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**PHASE II ENVIRONMENTAL SITE ASSESSMENT  
PROPOSED RESIDENTIAL DEVELOPMENT  
2260 SAN PASQUAL VALLEY ROAD  
ESCONDIDO, CALIFORNIA**

**PREPARED FOR:**

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**PREPARED BY:**

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*Providing Professional Engineering Services Since  
1959*

**SDC PDS RCVD 12-07-18  
TM5620**

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**GENERAL SITE INFORMATION**

**Project Information:** Proposed Residential Development, APN 234-261-23-00, 234-440-05-00 and 234-430-21-00, 2260 San Pasqual Valley Road, San Diego County, California

**SCST Project Number:** 180155N-2

**Site Information:**

Assessor’s Parcel Numbers (APN’s): 234-261-23-00, 234-440-05-00, and 234-430-21-00

**Site Access Contact:** Mr. Don MacLean (760) 846-9760

**Consultant Information:**

SCST, Inc.  
6280 Riverdale Street  
San Diego, California 92120  
**Phone:** 619.280.4321  
**Fax:** 619.280.4717  
**E-mail Address:** dskinner@scst.com

**Fieldwork Date:** July 17, 2018

**Report Date:** August 5, 2018

**Client Information:**

Mr. Jeff Lundstrom  
Lundstrom Engineering and Surveying, Inc.  
5333 Mission Center Road, Suite 115  
San Diego, California 92108

**E-mail Address:** jeff@lundstrom.cc

**Site Assessor:**

Douglas A. Skinner – Senior Engineering Geologist

**EP Certification:**

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in 40 CFR 312.10.

  
\_\_\_\_\_  
Douglas A. Skinner, CEG 2472 – Project Geologist



**AAI Certification:**

WE have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

  
\_\_\_\_\_  
Douglas A. Skinner, CEG 2472 – Project Geologist



## EXECUTIVE SUMMARY

At the request and authorization of the Client (Mr. Jeff Lundstrom, Lundstrom Engineering and Surveying, Inc.), SCST, Inc. (SCST) conducted a Phase II Environmental Site Assessment (ESA) for the subject property. The purpose of the Phase II ESA was to provide information relevant to identifying, defining, and evaluating property conditions associated with target analytes that may pose risk to human health or the environment based on historic land use as delineated in ASTM E1903-11. The Phase II ESA was prompted by the finding of the Phase I ESA conducted by SCST in March 2018. Additionally, SCST conducted a Preliminary Pre-Demolition Hazardous Materials Survey on the existing onsite structures.

The subject property consists of three parcels and comprises of approximately 18.4 acres. Currently, the site is developed with two structures, a partially paved road, and parking area. The majority of the site is currently undeveloped. We understand the project will consist of the demolition of the existing structures and construction of the proposed residential development.

In general, the subject property is located within an agricultural area bounded by residential properties to the north and east, by San Pasqual Valley Road to the south, and by an undeveloped area to the west (Figure 1). According to the County of San Diego Zoning Map, the site is zoned Agriculture (A).

Based on historical records such as aerial photographs and topographic maps, the subject property, and adjacent properties, have been developed since sometime prior to 1939. The subject property and adjacent properties have historically been used for agricultural purposes. Additionally, a review of regulatory agency databases indicates that a leaking underground storage tank (UST) was historically located on the site. Structures or other improvements are apparent on the subject site in the aerial photographs and topographic maps reviewed.

On July 17, 2018, SCST personnel collected a total of 8 composite soil samples from 8 locations across the subject property for agricultural chemical residue analyses. The sample locations were selected to sufficiently characterize the site. In order to create each composite sample, SCST personnel collected a total of 3 discrete soil samples within a radius of 25 feet from each sample location at depths of 1 inch to 6 inches below existing grade. Each of the 3 discrete samples were thoroughly homogenized to produce a single composite sample. Each composite soil sample was analyzed for organochlorine pesticides (OCP's) in accordance with EPA Test Method 8081A and California Title 22 Metals (T22) in accordance with EPA Method 6010B. Additionally, SCST personnel collected discrete soil samples from the area judged to be the most likely area the UST was located for Total Petroleum Hydrocarbon residue. Two soil samples were collected from two separate borings within the UST area of concern. Each of these four samples were analyzed for TPH by EPA Method 8015M.



We have performed the Phase II ESA in conformance with the scope and limitations of ASTM E1903-11 for the property identified as a portion of Assessor's Parcel Numbers (APN) 234-261-23-00, 234-440-05-00, and 234-430-21-00, located at 2260 San Pasqual Valley Road, in the County of San Diego, California.

Based on the results of the soil sampling and analyses, OCP residue, T22 metals, and soils impacted with petroleum hydrocarbons are present on site. However, the reported concentrations of these chemicals of concerns does not exceed published screening levels or are within normal background ranges. The concentrations detected do not represent a significant concern to human health or the environment, and no immediate action or cleanup is required. The results of our preliminary pre-demolition hazardous materials survey indicate that asbestos containing materials and lead-based paint are likely present in the onsite structures. However, the onsite structures are currently occupied and quantitative samples could not be collected. SCST recommends that once the structures have been vacated, SCST personnel return to the site to perform destructive sampling and a quantitative analysis. Based on the results of this quantitative survey, SCST will prepare a report that will identify and specify hazardous materials that will be encountered during building demolition.



## 1. INTRODUCTION

### 1.1 PURPOSE

The purpose of the Phase II ESA was to provide information relevant to identifying, defining, and evaluating property conditions associated with target analytes that may pose risk to human health or the environment based on historic land use as delineated in ASTM E1903-11. The Phase II ESA was prompted by the finding of the Phase I ESA conducted by SCST in March 2018.

### 1.2 BACKGROUND

SCST conducted a Phase I ESA at the subject property in March 2018 (Reference 13). Based on historical records such as aerial photographs and topographic maps, the subject property, and adjacent properties, have been developed since sometime prior to 1939. The subject property and adjacent properties have historically been used for agricultural purposes. Additionally, a review of regulatory agency databases indicates that a leaking underground storage tank (UST) was historically located on the site. Structures or other improvements are apparent on the subject site in the aerial photographs and topographic maps reviewed. SCST, Inc. concluded that the historical use of the subject property was considered a recognized environmental condition (REC).

### 1.3 SCOPE OF SERVICES

The following scope of services was conducted by SCST:

- A review of readily available documents, which included previous environmental reports by SCST, topographic, geologic, and hydrogeologic conditions associated with the subject site.
- A review of readily available maps, aerial photographs, and other documents relative to historical subject site usage and development.
- A review of readily available federal, state, county, and city documents and database files concerning hazardous material storage, generation and disposal, active and inactive landfills, existing environmental concerns, and associated permits related to the subject property and/or immediately adjacent sites.
- A site reconnaissance to ascertain current conditions of the subject property.
- Interviews with person(s) knowledgeable of the subject property.
- Collection of 8 composite soil samples from locations across the subject property for agricultural chemical residue analyses.



- Collection of 4 discrete soil samples for Total Petroleum Hydrocarbon (TPH) residue analyses from the area judged to be the most likely to be the area where the UST was located.
- The preparation of this report, which presents our findings, opinions, and conclusions.

#### **1.4 RELIANCE**

This ESA has been prepared for the use of Mr. Jeff Lundstrom, Lundstrom Engineering and Surveying, Inc. This assessment should not be relied upon by other parties without the express written consent of SCST and the above-named entities. Any use or reliance upon this assessment by a party other than the above-named entities, therefore shall be solely at the risk of such third party and without legal recourse against SCST, its employees, officers, or directors, regardless of whether the action in which recovery of damages is brought or based upon contract, tort, statute or otherwise.

This assessment should not be interpreted as a statistical evaluation of the subject site, but rather is intended to provide a preliminary indication of on-site impacts from previous site usage and/or the release of hazardous materials. If no significant indicators of the presence of hazardous materials and/or petroleum contamination are encountered during this search, this does not preclude their presence. The findings in this report are based upon published geologic and hydrogeologic information, and information (both documentary and oral) provided by the County of San Diego, Environmental Records Search, (ERS®) (i.e., agency database search), various state and federal agencies, and SCST's field observations. Some of this data is subject to change overtime and is based on information not currently observable or measurable, but recorded by documents or orally reported by individuals.

## **2. PHYSIOGRAPHIC SETTING**

### **2.1 SITE DESCRIPTION**

The subject property is identified as Assessor's Parcel Numbers (APN) 234-261-23-00, 234-440-05-00, and 234-430-21-00, and is located at 2260 San Pasqual Valley Road, in the County of San Diego, California. The subject property comprises of approximately 18.4 acres. In general, the subject property is located within a rural agricultural area bounded by residential properties to the north and east, by San Pasqual Valley Road to the south, and by an undeveloped area to the west (Figure 1). According to the County of San Diego Zoning Map, the site is zoned Agricultural (A).



## 2.2 TOPOGRAPHY

The subject property is located on the United States Geologic Survey (USGS) 7.5 Minute Escondido Quadrangle map (USGS, 2015). The map indicates the elevation of the subject property ranges from approximately 660 to 760 feet above mean sea level (msl). The subject property is located on the south and southwest flank of a small hill. The property generally slopes towards the southwest.

## 2.3 REGIONAL AND LOCAL GEOLOGY

The subject property lies within the Peninsular Ranges Geomorphic Province. The Peninsular Ranges Geomorphic Province, one of the largest geomorphic units in western North America, extends from the Transverse Ranges Geomorphic Province and the Los Angeles Basin, south to the southern tip of Baja California, Mexico. It is bound on the west by the Pacific Ocean, on the south by the Gulf of California and Pacific Ocean, and on the east by the Colorado Desert Province. The Peninsular Ranges are essentially a series of northwest-southeast oriented fault blocks (CDMG, 2002). A review of the Preliminary Geologic Map of the Oceanside 30' x 60' Quadrangle (Kennedy and Tan, 2007) indicates the subject property is underlain by Cretaceous-age Woodson Mountain Granodiorite.

The subject property is not within a Fault-Rupture Hazard Zone (Hart & Bryant, 2007; CDMG, 2000) or within a known Active Fault Near-Source Zone (CDMG, 1988). Three (3) major fault zones and some subordinate fault zones are found in this province. The Elsinore Fault zone and the San Jacinto Fault zones trend northwest-southeast and are found near the middle of the province. The San Andreas Fault zone borders the northeasterly margin of the province, whereas a fault related to the San Andreas Transform Fault System, the Newport-Inglewood-Rose Canyon Fault zone, exists near the western margin and Continental Borderland Geomorphic Province (Jennings, 1994). The possibility of ground acceleration or ground shaking at the site may be considered similar to the Southern California region as a whole.

Soil in the vicinity of the site has been identified by the United States Department of Agriculture – Soil Conservation Service as a sandy loam within the Fallbrook Soil Series (USDA, 2011). Soils on site are considered well drained and have moderate infiltration rates.

## 2.4 REGIONAL AND LOCAL HYDROGEOLOGY

According to the California Regional Water Quality Control Board – San Diego Region 9 (RWQCB, 1995), the subject site is located within the Lomas Los Muertas Hydrologic Subarea (HSA 5.324), of the San Pasqual Hydrologic Area (5.3), of the San Dieguito Hydrologic Unit. Groundwater in this subarea has been classified as having no existing beneficial uses. Surface





water within this hydrologic subarea has been classified as having existing non-contact water recreation, warm fresh water habitat, and wildlife habitat.

The California Department of Water Resources Water Data Library (WDL) website and information provided in the ERS® report indicates that there are no Public Water Supply Wells located within 1 mile of the subject property. There are no known water supply wells within the immediate vicinity of the subject property.

Additionally, SCST reviewed data on the GeoTracker Website regarding depth to groundwater for properties located near the subject site. No groundwater monitoring wells are reported to be within 1 mile of the subject property. Estimated groundwater depths are greater than 30 feet below the existing ground surface. Reported ground water flow direction is unknown.

## **2.5 HYDROLOGIC FLOOD PLAIN INFORMATION**

SCST reviewed the Federal Emergency Management Agency (FEMA) Flood Hazard Map online database (2012) to determine if the subject property was located within an area designated as a Flood Hazard Zone. According to the information reviewed on the Flood Insurance Rate Map (FIRM), Map No. FM06073C1910G (effective May 2012), the subject property is located within Zone X. Zone X designates areas with minimal flood hazard above the 500-year flood level.

## **3. SITE BACKGROUND**

### **3.1 SITE HISTORY**

SCST reviewed readily available information sources to evaluate historic land use in and around the subject site. These information sources include aerial photographs, USGS maps, and files maintained by the County of San Diego.

Based on our research, the subject property, and adjacent properties, have been developed since sometime prior to 1939. The subject property and adjacent properties have historically been used for agricultural purposes. Additionally, a review of regulatory agency databases indicates that a leaking underground storage tank (UST) was historically located on the site. Maps indicating the location of the UST were not included in the regulatory database files. No information regarding the removal of the UST or assessment activities were documented in the files.

### **3.2 FIELD ACTIVITIES AND METHODOLOGY**

Based on the findings made during the original Phase I ESA, SCST concluded the project site was utilized for agricultural purposes from at least 1939 until the present, and that a leaking UST



was located at the site. In order to evaluate the potential presence of agricultural chemical and TPH residue at the subject property, SCST performed a limited site assessment.

### **3.3 SOIL SAMPLING**

#### ***Agricultural Chemical Residue***

On July 17, 2018, SCST personnel collected a total of 8 composite soil samples from 8 locations across the subject property for agricultural chemical residue analyses. The sample locations were selected to sufficiently characterize the site. In order to create each composite sample, SCST personnel collected a total of 3 discrete soil samples within a radius of 25 feet from each sample location at depths of 1 inch to 6 inches below existing grade. Each of the 3 discrete samples were thoroughly homogenized to produce a single composite sample. Sampling equipment was cleaned between each sample using a trisodium phosphate solution with two potable and one distilled water rinse. The composite soil samples were placed into certified-clean, four-ounce glass jars provided by the laboratory. The glass jars were immediately capped with Teflon coated lids, appropriately labeled, and placed in a chilled cooler pending delivery to a California State Certified Laboratory. Appropriate chain-of-custody procedures were followed. Figure 3 presents a site plan depicting the approximate sampling locations.

#### ***Total Petroleum Hydrocarbon Residue***

Research conducted by SCST did not reveal maps or other documents identifying the location or disposition of the UST reported at the site. In order to define an area of concern, SCST reviewed historic aerial imagery and maps to locate any evidence of chemical storage or equipment maintenance and repair. In aerial photographs taken of the site between 1936 and 1995, a shed/workshop is visible approximately 250 feet southeast of the residential structure adjacent to the driveway. In our opinion, this structure and the surrounding area is the most likely place a UST would have been located at the site. SCST personnel collected two discrete soil samples from two separate borings within this area for TPH residue analysis. The samples were collected at depths of 1 foot and 3 feet from each boring using hand tools. Sampling equipment was cleaned between each sample using a trisodium phosphate solution with two potable and one distilled water rinse. The composite soil samples were placed into certified-clean, four-ounce glass jars provided by the laboratory. The glass jars were immediately capped with Teflon coated lids, appropriately labeled, and placed in a chilled cooler pending delivery to a California State Certified Laboratory. Appropriate chain-of-custody procedures were followed. Figure 2 presents a site plan depicting the approximate sampling locations.



### **3.4 SAMPLE ANALYSIS**

#### ***Agricultural Chemical Residue***

Each of the composite soil samples were analyzed for Organochlorine Pesticides (OCP's) in accordance with EPA Test Method 8081A and California Title 22 (T22) in accordance with EPA Method 6010B. The OCP and T22 analytical results are presented on Tables 1 and 2, respectively.

#### ***Total Petroleum Hydrocarbon Residue***

Each of the discrete soil samples were analyzed for Total Petroleum Hydrocarbons (TPH) in accordance with EPA Test Method 8015M. The TPH analytical results are presented on Table 3.

### **3.5 DATA EVALUATION**

Laboratory reported detectable concentrations of analytes from the soil samples collected during this investigation were evaluated using California Human Health Screening Levels (CHHSL's) established by the California Environmental Protection Agency (CalEPA, [Reference 4]) and Environmental Screening Levels (ESL's) developed by the California State Water Resources Control Board (SFRWQCB [Reference 16]).

These screening levels represent a combination of standard assumptions regarding exposure of residents and workers to contaminants in soil and outdoor toxicity factors for each of the specific chemicals listed (CalEPA, 2005). For site characterization such as this one, screening levels are used as a general screening guide to determine whether additional investigation, remedial actions, or risk assessment may be warranted. These screening levels are not regulatory cleanup standards, and the presence of an analyte at a concentration above the screening levels does not necessarily indicate that adverse effects to human health or the environment are occurring, but rather, indicate that a potential for adverse risk may exist and that additional investigation may be necessary.

## **4. RESULTS AND DISCUSSION**

### **4.1 SUBSURFACE CONDITIONS**

Subsurface conditions encountered during the sampling activities at the subject property consisted primarily of silty and clayey sand. SCST personnel did not observe soil staining or orders indicative of contamination during the field work. Ground water was not encountered in any of the hand auger borings.



## **4.2 SOIL ANALYTICAL LABORATORY DATA AND DISCUSSION**

OCP's were detected in five of the eight composite soils samples analyzed. Concentrations of T22 metals were detected in all of the soil samples. With the exception of arsenic, none of the detected T22 concentrations were above the regulatory screening levels. The detected arsenic concentrations are within the limits of the normal range for arsenic concentrations in soils of the western United States (Reference 12).

## **4.3 PRELIMINARY PRE-DEMOLITION HAZARDOUS MATERIALS SURVEY**

On July 11, 2018, an SCST representative conducted a preliminary pre-demolition hazardous materials survey at the subject property. The survey included a visual assessment of suspected asbestos containing materials (ACM's), lead-based paint, and other potential regulated materials within the onsite structures. However, the on-site structures are currently occupied and quantitative samples could not be collected. The results of the visual assessment indicate that ACM's and lead based paints are present in the on-site structures.

## **5. FINDINGS AND OPINIONS**

Based upon the scope of work completed, SCST concludes that the potential for on-site hazardous concentrations of OCP, T22 metals, and TPH impacted soils is very low. It is our opinion that further studies or action are not warranted from an environmental viewpoint at this time.

It is possible that petroleum hydrocarbon impacted soils will be encountered during mass grading operations at the site. If impacted soils are encountered, these soils should be managed in accordance with all applicable regulations.

## **6. CONCLUSIONS**

We have performed the Phase II ESA in conformance with the scope and limitations of ASTM E1903-11 for the property identified as a portion of Assessor's Parcel Numbers (APN) 234-261-23-00, 234-440-05-00, and 234-430-21-00, located at 2260 San Pasqual Valley Road, in the County of San Diego, California.

Based on the results of the soil sampling and analyses, OCP residue, T22 metals, and soils impacted with petroleum hydrocarbons are present on site. However, the reported concentrations of these chemicals of concern does not exceed published screening levels or are within normal background ranges. The concentrations detected do not represent a significant concern to human health or the environment, and no immediate action or cleanup is required. The results of our preliminary pre-demolition hazardous materials survey indicate that asbestos containing materials and lead-based paint are likely present in the onsite structures. However, the onsite structures are currently occupied and quantitative samples could not be collected. SCST recommends that once



the structures have been vacated, SCST personnel return to the site to perform destructive sampling and a quantitative analysis. Based on the results of this quantitative survey, SCST will prepare a report that will identify and specify hazardous materials that will be encountered during building demolition.

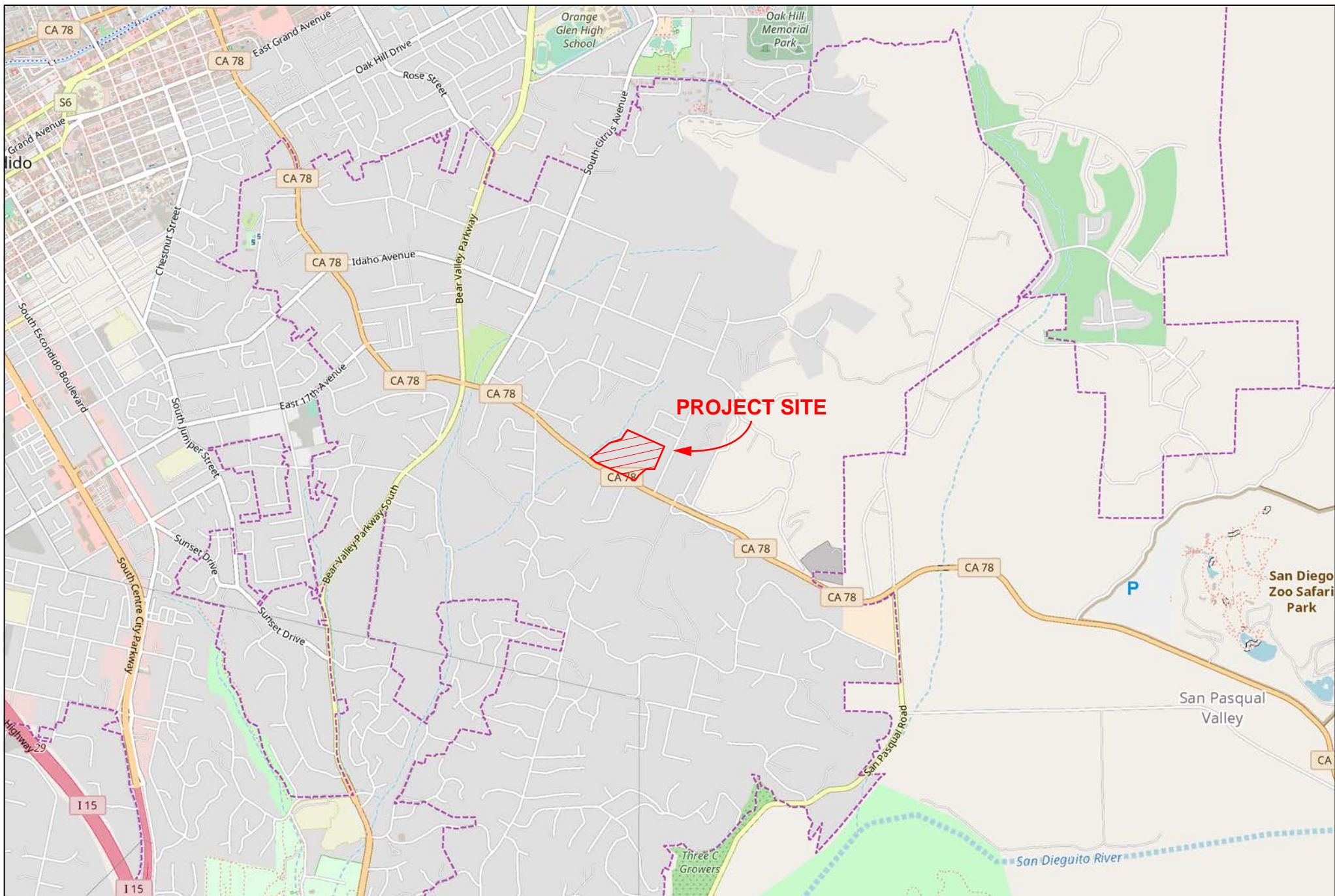


## 7. REFERENCES

- 1) California Department of Water Resources, Water Data Library (WDL), Website (<http://www.water.ca.gov/waterdatalibrary>), accessed July 2018.
- 2) California Department of Conservation, Division of Mines and Geology (CDMG), 2000, Digital Images of Official Maps of Alquist-Priolo Earthquake Fault Zones of California, Southern Region, DMG CD 2000-003.
- 3) California Department of Conservation Division of Mines and Geology (CDMG), 1998, *Maps of Known Active Fault Near-Source Zones in California and Adjacent Portions of Nevada*, published by International Conference of Building Officials.
- 4) California Environmental Protection Agency, 2005, *Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties*
- 5) California State Water Resources Control Board, 2016, *Environmental Screening Levels, San Francisco Bay Regional Water Quality Control Board, Tier 1 ESL's, Revision 3*, dated February.
- 6) Department of Toxic Substances (DTSC), Website (<http://www.envirostor.dtsc.ca.gov/public/>), EnviroStor database, accessed July 2018.
- 7) Federal Emergency Management Agency (FEMA) website, accessed July 2018 ([www.fema.gov](http://www.fema.gov)).
- 8) Hart, E.W., and Bryant, W.A., 2007, *Fault-Rupture Hazard Zones in California*, California Department of Conservation, Division of Mines and Geology, Special Publication 42.
- 9) Jennings, Charles W., 1994 *Fault Activity Map of California and Adjacent Areas*, California Division of Mines and Geology, California Geologic Data Map Series, Map Number 6.
- 10) Kennedy, Michael P. and Tan, Siang S., (2007), Geologic Map of the Oceanside 30'x60' Quadrangle, California, California Geological Survey, Regional Geologic Map No. 2, Scale 1:100,000.
- 11) San Diego Regional Water Quality Control Board –Region 9, 1995, (SARWQCB): California State Water Resources Control Board Publication.
- 12) Shacklette, H.T., Boerngen, J.G., 1984, *“Element Concentrations in Soils and other Surficial Materials of the Conterminous United States”*.
- 13) SCST, Inc. (SCST), 2018, *Phase 1 Environmental Site Assessment, Proposed Residential Development, 2260 San Pasqual Valley Road, Escondido, California*, dated March 23.
- 14) State Water Resources Control Board, Website, GeoTracker database, (<http://www.geotracker.swrcb.ca.gov/>), accessed July 2018.
- 15) United States Department of Agriculture (USDA), Natural Resources Conservation Service, Website (<http://www.websoilsurvey.nrcs.usda.gov/app/>) Web Soil Survey, accessed July 2018.







**SCST, Inc.**

**SITE VICINITY MAP**

2260 San Pasqual Valley Road  
San Diego County, California

Date: August, 2018

By: EMW

Job No.: 180155N-2

Figure:

**1**





**SCST LEGEND:**



Approximate Limits of Project

©2018 Google Earth



**SCST, Inc.**

**SITE PLAN**

2260 San Pasqual Valley Road  
Escondido, California

Date: August, 2018

By: EMW

Job No.: 180155N-2

Figure:

**2**





**SCST LEGEND:**

**S-10** Location of Sample



**SAMPLE LOCATION MAP**  
 2260 San Pasqual Valley Road  
 Escondido, California

Date: August, 2018  
 By: EMW  
 Job No.: 180155N-2

Figure:  
**3**

**TABLE 1 - SOIL SAMPLE ANALYTICAL RESULTS  
 ORGANOCHLORINE PESTICIDES by EPA METHODS 8081A  
 Proposed Residential Development  
 2260 San Pasqual Valley Road  
 Escondido, California**

	ANALYTE (results in ug/kg)																			
	Aldrin	Alpha-BHC	Beta-BHC	Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT	Delta-BHC	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan Sulfate	Endrin	Endrin Aldehyde	Endrin Keytone	Gamma-BHC	Heptachlor	Heptachlor Epoxide	Methoxychlor	Toxaphene
CHHSL's	36*	NL	NL	480*	2,700*	1,900*	1,900*	NL	35	NL	NL	NL	21,000	NL	NL	500	130	NL	340,000	460
Sample ID																				
SP-1	ND	ND	ND	350	ND	ND	ND	ND	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	100
SP-2	ND	ND	ND	340	ND	ND	ND	ND	26	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SP-3	ND	ND	ND	100	ND	ND	ND	ND	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	110
SP-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SP-5	ND	ND	ND	67	ND	10	ND	ND	35	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SP-6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SP-7	ND	ND	ND	110	ND	ND	ND	ND	33	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SP-8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND - Not  
 NL - Not listed in published screening level tables.  
 CHHSLs - California Human Health Screening Levels (2005).  
 \* - Published in SF Bay Area RWQCB Screening Tables (2016).  
**BOLD** -  
 ug/kg - micrograms per kilogram.

**Table 2 - Soil Sample Analytical Results**  
**Title 22 Metals by EPA Method 6010B and EPA 1311**  
**Proposed Residential Development**  
**2260 San Pasqual Valley Road**  
**Escondido, California**

Sample Identification	Total Concentration - Results in milligrams per kilogram (mg/kg)																
	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
SP-1	ND	<b>3.6</b>	89.8	0.26	ND	9.31	9.02	14.90	10.1	ND	ND	3.07	ND	ND	ND	40.6	101.0
SP-2	ND	<b>2.11</b>	122	ND	ND	11.50	10.50	20.00	8.28	ND	ND	3.60	3.52	ND	ND	44.0	87.4
SP-3	ND	ND	91	ND	ND	10.6	9.49	17.30	6.10	ND	ND	3.23	ND	ND	ND	40.0	63.0
SP-4	ND	0.83	89.10	ND	ND	12.50	9.05	23.30	6.06	ND	ND	3.31	ND	ND	ND	37.4	88.2
SP-5	ND	<b>2.76</b>	98.80	ND	ND	12.60	9.80	19.90	9.58	ND	ND	3.75	ND	ND	ND	43.9	210.0
SP-6	ND	<b>1.46</b>	96.40	ND	ND	7.21	8.53	18.90	6.90	ND	ND	3.51	ND	ND	ND	36.0	43.9
SP-7	ND	<b>2.49</b>	85.50	0.25	0.492	8.90	9.19	19.00	7.72	ND	ND	2.60	ND	ND	ND	45.2	139.0
SP-8	ND	<b>1.83</b>	113.00	ND	ND	9.52	11.80	14.60	3.18	ND	ND	3.27	ND	ND	ND	45.8	51.7
ESL	140	0.98	3,000	42	43.0	<b>##</b>	28	140,000	160	44.0	180	9	1,700	1,800	3.5	470	110,000

**Notes:**

mg/kg - milligrams per kilogram

ND - Not detected at or above the laboratory reporting limit

**BOLD** - Indicates concentration exceeds ESL

**##** - ESL not wstablished

ESL - Environmental Screening Levels published by the San Fransico Regional Water Quality Control Board Direct Exposure Human Health Risk Levels Table S-1 (Interim Final, February 2016, Revision 3)

**Table 3 - Soil Sample Analytical Results**  
**Total Petroleum Hydrocarbons (TPH) by EPA 8015M**  
**Proposed Residential Development**  
**2260 San Pasqual Valley Road**  
**Escondido, California**

Sample Designation	Boring	Depth (BGS)	Total Petroleum Hydrocarbons (TPH) by EPA Method 8015M in mg/kg			
			Gasoline (C4-C12)	Diesel (C13-C24)	Motor Oil (C25-C40)	Total TPH
SP-9@1FT	SP-9	1 foot	ND	ND	ND	15
SP-9@3FT	SP-9	3 feet	ND	ND	ND	12
SP-10@1FT	SP-10	1 foot	ND	ND	80	85
SP-10@3FT	SP-10	3 feet	ND	ND	82	100
ESL			100 mg/kg	230 mg/kg	5,100 mg/kg	

**Notes:**

mg/kg = milligrams per kilogram

ND = Not Detected at or above laboratory reporting limits

ESL = Environmental Screening Levels published by the San Francisco Bay Regional Water Quality Control Board Direct Exposure Human Health Risk Levels Table S-1 (Interim Final, February 2016, Revision 3)

LABORATORY ANALYTICAL DATA





Calscience



**WORK ORDER NUMBER: 18-07-1307**

*The difference is service*



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** SCST, Inc.

**Client Project Name:** San Pasqual Phase II

**Attention:** Doug Skinner  
6280 Riverdale Street  
San Diego, CA 92120-3308

Approved for release on 07/26/2018 by:  
Terri Chang  
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience (Calscience) certifies that the test results provided in this report meet all NELAC Institute requirements for parameters for which accreditation is required or available. Any exceptions to NELAC Institute requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



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 Work Order Number: 18-07-1307

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**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 07/18/18. They were assigned to Work Order 18-07-1307.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

**DoD Projects:**

The test results contained in this report are accredited under the laboratory's ISO/IEC 17025:2005 and DoD-ELAP accreditation issued by the ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation ADE-1864.





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## Sample Summary

Client: SCST, Inc.	Work Order: 18-07-1307
6280 Riverdale Street	Project Name: San Pasqual Phase II
San Diego, CA 92120-3308	PO Number:
	Date/Time Received: 07/18/18 19:45
	Number of Containers: 12

Attn: Doug Skinner

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
SP-1	18-07-1307-1	07/17/18 10:45	1	Solid
SP-2	18-07-1307-2	07/17/18 11:29	1	Solid
SP-3	18-07-1307-3	07/17/18 11:13	1	Solid
SP-4	18-07-1307-4	07/17/18 12:41	1	Solid
SP-5	18-07-1307-5	07/17/18 12:29	1	Solid
SP-6	18-07-1307-6	07/17/18 12:16	1	Solid
SP-7	18-07-1307-7	07/17/18 12:00	1	Solid
SP-8	18-07-1307-8	07/17/18 11:42	1	Solid
SP-9@1FT	18-07-1307-9	07/17/18 12:58	1	Solid
SP-9@3FT	18-07-1307-10	07/17/18 13:13	1	Solid
SP-10@1FT	18-07-1307-11	07/17/18 13:27	1	Solid
SP-10@3FT	18-07-1307-12	07/17/18 13:41	1	Solid


  
Return to Contents



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## Analytical Report

SCST, Inc.  
6280 Riverdale Street  
San Diego, CA 92120-3308

Date Received: 07/18/18  
Work Order: 18-07-1307  
Preparation: EPA 3550B  
Method: EPA 8015B (M)  
Units: mg/kg

Project: San Pasqual Phase II

Page 1 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SP-9@1FT	18-07-1307-9-A	07/17/18 12:58	Solid	GC 46	07/23/18	07/24/18 08:24	180723B01

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.2	1.00	
C7	ND	5.2	1.00	
C8	ND	5.2	1.00	
C9-C10	ND	5.2	1.00	
C11-C12	ND	5.2	1.00	
C13-C14	ND	5.2	1.00	
C15-C16	ND	5.2	1.00	
C17-C18	ND	5.2	1.00	
C19-C20	ND	5.2	1.00	
C21-C22	ND	5.2	1.00	
C23-C24	ND	5.2	1.00	
C25-C28	ND	5.2	1.00	
C29-C32	ND	5.2	1.00	
C33-C36	ND	5.2	1.00	
C37-C40	ND	5.2	1.00	
C41-C44	ND	5.2	1.00	
C6-C44 Total	15	5.2	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	98	61-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

## Analytical Report

SCST, Inc.  
 6280 Riverdale Street  
 San Diego, CA 92120-3308

Date Received: 07/18/18  
 Work Order: 18-07-1307  
 Preparation: EPA 3550B  
 Method: EPA 8015B (M)  
 Units: mg/kg

Project: San Pasqual Phase II

Page 2 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SP-9@3FT	18-07-1307-10-A	07/17/18 13:13	Solid	GC 46	07/23/18	07/24/18 08:44	180723B01

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	12	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	101	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

## Analytical Report

SCST, Inc.  
 6280 Riverdale Street  
 San Diego, CA 92120-3308

Date Received: 07/18/18  
 Work Order: 18-07-1307  
 Preparation: EPA 3550B  
 Method: EPA 8015B (M)  
 Units: mg/kg

Project: San Pasqual Phase II

Page 3 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SP-10@1FT	18-07-1307-11-A	07/17/18 13:27	Solid	GC 46	07/23/18	07/24/18 09:05	180723B01

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.1	1.00	
C7	ND	5.1	1.00	
C8	ND	5.1	1.00	
C9-C10	ND	5.1	1.00	
C11-C12	ND	5.1	1.00	
C13-C14	ND	5.1	1.00	
C15-C16	ND	5.1	1.00	
C17-C18	ND	5.1	1.00	
C19-C20	ND	5.1	1.00	
C21-C22	ND	5.1	1.00	
C23-C24	ND	5.1	1.00	
C25-C28	12	5.1	1.00	
C29-C32	25	5.1	1.00	
C33-C36	24	5.1	1.00	
C37-C40	11	5.1	1.00	
C41-C44	8.3	5.1	1.00	
C6-C44 Total	85	5.1	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	93	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

## Analytical Report

SCST, Inc.  
6280 Riverdale Street  
San Diego, CA 92120-3308

Date Received: 07/18/18  
Work Order: 18-07-1307  
Preparation: EPA 3550B  
Method: EPA 8015B (M)  
Units: mg/kg

Project: San Pasqual Phase II

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SP-10@3FT	18-07-1307-12-A	07/17/18 13:41	Solid	GC 46	07/23/18	07/24/18 09:25	180723B01

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	9.0	5.0	1.00	
C29-C32	26	5.0	1.00	
C33-C36	30	5.0	1.00	
C37-C40	16	5.0	1.00	
C41-C44	9.9	5.0	1.00	
C6-C44 Total	100	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	102	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

SCST, Inc.  
6280 Riverdale Street  
San Diego, CA 92120-3308

Date Received: 07/18/18  
Work Order: 18-07-1307  
Preparation: EPA 3550B  
Method: EPA 8015B (M)  
Units: mg/kg

Project: San Pasqual Phase II

Page 5 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-490-3192	N/A	Solid	GC 46	07/23/18	07/23/18 15:21	180723B01

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	101	61-145	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

SCST, Inc.  
6280 Riverdale Street  
San Diego, CA 92120-3308

Date Received: 07/18/18  
Work Order: 18-07-1307  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: San Pasqual Phase II

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SP-1	18-07-1307-1-A	07/17/18 10:45	Solid	ICP 8300	07/23/18	07/25/18 18:24	180723L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.714	0.952	
Arsenic	3.60	0.714	0.952	
Barium	89.8	0.476	0.952	
Beryllium	0.261	0.238	0.952	
Cadmium	ND	0.476	0.952	
Chromium	9.31	0.238	0.952	
Cobalt	9.02	0.238	0.952	
Copper	14.9	0.476	0.952	
Lead	10.1	0.476	0.952	
Molybdenum	ND	0.238	0.952	
Nickel	3.07	0.238	0.952	
Selenium	ND	0.714	0.952	
Silver	ND	0.238	0.952	
Thallium	ND	0.714	0.952	
Vanadium	40.6	0.238	0.952	
Zinc	101	0.952	0.952	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

## Analytical Report

SCST, Inc.  
 6280 Riverdale Street  
 San Diego, CA 92120-3308

Date Received: 07/18/18  
 Work Order: 18-07-1307  
 Preparation: EPA 3050B  
 Method: EPA 6010B  
 Units: mg/kg

Project: San Pasqual Phase II

Page 2 of 9

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SP-2	18-07-1307-2-A	07/17/18 11:29	Solid	ICP 8300	07/23/18	07/25/18 18:38	180723L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.746	0.995	
Arsenic	2.11	0.746	0.995	
Barium	122	0.498	0.995	
Beryllium	ND	0.249	0.995	
Cadmium	ND	0.498	0.995	
Chromium	11.5	0.249	0.995	
Cobalt	10.5	0.249	0.995	
Copper	20.0	0.498	0.995	
Lead	8.28	0.498	0.995	
Molybdenum	ND	0.249	0.995	
Nickel	3.60	0.249	0.995	
Selenium	ND	0.746	0.995	
Silver	ND	0.249	0.995	
Thallium	ND	0.746	0.995	
Vanadium	44.0	0.249	0.995	
Zinc	87.4	0.995	0.995	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

SCST, Inc.  
6280 Riverdale Street  
San Diego, CA 92120-3308

Date Received: 07/18/18  
Work Order: 18-07-1307  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: San Pasqual Phase II

Page 3 of 9

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SP-3	18-07-1307-3-A	07/17/18 11:13	Solid	ICP 8300	07/23/18	07/25/18 18:39	180723L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.754	1.01	
Arsenic	ND	0.754	1.01	
Barium	91.0	0.503	1.01	
Beryllium	ND	0.251	1.01	
Cadmium	ND	0.503	1.01	
Chromium	10.6	0.251	1.01	
Cobalt	9.49	0.251	1.01	
Copper	17.3	0.503	1.01	
Lead	6.10	0.503	1.01	
Molybdenum	ND	0.251	1.01	
Nickel	3.23	0.251	1.01	
Selenium	ND	0.754	1.01	
Silver	ND	0.251	1.01	
Thallium	ND	0.754	1.01	
Vanadium	40.0	0.251	1.01	
Zinc	63.0	1.01	1.01	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

## Analytical Report

SCST, Inc.  
6280 Riverdale Street  
San Diego, CA 92120-3308

Date Received: 07/18/18  
Work Order: 18-07-1307  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: San Pasqual Phase II

Page 4 of 9

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SP-4	18-07-1307-4-A	07/17/18 12:41	Solid	ICP 8300	07/23/18	07/25/18 18:40	180723L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.781	1.04	
Arsenic	0.832	0.781	1.04	
Barium	89.1	0.521	1.04	
Beryllium	ND	0.260	1.04	
Cadmium	ND	0.521	1.04	
Chromium	12.5	0.260	1.04	
Cobalt	9.05	0.260	1.04	
Copper	23.3	0.521	1.04	
Lead	6.06	0.521	1.04	
Molybdenum	ND	0.260	1.04	
Nickel	3.31	0.260	1.04	
Selenium	ND	0.781	1.04	
Silver	ND	0.260	1.04	
Thallium	ND	0.781	1.04	
Vanadium	37.4	0.260	1.04	
Zinc	88.2	1.04	1.04	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

SCST, Inc.  
6280 Riverdale Street  
San Diego, CA 92120-3308

Date Received: 07/18/18  
Work Order: 18-07-1307  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: San Pasqual Phase II

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SP-5	18-07-1307-5-A	07/17/18 12:29	Solid	ICP 8300	07/23/18	07/25/18 18:41	180723L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.769	1.03	
Arsenic	2.76	0.769	1.03	
Barium	98.8	0.513	1.03	
Beryllium	ND	0.256	1.03	
Cadmium	ND	0.513	1.03	
Chromium	12.6	0.256	1.03	
Cobalt	9.80	0.256	1.03	
Copper	19.9	0.513	1.03	
Lead	9.58	0.513	1.03	
Molybdenum	ND	0.256	1.03	
Nickel	3.75	0.256	1.03	
Selenium	ND	0.769	1.03	
Silver	ND	0.256	1.03	
Thallium	ND	0.769	1.03	
Vanadium	43.9	0.256	1.03	
Zinc	210	1.03	1.03	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

## Analytical Report

SCST, Inc.  
6280 Riverdale Street  
San Diego, CA 92120-3308

Date Received: 07/18/18  
Work Order: 18-07-1307  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: San Pasqual Phase II

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SP-6	18-07-1307-6-A	07/17/18 12:16	Solid	ICP 8300	07/23/18	07/25/18 18:41	180723L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.758	1.01	
Arsenic	1.46	0.758	1.01	
Barium	96.4	0.505	1.01	
Beryllium	ND	0.253	1.01	
Cadmium	ND	0.505	1.01	
Chromium	7.21	0.253	1.01	
Cobalt	8.53	0.253	1.01	
Copper	18.9	0.505	1.01	
Lead	6.90	0.505	1.01	
Molybdenum	ND	0.253	1.01	
Nickel	3.51	0.253	1.01	
Selenium	ND	0.758	1.01	
Silver	ND	0.253	1.01	
Thallium	ND	0.758	1.01	
Vanadium	36.0	0.253	1.01	
Zinc	43.9	1.01	1.01	


  
Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

SCST, Inc.  
6280 Riverdale Street  
San Diego, CA 92120-3308

Date Received: 07/18/18  
Work Order: 18-07-1307  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: San Pasqual Phase II

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SP-7	18-07-1307-7-A	07/17/18 12:00	Solid	ICP 8300	07/23/18	07/25/18 18:43	180723L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.728	0.971	
Arsenic	2.49	0.728	0.971	
Barium	85.5	0.485	0.971	
Beryllium	0.253	0.243	0.971	
Cadmium	0.492	0.485	0.971	
Chromium	8.90	0.243	0.971	
Cobalt	9.19	0.243	0.971	
Copper	19.0	0.485	0.971	
Lead	7.72	0.485	0.971	
Molybdenum	ND	0.243	0.971	
Nickel	2.60	0.243	0.971	
Selenium	ND	0.728	0.971	
Silver	ND	0.243	0.971	
Thallium	ND	0.728	0.971	
Vanadium	45.2	0.243	0.971	
Zinc	139	0.971	0.971	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

SCST, Inc.  
6280 Riverdale Street  
San Diego, CA 92120-3308

Date Received: 07/18/18  
Work Order: 18-07-1307  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: San Pasqual Phase II

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SP-8	18-07-1307-8-A	07/17/18 11:42	Solid	ICP 8300	07/23/18	07/25/18 18:44	180723L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.746	0.995	
Arsenic	1.83	0.746	0.995	
Barium	113	0.498	0.995	
Beryllium	ND	0.249	0.995	
Cadmium	ND	0.498	0.995	
Chromium	9.52	0.249	0.995	
Cobalt	11.8	0.249	0.995	
Copper	14.6	0.498	0.995	
Lead	3.18	0.498	0.995	
Molybdenum	ND	0.249	0.995	
Nickel	3.27	0.249	0.995	
Selenium	ND	0.746	0.995	
Silver	ND	0.249	0.995	
Thallium	ND	0.746	0.995	
Vanadium	45.8	0.249	0.995	
Zinc	51.7	0.995	0.995	


  
Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

SCST, Inc.  
6280 Riverdale Street  
San Diego, CA 92120-3308

Date Received: 07/18/18  
Work Order: 18-07-1307  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: San Pasqual Phase II

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	097-01-002-26674	N/A	Solid	ICP 8300	07/23/18	07/25/18 18:21	180723L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1.00	
Arsenic	ND	0.750	1.00	
Barium	ND	0.500	1.00	
Beryllium	ND	0.250	1.00	
Cadmium	ND	0.500	1.00	
Chromium	ND	0.250	1.00	
Cobalt	ND	0.250	1.00	
Copper	ND	0.500	1.00	
Lead	ND	0.500	1.00	
Molybdenum	ND	0.250	1.00	
Nickel	ND	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	ND	0.250	1.00	
Zinc	ND	1.00	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

SCST, Inc.  
6280 Riverdale Street  
San Diego, CA 92120-3308

Date Received: 07/18/18  
Work Order: 18-07-1307  
Preparation: EPA 7471A Total  
Method: EPA 7471A  
Units: mg/kg

Project: San Pasqual Phase II

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>SP-1</b>	<b>18-07-1307-1-A</b>	<b>07/17/18 10:45</b>	<b>Solid</b>	<b>Mercury 08</b>	<b>07/25/18</b>	<b>07/25/18 13:19</b>	<b>180725L01</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0794		1.00	
<b>SP-2</b>	<b>18-07-1307-2-A</b>	<b>07/17/18 11:29</b>	<b>Solid</b>	<b>Mercury 08</b>	<b>07/25/18</b>	<b>07/25/18 13:21</b>	<b>180725L01</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0794		1.00	
<b>SP-3</b>	<b>18-07-1307-3-A</b>	<b>07/17/18 11:13</b>	<b>Solid</b>	<b>Mercury 08</b>	<b>07/25/18</b>	<b>07/25/18 13:23</b>	<b>180725L01</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0820		1.00	
<b>SP-4</b>	<b>18-07-1307-4-A</b>	<b>07/17/18 12:41</b>	<b>Solid</b>	<b>Mercury 08</b>	<b>07/25/18</b>	<b>07/25/18 13:26</b>	<b>180725L01</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0794		1.00	
<b>SP-5</b>	<b>18-07-1307-5-A</b>	<b>07/17/18 12:29</b>	<b>Solid</b>	<b>Mercury 08</b>	<b>07/25/18</b>	<b>07/25/18 13:28</b>	<b>180725L01</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0806		1.00	
<b>SP-6</b>	<b>18-07-1307-6-A</b>	<b>07/17/18 12:16</b>	<b>Solid</b>	<b>Mercury 08</b>	<b>07/25/18</b>	<b>07/25/18 13:35</b>	<b>180725L01</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0806		1.00	
<b>SP-7</b>	<b>18-07-1307-7-A</b>	<b>07/17/18 12:00</b>	<b>Solid</b>	<b>Mercury 08</b>	<b>07/25/18</b>	<b>07/25/18 13:37</b>	<b>180725L01</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0833		1.00	
<b>SP-8</b>	<b>18-07-1307-8-A</b>	<b>07/17/18 11:42</b>	<b>Solid</b>	<b>Mercury 08</b>	<b>07/25/18</b>	<b>07/25/18 13:39</b>	<b>180725L01</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0794		1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.





Calscience

### Analytical Report

SCST, Inc.  
 6280 Riverdale Street  
 San Diego, CA 92120-3308

Date Received: 07/18/18  
 Work Order: 18-07-1307  
 Preparation: EPA 7471A Total  
 Method: EPA 7471A  
 Units: mg/kg

Project: San Pasqual Phase II

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>Method Blank</b>	<b>099-16-272-4000</b>	<b>N/A</b>	<b>Solid</b>	<b>Mercury 08</b>	<b>07/25/18</b>	<b>07/25/18 13:07</b>	<b>180725L01</b>

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Mercury	ND	0.0820	1.00	

Return to Contents 

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

## Analytical Report

SCST, Inc.  
6280 Riverdale Street  
San Diego, CA 92120-3308

Date Received: 07/18/18  
Work Order: 18-07-1307  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: San Pasqual Phase II

Page 1 of 10

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SP-1	18-07-1307-1-A	07/17/18 10:45	Solid	GC 44	07/19/18	07/23/18 13:14	180719L02

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	4.9	1.00	
Alpha-BHC	ND	9.8	1.00	
Beta-BHC	ND	4.9	1.00	
Chlordane	350	49	1.00	
4,4'-DDD	ND	4.9	1.00	
4,4'-DDE	ND	4.9	1.00	
4,4'-DDT	ND	4.9	1.00	
Delta-BHC	ND	9.8	1.00	
Dieldrin	30	4.9	1.00	
Endosulfan I	ND	4.9	1.00	
Endosulfan II	ND	4.9	1.00	
Endosulfan Sulfate	ND	4.9	1.00	
Endrin	ND	4.9	1.00	
Endrin Aldehyde	ND	4.9	1.00	
Endrin Ketone	ND	4.9	1.00	
Gamma-BHC	ND	4.9	1.00	
Heptachlor	ND	4.9	1.00	
Heptachlor Epoxide	ND	9.8	1.00	
Methoxychlor	ND	4.9	1.00	
Toxaphene	ND	98	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	122	24-168	
2,4,5,6-Tetrachloro-m-Xylene	87	25-145	


  
 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

SCST, Inc.  
6280 Riverdale Street  
San Diego, CA 92120-3308

Date Received: 07/18/18  
Work Order: 18-07-1307  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: San Pasqual Phase II

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SP-2	18-07-1307-2-A	07/17/18 11:29	Solid	GC 44	07/19/18	07/24/18 11:15	180719L02

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	4.9	1.00	
Alpha-BHC	ND	9.8	1.00	
Beta-BHC	ND	4.9	1.00	
Chlordane	340	49	1.00	
4,4'-DDD	ND	4.9	1.00	
4,4'-DDE	ND	4.9	1.00	
4,4'-DDT	ND	4.9	1.00	
Delta-BHC	ND	9.8	1.00	
Dieldrin	26	4.9	1.00	
Endosulfan I	ND	4.9	1.00	
Endosulfan II	ND	4.9	1.00	
Endosulfan Sulfate	ND	4.9	1.00	
Endrin	ND	4.9	1.00	
Endrin Aldehyde	ND	4.9	1.00	
Endrin Ketone	ND	4.9	1.00	
Gamma-BHC	ND	4.9	1.00	
Heptachlor	ND	4.9	1.00	
Heptachlor Epoxide	ND	9.8	1.00	
Methoxychlor	ND	4.9	1.00	
Toxaphene	ND	98	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	104	24-168	
2,4,5,6-Tetrachloro-m-Xylene	94	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

SCST, Inc.  
6280 Riverdale Street  
San Diego, CA 92120-3308

Date Received: 07/18/18  
Work Order: 18-07-1307  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: San Pasqual Phase II

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SP-3	18-07-1307-3-A	07/17/18 11:13	Solid	GC 51	07/24/18	07/26/18 13:43	180724L04

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	100	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	ND	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	12	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	113	24-168	
2,4,5,6-Tetrachloro-m-Xylene	83	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

SCST, Inc.  
6280 Riverdale Street  
San Diego, CA 92120-3308

Date Received: 07/18/18  
Work Order: 18-07-1307  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: San Pasqual Phase II

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SP-4	18-07-1307-4-A	07/17/18 12:41	Solid	GC 44	07/19/18	07/23/18 13:43	180719L02

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	4.9	1.00	
Alpha-BHC	ND	9.9	1.00	
Beta-BHC	ND	4.9	1.00	
Chlordane	ND	49	1.00	
4,4'-DDD	ND	4.9	1.00	
4,4'-DDE	ND	4.9	1.00	
4,4'-DDT	ND	4.9	1.00	
Delta-BHC	ND	9.9	1.00	
Dieldrin	ND	4.9	1.00	
Endosulfan I	ND	4.9	1.00	
Endosulfan II	ND	4.9	1.00	
Endosulfan Sulfate	ND	4.9	1.00	
Endrin	ND	4.9	1.00	
Endrin Aldehyde	ND	4.9	1.00	
Endrin Ketone	ND	4.9	1.00	
Gamma-BHC	ND	4.9	1.00	
Heptachlor	ND	4.9	1.00	
Heptachlor Epoxide	ND	9.9	1.00	
Methoxychlor	ND	4.9	1.00	
Toxaphene	ND	99	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	37	24-168	
2,4,5,6-Tetrachloro-m-Xylene	43	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

SCST, Inc.  
6280 Riverdale Street  
San Diego, CA 92120-3308

Date Received: 07/18/18  
Work Order: 18-07-1307  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: San Pasqual Phase II

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SP-5	18-07-1307-5-A	07/17/18 12:29	Solid	GC 44	07/19/18	07/23/18 13:57	180719L02

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	4.9	1.00	
Alpha-BHC	ND	9.8	1.00	
Beta-BHC	ND	4.9	1.00	
Chlordane	67	49	1.00	
4,4'-DDD	ND	4.9	1.00	
4,4'-DDE	10	4.9	1.00	
4,4'-DDT	ND	4.9	1.00	
Delta-BHC	ND	9.8	1.00	
Dieldrin	35	4.9	1.00	
Endosulfan I	ND	4.9	1.00	
Endosulfan II	ND	4.9	1.00	
Endosulfan Sulfate	ND	4.9	1.00	
Endrin	ND	4.9	1.00	
Endrin Aldehyde	ND	4.9	1.00	
Endrin Ketone	ND	4.9	1.00	
Gamma-BHC	ND	4.9	1.00	
Heptachlor	ND	4.9	1.00	
Heptachlor Epoxide	ND	9.8	1.00	
Methoxychlor	ND	4.9	1.00	
Toxaphene	ND	98	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	45	24-168	
2,4,5,6-Tetrachloro-m-Xylene	44	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

SCST, Inc.  
6280 Riverdale Street  
San Diego, CA 92120-3308

Date Received: 07/18/18  
Work Order: 18-07-1307  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: San Pasqual Phase II

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SP-6	18-07-1307-6-A	07/17/18 12:16	Solid	GC 44	07/19/18	07/23/18 14:11	180719L02

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	4.9	1.00	
Alpha-BHC	ND	9.8	1.00	
Beta-BHC	ND	4.9	1.00	
Chlordane	ND	49	1.00	
4,4'-DDD	ND	4.9	1.00	
4,4'-DDE	ND	4.9	1.00	
4,4'-DDT	ND	4.9	1.00	
Delta-BHC	ND	9.8	1.00	
Dieldrin	ND	4.9	1.00	
Endosulfan I	ND	4.9	1.00	
Endosulfan II	ND	4.9	1.00	
Endosulfan Sulfate	ND	4.9	1.00	
Endrin	ND	4.9	1.00	
Endrin Aldehyde	ND	4.9	1.00	
Endrin Ketone	ND	4.9	1.00	
Gamma-BHC	ND	4.9	1.00	
Heptachlor	ND	4.9	1.00	
Heptachlor Epoxide	ND	9.8	1.00	
Methoxychlor	ND	4.9	1.00	
Toxaphene	ND	98	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	82	24-168	
2,4,5,6-Tetrachloro-m-Xylene	72	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.





Calscience

## Analytical Report

SCST, Inc.  
6280 Riverdale Street  
San Diego, CA 92120-3308

Date Received: 07/18/18  
Work Order: 18-07-1307  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: San Pasqual Phase II

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SP-7	18-07-1307-7-A	07/17/18 12:00	Solid	GC 44	07/19/18	07/23/18 14:25	180719L02

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	4.9	1.00	
Alpha-BHC	ND	9.9	1.00	
Beta-BHC	ND	4.9	1.00	
Chlordane	110	49	1.00	
4,4'-DDD	ND	4.9	1.00	
4,4'-DDE	ND	4.9	1.00	
4,4'-DDT	ND	4.9	1.00	
Delta-BHC	ND	9.9	1.00	
Endosulfan I	ND	4.9	1.00	
Endosulfan II	ND	4.9	1.00	
Endosulfan Sulfate	ND	4.9	1.00	
Endrin	ND	4.9	1.00	
Endrin Aldehyde	ND	4.9	1.00	
Endrin Ketone	ND	4.9	1.00	
Gamma-BHC	ND	4.9	1.00	
Heptachlor	ND	4.9	1.00	
Heptachlor Epoxide	ND	9.9	1.00	
Methoxychlor	ND	4.9	1.00	
Toxaphene	ND	99	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	76	24-168	
2,4,5,6-Tetrachloro-m-Xylene	65	25-145	

SP-7	18-07-1307-7-A	07/17/18 12:00	Solid	GC 44	07/19/18	07/24/18 10:51	180719L02
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Parameter	Result	RL	DF	Qualifiers
Dieldrin	33	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	81	24-168	
2,4,5,6-Tetrachloro-m-Xylene	72	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

SCST, Inc.  
6280 Riverdale Street  
San Diego, CA 92120-3308

Date Received: 07/18/18  
Work Order: 18-07-1307  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: San Pasqual Phase II

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SP-8	18-07-1307-8-A	07/17/18 11:42	Solid	GC 44	07/19/18	07/23/18 14:40	180719L02

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	4.9	1.00	
Alpha-BHC	ND	9.8	1.00	
Beta-BHC	ND	4.9	1.00	
Chlordane	ND	49	1.00	
4,4'-DDD	ND	4.9	1.00	
4,4'-DDE	ND	4.9	1.00	
4,4'-DDT	ND	4.9	1.00	
Delta-BHC	ND	9.8	1.00	
Dieldrin	ND	4.9	1.00	
Endosulfan I	ND	4.9	1.00	
Endosulfan II	ND	4.9	1.00	
Endosulfan Sulfate	ND	4.9	1.00	
Endrin	ND	4.9	1.00	
Endrin Aldehyde	ND	4.9	1.00	
Endrin Ketone	ND	4.9	1.00	
Gamma-BHC	ND	4.9	1.00	
Heptachlor	ND	4.9	1.00	
Heptachlor Epoxide	ND	9.8	1.00	
Methoxychlor	ND	4.9	1.00	
Toxaphene	ND	98	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	87	24-168	
2,4,5,6-Tetrachloro-m-Xylene	82	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

SCST, Inc.  
6280 Riverdale Street  
San Diego, CA 92120-3308

Date Received: 07/18/18  
Work Order: 18-07-1307  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: San Pasqual Phase II

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-537-2986	N/A	Solid	GC 44	07/19/18	07/19/18 15:23	180719L02

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	ND	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	89	24-168	
2,4,5,6-Tetrachloro-m-Xylene	104	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

SCST, Inc.  
6280 Riverdale Street  
San Diego, CA 92120-3308

Date Received: 07/18/18  
Work Order: 18-07-1307  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: San Pasqual Phase II

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>Method Blank</b>	<b>099-12-537-2990</b>	<b>N/A</b>	<b>Solid</b>	<b>GC 51</b>	<b>07/24/18</b>	<b>07/26/18 13:00</b>	<b>180724L04</b>

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	ND	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	74	24-168	
2,4,5,6-Tetrachloro-m-Xylene	88	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Quality Control - Spike/Spike Duplicate

SCST, Inc.  
6280 Riverdale Street  
San Diego, CA 92120-3308

Date Received: 07/18/18  
Work Order: 18-07-1307  
Preparation: EPA 3550B  
Method: EPA 8015B (M)

Project: San Pasqual Phase II

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
18-07-1294-1	Sample	Solid	GC 46	07/23/18	07/23/18 16:44	180723S01				
18-07-1294-1	Matrix Spike	Solid	GC 46	07/23/18	07/23/18 16:02	180723S01				
18-07-1294-1	Matrix Spike Duplicate	Solid	GC 46	07/23/18	07/23/18 16:23	180723S01				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	691.8	400.0	941.4	62	1318	156	64-130	33	0-15	3,4

  
Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

SCST, Inc.  
6280 Riverdale Street  
San Diego, CA 92120-3308

Date Received: 07/18/18  
Work Order: 18-07-1307  
Preparation: EPA 3050B  
Method: EPA 6010B

Project: San Pasqual Phase II

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
SP-1	Sample	Solid	ICP 8300	07/23/18	07/25/18 18:24	180723S04				
SP-1	Matrix Spike	Solid	ICP 8300	07/23/18	07/25/18 18:24	180723S04				
SP-1	Matrix Spike Duplicate	Solid	ICP 8300	07/23/18	07/25/18 18:27	180723S04				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	5.287	21	5.970	24	50-115	12	0-20	3
Arsenic	3.601	25.00	28.02	98	29.72	104	75-125	6	0-20	
Barium	89.77	25.00	116.4	106	126.2	146	75-125	8	0-20	3
Beryllium	0.2609	25.00	26.51	105	28.70	114	75-125	8	0-20	
Cadmium	ND	25.00	25.16	101	26.92	108	75-125	7	0-20	
Chromium	9.311	25.00	38.85	118	41.89	130	75-125	8	0-20	3
Cobalt	9.016	25.00	37.13	112	39.98	124	75-125	7	0-20	
Copper	14.92	25.00	41.41	106	44.64	119	75-125	8	0-20	
Lead	10.12	25.00	37.29	109	40.99	123	75-125	9	0-20	
Molybdenum	ND	25.00	21.44	86	23.17	93	75-125	8	0-20	
Nickel	3.066	25.00	27.67	98	29.61	106	75-125	7	0-20	
Selenium	ND	25.00	25.48	102	28.59	114	75-125	12	0-20	
Silver	ND	12.50	12.80	102	13.79	110	75-125	7	0-20	
Thallium	ND	25.00	24.44	98	27.55	110	75-125	12	0-20	
Vanadium	40.60	25.00	64.10	94	69.87	117	75-125	9	0-20	
Zinc	101.4	25.00	128.1	4X	138.3	4X	75-125	4X	0-20	Q

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

SCST, Inc.  
6280 Riverdale Street  
San Diego, CA 92120-3308

Date Received: 07/18/18  
Work Order: 18-07-1307  
Preparation: EPA 7471A Total  
Method: EPA 7471A

Project: San Pasqual Phase II

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
18-07-1360-1	Sample	Solid	Mercury 08	07/25/18	07/25/18 13:12	180725S01
18-07-1360-1	Matrix Spike	Solid	Mercury 08	07/25/18	07/25/18 13:14	180725S01
18-07-1360-1	Matrix Spike Duplicate	Solid	Mercury 08	07/25/18	07/25/18 13:16	180725S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.2548	31	0.2738	33	71-137	7	0-14	3

  
Return to Contents

RPD: Relative Percent Difference. CL: Control Limits





Calscience

## Quality Control - Spike/Spike Duplicate

SCST, Inc.  
6280 Riverdale Street  
San Diego, CA 92120-3308

Date Received: 07/18/18  
Work Order: 18-07-1307  
Preparation: EPA 3545  
Method: EPA 8081A

Project: San Pasqual Phase II

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
18-07-1314-3	Sample	Solid	GC 44	07/19/18	07/19/18 16:06	180719S02
18-07-1314-3	Matrix Spike	Solid	GC 44	07/19/18	07/19/18 16:20	180719S02
18-07-1314-3	Matrix Spike Duplicate	Solid	GC 44	07/19/18	07/19/18 16:34	180719S02

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aldrin	ND	25.00	22.32	89	25.76	103	50-135	14	0-25	
Alpha-BHC	ND	25.00	21.32	85	24.36	97	50-135	13	0-25	
Beta-BHC	ND	25.00	21.63	87	24.75	99	50-135	13	0-25	
4,4'-DDD	ND	25.00	24.90	100	29.13	117	50-135	16	0-25	
4,4'-DDE	ND	25.00	24.92	100	27.49	110	50-135	10	0-25	
4,4'-DDT	ND	25.00	25.36	101	30.07	120	50-135	17	0-25	
Delta-BHC	ND	25.00	22.87	91	25.92	104	50-135	13	0-25	
Dieldrin	ND	25.00	23.86	95	27.36	109	50-135	14	0-25	
Endosulfan I	ND	25.00	23.94	96	27.33	109	50-135	13	0-25	
Endosulfan II	ND	25.00	24.99	100	29.00	116	50-135	15	0-25	
Endosulfan Sulfate	ND	25.00	26.24	105	32.03	128	50-135	20	0-25	
Endrin	ND	25.00	19.34	77	23.68	95	50-135	20	0-25	
Endrin Aldehyde	ND	25.00	25.62	102	31.02	124	50-135	19	0-25	
Gamma-BHC	ND	25.00	21.70	87	24.81	99	50-135	13	0-25	
Heptachlor	ND	25.00	22.18	89	25.50	102	50-135	14	0-25	
Heptachlor Epoxide	ND	25.00	22.44	90	25.12	100	50-135	11	0-25	
Methoxychlor	ND	25.00	24.30	97	33.20	133	50-135	31	0-25	4

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

SCST, Inc.  
6280 Riverdale Street  
San Diego, CA 92120-3308

Date Received: 07/18/18  
Work Order: 18-07-1307  
Preparation: EPA 3545  
Method: EPA 8081A

Project: San Pasqual Phase II

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
18-07-1666-5	Sample	Solid	GC 51	07/24/18	07/26/18 14:40	180724S04
18-07-1666-5	Matrix Spike	Solid	GC 51	07/24/18	07/26/18 13:14	180724S04
18-07-1666-5	Matrix Spike Duplicate	Solid	GC 51	07/24/18	07/26/18 13:29	180724S04

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aldrin	ND	25.00	21.61	86	20.17	81	50-135	7	0-25	
Alpha-BHC	ND	25.00	19.71	79	19.20	77	50-135	3	0-25	
Beta-BHC	ND	25.00	20.85	83	19.95	80	50-135	4	0-25	
4,4'-DDD	ND	25.00	23.82	95	21.98	88	50-135	8	0-25	
4,4'-DDE	8.693	25.00	33.65	100	31.13	90	50-135	8	0-25	
4,4'-DDT	ND	25.00	27.97	112	24.74	99	50-135	12	0-25	
Delta-BHC	ND	25.00	21.31	85	20.07	80	50-135	6	0-25	
Dieldrin	ND	25.00	21.50	86	20.10	80	50-135	7	0-25	
Endosulfan I	ND	25.00	20.92	84	19.60	78	50-135	7	0-25	
Endosulfan II	ND	25.00	21.81	87	19.96	80	50-135	9	0-25	
Endosulfan Sulfate	ND	25.00	22.80	91	20.41	82	50-135	11	0-25	
Endrin	ND	25.00	21.12	84	19.04	76	50-135	10	0-25	
Endrin Aldehyde	ND	25.00	21.72	87	19.18	77	50-135	12	0-25	
Gamma-BHC	ND	25.00	19.45	78	18.80	75	50-135	3	0-25	
Heptachlor	ND	25.00	20.45	82	19.45	78	50-135	5	0-25	
Heptachlor Epoxide	ND	25.00	19.65	79	18.44	74	50-135	6	0-25	
Methoxychlor	ND	25.00	22.51	90	19.82	79	50-135	13	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - PDS/PDSD

SCST, Inc.  
6280 Riverdale Street  
San Diego, CA 92120-3308

Date Received: 07/18/18  
Work Order: 18-07-1307  
Preparation: EPA 7471A Total  
Method: EPA 7471A

Project: San Pasqual Phase II

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number				
18-07-1360-1	Sample	Solid	Mercury 08	07/25/18 00:00	07/25/18 13:12	180725S01				
18-07-1360-1	PDS	Solid	Mercury 08	07/25/18 00:00	07/25/18 19:26	180725S01				
18-07-1360-1	PDSD	Solid	Mercury 08	07/25/18 00:00	07/25/18 19:28	180725S01				
Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	PDSD Conc.	PDSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.7299	87	0.6815	82	75-125	7	0-20	

  
Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

SCST, Inc.  
6280 Riverdale Street  
San Diego, CA 92120-3308

Date Received: 07/18/18  
Work Order: 18-07-1307  
Preparation: EPA 3550B  
Method: EPA 8015B (M)

Project: San Pasqual Phase II

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-15-490-3192</b>	<b>LCS</b>	<b>Solid</b>	<b>GC 46</b>	<b>07/23/18</b>	<b>07/23/18 15:41</b>	<b>180723B01</b>

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
TPH as Diesel	400.0	369.2	92	75-123	

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RPD: Relative Percent Difference. CL: Control Limits

## Quality Control - LCS

SCST, Inc.  
 6280 Riverdale Street  
 San Diego, CA 92120-3308

Date Received: 07/18/18  
 Work Order: 18-07-1307  
 Preparation: EPA 3050B  
 Method: EPA 6010B

Project: San Pasqual Phase II

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>097-01-002-26674</b>	<b>LCS</b>	<b>Solid</b>	<b>ICP 8300</b>	<b>07/23/18</b>	<b>07/25/18 18:22</b>	<b>180723L04</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Antimony		25.00	23.67	95	80-120	73-127	
Arsenic		25.00	24.18	97	80-120	73-127	
Barium		25.00	26.28	105	80-120	73-127	
Beryllium		25.00	25.62	102	80-120	73-127	
Cadmium		25.00	27.04	108	80-120	73-127	
Chromium		25.00	25.75	103	80-120	73-127	
Cobalt		25.00	27.61	110	80-120	73-127	
Copper		25.00	24.71	99	80-120	73-127	
Lead		25.00	28.38	114	80-120	73-127	
Molybdenum		25.00	24.62	98	80-120	73-127	
Nickel		25.00	27.34	109	80-120	73-127	
Selenium		25.00	23.97	96	80-120	73-127	
Silver		12.50	11.44	92	80-120	73-127	
Thallium		25.00	25.26	101	80-120	73-127	
Vanadium		25.00	24.31	97	80-120	73-127	
Zinc		25.00	26.97	108	80-120	73-127	

Total number of LCS compounds: 16

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass


 Return to Contents



Calscience

## Quality Control - LCS

SCST, Inc.  
6280 Riverdale Street  
San Diego, CA 92120-3308

Date Received: 07/18/18  
Work Order: 18-07-1307  
Preparation: EPA 7471A Total  
Method: EPA 7471A

Project: San Pasqual Phase II

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-16-272-4000</b>	<b>LCS</b>	<b>Solid</b>	<b>Mercury 08</b>	<b>07/25/18</b>	<b>07/25/18 13:10</b>	<b>180725L01</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Mercury		0.8350	0.8266	99	85-121	

  
Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

SCST, Inc.  
6280 Riverdale Street  
San Diego, CA 92120-3308

Date Received: 07/18/18  
Work Order: 18-07-1307  
Preparation: EPA 3545  
Method: EPA 8081A

Project: San Pasqual Phase II

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-12-537-2986</b>	<b>LCS</b>	<b>Solid</b>	<b>GC 44</b>	<b>07/19/18</b>	<b>07/19/18 17:38</b>	<b>180719L02</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Aldrin		25.00	25.39	102	50-135	36-149	
Alpha-BHC		25.00	24.79	99	50-135	36-149	
Beta-BHC		25.00	22.57	90	50-135	36-149	
4,4'-DDD		25.00	24.98	100	50-135	36-149	
4,4'-DDE		25.00	24.84	99	50-135	36-149	
4,4'-DDT		25.00	25.62	102	50-135	36-149	
Delta-BHC		25.00	24.87	99	50-135	36-149	
Dieldrin		25.00	25.54	102	50-135	36-149	
Endosulfan I		25.00	25.95	104	50-135	36-149	
Endosulfan II		25.00	25.67	103	50-135	36-149	
Endosulfan Sulfate		25.00	26.66	107	50-135	36-149	
Endrin		25.00	23.86	95	50-135	36-149	
Endrin Aldehyde		25.00	26.46	106	50-135	36-149	
Gamma-BHC		25.00	24.52	98	50-135	36-149	
Heptachlor		25.00	25.62	102	50-135	36-149	
Heptachlor Epoxide		25.00	25.19	101	50-135	36-149	
Methoxychlor		25.00	25.39	102	50-135	36-149	

Total number of LCS compounds: 17

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits





Calscience

## Quality Control - LCS

SCST, Inc.  
6280 Riverdale Street  
San Diego, CA 92120-3308

Date Received: 07/18/18  
Work Order: 18-07-1307  
Preparation: EPA 3545  
Method: EPA 8081A

Project: San Pasqual Phase II

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-12-537-2990</b>	<b>LCS</b>	<b>Solid</b>	<b>GC 51</b>	<b>07/24/18</b>	<b>07/26/18 14:54</b>	<b>180724L04</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Aldrin		25.00	22.36	89	50-135	36-149	
Alpha-BHC		25.00	22.32	89	50-135	36-149	
Beta-BHC		25.00	20.76	83	50-135	36-149	
4,4'-DDD		25.00	23.47	94	50-135	36-149	
4,4'-DDE		25.00	23.25	93	50-135	36-149	
4,4'-DDT		25.00	23.64	95	50-135	36-149	
Delta-BHC		25.00	21.60	86	50-135	36-149	
Dieldrin		25.00	22.97	92	50-135	36-149	
Endosulfan I		25.00	22.78	91	50-135	36-149	
Endosulfan II		25.00	23.30	93	50-135	36-149	
Endosulfan Sulfate		25.00	23.72	95	50-135	36-149	
Endrin		25.00	22.72	91	50-135	36-149	
Endrin Aldehyde		25.00	23.25	93	50-135	36-149	
Gamma-BHC		25.00	22.25	89	50-135	36-149	
Heptachlor		25.00	22.49	90	50-135	36-149	
Heptachlor Epoxide		25.00	22.16	89	50-135	36-149	
Methoxychlor		25.00	23.30	93	50-135	36-149	

Total number of LCS compounds: 17

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

## Sample Analysis Summary Report

Work Order: 18-07-1307

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<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 6010B	EPA 3050B	1080	ICP 8300	1
EPA 7471A	EPA 7471A Total	868	Mercury 08	1
EPA 8015B (M)	EPA 3550B	972	GC 46	1
EPA 8081A	EPA 3545	669	GC 44	1
EPA 8081A	EPA 3545	669	GC 51	1

  
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## Glossary of Terms and Qualifiers

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<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

# Environmental Analysis Request/Chain of Custody

**eurofins**  
Lancaster Laboratories  
Environmental

Acc. # \_\_\_\_\_ Group # \_\_\_\_\_ Sample # \_\_\_\_\_

For Lab Use Only  
SF # **18-07-1307**  
SCP # \_\_\_\_\_

<b>Client:</b> SCST, Inc <b>Project Name#:</b> San Pasqual Phase II <b>Project Manager:</b> Doug Skinner <b>Sampler:</b> Elizabeth White <b>Phone #:</b> 619-269-4869 <b>State where samples were collected:</b> CA For Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/>		<b>Site ID #:</b> <b>P.O. #:</b> <b>PWSID #:</b> <b>Quote #:</b>		<b>Matrix</b> <input type="checkbox"/> Soil <input checked="" type="checkbox"/> Sediment <input type="checkbox"/> Issue <input checked="" type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Water Other:		<b>Total # of Containers</b> PCB's 8082A OCP's 8081A SVOC's 8270D VOC's 8260B Lead 6010B Heavy Metals 6010B TPH 8015M C6-C14 Asbestos PLM Title 22 Metals		<b>Analyses Requested</b> Preservation Codes H = HCl T = Thiourea N = HNO3 B = NaOH S = H2SO4 P = H3PO4 O = Other																																																			
<b>Sample Identification</b> SP-1 SP-2 SP-3 SP-4 SP-5 SP-6 SP-7 SP-8 SP-9 @ 1 FT SP-9 @ 3 FT SP-10 @ 1 FT SP-10 @ 3 FT		<b>Collection</b> <table border="1"> <thead> <tr> <th>Date</th> <th>Time</th> <th>Grab</th> <th>Composite</th> </tr> </thead> <tbody> <tr><td>7/17/2018</td><td>10:45AM</td><td></td><td>X</td></tr> <tr><td>7/17/2018</td><td>11:29AM</td><td></td><td>X</td></tr> <tr><td>7/17/2018</td><td>11:13AM</td><td></td><td>X</td></tr> <tr><td>7/17/2018</td><td>12:41PM</td><td></td><td>X</td></tr> <tr><td>7/17/2018</td><td>12:29PM</td><td></td><td>X</td></tr> <tr><td>7/17/2018</td><td>12:16PM</td><td></td><td>X</td></tr> <tr><td>7/17/2018</td><td>12:00PM</td><td></td><td>X</td></tr> <tr><td>7/17/2018</td><td>11:42AM</td><td></td><td>X</td></tr> <tr><td>7/17/2018</td><td>12:58PM</td><td></td><td>X</td></tr> <tr><td>7/17/2018</td><td>1:13PM</td><td></td><td>X</td></tr> <tr><td>7/17/2018</td><td>1:27PM</td><td></td><td>X</td></tr> <tr><td>7/17/2018</td><td>1:41PM</td><td></td><td>X</td></tr> </tbody> </table>		Date	Time	Grab	Composite	7/17/2018	10:45AM		X	7/17/2018	11:29AM		X	7/17/2018	11:13AM		X	7/17/2018	12:41PM		X	7/17/2018	12:29PM		X	7/17/2018	12:16PM		X	7/17/2018	12:00PM		X	7/17/2018	11:42AM		X	7/17/2018	12:58PM		X	7/17/2018	1:13PM		X	7/17/2018	1:27PM		X	7/17/2018	1:41PM		X	<b>Remarks</b> 1 2 3 4 5 6 7 8 9 10 11 12		<b>Turnaround Time Requested (TAT)</b> (please check): Standard <input type="checkbox"/> Rush <input type="checkbox"/> (Rush TAT is subject to laboratory approval and surcharges.) Date results are needed: Rush results requested by (please check): E-Mail <input type="checkbox"/> Phone <input type="checkbox"/> E-mail Address: <u>diskinner@scst.com</u> Phone: 760-215-8640	
Date	Time	Grab	Composite																																																								
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<b>EDD Required?</b> Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, format: _____ Temperature upon receipt: _____ °C		UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Other <input type="checkbox"/>		Relinquished by Commercial Carrier: _____		Relinquished by: _____ Received by: _____ Date: _____ Time: _____		Relinquished by: _____ Received by: _____ Date: _____ Time: _____																																																			



SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: SCSAT

DATE: 07/18/2018

TEMPERATURE: (Criteria: 0.0°C - 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC6 (CF: -0.5°C); Temperature (w/o CF): 3.7 °C (w/ CF): 3.2 °C; [X] Blank [ ] Sample

[ ] Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)

[ ] Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

[ ] Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: [ ] Air [ ] Filter

Checked by: 671

CUSTODY SEAL:

Cooler [ ] Present and Intact [ ] Present but Not Intact [X] Not Present [ ] N/A

Checked by: 671

Sample(s) [ ] Present and Intact [ ] Present but Not Intact [X] Not Present [ ] N/A

Checked by: 728

SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples ..... [X] Yes [ ] No [ ] N/A

COC document(s) received complete ..... [ ] Yes [X] No [ ] N/A

[ ] Sampling date [ ] Sampling time [ ] Matrix [X] Number of containers

[ ] No analysis requested [ ] Not relinquished [ ] No relinquished date [ ] No relinquished time

Sampler's name indicated on COC ..... [X] Yes [ ] No [ ] N/A

Sample container label(s) consistent with COC ..... [X] Yes [ ] No [ ] N/A

Sample container(s) intact and in good condition ..... [X] Yes [ ] No [ ] N/A

Proper containers for analyses requested ..... [X] Yes [ ] No [ ] N/A

Sufficient volume/mass for analyses requested ..... [X] Yes [ ] No [ ] N/A

Samples received within holding time ..... [X] Yes [ ] No [ ] N/A

Aqueous samples for certain analyses received within 15-minute holding time

[ ] pH [ ] Residual Chlorine [ ] Dissolved Sulfide [ ] Dissolved Oxygen ..... [ ] Yes [ ] No [X] N/A

Proper preservation chemical(s) noted on COC and/or sample container ..... [ ] Yes [ ] No [X] N/A

Unpreserved aqueous sample(s) received for certain analyses

[ ] Volatile Organics [ ] Total Metals [ ] Dissolved Metals

Acid/base preserved samples - pH within acceptable range ..... [ ] Yes [ ] No [X] N/A

Container(s) for certain analysis free of headspace..... [ ] Yes [ ] No [X] N/A

[ ] Volatile Organics [ ] Dissolved Gases (RSK-175) [ ] Dissolved Oxygen (SM 4500)

[ ] Carbon Dioxide (SM 4500) [ ] Ferrous Iron (SM 3500) [ ] Hydrogen Sulfide (Hach)

Tedlar™ bag(s) free of condensation ..... [ ] Yes [ ] No [X] N/A

CONTAINER TYPE:

(Trip Blank Lot Number: \_\_\_\_\_)

Aqueous: [ ] VOA [ ] VOA<sub>h</sub> [ ] VOA<sub>na2</sub> [ ] 100PJ [ ] 100PJ<sub>na2</sub> [ ] 125AGB [ ] 125AGB<sub>h</sub> [ ] 125AGB<sub>p</sub> [ ] 125PB [ ] 125PB<sub>z</sub> (pH\_9)

[ ] 250AGB [ ] 250CGB [ ] 250CGB<sub>s</sub> (pH\_2) [ ] 250PB [ ] 250PB<sub>n</sub> (pH\_2) [ ] 500AGB [ ] 500AGJ [ ] 500AGJ<sub>s</sub> (pH\_2) [ ] 500PB

[ ] 1AGB [ ] 1AGB<sub>na2</sub> [ ] 1AGB<sub>s</sub> (pH\_2) [ ] 1AGB<sub>s</sub> (O&G) [ ] 1PB [ ] 1PB<sub>na</sub> (pH\_12) [ ] \_\_\_\_\_ [ ] \_\_\_\_\_ [ ] \_\_\_\_\_

Solid: [X] 4ozCGJ [ ] 8ozCGJ [ ] 16ozCGJ [ ] Sleeve ( ) [ ] EnCores® ( ) [ ] TerraCores® ( ) [ ] \_\_\_\_\_ [ ] \_\_\_\_\_ [ ] \_\_\_\_\_

Air: [ ] Tedlar™ [ ] Canister [ ] Sorbent Tube [ ] PUF [ ] \_\_\_\_\_ Other Matrix ( ): [ ] \_\_\_\_\_ [ ] \_\_\_\_\_ [ ] \_\_\_\_\_

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: 728

s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>.H<sub>2</sub>O, z<sub>na</sub> = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH Reviewed by: 671