Imperial Solar Energy Center West

Appendix G1

Phase I Environmental Assessment

Prepared by Tetra Tech, Inc.

March 2010

PHASE I ENVIRONMENTAL SITE ASSESSMENT

1,150-ACRE IMPERIAL VALLEY WEST PROPERTY

IMPERIAL COUNTY, CALIFORNIA

MARCH 2010

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EXECUTIVE SUMMARY

Tetra Tech, Inc. ("Tetra Tech") was authorized by Tenaska, Inc. ("Tenaska") to conduct a Phase I Environmental Site Assessment ("Phase I ESA") of approximately 1,150 acres of land referred to as the "Imperial Valley West" located in Imperial County, California (the "Subject Property"). The Subject Property is owned by OMNI Financial, LLC, CURA Financial, LLC, and the David L. Woods Revocable Trust. LightSource Renewables, LLC ("LSR") currently holds lease option rights for the Subject Property.

The purpose of the Phase I ESA is to identify recognized environmental conditions ("RECs") to meet the requirements of All Appropriate Inquiries ("AAI") under the Small Business Relief and Brownfields Revitalization Act of 2002, pursuant to the processes described in ASTM Standard Practice E2247-08 (ASTM 2008). This assessment also addressed historic RECs. A REC, as defined by ASTM Standard Practice E2247-08, is:

> The presence or likely presence of any hazardous substances or petroleum products on a subject property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property, or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis* are not recognized environmental conditions.

A historic REC is an environmental condition which, in the past, would have been considered a REC, but which may or may not be considered a REC currently (ASTM 2008).

Recognized Environmental Conditions

Tetra Tech performed a Phase I ESA that conforms to the scope and limitations of ASTM Practice E2247-08. Exceptions to or deviations from this practice are described in Section 8.0 of this report. This assessment has revealed the following RECs associated with the Subject Property:

Solid Waste Disposal Areas

Two solid waste disposal areas ("SWDAs") containing plastic containers, cardboard, glass, paper trash, furniture, a 5-gallon container of used oil, several used automotive oil filters, tires, scrap metal, wires, fencing, spent ammunition casings, lumber, and other general refuse were observed in the wooded areas between Reynolds Road and an out-of-service irrigation ditch along the western boundary of the Subject Property. Materials observed immediately east of the wooded area contained bullet holes, indicating that a portion of the SWDA was used as a firing range. Access to portions of the SWDAs was restricted due to the presence of dense vegetation. The SWDAs, which are identified as SWDA 1 and SWDA 2 on Figure 2, are separated by Strobel Road. Some of the refuse, including tires, lumber, and scrap metal appeared to have been burned in SWDA 1. No staining was observed on the ground beneath the used oil container and filters and no odors were detected; however, cedar tree needles and other organic matter completely covered the ground surface. Due to the potential effect on soil and/or groundwater from materials disposed of onsite, the presence of SWDA 1 and SWDA 2 is considered a REC. Waste materials observed in SWDA 1 are shown in photos 1 - 3 in Appendix A. Waste materials observed in SWDA 2 are shown in photo 4 in Appendix A.

A SWDA containing plastic containers, cardboard, glass, paper trash, an empty drum, and other general refuse was observed near the wooded area along the western boundary of the Subject Property located south of Interstate 8. The location of this SWDA, identified as SWDA 3, is shown on Figure 3. Although no staining was observed on the ground beneath the drum and no odors were detected, there exists the potential for substances previously stored in the drum to be released onsite. Due to the potential effect on soil and/or groundwater from materials disposed of onsite, the presence of SWDA 3 is considered a REC. Waste materials observed in SWDA 3 are shown in photo 7 in Appendix A.

A SWDA containing scrap metal, wires, fencing, lumber, concrete, an empty drum, and other general refuse was observed south of the unnamed access road traversing the portion of the Subject Property located south of Interstate 8. The location of this SWDA, identified as SWDA 4, is shown on Figure 3. Although no staining was observed on the ground beneath the drum and no odors were detected, there exists the potential for substances previously stored in the drum to be released onsite. Due to the potential effect on soil and/or groundwater from materials disposed of onsite, the presence of SWDA 4 is considered a REC. Waste materials observed in SWDA 4 are shown in photos 11 - 12 in Appendix A.

A SWDA containing rusted scrap metal, wires, fencing, air duct components, empty drums, spent ammunition casings, and other general refuse was observed in the south-central portion of the Subject

Property. Observed refuse exhibited bullet holes, suggesting that the area was used as a firing range. Many of the objects were partially buried. The location of this SWDA, identified as SWDA 5, is shown on Figure 3. Although no staining was observed on the ground beneath the drums and no odors were detected, there exists the potential for substances previously stored in the drums to be released onsite. Due to the potential effect on soil and/or groundwater from materials disposed of onsite, particularly lead compounds from spent ammunition, the presence of SWDA 5 is considered a REC. Waste materials observed in SWDA 5 are shown in photo 8 in Appendix A.

Fill Material

Several piles of gray ash-like material were observed south of the unnamed access road that traverses the Subject Property south of Interstate 8. The location of the fill material is shown on Figure 3. The piles were approximately 2 to 3 feet high and covered an area approximately 1 acre in size. Based on the size and configuration of the piles, the presence of nearby tire tracks, and proximity to the access roads, the gray ash-like material appears to have been imported into the area. Due to the potential effect on soil and/or groundwater, the presence of the gray ash-like fill material is considered a REC. The fill material is shown in photo 9 in Appendix A.

Historic Recognized Environmental Conditions

This assessment has revealed no evidence of historic RECs associated with the Subject Property.

***De minimis* Conditions**

This assessment revealed the following *de minimis* condition associated with the Subject Property:

Residual Agricultural Chemicals

The Subject Property has been used for agricultural purposes, and has been subject to historic application of herbicides and pesticides. As a result, there is a potential for residual, low-level concentrations of these substances to be present in soil and/or groundwater. The Federal Insecticide, Fungicide, and Rodenticide Act ("FIFRA") authorizes the legitimate application of herbicides and pesticides used in accordance with manufacturer prescribed and labeled instructions. Consequently, in the absence of clear evidence suggesting improper use, these substances are not expected to be present in concentrations that pose a threat to human health or the environment, or in concentrations that would be subject to enforcement action if brought to the attention of appropriate government agencies. Therefore, the potential presence of low concentrations of agricultural chemicals on the Subject Property is considered a *de minimis* condition.

Recommendations

Based on the findings of this assessment, Tetra Tech recommends that Phase II Environmental Site Assessment ("Phase II ESA") soil sampling be conducted in the SWDAs and in other areas where the potential for elevated lead concentration from spent ammunition is suggested. Recommended sample locations are illustrated on Figure 4.

1.0 INTRODUCTION

Tetra Tech, Inc. ("Tetra Tech") was authorized by Tenaska, Inc. ("Tenaska") to conduct a Phase I Environmental Site Assessment ("Phase I ESA") of approximately 1,150 acres of land referred to as the "Imperial Valley West" located in Imperial County, California (the "Subject Property"). The Subject Property is owned by OMNI Financial, LLC, CURA Financial, LLC, and the David L. Woods Revocable Trust. LightSource Renewables, LLC ("LSR") currently holds lease option rights for the Subject Property.

1.1 Purpose of the Report

The purpose of the Phase I ESA is to identify recognized environmental conditions ("RECs") to meet the requirements of All Appropriate Inquiries ("AAI") under the Small Business Relief and Brownfields Revitalization Act of 2002, pursuant to the processes described in ASTM Standard Practice E2247-08 (ASTM 2008). This assessment also addresses historic RECs. A REC, as defined by ASTM Standard Practice E E2247-08, is:

> The presence or likely presence of any hazardous substances or petroleum products on a subject property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property, or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis* are not recognized environmental conditions.

An historic REC is an environmental condition which, in the past, would have been considered a REC, but which may or may not be considered a REC currently (ASTM 2008).

1.2 Detailed Scope of Services

This Phase I ESA conforms to the ASTM Standard Practice E2247-08, with the exception of deviations described in Section 8.0, and is subject to the limitations described in Section 9.0 of this report.

1.3 Significant Assumptions

Noteworthy assumptions were not made to complete this Phase I ESA.

2.0 SITE DESCRIPTION AND PHYSICAL SETTING

2.1 Site Location

The Subject Property is located east of the intersection of Interstate 8 and Dunaway Road in southeast Imperial County, approximately 12 miles east-northeast of the City of Ocotillo, California. The Subject Property is accessible from the north via Reynolds Road, from the north and south via an unnamed road along the Westside Main Canal, and from the west via Strobel Road and an unnamed road off of Dunaway Road. Maps illustrating the location of the Subject Property and vicinity are presented in Figures 1, 2, and 3.

2.2 Site and Vicinity General Characteristics

The Subject Property consists of 10 parcels totaling approximately 1,150 acres. Four of the parcels are located directly east of Reynolds Road, west of Westside Main Canal, and north of Interstate 8. The remaining six parcels are located directly west of Westside Main Canal and south of Interstate 8. These parcels consist of fallow agricultural land with associated access roads, out-of-service irrigation ditches and associated pumping equipment, and an area previously used as a residential development. The following table includes information specific to each parcel, including the Imperial County Assessor's Parcel Number ("APN"), parcel location relative to the Subject Property as a whole, and a legal description. Photographs of the Subject Property are in included in Appendix A. The parcel boundaries and APNs are included in Figures 2 and 3.

034360078000	North of Interstate 8; western portion	Portion of E ½ of Sec. 13, T16S, R11E
034360073000	North of Interstate 8; northern portion	Portion of N ½ of Sec. 13, T16S, R11E
034360075000	North of Interstate 8; south-central portion	Portions of S ½ of Sec. 13, T16S, R11E and SW ¼ of Sec. 18, T16S, 12 E
051260025000	North of Interstate 8; eastern portion	Portion of SW ¼ of Sec. 18, T16S, 12 E
034360077000	South of Interstate 8; northwestern portion	Portion of SW ¼ of Sec. 13, T16S, R11E
034360076000	South of Interstate 8; north-central portion	Portions of S ½ of Sec. 13, T16S, R11E and SW ¼ of Sec. 18, T16S, 12 E
051260026000	South of Interstate 8; northeastern portion	Portion of SW ¼ of Sec. 18, T16S, R12 E
051010007000	South of Interstate 8; southwestern portion	E ½ of Sec. 24, T16S, R11E
051290001000	South of Interstate 8; south-central portion	E ½ of NW ¼ of Sec. 19, T16S, 12 E

051290003000	South of Interstate 8; southeastern portion	W ½ of NW ¼ of Sec. 19, T16S, 12 E

The Subject Property is located along the western boundary of a primarily agricultural region in the Imperial Valley. Property uses to the surrounding area to the east generally consist of irrigated cropland with scattered residential and commercial developments. Properties to the north, south, and west consist of undeveloped desert. Photographs of the Subject Property and surrounding areas are included in Appendix A, and photograph locations are referenced on Figures 2 and 3.

2.3 Site Hydrogeology

Groundwater wells were not identified on the Subject Property during the reconnaissance, nor did the environmental database review performed by Environmental Data Resources, Inc. ("EDR") identify wells on the Subject Property. EDR identified groundwater wells approximately 0.5 mile west of the Subject Property. Measurements in 2004 recorded the depth to groundwater at these locations at approximately 51 feet below grade surface ("bgs"). It is unknown whether local or cumulative irrigation recharge is reflected in this data point.

Shallow groundwater is believed to be present at or around the level of surface water observed in the Westside Main Canal located along the eastern boundary of Subject Property. Due to significant rain events shortly before the reconnaissance was performed, surface and groundwater levels were relatively high. The water level in the canal was approximately 6 feet below the elevation of the adjacent portions of the Subject Property.

According to LSR, subsurface tile drains were installed approximately 5 to 6 feet bgs in the fields on the Subject Property. Under normal conditions, shallow groundwater is believed to be at or below the level of the tile drains.

2.3.1 Surface Water

The nearest body of surface water is the Westside Main Canal, which flows north along the western boundary of the Subject Property. Cement-lined irrigation ditches observed to be out-of-service are located throughout the Subject Property.

According to the EDR report, the southernmost portion of the Subject Property is located within a Federal Emergency Management Agency ("FEMA") 500-year flood zone. Additional 500-year flood zones are

located on the adjoining properties to the north and east. EDR did not identify areas listed in the National Wetland Inventory ("NWI") on or within 2 miles of the Subject Property.

The U.S. Fish and Wildlife Service wetland database included in Google Earth GIS software further classifies the areas within the Westside Main Canal basin located adjacent to the Subject Property as "Riverine" wetlands.

2.4 Current Use of the Subject Property

The Subject Property is currently undeveloped and unoccupied land with no apparent use.

2.5 Description of Structures, Roads, and Other Improvements

No structures were observed on the Subject Property. Developments and improvements include access roads, out-of-service irrigation ditches with associated pumping equipment, transmission lines, and a foundation from a former residential home.

2.6 Current and Past Uses of Adjoining Properties

The following table describes the current and past uses of the adjoining properties as determined through analysis of topographic maps and aerial photographs and observations made during the reconnaissance.

Direction	Current Use	Past Use
North	Undeveloped land	1947-2005: Undeveloped land
South	Undeveloped land	1947-2005: Undeveloped land
East	Westside Main Canal, roads, and agricultural land	1947-2005: Westside Main Canal, roads, and agricultural land
West	Undeveloped land, roads, and an area used to periodically store bee boxes	1947-2005: Undeveloped land and roads

3.0 SITE-USER PROVIDED INFORMATION

3.1 Title Records

No title records were provided by Tenaska.

3.2 Environmental Liens or Activity and Use Limitations

No documents indicating environmental liens or activity and use limitations associated with the Subject Property were provided by Tenaska.

3.3 Specialized Knowledge

No specialized knowledge was provided by Tenaska.

3.4 Commonly Known or Reasonably Ascertainable Information

Tenaska provided maps outlining the property boundaries of the Subject Property.

3.5 Valuation Reduction for Environmental Issues

Tenaska did not provide information related to a reduction in value of the Subject Property.

3.6 Owner, Property Manager, and Occupant Information

LSR provided names and contact information for the owners and property managers of the Subject Property. The Subject Property is owned by OMNI Financial, LLC, CURA Financial, LLC, and the David L. Woods Revocable Trust and managed by Federal Home Loans Corporation.

3.7 Reason for Performing Phase I ESA

Tenaska is considering leasing the Subject Property to construct a solar electric generating station.

3.8 Other

No other information associated with the Subject Property was provided by Tenaska.

4.0 RECORDS REVIEW

4.1 Physical Setting

Physical setting characteristics pertinent to the Subject Property are summarized below.

PHYSICAL SETTING INFORMATION		
Conditions	**Source**	**Description**
Elevation (amsl)	USGS topographic map (Plaster City, CA 1979)	Approximately 5 feet amsl to 15 feet below sea level.
Topographic Gradient	USGS 7.5' Digital Elevation Model	General topographic gradient to the east-northeast.
Coordinates	EDR Report	Latitude (North): 32.769400 – 32° 46' 9.8" Longitude (West): 115.786800 – 115° 47' 12.5" Universal Transverse Mercator Zone 11 UTM X (Meters): 613632.0 UTM Y (Meters): 3626184.0
Surface Water Runoff	Visual observation	Directed by localized variations in surface elevation; generally towards Westside Main Canal east of the Subject Property. Canals and irrigation drains ultimately discharge to the Salton Sea.
Nearest Surface Water Body	Visual observation	Westside Main Canal on adjoining property to the east. The regional sink is the Salton Sea.
Flood Plain	Federal Emergency Management Agency Flood Electronic Data; EDR Report	The southernmost portion of the Subject Property appears to be located in a 500-year FEMA flood zone. Additional flood zones on the adjoining properties to the north and east.
Wetlands	U.S Fish and Wildlife Service	Westside Main Canal basin is considered a "Riverine" wetland.

Geology and Hydrogeology		
On-site wells	EDR Database Report, Visual Observation	None
Nearest Groundwater Supply Wells	EDR Database Report	EDR identified a groundwater well approximately 0.5 mile west of the Subject Property. A depth to groundwater of 51.36 ft bgs was reported in November 2004. Information provided by EDR was accessed in USGS well records.
Geologic Conditions	EDR Database Report, National Cooperative Soil Survey ("NCSS")	Formations underlying this portion of Imperial County consist of continental deposits of bedrock of Cenozoic age. Shallow soil types are classified as well-drained to moderately well-drained loam, loamy very fine sand, fine sand, and silty clay loam soils. Soil pH is reported between 7.4 and 8.4 standard units and saturated hydraulic conductivity range from 0.42 to 141 micrometers per second.

4.2 Environmental Database Information

Tetra Tech reviewed federal, state, and local environmental records pertaining to the Subject Property and vicinity. In performing this review, Tetra Tech used the services of EDR, a vendor specializing in the search and retrieval of governmental environmental databases. These federal, state, and local databases include information regarding reported hazardous materials use and storage; facilities that treat, store, dispose, or generate hazardous waste; solid waste landfills, transfer stations, and incinerators; leaking underground storage tanks; discharges of petroleum and other hazardous substances; and reported incidents of contamination. The databases conform to the standard record sources identified in ASTM Standard Practice E2247-08. The EDR report is presented in Appendix B and includes: (1) a street map showing the approximate locations of sites identified (if any) within a 1.0-mile radius of the Subject Property; (2) a complete listing of findings; and (3) descriptions of the databases searched. The following ASTM standard databases were reviewed:

Federal Records

Database		Facilities
NPL	National Priorities List	0
Proposed NPL	Proposed National Priorities List Sites	0
Delisted NPL	National Priorities List Deletions	0
NPL LIENS	Federal Superfund Liens	0
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System	0

Database		Facilities
CERC-NFRAP	CERCLIS No Further Remedial Action Planned	0
LIENS 2	CERCLA Lien Information	0
CORRACTS	Corrective Action Report	0
RCRA-TSDF	Resource Conservation and Recovery Act - Transport, Storage, and Disposal	0
RCRA-LQG	Resource Conservation and Recovery Act - Large Quantity Generator	0
RCRA-SQG	Resource Conservation and Recovery Act - Small Quantity Generator	0
RCRA-CESQG	Resource Conservation and Recovery Act – Conditionally Exempt Small Quantity Generator	0
RCRA-NonGen	Resource Conservation and Recovery Act – Non Generators	0
ERNS	Emergency Responses Notification System	0
HMIRS	Hazardous Materials Information Reporting System	0
US ENG CONTROLS	Engineering Controls Sites List	0
US INST CONTROL	Sites with Institutional Controls	0
DOD	Department of Defense Sites	0
FUDS	Formerly Used Defense Sites	0
US BROWNFIELDS	A listing of Brownfield Sites	0
CONSENT	Superfund (CERCLA) Consent Decrees	0
ROD	Records of Decision	0
UMTRA	Uranium Mill Tailings Sites	0
ODI	Open Dump Inventory	0
TRIS	Toxic Chemical Release Inventory System	0
TSCA	Toxic Substances Control Act	0
FTTS	FIFRA (Federal Insecticide, Fungicide, & Rodenticide ACT)/TSCA (Toxic Substances Control Act) Tracking System	0
SSTS	Section 7 Tracking Systems	0
DOT OPS	Incident and Accident Data	0
LUCIS	Land Use Control Information System	0
ICIS	Integrated Compliance Information System	0
RADINFO	Radiation Information Database	0
US CDL	Clandestine Drug Labs	0
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing	0
DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations	0
PADS	PCB Activity Database System	0
MLTS	Material Licensing Tracking System	0
MINES	Mines Master Index File	0
FINDS	Facility Index System/Facility Registry System	0
RAATS	RCRA Administrative Action Tracking System	0

State Records

Database		Facilities
HIST-Cal Sites	Historical Calsites Database	0
CA BOND EXP PLAN	Bond Expenditure Plan	0
SCH	School Property Evaluation Program	0
Toxic Pits	Toxic Pits Cleanup Act Sites	0
SWF/LF	Solid Waste Landfill Subject to State Surcharge	0
CA WDS	California Waste Discharge System	0

Database		Facilities
WMUDS/SWAT	Waste Management Unit Database	0
Cortese	"Cortese" Hazardous Waste & Substances Sites List	0
SWRCY	Recycler Database	0
LUST	Leaking Underground Storage Tank	0
SLIC	Statewide SLIC Cases	0
UST	Underground Storage Tank Database Listing	0
HIST UST	Historic Underground Storage Tank Database Listing	0
AST	Listing of California Regulated Aboveground Storage Tanks	0
LIENS	Environmental Lien Information	0
SWEEPS UST	SWEEPS UST Listing	0
CHMIRS	California Hazardous Materials Incident Reporting System	0
Notify 65	Proposition 65 Records	0
DEED	Deed Restriction Listing	0
VCP	Voluntary Cleanup Program Sites	0
DRYCLEANERS	Drycleaner Registration Database Listing	0
WIP	Well investigation Program Case List	0
CDL	Clandestine Drug Labs	0
RESPONSE	State Response Sites	0
HAZNET	Facility and Manifest Data	0
EMI	Emissions Inventory Data	0
HAULERS	Registered Waste Tire Haulers Listing	0
ENVIROSTOR	EnviroStor Database	0
CA FID UST	California Facility Inventory Database	0
HIST Cortese	Historic Cortese Hazardous Waste & Substances Sites List	0

Tribal Records

Database		Facilities
INDIAN RESERV	Indian Reservations	0
INDIAN ODI	Open Dump Inventory on Indian Land	0
INDIAN LUST	Leaking Underground Storage Tanks on Indian Land	0
INDIAN UST	Underground Storage Tanks on Indian Land	0

EDR Proprietary Historical Databases

Database		Facilities
Manufactured Gas Plants	EDR Proprietary Manufactured Gas Plants	0

No facilities were identified within ASTM standard search distances of the Subject Property.

Orphan Sites

The environmental database search for the Subject Property identified 41 orphan sites. Orphan sites, according to EDR, are not considered in the foregoing analysis due to poor or inadequate address

information. These properties were evaluated individually by Tetra Tech; however, none of the orphan sites were identified within ASTM standard search distances of the Subject Property.

4.3 Historical Use Information

Prior to the 1970s the Subject Property was undeveloped desert. Throughout the 1970s the Subject Property was used for agricultural and residential purposes. Since then, the Subject Property has been unused and unoccupied.

4.3.1 Property Abstract

An abstract of the Subject Property was not provided for review as part of this Phase I ESA.

4.3.2 Aerial Photographs

Tetra Tech obtained historic aerial photographs of the Subject Property from EDR. The following table provides a summary of the information gathered from each photograph. Copies of the aerial photographs are included in Appendix C.

Year	Source	Observations
1953	EDR	Undeveloped desert on the Subject Property.
1978	EDR	Agricultural land with associated ditches, pumping equipment, and access roads throughout the Subject Property. A highway transecting the Subject Property. A residential development containing a house and other structures located along the access road located south of the highway. Undeveloped land on the surrounding properties to the north, west, and southeast. Properties to the east presumed to consist of the Westside Main Canal and agricultural properties similar to the Subject Property are not shown on the aerial photograph. Properties to the south presumed to consist of the undeveloped desert are not shown on the aerial photograph.
1996	EDR	Fields on the Subject Property appear dry and no longer appear to be used for agricultural purposes. The house is no longer present; however, the foundation appears to remain in place. Trees are present along the western boundary of the Subject Property located north of the highway as well as along roads and irrigation ditches located south of the highway.
2005	EDR	Piles of gray fill material located east of the former residential development located along the access road in the portion south of the highway can be identified.

4.3.3 Historic Topographic Maps

Tetra Tech obtained historic USGS topographic maps of the Subject Property from EDR. The following table provides a summary of the information gathered from each map. The historic topographic maps are included in Appendix D.

Quad	Year	Scale	Observations
Plaster City	1947	1:50,000	Undeveloped land on the Subject Property and adjoining properties to the north, south, and west. Westside Main Canal on the adjoining property to the east.
Plaster City	1957	1:24,000	No changes from the 1947 topographic map.
Plaster City	1957	1:62,500	No changes from the 1947 topographic map.
Plaster City	1979	1:24,000	Highway transecting the Subject Property. One structure located south of the access road in the portion of the Subject Property south of the highway.

4.3.4 Sanborn Fire Insurance Maps

Historic Sanborn Fire Insurance Maps were not available from EDR for review.

4.3.5 City Directory Listings

A City Directory was not available from EDR for review due to a lack of specific address information.

4.4 Previous Environmental Reports

No previous environmental reports associated with the Subject Property were provided for review.

5.0 SITE RECONNAISSANCE

5.1 Methodology and Limiting Conditions

A reconnaissance of the Subject Property was performed by Mr. Matt Manderfeld of Tetra Tech on February 1, 2010. No limiting conditions were encountered during the reconnaissance.

5.2 General Site Setting

The Subject Property consists of 10 parcels totaling 1,150 acres of undeveloped land previously used for agricultural purposes in rural Imperial County. Gravel access roads and inactive irrigation ditches associated with the local canal system were observed throughout the Subject Property. The Subject Property is located along the western boundary of a primarily agricultural region in the Imperial Valley. Photographs of the Subject Property are included in Appendix A, and photograph locations are referenced on Figures 2 and 3.

5.3 Exterior Observations

The surrounding properties to the north, south, and west generally consist of undeveloped desert. Properties to the east generally consist of irrigated cropland with scattered residential and commercial properties. Interstate 8 transects the Subject Property, separating the northern and southern portions.

5.3.1 Surface Staining and/or Stressed Vegetation

No surface staining or unnaturally stressed vegetation was observed during the reconnaissance. Oil staining was observed on the sides of out-of-service irrigation pumping equipment along the access road located south of the interstate. The staining did not appear to extend to the ground below. The pumping equipment with associated staining is shown in photo 5 in Appendix A.

5.3.2 Drums, Aboveground Storage Tanks, and Containers

No evidence of fuel storage tanks was observed during the reconnaissance. However, a 5-gallon container used to store used oil and several used automotive oil filters were observed in the wooded area between Reynolds Road and an out-of-service irrigation ditch along the western boundary of the Subject Property. No staining was observed on the ground beneath the used oil container and filters and no odors

were detected. Additional information related to the oil containers, filters, and the solid waste disposal areas ("SWDAs") in which they were observed is included in section 5.3.3 of this report.

Empty drums were observed in three SWDAs located on the Subject Property south of Interstate 8. No staining was observed beneath the drums and no odors were detected. Additional information related to the SWDAs and associated drums is included in section 5.3.3 of this report.

A total of four empty drums were observed in the out-of-service irrigation ditch along the access road traversing the portion of the Subject Property located south of the interstate. No staining was observed beneath any of the drums, and no odors were detected. One of the drums is shown in photo 6 in Appendix A.

5.3.3 Evidence of Waste Disposal

Two SWDAs containing plastic containers, cardboard, glass, paper trash, furniture, a 5-gallon container of used oil, several used automotive oil filters, tires, scrap metal, wires, fencing, spent ammunition casings, lumber, and other general refuse were observed in the wooded areas between Reynolds Road and an out-of-service irrigation ditch along the western boundary of the Subject Property. Materials observed immediately east of the wooded area contained bullet holes, indicating that a portion of the SWDA was used as a firing range. Access to portions of the SWDAs was restricted due to the presence of dense vegetation. The SWDAs, which are identified as SWDA 1 and SWDA 2 on Figure 2, are separated by Strobel Road. Some of the refuse, including tires, lumber, and scrap metal appeared to have been burned in SWDA 1. No staining was observed on the ground beneath the used oil container and filters and no odors were detected; however, cedar tree needles and other organic matter completely covered the ground surface. Due to the potential for soil and/or groundwater to be affected by materials disposed of onsite, the presence of the SWDAs is considered a REC. Waste materials observed in SWDA 1 are shown in photos 1 - 3 in Appendix A. Waste materials observed on SWDA 2 are shown in photo 4 in Appendix A.

A SWDA containing plastic containers, cardboard, glass, paper trash, an empty drum, and other general refuse was observed near the wooded area along the western boundary of the Subject Property located south of Interstate 8. The location of this SWDA, identified as SWDA 3, is shown on Figure 3. Although no staining was observed on the ground beneath the drum and no odors were detected, there exists the potential for substances previously stored in the drum to be released onsite. Due to the potential for soil and/or groundwater to be affected by materials disposed of onsite, the presence of SWDA 3 is considered a REC. Waste materials observed in SWDA 3 are shown in photo 7 in Appendix A.

A SWDA containing scrap metal, wires, fencing, lumber, concrete, an empty drum, and other general refuse was observed south of the unnamed access road traversing the portion of the Subject Property located south of Interstate 8. The location of this SWDA, identified as SWDA 4, is shown on Figure 3. Although no staining was observed on the ground beneath the drum and no odors were detected, there exists the potential for substances previously stored in the drum to be released onsite. Due to the potential for soil and/or groundwater to be affected by materials disposed of onsite, the presence of SWDA 4 is considered a REC. Waste materials observed in SWDA 4 are shown in photos 11 - 12 in Appendix A.

A SWDA containing rusted scrap metal, wires, fencing, air duct components, empty drums, spent ammunition casings, and other general refuse was observed in the south-central portion of the Subject Property. Observed refuse exhibited bullet holes, suggesting that the area was used as a firing range. Many of the objects were partially buried. The location of this SWDA, identified as SWDA 5, is shown on Figure 3. Although no staining was observed on the ground beneath the drums and no odors were detected, there exists the potential for substances previously stored in the drums to be released onsite. Due to the potential for soil and/or groundwater to be affected by materials disposed of onsite, particularly lead compounds from spent ammunition, the presence of SWDA 5 is considered a REC. Waste materials observed in SWDA 5 are shown in photo 8 in Appendix A.

Several piles of gray material believed to be ashes disposed of onsite were observed south of the unnamed access road traversing the Subject Property located south of Interstate 8. Additional information related to the material is included in section 5.3.4 of this report.

5.3.4 Fill Material

Several piles of gray ash-like material were observed south of the unnamed access road that traverses the Subject Property south of Interstate 8. The location of the fill material is shown on Figure 3. The piles were approximately 2 to 3 feet high and covered an area approximately 1 acre in size. Based on the size and configuration of the piles, the presence of nearby tire tracks, and their proximity to the access roads, the gray material appears to have been imported and dumped in the area. The origin and source material potentially contributing to these piles was indeterminable. Due to the potential for hazardous substances to be present within the dumped material and the associated risks posed to onsite soil and/or groundwater, the presence of the material is considered a REC. The fill material is shown in photo 9 in Appendix A.

Gravel fill material was observed along access roads and irrigation ditches located throughout the Subject Property.

5.3.5 Transformers

Neither pad- nor pole-mounted transformers were observed on the Subject Property.

5.3.6 Vents, Air Stacks, and Odors

No vents or air stacks were observed and no odors were detected on the Subject Property during the reconnaissance. Piping associated with pumping equipment was observed along the unnamed access road that crosses the Subject Property located south of Interstate 8.

5.3.7 Underground Storage Tanks

No evidence of underground storage tanks ("USTs") was observed on the Subject Property.

5.3.8 Wells

No evidence of groundwater or oil and gas wells was observed on the Subject Property during the reconnaissance. Several plastic and concrete pipes believed to be associated with the onsite drainage and/or irrigation systems were observed to be protruding from the ground throughout the Subject Property.

5.3.9 Alterations in Vegetation

The Subject Property appears to have been cleared of naturally-occurring vegetation prior to development for previous agricultural uses. Mature cedar and palm trees were observed along out-of service irrigation ditches, and several species of unidentified herbaceous plants were observed throughout the fallow agricultural fields.

5.3.10 Pits, Ponds, and Lagoons

No pits, ponds, or lagoons were observed on the Subject Property during the reconnaissance.

6.0 INTERVIEWS

6.1 Site Owner and Operator

Tetra Tech conducted an interview with Mr. Don Salas, Vice President of Federal Home Loans Corporation, which currently manages the Subject Property on behalf of OMNI Financial, LLC, CURA Financial, LLC, and the David L. Woods Revocable Trust, on March 4, 2010. Mr. Salas stated that the owners acquired the Subject Property via Trustee's Deed in September 2009 from Castle Eurasia Corp., which is currently in bankruptcy. He stated that the Subject Property is currently in the condition it was in when ownership transferred, and that the Subject Property has remained unused and unoccupied since it was acquired. Mr. Salas also stated that he and the owners have little information related to the Subject Property, and that they have no knowledge of its historic use other than it was previously used for agricultural purposes. He stated that he was unaware of the presence of SWDAs and gray ash-like material on the Subject Property; therefore, he could not provide information related to the origin of these materials or comment on the associated potential for soil and/or groundwater to have been affected. He stated that to his knowledge, and the knowledge of the owners, there have never been any releases of hazardous substances, fires, emergency responses, environmental liens, waste disposal, wells, structures of any kind, or other environmental concerns on or associated with this portion of the Subject Property.

6.2 Site Occupant

On several occasions in February 2010, Tetra Tech contacted Mr. Robert Ferrara, the designated representative of LSR assisting with the investigation. Mr. Ferrara provided landowner information, maps defining the property boundaries of the Subject Property, and other details related to site characteristics. Mr. Ferrara stated that he was not aware of any potential environmental concerns associated with the Subject Property.

6.3 Local Fire Department

Tetra Tech contacted the Imperial County Fire Department on February 17 and 22, 2010 regarding potential fires, emergency responses, and hazardous substance releases associated with the Subject Property. To date, telephone messages left for the Assistant Fire Chief have not been returned. In the event a representative of the Fire Department responds with information indicating the presence of a REC on the Subject Property, Tetra Tech will issue an addendum to this report.

6.4 Imperial Irrigation District

Tetra Tech conducted an interview with Ms. Lisa Macklin, a Land Management Specialist with the Imperial Irrigation District ("IID"), on February 3, 2010. Ms. Macklin stated that the Westside Main Canal is owned and operated by IID, and that she is not aware of any environmental concerns associated with the water within the canals or the properties on which they are located. Ms. Macklin stated that the out-of-service irrigation ditches and associated pumping equipment located throughout the Subject Property and vicinity are owned and operated by individual property owners.

6.5 Imperial County Department of Environmental Health and Consumer Protection Services Hazardous Emergency Assistance Team

Tetra Tech contacted the Imperial County Department of Environmental Health and Consumer Protection Services Hazardous Emergency Assistance Team ("HEAT") on February 17 and 22, 2010 regarding potential fires, emergency responses, and hazardous substance releases associated with the Subject Property. To date, a telephone message left in HEAT's voicemail system has not been returned. In the event a representative of HEAT responds with information indicating the presence of a REC on the Subject Property, Tetra Tech will issue an addendum to this report.

6.6 Local Resident

Tetra Tech conducted an interview with Mr. Jack Strobel, a local land developer and long-time resident of the area familiar with the Subject Property, on March 8, 2010. Mr. Strobel stated that Subject Property was previously used for agricultural purposes and contained a manufactured home throughout the 1970s. He stated that the property has been unoccupied and unused for several years. Mr. Strobel stated that he was not aware of any environmental concerns associated with the Subject Property and did not know the origin of the gray ash-like material. He stated that all controlled burns in Imperial County are regulated by Imperial County Air Pollution Control District ("APCD"), and that landowners are required to obtain annually-renewed permits for properties on which materials are burned. Mr. Strobel stated that the APCD requires advanced notification and often inspects materials to be burned prior to incineration, and that APCD may be able to provide additional information related historical burns on, or permits registered to, the Subject Property.

6.7 Imperial County Air Pollution Control District

Tetra Tech contacted the APCD on March 8, 2010 regarding potential controlled burns on or permits registered to the Subject Property. According to an APCD representative, records of burn permits and associated burns are organized by and accessed via site-specific address information. Due to a lack of address information, APCD was unable to process Tetra Tech's information request and therefore unable to determine if permitted burns have occurred on the Subject Property.

7.0 RECOGNIZED ENVIRONMENTAL CONDITIONS

Tetra Tech performed a Phase I ESA in conformance with the scope and limitations of ASTM Standard Practice E2247-08 of the Subject Property. Any exceptions to or deviations from this practice are described in Section 8.0 of this report.

7.1 Recognized Environmental Conditions

This assessment has revealed the following RECs associated with the Subject Property:

Solid Waste Disposal Areas

Two SWDAs containing plastic containers, cardboard, glass, paper trash, furniture, a 5-gallon container of used oil, several used automotive oil filters, tires, scrap metal, wires, fencing, spent ammunition casings, lumber, and other general refuse were observed in the wooded areas between Reynolds Road and an out-of-service irrigation ditch along the western boundary of the Subject Property. Materials observed immediately east of the wooded area contained bullet holes, indicating that a portion of the SWDA was used as a firing range. Access to portions of the SWDAs was restricted due to the presence of dense vegetation. The SWDAs, which are identified as SWDA 1 and SWDA 2 on Figure 2, are separated by Strobel Road. Some of the refuse, including tires, lumber, and scrap metal appeared to have been burned in SWDA 1. No staining was observed on the ground beneath the used oil container and filters; however, cedar tree needles and other organic matter completely covered the ground surface. Due to the potential for soil and/or groundwater to have been affected by materials disposed of onsite, the presence of SWDA 1 and SWDA 2 is considered a REC.

A SWDA containing plastic containers, cardboard, glass, paper trash, an empty drum, and other general refuse was observed near the wooded area along the western boundary of the Subject Property located south of Interstate 8. The location of this SWDA, identified as SWDA 3, is shown on Figure 3. Although no staining was observed on the ground beneath the drum, there exists the potential for substances previously stored in the drum to be released onsite. Due to the potential for soil and/or groundwater to have been affected by materials disposed of onsite, the presence of SWDA 3 is considered a REC.

A SWDA containing scrap metal, wires, fencing, lumber, concrete, an empty drum, and other general refuse was observed south of the unnamed access road traversing the portion of the Subject Property located south of Interstate 8. The location of this SWDA, identified as SWDA 4, is depicted on Figure 3. Although no staining was observed on the ground beneath the drum, there exists the potential for

substances previously stored in the drum to be released onsite. Due to the potential for soil and/or groundwater to have been affected by materials disposed of onsite, the presence of SWDA 4 is considered a REC.

A SWDA containing rusted scrap metal, wires, fencing, air duct components, empty drums, spent ammunition casings, and other general refuse was observed in the south-central portion of the Subject Property. Observed refuse exhibited bullet holes, suggesting that the area was used as a firing range. Many of the objects were partially buried. The location of this SWDA, identified as SWDA 5, is illustrated on Figure 3. Although no staining was observed on the ground beneath the drums, there exists the potential for substances previously stored in the drums to be released onsite. Due to the potential for soil and/or groundwater to have been affected by materials disposed of onsite, particularly lead compounds from spent ammunition, the presence of SWDA 5 is considered a REC.

Fill Material

Several piles of gray ash-like material were observed south of the unnamed access road that traverses the Subject Property south of Interstate 8. The location of the fill material is illustrated on Figure 3. The piles were approximately 2 to 3 feet high and covered an area approximately 1 acre in size. Based on the size and configuration of the piles, the presence of nearby tire tracks, and proximity to the access roads, the gray ash-like material appears to have been imported into the area. Due to the potential affect on soil and/or groundwater, the presence of the gray ash-like fill material is considered a REC.

7.2 Historic Recognized Environmental Conditions

This assessment has revealed no evidence of historic RECs associated with the Subject Property.

7.3 *De Minimis* Conditions

This assessment has revealed the following *de minimis* condition associated with the Subject Property:

Residual Agricultural Chemicals

The Subject Property has been used for agricultural purposes, and has been subject to historic application of herbicides and pesticides. As a result, there is a potential for residual, low-level concentrations of these substances to be present in soil and/or groundwater. The Federal Insecticide, Fungicide, and Rodenticide Act ("FIFRA") authorizes the legitimate application of herbicides and pesticides used in accordance with manufacturer prescribed and labeled instructions. Consequently, in the absence of clear evidence

suggesting improper use, these substances are not expected to be present in concentrations that pose a threat to human health or the environment, or in concentrations that would be subject to enforcement action if brought to the attention of appropriate government agencies. Therefore, the potential presence of low concentrations of agricultural chemicals on the Subject Property is considered a *de minimis* condition.

7.4 Data Gaps

Data gaps encountered during the performance of the Phase I ESA included the following:

- Sanborn Fire Insurance Maps and a City Directory were not available from EDR.
- Information related to historic use of the Subject Property prior to 1947 was not available.
- Representatives with the Imperial County Fire Department and Imperial County Department of Environmental Health and Consumer Protection Services HEAT were not available for interviews.
- The owners and managers of the Subject Property were not able to provide basic information related to current site conditions, historic use, and other details typically provided by landowners during a Phase I ESA.

7.5 Recommendations

Based on the findings of this assessment, Tetra Tech recommends that Phase II Environmental Site Assessment ("Phase II ESA") soil sampling be conducted in the SWDAs and in other areas where the potential for elevated lead concentration from spent ammunition is suggested. Recommended sample locations are illustrated on Figure 4.

8.0 DEVIATIONS

No deviations from ASTM E2247-08 were required to complete this Phase I ESA.

9.0 LIMITATIONS

9.1 Special Terms and Conditions

This work was conducted in accordance with Tetra Tech's proposal dated January 27, 2010. Tenaska authorized Tetra Tech to conduct this work on January 28, 2010 (Task Order No. 51).

9.2 Limitations and Exceptions

No environmental site assessment can completely eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a site. Performance of ASTM Standard Practice E2247-08 is intended to reduce, but cannot eliminate, uncertainty regarding the potential for recognized environmental conditions in connection with the Subject Property. The information presented in this report is based on professional opinions from Tetra Tech's field reconnaissance and visual observations of the Subject Property and vicinity as well as Tetra Tech's interpretation of the available historical information and documents reviewed as described in this report.

It should be recognized that this study is not intended to be a definitive investigation of potential environmental concerns at the Subject Property. The scope of services for this investigation is limited and should not be construed as a guarantee that no currently unrecognized environmental concerns exist at the Subject Property. However, this study was undertaken and completed in accordance with the professional standards and generally accepted practices of environmental consultants at the time of preparation. Business environmental risk associated with the Subject Property that is beyond the scope of this investigation may exist.

Opinions and recommendations presented apply to the Subject Property's conditions existing at the time of our investigation and those reasonably foreseeable. They do not necessarily apply to changes involving the Subject Property of which Tetra Tech is not aware and has not had the opportunity to evaluate.

9.3 User Reliance

This report is intended for the sole use of Tenaska. The scope of services performed in execution of this investigation may not be appropriate to satisfy the needs of other users, and any use or re-use of this document or the findings, conclusions, or recommendations presented is at the sole risk of said user.

10.0 REFERENCES

American Society of Testing and Materials ("ASTM") 2008. E2247-08 Standard Practice for Environmental Site Assessments: Phase I Site Assessment Process for Forestland or Rural Properties

Environmental Site Assessments: Phase I Environmental Site Assessment Process.

Environmental Data Resources (EDR), January 12, 2010. Area Study, Inquiry Number 2674479.2s.

Environmental Data Resources (EDR), January 12, 2010. Topographic Maps, Inquiry Number 2674479.4.

Environmental Data Resources (EDR), January 12, 2010. Aerial Photographs, Inquiry Number 2674479.5.

United States Geological Survey (USGS), Topographic Maps.

11.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONAL(S)

This report was prepared by Tetra Tech under the supervision of Tamara Pelham. Matt Manderfeld was the principal investigator. The findings, recommendations, specifications, and professional opinions presented in this report were prepared in accordance with generally accepted professional practice, and within the scope of the project. There is no other warranty, either express or implied.

I, Tamara Pelham, declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in 40 CFR 312.10. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Subject Property. I have developed and performed the All Appropriate Inquiries in conformance with the standards and practices set forth in 40 CFR 312.

- ☐ Hold a current Professional Engineer's (P.E.) or Professional Geologist's (P.G.) license or registration from a state, tribe, or U.S. territory and have the equivalent of three (3) years of full-time relevant experience.
- ☐ Be a licensed or certified by the federal government, a state tribe, or U.S. territory to perform environmental inquiries as defined in §312.21 and have the equivalent of three (3) years of full-time relevant experience.
- ■ Have a Baccalaureate or higher degree from an accredited institution of higher education in a relevant discipline of engineering, environmental science, or earth science and the equivalent of five (5) years of full-time relevant experience.
- ■ As of the date of promulgation of the final rule, have a Baccalaureate or higher degree from an accredited institution of higher education and the equivalent of ten (10) years of full-time relevant experience.

Tamara Pelham

FIGURES

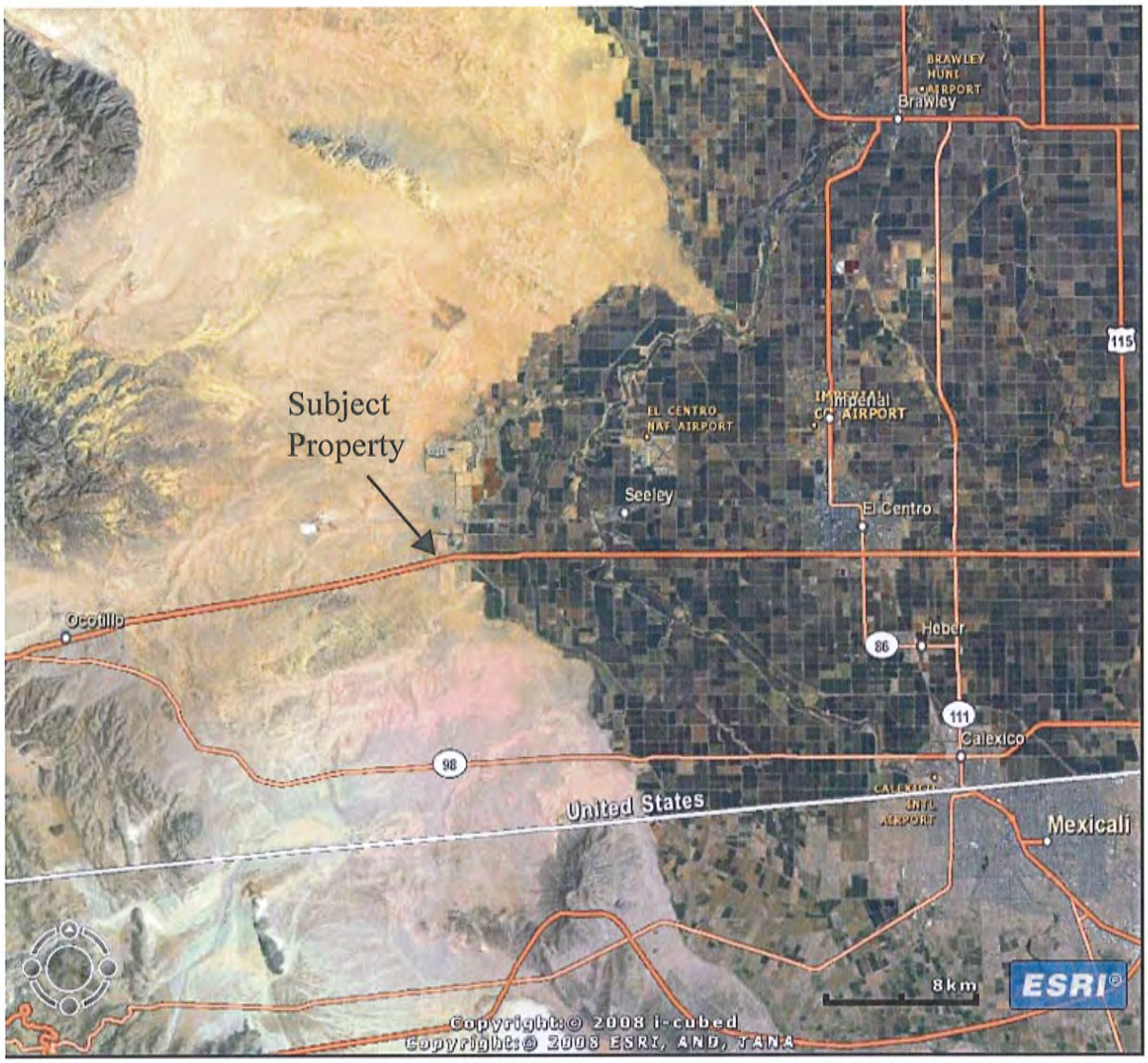

Figure 1. Subject Property Vicinity

Figure 2. Subject Property Layout - North of Interstate

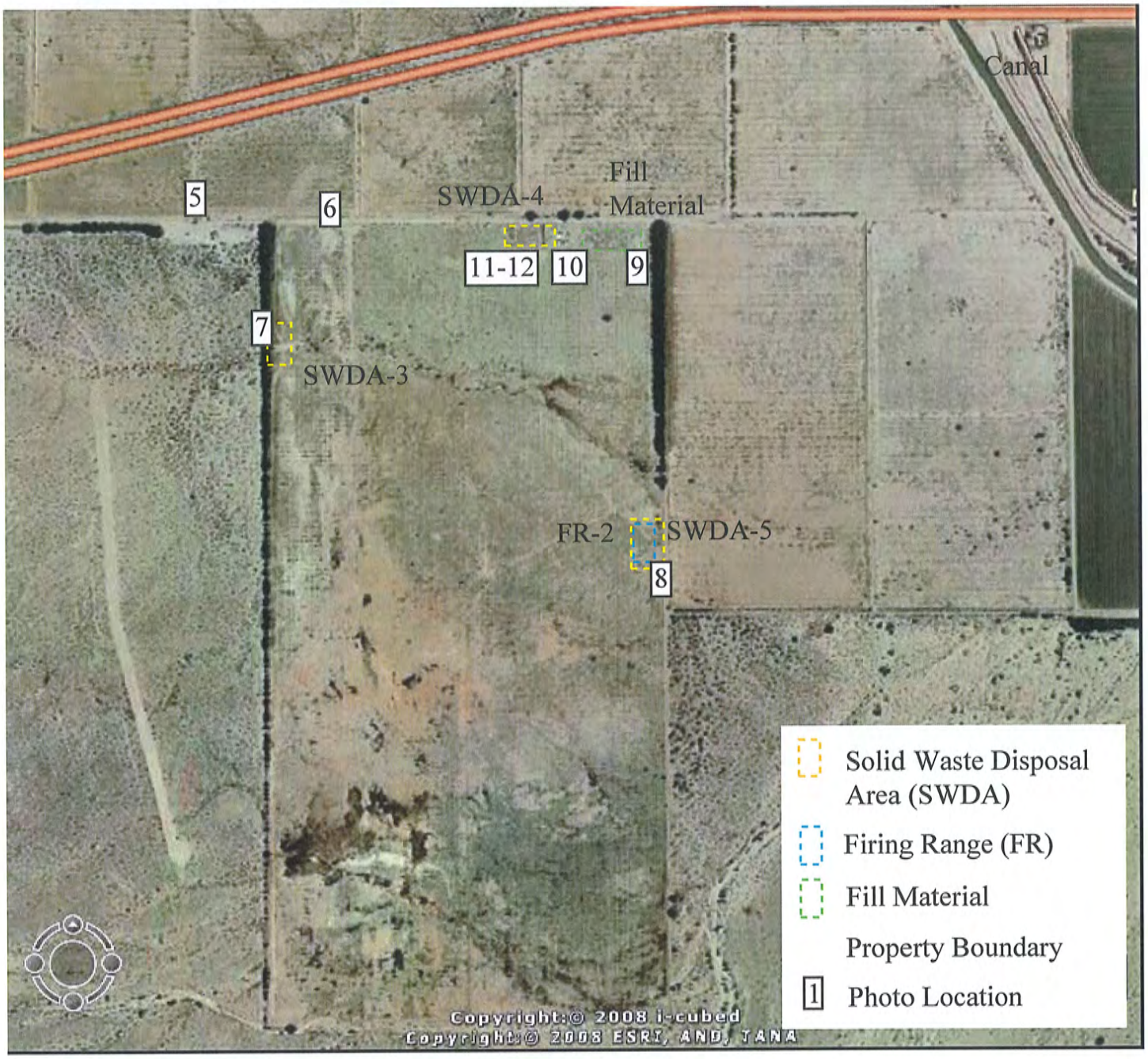

Figure 3. Subject Property Layout - South of Interstate

Figure 4. Phase II ESA Recommendations - Proposed Soil Sampling Locations

APPENDIX A

Photo: 1	Map ID: 1	Viewing: N

View of partially burned tires and other debris observed in SWDA 1.

Photo: 2	Map ID: 2	Viewing: E

View of scrap metal and other debris observed in SWDA 1.

Photo: 3	Map ID: 3	Viewing: S

View of used automotive oil filters and other debris observed in SWDA 1.

Photo: 4	Map ID: 4	Viewing: S

View of a 5-gallon container used to store used oil observed in SWDA 2.

PHOTOGRAPHIC LOG Imperial Valley West Property Imperial County, California Page 1 of 3	*Tetra Tech* *12120 Port Grace Blvd* *Suite 102* *La Vista, Nebraska 68128*

Photo: 5	Map ID: 5	Viewing: S

View of out-of-service pumping equipment associated with the onsite irrigation system located along the unnamed access road traversing the portion of the Subject Property located south of the Interstate.

Photo: 6	Map ID: 6	Viewing: NW

View of one of four empty drums observed in the irrigation ditches along the unnamed access road traversing the portion of the Subject Property located south of the Interstate.

Photo: 7	Map ID: 7	Viewing: W

View of an empty drum observed in SWDA 3.

Photo: 8	Map ID: 8	Viewing: W

View of drums and other partially-buried waste materials observed in SWDA 5.

Photo: 9	Map ID: 9	Viewing: SW

View of ash-like fill material observed south of the unnamed access road traversing the portion of the Subject Property located south of the Interstate.

Photo: 10	Map ID: 10	Viewing: SE

View of the foundation from the house previously located south of the unnamed access road traversing the portion of the Subject Property located south of the Interstate.

Photo: 11	Map ID: 11	Viewing: SW

View of waste materials observed on SWDA 4.

Photo: 12	Map ID: 12	Viewing: S

View of an empty drum observed on SWDA 4.

APPENDIX B

Imperial Valley West
Strobel Road/Reynolds Road
Thermal, CA 92274

Inquiry Number: 2694808.2s
February 08, 2010

The EDR Radius Map™ Report with GeoCheck®

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

STROBEL ROAD/REYNOLDS ROAD
THERMAL, CA 92274

COORDINATES

Latitude (North):	32.769400 - 32˚ 46' 9.8''
Longitude (West):	115.786800 - 115˚ 47' 12.5''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	613632.0
UTM Y (Meters):	3626184.0
Elevation:	1 ft. below sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	32115-G7 PLASTER CITY, CA
Most Recent Revision:	1979

AERIAL PHOTOGRAPHY IN THIS REPORT

Photo Year:	2005
Source:	USDA

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL..... National Priority List

EXECUTIVE SUMMARY

Proposed NPL ..... Proposed National Priority List Sites
NPL LIENS ..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ..... National Priority List Deletions

Federal CERCLIS list

CERCLIS ..... Comprehensive Environmental Response, Compensation, and Liability Information System
FEDERAL FACILITY ..... Federal Facility Site Information listing

Federal CERCLIS NFRAP site List

CERC-NFRAP ..... CERCLIS No Further Remedial Action Planned

Federal RCRA CORRACTS facilities list

CORRACTS ..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ..... RCRA - Large Quantity Generators
RCRA-SQG ..... RCRA - Small Quantity Generators
RCRA-CESQG ..... RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

US ENG CONTROLS ..... Engineering Controls Sites List
US INST CONTROL ..... Sites with Institutional Controls

Federal ERNS list

ERNS ..... Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE ..... State Response Sites

State- and tribal - equivalent CERCLIS

ENVIROSTOR ..... EnviroStor Database

State and tribal landfill and/or solid waste disposal site lists

SWF/LF ..... Solid Waste Information System

State and tribal leaking storage tank lists

LUST ..... Geotracker's Leaking Underground Fuel Tank Report
SLIC ..... Statewide SLIC Cases

INDIAN LUST ..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

UST ..... Active UST Facilities
INDIAN UST ..... Underground Storage Tanks on Indian Land
FEMA UST ..... Underground Storage Tank Listing

State and tribal voluntary cleanup sites

INDIAN VCP ..... Voluntary Cleanup Priority Listing
VCP ..... Voluntary Cleanup Program Properties

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

ODI ..... Open Dump Inventory
DEBRIS REGION 9 ..... Torres Martinez Reservation Illegal Dump Site Locations
WMUDS/SWAT ..... Waste Management Unit Database
SWRCY ..... Recycler Database
HAULERS ..... Registered Waste Tire Haulers Listing
INDIAN ODI ..... Report on the Status of Open Dumps on Indian Lands

Local Lists of Hazardous waste / Contaminated Sites

US CDL ..... Clandestine Drug Labs
HIST Cal-Sites ..... Historical Calsites Database
SCH ..... School Property Evaluation Program
Toxic Pits ..... Toxic Pits Cleanup Act Sites
CDL ..... Clandestine Drug Labs
US HIST CDL ..... National Clandestine Laboratory Register

Local Lists of Registered Storage Tanks

CA FID UST ..... Facility Inventory Database
SWEEPS UST ..... SWEEPS UST Listing

Local Land Records

LIENS 2 ..... CERCLA Lien Information
LUCIS ..... Land Use Control Information System
LIENS ..... Environmental Liens Listing
DEED ..... Deed Restriction Listing

Records of Emergency Release Reports

HMIRS ..... Hazardous Materials Information Reporting System
CHMIRS ..... California Hazardous Material Incident Report System
LDS ..... Land Disposal Sites Listing

MCS	Military Cleanup Sites Listing

Other Ascertainable Records

RCRA-NonGen	RCRA - Non Generators
DOT OPS	Incident and Accident Data
DOD	Department of Defense Sites
FUDS	Formerly Used Defense Sites
CONSENT	Superfund (CERCLA) Consent Decrees
ROD	Records Of Decision
UMTRA	Uranium Mill Tailings Sites
MINES	Mines Master Index File
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
SSTS	Section 7 Tracking Systems
ICIS	Integrated Compliance Information System
PADS	PCB Activity Database System
MLTS	Material Licensing Tracking System
RADINFO	Radiation Information Database
FINDS	Facility Index System/Facility Registry System
RAATS	RCRA Administrative Action Tracking System
CA BOND EXP. PLAN	Bond Expenditure Plan
CA WDS	Waste Discharge System
NPDES	NPDES Permits Listing
Cortese	"Cortese" Hazardous Waste & Substances Sites List
HIST CORTESE	Hazardous Waste & Substance Site List
DRYCLEANERS	Cleaner Facilities
WIP	Well Investigation Program Case List
HAZNET	Facility and Manifest Data
EMI	Emissions Inventory Data
INDIAN RESERV	Indian Reservations
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
PROC	Certified Processors Database
MWMP	Medical Waste Management Program Listing
COAL ASH DOE	Sleam-Electric Plan Operation Data
PCB TRANSFORMER	PCB Transformer Registration Database
HWT	Registered Hazardous Waste Transporter Database
HWP	EnviroStor Permitted Facilities Listing
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants	EDR Proprietary Manufactured Gas Plants

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

EXECUTIVE SUMMARY

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

State and tribal registered storage tank lists

AST: The Aboveground Storage Tank database contains registered ASTs. The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the AST list, as provided by EDR, and dated 08/01/2009 has revealed that there are 2 AST sites within approximately 2.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
K&F DAIRY & CALIF. RANCH	1870 JEFFREY RD	ENE 1 - 2 (1.662 mi.)	1	7
JERRY PREECE JR FARMS	2396 W VAUGHN RD	ESE >2 (2.112 mi.)	A3	7

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Registered Storage Tanks

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there is 1 HIST UST site within approximately 2.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
JOHN H. BORCHARD RANCHES	2396 W VAUGHN RD	ESE >2 (2.110 mi.)	A2	7

Other Ascertainable Records

Notify 65: Notify 65 records contain facility notifications about any release that could impact drinking water and thereby expose the public to a potential health risk. The data come from the State Water Resources Control Board's Proposition 65 database.

A review of the Notify 65 list, as provided by EDR, and dated 10/21/1993 has revealed that there is 1 Notify 65 site within approximately 3 miles of the target property.

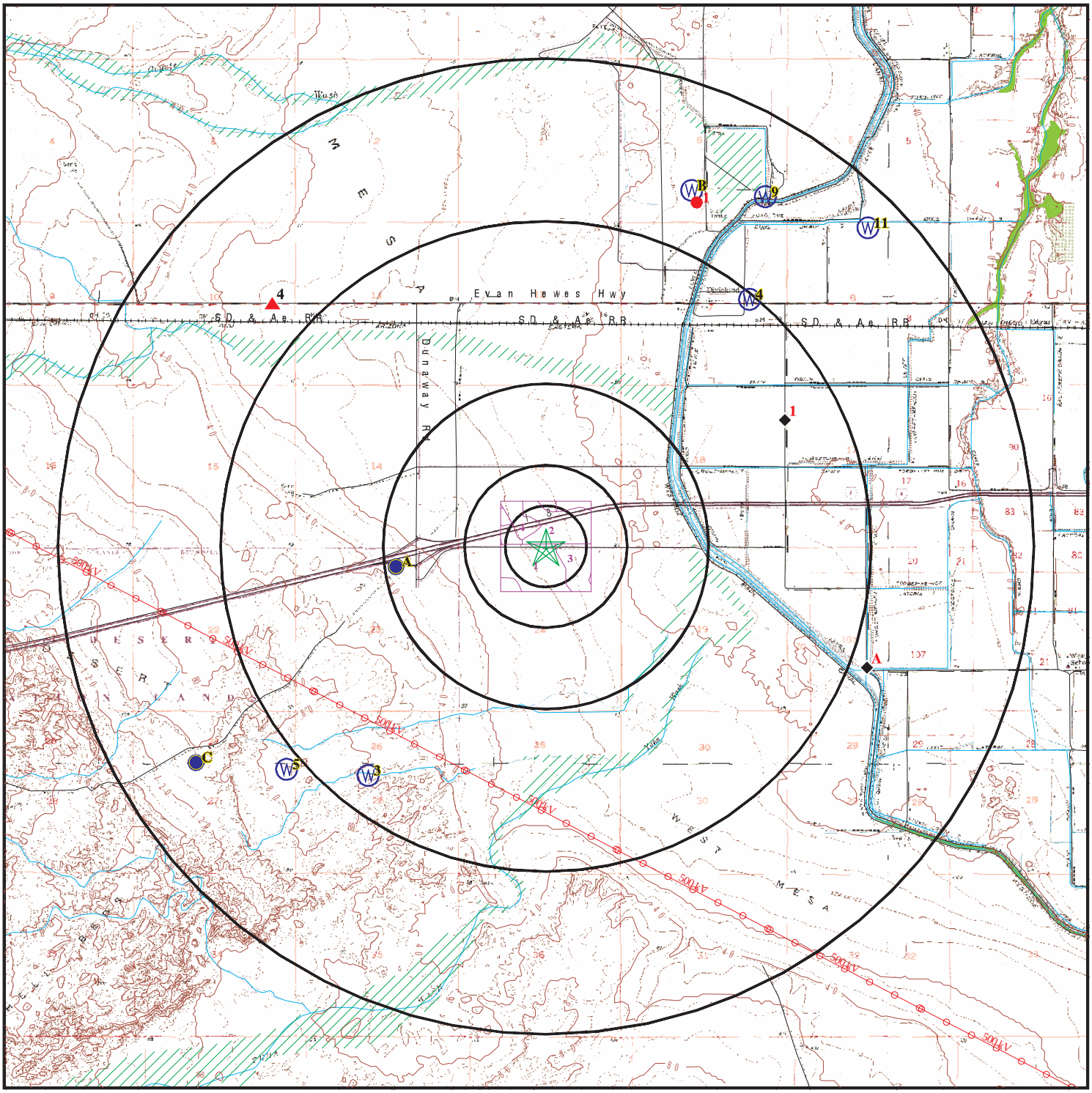
Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
BRAND PRECISION SERVICES	***3300 EVAN HEWES HWY***	***NW >2 (2.250 mi.)***	***4***	***8***

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

Site Name	Database(s)
BENNEY'S RENTALS	PROP65,LUST SAN MATEO,HIST CORTESE
EL CENTRO NAVAL AIR STATI	HIST CORTESE
IMPERIAL MACHINERY	LUST SAN MATEO,HIST CORTESE
THOMAS MOTORS	LUST SAN MATEO,HIST CORTESE
JPH ENTERPRISES	HIST CORTESE
OASIS STATION	LUST SAN MATEO,HIST CORTESE
ALAMO DISCOUNT MARKET	FID,SWEEPS UST
CHAPALLA MARKET	FID,SWEEPS UST
OASIS STATION	FID,SWEEPS UST
NAVAL AIR FACILITY EL CENTRO	AWP,CORTESE,ENVIROSTOR,HIST CALSITES
CRUICKSHANK ROAD - IMPERIAL COUNTY	LF
OREPEZA SANITATION COMPANY	LUST SAN MATEO
ALAMO DISCOUNT MARKET	LUST SAN MATEO,UST ALAMEDA
JPH ENTERPRISES	LUST SAN MATEO
OASIS STATION	LUST SAN MATEO
CALIFORNIA HIGHWAY PATROL	UST ALAMEDA
OASIS STATION	UST ALAMEDA
EL CENTRO HOT PLANT	HIST UST
IMPERIAL MACHINERY	RCRA-SQG,FINDS,HIST UST
HORNUNG RANCH	HIST UST
TINACHI RANCH	HIST UST
PETER RABBIT FARMS	HIST UST
US GYPSUM CO.	AST
IMPERIAL VALLEY RESOURCE & RECOVER	AST
WESTERN SUN PRODUCTS	AST
NATIONS RENT	AST
EMPIRE SOUTHWEST, LLC	AST
SHELL OIL CO IMPERIAL PLANT	RCRA-SQG,FINDS
UNOCAL SVC STA #6228	FINDS,RCRA-NLR
INTERSTATE 8 WEST OF DOGWOOD AVE	ERNS
9 MILES WEST OF NAVAL AIR FACILITY	ERNS
IMPERIAL VALLEY RESOURCE MANAGEMEN	FINDS
DUNE COMPANY OF IMPERIAL VALLEY -	FINDS
DUNE CO OF IMPERIAL VALLEY	FINDS
ONE ELEVEN TRUCK STOP	SLIC REGION 2
U.S. GYPSUM CO.	SLIC REGION 2
IMPERIAL IRRIGATION DISTRICT	SLIC REGION 2
15TH STREET MIDDLE SCHOOL	SCH,ENVIROSTOR
NEW OASIS ELEMENTARY SCHOOL	SCH,ENVIROSTOR
KANE SPRINGS SBT (#62)	ENVIROSTOR
IMPERIAL CUT AND FILL	ENVIROSTOR

OVERVIEW MAP - 2694808.2s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Imperial Valley West	CLIENT: Tetra Tech MM
ADDRESS: Strobel Road/Reynolds Road Thermal CA 92274	CONTACT: Matt Manderfeld INQUIRY #: 2694808.2s
LAT/LONG: 32.7694 / 115.7868	DATE: February 08, 2010 4:50 pm

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DETAIL MAP - 2694808.2s

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites

0 1/16 1/8 1/4 Miles

- Indian Reservations BIA
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Imperial Valley West	CLIENT: Tetra Tech MM
ADDRESS: Strobel Road/Reynolds Road Thermal CA 92274	CONTACT: Matt Manderfeld INQUIRY #: 2694808.2s
LAT/LONG: 32.7694 / 115.7868	DATE: February 08, 2010 4:51 pm

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MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL		3.000	0	0	0	0	0	0
Proposed NPL		3.000	0	0	0	0	0	0
NPL LIENS		TP	NR	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL		3.000	0	0	0	0	0	0
Federal CERCLIS list								
CERCLIS		2.500	0	0	0	0	0	0
FEDERAL FACILITY		3.000	0	0	0	0	0	0
Federal CERCLIS NFRAP site List								
CERC-NFRAP		2.500	0	0	0	0	0	0
Federal RCRA CORRACTS facilities list								
CORRACTS		3.000	0	0	0	0	0	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF		2.500	0	0	0	0	0	0
Federal RCRA generators list								
RCRA-LQG		2.250	0	0	0	0	0	0
RCRA-SQG		2.250	0	0	0	0	0	0
RCRA-CESQG		2.250	0	0	0	0	0	0
Federal institutional controls / engineering controls registries								
US ENG CONTROLS		2.500	0	0	0	0	0	0
US INST CONTROL		2.500	0	0	0	0	0	0
Federal ERNS list								
ERNS		TP	NR	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE		3.000	0	0	0	0	0	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR		3.000	0	0	0	0	0	0
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF		2.500	0	0	0	0	0	0
State and tribal leaking storage tank lists								
LUST		2.500	0	0	0	0	0	0
SLIC		2.500	0	0	0	0	0	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST		2.500	0	0	0	0	0	0
State and tribal registered storage tank lists								
UST		2.250	0	0	0	0	0	0
AST		2.250	0	0	0	0	2	2
INDIAN UST		2.250	0	0	0	0	0	0
FEMA UST		2.250	0	0	0	0	0	0
State and tribal voluntary cleanup sites								
INDIAN VCP		2.500	0	0	0	0	0	0
VCP		2.500	0	0	0	0	0	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS		2.500	0	0	0	0	0	0
Local Lists of Landfill / Solid Waste Disposal Sites								
ODI		2.500	0	0	0	0	0	0
DEBRIS REGION 9		2.500	0	0	0	0	0	0
WMUDS/SWAT		2.500	0	0	0	0	0	0
SWRCY		2.500	0	0	0	0	0	0
HAULERS		TP	NR	NR	NR	NR	NR	0
INDIAN ODI		2.500	0	0	0	0	0	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL		TP	NR	NR	NR	NR	NR	0
HIST Cal-Sites		3.000	0	0	0	0	0	0
SCH		2.250	0	0	0	0	0	0
Toxic Pits		3.000	0	0	0	0	0	0
CDL		TP	NR	NR	NR	NR	NR	0
US HIST CDL		TP	NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
CA FID UST		2.250	0	0	0	0	0	0
HIST UST		2.250	0	0	0	0	1	1
SWEEPS UST		2.250	0	0	0	0	0	0
Local Land Records								
LIENS 2		TP	NR	NR	NR	NR	NR	0
LUCIS		2.500	0	0	0	0	0	0
LIENS		TP	NR	NR	NR	NR	NR	0
DEED		2.500	0	0	0	0	0	0
Records of Emergency Release Reports								
HMIRS		TP	NR	NR	NR	NR	NR	0
CHMIRS		TP	NR	NR	NR	NR	NR	0
LDS		TP	NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
MCS		TP	NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA-NonGen		2.250	0	0	0	0	0	0
DOT OPS		TP	NR	NR	NR	NR	NR	0
DOD		3.000	0	0	0	0	0	0
FUDS		3.000	0	0	0	0	0	0
CONSENT		3.000	0	0	0	0	0	0
ROD		3.000	0	0	0	0	0	0
UMTRA		2.500	0	0	0	0	0	0
MINES		2.250	0	0	0	0	0	0
TRIS		TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
FTTS		TP	NR	NR	NR	NR	NR	0
HIST FTTS		TP	NR	NR	NR	NR	NR	0
SSTS		TP	NR	NR	NR	NR	NR	0
ICIS		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
RADINFO		TP	NR	NR	NR	NR	NR	0
FINDS		TP	NR	NR	NR	NR	NR	0
RAATS		TP	NR	NR	NR	NR	NR	0
CA BOND EXP. PLAN		3.000	0	0	0	0	0	0
CA WDS		TP	NR	NR	NR	NR	NR	0
NPDES		TP	NR	NR	NR	NR	NR	0
Cortese		2.500	0	0	0	0	0	0
HIST CORTESE		2.500	0	0	0	0	0	0
Notify 65		3.000	0	0	0	0	1	1
DRYCLEANERS		2.250	0	0	0	0	0	0
WIP		2.250	0	0	0	0	0	0
HAZNET		TP	NR	NR	NR	NR	NR	0
EMI		TP	NR	NR	NR	NR	NR	0
INDIAN RESERV		3.000	0	0	0	0	0	0
SCRD DRYCLEANERS		2.500	0	0	0	0	0	0
PROC		2.500	0	0	0	0	0	0
MWMP		2.250	0	0	0	0	0	0
COAL ASH DOE		TP	NR	NR	NR	NR	NR	0
PCB TRANSFORMER		TP	NR	NR	NR	NR	NR	0
HWT		2.250	0	0	0	0	0	0
HWP		3.000	0	0	0	0	0	0
COAL ASH EPA		2.500	0	0	0	0	0	0
EDR PROPRIETARY RECORDS								
EDR Proprietary Records								
Manufactured Gas Plants		3.000	0	0	0	0	0	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

1
ENE
> 1
1.662 mi.
8774 ft.

K&F DAIRY & CALIF. RANCH — **AST** — **A100324136**
1870 JEFFREY RD — **N/A**
EL CENTRO, CA 92243

Relative:
Lower

Actual:
-40 ft.

AST:

Owner:	HEIDI KUHN / TOM FERRIERA
Total Gallons:	1,320
Certified Unified Program Agencies:	Imperial

A2
ESE
> 1
2.110 mi.
11143 ft.

JOHN H. BORCHARD RANCHES — **HIST UST** — **U001573909**
2396 W VAUGHN RD — **N/A**
EL CENTRO, CA 92243

Site 1 of 2 in cluster A

Relative:
Lower

Actual:
-35 ft.

HIST UST:

Region:	STATE
Facility ID:	00000027461
Facility Type:	Other
Other Type:	FARM
Total Tanks:	0001
Contact Name:	MC NEECE BROS. OIL CO., INC.
Telephone:	6193524704
Owner Name:	JOHN H. BORCHARD
Owner Address:	1425 CYPRESS DR.
Owner City,St,Zip:	EL CENTRO, CA 92243
Tank Num:	001
Container Num:	#1
Year Installed:	1974
Tank Capacity:	00002000
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Tank Construction:	Not reported
Leak Detection:	None

A3
ESE
> 1
2.112 mi.
11149 ft.

JERRY PREECE JR FARMS — **AST** — **A100324091**
2396 W VAUGHN RD — **N/A**
EL CENTRO, CA 92243

Site 2 of 2 in cluster A

Relative:
Lower

Actual:
-35 ft.

AST:

Owner:	MELVIN JERRY PREECE JR.
Total Gallons:	1,320
Certified Unified Program Agencies:	Imperial

4 NW > 1 2.250 mi. 11882 ft.

BRAND PRECISION SERVICES
3300 EVAN HEWES HWY
HOLTVILLE, CA 92250

Notify 65 **S100179500**
HAZNET **N/A**

Relative: Higher

Actual: 12 ft.

Notify 65:

Date Reported:	Not reported
Staff Initials:	Not reported
Board File Number:	Not reported
Facility Type:	Not reported
Discharge Date:	Not reported
Incident Description:	92250

HAZNET:

Gepaid:	CAC000976672
Contact:	BRAND PRECISION SERVICES
Telephone:	0000000000
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	15707 S. MAIN ST.
Mailing City,St,Zip:	GARDENA, CA 902470000
Gen County:	Imperial
TSD EPA ID:	CAD000633164
TSD County:	Imperial
Waste Category:	Contaminated soil from site clean-ups
Disposal Method:	Disposal, Land Fill
Tons:	67.4240
Facility County:	Imperial

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
IMPERIAL	1000166695	UNOCAL SVC STA #6228	9093 IMPERIAL HWY	92251	FINDS,RCRA-NLR
IMPERIAL	1000215271	IMPERIAL MACHINERY	3275 HIGHWAY 86	92251	RCRA-SQG,FINDS,HIST UST
IMPERIAL	1000288003	SHELL OIL CO IMPERIAL PLANT	IRA ATEN ROAD	92251	RCRA-SQG,FINDS
IMPERIAL	1012003042	DUNE CO OF IMPERIAL VALLEY	708 "N" ST.	92251	FINDS
IMPERIAL	1012067354	DUNE COMPANY OF IMPERIAL VALLEY -	506 EAST 2ND STREET	92251	FINDS
EL CENTRO	1012129807	IMPERIAL VALLEY RESOURCE MANAGEMEN	702 EAST HEIL AVENUE	92243	FINDS
EL CENTRO	96493039	9 MILES WEST OF NAVAL AIR FACILITY	9 MILES WEST OF NAVAL AIR FACI		ERNS
EL CENTRO	99647136	INTERSTATE 8 WEST OF DOGWOOD AVE	INTERSTATE 8 WEST OF DOGWOOD A		ERNS
IMPERIAL	A100323692	EMPIRE SOUTHWEST, LLC	3393 HIGHWAY 86	92251	AST
IMPERIAL	A100324045	IMPERIAL VALLEY RESOURCE & RECOVER	3505 HIGHWAY 111	92251	AST
IMPERIAL	A100324482	NATIONS RENT	2396 HIGHWAY 86	92251	AST
EL CENTRO	A100325336	US GYPSUM CO.	3810 W EVAN HEWES HWY.	92243	AST
IMPERIAL	A100325482	WESTERN SUN PRODUCTS	3502 HIGHWAY 86	92251	AST
EL CENTRO	S100179081	BENNEY'S RENTALS	196 MAIN STREET		PROP65,LUST SAN MATEO,HIST CORTESE
IMPERIAL	S100180364	IMPERIAL CUT AND FILL	WORTHINGTON RD. / NEW RIVER	92251	ENVIROSTOR
OASIS	S101300510	OASIS STATION	80705 HIGHWAY 111		LUST SAN MATEO,HIST CORTESE
OASIS	S101631107	ALAMO DISCOUNT MARKET	81050 HIGHWAY 86	92274	FID,SWEEPS UST
EL CENTRO	S102434724	OREPEZA SANITATION COMPANY	207 EAST HIGHWAY 80		LUST SAN MATEO
EL CENTRO	S105023598	EL CENTRO NAVAL AIR STATI	OFF OLD HWY 80 7 MI W. OF	92243	HIST CORTESE
IMPERIAL	S105024173	THOMAS MOTORS	2329 HIGHWAY 86		LUST SAN MATEO,HIST CORTESE
IMPERIAL	S105024175	IMPERIAL MACHINERY	3175 HIGHWAY 86		LUST SAN MATEO,HIST CORTESE
THERMAL	S105027062	JPH ENTERPRISES	HWY 111/AVENUE 60	92274	HIST CORTESE
PLASTER	S105756785	U.S. GYPSUM CO.	SOUTH SIDE OF EVAN HEWES HIGHW	92243	SLIC REGION 2
EL CENTRO	S106388980	IMPERIAL IRRIGATION DISTRICT	DATE CANAL DITCH EAST OF HWY 8		SLIC REGION 2
EL CENTRO	S106800170	NAVAL AIR FACILITY EL CENTRO	OFF OLD HWY 80, 7 MILES W OF E	92243	AWP,CORTESE,ENVIROSTOR,HIST CALSITES
THERMAL	S106880180	JPH ENTERPRISES	HIGHWAY 86 / AVE 60		LUST SAN MATEO
IMPERIAL	S107735766	15TH STREET MIDDLE SCHOOL	15TH STREET/HIGHWAY 86	92251	SCH,ENVIROSTOR
THERMAL	S107736881	NEW OASIS ELEMENTARY SCHOOL	SEC OLD HIGHWAY 86 / AVENUE 74	92274	SCH,ENVIROSTOR
THERMAL	S108723504	OASIS STATION	80705 HIGHWAY 86	92274	LUST SAN MATEO
EL CENTRO	S108935394	CRUICKSHANK ROAD - IMPERIAL COUNTY	CRUICKSHANK RD / HWY 111 NW		LF
EL CENTRO	S108937549	ONE ELEVEN TRUCK STOP	1963 SOUTH HIGHWAY 111	92243	SLIC REGION 2
EL CENTRO	S109348568	KANE SPRINGS SBT (#62)	3.42 MILES SOUTH OF KANE SPRIN	92244	ENVIROSTOR
EL CENTRO	U001573888	EL CENTRO HOT PLANT	51 EAST HIGHWAY 80	92243	HIST UST
THERMAL	U001574202	HORNUNG RANCH	92-770 HWY 86	92274	HIST UST
THERMAL	U001574217	PETER RABBIT FARMS	AVE 58 BETWEEN HWY 86 / VAN	92274	HIST UST
THERMAL	U001574231	TINACHI RANCH	HIGHWAY 86	92274	HIST UST
OASIS	U001967915	OASIS STATION	80705 HIGHWAY 86	92274	FID,SWEEPS UST
THERMAL	U002095291	CHAPALLA MARKET	66351 HWY 86	92274	FID,SWEEPS UST
OASIS	U003802011	ALAMO DISCOUNT MARKET	81050 HWY 86	92274	LUST SAN MATEO,UST ALAMEDA
OASIS	U003802948	OASIS STATION	80705 HWY 86	92274	UST ALAMEDA
IMPERIAL	U004050514	CALIFORNIA HIGHWAY PATROL	2331 HIGHWAY 86	92251	UST ALAMEDA

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 11/01/2009
Date Data Arrived at EDR: 11/13/2009
Date Made Active in Reports: 01/11/2010
Number of Days to Update: 59

Source: EPA
Telephone: N/A
Last EDR Contact: 01/14/2010
Next Scheduled EDR Contact: 04/26/2010
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 11/01/2009
Date Data Arrived at EDR: 11/13/2009
Date Made Active in Reports: 01/11/2010
Number of Days to Update: 59

Source: EPA
Telephone: N/A
Last EDR Contact: 01/14/2010
Next Scheduled EDR Contact: 04/26/2010
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/17/2009
Next Scheduled EDR Contact: 11/16/2009
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 11/01/2009	Source: EPA
Date Data Arrived at EDR: 11/13/2009	Telephone: N/A
Date Made Active in Reports: 01/11/2010	Last EDR Contact: 01/14/2010
Number of Days to Update: 59	Next Scheduled EDR Contact: 04/26/2010
	Data Release Frequency: Quarterly

Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 06/30/2009	Source: EPA
Date Data Arrived at EDR: 08/11/2009	Telephone: 703-412-9810
Date Made Active in Reports: 09/21/2009	Last EDR Contact: 12/28/2009
Number of Days to Update: 41	Next Scheduled EDR Contact: 04/12/2010
	Data Release Frequency: Quarterly

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of NPL and Base Realighnment & Closure sites found in the CERCLIS database where FERRO is involved in cleanup projects.

Date of Government Version: 10/03/2008	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/10/2009	Telephone: 703-603-8704
Date Made Active in Reports: 09/29/2009	Last EDR Contact: 01/15/2010
Number of Days to Update: 81	Next Scheduled EDR Contact: 04/26/2010
	Data Release Frequency: Varies

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 06/23/2009	Source: EPA
Date Data Arrived at EDR: 09/02/2009	Telephone: 703-412-9810
Date Made Active in Reports: 09/21/2009	Last EDR Contact: 11/24/2009
Number of Days to Update: 19	Next Scheduled EDR Contact: 03/15/2010
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 09/15/2009	Source: EPA
Date Data Arrived at EDR: 09/22/2009	Telephone: 800-424-9346
Date Made Active in Reports: 11/09/2009	Last EDR Contact: 11/16/2009
Number of Days to Update: 48	Next Scheduled EDR Contact: 03/01/2010
	Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 12/11/2009
Date Data Arrived at EDR: 12/17/2009
Date Made Active in Reports: 01/11/2010
Number of Days to Update: 25

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 01/15/2010
Next Scheduled EDR Contact: 04/19/2010
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/11/2009
Date Data Arrived at EDR: 12/17/2009
Date Made Active in Reports: 01/11/2010
Number of Days to Update: 25

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 01/15/2010
Next Scheduled EDR Contact: 04/19/2010
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 12/11/2009
Date Data Arrived at EDR: 12/17/2009
Date Made Active in Reports: 01/11/2010
Number of Days to Update: 25

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 01/15/2010
Next Scheduled EDR Contact: 04/19/2010
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/11/2009
Date Data Arrived at EDR: 12/17/2009
Date Made Active in Reports: 01/11/2010
Number of Days to Update: 25

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 01/15/2010
Next Scheduled EDR Contact: 04/19/2010
Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 10/01/2009
Date Data Arrived at EDR: 10/09/2009
Date Made Active in Reports: 11/09/2009
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 12/10/2009
Next Scheduled EDR Contact: 03/29/2010
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 10/01/2009
Date Data Arrived at EDR: 10/09/2009
Date Made Active in Reports: 11/09/2009
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 12/10/2009
Next Scheduled EDR Contact: 03/29/2010
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 08/31/2009
Date Data Arrived at EDR: 09/17/2009
Date Made Active in Reports: 11/09/2009
Number of Days to Update: 53

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 01/15/2010
Next Scheduled EDR Contact: 04/19/2010
Data Release Frequency: Annually

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 11/09/2009
Date Data Arrived at EDR: 11/10/2009
Date Made Active in Reports: 12/04/2009
Number of Days to Update: 24

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/10/2009
Next Scheduled EDR Contact: 02/22/2010
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 11/09/2009
Date Data Arrived at EDR: 11/10/2009
Date Made Active in Reports: 12/04/2009
Number of Days to Update: 24

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/10/2009
Next Scheduled EDR Contact: 02/22/2010
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System
Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 11/23/2009
Date Data Arrived at EDR: 11/24/2009
Date Made Active in Reports: 12/04/2009
Number of Days to Update: 10

Source: Integrated Waste Management Board
Telephone: 916-341-6320
Last EDR Contact: 11/24/2009
Next Scheduled EDR Contact: 03/08/2010
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 11/13/2009
Next Scheduled EDR Contact: 03/01/2010
Data Release Frequency: No Update Planned

LUST: Geotracker's Leaking Underground Fuel Tank Report
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 12/21/2009
Date Data Arrived at EDR: 12/21/2009
Date Made Active in Reports: 01/18/2010
Number of Days to Update: 28

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 02/05/2010
Next Scheduled EDR Contact: 04/05/2010
Data Release Frequency: Quarterly

LUST REG 9: Leaking Underground Storage Tank Report
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 12/23/2009
Next Scheduled EDR Contact: 04/12/2010
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 12/18/2009
Next Scheduled EDR Contact: 04/05/2010
Data Release Frequency: Quarterly

LUST REG 4: Underground Storage Tank Leak List
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 12/04/2009
Next Scheduled EDR Contact: 03/22/2010
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 01/05/2010
Next Scheduled EDR Contact: 04/19/2010
Data Release Frequency: Quarterly

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 01/18/2010
Next Scheduled EDR Contact: 05/03/2010
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 12/10/2009
Next Scheduled EDR Contact: 03/29/2010
Data Release Frequency: No Update Planned

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 01/18/2010
Next Scheduled EDR Contact: 05/03/2010
Data Release Frequency: Varies

LUST REG 7: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: No Update Planned

SLIC: Statewide SLIC Cases
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 12/21/2009
Date Data Arrived at EDR: 12/21/2009
Date Made Active in Reports: 01/18/2010
Number of Days to Update: 28

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 02/05/2010
Next Scheduled EDR Contact: 04/05/2010
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 12/18/2009
Next Scheduled EDR Contact: 04/05/2010
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 01/18/2010
Next Scheduled EDR Contact: 05/03/2010
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 01/05/2010
Next Scheduled EDR Contact: 04/19/2010
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 12/10/2009
Next Scheduled EDR Contact: 03/29/2010
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 12/10/2009
Next Scheduled EDR Contact: 03/29/2010
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 11/13/2009
Next Scheduled EDR Contact: 03/01/2010
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 12/10/2009
Next Scheduled EDR Contact: 03/29/2010
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 02/08/2010
Next Scheduled EDR Contact: 05/24/2010
Data Release Frequency: Annually

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 12/07/2009
Date Data Arrived at EDR: 12/09/2009
Date Made Active in Reports: 12/16/2009
Number of Days to Update: 7

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Semi-Annually

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 11/24/2009
Date Data Arrived at EDR: 11/25/2009
Date Made Active in Reports: 12/16/2009
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Quarterly

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 11/10/2009
Date Data Arrived at EDR: 11/12/2009
Date Made Active in Reports: 12/16/2009
Number of Days to Update: 34

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Quarterly

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 02/19/2009
Date Data Arrived at EDR: 02/19/2009
Date Made Active in Reports: 03/16/2009
Number of Days to Update: 25

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 11/12/2009
Date Data Arrived at EDR: 11/12/2009
Date Made Active in Reports: 12/16/2009
Number of Days to Update: 34

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 03/24/2009
Date Data Arrived at EDR: 05/20/2009
Date Made Active in Reports: 06/17/2009
Number of Days to Update: 28

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 12/01/2009
Date Data Arrived at EDR: 12/01/2009
Date Made Active in Reports: 12/16/2009
Number of Days to Update: 15

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Quarterly

State and tribal registered storage tank lists

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 12/21/2009
Date Data Arrived at EDR: 12/21/2009
Date Made Active in Reports: 01/18/2010
Number of Days to Update: 28

Source: SWRCB
Telephone: 916-480-1028
Last EDR Contact: 02/05/2010
Next Scheduled EDR Contact: 04/05/2010
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
Registered Aboveground Storage Tanks.

Date of Government Version: 08/01/2009
Date Data Arrived at EDR: 09/10/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 916-341-5712
Last EDR Contact: 01/11/2010
Next Scheduled EDR Contact: 04/26/2010
Data Release Frequency: Quarterly

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 02/19/2009
Date Data Arrived at EDR: 02/19/2009
Date Made Active in Reports: 03/16/2009
Number of Days to Update: 25

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 11/12/2009
Date Data Arrived at EDR: 11/12/2009
Date Made Active in Reports: 12/16/2009
Number of Days to Update: 34

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Semi-Annually

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 11/10/2009
Date Data Arrived at EDR: 11/12/2009
Date Made Active in Reports: 12/16/2009
Number of Days to Update: 34

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 02/17/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Quarterly

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/01/2008
Date Data Arrived at EDR: 12/30/2008
Date Made Active in Reports: 03/16/2009
Number of Days to Update: 76

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 11/12/2009
Date Data Arrived at EDR: 11/20/2009
Date Made Active in Reports: 12/16/2009
Number of Days to Update: 26

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Quarterly

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 12/01/2009
Date Data Arrived at EDR: 12/01/2009
Date Made Active in Reports: 12/16/2009
Number of Days to Update: 15

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Quarterly

INDIAN UST R4: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 12/07/2009
Date Data Arrived at EDR: 12/09/2009
Date Made Active in Reports: 12/16/2009
Number of Days to Update: 7

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 11/05/2009
Date Data Arrived at EDR: 11/05/2009
Date Made Active in Reports: 12/16/2009
Number of Days to Update: 41

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Varies

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 10/01/2009
Date Data Arrived at EDR: 10/29/2009
Date Made Active in Reports: 12/16/2009
Number of Days to Update: 48

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 01/18/2010
Next Scheduled EDR Contact: 05/03/2010
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

VCP: Voluntary Cleanup Program Properties
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 11/09/2009
Date Data Arrived at EDR: 11/10/2009
Date Made Active in Reports: 12/04/2009
Number of Days to Update: 24

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/10/2009
Next Scheduled EDR Contact: 02/22/2010
Data Release Frequency: Quarterly

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 04/02/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 01/05/2010
Next Scheduled EDR Contact: 04/19/2010
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 10/01/2009
Date Data Arrived at EDR: 11/04/2009
Date Made Active in Reports: 12/16/2009
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 01/07/2010
Next Scheduled EDR Contact: 04/12/2010
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-972-3336
Last EDR Contact: 01/07/2010
Next Scheduled EDR Contact: 03/22/2010
Data Release Frequency: Varies

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 11/13/2009
Next Scheduled EDR Contact: 03/01/2010
Data Release Frequency: Quarterly

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 12/18/2009
Date Data Arrived at EDR: 12/21/2009
Date Made Active in Reports: 01/18/2010
Number of Days to Update: 28

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 12/21/2009
Next Scheduled EDR Contact: 04/05/2010
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 01/11/2010
Date Data Arrived at EDR: 01/12/2010
Date Made Active in Reports: 01/18/2010
Number of Days to Update: 6

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 01/05/2010
Next Scheduled EDR Contact: 03/08/2010
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 02/08/2010
Next Scheduled EDR Contact: 05/24/2010
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 03/01/2009
Date Data Arrived at EDR: 06/22/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 91

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 12/14/2009
Next Scheduled EDR Contact: 03/22/2010
Data Release Frequency: Quarterly

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 11/09/2009
Date Data Arrived at EDR: 11/10/2009
Date Made Active in Reports: 12/04/2009
Number of Days to Update: 24

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/10/2009
Next Scheduled EDR Contact: 02/22/2010
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 06/30/2009
Date Data Arrived at EDR: 07/23/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 11

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 01/18/2010
Next Scheduled EDR Contact: 04/19/2010
Data Release Frequency: Varies

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/01/2007
Date Data Arrived at EDR: 11/19/2008
Date Made Active in Reports: 03/30/2009
Number of Days to Update: 131

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

Local Lists of Registered Storage Tanks

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database
A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 09/23/2009
Date Data Arrived at EDR: 09/23/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 8

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 12/07/2009
Next Scheduled EDR Contact: 03/22/2010
Data Release Frequency: Varies

HIST UST: Hazardous Substance Storage Container Database
The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWEEPS UST: SWEEPS UST Listing
Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS 2: CERCLA Lien Information
A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 11/03/2009
Date Data Arrived at EDR: 11/05/2009
Date Made Active in Reports: 12/16/2009
Number of Days to Update: 41

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Varies

LUCIS: Land Use Control Information System
LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005
Date Data Arrived at EDR: 12/11/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 31

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 11/20/2009
Next Scheduled EDR Contact: 03/08/2010
Data Release Frequency: Varies

LIENS: Environmental Liens Listing
A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 10/29/2009
Date Data Arrived at EDR: 10/30/2009
Date Made Active in Reports: 11/13/2009
Number of Days to Update: 14

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/18/2010
Next Scheduled EDR Contact: 05/03/2010
Data Release Frequency: Varies

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 12/15/2009
Date Data Arrived at EDR: 12/15/2009
Date Made Active in Reports: 01/18/2010
Number of Days to Update: 34

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 12/30/2009
Next Scheduled EDR Contact: 12/28/2009
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 10/05/2009
Date Data Arrived at EDR: 10/05/2009
Date Made Active in Reports: 11/09/2009
Number of Days to Update: 35

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 01/06/2010
Next Scheduled EDR Contact: 04/12/2010
Data Release Frequency: Annually

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 05/09/2008
Date Made Active in Reports: 06/20/2008
Number of Days to Update: 42

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

Date of Government Version: 12/21/2009
Date Data Arrived at EDR: 12/21/2009
Date Made Active in Reports: 01/18/2010
Number of Days to Update: 28

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 02/05/2010
Next Scheduled EDR Contact: 04/05/2010
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing

The State Water Resources Control Board and nine Regional Water Quality Control Boards partner with the Department of Defense (DoD) through the Defense and State Memorandum of Agreement (DSMOA) to oversee the investigation and remediation of water quality issues at military facilities.

Date of Government Version: 12/21/2009
Date Data Arrived at EDR: 12/21/2009
Date Made Active in Reports: 01/18/2010
Number of Days to Update: 28

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 02/05/2010
Next Scheduled EDR Contact: 04/05/2010
Data Release Frequency: Quarterly

Other Ascertainable Records

RCRA-NonGen: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 12/11/2009
Date Data Arrived at EDR: 12/17/2009
Date Made Active in Reports: 01/11/2010
Number of Days to Update: 25

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 01/15/2010
Next Scheduled EDR Contact: 04/19/2010
Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 10/13/2009
Date Data Arrived at EDR: 11/10/2009
Date Made Active in Reports: 12/16/2009
Number of Days to Update: 36

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 11/10/2009
Next Scheduled EDR Contact: 02/22/2010
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 703-692-8801
Last EDR Contact: 01/19/2010
Next Scheduled EDR Contact: 05/03/2010
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 09/30/2009
Date Made Active in Reports: 12/01/2009
Number of Days to Update: 62

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 12/18/2009
Next Scheduled EDR Contact: 03/29/2010
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 08/03/2009
Date Data Arrived at EDR: 10/27/2009
Date Made Active in Reports: 11/09/2009
Number of Days to Update: 13

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 01/05/2010
Next Scheduled EDR Contact: 04/19/2010
Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 12/01/2009
Date Data Arrived at EDR: 12/15/2009
Date Made Active in Reports: 01/19/2010
Number of Days to Update: 35

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 12/15/2009
Next Scheduled EDR Contact: 03/29/2010
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 01/05/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 05/08/2009
Number of Days to Update: 1

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 12/23/2009
Next Scheduled EDR Contact: 03/15/2010
Data Release Frequency: Varies

MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 11/17/2009
Date Data Arrived at EDR: 12/08/2009
Date Made Active in Reports: 01/19/2010
Number of Days to Update: 42

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 12/08/2009
Next Scheduled EDR Contact: 03/22/2010
Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 04/09/2009
Date Made Active in Reports: 06/17/2009
Number of Days to Update: 69

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 01/13/2010
Next Scheduled EDR Contact: 03/15/2010
Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2002
Date Data Arrived at EDR: 04/14/2006
Date Made Active in Reports: 05/30/2006
Number of Days to Update: 46

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 01/20/2010
Next Scheduled EDR Contact: 04/12/2010
Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 12/14/2009
Next Scheduled EDR Contact: 03/15/2010
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 12/14/2009
Next Scheduled EDR Contact: 03/15/2010
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 05/19/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 125

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/10/2009
Date Data Arrived at EDR: 11/18/2009
Date Made Active in Reports: 01/19/2010
Number of Days to Update: 62

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 12/23/2009
Next Scheduled EDR Contact: 04/12/2010
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 09/01/2009
Date Data Arrived at EDR: 10/21/2009
Date Made Active in Reports: 12/01/2009
Number of Days to Update: 41

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 01/22/2010
Next Scheduled EDR Contact: 05/03/2010
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 09/25/2009
Date Data Arrived at EDR: 10/23/2009
Date Made Active in Reports: 12/16/2009
Number of Days to Update: 54

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 12/14/2009
Next Scheduled EDR Contact: 03/29/2010
Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 10/15/2009
Date Data Arrived at EDR: 10/16/2009
Date Made Active in Reports: 12/01/2009
Number of Days to Update: 46

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 01/13/2010
Next Scheduled EDR Contact: 04/26/2010
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 10/19/2009
Date Data Arrived at EDR: 10/22/2009
Date Made Active in Reports: 12/01/2009
Number of Days to Update: 40

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 12/10/2009
Next Scheduled EDR Contact: 03/29/2010
Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 02/19/2009
Date Made Active in Reports: 05/22/2009
Number of Days to Update: 92

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 11/20/2009
Next Scheduled EDR Contact: 03/05/2010
Data Release Frequency: Biennially

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 11/20/2009
Date Data Arrived at EDR: 11/24/2009
Date Made Active in Reports: 12/04/2009
Number of Days to Update: 10

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 11/24/2009
Next Scheduled EDR Contact: 03/05/2010
Data Release Frequency: Quarterly

CA WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 11/25/2009
Next Scheduled EDR Contact: 03/15/2010
Data Release Frequency: Quarterly

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites). This listing is no longer updated by the state agency.

Date of Government Version: 01/06/2010
Date Data Arrived at EDR: 01/06/2010
Date Made Active in Reports: 01/18/2010
Number of Days to Update: 12

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 01/06/2010
Next Scheduled EDR Contact: 04/19/2010
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES].

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

NOTIFY 65: Proposition 65 Records

Proposition 65 Notification Records. NOTIFY 65 contains facility notifications about any release which could impact drinking water and thereby expose the public to a potential health risk.

Date of Government Version: 10/21/1993
Date Data Arrived at EDR: 11/01/1993
Date Made Active in Reports: 11/19/1993
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 12/23/2009
Next Scheduled EDR Contact: 04/12/2010
Data Release Frequency: No Update Planned

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 12/22/2009
Date Data Arrived at EDR: 01/25/2010
Date Made Active in Reports: 01/29/2010
Number of Days to Update: 4

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 12/14/2009
Next Scheduled EDR Contact: 03/29/2010
Data Release Frequency: Annually

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 01/07/2010
Next Scheduled EDR Contact: 04/19/2010
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 10/21/2009
Date Made Active in Reports: 10/28/2009
Number of Days to Update: 7

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 01/21/2010
Next Scheduled EDR Contact: 05/03/2010
Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 07/14/2009
Date Made Active in Reports: 07/23/2009
Number of Days to Update: 9

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 01/06/2010
Next Scheduled EDR Contact: 04/12/2010
Data Release Frequency: Varies

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 01/19/2010
Next Scheduled EDR Contact: 05/03/2010
Data Release Frequency: Semi-Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 11/16/2009
Date Data Arrived at EDR: 11/16/2009
Date Made Active in Reports: 01/19/2010
Number of Days to Update: 64

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 02/08/2010
Next Scheduled EDR Contact: 05/10/2010
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 09/21/2009
Date Data Arrived at EDR: 09/25/2009
Date Made Active in Reports: 11/09/2009
Number of Days to Update: 45

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 12/15/2009
Next Scheduled EDR Contact: 03/29/2010
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 01/01/2008
Date Data Arrived at EDR: 02/18/2009
Date Made Active in Reports: 05/29/2009
Number of Days to Update: 100

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 11/13/2009
Next Scheduled EDR Contact: 02/15/2010
Data Release Frequency: Varies

COAL ASH DOE: Sleam-Electric Plan Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 01/27/2010
Next Scheduled EDR Contact: 05/03/2010
Data Release Frequency: Varies

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 12/18/2009
Date Data Arrived at EDR: 12/21/2009
Date Made Active in Reports: 01/18/2010
Number of Days to Update: 28

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 12/21/2009
Next Scheduled EDR Contact: 04/05/2010
Data Release Frequency: Quarterly

HWP: EnviroStor Permitted Facilities Listing
Detailed information on permitted hazardous waste facilities and corrective action (a??cleanupsa??) tracked in EnviroStor.

Date of Government Version: 03/13/2009
Date Data Arrived at EDR: 03/27/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 12

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/20/2009
Next Scheduled EDR Contact: 02/22/2010
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database
A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 01/18/2010
Date Data Arrived at EDR: 01/19/2010
Date Made Active in Reports: 01/29/2010
Number of Days to Update: 10

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 01/19/2010
Next Scheduled EDR Contact: 05/03/2010
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 11/24/2009
Date Data Arrived at EDR: 12/17/2009
Date Made Active in Reports: 01/18/2010
Number of Days to Update: 32

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 12/15/2009
Next Scheduled EDR Contact: 03/29/2010
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 01/19/2010
Next Scheduled EDR Contact: 05/03/2010
Data Release Frequency: N/A

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/19/2010
Date Data Arrived at EDR: 01/21/2010
Date Made Active in Reports: 01/29/2010
Number of Days to Update: 8

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/18/2010
Next Scheduled EDR Contact: 04/19/2010
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 01/19/2010
Date Data Arrived at EDR: 01/21/2010
Date Made Active in Reports: 02/02/2010
Number of Days to Update: 12

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/18/2010
Next Scheduled EDR Contact: 04/19/2010
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 11/18/2009
Date Data Arrived at EDR: 11/20/2009
Date Made Active in Reports: 12/04/2009
Number of Days to Update: 14

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 02/08/2010
Next Scheduled EDR Contact: 05/24/2010
Data Release Frequency: Semi-Annually

FRESNO COUNTY:

CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 01/20/2010
Date Made Active in Reports: 01/29/2010
Number of Days to Update: 9

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 01/18/2010
Next Scheduled EDR Contact: 05/03/2010
Data Release Frequency: Semi-Annually

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 11/18/2009
Date Data Arrived at EDR: 11/20/2009
Date Made Active in Reports: 12/08/2009
Number of Days to Update: 18

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 11/16/2009
Next Scheduled EDR Contact: 03/01/2010
Data Release Frequency: Quarterly

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 12/28/2009
Next Scheduled EDR Contact: 04/12/2010
Data Release Frequency: No Update Planned

HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 09/30/2009
Date Data Arrived at EDR: 12/28/2009
Date Made Active in Reports: 01/18/2010
Number of Days to Update: 21

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 01/18/2010
Next Scheduled EDR Contact: 05/03/2010
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 10/26/2009
Date Data Arrived at EDR: 10/27/2009
Date Made Active in Reports: 11/13/2009
Number of Days to Update: 17

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 01/25/2010
Next Scheduled EDR Contact: 05/10/2010
Data Release Frequency: Varies

City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 03/05/2009
Date Data Arrived at EDR: 03/10/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 29

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 11/20/2009
Next Scheduled EDR Contact: 03/08/2010
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 02/11/2009
Date Data Arrived at EDR: 04/23/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 18

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 01/25/2010
Next Scheduled EDR Contact: 05/10/2010
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/25/2010
Date Data Arrived at EDR: 01/25/2010
Date Made Active in Reports: 02/02/2010
Number of Days to Update: 8

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 01/25/2010
Next Scheduled EDR Contact: 05/10/2010
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/28/2003
Date Data Arrived at EDR: 10/23/2003
Date Made Active in Reports: 11/26/2003
Number of Days to Update: 34

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Annually

City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 01/21/2010
Date Data Arrived at EDR: 01/25/2010
Date Made Active in Reports: 02/02/2010
Number of Days to Update: 8

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 01/18/2010
Next Scheduled EDR Contact: 05/03/2010
Data Release Frequency: Semi-Annually

MARIN COUNTY:

Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 10/19/2009
Date Data Arrived at EDR: 10/27/2009
Date Made Active in Reports: 11/20/2009
Number of Days to Update: 24

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 01/11/2010
Next Scheduled EDR Contact: 04/26/2010
Data Release Frequency: Semi-Annually

NAPA COUNTY:

Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 07/09/2008
Date Data Arrived at EDR: 07/09/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 22

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 12/07/2009
Next Scheduled EDR Contact: 03/22/2010
Data Release Frequency: Semi-Annually

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 12/07/2009
Next Scheduled EDR Contact: 03/22/2010
Data Release Frequency: Annually

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 11/04/2009
Date Data Arrived at EDR: 11/18/2009
Date Made Active in Reports: 12/04/2009
Number of Days to Update: 16

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/13/2009
Next Scheduled EDR Contact: 03/01/2010
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 11/04/2009
Date Data Arrived at EDR: 11/18/2009
Date Made Active in Reports: 12/04/2009
Number of Days to Update: 16

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/13/2009
Next Scheduled EDR Contact: 03/01/2010
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 11/04/2009
Date Data Arrived at EDR: 11/18/2009
Date Made Active in Reports: 11/20/2009
Number of Days to Update: 2

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: 03/01/2010
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 12/29/2009
Date Data Arrived at EDR: 12/29/2009
Date Made Active in Reports: 01/18/2010
Number of Days to Update: 20

Source: Placer County Health and Human Services
Telephone: 530-889-7312
Last EDR Contact: 12/14/2009
Next Scheduled EDR Contact: 03/29/2010
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 10/28/2009
Date Data Arrived at EDR: 10/30/2009
Date Made Active in Reports: 11/13/2009
Number of Days to Update: 14

Source: Department of Public Health
Telephone: 951-358-5055
Last EDR Contact: 12/28/2009
Next Scheduled EDR Contact: 04/12/2010
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 01/21/2010
Date Data Arrived at EDR: 01/27/2010
Date Made Active in Reports: 02/02/2010
Number of Days to Update: 6

Source: Health Services Agency
Telephone: 951-358-5055
Last EDR Contact: 12/28/2009
Next Scheduled EDR Contact: 04/12/2010
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 01/05/2010
Date Data Arrived at EDR: 01/15/2010
Date Made Active in Reports: 01/29/2010
Number of Days to Update: 14

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/12/2010
Next Scheduled EDR Contact: 04/26/2010
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 11/12/2009
Date Data Arrived at EDR: 11/20/2009
Date Made Active in Reports: 12/04/2009
Number of Days to Update: 14

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/22/2010
Next Scheduled EDR Contact: 04/26/2010
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 12/08/2009
Date Data Arrived at EDR: 12/09/2009
Date Made Active in Reports: 01/18/2010
Number of Days to Update: 40

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 11/16/2009
Next Scheduled EDR Contact: 03/01/2010
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database
The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 07/16/2008
Date Data Arrived at EDR: 10/29/2008
Date Made Active in Reports: 11/26/2008
Number of Days to Update: 28

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 12/22/2009
Next Scheduled EDR Contact: 03/29/2010
Data Release Frequency: Quarterly

Solid Waste Facilities
San Diego County Solid Waste Facilities.

Date of Government Version: 10/01/2009
Date Data Arrived at EDR: 12/04/2009
Date Made Active in Reports: 01/18/2010
Number of Days to Update: 45

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Varies

Environmental Case Listing
The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 09/23/2009
Date Data Arrived at EDR: 12/15/2009
Date Made Active in Reports: 01/18/2010
Number of Days to Update: 34

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 12/15/2009
Next Scheduled EDR Contact: 03/29/2010
Data Release Frequency: Varies

SAN FRANCISCO COUNTY:

Local Oversite Facilities
A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 11/16/2009
Next Scheduled EDR Contact: 03/01/2010
Data Release Frequency: Quarterly

Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 10/01/2008
Number of Days to Update: 12

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 11/30/2009
Next Scheduled EDR Contact: 03/01/2010
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 10/14/2009
Date Data Arrived at EDR: 10/15/2009
Date Made Active in Reports: 11/02/2009
Number of Days to Update: 18

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 12/28/2009
Next Scheduled EDR Contact: 04/12/2010
Data Release Frequency: Semi-Annually

SAN MATEO COUNTY:

Business Inventory

List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 01/05/2010
Date Made Active in Reports: 01/18/2010
Number of Days to Update: 13

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 12/18/2009
Next Scheduled EDR Contact: 04/05/2010
Data Release Frequency: Annually

Fuel Leak List

A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 04/07/2009
Date Data Arrived at EDR: 04/07/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 34

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 12/18/2009
Next Scheduled EDR Contact: 04/05/2010
Data Release Frequency: Semi-Annually

SANTA CLARA COUNTY:

HIST LUST - Fuel Leak Site Activity Report

A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing

A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 05/29/2009
Date Data Arrived at EDR: 06/01/2009
Date Made Active in Reports: 06/15/2009
Number of Days to Update: 14

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 12/07/2009
Next Scheduled EDR Contact: 03/22/2010
Data Release Frequency: Varies

Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 08/31/2009
Date Data Arrived at EDR: 08/31/2009
Date Made Active in Reports: 09/18/2009
Number of Days to Update: 18

Source: City of San Jose Fire Department
Telephone: 408-277-4659
Last EDR Contact: 11/16/2009
Next Scheduled EDR Contact: 03/01/2010
Data Release Frequency: Annually

SOLANO COUNTY:

Leaking Underground Storage Tanks

A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 12/07/2009
Date Data Arrived at EDR: 12/10/2009
Date Made Active in Reports: 01/18/2010
Number of Days to Update: 39

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 12/07/2009
Next Scheduled EDR Contact: 03/22/2010
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 12/07/2009
Date Data Arrived at EDR: 12/10/2009
Date Made Active in Reports: 12/22/2009
Number of Days to Update: 12

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 12/07/2009
Next Scheduled EDR Contact: 03/22/2010
Data Release Frequency: Quarterly

SONOMA COUNTY:

Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 01/05/2010
Date Data Arrived at EDR: 01/06/2010
Date Made Active in Reports: 01/18/2010
Number of Days to Update: 12

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 01/05/2010
Next Scheduled EDR Contact: 04/19/2010
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 04/01/2009
Date Data Arrived at EDR: 04/02/2009
Date Made Active in Reports: 04/09/2009
Number of Days to Update: 7

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 12/28/2009
Next Scheduled EDR Contact: 03/29/2010
Data Release Frequency: Semi-Annually

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 10/26/2009
Date Data Arrived at EDR: 11/30/2009
Date Made Active in Reports: 12/04/2009
Number of Days to Update: 4

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 11/23/2009
Next Scheduled EDR Contact: 03/08/2010
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 08/01/2009
Date Data Arrived at EDR: 10/05/2009
Date Made Active in Reports: 10/13/2009
Number of Days to Update: 8

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 11/20/2009
Next Scheduled EDR Contact: 03/08/2010
Data Release Frequency: Quarterly

Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 11/27/2009
Date Data Arrived at EDR: 12/21/2009
Date Made Active in Reports: 01/18/2010
Number of Days to Update: 28

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 12/21/2009
Next Scheduled EDR Contact: 04/05/2010
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 12/28/2009
Date Data Arrived at EDR: 12/31/2009
Date Made Active in Reports: 01/18/2010
Number of Days to Update: 18

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 12/28/2009
Next Scheduled EDR Contact: 04/12/2010
Data Release Frequency: Annually

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 08/26/2009
Date Made Active in Reports: 09/11/2009
Number of Days to Update: 16

Source: Department of Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 11/24/2009
Next Scheduled EDR Contact: 03/08/2010
Data Release Frequency: Annually

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 01/20/2010
Date Made Active in Reports: 02/05/2010
Number of Days to Update: 16

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 01/20/2010
Next Scheduled EDR Contact: 05/03/2010
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 10/27/2009
Date Data Arrived at EDR: 11/10/2009
Date Made Active in Reports: 12/09/2009
Number of Days to Update: 29

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 11/10/2009
Next Scheduled EDR Contact: 02/22/2010
Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 12/01/2009
Date Made Active in Reports: 12/14/2009
Number of Days to Update: 13

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 11/23/2009
Next Scheduled EDR Contact: 03/08/2010
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 06/01/2009
Date Data Arrived at EDR: 06/12/2009
Date Made Active in Reports: 06/29/2009
Number of Days to Update: 17

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 11/30/2009
Next Scheduled EDR Contact: 03/15/2010
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 07/17/2009
Date Made Active in Reports: 08/10/2009
Number of Days to Update: 24

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 12/21/2009
Next Scheduled EDR Contact: 04/05/2010
Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data
Source: PennWell Corporation
Telephone: (800) 823-6277
This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.
Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2009 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

IMPERIAL VALLEY WEST
STROBEL ROAD/REYNOLDS ROAD
THERMAL, CA 92274

TARGET PROPERTY COORDINATES

Latitude (North):	32.76940 - 32˚ 46' 9.8''
Longitude (West):	115.7868 - 115˚ 47' 12.5''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	613632.0
UTM Y (Meters):	3626184.0
Elevation:	1 ft. below sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	32115-G7 PLASTER CITY, CA
Most Recent Revision:	1979

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

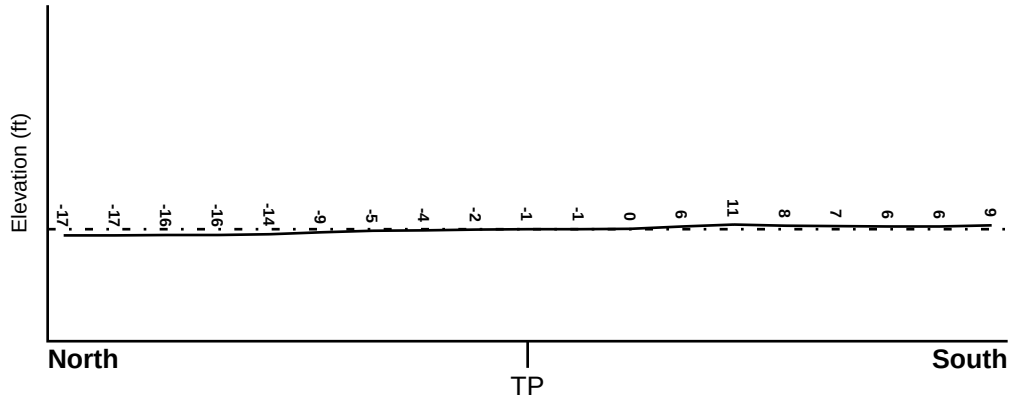
TOPOGRAPHIC INFORMATION

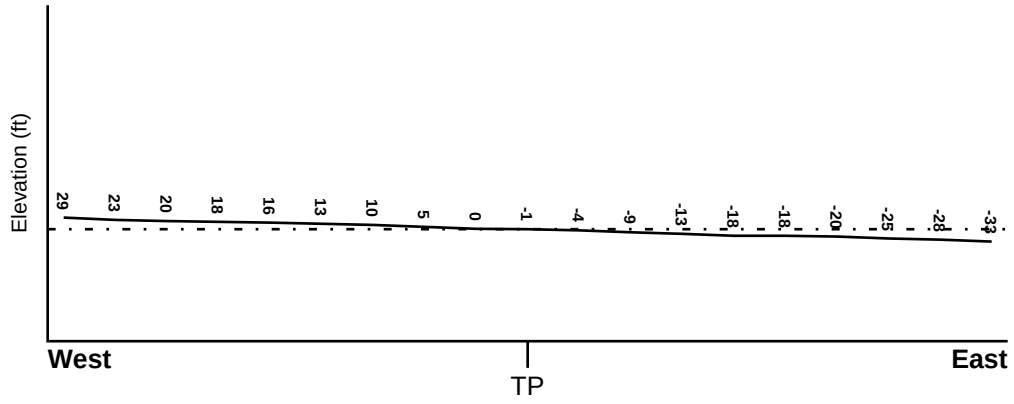
Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General ENE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES





Target Property Elevation: -1 ft.

0 1/2 1 Miles

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County	FEMA Flood Electronic Data
IMPERIAL, CA	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 06025C - FEMA DFIRM Flood data

Additional Panels in search area: Not Reported

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
PLASTER CITY	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius: 1.25 miles
Status: Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

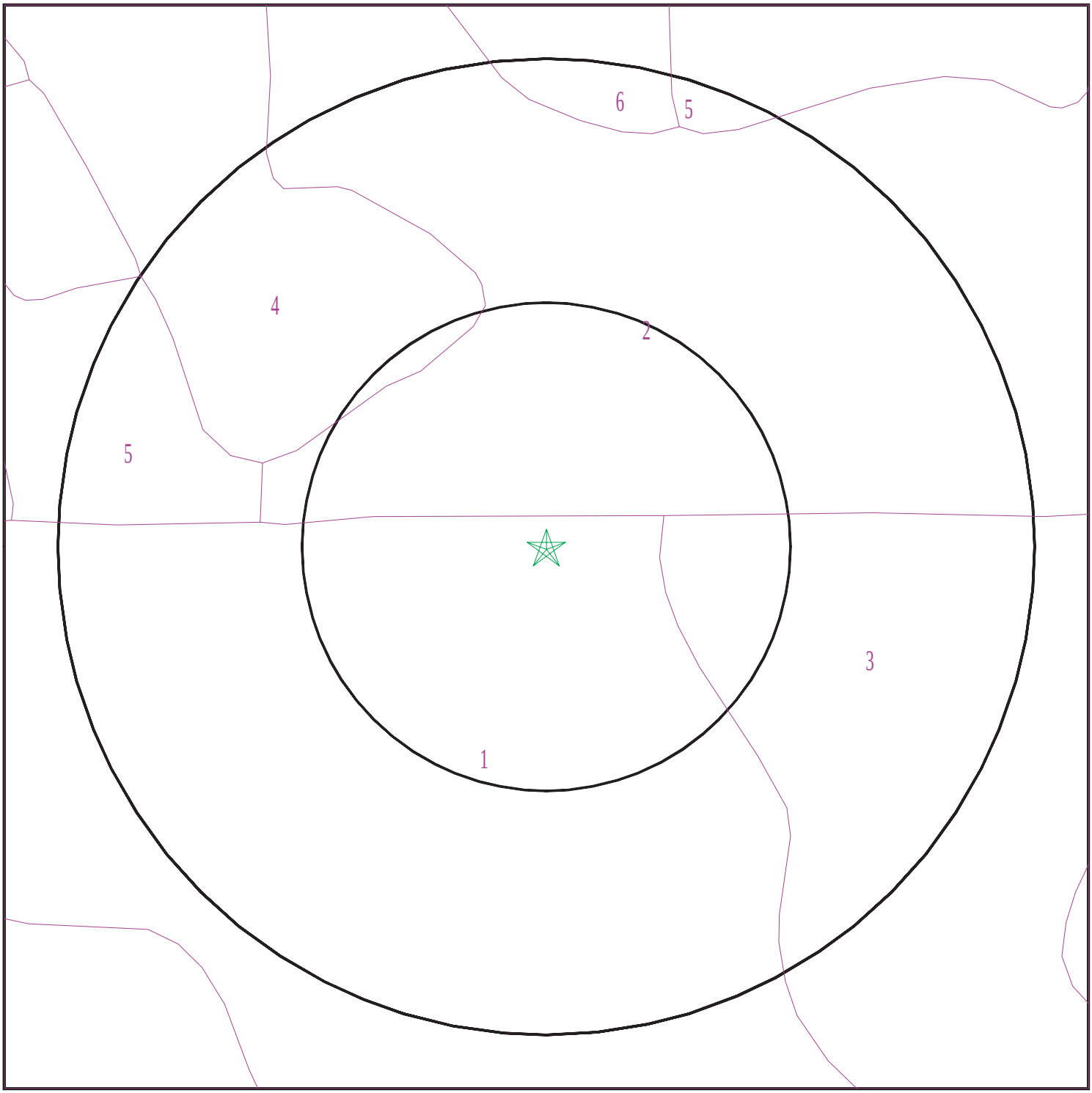
Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 2694808.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME: Imperial Valley West ADDRESS: Strobel Road/Reynolds Road Thermal CA 92274 LAT/LONG: 32.7694 / 115.7868	CLIENT: Tetra Tech MM CONTACT: Matt Manderfeld INQUIRY #: 2694808.2s DATE: February 08, 2010 4:51 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Indio

Soil Surface Texture: loam

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 42 Min: 4	Max: 8.4 Min: 7.9
2	11 inches	72 inches	stratified loamy very fine sand to silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 42 Min: 4	Max: 8.4 Min: 7.9

Soil Map ID: 2

Soil Component Name: Rositas

Soil Surface Texture: fine sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 122 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	fine sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.9
2	9 inches	59 inches	sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.9

Soil Map ID: 3

Soil Component Name: Rositas

Soil Surface Texture: fine sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	fine sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.9
2	9 inches	59 inches	sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.9

Soil Map ID: 4

Soil Component Name: Vint

Soil Surface Texture: loamy very fine sand

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 122 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	loamy very fine sand	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.9

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	9 inches	59 inches	loamy fine sand	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.9

Soil Map ID: 5

Soil Component Name: Vint

Soil Surface Texture: very fine sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 122 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	very fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.9
2	9 inches	40 inches	loamy fine sand	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.9

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
3	40 inches	59 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.9

Soil Map ID: 6

Soil Component Name: Imperial

Soil Surface Texture: silty clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 122 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 4 Min: 1.4	Max: 8.4 Min: 7.9
2	11 inches	59 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 4 Min: 1.4	Max: 8.4 Min: 7.9

Soil Map ID: 7

Soil Component Name: Holtville

Soil Surface Texture: loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 76 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 7.4
2	11 inches	24 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 7.4
3	24 inches	35 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 7.4
4	35 inches	59 inches	loamy very fine sand	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 7.4

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	3.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	3.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A1	USGS3097798	1/2 - 1 Mile West
3	USGS3097751	1 - 2 Miles SW
4	USGS3097614	1 - 2 Miles NE
5	USGS3097752	2 - 3 Miles SW
B6	USGS3097631	2 - 3 Miles NNE
B7	USGS3097630	2 - 3 Miles NNE
C8	USGS3097755	2 - 3 Miles WSW
9	USGS3097632	2 - 3 Miles NNE
11	USGS3221591	2 - 3 Miles NE

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

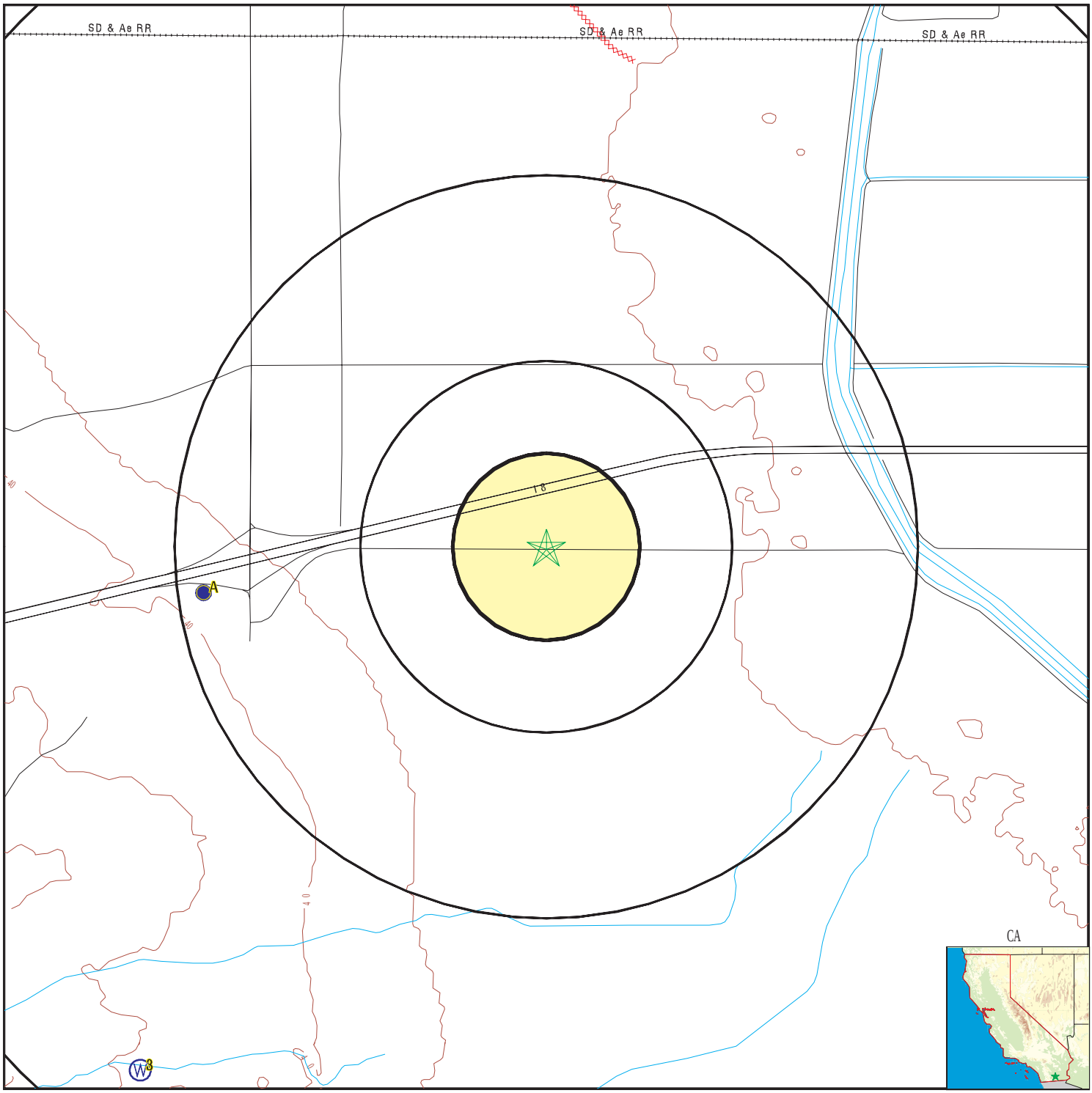
MAP ID	WELL ID	LOCATION FROM TP
A2	CADW20000000420	1/2 - 1 Mile West
C10	CADW20000000320	2 - 3 Miles WSW

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	CAOG60000004785	2 - 3 Miles NNE

PHYSICAL SETTING SOURCE MAP - 2694808.2s



County Boundary
Major Roads
Contour Lines
Earthquake Fault Lines
Earthquake epicenter, Richter 5 or greater
Water Wells
Public Water Supply Wells
Cluster of Multiple Icons

0 1/4 1/2 1 Miles

Groundwater Flow Direction
GI Indeterminate Groundwater Flow at Location
GV Groundwater Flow Varies at Location
HD Closest Hydrogeological Data
Oil, gas or related wells

N

SITE NAME: Imperial Valley West ADDRESS: Strobel Road/Reynolds Road Thermal CA 92274 LAT/LONG: 32.7694 / 115.7868	CLIENT: Tetra Tech MM CONTACT: Matt Manderfeld INQUIRY #: 2694808.2s DATE: February 08, 2010 4:51 pm

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Map ID Direction Distance Elevation	Database	EDR ID Number
A1 **West** **1/2 - 1 Mile** **Higher**	**FED USGS**	**USGS3097798**

Agency cd:	USGS	Site no:	324603115480501
Site name:	016S011E23B001S		
Latitude:	324603	EDR Site id:	USGS3097798
Longitude:	1154805	Dec lat:	32.76755917
Dec lon:	-115.80222757	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	06
State:	06	County:	025
Country:	US	Land net:	Not Reported
Location map:	PLASTER CITY	Map scale:	24000
Altitude:	30.		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	5		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Salton Sea. California. Area = 7250 sq.mi.		
Topographic:	Flat surface		
Site type:	Ground-water other than Spring	Date construction:	196403
Date inventoried:	19640319	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	114.7	Hole depth:	127.
Source of depth data:	driller		
Project number:	Not Reported		
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	1964-03-19
Water quality data end date:	1974-12-23	Water quality data count:	2
Ground water data begin date:	1974-10-30	Ground water data end date:	2004-11-01
Ground water data count:	58		

Ground-water levels, Number of Measurements: 58

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
2004-11-01	51.36		2004-03-18	51.18	
2003-10-21	51.29		2003-03-14	51.29	
2002-10-30	50.75		2002-03-19	49.68	
2001-10-23	49.09		2001-03-27	50.82	
2000-10-23	50.73		2000-03-29	48.88	
1999-10-25	47.25		1999-03-22	50.32	
1998-10-27	50.51		1998-03-23	49.94	
1997-10-20	48.54		1997-03-17	43.72	
1996-10-16	50.15		1996-03-19	50.40	
1995-10-16	48.62		1995-03-29	45.78	
1994-10-17	45.12		1994-03-15	50.44	
1993-10-21	50.11		1993-04-15	46.29	
1992-10-28	46.85		1992-03-16	41.06	
1991-10-09	40.83		1991-04-05	40.93	
1990-10-24	40.48		1990-03-21	40.35	

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1989-10-31	40.39		1989-03-14	40.06	
1988-10-18	40.09		1988-03-14	40.01	
1987-10-20	40.81		1987-03-31	40.44	
1986-10-22	40.32		1986-04-04	40.43	
1985-10-29	40.36		1985-04-11	39.98	
1984-10-23	39.88		1984-04-12	39.67	
1983-10-27	40.96		1983-03-30	39.67	
1982-10-08	39.59		1982-03-12	39.56	
1981-11-04	39.62		1981-04-30	39.50	
1980-09-24	39.55		1980-04-30	39.65	
1979-09-12	39.67		1979-03-21	40.03	
1978-10-05	39.45		1978-04-25	39.34	
1977-10-04	39.38		1977-04-26	39.36	
1976-09-30	39.38		1974-10-30	39.35	

A2
West
1/2 - 1 Mile
Higher

CA WELLS **CADW20000000420**

Longitude:	115.8022
Latitude:	32.7676
Stwellno:	16S11E23B001S
Districtco:	3
Welluseco:	Z
Countycode:	13
Gwcode:	703000
Site id:	CADW20000000420

3
SW
1 - 2 Miles
Higher

FED USGS **USGS3097751**

Agency cd:	USGS	Site no:	324456115481701
Site name:	016S011E26F001S		
Latitude:	324456	EDR Site id:	USGS3097751
Longitude:	1154817	Dec lat:	32.74894873
Dec lon:	-115.80556133	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	06
State:	06	County:	025
Country:	US	Land net:	Not Reported
Location map:	Not Reported	Map scale:	Not Reported
Altitude:	50.00		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	5.		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Salton Sea. California. Area = 7250 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	1968
Date inventoried:	Not Reported	Mean greenwich time offset:	PST

Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	509
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

4
NE **FED USGS** **USGS3097614**
1 - 2 Miles
Lower

Agency cd:	USGS	Site no:	324730115455001
Site name:	S-21		
Latitude:	324729	EDR Site id:	USGS3097614
Longitude:	1154552	Dec lat:	32.79144707
Dec lon:	-115.76528127	Coor meth:	M
Coor accr:	U	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	06
State:	06	County:	025
Country:	US	Land net:	Not Reported
Location map:	PLASTER CITY	Map scale:	24000
Altitude:	-41.00		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	5		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Salton Sea. California. Area = 7250 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Drain dug to water table or potentiometric surface to either lower ground-water level or serve as a water supply		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	Not Reported
Source of depth data:	Not Reported		
Project number:	470646200		
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	1988-05-19
Water quality data end date:	1988-05-19	Water quality data count:	1
Ground water data begin date:	0000-00-00	Ground water data end date:	0000-00-00
Ground water data count:	0		

Ground-water levels, Number of Measurements: 0

Map ID Direction Distance Elevation	Database	EDR ID Number
5 **SW** **2 - 3 Miles** **Higher**	**FED USGS**	**USGS3097752**

Agency cd:	USGS	Site no:	324458115484801
Site name:	016S011E27H001S		
Latitude:	324458	EDR Site id:	USGS3097752
Longitude:	1154848	Dec lat:	32.74950427
Dec lon:	-115.81417278	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	06
State:	06	County:	025
Country:	US	Land net:	Not Reported
Location map:	Not Reported	Map scale:	Not Reported
Altitude:	70.00		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	5.		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Salton Sea. California. Area = 7250 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	1968
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	509
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

B6 **NNE** **2 - 3 Miles** **Lower**	**FED USGS**	**USGS3097631**

Agency cd:	USGS	Site no:	324804115461402
Site name:	016S012E06P002S		
Latitude:	324804	EDR Site id:	USGS3097631
Longitude:	1154614	Dec lat:	32.80116893
Dec lon:	-115.77139247	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	06
State:	06	County:	025
Country:	US	Land net:	Not Reported
Location map:	Not Reported	Map scale:	Not Reported

Altitude:	33.00		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	5.		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Salton Sea. California. Area = 7250 sq.mi.		
Topographic:	Flat surface		
Site type:	Ground-water other than Spring	Date construction:	1952
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	7806
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

B7
NNE **FED USGS** **USGS3097630**
2 - 3 Miles
Lower

Agency cd:	USGS	Site no:	324804115461401
Site name:	016S012E06P001S		
Latitude:	324804	EDR Site id:	USGS3097630
Longitude:	1154614	Dec lat:	32.80116893
Dec lon:	-115.77139247	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	06
State:	06	County:	025
Country:	US	Land net:	Not Reported
Location map:	Not Reported	Map scale:	Not Reported
Altitude:	32.00		
Altitude method:	Level or other surveying method		
Altitude accuracy:	.1		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Salton Sea. California. Area = 7250 sq.mi.		
Topographic:	Flat surface		
Site type:	Ground-water other than Spring	Date construction:	1958
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	364	Hole depth:	388
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00

Peak flow data count:	0	Water quality data begin date:	1958-08-18
Water quality data end date:	1958-08-18	Water quality data count:	1
Ground water data begin date:	0000-00-00	Ground water data end date:	0000-00-00
Ground water data count:	0		

Ground-water levels, Number of Measurements: 0

C8
WSW
2 - 3 Miles
Higher

FED USGS **USGS3097755**

Agency cd:	USGS	Site no:	324500115492101
Site name:	016S011E27F001S		
Latitude:	324500	EDR Site id:	USGS3097755
Longitude:	1154921	Dec lat:	32.75005982
Dec lon:	-115.82333982	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	06
State:	06	County:	025
Country:	US	Land net:	Not Reported
Location map:	YUHA BASIN	Map scale:	24000
Altitude:	100.		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	5		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Salton Sea. California. Area = 7250 sq.mi.		
Topographic:	Flat surface		
Site type:	Ground-water other than Spring	Date construction:	19750506
Date inventoried:	19750506	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	134.5	Hole depth:	Not Reported
Source of depth data:	driller		
Project number:	Not Reported		
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1975-05-06	Ground water data end date:	2004-11-01
Ground water data count:	64		

Ground-water levels, Number of Measurements: 64

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
2004-11-01	100.33		2004-03-18	100.03	
2003-10-21	99.86		2003-03-14	100.03	
2002-10-30	99.98		2002-03-19	100.18	
2001-10-23	100.00		2001-03-27	99.95	
2000-10-23	100.12		2000-03-29	100.05	
1999-10-25	99.90		1999-03-22	99.75	
1998-10-27	99.91		1998-03-23	99.90	
1997-10-20	99.96		1997-03-17	100.04	
1996-10-16	99.87		1996-03-19	99.91	
1995-10-16	99.78		1995-03-29	99.83	

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1994-10-17	99.96		1994-03-15	99.75	
1993-10-21	99.79		1993-04-15	99.72	
1992-10-28	99.61		1992-03-16	99.62	
1991-10-09	99.68		1991-04-05	99.57	
1990-10-24	99.59		1990-03-21	99.49	
1989-10-31	99.34		1989-03-14	99.29	
1988-10-18	99.38		1988-03-14	99.04	
1987-10-21	98.98		1987-03-31	98.85	
1986-10-22	98.89		1986-04-04	98.95	
1985-10-29	98.92		1985-04-12	99.02	
1984-10-23	99.00		1984-04-12	98.94	
1983-10-27	98.90		1983-03-30	99.00	
1982-10-08	99.16		1982-03-12	98.87	
1981-11-04	98.89		1981-04-29	98.90	
1980-09-24	98.90		1980-04-30	98.98	
1979-09-12	99.05		1979-03-21	99.09	
1978-10-05	99.09		1978-04-25	97.95	
1977-10-04	99.00		1977-04-27	98.94	
1976-09-30	99.01		1976-01-07	99.02	
1975-06-24	98.90		1975-05-14	98.90	
1975-05-09	98.89		1975-05-08	98.80	
1975-05-07	92.95		1975-05-06	61.35	

9
NNE **FED USGS** **USGS3097632**
2 - 3 Miles
Lower

Agency cd:	USGS	Site no:	324805115455001
Site name:	S-130		
Latitude:	324802	EDR Site id:	USGS3097632
Longitude:	1154546	Dec lat:	32.80061337
Dec lon:	-115.7636144	Coor meth:	M
Coor accr:	U	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	06
State:	06	County:	025
Country:	US	Land net:	Not Reported
Location map:	PLASTER CITY	Map scale:	24000
Altitude:	-37.00		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	5		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Salton Sea. California. Area = 7250 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Drain dug to water table or potentiometric surface to either lower ground-water level or serve as a water supply		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	Not Reported
Source of depth data:	Not Reported		
Project number:	470646200		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported

Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

C10
WSW **CA WELLS** **CADW20000000320**
2 - 3 Miles
Higher

Longitude:	115.8233
Latitude:	32.7501
Stwellno:	16S11E27F001S
Districtco:	3
Welluseco:	Z
Countycode:	13
Gwcode:	703000
Site id:	CADW20000000320

11
NE **FED USGS** **USGS3221591**
2 - 3 Miles
Lower

Agency cd:	USGS	Site no:	324750115450001
Site name:	S-22		
Latitude:	324752	EDR Site id:	USGS3221591
Longitude:	1154507	Dec lat:	32.79783567
Dec lon:	-115.75278068	Coor meth:	M
Coor accr:	U	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	06
State:	06	County:	025
Country:	US	Land net:	Not Reported
Location map:	PLASTER CITY	Map scale:	24000
Altitude:	-42.00		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	5		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Salton Sea. California. Area = 7250 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Drain dug to water table or potentiometric surface to either lower ground-water level or serve as a water supply		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	Not Reported
Source of depth data:	Not Reported		
Project number:	470646200		
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

Map ID Direction Distance		Database	EDR ID Number
1 **NNE** **2 - 3 Miles**		**OIL_GAS**	**CAOG60000004785**

Apinumber:	02500038	Operator:	Chevron U.S.A. Inc.
Lease:	F. D. Browne	Well no:	1
Field:	IMPERIAL COUNTY	Caog m2 area:	Not Reported
Map:	W1-8	Status cod:	006
Source:	hud		
Latitude27:	32.800044		
Longitude2:	-115.77004		
Latitude83:	32.800102		
Longitude8:	-115.770877		
Td:	7608		
Sec:	6		
Twn:	16S	Rge:	12E
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	12/12/1968
Abanddate:	12/30/1899	Comments 1:	Not Reported
District:	1	Site id:	CAOG60000004785

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zip	Total Sites	> 4 Pci/L	Pct. > 4 Pci/L
92274	1	0	0.00

Federal EPA Radon Zone for IMPERIAL County: 3

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for IMPERIAL COUNTY, CA

Number of sites tested: 2

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	1.450 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2009 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW[R] Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Health Services
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Department of Conservation
Telephone: 916-323-1779
Oil and Gas well locations in the state.

RADON

State Database: CA Radon
Source: Department of Health Services
Telephone: 916-324-2208
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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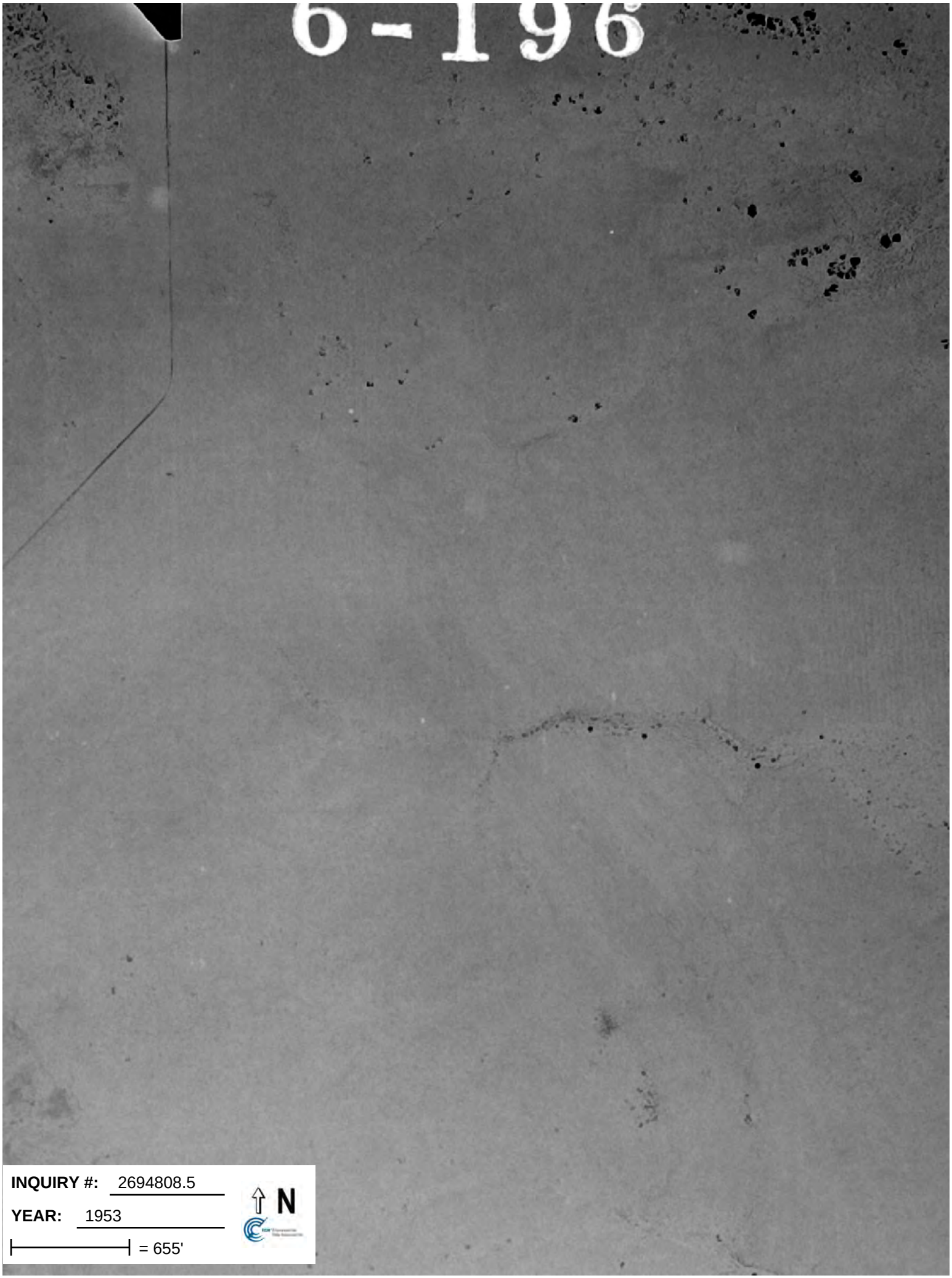
APPENDIX C


6-196
INQUIRY #: 2694808.5
YEAR: 1953
= 655'
N

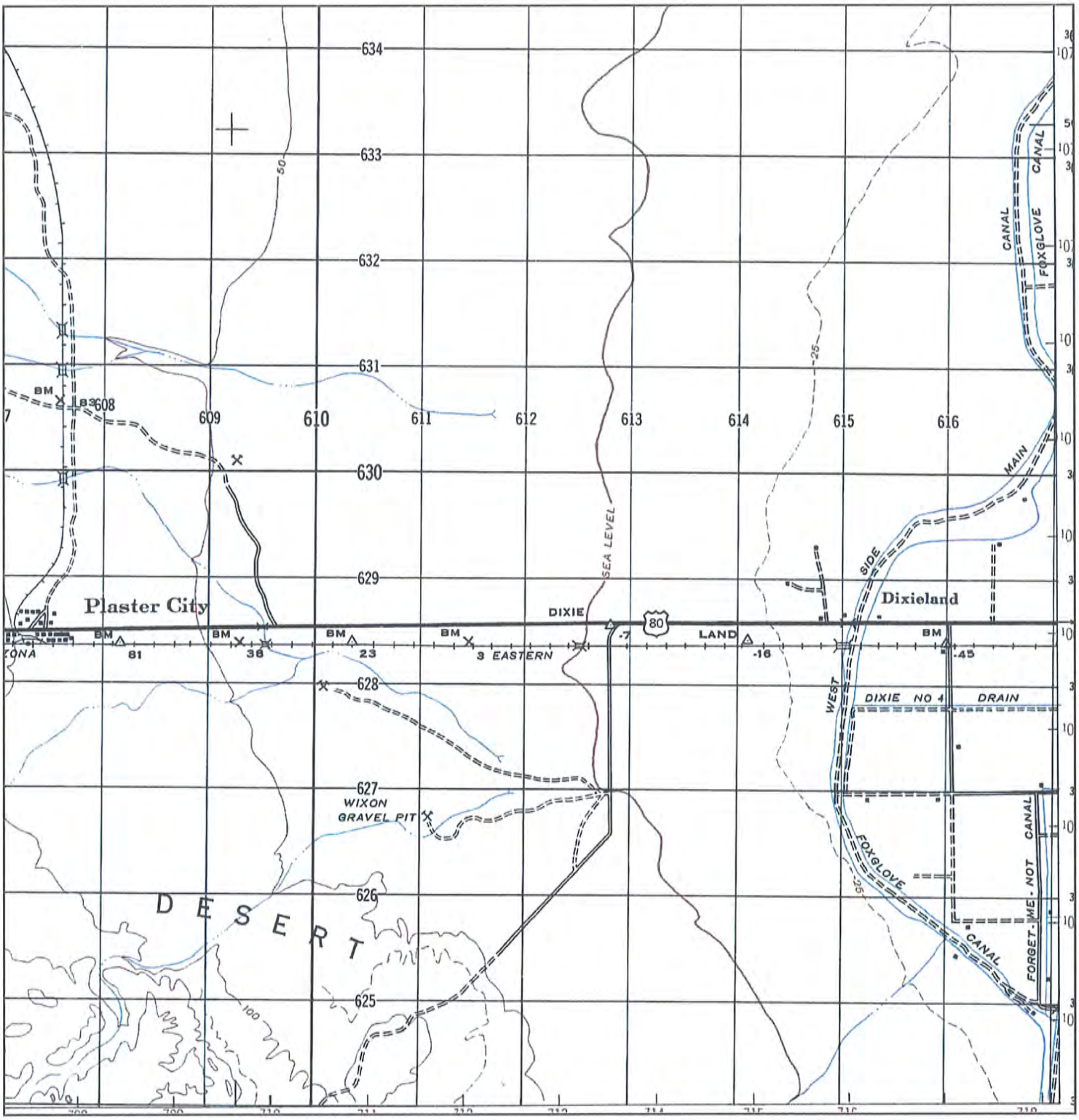
INQUIRY #: 2694808.5
YEAR: 1978
= 538'
N

INQUIRY #: 2694808.5
YEAR: 1996
= 666'
N

INQUIRY #: 2694808.5
YEAR: 2005
= 604'
N

APPENDIX D

Historical Topographic Map



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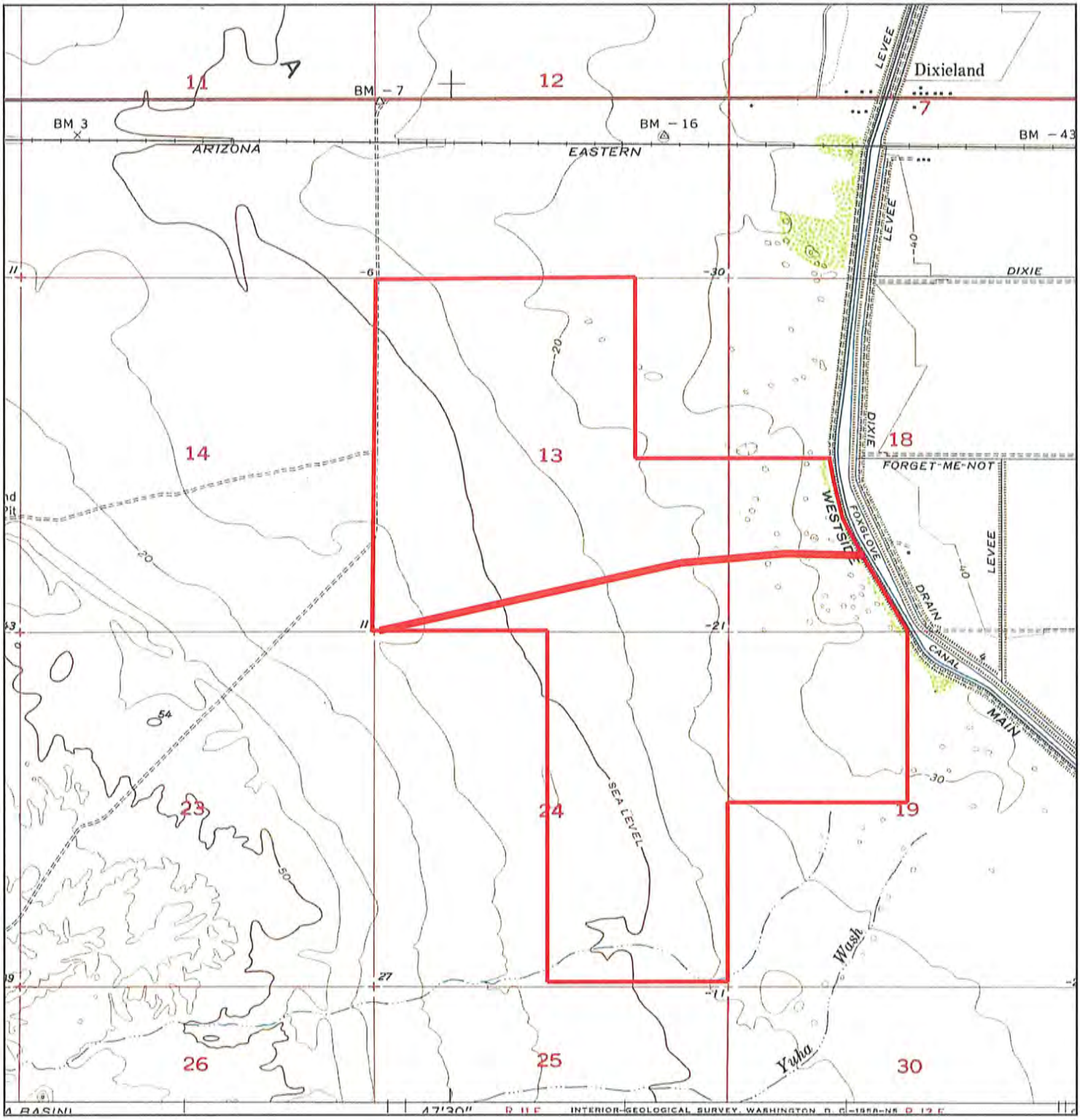
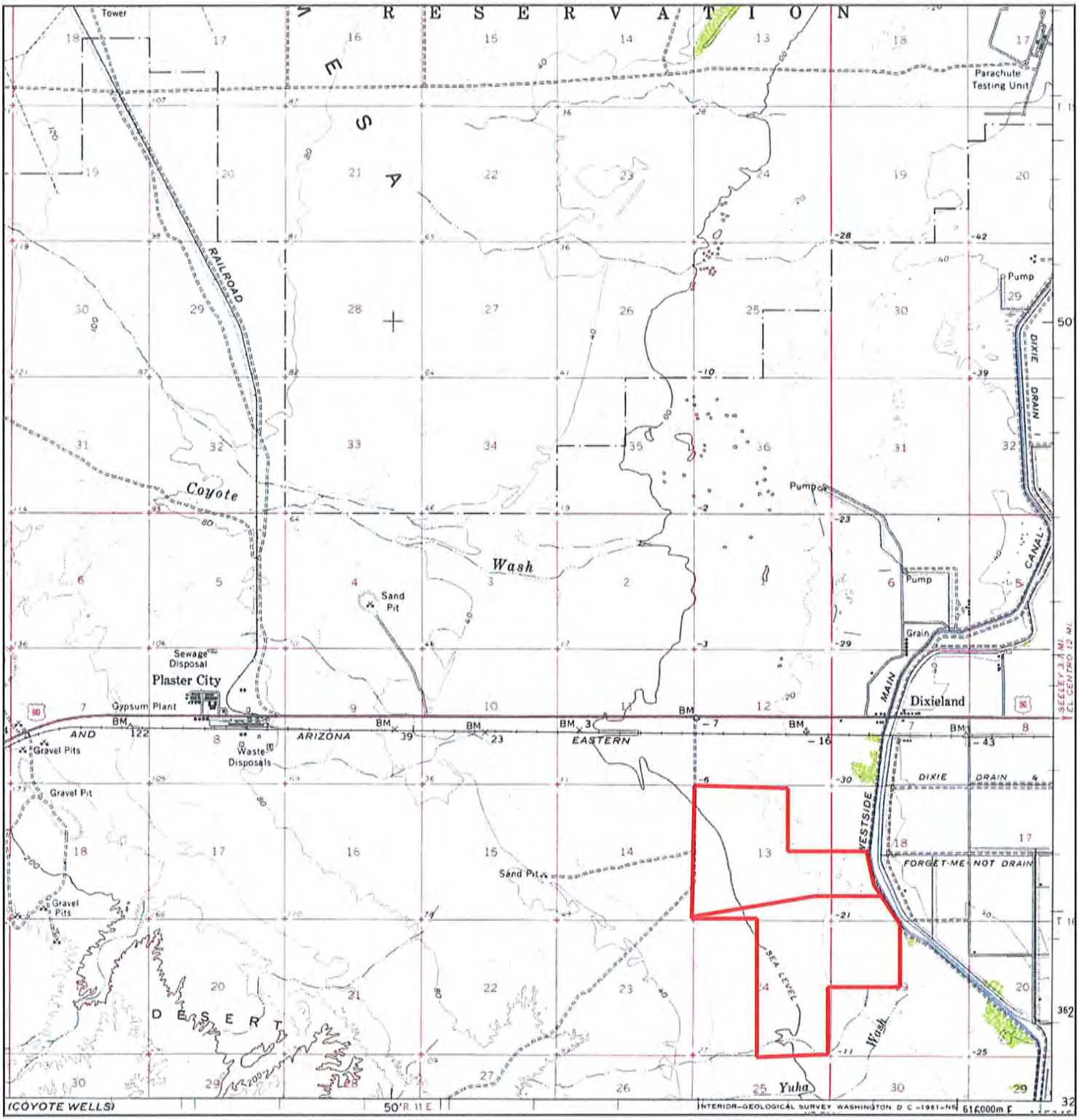
Historical Topographic Map

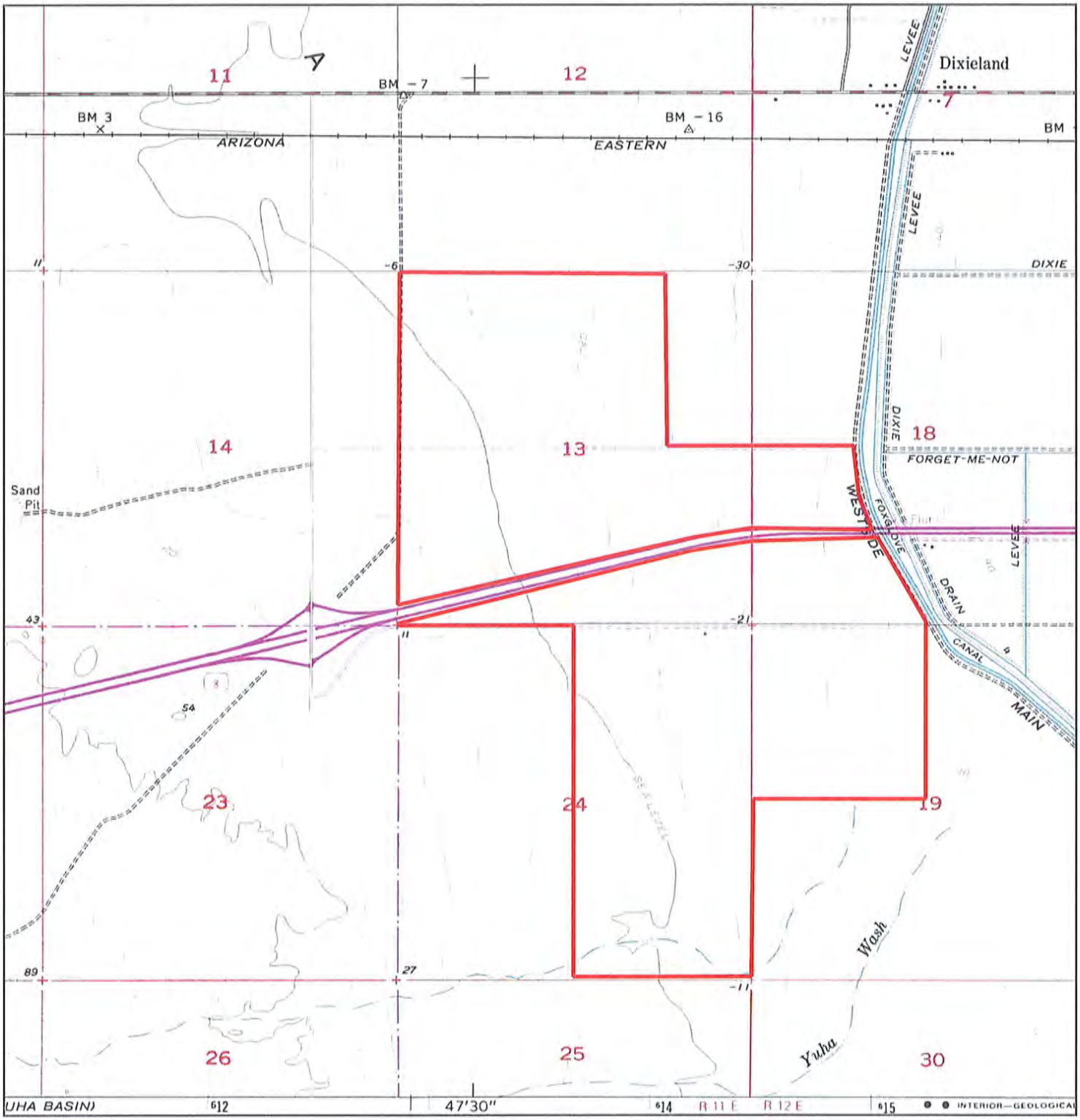


Historical Topographic Map



N	TARGET QUAD NAME: PLASTER CITY MAP YEAR: 1957 SERIES: 15 SCALE: 1:62500	SITE NAME: Imperial Valley West ADDRESS: Strobel Road/Reynolds Road Thermal, CA 92274 LAT/LONG: 32.7694 / 115.7868	CLIENT: Tetra Tech MM CONTACT: Matt Manderfeld INQUIRY#: 2694808.4 RESEARCH DATE: 02/08/2010

Historical Topographic Map



N	TARGET QUAD NAME: PLASTER CITY MAP YEAR: 1979 PHOTOREVISED FROM:1957 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Imperial Valley West ADDRESS: Strobel Road/Reynolds Road Thermal, CA 92274 LAT/LONG: 32.7694 / 115.7868	CLIENT: Tetra Tech MM CONTACT: Matt Manderfeld INQUIRY#: 2694808.4 RESEARCH DATE: 02/08/2010

Imperial Solar Energy Center West

Appendix G2

Phase II Environmental Assessment

Prepared by Tetra Tech, Inc.

April 2010

PHASE II ENVIRONMENTAL SITE ASSESSMENT

IMPERIAL VALLEY WEST PROPERTY

IMPERIAL COUNTY, CALIFORNIA

APRIL 2010

Prepared for:

TENASKA, INC.
1044 N. 115th Street, Suite 400
Omaha, NE 68154

Prepared by:

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Project No. T25606

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EXECUTIVE SUMMARY

Tetra Tech, Inc. ("Tetra Tech") was authorized by Tenaska, Inc. ("Tenaska") to conduct a focused Phase II Environmental Site Assessment ("Phase II ESA") on the 1,150-acre Imperial Valley West property (the "Subject Property") located in Imperial County, California. The Subject Property is owned by OMNI Financial, LLC; CURA Financial, LLC; and the David L. Woods Revocable Trust.

The purpose of this Phase II ESA was to characterize soil conditions associated with Recognized Environmental Conditions ("RECs") identified during the Phase I Environmental Site Assessment ("Phase I ESA") of the Subject Property conducted by Tetra Tech in March 2010, and to assess whether these RECs have adversely affected soil and groundwater at the Subject Property.

Summary of Phase I ESA - RECs and De Minimis Conditions

Tetra Tech identified the following RECs on the Subject Property during the Phase I ESA:

- A total of five Solid Waste Disposal Areas ("SWDAs") referenced as SWDA 1 through SWDA 5. Materials of concern discarded in these SWDAs include empty drums, a used oil container, used automotive oil filters, and other non-biodegradable refuse.
- Areas within SWDA 1 and SWDA 5 used as firing ranges ("FRs") referenced as FR 1 and FR 2. These areas contained solid waste with bullet holes and accumulations of spent ammunition casings, suggesting a potential for concentration of lead compounds.
- An area approximately 1 acre in size with several piles of gray ash-like Fill Material ("FM"). The piles of Fill Material are approximately 2 to 3 feet high and the source, origin, or parent material could not be confirmed during the Phase I ESA.

Tetra Tech identified the following de minimis condition:

- The Subject Property was historically used for agricultural purposes; therefore, herbicides, pesticides, and fertilizers may have accumulated in the subsurface, consistent with the regional agricultural conditions.

Summary of Phase II ESA Findings

Tetra Tech developed a Sampling and Analysis Plan ("SAP") to guide the collection and analysis of representative samples at the locations of the RECs. Soil characterization was limited to an assessment of surface and shallow subsurface soil samples at these locations.

Analytical results for each of the samples collected at the SDWAs, FR, and FM indicate that soil and non-native material in these areas do not meet the threshold concentrations for classification as federal (RCRA) or state[1] (i.e., non-RCRA) hazardous waste. Although concentrations of petroleum compounds discovered in several samples could originate from common wastes listed as non-RCRA hazardous waste, the low concentrations detected are not expected to exhibit toxicity characteristics listed under CCR Title 22, Division 4.5, Chapter 11, Article 3, Section 66261.24.

With the exception of arsenic detected in several samples, analyte concentrations are below federal Regional Screening Levels ("RSL") for soil at industrial property, which suggests that the soil and Fill Material at the RECs does not present a threat to human health. Although arsenic was detected in several samples in concentrations above the RSL, the low concentrations detected are within the ranges of arsenic commonly found in natural soils.

The data collected during this Phase II ESA indicate that it is unlikely that the RECs discovered during the Phase I ESA have adversely affected soil and groundwater at the Subject Property. No further investigation is warranted.

[1] California Code of Regulations ("CCR") Title 22, Division 4.5, Chapters 10 through 15.

1.0 INTRODUCTION

Tetra Tech, Inc. ("Tetra Tech") was authorized by Tenaska, Inc. ("Tenaska") to conduct a focused Phase II Environmental Site Assessment ("Phase II ESA") of the 1,150-acre Imperial Valley West property (the "Subject Property") located in Imperial County, California. The Subject Property is owned by OMNI Financial, LLC; CURA Financial, LLC; and the David L. Woods Revocable Trust.

The purpose of this Phase II ESA was to characterize soil conditions associated with Recognized Environmental Conditions ("RECs") identified during the Phase I Environmental Site Assessment ("Phase I ESA") of the Subject Property conducted by Tetra Tech in March 2010, and to assess whether these RECs have adversely affected soil and groundwater at the Subject Property.

1.1 Phase I ESA Findings

Tetra Tech identified the following RECs during the Phase I ESA:

Solid Waste Disposal Areas ("SWDAs")

A total of five Solid Waste Disposal Areas ("SWDAs") referenced as SWDA 1 through SWDA 5 as shown on Figure 1 and Figure 2. Materials of concern discarded in these areas include empty drums, a used oil container, used automotive oil filters, and other non-biodegradable refuse.

Firing Ranges

Areas within SWDA 1 and SWDA 5 used as firing ranges ("FRs") referenced as FR 1 and FR 2. These areas contained solid waste with bullet holes and accumulations of spent ammunition casings, suggesting a potential for concentration of lead compounds.

Fill Material

An area approximately 1 acre in size with several piles of gray ash-like Fill Material ("FM"). The piles of Fill Material are approximately 2 to 3 feet high and the source, origin, or parent material could not be confirmed during the Phase I ESA. The area containing these piles of Fill Material is identified as "FM" on Figure 2.

Tetra Tech identified the following de minimis condition during the Phase I ESA:

Residual Agricultural Chemicals

The Subject Property was historically used for agricultural purposes; therefore, herbicides, pesticides, and fertilizers may have accumulated in the subsurface, consistent with the regional agricultural conditions.

Based on these findings of the Phase I ESA, Tetra Tech recommended that Phase II ESA soil sampling be conducted at the location of the RECs to assess whether soil and groundwater have been adversely affected at these locations.

2.0 PHASE II SITE ASSESSMENT PROGRAM DEVELOPMENT

Pursuant to guidance provided in ASTM Standard Practice E1903 – 97, Tetra Tech developed a Sampling and Analysis Plan ("SAP") to characterize soil and Fill Material at locations of the RECs. The SAP specified excavation of shallow trenches to expose subsurface conditions and allow collection of representative samples for laboratory analysis.

Targeted analyses were selected based on the character of the particular REC and historic property uses. The analyses conducted at each sample location are summarized as follows:

	SDWA Samples	Fill Material Samples	Firing Range Samples
Pesticides – Methods[1] 8141, 8151, 8081	✓	✓	✓
Volatile Organic Compounds ("VOCs") – Method 8260	✓	✓	
Semi-Volatile Organic Compounds ("SVOCs") – Method 8270	✓	✓	
RCRA[2] Metals – Methods 6020A/7471	✓	✓	✓ **Lead only**
Hexavalent Chromium – Methods 3060A/7196	✓	✓	
Fuels – Method 8015	✓	✓	
Total Petroleum Hydrocarbons – Method 1664	✓	✓	

1 Environmental Protection Agency ("EPA") Solid Waste ("SW") 846 Method(s).

2 Resource Conservation and Recovery Act.

Grading permits for each parcel of the Subject Property where sampling occurred (Assessors Parcel Number ("APN") 034360078000 and APN 051010007000) were approved by Imperial County Planning and Development Services Department on February 25, 2010. Permits were retrieved on March 1, 2010 and maintained onsite throughout the duration of field activities. Grading permits were returned to the Planning and Development Services Department to initiate post-grading inspections. Upon County inspection of and satisfaction with the graded site, grading permits are completed (i.e., signed off by the

County) and returned to the applicant. Permit applicants are not required to be present for pending inspections as long as the original permits were returned to the County in advance. The completed permits are included in Appendix A.

Underground Service Alert ("USA") of Southern California was notified on February 17, 2010 of planned trenching activities. USA ticket numbers A00481234 and A00481275 were issued and the respective companies were notified and marked the locations of their underground utilities in the field. Emails confirming the USA notifications are included in Appendix B. In addition to USA utility locate services which typically end at private property boundaries, Tetra Tech retained Accutech Services, a private underground utility locator, to verify the absence of underground utility lines in selected sample locations prior to trenching. Underground utility structures were not identified in or around the target sample locations.

Granite Construction, Inc. of El Centro, California was contracted to provide backhoe excavation services, and EMAX Laboratories, Inc. ("EMAX") of Torrance, California was contracted to perform sample analyses. Details describing field sampling procedures and analyses are included in Section 3.0 of this report.

3.0 SAMPLING AND ANALYTICAL RESULTS

Subsurface conditions were exposed using a backhoe to excavate trenches at targeted sample locations. Representative, undisturbed samples were collected at various depths from the trench walls using the Terracore® soil sampling method. Surface samples were collected at several locations using a hand trowel. All samples were transferred into sample jars provided by the laboratory. Standard Operating Procedures ("SOP") used in the field for site characterization, sample collection, selection and use of personal protective equipment ("PPE"), and sample packaging and shipping protocol are included in Appendix C.

The following sections summarize location-specific details describing field observations, sample collection, and analytical results. Only those analytes exhibiting quantifiable concentrations are included in each data summary table. Consequently, the absence of a reported analyte in a summary table indicates its absence in the reported laboratory results. The complete laboratory report for all sample analyses, as well as quality assurance and quality control data, is included in Appendix D.

All samples were analyzed for *total* concentration of target analytes reported in milligrams per kilogram ("mg/Kg"). Comparison of *total* concentrations to California's Total Threshold Limit Concentration ("TTLC") hazardous waste thresholds, also quantified in mg/Kg, is a direct relationship. However, comparison of *total* concentration to either the state Soluble Threshold Limit Concentration ("STLC") or the federal toxicity characteristic ("TC") hazardous waste threshold values, quantified in milligrams per liter ("mg/L"), is subject to a 10-times or 20-times dilution factor adjustment, respectively. In other words, *total* concentration must be at least 10 or 20 times the associated STLC or TC threshold hazardous waste concentration value, respectively, for the sample to leach an analyte concentration equal to or greater than the hazardous waste threshold concentration (i.e., to be a non-RCRA or RCRA hazardous waste). The analytical data were compared to these federal and state hazardous waste threshold concentrations. No samples met or exceeded these benchmark concentrations.

Analytical results were also compared to EPA Region IX Regional Screening Levels ("RSLs") for soil at industrial property. Although RSLs are not cleanup standards, these values are based on default exposure parameters and factors that represent Reasonable Maximum Exposure ("RME") conditions for long-term exposures. Consequently, consideration of analyte concentrations compared to RSLs provides a mechanism to gauge risk for exposure to humans.

The only analyte that exceeded an industrial RSL was arsenic. All other analytes were below both the industrial and residential RSLs. Although arsenic concentrations exceeded the industrial RSL concentration of 1.6 mg/Kg at SDWA 5 and in the Fill Material, the highest concentration reported was only 4.61 mg/Kg, which is within the common range of arsenic found in natural soils (1 to 50 mg/Kg)[2] and within the normal range of elemental concentrations in soil in the western United States (2.8 to 10.9 mg/Kg)[3]

Low concentrations of acetone and 2-butanone were also reported in samples analyzed for VOCs. Acetone and 2-butanone are frequently used for glassware decontamination in the laboratory and their presence is likely attributed to method carryover[4].

3.1 Solid Waste Disposal Area 1

SWDA 1 is located north of Strobel Road between Reynolds Road and the nearby out-of-service irrigation ditch (Figure 1). Solid waste materials observed at this location include plastic containers, cardboard, glass, paper trash, furniture, several used automotive oil filters, tires, scrap metal, wires, fencing, spent ammunition casings, lumber, and other general refuse.

The SWDA 1 sample location was directly north of and at a slightly lower elevation than a scattering of several used automotive oil filters, plastic containers, and other general refuse (Latitude 32.78123962N, Longitude -115.7960519W). Soil at this location was exposed in a trench approximately 4 feet deep revealing approximately 3 inches of dark organic material at the surface underlain by light brown silty sand to depth. Surface or subsurface staining was not evident, odors were not detected, solid waste

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[2] USEPA Office of Solid Waste and Emergency Response, Hazardous Waste Land Treatment, SW-874 (April, 1983) page 273, Table 6.46.

[3] Data from U.S. Geological Survey Professional Paper 1270 (1984): Element Concentrations in Soils and other Surficial Materials of the Conterminous United States

[4] USEPA Guidance for Data Useability in Risk Assessment, PB 92-963356, Part 1 (April 1992)

materials were not observed beneath the ground surface, and airborne organic vapors were not detected using a hand-held photoionization detector ("PID").

Undisturbed soil in the trench wall was sampled at the depth of approximately 12 inches below grade surface ("bgs") (Sample ID "SWDA 1"). The location of SWDA 1 is depicted on Figure 1, and a photograph of the trenched area is incorporated in the Photolog included in Appendix E. Analytical results are presented in Table 1.

Analyte concentrations do not meet the threshold concentration for classification as non-RCRA or RCRA hazardous waste, nor do compounds detected at SWDA 1 exceed EPA Region IX soil RSLs for industrial property.

3.2 Solid Waste Disposal Area 2

SWDA 2 is located north of Interstate 8 and south Strobel Road between Reynolds Road and the nearby out-of-service irrigation ditch (Latitude 32.773213079N, Longitude -115.796170691 W). Solid waste materials observed at this location include plastic containers, cardboard, glass, paper trash, furniture, a 5-gallon container of used oil, tires, scrap metal, wires, fencing, spent ammunition casings, lumber, and other general refuse.

The sample location selected at SWDA 2 was directly north of a 5-gallon container of used oil, empty plastic containers, and other general refuse. Soil was exposed to the depth of approximately 4 feet bgs. The lithologic profile at this location from surface to total depth is described as: approximately 1 inch of dark organic material at grade surface; underlain by approximately 10 to 12 inches of light brown silty sand; underlain by approximately 6 inches of dark gray, finer-grain sand; which overlies an additional 2 to 3 feet of light brown silty sand (similar to that observed near the surface) extending to the bottom of the trench.

The dark gray layer exhibited higher moisture content and plasticity (and presumably lower permeability). No evidence of surface staining was observed, and based on distribution, depth, and consistency of the dark gray layer, the difference in color is not believed to be indicative of unnatural staining. Surface or subsurface staining was not evident, odors were not detected, solid waste materials were not observed beneath the ground surface, and airborne VOCs were not detected by PID measurements.

Undisturbed soil in the trench wall was sampled at the depth of approximately 12 inches bgs, corresponding to the top of the dark gray layer (Sample ID "SWDA 2"). The location of SWDA 2 and

the sample location are depicted on Figure 1. A photograph of the location is incorporated into the Photolog included in Appendix E. Analytical results are presented in Table 2.

Analyte concentrations reported do not meet the threshold concentration for classification as non-RCRA or RCRA hazardous waste, nor do compounds detected at SWDA 2 exceed EPA Region IX soil RSLs for industrial property.

3.3 Solid Waste Disposal Area 3

SWDA 3 is located along the western boundary of the Subject Property approximately 0.25 mile south of the unnamed access road that transects the Subject Property south of Interstate 8 (Latitude 32.76726826N, Longitude -115.787677984W). Solid waste materials observed in the area include an empty drum, plastic containers, cardboard, glass, paper trash, and other general refuse.

The sample location at SWDA 3 was directly south of the empty drum. Soil was exposed in a trench approximately 4 feet deep. The soil profile in the trench wall consisted of 1 to 2 inches of organic matter at the surface underlain by light brown silty sand to depth. The upper 12 inches of silty sand was slightly darker and demonstrated slightly greater plasticity, which were qualities attributed to higher moisture content. Surface or subsurface staining was not evident, odors were not detected, solid waste materials were not observed beneath the ground surface, and airborne VOCs were not detected in PID measurements.

Undisturbed soil in the trench wall was sampled at the depth of approximately 12 inches bgs, corresponding to the bottom of the darker sand layer (Sample ID “SWDA 3”). The location of SWDA 3 and the sample location are depicted on Figure 2. A photograph of the excavated area is incorporated into the Photolog included in Appendix E. Analytical results are presented in Table 3.

Analyte concentrations reported do not meet the threshold concentration for classification as non-RCRA or RCRA hazardous waste, nor do compounds detected at SWDA 3 exceed EPA Region IX soil RSLs for industrial property.

3.4 Solid Waste Disposal Area 4

SWDA 4 is located south of the unnamed access road that transects the Subject Property located south of Interstate 8 and east of the foundation of the house previously located on the Subject Property (Latitude

32.769014214 N, Longitude -115.781697057 W). Solid waste materials observed at this location include an empty drum, scrap metal, fencing, wires, concrete piping, glass, and other general refuse.

The sample collected within SWDA 4 targeted a location east of the empty drum. Soil at this location was exposed to the depth of approximately 4 feet bgs and the soil profile at this location consisted of a light brown, slightly moist silty sand to the bottom of the trench. No variations in subsurface soil type or distribution were observed in the trench walls. Surface or subsurface staining was not evident, odors were not detected, solid waste materials were not observed beneath the ground surface, and airborne VOCs were not detected in PID measurements.

Undisturbed soil in the trench wall was sampled at approximately 18 inches bgs (Sample ID "SWDA 4"). The location of SWDA 4 and the sample location are illustrated on Figure 2. A photograph of the excavated area is incorporated into the Photolog included in Appendix E. Analytical results are presented in Table 4.

Analyte concentrations reported do not meet the threshold concentration for classification as non-RCRA or RCRA hazardous waste, nor do compounds detected at SWDA 4 exceed EPA Region IX soil RSLs for industrial property.

3.5 Solid Waste Disposal Area 5

SWDA 5 is located in the south-central portion of the Subject Property approximately 0.5 mile south of the unnamed access road referenced above (Latitude 32.762960156 N, Longitude -115.779665806 W). Solid waste materials observed at SWDA 5 include empty drums, furniture, scrap metal, wires, fencing, ventilation ducts, spent ammunition casings, and other general refuse. Some of the waste materials were observed to be partially buried in Fill Material that appears to have been added after the accumulation of waste.

The trench from which soil samples were collected was excavated west of two partially buried drums within SWDA 5. Soil was exposed to approximately 4 feet bgs. The soil profile at this location consisted of approximately: 12 inches of light brown silty sand containing buried scrap metal and drums; underlain by 1 inch of gray organic material; underlain by 6 inches of friable gray sandy soil; underlain by 12 inches of brittle, dark brown, clay-based hardpan soil; overlying approximately 18 inches of light brown silty sand to depth. Surface or subsurface staining was not evident, odors were not detected, solid waste

materials were not observed beneath the ground surface, and airborne VOCs were not detected in PID measurements.

Undisturbed soil samples in the trench wall were collected from the organic matter at approximately 12 inches bgs (Sample ID "SWDA 5 – 12"), from the bottom of the friable gray sandy soil layer approximately 18 inches bgs (Sample ID "SWDA 5 – 18"), and from the top of the brittle, dark brown clay-based hardpan layer at approximately 20 inches bgs (Sample ID "SWDA 5 – 20"). Decontamination methods (see Appendix C) were implemented between sampling events to prevent cross-contamination.

A second 4-foot deep trench was excavated on the east side of SWDA 5, approximately 30 feet from the trench described above. Subsurface conditions were similar to those observed at the first trench location; however, the top layer of light brown silty sand was less than 6 inches thick, did not contain metal debris, and was not underlain by organic matter. Surface or subsurface staining was not evident, odors were not detected, partially-exposed debris was observed to extend beneath the ground surface, and airborne VOCs were not detected in PID measurements. Samples were not collected at this second trench location within SWDA 5.

The location of SWDA 5 and the sample locations are depicted on Figure 2. A photograph of the excavated area is incorporated into the Photolog included in Appendix E. Analytical results are presented in Tables 5 through 7 and are discussed below.

3.5.1 SWDA 5 - 12

Analytical results are presented in Table 5.

Analyte concentrations reported do not meet the threshold concentration for classification as non-RCRA or RCRA hazardous waste. The concentration of arsenic detected in SWDA 5 – 12 was 2.57 mg/Kg, which exceeds the EPA Region IX industrial soil RSL concentration of 1.6 mg/Kg. This concentration is within the common range of arsenic found in natural soils (1 to 50 mg/Kg)[5] and is less than the 10.9

[5] USEPA Office of Solid Waste and Emergency Response, Hazardous Waste Land Treatment, SW-874 (April, 1983) page 273, Table 6.46.

mg/Kg maximum concentration normally found in soil in the western United States[6]. Therefore, arsenic at this sample location is considered to be naturally occurring. Concentrations of the remaining compounds detected in SWDA 5 - 12 do not exceed RSLs for industrial property.

A trace amount of motor oil (20 mg/Kg) was detected at SWDA 5 - 12. Motor oil is not listed as a substance for which TC, STLC, TTLC, and RSL comparisons can be made; however, this low level of motor oil does not appear to be present in concentration that represents a threat to human health or the environment.

3.5.2 SWDA 5 – 18

Analytical results are presented in Table 6.

Analyte concentrations reported do not meet the threshold concentration for classification as non-RCRA or RCRA hazardous waste. The concentration of arsenic detected in SWDA 5 – 18 was 4.61 mg/Kg, which exceeds the EPA Region IX industrial soil RSL concentration of 1.6 mg/Kg. This concentration is within the common range of arsenic found in natural soils (1 to 50 mg/Kg)[7] and within the normal range of elemental concentrations in soil in the western United States (2.8 to 10.9 mg/Kg)[8]. Therefore, arsenic at this sample location is considered to be naturally occurring. Concentrations of the remaining compounds detected in SWDA 5 - 18 do not exceed RSLs for industrial property.

3.5.3 SWDA 5 – 20

Analytical results are presented in Table 7.

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[6] Data from U.S. Geological Survey Professional Paper 1270 (1984): Element Concentrations in Soils and other Surficial Materials of the Conterminous United States

[7] USEPA Office of Solid Waste and Emergency Response, Hazardous Waste Land Treatment, SW-874 (April, 1983) page 273, Table 6.46.

[8] Data from U.S. Geological Survey Professional Paper 1270 (1984): Element Concentrations in Soils and other Surficial Materials of the Conterminous United States

Analyte concentrations reported do not meet the threshold concentration for classification as non-RCRA or RCRA hazardous waste. The concentration of arsenic detected in SWDA 5 – 20 was 4.32 mg/Kg, which exceeds the EPA Region IX industrial soil RSL concentration of 1.6 mg/Kg. This concentration is within the common range of arsenic found in natural soils (1 to 50 mg/Kg)[9] and within the normal range of elemental concentrations in soil in the western United States (2.8 to 10.9 mg/Kg)[10]. Therefore, arsenic at this sample location is considered to be naturally occurring. Concentrations of the remaining compounds detected in SWDA 5 - 20 do not exceed RSLs for industrial property.

3.6 Fill Material

The area identified as FM is located directly south of the unnamed access road that transects the Subject Property south of Interstate 8 and west of the foundation of the house previously located on the Subject Property (Latitude 32.768743407 N, Longitude -115.779821763 W). An area approximately 1 acre in size contains several 2.5 to 3-foot tall piles of Fill Material.

The sample location selected within the FM area was located near the southeast corner of the rectangular area. A sample was collected from the surface of a 2.5-foot high pile of the Fill Material (Sample ID "FM - Surface").

After surface sampling, a backhoe was used to excavate a trench to the total depth of approximately 4.5 feet below the surface of the Fill Material. The profile within the trench wall consisted of approximately: 12 inches of gray, very fine ash-like material; underlain by 3 to 6 inches of dense, non-native black material just above the natural ground surface elevation; underlain by 12 inches of dark brown sandy soil the upper extent of which corresponded to the natural ground surface; overlying approximately 2 feet of light brown silty sand to depth. The source(s), origin(s), and parent material(s) of

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[9] USEPA Office of Solid Waste and Emergency Response, Hazardous Waste Land Treatment, SW-874 (April, 1983) page 273, Table 6.46.

[10] Data from U.S. Geological Survey Professional Paper 1270 (1984): Element Concentrations in Soils and other Surficial Materials of the Conterminous United States

the Fill Material is unknown. The layer of dark brown sandy soil appeared to be native soil that had been stained by the non-native black material located directly above it.

A strong, indistinct organic odor was detected from the dense black material. PID readings temporarily spiked when a piece of the non-native black material was crushed directly in front of the sensor; however, the odor and VOCs quickly dissipated and PID readings stabilized. An undisturbed sample was collected at the depth of approximately 12 inches below the surface of the Fill Material within the non-native black material at the bottom of the Fill Material (Sample ID "FM - 12"). An undisturbed sample in the trench wall was collected at the depth of 16 inches below the surface of the Fill Material within the native dark brown sandy soil (Sample ID "FM - 16"). Decontamination methods were performed between sampling events to prevent cross-contamination (see Appendix C).

The location of the Fill Material and sampling location are depicted on Figure 2. A photograph of the excavated area is incorporated into the Photolog included in Appendix E. Analytical results are presented in Tables 8 through 10 and discussed below.

3.6.1 FM – Surface

Analytical results are presented in Table 8.

Analyte concentrations reported do not meet the threshold concentration for classification as non-RCRA or RCRA hazardous waste. With the exception of arsenic, concentrations of analytes detected in FM - Surface were less than the applicable EPA Region IX soil RSLs for industrial property. However, the concentration of arsenic in the gray ash-like material (2.59 mg/Kg) was within the common range of arsenic found in natural soils (1 to 50 mg/Kg)[11], and is less than the 10.9 mg/Kg maximum concentration normally found in soil in the western United States[12].

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[11] USEPA Office of Solid Waste and Emergency Response, Hazardous Waste Land Treatment, SW-874 (April, 1983) page 273, Table 6.46.

[12] Data from U.S. Geological Survey Professional Paper 1270 (1984): Element Concentrations in Soils and other Surficial Materials of the Conterminous United States

3.6.2 FM – 12

Analytical results are presented in Table 9.

Analyte concentrations reported do not meet the threshold concentration for classification as non-RCRA or RCRA hazardous waste. With the exception of arsenic, concentrations of all substances detected in FM - 12 were less than the applicable EPA Region IX soil RSLs for industrial property. However, the concentration of arsenic in the black material (1.84 mg/Kg) was within the common range of arsenic found in natural soils (1 to 50 mg/Kg)[13], and is less than the 10.9 mg/Kg maximum concentration normally found in soil in the western United States[14].

Trace amounts of naphthalene (0.029 mg/Kg), gasoline (1.8 mg/Kg), and diesel fuel (10 mg/Kg) were detected in FM – 12. These substances are not listed as compounds for which TC, STLC, TTLC, and RSL comparisons can be made; however, the low levels of these substances do not appear to be present in concentrations that pose a threat to human health or the environment.

3.6.3 FM – 16

Analytical results are presented in Table 10.

Analyte concentrations reported do not meet the threshold concentration for classification as non-RCRA or RCRA hazardous waste, nor do detected compounds exceed EPA Region IX soil RSLs for industrial property.

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[13] USEPA Office of Solid Waste and Emergency Response, Hazardous Waste Land Treatment, SW-874 (April, 1983) page 273, Table 6.46.

[14] Data from U.S. Geological Survey Professional Paper 1270 (1984): Element Concentrations in Soils and other Surficial Materials of the Conterminous United States

A trace amount of diesel fuel (8.7 mg/Kg) was detected in FM – 16. Diesel fuel is not listed as a compound for which TC, STLC, TTLC, and RSL comparisons can be made. The low level of diesel fuel reported does not appear to be present in concentration that poses a threat to human health or the environment.

3.7 Firing Range 1

The area identified as FR - 1 is located within SWDA 1. Several spent ammunition casings were observed on the ground in a clearing between the out-of-service irrigation ditch and Reynolds Road (Latitude 32.779204974 N, Longitude -115.795513426 W). Waste materials including scrap metal, shattered clay pigeon targets, and other refuse containing bullet holes were observed in the field located east of the irrigation ditch.

The sample location selected within the FR - 1 area was approximately 200 feet east of the irrigation ditch and was selected based on the location of the targets. A clean hand shovel was used while wearing clean PPE to collect a sample from ground surface to the depth of approximately 2 inches bgs. The location of FR - 1 and the sample location are depicted on Figure 1. A photograph of the sample location is incorporated into the Photolog included in Appendix E. Analytical results are presented in Table 11.

A duplicate sample was collected at the FR - 1 surface sample location. The concentration of lead in the duplicate sample was consistent with FR - 1 sample concentration. Analytical results are presented in Table 12.

Lead concentrations reported for both FR - 1 and the duplicate sample do not meet the threshold concentration for classification as non-RCRA or RCRA hazardous waste, nor does the lead concentration detected at FR – 1 exceed the EPA Region IX soil RSL for industrial property.

3.8 Firing Range 2

The area identified as FR - 2 is located within SWDA 5. Several spent ammunition casings were observed on the ground approximately 200 feet east of SWDA (Latitude 32.762960156 N, Longitude -115.779665806 W). Scrap metal described in Section 3.5 of this report contained bullet holes, indicating use as targets.

The sample location selected within FR - 2 was located along the western edge of the area containing the waste materials and was selected based on the location of the targets.

A clean hand shovel was used while wearing clean PPE to collect a sample from ground surface to the depth of approximately 2 inches bgs. The location of FR - 2 and the sample location are depicted on Figure 2. A photograph of the sample location is incorporated into the Photolog in Appendix E. Analytical results are presented in Table 13.

The lead concentration reported at FR - 2 does not meet the threshold concentration for classification as non-RCRA or RCRA hazardous waste, nor does the lead concentration detected at FR – 2 exceed the EPA Region IX soil RSL for industrial property.

4.0 QUALITY ASSURANCE/QUALITY CONTROL

Sample integrity was protected using SOP methods detailed in Appendix C, consistent with the following summarized Quality Assurance / Quality Control ("QA/QC") field measures executed throughout sample collection and delivery:

- Equipment decontamination followed a regimen of: (1) gross soil removal, (2) soak and scrub in a distilled water and Alconox® solution, (3) rinse in serial containers of distilled water, and (4) towel dry using clean, unused paper towels.
- Exposure of undisturbed soil prior to sample collection using decontaminated equipment and clean PPE.
- Samples were collected in clean sample containers provided by EMAX using equipment decontaminated between sampling events, and the use of single-use Terracore® soil sampling plungers. Terracore® soil sampling plungers were disposed of after collecting soil samples from a single sample point.
- Samplers wore nitrile gloves that were changed between sampling events.
- Containers were immediately labeled following collection and transferred to ice-filled coolers to maintain a constant temperature. Trip blank water samples were placed in each cooler.
- Chain of Custody forms were completed and maintained with stored samples.

QA/QC sample results were as follows:

- VOCs were not detected in trip blanks shipped with the sample coolers.

Laboratory QA/QC results were as follows:

- All final analytical results were within the established QC limits for the test methods.
- Target analytes were not detected in the soil-matrix equipment blank.
- Chromium and petroleum products were detected in Matrix Spike ("MS") samples.

Trace amounts of common laboratory contaminants were detected in samples submitted for VOC analysis. Acetone was detected in each of the 10 samples analyzed for VOCs in concentrations ranging from 0.0026 to 0.017 mg/Kg. 2-butanone was detected in six of the 10 samples analyzed for VOCs in concentrations ranging from 0.0028 to 0.077 mg/Kg. Both acetone and 2-butanone are common laboratory contaminants; consequently, the likely source of these substances is the glassware and/or instrumentation carryover.

5.0 CONCLUSIONS

Analytical results for each of the samples taken from SWDAs, FRs, and the FM area indicate that soils and Fill Material in these areas do not meet state or federal threshold concentrations for designation as hazardous waste. Furthermore, with the exception of low arsenic levels, concentrations of substances detected are below EPA Region IX environmental health and safety RSL concentrations for industrial property, suggesting that the RECs are not likely to pose a threat to human health. Although arsenic was detected in several samples in concentrations above the RSL, the low concentrations detected are within the ranges of arsenic commonly found in natural soils.

The data collected during this Phase II ESA indicate that it is unlikely that the RECs discovered during the Phase I ESA have adversely affected soil and groundwater at the Subject Property. No further investigation is warranted.

TABLES

Table 1 - SDWA 1 Analytical Results

Analyte	TC mg/L	STLC mg/L	TTLC mg/Kg	10X STLC mg/Kg	20X TC mg/Kg	RSL mg/Kg	Sample Result mg/Kg	Hazardous?[(a)]	Potentially Hazardous?[(b)]	Potentially Hazardous?[(c)]	Above RSL?
VOCs											
Acetone						630,000	0.036				No
Pesticides											
4, 4' - DDE		0.1	1	1		5.1	0.034	No	No		No
4, 4' - DDT		0.1	1	1		7	0.0074	No	No		No
Metals											
Arsenic	5	5	500	50	100	1.6	1.06	No	No	No	No
Barium	100	100	10,000	1000	2000	190,000	54.7	No	No	No	No
Cobalt		80	8,000	800		300	1.35	No	No		No
Copper		25	2,500	250		41,000	2.65	No	No		No
Lead	5	5	1,000	50	100	800	2.63	No	No	No	No
Nickel		20	2,000	200		20,000	3	No	No		No
Selenium	1	1	100	10	20	5,100	0.117	No	No	No	No
Thallium		7	700	70			0.148	No	No		
Vanadium		24	2,400	240		720	6.83	No	No		No
Zinc		250	5,000	2500		310,000	14.2	No	No		No

(a) Compared to TTLC Values
(b) Compared to 10X STLC Values
(c) Compared to 20X TC Values
Note: Only analytes detected in the sample are reported in the table. Blank cells indicate that the analyte is not listed in the corresponding state, federal, or regional screening criteria.

Table 2 - SDWA 2 Analytical Results

Analyte	TC mg/L	STLC mg/L	TTLC mg/Kg	10X STLC mg/Kg	20X TC mg/Kg	RSL mg/Kg	Sample Result mg/Kg	Hazardous?[(a)]	Potentially Hazardous?[(b)]	Potentially Hazardous?[(c)]	Above RSL?
VOCs											
2-Butanone	200				4,000	200,000	0.011			No	No
Acetone						630,000	0.04				No
Metals											
Arsenic	5	5	500	50	100	1.6	1.18	No	No	No	No
Barium	100	100	10,000	1000	2000	190,000	72.7	No	No	No	No
Cobalt		80	8,000	800		300	1.14	No	No		No
Copper		25	2,500	250		41,000	2.44	No	No		No
Lead	5	5	1,000	50	100	800	2.21	No	No	No	No
Nickel		20	2,000	200		20,000	3.94	No	No		No
Selenium	1	1	100	10	20	5,100	0.121	No	No	No	No
Thallium		7	700	70			0.518	No	No		
Vanadium		24	2,400	240		720	8.92	No	No		No
Zinc		250	5,000	2500		310,000	17.8	No	No		No
TPH											
Motor oil							140				

(a) Compared to TTLC Values
(b) Compared to 10X STLC Values
(c) Compared to 20X TC Values
Note: Only analytes detected in the sample are reported in the table. Blank cells indicate that the analyte is not listed in the corresponding state, federal, or regional screening criteria.

Table 3 - SDWA 3 Analytical Results

Analyte	TC mg/L	STLC mg/L	TTLC mg/Kg	10X STLC mg/Kg	20X TC mg/Kg	RSL mg/Kg	Sample Result mg/Kg	Hazardous?[(a)]	Potentially Hazardous?[(b)]	Potentially Hazardous?[(c)]	Above RSL?
VOCs											
Acetone						630,000	0.026				No
Metals											
Arsenic	5	5	500	50	100	1.6	1.4	No	No	No	No
Barium	100	100	10,000	1000	2000	190,000	75.3	No	No	No	No
Cobalt		80	8,000	800		300	1.71	No	No		No
Copper		25	2,500	250		41,000	3.23	No	No		No
Lead	5	5	1,000	50	100	800	2.67	No	No	No	No
Nickel		20	2,000	200		20,000	3.37	No	No		No
Selenium	1	1	100	10	20	5,100	0.111	No	No	No	No
Thallium		7	700	70			0.123	No	No		
Vanadium		24	2,400	240		720	7.37	No	No		No
Zinc		250	5,000	2500		310,000	15.1	No	No		No

(a) Compared to TTLC Values
(b) Compared to 10X STLC Values
(c) Compared to 20X TC Values
Note: Only analytes detected in the sample are reported in the table. Blank cells indicate that the analyte is not listed in the corresponding state, federal, or regional screening criteria.

Table 4 - SDWA 4 Analytical Results

Analyte	TC mg/L	STLC mg/L	TTLC mg/Kg	10X STLC mg/Kg	20X TC mg/Kg	RSL mg/Kg	Sample Result mg/Kg	Hazardous?[(a)]	Potentially Hazardous?[(b)]	Potentially Hazardous?[(c)]	Above RSL?
VOCs											
2-Butanone	200				4,000	200,000	0.0028			No	No
Acetone						630,000	0.019				No
Metals											
Arsenic	5	5	500	50	100	1.6	0.872	No	No	No	No
Barium	100	100	10,000	1000	2000	190,000	75.7	No	No	No	No
Cobalt		80	8,000	800		300	1.73	No	No		No
Copper		25	2,500	250		41,000	2.98	No	No		No
Lead	5	5	1,000	50	100	800	2.33	No	No	No	No
Nickel		20	2,000	200		20,000	3.41	No	No		No
Thallium		7	700	70			0.119	No	No		
Vanadium		24	2,400	240		720	7.28	No	No		No
Zinc		250	5,000	2500		310,000	16.4	No	No		No

(a) Compared to TTLC Values
(b) Compared to 10X STLC Values
(c) Compared to 20X TC Values
Note: Only analytes detected in the sample are reported in the table. Blank cells indicate that the analyte is not listed in the corresponding state, federal, or regional screening criteria.

Table 5 - SDWA 5-12 Analytical Results

Analyte	TC mg/L	STLC mg/L	TTLC mg/Kg	10X STLC mg/Kg	20X TC mg/Kg	RSL mg/Kg	Sample Result mg/Kg	Hazardous?[(a)]	Potentially Hazardous?[(b)]	Potentially Hazardous?[(c)]	Above RSL?
VOCs											
2-Butanone	200				4,000	200,000	0.025			No	No
Acetone						630,000	0.16				No
Benzene	0.5				10	5.4	0.0087			No	No
Carbon Disulfide						3,700	0.0032				No
Ethylbenzene						27	0.002				No
M, P-Xylenes						17,000	0.0025				No
Toluene						45,000	0.0077				No
Metals											
Arsenic	5	5	500	50	100	1.6	2.57	No	No	No	Yes
Barium	100	100	10,000	1000	2000	190,000	78.1	No	No	No	No
Beryllium		0.75	75	7.5		2,000	0.245	No	No		No
Cobalt		80	8,000	800		300	2.54	No	No		No
Copper		25	2,500	250		41,000	4.23	No	No		No
Lead	5	5	1,000	50	100	800	4.53	No	No	No	No
Nickel		20	2,000	200		20,000	5.13	No	No		No
Thallium		7	700	70			0.108	No	No		
Vanadium		24	2,400	240		720	9.95	No	No		No
Zinc		250	5,000	2500		310,000	26.3	No	No		No
TPH											
Motor oil							20				

(a) Compared to TTLC Values

(b) Compared to 10X STLC Values

(c) Compared to 20X TC Values

Note: Only analytes detected in the sample are reported in the table. Blank cells indicate that the analyte is not listed in the corresponding state, federal, or regional screening criteria.

Table 6 - SDWA 5-18 Analytical Results

Analyte	TC mg/L	STLC mg/L	TTLC mg/Kg	10X STLC mg/Kg	20X TC mg/Kg	RSL mg/Kg	Sample Result mg/Kg	Hazardous?[(a)]	Potentially Hazardous?[(b)]	Potentially Hazardous?[(c)]	Above RSL?
VOCs											
Acetone						630,000	0.0038				No
Metals											
Arsenic	5	5	500	50	100	1.6	4.61	No	No	No	Yes
Barium	100	100	10,000	1000	2000	190,000	76.1	No	No	No	No
Beryllium		0.75	75	7.5		2,000	0.389	No	No		No
Cobalt		80	8,000	800		300	3.64	No	No		No
Copper		25	2,500	250		41,000	6.45	No	No		No
Lead	5	5	1,000	50	100	800	6.02	No	No	No	No
Nickel		20	2,000	200		20,000	7.48	No	No		No
Thallium		7	700	70			0.127	No	No		
Vanadium		24	2,400	240		720	17.4	No	No		No
Zinc		250	5,000	2500		310,000	32.6	No	No		No

(a) Compared to TTLC Values
(b) Compared to 10X STLC Values
(c) Compared to 20X TC Values
Note: Only analytes detected in the sample are reported in the table. Blank cells indicate that the analyte is not listed in the corresponding state, federal, or regional screening criteria.

Table 7 - SDWA 5-20 Analytical Results

Analyte	TC mg/L	STLC mg/L	TTLC mg/Kg	10X STLC mg/Kg	20X TC mg/Kg	RSL mg/Kg	Sample Result mg/Kg	Hazardous?[(a)]	Potentially Hazardous?[(b)]	Potentially Hazardous?[(c)]	Above RSL?
VOCs											
Acetone						630,000	0.0026				No
Metals											
Arsenic	5	5	500	50	100	1.6	4.32	No	No	No	Yes
Barium	100	100	10,000	1000	2000	190,000	90.2	No	No	No	No
Beryllium		0.75	75	7.5		2,000	0.431	No	No		No
Cobalt		80	8,000	800		300	3.9	No	No		No
Copper		25	2,500	250		41,000	6.74	No	No		No
Lead	5	5	1,000	50	100	800	6.3	No	No	No	No
Nickel		20	2,000	200		20,000	8.25	No	No		No
Thallium		7	700	70			0.142	No	No		
Vanadium		24	2,400	240		720	19.7	No	No		No
Zinc		250	5,000	2500		310,000	30.2	No	No		No

(a) Compared to TTLC Values
(b) Compared to 10X STLC Values
(c) Compared to 20X TC Values
Note: Only analytes detected in the sample are reported in the table. Blank cells indicate that the analyte is not listed in the corresponding state, federal, or regional screening criteria.

Table 8 - FM-Surface Analytical Results

Analyte	TC mg/L	STLC mg/L	TTLC mg/Kg	10X STLC mg/Kg	20X TC mg/Kg	RSL mg/Kg	Sample Result mg/Kg	Hazardous?[a]	Potentially Hazardous?[b]	Potentially Hazardous?[c]	Above RSL?
VOCs											
2-Butanone	200				4,000	200,000	0.0063			No	No
Acetone						630,000	0.057				No
Benzene	0.5				10	5.4	0.02			No	No
Toluene						45,000	0.0062				No
Metals											
Arsenic	5	5	500	50	100	1.6	2.59	No	No	No	Yes
Barium	100	100	10,000	1000	2000	190,000	159	No	No	No	No
Beryllium		0.75	75	7.5		2,000	0.284	No	No		No
Cadmium	1	1	100	10	20	800	0.704	No	No	No	No
Cobalt		80	8,000	800		300	4.19	No	No		No
Copper		25	2,500	250		41,000	51.3	No	No		No
Lead	5	5	1,000	50	100	800	7.38	No	No	No	No
Nickel		20	2,000	200		20,000	10.3	No	No		No
Selenium	1	1	100	10	20	5,100	0.44	No	No	No	No
Thallium		7	700	70			0.223	No	No		
Vanadium		24	2,400	240		720	29.2	No	No		No
Zinc		250	5,000	2500		310,000	215	No	No		No
Pesticides											
Beta-BHC						30,000	0.0014				No

(a) Compared to TTLC Values

(b) Compared to 10X STLC Values

(c) Compared to 20X TC Values

Note: Only analytes detected in the sample are reported in the table. Blank cells indicate that the analyte is not listed in the corresponding state, federal, or regional screening criteria.

Table 9 - FM-12 Analytical Results

Analyte	TC mg/L	STLC mg/L	TTLC mg/Kg	10X STLC mg/Kg	20X TC mg/Kg	RSL mg/Kg	Sample Result mg/Kg	Hazardous?[(a)]	Potentially Hazardous?[(b)]	Potentially Hazardous?[(c)]	Above RSL?
VOCs											
2-Butanone	200				4,000	200,000	0.077			No	No
2-Hexanone						1,400	0.018				No
4-Methyl-2-Pentanone						53,000	0.013				No
Acetone						630,000	0.17				No
Benzene	0.5				10	5.4	0.21			No	No
Ethylbenzene						27	0.085				No
M, P-Xylenes						17,000	0.087				No
O-Xylenes						19,000	0.041				No
Toluene						45,000	0.34				No
Naphthalene							0.029				
Pesticides											
Gamma-Chlordane		0.25	25	2.5		6.5	0.0018	No	No		No
Metals											
Arsenic	5	5	500	50	100	1.6	1.84	No	No	No	Yes
Barium	100	100	10,000	1000	2000	190,000	93	No	No	No	No
Cadmium	1	1	100	10	20	800	0.489	No	No	No	No
Cobalt		80	8,000	800		300	3.21	No	No		No
Copper		25	2,500	250		41,000	32.5	No	No		No
Lead	5	5	1,000	50	100	800	5.64	No	No	No	No
Nickel		20	2,000	200		20,000	6.41	No	No		No
Selenium	1	1	100	10	20	5,100	0.796	No	No	No	No
Thallium		7	700	70			0.144	No	No		
Vanadium		24	2,400	240		720	16.4	No	No		No
Zinc		250	5,000	2500		310,000	146	No	No		No
TPH											
Diesel							10				
Gasoline							1.8				

(a) Compared to TTLC Values

(b) Compared to 10X STLC Values

(c) Compared to 20X TC Values

Note: Only analytes detected in the sample are reported in the table. Blank cells indicate that the analyte is not listed in the corresponding state, federal, or regional screening criteria.

Table 10 - FM-16 Analytical Results

Analyte	TC mg/L	STLC mg/L	TTLC mg/Kg	10X STLC mg/Kg	20X TC mg/Kg	RSL mg/Kg	Sample Result mg/Kg	Hazardous?[(a)]	Potentially Hazardous?[(b)]	Potentially Hazardous?[(c)]	Above RSL?
VOCs											
2-Butanone	200				4,000	200,000	0.014			No	No
Acetone						630,000	0.048				No
Carbon Disulfide						3,700	0.0024				No
Metals											
Arsenic	5	5	500	50	100	1.6	1.07	No	No	No	No
Barium	100	100	10,000	1000	2000	190,000	68.8	No	No	No	No
Cobalt		80	8,000	800		300	1.81	No	No		No
Copper		25	2,500	250		41,000	3.5	No	No		No
Lead	5	5	1,000	50	100	800	3.08	No	No	No	No
Nickel		20	2,000	200		20,000	3.85	No	No		No
Thallium		7	700	70			0.109	No	No		
Vanadium		24	2,400	240		720	8.71	No	No		No
Zinc		250	5,000	2500		310,000	19.9	No	No		No
TPH											
Diesel							8.7				

(a) Compared to TTLC Values
(b) Compared to 10X STLC Values
(c) Compared to 20X TC Values
Note: Only analytes detected in the sample are reported in the table. Blank cells indicate that the analyte is not listed in the corresponding state, federal, or regional screening criteria.

Table 11 - FR 1 Analytical Results

Analyte	TC mg/L	STLC mg/L	TTLC mg/Kg	10X STLC mg/Kg	20X TC mg/Kg	RSL mg/Kg	Sample Result mg/Kg	Hazardous?[(a)]	Potentially Hazardous?[(b)]	Potentially Hazardous?[(c)]	Above RSL?
Lead	5	5	1,000	50	100	800	9.81	No	No	No	No

(a) Compared to TTLC Values
(b) Compared to 10X STLC Values
(c) Compared to 20X TC Values
Note: Only analytes detected in the sample are reported in the table.

Table 12 - FR 1 Duplicate Analytical Results

Analyte	TC mg/L	STLC mg/L	TTLC mg/Kg	10X STLC mg/Kg	20X TC mg/Kg	RSL mg/Kg	Sample Result mg/Kg	Hazardous?[(a)]	Potentially Hazardous?[(b)]	Potentially Hazardous?[(c)]	Above RSL?
Lead	5	5	1,000	50	100	800	10.8	No	No	No	No

(a) Compared to TTLC Values
(b) Compared to 10X STLC Values
(c) Compared to 20X TC Values
Note: Only analytes detected in the sample are reported in the table.

Table 13 - FR 2 Analytical Results

Analyte	TC mg/L	STLC mg/L	TTLC mg/Kg	10X STLC mg/Kg	20X TC mg/Kg	RSL mg/Kg	Sample Result mg/Kg	Hazardous?[(a)]	Potentially Hazardous?[(b)]	Potentially Hazardous?[(c)]	Above RSL?
Lead	5	5	1,000	50	100	800	5.41	No	No	No	No

(a) Compared to TTLC Values
(b) Compared to 10X STLC Values
(c) Compared to 20X TC Values
Note: Only analytes detected in the sample are reported in the table.

FIGURES

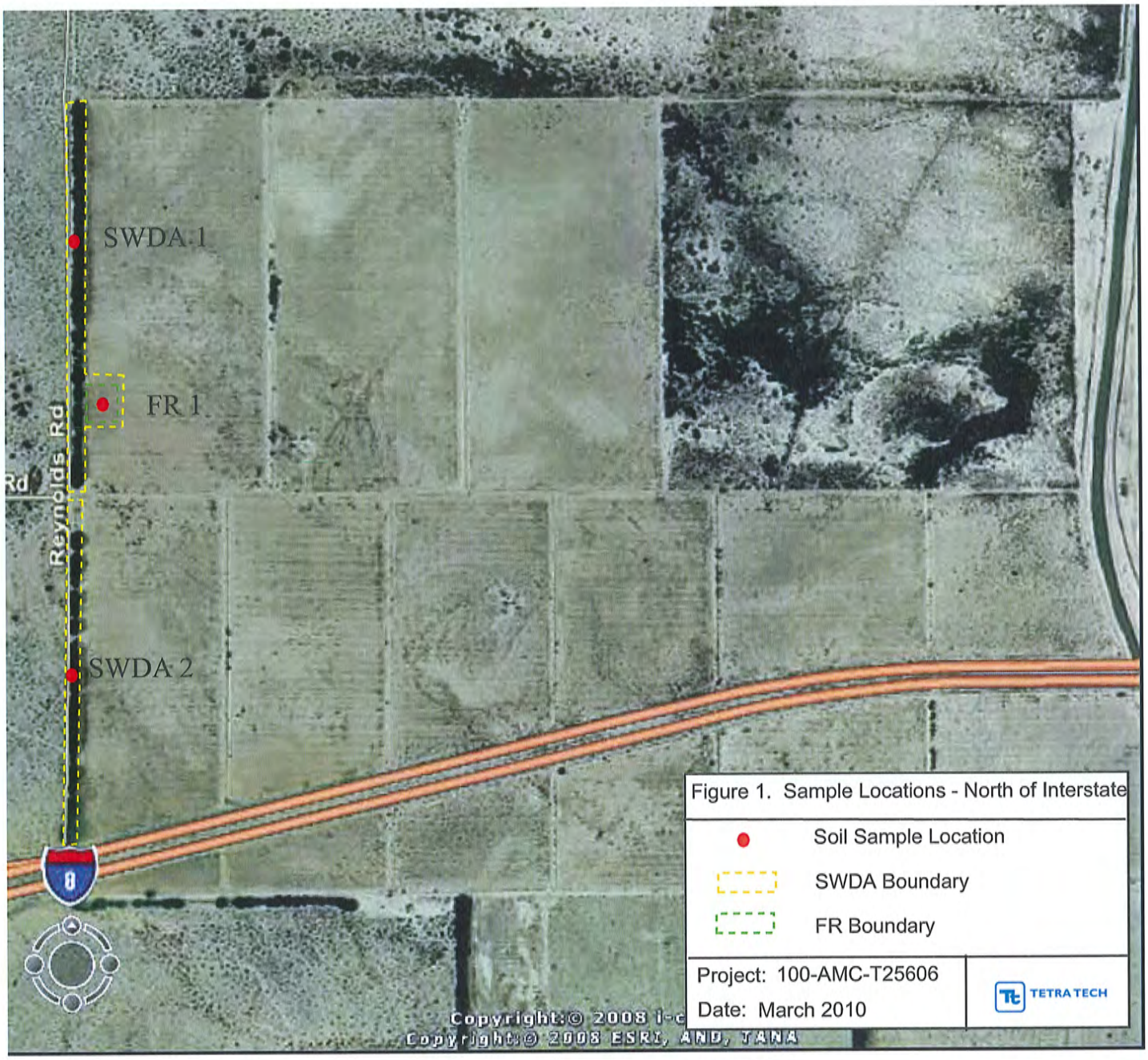


Figure 1. Sample Locations - North of Interstate

Soil Sample Location

SWDA Boundary

FR Boundary

Project: 100-AMC-T25606

Date: March 2010

TETRA TECH

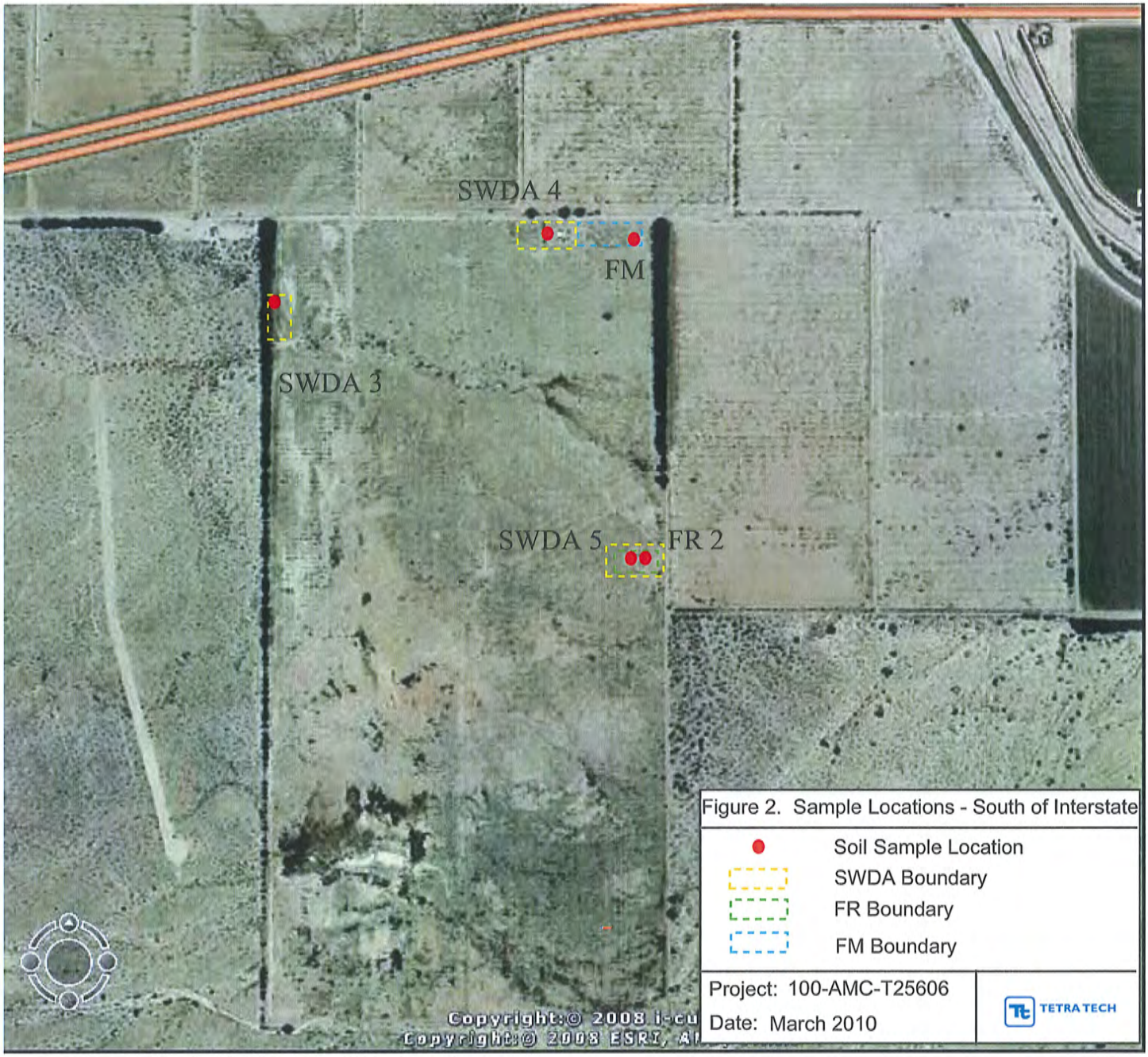


Figure 2. Sample Locations - South of Interstate

APPENDIX A

IMPERIAL COUNTY PLANNING AND BUILDING DEPARTMENT

☐ INSTALLATION PERMIT ☒ GRADING PERMIT ☐ DEMOLITION PERMIT	☐ CONSTRUCTION PERMIT ☐ ELECTRICAL PERMIT ☐ MECHANICAL PERMIT ☐ PLUMBING PERMIT	PERMIT 052718 03/01/2019

ISSUE TO GRANITE CONSTRUCTION

NAME OF OWNER OMNI FINANCIAL/CURA FINANCIAL/DAVID L WOOD REVC TRUST

ADDRESS OF OWNER 5540 RUFFIN RD SAN DIEGO 92123

BUILDING ADDRESS 1752 DUNAWAY RD OCOTILLO 92259

ASSESSORS PARCEL NUMBER 051-010-007-001

THIS PERMIT AUTHORIZES G

INTENDED TO BE USED AS DIG 3 TRENCHES SO TETRA TECH CAN COLLECT SAMPLES

VALUATION $_____ ISSUED BY C Derrick J HEUBERGER

BUILDING OFFICIAL

NOTICE: THIS PERMIT SHALL EXPIRE IF THE WORK IS NOT COMMENCED WITHIN 180 DAYS OF ISSUANCE OR IF WORK IS ABANDONED OR SUSPENDED FOR A PERIOD OF 180 DAYS.

02/25/2010 Matefield CD

PERMIT APPLICATION

I.C. PLANNING & DEVELOPMENT SERVICES DEPT
801 Main Street, El Centro, CA 92243 (760) 482-4236

☐ BUILDING	☐ DEMOLITION	☐ NEW RESIDENTIAL	☐ REMODEL RESIDENTIAL
☐ ELECTRICAL	☒ GRADING	☐ NEW COMMERCIAL	☐ REMODEL COMMERCIAL
☐ MECHANICAL	☐ POOL	☐ NEW INDUSTRIAL	☐ REMODEL INDUSTRIAL
☐ PLUMBING	☐ SIGN	☐	☐

COMPLETE ALL NUMBERED SPACES! PLEASE TYPE OR PRINT! READ INSTRUCTIONS ON THE BACK!

1.	PROPERTY OWNERS NAME OMNI Financial / CURA Financial / David L Wood Revocable Trust	EMAIL ADDRESS martin@shermanandboone.com	
2.	MAILING ADDRESS 5540 Ruffin Rd San Diego CA	ZIP CODE 92123	PHONE NUMBER 831-464-5021
3.	PROJECT SITE ADDRESS 1752 DUNAWAY ROAD Southeast of Dunaway Rd Exit off of Interstate 8	LOCATION Ocotillo CA 92259	
4.	ASSESSOR'S PARCEL NO. 051010007000	LEGAL DESCRIPTION Section 24, Township 16 South, Range 11 East, SBM	
5.	DESCRIBE INTENDED USE Temporary ground disturbances for soil sampling purposes only - No permanent structures will be built		
6.	DESCRIBE (CLEARLY) THE PROPOSED WORK Backhoe operator (contractor) will dig 3 shallow trenches (<4 ft deep, <15 ft long, <5 ft wide) so Tetra Tech can collect soil samples		
7.	ARCHITECT / ENGINEER LICENSE NO. Matt Manderfeld - Tetra Tech (Environmental Scientist)	EMAIL ADDRESS matt.manderfeld@tetratech.com	
8.	MAILING ADDRESS 12120 Port Grace Blvd Suite 102 Omaha NE	ZIP CODE 68128	PHONE NUMBER 651-497-4186
9.	CONTRACTORS NAME LICENSE NO. Granite Construction, Inc. 89	EMAIL ADDRESS jim.langley@gcinc.com	
10.	MAILING ADDRESS 2095 Hwy 11 El Centro, CA	ZIP CODE 92243	PHONE NUMBER 760-337-3030

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations:

☒ I have and will maintain a certificate of self-insurance for workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work which this permit is issued.

☐ I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number:

Policy Number: _____ Carrier: _____

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and Labor Code, I shall forthwith comply with these provision.

11. **Date:** 2-22-2010 **Applicant:** Granite Construction, Inc.

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

VALUATION	25 CY
ZONE AREA	A-2-R
OCCUPANCY GROUP	
CONSTRUCTION TYPE	

12. SIGNATURE OF OWNER: Martin Boone

13. SIGNATURE OF CONTRACTOR: [signature]

DATA	
ELECTRICAL APPROVAL	
GAS APPROVAL	
FINALED	EXPIRED
RECEIPT NO.	KA10 00126
DATE ISSUED	03/01/2010

APPROVALS REQUIRED			
WORKERS' COMPENSATION		PUBLIC WORKS	DATE
SCHOOL FEES		EHS	DATE
ARCHITECT COMMITTEE		FIRE / OES	DATE
REJECTED	RESUBMITTED	APCD / AG	DATE
SPECIAL LAND USE PERMIT		PLANNING	DATE RJC 2/23

SMI	
BUILDING PERMIT	305.16
PLAN CHECK	187.03
ELECTRICAL PERMIT	
PLUMBING PERMIT	
MECHANICAL PERMIT	
GENERAL PLAN	10.00
ZONE REVIEW	150.00
LEGAL SERVICE	
ADMINISTRATIVE	
FIRE MITIGATION	
ADDITIONAL	
SHERIFF MITIGATION	
OTHER	
FEE $	652.19

PERMIT NUMBER	RECEIVED BY: DATE	APPROVED BY: DATE
52718		SR 2/25/10

WHITE – OFFICE (MASTER) YELLOW – ASSESSOR PINK – APPLICANT XEROX COPY – PLAN FILE

PERMIT

READ

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations:

_____ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

_____ I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Policy Number_____ **Carrier**_____

_____ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

Date:_____ **Applicant:**_____

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

SIGN

I/We agree that by accepting this permit I/We agreed to comply with all laws pertaining to this construction, including the contractors license law, the building ordinance, workers compensation insurance, and any other law that governs construction.

SIGNATURE OF OWNER / Date	SIGNATURE OF CONTRACTOR / Date

Inspection requests may be also made via email.
The Inspection Request Form is located on our website:
www.imperialcounty.net/planning.

NOTICE:

This is your official PERMIT that authorizes you to perform the work described on the other side.

Please review the other side and make sure all information is correct.

Please remember that you are only permitted to perform the work authorized by this permit. If you change, add-to and/or alter the scope of work you may need to obtain additional permits.

If you have any questions please call the Department or ask your Inspector.

NOTE: It is your responsibility to request all inspections. DO NOT cover or conceal any work until it is approved by the Inspector and the field card is signed!

NOTE: Failure to follow Permit requirements, failure to have work inspected, and/or providing false information may result in your permit being revoked.
NOTE: A permit revoked due to an NSF check, or violations of conditions in the permit will result in a double fee.

Thank You,

Jurg Heuberger
Building Official

How to Request an Inspection:

1. CALL 482-4236. After the automated system answers, PRESS 4277 on your phone, this will route your inspection request automatically.

2. State the following information after the sound-of-the-tone: (Speak slow and clear).
   a. permit number _____
   b. address of project _____
   c. date of inspection _____
   d. permit name _____
   e. your telephone number _____
   f. type of inspection req. _____

3. Only if a specific time is absolutely necessary, take the following steps:
   a. Leave your request on the answering system, and leave your phone #._____
   b. On the day of the inspection, call the Planning & Development Services Department between 7:30-8:30 a.m., at 482-4236, and discuss your request with the Inspector.

NOTE: If you do not state your permit number, name and the address, no inspection will be done.
NOTE: Specific time inspection can not and will not be scheduled via the recording. You must talk to the Inspector between 7:30-8:30 a.m., on the day of the inspection!

Permit Doc 11.doc

Permit #: 0000052718
GRADING PERMIT

Job Address:	1752 DUNAWAY RD CNTY	Status:	ISSUED
Parcel No:	051-010-007-001	Issued:	03/01/2010
Location:	OCOTILLO 1752 DUNAWAY RD	Expires:	09/01/2010
App Type:	OTHER		

Applicant: OMNI FINANCIAL/CURA FINANCIAL/DAVID L WOOD REVOCABLE TRUST
Phone: 831.464.5021
5540 RUFFIN RD
Owner: OMNI FINANCIAL/CURA FINANCIAL/DAVID L WOOD REVOCABLE TRUST
Phone: 831.464.5021
5540 RUFFIN RD

Description:
DIG 3 SHALLOW TRENCHES SO TETRA TECH CAN COLLECT SOIL SAMPLES

Cubic Yards: 25 Zoning: A2R

FEE INFORMATION

Grading Inspection Fee:	$305.16	General Plan:	$10.00
Plan Check Fee:	$187.03	Zoning Review:	$150.00
Violation:	$0.00	Legal Service:	$0.00
Addl Plan Check Fee:	$0.00	Additional Inspection Fee:	$0.00

Total Calculated Fees:	$652.19
Additional Fees:	$0.00
Total Permit Fees:	$652.19

RECEIPT

Copy Reprinted on 03-01-2010 at 08:21:18 03/01/2010

RECEIPT NUMBER: R1000126

APD #: 0000052718 TYPE: GRADING PERMIT
SITE ADDRESS: 1752 DUNAWAY RD CNTY
PARCEL: 051-010-007-001

TRANSACTION DATE: 03/01/2010 TOTAL PAYMENT: **652.19**
TOTAL PAID FROM TRUST: **.00**
TOTAL PAID FROM CURRENCY: **652.19**

COUNTY DEP#??

TRANSACTION LIST:

Type	Method	Description	Amount
Payment	Credit C	8930	652.19
		TOTAL:	**652.19**

ACCOUNT ITEM LIST:

Description	Account Code	Current Pmts
GENERAL PLAN TRUST	7086000-301000	10.00
GRADING PERMITS	1035001-413000	305.16
PLAN CHECK FEES	7222000-301000	187.03
ZONING FEES	1041001-414000	150.00
	TOTAL:	**652.19**

RECEIPT ISSUED BY: CORRENNE INITIALS: CD
ENTERED DATE: 03/01/2010 TIME: 08:21 AM

This is your original copy of the **receipt** for funds received by the Imperial County Planning and Development Services Department for the above identified ***PERMIT***.

Please make sure this receipt is accurate and reflects the payment amount and the permit information referenced.

If you request cancellation of your permit and/or a refund, please understand that we can only refund a maximum of 70% of the total minus all costs already incurred to date.

If you have questions please direct them to this office at (760) 482-4236.

Thank you for your cooperation!

Correnne Durrick

Jurg Heuberger, AICP, CEP
Building Official / Director of Planning & Development Services

CC: Auditor/Controller
Permit File

Permitrc.doc

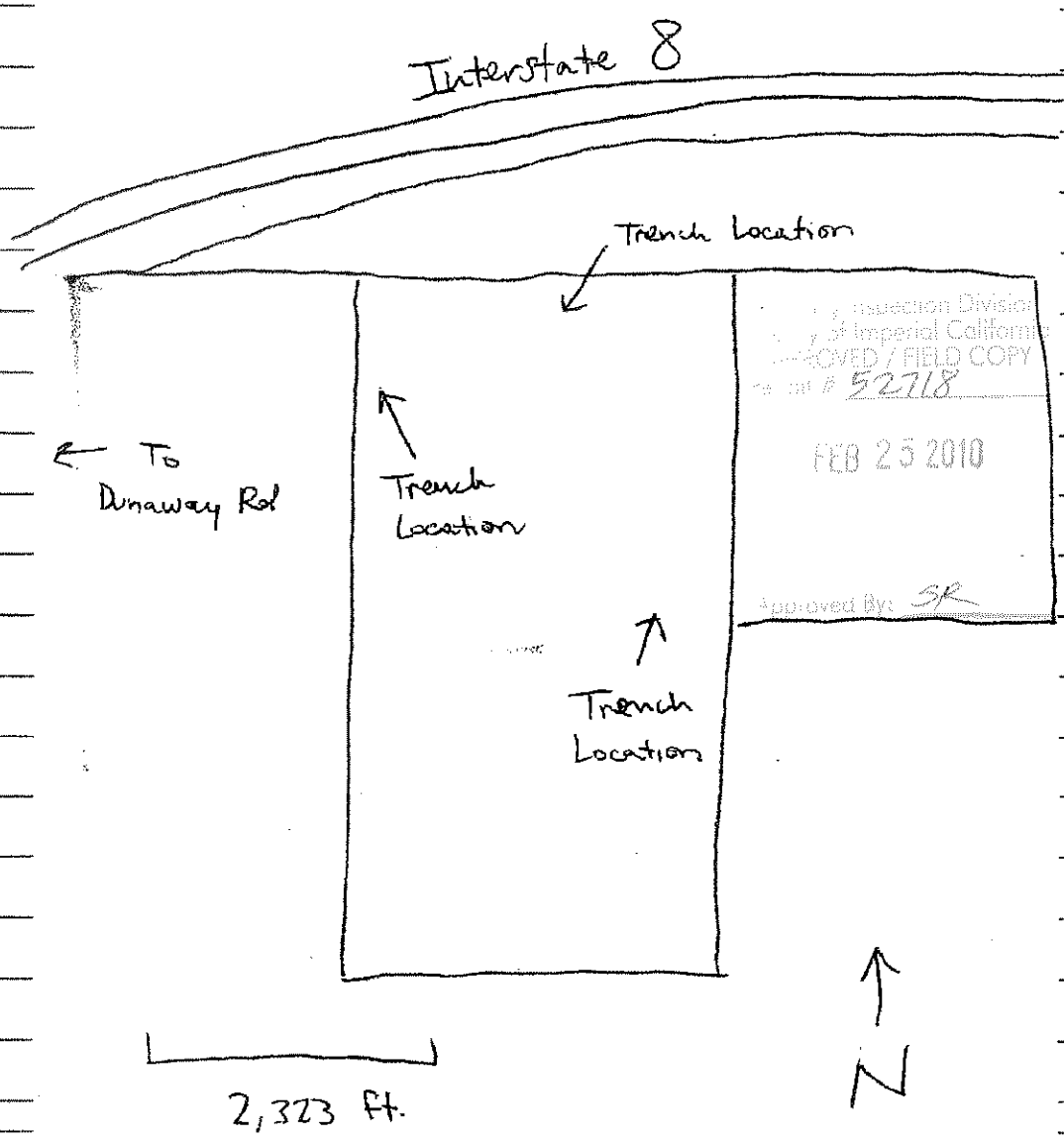
SITE PLAN

I.C. PLANNING & DEVELOPMENT SERVICES DEPT
801 Main Street, El Centro, CA 92243 (760) 482-4236

READ INSTRUCTIONS ON THE BACK ! USE PEN TO DRAW – DO NOT USE PENCIL!

DRAW SITE LAYOUT PLAN TO SCALE & COMPLETE ALL NUMBERED SPACES!

1



DRAW SITE LAYOUT PLAN TO SCALE & COMPLETE ALL NUMBERED SPACES!

NAME OF APPLICANT	APPLICANT PHONE NO.	SIZE OF PARCEL
2 Tetra Tech, Inc.	3 651-497-4186	4

PROJECT SITE ADDRESS	ASSESSORS PARCEL NO.
5 Southeast of Dunaway Rd Exit off of Interstate 8	6 051010007000

WHITE - OFFICE MASTER / YELLOW - ASSESSORS / PINK - APPLICANT

INSPECTION RECORD

REQUEST INSPECTIONS AT LEAST 24 HOURS IN ADVANCE – 482-4236

ONLY ITEMS SIGNED & DATED ARE APPROVED!

PHASE I		NOTES	DATE	APPROVED BY
	COMPACTION REPORTS			
	SET BACKS			
	EXCAVATION			
	FORMS			
	REINFORCING			
	ELECTRICAL (ground-work)			
	PLUMBING (ground-work)			
	WATER SERVICE			
	GAS LINE (ground-work)			
	SEWER LINE (ground-work)			
	TERMITE TREATMENT			
	EPOXY ANCHOR BOLTS			
	TIE DOWN SYSTEM PADS & PIERS			
	TEMPORARY CONSTRUCTION POWER			

IF PHASE I, *IS NOT APPROVED* DO NOT PROCEED!

PHASE II		NOTES	DATE	APPROVED BY
	ROOF SYSTEMS & NAILING			
	FRAMING & STRUCTURAL			
	ELECTRICAL (rough-in)			
	PLUMBING (rough-in)			
	GAS (rough-in)			
	GAS TEST 6oz.-8oz. (MOBILE HOMES)			
	H.V.A.C. DUCT			
	VENTS			
	CHIMNEY TIES			
	RING OUT (MOBILE HOMES)			
	CONC. BLOCK			

IF PHASE II, *IS NOT APPROVED* DO NOT PROCEED!

III		NOTES	DATE	APPROVED BY
	INSULATION			
	EXTERIOR LATHE			
	WALLBOARD			

IF PHASE III, *IS NOT APPROVED* DO NOT PROCEED!

PHASE IV		NOTES	DATE	APPROVED BY
	TEMPORARY ELECTRICAL (release form)			
	ENERGY COMPLIANCE			
	ELECTRICAL (finish)			
	PLUMBING (finish)			
	WATER HEATER			
	STAIRS, STEPS, RAILINGS			
	SMOKE DETECTORS			
	SEWER CONNECTION			
	WATER CONNECTION			
	GAS SERVICE			
	ELECTRIC SERVICE (amps)			
	WEATHER PROOFING			
	HEATING/AC FINISH			
	AWNING			
	SKIRTING			

EXPIRED			
FINALED		3-18-10	

PERMITTED WORK: G DIG 3 trenches SO TETRA TECH CAN COLLECT SAMPLES

OWNER: OMNI FINANCIAL/CURA FINANCIAL/DAVID L WOOD REVC TRUST

CONTRACTOR: GRANITE CONSTRUCTION

LOCATION: 1752 DUNAWAY RD OCOTILLO

Date Issued: 03/01/2010 PERMIT NO. 52718

* HAVE THIS CARD AVAILABLE AT SITE FOR INSPECTOR *

CORRECTION NOTICES

DATE	INSPECTOR	COMMENTS	R. – FEE

NOTES:

FEE COMPUTATION

QUANITY	ITEM		FEE
	ELECTRICAL PERMIT		
	MAIN SERVICE _____ AMP.		
	BREAKER OR OTHER CONTROL BOX		
	SWITCHES, LIGHTS, OUTLETS, ETC.		
	MOTORS, TRANSFORMERS, ETC.		
	OTHER _____		
		Sub. Total	$_____
	PLUMBING PERMIT		
	EACH FIXTURE OR TRAP		
	EACH SEWER CONNECTION		
	WATER LINE(S)		
	GAS LINE(S)		
	WATER HEATER		
	OTHER _____		
		Sub. Total	$_____
	MECHANICAL PERMIT		
	A / C WITH DUCTS (BTU _____)		
	VENTILATION FAN		
	RANGE HOOD		
	HEATING SYSTEM		
	OTHER_____		
		Sub. Total	$_____

IMPERIAL COUNTY PLANNING AND BUILDING DEPARTMENT

☐ INSTALLATION PERMIT
☒ GRADING PERMIT
☐ DEMOLITION PERMIT

☐ CONSTRUCTION PERMIT
☐ ELECTRICAL PERMIT
☐ MECHANICAL PERMIT
☐ PLUMBING PERMIT

PERMIT
052719
03/01/2010

ISSUE TO granit CONSTRUCTION

NAME OF OWNER OMNI FINANCIAL/CURA FINANICAL/ DAVID LWOOD REVC TRUST

ADDRESS OF OWNER 5540 RUFFIN RD SAN DIEGO 92123

BUILDING ADDRESS 1880 REYNOLDS RD OCOTILLO 92259

ASSESSORS PARCEL NUMBER 034-360-078-001

THIS PERMIT AUTHORIZES G

INTENDED TO BE USED AS DIG 2 SHALLOW TRENCHES SO TETRA TECH CAN COLLECT SAMPLES

VALUATION $ _____ ISSUED BY C Derrick J HEUBERGER

BUILDING OFFICIAL

NOTICE: THIS PERMIT SHALL EXPIRE IF THE WORK IS NOT COMMENCED WITHIN 180 DAYS OF ISSUANCE OR IF WORK IS ABANDONED OR SUSPENDED FOR A PERIOD OF 180 DAYS.

02/25/2010 notified CD

PERMIT APPLICATION

I.C. PLANNING & DEVELOPMENT SERVICES DEPT
801 Main Street, El Centro, CA 92243 (760) 482-4236

☐ BUILDING	☐ DEMOLITION	☐ NEW RESIDENTIAL	☐ REMODEL RESIDENTIAL
☐ ELECTRICAL	☒ GRADING	☐ NEW COMMERCIAL	☐ REMODEL COMMERCIAL
☐ MECHANICAL	☐ POOL	☐ NEW INDUSTRIAL	☐ REMODEL INDUSTRIAL
☐ PLUMBING	☐ SIGN	☐	☐

COMPLETE ALL NUMBERED SPACES! PLEASE TYPE OR PRINT! READ INSTRUCTIONS ON THE BACK!

1.	PROPERTY OWNERS NAME OMNI Financial / CURA Financial / David L Wood Revocable Trust	EMAIL ADDRESS martin@shermanandboone.com	
2.	MAILING ADDRESS 5540 Ruffin Rd San Diego CA	ZIP CODE 92123	PHONE NUMBER 831-464-5021
3.	PROJECT SITE ADDRESS 1880 REYNOLDS ROAD East of the intersection of Strobel Rd and Reynolds Rd	LOCATION Ocotillo CA 92259	
4.	ASSESSOR'S PARCEL NO. 034360078000	LEGAL DESCRIPTION Section 13 Township 16 South Range 11 East, SBM	
5.	DESCRIBE INTENDED USE Temporary ground disturbances for soil sampling purposes only - No permanent structures will be built		
6.	DESCRIBE (CLEARLY) THE PROPOSED WORK Backhoe operator (contractor) will dig 2 shallow trenches (<4 ft deep, <15 ft long, <5 ft wide) so Tetra Tech can collect soil samples		
7.	ARCHITECT / ENGINEER LICENSE NO. Matt Manderfeld - Tetra Tech (Environmental Scientist)	EMAIL ADDRESS matt.manderfeld@tetratech.com	
8.	MAILING ADDRESS 12120 Port Grace Blvd Suite 102 Omaha NE	ZIP CODE 68128	PHONE NUMBER 651-497-4186
9.	CONTRACTORS NAME LICENSE NO. Granite Construction, Inc. 89	EMAIL ADDRESS jim.langley@gcinc.com	
10.	MAILING ADDRESS 2095 Hwy 11 El Centro, CA	ZIP CODE 92243	PHONE NUMBER 760-337-3030

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations:

☒ I have and will maintain a certificate of self-insurance for workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work which this permit is issued.

☐ I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number:

Policy Number: Carrier:

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and Labor Code, I shall forthwith comply with these provision.

11. Date: 2-22-2010 **Applicant:** Granite Construction, Inc.

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

VALUATION	17cy
ZONE AREA	A3/A2R
OCCUPANCY GROUP	
CONSTRUCTION TYPE	

12. SIGNATURE OF OWNER	13. SIGNATURE OF CONTRACTOR

DATA		APPROVALS REQUIRED			
ELECTRICAL APPROVAL		WORKERS' COMPENSATION		PUBLIC WORKS	DATE
GAS APPROVAL		SCHOOL FEES		EHS	DATE
FINALED	EXPIRED	ARCHITECT COMMITTEE		FIRE / OES	DATE
RECEIPT NO. R# 100137		REJECTED	RESUBMITTED	APCD / AG	DATE
DATE ISSUED 02/01/2010		SPECIAL LAND USE PERMIT		PLANNING BR	DATE 2/23

SMI	
BUILDING PERMIT	208.16
PLAN CHECK	187.08
ELECTRICAL PERMIT	
PLUMBING PERMIT	
MECHANICAL PERMIT	
GENERAL PLAN	14.00
ZONE REVIEW	150.00
LEGAL SERVICE	
ADMINISTRATIVE	
FIRE MITIGATION	
ADDITIONAL	
SHERIFF MITIGATION	
OTHER	
FEE $	652.17

PERMIT NUMBER 52719	RECEIVED BY: DATE	APPROVED BY: SR DATE 2/25/10

WHITE – OFFICE (MASTER) YELLOW – ASSESSOR PINK – APPLICANT XEROX COPY – PLAN FILE

402-933-1345 2055 ext
tetra tech - Matt Manderfeld

PERMIT

READ

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations:

_____ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

_____ I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Policy Number_____ **Carrier**_____

_____ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

Date:_____ Applicant:_____

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

SIGN

I/We agree that by accepting this permit I/We agreed to comply with all laws pertaining to this construction, including the contractors license law, the building ordinance, workers compensation insurance, and any other law that governs construction.

SIGNATURE OF OWNER / Date	SIGNATURE OF CONTRACTOR / Date

Inspection requests may be also made via email.
The Inspection Request Form is located on our website:
www.imperialcounty.net/planning.

NOTICE:

This is your official PERMIT that authorizes you to perform the work described on the other side.

Please review the other side and make sure all information is correct.

Please remember that you are only permitted to perform the work authorized by this permit. If you change, add-to and/or alter the scope of work you may need to obtain additional permits.

If you have any questions please call the Department or ask your Inspector.

NOTE: It is your responsibility to request all inspections. DO NOT cover or conceal any work until it is approved by the Inspector and the field card is signed!

NOTE: Failure to follow Permit requirements, failure to have work inspected, and/or providing false information may result in your permit being revoked.
NOTE: A permit revoked due to an NSF check, or violations of conditions in the permit will result in a double fee.

Thank You,

Jurg Heuberger
Building Official

How to Request an Inspection:

1. CALL 482-4236. After the automated system answers, PRESS 4277 on your phone, this will route your inspection request automatically.

2. State the following information after the sound-of-the-tone: (Speak slow and clear).
   a. permit number _____
   b. address of project _____
   c. date of inspection _____
   d. permit name _____
   e. your telephone number _____
   f. type of inspection req. _____

3. Only if a specific time is absolutely necessary, take the following steps:
   a. Leave your request on the answering system, and leave your phone #._____
   b. On the day of the inspection, call the Planning & Development Services Department between 7:30-8:30 a.m., at 482-4236, and discuss your request with the Inspector.

NOTE: If you do not state your permit number, name and the address, no inspection will be done.
NOTE: Specific time inspection can not and will not be scheduled via the recording. You must talk to the Inspector between 7:30-8:30 a.m., on the day of the inspection!

Permit Doc 11.doc

Permit #: 0000052719
GRADING PERMIT

Job Address:	1880 REYNOLDS RD CNTY	Status:	ISSUED
Parcel No:	034-362-078-001	Issued:	03/01/2010
Location:	OCOTILLO 1880 REYNOLDS RD	Expires:	08/01/2010
App Type:	OTHER		

Applicant: OMNI FINANCIAL/CURA FINANCIAL/DAVID L WOOD REVOCABLE TRUST
Phone: 831.464.5021
5540 RUFFIN RD
Owner: OMNI FINANCIAL/CURA FINANCIAL/DAVID L WOOD REVOCABLE TRUST
Phone: 831.464.5021
5540 RUFFIN RD

Description:
DIG 2 SHALLOW TRENCHES SO TETRA TECH CAN COLLECT SOIL SAMPLES

Cubic Yards: 17 Zoning: A3/A2R

FEE INFORMATION

Grading Inspection Fee:	$305.16	General Plan:	$10.00
Plan Check Fee:	$187.03	Zoning Review:	$150.00
Violation:	$0.00	Legal Service:	$0.00
Addl Plan Check Fee:	$0.00	Additional Inspection Fee:	$0.00

Total Calculated Fees:	$652.19
Additional Fees:	$0.00
Total Permit Fees:	$652.19

RECEIPT

Copy Reprinted on 03-01-2010 at 08:28:07 03/01/2010

RECEIPT NUMBER: R1000127

APD #: 0000052719 TYPE: GRADING PERMIT
SITE ADDRESS: 1880 REYNOLDS RD CNTY
PARCEL: 034-362-078-001

TRANSACTION DATE: 03/01/2010 TOTAL PAYMENT: **652.19**
TOTAL PAID FROM TRUST: **.00**
TOTAL PAID FROM CURRENCY: **652.19**

COUNTY DEP#??

TRANSACTION LIST:

Type	Method	Description	Amount
Payment	Credit C	8930	652.19
		TOTAL:	**652.19**

ACCOUNT ITEM LIST:

Description	Account Code	Current Pmts
GENERAL PLAN TRUST	7086000-301000	10.00
GRADING PERMITS	1035001-413000	305.16
PLAN CHECK FEES	7222000-301000	187.03
ZONING FEES	1041001-414000	150.00
	TOTAL:	**652.19**

RECEIPT ISSUED BY: CORRENNE INITIALS: CD
ENTERED DATE: 03/01/2010 TIME: 08:27 AM

This is your original copy of the **receipt** for funds received by the Imperial County Planning and Development Services Department for the above identified ***PERMIT***.

Please make sure this receipt is accurate and reflects the payment amount and the permit information referenced.

If you request cancellation of your permit and/or a refund, please understand that we can only refund a maximum of 70% of the total minus all costs already incurred to date.

If you have questions please direct them to this office at (760) 482-4236.

Thank you for your cooperation!

Correnne Derrick

Jurg Heuberger, AICP, CEP
Building Official / Director of Planning & Development Services

CC: Auditor/Controller
Permit File

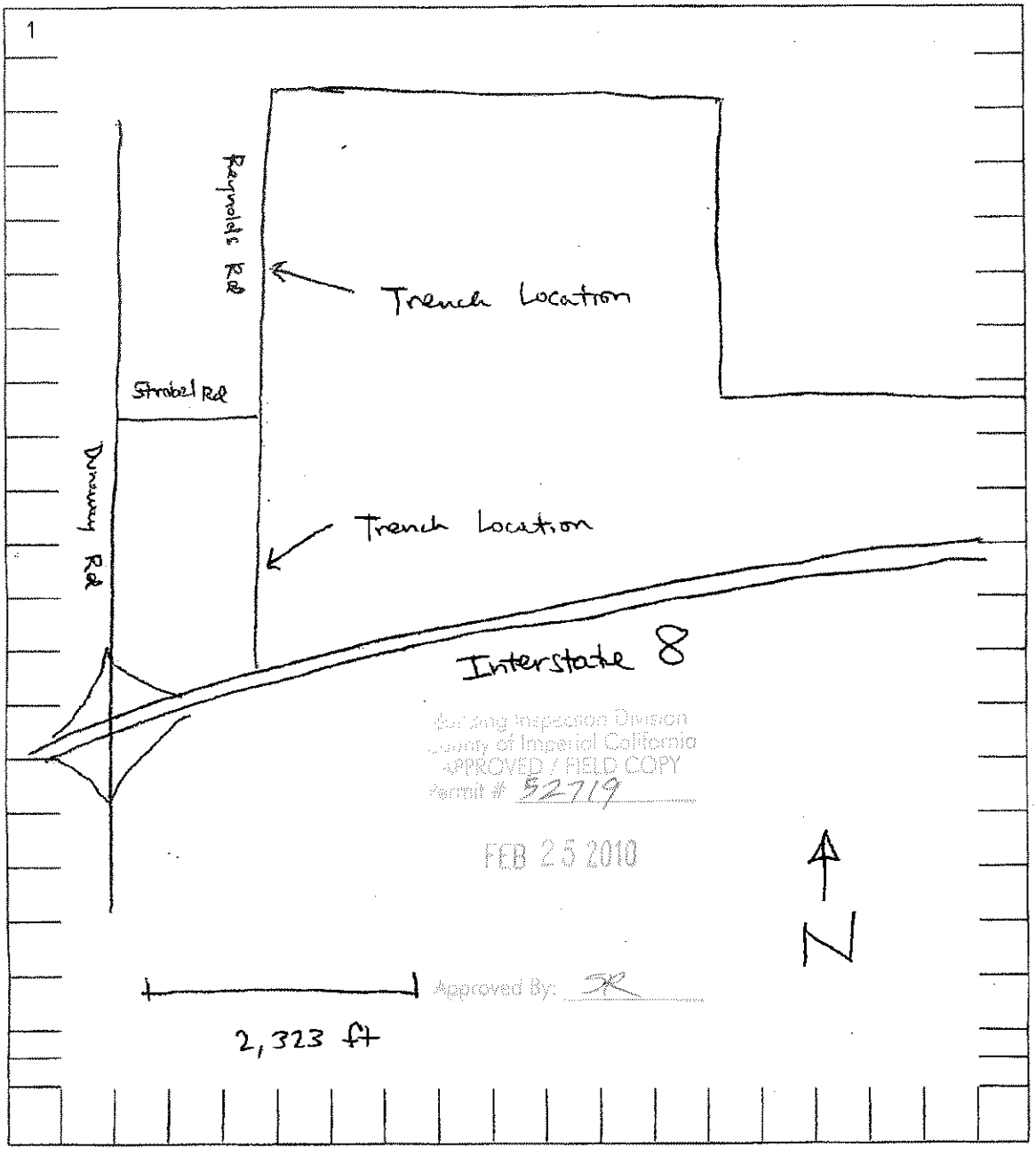
Permitrc.doc

SITE PLAN

I.C. PLANNING & DEVELOPMENT SERVICES DEPT
801 Main Street, El Centro, CA 92243 (760) 482-4236

READ INSTRUCTIONS ON THE BACK ! USE PEN TO DRAW – DO NOT USE PENCIL!

DRAW SITE LAYOUT PLAN TO SCALE & COMPLETE ALL NUMBERED SPACES!



Building Inspection Division
County of Imperial California
APPROVED / FIELD COPY
Permit # 52719
FEB 25 2010
Approved By: JR

DRAW SITE LAYOUT PLAN TO SCALE & COMPLETE ALL NUMBERED SPACES!

NAME OF APPLICANT	APPLICANT PHONE NO.	SIZE OF PARCEL
2 Tetra Tech, Inc.	3 651-497-4186	4

PROJECT SITE ADDRESS	ASSESSORS PARCEL NO.
5 East of the intersection of Strobel Rd and Reynolds Rd	6 034360078000

WHITE - OFFICE MASTER / YELLOW - ASSESSORS / PINK - APPLICANT

INSPECTION RECORD

REQUEST INSPECTIONS AT LEAST 24 HOURS IN ADVANCE – 482-4236

ONLY ITEMS SIGNED & DATED ARE APPROVED!

PHASE I		NOTES	DATE	APPROVED BY
	COMPACTION REPORTS			
	SET BACKS			
	EXCAVATION			
	FORMS			
	REINFORCING			
	ELECTRICAL (ground-work)			
	PLUMBING (ground-work)			
	WATER SERVICE			
	GAS LINE (ground-work)			
	SEWER LINE (ground-work)			
	TERMITE TREATMENT			
	EPOXY ANCHOR BOLTS			
	TIE DOWN SYSTEM PADS & PIERS			
	TEMPORARY CONSTRUCTION POWER			

IF PHASE I, *IS NOT APPROVED* DO NOT PROCEED!

PHASE II		NOTES	DATE	APPROVED BY
	ROOF SYSTEMS & NAILING			
	FRAMING & STRUCTURAL			
	ELECTRICAL (rough-in)			
	PLUMBING (rough-in)			
	GAS (rough-in)			
	GAS TEST 6oz.-8oz. (MOBILE HOMES)			
	H.V.A.C. DUCT			
	VENTS			
	CHIMNEY TIES			
	RING OUT (MOBILE HOMES)			
	CONC. BLOCK			

IF PHASE II, *IS NOT APPROVED* DO NOT PROCEED!

III		NOTES	DATE	APPROVED BY
	INSULATION			
	EXTERIOR LATHE			
	WALLBOARD			

IF PHASE III, *IS NOT APPROVED* DO NOT PROCEED!

PHASE IV		NOTES	DATE	APPROVED BY
	TEMPORARY ELECTRICAL (release form)			
	ENERGY COMPLIANCE			
	ELECTRICAL (finish)			
	PLUMBING (finish)			
	WATER HEATER			
	STAIRS, STEPS, RAILINGS			
	SMOKE DETECTORS			
	SEWER CONNECTION			
	WATER CONNECTION			
	GAS SERVICE			
	ELECTRIC SERVICE (_____ amps)			
	WEATHER PROOFING			
	HEATING/AC FINISH			
	AWNING			
	SKIRTING			

EXPIRED			
FINALED		3-18-10	

PERMITTED WORK: DIG 2 SHALLOW TRENCHES SO TETRA TECH CAN COLLECT SOIL SAMPLES

OWNER: OMNI FINANCIAL/CORA FINANCIAL/DAVID L WOOD REV TRUST

CONTRACTOR: GRANTT CONSTRUCTION

LOCATION: 1880 REYNOLDS RD OCOTILLO

Date Issued: 03/01/2010 PERMIT NO. 52719

* HAVE THIS CARD AVAILABLE AT SITE FOR INSPECTOR *

IMPERIAL COUNTY – PLANNING & DEVELOPMENT SERVICES DEPT.
801 MAIN STREET, EL CENTRO, CA 92243

s:/forms_lists/inspcard - black

CORRECTION NOTICES

DATE	INSPECTOR	COMMENTS	R. – FEE

NOTES:

FEE COMPUTATION

QUANITY	ITEM		FEE
	ELECTRICAL PERMIT		
	MAIN SERVICE _____ AMP.		
	BREAKER OR OTHER CONTROL BOX		
	SWITCHES, LIGHTS, OUTLETS, ETC.		
	MOTORS, TRANSFORMERS, ETC.		
	OTHER _____		
		Sub. Total	$_____
	PLUMBING PERMIT		
	EACH FIXTURE OR TRAP		
	EACH SEWER CONNECTION		
	WATER LINE(S)		
	GAS LINE(S)		
	WATER HEATER		
	OTHER _____		
		Sub. Total	$_____
	MECHANICAL PERMIT		
	A / C WITH DUCTS (BTU _____)		
	VENTILATION FAN		
	RANGE HOOD		
	HEATING SYSTEM		
	OTHER_____		
		Sub. Total	$_____

APPENDIX B

Manderfeld, Matt

From: noreply@digalert.org

Sent: Wednesday, February 17, 2010 6:00 PM

To: Manderfeld, Matt

Subject: USAS EMLCFM 2010/02/17 #00881A A00481275-00A NORM NEW

```
EMLCFM 00881A USAS 02/17/10 16:00:22 A00481275-00A NORM NEW GRID

Thank you for calling Underground Service Alert of Southern
California.  This is an automatically generated confirmation of
your DigAlert.  For your safety, please respect and protect the
marks, and excavate carefully around the marked utility lines.

This email comes from an automated program that is NOT MONITORED.
DO NOT REPLY BACK TO THIS EMAIL.

Ticket : A00481275 Date: 02/17/10 Time: 15:31 Oper: LRL Chan: 100
Old Tkt: A00481275 Date: 02/17/10 Time: 16:00 Oper: LRL Revision: 00A
State: CA County: IMPERIAL             Place: OCOTILLO
Locat: 4 AREAS:   FROM A POINT ON DUNAWAY RD AT APPROX 730FT S/OF THE THE S/SIDE
     : OF THE 8 FWY AND CONT E/ON THE UN-NAMED ROAD (SHOWN ON MAP) FOR APPROX
     : 4000FT, THEN AT THIS POINT CONT S/FOR APPROX 300FT TO THE START OF THE
     : LOCATION (WHICH IS A BOUNDED AREA)  THEN CONT E/FOR APPROX 100FT, THEN AT
     : THIS POINT CONT S/FOR APPROX 400FT, THEN AT THIS POINT W/FOR APPROX
     : 100FT, THEN AT THIS POINT CONT N/FOR APPROX 400FT BACK TO THE STARTING
     : POINT;   ALSO ANOTHER BOUNDED AREA - FROM THE UNNAMED-ROAD AT APPROX
     : 5600FT E/OF DUNAWAY RD AND CONT E/FOR APPROX 900FT, THEN AT THIS POINT
     : CONT S/FOR APPROX 200FT, THEN AT THIS POINT CONT W/FOR APPROX 900FTM THEN
     : AT THIS POINT CONT N/FOR APPROX 200FT BACK TO THE STARTING POINT;   ALSO
     : FROM A POINT ON THE UNNAMED-ROAD AT APPROX 6500FT E/OF DUNAWAY RD AND
     : CONT S/FOR APPROX 1900FT TO THE N/SIDE OF THE BOUNDED AREA -  THEN AT
     : THIS POINT CONT W/FOR APPROX 250FT, THEN AT THIS POINT CONT S/FOR APPROX
     : 600FT, THEN AT THIS POINT CONT E/FOR APPROX 250FT, THEN AT THIS POINT
     : CONT N/FOR APPROX 600FT BACK TO THE STARTING POINT;    ALSO FROM A POINT
     : ON THE UN-NAMED ROAD AT APPROX 9200FT E/OF DUNAWAY RD AND CONT S/FOR
     : APPROX 100FT, THEN AT THIS POINT CONT E/FOR APPROX 380FT, THEN AT THIS
     : POINT CONT N/FOR APPROX 100FT, THEN AT THIS POINT CONT W/FOR APRPOX 380FT
     : BACK TO THE STARTING POINT;   (LOCATIONS AREA PARTLY IN OCOTILLO, AND
     : PARTLY IN EL CENTRO)
Address: DUNAWAY RD
X/ST 1 : 8 FWY
Grids: 0430K06      0430L06                                 Delineated: N
Lat/Long  : 32.769857/-115.789651 32.769759/-115.770019
          : 32.762170/-115.789689 32.762072/-115.770057
Caller GPS:

Boring: Y  Explosives: N  Vacuum: N

Re-Mark: N

Work : DRILLING FOR SOIL & GROUNDWATER TESTING
Work date: 02/22/10 Time: 12:00 Priority: 2
Instruct : MARK BY                Permit   : NOT REQUIRED
Done for : TETRA TECH INC

Company: GREGG DRILLING                 Caller: MATT - TETRA TECH INC
```

Address: 2726 WALNUT AVE
City&St: SIGNAL HILL, CA Zip: 90755 Fax: 562-424-2329
Phone: 562-427-6899 Ext: Call back: ANY
Formn: MATT - TETRA TECH INC Phone: 651-497-4186 Ext: CELL
Email: MATT.MANDERFELD@TETRATECH.COM
Mbrs :

ATTD28SD AT&T - DISTRIBUTION	SBC DAMAGE PREVENTION HO	510-645-2929
ELMLCIMC01 ELM 4 IMP VLY CBLE (TIME	ELM LOCATORS	406-728-9343
IID01DIST IMPERIAL IRRIGATION - ELEC	IMPERIAL IRRIGATION	760-339-0504
IID03 IMPERIAL IRRIGATION - WTR	KERRY VAN BEBBER	760-339-9413
IMC01 IMPERIAL VLY CBL (TIME WARNER	EFREN OBESO	760-335-4813
SCG1OR SC GAS - EL CENTRO	CAROL ALLEN	909-335-7553
UATTNAVSD UTILIQUEST FOR AT&T ON BAS	RICHARD HIMES	800-372-1125

Manderfeld, Matt

From: noreply@digalert.org
Sent: Wednesday, February 17, 2010 5:31 PM
To: Manderfeld, Matt
Subject: USAS EMLCFM 2010/02/17 #00857A A00481234-01A NORM RXMT

```
EMLCFM 00857A USAS 02/17/10 15:31:09 A00481234-01A NORM RXMT GRID

Thank you for calling Underground Service Alert of Southern
California.  This is an automatically generated confirmation of
your DigAlert.  For your safety, please respect and protect the
marks, and excavate carefully around the marked utility lines.

This email comes from an automated program that is NOT MONITORED.
DO NOT REPLY BACK TO THIS EMAIL.

Ticket : A00481234 Date: 02/17/10 Time: 15:30 Oper: LRL Chan: 100
Old Tkt: A00481234 Date: 02/17/10 Time: 15:30 Oper: LRL Revision: 01A
State: CA County: IMPERIAL             Place: OCOTILLO
Locat: AREA BOUNDED BY:  W/BY REYNOLDS RD, E/BY APPROX 500FT E/OF REYNOLDS RD,
     : N/BY APPROX 500FT S/OF THE INTER/OF REYNOLDS & STROBEL RD, S/BY APPROX
     : 2000FT S/OF THE INTER/OF REYNOLDS & STROBEL RD;   ALSO A 50FT WIDE STRIP
     : ON THE E/SIDE OF REYNOLDS RD FROM APPROX 500FT S/OF STROBEL RD AND CONT
     : N/FOR APPROX 2500FT;
Address: REYNOLDS RD
X/ST 1 : STROBEL RD
Grids: 0430K06                                              Delineated: N
Lat/Long  : 32.782586/-115.796853 32.782691/-115.794287
          : 32.770825/-115.796372 32.770930/-115.793807
Caller GPS:

Boring: Y  Explosives: N  Vacuum: N

Re-Mark: N

Work : DRILLING FOR SOIL & GROUNDWATER TESTING
Work date: 02/22/10 Time: 12:00 Priority: 2
Instruct : MARK BY                Permit   : NOT REQUIRED
Done for : TETRA TECH INC

Company: GREGG DRILLING                 Caller: MATT - TETRA TECH INC
Address: 2726 WALNUT AVE
City&St: SIGNAL HILL, CA                Zip: 90755      Fax: 562-424-2329
Phone: 562-427-6899 Ext:      Call back: ANY
Formn: MATT - TETRA TECH INC Phone: 651-497-4186 Ext: CELL
Email: MATT.MANDERFELD@TETRATECH.COM

                                  COMMENTS

**RESEND**CORRECTION IN LOC FIELD PER MATT--[LRL 02/17/10 15:31]

Mbrs :
ATTD28SD AT&T - DISTRIBUTION         SBC DAMAGE PREVENTION HO 510-645-2929
ELMLCIMC01 ELM 4 IMP VLY CBLE (TIME  ELM LOCATORS             406-728-9343
IID01DIST IMPERIAL IRRIGATION - ELEC IMPERIAL IRRIGATION      760-339-0504
IID03  IMPERIAL IRRIGATION - WTR     KERRY VAN BEBBER         760-339-9413
```

IMC01	IMPERIAL VLY CBL (TIME WARNER	EFREN OBESO	760-335-4813
SCG1OR	SC GAS - EL CENTRO	CAROL ALLEN	909-335-7553
UATTNAVSD	UTILIQUEST FOR AT&T ON BAS	RICHARD HIMES	800-372-1125

Manderfeld, Matt

From: noreply@digalert.org
Sent: Wednesday, February 17, 2010 5:30 PM
To: Manderfeld, Matt
Subject: USAS EMLCFM 2010/02/17 #00856A A00481234-00A NORM NEW

```
EMLCFM 00856A USAS 02/17/10 15:30:08 A00481234-00A NORM NEW GRID

Thank you for calling Underground Service Alert of Southern
California.  This is an automatically generated confirmation of
your DigAlert.  For your safety, please respect and protect the
marks, and excavate carefully around the marked utility lines.

This email comes from an automated program that is NOT MONITORED.
DO NOT REPLY BACK TO THIS EMAIL.

Ticket : A00481234 Date: 02/17/10 Time: 15:09 Oper: LRL Chan: 100
Old Tkt: A00481234 Date: 02/17/10 Time: 15:30 Oper: LRL Revision: 00A
State: CA County: IMPERIAL             Place: OCOTILLO
Locat: AREA BOUNDED BY:  W/BY REYNOLDS RD, E/BY APPROX 500FT E/OF REYNOLDS RD,
     : N/BY APPROX 500FT S/OF THE INTER/OF REYNOLDS & STROBEL RD, S/BY APPROX
     : 2000FT S/OF THE INTER/OF REYNOLDS & STROBEL RD;   ALSO A 50FT WIDE STRIP
     : ON THE E/SIDE OF REYNOLDS RD FROM APPROX 500FT S/OF STROBEL RD AND CONT
     : N/FOR APPROX 2500FT;  ALSO
Address: REYNOLDS RD
X/ST 1 : STROBEL RD
Grids: 0430K06                                              Delineated: N
Lat/Long  : 32.782586/-115.796853 32.782691/-115.794288
          : 32.770825/-115.796372 32.770930/-115.793807
Caller GPS:

Boring: Y  Explosives: N  Vacuum: N

Re-Mark: N

Work : DRILLING FOR SOIL & GROUNDWATER TESTING
Work date: 02/22/10 Time: 12:00 Priority: 2
Instruct : MARK BY                Permit   : NOT REQUIRED
Done for : TETRA TECH INC

Company: GREGG DRILLING                 Caller: MATT - TETRA TECH INC
Address: 2726 WALNUT AVE
City&St: SIGNAL HILL, CA                Zip: 90755      Fax: 562-424-2329
Phone: 562-427-6899 Ext:      Call back: ANY
Formn: MATT - TETRA TECH INC Phone: 651-497-4186 Ext: CELL
Email: MATT.MANDERFELD@TETRATECH.COM
Mbrs :
ATTD28SD AT&T - DISTRIBUTION         SBC DAMAGE PREVENTION HO 510-645-2929
ELMLCIMC01 ELM 4 IMP VLY CBLE (TIME  ELM LOCATORS             406-728-9343
IID01DIST IMPERIAL IRRIGATION - ELEC IMPERIAL IRRIGATION      760-339-0504
IID03  IMPERIAL IRRIGATION - WTR     KERRY VAN BEBBER         760-339-9413
IMC01  IMPERIAL VLY CBL (TIME WARNER EFREN OBESO              760-335-4813
SCG1OR SC GAS - EL CENTRO            CAROL ALLEN              909-335-7553
UATTNAVSD UTILIQUEST FOR AT&T ON BAS RICHARD HIMES            800-372-1125
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APPENDIX C

SOP APPROVAL FORM

TETRA TECH EM INC.

ENVIRONMENTAL STANDARD OPERATING PROCEDURE

SITE RECONNAISSANCE AND CHARACTERIZATION

SOP NO. 001

REVISION NO. 2

Last Reviewed: November 1999

	May 18, 1993
Quality Assurance Approved	Date

1.0 BACKGROUND

The site reconnaissance and characterization (investigation) will involve a visual site inspection to evaluate the presence of conditions at hazardous waste sites that may pose potential health and safety hazards to employees engaged in field work. These conditions may include physical hazards, insufficient oxygen levels, exposure to flammable vapor levels, high or toxic concentrations of gases or chemicals, or high levels of nuclear radiation. Evaluation of health and safety hazards consists of (1) reviewing and summarizing existing site data and preparing a site health and safety plan (HSP); and (2) performing the investigation using monitoring or sampling equipment.

1.1 PURPOSE

This standard operating procedure (SOP) was developed to promote uniformity in investigating and evaluating potential health and safety hazards at hazardous waste sites before employees begin field work.

1.2 SCOPE

This SOP applies to the investigative teams conducting investigations at hazardous waste sites to determine potential health and safety hazards that employees may be exposed to during field work. Each investigation will consist of a visual site inspection, the use of monitoring or sampling equipment, and the use of appropriate personal protective equipment.

1.3 DEFINITIONS

None

1.4 REFERENCES

U.S. Environmental Protection Agency (EPA). 1987. "A Compendium of Superfund Field Operations Methods." OSWER Directive 9355.0-14 (EPA/540/P-87/001).

EPA. 1985. "Characterization of Hazardous Waste Sites - A Methods Manual." Volume 1. (EPA/600/4-84/075).

1.5 REQUIREMENTS AND RESOURCES

The requirements and resources needed to complete an investigation are discussed in the following subsections.

1.5.1 Personal Protective Equipment

Members of the investigative team must comply with the site HSP, which will specify the necessary personal protective equipment. This equipment may consist of the following items:

- Protective clothing (coveralls, Tyvek®, Saranex®, or splash suits)
- Hard hat and face shield
- Rubber or steel-toe boots
- Rubber gloves with liners
- Full-face respirator (air-purifying chemical cartridge or supplied air respirator)

1.5.2 Instrumentation

The instrumentation that may be used during an investigation includes the following:

- Organic vapor monitor
- Oxygen and explosivity meter
- Radiation survey meters
- Respirable dust monitors
- Colorimetric indicator detector tubes

1.5.3 Sample Collection Equipment and Documentation

It may be necessary during an investigation to collect environmental or source material samples for laboratory analysis. The following equipment may be needed to collect samples:

- Field logbook
- Sample jars and bottles
  Sample tags and labels
- Sample collection tools (augers, trowels, pipettes, bailer, pumps)
- Colorimetric indicator detector tubes
- Chain-of-custody records

2.0 PROCEDURES

The procedures to be followed when conducting an investigation are discussed in the following subsections.

2.1 HEALTH AND SAFETY PLAN

Before an investigation may begin at a hazardous waste site, a site-specific HSP must be completed that satisfies the requirements of the Occupational Safety and Health Administration as defined in the Code of Federal Regulations (29 CFR 1910.120). The HSP must be reviewed and signed by all members of the investigative team prior to arriving on site.

2.2 VISUAL SITE INSPECTION

The investigative team will visually inspect the site during a walkover of the site. Ambient air monitoring will be conducted if needed. The subsections below discuss establishing a staging area, evaluating potential health and safety hazards, and decontaminating equipment.

2.2.1 Establishing a Staging Area

The investigative team will prepare for the visual site inspection at a staging area judged to be clean on or near the site. This area will be used to don personal protective equipment, zero instruments, take background readings if needed, and serve as the decontamination center. The staging area should be upwind of potential contaminant sources.

2.2.2 Evaluating Health and Safety Hazards

The entire site, including bulk storage vessels, confined spaces, waste lagoons, drum storage areas, and other points of interest will be monitored and sampled as needed to detect the presence of potentially hazardous conditions (for example, oxygen deficiency, explosive atmospheres, high vapor or radioactivity levels, or physical hazards). Locations of health and safety hazards or instrument readings exceeding background readings will be written in a field logbook.

Conditions that may lead to potential health and safety hazards are discussed in the following paragraphs. Background information about hazardous materials or waste handled at the site will be used to determine if any or all of the conditions described below need to be monitored.

1. **Oxygen Deficiency:** The entire site, but particularly confined spaces, may be monitored for oxygen deficiency. Readings should be taken at ground, waist, and head levels. Any area with an oxygen level of less than 19.5 percent must be avoided. Confined spaces must be entered only by investigative team members using air-supplied respirators. Under no circumstance should an air-purifying respirator be used in confined spaces or oxygen-deficient atmospheres. An additional note of caution is that an explosivity meter will not function properly in oxygen-deficient atmospheres. An oxygen-deficient atmosphere may be explosive, but the explosivity meter will not respond properly in this atmosphere. Treat oxygen-deficient atmospheres as potentially explosive.

2. **Explosivity:** Continuous ground, waist, and head level readings may be obtained in confined spaces or areas where explosive gases are suspected. If readings approach or exceed 10 percent of the lower explosive limit (LEL), extreme caution should be used in continuing the investigation. If readings approach or exceed 25 percent of the LEL, the investigative team should withdraw from the area immediately. Be aware that explosivity meters will go off scale and readings will drop as the concentration of explosive gases increases. Before resuming any on-site activities, the investigative team should consult with fire protection experts or the local fire department and then develop explosion

prevention procedures for safe site work. (Refer to the discussion of oxygen-deficient atmospheres and the explosivity meter caution in the Oxygen Deficiency paragraph above).

3. **Chemical Vapors:** Organic chemical vapor levels may be monitored using an organic vapor monitor. Inorganic chemical vapors may be monitored using colorimetric indicator detector tubes or compound-specific detectors such as the Monotox cyanide sampler. When working in an unknown environment (for example, an environment in which atmospheric compounds are not known) and wearing air-purifying respirators, vapor concentrations cannot exceed 5 parts per million (ppm) for a 5-minute time weighted average period. If vapors exceed 5 ppm, the site must be evacuated. Re-entry will only be allowed with the use of air-purifying respirators. Atmospheric concentrations cannot exceed 500 ppm for continuous site work to occur. If atmospheric concentrations exceed 500 ppm, the site should be evacuated and appropriate experts contacted to determine additional personal protective equipment or other safety precautions required for continued site work.

   When working in a known environment (for example, atmospheric compounds are known), vapor concentrations cannot exceed the threshold limit value for the compound if no respiratory protective equipment is being used. Air-purifying respirators may be worn only when the vapor concentration is below the recommended level of the respirator cartridge being used and below the immediately dangerous to life and health concentration. Areas in which high levels of vapor concentrations are encountered should be avoided if possible. When specific chemical vapors are known to exist on site, colorimetric indicator detector tubes specific to those chemicals should be used.

4. **Radioactivity:** The site may be monitored for radiation levels. If radioactivity levels approach 10 milliroentgen/hour (mR/hr), a detailed radiological site survey should be conducted. If radioactivity levels are greater than 10 mR/hr, the site should be evacuated and the assistance of a radiation health physicist should be obtained prior to site re-entry. Normal background radioactivity levels are about 0.02 mR/hr; however, levels up to 10 mR/hr are acceptable for investigations of short duration.

5. **Physical Hazards:** Physical hazards may include electrical hazards (down or exposed power lines); unsafe structures or deteriorated buildings, tanks, supports, or beams that are in the process of collapsing (or based on physical evidence may collapse at any time); pits (open or closed); trenches; buried tanks or structures; or any other type of elevated, surface, or subsurface structure that may fall, cause an employee to trip or fall, or cause an employee to fall into it. Other physical hazards of concern may include heavy equipment (backhoe, drill rig, and so on); biological hazards (plants and insects); noise hazards; and weather (lightning, heat, and cold stress). All such hazards should be identified and described in a field logbook.

2.2.3 Decontaminating Equipment

Disposable personal protective clothing should be worn during an investigation. Prior to leaving the site, all disposable clothing will be placed in large industrial-grade plastic bags or 55-gallon drums. Boots and other nondisposable items will be decontaminated in the staging area using portable water basins and industrial-grade, water-based detergents. Decontaminated equipment and clothing will be placed in plastic bags before investigators leave the site. All contaminated equipment will remain on site.

3.0 CAUTIONS

Seemingly safe sites or situations may still present life-threatening conditions. Even the best monitoring equipment cannot replace astute observation and common sense. Be alert and aware of surroundings and conditions at all times.

SOP APPROVAL FORM

TETRA TECH EM INC.

ENVIRONMENTAL STANDARD OPERATING PROCEDURE

SOIL SAMPLING

SOP NO. 005

REVISION NO. 2

Last Reviewed: June 2009

Quality Assurance Approved	6-19-09 Date

1.0 BACKGROUND

Soil sampling is conducted for three main reasons: for laboratory chemical analysis, laboratory physical analysis, or visual classification and field screening. These three sampling objectives can be achieved separately or in combination with each other. Sampling locations are typically chosen to provide chemical, physical, or visual information in both the horizontal and vertical directions. A sampling and analysis plan is used to outline sampling methods and provide preliminary rationale for sampling locations. Sampling locations may be adjusted in the field based on the screening methods being used and the physical features of the area.

1.1 PURPOSE

Soil sampling is conducted to determine the chemical, physical, and visual characteristics of surface and subsurface soils.

1.2 SCOPE

This standard operating procedure (SOP) describes procedures for soil sampling in different areas using various implements. It includes procedures for test pit, surface soil, and subsurface soil sampling, and describes ten soil sampling devices.

1.3 DEFINITIONS

Hand auger: Instrument attached to the bottom of a length of pipe that has a crossarm or "T" handle at the top. The auger can be closed-spiral or open-spiral.

Bucket auger: A type of auger that consists of a cylindrical bucket 10 to 72 inches in diameter with teeth arranged at the bottom.

Core sampler: Thin-wall cylindrical metal tube with diameter of 0.5 to 3 inches, a tapered nosepiece, a "T" handle to facilitate sampler deployment and retrieval, and a check valve (flutter valve) in the headpiece.

EnCore™ sampler: A disposable volumetric sampling device. It comes in sample sizes of 5 and 25 grams. It is a hermetically sealed, single-use soil sampler made from a high-tech, inert polymer. EnCore™ samplers are used to collect soil samples with zero headspace, as required for volatile organic compound analysis. Each sample is collected using a reuseable "T" handle.

Spatulas or Spoons: Stainless steel or disposable instruments for collecting loose unconsolidated material.

Trier: Tube cut in half lengthwise with a sharpened tip that allows for collection of sticky solids or loosening of cohesive soils.

Trowel: Metal or disposable tool with a scooped blade 4 to 8 inches long and 2 to 3 inches wide with a handle.

Split-Spoon (or Split-Barrel) Sampler: Thick-walled steel tube that is split lengthwise. A cutting shoe is attached to the lower end; the upper end contains a check valve and is connected to drill rods.

Thin-Wall Tube Sampler: Steel tube (1 to 3 millimeters thick) with a tapered bottom edge for cutting. The upper end is fastened to a check valve that is attached to drill rods.

Volatile Organics Analysis (VOA) Plunger: Disposable, plastic, single-use soil sample collection device for volatile organic compound sample collection.

1.4 REFERENCES

U.S. Environmental Protection Agency. (EPA) 1984. "Soil Sampling Quality Assurance Users Guide." EPA 600/4-84-043.

EPA. 1980. "Samplers and Sampling Procedures for Hazardous Waste Streams." EPA 600/2-80-018. January.

EPA 1983. "Preparation of Soil Sampling Protocol: Techniques and Strategies." EPA 600/4-83-020.

EPA. 1987. "A Compendium of Superfund Field Operations Methods." OSWER Directive 9355.0-14 (EPA/540/P-87/001).

EPA. 1991. "Handbook of Suggested Practices for the Design and Installation of Ground-Water Monitoring Wells." March. EPA/600/4-89/034.

EPA. 1994. "Soil Sampling." Environmental Response Team SOP #2012 (Rev. #0.0, 11/16/94). http://www.ert.org/mainContent.asp?section=Products&subsection=List

EPA. 1996. SW-846, Method 5035, Closed-System Purge-and-Trap and Extraction for Volatile Organics in Soil and Waste Samples. December. http://www.epa.gov/epawaste/hazard/testmethods/sw846/pdfs/5035.pdf

1.5 REQUIREMENTS AND RESOURCES

Soil sampling requires the use of one or more of the following types of equipment:

- Spoons and spatulas
- Trowel
- Shovel or spade
- Trier
- Core sampler
- EnCore™ sampler
- VOA Plunger
- Hand auger
- Bucket auger
- Split-spoon
- Thin-wall tube

In addition, the following equipment is also needed for various methods:

- Sample containers, labels, and chain-of-custody forms
- Logbook
- Tape for measuring recovery
- Soil classification information
- Wax or caps for sealing ends of thin-wall tube
- "T" Handles
- Plastic sheeting
- Decontamination equipment
- Drilling equipment
- Backhoe
- Health and safety equipment

2.0 SOIL SAMPLING PROCEDURES

This SOP presents procedures for conducting test pit, surface soil, and subsurface soil sampling. The site sampling plan will specify which of the following procedures will be used.

Soil samples for chemical analysis should be collected in the following order: (1) volatile organics, (2) semivolatile organics, and (3) metals. Once the chemical samples have been containerized, samples for physical analyses can be containerized. Typical physical analyses conducted include (1) grain size distribution, (2) moisture content, (3) saturated permeability, (4) unsaturated permeability, and (5) Atterberg limits. Additionally, visual descriptions of samples, using the Unified Soil Classification System (USCS), should be recorded. Field tests such as head space analyses can also be conducted.

Soil samples for chemical analyses can be collected either as grab samples or composite samples. A grab sample is collected from a discrete location or depth. A composite sample consists of soil combined from more than one discrete location. Typically, composite samples consist of soil obtained from several locations and homogenized in a stainless steel or Teflon® pan, tray, or baggie. Refer to the site-specific Quality Assurance Project Plan (QAPP) for methodology for composite sample collection. Samples for volatile organics analysis should not be composited.

All soil samples collected should be packaged and shipped to the laboratories in accordance with SOP 019. All nondedicated or nondisposable equipment used for soil sampling should be decontaminated between sampling locations in accordance with SOP 002.

2.1 SOIL SAMPLE COLLECTION PROCEDURES

Soil samples can be collected as discrete samples for volatile organic compound (VOC) analysis using specialized equipment for preservation in the laboratory or in the field. Soil samples collected for non-VOC analysis can be collected as either grab or composite samples using standard equipment.

2.1.1 Procedure for Preserving and Collecting Soil Samples for VOC analysis

Samples collected for VOC analysis using traditional methods, such as collection in a jar with no preservation, are shown to yield nonrepresentative samples due to loss of VOCs. To prevent such losses,

preservation with methanol or sodium bisulfite may be used to minimize volatilization and biodegradation. This preservation may be performed in the laboratory or in the field, depending on the sample collection methodology used. The specific sampling methodology will be specified in the project-specific QAPP or work plan.

Soil samples to be preserved in the laboratory are collected using SW-846 Method 5035. For samples preserved in the field, laboratories may perform low-level analysis (sodium bisulfate preservation) or high- to medium-level analyses (methanol preservation), depending on the project-specific QAPP.

The following procedures outline the necessary steps for collecting soil samples to be preserved at the laboratory, and for collecting soil samples to be preserved in the field with methanol or sodium bisulfate.

2.1.1.1 Soil Samples to be Preserved at the Laboratory

Soil samples collected for VOC analysis that are to be preserved at the laboratory shall be obtained using a hand-operated, hermetically sealed sample vial such as an EnCore™ sampler. Each sample shall be obtained using a reusable sampling handle ("T" handle) that can be provided with the EnCore™ sampler when requested and purchased. Collect the soil sample in the following manner for each EnCore™ sampler.

The EnCore™ sampler is loaded into the "T" handle with the plunger fully depressed. Press the "T" handle into the soil to be sampled. The plunger will be forced upward as the cavity fills with soil. When the sampler is full, using the "T" handle, rotate the plunger and lock it into place. If the plunger does not lock, then it is not filled with soil. Soft soil may require several plunges or forcing soil against a hard surface such as a decontaminated sample trowel to ensure headspace has been eliminated. Remove soil from the outside of the sampler so a tight seal can be made between the sample cap and the O-ring. With soil slightly piled above the rim of the sampler, force the cap on until the catches hook the side of the sampler. Remove any surface soil from outside of the sampler and place in the foil bag provided with the sampler. Label the bag with sample location information. Typically, collect three EnCore™ samplers per sample location. Decontaminate the "T" handle between sample locations.

Using the EnCore™ sampler eliminates the need for field preservation and the shipping restrictions associated with preservatives. A complete set of instructions is included with each EnCore™ sampler.

After the EnCore™ samples are collected, they should be placed on ice immediately and delivered to the laboratory within 48 hours. The samples must be preserved by the laboratory within 48 hours of collection.

2.1.1.2 Soil Samples to be Preserved in the Field

Soil samples preserved in the field may be prepared for analysis using both the low-level (sodium bisulfate preservation) and high- to medium-level (methanol preservation) methods. If samples effervesce when placed in preservative, it is necessary to collect a sample unpreserved, in deionized water. In addition, an unpreserved sample for determination of moisture content must also be collected when collecting soil samples to be preserved in the field.

Methanol Preservation (High to Medium Level). Bottles may be pre-spiked with methanol in the laboratory or prepared in the field. Soil samples to be preserved in the field with methanol shall utilize 40- to 60-milliliter (mL) glass vials with septum-lined lids. Each sample bottle shall be filled with 25 mL of demonstrated analyte-free purge-and-trap grade 3 methanol. The preferred method for adding methanol to the sample bottle is by removing the lid and using a pipette or scaled syringe to add the methanol directly to the bottle.

Soil shall be collected with the use of a decontaminated (or disposable), small-diameter coring device such as a disposable VOA plunger. The outside diameter of the coring device must be smaller than the inside of the sample bottle neck. To collect the sample, pull the plunger back to the required location, insert it into the soil to be sampled, push the coring device into the soil, extrude the soil sample into the methanol-preserved sample bottle, and cap the bottle tightly. Swirl the sample (do not shake) in the methanol to break up the soil such that all of the soil is covered with methanol. Place the sample on ice immediately.

Sodium Bisulfate Preservation (Low Level). Bottles may be prepared in the laboratory or in the field with sodium bisulfate solution. Samples to be field-preserved using sodium bisulfate are collected using the same procedures described for methanol preservation.

2.1.2 Procedure for Collecting Soil Samples for Non-VOC Analyses

Samples collected for non-VOC analyses may be collected as either grab or composite samples as follows. Using a sampling device, transfer a portion of soil to be sampled to a stainless steel bowl, disposable inert plastic tray, or baggie. Remove roots, vegetation, sticks, and stones larger than the size of pea gravel. Thoroughly mix the soil to obtain as uniform a texture and color as practicable. Transfer the mixed soil to the appropriate sample containers and close the containers. Place the sample containers immediately on ice.

2.2 TEST PIT AND TRENCH SOIL SAMPLING

Test pit and trench soil sampling is conducted when a complete soil profile is required or as a means of locating visually detectable contamination. This type of sampling provides a detailed description of the soil profile and allows for multiple samples to be collected from specific soil horizons. Prior to conducting any test pit or trench excavation with a backhoe, the sampling team should ensure that the sampling area is clear of utility lines, subsurface pipes, and poles.

A test pit or trench is excavated by incrementally removing soil material with a backhoe bucket. The excavated soil is placed on plastic sheeting well away from the edge of the test pit. A test pit should not be excavated to depths greater than 4 feet unless its walls are properly sloped or stabilized. No personnel shall enter any test pit or trench excavation over 4 feet deep; such action would constitute confined space entry and must conform with Occupational Safety and Health Administration (OSHA) regulations at Title 29 of the *Code of Federal Regulations* § 1910.

Personnel entering the test pit may be exposed to toxic or explosive gases and oxygen deficient environments. Air monitoring is required before entering the test pit, and the use of appropriate respiratory gear and protective clothing is mandatory. At least two persons must be present at the test pit before sampling personnel may enter the excavation and begin soil sampling. Refer to project-specific Health and Safety Plans for required safety procedures for excavations.

Soil samples can also be obtained directly from the backhoe bucket or from the excavated material after it has been removed and deposited on plastic sheeting. The sampling personnel shall direct the backhoe excavator to obtain material from the selected depth and location within the excavation. The backhoe

operator shall set the backhoe bucket on the ground in a designated location, at a sufficient distance from the excavation to allow the sampler safe access to the bucket. The backhoe operator shall disengage the controls and signal to the sampler that it is safe to approach the bucket. The soil sample shall then be collected from the center of the backhoe bucket to reduce the potential for cross-contamination of the sample.

Test pits are not practical for sampling at depths greater than 15 feet. If soil samples are required from depths greater than 15 feet, samples should be obtained using test borings instead of test pits. Test pits are also usually limited to a few feet below the water table. In some cases, a pumping system may be required to control the water level within the pits.

Access to open test pits should be restricted by the use of flagging, tape, or fencing. If a fence is used, it should be erected at least 6 feet from the perimeter of the test pit. The test pit should be backfilled as soon as possible after sampling is completed.

Various equipment may be used to collect soil samples from the walls or bottom of a test pit. A hand auger, bucket auger, or core sampler can be used to obtain samples from various depths. A trier, trowel, EnCore™ sampler, VOA plunger, or spoon can be used to obtain samples from the walls or pit bottom surface.

2.3 SURFACE SOIL SAMPLING

The surface soil sampling equipment presented in this SOP is best suited for sampling to depths of 0 to 6 feet below ground surface (bgs). The sample depth, sample analyses, soil type, and soil moisture will also dictate the most suitable sampling equipment. Prior to sample collection, the sampling locations should be cleared of any surface debris such as twigs, rocks, and litter. The following table presents various surface soil sampling equipment and their effective depth ranges, operating means (manual or power), and sample types collected (disturbed or undisturbed).

Sampling Equipment	Effective Depth Range (feet bgs)	Operating Means	Sample Type
Hand Auger	0 to 6	Manual	Disturbed
Bucket Auger	0 to 4	Power	Disturbed
Core Sampler	0 to 4	Manual or Power	Undisturbed
EnCore™ Sampler	Not Applicable	Manual	Disturbed
Spoon/Spatula	0 to 0.5	Manual	Disturbed
Trowel	0 to 1	Manual	Disturbed
VOA Plunger	Not Applicable	Manual	Disturbed

The procedures for using these various types of sampling equipment are discussed below.

2.3.1 Hand Auger

A hand auger equipped with extensions and a "T" handle is used to obtain samples from depths of up to 6 feet bgs. If necessary, a shovel may be used to excavate the topsoil to reach the desired subsoil level. If topsoil is removed, its thickness should be recorded. Samples obtained using a hand auger are disturbed in their collection; determining the exact depth at which samples are obtained is difficult.

The hand auger is screwed into the soil at an angle of 45 to 90 degrees from horizontal. When the entire auger blade has penetrated soil, the auger is removed from the soil by lifting it straight up without turning it, if possible. If the desired sampling depth has not been reached, the soil is removed from the auger and deposited onto plastic sheeting. This procedure is repeated until the desired depth is reached and the soil sample is obtained. The auger is then removed from the boring and the soil sample is collected directly from the auger into an appropriate sample container.

2.3.2 Bucket Auger

A bucket auger, equipped similarly as the hand auger, is used to obtain disturbed samples from depths of up to 4 feet bgs. A bucket auger should be used when sampling stony or dense soil that prohibits the use of a hand-operated core or screw auger. A bucket auger with closed blades is used in soil that cannot generally be penetrated or retrieved by a core sampler.

The bucket auger is rotated while downward pressure is exerted until the bucket is full. The bucket is then removed from the boring, the collected soil is placed on plastic sheeting, and this procedure is repeated until the appropriate depth is reached and a sample is obtained. The bucket is then removed from the boring and the soil sample is transferred from the bucket to an appropriate sample container.

2.3.3 Core Sampler

A hand-operated core sampler (Figure 1), similarly equipped as the hand auger, is used to obtain samples from depths of up to 4 feet bgs in uncompacted soil. The core sampler is capable of retrieving undisturbed soil samples and is appropriate when low concentrations of metals or organics are of concern. The core sampler should be constructed of stainless steel. A polypropylene core sampler is generally not suitable for sampling dense soils or sampling at greater depths.

The core sampler is pressed into the soil at an angle of 45 to 90 degrees from horizontal and is rotated when the desired depth is reached. The core is then removed, and the sample is placed into an appropriate sample container.

2.3.4 Shovel

A shovel may be used to obtain large quantities of soil that are not readily obtained with a trowel. A shovel is used when soil samples from depths of up to 6 feet bgs are to be collected by hand excavation; a tiling spade (sharpshooter) is recommended for excavation and sampling. A standard steel shovel may be used for excavation; either a stainless steel or polypropylene shovel may be used for sampling. Soil excavated from above the desired sampling depth should be stockpiled on plastic sheeting. Soil samples should be collected from the shovel and placed into the sample container using a stainless-steel scoop, plastic spoon, or other appropriate tool.

2.3.5 Trier

A trier (Figure 2) is used to sample soil from depths up to 1 foot bgs. A trier should be made of stainless steel or polypropylene. A chrome-plated steel trier may be suitable when samples are to be analyzed for organics and heavy metal content is not a concern.

Samples are obtained by inserting the trier into soil at an angle of up to 45 degrees from horizontal. The trier is rotated to cut a core and is then pulled from the soil being sampled. The sample is then transferred to an appropriate sample container.

2.3.6 Trowel

A trowel is used to obtain surface soil samples that do not require excavation beyond a depth of 1 foot. A trowel may also be used to collect soil subsamples from profiles exposed in test pits. Use of a trowel is practical when sample volumes of approximately 1 pint (0.5 liter) or less are to be obtained. Excess soil should be placed on plastic sheeting until sampling is completed. A trowel should be made of stainless steel or galvanized steel. It can be purchased from a hardware or garden store. Soil samples to be analyzed for organics should be collected using a stainless steel trowel. Samples may be placed directly from the trowel into sample containers.

2.4 SUBSURFACE SOIL SAMPLING

Subsurface soil sampling is accomplished in conjunction with borehole drilling, for soil sampling from depths greater than approximately 6 feet bgs. Subsurface soil sampling is frequently coupled with exploratory boreholes or monitoring well installation.

Subsurface soil sampling may be conducted using a drilling rig, power auger, or direct-push technology (DPT). Selection of sampling equipment depends upon geologic conditions and the scope of the sampling program. Two types of samplers used with machine-driven augers—the split-spoon sampler and the thin-wall tube sampler—are discussed below. All sampling tools should be cleaned before and after each use in accordance with SOP No. 002 (General Equipment Decontamination). Both the split-spoon sampler and the thin-wall tube sampler can be used to collect undisturbed samples from

unconsolidated soils. The procedures for using the split-spoon and thin-wall tube samplers are presented below.

2.4.1 Split-Spoon Sampler

Split-spoon samplers are available in a variety of types and sizes. Site conditions and project needs, such as large sample volume for multiple analyses, determine the specific type of split-spoon sampler to be used. Figure 3 shows a generic split-spoon sampler.

The split-spoon sampler is advanced into the undisturbed soil beneath the bottom of the casing or borehole using a weighted hammer and a drill rod. The relationship between hammer weight, hammer drop, and number of blows required to advance the split-spoon sampler in 6-inch increments indicates the density or consistency of the subsurface soil. After the split-spoon sampler has been driven to its intended depth, it should be removed carefully to avoid loss of sample material. In noncohesive or saturated soil, a catcher or basket should be used to help retain the sample.

After the split-spoon sampler is removed from the casing, it is detached from the drill rod and opened. If VOA samples are to be collected, EnCore™ samplers or VOA plungers should be filled with soil taken directly from the split-spoon sampler. Samples for other specific chemical analyses should be taken as soon as the VOA sample has been collected. The remainder of the recovered soil can then be used for visual classification of the sample and containerized for physical analysis. The entire sample (except for the top several inches of possibly disturbed material) is retained for analysis or disposal.

2.4.2 Thin-Wall Tube Sampler

A thin-wall tube sampler, sometimes called the Shelby tube (Figure 4), is used to collect soil samples for geophysical analysis. Tube samplers are best suited for collecting cohesive soils such as clays and silts. The tube sampler may be pressed or driven into soil inside a hollow-stem auger flight, wash bore casing, or uncased borehole. The tube sampler is pressed into the soil, without rotation, to the desired depth or until refusal. If the tube cannot be advanced by pushing, it may be necessary to drive it into the soil without rotation using a hammer and drill rod. The tube sampler is then rotated to collect the sample from the soil and removed from the borehole.

After removal of the tube sampler from the drilling equipment, the tube sampler should be inspected for adequate sample recovery. The sampling procedure should be repeated until an adequate soil core is obtained (if sample material can be retained by the tube sampler). The soil core obtained should be documented in the logbook. Any disturbed soil is removed from each end of the tube sampler. If chemical analysis is required, VOA samples must be collected immediately after the tube sampler is withdrawn. EnCore™ samplers or VOA plungers should be filled with soil taken directly from the tube sampler. Before use, and during storage and transport, the tube sampler should be capped with a nonreactive material. For physical sampling parameters, the tube is sealed using plastic caps. The top and bottom of the tube sampler should be labeled and the tube sampler should be stored accordingly.

2.4.3 Direct-Push Technology Sampler

Geoprobe systems utilize DPT. In many cases, DPT is less expensive and faster than collecting soil samples with a standard drilling rig. In addition, the use of DPT causes minimal disturbance to the ground surface and generates little to no soil cuttings. DPT uses acetate or clear polyvinyl chloride (PVC) sleeves for collecting soil samples. Use of the Geoprobe system is described in SOP No. 054.

Upon retrieval of the sampling rod from the ground, the sample sleeve is extruded from the sampling rod. The sleeve is sliced lengthwise twice, to open the sleeve. Soil samples can be collected directly from the opened sleeve. If VOA samples are to be collected, EnCore™ samplers or VOA plungers should be filled with soil taken directly from the opened DPT sampler. Samples for other specific chemical analyses should be taken after the VOA sample has been collected. The remainder of the recovered soil can then be used for visual classification of the sample and containerized for physical analysis. The entire sample is retained for analysis or disposal.

FIGURE 1

HAND-OPERATED CORE SAMPLER

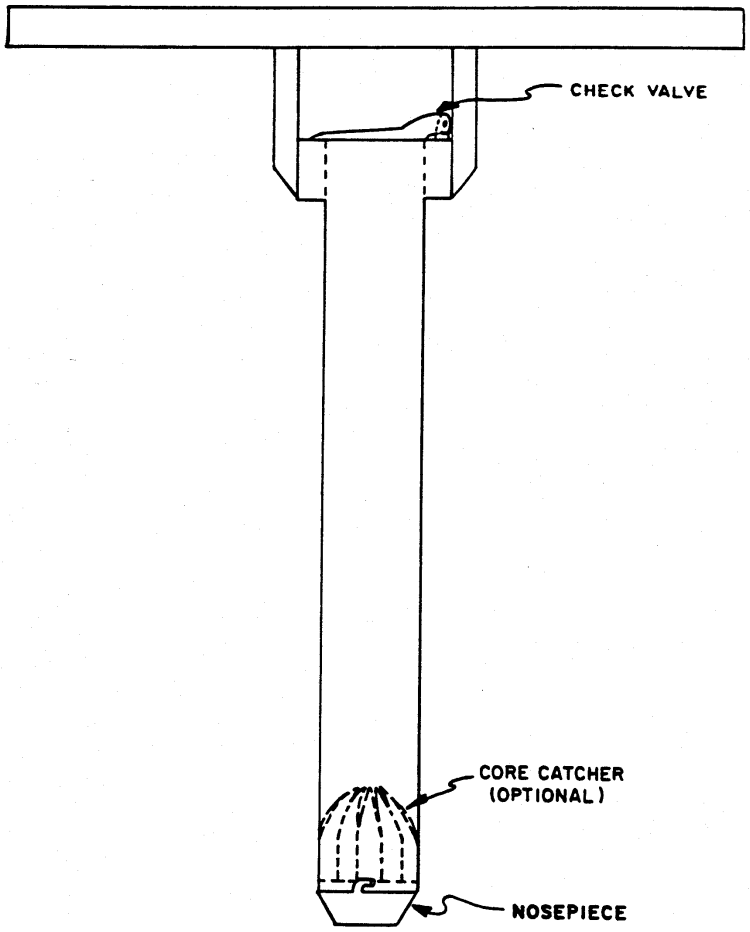


FIGURE 2

TRIER

TRIER

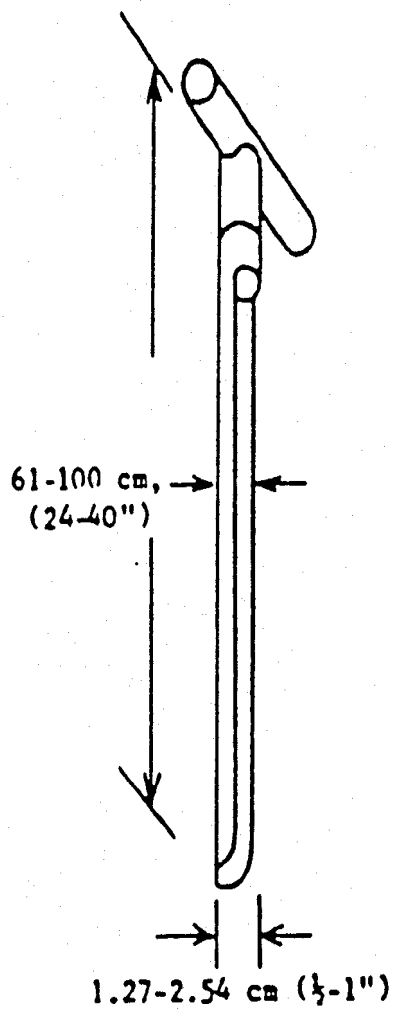


FIGURE 3

GENERIC SPLIT-SPOON SAMPLER

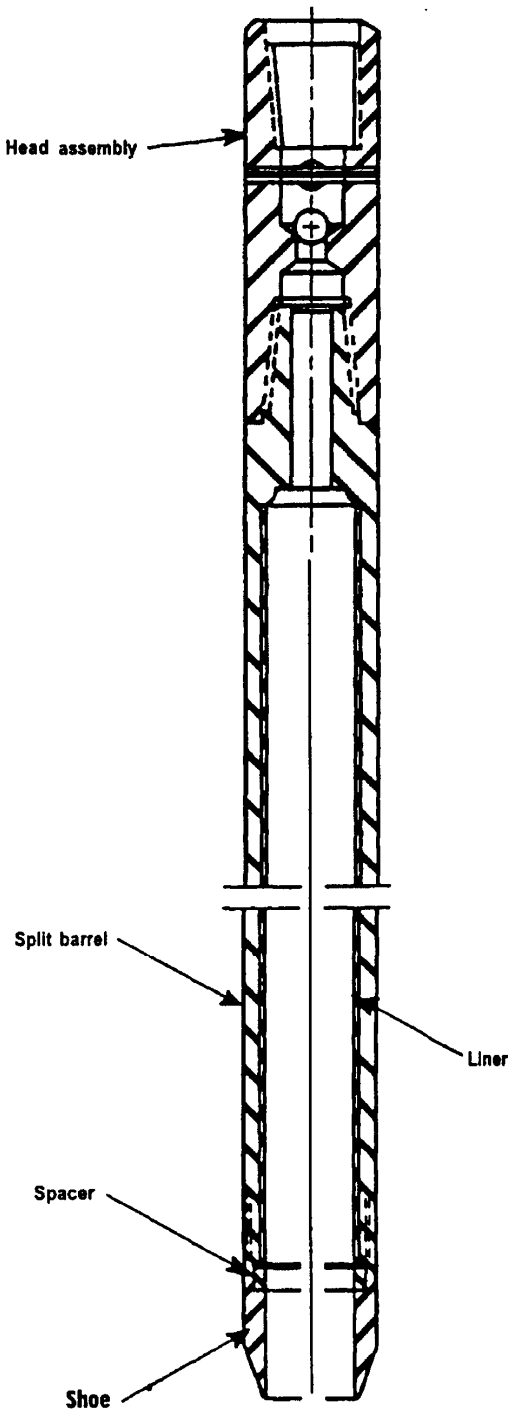
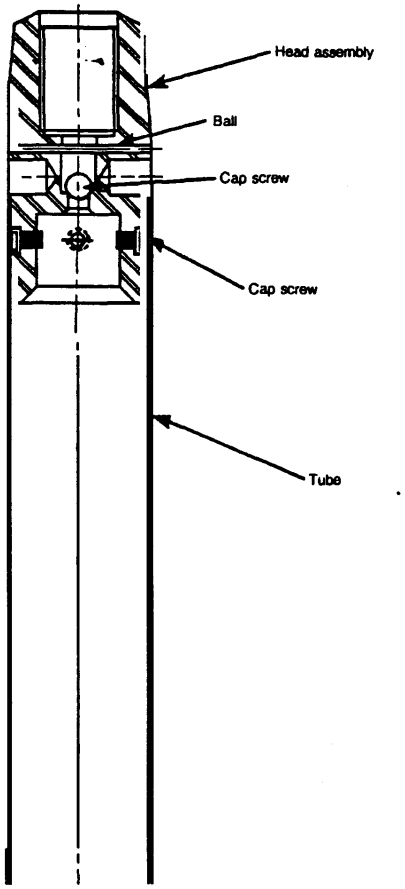


FIGURE 4

THIN-WALL TUBE SAMPLER



SOP APPROVAL FORM

TETRA TECH EM INC.

ENVIRONMENTAL STANDARD OPERATING PROCEDURE

GENERAL EQUIPMENT DECONTAMINATION

SOP NO. 002

REVISION NO. 3

Last Reviewed: June 2009

Quality Assurance Approved	6-19-09 Date

1.0 BACKGROUND

All nondisposable field equipment must be decontaminated before and after each use at each sampling location to obtain representative samples and to reduce the possibility of cross-contamination.

1.1 PURPOSE

This standard operating procedure (SOP) establishes the requirements and procedures for decontaminating equipment in the field.

1.2 SCOPE

This SOP applies to decontaminating general nondisposable field equipment. To prevent contamination of samples, all sampling equipment must be thoroughly cleaned prior to each use.

1.3 DEFINITIONS

Alconox: Nonphosphate soap, obtained in powder detergent form and dissolved in water

Liquinox: Nonphosphate soap, obtained in liquid form for mixing with water

1.4 REFERENCES

U.S. Environmental Protection Agency (EPA). 1992a. "Guide to Management of Investigation-Derived Wastes." Office of Solid Waste and Emergency Response. Washington D.C. EPA 9345.3-03FS. January.

EPA. 1992b. "RCRA Ground-Water Monitoring: Draft Technical Guidance." Office of Solid Waste. Washington, DC. EPA/530-R-93-001. November.

EPA. 1994. "Sampling Equipment Decontamination." Environmental Response Team SOP #2006 (Rev. #0.0, 08/11/94). http://www.ert.org/mainContent.asp?section=Products&subsection=List

1.5 REQUIREMENTS AND RESOURCES

The equipment required to conduct decontamination is as follows:

- Scrub brushes
- Large wash tubs or buckets
- Squirt bottles
- Alconox or Liquinox
- Tap water
- Distilled water
- Plastic sheeting
- Aluminum foil
- Methanol or hexane
- Isopropanol (pesticide grade)
- Dilute (0.1 N) nitric acid

2.0 PROCEDURE

The procedures below discuss decontamination of personal protective equipment (PPE), drilling and monitoring well installation equipment, borehole soil sampling equipment, water level measurement equipment, general sampling equipment, and groundwater sampling equipment.

2.1 PERSONAL PROTECTIVE EQUIPMENT DECONTAMINATION

Personnel working in the field are required to follow specific procedures for decontamination prior to leaving the work area so that contamination is not spread off site or to clean areas. All used disposable protective clothing, such as Tyvek coveralls, gloves, and booties, will be containerized for later disposal. Decontamination water will be containerized in 55-gallon drums (refer to Section 3.0).

Personnel decontamination procedures will be as follows:

1. Select an area removed from sampling locations that is both downwind and downgradient. Decontamination must not cause cross-contamination between sampling points.

2. Maintain the same level of personal protection as was used for sampling.

3. Wash neoprene boots (or neoprene boots with disposable booties) with Liquinox or Alconox solution and rinse with clean water. Remove booties and retain boots for subsequent reuse.

4. Wash outer gloves in Liquinox or Alconox solution and rinse in clean water. Remove outer gloves and place into plastic bag for disposal.

5. Remove Tyvek or coveralls. Containerize Tyvek for disposal and place coveralls in plastic bag for reuse.

6. Remove air purifying respirator (APR), if used, and place the spent filters into a plastic bag for disposal. Filters should be changed daily or sooner depending on use and application. Place respirator into a separate plastic bag after cleaning and disinfecting.

7. Remove disposable gloves and place them in plastic bag for disposal.

8. Thoroughly wash hands and face in clean water and soap.

2.2 DRILLING AND MONITORING WELL INSTALLATION EQUIPMENT DECONTAMINATION

All drilling equipment should be decontaminated at a designated location on site before drilling operations begin, between borings, and at completion of the project. Decontamination may be conducted on a temporary decontamination pad constructed at satellite locations within the site area in support of temporary work areas. The purpose of the decontamination pad is to contain wash waters and potentially contaminated soil generated during decontamination procedures. Decontamination pads may be constructed of concrete, wood, or plastic sheeting, depending on the site-specific needs and plans. Wash waters and contaminated soil generated during decontamination activities should be considered contaminated and thus, should be collected and containerized for proper disposal.

Monitoring well casing, screens, and fittings are assumed to be delivered to the site in a clean condition. However, they should be steam cleaned and placed on polyethylene sheeting on-site prior to placement downhole. The drilling subcontractor will typically furnish the steam cleaner and water.

The drilling auger, bits, drill pipe, any portion of drill rig that is over the borehole, temporary casing, surface casing, and other equipment used in or near the borehole should be decontaminated by the drilling subcontractor as follows:

1. Select an area removed from sampling locations that is both downwind and downgradient. Decontamination must not cause cross-contamination between sampling points.

2. Maintain the same level of personal protection as was used for sampling.

3. Remove loose soil using shovels, scrapers, wire brush, etc.
4. Steam clean or pressure wash to remove all visible dirt.
5. If equipment has directly or indirectly contacted contaminated media and is known or suspected of being contaminated with oil, grease, polynuclear aromatic hydrocarbons (PAH), polychlorinated biphenyls (PCB), or other hard to remove organic materials, rinse equipment with pesticide-grade isopropanol.
6. To the extent possible, allow components to air dry.
7. Wrap or cover equipment in clear plastic until it is time to be used.
8. All wastewater from decontamination procedures should be containerized.

2.3 BOREHOLE SOIL SAMPLING DOWNHOLE EQUIPMENT DECONTAMINATION

All soil sampling downhole equipment should be decontaminated before use and after each sample as follows:

1. Select an area removed from sampling locations that is both downwind and downgradient. Decontamination must not cause cross-contamination between sampling points.

2. Maintain the same level of personal protection as was used for sampling.

3. Prior to sampling, scrub the split-barrel sampler and sampling tools in a wash bucket or tub using a stiff, long bristle brush and Liquinox or Alconox solution.

4. After sampling, steam clean the sampling equipment over the rinsate tub and allow to air dry.

5. Place cleaned equipment in a clean area on plastic sheeting and wrap with aluminum foil.

6. Containerize all water and rinsate; disposable single-use sampling equipment should also be containerized.

7. Decontaminate all equipment placed down the hole as described for drilling equipment.

2.4 WATER LEVEL MEASUREMENT EQUIPMENT DECONTAMINATION

Field personnel should decontaminate the well sounder and interface probe before inserting and after removing them from each well. The following decontamination procedures should be used:

1. Select an area removed from sampling locations that is both downwind and downgradient. Decontamination must not cause cross-contamination between sampling points.
2. Maintain the same level of personal protection as was used for sampling.
3. Wipe the tape and probe with a disposable Alconox- or Liquinox-impregnated cloth or paper towel.
4. If immiscible layers are encountered, the interface probe may require steam cleaning or washing with pesticide-grade isopropanol.
5. Rinse with deionized water.

2.5 GENERAL SAMPLING EQUIPMENT DECONTAMINATION

All nondisposable sampling equipment should be decontaminated using the following procedures:

1. Select an area removed from sampling locations that is both downwind and downgradient. Decontamination must not cause cross-contamination between sampling points.
2. Maintain the same level of personal protection as was used for sampling.
3. To decontaminate a piece of equipment, use an Alconox wash; a tap water wash; a solvent (isopropanol, methanol, or hexane) rinse, if applicable, or dilute (0.1 N) nitric acid rinse, if applicable; a distilled water rinse; and air drying. Use a solvent (isopropanol, methanol, or hexane) rinse for grossly contaminated equipment (for example, equipment that is not readily cleaned by the Alconox wash). The dilute nitric acid rinse may be used if metals are the analyte of concern.
4. Place cleaned equipment in a clean area on plastic sheeting and wrap with aluminum foil.
5. Containerize all water and rinsate.

2.6 GROUNDWATER SAMPLING EQUIPMENT

The following procedures are to be employed for the decontamination of equipment used for groundwater sampling. Decontamination is not necessary when using disposable (single-use) pump tubing or bailers. Bailer and downhole pumps and tubing decontamination procedures are described in the following sections.

2.6.1 Bailers

1. Select an area removed from sampling locations that is both downwind and downgradient. Decontamination must not cause cross-contamination between sampling points.

2. Maintain the same level of personal protection as was used for sampling.

3. Evacuate any purge water in the bailer.

4. Scrub using soap and water and/or steam clean the outside of the bailer.

5. Insert the bailer into a clean container of soapy water. Thoroughly rinse the interior of the bailer with the soapy water. If possible, scrub the inside of the bailer with a scrub brush.

6. Remove the bailer from the container of soapy water.

7. Rinse the interior and exterior of the bailer using tap water.

8. If groundwater contains or is suspected to contain oil, grease, PAH, PCB, or other hard to remove organic materials, rinse equipment with pesticide-grade isopropanol.

9. Rinse the bailer interior and exterior with deionized water to rinse off the tap water and solvent residue, as applicable.

10. Drain residual deionized water to the extent possible.

11. Allow components to air dry.

12. Wrap the bailer in aluminum foil or a clean plastic bag for storage.

13. Containerize the decontamination wash waters for proper disposal.

2.6.2 Downhole Pumps and Tubing

1. Select an area removed from sampling locations that is both downwind and downgradient. Decontamination must not cause cross-contamination between sampling points.

2. Maintain the same level of personal protection as was used for sampling.

3. Evacuate any purge water in the pump and tubing.

4. Scrub using soap and water and/or steam clean the outside of the pump and, if applicable, the pump tubing.

5. Insert the pump and tubing into a clean container of soapy water. Pump/run a sufficient amount of soapy water to flush out any residual well water. After the pump and tubing are flushed, circulate soapy water through the pump and tubing to ensure that the internal components are thoroughly flushed.

6. Remove the pump and tubing from the container.

7. Rinse external pump components using tap water.

8. Insert the pump and tubing into a clean container of tap water. Pump/run a sufficient amount of tap water through the pump to evacuate all of the soapy water (until clear).

9. If groundwater contains or is suspected to contain oil, grease, PAH, PCB, or other hard to remove organic materials, rinse the pump and tubing with pesticide-grade isopropanol.

10. Rinse the pump and tubing with deionized water to flush out the tap water and solvent residue, as applicable.

11. Drain residual deionized water to the extent possible.

12. Allow components to air dry.

13. For submersible bladder pumps, disassemble the pump and wash the internal components with soap and water, rinse with tap water, isopropanol (if necessary), and deionized water, and allow to air dry.

14. Wrap pump and tubing in aluminum foil or a clean plastic bag for storage.

15. Containerize the decontamination wash waters for proper disposal.

3.0 INVESTIGATION-DERIVED WASTE

Investigation-derived waste (IDW) can include disposable single-use PPE and sampling equipment, soil cuttings, and decontamination wash waters and sediments. Requirements for waste storage may differ from one facility to the next. Facility-specific directions for waste storage will be provided in project-specific documents, or separate direction will be provided by the project manager. The following guidelines are provided for general use:

1. Assume that all IDW generated from decontamination activities contains the hazardous chemicals associated with the site unless there are analytical or other data to the contrary. Waste solution volumes could vary from a few gallons to several hundred gallons in cases where large equipment required cleaning.

2. Containerized waste rinse solutions are best stored in 55-gallon drums (or equivalent containers) that can be sealed until ultimate disposal at an approved facility.

3. Label IDW storage containers with the facility name and address, date, contents, company generating the waste, and an emergency contact name and phone number.

4. Temporarily store the IDW in a protected area that provides access to the containers and allows for spill/leak monitoring, sampling of containers, and removal following determination of the disposal method.

APPENDIX D

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CLIENT: **TETRA TECH**

PROJECT: **IMPERIAL VALLEY WEST**

SDG: **10C024**

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GC-SVOA	METHOD 3550B/M8015	5000 – 5017
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** - Not Requested

EMAX
LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax: (310) 618-0818

Date: 03-12-2010
EMAX Batch No.: 10C024

Attn: Tamara Pellham

Tetra Tech
639 Isbell Road, Suite 390
Reno NV 89509

Subject: Laboratory Report
Project: Imperial Valley West

Enclosed is the Laboratory report for samples received on 03/02/10.
The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
LTB-030110-1	C024-01	03/01/10	WATER	VOLATILE ORGANICS BY GC/MS
LEB-030110	C024-02	03/01/10	WATER	CANCELLED
LTB-030110-2	C024-03	03/01/10	WATER	VOLATILE ORGANICS BY GC/MS
SDWA-2	C024-04	03/01/10	SOIL	CHLORINATED HERBICIDES
				CHROMIUM HEXAVALENT
				MERCURY
				TOTAL METALS BY ICP-MS
				OIL & GREASE HEM-SGT
				PESTICIDES ORGANOPHOSPHORUS
				PESTICIDES ORGANOCHLORINE
				SEMIVOLATILE ORGANICS BY GCMS
				TPH DIESEL & MOTOR OIL
				TPH GASOLINE
				VOLATILE ORGANICS BY GC/MS
SDWA-1	C024-05	03/01/10	SOIL	CHLORINATED HERBICIDES
				CHROMIUM HEXAVALENT
				MERCURY
				TOTAL METALS BY ICP-MS
				OIL & GREASE HEM-SGT

Sample ID	Control #	Col Date	Matrix	Analysis
				PESTICIDES ORGANOPHOSPHORUS
				PESTICIDES ORGANOCHLORINE
				SEMIVOLATILE ORGANICS BY GCMS
				TPH DIESEL & MOTOR OIL
				TPH GASOLINE
				VOLATILE ORGANICS BY GC/MS
SDWA-3	C024-06	03/01/10	SOIL	CHLORINATED HERBICIDES
				CHROMIUM HEXAVALENT
				MERCURY
				TOTAL METALS BY ICP-MS
				OIL & GREASE HEM-SGT
				PESTICIDES ORGANOPHOSPHORUS
				PESTICIDES ORGANOCHLORINE
				SEMIVOLATILE ORGANICS BY GCMS
				TPH DIESEL & MOTOR OIL
				TPH GASOLINE
				VOLATILE ORGANICS BY GC/MS
SDWA-4	C024-07	03/01/10	SOIL	CHLORINATED HERBICIDES
				MERCURY
				TOTAL METALS BY ICP-MS
				OIL & GREASE HEM-SGT
				PESTICIDES ORGANOPHOSPHORUS
				PESTICIDES ORGANOCHLORINE
				SEMIVOLATILE ORGANICS BY GCMS
				TPH DIESEL & MOTOR OIL
				TPH GASOLINE
				VOLATILE ORGANICS BY GC/MS
FM-SURFACE	C024-08	03/01/10	SOIL	CHLORINATED HERBICIDES
				CHROMIUM HEXAVALENT
				MERCURY
				TOTAL METALS BY ICP-MS
				OIL & GREASE HEM-SGT
				PESTICIDES ORGANOPHOSPHORUS
				PESTICIDES ORGANOCHLORINE
				SEMIVOLATILE ORGANICS BY GCMS
				TPH DIESEL & MOTOR OIL
				TPH GASOLINE
				VOLATILE ORGANICS BY GC/MS
FM-12	C024-09	03/01/10	SOIL	CHLORINATED HERBICIDES
				CHROMIUM HEXAVALENT
				MERCURY

Sample ID	Control #	Col Date	Matrix	Analysis
				TOTAL METALS BY ICP-MS
				OIL & GREASE HEM-SGT
				PESTICIDES ORGANOPHOSPHORUS
				PESTICIDES ORGANOCHLORINE
				SEMIVOLATILE ORGANICS BY GCMS
				TPH DIESEL & MOTOR OIL
				TPH GASOLINE
				VOLATILE ORGANICS BY GC/MS
FM-16	C024-10	03/01/10	SOIL	CHLORINATED HERBICIDES
				CHROMIUM HEXAVALENT
				MERCURY
				TOTAL METALS BY ICP-MS
				OIL & GREASE HEM-SGT
				PESTICIDES ORGANOPHOSPHORUS
				PESTICIDES ORGANOCHLORINE
				SEMIVOLATILE ORGANICS BY GCMS
				TPH DIESEL & MOTOR OIL
				TPH GASOLINE
				VOLATILE ORGANICS BY GC/MS
SDWA-5-12	C024-11	03/01/10	SOIL	CHLORINATED HERBICIDES
				CHROMIUM HEXAVALENT
				MERCURY
				TOTAL METALS BY ICP-MS
				OIL & GREASE HEM-SGT
				PESTICIDES ORGANOPHOSPHORUS
				PESTICIDES ORGANOCHLORINE
				SEMIVOLATILE ORGANICS BY GCMS
				TPH DIESEL & MOTOR OIL
				TPH GASOLINE
				VOLATILE ORGANICS BY GC/MS
SDWA-5-18	C024-12	03/01/10	SOIL	CHLORINATED HERBICIDES
				CHROMIUM HEXAVALENT
				MERCURY
				TOTAL METALS BY ICP-MS
				OIL & GREASE HEM-SGT
				PESTICIDES ORGANOPHOSPHORUS
				PESTICIDES ORGANOCHLORINE
				SEMIVOLATILE ORGANICS BY GCMS
				TPH DIESEL & MOTOR OIL
				TPH GASOLINE
				VOLATILE ORGANICS BY GC/MS

Sample ID	Control #	Col Date	Matrix	Analysis
SDWA-5-20	C024-13	03/01/10	SOIL	CHLORINATED HERBICIDES
				CHROMIUM HEXAVALENT
				MERCURY
				TOTAL METALS BY ICP-MS
				OIL & GREASE HEM-SGT
				PESTICIDES ORGANOPHOSPHORUS
				PESTICIDES ORGANOCHLORINE
				SEMIVOLATILE ORGANICS BY GCMS
				TPH DIESEL & MOTOR OIL
				TPH GASOLINE
				VOLATILE ORGANICS BY GC/MS
FR-2-0-2	C024-14	03/01/10	SOIL	CHLORINATED HERBICIDES
				PESTICIDES ORGANOPHOSPHORUS
				PESTICIDES ORGANOCHLORINE
				LEAD BY ICP-MS
FR-1-0-2	C024-15	03/01/10	SOIL	CHLORINATED HERBICIDES
				PESTICIDES ORGANOPHOSPHORUS
				PESTICIDES ORGANOCHLORINE
				LEAD BY ICP-MS
FR-1-0-2-DUP	C024-16	03/01/10	SOIL	CHLORINATED HERBICIDES
				PESTICIDES ORGANOPHOSPHORUS
				PESTICIDES ORGANOCHLORINE
				LEAD BY ICP-MS

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Caspar J. Pang
Laboratory Director

This report is confidential and intended solely for the use of the individual or entity to whom it is addressed. This report shall not be reproduced except in full or without the written approval of EMAX.

EMAX certifies that the results included in this report meet all NELAC requirements unless noted in the Case Narrative.

10C024

CHAIN OF CUSTODY RECORD

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: EMAX

DATE 3/1/10 PAGE 1 OF 2

CLIENT: Tetra Tech

PROJECT NAME: Imperial Valley West

PROJECT MANAGER: David Hermance

TC #: 100-AMC-T25606-02

SAMPLERS (Signatures) Mandy Selders

TURN-AROUND TIME: 5 days

OBSERVATIONS/COMMENTS: David Hermance 402-968-1181 david.hermance@tetratech.com

PARAMETERS

LINE ITEM	SAMPLE NO.	DATE	TIME	8081, 8141, 8151, 1664, 8015m, 6020, 7471, 8270, 7196, 3060A	8260	8081, 8141, 8151, 1664, 8015m, 6020, 7471, 8270	5035, 8260	5035, 8015m (gas)	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
1.	LTB-030110-1	3/1/10	0800		X				U	W	G	2	HCl
2.	LEB-030110		0830	X			X	X		W	G	7	see jar
3.	LTB-030110-2		0800		X					W	G	2	HCl
4.	SDWA-2		0930	X			X	X		S	G	7	see jar
5.	SDWA-1		1010	X			X	X				7	
6.	SDWA-3		1055	X			X	X				7	
7.	SDWA-4		1135			X	X	X				7	
8.	FM-surface		1200	X			X	X				7	
9.	FM-12"		1210	X			X	X				7	
10.	FM-16"		1220	X			X	X				7	

FILTERING: ☐ FILTERED ☒ UNFILTERED

MATRIX TYPE: S - Soil, M - Sediment, W - Water

CONTAINER TYPE: G - Glass Bottle/Jar, SS - Stainless Steel Sleeve, SB - Brass Sleeve, P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL, NR (None required), NaOH, H_2SO_4

RELINQUISHED BY	SIGNATURE		DATE	TIME	
Mandy Selders	Mandy Selders	TETRA TECH, INC.	3/2/10	11:30	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 60/87
RECEIVED BY: Myp Aung	SIGNATURE: Myp Aung	COMPANY: Emax	DATE: 3/2/10	TIME: 11:30	METHOD OF SHIPMENT/SHIPMENT NO.
RELINQUISHED BY	SIGNATURE	COMPANY	DATE	TIME	Special Shipping/Handling/Storage Requirements: Cooler #1 T=2.8°C, Cooler #2 T=3.2°C
RECEIVED BY	SIGNATURE	COMPANY	DATE	TIME	

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

X:\GIS\ATT-MISC\COCR.CDR

1004

10 C024

CHAIN OF CUSTODY RECORD

TETRA TECH, INC.
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San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: EMAX

DATE 3/1/10 PAGE 2 OF 2

CLIENT: Tetra Tech

PROJECT NAME: Imperial Valley West

PROJECT MANAGER: David Hermance

TC #: 100-AMC-T25606-02

SAMPLERS (Signatures) Mandy Selders

TURN-AROUND TIME: 5 days

OBSERVATIONS/COMMENTS: David Hermance 402-968-1181 david.hermance@tetratech.com

PARAMETERS

LINE ITEM	SAMPLE NO.	DATE	TIME	8081, 8141, 8151, 1664, 8015M, 6020, 7471, 8270, 7196, 3060A	5035, 8260	5035, 8015M (gas)	6020A, 8141, 8151, 8081	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
1.	SDWA-5-12"	3/1/10	1310	X	X	X		U	S	G	7	see jar
2.	SDWA-5-18"	↓	1320	X	X	X		↓	↓	↓	7	↓
3.	SDWA-5-20"	↓	1330	X	X	X		↓	↓	↓	7	↓
4.	FR-2-0-2"	↓	1335				X	↓	↓	↓	2	NR
5.	FR-1-0-2"	↓	1405				X	↓	↓	↓	2	NR
6.	FR-1-0-2"-DUP	↓	1408				X	↓	↓	↓	2	NR
7.												
8.												
9.												
10.												

FILTERING: ☐ FILTERED ☒ UNFILTERED

MATRIX TYPE: S - Soil, M - Sediment, W - Water

CONTAINER TYPE: G - Glass Bottle/Jar, SS - Stainless Steel Sleeve, SB - Brass Sleeve, P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL, NR (None required), NaOH, H_2SO_4

RELINQUISHED BY	SIGNATURE		DATE	TIME	
Mandy Selders	Mandy Selders	TETRA TECH, INC.	3/2/10	11:30	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 27/87
RECEIVED BY: MYO AUNG	SIGNATURE: Myo Aung	COMPANY: Emax	DATE: 3/2/10	TIME: 11:30	METHOD OF SHIPMENT/SHIPMENT NO.
RELINQUISHED BY	SIGNATURE	COMPANY	DATE	TIME	Special Shipping/Handling/Storage Requirements:
RECEIVED BY	SIGNATURE	COMPANY	DATE	TIME	

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

X:\GIS\ATT-MISC\COCR.CDR

1005

EMAX LABORATORIES, INC.

SAMPLE RECEIPT FORM 1

Type of Delivery	Delivered By/Airbill	ECN 10 C024
☐ EMAX Courier		Recepient I PATEL
☑ Client Delivery	SEE COC	Date 3/2/10
☐ Third Party		Time 11:30 A

COC Inspection

☑ Client Name	☑ Client PM/FC	☑ Sampler Name	☑ Sampling Date/Time/Location	☑ Sample ID	☑ Matrix
☑ Address	☑ Tel # / Fax #	☑ Courier Signature	☑ Analysis Required	☑ Preservative (if any)	☑ TAT
Safety Issues	☑ None	☐ High concentrations expected	☐ Superfund Site samples	☐ Rad screening required	

Comments:

Packaging Inspection

Container	☑ Cooler	☐ Box	☐ Other		
Condition	☐ Custody Seal	☑ Intact	☐ Damaged		
Packaging	☑ Bubble Pack	☐ Styrofoam	☐ Popcorn	☑ Sufficient	☐ _____
Temperatures (Cool, ≤6 °C but not frozen)	☑ Cooler 1 2.8 °C	☑ Cooler 2 3.2 °C	☐ Cooler 3 ____ °C	☐ Cooler 4 ____ °C	☐ Cooler 5 ____ °C
	☐ Cooler 6 ____ °C	☐ Cooler 7 ____ °C	☐ Cooler 8 ____ °C	☐ Cooler 9 ____ °C	☐ Cooler 10 ____ °C

Comments: ☐ **PM was informed on non-compliant coolers imediately.**

DISCREPANCIES

LSID	LSCID	Sample Label ID/COC ID	Discrepancy Code	Corrective Action Code
02		LEB-030110	REC'D (2) 8 OZ JAR	unPres. R5
		MATRIX Water	for 8081, 8141, 8151	
			1664, 8015M, 6020, 7471	
			3060A Analysis	
			C1, F1,	
			NO separate Container	
			for Metals Pres/HNO3	
			& REC'D (2) Vials Pres.	
			w/sodium Bisulfate &	
			(3) Vials Pres/ MeOH	

REVIEWS

Sample Labeling [signature] Date 3/2/10

SRF [signature] Date 3/2/10

PM [signature] Date 3/2/10

LEGEND:

Code	Description- Sample Management	Code	Description-Sample Management	Code	Description-Project Management
A1	Analysis is not indicated in COC	D1	Date and/or time is not indicated in COC	R1	Hold sample(s); wait for further instructions
A2	Analysis is not indicated in label	D2	Date and/or time is not indicated in label	R2	Proceed as indicated in COC
A3	Analysis is inconsistent in COC vis-à-vis label	D3	Date and/or time is inconsistent in COC vis-à-vis label	R3	Refer to attached instruction
A4		E1	Insuficient preservative	R4	Cancel the analysis
B1	Sample ID is not indicated in COC	E2	Improper preservation	R5	cancel analyses. Informed client.
B2	Sample ID is not indicated in label	F1	Insufficient Sample	R6	
B3	Sample ID is inconsistent in COC vis-à-vis label	F2	Bubble is> 6mm		
B4		G1	Temperature is out of range		
C1	Wrong container	G2	Out of Holding Time		
C2	Broken container	G3	>20 % solid particle		
C3	Leaking container	H1			
C4		H2			

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

TETRA TECH

IMPERIAL VALLEY WEST

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

SDG#: 10C024

CASE NARRATIVE

Client : TETRA TECH

Project : IMPERIAL VALLEY WEST

SDG : 10C024

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

A total of two (2) water samples were received on 03/02/10 for Volatile Organics by GC/MS analysis, Method 5030B/8260B in accordance with USEPA SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods.

Holding Time
Samples were analyzed within the prescribed holding time.

Instrument Performance and Calibration
Instrument tune check was performed prior to calibration. Instrument mass ratios were within specification. Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using secondary source (ICV). Continuing calibration (CCV) was carried on at a frequency required by the project. All project calibration requirements were satisfied. Refer to calibration summary forms for ICAL, ICV and CCV for details.

Method Blank
Method blank was analyzed at the frequency required by the project. For this SDG, one method blank was analyzed with the samples. Result was compliant to project requirement.

Lab Control Sample
A set of LCS/LCD was analyzed with the samples in this SDG.
Percent recoveries for VO01C04L/C were all within QC limits.

Matrix QC Sample
No matrix QC sample was designated in this SDG.

Surrogate
Surrogates were added on QC and field samples. Surrogate recoveries were within project QC limits.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met otherwise anomalies were discussed within the associated QC parameter.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH
Project : IMPERIAL VALLEY WEST

SDG NO. : 10C024
Instrument ID : T-001

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	V001C04B	1	NA	03/04/1014:42	03/04/1014:42	RCV056	RAV029	V001C04	Method Blank
LCS1W	V001C04X	1	NA	03/04/1015:13	03/04/1015:13	RCV057	RAV029	V001C04	Lab Control Sample (LCS)
LCD1W	V001C04Y	1	NA	03/04/1015:45	03/04/1015:45	RCV058	RAV029	V001C04	LCS Duplicate
LTB-030110-1	C024-01	1	NA	03/04/1019:56	03/04/1019:56	RCV066	RAV029	V001C04	Field Sample
LTB-030110-2	C024-03	1	NA	03/04/1020:27	03/04/1020:27	RCV067	RAV029	V001C04	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/04/10 19:56
Sample ID:	LTB-030110-1	Date Analyzed:	03/04/10 19:56
Lab Samp ID:	C024-01	Dilution Factor:	1
Lab File ID:	RCV066	Matrix :	WATER
Ext Btch ID:	V001C04	% Moisture :	NA
Calib. Ref.:	RAV029	Instrument ID :	T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.20
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.20
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.20
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
ETHYLBENZENE	ND	1.0	0.20
M,P-XYLENES	ND	2.0	0.50
MTBE	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
O-XYLENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
VINYL CHLORIDE	ND	1.0	0.20
NAPHTHALENE	ND	2.0	0.50

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	105	70-140
4-BROMOFLUOROBENZENE	100	70-130
TOLUENE-D8	107	70-140

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/04/10 20:27
Sample ID:	LTB-030110-2	Date Analyzed:	03/04/10 20:27
Lab Samp ID:	C024-03	Dilution Factor:	1
Lab File ID:	RCV067	Matrix	: WATER
Ext Btch ID:	V001C04	% Moisture	: NA
Calib. Ref.:	RAV029	Instrument ID	: T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.20
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.20
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.20
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
ETHYLBENZENE	ND	1.0	0.20
M,P-XYLENES	ND	2.0	0.50
MTBE	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
O-XYLENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
VINYL CHLORIDE	ND	1.0	0.20
NAPHTHALENE	ND	2.0	0.50

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	110	70-140
4-BROMOFLUOROBENZENE	98	70-130
TOLUENE-D8	106	70-140

QC SUMMARIES

2006

SOP APPROVAL FORM

TETRA TECH EM INC.

ENVIRONMENTAL STANDARD OPERATING PROCEDURE

GENERAL EQUIPMENT DECONTAMINATION

SOP NO. 002

REVISION NO. 3

Last Reviewed: June 2009

Quality Assurance Approved	6-19-09 Date

1.0 BACKGROUND

All nondisposable field equipment must be decontaminated before and after each use at each sampling location to obtain representative samples and to reduce the possibility of cross-contamination.

1.1 PURPOSE

This standard operating procedure (SOP) establishes the requirements and procedures for decontaminating equipment in the field.

1.2 SCOPE

This SOP applies to decontaminating general nondisposable field equipment. To prevent contamination of samples, all sampling equipment must be thoroughly cleaned prior to each use.

1.3 DEFINITIONS

Alconox: Nonphosphate soap, obtained in powder detergent form and dissolved in water

Liquinox: Nonphosphate soap, obtained in liquid form for mixing with water

1.4 REFERENCES

U.S. Environmental Protection Agency (EPA). 1992a. "Guide to Management of Investigation-Derived Wastes." Office of Solid Waste and Emergency Response. Washington D.C. EPA 9345.3-03FS. January.

EPA. 1992b. "RCRA Ground-Water Monitoring: Draft Technical Guidance." Office of Solid Waste. Washington, DC. EPA/530-R-93-001. November.

EPA. 1994. "Sampling Equipment Decontamination." Environmental Response Team SOP #2006 (Rev. #0.0, 08/11/94). http://www.ert.org/mainContent.asp?section=Products&subsection=List

1.5 REQUIREMENTS AND RESOURCES

The equipment required to conduct decontamination is as follows:

- Scrub brushes
- Large wash tubs or buckets
- Squirt bottles
- Alconox or Liquinox
- Tap water
- Distilled water
- Plastic sheeting
- Aluminum foil
- Methanol or hexane
- Isopropanol (pesticide grade)
- Dilute (0.1 N) nitric acid

2.0 PROCEDURE

The procedures below discuss decontamination of personal protective equipment (PPE), drilling and monitoring well installation equipment, borehole soil sampling equipment, water level measurement equipment, general sampling equipment, and groundwater sampling equipment.

2.1 PERSONAL PROTECTIVE EQUIPMENT DECONTAMINATION

Personnel working in the field are required to follow specific procedures for decontamination prior to leaving the work area so that contamination is not spread off site or to clean areas. All used disposable protective clothing, such as Tyvek coveralls, gloves, and booties, will be containerized for later disposal. Decontamination water will be containerized in 55-gallon drums (refer to Section 3.0).

Personnel decontamination procedures will be as follows:

1. Select an area removed from sampling locations that is both downwind and downgradient. Decontamination must not cause cross-contamination between sampling points.

2. Maintain the same level of personal protection as was used for sampling.

3. Wash neoprene boots (or neoprene boots with disposable booties) with Liquinox or Alconox solution and rinse with clean water. Remove booties and retain boots for subsequent reuse.

4. Wash outer gloves in Liquinox or Alconox solution and rinse in clean water. Remove outer gloves and place into plastic bag for disposal.

5. Remove Tyvek or coveralls. Containerize Tyvek for disposal and place coveralls in plastic bag for reuse.

6. Remove air purifying respirator (APR), if used, and place the spent filters into a plastic bag for disposal. Filters should be changed daily or sooner depending on use and application. Place respirator into a separate plastic bag after cleaning and disinfecting.

7. Remove disposable gloves and place them in plastic bag for disposal.

8. Thoroughly wash hands and face in clean water and soap.

2.2 DRILLING AND MONITORING WELL INSTALLATION EQUIPMENT DECONTAMINATION

All drilling equipment should be decontaminated at a designated location on site before drilling operations begin, between borings, and at completion of the project. Decontamination may be conducted on a temporary decontamination pad constructed at satellite locations within the site area in support of temporary work areas. The purpose of the decontamination pad is to contain wash waters and potentially contaminated soil generated during decontamination procedures. Decontamination pads may be constructed of concrete, wood, or plastic sheeting, depending on the site-specific needs and plans. Wash waters and contaminated soil generated during decontamination activities should be considered contaminated and thus, should be collected and containerized for proper disposal.

Monitoring well casing, screens, and fittings are assumed to be delivered to the site in a clean condition. However, they should be steam cleaned and placed on polyethylene sheeting on-site prior to placement downhole. The drilling subcontractor will typically furnish the steam cleaner and water.

The drilling auger, bits, drill pipe, any portion of drill rig that is over the borehole, temporary casing, surface casing, and other equipment used in or near the borehole should be decontaminated by the drilling subcontractor as follows:

1. Select an area removed from sampling locations that is both downwind and downgradient. Decontamination must not cause cross-contamination between sampling points.

2. Maintain the same level of personal protection as was used for sampling.

3. Remove loose soil using shovels, scrapers, wire brush, etc.
4. Steam clean or pressure wash to remove all visible dirt.
5. If equipment has directly or indirectly contacted contaminated media and is known or suspected of being contaminated with oil, grease, polynuclear aromatic hydrocarbons (PAH), polychlorinated biphenyls (PCB), or other hard to remove organic materials, rinse equipment with pesticide-grade isopropanol.
6. To the extent possible, allow components to air dry.
7. Wrap or cover equipment in clear plastic until it is time to be used.
8. All wastewater from decontamination procedures should be containerized.

2.3 BOREHOLE SOIL SAMPLING DOWNHOLE EQUIPMENT DECONTAMINATION

All soil sampling downhole equipment should be decontaminated before use and after each sample as follows:

1. Select an area removed from sampling locations that is both downwind and downgradient. Decontamination must not cause cross-contamination between sampling points.

2. Maintain the same level of personal protection as was used for sampling.

3. Prior to sampling, scrub the split-barrel sampler and sampling tools in a wash bucket or tub using a stiff, long bristle brush and Liquinox or Alconox solution.

4. After sampling, steam clean the sampling equipment over the rinsate tub and allow to air dry.

5. Place cleaned equipment in a clean area on plastic sheeting and wrap with aluminum foil.

6. Containerize all water and rinsate; disposable single-use sampling equipment should also be containerized.

7. Decontaminate all equipment placed down the hole as described for drilling equipment.

2.4 WATER LEVEL MEASUREMENT EQUIPMENT DECONTAMINATION

Field personnel should decontaminate the well sounder and interface probe before inserting and after removing them from each well. The following decontamination procedures should be used:

1. Select an area removed from sampling locations that is both downwind and downgradient. Decontamination must not cause cross-contamination between sampling points.
2. Maintain the same level of personal protection as was used for sampling.
3. Wipe the tape and probe with a disposable Alconox- or Liquinox-impregnated cloth or paper towel.
4. If immiscible layers are encountered, the interface probe may require steam cleaning or washing with pesticide-grade isopropanol.
5. Rinse with deionized water.

2.5 GENERAL SAMPLING EQUIPMENT DECONTAMINATION

All nondisposable sampling equipment should be decontaminated using the following procedures:

1. Select an area removed from sampling locations that is both downwind and downgradient. Decontamination must not cause cross-contamination between sampling points.
2. Maintain the same level of personal protection as was used for sampling.
3. To decontaminate a piece of equipment, use an Alconox wash; a tap water wash; a solvent (isopropanol, methanol, or hexane) rinse, if applicable, or dilute (0.1 N) nitric acid rinse, if applicable; a distilled water rinse; and air drying. Use a solvent (isopropanol, methanol, or hexane) rinse for grossly contaminated equipment (for example, equipment that is not readily cleaned by the Alconox wash). The dilute nitric acid rinse may be used if metals are the analyte of concern.
4. Place cleaned equipment in a clean area on plastic sheeting and wrap with aluminum foil.
5. Containerize all water and rinsate.

2.6 GROUNDWATER SAMPLING EQUIPMENT

The following procedures are to be employed for the decontamination of equipment used for groundwater sampling. Decontamination is not necessary when using disposable (single-use) pump tubing or bailers. Bailer and downhole pumps and tubing decontamination procedures are described in the following sections.

2.6.1 Bailers

1. Select an area removed from sampling locations that is both downwind and downgradient. Decontamination must not cause cross-contamination between sampling points.

2. Maintain the same level of personal protection as was used for sampling.

3. Evacuate any purge water in the bailer.

4. Scrub using soap and water and/or steam clean the outside of the bailer.

5. Insert the bailer into a clean container of soapy water. Thoroughly rinse the interior of the bailer with the soapy water. If possible, scrub the inside of the bailer with a scrub brush.

6. Remove the bailer from the container of soapy water.

7. Rinse the interior and exterior of the bailer using tap water.

8. If groundwater contains or is suspected to contain oil, grease, PAH, PCB, or other hard to remove organic materials, rinse equipment with pesticide-grade isopropanol.

9. Rinse the bailer interior and exterior with deionized water to rinse off the tap water and solvent residue, as applicable.

10. Drain residual deionized water to the extent possible.

11. Allow components to air dry.

12. Wrap the bailer in aluminum foil or a clean plastic bag for storage.

13. Containerize the decontamination wash waters for proper disposal.

2.6.2 Downhole Pumps and Tubing

1. Select an area removed from sampling locations that is both downwind and downgradient. Decontamination must not cause cross-contamination between sampling points.

2. Maintain the same level of personal protection as was used for sampling.

3. Evacuate any purge water in the pump and tubing.

4. Scrub using soap and water and/or steam clean the outside of the pump and, if applicable, the pump tubing.

5. Insert the pump and tubing into a clean container of soapy water. Pump/run a sufficient amount of soapy water to flush out any residual well water. After the pump and tubing are flushed, circulate soapy water through the pump and tubing to ensure that the internal components are thoroughly flushed.

6. Remove the pump and tubing from the container.

7. Rinse external pump components using tap water.

8. Insert the pump and tubing into a clean container of tap water. Pump/run a sufficient amount of tap water through the pump to evacuate all of the soapy water (until clear).

9. If groundwater contains or is suspected to contain oil, grease, PAH, PCB, or other hard to remove organic materials, rinse the pump and tubing with pesticide-grade isopropanol.

10. Rinse the pump and tubing with deionized water to flush out the tap water and solvent residue, as applicable.

11. Drain residual deionized water to the extent possible.

12. Allow components to air dry.

13. For submersible bladder pumps, disassemble the pump and wash the internal components with soap and water, rinse with tap water, isopropanol (if necessary), and deionized water, and allow to air dry.

14. Wrap pump and tubing in aluminum foil or a clean plastic bag for storage.

15. Containerize the decontamination wash waters for proper disposal.

3.0 INVESTIGATION-DERIVED WASTE

Investigation-derived waste (IDW) can include disposable single-use PPE and sampling equipment, soil cuttings, and decontamination wash waters and sediments. Requirements for waste storage may differ from one facility to the next. Facility-specific directions for waste storage will be provided in project-specific documents, or separate direction will be provided by the project manager. The following guidelines are provided for general use:

1. Assume that all IDW generated from decontamination activities contains the hazardous chemicals associated with the site unless there are analytical or other data to the contrary. Waste solution volumes could vary from a few gallons to several hundred gallons in cases where large equipment required cleaning.

2. Containerized waste rinse solutions are best stored in 55-gallon drums (or equivalent containers) that can be sealed until ultimate disposal at an approved facility.

3. Label IDW storage containers with the facility name and address, date, contents, company generating the waste, and an emergency contact name and phone number.

4. Temporarily store the IDW in a protected area that provides access to the containers and allows for spill/leak monitoring, sampling of containers, and removal following determination of the disposal method.

LABORATORY REPORT FOR

TETRA TECH

IMPERIAL VALLEY WEST

METHOD 3060A/7196A
HEXAVALENT CHROMIUM

SDG#: 10C024

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH	Date Collected:	NA
Project	: IMPERIAL VALLEY WEST	Date Received:	03/04/10
Batch No.	: 10C024	Date Extracted:	03/04/10 14:42
Sample ID:	MBLK1W	Date Analyzed:	03/04/10 14:42
Lab Samp ID:	V001C04B	Dilution Factor:	1
Lab File ID:	RCV056	Matrix :	WATER
Ext Btch ID:	V001C04	% Moisture :	NA
Calib. Ref.:	RAV029	Instrument ID :	T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.20
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.20
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.20
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
ETHYLBENZENE	ND	1.0	0.20
M,P-XYLENES	ND	2.0	0.50
MTBE	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
O-XYLENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
VINYL CHLORIDE	ND	1.0	0.20
NAPHTHALENE	ND	2.0	0.50

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	105	70-140
4-BROMOFLUOROBENZENE	99	70-130
TOLUENE-D8	108	70-130

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH
PROJECT: IMPERIAL VALLEY WEST
BATCH NO.: 10C024
METHOD: SW 5030B/8260B

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	V001C04B	V001C04X	V001C04Y		
LAB FILE ID:	RCV056	RCV057	RCV058		
DATE EXTRACTED:	03/04/1014:42	03/04/1015:13	03/04/1015:45	DATE COLLECTED:	NA
DATE ANALYZED:	03/04/1014:42	03/04/1015:13	03/04/1015:45	DATE RECEIVED:	03/04/10
PREP. BATCH:	V001C04	V001C04	V001C04		
CALIB. REF:	RAV029	RAV029	RAV029		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	10.0	12.2	122	10.0	11.9	119	2	60-130	30
Benzene	ND	10.0	9.12	91	10.0	9.09	91	0	70-130	30
Chlorobenzene	ND	10.0	9.67	97	10.0	9.32	93	4	70-120	30
Toluene	ND	10.0	9.97	100	10.0	9.31	93	7	70-130	30
Trichloroethene	ND	10.0	9.60	96	10.0	9.26	93	4	70-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10.0	9.93	99	10.0	10.1	101	70-140
4-Bromofluorobenzene	10.0	10.3	103	10.0	10.3	103	70-130
Toluene-d8	10.0	10.6	106	10.0	10.8	108	70-130

LABORATORY REPORT FOR

TETRA TECH

IMPERIAL VALLEY WEST

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

SDG#: 10C024

CASE NARRATIVE

Client : TETRA TECH

Project : IMPERIAL VALLEY WEST

SDG : 10C024

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

A total of ten (10) soil samples were received on 03/02/10 for Volatile Organics by GC/MS analysis, Method 5035/8260B in accordance with USEPA SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods.

Holding Time
Samples were analyzed within the prescribed holding time.

Instrument Performance and Calibration
Instrument tune check was performed prior to calibration. Instrument mass ratios were within specification. Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using secondary source (ICV). Continuing calibration (CCV) was carried on at a frequency required by the project. All project calibration requirements were satisfied. Refer to calibration summary forms for ICAL, ICV and CCV for details.

Method Blank
Method blank was analyzed at the frequency required by the project. For this SDG, one method blank was analyzed with the samples. Result was compliant to project requirement.

Lab Control Sample
A set of LCS/LCD was analyzed with the samples in this SDG.
Percent recoveries for VOD3C05L/C were all within QC limits.

Matrix QC Sample
No matrix QC sample was designated in this SDG.

Surrogate
Surrogates were added on QC and field samples. Surrogate recoveries were within project QC limits except as marked with [*] in the sample result form. Refer to sample result form for details.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met otherwise anomalies were discussed within the associated QC parameter.
Several samples exhibited low internal standard response. Reanalysis showed the same QC deficiencies suggesting matrix issues and possibly biased quantitation.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH
Project : IMPERIAL VALLEY WEST

SDG NO. : 10C024
Instrument ID : T-OD3

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	VOD3C05B	1	NA	03/06/1011:11	03/06/1011:11	RCE107	RBE129	VOD3C05	Method Blank
LCS1S	VOD3C05L	1	NA	03/06/1009:11	03/06/1009:11	RCE103	RBE129	VOD3C05	Lab Control Sample (LCS)
LCD1S	VOD3C05C	1	NA	03/06/1009:42	03/06/1009:42	RCE104	RBE129	VOD3C05	LCS Duplicate
SDWA-2	C024-04	1.30	3.3	03/06/1011:41	03/06/1011:41	RCE108	RBE129	VOD3C05	Field Sample
SDWA-1	C024-05	1.15	8.6	03/06/1012:11	03/06/1012:11	RCE109	RBE129	VOD3C05	Field Sample
SDWA-3	C024-06	0.89	2.2	03/06/1012:41	03/06/1012:41	RCE110	RBE129	VOD3C05	Field Sample
SDWA-4	C024-07	0.40	4.0	03/06/1013:11	03/06/1013:11	RCE111	RBE129	VOD3C05	Field Sample
FM-SURFACE	C024-08	1.10	10.8	03/06/1013:41	03/06/1013:41	RCE112	RBE129	VOD3C05	Field Sample
FM-12	C024-09	1.43	5.5	03/06/1014:11	03/06/1014:11	RCE113	RBE129	VOD3C05	Field Sample
FM-16	C024-10	0.55	0.4	03/06/1014:41	03/06/1014:41	RCE114	RBE129	VOD3C05	Field Sample
SDWA-5-12	C024-11	0.75	4.9	03/06/1015:11	03/06/1015:11	RCE115	RBE129	VOD3C05	Field Sample
SDWA-5-18	C024-12	0.71	6.9	03/06/1015:41	03/06/1015:41	RCE116	RBE129	VOD3C05	Field Sample
SDWA-5-20	C024-13	0.48	7.3	03/06/1016:10	03/06/1016:10	RCE117	RBE129	VOD3C05	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/06/10 11:41
Sample ID: SDWA-2	Date Analyzed: 03/06/10 11:41
Lab Samp ID: C024-04	Dilution Factor: 1.30
Lab File ID: RCE108	Matrix : SOIL
Ext Btch ID: VOD3C05	% Moisture : 3.3
Calib. Ref.: RBE129	Instrument ID : T-OD3

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	6.7	2.7
1,1,2,2-TETRACHLOROETHANE	ND	6.7	2.7
1,1,2-TRICHLOROETHANE	ND	6.7	2.7
1,1-DICHLOROETHANE	ND	6.7	2.7
1,1-DICHLOROETHENE	ND	6.7	2.7
1,2-DICHLOROETHANE	ND	6.7	2.7
1,2-DICHLOROPROPANE	ND	6.7	2.7
2-BUTANONE	11J	13	6.7
2-HEXANONE	ND	13	6.7
4-METHYL-2-PENTANONE	ND	13	6.7
ACETONE	40	13	6.7
BENZENE	ND	6.7	2.7
BROMODICHLOROMETHANE	ND	6.7	2.7
BROMOFORM	ND	6.7	2.7
BROMOMETHANE	ND	13	2.7
CARBON DISULFIDE	ND	6.7	2.7
CARBON TETRACHLORIDE	ND	6.7	2.7
CHLOROBENZENE	ND	6.7	2.7
CHLOROETHANE	ND	6.7	2.7
CHLOROFORM	ND	6.7	2.7
CHLOROMETHANE	ND	13	2.7
CIS-1,2-DICHLOROETHENE	ND	6.7	2.7
CIS-1,3-DICHLOROPROPENE	ND	6.7	2.7
DIBROMOCHLOROMETHANE	ND	6.7	2.7
ETHYLBENZENE	ND	6.7	2.7
M,P-XYLENES	ND	13	2.7
MTBE	ND	6.7	2.7
METHYLENE CHLORIDE	ND	13	2.7
O-XYLENE	ND	6.7	2.7
STYRENE	ND	6.7	2.7
TETRACHLOROETHENE	ND	6.7	2.7
TOLUENE	ND	6.7	2.7
TRANS-1,2-DICHLOROETHENE	ND	6.7	2.7
TRANS-1,3-DICHLOROPROPENE	ND	6.7	2.7
TRICHLOROETHENE	ND	6.7	2.7
VINYL CHLORIDE	ND	6.7	2.7
NAPHTHALENE	ND	13	2.7

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	112	60-160
4-BROMOFLUOROBENZENE	176*	70-150
TOLUENE-D8	128	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/06/10 12:11
Sample ID: SDWA-1	Date Analyzed: 03/06/10 12:11
Lab Samp ID: C024-05	Dilution Factor: 1.15
Lab File ID: RCE109	Matrix : SOIL
Ext Btch ID: VOD3C05	% Moisture : 8.6
Calib. Ref.: RBE129	Instrument ID : T-OD3

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	6.3	2.5
1,1,2,2-TETRACHLOROETHANE	ND	6.3	2.5
1,1,2-TRICHLOROETHANE	ND	6.3	2.5
1,1-DICHLOROETHANE	ND	6.3	2.5
1,1-DICHLOROETHENE	ND	6.3	2.5
1,2-DICHLOROETHANE	ND	6.3	2.5
1,2-DICHLOROPROPANE	ND	6.3	2.5
2-BUTANONE	ND	13	6.3
2-HEXANONE	ND	13	6.3
4-METHYL-2-PENTANONE	ND	13	6.3
ACETONE	36	13	6.3
BENZENE	ND	6.3	2.5
BROMODICHLOROMETHANE	ND	6.3	2.5
BROMOFORM	ND	6.3	2.5
BROMOMETHANE	ND	13	2.5
CARBON DISULFIDE	ND	6.3	2.5
CARBON TETRACHLORIDE	ND	6.3	2.5
CHLOROBENZENE	ND	6.3	2.5
CHLOROETHANE	ND	6.3	2.5
CHLOROFORM	ND	6.3	2.5
CHLOROMETHANE	ND	13	2.5
CIS-1,2-DICHLOROETHENE	ND	6.3	2.5
CIS-1,3-DICHLOROPROPENE	ND	6.3	2.5
DIBROMOCHLOROMETHANE	ND	6.3	2.5
ETHYLBENZENE	ND	6.3	2.5
M,P-XYLENES	ND	13	2.5
MTBE	ND	6.3	2.5
METHYLENE CHLORIDE	ND	13	2.5
O-XYLENE	ND	6.3	2.5
STYRENE	ND	6.3	2.5
TETRACHLOROETHENE	ND	6.3	2.5
TOLUENE	ND	6.3	2.5
TRANS-1,2-DICHLOROETHENE	ND	6.3	2.5
TRANS-1,3-DICHLOROPROPENE	ND	6.3	2.5
TRICHLOROETHENE	ND	6.3	2.5
VINYL CHLORIDE	ND	6.3	2.5
NAPHTHALENE	ND	13	2.5

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	113	60-160
4-BROMOFLUOROBENZENE	102	70-150
TOLUENE-D8	103	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/06/10 12:41
Sample ID:	SDWA-3	Date Analyzed:	03/06/10 12:41
Lab Samp ID:	C024-06	Dilution Factor:	0.89
Lab File ID:	RCE110	Matrix :	SOIL
Ext Btch ID:	VOD3C05	% Moisture :	2.2
Calib. Ref.:	RBE129	Instrument ID :	T-OD3

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	4.6	1.8
1,1,2,2-TETRACHLOROETHANE	ND	4.6	1.8
1,1,2-TRICHLOROETHANE	ND	4.6	1.8
1,1-DICHLOROETHANE	ND	4.6	1.8
1,1-DICHLOROETHENE	ND	4.6	1.8
1,2-DICHLOROETHANE	ND	4.6	1.8
1,2-DICHLOROPROPANE	ND	4.6	1.8
2-BUTANONE	ND	9.1	4.6
2-HEXANONE	ND	9.1	4.6
4-METHYL-2-PENTANONE	ND	9.1	4.6
ACETONE	26	9.1	4.6
BENZENE	ND	4.6	1.8
BROMODICHLOROMETHANE	ND	4.6	1.8
BROMOFORM	ND	4.6	1.8
BROMOMETHANE	ND	9.1	1.8
CARBON DISULFIDE	ND	4.6	1.8
CARBON TETRACHLORIDE	ND	4.6	1.8
CHLOROBENZENE	ND	4.6	1.8
CHLOROETHANE	ND	4.6	1.8
CHLOROFORM	ND	4.6	1.8
CHLOROMETHANE	ND	9.1	1.8
CIS-1,2-DICHLOROETHENE	ND	4.6	1.8
CIS-1,3-DICHLOROPROPENE	ND	4.6	1.8
DIBROMOCHLOROMETHANE	ND	4.6	1.8
ETHYLBENZENE	ND	4.6	1.8
M,P-XYLENES	ND	9.1	1.8
MTBE	ND	4.6	1.8
METHYLENE CHLORIDE	ND	9.1	1.8
O-XYLENE	ND	4.6	1.8
STYRENE	ND	4.6	1.8
TETRACHLOROETHENE	ND	4.6	1.8
TOLUENE	ND	4.6	1.8
TRANS-1,2-DICHLOROETHENE	ND	4.6	1.8
TRANS-1,3-DICHLOROPROPENE	ND	4.6	1.8
TRICHLOROETHENE	ND	4.6	1.8
VINYL CHLORIDE	ND	4.6	1.8
NAPHTHALENE	ND	9.1	1.8

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	111	60-160
4-BROMOFLUOROBENZENE	99	70-150
TOLUENE-D8	99	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/06/10 13:11
Sample ID: SDWA-4	Date Analyzed: 03/06/10 13:11
Lab Samp ID: C024-07	Dilution Factor: 0.40
Lab File ID: RCE111	Matrix : SOIL
Ext Btch ID: VOD3C05	% Moisture : 4.0
Calib. Ref.: RBE129	Instrument ID : T-OD3

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	2.1	0.83
1,1,2,2-TETRACHLOROETHANE	ND	2.1	0.83
1,1,2-TRICHLOROETHANE	ND	2.1	0.83
1,1-DICHLOROETHANE	ND	2.1	0.83
1,1-DICHLOROETHENE	ND	2.1	0.83
1,2-DICHLOROETHANE	ND	2.1	0.83
1,2-DICHLOROPROPANE	ND	2.1	0.83
2-BUTANONE	2.8J	4.2	2.1
2-HEXANONE	ND	4.2	2.1
4-METHYL-2-PENTANONE	ND	4.2	2.1
ACETONE	19	4.2	2.1
BENZENE	ND	2.1	0.83
BROMODICHLOROMETHANE	ND	2.1	0.83
BROMOFORM	ND	2.1	0.83
BROMOMETHANE	ND	4.2	0.83
CARBON DISULFIDE	ND	2.1	0.83
CARBON TETRACHLORIDE	ND	2.1	0.83
CHLOROBENZENE	ND	2.1	0.83
CHLOROETHANE	ND	2.1	0.83
CHLOROFORM	ND	2.1	0.83
CHLOROMETHANE	ND	4.2	0.83
CIS-1,2-DICHLOROETHENE	ND	2.1	0.83
CIS-1,3-DICHLOROPROPENE	ND	2.1	0.83
DIBROMOCHLOROMETHANE	ND	2.1	0.83
ETHYLBENZENE	ND	2.1	0.83
M,P-XYLENES	ND	4.2	0.83
MTBE	ND	2.1	0.83
METHYLENE CHLORIDE	ND	4.2	0.83
O-XYLENE	ND	2.1	0.83
STYRENE	ND	2.1	0.83
TETRACHLOROETHENE	ND	2.1	0.83
TOLUENE	ND	2.1	0.83
TRANS-1,2-DICHLOROETHENE	ND	2.1	0.83
TRANS-1,3-DICHLOROPROPENE	ND	2.1	0.83
TRICHLOROETHENE	ND	2.1	0.83
VINYL CHLORIDE	ND	2.1	0.83
NAPHTHALENE	ND	4.2	0.83

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	123	60-160
4-BROMOFLUOROBENZENE	96	70-150
TOLUENE-D8	98	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/06/10 13:41
Sample ID: FM-SURFACE	Date Analyzed: 03/06/10 13:41
Lab Samp ID: CD24-08	Dilution Factor: 1.10
Lab File ID: RCE112	Matrix : SOIL
Ext Btch ID: VOD3C05	% Moisture : 10.8
Calib. Ref.: RBE129	Instrument ID : T-OD3

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	6.2	2.5
1,1,2,2-TETRACHLOROETHANE	ND	6.2	2.5
1,1,2-TRICHLOROETHANE	ND	6.2	2.5
1,1-DICHLOROETHANE	ND	6.2	2.5
1,1-DICHLOROETHENE	ND	6.2	2.5
1,2-DICHLOROETHANE	ND	6.2	2.5
1,2-DICHLOROPROPANE	ND	6.2	2.5
2-BUTANONE	6.3J	12	6.2
2-HEXANONE	ND	12	6.2
4-METHYL-2-PENTANONE	ND	12	6.2
ACETONE	57	12	6.2
BENZENE	20	6.2	2.5
BROMODICHLOROMETHANE	ND	6.2	2.5
BROMOFORM	ND	6.2	2.5
BROMOMETHANE	ND	12	2.5
CARBON DISULFIDE	ND	6.2	2.5
CARBON TETRACHLORIDE	ND	6.2	2.5
CHLOROBENZENE	ND	6.2	2.5
CHLOROETHANE	ND	6.2	2.5
CHLOROFORM	ND	6.2	2.5
CHLOROMETHANE	ND	12	2.5
CIS-1,2-DICHLOROETHENE	ND	6.2	2.5
CIS-1,3-DICHLOROPROPENE	ND	6.2	2.5
DIBROMOCHLOROMETHANE	ND	6.2	2.5
ETHYLBENZENE	ND	6.2	2.5
M,P-XYLENES	ND	12	2.5
MTBE	ND	6.2	2.5
METHYLENE CHLORIDE	ND	12	2.5
O-XYLENE	ND	6.2	2.5
STYRENE	ND	6.2	2.5
TETRACHLOROETHENE	ND	6.2	2.5
TOLUENE	6.2	6.2	2.5
TRANS-1,2-DICHLOROETHENE	ND	6.2	2.5
TRANS-1,3-DICHLOROPROPENE	ND	6.2	2.5
TRICHLOROETHENE	ND	6.2	2.5
VINYL CHLORIDE	ND	6.2	2.5
NAPHTHALENE	ND	12	2.5

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	130	60-160
4-BROMOFLUOROBENZENE	114	70-150
TOLUENE-D8	119	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/06/10 14:11
Sample ID: FM-12	Date Analyzed: 03/06/10 14:11
Lab Samp ID: C024-09	Dilution Factor: 1.43
Lab File ID: RCE113	Matrix : SOIL
Ext Btch ID: VOD3C05	% Moisture : 5.5
Calib. Ref.: RBE129	Instrument ID : T-OD3

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	7.6	3.0
1,1,2,2-TETRACHLOROETHANE	ND	7.6	3.0
1,1,2-TRICHLOROETHANE	ND	7.6	3.0
1,1-DICHLOROETHANE	ND	7.6	3.0
1,1-DICHLOROETHENE	ND	7.6	3.0
1,2-DICHLOROETHANE	ND	7.6	3.0
1,2-DICHLOROPROPANE	ND	7.6	3.0
2-BUTANONE	77	15	7.6
2-HEXANONE	18	15	7.6
4-METHYL-2-PENTANONE	13J	15	7.6
ACETONE	170	15	7.6
BENZENE	210	7.6	3.0
BROMODICHLOROMETHANE	ND	7.6	3.0
BROMOFORM	ND	7.6	3.0
BROMOMETHANE	ND	15	3.0
CARBON DISULFIDE	ND	7.6	3.0
CARBON TETRACHLORIDE	ND	7.6	3.0
CHLOROBENZENE	ND	7.6	3.0
CHLOROETHANE	ND	7.6	3.0
CHLOROFORM	ND	7.6	3.0
CHLOROMETHANE	ND	15	3.0
CIS-1,2-DICHLOROETHENE	ND	7.6	3.0
CIS-1,3-DICHLOROPROPENE	ND	7.6	3.0
DIBROMOCHLOROMETHANE	ND	7.6	3.0
ETHYLBENZENE	85	7.6	3.0
M,P-XYLENES	87	15	3.0
MTBE	ND	7.6	3.0
METHYLENE CHLORIDE	ND	15	3.0
O-XYLENE	41	7.6	3.0
STYRENE	ND	7.6	3.0
TETRACHLOROETHENE	ND	7.6	3.0
TOLUENE	340	7.6	3.0
TRANS-1,2-DICHLOROETHENE	ND	7.6	3.0
TRANS-1,3-DICHLOROPROPENE	ND	7.6	3.0
TRICHLOROETHENE	ND	7.6	3.0
VINYL CHLORIDE	ND	7.6	3.0
NAPHTHALENE	29	15	3.0

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	131	60-160
4-BROMOFLUOROBENZENE	169*	70-150
TOLUENE-D8	148*	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/06/10 14:41
Sample ID:	FM-16	Date Analyzed:	03/06/10 14:41
Lab Samp ID:	C024-10	Dilution Factor:	0.55
Lab File ID:	RCE114	Matrix :	SOIL
Ext Btch ID:	VOD3C05	% Moisture :	0.4
Calib. Ref.:	RBE129	Instrument ID :	T-OD3

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	2.8	1.1
1,1,2,2-TETRACHLOROETHANE	ND	2.8	1.1
1,1,2-TRICHLOROETHANE	ND	2.8	1.1
1,1-DICHLOROETHANE	ND	2.8	1.1
1,1-DICHLOROETHENE	ND	2.8	1.1
1,2-DICHLOROETHANE	ND	2.8	1.1
1,2-DICHLOROPROPANE	ND	2.8	1.1
2-BUTANONE	14	5.5	2.8
2-HEXANONE	ND	5.5	2.8
4-METHYL-2-PENTANONE	ND	5.5	2.8
ACETONE	48	5.5	2.8
BENZENE	ND	2.8	1.1
BROMODICHLOROMETHANE	ND	2.8	1.1
BROMOFORM	ND	2.8	1.1
BROMOMETHANE	ND	5.5	1.1
CARBON DISULFIDE	2.4J	2.8	1.1
CARBON TETRACHLORIDE	ND	2.8	1.1
CHLOROBENZENE	ND	2.8	1.1
CHLOROETHANE	ND	2.8	1.1
CHLOROFORM	ND	2.8	1.1
CHLOROMETHANE	ND	5.5	1.1
CIS-1,2-DICHLOROETHENE	ND	2.8	1.1
CIS-1,3-DICHLOROPROPENE	ND	2.8	1.1
DIBROMOCHLOROMETHANE	ND	2.8	1.1
ETHYLBENZENE	ND	2.8	1.1
M,P-XYLENES	ND	5.5	1.1
MTBE	ND	2.8	1.1
METHYLENE CHLORIDE	ND	5.5	1.1
O-XYLENE	ND	2.8	1.1
STYRENE	ND	2.8	1.1
TETRACHLOROETHENE	ND	2.8	1.1
TOLUENE	ND	2.8	1.1
TRANS-1,2-DICHLOROETHENE	ND	2.8	1.1
TRANS-1,3-DICHLOROPROPENE	ND	2.8	1.1
TRICHLOROETHENE	ND	2.8	1.1
VINYL CHLORIDE	ND	2.8	1.1
NAPHTHALENE	ND	5.5	1.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	115	60-160
4-BROMOFLUOROBENZENE	100	70-150
TOLUENE-D8	100	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/06/10 15:11
Sample ID: SDWA-5-12	Date Analyzed: 03/06/10 15:11
Lab Samp ID: C024-11	Dilution Factor: 0.75
Lab File ID: RCE115	Matrix : SOIL
Ext Btch ID: VOD3C05	% Moisture : 4.9
Calib. Ref.: RBE129	Instrument ID : T-OD3

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	3.9	1.6
1,1,2,2-TETRACHLOROETHANE	ND	3.9	1.6
1,1,2-TRICHLOROETHANE	ND	3.9	1.6
1,1-DICHLOROETHANE	ND	3.9	1.6
1,1-DICHLOROETHENE	ND	3.9	1.6
1,2-DICHLOROETHANE	ND	3.9	1.6
1,2-DICHLOROPROPANE	ND	3.9	1.6
2-BUTANONE	25	7.9	3.9
2-HEXANONE	ND	7.9	3.9
4-METHYL-2-PENTANONE	ND	7.9	3.9
ACETONE	160	7.9	3.9
BENZENE	8.7	3.9	1.6
BROMODICHLOROMETHANE	ND	3.9	1.6
BROMOFORM	ND	3.9	1.6
BROMOMETHANE	ND	7.9	1.6
CARBON DISULFIDE	3.2J	3.9	1.6
CARBON TETRACHLORIDE	ND	3.9	1.6
CHLOROBENZENE	ND	3.9	1.6
CHLOROETHANE	ND	3.9	1.6
CHLOROFORM	ND	3.9	1.6
CHLOROMETHANE	ND	7.9	1.6
CIS-1,2-DICHLOROETHENE	ND	3.9	1.6
CIS-1,3-DICHLOROPROPENE	ND	3.9	1.6
DIBROMOCHLOROMETHANE	ND	3.9	1.6
ETHYLBENZENE	2.0J	3.9	1.6
M,P-XYLENES	2.5J	7.9	1.6
MTBE	ND	3.9	1.6
METHYLENE CHLORIDE	ND	7.9	1.6
O-XYLENE	ND	3.9	1.6
STYRENE	ND	3.9	1.6
TETRACHLOROETHENE	ND	3.9	1.6
TOLUENE	7.7	3.9	1.6
TRANS-1,2-DICHLOROETHENE	ND	3.9	1.6
TRANS-1,3-DICHLOROPROPENE	ND	3.9	1.6
TRICHLOROETHENE	ND	3.9	1.6
VINYL CHLORIDE	ND	3.9	1.6
NAPHTHALENE	ND	7.9	1.6

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	125	60-160
4-BROMOFLUOROBENZENE	150	70-150
TOLUENE-D8	128	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10CD24	Date Extracted:	03/06/10 15:41
Sample ID:	SDWA-5-18	Date Analyzed:	03/06/10 15:41
Lab Samp ID:	C024-12	Dilution Factor:	0.71
Lab File ID:	RCE116	Matrix :	SOIL
Ext Btch ID:	VOD3C05	% Moisture :	6.9
Calib. Ref.:	RBE129	Instrument ID :	T-OD3

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	3.8	1.5
1,1,2,2-TETRACHLOROETHANE	ND	3.8	1.5
1,1,2-TRICHLOROETHANE	ND	3.8	1.5
1,1-DICHLOROETHANE	ND	3.8	1.5
1,1-DICHLOROETHENE	ND	3.8	1.5
1,2-DICHLOROETHANE	ND	3.8	1.5
1,2-DICHLOROPROPANE	ND	3.8	1.5
2-BUTANONE	ND	7.6	3.8
2-HEXANONE	ND	7.6	3.8
4-METHYL-2-PENTANONE	ND	7.6	3.8
ACETONE	16	7.6	3.8
BENZENE	ND	3.8	1.5
BROMODICHLOROMETHANE	ND	3.8	1.5
BROMOFORM	ND	3.8	1.5
BROMOMETHANE	ND	7.6	1.5
CARBON DISULFIDE	ND	3.8	1.5
CARBON TETRACHLORIDE	ND	3.8	1.5
CHLOROBENZENE	ND	3.8	1.5
CHLOROETHANE	ND	3.8	1.5
CHLOROFORM	ND	3.8	1.5
CHLOROMETHANE	ND	7.6	1.5
CIS-1,2-DICHLOROETHENE	ND	3.8	1.5
CIS-1,3-DICHLOROPROPENE	ND	3.8	1.5
DIBROMOCHLOROMETHANE	ND	3.8	1.5
ETHYLBENZENE	ND	3.8	1.5
M,P-XYLENES	ND	7.6	1.5
MTBE	ND	3.8	1.5
METHYLENE CHLORIDE	ND	7.6	1.5
O-XYLENE	ND	3.8	1.5
STYRENE	ND	3.8	1.5
TETRACHLOROETHENE	ND	3.8	1.5
TOLUENE	ND	3.8	1.5
TRANS-1,2-DICHLOROETHENE	ND	3.8	1.5
TRANS-1,3-DICHLOROPROPENE	ND	3.8	1.5
TRICHLOROETHENE	ND	3.8	1.5
VINYL CHLORIDE	ND	3.8	1.5
NAPHTHALENE	ND	7.6	1.5

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	113	60-160
4-BROMOFLUOROBENZENE	97	70-150
TOLUENE-D8	101	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/06/10 16:10
Sample ID:	SDWA-5-20	Date Analyzed:	03/06/10 16:10
Lab Samp ID:	C024-13	Dilution Factor:	0.48
Lab File ID:	RCE117	Matrix :	SOIL
Ext Btch ID:	VOD3C05	% Moisture :	7.3
Calib. Ref.:	RBE129	Instrument ID :	T-OD3

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	2.6	1.0
1,1,2,2-TETRACHLOROETHANE	ND	2.6	1.0
1,1,2-TRICHLOROETHANE	ND	2.6	1.0
1,1-DICHLOROETHANE	ND	2.6	1.0
1,1-DICHLOROETHENE	ND	2.6	1.0
1,2-DICHLOROETHANE	ND	2.6	1.0
1,2-DICHLOROPROPANE	ND	2.6	1.0
2-BUTANONE	ND	5.2	2.6
2-HEXANONE	ND	5.2	2.6
4-METHYL-2-PENTANONE	ND	5.2	2.6
ACETONE	12	5.2	2.6
BENZENE	ND	2.6	1.0
BROMODICHLOROMETHANE	ND	2.6	1.0
BROMOFORM	ND	2.6	1.0
BROMOMETHANE	ND	5.2	1.0
CARBON DISULFIDE	ND	2.6	1.0
CARBON TETRACHLORIDE	ND	2.6	1.0
CHLOROBENZENE	ND	2.6	1.0
CHLOROETHANE	ND	2.6	1.0
CHLOROFORM	ND	2.6	1.0
CHLOROMETHANE	ND	5.2	1.0
CIS-1,2-DICHLOROETHENE	ND	2.6	1.0
CIS-1,3-DICHLOROPROPENE	ND	2.6	1.0
DIBROMOCHLOROMETHANE	ND	2.6	1.0
ETHYLBENZENE	ND	2.6	1.0
M,P-XYLENES	ND	5.2	1.0
MTBE	ND	2.6	1.0
METHYLENE CHLORIDE	ND	5.2	1.0
O-XYLENE	ND	2.6	1.0
STYRENE	ND	2.6	1.0
TETRACHLOROETHENE	ND	2.6	1.0
TOLUENE	ND	2.6	1.0
TRANS-1,2-DICHLOROETHENE	ND	2.6	1.0
TRANS-1,3-DICHLOROPROPENE	ND	2.6	1.0
TRICHLOROETHENE	ND	2.6	1.0
VINYL CHLORIDE	ND	2.6	1.0
NAPHTHALENE	ND	5.2	1.0

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	122	60-160
4-BROMOFLUOROBENZENE	100	70-150
TOLUENE-D8	102	70-140

QC SUMMARIES

2023

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH	Date Collected: NA
Project : IMPERIAL VALLEY WEST	Date Received: 03/06/10
Batch No. : 10C024	Date Extracted: 03/06/10 11:11
Sample ID: MBLK1S	Date Analyzed: 03/06/10 11:11
Lab Samp ID: VOD3C05B	Dilution Factor: 1
Lab File ID: RCE107	Matrix : SOIL
Ext Btch ID: VOD3C05	% Moisture : NA
Calib. Ref.: RBE129	Instrument ID : T-OD3

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.0	2.0
1,1,2,2-TETRACHLOROETHANE	ND	5.0	2.0
1,1,2-TRICHLOROETHANE	ND	5.0	2.0
1,1-DICHLOROETHANE	ND	5.0	2.0
1,1-DICHLOROETHENE	ND	5.0	2.0
1,2-DICHLOROETHANE	ND	5.0	2.0
1,2-DICHLOROPROPANE	ND	5.0	2.0
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	5.0	2.0
BROMODICHLOROMETHANE	ND	5.0	2.0
BROMOFORM	ND	5.0	2.0
BROMOMETHANE	ND	10	2.0
CARBON DISULFIDE	ND	5.0	2.0
CARBON TETRACHLORIDE	ND	5.0	2.0
CHLOROBENZENE	ND	5.0	2.0
CHLOROETHANE	ND	5.0	2.0
CHLOROFORM	ND	5.0	2.0
CHLOROMETHANE	ND	10	2.0
CIS-1,2-DICHLOROETHENE	ND	5.0	2.0
CIS-1,3-DICHLOROPROPENE	ND	5.0	2.0
DIBROMOCHLOROMETHANE	ND	5.0	2.0
ETHYLBENZENE	ND	5.0	2.0
M,P-XYLENES	ND	10	2.0
MTBE	ND	5.0	2.0
METHYLENE CHLORIDE	ND	10	2.0
O-XYLENE	ND	5.0	2.0
STYRENE	ND	5.0	2.0
TETRACHLOROETHENE	ND	5.0	2.0
TOLUENE	ND	5.0	2.0
TRANS-1,2-DICHLOROETHENE	ND	5.0	2.0
TRANS-1,3-DICHLOROPROPENE	ND	5.0	2.0
TRICHLOROETHENE	ND	5.0	2.0
VINYL CHLORIDE	ND	5.0	2.0
NAPHTHALENE	ND	10	2.0

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	116	70-140
4-BROMOFLUOROBENZENE	95	70-130
TOLUENE-D8	99	70-130

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH
PROJECT: IMPERIAL VALLEY WEST
BATCH NO.: 10C024
METHOD: SW 5035/8260B

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	VOD3C05B	VOD3C05L	VOD3C05C		
LAB FILE ID:	RCE107	RCE103	RCE104		
DATE EXTRACTED:	03/06/1011:11	03/06/1009:11	03/06/1009:42	DATE COLLECTED:	NA
DATE ANALYZED:	03/06/1011:11	03/06/1009:11	03/06/1009:42	DATE RECEIVED:	03/06/10
PREP. BATCH:	VOD3C05	VOD3C05	VOD3C05		
CALIB. REF:	RBE129	RBE129	RBE129		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	50.0	47.9	96	50.0	49.2	98	3	60-130	50
Benzene	ND	50.0	46.6	93	50.0	47.2	94	1	70-130	50
Chlorobenzene	ND	50.0	53.6	107	50.0	54.0	108	1	70-130	50
Toluene	ND	50.0	49.1	98	50.0	50.6	101	3	70-130	50
Trichloroethene	ND	50.0	48.1	96	50.0	49.8	100	3	70-130	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	50.0	50.8	102	50.0	51.6	103	70-140
4-Bromofluorobenzene	50.0	49.8	100	50.0	49.7	99	70-130
Toluene-d8	50.0	48.6	97	50.0	49.8	100	70-130

LABORATORY REPORT FOR

TETRA TECH

IMPERIAL VALLEY WEST

METHOD 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

SDG#: 10C024

CASE NARRATIVE

Client : TETRA TECH

Project : IMPERIAL VALLEY WEST

SDG : 10C024

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

A total of ten (10) soil samples were received on 03/02/10 for Semivolatile Organics by GCMS analysis, Method 3550B/8270C in accordance with USEPA SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods.

Holding Time
Samples were analyzed within the prescribed holding time.

Instrument Performance and Calibration
Instrument tune check was performed prior to calibration. Instrument mass ratios as well as DDT breakdown were evaluated. Results were within acceptance criteria. Tailing factor for Benzidine and Pentachlorophenol were also verified and results were <3 and <5 respectively. Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using secondary source (ICV). Continuing calibration (CCV) was carried on at a frequency required by the project. All project calibration requirements were satisfied. Refer to calibration summary forms for ICAL, ICV and CCV for details.

Method Blank
Method blank was analyzed at the frequency required by the project. For this SDG, one method blank was analyzed with the samples. Result was compliant to project requirement.

Lab Control Sample
A set of LCS/LCD was analyzed with the samples in this SDG.
Percent recoveries for SVC014SL/C were all within QC limits.

Matrix QC Sample
A set of MS/MSD was analyzed with the samples in this SDG.
Percent recoveries for C024-07M/S were within project QC limits.

Surrogate
Surrogates were added on QC and field samples. Surrogate recoveries were within project QC limits.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met otherwise anomalies were discussed within the associated QC parameter.
Sample C024-04 was extracted with reduced amount and the extract was further diluted at DF 5 prior to analysis due to dark color appearance.

LAB CHRONICLE
SEMI VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH
Project : IMPERIAL VALLEY WEST

SDG NO. : 10C024
Instrument ID : T-OE4

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	SVC014SB	1	NA	03/05/1018:15	03/04/1011:30	RCJ093	RAJ049	SVC014S	Method Blank
LCS1S	SVC014SL	1	NA	03/05/1018:33	03/04/1011:30	RCJ094	RAJ049	SVC014S	Lab Control Sample (LCS)
LCD1S	SVC014SC	1	NA	03/05/1018:51	03/04/1011:30	RCJ095	RAJ049	SVC014S	LCS Duplicate
SDWA-4MS	C024-07M	1	4.0	03/05/1019:09	03/04/1011:30	RCJ096	RAJ049	SVC014S	Matrix Spike Sample (MS)
SDWA-4MSD	C024-07S	1	4.0	03/05/1019:27	03/04/1011:30	RCJ097	RAJ049	SVC014S	MS Duplicate (MSD)
SDWA-2	C024-04	25	3.3	03/05/1019:46	03/04/1011:30	RCJ098	RAJ049	SVC014S	Field Sample
SDWA-1	C024-05	1	8.6	03/05/1020:04	03/04/1011:30	RCJ099	RAJ049	SVC014S	Field Sample
SDWA-3	C024-06	1	2.2	03/05/1020:22	03/04/1011:30	RCJ100	RAJ049	SVC014S	Field Sample
SDWA-4	C024-07	1	4.0	03/05/1020:40	03/04/1011:30	RCJ101	RAJ049	SVC014S	Field Sample
FM-SURFACE	C024-08	1	10.8	03/05/1020:59	03/04/1011:30	RCJ102	RAJ049	SVC014S	Field Sample
FM-12	C024-09	1	5.5	03/05/1021:17	03/04/1011:30	RCJ103	RAJ049	SVC014S	Field Sample
FM-16	C024-10	1	0.4	03/05/1021:35	03/04/1011:30	RCJ104	RAJ049	SVC014S	Field Sample
SDWA-5-12	C024-11	1	4.9	03/05/1021:53	03/04/1011:30	RCJ105	RAJ049	SVC014S	Field Sample
SDWA-5-18	C024-12	1	6.9	03/05/1022:11	03/04/1011:30	RCJ106	RAJ049	SVC014S	Field Sample
SDWA-5-20	C024-13	1	7.3	03/05/1022:30	03/04/1011:30	RCJ107	RAJ049	SVC014S	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/04/10 11:30
Sample ID: SDWA-2	Date Analyzed: 03/05/10 19:46
Lab Samp ID: C024-04	Dilution Factor: 25
Lab File ID: RCJ098	Matrix : SOIL
Ext Btch ID: SVC014S	% Moisture : 3.3
Calib. Ref.: RAJ049	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	8500	4300
1,2-DICHLOROBENZENE	ND	8500	4300
1,3-DICHLOROBENZENE	ND	8500	4300
1,4-DICHLOROBENZENE	ND	8500	4300
2,4,5-TRICHLOROPHENOL	ND	8500	4300
2,4,6-TRICHLOROPHENOL	ND	8500	4800
2,4-DICHLOROPHENOL	ND	8500	4300
2,4-DIMETHYLPHENOL	ND	8500	4300
2,4-DINITROPHENOL	ND	17000	4300
2,4-DINITROTOLUENE	ND	8500	4300
2,6-DINITROTOLUENE	ND	8500	4300
2-CHLORONAPHTHALENE	ND	8500	4300
2-CHLOROPHENOL	ND	8500	4300
2-METHYLNAPHTHALENE	ND	8500	4300
2-METHYLPHENOL	ND	8500	4300
2-NITROANILINE	ND	8500	4300
2-NITROPHENOL	ND	8500	4300
3,3'-DICHLOROBENZIDINE	ND	8500	4300
3-NITROANILINE	ND	8500	4300
4,6-DINITRO-2-METHYLPHENOL	ND	17000	4300
4-BROMOPHENYL-PHENYL ETHER	ND	8500	4300
4-CHLORO-3-METHYLPHENOL	ND	8500	4300
4-CHLOROANILINE	ND	8500	4300
4-CHLOROPHENYL-PHENYL ETHER	ND	8500	4400
4-METHYLPHENOL (1)	ND	8500	4300
4-NITROANILINE	ND	8500	4300
4-NITROPHENOL	ND	17000	4300
ACENAPHTHENE	ND	8500	4300
ACENAPHTHYLENE	ND	8500	4300
ANTHRACENE	ND	8500	4300
BENZO(A)ANTHRACENE	ND	8500	4300
BENZO(A)PYRENE	ND	8500	4300
BENZO(B)FLUORANTHENE	ND	8500	4300
BENZO(K)FLUORANTHENE	ND	8500	4300
BENZO(G,H,I)PERYLENE	ND	8500	4300
BIS(2-CHLOROETHOXY)METHANE	ND	8500	4300
BIS(2-CHLOROETHYL)ETHER	ND	8500	4300
BIS(2-CHLOROISOPROPYL)ETHER	ND	8500	4300
BIS(2-ETHYLHEXYL)PHTHALATE	ND	8500	4300
BUTYLBENZYLPHTHALATE	ND	8500	4300
CHRYSENE	ND	8500	4300
DI-N-BUTYLPHTHALATE	ND	8500	4300
DI-N-OCTYLPHTHALATE	ND	8500	4300
DIBENZO(A,H)ANTHRACENE	ND	8500	4300
DIBENZOFURAN	ND	8500	4300
DIETHYLPHTHALATE	ND	8500	4300
DIMETHYLPHTHALATE	ND	8500	4300
FLUORANTHENE	ND	8500	4300
FLUORENE	ND	8500	4300
HEXACHLOROBENZENE	ND	8500	4300
HEXACHLOROBUTADIENE	ND	8500	4900
HEXACHLOROCYCLOPENTADIENE	ND	8500	4300
HEXACHLOROETHANE	ND	8500	4300
INDENO(1,2,3-CD)PYRENE	ND	8500	4300
ISOPHORONE	ND	8500	4300
N-NITROSO-DI-N-PROPYLAMINE	ND	8500	4300
N-NITROSODIPHENYLAMINE (2)	ND	8500	4300
NAPHTHALENE	ND	8500	4300
NITROBENZENE	ND	8500	4300
PENTACHLOROPHENOL	ND	17000	4500
PHENANTHRENE	ND	8500	4300
PHENOL	ND	8500	4300
PYRENE	ND	8500	4300

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	74	20-140
2-FLUOROBIPHENYL	81	30-130
2-FLUOROPHENOL	72	20-130
NITROBENZENE-D5	66	20-130
PHENOL-D5	78	20-130
TERPHENYL-D14	95	40-130

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/04/10 11:30
Sample ID:	SDWA-2	Date Analyzed:	03/05/10 19:46
Lab Samp ID:	C024-04	Dilution Factor:	25
Lab File ID:	RCJ098	Matrix :	SOIL
Ext Btch ID:	SVC014S	% Moisture :	3.3
Calib. Ref.:	RAJ049	Instrument ID :	T-OE4

Number of TIC : 0 Q

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/04/10 11:30
Sample ID: SDWA-1	Date Analyzed: 03/05/10 20:04
Lab Samp ID: C024-05	Dilution Factor: 1
Lab File ID: RCJ099	Matrix : SOIL
Ext Btch ID: SVC014S	% Moisture : 8.6
Calib. Ref.: RAJ049	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	360	180
1,2-DICHLOROBENZENE	ND	360	180
1,3-DICHLOROBENZENE	ND	360	180
1,4-DICHLOROBENZENE	ND	360	180
2,4,5-TRICHLOROPHENOL	ND	360	180
2,4,6-TRICHLOROPHENOL	ND	360	200
2,4-DICHLOROPHENOL	ND	360	180
2,4-DIMETHYLPHENOL	ND	360	180
2,4-DINITROPHENOL	ND	720	180
2,4-DINITROTOLUENE	ND	360	180
2,6-DINITROTOLUENE	ND	360	180
2-CHLORONAPHTHALENE	ND	360	180
2-CHLOROPHENOL	ND	360	180
2-METHYLNAPHTHALENE	ND	360	180
2-METHYLPHENOL	ND	360	180
2-NITROANILINE	ND	360	180
2-NITROPHENOL	ND	360	180
3,3'-DICHLOROBENZIDINE	ND	360	180
3-NITROANILINE	ND	360	180
4,6-DINITRO-2-METHYLPHENOL	ND	720	180
4-BROMOPHENYL-PHENYL ETHER	ND	360	180
4-CHLORO-3-METHYLPHENOL	ND	360	180
4-CHLOROANILINE	ND	360	180
4-CHLOROPHENYL-PHENYL ETHER	ND	360	190
4-METHYLPHENOL (1)	ND	360	180
4-NITROANILINE	ND	360	180
4-NITROPHENOL	ND	720	180
ACENAPHTHENE	ND	360	180
ACENAPHTHYLENE	ND	360	180
ANTHRACENE	ND	360	180
BENZO(A)ANTHRACENE	ND	360	180
BENZO(A)PYRENE	ND	360	180
BENZO(B)FLUORANTHENE	ND	360	180
BENZO(K)FLUORANTHENE	ND	360	180
BENZO(G,H,I)PERYLENE	ND	360	180
BIS(2-CHLOROETHOXY)METHANE	ND	360	180
BIS(2-CHLOROETHYL)ETHER	ND	360	180
BIS(2-CHLOROISOPROPYL)ETHER	ND	360	180
BIS(2-ETHYLHEXYL)PHTHALATE	ND	360	180
BUTYLBENZYLPHTHALATE	ND	360	180
CHRYSENE	ND	360	180
DI-N-BUTYLPHTHALATE	ND	360	180
DI-N-OCTYLPHTHALATE	ND	360	180
DIBENZO(A,H)ANTHRACENE	ND	360	180
DIBENZOFURAN	ND	360	180
DIETHYLPHTHALATE	ND	360	180
DIMETHYLPHTHALATE	ND	360	180
FLUORANTHENE	ND	360	180
FLUORENE	ND	360	180
HEXACHLOROBENZENE	ND	360	180
HEXACHLOROBUTADIENE	ND	360	210
HEXACHLOROCYCLOPENTADIENE	ND	360	180
HEXACHLOROETHANE	ND	360	180
INDENO(1,2,3-CD)PYRENE	ND	360	180
ISOPHORONE	ND	360	180
N-NITROSO-DI-N-PROPYLAMINE	ND	360	180
N-NITROSODIPHENYLAMINE (2)	ND	360	180
NAPHTHALENE	ND	360	180
NITROBENZENE	ND	360	180
PENTACHLOROPHENOL	ND	720	190
PHENANTHRENE	ND	360	180
PHENOL	ND	360	180
PYRENE	ND	360	180

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	79	20-140
2-FLUOROBIPHENYL	56	30-130
2-FLUOROPHENOL	55	20-130
NITROBENZENE-D5	51	20-130
PHENOL-D5	58	20-130
TERPHENYL-D14	99	40-130

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/04/10 11:30
Sample ID:	SDWA-1	Date Analyzed:	03/05/10 20:04
Lab Samp ID:	C024-D5	Dilution Factor:	1
Lab File ID:	RCJ099	Matrix :	SOIL
Ext Btch ID:	SVC014S	% Moisture :	8.6
Calib. Ref.:	RAJ049	Instrument ID :	T-OE4

Number of TIC : 1

PARAMETERS	RESULTS (ug/kg)	RTTIME min	Q Value
ETHANE, 1,1,2,2-TETRACHLORO-	340J	2.24	98

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/04/10 11:30
Sample ID: SDWA-3	Date Analyzed: 03/05/10 20:22
Lab Samp ID: C024-06	Dilution Factor: 1
Lab File ID: RCJ100	Matrix : SOIL
Ext Btch ID: SVC014S	% Moisture : 2.2
Calib. Ref.: RAJ049	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	340	170
1,2-DICHLOROBENZENE	ND	340	170
1,3-DICHLOROBENZENE	ND	340	170
1,4-DICHLOROBENZENE	ND	340	170
2,4,5-TRICHLOROPHENOL	ND	340	170
2,4,6-TRICHLOROPHENOL	ND	340	190
2,4-DICHLOROPHENOL	ND	340	170
2,4-DIMETHYLPHENOL	ND	340	170
2,4-DINITROPHENOL	ND	670	170
2,4-DINITROTOLUENE	ND	340	170
2,6-DINITROTOLUENE	ND	340	170
2-CHLORONAPHTHALENE	ND	340	170
2-CHLOROPHENOL	ND	340	170
2-METHYLNAPHTHALENE	ND	340	170
2-METHYLPHENOL	ND	340	170
2-NITROANILINE	ND	340	170
2-NITROPHENOL	ND	340	170
3,3'-DICHLOROBENZIDINE	ND	340	170
3-NITROANILINE	ND	340	170
4,6-DINITRO-2-METHYLPHENOL	ND	670	170
4-BROMOPHENYL-PHENYL ETHER	ND	340	170
4-CHLORO-3-METHYLPHENOL	ND	340	170
4-CHLOROANILINE	ND	340	170
4-CHLOROPHENYL-PHENYL ETHER	ND	340	170
4-METHYLPHENOL (1)	ND	340	170
4-NITROANILINE	ND	340	170
4-NITROPHENOL	ND	670	170
ACENAPHTHENE	ND	340	170
ACENAPHTHYLENE	ND	340	170
ANTHRACENE	ND	340	170
BENZO(A)ANTHRACENE	ND	340	170
BENZO(A)PYRENE	ND	340	170
BENZO(B)FLUORANTHENE	ND	340	170
BENZO(K)FLUORANTHENE	ND	340	170
BENZO(G,H,I)PERYLENE	ND	340	170
BIS(2-CHLOROETHOXY)METHANE	ND	340	170
BIS(2-CHLOROETHYL)ETHER	ND	340	170
BIS(2-CHLOROISOPROPYL)ETHER	ND	340	170
BIS(2-ETHYLHEXYL)PHTHALATE	ND	340	170
BUTYLBENZYLPHTHALATE	ND	340	170
CHRYSENE	ND	340	170
DI-N-BUTYLPHTHALATE	ND	340	170
DI-N-OCTYLPHTHALATE	ND	340	170
DIBENZO(A,H)ANTHRACENE	ND	340	170
DIBENZOFURAN	ND	340	170
DIETHYLPHTHALATE	ND	340	170
DIMETHYLPHTHALATE	ND	340	170
FLUORANTHENE	ND	340	170
FLUORENE	ND	340	170
HEXACHLOROBENZENE	ND	340	170
HEXACHLOROBUTADIENE	ND	340	190
HEXACHLOROCYCLOPENTADIENE	ND	340	170
HEXACHLOROETHANE	ND	340	170
INDENO(1,2,3-CD)PYRENE	ND	340	170
ISOPHORONE	ND	340	170
N-NITROSO-DI-N-PROPYLAMINE	ND	340	170
N-NITROSODIPHENYLAMINE (2)	ND	340	170
NAPHTHALENE	ND	340	170
NITROBENZENE	ND	340	170
PENTACHLOROPHENOL	ND	670	180
PHENANTHRENE	ND	340	170
PHENOL	ND	340	170
PYRENE	ND	340	170

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	84	20-140
2-FLUOROBIPHENYL	74	30-130
2-FLUOROPHENOL	74	20-130
NITROBENZENE-D5	70	20-130
PHENOL-D5	77	20-130
TERPHENYL-D14	107	40-130

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/04/10 11:30
Sample ID: SDWA-3	Date Analyzed: 03/05/10 20:22
Lab Samp ID: C024-06	Dilution Factor: 1
Lab File ID: RCJ100	Matrix : SOIL
Ext Btch ID: SVC014S	% Moisture : 2.2
Calib. Ref.: RAJ049	Instrument ID : T-0E4

Number of TIC : 1

PARAMETERS	RESULTS (ug/kg)	RTTIME min	Q Value
ETHANE, 1,1,2,2-TETRACHLORO-	470J	2.24	97

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/04/10 11:30
Sample ID: SDWA-4	Date Analyzed: 03/05/10 20:40
Lab Samp ID: C024-07	Dilution Factor: 1
Lab File ID: RCJ101	Matrix : SOIL
Ext Btch ID: SVC014S	% Moisture : 4.0
Calib. Ref.: RAJ049	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	340	170
1,2-DICHLOROBENZENE	ND	340	170
1,3-DICHLOROBENZENE	ND	340	170
1,4-DICHLOROBENZENE	ND	340	170
2,4,5-TRICHLOROPHENOL	ND	340	170
2,4,6-TRICHLOROPHENOL	ND	340	190
2,4-DICHLOROPHENOL	ND	340	170
2,4-DIMETHYLPHENOL	ND	340	170
2,4-DINITROPHENOL	ND	690	170
2,4-DINITROTOLUENE	ND	340	170
2,6-DINITROTOLUENE	ND	340	170
2-CHLORONAPHTHALENE	ND	340	170
2-CHLOROPHENOL	ND	340	170
2-METHYLNAPHTHALENE	ND	340	170
2-METHYLPHENOL	ND	340	170
2-NITROANILINE	ND	340	170
2-NITROPHENOL	ND	340	170
3,3'-DICHLOROBENZIDINE	ND	340	170
3-NITROANILINE	ND	340	170
4,6-DINITRO-2-METHYLPHENOL	ND	690	170
4-BROMOPHENYL-PHENYL ETHER	ND	340	170
4-CHLORO-3-METHYLPHENOL	ND	340	170
4-CHLOROANILINE	ND	340	170
4-CHLOROPHENYL-PHENYL ETHER	ND	340	180
4-METHYLPHENOL (1)	ND	340	170
4-NITROANILINE	ND	340	170
4-NITROPHENOL	ND	690	170
ACENAPHTHENE	ND	340	170
ACENAPHTHYLENE	ND	340	170
ANTHRACENE	ND	340	170
BENZO(A)ANTHRACENE	ND	340	170
BENZO(A)PYRENE	ND	340	170
BENZO(B)FLUORANTHENE	ND	340	170
BENZO(K)FLUORANTHENE	ND	340	170
BENZO(G,H,I)PERYLENE	ND	340	170
BIS(2-CHLOROETHOXY)METHANE	ND	340	170
BIS(2-CHLOROETHYL)ETHER	ND	340	170
BIS(2-CHLOROISOPROPYL)ETHER	ND	340	170
BIS(2-ETHYLHEXYL)PHTHALATE	ND	340	170
BUTYLBENZYLPHTHALATE	ND	340	170
CHRYSENE	ND	340	170
DI-N-BUTYLPHTHALATE	ND	340	170
DI-N-OCTYLPHTHALATE	ND	340	170
DIBENZO(A,H)ANTHRACENE	ND	340	170
DIBENZOFURAN	ND	340	170
DIETHYLPHTHALATE	ND	340	170
DIMETHYLPHTHALATE	ND	340	170
FLUORANTHENE	ND	340	170
FLUORENE	ND	340	170
HEXACHLOROBENZENE	ND	340	170
HEXACHLOROBUTADIENE	ND	340	200
HEXACHLOROCYCLOPENTADIENE	ND	340	170
HEXACHLOROETHANE	ND	340	170
INDENO(1,2,3-CD)PYRENE	ND	340	170
ISOPHORONE	ND	340	170
N-NITROSO-DI-N-PROPYLAMINE	ND	340	170
N-NITROSODIPHENYLAMINE (2)	ND	340	170
NAPHTHALENE	ND	340	170
NITROBENZENE	ND	340	170
PENTACHLOROPHENOL	ND	690	180
PHENANTHRENE	ND	340	170
PHENOL	ND	340	170
PYRENE	ND	340	170

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	91	20-140
2-FLUOROBIPHENYL	84	30-130
2-FLUOROPHENOL	84	20-130
NITROBENZENE-D5	82	20-130
PHENOL-D5	86	20-130
TERPHENYL-D14	114	40-130

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/04/10 11:30
Sample ID:	SDWA-4	Date Analyzed:	03/05/10 20:40
Lab Samp ID:	C024-07	Dilution Factor:	1
Lab File ID:	RCJ101	Matrix :	SOIL
Ext Btch ID:	SVC014S	% Moisture :	4.0
Calib. Ref.:	RAJ049	Instrument ID :	T-OE4

Number of TIC : 1

PARAMETERS	RESULTS (ug/kg)	RTTIME min	Q Value
ETHANE, 1,1,2,2-TETRACHLORO-	510J	2.24	97

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/04/10 11:30
Sample ID: FM-SURFACE	Date Analyzed: 03/05/10 20:59
Lab Samp ID: C024-08	Dilution Factor: 1
Lab File ID: RCJ102	Matrix : SOIL
Ext Btch ID: SVC014S	% Moisture : 10.8
Calib. Ref.: RAJ049	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	370	190
1,2-DICHLOROBENZENE	ND	370	190
1,3-DICHLOROBENZENE	ND	370	190
1,4-DICHLOROBENZENE	ND	370	190
2,4,5-TRICHLOROPHENOL	ND	370	190
2,4,6-TRICHLOROPHENOL	ND	370	210
2,4-DICHLOROPHENOL	ND	370	190
2,4-DIMETHYLPHENOL	ND	370	190
2,4-DINITROPHENOL	ND	740	190
2,4-DINITROTOLUENE	ND	370	190
2,6-DINITROTOLUENE	ND	370	190
2-CHLORONAPHTHALENE	ND	370	190
2-CHLOROPHENOL	ND	370	190
2-METHYLNAPHTHALENE	ND	370	190
2-METHYLPHENOL	ND	370	190
2-NITROANILINE	ND	370	190
2-NITROPHENOL	ND	370	190
3,3'-DICHLOROBENZIDINE	ND	370	190
3-NITROANILINE	ND	370	190
4,6-DINITRO-2-METHYLPHENOL	ND	740	190
4-BROMOPHENYL-PHENYL ETHER	ND	370	190
4-CHLORO-3-METHYLPHENOL	ND	370	190
4-CHLOROANILINE	ND	370	190
4-CHLOROPHENYL-PHENYL ETHER	ND	370	190
4-METHYLPHENOL (1)	ND	370	190
4-NITROANILINE	ND	370	190
4-NITROPHENOL	ND	740	190
ACENAPHTHENE	ND	370	190
ACENAPHTHYLENE	ND	370	190
ANTHRACENE	ND	370	190
BENZO(A)ANTHRACENE	ND	370	190
BENZO(A)PYRENE	ND	370	190
BENZO(B)FLUORANTHENE	ND	370	190
BENZO(K)FLUORANTHENE	ND	370	190
BENZO(G,H,I)PERYLENE	ND	370	190
BIS(2-CHLOROETHOXY)METHANE	ND	370	190
BIS(2-CHLOROETHYL)ETHER	ND	370	190
BIS(2-CHLOROISOPROPYL)ETHER	ND	370	190
BIS(2-ETHYLHEXYL)PHTHALATE	ND	370	190
BUTYLBENZYLPHTHALATE	ND	370	190
CHRYSENE	ND	370	190
DI-N-BUTYLPHTHALATE	ND	370	190
DI-N-OCTYLPHTHALATE	ND	370	190
DIBENZO(A,H)ANTHRACENE	ND	370	190
DIBENZOFURAN	ND	370	190
DIETHYLPHTHALATE	ND	370	190
DIMETHYLPHTHALATE	ND	370	190
FLUORANTHENE	ND	370	190
FLUORENE	ND	370	190
HEXACHLOROBENZENE	ND	370	190
HEXACHLOROBUTADIENE	ND	370	210
HEXACHLOROCYCLOPENTADIENE	ND	370	190
HEXACHLOROETHANE	ND	370	190
INDENO(1,2,3-CD)PYRENE	ND	370	190
ISOPHORONE	ND	370	190
N-NITROSO-DI-N-PROPYLAMINE	ND	370	190
N-NITROSODIPHENYLAMINE (2)	ND	370	190
NAPHTHALENE	ND	370	190
NITROBENZENE	ND	370	190
PENTACHLOROPHENOL	ND	740	200
PHENANTHRENE	ND	370	190
PHENOL	ND	370	190
PYRENE	ND	370	190

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	70	20-140
2-FLUOROBIPHENYL	72	30-130
2-FLUOROPHENOL	73	20-130
NITROBENZENE-D5	69	20-130
PHENOL-D5	74	20-130
TERPHENYL-D14	94	40-130

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/04/10 11:30
Sample ID:	FM-SURFACE	Date Analyzed:	03/05/10 20:59
Lab Samp ID:	C024-08	Dilution Factor:	1
Lab File ID:	RCJ102	Matrix :	SOIL
Ext Btch ID:	SVC014S	% Moisture :	10.8
Calib. Ref.:	RAJ049	Instrument ID :	T-OE4

Number of TIC : 1

PARAMETERS	RESULTS (ug/kg)	RTTIME min	Q Value
ETHANE, 1,1,2,2-TETRACHLORO-	400J	2.24	96

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/04/10 11:30
Sample ID: FM-12	Date Analyzed: 03/05/10 21:17
Lab Samp ID: C024-09	Dilution Factor: 1
Lab File ID: RCJ103	Matrix : SOIL
Ext Btch ID: SVC014S	% Moisture : 5.5
Calib. Ref.: RAJ049	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	350	180
1,2-DICHLOROBENZENE	ND	350	180
1,3-DICHLOROBENZENE	ND	350	180
1,4-DICHLOROBENZENE	ND	350	180
2,4,5-TRICHLOROPHENOL	ND	350	180
2,4,6-TRICHLOROPHENOL	ND	350	190
2,4-DICHLOROPHENOL	ND	350	180
2,4-DIMETHYLPHENOL	ND	350	180
2,4-DINITROPHENOL	ND	700	180
2,4-DINITROTOLUENE	ND	350	180
2,6-DINITROTOLUENE	ND	350	180
2-CHLORONAPHTHALENE	ND	350	180
2-CHLOROPHENOL	ND	350	180
2-METHYLNAPHTHALENE	ND	350	180
2-METHYLPHENOL	ND	350	180
2-NITROANILINE	ND	350	180
2-NITROPHENOL	ND	350	180
3,3'-DICHLOROBENZIDINE	ND	350	180
3-NITROANILINE	ND	350	180
4,6-DINITRO-2-METHYLPHENOL	ND	700	180
4-BROMOPHENYL-PHENYL ETHER	ND	350	180
4-CHLORO-3-METHYLPHENOL	ND	350	180
4-CHLOROANILINE	ND	350	180
4-CHLOROPHENYL-PHENYL ETHER	ND	350	180
4-METHYLPHENOL (1)	ND	350	180
4-NITROANILINE	ND	350	180
4-NITROPHENOL	ND	700	180
ACENAPHTHENE	ND	350	180
ACENAPHTHYLENE	ND	350	180
ANTHRACENE	ND	350	180
BENZO(A)ANTHRACENE	ND	350	180
BENZO(A)PYRENE	ND	350	180
BENZO(B)FLUORANTHENE	ND	350	180
BENZO(K)FLUORANTHENE	ND	350	180
BENZO(G,H,I)PERYLENE	ND	350	180
BIS(2-CHLOROETHOXY)METHANE	ND	350	180
BIS(2-CHLOROETHYL)ETHER	ND	350	180
BIS(2-CHLOROISOPROPYL)ETHER	ND	350	180
BIS(2-ETHYLHEXYL)PHTHALATE	ND	350	180
BUTYLBENZYLPHTHALATE	ND	350	180
CHRYSENE	ND	350	180
DI-N-BUTYLPHTHALATE	ND	350	180
DI-N-OCTYLPHTHALATE	ND	350	180
DIBENZO(A,H)ANTHRACENE	ND	350	180
DIBENZOFURAN	ND	350	180
DIETHYLPHTHALATE	ND	350	180
DIMETHYLPHTHALATE	ND	350	180
FLUORANTHENE	ND	350	180
FLUORENE	ND	350	180
HEXACHLOROBENZENE	ND	350	180
HEXACHLOROBUTADIENE	ND	350	200
HEXACHLOROCYCLOPENTADIENE	ND	350	180
HEXACHLOROETHANE	ND	350	180
INDENO(1,2,3-CD)PYRENE	ND	350	180
ISOPHORONE	ND	350	180
N-NITROSO-DI-N-PROPYLAMINE	ND	350	180
N-NITROSODIPHENYLAMINE (2)	ND	350	180
NAPHTHALENE	ND	350	180
NITROBENZENE	ND	350	180
PENTACHLOROPHENOL	ND	700	190
PHENANTHRENE	ND	350	180
PHENOL	ND	350	180
PYRENE	ND	350	180

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	83	20-140
2-FLUOROBIPHENYL	67	30-130
2-FLUOROPHENOL	68	20-130
NITROBENZENE-D5	63	20-130
PHENOL-D5	72	20-130
TERPHENYL-D14	93	40-130

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/04/10 11:30
Sample ID	: FM-12	Date Analyzed:	03/05/10 21:17
Lab Samp ID	: C024-09	Dilution Factor:	1
Lab File ID	: RCJ103	Matrix :	SOIL
Ext Btch ID	: SVC014S	% Moisture :	5.5
Calib. Ref.	: RAJ049	Instrument ID :	T-OE4

Number of TIC : 6

PARAMETERS	RESULTS (ug/kg)	RTTIME min	Q Value
UNKNOWN	17000J	1.50	56
UNKNOWN	1100J	1.81	72
UNKNOWN	1200J	1.86	36
UNKNOWN	840J	2.33	78
UNKNOWN	1500J	2.66	59
BENZAMIDE	700J	4.98	87

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/04/10 11:30
Sample ID: FM-16	Date Analyzed: 03/05/10 21:35
Lab Samp ID: C024-10	Dilution Factor: 1
Lab File ID: RCJ104	Matrix : SOIL
Ext Btch ID: SVC014S	% Moisture : 0.4
Calib. Ref.: RAJ049	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	330	170
1,2-DICHLOROBENZENE	ND	330	170
1,3-DICHLOROBENZENE	ND	330	170
1,4-DICHLOROBENZENE	ND	330	170
2,4,5-TRICHLOROPHENOL	ND	330	170
2,4,6-TRICHLOROPHENOL	ND	330	180
2,4-DICHLOROPHENOL	ND	330	170
2,4-DIMETHYLPHENOL	ND	330	170
2,4-DINITROPHENOL	ND	660	170
2,4-DINITROTOLUENE	ND	330	170
2,6-DINITROTOLUENE	ND	330	170
2-CHLORONAPHTHALENE	ND	330	170
2-CHLOROPHENOL	ND	330	170
2-METHYLNAPHTHALENE	ND	330	170
2-METHYLPHENOL	ND	330	170
2-NITROANILINE	ND	330	170
2-NITROPHENOL	ND	330	170
3,3'-DICHLOROBENZIDINE	ND	330	170
3-NITROANILINE	ND	330	170
4,6-DINITRO-2-METHYLPHENOL	ND	660	170
4-BROMOPHENYL-PHENYL ETHER	ND	330	170
4-CHLORO-3-METHYLPHENOL	ND	330	170
4-CHLOROANILINE	ND	330	170
4-CHLOROPHENYL-PHENYL ETHER	ND	330	170
4-METHYLPHENOL (1)	ND	330	170
4-NITROANILINE	ND	330	170
4-NITROPHENOL	ND	660	170
ACENAPHTHENE	ND	330	170
ACENAPHTHYLENE	ND	330	170
ANTHRACENE	ND	330	170
BENZO(A)ANTHRACENE	ND	330	170
BENZO(A)PYRENE	ND	330	170
BENZO(B)FLUORANTHENE	ND	330	170
BENZO(K)FLUORANTHENE	ND	330	170
BENZO(G,H,I)PERYLENE	ND	330	170
BIS(2-CHLOROETHOXY)METHANE	ND	330	170
BIS(2-CHLOROETHYL)ETHER	ND	330	170
BIS(2-CHLOROISOPROPYL)ETHER	ND	330	170
BIS(2-ETHYLHEXYL)PHTHALATE	ND	330	170
BUTYLBENZYLPHTHALATE	ND	330	170
CHRYSENE	ND	330	170
DI-N-BUTYLPHTHALATE	ND	330	170
DI-N-OCTYLPHTHALATE	ND	330	170
DIBENZO(A,H)ANTHRACENE	ND	330	170
DIBENZOFURAN	ND	330	170
DIETHYLPHTHALATE	ND	330	170
DIMETHYLPHTHALATE	ND	330	170
FLUORANTHENE	ND	330	170
FLUORENE	ND	330	170
HEXACHLOROBENZENE	ND	330	170
HEXACHLOROBUTADIENE	ND	330	190
HEXACHLOROCYCLOPENTADIENE	ND	330	170
HEXACHLOROETHANE	ND	330	170
INDENO(1,2,3-CD)PYRENE	ND	330	170
ISOPHORONE	ND	330	170
N-NITROSO-DI-N-PROPYLAMINE	ND	330	170
N-NITROSODIPHENYLAMINE (2)	ND	330	170
NAPHTHALENE	ND	330	170
NITROBENZENE	ND	330	170
PENTACHLOROPHENOL	ND	660	180
PHENANTHRENE	ND	330	170
PHENOL	ND	330	170
PYRENE	ND	330	170

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	91	20-140
2-FLUOROBIPHENYL	77	30-130
2-FLUOROPHENOL	79	20-130
NITROBENZENE-D5	76	20-130
PHENOL-D5	82	20-130
TERPHENYL-D14	105	40-130

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/04/10 11:30
Sample ID:	FM-16	Date Analyzed:	03/05/10 21:35
Lab Samp ID:	C024-10	Dilution Factor:	1
Lab File ID:	RCJ104	Matrix :	SOIL
Ext Btch ID:	SVC014S	% Moisture :	0.4
Calib. Ref.:	RAJ049	Instrument ID :	T-OE4

Number of TIC : 8

PARAMETERS	RESULTS (ug/kg)	RTTIME min	Q Value
ACETAMIDE	1200J	1.44	90
ETHANE, 1,1,2-TRICHLORO-	300J	1.53	98
DIMETHYL SULFONE	490J	2.17	86
ETHANE, 1,1,2,2-TETRACHLORO-	470J	2.24	97
UNKNOWN	660J	2.64	58
2-PYRROLIDINONE	460J	3.16	91
UNKNOWN	690J	3.42	38
BENZAMIDE	680J	4.98	96

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/04/10 11:30
Sample ID: SDWA-5-12	Date Analyzed: 03/05/10 21:53
Lab Samp ID: C024-11	Dilution Factor: 1
Lab File ID: RCJ105	Matrix : SOIL
Ext Btch ID: SVC014S	% Moisture : 4.9
Calib. Ref.: RAJ049	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	350	180
1,2-DICHLOROBENZENE	ND	350	180
1,3-DICHLOROBENZENE	ND	350	180
1,4-DICHLOROBENZENE	ND	350	180
2,4,5-TRICHLOROPHENOL	ND	350	180
2,4,6-TRICHLOROPHENOL	ND	350	190
2,4-DICHLOROPHENOL	ND	350	180
2,4-DIMETHYLPHENOL	ND	350	180
2,4-DINITROPHENOL	ND	690	180
2,4-DINITROTOLUENE	ND	350	180
2,6-DINITROTOLUENE	ND	350	180
2-CHLORONAPHTHALENE	ND	350	180
2-CHLOROPHENOL	ND	350	180
2-METHYLNAPHTHALENE	ND	350	180
2-METHYLPHENOL	ND	350	180
2-NITROANILINE	ND	350	180
2-NITROPHENOL	ND	350	180
3,3'-DICHLOROBENZIDINE	ND	350	180
3-NITROANILINE	ND	350	180
4,6-DINITRO-2-METHYLPHENOL	ND	690	180
4-BROMOPHENYL-PHENYL ETHER	ND	350	180
4-CHLORO-3-METHYLPHENOL	ND	350	180
4-CHLOROANILINE	ND	350	180
4-CHLOROPHENYL-PHENYL ETHER	ND	350	180
4-METHYLPHENOL (1)	ND	350	180
4-NITROANILINE	ND	350	180
4-NITROPHENOL	ND	690	180
ACENAPHTHENE	ND	350	180
ACENAPHTHYLENE	ND	350	180
ANTHRACENE	ND	350	180
BENZO(A)ANTHRACENE	ND	350	180
BENZO(A)PYRENE	ND	350	180
BENZO(B)FLUORANTHENE	ND	350	180
BENZO(K)FLUORANTHENE	ND	350	180
BENZO(G,H,I)PERYLENE	ND	350	180
BIS(2-CHLOROETHOXY)METHANE	ND	350	180
BIS(2-CHLOROETHYL)ETHER	ND	350	180
BIS(2-CHLOROISOPROPYL)ETHER	ND	350	180
BIS(2-ETHYLHEXYL)PHTHALATE	ND	350	180
BUTYLBENZYLPHTHALATE	ND	350	180
CHRYSENE	ND	350	180
DI-N-BUTYLPHTHALATE	ND	350	180
DI-N-OCTYLPHTHALATE	ND	350	180
DIBENZO(A,H)ANTHRACENE	ND	350	180
DIBENZOFURAN	ND	350	180
DIETHYLPHTHALATE	ND	350	180
DIMETHYLPHTHALATE	ND	350	180
FLUORANTHENE	ND	350	180
FLUORENE	ND	350	180
HEXACHLOROBENZENE	ND	350	180
HEXACHLOROBUTADIENE	ND	350	200
HEXACHLOROCYCLOPENTADIENE	ND	350	180
HEXACHLOROETHANE	ND	350	180
INDENO(1,2,3-CD)PYRENE	ND	350	180
ISOPHORONE	ND	350	180
N-NITROSO-DI-N-PROPYLAMINE	ND	350	180
N-NITROSODIPHENYLAMINE (2)	ND	350	180
NAPHTHALENE	ND	350	180
NITROBENZENE	ND	350	180
PENTACHLOROPHENOL	ND	690	180
PHENANTHRENE	ND	350	180
PHENOL	ND	350	180
PYRENE	ND	350	180

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	86	20-140
2-FLUOROBIPHENYL	73	30-130
2-FLUOROPHENOL	70	20-130
NITROBENZENE-D5	67	20-130
PHENOL-D5	74	20-130
TERPHENYL-D14	101	40-130

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/04/10 11:30
Sample ID:	SDWA-5-12	Date Analyzed:	03/05/10 21:53
Lab Samp ID:	C024-11	Dilution Factor:	1
Lab File ID:	RCJ105	Matrix :	SOIL
Ext Btch ID:	SVC014S	% Moisture :	4.9
Calib. Ref.:	RAJ049	Instrument ID :	T-OE4

Number of TIC : 1

PARAMETERS	RESULTS (ug/kg)	RTTIME min	Q Value
ETHANE, 1,1,2,2-TETRACHLORO-	440J	2.24	97

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/04/10 11:30
Sample ID: SDWA-5-18	Date Analyzed: 03/05/10 22:11
Lab Samp ID: C024-12	Dilution Factor: 1
Lab File ID: RCJ106	Matrix : SOIL
Ext Btch ID: SVC014S	% Moisture : 6.9
Calib. Ref.: RAJ049	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	350	180
1,2-DICHLOROBENZENE	ND	350	180
1,3-DICHLOROBENZENE	ND	350	180
1,4-DICHLOROBENZENE	ND	350	180
2,4,5-TRICHLOROPHENOL	ND	350	180
2,4,6-TRICHLOROPHENOL	ND	350	200
2,4-DICHLOROPHENOL	ND	350	180
2,4-DIMETHYLPHENOL	ND	350	180
2,4-DINITROPHENOL	ND	710	180
2,4-DINITROTOLUENE	ND	350	180
2,6-DINITROTOLUENE	ND	350	180
2-CHLORONAPHTHALENE	ND	350	180
2-CHLOROPHENOL	ND	350	180
2-METHYLNAPHTHALENE	ND	350	180
2-METHYLPHENOL	ND	350	180
2-NITROANILINE	ND	350	180
2-NITROPHENOL	ND	350	180
3,3'-DICHLOROBENZIDINE	ND	350	180
3-NITROANILINE	ND	350	180
4,6-DINITRO-2-METHYLPHENOL	ND	710	180
4-BROMOPHENYL-PHENYL ETHER	ND	350	180
4-CHLORO-3-METHYLPHENOL	ND	350	180
4-CHLOROANILINE	ND	350	180
4-CHLOROPHENYL-PHENYL ETHER	ND	350	180
4-METHYLPHENOL (1)	ND	350	180
4-NITROANILINE	ND	350	180
4-NITROPHENOL	ND	710	180
ACENAPHTHENE	ND	350	180
ACENAPHTHYLENE	ND	350	180
ANTHRACENE	ND	350	180
BENZO(A)ANTHRACENE	ND	350	180
BENZO(A)PYRENE	ND	350	180
BENZO(B)FLUORANTHENE	ND	350	180
BENZO(K)FLUORANTHENE	ND	350	180
BENZO(G,H,I)PERYLENE	ND	350	180
BIS(2-CHLOROETHOXY)METHANE	ND	350	180
BIS(2-CHLOROETHYL)ETHER	ND	350	180
BIS(2-CHLOROISOPROPYL)ETHER	ND	350	180
BIS(2-ETHYLHEXYL)PHTHALATE	ND	350	180
BUTYLBENZYLPHTHALATE	ND	350	180
CHRYSENE	ND	350	180
DI-N-BUTYLPHTHALATE	ND	350	180
DI-N-OCTYLPHTHALATE	ND	350	180
DIBENZO(A,H)ANTHRACENE	ND	350	180
DIBENZOFURAN	ND	350	180
DIETHYLPHTHALATE	ND	350	180
DIMETHYLPHTHALATE	ND	350	180
FLUORANTHENE	ND	350	180
FLUORENE	ND	350	180
HEXACHLOROBENZENE	ND	350	180
HEXACHLOROBUTADIENE	ND	350	200
HEXACHLOROCYCLOPENTADIENE	ND	350	180
HEXACHLOROETHANE	ND	350	180
INDENO(1,2,3-CD)PYRENE	ND	350	180
ISOPHORONE	ND	350	180
N-NITROSO-DI-N-PROPYLAMINE	ND	350	180
N-NITROSODIPHENYLAMINE (2)	ND	350	180
NAPHTHALENE	ND	350	180
NITROBENZENE	ND	350	180
PENTACHLOROPHENOL	ND	710	190
PHENANTHRENE	ND	350	180
PHENOL	ND	350	180
PYRENE	ND	350	180

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	85	20-140
2-FLUOROBIPHENYL	78	30-130
2-FLUOROPHENOL	81	20-130
NITROBENZENE-D5	75	20-130
PHENOL-D5	81	20-130
TERPHENYL-D14	101	40-130

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/04/10 11:30
Sample ID:	SDWA-5-18	Date Analyzed:	03/05/10 22:11
Lab Samp ID:	C024-12	Dilution Factor:	1
Lab File ID:	RCJ106	Matrix :	SOIL
Ext Btch ID:	SVC014S	% Moisture :	6.9
Calib. Ref.:	RAJ049	Instrument ID :	T-OE4

Number of TIC : 5

PARAMETERS	RESULTS (ug/kg)	RTTIME min	Q Value
ETHANE, 1,1,2-TRICHLORO-	300J	1.53	98
ETHANE, 1,1,2,2-TETRACHLORO-	640J	2.24	97
UNKNOWN	680J	10.46	43
UNKNOWN	440J	10.92	55
UNKNOWN	440J	11.89	32

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/04/10 11:30
Sample ID: SDWA-5-20	Date Analyzed: 03/05/10 22:30
Lab Samp ID: C024-13	Dilution Factor: 1
Lab File ID: RCJ107	Matrix : SOIL
Ext Btch ID: SVC014S	% Moisture : 7.3
Calib. Ref.: RAJ049	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	360	180
1,2-DICHLOROBENZENE	ND	360	180
1,3-DICHLOROBENZENE	ND	360	180
1,4-DICHLOROBENZENE	ND	360	180
2,4,5-TRICHLOROPHENOL	ND	360	180
2,4,6-TRICHLOROPHENOL	ND	360	200
2,4-DICHLOROPHENOL	ND	360	180
2,4-DIMETHYLPHENOL	ND	360	180
2,4-DINITROPHENOL	ND	710	180
2,4-DINITROTOLUENE	ND	360	180
2,6-DINITROTOLUENE	ND	360	180
2-CHLORONAPHTHALENE	ND	360	180
2-CHLOROPHENOL	ND	360	180
2-METHYLNAPHTHALENE	ND	360	180
2-METHYLPHENOL	ND	360	180
2-NITROANILINE	ND	360	180
2-NITROPHENOL	ND	360	180
3,3'-DICHLOROBENZIDINE	ND	360	180
3-NITROANILINE	ND	360	180
4,6-DINITRO-2-METHYLPHENOL	ND	710	180
4-BROMOPHENYL-PHENYL ETHER	ND	360	180
4-CHLORO-3-METHYLPHENOL	ND	360	180
4-CHLOROANILINE	ND	360	180
4-CHLOROPHENYL-PHENYL ETHER	ND	360	180
4-METHYLPHENOL (1)	ND	360	180
4-NITROANILINE	ND	360	180
4-NITROPHENOL	ND	710	180
ACENAPHTHENE	ND	360	180
ACENAPHTHYLENE	ND	360	180
ANTHRACENE	ND	360	180
BENZO(A)ANTHRACENE	ND	360	180
BENZO(A)PYRENE	ND	360	180
BENZO(B)FLUORANTHENE	ND	360	180
BENZO(K)FLUORANTHENE	ND	360	180
BENZO(G,H,I)PERYLENE	ND	360	180
BIS(2-CHLOROETHOXY)METHANE	ND	360	180
BIS(2-CHLOROETHYL)ETHER	ND	360	180
BIS(2-CHLOROISOPROPYL)ETHER	ND	360	180
BIS(2-ETHYLHEXYL)PHTHALATE	ND	360	180
BUTYLBENZYLPHTHALATE	ND	360	180
CHRYSENE	ND	360	180
DI-N-BUTYLPHTHALATE	ND	360	180
DI-N-OCTYLPHTHALATE	ND	360	180
DIBENZO(A,H)ANTHRACENE	ND	360	180
DIBENZOFURAN	ND	360	180
DIETHYLPHTHALATE	ND	360	180
DIMETHYLPHTHALATE	ND	360	180
FLUORANTHENE	ND	360	180
FLUORENE	ND	360	180
HEXACHLOROBENZENE	ND	360	180
HEXACHLOROBUTADIENE	ND	360	200
HEXACHLOROCYCLOPENTADIENE	ND	360	180
HEXACHLOROETHANE	ND	360	180
INDENO(1,2,3-CD)PYRENE	ND	360	180
ISOPHORONE	ND	360	180
N-NITROSO-DI-N-PROPYLAMINE	ND	360	180
N-NITROSODIPHENYLAMINE (2)	ND	360	180
NAPHTHALENE	ND	360	180
NITROBENZENE	ND	360	180
PENTACHLOROPHENOL	ND	710	190
PHENANTHRENE	ND	360	180
PHENOL	ND	360	180
PYRENE	ND	360	180

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	83	20-140
2-FLUOROBIPHENYL	75	30-130
2-FLUOROPHENOL	81	20-130
NITROBENZENE-D5	76	20-130
PHENOL-D5	82	20-130
TERPHENYL-D14	101	40-130

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/04/10 11:30
Sample ID:	SDWA-5-20	Date Analyzed:	03/05/10 22:30
Lab Samp ID:	C024-13	Dilution Factor:	1
Lab File ID:	RCJ107	Matrix :	SOIL
Ext Btch ID:	SVC014S	% Moisture :	7.3
Calib. Ref.:	RAJ049	Instrument ID :	T-OE4

Number of TIC : 1

PARAMETERS	RESULTS (ug/kg)	RTTIME min	Q Value
ETHANE, 1,1,2,2-TETRACHLORO-	600J	2.24	97

QC SUMMARIES

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH	Date Collected: NA
Project : IMPERIAL VALLEY WEST	Date Received: 03/04/10
Batch No. : 10C024	Date Extracted: 03/04/10 11:30
Sample ID: MBLK1S	Date Analyzed: 03/05/10 18:15
Lab Samp ID: SVC014SB	Dilution Factor: 1
Lab File ID: RCJ093	Matrix : SOIL
Ext Btch ID: SVC014S	% Moisture : NA
Calib. Ref.: RAJ049	Instrument ID : T-OE4

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	330	170
1,2-DICHLOROBENZENE	ND	330	170
1,3-DICHLOROBENZENE	ND	330	170
1,4-DICHLOROBENZENE	ND	330	170
2,4,5-TRICHLOROPHENOL	ND	330	170
2,4,6-TRICHLOROPHENOL	ND	330	180
2,4-DICHLOROPHENOL	ND	330	170
2,4-DIMETHYLPHENOL	ND	330	170
2,4-DINITROPHENOL	ND	660	170
2,4-DINITROTOLUENE	ND	330	170
2,6-DINITROTOLUENE	ND	330	170
2-CHLORONAPHTHALENE	ND	330	170
2-CHLOROPHENOL	ND	330	170
2-METHYLNAPHTHALENE	ND	330	170
2-METHYLPHENOL	ND	330	170
2-NITROANILINE	ND	330	170
2-NITROPHENOL	ND	330	170
3,3'-DICHLOROBENZIDINE	ND	330	170
3-NITROANILINE	ND	330	170
4,6-DINITRO-2-METHYLPHENOL	ND	660	170
4-BROMOPHENYL-PHENYL ETHER	ND	330	170
4-CHLORO-3-METHYLPHENOL	ND	330	170
4-CHLOROANILINE	ND	330	170
4-CHLOROPHENYL-PHENYL ETHER	ND	330	170
4-METHYLPHENOL (1)	ND	330	170
4-NITROANILINE	ND	330	170
4-NITROPHENOL	ND	660	170
ACENAPHTHENE	ND	330	170
ACENAPHTHYLENE	ND	330	170
ANTHRACENE	ND	330	170
BENZO(A)ANTHRACENE	ND	330	170
BENZO(A)PYRENE	ND	330	170
BENZO(B)FLUORANTHENE	ND	330	170
BENZO(K)FLUORANTHENE	ND	330	170
BENZO(G,H,I)PERYLENE	ND	330	170
BIS(2-CHLOROETHOXY)METHANE	ND	330	170
BIS(2-CHLOROETHYL)ETHER	ND	330	170
BIS(2-CHLOROISOPROPYL)ETHER	ND	330	170
BIS(2-ETHYLHEXYL)PHTHALATE	ND	330	170
BUTYLBENZYLPHTHALATE	ND	330	170
CHRYSENE	ND	330	170
DI-N-BUTYLPHTHALATE	ND	330	170
DI-N-OCTYLPHTHALATE	ND	330	170
DIBENZO(A,H)ANTHRACENE	ND	330	170
DIBENZOFURAN	ND	330	170
DIETHYLPHTHALATE	ND	330	170
DIMETHYLPHTHALATE	ND	330	170
FLUORANTHENE	ND	330	170
FLUORENE	ND	330	170
HEXACHLOROBENZENE	ND	330	170
HEXACHLOROBUTADIENE	ND	330	190
HEXACHLOROCYCLOPENTADIENE	ND	330	170
HEXACHLOROETHANE	ND	330	170
INDENO(1,2,3-CD)PYRENE	ND	330	170
ISOPHORONE	ND	330	170
N-NITROSO-DI-N-PROPYLAMINE	ND	330	170
N-NITROSODIPHENYLAMINE (2)	ND	330	170
NAPHTHALENE	ND	330	170
NITROBENZENE	ND	330	170
PENTACHLOROPHENOL	ND	660	170
PHENANTHRENE	ND	330	170
PHENOL	ND	330	170
PYRENE	ND	330	170

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	75	40-130
2-FLUOROBIPHENYL	71	30-130
2-FLUOROPHENOL	73	30-130
NITROBENZENE-D5	70	30-130
PHENOL-D5	74	30-130
TERPHENYL-D14	97	40-130

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH	Date Collected:	NA
Project	: IMPERIAL VALLEY WEST	Date Received:	03/04/10
Batch No.	: 10C024	Date Extracted:	03/04/10 11:30
Sample ID	: MBLK1S	Date Analyzed:	03/05/10 18:15
Lab Samp ID	: SVC014SB	Dilution Factor:	1
Lab File ID	: RCJ093	Matrix :	SOIL
Ext Btch ID	: SVC014S	% Moisture :	NA
Calib. Ref.	: RAJ049	Instrument ID :	T-OE4

Number of TIC : 0 Q

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH
PROJECT: IMPERIAL VALLEY WEST
BATCH NO.: 10C024
METHOD: METHOD 3550B/8270C

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	SVC014SB	SVC014SL	SVC014SC		
LAB FILE ID:	RCJ093	RCJ094	RCJ095		
DATE EXTRACTED:	03/04/1011:30	03/04/1011:30	03/04/1011:30	DATE COLLECTED:	NA
DATE ANALYZED:	03/05/1018:15	03/05/1018:33	03/05/1018:51	DATE RECEIVED:	03/04/10
PREP. BATCH:	SVC014S	SVC014S	SVC014S		
CALIB. REF:	RAJ049	RAJ049	RAJ049		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,2,4-Trichlorobenzene	ND	1330	1110	83	1330	1150	86	3	30-130	50
1,4-Dichlorobenzene	ND	1330	1010	76	1330	1050	79	4	30-130	50
2,4-Dinitrotoluene	ND	1330	1300	97	1330	1260	94	3	30-130	50
2-Chlorophenol	ND	1330	973	73	1330	1020	76	4	30-130	50
4-Chloro-3-Methylphenol	ND	1330	1070	81	1330	1140	85	6	30-130	50
4-Nitrophenol	ND	1330	896	67	1330	846	63	6	2D-130	50
Acenaphthene	ND	1330	1050	78	1330	1100	82	5	30-130	50
n-Nitroso-di-n-propylamine	ND	1330	1060	80	1330	1110	83	4	30-130	50
Pentachlorophenol	ND	1330	1140	86	1330	1060	79	8	20-130	50
Phenol	ND	1330	1040	78	1330	1070	80	3	30-130	50
Pyrene	ND	1330	1180	88	1330	1080	81	9	30-130	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
2,4,6-Tribromophenol	2000	1970	98	2000	1940	97	40-130
2-Fluorobiphenyl	667	519	78	667	542	81	30-130
2-Fluorophenol	2000	1520	76	2000	1570	79	30-130
Nitrobenzene-d5	667	504	76	667	518	78	30-130
Phenol-d5	2000	1560	78	2000	1590	79	30-130
Terphenyl-d14	667	725	109	667	656	98	40-130

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: TETRA TECH
PROJECT: IMPERIAL VALLEY WEST
BATCH NO.: 10C024
METHOD: METHOD 3550B/8270C

MATRIX:	SOIL			% MOISTURE:	4.0
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	SDWA-4				
LAB SAMP ID:	C024-07	C024-07M	C024-07S		
LAB FILE ID:	RCJ101	RCJ096	RCJ097		
DATE EXTRACTED:	03/04/1011:30	03/04/1011:30	03/04/1011:30	DATE COLLECTED:	03/01/10
DATE ANALYZED:	03/05/1020:40	03/05/1019:09	03/05/1019:27	DATE RECEIVED:	03/02/10
PREP. BATCH:	SVC014S	SVC014S	SVC014S		
CALIB. REF:	RAJ049	RAJ049	RAJ049		

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,2,4-Trichlorobenzene	ND	1390	1030	74	1390	1010	73	2	10-130	50
1,4-Dichlorobenzene	ND	1390	880	63	1390	871	63	1	10-130	50
2,4-Dinitrotoluene	ND	1390	1290	93	1390	1250	90	3	20-130	50
2-Chlorophenol	ND	1390	908	65	1390	913	66	0	20-130	50
4-Chloro-3-Methylphenol	ND	1390	1060	76	1390	1010	73	5	30-130	50
4-Nitrophenol	ND	1390	1030	74	1390	884	64	15	20-130	50
Acenaphthene	ND	1390	976	70	1390	970	70	1	20-130	50
n-Nitroso-di-n-propylamine	ND	1390	974	70	1390	994	72	2	20-130	50
Pentachlorophenol	ND	1390	1120	81	1390	1110	80	2	20-130	50
Phenol	ND	1390	976	70	1390	954	69	2	20-130	50
Pyrene	ND	1390	1060	76	1390	1090	78	3	10-160	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	QC LIMIT (%)
2,4,6-Tribromophenol	2080	1950	94	2080	1900	91	20-140
2-Fluorobiphenyl	694	516	74	694	495	71	30-130
2-Fluorophenol	2080	1490	72	2080	1420	68	20-130
Nitrobenzene-d5	694	496	71	694	462	67	20-130
Phenol-d5	2080	1560	75	2080	1490	71	20-130
Terphenyl-d14	694	692	100	694	673	97	40-130

LABORATORY REPORT FOR

TETRA TECH

IMPERIAL VALLEY WEST

METHOD 5035/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

SDG#: 10C024

CASE NARRATIVE

Client : TETRA TECH

Project : IMPERIAL VALLEY WEST

SDG : 10C024

METHOD 5035/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

A total of ten (10) soil samples were received on 03/02/10 for TPH Gasoline analysis, Method 5035/M8015 in accordance with USEPA SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods.

Holding Time
Samples were analyzed within the prescribed holding time.

Calibration
Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source (ICV). Continuing calibration (CCV) verifications were carried on a frequency specified by the project. All calibration requirements were within acceptance criteria.

Method Blank
Method blank was analyzed at the frequency required by the project. For this SDG, one method blank was analyzed with the samples. Result was compliant to project requirement.

Lab Control Sample
A set of LCS/LCD was analyzed with the samples in this SDG. Percent recoveries for VMC004SL/C were all within QC limits.

Matrix QC Sample
No matrix QC sample was designated in this SDG.

Surrogate
Surrogate was added on QC and field samples. Surrogate recoveries were within project QC limits.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met otherwise anomalies were discussed within the associated QC parameter.

LAB CHRONICLE
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : TETRA TECH
Project : IMPERIAL VALLEY WEST

SDG NO. : 10C024
Instrument ID : GCT039

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	VMC004SB	1	NA	03/03/1022:35	03/03/1022:35	EC03019A	EC03013A	VMC004S	Method Blank
LCS1S	VMC004SL	1	NA	03/03/1023:13	03/03/1023:13	EC03020A	EC03013A	VMC004S	Lab Control Sample (LCS)
LCD1S	VMC004SC	1	NA	03/03/1023:52	03/03/1023:52	EC03021A	EC03013A	VMC004S	LCS Duplicate
SDWA-2	C024-04	.56	3.3	03/04/1007:30	03/04/1007:30	EC03033A	EC03025A	VMC004S	Field Sample
SDWA-1	C024-05	1.02	8.6	03/04/1008:09	03/04/1008:09	EC03034A	EC03025A	VMC004S	Field Sample
SDWA-3	C024-06	1.12	2.2	03/04/1008:47	03/04/1008:47	EC03035A	EC03025A	VMC004S	Field Sample
SDWA-4	C024-07	.39	4.0	03/04/1009:25	03/04/1009:25	EC03036A	EC03025A	VMC004S	Field Sample
FM-SURFACE	C024-08	1.4	10.8	03/04/1010:41	03/04/1010:41	EC03038A	EC03037A	VMC004S	Field Sample
FM-12	C024-09	1.57	5.5	03/04/1011:19	03/04/1011:19	EC03039A	EC03037A	VMC004S	Field Sample
FM-16	C024-10	.37	0.4	03/04/1011:57	03/04/1011:57	EC03040A	EC03037A	VMC004S	Field Sample
SDWA-5-12	C024-11	.71	4.9	03/04/1012:36	03/04/1012:36	EC03041A	EC03037A	VMC004S	Field Sample
SDWA-5-18	C024-12	.46	6.9	03/04/1013:14	03/04/1013:14	EC03042A	EC03037A	VMC004S	Field Sample
SDWA-5-20	C024-13	.51	7.3	03/04/1013:52	03/04/1013:52	EC03043A	EC03037A	VMC004S	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 5035/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/04/10 07:30
Sample ID:	SDWA-2	Date Analyzed:	03/04/10 07:30
Lab Samp ID:	C024-04	Dilution Factor:	.56
Lab File ID:	EC03033A	Matrix :	SOIL
Ext Btch ID:	VMC004S	% Moisture :	3.3
Calib. Ref.:	EC03025A	Instrument ID :	GCT039

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
GASOLINE	ND	0.58	0.29

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOFLUOROBENZENE	84	70-140

Parameter	H-C Range
Gasoline	C6-C10

METHANOL EXTRACTION: 03/03/10 15:30

METHOD 5035/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/04/10 08:09
Sample ID:	SDWA-1	Date Analyzed:	03/04/10 08:09
Lab Samp ID:	C024-05	Dilution Factor:	1.02
Lab File ID:	EC03034A	Matrix :	SOIL ✓
Ext Btch ID:	VMC004S	% Moisture :	8.6
Calib. Ref.:	EC03025A	Instrument ID :	GCT039

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
GASOLINE	ND	1.1	0.56

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOFLUOROBENZENE	93	70-140

Parameter	H-C Range
Gasoline	C6-C10

METHANOL EXTRACTION: 03/03/10 15:30

METHOD 5035/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/04/10 08:47
Sample ID:	SDWA-3	Date Analyzed:	03/04/10 08:47
Lab Samp ID:	C024-06	Dilution Factor:	1.12
Lab File ID:	EC03035A	Matrix :	SOIL
Ext Btch ID:	VMC004S	% Moisture :	2.2
Calib. Ref.:	EC03025A	Instrument ID :	GCT039

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
GASOLINE	ND	1.1	0.57

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOFLUOROBENZENE	92	70-140

Parameter	H-C Range
Gasoline	C6-C10

METHANOL EXTRACTION: 03/03/10 15:30

METHOD 5035/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/04/10 09:25
Sample ID:	SDWA-4	Date Analyzed:	03/04/10 09:25
Lab Samp ID:	C024-07	Dilution Factor:	.39
Lab File ID:	EC03036A	Matrix :	SOIL
Ext Btch ID:	VMC004S	% Moisture :	4.0
Calib. Ref.:	EC03025A	Instrument ID :	GCT039

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
GASOLINE	ND	0.41	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOFLUOROBENZENE	93	70-140

Parameter	H-C Range
Gasoline	C6-C10

METHANOL EXTRACTION: 03/03/10 15:30

METHOD 5035/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/04/10 10:41
Sample ID:	FM-SURFACE	Date Analyzed:	03/04/10 10:41
Lab Samp ID:	C024-08	Dilution Factor:	1.4
Lab File ID:	EC03038A	Matrix :	SOIL
Ext Btch ID:	VMC004S	% Moisture :	10.8
Calib. Ref.:	EC03037A	Instrument ID :	GCT039

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
GASOLINE	ND	1.6	0.78

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOFLUOROBENZENE	92	70-140

Parameter	H-C Range
Gasoline	C6-C10

METHANOL EXTRACTION: 03/03/10 15:30

METHOD 5035/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/04/10 11:19
Sample ID:	FM-12	Date Analyzed:	03/04/10 11:19
Lab Samp ID:	C024-09	Dilution Factor:	1.57
Lab File ID:	EC03039A	Matrix :	SOIL
Ext Btch ID:	VMC004S	% Moisture :	5.5
Calib. Ref.:	EC03037A	Instrument ID :	GCT039

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
GASOLINE	1.8	1.7	0.83

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOFLUOROBENZENE	96	70-140

Parameter	H-C Range
Gasoline	C6-C10

METHANOL EXTRACTION: 03/03/10 15:30

METHOD 5035/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/04/10 11:57
Sample ID:	FM-16	Date Analyzed:	03/04/10 11:57
Lab Samp ID:	C024-10	Dilution Factor:	.37
Lab File ID:	EC03040A	Matrix :	SOIL
Ext Btch ID:	VMC004S	% Moisture :	0.4
Calib. Ref.:	EC03037A	Instrument ID :	GCT039

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
GASOLINE	ND	0.37	0.19

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOFLUOROBENZENE	95	70-140

Parameter	H-C Range
Gasoline	C6-C10

METHANOL EXTRACTION: 03/03/10 15:30

METHOD 5035/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/04/10 12:36
Sample ID:	SDWA-5-12	Date Analyzed:	03/04/10 12:36
Lab Samp ID:	C024-11	Dilution Factor:	.71
Lab File ID:	EC03041A	Matrix :	SOIL
Ext Btch ID:	VMC004S	% Moisture :	4.9
Calib. Ref.:	EC03037A	Instrument ID :	GCT039

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
GASOLINE	ND	0.75	0.37

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOFLUOROBENZENE	91	70-140

Parameter	H-C Range
Gasoline	C6-C10

METHANOL EXTRACTION: 03/03/10 15:30

METHOD 5035/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/04/10 13:14
Sample ID:	SDWA-5-18	Date Analyzed:	03/04/10 13:14
Lab Samp ID:	C024-12	Dilution Factor:	.46
Lab File ID:	EC03042A	Matrix :	SOIL
Ext Btch ID:	VMC004S	% Moisture :	6.9
Calib. Ref.:	EC03037A	Instrument ID :	GCT039

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
GASOLINE	ND	0.49	0.25

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOFLUOROBENZENE	89	70-140

Parameter	H-C Range
Gasoline	C6-C10

METHANOL EXTRACTION: 03/03/10 15:30

METHOD 5035/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/04/10 13:52
Sample ID:	SDWA-5-20	Date Analyzed:	03/04/10 13:52
Lab Samp ID:	C024-13	Dilution Factor:	.51
Lab File ID:	EC03043A	Matrix :	SOIL
Ext Btch ID:	VMCD04S	% Moisture :	7.3
Calib. Ref.:	EC03037A	Instrument ID :	GCT039

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
GASOLINE	ND	0.55	0.28

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOFLUOROBENZENE	91	70-140

Parameter	H-C Range
Gasoline	C6-C10

METHANOL EXTRACTION: 03/03/10 15:30

QC SUMMARIES

METHOD 5035/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client	: TETRA TECH	Date Collected:	NA
Project	: IMPERIAL VALLEY WEST	Date Received:	03/03/10
Batch No.	: 10C024	Date Extracted:	03/03/10 22:35
Sample ID:	MBLK1S	Date Analyzed:	03/03/10 22:35
Lab Samp ID:	VMC004SB	Dilution Factor:	1
Lab File ID:	EC03019A	Matrix :	SOIL
Ext Btch ID:	VMC004S	% Moisture :	NA
Calib. Ref.:	EC03013A	Instrument ID :	GCT039

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
GASOLINE	ND	1.0	0.50

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOFLUOROBENZENE	95	70-140

Parameter	H-C Range
Gasoline	C6-C10

METHANOL EXTRACTION : 03/03/10 15:30

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH
PROJECT: IMPERIAL VALLEY WEST
BATCH NO.: 10C024
METHOD: METHOD 5035/M8015

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	VMC004SB	VMC004SL	VMC004SC		
LAB FILE ID:	EC03019A	EC03020A	EC03021A		
DATE EXTRACTED:	03/03/1022:35	03/03/1023:13	03/03/1023:52	DATE COLLECTED:	NA
DATE ANALYZED:	03/03/1022:35	03/03/1023:13	03/03/1023:52	DATE RECEIVED:	03/03/10
PREP. BATCH:	VMC004S	VMC004S	VMC004S		
CALIB. REF:	EC03013A	EC03013A	EC03013A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Gasoline	ND	25.0	21.4	85	25.0	21.1	84	1	60-130	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
Bromofluorobenzene	2.00	2.12	106	2.00	2.12	106	70-140

LABORATORY REPORT FOR

TETRA TECH

IMPERIAL VALLEY WEST

METHOD 3550B/M8015
PETROLEUM HYDROCARBONS BY EXTRACTION

SDG#: 10C024

CASE NARRATIVE

Client : TETRA TECH

Project : IMPERIAL VALLEY WEST

SDG : 10C024

METHOD 3550B/M8015
PETROLEUM HYDROCARBONS BY EXTRACTION

A total of ten (10) soil samples were received on 03/02/10 for TPH Diesel & Motor Oil analysis, Method 3550B/M8015 in accordance with USEPA SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods.

Holding Time
Samples were analyzed within the prescribed holding time.

Calibration
Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source (ICV). Continuing calibration (CCV) verifications were carried on a frequency specified by the project. All calibration requirements were within acceptance criteria.

Method Blank
Method blank was analyzed at the frequency required by the project. For this SDG, one method blank was analyzed with the samples. Result was compliant to project requirement.

Lab Control Sample
A lab control sample was analyzed with the samples in this SDG.
Percent recoveries for DSC006SL were all within QC limits.

Matrix QC Sample
A set of MS/MSD was analyzed with the samples in this SDG.
Percent recoveries for C024-07M/S were within project QC limits.

Surrogate
Surrogates were added on QC and field samples. Surrogate recoveries were within project QC limits.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met otherwise anomalies were discussed within the associated QC parameter.
Samples C024-04 and -11 displayed heavier fuel pattern.
Samples C024-09 and -10 displayed lighter fuel pattern.
Sample C024-04 was diluted prior to analysis due to dark coloration.

LAB CHRONICLE
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : TETRA TECH
Project : IMPERIAL VALLEY WEST

SDG NO. : 10C024
Instrument ID : GCT105

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	DSC006SB	1	NA	03/06/1006:30	03/03/1016:00	LC05067A	LC05064A	DSC006S	Method Blank
LCS1S	DSC006SL	1	NA	03/06/1006:13	03/03/1016:00	LC05066A	LC05064A	DSC006S	Lab Control Sample (LCS)
SDWA-2	C024-04T	5	3.3	03/06/1010:40	03/03/1016:00	LC05082A	LC05077A	DSC006S	Diluted Sample
SDWA-1	CD24-05	1	8.6	03/06/1006:47	03/03/1016:00	LC05068A	LC05064A	DSC006S	Field Sample
SDWA-3	C024-06	1	2.2	03/06/1007:03	03/03/1016:00	LC05069A	LC05064A	DSC006S	Field Sample
SDWA-4	C024-07	1	4.0	03/06/1007:20	03/03/1016:00	LC05070A	LC05064A	DSC006S	Field Sample
SDWA-4MS	C024-07M	1	4.0	03/06/1007:37	03/03/1016:00	LC05071A	LC05064A	DSC006S	Matrix Spike Sample (MS)
SDWA-4MSD	C024-07S	1	4.0	03/06/1007:53	03/03/1016:00	LC05072A	LC05064A	DSC006S	MS Duplicate (MSD)
FM-SURFACE	C024-08	1	10.8	03/06/1008:10	03/03/1016:00	LC05073A	LC05064A	DSC006S	Field Sample
FM-12	C024-09	1	5.5	03/06/1008:27	03/03/1016:00	LC05074A	LC05064A	DSC006S	Field Sample
FM-16	C024-10	1	0.4	03/06/1008:43	03/03/1016:00	LC05075A	LC05064A	DSC006S	Field Sample
SDWA-5-12	C024-11	1	4.9	03/06/1009:50	03/03/1016:00	LC05D79A	LC05077A	DSC006S	Field Sample
SDWA-5-18	C024-12	1	6.9	03/06/1010:06	03/03/1016:00	LC05080A	LC05077A	DSC006S	Field Sample
SDWA-5-20	C024-13	1	7.3	03/06/1010:23	03/03/1016:00	LC05081A	LC05077A	DSC006S	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 3550B/M8015
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/03/10 16:00
Sample ID:	SDWA-2	Date Analyzed:	03/06/10 10:40
Lab Samp ID:	C024-D4T	Dilution Factor:	5
Lab File ID:	LC05082A	Matrix :	SOIL
Ext Btch ID:	DSC006S	% Moisture :	3.3
Calib. Ref.:	LC05077A	Instrument ID :	GCT105

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
DIESEL	ND	100	26
MOTOR OIL	140	100	26

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BRDMOBENZENE	80	40-160
HEXACOSANE	108	70-160

RL : Reporting Limit

Parameter	H-C Range
Diesel	C10-C24
Motor Oil	C24-C36

METHOD 3550B/M8015
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/03/10 16:00
Sample ID:	SDWA-1	Date Analyzed:	03/06/10 06:47
Lab Samp ID:	C024-05	Dilution Factor:	1
Lab File ID:	LC05068A	Matrix :	SOIL
Ext Btch ID:	DSC006S	% Moisture :	8.6
Calib. Ref.:	LC05064A	Instrument ID :	GCT105

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
DIESEL	ND	22	5.5
MOTOR OIL	ND	22	5.5

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOBENZENE	88	40-160
HEXACOSANE	103	70-160

RL : Reporting Limit

Parameter	H-C Range
Diesel	C10-C24
Motor Oil	C24-C36

METHOD 3550B/M8015
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/03/10 16:00
Sample ID:	SDWA-3	Date Analyzed:	03/06/10 07:03
Lab Samp ID:	C024-06	Dilution Factor:	1
Lab File ID:	LC05069A	Matrix	: SOIL
Ext Btch ID:	DSC006S	% Moisture	: 2.2
Calib. Ref.:	LC05064A	Instrument ID	: GCT105

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
DIESEL	ND	20	5.1
MOTOR OIL	ND	20	5.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOBENZENE	95	40-160
HEXACOSANE	112	70-160

RL : Reporting Limit

Parameter	H-C Range
Diesel	C10-C24
Motor Oil	C24-C36

METHOD 3550B/M8015
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/03/10 16:00
Sample ID:	SDWA-4	Date Analyzed:	03/06/10 07:20
Lab Samp ID:	C024-07	Dilution Factor:	1
Lab File ID:	LC05070A	Matrix	: SOIL
Ext Btch ID:	DSC006S	% Moisture	: 4.0
Calib. Ref.:	LC05064A	Instrument ID	: GCT105

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
DIESEL	ND	21	5.2
MOTOR OIL	ND	21	5.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOBENZENE	96	40-160
HEXACOSANE	116	70-160

RL : Reporting Limit

Parameter	H-C Range
Diesel	C10-C24
Motor Oil	C24-C36

METHOD 3550B/M8015
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/03/10 16:00
Sample ID:	FM-SURFACE	Date Analyzed:	03/06/10 08:10
Lab Samp ID:	C024-08	Dilution Factor:	1
Lab File ID:	LC05073A	Matrix :	SOIL
Ext Btch ID:	DSC006S	% Moisture :	10.8
Calib. Ref.:	LC05064A	Instrument ID :	GCT105

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
DIESEL	ND	22	5.6
MOTOR OIL	ND	22	5.6

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOBENZENE	94	40-160
HEXACOSANE	109	70-160

RL : *Reporting Limit*

Parameter	H-C Range
Diesel	C10-C24
Motor Oil	C24-C36

METHOD 3550B/M8015
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/03/10 16:00
Sample ID:	FM-12	Date Analyzed:	03/06/10 08:27
Lab Samp ID:	C024-09	Dilution Factor:	1
Lab File ID:	LC05074A	Matrix :	SOIL
Ext Btch ID:	DSC006S	% Moisture :	5.5
Calib. Ref.:	LC05064A	Instrument ID :	GCT105

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
DIESEL	10J	21	5.3
MOTOR OIL	ND	21	5.3

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOBENZENE	93	40-160
HEXACOSANE	111	70-160

RL : Reporting Limit

Parameter	H-C Range
Diesel	C10-C24
Motor Oil	C24-C36

METHOD 3550B/M8015
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/03/10 16:00
Sample ID:	FM-16	Date Analyzed:	03/06/10 08:43
Lab Samp ID:	C024-10	Dilution Factor:	1
Lab File ID:	LC05075A	Matrix :	SOIL
Ext Btch ID:	DSC006S	% Moisture :	0.4
Calib. Ref.:	LC05064A	Instrument ID :	GCT105

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
DIESEL	8.7J	20	5.0
MOTOR OIL	ND	20	5.0

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOBENZENE	90	40-160
HEXACOSANE	109	70-160

RL : Reporting Limit

Parameter	H-C Range
Diesel	C10-C24
Motor Oil	C24-C36

METHOD 3550B/M8015
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/03/10 16:00
Sample ID:	SDWA-5-12	Date Analyzed:	03/06/10 09:50
Lab Samp ID:	C024-11	Dilution Factor:	1
Lab File ID:	LC05079A	Matrix :	SOIL
Ext Btch ID:	DSC006S	% Moisture :	4.9
Calib. Ref.:	LC05077A	Instrument ID :	GCT105

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
DIESEL	ND	21	5.3
MOTOR OIL	20J	21	5.3

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOBENZENE	92	40-160
HEXACOSANE	111	70-160

RL : Reporting Limit

Parameter	H-C Range
Diesel	C10-C24
Motor Oil	C24-C36

METHOD 3550B/M8015
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/03/10 16:00
Sample ID:	SDWA-5-18	Date Analyzed:	03/06/10 10:06
Lab Samp ID:	C024-12	Dilution Factor:	1
Lab File ID:	LC05080A	Matrix :	SOIL
Ext Btch ID:	DSC006S	% Moisture :	6.9
Calib. Ref.:	LC05077A	Instrument ID :	GCT105

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
DIESEL	ND	21	5.4
MOTOR OIL	ND	21	5.4

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOBENZENE	95	40-160
HEXACOSANE	111	70-160

RL : Reporting Limit

Parameter	H-C Range
Diesel	C10-C24
Motor Oil	C24-C36

METHOD 3550B/M8015
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/03/10 16:00
Sample ID:	SDWA-5-20	Date Analyzed:	03/06/10 10:23
Lab Samp ID:	C024-13	Dilution Factor:	1
Lab File ID:	LC05081A	Matrix :	SOIL
Ext Btch ID:	DSC006S	% Moisture :	7.3
Calib. Ref.:	LC05077A	Instrument ID :	GCT105

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
DIESEL	ND	22	5.4
MOTOR OIL	ND	22	5.4

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOBENZENE	90	40-160
HEXACOSANE	109	70-160

RL : Reporting Limit

Parameter	H-C Range
Diesel	C10-C24
Motor Oil	C24-C36

QC SUMMARIES

METHOD 3550B/M8015
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: TETRA TECH	Date Collected:	NA
Project	: IMPERIAL VALLEY WEST	Date Received:	03/03/10
Batch No.	: 10C024	Date Extracted:	03/03/10 16:00
Sample ID:	MBLK1S	Date Analyzed:	03/06/10 06:30
Lab Samp ID:	DSC006SB	Dilution Factor:	1
Lab File ID:	LC05067A	Matrix :	SOIL
Ext Btch ID:	DSC006S	% Moisture :	NA
Calib. Ref.:	LC05064A	Instrument ID :	GCT105

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
DIESEL	ND	20	5.0
MOTOR OIL	ND	20	5.0

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOBENZENE	96	50-150
HEXACOSANE	111	70-140

RL : Reporting Limit

Parameter	H-C Range
Diesel	C10-C24
Motor Oil	C24-C36

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: TETRA TECH
PROJECT: IMPERIAL VALLEY WEST
BATCH NO.: 10C024
METHOD: METHOD 3550B/M8015

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MATRIX:	SOIL		% MOISTURE:	NA
DILUTION FACTOR:	1	1		
SAMPLE ID:	MBLK1S			
LAB SAMP ID:	DSC006SB	DSC006SL		
LAB FILE ID:	LC05067A	LC05066A		
DATE EXTRACTED:	03/03/1016:00	03/03/1016:00	DATE COLLECTED:	NA
DATE ANALYZED:	03/06/1006:30	03/06/1006:13	DATE RECEIVED:	03/03/10
PREP. BATCH:	DSC006S	DSC006S		
CALIB. REF:	LC05064A	LC05064A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
Diesel	ND	500	434	87	60-140

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SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
Bromobenzene	100	98.7	99	50-150
Hexacosane	25.0	29.7	119	70-140

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: TETRA TECH
PROJECT: IMPERIAL VALLEY WEST
BATCH NO.: 10C024
METHOD: METHOD 3550B/M8015

MATRIX: SOIL % MOISTURE: 4.0

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	SDWA-4				
LAB SAMP ID:	C024-07	C024-07M	C024-07S		
LAB FILE ID:	LC05070A	LC05071A	LC05072A		
DATE EXTRACTED:	03/03/1016:00	03/03/1016:00	03/03/1016:00	DATE COLLECTED:	03/01/10
DATE ANALYZED:	03/06/1007:20	03/06/1007:37	03/06/1007:53	DATE RECEIVED:	03/02/10
PREP. BATCH:	DSC006S	DSC006S	DSC006S		
CALIB. REF:	LC05064A	LC05064A	LC05064A		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	SPIKE AMT (mg/kg)	MSD RSLT (mg/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Diesel	ND	521	447	86	521	478	92	7	40-150	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	SPIKE AMT (mg/kg)	MSD RSLT (mg/kg)	MSD % REC	QC LIMIT (%)
Bromobenzene	104	98.1	94	104	101	97	40-160
Hexacosane	26.0	30.3	116	26.0	31.0	119	70-160

LABORATORY REPORT FOR

TETRA TECH

IMPERIAL VALLEY WEST

METHOD 1664
OIL & GREASE

SDG#: 10C024

CASE NARRATIVE

Client : TETRA TECH

Project : IMPERIAL VALLEY WEST

SDG : 10C024

METHOD 1664
OIL & GREASE

A total of ten (10) soil samples were received on 03/02/10 for Oil & Grease HEM-SGT analysis, Method 1664 in accordance with Analytical Method Guidance for EPA Method 1664A Implementation and Use (40 CFR part 136)EPA/821-R-00-003.

Holding Time
Samples were analyzed within the prescribed holding time.

Calibration
Balance calibration was checked as prescribed by the method. All calibration requirements were within acceptance criteria.

Method Blank
Method blank was analyzed at the frequency required by the project. For this SDG, one method blank was analyzed with the samples. Result was compliant to project requirement.

Lab Control Sample
A set of LCS/LCD was analyzed with the samples in this SDG.
Percent recoveries for TRC003SL/C were all within QC limits.

Matrix QC Sample
Matrix QC sample was analyzed at the frequency prescribed by the project.
Percent recoveries for C024-13M/S were within project QC limits.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met otherwise anomalies were discussed within the associated QC parameter.

METHOD 1664
OIL & GREASE

Client : TETRA TECH
Project : IMPERIAL VALLEY WEST
Batch No. : 10C024

Matrix : SOIL
Instrument ID : I40706360

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	TRC003SB	ND	1	NA	60.0	30.0	03/05/1013:43	03/04/1014:59	TRC00302	NA	TRC003S	NA	03/04/10
LCS1S	TRC003SL	525	1	NA	60.0	30.0	03/05/1013:43	03/04/1014:59	TRC00303	NA	TRC003S	NA	03/04/10
LCD1S	TRC003SC	520	1	NA	60.0	30.0	03/05/1013:43	03/04/1014:59	TRC00304	NA	TRC003S	NA	03/04/10
SDWA-2	C024-04	480	1	3.3	62.0	31.0	03/05/1013:43	03/04/1014:59	TRC00305	NA	TRC003S	03/01/1009:30	03/02/10
SDWA-1	C024-05	ND	1	8.6	65.6	32.8	03/05/1013:44	03/04/1014:59	TRC00306	NA	TRC003S	03/01/1010:10	03/02/10
SDWA-3	C024-06	ND	1	2.2	61.3	30.7	03/05/1013:44	03/04/1014:59	TRC00307	NA	TRC003S	03/01/1010:55	03/02/10
SDWA-4	C024-07	ND	1	4.0	62.5	31.2	03/05/1013:44	03/04/1014:59	TRC00308	NA	TRC003S	03/01/1011:35	03/02/10
FM-SURFACE	C024-08	ND	1	10.8	67.3	33.6	03/05/1013:44	03/04/1014:59	TRC00309	NA	TRC003S	03/01/1012:00	03/02/10
FM-12	C024-09	ND	1	5.5	63.5	31.7	03/05/1013:45	03/04/1014:59	TRC00310	NA	TRC003S	03/01/1012:10	03/02/10
FM-16	C024-10	ND	1	0.4	60.2	30.1	03/05/1013:45	03/04/1014:59	TRC00311	NA	TRC003S	03/01/1012:20	03/02/10
SDWA-5-12	C024-11	ND	1	4.9	63.1	31.5	03/05/1013:45	03/04/1014:59	TRC00312	NA	TRC003S	03/01/1013:10	03/02/10
SDWA-5-18	C024-12	ND	1	6.9	64.4	32.2	03/05/1013:45	03/04/1014:59	TRC00313	NA	TRC003S	03/01/1013:20	03/02/10
SDWA-5-20	C024-13	ND	1	7.3	64.7	32.4	03/05/1013:46	03/04/1014:59	TRC00314	NA	TRC003S	03/01/1013:30	03/02/10
SDWA-5-20MS	C024-13M	464	1	7.3	64.7	32.4	03/05/1013:46	03/04/1014:59	TRC00315	NA	TRC003S	03/01/1013:30	03/02/10
SDWA-5-20MSD	C024-13S	470	1	7.3	64.7	32.4	03/05/1013:46	03/04/1014:59	TRC00316	NA	TRC003S	03/01/1013:30	03/02/10

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH
PROJECT: IMPERIAL VALLEY WEST
METHOD: METHOD 1664
MATRIX: SOIL
% MOISTURE: NA

BATCH NO.: 10C024
SAMPLE ID: LCS1S/LCD1S
CONTROL NO.: TRC003SL/C

DATE RECEIVED: 03/04/10
DATE EXTRACTED: 03/04/10 14:59
DATE ANALYZED: 03/05/10 13:43/13:43

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
Oil & Grease	ND	500	525	105	500	520	104	1	64-132	24

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: TETRA TECH
PROJECT: IMPERIAL VALLEY WEST
METHOD: METHOD 1664
MATRIX: SOIL
% MOISTURE: NA

BATCH NO.: 10C024
SAMPLE ID: SDWA-5-20MS/MSD
CONTROL NO.: C024-13M/S

DATE RECEIVED: 03/02/10
DATE EXTRACTED: 03/04/10 14:59
DATE ANALYZED: 03/05/10 13:46/13:46

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	SPIKE AMT (mg/kg)	MSD RSLT (mg/kg)	MSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
Oil & Grease	ND	500	464	93	500	470	94	1	64-132	24

LABORATORY REPORT FOR

TETRA TECH

IMPERIAL VALLEY WEST

METHOD 3550B/8081A
PESTICIDES

SDG#: 10C024

CASE NARRATIVE

Client : TETRA TECH

Project : IMPERIAL VALLEY WEST

SDG : 10C024

SW3550B/8081A
PESTICIDES

A total of thirteen (13) soil samples were received on 03/02/10 for Pesticides Organochlorine analysis, Method SW3550B/8081A in accordance with USEPA SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods.

Holding Time
Samples were analyzed within the prescribed holding time.

Instrument Performance and Calibration
Instrument performance was checked prior to calibration. DDT and Endrin breakdown were within specification. Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using secondary source (ICV). Continuing calibration (CCV) was carried on at a frequency required by the project. All project calibration requirements were satisfied. Refer to calibration summary forms for ICAL, ICV and CCV for details.

Method Blank
Method blank was analyzed at the frequency required by the project. For this SDG, one method blank was analyzed with the samples. Result was compliant to project requirement.

Lab Control Sample
A lab control sample was analyzed with the samples in this SDG.
Percent recoveries for CPC007SL were all within QC limits.

Matrix QC Sample
A set of MS/MSD was analyzed with the samples in this SDG.
Percent recoveries for C024-06M/S were within project QC limits.

Surrogate
Surrogates were added on QC and field samples. Surrogate recoveries were within project QC limits.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met otherwise anomalies were discussed within the associated QC parameter. Positive sample results were confirmed by a second column. Relative percentage difference (RPD) between the two results were evaluated. If RPD is less than 40% and peaks are well defined the higher result is reported. Where RPD is greater than 40% the chromatogram is checked for anomalies and results are selected based on processed knowledge. If there is no evidence of any chromatographic ambiguity, the higher result is reported.
Florisil cleanup was performed on samples C024-04, -05, -15 and -16 to reduce matrix interference.

LAB CHRONICLE
PESTICIDES

Client : TETRA TECH
Project : IMPERIAL VALLEY WEST

SDG NO. : 10C024
Instrument ID : GCT016

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	CPC007SB	1	NA	03/05/1014:00	03/04/1016:00	WC05005A	WC05003A	CPC007S	Method Blank
LCS1S	CPC007SL	1	NA	03/05/1014:23	03/04/1016:00	WC05006A	WC05003A	CPC007S	Lab Control Sample (LCS)
SDWA-2	C024-04	1	3.3	03/05/1015:09	03/04/1016:00	WC05008A	WC05003A	CPC007S	Field Sample
SDWA-1	C024-05	1	8.6	03/05/1015:32	03/04/1016:00	WC05009A	WC05003A	CPC007S	Field Sample
SDWA-3	C024-06	1	2.2	03/05/1016:41	03/04/1016:00	WC05012A	WC05003A	CPC007S	Field Sample
SDWA-3MS	C024-06M	1	2.2	03/05/1017:04	03/04/1016:00	WC05013A	WC05003A	CPC007S	Matrix Spike Sample (MS)
SDWA-3MSD	C024-06S	1	2.2	03/05/1017:27	03/04/1016:00	WC05014A	WC05003A	CPC007S	MS Duplicate (MSD)
SDWA-4	C024-07	1	4.0	03/05/1018:36	03/04/1016:00	WC05017A	WC05003A	CPC007S	Field Sample
FM-SURFACE	C024-08	1	10.8	03/05/1018:59	03/04/1016:00	WC05018A	WC05003A	CPC007S	Field Sample
FM-12	C024-09	1	5.5	03/05/1019:22	03/04/1016:00	WC05019A	WC05003A	CPC007S	Field Sample
FM-16	C024-10	1	0.4	03/05/1019:45	03/04/1016:00	WC05020A	WC05003A	CPC007S	Field Sample
SDWA-5-12	C024-11	1	4.9	03/05/1020:08	03/04/1016:00	WC05021A	WC05003A	CPC007S	Field Sample
SDWA-5-18	C024-12	1	6.9	03/05/1020:31	03/04/1016:00	WC05022A	WC05003A	CPC007S	Field Sample
SDWA-5-20	C024-13	1	7.3	03/05/1020:54	03/04/1016:00	WC05023A	WC05003A	CPC007S	Field Sample
FR-2-0-2	C024-14	1	1.4	03/05/1021:17	03/04/1016:00	WC05024A	WC05003A	CPC007S	Field Sample
FR-1-0-2	C024-15	1	4.8	03/05/1015:55	03/04/1016:00	WC05010A	WC05003A	CPC007S	Field Sample
FR-1-0-2-DUP	C024-16	1	5.3	03/05/1016:18	03/04/1016:00	WC05011A	WC05003A	CPC007S	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

SW3550B/8081A
PESTICIDES

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/04/10 16:00
Sample ID:	SDWA-2	Date Analyzed:	03/05/10 15:09
Lab Samp ID:	C024-04	Dilution Factor:	1
Lab File ID:	WC05008A	Matrix :	SOIL
Ext Btch ID:	CPC007S	% Moisture :	3.3
Calib. Ref.:	WC05003A	Instrument ID :	GCT016

PARAMETERS	RESULTS (ug/kg)		RL (ug/kg)	MDL (ug/kg)	
ALPHA-BHC	(ND)	ND	2.1	0.62	0.62
GAMMA-BHC (LINDANE)	(ND)	ND	2.1	0.62	0.62
BETA-BHC	(ND)	ND	2.1	0.62	0.62
HEPTACHLOR	(ND)	ND	2.1	0.62	0.62
DELTA-BHC	(ND)	0.71J	2.1	0.62	0.62
ALDRIN	(ND)	ND	2.1	0.62	0.62
HEPTACHLOR EPOXIDE	(ND)	ND	2.1	0.62	0.62
GAMMA-CHLORDANE	(ND)	ND	2.1	0.62	0.62
ALPHA-CHLORDANE	(ND)	ND	2.1	0.62	0.62
ENDOSULFAN I	(ND)	ND	2.1	0.62	0.62
4,4'-DDE	(ND)	ND	4.1	1.2	1.2
DIELDRIN	(ND)	ND	4.1	1.2	1.2
ENDRIN	(ND)	ND	4.1	1.2	1.2
4,4'-DDD	(ND)	ND	4.1	1.2	1.2
ENDOSULFAN II	(ND)	ND	4.1	1.2	1.2
4,4'-DDT	(ND)	ND	4.1	1.2	1.2
ENDRIN ALDEHYDE	(ND)	ND	4.1	1.2	1.2
ENDOSULFAN SULFATE	(ND)	ND	4.1	1.6	1.6
ENDRIN KETONE	(ND)	ND	4.1	1.2	1.2
METHOXYCHLOR	(ND)	ND	21	4.1	4.1
TOXAPHENE	(ND)	ND	52	10	10

SURROGATE PARAMETERS	% RECOVERY		QC LIMIT
TETRACHLORO-M-XYLENE	(76)	68	10-160
DECACHLOROBIPHENYL	68	(75)	30-150

RL : Reporting limit
Left of | is related to first column ; Right of | related to second column
( ) included the reported column

SW3550B/8081A
PESTICIDES

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/04/10 16:00
Sample ID: SDWA-1	Date Analyzed: 03/05/10 15:32
Lab Samp ID: C024-05	Dilution Factor: 1
Lab File ID: WC05009A	Matrix : SOIL
Ext Btch ID: CPC007S	% Moisture : 8.6
Calib. Ref.: WC05003A	Instrument ID : GCT016

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ALPHA-BHC	(ND) | ND	2.2	0.66 | 0.66
GAMMA-BHC (LINDANE)	(ND) | ND	2.2	0.66 | 0.66
BETA-BHC	1.6J | (ND)	2.2	0.66 | 0.66
HEPTACHLOR	(ND) | ND	2.2	0.66 | 0.66
DELTA-BHC	(ND) | ND	2.2	0.66 | 0.66
ALDRIN	(ND) | ND	2.2	0.66 | 0.66
HEPTACHLOR EPOXIDE	1.5J | (ND)	2.2	0.66 | 0.66
GAMMA-CHLORDANE	(ND) | 1.6J	2.2	0.66 | 0.66
ALPHA-CHLORDANE	(ND) | ND	2.2	0.66 | 0.66
ENDOSULFAN I	(ND) | ND	2.2	0.66 | 0.66
4,4'-DDE	(34) | 31	4.4	1.3 | 1.3
DIELDRIN	(ND) | ND	4.4	1.3 | 1.3
ENDRIN	(ND) | ND	4.4	1.3 | 1.3
4,4'-DDD	(ND) | ND	4.4	1.3 | 1.3
ENDOSULFAN II	(ND) | ND	4.4	1.3 | 1.3
4,4'-DDT	(7.4) | 5.9	4.4	1.3 | 1.3
ENDRIN ALDEHYDE	(ND) | ND	4.4	1.3 | 1.3
ENDOSULFAN SULFATE	(ND) | ND	4.4	1.6 | 1.6
ENDRIN KETONE	(ND) | ND	4.4	1.3 | 1.3
METHOXYCHLOR	(ND) | ND	22	4.4 | 4.4
TOXAPHENE	(ND) | ND	55	11 | 11

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(85) | 74	10-160
DECACHLOROBIPHENYL	(88) | 82	30-150

RL : Reporting limit
Left of | is related to first column ; Right of | related to second column
( ) included the reported column

SW3550B/8081A
PESTICIDES

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/04/10 16:00
Sample ID:	SDWA-3	Date Analyzed:	03/05/10 16:41
Lab Samp ID:	C024-D6	Dilution Factor:	1
Lab File ID:	WC05012A	Matrix :	SOIL
Ext Btch ID:	CPC007S	% Moisture :	2.2
Calib. Ref.:	WC05003A	Instrument ID :	GCT016

PARAMETERS	RESULTS (ug/kg)		RL (ug/kg)	MDL (ug/kg)	
ALPHA-BHC	(ND)	ND	2.0	0.61	0.61
GAMMA-BHC (LINDANE)	(ND)	0.91J	2.0	0.61	0.61
BETA-BHC	(ND)	ND	2.0	0.61	0.61
HEPTACHLOR	(ND)	1.1J	2.0	0.61	0.61
DELTA-BHC	1.0J	(ND)	2.0	0.61	0.61
ALDRIN	(ND)	ND	2.0	0.61	0.61
HEPTACHLOR EPOXIDE	(ND)	ND	2.0	0.61	0.61
GAMMA-CHLORDANE	6.1	(ND)	2.0	0.61	0.61
ALPHA-CHLORDANE	1.6J	(ND)	2.0	0.61	0.61
ENDOSULFAN I	(ND)	ND	2.0	0.61	0.61
4,4'-DDE	(ND)	ND	4.1	1.2	1.2
DIELDRIN	(ND)	ND	4.1	1.2	1.2
ENDRIN	(ND)	ND	4.1	1.2	1.2
4,4'-DDD	(ND)	ND	4.1	1.2	1.2
ENDOSULFAN II	(ND)	1.7J	4.1	1.2	1.2
4,4'-DDT	(ND)	ND	4.1	1.2	1.2
ENDRIN ALDEHYDE	(ND)	ND	4.1	1.2	1.2
ENDOSULFAN SULFATE	(ND)	ND	4.1	1.5	1.5
ENDRIN KETONE	(ND)	ND	4.1	1.2	1.2
METHOXYCHLOR	(ND)	ND	20	4.1	4.1
TOXAPHENE	(ND)	ND	51	10	10

SURROGATE PARAMETERS	% RECOVERY		QC LIMIT
TETRACHLORO-M-XYLENE	(110)	93	10-160
DECACHLOROBIPHENYL	(95)	93	30-150

RL : Reporting limit
Left of | is related to first column ; Right of | related to second column
( ) included the reported column

SW3550B/8081A
PESTICIDES

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/04/10 16:00
Sample ID:	SDWA-4	Date Analyzed:	03/05/10 18:36
Lab Samp ID:	C024-07	Dilution Factor:	1
Lab File ID:	WC05017A	Matrix :	SOIL
Ext Btch ID:	CPC007S	% Moisture :	4.0
Calib. Ref.:	WC05003A	Instrument ID :	GCT016

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ALPHA-BHC	(ND)|ND	2.1	0.62|0.62
GAMMA-BHC (LINDANE)	(ND)|ND	2.1	0.62|0.62
BETA-BHC	(ND)|ND	2.1	0.62|0.62
HEPTACHLOR	(ND)|ND	2.1	0.62|0.62
DELTA-BHC	(ND)|ND	2.1	0.62|0.62
ALDRIN	(ND)|ND	2.1	0.62|0.62
HEPTACHLOR EPOXIDE	(ND)|ND	2.1	0.62|0.62
GAMMA-CHLORDANE	(ND)|ND	2.1	0.62|0.62
ALPHA-CHLORDANE	(ND)|ND	2.1	0.62|0.62
ENDOSULFAN I	(ND)|ND	2.1	0.62|0.62
4,4'-DDE	(ND)|ND	4.2	1.2|1.2
DIELDRIN	(ND)|ND	4.2	1.2|1.2
ENDRIN	(ND)|ND	4.2	1.2|1.2
4,4'-DDD	(ND)|ND	4.2	1.2|1.2
ENDOSULFAN II	(ND)|ND	4.2	1.2|1.2
4,4'-DDT	(ND)|ND	4.2	1.2|1.2
ENDRIN ALDEHYDE	(ND)|ND	4.2	1.2|1.2
ENDDSULFAN SULFATE	(ND)|ND	4.2	1.6|1.6
ENDRIN KETONE	(ND)|ND	4.2	1.2|1.2
METHOXYCHLOR	(ND)|ND	21	4.2|4.2
TOXAPHENE	(ND)|ND	52	10|10

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(109)|95	10-160
DECACHLOROBIPHENYL	95|(98)	30-150

RL : Reporting limit
Left of | is related to first column ; Right of | related to second column
( ) included the reported column

SW3550B/8081A
PESTICIDES

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/04/10 16:00
Sample ID:	FM-SURFACE	Date Analyzed:	03/05/10 18:59
Lab Samp ID:	C024-08	Dilution Factor:	1
Lab File ID:	WC05018A	Matrix :	SOIL
Ext Btch ID:	CPC007S	% Moisture :	10.8
Calib. Ref.:	WC05003A	Instrument ID :	GCT016

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ALPHA-BHC	(ND) | ND	2.2	0.67 | 0.67
GAMMA-BHC (LINDANE)	(ND) | 29E	2.2	0.67 | 0.67
BETA-BHC	51E | (1.4J)	2.2	0.67 | 0.67
HEPTACHLOR	(ND) | ND	2.2	0.67 | 0.67
DELTA-BHC	(ND) | ND	2.2	0.67 | 0.67
ALDRIN	(ND) | ND	2.2	0.67 | 0.67
HEPTACHLOR EPOXIDE	0.95J | (ND)	2.2	0.67 | 0.67
GAMMA-CHLORDANE	(ND) | ND	2.2	0.67 | 0.67
ALPHA-CHLORDANE	(ND) | ND	2.2	0.67 | 0.67
ENDOSULFAN I	(ND) | ND	2.2	0.67 | 0.67
4,4'-DDE	(ND) | ND	4.5	1.3 | 1.3
DIELDRIN	(ND) | ND	4.5	1.3 | 1.3
ENDRIN	(ND) | ND	4.5	1.3 | 1.3
4,4'-DDD	(ND) | ND	4.5	1.3 | 1.3
ENDOSULFAN II	(ND) | ND	4.5	1.3 | 1.3
4,4'-DDT	(ND) | ND	4.5	1.3 | 1.3
ENDRIN ALDEHYDE	(ND) | ND	4.5	1.3 | 1.3
ENDOSULFAN SULFATE	(ND) | ND	4.5	1.7 | 1.7
ENDRIN KETONE	(ND) | ND	4.5	1.3 | 1.3
METHOXYCHLOR	(ND) | ND	22	4.5 | 4.5
TOXAPHENE	(ND) | ND	56	11 | 11

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(87) | 80	10-160
DECACHLOROBIPHENYL	89 | (94)	30-150

RL : Reporting limit
Left of | is related to first column ; Right of | related to second column
( ) included the reported column

SW3550B/8081A
PESTICIDES

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/04/10 16:00
Sample ID:	FM-12	Date Analyzed:	03/05/10 19:22
Lab Samp ID:	C024-09	Dilution Factor:	1
Lab File ID:	WC05D19A	Matrix :	SOIL
Ext Btch ID:	CPC007S	% Moisture :	5.5
Calib. Ref.:	WC05003A	Instrument ID :	GCT016

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ALPHA-BHC	(ND) | ND	2.1	0.63 | 0.63
GAMMA-BHC (LINDANE)	(ND) | 4.2	2.1	0.63 | 0.63
BETA-BHC	(ND) | 4.5	2.1	0.63 | 0.63
HEPTACHLOR	(ND) | ND	2.1	0.63 | 0.63
DELTA-BHC	(ND) | 1.1J	2.1	0.63 | 0.63
ALDRIN	(ND) | ND	2.1	0.63 | 0.63
HEPTACHLOR EPOXIDE	1.3J | (ND)	2.1	0.63 | 0.63
GAMMA-CHLORDANE	0.79J | (1.8J)	2.1	0.63 | 0.63
ALPHA-CHLORDANE	(ND) | ND	2.1	0.63 | 0.63
ENDOSULFAN I	0.72J | (ND)	2.1	0.63 | 0.63
4,4'-DDE	(ND) | ND	4.2	1.3 | 1.3
DIELDRIN	(ND) | ND	4.2	1.3 | 1.3
ENDRIN	(ND) | ND	4.2	1.3 | 1.3
4,4'-DDD	(ND) | ND	4.2	1.3 | 1.3
ENDOSULFAN II	(ND) | ND	4.2	1.3 | 1.3
4,4'-DDT	(ND) | ND	4.2	1.3 | 1.3
ENDRIN ALDEHYDE	(ND) | ND	4.2	1.3 | 1.3
ENDOSULFAN SULFATE	(ND) | ND	4.2	1.6 | 1.6
ENDRIN KETONE	(ND) | ND	4.2	1.3 | 1.3
METHOXYCHLOR	(ND) | ND	21	4.2 | 4.2
TOXAPHENE	(ND) | ND	53	11 | 11

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	77 | (97)	10-160
DECACHLOROBIPHENYL	84 | (87)	30-150

RL : Reporting limit
Left of | is related to first column ; Right of | related to second column
( ) included the reported column

SW3550B/8081A
PESTICIDES

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/04/10 16:00
Sample ID:	FM-16	Date Analyzed:	03/05/10 19:45
Lab Samp ID:	C024-10	Dilution Factor:	1
Lab File ID:	WC05020A	Matrix	: SOIL
Ext Btch ID:	CPC007S	% Moisture	: 0.4
Calib. Ref.:	WC05003A	Instrument ID	: GCT016

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ALPHA-BHC	(ND)|ND	2.0	0.60|0.60
GAMMA-BHC (LINDANE)	(ND)|3.4	2.0	0.60|0.60
BETA-BHC	5.8|(ND)	2.0	0.60|0.60
HEPTACHLOR	(ND)|ND	2.0	0.60|0.60
DELTA-BHC	(ND)|ND	2.0	0.60|0.60
ALDRIN	(ND)|ND	2.0	0.60|0.60
HEPTACHLOR EPOXIDE	(ND)|ND	2.0	0.60|0.60
GAMMA-CHLORDANE	(ND)|ND	2.0	0.60|0.60
ALPHA-CHLORDANE	(ND)|ND	2.0	0.60|0.60
ENDOSULFAN I	(ND)|ND	2.0	0.60|0.60
4,4'-DDE	(ND)|ND	4.0	1.2|1.2
DIELDRIN	(ND)|ND	4.0	1.2|1.2
ENDRIN	(ND)|ND	4.0	1.2|1.2
4,4'-DDD	(ND)|ND	4.0	1.2|1.2
ENDOSULFAN II	(ND)|ND	4.0	1.2|1.2
4,4'-DDT	(ND)|ND	4.0	1.2|1.2
ENDRIN ALDEHYDE	(ND)|ND	4.0	1.2|1.2
ENDOSULFAN SULFATE	(ND)|ND	4.0	1.5|1.5
ENDRIN KETONE	(ND)|ND	4.0	1.2|1.2
METHOXYCHLOR	(ND)|ND	20	4.0|4.0
TOXAPHENE	(ND)|ND	50	10|10

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	87|(93)	10-160
DECACHLOROBIPHENYL	90|(98)	30-150

RL : Reporting limit
Left of | is related to first column ; Right of | related to second column
( ) included the reported column

SW3550B/8081A
PESTICIDES

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/04/10 16:00
Sample ID:	SDWA-5-12	Date Analyzed:	03/05/10 20:08
Lab Samp ID:	C024-11	Dilution Factor:	1
Lab File ID:	WC05021A	Matrix	: SOIL
Ext Btch ID:	CPC007S	% Moisture	: 4.9
Calib. Ref.:	WC05003A	Instrument ID	: GCT016

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ALPHA-BHC	(ND)|ND	2.1	0.63|0.63
GAMMA-BHC (LINDANE)	(ND)|ND	2.1	0.63|0.63
BETA-BHC	(ND)|ND	2.1	0.63|0.63
HEPTACHLOR	(ND)|ND	2.1	0.63|0.63
DELTA-BHC	(ND)|ND	2.1	0.63|0.63
ALDRIN	(ND)|ND	2.1	0.63|0.63
HEPTACHLOR EPOXIDE	(ND)|ND	2.1	0.63|0.63
GAMMA-CHLORDANE	(ND)|ND	2.1	0.63|0.63
ALPHA-CHLORDANE	(ND)|ND	2.1	0.63|0.63
ENDOSULFAN I	(ND)|ND	2.1	0.63|0.63
4,4'-DDE	(ND)|ND	4.2	1.3|1.3
DIELDRIN	(ND)|ND	4.2	1.3|1.3
ENDRIN	(ND)|ND	4.2	1.3|1.3
4,4'-DDD	(ND)|ND	4.2	1.3|1.3
ENDOSULFAN II	(ND)|ND	4.2	1.3|1.3
4,4'-DDT	(ND)|ND	4.2	1.3|1.3
ENDRIN ALDEHYDE	(ND)|ND	4.2	1.3|1.3
ENDOSULFAN SULFATE	(ND)|ND	4.2	1.6|1.6
ENDRIN KETONE	(ND)|ND	4.2	1.3|1.3
METHOXYCHLOR	(ND)|ND	21	4.2|4.2
TOXAPHENE	(ND)|ND	53	11|11

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(101)|94	10-160
DECACHLOROBIPHENYL	94|(99)	30-150

RL : Reporting limit
Left of | is related to first column ; Right of | related to second column
( ) included the reported column

SW3550B/8081A
PESTICIDES

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/04/10 16:00
Sample ID: SDWA-5-18	Date Analyzed: 03/05/10 20:31
Lab Samp ID: C024-12	Dilution Factor: 1
Lab File ID: WC05022A	Matrix : SOIL
Ext Btch ID: CPC007S	% Moisture : 6.9
Calib. Ref.: WCD5003A	Instrument ID : GCT016

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ALPHA-BHC	(ND) | ND	2.1	0.64 | 0.64
GAMMA-BHC (LINDANE)	(ND) | ND	2.1	0.64 | 0.64
BETA-BHC	0.82J | (ND)	2.1	0.64 | 0.64
HEPTACHLOR	(ND) | ND	2.1	0.64 | 0.64
DELTA-BHC	(ND) | ND	2.1	0.64 | 0.64
ALDRIN	(ND) | ND	2.1	0.64 | 0.64
HEPTACHLOR EPOXIDE	(ND) | ND	2.1	0.64 | 0.64
GAMMA-CHLORDANE	(ND) | ND	2.1	0.64 | 0.64
ALPHA-CHLORDANE	(ND) | ND	2.1	0.64 | 0.64
ENDOSULFAN I	(ND) | ND	2.1	0.64 | 0.64
4,4'-DDE	(ND) | ND	4.3	1.3 | 1.3
DIELDRIN	(ND) | ND	4.3	1.3 | 1.3
ENDRIN	(ND) | ND	4.3	1.3 | 1.3
4,4'-DDD	(ND) | ND	4.3	1.3 | 1.3
ENDOSULFAN II	(ND) | ND	4.3	1.3 | 1.3
4,4'-DDT	(ND) | ND	4.3	1.3 | 1.3
ENDRIN ALDEHYDE	(ND) | ND	4.3	1.3 | 1.3
ENDOSULFAN SULFATE	(ND) | ND	4.3	1.6 | 1.6
ENDRIN KETONE	(ND) | ND	4.3	1.3 | 1.3
METHOXYCHLOR	(ND) | ND	21	4.3 | 4.3
TOXAPHENE	(ND) | ND	54	11 | 11

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(109) | 93	10-160
DECACHLOROBIPHENYL	99 | (103)	30-150

RL : Reporting limit
Left of | is related to first column ; Right of | related to second column
( ) included the reported column

SW3550B/8081A
PESTICIDES

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/04/10 16:00
Sample ID:	SDWA-5-20	Date Analyzed:	03/05/10 20:54
Lab Samp ID:	C024-13	Dilution Factor:	1
Lab File ID:	WC05023A	Matrix	: SOIL
Ext Btch ID:	CPC007S	% Moisture	: 7.3
Calib. Ref.:	WC05003A	Instrument ID	: GCT016

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ALPHA-BHC	(ND)|ND	2.2	0.65|0.65
GAMMA-BHC (LINDANE)	(ND)|ND	2.2	0.65|0.65
BETA-BHC	(ND)|ND	2.2	0.65|0.65
HEPTACHLOR	(ND)|ND	2.2	0.65|0.65
DELTA-BHC	(ND)|ND	2.2	0.65|0.65
ALDRIN	(ND)|ND	2.2	0.65|0.65
HEPTACHLOR EPOXIDE	(ND)|ND	2.2	0.65|0.65
GAMMA-CHLORDANE	(ND)|ND	2.2	0.65|0.65
ALPHA-CHLORDANE	(ND)|ND	2.2	0.65|0.65
ENDOSULFAN I	(ND)|ND	2.2	0.65|0.65
4,4'-DDE	(ND)|ND	4.3	1.3|1.3
DIELDRIN	(ND)|ND	4.3	1.3|1.3
ENDRIN	(ND)|ND	4.3	1.3|1.3
4,4'-DDD	(ND)|ND	4.3	1.3|1.3
ENDOSULFAN II	(ND)|ND	4.3	1.3|1.3
4,4'-DDT	(ND)|ND	4.3	1.3|1.3
ENDRIN ALDEHYDE	(ND)|ND	4.3	1.3|1.3
ENDOSULFAN SULFATE	(ND)|ND	4.3	1.6|1.6
ENDRIN KETONE	(ND)|ND	4.3	1.3|1.3
METHOXYCHLOR	(ND)|ND	22	4.3|4.3
TOXAPHENE	(ND)|ND	54	11|11

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(104)|94	10-160
DECACHLOROBIPHENYL	94|(99)	30-150

RL : Reporting limit
Left of | is related to first column ; Right of | related to second column
( ) included the reported column

SW3550B/8081A
PESTICIDES

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/04/10 16:00
Sample ID:	FR-2-0-2	Date Analyzed:	03/05/10 21:17
Lab Samp ID:	C024-14	Dilution Factor:	1
Lab File ID:	WC05024A	Matrix :	SOIL
Ext Btch ID:	CPC007S	% Moisture :	1.4
Calib. Ref.:	WC05003A	Instrument ID :	GCT016

PARAMETERS	RESULTS (ug/kg)		RL (ug/kg)	MDL (ug/kg)	
ALPHA-BHC	(ND)	ND	2.0	0.61	0.61
GAMMA-BHC (LINDANE)	(ND)	ND	2.0	0.61	0.61
BETA-BHC	(ND)	ND	2.0	0.61	0.61
HEPTACHLOR	(ND)	0.67J	2.0	0.61	0.61
DELTA-BHC	(ND)	ND	2.0	0.61	0.61
ALDRIN	(ND)	ND	2.0	0.61	0.61
HEPTACHLOR EPOXIDE	(ND)	ND	2.0	0.61	0.61
GAMMA-CHLORDANE	(ND)	ND	2.0	0.61	0.61
ALPHA-CHLORDANE	(ND)	ND	2.0	0.61	0.61
ENDOSULFAN I	(ND)	ND	2.0	0.61	0.61
4,4'-DDE	(ND)	ND	4.1	1.2	1.2
DIELDRIN	(ND)	ND	4.1	1.2	1.2
ENDRIN	(ND)	ND	4.1	1.2	1.2
4,4'-DDD	(ND)	ND	4.1	1.2	1.2
ENDOSULFAN II	(ND)	ND	4.1	1.2	1.2
4,4'-DDT	(ND)	ND	4.1	1.2	1.2
ENDRIN ALDEHYDE	(ND)	ND	4.1	1.2	1.2
ENDOSULFAN SULFATE	(ND)	ND	4.1	1.5	1.5
ENDRIN KETONE	(ND)	ND	4.1	1.2	1.2
METHOXYCHLOR	(ND)	ND	20	4.1	4.1
TOXAPHENE	(ND)	ND	51	10	10

SURROGATE PARAMETERS	% RECOVERY		QC LIMIT
TETRACHLORO-M-XYLENE	(104)	94	10-160
DECACHLOROBIPHENYL	96	(103)	30-150

RL : Reporting limit
Left of | is related to first column ; Right of | related to second column
( ) included the reported column

SW3550B/8081A
PESTICIDES

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/04/10 16:00
Sample ID:	FR-1-0-2	Date Analyzed:	03/05/10 15:55
Lab Samp ID:	C024-15	Dilution Factor:	1
Lab File ID:	WC05010A	Matrix :	SOIL
Ext Btch ID:	CPCD07S	% Moisture :	4.8
Calib. Ref.:	WC05003A	Instrument ID :	GCT016

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ALPHA-BHC	(ND) | ND	2.1	0.63 | 0.63
GAMMA-BHC (LINDANE)	(ND) | ND	2.1	0.63 | 0.63
BETA-BHC	(ND) | ND	2.1	0.63 | 0.63
HEPTACHLOR	(ND) | ND	2.1	0.63 | 0.63
DELTA-BHC	(ND) | ND	2.1	0.63 | 0.63
ALDRIN	(ND) | ND	2.1	0.63 | 0.63
HEPTACHLOR EPOXIDE	(ND) | ND	2.1	0.63 | 0.63
GAMMA-CHLORDANE	(ND) | 1.1J	2.1	0.63 | 0.63
ALPHA-CHLORDANE	(ND) | ND	2.1	0.63 | 0.63
ENDOSULFAN I	(ND) | ND	2.1	0.63 | 0.63
4,4'-DDE	(ND) | ND	4.2	1.3 | 1.3
DIELDRIN	(ND) | ND	4.2	1.3 | 1.3
ENDRIN	(ND) | ND	4.2	1.3 | 1.3
4,4'-DDD	(ND) | ND	4.2	1.3 | 1.3
ENDOSULFAN II	(ND) | ND	4.2	1.3 | 1.3
4,4'-DDT	(ND) | ND	4.2	1.3 | 1.3
ENDRIN ALDEHYDE	(ND) | ND	4.2	1.3 | 1.3
ENDOSULFAN SULFATE	(ND) | ND	4.2	1.6 | 1.6
ENDRIN KETONE	(ND) | ND	4.2	1.3 | 1.3
METHOXYCHLOR	(ND) | ND	21	4.2 | 4.2
TOXAPHENE	(ND) | ND	53	11 | 11

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(99) | 78	10-160
DECACHLOROBIPHENYL	90 | (92)	30-150

RL : Reporting limit
Left of | is related to first column ; Right of | related to second column
( ) included the reported column

SW3550B/8081A
PESTICIDES

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/04/10 16:00
Sample ID: FR-1-0-2-DUP	Date Analyzed: 03/05/10 16:18
Lab Samp ID: C024-16	Dilution Factor: 1
Lab File ID: WC05011A	Matrix : SOIL
Ext Btch ID: CPC007S	% Moisture : 5.3
Calib. Ref.: WC05003A	Instrument ID : GCT016

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ALPHA-BHC	(ND) | ND	2.1	0.63 | 0.63
GAMMA-BHC (LINDANE)	(ND) | ND	2.1	0.63 | 0.63
BETA-BHC	(ND) | ND	2.1	0.63 | 0.63
HEPTACHLOR	(ND) | ND	2.1	0.63 | 0.63
DELTA-BHC	(ND) | ND	2.1	0.63 | 0.63
ALDRIN	(ND) | ND	2.1	0.63 | 0.63
HEPTACHLOR EPOXIDE	(ND) | ND	2.1	0.63 | 0.63
GAMMA-CHLORDANE	(ND) | 64E	2.1	0.63 | 0.63
ALPHA-CHLORDANE	(ND) | ND	2.1	0.63 | 0.63
ENDOSULFAN I	(ND) | ND	2.1	0.63 | 0.63
4,4'-DDE	(ND) | ND	4.2	1.3 | 1.3
DIELDRIN	(ND) | ND	4.2	1.3 | 1.3
ENDRIN	(ND) | ND	4.2	1.3 | 1.3
4,4'-DDD	(ND) | ND	4.2	1.3 | 1.3
ENDOSULFAN II	(ND) | ND	4.2	1.3 | 1.3
4,4'-DDT	(ND) | ND	4.2	1.3 | 1.3
ENDRIN ALDEHYDE	(ND) | ND	4.2	1.3 | 1.3
ENDOSULFAN SULFATE	(ND) | ND	4.2	1.6 | 1.6
ENDRIN KETONE	(ND) | ND	4.2	1.3 | 1.3
METHOXYCHLOR	(ND) | ND	21	4.2 | 4.2
TOXAPHENE	(ND) | ND	53	11 | 11

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(92) | 77	10-160
DECACHLOROBIPHENYL	86 | (87)	30-150

RL : Reporting limit
Left of | is related to first column ; Right of | related to second column
( ) included the reported column

QC SUMMARIES

SW3550B/8081A
PESTICIDES

Client : TETRA TECH	Date Collected: NA
Project : IMPERIAL VALLEY WEST	Date Received: 03/04/10
Batch No. : 10C024	Date Extracted: 03/04/10 16:00
Sample ID: MBLK1S	Date Analyzed: 03/05/10 14:00
Lab Samp ID: CPC007SB	Dilution Factor: 1
Lab File ID: WC05005A	Matrix : SOIL
Ext Btch ID: CPC007S	% Moisture : NA
Calib. Ref.: WC05003A	Instrument ID : GCT016

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
ALPHA-BHC	(ND) | ND	2.0	0.60 | 0.60
GAMMA-BHC (LINDANE)	(ND) | ND	2.0	0.60 | 0.60
BETA-BHC	(ND) | ND	2.0	0.60 | 0.60
HEPTACHLOR	(ND) | ND	2.0	0.60 | 0.60
DELTA-BHC	(ND) | ND	2.0	0.60 | 0.60
ALDRIN	(ND) | ND	2.0	0.60 | 0.60
HEPTACHLOR EPOXIDE	(ND) | ND	2.0	0.60 | 0.60
GAMMA-CHLORDANE	(ND) | ND	2.0	0.60 | 0.60
ALPHA-CHLORDANE	(ND) | ND	2.0	0.60 | 0.60
ENDOSULFAN I	(ND) | ND	2.0	0.60 | 0.60
4,4'-DDE	(ND) | ND	4.0	1.2 | 1.2
DIELDRIN	(ND) | ND	4.0	1.2 | 1.2
ENDRIN	(ND) | ND	4.0	1.2 | 1.2
4,4'-DDD	(ND) | ND	4.0	1.2 | 1.2
ENDOSULFAN II	(ND) | ND	4.0	1.2 | 1.2
4,4'-DDT	(ND) | ND	4.0	1.2 | 1.2
ENDRIN ALDEHYDE	1.3J | (ND)	4.0	1.2 | 1.2
ENDOSULFAN SULFATE	(ND) | ND	4.0	1.5 | 1.5
ENDRIN KETONE	(ND) | ND	4.0	1.2 | 1.2
METHOXYCHLOR	(ND) | ND	20	4.0 | 4.0
TOXAPHENE	(ND) | ND	50	10 | 10

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(92) | 82	40-130
DECACHLOROBIPHENYL	97 | (101)	40-160

RL : Reporting limit
Left of | is related to first column ; Right of | related to second column
( ) included the reported column

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: TETRA TECH
PROJECT: IMPERIAL VALLEY WEST
BATCH NO.: 10C024
METHOD: METHOD 3550B/8081A

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: CPC007SB CPC007SL
LAB FILE ID: WC05005A WC05006A
DATE EXTRACTED: 03/04/1016:00 03/04/1016:00 DATE COLLECTED: NA
DATE ANALYZED: 03/05/1014:00 03/05/1014:23 DATE RECEIVED: 03/04/10
PREP. BATCH: CPC007S CPC007S
CALIB. REF: WC05003A WC05003A

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)		SPIKE AMT (ug/kg)	BS RSLT (ug/kg)		BS % REC		QC LIMIT (%)
gamma-BHC (Lindane)	(ND)	ND	13.3	(13.8)	12.8	(104)	96	40-130
Heptachlor	(ND)	ND	13.3	15.1	(15.3)	113	(115)	30-130
Aldrin	(ND)	ND	13.3	(13.3)	13.2	(100)	99	30-130
Dieldrin	(ND)	ND	13.3	(14.3)	13.9	(107)	104	60-130
Endrin	(ND)	ND	13.3	(15.6)	15.3	(117)	115	50-140
4,4'-DDT	(ND)	ND	13.3	17.5	(14.1)	131	(106)	60-140

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)		BS % REC		QC LIMIT (%)
Tetrachloro-m-xylene	13.3	(12.5)	10.8	(93)	81	40-130
Decachlorobiphenyl	13.3	12.5	(13.0)	94	(98)	40-160

LABORATORY REPORT FOR

TETRA TECH

IMPERIAL VALLEY WEST

METHOD 3540C/8141A
ORGANOPHOSPHOROUS COMPOUNDS BY GC

SDG#: 10C024

CASE NARRATIVE

Client : TETRA TECH

Project : IMPERIAL VALLEY WEST

SDG : 10C024

METHOD 3540C/8141A
ORGANOPHOSPHOROUS COMPOUNDS BY GC

A total of thirteen (13) soil samples were received on 03/02/10 for Pesticides Organophosphorus analysis, Method 3540C/8141A in accordance with USEPA SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods.

Holding Time
Samples were analyzed within the prescribed holding time.

Calibration
Multi-calibration points were generated to establish initial calibration (ICAL) ICAL was verified using a secondary source (ICV). Continuing calibration (CCV) verifications were carried on a frequency specified by the project. All calibration requirements were within acceptance criteria.

Method Blank
Method blank was analyzed at the frequency required by the project. For this SDG, one method blank was analyzed with the samples. Result was compliant to project requirement.

Lab Control Sample
Two LCS samples were analyzed with the samples in this SDG.
Percent recoveries for NPC001SL were all within QC limits.
Percent recoveries for NPC002SL were all within QC limits.

Matrix QC Sample
Two (2) sets of MS/MSD were analyzed with the samples in this SDG.
Percent recoveries for C024-08M/S were within project QC limits.
Percent recoveries for C024-08U/V were within project QC limits.

Surrogate
Surrogates were added on QC and field samples. Surrogate recoveries were within project QC limits except one sample. Sample 10C024-04 has brown color and its surrogate Triphenyl Phosphate recovery was below the QC acceptant limit due to matrix interference.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met otherwise anomalies were discussed within the associated QC parameter.

LAB CHRONICLE
ORGANOPHOSPHOROUS COMPOUNDS BY GC

Client : TETRA TECH
Project : IMPERIAL VALLEY WEST

SDG NO. : 10C024
Instrument ID : GCT012

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	NPC001SB	1	NA	03/05/1014:34	03/04/1015:15	ZC05004A	ZC05002A	NPC001S	Method Blank
LCS1S	NPC001SL	1	NA	03/05/1014:57	03/04/1015:15	ZC05005A	ZC05002A	NPC001S	Lab Control Sample (LCS)
LCS2S	NPC002SL	1	NA	03/05/1015:21	03/04/1015:15	ZC05006A	ZC05002A	NPC001S	Lab Control Sample (LCS)
SDWA-2	C024-04	1	3.3	03/05/1021:55	03/04/1015:15	ZC05023A	ZC05002A	NPC001S	Field Sample
SDWA-1	C024-05	1	8.6	03/05/1015:44	03/04/1015:15	ZC05007A	ZC05002A	NPC001S	Field Sample
SDWA-3	C024-06	1	2.2	03/05/1016:07	03/04/1015:15	ZC05008A	ZC05002A	NPC001S	Field Sample
SDWA-4	C024-07	1	4.0	03/05/1016:30	03/04/1015:15	ZC05009A	ZC05002A	NPC001S	Field Sample
FM-SURFACE	C024-08	1	10.8	03/05/1016:54	03/04/1015:15	ZC05010A	ZC05002A	NPC001S	Field Sample
FM-12	C024-09	1	5.5	03/05/1018:50	03/04/1015:15	ZC05015A	ZC05002A	NPC001S	Field Sample
FM-16	C024-10	1	0.4	03/05/1019:13	03/04/1015:15	ZC05016A	ZC05002A	NPC001S	Field Sample
SDWA-5-12	C024-11	1	4.9	03/05/1019:36	03/04/1015:15	ZC05017A	ZC05002A	NPC001S	Field Sample
SDWA-5-18	C024-12	1	6.9	03/05/1019:59	03/04/1015:15	ZC05018A	ZC05002A	NPC001S	Field Sample
SDWA-5-20	C024-13	1	7.3	03/05/1020:22	03/04/1015:15	ZC05019A	ZC05002A	NPC001S	Field Sample
FR-2-0-2	C024-14	1	1.4	03/05/1020:46	03/04/1015:15	ZC05020A	ZC05002A	NPC001S	Field Sample
FR-1-0-2	C024-15	1	4.8	03/05/1021:09	03/04/1015:15	ZC05021A	ZC05002A	NPC001S	Field Sample
FR-1-0-2-DUP	C024-16	1	5.3	03/05/1021:32	03/04/1015:15	ZC05022A	ZC05002A	NPC001S	Field Sample
FM-SURFACEMS	C024-08M	1	10.8	03/05/1017:17	03/04/1015:15	ZC05011A	ZC05002A	NPC001S	Matrix Spike Sample (MS)
FM-SURFACEMSD	C024-08S	1	10.8	03/05/1017:40	03/04/1015:15	ZC05012A	ZC05002A	NPC001S	MS Duplicate (MSD)
FM-SURFACEMS	C024-08U	1	10.8	03/05/1018:03	03/04/1015:15	ZC05013A	ZC05002A	NPC001S	Matrix Spike Sample (MS)
FM-SURFACEMSD	C024-08V	1	10.8	03/05/1018:26	03/04/1015:15	ZC05014A	ZC05002A	NPC001S	MS Duplicate (MSD)

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 3540C/8141A
ORGANOPHOSPHOROUS COMPOUNDS BY GC

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/04/10 15:15
Sample ID: SDWA-2	Date Analyzed: 03/05/10 21:55
Lab Samp ID: C024-04	Dilution Factor: 1
Lab File ID: ZC05023A	Matrix : SOIL
Ext Btch ID: NPC001S	% Moisture : 3.3
Calib. Ref.: ZC05002A	Instrument ID : GCT012

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
MALATHION	ND	52	26
DIAZINON	ND	52	26

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TRIBUTYL PHOSPHATE	56	40-130
TRIPHENYL PHOSPHATE	34*	50-130

METHOD 3540C/8141A
ORGANOPHOSPHOROUS COMPOUNDS BY GC

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/04/10 15:15
Sample ID: SDWA-1	Date Analyzed: 03/05/10 15:44
Lab Samp ID: C024-05	Dilution Factor: 1
Lab File ID: ZC05007A	Matrix : SOIL
Ext Btch ID: NPC001S	% Moisture : 8.6
Calib. Ref.: ZC05002A	Instrument ID : GCT012

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
MALATHION	ND	55	27
DIAZINON	ND	55	27

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TRIBUTYL PHOSPHATE	87	40-130
TRIPHENYL PHOSPHATE	82	50-130

METHOD 3540C/8141A
ORGANOPHOSPHOROUS COMPOUNDS BY GC

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/04/10 15:15
Sample ID:	SDWA-3	Date Analyzed:	03/05/10 16:07
Lab Samp ID:	C024-06	Dilution Factor:	1
Lab File ID:	ZC05008A	Matrix :	SOIL
Ext Btch ID:	NPC001S	% Moisture :	2.2
Calib. Ref.:	ZC05002A	Instrument ID :	GCT012

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
MALATHION	ND	51	26
DIAZINON	ND	51	26

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TRIBUTYL PHOSPHATE	74	40-130
TRIPHENYL PHOSPHATE	75	50-130

METHOD 3540C/8141A
ORGANOPHOSPHOROUS COMPOUNDS BY GC

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/04/10 15:15
Sample ID:	SDWA-4	Date Analyzed:	03/05/10 16:30
Lab Samp ID:	C024-07	Dilution Factor:	1
Lab File ID:	ZC05009A	Matrix :	SOIL
Ext Btch ID:	NPC001S	% Moisture :	4.0
Calib. Ref.:	ZC05002A	Instrument ID :	GCT012

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
MALATHION	ND	52	26
DIAZINON	ND	52	26

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TRIBUTYL PHOSPHATE	86	40-130
TRIPHENYL PHOSPHATE	88	50-130

METHOD 3540C/8141A
ORGANOPHOSPHOROUS COMPOUNDS BY GC

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/04/10 15:15
Sample ID:	FM-SURFACE	Date Analyzed:	03/05/10 16:54
Lab Samp ID:	C024-08	Dilution Factor:	1
Lab File ID:	ZC05010A	Matrix :	SOIL
Ext Btch ID:	NPC001S	% Moisture :	10.8
Calib. Ref.:	ZC05002A	Instrument ID :	GCT012

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
MALATHION	ND	56	28
DIAZINON	ND	56	28

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TRIBUTYL PHOSPHATE	84	40-130
TRIPHENYL PHOSPHATE	89	50-130

METHOD 3540C/8141A
ORGANOPHOSPHOROUS COMPOUNDS BY GC

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/04/10 15:15
Sample ID:	FM-12	Date Analyzed:	03/05/10 18:50
Lab Samp ID:	C024-09	Dilution Factor:	1
Lab File ID:	ZC05015A	Matrix :	SOIL
Ext Btch ID:	NPC001S	% Moisture :	5.5
Calib. Ref.:	ZC05002A	Instrument ID :	GCT012

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
MALATHION	ND	53	26
DIAZINON	ND	53	26

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TRIBUTYL PHOSPHATE	77	40-130
TRIPHENYL PHOSPHATE	80	50-130

METHOD 3540C/8141A
ORGANOPHOSPHOROUS COMPOUNDS BY GC

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/04/10 15:15
Sample ID: FM-16	Date Analyzed: 03/05/10 19:13
Lab Samp ID: C024-10	Dilution Factor: 1
Lab File ID: ZC05016A	Matrix : SOIL
Ext Btch ID: NPC001S	% Moisture : 0.4
Calib. Ref.: ZC05002A	Instrument ID : GCT012

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
MALATHION	ND	50	25
DIAZINON	ND	50	25

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TRIBUTYL PHOSPHATE	87	40-130
TRIPHENYL PHOSPHATE	84	50-130

METHOD 3540C/8141A
ORGANOPHOSPHOROUS COMPOUNDS BY GC

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/04/10 15:15
Sample ID:	SDWA-5-12	Date Analyzed:	03/05/10 19:36
Lab Samp ID:	C024-11	Dilution Factor:	1
Lab File ID:	ZC05017A	Matrix :	SOIL
Ext Btch ID:	NPC001S	% Moisture :	4.9
Calib. Ref.:	ZC05002A	Instrument ID :	GCT012

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
MALATHION	ND	53	26
DIAZINON	ND	53	26

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TRIBUTYL PHOSPHATE	81	40-130
TRIPHENYL PHOSPHATE	90	50-130

METHOD 3540C/8141A
ORGANOPHOSPHOROUS COMPOUNDS BY GC

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/04/10 15:15
Sample ID: SDWA-5-18	Date Analyzed: 03/05/10 19:59
Lab Samp ID: C024-12	Dilution Factor: 1
Lab File ID: ZC05018A	Matrix : SOIL
Ext Btch ID: NPC001S	% Moisture : 6.9
Calib. Ref.: ZC05002A	Instrument ID : GCT012

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
MALATHION	ND	54	27
DIAZINON	ND	54	27

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TRIBUTYL PHOSPHATE	81	40-130
TRIPHENYL PHOSPHATE	89	50-130

METHOD 3540C/8141A
ORGANOPHOSPHOROUS COMPOUNDS BY GC

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/04/10 15:15
Sample ID: SDWA-5-20	Date Analyzed: 03/05/10 20:22
Lab Samp ID: C024-13	Dilution Factor: 1
Lab File ID: ZC05019A	Matrix : SOIL
Ext Btch ID: NPC001S	% Moisture : 7.3
Calib. Ref.: ZC05002A	Instrument ID : GCT012

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
MALATHION	ND	54	27
DIAZINON	ND	54	27

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TRIBUTYL PHOSPHATE	93	40-130
TRIPHENYL PHOSPHATE	82	50-130

METHOD 3540C/8141A
ORGANOPHOSPHOROUS COMPOUNDS BY GC

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/04/10 15:15
Sample ID: FR-2-0-2	Date Analyzed: 03/05/10 20:46
Lab Samp ID: C024-14	Dilution Factor: 1
Lab File ID: ZC05020A	Matrix : SOIL
Ext Btch ID: NPC001S	% Moisture : 1.4
Calib. Ref.: ZC05002A	Instrument ID : GCT012

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
MALATHION	ND	51	25
DIAZINON	ND	51	25

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TRIBUTYL PHOSPHATE	88	40-130
TRIPHENYL PHOSPHATE	90	50-130

METHOD 3540C/8141A
ORGANOPHOSPHOROUS COMPOUNDS BY GC

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/04/10 15:15
Sample ID: FR-1-0-2	Date Analyzed: 03/05/10 21:09
Lab Samp ID: C024-15	Dilution Factor: 1
Lab File ID: ZC05021A	Matrix : SOIL
Ext Btch ID: NPC001S	% Moisture : 4.8
Calib. Ref.: ZC05002A	Instrument ID : GCT012

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
MALATHION	ND	53	26
DIAZINON	ND	53	26

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TRIBUTYL PHOSPHATE	87	40-130
TRIPHENYL PHOSPHATE	90	50-130

METHOD 3540C/8141A
ORGANOPHOSPHOROUS COMPOUNDS BY GC

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/04/10 15:15
Sample ID: FR-1-0-2-DUP	Date Analyzed: 03/05/10 21:32
Lab Samp ID: C024-16	Dilution Factor: 1
Lab File ID: ZC05022A	Matrix : SOIL
Ext Btch ID: NPC001S	% Moisture : 5.3
Calib. Ref.: ZC05002A	Instrument ID : GCT012

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
MALATHION	ND	53	26
DIAZINON	ND	53	26

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TRIBUTYL PHOSPHATE	87	40-130
TRIPHENYL PHOSPHATE	93	50-130

QC SUMMARIES

METHOD 3540C/8141A
ORGANOPHOSPHOROUS COMPOUNDS BY GC

Client : TETRA TECH	Date Collected: NA
Project : IMPERIAL VALLEY WEST	Date Received: 03/04/10
Batch No. : 10C024	Date Extracted: 03/04/10 15:15
Sample ID: MBLK1S	Date Analyzed: 03/05/10 14:34
Lab Samp ID: NPC001SB	Dilution Factor: 1
Lab File ID: ZC05004A	Matrix : SOIL
Ext Btch ID: NPC001S	% Moisture : NA
Calib. Ref.: ZC05002A	Instrument ID : GCT012

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
MALATHION	ND	50	25
DIAZINON	ND	50	25

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TRIBUTYL PHOSPHATE	89	40-130
TRIPHENYL PHOSPHATE	91	50-130

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: TETRA TECH
PROJECT: IMPERIAL VALLEY WEST
BATCH NO.: 10C024
METHOD: METHOD 3540C/8141A

MATRIX:	SOIL		% MOISTURE:	NA
DILUTION FACTOR:	1	1		
SAMPLE ID:	MBLK1S			
LAB SAMP ID:	NPC001SB	NPC001SL		
LAB FILE ID:	ZC05004A	ZC05005A		
DATE EXTRACTED:	03/04/1015:15	03/04/1015:15	DATE COLLECTED:	NA
DATE ANALYZED:	03/05/1014:34	03/05/1014:57	DATE RECEIVED:	03/04/10
PREP. BATCH:	NPC001S	NPC001S		
CALIB. REF:	ZC05002A	ZC05002A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	QC LIMIT (%)
Diazinon	ND	100	80.1	80	30-140

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	QC LIMIT (%)
Tributyl Phosphate	100	80.9	81	40-130
Triphenyl Phosphate	100	81.8	82	50-130

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: TETRA TECH
PROJECT: IMPERIAL VALLEY WEST
BATCH NO.: 10C024
METHOD: METHOD 3540C/8141A

MATRIX:	SOIL		% MOISTURE:	NA
DILUTION FACTOR:	1	1		
SAMPLE ID:	MBLK1S			
LAB SAMP ID:	NPC001SB	NPC002SL		
LAB FILE ID:	ZC05004A	ZC05006A		
DATE EXTRACTED:	03/04/1015:15	03/04/1015:15	DATE COLLECTED:	NA
DATE ANALYZED:	03/05/1014:34	03/05/1015:21	DATE RECEIVED:	03/04/10
PREP. BATCH:	NPC001S	NPC001S		
CALIB. REF:	ZC05002A	ZC05002A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	QC LIMIT (%)
Malathion	ND	100	102	102	40-130

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	QC LIMIT (%)
Tributyl Phosphate	100	75.5	76	40-130
Triphenyl Phosphate	100	82.2	82	50-130

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: TETRA TECH
PROJECT: IMPERIAL VALLEY WEST
BATCH NO.: 10C024
METHOD: METHOD 3540C/8141A

MATRIX:	SOIL			% MOISTURE:	10.8
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	FM-SURFACE				
LAB SAMP ID:	C024-08	C024-08M	C024-08S		
LAB FILE ID:	ZC05010A	ZC05011A	ZC05012A		
DATE EXTRACTED:	03/04/1015:15	03/04/1015:15	03/04/1015:15	DATE COLLECTED:	03/01/10
DATE ANALYZED:	03/05/1016:54	03/05/1017:17	03/05/1017:40	DATE RECEIVED:	03/02/10
PREP. BATCH:	NPCD01S	NPC001S	NPC001S		
CALIB. REF:	ZC05002A	ZC05002A	ZC05002A		

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Diazinon	ND	112	88.0	79	112	94.7	84	7	30-140	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	QC LIMIT (%)
Tributyl Phosphate	112	94.0	84	112	94.8	85	40-130
Triphenyl Phosphate	112	94.9	85	112	94.3	84	50-130

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: TETRA TECH
PROJECT: IMPERIAL VALLEY WEST
BATCH NO.: 10C024
METHOD: METHOD 3540C/8141A

MATRIX:	SOIL			% MOISTURE:	10.8
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	FM-SURFACE				
LAB SAMP ID:	C024-08	C024-08U	C024-08V		
LAB FILE ID:	ZC05010A	ZC05013A	ZC05014A		
DATE EXTRACTED:	03/04/1015:15	03/04/1015:15	03/04/1015:15	DATE COLLECTED:	03/01/10
DATE ANALYZED:	03/05/1016:54	03/05/1018:03	03/05/1018:26	DATE RECEIVED:	03/02/10
PREP. BATCH:	NPC001S	NPC001S	NPC001S		
CALIB. REF:	ZC05002A	ZC05002A	ZC05002A		

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Malathion	ND	112	66.7	60	112	108	96	47	40-130	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	QC LIMIT (%)
Tributyl Phosphate	112	92.4	82	112	99.4	89	40-130
Triphenyl Phosphate	112	98.4	88	112	109	97	50-130

LABORATORY REPORT FOR

TETRA TECH

IMPERIAL VALLEY WEST

METHOD 8151A
HERBICIDES

SDG#: 10C024

CASE NARRATIVE

Client : TETRA TECH

Project : IMPERIAL VALLEY WEST

SDG : 10C024

METHOD 8151A
HERBICIDES

A total of thirteen (13) soil samples were received on 03/02/10 for Chlorinated Herbicides analysis, Method 8151A in accordance with USEPA SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods.

Holding Time
Samples were analyzed within the prescribed holding time.

Calibration
Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source (ICV). Continuing calibration (CCV) verifications were carried on a frequency specified by the project. All calibration requirements were within acceptance criteria.

Method Blank
Method blank was analyzed at the frequency required by the project. For this SDG, one method blank was analyzed with the samples. Result was compliant to project requirement.

Lab Control Sample
A lab control sample was analyzed with the samples in this SDG.
Percent recoveries for HEC002SL were all within QC limits.

Matrix QC Sample
A set of MS/MSD was analyzed with the samples in this SDG.
Percent recoveries for C024-16M/S were within project QC limits.

Surrogate
Surrogate was added on QC and field samples. Surrogate recoveries were within project QC limits.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met otherwise anomalies were discussed within the associated QC parameter.
Sample C024-09 was reported from DF 5 run due to matrix interference in non-dilution run.

LAB CHRONICLE
HERBICIDES

Client : TETRA TECH
Project : IMPERIAL VALLEY WEST

SDG NO. : 10C024
Instrument ID : GCT009

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	HEC002SB	1	NA	03/04/1019:29	03/04/1015:10	QC04003A	QC04002A	HEC002S	Method Blank
LCS1S	HEC002SL	1	NA	03/04/1019:46	03/04/1015:10	QC04004A	QC04002A	HEC002S	Lab Control Sample (LCS)
SDWA-2	C024-04	1	3.3	03/04/1020:04	03/04/1015:10	QC04005A	QC04002A	HEC002S	Field Sample
SDWA-1	C024-05	1	8.6	03/04/1020:21	03/04/1015:10	QC04006A	QC04002A	HEC002S	Field Sample
SDWA-3	C024-06	1	2.2	03/04/1020:39	03/04/1015:10	QC04007A	QC04002A	HEC002S	Field Sample
SDWA-4	C024-07	1	4.0	03/04/1020:56	03/04/1015:10	QC04008A	QC04002A	HEC002S	Field Sample
FM-SURFACE	C024-08	1	10.8	03/04/1021:14	03/04/1015:10	QC04009A	QC04002A	HEC002S	Field Sample
FM-12	C024-09	5	5.5	03/08/1012:19	03/04/1015:10	QC08004A	QC08002A	HEC002S	Field Sample
FM-16	C024-10	1	0.4	03/04/1021:49	03/04/1015:10	QC04011A	QC04002A	HEC002S	Field Sample
SDWA-5-12	C024-11	1	4.9	03/04/1022:06	03/04/1015:10	QC04012A	QC04002A	HEC002S	Field Sample
SDWA-5-18	C024-12	1	6.9	03/04/1022:24	03/04/1015:10	QC04013A	QC04002A	HEC002S	Field Sample
SDWA-5-20	C024-13	1	7.3	03/04/1022:41	03/04/1015:10	QC04014A	QC04002A	HEC002S	Field Sample
FR-2-0-2	C024-14	1	1.4	03/04/1022:58	03/04/1015:10	QC04015A	QC04002A	HEC002S	Field Sample
FR-1-0-2	C024-15	1	4.8	03/04/1023:16	03/04/1015:10	QC04016A	QC04002A	HEC002S	Field Sample
FR-1-0-2-DUP	C024-16	1	5.3	03/04/1023:34	03/04/1015:10	QC04017A	QC04002A	HEC002S	Field Sample
FR-1-0-2-DUPMS	C024-16M	1	5.3	03/04/1023:51	03/04/1015:10	QC04018A	QC04002A	HEC002S	Matrix Spike Sample (MS)
FR-1-0-2-DUPMSD	C024-16S	1	5.3	03/05/1000:09	03/04/1015:10	QC04019A	QC04002A	HEC002S	MS Duplicate (MSD)

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 8151A
HERBICIDES

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/04/10 15:10
Sample ID: SDWA-2	Date Analyzed: 03/04/10 20:04
Lab Samp ID: C024-04	Dilution Factor: 1
Lab File ID: QC04005A	Matrix : SOIL
Ext Btch ID: HEC002S	% Moisture : 3.3
Calib. Ref.: QC04002A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
2,4-D	(ND)|ND	10	5.2|5.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4-DCPAA	(80)|72	10-150

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/04/10 15:10
Sample ID: SDWA-1	Date Analyzed: 03/04/10 20:21
Lab Samp ID: C024-05	Dilution Factor: 1
Lab File ID: QC04006A	Matrix : SOIL
Ext Btch ID: HEC002S	% Moisture : 8.6
Calib. Ref.: QC04002A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
2,4-D	(ND)|ND	11	5.5|5.5

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4-DCPAA	69|(70)	10-150

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/04/10 15:10
Sample ID: SDWA-3	Date Analyzed: 03/04/10 20:39
Lab Samp ID: C024-06	Dilution Factor: 1
Lab File ID: QC04007A	Matrix : SOIL
Ext Btch ID: HEC002S	% Moisture : 2.2
Calib. Ref.: QC04002A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
2,4-D	(ND)|ND	10	5.1|5.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4-DCPAA	(84)|70	10-150

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/04/10 15:10
Sample ID:	SDWA-4	Date Analyzed:	03/04/10 20:56
Lab Samp ID:	C024-07	Dilution Factor:	1
Lab File ID:	QC04008A	Matrix	: SOIL
Ext Btch ID:	HEC002S	% Moisture	: 4.0
Calib. Ref.:	QC04002A	Instrument ID	: GCT009

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
2,4-D	(ND)|ND	10	5.2|5.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4-DCPAA	(88)|81	10-150

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/04/10 15:10
Sample ID: FM-SURFACE	Date Analyzed: 03/04/10 21:14
Lab Samp ID: C024-08	Dilution Factor: 1
Lab File ID: QC04009A	Matrix : SOIL
Ext Btch ID: HEC002S	% Moisture : 10.8
Calib. Ref.: QC04002A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
2,4-D	28|(ND)	11	5.6|5.6

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4-DCPAA	(105)|81	10-150

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
Batch No.	: 10C024	Date Extracted:	03/04/10 15:10
Sample ID:	FM-12	Date Analyzed:	03/08/10 12:19
Lab Samp ID:	C024-09	Dilution Factor:	5
Lab File ID:	QC08004A	Matrix	: SOIL
Ext Btch ID:	HEC002S	% Moisture	: 5.5
Calib. Ref.:	QC08002A	Instrument ID	: GCT009

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
2,4-D	790|(ND)	53	26|26

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4-DCPAA	22|(39)	10-150

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/04/10 15:10
Sample ID: FM-16	Date Analyzed: 03/04/10 21:49
Lab Samp ID: C024-10	Dilution Factor: 1
Lab File ID: QC04011A	Matrix : SOIL
Ext Btch ID: HEC002S	% Moisture : 0.4
Calib. Ref.: QC04002A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
2,4-D	93|(ND)	10	5.0|5.0

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4-DCPAA	25|(34)	10-150

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/04/10 15:10
Sample ID: SDWA-5-12	Date Analyzed: 03/04/10 22:06
Lab Samp ID: C024-11	Dilution Factor: 1
Lab File ID: QC04012A	Matrix : SOIL
Ext Btch ID: HEC002S	% Moisture : 4.9
Calib. Ref.: QC04002A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
2,4-D	(ND)|ND	11	5.3|5.3

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4-DCPAA	(76)|64	10-150

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/04/10 15:10
Sample ID: SDWA-5-18	Date Analyzed: 03/04/10 22:24
Lab Samp ID: C024-12	Dilution Factor: 1
Lab File ID: QC04013A	Matrix : SOIL
Ext Btch ID: HEC002S	% Moisture : 6.9
Calib. Ref.: QC04002A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
2,4-D	(ND)|ND	11	5.4|5.4

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4-DCPAA	(71)|65	10-150

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/04/10 15:10
Sample ID: SDWA-5-20	Date Analyzed: 03/04/10 22:41
Lab Samp ID: C024-13	Dilution Factor: 1
Lab File ID: QC04014A	Matrix : SOIL
Ext Btch ID: HEC002S	% Moisture : 7.3
Calib. Ref.: QC04002A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
2,4-D	(ND)|ND	11	5.4|5.4

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4-DCPAA	(82)|75	10-150

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/04/10 15:10
Sample ID: FR-2-0-2	Date Analyzed: 03/04/10 22:58
Lab Samp ID: C024-14	Dilution Factor: 1
Lab File ID: QC04015A	Matrix : SOIL
Ext Btch ID: HEC002S	% Moisture : 1.4
Calib. Ref.: QC04002A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
2,4-D	(ND)|ND	10	5.1|5.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4-DCPAA	(89)|78	10-150

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/04/10 15:10
Sample ID: FR-1-0-2	Date Analyzed: 03/04/10 23:16
Lab Samp ID: C024-15	Dilution Factor: 1
Lab File ID: QC04016A	Matrix : SOIL
Ext Btch ID: HEC002S	% Moisture : 4.8
Calib. Ref.: QC04002A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
2,4-D	(ND)|ND	11	5.3|5.3

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4-DCPAA	(90)|76	10-150

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client : TETRA TECH	Date Collected: 03/01/10
Project : IMPERIAL VALLEY WEST	Date Received: 03/02/10
Batch No. : 10C024	Date Extracted: 03/04/10 15:10
Sample ID: FR-1-0-2-DUP	Date Analyzed: 03/04/10 23:34
Lab Samp ID: C024-16	Dilution Factor: 1
Lab File ID: QC04017A	Matrix : SOIL
Ext Btch ID: HEC002S	% Moisture : 5.3
Calib. Ref.: QC04002A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
2,4-D	(ND)|ND	11	5.3|5.3

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4-DCPAA	(77)|65	10-150

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

QC SUMMARIES

METHOD 8151A
HERBICIDES

Client : TETRA TECH	Date Collected: NA
Project : IMPERIAL VALLEY WEST	Date Received: 03/04/10
Batch No. : 10C024	Date Extracted: 03/04/10 15:10
Sample ID: MBLK1S	Date Analyzed: 03/04/10 19:29
Lab Samp ID: HEC002SB	Dilution Factor: 1
Lab File ID: QC04003A	Matrix : SOIL
Ext Btch ID: HEC002S	% Moisture : NA
Calib. Ref.: QC04002A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
2,4-D	(ND)|ND	10	5.0|5.0

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4-DCPAA	76|(78)	30-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: TETRA TECH
PROJECT: IMPERIAL VALLEY WEST
BATCH NO.: 10C024
METHOD: METHOD 8151A

MATRIX:	SOIL		% MOISTURE:	NA
DILUTION FACTOR:	1	1		
SAMPLE ID:	MBLK1S			
LAB SAMP ID:	HEC002SB	HEC002SL		
LAB FILE ID:	QC04003A	QC04004A		
DATE EXTRACTED:	03/04/1015:10	03/04/1015:10	DATE COLLECTED:	NA
DATE ANALYZED:	03/04/1019:29	03/04/1019:46	DATE RECEIVED:	03/04/10
PREP. BATCH:	HEC002S	HEC002S		
CALIB. REF:	QC04002A	QC04002A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	QC LIMIT (%)
2,4-D	(ND)|ND	50.0	46.4|(50.6)	93|(101)	20-130

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	QC LIMIT (%)
2,4-DCPAA	500	(454)|450	(91)|90	30-140

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: TETRA TECH
PROJECT: IMPERIAL VALLEY WEST
BATCH NO.: 10C024
METHOD: METHOD 8151A

MATRIX: SOIL % MOISTURE: 5.3

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	FR-1-0-2-DUP				
LAB SAMP ID:	C024-16	C024-16M	C024-16S		
LAB FILE ID:	QC04017A	QC04018A	QC04019A		
DATE EXTRACTED:	03/04/1015:10	03/04/1015:10	03/04/1015:10	DATE COLLECTED:	03/01/10
DATE ANALYZED:	03/04/1023:34	03/04/1023:51	03/05/1000:09	DATE RECEIVED:	03/02/10
PREP. BATCH:	HEC002S	HEC002S	HEC002S		
CALIB. REF:	QC04002A	QC04002A	QC04002A		

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
2,4-D	(ND)|ND	52.8	(47.2)|44.7	(89)|85	52.8	(52.9)|50.4	(100)|95	(11)|12	30-140	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	QC LIMIT (%)
2,4-DCPAA	528	(433)|389	(82)|74	528	(473)|429	(90)|81	10-150

LABORATORY REPORT FOR

TETRA TECH

IMPERIAL VALLEY WEST

METALS / MERCURY

SDG#: 10C024

CASE NARRATIVE

Client : TETRA TECH

Project : IMPERIAL VALLEY WEST

SDG : 10C024

METHOD 6020A
METALS BY ICP-MS

A total of thirteen (13) soil samples were received on 03/02/10 for Total Metals by ICP-MS analysis, Method 6020A in accordance with USEPA SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods.

Holding Time
Samples were analyzed within the prescribed holding time.

Calibration
Initial Calibration was established as prescribed by the method and was verified using a secondary source. Interference checks were performed and results were within required limits. Continuing calibration verifications and continuing calibration blanks were carried out at the frequency specified by the project. All calibration requirements were within acceptance criteria.

Method Blank
Method blank was analyzed at the frequency required by the project. For this SDG, one method blank was analyzed with the samples. Result was compliant to project requirement.

Lab Control Sample
A set of LCS/LCD was analyzed with the samples in this SDG.
Percent recoveries for IMC004SL/C were all within QC limits.

Matrix QC Sample
No matrix QC sample was designated for this SDG. Analytical spike and serial dilution were analyzed for matrix interference evaluation. Results were within method acceptance criteria.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met otherwise anomalies were discussed within the associated QC parameter.

LAB CHRONICLE
METALS BY ICP-MS

Client : TETRA TECH
Project : IMPERIAL VALLEY WEST

SDG NO. : 10C024
Instrument ID : T-I98

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	IMC004SB	1	NA	03/04/1015:56	03/03/1010:00	98C04036	98C04034	IMC004S	Method Blank
LCS1S	IMC004SL	1	NA	03/04/1016:02	03/03/1010:00	98C04037	98C04034	IMC004S	Lab Control Sample (LCS)
LCD1S	IMC004SC	1	NA	03/04/1016:08	03/03/1010:00	98C04038	98C04034	IMC004S	LCS Duplicate
SDWA-2AS	C024-04A	1	3.3	03/04/1016:15	03/03/1010:00	98C04039	98C04034	IMC004S	Analytical Spike Sample
SDWA-2	C024-04	1	3.3	03/04/1016:21	03/03/1010:00	98C04040	98C04034	IMC004S	Field Sample
SDWA-2DL	C024-04J	5	3.3	03/04/1016:27	03/03/1010:00	98C04041	98C04034	IMC004S	Diluted Sample
SDWA-1	C024-05	1	8.6	03/04/1016:37	03/03/1010:00	98C04042	98C04034	IMC004S	Field Sample
SDWA-3	C024-06	1	2.2	03/04/1016:43	03/03/1010:00	98C04043	98C04034	IMC004S	Field Sample
SDWA-4	C024-07	1	4.0	03/04/1016:49	03/03/1010:00	98C04044	98C04034	IMC004S	Field Sample
FM-SURFACE	C024-08	1	10.8	03/04/1016:56	03/03/1010:00	98C04045	98C04034	IMC004S	Field Sample
FM-12	C024-09	1	5.5	03/04/1017:14	03/03/1010:00	98C04048	98CD4046	IMC004S	Field Sample
FM-16	C024-10	1	0.4	03/04/1017:21	03/03/1010:00	98C04049	98C04046	IMC004S	Field Sample
SDWA-5-12	C024-11	1	4.9	03/04/1017:27	03/03/1010:00	98C04050	98C04046	IMC004S	Field Sample
SDWA-5-18	C024-12	1	6.9	03/04/1017:33	03/03/1010:00	98C04051	98C04046	IMC004S	Field Sample
SDWA-5-20	C024-13	1	7.3	03/04/1017:39	03/03/1010:00	98C04052	98C04046	IMC004S	Field Sample

FN - Filename
% Moist - Percent Moisture

METHOD 6020A
METALS BY ICP-MS

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
SDG NO.	: 10C024	Date Extracted:	03/03/10 10:00
Sample ID:	SDWA-2	Date Analyzed:	03/04/10 16:21
Lab Samp ID:	C024-04	Dilution Factor:	1
Lab File ID:	98C04040	Matrix :	SOIL
Ext Btch ID:	IMC004S	% Moisture :	3.3
Calib. Ref.:	98C04034	Instrument ID :	EMAXTI98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	0.517	0.207
Arsenic	1.18	0.517	0.207
Barium	72.7	0.517	0.207
Beryllium	ND	0.517	0.207
Cadmium	ND	0.517	0.207
Cobalt	1.17	0.517	0.103
Copper	2.44	0.517	0.207
Lead	2.21	0.517	0.103
Nickel	3.94	0.517	0.103
Selenium	0.121J	0.517	0.103
Silver	ND	0.517	0.103
Thallium	0.518	0.517	0.103
Vanadium	8.92	0.517	0.103
Zinc	17.8	3.10	2.07

METHOD 6020A
METALS BY ICP-MS

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
SDG NO.	: 10C024	Date Extracted:	03/03/10 10:00
Sample ID:	SDWA-1	Date Analyzed:	03/04/10 16:37
Lab Samp ID:	C024-05	Dilution Factor:	1
Lab File ID:	98C04042	Matrix :	SOIL
Ext Btch ID:	IMC004S	% Moisture :	8.6
Calib. Ref.:	98C04034	Instrument ID :	EMAXTI98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	0.547	0.219
Arsenic	1.06	0.547	0.219
Barium	54.7	0.547	0.219
Beryllium	ND	0.547	0.219
Cadmium	ND	0.547	0.219
Cobalt	1.35	0.547	0.109
Copper	2.65	0.547	0.219
Lead	2.63	0.547	0.109
Nickel	3.00	0.547	0.109
Selenium	0.117J	0.547	0.109
Silver	ND	0.547	0.109
Thallium	0.148J	0.547	0.109
Vanadium	6.83	0.547	0.109
Zinc	14.2	3.28	2.19

METHOD 6020A
METALS BY ICP-MS

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
SDG NO.	: 10C024	Date Extracted:	03/03/10 10:00
Sample ID:	SDWA-3	Date Analyzed:	03/04/10 16:43
Lab Samp ID:	C024-06	Dilution Factor:	1
Lab File ID:	98C04043	Matrix :	SOIL
Ext Btch ID:	IMC004S	% Moisture :	2.2
Calib. Ref.:	98C04034	Instrument ID :	EMAXTI98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	0.511	0.204
Arsenic	1.40	0.511	0.204
Barium	75.3	0.511	0.204
Beryllium	ND	0.511	0.204
Cadmium	ND	0.511	0.204
Cobalt	1.71	0.511	0.102
Copper	3.23	0.511	0.204
Lead	2.67	0.511	0.102
Nickel	3.37	0.511	0.102
Selenium	0.111J	0.511	0.102
Silver	ND	0.511	0.102
Thallium	0.123J	0.511	0.102
Vanadium	7.37	0.511	0.102
Zinc	15.1	3.07	2.04

METHOD 6020A
METALS BY ICP-MS

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
SDG NO.	: 10C024	Date Extracted:	03/03/10 10:00
Sample ID:	SDWA-4	Date Analyzed:	03/04/10 16:49
Lab Samp ID:	C024-07	Dilution Factor:	1
Lab File ID:	98C04044	Matrix :	SOIL
Ext Btch ID:	IMC004S	% Moisture :	4.0
Calib. Ref.:	98C04034	Instrument ID :	EMAXTI98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	0.521	0.208
Arsenic	0.872	0.521	0.208
Barium	75.7	0.521	0.208
Beryllium	ND	0.521	0.208
Cadmium	ND	0.521	0.208
Cobalt	1.73	0.521	0.104
Copper	2.98	0.521	0.208
Lead	2.33	0.521	0.104
Nickel	3.41	0.521	0.104
Selenium	ND	0.521	0.104
Silver	ND	0.521	0.104
Thallium	0.119J	0.521	0.104
Vanadium	7.28	0.521	0.104
Zinc	16.4	3.12	2.08

METHOD 6020A
METALS BY ICP-MS

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
SDG NO.	: 10C024	Date Extracted:	03/03/10 10:00
Sample ID:	FM-SURFACE	Date Analyzed:	03/04/10 16:56
Lab Samp ID:	C024-08	Dilution Factor:	1
Lab File ID:	98C04045	Matrix :	SOIL
Ext Btch ID:	IMC004S	% Moisture :	10.8
Calib. Ref.:	98C04034	Instrument ID :	EMAXTI98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	0.561	0.224
Arsenic	2.59	0.561	0.224
Barium	159	0.561	0.224
Beryllium	0.284J	0.561	0.224
Cadmium	0.704	0.561	0.224
Cobalt	4.19	0.561	0.112
Copper	51.3	0.561	0.224
Lead	7.38	0.561	0.112
Nickel	10.3	0.561	0.112
Selenium	0.440J	0.561	0.112
Silver	ND	0.561	0.112
Thallium	0.223J	0.561	0.112
Vanadium	29.2	0.561	0.112
Zinc	215	3.36	2.24

METHOD 6020A
METALS BY ICP-MS

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
SDG NO.	: 10C024	Date Extracted:	03/03/10 10:00
Sample ID:	FM-12	Date Analyzed:	03/04/10 17:14
Lab Samp ID:	C024-09	Dilution Factor:	1
Lab File ID:	98C04048	Matrix :	SOIL
Ext Btch ID:	IMC004S	% Moisture :	5.5
Calib. Ref.:	98C04046	Instrument ID :	EMAXTI98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	0.529	0.212
Arsenic	1.84	0.529	0.212
Barium	93.0	0.529	0.212
Beryllium	ND	0.529	0.212
Cadmium	0.489J	0.529	0.212
Cobalt	3.21	0.529	0.106
Copper	32.5	0.529	0.212
Lead	5.64	0.529	0.106
Nickel	6.41	0.529	0.106
Selenium	0.796	0.529	0.106
Silver	ND	0.529	0.106
Thallium	0.144J	0.529	0.106
Vanadium	16.4	0.529	0.106
Zinc	146	3.17	2.12

METHOD 6020A
METALS BY ICP-MS

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
SDG NO.	: 10C024	Date Extracted:	03/03/10 10:00
Sample ID:	FM-16	Date Analyzed:	03/04/10 17:21
Lab Samp ID:	C024-10	Dilution Factor:	1
Lab File ID:	98C04049	Matrix :	SOIL
Ext Btch ID:	IMC004S	% Moisture :	0.4
Calib. Ref.:	98C04046	Instrument ID :	EMAXTI98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	0.502	0.201
Arsenic	1.07	0.502	0.201
Barium	68.8	0.502	0.201
Beryllium	ND	0.502	0.201
Cadmium	ND	0.502	0.201
Cobalt	1.81	0.502	0.100
Copper	3.50	0.502	0.201
Lead	3.08	0.502	0.100
Nickel	3.85	0.502	0.100
Selenium	ND	0.502	0.100
Silver	ND	0.502	0.100
Thallium	0.109J	0.502	0.100
Vanadium	8.71	0.502	0.100
Zinc	19.9	3.01	2.01

METHOD 6020A
METALS BY ICP-MS

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
SDG NO.	: 10C024	Date Extracted:	03/03/10 10:00
Sample ID:	SDWA-5-12	Date Analyzed:	03/04/10 17:27
Lab Samp ID:	C024-11	Dilution Factor:	1
Lab File ID:	98C04050	Matrix :	SOIL
Ext Btch ID:	IMC004S	% Moisture :	4.9
Calib. Ref.:	98C04046	Instrument ID :	EMAXTI98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	0.526	0.210
Arsenic	2.57	0.526	0.210
Barium	78.1	0.526	0.210
Beryllium	0.245J	0.526	0.210
Cadmium	ND	0.526	0.210
Cobalt	2.54	0.526	0.105
Copper	4.23	0.526	0.210
Lead	4.53	0.526	0.105
Nickel	5.13	0.526	0.105
Selenium	ND	0.526	0.105
Silver	ND	0.526	0.105
Thallium	0.108J	0.526	0.105
Vanadium	9.95	0.526	0.105
Zinc	26.3	3.15	2.10

METHOD 6020A
METALS BY ICP-MS

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
SDG NO.	: 10C024	Date Extracted:	03/03/10 10:00
Sample ID:	SDWA-5-18	Date Analyzed:	03/04/10 17:33
Lab Samp ID:	C024-12	Dilution Factor:	1
Lab File ID:	98C04051	Matrix :	SOIL
Ext Btch ID:	IMC004S	% Moisture :	6.9
Calib. Ref.:	98C04046	Instrument ID :	EMAXTI98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	0.537	0.215
Arsenic	4.61	0.537	0.215
Barium	76.1	0.537	0.215
Beryllium	0.389J	0.537	0.215
Cadmium	ND	0.537	0.215
Cobalt	3.64	0.537	0.107
Copper	6.45	0.537	0.215
Lead	6.02	0.537	0.107
Nickel	7.48	0.537	0.107
Selenium	ND	0.537	0.107
Silver	ND	0.537	0.107
Thallium	0.127J	0.537	0.107
Vanadium	17.4	0.537	0.107
Zinc	32.6	3.22	2.15

METHOD 6020A
METALS BY ICP-MS

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
SDG NO.	: 10C024	Date Extracted:	03/03/10 10:00
Sample ID:	SDWA-5-20	Date Analyzed:	03/04/10 17:39
Lab Samp ID:	C024-13	Dilution Factor:	1
Lab File ID:	98C04052	Matrix :	SOIL
Ext Btch ID:	IMC004S	% Moisture :	7.3
Calib. Ref.:	98C04046	Instrument ID :	EMAXTI98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	0.539	0.216
Arsenic	4.32	0.539	0.216
Barium	90.2	0.539	0.216
Beryllium	0.431J	0.539	0.216
Cadmium	ND	0.539	0.216
Cobalt	3.90	0.539	0.108
Copper	6.74	0.539	0.216
Lead	6.30	0.539	0.108
Nickel	8.25	0.539	0.108
Selenium	ND	0.539	0.108
Silver	ND	0.539	0.108
Thallium	0.142J	0.539	0.108
Vanadium	19.7	0.539	0.108
Zinc	30.2	3.24	2.16

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: TETRA TECH
PROJECT: IMPERIAL VALLEY WEST
BATCH NO.: 10C024
METHOD: METHOD 6020A

MATRIX:	SOIL		% MOISTURE:	3.3
DILUTION FACTOR:	1	5		
SAMPLE ID:	SDWA-2	SDWA-2DL		
EMAX SAMP ID:	C024-04	C024-04J		
LAB FILE ID:	98C04040	98C04041		
DATE EXTRACTED:	03/03/1010:00	03/03/1010:00	DATE COLLECTED:	03/01/10
DATE ANALYZED:	03/04/1016:21	03/04/1016:27	DATE RECEIVED:	03/02/10
PREP. BATCH:	IMC004S	IMC004S		
CALIB. REF:	98C04034	98C04034		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Antimony	ND	ND	0	10
Arsenic	1.18	ND	NA	10
Barium	72.7	71.9	1	10
Beryllium	ND	ND	0	10
Cadmium	ND	ND	0	10
Cobalt	1.17	1.10J	NA	10
Copper	2.44	2.20J	NA	10
Lead	2.21	2.29J	NA	10
Nickel	3.94	3.92	1	10
Selenium	0.121J	ND	NA	10
Silver	ND	ND	0	10
Thallium	0.518	1.12J	NA	10
Vanadium	8.92	8.28	7	10
Zinc	17.8	18.3	3	10

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: TETRA TECH
PROJECT: IMPERIAL VALLEY WEST
SDG NO.: 10C024
METHOD: METHOD 6020A

MATRIX:	SOIL		% MOISTURE:	3.3
DILTN FACTR:	1	1		
SAMPLE ID:	SDWA-2			
CONTROL NO.:	C024-04	C024-04A		
LAB FILE ID:	98C04040	98C04039		
DATIME EXTRCTD:	03/03/1010:00	03/03/1010:00	DATE COLLECTED:	03/01/10
DATIME ANALYZD:	03/04/1016:21	03/04/1016:15	DATE RECEIVED:	03/02/10
PREP. BATCH:	IMC004S	IMC004S		
CALIB. REF:	98C04034	98C04034		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Antimony	ND	51.7	51.5	100	75-125
Arsenic	1.18	51.7	51.9	98	75-125
Barium	72.7	51.7	128	106	75-125
Beryllium	ND	51.7	55.3	107	75-125
Cadmium	ND	51.7	51.5	100	75-125
Cobalt	1.17	51.7	52.7	100	75-125
Copper	2.44	51.7	53.3	98	75-125
Lead	2.21	51.7	54.7	102	75-125
Nickel	3.94	51.7	55.0	99	75-125
Selenium	0.121J	51.7	51.6	100	75-125
Silver	ND	51.7	50.3	97	75-125
Thallium	0.518	51.7	53.6	103	75-125
Vanadium	8.92	51.7	60.3	99	75-125
Zinc	17.8	51.7	67.1	95	75-125

METHOD 6020A
METALS BY ICP-MS

Client	: TETRA TECH	Date Collected:	NA
Project	: IMPERIAL VALLEY WEST	Date Received:	03/03/10
SDG NO.	: 10C024	Date Extracted:	03/03/10 10:00
Sample ID:	MBLK1S	Date Analyzed:	03/04/10 15:56
Lab Samp ID:	IMC004SB	Dilution Factor:	1
Lab File ID:	98C04036	Matrix :	SOIL
Ext Btch ID:	IMC004S	% Moisture :	NA
Calib. Ref.:	98C04034	Instrument ID :	EMAXTI98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	0.500	0.200
Arsenic	ND	0.500	0.200
Barium	ND	0.500	0.200
Beryllium	ND	0.500	0.200
Cadmium	ND	0.500	0.200
Cobalt	ND	0.500	0.100
Copper	ND	0.500	0.200
Lead	ND	0.500	0.100
Nickel	ND	0.500	0.100
Selenium	ND	0.500	0.100
Silver	ND	0.500	0.100
Thallium	ND	0.500	0.100
Vanadium	ND	0.500	0.100
Zinc	ND	3.00	2.00

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH
PROJECT: IMPERIAL VALLEY WEST
SDG NO.: 10C024
METHOD: METHDD 6020A

MATRIX:	SOIL			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	M8LK1S				
CONTROL NO.:	IMC004SB	IMC004SL	IMC004SC		
LAB FILE ID:	98C04036	98C04037	98C04038		
DATIME EXTRCTD:	03/03/1010:00	03/03/1010:00	03/03/1010:00	DATE COLLECTED:	NA
DATIME ANALYZD:	03/04/1015:56	03/04/1016:02	03/04/1016:08	DATE RECEIVED:	03/03/10
PREP. BATCH:	IMC004S	IMC004S	IMC004S		
CALIB. REF:	98C04034	9BC04034	98C04034		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	8S RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Antimony	ND	50.0	48.4	97	50.0	48.4	97	0	80-120	20
Arsenic	ND	50.0	49.1	98	50.0	49.2	98	0	80-120	20
Barium	ND	50.0	50.1	100	50.0	49.9	100	0	80-120	20
Beryllium	ND	50.0	50.5	101	50.0	51.4	103	2	80-120	20
Cadmium	ND	50.0	49.5	99	50.0	49.1	98	1	80-120	20
Cobalt	ND	50.0	50.7	101	50.0	52.3	105	3	80-120	20
Copper	ND	50.0	49.0	98	50.0	48.8	98	0	80-120	20
Lead	ND	50.0	50.5	101	50.0	50.1	100	1	80-120	20
Nickel	ND	50.0	49.2	98	50.0	49.1	98	0	80-120	20
Selenium	ND	50.0	50.4	101	50.0	50.5	101	0	80-120	20
Silver	ND	50.0	48.9	98	50.0	49.0	98	0	80-120	20
Thallium	ND	50.0	50.6	101	50.0	50.5	101	0	80-120	20
Vanadium	ND	50.0	48.8	98	50.0	48.9	98	0	80-120	20
Zinc	ND	50.0	50.2	100	50.0	50.4	101	0	80-120	20

LAB CHRONICLE
LEAD BY ICP-MS

Client : TETRA TECH
Project : IMPERIAL VALLEY WEST

SDG NO. : 10C024
Instrument ID : T-I98

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	IMC004SB	1	NA	03/04/1015:56	03/03/1010:00	98C04036	98C04034	IMC004S	Method Blank
LCS1S	IMC004SL	1	NA	03/04/1016:02	03/03/1010:00	98C04037	98C04034	IMC004S	Lab Control Sample (LCS)
LCD1S	IMC004SC	1	NA	03/04/1016:08	03/03/1010:00	98C04038	98C04034	IMC004S	LCS Duplicate
FR-2-0-2	C024-14	1	1.4	03/04/1018:29	03/03/1010:00	98C04060	98C04058	IMC004S	Field Sample
FR-1-0-2	C024-15	1	4.8	03/04/1018:36	03/03/1010:00	98C04061	98C04058	IMC004S	Field Sample
FR-1-0-2-DUP	C024-16	1	5.3	03/04/1018:42	03/03/1010:00	98C04062	98C04058	IMC004S	Field Sample

FN - Filename
% Moist - Percent Moisture

METHOD 6020A
LEAD BY ICP-MS

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
SDG NO.	: 10C024	Date Extracted:	03/03/10 10:00
Sample ID:	FR-2-0-2	Date Analyzed:	03/04/10 18:29
Lab Samp ID:	C024-14	Dilution Factor:	1
Lab File ID:	98C04060	Matrix :	SOIL
Ext Btch ID:	IMC004S	% Moisture :	1.4
Calib. Ref.:	98C04058	Instrument ID :	EMAXTI98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Lead	5.41	0.507	0.101

METHOD 6020A
LEAD BY ICP-MS

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
SDG NO.	: 10C024	Date Extracted:	03/03/10 10:00
Sample ID:	FR-1-0-2	Date Analyzed:	03/04/10 18:36
Lab Samp ID:	C024-15	Dilution Factor:	1
Lab File ID:	98C04061	Matrix :	SOIL
Ext Btch ID:	IMC004S	% Moisture :	4.8
Calib. Ref.:	98C04058	Instrument ID :	EMAXTI98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Lead	9.18	0.525	0.105

METHOD 6020A
LEAD BY ICP-MS

Client	: TETRA TECH	Date Collected:	03/01/10
Project	: IMPERIAL VALLEY WEST	Date Received:	03/02/10
SDG NO.	: 10C024	Date Extracted:	03/03/10 10:00
Sample ID:	FR-1-0-2-DUP	Date Analyzed:	03/04/10 18:42
Lab Samp ID:	C024-16	Dilution Factor:	1
Lab File ID:	98C04062	Matrix :	SOIL
Ext Btch ID:	IMC004S	% Moisture :	5.3
Calib. Ref.:	98C04058	Instrument ID :	EMAXTI98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Lead	10.8	0.528	0.106

7020

METHOD 6020A
LEAD BY ICP-MS

Client	: TETRA TECH	Date Collected:	NA
Project	: IMPERIAL VALLEY WEST	Date Received:	03/03/10
SDG NO.	: 10C024	Date Extracted:	03/03/10 10:00
Sample ID:	MBLK1S	Date Analyzed:	03/04/10 15:56
Lab Samp ID:	IMC004SB	Dilution Factor:	1
Lab File ID:	98C04036	Matrix :	SOIL
Ext Btch ID:	IMC004S	% Moisture :	NA
Calib. Ref.:	98C04034	Instrument ID :	EMAXTI98

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Lead	ND	0.500	0.100

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH
PROJECT: IMPERIAL VALLEY WEST
SDG NO.: 10C024
METHOD: METHOD 6020A

MATRIX:	SOIL			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1S				
CONTROL NO.:	IMC004SB	IMC004SL	IMC004SC		
LAB FILE ID:	98C04036	98C04037	98C04038		
DATIME EXTRCTD:	03/03/1010:00	03/03/1010:00	03/03/1010:00	DATE COLLECTED:	NA
DATIME ANALYZD:	03/04/1015:56	03/04/1016:02	03/04/1016:08	DATE RECEIVED:	03/03/10
PREP. BATCH:	IMC004S	IMC004S	IMC004S		
CALIB. REF:	98C04034	98C04034	98C04034		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Lead	ND	50.0	50.5	101	50.0	50.1	100	1	80-120	20

CASE NARRATIVE

Client : TETRA TECH

Project : IMPERIAL VALLEY WEST

SDG : 10C024

METHOD 7471A
MERCURY BY COLD VAPOR

A total of ten (10) soil samples were received on 03/02/10 for Mercury analysis, Method 7471A in accordance with USEPA SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods.

Holding Time
Samples were analyzed within the prescribed holding time.

Calibration
Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source. Continuing calibration verifications were carried out at the frequency specified by the project. All calibration requirements were within acceptance criteria.

Method Blank
Method blank was analyzed at the frequency required by the project. For this SDG, one method blank was analyzed with the samples. Result was compliant to project requirement.

Lab Control Sample
A set of LCS/LCD was analyzed with the samples in this SDG.
Percent recoveries for HGC005SL/C were all within QC limits.

Matrix QC Sample
Matrix QC sample was analyzed at the frequency prescribed by the project.
Percent recoveries for C024-12M/S were within project QC limits.
In addition Analytical spike and serial dilution were analyzed for matrix interference evaluation. Results were within method acceptance criteria.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met otherwise anomalies were discussed within the associated QC parameter.

LAB CHRONICLE
MERCURY BY COLD VAPOR

Client : TETRA TECH
Project : IMPERIAL VALLEY WEST

SDG NO. : 10C024
Instrument ID : TI047

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	HGC005SB	1	NA	03/03/1015:31	03/03/1013:00	M47C003010	M47C003008	HGC005S	Method Blank
LCS1S	HGC005SL	1	NA	03/03/1015:33	03/03/1013:00	M47C003011	M47C003008	HGC005S	Lab Control Sample (LCS)
LCD1S	HGC005SC	1	NA	03/03/1015:36	03/03/1013:00	M47C003012	M47C003008	HGC005S	LCS Duplicate
SDWA-5-18AS	C024-12A	1	6.9	03/03/1015:38	03/03/1013:00	M47C003013	M47C003008	HGC005S	Analytical Spike Sample
SDWA-5-18	C024-12	1	6.9	03/03/1015:40	03/03/1013:00	M47C003014	M47C003008	HGC005S	Field Sample
SDWA-5-18DL	C024-12J	5	6.9	03/03/1015:42	03/03/1013:00	M47C003015	M47C003008	HGC005S	Diluted Sample
SDWA-5-18MS	C024-12M	1	6.9	03/03/1015:44	03/03/1013:00	M47C003016	M47C003008	HGC005S	Matrix Spike Sample (MS)
SDWA-5-18MSD	C024-12S	1	6.9	03/03/1015:46	03/03/1013:00	M47C003017	M47C003008	HGC005S	MS Duplicate (MSD)
SDWA-2	C024-04	1	3.3	03/03/1015:48	03/03/1013:00	M47C003018	M47C003008	HGC005S	Field Sample
SDWA-1	C024-05	1	8.6	03/03/1015:50	03/03/1013:00	M47C003019	M47C003008	HGC005S	Field Sample
SDWA-3	C024-06	1	2.2	03/03/1015:57	03/03/1013:00	M47C003022	M47C003020	HGC005S	Field Sample
SDWA-4	C024-07	1	4.0	03/03/1015:59	03/03/1013:00	M47C003023	M47C003020	HGC005S	Field Sample
FM-SURFACE	C024-08	1	10.8	03/03/1016:01	03/03/1013:00	M47C003024	M47C003020	HGC005S	Field Sample
FM-12	C024-09	1	5.5	03/03/1016:03	03/03/1013:00	M47C003025	M47C003020	HGC005S	Field Sample
FM-16	C024-10	1	0.4	03/03/1016:06	03/03/1013:00	M47C003026	M47C003020	HGC005S	Field Sample
SDWA-5-12	C024-11	1	4.9	03/03/1016:08	03/03/1013:00	M47C003027	M47C003020	HGC005S	Field Sample
SDWA-5-20	C024-13	1	7.3	03/03/1016:10	03/03/1013:00	M47C003028	M47C003020	HGC005S	Field Sample

FN - Filename
% Moist - Percent Moisture

METHOD 7471A
MERCURY BY COLD VAPOR

Client : TETRA TECH
Project : IMPERIAL VALLEY WEST
Batch No. : 10C024

Matrix : SOIL
Instrument ID : TI047

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	HGC005SB	ND	1	NA	0.100	0.0330	03/03/1015:31	03/03/1013:00	M47C003010	M47C003008	HGC005S	NA	03/03/10
LCS1S	HGC005SL	0.892	1	NA	0.100	0.0330	03/03/1015:33	03/03/1013:00	M47C003011	M47C003008	HGC005S	NA	03/03/10
LCD1S	HGC005SC	0.887	1	NA	0.100	0.0330	03/03/1015:36	03/03/1013:00	M47C003012	M47C003008	HGC005S	NA	03/03/10
SDWA-5-18AS	C024-12A	0.927	1	6.9	0.107	0.0354	03/03/1015:38	03/03/1013:00	M47C003013	M47C003008	HGC005S	03/01/10	03/02/10
SDWA-5-18	C024-12	ND	1	6.9	0.107	0.0354	03/03/1015:40	03/03/1013:00	M47C003014	M47C003008	HGC005S	03/01/10	03/02/10
SDWA-5-18DL	C024-12J	ND	5	6.9	0.537	0.177	03/03/1015:42	03/03/1013:00	M47C003015	M47C003008	HGC005S	03/01/10	03/02/10
SDWA-5-1BMS	C024-12M	0.976	1	6.9	0.107	0.0354	03/03/1015:44	03/03/1013:00	M47C003016	M47C003008	HGC005S	03/01/10	03/02/10
SDWA-5-1BMSD	C024-12S	0.954	1	6.9	0.107	0.0354	03/03/1015:46	03/03/1013:00	M47C003017	M47C003008	HGC005S	03/01/10	03/02/10
SDWA-2	C024-04	ND	1	3.3	0.103	0.0341	03/03/1015:48	03/03/1013:00	M47C003018	M47C003008	HGC005S	03/01/10	03/02/10
SDWA-1	C024-05	ND	1	8.6	0.109	0.0361	03/03/1015:50	03/03/1013:00	M47C003019	M47C003008	HGC005S	03/01/10	03/02/10
SDWA-3	C024-06	ND	1	2.2	0.102	0.0337	03/03/1015:57	03/03/1013:00	M47C003022	M47C003020	HGC005S	03/01/10	03/02/10
SDWA-4	C024-07	ND	1	4.0	0.104	0.0344	03/03/1015:59	03/03/1013:00	M47C003023	M47C003020	HGC005S	03/01/10	03/02/10
FM-SURFACE	C024-08	ND	1	10.8	0.112	0.0370	03/03/1016:01	03/03/1013:00	M47C003024	M47C003020	HGC005S	03/01/10	03/02/10
FM-12	C024-09	ND	1	5.5	0.106	0.0349	03/03/1016:03	03/03/1013:00	M47C003025	M47C003020	HGC005S	03/01/10	03/02/10
FM-16	C024-10	ND	1	0.4	0.100	0.0331	03/03/1016:06	03/03/1013:00	M47C003026	M47C003020	HGC005S	03/01/10	03/02/10
SDWA-5-12	C024-11	ND	1	4.9	0.105	0.0347	03/03/1016:08	03/03/1013:00	M47C003027	M47C003020	HGC005S	03/01/10	03/02/10
SDWA-5-20	C024-13	ND	1	7.3	0.108	0.0356	03/03/1016:10	03/03/1013:00	M47C003028	M47C003020	HGC005S	03/01/10	03/02/10

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH
PROJECT: IMPERIAL VALLEY WEST
SDG NO.: 10C024
METHOD: METHOD 7471A

MATRIX:	SOIL			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1S				
CONTROL NO.:	HGC005SB	HGC005SL	HGC005SC		
LAB FILE ID:	M47C003010	M47C003011	M47C003012		
DATIME EXTRCTD:	03/03/1013:00	03/03/1013:00	03/03/1013:00	DATE COLLECTED:	NA
DATIME ANALYZD:	03/03/1015:31	03/03/1015:33	03/03/1015:36	DATE RECEIVED:	03/03/10
PREP. BATCH:	HGC005S	HGC005S	HGC005S		
CALIB. REF:	M47C003008	M47C003008	M47C003008		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Mercury	ND	0.833	0.892	107	0.833	0.887	106	1	80-120	20

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: TETRA TECH
PROJECT: IMPERIAL VALLEY WEST
SDG NO.: 10C024
METHOD: METHOD 7471A

MATRIX:	SOIL			% MOISTURE:	6.9
DILTN FACTR:	1	1	1		
SAMPLE ID:	SDWA-5-18				
CONTROL NO.:	C024-12	C024-12M	C024-12S		
LAB FILE ID:	M47C003014	M47C003016	M47C003017		
DATIME EXTRCTD:	03/03/1013:00	03/03/1013:00	03/03/1013:00	DATE COLLECTED:	03/01/10
DATIME ANALYZD:	03/03/1015:40	03/03/1015:44	03/03/1015:46	DATE RECEIVED:	03/02/10
PREP. BATCH:	HGC005S	HGC005S	HGC005S		
CALIB. REF:	M47C003008	M47C003008	M47C003008		

ACCESSION:

PARAMETER	SMPL RSLT mg/kg	SPIKE AMT mg/kg	MS RSLT mg/kg	MS % REC	SPIKE AMT mg/kg	MSD RSLT mg/kg	MSD % REC	RPD %	QC LIMIT %	MAX RPD %
Mercury	ND	0.895	0.976	109	0.895	0.954	107	2	75-125	20

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: TETRA TECH
PROJECT: IMPERIAL VALLEY WEST
BATCH NO.: 10C024
METHOD: METHOD 7471A

MATRIX:	SOIL		% MOISTURE:	6.9
DILUTION FACTOR:	1	5		
SAMPLE ID:	SDWA-5-18	SDWA-5-18DL		
EMAX SAMP ID:	C024-12	C024-12J		
LAB FILE ID:	M47C003014	M47C003015		
DATE EXTRACTED:	03/03/1013:00	03/03/1013:00	DATE COLLECTED:	03/01/10
DATE ANALYZED:	03/03/1015:40	03/03/1015:42	DATE RECEIVED:	03/02/10
PREP. BATCH:	HGC005S	HGC005S		
CALIB. REF:	M47C00300B	M47C003008		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Mercury	ND	ND	0	10

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: TETRA TECH
PROJECT: IMPERIAL VALLEY WEST
SDG NO.: 10C024
METHOD: METHOD 7471A

MATRIX:	SOIL		% MOISTURE:	6.9
DILTN FACTR:	1	1		
SAMPLE ID:	SDWA-5-18			
CONTROL NO.:	C024-12	C024-12A		
LAB FILE ID:	M47C003014	M47C003013		
DATIME EXTRCTD:	03/03/1013:00	03/03/1013:00	DATE COLLECTED:	03/01/10
DATIME ANALYZD:	03/03/1015:40	03/03/1015:38	DATE RECEIVED:	03/02/10
PREP. BATCH:	HGC005S	HGC005S		
CALIB. REF:	M47C003008	M47C003008		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Mercury	ND	0.895	0.927	104	85-115

CASE NARRATIVE

Client : TETRA TECH

Project : IMPERIAL VALLEY WEST

SDG : 10C024

METHOD 3060A/7196A
HEXAVALENT CHROMIUM

A total of nine (9) soil samples were received on 03/02/10 for Chromium Hexavalent analysis, Method 3060A/7196A in accordance with USEPA SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods.

Holding Time
Samples were analyzed within the prescribed holding time.

Calibration
Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source. Continuing calibration verifications were carried out at the frequency specified by the project. All calibration requirements were within acceptance criteria.

Method Blank
Method blank was analyzed at the frequency required by the project. For this SDG, one method blank was analyzed with the samples. Result was compliant to project requirement.

Lab Control Sample
A set of LCS/LCD was analyzed with the samples in this SDG.
Percent recoveries for CRC007SL/C were all within QC limits.

Matrix QC Sample
Matrix QC sample was analyzed at the frequency prescribed by the project.
Percent recovery for C024-04M (soluble) was within project QC limits.
Percent recovery for C024-04G (insoluble)was within project QC limits.
Sample duplicate was also analyzed with the samples. RPD was within project limit.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met otherwise anomalies were discussed within the associated QC parameter.

METHOD 3060A/7196A
HEXAVALENT CHROMIUM

Client : TETRA TECH
Project : IMPERIAL VALLEY WEST
Batch No. : 10C024

Matrix : SOIL
Instrument ID : I70

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	CRC007SB	ND	1	NA	2.00	1.00	03/05/1017:42	03/04/1015:00	CRC00709	CRC00707	CRC007S	NA	03/04/10
LCS1S	CRC007SL	7.88	1	NA	2.00	1.00	03/05/1017:42	03/04/1015:00	CRC00710	CRC00707	CRC007S	NA	03/04/10
LCD1S	CRC007SC	7.78	1	NA	2.00	1.00	03/05/1017:42	03/04/1015:00	CRC00711	CRC00707	CRC007S	NA	03/04/10
SDWA-2	C024-04	ND	1	3.3	2.07	1.03	03/05/1017:43	03/04/1015:00	CRC00712	CRC00707	CRC007S	03/01/1009:30	03/02/10
SDWA-2DUP	C024-04D	ND	1	3.3	2.07	1.03	03/05/1017:43	03/04/1015:00	CRC00713	CRC00707	CRC007S	03/01/1009:30	03/02/10
SDWA-2MS	C024-04M	8.32	1	3.3	2.07	1.03	03/05/1017:43	03/04/1015:00	CRC00714	CRC00707	CRC007S	03/01/1009:30	03/02/10
SDWA-2MS	C024-04A	8.18	1	3.3	2.07	1.03	03/05/1017:43	03/04/1015:00	CRC00715	CRC00707	CRC007S	03/01/1009:30	03/02/10
SDWA-2MS	C024-04G	609	50	3.3	103	51.7	03/05/1017:44	03/04/1015:00	CRC00716	CRC00707	CRC007S	03/01/1009:30	03/02/10
SDWA-1	C024-05	ND	1	8.6	2.19	1.09	03/05/1017:46	03/04/1015:00	CRC00717	CRC00707	CRC007S	03/01/1010:10	03/02/10
SDWA-3	C024-06	ND	1	2.2	2.04	1.02	03/05/1017:46	03/04/1015:00	CRC00718	CRC00707	CRC007S	03/01/1010:55	03/02/10
FM-SURFACE	C024-08	ND	1	10.8	2.24	1.12	03/05/1017:47	03/04/1015:00	CRC00721	CRC00719	CRC007S	03/01/1012:00	03/02/10
FM-12	C024-09	ND	20	5.5	42.3	21.2	03/05/1017:54	03/04/1015:00	CRC00722	CRC00719	CRC007S	03/01/1012:10	03/02/10
FM-16	C024-10	ND	1	0.4	2.01	1.00	03/05/1017:59	03/04/1015:00	CRC00723	CRC00719	CRC007S	03/01/1012:20	03/02/10
SDWA-5-12	C024-11	ND	1	4.9	2.10	1.05	03/05/1018:03	03/04/1015:00	CRC00724	CRC00719	CRC007S	03/01/1013:10	03/02/10
SDWA-5-18	C024-12	ND	1	6.9	2.15	1.07	03/05/1018:04	03/04/1015:00	CRC00725	CRC00719	CRC007S	03/01/1013:20	03/02/10
SDWA-5-20	C024-13	ND	1	7.3	2.16	1.08	03/05/1018:04	03/04/1015:00	CRC00726	CRC00719	CRC007S	03/01/1013:30	03/02/10

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH
PROJECT: IMPERIAL VALLEY WEST
METHOD: METHOD 7196A
MATRIX: SOIL
% MOISTURE: NA

BATCH NO.: 10C024
SAMPLE ID: LCS1S/LCD1S
CONTROL NO.: CRC007SL/C

DATE RECEIVED: 03/04/10
DATE EXTRACTED: 03/04/10 15:00
DATE ANALYZED: 03/05/10 17:42/17:42

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
Hexavalent Chromium	ND	8.00	7.88	98	8.00	7.78	97	1	80-120	20

EMAX QUALITY CONTROL DATA
DUPLICATE ANALYSIS

CLIENT: TETRA TECH
PROJECT: IMPERIAL VALLEY WEST
METHOD: METHOD 7196A
MATRIX: SOIL
% MOISTURE: 3.3

BATCH NO.: 10C024
SAMPLE ID: SDWA-2DUP
CONTROL NO.: C024-04D

DATE RECEIVED: 03/02/10
DATE EXTRACTED: 03/04/10 15:00
DATE ANALYZED: 03/05/10 17:43

ACCESSION:

PARAMETER	SAMPLE (mg/kg)	DUP. SAMPLE (mg/kg)	RPD (%)	RPD LIMIT (%)
Hexavalent Chromium	ND	ND	0	20

EMAX QUALITY CONTROL DATA
MS ANALYSIS

CLIENT: TETRA TECH
PROJECT: IMPERIAL VALLEY WEST
METHOD: METHOD 7196A
MATRIX: SOIL
% MOISTURE: 3.3

BATCH NO.: 10C024
SAMPLE ID: SDWA-2MS
CONTROL NO.: C024-04M

DATE RECEIVED: 03/02/10
DATE EXTRACTED: 03/04/10 15:00
DATE ANALYZED: 03/05/10 17:43

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	QC LIMIT (%)
Hexavalent Chromium	ND	8.24	8.32	101	85-115

EMAX QUALITY CONTROL DATA
MS ANALYSIS

CLIENT: TETRA TECH
PROJECT: IMPERIAL VALLEY WEST
METHOD: METHOD 7196A
MATRIX: SOIL
% MOISTURE: 3.3

BATCH NO.: 10C024
SAMPLE ID: SDWA-2MS
CONTROL NO.: C024-04G

DATE RECEIVED: 03/02/10
DATE EXTRACTED: 03/04/10 15:00
DATE ANALYZED: 03/05/10 17:44

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	QC LIMIT (%)
Hexavalent Chromium	ND	683	609	89	75-125

APPENDIX E

Photo: 1	**Viewing: SW**
View of trench in SWDA 1.	

Photo: 2	**Viewing: S**
View of sample location in SWDA 2.	

Photo: 3	**Viewing: N**
View of trench in SWDA 3.	

Photo: 4	**Viewing: W**
View of trench in SWDA 4.	

PHOTOGRAPHIC LOG Imperial Valley West Property Phase II ESA Imperial County, California Page 1 of 3	*Tetra Tech* *12120 Port Grace Blvd* *Suite 102* *La Vista, Nebraska 68128*

Photo: 5	**Viewing: NE**
View of trench in FM area.	

Photo: 6	**Viewing: N**
View of piles in FM area.	

Photo: 7	**Viewing: N**
View of trench in SWDA 5.	

Photo: 8	**Viewing: N**
View of second trench in SWDA 5 that was not sampled.	

Photo: 9	**Viewing: E**
View of FR 1 sample location.	

Photo: 10	**Viewing: NW**
View of FR 2 sample location.	

PHOTOGRAPHIC LOG Imperial Valley West Property Phase II ESA Imperial County, California Page 3 of 3	*Tetra Tech* *12120 Port Grace Blvd* *Suite 102* *La Vista, Nebraska 68128*