untreated waste water. Chemicals have been disposed of on-site in a number of locations, including a 5.2-acre drum disposal area, a 3.9 acre lime sludge disposal area used for disposal of inorganic wastes, a 12-acre filter cake disposal area which received sludge from the water treatment, 8.5 acres of backfilled lagoons, and a calcium sulfate disposal area. In 1978, the drum and lime sludge disposal areas were closed, as was the filter cake disposal area. Currently, contaminants are present in leaking drums, waste sludge, soil and groundwater. Groundwater contamination is migrating from these inactive disposal sites toward the river. The primary contaminants of concern addressed in this operable unit affecting the groundwater are VOCs including PCE, TCE. and toluene; and metals including arsenic and chromium. A review of the geostatistical approach that will be implemented at the site was completed. The TSC attended a meeting with the RPM and PRP's. The RP{M requested cost recovery documents. The TSC received the" Draft CTM Calibration Report Toms River Site Operable Unit 2 from the RPM and was requested to review the section on geostatistics. In April following the review of this section the TSC provided the Region appropriate comments and suggestions.

The TSC reviewed a childhood cancer study and provided the Region with comments and suggestions in the report titled "Review of Draft Case-Control Study of Childhood Cancers in Dover Township (Dover Township (Ocean County), New Jersey.

- Project Name: Cornell
  Site: Cornell Dubilier S F. Site
  Site ID:

  Type Lead:
  Requested by: Marian Olsen (212) 637-4313
  Lead Scientist: Anita Singh (702) 897-3234

  Start Date: July 2001
  Expected Completion Date: April 2002
  Revised Completion Date: August 2002

  Estimated Budget:$15,000
  Revised Budget:$25,000
  Major Contaminants: Organics

  Total Expenditures:$23,188
  Total FY02 Expenditures:$15,467
  Total 2nd Quarter Expenditures: $11,867

  The Regional RPM requested that the ESD-LV TSC provide assistance in computing the EPC Risk Term.

  The Cornell Dubilier Electronics Inc. is located in South Plainfield, New Jersey. The Region II risk assessor utilized ProUCL to assess site data. Following the assessment it was recommended in the ProUCL User Guide that "advanced statistical analysis" be completed.

  The TSC completed the necessary statistical tests on site data and provided the Region with the report titled "Computation of EPC Term for Risk Assessment." The TSC provided the Region with the report titled

"Computation of a UCL for 1,1-biphenyls, Cornell Dubilier Site." During the FY02 Second Quarter the TSC received four data Sets to compute the EPC terms. Following a review and statistical analysis of the data sets the TSC provided the report titled "Computation of the EPC terms for Cornell-Dubilier Electronics Site" to the RPM.

- Project Name: Diamond Head
  Site: Diamond Head Oil Refinery
  Site ID:

  Type Lead:
  Requested by: Marian Olsen, Toxicologist, (212) 637-4313
  Lead Scientist: Anita Singh (702) 897-3234

  Start Date: June 2001
  Expected Completion Date: November 2001
  Revised Completion Date: April 2002

  Estimated Budget: $15,000
  Revised Budget:
  Major Contaminants: Inorganics

  Total Expenditures:$13,770
  Total FY02 Expenditures:$4,450
  Total 2nd Qtr. Expenditures:$186

  The RPM requested that the ESD-TSC provide assistance in designing a soil sampling/monitoring approach to characterize soil and subsurface contaminants.

  The Diamond Head Oil Refinery site is located in Kearney, Hudson County, New Jersey. Currently, the site is inactive and consists of approximately 15 acres of undeveloped land. The site is comprised of wetland areas and drainage ditches, a small wetland/pond, a vegetated landfill area along the western border of the site, and the remnants of the former Diamond Head Oil Refinery on the eastern portion of the site. The abandoned refinery portion of the site contains various construction debris, including foundations of the former on-site building and two former aboveground storage tanks. The site is currently owned by the Hudson Meadows Urban Development Corporation (HMURDC). During facility operations, two aboveground storage tanks and possible underground pits were used to store oily wastes. These wastes were intermittently discharged directly to adjacent properties, including the wetland area to the south of the site, creating an oil lake.

  The TSC reviewed provided data. Following the data review a sampling/monitoring plan titled "Draft Soil Sampling Plan for Diamond Head Oil Refinery Kearney, New Jersey" was provided to the Region. Additional support is anticipated.

- Project Name: Hilliards
  Site: Hilliards Creek S. F. Site
  Site ID:

  Type-Lead:
  Requested By: Emmet Keveney (212) 637-3916
  Lead Scientist: A. K. Singh (702) 895-1439

  Start Date: May 2001
  Expected Completion Date: October 2001
  Revised Completion Date: September 2002

  Estimated Budget: $6,000
  Revised Budget: $

  Total Expenditures:$4,000
  Total FY02 Expenditures:$1,600

Major Contaminants: Lead Total 2nd Qtr. Expenditures:$500

The RPM requested that the ESD-LV TSC provide assistance in evaluating the geostatistical approaches that are being used by the PRP's.

The Hilliard's Creek site is a vacant, unfenced site in the Borough of Gibbsboro, Camden County, New Jersey, including the stream channel, watershed and wetland areas along Hilliard's Creek. Hilliard's Creek is a small stream that runs in a southwesterly direction for approximately 1-mile where it joins the Cooper River.

The TSC reviewed the Roy F. Weston document titled "Technical Memorandum Derivation of Sample Grid Spacing" and provided the Region with comments and suggestions pertaining to the geostatistical approaches being suggested. Based on TSC comments the PRP's had a number of questions pertaining to the sampling/monitoring design. The TSC participated in a conference call and addressed all RPM and PRP comments and questions. The TSC responded to a number of questions pertaining to grid sizes for sampling and kriging analysis. The TSC was requested to perform geostatistical analysis and provide kriged maps of site contaminants. The TSC is currently reviewing provided data.

- Project Name: Hooker
  Site: Hooker Chemical/Ruco Polymer S. F. Site
  Site ID:

  Type-Lead:
  Requested By: Syed Quadri (212) 637-4233
  Lead Scientist: Kent Sorenson (208) 526-9597

  Start Date: February 1999
  Expected Completion Date: September 1999
  Revised Completion Date: September 2002

  Estimated Budget: $ 35,000 Total Expenditures:$34,683
  Revised Budget: $50,000 Total FY02 Expenditures:$ 1,982
  Major Contaminants: Organics Total 2nd Qtr. Expenditures:$1,332

  The RPM requested that the ESD-LV TSC provide assistance in reviewing a number of site documents i.e., treatability study work plan, Remedial Investigation Report for Operable Unit 3 and the Feasibility Study Report for Operable Unit 3.

  The site is located on a 14-acre tract of land in Hicksville, New York. The site includes two main production plants, a pilot plant located between these plants, a warehouse building, an administration and laboratory building, numerous above-ground chemical storage tanks and associated pipping, and several recharge basins. Since 1946, the facility was used for the production of various polymers, including polyvinyl chloride (PCV), styrene/butadiene latex, vinyl chloride/vinyl acetate copolymer, and polyurethane, as well as ester plasticizers. The facility is currently active, and manufactures such products as polyester, polyols and powder coating resins. During site operations, industrial wastewater from the facility was discharged to six (6) on-site recharge basins or sumps. The wastewater contained, among other things, vinyl chloride, trichloroethylene, barium and cadmium soap. Vinyl acetate, organic acids, and styrene condensate as a result of these releases, groundwater downgradient from the site has been contaminated.

  The TSC reviewed the Predesign Work Plan for Operable Unit I with a specific focus on the Treatability Study Work Plan (Appendix C). Comments were provided within two days of receipt of the document. Significant deficiencies were noted in the Treatability Study Work Plan. Recommendations for resolution of the deficiencies were made in the review comments and discussed on a conference call with EPA Region II and the

PRPs. An additional review was completed on the Remedial Investigation Report Operable Unit-3. The report summarized existing data and the reviewers agreed with recommendations for additional monitoring of wells. The reviewers did not agree with the conclusion that the existing data was adequate for a section of a final remedy and recommendations were made for additional data needs to fully evaluate remediation alternatives.

The TSC reviewed and provided comments pertaining to the report "Feasibility Study for Operable Unit-3 Vinyl Chloride Sub-Plume in the Vicinity of MW-S2 Hicksville, New York-KS-0599 and LMP-05-99". The TSC supplied comments to the RPM on an Interim Remedial Measures plan that calls for additional characterizing and preliminary tests to support biosparging at the Hooker/Ruco site. This work would be performed concurrently with finalization of the RI/FS and drafting of the ROD. A review of the comment responses provided by OXY for the Hooker/Ruco site RI and FS reports was completed and provided. At the request of Mr. Quadri the groundwater treatability study report was reviewed and the TSC completed a review of the comment responses on the RI and FS reports provided to the EPA by OXY for the Hooker/Ruco site. TSC transmitted written comments on the Groundwater Treatability Study Report and the In Situ Chemical Oxidation Work Plan as well as a summary of the reviews of comment responses on the RI/FS documents. A number of conference calls between the TSC scientists, the RPM and the PRP's were completed. The TSC provided input into the sampling methods that will be performed during installation of wells for the pre-design activities associated with OU-3. The TSC reviewed and provided comments to the RPM on the remedial investigation report OU-3. Following the PRP's revision of the "Feasibility Study Document for OU-3" the TSC reviewed the revised version and provided some additional recommendations.

The TSC was requested to review public comments and Northrop Grumman responses. The following two reports were provided to the Region: "Responses to Public Comments on the Proposed Plan for the Vinyl Chloride Sub-plume at the Hooker Chemical/Ruco Polymer Plant in Hicksville, New York" dated September 13, 2000, and "Proposed Response to Northrop Grumman Corporation Comments dated August 28, 2000 on the Operable Unit-3 Proposed Remedial Action Plan for the Hooker/Ruco Site, Hicksville, New York" dated September 18, 2000. A number of conversations with the RPM occurred pertaining to TSC comments and suggestions. A workshop on fractured rock was attended by a TSC representative. The TSC provided comments and suggestions on the OU-3 proposed remedial action plan. The TSC participated in a number of conference calls with the RPM. Following a review of site documents, the TSC provided the RPM the report titled "Review and Comment Summary - Enhancements to Biosparge Pre-design Testing, Operable Unit-3, Vinyl Chloride Subplume, Hooker Chemical/Ruco Polymers Site, Hicksville, New York."

- Project Name: Liberty
  Site: Liberty Industrial S. F. Site
  Site ID:

  Type-Lead:
  Requested By: Damian Duda (212) 637-4269, Lorenzo Thantu (212) 637-4240
  Lead Scientist: Robert Starr (208) 526-0184

  Start Date: July 2000
  Expected Completion Date: January 2001
  Revised Completion Date: May 2002

  Estimated Budget:$40,000
  Revised Budget:$75,000
  Major Contaminants: Volatile Organics

  Total Expenditures:$32,148
  Total FY02 Expenditures:$1,812
  Total 2nd Qtr. Expenditures:$608

  The RPM requested that the ESD-LV TSC provide assistance in the measurement of chlorinated organic isotopes in groundwater to determine possible sources of Volatile Organic Compounds (VOC's) in the groundwater system.

Liberty Industrial Finishing site located in Farmingdale, NY is an abandoned site covering less than an acre on a 7 ½-acre tract of land in an industrial park. From 1948 to 1978, the company carried out electroplating, dyeing, and painting operations at the site. The contaminated areas consist of three acid vats, a sludge drying lagoon, two leaching basins, a number of finishing vats, and a basin for holding storm water. In 1977, the State found Liberty in violation of the discharge limits of its permit. Liberty was ordered to clean up the site in 1978, but did not do so. As an initial action, the company, under State supervision, removed contaminated soils and sledges from the leaching basins, the storm water basin, and the sludge lagoon. Groundwater and soils are contaminated with heavy metals including cadmium and chromium. People who drink water from contaminated wells may be at risk.

Following a number of conference calls with the RPM the TSC provided information on "isotopic signatures" via the document titled "Literature Review: Stable Isotopic Signatures for Chloroethane Source and Progress Identification." The TSC also arranged with the Environmental Isotope Laboratory at the University of Waterloo to analyze site samples. The TSC prepared the QAPjP which was provided to the Region for review. The TSC received QAPjP review comments from the Region and is currently incorporating the comments. A final QAPjP will be completed during FY2002. The TSC has corresponded with the Waterloo laboratory pertaining to the QAPjP and technical procedure for the isotopic analysis.

- Project Name: Reich Farms
  Site: Reich Farms S. F. Site
  Site ID:

  Type Lead:
  Requested by: Jon Gorin (212) 637-4361, Marian Olsen (212) 637-4313
  Lead Scientist: Anita Singh (702) 897-3234, J. Martin (208) 528-8718 x147, Molly Leecaster (208) 526-4251

  Start Date: June 2000
  Expected Completion Date: October 2000
  Revised Completion Date: August 2002

  Estimated Budget: $15,000 — Total Exps:$98,217 PC&B:$10,251
  Revised Budget: $105,000 — Total FY02 Exps:$4,251 PC&B:$800
  Major Contaminants: Organics — Total 2nd Qtr. Exps:$4,169 PC&B:$800

  The RPM requested that the ESD-LV TSC provide assistance in determining the numbers and locations of sampling locations that are necessary to characterize site contaminants. Previous support by the TSP included special analytical analysis of site samples.

  The Reich Farm site is an open, relatively flat, sandy area covering approximately 3 acres in Dover Township, New Jersey. The site is surrounded by commercial facilities and wooded area. During a 5 month period, the site was leased from the Reich Farm owners by an independent waste hauler and used illegally for the disposal of drums containing organic solvents, still bottoms, and residues from the manufacturing of organic chemicals, plastics and resins. In December 1971, the owners of the property discovered approximately 4,500 drums containing wastes on a portion of land that they had rented out. These drums bore labels indicating that they belonged to the Union Carbide Corporation. The TSC has been requested to assist in developing a sampling plan for soils using "Punch Technology."

  The TSC completed a review of site reports and held a conference call with the RPM to clarify the specific goals of the soil sampling effort. The RPM stated that he wanted a sampling plan that would generate the appropriate data to determine if the concentrations of "SAN trimer" in the soil column were low enough to delist the soil at the site. The TSC provided the Region with a document titled "Draft Reich Farm Sample Design Scenarios." A number of discussions about the "Design Scenarios" with the RPM occurred. The TSC

incorporated Regional comments and suggestions and provided the RPM with a final field sampling plan. The TSC evaluated data and models that will be used to assess contaminant exposure to human beings. Following thid review, the TSC provided the Region with the report titled "Review of Draft Case-Control Study of Childhood Cancers in Dover Township (Ocean County), New Jersey."

- Project Name: Route 561
  Site: Route 561 Dump S. F. Site
  Site ID:

  Type Lead:
  Requested by: Emmet Keveney (212) 637-3916
  Lead Scientist: A. K. Singh (702) 895-1439

  Start Date: May 2001
  Expected Completion Date: July 2002
  Revised Completion Date:

  Estimated Budget:$6,000
  Revised Budget:$
  Major Contaminants: Lead

  Total Expenditures:$3,049
  Total FY02 Expenditures:$1,249
  Total 2nd Qtr. Expenditures:$200

  The RPM requested that the ESD-LV TSC provide assistance in evaluating the geostatistical approaches that are being proposed by the PRP's.

  Route 561 Dump is located on a vacant 2.9 acre parcel in a suburban area of Gibbsboro, New Jersey. The property is bounded by a strip mall to the north, Clement Lake to the east, Route 561 to the west, and vacant land to the south. The White Sand Branch (and its associated wetlands), which originated at the outlet of Clement Lake, flows south through the site property. The site was previously used as a paint waste dump. Operations of the plant, which was not located on the site property, included the manufacturing of varnishes, lacquers, and paints, including dry colors, paste paints, ad linseed oil liquid paints. In August 1995, the EPA collected surface and subsurface soils samples from the site property as well as sediment samples from the White Sand Branch. Analysis of these samples indicated the presence of inorganic contaminants in the on-site soil and downstream sediment samples.

  The TSC reviewed the Roy F. Weston document titled "Technical Memorandum Derivation of Sample Grid Spacing" and provided the Region with comments and suggestions pertaining to the geostatistical approaches being suggested. Based on TSC comments the PRP's had a number of questions pertaining to the sampling/monitoring design. The TSC participated in a conference call and addressed all RPM and PRP comments and questions. The TSC responded to a number of questions pertaining to grid sized for sampling and kriging analysis. The TSC was requested to perform geostatistical analysis and provide kriged maps of the site contaminants. The TSE is currently reviewing the provided data.

- Project Name: Solvent
  Site: Solvent Savers S. F. Site
  Site ID:

  Type Lead:
  Requested by: Lisa Wong (212) 637-4267
  Lead Scientist: Ken Moor (208) 526-8810 Bob Starr (208) 526-0184

  Start Date: January 2002
  Expected Completion Date: August 2002

Revised Completion Date:

Estimated Budget:$10,000
Revised Budget:$
Major Contaminants: PCB's and Metals

Total Expenses:$
Total FY02 Expenses:$
Total 2nd Qtr. Expenses:$

The Regional RPM requested that the ESD-LV TSC provide assistance in reviewing the PRPs suggested approaches for remediating soil PCB concentration.

This 13-acre site located in Lincklaen, N. Y. was operated as a chemical waste recovery facility from 1967 to 1974. The operation involved distilling waste industrial solvents to recover solvents for reuse. A 1990 removal action resulted in the disposal of over packed drums. The purpose of this remedial action is to prevent exposure to contaminated soil, to ensure protection of human health, and to restore the groundwater. The primary contaminants of concern affecting soil and groundwater are organics, PCBs and metals.

The TSC is currently reviewing the PRPs suggested remedial approach.

- Project Name: Stanton
  Site: Stanton Cleaners S. F. Site
  Site ID:

  Type-Lead:
  Requested By: Damian Duda (212) 637-4269, Lou DiGuardia (732) 906-6927
  Lead Scientist: Robert Starr (208) 526-0174

  Start Date: July 2000
  Expected Completion Date: January 2001
  Revised Completion Date: May 2002

  Estimated Budget: $45,000
  Revised Budget:$
  Major Contaminants: Volatile Organics

  Total Expenditures:$33,996
  Total FY02 Expenditures:$1,435
  Total 2nd Qtr. Expenditures:$708

  The RPM requested that the ESD-LV TSC provide assistance in the measurement of chlorinated organic compounds (VOC's) in the groundwater system.

  The Stanton Cleaners area groundwater contamination site is located in the area of Stanton Cleaners, which is an active dry cleaning facility located at 110 Cutter Mill Road in a commercial area of Great Neck, Nassau County, New York. The facility is bordered to the west by Cutter Mill Road, to the north and east by indoor tennis courts, and to the south by a gasoline station. Due to elevated groundwater levels of PCE, NCDH ordered Stanton Cleaners to conduct a subsurface soil and groundwater investigation at the site. The site was referred to NYSDEC in January 1984. As a result of the subsequent investigations conducted at the site, a plume of contaminated groundwater, consisting primarily of PCE, had been documented to be migrating from the site. PCE was detected in groundwater samples at concentrations exceeding the State and Federal maximum contaminant level (MCL) of 5 micrograms per liter (ug/L).

  Following a number of conference calls with the RPM the TSC provided information on "isotopic signatures" via the document titled "Literature Review: Stable Isotopic Signatures for Chloroethane Source and Progress Identification." The TSC also arranged with the Environmental Isotope Laboratory at the University of Waterloo to analyze site samples. The TSC prepared the QAPjP for the analysis and the data assessment protocol. The QAPjP's was provided to the Region for review. The TSC received QAPjP review comments from the Region and is currently incorporating the comments. A final QAPjP will be completed during

FY2002. The TSC has corresponded with the Waterloo Laboratory pertaining to the QAPjP and the technical procedures for the isotopic analysis.

- Project Name: United States
  Site: United States Avenue Burn S. F. Site
  Site ID:

  Type Lead:
  Requested by: Emmet Keveney (212) 637-3916
  Lead Scientist: A. K. Singh (702) 895-1439

  Start Date: May 2001
  Expected Completion Date: August 2002

  Estimated Budget:$7,000 — Total Expenditures:$3,339
  Revised Budget:$ — Total FY02 Expenditures:$1,150
  Major Contaminants: Lead — Total 2nd Qtr. Expenditures:$350

  The RPM requested that the ESD-LV TSC provide assistance in evaluating the geostatistical approaches that are being proposed by the PRP's.

  This site, located in Gibbsboro, New Jersey, is contaminated with paint wastes that pose a potential threat to public health through direct contact with the materials and also endanger the environment. From the mid 1800's to 1967, John Lucas and Company operated a paint manufacturing facility at a separate location in Gibbsboro. The Lucas manufacturing operations were acquired by the Sherwin-Williams Company in 1967, which operated the facility until its closure in 1977. The Burn Area was used as disposal and burn site for paint wastes, municipal waste and the storage of sludge generated from the former paint manufacturing facility's wastewater treatment plant.

  The TSC reviewed the Roy F. Weston document titled "Technical Memorandum Derivation of Sample Grid Spacing" and provided the Region with comments and suggestions pertaining to the geostatistical approaches being suggested. Based on TSC comments the PRP's had a number of questions pertaining to the sampling/monitoring design. The TSC participated in a conference call and addressed all RPM and PRP comments and questions. The TSC responded to a number of questions pertaining to sampling grid sizes for sampling and kriging analysis. The TSC was requested to perform geostatistical analysis and provide kriged maps of the site contaminants. The TSC is currently reviewing provided data.

REGION 3

- Project Name: Big John
  Site: Big John Savage Hoult Road S. F. Site
  Site ID:

  Type Lead:
  Requested by: Hilary Thornton (215) 814-3323
  Lead Scientist: Russell Plumb (702) 897-3265, John Zimmerman (702) 897-3379

  Start Date: March 2002
  Expected Completion Date: September 2002
  Revised Completion Date:

  Estimated Budget:$22,000 — Total Expenses:$471

Revised Budget:$ | Total FY02 Expenses:$471
Major Contaminants: Organics/Coke/Tars | Total 2nd Qtr. Expenses:$471

The Regional RPM requested that the ESD-LV TSC provide assistance in reviewing site documents and analytical results that were completed to fingerprint contaminants and identify the source of contamination.

Big John Salvage Hoult Road Site is located on the east side of Fairmont, Marion County, West Virginia on the east bank of the Monongahela River. The Sharon/Steel/Fairmont Coke Superfund Site borders the site to the east. The site was owned by Reilly Tar and Chemical Corporation (RTCC) from 1932 to 1973. Approximately 12,000 gallons of crude tar waste from the nearby Domestic Coke Corporation and Dupont Coke Plant were processed at the site daily from 1932 until 1957. Wastes generated during the above years were retained in a pond near the southern property line or disposed on in various areas on site. The pond also received wastes from the three on-site sewers and several drainage ditches. All cooling waters, acid wastes, and tar wastes were supposed to pass through the pond. Discharge from the retention flowed through a pipe into an unnamed tributary which emptied into the Monongahela River.

The TSC is currently reviewing site data.

- Project Name: Chem Solve
  Site: Chem Solve Inc. S. F. Site
  Site ID:

  Type Lead:
  Requested by: Debra Rossi
  Lead Scientist: A. K. Singh (702) 895-1439

  Start Date: February 1999
  Expected Completion Date: August 2001
  Revised Completion Date: May 2002

  Estimated Budget: $10,000 | Total Exps:$12,062 | PC&B:$1,400
  Revised Budget: $20,000 | Total FY02 Exps:$2,000 | PC&B:$600
  Major Contaminants: Organics | Total 2nd Qtr:$500 | PC&B:$600

  The RPM requested that the ESD-LV provide assistance in assessing the attainment of cleanup goals for a number of organic contaminants in site groundwater.

  This site located in Dover, Delaware served as a solvent distillation facility beginning in 1982. The facility recycled waste solvents by placing a drum on an electric coil heater, which distilled the solvents into a second drum. The contents of the second drum were filtered into a third drum, and the distilled residues stored on-site. In 1984, an explosion and fire at the site destroyed the entire distillation facility. The groundwater, soil, and one residential well is contaminated with VOCs from site waste disposal practices. The primary threat to human health is drinking the contaminated groundwater.

  After receiving the data the TSC completed initial data assessment calculations and provided the Region with a report addressing the attainment of cleanup goals. The TSC completed additional statistical assessments of site data. A letter report identifying the statistical approaches and results obtained was provided to the RPM. The TSC was asked to review and respond to some data assessment approaches that will be implemented. The TSC reviewed the suggested approaches and provided comments and suggestions to the RPM. A number of conference calls pertaining to statistical tests were completed and explanations pertaining to trend analysis was provided to the RPM. The TSC received a request for statistical information from the State of Delaware. The TSC provided the requested information. The TSC received TCE groundwater data and provided the Region

with a statistically based trend analysis. The TSC received additional monitoring data. Following a statistical assessment, the TSC provided the Region with a non-parametric statistical analysis.

- Project Name: Fairmont
  Site: Fairmont Coke Works S. F. Site
  Site ID:

  Type Lead:
  Requested by: Hilary Thornton (215) 814-3323
  Lead Scientist: Russell Plumb (702) 897-3265, John Zimmerman (702) 897-3379

  Start Date: March 2, 2002
  Expected Completion Date: September 2002
  Revised Completion Date:

  Estimated Budget:$22,000
  Revised Budget:$
  Major Contaminants: Organics/Coke/Tars
  Total Expenses:$565
  Total FY02 Expenses:$565
  Total 2nd Qtr. Expenses:$565

  The Regional RPM requested that the ESD-LV TSC provide assistance in reviewing site documents and analytical results that were completed to fingerprint contaminants and identify the source of contamination.

  The Fairmont Coke Works Site is located in Fairmont, Marion County, West Virginia. The site consists of approximately 100 acres of adjoining parcels of land. Approximately 50 acres of the site were utilized for coke plant operations, waste treatment, and disposal practices. The remaining 50 acres consists of a wooded hillside which descends to the Monongahela River, at the southern portion of the site. Site operations included manufacturing coke and refining of coke by-products. These by-products included: phenol, ammonium sulfate, benzene, coal tar, toluene, xylene, and coke oven gas.

  The TSC is currently reviewing site data and documents.

- Project Name: Langley
  Site: Langley AFB S. F. Site
  Site ID:

  Type Lead:
  Requested by: Stacie Driscoll (215) 814-3368 Kathy Davies (215) 814-3315
  Lead Scientist: Robert Gerlach (702) 897-3293 Mike Roddy (208) 526-8201 Carol Craiglow (208) 526-3106

  Start Date: November 2000
  Expected Completion Date: March 2001
  Revised Completion Date: June 2002

  Estimated Budget: $10,000
  Revised Budget:$30,000
  Major Contaminants:Inorganics
  Total Expenditures:$21,441
  Total 2nd Qtr. Expenditures:$300
  Total FY02 Expenditures:$2,394

  The RPM requested that the ESD-LV TSC provide assistance in reviewing a regression analysis that was completed by the PRP's contractor for determining the relationship between contaminant concentrations in site surface waters and sediments.

Langley AFB (LAFB) located in Hampton, VA has been an airfield and aeronautical research center since 1917 and is the home base for the First Tactical Fighter Wing. NASA Langley us a research facility that conducts 270 operations in 191 buildings and operated 40 wind tunnels. Wastes generated at LAFB and NASA Langley include waste solids, solvents, paint wastes, pesticide containers and rinse waters, photographic wastes, scrap metals, used batteries and printed circuit board plating wastes. PCBs and polychlorinated terphenyls (PCT) were used in hydraulic systems, electrical equipment, compressors, and casting operations.

Following the review of available data the TSC provided the RPM a report titled "Review of Regression Analysis for Surface Water vs Sediment Contaminants and Human Health Risk Assessment for Langley Air Force Base IRP Site OT-56 Arsenic and Old Waste." The TSC reviewed a conceptual work plan and provided the Region with the report titled "Review Comments on Conceptual Work Plan for the Evaluation of Groundwater Data, Langley Air Force Base, Virginia." The TSC received comments from the PRP's pertaining to the TSC's review of the "Conceptual Work Plan." The TSC reviewed the PRP's comments and provided a letter report that addressed the PRP's comments. Following the PRPs revision of the conceptual work plan, the TSC provided the Region with additional recommendations.

- Project Name: Letterkenny
  Site: Letterkenny Army Depot S. F. Site
  Site ID:

  Type Lead:
  Requested by: Nancy Rios-JaFolla (215) 814-3324, Stacie Driscoll (215) 814-3368
  Lead Scientist: Anita Singh (702) 798-3234

  Start Date: August 1999
  Expected Completion Date: February 2000
  Revised Completion: July 2002

  Estimated Budget: $10,000
  Revised Budget:$28,000
  Major Contaminants:Organics

  Total Expenditures:$18,737
  Total FY02 Expenditures:$497
  Total 2nd Qtr. Expenditures:$400

  The RPM requested that the ESD, TSC provide assistance in statistical data assessment.

  The Letterkenny Army Depot site, near Chambersburg, PA, covers 250 acres. From 1947 to the present, operations at the site have included the maintenance, overhaul, and rebuilding of wheeled and tracked vehicles and missiles. These operations have involved the use of large quantities of chlorinated organic solvents and cleaning agents. Some wastes from these operations have been stored and disposed of in the property Disposal Office Area (PDO) by land filling and spreading wastes on open ground areas. Other areas of suspected contamination are the drum storage area, oil burn pit, trash burning pits on the site, and possible adjacent landfills. An estimated 17,000 people reside within 5 miles of the site.

  Groundwater beneath the PDO area and surface water, including Rocky Spring Lake, are contaminated with chlorinated organic chemicals including chloroform and trichloroethylene (TCE), according to tests conducted by the Army. Soils have been contaminated by xylene, heavy metals, chloroform, and organic compounds.

  The Region had four questions pertaining to the proper use of the W-Test, T-Test and the Mann-Whitney Test. The TSC provided recommendations as to the appropriate use for each of the statistical test procedures for assessing site data. The PRP's have responded to comments on the Draft RI and RA report for SE OU8. The TSC reviewed these comments and participated in a conference call with the Region and PRP's. The TSC provided a statistical review of a proposal to use the UCL for risk assessment purposes. The TSC also provided guidance on how the 95% UCL of the mean should be calculated. The TSC responded to a number of

statistical questions and provided the report titled "Computation of the Screening Levels for Letterkenny Army Depot, Chambersburg, PA." The following procedures and comments were provided to the Region:

- Computation of an UCL for Screening Purposes dated July 21, 2000, and
- A Much Simplified Procedure to Compute an UCL of Authentic Means dated July 26, 2000.

A number of conference calls with the Region were conducted to address questions pertaining to TSC suggestions and recommendations. The TSC received, and reviewed, a focused feasibility study and supporting documentation pertaining to enhanced biodegradation. The report titled "Review of Letterkenny Army Deport Southeastern Area Southeast Operable Unit Number 10 (On-Post Groundwater) Southeast Industrial Area Draft Focused Feasibility Study" was provided to the Region. The Region participated in a conference call and provided comments on the "Geospatial Averaging Approach Proposed for the Oil Burn Pit." The TSC provided clarification to the Region on "electron donor" and the use of dyes and ionic tracers. During this quarter the TSC reviewed a number of documents and provided the following two reports: "Comments on Conceptual Work Plan for The Evaluation of Groundwater Data, Langley Air Force Base Virginia" and "Review of Comment Responses on the Geochemical Portion of the Conceptual Work Plan." The TSC participated in a conference call pertaining to the EPC term for 1,1-dichloroethene and spatially averaged UCL's. Following the review of TSC comments pertaining to OU-10 (dated June 19, 2001) by the Army, the TSC was requested ti respond to the Army's comments. The TSC is currently reviewing the Army's response.

- Project Name: Maryland
  Site: Maryland Sand, Gravel and Stone S. F. Site
  Site ID:

  Type Lead:
  Requested by: Debra Rossi (215) 814-3228
  Lead Scientist: Kent Snyder (360) 546-0687

  Start Date: March 2000
  Expected Completion Date: September 2000
  Revised Completion Date: July 2002

  Estimated Budget: $19,000
  Revised Budget:$45,000
  Major Contaminants: Organics/Inorganics

  Total Expenditures:$35,377
  Total FY02 Expenditures:$205
  Total 2nd Qtr. Expenditures:$50

  The RPM requested that the ESD-LV TSC provide assistance in determining if the site has been adequately characterized. For example, Is the combination of soil sampling conducted for past operable units (OU1 and OU2) and the combination of site characterization techniques for the current operable unit (OU3), e.g., surface geophysical methods, soil gas surveys, soil boring programs, chemical analysis of surface and subsurface soils, sufficient to conclude that: 1) portions of the so-called Eastern Excavation Area are uncontaminated (suitable for unlimited use and unrestricted access); 2) all so-called "principal threat" areas, or hot spots, have been identified (and their volumes appropriately estimated)

  The site is located in Elkton, Cecil County, Maryland. The site consists of approximately 200 acres and is bounded to the south by a telephone transmission line right-of-way, to the north and west by Marley Road, and to the east by a property line approximately parallel to Ephrarta Lane. The site was previously operated as a sand and gravel quarry. According to the Record of Decision (ROD) for OU2 at the site (i.e., the deeper water-bearing units below the shallow, Upper Sand Unit), about three acres in the Eastern Excavated Area of the site were reportedly used for the disposal of waste processing water, still bottoms, sludge and drums of solid and semi-solid waste between 1969 and 1974.

The TSC reviewed available site data and reports and provided comments on the following: "Soil Investigation", "Supplemental Soil Delineation and Treatability", "Focused Feasibility Study", and "Cost Estimates for the Revised Draft Feasibility Study." A number of conversations with the RPM pertaining to TSC recommendations were completed. Following a review of provided documents the TSC delivered the report titled "Review of Maryland, Sand, Gravel and Stone Site Work Plan for Chemical Oxidation Technology Study." The TSC provided the Region comments and suggestions in a report titled "Review of Maryland Sand, Gravel and Stone Site Remediation Technology Screening Investigation-February 2001." The TSC received and reviewed a revised "Focused Feasibility Study", and provided comments to the Region. The TSC received a "Remediation Technical Memorandum" for review. Following the review, the TSC provided the report titled "Review Comments Maryland Sand, Gravel and Stone Site Remediation Technology Screening Technical Memorandum June 14, 2001." The TSC responded to a number of questions from the RPM and PRP's. Additional support is anticipated.

- Project Name: White Oak
  Site: Naval Surface Warfare Center - White Oak S. F.Site
  Site ID:

  Type Lead:
  Requested by: Linda Watson (215) 814-3116
  Lead Scientist: Anita Singh (702) 897-3234

  Start Date: October 2001
  Expected Completion Date: July 2002
  Revised Completion Date:

  Estimated Budget:$18,000
  Revised Budget:$
  Major Contaminants: Organics/Inorganics

  Total Expenditures:$7,820
  Total FY02 Expenditures:$7,820
  Total 2nd Qtr. Expenditures:$100

  The Regional RPM requested that the ESD-LV TSC provide assistance in reviewing the statistical approach(s) that was implemented to identify background levels in site matrices. The site is located 5 miles north of Washington, DC in Montgomery County, Maryland. This is a Base Realignment and Closure (BRAC) site and was selected for closure. The base is now closed and was scheduled for transfer on October 1997.

  The Navy contractor, Brown & Root Environmental, developed a background sampling plan and the proposed statistical analysis of background data that will be collected at the White Oak site. The TSC will review the proposed statistical approach submitted by the Navy and evaluate if the methodology used is a valid measure for evaluation of background data at White Oak. Also, the TSC will comment on the appropriateness of the number of samples proposed for each media, especially the limited number of samples proposed for sediment and surface water media, and provide recommendations to improve the development of this background data set.

  Following a review of provided site documents and data the TSC provided the following report: "Review of the Background Investigation Report Naval Surface Warfare Center" and "Statistical Comparison of Site 11 and Background Groundwater Chromium Data NSWC White Oak, Silver Spring, Maryland." Additional support is anticipated.

- Project Name: Norfolk
  Site: Norfolk Naval Shipyard S. F. Site
  Site ID:

  Type Lead:

Requested by: Linda Watson (215) 814-3116
Lead Scientist: Anita Singh (702) 897-3234

Start Date: September 2001
Expected Completion Date:April 2002
Revised Completion Date:

Estimated Budget:$18,000
Revised Budget:$
Major Contaminants: Organics/Inorganics

Total Expenditures:$5,384
Total FY02 Expenditures:$5,384
Total 2nd Qtr. Expenditures:$73

The Regional RPM requested that the ESD-LV TSC provide assistance in reviewing the statistical approach used by the PRP's to evaluate the background data set.

Following a review of site documents and data the TSC provided the report titled "Review Comments on the Norfolk Naval Shipyard Statistical Approach for Evaluating Background Data." The TSC participated in a conference call with the Region pertaining to TSC comments and suggestions.

- Project Name: Occidental
  Site: Occidental Chemical S. F. Site
  Site ID:

  Type Lead:
  Requested by: Maria Garcia (215) 814-3199
  Lead Scientist: Russell Plumb (702) 897-3265

  Start Date: June 2000
  Estimated Completion Date: December 2001
  Revised Completion Date: July 2002

  Estimated Budget: $12,000
  Revised Budget:$
  Major Contaminants: Organics

  Total Expenditures:$4,067
  Total FY01 Expenditures:$4,067
  Total 2nd Qtr. Expenditures:$1,360

  The RPM requested that the ESD-LV TSC provide assistance in reviewing the Sampling and Analysis Plan and the QAPjP.

  Three consecutive owners disposed of industrial wastes at the Pottstown, PA 30-acre Occidental Chemical Corp/Firestone Tire & Rubber Co. site. The groundwater is contaminated with volatile organic compounds (VOCs) including PVCs from former site manufacturing activities. Possible health threats include drinking the contaminated groundwater. Local agricultural lands depend on water from the Schuylkill River for irrigation; contaminated water use may therefore, threaten crops and livestock. Also, nearby wildlife and wetlands are threatened by the contamination from the site.

  The TSC reviewed the "Draft Sampling Plan - Revision 3 dated June 19, 2000. Following this review comments and suggestions were provided to the Region. The TSC also reviewed the "Draft Sampling & Analysis Plan" and provided comments to the RPM in a July 7, 2000 letter report. The TSC participated in a number of conversations with the Region pertaining to TSC comments and suggestions.

  In December of 2001 the Region requested the TSC to perform the Max Test for organic/inorganic contaminants using the composite samples collected from four lagoons. The TSC received site data and

conducted the requested test. The TSC provided the Region with the report titled "Data Packing Analysis - Surface Soil Samples Occidental Superfund Site."

- Project Name: Sharon
  Site: Sharon Steel (Farrell Works) S. F. Site
  Site ID:

  Type Lead:
  Requested by: Rashi Mathur (215) 814-5234 Jennifer Hubbard (215) 814-3328
  Lead Scientist: Anita Singh (702) 897-3234

  Start Date: June 2000
  Expected Completion Date: September 2000
  Revised Completion Date: July 2002

  Estimated Budget: $20,000
  Revised Budget: $145,000
  Major Contaminants: Organics

  Total Expenditures:$128,059
  Total FY02 Expenditures:$2,081
  Total 2nd Qtr. Expenditures:$1,483

  The RPM requested that the ESD-LV TSC provide assistance in providing a systematic and standardized approach for computing the UCL-concentration term for risk assessments.

  The Sharon Steel Corporation Farrell Works Disposal Area (the "site") is an area of about 400 acres located in Mercer County in Western Pennsylvania, within a few hundred feet of the Ohio/Pennsylvania border. The site is southwest of the former Sharon Steel Corporation Farrell Works, and is bordered on the east by the Shenango River. The Sharon Steel Corporation used the area to dispose of blast furnace slag, electric arc furnace slag, basic oxygen furnace slag, and sludge beginning about 1900. From 1949 to 1981, millions of gallons of spent pickle liquor acid were dumped over the slag. It was thought that the acid would partially evaporate and then be neutralized by the carbonates in the slag. In actuality, ground water contamination resulted. The site is located in the flood plain of the Shenango River, and there are several wetland areas on site.

  This on-going effort involved the updating of the PROUCL program such as:

  - including test of normal and lognormality
  - Small samples - Shapiro Wilk's test/normal probability plot
  - Large sample - Kolmogrov-Smirnov's test/normal probability plot, and
  - for lognormally distributed data sets, include a 99% Chebychev inequality based upon minimum variance unbiased estimates. This program plus the "User's Guide Program PROUCL", "Background and a Brief Description of the Program PROUCL", and the "Installation Guide Program PROUCL" were provided to the Region.

  The TSC sent CD ROM's and copies of the documents to selected individuals for review. A number of reviewers comments were received by the TSC. The TSC addressed a number of questions by the reviewers and made the necessary changes. ProUCL Version 2.0 was finalized and is currently being peer reviewed.

REGION 4

- Project Name: Distler
  Site:Distler Brickyard S. F. Site
  Site ID:

  Type Lead:

Requested by: Femi Akindele (404) 562-8809
Lead Scientist: Lance Peterson (208)526-8718x170, Jennifer Martin (208) 526-8718x147 and Kent Sorenson (208) 526-8718x120

Start Date: April 1999
Expected Completion Date: December 1999
Revised Completion Date: October 2002

Estimated Budget: $25,000	Total Exps:$155,988 PC&B:$4,900
Revised Budget:$500,000	Total FY02 Exps:$39,388 PC&B:$1,300
Major Contaminants: Organics/Heavy Metals	Total 2nd Qtr. Exps:$25,043 PC&B:$800

The Regional Remedial Project Manager (RPM) requested that the Environmental Sciences Division (ESD-Las Vegas (ESD-LV) Technology Support Center (TSC) provide assistance in reviewing the PRP's suggested hydrogeological groundwater remediation approaches.

The 3-acre Distler Brickyard site in West Point, Kentucky is located on a 70-acre abandoned brick manufacturing plant property that operated from the late 1800s until the mid-1970s. In 1976 the property was leased by Kentucky Liquid Recycling Inc., which began transporting waste to the brickyard property. Waste disposal was contained at the site until 1979. There were approximately 2,300 drums on the site, 1,550 of which contained various liquids, sludges, and solids. Spillage from the deteriorated drums killed grass, trees, and birds on the site. A contaminated groundwater plume is located beneath the site and could threaten the city drinking water wells and the Ohio River.

Specific contaminants detected in groundwater and on-site soils include various volatile organic compounds (VOCs) and heavy metals including lead from waste disposal activities. Potential health threats include direct contact with, or accidental ingestion of, contaminated soils and groundwater.

The TSC received, and reviewed, three documents pertaining to groundwater remediation. Comments and recommendations were provided to the RPM. The lead scientist participated in a technical meeting with the RPM, USGS, and Kentucky State personnel in June. It was agreed at the meeting that additional field data are required to fully evaluate potential biodegradation at the site. The TSC is to prepare the FSP, and the USGS will lead the collection of additional field data. TSC will interpret the new field data and make a recommendation for further remedial action at the site. Distler Brickyard support is expected to continue into FY 2000 and may include a cooperative effort with USGS, EPA, State of Kentucky for design, construction and operation of an "enhancement" to the existing remedy. Several conferences calls were conducted with USGS and the Region to iron out the details of a schedule for the sampling event. Sampling activities at the Distler site to be conducted by the USGS are scheduled for October 18-22 and will include 11 wells. Samples will be sent to the EPA Water Quality Laboratory in Athens, Georgia for analysis. Data analysis will be performed by TSC staff.

The TSC and USGS completed the draft "Field Sampling Plan for the Distler Brickyard". TSC and USGS prepared a status update on field activities for the RPM. The update discusses the sampling activities conducted, problems encountered in the field, recommendations for improving site conditions, and a preliminary schedule for completion of the final report. A conference call was held to finalize this report with Femi Akindele. The TSC completed and delivered the report titled "October 1999 Groundwater Sampling and Data Analysis Distler's Brickyard, Hardin County, Kentucky".

The TSC provided the following documents to the Region: "Final Field Sampling Plan" and "Proposed Activities for Fine Grained Alluvium (FGA) Sampling." Following the collection and analysis of site samples and data the TSC provided the report titled "Summary of Groundwater and Soil Gas Collected June-August, 2000 Distler Brickyard Superfund Site, Kentucky." A meeting with the RPM occurred on October 11, 2000 at

the Regional Office and at this meeting presented the results obtained from groundwater and soil gas sampling activities conducted at the site June-August 2000. Possible final remedial response actions were presented to EPA, however, a final decision for the site was deferred pending completion of the final report.

The report titled "June-August 2000 Groundwater and Soil Gas Data Analysis, Distler Brickyard Site, Hardin County, Kentucky" was completed on November 30, 2000. This report recommended the investigation of an innovative enhanced bio-remediation technology for remediation of remaining chloroethene contamination at the site. Conference calls were conducted in January and March 2001 with USGS, EPA, and the State of Kentucky to discuss TSC recommendations. A proposal to use polymeric organic materials to enhance anaerobic reductive dechlorination at the site was written and submitted to the N.S.F. for consideration. Following the review the N.S.F. accepted and agreed to fund the proposal for $500K. A number of site and regional office visits were completed to plan, and initiate, the field work. Sampling was conducted at the site with the USGS providing equipment and lab space. Following an assessment of the sampling data the report titled "Summary of the Results of the Phase I Pilot-Scale Field Test of a Chitin-Fracing Technology Conducted at the Distler Brickyard Site, Hardin County, KY" was provided to the Region.

- Project Name: Distler
  Site: Distler Farm S. F. Site
  Site ID:

  Type Lead:
  Requested by: Femi Akindele (404) 562-8809
  Lead Scientist: Lance Peterson (208) 528-8718x170, Jennifer Martin (208) 528-8718 x147

  Start Date: March 2001
  Expected Completion Date: August 2001
  Revised Completion Date: February 2002

  Estimated Budget: $18,000
  Revised Budget: $
  Major Contaminants: Volatiles - TCE and PCE

  Total Exps:$11,785
  Total FY02 Exps:$8,069
  Total 2nd Qtr. Exps:$2,569

  The RPM requested that the ESD-LV provide assistance in identifying and implementing appropriate remedial measures to remove groundwater contaminants. This effort will involve evaluating sire data and recommending an improved remedial strategy.

  The 9-acre Distler Farm site in Louisville, Kentucky was discovered in 1977 when the EPA launched a search for sites previously used to store industrial wastes. In 1978, flood waters scattered drums of industrial waste stored at the site along the flood plain of Stump Gap Creek. In an emergency cleanup action, the EPA recovered and repacked 832 drums containing chemicals characteristic of the paint and varnish industry and then moved them to higher ground. The primary contaminants of concern affecting groundwater and soils are VOCs including TCE and PCE, metals and inorganics. The TSC is currently reviewing site documents and data. A "Draft Outline for the "Data Summary Report for the Distler Farm Site, Jefferson County, Kentucky" was prepared to better present the TSC review comments and suggestions. Review of site documents and data is in process.

- Project Name: Duracell Battery
  Site: Duracell Battery Tech S. F.Site
  Site ID:

  Type Lead:

Requested by: Ken Mallory (404) 562-8802
Lead Scientist: Jennifer Martin (208) 528-8718 x147

Start Date: September 2001
Expected Completion Date: August 2002
Revised Completion Date:

Estimated Budget:$20,000
Revised Budget:$
Major Contaminants: Organics/Inorganics

Total Exps:$4,627
Total FY02 Exps:$4,627
Total 2nd Qtr. Exps:$1,327

The Regional RPM requested that the ESD-LV TSC provide assistance in reviewing the proposed PRP's solvent remediation methods and techniques for site soil and groundwater.

The Duracell Battery Tech Site is located in Lexington, Davidson County, North Carolina. The site encompasses approximately 26.5 acres in a light industrial/commercial area of Lexington. Davidson County is situated in the west-central part of North Carolina. The county is a plateau, dissected by numerous streams, which have cut deep, narrow valleys. The site is located in the Abbotts Creek drainage basin of eastern Lexington. The Abbotts Creek watershed encompasses approximately one-third of Davidson County and empties into the Yadkin River at High Rock Lake.

Following a review of site documents and data, the TSC provided the report titled "Comments on the Remedial Investigation Report Operable Unit 2 Duracell U. S. A. Site, Lexington, North Carolina, April 2001." A number of conference calls occurred between the TSC and the RPM. A site visit was tentatively planned for May 2002.

- Project Name: Estech
  Site: Estech General Chemicals S. F. Site
  Site ID:

  Type Lead:
  Requested by: Ken Mallary (404) 562-8802
  Lead Scientist: Jennifer Martin (208) 528-8717 x147, Lance Peterson (208) 528-8718 x170

  Start Date: January 2002
  Expected Completion Date: September 2002
  Revised Completion Date:

  Estimated Budget:$19,000
  Revised Budget:$
  Major Contaminants: Lead and Arsenic

  Total Expenses:$200
  Total FY02 Expenses:$200
  Total 2nd Qtr. Expenses:$200

  The Regional RPM requested that the ESD-LV TSC provide assistance in evaluating an Engineering Evaluation/Cost Analysis (EE/CA).

  The Estech General Chemicals Site is located on the Cape Fear River in Wilmington, N.C. This site was used to manufacture phosphate fertilizer and is contaminated with lead and arsenic.

  An EE/CA will be completed following negotiations with the PRP's. When complete this EE/CA will be sent to the TSC for review.

- Project Name: Mallory
  Site: Mallory Capacitor S. F. Site
  Site ID:

  Type Lead:
  Requested by: Lofton Carr (404) 562-8804
  Lead Scientist: Jennifer Martin (208) 528-8718 x147

  Start Date: December 2001
  Expected Completion Date: July 2002
  Revised Completion Date:

  Estimated Budget:$18,000
  Revised Budget:$
  Major Contaminants: PCB's/TCE

  Total Exps:$4,852
  Total FY02 Exps:$4,852
  Total 2nd Qtr. Exps:$4,852

  The Regional RPM requested that the ESD-LV TSC provide assistance in reviewing the efforts pf the groundwater recovery system and to investigate other approaches for enhancing the recovery of PCB's and TCE in groundwater.

  Electrical capacitors were manufactured on the 8 ½ acre Mallory Capacitor site, located in Waynesboro, TN, from 1969 to 1984. The operators first used polychlorinated biphenyls (PCBs) as the dielectric fluids in the capacitors, switching to a plastics chemical in 1978. The factory changed hands when Dart Industries purchased it in 1978. Dart later sold the property in 1980 to Emhart Industries, Inc. As part of the sales agreement with Emhart, certain PCB wastes, a buried tank, and contaminated soil were removed from the site and sent to an approved PCB disposal facility. The plant continued to operate, but voluntarily closed in 1984 when PCBs were discovered throughout the site.

  A conference call with Loften Carr provided an introduction to the site. A description of the remedial activities that have been conducted to date, and identified some areas in which he requires support. At the end of the call, Loften requested TSC participation in a call with the site contractors, Conestoga River and Associates (CRA). A call was held with CRA personnel in which additional site information was provided, and CRA also identified some key documents that will be reviewed. The TSC received some additional site documents for review.

- Project Name: Northeast
  Site: Northeast Chemical S F. Site
  Site ID:

  Type Lead:
  Requested by: Ken Mallary (404) 562-8802
  Lead Scientist: Jennifer Martin (208) 528-8717 x147, Lance Peterson (208) 528-8718 x170

  Start Date: January 2002
  Expected Completion Date: September 2002
  Revised Completion Date:

  Estimated Budget:$18,000
  Revised Budget:$
  Major Contaminants: Lead, Arsenic

  Total Expenses:$100
  Total FY02 Expenses:$100
  Total 2nd Qtr. Expenses:$100

The Regional RPM requested that the ESD-LV TSC provide assistance in provide assistance in evaluating an Engineering Evaluation/Cost Analysis (EE/CA). Northeast Chemical is located next to the Cape Fear River located in Wilmington, N.C. This site manufactured "super phosphate" fertilizer for many years using the lead acid chamber process. The main contaminants at the site are inorganics, mainly lead and arsenic, in all media, as well as low pH. The Region documented a plume of low pH groundwater and suspected shallow groundwater is discharging directly into the Northeast Cape Fear River, mobilizing the contaminants. One challenge for the EE/CA will be to characterize the low pH groundwater and develop possible alternatives to address it.

The TSC has not received any site documents at this time.

- Project Name: Roanoke River
  Site: Roanoke River Study S. F. Site
  Site ID:

  Type Lead:
  Requested by: Beth Walden (404) 562-8814
  Lead Scientist: John Zimmerman (702) 897-3379 Russell Plumb (702) 897-3265

  Start Date: February 2001
  Expected Completion Date: December 2001
  Revised Completion Date: August 2002

Estimated Budget:$15,000	**Total Exps:$60,340**	**PC&B:$4,300**
Revised Budget:$80,000	**Ttl FY02 Exps:$16,088**	**PC&B:$2,500**
Major Contaminants: Organics	**Ttl 2nd Qtr Exps:$9,937**	**PC&B:$1,000**
Project Name: Roanoke	Total Exps:$33,875	PC&B:$3,170
Site: **Weyerhaeuser OU2**	Ttl FY02 Exps:$13,997	PC&B:$2,000
Site ID:	Ttl 2nd Qtr. Exps:$9,937	PC&B:$1,000
Project Name: Roanoke	Total Exps:$26,465	PC&B:$1,130
Site: **Georgia Pacific**	Total FY02 Exps:$2,091	PC&B:$500
Site ID:	Total 2nd Qtr. Exps:$0	PC&B:$0

The RPM requested that the ESD-LV TSC provide assistance in reviewing site analytical data and provide the following:

- Identify tentatively unidentified compounds TIC's
- Determine and/or identify detection limits for Phenols and PAH's and
- Perform dioxin fingerprint analysis.

The Georgia-Pacific Hardwood Sawmill site is defined as the 24-acre area located on Plywood Drive within the city limits of Plymouth, North Carolina. Contaminants consisting primarily of dioxins/furans, polynuclear aromatic hydrocarbons, pentachlorophenol, pesticides, polychlorinated biphenyls, and a few heavy metals released into the environment during past sawmill wood treating operations. Having been placed on the National Priorities List in 1999, a remedial investigation and feasibility study of the Georgia-Pacific site is required. Analysis of soil and water samples collected indicate extensive contamination by dioxin/furans, polynuclear aromatic hydrocarbons, polychlorinated biphenyls, and inorganics, arsenic, lead and zinc. After reviewing site data, the TSC provided the Region with the following reports: "Fingerprinting Dioxin-Furan

Compounds in the Lower Roanoke River," and "Dioxin Furan Fingerprinting Analysis in the Lower Roanoke River Basin."

After reviewing additional data and site documents the TSC provided the following reports to the Region: "Supplemental Analysis of Roanoke River Dioxin Data", "Roanoke River - Evaluation and Identification of Tentatively Identified Compounds and Unknowns" and "Dioxin-Furans Fingerprinting-Summary Report." The TSC participated in a meeting with the RPM and PRP's at the Regional Office, and reviewed and assessed additional data and provided the following: "Tentatively Identified Compound Assessment", "Comments on Dioxin Analysis of White Catfish Samples", and "High Volume Sampling Approach" for the Roanoke River Site. A number of letter reports dealing with "TIC" analysis was provided to the Region. Additional fingerprinting of dioxin - furans were completed. The report titled "Dioxin-Furan's Fingerprinting of POTW Monitoring Data from the Lower Roanoke Basin was provided to the Region." A site visit was tentatively planned for May 2002.

- Project Name: Shuron
  Site: Shuron Inc. S. F. Site
  Site ID:

  Type Lead:
  Requested by: Ralph Howard (404) 562-8829
  Lead Scientist: L. Peterson (208) 528-8718x170, H. Bullock (208) 526-1278, J. Martin (208) 528-8718x147

  Start Date: March 2000
  Expected Completion Date: April 2000
  Revised Completion Date: July 2002

  Estimated Budget:$18,000
  Revised Budget:$28,000
  Major Contaminants: Organics

  Total Expenditures:$14,653
  Total FY02 Expenditures:$800
  Total 2nd Qtr. Expenditures:$200

  The RPM requested that the ESD-LV TSC provide assistance by providing an oversight of the remedial design/remedial action activities that are being planned for the site. The following three tasks were identified by the RPM in which the TSC would participate:

  1. Review of the initial groundwater data and the groundwater monitoring plan.

  2. Review of the PRPs's proposal for MNA and

  3. Review groundwater data reports.

  The Shuron Inc. Superfund Site is located in Barnwell County, South Carolina. The site property consists of 85 acres, and slopes slightly from north to the southeast. The main building, from which lens manufacturing operations were conducted, is situated on a 34-acre portion of the site property. Approximately fifty-one additional acres, designated primarily as wetlands, lie to the east and southeast of the main building. The site was used by Textron, Inc. (from 1960 until 1985) and Shuron, Inc. (1995 until 1991) as an ocular lens manufacturing facility.

  Wastewater generated from manufacturing processes conducted on the site contained volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs) and metals. Wastewater was discharged from the main building to the wastewater settling lagoons, which lie east of the building. Wastewater from the

settling lagoons was discharged to the northern drainage ditch, which drained to the wetland, east of the main building. Sediment from the lagoons was transferred to the solids ponds located south of the settling lagoons.

At the request of the RPM, two TSC scientists met at the site in April 2000. The TSC reviewed the RI report, the ROD, and the baseline groundwater report and provided comments in the letter report titled "Review of the Groundwater Sampling Plan for the Shuron Superfund Site, Barnwell, South Carolina." The TSC received, and reviewed, the document titled "Arsenic Source Characterization Plan Southern Wetlands Remediation Area, Shuron S. F. Site." Recommendations to support the implementation of monitoring natural attenuation at the Shuron site was provided to the Region. The TSC participated on a conference call pertaining to the arsenic contamination. It is anticipated that the TSC will be involved with the negotiations between the Region and the PRP's consultants. Following a review of "Appendix B Work Plan" the report titled "Comments on the Groundwater Evaluation Work Plan Appendix B:Conceptual Sump and Monitoring Well Plan (dated January 14, 2002), Shuron Site, Barnwell, S.C. was delivered to the Region.

- Project Name: Tower
  Site: Tower Chemical Company S. F. Site
  Site ID:

  Type Lead:
  Requested by: Galo Jackson (404) 562-8937
  Lead Scientist: John Zimmerman (702) 897-3379, Andy Grange (702) 798-2137, W. Sovocool (702) 798-2212

  Start Date: March 2001
  Expected Completion Date: August 2001
  Revised Completion Date: August 2002

Estimated Budget: $12,000	Total Exp:$8,671	PC&B:$7,400
Revised Budget: $	Total FY02 Exps:$200	PC&B:$6,000
Major Contaminants: Volatiles/Semi-Volatiles	Total 2nd Qtr. Exps:$100	PC&B:$1,500

The RPM requested that the ESD-LV provide assistance in identifying and determining the concentration of unknown volatile and semi-volatile compounds (TICs) in ground water samples.

The 30-acre Tower Chemical Company site located in Clermont, Florida is an abandoned chemical manufacturing facility. During its operation, TCC owned and used two separate parcels of land; a main facility and an irrigation field. From 1957 to 1981, TCC manufactured, produced, and stored various pesticides. TCC discharged acidic waste waters produced in the main facility into a ½-acre, unlined percolation/evaporation pond where contaminants were solidified. TCC burned and buried the waste on a 1 ½- acre plot located at the main facility. In 1980, the waste water pond at the main facility overflowed into an adjacent swamp and entered an unnamed stream north of the site.

After reviewing the provided data, the TSC provided the Region with the report titled "Tower Chemical Evaluation and Identification of Tentatively Identified Compounds and Unknowns." Because of problems identifying some of the TIC's the Regional laboratory provided a number of sample extracts to ESD for analysis. Andy Grange and Wayne Sovocool are providing analytical support. The following were provided to the Region: "Special Study of three (3) Existing Files from Region 4" and "Elemental Compositions of the Apparent Molecular Ions from the Major Components in Four extracts from Two Wells at the Tower Chemical Site.:

REGION 5

- Project Name: Pristine
  Site: Pristine Inc., S. F. Site
  Site ID:

  Type Lead:
  Requested by: Richard Boice (312) 886-4740
  Lead Scientist: Paul Ritter (208) 526-6686

  Start Date: January 2002
  Expected Completion Date:August 2002
  Revised Completion Date:

  Estimated Budget:$8,000
  Revised Budget:$
  Major Contaminants: VOC's

  Total Expenses:$324
  Total FY02 Expenses:$324
  Total 2nd Qtr. Expenses:$324

  The Regional RPM requested that the ESD-LV TSC provide assistance in evaluating the use of Tedlar bags for soil, and gas samples.

  Pristine, Inc., located in Reading, Ohio began operating a liquid waste disposal facility at the location of a former sulfuric acid manufacturing plant on this 2-acre site in 1974. In 1977, the company obtained a permit permitting operation of a liquid waste incinerator. From 1974 to 1981, a variety of acids, organic solvents, and waste products were received at the facility and subsequently were treated by incinerator or acid neutralization and disposed of at the site. In 1979, an inspection revealed the presence of 8,000 to 10,000 drums and 13 bulk storage tanks containing a wide variety of hazardous substances. In 1981 the facility closed as a result of a State enforcement action.

  The TSC provided the Region with the currently approved EPA method (SW-846, Method 0040) and also provided some suggestions pertaining to the use of Tedlar bags.

- Project Name: Sheridan
  Site: U.S. Army Fort Sheridan Landfills S. F. Site
  Site ID:

  Type Lead:
  Requested by: Owen Thompson (312) 886-4843
  Lead Scientist: Jeff Sondrup (208) 526-8396, Marilyn Case (208) 526-7006

  Start Date: July 2001
  Expected Completion Date: April 2002
  Revised Completion Date: August 2002

  Estimated Budget:$12,000
  Revised Budget:$20,000
  Major Contaminants: Organics

  Total Expenditures:$13,422
  FY02 Expenditures.$8,143
  Total 2nd Qtr. Expenditures:$706

  The Regional RPM requested that the ESD-LV TSC provide assistance in evaluating the "landfills" gas collection/treatment system and the stability of the cover.

Fort Sheridan is a Base Closure site formerly owned by the Army located approximately 30 miles north of Chicago on Lake Michigan. The site has subsequently been completely transferred to private ownership, or realigned to other military services. Landfills 6 and 7, also known as the Wells Ravine Landfill, is a former ravine used as the base landfill in the 50's thru the 70's. The primary risk-driver at the landfill is vinyl chloride emissions and their impact on adjacent (as close as 50 feet) military housing.

The TSC reviewed the preliminary draft (60%) interim remedial design for Fort Sheridan Landfills 6 and 7. Comments and suggestions were provided to the RPM's in a letter report dated August 31, 2001. Following a review of an air monitoring and modeling report, the TSC provided the Region with Comments and Recommendations in the report titled "Draft Air Monitoring and Report Phase 1 Interim Remedial Action Landfills 6 & 7 Fort Sheridan, Illinois." Following a review of additional site documents the report titled "90% Design Submittal Interim Remedial Design Fort Sheridan Landfills 6 & 7" was provided to the RPM.

REGION 6

- Project Name: ASARCO
  Site: ASARCO Smelter (El Paso, Texas) S. F. Site
  Site ID:

  Type Lead:
  Requested by: Lon Biasco (214) 665-6673 John Rinehart (214) 665-6789 Susan Webster (214) 665-6784
  Lead Scientist: Anita Singh (702) 897-3234

  Start Date: June 2001
  Expected Completion Date: November 2001
  Revised Completion Date: July 2002

  Estimated Budget: $18,000
  Revised Budget:$40,000
  Major Contaminants: Lead/ Arsenic

  Total Expenditures:$31,401
  Total FY02 Expenditures:$4,709
  Total 2nd Qtr. Expenditures:$0

  The RPM requested that the ESD-TSC provide assistance in identifying the geographical extent of lead and arsenic on, and in the vicinity of, the ASARCO Smelter.

  Region VI completed a confirmation sampling effort at the ASARCO smelter site in El Paso, Texas. The sampling effort was conducted to confirm the results of an independent study conducted by the University of Texas El Paso (UTEP). A total of 100 sample locations were selected with samples collected from the surface (0 to 2 cm) and (0 to 6in). The samples were not collected on a grid but rather on public access areas scattered in a 3 mile radius of the site.

  The TSC completed a geostatistical analysis on this data and the UTEP data and provided the Region with the report titled "Kriging Analysis on ASARCO Data." The Region collected more samples in the El Paso area during the month of July. After analysis the data was provided to the TSC for kriging. Variogram models and the kriging results were provided to the Region. Overlays on a base map included kriged results for all data, individual sampling events, kriged results, sampling locations, and a grid for additional sampling was provided to the Region. Utilizing the information provided by the TSC the Region completed the on-site sampling effort. Following the validation of the analytical data the TSC will provide geostatistical analysis.

- Project Name: Sol Lynn
  Site: Sol Lynn/Industrial Transformers S. F. Site
  Site ID:

Type Lead:
Requested by: Ernest Franke (214) 665-8521
Lead Scientist: Lance Peterson (208)528-8718x170, R. Arnett (208) 526-8005, B. Starr (208) 526-0174

Start Date: October 1999
Expected Completion Date: July 2000
Revised Completion Date: July 2002

Estimated Budget:$38,000	Total Exps:$58,534 PC&B:$4,000
Revised Budget:$75,000	Total FY02 Exps:$319 PC&B:$600
Major Contaminants: Organics	Total 2nd Qtr. Exps:$100 PC&B:$100

The RPM requested that the ESD, TSC provide assistance in reviewing site documents and possible modeling subsurface contaminants.

The area around this 0.75-acre site, located in Houston, Texas, is a mix of residential, commercial, and light industrial facilities. Approximately 2,000 residents and 100,000 other people move within a one-mile radius of the site on a daily basis due to recreational activities associated with the area. The site operated as an electrical transformer salvage and recycling company between 1971 and 1978, and as a chemical recycling and supply company from 1979 through 1980. The first documented investigation of this site took place during the fall of 1971 when the City of Houston Water Pollution Control Division noted that the workers at Industrial Transformers poured oil out of electrical transformers onto the ground during transformer dismantling.

A technical assessment of the site, commencing in January 1986, indicated the presence of PCB contamination has been confined to the top two feet of soil. The highest concentrations of PCBs were found in the middle of the site. TCE has migrated deeper than the PCBs and away from the site. Residual TCE remaining in the surface soil will be remediated along with the PCB contaminated soils.

The TSC reviewed a number of documents and provided initial comments and recommendations to the RPM. TSC personnel met with the RPM, and the State of Texas staff in Houston, TX for a site visit and a more definitive discussion as to what assistance the TSC will provide. Following the site visit, the TSC provided a list of technologies that may be useful at the Sol Lynn site and provided information about dissolved oxygen (DO) measurements. The TSC reviewed and provided comments on the amended work plan in particular to the fate and transport modeling issues. The TSC reviewed and provided comments and suggestions pertaining to the "Supplemental RI/FS Study" and provided information on the required groundwater modeling parameters. In addition, the TSC received, and reviewed, the "Field Sampling and the Data Management Plans." The TSC is currently doing the sub-surface modeling for the Region. Additional data (i.e., well survey and water level data) was received by the TSC and was used to update the preliminary groundwater flow model. The TSC received reviewed and provided comments pertaining to the amended work. The TSC consulted with the site contractor, Tetra Tech, concerning the relocation of a well that could not be located as previously agreed due to interference with an existing powerline. Effort was devoted to examining the transport codes to be used in the planned modeling to increase their computational effort through parallelization. The TSC received a preliminary field data set which included an updated base map of the monitoring well network, well completion locations, data summary, boring logs and flow rate charts.

- Project Name: South Cavalcade
  Site: South Cavalcade S. F. Site
  Site ID:

  Type Lead:
  Requested by: Camille Hueni (214) 665-2231

Lead Scientist: Robert Starr (208) 526-0174, John Keck (208) 526-5458

Start Date: March 2000
Expected Completion Date: August 2000
Revised Completion Date: May 2002

Estimated Budget: $10,000
Revised Budget:$15,000
Major Contaminants: Organics

Total Expenditures:$11,207
Total FY02 Expenditures:$900
Total 2nd Qtr. Expenditures:$200

The RPM requested that the ESD-LV TSC provide assistance in reviewing a natural attenuation report.

This 66-acre site located in Houston, Texas is a mixture of residential, commercial, and industrial properties. The site was used as a wood preserving and coal tar distillation facility from 1910 to 1962. The wood preserving facility consisted of an operation area, a drip track, and treated and untreated wood storage areas. The operation area included wood-treating cylinders, chemical storage tanks, and a waste water lagoon. Creosote and metallic salts were used in the operation.

The primary contaminants of concern affecting the groundwater, soil and sediment are VOCs including benzene, toluene, and xylene, other organics including PAHs; and metals including arsenic, chromium and lead.

The TSC received, and reviewed, the report "Verification of Groundwater Fate and Transport Evaluation" dated July 2000. The TSC also reviewed comments by Roger Lee on the "verification" report. In November the TSC provided the Region with a report titled "Review of Verification of Groundwater Fate and Transport Evaluation-South Cavalcade Superfund Site, Houston, Texas." In summary, source control or removal is usually a prerequisite for selection of MNA. Creosote present as a DNAPL at this site would be expected to persist for decades or longer. Therefore, the plans for removal or long term management of this material are an important part of a remedy, but are not addressed in this document. The TSC participated in a number of conference calls with the Region pertaining to TSC comments and recommendations. Additional support is anticipated.

Project Name: Texarkana
Site: Texarkana Wood Preserving S. F. Site
Site ID:

Type-Lead:
Requested by: Dave Abshire (214) 665-7188 Faye Duke (512) 239-2443
Lead Scientist: Ron Arnett (206) 526-8005

Start Date: July 1996
Expected Completion Date: June 2002
Revised Completion Date: July 2002

Estimated Budget: $18,000
Revised Budget:
Major Contaminants: Organics

Total Expenditures:$2.290
Total FY02 Expenditures:673$
Total 2nd Qtr. Exps:$400

The Region V RPM requested that the TSC provide assistance in statistical and modeling issues related to characterizing site contaminants.

The 25-acre Texarkana Wood Preserving Company site, located in Bowie, Texas is an abandoned wood-treating facility that operated under various owners from 1909 to 1984. When the site was placed on the NPL in 1985, approximately 793,000 gallons of hazardous waste were stored in pressure vessels, steel tanks, retention ponds, surge tanks, and three evaporation ponds. All units were heavily contaminated with creosote and pentachlorophenol (PCP) used in the treatment process, as well as several by-products. Past efforts by the TSC included evaluation of previously collected data. The TSC utilized Geostatistics for assisting the Region in identifying the geographical distribution of site contaminants. The TSC evaluated monitoring data and attended meetings at Texarkana. The TSC participated in numerous conference calls with the RPM and has provided soil contamination maps of site contaminants. The TSC was also involved with modeling the groundwater plume. A meeting with the RPM, State of Texas personnel and TSC staff at ESD-LV to discuss monitoring design approached was completed.

Due to a change in the **remedy** the Region has requested additional assistance in updating the modeling effort that the TSC provided in 1999. The 1999 provided product was "Groundwater Fate and Transport Modeling for Texarkana Wood Preserving Company S.F. Site." The TSC is currently reviewing additional groundwater data.

REGION 7

- Project Name: Asarco
  Site: Asarco Omaha Facility S. F. Site
  Site ID:

  Type Lead:
  Requested by: Don Bahnke (913) 551-7747
  Lead Scientist: Mike Abbott (208) 526-8596, A. K. Singh (702) 895-0364, Bill Cole (702) 897-3255

  Start Date: September 1998
  Expected Completion Date: February 1999
  Revised Completion Date: July 2002

  Estimated Budget: $18,000
  Revised Budget:$80,000
  Major Contaminants: Lead

  Total Expenditures:$67, 484
  Total FY02 Expenditures:$12.218
  Total 2nd Qtr. Expenditures:$2,352

The RPM requested that the ESD-LV TSC provide assistance in modeling ground deposition rates relative to air contaminant concentrations.

The Asarco Omaha facility refined lead bullion and lead drosses. Refinement was achieved using traditional pyro-metallurgical processes including addition of metallic and non-metallic compounds to molten lead to remove impurities. The Omaha plant produces refined lead and speciality metal by-products including antimony-rich lead, bismuth, dore' (silver-rich material) and antimony oxide. Although fundamentally classified as a primary lead refinery (not lead smelter), the Omaha plant is the only facility in the United States, and one of only a few such facilities in the world, designed to process lead bullion containing recoverable amounts of several different metals. As a result, the facility employs a complex array of both traditional and unique pyrometallurgical processes which are carried out as batch operations. This facility was constructed in the early 1870s and is currently closed.

The TSC review of site and metallurgical data deposition was completed. Following this review an initial model was completed. This model included plots of relative annual wet and dry deposition rates from the 180' "Black Stack" covering the periods 1984 through 1990. Deposition modeling runs have been completed for the

180' stack. A 310' stack is soon to be evaluated. Once all the modeling is completed, a report will be written and provided to the Region. The final report "Dispersion Modeling of Atmospheric Deposition Patters Around the Asarco Omaha Lead Refinery" was completed and sent to the RPM. This report details the methods and results of lead fallout modeling for both the 180-ft. Black Stack and an old 310-ft. Stack. There was some follow-up work completed comparing the modeling results with a map of actual soil concentrations. Comments pertaining to the comparison of soil concentration with the modeling results were provided to the RPM. The TSC was requested to provide geostatistical support by kriging soil lead concentrations on and in the vicinity of the smelter. The TSC completed the kriging and provided maps and associated overlays. In addition, the TSC provided recommendations for additional sampling locations that would improve the kriged results. Based on these maps the RPM requested assistance in identifying specific sampling locations. The TSC provided the Region an "all properties kriged map identifying six locations where additional samples should be collected." The TSC provided the Region with a table identifying properties on and near the site that exceeded 400 mg/kg of soil lead at one mile increments. Also provided were figures and tables delineating the percentage of properties exceeding 400 mg/kg of lead on 4 cardinal directions in 1-mile increments. The TSC received additional data completed geostatistical analysis and provided the Region with kriged maps and overlay of soil lead concentration. The TSC evaluated arsenic soil data for possible kriging. The TSC provided some additional base maps showing more streets as requested by the RPM.

- Project Name: Big River
  Site: Big River Mine Tailing S. F. Site
  Site ID:

  Type Lead:
  Requested by: Bruce Morrison (913) 551-7755
  Lead Scientist: Mike Abbott (208) 526-8596

  Start Date: April 1997
  Expected Completion Date: October 1997
  Revised Completion Date: August 2002

  Estimated Budget: $30,000
  Revised Budget:$125,000
  Major Contaminants: Inorganics

  Total Expenditures:$111,377
  Total FY02 Expenditures:$10,517
  Total 2nd Qtr. Expenditures:$5,650

  The Big River Mine Tailings site in Desolge, St. Francois County, Missouri, was used for disposal of lead mine tailings during 1929-58. The site, a fomer mining region, is about 70 miles south of St. Louis and is often referred to as the "Old Lead Belt". The region (approximately 110 square miles) contains numerous tailings ponds and piles.

  St. Joe Minerals Corporation operated the site. There is disposed lead, cadmium, and zinc rich mine tailings over approximately 600 acres in rural areas bordered on three sides by Big River. In 1972, the company donated 502 acres of the land to St. Francois County, which then leased the land to St. Francois County Environmental Corp. (SFCEC). Since 1973, SFCEC has operated a sanitary landfill on approximately 60 acres of the southern section of the tailings pile.

  EPA learned of the site in 1977, when an estimated 50,000 cubic yards of tailings slumped into the Big River during a heavy rain storm. After the collapse, the Missouri Department of Conservation detected elevated lead levels in bottom-feeding fish and advised local residents.

  The RPM requested the TSC to evaluate and identify air deposition of lead-containing particulates in the vicinity of mine waste piles. The deposition of particulates were modeled to determine if additional sampling is

required to characterize lead contamination. In addition, samples from this site will be analyzed to determine the amount of total and bioavailable lead for risk assessment purposes.

Source emission modeling was completed for 34 chat pile and tailings flat sources utilizing over six years of hourly wind data. These emission rates accounted for source-specific particle size, surface roughness, pile height, and lead concentration. Air dispersion modeling using the Fugitive Dust Model has been completed for all sources over a coarse receptor grid of the entire 225 km 2 region. All deposition modeling has been completed and the report "Air Dispersion Modeling of Mine Waste in the Southeast Missouri Old Lead Belt" was given to the Region. The report was reviewed by the Region and the Agency for Toxic Substances and Disease Registry. The report was finalized and developed into an external report and a journal manuscript. The final publications will include a comparison of the modeling results with surface soil sampling data recently obtained. Initial examination of these sampling results indicate very good agreement with model predictions. Finalization of the modeling report was completed, after receiving review comments from the RPM. Review comments were received. The report was finalized. The RPM requested that the TSC provide assistance as needed to the PRP sub-contractor (TRC, Inc.) in using modeling results for the PRP's current site assessment. This benefits EPA by promoting consistency and coordination between the PRP and EPA's site assessment methods and assumptions. On September 29th, Gayle Hoffnagle of TRC Inc., was sent a zipped file containing the six 1-year St. Louis FDM met files that were used in the Big River site modeling and an Excel file containing Desloge air monitoring (lead only) data that was built from hard copies of Shell monitoring reports. The TSC Task Lead and the TRC Inc. personnel have had a number of discussions pertaining to a number of modeling issues.

The TSC received a request to review a Deposition Sampling Protocol developed by the PRP subcontractor, TRC. That protocol proposed that downwind deposition of wind suspended lead be measured using oil-coated filters in samplers located downwind of two tailing sites. The TSC completed the review of the deposition sampling protocol and provided comments to the Region. In December the TSC was requested to review a new air sampling plan submitted by TRC. The plan was reviewed with comments and suggestions provided to the Region. The TSC completed some lead/soil analysis and provided the Region with the report titled "Big River Superfund Site In Vitro Soil Extraction." The TSC completed some data assessment analysis pertaining to the distribution of lead from the source. The RPM sent the TSC an additional sample for bioavailable lead analysis. The sample was analyzed and the analytical results were provided to the RPM. The RPM requested that the percent (%) of bio available lead be calculated. Following an assessment of the data of was determined that the % could not be calculated because the sample particle size was to large.

- Project Name: Eagle
  Site: Eagle-Picher S. F. Site
  Site ID:

  Type Lead:
  Requested by: Stephanie Doolan (913) 551-7719
  Lead Scientist: Chris Staley (208) 526-5687

  Start Date: January 2002
  Expected Completion Date: June 2002
  Revised Completion Date:

  Estimated Budget:$19,000
  Revised Budget:$
  Major Contaminants: Lead

  Total Expenses:$900
  Total FY02 Expenses:$900
  Total 2nd Qtr. Expenses:$900

The Regional RPM requested that the ESD-LV TSC provide assistance in modeling wind suspension and downwind transport of contamination from specific point sources.

The Eagle-Picher site is located in Joplin, Missouri. The issue at this site is whether fugitive dust and air discharges may potentially recontaminate surrounding residential properties which have already been cleaned up by Superfund. Investigations indicate that high levels of lead in surface soil and the facility has permitted air discharges from its lead smelting operations (secondary smelter of lead ingots to make leaded glass and paint.)

- Project Name: Iowa
  Site: Iowa Army Ammunition Plant S. F. Site
  Site ID:

  Type Lead:
  Requested by: Bob Mournighan (913) 551-7913, Scott Marquess (913) 551-7063
  Lead Scientist: Tim Ehli (702) 897-3264, Ken Moor (208) 526-8810, Doug Akers (208) 526-6118

  Start Date: May 2001
  Expected Completion Date: October 2001
  Revised Completion Date: March 2002

  Estimated Budget: $10,000
  Revised Budget: $25,000
  Major Contaminants: Depleted Uranium

  Total Expenditures:$12,041
  Total FY02 Expenditures:$860
  Total 2nd Qtr. Expenditures:$300

  The RPM requested that the ESD, TSC provide assistance in reviewing a proposed aerial radiation technology and determine if this technology could be implemented at the Iowa Army Ammunition Plant (IAAP) site for contaminant characterization purposes.

  Located in Middleton, Iowa the 19,127-acre IAAP site's primary business since 1941 has been to load, assemble, and pack a variety of conventional ammunition and fusing systems. Wastes currently produced at IAAP consists of various explosive-laden sludges, wastewater, and solids; lead-contaminated sludges; ashes from incineration and open burning and explosives; and waste solvents from industrial and laboratory operations. Past operations also generated waste pesticides, radioactive wastes and incendiaries.

  The TSC obtained the results of a number of previously conducted aerial surveys. Evaluating the results of these surveys will enable the TSC to better evaluate the efficiency of this technology and its application at the IAAP site. Following the review of available data the TSC provided the report titled "Detection of Depleted Uranium and Casium-137 Using the AMS Bell 412 Aerial Survey System and the Kiwi Ground Survey System." The TSC provided information to the Region about a radiation survey that USDOE-Oak Ridge completed at the Iowa Army Ammunition site. Additional support is anticipated.

- Project Name: Oronogo-Duenweg
  Site: Oronogo-Duenweg Mining Belt S. F. Site
  Site ID:

  Type Lead:
  Requested by: Mark Doolan (913) 551-7196 Jay Cornish (406) 494-7329
  Lead Scientist: John Zimmerman (702) 897-3279

  Start Date: December 1999
  Expected Completion Date: July 2000
  Revised Completion Date: June 2002

Estimated Budget: $27,000
Revised Budget:$38,000
Major Contaminants: Lead

Total Expenditures:$29,742
Total FY02 Expenditures:$7,873
Total 2nd Qtr. Expenditures:$5,337

The RPM requested that the ESD, TSC provide assistance in the in-vitro analysis of soil samples that are part of a treatability study being conducted by the Region.

The Oronog-Duenweg Mining Belt site, which covers 6,400 acres, is considered part of the Tri-State Mining District of Missouri, Kansas, and Oklahoma. Two other sites in the district, Cherokee County in Kansas and Tar Creek in Oklahoma, were placed on the NPL in 1983. Lead and zinc ores, as well as some cadmium ores , were mined from 1948, to the late 1960's, with the greatest activity occurring in an area between Oronogo and Duenweg northeast of Joplin.

Mining efforts were originally performed by independent operations that, in later years, were organized by several area mining companies. The site is honeycombed with underground workings, pits, shafts (open, closed, and collapsed), mine tailings, waste piles, and ponds holding tailing waters, An estimated 10 million tons of wastes or tailings are on the site.

Tests conducted in 1977 by the U. S. Geological Survey found on-site groundwater and surface water to be contaminated with heavy metals including lead, zinc, and cadmium from the mining operations. Potential risks may exist through drinking contaminated surface water and groundwater or coming into direct contact with contaminated water.

The TSC received and reviewed the work plan titled "Phosphate Stabilization of Heavy Metals-Contaminated Mine Waste Yard Soils, Joplin, Missouri NPL Site". Comments were provided to the RPM. The analytical QAPjP was reviewed. Comments were provided to the RPM. The samples for this in-vitro analysis were provided to the TSC. The samples were extracted and analyzed. Following the analysis the TSC provided the Region with a spread sheet that contained the arsenic and lead level results. The TSC received a number of additional samples for lead analysis. The samples were extracted and analyzed. Following a quality control review the analytical report was finalized and provided to the Region.

REGION 8

- Project Name: Eureka
  Site: Eureka Mills S. F. Site
  Site ID:

  Type Lead:
  Requested by: Paula Schmittdiel (303) 312-6861, Mary Goldade (303) 312-7024
  Lead Scientist: Bill Cole (702) 897-3255

  Start Date: May 2001
  Expected Completion Date: November 2001
  Revised Completion Date: July 2002

  Estimated Budget: $12,000
  Revised Budget:$48,000
  Major Contaminants: Metals

  Total Expenditures:$32,215
  Total FY02 Expenditures:$16,208
  Total 2nd Qtr. Expenditures:$10,040

  The RPM requested that the ESD, TSC provide assistance in utilizing XRF technologies for characterizing soils contaminated with lead and arsenic.

The Eureka Mills site located in Utah is contaminated with heavy metals. This contamination apparently occurred during the mining and milling operations.

The TSC provided the Region with the draft report titled "Wavelength and Energy Dispersive X-Ray Fluorescence - A Brief Technology Comparison." The RPM and a TSC representative meet with Regional personnel and Regional contractors at the site to discuss the use and application of the XRF technology. During this meeting it was decided that samples would be collected and sent to the TSC for sample preparation, and then sending aliquots to two different laboratories for analysis.

The TSC received site samples. The samples were mixed, containerized, and sent to the laboratories for analysis. The TSC will participate in data quality assessment of the XRF analysis and in finalization of the wavelength and energy dispersive XRF report.

- Project Name: Gilt
  Site: Gilt Edge Mine S. F. Site
  Site ID:

  Type Lead:
  Requested by: Ken Wangerud (303) 312-6703
  Lead Scientist: Clark Scott (208) 526-2919

  Start Date: March 2002
  Expected Completion Date:October 2002
  Revised Completion Date:

  Estimated Budget: $25,000
  Revised Budget:
  Major Contaminants: Cyanide

  Total Expenditures:$800
  Total FY02 Expenditures:$800
  Total 2nd Qtr. Expenditures:$800

  The RPM requested that the ESD- LV TSC provide assistance in assessing the use of electromagnetic geophysical survey methods to conduct short and long term monitoring of contaminant generation and transport within the Ruby Waste Rock Repository.

  The Gilt Edge Mine located near Deadwood, SD is located about 5 miles east of Lead at the headwaters of cold-water fisheries and municipal water supplies of the northern Black Hills. It is a 258-acre open pit, cyanide heap leach gold mine, developed in highly sulfidic ore bodies. The operator became solvent, leaving 150 million gallons of acidic, heavy-metal laden water in three open pits. As well as millions of cubic yards of acid-generating waste rock that need cleanup and long-term treatment.

- Project Name: Lowry
  Site: Lowry Landfill S. F. Site
  Site ID:

  Type Lead:
  Requested by: Gwendolyn Hooten (303) 312-6646
  Lead Scientist: Ken Moor (208) 524-8810

  Start Date: March 2000
  Expected Completion Date: September 2000
  Revised Completion Date: August 2002

Estimated Budget: $21,000
Revised Budget: $45,000
Major Contaminants: Radionuclides

Total Expenditures:$29,661
Total FY02 Expenditures:$1,007
Total 2nd Qtr. Expenditures:$100

The RPM requested that the ESD-LV TSC provide assistance in plutonium and americium performance evaluation standards.

This site is located about 20 miles southeast of downtown Denver, Colorado, in unincorporated Arapahoe County. From the mid-1960s until 1980, the site was operated as an industrial liquid waste and municipal solid waste landfill. Liquid wastes disposed of at the site included hazardous substances such as VOCs and heavy metals. In 1980, waste disposal was restricted to municipal solid waste. In 1984, the site was placed on the National Priorities List (NPL). From 1984 to 1993, studies were performed to define the nature and extent of contamination, to estimate potential health and environmental risks, and to evaluate cleanup alternatives for the site.

The TSC reviewed site data and the proposed sampling/analysis plan. Information concerning descriptive laboratory detection levels were also received and reviewed. The TSC discussed the proposed PE sampling plan with the RPM. The analytical labs sent sample bottles. The TSC spiked the bottles with AM-241 and plutonium -238 and -239. The spiked samples were sent to the Colorado State laboratory. The TSC responded to a number of questions from the Region pertaining to the prepared P. E. samples. The TSC received a request from the RPM for a geophysicist to present a slide show on potential geophysical methods that could be used to characterize the sub-surface at the Lowry Landfill. A presentation on geophysical methods and suggested methods that may be applicable for site characterization was provided to Regional, State, contractor and PRP personnel. Additional support is anticipated.

REGION 9

- Project Name: Aerojet
  Site: Aerojet General Corp. S. F. Site
  Site ID:

  Type Lead:
  Requested by: Steve Remaley (415) 972-3802, Charles Berrey (415) 972-3146, K. Mayer (415) 972-3176
  Lead Scientist: J. Zimmerman (702) 897-3279, Vicki Ecker (702) 897-3233, Russell Plumb (7002) 897-3265

  Start Date: May 1999
  Expected Completion Date: October 1999
  Revised Completion Date: August 2002

  Estimated Budget: $19,000
  Revised Budget: $85,000
  Major Contaminants: Organics

  Total Expenditures:$80,229
  Total FY02 Expenditures:$15,856
  Total 2nd Qtr. Expenditures:$7,582

  The Regional TPO requested that the ESD-LV TSC provide assistance in auditing GC and GC/MS laboratory data, and to provide analytical protocol assessments.

  The Aerojet General Corp. covers 8,500 acres near Rancho Cordova, 15 miles east of Sacramento. Since 1953, Aerojet and its subsidiaries have manufactured liquid and solid propellant rocket engines for military and commercial applications and have formulated a number of chemicals, including rocket propellant agents, agricultural, pharmaceutical, and other industrial chemicals. In addition, the Cordova Chemical Company operated a chemical manufacturing facility on the Aerojet complex from 1973 to 1979. Both companies

disposed of unknown quantities of hazardous waste chemicals, including TCE and other chemicals associated with rocket propellants, as well as various chemical processing wastes.

The initial effort by the TSC was to identify the contents of the provided tapes and disks. Following an assessment of the tapes and disks a letter report describing the contents was provided to the Region. Due to missing data the data audit was discontinued. The TPO then requested the TSC to provide available information pertaining to hydrazine in water. The TSC provided the Region with a report titled "Considerations on the Handling and Storage of Aqueous Samples to be Analyzed for Hydrazine." Additional assessment of Aerojet analytical protocols was accomplished. A report providing an assessment of perchlorate, hydrazine, and NDMA analytical protocols was provided to the Region. The TSC provided the RPM an assessment of 49 analytical SOPs that are being used to analyze samples. The TSC reviewed a revised SOP for hydrazine to identify inadequacies, determine if appropriate methods are being used, and to verify consistency with EPA and state guidance. Following the finalization of all SOP's by the PRP, the RPM requested the TSC to review them and identify any deficiencies. The TSC completed the review and provided comments and suggestions to the Region. The TSC received, reviewed, and provided the Region comments and suggestions pertaining to the analytical protocol titled "Determination of Base/Neutrals and Acids Revision 3." The TSC responded to a number of inquiries dealing with "NDMA" and provided the Region with the report titled "NDMA Detection Levels for the Aerojet Superfund Site". The TSC reviewed eight revised and one new laboratory analytical method and provided the Region with the report titled "Review of Analytical Methods Prepared/Revised by Aerojet Laboratories July 13, 2001." The TSC reviewed a number of revised Aerojet laboratory analytical methods, and provided the Region with comments and suggestions. The TSC reviewed the revised NDMA analytical method and provided comments to the RPM. The TSC was requested to review "Acculabs, Inc., SOP and App. B. Determination of Perchlorate in Water and Solid Samples Using ESI/LC/MS/MS." This review is in process. The TSC also agreed to accept water samples. From the Salton Sea, spike them with a perchlorate standard and send the samples to a number of laboratories for analysis.

- Project Name: Alark
  Site: Alark Hard Chrome S. F. Site
  Site ID:

  Type Lead:
  Requested by: David Stensby (415) 972-3246
  Lead Scientist: Ken Moor (208) 526-8810 Clark Scott (208) 526-2919

  Start Date: November 2001
  Expected Completion Date: August 2002
  Revised Completion Date:

  Estimated Budget:$15,000
  Revised Budget:$
  Major Contaminants: TCE and Chromium

  Total Expenditures:$1,300
  Total FY02 Expenditures:$1,300
  Total 2nd Qtr. Expenditures:$600

  The Regional RPM requested that the ESD-LV TSC provide assistance in utilizing geophysical methods in fractured rock to delineate the lateral and vertical extent of chromium and TCE contamination in the aquifer.

  Alark Hard Chrome is a relatively small site located in downtown Riverside, CA. It operated as a chrome plater from 1971 until closure in 1985. It was ordered closed when the County Health Dept. found Alark using a sump on site for waste disposal. Plating solutions were dumped in the sump and allowed to percolate into soil. As a result, there was severe soil contamination and also groundwater contamination. The State DTSC investigated and excavated over 1,200 cubic yards of soil from the area of the sump to 40 feet bgs. DTSC also installed 10 groundwater monitoring wells. Groundwater has been impacted by chromium and TCE.

The TSC received the document titled "Groundwater Remedial Investigation Report for the Alark Hard Chrome Site Riverside, California" for review. Following the review of this document the TSC also participated in a number of conference calls to further discuss appropriate geophysical technologies that could be used to characterize site contaminants.

- Casmalia
  Site: Casmalia Disposal S. F. Site
  Site ID:

  Type Lead:
  Requested by: Kent Kitchingman (415) 972-3142
  Lead Scientist: Jeff Sondrup (208) 526-8396 Bob Starr (208) 526-0174

  Start Date: November 2000
  Expected Completion Date: May 2001
  Revised Completion Date: July 2002

  Estimated Budget: $20,000
  Revised Budget:
  Major Contaminants: Organics

  Total Expenditures:$6,471
  Total FY02 Expenditures:$3,471
  Total 2nd Qtr. Expenditures:$200

  The Regional RPM requested that the ESD-LV TSC provide assistance in determining flow paths of contaminated groundwater on and near the Casmalia site.

  The Casmalia Disposal Site is a 252-acre inactive commercial hazardous waste treatment, storage, and disposal facility located in Santa Barbara County, California, 10 miles southwest of the City of Santa Maria and four miles from the pacific Ocean. Between 1973 and 1989, the site accepted approximately 4.5 billion pounds of waste. Facing multiple enforcement actions, the site's owners and operators stopped taking shipments of waste material in 1989. In the early 1990s. The owners and operators abandoned efforts to properly close and clean up the site. Conditions at the site presented imminent and substantial endangerment to human health and environment.

  The TSC had a conference call with the RPM and sent information to the Region pertaining to the qualifications of the INEEL staff that will participate on this project. The TSC received, and is currently reviewing, the report titled "Groundwater Data Summary Report 1992-2000 Casmalia Waste Management Facility Casmalia, CA." The RI/FS workplan will also be sent to the TSC for review. The TSC provided the Region with information pertaining to the use of geophysical (electrical/magnetic) methods that may be useful to characterize site contaminants. The TSC participated in a number of conference calls with the RPM Concerning possible geophysical methods that maybe used to characterize site contaminants.

- Project Name: City of Phoenix
  Site: City of Phoenix 19th Avenue Landfill S. F. Site
  Site ID:

  Type Lead:
  Requested by: Nadia Hollan (415) 744-2363
  Lead Scientist: Mike Abbott (208) 526-8596

  Start Date: May 2000
  Expected Completion Date: November 2000
  Revised Completion Date: June 2002

Estimated Budget: $18,000
Revised Budget: $30,000
Major Contaminants: Organics

Total Expenditures:$24,292
Total FY02 Expenditures:$1,750
Total 2nd Qtr. Expenditures:$800

The RPM requested that the ESD-LV TSC provide assistance in reviewing ambient air monitoring and monitoring plans.

This 213-acre site operated as a landfill between 1957 and 1979, during which about 9 million cubic yards of municipal refuse, solid and liquid industrial wastes, and some medical wastes were deposited. However, the site was closed in 1979 due to the threat of flooding from the Salt River Channel. This remedial action is designed to mitigate threats resulting from flooding. The primary contaminants of concern in the soil/refuse include VOCs such as toluene and xylenes.

The TSC received three documents for review: The Ambient Air Monitoring Plan and two Ambient Air Monitoring reports. Following the review it was felt that the four landfill air sampling tests were well conducted and that the results showed differential concentrations that were well below levels of concern. However, the number of samples (total of 8 events per cell) was not adequate to draw the conclusion that long-term VOC emissions from the landfill are of no concern. The sampling experimental design (discrete 4-hour upwind/downwind samples) has two inherent and compounding limitations that cannot be overcome with a limited number of samples: 1) the inability to distinguish source emissions from the relatively high background concentrations in the area and 2) the dilution of source emissions to below instrument detection limits because of air transport/dispersion to the downwind samplers. Some additional sampling was recommended.

The TSC received a request from the RPM in early August for information on Open Path Fourier Transform Infrared Spectrometry (FTR), and whether it could be a useful tool at the landfill. The TSC responded on August 17 with some background information on the technology and some experience at the INEEL using this technology. The TSC believes that this technology would be a useful tool to address the landfill issues. The TSC received volumes 1 and 2 of the Ambient Air Monitoring Program Report and the Ambient Air Monitoring Plan for review. The review of these documents was completed and the report titled "INEEL Review Comments on the Ambient Air Monitoring Program Report for Nineteenth (19th) Avenue Landfill-Phase II." A number of conference calls with the RPM were completed. The TSC received information pertaining to the Region's review of the Phase II Ambient Air Report. The TSC completed the review of the "Phase II Report." The TSC participated with the RPM and J. Paull a Region IX Toxicologist in a review and discussion of the Phase 2 Ambient Air Monitoring Program. Additional support is anticipated.

- Project Name: Eglin
  Site: Eglin AFB S. F. Site
  Site ID:

  Type Lead:
  Requested by: Steve Remaley (415) 972-3802
  Lead Scientist: John Zimmerman (702) 897-3279

  Start Date: August 2001
  Expected Completion Date: June 2002
  Revised Completion Date:

  Estimated Budget:$18,000
  Revised Budget:$
  Major Contaminants: Organics/Inorganics

  Total Expenditures:$3,689
  Total FY02 Expenditures:$3,689
  Total 2nd Qtr. Expenditures:$3,658

The Regional RPM requested that the ESD-LV TSC provide assistance in reviewing a laboratory's analytical documents and perform a data audit on GC and GC/MS.

The TSC received analytical data and completed the audit and provided the Region with the report titled "Audit Report of Hard Copy and Electrical Data from Columbia Analytical Services, Inc., Jacksonville, Florida for the Eglin Air Force Base Superfund Site."

- Project Name: Fort Ord
  Site: Fort Ord S. F. Site
  Site ID:

  Type-Lead:
  Requested By: John Chesnutt (415) 972-3005
  Lead Scientist: Anita Singh (702) 798-3234

  Start Date: September 2000
  Expected Completion Date: March 2001
  Revised Completion Date: July 2002

  Estimated Budget:$35,000
  Revised Budget:$55,000
  Major Contaminants: UXO

  Total Expenditures:$43,443
  Total FY02 Expenditures:$15,536
  Total 2nd Qtr. Expenditures:$5,708

  The RPM requested that the ESD-LV TSC provide assistance in reviewing the Unexploded Ordnance (UXO) Statistical Sampling (SiteStats/GridStats) and Risk Assessment (OE*Cert)* Methodology. These programs were developed for conducting engineering evaluation/cost analysis (EE/CA), and UXO investigation for various ordnance and explosives (OE) located on Formerly Used Defense Sites (FUDS). Three statisticians, Dr's Max Engelhardt, Ashok K. Singh, and Anita Singh, were asked by the TSC to review and assess provided document and computer programs.

  The Fort Ord site, located in Marina, CA., was established by the U. S. Army as a maneuver area and field artillery target zone. Chemicals and hazardous wastes are stored at on-site facilities before they are transported and disposed of off-site. There are several areas of contamination on sites. One of these areas includes three inactive landfills that once were used to dispose of residential and commercial waste, In addition to UXO the facility has leaking hazardous waste tanks, containers of waste oil and various automotive chemicals and chemical storage areas.

  The primary focus of this evaluation will be to conduct an assessment of "SiteStats/GridStats" and OE*Cert* that are used to characterize sites contaminated with UXO. There are questions pertaining to the proper use and application of the mathematical and statistical approaches that have been incorporated in these programs. The data for this assessment was provided by the USACE in Huntsville, Alabama. The TSC completed a report titled "UXO Sampling and Characterization Using Indicator Kriging an Alternative Approach for Estimating Probabilities of Finding UXO Item." This report provided to the Region utilized Fort Ord and Buckley Field data. The TSC also provided the Region with the document titled "Review of the ORNL/TM-13588 Report." Following additional reviews the TSC provided the following two reports: "Summary of Recent Results on Site Stats Evaluation Performed After the August 9-10, 2000, Partnership Meeting Between USACE and EPA NERL Las Vegas" and "UXO Sampling and Characterization Using Indicator Kriging an Alternative Approach for Estimating Probabilities of Finding UXO Items." Support was provided by the TSC in reviewing the preliminary draft ordnance and explosives sampling and analysis plan. The TSC also provided comments and suggestions pertaining to the statistical programs that are being suggested for characterizing UXO at the Fort Ord site. Comments pertaining to the "Modified Spatial Analysis " was provided to the Region.

The TSC provided a number of reviews of the spatial analysis software that is being developed by Ramzi Mahmood for the USACE.

- Project Name: Conoco Hayden-Culver City
  Site: Hayden Property #2 S. F. Site
  Site ID:

  Type Lead:
  Requested by: Steve Remaley (415) 972-3802
  Lead Scientist: John Zimmerman (702) 897-3279

  Start Date: August 2001
  Expected Completion Date: May 2001
  Revised Completion Date:

  Estimated Budget:$18,000
  Revised Budget:$
  Major Contaminants: Organics

  Total Expenditures:$10,062
  Total FY02 Expenditures:$10,062
  Total 2nd Qtr. Expenditures:$6,808

  The Regional RPM requested that the ESD-LV TSC provide assistance in reviewing laboratory analytical documents and perform a data audit on GC and GC/MS data.

  The TSC received analytical data and is in the process of conducting the data audit.

- Project Name: McClellan
  Site: McClellan AFB S. F. Site
  Site ID:

  Type Lead:
  Requested by: Steve Remaley (415) 972-3802
  Lead Scientist: John Zimmerman (702) 897-3279

  Start Date: October 2001
  Expected Completion Date: April 2002
  Revised Completion Date:

  Estimated Budget:$48,000
  Revised Budget:$
  Major Contaminants: Organics

  Total Expenditures:$34,695
  Total FY02 Expenditures:$642
  Total 2nd Qtr. Expenditures:$425

  The Regional RPM requested that the ESD-LV TSC provide assistance in reviewing laboratory analytical documents and perform a data audit on GC and GC/MS data.

  The 2,952-acre McClellan Air Force Base (MCAB) site was established in 1936 and operates today as an Air Force Logistics Command Base with a primary mission of management, maintenance, and repair of aircraft, electronics, and communication equipment. The operation and maintenance of aircraft have involved the use, storage, and disposal of hazardous materials including use, storage, and disposal of hazardous materials including industrial solvents, caustic cleansers, low level radioactive wastes and a variety of fuel oils and lubricants. Groundwater, sludge, and soil have been contaminated with volatile organic compounds (VOCs). People may face a health risk if they swallow or touch these contaminants. People may also be at risk if they eat food containing accumulated contaminants or if they inhale contaminated dusts.

The TSC completed an initial data audit and provided the Region with the report title "Technical Assessment of Electronic Data for Volatile Organic Analysis Performed by Quanterra Incorporated." The TSC reviewed a work plan and the first progress report and provided the Region with comments and suggestions. The TSC received additional documents and data, completed the data audit and provided the Region with the report titled "Audit Report of Hard Copy and Electronic Data from Columbia Analytical Services Inc. Redding, California for the McClellan Superfund Site." Additional support is anticipated.

- Project Name: MGM
  Site: MGM Brakes S. F. Site
  Site ID:

  Type Lead:
  Requested by: Steve Remaley (415) 972-3802, Akemi Wayne (415) 947-4510
  Lead Scientist: Tim Ehli (702) 897-3359, John Zimmerman (702) 897-3279

  Start Date: July 1999
  Expected Completion Date: February 2000
  Revised Completion Date: July 2002

  Estimated Budget: $18,000
  Revised Budget:$98,000
  Major Contaminants: Organics

  Total Expenditures:$88,734
  Total FY02 Expenditures:$4,095
  Total 2nd Qtr. Expenditures:$3,971

  The Regional Technical Project Officer (TPO) requested that the ESD-LV TSC provide assistance in auditing laboratory data.

  Located in Cloverdale, California this 5-acre site includes an automotive brake casting plant, a paved area surrounding the plant, and an open field. Land use in the area is mixed residential/agricultural/industrial. From 1965 to 1972, wastewater containing PCBs was discharged on the site property. Wastewater containing ethylene glycol was disposed of on-site from 1972 to 1981. The ethylene glycol acted as a co-solvent with water, and facilitated the transport of PCBs in the soil. About 13,510 cubic yards of soil is contaminated with PCBs at concentrations up to 4500ppm. VOCs have also been detected in groundwater; however, the source of this contamination is unknown. The primary contaminants of concern affected soil, sediments, and surface water are VOCs including TCE and benzene. The primary contaminants affecting groundwater are PCBs.

  The TSC received from the Region and Regional IG's office a number of CD-ROMs's and diskettes containing laboratory data. The TSC has reviewed a number of these data files for questionable manual integrations. A number of memorandums documenting these suspect files have been provided to the Region. The TSC developed a method file for auditing laboratory analytical data and responded to questions about types and numbers of files that were reviewed in order to match missing file requests to specific laboratories. The TSC also received two additional CD's of data which were not included in the original data package. The TSC completed an initial assessment of the two CD's. The status of this assessment was provided to the Region. Completing this data audit required "target" software. All data received (i.e. CD's) was sent to Region VI because the TSC did not have the "Target" software. Region VI failed to complete the audit so the data was sent back to the TSC. The TSC purchased the "Target" software and was trained on the use of this software. The TSC conducted data audits and provided the Region with the reports titled "Assessment of Electronic Data from Sequoia Analytical Laboratory Inc.", "Evaluation of Target Software Files for Sequoia Analytical Laboratory MGM Brakes S. F. Site" and "Expanded Assessment of Electronic Data from North Creek Analytical Laboratory Inc." The TSC had a number of technical discussions with the Region. Following these discussions the TSC clarified a number of issues that were in previously identified reports. The TSC conducted an audit of electronic data files from the North Creek Laboratory and provided the report titled "Expanded

Assessment of Hard Copy and Electronic Data from North Creek Analytical Laboratory Inc." The TSC sent Data Auditors to the Regional office to confer with the IG's and Regional Consuls Office. A number of conference calls between the TSC and Regional Staff were completed. The TSC was requested by the USDOJ in San Francisco to attend a meeting and present, and discuss, a number of issues that were identified in previous audit reports.

- Project Name: Midway
  Site: Midway Village S. F. Site
  Site ID:

  Type Lead:
  Requested by: Steve Remaley (415) 972-3802
  Lead Scientist: John Zimmerman (702) 897-3279

  Start Date: October 2001
  Expected Completion Date: May 2002
  Revised Completion Date:

  Estimated Budget:$30,000
  Revised Budget:$
  Major Contaminants: Organics/Inorganics
  Total Expenditures:$18,523
  Total FY02 Expenditures:$18,523
  Total 2nd Qtr. Expenditures:$397

  The Regional RPM requested that the ESD-LV TSC provide assistance in auditing laboratory data obtained from the analysis of samples.

  The Midway Village site located in Dale City is a marsh area filled with dirt from an old gas manufacturing plant. Community concerns have prompted Region IX to take a look at this site with regards to PAH concentrations and other potential contaminants.

  Following an assessment of provided laboratory data, the TSC provided the Region with the report titled "Audit Report of Hard Copy and Electronic Data from Columbia Analytical Services, Kelso, Washington." The TSC participated in a number of conference calls discussing issues that were identified in the audit report.

- Project Name: Modesto
  Site: Modesto Groundwater Contamination S. F. Site
  Site ID:

  Type Lead:
  Requested by: Steve Remaley (415) 972-3802
  Lead Scientist: John Zimmerman (702) 897-3379

  Start Date: November 2000
  Expected Completion Date: March 2001
  Revised Completion Date: April 2002

  Estimated Budget: $ 12,000
  Revised Budget:
  Major Contaminants: Organics/Inorganics
  Total Expenditures:$4,882
  Total FY02 Expenditures:$650
  Total 2nd Qtr. Expenditures:$300

The Regional RPM requested that the ESD-LV TSC provide assistance in reviewing a laboratory's Quality Assurance Manual (QAM). The manual and the identified guidance will be used for analyzing site samples.

The City of Modesto began monitoring groundwater at this site in 1984 and found that 12 of the 24 wells tested were contaminated. Municipal Well #11 was found to be contaminated with tetrachloroethylene (PCE) and was taken out of service. Well #11 is one of 35 municipal wells in the city of Modesto and contributes to the city's municipal water service.

The TSC reviewed the QAM and associated quality assurance/quality control procedures and requirements, and provided the Region with the report titled "Review of the EMAX Laboratories, Inc. Quality Assurance Manual." The TSC participated in a number of conference calls with the Region pertaining ro TSC comments and suggestions. Additional support was provided to the Regional TPO pertaining to questions about the QAM. Additional support is anticipated.

- Project Name: Motorola
  Site: Motorola Inc. S. F. Site
  Site ID:

  Type Lead:
  Requested by: Nadia Hollan (415) 972-3187
  Lead Scientist: L. Peterson (208) 528-8718x170, K. Sorenson (208) 528-8718x120, Bob Starr (208) 526–1170

  Start Date: January 1999
  Expected Completion Date: August 1999
  Revised Completion Date: July 2002

  Estimated Budget: $25,000
  Revised Budget: $95,000
  Major Contaminants: Organics

  Total Expenditures:$63,750
  Total FY02 Expenditures:$6,800
  Total 2nd Qtr. Exp:$2,600

  Project Name: Motorola
  Site: OU-1
  Site ID: SS1D #48

  Total Expenditures:$10,414
  Total FY02 Expenditures:$2,500
  Total 2nd Qtr. Expenditures:$1,800

  Project Name: Motorola-Honeywell
  Site: OU-2
  Site ID: SSID #BE

  Total Expenditures:$27,031
  Total FY02 Expenditures:$3,300
  Total 2nd Qtr. Expenditures:$300

  Project Name: Motorola-Canon
  Site: OU-2
  Site ID:

  Total Expenditures:$3,786
  Total FY02 Expenditures:800
  Total 2nd Qtr. Expenditures:$300

  Project Name: Motorola
  Site: OU-3
  Site ID: SSID #BF

  Total Expenditures:$17,032
  Total FY02 Expenditures:$200
  Total 2nd Qtr. Expenditures:$200

The RPM requested that the ESD-LV TSC provide assistance in evaluating a soil gas monitoring effort by the PRP's and assistance in characterizing site organic contaminants. The RPM has requested that costs per OU-1, OU-2 and OU3 be documented. As shown above total cost and cost per OU are identified.

This Phoenix, Arizona site is located in a mixed residential/commercial area, and is used as a manufacturing facility. The manufacturing operations required the use of solvents. Underground storage tanks were discovered to be leaking, which resulted in groundwater and soil contamination both on-and off-site. The selected remedy for this operable unit addresses groundwater contamination. The primary contaminant of concern is TCA.

Operable Unit Two is an area of contaminated groundwater down gradient of Operable Unit One. The selected remedy is an interim remedy designed to address groundwater that is contaminated with volatile organic compounds (VOCs). The major components of this remedy consist of extraction of groundwater in the vicinity of Interstate 10 and Van Buren Street, treatment of extracted water near extraction locations by either air stripping with off-gas treatment by synthetic resin adsorption, or advanced oxidation based on final design considerations, and injection of treated water back into the aquifer in locations allowing additional control of the contaminant plume. The TSC reviewed a number of site documents and provided comments.

The existing data presented in site reports were of high quality but several significant data gaps were identified. Recommendations were made for installation of at least two new groundwater monitoring wells with soil gas ports. A peer reviewed paper Design, Installation, and Uses of Combination Ground Water and Gas Sampling Wells (Hubble, Wood , and Higgs, 1998) published by INEEL scientists was provided as a recommendation to assist in collection of soil gas data with installation of new groundwater wells.

The TSC provided review comments on The Soil Vapor Extraction System Evaluation Report. The Environmental Restoration Directorate Sample Management Office reviewed the L&V reports supplied as Appendix B-H. While some discrepancies were noted in laboratory technique, the data were validated for use in evaluating the effectiveness of the Soil Vapor Extraction System (SVE). An independent technical memorandum produced by Golder Associates (GA) was also reviewed. The GA evaluation methodology was appropriate and the conclusion that the SVE system achieved the goals of the project was confirmed. It was noted however that the confirmation sampling was conducted just a few days after shutdown of the extraction system which did not allow sufficient time for contaminant concentration rebound. The recommendation was to conduct additional sampling to confirm the initial results.

The TSC provided the Region with comments and recommendations pertaining to the 5^{3rd} Street soil gas data analysis. The TSC received a CD Rom of scanned site documents related to soil investigations and hard copies of related items. The purpose of the document review is to provide assistance in determining the sufficiency of site characterization at the site and beyond the CY and SWPL areas, and whether it is likely that further soils or groundwater cleanup will be necessary. The TSC is currently reviewing the site documents and will identify gaps as they are encountered. The TSC received the document titled "Characterization of Inorganic Constituents in Groundwater, 53rd Street Superfund Site for Motorola, Inc." dated July 1999 for review.

Two modeling reports were received. The first report entitled "Preliminary Review of Groundwater Flow Models at the Motorola 53rd Street Superfund Site" and the second report titled "Summary of Preliminary Groundwater Flow and Contaminant Transport Simulations." Those reports were both prepared by the Hydrodynamic Group (HG) and present reviews of previous modeling efforts plus a description of a new model that HG prepared to help answer some questions on the potential effectiveness of a proposed pump and treat remedy. There were some valuable discussions, recommendations, and insights in the reports, but there were also some shortcomings and issues that need to be resolved. The TSC briefly outlines an approach for correcting major deficiencies and resolving problems. Ron Arnett provided written review comments in a report entitled "Review of Two Groundwater Flow and Contaminant Transport Model Reports for Motorola 53rd Street Superfund Site, Phoenix, Arizona," which was transmitted to Nadia Hollan.

The TSC received six additional documents for review. A review of these documents was completed. The TSC also participated in a conference call with the RPM and the Arizona State Attorney Generals Office. The

TSC reviewed ADEQ calculations pertaining to soil vapor extraction mass removal analysis and provided some recalculations. The TSC also provided the following documents to the RPM: "Review of Summary of Preliminary Groundwater Flow and Contaminant Transport Simulations Reports for OU-2 System Phoenix, AZ. Draft Version 2.0," dated August 2000 and "Review of Revised Groundwater Modeling Report on the Motorola/Honeywell OU-2 System Superfund Site" dated August 2000. The TSC also participated in a number of conference calls and meetings in San Francisco and Phoenix, AZ. TSC representatives attended a Honeywell site review 20-24 October. The review included an on-site tour of the Honeywell facility with a focus on the highest probability source area (LACC, oil chip yards, engine test cells, and return well.) An additional day included consultation on review of the Honeywell Conceptual Site Model and a meeting with the technical consultants for Honeywell. On November 6, 2000 the technical consultants presented their interpretation of the geology and hydrology and the flow and transport model supporting Motorola's interpretation of historical plume development. Meetings with both parties have demonstrated that significant effort has been expended on collection and interpretation of site-specific data, and progress is being made on development of a site conceptual model.

The TSC participated in an on-site technical working group. The report titled "Review of Potential Source Areas Investigation Work Plan Honeywell International, Inc. 3^{2nd} Street Facility" was provided to the Region. A number of site documents were received (i.e., Draft Five Year Review) by the TSC and were reviewed. A report identifying additional site characterization investigations at the Honeywell Street facility was received. The TSC participated in a number of conference calls pertaining to potential remedial technologies

- Project Name: Pemaco
  Site: Pemaco Maywood S. F. Site
  Site ID:

  Type Lead:
  Requested by: Steve Remaley (415) 972-3802
  Lead Scientist: Vicki Ecker (702) 897-3223

  Start Date: September 2001
  Expected Completion Date: June 2002
  Revised Completion Date:

  Estimated Budget:$29,000
  Revised Budget:$
  Major Contaminants: Organics/Inorganics

  Total Expenditures:$13,190
  Total FY02 Expenditures:$13,190
  Total 2nd Qtr. Expenditures:$859

  The Regional RPM requested that the ESD-LV TSC provide assistance in reviewing the laboratories Quality assurance Plan and the analytical Standard Operating Procedure.

  Pemaco Maywood is a four-acre facility located in Maywood, California that housed a chemical blending facility operated by Pemaco, Inc. Between the 1940's and 1991 hazardous chemicals that were stored at the facility in underground and aboveground storage tanks and drums included chlorinated and aromatic solvents, flammable liquids, petroleum hydrocarbons, and other volatile organic compounds. There were 31 underground storage tanks, six aboveground storage tanks, and more than 400 drums on site when the facility was investigated by the Los Angeles County Fire Department in 1992.

  During the Expanded Site Inspection (ESI) conducted in May 1997, several volatile organic compounds were identified in near-surface and deep soil samples, as well as perched ground water and an underlying regional aquifer. Floating product consisting of total petroleum hydrocarbons (gasoline) and 12 volatile organic

compounds was recovered from three wells drawing from the perched ground water. Aqueous samples from 10 other wells in the perched ground water sone contained several chlorinated hydrocarbons such as tetrachloroethane. (PCE), trichloroethene (TCE), 1,1,1-trichloroethane (TCA), 1,1,-and 1,2-dichloroethene, 1,1-dichloroethane, and vinyl chloride.

The TSC reviewed the QAPjP and the SOPs and provided the Region with the report titled "Review of the A4 Scientific, Inc. Quality Assurance Plan and Standard Operating Procedures Applicable to the Analysis of the Samples from the Pemaco Maywood Superfund Site." Additional support is anticipated.

- Project Name: Pukola
  Site: Pukola Wood Treating S. F. Site
  Site ID:

  Type Lead:
  Requested by: Steve Remaley (415) 972-3802
  Lead Scientist: John Zimmerman (702) 897-3279

  Start Date: September 2001
  Expected Completion Date: June 2002
  Revised Completion Date:

  Estimated Budget:$9,000
  Revised Budget:$
  Major Contaminants:Organics/Inorganics
  Total Expenditures:$10,642
  Total FY02 Expenditures:$10,642
  Total 2nd Qtr. Expenditures:$6,860

  The Regional RPM requested that the ESD-LV TSC provide assistance in reviewing laboratory analytical documents and perform a data audit on GC and GC/MS data.

  The TSC received the analytical data and is in the process of conducting the data audit.

- Project Name: Sierra
  Site: Sierra Army Depot S. F. Site
  Site ID:

  Type Lead:
  Requested by: Kevin Wong (415) 972-3037
  Lead Scientist: Paul Ritter (208) 526-6686

  Start Date: June 2001
  Expected Completion Date: November 2001
  Revised Completion Date: May 2002

  Estimated Budget: $19,000
  Revised Budget:
  Major Contaminants: Inorganics/Organics
  Total Expenditures:$2,315
  Total FY02 Expenditures:$915
  Total 2nd Qtr. Expenditures:$300

  The Project Officer requested that the ESD-TSC provide assistance by participating in a work group which will assess the feasibility of conducting air plume testing for open burn/open detection (OB/OD) operations.

  The Sierra Army Depot located near Herlong, CA is a government owned and operated installation under the jurisdiction of the U. S. Army Operations Support Command (OSC), Rock Island, Illinois. The depot conducts

business 10 hours a day, Monday through Thursday, although mission operations are usually underway five or six days a week. CRREL personnel (USACE) were contacted concerning OB/OD. They indicated that 2, 4-dinitrotoulene, RDX, and nitroglycerine were the three compounds of concern.

The TSC is currently waiting for information pertaining to work group meeting times and places.

- Project Name: Williams
  Site: Williams AFB S. F. Site
  Site ID:

  Type Lead:
  Requested by: Steve Remaley (415) 972-3802
  Lead Scientist: John Zimmerman (702) 897-3279

  Start Date: October 2001
  Expected Completion Date: April 2002
  Revised Completion Date:

  Estimated Budget: $20,000
  Revised Budget:$
  Major Contaminants: Organics

  Total Expenditures:$1,158
  Total FY02 Expenditures:$1,158
  Total 2nd Qtr. Expenditures:$724

  The Regional RPM requested that the ESD-LV TSC provide assistance in reviewing laboratory data, QA documents and perform a data audit on GC/MS data.

  The 4,127-acre Williams Air Force Base (WAFB) site, located in Chandler, Arizona, was commissioned as a flight training school in 1941. Contaminants from base activities include organic solvents and paint strippers, petroleum spills, metal plating wastes, hydraulic fluids, pesticides, and radiological waste. Discharges and disposal at WAFB have resulted in soil and groundwater contamination. Ten sites have been identified as contaminated areas including two fire training areas, a fuel storage area, two surface storm drainage areas, a hazardous material storage area, a landfill, a pesticide burial pit, a radiological disposal area, and several underground storage tanks.

  Following an assessment of provided laboratory data the TSC provided the Region with the report titled "Audit Report of Hard Copy and Electronic Data from Columbia Analytical Services, Inc. Redding, California for the Williams A.F.B. Superfund Site." The TSC participated in a number of conference calls with the Region pertaining to issues in the audit report.

REGION 10

- Project Name: Bunker Hill
  Site: Bunker Hill Mining S. F. Site
  Site ID:

  Type Lead:
  Requested by: Cami Grandinetti (206) 553-8696, Bill Adams (206) 553-2806
  Lead Scientist: Bob Starr (208) 526-5687, Erick Neher (208) 526-5449, Mike Roddy (208) 526-8201

  Start Date: July 2000
  Expected Completion Date: March 2001
  Revised Completion Date: August 2002

Estimated Budget: $30,000
Revised Budget: $80,000
Major Contaminants: Inorganics

Total Expenditures:$43,712
Total FY02 Expenditures:$1,700
Total 2nd Qtr. Expenditures:$800

The Region X RPM has requested the ESD-LV TSC to provide assistance in the identification of innovative approaches for conducting vadose zone characterization, emerging fracture filling or compensation grouting technologies, and manipulating the geochemical environment to precipitate toxic metals. The Bunker Hill Mining District is located within the Coeur d'Alene River Basin in the eastern portion of the panhandle of northern Idaho. Historic ore mining, milling, and smelting practices have resulted in widespread mining-related contamination of the basin. In 1992, a ROD was signed for the non-populated areas of the Bunker Hill Superfund Site (BHSS), and implementation began in 1995. In 1998, EPA initiated an RI/FS of mining-related contamination in the Coeur d'Alene River Basin.

The TSC participated in a on-site visit. The purposes of the visit were to: 1) meet with Idaho State DEQ and Silver Valley Trustees regarding provision of technical assistance for the Success Mine pilot in which the TSC would develop a protocol for predicting the adsorptive capacity of materials useful in the passive treatment of Acid Mine Drainage (AMD); and (2) meet with EPA officials regarding request for technical assistance in solving problems associated with characterization of the Bunker Hill CERCLA site.

A Scope of Work (SOW) was prepared and sent to the Region during November 2000. The SOW details the tasks for evaluating the feasibility of determining recharge areas that are contributing to the metals load in the mine drainage at the Bunker Hill mine. Following a review of appropriate geologic and hydrogeologic information the determination that a tracer test would yield the desired information was made. These suggestions and recommendations were provided to the Region in the report titled "Review of Bunker Hill Mine Hydrogeologic Data and Tracer Test Evaluation" dated May 7, 2001.

Based on the hydrology of the site and significance of snow melt infiltration, the tracer studies were delayed. The TSC met with the new Regional RPM in Seattle and discussed past support that had been provided. The RPM indicated he would let the TSP know what additional support would be required.

SUPERFUND SHORT-TERM REQUESTS

- Project Name: Short Term Requests
  Site: Short Term Requests
  Site ID:

  Type-Lead:
  Requested by: See Below
  Lead Scientist: TSC/ESD Staff Scientists

  Start Date: October 2000
  Expected Completion Date: September 2001
  Revised Completion Date:

  Estimated Budget: $40,000
  Revised Budget: $65,000
  Major Contaminants: Variable

  Total Exps:$5,558 PC&B:$2,600
  Total FY02 Exps:$5,558 PC&B:$2,600
  Ttl 2nd Qtr. Exps:$2,058 PC&B:$1,800

TSC requests that can be completed within a 60-hour period. The ESD is requested to provide quick-turn-around support. Projects may include:

- Emergency Response - on-site field measurements, such as geophysics, soil gas, and XRF.
- Emergency Response - Laboratory support, such as the analysis of chemical and radiological contaminants.
- Review of reports and work plans, sampling/monitoring protocols, and analytical protocols and approaches.
- Review of techniques and methods used on site assessment.
- Providing expert testimony and/or contributing to the validity and authenticity of data used in cost recovery cases.

SUMMARY OF SUPERFUND SHORT TERM REQUESTS

REGION/ STATE	DATE	SITE	REQUESTOR	TELEPHONE NUMBER	NATURE OF REQUEST
8	January	Eureka Mills	M. Goldade	(303) 312-7024	XRF
7	February	Big River	B. Morrison	(913) 551-7755	Air Modeling
6	March		P. Lodee	(512) 239-6688	Air Sampling
GSA	March		T. Martin	(702) 270-7722	IAG
1	March	Pine Street	S. Mangion	(617) 918-1452	Sampling
USGS	February		P. Buzoka	(317) 290-3338	Flowmeters
8	March	Big River	J. Drexler		Lead Analysis
4	February		K. Knight	(404) 562-8885	Mercury Analysis
Nevada	February	Brownfields	C. Tetratauk	(702) 242-4200	Sites
USACE	February	UXO	D. Brooks	(816) 983-3514	Characterization
1	March	Savage Well	D. Willey	(617) 918-1266	Sampling
7	March	Big River	B. Morrison	(913) 551-7755	Lead Analysis
5	February		G. Jones	(312) 886-1423	Tech Suypport
ORD	January	Leviatan	D. Reisman	(513) 407-2533	Tech Support
California	February		S. Kumar	(510) 540-2219	Sampling
9	February	Aerojet	K. Mayer	(415) 972-3176	Perchlorate
9	February	MGM Brakes	S. Remaley	(415) 972-3802	Data Audit
9	March	MGM Brakes	A. Wayne	(415) 947-4510	Data Audit
USACE	March		J. Wakeman	(206) 764-3706	ProUCL
4	February		J. Felton	(408) 436-1716	Bio Remediation
USACE	February		D. Daniel	(816) 983-3910	ProUCL
9	February	Alark	D. Stensby	(415) 972-3246	Geophysics
4	March	Roanoke River	B. Walden	(404) 562-8814	TIC's
Virginia	March	UST's	J. Barnett		ProUCL
OERR	January		S. Frey	(703) 603-8817	Tech Support

3	January		B. Rundel	(215) 814-3319	Support
9	January	Sierra Army	K. Wong	(415) 972-3039	Support
3	February	UST Vapor	J. Huang	(215) 814-3386	Data Assessment
7	January	Eagle Pither	S. Doolan	(913) 551-7919	Air Modeling
1	January	S. Weymouth	P. Whittemore	(617) 918-1382	Data Assessment
Texas	January		C. Spiegelman	(979) 845=8817	ProUCL
3	February	Chem-Solve	D. Rossi	(215) 814-3228	Data Assessment
2	March	Reich Farms	M. Olsen	(212) 637-4313	Data Assessment
Nevada	February		J. Mary	(702) 807-4456	Tech Support
ORD	January	Leviatan	D. Reisman	(513) 487-2578	Tech Support
2	January	SGI Dump	E. Keveney	(212) 637-3916	Geostatistics
ERT	January		J. Camancho	(732) 906-6916	Tech Support
CA	February	Alark	D. Stensby	(415) 972-3246	Tech Support
9	February		D. Willey	(617) 918-1266	Tech Support
9	January	Sierra Army	M. Gill	(415) 972-3054	Tech Support
9	January		D. Yeskis	(312) 886-0408	Data Assessment
1	January	ORIA	S. Mangion	(617) 918-1452	Tech Support
9	February	MGM Brakes	S. Remaley	(415) 972-3802	Data Audit
INEEL	February	Ft. Sheridan	J. Sondrup	(208) 526-8396	Data Assessment
1	February	S. Weymouth	P. Whitemore	(617) 918-1382	Data Assessment
INEEL	March	Distler Brickyard	K. Sorenson	(208) 528-8718	Sampling
3	February	Sharon Steel	J. Hubbard	(215) 814-3328	ProUCL
7	February	Big River	B. Morrison	(913(551-7755	Modeling
2	January	Reich Farms	J. Josephs	(212) 637-4317	Tech Support
3	February		R. Landy	(410) 305-2757	Tech Support
4	February	Roanoke River	S. Thoms	(404) 562-8666	TIC's
5	February	Pristine	R. Boice	(312) 886-4740	Tech Support
INEEL	March	Alark	C. Scott	(208) 526-2919	Geophysics
USACE	February		W. Mandel	(410) 436-1518	

ORD	February		B. Mournighan	(913) 557-7913	Tech Support
10	February	Adak	K. Oates		UXO
10	February		N. Thompson	(206) 553-7979	Meeting
TIO	January		K. Yaeger	(732) 906-6916	Sampling
10	February		J. Barich	(206) 553-8562	Meeting

SUPERFUND REMOTE SENSING SHORT TERM REQUESTS

- Project Name: Remote Sensing
  Site: Superfund Short Term Remote Sensing Technical Support
  Site ID:

  Type Lead:
  Requested by: See below
  Lead Scientist: TSC Staff Scientists

  Start Date: October 2001
  Expected Completion Date: September 2002
  Revised Completion Date:

  Estimated Budget: $5,000
  Revised Budget: $
  Major Contaminants:

  Total Expenditures:$300
  Total FY02 Expenditures:$300
  Total 2nd Qtr. Expenditures:$300

  TSC Remote Sensing requests that can be completed within a 60 hour period. The ESD TSC is requested to provide Remote Sensing support that requires a quick-turn-around-time. Projects that may be addressed within this 60 hour time frame include:

  - The use of Geographic Information Systems (GIS) for site characterization.
  - Providing plots of geostatistical related data for site characterization.
  - Review of RI/FS reports and work plans, pertaining to the use of multi-spectral scanner, remote sensing and GIS technologies.
  - Review of identification and technological techniques and methods used in remote sensing site assessment.
  - Providing expert testimony, coordinating and/or contributing to the validity and authenticity of "remote sensing" data used in cost recovery cases.

REGION	DATE	SITE	REQUESTOR	TELEPHONE NUMBER	NATURE OF REQUEST
ORD	January	Asarco El Paso	P. Arberg	(702) 798-2545	Aerial Photos
ORD	February	Leviatan	D. Reisman	(513) 487-2533	Aerial Photos
2	February	Rt. 561 Dump	E. Keveney	(212) 637-3916	Aerial Photos
9	February		M. Gill	(415) 972-3054	Aerial Photos
ORD	February	Iowa Army	B. Mournighan	(913) 551-7913	Aerial Photos

ISSUE PAPER/ISSUES

ISSUES

- Project Name: Exide
  Site: General Battery Corporation
  Site ID:

  Type Lead:
  Requested by: Khai Dao (215) 814-5467
  Lead Scientist: A. K. Singh (702) 895-1439

  Start Date: February 2001
  Expected Completion Date: July 2001
  Revised Completion Date: April 2002

  Estimated Budget: $8,000
  Revised Budget: $
  Major Contaminants: Lead

  Total Expenditures:$6,700
  Total FY02 Expenditures:$1,600
  Total 2nd Qtr. Expenditures: $600

  The Project Officer requested that the ESD-LV TSC provide assistance in reviewing the proposed approach that is being suggested to "Krig" soil lead concentrations.

  Exide operates a secondary lead smelter and batter manufacturing/distribution facility in Berks County, Pennsylvania. Since 1991, several studies have been performed on soil, sediment and groundwater in areas adjacent to and in the vicinity of the facility to investigate the occurrence of lead, arsenic, selenium and cadmium that may be attributable to past facility operations. The Study Area covers approximately a one-square mile area centered around the facility. The Study Area includes portions of Laureldale Borough and Muhlenburg Township, Berks County, Pennsylvania, and is situated less that one mile north of the City of Reading. The investigations conducted to date in the Study Area include the following:

  - Soil sampling performed during 1992 (now referred to as Phase I investigation);
  - Soil sampling performed between completion of Phase I investigation and July 2, 1993, designated as the Phase II investigation;
  - Soil, sediment and groundwater sampling performed under the Phase III investigation in 1994: and,
  - The Phase IV soil and sediment sampling (1996).

Following a review of the geostatistical issues, the TSC provided some comments and suggestions for the improvement of the suggested approaches. In June the TSC received the document titled "Summary of the Supplemental Geostatistical Analysis" for review. The Review was completed with comments and suggestions provided to the Region. The Regional Project Officer provided site data for kriging. Following a geostatistical assessment the report titled "Kriging of Lead Concentrations in Soils at Exide Superfund Site." Additional support is anticipated.

- Project Name:Estimation of the Exposure Point Concentration Term Using a Gamma Distribution
  Site:
  Site ID:

  Type Lead:
  Requested by: TSC
  Lead Scientist: A. K. Singh (702) 895-1439, Anita Singh (702) 8973234

  Start Date: March 2002
  Expected Completion Date: July 2002
  Revised Completion Date:

  Estimated Budget: $4,000
  Revised Budget: $
  Major Contaminants: Organics/Inorganics

  Total Expenses:$100
  Total FY02 Expenses:$100
  Total 2nd Qtr. Expenses:$100

  The ESD-LV TSC provides assistance in assessing site data for characterizing contaminants and for providing Regional Risk Assessors with appropriate data to complete ecological and human risk assessments.

  The TSC identified a need to provide federal, state, and private environmental scientists working on hazardous waste sites with a technical issue paper that identifies data assessment techniques that can be implemented to better define and identify the distribution of hazardous waste site contaminants. The examples used in this issue paper and the recommendation provided were the result of numerous data assessment approached performed by the TSC at hazardous waste sites.

  In Superfund and RCRA projects of the U.S. EPA, cleanup, exposure, and risk assessments decisions are often made based upon the mean concentrations of the contaminants of potential concern. A 95% upper confidence limit (UCL) of the population mean is used to estimate the exposure point concentration (EPC) term, to determine the attainment of cleanup standards, to estimate background level contaminant concentrations, or to compare the soil concentrations with the site specific soil screening levels. It is, therefore, important to compute an accurate and stable 95% UCL of the population mean from the available data.

  This issue paper is currently being peer reviewed.

- Project Name: MARSSIM
  Site: Multi-Agency Radiation Survey and Site Investigation Manual
  Site ID:

  Type Lead:
  Requested by: Colleen Petullo (702) 798-2446
  Lead Scientist: Larry Hull (208) 526-1922

Start Date: January 2002
Expected Completion Date: September 2002
Revised Completion Date:

Estimated Budget:$$25,000
Revised Budget:$
Major Contaminants: Radiation

Total Expenses:$2,250
Total FY02 Expenses:$2,250
Total 2nd Quarter Exps:$2,250

The ORIA Project Officer requested that the ESD-LV provide assistance in supporting the development of sampling/monitoring approach for radiologically contaminated sites. ORIA has provided all $ resources for this project.

The Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) Workgroup has been meeting since January 1994 with the objective of developing principles and processes for conducting final site closure surveys at radiologically contaminated sites. The agencies involved are the Department of Defense, Nuclear Regulatory Commission, Environmental Protection Agency, and the Department of Energy. The MARSSIM was published in 1997, and is a consensus guidance manual for conducting Superfund and non-Superfund characterization, final status, and/or cleanup verification radiation surveys of surface soils (not more than 6 in. deep) and building surfaces. Having completed the surface soil manual, the MARSSIM Workgroup is expending their scope to add two supplements. The supplements will address 1) surveying contaminated materials and equipment for free release, and 2) cleanup verification surveys of the subsurface. NRC is taking the lead on the supplement for materials and equipment. The subsurface supplement is currently titled Multi-Agency Radiation Survey and Assessment of Subsurface Soils (MARSASS).

The INEEL will provide Subject Matter Experts (SMEs) in the area of monitoring, sampling and surveying of radioactive contaminants in subsurface soils (>6 in. beneath the surface). These SMEs will assist EPA (and the other MARSASS signatory agencies) in developing new state-of-the-science subsurface contamination characterization and cleanup methodologies. A number of meetings were attended by the lead scientist.

- Project Name: UST Vapor Monitoring
  Site: UST Vapor Monitoring Guidance Document
  Site ID:

  Type Lead:
  Requested by: Jack Hwang (215) 814-3386
  Lead Scientist: A. K. Singh (702) 895-0364

  Start Date:
  Expected Completion Date: August 2001
  Revised Completion Date: April 2002

  Estimated Budget:$6,000
  Revised Budget:$
  Major Contaminants: Organics

  Total Expenditures:$804
  Total FY02 Expenditures:$804
  Total 2nd Qtr. Expenditures:$400

  The Regional Project Officer requested that the ESD-LV TSC provide assistance in reviewing and evaluating the data assessment and statistical methods/procedures that are being utilized in the UST guidance document

Regional inspectors evaluated vapor concentration data from vapor monitoring wells and brought up the issue of how should environmental scientists determine what constitutes a "significant" increase in vapor concentration at a site. UST Technical Regulations require persons using vapor monitoring will be effective for the site. Vapor monitors must be able to detect any significant increase in concentrations above the background of the regulated substance stored in the tank system. If no releases occur during the first year of system operation, the tank/owner/operator may re-calculate the background concentration for each well by using the original background data and the monthly monitoring data from the previous year. The UST guidance document provides and suggests procedures that can be used to assess background/monitoring well data.

Following a review of the "document" the TSC provided the Region comments and suggestions in the report titled "Review of Recommendations for Establishing Background Consent." The TSC received contaminant data from wells 3, 6, 7A and 11 for calculating the 95% UCL. The TSC completed a statistical data assessment and provided the Region with a letter report that identified the formulas and the calculations for computing the 95% UCL for wells 3, 6, 7A, and 11. Following a review of ProUCL by the State of Virginia, the TSC received a spread sheet utilizing the Chebychev equation. The TSC is currently reviewing the spreadsheet.

SUPERFUND COORDINATION

- Project Name: Superfund Coordination
  Site: Superfund Coordination
  Site ID:

  Type-Lead:
  Requested by: Ken Brown
  Lead Scientist: Tim Ehli (702) 897-3264, Ken Moor (208) 526-8810

  Start Date: October 2001
  Expected Completion Date: September 2002
  Revised Completion Date:

  Estimated Budget: $25,000
  Revised Budget: $
  Major Contaminants: N/A

  Total Expenditures:$3,906
  Total FY02 Expenditures:$3,906
  Total 2nd Qtr. Expenditures:$1,209

  This project provides for Superfund coordination and management of requests received by the Technology Support Center and implemented when assigned to the off-site contractor. Activities include preparation of reports, tracking of projects, and documenting costs.

TECHNOLOGY TRANSFER

- Project Name: Superfund Technology Transfer
  Site: Superfund Technology Transfer
  Site ID:

  Type-Lead:
  Requested by: Director TSC
  Lead Scientist: Ken Moor (208) 526-8810, Tim Ehli (702) 897-3264

  Start Date: October 2001
  Expected Completion Date: September 2002
  Revised Completion Date:

  Estimated Budget: $35,000
  Revised Budget: $
  Major Contaminants:

  Total Expenditures:$3,300
  Total FY02 Expenditures:3,300$
  Total 2nd Qtr. Expenditures:$1,500

  One of the objectives of the TSC is to identify and make available ESD measurement technologies that are applicable for characterizing contaminants. Documenting the adequacy of these technologies, the application and their identity requires the development of case studies, fact sheets, demonstrations and workshops. All ESD fact sheets have been updated.

  The Superfund Program Office requested that the ESD-LV TSC provide information and documentation pertaining to the operation and utilization of a vacuum distillation/gas chromatography/mass spectrometry instrument. The purpose of this effort is to adequately describe this instrument and provide written guidance that will enable Regional chemists to measure hazardous waste contaminants. The following information shall be addressed in this SOP.

  General introduction: including brief overviews of the concepts of and needs for vacuum extraction, gas chromatography, and mass spectrometry.

- Instrumentation: including sources of all instrument parts, suggestions about equipment parts (if appropriate), reagent sources (including gases), and glassware.
- Operating parameters: including step by step directions on installation and use.
- Data processing: to include a description of the software currently being completed for use in a Windows NT environment and including use of spread sheet(s) for surrogate-matrices corrections.
- Trouble shooting: including what-to-do section for predictable problems such as vacuum leaks, contamination, and instrument down time.