

December 2014

Remedial Investigation Report Chino Airport San Bernardino County, California



Prepared for:
County of San Bernardino
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**Airports
Administration**

JAMES E. JENKINS
DIRECTOR

December 22, 2014

Ms. Patricia Hannon
Site Cleanup Program
California Regional Water Quality Control Board, Santa Ana Region
3737 Main Street, Suite 500
Riverside, CA 92501-3348

SUBJECT: Soil Remedial Investigation Report, San Bernardino County, California

Reference: Cleanup and Abatement Order No. R8-2008-0064, Geotracker No. SL208634049

Dear Ms. Hannon:

On behalf of the County of San Bernardino, Department of Airports, and in accordance with the above referenced Cleanup and Abatement Order, enclosed is one copy of the *Soil Remedial Investigation Report* for your review. This report documents the results of the soil investigation activities performed at the Chino Airport between May 2014 and October 2014. Please note that appendices are included on the enclosed CD. Due to the need for additional plume characterization on the Airport and the dynamic nature of the groundwater investigation, the groundwater results and well installations will be documented in a separate report as an addendum to this Soil RI report. The plume characterization and well installation activities are ongoing and scheduled to be completed by February. The Supplemental RI Report documenting the results of the groundwater investigation and well installations is scheduled to be submitted by 30 April 2015 after the wells have been installed, developed, surveyed, and sampled.

Thank you in advance for your participation in the review of the attached information. Should you require additional information, please contact the County's technical representative, Ben Weink with Tetra Tech, Inc. at 909-382-5120.

Sincerely,

A handwritten signature in blue ink that reads "James E. Jenkins".

James E. Jenkins
Director of Airports

Enclosures: As Stated

cc: Kavounas, P., Chino Basin Watermaster (1 copy)
Paxton, C., Chino Desalter Authority (1 CD)
Messinger, R., SB County Counsel (1 copy)
Alban, C., SB County A&E (letter only)
Weink, B., Tetra Tech (letter only)

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**REMEDIAL INVESTIGATION REPORT
CHINO AIRPORT
SAN BERNARDINO COUNTY, CALIFORNIA**

Prepared by:



TETRA TECH

Prepared for:



**County of San Bernardino
Department of Architecture and Engineering
385 North Arrowhead Avenue, Third Floor
San Bernardino, California 92415**

December 2014

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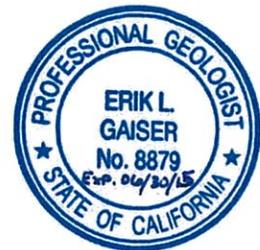


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ACRONYMS AND ABBREVIATIONS

µg/L	micrograms per liter
%	percent
Airport	Chino Airport
AOC	area of concern
API	American Petroleum Institute
ASTM	American Society for Testing and Materials
bgs	below ground surface
CAO	Cleanup and Abatement Order
COPC	chemical of potential concern
County	County of San Bernardino Department of Airports
CPT	cone penetrometer test
CPTu	piezocone penetrometer test
CSM	conceptual site model
1,1-DCA	1,1-dichloroethane
1,2-DCA	1,2-dichloroethane
1,1-DCE	1,1-dichloroethene
cis-1,2-DCE	cis-1,2-dichloroethene
DP	direct push
DSITMS	Direct Sampling Ion Trap Mass Spectrometry
DTSC	Department of Toxic Substances Control
IG	investigation goal
MCL	maximum contaminant level
µg/kg	microgram per kilogram
mg/kg	milligram per kilogram
µg/m ³	microgram per cub meter
PAC	Pacific Airmotive Corporation
PAH	poly aromatic hydrocarbons
PCE	tetrachloroethene

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QA/QC	quality assurance/quality control
RI	remedial investigation
RSL	regional screening level
RWQCB	California Regional Water Quality Control Board, Santa Ana Region
SAIC	Science Applications International Corporation
SAWPA	Santa Ana Watershed Protection Agency
SEACOR	Science & Engineering Analysis Corporation
1,1,1-TCA	1,1,1-trichloroethane
TCE	trichloroethene
TCRA	time critical removal action
1,2,3-TCP	1,2,3-trichloropropane
Tetra Tech	Tetra Tech, Inc.
TPH	total petroleum hydrocarbons
TPH-d	total petroleum hydrocarbons as diesel
TPH-g	total petroleum hydrocarbons as gasoline
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UVF	ultraviolet fluorescence
VOC	volatile organic compound
WEI	Wildermuth Environmental, Inc.

1.0 INTRODUCTION

On behalf of the County of San Bernardino (County), Tetra Tech, Inc. (Tetra Tech) has prepared this Soil Remedial Investigation (RI) Report, for the Chino Airport (Airport) in Chino, California. Figure 1-1 shows the boundary of the Airport property and the regional vicinity of the Airport, which is located within the boundaries of the Chino Basin in San Bernardino County, California.

The field investigation was performed in accordance with the *Work Plan for Additional Characterization, Chino Airport, San Bernardino County, California* (Tetra Tech, 2013), herein referred to as the “Work Plan”, to comply with Cleanup and Abatement Order (CAO) No. R8-2008-0064 [California Regional Water Quality Control Board (RWQCB) Santa Ana Region, 2008]. The Work Plan was approved by the RWQCB, the lead agency for this project, on October 28, 2013. This RI Report was prepared using the suggested format in Chapter 3 of the *Guidance for Conducting Remedial Investigations and Feasibility Studies Under Compensation, and Liability Act (CERCLA)* and, which provides direction on the preparation of RI reports for uncontrolled hazardous waste sites developed for the Superfund program under CERCLA and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (USEPA, 1988).

The field investigation included the characterization of both soil and groundwater. The soil investigation was completed in August 2014 and the groundwater investigation will be completed in early 2015. Due to the additional plume characterization requirements and the dynamic nature of the groundwater investigation, the results of plume characterization activities and well installations will be submitted in a separate document as a Supplemental RI Report.

1.1 OBJECTIVES OF THE SOIL REMEDIAL INVESTIGATION AND PURPOSE OF THE REPORT

The purpose of this RI Report is to present the results of the soil investigation activities conducted at the Airport. The field investigations included acquiring detailed lithological data and the collection of soil and soil gas samples for analytical testing. The goals of the RI field activities were to:

- determine the presence or absence of chemicals of potential concern (COPC) source mass in soil;
- define the vertical and lateral extents of COPC source mass, if present;
- assess if COPC source mass, if present, is adversely affecting groundwater quality or poses a potential human health risk to current or future on-site tenants through the vapor intrusion pathway; and
- refine the conceptual site model (CSM).

The refined CSM for the site will allow for the development and selection of remedial alternatives to mitigate any impacts identified that present an unacceptable risk to human health or the environment. To provide a comprehensive evaluation of the nature and extent of contamination, this RI Report incorporates data and findings from previous investigations performed at the Airport.

1.2 REPORT ORGANIZATION

This Soil Remedial Investigation Report is organized as follows:

- Section 1—Introduction: Describes the purpose and scope of the remedial investigation and the organization of this report.
- Section 2—Site Background: Provides a brief site description, history of the site, summarizes previous investigations, and the groundwater monitoring program.
- Section 3—Environmental Setting: Provides a description of the geologic and hydrogeologic setting of the site and the nature and extent of contamination in soil and groundwater.
- Section 4—Methodology: Provides a summary of the methodology and procedures used to conduct the field investigation.
- Section 5—Investigation Results and Discussion: Presents the results of the field investigation along with an interpretation and discussion of the results with respect to the objectives of this investigation and detections of analytes above the investigation goals.
- Section 6 — Conclusions and Recommendations: Summarizes the conclusions of the remedial investigation and recommendations for any further work.
- Section 8—References: Provides a list of the documents referenced in this report.

2.0 SITE BACKGROUND

This section presents a summary of the site description, site history, previous investigations, and removal actions performed at the Airport.

2.1 SITE DESCRIPTION

The Airport is located at 7000 Merrill Avenue within the City of Chino.. Former names include Cal-Aero Airport, Cal- Aero Academy, Plancor 406, Cal-Aero Flight Academy, Cal-Aero Field and Cal-Aero Academy Ontario ([Science Applications International Corporation] SAIC, 2002). The Airport property is currently comprised of approximately 1,100+ acres of land and is bounded by Merrill Avenue to the north, Grove Avenue to the east, Kimball Avenue on the south and Euclid Avenue on the west (see Figure 1-1 for regional location of Chino Airport). The following section briefly describes the CSM based upon results from previous investigations and sampling activities conducted at the Airport property and downgradient areas.

2.2 SITE HISTORY

Portions of the Airport property have functioned as an airfield since the early 1940s. Past and present uses consist of a flight academy, aircraft sales and storage, modification of military aircraft, various manufacturing, crop dusting, aircraft restoration and maintenance repair shops, aircraft painting, stripping and washing, mixing and loading of fire retardant chemicals for forest fires and a maintenance and operational facility for the United States Forest Service aircraft and aircraft museums. A detailed site history is documented in the *Historical Assessment Report, Chino Airport* (Tetra Tech, 2013b).

Prior to 1940, the Airport property was primarily used for agriculture purposes. In 1940, 385 acres of land was leased to Cal-Aero from the County with plans to construct a pilot training school, Cal-Aero Academy. In 1941, the Cal-Aero Academy was transferred to an agency of the federal government. In 1942, a War Department directive authorized the acquisition of 294.41 acres of adjoining land located east and south of the Cal-Aero Academy. The U.S. Government made improvements by expanding the east-west runway, constructing the southwest-northeast runways, taxiways, airplane dispersal revetments, sewage treatment plant, storm drainage system, fencing, and installation of three underground storage tanks. Cal-Aero Academy operations continued through 1944.

Between 1946 and 1947, the Aircraft Sales Division of the War Assets Administration used the property under informal permit from the Reconstruction Finance Corporation for storage, sales, dismantling, and salvage of surplus military aircraft. In 1948, the 679.41 acre Airport property was returned to the County,

the lease with Reconstruction Finance Corporation terminated and the U.S. Government-owned land was transferred by quitclaim deed.

The County leased the Airport property to Pacific Airmotive Corporation (PAC) from 1950 to 1961 which modified and overhauled military and civilian aircraft. According to the Board of Supervisors Minutes dated January 3, 1961, a notification letter dated December 29, 1960 was issued to the County stating that PAC elected to terminate the lease agreement effective March 1, 1961.

Since 1961, the County has operated the Airport property as a public airport for commercial, industrial and aviation use. Businesses and activities conducted at the Airport have included fixed base operators, two crop dusters, and five aircraft shops for engine overhaul, napalm production, installation, painting, washing, stripping, and the mixing and loading of fire retardant chemicals used for forest fires.

2.3 PREVIOUS INVESTIGATIONS AND REMOVAL ACTIONS

Following preparation of the July 1989 *Preliminary Report on Generators of PCE and TCE at the Chino Airport* (SBDEHS, 1989), which identified potential generators of chlorinated solvents and a number of environmental issues at the site) several phases of investigation and/or abatement have been completed. A brief description of each primary phase of assessment/abatement and the scope of work performed at the site since 1989 are presented in this section. For additional information on a specific phase, please refer to the respective referenced report(s). A complete history of site investigation activities can be found in the *Historical Site Assessment Report* (Tetra Tech, 2013b).

2.3.1 1991 Underground Storage Tanks Closure

In September 1991, a total of 10 inactive underground storage tanks were removed under oversight from Kennedy/Jenks Consultants (Kennedy/Jenks, 1991). A brief summary of the removal details for each UST are in the following table.

UST ID	Reported Contents	Excavation Dimensions (length-width-depth)	Sample IDs	Chemical analyses (USEPA Method)	Backfill
C-5	Gasoline	19'x10'x13'	C-5	TPH-g (8015), BTEX (8020)	Excavated soils
C-5A	Gasoline	7'x10'x7'	C-5A	TPH-g (8015), BTEX (8020)	Excavated soils
C-8	Jet Fuel	39'x14'x15'	C-8W, C-8E	TPH-g/d (8015), BTEX (8020)	Excavated soils
C-9	Gasoline	15'x10'x10'	C-9	TPH-g (8015), BTEX (8020)	Not reported
C-15	Gasoline	10'x24'x20'	C-15N, C-15S	TPH-g (8015), BTEX (8020)	Excavated soils & fill
C-18 ¹	Unknown	43'x14'x20'	C-18N, C-18S, C-18&19	Purgeable halocarbons (8010), BTEX (8020), TPH (418.1)	Excavated soils & fill
C-19 ¹	Unknown	40'x14'x17'	C-19N, C-19S	Purgeable halocarbons (8010), BTEX (8020), TPH (418.1)	Excavated soils
C-22 ²	Aviation gas	10'x32'x14'	C-22N, C-22S	TPH-g (8015), BTEX (8020)	Excavated soils
C-23 ²	Aviation gas	10'x32'x14'	C-23N, C-23S	TPH-g (8015), BTEX (8020)	Excavated soils

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UST ID	Reported Contents	Excavation Dimensions (length-width-depth)	Sample IDs	Chemical analyses (USEPA Method)	Backfill
C-24	Gasoline	20'x8'x15'	C-24	TPH-g (8015), BTEX (8020)	Not reported

Notes:

1: C-18 and C-19 were removed from a single excavation with approximate total dimensions of 83'x20'

2: C-19 and C-20 were removed from a single excavation with approximate total dimensions of 20'x32'

USEPA: United States Environmental Protection Agency

TPH: total petroleum hydrocarbons

TPH-g: total petroleum hydrocarbons as gasoline

TPH-d: total petroleum hydrocarbons as diesel

BTEX: benzene, toluene, ethylbenzene, xylenes

Two tanks (identified as C-20 and C-21) believed to be present near USTs C-18 and C-19 were never located; however, C-18 and C-19 were twice as large as reported in the *Preliminary Report on Generators of PCE and TCE at the Chino Airport*. The following were also conducted in conjunction with the UST removals:

- The product lines associated with UST C-15 were removed and soils beneath them were excavated to a depth of approximately 2.5 feet. One soil sample (C-15P-1) was collected and analyzed for TPH-g using USEPA Method 8015 and for BTEX using USEPA Method 8020.
- The product lines associated with USTs C-22 and C-23 were removed. No soil samples were collected from this area.
- A sump (4'x4'x4') located south of UST C-15 was removed. One soil sample (SUMP-1) was collected from beneath the sump and analyzed for TPH-g and TPH-d using USEPA Method 8015 and for TPH using USEPA Method 418.1.

2.3.2 1992 Drum and Container Removal

In February through May 1992, Kennedy/Jenks oversaw the removal and disposal of 310 drums/containers of hazardous waste collected from various locations at the Airport (Kennedy/Jenks, 1992). The contents of the drums/containers were characterized as:

- 3,950 gallons of used motor oil with less than 1,000 ppm halide content and more than 50% water (172 drums/containers);
- 260 gallons of waste oil with less than 10% water (23 drums/containers);
- 100 gallons of urethane and lacquer based paint sludge and grease sludge (43 drums/containers);
- 500 gallons of bulk solvent with 75% Stoddard solvent, 1% 1,1,1-trichloroethane (1,1,1-TCA), 20% oil and 4% water (39 drums/containers);
- 40 gallons of tetrachloroethene (PCE) (1 drum/container);

- 100 gallons of hydrochloric and phosphoric acid (8 drums/containers);
- 40 gallons of laurel sulfate based detergent, pH-12.5 (2 drums/containers); and
- 50 gallons of oil sludge and adsorbent (2 drums/containers).

2.3.3 1992 Preliminary Assessment of VOCs

In February through May 1992, Science & Engineering Analysis Corporation (SEACOR) conducted a preliminary assessment of 12 priority areas identified in the *Report of Preliminary Assessment of TCE/PCE Contamination* (SEACOR, 1992a). A total of 74 soil borings, 11 soil gas probes, 21 sludge samples, and a magnetic survey were used to initially assess: Area B; Area AA; Area H; Area Y; Area CC; Area Z and Building 24; Building 30; Area S; Building 15; Areas J and G; Area P; and Area F. A brief summary of the scope of work performed in each area is in the following table. Trichloroethene (TCE) concentrations ranging from 5 to 12 microgram per kilogram ($\mu\text{g}/\text{kg}$) were detected in soil samples collected from areas Area Z, Building 15, Area J and Area G at depths between 20 and 50 feet bgs. The report concluded that a significant source of PCE or TCE was not identified at the twelve suspected source areas.

Area/ Building ID	Scope of Work	Number of Samples Analyzed by Media	Summary of Chemical Analyses
Area B	7 HA borings (5'-20')	18 soil, 6 soil gas	All soil, soil gas, and sludge samples were analyzed using USEPA Method 8010. One soil sample and two soil gas samples were also analyzed using USEPA Method 8240.
	1 HSA boring (50')	5 soil	
	Sludge Pond sampling	21 sludge	
Area AA	6 HSA borings (20'-50')	25 soil, 3 soil gas	All soil and soil gas samples were analyzed using USEPA Method 8010. The three soil gas samples were also analyzed using USEPA Method 8240.
Area H	4 HSA borings (20'-50')	17 soil, 3 soil gas	All soil and soil gas samples were analyzed using USEPA Method 8010.
Area Y	3 HSA borings (20'-50')	19 soil	All soil samples were analyzed using USEPA Method 8010. Three soil samples were also analyzed using USEPA Method 8240 and one analyzed using USEPA Method 418.1. The soil gas sample was analyzed using USEPA Methods 8010 and 8240.
	1 soil gas probe (5')	1 soil gas	
Area CC	3 HSA borings (20'-50')	13 soil	All soil samples were analyzed using USEPA Method 8010.
Area Z/ Building 24	10 HSA borings (20'-50')	40 soil, 6 soil gas	All soil and soil gas samples were analyzed using USEPA Method 8010. The soil gas sample collected from the probe was also analyzed using USEPA Method 8240.
	1 soil gas probe (5')	1 soil gas	
Building 30	5 HSA borings (20'-50')	21 soil, 3 soil gas	All soil and soil gas samples were analyzed using USEPA Method 8010. The soil gas sample collected from the probe was also analyzed using USEPA Method 8240.
	1 soil gas probe (5')	1 soil gas	
Area S	3 HSA borings (20'-50')	13 soil, 1 soil gas	All soil and soil gas samples were analyzed using USEPA Method 8010. The soil gas sample collected from the probe was also analyzed using USEPA Method 8240.
	1 soil gas probe (5')	1 soil gas	

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Area/ Building ID	Scope of Work	Number of Samples Analyzed by Media	Summary of Chemical Analyses
Building 15	5 HSA borings (20'-50')	23 soil, 3 soil gas	All soil and soil gas samples were analyzed using USEPA Method 8010. Four soil samples and the soil gas sample collected from the probe were also analyzed using USEPA Method 8240.
	1 soil gas probe (5')	1 soil gas	
Areas J & G	12 HSA borings (20'-50')	56 soil, 4 soil gas	All soil and soil gas samples were analyzed using USEPA Method 8010. The five soil gas samples collected from the probes were also analyzed using USEPA Method 8240.
	5 soil gas probes (5'-20')	5 soil gas	
Area P	Magnetic survey	N/A	N/A
Area F	4 HA borings (18'-20')	8 soil	The soil samples collected from the four HA borings were analyzed for CAM metals. The remaining soil samples and all the soil gas samples were analyzed using USEPA Method 8010. The soil gas sample collected from the probe was also analyzed using USEPA Method 8240.
	11 HSA borings (20'-50')	25 soil, 9 soil gas	
	1 soil gas probe (5')	1 soil gas	

Notes:

HSA: hollow stem auger boring

HA: hand-auger boring

CAM: California Assessment Manual

USEPA Method 8010: analysis for halogenated volatile organic compounds

USEPA Method 8240: analysis for volatile organic compounds

USEPA Method 418.1: analysis for total petroleum hydrocarbons

2.3.4 1992-2001 Continuing Assessment of VOCs and Subsurface Investigations

In November 1992, SEACOR drilled and sampled a total of seven soil borings in Area Z/Building 24, Building 15, and Areas J & G (SEACOR, 1992b). Two borings (A15-7 and J-6) were drilled to a depth of approximately 50 feet. The remaining five borings (A15-6, G-11, G-12, Z-10, and Z-11) were drilled to a depth of approximately 30 feet. Soil samples were collected from the mid-point and base of each boring and analyzed for volatile organic compounds (VOC) using USEPA Method 8010. In 1994, Kennedy/Jenks investigated subsurface soils at the wastewater treatment plant to evaluate proper closure of the former plant and disposal ponds. Soil samples were collected at depths of 1, 5, and 10 feet bgs at 39 locations and no VOCs (including TCE and PCE) were detected in the 1 and 5 foot samples, so no 10 foot samples were collected. Then, in 2001, Clark Seif Clark conducted a limited subsurface investigation to determine the location, aerial extent, approximate depth and volume, and the potential environmental impact of fertilizer placed in the former evaporation ponds. Analytical results confirmed the presence of naturally occurring lead and nitrate at concentrations above the action level for groundwater. It was recommended to excavate and dispose of the fertilizer at a landfill.

2.3.5 2003 Groundwater Assessment

In June and July 2003, Tetra Tech installed five monitoring wells (CAMW1 through CAMW5) to conduct an initial assessment of groundwater beneath the Airport (Tetra Tech, 2003). The wells were installed to depths between approximately 89 to 118 feet at various locations within the Airport property, primarily in the western and northwestern areas. A groundwater monitoring program was initiated at the site following

the installation of the wells. The initial groundwater samples collected from the wells were analyzed for VOCs using USEPA Method SW8260B and for common major cations and anions using USEPA Method 300.0, SM2320B, and USEPA Method SW6010B.

2.3.6 2004-2005 Well Installation and Soil Gas Survey

In December 2004 and January 2005, Tetra Tech installed a total of 14 dual completion soil gas probes at the Airport (Tetra Tech, 2005a). The soil gas probes were installed to depths up to 40 feet in 8 potential source areas identified in the *Preliminary Report on Generators of PCE and TCE at the Chino Airport*. Soil gas samples collected from the probes in February 2004 were analyzed for VOCs using USEPA Method SW8260B. Soil gas samples could not be collected from soil gas probes located in the areas designated as Building 15, Z1, and Z2 due to no-flow conditions believed to be the result of low permeability or saturated soils.

In March 2005, four groundwater monitoring wells (CAMW6 through CAMW9) were installed by Tetra Tech (Tetra Tech, 2005a). The wells were installed to depths between approximately 80 to 100 feet within the Airport property. Following development, the wells were incorporated into the ongoing groundwater monitoring program for the site.

2.3.7 2007 Downgradient Plume Characterization

In February 2007, following the successful completion of a cone penetrometer test (CPT) pilot test in October 2005, Tetra Tech advanced nine CPT (K1 to K3, B1 to B3, and P1 to P3) and 14 direct push borings (E4, E5, K8, K10, K13, F1, F3, S1, S3, B7, B8, B11, B12 and B15) within the suspected downgradient plume area (Tetra Tech; 2005b, 2007). E4 and E5 were advanced to depths of 116 and 80 feet, respectively, along Euclid Avenue adjacent to the western boundary of the site. K1 to K3, K8, K10, and K13 were advanced to depths between 105 and 147 feet along Kimball Avenue immediately south and west of the site. F1 and F3 were advanced along Fern Avenue and S1 and S3 were advanced along San Antonio Avenue southwest of the site to depths between 125 and 140 feet. B1 to B3, B7, B8, B11, B12 and B15 were advanced to depths between 54 and 142 feet along Bickmore Avenue between Moonflower Avenue on the east and Mountain Avenue on the west. P1 to P3 were advanced to depths between 50 and 85 feet along Pine Avenue between Euclid Avenue on the east and El Prado Road on the west. A total of 60 depth-discrete groundwater samples were collected at varying intervals from the 23 locations and analyzed for VOCs using USEPA Method SW8260B.

2.3.8 2008 Characterization of Vertical Extent of Plume

Between October and December 2008, Tetra Tech installed 3 sets of clustered groundwater monitoring wells, with 3 wells in each cluster (CAMW10-S/I/D; CAMW11-S/I/D; CAMW12-S/I/D), along the approximate centerline of the solute plume (Tetra Tech, 2009). Up to 14 depth-discrete groundwater samples were first collected from the deepest boring at each well cluster and analyzed for VOCs using USEPA Method SW8260B. The samples were collected at varying intervals between approximately 37 to 302 feet. Based on the results: CAMW10-S, CAMW11-S, and CAMW12-S were installed to depths of approximately 70, 95, and 54 feet, respectively; CAMW10-I, CAMW11-I, and CAMW12-I were installed to depths of approximately 135, 145, and 100 feet, respectively; and, CAMW10-D, CAMW11-D, and CAMW12-D were installed to depths of approximately 305, 233, and 225 feet, respectively. The deepest boring at each well cluster was continuously cored to the total depth drilled. In addition to the groundwater samples, five unsaturated soil samples were submitted for petrophysical analyses including moisture content using American Society for Testing and Materials (ASTM) D2216, moisture and dry density using ASTM D2937, total porosity, total organic carbon using Walkley-Black, and air permeability using American Petroleum Institute (API) RP40. Following development, the wells were incorporated into the ongoing groundwater monitoring program for the site.

2.3.9 2010 Time-Critical Removal Action

In July and August 2010, a time critical removal action (TCRA) was performed under the supervision of Tetra Tech following the discovery of three buried drums during trenching activities for a storm water pipeline south of Building A290 (Tetra Tech, 2010). A total of 51 drums of a jellied fuel mixture of gasoline and polystyrene, several aluminum canisters, remains of wood pallets, and associated affected soils were removed and disposed of as part of the TCRA. A total of 20 confirmation soil samples were collected from the excavation and analyzed for VOCs using USEPA Method SW8260B, semi-volatile organic compounds (SVOCs) using USEPA Method SW8270C, TPH C⁶-C⁴⁰ using USEPA Method SW8015B[M], CAM17 metals using USEPA Method SW6010B/7000 and moisture content using ASTM Method D266.

2.3.10 2010 Additional Plume Characterization

From September to December 2010, five additional sets of clustered wells, with two wells in each cluster (CAMW13-S/I through CAMW17-S/I) were installed by Tetra Tech (Tetra Tech, 2011). Up to 10 depth discrete groundwater samples were first collected from the deepest boring at each well cluster location and analyzed for VOCs using USEPA Method SW8260B. The samples were collected at varying intervals between approximately 30 and 205 feet. Based on the results of the depth-discrete sampling, CAMW13-S through CAMW17-S were installed to depths between approximately 48 and 75 feet and CAMW13-I

through CAMW17-I were installed to depths between approximately 94.5 and 140 feet. Following development, the wells were incorporated into the ongoing groundwater monitoring program for the site.

2.3.11 2012 Additional Plume Characterization

From May to July and September to December 2012, seven additional sets of clustered monitoring wells, with two wells in each cluster (CAMW18-S/I through CAMW24-S/I), were installed by Tetra Tech (Tetra Tech; 2012, 2013a). Up to 12 depth discrete groundwater samples were first collected from the deepest boring at each well cluster location and analyzed for VOCs using USEPA Method SW8260B. The samples were collected at varying intervals between approximately 20 and 250 feet. Based on the results of the depth-discrete sampling, CAMW18-S through CAMW24-S were installed to depths between approximately 44 and 82 feet and CAMW18-I through CAMW24-I were installed to depths between approximately 140 and 184 feet. Following development, the wells were incorporated into the ongoing groundwater monitoring program for the site.

2.4 GROUNDWATER MONITORING PROGRAM

The groundwater monitoring program is currently comprised of 42 wells that are monitored on a semi-annual basis. Water level measurements have been collected at the Site since 2005 on a quarterly basis.

3.0 ENVIRONMENTAL SETTING

This section provides a brief overview of the geology, hydrogeology and nature and extent of contamination.

3.1 PHYSICAL SETTING

The Airport property is located within the boundaries of the Chino Basin. The Chino Basin is located within the upper Santa Ana Valley of the Peninsular Ranges geomorphic province. The Peninsular Ranges are a northwest-southeast oriented complex of blocks separated by similarly trending faults (Norris and Webb, 1990). Figure 2-1 shows the United States Geological Survey (USGS) topographic map of the Chino Basin. The surface of the Chino Basin is a broad smooth plain that slopes toward the south, from the San Gabriel Mountains to the Santa Ana River (French, 1972). As shown on Figure 2-1, the Airport is located in the southwestern portion of the Chino Basin on the relatively flat valley floor, with a gentle southwest slope, near the eastern limits of the Puente Hills. The valley floor drains toward the southwest, into the Prado Reservoir.

3.2 GEOLOGIC SETTING

3.2.1 Regional Geology

The Chino Basin was formed when eroded sediments from the San Gabriel Mountains, the Chino Hills, Puente Hills, and the San Gabriel Mountains filled a structural depression ([Wildermuth Environmental, Inc.] WEI, 2002). Figure 2-2 shows the USGS geologic map of the Chino Basin within the vicinity of the Airport. As shown on Figure 2-2, major faults in the Chino Basin within the vicinity of Chino Airport include the San Jose Fault, approximately 10 miles northwest, the Central Avenue Fault, approximately 2 miles to the southwest, and Chino Fault, approximately 3 miles to the southwest (Bryant & Treiman, 2005). Other major faults within the region are the Rialto-Colton Fault, San Jacinto Fault, and Loma Linda Fault, located approximately 15 to 18 miles to the northeast.

Overlying the sedimentary rocks and the basement complex is a sequence of alluvium, consisting of poorly sorted gravel, sand, silt, and clay that contain and transmit the principal body of fresh water (French, 1972). The sediments that comprise the alluvium accumulated in a variety of terrestrial depositional environments including stream and river channels, flood plains, levees, marshes, and lakes (Montgomery Watson, 1999a). The alluvium ranges in age from Pleistocene to Holocene, but may contain poorly consolidated sedimentary rocks of Tertiary age near the lower portion. The older alluvium varies in thickness from about 200 feet thick near the southwestern end of the Basin to over 1,100 feet thick southwest of Fontana, and averages about 500 feet throughout the Basin (WEI, 1999). The younger alluvium of the Holocene period varies in

thickness from over 100 feet near the mountains to just a few feet near the central part of the basin (WEI, 1999). The sedimentary rocks, comprised of a sequence of consolidated marine and continental conglomerate, sandstone, and siltstone, overlie the basement complex in the southern and western portion of the basin. The sequence is nearly 5,000 feet thick in the western part of the area (Durham and Yerkes, 1964) but thins abruptly to zero eastward (French, 1972). The sedimentary rocks are primarily non-water bearing and for the most part do not contain or transmit water and are therefore considered the base of the aquifer. The alluvium and sedimentary rocks in the Chino Basin overlie a basement complex of pre-Tertiary age composed of granodiorite and associated plutonic rocks of the southern California batholith (Larsen, 1948). The basement complex does not transmit water except for fracture flow or where the basement is highly weathered.

Stratigraphic and hydrogeologic information for the area at and immediately surrounding the Airport is available from wells installed as part of the Chino Basin Desalination Program. Six test wells were installed south and east of the Airport (Fox, 1994), and a total of 14 borings and 11 groundwater production wells were installed around the Airport between 1997 and 1999 by the Santa Ana Watershed Project Authority (SAWPA) (Montgomery Watson, 1999a). Previous lithologic and geophysical data showed alternating beds of relatively permeable (sand and gravel) and impermeable (clay and silt) alluvium underlain by sedimentary bedrock (Montgomery Watson, 1999a).

3.2.2 Local Geology

Idealized geologic cross-sections based on data collected since 2003 from previous HSA, CPT/direct push (DP), and sonic borings present lithologies for the shallow alluvium (0-500 feet) observed on the Airport and offsite. Figure 2-3 identifies the cross section locations and Figures 2-4 through 2-7 show the updated geologic cross sections A—A', C—C', D—D', and E—E', respectively. Based on the drilling conducted to date, sediments observed during drilling consist primarily of silts, sandy silts, and clays at shallow depths, with sand, gravel, and cobbles in the deeper zones. Most individual lithostratigraphic layers do not appear to be continuous between boring locations; however, the vertical profile can be generalized by fine-grained and coarse-grained units for the creation of the idealized cross sections.

As shown in the geologic cross sections, the sediments observed within the area of the VOC plume can be grouped into five larger lithostratigraphic units described below. The units appear to pinch out becoming thinner and shallower from the Airport toward the Prado Reservoir.

- Shallow fine-grained unit extending from ground surface to about 100 feet below ground surface (bgs), thinning out to a thickness of 10 feet bgs at southernmost location CAMW23;

- Shallow discontinuous coarse-grained units extending to about 110 to 250 feet bgs, with interbedded fine units being pinched out toward the South;
- Intermediate fine-grained units first encountered between 110 and 260 feet bgs;
- Intermediate to deep coarse-grained units interbedded with fine-grained units first encountered at about 135 to 290 feet bgs, appearing shallower at the southern locations; and
- Anaerobic soils indicated by color changes and interbedded coarse and fine units encountered near 220 feet bgs in some borings and at shallower depths further south.

3.3 HYDROGEOLOGIC SETTING

3.3.1 Regional Hydrogeology

Water enters the basin by infiltration of surface water runoff from the highlands, deep penetration of rain on the valley floor, and by artificial means such as irrigation return or induced recharge. Groundwater moves generally within the alluvium, south from the mountains and west from the adjacent basins through Chino basin, and rises to the surface along the Santa Ana River between Riverside Narrows and the Prado Dam (French, 1972). The basin is bounded by major fault systems and groundwater barriers that restrict the flow of groundwater. The faults and groundwater barriers are significant in that they define the external boundaries of the Basin and influence the magnitude and direction of groundwater flow near the boundaries (WEI, 1999).

Most recharge to Chino Basin occurs along the northern edge where younger, coarser alluvium dominates (Montgomery Watson, 1992). Older alluvium, unconformably underlying the younger alluvium, is distinguishable by its red-brown color (Montgomery Watson, 1999b). The degree of sorting and weathering in the older alluvium has yielded low clay content, thereby allowing high well yields and high transmissivity (Montgomery Watson, 1999b).

From the data collected during SAWPA well installations (Montgomery Watson, 1999a), the near surface alluvium is dominated by impermeable material which could restrict the amount of water entering the groundwater system through direct percolation from the area around Chino Airport. However, based on the presence of degraded water quality in the deeper aquifer from dairy operations, vertical migration of contaminants appears to have been occurring in the basin, possibly over extended periods of time.

3.3.2 Local Hydrogeology

Prior to the initial groundwater assessment at the Airport in 2003, the local groundwater flow direction was unknown due to the absence of piezometers or monitoring wells on the Airport property. Depth to groundwater in the area not affected by pumping was estimated to be approximately 75 feet bgs.

Based on initial groundwater elevation data collected in 2003 from five newly installed on-site monitoring wells, the groundwater flow direction was to the southeast, differing from the historical groundwater flow direction which was to the southwest. This change was attributed to the pumping of the Chino II desalter wells, located east and southeast of the Airport, which were installed between 1998 and 1999 and began operating in 2000.

Groundwater elevations in the Airport monitoring wells have fluctuated fairly consistently between July 2003 and April 2013, except for a period (April-July 2005) when elevation changes in some wells were sporadic. The groundwater elevations at the Airport fluctuate seasonally and appear to coincide with seasonal rainfall and changes in local groundwater pumping. During the Summer and Fall 2005 events, groundwater elevations at the Airport decreased an average of approximately 1 foot. Between the Fall 2004 and Spring 2005 events; however, groundwater elevations at the Airport had risen over 10 feet, which was influenced by the above average rainfall between October 2004 and March 2005.

Based on groundwater elevation data from the Airport monitoring wells, the groundwater hydraulic gradient has predominantly been oriented to the southeast across most of the Airport and the off-site well network to the south. In 2005, the groundwater hydraulic gradient in the northwestern portion of the Airport shifted orientation toward the southwest. This change in gradient orientation was attributed to a combination of changes in groundwater extraction within the vicinity of the Airport and groundwater recharge from above-average rainfall between October 2004 and March 2005, which may have temporarily reduced the amount of influence the Chino II desalter wells had on the groundwater flow direction beneath the Airport.

3.4 NATURE AND EXTENT OF COPCS

This section provides an overview of the nature and extent of contamination detected by media based on the previous investigations conducted both on-site and downgradient of the Airport property.

3.4.1 Soil

VOCs including acetone (Areas AA, B, Y, and Building A440 (Historical Building 15), 2-butanone (Area Y) carbon tetrachloride (Area J), chloroform (Areas G, J, and Building A440), 1,4-dichlorobenzene (Area B), 1,2-dichloroethane (1,2-DCA) (Area G), methylene chloride (Area B and Building A440), TCE (Areas G, J, Z and Building A440) and toluene (Building A440) were detected in soil samples collected during the 1992 on-site investigations. TPH was only detected in soil in Area Y, near the former pit for washwater from aircraft cleaning, and in soil located between two underground storage tanks C-18 and C-19 (in the vicinity of Building A285). Soil between the tanks also contained toluene, ethylbenzene and xylenes. The impacted soil was encountered during the underground storage tank removal in 1992.

Air samples collected from selected borings during the 1992 investigations confirmed the presence of VOCs including acetone (Areas B, AA, and Y), chloroform (Areas J, and F), 1,1-DCE (Area J), and TCE (Area J) (SEACOR 1992a). Based on the concentrations detected, a soil source area for the VOC groundwater plume was not identified during the 1992 investigations (SEACOR 1992a).

3.4.2 Soil Vapor

VOCs including chloroform (Area J and former Cal Aero aircraft restoration yard), carbon tetrachloride (Area J), 1,1-dichloroethane (1,1-DCA) [former Cal Aero aircraft restoration yard], 1,1-dichloroethene (1,1-DCE) [Areas G, Z, Building A440, Former Building 30, and former Cal Aero aircraft restoration yard], 1,1,1-TCA (Areas G, Z, Building A440, Former Building 30, and former Cal Aero aircraft restoration yard), PCE (Area J and former Cal Aero aircraft restoration yard), TCE (Areas G, J, and former Cal Aero aircraft restoration yard), benzene (Area Z, Building A440 and Former Building 30) and toluene (Area Z, Building A440, and Former Building 30) were detected in soil gas samples (SEACOR 1992a, Tetra Tech 2005). TCE was not detected in significant quantities in areas previously speculated to be possible sources of the TCE groundwater plume; however, 1,1-DCE and 1,1,1-TCA were detected at relatively high concentrations within the vicinity of the former Cal Aero's aircraft restoration yard.

3.4.3 Groundwater

Based on frequency of detection, exceedance of regulatory limits and plume morphology, the primary COPCs in groundwater are TCE, and 1,2,3-trichloropropane (1,2,3-TCP). Secondary COPCs include, 1,4-dioxane, chloroform, 1,1-DCA, 1,1-DCE, 1,2-dichloroethane (1,2-DCA), cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), PCE, 1,1,2-trichloroethane (1,1,2-TCA), toluene, and trichlorofluoromethane (Freon 11).

The sources of the TCE and 1,2,3-TCP plumes have not been identified. The highest concentration of TCE [910 micrograms per liter ($\mu\text{g/L}$)] has been detected in monitoring well CAMW8, located in the cantonment area in the northwest portion of the Airport. The highest concentration of 1,2,3-TCP (28 $\mu\text{g/L}$) was detected in the intermediate depth monitoring well CAMW13-I. The shallow and intermediate well pair CAMW13 is located near the western Airport boundary. The plume morphology suggests that the source of each of the plumes is most likely in the general vicinity of these wells with the highest concentrations. The same is true for the other COPCs as well.

Based upon monitoring well data from Chino Airport and depth discrete groundwater samples collected during the characterization activities, the plumes have been generally defined. Both plumes extend off the Airport to the south southwest terminating south of Pine Avenue. The TCE plume is approximately 2.5

miles long and encompasses an area of approximately 400 acres. The 1,2,3-TCP plume is slightly shorter, appears to have a different source area than TCE, and encompasses an area of about 388 acres. The plumes are primarily found in the upper most groundwater depths near the presumed source areas on the Airport property and in the intermediate-depth groundwater from the southwestern Airport boundary toward the off-site locations where the plumes terminate.

The groundwater phase of this remedial investigation is currently underway. A combination of depth discrete vertical aquifer profiling samples and groundwater monitoring wells are being used to delineate the vertical and lateral extents of COPCs in groundwater. As stated previously in Section 1.0, the procedures and results of the groundwater phase will be presented as an addendum to this RI under separate cover.

4.0 METHODOLOGY

The following subsections describe the soil field investigation and data collection/analytical methods utilized at the Airport. Work was performed in general conformance with the procedures and methodologies detailed in the Work Plan (Tetra Tech, 2013c). All field work was performed under the direct supervision of a California licensed Professional Geologist.

4.1 TECHNICAL APPROACH

The soils phase of the remedial investigation utilized a Triad framework for collection and chemical analyses of soils in 18 AOCs (Figure 3-1) and soil gas samples in select locations. Collected samples were analyzed using a combination of real-time onsite methods and offsite fixed base laboratories. The soil analytical data obtained were compared to site-specific IGs established in the Work Plan (Tetra Tech, 2013c) for VOCs, petroleum hydrocarbons, metals and semi-volatile organic compounds (SVOCs). The site-specific IGs were used in conjunction with the approved decision flow processes presented in the Work Plan to determine if the vertical and lateral extents of COPCs in soil were adequately defined. A decision tree diagram was not developed for soil gas as the field work was primarily prescriptive.

Additional details of the soil characterization activities are provided in the following subsections.

4.2 PREFIELD ACTIVITIES

Prior to any intrusive work, the soil boring and soil gas probe locations were cleared for underground utilities and other subsurface structures. Utility and substructure clearance activities included the following:

- Obtaining a copy of the Associated Engineers 2008 Utilities base map for the Airport, dated October 2008, from the County.
- Performing a utility clearance survey at each location. The utility clearance was performed by Terra Physics using geophysical utility locating instruments and ground penetrating radar.
- Marking the areas of the site where intrusive field work was to be performed, and obtaining Underground Services Alert clearance at least 48 hours prior to the start of the work.

4.3 SOIL CHARACTERIZATION

This section describes the procedures used in the AOC soil characterization activities. Field procedures were performed in general accordance with the Field Drilling and Sampling Methods described in Appendix A of the Work Plan (Tetra Tech, 2013c) and included herein as Appendix A.

4.3.1 Soil Borings

A total of 158 soil borings were drilled and sampled from May 2014 to October 2014 using the procedures detailed in Appendix A. Drilling was performed by Strongarm Environmental Services, Inc. (Strongarm) (California C-57 license 766463) of Norwalk, California using one truck-mounted 6000 series and one track-mounted 6000 series Geoprobe direct-push drilling rig. Drilling was observed onsite by a Tetra Tech geologist or engineer.

Soil samples were analyzed onsite and in real time by Triad Environmental, Inc. of Durham, North Carolina. Samples provided to Triad were analyzed for VOCs using USEPA Method 8265 (Direct Sampling Ion Trap Mass Spectrometry [DSITMS]). Samples from select AOCs were also analyzed for TPH-g and TPH-d using a *siteLab* ultraviolet fluorescence-3100 (UVF-3100). Analytical runs using these methods allowed for throughputs as high as 80 samples per day. USEPA Method 8265 DSITMS has certain limitations which should be noted. Normal operating procedures for EPA Method 8265 include quantitative calibration of a limited, site specific list of compounds, based on past experience at the site. However, since the technique is based on mass spectrometry, if compounds are present in samples for which the DSITMS has not been quantitatively calibrated, the mass spectra of the new compounds can be used qualitatively to identify them. In this case, quantitative calibration standards of the new compounds can be made and the DSITMS calibrated for their analysis. The site-specific target compounds for this investigation were 1,2-DCA, vinyl chloride, total dichloroethenes, TCE, PCE, 1,2,3-TCP, and 1,1,1-TCA. In addition, because the method uses mass spectrometry for quantitation, compounds which do not have fragments with unique masses cannot be independently quantitated. Thus, 1,1-DCE, cis-1,2-DCE, and trans-1,2-DCE, which are all quantitated using the same fragment, are reported together as total dichloroethenes. Also 1,2-DCA and vinyl chloride are reported together for the same reason. However, the compounds of greatest interest for this investigation, TCE and 1,2,3-TCP, have fragments with unique masses, which allow these compounds to be reported independently. Further, as cis-1,2-DCE and trans-1,2-DCE were not detected in any of the 211 samples analyzed using SW8260B, all DSITMS DCE results are interpreted to be 1,1-DCE.

Duplicate samples were collected at a rate of at least 10% and analyzed for VOCs using USEPA Method SW8260B and/or TPH (as gasoline and diesel) using USEPA Method SW8015B by Eurofins Calscience in Garden Grove, California. Eurofins Calscience is a California Department of Public Health Environmental Laboratory Accreditation Program (ELAP) certified laboratory. Soil samples from selected AOCs were analyzed by Eurofins Calscience for metals and semi-volatile organic compounds using USEPA Method SW6010B/7471A and USEPA Method SW8270C, respectively.

The number of samples collected for analysis using the above mentioned methods are listed below and are summarized by AOC in Table 1.

- DSITMS: 1,868 samples
- Method SW8260B: 211 samples
- *sitelab* UVF-3100: 1,357 samples
- Method SW8015B: 135 samples
- Method SW8270C: 80 samples
- Method SW6020B/7174A: 90 samples

4.3.2 Soil Gas Sampling and Analysis

A total of 22 soil gas samples were collected from soil gas probes installed in 14 soil borings. The soil gas probes were installed by Strongarm using a direct push drilling rig and directly overseen by a Tetra Tech geologist or field technician. Soil gas probe installation and sampling were conducted in accordance with the California Environmental Protection Agency *Advisory – Active Soil Gas Investigations* guidance document, dated April 2012 (Cal/EPA, 2012) and the *Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air* ([Department of Toxic Substances Control] DTSC, 2011). Details of the soil gas probe installation and sampling activities are in Appendix A. Details on the location and depth of each soil gas probe and associated boring are provided in Table 2.

Soil gas samples collected were analyzed for VOCs and oxygenate compounds using USEPA Method TO-15. The analyses were performed off-site by American Environmental Testing Laboratory, a California Department of Public Health-certified laboratory.

4.4 LITHOLOGICAL LOGGING

Soil cores/samples from each borehole were logged in the field using the Unified Soil Classification System (USCS) and methods detailed in Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) [American Society for Testing and Materials (ASTM) 2008]. Soil descriptions were recorded on field boring logs and included: grain size(s), angularity, and distribution; color (based on the Munsel color chart); moisture; density/consistency; and sorting. Additional information recorded on the boring log also included drilling subcontractor, geologist, method of drilling, borehole diameter total depth drilled, depth to first encountered groundwater, sample interval, organic vapor analyzer (photo ionization

detector) readings, location identification, and coordinates and elevation (if known). Copies of boring logs are provided in Appendix B.

4.5 EQUIPMENT DECONTAMINATION

All reusable equipment used for sampling (soil and groundwater sampling tools, bailers, etc.) were decontaminated before each use with a high-pressure washer or by scrubbing with a non-phosphate and 1,4-dioxane free detergent (Micro-90), followed by a two stage rinse with potable water. Other drilling equipment, such as drill rods and dual tube drive casing, was decontaminated between each boring using one of the above methods.

4.6 SURVEYING

The CPTs, groundwater sampling locations, and soil borings/soil gas probe location coordinates were acquired during utility clearance using a global positioning system technology.

4.7 INVESTIGATION-DERIVED WASTE MANAGEMENT

Soil cuttings, groundwater, and water used for decontamination were temporarily stored on-site in labeled Department of Transportation-approved 55-gallon drums. The drummed wastes were then sampled, profiled, and disposed at an approved facility, licensed to accept the waste. A total of 13 drums of soil cuttings and five drums of groundwater and decontamination water were picked up on 23 September 2014 and transported to K-Pure Waterworks, located in Rancho Cucamonga, California. Copies of the non-hazardous waste manifests are provided in Appendix C. Used personal protective equipment, disposable sampling equipment, and construction debris (concrete/asphalt cores) were disposed of as municipal waste.

5.0 INVESTIGATION RESULTS AND DISCUSSION

This section describes the soil characterization results and discussion for the areas investigated at the Airport.

5.1 GEOLOGY

Subsurface soils observed during the drilling activities consisted predominantly of silt and silt/clay mixtures with varying amounts of sand (typically between 5 and 15% but occasionally containing up to 20%) and sandy silt to the maximum depth drilled of approximately 78 feet. The sand content of these deposits was often fine- to medium-grained but sometimes had up to 10 to 15% coarse-grained sands and fine and/or coarse gravels. Discontinuous silty fine- to medium-grained sands were also observed at varying depths within the AOCs and were often less than 5 feet thick. In some AOCs, including but not limited to AOC G, AOC GG, and AOC J-K, calcareous concreted nodules were noted at varying depths. These nodules were typically weakly to moderately cemented and fine- to medium-grained in size with occasional nodules reaching sizes equivalent to the lower end of the coarse gravel range.

Subsurface soils were predominantly moist and groundwater was not observed in any of the borings drilled as part of the soil RI work.

A more in depth discussion of the overall stratigraphy and depositional environments as well as updated cross sections will be provided in the forthcoming Supplemental RI Report documenting the groundwater investigation which is still being conducted.

5.2 SOIL CHARACTERIZATION IN AOCS

The following sections summarize the soil characterization results for each AOC. Figure 3-1 shows the locations of each AOC.

5.2.1 Objective and Approach

The objective of the soil characterization was to define the lateral and vertical extent of COPCs in soil based on previous investigations and groundwater hot spots and determine the presence or absence of COPCs in AOCs identified in the *Historical Site Assessment Report* (Tetra Tech 2013a).

Work performed during the field investigation included drilling and sampling of 158 soil borings. The soil borings were continuously cored during drilling; samples were collected for chemical analysis at intervals ranging from 1 to 4 feet and were biased toward changes in lithology. Between 4 and 33 samples were collected for chemical analysis from each boring, for a minimum average sampling density of approximately one sample per 2.2 feet of core. The soil boring locations are shown on Figures 5-1 to 5-37;

details on the location and depth of the each boring, and number of samples for analysis from each boring are provided in Table 3. Copies of the soil boring logs are provided in Appendix B.

To support high-density soil sampling and real-time decision making, soil samples were analyzed in an onsite laboratory using USEPA Method 8265 DSITMS for VOCs and *site*LAB UVF-3100 for TPH-g and TPH-d.

Soil samples in select AOCs were analyzed by Eurofins Calscience for SVOCs using EPA Method 8270C and metals using EPA Method 6010B/7471A.

5.2.2 Data Quality Review

A total of 1,868 soil samples were analyzed by Triad Environmental for VOCs using USEPA Method 8265 and 1,357 soil samples were analyzed for TPH-g and TPH-d using UVF-3100. Level II data validation was performed to assess the usability of the data. Data validation included evaluation of sample holding times, method and field blank sample results, laboratory control sample (LCS) results, calibration compliance, compound identification, and method compliance. No quality assurance or quality control (QA/QC) errors were noted in the results, and the data were found usable for the intended purpose.

While no QA/QC errors were noted in the onsite mobile lab data, the methodology used by Triad to analyze for TPH-g and TPH-d in soil at the Airport was based on UVF technology. The UVF technique does not measure TPH directly, instead the method measures the poly aromatic hydrocarbons (PAH) contained in the sample extract and extrapolates TPH concentrations from known amounts of PAH in TPH. Because the fluorescence method is quite sensitive to the PAH concentrations, small variations in the PAH concentrations can give large variation in the extrapolated TPH concentrations.

The majority of AOCs investigated as part of this RI were covered by asphalt. Asphalt is known to contain relatively large concentrations of PAH compounds. Over time, slightly acidic and repeated rain water can make mobile small amounts of PAH compounds such that the PAH compounds will infiltrate into the uppermost portions of the underlying soils. Because of the small amounts of PAH compounds which leached into the soil, when the sample is analyzed by fluorescence, the additional PAH contamination (from intrusion) will be additive to the native PAHs, and will give an exaggerated PAH concentration. Therefore, for the one and four- foot level, the TPH-g and TPH-d concentrations reported for some samples have overstated results. This interpretation is further supported by the 8015M data which showed that of the 15 samples collected at depths up to four feet from AOCs EE, G, GG, MM, and OO, all but four samples were below the IGs for TPH-g and TPH-d. The four samples with TPH concentrations greater than the IGs were determined to be the result of cross contamination as the detections were less than five times the

concentration detected in the corresponding blank. A copy of the data validation memorandum prepared by the project chemist is provided in Appendix D.

A subset of 211 duplicate samples (11%) was analyzed by Eurofins Calscience for a more complete list of VOCs using USEPA Method SW8260B and to verify the results of the USEPA Method 8265. Similarly, 135 duplicate samples (10%) were analyzed by Eurofins Calscience for TPH-g and TPH-d using USEPA Method SW8015B. Level II data validation, as described in the prior paragraph, was performed to assess the usability of the subset data. Level II data validation was performed, including evaluation of sample holding times, method and field blank sample results, LCS results, surrogate recovery results, matrix spike/matrix spike duplicate results, calibration compliance, compound identification, and method compliance, to assess the usability of the duplicate sample data.

Method SW8260B target analytes associated with the blank contamination include: carbon disulfide qualified one result out of 14,981 (0.007%); chloromethane qualified three results out of 14,981 (0.02%); benzene qualified five results out of 14981 (0.03%); toluene qualified twenty eight results out of 14981 (0.19%); and acetone qualified forty three results out of 14981 (0.29%). No other QA/QC errors were noted in the results, although a number of results with concentrations between the practical quantitation limit and method detection limit were qualified as estimated. All of the data were found usable for the intended purpose.

- Data for TCE and TCP in duplicate samples analyzed using both DSITMS and Method SW8260B show that there is a strong correlation between the results in which TCE and TCP were detected in samples using the DSITMS; however, due to the higher detection limits of the DSITMS, low level concentrations of TCE and TCP could only be observed by the Method SW8260B. Overall, 90% of the data correlated non-detects between the DSITMS and Method SW8260B results for TCE and TCP.

For TPH-g by Method SW8015B, no QA/QC errors were noted in the results, and the data were found usable for the intended purpose. For TPH-d by Method SW8015B, method blank contamination by TPH-d qualified 11 results out of 135 (8.1%) as estimated because of uncertainty with the blank.

- Data for TPH-d in duplicate samples analyzed using both UVF-3100 and Method SW8015B show that there is a poor correlation in the instances where TPH-d was detected in samples at the 1- and 4-foot level using the UVF-3100 and is attributed to matrix interference (i.e. sensitivity to PAH concentrations in soil); Method SW8015B results are “B” qualified and not usable. However, 85% of the data correlated non-detects between the UVF-3100 and Method SW8015B for TPH-d. TPH-

g had similar results in that 88% of the data correlated non-detects between UVF-3100 and Method SW8015B. TPH-g detections (6.0%) by Method SW8015B do not correlate to the UVF-3100 results due to the higher detection limits. There were few instances where TPH-d (6.7%) and TPH-g (4.5%) were detected in samples only by UVF-3100. In these cases, the UVF-3100 data was superseded by the SW8015B data.

A total of 80 soil samples were analyzed by Eurofins Calscience for SVOCs using USEPA Method SW8270C and 90 soil samples were analyzed for metals using USEPA Method SW6010B/7471A. Twelve duplicate samples were collected for QA/QC purposes. Level II data validation, as described above for the subset of data, was performed to assess the usability of the data. For CAM 17 Metals by Method SW6010B/SW7471A, no QA/QC errors were noted in the results, and the data were found usable for the intended purpose. For SVOCs by Method SW8270C, method blank contamination by diethyl phthalate qualified one result out of 6,532 (0.015%) as estimated because of uncertainty with the blank. No other QA/QC errors were noted in the results, although a number of results with concentrations between the practical quantitation limit and method detection limit were qualified as estimated. Phthalates were not detected in the method blanks, however, the dimethyl phthalate detections in soil samples are likely due to cross contamination stemming from laboratory preparation procedures. Because phthalate detections were consistent at the same low level across many samples, it is suspected that the phthalate source was not native to the sample itself. If phthalate was present in the native soil then natural weathering of phthalate would give non-consistent detections of phthalates. Additionally, phthalates are known common lab contaminants for this method. All of the data were found usable for the intended purpose.

5.2.3 Results and Discussion

The constituents detected, concentration ranges, frequency of detections, and detections above an investigation goal (IG) are discussed below in individual subsections for each of the 18 AOCs. As detailed in the Work Plan, site specific IGs for VOCs, petroleum hydrocarbons, metals and SVOCs in soil were selected based on the lowest published screening level from the following:

- San Francisco Bay Regional Water Quality Control Board Tier 1 Environmental Screening Levels (Tier 1 ESLs) (SFBRWQCB, 2013a,b)
- California Human Health Screening Levels (CHHSLs) for residential and industrial land use (CalEPA, 2005)
- USEPA Region 9 Regional Screening Levels (RSLs) including (USEPA, 2013);
 - Carcinogenic and non-carcinogenic RSLs for Residential and Industrial land use, and

- Maximum contaminant level based soil screening levels for the protection of groundwater.

During the course of the soil characterization work, benzene and carbon tetrachloride were detected above their respective IG specified in the Work Plan (i.e. a maximum contaminant level (MCL) soil screening level) in select locations. The vertical and lateral extent of these constituents was limited within the given AOCs and concentrations were generally low. Given that data from the groundwater investigation phase of the RI, to be published under separate cover, showed no detections of benzene and carbon tetrachloride in groundwater in the vicinity of these areas, the MCL based soil screening level IGs selected for these compounds were determined to be overly conservative. The USEPA Region 9 regional screening level (RSL) for residential land use (carcinogenic) was therefore used as an alternative IG for benzene (1,100 µg/kg) and carbon tetrachloride (610 µg/kg) in soil as this was the next most conservative screening level. Table 4 summarizes the IGs (where established) for chemicals detected in soil during this investigation.

Due to the large dataset, only analytical results for constituents detected in at least one soil sample within the AOCs have been summarized in: Table 5 (DSITMS) and Table 6 (EPA Method 8260B) for VOCs; Table 7 (UVF-3100) and Table 8 (EPA Method 8015B) for TPH; and Table 9 (EPA Method 8270C) for SVOCs. Comprehensive analytical tables showing all data for the analytical methods used in the soil investigation are available in Tables C.1 through C.4 of Appendix E. Copies of the original laboratory reports from the fixed based laboratory are provided in Appendix D.

Detection statistics for methods used in the investigation have been summarized in tables for each AOC. Detection statistics for the DSITMS results are summarized in Table 10 and Method SW8260B results are summarized in Table 11. Method SW8260B results include a much larger range of reported compounds and have lower detection limits than the DSITMS data, and thus provide more detail on the specific compounds present in soil. Detection statistics for UVF-3100, Method SW8015B, and Method SW8270C are summarized in Tables 12, 13, and 14.

Figures illustrating the boring locations, number of samples collected, sampling range in which samples were collected for laboratory analysis, and detections of constituents above an IG at each AOC are shown on Figures 5-1 through 5-32.

5.2.3.1 AOC B – Sewage Treatment Ponds

AOC B is located in the southwest quadrant of the Airport property approximately 1,300 feet south of AOC H (Figure 3-1). This AOC has been used as sewage treatment ponds between the early 1940's and the early 1990's. In total, the AOC encompasses an area approximately 12,000 feet by 700 feet in size. During this investigation, no soil samples were collected in AOC B. As proposed in the Work Plan, groundwater

samples and data gathered from the CPTu/VAP transect that cross-cuts the central portion of the AOC were used to characterize AOC B. The results and findings from the groundwater investigation will be discussed in the Supplemental RI Report.

5.2.3.2 AOC DD – Former Airport Maintenance Shop and Yard

AOC DD, located north of AOC EE, has been utilized as a maintenance and storage yard since the 1970's (Figure 5-1). The AOC is approximately 120 feet by 120 feet in size. Photographic documentation obtained from County inspections in 1988 show a large number of drums stored in the area. No prior characterization activities had been conducted in AOC DD. During this investigation, 6 borings (B101, B102, B103, B104, B105 and B106) were completed to depths of 20 feet. A total of 46 soil samples were collected (8 samples per boring) and analysis for VOCs and TPH. Based on the data the following can be stated:

- DSITMS results showed that VOCs were not detected in the samples analyzed.
- Of the four samples analyzed using SW8260B, results showed two fuel related compounds, benzene and toluene, were detected in the 19-20 foot soil samples from B101, B102 and B106. Detected concentrations of benzene ranged from 0.68 Jq to 1.3 micrograms per kilogram ($\mu\text{g}/\text{kg}$). Toluene was detected in one sample from B102 at 0.75 Jq $\mu\text{g}/\text{kg}$.
- Benzene and toluene concentrations detected in soil samples using SW8260B were below the IGs.
- UVF-3100 results showed that TPH-d was detected in 14 of 46 samples (30.4%) at concentrations ranging from 0.33 to 645 milligrams per kilogram (mg/kg). TPH-g was not detected in any of the samples.
- Soil samples collected at the 1-foot interval in borings B102, B103, B104, B105 and B106 exhibited TPH-d concentrations above the IG (100 mg/kg). The concentrations collected at a depth of 4 feet decrease by an order of magnitude and are below the IG. TPH-d was not detected in samples at depths beyond 10 feet using UVF-3100.

Figures 5-1 and 5-2 show the sampling locations and constituent concentrations (where applicable) detected above an IG. The analytical results confirmed that VOCs and TPH-g in soil at AOC DD were below the IGs. Although TPH-d was detected at concentrations above the IG via the UVF-3100, these detections were limited to the samples collected immediately below the asphalt surface (Figure 5-2). As no other VOCs were detected above the IGs in these or other samples collected from AOC DD, the TPH extended diesel range organic readings are attributed to matrix interference as detailed in Section 5.2.2. Based on the data, no further work is recommended for AOC DD.

5.2.3.3 AOC EE – Former Cal Aero Restoration Yard

AOC EE, located to the east of AOC FF, consists of Building 515 and the open area (approximately 350 feet by 200 feet in size) to the north and west of the building (Figure 5-3). In the past, this area was used by Cal Aero for the restoration and dismantling of aircraft. Samples collected from 2 previous soil gas probes

installed to depths of 20 and 40 feet near the center of the AOC had detectable concentrations of several VOCs including TCE, 1,1,1-TCA, 1,1-DCE, and 1,1-DCA (Tetra Tech, 2005).

During this investigation, 15 borings (B93, B94, B95, B98, B99, B100, B107, B108, B109, B110, B111, B112, B121, B122 and B123) were completed in AOC EE to depths ranging from 34.5 to 66.5 feet. Soil samples were collected at depths ranging from 1 to 66.5 feet with a total of 222 soil samples collected (9 to 22 samples per boring) and analyzed for VOCs and TPH.

Based on the data the following can be stated:

- DSITMS results showed TCE and total dichloroethenes were detected at concentrations above their IGs in 0.90% and 5.9%, respectively, of the samples collected from AOC EE. TCE concentrations ranged from 6 to 11 µg/kg; total dichloroethene concentrations ranged from 6 to 40 µg/kg.
- No other VOCs were detected above the IGs based on the DSITMS data.
- Twelve VOCs were detected in the 19 samples from AOC EE analyzed using SW8260B. Compounds detected include acetone (6.1 Jq to 6.7 Jq µg/kg), 2-butanone (4.6 Jq µg/kg), benzene (0.13 Jq to 3.7 µg/kg), 1,1-DCA (0.72 Jq µg/kg), 1,1-DCE (0.31 Jq to 36 µg/kg), ethylbenzene (0.12 Jq to 0.53 Jq µg/kg), tert-butyl alcohol (4.7 Jq to 5.6 Jq µg/kg), toluene (0.48 Jq to 3.2 µg/kg), 1,1,1-TCA (0.34 Jq to 0.65 Jq µg/kg), TCE (0.35 Jq to 0.40 Jq µg/kg), PCE (0.16 Jq µg/kg), and p/m-xylene (0.21 Jq to 0.68 Jq µg/kg).
- Of the compounds detected using SW8260B only 1,1-DCE was detected at concentrations above its IG.
- TPH-d was detected using UVF-3100 in 49 of 222 samples (22.1%) at concentrations ranging from 0.17 to 280 mg/kg. Of the 49 detections, only the soil samples collected at the 1-foot interval in borings B100 (280 mg/kg) and B110 (122 mg/kg) exhibited TPH-d concentrations above the IG (100 mg/kg). Concentrations of TPH-d collected in samples at a depth of 4 feet were non-detect or decreased by an order of magnitude and were below the IG.
- TPH-g was detected in 6 of 222 samples (2.7%) at concentrations ranging from 1.73 to 3.6 mg/kg. These detected concentrations were below the IG.

Figures 5-3 and 5-4 show the sampling locations and constituent concentrations (where applicable) detected above an IG. Similar to previous investigations, the sampling results confirmed the presence of TCE, 1,1,1-TCA, 1,1-DCE, and 1,1-DCA in soil at AOC EE. Of these constituents, only TCE and DCE were detected above the IG in the samples collected. The distribution of these constituents are discussed further in the following paragraphs.

TCE detected above the IG was limited to the 30 foot (6 J µg/kg) and 33 foot (11 J µg/kg) samples from B108 located on the western side of Building A515 (Figure 5-3). The two samples collected below these intervals at 35.5 and 38 feet were non-detect for TCE. As TCE was not detected in surrounding borings to the north and east within AOC EE and in borings to the west associated with AOC FF, the detections of TCE above the IG in B108 at 30 and 33 feet are considered to be isolated and adequately defined.

Total dichloroethenes/1,1-DCE at concentrations above the IG (2.5 µg/kg) specified in the Work Plan was limited to B107, B109, B121, and B122 located in the northwestern portion of the AOC (Figure 5-3). Detected concentrations of 1,1-DCE in soil at AOC EE ranged from 0.31 Jq to 36 µg/kg. The IG selected in the Work Plan for 1,1-DCE was an MCL based soil screening level and is protective of groundwater. Given that data from the groundwater investigation phase of the RI, to be published under separate cover, showed no detections of 1,1-DCE in groundwater beneath and immediately downgradient of AOC EE, the MCL based soil screening level IG was determined to be overly conservative for this AOC. The SFBRWQCB Tier 1 ESL (1,000 µg/kg) was therefore used as an alternative IG for soil as this was the next most conservative screening level. Since all detected concentrations of 1,1-DCE in soil at AOC EE were below the alternative IG, the extents of this compound in soil at the AOC were considered adequately defined.

Since TPH-d was detected at concentrations above the IG via the UVF-3100 in only two samples and both of these were collected at a depth of 1 foot below asphalt surfaces (Figure 5-4), these TPH-d readings are attributed to matrix interference as detailed in Section 5.2.2.

Based on this data, the occurrence and extent of COPCs in AOC EE has been characterized and no further work is recommended for soil.

5.2.3.4 AOC FF – Building A440

AOC FF, located nearly adjacent to AOC EE to the southwest, consists of Building A440 and the immediate surrounding area (Figure 5-5). Stripping and painting of aircraft have been performed at this facility and the rinse water from these activities was reportedly collected in four bermed areas on the concrete adjacent to the building (Kennedy/Jenks, 1991a). Prior investigations in this area have detected various VOCs, including TCE, methylene chloride, 1,1,1-TCA, 1,1-DCE, acetone, and toluene, in soil and/or soil gas at depths up to approximately 20 feet (SEACOR, 1992a).

During this investigation, 4 borings (B136, B137, B138, and B139) were completed in AOC FF to depths of 20 feet. Soil samples were collected at depths ranging from 1 to 20 feet with a total of 33 soil samples collected (approximately 8 samples per boring) and analysis for VOCs. Based on the data the following can be stated:

- DSITMS results showed that VOCs were not detected in the samples.
- Four VOCs were detected in the four samples from AOC FF analyzed using SW8260B. Compounds detected include acetone (5.6 Jq to 7.4 Jq µg/kg), benzene (0.23 Jq to 1.0 µg/kg), methylene chloride (5.0 Jq µg/kg), and toluene (0.48 Jq to 0.62 Jq µg/kg).

- Of the VOCs detected using SW8260B, only methylene chloride was detected at a concentration above the IG (1.3 µg/kg) and this occurred in only one sample (B139 5.0 Jq µg/kg at 20 feet).

Figure 5-5 shows the sampling locations and constituent concentrations (where applicable) detected above an IG. Similar to previous investigations, the sampling results confirmed the presence of methylene chloride and toluene in soil. While toluene was detected in two of the four samples analyzed using SW8260B, both detected concentrations were at least three orders of magnitude below the IG (690 µg/kg). No toluene was detected using DSITMS and the limits of detection were below the IG. Based on this data, toluene is not present in soils at AOC FF at levels of concern. Methylene chloride was detected above the IG; however, this occurred in only one sample. This singular detection was determined using SW8260 where methylene chloride is often introduced as a laboratory contaminant and was below the detection limits typically attained via DSITMS. Based on the singular detection of methylene chloride above the IG, there does not appear to be a significant residual source mass of this compound in soil at the AOC. Therefore, AOC FF has been characterized and no further work is recommended.

5.2.3.5 AOC G – Former PAC Wash Rack Area

AOC G, located immediately south and southeast of AOC J-K, consists of the area identified as the former PAC aircraft wash rack area and the area immediately south of it (Figure 5-6). In total, the AOC encompasses an area approximately 300 feet by 200 feet in size. Prior investigations in this area have detected various VOCs, including TCE, 1,1,1-TCA, 1,1-DCE and 1,2-DCA in soil and/or soil gas at depths up to approximately 50 feet (SEACOR, 1992a; Tetra Tech, 2005).

During this investigation, 20 borings were completed in AOC G to depths of 33.5 to 69 feet. A total of 346 soil samples (11-25 samples per boring) were collected and analyzed for VOCs. In addition, 317 of these samples were also analyzed for TPH.

Based on the data the following can be stated:

- DSITMS data show that TCP was detected in 6 of 346 samples (1.7%) at concentrations above the IG. TCP concentrations ranged from 41 to 150 µg/kg.
- No other VOCs were detected using DSITMS.
- Seventeen VOCs were detected in the 51 samples from AOC G analyzed using SW8260B. Compounds detected include acetone (6.0 Jq to 35 Jq µg/kg), 2-butanone (3.0 Jq to 28 µg/kg), bromoform (1.4 Jq µg/kg), benzene (0.19 Jq to 26 µg/kg), carbon disulfide (0.33 Jq to 0.52 Jq µg/kg), chloromethane (0.30 Jq µg/kg), chloroform (0.24 Jq to 1.6 µg/kg), 1,2-DCA (0.43 Jq to 19 µg/kg), ethylbenzene (0.16 Jq to 1.3 Jq µg/kg), naphthalene (0.76 Jq to 1.3 Jq µg/kg), tert-butyl alcohol (4.3 Jq to 4.8 Jq µg/kg), toluene (0.41 Jq to 15 µg/kg), TCE (0.80 Jq µg/kg), 1,2,3-TCP (4.8 to 44 µg/kg), PCE (0.22 Jq µg/kg), p/m-xylene (0.25 Jq to 1.7 Jq µg/kg) and o-xylene (0.62 Jq to 0.70 Jq µg/kg).

- Of the VOCs detected using SW8260B, only 1,2,3-TCP and 1,2-DCA were detected above their respective IGs.
- TPH-d was detected in 41 of 317 samples (12.9 %) at concentrations ranging from 0.090 to 499 mg/kg using UVF-3100. Only soil samples collected at the 1-foot interval from borings B15 (100 mg/kg), B25 (499 mg/kg), B27 (136 mg/kg), B30 (470 mg/kg) and B60 (221 mg/kg) exhibited TPH-d concentrations above the IG (100 mg/kg).
- Of the 317 samples analyzed using the UVF-3100, only the 1-foot sample from B28 had concentrations of TPH-g (6,790 mg/kg) which exceeded the IG. The corresponding duplicate sample analyzed using SW8015 had a detected concentration of TPH-g of 0.0064 J mg/kg and was five orders of magnitude below the IG.
- Of the eight samples analyzed for TPH-g and TPH-d using SW8015, only the samples collected from B28, B29, and B30 at a depth of 1 foot exceeded the IG; however, due to the compound also being detected in the associated equipment blank, these detections are attributed to cross contamination and are not representative of in-situ concentrations.

Figures 5-6 and 5-7 show the sampling locations and constituent concentrations (where applicable) detected above an IG. In total, the data show that 1,2,3-TCP at concentrations above the IG of 5 µg/kg were present in boring B18 at depths between approximately 35 and 61 feet (Figure 5-6). These concentrations appear to attenuate rapidly in adjacent borings B27 and B29 and were below the DSITMS detection limits in both locations. Based on detections using SW8260, however, 1,2,3-TCP is likely present in B27 and B29 at concentrations slightly above the IG but generally below the DSITMS detection limits. The combined DSITMS and SW8260B data from the remaining 16 borings associated with AOC G indicate that the lateral extent of 1,2,3-TCP above the IG is defined and limited to B18, B27, and B29. The vertical extent of 1,2,3-TCP could not be ascertained due to refusal being met at depths between approximately 57 and 62 feet. Based on the groundwater investigation results, to be published in a forthcoming document, 1,2,3-TCP in B18, B27, and B29 likely extends to the water table in the vicinity of B18, B27, and B29.

Although DSITMS data showed 1,2-DCA was below the detection limits of the method, two samples had detections using SW8260B that were above the IG of 1.4 µg/kg (Figure 5-6). The 53-foot sample from B18, located in the central area of AOC G, had a detection of 19 µg/L using SW8260B. 1,2-DCA attenuated with depth in B18 and was below the DSITMS and/or SW8260B detection limits in the samples collected at depths of approximately 55, 58 and 61 feet. The second sample was from B25 (depth of approximately 61 feet), located in the southwestern area of AOC G, and had a detection of 1.5 µg/kg. 1,2-DCA attenuated rapidly below this point and was below the detection limit of SW8260B (<0.26 µg/kg) in the 59-foot sample from B25. As 1,2-DCA was not detected in any other samples using DSITMS or SW8260B and the vertical extent was defined in both B18 and B25, the detections of 1,2-DCA above the IG are considered isolated occurrences which are defined both laterally and vertically in extent.

TPH-d and TPH-g were detected at concentrations above the IG via the UVF-3100 only in samples collected at a depth of 1 foot below the asphalt surface of AOC G (Figure 5-7). Since the SW8015 data does not corroborate the detections, the TPH-d and TPH-g UVF-3100 readings above the IGs are attributed to matrix interference as detailed in Section 5.2.2.

Based on the available data, the occurrence and extent of compounds exceeding the IGs including 1,2,3-TCP has been adequately characterized in soils at AOC G and no further work is recommended for soil.

5.2.3.6 AOC GG – Former Aircraft Dismantling Area

AOC GG, located approximately 300 feet east of AOC EE, was formerly utilized as an aircraft dismantling area (Figure 5-8). Based on the 1946 aerial image, dismantling and cleaning operations took place in an area roughly 600 feet by 500 feet where Buildings B130, B140, and B150 now exist. Aircraft parts and engines appear to have been staged in the southwestern portion of the AOC, cleaned in the southeastern portion of the AOC, and then subsequently staged on racks in the northern portion of the AOC. No prior characterization activities have been conducted in AOC GG.

During this investigation, 11 borings (B74, B75, B113, B114, B115, B116, B117, B124, B125, B131, and B132) were completed in AOC GG to depths of 20 feet. Soil samples were collected at depths ranging from 1 to 20 feet with a total of 108 soil samples collected (approximately 8 samples per boring) for analysis of VOCs and TPH. Based on the data the following can be stated:

- VOCs were not detected in the 108 samples analyzed using DSITMS.
- Ten VOCs were detected in the nine samples analyzed using SW8260B. Compounds detected include acetone (4.8 to 190 µg/kg), 2-butanone (3.5 Jq to 45 µg/kg), benzene (0.16 Jq to 14 µg/kg), carbon disulfide (0.33 Jq µg/kg), ethylbenzene (0.20 Jq to 2.4 µg/kg), tert-butyl alcohol (6.0 µg/kg), toluene (0.51 Jq-14 µg/kg), 1,2,4-trimethylbenzene (1.0 Jq µg/kg), p/m-xylene (0.31 Jq-3.4 µg/kg), and o-xylene (1.4 µg/kg).
- None of the VOCs detected using SW8260B were present at concentrations above their respective IGs.
- TPH-g was not detected above the IG in any of the 108 samples analyzed using UVF-3100.
- Of the 108 samples analyzed using UVF-3100, TPH-d was detected in 36 samples (33.3 %) at concentrations ranging from 0.20 to 833 mg/kg. Six of these samples exceeded the IG for TPH-d and all were collected at depths of 4 feet or less from B74, B115, B117, B125, and B132.
- TPH-g and TPH-d were not detected above the IG in the eight confirmation samples analyzed using SW8015.

Figures 5-8 and 5-9 show the sampling locations and constituent concentrations (where applicable) detected above an IG. The analytical results confirmed that VOCs (Figure 5-8) and TPH-g (Figure 5-9) are not present in soils at AOC GG at concentrations above their respective IGs. TPH-d was detected via UVF-

3100 at concentrations above the IG in six samples (Figure 5-9). Since all of these detections were in samples collected at depths between 1 and 4 feet beneath what was previously an asphalt surface, are non-detect in the remaining 102 samples, and are not corroborated by the SW8015 data, these concentrations above the IG are interpreted as being the result of matrix interference as detailed in Section 5.2.2. AOC GG has therefore been adequately characterized and no further work is recommended for soil.

5.2.3.7 AOC H – Former Waste Disposal Ponds

AOC H, located immediately south of AOC KK, consists of three former waste disposal ponds (Figure 5-10). The ponds received waste water discharge from the former PAC wash rack area (AOC G) via piping (AOC OO). Based on the 1955 aerial image where the ponds are readily identifiable, the AOC encompasses an area approximately 200 feet by 650 feet. No VOCs were detected in samples from prior characterization activities in AOC H, however, these activities were relatively limited in scope and were restricted to the northernmost ponds.

During this investigation, 10 borings (B97, B140, B141, B150, B155, B156, B157, B158, B161 and B162) were completed in AOC H to depths ranging from 20 to 56 feet (Figure 5-10). Soil samples were collected at depths from 1 to 56 feet with a total of 150 soil samples collected (ranging from 7 to 21 samples per boring) and analyzed for VOCs and TPH. Based on the data the following can be stated:

- 1,2,3-TCP was detected in 1 of the 150 samples (0.7%) analyzed using DSITMS at an estimated concentration of 3J $\mu\text{g}/\text{kg}$ and was below the IG.
- No other VOCs were detected in the samples analyzed using DSITMS.
- Fourteen VOCs were detected in the 13 samples analyzed using SW8260B. Compounds detected include acetone (6.8 Jq to 17 Jq $\mu\text{g}/\text{kg}$), 2-butanone (3.3 Jq to 11 Jq $\mu\text{g}/\text{kg}$), benzene (0.13 Jq to 9.9 $\mu\text{g}/\text{kg}$), carbon disulfide (0.29 Jq $\mu\text{g}/\text{kg}$), chlorobenzene (2.5 to 8.4 $\mu\text{g}/\text{kg}$), 1,2-dichlorobenzene (18 to 120 $\mu\text{g}/\text{kg}$), 1,3-dichlorobenzene (1.5 to 8.3 $\mu\text{g}/\text{kg}$), 1,4-dichlorobenzene (12 to 66 $\mu\text{g}/\text{kg}$), ethylbenzene (0.24 Jq to 0.52 Jq $\mu\text{g}/\text{kg}$), toluene (0.85 Jq to 5.5 $\mu\text{g}/\text{kg}$), 1,2,4-trichlorobenzene (1.2 Jq to 3.2 $\mu\text{g}/\text{kg}$), TCE (0.34 Jq to 0.98 Jq $\mu\text{g}/\text{kg}$), PCE (0.23 Jq $\mu\text{g}/\text{kg}$), and p/m-xylene (0.28 Jq to 0.66 Jq $\mu\text{g}/\text{kg}$).
- No VOCs were detected at concentrations above the IGs in samples analyzed using SW8260B.
- TPH-d was detected in 56 of 150 samples (37.3%) analyzed using UVF-3100 at concentrations ranging from 0.18 to 222 mg/kg. Of these detections, only three samples (B141 at 1.5 feet [125 mg/kg], B155 at 9 feet [222 mg/kg], and B162 at 13 feet [111 mg/kg]) had concentrations above the IG of 100 mg/kg.
- TPH-g was not detected above the IG in the 150 samples analyzed using UVF-3100
- TPH-g and TPH-d were not detected at concentrations above the IG in the 13 samples analyzed using SW8015.

Figures 5-10 and 5-11 show the sampling locations and constituent concentrations (where applicable) detected above an IG. The analytical results confirmed that VOCs and TPH-g were not present at concentrations above the IGs in soil beneath AOC H (Figures 5-10 and 5-11). TPH-d was detected above the IG in one sample from B141, B155, and B162 each (Figure 5-11). Based on the relatively high frequency of UVF-3100 detections there appears to be some residual TPH-d mass present in soils beneath AOC H; however, with the exception of the three samples indicated above, concentrations are below the IGs. It should be noted that this area was over excavated during the construction of the current Southern California Edison due to petroleum impacts in the shallow soils. Based on this data and borings both surrounding and intervening between B141, B155, and B162, the samples with concentrations above the IG are isolated occurrences and are adequately defined in extent. AOC H has therefore been adequately characterized and no further work is recommended for soil.

5.2.3.8 AOC HH – Buildings A230, A235, A340, A435

AOC HH, located east of AOC J-K, is comprised of Buildings A230, A235, A340, and A435 (Figure 5-12). These buildings were utilized by PAC from approximately 1950 to 1959 for the purposes of aircraft modification. Additional prior operations in these buildings included aircraft maintenance, modification, and restoration. No prior characterization activities have been conducted in AOC HH. A total of 8 borings (B118, B119, B120, B126, B127, B128, B129 and B130) were completed in AOC HH to depths ranging from 20 to 34 feet. Soil samples were collected at depths ranging from 1 to 34 feet with a total of 65 soil samples collected (ranging from 6 to 15 samples per boring) for analysis of VOCs. Based on the data the following can be stated:

- DSITMS results showed TCE was detected at concentrations above the IG in 14%, respectively, of the samples collected from AOC HH. TCE concentrations ranged from 4 to 23 µg/kg.
- No other VOCs were detected above the IGs based on the DSITMS data.
- Of the 9 samples analyzed using SW8260B, eight VOCs were detected in the 20 foot samples from 8 borings (B118, B119, B120, B126, B127, B128, B129 and B130) and in one sample from B128 collected at 34 feet. Compounds detected include acetone (6.6 J to -20 Jq µg/kg), 2-butanone (4.7 Jq to 5.7 Jq µg/kg), benzene (0.12 Jq to 5.5 µg/kg), carbon disulfide (0.30 Jq to 0.37 Jq µg/kg), ethylbenzene (0.41 Jq to 0.53 Jq µg/kg), toluene (3.3 to 3.6 µg/kg), TCE (0.35 Jq to 15 µg/kg), and p/m-xylene (0.50 Jq to 0.70 Jq µg/kg).
- Of the VOCs detected using SW8260B, TCE was the only compound detected at concentrations above the IG (1.8 µg/kg). These detections occurred in three samples from B120 (5 J to 7 J µg/kg) at depths between 9.5 to 17.5 feet and in six samples from B128 (5 J to 18 µg/kg) at depths between 1 and 30 feet.

Figure 5-12 shows the sampling locations and constituent concentrations (where applicable) detected above an IG. Based on the data, VOCs, with the exception of TCE, in soil at AOC HH were below the IGs. TCE

at concentrations above the IG are limited to Building A340. TCE impacts are delineated by B126 and B119, east and west of Building A340. Samples collected at the bottom of B120 and B128 show non-detectable concentrations. Based on the concentrations in soil, the extent of TCE in soil can be reasonably inferred as there is not enough mass to spread laterally in soil to any significant extent. Based on the data, there is limited residual mass of TCE in soil beneath AOC HH and it has been adequately delineated. AOC HH has therefore been adequately characterized and no further work is recommended for soil.

5.2.3.9 AOC II – Aircraft Tiedown Area

AOC II, located south of AOC HH and east of AOC G, is presently utilized as an aircraft tie down area (Figure 3-1). The AOC encompasses an area approximately 1000 feet by 1050 feet in size. Aerial images from 1941 through 2005 show relatively ephemeral discoloration/staining at various locations across the AOC. During this investigation, no soil samples were collected in AOC II; however, groundwater samples and data gathered from the CPTu/VAP transect that cross-cuts the central portion of the AOC were used to characterize AOC II. The results and findings from the CPTu/VAP transects will be discussed in the forthcoming Supplemental RI Report.

5.2.3.10 AOC JJ – Former UST C-15 and Sump I

AOC JJ, located approximately 17 feet south of AOC HH Building A435, is comprised of the former UST C-15 excavation area and the sump identified immediately south of it (Figure 5-13). In total, the AOC is approximately 50 by 15 feet in size. Additional assessment was recommended following the removal of the UST in 1992 to delineate suspected petroleum hydrocarbons in soils beneath the UST (Kennedy/Jenks, 1991); however no further characterization had been performed prior to the current investigation.

During this investigation, a total of 5 borings (B41, B42, B49, B50 and B51) were completed in AOC JJ to a depth of 30 feet. Soil samples were collected at depths from 1 to 30 feet with a total of 49 soil samples collected (approximately 10 samples per boring) for analysis of VOCs and TPH. Based on the data the following can be stated:

- No VOCs were detected in the 49 samples analyzed using DSITMS.
- Four VOCs detected in the seven samples analyzed using SW8260B. Compounds detected include acetone (8.5 Jq-16 Jq $\mu\text{g}/\text{kg}$), benzene (0.23 Jq-0.45 Jq $\mu\text{g}/\text{kg}$), carbon disulfide (0.66 Jq $\mu\text{g}/\text{kg}$), and toluene (0.50 Jq-1.6 $\mu\text{g}/\text{kg}$).
- No VOCs were detected at concentrations above their respective IG in the samples analyzed using SW8260B.
- TPH-g was not detected in the 49 samples analyzed using UVF-3100.

- TPH-d was detected at concentrations above the IG of 100 mg/kg in 4 of the 49 samples (8%) analyzed using UVF-3100. The highest TPH-d concentration (790 mg/kg) was detected in a sample collected at a depth of 10 feet in B42. Samples collected at depths of 1 foot in boring B41 (265 mg/kg) and 1 and 4 feet in B49 (429 mg/kg and 130 mg/kg) also exhibited TPH-d concentrations above the IG.
- TPH-g and TPH-d were not detected in the seven samples analyzed using SW8015.

Figures 5-13 and 5-14 show the sampling locations and constituent concentrations (where applicable) detected above an IG. The analytical results confirmed that VOCs and TPH-g were not present at concentrations above the IGs in soil beneath AOC JJ (Figures 5-13 and 5-14). Although TPH-d was detected at concentrations above the IG in four samples, three of these samples (B41d1, B49d1, and B49d4) were collected at depths of 4 foot or less below an asphalt surface. Samples collected at depths greater than these in borings B41 and B49 were below the IG or non-detect. Based on this data, the TPH-d concentrations above the IG detected in the 1- and/or 4-foot samples from B41 and B49 are the result of matrix interference as detailed in Section 5.2.2.

The relatively high frequency of UVF-3100 detections in B42 indicate that there is some residual TPH-d mass present in soil beneath AOC JJ at this location. Since the 10-foot sample was the only sample with concentrations above the IG at B42 and surrounding borings were below the IG or non-detect, this occurrence of TPH-d is isolated and defined in both vertical and lateral extent. AOC JJ has therefore been adequately characterized and no further work is recommended for soil.

5.2.3.11 AOC J-K – PAC Paint Shop and Paint Shed Areas

AOC J-K, located immediately east of AOC N, consists of the PAC paint shop (Area J) and paint shed (Area K), Building A240, and the open area between these buildings and Building A230 (Figure 5-15). In total the AOC encompasses an area approximately 350 feet by 300 feet. Prior investigations in this area have detected various VOCs, including chloroform, PCE, TCE, and carbon tetrachloride, in soil and/or soil gas at depths up to approximately 50 feet (SEACOR, 1992a; Tetra Tech, 2005).

During this investigation, a total of 14 borings (B06, B07, B08, B09, B10, B11, B12, B13, B14, B19, B20, B21, B22 and B23) were completed in AOC J-K to depths ranging from 36 feet to 78 feet. Soil samples were collected at depths from 1 to 78 feet with a total of 245 soil samples collected (13 to 33 samples per boring) for analysis of VOCs. Based on the data the following can be stated:

- VOCs were not detected in the 245 samples analyzed using DSITMS.
- Twelve VOCs were detected in the 25 samples analyzed using SW8260B. Compounds detected include acetone (7.2 Jq to 20 Jq $\mu\text{g}/\text{kg}$), 2-butanone (3.3 Jq to 24 $\mu\text{g}/\text{kg}$), benzene (0.15 Jq to 21 $\mu\text{g}/\text{kg}$), carbon tetrachloride (0.25 Jq to 48 $\mu\text{g}/\text{kg}$), chloroform (0.20 Jq to 11 $\mu\text{g}/\text{kg}$), ethylbenzene

(0.16 Jq to 0.89 Jq $\mu\text{g}/\text{kg}$), naphthalene (1.2 Jq $\mu\text{g}/\text{kg}$), tertiary-butyl alcohol (4.7 Jq to 6.1 Jq $\mu\text{g}/\text{kg}$), toluene (0.49 Jq to 11 $\mu\text{g}/\text{kg}$), TCE (0.41 Jq to 6.4 $\mu\text{g}/\text{kg}$), PCE (0.43 Jq $\mu\text{g}/\text{kg}$) and p/m-xylene (0.26 Jq to 1.2 $\mu\text{g}/\text{kg}$).

- Of the compounds detected using SW8260B, TCE was the only compound present at concentrations above the IG (1.8 $\mu\text{g}/\text{kg}$). These detections occurred in one sample from B14 (2.6 $\mu\text{g}/\text{kg}$) at a depth of 36 feet; one sample from B21 (6.4 $\mu\text{g}/\text{kg}$) at a depth of 73-74 feet; and one sample from B22 (2.2 $\mu\text{g}/\text{kg}$) at a depth of 57-58 feet.

Figure 5-15 shows the sampling locations and constituent concentrations (where applicable) detected above an IG. Similar to previous investigations, chloroform, PCE, TCE, and carbon tetrachloride, were detected in soil. Of these constituents, TCE was the only compound detected at concentrations above the IG and was limited to B14, B21, and B22 located in the northwest portion of AOC J-K. In the three samples where TCE was detected in soil above the IG, the concentrations were below the detection limits of the DSITMS method and were only detectable via SW8260B. Furthermore, the samples from B14 (2.8 $\mu\text{g}/\text{kg}$) and B22 (2.2 $\mu\text{g}/\text{kg}$) were less than 0.9 $\mu\text{g}/\text{kg}$ above the IG. Confirmation samples from surrounding borings showed either non-detectable concentrations of TCE or trace amounts at least one order of magnitude less than the IG at depths varying between 4 and 48 feet. Based on this data, the residual mass of TCE above the IG in AOC J-K was considered to be very limited and present at *de minimis* concentrations. This interpretation is further supported by the soil gas data which showed that TCE was not present in soil gas at concentrations above the IG (see Section 5.3.3.2).

The vertical extent of TCE above the IG could not be determined due to the direct push rig meeting refusal at depths prior to reaching groundwater. However, based on TCE detections in groundwater from CPTu/VAP borings conducted downgradient of AOC J-K, the *de minimis* mass of residual TCE is expected to extend to the water table.

Based on this data, the extent of TCE in soil at concentrations above the IG have been adequately assessed in AOC J-K and do not represent a significant mass. Therefore, AOC J-K has been adequately characterized and no further work is recommended for soil at the AOC.

5.2.3.12 AOC KK – Building A270, Yanks Museum

AOC KK, located approximately 150 feet south of AOC G, is comprised of Building A270 and the paved area around the building (Figure 5-16). In total, AOC KK is approximately 350 feet by 350 feet in size. From 1968 to the mid 1970's, American Electric produced and stored napalm at the facility. The AOC has been occupied by Yanks Air Museum since 1984 and has been used since then for the restoration and display of aircraft. No previous characterization activities have been conducted in AOC KK. During this investigation, a total of 7 borings (B57, B58, B59, B61, B62, B63 and B64) were completed in AOC KK

to depths ranging from 20 to 57.2 feet. Soil samples were collected at depths from 1 to 78 feet with a total of 245 soil samples collected (7 to 22 samples per boring) for analysis of VOCs and TPH. Based on the data the following can be stated:

- VOCs were not detected in the 245 samples analyzed using DSITMS.
- Seven VOCs were detected in the eight samples analyzed using SW8260B. Compounds detected include acetone (7.3 Jq to 8.1 Jq $\mu\text{g}/\text{kg}$), bromoform (1.3 Jq $\mu\text{g}/\text{kg}$), benzene (0.13 Jq to 1.5 $\mu\text{g}/\text{kg}$), chloroform (0.20 Jq $\mu\text{g}/\text{kg}$), toluene (0.51 Jq to 1.6 $\mu\text{g}/\text{kg}$), TCE (0.41 Jq) and trichlorofluoromethane (0.78 Jq and 3.7 Jq $\mu\text{g}/\text{kg}$).
- VOC concentrations in soil were below the IG.
- TPH-d was detected using UVF-3100 in 13 of 72 samples (18.1 %) at concentrations ranging from 0.66 to 882 mg/kg. Of the 13 detections, only the soil samples collected at the 1-foot interval in borings B58 (882 mg/kg), B61 (293 mg/kg), and B64 (151 mg/kg) exhibited TPH-d concentrations above the IG (100 mg/kg). The concentrations collected at a depth of 4-feet are non-detect or decrease by an order of magnitude and are below the IG.
- TPH-g was not detected in samples analyzed using the UVF-3100.
- TPH-g and TPH-d were not detected in the eight samples analyzed using SW8260B.

Figures 5-16 and 5-17 show the sampling locations and constituent concentrations (where applicable) detected above an IG. The analytical results confirmed that VOCs and TPH-g were not detected in soil at concentration above the IGs (Figures 5-15 and 5-17). Although TPH-d was detected at concentrations above the IG via UVF-3100, these detections were limited to the samples collected immediately below the asphalt surface (Figure 5-17). As no other VOCs were detected above the IGs in these or other samples collected from AOC KK, the TPH-d readings are attributed to matrix interference as detailed in Section 5.2.2. Based on the data, no further work is recommended for AOC KK.

5.2.3.13 AOC LL – Former UST C-18

AOC LL, located approximately 120 feet southwest of AOC KK, consists of the area on the west side of Building A285 where former USTs C-18 and C-19 were located (Figure 5-18). The AOC is approximately 125 feet by 175 feet in size. A limited investigation of the area around UST C-18 was recommended but never performed (Kennedy/Jenks, 1991). During this investigation, two angle borings (B133 and B134) were completed in AOC LL to a depth of 32 feet. Soil samples were collected at depths from 1 to 32 feet with a total of 23 soil samples collected (11 to 12 samples per boring) for analysis of VOCs and TPH. Based on the data the following can be stated:

- VOCs were not detected in the 23 samples analyzed using DSITMS.
- Benzene was detected in two samples from the 31-32 foot interval using SW8260B. Benzene was detected in B133 at 0.55 Jq $\mu\text{g}/\text{kg}$ and in B134 at 0.76 Jq $\mu\text{g}/\text{kg}$.

- Benzene concentrations in soil were below the IG.
- TPH-d was detected using UVF-3100 in 7 of 23 samples (30.4%) at concentrations ranging from 0.21 to 642 mg/kg. Of the 7 detections, only the soil samples collected at the 1-foot interval in borings B133 (353 mg/kg) and B134 (642 mg/kg) exhibited TPH-d concentrations above the IG (100 mg/kg). The concentrations collected at depths beyond 4 feet decrease by an order of magnitude and are below the IG.
- TPH-g was not detected in samples.

Figure 5-18 and 5-19 show the sampling locations and constituent concentrations (where applicable) detected above an IG. The analytical results confirmed that VOCs and TPH-g were not detected in soil at concentration above the IGs (Figures 5-18 and 5-19). Although TPH-d was detected at concentrations above the IG via UVF-3100, these detections were limited to the samples collected immediately below the asphalt surface (Figure 5-19). As no other VOCs were detected above the IGs in these or other samples collected from AOC LL, the TPH-d readings are attributed to matrix interference as detailed in Section 5.2.2. Based on the data, no further work is recommended for AOC LL.

5.2.3.14 AOC M – Fuel Dump Area

AOC M, which overlaps the northwestern corner of AOC GG, was identified in the *Preliminary Report on Generators of PCE and TCE at the Chino Airport* (SBDEHS, 1989) as an area near Building E2 (currently identified as Building B130) used by PAC as a JP-4 fuel dump area (Figure 5-20). Because there were no distinguishing features visible in the aerial images which could identify the exact location of the AOC, a conservative estimate of its size and general location was developed by Tetra Tech based on the available historical reports. No previous characterization activities have been conducted in AOC M.

During this investigation, 4 borings (B65, B71, B72 and B73) were completed in AOC M to a depth of 20 feet. Soil samples were collected at depths from 1 to 20 feet with a total of 28 soil samples collected (7 samples per boring) for analysis of VOCs and TPH. Based on the data the following can be stated:

- DSITMS results showed that VOCs were not detected in the samples analyzed.
- Of the four samples analyzed using SW8260B, results showed that 8 VOCs were detected. Compounds detected include acetone (7.3 Jq-9.3 Jq $\mu\text{g}/\text{kg}$), 2-butanone (4.8 Jq-8.6 Jq $\mu\text{g}/\text{kg}$), benzene (1.3-6.8 $\mu\text{g}/\text{kg}$), chloroform (0.45 Jq $\mu\text{g}/\text{kg}$), ethylbenzene (0.22 Jq-0.38 Jq $\mu\text{g}/\text{kg}$), naphthalene (0.84 Jq $\mu\text{g}/\text{kg}$), toluene (1.8-4.4 $\mu\text{g}/\text{kg}$), and p/m-xylene (0.34 Jq-1.0 Jq $\mu\text{g}/\text{kg}$).
- VOC concentrations in soil were below the IG.
- TPH-d was detected using UVF-3100 in 8 of 28 samples (28.6%) at concentrations ranging from 2.99 to 199 mg/kg. Of the 8 detections, only the soil samples collected at the 1-foot interval in borings B71 (191 mg/kg), B72 (199 mg/kg) and B73 (184 mg/kg) exhibited TPH-d concentrations above the IG (100 mg/kg). The concentrations collected at depths beyond 4 feet decrease by an order of magnitude and are below the IG.

- TPH-g was not detected in samples.

Figure 5-20 and 5-21 show the sampling locations and constituent concentrations (where applicable) detected above an IG. The analytical results confirmed that VOCs and TPH-g in soil were below the IGs. Although TPH-d was detected at concentrations above the IG via UVF-3100, these detections were limited to the samples collected immediately below the asphalt surface (Figure 5-21). As no other VOCs were detected above the IGs in these or other samples collected from AOC M, the TPH-d readings are attributed to matrix interference as detailed in Section 5.2.2. Based on the data, no further work is recommended for AOC M.

5.2.3.15 AOC MM – Building A385

AOC MM, located to the east of AOC H, is comprised of Building A385, the paved area immediately west of the building, and a portion of the open area to the south of the building (Figure 5-22). In total the AOC encompasses an area approximately 275 feet by 275 feet. Inspection reports indicated that oil and organic solvents were used in the past at the AOC and that spillage/disposal may have occurred. No previous characterization activities have been conducted in AOC MM.

During this investigation, 7 borings (B32, B33, B34, B35, B36, B37 and B38) were completed in AOC MM to depths of 40 feet and 52 feet. Soil samples were collected at depths from 1 to 52 feet with a total of 100 soil samples collected (12 to 20 samples per boring) for analysis of VOCs and TPH. Based on the data the following can be stated:

- VOCs were not detected in the 100 samples analyzed using DSITMS.
- Six VOCs were detected in the 11 samples analyzed using SW8260B. collected from the Compounds detected occurred in the 1-2-foot interval in B34 and in the 39-40 foot samples from B34, B35, B36, B37 and B38 and included: acetone (5.7 Jq to 270 Jr $\mu\text{g}/\text{kg}$), 2-butanone (60 $\mu\text{g}/\text{kg}$), benzene (0.14 Jq to 2.2 $\mu\text{g}/\text{kg}$), carbon disulfide (0.36 Jq to 0.58 Jq $\mu\text{g}/\text{kg}$), tert-butyl alcohol (4.6 Jq $\mu\text{g}/\text{kg}$), and toluene (0.58 Jq to 2.0 $\mu\text{g}/\text{kg}$).
- VOC concentrations were below the IGs in soil samples analyzed using SW8260B.
- TPH-d was detected using UVF-3100 in 8 of 100 samples (8.0%) at concentrations ranging from 0.45 to 872 mg/kg. Of the 8 detections, only the soil samples collected at the 1 to 2-foot interval in borings B34 (686 mg/kg) and B35 (872 mg/kg) exhibited TPH-d concentrations above the IG (100 mg/kg).
- TPH-d (320Bk mg/kg) was detected in the 1-2 foot interval from B34 using SW8015. Due to blank contamination, this result is believed to be caused by cross contamination and is not representative of in-situ conditions.
- TPH-g was not detected at concentrations above the IG in samples analyzed using UVF-3100 or SW8015.

Figure 5-22 and 5-23 show the sampling locations and constituent concentrations (where applicable) detected above an IG. The analytical results confirmed that VOCs and TPH-g were not detected in soil at AOC MM at concentrations above the IGs. Although TPH-d was detected at concentrations above the IG via UVF-3100 and in one sample using SW8015, these detections were limited to the samples collected immediately below the asphalt surface (Figure 5-23). As no other VOCs were detected above the IGs in these or other samples collected from AOC MM, the TPH-d readings are attributed to matrix interference as detailed in Section 5.2.2. Based on the data, no further work is recommended for AOC MM.

5.2.3.16 AOC N – Suspected Landfill

AOC N, located near the northwestern corner of the Airport, was identified in the *Preliminary Report on Generators of PCE and TCE at the Chino Airport* (SBDEHS, 1989) as an alleged solid waste landfill (Figure 5-24). Based on the 1955 aerial image which shows an apparent bermed area, AOC N is approximately 300 feet by 300 feet in size. No prior characterization activities have been conducted in this area.

During this investigation, a total of 9 borings (B70, B86, B87, B88, B89, B90, B91, B92, and B96) were completed in AOC N to depths of 30 feet and 92 feet. Soil samples were collected at depths from 1 to 30 feet with a total of 85 soil samples collected (8 to 10 samples per boring) and analyzed for VOCs (85 samples), TPH (85 samples), SVOCs (52 samples), and metals (52 samples). Based on the data the following can be stated:

- VOCs were not detected in the 85 samples analyzed using DSITMS.
- Of the eight samples analyzed using SW8260B, results showed four fuel related compounds were detected in samples collected from the 28-30 foot interval. Compounds detected include benzene (0.15 Jq to 3.0 µg/kg), ethylbenzene (0.14 Jq µg/kg), toluene (1.4 to 1.7 µg/kg) and p/m-xylene (0.40 Jq µg/kg).
- VOCs were not detected at concentrations above the IGs in the eight samples analyzed using SW8260B.
- 11 SVOCs were detected in the 52 samples analyzed using Method SW8270C. Compounds detected include: acenaphthene (0.16 Jq mg/kg), benzo(a)pyrene (0.12 Jq mg/kg), benzo(g,h,i)perylene (0.15 Jq mg/kg), dimethyl phthalate (0.18 Jq to 0.37 Jq mg/kg), fluoranthene (0.13 Jq to 0.20 Jq mg/kg), indeno(1,2,3-c,d)pyrene (0.11 Jq mg/kg), 1-methylnaphthalene (0.18 Jq mg/kg), 2-methylnaphthalene (0.40 Jq mg/kg), naphthalene (0.13 Jq to 11 mg/kg), phenanthrene (0.13 Jq to 0.20 Jq mg/kg) and pyrene (0.13 Jq to 0.20 Jq mg/kg).
- Of the SVOCs detected, dimethyl phthalate, 2-methylnaphthalene and naphthalene were detected above the IGs. Dimethyl phthalate was detected above the IG (0.035 mg/kg) in 7 borings. Detections occurred in 28 of 52 samples (54%); 3 samples from B70 (0.18 Jq to 0.19 Jq mg/kg) at depths between 19 feet and 30 feet bgs; 3 samples from B86 (0.10 Jq to 0.20 Jq mg/kg) at depths between 10 feet and 20 feet bgs; 6 samples from B87 (0.18 Jq to 0.23 Jq mg/kg) at depths between

4 feet and 30 feet bgs; 5 samples from B88 (0.23 Jq to 0.35 Jq mg/kg) at depths between 4 feet and 30 feet bgs; 5 samples from B91 (0.25Jq to 0.37 Jq mg/kg) at depths between 4 feet and 30 feet bgs; and one sample from B96 (0.26 Jq) at 28-30 feet bgs.

- 2-methylnaphthalene was detected above the IG (0.25 mg/kg) in 1 of 52 samples (2%) collected from B88 (0.40 Jq mg/kg) at a depth of 28-30 feet bgs.
- Naphthalene was detected above the IG (3.6 mg/kg) in 1 of 52 samples (2%) collected from B88 (11 mg/kg) at a depth of 28-30 feet bgs.
- TPH-d was detected using UVF-3100 in 29 of 85 samples (34.1%) at concentrations ranging from 0.17 to 55 mg/kg. TPH-g was detected in 3 of 85 samples (3.5%) at concentrations ranging from 0.96 to 30 mg/kg.
- TPH-d and TPH-g were not detected at concentrations above the IGs in any of the samples analyzed using UVF-3100 and/or SW8015.

Figures 5-24 and 5-25 show the sampling locations and constituent concentrations (where applicable) detected above an IG. No evidence of refuse or organic waste material was encountered in borings down to depths of 30 to 92 feet. The analytical results confirmed that VOCs, TPH-d and TPH-g were not detected in soil at AOC N at concentrations above the IGs.

Discrete detections of naphthalene and 2-methylnaphthalene were detected in a single sample collected from AOC N at 28-30 feet. These constituents were not detected in samples collected from adjacent borings at similar depths. The dimethyl phthalate detections in the soil samples are likely due to cross contamination, as low level detections were consistent across many samples. Phthalates are a common laboratory contaminant for samples analyzed using SW8270C. Soil data for AOC N does not indicate the presence of a landfill. Groundwater samples were collected in AOC N during the investigation. Groundwater sampling results and findings will be discussed in the forthcoming Supplemental RI Report. Based on the data, no further work is recommended for AOC N.

5.2.3.17 AOC NN – Former Building 30

AOC NN, located south of runway 21 in the northeastern quadrant of the Airport, consists of former Building 30 and the open area immediately surrounding it and to the south (Figure 5-26). The AOC was identified in the *Preliminary Report on Generators of PCE and TCE at the Chino Airport* (SBDEHS, 1989) as being used for aircraft stripping, painting, and crop dusting activities. In 1988, a 2,000 gallon spill of an unknown chemical and discharges of unknown substances from barrels to the north of the building were reported to have occurred in this area. Prior characterization activities have been focused around the footprint of the former building and have not assessed the area to the south.

During this investigation, 10 borings (B76, B77, B78, B79, B80, B81, B82, B83, B84, and B85) were completed in AOC NN to a depth of 20 feet. Soil samples were collected at depths from 1 to 20 feet with a

total of 74 soil samples collected (7 to 8 samples per boring) for analysis of VOCs. Based on the data the following can be stated:

- DSITMS results showed that VOCs were not detected in the samples analyzed.
- Of the 5 samples analyzed using SW8260B, results showed three fuel related compounds, benzene, tert-butyl alcohol and toluene, were detected in the 19-20 foot samples in B77, B78, B79, B82 and B84. Detected concentrations of benzene ranged from 0.22 Jq to 0.86 Jq $\mu\text{g}/\text{kg}$. Detected concentrations of tert-butyl alcohol ranged from 5.2 Jq to 6.5 Jq $\mu\text{g}/\text{kg}$. Detected concentrations of toluene ranged from 0.73 Jq to 1.2 $\mu\text{g}/\text{kg}$.
- No VOCs were detected at concentrations above the IGs in samples analyzed using SW8260B.

Figure 5-26 show the sampling locations in AOC NN. The analytical results confirmed that VOCs are not present at concentrations above the IGs in the subsurface soils at AOC NN the IGs. Based on the data, no further soil work is recommended.

5.2.3.18 AOC O – U.S. Forest Service Area/Reported Solid Waste Landfill

AOC O is located approximately 300 feet southeast of AOC Z near the central portion of the Airport property (Figure 5-27). The AOC was identified in the *Preliminary Report on Generators of PCE and TCE at the Chino Airport* (SBDEHS, 1989) as being used by the U.S. Forest Service for the mixing and loading of chemical fire retardants and later reportedly used as a solid waste landfill. No previous characterization activities have been conducted in this area.

During this investigation, 5 borings (B39, B40, B46, B47, and B48) were completed in AOC O to depths of 25 feet and 30 feet. Soil samples were collected at depths from 1 to 30 feet with a total of 48 soil samples collected (9 to 10 samples per boring) for analysis of VOCs (48 samples), TPH (48 samples), SVOCs (28 samples) and metals (28 samples). Based on the data the following can be stated:

- VOCs were not detected in the 48 samples analyzed using DSITMS.
- Of the 4 samples analyzed using SW8260B, results showed one fuel related compound (benzene), was detected in the 28-30 foot samples from B39, B40 and B46. Detected concentrations of benzene ranged from 0.12 Jq to 0.8 $\mu\text{g}/\text{kg}$ and were below the IG.
- Of the 28 samples analyzed using SW8270C, results showed that dimethyl phthalate was detected in samples at concentrations ranging from 0.20 Jq to 0.34 Jq mg/kg . Dimethyl phthalate was detected above the IG (0.035 mg/kg) in 3 borings. Detections occurred in 15 of 28 samples (54%); 6 samples in B46 (0.20 Jq to 0.32 Jq mg/kg) at depths between 3 feet and 30 feet bgs; 4 samples in B47 (0.30 Jq to 0.34 Jq mg/kg) at depths between 1 feet and 19 feet bgs; and 5 samples in B48 (0.22 Jq to 0.33 Jq mg/kg) at depths between 4 feet and 30 feet bgs.
- TPH-d was detected in 6 of 48 samples (12.5%) analyzed using UVF-3100 at concentrations ranging from 0.39 to 155 mg/kg . Of the 6 detections, one sample collected at the 1-foot interval in boring B48 (155 mg/kg) exhibited TPH-d concentrations above the IG (100 mg/kg).

- TPH-g not detected above the IG in the 48 samples analyzed using UVF-3100.
- TPH-g and TPH-d were not detected in the four samples analyzed using SW8015.

Figures 5-27, 5-28 and 5-29 show the sampling locations and constituent concentrations (where applicable) detected above an IG. No evidence of refuse or organic waste material was encountered in borings down to depths of 30 feet. The analytical results confirmed that VOCs and TPH-g were not present in soils at concentrations above the IGs at AOC O. The dimethyl phthalate detections in samples are likely due to cross contamination, as low level detections were consistent across many samples. Phthalates are a common laboratory contaminant for this method.

Although TPH-d was detected in one sample at concentrations above the IG via UVF-3100, this detection occurred in a sample collected immediately below an asphalt surface (Figure 5-28). As no other VOCs were detected above the IGs in these or other samples collected from AOC O, the TPH-d result for the 1 foot sample from B48 is attributed to matrix interference as detailed in Section 5.2.2. Based on the data, no further work is recommended for AOC O.

5.2.3.19 AOC OO – Former PAC Wash Rack Area Drain

AOC OO, located on the western side of AOC G, was identified in the *Preliminary Report on Generators of PCE and TCE at the Chino Airport* (SBDEHS, 1989) as discharge piping for waste water from the former PAC wash rack area (Figure 5-30). The piping, visible in the 1955 aerial image, runs in a southeast orientation from AOC G to a series of former drainage ponds (AOC H) south of Building A280. No prior characterization activities have been conducted in AOC OO.

During this investigation, a total of 10 borings (B43, B44, B45, B52, B53, B54, B55, B56, B68 and B69) were completed in AOC OO to depths of 34 feet and 55.5 feet. Soil samples were collected at depths from 1 to 55 feet with a total of 136 soil samples collected (11 to 18 samples per boring) for analysis of VOCs (136 samples) and TPH (109 samples). Based on the data the following can be stated:

- VOCs were not detected in the 136 samples analyzed using DSITMS.
- Of the 18 samples analyzed using SW8260B, the results showed that 16 VOCs were detected. Compounds detected include acetone (5.9 Jq to 12 Jq µg/kg), 2-butanone (3.4 Jq to 6.7 Jq µg/kg), benzene (0.26 Jq to 5.6 µg/kg), carbon disulfide (0.81 Jq µg/kg), chlorobenzene (0.43 Jq to 0.49 Jq µg/kg), 1,2-dichlorobenzene (0.35 Jq to 88 µg/kg), 1,3-dichlorobenzene (0.92 to 2.7 µg/kg), 1,4-dichlorobenzene (0.18 Jq to 26 µg/kg), ethylbenzene (0.16 Jq to 0.30 Jq µg/kg), tertiary-butyl alcohol (5.3 Jq µg/kg), toluene (0.61 Jq to 3.0 µg/kg), 1,2,3-trichlorobenzene (1.1 Jq µg/kg), 1,2,4-trichlorobenzene (0.26 Jq to 3.5 µg/kg), trichlorofluoromethane (0.34 Jq to 1.2 Jq µg/kg), PCE (0.30 Jq µg/kg), and p/m-xylene (0.29 Jq to 0.57 Jq µg/kg).
- VOC concentrations in the 18 soil samples analyzed using SW8260B were below the IGs.

- TPH-d was detected using UVF-3100 in 21 of 109 samples (19.3%) at concentrations ranging from 0.01 to 773 mg/kg. Of the 21 detections, only the soil samples collected at the 1-foot interval in borings B43 (773 mg/kg), and B52 (395 mg/kg) and 4-foot interval in B44 (339 mg/kg) exhibited TPH-d concentrations above the IG (100 mg/kg). The concentrations collected at a depth of 4 feet in B-43 and B52 and 8-feet in B44 are non-detect or decrease by an order of magnitude and are below the IG.
- TPH-g was not detected above the IG in the 109 samples analyzed using UVF-3100.
- TPH-g and TPH-d were not detected above the IG in samples from AOC OO that were analyzed using SW8015.

Figures 5-30 and 5-31 show the sampling locations and constituent concentrations (where applicable) detected above an IG. The analytical results confirmed that VOCs and TPH-g were not present in soils at concentrations above the IGs at AOC OO. Although TPH-d was detected at concentrations above the IG via UVF-3100, these detections were limited to the samples collected immediately below the asphalt surface (Figure 5-31). As no other VOCs were detected at concentrations above the IGs in these or other samples collected from AOC OO, the TPH-d readings are attributed to matrix interference as detailed in Section 5.2.2. Based on the data, no further work is recommended for AOC OO.

5.2.3.20 AOC Z – Waste Water Discharge from Building A495

AOC Z, located approximately 650 feet east of AOC MM, was identified in the *Preliminary Report on Generators of PCE and TCE at the Chino Airport* (SBDEHS, 1989) as a runoff area for discharge of waste water from Building A495 where aircraft maintenance, repair, stripping and painting have occurred (Figure 5-32). The AOC is oriented generally to the southwest from Building A495 and encompasses an area approximately 1,000 feet by 50 feet in size. Prior investigations have identified various VOCs, in particular TCE, 1,1,1-TCA and 1,1-DCE, in shallow soils and/or soil gas within the AOC (SEACOR, 1992a; Tetra Tech 2005). A perched water layer was also identified during the 1992 SEACOR investigation at depths ranging from 4 to 13 feet within the area.

During this investigation, 9 borings (B135, B142, B143, B144, B145, B146, B147, B151 and B152) were completed in AOC Z to a depth of 20 feet. Soil samples were collected at depths from 1 to 20 feet with a total of 38 soil samples collected (1 to 7 samples per boring) for analysis of VOCs. Based on the data the following can be stated:

- VOCs were not detected in the 38 samples analyzed using DSITMS.
- Five VOCs were detected in the eight samples from AOC Z that were analyzed using SW8260B. Compounds detected include: acetone (5.3 Jq to 35 Jq $\mu\text{g}/\text{kg}$), 2-butanone (3.4 Jq to 8.8 Jq $\mu\text{g}/\text{kg}$), benzene (0.30 Jq to 2.3 $\mu\text{g}/\text{kg}$), carbon disulfide (0.28 Jq to 0.72 Jq $\mu\text{g}/\text{kg}$), and toluene (0.57 Jq to 0.70 Jq $\mu\text{g}/\text{kg}$).

- VOC concentrations in the eight soil samples analyzed using SW8260B were below the IGs.

Figure 5-32 shows the sampling locations and constituent concentrations (where applicable) detected above an IG. A perched water zone, as suggested by prior investigations, was not observed in borings advanced during this phase of assessment. The analytical results confirmed that VOCs in soil at AOC Z were below the IGs. Soil gas samples were collected in AOC Z to assess vapor intrusion. The analytical results and findings of the soil gas investigation in AOC Z are discussed in Section 5.3. Based on the data, no further soil work is recommended.

5.3 SOIL GAS CHARACTERIZATION IN AOCS

The following sections summarize the soil gas characterization results for the Chino Airport.

5.3.1 Objective and Approach

The objective of the soil gas sampling was performed to complete a Tier I evaluation of potential health risks associated with the vapor intrusion pathway near Building A240 and to characterize the distribution of VOCs in AOC Z.

Work performed during the field investigation consisted of installing 23 soil gas probes in 14 of the borings drilled for the soil characterization. One of the probes from AOC J-K (P-D12) could not be purged due to low-flow conditions, so only 22 soil gas samples were collected and analyzed. The soil gas probe locations are shown on Figures 5-33 and 5-34; details on the location and construction of each probe are provided in Table 2.

5.3.2 Data Quality Review

A total of 23 soil gas samples (including 3 trip blanks) were analyzed by AETL for VOCs using USEPA Method TO-15. Level II data validation was performed to assess the usability of the data. Data validation included evaluation of sample holding times, method and field blank sample results, LCS results, surrogate recovery results, field duplicate results, calibration compliance, compound identification, and method compliance. No QA/QC errors were noted in the results, and the data were found usable for the intended purpose. A copy of the data validation memorandum prepared by the project chemist is provided in Appendix D.

5.3.3 Results and Discussion

Analytical results for the soil gas samples (in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$)) are summarized in Table 15 and probe locations are shown Figures 5-33 and 5-34. An overview of the VOCs detected, concentration

ranges, frequency of detections and discussion of the results for each AOC is summarized below. Copies of the original laboratory reports are provided in Appendix D.

5.3.3.1 AOC Z – Waste Water Discharge from Building A495

A total of 18 soil gas probes were installed in 9 borings at various depths from 5 feet to 19.5 feet. Analytical results for soil gas are summarized in Table 15. Detection statistics for the soil gas results are summarized in Table 16. Based on the data, the following can be stated:

- Seventeen compounds were detected in the TO-15 analyses. Compounds detected include acetone (10 to 33.2 $\mu\text{g}/\text{m}^3$), benzene (6.26 to 40.2 $\mu\text{g}/\text{m}^3$), carbon disulfide (3.73 to 105 $\mu\text{g}/\text{m}^3$), cyclohexane (3.18 to 18.0 $\mu\text{g}/\text{m}^3$), ethylbenzene (3.13 to 12 $\mu\text{g}/\text{m}^3$), n-hexane (3.39 to 7.61 $\mu\text{g}/\text{m}^3$), propene (5.56 to 14.1 $\mu\text{g}/\text{m}^3$), PCE (6.03 to 10.0 $\mu\text{g}/\text{m}^3$), tetrahydrofuran (3.53 to 8.95 $\mu\text{g}/\text{m}^3$), toluene (3.35 to 65.6 $\mu\text{g}/\text{m}^3$), trichlorofluoromethane (8.82 to 9.38 $\mu\text{g}/\text{m}^3$), 1,2,4-trimethylbenzene (4.87 to 11.4 $\mu\text{g}/\text{m}^3$), 1,3,5-trimethylbenzene (3.78 to 6.88 $\mu\text{g}/\text{m}^3$), o-xylene (3.47 to 14 $\mu\text{g}/\text{m}^3$), m,p-xylenes (4.77 to 44.6 $\mu\text{g}/\text{m}^3$), n-heptane (3.54 to 5.2 $\mu\text{g}/\text{m}^3$) and naphthalene (10.1 to 28.7 $\mu\text{g}/\text{m}^3$).
- Of these VOCs, 12 compounds were detected in more than 50% of the samples collected including acetone, benzene, carbon disulfide, cyclohexane, ethylbenzene, tetrahydrofuran, toluene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, o-xylene, m,p-xylenes, and naphthalene.

Comparison to Selected Investigation Goals

For this evaluation, the maximum detected concentrations were used to conduct a screen against the selected IGs and to estimate maximum potential risks and hazards. A summary of the various site screening levels and the selected IGs are summarized in Table 17. As indicated in the table, the screening levels used to evaluate the site consist of Tier 1 environmental screening levels (ESLs) developed by the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB 2013a,b) and soil gas risk-based screening levels (RBSLs) developed using DTSC and USEPA recommended air screening levels in conjunction with default soil gas attenuation factors as described in more detail below.

As shown in Table 18, none of the maximum detected concentrations within AOC Z exceeded the corresponding IG. Of the chemicals detected, benzene and naphthalene were the only chemicals with maximum concentrations approaching the corresponding IG. The maximum benzene concentration of 40.2 $\mu\text{g}/\text{m}^3$ and the maximum naphthalene concentration of 28.7 $\mu\text{g}/\text{m}^3$ represent 96% and 80% of the corresponding IGs, respectively. The maximum detections of the other compounds ranged from 20-times to 350,000-times lower than the corresponding site IG.

Although no chemicals were associated with maximum concentrations that exceeded the corresponding site IG, a risk screening was conducted to evaluate potential cumulative risks and hazards due to the fact that a few chemicals were detected at levels approaching the corresponding site IG.

Screening Level Risk Evaluation

Similar to the comparison to the selected IGs, the maximum detected concentrations were conservatively used to estimate the maximum potential risks corresponding to a residential exposure scenario. This evaluation was conducted by comparing the maximum detected concentrations to the risk-based soil gas screening levels summarized in Table 17 (for carcinogenic and non-carcinogenic endpoints) that are considered protective of a residential vapor intrusion exposure scenario.

DTSC and USEPA air screening levels were used as the basis for developing soil gas screening levels for each of the chemicals detected in soil gas at the Site. In accordance with Human Ecological Risk Department's (HERD's) Human Health Risk Assessment (HHRA) Note 3 (DTSC 2014), DTSC-modified air screening levels were selected for any chemical detected in soil gas with recommended values. For the remaining chemicals, USEPA (2014) regional screening levels (RSLs) for residential and industrial worker air exposures were used. For this evaluation, target risk levels were determined according to USEPA and California Environmental Protection Agency (Cal/EPA) guidance and are the same as those used by DTSC and USEPA to develop risk-based air screening levels. USEPA's 1990 guidance indicates that a carcinogenic risk probability between 1 in 1,000,000 and 1 in 10,000 (1×10^{-6} to 1×10^{-4}) are generally acceptable. The lower end of the target risk range is typically applied to residential scenarios, whereas the higher range is typically considered appropriate for commercial/industrial situations. For this evaluation, carcinogenic air RSLs were developed based on a target risk of 1×10^{-6} for both residents and industrial workers. For potential non-carcinogenic effects, USEPA (1990) indicates that non-carcinogenic chemicals should not be present at levels expected to cause adverse health effects. Therefore, for this evaluation, potential hazards for all on-site receptors are evaluated based on a target hazard index (HI) of 1. Individual chemical exposures that yield HIs of less than one are not expected to result in adverse non-cancer health effects (USEPA 1989).

Soil gas screening levels were derived from DTSC and USEPA recommended air screening levels in accordance with DTSC vapor intrusion guidance (DTSC, 2011), HHRA Note Number 3 (DTSC, 2014), and preliminary endangerment assessment guidance (DTSC, 2013). To derive soil gas screening levels for a preliminary screening evaluation, DTSC recommends the use of default soil gas to indoor air attenuation factors. The default attenuation factors reflect reasonably protective assumptions for conditions in

California for the contamination of indoor air due to vapor intrusion. For a future residential building the default attenuation factor is 0.001. For a future commercial building the default attenuation factor is 0.0005. The soil gas risk-based screening levels (RBSLs) used in this evaluation were derived by dividing the DTSC and USEPA recommended air RSLs by the default soil gas attenuation factor. The resulting residential and commercial/industrial (carcinogenic and non-carcinogenic endpoints) soil gas RBSLs are summarized in Table 17.

Risk Screening Results

As shown in Table 19, the maximum estimated cumulative cancer risks for potential residential receptors exposed to indoor vapors based on the residential soil gas RBSLs and the maximum detected soil gas concentrations is 9×10^{-7} , which is below the low end of the USEPA target risk range of 10^{-4} to 10^{-6} and the target risk level for residents (1×10^{-6}). The estimated non-carcinogenic hazard index (HI) is 0.01, which is well below the target HI of 1. The results of this conservative evaluation indicate that it is unlikely that chemicals detected in soil gas within AOC Z are present at levels that would be expected to result in adverse health effects under a residential exposure scenario. Since the residential screening levels used in this evaluation are lower than the corresponding industrial soil gas RBSLs (i.e., are protective of industrial exposures), it is also very unlikely that the levels of chemicals detected in soil gas would be expected to result in adverse health effects under an industrial exposure scenario.

5.3.3.2 AOC J-K – PAC Paint Shop and Paint Shed Areas

A total of five soil gas probes were installed in two borings to 5 feet bgs and three borings to 12 feet bgs. Three borings, B162, B163 and B164, were installed at a 20% angle adjacent to Building A240. Analytical results for soil gas are summarized in Table 15. Detection statistics for the soil gas results are summarized in Table 16. Based on the data, the following can be stated:

- Twenty-one compounds were detected in the TO-15 analyses. Compounds detected include acetone (13.6 to 25.4 $\mu\text{g}/\text{m}^3$), benzene (5.11 to 6.83 $\mu\text{g}/\text{m}^3$), carbon disulfide (7.59 to 39.2 $\mu\text{g}/\text{m}^3$), carbon tetrachloride (10.8 to 22.9 $\mu\text{g}/\text{m}^3$), chloroform (5.52 to 7.13 $\mu\text{g}/\text{m}^3$), cyclohexane (4.03 to 7.84 $\mu\text{g}/\text{m}^3$), dichlorodifluoromethane (6.03 $\mu\text{g}/\text{m}^3$), ethylbenzene (3.94 to 11.7 $\mu\text{g}/\text{m}^3$), n-hexane (6.62 to 7.12 $\mu\text{g}/\text{m}^3$), propene (4.04 $\mu\text{g}/\text{m}^3$), PCE (8.61 to 42 $\mu\text{g}/\text{m}^3$), tetrahydrofuran (3.06 to 6.18 $\mu\text{g}/\text{m}^3$), toluene (3.81 to 41.1 $\mu\text{g}/\text{m}^3$), TCE (39 $\mu\text{g}/\text{m}^3$), trichlorofluoromethane (6.63 to 14.1 $\mu\text{g}/\text{m}^3$), 1,2,4-trimethylbenzene (4.76 to 9.48 $\mu\text{g}/\text{m}^3$), 1,3,5-trimethylbenzene (5.16 to 6.83 $\mu\text{g}/\text{m}^3$), o-xylene (4.21 to 13.5 $\mu\text{g}/\text{m}^3$), m,p-xylenes (4.77 to 38.3 $\mu\text{g}/\text{m}^3$), and naphthalene (24.5 $\mu\text{g}/\text{m}^3$).

- Of these VOCs, seventeen compounds were detected in more than 50% of the samples including: acetone, benzene, carbon disulfide, carbon tetrachloride, chloroform, cyclohexane, ethylbenzene, n-hexane, PCE, tetrahydrofuran, toluene, trichlorofluoromethane, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, o-xylene, m,p-xylene, and n-heptane.

Comparison to Selected Investigation Goals

As shown in Table 20, none of the maximum detected concentrations within AOC J-K exceed the corresponding IG. Of the chemicals detected, carbon tetrachloride and naphthalene were the only chemicals with maximum concentrations approaching the corresponding IG. The maximum carbon tetrachloride concentration of 22.9 $\mu\text{g}/\text{m}^3$ and the maximum naphthalene concentration of 24.5 $\mu\text{g}/\text{m}^3$ represent 79% and 68% of the corresponding IGs, respectively. The maximum detections of the other compounds ranged from roughly 5-times to 803,000-times lower than the corresponding site IG.

Although no chemicals were associated with maximum concentrations that exceeded the corresponding site IG, a risk screening was conducted to evaluate potential cumulative risks and hazards due to the fact that a few chemicals were detected at levels approaching the corresponding site IG.

Screening Level Risk Evaluation

Similar to the comparison to the selected IGs, the maximum detected concentrations were conservatively used to estimate the maximum potential risks corresponding to a residential vapor intrusions exposure scenario. This evaluation was conducted by comparing the maximum detected concentrations to the soil gas RBSLs (both carcinogenic and non-carcinogenic endpoints) summarized in Table 17 that are considered protective of a residential vapor intrusion exposure scenario.

Risk Screening Results

As shown in Table 21, the maximum estimated cumulative cancer risks for potential residential receptors exposed to indoor vapors based on the residential soil gas RBSLs and the maximum detected soil gas concentrations is 1×10^{-6} , which is equal to the low end of the USEPA target risk range of 10^{-4} to 10^{-6} and equal to the target risk for residents (1×10^{-6}). The estimated non-carcinogenic hazard index (HI) is 0.03, which is well below the target HI of 1.

The results of this conservative evaluation indicate that it is unlikely that the chemicals detected in soil gas within AOC J-K are present at levels that would be expected to result in adverse health effects under a residential exposure scenario. Since the residential soil gas RBSLs used in this evaluation are lower than the corresponding industrial soil gas RBSLs (i.e., are protective of industrial exposures), it is also unlikely

that the levels of chemicals detected in soil gas would be expected to result in adverse health effects under an industrial exposure scenario.

5.4 METALS EVALUATION

The following sections summarize the metals evaluation conducted for the Chino Airport. Background comparisons were conducted to identify metals potentially elevated above background in soil in AOCs N and O identified as suspect landfills in the *Historical Site Assessment Report* (Tetra Tech 2013a).

5.4.1 Objective and Approach

For this evaluation, the soil screening process consisted of a comparison of AOC-specific metal concentrations in soil to risk-based screening levels provided by the San Francisco Bay Regional Water Quality Control Board, California DTSC, and USEPA Region 9, including:

- Tier 1 Environmental Screening Levels (ESLs) (SFBRWCB, 2013);
- USEPA Region 9 Soil RSLs and MCL-based SSLs (USEPA, 2014); and
- Modified Soil Screening Values recommended by DTSC's (DTSC, 2014).

These screening levels were developed to be protective of potential exposures to residents or industrial workers, or to be protective of contaminants leaching from soil to groundwater assuming that it could be used as a source of drinking water (i.e., protective of USEPA maximum contaminant levels (MCLs)). For each chemical, the minimum available screening level was selected as the IG. The various soil screening goals as well as the selected IGs are summarized in Table 23.

For this evaluation, the screening was conducted using the maximum detected concentrations and 95% upper confidence limits (UCL₉₅) on the mean concentrations associated with soil data for AOC N and AOC O collected at the site between July and August 2014. The UCL₉₅ concentrations were calculated using USEPA recommended ProUCL software (v5.0.00) (USEPA, 2013). The UCL₉₅ concentrations are considered to be representative exposure point concentrations (EPC) for a particular AOC and are recommended for evaluating potential exposures and comparing site-specific levels to screening criteria. Summary statistics associated with the datasets for each AOC used in this evaluation are provided in Table 24.

In addition to the comparison to the screening levels identified above, statistical comparisons to site-specific background levels were also conducted for metals associated with UCL₉₅ concentrations exceeding the corresponding IG. This was done since metals detected in soils may be naturally occurring constituents,

and guidance indicates that metals present at concentrations equivalent to (or, lower than) background do not generally warrant the implementation of remediation/mitigation efforts. Thus, concentrations of arsenic, barium, and lead in soils at AOC N and AOC O were compared to background concentrations. The background sampling locations are shown on Figure 5-35. Sampling locations for AOC N and AOC O are shown in Figures 5-36 and 5-37.

5.4.2 Screening Level Risk Evaluation

The results of the metals screening evaluation for AOC N and AOC O are provided in Table 25 and described below.

5.4.2.1 AOC N – Suspected Landfill

As shown in Table 25, fifteen metals were detected in soils in AOC N. The maximum detected soil concentrations exceeded the corresponding IG for seven metals including arsenic, barium, cadmium, cobalt, copper, lead, and selenium. All detected concentrations for the remaining 8 metals were below their respective IGs, which indicates that the levels of these chemicals (beryllium, chromium, mercury, molybdenum, nickel, silver, vanadium, and zinc) in soil would not be expected to result in adverse health effects to potential receptors via potential exposures to soil or groundwater potentially impacted via metals leaching from soil.

The seven metals with maximum concentrations that exceeded the corresponding IG were evaluated further by comparing the UCL95 concentrations (i.e., representative concentration for the entire AOC) to the IG and conducting a statistical comparison to background levels in some cases. The results of this evaluation are summarized below for each metal.

Arsenic: As shown in Table 25, the UCL95 for arsenic in AOC N is 1.3 mg/kg, which is greater than the corresponding IG of 0.29 mg/kg. However, only two arsenic results associated with one sampling location (B92-ND29-30 = 5.17 mg/kg and B92-ND29-30-DUP = 6.09) were associated with detected results that were slightly higher than the maximum background concentration of 4.43 mg/kg. Based on the background analysis in Appendix F, the distribution of arsenic in AOC N was identified as being similar to that of the background data. Additionally, it is noteworthy that the maximum detected result is well below the background concentration determined by (DTSC, 2008) for schools in southern California, i.e., 12 mg/kg. This comparison suggests that arsenic detected in AOC N is representative of background levels and is not associated with site activities.

Barium: As shown in Table 25, the UCL95 for barium in AOC N is 136 mg/kg, which is greater than the corresponding IG of 82 mg/kg. However, only two barium results associated with one sampling location (B70-ND25-26 = 284 mg/kg and B92-ND29-30-DUP = 287 mg/kg) were associated with detected results that were slightly higher than the maximum background concentration of 243 mg/kg. Additionally, as discussed in Appendix F, statistical analyses were performed to compare background and AOC N barium concentrations. The results indicate that the barium concentrations in AOC N are statistically indistinguishable from background levels. This comparison suggests that barium detected in AOC N is likely representative of background levels and is not associated with site activities.

Cadmium: As shown in Table 25, the UCL95 for cadmium in AOC N is 0.95 mg/kg, which is well below the corresponding IG of 4.6 mg/kg. It is noteworthy that only the maximum cadmium result (B91-ND4-5 = 13.7 mg/kg) exceeded the corresponding IG of 4.6 mg/kg. All other results were 4.43 mg/kg or lower, which are well below the corresponding IG. As indicated in Appendix F, a statistical comparison could not be performed due to the limited number of detections associated with the background dataset. However, a graphical analysis of the AOC N data suggests that the maximum detected result likely exceeds background levels. The results of this analysis indicate that the UCL95 of cadmium in soil in AOC N would not be expected to result in adverse health effects to potential residential or commercial receptors via potential exposures to soil or groundwater potentially impacted via cadmium leaching from soil.

Cobalt: As shown in Table 25, the UCL95 for cobalt in AOC N is 12 mg/kg, which is well below the corresponding IG of 23 mg/kg. It is noteworthy that only three cobalt results (B70-ND25-26 = 26.5 mg/kg, B87-ND28-30 = 24.1 mg/kg, and B92-ND29-30-DUP = 23.7 mg/kg) out of 60 slightly exceeded the corresponding IG of 23 mg/kg. The results of this analysis indicate that the levels of cobalt in soil in AOC N would not be expected to result in adverse health effects to potential receptors via potential exposures to soil or groundwater potentially impacted via cobalt leaching from soil. Additionally, as discussed in Appendix F, statistical analyses were performed to compare background and AOC N cobalt concentrations and the results indicate that the cobalt concentrations in AOC N are statistically indistinguishable from background levels. This comparison suggests that cobalt detected in AOC N is likely representative of background levels and is not associated with site activities.

Copper: As shown in Table 25, the UCL95 for copper in AOC N is 20 mg/kg, which is well below the corresponding IG of 46 mg/kg. It is noteworthy that only one copper result (B91-ND4-5 = 65.2 mg/kg) out of 60 exceeded the corresponding IG of 46 mg/kg. As discussed in Appendix F, statistical analyses were performed to compare background and AOC N copper concentrations and the results indicated that the maximum copper concentration in AOC N may be higher than background. It is noteworthy that the IG of

46 mg/kg is based on the protection of groundwater via leaching, which is very conservative since the depth to groundwater at the site is approximately 75 feet bgs and would not likely be impacted by copper at such a shallow depth. The maximum concentration is well below the corresponding residential and industrial soil RSL, which are 3,100 mg/kg and 4,700 mg/kg, respectively. Thus, the results of this analysis indicate that the levels of copper in soil in AOC N would not be expected to result in adverse health effects to potential receptors via potential exposures to soil or groundwater potentially impacted via metals leaching from soil.

Lead: As shown in Table 25, the UCL95 for lead in AOC N is 16 mg/kg, which slightly exceeds the corresponding IG of 14 mg/kg. Only three lead results (B86-ND4-5 = 21.2 mg/kg, B89-ND4-5 = 34.4 mg/kg, and B91-ND4-5 = 125 mg/kg) out of 60 exceeded the corresponding IG of 14 mg/kg. Similarly, only four lead results exceeded the maximum background concentration of 11 mg/kg (samples noted above and sample B91-ND16-17 = 12.9 mg/kg). It is noteworthy that the UCL95 for lead exceeds the corresponding IG due to the maximum result of 125 mg/kg. Excluding this result, the resulting UCL95 for lead would be 5.5 mg/kg, which is well below the corresponding IG. As discussed in Appendix F, statistical analyses were performed to compare background and AOC N lead concentrations and the results indicated that the maximum lead concentration in AOC N may be higher than background. It is noteworthy that the IG of 14 mg/kg is based on the protection of groundwater via leaching, which is very conservative since the depth to groundwater at the site is approximately 75 feet bgs and would not likely be impacted by lead at such a shallow depth. Although the maximum result exceeds the residential RSL of 80 mg/kg it is less than the commercial/industrial RSL of 320 mg/kg. Soils associated with this sampling location could pose a potential risk to residents but would not pose a risk to commercial/industrial receptors (which is the only receptor group that could be exposed under the current land use).

Selenium: As shown in Table 25, the UCL95 for selenium in AOC N is 0.18 mg/kg, which is below the corresponding IG of 0.26 mg/kg. It is noteworthy that selenium was only detected in 1 out of 60 samples (B88-ND10-11 = 0.751 mg/kg) and had detection limits that were generally equal to the corresponding IG. Based on the low detection frequency (1.67%) which is less than 5%, the detected selenium concentration may be considered to be an artifact due to sampling (USEPA 1989), analytical, or other problems and not related to site activities. Additionally, it is noteworthy that the IG of 0.26 mg/kg is based on the protection of groundwater via leaching, which is very conservative since the depth to groundwater at the site is approximately 75 feet bgs and would not likely be impacted by lead at such a shallow depth. The maximum concentration is well below the corresponding residential and industrial soil RSL, which are 390 mg/kg and 5,800 mg/kg, respectively. The results of this analysis indicate that the levels of selenium in soil in AOC N

would not be expected to result in adverse health effects to potential receptors via potential exposures to soil or groundwater potentially impacted via selenium leaching from soil.

Based on the analysis described above, the levels of metals in soil in AOC N are either statistically indistinguishable from background or are present at levels that would not be expected to result in adverse health effects to potential receptors via potential exposures to soil or groundwater potentially impacted via metals leaching from soil.

5.4.2.2 AOC O – U.S. Forest Service Area/Reported Solid Waste Landfill

As shown in Table 25, fourteen metals were detected in soils within Area O. Only the maximum detected results for arsenic and barium exceeded the corresponding IG. All detected concentrations for the remaining 12 metals were below their corresponding IGs, which indicates that the levels of these chemicals would not be expected to result in adverse health effects to potential receptors via potential exposures to soil or groundwater potentially impacted via metals leaching from soil.

Since the maximum concentrations exceeded the corresponding IG, arsenic and barium were evaluated further by comparing the UCL95 concentrations (i.e., representative concentration for the entire AOC) to the IG and conducting a statistical comparison to background levels. The results of this evaluation are summarized below for each metal.

Arsenic: As shown in Table 25, the UCL95 for arsenic in AOC O is 1.6 mg/kg, which is greater than the corresponding IG of 0.29 mg/kg. However, only two arsenic results out of 32 (B40-OD5-6 = 4.51 mg/kg and B47-OD18-19 = 5.1 mg/kg) were associated with detected results that were slightly higher than the maximum background concentration of 4.43 mg/kg. Based on the background analysis in Appendix F, the distribution of arsenic in AOC O was identified as being similar to that of the background data. Additionally, it is noteworthy that these results are well below the background concentration determined by (DTSC, 2008) for schools in southern California, i.e., 12 mg/kg. This comparison suggests that arsenic detected in AOC is representative of background levels and is not associated with site activities.

Barium: As shown in Table 25, the UCL95 for barium in AOC O is 148 mg/kg, which is greater than the corresponding IG of 82 mg/kg. However, only the maximum barium result (B46-OD22-23 = 269 mg/kg) was slightly higher than the maximum background concentration of 243 mg/kg. Additionally, as discussed in Appendix F, statistical analyses were performed to compare background and AOC O barium concentrations and the results indicate that the barium concentrations in AOC O are statistically indistinguishable from background levels. This comparison suggests that barium detected in AOC O is likely representative of background levels and is not associated with site activities.

Based on the analysis described above, the levels of metals in soil in AOC O are either statistically indistinguishable from background or are present at levels that would not be expected to result in adverse health effects to potential receptors via potential exposures to soil or groundwater potentially impacted via metals leaching from soil.

5.5 SUMMARY OF IMPACTS IN SOIL

Additional information collected as part of this investigation with respect to the affected soil at the 18 AOCs is described in this section. Therefore, the individual discussions in Section 5.2 for each AOC represent the most current and detailed discussion regarding the distribution of affected soil at each AOC. However, an overall sitewide description of the extent of impacts is provided in this section for the three primary groundwater COPCs (TCE, 1,2,3-TCP and 1,2-DCA) and one secondary groundwater COPC (1,1-DCE) that were detected in soil at concentrations above an IG during the remedial investigation. This section incorporates all available soil sampling data collected since 1992.

Trichloroethene

TCE has been detected at 7 AOCs (AOC EE, AOC G, AOC H, AOC HH, AOC J-K, AOC KK and AOC Z) at the Airport. TCE concentrations in soil ranged from 0.35 Jq to 23 µg/kg, with the highest concentration detected in AOC HH. TCE impacts in soil are localized and overlie the TCE groundwater plume in the head area. Summary information for the TCE-impacted areas with the maximum concentration, media and depth detected in soil and soil gas is shown below. Given the very small areal extents of TCE in soils at the AOCs, a sitewide figure showing the impacts is not feasible. Based on the concentrations of TCE present in soil and soil gas, a significant soil source mass is no longer present at the Airport.

Summary of TCE Impacted Soil Areas

AOC	Description	Media	Maximum Concentration (µg/kg / µg/L)	Depth of Maximum Detection (ft bgs)
EE	Former Cal Aero Restoration Yard	Soil	11	33
EE	Former Cal Aero Restoration Yard	Soil Gas	2.8	40
G	Former PAC Wash Rack Area	Soil	12	5-5.5
G	Former PAC Wash Rack Area	Soil Gas	1.81	15
H	Former Waste Disposal Ponds	Soil	0.98 Jq	42-43
HH	Buildings A230, A235, A340, A435	Soil	23	24
J-K	PAC Paint Shop and Paint Shed Areas	Soil	7	49-49.5
J-K	PAC Paint Shop and Paint Shed Areas	Soil Gas	8.3	19
KK	Building A270, Yanks Museum	Soil	0.41 Jq	56-57
Z	Waste Water Discharge from Building A495	Soil Gas	5	20-20.5

Notes:
 AOC – Area of Concern
 µg/kg – micrograms per kilogram
 ft bgs – feet below ground surface

1,2,3-Trichloropropane

TCP was detected at two AOCs (AOC G and AOC H). TCP concentrations in soil ranged from 3.0 J to 150 µg/kg, with the highest concentration detected in AOC G. TCP impacts in soil are localized and adequately defined in extent. Summary information for the TCP-impacted areas with the maximum concentration and depth detected in soil is shown below. Given the very small areal extents of the TCP in soils at the AOCs, a sitewide figure showing the impacts is not feasible. Figures 5-10 and 5-30 shows the TCP impacts in soil. Based on the concentrations of TCP present in soil, a significant soil source mass is no longer present at the Airport.

Summary of TCP Impacted Soil Areas

AOC	Description	Maximum Concentration (µg/kg)	Depth of Maximum Detection (ft bgs)
G	Former PAC Wash Rack Area	150	55
H	Former Waste Disposal Ponds	3 J	3 J

Notes:
 AOC – Area of Concern
 µg/kg – micrograms per kilogram
 ft bgs – feet below ground surface

1,2-Dichloroethane

Based on the data to date, 1,2-DCA has only been detected in soil in AOC G. 1,2-DCA was detected in soil at concentrations ranging from 0.43 Jq to 30 µg/kg within this AOC. The highest concentration detected during the Remedial Investigation was 19 µg/kg at a depth of 73-74 feet. 1,2-DCA detected in soil gas ranges from 6 to 30 µg/L at depths from 45 to 50 feet. The impacts in soil and soil gas are discrete and limited within AOC G. 1,2-DCA is present in groundwater downgradient and southeast of AOC G. Figure 5-6 shows the 1,2-DCA impacts in soil. Based on the concentrations of 1,2-DCA present in soil and soil gas, a significant soil source mass is no longer present at the Airport.

1,1-Dichloroethene

Based on the data to date, 1,1-DCE has only been detected in soil and soil gas in AOC EE. The highest concentration of 1,1-DCE was detected in soil gas from 579 µg/L (20 feet bgs) to 5,109 µg/L (40 feet bgs). During the remedial investigation, total dichloroethenes and 1,1-DCE were detected at AOC EE at concentrations ranging from 6 to 40 µg/kg and 0.31 to 36 µg/kg, respectively. 1,1-DCE is limited to the northwest portion of AOC EE. Figure 5-3 shows the 1,1-DCE impacts in soil. Based on the concentrations of 1,1-DCE present in soil and soil gas, a significant soil source mass is no longer present at the Airport.

6.0 CONCLUSIONS AND RECOMMENDATIONS

A Soil Remedial Investigation was performed at the Airport from May 2014 to October 2014. During the Soil Remedial Investigation, 18 AOCs were investigated. During this investigation, 163 soil borings were completed with 1,868 samples analyzed for VOCs, 1,357 samples analyzed for TPH, 80 samples analyzed for SVOCs and 90 samples analyzed for metals. A total of twenty three soil gas probes were installed in AOCs J-K and Z with twenty-two samples analyzed for VOCs.

The primary objective of the investigation was to obtain additional data in AOCs identified, in the *Historical Site Assessment Report* (Tetra Tech 2013a), to characterize the soil and soil gas at each of these AOCs, and complete the delineation of previously detected chemicals in soil at the Airport. A secondary objective was to collect a background data set for metals to perform a metals evaluation in areas where soil samples were collected and analyzed. The data for the 18 AOCs recently investigated were used to evaluate the contaminant distribution in soil and soil gas. Groundwater data collected during this investigation will be documented under a separate report.

6.1 CONCLUSIONS

The conclusions of this phase of the Remedial Investigation are as follows:

- The soil investigation has sufficiently characterized the distribution of COPCs to support future evaluations.
- TCE, TCP, DCE and 1,2-DCA are the principal compounds present in soil at the Airport and are also detected in the underlying groundwater. Detections of these compounds above their respective IGs are limited to AOCs EE, G, H, HH and J-K. Residual concentrations of these compounds in soils at the Airport are predominantly within one order of magnitude of the IGs and generally occur as isolated incidences.
- Detections of chlorinated compounds indicate that there is residual contamination present in the vadose zone; however based on the detection frequency and magnitude of concentrations, the extent of contamination is very limited in area and is related to historical site activities. There is no longer a significant source present of these compounds in soils at the site.
- AOCs N and O were investigated based on historical information indicating suspect landfills. There was no evidence of refuse or organic waste materials in borings. Although SVOCs, were detected above the IG, the detections are discrete and very limited both vertically and laterally.

- Soil gas samples were collected from AOC J-K and Z. Although no chemicals were associated with maximum concentrations that exceeded the corresponding site IG, a risk screening was conducted to evaluate potential cumulative risks and hazards due to the fact that a few chemicals were detected at levels approaching the corresponding site IG. The risk screening showed that it is unlikely that chemicals detected in soil gas within AOC J-K and AOC Z are present at levels that would be expected to result in adverse health effects under a residential and industrial exposure scenario.
- Background comparisons were conducted to identify metals potentially elevated above background in soil in the AOCs N and O. The results of this statistical evaluation indicate that lead and cadmium in AOC N from B91 (4-5 feet bgs) exceed the residential and/or industrial IG. A background comparison for cadmium was not performed due to a limited number of detections associated with the background dataset. The background comparison for lead indicates that the maximum lead concentration in AOC N may be higher than background. Soil associated with this sampling location could pose a potential risk to residents or commercial receptors if the land use changes in the future.
- For Area O, the results of this statistical evaluation indicate that arsenic and barium are likely representative of background conditions and not associated with site activities.

6.2 RECOMMENDATIONS

The soil data collected and presented within this report successfully identified the extent of contamination within the areas of investigation and will be used to support future evaluations. No further investigation of the soil is recommended.

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Table 1.
Summary of Investigation Borings, Sampling and Analysis by AOC
Remedial Investigation
Chino Airport, Chino, California

AOC - Area	Number of Borings	Number of Samples Analyzed for VOCs		Number of Samples Analyzed for TPH		Number of Samples Analyzed for SVOCs	Number of Samples Analyzed for Metals
		DSITMS	Method SW8260B	UVF-3100	Method SW8015B	Method SW8270C	Method SW6010B/7471A
	Number	Number	Number	Number	Number	Number	Number
AOC DD – Former Airport Maintenance Shop and Yard	6	46	4	46	4	-	-
AOC EE – Former Cal Aero Restoration Yard	15	222	19	222	19	-	-
AOC FF – Building A440	4	33	4	-	-	-	-
AOC G - Former PAC Wash Rack Area ^a	20	346	51	317	35	-	-
AOC GG – Former Aircraft Dismantling Area	11	108	12	108	12	-	-
AOC H – Former Waste Disposal Ponds	10	150	13	150	13	-	-
AOC HH – Buildings A230, A235, A340, A435	8	65	9	-	-	-	-
AOC JJ – Former UST C-15 and Sump I	5	49	6	49	6	-	-
AOC J-K – PAC Paint Shop and Paint Shed Areas	14	245	25	-	-	-	-
AOC KK – Building A270, Yanks Museum	7	72	8	72	8	-	-
AOC LL – Former UST C-18	2	23	2	23	2	-	-
AOC M – Fuel Dump Area	4	28	4	28	4	-	-
AOC MM – Building A385	7	100	11	100	11	-	-
AOC N – Suspected Landfill	9	85	8	85	8	52	52
AOC NN - Former Building 30	10	74	5	-	-	-	-
AOC O – U.S. Forest Service Area/Reported Solid Waste Landfill	5	48	4	48	4	28	28
AOC OO – Former PAC Wash Rack Area Drain ^a	10	136	18	109	9	-	-
AOC Z – Waste Water Discharge from Building A495	9	38	8	-	-	-	-
Background Metals Sampling	2	-	-	-	-	-	10
Total	158	1,868	211	1,357	135	80	90

Acronyms and Abbreviations:

AOC - Area of Concern
bgs - below ground surface
TPH - total petroleum hydrocarbons
SVOCs - semi-volatile organic compounds
VOCs - volatile organic compounds

Notes:

a. TPH samples were not collected from all borings.
(-) indicates samples were not analyzed for parameter.

Table 2.
Soil Sampling Summary by Boring
Remedial Investigation
Chino Airport, Chino, California

AOC	Boring ID	Total Depth (feet bgs)	No. Soil Samples Analyzed for Parameter				No. of Verification Soil Samples Analyzed			Soil Sampling Interval (feet bgs) ¹	
			VOCs (DSITMS)	TPH (UVF-3100)	SVOCs / Metals	VOCs (TO-15)	VOCs (SW8260B)	TPH (SW8015B)	SVOCs / Metals		
DD	B101	20.0	8	8	-	-	1	1	-	1	- 20
DD	B102	20.0	7	7	-	-	1	1	-	1	- 20
DD	B103	20.0	8	8	-	-	-	-	-	1	- 20
DD	B104	20.0	8	8	-	-	1	1	-	1	- 20
DD	B105	20.0	8	8	-	-	-	-	-	1	- 20
DD	B106	20.0	7	7	-	-	1	1	-	1	- 20
EE	B93	36.0	14	14	-	-	1	1	-	1	- 36
EE	B94	38.0	13	13	-	-	1	1	-	1	- 38
EE	B95	37.0	14	14	-	-	1	1	-	1	- 37
EE	B98	40.0	15	15	-	-	1	1	-	1	- 40
EE	B99	66.5	22	22	-	-	1	1	-	1	- 66.5
EE	B100	37.0	13	13	-	-	1	1	-	1	- 37
EE	B107	57.0	19	19	-	-	1	1	-	1	- 57
EE	B108	38.0	15	15	-	-	1	1	-	1	- 38
EE	B109	40.0	13	13	-	-	2	2	-	1	- 40
EE	B110	38.0	13	13	-	-	2	2	-	1	- 38
EE	B111	59.5	19	19	-	-	1	1	-	1	- 59.5
EE	B112	34.5	9	9	-	-	1	1	-	1	- 34.5
EE	B121	36.0	15	15	-	-	2	2	-	1	- 36
EE	B122	40.0	14	14	-	-	2	2	-	1	- 40
EE	B123	39.0	14	14	-	-	1	1	-	1	- 39
FF	B136	20.0	8	-	-	-	1	-	-	1.5	- 20
FF	B137	20.0	9	-	-	-	1	-	-	1	- 20
FF	B138	20.0	8	-	-	-	1	-	-	1	- 20
FF	B139	20.0	8	-	-	-	1	-	-	1	- 20
G	B01	40.0	14	14	-	-	2	2	-	1	- 40
G	B02	40.0	15	15	-	-	1	1	-	1	- 40
G	B03	40.0	14	14	-	-	2	2	-	1	- 40
G	B04	40.0	13	13	-	-	1	1	-	1	- 40
G	B05	40.0	14	14	-	-	2	2	-	1	- 40
G	B15	60.8	22	22	-	-	2	2	-	1	- 61
G	B16	40.0	15	15	-	-	1	1	-	1	- 40
G	B17	40.0	15	15	-	-	1	1	-	1	- 40
G	B18	61.0	25	25	-	-	3	3	-	1	- 61
G	B24	49.0	20	20	-	-	2	2	-	1	- 49
G	B25	59.0	18	18	-	-	3	3	-	1	- 59
G	B26	59.5	14	14	-	-	2	2	-	1	- 59.5
G	B27	61.9	21	21	-	-	1	1	-	1	- 62

Table 2.
Soil Sampling Summary by Boring
Remedial Investigation
Chino Airport, Chino, California

AOC	Boring ID	Total Depth (feet bgs)	No. Soil Samples Analyzed for Parameter				No. of Verification Soil Samples Analyzed			Soil Sampling Interval (feet bgs) ¹	
			VOCs (DSITMS)	TPH (UVF-3100)	SVOCs / Metals	VOCs (TO-15)	VOCs (SW8260B)	TPH (SW8015B)	SVOCs / Metals		
G	B28	42.0	13	13	-	-	3	3	-	1	- 42
G	B29	69.0	23	23	-	-	3	3	-	1	- 69
G	B30	59.7	17	17	-	-	3	3	-	1	- 59.5
G	B31	61.0	25	25	-	-	2	2	-	1	- 61
G	B60	59.0	19	19	-	-	1	1	-	1	- 59
G	B66	57.0	18	-	-	-	9	-	-	1	- 57
G	B67	33.5	11	-	-	-	7	-	-	1	- 33.5
GG	B113	22.0	8	8	-	-	1	1	-	1	- 22
GG	B114	22.0	6	6	-	-	1	1	-	1	- 22
GG	B115	22.0	7	7	-	-	1	1	-	1	- 22
GG	B116	22.0	9	9	-	-	1	1	-	1	- 22
GG	B117	45.0	13	13	-	-	1	1	-	1	- 45
GG	B124	20.0	7	7	-	-	1	1	-	1	- 20
GG	B125	68.0	22	22	-	-	2	2	-	1	- 68
GG	B131	20.0	7	7	-	-	1	1	-	1	- 20
GG	B132	41.5	15	15	-	-	1	1	-	1	- 41.5
GG	B74	20.0	7	7	-	-	1	1	-	1	- 20
GG	B75	20.0	7	7	-	-	1	1	-	1	- 20
H	B97	20.0	7	7	-	-	1	1	-	1	- 20
H	B140	20.0	8	8	-	-	1	1	-	1	- 20
H	B141	20.0	8	8	-	-	1	1	-	1	- 20
H	B150	50.5	20	20	-	-	1	1	-	1	- 50.5
H	B155	56.0	21	21	-	-	2	2	-	9	- 56
H	B156	54.0	19	19	-	-	2	2	-	1	- 54
H	B157	50.0	18	18	-	-	1	1	-	1	- 50
H	B158	50.0	19	19	-	-	1	1	-	1	- 50
H	B161	50.0	15	15	-	-	2	2	-	1	- 50
H	B162	50.0	15	15	-	-	1	1	-	1	- 50
HH	B118	20.0	8	-	-	-	1	-	-	1	- 20
HH	B119	20.0	7	-	-	-	1	-	-	1	- 20
HH	B120	20.0	8	-	-	-	1	-	-	1	- 20
HH	B126	20.0	7	-	-	-	1	-	-	1	- 20
HH	B127	20.0	6	-	-	-	1	-	-	1	- 20
HH	B128	34.0	15	-	-	-	2	-	-	1	- 34
HH	B129	20.0	7	-	-	-	1	-	-	1	- 19.5
HH	B130	20.0	7	-	-	-	1	-	-	1	- 20
JJ	B41	30.0	9	9	-	-	2	2	-	1	- 30
JJ	B42	30.0	10	10	-	-	1	1	-	1	- 30

Table 2.
Soil Sampling Summary by Boring
Remedial Investigation
Chino Airport, Chino, California

AOC	Boring ID	Total Depth (feet bgs)	No. Soil Samples Analyzed for Parameter				No. of Verification Soil Samples Analyzed			Soil Sampling Interval (feet bgs) ¹	
			VOCs (DSITMS)	TPH (UVF-3100)	SVOCs / Metals	VOCs (TO-15)	VOCs (SW8260B)	TPH (SW8015B)	SVOCs / Metals		
JJ	B49	30.0	10	10	-	-	1	1	-	1	- 30
JJ	B50	30.0	10	10	-	-	1	1	-	1	- 30
JJ	B51	30.0	10	10	-	-	1	1	-	1	- 30
J-K	B06	40.0	14	-	-	-	1	-	-	1	- 40
J-K	B07	78.0	33	-	-	-	4	-	-	1	- 78
J-K	B08	40.0	15	-	-	-	2	-	-	1	- 40
J-K	B09	36.0	13	-	-	-	2	-	-	1	- 36
J-K	B10	40.0	15	-	-	-	1	-	-	1	- 40
J-K	B11	40.0	15	-	-	-	2	-	-	1	- 40
J-K	B12	40.0	18	-	-	-	1	-	-	1	- 40
J-K	B13	36.0	13	-	-	-	2	-	-	1	- 36
J-K	B14	38.0	13	-	-	-	2	-	-	1	- 38
J-K	B148	5.5	-	-	-	1	-	-	-		4.9
J-K	B149	5.5	-	-	-	1	-	-	-		4.9
J-K	B163	12.0	-	-	-	1	-	-	-		11.9
J-K	B164	12.0	-	-	-	Note 2	-	-	-		11.9
J-K	B165	12.0	-	-	-	1	-	-	-		11.9
J-K	B19	40.0	15	-	-	-	3	-	-	1	- 40
J-K	B20	45.0	17	-	-	-	-	-	-	1	- 45
J-K	B21	74.0	31	-	-	-	2	-	-	1	- 74
J-K	B22	58.0	20	-	-	-	2	-	-	1	- 58
J-K	B23	38.0	13	-	-	-	1	-	-	1	- 38
KK	B57	20.0	7	7	-	-	1	1	-	1	- 20
KK	B58	57.2	22	22	-	-	1	1	-	1	- 57
KK	B59	20.0	6	6	-	-	1	1	-	1	- 20
KK	B61	20.0	7	7	-	-	1	1	-	1	- 20
KK	B62	44.0	16	16	-	-	2	2	-	1	- 44
KK	B63	20.0	7	7	-	-	1	1	-	1	- 20
KK	B64	20.0	7	7	-	-	1	1	-	1	- 20
LL	B133	32.0	11	11	-	-	1	1	-	1	- 32
LL	B134	32.0	12	12	-	-	1	1	-	1	- 32
M	B65	20.0	7	7	-	-	1	1	-	1	- 20
M	B71	20.0	7	7	-	-	1	1	-	1	- 20
M	B72	20.0	7	7	-	-	1	1	-	1	- 20
M	B73	20.0	7	7	-	-	1	1	-	1	- 20
MM	B32	52.0	20	20	-	-	3	3	-	1	- 52
MM	B33	40.0	14	14	-	-	2	2	-	1	- 40
MM	B34	40.0	13	13	-	-	2	2	-	1	- 40

Table 2.
Soil Sampling Summary by Boring
Remedial Investigation
Chino Airport, Chino, California

AOC	Boring ID	Total Depth (feet bgs)	No. Soil Samples Analyzed for Parameter				No. of Verification Soil Samples Analyzed			Soil Sampling Interval (feet bgs) ¹	
			VOCs (DSITMS)	TPH (UVF-3100)	SVOCs / Metals	VOCs (TO-15)	VOCs (SW8260B)	TPH (SW8015B)	SVOCs / Metals		
MM	B35	40.0	14	14	-	-	1	1	-	1	- 40
MM	B36	40.0	12	12	-	-	1	1	-	1	- 40
MM	B37	40.0	13	13	-	-	1	1	-	1	- 40
MM	B38	40.0	14	14	-	-	1	1	-	1	- 40
N	B70	30.0	10	10	6	-	1	1	1	1	- 30
N	B86	30.0	10	10	6	-	1	1	1	1	- 30
N	B87	30.0	9	9	6	-	1	1	1	1	- 30
N	B88	30.0	8	8	6	-	1	1	1	1	- 30
N	B89	30.0	9	9	6	-	1	1	1	1	- 30
N	B90	30.0	10	10	6	-	1	1	1	1	- 30
N	B91	30.0	10	10	5	-	-	-	-	1	- 30
N	B92	92.0	10	10	5	-	1	1	1	1	- 30
N	B96	30.0	9	9	6	-	1	1	1	1	- 30
NN	B76	20.0	7	-	-	-	-	-	-	1	- 20
NN	B77	20.0	8	-	-	-	1	-	-	1	- 20
NN	B78	20.0	7	-	-	-	1	-	-	1	- 20
NN	B79	20.0	7	-	-	-	1	-	-	1	- 20
NN	B80	20.0	7	-	-	-	-	-	-	1	- 20
NN	B81	20.0	8	-	-	-	-	-	-	1	- 20
NN	B82	20.0	7	-	-	-	1	-	-	1	- 20
NN	B83	20.0	7	-	-	-	-	-	-	1	- 20
NN	B84	20.0	8	-	-	-	1	-	-	1	- 20
NN	B85	20.0	8	-	-	-	-	-	-	1	- 20
O	B39	30.0	10	10	6	-	1	1	1	1	- 30
O	B40	30.0	9	9	6	-	1	1	1	1	- 30
O	B46	30.0	10	10	6	-	1	1	1	1	- 30
O	B47	25.0	9	9	5	-	1	1	1	1	- 25
O	B48	30.0	10	10	5	-	-	-	-	1	- 30
OO	B43	36.5	12	12	-	-	1	1	-	1	- 36.5
OO	B44	40.0	15	15	-	-	1	1	-	1	- 40
OO	B45	43.0	11	11	-	-	1	1	-	1	- 43
OO	B52	40.0	14	14	-	-	1	1	-	1	- 40
OO	B53	37.0	14	14	-	-	2	2	-	1	- 37
OO	B54	55.5	18	18	-	-	2	2	-	1	- 55
OO	B55	40.0	14	14	-	-	-	-	-	1	- 40.0
OO	B56	40.5	11	11	-	-	1	1	-	1	- 40.5
OO	B68	46.0	17	-	-	-	5	-	-	1	- 46
OO	B69	34.0	10	-	-	-	4	-	-	1	- 34

Table 2.
Soil Sampling Summary by Boring
Remedial Investigation
Chino Airport, Chino, California

AOC	Boring ID	Total Depth (feet bgs)	No. Soil Samples Analyzed for Parameter				No. of Verification Soil Samples Analyzed			Soil Sampling Interval (feet bgs) ¹	
			VOCs (DSITMS)	TPH (UVF-3100)	SVOCs / Metals	VOCs (TO-15)	VOCs (SW8260B)	TPH (SW8015B)	SVOCs / Metals		
Z	B135	20.0	5	-	-	2	-	-	-	1	- 20
Z	B142	20.0	7	-	-	2	1	-	-	1	- 20
Z	B143	20.0	4	-	-	2	1	-	-	1	- 20
Z	B144	20.0	4	-	-	2	1	-	-	1	- 20
Z	B145	20.0	4	-	-	2	1	-	-	1	- 20
Z	B146	20.0	1	-	-	2	1	-	-	5	
Z	B147	20.0	4	-	-	2	1	-	-	1	- 20
Z	B151	20.0	5	-	-	2	1	-	-	1	- 20
Z	B152	20.0	4	-	-	2	1	-	-	1	- 20
Background	B153	20.0	-	-	5	-	-	-	-	0.5	- 19
Background	B154	20.0	-	-	5	-	-	-	-	0.5	- 19

Acronyms and Abbreviations:

bgs: below ground surface

Notes:

1. The sampling range for samples collected for SVOC and metals analysis varied slightly.
2. A sample could not be collected from this location.

Key:

AOC DD – Former Airport Maintenance Shop and Yard

AOC KK – Building A270, Yanks Museum

AOC EE – Former Cal Aero Restoration Yard

AOC LL – Former UST C-18

AOC H – Former Waste Disposal Ponds

AOC M – Fuel Dump Area

AOC FF – Building A440

AOC MM – Building A385

AOC G - Former PAC Wash Rack Area

AOC N – Suspected Landfill

AOC GG – Former Aircraft Dismantling Area

AOC NN - Former Building 30

AOC H – Former Waste Disposal Ponds

AOC O – U.S. Forest Service Area/Reported Solid Waste Landfill

AOC HH – Buildings A230, A235, A340, A435

AOC OO – Former PAC Wash Rack Area Drain

AOC JJ – Former UST C-15 and Sump I

AOC Z – Waste Water Discharge from Building A495

AOC J-K – PAC Paint Shop and Paint Shed Areas

Table 3.
Summary of Investigation Borings for Soil Gas Sampling
Remedial Investigation
Chino Airport, Chino, California

AOC	Boring ID	Easting ¹	Northing ¹	Probe ID	Borehole Diameter	Tubing Diameter	Probe Depth	Boring Depth
	Number				(inches)	(inches)	(feet bgs)	(feet bgs)
J-K	B148	6668862	1815688	B148-JKD5	2.25	0.25	4.9	5
J-K	B149	6668909	1815629	B149-JKD5	2.25	0.25	4.9	5
J-K	B163	6668613	1815688	O-D12	2.25	0.25	11.9	12
J-K	B164	6668704	1815687	P-D12	2.25	0.25	11.9	12
J-K	B165	6668804	1815687	Q-D12	2.25	0.25	11.9	12
Z	B135	6670431	1814930	B135-ZD11	2.25	0.25	10.9	11
Z				B135-ZD15.5	2.25	0.25	15.4	15.5
Z	B142	6670240	1814495	B142-ZD10	2.25	0.25	9.9	10
Z				B142-ZD17.5	2.25	0.25	17.4	17.5
Z	B143	6670197	1814418	B143-ZD12.5	2.25	0.25	12.4	12.5
Z				B143-ZD19.5	2.25	0.25	19.4	19.5
Z	B144	6670154	1814331	B144-ZD10.5	2.25	0.25	10.4	10.5
Z				B144-ZD16	2.25	0.25	15.9	16
Z	B145	6670112	1814233	B145-ZD11	2.25	0.25	10.9	11
Z				B145-ZD17.5	2.25	0.25	17.4	17.5
Z	B146	6670364	1814863	B146-ZD9.5	2.25	0.25	9.4	9.5
Z				B146-ZD13.5	2.25	0.25	13.4	13.5
Z	B147	6670293	1814800	B147-ZD6.5	2.25	0.25	6.4	6.5
Z				B147-ZD15	2.25	0.25	14.9	15
Z	B151	6670241	1814613	B151-ZD5	2.25	0.25	4.9	5
Z				B151-ZD13.5	2.25	0.25	13.4	13.5
Z	B152	6670243	1814721	B152-ZD10	2.25	0.25	9.9	10
Z				B152-ZD15	2.25	0.25	14.9	15

Acronyms and Abbreviations:

AOC - Area of Concern
bgs: below ground surface

Notes:

1. California State Plane, Zone V, NAD 83, in feet.

Key:

AOC J-K – PAC Paint Shop and Paint Shed Areas
AOC Z – Waste Water Discharge from Building A495

Table 4.
Summary of Investigation Goals for Constituents Detected in Soil
Remedial Investigation
Chino Airport, Chino, California

Chemical	Investigation Goal
Volatile Organic Compounds (in (µg/kg))	
Acetone	500
2-Butanone	6,500
Bromoform	21
Benzene	1,100
Carbon Disulfide	820,000
Chlorobenzene	68
Chloromethane	24,000
Carbon Tetrachloride	610
Chloroform	22
1,1-Dichloroethane	200
1,2-Dichloroethane	1.4
1,2-Dichlorobenzene	580
1,3-Dichlorobenzene	7,400
1,4-Dichlorobenzene	72
Total Dichloroethenes	3
1,1-Dichloroethene	2.5
Ethylbenzene	780
Methylene Chloride	1.3
Naphthalene	3,600
Tert-Butyl Alcohol (TBA)	75
Toluene	690
1,1,1-Trichloroethane	70
1,2,3-Trichlorobenzene	49,000
1,2,4-Trichlorobenzene	200
Trichloroethene	1.8
1,2,3-Trichloropropane	5
Trichlorofluoromethane	790,000
1,2,4-Trimethylbenzene	62,000
Tetrachloroethene	2.3

Table 4.
Summary of Investigation Goals for Constituents Detected in Soil
Remedial Investigation
Chino Airport, Chino, California

Chemical	Investigation Goal
p/m-Xylene	2,300
o-Xylene	2,300
Total Petroleum Hydrocarbons (in mg/kg)	
TPH as diesel	100
TPH as gasoline	100
Semi-volatile Organic Compounds (in mg/kg)	
Acenaphthene	16
Benzo (a) Pyrene	0.015
Benzo (g,h,i) Perylene	27
Diethyl Phthalate	0.035
Dimethyl Phthalate	0.035
Fluoranthene	40
Indeno (1,2,3-c,d) Pyrene	0.15
1-Methylnaphthalene	16
2-Methylnaphthalene	0.25
Naphthalene	3.6
Phenanthrene	11
Pyrene	85

Acronyms and Abbreviations:
 TPH - total petroleum hydrocarbons
 µg/kg - micrograms per kilogram
 mg/kg - milligrams per kilogram

Table 5.
Summary of Soil Analytical Results: DSITMS
Remedial Investigation
Chino Airport, Chino, California

AOE	Boring ID	Sampling Interval (feet bgs)	Sample ID	Depth (feet)	Date Sampled	1,2-Dichloroethane + Vinyl Chloride	Total Dichloroethenes	Trichloroethene	Tetrachloroethene	1,2,3-trichloropropane	1,1,1-trichloroethane
EE	B107	1-57	B107 EE-1	1	7/24/2014	< 18	< 18	< 18	< 18	< 18	< 18
			B107 EE-4	4	7/24/2014	< 20	< 20	< 20	< 20	< 20	< 20
			B107 EE-7	7	7/24/2014	< 14	< 14	< 14	< 14	< 14	< 14
			B107 EE-10	10	7/24/2014	< 13	< 13	< 13	< 13	< 13	< 13
			B107 EE-14	14	7/24/2014	< 13	< 13	< 13	< 13	< 13	< 13
			B107 EE-18	18	7/24/2014	< 13	< 13	< 13	< 13	< 13	< 13
			B107 EE-20	20	7/24/2014	< 12	< 12	< 12	< 12	< 12	< 12
			B107 EE-23	23	7/24/2014	< 11	< 11	< 11	< 11	< 11	< 11
			B107 EE-25	25	7/24/2014	< 15	< 15	< 15	< 15	< 15	< 15
			B107 EE-28	28	7/24/2014	< 13	10 J	< 13	< 13	< 13	< 13
			B107 EE-31.5	31.5	7/24/2014	< 12	23	< 12	< 12	< 12	< 12
			B107 EE-35	35	7/24/2014	< 12	6 J	< 12	< 12	< 12	< 12
			B107 EE-38	38	7/24/2014	< 13	< 13	< 13	< 13	< 13	< 13
			B107 EE-42	42	7/24/2014	< 10	8 J	< 10	< 10	< 10	< 10
			B107 EE-45	45	7/24/2014	< 11	13	< 11	< 11	< 11	< 11
			B107 EE-48.5	48.5	7/24/2014	< 10	17	< 10	< 10	< 10	< 10
			B107 EE-52	52	7/24/2014	< 14	< 14	< 14	< 14	< 14	< 14
B107 EE-55	55	7/24/2014	< 12	7 J	< 12	< 12	< 12	< 12			
B107 EE-56-57	56-57	7/24/2014	< 12	< 12	< 12	< 12	< 12	< 12			
EE	B108	1-38	B108 EE-1	1	7/24/2014	< 16	< 16	< 16	< 16	< 16	< 16
			B108 EE-4	4	7/24/2014	< 16	< 16	< 16	< 16	< 16	< 16
			B108 EE-7	7	7/24/2014	< 10	< 10	< 10	< 10	< 10	< 10
			B108 EE-10	10	7/24/2014	< 12	< 12	< 12	< 12	< 12	< 12
			B108 EE-13	13	7/24/2014	< 12	< 12	< 12	< 12	< 12	< 12
			B108 EE-16	16	7/24/2014	< 11	< 11	< 11	< 11	< 11	< 11
			B108 EE-18	18	7/24/2014	< 16	< 16	< 16	< 16	< 16	< 16
			B108 EE-20.5	20.5	7/24/2014	< 11	< 11	< 11	< 11	< 11	< 11
			B108 EE-24	24	7/24/2014	< 13	< 13	< 13	< 13	< 13	< 13
			B108 EE-25	25	7/24/2014	< 12	< 12	< 12	< 12	< 12	< 12
			B108 EE-29	29	7/24/2014	< 16	< 16	< 16	< 16	< 16	< 16
			B108 EE-30	30	7/24/2014	< 12	< 12	6 J	< 12	< 12	< 12
			B108 EE-33	33	7/24/2014	< 12	< 12	11 J	< 12	< 12	< 12
B108 EE-35.5	35.5	7/24/2014	< 11	< 11	< 11	< 11	< 11	< 11			
B108 EE-37-38	37-38	7/24/2014	< 20	< 20	< 20	< 20	< 20	< 20			
EE	B109	1-40	B109 EE-1	1	7/24/2014	< 17	< 17	< 17	< 17	< 17	< 17
			B109 EE-4	4	7/24/2014	< 16	< 16	< 16	< 16	< 16	< 16
			B109 EE-10	10	7/25/2014	< 11	< 11	< 11	< 11	< 11	< 11
			B109 EE-11	11	7/25/2014	< 12	< 12	< 12	< 12	< 12	< 12
			B109 EE-13	13	7/25/2014	< 11	< 11	< 11	< 11	< 11	< 11
			B109 EE-19.5	19.5	7/25/2014	< 19	< 19	< 19	< 19	< 19	< 19
			B109 EE-23	23	7/25/2014	< 17	< 17	< 17	< 17	< 17	< 17
			B109 EE-26	26	7/25/2014	< 11	16	< 11	< 11	< 11	< 11
			B109 EE-31	31	7/25/2014	< 15	< 15	< 15	< 15	< 15	< 15
			B109 EE-33	33	7/25/2014	< 13	40	< 13	< 13	< 13	< 13
			B109 EE-37	37	7/25/2014	< 14	< 14	< 14	< 14	< 14	< 14
B109 EE-7-8	7-8	7/25/2014	< 10	< 10	< 10	< 10	< 10	< 10			
B109 EE-39-40	39-40	7/25/2014	< 12	13	< 12	< 12	< 12	< 12			

Table 5.
Summary of Soil Analytical Results: DSITMS
Remedial Investigation
Chino Airport, Chino, California

AOB	Boring ID	Sampling Interval (feet bgs)	Sample ID	Depth (feet)	Date Sampled	1,2-Dichloroethane + Vinyl Chloride	Total Dichloroethenes	Trichloroethene	Tetrachloroethene	1,2,3-trichloropropane	1,1,1-trichloroethane
EE	B122	1-40	B122 EE-1	1	7/28/2014	< 17	< 17	< 17	< 17	< 17	< 17
			B122 EE-4	4	7/28/2014	< 16	< 16	< 16	< 16	< 16	< 16
			B122 EE-7	7	7/28/2014	< 12	< 12	< 12	< 12	< 12	< 12
			B122 EE-10	10	7/28/2014	< 10	< 10	< 10	< 10	< 10	< 10
			B122 EE-13	13	7/28/2014	< 13	< 13	< 13	< 13	< 13	< 13
			B122 EE-16	16	7/28/2014	< 11	< 11	< 11	< 11	< 11	< 11
			B122 EE-18	18	7/28/2014	< 12	12 J	< 12	< 12	< 12	< 12
			B122 EE-23.5	23.5	7/28/2014	< 11	6 J	< 11	< 11	< 11	< 11
			B122 EE-26	26	7/28/2014	< 12	19	< 12	< 12	< 12	< 12
			B122 EE-30.5	30.5	7/28/2014	< 12	< 12	< 12	< 12	< 12	< 12
			B122 EE-32	32	7/28/2014	< 13	< 13	< 13	< 13	< 13	< 13
			B122 EE-36	36	7/28/2014	< 13	< 13	< 13	< 13	< 13	< 13
			B122 EE-20.5-21.5	20.5-21.5	7/28/2014	< 11	< 11	< 11	< 11	< 11	< 11
B122 EE-39-40	39-40	7/28/2014	< 13	< 13	< 13	< 13	< 13	< 13			
G	B18	1-61	B18 G-01	1	7/2/2014	< 19	< 19	< 19	< 19	< 48	< 19
			B18 G-04	4	7/2/2014	< 15	< 15	< 15	< 15	< 37	< 15
			B18 G-07	7	7/2/2014	< 12	< 12	< 12	< 12	< 29	< 12
			B18 G-09	9	7/2/2014	< 10	< 10	< 10	< 10	< 26	< 10
			B18 G-11	11	7/2/2014	< 12	< 12	< 12	< 12	< 31	< 12
			B18 G-15	15	7/2/2014	< 14	< 14	< 14	< 14	< 34	< 14
			B18 G-17.5	17.5	7/2/2014	< 12	< 12	< 12	< 12	< 3	< 12
			B18 G-19	19	7/2/2014	< 12	< 12	< 12	< 12	< 29	< 12
			B18 G-22	22	7/2/2014	< 12	< 12	< 12	< 12	< 3	< 12
			B18 G-24.5	24.5	7/2/2014	< 11	< 11	< 11	< 11	< 28	< 11
			B18 G-27.5	27.5	7/2/2014	< 13	< 13	< 13	< 13	< 33	< 13
			B18 G-29	29	7/2/2014	< 13	< 13	< 13	< 13	< 33	< 13
			B18 G-30	30	7/2/2014	< 13	< 13	< 13	< 13	< 33	< 13
			B18 G-33-34	33-34	7/2/2014	< 14	< 14	< 14	< 14	< 36	< 14
			B18 G-36	36	7/2/2014	< 22	< 22	< 22	< 22	< 54	< 22
			B18 G-37	37	7/2/2014	< 12	< 12	< 12	< 12	41	< 12
			B18 G-39	39	7/2/2014	< 16	< 16	< 16	< 16	< 4	< 16
			B18 G-41	41	7/2/2014	< 13	< 13	< 13	< 13	< 33	< 13
			B18 G-44	44	7/2/2014	< 16	< 16	< 16	< 16	< 4	< 16
			B18 G-47.5	47.5	7/2/2014	< 11	< 11	< 11	< 11	93	< 11
B18 G-49.5	49.5	7/2/2014	< 12	< 12	< 12	< 12	110	< 12			
B18 G-53	53	7/2/2014	< 11	< 11	< 11	< 11	87	< 11			
B18 G-55	55	7/2/2014	< 13	< 13	< 13	< 13	150	< 13			
B18 G-58	58	7/2/2014	< 11	< 11	< 11	< 11	92	< 11			
B18 G-61	61	7/2/2014	< 13	< 13	< 13	< 13	< 32	< 13			

Table 5.
Summary of Soil Analytical Results: DSITMS
Remedial Investigation
Chino Airport, Chino, California

AOC	Boring ID	Sampling Interval (feet bgs)	Sample ID	Depth (feet)	Date Sampled	1,2-Dichloroethane + Vinyl Chloride	Total Dichloroethenes	Trichloroethene	Tetrachloroethene	1,2,3-trichloropropane	1,1,1-trichloroethane	
H	B155	9-56	B155 H-9	9	8/1/2014	< 13	< 13	< 13	< 13	< 13	< 13	
			B155 H-12	12	8/1/2014	< 12	< 12	< 12	< 12	< 12	< 12	< 12
			B155 H-15	15	8/1/2014	< 12	< 12	< 12	< 12	< 12	< 12	< 12
			B155 H-16	16	8/1/2014	< 12	< 12	< 12	< 12	< 12	< 12	< 12
			B155 H-21	21	8/1/2014	< 11	< 11	< 11	< 11	< 11	< 11	< 11
			B155 H-26	26	8/1/2014	< 12	< 12	< 12	< 12	< 12	< 12	< 12
			B155 H-28	28	8/1/2014	< 15	< 15	< 15	< 15	< 15	< 15	< 15
			B155 H-29	29	8/1/2014	< 12	< 12	< 12	< 12	< 12	< 12	< 12
			B155 H-32	32	8/1/2014	< 13	< 13	< 13	< 13	< 13	< 13	< 13
			B155 H-32.5	32.5	8/1/2014	< 15	< 15	< 15	< 15	< 15	< 15	< 15
			B155 H-36.5	36.5	8/4/2014	< 11	< 11	< 11	< 11	< 11	< 11	< 11
			B155 H-35-36	35-36	8/1/2014	< 13	< 13	< 13	< 13	< 13	3 J	< 13
			B155 Hd-38	38	8/4/2014	< 12	< 12	< 12	< 12	< 12	< 12	< 12
			B155 H-42	42	8/4/2014	< 12	< 12	< 12	< 12	< 12	< 12	< 12
			B155 H-43	43	8/4/2014	< 13	< 13	< 13	< 13	< 13	< 13	< 13
			B155 H-47.5	47.5	8/4/2014	< 10	< 10	< 10	< 10	< 10	< 10	< 10
			B155 H-48	48	8/4/2014	< 11	< 11	< 11	< 11	< 11	< 11	< 11
			B155 H-51	51	8/4/2014	< 11	< 11	< 11	< 11	< 11	< 11	< 11
B155 H-51.5	51.5	8/4/2014	< 11	< 11	< 11	< 11	< 11	< 11	< 11			
B155 H-54	54	8/4/2014	< 11	< 11	< 11	< 11	< 11	< 11	< 11			
B155 H-56	56	8/4/2014	< 11	< 11	< 11	< 11	< 11	< 11	< 11			
H	B156	1-54	B156 H-6	6	8/1/2014	< 15	< 15	< 15	< 15	< 15	< 15	
			B156 H-9	9	8/1/2014	< 6	< 6	< 6	< 6	< 6	< 6	
			B156 H-12	12	8/1/2014	< 12	< 12	< 12	< 12	< 12	< 12	
			B156 H-15	15	8/1/2014	< 12	< 12	< 12	< 12	< 12	< 12	
			B156 H-16.5	16.5	8/1/2014	< 11	< 11	< 11	< 11	< 11	< 11	
			B156 H-19	19	8/1/2014	< 12	< 12	< 12	< 12	< 12	< 12	
			B156 H-22.5	22.5	8/1/2014	< 14	< 14	< 14	< 14	< 14	< 14	
			B156 H-24	24	8/1/2014	< 11	< 11	< 11	< 11	< 11	< 11	
			B156 H-28	28	8/1/2014	< 14	< 14	< 14	< 14	< 14	< 14	
			B156 H-31.5	31.5	8/1/2014	< 13	< 13	< 13	< 13	< 13	< 13	
			B156 H-35	35	8/1/2014	< 12	< 12	< 12	< 12	< 12	< 12	
			B156 H-38	38	8/1/2014	< 11	< 11	< 11	< 11	< 11	< 11	
			B156 H-39	39	8/1/2014	< 13	< 13	< 13	< 13	< 13	< 13	
			B156 H-39.5	39.5	8/1/2014	< 12	< 12	< 12	< 12	< 12	< 12	
			B156 H-42-43	42-43	8/1/2014	< 11	< 11	< 11	< 11	< 11	< 11	< 11
			B156 H-45	45	8/1/2014	< 11	< 11	< 11	< 11	< 11	< 11	6 J
			B156 H-48	48	8/1/2014	< 10	< 10	< 10	< 10	< 10	< 10	< 10
			B156 H-52	52	8/1/2014	< 12	< 12	< 12	< 12	< 12	< 12	< 12
B156 H-53-54	53-54	8/1/2014	< 10	< 10	< 10	< 10	< 10	< 10	< 10			

Table 5.
Summary of Soil Analytical Results: DSITMS
Remedial Investigation
Chino Airport, Chino, California

AOC	Boring ID	Sampling Interval (feet bgs)	Sample ID	Depth (feet)	Date Sampled	1,2-Dichloroethane + Vinyl Chloride	Total Dichloroethenes	Trichloroethene	Tetrachloroethene	1,2,3-trichloropropane	1,1,1-trichloroethane
HH	B120	1-20	B120 HH-1	1	7/28/2014	< 16	< 16	< 16	< 16	< 16	< 16
			B120 HH-4	4	7/28/2014	< 15	< 15	< 15	< 15	< 15	< 15
			B120 HH-8	8	7/28/2014	< 12	< 12	< 12	< 12	< 12	< 12
			B120 HH-9.5	9.5	7/28/2014	< 12	< 12	6 J	< 12	< 12	< 12
			B120 HH-12	12	7/28/2014	< 13	< 13	< 13	< 13	< 13	< 13
			B120 HH-14	14	7/28/2014	< 12	< 12	7 J	< 12	< 12	< 12
			B120 HH-17.5	17.5	7/28/2014	< 11	< 11	5 J	< 11	< 11	< 11
			B120 HH-20	20	7/28/2014	< 11	< 11	< 11	< 11	< 11	
HH	B128	1-34	B128 HH-1	1	7/29/2014	< 14	< 14	18	< 14	< 14	< 14
			B128 HH-4	4	7/29/2014	< 13	< 13	< 13	< 13	< 13	< 13
			B128 HH-7	7	7/29/2014	< 11	< 11	< 11	< 11	< 11	< 11
			B128 HH-9	9	7/29/2014	< 11	< 11	< 11	< 11	< 11	< 11
			B128 HH-12	12	7/29/2014	< 12	< 12	< 12	< 12	< 12	< 12
			B128 HH-13.5	13.5	7/29/2014	< 12	< 12	9 J	< 12	< 12	< 12
			B128 HH-18.5	18.5	7/29/2014	< 12	< 12	6 J	< 12	< 12	< 12
			B128 HH-20	20	7/29/2014	< 12	< 12	16	< 12	< 12	< 12
			B128 HH-20 Dup	20	8/1/2014	< 11	< 11	0.004 J	< 11	< 11	< 11
			B128 HH-24	24	8/1/2014	< 12	< 12	23	< 12	< 12	< 12
			B128 HH-26	26	8/1/2014	< 15	< 15	< 15	< 15	< 15	< 15
			B128 HH-28	28	8/1/2014	< 12	< 12	< 12	< 12	< 12	< 12
			B128 HH-30	30	8/1/2014	< 12	< 12	5 J	< 12	< 12	< 12
			B128 HH-32	32	8/1/2014	< 14	< 14	< 14	< 14	< 14	< 14
B128 HH-34	34	8/1/2014	< 13	< 13	< 13	< 13	< 13	< 13			
Investigation Goal (IG)						0.69	2.5	1.8	2.3	5.0	70

Acronyms and Abbreviations:

AOC - Area of Concern

DSITMS - Direct sampling ion trap mass spectrometry

J - The analyte was positively identified and the result is usable; however, the analyte concentration is an estimated value.

Notes:

All concentrations are in micrograms per kilogram (µg/kg).

Gray shading indicates compound was not detected in sample.

Yellow highlighting indicates concentration is above the IG.

Key:

AOC EE – Former Cal Aero Restoration Yard

AOC G - Former PAC Wash Rack Area

AOC H – Former Waste Disposal Ponds

AOC HH – Buildings A230, A235, A340, A435

AOC OO – Former PAC Wash Rack Area Drain

Table 6.
Summary of Soil Analytical Results: Method SW8260B
Remedial Investigation
Chino Airport, Chino, California

AOC	Boring	Sample Name	Locid	Depth	Sample Date	Acetone	2-Butanone	Bromoform	Benzene	Carbon Disulfide	Chlorobenzene	Chloromethane	Carbon Tetrachloride	Chloroform	1,1-Dichloroethane	1,2-Dichloroethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,1-Dichloroethene	Ethylbenzene	Methylene Chloride	Naphthalene	Tert-Butyl Alcohol (TBA)	Toluene	1,1,1-Trichloroethane	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	Trichloroethene	1,2,3-Trichloropropane	Trichlorofluoromethane	1,2,4-Trimethylbenzene	Tetrachloroethene	p/m-Xylene	o-Xylene
DD	B101	B101-DDD19-20-DUP	B101-DD	19-20	07/23/2014	<5.0	<3.0	<0.64	0.85	<0.25	<0.18	<0.24	<0.23	<0.19	<0.17	<0.25	<0.18	<0.14	<0.18	<0.28	<0.12	<1.1	<0.66	<4.2	<0.41	<0.18	<0.74	<0.25	<0.24	<0.67	<0.30	<0.47	<0.17	<0.22	<0.45
DD	B102	B102-DDD19-20-DUP	B102-DD	19-20	07/23/2014	6.4 BJKq	<3.0	<0.64	1.3	<0.25	<0.18	<0.24	<0.23	<0.19	<0.17	<0.25	<0.18	<0.14	<0.18	<0.28	<0.12	<1.1	<0.65	<4.2	0.75 Jq	<0.18	<0.73	<0.25	<0.24	<0.67	<0.30	<0.47	<0.17	<0.22	<0.45
DD	B104	B104-DDD19-20-DUP	B104-DD	19-20	07/23/2014	<7.1	<4.3	<0.90	<0.15	<0.35	<0.25	<0.34	<0.32	<0.27	<0.24	<0.36	<0.26	<0.20	<0.25	<0.39	<0.17	<1.5	<0.92	<5.9	<0.58	<0.25	<1.0	<0.35	<0.34	<0.94	<0.42	<0.66	<0.24	<0.30	<0.63
DD	B106	B106-DDD19-20-DUP	B106-DD	19-20	07/23/2014	<5.1	<3.1	<0.65	0.68 Jq	<0.25	<0.18	<0.25	<0.23	<0.19	<0.17	<0.26	<0.19	<0.14	<0.18	<0.28	<0.12	<1.1	<0.66	<4.2	<0.42	<0.18	<0.74	<0.25	<0.24	<0.68	<0.31	<0.48	<0.17	<0.22	<0.45
EE	B100	B100-EED36-37-DUP	B100-EE	36-37	07/24/2014	<5.4	<3.3	<0.69	<0.26	<0.26	<0.19	<0.26	<0.24	<0.21	<0.18	<0.27	<0.20	<0.15	<0.19	<0.30	<0.13	<1.2	<0.70	<4.5	<0.45	<0.19	<0.79	<0.27	<0.26	<0.72	<0.32	<0.51	<0.18	<0.23	<0.48
EE	B107	B107-EED56-57-DUP	B107-EE	56-57	07/24/2014	<5.0	<3.0	<0.64	0.22 Jq	<0.25	<0.18	<0.24	<0.23	<0.19	<0.17	<0.25	<0.18	<0.14	<0.18	0.31 Jq	<0.12	<1.1	<0.65	<4.2	<0.41	<0.18	<0.73	<0.25	<0.24	<0.67	<0.30	<0.47	<0.17	<0.22	<0.45
EE	B108	B108-EED37-38-DUP	B108-EE	37-38	07/24/2014	<6.5	<3.9	<0.83	0.22 Jq	<0.32	<0.23	<0.32	<0.30	<0.25	<0.22	<0.33	<0.24	<0.18	<0.23	<0.36	<0.16	<1.4	<0.85	<5.4	<0.54	<0.24	<0.95	<0.32	<0.31	<0.87	<0.39	<0.61	<0.22	<0.28	<0.58
EE	B109	B109-EED7-8-DUP	B109-EE	7-8	07/25/2014	9.0 BJKq	<2.9	<0.61	2.3	<0.23	<0.17	<0.23	<0.22	<0.18	<0.16	<0.24	<0.17	<0.13	<0.17	0.85	0.12 Jq	<1.0	<0.62	<3.9	1.2	<0.17	<0.70	<0.24	<0.23	<0.63	<0.29	<0.45	<0.16	0.21 Jq	<0.42
EE	B109	B109-EED39-40-DUP	B109-EE	39-40	07/25/2014	5.8 BJKq	<3.3	<0.69	1.3	<0.26	<0.19	<0.26	<0.24	<0.21	<0.18	<0.27	<0.20	<0.15	<0.19	36	<0.13	<1.2	<0.70	<4.5	0.63 Jq	0.65 Jq	<0.79	<0.27	0.35 Jq	<0.72	<0.32	<0.51	<0.18	<0.23	<0.48
EE	B110	B110-EED4-5-DUP	B110-EE	4-5	07/25/2014	16 BJKq	<4.4	<0.93	2.8	<0.36	<0.26	<0.35	<0.33	<0.28	<0.25	<0.37	<0.27	<0.21	<0.26	<0.40	0.53 Jq	<1.6	<0.95	<6.0	3.2	<0.26	<1.1	<0.36	<0.35	<0.97	<0.44	<0.68	<0.24	0.68 Jq	<0.65
EE	B110	B110-EED37-38-DUP	B110-EE	37-38	07/25/2014	<5.8	<3.5	<0.74	0.96	<0.28	<0.21	<0.28	<0.26	<0.22	<0.20	<0.29	<0.21	<0.16	<0.21	1.2	<0.14	<1.2	<0.76	5.6 Jq	<0.48	<0.21	<0.85	<0.29	<0.28	<0.77	<0.35	<0.55	<0.20	<0.25	<0.52
EE	B111	B111-EED58.5-59.5-DUP	B111-EE	58.5-59.5	07/24/2014	<4.7	<2.8	<0.59	0.58 Jq	<0.23	<0.17	<0.23	<0.21	<0.18	<0.16	<0.23	<0.17	<0.13	<0.17	<0.26	<0.11	<1.0	<0.61	<3.9	<0.39	<0.17	<0.68	<0.23	<0.22	<0.62	<0.28	<0.44	<0.16	<0.20	<0.42
EE	B112	B112-EED33.5-34.5-DUP	B112-EE	33.5-34.5	07/24/2014	6.1 BJKq	<3.2	<0.68	0.26 Jq	<0.26	<0.19	<0.26	<0.24	<0.20	<0.18	<0.27	<0.20	<0.15	<0.19	<0.30	<0.13	<1.1	<0.69	<4.4	<0.44	<0.19	<0.78	<0.26	<0.26	<0.71	<0.32	<0.50	<0.18	<0.23	<0.47
EE	B121	B121-EED33-34-DUP	B121-EE	33-34	07/25/2014	7.6 BJKq	<3.3	<0.70	0.9	<0.27	<0.20	<0.27	<0.25	<0.21	0.72 Jq	<0.27	<0.20	<0.15	<0.19	22	<0.13	<1.2	<0.71	<4.5	<0.45	0.34 Jq	<0.80	<0.27	<0.26	<0.73	<0.33	<0.51	<0.18	<0.23	<0.49
EE	B121	B121-EED35-36-DUP	B121-EE	35-36	07/25/2014	9.4 BJKq	<3.3	<0.69	1.1	<0.27	<0.19	<0.26	<0.25	<0.21	0.72 Jq	<0.27	<0.20	<0.15	<0.19	23	<0.13	<1.2	<0.71	4.7 Jq	<0.45	0.37 Jq	<0.79	<0.27	<0.26	<0.72	<0.33	<0.51	<0.18	<0.23	<0.48
EE	B122	B122-EED20.5-21.5-DUP	B122-EE	20.5-21.5	07/28/2014	6.1 Jq	4.6 Jq	<0.60	3.7	<0.23	<0.17	<0.23	<0.21	<0.18	<0.16	<0.24	<0.17	<0.13	<0.17	<0.26	0.13 Jq	<1.0	<0.62	<3.9	1.7	<0.17	<0.69	<0.24	<0.23	<0.63	<0.29	<0.45	<0.16	0.24 Jq	<0.42
EE	B122	B122-EED39-40-DUP	B122-EE	39-40	07/28/2014	<5.9	<3.6	<0.76	0.25 Jq	<0.29	<0.21	<0.29	<0.27	<0.23	<0.20	<0.30	<0.22	<0.17	<0.21	<0.33	<0.14	<1.3	<0.77	<4.9	<0.49	<0.21	<0.87	<0.29	<0.29	<0.79	<0.36	<0.56	<0.20	<0.25	<0.53
EE	B123	B123-EED38-39-DUP	B123-EE	38-39	07/28/2014	<5.4	<3.3	<0.69	0.13 Jq	<0.27	<0.19	<0.26	<0.25	<0.21	<0.18	<0.27	<0.20	<0.15	<0.19	<0.30	<0.13	<1.2	<0.71	<4.5	<0.45	<0.20	<0.79	<0.27	<0.26	<0.72	<0.33	<0.51	<0.18	<0.23	<0.48
EE	B93	B93-EED35-36-DUP	B93-EE	35-36	07/22/2014	<6.4	<3.9	<0.82	<0.13	<0.32	<0.23	<0.31	<0.29	<0.25	<0.22	<0.32	<0.24	<0.18	<0.23	<0.36	<0.16	<1.4	<0.84	<5.3	<0.53	<0.23	<0.94	<0.32	<0.31	<0.86	<0.39	<0.61	<0.22	<0.28	<0.57
EE	B94	B94-EED37-38-DUP	B94-EE	37-38	07/22/2014	<6.0	<3.6	<0.76	0.14 Jq	<0.29	<0.21	<0.29	<0.27	<0.23	<0.20	<0.30	<0.22	<0.17	<0.21	<0.33	<0.15	<1.3	<0.78	<5.0	<0.49	<0.22	<0.87	<0.30	<0.29	<0.80	<0.36	<0.56	<0.20	<0.26	<0.53
EE	B95	B95-EED36-37-DUP	B95-EE	36-37	07/22/2014	<5.9	<3.6	<0.75	1.2	<0.29	<0.21	<0.29	<0.27	<0.23	<0.20	<0.30	<0.22	<0.17	<0.21	<0.33	<0.14	<1.3	<0.77	<4.9	0.63 Jq	<0.21	<0.86	<0.29	<0.28	<0.78	<0.35	<0.55	<0.20	<0.25	<0.53
EE	B98	B98-EED39-40-DUP	B98-EE	39-40	07/23/2014	<4.4	<2.6	<0.56	0.48 Jq	<0.21	<0.16	<0.21	<0.20	<0.17	<0.15	<0.22	<0.16	<0.12	<0.16	<0.24	<0.11	<0.94	<0.57	<3.6	<0.36	<0.16	<0.64	<0.22	<0.21	<0.58	<0.26	<0.41	0.16 Jq	<0.19	<0.39
EE	B99	B99-EED65.5-66.5-DUP	B99-EE	65.5-66.5	07/23/2014	6.7 Jq	<2.9	<0.62	1.1	<0.24	<0.18	<0.24	<0.22	<0.19	<0.17	<0.25	<0.18	<0.14	<0.17	<0.27	<0.12	<1.0	<0.64	<4.0	0.48 Jq	<0.18	<0.71	<0.24	0.40 Jq	<0.65	<0.29	<0.46	<0.16	<0.21	<0.43
FF	B136	B136-FFD20-DUP	B136-FF	20	07/30/2014	5.6 Jq	<3.0	<0.64	0.52 Jq	<0.25	<0.18	<0.24	<0.23	<0.19	<0.17	<0.25	<0.18	<0.14	<0.18	<0.28	<0.12	<1.1	<0.66	<4.2	<0.41	<0.18	<0.74	<0.25	<0.24	<0.67	<0.30	<0.47	<0.17	<0.22	<0.45
FF	B137	B137-FFD20-DUP	B137-FF	20	07/30/2014	<5.2	<3.1	<0.66	0.23 Jq	<0.25	<0.19	<0.25	<0.23	<0.20	<0.18	<0.26	<0.19	<0.15	<0.18	<0.29	<0.13	<1.1	<0.67	<4.3	<0.43	<0.19	<0.76	<0.26	<0.25	<0.69	<0.31	<0.49	<0.17	<0.22	<0.46
FF	B138	B138-FFD20-DUP	B138-FF	20	07/30/2014	7.4 Jq	<3.4	<0.71	0.93	<0.27	<0.20	<0.27	<0.25	<0.21	<0.19	<0.28	<0.21	<0.16	<0.20	<0.31	<0.14	<1.2	<0.73	<4.6	0.62 Jq	<0.20	<0.82	<0.28	<0.27	<0.75	<0.34	<0.53	<0.19	<0.24	<0.50
FF	B139	B139-FFD20-DUP	B139-FF	20	07/30/2014	5.7 Jq	<3.1	<0.66	1	<0.26	<0.19	<0.25	<0.24	<0.20	<0.18	<0.26	<0.19	<0.15	<0.19	<0.29	<0.13	5.0 Jq	<0.68	<4.3	0.48 Jq	<0.19	<0.76	<0.26	<0.25	<0.69	<0.31	<0.49	<0.18	<0.22	<0.46
G	B01	B01-GD25-26-DUP	B01-G	25-26	06/30/2014	<4.9	<3.0	<0.63	0.25 Jq	<0.24	<0.18	<0.24	<0.22	<0.19	<0.17	<0.25	<0.18	<0.14	<0.18	<0.27	<0.12	<1.1	<0.64	<4.1	<0.41	<0.18	<0.72	<0.25	<0.24	<0.66	<0.30	<0.46	<0.17	<0.21	<0.44
G	B01	B01-GD39-40-DUP	B01-G	39-40	06/30/2014	6.2 BJKq	<3.3	<0.69	2	<0.27	<0.20	<0.27	<0.25	<0.21	<0.18	<0.27	<0.20	<0.15	<0.19	<0.30	<0.13	<1.2	<0.71	4.8 Jq	0.97 Bk	<0.20	<0.80	<0.27	<0.26	<0.72	<0.33	<0.51	<0.18	<0.23	<0.49
G	B02	B02-GD39-40-DUP	B02-G	39-40	06/30/2014	<5.5	<3.3	<0.71	0.67 Jq	<0.27	<0.20	<0.27	<0.25	<0.21	<0.19	<0.28	<0.20	<0.16	<0.20	<0.31	<0.13	<1.2	<0.72	<4.6	<0.46	<0.20	<0.81	<0.28	<0.27	<0.74	<0.33	<0.52	<0.19	<0.24	<0.49

Table 6.
Summary of Soil Analytical Results: Method SW8260B
Remedial Investigation
Chino Airport, Chino, California

AOC	Boring	Sample Name	Locid	Depth	Sample Date	Acetone	2-Butanone	Bromoform	Benzene	Carbon Disulfide	Chlorobenzene	Chloromethane	Carbon Tetrachloride	Chloroform	1,1-Dichloroethane	1,2-Dichloroethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,1-Dichloroethene	Ethylbenzene	Methylene Chloride	Naphthalene	Tert-Butyl Alcohol (TBA)	Toluene	1,1,1-Trichloroethane	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	Trichloroethene	1,2,3-Trichloropropane	Trichlorofluoromethane	1,2,4-Trimethylbenzene	Tetrachloroethene	p/m-Xylene	o-Xylene
G		B31-GD60-61-DUP	B31-G	60-61	07/09/2014	<6.0	<3.6	<0.77	0.24 Jq	<0.30	<0.22	<0.29	<0.27	<0.23	<0.20	<0.30	<0.22	<0.17	<0.21	<0.33	<1.3	<0.79	<5.0	<0.50	<0.22	<0.88	<0.30	<0.29	<0.80	<0.36	<0.57	<0.20	<0.26	<0.54	
G	B60	B60-GD58-59-DUP	B60-G	58-59	07/17/2014	7.4 Jq	<2.9	<0.62	0.63 Jq	<0.24	<0.17	<0.24	<0.22	<0.19	<0.16	<0.24	<0.18	<0.14	<0.17	<0.27	<0.12	<1.0	<0.63	<4.0	0.82	<0.18	<0.71	<0.24	<0.23	<0.65	<0.29	<0.46	<0.16	<0.21	<0.43
G		B66-GD4-DUP	B66-G	4	07/17/2014	11 Jq	<3.5	<0.74	1.3	<0.28	<0.21	<0.28	<0.26	<0.22	<0.20	<0.29	<0.21	<0.16	<0.21	<0.32	0.23 Jq	<1.2	<0.75	<4.8	1.4	<0.21	<0.85	<0.29	<0.28	<0.77	<0.35	<0.54	<0.19	0.33 Jq	<0.52
G		B66-GD12-DUP	B66-G	12	07/17/2014	18 Jq	3.5 Jq	<0.62	0.67 Jq	<0.24	<0.18	<0.24	<0.22	<0.19	<0.17	<0.25	<0.18	<0.14	<0.17	<0.27	<0.12	<1.0	<0.64	<4.0	0.65 Jq	<0.18	<0.71	<0.24	<0.24	<0.65	<0.29	<0.46	<0.16	<0.21	<0.44
G		B66-GD19-DUP	B66-G	19	07/17/2014	20 Jq	5.4 Jq	<0.85	5.3	<0.33	<0.24	<0.32	<0.30	<0.26	<0.23	<0.34	<0.24	<0.19	<0.24	<0.37	1.2	<1.4	1.3 Jq	<5.5	5.9	<0.24	<0.98	<0.33	<0.32	<0.89	<0.40	<0.63	<0.22	1.7 Jq	<0.70 Jq
G		B66-GD24-DUP	B66-G	24	07/17/2014	<5.3	<3.2	<0.67	0.31 Jq	<0.26	<0.19	<0.26	<0.24	<0.20	<0.18	<0.27	<0.19	<0.15	<0.19	<0.29	<0.13	<1.1	<0.69	<4.4	0.48 Jq	<0.19	<0.77	<0.26	<0.25	<0.70	<0.32	<0.50	<0.18	<0.23	<0.47
G		B66-GD36-DUP	B66-G	36	07/17/2014	<5.2	<3.1	<0.66	0.25 Jq	<0.26	<0.19	<0.25	<0.24	<0.20	<0.18	<0.26	<0.19	<0.15	<0.19	<0.29	<0.13	<1.1	<0.68	<4.3	1.3	<0.19	<0.76	<0.26	<0.25	<0.69	<0.31	<0.49	<0.18	<0.22	<0.46
G		B66-GD42-DUP	B66-G	42	07/17/2014	<5.2	<3.1	<0.66	0.80 Jq	<0.25	<0.19	<0.25	<0.24	<0.20	<0.18	<0.26	<0.19	<0.15	<0.19	<0.29	<0.13	<1.1	<0.68	<4.3	0.79 Jq	<0.19	<0.76	<0.26	<0.25	<0.69	<0.31	<0.49	<0.17	<0.22	<0.46
G		B66-GD47-DUP	B66-G	47	07/17/2014	15 Jq	3.0 Jq	<0.60	2	<0.23	<0.17	<0.23	<0.21	<0.18	<0.16	<0.24	<0.17	<0.13	<0.17	<0.26	0.16 Jq	<1.0	<0.61	<3.9	1.5	<0.17	<0.68	<0.23	<0.23	<0.62	<0.28	<0.44	<0.16	0.25 Jq	<0.42
G		B66-GD52-DUP	B66-G	52	07/17/2014	6.6 Jq	<3.0	<0.63	1.7	<0.24	<0.18	<0.24	<0.22	<0.19	<0.17	<0.25	<0.18	<0.14	<0.18	<0.27	<0.12	<1.1	<0.64	<4.1	1.4	<0.18	<0.72	<0.25	<0.24	<0.66	<0.30	<0.46	<0.17	<0.21	<0.44
G		B66-GD57-DUP	B66-G	57	07/17/2014	35 Jq	28	<0.70	26	<0.27	<0.20	<0.27	<0.25	<0.21	<0.19	<0.28	<0.20	<0.16	<0.20	<0.31	1.3	<1.2	0.76 Jq	<4.6	15	<0.20	<0.81	<0.27	<0.27	<0.73	<0.33	<0.52	<0.19	1.5 Jq	0.62 Jq
G		B67-GD4-DUP	B67-G	4	07/18/2014	11 Bjkq	<3.6	<0.75	2	<0.29	<0.21	<0.29	<0.27	<0.23	<0.20	<0.30	<0.22	<0.17	<0.21	<0.33	0.32 Jq	<1.3	<0.77	<4.9	2.4	<0.21	<0.86	<0.29	<0.28	<0.79	<0.36	<0.56	<0.20	0.47 Jq	<0.53
G		B67-GD9.5-DUP	B67-G	9.5	07/18/2014	<5.0	<3.1	<0.64	0.41 Jq	<0.25	<0.18	<0.25	<0.23	<0.19	<0.17	<0.25	<0.18	<0.14	<0.18	<0.28	<0.12	<1.1	<0.66	<4.2	1.4	<0.18	<0.74	<0.25	<0.24	<0.67	<0.30	<0.47	<0.17	<0.22	<0.45
G		B67-GD16-DUP	B67-G	16	07/18/2014	23 Bjkq	8.6 Jq	<0.72	8.2	<0.28	<0.20	<0.28	<0.26	<0.22	<0.19	<0.28	<0.21	<0.16	<0.20	<0.31	0.48 Jq	<1.2	<0.74	<4.7	5.3	<0.20	<0.83	<0.28	<0.27	<0.75	<0.34	<0.53	<0.19	0.95 Jq	<0.50
G		B67-GD22-DUP	B67-G	22	07/18/2014	<5.1	<3.1	<0.65	<0.11	<0.25	<0.18	<0.25	<0.23	<0.20	<0.17	<0.26	<0.19	<0.14	<0.18	<0.28	<0.12	<1.1	<0.67	<4.2	0.82 Bk	<0.18	<0.75	<0.25	<0.25	<0.68	<0.31	<0.48	<0.17	<0.22	<0.46
G		B67-GD28-DUP	B67-G	28	07/18/2014	<5.5	<3.3	<0.70	<0.11	<0.27	<0.20	<0.27	<0.25	<0.21	<0.19	<0.28	<0.20	<0.16	<0.20	<0.31	<0.13	<1.2	<0.72	<4.6	1.3	<0.20	<0.81	<0.27	<0.27	<0.73	<0.33	<0.52	<0.19	<0.24	<0.49
G		B67-GD31-DUP	B67-G	31	07/18/2014	<5.3	<3.2	<0.68	0.42 Jq	<0.26	<0.19	<0.26	<0.24	<0.20	<0.18	<0.27	<0.20	<0.15	<0.19	<0.30	<0.13	<1.1	<0.69	<4.4	1.5	<0.19	<0.78	<0.26	<0.26	<0.71	<0.32	<0.50	<0.18	<0.23	<0.47
G		B67-GD33.5-DUP	B67-G	33.5	07/18/2014	<5.5	<3.3	<0.70	0.49 Jq	<0.27	<0.20	<0.27	<0.25	<0.21	<0.19	<0.28	<0.20	<0.16	<0.20	<0.30	<0.13	<1.2	<0.72	<4.6	0.94 Bk	<0.20	<0.80	<0.27	<0.26	<0.73	<0.33	<0.52	<0.18	<0.24	<0.49
GG	B113	B113-GGD21-22-DUP	B113-GG	21-22	07/25/2014	<5.6	<3.4	<0.72	0.27 Jq	<0.28	<0.20	<0.27	<0.25	<0.22	<0.19	<0.28	<0.21	<0.16	<0.20	<0.31	<0.14	<1.2	<0.73	6.0 Jq	<0.46	<0.20	<0.82	<0.28	<0.27	<0.75	<0.34	<0.53	<0.19	<0.24	<0.50
GG	B114	B114-GGD21-22-DUP	B114-GG	21-22	07/25/2014	4.8 Jq	<2.8	<0.59	0.55 Jq	<0.23	<0.17	<0.23	<0.21	<0.18	<0.16	<0.23	<0.17	<0.13	<0.17	<0.26	<0.11	<1.0	<0.61	<3.9	<0.39	<0.17	<0.68	<0.23	<0.22	<0.62	<0.28	<0.44	<0.16	<0.20	<0.42
GG	B115	B115-GGD21-22-DUP	B115-GG	21-22	07/25/2014	<4.8	<2.9	<0.61	1.9	0.33 Jq	<0.17	<0.23	<0.22	<0.18	<0.16	<0.24	<0.18	<0.13	<0.17	<0.26	<0.12	<1.0	<0.62	<4.0	0.93	<0.17	<0.70	<0.24	<0.23	<0.64	<0.29	<0.45	<0.16	0.36 Jq	<0.43
GG	B116	B116-GGD21-22-DUP	B116-GG	21-22	07/25/2014	<5.1	<3.1	<0.65	0.16 Jq	<0.25	<0.18	<0.25	<0.23	<0.20	<0.17	<0.26	<0.19	<0.14	<0.18	<0.28	<0.12	<1.1	<0.67	<4.2	<0.42	<0.18	<0.75	<0.25	<0.25	<0.68	<0.31	<0.48	<0.17	<0.22	<0.46
GG	B117	B117-GGD44-45-DUP	B117-GG	44-45	07/25/2014	<5.0	<3.0	<0.63	0.31 Jq	<0.24	<0.18	<0.24	<0.23	<0.19	<0.17	<0.25	<0.18	<0.14	<0.18	<0.28	<0.12	<1.1	<0.65	<4.1	<0.41	<0.18	<0.73	<0.25	<0.24	<0.66	<0.30	<0.47	<0.17	<0.21	<0.44
GG	B124	B124-GGD19-20-DUP	B124-GG	19-20	07/29/2014	6.9 Bjkq	3.5 Jq	<0.66	3.1	<0.26	<0.19	<0.25	<0.24	<0.20	<0.18	<0.26	<0.19	<0.15	<0.19	<0.29	<0.13	<1.1	<0.68	<4.3	1.4	<0.19	<0.76	<0.26	<0.25	<0.69	<0.31	<0.49	<0.18	0.31 Jq	<0.47
GG	B125	B125-GGD4-5-DUP	B125-GG	4-5	07/29/2014	190	45	<0.84	14	<0.32	<0.24	<0.32	<0.30	<0.25	<0.22	<0.33	<0.24	<0.19	<0.23	<0.37	2.4	<1.4	<0.86	<5.5	14	<0.24	<0.97	<0.33	<0.32	<0.88	<0.40	1.0 Jq	<0.22	3.4	1.4
GG		B125-GGD67-68-DUP	B125-GG	67-68	07/29/2014	<6.0	<3.6	<0.76	<0.12	<0.29	<0.22	<0.29	<0.27	<0.23	<0.20	<0.30	<0.22	<0.17	<0.21	<0.33	<0.15	<1.3	<0.78	6.0 Jq	<0.50	<0.22	<0.88	<0.30	<0.29	<0.80	<0.36	<0.56	<0.20	<0.26	<0.53
GG	B131	B131-GGD19-20-DUP	B131-GG	19-20	07/29/2014	<5.4	<3.3	<0.69	1.3	<0.26	<0.19	<0.26	<0.24	<0.21	<0.18	<0.27	<0.20	<0.15	<0.19	<0.30	<0.13	<1.2	<0.70	<4.5	0.51 Jq	<0.19	<0.79	<0.27	<0.26	<0.72	<0.32	<0.51	<0.18	<0.23	<0.48
GG	B132	B132-GGD40.5-41.5-DUP	B132-GG	40.5-41.5	07/30/2014	<5.4	<3.3	<0.68	0.16 Jq	<0.26	<0.19	<0.26	<0.24	<0.21	<0.18	<0.27	<0.20	<0.15	<0.19	<0.30	<0.13	<1.2	<0.70	<4.5	<0.44	<0.19	<0.79	<0.27	<0.26	<0.72	<0.32	<0.51	<0.18	<0.23	<0.48

Table 6.
Summary of Soil Analytical Results: Method SW8260B
Remedial Investigation
Chino Airport, Chino, California

AOC	Boring	Sample Name	Locid	Depth	Sample Date	Acetone	2-Butanone	Bromoform	Benzene	Carbon Disulfide	Chlorobenzene	Chloromethane	Carbon Tetrachloride	Chloroform	1,1-Dichloroethane	1,2-Dichloroethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,1-Dichloroethene	Ethylbenzene	Methylene Chloride	Naphthalene	Tert-Butyl Alcohol (TBA)	Toluene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	Trichloroethene	1,2,3-Trichloropropane	Trichlorofluoromethane	1,2,4-Trimethylbenzene	Tetrachloroethene	p/m-Xylene	o-Xylene
J-K	B07	B07-JKD41-42-DUP	B07-JK	41-42	07/03/2014	6.0 BJkq	<3.3	<0.69	0.45 Jq	<0.27	<0.20	<0.26	<0.25	0.23 Jq	<0.18	<0.27	<0.20	<0.15	<0.19	<0.30	<0.13	<1.2	<0.71	<4.5	0.71 Jq	<0.20	<0.80	<0.27	<0.26	<0.72	<0.33	<0.51	0.43 Jq	<0.23	<0.48	
J-K		B07-JKD50-51-DUP	B07-JK	50-51	07/03/2014	12 BJkq	<3.1	<0.66	0.62 Jq	<0.25	<0.19	<0.25	<0.23	<0.20	<0.17	<0.26	<0.19	<0.15	<0.18	<0.29	<0.13	<1.1	<0.67	<4.3	0.49 Jq	<0.19	<0.75	<0.26	<0.25	<0.69	<0.31	<0.48	<0.17	<0.22	<0.46	
J-K		B07-JKD77-78-DUP	B07-JK	77-78	07/07/2014	<4.7	<2.8	<0.60	0.43 Jq	<0.23	<0.17	<0.23	0.25 Jq	<0.18	<0.16	<0.24	<0.17	<0.13	<0.17	<0.26	<0.11	<1.0	<0.61	<3.9	<0.39	<0.17	<0.69	<0.23	<0.23	<0.62	<0.28	<0.44	<0.16	<0.20	<0.42	
J-K	B08	B08-JKD7	B08-JK	7	06/30/2014	15 Jq	3.3 Jq	<0.68	4.3	<0.26	<0.19	<0.26	<0.24	<0.20	<0.18	<0.27	<0.20	<0.15	<0.19	<0.30	0.49 Jq	<1.1	<0.70	<4.4	3.4	<0.19	<0.78	<0.27	<0.26	<0.71	<0.32	<0.50	<0.18	0.68 Jq	<0.48	
J-K		B08-JKD23	B08-JK	23	06/30/2014	<5.6	<3.4	<0.72	0.15 Jq	<0.28	<0.20	<0.27	<0.26	<0.22	<0.19	<0.28	<0.21	<0.16	<0.20	<0.31	<0.14	<1.2	<0.73	<4.7	<0.46	<0.20	<0.82	<0.28	<0.27	<0.75	<0.34	<0.53	<0.19	<0.24	<0.50	
J-K	B09	B09-JKD19	B09-JK	19	07/01/2014	20 Jq	5.1 Jq	<0.79	5.4	<0.30	<0.22	<0.30	<0.28	<0.24	<0.21	<0.31	<0.23	<0.18	<0.22	<0.34	0.89 Jq	<1.3	1.2 Jq	<5.1	5	<0.22	<0.91	<0.31	<0.30	<0.83	<0.37	<0.58	<0.21	1.2 Jq	<0.55	
J-K		B09-JKD36	B09-JK	36	07/01/2014	<5.5	<3.3	<0.70	0.34 Jq	<0.27	<0.20	<0.27	<0.25	<0.21	<0.19	<0.28	<0.20	<0.15	<0.20	<0.30	<0.13	<1.2	<0.72	4.7 Jq	0.58 BJkq	<0.20	<0.80	<0.27	<0.26	<0.73	<0.33	<0.52	<0.18	<0.24	<0.49	
J-K	B10	B10-JKD37	B10-JK	37	07/01/2014	<5.3	<3.2	<0.67	0.27 Jq	<0.26	<0.19	<0.26	<0.24	<0.20	<0.18	<0.27	<0.19	<0.15	<0.19	<0.29	<0.13	<1.1	<0.69	<4.4	<0.44	<0.19	<0.77	<0.26	<0.25	<0.70	<0.32	<0.50	<0.18	<0.23	<0.47	
J-K		B10-JKD31	B10-JK	31	07/01/2014	<5.1	<3.1	<0.65	0.63 Jq	<0.25	<0.18	<0.25	<0.23	0.20 Jq	<0.17	<0.26	<0.19	<0.14	<0.18	<0.28	<0.12	<1.1	<0.67	<4.2	0.45 BJkq	<0.18	<0.75	<0.25	0.55 Jq	<0.68	<0.31	<0.48	<0.17	<0.22	<0.46	
J-K	B11	B11-JKD40	B11-JK	40	07/01/2014	<4.8	<2.9	<0.61	0.37 Jq	<0.23	<0.17	<0.23	<0.22	0.8	<0.16	<0.24	<0.18	<0.14	<0.17	<0.27	<0.12	<1.0	<0.62	<4.0	<0.40	<0.17	<0.70	<0.24	0.82 Jq	<0.64	<0.29	<0.45	<0.16	<0.21	<0.43	
J-K		B11-JKD40-DUP	B11-JK	40	07/02/2014	<5.5	<3.3	<0.70	0.27 Jq	<0.27	<0.20	<0.27	<0.25	<0.21	<0.19	<0.28	<0.20	<0.16	<0.20	<0.31	<0.13	<1.2	<0.72	5.0 Jq	<0.46	<0.20	<0.81	<0.27	<0.27	<0.73	<0.33	<0.52	<0.19	<0.24	<0.49	
J-K	B13	B13-JKD30-DUP	B13-JK	30	07/02/2014	<5.6	<3.4	<0.71	<0.12	<0.27	<0.20	<0.27	<0.25	<0.21	<0.19	<0.28	<0.20	<0.16	<0.20	<0.31	<0.14	<1.2	<0.73	<4.6	<0.46	<0.20	<0.81	<0.28	<0.27	<0.74	<0.33	<0.52	<0.19	<0.24	<0.50	
J-K		B13-JKD36-DUP	B13-JK	36	07/02/2014	<5.1	<3.1	<0.64	1	<0.25	<0.18	<0.25	0.32 Jq	0.34 Jq	<0.17	<0.25	<0.19	<0.14	<0.18	<0.28	<0.12	<1.1	<0.66	<4.2	0.60 BJkq	<0.18	<0.74	<0.25	0.41 Jq	<0.67	<0.30	<0.48	<0.17	<0.22	<0.45	
J-K	B14	B14-JKD36-DUP	B14-JK	36	07/02/2014	<5.3	<3.2	<0.67	0.39 Jq	<0.26	<0.19	<0.26	3.9	8.6	<0.18	<0.27	<0.19	<0.15	<0.19	<0.29	<0.13	<1.1	<0.69	<4.4	<0.44	<0.19	<0.77	<0.26	2.6	<0.70	<0.32	<0.50	<0.18	<0.23	<0.47	
J-K		B14-JKD38-DUP	B14-JK	38	07/02/2014	<4.8	<2.9	<0.61	0.39 Jq	<0.23	<0.17	<0.23	1.9	4.3	<0.16	<0.24	<0.18	<0.13	<0.17	<0.26	<0.12	<1.0	<0.62	<4.0	<0.39	<0.17	<0.70	<0.24	1.3 Jq	<0.64	<0.29	<0.45	<0.16	<0.21	<0.43	
J-K	B19	B19-JKD27-28-DUP	B19-JK	27-28	07/03/2014	7.7 BJkq	3.6 Jq	<0.64	3.1	<0.25	<0.18	<0.25	<0.23	6.8	<0.17	<0.25	<0.18	<0.14	<0.18	<0.28	0.16 Jq	<1.1	<0.66	<4.2	1.7	<0.18	<0.74	<0.25	<0.24	<0.67	<0.30	<0.47	<0.17	0.26 Jq	<0.45	
J-K		B19-JKD39-40-DUP	B19-JK	39-40	07/03/2014	<5.2	<3.2	<0.66	0.79 Jq	<0.26	<0.19	<0.25	<0.24	1.2	<0.18	<0.26	<0.19	<0.15	<0.19	<0.29	<0.13	<1.1	<0.68	4.8 Jq	0.55 Jq	<0.19	<0.76	<0.26	<0.25	<0.69	<0.31	<0.49	<0.18	<0.22	<0.47	
J-K		B20-JKD44-45-DUP	B20-JK	44-45	07/03/2014	<6.6	<4.0	<0.84	0.18 Jq	<0.32	<0.24	<0.32	<0.30	<0.25	<0.22	<0.33	<0.24	<0.19	<0.23	<0.36	<0.16	<1.4	<0.86	6.1 Jq	<0.54	<0.24	<0.96	<0.33	<0.32	<0.87	<0.39	<0.62	<0.22	<0.28	<0.59	
J-K	B21	B21-JKD47-48-DUP	B21-JK	47-48	07/07/2014	14 BJkq	9.0 Jq	<0.65	7.8	<0.25	<0.18	<0.25	2.4	3.3	<0.17	<0.26	<0.19	<0.14	<0.18	<0.28	0.34 Jq	<1.1	<0.66	<4.2	3.1	<0.18	<0.74	<0.25	0.70 Jq	<0.67	<0.31	<0.48	<0.17	0.64 Jq	<0.45	
J-K		B21-JKD73-74-DUP	B21-JK	73-74	07/08/2014	8.9 BJkq	4.0 Jq	<0.64	2.3	<0.24	<0.18	<0.24	4.8	8.5	<0.17	<0.25	<0.18	<0.14	<0.18	<0.28	<0.12	<1.1	<0.65	<4.1	1.1	<0.18	<0.73	<0.25	6.4	<0.67	<0.30	<0.47	<0.17	<0.21	<0.45	
J-K	B22	B22-JKD4-5-DUP	B22-JK	4-5	07/08/2014	16 BJkq	<3.8	<0.81	0.68 BJkq	<0.31	<0.23	<0.31	<0.29	<0.24	<0.21	<0.32	<0.23	<0.18	<0.23	<0.35	<0.15	<1.4	<0.83	<5.3	0.60 Jq	<0.23	<0.93	<0.32	<0.31	<0.84	<0.38	<0.60	<0.21	<0.27	<0.57	
J-K		B22-JKD57-58-DUP	B22-JK	57-58	07/08/2014	33 BJkq	24	<0.65	21	<0.25	<0.18	<0.25	3	11	<0.17	<0.26	<0.19	<0.14	<0.18	<0.28	0.81	<1.1	<0.66	<4.2	11	<0.18	<0.74	<0.25	2.2	<0.68	<0.31	<0.48	<0.17	0.84 Jq	<0.45	
J-K	B23	B23-JKD37-38-DUP	B23-JK	37-38	07/08/2014	5.7 BJkq	<3.3	<0.70	0.37 BJkq	<0.27	<0.20	<0.27	<0.25	0.47 Jq	<0.19	<0.28	<0.20	<0.15	<0.20	<0.30	<0.13	<1.2	<0.72	<4.5	<0.45	<0.20	<0.80	<0.27	<0.26	<0.73	<0.33	<0.52	<0.18	<0.24	<0.49	
KK	B57	B57-KKD19-20-DUP	B57-KK	19-20	07/16/2014	<5.5	<3.3	<0.70	0.88	<0.27	<0.20	<0.27	<0.25	<0.21	<0.19	<0.28	<0.20	<0.15	<0.20	<0.30	<0.13	<1.2	<0.72	<4.5	1.2 Bk	<0.20	<0.80	<0.27	<0.26	<0.73	<0.33	<0.52	<0.18	<0.24	<0.49	
KK	B58	B58-KKD56-57-DUP	B58-KK	56-57	07/16/2014	<4.4	<2.7	<0.56	0.13 Jq	<0.22	<0.16	<0.22	<0.20	0.20 Jq	<0.15	<0.22	<0.16	<0.12	<0.16	<0.25	<0.11	<0.95	<0.58	<3.7	0.71 Bk	<0.16	<0.65	<0.22	0.41 Jq	<0.59	3.7 Jq	<0.42	<0.15	<0.19	<0.39	
KK	B59	B59-KKD19-20-DUP	B59-KK	19-20	07/16/2014	<5.4	<3.3	<0.69	0.21 Jq	<0.27	<0.20	<0.27	<0.25	<0.21	<0.18	<0.27	<0.20	<0.15	<0.19	<0.30	<0.13	<1.2	<0.71	<4.5	0.60 BJkq	<0.20	<0.80	<0.27	<0.26	<0.72	<0.33	<0.51	<0.18	<0.23	<0.49	
KK	B61	B61-KKD19-20-DUP	B61-KK	19-20	07/16/2014	<5.1	<3.1	<0.65	<0.11	<0.25	<0.18	<0.25	<0.23	<0.20	<0.17	<0.26	<0.19	<0.14	<0.18	<0.28	<0.12	<1.1	<0.67	<4.2	0.80 Jq	<0.18	<0.75	<0.25	<0.25	<0.68	<0.31	<0.48	<0.17	<0.22	<0.46	
KK	B62	B62-KKD19-20-DUP	B62-KK	19-20	07/16/2014	<5.9	<3.6	<0.76	<0.12	<0.29	<0.21	<0.29	<0.27	<0.23	<0.20	<0.30	<0.22	<0.17	<0.21	<0.33	<0.14	<1.3	<0.77	<4.9	0.90 Jq	<0.21	<0.87	<0.29	<0.29	<0.79	<0.36					

Table 6.
Summary of Soil Analytical Results: Method SW8260B
Remedial Investigation
Chino Airport, Chino, California

AOC	Boring	Sample Name	Locid	Depth	Sample Date	Acetone	2-Butanone	Bromoform	Benzene	Carbon Disulfide	Chlorobenzene	Chloromethane	Carbon Tetrachloride	Chloroform	1,1-Dichloroethane	1,2-Dichloroethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,1-Dichloroethene	Ethylbenzene	Methylene Chloride	Naphthalene	Tert-Butyl Alcohol (TBA)	Toluene	1,1,1-Trichloroethane	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	Trichloroethene	1,2,3-Trichloropropane	Trichlorofluoromethane	1,2,4-Trimethylbenzene	Tetrachloroethene	p/m-Xylene	o-Xylene
NN	B84	B84-NND19-20-DUP	B84-NN	19	07/21/2014	<5.9	<3.6	<0.75	<0.12	<0.29	<0.21	<0.29	<0.27	<0.23	<0.20	<0.30	<0.22	<0.17	<0.21	<0.33	<0.14	<1.3	<0.77	6.5 Jq	0.73 Jq	<0.21	<0.87	<0.29	<0.29	<0.79	<0.36	<0.56	<0.20	<0.25	<0.52
O	B39	B39-OD28-30-DUP	B39-O	28	07/11/2014	<5.9	<3.6	<0.75	0.12 Jq	<0.29	<0.21	<0.29	<0.27	<0.23	<0.20	<0.30	<0.22	<0.17	<0.21	<0.33	<0.14	<1.3	<0.77	<4.9	0.50 BJKq	<0.21	<0.87	<0.29	<0.29	<0.79	<0.36	<0.56	<0.20	<0.25	<0.52
O	B40	B40-OD28-30-DUP	B40-O	28	07/11/2014	<5.1	<3.1	<0.65	0.27 Jq	<0.25	<0.18	<0.25	<0.23	<0.20	<0.17	<0.26	<0.19	<0.14	<0.18	<0.28	<0.12	<1.1	<0.67	<4.2	<0.42	<0.18	<0.75	<0.25	<0.25	<0.68	<0.31	<0.48	<0.17	<0.22	<0.46
O	B46	B46-OD29-30-DUP	B46-O	29	07/11/2014	<4.9	<2.9	<0.62	0.8	<0.24	<0.18	<0.24	<0.22	<0.19	<0.17	<0.25	<0.18	<0.14	<0.17	<0.27	<0.12	<1.0	<0.64	<4.0	<0.40	<0.18	<0.71	<0.24	<0.23	<0.65	<0.29	<0.46	<0.16	<0.21	<0.43
O	B47	B47-OD24-25-DUP	B47-O	24	07/11/2014	<5.7	<3.4	<0.72	<0.12	<0.28	<0.20	<0.28	<0.26	<0.22	<0.19	<0.28	<0.21	<0.16	<0.20	<0.31	<0.14	<1.2	<0.74	<4.7	<0.47	<0.20	<0.83	<0.28	<0.27	<0.75	<0.34	<0.53	<0.19	<0.24	<0.50
OO	B43	B43-OD36.5-DUP	B43-OO	36.5	07/14/2014	<5.4	<3.3	<0.69	<0.11	<0.26	<0.19	<0.26	<0.24	<0.21	<0.18	<0.27	<0.20	<0.15	<0.19	<0.30	<0.13	<1.2	<0.70	<4.5	0.63 BJKq	<0.19	<0.79	<0.27	<0.26	<0.72	<0.32	<0.51	<0.18	<0.23	<0.48
OO	B44	B44-OD40-DUP	B44-OO	40	07/15/2014	8.3 Jq	<3.3	<0.70	2.4	0.81 Jq	0.43 Jq	<0.27	<0.25	<0.21	<0.19	<0.28	88	2.7	26	<0.30	<0.13	<1.2	<0.72	<4.5	1.8	<0.20	1.1 Jq	3.5	<0.26	<0.73	<0.33	<0.52	<0.18	0.29 Jq	<0.49
OO	B45	B45-OD43-DUP	B45-OO	43	07/15/2014	12 Jq	6.7 Jq	<0.63	3.9	<0.24	<0.18	<0.24	<0.23	<0.19	<0.17	<0.25	0.35 Jq	<0.14	0.18 Jq	<0.28	0.16 Jq	<1.1	<0.65	<4.1	2.1	<0.18	<0.73	<0.25	<0.24	<0.66	<0.30	<0.47	<0.17	0.29 Jq	<0.44
OO	B52	B52-OD39-40-DUP	B52-OO	39-40	07/14/2014	<6.0	<3.6	<0.76	<0.12	<0.29	<0.22	<0.29	<0.27	<0.23	<0.20	<0.30	<0.22	<0.17	<0.21	<0.33	<0.15	<1.3	<0.78	<5.0	0.61 Jq	<0.22	<0.88	<0.30	<0.29	<0.80	<0.36	<0.56	<0.20	<0.26	<0.53
OO	B53	B53-OD4-5-DUP	B53-OO	4	07/15/2014	8.9 Jq	<3.8	<0.80	0.48 Jq	<0.31	<0.22	0.42 BJKq	<0.28	<0.24	<0.21	<0.31	<0.23	<0.18	<0.22	<0.35	<0.15	<1.3	<0.82	<5.2	0.68 Jq	<0.23	<0.92	<0.31	<0.30	<0.83	<0.38	<0.59	<0.21	<0.27	<0.56
OO	B53	B53-OD36-37-DUP	B53-OO	36-37	07/15/2014	8.1 Jq	<3.6	<0.75	1.5	<0.29	<0.21	<0.29	<0.27	<0.23	<0.20	<0.30	<0.22	<0.17	<0.21	<0.33	<0.14	<1.3	<0.77	5.3 Jq	1.5	<0.21	<0.86	<0.29	<0.28	<0.78	<0.35	<0.55	<0.20	<0.25	<0.53
OO	B54	B54-OD39-40-DUP	B54-OO	39-40	07/15/2014	8.4 Jq	5.2 Jq	<0.83	2.9	<0.32	<0.23	<0.32	<0.30	<0.25	<0.22	<0.33	<0.24	<0.18	<0.23	<0.36	<0.16	<1.4	<0.85	<5.4	1.9	<0.24	<0.96	<0.33	<0.32	<0.87	0.34 Jq	<0.61	<0.22	0.33 Jq	<0.58
OO	B54	B54-OD54-55-DUP	B54-OO	54-55	07/15/2014	8.0 Jq	4.9 Jq	<0.68	5.6	<0.26	<0.19	<0.26	<0.24	<0.20	<0.18	<0.27	<0.19	<0.15	<0.19	<0.29	0.26 Jq	<1.1	<0.69	<4.4	2.8	<0.19	<0.78	<0.26	<0.26	<0.71	1.2 Jq	<0.50	<0.18	0.50 Jq	<0.47
OO	B56	B56-OD40.5-DUP	B56-OO	40.5	07/15/2014	5.9 Jq	<3.2	<0.67	0.49 Jq	<0.26	<0.19	<0.26	<0.24	<0.20	<0.18	<0.26	<0.19	<0.15	<0.19	<0.29	<0.13	<1.1	<0.68	<4.3	1.0	<0.19	<0.77	<0.26	<0.25	<0.70	<0.31	<0.49	<0.18	<0.22	<0.47
OO	B68	B68-OD9-DUP	B68-OO	9	07/18/2014	17 BJKq	4.2 Jq	<0.66	0.67 Jq	<0.26	<0.19	<0.25	<0.24	<0.20	<0.18	<0.26	<0.19	<0.15	<0.19	<0.29	<0.13	<1.1	<0.68	<4.3	0.85 Bk	<0.19	<0.76	<0.26	<0.25	<0.69	<0.31	<0.49	<0.18	<0.22	<0.47
OO	B68	B68-OD20-DUP	B68-OO	20	07/18/2014	<5.0	<3.0	<0.63	0.28 Jq	<0.24	<0.18	<0.24	<0.23	<0.19	<0.17	<0.25	<0.18	<0.14	<0.18	<0.28	<0.12	<1.1	<0.65	<4.1	0.72 BJKq	<0.18	<0.73	<0.25	<0.24	<0.66	<0.30	<0.47	<0.17	<0.21	<0.44
OO	B68	B68-OD30-DUP	B68-OO	30	07/18/2014	6.5 BJKq	4.1 Jq	<0.67	3.4	<0.26	<0.19	<0.26	<0.24	<0.20	<0.18	<0.27	<0.19	<0.15	<0.19	<0.29	0.30 Jq	<1.1	<0.69	<4.4	2.9	<0.19	<0.77	<0.26	<0.25	<0.70	<0.32	<0.50	<0.18	0.57 Jq	<0.47
OO	B68	B68-OD37-DUP	B68-OO	37	07/18/2014	<5.1	<3.1	<0.65	1.9	<0.25	<0.18	<0.25	<0.23	<0.20	<0.17	<0.26	<0.19	<0.15	<0.18	<0.29	<0.12	<1.1	<0.67	<4.3	1.9	<0.19	<0.75	<0.26	<0.25	<0.68	<0.31	<0.48	<0.17	0.32 Jq	<0.46
OO	B68	B68-OD46-DUP	B68-OO	46	07/18/2014	18 BJKq	<3.1	<0.65	0.39 Jq	<0.25	0.49 Jq	<0.25	<0.23	<0.20	<0.17	<0.26	3.3	0.92	3.8	<0.28	<0.12	<1.1	<0.67	<4.2	0.94 Bk	<0.18	<0.75	0.26 Jq	<0.25	<0.68	<0.31	<0.48	0.30 Jq	<0.22	<0.46
OO	B68	B69-OD10-DUP	B69-OO	10	07/18/2014	16 BJKq	3.4 Jq	<0.67	0.35 Jq	<0.26	<0.19	<0.26	<0.24	<0.20	<0.18	<0.27	<0.19	<0.15	<0.19	<0.29	<0.13	<1.1	<0.69	<4.4	0.45 BJKq	<0.19	<0.77	<0.26	<0.25	<0.70	<0.32	<0.50	<0.18	<0.23	<0.47
OO	B68	B69-OD23-DUP	B69-OO	23	07/18/2014	7.3 BJKq	3.5 Jq	<0.69	3.5	<0.26	<0.19	<0.26	<0.25	<0.21	<0.18	<0.27	<0.20	<0.15	<0.19	<0.30	0.20 Jq	<1.2	<0.71	<4.5	3	<0.20	<0.79	<0.27	<0.26	<0.72	<0.33	<0.51	<0.18	0.47 Jq	<0.48
OO	B68	B69-OD30-DUP	B69-OO	30	07/18/2014	6.3 BJKq	<2.9	<0.61	2	<0.24	<0.17	<0.23	<0.22	<0.18	<0.16	<0.24	<0.18	<0.14	<0.17	<0.27	<0.12	<1.0	<0.63	<4.0	1.9	<0.17	<0.70	<0.24	<0.23	<0.64	<0.29	<0.45	<0.16	0.30 Jq	<0.43
OO	B68	B69-OD34-DUP	B69-OO	34	07/18/2014	<5.5	<3.3	<0.70	0.26 Jq	<0.27	<0.20	<0.27	<0.25	<0.21	<0.19	<0.28	<0.20	<0.16	<0.20	<0.31	<0.13	<1.2	<0.72	<4.6	1.2	<0.20	<0.81	<0.27	<0.27	<0.73	<0.33	<0.52	<0.19	<0.24	<0.49
Z	B142	B142-ZD20-DUP	B142-Z	20	07/31/2014	28 Jq	5.2 Jq	<0.70	1.1	0.28 Jq	<0.20	<0.27	<0.25	<0.21	<0.19	<0.27	<0.20	<0.15	<0.19	<0.30	<0.13	<1.2	<0.71	<4.5	<0.45	<0.20	<0.80	<0.27	<0.26	<0.73	<0.33	<0.51	<0.18	<0.23	<0.49
Z	B143	B143-ZD20-DUP	B143-Z	20	07/31/2014	15 Jq	<3.6	<0.75	2.3	<0.29	<0.21	<0.29	<0.27	<0.23	<0.20	<0.30	<0.22	<0.17	<0.21	<0.33	<0.14	<1.3	<0.77	<4.9	0.57 Jq	<0.21	<0.86	<0.29	<0.28	<0.78	<0.35	<0.55	<0.20	<0.25	<0.52
Z	B144	B144-ZD20-DUP	B144-Z	20	07/31/2014	7.3 Jq	<3.9	<0.82	0.30 Jq	0.72 Jq	<0.23	<0.31	<0.29	<0.25	<0.22	<0.32	<0.24	<0.18	<0.23	<0.36	<0.16	<1.4	<0.84	<5.3	<0.53	<0.23	<0.94	<0.32	<0.31	<0.85	<0.39	<0.60	<0.22	<0.28	<0.57
Z	B145	B145-ZD20-DUP	B145-Z	20	07/31/2014	9.4 Jq	<3.6	<0.75	1.2	0.50 Jq	<0.21	<0.29	<0.27	<0.23	<0.20	<0.30	<0.22	<0.17	<0.21	<0.33	<0.14	<1.3	<0.77	<4.9	<0.49	<0.21	<0.86	<0.29	<0.28	<0.78	<0.35	<0.55	<0.20	<0.25	<0.53
Z	B146	B146-ZD19-20-DUP	B146-Z	19-20	07/31/2014	<5.3	3.6 Jq	<0.67	1.5	0.36 Jq	<0.19	<0.26	<0.24	<0.20	<0.18	<0.27	<0.19	<0.15	<0.19	<0.29	<0.13	<1.1	<0.69	<4.4	0.70 Jq	<0.19	<0.77	<0.26	<0.25	<0.70	<0.				

Table 7.
Summary of Soil Analytical Results: site Lab UVF-3100
Remedial Investigation
Chino Airport, Chino, California

AOC	Boring	Sampling Interval (feet bgs)	Sample_Name	Depth	TPH-d	TPH-g
DD	B101	1-20	B101 DD-1	1	26	<1.0
			B101 DD-4	4	12	<1.0
			B101 DD-7	7	0.71	<1.0
	B102	1-20	B102 DD-1	1	274	<100
			B102 DD-4	4	13	<1.0
	B103	1-20	B103 DD-1	1	645	<50.0
			B103 DD-4	4	21	<1.0
	B104	1-20	B104 DD-1	1	370	<50.0
			B104 DD-4	4	43	<10.0
			B104 DD-7	7	0.33	<1.0
	B105	1-20	B105 DD-1	1	159	<10
			B105 DD-4	4	5.2	<1.0
			B105 DD-8	8	2.3	<1.0
	B106	1-20	B106 DD-1	1	213	<10
EE	B93	1-36	B93 EE-1	1	46	<10.0
			B93 EE-4	4	96	<10.0
			B93 EE-7	7	4.8	<1.0
			B93 EE-10	10	0.24	<1.0
			B93 EE-13	13	0.68	<10.0
			B93 EE-16	16	3.3	<10.0
	B94	1-38	B94 EE-1	1	7.5	<10.0
			B94 EE-4	4	4.4	<1.0
			B94 EE-10	10	0.29	<1.0
			B94 EE-18	18	0.51	<1.0
	B95	1-37	B95 EE-1	1	3.2	<10.0
			B95 EE-4	4	0.46	<1.0
			B95 EE-7	7	0.20	<1.0
			B95 EE-35	35	0.28	<1.0
			B95 EE-36-37	36-37	0.37	<1.0
	B98	1-40	B98 EE-1	1	8.0	<10.0
			B98 EE-26	26	<0.20	1.8
			B98 EE-32.5	32.5	0.18	<1.0
	B99	1-66.5	B99 EE-1	1	31	<10.0
			B99 EE-4	4	0.33	<1.0
			B99 EE-7	7	0.64	<1.0
			B99 EE-12	12	9.9	1.7
			B99 EE-16	16	9.8	1.8
			B99 EE-24	24	1.6	<1.0
	B100	1-37	B100 EE-1	1	280	<100
			B100 EE-8	8	50	<1.0
B107	1-57	B107 EE-1	1	5.0	<10	
		B107 EE-7	7	0.28	<1.0	
		B107 EE-48.5	48.5	0.17	<1.0	
B108	1-38	B108 EE-1	1	80	<10	
		B108 EE-10	10	0.57	<1.0	
EE	B109	1-40	B109 EE-1	1	63	<10
			B109 EE-4	4	1.1	<1.0
	B110	1-38	B110 EE-1	1	122	<10
			B110 EE-4-5	4-5	3.9	<1.0
	B111	1-59.5	B111 EE-7	7	0.28	<1.0
			B111 EE-14	14	9.7	2.9
			B111 EE-17.5	17.5	3.8	<1.0
			B111 EE-22	22	0.46	<1.0
	B112	1-34.5	B112 EE-1	1	2.8	<10
			B112 EE-12	12	0.25	<1.0
			B112 EE-28	28	1.0	<1.0
	B121	1-36	B121 EE-1	1	3.9	<10
			B121 EE-4	4	0.43	<1.0
			B121 EE-7	7	<0.2	3.6
B121 EE-10			10	<0.2	2.3	
B122	1-40	B122 EE-1	1	22	<10	
		B122 EE-7	7	0.43	<1.0	
B123	1-39	B123 EE-1	1	7.2	<10	
		B123 EE-4	4	2.8	<1.0	
		B123 EE-7	7	0.23	<1.0	
		B123 EE-10	10	0.47	<1.0	
G	B01	1-40	B01 G-01	1	6.0	<50.0
			B01 G-04	4	45	2.1
			B01 G-13	13	<0.10	0.47
			B01 G-40	40	<0.10	0.81
	B02	1-40	B02 G-01	1	26	<0.50
			B02 G-04	4	2.1	1.7
			B02 G-07	7	<0.10	1.1
			B02 G-16	16	<0.10	0.89
			B02 G-34.5	34.5	<0.10	1.7
			B02 G-40	40	<0.10	1.7

Table 7.
Summary of Soil Analytical Results: site Lab UVF-3100
Remedial Investigation
Chino Airport, Chino, California

AOC	Boring	Sampling Interval (feet bgs)	Sample_Name	Depth	TPH-d	TPH-g	
G	B03	1-40	B03 G-01	1	3.3	2.0	
			B03 G-04	4	4.0	3.6	
			B03 G-07	7	<0.10	1.1	
			B03 G-10	10	<0.10	0.81	
			B03 G-14	14	<0.10	1.9	
			B03 G-19	19	<0.10	0.85	
			B03 G-26-27	26-27	<0.10	1.1	
	B03 G-30	30	<0.10	1.4			
	B04	1-40	B04 G-01	1	25	0.97	
			B04 G-04	4	1.1	3.0	
			B04 G-07	7	<0.10	2.4	
			B04 G-17	17	<0.10	3.1	
			B04 G-30	30	<0.10	0.72	
	B05	1-40	B05 G-01	1	1.7	1.4	
			B05 G-04	4	1.7	<0.50	
G	B15	1-61	B15 G-01	1	100	<50.0	
			B15 G-08	8	0.090	0.82	
			B15 G-12	12	<0.10	6.4	
			B15 G-13	13	<0.10	0.77	
			B15 G-41.5	41.5	<0.10	1.6	
	B16	1-40	B16 G-01	1	38	<0.50	
			B16 G-04	4	20	9.7	
			B16 G-07	7	<0.10	1.3	
			B16 G-13	13	0.11	0.74	
			B16 G-19	19	<0.10	0.81	
			B16 G-30.5	30.5	<0.10	0.55	
	B17	1-40	B17 G-01	1	61	<50.0	
			B17 G-04	4	2.8	1.9	
			B17 G-07	7	<0.10	0.79	
			B17 G-12.5	12.5	<0.10	1.5	
			B17 G-15	15	<0.10	2.9	
			B17 G-18.5	18.5	<0.10	4.5	
			B17 G-21.5	21.5	<0.10	1.4	
			B17 G-27	27	<0.10	1.4	
			B17 G-31	31	<0.10	0.45	
			B17 G-33	33	<0.10	1.1	
	B18	1-61	B17 G-38.5	38.5	<0.10	1.0	
			B18 G-01	1	2.2	<0.50	
			B18 G-04	4	4.0	8.8	
			B18 G-09	9	<0.10	0.50	
			B18 G-11	11	<0.10	2.2	
			B18 G-15	15	<0.10	0.78	
			B18 G-17.5	17.5	<0.10	8.7	
			B18 G-19	19	<0.10	1.2	
			B18 G-29	29	<0.10	0.76	
			B18 G-33-34	33-34	<0.10	0.72	
	G	B24	1-49	B18 G-61	61	<0.10	0.60
				B24 G-1	1	38	<0.50
B24 G-4				4	13	<0.50	
B24 G-7				7	1.8	<1.0	
B25		1-59	B24 G-47	47	<0.10	2.2	
			B25 G-01	1	499	<50.0	
			B25 G-08	8	4.9	<0.50	
			B25 G-35	35	14	<0.50	
			B25 G-36	36	5.5	<0.50	
			B25 G-40	40	<0.10	0.76	
			B25 G-47	47	<0.10	0.70	
B26		1-59.5	B25 G-50	50	<0.10	2.9	
			B25 G-54	54	<0.10	1.7	
			B26 G-1	1	0.95	<0.50	
			B26 G-47	47	<0.10	2.3	
G	B27	1-62	B27 G-1	1	136	<50.0	
			B27 G-36	36	<0.10	0.58	
			B27 G-53.5	53.5	<0.10	0.68	
	B28	1-42	B28 G-1	1	91	6790	
	B29	1-69	B29 G-1	1	49	<5.0	
			B29 G-4	4	6.2	<0.50	
			B29 G-44	44	Not Analyzed	<0.50	
	B30	1-59.5	B30 G-1	1	470	<20.0	
			B30 G-4	4	<0.20	3.3	
	B31	1-61	B31 G-4	4	14	<1.0	
			B31 G-1-2	1-2	10	<10.0	
	B60	1-59	B60 G-1	1	221	<10	
			B60 G-7	7	5.7	<1.0	

Table 7.
Summary of Soil Analytical Results: site Lab UVF-3100
Remedial Investigation
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AOC	Boring	Sampling Interval (feet bgs)	Sample_Name	Depth	TPH-d	TPH-g
GG	B74	1-20	B74 GG-1	1	255	<10
			B75 GG-1	1	95	<10
	B75	1-20	B75 GG-4	4	2.2	<1.0
			B75 GG-16	16	3.6	<1.0
			B75 GG-19-20	19-20	3.0	<1.0
GG	B113	1-22	B113 GG-3	3	48	<10
			B113 GG-6	6	0.95	<1.0
	B114	1-22	B114 GG-3	3	35	<10
			B114 GG-6	6	0.44	<10
			B114 GG-12	12	0.48	<1.0
			B114 GG-17.5	17.5	0.20	<1.0
			B114 GG-22	22	0.75	<1.0
	B115	1-22	B115 GG-1	1	123	<10
			B115 GG-4	4	228	<100
			B115 GG-7	7	0.91	<1.0
			B115 GG-12	12	0.80	<1.0
	B116	1-22	B116 GG-1	1	0.41	<10
			B116 GG-3	3	0.50	<1.0
			B116 GG-6	6	9.0	<100
			B116 GG-8	8	1.5	<1.0
			B116 GG-12	12	0.96	<10
			B116 GG-16	16	1.0	<1.0
			B116 GG-19	19	0.28	<1.0
	B117	1-45	B117 GG-3	3	117	<10
			B117 GG-6	6	1.2	<1.0
			B117 GG-9	9	0.23	<1.0
			B117 GG-12	12	0.25	<1.0
	B124	1-20	B124 GG-1	1	19	<10
			B124 GG-4	4	0.38	<1.0
	B125	1-68	B125 GG-1	1	280	<10
			B125 GG-4	4	52	<10
			B125 GG-7	7	0.31	<1.0
			B125 GG-13.5	13.5	0.29	<1.0
GG	B131	1-20	B131 GG-1	1	12	<10
			B131 GG-4	4	0.75	<1.0
	B132	1-41.5	B132 GG-1	1	84	<10
			B132 GG-4	4	833	<100
			B132 GG-7	7	42	<1.0
			B132 GG-10	10	0.23	<1.0
			B132 GG-14	14	0.21	<1.0
B132 GG-31	31	5.2	1.9			
H	B97	1-20	B97 H-1	1	16	<1.0
			B97 H-4	4	0.25	<1.0
			B97 H-7	7	1.1	<1.0
			B97 H-15	15	1.0	<1.0
			B97 H-17	17	0.30	<1.0
			B97 H-20	20	0.42	<1.0
H	B140	1-20	B140 H-1	1	54	<10
			B140 H-4	4	0.23	<1.0
			B140 H-12.5	12.5	0.29	<1.0
	B141	1-20	B141 H-1.5	1.5	125	<10
			B141 H-4	4	71	<10
			B141 H-8	8	86	<10
			B141 H-8.5	8.5	0.54	<1.0
	B150	1-50.5	B150 H-1	1	62	<1.0
			B150 H-4	4	1.0	<1.0
			B150 H-10.5	10.5	0.22	<1.0
			B150 H-24.5	24.5	0.24	<1.0
			B150 H-37	37	0.20	<1.0
			B150 H-39	39	0.31	<1.0
			B150 H-41	41	0.37	<1.0
			B150 H-43	43	0.26	<1.0
			B150 H-45.5	45.5	0.43	<1.0
			B150 H-49.5-50.5	49.5-50.5	1.41	<1.0
	B155	1-56	B155 H-9	9	222	<10
			B155 H-12	12	2.1	<1.0
			B155 H-15	15	8.5	<1.0
			B155 H-36.5	36.5	1.6	<1.0
			B155 H-47.5	47.5	0.65	<1.0
			B155 H-48	48	0.34	<1.0

Table 7.
Summary of Soil Analytical Results: site Lab UVF-3100
Remedial Investigation
Chino Airport, Chino, California

AOC	Boring	Sampling Interval (feet bgs)	Sample_Name	Depth	TPH-d	TPH-g		
H	B156	1-54	B156 H-6	6	77	<10		
			B156 H-9	9	18	<10		
			B156 H-12	12	0.23	<1.0		
			B156 H-35	35	0.18	<1.0		
			B156 H-38	38	0.19	<1.0		
			B156 H-39	39	0.40	<1.0		
			B156 H-39.5	39.5	0.75	<1.0		
			B156 H-42-43	42-43	0.27	<1.0		
H	B156	1-54	B156 H-48	48	0.27	<1.0		
			B156 H-52	52	0.29	<1.0		
	B157	1-50	B157 H-8	8	5.8	<1.0		
			B157 H-10.5	10.5	5.1	<1.0		
			B157 H-13	13	29	<1.0		
			B157 H-24	24	0.93	<10		
	B158	1-50	B157 H-27	27	0.34	<10		
			B158 H-7.5	7.5	0.61	<1.0		
			B158 H-36	36	3.2	1.9		
	B158	1-50	B158 H-37.5	37.5	0.86	<1.0		
			B161	1-50	B161 H-8	8	0.33	<1.0
					B161 H-36.5	36.5	0.64	<1.0
	B161 H-38	38			0.66	<1.0		
	B161 H-41	41			0.65	<1.0		
B162	1-50	B162 H-13	13	111	<10			
		B162 H-16	16	59	<10			
		B162 H-17	17	3.5	<1.0			
		B162 H-44.5	44.5	0.19	<1.0			
JJ	B41	1-30	B41 JJ-1	1	265	<1.0		
			B41 JJ-8	8	0.83	<1.0		
			B41 JJ-10	10	0.88	<1.0		
	B42	1-30	B42 JJ-1	1	72	<10.0		
			B42 JJ-4	4	67	<10.0		
			B42 JJ-10	10	790	<100		
			B42 JJ-12	12	1.1	<1.0		
			B42 JJ-18	18	7.9	<1.0		
	B49	1-30	B49-JJ-1	1	429	<10		
			B49-JJ-4	4	130	<10		
	B50	1-30	B50 JJ-1	1	63	<10		
			B50 JJ-4	4	6.3	<1.0		
	B51	1-30	B51 JJ-1	1	30	<10		
B51 JJ-4			4	46	<1.0			
KK	B57	1-20	B57 KK-1	1	0.72	<10		
	B58	1-57	B58 KK-1	1	882	<100		
	B59	1-20	B59 KK-1	1	85	<100		
	B61	1-20	B61 KK-1	1	293	<10		
			B61 KK-4	4	1.6	<1.0		
			B62 KK-1	1	90	<10		
	B62	1-44	B62 KK-4	4	12	<1.0		
			B62 KK-16	16	0.66	<1.0		
			B63 KK-1	1	59	<10		
	B63	1-20	B63 KK-4	4	26	<10		
			B64 KK-1	1	151	<10		
	B64	1-20	B64 KK-4	4	19	<1.0		
B64 KK-16			16	1.0	<1.0			
LL			1-32	B133 LL-1	1	353	<100	
	B133 LL-4	4		13	<1.0			
	B133 LL-7.5	7.5		0.36	<1.0			
	B133 LL-16	16		2.0	<1.0			
B134	1-32	B134 LL-1	1	642	<100			
		B134 LL-4	4	20	<10			
		B134 LL-7.5	7.5	0.21	<1.0			
M	B65	1-20	B65 M-1	1	25	<10		
			B65 M-4	4	9.7	<10		
	B71	1-20	B71 M-1	1	191	<10		
			B71 M-4	4	7.2	<1.0		
	B72	1-20	B72 M-1	1	199	<10		
			B72 M-4	4	6.8	<1.0		
	B73	1-20	B73 M-1	1	184	<10		
			B73 M-4	4	3.0	<1.0		
MM	B32	1-52	B32 MM-1-2	1-2	4.1	<10.0		
	B34	1-40	B34 MM-4	4	9.2	<1.0		
			B34 MM-1-2	1-2	686	<10		
	B35	1-40	B35 MM-1	1	872	<100		
			B35 MM-4	4	16	<1.0		
	B36	1-40	B36 MM-1	1	0.45	<1.0		
B37	1-40	B37 MM-1	1	4.2	<10			
B38	1-40	B38 MM-1	1	1.1	<10			

Table 7.
Summary of Soil Analytical Results: site Lab UVF-3100
Remedial Investigation
Chino Airport, Chino, California

AOC	Boring	Sampling Interval (feet bgs)	Sample_Name	Depth	TPH-d	TPH-g
N	B70	1-30	B70 N-4	4	1.3	<10
	B86	1-30	B86 N-1	1	1.6	<10
			B86 N-4	4	1.5	<10
	B87	1-30	B87 N-1	1	23	<100
			B87 N-4	4	2.6	30
			B87 N-8	8	0.91	<1.0
B87 N-10-11			10-11	3.1	0.96	
N	B88	1-30	B88 N-4	4	4.8	<10
			B88 N-10-11	10-11	0.17	<1.0
	B89	1-30	B89 N-1	1	2.5	<10.0
			B89 N-4	4	40	<50.0
N	B90	1-30	B90 N-1	1	9.8	<50.0
			B90 N-4	4	5.5	<10.0
			B90 N-8	8	0.67	<1.0
			B90 N-10-11	10-11	0.29	<1.0
			B90 N-25-26	25-26	0.36	<1.0
	B91	1-30	B91 N-1	1	7.0	<10
			B91 N-4-5	4-5	55	<100
	B92	1-30	B92 N-1	1	12	<10
			B92 N-4-5	4-5	32	<10
	N	B96	1-30	B96 N-1	1	9.6
B96 N-4				4	1.7	<10.0
B96 N-8				8	0.64	<10.0
B96 N-18				18	0.42	<1.0
B96 N-10.5-11.5				10.5-11.5	0.28	<1.0
B96 N-15-16				15-16	1.1	<10.0
B96 N-20-21				20-21	1.3	<1.0
B96 N-25-26				25-26	0.52	<10.0
O	B39	1-30	B39 O-1	1	56	<10
			B39 O-8	8	4.7	<1.0
	B47	1-25	B47 O-4	4	<0.20	3.8
			B47 O-1-2	1-2	2.3	<10
	B48	1-30	B48 O-1	1	155	<10
			B48 O-4-5	4-5	36	<1.0
OO	B43	1-36.5	B43 OO-1	1	773	<100
			B43 OO-8	8	1.5	<1.0
	B44	1-40	B44 OO-1	1	339	<100
			B44 OO-4	4	2.6	<1.0
			B44 OO-8	8	8.7	<1.0
			B44 OO-10	10	0.015	<1.0
			B44 OO-25.5	25.5	1.9	<1.0
			B44 OO-31	31	1.5	<1.0
			B44 OO-34	34	0.37	<1.0
			B44 OO-36	36	1.3	<1.0
	B44 OO-37	37	2.4	<1.0		
	B45	1-43	B45 OO-1	1	1.6	<10
	B52	1-40	B52 OO-1	1	395	<250
			B52 OO-4	4	7.4	<250
	B53	1-37	B53 OO-1	1	75	<10
B53 OO-4-5			4-5	66	<1.0	

Table 7.
Summary of Soil Analytical Results: *site* Lab UVF-3100
Remedial Investigation
Chino Airport, Chino, California

AOC	Boring	Sampling Interval (feet bgs)	Sample_Name	Depth	TPH-d	TPH-g
OO	B54	1-55	B54 OO-1	1	116	<10
			B54 OO-4	4	11	<1.0
	B55	1-40	B55 OO-1	1	8.7	<10
			B55 OO-4	4	2.7	<1.0
	B56	1-40.5	B56 OO-1	1	3.3	<10
Investigation Goal					100	100

Acronyms and Abbreviations:

TPH-d: total petroleum hydrocarbons as diesel

TPH-g: total petroleum hydrocarbons as gasoline

Notes:

All concentrations are in milligrams per kilogram (mg/kg)

siteLab UVF-3100: *site* Lab ultraviolet fluorescence-3100

Gray shading indicates compound was not detected in sample.

Key:

AOC DD – Former Airport Maintenance Shop and Yard

AOC EE – Former Cal Aero Restoration Yard

AOC FF – Building A440

AOC G - Former PAC Wash Rack Area

AOC GG – Former Aircraft Dismantling Area

AOC H – Former Waste Disposal Ponds

AOC HH – Buildings A230, A235, A340, A435

AOC JJ – Former UST C-15 and Sump I

AOC J-K – PAC Paint Shop and Paint Shed Areas

AOC KK – Building A270, Yanks Museum

AOC LL – Former UST C-18

AOC M – Fuel Dump Area

AOC MM – Building A385

AOC N – Suspected Landfill

AOC NN - Former Building 30

AOC OO – Former PAC Wash Rack Area Drain

AOC O – U.S. Forest Service Area/Reported Solid Waste Landfill

AOC Z – Waste Water Discharge from Building A495

Table 8.
Summary of Soil Analytical Results: Method SW8015B
Remedial Investigation
Chino Airport, Chino, California

AOC	Boring	Sample Name	Locid	Depth	Sample Date	TPH-g	TPH-d
G	B15	B15-GD61-DUP	B15-G	61	07/03/2014	0.052 Jq	<1.6
G	B24	B24-GD4-5-DUP	B24-G	4-5	07/09/2014	<0.048	8.5 Bk
G	B28	B28-GD1-DUP	B28-G	1	07/08/2014	0.064 Jq	230 Bk
G	B29	B29-GD1-DUP	B29-G	1	07/09/2014	<0.043	270 Bk
G	B30	B30-GD1-DUP	B30-G	1	07/09/2014	<0.051	530 Bk
G	B30	B30-GD4-DUP	B30-G	4	07/09/2014	<0.046	8.6 Bk
G	B31	B31-GD1-2-DUP	B31-G	1-2	07/09/2014	<0.059	37 Bk
GG	B125	B125-GGD4-5-DUP	B125-GG	4-5	07/29/2014	0.14 Jq	16 Bk
GG	B132	B132-GGD40.5-41.5-DUP	B132-GG	40.5-41.5	07/30/2014	<0.066	1.7 BJKq
H	B156	B156-HD42-43-DUP	B156-H	42-43	08/01/2014	0.28	2.8 BJKq
H	B156	B156-HD53-54-DUP	B156-H	53-54	08/01/2014	0.041 Jq	<1.6
JJ	B41	B41-JJD23-DUP	B41-JJ	23	07/14/2014	0.059 Jq	<1.6
JJ	B41	B41-JJD30-DUP	B41-JJ	30	07/14/2014	0.088 Jq	<1.6
MM	B34	B34-MMD1-2-DUP	B34-MM	1-2	07/10/2014	0.062 Jq	320 Bk
OO	B44	B44-00D40-DUP	B44-OO	40	07/15/2014	0.12 Jq	<1.6
OO	B53	B53-00D4-5-DUP	B53-OO	4-5	07/15/2014	<0.055	22 Bk
Investigation Goal						100	100

Acronyms and Abbreviations:

AOC - Area of Concern

B - The sample result is less than 5 times (10 times for common organic laboratory contaminants) the blank contamination.

J - The analyte was positively identified and the result is usable; however, the analyte concentration is an estimated value.

k - The analyte was found in a field blank.

q - The analyte detection was below the practical quantitation limit (PQL)

The result is considered not to have originated from the environmental sample, because cross-contamination is suspected.

TPH-d: total petroleum hydrocarbons as diesel

TPH-g: total petroleum hydrocarbons as gasoline

Notes:

All concentrations are in milligrams per kilogram (mg/kg).

Yellow highlighting indicates concentration is above the IG.

Gray shading indicates compound was not detected in sample.

Key:

AOC EE – Former Cal Aero Restoration Yard

AOC G - Former PAC Wash Rack Area

AOC H – Former Waste Disposal Ponds

AOC HH – Buildings A230, A235, A340, A435

AOC OO – Former PAC Wash Rack Area Drain

Table 9.
Summary of Soil Analytical Results: Method SW8270C
Remedial Investigation
Chino Airport, Chino, California

AOC	Sample Name	Locid	Depth	Sample Date	Acenaphthene	Benzo (a) Pyrene	Benzo (g,h,i) Perylene	Dimethyl Phthalate	Fluoranthene	Indeno (1,2,3-c,d) Pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene
O	B39-OD4-5	B39-O	4-5	07/11/2014	<0.099	<0.085	<0.090	<0.18	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
O	B39-OD15-16	B39-O	15-16	07/11/2014	<0.098	<0.085	<0.089	<0.18	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
O	B39-OD19-20	B39-O	19-20	07/11/2014	<0.099	<0.085	<0.090	<0.18	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
O	B39-OD25-26	B39-O	25-26	07/11/2014	<0.098	<0.085	<0.089	<0.18	<0.11	<0.098	<0.094	<0.094	<0.13	<0.11	<0.10
O	B39-OD28-30	B39-O	28-30	07/11/2014	<0.099	<0.086	<0.090	<0.18	<0.11	<0.099	<0.096	<0.095	<0.13	<0.12	<0.10
O	B39-OD9-10	B39-O	9-10	07/11/2014	<0.099	<0.085	<0.090	<0.18	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
O	B40-OD5-6	B40-O	5-6	07/11/2014	<0.098	<0.085	<0.089	<0.18	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
O	B40-OD10-11	B40-O	10-11	07/11/2014	<0.099	<0.085	<0.090	<0.18	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
O	B40-OD15-16	B40-O	15-16	07/11/2014	<0.099	<0.086	<0.090	<0.18	<0.11	<0.099	<0.096	<0.095	<0.13	<0.12	<0.10
O	B40-OD19-20	B40-O	19-20	07/11/2014	<0.099	<0.085	<0.090	<0.18	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
O	B40-OD25-26	B40-O	25-26	07/11/2014	<0.099	<0.085	<0.090	<0.18	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
O	B40-OD28-30	B40-O	28-30	07/11/2014	<0.098	<0.085	<0.089	<0.18	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
O	B46-OD3-4	B46-O	3-4	07/11/2014	<0.098	<0.085	<0.089	0.20 Jq	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
O	B46-OD10-11	B46-O	10-11	07/11/2014	<0.097	<0.084	<0.088	0.22 Jq	<0.11	<0.097	<0.094	<0.093	<0.13	<0.11	<0.10
O	B46-OD17-18	B46-O	17-18	07/11/2014	<0.10	<0.086	<0.091	0.24 Jq	<0.11	<0.10	<0.096	<0.095	<0.13	<0.12	<0.10
O	B46-OD22-23	B46-O	22-23	07/11/2014	<0.099	<0.086	<0.090	0.27 Jq	<0.11	<0.099	<0.096	<0.095	<0.13	<0.12	<0.10
O	B46-OD26-27	B46-O	26-27	07/11/2014	<0.098	<0.085	<0.089	0.26 Jq	<0.11	<0.098	<0.094	<0.094	<0.13	<0.11	<0.10
O	B46-OD29-30	B46-O	29-30	07/11/2014	<0.099	<0.085	<0.090	0.32 Jq	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
O	B47-OD1-2	B47-O	1-2	07/11/2014	<0.098	<0.085	<0.089	0.31 Jq	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
O	B47-OD7-8	B47-O	7-8	07/11/2014	<0.10	<0.086	<0.091	0.34 Jq	<0.11	<0.10	<0.096	<0.095	<0.13	<0.12	<0.10
O	B47-OD13-14	B47-O	13-14	07/11/2014	<0.099	<0.086	<0.090	0.32 Jq	<0.11	<0.099	<0.096	<0.095	<0.13	<0.12	<0.10
O	B47-OD18-19	B47-O	18-19	07/11/2014	<0.098	<0.085	<0.089	0.30 Jq	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
O	B47-OD24-25	B47-O	24-25	07/11/2014	<0.098	<0.085	<0.089	<0.18	<0.11	<0.098	<0.094	<0.094	<0.13	<0.11	<0.10
O	B48-OD4-5	B48-O	4-5	07/11/2014	<0.099	<0.085	<0.090	0.28 Jq	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
O	B48-OD12-13	B48-O	12-13	07/11/2014	<0.098	<0.085	<0.089	0.28 Jq	<0.11	<0.098	<0.094	<0.094	<0.13	<0.11	<0.10
O	B48-OD18-19	B48-O	18-19	07/11/2014	<0.099	<0.086	<0.090	0.33 Jq	<0.11	<0.099	<0.096	<0.095	<0.13	<0.12	<0.10
O	B48-OD25-26	B48-O	25-26	07/11/2014	<0.10	<0.086	<0.091	0.24 Jq	<0.11	<0.10	<0.096	<0.095	<0.13	<0.12	<0.10
O	B48-OD29-30	B48-O	29-30	07/11/2014	<0.098	<0.085	<0.089	0.22 Jq	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
N	B70-ND4-5	B70-N	4-5	07/21/2014	<0.098	<0.085	<0.089	<0.18	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
N	B70-ND10-11	B70-N	10-11	07/21/2014	<0.098	<0.085	<0.089	<0.18	<0.11	<0.098	<0.094	<0.094	<0.13	<0.11	<0.10
N	B70-ND15-16	B70-N	15-16	07/21/2014	<0.10	<0.086	<0.091	<0.18	<0.11	<0.10	<0.096	<0.095	<0.13	<0.12	<0.10
N	B70-ND19-20	B70-N	19-20	07/21/2014	<0.099	<0.085	<0.090	0.19 Jq	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
N	B70-ND25-26	B70-N	25-26	07/21/2014	<0.098	<0.085	<0.089	0.18 Jq	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
N	B70-ND28-30	B70-N	28-30	07/21/2014	<0.099	<0.085	<0.090	0.19 Jq	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
N	B86-ND4-5	B86-N	4-5	07/21/2014	<0.10	<0.086	<0.091	<0.18	<0.11	<0.10	<0.096	<0.095	<0.13	<0.12	<0.10
N	B86-ND10-11	B86-N	10-11	07/21/2014	<0.099	<0.086	<0.090	0.24 Jq	<0.11	<0.099	<0.096	<0.095	<0.13	<0.12	<0.10
N	B86-ND15-16	B86-N	15-16	07/21/2014	<0.099	<0.085	<0.090	0.24 Jq	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
N	B86-ND19-20	B86-N	19-20	07/21/2014	<0.098	<0.085	<0.089	0.23 Jq	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
N	B86-ND25-26	B86-N	25-26	07/21/2014	<0.10	<0.086	<0.091	<0.18	<0.11	<0.10	<0.096	<0.095	<0.13	<0.12	<0.10
N	B86-ND28-30	B86-N	28-30	07/21/2014	<0.099	<0.086	<0.090	<0.18	<0.11	<0.099	<0.096	<0.095	<0.13	<0.12	<0.10
N	B87-ND4-5	B87-N	4-5	07/21/2014	<0.098	<0.085	<0.089	0.19 Jq	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
N	B87-ND10-11	B87-N	10-11	07/21/2014	<0.098	<0.085	<0.089	0.22 Jq	<0.11	<0.098	<0.094	<0.094	<0.13	<0.11	<0.10
N	B87-ND14-15	B87-N	14-15	07/21/2014	<0.099	<0.085	<0.090	0.18 Jq	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
N	B87-ND19-20	B87-N	19-20	07/21/2014	<0.10	<0.086	<0.091	0.23 Jq	<0.11	<0.10	<0.096	<0.095	<0.13	<0.12	<0.10
N	B87-ND25-26	B87-N	25-26	07/21/2014	<0.099	<0.086	<0.090	0.23 Jq	<0.11	<0.099	<0.096	<0.095	<0.13	<0.12	<0.10
N	B87-ND28-30	B87-N	28-30	07/21/2014	<0.099	<0.085	<0.090	0.23 Jq	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
N	B88-ND4-5	B88-N	4-5	07/21/2014	<0.099	<0.085	<0.090	0.35 Jq	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
N	B88-ND10-11	B88-N	10-11	07/21/2014	<0.098	<0.085	<0.089	0.23 Jq	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
N	B88-ND15-16	B88-N	15-16	07/21/2014	<0.099	<0.086	<0.090	0.33 Jq	<0.11	<0.099	<0.096	<0.095	<0.13	<0.12	<0.10
N	B88-ND19-20	B88-N	19-20	07/21/2014	<0.10	<0.086	<0.091	0.27 Jq	<0.11	<0.10	<0.096	<0.095	<0.13	<0.12	<0.10
N	B88-ND25-26	B88-N	25-26	07/21/2014	<0.10	<0.086	<0.091	<0.18	<0.11	<0.10	<0.096	<0.095	<0.13	<0.12	<0.10
N	B88-ND28-30	B88-N	28-30	07/21/2014	0.16 Jq	<0.086	<0.090	0.31 Jq	<0.11	<0.099	0.18 Jq	0.40 Jq	11	<0.12	<0.10
N	B89-ND4-5	B89-N	4-5	07/22/2014	<0.099	<0.085	<0.090	<0.18	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
N	B89-ND10-11	B89-N	10-11	07/22/2014	<0.10	<0.086	<0.091	<0.18	<0.11	<0.10	<0.096	<0.095	<0.13	<0.12	<0.10
N	B89-ND15-16	B89-N	15-16	07/22/2014	<0.099	<0.086	<0.090	<0.18	<0.11	<0.099	<0.096	<0.095	<0.13	<0.12	<0.10
N	B89-ND19-20	B89-N	19-20	07/22/2014	<0.099	<0.085	<0.090	<0.18	0.13 Jq	<0.099	<0.095	<0.095	<0.13	0.13 Jq	0.13 Jq
N	B89-ND24-25	B89-N	24-25	07/22/2014	<0.099	<0.086	<0.090	<0.18	<0.11	<0.099	<0.096	<0.095	<0.13	<0.12	<0.10

Table 9.
Summary of Soil Analytical Results: Method SW8270C
Remedial Investigation
Chino Airport, Chino, California

AOC	Sample Name	Locid	Depth	Sample Date	Acenaphthene	Benzo (a) Pyrene	Benzo (g,h,i) Perylene	Dimethyl Phthalate	Fluoranthene	Indeno (1,2,3-c,d) Pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene
N	B89-ND28-30	B89-N	28-30	07/22/2014	<0.098	<0.085	<0.089	<0.18	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
N	B90-ND4-5	B90-N	4-5	07/22/2014	<0.099	<0.085	<0.090	<0.18	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
N	B90-ND10-11	B90-N	10-11	07/22/2014	<0.099	<0.086	<0.090	<0.18	<0.11	<0.099	<0.096	<0.095	<0.13	<0.12	<0.10
N	B90-ND15-16	B90-N	15-16	07/22/2014	<0.098	<0.085	<0.089	<0.18	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
N	B90-ND19-20	B90-N	19-20	07/22/2014	<0.10	<0.086	<0.091	<0.18	<0.11	<0.10	<0.096	<0.095	<0.13	<0.12	<0.10
N	B90-ND25-26	B90-N	25-26	07/22/2014	<0.10	<0.086	<0.091	<0.18	<0.11	<0.10	<0.096	<0.095	<0.13	<0.12	<0.10
N	B90-ND28-30	B90-N	28-30	07/22/2014	<0.099	<0.085	<0.090	<0.18	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
N	B91-ND4-5	B91-N	4-5	07/21/2014	<0.098	<0.085	<0.089	0.31 Jq	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
N	B91-ND10-11	B91-N	10-11	07/21/2014	<0.099	<0.085	<0.090	0.25 Jq	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
N	B91-ND16-17	B91-N	16-17	07/21/2014	<0.099	<0.085	<0.090	0.37 Jq	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
N	B91-ND22-23	B91-N	22-23	07/21/2014	<0.098	<0.085	<0.089	0.30 Jq	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
N	B91-ND29-30	B91-N	29-30	07/21/2014	<0.099	<0.085	<0.090	0.26 Jq	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
N	B92-ND4-5	B92-N	4-5	07/21/2014	<0.099	<0.086	<0.090	0.35 Jq	<0.11	<0.099	<0.096	<0.095	<0.13	<0.12	<0.10
N	B92-ND14-15	B92-N	14-15	07/21/2014	<0.099	<0.085	<0.090	0.28 Jq	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
N	B92-ND20-21	B92-N	20-21	07/21/2014	<0.099	<0.085	<0.090	0.30 Jq	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
N	B92-ND25-26	B92-N	25-26	07/21/2014	<0.098	<0.085	<0.089	0.24 Jq	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
N	B92-ND29-30	B92-N	29-30	07/21/2014	<0.098	<0.085	<0.089	0.30 Jq	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
N	B96-ND4-5	B96-N	4-5	07/22/2014	<0.098	<0.085	<0.089	<0.18	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
N	B96-ND10.5-11.5	B96-N	10.5-11.5	07/22/2014	<0.098	<0.085	<0.089	<0.18	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
N	B96-ND15-16	B96-N	15-16	07/22/2014	<0.099	<0.086	<0.090	<0.18	<0.11	<0.099	<0.096	<0.095	<0.13	<0.12	<0.10
N	B96-ND20-21	B96-N	20-21	07/22/2014	<0.099	<0.085	<0.090	<0.18	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
N	B96-ND25-26	B96-N	25-26	07/22/2014	<0.098	0.12 Jq	0.15 Jq	<0.18	0.20 Jq	0.11 Jq	<0.095	<0.094	0.15 Jq	0.20 Jq	0.20 Jq
N	B96-ND28-30	B96-N	28-30	07/22/2014	<0.098	<0.085	<0.089	0.26 Jq	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
Investigation Goal					16	0.015	27	0.035	40	0.15	16	0.25	3.6	11	85

Acronyms and Abbreviations:

AOC - Area of Concern

Notes:

All concentrations are in milligrams per kilogram (mg/kg).

Yellow highlighting indicates concentration is above the IG.

Gray shading indicates compound was not detected in sample.

J - The analyte was positively identified and the result is usable; however, the analyte concentration is an estimated value.

q - The analyte detection was below the practical quantitation limit (PQL)

k - The analyte was found in a field blank.

Key:

AOC N – Suspected Landfill

AOC O – U.S. Forest Service Area/Reported Solid Waste Landfill

Table 10.
Detection Statistics: Soil (DSITMS)
Remedial Investigation
Chino Airport, Chino, California

Compound	Number of Samples	Detections		Detections Exceeding the IG		Minimum (µg/kg)	Maximum (µg/kg)
		Number	%	Number	%		
Remedial Investigation (Overall)							
Total Dichloroethenes	1868	13	0.70	13	0.70	6.0	40
Trichloroethene	1868	12	0.64	12	0.64	4.0	23
1,2,3-Trichloropropane	1868	7	0.4	6	0.3	3.0	150
Area of Concern (Listed if parameter(s) were detected above the LOD)							
AOC EE							
Total Dichloroethenes	222	13	5.9	13	5.9	6	40
Trichloroethene	222	2	0.90	2	0.90	6	11
AOC G							
1,2,3-Trichloropropane	346	6	1.7	6	1.7	41	150
AOC H							
1,2,3-Trichloropropane	150	1	0.7	0	0.0	3 J	3 J
AOC HH							
Trichloroethene	65	10	15.4	9	14	4.0	23

Acronyms and Abbreviations:

DSITMS: Direct sampling ion trap mass spectrometry

IG - Investigation Goal

LOD - Limit of detection

Notes:

All concentrations are in micrograms per kilogram (µg/kg)

VOCs were analyzed in all samples. Only detected constituents are shown in table.

Shading indicates compound not present in more than one sample at a concentration greater than the investigation goal

Key:

AOC EE – Former Cal Aero Restoration Yard

AOC G - Former PAC Wash Rack Area

AOC H – Former Waste Disposal Ponds

AOC HH – Buildings A230, A235, A340, A435

AOC OO – Former PAC Wash Rack Area Drain

Table 11.
Detection Statistics: Soil (Method SW8260B)
Remedial Investigation
Chino Airport, Chino, California

Compound	Number of Samples	Detections		Detections Exceeding the IG		Minimum (µg/kg)	Maximum (µg/kg)
		Number	%	Number	%		
Remedial Investigation (Overall)							
Acetone	211	60	28.4	0	0	4.80	270.0
2-Butanone	211	41	19.4	0	0	3.00	60.0
Bromoform	211	2	0.9	0	0	1.30	1.4
Benzene	211	187	88.6	0	0	0.12	26.0
Carbon Disulfide	211	19	9.0	0	0	0.28	0.81
Chlorobenzene	211	4	1.9	0	0	0.43	8.4
Chloromethane	211	2	0.9	0	0	0.30	0.45
Carbon Tetrachloride	211	7	3.3	0	0	0.25	48.0
Chloroform	211	18	8.5	0	0	0.20	11.0
1,1-Dichloroethane	211	2	0.9	0	0	0.72	0.72
1,2-Dichloroethane	211	3	1.4	2	1	0.43	19.0
1,2-Dichlorobenzene	211	5	2.4	0	0	0.35	120.0
1,3-Dichlorobenzene	211	4	1.9	0	0	0.92	8.3
1,4-Dichlorobenzene	211	5	2.4	0	0	0.18	66.0
1,1-Dichloroethene	211	6	2.8	3	1	0.31	36.0
Ethylbenzene	211	34	16.1	0	0	0.12	2.4
Methylene Chloride	211	1	0.5	1.0	0	5.00	5.0
Naphthalene	211	4	1.9	0	0	0.76	1.3
Tert-Butyl Alcohol (TBA)	211	14	6.6	0	0	4.30	6.5
Toluene	211	101	47.9	0	0	0.41	15.0
1,1,1-Trichloroethane	211	3	1.4	0	0	0.34	0.65
1,2,3-Trichlorobenzene	211	1	0.5	0	0	1.10	1.1
1,2,4-Trichlorobenzene	211	4	1.9	0	0	0.26	3.5
Trichloroethene	211	16	7.6	4.0	2	0.34	15.0
1,2,3-Trichloropropane	211	6	2.8	5.0	2	4.80	44.0
Trichlorofluoromethane	211	4	1.9	0	0	0.34	3.7
1,2,4-Trimethylbenzene	211	1	0.5	0	0	1.00	1.0
Tetrachloroethene	211	5	2.4	0	0	0.16	0.4
p/m-Xylene	211	39	18.5	0	0	0.21	3.4
o-Xylene	211	3	1.4	0	0	0.62	1.4
Area of Concern (Listed if parameter(s) were detected above the MDL)							
AOC DD							
Benzene	4	3	75	0	0	0.68 Jq	1.3
Toluene	4	1	25	0	0	0.75 Jq	0.75 Jq
AOC EE							
Acetone	19	2	11	0	0	6.1 Jq	6.7 Jq
2-Butanone	19	1	5	0	0	4.6 Jq	4.6 Jq
Benzene	19	17	89	0	0	0.13 Jq	3.7
1,1-Dichloroethane	19	2	11	0	0	0.72 Jq	0.72 Jq

Table 11.
Detection Statistics: Soil (Method SW8260B)
Remedial Investigation
Chino Airport, Chino, California

Compound	Number of Samples	Detections		Detections Exceeding the IG		Minimum (µg/kg)	Maximum (µg/kg)
		Number	%	Number	%		
1,1-Dichloroethene	19	6	32	3	16	0.31 Jq	36
Ethylbenzene	19	3	16	0	0	0.12 Jq	0.53 Jq
Tert-Butyl Alcohol (TBA)	19	2	11	0	0	4.7 Jq	5.6 Jq
Toluene	19	6	32	0	0	0.48 Jq	3.2
1,1,1-Trichloroethane	19	3	16	0	0	0.34 Jq	0.65 Jq
Trichloroethene	19	2	11	0	0	0.35 Jq	0.40 Jq
Tetrachloroethene	19	1	5	0	0	0.16 Jq	0.16 Jq
p/m-Xylene	19	3	16	0	0	0.21 Jq	0.68 Jq
AOC FF							
Acetone	4	3	75	0	0	5.6 Jq	7.4 Jq
Benzene	4	4	100	0	0	0.23 Jq	1.0
Methylene Chloride	4	1	25	1	25	5.0 Jq	5.0 Jq
Toluene	4	2	50	0	0	0.48 Jq	0.62 Jq
AOC G							
Acetone	51	15	29	0	0	6.0 Jq	35 Jq
2-Butanone	51	9	18	0	0	3.0 Jq	28
Bromoform	51	1	2	0	0	1.4 Jq	1.4 Jq
Benzene	51	46	90	0	0	0.19 Jq	26
Carbon Disulfide	51	3	6	0	0	0.33 Jq	0.52 Jq
Chloromethane	51	1	2	0	0	0.30 Jq	0.30 Jq
Chloroform	51	5	10	0	0	0.24 Jq	1.6
1,2-Dichloroethane	51	3	6	2	4	0.43 Jq	19
Ethylbenzene	51	11	22	0	0	0.16 Jq	1.3 Jq
Naphthalene	51	2	4	0	0	0.76 Jq	1.3 Jq
Tert-Butyl Alcohol (TBA)	51	2	4	0	0	4.3 Jq	4.8
Toluene	51	22	43	0	0	0.41 Jq	15
Trichloroethene	51	1	2	0	0	0.80 Jq	0.80 Jq
1,2,3-Trichloropropane	51	6	12	5	10	4.8	44
Tetrachloroethene	51	1	2	0	0	0.22 Jq	0.22 Jq
p/m-Xylene	51	9	18	0	0	0.25 Jq	1.7 Jq
o-Xylene	51	2	4	0	0	0.62 Jq	0.70 Jq
AOC GG							
Acetone	12	3	25	0	0	4.8	190
2-Butanone	12	3	25	0	0	3.5 Jq	45
Benzene	12	11	92	0	0	0.16 Jq	14
Carbon Disulfide	12	1	8	0	0	0.33 Jq	0.33 Jq
Ethylbenzene	12	2	17	0	0	0.20 Jq	2.4
Tert-Butyl Alcohol (TBA)	12	2	17	0	0	6.0	6.0
Toluene	12	6	50	0	0	0.51 Jq	14.0
1,2,4-Trimethylbenzene	12	1	8	0	0	1.0 Jq	1.0 Jq

Table 11.
Detection Statistics: Soil (Method SW8260B)
Remedial Investigation
Chino Airport, Chino, California

Compound	Number of Samples	Detections		Detections Exceeding the IG		Minimum (µg/kg)	Maximum (µg/kg)
		Number	%	Number	%		
p/m-Xylene	12	4	33	0	0	0.31 Jq	3.4
o-Xylene	12	1	8	0	0	1.4	1.4
AOC H							
Acetone	13	5	38	0	0	6.8 Jq	17 Jq
2-Butanone	13	4	31	0	0	3.3 Jq	11 Jq
Benzene	13	12	92	0	0	0.13 Jq	9.9
Carbon Disulfide	13	2	15	0	0	0.29 Jq	0.29 Jq
Chlorobenzene	13	2	15	0	0	2.5	8.4
1,2-Dichlorobenzene	13	2	15	0	0	18	120
1,3-Dichlorobenzene	13	2	15	0	0	1.5	8.3
1,4-Dichlorobenzene	13	2	15	0	0	12	66
Ethylbenzene	13	2	15	0	0	0.24 Jq	0.52 Jq
Toluene	13	7	54	0	0	0.85 Jq	5.5
1,2,4-Trichlorobenzene	13	2	15	0	0	1.2 Jq	3.2
Trichloroethene	13	2	15	0	0	0.34 Jq	0.98 Jq
Tetrachloroethene	13	1	8	0	0	0.23 Jq	0.23 Jq
p/m-Xylene	13	2	15	0	0	0.28 Jq	0.66 Jq
AOC HH							
Acetone	9	3	33	0	0	6.6 Jq	20 Jq
2-Butanone	9	2	22	0	0	4.7 Jq	5.7 Jq
Benzene	9	7	78	0	0	0.12 Jq	5.5
Carbon Disulfide	9	3	33	0	0	0.3 Jq	0.37 Jq
Ethylbenzene	9	2	22	0	0	0.41 Jq	0.53 Jq
Toluene	9	2	22	0	0	3.3	3.6
Trichloroethene	9	2	22	1	11	0.35 Jq	15
p/m-Xylene	9	2	22	0	0	0.50 Jq	0.70 Jq
AOC JJ							
Acetone	6	3	50	0	0	8.5 Jq	16 Jq
Benzene	6	5	83	0	0	0.23 Jq	0.45 Jq
Carbon Disulfide	6	1	17	0	0	0.66 Jq	0.66 Jq
Toluene	5	3	60	0	0	0.50 Jq	1.6
AOC J-K							
Acetone	25	3	12	0	0	7.2 Jq	20 Jq
2-Butanone	25	7	28	0	0	3.3 Jq	24
Benzene	25	24	96	0	0	0.15 Jq	21
Carbon Tetrachloride	25	7	28	0	0	0.25 Jq	48
Chloroform	25	12	48	0	0	0.20 Jq	11
Ethylbenzene	25	6	24	0	0	0.16 Jq	0.89 Jq
Naphthalene	25	1	4	0	0	1.2 Jq	1.2 Jq
Tert-Butyl Alcohol (TBA)	25	4	16	0	0	4.7 Jq	6.1 Jq

Table 11.
Detection Statistics: Soil (Method SW8260B)
Remedial Investigation
Chino Airport, Chino, California

Compound	Number of Samples	Detections		Detections Exceeding the IG		Minimum (µg/kg)	Maximum (µg/kg)
		Number	%	Number	%		
Toluene	25	11	44	0	0	0.49 Jq	11
Trichloroethene	25	8	32	3	12	0.41 Jq	6.4
Tetrachloroethene	25	1	4	0	0	0.43 Jq	0.43 Jq
p/m-Xylene	25	6	24	0	0	0.26 Jq	1.2
AOC KK							
Acetone	8	2	25	0	0	7.3 Jq	8.1 Jq
Bromoform	8	1	13	0	0	1.3 Jq	1.3 Jq
Benzene	8	6	75	0	0	0.13 Jq	1.5
Chloroform	8	1	13	0	0	0.20 Jq	0.20 Jq
Toluene	8	5	63	0	0	0.51 Jq	1.6
Trichloroethene	8	1	13	0	0	0.41 Jq	0.41 Jq
Trichlorofluoromethane	8	2	25	0	0	0.78 Jq	3.7 Jq
AOC LL							
Benzene	2	2	100	0	0	0.55 Jq	0.76 Jq
AOC M							
Acetone	4	3	75	0	0	7.3 Jq	13 Jq
2-Butanone	4	3	75	0	0	4.8 Jq	8.6 Jq
Benzene	4	4	100	0	0	1.3	6.8
Chloromethane	4	1	25	0	0	0.45 Jq	0.45 Jq
Ethylbenzene	4	3	75	0	0	0.22 Jq	0.38 Jq
Naphthalene	4	1	25	0	0	0.84 Jq	0.84 Jq
Toluene	4	4	100	0	0	1.8	4.4
p/m-Xylene	4	4	100	0	0	0.34 Jq	1.0 Jq
AOC MM							
Acetone	11	5	45	0	0	5.7 Jq	270 Jq
2-Butanone	11	1	9	0	0	60	60
Benzene	11	11	100	0	0	0.14 Jq	2.2
Carbon Disulfide	11	2	18	0	0	0.36 Jq	0.58 Jq
Tert-Butyl Alcohol (TBA)	11	1	9	0	0	4.6 Jq	4.6 Jq
Toluene	11	10	91	0	0	0.58 Jq	2.0
AOC N							
Benzene	8	8	100	0	0	0.15 Jq	3.0
Ethylbenzene	8	1	13	0	0	0.14 Jq	0.14 Jq
Toluene	8	2	25	0	0	1.4	1.7
p/m-Xylene	8	1	13	0	0	0.40 Jq	0.40 Jq
AOC NN							
Benzene	5	2	40	0	0	0.22 Jq	0.86 Jq
Tert-Butyl Alcohol (TBA)	5	2	40	0	0	5.2 Jq	6.5 Jq
Toluene	5	5	100	0	0	0.73 Jq	1.2

Table 11.
Detection Statistics: Soil (Method SW8260B)
Remedial Investigation
Chino Airport, Chino, California

Compound	Number of Samples	Detections		Detections Exceeding the IG		Minimum (µg/kg)	Maximum (µg/kg)
		Number	%	Number	%		
AOC O							
Benzene	4	3	75	0	0	0.12 Jq	0.80
AOC OO							
Acetone	18	7	39	0	0	5.9 Jq	12 Jq
2-Butanone	18	7	39	0	0	3.4 Jq	6.7 Jq
Benzene	18	16	89	0	0	0.26 Jq	5.60
Carbon Disulfide	18	1	6	0	0	0.81 Jq	0.81 Jq
Chlorobenzene	18	2	11	0	0	0.43 Jq	0.49 Jq
1,2-Dichlorobenzene	18	3	17	0	0	0.35 Jq	88
1,3-Dichlorobenzene	18	2	11	0	0	0.92	2.7
1,4-Dichlorobenzene	18	3	17	0	0	0.18 Jq	26
Ethylbenzene	18	4	22	0	0	0.16 Jq	0.30 Jq
Tert-Butyl Alcohol (TBA)	18	1	6	0	0	5.3 Jq	5.3 Jq
Toluene	18	13	72	0	0	0.61 Jq	3.0
1,2,3-Trichlorobenzene	18	1	6	0	0	1.1 Jq	1.1 Jq
1,2,4-Trichlorobenzene	18	2	11	0	0	0.26	3.5
Trichlorofluoromethane	18	2	11	0	0	0.34 Jq	1.2 Jq
Tetrachloroethene	18	1	6	0	0	0.30 Jq	0.30 Jq
p/m-Xylene	18	8	44	0	0	0.29 Jq	0.57 Jq
AOC Z							
Acetone	8	6	75	0	0	5.3 Jq	35 Jq
2-Butanone	8	4	50	0	0	3.4 Jq	8.8 Jq
Benzene	8	8	100	0	0	0.30 Jq	2.30
Carbon Disulfide	8	6	75	0	0	0.28 Jq	0.72 Jq
Toluene	8	3	38	0	0	0.57 Jq	0.70 Jq

Acronyms and Abbreviations:

IG - Investigation Goal

MDL - Method Detection Limit

Method 8260B: Volatile Organic Compounds

Notes:

All concentrations are in micrograms per kilogram (µg/kg).

Shading indicates compound was not present in more than one sample at a concentration greater than the investigation goal.

VOCs were analyzed in all samples. Only detected constituents are shown in table.

J - The analyte was positively identified and the result is usable; however, the analyte concentration is an estimated value.

q - The analyte detection was below the practical quantitation limit (PQL)

Key:

AOC DD – Former Airport Maintenance Shop and Yard

AOC EE – Former Cal Aero Restoration Yard

AOC H – Former Waste Disposal Ponds

AOC FF – Building A440

AOC G - Former PAC Wash Rack Area

AOC GG – Former Aircraft Dismantling Area

AOC H – Former Waste Disposal Ponds

AOC HH – Buildings A230, A235, A340, A435

AOC JJ – Former UST C-15 and Sump I

Table 11.
Detection Statistics: Soil (Method SW8260B)
Remedial Investigation
Chino Airport, Chino, California

Compound	Number of Samples	Detections		Detections Exceeding the IG		Minimum (µg/kg)	Maximum (µg/kg)
		Number	%	Number	%		

AOC J-K – PAC Paint Shop and Paint Shed Areas
AOC KK – Building A270, Yanks Museum
AOC LL – Former UST C-18
AOC M – Fuel Dump Area
AOC MM – Building A385
AOC N – Suspected Landfill
AOC NN - Former Building 30
AOC O – U.S. Forest Service Area/Reported Solid Waste Landfill
AOC OO – Former PAC Wash Rack Area Drain
AOC Z – Waste Water Discharge from Building A495

Table 12.
Detection Statistics: Soil (site Lab UVF-3100)
Remedial Investigation
Chino Airport, Chino, California

Compound	Number of Samples	Detections		Detections Exceeding the IG		Minimum (mg/kg)	Maximum (mg/kg)
		Number	%	Number	%		
Remedial Investigation (Overall)							
TPH-d	1357	303	22.3	40	2.9	0.015	882
TPH-g	1357	72	5.3	1	0.074	0.45	6,790
Area of Concern (Listed if parameter(s) were detected above the LOD)							
AOC DD							
TPH-d	46	14	30.4	5	10.9	0.33	645
AOC EE							
TPH-d	222	49	22.1	2	0.9	0.17	280
TPH-g	222	6	2.7	0	0	1.73	3.6
AOC G							
TPH-d	317	41	12.9	6	1.9	0.090	499
TPH-g	317	60	18.9	1	0.32	0.45	6,790
AOC GG							
TPH-d	108	36	33.3	5	4.6	0.20	833
TPH-g	108	1	0.9	0	0	1.9	1.9
AOC H							
TPH-d	150	56	37.3	3	2.0	0.18	222
TPH-g	150	1	0.7	0	0	1.9	1.9
AOC JJ							
TPH-d	49	14	28.6	4	8.2	0.83	790
AOC KK							
TPH-d	72	13	18.1	3	4.2	0.66	882
AOC LL							
TPH-d	23	7	30.4	2	8.7	0.21	642
AOC M							
TPH-d	28	8	28.6	3	10.7	2.99	199
AOC MM							
TPH-d	100	8	8.0	2	2.0	0.45	872
AOC N							
TPH-d	85	29	34.1	0	0	0.17	55
TPH-g	85	3	3.5	0	0	0.96	30
AOC O							
TPH-d	48	6	12.5	1	2.1	0.39	155
TPH-g	48	1	2.1	0	0	3.8	3.8
AOC OO							
TPH-d	109	21	19.3	4	3.7	0.01	773

Table 12.
Detection Statistics: Soil (*site* Lab UVF-3100)
Remedial Investigation
Chino Airport, Chino, California

Acronyms and Abbreviations:

IG - Investigation Goal

LOD - Limit of Detection

siteLab UVF-3100: *site* Lab ultraviolet fluorescence-3100

TPH-d: total petroleum hydrocarbons as diesel

TPH-g: total petroleum hydrocarbons as gasoline

Notes:

All concentrations are in milligrams per kilogram (mg/kg).

TPH-g and TPH-d were analyzed in all samples. Only detected constituents are shown in table.

Shading indicates compound was not present in more than one sample at a concentration greater than the investigation goal.

Key:

AOC DD – Former Airport Maintenance Shop and Yard

AOC EE – Former Cal Aero Restoration Yard

AOC G - Former PAC Wash Rack Area

AOC GG – Former Aircraft Dismantling Area

AOC H – Former Waste Disposal Ponds

AOC JJ – Former UST C-15 and Sump I

AOC KK – Building A270, Yanks Museum

AOC LL – Former UST C-18

AOC M – Fuel Dump Area

AOC MM – Building A385

AOC N – Suspected Landfill

AOC NN - Former Building 30

AOC O – U.S. Forest Service Area/Reported Solid Waste Landfill

AOC OO – Former PAC Wash Rack Area Drain

Table 13.
Detection Statistics: Soil (Method SW8015B)
Remedial Investigation
Chino Airport, Chino, California

Compound	Number of Samples	Detections		Detections Exceeding the IG		Minimum (mg/kg)	Maximum (mg/kg)
		Number	%	Number	%		
Remedial Investigation (Overall)							
TPH-g	135	9	6.7	0	0	0.014 Jq	0.28
TPH-d	135	11	8.1	0	0	8.5 Bk	530 Bk
Area of Concern (Listed if parameter(s) were detected above the MDL)							
AOC G							
TPH-g	35	2	5.7	0	0	0.052 Jq	0.064 Jq
TPH-d	35	6	17.1	0	0	8.5 Bk	530 Bk
AOC GG							
TPH-g	12	1	8.3	0	0	0.014 Jq	0.014 Jq
TPH-d	12	2	16.7	0	0	1.7 Bk	16 Bk
AOC H							
TPH-g	13	2	15.4	0	0	0.041 Jq	0.28
TPH-d	13	1	7.7	0	0	2.8 BJkq	2.8 BJkq
AOC JJ							
TPH-g	7	2	28.6	0	0	0.059 Jq	0.088 Jq
AOC MM							
TPH-g	11	1	9.1	0	0	0.062 Jq	0.062 Jq
TPH-d	11	1	9.1	1	9.1	320 Bk	320 Bk
AOC OO							
TPH-g	8	1	12.5	0	0	0.12 Jq	0.12 Jq
TPH-d	8	1	12.5	0	0	22 Bk	22 Bk

Acronyms and Abbreviations:

IG - Investigation Goal

MDL - method detection limit

Method SW8015B: Petroleum Hydrocarbons

Notes:

All concentrations are in milligrams per kilogram (mg/kg).

TPH-g and TPH-d were analyzed in all samples. Only detected constituents are shown in table.

Shading indicates compound was not present in more than one sample at a concentration greater than the investigation goal.

B - The sample result is less than 5 times (10 times for common organic laboratory contaminants) the blank contamination.

J - The analyte was positively identified and the result is usable; however, the analyte concentration is an estimated value.

k - The analyte was found in a field blank.

q - The analyte detection was below the practical quantitation limit (PQL)

The result is considered not to have originated from the environmental sample, because cross-contamination is suspected.

Key:

AOC G - Former PAC Wash Rack Area

AOC GG - Former Aircraft Dismantling Area

AOC H - Former Waste Disposal Ponds

AOC JJ - Former UST C-15 and Sump I

AOC MM - Building A385

AOC OO - Former PAC Wash Rack Area Drain

Table 14.
Detection Statistics: Soil (Method SW8270C)
Remedial Investigation
Chino Airport, Chino, California

Compound	Number of Samples	Detections		Detections Exceeding the IG		Minimum (mg/kg)	Maximum (mg/kg)
		Number	%	Number	%		
Remedial Investigation (Overall)							
Acenaphthene	80	1	1.3	0	0	0.16	0.16
Benzo (a) Pyrene	80	1	1.3	0	0	0.12	0.12
Benzo (g,h,i) Perylene	80	1	1.3	0	0	0.15	0.15
Dimethyl Phthalate	80	43	53.8	43	54	0.18	0.37
Fluoranthene	80	2	2.5	0	0	0.13	0.20
Indeno (1,2,3-c,d) Pyrene	80	1	1.3	0	0	0.11	0.11
1-Methylnaphthalene	80	1	1.3	0	0	0.18	0.18
2-Methylnaphthalene	80	1	1.3	1	1	0.40	0.40
Naphthalene	80	2	2.5	1	1	0.15	11
Phenanthrene	80	2	2.5	0	0	0.13	0.20
Pyrene	80	2	2.5	0	0	0.13	0.20
Area of Concern (Listed if parameter(s) were detected above the MDL)							
AOC N							
Acenaphthene	52	1	2	0	0	0.16 Jq	0.16
Benzo (a) Pyrene	52	1	2	0	0	0.12 Jq	0.12
Benzo (g,h,i) Perylene	52	1	2	0	0	0.15 Jq	0.15
Dimethyl Phthalate	52	28	54	28	54	0.18 Jq	0.37 Jq
Fluoranthene	52	2	4	0	0	0.13 Jq	0.20 Jq
Indeno (1,2,3-c,d) Pyrene	52	1	2	0	0	0.11 Jq	0.11 Jq
1-Methylnaphthalene	52	1	2	0	0	0.18 Jq	0.18 Jq
2-Methylnaphthalene	52	1	2	1	2	0.40 Jq	0.40 Jq
Naphthalene	52	2	4	1	2	0.15 Jq	11.00
Phenanthrene	52	2	4	0	0	0.13 Jq	0.20 Jq
Pyrene	52	2	4	0	0	0.13 Jq	0.20 Jq
AOC O							
Dimethyl Phthalate	28	15	54	15	54	0.20	0.34

Acronyms and Abbreviations:

IG - Investigation Goal

MDL - method detection limit

Method 8270C: Semivolatile Organic Compounds

Notes:

All concentrations are in milligrams per kilogram (mg/kg).

SVOCs were analyzed in all samples. Only detected constituents are shown in table.

Shading indicates compound was not present in more than one sample at a concentration greater than the investigation goal.

J - The analyte was positively identified and the result is usable; however, the analyte concentration is an estimated value.

q - The analyte detection was below the practical quantitation limit (PQL)

Key:

AOC N – Suspected Landfill

AOC O – U.S. Forest Service Area/Reported Solid Waste Landfill

Table 15.
Summary of Soil Gas Analytical Results: Method TO15
Remedial Investigation
Chino Airport, Chino, California

AOC	Soil Gas Probe	Sample ID	Date Sampled	Acetone	Benzene	Carbon disulfide	Carbon tetrachloride	Chloroform (Trichloromethane)	Cyclohexane	Dichlorodifluoromethane	Ethylbenzene	n-Hexane	Propene	Tetrachloroethene	Tetrahydrofuran	Toluene (Methyl benzene)	Trichloroethene	Trichlorofluoromethane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	p-Xylene	m,p-Xylenes	n-Heptane	Naphthalene
J-K	148	B148-JKD5	8/7/2014	14.4	5.11	7.59	<4.0	<3.0	<2.0	<4.0	<3.0	<2.0	<2.0	8.61	3.06	3.92	<3.0	<4.0	4.76	<3.0	4.21	4.77	<2.0	<10
	149	B149-JKD5	8/7/2014	<10	6	7.63	<4.0	<3.0	7.84	<4.0	3.94	<2.0	<2.0	15.3	4.65	3.81	<3.0	<4.0	5.95	<3.0	4.23	6.12	<2.0	24.5
	B163	O-D12	11/10/2014	25.4	6.83	39.2	10.8	5.52	7.67	6.03	11.7	7.12	4.04	16.2	6.18	41.1	<3.0	6.63	9.48	6.83	13.5	38.3	8.44	<10
	B165	Q-D12	11/10/2014	13.6	5.46	8.19	22.9	7.13	4.03	<4.0	8.72	6.62	<2.0	42	4.68	32.4	39	14.1	6.58	5.16	9.81	28.1	4.96	<10
Z	135	B135-ZD11	8/6/2014	33.2	20.9	12.7	<4.0	<3.0	9.57	<4.0	5.86	5.88	<2.0	10	<2.0	17.1	<3.0	<4.0	11.4	6.83	8.07	20.3	<2.0	13
		B135-ZD15.5	8/6/2014	23.4	7.6	<3.0	<4.0	<3.0	<2.0	<4.0	<3.0	<2.0	<2.0	<3.0	8.01	3.96	<3.0	<4.0	<3.0	<3.0	<2.0	5.64	<2.0	10.8
	142	B142-ZD10	8/6/2014	30.2	16.8	34.9	<4.0	<3.0	9.22	<4.0	8.07	3.39	5.56	9.08	7.39	42.9	<3.0	9.27	10.8	5.9	10.8	29	<2.0	18.4
		B142-ZD17.5	8/6/2014	18.5	36.1	105	<4.0	<3.0	11.6	<4.0	12	7.61	14.1	<3.0	8.21	65.6	<3.0	9.38	11.4	6.09	14	44.6	5.2	10.1
	143	B143-ZD12.5	8/7/2014	10	<2.0	5.01	<4.0	<3.0	<2.0	<4.0	<3.0	<2.0	<2.0	<3.0	4.65	<2.0	<3.0	<4.0	7.91	4.03	3.96	5.43	<2.0	13
		B143-ZD19.5	8/7/2014	<10	<2.0	3.86	<4.0	<3.0	5.09	<4.0	3.47	<2.0	<2.0	<3.0	<2.0	5.35	<3.0	<4.0	9.73	4.22	6.03	12.8	<2.0	12.5
	144	B144-ZD10.5	8/7/2014	<10	<2.0	<3.0	<4.0	<3.0	<2.0	<4.0	<3.0	<2.0	<2.0	<3.0	<2.0	<2.0	<3.0	<4.0	7.27	3.78	3.47	4.77	<2.0	12.5
		B144-ZD16	8/7/2014	10.7	<2.0	<3.0	<4.0	<3.0	3.78	<4.0	<3.0	<2.0	<2.0	<3.0	<2.0	3.81	<3.0	<4.0	10.3	4.69	5.17	11.8	<2.0	<10
	145	B145-ZD11	8/7/2014	<10	<2.0	9.71	<4.0	<3.0	6.43	<4.0	3.46	<2.0	<2.0	<3.0	6.21	4.37	<3.0	<4.0	7.08	4.21	4.77	10.4	<2.0	<10
		B145-ZD17.5	8/7/2014	<10	<2.0	5.85	<4.0	<3.0	4.23	<4.0	3.61	<2.0	<2.0	<3.0	3.53	4.07	<3.0	<4.0	7.86	4.39	5.21	11.1	<2.0	28.7
	146	B146-ZD9.5	8/6/2014	13.4	7.06	21.9	<4.0	<3.0	9.01	<4.0	<3.0	<2.0	<2.0	<3.0	3.65	8.48	<3.0	<4.0	5.65	<3.0	<2.0	5.6	<2.0	<10
		B146-ZD13.5	8/6/2014	10	16.3	35.8	<4.0	<3.0	11.3	<4.0	4.86	<2.0	<2.0	<3.0	3.53	16.2	<3.0	<4.0	7.91	<3.0	6.81	15.3	<2.0	<10
	147	B147-ZD6.5	8/6/2014	20	8.81	6.66	<4.0	<3.0	18	<4.0	<3.0	<2.0	<2.0	9.69	7.71	<2.0	<3.0	<4.0	<3.0	<3.0	<2.0	<4.0	<2.0	<10
		B147-ZD15	8/6/2014	19.6	40.2	23.7	<4.0	<3.0	7.29	<4.0	7.51	<2.0	<2.0	<3.0	<2.0	32.2	<3.0	<4.0	9.53	6.14	9.38	23	<2.0	<10
	151	B151-ZD13.5	8/6/2014	<10	6.26	5.48	<4.0	<3.0	<2.0	<4.0	3.13	<2.0	<2.0	<3.0	<2.0	8.78	<3.0	<4.0	6.49	<3.0	4.25	10.4	3.54	13.9
		B151-ZD5	8/6/2014	31.3	<2.0	3.73	<4.0	<3.0	3.18	<4.0	<3.0	<2.0	<2.0	6.03	<2.0	3.35	<3.0	<4.0	4.87	<3.0	<2.0	5.51	<2.0	12.9
152	B152-ZD10	8/6/2014	15.9	25.1	27.9	<4.0	<3.0	4.61	<4.0	10.1	3.56	<2.0	7.86	8.95	53.5	<3.0	<4.0	8.89	5.5	12.2	37.2	<2.0	12	
	B152-ZD15	8/6/2014	<10	9.87	4.79	<4.0	<3.0	4.92	<4.0	5.21	6.55	<2.0	<2.0	9.29	4.12	14.1	<3.0	<4.0	10.6	4.07	7.47	21.7	4.1	15.8

Acronyms and Abbreviations:

AOC - Area of Concern

Notes:

All concentrations are in microgram per cubic meter (µg/m³).

VOCs were analyzed in all samples. Only detected constituents are shown in table.

Yellow highlighting indicates concentration is above the IG

Gray shading indicates compound was not detected in soil.

Key:

AOC J-K – PAC Paint Shop and Paint Shed Areas

AOC Z – Waste Water Discharge from Building A495

Table 16.
Detection Statistics: Soil Gas (TO-15)
Remedial Investigation
Chino Airport, Chino, California

Compound	Number of Samples	Detections		Detections Exceeding IG		Minimum (µg/m ³)	Maximum (µg/m ³)
		Number	%	Number	%		
AOC J-K							
Acetone	4	3	75%	0	0%	13.6	25.4
Benzene	4	4	100%	0	0%	5.11	6.83
Carbon disulfide	4	4	100%	0	0%	7.59	39.2
Carbon tetrachloride	4	2	50%	0	0%	10.8	22.9
Chloroform (Trichloromethane)	4	2	50%	0	0%	5.52	7.13
Cyclohexane	4	3	75%	0	0%	4.03	7.84
Dichlorodifluoromethane	4	1	25%	0	0%	6.03	6.03
Ethylbenzene	4	3	75%	0	0%	3.94	11.7
n-Hexane	4	2	50%	0	0%	6.62	7.12
Propene	4	1	25%	0	0%	4.04	4.04
Tetrachloroethene	4	4	100%	0	0%	8.61	42
Tetrahydrofuran	4	4	100%	0	0%	3.06	6.18
Toluene (Methyl benzene)	4	4	100%	0	0%	3.81	41.1
Trichloroethene	4	1	25%	0	0%	39	39
Trichlorofluoromethane	4	2	50%	0	0%	6.63	14.1
1,2,4-Trimethylbenzene	4	4	100%	0	0%	4.76	9.48
1,3,5-Trimethylbenzene	4	2	50%	0	0%	5.16	6.83
o-Xylene	4	4	100%	0	0%	4.21	13.5
m,p-Xylenes	4	4	100%	0	0%	4.77	38.3
n-Heptane	4	2	50%	0	0%	4.96	8.44
Naphthalene	4	1	25%	0	0%	24.5	24.5
AOC Z							
Acetone	18	12	67%	0	0%	10.0	33.2
Benzene	18	11	61%	0	0%	6.3	40.2
Carbon disulfide	18	15	83%	0	0%	3.73	105
Cyclohexane	18	14	78%	0	0%	3.18	18
Ethylbenzene	18	11	61%	0	0%	3.13	12
n-Hexane	18	5	28%	0	0%	3.39	7.61
Propene	18	2	11%	0	0%	5.56	14.1
Tetrachloroethene	18	6	33%	0	0%	6.03	10
Tetrahydrofuran	18	11	61%	0	0%	3.53	8.95
Toluene (Methyl benzene)	18	15	83%	0	0%	3.35	65.6
Trichlorofluoromethane	18	2	11%	0	0%	9.27	9.38
1,2,4-Trimethylbenzene	18	16	89%	0	0%	4.87	11.4
1,3,5-Trimethylbenzene	18	12	67%	0	0%	3.78	6.83
o-Xylene	18	14	78%	0	0%	3.47	14
m,p-Xylenes	18	17	94%	0	0%	4.77	44.6

Table 16.
Detection Statistics: Soil Gas (TO-15)
Remedial Investigation
Chino Airport, Chino, California

Compound	Number of Samples	Detections		Detections Exceeding IG		Minimum (µg/m ³)	Maximum (µg/m ³)
		Number	%	Number	%		
n-Heptane	18	3	17%	0	0%	3.54	5.2
Naphthalene	18	12	67%	0	0%	10.1	28.7

Acronyms and Abbreviations:

AOC - Area of Concern

IG - Investigation goal

Notes:

All concentrations are in micrograms per liter (µg/m³)

Shading indicates compound was not present in more than one sample at a concentration greater than the investigation goal.

Key:

AOC J-K – PAC Paint Shop and Paint Shed Areas

AOC Z – Waste Water Discharge from Building A495

Acronyms and Abbreviations:

AOC - Area of Concern

Table 17.
Summary of Soil Gas Investigation Goals
Remedial Investigation
Chino Airport, Chino, California

Chemical	Tier 1 - ESL ($\mu\text{g}/\text{m}^3$)	Residential Soil Gas RBSL ($\mu\text{g}/\text{m}^3$)		Industrial Soil Gas RBSL ($\mu\text{g}/\text{m}^3$)		Selected Investigation Goal ($\mu\text{g}/\text{m}^3$) ¹
		Carcinogenic	Non- carcinogenic	Carcinogenic	Non- carcinogenic	
Metals						
Mercury (elemental)	1.6E+01	----	3.1E+02	----	2.6E+03	1.6E+01
Tetraethyl Lead	--	----	----	----	----	----
Semi-volatile Organic Compounds (SVOCs)						
1,1-Biphenyl	3.0E+04	----	4.2E+02	----	3.6E+03	4.2E+02
2,4,6-Trichlorophenol	1.5E+02	9.1E+02	----	8.0E+03	----	1.5E+02
2,4-Dichlorophenol	7.0E+05	----	----	----	----	7.0E+05
2,4-Dimethylphenol	5.0E+02	----	----	----	----	5.0E+02
2-Chlorophenol	9.5E+03	----	----	----	----	9.5E+03
2-Methylnaphthalene	3.4E+04	----	1.5E+04	----	1.2E+05	1.5E+04
Acenaphthene	2.6E+05	----	----	----	----	2.6E+05
Bis(2-chloroethyl) ether	1.7E+00	3.4E+00	----	3.4E+01	----	1.7E+00
Bis(2-chloroisopropyl) ether ²	1.1E+06	----	7.3E+05	----	6.2E+06	7.3E+05
Hexachlorobutadiene	6.0E+06	1.3E+02	3.7E+03	1.1E+03	3.0E+04	1.3E+02
Phenanthrene ³	2.8E+04	----	3.1E+03	----	2.6E+04	3.1E+03
Phenol	7.8E+04	----	2.1E+05	----	1.8E+06	7.8E+04
Total Petroleum Hydrocarbons (TPHs)						
TPH (gasolines)	5.0E+04	--	--	--	--	5.0E+04
TPH (middle distillates)	6.8E+04	--	--	--	--	6.8E+04
Volatile Organic Compounds (VOCs)						
1,1,1,2-Tetrachloroethane	1.6E+02	3.8E+02	1.2E+05	3.4E+03	9.6E+05	1.6E+02
1,1,1-Trichloroethane	2.6E+06	----	1.0E+06	----	8.8E+06	1.0E+06
1,1,1,2,2-Tetrachloroethane	2.1E+01	4.8E+01	7.3E+04	4.2E+02	6.2E+05	2.1E+01
1,1,1,2-Trichloroethane	7.6E+01	1.8E+02	2.1E+02	1.5E+03	1.8E+03	7.6E+01
1,1-Dichloroethane	7.6E+02	1.8E+03	7.3E+05	1.5E+04	6.2E+06	7.6E+02
1,1-Dichloroethene	1.0E+05	----	7.3E+04	----	6.2E+05	7.3E+04
1,2,4-Trichlorobenzene	2.1E+03	----	2.1E+03	----	1.8E+04	2.1E+03
1,2,4-Trimethylbenzene	----	----	7.3E+03	----	6.2E+04	7.3E+03
1,3,5-Trimethylbenzene ⁴	----	----	3.7E+04	----	3.0E+05	3.7E+04
1,2-dibromo-3-chloropropane	6.1E-01	1.7E-01	2.1E+02	4.0E+00	1.8E+03	1.7E-01
1,2-Dibromoethane	1.7E+01	4.7E+00	9.4E+03	4.0E+01	7.8E+04	4.7E+00
1,2-Dichlorobenzene	1.0E+05	----	2.1E+05	----	1.8E+06	1.0E+05
1,2-Dichloroethane	5.8E+01	1.1E+02	7.3E+03	9.4E+02	6.2E+04	5.8E+01
1,2-Dichloropropane	1.2E+02	2.8E+02	4.2E+03	2.4E+03	3.6E+04	1.2E+02
1,3-Dichloropropene	7.6E+01	1.5E+02	2.1E+04	1.5E+03	1.8E+05	7.6E+01
1,4-Dichlorobenzene	1.1E+02	2.6E+02	8.3E+05	2.2E+03	7.0E+06	1.1E+02
1,4-Dioxane	3.1E+08	5.6E+02	3.1E+04	5.0E+03	2.6E+05	5.6E+02
Acetone	1.5E+07	----	3.2E+07	----	2.8E+08	1.5E+07
Benzene	4.2E+01	8.4E+01	3.1E+04	8.4E+02	2.6E+05	4.2E+01
Bromodichloromethane	3.3E+01	7.6E+01	7.3E+04	6.6E+02	6.2E+05	3.3E+01
Bromoform (Tribromomethane)	6.7E+06	2.6E+03	7.3E+04	2.2E+04	6.2E+05	2.6E+03
Bromomethane	2.6E+03	----	5.2E+03	----	4.4E+04	2.6E+03
Carbon disulfide	----	----	7.3E+05	----	6.2E+06	7.3E+05
Carbon tetrachloride	2.9E+01	5.8E+01	4.2E+04	5.8E+02	3.6E+05	2.9E+01
Chlorobenzene	5.0E+05	----	5.2E+04	----	4.4E+05	5.2E+04
Chloroethane	1.6E+07	----	1.0E+07	----	8.8E+07	1.0E+07
Chloroform	2.3E+02	1.2E+02	1.0E+05	1.1E+03	8.6E+05	1.2E+02
Chloromethane	4.7E+04	----	9.4E+04	----	7.8E+05	4.7E+04
cis-1,2-Dichloroethene	3.7E+03	----	7.3E+03	----	6.2E+04	3.7E+03
Cyclohexane	----	----	6.3E+06	----	5.2E+07	6.3E+06
Dichlorodifluoromethane	----	----	1.0E+05	----	8.8E+05	1.0E+05
Ethylbenzene	4.9E+02	1.1E+03	1.0E+06	9.8E+03	8.8E+06	4.9E+02
n-Heptane ⁵	----	----	7.3E+05	----	6.2E+06	7.3E+05
n-Hexane	----	----	7.3E+05	----	6.2E+06	7.3E+05

Table 17.
Summary of Soil Gas Investigation Goals
Remedial Investigation
Chino Airport, Chino, California

Chemical	Tier 1 - ESL ($\mu\text{g}/\text{m}^3$)	Residential Soil Gas RBSL ($\mu\text{g}/\text{m}^3$)		Industrial Soil Gas RBSL ($\mu\text{g}/\text{m}^3$)		Selected Investigation Goal ($\mu\text{g}/\text{m}^3$) ¹
		Carcinogenic	Non- carcinogenic	Carcinogenic	Non- carcinogenic	
Methyl ethyl ketone (2-butanone)	2.6E+06	----	5.2E+06	----	4.4E+07	2.6E+06
Methyl isobutyl ketone	2.1E+05	----	3.1E+06	----	2.6E+07	2.1E+05
Methylene chloride	2.6E+03	9.6E+02	4.2E+05	2.4E+04	3.6E+06	9.6E+02
MTBE	4.7E+03	1.1E+04	3.1E+06	9.4E+04	2.6E+07	4.7E+03
m-Xylene	5.2E+04	----	1.0E+05	----	8.8E+05	5.2E+04
Naphthalene	3.6E+01	8.3E+01	3.1E+03	7.2E+02	2.6E+04	3.6E+01
o-Xylene	5.2E+04	----	1.0E+05	----	8.8E+05	5.2E+04
p-Xylene	5.2E+04	----	1.0E+05	----	8.8E+05	5.2E+04
Propene	----	----	3.1E+06	----	2.6E+07	3.1E+06
Styrene	4.7E+05	----	9.4E+05	----	7.8E+06	4.7E+05
Tetrachloroethene	2.1E+02	4.1E+02	3.7E+04	4.2E+03	3.0E+05	2.1E+02
Tetrahydrofuran	----	----	2.1E+06	----	1.8E+07	2.1E+06
Toluene	1.6E+05	----	3.1E+05	----	2.6E+06	1.6E+05
trans-1,2-Dichloroethene ⁶	3.7E+03	----	7.3E+03	----	6.2E+04	3.7E+03
Trichloroethene	3.0E+02	4.8E+02	2.1E+03	6.0E+03	1.8E+04	3.0E+02
Trichlorofluoromethane	----	----	7.3E+05	----	6.2E+06	7.3E+05
Vinyl chloride	1.6E+01	3.1E+01	1.0E+05	3.2E+02	8.8E+05	1.6E+01
Xylenes ⁷	5.2E+04	----	1.0E+05	----	8.8E+05	5.2E+04

Acronyms and Abbreviations:

$\mu\text{g}/\text{m}^3$ - micrograms per cubic meter

"----" Not available

RSL - Regional Screening Level (USEPA 2014)

USEPA - United States Environmental Protection Agency

Notes:

1 - The selected investigation goal represents the minimum chemical-specific screening level.

2 - Diisopropylether used as a surrogate for bis(2-chloroisopropyl) ether.

3 - Naphthalene (noncancer) used as a surrogate for phenanthrene.

4 - 1,2,4-trimethylbenzene used as a surrogate for 1,3,5-trimethylbenzene.

5 - n-hexane used as a surrogate for n-heptane.

6 - cis-1,2-dichloroethene used as a surrogate for trans-1,2-dichloroethene.

7 - Representative screening numbers for mixed xylenes. The representative value for mixed xylenes is based on the calculated lowest one amongst the three isomers.

Brown highlighting indicates screening levels developed based on DTSC modified air RSLs (DTSC 2014)

Tier 1 ESL - San Francisco Bay Regional Water Quality Control Board Tier 1 Environmental Screening Level (SFBRWQCB, Dec. 2013)

Soil Gas RSL - Soil Gas RSLs derived by dividing the USEPA residential and industrial air RSLs (USEPA 2014) by default soil gas attenuation factors recommended by Cal/EPA. For the residential soil gas RSLs the Cal/EPA recommended soil gas attenuation factor for a future building was used (0.001) and for the industrial soil gas RSL the Cal/EPA recommended soil gas attenuation factor of 0.0005 was used (Cal/EPA 2011).

Table 18.
Screen of Maximum Soil Gas Concentrations to Site Investigation Goals for AOC Z
Remedial Investigation
Chino Airport, Chino, California

Sample Name	B135-ZD11	B135-ZD15.5	B142-ZD10	B142-ZD10-DUP	B142-ZD17.5	B146-ZD9.5	B146-ZD13.5	B147-ZD6.5	B147-ZD15	B151-ZD13.5	B151-ZD5	B152-ZD10	B152-ZD15	B143-ZD12.5	B143-ZD19.5	B144-ZD10.5	B144-ZD10.5-DUP	B144-ZD16	B145-ZD11	B145-ZD17.5	Comparison to Investigation Goal		
	Boring	B135	B135	B142	B142	B142	B146	B146	B147	B147	B151	B151	B152	B152	B143	B143	B144	B144	B144	B145	B145	Maximum Detect	Selected Investigation Goal ¹
Depth (feet bgs)	11.00	15.50	10.00	10.00	17.50	9.50	13.50	6.50	15.00	13.50	5.00	10.00	15.00	12.50	19.50	10.50	10.50	16.00	11.00	17.50			
Acetone	33.20	23.40	30.20	92.80	18.50	13.40	10.00	20.00	19.60	<10	31.30	15.90	<10	10.00	<10	<10	<10	10.70	<10	<10	92.8	15,431,000	0.000060
Benzene	20.90	7.60	16.80	13.40	36.10	7.06	16.30	8.81	40.20	6.26	<2.0	25.10	9.87	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	40.2	42	0.96
Carbon disulfide	12.70	<3.0	34.90	33.30	105.00	21.90	35.80	6.66	23.70	5.48	3.73	27.90	4.79	5.01	3.86	<3.0	<3.0	<3.0	9.71	5.85	105	730,000	0.00014
Cyclohexane	9.57	<2.0	9.22	8.71	11.60	9.01	11.30	18.00	7.29	<2.0	3.18	4.61	4.92	<2.0	5.09	<2.0	3.61	3.78	6.43	4.23	18.0	6,300,000	0.000029
Ethylbenzene	5.86	<3.0	8.07	8.16	12.00	<3.0	4.86	<3.0	7.51	3.13	<3.0	10.10	5.21	<3.0	3.47	<3.0	<3.0	<3.0	3.46	3.61	12.0	487	0.025
n-Hexane	5.88	<2.0	3.39	<2.0	7.61	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	3.56	6.55	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	7.6	730,000	0.000010
Propene	<2.0	<2.0	5.56	4.71	14.10	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	14.1	3,100,000	0.000045
Tetrachloroethene	10.00	<3.0	9.08	6.03	<3.0	<3.0	<3.0	9.69	<3.0	<3.0	6.03	7.86	9.29	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	10.0	206	0.048
Tetrahydrofuran	<2.0	8.01	7.39	7.15	8.21	3.65	3.53	7.71	<2.0	<2.0	<2.0	8.95	4.12	4.65	<2.0	<2.0	<2.0	<2.0	6.21	3.53	9.0	2,100,000	0.000043
Toluene (Methyl benzene)	17.10	3.96	42.90	40.30	65.60	8.48	16.20	<2.0	32.20	8.78	3.35	53.50	14.10	<2.0	5.35	<2.0	<2.0	3.81	4.37	4.07	65.6	156,429	0.00042
Trichlorofluoromethane	<4.0	<4.0	9.27	8.82	9.38	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	9.4	730,000	0.000013
1,2,4-Trimethylbenzene	11.40	<3.0	10.80	11.40	11.40	5.65	7.91	<3.0	9.53	6.49	4.87	8.89	10.60	7.91	9.73	7.27	8.16	10.30	7.08	7.86	11.4	7,300	0.0016
1,3,5-Trimethylbenzene	6.83	<3.0	5.90	6.88	6.09	<3.0	<3.0	<3.0	6.14	<3.0	<3.0	5.50	4.07	4.03	4.22	3.78	4.24	4.69	4.21	4.39	6.9	37,000	0.00019
o-Xylene	8.07	<2.0	10.80	11.30	14.00	<2.0	6.81	<2.0	9.38	4.25	<2.0	12.20	7.47	3.96	6.03	3.47	3.48	5.17	4.77	5.21	14.0	52,143	0.00027
m,p-Xylenes	20.30	5.64	29.00	29.90	44.60	5.60	15.30	<4.0	23.00	10.40	5.51	37.20	21.70	5.43	12.80	4.77	4.56	11.80	10.40	11.10	44.6	52,143	0.00086
n-Heptane	<2.0	<2.0	<2.0	<2.0	5.20	<2.0	<2.0	<2.0	<2.0	3.54	<2.0	<2.0	4.10	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	5.2	730,000	0.000071
Naphthalene	13.00	10.80	18.40	16.80	10.10	<10	<10	<10	<10	13.90	12.90	12.00	15.80	13.00	12.50	12.50	16.60	<10	<10	28.70	28.7	36	0.80

Acronyms and Abbreviations:

bgs - below ground surface

Notes:

- Listed soil gas criteria are the selected investigation goals summarized in Table 17.
 - Listed values correspond to the maximum concentration divided by the site investigation goal.
- Gray shading indicates compound was not detected in sample.
All concentrations are in micrograms per liter ($\mu\text{g}/\text{m}^3$).

Table 19.
Maximum Estimated Risk for Potential Residential Vapor Intrusion Exposures in AOC Z
Remedial Investigation
Chino Airport, Chino, California

Chemical	Maximum Detect ($\mu\text{g}/\text{m}^3$)	Residential Soil Gas Screening Levels ($\mu\text{g}/\text{m}^3$) ¹		Residential Risk Screen	
		Carcinogenic	Non-carcinogenic	Maximum Estimated Risk ²	Maximum Estimated Hazard Quotient ³
Acetone	92.80	----	32,000,000	----	2.9E-06
Benzene	40.20	84	31,000	4.8E-07	1.3E-03
Carbon disulfide	105.00	----	730,000	----	1.4E-04
Cyclohexane	18.00	----	6,300,000	----	2.9E-06
Ethylbenzene	12.00	1,100	1,000,000	1.1E-08	1.2E-05
n-Hexane	7.61	----	730,000	----	1.0E-05
Propene	14.10	----	3,100,000	----	4.5E-06
Tetrachloroethene	10.00	410	37,000	2.4E-08	2.7E-04
Tetrahydrofuran	8.95	----	2,100,000	----	4.3E-06
Toluene (Methyl benzene)	65.60	----	310,000	----	2.1E-04
Trichlorofluoromethane	9.38	----	730,000	----	1.3E-05
1,2,4-Trimethylbenzene	11.40	----	7,300	----	1.6E-03
1,3,5-Trimethylbenzene	6.88	----	37,000	----	1.9E-04
o-Xylene	14.00	----	100,000	----	1.4E-04
m,p-Xylenes	44.60	----	100,000	----	4.5E-04
n-Heptane	5.20	----	730,000	----	7.1E-06
Naphthalene	28.70	83	3,100	3.5E-07	9.3E-03
Maximum Estimated Cumulative Risk and Hazard Index⁴				9.E-07	0.01

Acronyms and Abbreviations:

$\mu\text{g}/\text{m}^3$ - micrograms per cubic meter

"----" Not available

Notes:

---- = screening criteria not calculated as appropriate toxicity data not available.

1 - Listed soil gas screening criteria are the site-specific screening values summarized in Table 17.

2 - Estimated cancer risk = (soil gas concentration/cancer soil gas screening level) x 10^{-6} .

3 - Estimated hazard = (soil gas concentration/non-cancer soil gas screening level).

4 - Cumulative risk and hazard index represent the sum of chemical-specific cancer risks and hazard quotients.

Table 20.
Screen of Maximum Soil Gas Concentrations to Site Investigation Goals for AOC J-K
Remedial Investigation
Chino Airport, Chino, California

Sample ID	B148-JKD5	B149-JKD5	O-D12	O-D12-DUP	Q-D12	Comparison to Investigation Goal		
						Maximum Detect	Selected Investigation Goal ¹	Ratio of Maximum to Goal ²
Boring	B148	B149	O-D12	O-D12	Q-D12			
Depth (feet bgs)	5.00	5.00	12.00	12.00	12.00			
Acetone	14.40	<10	25.4	26.4	13.6	26.40	15,431,000	0.0000017
Benzene	5.11	6.00	6.83	6.9	5.46	6.90	42	0.16
Carbon disulfide	7.59	7.63	39.20	40.50	8.19	40.50	730,000	0.000055
Carbon tetrachloride	<4.0	<4.0	10.80	10.90	22.90	22.90	29	0.79
Chloroform (Trichloromethane)	<3.0	<3.0	5.52	5.81	7.13	7.13	120	0.059
Cyclohexane	<2.0	7.84	7.67	7.29	4.03	7.84	6,300,000	0.0000012
Dichlorodifluoromethane	<4.0	<4.0	6.03	6.48	<4.0	6.48	100,000	0.000065
Ethylbenzene	<3.0	3.94	11.70	12.20	8.72	12.20	487	0.025
n-Hexane	<2.0	<2.0	7.12	7.19	6.62	7.19	730,000	0.0000098
Propene	<2.0	<2.0	4.04	4.30	<2.0	4.30	3,100,000	0.0000014
Tetrachloroethene	8.61	15.30	16.20	17.20	42.00	42.00	206	0.20
Tetrahydrofuran	3.06	4.65	6.18	6.24	4.68	6.24	2,100,000	0.0000030
Toluene (Methyl benzene)	3.92	3.81	41.10	42.90	32.40	42.90	156,429	0.00027
Trichloroethene	<3.0	<3.0	<3.0	<3.0	39.00	39.00	297	0.13
Trichlorofluoromethane	<4.0	<4.0	6.63	6.91	14.10	14.10	730,000	0.000019
1,2,4-Trimethylbenzene	4.76	5.95	9.48	10.20	6.58	10.20	7,300	0.0014
1,3,5-Trimethylbenzene	<3.0	<3.0	6.83	7.08	5.16	7.08	37,000	0.00019
o-Xylene	4.21	4.23	13.50	14.00	9.81	14.00	52,143	0.00027
m,p-Xylenes	4.77	6.12	38.30	39.80	28.10	39.80	52,143	0.00076
n-Heptane	<2.0	<2.0	8.44	8.68	4.96	8.68	730,000	0.000012
Naphthalene	<10	24.50	<10	<10	<10	24.50	36	0.68

Acronyms and Abbreviations:

bgs - below ground surface

Notes:

1. Listed soil gas criteria are the selected investigation goals summarized in Table 17.
 2. Listed values correspond to the maximum concentration divided by the site investigation goal.
- Gray shading indicates compound was not detected in sample.
All concentrations are in micrograms per liter ($\mu\text{g}/\text{m}^3$)

Table 21.
Maximum Estimated Risk for Potential Residential Vapor Intrusion Exposures in AOC J-K
Remedial Investigation
Chino Airport, Chino, California

Chemical	Maximum Detect ($\mu\text{g}/\text{m}^3$)	Residential Soil Gas Screening Levels ($\mu\text{g}/\text{m}^3$) ¹		Residential Risk Screen	
		Carcinogenic	Non-carcinogenic	Maximum Estimated Risk ²	Maximum Estimated Hazard Quotient ³
Acetone	26.40	----	32,000,000	----	8.3E-07
Benzene	6.90	84	31,000	8.2E-08	2.2E-04
Carbon disulfide	40.50	----	730,000	----	5.5E-05
Carbon tetrachloride	22.90	58	42,000	3.9E-07	5.5E-04
Chloroform (Trichloromethane)	7.13	120	100,000	5.9E-08	7.1E-05
Cyclohexane	7.84	----	6,300,000	----	1.2E-06
Dichlorodifluoromethane	6.48	----	100,000	----	6.5E-05
Ethylbenzene	12.20	1,100	1,000,000	1.1E-08	1.2E-05
n-Hexane	7.19	----	730,000	----	9.8E-06
Propene	4.30	----	3,100,000	----	1.4E-06
Tetrachloroethene	42.00	410	37,000	1.0E-07	1.1E-03
Tetrahydrofuran	6.24	----	2,100,000	----	3.0E-06
Toluene (Methyl benzene)	42.90	----	310,000	----	1.4E-04
Trichloroethene	39.00	480	2,100	8.1E-08	1.9E-02
Trichlorofluoromethane	14.10	----	730,000	----	1.9E-05
1,2,4-Trimethylbenzene	10.20	----	7,300	----	1.4E-03
1,3,5-Trimethylbenzene	7.08	----	37,000	----	1.9E-04
o-Xylene	14.00	----	100,000	----	1.4E-04
m,p-Xylenes	39.80	----	100,000	----	4.0E-04
n-Heptane	8.68	----	730,000	----	1.2E-05
Naphthalene	24.50	83	3,100	3.0E-07	7.9E-03
Maximum Estimated Cumulative Risk and Hazard Index⁴				1.E-06	0.03

Acronyms and Abbreviations:

$\mu\text{g}/\text{m}^3$ - micrograms per cubic meter

"----" Not available

Notes:

---- = screening criteria not calculated as appropriate toxicity data not available.

1 - Listed soil gas screening criteria are the site-specific screening values summarized in Table 17.

2 - Estimated cancer risk = (soil gas concentration/cancer soil gas screening level) x 10^{-6} .

3 - Estimated hazard = (soil gas concentration/non-cancer soil gas screening level).

4 - Cumulative risk and hazard index represent the sum of chemical-specific cancer risks and hazard quotients.

Table 22.
Summary of Soil Analytical Results: Method 6010B/7471A
Remedial Investigation
Chino Airport, Chino, California

AOC	Sample Name	Locid	Depth	Sample Date	Arsenic	Antimony	Barium	Beryllium	Cadmium	Cobalt	Chromium	Copper	Lead	Mercury	Molybdenum	Nickel	Silver	Selenium	Thallium	Vanadium	Zinc
Background	B153-BD0.5-1	B153-B	0.5-1	08/01/2014	0.656 Jq	<0.146	153	0.267	0.356 Jq	6.53	15.9	23.7	11.0	0.0143 Jq	<0.129	9.23	0.295	<0.294	<0.149	33.3	70.7
Background	B153-BD14-15	B153-B	14-15	08/01/2014	<0.252	<0.145	138	0.522	<0.131	12.2	45.6	15.4	2.23	0.00746 Jq	<0.128	13.7	<0.0832	<0.291	<0.147	62.0	61.9
Background	B153-BD19-20	B153-B	19-20	08/01/2014	<0.253	<0.145	112	0.457	<0.132	10.9	23.2	13.9	2.02	<0.00607	<0.129	13.2	<0.0836	<0.292	<0.148	33.9	56.8
Background	B153-BD5-6	B153-B	5-6	08/01/2014	<0.258	<0.148	153	0.167 Jq	0.210 Jq	4.32	13.7	23.2	0.308 Jq	<0.00597	0.572	6.29	0.710	<0.298	<0.151	26.9	38.1
Background	B153-BD9-10	B153-B	9-10	08/01/2014	<0.262	<0.150	115	0.488	<0.137	20.4	53.4	12.0	5.60	<0.00607	<0.133	28.6	<0.0866	<0.303	<0.153	113	73.3
Background	B154-BD0.5-1	B154-B	0.5-1	08/01/2014	1.87	<0.145	163	0.268	0.249 Jq	6.92	15.4	14.0	8.12	<0.00607	<0.129	8.98	0.204 Jq	<0.292	<0.148	52.5	58.7
Background	B154-BD14-15	B154-B	14-15	08/01/2014	<0.254	<0.146	90.0	0.437	<0.133	7.51	29.2	8.81	2.87	<0.00607	<0.129	10.3	<0.0840	<0.294	<0.149	35.1	43.7
Background	B154-BD19-20	B154-B	19-20	08/01/2014	4.43	<0.150	123	0.443	<0.136	15.8	27.6	15.9	2.16	<0.00568	0.408	12.7	<0.0861	<0.301	<0.152	52.3	50.0
Background	B154-BD5-6	B154-B	5-6	08/01/2014	<0.260	<0.150	243	0.237 Jq	0.197 Jq	6.70	14.4	9.24	0.141 Jq	<0.00607	0.165 Jq	7.70	0.570	<0.301	<0.152	26.3	31.5
Background	B154-BD9-10	B154-B	9-10	08/01/2014	<0.253	<0.145	199	0.553	<0.132	14.9	38.6	19.6	4.76	<0.00559	0.619	20.3	<0.0836	<0.292	<0.148	51.9	63.4
O	B39-OD15-16	B39-O	15-16	07/11/2014	1.15	<0.149	131	0.550	<0.135	11.4	31.2	17.4	3.25	0.0166 Jq	<0.132	15.4	<0.0857	<0.300	<0.152	42.9	55.0
O	B39-OD19-20	B39-O	19-20	07/11/2014	2.18	<0.148	102	0.481	<0.135	11.3	34.8	18.6	3.17	0.00961 Jq	<0.131	14.7	<0.0853	<0.298	<0.151	51.7	49.7
O	B39-OD25-26	B39-O	25-26	07/11/2014	<0.266	<0.153	115	0.478	<0.139	11.9	28.5	17.6	2.21	0.00837 Jq	<0.135	15.7	<0.0879	<0.307	<0.156	47.3	54.6
O	B39-OD28-30	B39-O	28-30	07/11/2014	1.91	<0.145	150	0.457	<0.132	13.2	26.3	19.3	2.54	0.00942 Jq	<0.129	16.2	<0.0836	<0.292	<0.148	50.9	59.6
O	B39-OD28-30-DUP	B39-O	28-30	07/11/2014	1.88	<0.152	161	0.505	<0.138	15.1	26.2	21.0	2.73	0.00881 Jq	<0.135	17.5	<0.0875	<0.306	<0.155	54.2	62.3
O	B39-OD4-5	B39-O	41734	07/11/2014	3.27	<0.149 UJc	117	0.429	<0.135	10.5	22.8	12.7	2.55	<0.00587	<0.132	13.1	<0.0857	<0.300	<0.152	40.0	46.6
O	B39-OD9-10	B39-O	9-10	07/11/2014	0.376 Jq	<0.154	161	0.583	<0.140	13.5	31.1	26.7	3.86	0.0182 Jq	<0.137	17.1	<0.0888	<0.310	<0.157	46.5	62.4
O	B40-OD10-11	B40-O	10-11	07/11/2014	0.725 Jq	<0.147	156	0.626	<0.133	15.0	34.1	22.4	4.36	0.0151 Jq	<0.130	19.4	<0.0844	<0.295	<0.149	64.1	60.3
O	B40-OD15-16	B40-O	15-16	07/11/2014	1.50	<0.152	144	0.508	<0.138	13.2	28.0	17.0	3.87	0.00932 Jq	<0.135	17.1	<0.0875	<0.306	<0.155	44.7	50.6
O	B40-OD19-20	B40-O	19-20	07/11/2014	0.834	<0.147	77.4	0.535	<0.133	8.08	22.0	14.4	2.96	0.0193 Jq	<0.130	12.1	<0.0844	<0.295	<0.149	28.3	39.2
O	B40-OD25-26	B40-O	25-26	07/11/2014	<0.258	<0.148	100	0.311	<0.135	9.53	21.8	12.3	1.43	0.0216 Jq	<0.131	9.86	<0.0853	<0.298	<0.151	37.1	40.5
O	B40-OD28-30	B40-O	28-30	07/11/2014	0.774 Jf	<0.147	134	0.405	<0.133	12.7	21.2	15.3	2.39	0.0133 Jq	<0.130	14.1	<0.0844	<0.295	<0.149	43.9	52.9
O	B40-OD28-30-DUP	B40-O	28-30	07/11/2014	1.22 Jf	<0.146	151	0.447	<0.133	13.7	31.2	19.5	2.77	0.0104 Jq	<0.129	16.0	<0.0840	<0.294	<0.149	52.2	58.8
O	B40-OD5-6	B40-O	5-6	07/11/2014	4.51	<0.145	101	0.410	<0.132	9.37	21.8	12.7	2.52	0.00621 Jq	<0.129	13.1	<0.0836	<0.292	<0.148	39.4	48.0
O	B46-OD10-11	B46-O	10-11	07/11/2014	<0.262	<0.150	162	0.600	<0.137	14.1	36.7	22.4	4.20	0.00961 Jq	<0.133	18.4	<0.0866	<0.303	<0.153	56.7	59.4
O	B46-OD17-18	B46-O	17-18	07/11/2014	<0.254	<0.146	130	0.454	0.244 Jq	11.0	28.6	20.6	2.63	0.0158 Jq	<0.129	13.7	0.172 Jq	<0.294	<0.149	42.9	48.7
O	B46-OD22-23	B46-O	22-23	07/11/2014	1.62	<0.155	269	0.405	<0.141	12.6	23.7	14.3	2.91	<0.00568	0.382	13.9	<0.0893	<0.312	<0.158	54.1	45.1
O	B46-OD26-27	B46-O	26-27	07/11/2014	0.392 Jq	<0.151	94.0	0.407	<0.137	9.58	30.2	13.8	2.35	0.00996 Jq	<0.134	13.3	<0.0870	<0.304	<0.154	41.0	47.5
O	B46-OD29-30	B46-O	29-30	07/11/2014	0.595 Jq	<0.141	169	0.536	<0.128	12.1	22.7	12.9	3.16	0.0112 Jq	<0.125	15.1	<0.0812	<0.284	<0.144	46.5	50.9
O	B46-OD29-30-DUP	B46-O	29-30	07/11/2014	1.71	<0.150	183	0.538	<0.137	12.0	25.2	12.8	3.17	0.0101 Jq	0.206 Jq	15.1	<0.0866	<0.303	<0.153	48.3	53.9
O	B46-OD3-4	B46-O	3-4	07/11/2014	1.58	<0.143	195	0.500	<0.130	13.6	31.6	20.6	1.74	0.00794 Jq	<0.126	17.9	<0.0820	<0.287	<0.145	53.7	58.6
O	B47-OD1-2	B47-O	1-2	07/11/2014	1.31	<0.147	134	0.470	<0.133	11.4	24.1	13.3	2.14	<0.00597	<0.130	14.0	<0.0844	<0.295	<0.149	42.9	48.1
O	B47-OD13-14	B47-O	13-14	07/11/2014	<0.267	<0.154	155	0.481	<0.140	8.95	43.8	15.9	1.56	0.00671 Jq	<0.136	13.8	<0.0884	<0.309	<0.156	46.7	51.4
O	B47-OD18-19	B47-O	18-19	07/11/2014	5.10	<0.150	137	0.449	<0.137	10.9	25.8	16.5	3.41	<0.00578	<0.133	12.3	<0.0866	<0.303	<0.153	71.0	43.7
O	B47-OD24-25	B47-O	24-25	07/11/2014	0.407 Jq	<0.150	76.9	0.225 Jq	<0.137	7.71	25.3 Jf	10.8	2.03 Jf	0.00830 Jq	0.389	9.77	<0.0866	<0.303	<0.153	25.8	33.4
O	B47-OD24-25-DUP	B47-O	24-25	07/11/2014	0.566 Jq	<0.149	60.6	0.217 Jq	<0.135	6.63	52.8 Jf	7.76	1.20 Jf	0.00850 Jq	0.356	8.35	<0.0857	<0.300	<0.152	26.8	38.0
O	B47-OD7-8	B47-O	7-8	07/11/2014	1.78	<0.150	211	0.704	<0.137	13.8	44.6	21.0	3.64	0.0209 Jq	<0.133	17.0	<0.0866	<0.303	<0.153	51.6	58.0
O	B48-OD12-13	B48-O	12-13	07/11/2014	0.784	<0.147	126	0.435	<0.134	11.8	24.7	11.7	2.63	0.00588 Jq	<0.131	12.2	<0.0849	<0.297	<0.150	40.9	42.3
O	B48-OD18-19	B48-O	18-19	07/11/2014	<0.263	<0.151	77.3	0.355	<0.137	7.67	32.1	7.58	1.23	<0.00587	<0.134	8.48	<0.0870	<0.304	<0.154	26.2	35.6
O	B48-OD25-26	B48-O	25-26	07/11/2014	0.964	<0.154	80.2	0.387	<0.140	9.67	23.2	13.2	1.75	<0.00597	<0.136	12.7	<0.0884	<0.309	<0.156	39.2	41.3
O	B48-OD29-30	B48-O	29-30	07/11/2014	<0.259	<0.149 UJc	73.0	0.358	<0.135	8.50	22.8	10.8	2.04	<0.00587	<0.132	11.1	<0.0857	<0.300	<0.152	33.7	37.9
O	B48-OD4-5	B48-O	4-5	07/11/2014	1.06	<0.152	174	0.396	<0.138	9.66	20.8	12.6	1.38	<0.00587	<0.135	11.9	<0.0875	<0.306	<0.155	40.8	42.0
N	B70-ND10-11	B70-N	10-11	07/21/2014	<0.264	<0.152	187	0.557	0.160 Jq	10.7	61.7	11.7	3.81	0.00960 Jq	0.259	14.4	<0.0875	<0.306	<0.155	52.8	45.7
N	B70-ND15-16	B70-N	15-16	07/21/2014	<0.259	<0.149	131	0.697	<0.135	15.6	42.8	20.4	2.95	0.0167 Jq	<0.132	15.1	<0.0857	<0.300	<0.152	82.7	72.8
N	B70-ND19-20	B70-N	19-20	07/21/2014	<0.260	<0.150	128	0.635	<0.136	12.5	34.9	21.0	3.59	0.0117 Jq	<0.133	15.8	<0.0861	<0.301	<0.152	39.6	47.9
N	B70-ND25-26	B70-N	25-26	07/21/2014	2.52	<0.150	284	0.854	<0.137	26.5	37.6	32.9	7.86	0.00964 Jq	<0.133	28.1	<0.0866	<0.303	<0.153	74.7	70.8
N	B70-ND28-30	B70-N	28-30	07/21/2014	2.47	<0.149 UJcf	161	0.652	<0.135	14.7	35.2	23.3	3.66	0.0148 Jq	<0.132	18.1	<0.0857	<0.300	<0.152 UJc	68.8	63.3
N	B70-ND28-30-DUP	B70-N	28-30	07/21/2014	3.64	<0.149 UJcf	161	0.683	<0.135	12.8	36.5	22.8	3.62	0.0150 Jq	<0.132	17.7	<0.0857	<0.300	<0.152 UJc	70.9	63.3
N	B70-ND4-5	B70-N	4-5	07/21/2014	0.764	<0.145	232	0.198 Jq	0.403 Jq	5.20	32.0	11.4	2.17	<0.00587	1.50	7.22	0.551	<0.291	<0.147	27.5	33.5
N	B86-ND10-11	B86-N	10-11	07/21/2014	1.13	<0.151	158	0.595	<0.137	17.5	47.4	27.6	6.19	0.0211 Jq	1.89	23.8	<0.0870	<0.304	<0.154	96.3	63.2
N	B86-ND15-16	B86-N	15-16	07/21/2014	<0.259	<0.149	114	0.452	<0.135	8.89	61.2	12.8	2.60	<0.00587	<0.132	11.5	<0.0857	<0.300	<0.152	48.1	45.4
N	B86-ND19-20	B86-N	19-20																		

Table 22.
Summary of Soil Analytical Results: Method 6010B/7471A
Remedial Investigation
Chino Airport, Chino, California

AOC	Sample Name	Locid	Depth	Sample Date	Arsenic	Antimony	Barium	Beryllium	Cadmium	Cobalt	Chromium	Copper	Lead	Mercury	Molybdenum	Nickel	Silver	Selenium	Thallium	Vanadium	Zinc
N	B87-ND19-20	B87-N	19-20	07/21/2014	1.08	<0.149	117	0.461	<0.135	10.6	52.1	13.1	2.44	<0.00587	<0.132	13.6	<0.0857	<0.300	<0.152	40.4	44.8
N	B87-ND25-26	B87-N	25-26	07/21/2014	<0.264	<0.152	122	0.775	<0.138	12.1	43.5	26.5	5.26	0.00790 Jq	<0.135	20.9	<0.0875	<0.306	<0.155	56.2	63.5
N	B87-ND28-30	B87-N	28-30	07/21/2014	3.54	<0.152	181	0.722	<0.138	24.1	40.5	26.9	4.83	<0.00587	<0.135	23.3	<0.0875	<0.306	<0.155	69.9	69.1
N	B87-ND28-30-DUP	B87-N	28-30	07/21/2014	4.08	<0.152	162	0.672	<0.138	19.4	35.8	24.5	5.00	0.00681 Jq	<0.135	19.5	<0.0875	<0.306	<0.155	62.8	64.6
N	B87-ND4-5	B87-N	4-5	07/21/2014	0.393 Jq	<0.154	204	0.252 Jq	0.474 Jq	7.00	24.6	12.1	3.26	<0.00607	0.464	9.26	0.375	<0.309	<0.156	39.1	40.6
N	B88-ND10-11	B88-N	10-11	07/21/2014	0.671 Jq	<0.143	118	0.701	<0.130	16.3	70.4	16.9	6.62	0.0238 Jq	<0.126	21.1	<0.0820	0.751	<0.145	130	58.8
N	B88-ND15-16	B88-N	15-16	07/21/2014	<0.247	<0.142	74.4	0.363	<0.129	10.4	27.5	14.3	3.16	<0.00597	0.981	14.7	<0.0816	<0.285	<0.144	40.5	43.0
N	B88-ND19-20	B88-N	19-20	07/21/2014	0.540 Jq	<0.145	93.9	0.401	<0.131	9.80	26.7	11.0	2.10	<0.00587	0.240 Jq	12.3	<0.0832	<0.291	<0.147	36.1	48.1
N	B88-ND25-26	B88-N	25-26	07/21/2014	<0.267	<0.154	99.5	0.325	<0.140	9.31	16.7	8.49	1.23	0.0102 Jq	0.394	10.1	<0.0884	<0.309	<0.156	39.8	46.3
N	B88-ND28-30	B88-N	28-30	07/21/2014	<0.263	<0.151	51.2	0.177 Jq	<0.137	5.00	10.3	3.95	0.755	<0.00578	0.646	5.51	<0.0870	<0.304	<0.154	19.8	25.7
N	B88-ND28-30-DUP	B88-N	28-30	07/21/2014	<0.266	<0.153	61.7	0.211 Jq	<0.139	6.04	11.5	5.19	0.814	<0.00568	0.889	6.29	<0.0879	<0.307	<0.156	23.9	33.7
N	B88-ND4-5	B88-N	4-5	07/21/2014	<0.270	<0.155	187	0.234 Jq	0.714	6.29	30.0	22.9	10.8	0.0163 Jq	0.232 Jq	8.60	0.176 Jq	<0.312	<0.158	39.2	58.1
N	B89-ND10-11	B89-N	10-11	07/22/2014	<0.258	<0.148	96.3	0.448	<0.135	11.5	63.5	20.6	5.22	0.0150 Jq	<0.131	17.3	<0.0853	<0.298	<0.151	64.4	52.6
N	B89-ND15-16	B89-N	15-16	07/22/2014	<0.260	<0.150	81.6	0.448	<0.136	12.8	37.6	23.8	5.58	0.0108 Jq	<0.133	19.7	<0.0861	<0.301	<0.152	43.8	58.0
N	B89-ND19-20	B89-N	19-20	07/22/2014	<0.254	<0.146	97.3	0.416	<0.133	9.45	28.6	14.9	2.39	0.00897 Jq	<0.129	12.3	<0.0840	<0.294	<0.149	35.9	45.9
N	B89-ND24-25	B89-N	24-25	07/22/2014	<0.255	<0.147	50.6	0.182 Jq	<0.133	4.46	8.70	4.62	1.16	0.0119 Jq	0.253	4.68	<0.0844	<0.295	<0.149	14.9	31.7
N	B89-ND28-30	B89-N	28-30	07/22/2014	0.436 Jq	<0.146	41.0	0.139 Jq	<0.133	3.50	5.89 Jf	3.63	0.786	0.0125 Jq	0.225 Jq	3.87 Jf	<0.0840	<0.294	<0.149	13.2	19.2
N	B89-ND28-30-DUP	B89-N	28-30	07/22/2014	0.451 Jq	<0.150	35.3	<0.138	<0.136	3.10	8.96 Jf	3.75	1.07	<0.00587	0.245 Jq	6.40 Jf	<0.0861	<0.301	<0.152	11.6	16.6
N	B89-ND4-5	B89-N	4-5	07/22/2014	3.18	<0.146	175	0.270	4.43	8.86	100	27.4	34.4	0.0183 Jq	0.527	12.3	<0.0840	<0.294	<0.149	69.1	95.1
N	B90-ND10-11	B90-N	10-11	07/22/2014	<0.257	<0.147	117	0.390	<0.134	11.2	49.0	20.2	4.27	0.0181 Jq	<0.131	16.9	<0.0849	<0.297	<0.150	48.9	52.2
N	B90-ND15-16	B90-N	15-16	07/22/2014	0.729 Jq	<0.148	95.8	0.345	<0.135	8.57	22.9	10.5	1.72	<0.00568	0.600	9.32	<0.0853	<0.298	<0.151	34.7	44.2
N	B90-ND19-20	B90-N	19-20	07/22/2014	<0.254	<0.146	74.5	0.258	<0.133	6.48	12.1	7.71	1.43	0.0126 Jq	<0.129	6.98	<0.0840	<0.294	<0.149	22.8	34.5
N	B90-ND25-26	B90-N	25-26	07/22/2014	<0.262	<0.150	35.4	0.142 Jq	<0.137	4.19	8.57	5.71	1.30	0.0108 Jq	0.874	4.04	<0.0866	<0.303	<0.153	14.8	22.9
N	B90-ND28-30	B90-N	28-30	07/22/2014	<0.257	<0.147	118	0.464	<0.134	11.6	21.0	16.7	2.86	0.0128 Jq	<0.131	12.9	<0.0849	<0.297	<0.150	36.3	52.2
N	B90-ND28-30-DUP	B90-N	28-30	07/22/2014	<0.255	<0.147	117	0.509	<0.133	11.7	21.9	17.9	3.33	<0.00618	<0.130	13.1	<0.0844	<0.295	<0.149	38.8	51.4
N	B90-ND4-5	B90-N	4-5	07/22/2014	0.381 Jq	<0.150	201	0.223 Jq	0.690	5.78	35.8	18.0	5.54	0.00861 Jq	0.402	8.45	0.285	<0.301	<0.152	35.6	43.1
N	B91-ND10-11	B91-N	10-11	07/21/2014	<0.260	<0.150	142	0.551	0.254 Jq	13.5	118	22.6	5.60	0.0147 Jq	<0.133	20.2	<0.0861	<0.301	<0.152	96.8	59.5
N	B91-ND16-17	B91-N	16-17	07/21/2014	<0.252	<0.145	99.4	0.438	1.01	11.2	43.3	19.9	12.9	0.0116 Jq	<0.128	15.0	<0.0832	<0.291	<0.147	40.1	62.0
N	B91-ND22-23	B91-N	22-23	07/21/2014	<0.259	<0.149	52.7	0.226 Jq	<0.135	5.40	11.0	5.26	0.996	0.00986 Jq	<0.132	5.51	<0.0857	<0.300	<0.152 UJc	22.6	27.2
N	B91-ND29-30	B91-N	29-30	07/21/2014	<0.263	<0.151	95.1	0.204 Jq	<0.137	9.30	11.7	5.76	0.494 Jq	0.00762 Jq	0.546	6.05	<0.0870	<0.304	<0.154	34.1	45.4
N	B91-ND4-5	B91-N	4-5	07/21/2014	0.674 Jq	<0.150	177	0.234 Jq	13.7	6.25	195	65.2	125	0.0582 Jq	0.339	9.01	0.218 Jq	<0.301	<0.152	34.7	195
N	B92-ND4-5	B92-N	4-5	07/21/2014	0.835	<0.143	184	0.196 Jq	1.06	5.15	26.1	14.2	9.04	0.0112 Jq	<0.127	7.18	0.235 Jq	<0.288	<0.146	34.2	50.0
N	B92-ND14-15	B92-N	14-15	07/21/2014	<0.258	<0.148	66.7	0.294	<0.135	9.00	30.2	13.6	2.70	<0.00587	<0.131	12.8	<0.0853	<0.298	<0.151	31.0	45.2
N	B92-ND20-21	B92-N	20-21	07/21/2014	0.463 Jq	<0.149	64.7	0.312	<0.135	9.01	24.9	12.0	2.60	0.0134 Jq	0.399	11.6	<0.0857	<0.300	<0.152	31.2	42.8
N	B92-ND25-26	B92-N	25-26	07/21/2014	<0.260	<0.150	89.9	0.683	<0.136	11.8	38.0	20.0	4.05	0.0163 Jq	<0.133	16.3	<0.0861	<0.301	<0.152	44.7	52.7
N	B92-ND29-30	B92-N	29-30	07/21/2014	5.17	<0.142	243	0.851	<0.129	17.9	46.9	42.9	6.61	0.0167 Jq	<0.126	28.6	<0.0816	<0.285	<0.144	80.9	81.4
N	B92-ND29-30-DUP	B92-N	29-30	07/21/2014	6.09	<0.149	287	0.867	<0.135	23.7	44.8	40.8	6.62	0.0130 Jq	<0.132	29.6	<0.0857	<0.300	<0.152	86.1	82.1
N	B96-ND10.5-11.5	B96-N	10.5-11.5	07/22/2014	1.49	<0.151	82.8	0.436	<0.137	11.9	52.2	14.5	3.35	0.0126 Jq	0.285	15.8	<0.0870	<0.304	<0.154	62.6	49.4
N	B96-ND15-16	B96-N	15-16	07/22/2014	1.40	<0.147	111	0.420	<0.133	11.1	39.5	16.6	3.67	0.0109 Jq	<0.130	13.6	<0.0844	<0.295	<0.149	44.6	54.6
N	B96-ND20-21	B96-N	20-21	07/22/2014	<0.258	<0.148	35.3	0.150 Jq	<0.135	4.02	9.41	4.18	1.76	<0.00607	0.636	5.01	<0.0853	<0.298	<0.151	13.7	20.3
N	B96-ND25-26	B96-N	25-26	07/22/2014	<0.255	<0.147	46.5	0.156 Jq	<0.133	4.28	7.88	4.21	1.04	<0.00559	0.468	4.52	<0.0844	<0.295	<0.149	15.4	21.8
N	B96-ND28-30	B96-N	28-30	07/22/2014	0.347 Jq	<0.150	48.7	0.167 Jq	<0.136	4.55	7.97	4.75	1.17	<0.00597	0.561	4.89	<0.0861	<0.301	<0.152	17.1	23.9
N	B96-ND28-30-DUP	B96-N	28-30	07/22/2014	0.313 Jq	<0.146	49.3	0.165 Jq	<0.133	4.54	7.70	4.63	1.15	<0.00578	0.525	4.85	<0.0840	<0.294	<0.149	16.5	23.0
N	B96-ND4-5	B96-N	4-5	07/22/2014	<0.255	<0.147	90.0	0.163 Jq	<0.133	3.87	36.3	6.19	0.810	<0.00607	<0.130	5.19	<0.0844	<0.295	<0.149	18.5	23.3

Acronyms and Abbreviations:

AOC - Area of Concern

J - The analyte was positively identified and the result is usable; however, the analyte concentration is an estimated value.

q - The analyte detection was below the practical quantitation limit (PQL)

Gray shading indicates compound was not detected in soil.

Notes:

All concentrations are in milligrams per kilogram (mg/kg).

Bold indicates analyte detected.

Key:

AOC N – Suspected Landfill

AOC O – U.S. Forest Service Area/Reported Solid Waste Landfill

Table 23.
Soil Investigation Goals for Metals
Remedial Investigation
Chino Airport, Chino, California

Chemical	Tier 1 - ESL (mg/kg)	Residential Soil RSL (mg/kg)		Industrial Soil RSL (mg/kg)		MCL-based SSL (mg/kg)	Selected Investigation Goal (mg/kg)
		Carcinogenic	Non-carcinogenic	Carcinogenic	Non-carcinogenic		
Metals							
Aluminum	--	--	7.7E+04	--	1.1E+06	--	7.7E+04
Antimony	2.0E+01	--	3.1E+01	--	4.7E+02	2.7E-01	2.7E-01
Arsenic	3.9E-01	6.7E-01	3.4E+01	3.0E+00	4.8E+02	2.9E-01	2.9E-01
Barium	7.5E+02	--	1.5E+04	--	2.2E+05	8.2E+01	8.2E+01
Beryllium ¹	4.0E+00	1.4E+03	1.5E+01	7.0E+03	2.3E+03	3.2E+00	3.2E+00
Boron	1.6E+00	--	1.6E+04	--	2.3E+05	--	1.6E+00
Cadmium (soil) ¹	1.2E+01	7.9E+02	4.6E+00	4.0E+03	6.4E+00	--	4.6E+00
Cadmium (Water)	No Value	--	--	--	--	3.8E-01	3.8E-01
Chromium (total)	1.0E+03	--	--	--	--	1.8E+05	1.0E+03
Chromium III	7.5E+02	--	1.2E+05	--	1.8E+06	--	7.5E+02
Chromium VI	8.0E+00	3.0E-01	2.3E+02	6.3E+00	3.5E+03	--	3.0E-01
Cobalt	2.3E+01	4.2E+02	2.3E+01	1.9E+03	3.5E+02	--	2.3E+01
Copper	2.3E+02	--	3.1E+03	--	4.7E+04	4.6E+01	4.6E+01
Iron	--	--	5.5E+04	--	8.2E+05	--	5.5E+04
Lead ¹	8.0E+01	--	8.0E+01	--	3.2E+02	1.4E+01	1.4E+01
Manganese (Non-diet)	--	--	1.8E+03	--	2.6E+04	--	1.8E+03
Mercuric Chloride (and other Mercury salts) ²	--	--	2.3E+01	--	3.5E+02	--	2.3E+01
Mercury (elemental)	6.7E+00	--	9.4E+00	--	4.0E+01	1.0E-01	1.0E-01
Molybdenum	4.0E+01	--	3.9E+02	--	5.8E+03	--	4.0E+01
Nickel	1.5E+02	1.5E+04	1.5E+03	6.4E+04	2.2E+04	--	1.5E+02
Selenium	1.0E+01	--	3.9E+02	--	5.8E+03	2.6E-01	2.6E-01
Silver	2.0E+01	--	3.9E+02	--	5.8E+03	--	2.0E+01
Thallium	7.8E-01	--	7.8E-01	--	1.2E+01	1.4E-01	1.4E-01
Tin	--	--	4.7E+04	--	7.0E+05	--	4.7E+04
Vanadium	2.0E+02	--	3.9E+02	--	5.8E+03	--	2.0E+02

Acronyms and Abbreviations:

mg/kg - milligrams per kilogram

"--" Not available

Cal/EPA - California Environmental Protection Agency

RSL - Regional Screening Level (U.S. EPA, May 2014)

SSL - Soil Screening Level (U.S. EPA, May 2014)

ESL - San Francisco Bay Regional Water Quality Control Board Environmental Screening Level (SFBRWQCB, December 2013)

Notes:

1 - Cal/EPA Alternate Screening Levels for beryllium, cadmium, and lead (Cal/EPA July 2014)

2 - Typical form of mercury found in soils.

Table 24.
Summary Statistics for Metals Data (AOC N, AOC O, and Background)
Remedial Investigation
Chino Airport, Chino, California

AOC	Metal	Depth	Samples	Detects	Percent Detected	Min Detect (mg/kg)	Max Detect (mg/kg)	Mean (mg/kg)	Standard Deviation (mg/kg)	Distribution	UCL ₉₅ (mg/kg)
Area N	Arsenic	All	60	31	51.67	0.31	6.09	0.96	1.36	95% KM (t) UCL	1.277
	Barium	All	60	60	100	35.30	287.00	121.76	60.08	95% Approximate Gamma UCL	136.2
	Beryllium	All	60	59	98.33	0.14	0.90	0.43	0.22	95% KM (BCA) UCL	0.474
	Cadmium	All	60	11	18.33	0.16	13.70	0.51	1.86	95% KM (t) UCL	0.948
	Chromium	All	60	60	100	5.89	195.00	37.98	31.10	95% Approximate Gamma UCL	44.5
	Cobalt	All	60	60	100	3.10	26.50	10.63	5.50	95% Student's-t UCL	11.82
	Copper	All	60	60	100	3.63	65.20	17.43	11.33	95% Student's-t UCL	19.87
	Lead	All	60	60	100	0.49	125.00	6.53	16.40	95% Chebyshev (Mean, Sd) UCL	15.76
	Mercury	All	60	40	66.67	0.01	0.06	0.01	0.01	95% KM (BCA) UCL	0.0135
	Molybdenum	All	60	27	45	0.23	7.84	0.43	1.03	95% KM (t) UCL	0.673
	Nickel	All	60	60	100	3.87	29.60	13.42	6.76	95% Student's-t UCL	14.88
	Selenium ¹	All	60	1	1.667	0.75	0.75	0.22	0.07	95% Student's-t UCL	0.176
	Silver	All	60	7	11.67	0.18	0.55	0.09	0.10	95% KM (t) UCL	0.131
	Vanadium	All	60	60	100	11.60	130.00	46.50	24.89	95% Approximate Gamma UCL	52.44
Zinc	All	60	60	100	16.60	195.00	51.99	25.72	95% Student's-t UCL	57.54	
Area O	Arsenic	All	32	25	78.12	0.38	5.10	1.23	1.19	95% KM (BCA) UCL	1.629
	Barium	All	32	32	100	60.60	269.00	134.61	45.51	95% Student's-t UCL	148.2
	Beryllium	All	32	32	100	0.22	0.70	0.46	0.10	95% Student's-t UCL	0.489
	Cadmium	All	32	1	3.125	0.24	0.24	0.10	0.03	too few detects	-
	Chromium	All	32	32	100	20.80	52.80	28.74	7.48	95% Adjusted Gamma UCL	31.05
	Cobalt	All	32	32	100	6.63	15.10	11.25	2.26	95% Student's-t UCL	11.93
	Copper	All	32	32	100	7.58	26.70	15.80	4.50	95% Student's-t UCL	17.14
	Lead	All	32	32	100	1.20	4.36	2.62	0.85	95% Student's-t UCL	2.874
	Mercury	All	32	24	75	0.01	0.02	0.01	0.01	95% KM (BCA) UCL	0.0117
	Molybdenum	All	32	4	12.5	0.21	0.39	0.12	0.08	95% KM (t) UCL	0.177
	Nickel	All	32	32	100	8.35	19.40	14.07	2.81	95% Student's-t UCL	14.92
	Silver	All	32	1	3.125	0.17	0.17	0.06	0.02	too few detects	-
	Vanadium	All	32	32	100	25.80	71.00	44.75	10.31	95% Student's-t UCL	47.84
Zinc	All	32	32	100	33.40	62.40	49.26	8.29	95% Student's-t UCL	51.75	
BG	Arsenic	All	10	3	30	0.66	4.43	0.82	1.38	--	--
	Barium	All	10	10	100	90.00	243.00	148.90	45.17	--	--
	Beryllium	All	10	10	100	0.17	0.55	0.38	0.14	--	--
	Cadmium	All	10	4	40	0.20	0.36	0.16	0.09	--	--
	Chromium	All	10	10	100	13.70	53.40	27.70	14.09	--	--
	Cobalt	All	10	10	100	4.32	20.40	10.62	5.15	--	--
	Copper	All	10	10	100	8.81	23.70	15.58	5.21	--	--
	Lead	All	10	10	100	0.14	11.00	3.92	3.48	--	--
	Mercury	All	10	2	20	0.01	0.01	0.01	0.00	--	--
	Molybdenum	All	10	4	40	0.17	0.62	0.23	0.22	--	--
	Nickel	All	10	10	100	6.29	28.60	13.10	6.73	--	--
	Silver	All	10	4	40	0.20	0.71	0.21	0.24	--	--
	Vanadium	All	10	10	100	26.30	113.00	48.72	25.75	--	--
Zinc	All	10	10	100	31.50	73.30	54.81	13.77	--	--	

Acronyms and Abbreviations:

AOC - Area of Concern

BG - Site-specific background data

mg/kg - milligrams per kilogram

UCL₉₅ - 95% upper confidence level on the mean concentration

Notes:

1- Due to limited number of detects (1 out of 60 samples), the UCL₉₅ for selenium in AOC N was calculated assuming that selenium was present at a level equal to one-half the corresponding detection limit for non-detected results.

Key:

AOC N – Suspected Landfill

AOC O – U.S. Forest Service Area/Reported Solid Waste Landfill

Table 25.
Comparison of Metals Soil Data to Investigation Goals and Site-Specific Background Levels
Remedial Investigation
Chino Airport, Chino, California

Chemical	Maximum Soil Concentration	UCL ₉₅ Soil Concentration	Selected Investigation Goal	Maximum Background Concentration
AOC N				
Arsenic	6.1	1.3	0.29	4.4
Barium	287	136	82	243
Beryllium	0.90	0.47	3.2	0.55
Cadmium	14	0.95	4.6	0.36
Chromium	195	45	1000	53
Cobalt	27	12	23	20
Copper	65	20	46	24
Lead	125	16	14	11
Mercury	0.058	0.014	0.10	0.0143
Molybdenum	7.8	0.67	40	0.62
Nickel	30	15	150	29
Selenium	0.75	0.75	0.26	ND
Silver	0.55	0.13	20	0.71
Vanadium	130	52	200	113
Zinc	195	58	600	73
AOC O				
Arsenic	5.1	1.6	0.29	4.4
Barium	269	148	82	243
Beryllium	0.70	0.49	3.2	0.55
Cadmium	0.24	0.24	4.6	0.36
Chromium	53	31	1000	53
Cobalt	15	12	23	20
Copper	27	17	46	24
Lead	4.4	2.9	14	11
Mercury	0.022	0.012	0.1	0.0143
Molybdenum	0.39	0.18	40	0.62
Nickel	19	15	150	29
Silver	0.17	0.17	20	0.71
Vanadium	71	48	200	113
Zinc	62	52	600	73

Acronyms and Abbreviations:

AOC - Area of Concern

UCL₉₅ - 95% upper confidence level on the mean concentration

Notes:

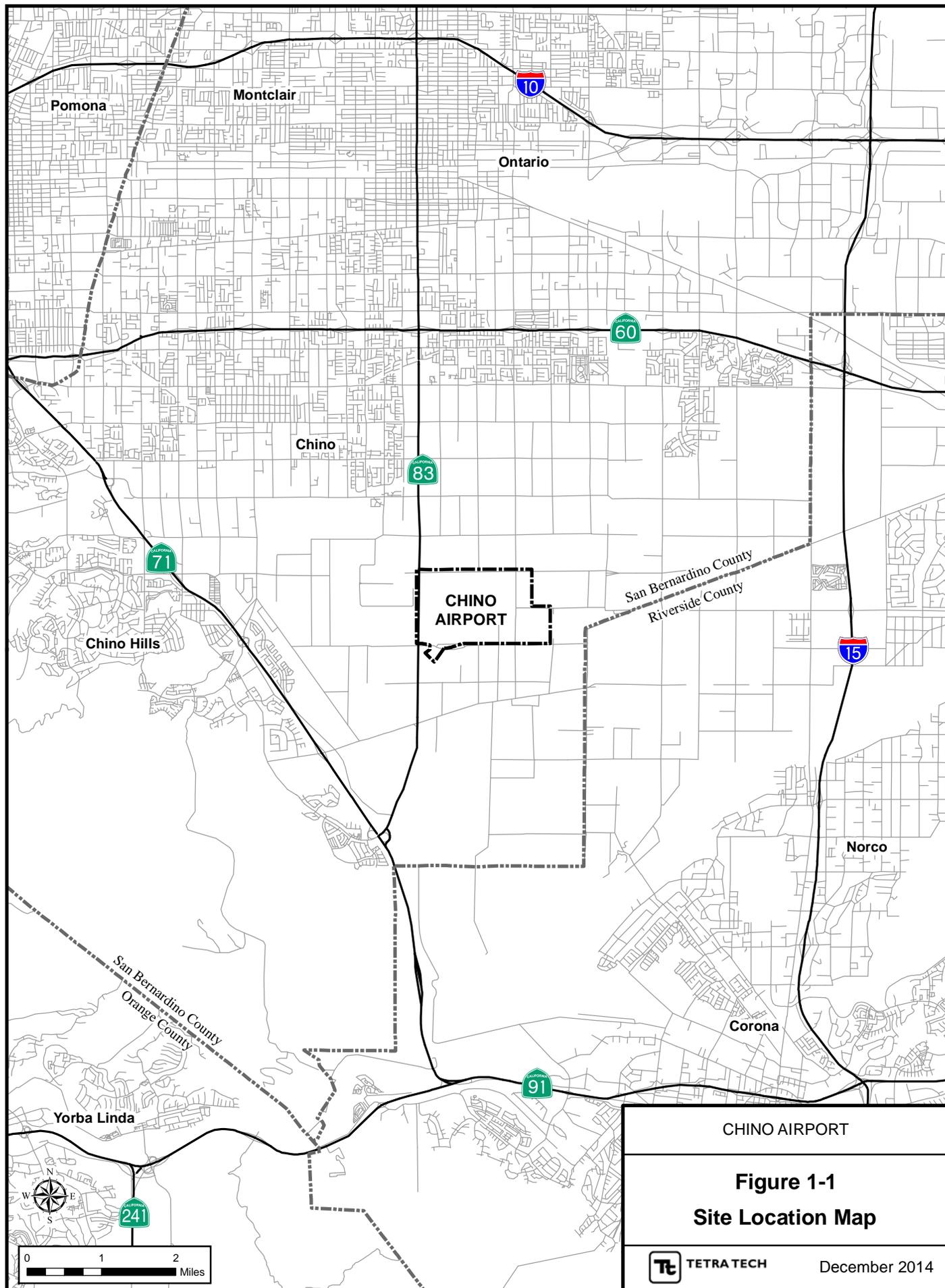
"**Bold**" identifies concentrations that exceed the corresponding investigation goal.

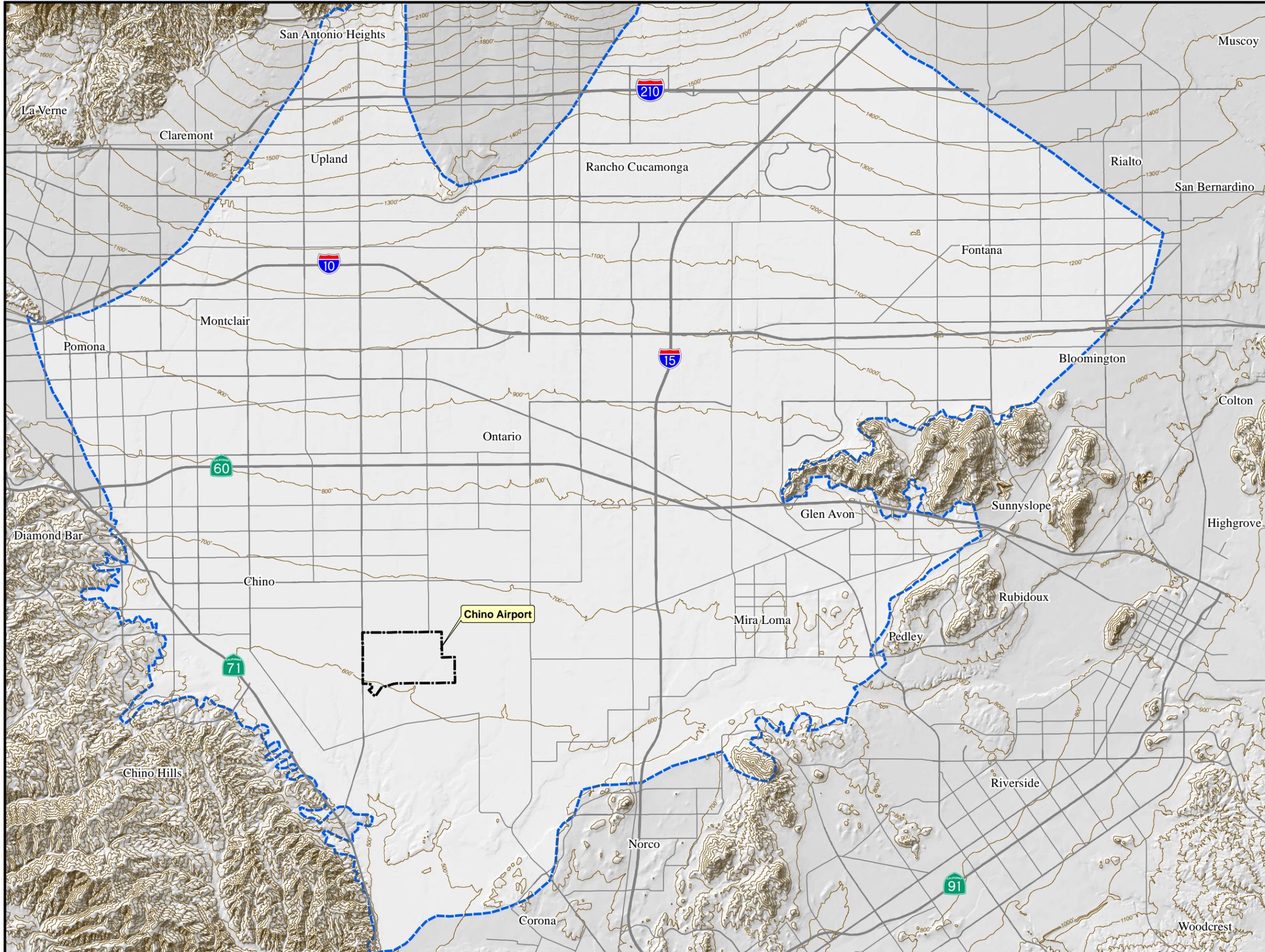
Units are in milligrams per kilogram (mg/kg).

Key:

AOC N – Suspected Landfill

AOC O – U.S. Forest Service Area/Reported Solid Waste Landfill





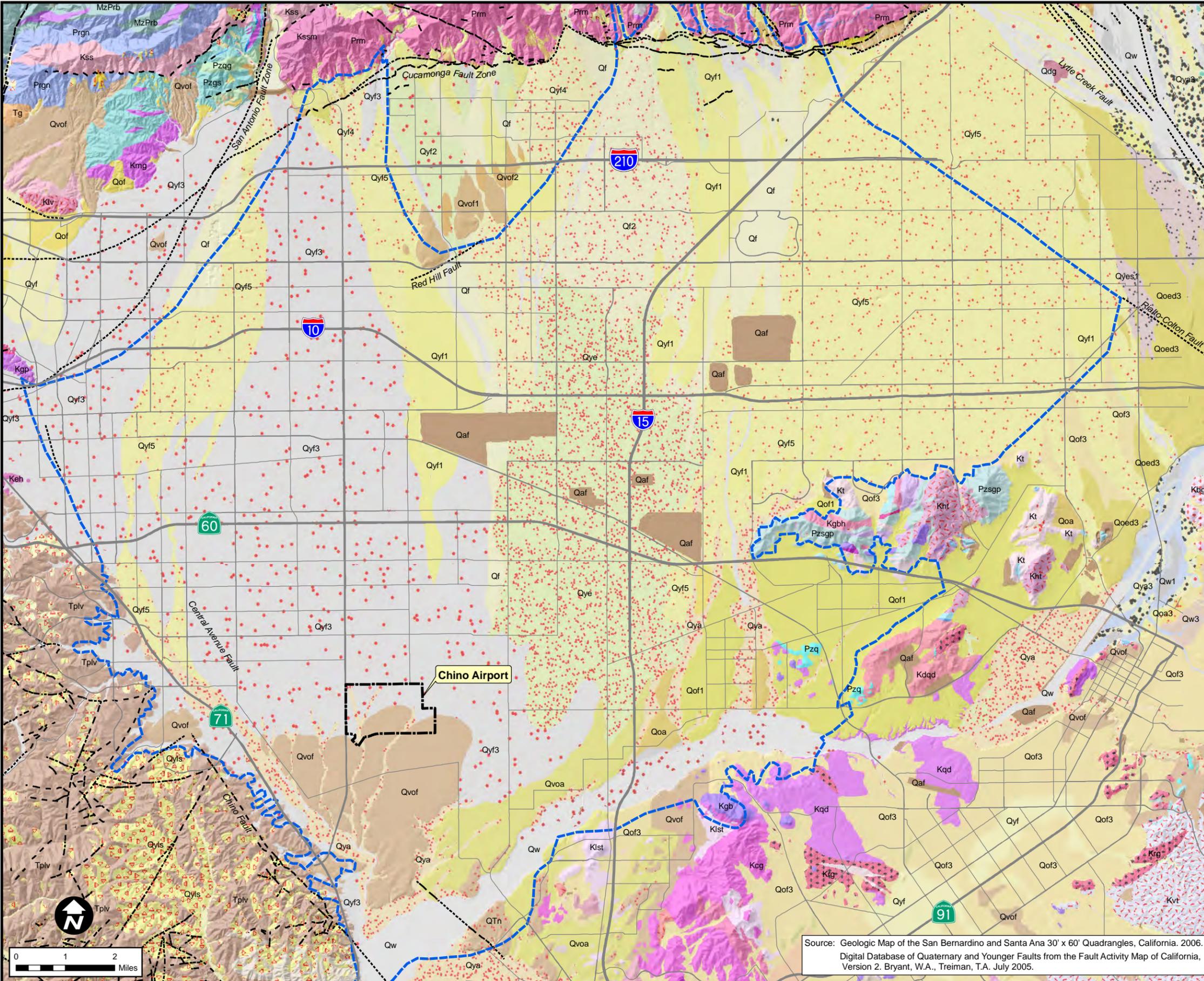
LEGEND

- Chino Airport Property Boundary
- Road (interstate/primary)
- Road (secondary)
- Topographic Contour (100-ft interval)
- Chino Basin

CHINO AIRPORT

**Figure 2-1
Topographic Map
of the Chino Basin**





---	Fault - accurately located	---	Chino Airport Property Boundary
- - -	Fault - approximately located	---	Chino Basin
.....	Fault - concealed		
---	Fault - existence questionable		
Jgf	Granodiorite and quartz monzonite of Fern Canyon	Qe	Very young eolian deposits
Kbg	Box Springs plutonic complex	Qf	Very young alluvial-fan deposits
Kcg	Cajalco Pluton	Qf1	Very young alluvial-fan deposits, Unit 1
Kch	Charnockite	Qf2	Very young alluvial-fan deposits, Unit 2
Kd	Diorite, undifferentiated	Qf3	Very young alluvial-fan deposits, Unit 3
Kdqd	Diorite and quartz diorite, undifferentiated	Qls	Very young landslide deposits
Keh	Tonalite of Elephant Hill	Qoa	Old axial-channel deposits
Kg	Granitic dikes	Qoa3	Old axial-channel deposits, Unit 3
KgPz	Intermixed Paleozoic (?) schist and Cretaceous granitic rocks	Qoed3	Old eolian deposits (dune sand), Unit 3
Kgb	Gabbro, undifferentiated	Qoes3	Old eolian deposits (sheet sand), Unit 3
Kgbh	Biotite-hornblende granodiorite	Qof	Old alluvial-fan deposits
Kgd	Granodiorite, undifferentiated	Qof1	Old alluvial-fan deposits, Unit 1
Kgdt	Granodiorite and tonalite, undifferentiated	Qof2	Old alluvial-fan deposits, Unit 2
Kgp	Tonalite of Ganesha Peak	Qof3	Old alluvial-fan deposits, Unit 3
Kgu	Granite, undifferentiated	Qols	Old landslide deposits
Khg	Heterogeneous granitic rocks	Qov	Old alluvial-valley deposits
Kht	Heterogeneous tonalitic rocks	Qow	Old wash deposits
Klst	La Sierra tonalite	Qsw	Very young slope-wash deposits
Klv	Heterogeneous granitic rocks of La Verne area	Qt	Very young talus deposits
Kmg	Monzogranite and granodiorite	Qvoa	Very old axial-channel deposits
Kmhg	Mount Hole Granodiorite	Qvof	Very old alluvial-fan deposits
Kmp	Micropegmatite granite	Qvof1	Very old alluvial-fan deposits, Unit 1
Kmpc	Micropegmatite and granodiorite of Cajalco Pluton, undifferentiated	Qvof2	Very old alluvial-fan deposits, Unit 2
Kmrq	Granite of Mount Rubidoux	Qvof3	Very old alluvial-fan deposits, Unit 3
Kpu	Pelona Schist, undifferentiated	Qvos	Very old surficial deposits
Kqd	Quartz diorite, undifferentiated	Qw	Very young wash deposits
Krg	Granite of Riverside area	Qw1	Very young wash deposits, Unit 1
Kss	Tonalite of San Sevaine Lookout	Qw2	Very young wash deposits, Unit 2
Kssm	Mylonitized tonalite of San Sevaine Lookout	Qw3	Very young wash deposits, Unit 3
Kt	Tonalite, undifferentiated	Qya	Very young axial-channel deposits
Ktd	Tonalite dikes of Mount Rubidoux	Qya1	Very young axial-channel deposits, Unit 1
Kvt	Val Verde Pluton	Qya2	Very young axial-channel deposits, Unit 2
MzPrb	Mixed Metamorphic and granitic rocks of big Dalton Canyon	Qya3	Very young axial-channel deposits, Unit 3
Prgm	Medium-grained biotite granite augen gneiss	Qya4	Very young axial-channel deposits, Unit 4
Prgn	Layered gneiss, undifferentiated	Qya5	Very young axial-channel deposits, Unit 5
Prgn2	Layered gneiss	Qye	Young eolian deposits
Prgu	Granulitic gneiss, mylonite, and cataclasite	Qyes1	Young eolian deposits (sheet sand), Unit 1
Prm	Granulitic gneiss, mylonite, and cataclasite, retrograde	Qyf	Young alluvial-fan deposits
Pza	Amphibolite	Qyf1	Young alluvial-fan deposits, Unit 1
Pzc	Calc-silicate rocks	Qyf2	Young alluvial-fan deposits, Unit 2
Pzgs	Metasedimentary schist and gneiss	Qyf3	Young alluvial-fan deposits, Unit 3
Pzmg	Marble, San Gabriel Mountains	Qyf4	Young alluvial-fan deposits, Unit 4
Pzmp	Marble, Peninsular Ranges	Qyf5	Young alluvial-fan deposits, Unit 5
Pzms	Marble and schist, undifferentiated	Qyls	Very young landslide deposits
Pzq	Impure quartzite	Qyw	Young wash deposits
Pzqg	Quartzite, San Gabriel Mountains	Tcd	Conglomerate and sandstone, San Sevaine Canyon area
Pzsgp	Biotite schist and gneiss	Tch	Sandstone and conglomerate in southeastern Chino Hills
Qtc	Conglomeratic sedimentary rocks of Riverside West 7.5 quadrangle	Tfi	Fernando Formation
Qtn	Sedimentary rock of Norco area	Tg	Glendora Volcanics
Qts	Unnamed sedimentary rocks in Riverside and Corona areas	Tgtp	Granodiorite of Telegraph Peak
Qa	Very young axial-channel deposits	Tmd	Mountain Meadow Dacite
Qaf	Artificial fill	Tns	Sandstone of Norco area
Qc	Very young colluvial deposits	Tplv	Puente Formation
Qdg	Disturbed ground	Tvc	Conglomerate and sandstone, San Sevaine Canyon area

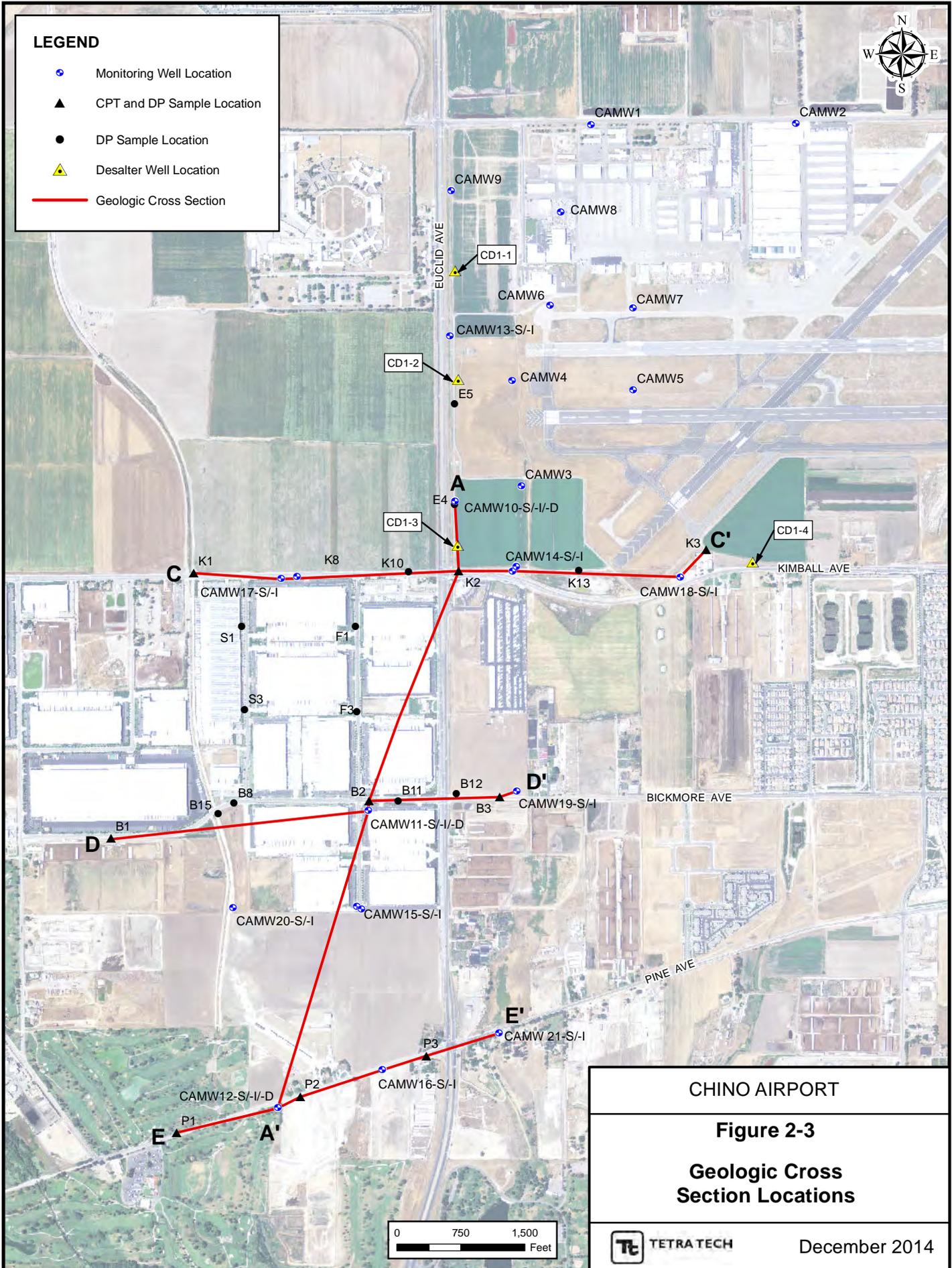
Source: Geologic Map of the San Bernardino and Santa Ana 30' x 60' Quadrangles, California. 2006. Digital Database of Quaternary and Younger Faults from the Fault Activity Map of California, Version 2. Bryant, W.A., Treiman, T.A. July 2005.

CHINO AIRPORT
Figure 2-2
USGS Geologic Map
of the Chino Basin



LEGEND

- Monitoring Well Location
- ▲ CPT and DP Sample Location
- DP Sample Location
- ▲ Desalter Well Location
- Geologic Cross Section

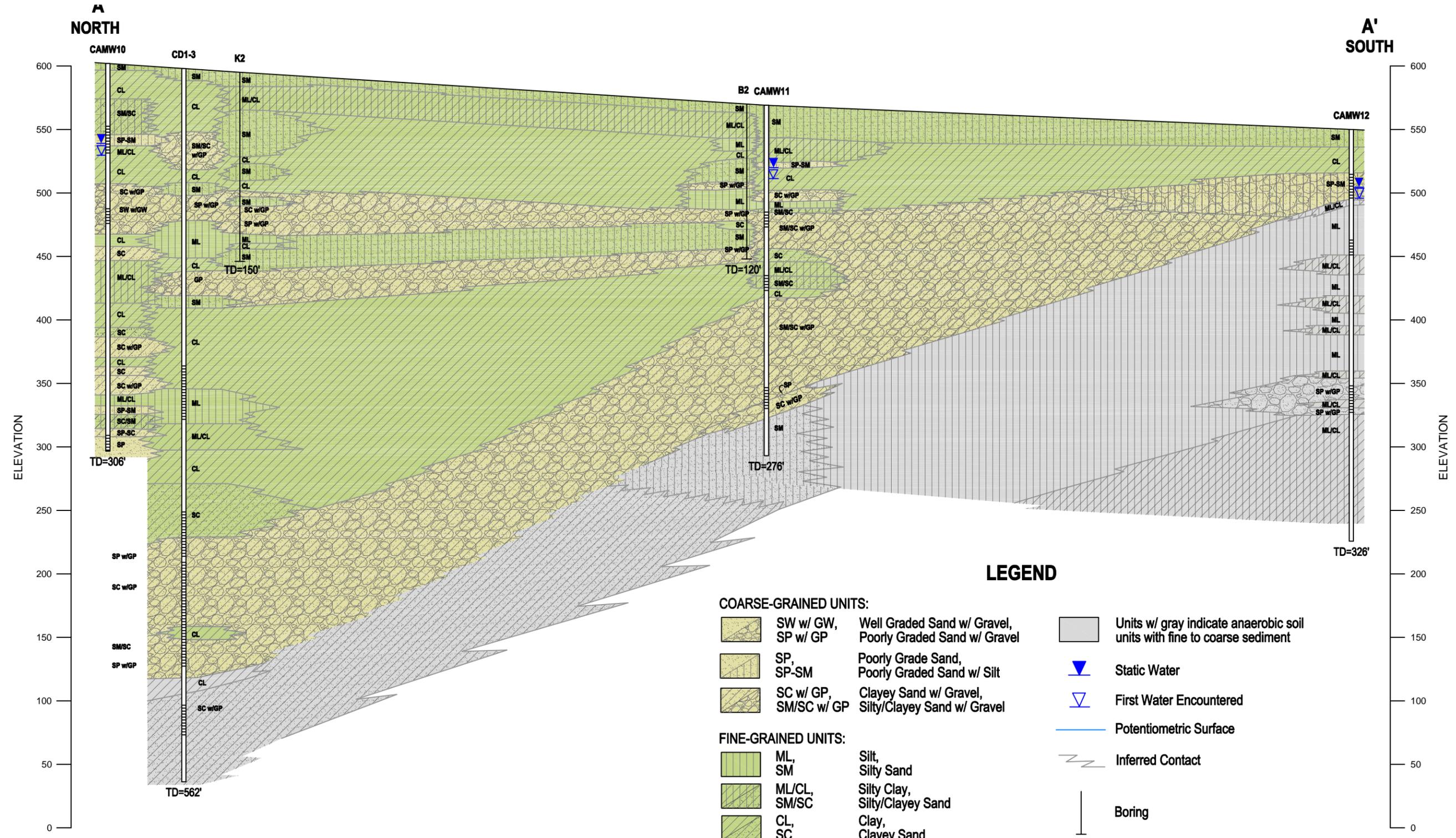


CHINO AIRPORT

Figure 2-3

Geologic Cross Section Locations

TETRA TECH December 2014



LEGEND

- | | | |
|------------------------------|---|--|
| COARSE-GRAINED UNITS: | | <ul style="list-style-type: none"> Units w/ gray indicate anaerobic soil units with fine to coarse sediment Static Water First Water Encountered Potentiometric Surface Inferred Contact Boring Well Screened Interval |
| | SW w/ GW, Poorly Graded Sand w/ Gravel, SP w/ GP | |
| | SP, Poorly Grade Sand, SP-SM, Poorly Graded Sand w/ Silt | |
| | SC w/ GP, Clayey Sand w/ Gravel, SM/SC w/ GP, Silty/Clayey Sand w/ Gravel | |
| FINE-GRAINED UNITS: | | |
| | ML, Silt, SM, Silty Sand | |
| | ML/CL, Silty Clay, SM/SC, Silty/Clayey Sand | |
| | CL, Clay, SC, Clayey Sand | |

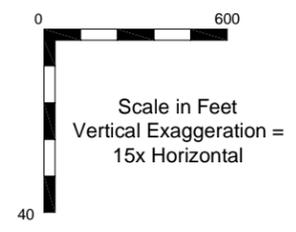
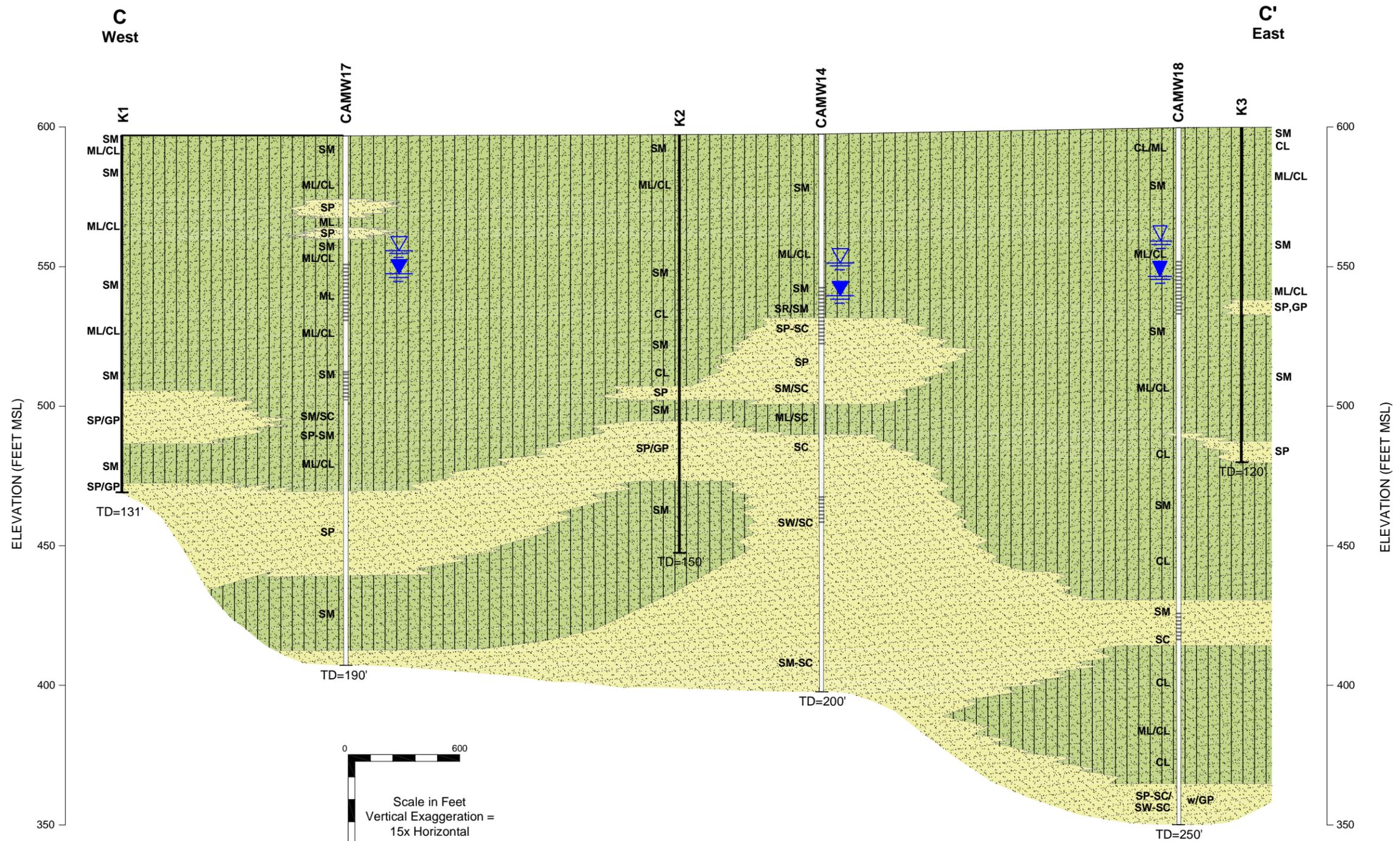
CHINO AIRPORT

Figure 2-4

Idealized Geologic Cross Section A-A'

TETRA TECH December 2014

X:\GIS\Chino 123333-1503\SECT_C-C.DWG



LEGEND

FINE-GRAINED UNITS:

- SM Silty Sands
- SP-SM Poorly Graded Sand w/ Sil
- ML Silts, Sandy Silts
- CL Clays, Sandy Clays

COARSE-GRAINED UNITS:

- SP Poorly Graded Sands
- SW Well Graded Sands
- GP Poorly Graded Gravels
- GW Well Graded Gravels
- SC Clayey Sands
- GC Clayey Gravels

Static Water

First Water Encountered

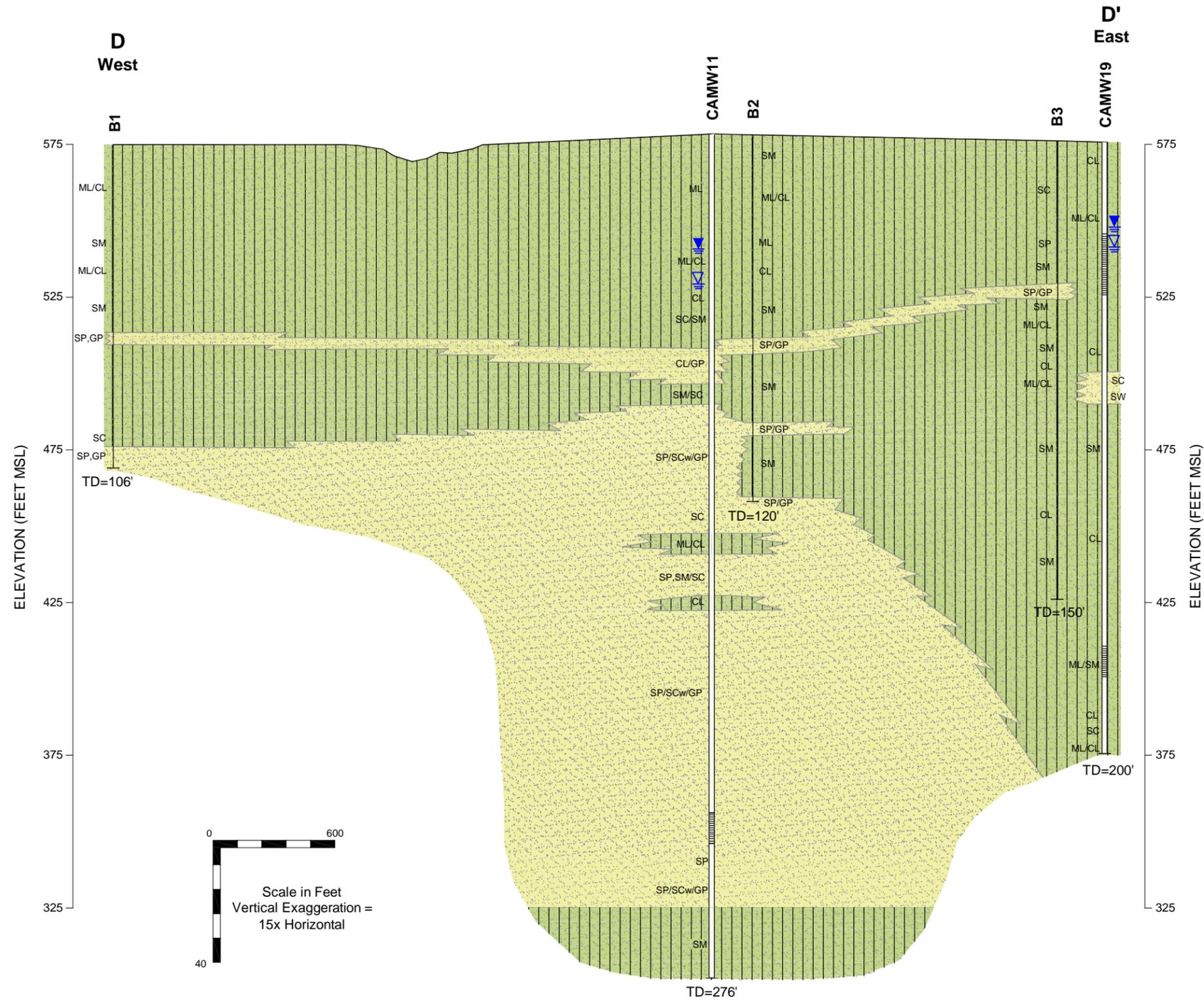
Inferred Contact

Boring

Well

Screened Interval

CHINO AIRPORT
Figure 2-5
Idealized Geologic Cross Section C-C'



LEGEND

FINE-GRAINED UNITS:

	SM	Silty Sands
	SP-SM	Poorly Graded Sand w/ Sil
	ML	Silts, Sandy Silts
	CL	Clays, Sandy Clays

COARSE-GRAINED UNITS:

	SP	Poorly Graded Sands
	SW	Well Graded Sands
	GP	Poorly Graded Gravels
	GW	Well Graded Gravels
	SC	Clayey Sands
	GC	Clayey Gravels

Static Water

First Water Encountered

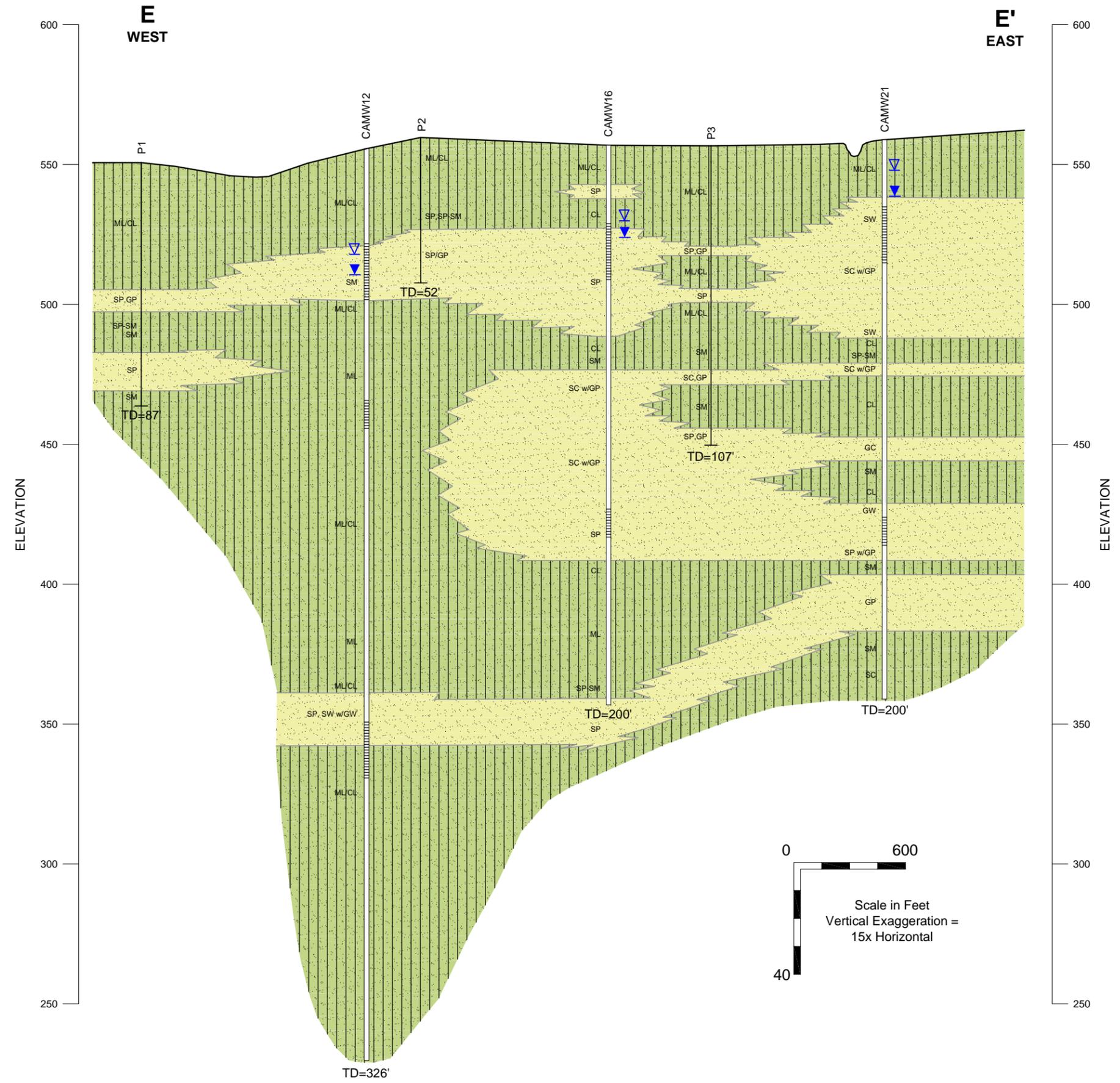
Inferred Contact

Boring

Well

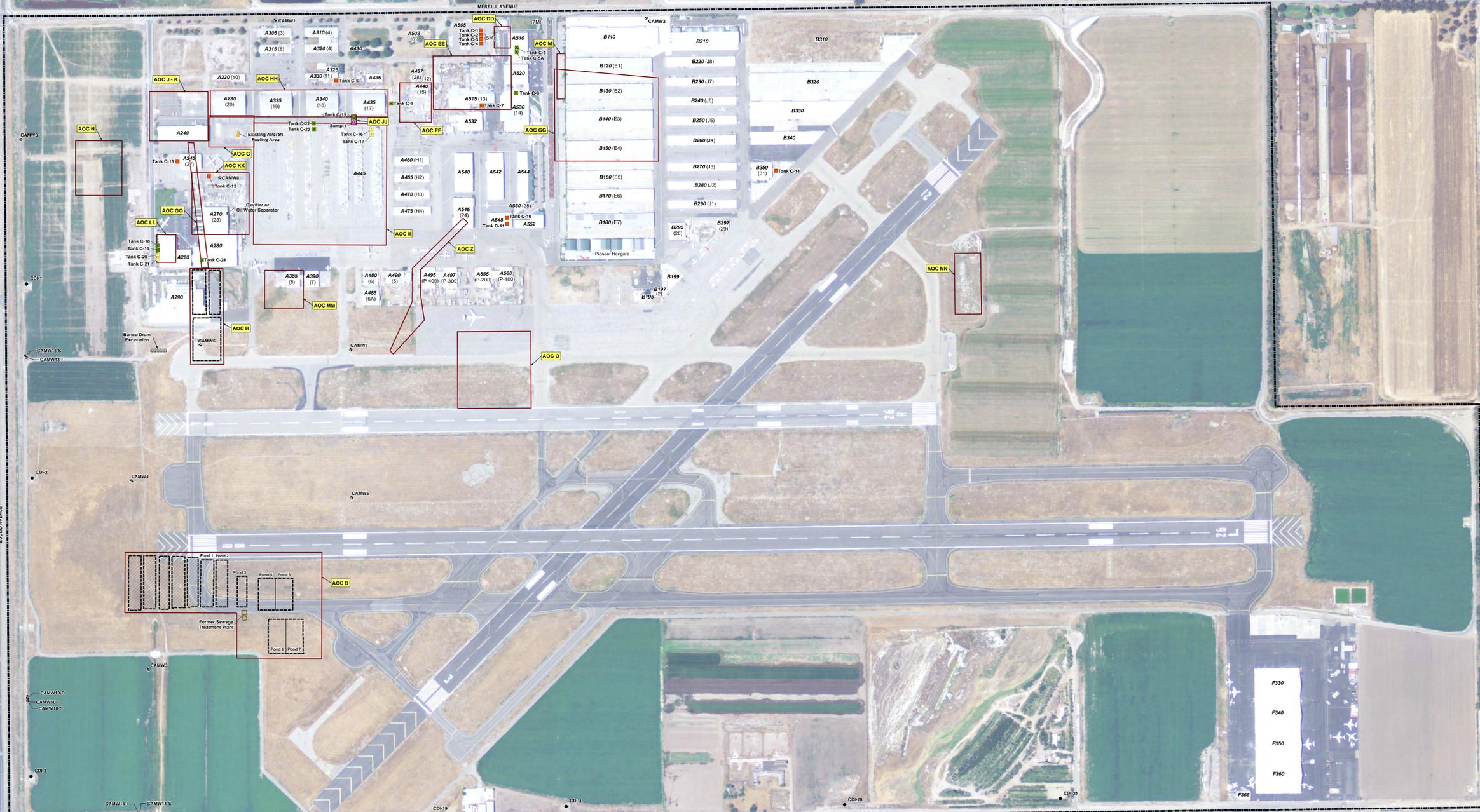
Screened Interval

CHINO AIRPORT
Figure 2-6
Idealized Geologic Cross
Section D-D'



LEGEND

FINE-GRAINED UNITS:	
	SM Silty Sands
	SP-SM Poorly Graded Sand w/ Silt
	ML Silts, Sandy Silts
	CL Clays, Sandy Clays
COARSE-GRAINED UNITS:	
	SP Poorly Graded Sands
	SW Well Graded Sands
	GP Poorly Graded Gravels
	GW Well Graded Gravels
	SC Clayey Sands
	GC Clayey Gravels
	Static Water
	First Water Encountered
	Boring
	Well
	Screened Interval



LEGEND

- Monitoring Well
- Underground Storage Tank Identified in 1989 (SBCDEHs 1989)
- Underground Storage Tank Not Located in 1991 (Kennedy Jenks 1991)
- Underground Storage Tank Removed in 1991 (Kennedy Jenks 1991)
- Sump Removed in 1991 (Kennedy Jenks 1991)
- ◆ Chino Desalter Wells (Chino Desalter 1 - Well #)
- ◆ CD-19 Drilling Location (non-producer, no well installation)
- Airport Property Boundary
- Area of Concern
- Buried Drum Excavation (Tetra Tech 2010)
- Additional Evaporation/Percolation Ponds Shown in Aerial Photo 1946
- Evaporation/Percolation Pond
- A290 Current Building Number
- (17) Historical Building Number

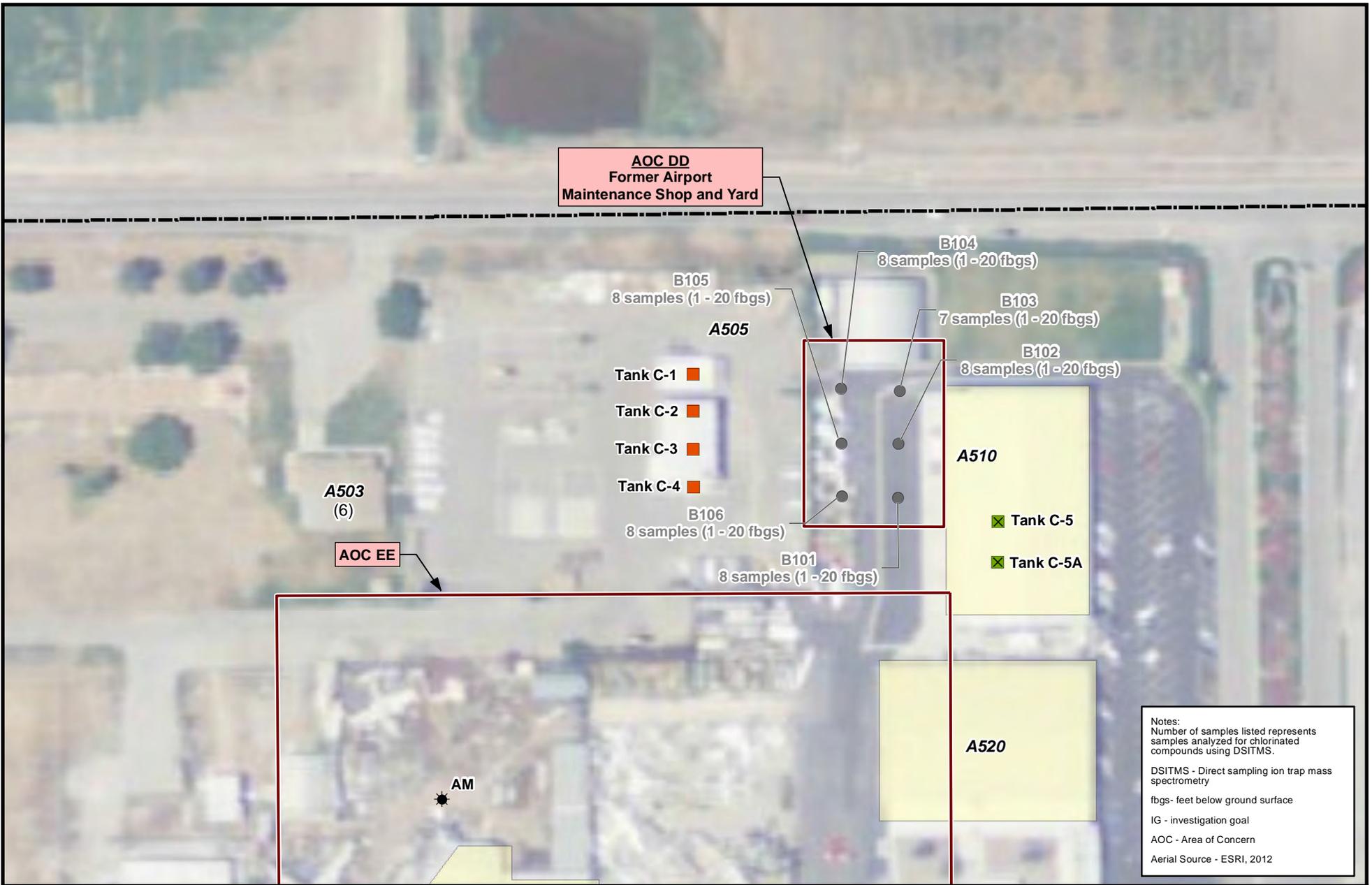
AOC - Area of Concern
Aerial Source: NAPP, 2012



CHINO AIRPORT

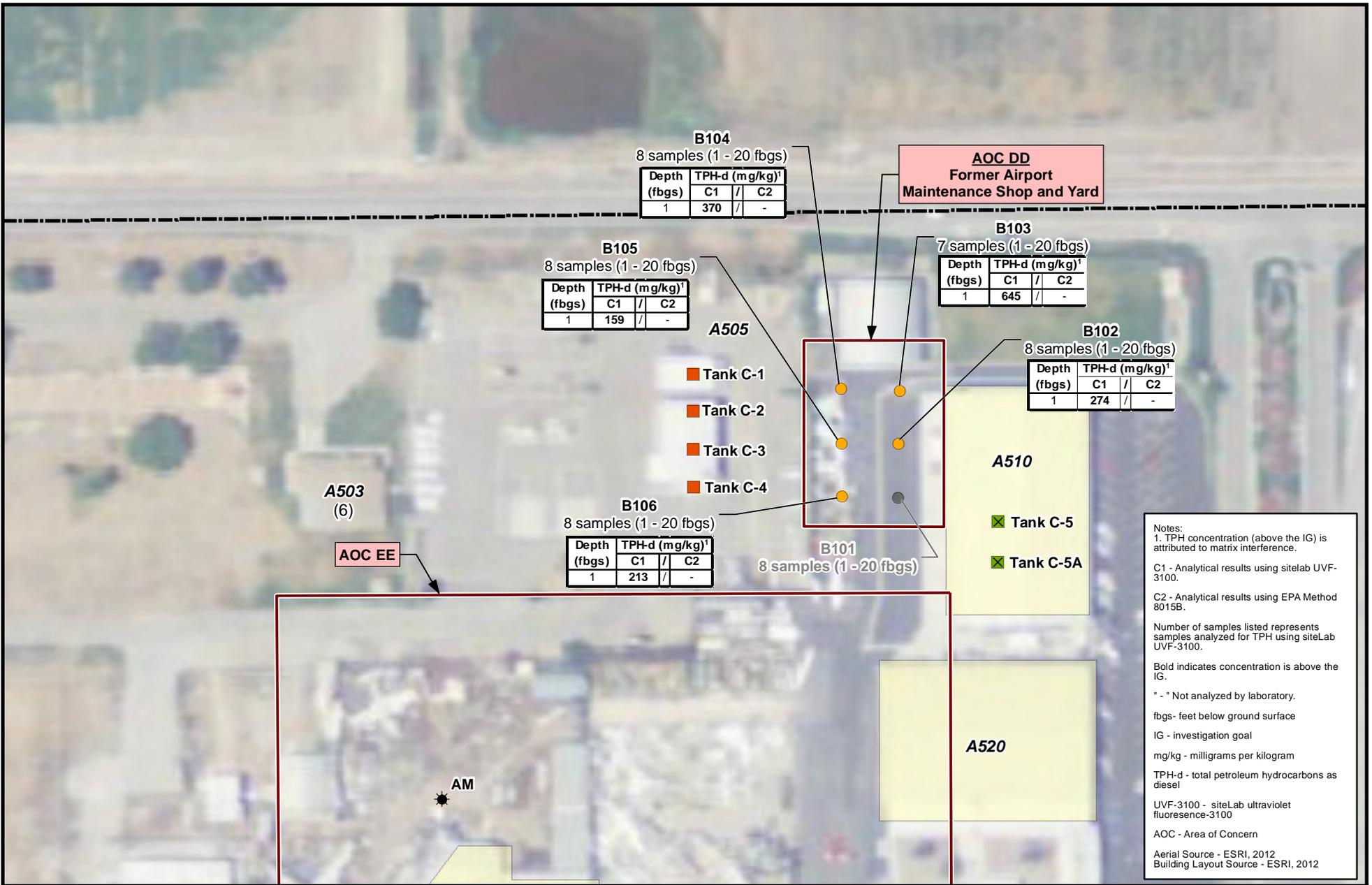
Figure 3-1
Areas of Concern

December 2014



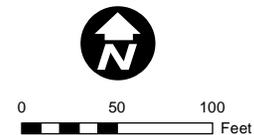
Notes:
 Number of samples listed represents samples analyzed for chlorinated compounds using DSITMS.
 DSITMS - Direct sampling ion trap mass spectrometry
 fbgs- feet below ground surface
 IG - investigation goal
 AOC - Area of Concern
 Aerial Source - ESRI, 2012

LEGEND		CHINO AIRPORT	
● Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)	⊛ Soil Gas Boring (Tetra Tech 2004)	Figure 5-1	
■ Underground Storage Tank identified in 1989 (SBCDEHS 1989)	■ Buildings (2012)	Sampling Locations and Results for Chlorinated Compounds in Soil, AOC DD - Former Airport Maintenance Shop and Yard	
⊠ Underground Storage Tank Removed in 1991 (Kennedy Jenks 1991)	--- Airport Property Boundary	TETRA TECH December 2014	
(17) Historical Building Number	A290 Current Building Number	0 50 100 Feet	



LEGEND

- Soil Boring (Tetra Tech 2014)
- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- Underground Storage Tank identified in 1989 (SBCDEHS 1989)
- ⊗ Underground Storage Tank Removed in 1991 (Kennedy Jenks 1991)
- ☼ Soil Gas Boring (Tetra Tech 2004)
- Buildings (2012)
- Airport Property Boundary
- A290** Current Building Number
- (17)** Historical Building Number



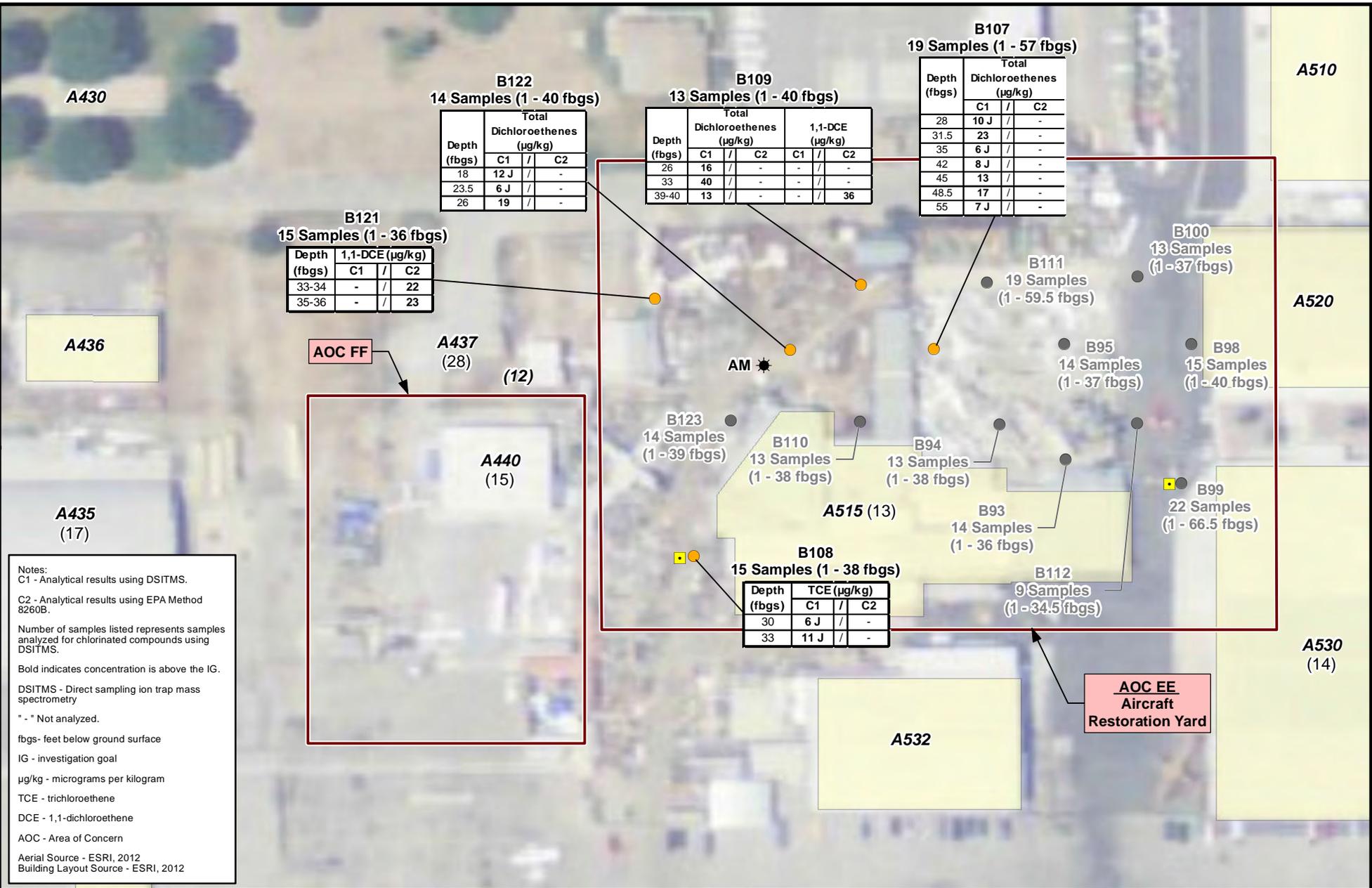
CHINO AIRPORT

Figure 5-2
Sampling Locations and Results for
TPH and Fuel Related Compounds
in Soil, AOC DD - Former Airport
Maintenance Shop and Yard



TETRA TECH

December 2014



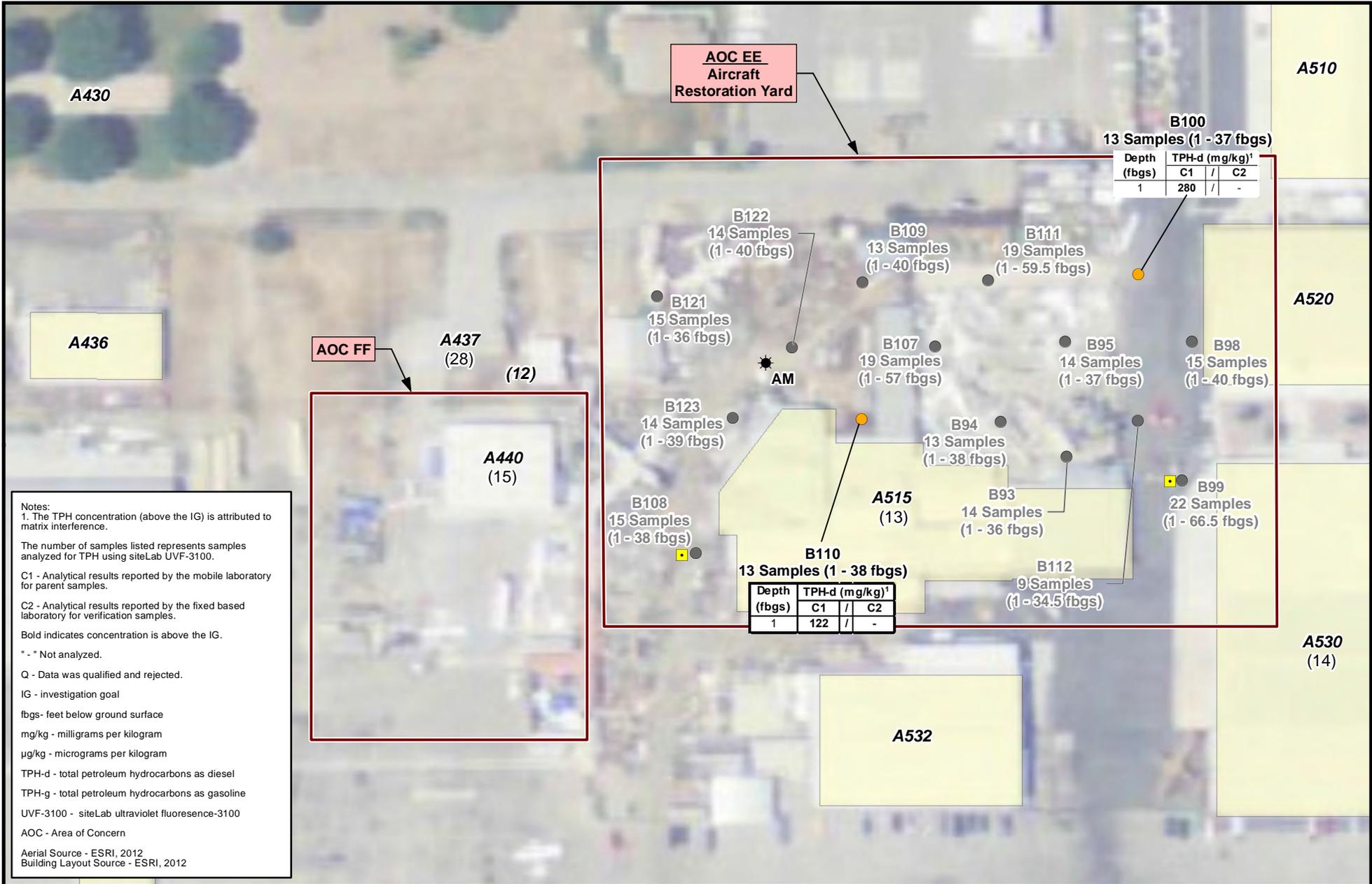
LEGEND

- Soil Boring (Tetra Tech 2014)
- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- VAP Location
- ☼ Soil Gas Boring (Tetra Tech 2004)
- Buildings (2012)
- A290** Current Building Number
- (17) Historical Building Number



CHINO AIRPORT

Figure 5-3
Sampling Locations and Results
for Chlorinated Compounds
in Soil, AOC EE -
Former Cal Aero Restoration Yard



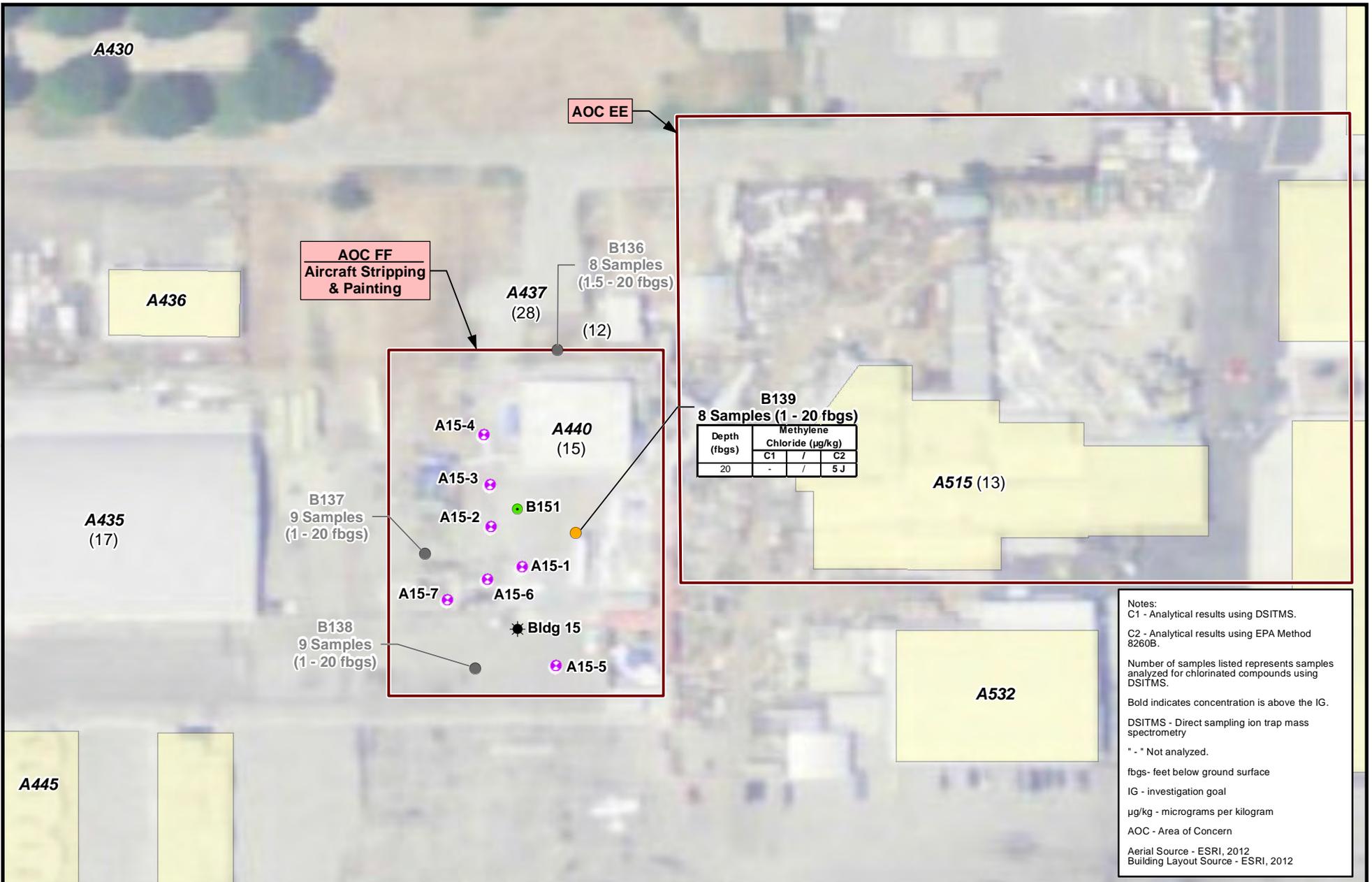
LEGEND

- Soil Boring (Tetra Tech 2014)
- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- VAP Location
- ☼ Soil Gas Boring (Tetra Tech 2004)
- Buildings (2012)
- A290** Current Building Number
- (17) Historical Building Number

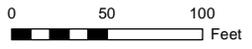


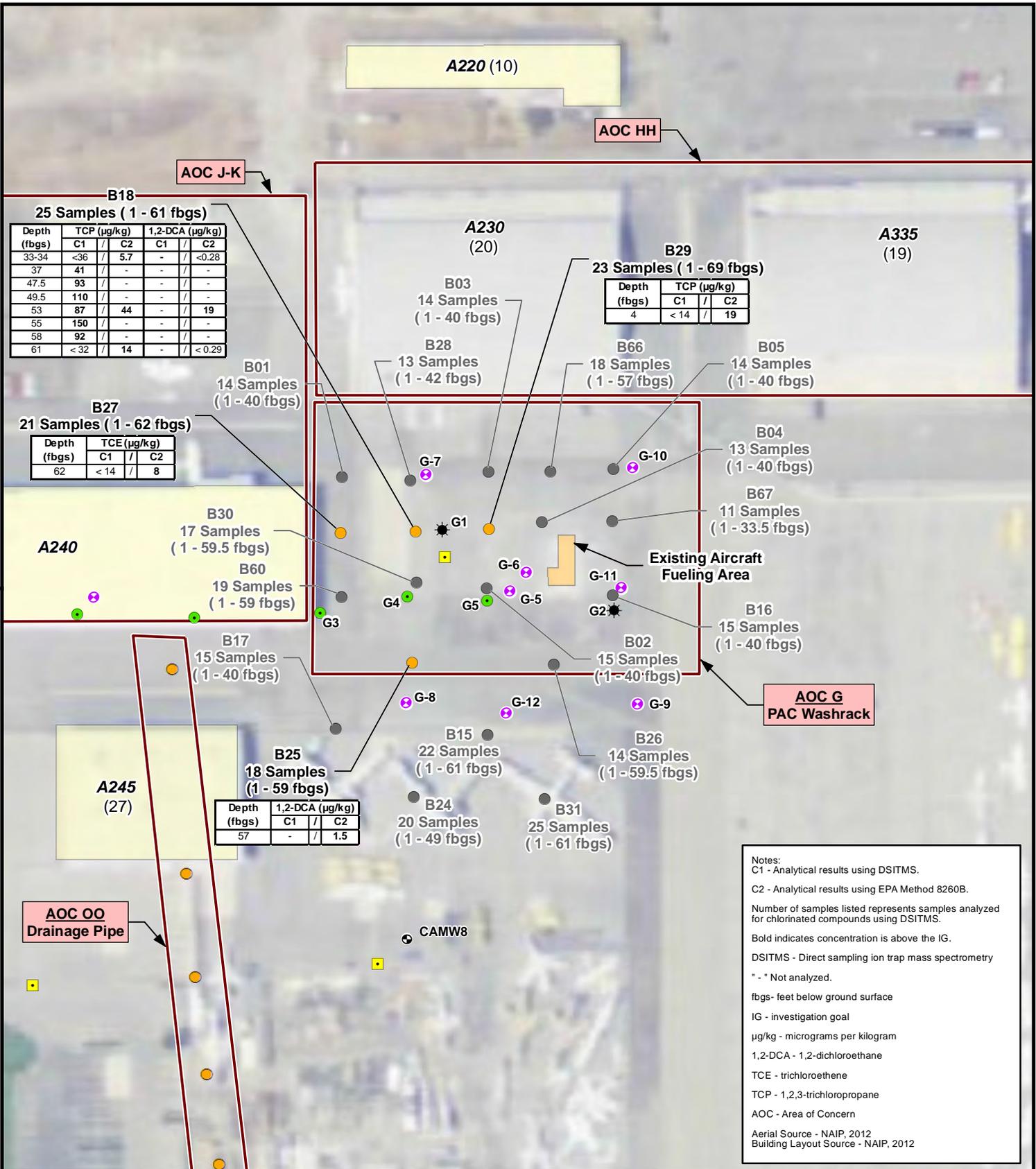
CHINO AIRPORT

Figure 5-4
Sampling Locations and Results
for TPH and Fuel Related
Compounds in Soil, AOC EE -
Former Cal Aero Restoration Yard



Notes:
 C1 - Analytical results using DSITMS.
 C2 - Analytical results using EPA Method 8260B.
 Number of samples listed represents samples analyzed for chlorinated compounds using DSITMS.
 Bold indicates concentration is above the IG.
 DSITMS - Direct sampling ion trap mass spectrometry
 " - " Not analyzed.
 fbgs- feet below ground surface
 IG - investigation goal
 µg/kg - micrograms per kilogram
 AOC - Area of Concern
 Aerial Source - ESRI, 2012
 Building Layout Source - ESRI, 2012

LEGEND <ul style="list-style-type: none"> ● Soil Boring (Tetra Tech 2014) ● Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014) ● Soil Gas Probe (SEACOR 1992) ● Soil/Soil Gas Boring (SEACOR 1992) ⊙ Soil Gas Boring (Tetra Tech 2004) Buildings (2012) A290 Current Building Number (17) Historical Building Number 		 	CHINO AIRPORT Figure 5-5 Sampling Locations and Results for VOCs in Soil, AOC - FF Building A440
		 TETRA TECH December 2014	



Notes:
 C1 - Analytical results using DSITMS.
 C2 - Analytical results using EPA Method 8260B.
 Number of samples listed represents samples analyzed for chlorinated compounds using DSITMS.
 Bold indicates concentration is above the IG.
 DSITMS - Direct sampling ion trap mass spectrometry
 * - * Not analyzed.
 fbgs - feet below ground surface
 IG - investigation goal
 µg/kg - micrograms per kilogram
 1,2-DCA - 1,2-dichloroethane
 TCE - trichloroethene
 TCP - 1,2,3-trichloropropane
 AOC - Area of Concern
 Aerial Source - NAIP, 2012
 Building Layout Source - NAIP, 2012

LEGEND

- Soil Boring (Tetra Tech 2014)
- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- VAP Location
- ☼ Soil Gas Boring (Tetra Tech 2004)
- Soil Gas Probe (SEACOR 1992)
- Soil/Soil Gas Boring (SEACOR 1992)
- ⊙ Monitoring Well
- Buildings (2012)
- A290** Current Building Number
- (17) Historical Building Number

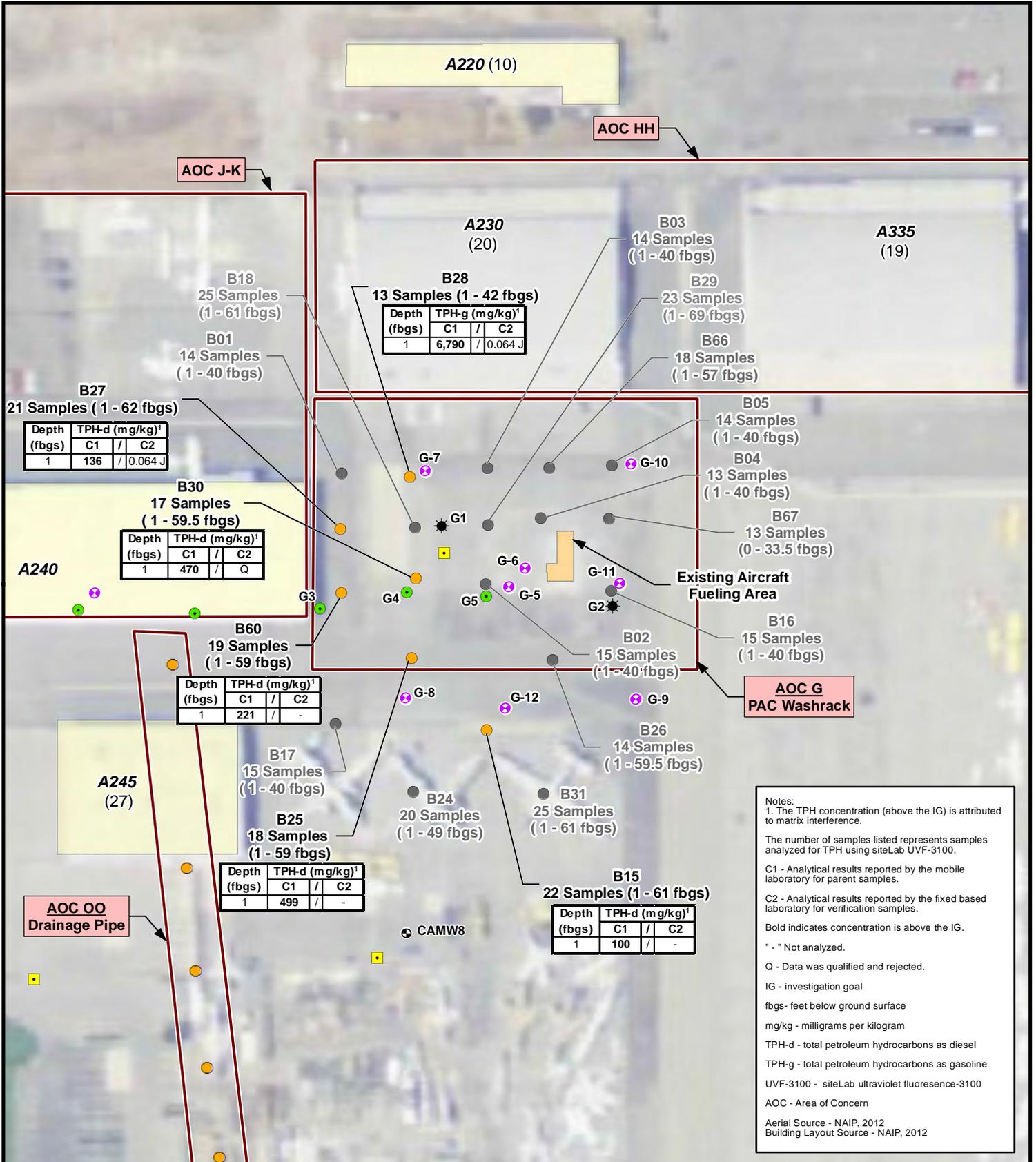



CHINO AIRPORT

Figure 5-6

Sampling Locations and Results for Chlorinated Compounds, AOC G - Former PAC Wash Rack Area

 **TETRA TECH** December 2014



LEGEND

- Soil Boring (Tetra Tech 2014)
- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- VAP Location
- ⊙ Monitoring Well
- ⊙ Soil Gas Boring (Tetra Tech 2004)
- Soil Gas Probe (SEACOR 1992)
- ⊙ Soil/Soil Gas Boring (SEACOR 1992)
- Buildings (2012)
- A290** Current Building Number
- (17) Historical Building Number




CHINO AIRPORT

Figure 5-7
Sampling Locations and Results for TPH and Fuel Related Compounds in Soil, AOC G - Former PAC Wash Rack Area

 **TETRA TECH** December 2014



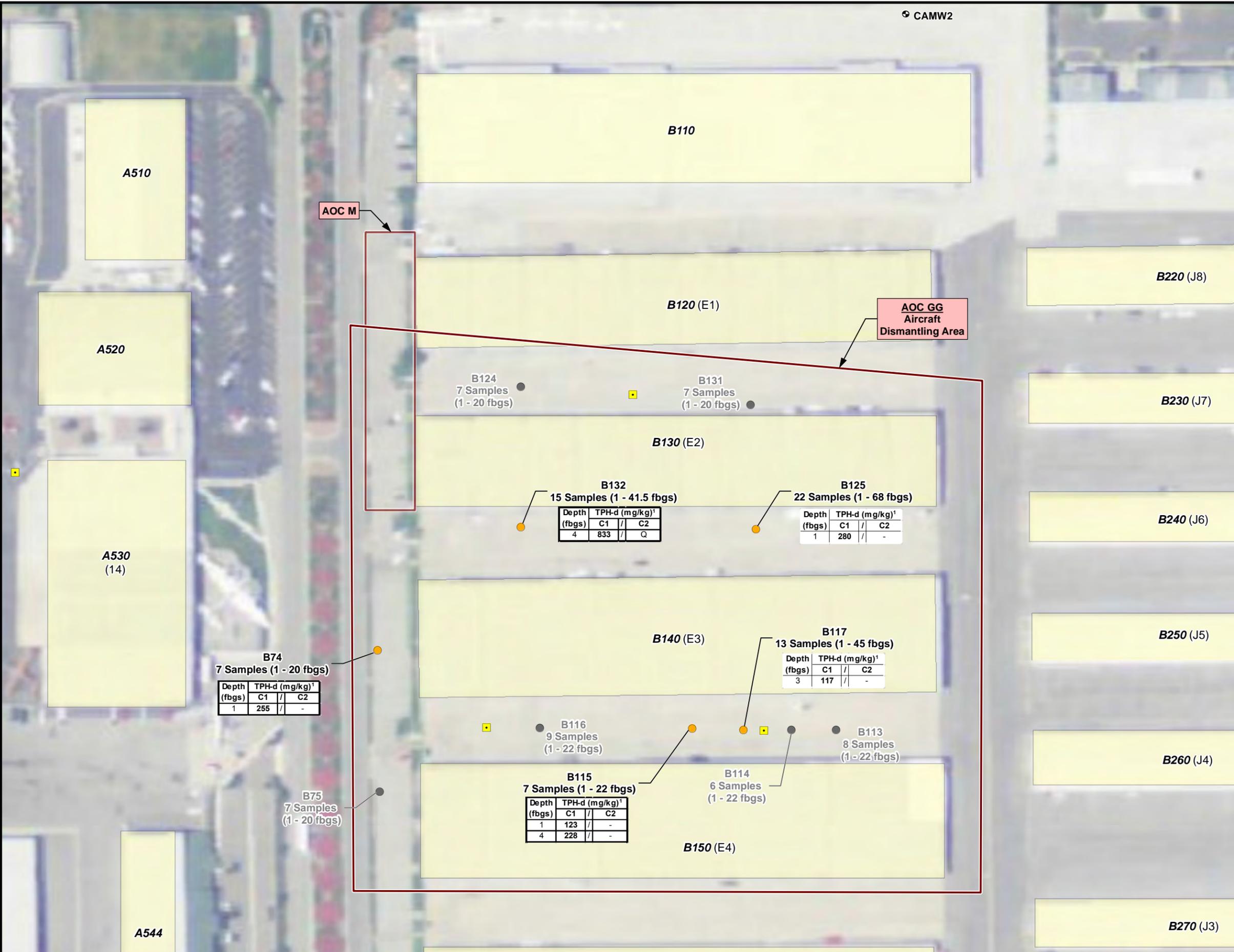
LEGEND

- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- VAP Location
- Buildings (2012)
- A290** Current Building Number
- (17) Historical Building Number

Notes:
 Number of samples listed represents samples analyzed for chlorinated compounds using DSITMS.
 DSITMS - Direct sampling ion trap mass spectrometry
 fbgs- feet below ground surface
 IG - investigation goal
 AOC - Area of Concern
 Aerial Source: 2012
 Building Layout Source: ESRI, 2012

CHINO AIRPORT

Figure 5-8
Sampling Locations and Results
for Chlorinated Compounds
in Soil, AOC GG -
Former Aircraft Dismantling Area



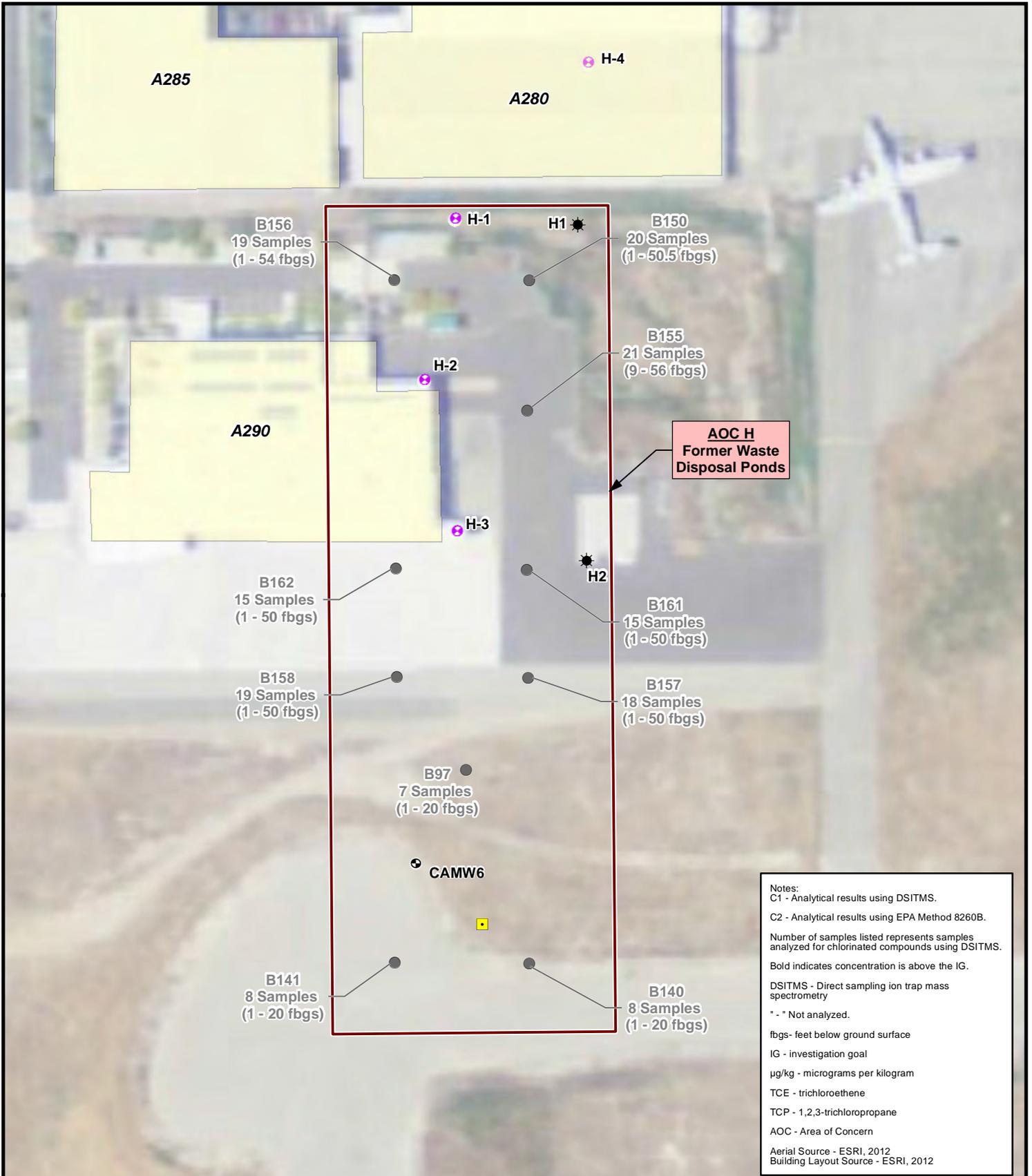
LEGEND

- Soil Boring (Tetra Tech 2014)
- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- ⊙ Monitoring Well
- VAP Location
- Buildings (2012)
- A290** Current Building Number
- (17)** Historical Building Number

Notes:
 1. The TPH concentration (above the IG) is attributed to matrix interference.
 The number of samples listed represents samples analyzed for TPH using siteLab UVF-3100.
 C1 - Analytical results reported by the mobile laboratory for parent samples.
 C2 - Analytical results reported by the fixed based laboratory for verification samples.
 Bold indicates concentration is above the IG.
 " - " Not analyzed.
 Q - Data was qualified and rejected.
 IG - investigation goal
 fbgs- feet below ground surface
 mg/kg - milligrams per kilogram
 TPH-d - total petroleum hydrocarbons as diesel
 TPH-g - total petroleum hydrocarbons as gasoline
 UVF-3100 - siteLab ultraviolet fluorescence-3100
 AOC - Area of Concern
 Aerial Source: NAIP, 2012
 Building Layout Source: NAIP, 2012

CHINO AIRPORT

Figure 5-9
Sampling Locations and Results
for TPH and Fuel Related
Compounds in Soil, AOC GG -
Former Aircraft Dismantling Area



Notes:
 C1 - Analytical results using DSITMS.
 C2 - Analytical results using EPA Method 8260B.
 Number of samples listed represents samples analyzed for chlorinated compounds using DSITMS.
 Bold indicates concentration is above the IG.
 DSITMS - Direct sampling ion trap mass spectrometry
 "- " Not analyzed.
 fbgs- feet below ground surface
 IG - investigation goal
 µg/kg - micrograms per kilogram
 TCE - trichloroethene
 TCP - 1,2,3-trichloropropane
 AOC - Area of Concern
 Aerial Source - ESRI, 2012
 Building Layout Source - ESRI, 2012

LEGEND

Soil Boring (Tetra Tech 2014)	Soil/Soil Gas Boring (SEACOR 1992)
Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)	Soil Gas Boring (Tetra Tech 2004)
VAP Location	Buildings (2012)
Monitoring Well	A290 Current Building Number

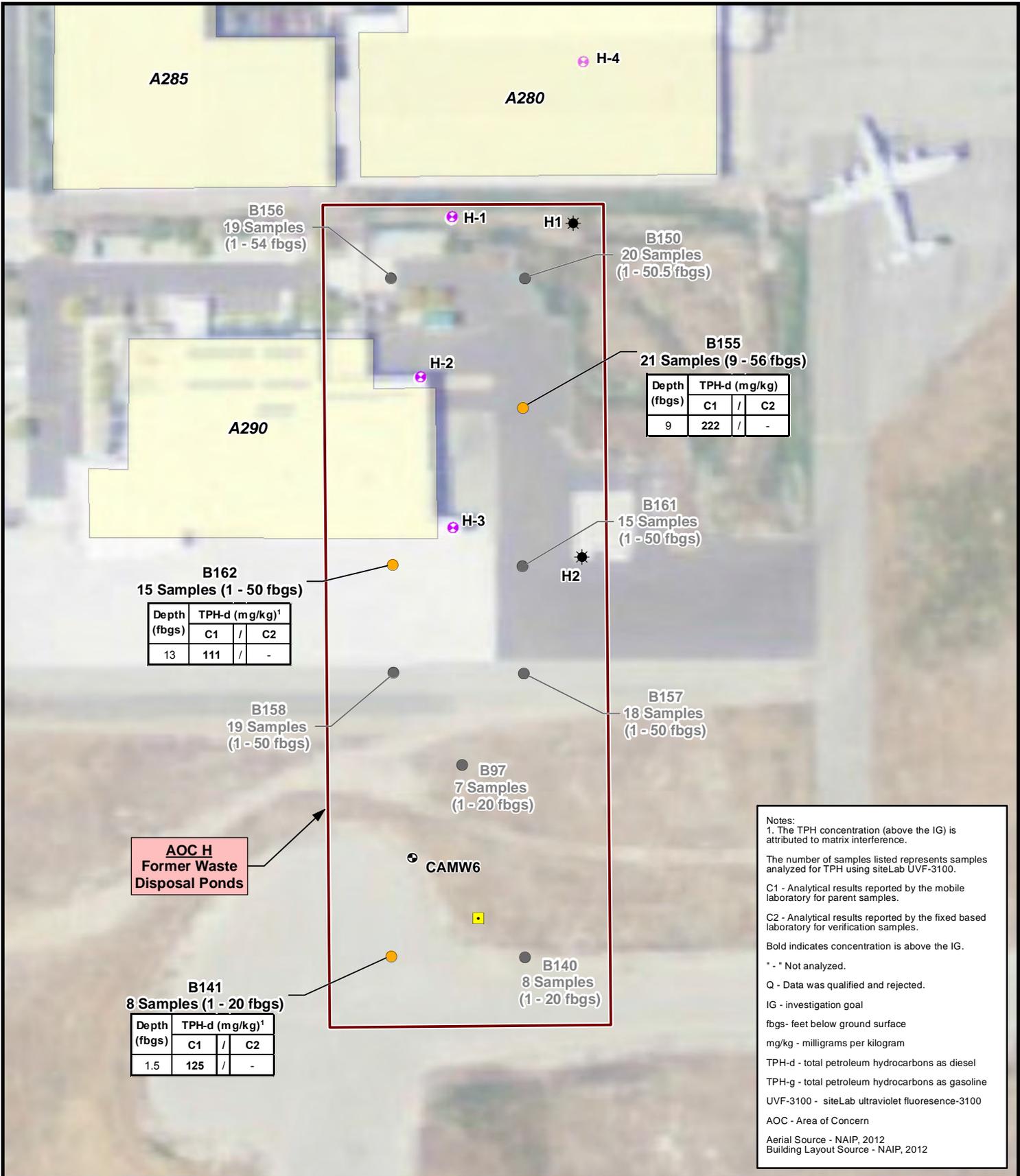
0 50 100
Feet

CHINO AIRPORT

Figure 5-10

Sampling Locations and Results for Chlorinated Compounds, AOC H - Former Waste Disposal Ponds

TETRA TECH December 2014



Notes:
 1. The TPH concentration (above the IG) is attributed to matrix interference.

The number of samples listed represents samples analyzed for TPH using siteLab UVF-3100.

C1 - Analytical results reported by the mobile laboratory for parent samples.

C2 - Analytical results reported by the fixed based laboratory for verification samples.

Bold indicates concentration is above the IG.

" - " Not analyzed.

Q - Data was qualified and rejected.

IG - investigation goal

fbgs - feet below ground surface

mg/kg - milligrams per kilogram

TPH-d - total petroleum hydrocarbons as diesel

TPH-g - total petroleum hydrocarbons as gasoline

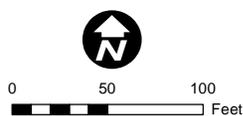
UVF-3100 - siteLab ultraviolet fluorescence-3100

AOC - Area of Concern

Aerial Source - NAIP, 2012
 Building Layout Source - NAIP, 2012

LEGEND

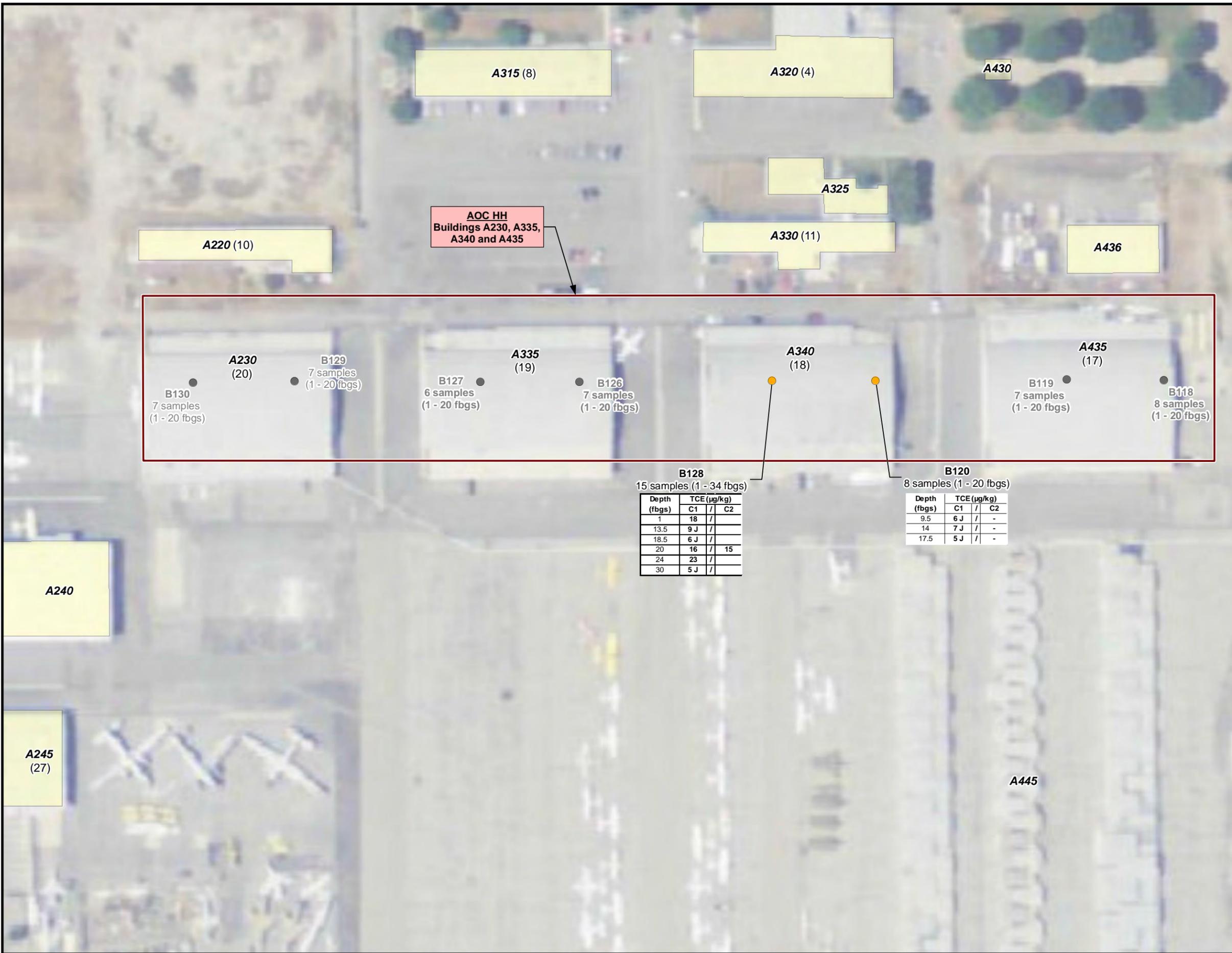
- Soil Boring (Tetra Tech 2014)
- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- VAP Location
- ⊙ Monitoring Well
- ⊕ Soil/Soil Gas Boring (SEACOR 1992)
- ⊙ Soil Gas Boring (Tetra Tech 2004)
- Buildings (2012)
- A290** Current Building Number



CHINO AIRPORT

Figure 5-11
Sampling Locations and Results
for TPH and Fuel Related
Compounds in Soil, AOC H -
Former Waste Disposal Ponds

Tt TETRA TECH December 2014



LEGEND

- Soil Boring (Tetra Tech 2014)
- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- Buildings (2012)
- A290** Current Building Number
- (17) Historical Building Number

Notes:
 C1 - Analytical results using DSITMS.
 C2 - Analytical results using EPA Method 8260B.
 Number of samples listed represents samples analyzed for chlorinated compounds using DSITMS.
 Bold indicates concentration is above the IG.
 DSITMS - Direct sampling ion trap mass spectrometry.
 " - " Not analyzed.
 fbgs- feet below ground surface
 IG - investigation goal
 µg/kg - micrograms per kilogram
 TCE - trichloroethene
 AOC - Area of Concern
 Aerial Source: - NAIP, 2012
 Building Layout Source: NAIP, 2012

B128
15 samples (1 - 34 fbgs)

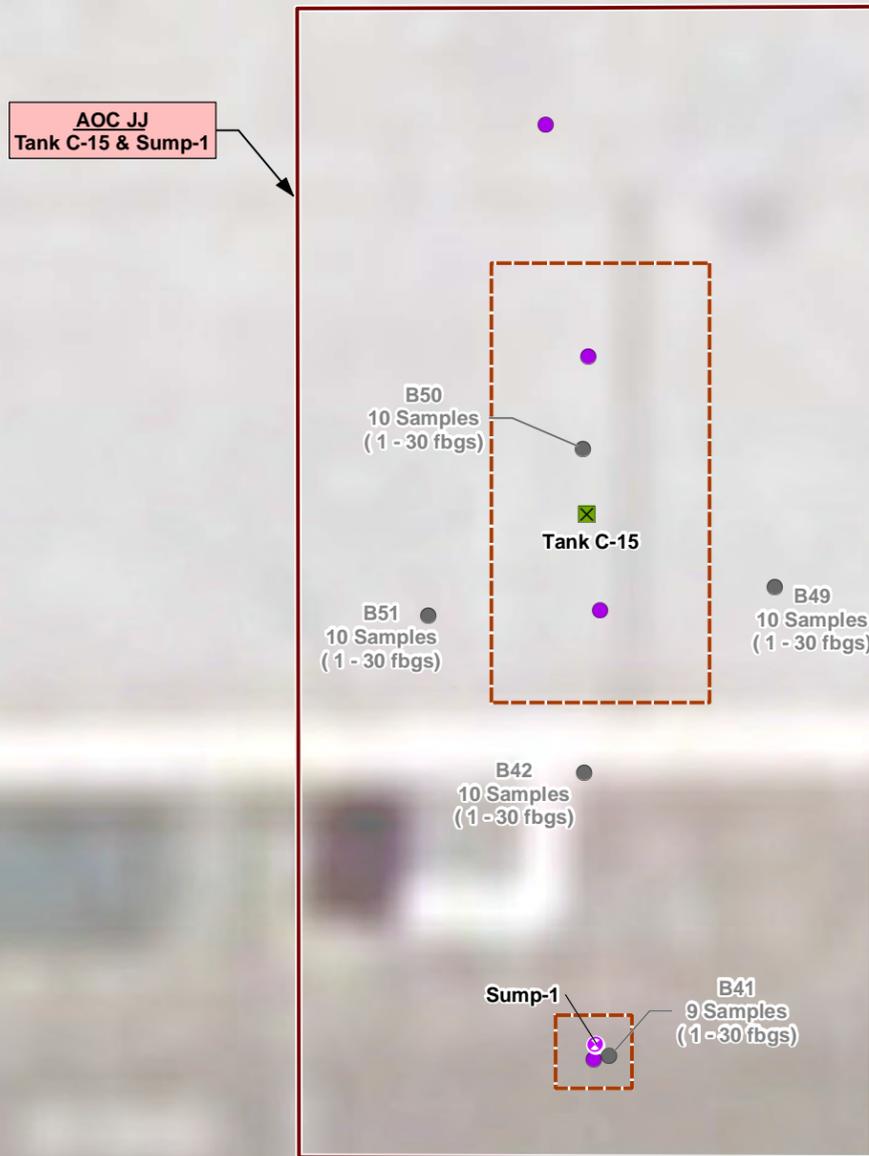
Depth (fbgs)	TCE (µg/kg)	
	C1	C2
1	18	/
13.5	9 J	/
18.5	6 J	/
20	16	15
24	23	/
30	5 J	/

B120
8 samples (1 - 20 fbgs)

Depth (fbgs)	TCE (µg/kg)	
	C1	C2
9.5	6 J	-
14	7 J	-
17.5	5 J	-

CHINO AIRPORT

Figure 5-12
Sampling Locations and Results for VOCs in Soil, AOC HH - Buildings A230, A235, A340, and A435



LEGEND

- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- ⊕ Sump removed in 1991 (Kennedy Jenks 1991)
- Soil Boring (Kennedy Jenks 1991)

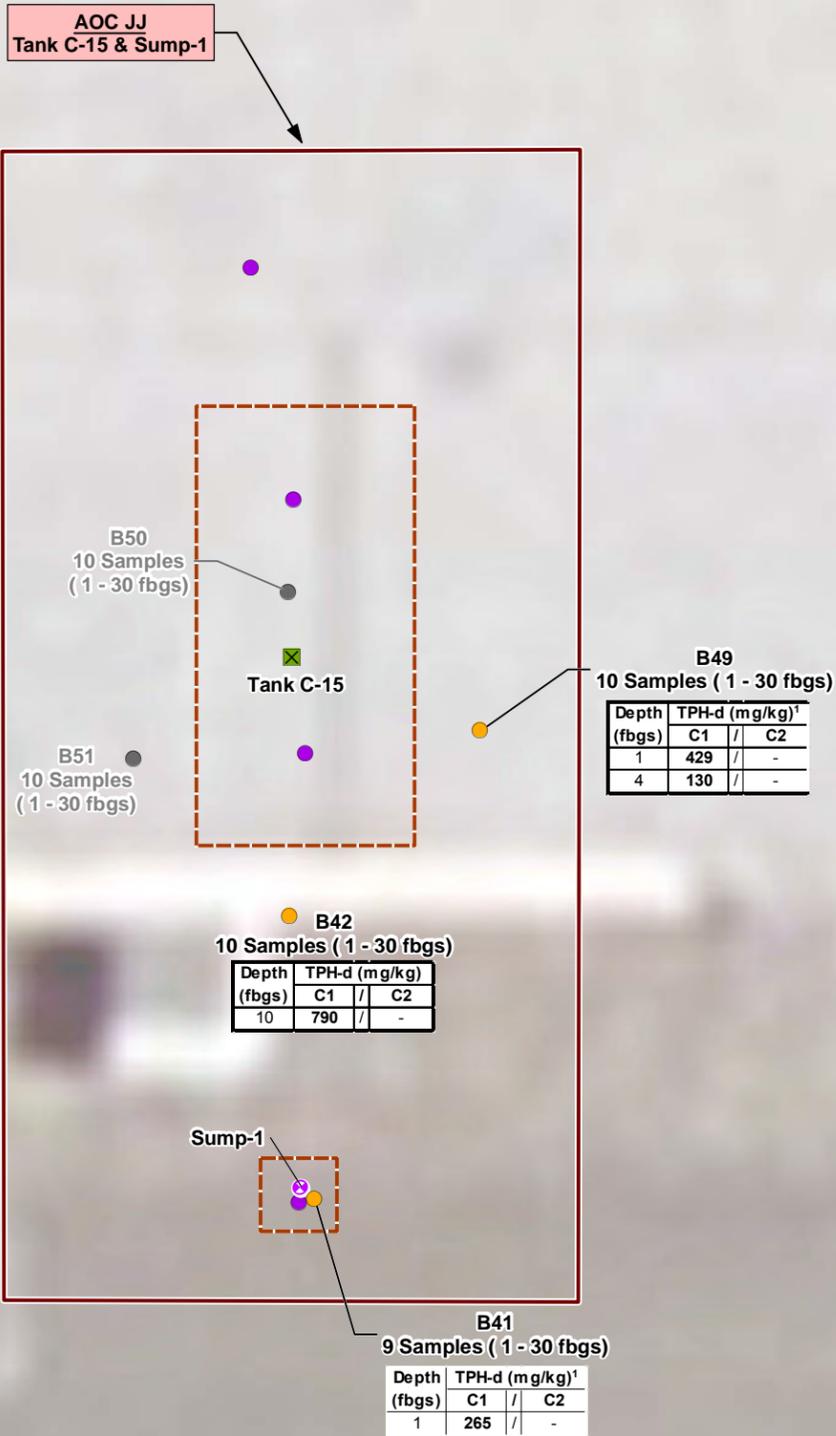
- ⊗ Underground Storage Tank Removed in 1991 (Kennedy Jenks 1991)
- ⊔ Excavation Area

Notes:
 Number of samples listed represents samples analyzed for chlorinated compounds using DSITMS.
 DSITMS - Direct sampling ion trap mass spectrometry
 fbgs- feet below ground surface
 IG - investigation goal
 AOC - Area of Concern
 Aerial Source - ESRI, 2012



CHINO AIRPORT

Figure 5-13
Sampling Locations and Results
for Chlorinated Compounds
in Soil, AOC JJ -
Former UST, C-15 and Sump 1



Notes:
 1. The TPH concentration (above the IG) is attributed to matrix interference.
 The number of samples listed represents samples analyzed for TPH using siteLab UVF-3100.
 C1 - Analytical results using siteLab UVF-3100.
 C2 - Analytical results using EPA Method 8015B.
 Bold indicates concentration is above the IG.
 " - " Not analyzed.
 IG - investigation goal
 fbgs- feet below ground surface
 mg/kg - milligrams per kilogram
 TPH-d - total petroleum hydrocarbons as diesel
 UVF-3100 - siteLab ultraviolet fluorescence-3100
 AOC - Area of Concern
 Aerial Source - ESRI, 2012

LEGEND

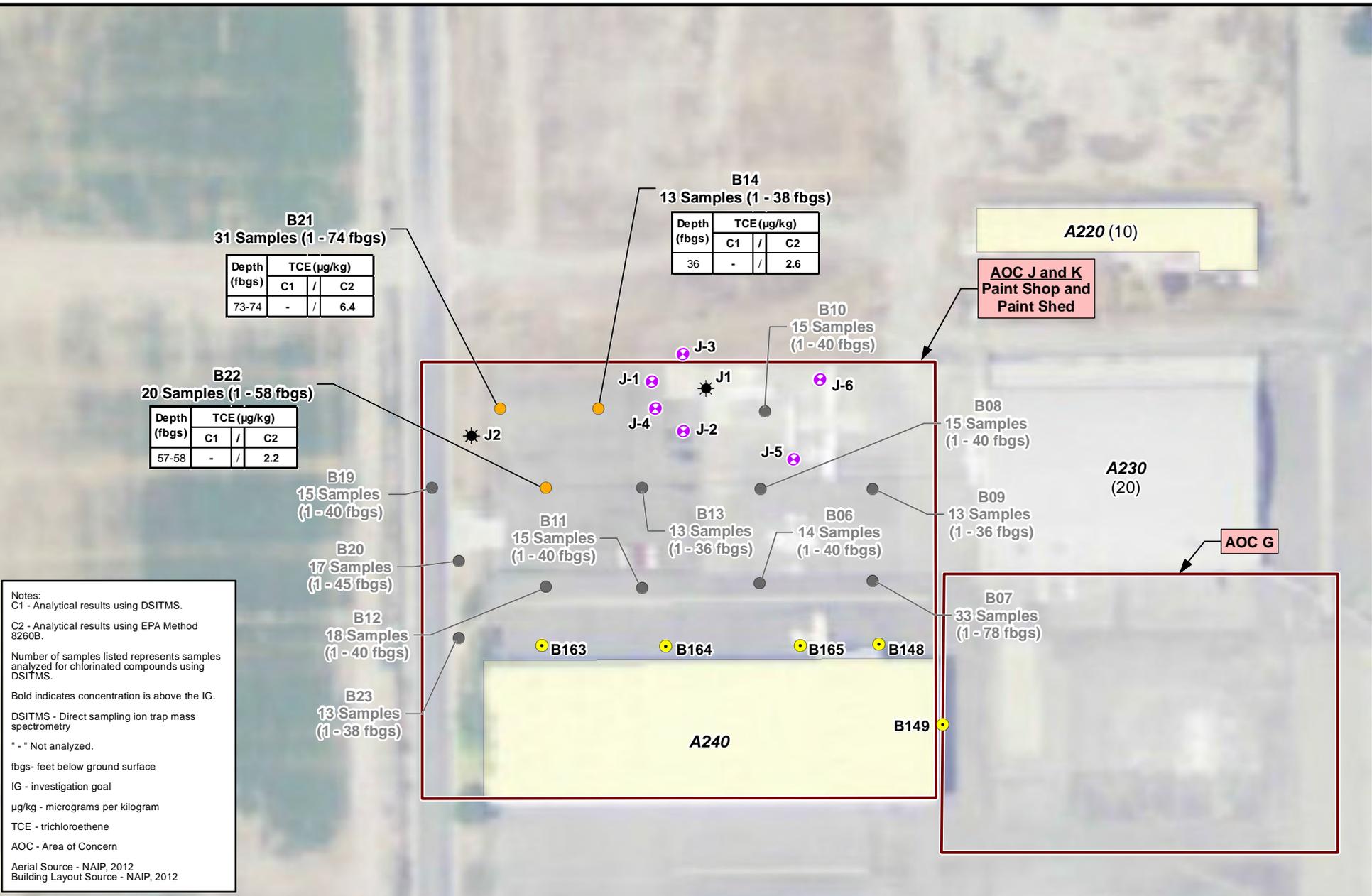
- Soil Boring (Tetra Tech 2014)
- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- Sump removed in 1991 (Kennedy Jenks 1991)
- Soil Boring (Kennedy Jenks 1991)
- Underground Storage Tank Removed in 1991 (Kennedy Jenks 1991)
- Excavation Area



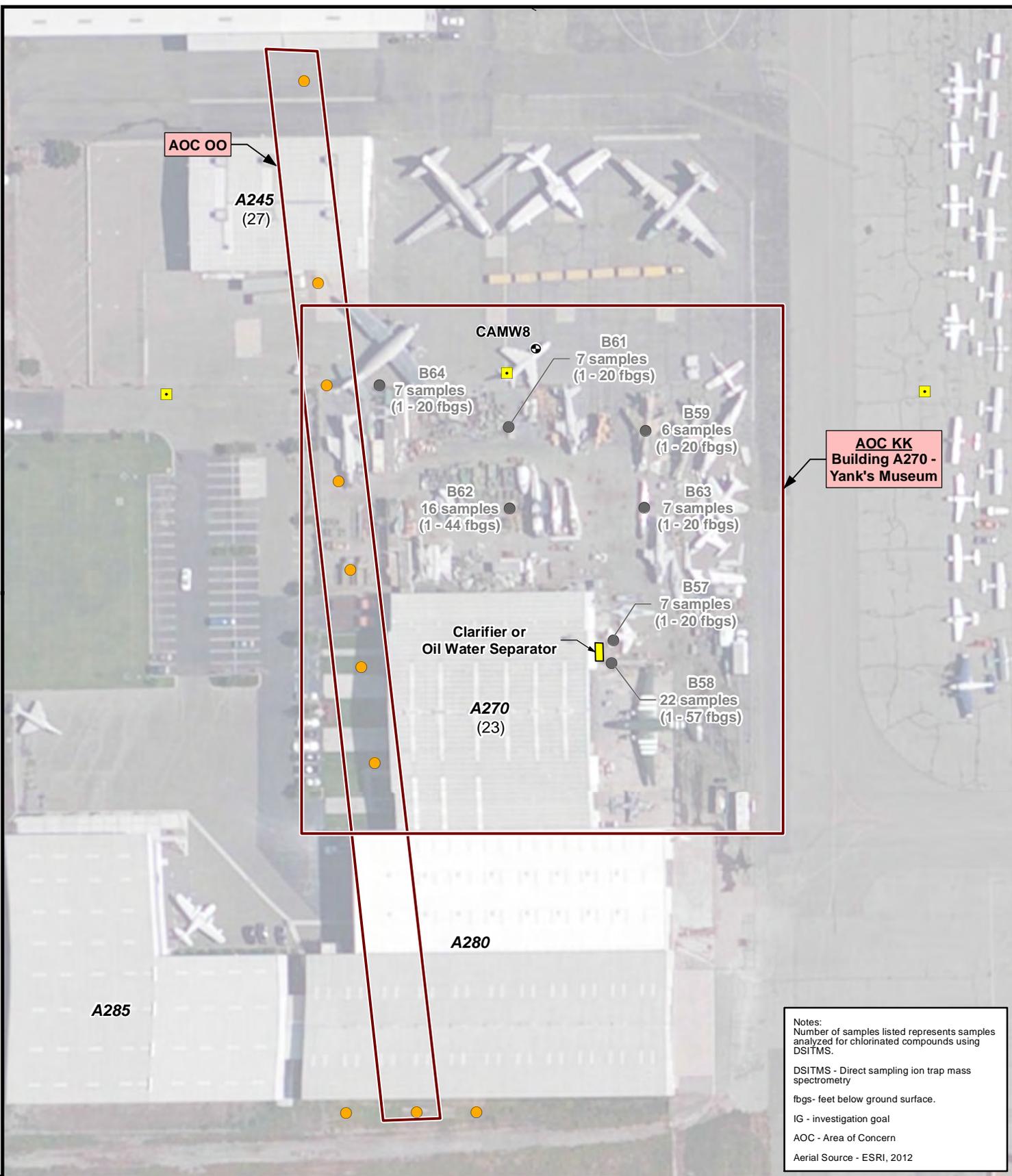
CHINO AIRPORT

Figure 5-14
Sampling Locations and Results
for TPH and Fuel Related
Compounds in Soil, AOC JJ -
Former UST, C-15 and Sump 1

Tt TETRA TECH December 2014

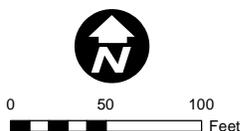


LEGEND		CHINO AIRPORT	
● Soil Boring (Tetra Tech 2014)	⊕ Soil/Soil Gas Boring (SEACOR 1992)	Figure 5-15	
● Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)	☼ Soil Gas Boring (Tetra Tech 2004)	Sampling Locations and Results for VOCs in Soil, AOC J/K - PAC Paint Shop and Paint Shed Areas	
● Shallow Angle Soil Gas Probe (5 foot) (Tetra Tech 2014)	■ Buildings (2012)	TETRA TECH December 2014	
● A290 Current Building Number	● (17) Historical Building Number		



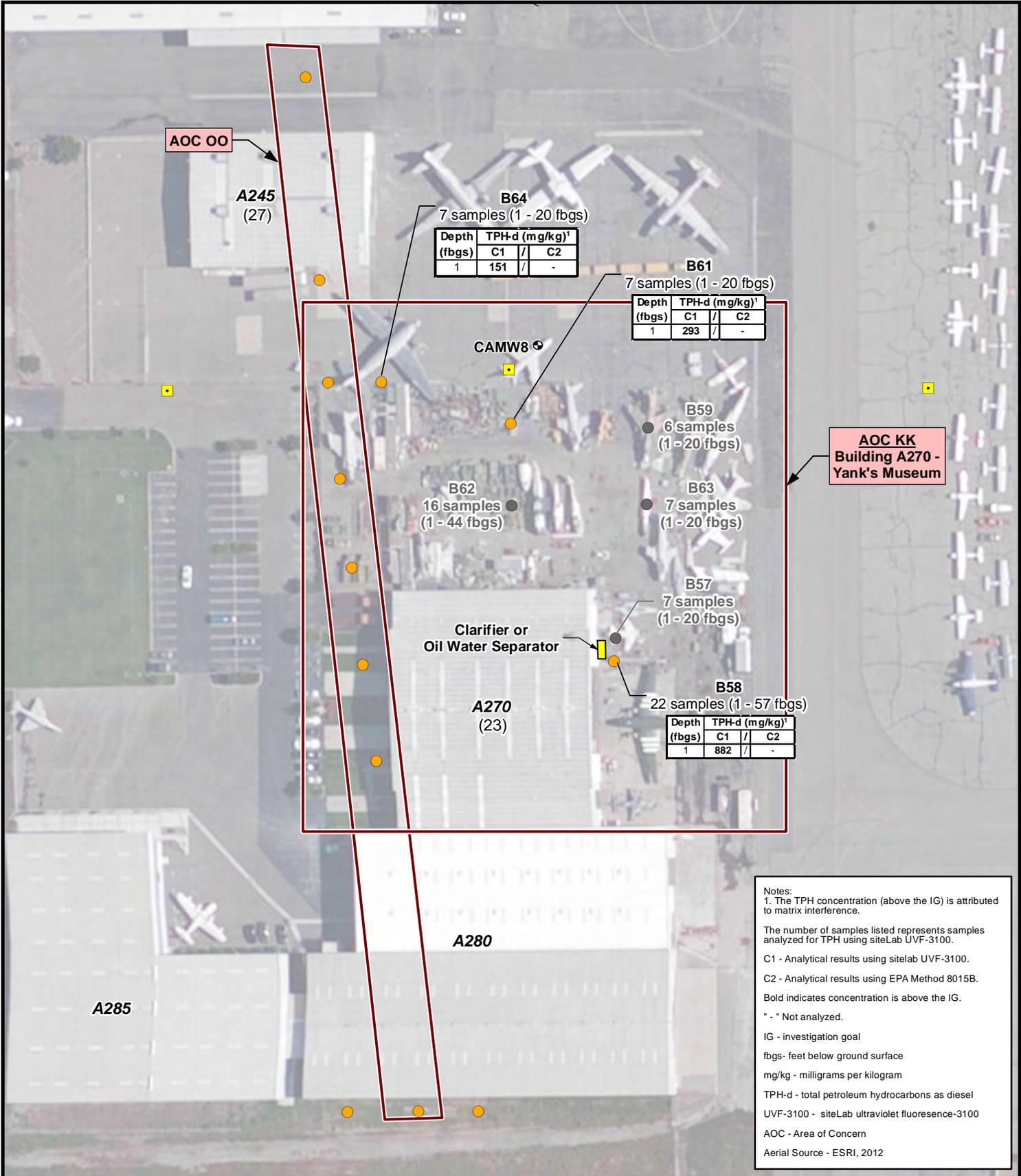
LEGEND

- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- Soil Boring (Tetra Tech 2014)
- VAP Location
- ⊕ Monitoring Well
- A290** Current Building Number
- (17) Historical Building Number



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Figure 5-16
Sampling Locations and Results
for Chlorinated Compounds
in Soil, AOC KK -
Building A270, Yanks Museum



Notes:
 1. The TPH concentration (above the IG) is attributed to matrix interference.

The number of samples listed represents samples analyzed for TPH using siteLab UVF-3100.

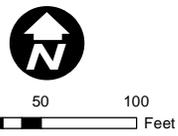
C1 - Analytical results using siteLab UVF-3100.
 C2 - Analytical results using EPA Method 8015B.

Bold indicates concentration is above the IG.
 " - " Not analyzed.

IG - investigation goal
 fbgs- feet below ground surface
 mg/kg - milligrams per kilogram
 TPH-d - total petroleum hydrocarbons as diesel
 UVF-3100 - siteLab ultraviolet fluorescence-3100
 AOC - Area of Concern
 Aerial Source - ESRI, 2012

LEGEND

- Soil Boring (Tetra Tech 2014)
- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- VAP Location
- ⊕ Monitoring Well
- A290** Current Building Number
- (17) Historical Building Number



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Figure 5-17
Sampling Locations and Results for TPH and Fuel Related Compounds in Soil, AOC KK - Building A270, Yanks Museum



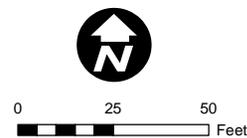
December 2014



LEGEND

- Angle Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- ✕ Underground Storage Tank Removed in 1991 (Kennedy Jenks 1991)
- Former Buildings
- A290** Current Building Number

Notes:
 Number of samples listed represents samples analyzed for chlorinated compounds using DSITMS.
 DSITMS - Direct sampling ion trap mass spectrometry
 fbgs- feet below ground surface
 IG - investigation goal
 AOC - Area of Concern
 Aerial Source - ESRI, 2012
 Building Layout Source - ESRI, 2012



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Figure 5-18
Sampling Locations and Results
for Chlorinated Compounds
in Soil, AOC LL -
Former UST C-18



B134
12 samples (1 - 32 fbgs)

Depth (fbgs)	TPH-d (mg/kg) ¹		
	C1	/	C2
1	642	/	-

B133
11 samples (1 - 32 fbgs)

Depth (fbgs)	TPH-d (mg/kg) ¹		
	C1	/	C2
1	353	/	-

Notes:
1. The TPH concentration (above the IG) is attributed to matrix interference.

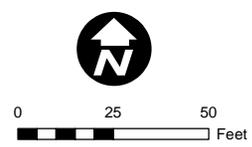
The number of samples listed represents samples analyzed for TPH using siteLab UVF-3100.

C1 - Analytical results using siteLab UVF-3100.
C2 - Analytical results using EPA Method 8015B.

Bold indicates concentration is above the IG.
" - " Not analyzed.
IG - investigation goal
fbgs- feet below ground surface
mg/kg - milligrams per kilogram
TPH-d - total petroleum hydrocarbons as diesel
UVF-3100 - siteLab ultraviolet fluorescence-3100
AOC - Area of Concern
Aerial Source - ESRI, 2012
Building Layout Source - ESRI, 2012

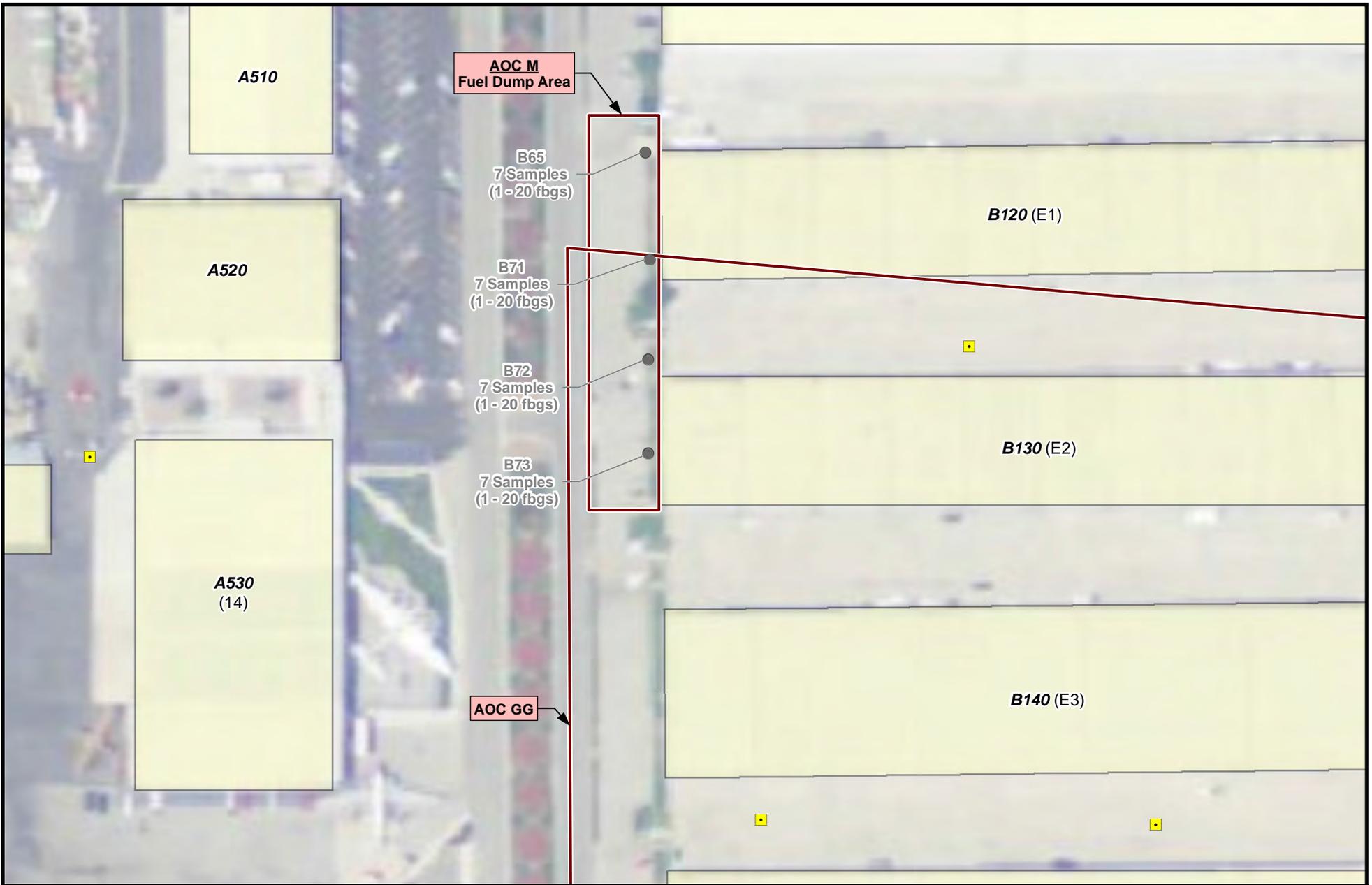
LEGEND

- Angle Soil Boring (Tetra Tech 2014)
- ✕ Underground Storage Tank Removed in 1991 (Kennedy Jenks 1991)
- Former Buildings
- A290** Current Building Number

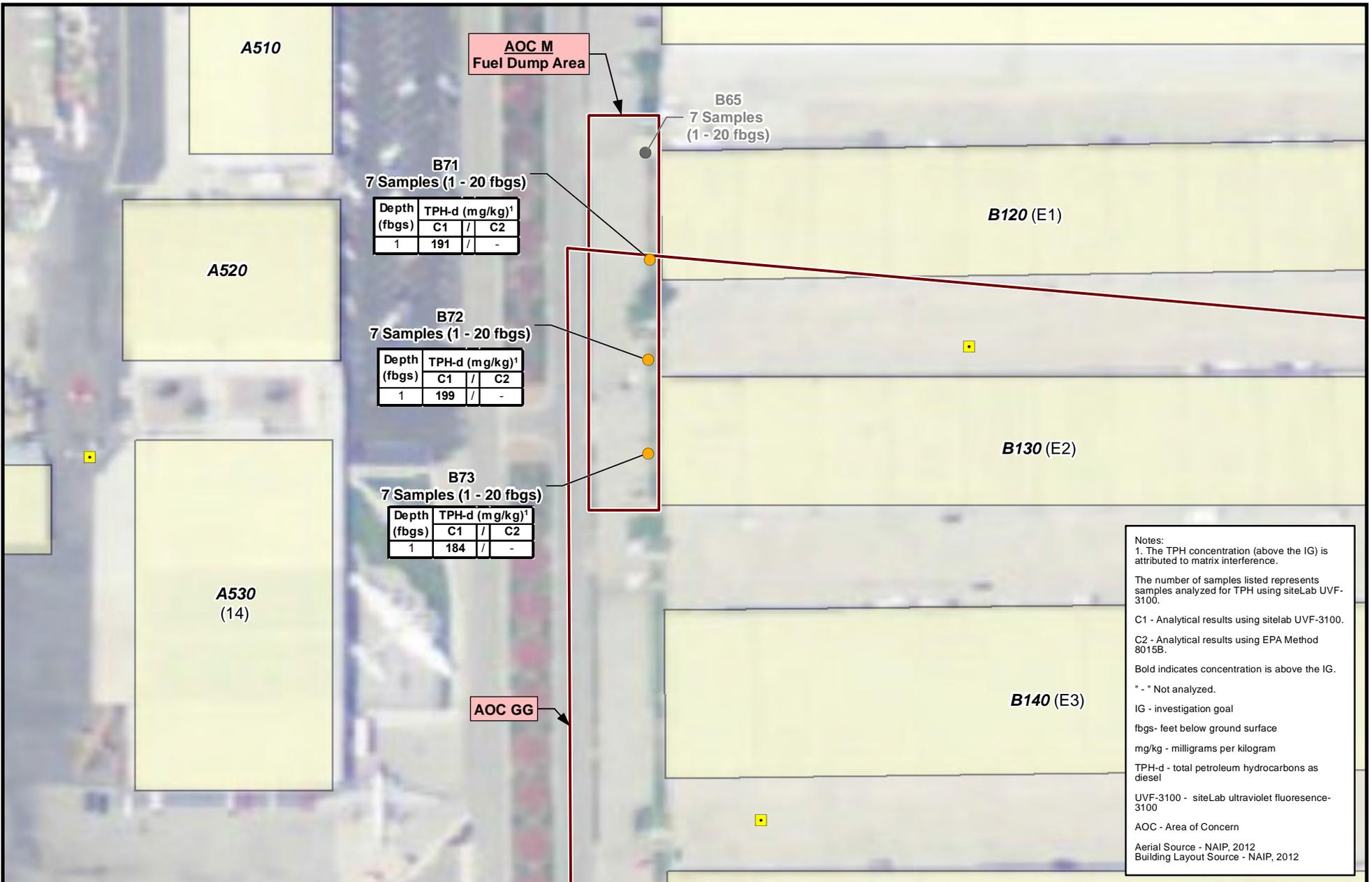


CHINO AIRPORT

Figure 5-19
Sampling Locations and Results
for TPH and Fuel Related
Compounds in Soil, AOC LL -
Former UST C-18



<p>LEGEND</p> <ul style="list-style-type: none"> ● Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014) ■ VAP Location ■ Buildings (2012) 		<p>A290 Current Building Number</p> <p>(17) Historical Building Number</p>	<p>Notes: Number of samples listed represents samples analyzed for chlorinated compounds using DSITMS.</p> <p>DSITMS - Direct sampling ion trap mass spectrometry fbgs- feet below ground surface.</p> <p>IG - investigation goal</p> <p>AOC - Area of Concern</p> <p>Aerial Source - ESRI, 2012 Building Layout Source - ESRI, 2012</p>	<p style="text-align: center;">CHINO AIRPORT</p> <p style="text-align: center;">Figure 5-20</p> <p style="text-align: center;">Sampling Locations and Results for Chlorinated Compounds in Soil, AOC M - Fuel Dump Area</p>
			<p style="text-align: center;">0 50 100 Feet</p>	<p style="text-align: center;">   TETRA TECH December 2014 </p>



Notes:
 1. The TPH concentration (above the IG) is attributed to matrix interference.

The number of samples listed represents samples analyzed for TPH using siteLab UVF-3100.

C1 - Analytical results using sitelab UVF-3100.
 C2 - Analytical results using EPA Method 8015B.

Bold indicates concentration is above the IG.
 " - " Not analyzed.
 IG - investigation goal
 fbgs - feet below ground surface
 mg/kg - milligrams per kilogram
 TPH-d - total petroleum hydrocarbons as diesel
 UVF-3100 - siteLab ultraviolet fluorescence-3100
 AOC - Area of Concern
 Aerial Source - NAIP, 2012
 Building Layout Source - NAIP, 2012

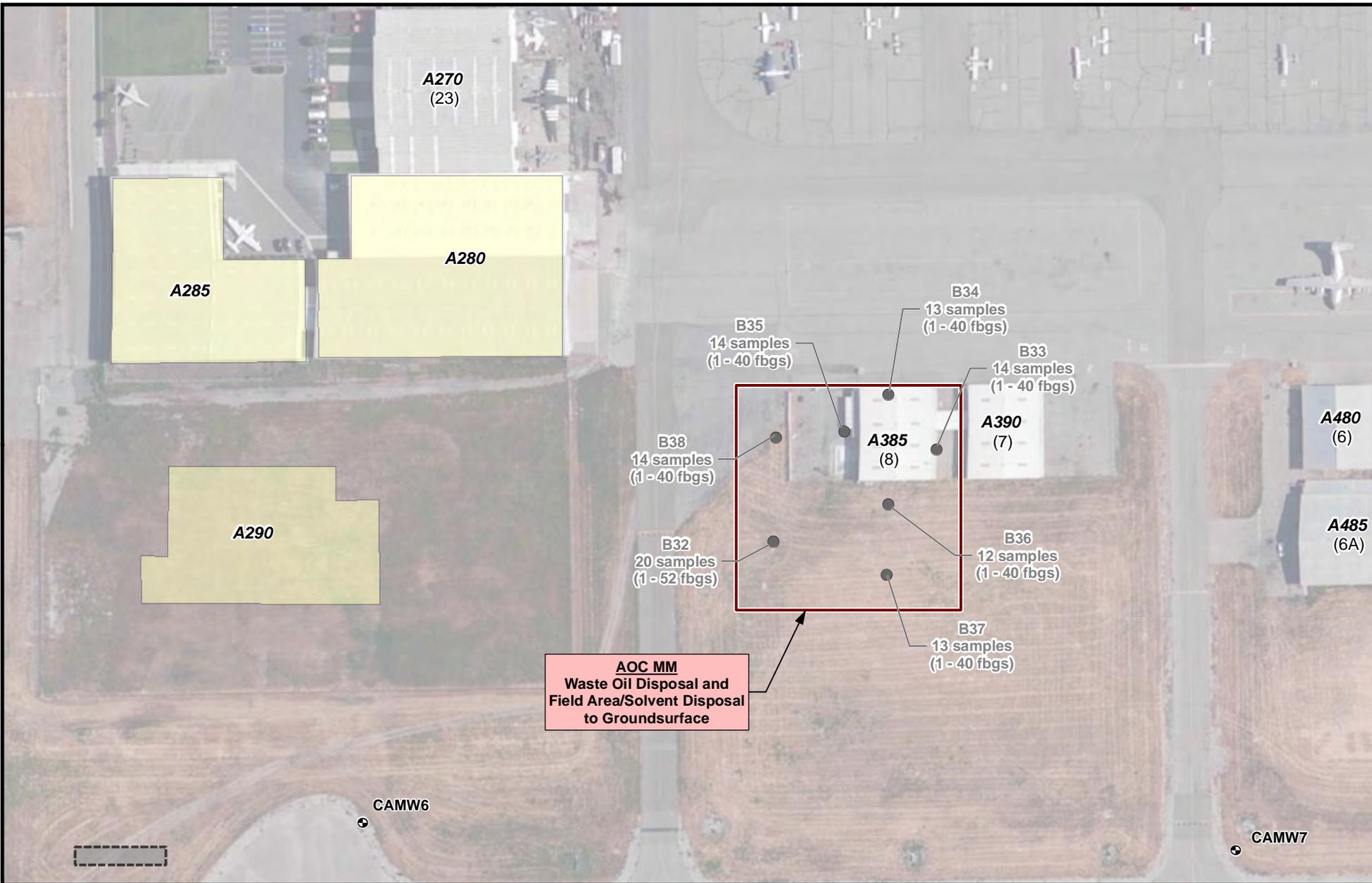
LEGEND

- Soil Boring (Tetra Tech 2014)
- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- VAP Location
- Buildings (2012)
- A290** Current Building Number
- (17) Historical Building Number



CHINO AIRPORT

Figure 5-21
Sampling Locations and Results for TPH and Fuel Related Compounds in Soil, AOC M - Fuel Dump Area

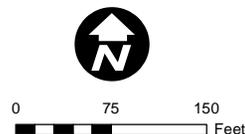


AOC MM
 Waste Oil Disposal and
 Field Area/Solvent Disposal
 to Groundsurface

LEGEND

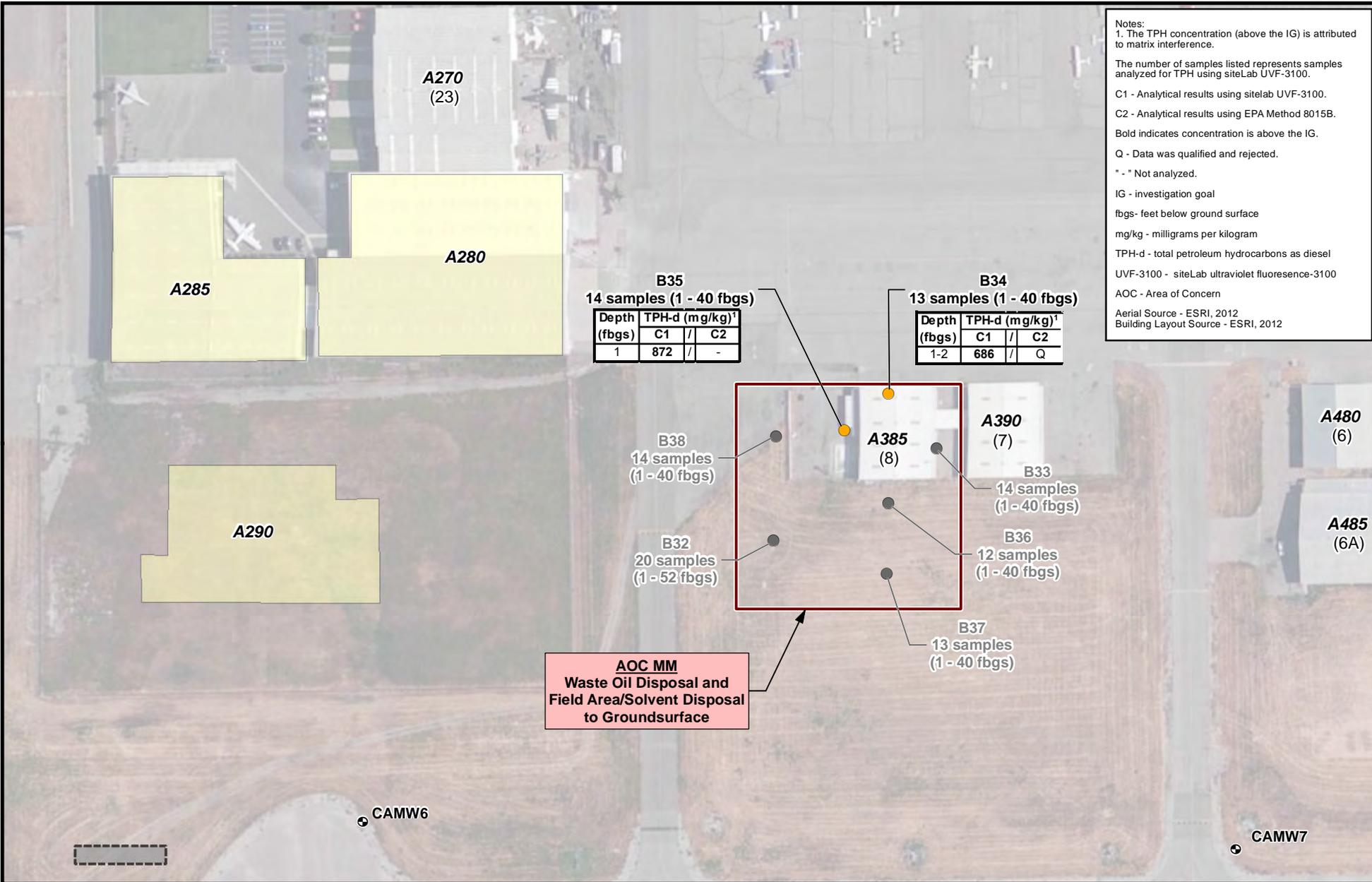
- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- ⊕ Monitoring Well
- ▭ Buried Drums Removed in 2010 (Tetra Tech 2010)
- ▭ Buildings (2012)
- A290** Current Building Number
- (17) Historical Building Number

Notes:
 Number of samples listed represents samples analyzed for chlorinated compounds using DSITMS.
 DSITMS - Direct sampling ion trap mass spectrometry
 fbgs- feet below ground surface
 IG - investigation goal
 AOC - Area of Concern
 Aerial Source - ESRI, 2012
 Building Layout Source - ESRI,



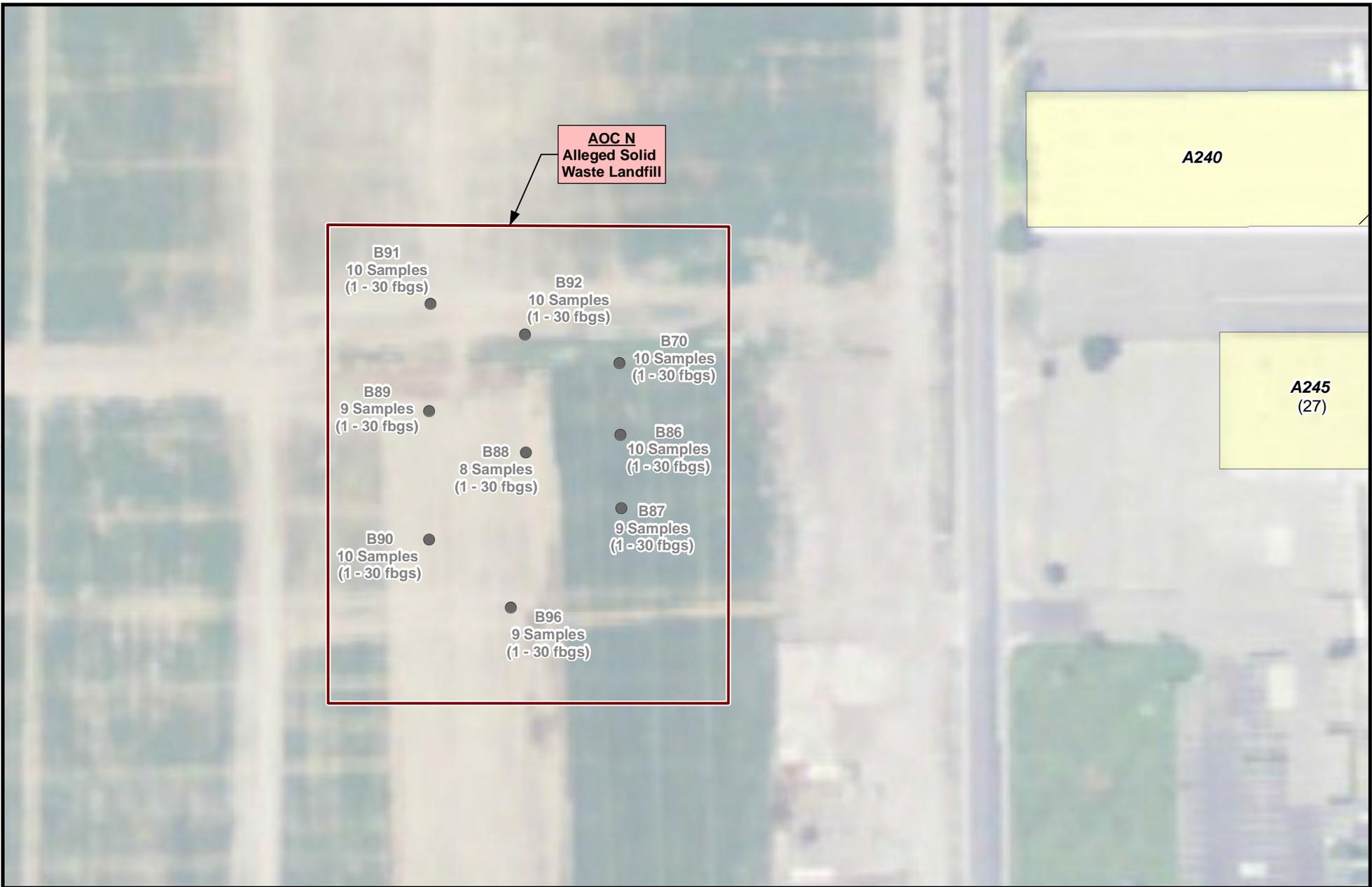
CHINO AIRPORT

Figure 5-22
Sampling Locations and Results
for Chlorinated Compounds
in Soil, AOC MM - Building A385



Notes:
 1. The TPH concentration (above the IG) is attributed to matrix interference.
 The number of samples listed represents samples analyzed for TPH using siteLab UVF-3100.
 C1 - Analytical results using siteLab UVF-3100.
 C2 - Analytical results using EPA Method 8015B.
 Bold indicates concentration is above the IG.
 Q - Data was qualified and rejected.
 * - Not analyzed.
 IG - investigation goal
 fbgs- feet below ground surface
 mg/kg - milligrams per kilogram
 TPH-d - total petroleum hydrocarbons as diesel
 UVF-3100 - siteLab ultraviolet fluorescence-3100
 AOC - Area of Concern
 Aerial Source - ESRI, 2012
 Building Layout Source - ESRI, 2012

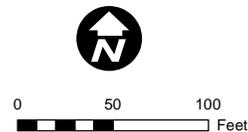
LEGEND		CHINO AIRPORT	
● Soil Boring (Tetra Tech 2014)	■ Buried Drums Removed in 2010 (Tetra Tech 2010)	Figure 5-23	
● Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)	■ Buildings (2012)	Sampling Locations and Results for TPH and Fuel Related Compounds in Soil, AOC MM - Building A385	
⊕ Monitoring Well	A290 Current Building Number	TETRA TECH December 2013	
	(17) Historical Building Number		



LEGEND

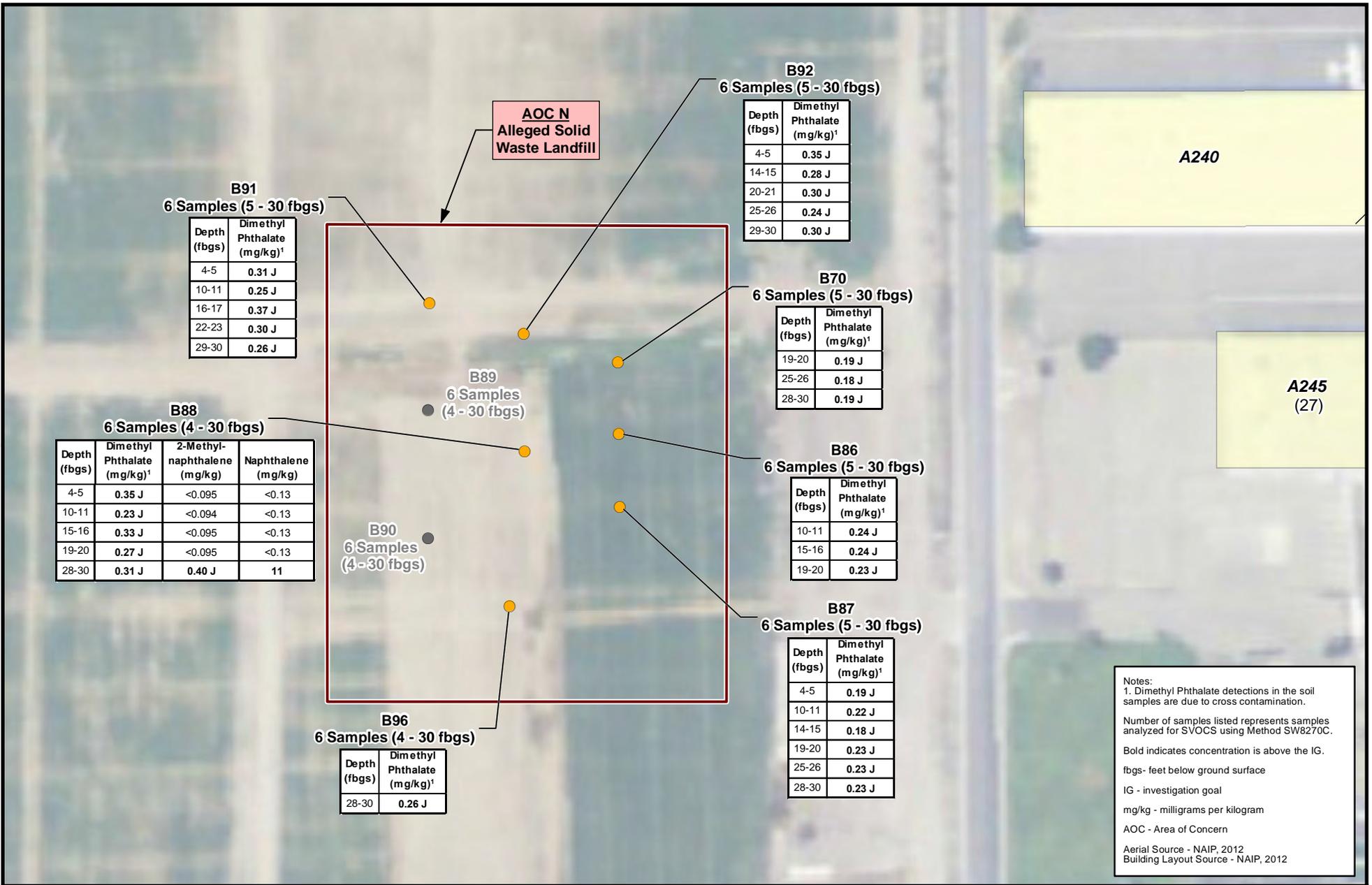
- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- Buildings (2012)
- A290** Current Building Number
- (17) Historical Building Number

Notes:
 1. Number of samples listed represents samples analyzed for chlorinated compounds (DSITMS) and TPH (siteLab UVF-3100).
 DSITMS - Direct sampling ion trap mass spectrometry
 fbgs- feet below ground surface
 IG - investigation goal
 UVF-3100 - siteLab ultraviolet fluorescence-3100
 AOC - Area of Concern
 Aerial Source - ESRI, 2012
 Building Layout Source - ESRI, 2012



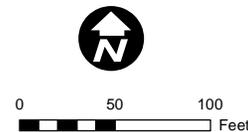
CHINO AIRPORT

Figure 5-24
Sampling Locations and Results for VOCs and TPH in Soil, AOC N - Suspected Landfill



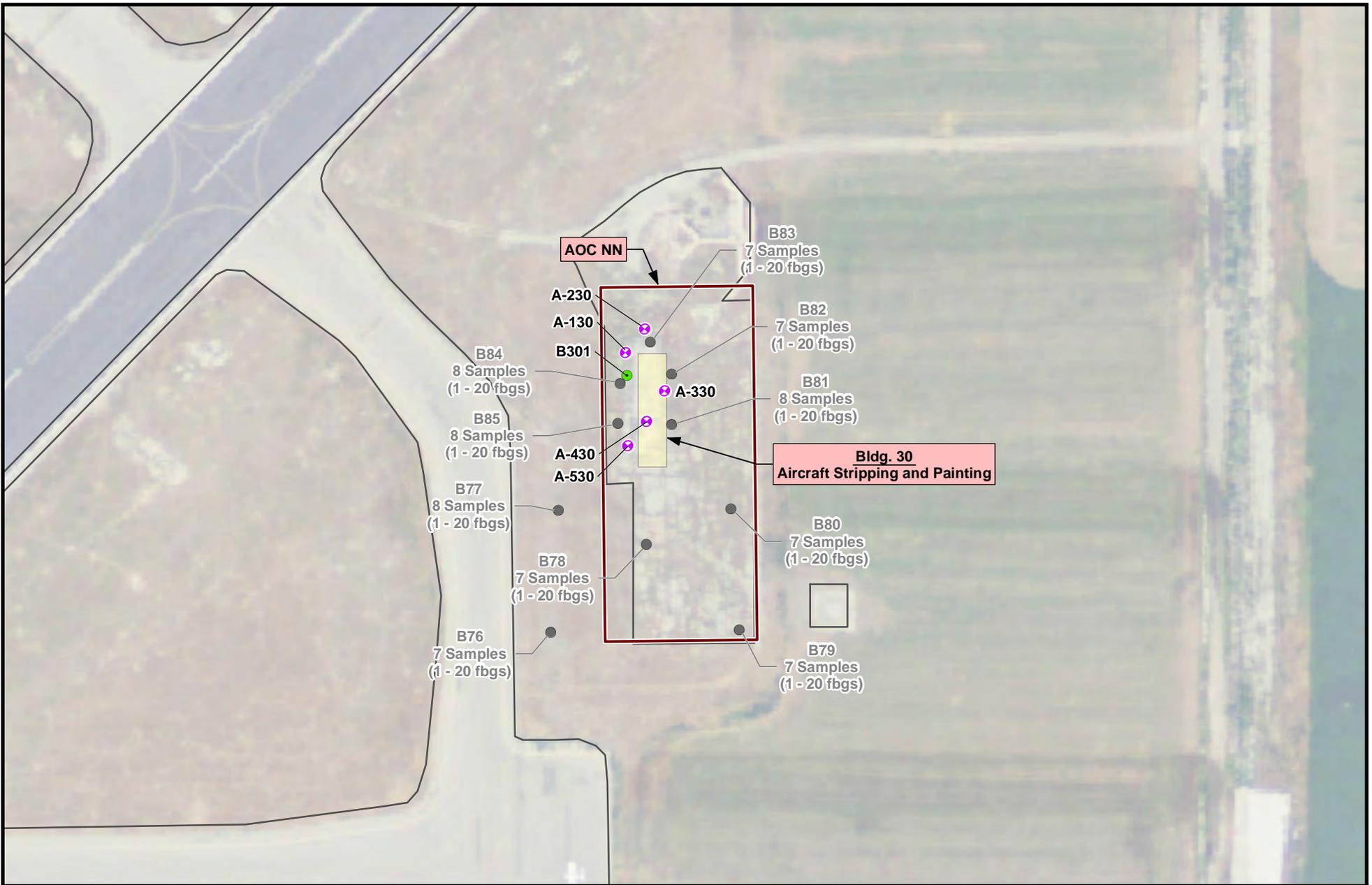
LEGEND

- Soil Boring (Tetra Tech 2014)
- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- Buildings (2012)
- A290** Current Building Number
- (17) Historical Building Number



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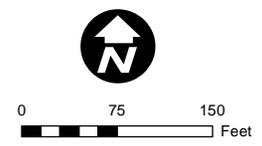
Figure 5-25
Sampling Locations and Results for SVOCs in Soil, AOC N - Suspected Landfill



LEGEND

- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- Soil Gas Probe (SEACOR 1992)
- ⊕ Soil/Soil Gas Boring (SEACOR 1992)
- ⚡ 2012 Runways/Aprons
- Former Buildings

Notes:
 Number of samples listed represents samples analyzed for chlorinated compounds using DSITMS.
 DSITMS - Direct sampling ion trap mass spectrometry
 fbgs - feet below ground surface
 IG - investigation goal
 AOC - Area of Concern
 Aerial Source - ESRI, 2012
 Building Layout Source - ESRI,



CHINO AIRPORT

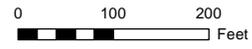
Figure 5-26
Sampling Locations and Results for VOCs in Soil, AOC NN - Former Building 30



Notes:
Number of samples listed represents samples analyzed for chlorinated compounds using DSITMS.
DSITMS - Direct sampling ion trap mass spectrometry
fbgs- feet below ground surface
IG - investigation goal
AOC - Area of Concern
Aerial Source - ESRI, 2012
Building Layout Source - ESRI, 2012

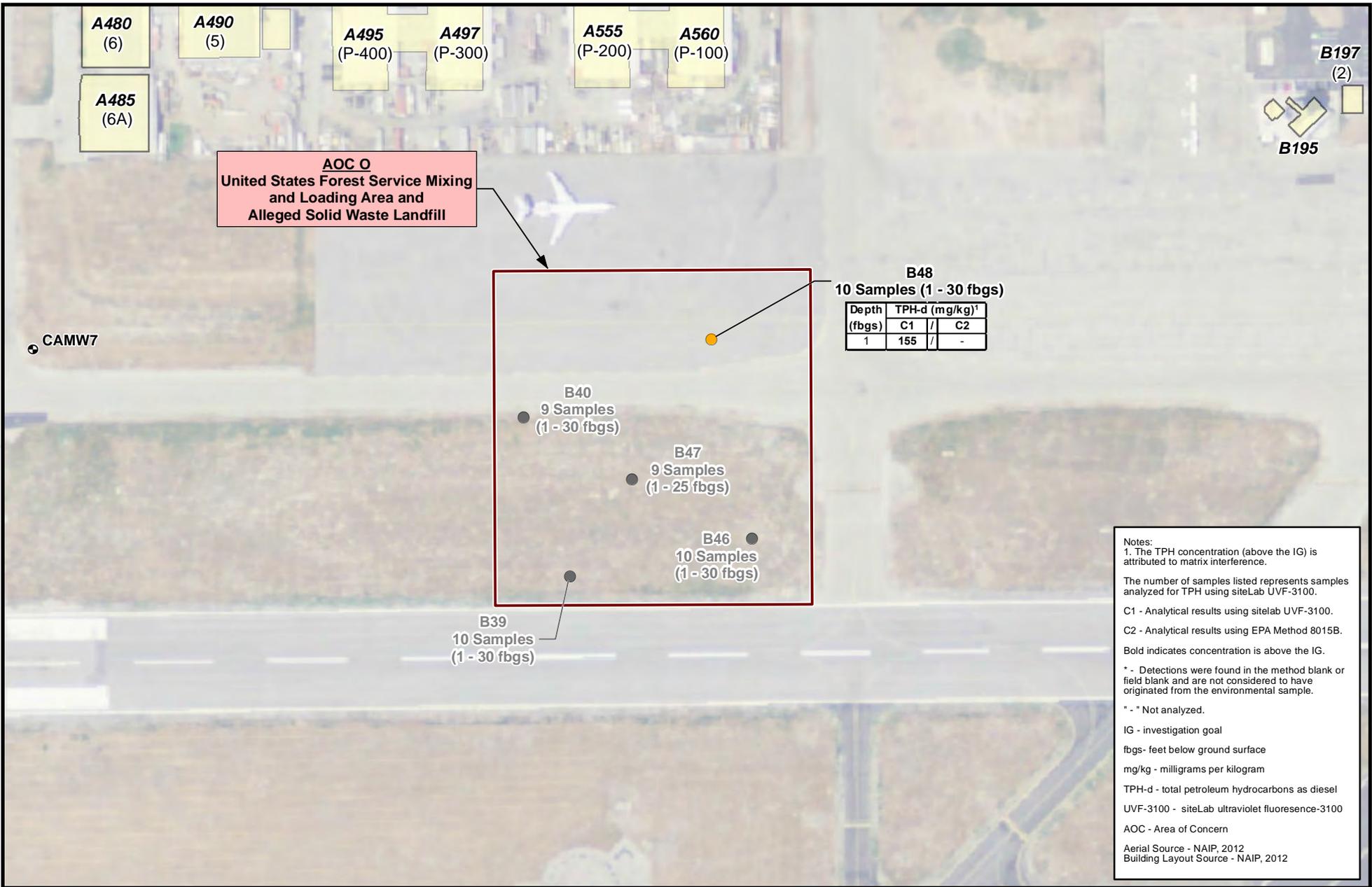
LEGEND

- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- ⊕ Monitoring Well
- Buildings (2012)
- A290** Current Building Number
- (17) Historical Building Number



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Figure 5-27
Sampling Locations and Results for Chlorinated Compounds in Soil, AOC O - U.S. Forest Service Area/ Reported Solid Waste Landfill



Notes:
 1. The TPH concentration (above the IG) is attributed to matrix interference.

The number of samples listed represents samples analyzed for TPH using siteLab UVF-3100.

C1 - Analytical results using siteLab UVF-3100.
 C2 - Analytical results using EPA Method 8015B.

Bold indicates concentration is above the IG.

* - Detections were found in the method blank or field blank and are not considered to have originated from the environmental sample.

" - " Not analyzed.

IG - investigation goal
 fbgs - feet below ground surface
 mg/kg - milligrams per kilogram
 TPH-d - total petroleum hydrocarbons as diesel
 UVF-3100 - siteLab ultraviolet fluorescence-3100
 AOC - Area of Concern
 Aerial Source - NAIP, 2012
 Building Layout Source - NAIP, 2012

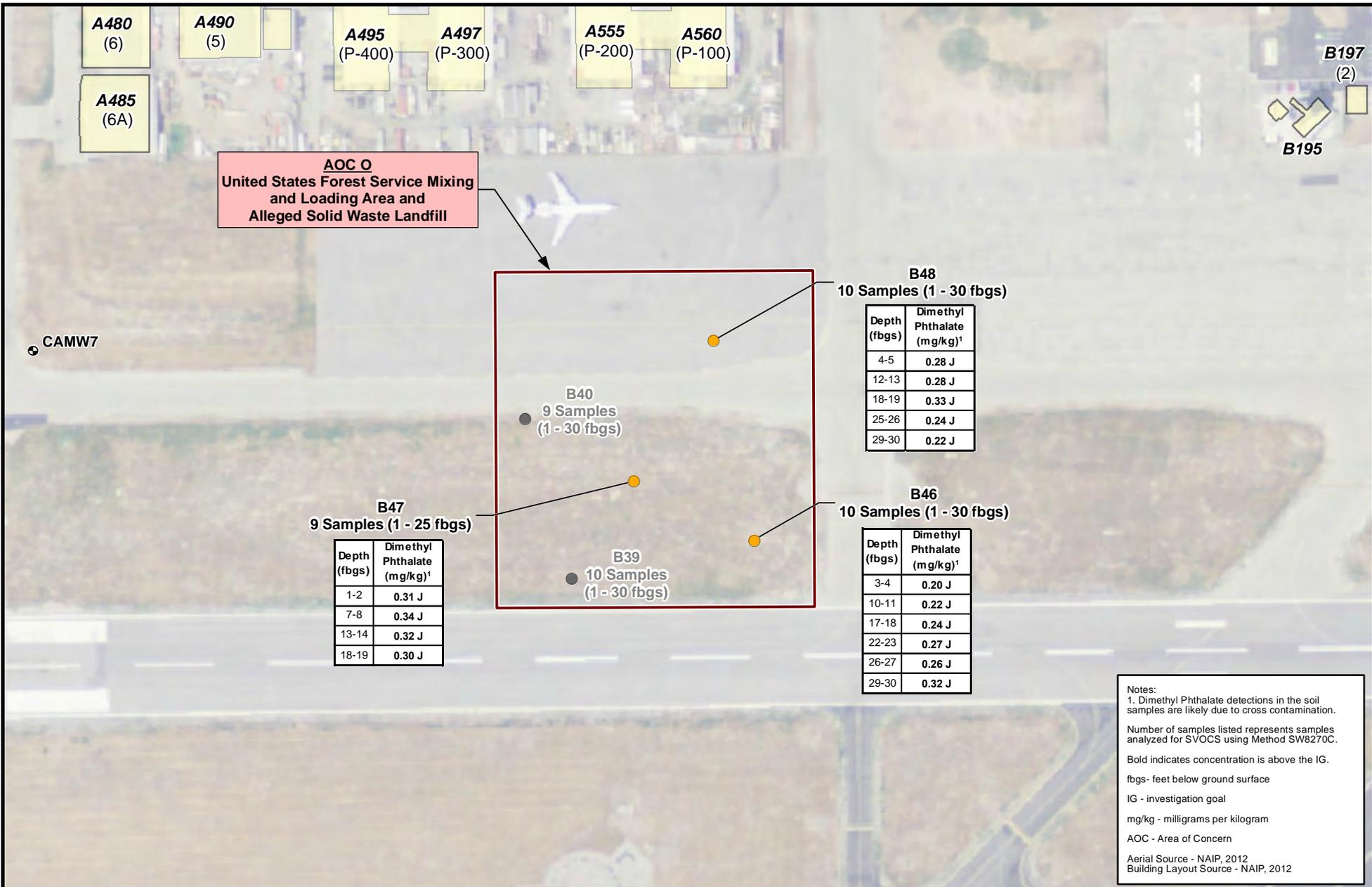
LEGEND

- Soil Boring (Tetra Tech 2014)
- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- ⊙ Monitoring Well
- Buildings (2012)
- A290** Current Building Number
- (17) Historical Building Number

CHINO AIRPORT

Figure 5-28
Sampling Locations and Results for TPH and Fuel Related Compounds in Soil, AOC O - U.S. Forest Service Area/ Reported Solid Waste Landfill

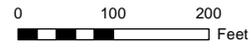
TETRA TECH December 2014



Notes:
 1. Dimethyl Phthalate detections in the soil samples are likely due to cross contamination.
 Number of samples listed represents samples analyzed for SVOCs using Method SW8270C.
 Bold indicates concentration is above the IG.
 fbgs - feet below ground surface
 IG - investigation goal
 mg/kg - milligrams per kilogram
 AOC - Area of Concern
 Aerial Source - NAIP, 2012
 Building Layout Source - NAIP, 2012

LEGEND

- Soil Boring (Tetra Tech 2014)
- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- ⊙ Monitoring Well
- Buildings (2012)
- A290** Current Building Number
- (17) Historical Building Number



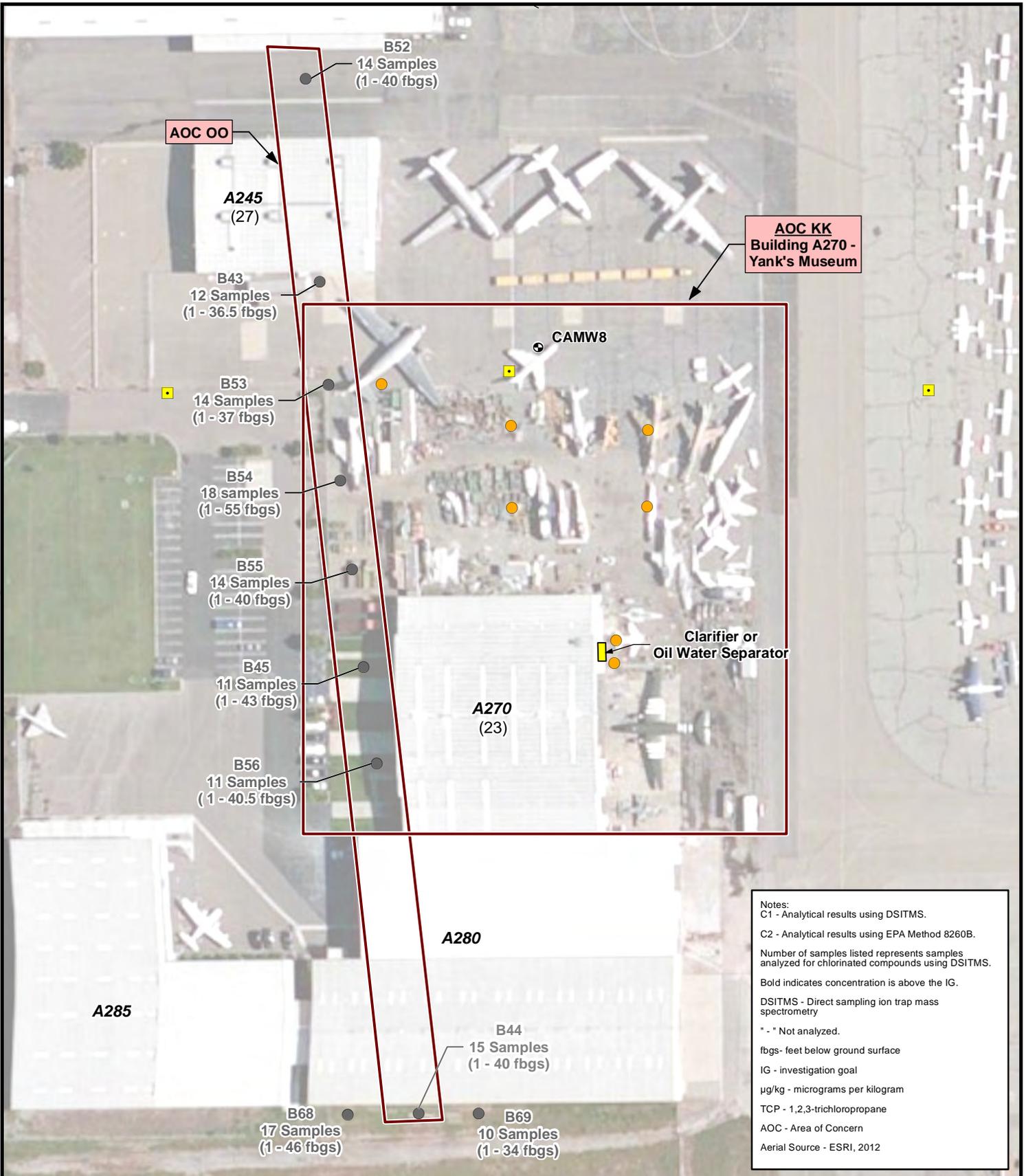
CHINO AIRPORT

Figure 5-29
Sampling Locations and Results for SVOCs in Soil, AOC O - U.S. Forest Service Area/ Reported Solid Waste Landfill



TETRA TECH

December 2014



LEGEND

- Soil Boring (Tetra Tech 2014)
- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- ⊙ Monitoring Well
- VAP Location

A290 Current Building Number
 (27) Historical Building Number

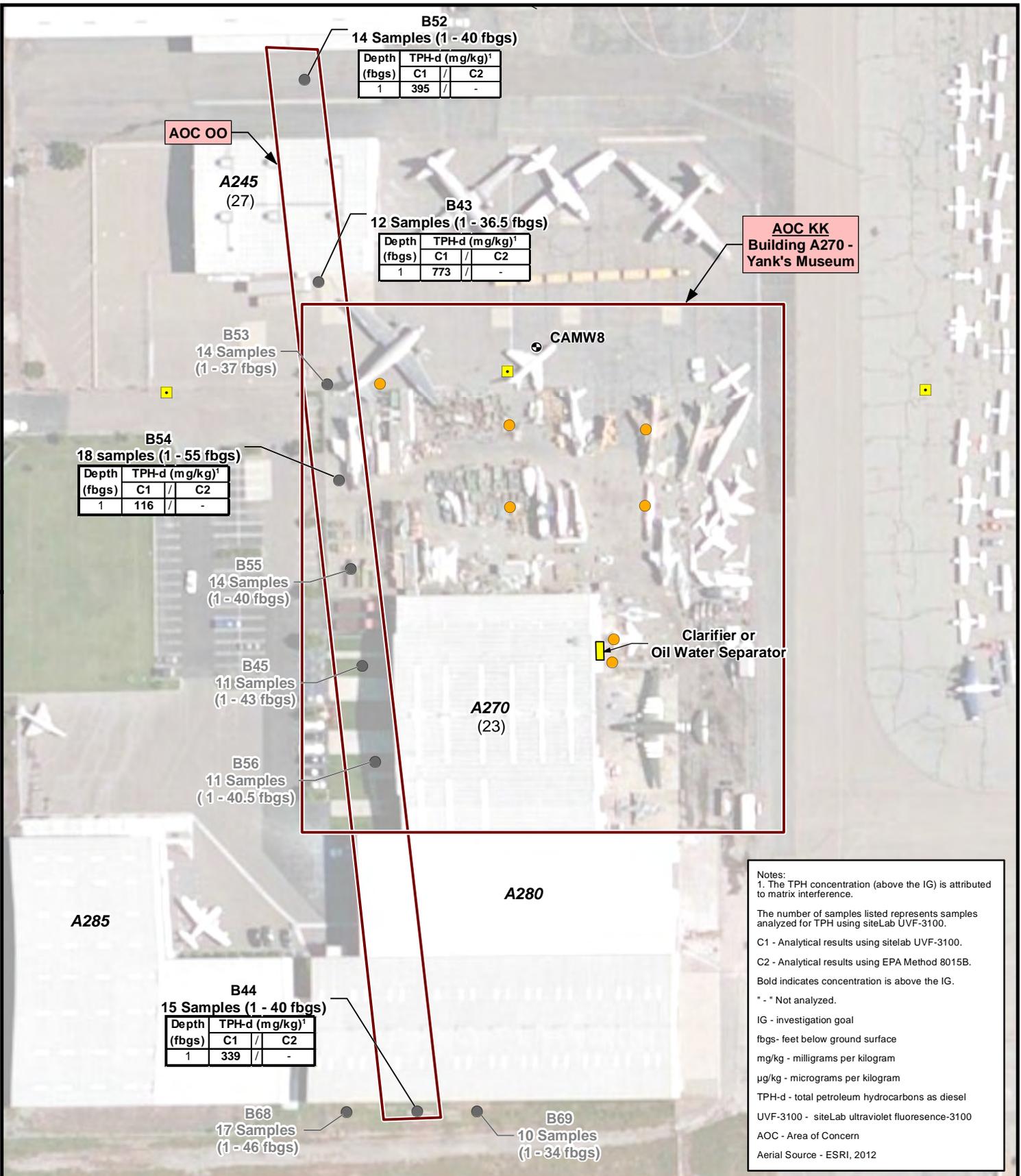
0 50 100 Feet

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Figure 5-30

Sample Locations and Results for Chlorinated Compounds, AOC OO - Former PAC Wash Rack Area Drain

TETRA TECH December 2014



Notes:
 1. The TPH concentration (above the IG) is attributed to matrix interference.
 The number of samples listed represents samples analyzed for TPH using siteLab UVF-3100.
 C1 - Analytical results using sitelab UVF-3100.
 C2 - Analytical results using EPA Method 8015B.
 Bold indicates concentration is above the IG.
 " - " Not analyzed.
 IG - investigation goal
 fbgs - feet below ground surface
 mg/kg - milligrams per kilogram
 µg/kg - micrograms per kilogram
 TPH-d - total petroleum hydrocarbons as diesel
 UVF-3100 - siteLab ultraviolet fluorescence-3100
 AOC - Area of Concern
 Aerial Source - ESRI, 2012

LEGEND

- Soil Boring (Tetra Tech 2014)
- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- ⊙ Monitoring Well
- VAP Location
- A290** Current Building Number
- (27) Historical Building Number

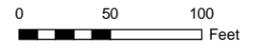


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Figure 5-31
Sample Locations and Results
for TPH and Fuel Related
Compounds in Soil, AOC OO -
Former PAC Wash Rack Area Drain



December 2014



LEGEND

- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- ⊕ Monitoring Well
- VAP Location
- Soil Gas Probe (SEACOR 1992)
- ⊕ Soil/Soil Gas Boring (SEACOR 1992)
- ⊛ Soil Gas Boring (Tetra Tech 2004)
- Buildings (2012)
- A290** Current Building Number
- (17) Historical Building Number

Notes:
 Number of samples listed represents samples analyzed for chlorinated compounds using DSITMS.
 DSITMS - Direct sampling ion trap mass spectrometry
 fbgs - feet below ground surface
 IG - investigation goal
 AOC - Area of Concern
 Aerial Source - NAIP, 2012
 Building Layout Source - NAIP, 2012

CHINO AIRPORT

Figure 5-32
Sampling Locations and Results for VOCs in Soil, AOC Z - Waste Water Discharge from Building A495



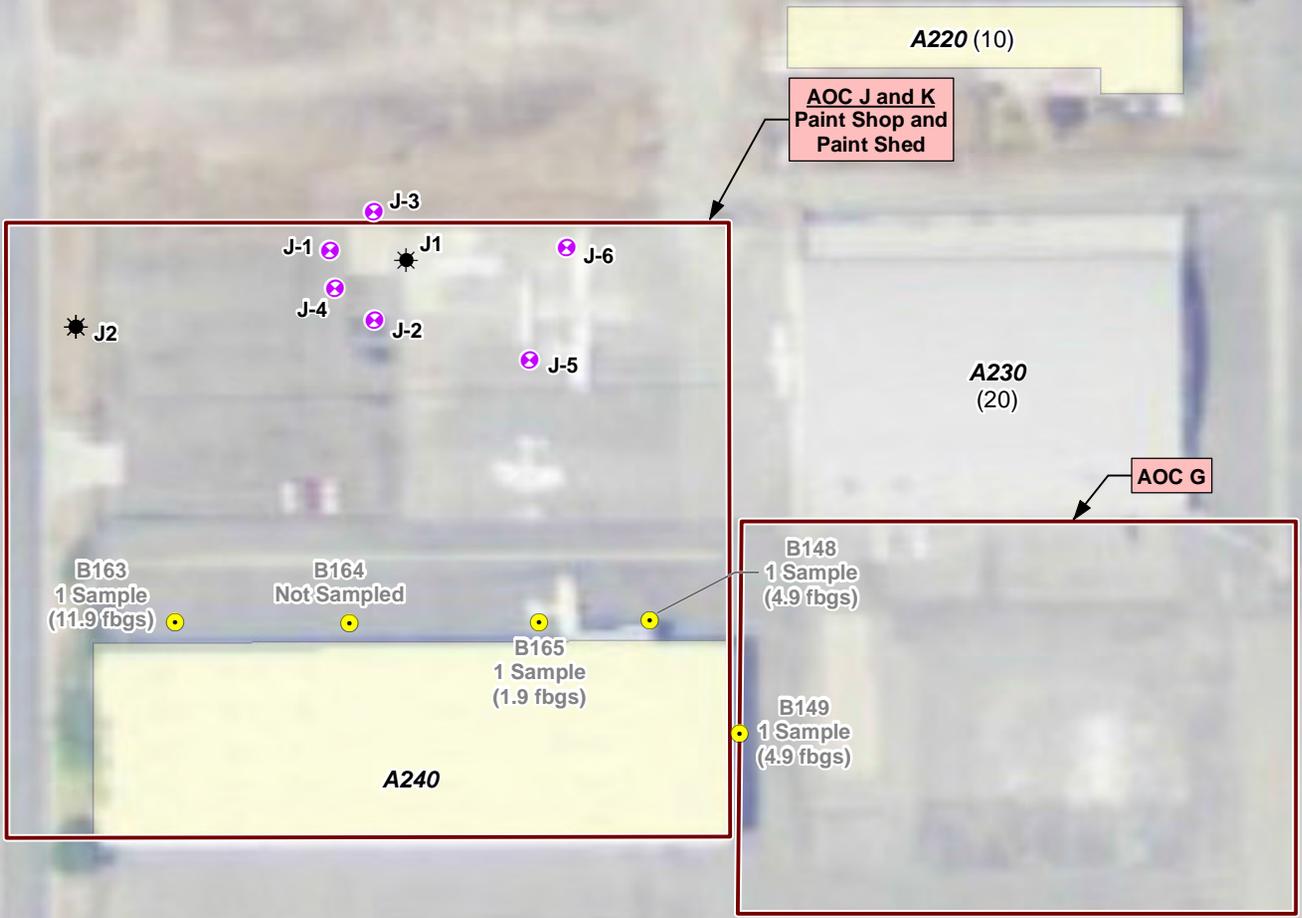
LEGEND

- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- ⊙ Monitoring Well
- Soil Gas Probe (SEACOR 1992)
- ⊕ Soil/Soil Gas Boring (SEACOR 1992)
- ⊛ Soil Gas Boring (Tetra Tech 2004)
- Buildings (2012)
- A290** Current Building Number
- (17) Historical Building Number

Notes:
 Number of samples listed represents samples analyzed for TO-15.
 fbgs- feet below ground surface
 IG - investigation goal
 AOC - Area of Concern
 Aerial Source - ESRI, 2012
 Building Layout Source - ESRI, 2012

CHINO AIRPORT

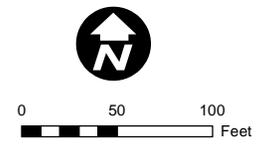
Figure 5-33
Sampling Locations and Results
for VOCs in Soil Gas, AOC Z -
Waste Water Discharge
from Building A495



Notes:
 Number of samples listed represents samples analyzed for TO-15.
 fbgs- feet below ground surface
 IG - investigation goal
 AOC - Area of Concern
 Aerial Source - ESRI, 2012
 Building Layout Source - ESRI, 2012

LEGEND

- Shallow Angle Soil Gas Probe (5 foot) (Tetra Tech 2014)
- Soil/Soil Gas Boring (SEACOR 1992)
- Soil Gas Boring (Tetra Tech 2004)
- Buildings (2012)
- A290** Current Building Number
- (17) Historical Building Number

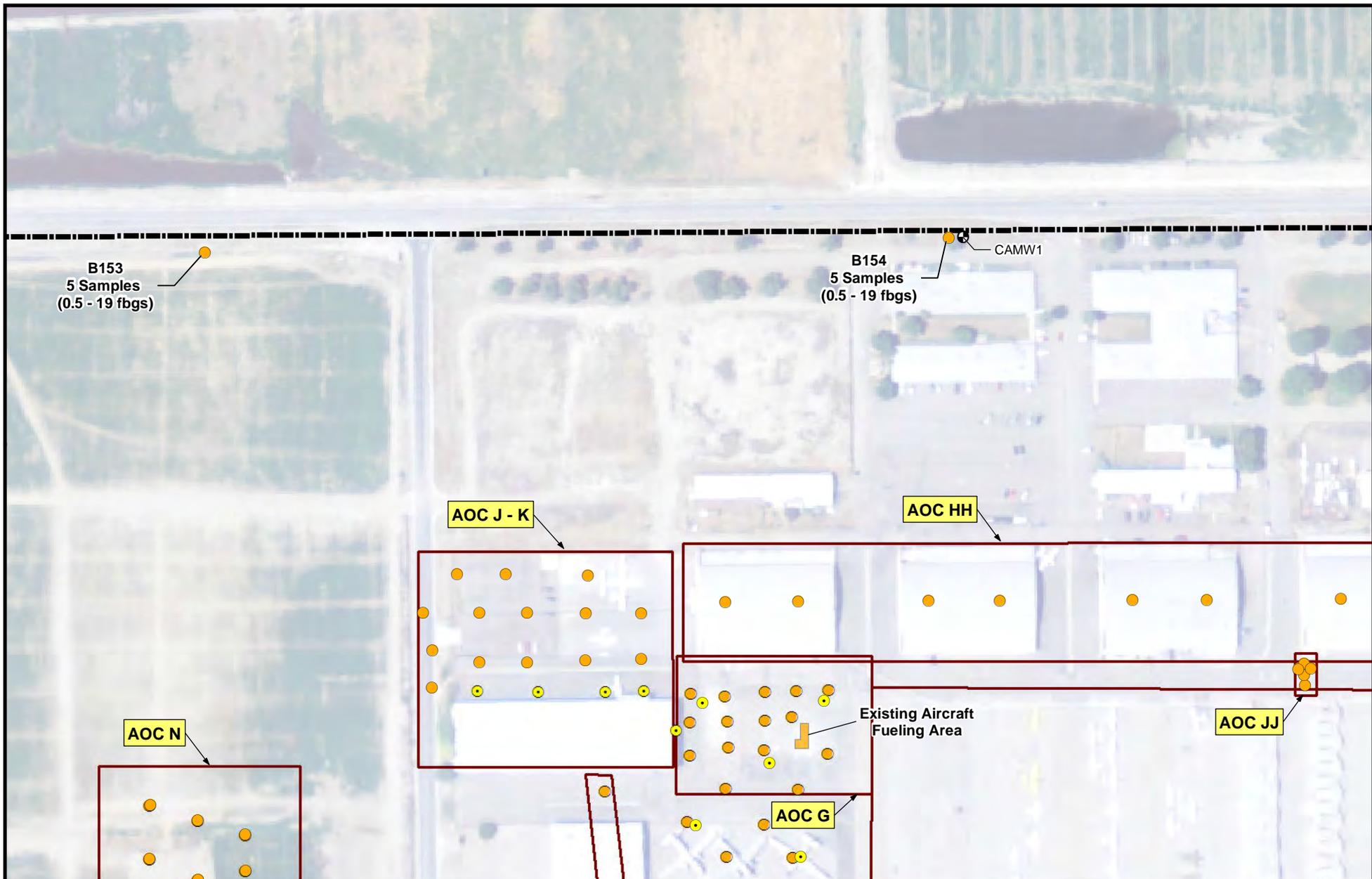


CHINO AIRPORT

Figure 5-34

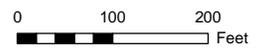
Sampling Locations and Results for VOCs in Soil Gas, AOC J/K - PAC Paint Shop and Paint Shed Areas

TETRA TECH December 2014



LEGEND

-  Monitoring Well Location
-  Soil Boring (Tetra Tech 2014)
-  Shallow Angle Soil Gas Probe (5 foot)
-  Area of Concern



Note: fbgs - feet below ground surface

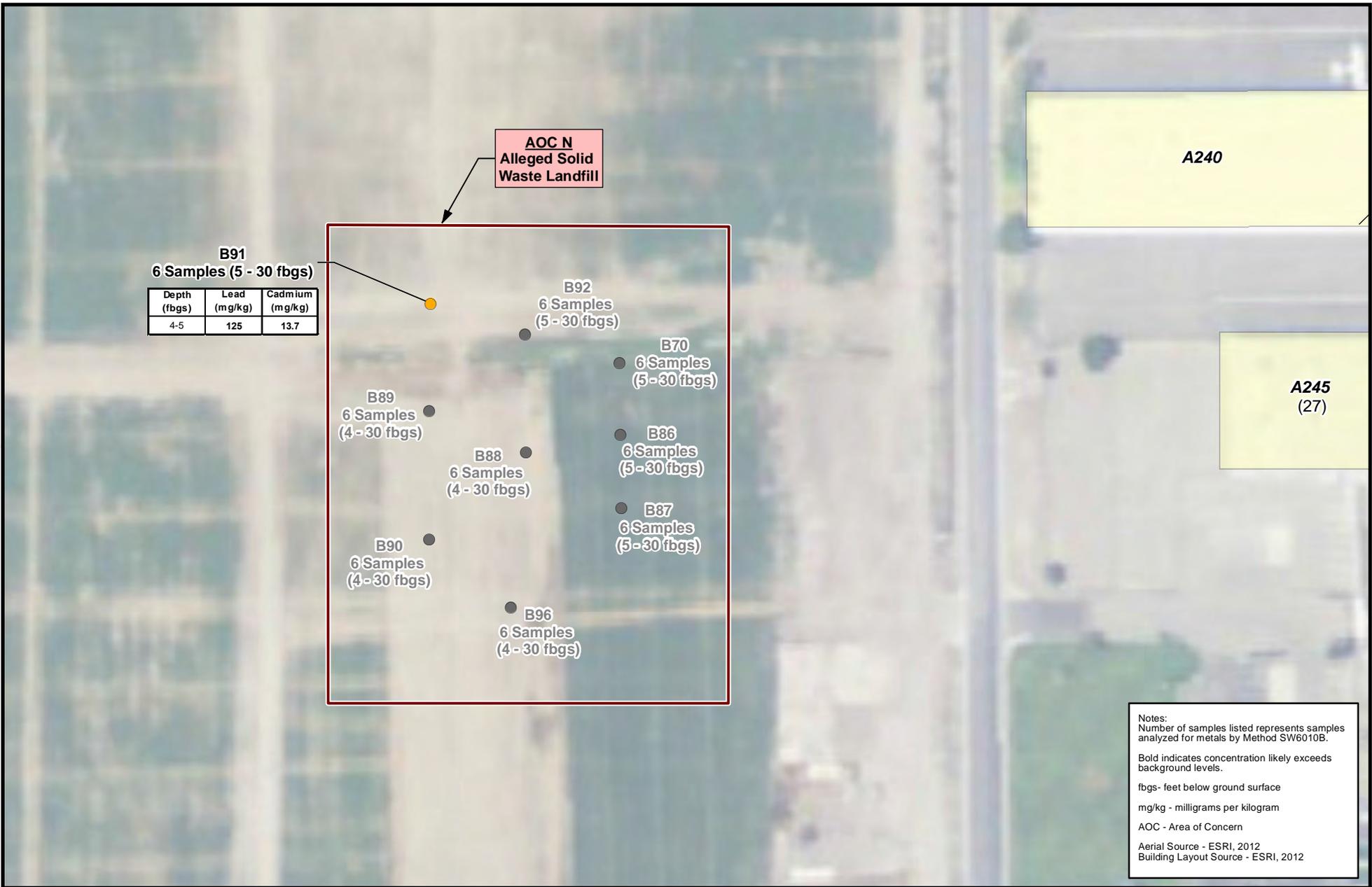
CHINO AIRPORT

Figure 5-35

**Background Sampling Locations
for Metals in Soil**

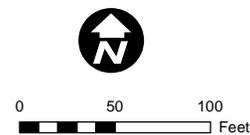


December 2014



LEGEND

- Soil Boring (Tetra Tech 2014)
- Soil Boring - Metals detected in soil are below or within background levels (Tetra Tech 2014)
- Buildings (2012)
- A290** Current Building Number
- (17) Historical Building Number



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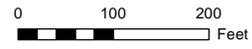
**Figure 5-36
Sampling Locations and Results
for Metals in Soil,
AOC N - Suspected Landfill**



Notes:
 Number of samples listed represents samples analyzed for metals by Method SW6010B.
 fbgs- feet below ground surface
 mg/kg - milligrams per kilogram
 AOC - Area of Concern
 Aerial Source - ESRI, 2012
 Building Layout Source - ESRI, 2012

LEGEND

- Soil Boring - Metals detected in soil are below or within background levels (Tetra Tech 2014)
- ⊕ Monitoring Well
- Buildings (2012)
- A290** Current Building Number
- (17) Historical Building Number



CHINO AIRPORT

Figure 5-37
Sampling Locations and Results for Metals in Soil, AOC O - U.S. Forest Service Area/ Reported Solid Waste Landfill