DRAFT PRELIMINARY ENDANGERMENT ASSESSMENT Hamilton Union High School Expansion

February 7, 2020

Prepared For:

HAMILTON UNIFIED SCHOOL DISTRICT

Attn: Mr. Jeremy Powell, Superintendent P.O. Box 488 Hamilton City, CA 95951

530.826.3261 ext. 6005 | JPowell@husdschools.org





48 Bellarmine Court Suite 40 Chico, CA 95929

70779.02



No. 60167

February 7, 2020 Project No. 70779.01

Hamilton Unified School District Attn: Jeremy Powell, Superintendent

P.O. Box 488

Hamilton City, CA 95951

Phone: (530) 826-3261, ext. 6011 Email: jpowell@husdschools.org

Reference: Draft Preliminary Endangerment Assessment

Hamilton Union High School Expansion

Glenn County Assessor Parcel Number: 032-230-015

Hamilton City, Glenn County, California

Dear Mr. Powell:

NV5 prepared this draft Preliminary Endangerment Assessment (PEA) for the referenced site in Hamilton City, Glenn County, California. NV5 understands Hamilton Unified School District (HUSD) plans to develop an expansion of Hamilton Union High School on the subject property.

This report documents the results of site characterization including soil sampling, laboratory analysis and screening-level human health risk assessment. The assessment findings indicate that the site is a candidate for a no further action determination regarding the characterization of potential constituents of concern at the site.

NV5 appreciates the opportunity to provide environmental engineering services for the Hamilton Unified School District on this important project. If you have questions, comments, or require additional information, please contact the undersigned.

Sincerely, **NV5**

Prepared by:

Heidi J. Cummings, PG 7732

Senior Geologist

cc:

Reviewed by:

Jason Muir, PE Associate Engineer

Ms. Elizabeth Tisdale, DTSC, 1 copy, 1 electronic copy to elizabeth.tisdale@dtsc.ca.gov

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ABBREVIATIONS AND ACRONYMS

APN Assessor Parcel Number
bgs below ground surface
BTV background threshold value
CCV continuing calibration verification

CDHS California Department of Health Services

CL co-located

cm2square centimetersCOCconstituent of concernCSDCommunity Services DistrictCVcoefficient of variation

DDE p,p'-dichloro-diphenyl-dichloro-ethylene

DRO diesel range organics

DTSC Department of Toxic Substances Control
EOA Environmental Oversight Agreement
EPC exposure point concentrations
ESA Environmental Site Assessment
ESL Environmental Screening Level

FR field replicate

GRO gasoline range organics

HAZWOPER Hazardous Waste Operations and Emergency Response

HERO Human and Ecological Risk Office HHRA human health risk assessment

HHS Hamilton High School

HI hazard index

HUHS Hamilton Union High School HUSD Hamilton Unified School District

kg kilogram

LCS laboratory control samples

LCSD LCS duplicates
m³/day cubic meters per day
m³/kg cubic meters per kilogram
MDL method detection limit

mg/cm² milligrams per square centimeter

mg/day milligrams per day mg/kg milligram per kilogram

MS/MSD matrix spike and matrix spike duplicates

MORO motor oil range organics
NOA naturally occurring asbestos
OCP organochlorine pesticide

OEHHA Office of Environmental Health Hazard Assessment
OSHA Occupational Safety and Health Administration
OSWER Office of Solid Waste and Emergency Response

PCB polychlorinated biphenyls pCi/L picoCuries per liter

PEA Preliminary Endangerment Assessment

PEF particulate emission factor

ABBREVIATIONS AND ACRONYMS (Concluded)

PQL practical quantitation limit

QA/QC quality assurance/quality control REC recognized environmental condition

RL reporting limit

RSL regional screening level

RWQCB Regional Water Quality Control Board

SCM site conceptual model

SL screening level SR State Route

Sunstar SunStar Laboratories

TPH total petroleum hydrocarbons

μg/kg microgram per kilogram

USEPA United States Environmental Protection Agency

USGS United States Geological Survey

UTL upper tolerance level

EXECUTIVE SUMMARY

The purpose of this Preliminary Endangerment Assessment (PEA) is to investigate environmental conditions identified on a 45-acre property located adjacent and north of the existing Hamilton Union High School (HUHS) and east of California State Route (SR) 45/Canal Street in Hamilton City, Glenn County, California. The property is identified as Glenn County Assessor Parcel Number (APN) 032-230-015.

The property is to be developed by the Hamilton Unified School District (HUSD) as an extension of the current high school campus. The number of classrooms, administrative buildings and student capacity are not yet determined by the HUSD. The school will be served by municipal water supply.

Environmental conditions were identified at the property in a Phase I Environmental Site Assessment (ESA; September 13, 2018) prepared by NV5. The recognized environmental conditions (RECs) are summarized below:

- The possible presence of arsenic and organochlorine pesticides (OCPs) in soil from historical agricultural use of the property;
- The possible presence of arsenic and OCPs in groundwater from historical agricultural use of the property; and
- The possible presence of polychlorinated biphenyls (PCBs) in soil beneath electrical transformers on the property.

During the review process for the PEA Work Plan, the California Department of Toxic Substances Control (DTSC) identified the following elements to be addressed:

- The possible presence of contaminants in the drainage ditch on the southern edge of the property,
- The possible presence of lead in soil from historical agricultural use of the property, and
- Background metals concentrations on the property.

This PEA report was prepared in accordance with the PEA Work Plan (NV5, October 29, 2019). The PEA Work Plan was approved by the DTSC in a letter dated November 5, 2019. The PEA is intended to assess potential health risks associated with the RECs, address the additional elements identified by DTSC above, and to evaluate informational needs of the community related to the PEA site characterization. The PEA field investigation was conducted in November 2019 and included:

- Collection of soil samples from 56 locations within the boundary of former agricultural use on the property to investigate the presence of arsenic, lead and OCPs.
- Collection of soil samples from one location adjacent to the pole-mounted transformer on the property to assess the presence of PCBs.
- Collection of eight soil samples from the current HUHS campus to assess background concentrations of arsenic and lead.

- Collection of seven soil samples from the drainage ditch on the southern boundary of the property to evaluate total petroleum hydrocarbons (TPH), Title 22 Metals and OCPs.
- Collection of one groundwater sample from the onsite agricultural well to assess the presence of OCPs.

Arsenic was detected in 19 discrete samples (including field replicate and co-located samples) obtained from the upper 6 inches of soil at the site at concentrations ranging from 4.1 to 6.4 milligrams per kilogram (mg/kg). Arsenic was detected in 10 background soil samples (including field replicate and co-located samples) obtained from 18 to 24 inches below ground surface (bgs) on the current HUHS campus, at concentrations ranging from 3.6 to 5.7 mg/kg.

Lead was detected in 19 discrete samples (including field replicate and co-located samples) obtained from the upper 6 inches of soil at the site at concentrations ranging from 4.28 to 5.90 mg/kg. Lead was detected within 10 background soil samples (including field replicate and co-located samples) obtained from 18 to 24 inches bgs on the current HUHS campus, at concentrations ranging from 3.72 to 4.35 mg/kg.

Diesel range organics (DRO), motor oil range organics (MORO), arsenic, barium, chromium, cobalt, copper, lead, mercury, nickel, vanadium and zinc were detected in soil samples collected in the drainage ditch on the southern boundary of the site.

One OCP compound (p,p'-dichloro-diphenyl-dichloro-ethylene [4,4-DDE]) was detected in fifteen 4-point composite samples (including field replicate and co-located samples) on the agricultural property, and in eight discrete samples (including field replicate and co-located samples) in the drainage ditch on the southern boundary of the site. OCPs were not detected in samples from the onsite agricultural groundwater well.

PCBs were not detected in soil samples collected beneath the onsite pole-mounted transformer.

A screening-level human health risk assessment (HHRA) was performed pursuant to DTSC guidance to assess potential risks from routine, long-term exposure to the chemicals detected in soil. Pursuant to DTSC guidelines, human health hazard and cancer risk are calculated on a site-wide basis, considering the hazard and risk associated with exposure to all detected chemicals including those that are determined to be consistent with background or ambient concentrations. This information is intended to be useful for risk management decisions and to foster public transparency. The hazard index (hazard or HI; 1.7E+01) and excess lifetime cancer risk (risk; 6.2E-05) are driven by arsenic concentrations in soil. Excluding arsenic, which was detected at concentrations that are similar to accepted background values, the hazard is 6.6E-01 and the risk is 3.8E-08.

Based on the findings of site characterization, it is NV5's opinion that the site is a candidate for a no further action determination regarding the characterization of arsenic, lead, OCPs, PCBs, TPH and Title 22 metals. The findings and conclusions presented herein are subject to review and approval by the DTSC.

The PEA report is submitted in draft format to DTSC for review and is revised pursuant to DTSC comments. After revision, the PEA report is resubmitted in "draft final" format for DTSC review and approval. Pursuant to the California Education Code, the HUSD is required to notify the public

concurrently with the submission of the PEA report to DTSC. The school district must publish a notice in a local newspaper of general circulation and post the notice in a prominent manner at the school site. The notice shall state the school district's determination to make the PEA available for public review and comment.

The HUSD must offer to receive written comments for a period of at least 30 calendar days after the assessment is submitted to the DTSC and must hold a public hearing to receive further comments. The following documents must be available for public review:

- The PEA Report;
- The changes requested by the DTSC for the PEA; and
- Any correspondence between the school district and the DTSC relating to the PEA.

If the PEA Report is revised or altered following the public hearing, then the HUSD must make those revisions or alterations available to the public. The DTSC will complete its review of the PEA Report and public comments received thereon and will either approve or disapprove the assessment within 30 calendar days of the close of the public review period.

1.0 INTRODUCTION

This Preliminary Endangerment Assessment (PEA) report presents the results of site characterization for the property located adjacent and north of the existing Hamilton Union High School (HUHS) and east of California State Route (SR) 45/Canal Street in Hamilton City, Glenn County, California. The site is referenced as Glenn County Assessor Parcel Number (APN) 032-230-015. This PEA report was prepared in accordance with the Preliminary Endangerment Assessment Work Plan (Work Plan; NV5, October 29, 2019). A copy of the PEA Work Plan approval letter from the California Department of Toxic Substances Control (DTSC) dated November 5, 2019 is provided in Appendix A.

The DTSC is the lead agency for oversight of site characterization, as set forth in an Environmental Oversight Agreement (EOA; Docket No. HSA-FY18/19-162; August 16, 2019) between DTSC and the Hamilton Unified School District (HUSD).

The PEA was performed pursuant to Section 17213.1 of the California Education Code, which authorizes DTSC to oversee preparation of an environmental assessment report by HUSD.

1.1 **PURPOSE**

The purpose of the PEA is to assess the presence of organochlorine pesticides (OCPs), arsenic and lead in soil from historical agricultural use, polychlorinated biphenyls (PCBs) in soil from historical transformers on the site, OCPs in groundwater and petroleum hydrocarbons and metals in soil at areas of surface water runoff from adjacent properties. Findings of the PEA investigation are used to assess risk and evaluate informational needs of the community related to site characterization.

1.2 SITE DESCRIPTION

The approximately 45-acre subject property is adjacent and north of the current HUHS and east of SR 45/Canal Street in Hamilton City, Glenn County, California. The property is accessed from the south via SR 32/Sixth Street or from the west via SR 45. A site location map is presented as Figure 1. The property is referenced as the southwest portion of Glenn County APN 032-230-015. A site plan is presented as Figure 2.

Referencing the Hamilton City Quadrangle 7.5 Minute Series (Topographic) map (United States Geological Survey [USGS], 1969), the subject property is in Township 22 North and Range 1 West, based on the Mount Diablo geodetic datum. The site is centered at about latitude 39.7493 degrees north and longitude 122.0186 degrees west. The property elevation is approximately 153 feet above mean sea level with flat lying surface topography.

1.2.1 Site Identification

Site Identification Information				
Site Name	Hamilton Union High School Expansion			
Contact Person	Mr. Jeremy Powell, Hamilton Unified School District			
Site Address	North of 620 Canal St. and East of SR45, Hamilton City, California			

Site Identification Information				
Mailing Address of Contact Person	P.O. Box 488, Hamilton City, California 95951			
Phone Number of Contact Person	(530) 826-3261, ext. 6011			
Other Site Names	none			
USEPA Identification Number	none			
CalSites Identification Number	none			
Assessor Parcel Number	032-230-015			
Township	22 North			
Range	1 West			
Land Use	Agricultural			
Zoning	AP-80 - Intensive Agriculture			
Notes: USEPA = United States Environmental Protection Agency				

1.2.2 **Adjacent Properties**

The subject property is bounded by agricultural property to the north and east, the existing Hamilton Union High School and commercial/industrial properties to the south and State Route 45/Canal Street and the Glenn-Colusa Canal to the west.

1.2.3 **Intended Use of the Property**

The property is to be developed as an expansion of the HUHS campus. The number of classrooms and student capacity have not been programmed by the HUSD. The site will be served by the Hamilton City Community Services District (CSD) that includes water provided by California Water Service - Chico District, storm drain connections provided by Glenn County Planning and Public Works Agency, and sewer provided by the CSD.

The proposed expansion project will include phased construction of new playing fields, a gymnasium and parking lot on the expanded site and future new school buildings and parking areas.

2.0 PRIOR ENVIRONMENTAL STUDIES

NV5 prepared a Phase I ESA dated September 13, 2018 (NV5, 2018). No other hazardous substances assessment associated with the site beyond the Phase I ESA is known. Findings of the Phase I ESA are summarized below:

- The subject site consists of approximately 45 acres of the southwest portion of Glenn County APN 032-230-015, located north of State Route 32 and east of State Route 45 in Hamilton City, Glenn County, California.
- The subject property was used for agricultural purposes (hay type crop) from as early as 1937, then as orchards beginning as early as 1983 through 2016. The property representative indicated that the orchard was removed in 2017 and hay type crops are the current crop in cultivation.
- One pole-mounted transformer was observed at the location of the water supply well. The pole-mounted transformer was likely installed with the water well, circa 1978.
- One 2.5-gallon container of herbicide and one 2.5-gallon unlabeled container were stored on the concrete pad adjacent to the water supply well, suggesting that mixing of agricultural chemicals may take place at this location.
- The subject property receives stormwater runoff from the adjacent commercial property to the south.
- To NV5's knowledge, the subject property is not currently regulated by any federal, state or local agencies, except for the Air Pollution Control District for agricultural chemicals. No violations are noted.
- Review of federal, state and local records identified no upgradient sites within a ½-mile of the subject property that have recognized environmental conditions (RECs).
- Naturally occurring hazardous materials (i.e. naturally occurring asbestos [NOA] and radon) are not likely to be present at the subject site.

NV5's professional opinions based on the findings of the Phase I ESA are summarized below.

- 1. The pole-mounted electrical transformer is considered a REC because there is concern that leakage from transformers could contaminate soil with PCBs.
- 2. The agricultural land use identified by review of aerial photos, site reconnaissance and landowner representative interview is considered a REC because there is concern for the soil to be contaminated with residual agricultural chemicals (i.e. pesticides).
- 3. Groundwater from the subject property water supply well has the potential to contain agricultural chemicals based on the past agricultural land use.
- 4. Fill material that is sourced from the alluvial deposits of Stony Creek to the south could potentially contain NOA and should be avoided or evaluated for NOA prior to import.

The Phase I ESA identified PCBs and agricultural chemicals as potential sources of contamination at the site. NV5 recommended that soil sampling for PCBs be conducted beneath the existing transformers and that soil sampling for agricultural chemicals be conducted site-wide pursuant to guidelines set forth by DTSC (2006 and 2008).

3.0 ENVIRONMENTAL SETTING

The property is intended to be developed as a new school campus. Details associated with the number of classrooms, administrative buildings, and student capacity have not yet been determined by HUSD.

3.1 PHYSICAL SETTING

3.1.1 Regional Physiographic Conditions

The subject property is situated in the Sacramento Valley within the Great Valley geomorphic province, west of the boundary with the Cascade geomorphic province and east of the boundary of the Coast Range geomorphic province. The Great Valley geomorphic province is characterized as an asymmetrical synclinal trough composed of up to 80,000 feet of Jurassic and Eocene age sequenced marine sedimentary units deposited during periods of inundation, and Pliocene to recent Holocene age terrestrial sediments originating from the Sierra Nevada, Cascade, and Coast Mountain Ranges during sea recession and mountain uplift.

3.1.2 Geologic Conditions

The Geologic Map of California, Ukiah Sheet (Jennings and Strand, 1960) depicts the geology of the subject property location as Holocene aged stream channel deposits, the Holocene occurring from 11,000 years before present to the present.

3.1.3 Naturally Occurring Asbestos

NV5 reviewed geologic literature regarding the distribution and occurrence of NOA in California. The site is not in an area mapped as likely to contain NOA, and NV5's field geologist did not observe the presence of ultramafic rock outcrops (typically associated with the occurrence of NOA) at the site.

According to A General Location Guide for Ultramafic Rocks in California - Areas Likely to Contain Naturally Occurring Asbestos (California Department of Conservation, Division of Mines and Geology; August 2000) ultramafic rock is mapped approximately 21 miles west of the site.

The Jennings and Strand 1960 geologic map shows a Mesozoic aged ultramafic rock unit mapped approximately 21 miles west of the site and within the Upper Stony Creek Watershed. Surface water draining from the Upper Stony Creek Watershed flows into Black Butte Lake where the sediment load is likely deposited, then flows southwest across the valley and ultimately to the Sacramento River approximately 5.5 miles south of the subject property. The site is not within the Upper Stony Creek Watershed and is protected from inundation and deposition of NOA by the Glenn-Colusa Canal levee. Therefore, naturally occurring asbestos is not a REC for the subject property.

3.1.4 Radon

Radon gas concentrations are often compared to a regulatory screening level of 4 picoCuries per liter [pCi/L]). Based on review of the California Department of Health Services (CDHS) report *Geologic Controls on the Distribution of Radon in California* (Ronald Churchill, Associate Geochemist,

California Geological Survey, dated January 25, 1991), Glenn County is not underlain by geologic deposits that increase the chance of elevated radon gas. Glenn County is in Radon Zone 3 as defined by the United States Environmental Protection Agency *Map of Radon Zones for California* (viewed August 21, 2018 at: http://www.city-data.com/radon-zones/California/California.html). This zone consists of counties with a predicted average indoor radon screening level less than 2 pCi/L. Furthermore, the *California Indoor Radon Test Results* (Department of Health Services, last updated February 2016) database summary indicates that, in the 95951 zip code for Glenn County, radon concentrations were less than the California Department of Health Services recommended action level of 4 pCi/L in four of four indoor air tests. Therefore, based on the published literature reviewed radon is not expected to be present at levels exceeding the screening levels. Sampling and analysis of indoor air would be required to determine actual radon levels at the site.

3.1.5 Soil Conditions

According to the United States Department of Agriculture Soil Conservation Service, National Cooperative Soil Survey, as summarized in the Phase I ESA, soil at the site is mapped as Wyo silt loam and Wyo loam. According to the Soil Conservation Service, these soils are comprised of alluvium derived from metavolcanics; are well drained; exhibit moderate infiltration rates; and have a high corrosion potential for uncoated steel.

No surface evidence of fill material was observed during NV5's Phase I ESA site reconnaissance and during the sampling effort for the PEA.

3.1.6 Groundwater

NV5 did not perform a groundwater investigation at the subject site. Based on our experience in the site vicinity, it is anticipated that the depth to groundwater fluctuates seasonally and may be encountered at a depth of approximately 10 to 15 feet below ground surface (bgs) with flow directions toward the east to southeast toward the Sacramento River.

NV5 acquired the well completion report for the onsite agricultural well, which is presented in Appendix B. The well completion report shows a total drilled depth of 223 feet bgs, with alternating layers of clay, gravel and clayey gravel of varying thickness. The well construction details indicate 16-inch blank steel casing was installed from 0 to 120 feet bgs and from 125 to 197 feet bgs, and the perforated section was installed from 84 to 104 feet and 125 to 197 feet bgs. The lower section of the well is reported as solid steel and perforated. Based on communication with the property owner representative, the perforated section of the well is expected to be both 84 to 104 and 125 to 197 feet bgs. At the time the well was installed (July 15, 1978), the depth to water in the well was reported to be approximately 28 feet bgs. At the time of sampling of the agricultural well, the well casing was not accessible to measure the water level in the well.

3.1.7 Nearest Surface Water

Nearest surface water is the Sacramento River, which is located approximately one-half mile northwest of the subject property. The Glenn-Colusa Canal is also within 150 feet toward the southwest.

4.0 IMPLEMENTATION OF PEA WORK PLAN

Field work for this project was conducted on November 11, 12, 13 and 19, 2019. Soil samples were collected from the following locations on the property, which are depicted on Figure 3.

- 56 locations within the boundary of former agricultural use on the property to investigate the presence of arsenic, lead and OCPs. 14 composite samples were prepared using the 56 discrete samples on a 4:1 ratio and analyzed for OCPs. 14 discrete samples from across the site were analyzed for arsenic and lead.
- Eight discrete samples from the current HUHS campus for background concentrations of arsenic and lead.
- Seven discrete samples from the drainage ditch on the southern boundary of the property to be analyzed for total petroleum hydrocarbons (TPH), Title 22 Metals, and OCPs.
- One location adjacent to the pole-mounted transformer on the property to assess the presence of polychlorinated biphenyls.

In addition to the soil samples listed above, one groundwater sample was collected from the onsite agricultural and was analyzed for OCPs.

4.1 **PRE-FIELD ACTIVITIES**

Approximately seven days prior to beginning field work, the HUSD issued a DTSC-approved Field Work Notice to neighboring residents within line of sight of the school property. The approved Field Work Notice can be found in the Work Plan (NV5, October 2019).

4.2 **SOIL SAMPLING AND ANALYSIS**

On November 11, 12 and 13, 2019, NV5 implemented the soil sampling and analysis plan presented in the DTSC-approved PEA Work Plan. Tables 1 through 4 present a summary of laboratory results, and sample locations are depicted on Figure 3.

4.2.1 **Agricultural Area**

The number of soil samples collected and analyzed for arsenic and OCPs was determined using the Interim Guidance for Sampling Agricultural Fields for School Sites, Third Revision (DTSC, 2008). The site is approximately 45 acres, for which DTSC requires 55 sampling locations. Because of the irregular shape of the site, however, the site was divided into 56 sampling areas, and 56 sampling locations were determined in the field within a grid superimposed on the site. The sampling grid is identified on Figure 3. Sample locations were determined in the field using a handheld GPS device. The sample locations should be considered approximate and were not determined to survey-grade accuracy. Soil samples were collected from a depth interval of 0 to 6 inches below ground surface. collecting equal amounts from the entire depth interval.

For OCP analysis, 19 composite samples (including 14 composite samples and five co-located and replicate composite samples) were prepared by the analytical laboratory using the 56 discrete

samples with a 4:1 ratio (i.e. 4 discrete samples for every 1 composite sample) on a unit weight basis and were subsequently homogenized by the laboratory prior to analysis for OCPs.

For arsenic and lead, 19 discrete samples were analyzed, including fourteen discrete site samples (grid locations A1, A7, B3, C1, C5, C8, D3, D7, E2, E5, F3, F7, H6, and H8) and five co-located and replicate samples. The 14 site samples were a subset of the 56 discrete samples collected for OCP analysis.

4.2.2 Drainage Course

Nine discrete soil samples (referenced as "DD" samples) and two co-located and replicate samples were obtained from a drainage course for analysis of Title 22 metals, OCPs and TPH.

4.2.3 Background Soil

Ten discrete soil samples (including eight discrete field samples and two co-located and replicate samples) were collected from a depth of 2 feet bgs at the current HUHS site for assessing the arsenic and lead concentrations in native, undisturbed soil.

4.2.4 Transformer Location

The sampling methodology for PCBs was determined using the *Interim Guidance, Evaluation of School Sites with Potential Soil Contamination as a Result of Lead from Lead-Based Paint, Organochlorine Pesticides from Termiticides, and Polychlorinated Biphenyls from Electrical Transformers, Revised 06/09/06 (DTSC, 2006). Two discrete soil samples were collected beneath the existing electrical transformer. One surface soil sample (0 to 6 inches bgs) and one subsurface soil sample (2 to 2.5 feet bgs) were collected.*

4.2.5 Collection and Handling of Soil Samples

Soil samples were collected using individually wrapped, single-use, disposable plastic scoops. At the time of sampling, the field had been cultivated to a depth of greater than six inches, so an auger was not necessary for sampling. A hand auger was used to advance the remaining soil borings. Sample locations are depicted on Figure 3.

Soil samples were obtained from the borings and placed in 8-ounce glass jars fitted with Teflon™ lined lids. Sixty-four discrete-depth soil samples were collected from 0 to 6 inches bgs (total arsenic and lead, TPH, OCP, and PCB analysis at the site and in the drainage ditch), one from 2 to 2.5 feet bgs (PCB analysis near the onsite transformer), and eight from 1.5 to 2 feet bgs (total arsenic and lead analysis on the HUHS campus). The samples were labeled with a unique sample identification number and were placed on ice in a thermally insulated container.

Samples collected within the grid were assigned a unique identification (e.g. A4D-0) that represents the grid row letter (A), grid column number (4), sample type (composite = C; discrete = D) and depth (0 = 0 to 6 inches bgs and 2 = 1.5 to 2 feet bgs). For quality assurance/quality control (QA/QC) samples, the sample type (co-located = CL; field replicate = FR) was appended to the sample identification using a hyphen. Sample identifications for those samples collected beneath the pole-

mounted transformer and from the drainage ditch were assigned a prefix (PMT- and DD-, respectively).

4.2.6 Decontamination

Personnel involved in sample processing and decontamination were disposable, non-powdered gloves, and new gloves were donned at each new sampling location. Disposable equipment and supplies were placed in a plastic bag and disposed appropriately at an off-site location.

Decontamination of reusable field sampling equipment including augers, sampling trowels, and other hand tools was conducted prior to and following use that may have encountered potentially contaminated soil. Field sampling equipment was cleaned with a soft-bristled brush to remove soil, washed with clean tap water and detergent in a bucket, double-rinsed with clean tap water in two additional buckets, rinsed with deionized water and allowed to air dry. The final rinse from each decontamination was captured in a glass container for equipment blank analysis. One equipment blank sample was analyzed for each day of sampling, and the results of analysis of equipment blanks EB-1, EB-2 and EB-3 are presented in Appendix B.

4.2.7 Laboratory Analysis

Samples were shipped under chain-of-custody documentation to SunStar Laboratories (Sunstar) of Lake Forest, CA (ELAP Certification No. 2250). Laboratory analysis is summarized below.

- Fourteen 4-point composite samples, three co-located composite samples, and two field replicate composite samples obtained from 0 to 6 inches bgs within the former agricultural field were analyzed for OCPs by United States Environmental Protection Agency (USEPA) Method 8081A.
- Fourteen discrete samples, three field replicate samples, and two co-located samples obtained from 0 to 6 inches bgs within the former agricultural area were analyzed for arsenic by USEPA Method 6020 and lead by USEPA Method 6010B.
- Eight discrete samples, one co-located sample, and one field replicate sample obtained from 1.5 to 2 feet bgs on the HUHS campus were analyzed for arsenic by USEPA Method 6020 and lead by USEPA Method 6010B.
- Seven discrete samples, one co-located sample, and one field replicate sample obtained from 0 to 6 inches bgs within the drainage ditch were analyzed for OCPs by USEPA Method 8081A, for TPH by USEPA Method 8015B and for Title 22 Metals by USEPA Methods 6020, 6010B and 7470/7471.
- One discrete sample and one co-located sample obtained from 0 to 6 inches bgs and one
 discrete sample obtained from 2 to 2.5 feet bgs adjacent to the pole mounted transformer
 were analyzed for PCBs by USEPA Method 8082.
- Three equipment blank samples (EB-1, EB-2 and EB-3) were analyzed for Title 22 Metals by USEPA Methods 6010B and 7470/7471 and for OCPs by USEPA Method 8081A. Equipment blank sample (EB-1) was additionally analyzed for TPH by USEPA Method 8015B.

Results for arsenic, lead, OCPs, TPH and Title 22 Metals are tabulated in Tables 1 through 4. PCBs were not detected in soil at concentrations greater than the method detection limit (MDL). Therefore, PCB results were not tabulated. Additionally, no analytes were detected in the equipment blank samples.

4.3 GROUNDWATER SAMPLING AND ANALYSIS

One groundwater sample (AW-1) was collected from the onsite agricultural well as specified in the PEA Work Plan. Approximately three casing volumes of groundwater were purged from the well prior to sampling. The groundwater sample was collected from piping attached to the well head. The sample was shipped under chain-of-custody documentation to SunStar. The groundwater sample was analyzed for OCPs by USEPA Method 8081A. No OCPs were detected in sample AW-1 at concentrations exceeding their respective MDLs. Laboratory analytical results are presented in Appendix B.

4.4 DISCUSSION OF RESULTS FOR SOIL SAMPLES

Laboratory results are discussed in this section, and the analytical results for arsenic, lead, OCPs, TPH and Title 22 Metals are tabulated in Tables 1 through 4. Copies of the laboratory reports and chain-of-custody are provided in Appendix B.

4.4.1 Screening Levels

Screening levels are used to provide a general overview of site conditions. The screening levels are not intended to take the place of the human health risk assessment presented in Section 5 of this report.

Pursuant to DTSC (2019b) guidelines, screening levels related to protection of human health in the case of routine, long term exposure by direct pathways (i.e. ingestion, inhalation and dermal contact) commonly include USEPA Regional Screening Levels (RSLs) and DTSC-Screening Levels (SLs). For inorganics, background concentrations are also used as a basis for comparison.

RSLs and DTSC-SLs include inorganic constituent concentrations that are based on the protection of public health. In California, DTSC-SLs are commonly used in lieu of RSLs when DTSC uses toxicity criteria that are different than the toxicity criteria used by USEPA.

The screening levels are generally considered conservative. Under most circumstances, the presence of a chemical in media at concentrations less than the corresponding RSL or DTSC-SL can be assumed not to pose a significant, long-term (chronic) threat to human health. The presence of a chemical or inorganic constituent at a concentration in excess of a screening level does not necessarily indicate that adverse impacts to human health are occurring or will occur; however, further evaluation of potential human health concerns are generally appropriate if screening values are exceeded.

4.4.2 Background Soil Arsenic Concentrations

For the purposes of risk assessment, it is useful to distinguish between background metals concentrations occurring naturally in soil and elevated concentrations resulting from past waste

disposal or releases of hazardous substances to the environment. According to the *Human and Ecological Risk Office (HERO) Human Health Risk Assessment (HHRA) Note No. 3, DTSC-modified Screening Levels (DTSC-SLs)* (DTSC, 2019b), "HERO strongly recommends consideration of sitespecific background concentrations of inorganic constituents."

DTSC (1997) provides a framework in which risk assessors may identify background metals concentrations. Pursuant to DTSC (2019) risk assessment guidance "risk assessments should eliminate from consideration those whose range of concentrations falls within the range of local ambient conditions." To do this, the local ambient data set may be defined by pooling all site data and determining ambient conditions in the presence of possible contamination.

ProUCL Version 5.1 (USEPA, 2016) was used to evaluate potentially outlying data and to prepare a box plot and normality plot (Q-Q plot) for the arsenic data set. No outliers were identified based on visual interpretation of the plots, and Rosner's outlier test identified no outlying data at 5% and 1% significance levels. Soil arsenic data, including the site data and the subsurface samples obtained from the adjacent high school property, appear to be representative of a single population. The data set, plots and test results are presented in Appendix D.

ProUCL was used to perform background threshold value (BTV) statistics using the entire arsenic data set. ProUCL output is presented in Appendix D. Based on the small population of soil arsenic data (n = 29) the 95% upper tolerance level (UTL; 6.4 mg/kg) could be used to represent the upper range of background soil arsenic concentrations. The detected concentrations range from 3.6 to 6.4 mg/kg, the mean value is 5.2 mg/kg, and the coefficient of variation (CV) is 0.11.

4.4.3 Arsenic Analytical Methods

Total arsenic in soil was originally analyzed using EPA Method 6010B with a practical quantitation limit (PQL; also referred to as reporting limit, or RL) of 5 mg/kg. The PQL did not meet the project data quality objectives, and therefore the EPA 6010B data were rejected, and the analysis was repeated using EPA Method 6020 with a PQL of 0.25 mg/kg. Analytical reports for both analyses are presented in Appendix B.

4.4.4 Total Metals in Soil Samples

Total metals concentrations detected in soil samples do not exceed the corresponding screening levels for residential (unrestricted) land use listed in Table 4, except for arsenic. The DTSC-SL for arsenic in residential soil is 0.11 mg/kg.

Arsenic was detected in 19 discrete samples (including field replicate and co-located samples) obtained from the upper 6 inches of soil at the site at concentrations ranging from 4.1 to 6.4 mg/kg. These site samples were obtained on November 12 and 13, 2019, and are referenced by the grid location from which they were obtained (A1 through H8). Results are presented in Table 1.

Arsenic was detected in 10 background soil samples (including field replicate and co-located samples) obtained from 18-24 inches below ground surface on the adjacent current HUHS campus at concentrations ranging from 3.6 to 5.7 mg/kg. These background samples were obtained on November 11, 2019 and are referenced as "HHS" (Hamilton High School) samples. Results are presented in Table 1.

Arsenic was detected in nine samples (including field replicate and co-located samples) obtained from 0-6 inches below ground surface in the site drainage ditch at concentrations ranging from 4.3 to 6.7 mg/kg. These drainage ditch samples were obtained on November 11, 2019 and are referenced as "DD" samples. Results are presented in Table 4.

As described above in Section 4.4.2, the arsenic data were evaluated pursuant to DTSC guidance and are representative of background conditions.

4.4.5 Organochlorine Pesticides in Soil Samples

One OCP compound, 4,4-DDE, was detected in twelve 4-point composite samples, one field replicate 4-point composite, and three co-located 4-point composite samples from the onsite sample grid. 4,4-DDE also was detected in nine discrete samples (including a co-located sample and field replicate) obtained from the drainage ditch on the southern property boundary. The detected OCP concentrations were less than the USEPA RSL for residential and industrial soils.

4.4.6 Polychlorinated Biphenyls in Soil Samples

PCBs were not detected at concentrations greater than the MDL of 3.7 micrograms per kilogram (ug/kg).

4.4.7 Total Petroleum Hydrocarbons in Soil Samples

Motor oil range organics (MORO) were detected in each of the nine samples (including a co-located sample and field replicate) obtained from the drainage ditch on the southern property boundary at concentrations ranging from 16 to 48 mg/kg. Diesel range organics (DRO) were detected in two of the nine samples at concentrations of 10 and 11 mg/kg, and trace concentrations (less than the RL of 10 mg/kg) were detected in six of the samples. Gasoline range organics (GRO) were not detected. Concentrations of DRO and MORO were less than their respective Environmental Screening Levels (ESLs) as set by the San Francisco Regional Water Quality Control Board (RWQCB), which are listed in Table 3.

4.5 DATA QUALITY SUMMARY

4.5.1 Field Sampling Evaluation and Field Variance

NV5 performed the soil sampling in general accordance with the DTSC approved Work Plan (NV5, 2019). NV5 did not encounter significant variances from the PEA Work Plan except that the initial laboratory analysis of arsenic was performed with unacceptably high MDL and PQL. As described above in Section 4.4.3, total arsenic in soil was originally analyzed using EPA Method 6010B with a PQL of 5 mg/kg. The PQL did not meet the project data quality objectives, and therefore the EPA 6010B data were rejected, and the analysis was repeated using EPA Method 6020 with a PQL of 0.25 mg/kg. Analytical reports for both analyses are presented in Appendix B.

4.5.2 Chain of Custody Evaluation

The chain-of-custody documentation associated with the sample shipment was reviewed for completeness. Samples were received in good condition and were cold. Samples and requested analyses matched the sampling and analysis matrix.

4.5.3 Data Validation

Project data associated with the PEA were reviewed to assess the accuracy of data recording, processing and transmittal. Based on the validation, data generated are of acceptable quality for use in the PEA screening evaluation. None of the data were unusable based on the data evaluation, except for the original laboratory analysis of total arsenic in soil by EPA Method 6010B, as discussed in Section 4.4.3. The data evaluation is provided in Appendix C.

4.5.4 Health and Safety Procedures

Personnel conducting the site investigation were certified under Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response (HAZWOPER) Standard (29 Code of Federal Regulations 1910). Prior to beginning field work, NV5 conducted a job safety analysis to identify site hazards and control measures to be implemented, reviewed potential constituents of concern (COC) and exposure routes, required the use of personal protective equipment, implemented decontamination procedures, and reviewed emergency response and hazard communications.

5.0 HUMAN HEALTH RISK ASSESSMENT

A screening-level human health risk assessment was performed in general accordance with the DTSC (2019) guidance. HHRA methodology and results are summarized below. Laboratory data for samples collected in November 2019 were used in the HHRA, as presented in Tables 1 through 4. Data evaluation worksheets and summary statistics are presented in Appendix D, and HHRA worksheets are presented in Appendix E.

5.1 SITE CONCEPTUAL MODEL

A site conceptual model (SCM) diagram is presented as Figure 4. The diagram depicts:

- Source media, release mechanisms and transport mechanisms;
- Potential points of exposure (exposure media) and exposure routes; and
- Potential receptors.

The model components are described below.

- The primary source media are inorganic and organic pesticides that were historically applied
 to the agricultural area. PCBs were not detected in soil and therefore are not considered
 constituents of concern. Bulk petroleum hydrocarbons were detected at di minimis
 concentrations below screening levels and are not quantitatively evaluated in the risk
 assessment.
- The primary release mechanism is the past application of pesticides during orchard cultivation and the aerial deposition of pesticides on surface soil. The site investigation did not identify anomalously high pesticide concentrations in soil that would indicate a spill; based on the low spatial variability of the laboratory test results it is assumed that the pesticide application resulted in a relatively uniform distribution within the cultivated area.
- The secondary source medium is shallow soil containing residual pesticide compounds.
- Potential transport mechanisms include mechanical soil disturbance, soil erosion by water
 and sediment transport, and soil erosion by wind and dust transport. The physical site
 characteristics and the results of soil sampling and analysis in a drainage ditch indicate that
 surface water erosion is not a significant transport mechanism. Leaching, volatilization
 and/or biological uptake in plant tissue are not considered significant transport mechanisms
 based on the relatively immobile and non-volatile nature of the constituents of concern and
 the physical site characteristics.
- Exposure media are soil and suspended particulates (dust). Exposure routes are incidental
 ingestion and dermal contact with contaminated soil, and inhalation of particulates
 originating from the contaminated soil. Groundwater and surface water routes are not
 considered complete. The contaminated soil is subject to seasonal precipitation and runoff;
 however, the constituents are relatively immobile, and soluble contaminants are expected
 only at low concentrations. Volatilization to indoor or outdoor air is not considered a complete
 exposure route because the COCs are not volatile.
- The site is evaluated from an unrestricted land use exposure scenario, and the potential receptors are comprised of offsite residents, construction workers, students, school staff and parents.

5.2 EXPOSURE POINT CONCENTRATIONS AND CHEMICAL GROUPS

COCs include inorganic (metals) and organic (OCP) constituents associated with historical pesticide application.

Arsenic concentrations detected in site soil range from 4.1 to 6.4 mg/kg and exceeds the DTSC-SL for residential soil (0.11 mg/kg). The detected concentrations are similar to the background values detected in subsurface soil samples obtained from the adjacent HUHS school campus and are considered to be representative of background values. Other metals were below the referenced screening levels.

One OCP compound (4,4-DDE) was detected in discrete and composite samples of site soil at concentrations ranging from 5.3 to 43 mg/kg. The detected concentrations were less than the RSL for 4,4-DDE in residential soil.

Laboratory data are presented in Tables 1 through 4. Exposure point concentrations (EPCs) are summarized below. Based on the small sample population, the maximum detected concentration is used as the EPC.

Pursuant to guidelines set forth in HERO *Human Health Risk Assessment Note No. 4* (DTSC, 2019c), risk and hazard are calculated on a site-wide basis, considering the risk and hazard associated with exposure to all detected chemicals (including those inorganic constituents that are determined to be consistent with background or ambient concentrations). Metals that were not detected (antimony, beryllium, molybdenum, selenium, silver and thallium) are not quantitatively evaluated.

5.3 EXPOSURE PARAMETERS

Exposure parameters for residential (unrestricted) land use are adopted from the HERO *Human Health Risk Assessment Note No.* 1 (DTSC, 2019a), pursuant to guidance presented in *Risk Assessment Guidance for Superfund, Volume I: Human Health Evaluation Manual (RAGS Part E, Supplemental Guidance for Dermal Risk Assessment), Final (USEPA, Office of Solid Waste and Emergency Response [OSWER] 9285.7-02EP, 2004) and <i>Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites* (USEPA, OSWER 9355.4-24, 2002).

- Exposure frequency is 350 days per year.
- Body weight is 15 kilograms (kg) for child and 80 kg for adult.
- The incidental soil ingestion rate is 200 milligrams per day (mg/day) for child and 100 mg/day for adult. Pica (intentional ingestion of soil and related particles) is not considered.
- The inhalation rate is 10 cubic meters per day (m³/day) for child and 20 m³/day for adult.
- Averaging time is 70 years for carcinogenic effects.
- Exposure duration for adults is 20 years. Averaging time for non-carcinogenic effects is equal to the exposure duration.
- Exposed skin surface area is 2,900 square centimeters (cm²) for children and 6,032 cm² for adults.
- Dermal adherence factor is 0.2 milligrams per square centimeter (mg/cm²) for children and 0.07 mg/cm² for adults.
- Particulate emission factor (PEF) is 1.36E+09 cubic meters per kilogram (m³/kg).

5.4 TOXICITY VALUES

Toxicity values and sources are presented in Appendix E, Table E1. Toxicity value selection was performed pursuant to HERO HHRA Note No. 3 (DTSC, 2019b).

5.5 RISK CHARACTERIZATION

Risk and hazard calculations are performed using the following equations for non-volatile constituents. For residential land use, hazard is evaluated for child exposure. Calculations are summarized in Appendix E, Table E2.

 $\text{Risk}_{\text{soil}} = \frac{\text{SF}_{\text{o}} \times \text{C}_{\text{s}} \times \left[\left(| \text{IR}_{\text{s,child}} \times \text{EF x ED}_{\text{child}} \times 10^{-6} \text{ kg/mg} \right) / \left(\text{BW}_{\text{child}} \times \text{AT x 365 days/yr} \right) + \left(\left(| \text{IR}_{\text{s,adult}} \times \text{AF x ABS x EF}_{\text{child}} \times 10^{-6} \text{ kg/mg} \right) / \left(\text{BW}_{\text{child}} \times \text{AT x 365 days/yr} \right) + \left(\left(| \text{IR}_{\text{s,adult}} \times \text{AF x ABS x EF}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \right) + \left(| \text{SA}_{\text{adult}} \times \text{AF x ABS x EF}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \right) + \left(| \text{SA}_{\text{adult}} \times \text{AF x ABS x EF}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \right) + \left(| \text{SA}_{\text{adult}} \times \text{AF x ABS x EF}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \right) + \left(| \text{SA}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \right) + \left(| \text{SA}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \right) + \left(| \text{SA}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \right) + \left(| \text{SA}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \right) + \left(| \text{SA}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \right) + \left(| \text{SA}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \right) + \left(| \text{SA}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \right) + \left(| \text{SA}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \right) + \left(| \text{SA}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \right) + \left(| \text{SA}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \right) + \left(| \text{SA}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \right) + \left(| \text{SA}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \right) + \left(| \text{SA}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \right) + \left(| \text{SA}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \right) + \left(| \text{SA}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \right) + \left(| \text{SA}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \right) + \left(| \text{SA}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \right) + \left(| \text{SA}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \times \text{ABS x EF}_{\text{adult}} \right$

 $x ED_{adult} \times 10^{-6} \text{ kg/mg}$ / (BW_{adult} x AT x 365 days/yr))]

Hazard_{soil} = $(C_s / RfD_o) \times [((IR_s \times EF \times ED \times 10^{-6} \text{ kg/mg}) / (BW \times AT \times 356 \text{ days/yr})) + ((SA \times AF \times EF \times ED \times 10^{-6} \text{ kg/mg}) / (BW \times AT \times 356 \text{ days/yr}))]$

ABS x EF x ED x 10^{-6} kg/mg) / (BW x AT x 365 days/yr))]

 $Risk_{air} = SF_i \times C_a \times [((IR_{child} \times EF \times ED_{child}) / (BW_{child} \times AT \times 365 \text{ days/yr})) + ((IR_{adult} \times EF \times ED_{adult}))]$

 $/ (BW_{adult} \times AT \times 365 \text{ days/yr}))]$

Hazard_{air} = $(C_a / RfD_i) x (IR x EF x ED) / (BW x AT x 365 days/yr)$

Where:

ABS = absorption fraction of chemical from soil

AT = averaging time, years

AF = soil to skin adherence factor, mg/cm²

BW = body weight, kg

 $C_a = concentration in air, mg/m³ (C_a = C_s / PEF)$

C_s = concentration in soil, mg/kg

ED = exposure duration, years

EF = exposure frequency

PEF = particulate emission factor, m³/kg

Hazardair = non-cancer chronic health hazard for air pathways

Hazard_{soil} = non-cancer chronic health hazard for soil pathways

 IR_a = inhalation rate, m^3/day

IR_s = incidental soil ingestion rate, mg/day

SA = exposed skin surface area, cm²

 SF_i = inhalation cancer slope factor, (mg/kg-day)-1

SF₀ = oral cancer slope factor, (mg/kg-day)-1

RfD_i = inhalation reference dose, mg/kg-day

RfD_o = oral reference dose, mg/kg-day

Risk_{air} = lifetime excess cancer risk for air pathways

Risk_{soil} = lifetime excess cancer risk for soil pathways

5.6 UNCERTAINTY ANALYSIS

According to the California Office of Environmental Health Hazard Assessment (OEHHA, 2004), "systematic, logical and informed approaches to decision making about carcinogens in the environment call for quantitative assessments because the absence of clearly definable thresholds does not permit identification of 'safe' levels of exposure. Unfortunately, due to the frequent lack of sufficient data, assumptions have to be made in order to complete quantitative assessments of cancer risk."

There are uncertainties associated with contaminant concentrations in soil; the amount of exposure to soil; the biological uptake of contaminants from soil; and the toxicological effects of biologically available contaminants. Such uncertainty must be discussed so that the assessment does not result in a "higher degree of implied certainty in the overall assessment than is warranted" (OEHHA, 2004).

Laboratory reporting and detection limits are generally less than the corresponding screening levels and/or background levels; therefore, these laboratory analytical limitations are not expected to be a significant source of uncertainty.

Confidence in the exposure assessment is considered low to moderate. Confidence in toxicity values ranges from low to high based on the data available for specific constituents of concern. The risk assessment considers routine, long-term exposure to soil, including dermal contact, ingestion and inhalation of soil dust.

Sampling uncertainty related to contaminant concentrations in soil, as well as sampling uncertainty related to the literature-derived exposure and toxicity parameters, contribute to the overall uncertainty of the assessment. The use of maximum detected concentrations tends to overestimate risk. Confidence in sampling is considered moderate based on the relatively consistent laboratory results and the findings of field and laboratory data validation.

The literature-derived exposure factors and toxicity factors used in the assessment were obtained with the goal of reducing uncertainty; however, limitations of existing data pertaining to activity patterns for future site occupants, as well as health effects from exposure, result in model uncertainty.

5.7 SUMMARY OF EVALUATION

Pursuant to guidelines set forth in HERO HHRA Note No. 4 (DTSC, 2019c) hazard and risk are calculated on a site-wide basis, considering the hazard and risk associated with exposure to all detected chemicals including those that are determined to be consistent with background or ambient concentrations. This information is intended to be useful for risk management decisions and to foster public transparency. The hazard index (hazard or HI; 1.7E+01) and excess lifetime cancer risk (risk; 6.2E-05) are driven by ambient arsenic concentrations in soil. Excluding arsenic, which was detected at concentrations similar to accepted background values, the hazard is 6.6E-01 and the risk is 3.8E-08.

6.0 PUBLIC PARTICIPATION

The PEA report is submitted in draft format to DTSC for review and is revised pursuant to DTSC comments. After revision, the PEA report is resubmitted in "draft final" format for DTSC review and approval. Pursuant to the California Education Code Section 17213.1 (a) (6), the school district is required to notify the public concurrently with the submission of the draft PEA report to DTSC. The school district must publish a notice in a local newspaper of general circulation and post the notice in a prominent manner at the school site. The notice shall state the school district's determination to make the PEA available for public review and comment.

The code specifies two alternative methods of notification, and the school district intends to use option "A" as set forth in California Education Code Section 17213.1 (a) (6). Option "A" is outlined below, borrowing from the referenced code.

The school district shall offer to receive written comments for a period of at least 30 calendar days after the assessment is submitted to the DTSC, commencing on the date the notice is originally published, and shall hold a public hearing to receive further comments. The school district shall make all the following documents available to the public upon request through the time of the public hearing:

- (i) The PEA Report,
- (ii) The changes requested by the DTSC for the PEA, and
- (iii) Any correspondence between the school district and the DTSC relating to the PEA.

The notice of the public hearing shall include the date and location of the public hearing, and the location where the public may review the documents described in items (i), (ii) and (iii) above. All public comments pertaining to the preliminary endangerment assessment shall be forwarded to the DTSC immediately.

If the PEA is revised or altered following the public hearing, the school district shall make those revisions or alterations available to the public. The school district shall transmit a copy of all public comments received by the school district on the PEA to the DTSC.

The DTSC shall complete its review of the PEA and public comments received thereon and shall either approve or disapprove the assessment within 30 calendar days of the close of the public review period. If the DTSC determines that it is likely to disapprove the assessment prior to its receipt of the public comments, it shall inform the school district of that determination and of any action that the school district is required to take for the DTSC to approve the assessment.

7.0 CONCLUSIONS AND RECOMMENDATIONS

The following conclusions are based on the findings of site characterization and risk assessment.

Arsenic concentrations detected in surface soil range from 4.1 to 6.7 mg/kg and have an average value of 5.3 mg/kg. These concentrations exceed the DTSC-SL for residential soil (unrestricted land use). However, the concentrations are similar to accepted background values and are considered to be representative of background conditions.

OCPs were not detected in soil within the former agricultural area in exceedance of DTSC-SLs and were not detected in groundwater sampled from the onsite agricultural well. PCBs were not detected in soil adjacent to the onsite pole mounted transformer. Except for arsenic (discussed above), Title 22 metals were not detected in soil within the former agricultural area or drainage ditch in exceedance of DTSC-SLs. Total petroleum hydrocarbons were not detected in soil in the drainage ditch in exceedance of RWQCB ESLs.

Based on the findings of site characterization presented herein, it is NV5's opinion that the site is a candidate for a no further action determination regarding the characterization of Title 22 metals (including arsenic), OCPs, TPH and PCBs. The findings and conclusions presented herein are subject to review and approval by DTSC.

8.0 LIMITATIONS

The following limitations apply to the findings, conclusions and recommendations presented in this report:

- NV5's professional services were performed consistent with the generally accepted engineering principles and practices employed in northern California. No warranty is expressed or implied.
- These services were performed per NV5's agreement with NV5's client. NV5 is not responsible for the impacts of any changes in environmental standards, practices or regulations subsequent to performance of environmental and engineering services. NV5 does not warrant the accuracy of information supplied by others, or the use of segregated portions of this report. This report is solely for the use of the client unless noted otherwise. Any reliance on this report by a third party is at the party's sole risk.
- If changes are made to the nature or design of the project as described in this report, then the conclusions and recommendations presented in this report should be considered invalid by all parties. Only NV5 can determine the validity of the conclusions and recommendations presented in this report. Therefore, NV5 should be retained to review all project changes and prepare written responses with regards to their impacts on NV5's conclusions and recommendations; however, NV5 may require additional field work and laboratory testing to develop any modifications to the report. Costs to review project changes and perform additional fieldwork and laboratory testing necessary to modify NV5's recommendations are beyond the scope of services presented in this report. Additional work will require an approved scope of services, budget and authorization to proceed.
- NV5 is not responsible for the health and safety of non-NV5 personnel, on or off the project site.
- The analyses, conclusions and recommendations presented in this report are based on site conditions as they existed at the time NV5's investigation was performed. Changes in the conditions of the property can occur with the passage of time. The changes may be due to natural processes or to the works of man, on the project site or adjacent properties. In addition, changes in applicable or appropriate standards can occur, whether they result from legislation or the broadening of knowledge, therefore, the recommendations presented in this plan may need to be revised based on site conditions or regulatory requirements.

9.0 REFERENCES

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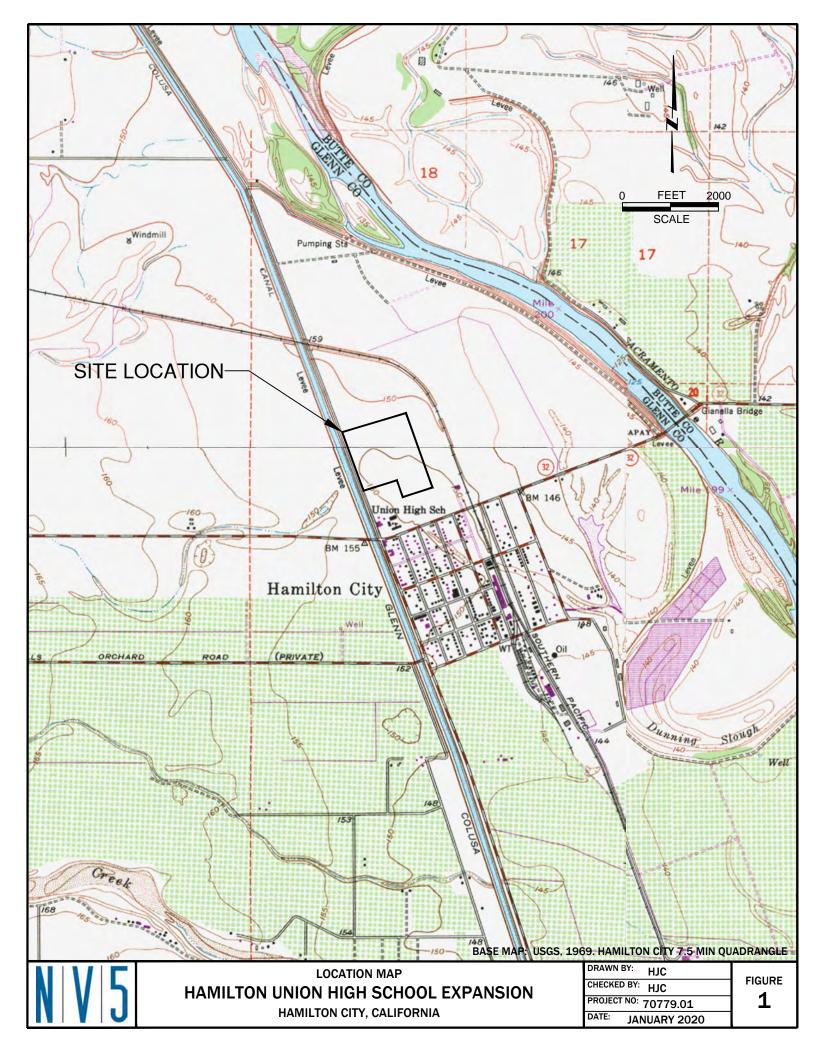
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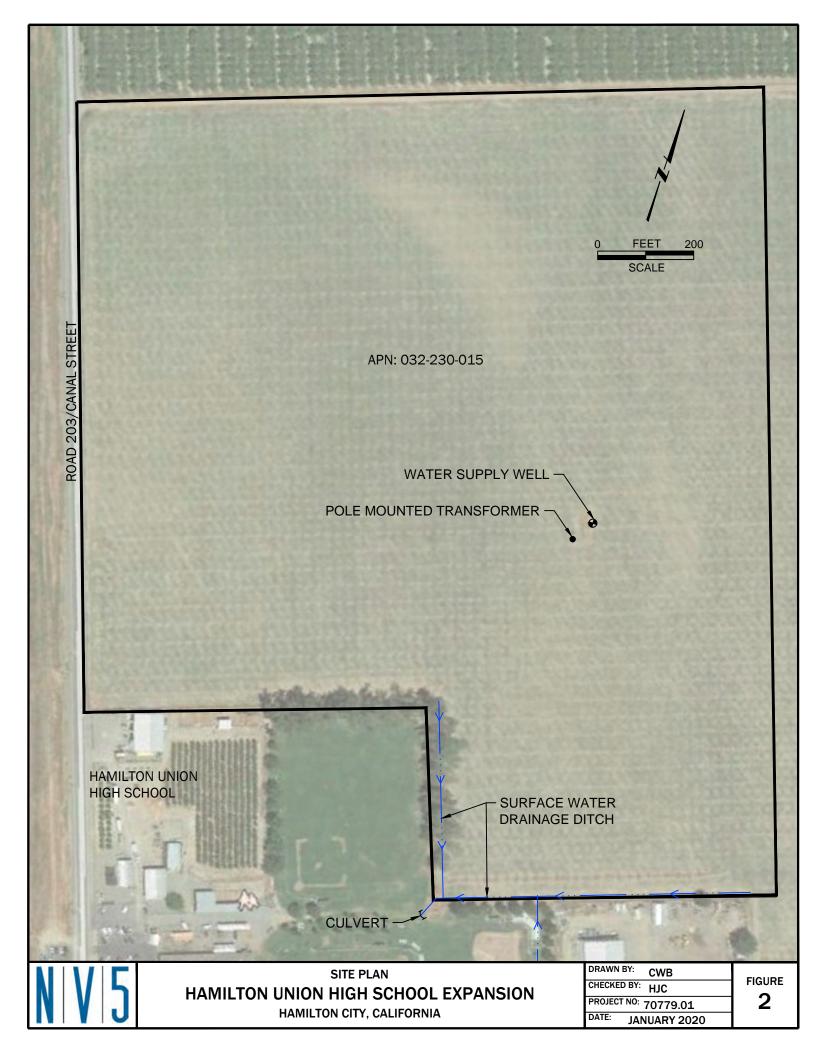
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NIVI5

FIGURES

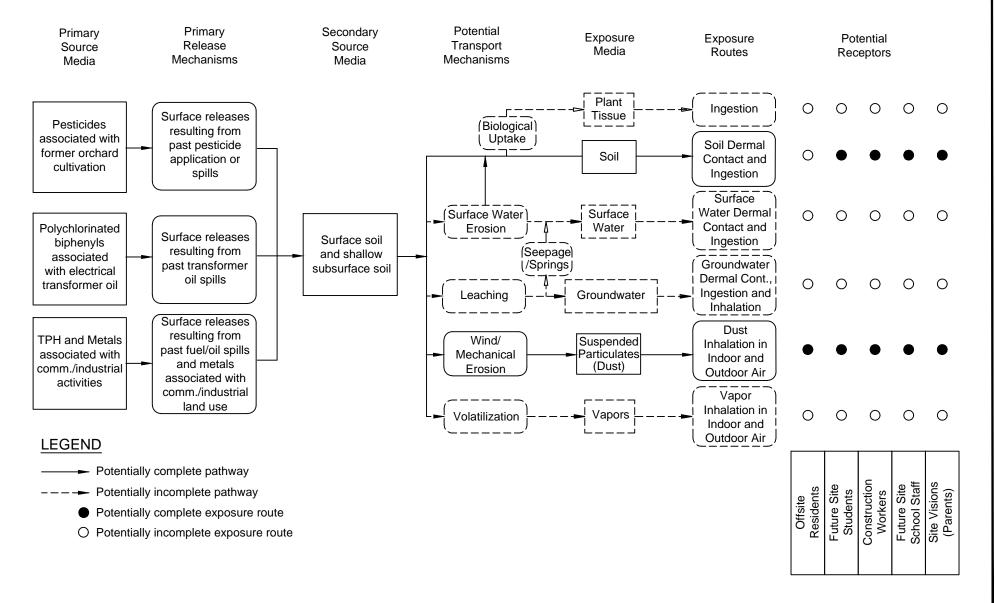
- **Location Map** 1
- 2 Site Plan
- 3 Soil and Groundwater Sample Locations Site Conceptual Model Diagram







TRANSPORT MECHANISMS AND EXPOSURE MEDIA FOR HUMAN RECEPTORS





SITE CONCEPTUAL MODEL DIAGRAM

HAMILTON UNION HIGH SCHOOL EXPANSION HAMILTON CITY, CALIFORNIA

DRAWN BY:	CWB	
CHECKED BY:	HJC	
PROJECT: 70779.01		
DATE: JANU	ARY 2020	

FIGURE 4

NIVI5

TABLES

- 1 Arsenic and Lead in Soil
- 2 Organochlorine Pesticides in Soil
- 3 Total Petroleum Hydrocarbons in Soil
- 4 Title 22 Metals in Soil

Table 1. Total Arsenic and Lead in Soil

Hamilton Union High School Expansion Hamilton City, Glenn County, California

		Depth			
Sample ID	Sample Date	(inches bgs)	Arsenic	Lead 6010B	
	USEPA Method				
C	AS No.		7440-38-2	7439-92-1	
	MDL		0.0025	0.01	
	RL		0.25	3	
	Unit		mg/kg	mg/kg	
Screening Levels ^(a)	DTSC-SL (F	Residential)	0.11	80	
Screening Levels*	DTSC-SL ((Industrial)	0.36	320	
A1D-0	11/12/19	0-6	5.4	4.5	
A7D-0	11/12/19	0-6	5.9	5.4	
A7D-0-CL	11/12/19	0-6	5.7	5.4	
B3D-0	11/12/19	0-6	5.3	4.7	
B3D-0-FR	11/12/19	0-6	5.0	4.3	
C1D-0	11/12/19	0-6	4.7	4.3	
C1D-0-CL	11/12/19	0-6	4.8	4.7	
C5D-0	11/12/19	0-6	4.1	5.1	
C8D-0	11/12/19	0-6	5.5	5.0	
D3D-0	11/12/19	0-6	4.7	4.5	
D7D-0	11/12/19	0-6	6.4	5.8	
D7D-0-FR	11/12/19	0-6	5.2	5.6	
E2D-0	11/13/19	0-6	4.9	4.9	
E5D-0	11/13/19	0-6	6.0	5.7	
F3D-0	11/13/19	0-6	5.5	5.5	
F3D-0-FR	11/13/19	0-6	5.4	5.4	
F7D-0	11/13/19	0-6	4.7	5.2	
H6D-0	11/13/19	0-6	5.6	5.9	
H8D-0	11/13/19	0-6	5.8	5.8	
HHS1D-2	11/11/19	18-24	5.0	4.3	
HHS2D-2	11/11/19	18-24	5.4	4.4	
HHS3D-2	11/11/19	18-24	4.7	4.1	
HHS3D-2-FR	11/11/19	18-24	5.2	3.7	
HHS4D-2	11/11/19	18-24	3.6	4.0	
HHS5D-2	11/11/19	18-24	4.7	3.7	
HHS5D-2-CL	11/11/19	18-24	4.6	4.1	
HHS6D-2	11/11/19	18-24	5.1	4.1	
HHS7D-2	11/11/19	18-24	4.9	3.8	
HHS8D-2	11/11/19	18-24	5.7	4.2	

Notes:

bgs = below ground surface

CAS = Chemical Abstracts Service registry number

DTSC = Department of Toxic Substances Control

MDL = method detection limit

mg/kg = milligrams per kilogram

ND = not detected greater than listed MDL

RL = reporting limit

SL = screening level

USEPA = United States Environmental Protection Agency

Table 2. Organochlorine Pesticides in Soil

Hamilton Union High School Expansion Hamilton City, Glenn County, California

		Depth				
Sample ID	Sample Date	(inches bgs)	4,4´-DDE			
	USEPA Method					
	CAS No.		72-55-9			
	MDL		1.5			
	5.0					
	Unit					
Screening Levels (a)	USEPA RSL ((Residential)	2000 (500 for 1:4 composite)			
Screening Levels	USEPA RSL	(Industrial)	9300 (2325 for 1:4 composite)			
ABCD1C-0	11/12/19	0-6	12			
ABCD2C-0	11/12/19	0-6	11			
ABCD2C-0-FR	11/12/19	0-6	8.7			
ABCD3C-0	11/12/19	0-6	9.8			
ABCD4C-0	11/12/19	0-6	7.6			
ABCD5C-0	11/12/19	0-6	6.6			
ABCD5C-0-CL	11/12/19	0-6	7.0			
ABCD6C-0	11/12/19	0-6	<5.0			
ABCD7C-0	11/12/19	0-6	<5.0			
ABCD7C-0-FR	11/12/19	0-6	<5.0			
ABCD8C-0	11/12/19	0-6	<5.0			
EF1EF2C-0	11/13/19	0-6	9.0			
EF3EF4C-0	11/13/19	0-6	8.2			
EF3EF4C-0-CL	11/13/19	0-6	11			
EFGH5C-0	11/13/19	0-6	7.7			
EFGH6C-0	11/13/19	0-6	8.5			
EFGH7C-0	11/13/19	0-6	8.3			
EFGH8C-0	11/13/19	0-6	6.6			
EFGH8C-0-CL	11/13/19	0-6	5.3			
DD1D-0	11/11/19	0-6	9.3			
DD2D-0	11/11/19	0-6	11			
DD2D-0-CL	11/11/19	0-6	12			
DD3D-0	11/11/19	0-6	21			
DD4D-0	11/11/19	0-6	40			
DD4D-0-FR	11/11/19	0-6	36			
DD5D-0	11/11/19	0-6	<5.0			
DD6D-0	11/11/19	0-6	14			
DD7D-0	11/11/19	0-6	43			

Notes:

bgs = below ground surface

CAS = Chemical Abstracts Service registry number

MDL = method detection limit

ND = not detected above listed MDL

RL = reporting limit

RSL = Regional Screening Level

USEPA = United States Environmental Protection Agency

ug/kg = micrograms per kilogram

⁽a) RSLs as set forth by USEPA Region 9 (USEPA, November 2019). Screening levels shown in parentheses were divided by 4 to account for potential dilution associated with the 4:1 composite sample.

Table 3. Total Petroleum Hydrocarbons in Soil

Hamilton Union High School Expansion Hamilton City, Glenn County, California

		GRO	DRO	MORO
Sample ID	Sample Date	(C6-C12)	(C13-C28)	(C29-C40)
USEPA	Method	8015B	8015B	8015B
М	DL	2.2	1.6	4.2
F	RL	10	10	10
U	Init	mg/kg	mg/kg	mg/kg
Screening Levels (a)	ESL	100	260	1600
DD1D-0	11/11/19	ND	ND	17
DD2D-0	11/11/19	ND	2.9J	17
DD2D-0-CL	11/11/19	ND	5.4J	25
DD3D-0	11/11/19	ND	3.0J	16
DD4D-0	11/11/19	ND	5.6J	30
DD4D-0-FR	11/11/19	ND	5.2J	33
DD5D-0	11/11/19	ND	8.0J	26
DD6D-0	11/11/19	ND	11	48
DD7D-0	11/11/19	ND	10	35

Notes:

CAS = Chemical Abstracts Service

DRO = diesel range organics

ESL = Environmental Screening Level

GRO = gasoline range organics

J = estimated value; between method detection limit and reporting limit

MDL = method detection limit

mg/kg = milligrams per kilogram

MORO = motor oil range organics

ND = not detected

RL = reporting limit

RWQCB = Regional Water Quality Control Board

USEPA = United State Environmental Protection Agency

^(a) RWQCB, San Francisco Bay Region, 2019. Environmental Screening Levels (ESLs).

Table 4. Title 22 Metals in Soil

Hamilton Union High School Expansion Hamilton City, Glenn County, California

Sample ID	Sample Date	Depth (inches bgs)	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
US	EPA Method		6010B	6020	6010B	7471A	6010B	6010B	6010B	6010B	6020	6010B	6010B						
	CAS No.		7440-36-0	7440-38-2	7440-39-3	7440-41-7	7440-43-9	7440-47-3	7440-48-4	7440-50-8	7439-92-1	7439-97-6	7439-98-7	7440-02-0	7782-49-2	7440-22-4	7440-28-0	7440-62-2	7440-66-6
	MDL		1.4	0.0025	0.3	0.2	0.1	0.1	0.2	0.2	1.0	0.027	0.2	0.3	2.2	0.5	0.10	0.3	0.1
	RL		3.0	0.25	1.0	1.0	2.0	2.0	2.0	1.0	3.0	0.10	5.0	2.0	5.0	2.0	0.25	5.0	1.0
	Unit		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg										
Corooning	DTSC-SL (Re	esidential)	NL	0.11	NL	16	71	NL	NL	NL	80	1.0	NL	820	NL	NL	NL	NL	NL
Screening Levels ^(a, b)	DTSC-SL (In	ndustrial)	NL	0.36	NL	230	780	NL	NL	NL	320	4.4	NL	11,000	NL	NL	NL	NL	NL
Leveis	RSL (Resid	dential)	31	0.68	15,000	160	71	120,000	23	3,100	400	11	390	1,500	390	390	0.78	390	23,000
DD1D-0	11/11/19	0-6	ND	4.4	70	ND	0.53J	40	9.7	23	4.5	0.035J	ND	59	ND	ND	ND	28	52
DD2D-0	11/11/19	0-6	ND	5.3	65	ND	0.51J	40	9.2	22	4.7	ND	ND	56	ND	ND	ND	27	52
DD2D-0-CL	11/11/19	0-6	ND	4.8	65	ND	0.48J	37	8.7	21	4.5	ND	ND	54	ND	ND	ND	26	52
DD3D-0	11/11/19	0-6	ND	4.3	62	ND	0.49J	35	8.4	20	4.8	ND	ND	50	ND	ND	ND	25	51
DD4D-0	11/11/19	0-6	ND	5.8	65	ND	0.50J	35	9.1	21	5.2	ND	ND	52	ND	ND	ND	26	51
DD4D-0-FR	11/11/19	0-6	ND	5.5	64	ND	0.48J	35	8.8	21	5.5	ND	ND	51	ND	ND	ND	25	56
DD5D-0	11/11/19	0-6	ND	6.7	190	ND	0.57J	41	9.8	26	6.4	0.036J	ND	59	ND	ND	ND	30	77
DD6D-0	11/11/19	0-6	ND	5.7	200	ND	0.56J	40	9.6	25	6.5	0.029J	ND	57	ND	ND	ND	29	81
DD7D-0	11/11/19	0-6	ND	5.7	190	ND	0.53J	38	9.4	22	4.9	0.028J	ND	57	ND	ND	ND	28	58

Notes:

bgs = below ground surface

CAS = Chemical Abstracts Service registry number

DTSC-SL = California Department of Toxic Substances Control Screening Level, as set forth in Human Health Risk Assessment (HHRA) Note 3 (DTSC; April 2019)

J = estimated value; between method detection limit and reporting limit

MDL = method detection limit

mg/kg = milligrams per kilogram

ND = not detected greater than listed MDL

RL = reporting limit

RSL = Regional Screening Level

USEPA = United States Environmental Protection Agency

NL = not listed

2/7/2020 70779.01_Tables_200207.xlsx

⁽a) DTSC-SL as set forth in Human Health Risk Assessment (HHRA) Note 3 (DTSC; April 2019)

⁽b) RSLs as set forth by USEPA Region 9 (USEPA, November 2019)

APPENDIX A

Regulatory Correspondence



Jared Blumenfeld
Secretary for
Environmental Protection



Department of Toxic Substances Control



Meredith Williams, Ph.D.

Acting Director

8800 Cal Center Drive

Sacramento, California 95826-3200

November 5, 2019

Mr. Jeremy Powell, EdD Superintendent Hamilton Unified School District P.O. Box 488 Hamilton City, California 95951

PRELIMINARY ENDANGERMENT ASSESSMENT WORKPLAN – APPROVAL, HAMILTON UNIFIED SCHOOL DISTRICT, HAMILTON UNION HIGH SCHOOL EXPANSION, NORTH OF 620 CANAL STREET AND EAST OF SR 45/CANAL STREET, HAMILTON CITY, GLENN COUNTY (PROJECT CODE 104806)

Dear Dr. Powell:

The Department of Toxic Substances Control (DTSC) reviewed the revised *Preliminary Endangerment Assessment Work Plan* (PEA Workplan – NV5, October 29, 2019) received electronically on November 1, 2019. The PEA Workplan was revised in response to DTSC comments on the draft version forwarded in a letter dated October 7, 2019. The PEA Workplan includes project background information as well as proposed environmental investigation activities.

According to the PEA Workplan, the Hamilton Unified School District (District) is proposing to expand the existing Hamilton Union High School. The proposed expansion will include phased construction of a gymnasium, a parking lot, new play fields, and modernization of utilities and infrastructure. The Site will be served by the Hamilton City Community Services District (CSD) which includes water provided by California Water Service – Chico District, storm drain connections provided by Glenn County Planning and Public Works Agency and sewer provided by the CSD.

The Site is identified as an approximately 45-acre portion of the parcel identified by the Glenn County Assessor's Parcel Number 032-230-015 (125 acres). The Site is bordered to the north by agricultural land; to the east by railroad tracks followed by agricultural land and the Sacramento River; to the south by Hamilton Union High School, then 6th Street, followed by mixed commercial businesses and residences; and, to the west by Canal Road, then the Glenn-Colusa Canal followed by agricultural land.

Mr. Jeremy Powell, EdD November 5, 2019 Page 2

According to the PEA Workplan, the Site has been used for agricultural purposes since at least 1937. A hay type crop was planted at the Site from at least 1937 through approximately 1983. The Site was used as an orchard from approximately 1983 through 2017. The Site has been planted with a hay type crop since 2017. One pole-mounted transformer and water supply well are present at the Site. Both were likely installed around 1978.

The PEA Workplan includes activities to investigate the Site for potential impacts from the following environmental conditions that may pose a threat to human health or the environment:

- Organochlorine pesticides (OCPs), arsenic, and lead in soils from historic agricultural use;
- Arsenic, lead, and OCPs in soil and groundwater associated with the supply well as a potential mixing area;
- Polychlorinated biphenyls in soils associated with the pole-mounted transformer; and,
- Total petroleum hydrocarbons, metals, and OCPs in soils associated with a drainage ditch that runs east to west along the southern edge of the Site.

DTSC's comments have been adequately addressed, and the revised PEA Workplan is hereby approved. If Site conditions differ from those presented in the approved PEA Workplan, additional work may be necessary. In accordance with Education Code section 17210.1(b), the District shall provide written notice to businesses and residents in the immediate area, approved in form by DTSC, at least five days in advance of field investigation activities. The intent of this requirement is to provide advance notice of fieldwork such as drilling, sampling, and other environmental data collection activities to anyone who lives or works in the line of sight of the Site. Please notify DTSC a minimum of 48 hours in advance of fieldwork or schedule changes.

The PEA Workplan states that the District intends to make the Draft PEA Report available for public review in compliance with Option A of the Education Code section 17213.1(a)(6)(A). Pursuant to Education Code section 17213.1, subdivision (a)(6), at the same time the Draft PEA Report is submitted to DTSC for review, the District shall publish a DTSC approved notice in a local newspaper of general circulation and post the notice in a prominent manner at the Site. The notice should state the District's intent of making the Draft PEA Report available for public review pursuant Option A. A copy of the notice shall be submitted to DTSC with the Draft PEA Report.

Mr. Jeremy Powell, EdD November 5, 2019 Page 3

If you have any questions regarding the project, please contact me at (916) 255-6666 or via email at Elizabeth.Tisdale@dtsc.ca.gov.

Sincerely,

E. Disolaco

Elizabeth Tisdale Project Manager Northern California Schools Unit Site Mitigation and Restoration Program

cc: (via e-mail)

Ms. Kristen Hamman Chief Business Official Hamilton Unified School District khamman@husdschools.org

Ms. Heidi Cummings, PG Senior Geologist NV5 Heidi.Cummings@nv5.com

Mr. Craig W. Bourne, PG Project Geologist NV5 Craig.Bourne@nv5.com Mr. Michael Cannon Principal EFPM, LLC mscannon_efpm@msn.com

Mr. José Salcedo, PE Chief, Northern California Schools Unit DTSC – Sacramento Office Jose.Salcedo@dtsc.ca.gov

Ms. Valerie Hanley, PhD
Staff Toxicologist
DTSC – Human and Ecological Risk Office
Valerie.Hanley@dtsc.ca.gov

APPENDIX B

Laboratory Reports and Chain-of-Custody Documentation



11 December 2019

Heidi Cummings NV5 48 Bellarmine Ct, Suite 40 Chico, CA 95928

RE: Hamilton Union High School

Enclosed are the results of analyses for samples received by the laboratory on 11/13/19 08:27. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jeff Lee

Project Manager



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
A1D-0	T193941-01	Soil	11/12/19 08:30	11/13/19 08:27
C1D-0	T193941-03	Soil	11/12/19 08:50	11/13/19 08:27
C1D-0-CL	T193941-04	Soil	11/12/19 09:00	11/13/19 08:27
ABCD1C-0	T193941-06	Soil	11/12/19 00:00	11/13/19 08:27
ABCD2C-0	T193941-15	Soil	11/12/19 00:00	11/13/19 08:27
ABCD2C-0-FR	T193941-16	Soil	11/12/19 00:00	11/13/19 08:27
B3D-0	T193941-18	Soil	11/12/19 10:25	11/13/19 08:27
B3D-0-FR	T193941-19	Soil	11/12/19 10:26	11/13/19 08:27
D3D-0	T193941-21	Soil	11/12/19 11:00	11/13/19 08:27
ABCD3C-0	T193941-22	Soil	11/12/19 00:00	11/13/19 08:27
ABCD4C-0	T193941-27	Soil	11/12/19 00:00	11/13/19 08:27
HHS1D-2	T193941-28	Soil	11/11/19 08:30	11/13/19 08:27
HHS2D-2	T193941-29	Soil	11/11/19 09:15	11/13/19 08:27
HHS3D-2	T193941-30	Soil	11/11/19 10:15	11/13/19 08:27
HHS3D-2-FR	T193941-31	Soil	11/11/19 10:18	11/13/19 08:27
HHS4D-2	T193941-32	Soil	11/11/19 10:30	11/13/19 08:27
HHS5D-2	T193941-33	Soil	11/11/19 10:45	11/13/19 08:27
HHS5D-2-CL	T193941-34	Soil	11/11/19 10:55	11/13/19 08:27
HHS6D-2	T193941-35	Soil	11/11/19 11:30	11/13/19 08:27
HHS7D-2	T193941-36	Soil	11/11/19 12:25	11/13/19 08:27
HHS8D-2	T193941-37	Soil	11/11/19 13:30	11/13/19 08:27
PMT-E6D-0	T193941-38	Soil	11/11/19 15:05	11/13/19 08:27
PMT-E6D-0-CL	T193941-39	Soil	11/11/19 15:15	11/13/19 08:27
PMT-E6D-2	T193941-40	Soil	11/11/19 15:30	11/13/19 08:27
EB-1	T193941-41	Water	11/11/19 15:00	11/13/19 08:27
DD1D-0	T193941-42	Soil	11/11/19 13:40	11/13/19 08:27
DD2D-0	T193941-43	Soil	11/11/19 13:45	11/13/19 08:27
DD2D-0-CL	T193941-44	Soil	11/11/19 13:50	11/13/19 08:27
DD3D-0	T193941-45	Soil	11/11/19 14:05	11/13/19 08:27

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
DD4D-0	T193941-46	Soil	11/11/19 14:10	11/13/19 08:27
DD4D-0-FR	T193941-47	Soil	11/11/19 14:15	11/13/19 08:27
DD5D-0	T193941-48	Soil	11/11/19 14:25	11/13/19 08:27
DD6D-0	T193941-49	Soil	11/11/19 14:35	11/13/19 08:27
DD7D-0	T193941-50	Soil	11/11/19 15:00	11/13/19 08:27

This report has been revised to report Arsenic and Thallium under EPA 6020 instead of EPA 6010. JL 12/11/19

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

DETECTIONS SUMMARY

Sample ID:	A1D-0	Laborat	ory ID:	T193941-01		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		4.47	3.00	mg/kg	EPA 6010b	
Arsenic		5.4	0.25	mg/kg	6020 ICP-MS	
Sample ID:	C1D-0	Laborat	ory ID:	T193941-03		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		4.33	3.00	mg/kg	EPA 6010b	
Arsenic		4.7	0.25	mg/kg	6020 ICP-MS	
Sample ID:	C1D-0-CL	Laborat	ory ID:	T193941-04		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		4.72	3.00	mg/kg	EPA 6010b	
Arsenic		4.8	0.25	mg/kg	6020 ICP-MS	
Sample ID:	ABCD1C-0	Laborat	ory ID:	T193941-06		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
4,4'-DDE		12	5.0	ug/kg	EPA 8081A	
Sample ID:	ABCD2C-0	Laborat	ory ID:	T193941-15		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
4,4′-DDE		11	5.0	ug/kg	EPA 8081A	

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NV5 Project: Hamilton Union High School

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Sample ID:	ABCD2C-0-FR	Laborat	ory ID:	T193941-16		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
4,4′-DDE		8.7	5.0	ug/kg	EPA 8081A	
Sample ID:	B3D-0	Laborat	ory ID:	T193941-18		
-			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		4.67	3.00	mg/kg	EPA 6010b	
Arsenic		5.3	0.25	mg/kg	6020 ICP-MS	
Sample ID:	B3D-0-FR	Laborat	ory ID:	T193941-19		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		4.28	3.00	mg/kg	EPA 6010b	
Arsenic		5.0	0.25	mg/kg	6020 ICP-MS	
Sample ID:	D3D-0	Laborat	ory ID:	T193941-21		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		4.54	3.00	mg/kg	EPA 6010b	
Arsenic		4.7	0.25	mg/kg	6020 ICP-MS	
Sample ID:	ABCD3C-0	Laborat	ory ID:	T193941-22		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
4,4′-DDE		9.8	5.0	ug/kg	EPA 8081A	
Sample ID:	ABCD4C-0	Laborat	ory ID:	T193941-27		
Sample ID:	ABCD4C-0	Laborat		T193941-27		
Sample ID: Analyte	ABCD4C-0	Laborat Result	cory ID: Reporting Limit	T193941-27 Units	Method	Notes

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NV5 Project: Hamilton Union High School

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Sample ID:	HHS1D-2	Labora	tory ID:	T193941-28		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		4.32	3.00	mg/kg	EPA 6010b	
Arsenic		5.0	0.23	mg/kg	6020 ICP-MS	
Sample ID:	HHS2D-2	Labora	tory ID:	T193941-29		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		4.35	3.00	mg/kg	EPA 6010b	
Arsenic		5.4	0.25	mg/kg	6020 ICP-MS	
Sample ID:	HHS3D-2	Labora	tory ID:	T193941-30		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		4.07	3.00	mg/kg	EPA 6010b	
Arsenic		4.7	0.25	mg/kg	6020 ICP-MS	
Sample ID:	HHS3D-2-FR	Labora	tory ID:	T193941-31		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Analyte Lead		Result 3.74	Limit 3.00	Units mg/kg	Method EPA 6010b	Notes
						Notes
Lead	ННS4D-2	3.74 5.2	3.00 0.25	mg/kg mg/kg	EPA 6010b	Notes
Lead Arsenic	HHS4D-2	3.74 5.2	3.00 0.25 tory ID:	mg/kg	EPA 6010b	Notes
Lead Arsenic	HHS4D-2	3.74 5.2	3.00 0.25	mg/kg mg/kg	EPA 6010b	Notes
Lead Arsenic Sample ID:	HHS4D-2	3.74 5.2 Labora	3.00 0.25 tory ID:	mg/kg mg/kg T193941-32 Units	EPA 6010b 6020 ICP-MS	
Lead Arsenic Sample ID: Analyte	HHS4D-2	3.74 5.2 Labora Result	3.00 0.25 tory ID: Reporting Limit	mg/kg mg/kg T193941-32	EPA 6010b 6020 ICP-MS Method	
Lead Arsenic Sample ID: Analyte Lead	HHS4D-2 HHS5D-2	3.74 5.2 Labora Result 3.97 3.6	3.00 0.25 tory ID: Reporting Limit 3.00	mg/kg mg/kg T193941-32 Units mg/kg	EPA 6010b 6020 ICP-MS Method EPA 6010b	
Lead Arsenic Sample ID: Analyte Lead Arsenic		3.74 5.2 Labora Result 3.97 3.6	3.00 0.25 tory ID: Reporting Limit 3.00 0.25 tory ID:	mg/kg mg/kg T193941-32 Units mg/kg mg/kg	EPA 6010b 6020 ICP-MS Method EPA 6010b	
Lead Arsenic Sample ID: Analyte Lead Arsenic		3.74 5.2 Labora Result 3.97 3.6	3.00 0.25 tory ID: Reporting Limit 3.00 0.25	mg/kg mg/kg T193941-32 Units mg/kg mg/kg	EPA 6010b 6020 ICP-MS Method EPA 6010b	
Lead Arsenic Sample ID: Analyte Lead Arsenic Sample ID:		3.74 5.2 Labora Result 3.97 3.6 Labora	3.00 0.25 tory ID: Reporting Limit 3.00 0.25 tory ID: Reporting	mg/kg mg/kg T193941-32 Units mg/kg mg/kg	EPA 6010b 6020 ICP-MS Method EPA 6010b 6020 ICP-MS	Notes

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Sample ID:	HHS5D-2-CL	Labora	tory ID:	T193941-34		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		4.07	3.00	mg/kg	EPA 6010b	
Arsenic		4.6	0.23	mg/kg	6020 ICP-MS	
Sample ID:	HHS6D-2	Labora	tory ID:	T193941-35		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		4.08	3.00	mg/kg	EPA 6010b	
Arsenic		5.1	0.25	mg/kg	6020 ICP-MS	
Sample ID:	HHS7D-2	Labora	tory ID:	T193941-36		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		3.80	3.00	mg/kg	EPA 6010b	
Arsenic		4.9	0.25	mg/kg	6020 ICP-MS	
Sample ID:	HHS8D-2	Labora	tory ID:	T193941-37		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		4.22	3.00	mg/kg	EPA 6010b	
Arsenic		5.7	0.25	mg/kg	6020 ICP-MS	
Sample ID:	PMT-E6D-0	Labora	tory ID:	T193941-38		
			·			
No Results De	etected					
Sample ID:	PMT-E6D-0-CL	Labora	tory ID:	T193941-39		

No Results Detected

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NV5 Project: Hamilton Union High School

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Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

Sample ID: PMT-E6D-2 Laboratory ID: T193941-40

No Results Detected

Sample ID: EB-1 Laboratory ID: T193941-41

No Results Detected

Sample ID: DD1D-0	Labora	T193941-42			
		Reporting			
Analyte	Result	Limit	Units	Method	Notes
C29-C40 (MORO)	17	10	mg/kg	EPA 8015B	
Barium	70	1.0	mg/kg	EPA 6010b	
Cadmium	0.53	2.0	mg/kg	EPA 6010b	J
Chromium	40	2.0	mg/kg	EPA 6010b	
Cobalt	9.7	2.0	mg/kg	EPA 6010b	
Copper	23	1.0	mg/kg	EPA 6010b	
Lead	4.5	3.0	mg/kg	EPA 6010b	
Nickel	59	2.0	mg/kg	EPA 6010b	
Vanadium	28	5.0	mg/kg	EPA 6010b	
Zinc	52	1.0	mg/kg	EPA 6010b	
Arsenic	4.4	0.25	mg/kg	6020 ICP-MS	
Mercury	0.035	0.10	mg/kg	EPA 7471A Soil	J
4,4'-DDE	9.3	5.0	ug/kg	EPA 8081A	

Sample ID: DD2D-0 Lat	ratory ID : T193941-43
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		Reporting			
Analyte	Result	Limit	Units	Method	Note
C13-C28 (DRO)	2.9	10	mg/kg	EPA 8015B	
C29-C40 (MORO)	17	10	mg/kg	EPA 8015B	
Barium	65	1.0	mg/kg	EPA 6010b	
Cadmium	0.51	2.0	mg/kg	EPA 6010b	
Chromium	40	2.0	mg/kg	EPA 6010b	
Cobalt	9.2	2.0	mg/kg	EPA 6010b	
Copper	22	1.0	mg/kg	EPA 6010b	

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Sample ID: DD	2D-0	Labora	tory ID:	T193941-43		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		4.7	3.0	mg/kg	EPA 6010b	
Nickel		56	2.0	mg/kg	EPA 6010b	
Vanadium		27	5.0	mg/kg	EPA 6010b	
Zinc		52	1.0	mg/kg	EPA 6010b	
Arsenic		5.3	0.25	mg/kg	6020 ICP-MS	
4,4′-DDE		11	5.0	ug/kg	EPA 8081A	
Sample ID: DD	2D-0-CL	Labora	itory ID:	T193941-44		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
C13-C28 (DRO)		5.4	10	mg/kg	EPA 8015B	J
C29-C40 (MORO)		25	10	mg/kg	EPA 8015B	
Barium		65	0.91	mg/kg	EPA 6010b	
Cadmium		0.48	1.8	mg/kg	EPA 6010b	J
Chromium		37	1.8	mg/kg	EPA 6010b	
Cobalt		8.7	1.8	mg/kg	EPA 6010b	
Copper		21	0.91	mg/kg	EPA 6010b	
Lead		4.5	2.7	mg/kg	EPA 6010b	
Nickel		54	1.8	mg/kg	EPA 6010b	
Vanadium		26	4.5	mg/kg	EPA 6010b	
Zinc		52	0.91	mg/kg	EPA 6010b	
Arsenic		4.8	0.25	mg/kg	6020 ICP-MS	
4,4′-DDE		12	5.0	ug/kg	EPA 8081A	
Sample ID: DD	3D-0	Labora	itory ID:	T193941-45		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
C13-C28 (DRO)		3.0	10	mg/kg	EPA 8015B	J
C29-C40 (MORO)		16	10	mg/kg	EPA 8015B	
Barium		62	1.0	mg/kg	EPA 6010b	
Cadmium		0.49	2.0	mg/kg	EPA 6010b	J
Chromium		35	2.0	mg/kg	EPA 6010b	
Cobalt		8.4	2.0	mg/kg	EPA 6010b	
Copper		20	1.0	mg/kg	EPA 6010b	
Lead		4.8	3.0	mg/kg	EPA 6010b	

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Sample ID:	DD3D-0	Labora	tory ID:	T193941-45		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Nickel		50	2.0	mg/kg	EPA 6010b	
Vanadium		25	5.0	mg/kg	EPA 6010b	
Zinc		51	1.0	mg/kg	EPA 6010b	
Arsenic		4.3	0.25	mg/kg	6020 ICP-MS	
4,4′-DDE		21	5.0	ug/kg	EPA 8081A	
Sample ID:	DD4D-0	Labora	tory ID:	T193941-46		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
C13-C28 (DI	RO)	5.6	10	mg/kg	EPA 8015B	J
C29-C40 (M	ORO)	30	10	mg/kg	EPA 8015B	
Barium		65	1.0	mg/kg	EPA 6010b	
Cadmium		0.50	2.0	mg/kg	EPA 6010b	J
Chromium		35	2.0	mg/kg	EPA 6010b	
Cobalt		9.1	2.0	mg/kg	EPA 6010b	
Copper		21	1.0	mg/kg	EPA 6010b	
Lead		5.2	3.0	mg/kg	EPA 6010b	
Nickel		52	2.0	mg/kg	EPA 6010b	
Vanadium		26	5.0	mg/kg	EPA 6010b	
Zinc		51	1.0	mg/kg	EPA 6010b	
Arsenic		5.8	0.25	mg/kg	6020 ICP-MS	
4,4′-DDE		40	5.0	ug/kg	EPA 8081A	
Sample ID:	DD4D-0-FR	Labora	tory ID:	T193941-47		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
C13-C28 (DI	RO)	5.2	10	mg/kg	EPA 8015B	J
C29-C40 (M	ORO)	33	10	mg/kg	EPA 8015B	
Barium		64	1.0	mg/kg	EPA 6010b	
Cadmium		0.48	2.0	mg/kg	EPA 6010b	J
Chromium		35	2.0	mg/kg	EPA 6010b	
Cobalt		8.8	2.0	mg/kg	EPA 6010b	
Copper		21	1.0	mg/kg	EPA 6010b	
Lead		5.5	3.0	mg/kg	EPA 6010b	

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Sample ID: DD4D-0-FR	Labora	tory ID:	T193941-47		
		Reporting			
Analyte	Result	Limit	Units	Method	Notes
Vanadium	25	5.0	mg/kg	EPA 6010b	
Zinc	56	1.0	mg/kg	EPA 6010b	
Arsenic	5.5	0.25	mg/kg	6020 ICP-MS	
4,4'-DDE	36	5.0	ug/kg	EPA 8081A	
Sample ID: DD5D-0	Labora	tory ID:	T193941-48		
		Reporting			
Analyte	Result	Limit	Units	Method	Notes
C13-C28 (DRO)	8.0	10	mg/kg	EPA 8015B	J
C29-C40 (MORO)	26	10	mg/kg	EPA 8015B	
Barium	190	4.0	mg/kg	EPA 6010b	RE-01
Cadmium	0.57	2.0	mg/kg	EPA 6010b	J
Chromium	41	2.0	mg/kg	EPA 6010b	
Cobalt	9.8	2.0	mg/kg	EPA 6010b	
Copper	26	1.0	mg/kg	EPA 6010b	
Lead	6.4	3.0	mg/kg	EPA 6010b	
Nickel	59	2.0	mg/kg	EPA 6010b	
Vanadium	30	5.0	mg/kg	EPA 6010b	
Zinc	77	1.0	mg/kg	EPA 6010b	
Arsenic	6.7	0.25	mg/kg	6020 ICP-MS	
Mercury	0.036	0.10	mg/kg	EPA 7471A Soil	J
Sample ID: DD5D-0	Lahora	tory ID:	T193941-48RE	1	

No Results Detected

Laborate				
	Reporting			
Result	Limit	Units	Method	Notes
11	10	mg/kg	EPA 8015B	
48	10	mg/kg	EPA 8015B	
200	4.0	mg/kg	EPA 6010b	RE-01
0.56	2.0	mg/kg	EPA 6010b	J
	Result 11 48 200	Result Limit 11 10 48 10 200 4.0	Reporting Result Limit Units	Reporting Result Limit Units Method

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Sample ID:	DD6D-0	Laborat	tory ID:	T193941-49		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Chromium		40	2.0	mg/kg	EPA 6010b	
Cobalt		9.6	2.0	mg/kg	EPA 6010b	
Copper		25	1.0	mg/kg	EPA 6010b	
Lead		6.5	3.0	mg/kg	EPA 6010b	
Nickel		57	2.0	mg/kg	EPA 6010b	
Vanadium		29	5.0	mg/kg	EPA 6010b	
Zinc		81	1.0	mg/kg	EPA 6010b	
Arsenic		5.7	0.23	mg/kg	6020 ICP-MS	
Mercury		0.029	0.10	mg/kg	EPA 7471A Soil	J
4,4'-DDE		14	5.0	ug/kg	EPA 8081A	
Sample ID:	DD7D-0	Laborat	tory ID:	T193941-50		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
C13-C28 (E	ORO)	10	10	mg/kg	EPA 8015B	
C29-C40 (N	MORO)	35	10	mg/kg	EPA 8015B	
Barium		190	4.0	mg/kg	EPA 6010b	RE-01
Cadmium		0.53	2.0	mg/kg	EPA 6010b	J
Chromium		38	2.0	mg/kg	EPA 6010b	
Cobalt		9.4	2.0	mg/kg	EPA 6010b	
Copper		22	1.0	mg/kg	EPA 6010b	
		22 4.9	1.0 3.0	mg/kg mg/kg	EPA 6010b EPA 6010b	
Copper						
Copper Lead		4.9	3.0	mg/kg	EPA 6010b	
Copper Lead Nickel		4.9 57	3.0 2.0	mg/kg mg/kg	EPA 6010b EPA 6010b	
Copper Lead Nickel Vanadium		4.9 57 28	3.0 2.0 5.0	mg/kg mg/kg mg/kg	EPA 6010b EPA 6010b EPA 6010b	
Copper Lead Nickel Vanadium Zinc		4.9 57 28 58	3.0 2.0 5.0 1.0	mg/kg mg/kg mg/kg mg/kg	EPA 6010b EPA 6010b EPA 6010b EPA 6010b	J
Copper Lead Nickel Vanadium Zinc Arsenic		4.9 57 28 58 5.7	3.0 2.0 5.0 1.0 0.25	mg/kg mg/kg mg/kg mg/kg mg/kg	EPA 6010b EPA 6010b EPA 6010b EPA 6010b 6020 ICP-MS	J

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NV5 Project: Hamilton Union High School

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A1D-0 T193941-01(Soil)

			Reporting							
Analyte	Result	MDL	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Metals by EPA 6010B										
Lead	4.47	0.967	3.00	mg/kg	1	9111360	11/13/19	11/14/19	EPA 6010b	
Metals by EPA 6020 Method										
Arsenic	5.4	0.0025	0.25	mg/kg	1	9121017	12/10/19	12/10/19	6020 ICP-MS	

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NV5 Project: Hamilton Union High School

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C1D-0 T193941-03(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Metals by EPA 6010B										
Lead	4.33	0.967	3.00	mg/kg	1	9111360	11/13/19	11/14/19	EPA 6010b	
Metals by EPA 6020 Method										
Arsenic	4.7	0.0025	0.25	mg/kg	1	9121017	12/10/19	12/10/19	6020 ICP-MS	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

C1D-0-CL T193941-04(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Metals by EPA 6010B										
Lead	4.72	0.967	3.00	mg/kg	1	9111360	11/13/19	11/14/19	EPA 6010b	
Metals by EPA 6020 Method										
Arsenic	4.8	0.0025	0.25	mg/kg	1	9121017	12/10/19	12/10/19	6020 ICP-MS	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

ABCD1C-0 T193941-06(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar La	aboratorie	s, Inc.					
Organochlorine Pesticides by EPA	Method 8081A									
alpha-BHC	ND	0.56	5.0	ug/kg	1	9111350	11/13/19	11/14/19	EPA 8081A	
gamma-BHC (Lindane)	ND	0.96	5.0	"	**	"	"	"	"	
beta-BHC	ND	1.4	5.0	"	**	"	"	Ħ	"	
delta-BHC	ND	0.64	5.0	"	17	"	17	Ħ	"	
Heptachlor	ND	0.59	5.0	"	"	"	"	"	"	
Aldrin	ND	0.66	5.0	n	11	"	"	"	"	
Heptachlor epoxide	ND	0.98	5.0	"	"	"	"	"	11	
gamma-Chlordane	ND	0.93	5.0	"	**	"	"	"	11	
alpha-Chlordane	ND	0.83	5.0	"	**	"	"	"	"	
Endosulfan I	ND	0.81	5.0	n	**	**	u	'n	n	
4,4'-DDE	12	0.78	5.0	"	**	"	u	'n	"	
Dieldrin	ND	1.1	5.0	"	**	"	Ħ	Ħ	n	
Endrin	ND	1.1	5.0	"	**	"	Ħ	Ħ	n	
4,4'-DDD	ND	1.2	5.0	"	"	"	Ħ	Ħ	"	
Endosulfan II	ND	1.1	5.0	"	"	"	Ħ	Ħ	"	
4,4'-DDT	ND	0.80	5.0	"	**	"	"	"	"	
Endrin aldehyde	ND	1.7	5.0	"	"	"	"	"	11	
Endosulfan sulfate	ND	0.61	5.0	"	**	"	"	"	11	
Methoxychlor	ND	0.40	5.0	"	**	"	"	"	"	
Endrin ketone	ND	1.3	5.0	n	**	**	u	'n	n	
Toxaphene	ND	5.8	20	"	**	**	Ħ	'n	"	
Chlordane (tech)	ND	5.0	50	"	**	"	"	"	n	
Chlordane (Total)	ND		5.0	11	**	"	**	"	11	
Surrogate: Tetrachloro-meta-xylene			126 %	35-1	140	"	"	"	"	
Surrogate: Decachlorobiphenyl			107 %	35-1	140	"	"	"	"	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
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ABCD2C-0 T193941-15(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Organochlorine Pesticides by EPA M	Aethod 8081A									
alpha-BHC	ND	0.56	5.0	ug/kg	1	9111350	11/13/19	11/14/19	EPA 8081A	
gamma-BHC (Lindane)	ND	0.96	5.0	"	"	"	**	ti .	**	
beta-BHC	ND	1.4	5.0	"	"	"	"	"	"	
delta-BHC	ND	0.64	5.0	"	"	"	"	"	"	
Heptachlor	ND	0.59	5.0	"	"	"	"	"	"	
Aldrin	ND	0.66	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	0.98	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	0.93	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	0.83	5.0	"	"	"	"	"	"	
Endosulfan I	ND	0.81	5.0	"	"	"	"	"	"	
4,4′-DDE	11	0.78	5.0	"	"	"	**	n	"	
Dieldrin	ND	1.1	5.0	**	n	"	**	**	11	
Endrin	ND	1.1	5.0	"	TT TT	**	**	Ħ	11	
4,4′-DDD	ND	1.2	5.0	"	ıı	11	11	Ħ	11	
Endosulfan II	ND	1.1	5.0	"	ıı	11	11	Ħ	11	
4,4′-DDT	ND	0.80	5.0	"	n	11	11	Ħ	11	
Endrin aldehyde	ND	1.7	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	0.61	5.0	"	"	"	"	"	"	
Methoxychlor	ND	0.40	5.0	"	"	"	"	"	"	
Endrin ketone	ND	1.3	5.0	"	"	"	"	"	"	
Гохарһепе	ND	5.8	20	"	"	"	**	"	"	
Chlordane (tech)	ND	5.0	50	"	"	"	**	"	"	
Chlordane (Total)	ND		5.0	**	"	"	**	"	11	
Surrogate: Tetrachloro-meta-xylene			118 %	35-	140	"	"	"	"	
Surrogate: Decachlorobiphenyl			128 %	35-	140	"	"	"	"	

SunStar Laboratories, Inc.

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

ABCD2C-0-FR T193941-16(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	<u>aboratorie</u>	s, Inc.					
Organochlorine Pesticides by EPA N	Aethod 8081A									
alpha-BHC	ND	0.56	5.0	ug/kg	1	9111350	11/13/19	11/14/19	EPA 8081A	
gamma-BHC (Lindane)	ND	0.96	5.0	**	**	"	"	"	n	
beta-BHC	ND	1.4	5.0	"	"	"	"	"	n	
delta-BHC	ND	0.64	5.0	"	"	"	"	"	n	
Heptachlor	ND	0.59	5.0	"	"	"	"	"	n	
Aldrin	ND	0.66	5.0	"	"	"	n	'n	n	
Heptachlor epoxide	ND	0.98	5.0	"	"	11	n	n	"	
gamma-Chlordane	ND	0.93	5.0	"	"	11	'n	'n	n	
alpha-Chlordane	ND	0.83	5.0	"	"	11	n	n	"	
Endosulfan I	ND	0.81	5.0	"	**	**	n	n	11	
4,4'-DDE	8.7	0.78	5.0	"	**	Ħ	n	n	n	
Dieldrin	ND	1.1	5.0	"	**	"	"	"	"	
Endrin	ND	1.1	5.0	"	**	"	"	"	n	
4,4′-DDD	ND	1.2	5.0	"	"	"	"	"	n	
Endosulfan II	ND	1.1	5.0	"	"	"	"	"	n	
4,4′-DDT	ND	0.80	5.0	"	"	11	n	n	n .	
Endrin aldehyde	ND	1.7	5.0	"	"	11	n	n	"	
Endosulfan sulfate	ND	0.61	5.0	"	**	**	n	n	11	
Methoxychlor	ND	0.40	5.0	"	**	"	Ħ	Ħ	11	
Endrin ketone	ND	1.3	5.0	"	**	"	n	n	"	
Coxaphene	ND	5.8	20	"	**	"	n	n	"	
Chlordane (tech)	ND	5.0	50	"	**	"	"	"	"	
Chlordane (Total)	ND		5.0	"	**	"	Ħ	Ħ	11	_
Surrogate: Tetrachloro-meta-xylene			119 %	35-1	140	"	"	"	"	
Surrogate: Decachlorobiphenyl			77.6 %	35-1		"	"	"	"	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

B3D-0

T193941-18(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Metals by EPA 6010B										
Lead	4.67	0.967	3.00	mg/kg	1	9111360	11/13/19	11/14/19	EPA 6010b	
Metals by EPA 6020 Method										
Arsenic	5.3	0.0025	0.25	mg/kg	1	9121017	12/10/19	12/10/19	6020 ICP-MS	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

B3D-0-FR T193941-19(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Metals by EPA 6010B										
Lead	4.28	0.967	3.00	mg/kg	1	9111360	11/13/19	11/14/19	EPA 6010b	
Metals by EPA 6020 Method										
Arsenic	5.0	0.0025	0.25	mg/kg	1	9121017	12/10/19	12/10/19	6020 ICP-MS	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

D3D-0 T193941-21(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Metals by EPA 6010B										
Lead	4.54	0.967	3.00	mg/kg	1	9111360	11/13/19	11/14/19	EPA 6010b	
Metals by EPA 6020 Method										
Arsenic	4.7	0.0025	0.25	mg/kg	1	9121017	12/10/19	12/10/19	6020 ICP-MS	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

ABCD3C-0 T193941-22(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Organochlorine Pesticides by EPA M	Method 8081A									
alpha-BHC	ND	0.56	5.0	ug/kg	1	9111350	11/13/19	11/14/19	EPA 8081A	
gamma-BHC (Lindane)	ND	0.96	5.0	"	"	"	**	"	"	
beta-BHC	ND	1.4	5.0	"	"	"	"	"	"	
delta-BHC	ND	0.64	5.0	"	"	"	"	"	"	
Heptachlor	ND	0.59	5.0	"	"	"	n	"	"	
Aldrin	ND	0.66	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	0.98	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	0.93	5.0	"	"	"	"	"	"	
lpha-Chlordane	ND	0.83	5.0	"	"	"	"	"	"	
Endosulfan I	ND	0.81	5.0	"	"	"	"	"	"	
4,4′-DDE	9.8	0.78	5.0	"	"	**	"	"	"	
Dieldrin	ND	1.1	5.0	**	"	**	**	**	**	
Endrin	ND	1.1	5.0	"	17	**	Ħ	Ħ	**	
1,4′-DDD	ND	1.2	5.0	"	17	11	u	Ħ	11	
Endosulfan II	ND	1.1	5.0	"	17	11	u	Ħ	11	
4,4′-DDT	ND	0.80	5.0	"	17	11	u	Ħ	11	
Endrin aldehyde	ND	1.7	5.0	"	"	"	n	u u	"	
Endosulfan sulfate	ND	0.61	5.0	"	"	"	"	"	"	
Methoxychlor	ND	0.40	5.0	"	"	"	"	"	"	
Endrin ketone	ND	1.3	5.0	"	"	"	"	"	"	
Toxaphene	ND	5.8	20	"	"	"	**	"	"	
Chlordane (tech)	ND	5.0	50	**	"	"	"	n	"	
Chlordane (Total)	ND		5.0	**	"	"	"	n	"	
Surrogate: Tetrachloro-meta-xylene			120 %	35	140	"	"	"	"	
Surrogate: Decachlorobiphenyl			67.0 %	35	140	"	"	"	"	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

ABCD4C-0 T193941-27(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Organochlorine Pesticides by EPA M	Aethod 8081A									
alpha-BHC	ND	0.56	5.0	ug/kg	1	9111350	11/13/19	11/14/19	EPA 8081A	
gamma-BHC (Lindane)	ND	0.96	5.0	"	"	"	**	ti .	**	
beta-BHC	ND	1.4	5.0	"	"	"	"	"	"	
delta-BHC	ND	0.64	5.0	"	"	"	"	"	"	
Heptachlor	ND	0.59	5.0	"	"	"	"	"	"	
Aldrin	ND	0.66	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	0.98	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	0.93	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	0.83	5.0	"	"	"	"	"	"	
Endosulfan I	ND	0.81	5.0	"	"	"	"	"	"	
4,4′-DDE	7.6	0.78	5.0	**	"	"	**	n	"	
Dieldrin	ND	1.1	5.0	**	T T	"	Ħ	Ħ	11	
Endrin	ND	1.1	5.0	"	TT TT	**	**	Ħ	11	
4,4′-DDD	ND	1.2	5.0	"	ıı	11	11	Ħ	11	
Endosulfan II	ND	1.1	5.0	"	ıı	11	11	Ħ	11	
4,4′-DDT	ND	0.80	5.0	"	n	11	11	Ħ	11	
Endrin aldehyde	ND	1.7	5.0	"	n	11	11	Ħ	11	
Endosulfan sulfate	ND	0.61	5.0	"	'n	"	**	Ħ	11	
Methoxychlor	ND	0.40	5.0	"	n	"	**	Ħ	11	
Endrin ketone	ND	1.3	5.0	"	n	"	**	Ħ	11	
Гохарhene	ND	5.8	20	"	n	"	**	**	11	
Chlordane (tech)	ND	5.0	50	"	n	"	**	Ħ	**	
Chlordane (Total)	ND		5.0	"	"	"	**	Ħ	11	
Surrogate: Tetrachloro-meta-xylene			116 %	35-	140	"	"	"	"	
Surrogate: Decachlorobiphenyl			74.3 %	35-	140	"	"	"	"	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

HHS1D-2 T193941-28(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Metals by EPA 6010B										
Lead	4.32	0.967	3.00	mg/kg	1	9111360	11/13/19	11/14/19	EPA 6010b	
Metals by EPA 6020 Method										
Arsenic	5.0	0.0023	0.23	mg/kg	1	9121017	12/10/19	12/10/19	6020 ICP-MS	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

HHS2D-2 T193941-29(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratori	es, Inc.					
Metals by EPA 6010B										
Lead	4.35	0.967	3.00	mg/kg	1	9111360	11/13/19	11/14/19	EPA 6010b	
Metals by EPA 6020 Method										
Arsenic	5.4	0.0025	0.25	mg/kg	1	9121017	12/10/19	12/10/19	6020 ICP-MS	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

HHS3D-2 T193941-30(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Metals by EPA 6010B										
Lead	4.07	0.967	3.00	mg/kg	1	9111360	11/13/19	11/14/19	EPA 6010b	
Metals by EPA 6020 Method										
Arsenic	4.7	0.0025	0.25	mg/kg	1	9121017	12/10/19	12/10/19	6020 ICP-MS	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

HHS3D-2-FR T193941-31(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratori	es, Inc.					
Metals by EPA 6010B										
Lead	3.74	0.967	3.00	mg/kg	1	9111360	11/13/19	11/14/19	EPA 6010b	
Metals by EPA 6020 Method										
Arsenic	5.2	0.0025	0.25	mg/kg	1	9121017	12/10/19	12/10/19	6020 ICP-MS	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

HHS4D-2 T193941-32(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Metals by EPA 6010B										
Lead	3.97	0.967	3.00	mg/kg	1	9111360	11/13/19	11/14/19	EPA 6010b	
Metals by EPA 6020 Method										
Arsenic	3.6	0.0025	0.25	mg/kg	1	9121017	12/10/19	12/10/19	6020 ICP-MS	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

HHS5D-2 T193941-33(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Metals by EPA 6010B										
Lead	3.72	0.967	3.00	mg/kg	1	9111360	11/13/19	11/14/19	EPA 6010b	
Metals by EPA 6020 Method										
Arsenic	4.7	0.0025	0.25	mg/kg	1	9121017	12/10/19	12/10/19	6020 ICP-MS	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

HHS5D-2-CL T193941-34(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Metals by EPA 6010B										
Lead	4.07	0.967	3.00	mg/kg	1	9111360	11/13/19	11/14/19	EPA 6010b	
Metals by EPA 6020 Method										
Arsenic	4.6	0.0023	0.23	mg/kg	1	9121017	12/10/19	12/10/19	6020 ICP-MS	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

HHS6D-2 T193941-35(Soil)

			Reporting							
Analyte	Result	MDL	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Metals by EPA 6010B										
Lead	4.08	0.967	3.00	mg/kg	1	9111360	11/13/19	11/14/19	EPA 6010b	
35 / 1 1 PD/ (000 35 / 1 1										
Metals by EPA 6020 Method										
Arsenic	5.1	0.0025	0.25	mg/kg	1	9121017	12/10/19	12/10/19	6020	
									ICP-MS	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

HHS7D-2 T193941-36(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Metals by EPA 6010B										
Lead	3.80	0.967	3.00	mg/kg	1	9111360	11/13/19	11/14/19	EPA 6010b	
Metals by EPA 6020 Method										
Arsenic	4.9	0.0025	0.25	mg/kg	1	9121017	12/10/19	12/10/19	6020 ICP-MS	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

HHS8D-2 T193941-37(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Metals by EPA 6010B										
Lead	4.22	0.967	3.00	mg/kg	1	9111360	11/13/19	11/14/19	EPA 6010b	
Metals by EPA 6020 Method										
Arsenic	5.7	0.0025	0.25	mg/kg	1	9121017	12/10/19	12/10/19	6020 ICP-MS	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

PMT-E6D-0 T193941-38(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorie	es, Inc.					
Polychlorinated Biphenyls by EPA	Method 8082									
PCB-1016	ND	2.1	10	ug/kg	1	9111415	11/14/19	11/14/19	EPA 8082	
PCB-1221	ND	2.1	10	**	**	"	"	"	**	
PCB-1232	ND	2.1	10	**	"	**	**	n	11	
PCB-1242	ND	2.1	10	"	17	"	17	n	11	
PCB-1248	ND	2.1	10	"	"	"	17	Ħ	11	
PCB-1254	ND	2.1	10	"	n	"	"	n	11	
PCB-1260	ND	2.1	10	11	n	"	"	n	"	
Surrogate: Tetrachloro-meta-xylene			76.8 %	35	140	"	"	"	"	
Surrogate: Decachlorobiphenyl			75.2 %	35-	140	"	"	"	"	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

PMT-E6D-0-CL T193941-39(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	<u>aboratorie</u>	s, Inc.					
Polychlorinated Biphenyls by EPA	Method 8082									
PCB-1016	ND	2.1	10	ug/kg	1	9111415	11/14/19	11/14/19	EPA 8082	
PCB-1221	ND	2.1	10	"	**	**	"	**	**	
PCB-1232	ND	2.1	10	"	**	"	**	"	"	
PCB-1242	ND	2.1	10	11	**	n	**	n	11	
PCB-1248	ND	2.1	10	11	17	"	11	ıı	11	
PCB-1254	ND	2.1	10	"	11	"	"	n	11	
PCB-1260	ND	2.1	10	n	17	"	11	n	"	
Surrogate: Tetrachloro-meta-xylene			88.1 %	35-1	40	"	"	"	"	
Surrogate: Decachlorobiphenyl			102 %	35-1	40	"	"	"	"	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

PMT-E6D-2 T193941-40(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratories	s, Inc.					
Polychlorinated Biphenyls	by EPA Method 8082									
PCB-1016	ND	2.1	10	ug/kg	1	9111415	11/14/19	11/14/19	EPA 8082	
PCB-1221	ND	2.1	10	**	**	**	**	"	**	
PCB-1232	ND	2.1	10	**	**	"	**	"	"	
PCB-1242	ND	2.1	10	11	"	"	**	"	"	
PCB-1248	ND	2.1	10	11	Ħ	"	11	17	"	
PCB-1254	ND	2.1	10	"	"	11	Ħ	"	11	
PCB-1260	ND	2.1	10	"	"	"	11	17	"	
Surrogate: Tetrachloro-meta-xyi	lene		87.3 %	35-1-	40	"	"	"	"	
Surrogate: Decachlorobiphenyl			119 %	35-1-	40	"	"	n	"	

SunStar Laboratories, Inc.

 $The \ results \ in \ this \ report \ apply \ to \ the \ samples \ analyzed \ in \ accordance \ with \ the \ chain \ of \ custody \ document. \ This \ analytical \ report \ must \ be \ reproduced \ in \ its \ entirety.$



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

EB-1 T193941-41(Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar La	<u>ıboratorie</u>	s, Inc.					
Extractable Petroleum Hydrocarl	bons by 8015B									
C6-C12 (GRO)	ND	0.013	0.050	mg/l	1	9111347	11/13/19	11/14/19	EPA 8015B	
C13-C28 (DRO)	ND	0.013	0.050	"	**	n	**	n	**	
C29-C40 (MORO)	ND	0.013	0.10	"	**	n	Ħ	11	n	
Surrogate: p-Terphenyl			115 %	65-1	135	11	"	n	"	
Metals by EPA 6010B			_	_	_	_				
Antimony	ND	17	50	ug/l	1	9111354	11/13/19	11/15/19	EPA 6010b	
Silver	ND	24	50	"	Ħ	"	**	Ħ	"	
Arsenic	ND	17	50	"	**	"	Ħ	Ħ	"	
Barium	ND	13	50	"	"	"	Ħ	n	n .	
Beryllium	ND	18	50	"	"	"	Ħ	11/15/19	"	
Cadmium	ND	21	50	"	"	"	"	11/15/19	n	
Chromium	ND	21	50	"	"	"	**	**	n	
Cobalt	ND	14	50	"	"	"	**	n	**	
Copper	ND	20	50	"	"	"	"	"	n	
Lead	ND	17	50	"	"	"	"	"	n	
Molybdenum	ND	14	50	"	"	"	"	"	n	
Nickel	ND	14	50	"	"	"	"	"	n	
Selenium	ND	19	50	"	"	n	"	"	n	
Гhallium	ND	16	50	"	"	n	"	"	n	
Vanadium	ND	20	50	"	"	"	"	"	n	
Zine	ND	17	50	"	**	"	Ħ	Ħ	11	
Cold Vapor Extraction EPA 7470/	/7471									
Mercury	ND	0.022	0.50	ug/l	1	9111355	11/13/19	11/15/19	EPA 7470A Water	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

EB-1 T193941-41(Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar La	<u>ıboratoric</u>	s, Inc.					
Organochlorine Pesticides by EPA M	1ethod 8081A									
alpha-BHC	ND	0.04	1.00	ug/l	1	9111344	11/13/19	11/13/19	EPA 8081A	
gamma-BHC (Lindane)	ND	0.03	1.00	"	**	**	n	n	**	
beta-BHC	ND	0.05	1.00	"	"	**	n	n	11	
delta-BHC	ND	0.02	1.00	"	"	**	TI .	n	11	
Heptachlor	ND	0.04	1.00	"	"	11	TI .	TI .	n	
Aldrin	ND	0.02	1.00	"	17	11	n	n	n	
Heptachlor epoxide	ND	0.04	1.00	"	**	"	n	n	"	
gamma-Chlordane	ND	0.05	1.00	"	**	"	n	n	"	
alpha-Chlordane	ND	0.03	1.00	"	**	11	n	n	n	
Endosulfan I	ND	0.02	1.00	"	n	"	ij	ij	11	
4,4′-DDE	ND	0.04	1.00	"	**	**	n	n	Ħ	
Dieldrin	ND	0.03	1.00	"	n	"	Ħ	Ħ	"	
Endrin	ND	0.04	1.00	"	n	"	Ħ	Ħ	"	
4,4′-DDD	ND	0.03	1.00	"	**	**	n	U	Ħ	
Endosulfan II	ND	0.04	1.00	"	n	"	n	n	"	
4,4′-DDT	ND	0.06	1.00	"	**	"	U	U	n	
Endrin aldehyde	ND	0.02	1.00	"	**	"	U	U	n	
Endosulfan sulfate	ND	0.05	1.00	"	**	"	v	U	n	
Methoxychlor	ND	0.03	1.00	"	ti .	"	ī	ī	"	
Endrin ketone	ND	0.05	1.00	"	u.	"	TI .	II.	"	
Chlordane (tech)	ND	1.00	10.0	"	"	"	TI .	II.	"	
Toxaphene	ND	5.79	20.0	"	Ħ	11	n	n	11	
Surrogate: Tetrachloro-meta-xylene			61.2 %	35-1	140	"	"	"	"	
Surrogate: Decachlorobiphenyl			77.7 %	35-1	140	"	"	"	"	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

DD1D-0 T193941-42(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorie	es, Inc.					
Extractable Petroleum Hydrocarbo	ons by 8015B									
C6-C12 (GRO)	ND	2.2	10	mg/kg	1	9111411	11/14/19	11/15/19	EPA 8015B	
C13-C28 (DRO)	ND	1.6	10	"	n	**	n	n	**	
C29-C40 (MORO)	17	4.2	10	11	**	n	"	11	11	
Surrogate: p-Terphenyl			106 %	65	135	"	"	"	"	
Metals by EPA 6010B										
Antimony	ND	1.4	3.0	mg/kg	1	9111418	11/14/19	11/15/19	EPA 6010b	
Silver	ND	0.50	2.0	"	n	**	n	n	**	
Barium	70	0.30	1.0	"	"	"	"	"	"	
Beryllium	ND	0.20	1.0	"	"	"	**	11/15/19	11	
Cadmium	0.53	0.10	2.0	11	n	n	**	11/15/19	11	
Chromium	40	0.10	2.0	**	**	**	"	"	**	
Cobalt	9.7	0.20	2.0	"	"	"	**	**	"	
Copper	23	0.20	1.0	"	"	"	"	"	"	
Lead	4.5	1.0	3.0	**	n	T T	**	TT .	**	
Molybdenum	ND	0.20	5.0	"	"	"	"	"	11	
Nickel	59	0.30	2.0	"	"	"	"	"	"	
Selenium	ND	2.2	5.0	"	n	"	"	"	"	
Vanadium	28	0.30	5.0	"	**	**	**	**	**	
Zinc	52	0.10	1.0	"	"	17	**	17	11	
Metals by EPA 6020 Method										
Arsenic	4.4	0.0025	0.25	mg/kg	1	9121017	12/10/19	12/10/19	6020 ICP-MS	
Thallium	ND	0.099	0.25	11	n	"	v	n n	"	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

DD1D-0 T193941-42(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Cold Vapor Extraction EPA 7470/74	71									
Mercury	0.035	0.027	0.10	mg/kg	1	9111422	11/14/19	11/15/19	EPA 7471A Soil	
Organochlorine Pesticides by EPA M	Aethod 8081A									
alpha-BHC	ND	0.56	5.0	ug/kg	1	9111350	11/13/19	11/14/19	EPA 8081A	
gamma-BHC (Lindane)	ND	0.96	5.0	"	"	"	"	**	"	
beta-BHC	ND	1.4	5.0	"	"	"	**	**	**	
delta-BHC	ND	0.64	5.0	"	"	"	**	**	**	
Heptachlor	ND	0.59	5.0	"	"	"	**	**	**	
Aldrin	ND	0.66	5.0	"	"	"	**	**	**	
Heptachlor epoxide	ND	0.98	5.0	"	**	"	**	**	**	
gamma-Chlordane	ND	0.93	5.0	"	**	"	**	**	**	
alpha-Chlordane	ND	0.83	5.0	"	"	"	**	**	**	
Endosulfan I	ND	0.81	5.0	"	"	"	17	**	**	
4,4'-DDE	9.3	0.78	5.0	11	ıı	11	11	**	"	
Dieldrin	ND	1.1	5.0	"	"	"	**	**	"	
Endrin	ND	1.1	5.0	"	"	"	**	**	"	
4,4′-DDD	ND	1.2	5.0	"	"	"	**	**	"	
Endosulfan II	ND	1.1	5.0	"	"	"	**	**	"	
4,4′-DDT	ND	0.80	5.0	"	"	"	**	**	"	
Endrin aldehyde	ND	1.7	5.0	"	"	"	**	**	"	
Endosulfan sulfate	ND	0.61	5.0	"	**	"	**	**	"	
Methoxychlor	ND	0.40	5.0	"	**	"	**	**	"	
Endrin ketone	ND	1.3	5.0	11	ıı	11	11	Ħ	11	
Toxaphene	ND	5.8	20	11	ıı	11	11	11	11	
Chlordane (tech)	ND	5.0	50	11	n	11	**	**	"	
Chlordane (Total)	ND		5.0	11	n	11	11	11	11	
Surrogate: Tetrachloro-meta-xylene			120 %	35-	140	"	"	"	"	
Surrogate: Decachlorobiphenyl			96.6 %	35-	140	"	"	"	"	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

DD2D-0 T193941-43(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorie	es, Inc.					
Extractable Petroleum Hydrocarbo	ns by 8015B									
C6-C12 (GRO)	ND	2.2	10	mg/kg	1	9111411	11/14/19	11/15/19	EPA 8015B	
C13-C28 (DRO)	2.9	1.6	10	"	n	n	Ħ	**	n	
C29-C40 (MORO)	17	4.2	10	11	"	"	"	Ħ	11	
Surrogate: p-Terphenyl			111 %	65-	135	"	"	"	"	
Metals by EPA 6010B										
Antimony	ND	1.4	3.0	mg/kg	1	9111418	11/14/19	11/15/19	EPA 6010b	
Silver	ND	0.50	2.0	11	17	"	"	17	11	
Barium	65	0.30	1.0	11	17	n	**	**	**	
Beryllium	ND	0.20	1.0	"	**	"	"	"	"	
Cadmium	0.51	0.10	2.0	"	**	**	"	**	**	
Chromium	40	0.10	2.0	"	"	"	"	"	**	
Cobalt	9.2	0.20	2.0	"	"	"	"	"	"	
Copper	22	0.20	1.0	"	n	"	"	"	"	
Lead	4.7	1.0	3.0	"	"	ii.	11	**	"	
Molybdenum	ND	0.20	5.0	"	**	"	"	"	**	
Nickel	56	0.30	2.0	"	n	n	Ħ	**	**	
Selenium	ND	2.2	5.0	"	**	"	"	"	"	
Vanadium	27	0.30	5.0	"	n	n	"	"	"	
Zinc	52	0.10	1.0	"	"	"	"	"	**	
Metals by EPA 6020 Method										
Arsenic	5.3	0.0025	0.25	mg/kg	1	9121017	12/10/19	12/10/19	6020 ICP-MS	
Thallium	ND	0.099	0.25	"	n	**	**	**	"	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

DD2D-0 T193941-43(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Cold Vapor Extraction EPA 7470/74	71									
Mercury	ND	0.027	0.10	mg/kg	1	9111422	11/14/19	11/15/19	EPA 7471A Soil	
Organochlorine Pesticides by EPA M	1ethod 8081A									
alpha-BHC	ND	0.56	5.0	ug/kg	1	9111350	11/13/19	11/14/19	EPA 8081A	
gamma-BHC (Lindane)	ND	0.96	5.0	"	"	"	**	"	"	
beta-BHC	ND	1.4	5.0	"	"	"	**	**	"	
delta-BHC	ND	0.64	5.0	"	"	"	**	"	**	
Heptachlor	ND	0.59	5.0	"	"	"	**	**	"	
Aldrin	ND	0.66	5.0	"	"	"	**	"	**	
Heptachlor epoxide	ND	0.98	5.0	"	**	"	**	"	**	
gamma-Chlordane	ND	0.93	5.0	"	**	"	**	"	**	
llpha-Chlordane	ND	0.83	5.0	"	"	"	**	"	"	
Endosulfan I	ND	0.81	5.0	"	"	"	**	"	"	
1,4′-DDE	11	0.78	5.0	11	ıı	**	**	11	"	
Dieldrin	ND	1.1	5.0	"	"	"	**	"	"	
Endrin	ND	1.1	5.0	"	"	"	**	**	"	
l,4′-DDD	ND	1.2	5.0	"	"	"	**	**	"	
Endosulfan II	ND	1.1	5.0	"	"	"	**	**	"	
l,4′-DDT	ND	0.80	5.0	"	"	"	**	**	"	
Endrin aldehyde	ND	1.7	5.0	"	"	"	**	"	"	
Endosulfan sulfate	ND	0.61	5.0	"	"	"	**	"	"	
Methoxychlor	ND	0.40	5.0	"	"	"	**	"	"	
Endrin ketone	ND	1.3	5.0	"	"	"	**	17	"	
Toxaphene	ND	5.8	20	11	Ħ	"	17	17	"	
Chlordane (tech)	ND	5.0	50	11	Ħ	"	11	17	"	
Chlordane (Total)	ND		5.0	11	n	"	"	11	"	
Surrogate: Tetrachloro-meta-xylene			112 %	35-	140	"	n	"	"	
Surrogate: Decachlorobiphenyl			69.0 %	35-	140	"	"	"	"	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

DD2D-0-CL T193941-44(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorie	es, Inc.					
Extractable Petroleum Hydrocarbo	ons by 8015B									
C6-C12 (GRO)	ND	2.2	10	mg/kg	1	9111411	11/14/19	11/15/19	EPA 8015B	
C13-C28 (DRO)	5.4	1.6	10	"	"	**	"	"	"	
C29-C40 (MORO)	25	4.2	10	11	n	11	n	11	**	
Surrogate: p-Terphenyl			111 %	65-	135	"	n	"	"	
Metals by EPA 6010B										
Antimony	ND	1.3	2.7	mg/kg	1	9111418	11/14/19	11/15/19	EPA 6010b	
Silver	ND	0.45	1.8	"	n	"	n	Ħ	"	
Barium	65	0.27	0.91	"	n	Ħ	n	TT TT	"	
Beryllium	ND	0.18	0.91	"	**	**	**	11/15/19	"	
Cadmium	0.48	0.091	1.8	"	n	n	· ·	11/15/19	"	
Chromium	37	0.091	1.8	11	ıı	17	ıı	TT .	"	
Cobalt	8.7	0.18	1.8	"	**	"	**	"	**	
Copper	21	0.18	0.91	"	"	"	"	**	**	
Lead	4.5	0.91	2.7	"	"	"	"	"	"	
Molybdenum	ND	0.18	4.5	"	n	"	u u	u	"	
Nickel	54	0.27	1.8	"	**	"	**	"	**	
Selenium	ND	2.0	4.5	"	"	"	"	"	11	
Vanadium	26	0.27	4.5	11	17	17	TT .	"	"	
Zine	52	0.091	0.91	"	**	Ħ	Ħ	Ħ	**	
Metals by EPA 6020 Method										
Arsenic	4.8	0.0025	0.25	mg/kg	1	9121017	12/10/19	12/10/19	6020 ICP-MS	
Thallium	ND	0.099	0.25	"	**	**	**	**	**	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

DD2D-0-CL T193941-44(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	<u>aboratorie</u>	s, Inc.					
Cold Vapor Extraction EPA 7470/74	71									
Mercury	ND	0.027	0.10	mg/kg	1	9111422	11/14/19	11/15/19	EPA 7471A Soil	
Organochlorine Pesticides by EPA M	1ethod 8081A		·		·		·	·	·	
alpha-BHC	ND	0.56	5.0	ug/kg	1	9111350	11/13/19	11/14/19	EPA 8081A	
gamma-BHC (Lindane)	ND	0.96	5.0	"	"	"	"	"	11	
beta-BHC	ND	1.4	5.0	"	"	"	"	"	"	
delta-BHC	ND	0.64	5.0	**	"	"	Ħ	"	**	
Heptachlor	ND	0.59	5.0	**	"	"	Ħ	"	**	
Aldrin	ND	0.66	5.0	**	"	"	Ħ	"	**	
Heptachlor epoxide	ND	0.98	5.0	**	"	"	**	n	11	
gamma-Chlordane	ND	0.93	5.0	"	**	"	11	Ħ	11	
alpha-Chlordane	ND	0.83	5.0	"	**	"	17	n	11	
Endosulfan I	ND	0.81	5.0	"	11	"	17	Ħ	11	
4,4'-DDE	12	0.78	5.0	"	11	17	17	Ħ	11	
Dieldrin	ND	1.1	5.0	"	"	"	"	"	11	
Endrin	ND	1.1	5.0	"	"	"	**	"	11	
4,4'-DDD	ND	1.2	5.0	**	"	n	"	"	"	
Endosulfan II	ND	1.1	5.0	**	"	"	Ħ	n	**	
4,4'-DDT	ND	0.80	5.0	"	"	"	**	"	11	
Endrin aldehyde	ND	1.7	5.0	**	"	"	**	n	11	
Endosulfan sulfate	ND	0.61	5.0	**	"	"	**	n	11	
Methoxychlor	ND	0.40	5.0	**	"	"	11	n	"	
Endrin ketone	ND	1.3	5.0	"	11	"	17	Ħ	11	
Toxaphene	ND	5.8	20	"	11	"	17	Ħ	11	
Chlordane (tech)	ND	5.0	50	"	11	"	11	Ħ	11	
Chlordane (Total)	ND		5.0	"	11	"	Ħ	n	11	
Surrogate: Tetrachloro-meta-xylene			106 %	35-1	140	"	"	"	"	
Surrogate: Decachlorobiphenyl			57.7 %	35-1	140	"	"	"	"	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

DD3D-0 T193941-45(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorie	es, Inc.					
Extractable Petroleum Hydrocarbo	ons by 8015B									
C6-C12 (GRO)	ND	2.2	10	mg/kg	1	9111411	11/14/19	11/15/19	EPA 8015B	
C13-C28 (DRO)	3.0	1.6	10	"	n n	Ħ	n	u	"	
C29-C40 (MORO)	16	4.2	10	"	"	"	T T	TT TT	11	
Surrogate: p-Terphenyl			96.0 %	65-	135	"	"	"	"	
Metals by EPA 6010B										
Antimony	ND	1.4	3.0	mg/kg	1	9111418	11/14/19	11/15/19	EPA 6010b	
Silver	ND	0.50	2.0	"	"	11	"	"	11	
Barium	62	0.30	1.0	11	"	17	**	"	**	
Beryllium	ND	0.20	1.0	"	**	"	"	"	11	
Cadmium	0.49	0.10	2.0	**	**	**	**	**	**	
Chromium	35	0.10	2.0	"	"	"	"	"	11	
Cobalt	8.4	0.20	2.0	"	"	"	"	"	11	
Copper	20	0.20	1.0	"	"	**	"	"	**	
Lead	4.8	1.0	3.0	"	'n	Ħ	"	"	"	
Molybdenum	ND	0.20	5.0	"	n	"	u	u	"	
Nickel	50	0.30	2.0	"	**	Ħ	"	"	**	
Selenium	ND	2.2	5.0	"	"	"	"	"	11	
Vanadium	25	0.30	5.0	11	n	Ħ	17	17	11	
Zine	51	0.10	1.0	"	**	Ħ	**	Ħ	**	
Metals by EPA 6020 Method										
Arsenic	4.3	0.0025	0.25	mg/kg	1	9121017	12/10/19	12/10/19	6020 ICP-MS	
Thallium	ND	0.099	0.25	"	**	"	"	"	**	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

DD3D-0 T193941-45(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Cold Vapor Extraction EPA 7470/74	71									
Mercury	ND	0.027	0.10	mg/kg	1	9111422	11/14/19	11/15/19	EPA 7471A Soil	
Organochlorine Pesticides by EPA M	1ethod 8081A									
alpha-BHC	ND	0.56	5.0	ug/kg	1	9111350	11/13/19	11/14/19	EPA 8081A	
gamma-BHC (Lindane)	ND	0.96	5.0	**	"	"	**	"	**	
beta-BHC	ND	1.4	5.0	**	"	"	**	"	**	
delta-BHC	ND	0.64	5.0	**	"	"	**	"	**	
Heptachlor	ND	0.59	5.0	"	"	"	**	"	"	
Aldrin	ND	0.66	5.0	**	"	"	**	"	**	
Heptachlor epoxide	ND	0.98	5.0	"	"	"	**	"	"	
gamma-Chlordane	ND	0.93	5.0	**	**	"	**	"	**	
lpha-Chlordane	ND	0.83	5.0	"	"	"	**	"	"	
Endosulfan I	ND	0.81	5.0	"	"	"	**	"	"	
1,4′-DDE	21	0.78	5.0	11	"	"	**	"	"	
Dieldrin	ND	1.1	5.0	**	n	n	**	**	"	
Endrin	ND	1.1	5.0	**	n	n	**	**	**	
1,4′-DDD	ND	1.2	5.0	**	n	"	**	**	"	
Endosulfan II	ND	1.1	5.0	**	n	"	**	**	"	
1,4′-DDT	ND	0.80	5.0	**	n	"	**	**	"	
Endrin aldehyde	ND	1.7	5.0	**	"	"	**	**	"	
Endosulfan sulfate	ND	0.61	5.0	"	TT TT	**	**	**	"	
Methoxychlor	ND	0.40	5.0	"	"	"	"	"	"	
Endrin ketone	ND	1.3	5.0	"	"	"	"	"	"	
Гохарhene	ND	5.8	20	"	"	"	"	"	"	
Chlordane (tech)	ND	5.0	50	"	"	"	"	"	"	
Chlordane (Total)	ND		5.0	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene			117 %	35-	140	"	"	"	"	
Surrogate: Decachlorobiphenyl			112 %	35-	140	"	"	"	"	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

DD4D-0 T193941-46(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorie	es, Inc.					
Extractable Petroleum Hydrocarbo	ons by 8015B									
C6-C12 (GRO)	ND	2.2	10	mg/kg	1	9111411	11/14/19	11/15/19	EPA 8015B	
C13-C28 (DRO)	5.6	1.6	10	"	"	"	"	"	"	•
C29-C40 (MORO)	30	4.2	10	11	17	Ħ	"	"	11	
Surrogate: p-Terphenyl			114 %	65-	135	"	"	"	"	
Metals by EPA 6010B										
Antimony	ND	1.4	3.0	mg/kg	1	9111418	11/14/19	11/15/19	EPA 6010b	
Silver	ND	0.50	2.0	11	**	"	11	"	11	
Barium	65	0.30	1.0	n	Ħ	n	11	11	"	
Beryllium	ND	0.20	1.0	**	**	"	**	**	11	
Cadmium	0.50	0.10	2.0	**	v	n	**	**	**	,
Chromium	35	0.10	2.0	11	**	ıı	**	**	11	
Cobalt	9.1	0.20	2.0	**	**	**	**	"	**	
Copper	21	0.20	1.0	**	**	**	"	"	**	
Lead	5.2	1.0	3.0	"	"	"	"	"	"	
Molybdenum	ND	0.20	5.0	"	"	**	**	**	"	
Nickel	52	0.30	2.0	**	**	**	**	**	11	
Selenium	ND	2.2	5.0	11	**	"	"	"	"	
Vanadium	26	0.30	5.0	n	"	n	"	"	"	
Zinc	51	0.10	1.0	"	"	"	**	**	"	
Metals by EPA 6020 Method										
Arsenic	5.8	0.0025	0.25	mg/kg	1	9121019	12/10/19	12/10/19	6020 ICP-MS	
Thallium	ND	0.099	0.25	**	n	"	n	n	11	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

DD4D-0 T193941-46(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Cold Vapor Extraction EPA 7470/74	71									
Mercury	ND	0.027	0.10	mg/kg	1	9111422	11/14/19	11/15/19	EPA 7471A Soil	
Organochlorine Pesticides by EPA M	1ethod 8081A									
alpha-BHC	ND	0.56	5.0	ug/kg	1	9111350	11/13/19	11/14/19	EPA 8081A	
gamma-BHC (Lindane)	ND	0.96	5.0	"	"	"	**	**	"	
beta-BHC	ND	1.4	5.0	"	"	"	**	**	"	
delta-BHC	ND	0.64	5.0	"	"	"	**	**	"	
Heptachlor	ND	0.59	5.0	"	"	"	**	**	"	
Aldrin	ND	0.66	5.0	"	"	"	**	**	**	
Heptachlor epoxide	ND	0.98	5.0	"	**	"	**	**	**	
gamma-Chlordane	ND	0.93	5.0	"	**	"	**	**	**	
llpha-Chlordane	ND	0.83	5.0	"	"	"	**	**	**	
Endosulfan I	ND	0.81	5.0	"	"	"	**	**	**	
1,4′-DDE	40	0.78	5.0	11	ıı	**	**	**	"	
Dieldrin	ND	1.1	5.0	"	"	"	**	**	"	
Endrin	ND	1.1	5.0	"	"	"	**	**	"	
1,4′-DDD	ND	1.2	5.0	"	"	"	**	**	"	
Endosulfan II	ND	1.1	5.0	"	"	"	**	**	"	
1,4′-DDT	ND	0.80	5.0	"	"	"	**	**	"	
Endrin aldehyde	ND	1.7	5.0	"	"	"	**	**	"	
Endosulfan sulfate	ND	0.61	5.0	"	"	"	**	**	"	
Methoxychlor	ND	0.40	5.0	"	**	"	**	"	"	
Endrin ketone	ND	1.3	5.0	"	"	"	**	**	"	
Toxaphene	ND	5.8	20	11	Ħ	n	17	11	"	
Chlordane (tech)	ND	5.0	50	11	Ħ	n	11	11	"	
Chlordane (Total)	ND		5.0	11	n	"	11	11	11	
Surrogate: Tetrachloro-meta-xylene			116 %	35-	140	"	n	"	"	
Surrogate: Decachlorobiphenyl			89.6 %	35-	140	"	"	"	"	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

DD4D-0-FR T193941-47(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorie	s, Inc.					
Extractable Petroleum Hydrocarbo	ns by 8015B									
C6-C12 (GRO)	ND	2.2	10	mg/kg	1	9111411	11/14/19	11/15/19	EPA 8015B	·
C13-C28 (DRO)	5.2	1.6	10	**	**	n	TT TT	Ħ	**	
C29-C40 (MORO)	33	4.2	10	11	**	"	"	Ħ	"	
Surrogate: p-Terphenyl			112 %	65-1	135	"	"	"	"	
Metals by EPA 6010B										
Antimony	ND	1.4	3.0	mg/kg	1	9111418	11/14/19	11/15/19	EPA 6010b	
Silver	ND	0.50	2.0	"	17	"	17	11	11	
Barium	64	0.30	1.0	"	"	"	"	"	"	
Beryllium	ND	0.20	1.0	**	**	"	**	11/15/19	11	
Cadmium	0.48	0.10	2.0	"	ti .	n	n	11/15/19	11	
Chromium	35	0.10	2.0	11	"	"	**	***	"	
Cobalt	8.8	0.20	2.0	**	"	"	"	tt	"	
Copper	21	0.20	1.0	"	"	"	"	**	**	
Lead	5.5	1.0	3.0	"	**	'n	"	**	11	
Molybdenum	ND	0.20	5.0	**	**	**	**	**	11	
Nickel	51	0.30	2.0	"	"	"	"	**	**	
Selenium	ND	2.2	5.0	"	17	"	**	17	11	
Vanadium	25	0.30	5.0	"	"	"	"	ti .	"	
Zinc	56	0.10	1.0	**	"	"	"	**	**	
Metals by EPA 6020 Method										
Arsenic	5.5	0.0025	0.25	mg/kg	1	9121019	12/10/19	12/10/19	6020 ICP-MS	
Thallium	ND	0.099	0.25	"	"	**	"	**	"	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

DD4D-0-FR T193941-47(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	<u>aboratorie</u>	es, Inc.					
Cold Vapor Extraction EPA 7470/747	71									
Mercury	ND	0.027	0.10	mg/kg	1	9111422	11/14/19	11/15/19	EPA 7471A Soil	
Organochlorine Pesticides by EPA M	lethod 8081A									
alpha-BHC	ND	0.56	5.0	ug/kg	1	9111350	11/13/19	11/14/19	EPA 8081A	
gamma-BHC (Lindane)	ND	0.96	5.0	"	"	"	"	"	"	
beta-BHC	ND	1.4	5.0	"	"	"	"	"	"	
delta-BHC	ND	0.64	5.0	**	"	**	Ħ	"	**	
Heptachlor	ND	0.59	5.0	**	"	**	Ħ	"	**	
Aldrin	ND	0.66	5.0	**	"	**	**	"	**	
Heptachlor epoxide	ND	0.98	5.0	**	**	"	**	**	11	
gamma-Chlordane	ND	0.93	5.0	"	**	"	11	17	11	
alpha-Chlordane	ND	0.83	5.0	"	TT .	"	17	17	11	
Endosulfan I	ND	0.81	5.0	"	Ħ	"	17	17	11	
4,4'-DDE	36	0.78	5.0	"	"	"	"	"	11	
Dieldrin	ND	1.1	5.0	"	"	"	Ħ	n	"	
Endrin	ND	1.1	5.0	"	"	**	Ħ	n	"	
4,4'-DDD	ND	1.2	5.0	**	**	**	Ħ	Ħ	11	
Endosulfan II	ND	1.1	5.0	**	**	**	Ħ	Ħ	11	
4,4'-DDT	ND	0.80	5.0	**	**	**	Ħ	Ħ	11	
Endrin aldehyde	ND	1.7	5.0	**	**	**	Ħ	17	11	
Endosulfan sulfate	ND	0.61	5.0	"	**	"	11	17	11	
Methoxychlor	ND	0.40	5.0	"	"	n	Ħ	Ħ	11	
Endrin ketone	ND	1.3	5.0	"	"	n	Ħ	Ħ	11	
Toxaphene	ND	5.8	20	"	**	n	Ħ	Ħ	11	
Chlordane (tech)	ND	5.0	50	"	"	n	TT TT	"	11	
Chlordane (Total)	ND		5.0	"	"	"	"	"	11	
Surrogate: Tetrachloro-meta-xylene			114 %	35-1	140	"	"	"	"	
Surrogate: Decachlorobiphenyl			81.8 %	35-	140	"	"	"	"	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

DD5D-0 T193941-48(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	_aboratorie	s, Inc.					
Extractable Petroleum Hydrocarbo	ns by 8015B									
C6-C12 (GRO)	ND	2.2	10	mg/kg	1	9111411	11/14/19	11/15/19	EPA 8015B	
C13-C28 (DRO)	8.0	1.6	10	"	**	**	TT TT	**	**	
C29-C40 (MORO)	26	4.2	10	11	"	11	n	Ħ	11	
Surrogate: p-Terphenyl			111 %	65-1	135	"	"	"	"	
Metals by EPA 6010B										
Antimony	ND	1.4	3.0	mg/kg	1	9111418	11/14/19	11/15/19	EPA 6010b	
Silver	ND	0.50	2.0	11	17	"	17	11	11	
Barium	190	1.2	4.0	n	4	"	"	11/15/19	"	RE-01
Beryllium	ND	0.20	1.0	**	1	"	"	11/15/19	11	
Cadmium	0.57	0.10	2.0	"	**	**	**	**	11	;
Chromium	41	0.10	2.0	11	17	**	17	17	11	
Cobalt	9.8	0.20	2.0	**	"	**	"	"	**	
Copper	26	0.20	1.0	"	"	**	"	**	"	
Lead	6.4	1.0	3.0	"	"	**	"	11	n	
Molybdenum	ND	0.20	5.0	"	"	"	**	**	**	
Nickel	59	0.30	2.0	"	"	**	"	**	11	
Selenium	ND	2.2	5.0	"	"	"	"	"	"	
Vanadium	30	0.30	5.0	"	"	**	"	ti .	"	
Zinc	77	0.10	1.0	"	11	**	11	Ħ	11	
Metals by EPA 6020 Method										
Arsenic	6.7	0.0025	0.25	mg/kg	1	9121019	12/10/19	12/10/19	6020 ICP-MS	
Thallium	ND	0.099	0.25	"	**	n	**	**	**	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

DD5D-0 T193941-48(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Cold Vapor Extraction EPA 7470/74	71									
Mercury	0.036	0.027	0.10	mg/kg	1	9111422	11/14/19	11/15/19	EPA 7471A Soil	J
Organochlorine Pesticides by EPA M	Method 8081A									
alpha-BHC	ND	5.6	50	ug/kg	10	9111350	11/13/19	11/14/19	EPA 8081A	R-07
gamma-BHC (Lindane)	ND	9.6	50	"	"	"	**	**	"	R-07
beta-BHC	ND	14	50	"	"	"	**	**	"	R-07
delta-BHC	ND	6.4	50	**	"	"	**	**	**	R-07
Heptachlor	ND	5.9	50	"	"	"	**	**	"	R-07
Aldrin	ND	6.6	50	"	"	"	**	**	"	R-07
Heptachlor epoxide	ND	9.8	50	"	"	"	**	**	"	R-07
gamma-Chlordane	ND	9.3	50	**	**	"	**	**	**	R-07
alpha-Chlordane	ND	8.3	50	"	"	"	**	**	"	R-07
Endosulfan I	ND	8.1	50	**	"	"	**	**	11	R-07
4,4'-DDE	ND	7.8	50	"	"	"	**	**	"	R-07
Dieldrin	ND	11	50	"	"	"	**	**	"	R-07
Endrin	ND	11	50	11	"	"	**	**	11	R-07
4,4'-DDD	ND	12	50	11	"	"	**	**	11	R-07
Endosulfan II	ND	11	50	11	"	"	**	**	11	R-07
4,4'-DDT	ND	8.0	50	**	"	"	**	**	11	R-07
Endrin aldehyde	ND	17	50	**	"	"	**	**	11	R-07
Endosulfan sulfate	ND	6.1	50	**	"	"	**	**	11	R-07
Methoxychlor	ND	4.0	50	**	n	"	**	**	11	R-07
Endrin ketone	ND	13	50	**	n	"	**	**	11	R-07
Toxaphene	ND	58	200	**	n	"	**	**	11	R-07
Chlordane (tech)	ND	5.0	50	11	1	n	n	n	11	
Chlordane (Total)	ND		5.0	**	· ·	n	**	#	11	
Surrogate: Tetrachloro-meta-xylene			114 %	35-	140	n .	n .	"	"	
Surrogate: Decachlorobiphenyl			100 %	35-	140	"	n .	"	"	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

DD5D-0 T193941-48RE1(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Organochlorine Pesticides by EPA M	Method 8081A									
alpha-BHC	ND	0.56	5.0	ug/kg	1	9112036	11/20/19	11/26/19	EPA 8081A	
gamma-BHC (Lindane)	ND	0.96	5.0	**	n	**	**	**	11	
beta-BHC	ND	1.4	5.0	**	"	**	"	"	"	
delta-BHC	ND	0.64	5.0	"	"	**	"	"	"	
Heptachlor	ND	0.59	5.0	"	"	"	"	"	"	
Aldrin	ND	0.66	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	0.98	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	0.93	5.0	"	"	"	"	TT TT	"	
llpha-Chlordane	ND	0.83	5.0	"	"	"	"	u	"	
Endosulfan I	ND	0.81	5.0	"	"	"	"	u	"	
,4′-DDE	ND	0.78	5.0	"	"	"	"	u	"	
Dieldrin	ND	1.1	5.0	"	"	**	"	u	"	
Endrin	ND	1.1	5.0	**	"	**	"	Ħ	**	
1,4′-DDD	ND	1.2	5.0	**	"	**	"	Ħ	**	
Endosulfan II	ND	1.1	5.0	**	"	**	**	**	11	
,4′-DDT	ND	0.80	5.0	**	"	**	"	Ħ	**	
Endrin aldehyde	ND	1.7	5.0	**	**	**	"	"	**	
Endosulfan sulfate	ND	0.61	5.0	**	**	**	"	"	**	
Methoxychlor	ND	0.40	5.0	**	"	11	"	"	"	
Endrin ketone	ND	1.3	5.0	11	TT.	11	"	"	"	
Toxaphene	ND	5.8	20	"	"	11	"	"	"	
Surrogate: Tetrachloro-meta-xylene			109 %	35-	140	"	"	"	"	
Surrogate: Decachlorobiphenyl			104 %	35-	140	"	"	"	"	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

DD6D-0 T193941-49(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	_aboratorie	s, Inc.					
Extractable Petroleum Hydrocarbon	ns by 8015B									
C6-C12 (GRO)	ND	2.2	10	mg/kg	1	9111411	11/14/19	11/15/19	EPA 8015B	
C13-C28 (DRO)	11	1.6	10	"	"	"	**	**	**	
C29-C40 (MORO)	48	4.2	10	11	17	"	11	11	"	
Surrogate: p-Terphenyl			117 %	65-1	135	"	"	"	"	
Metals by EPA 6010B										
Antimony	ND	1.4	3.0	mg/kg	1	9111418	11/14/19	11/15/19	EPA 6010b	
Silver	ND	0.50	2.0	11	17	"	11	11/15/19	11	
Barium	200	1.2	4.0	n	4	"	"	11/15/19	11	RE-01
Beryllium	ND	0.20	1.0	**	1	"	tt.	11/15/19	11	
Cadmium	0.56	0.10	2.0	"	n	**	n	11/15/19	11	J
Chromium	40	0.10	2.0	11	"	"	"	11/15/19	"	
Cobalt	9.6	0.20	2.0	"	"	"	"	11/15/19	"	
Copper	25	0.20	1.0	"	"	"	"	11/15/19	"	
Lead	6.5	1.0	3.0	"	"	"	11	11/15/19	"	
Molybdenum	ND	0.20	5.0	**	n	"	Ħ	Ħ	**	
Nickel	57	0.30	2.0	"	"	"	**	11/15/19	"	
Selenium	ND	2.2	5.0	n	"	"	11	11/15/19	"	
Vanadium	29	0.30	5.0	"	"	"	"	11/15/19	"	
Zine	81	0.10	1.0	"	Ħ	Ħ	n	**	11	
Metals by EPA 6020 Method										
Arsenic	5.7	0.0023	0.23	mg/kg	1	9121019	12/10/19	12/10/19	6020 ICP-MS	
Thallium	ND	0.090	0.23	"	n	"	**	**	"	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

DD6D-0 T193941-49(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Cold Vapor Extraction EPA 747	0/7471									
Mercury	0.029	0.027	0.10	mg/kg	1	9111422	11/14/19	11/15/19	EPA 7471A Soil	
Organochlorine Pesticides by El	PA Method 8081A									
alpha-BHC	ND	0.56	5.0	ug/kg	1	9111350	11/13/19	11/14/19	EPA 8081A	
gamma-BHC (Lindane)	ND	0.96	5.0	"	"	"	"	"	"	
beta-BHC	ND	1.4	5.0	"	**	"	"	"	"	
delta-BHC	ND	0.64	5.0	"	"	"	"	"	**	
Heptachlor	ND	0.59	5.0	"	"	"	"	"	**	
Aldrin	ND	0.66	5.0	"		"	"	**	**	
Heptachlor epoxide	ND	0.98	5.0	"	**	**	"	**	n	
gamma-Chlordane	ND	0.93	5.0	"	n	"	**	17	n	
alpha-Chlordane	ND	0.83	5.0	"	"	"	11	17	**	
Endosulfan I	ND	0.81	5.0	"	17	"	17	17	n	
4,4'-DDE	14	0.78	5.0	"	17	11	11	17	"	
Dieldrin	ND	1.1	5.0	"	"	"	"	"	**	
Endrin	ND	1.1	5.0	"	"	"	"	"	**	
4,4'-DDD	ND	1.2	5.0	"	"	"	"	"	**	
Endosulfan II	ND	1.1	5.0	"	"	"	"	"	**	
4,4'-DDT	ND	0.80	5.0	"	"	"	"	"	**	
Endrin aldehyde	ND	1.7	5.0	"	n	"	**	**	**	
Endosulfan sulfate	ND	0.61	5.0	"	n	"	**	17	n	
Methoxychlor	ND	0.40	5.0	"	"	"	11	17	"	
Endrin ketone	ND	1.3	5.0	"	17	"	17	17	n	
Toxaphene	ND	5.8	20	"	n	"	n	"	n	
Chlordane (tech)	ND	5.0	50	"	n	"	n	"	"	
Chlordane (Total)	ND		5.0	"	Ħ	"	n	"	"	
Surrogate: Tetrachloro-meta-xylene			116 %	35-	140	"	"	"	"	
Surrogate: Decachlorobiphenyl			106 %	35-	140	"	"	"	"	
S =			-							

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

DD7D-0 T193941-50(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorie	es, Inc.					
Extractable Petroleum Hydrocarbo	ns by 8015B									
C6-C12 (GRO)	ND	2.2	10	mg/kg	1	9111411	11/14/19	11/15/19	EPA 8015B	•
C13-C28 (DRO)	10	1.6	10	"	n	m .	**	**	"	
C29-C40 (MORO)	35	4.2	10	n	17	11	11	Ħ	"	
Surrogate: p-Terphenyl			119 %	65-	135	"	"	"	"	
Metals by EPA 6010B										
Antimony	ND	1.4	3.0	mg/kg	1	9111418	11/14/19	11/15/19	EPA 6010b	
Silver	ND	0.50	2.0	"	"	"	**	11	"	
Barium	190	1.2	4.0	n	4	ii .	11	11/15/19	"	RE-01
Beryllium	ND	0.20	1.0	"	1	"	**	11/15/19	"	
Cadmium	0.53	0.10	2.0	n	n	n	**	11/15/19	"	;
Chromium	38	0.10	2.0	"	ıı	ıı	11	11	"	
Cobalt	9.4	0.20	2.0	"	"	"	"	**	"	
Copper	22	0.20	1.0	"	"	"	**	**	"	
Lead	4.9	1.0	3.0	"	n	"	"	**	"	
Molybdenum	ND	0.20	5.0	"	n	"	**	**	"	
Nickel	57	0.30	2.0	"	"	"	**	**	"	
Selenium	ND	2.2	5.0	"	n	"	"	"	"	
Vanadium	28	0.30	5.0	"	"	"	"	***	**	
Zinc	58	0.10	1.0	"	Ħ	Ħ	**	Ħ	**	
Metals by EPA 6020 Method										
Arsenic	5.7	0.0025	0.25	mg/kg	1	9121019	12/10/19	12/10/19	6020 ICP-MS	
Thallium	ND	0.099	0.25	**	n	"	**	**	**	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

DD7D-0 T193941-50(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Cold Vapor Extraction EPA 7470/74	471									
Mercury	0.028	0.027	0.10	mg/kg	1	9111422	11/14/19	11/15/19	EPA 7471A Soil	
Organochlorine Pesticides by EPA	Method 8081A									
alpha-BHC	ND	0.56	5.0	ug/kg	1	9111350	11/13/19	11/14/19	EPA 8081A	
gamma-BHC (Lindane)	ND	0.96	5.0	"	Ħ	"	**	**	"	
beta-BHC	ND	1.4	5.0	**	Ħ	"	**	**	**	
delta-BHC	ND	0.64	5.0	**	Ħ	"	**	**	**	
Heptachlor	ND	0.59	5.0	**	Ħ	"	**	**	**	
Aldrin	ND	0.66	5.0	**	Ħ	"	**	**	**	
Heptachlor epoxide	ND	0.98	5.0	"	**	"	**	**	**	
gamma-Chlordane	ND	0.93	5.0	"	Ħ	"	**	**	**	
alpha-Chlordane	ND	0.83	5.0	"	Ħ	11	Ħ	**	"	
Endosulfan I	ND	0.81	5.0	"	Ħ	11	Ħ	11	"	
4,4′-DDE	43	0.78	5.0	"	n	11	11	"	"	
Dieldrin	ND	1.1	5.0	"	Ħ	"	**	**	"	
Endrin	ND	1.1	5.0	"	**	"	**	**	**	
4,4′-DDD	ND	1.2	5.0	"	**	"	**	**	**	
Endosulfan II	ND	1.1	5.0	n	Ħ	n	ti .	**	**	
4,4′-DDT	2.0	0.80	5.0	"	Ħ	**	Ħ	n	**	
Endrin aldehyde	ND	1.7	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	0.61	5.0	"	"	"	**	**	**	
Methoxychlor	ND	0.40	5.0	"	"	"	**	**	"	
Endrin ketone	ND	1.3	5.0	"	**	11	**	**	"	
Toxaphene	ND	5.8	20	"	**	11	**	**	"	
Chlordane (tech)	ND	5.0	50	n	Ħ	n	**	**	**	
Chlordane (Total)	ND		5.0	"	Ħ	11	Ħ	Ħ	**	
Surrogate: Tetrachloro-meta-xylene			126 %	35-	140	"	"	"	"	
Surrogate: Decachlorobiphenyl			96.3 %	35-	140	"	"	"	"	

SunStar Laboratories, Inc.



RPD

NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

Reporting

Extractable Petroleum Hydrocarbons by 8015B - Quality Control SunStar Laboratories, Inc.

Spike

Source

%REC

Analyte	Result	MDL	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 9111347 - EPA 3510C GC											
Blank (9111347-BLK1)					Prepared:	11/13/19 Aı	nalyzed: 11	/14/19			
Surrogate: p-Terphenyl	5.90			mg/l	4.00		147	65-135			S-1.
C6-C12 (GRO)	ND	0.013	0.050	"							
C13-C28 (DRO)	ND	0.013	0.050	n							
C29-C40 (MORO)	ND	0.013	0.10	**							
LCS (9111347-BS1)					Prepared:	11/13/19 Aı	nalyzed: 11	/14/19			
Surrogate: p-Terphenyl	4.67			mg/l	4.00		117	65-135			
C13-C28 (DRO)	19.4	0.013	0.050	Ħ	20.0		97.0	75-125			
LCS Dup (9111347-BSD1)					Prepared: 1	11/13/19 Aı	nalyzed: 11	/14/19			
Surrogate: p-Terphenyl	4.82			mg/l	4.00		121	65-135			
C13-C28 (DRO)	19.1	0.013	0.050	"	20.0		95.3	75-125	1.76	20	
Batch 9111411 - EPA 3550B GC											
Blank (9111411-BLK1)					Prepared:	11/14/19 Aı	nalyzed: 11	/15/19			
Surrogate: p-Terphenyl	112			mg/kg	101		111	65-135			
C6-C12 (GRO)	ND	2.2	10	"							
C13-C28 (DRO)	ND	1.6	10	"							
C29-C40 (MORO)	ND	4.2	10	"							
LCS (9111411-BS1)					Prepared: 1	11/14/19 Aı	nalyzed: 11	/15/19			
Surrogate: p-Terphenyl	114			mg/kg	101		113	65-135			
C13-C28 (DRO)	510	1.6	10	"	505		102	75-125			
LCS Dup (9111411-BSD1)					Prepared: 1	11/14/19 Aı	nalyzed: 11	/15/19			
Surrogate: p-Terphenyl	110			mg/kg	101		109	65-135			
C13-C28 (DRO)	500	1.6	10	"	505		99.7	75-125	1.88	20	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

Metals by EPA 6010B - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9111354 - EPA 3010A											
Blank (9111354-BLK1)					Prepared: 1	11/13/19 Aı	nalyzed: 11	/14/19			
Antimony	ND	17	50	ug/l							
Silver	ND	24	50	n							
Arsenic	ND	17	50	n							
Barium	ND	13	50	n							
Beryllium	ND	18	50	17							
Cadmium	ND	21	50	n							
Chromium	ND	21	50	17							
Cobalt	ND	14	50	**							
Copper	ND	20	50	**							
Lead	ND	17	50	**							
Molybdenum	ND	14	50	17							
Nickel	ND	14	50	**							
Selenium	ND	19	50	**							
Thallium	ND	16	50	**							
Vanadium	ND	20	50	**							
Zinc	ND	17	50	"							
LCS (9111354-BS1)					Prepared:	11/13/19 Aı	nalyzed: 11	/14/19			
Arsenic	503	17	50	ug/l	500		101	75-125			
Barium	511	13	50	"	500		102	75-125			
Cadmium	512	21	50	n	500		102	75-125			
Chromium	513	21	50	n	500		103	75-125			
Lead	509	17	50	"	500		102	75-125			
Matrix Spike (9111354-MS1)		Source:	T193930-01		Prepared: 1	11/13/19 Aı	nalyzed: 11	/14/19			
Arsenic	528	17	50	ug/l	500	ND	106	75-125			
Barium	662	13	50	n	500	170	98.4	75-125			QM-0
Cadmium	505	21	50	n	500	ND	101	75-125			
Chromium	507	21	50	"	500	ND	101	75-125			

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

Metals by EPA 6010B - Quality Control SunStar Laboratories, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9111354 - EPA 3010A											
Matrix Spike (9111354-MS1)		Source:	Г193930-01		Prepared:	11/13/19 A	nalyzed: 11	/14/19			
Lead	494	17	50	ug/l	500	ND	98.8	75-125			
Matrix Spike Dup (9111354-MSD1)		Source:	Г193930-01		Prepared:	11/13/19 A	nalyzed: 11	/14/19			
Arsenic	529	17	50	ug/l	500	ND	106	75-125	0.209	20	
Barium	656	13	50	**	500	170	97.3	75-125	0.860	20	QM-05
Cadmium	498	21	50	**	500	ND	99.7	75-125	1.23	20	
Chromium	501	21	50	**	500	ND	100	75-125	1.28	20	
Lead	496	17	50	"	500	ND	99.1	75-125	0.352	20	
Batch 9111360 - EPA 3050B											
Blank (9111360-BLK1)					Prepared:	11/13/19 A	nalyzed: 11	/14/19			
Antimony	ND	0.0141	3.00	mg/kg							
Arsenic	ND	0.800	5.00	**							
Barium	ND	0.338	1.00	"							
Beryllium	ND	0.157	1.00	**							
Cadmium	ND	0.114	2.00	"							
Chromium	ND	0.121	2.00	**							
Cobalt	ND	0.239	2.00	"							
Copper	ND	0.152	1.00	"							
Lead	ND	0.967	3.00	**							
Molybdenum	ND	0.243	5.00	**							
Nickel	ND	0.263	2.00	**							
Selenium	ND	2.25	5.00	**							
Silver	ND	0.522	2.00	"							
Thallium	ND	1.74	2.00	"							
Vanadium	ND	0.306	5.00	"							
Zinc	ND	0.131	1.00	**							

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

Metals by EPA 6010B - Quality Control SunStar Laboratories, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9111360 - EPA 3050B											
LCS (9111360-BS1)					Prepared:	11/13/19 Aı	nalyzed: 11	/14/19			
Arsenic	101	0.800	5.00	mg/kg	100		101	75-125			
Barium	102	0.338	1.00	"	100		102	75-125			
Cadmium	101	0.114	2.00	17	100		101	75-125			
Chromium	102	0.121	2.00	17	100		102	75-125			
Lead	101	0.967	3.00	"	100		101	75-125			
Matrix Spike (9111360-MS1)		Source:	T193921-01		Prepared:	11/13/19 Aı	nalyzed: 11	/14/19			
Arsenic	57.2	0.800	5.00	mg/kg	97.1	ND	58.9	75-125			QM-05
Barium	125	0.338	1.00	**	97.1	41.9	85.8	75-125			QM-05
Cadmium	56.6	0.114	2.00	**	97.1	0.155	58.1	75-125			QM-05
Chromium	62.6	0.121	2.00	**	97.1	3.62	60.8	75-125			QM-05
Lead	55.7	0.967	3.00	"	97.1	1.02	56.3	75-125			QM-05
Matrix Spike Dup (9111360-MSD1)		Source:	T193921-01		Prepared:	11/13/19 Aı	nalyzed: 11	/14/19			
Arsenic	62.0	0.800	5.00	mg/kg	97.1	ND	63.9	75-125	8.08	20	QM-05
Barium	133	0.338	1.00	**	97.1	41.9	93.4	75-125	5.71	20	QM-05
Cadmium	58.5	0.114	2.00	**	97.1	0.155	60.1	75-125	3.36	20	QM-05
Chromium	65.0	0.121	2.00	**	97.1	3.62	63.3	75-125	3.82	20	QM-05
Lead	59.5	0.967	3.00	"	97.1	1.02	60.3	75-125	6.65	20	QM-05
Batch 9111418 - EPA 3050B											
Blank (9111418-BLK1)					Prepared:	11/14/19 Aı	nalyzed: 11	/15/19			
Antimony	ND	1.4	3.0	mg/kg							
Silver	ND	0.50	2.0	**							
Arsenic	ND	0.80	5.0	**							
Barium	ND	0.30	1.0	"							
Beryllium	ND	0.20	1.0	"							
Cadmium	ND	0.10	2.0	"							
Chromium	ND	0.10	2.0	"							

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

Metals by EPA 6010B - Quality Control SunStar Laboratories, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9111418 - EPA 3050B											
Blank (9111418-BLK1)					Prepared:	11/14/19 Aı	nalyzed: 11	/15/19			
Cobalt	ND	0.20	2.0	mg/kg							
Copper	ND	0.20	1.0	"							
Lead	ND	1.0	3.0	"							
Molybdenum	ND	0.20	5.0	**							
Nickel	ND	0.30	2.0	"							
Selenium	ND	2.2	5.0	"							
Thallium	ND	1.7	2.0	"							
Vanadium	ND	0.30	5.0	**							
Zinc	ND	0.10	1.0	17							
LCS (9111418-BS1)					Prepared:	11/14/19 Aı	nalyzed: 11	/15/19			
Arsenic	94.2	0.80	5.0	mg/kg	100		94.2	75-125			
Barium	94.4	0.30	1.0	"	100		94.4	75-125			
Cadmium	94.0	0.10	2.0	"	100		94.0	75-125			
Chromium	94.1	0.10	2.0	"	100		94.1	75-125			
Lead	94.8	1.0	3.0	17	100		94.8	75-125			
Matrix Spike (9111418-MS1)		Source:	T193941-42		Prepared:	11/14/19 Aı	nalyzed: 11	/15/19			
Arsenic	51.2	0.80	5.0	mg/kg	96.2	ND	53.2	75-125			QM-0
Barium	119	0.30	1.0	**	96.2	69.9	50.8	75-125			QM-0
Cadmium	49.8	0.10	2.0	"	96.2	0.532	51.2	75-125			QM-0
Chromium	92.4	0.10	2.0	**	96.2	40.3	54.2	75-125			QM-0
Lead	52.2	1.0	3.0	**	96.2	4.54	49.6	75-125			QM-0
Matrix Spike Dup (9111418-MSD1)		Source:	T193941-42		Prepared:	11/14/19 Aı	nalyzed: 11	/15/19			
Arsenic	55.3	0.80	5.0	mg/kg	98.0	ND	56.4	75-125	7.78	20	QM-0
Barium	121	0.30	1.0	"	98.0	69.9	52.3	75-125	2.05	20	QM-0
Cadmium	52.5	0.10	2.0	"	98.0	0.532	53.0	75-125	5.28	20	QM-0
Chromium	94.5	0.10	2.0	"	98.0	40.3	55.2	75-125	2.21	20	QM-0

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

Metals by EPA 6010B - Quality Control

SunStar Laboratories, Inc.

			Reporting		Spike	Source		%REC		RPD	
Analyte	Result	MDL	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 9111418 - EPA 3050B

Matrix Spike Dup (9111418-MSD1)	Source: T193941-42			Prepared:	Prepared: 11/14/19 Analyzed: 11/15/19					
Lead	55.7	1.0	3.0 mg/	kg 98.0	4.54	52.1	75-125	6.34	20	QM-05

SunStar Laboratories, Inc.

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

Metals by EPA 6020 Method - Quality Control SunStar Laboratories, Inc.

Amalinto	D ogult	MDI	Reporting	I Inite	Spike	Source	0/DEC	%REC	DDD	RPD	Notes
Analyte	Result	MDL	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 9121017 - EPA 3050B											
Blank (9121017-BLK1)					Prepared &	Analyzed:	12/10/19				
Arsenic	ND	0.0025	0.25	mg/kg							
Thallium	ND	0.099	0.25	11							
LCS (9121017-BS1)					Prepared &	Analyzed:	12/10/19				
Arsenic	24.4	0.0025	0.25	mg/kg	25.0		97.7	80-120			
Matrix Spike (9121017-MS1)		Source:	T193941-01		Prepared &	: Analyzed:	12/10/19				
Arsenic	27.2	0.0025	0.25	mg/kg	23.1	5.42	93.9	75-125			
Matrix Spike Dup (9121017-MSD1)		Source:	T193941-01		Prepared &	: Analyzed:	12/10/19				
Arsenic	31.9	0.0025	0.25	mg/kg	24.5	5.42	108	75-125	15.9	20	
Post Spike (9121017-PS1)		Source:	T193941-01		Prepared &	Analyzed:	12/10/19				
Arsenic	34.4			mg/kg	25.0	5.42	116	80-120			
Batch 9121019 - EPA 3050B											
Blank (9121019-BLK1)					Prepared &	: Analyzed:	12/10/19				
Arsenic	ND	0.0025	0.25	mg/kg							
Thallium	ND	0.099	0.25	**							
LCS (9121019-BS1)					Prepared &	: Analyzed:	12/10/19				
Arsenic	25.9	0.0025	0.25	mg/kg	25.0		104	80-120			
Matrix Spike (9121019-MS1)		Source:	T193941-46		Prepared &	: Analyzed:	12/10/19				
Arsenic	30.7	0.0025	0.25	mg/kg	24.8	5.81	101	75-125			

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

Metals by EPA 6020 Method - Quality Control

SunStar Laboratories, Inc.

			Reporting		Spike	Source		%REC		RPD	
Analyte	Result	MDL	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 9121019 - EPA 3050B

Matrix Spike Dup (9121019-MSD1)		Source: T1	93941-46		Prepared &	Analyzed:	12/10/19				
Arsenic	29.1	0.0025	0.25	mg/kg	24.8	5.81	94.1	75-125	5.46	20	

SunStar Laboratories, Inc.



Project: Hamilton Union High School

0.415

0.027

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported: Chico CA, 95928 12/11/19 09:12 Project Manager: Heidi Cummings

Cold Vapor Extraction EPA 7470/7471 - Quality Control SunStar Laboratories, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9111355 - EPA 7470A Water											
Blank (9111355-BLK1)					Prepared:	1/13/19 A	nalyzed: 11	/15/19			
Mercury	ND	0.022	0.50	ug/l							
LCS (9111355-BS1)					Prepared:	1/13/19 A	nalyzed: 11	/15/19			
Mercury	4.71	0.022	0.50	ug/l	5.00		94.2	80-120			
Matrix Spike (9111355-MS1)		Source: T	193930-01		Prepared: 1	1/13/19 A	nalyzed: 11	/15/19			
Mercury	4.60	0.022	0.50	ug/l	5.00	ND	92.0	75-125			
Matrix Spike Dup (9111355-MSD1)		Source: T	193930-01		Prepared: 1	1/13/19 A	nalyzed: 11	/15/19			
Mercury	4.56	0.022	0.50	ug/l	5.00	ND	91.1	75-125	0.939	20	
Batch 9111422 - EPA 7471A Soil											
Blank (9111422-BLK1)					Prepared: 1	1/14/19 A	nalyzed: 11	/15/19			
Mercury	ND	0.027	0.10	mg/kg							
LCS (9111422-BS1)					Prepared: 1	1/14/19 A	nalyzed: 11	/15/19			
Mercury	0.418	0.027	0.10	mg/kg	0.410		102	80-120			
Matrix Spike (9111422-MS1)		Source: T	193921-01		Prepared:	1/14/19 A	nalyzed: 11	/15/19			
Mercury	0.434	0.027	0.10	mg/kg	0.410	ND	106	75-125			
Matrix Spike Dup (9111422-MSD1)		Source: T	193921-01		Prepared: 1	1/14/19 A	nalyzed: 11	/15/19			

0.10 mg/kg

0.397

SunStar Laboratories, Inc.

Mercury

 $The \ results \ in \ this \ report \ apply \ to \ the \ samples \ analyzed \ in \ accordance \ with \ the \ chain \ of$ custody document. This analytical report must be reproduced in its entirety.

75-125

4.42

20



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

Organochlorine Pesticides by EPA Method 8081A - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9111344 - EPA 3510C GCM	S/ECD										

Blank (9111344-BLK1)				Pr	epared & Ana	llyzed: 11/13/19		
Surrogate: Tetrachloro-meta-xylene	0.690			ug/l	1.00	69.0	35-140	
Surrogate: Decachlorobiphenyl	0.836			"	1.00	83.6	35-140	
alpha-BHC	ND	0.04	1.00	11				
gamma-BHC (Lindane)	ND	0.03	1.00	**				
beta-BHC	ND	0.05	1.00	n				
delta-BHC	ND	0.02	1.00	"				
Heptachlor	ND	0.04	1.00	"				
Aldrin	ND	0.02	1.00	"				
Heptachlor epoxide	ND	0.04	1.00	"				
gamma-Chlordane	ND	0.05	1.00	"				
alpha-Chlordane	ND	0.03	1.00	ıı				
Endosulfan I	ND	0.02	1.00	ıı				
4,4'-DDE	ND	0.04	1.00	ıı				
Dieldrin	ND	0.03	1.00	ıı				
Endrin	ND	0.04	1.00	ıı				
4,4'-DDD	ND	0.03	1.00	ıı				
Endosulfan II	ND	0.04	1.00	ıı				
4,4'-DDT	ND	0.06	1.00	"				
Endrin aldehyde	ND	0.02	1.00	"				
Endosulfan sulfate	ND	0.05	1.00	"				
Methoxychlor	ND	0.03	1.00	**				
Endrin ketone	ND	0.05	1.00	"				
Chlordane (tech)	ND	1.00	10.0	ıı				
Toxaphene	ND	5.79	20.0	"				
LCS (9111344-BS1)				Pr	epared & Ana	llyzed: 11/13/19		
Surrogate: Tetrachloro-meta-xylene	0.805			ug/l	1.00	80.5	35-140	
Surrogate: Decachlorobiphenyl	0.876			"	1.00	87.6	35-140	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

Organochlorine Pesticides by EPA Method 8081A - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9111344 - EPA 3510C GCM	S/ECD										
LCS (9111344-BS1)					Prepared &	: Analyzed:	11/13/19				
gamma-BHC (Lindane)	4.01	0.03	1.00	ug/l	4.00		100	40-120			
Heptachlor	4.14	0.04	1.00	"	4.00		103	40-120			
Aldrin	3.66	0.02	1.00	n	4.00		91.4	40-120			
Dieldrin	4.03	0.03	1.00	Ħ	4.00		101	40-120			
Endrin	4.21	0.04	1.00	"	4.00		105	40-120			
,4'-DDT	4.15	0.06	1.00	"	4.00		104	40-120			
LCS Dup (9111344-BSD1)					Prepared &	Analyzed:	11/13/19				
Surrogate: Tetrachloro-meta-xylene	0.892			ug/l	1.00		89.2	35-140			
Surrogate: Decachlorobiphenyl	0.793			"	1.00		79.3	35-140			
gamma-BHC (Lindane)	4.49	0.03	1.00	n	4.00		112	40-120	11.3	20	
Heptachlor	4.56	0.04	1.00	**	4.00		114	40-120	9.72	20	
Aldrin	3.79	0.02	1.00	Ħ	4.00		94.7	40-120	3.55	20	
Dieldrin	4.26	0.03	1.00	"	4.00		106	40-120	5.36	20	
Endrin	4.36	0.04	1.00	n	4.00		109	40-120	3.45	20	
1,4'-DDT	4.29	0.06	1.00	"	4.00		107	40-120	3.25	20	
Batch 9111350 - EPA 3550 ECD/G	CMS										
Blank (9111350-BLK1)					Prepared: 1	1/13/19 Ar	alyzed: 11	/14/19			
Surrogate: Tetrachloro-meta-xylene	12.5			ug/kg	10.1		124	35-140			
Surrogate: Decachlorobiphenyl	13.2			"	10.1		131	35-140			
alpha-BHC	ND	0.56	5.0	"							
gamma-BHC (Lindane)	ND	0.96	5.0	Ħ							
oeta-BHC	ND	1.4	5.0	Ħ							
lelta-BHC	ND	0.64	5.0	**							
Heptachlor	ND	0.59	5.0	"							
Aldrin	ND	0.66	5.0	"							
Heptachlor epoxide	ND	0.98	5.0	**							

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

Organochlorine Pesticides by EPA Method 8081A - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9111350 - EPA 3550 ECD/G	CMS										
Blank (9111350-BLK1)					Prepared: 1	11/13/19 Ar	nalyzed: 11	/14/19			
gamma-Chlordane	ND	0.93	5.0	ug/kg	_		•				
alpha-Chlordane	ND	0.83	5.0	"							
Endosulfan I	ND	0.81	5.0	'n							
4,4′-DDE	ND	0.78	5.0	"							
Dieldrin	ND	1.1	5.0	**							
Endrin	ND	1.1	5.0	**							
4,4′-DDD	ND	1.2	5.0	**							
Endosulfan II	ND	1.1	5.0	**							
4,4′-DDT	ND	0.80	5.0	"							
Endrin aldehyde	ND	1.7	5.0	n							
Endosulfan sulfate	ND	0.61	5.0	"							
Methoxychlor	ND	0.40	5.0	"							
Endrin ketone	ND	1.3	5.0	"							
Toxaphene	ND	5.8	20	"							
Chlordane (tech)	ND	5.0	50	**							
Chlordane (Total)	ND		5.0	"							
LCS (9111350-BS1)					Prepared: 1	11/13/19 Ar	nalyzed: 11	/14/19			
Surrogate: Tetrachloro-meta-xylene	13.0			ug/kg	10.1		128	35-140			
Surrogate: Decachlorobiphenyl	10.6			"	10.1		105	35-140			
gamma-BHC (Lindane)	59.1	0.96	5.0	"	40.4		146	40-120			QM-
Heptachlor	61.0	0.59	5.0	**	40.4		151	40-120			QM-
Aldrin	54.1	0.66	5.0	**	40.4		134	40-120			QM-
Dieldrin	58.9	1.1	5.0	n	40.4		146	40-120			QM-
Endrin	60.4	1.1	5.0	n	40.4		149	40-120			QM-
4,4′-DDT	53.5	0.80	5.0	"	40.4		132	33-147			
LCS Dup (9111350-BSD1)					Prepared: 1	11/13/19 At	nalyzed: 11	/14/19			
Surrogate: Tetrachloro-meta-xylene	11.6			ug/kg	10.1		115	35-140			

SunStar Laboratories, Inc.



RPD

Limit

Notes

%REC

Limits

RPD

Project: Hamilton Union High School

MDL

Result

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported: Chico CA, 95928 12/11/19 09:12 Project Manager: Heidi Cummings

Reporting

Limit

Organochlorine Pesticides by EPA Method 8081A - Quality Control

SunStar Laboratories, Inc.

Units

Spike

Level

Source

Result

%REC

CS Dup (9111350-BSD1) Prepared: 11/13/19 Analyzed: 11/14/19										
Surrogate: Decachlorobiphenyl	10.5			ug/kg	10.1	104	35-140			
gamma-BHC (Lindane)	51.6	0.96	5.0	"	40.4	128	40-120	13.6	30	QM-12
Heptachlor	53.6	0.59	5.0	u	40.4	133	40-120	12.9	30	QM-12
Aldrin	47.1	0.66	5.0	u	40.4	117	40-120	13.8	30	QM-12
Dieldrin	52.2	1.1	5.0	"	40.4	129	40-120	12.0	30	QM-12
Endrin	53.1	1.1	5.0	"	40.4	132	40-120	12.8	30	QM-12
4,4'-DDT	48.4	0.80	5.0	17	40.4	120	33-147	9.93	30	

Analyte

Batch 9112036 - EPA 3550 ECD/GCM	S											
Blank (9112036-BLK1)		Prepared: 11/20/19 Analyzed: 11/26/19										
Surrogate: Tetrachloro-meta-xylene	11.5		ı	ug/kg	10.0	115	35-140					
Surrogate: Decachlorobiphenyl	11.6			"	10.0	116	35-140	QM-14				
alpha-BHC	ND	0.56	5.0	n								
gamma-BHC (Lindane)	ND	0.96	5.0	**								
beta-BHC	ND	1.4	5.0	**								
delta-BHC	ND	0.64	5.0	n								
Heptachlor	ND	0.59	5.0	n								
Aldrin	ND	0.66	5.0	"								
Heptachlor epoxide	ND	0.98	5.0	"								
gamma-Chlordane	ND	0.93	5.0	**								
alpha-Chlordane	ND	0.83	5.0	n								
Endosulfan I	ND	0.81	5.0	n								
4,4'-DDE	ND	0.78	5.0	**								
Dieldrin	ND	1.1	5.0	"								
Endrin	ND	1.1	5.0	**								
4,4'-DDD	ND	1.2	5.0	**								
Endosulfan II	ND	1.1	5.0	**								
4,4′-DDT	ND	0.80	5.0	**								

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

Organochlorine Pesticides by EPA Method 8081A - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9112036 - EPA 3550 ECD/G	GCMS										
Blank (9112036-BLK1)					Prepared:	11/20/19 Ar	nalyzed: 11	/26/19			
Endrin aldehyde	ND	1.7	5.0	ug/kg							
Endosulfan sulfate	ND	0.61	5.0	"							
Methoxychlor	ND	0.40	5.0	"							
Endrin ketone	ND	1.3	5.0	"							
Toxaphene	ND	5.8	20	**							
LCS (9112036-BS1)					Prepared:	11/20/19 Ar	nalyzed: 11	/26/19			
Surrogate: Tetrachloro-meta-xylene	11.5			ug/kg	10.0		115	35-140			
Surrogate: Decachlorobiphenyl	11.2			"	10.0		112	35-140			
gamma-BHC (Lindane)	48.8	0.96	5.0	"	40.0		122	40-120			QM-14
Heptachlor	53.3	0.59	5.0	"	40.0		133	40-120			QM-14
Aldrin	43.0	0.66	5.0	**	40.0		107	40-120			
Dieldrin	47.8	1.1	5.0	"	40.0		119	40-120			
Endrin	53.2	1.1	5.0	"	40.0		133	40-120			QM-14
4,4'-DDT	72.6	0.80	5.0	u	40.0		182	33-147			QM-14
LCS Dup (9112036-BSD1)					Prepared:	11/20/19 Ar	nalyzed: 11	/26/19			
Surrogate: Tetrachloro-meta-xylene	11.9			ug/kg	10.0		119	35-140			
Surrogate: Decachlorobiphenyl	12.1			"	10.0		121	35-140			
gamma-BHC (Lindane)	51.1	0.96	5.0	**	40.0		128	40-120	4.69	30	QM-14
Heptachlor	54.3	0.59	5.0	**	40.0		136	40-120	1.87	30	QM-14
Aldrin	44.4	0.66	5.0	**	40.0		111	40-120	3.22	30	
Dieldrin	49.5	1.1	5.0	Ħ	40.0		124	40-120	3.55	30	QM-14
Endrin	54.2	1.1	5.0	**	40.0		136	40-120	1.86	30	QM-14
4,4'-DDT	70.1	0.80	5.0	**	40.0		175	33-147	3.53	30	QM-14

SunStar Laboratories, Inc.



Analyte

25712 Commercentre Drive Lake Forest, California 92630 949.297.5020 Phone 949.297.5027 Fax

RPD

Limit

Notes

%REC

Limits

RPD

NV5 Project: Hamilton Union High School

MDL

Result

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:12

Reporting

Limit

Polychlorinated Biphenyls by EPA Method 8082 - Quality Control SunStar Laboratories, Inc.

Units

,

Spike

Level

Source

Result

%REC

Batch 9111415 - EPA 3550 ECD/G	CMS									
Blank (9111415-BLK1)					Prepared & Anal	yzed: 11/14/19				
Surrogate: Tetrachloro-meta-xylene	9.41			ug/kg	10.0	94.1	35-140			
Surrogate: Decachlorobiphenyl	10.1			"	10.0	101	35-140			
PCB-1016	ND	2.1	10	n						
PCB-1221	ND	2.1	10	"						
PCB-1232	ND	2.1	10	n						
PCB-1242	ND	2.1	10	"						
PCB-1248	ND	2.1	10	"						
PCB-1254	ND	2.1	10	"						
PCB-1260	ND	2.1	10	"						
LCS (9111415-BS1)					Prepared & Anal	yzed: 11/14/19				
Surrogate: Tetrachloro-meta-xylene	8.88			ug/kg	10.0	88.8	35-140			
Surrogate: Decachlorobiphenyl	9.93			"	10.0	99.3	35-140			
PCB-1016	97.0	2.1	10	"	100	97.0	40-130			
PCB-1260	98.0	2.1	10	**	100	98.0	40-130			
LCS Dup (9111415-BSD1)					Prepared & Anal	yzed: 11/14/19				
Surrogate: Tetrachloro-meta-xylene	8.98			ug/kg	10.0	89.8	35-140			
Surrogate: Decachlorobiphenyl	9.79			"	10.0	97.9	35-140			
PCB-1016	92.6	2.1	10	"	100	92.6	40-130	4.59	30	
PCB-1260	91.2	2.1	10	"	100	91.2	40-130	7.24	30	

SunStar Laboratories, Inc.



NV5Project:Hamilton Union High School48 Bellarmine Ct, Suite 40Project Number:70779.01.001.003Reported:Chico CA, 95928Project Manager:Heidi Cummings12/11/19 09:12

Notes and Definitions

S-13	Surrogate recovery outside of established control limits. The data was accepted based on valid recovery of surrogates in client samples and remaining QC including CCV.
RE-01	Sample contained analytes with concentrations above calibration limits and was rerun at a dilution.
R-07	Reporting limit for this compound(s) has been raised to account for dilution necessary due to high levels of interfering compound(s) and/or matrix affect.
QM-14	The LCS and LCSD were above acceptance criteria. The method blank and sample were ND for the analyte in question. The CCV was within acceptance criteria. No negative impact on data is expected.
QM-12	The % recovery for this analyte was above acceptance criteria in the LCS and/or LCSD. The MB and sample(s) were ND for the analyte. The CCV(s) was within acceptance criteria. No negative impact on data is expected.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS was within acceptance criteria. The data is acceptable as no negative impact on data is expected.
J	Detected but below the Standard Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the Method Detection Limit (MDL)
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

SunStar Laboratories, Inc.

Coffice

Chain of Custody Record

Page 1 of 4

•								ē □	Pickup		Return to client	Retu		0 each	Disposal @ \$2.00 each	sample disposal Instructions:	ample di
	o. O		5 day		rn around time:	Turn aro	_										
	200							īme	Date / Time			Received by: (signature)	Re	Time	Date / Time	Relinquished by: (signature)	Relinquis
	\$ 1000 Committee						_		8.27	1.13.19	<i> -</i>	A NA			8.19 8:27	650 11.1.	
	Please return H&K/NV5 ice chests		on/cold	eceived good condition/cold	ed good	Receive	-	Time	Date'/T		inature)	Received by: (signature)	Re	Гime	Date / Time	Relinquished by: (signature)	Relinquis
	Method 8081 report Chlordane and		Chain of Custody seals YN/NA Seals intact? YNI/NA	TY Seals	e intac	Chain of Sea		00%	1219/1	1110		G80	0	11600	10 11/219	himmense	Hud
	Notes		(S)	Total # of contains	tal # of	. 7		Time	Date / J		nature)	Received by: (signature)	Re	Time	Date /	Relinquished by: (signature)	[°] elinquis
16	Lab to prepare ABCD2C-0-FR as 4:1 composite of A2D-0-FR, B2D-0-FR, C2D-0-FR and D2D-0-FR	site of	:1 compo	FR as 4	D2C-0-	are ABC	to prep	Lab	×						11/12/2019	CO-FR	\BCD2C-0-FR
15	Lab to prepare ABCD2C-0 as 4:1 composite of A2D-0, B2D-0, C2D-0 and D2D-0	site of /	compos	0 as 4:1	CD2C-	pare AB	to pre	Lat	×						11/12/2019	6	\BCD2C-0
		14		-				_			8 oz jar	SOIL 8	1006		11/12/2019	況)-2D-0-FR
		13									8 oz jar	SOIL 8	1005		11/12/2019)2D-0
		Z							7		8 oz jar	SOIL 8	0951		11/12/2019	FR)-2D-0-FR
		"									8 oz jar	SOIL 8	0950		11/12/2019		32D-0
		0									8 oz jar		0936	-	11/12/2019	R 	3-2D-0-FR
		09									8 oz jar	SOIL 8			11/12/2019		32D-0
		\$									8 oz jar	SOIL 8	0921		11/12/2019	Z)	\2D-0-FR
	i	07							1.50		8 oz jar	SOIL 8	0920		11/12/2019		\2D-0
	re ABCD1C-0 as 4:1 composite of A1D-0, B1D-0, C1D-0 and D1D-0 🦽 🔰	site of <i>y</i>	compos	0 as 4:1	CD1C-		_ab to prepa	l_at	X		8 oz jar 📗	SOIL 8			11/12/2019	Ն-0.	\BCD1C-0
	1	ઢ									8 oz jar	SOIL 8	0905		11/12/2019)1D-0
	1	69								$\times \times$	8 oz jar 💛	SOIL 8	0900		11/12/2019	ìL .	31D-0-CL
	1	03								×	8 oz jar				11/12/2019		31D-0
	1	02									3 oz jar				11/12/2019		31D-0
	<u> </u>	0							No.	×	8 oz jar				11/12/2019		11D-0
	Comments/Preservative	Laboratory ID #							OCPs EPA 8081	Lead EPA 6010	Container Type Arsenic EPA 6010	уре			Date Sampled	Sample ID	
ı	Client Project #: 70779.01.001.003 EDF #:	roject #: EDF #:	I Proj	CI _E	941 841	7/12941	7	Collector: Batch #:				530-894-2437 ngs@NV5.com	ummings	, heidi.c	Heidi Cummings, heidi.cummings@NV5.com	Phone: 530-894-2487 Project Manager: Heic	roject
	1 <u>0</u>	Schoo	Project Name: Hamilton Union High School	Union	milton	e: Hal	t Nam	Projec	. milyes -				95928	nico, CA	urt, Ste 40, C	48 Bellarmine Court, Ste 40, Chico, CA 95928	Address:
				Ď	11/12/2010	٠		بو م ا در								NV5	lient.

Chain of Custody Record

Page 2 of 4

							Pickup		Return to client	Ret	ach 	Disposal @ \$2.00 each	Sample disposal Instructions: D	Sample disp
9,0		5 day	time:	Turn around time:	Turn									
3.7			:			e	Date / Time			Received by: (signature)			ma	Relinquish
Figase istalli ilgivinyo ice cilesta				,	-		8:27		11:13:19	A Y		9 8:27	650 11.13.19	
Dioase return USK/NV/5 ice cheets		Received good condition/cold	od cond	eived go	Rec	9	Date / Time	Da	gnature)	Received by: (signature)			Relinquished by: (signature)/	Relinquish
Method 8081 report Chlordane and		Chain of Custody seals Y/N/NA	n of Custody spald Y/I	n of Cus	Chai	11600	9//6	11/219		680	1600	1112191	Rummun A	Hud
Notes) S	Total # of containers	Total #		9	Date / Time	Dai	ynature)	Received by: (signature)		Date / Time	Relinquished by: (signature)	Relinquish
			-											
Lab to prepare ABCD4C-0 as 4:1 composite of A4D-0, B4D-0, C4D-0 and D4D-0 27	site of A	1 compo	C-0 as 4	ABCD4	prepare	Lab to	+			SOIL		11/12/2019	0	ABCD4C-0
	26					L			8 oz jar	-	1140	11/12/2019		D4D-0
	25								8 oz jar		1130	11/12/2019		C4D-0
	24				_				8 oz jar	SOIL	1120	11/12/2019		B4D-0
	23								8 oz jar		1110	11/12/2019		A4D-0
				_		4								
Lab to prepare ABCD3C-0 as 4:1 composite of A3D-0, B3D-0, C3D-0 and D3D-0 22	site of A	:1 compo	C-0 as 4	ABCD3	prepare	Lab to	×			SOIL		11/12/2019	0	ABCD3C-0
	72							×	8 oz jar 📗 X		1100	11/12/2019		D3D-0
	8								8 oz jar		1040	11/12/2019		C3D-0
	75							X	8 ozjar X		1026	11/12/2019		B3D-0-FR
	83							X	8 ozjar X	SOIL	1025	11/12/2019		B3D-0
\ \	7								8 oz jar	SOIL	1015	11/12/2019		A3D-0
Comments/Preservative	Laboratory ID #						OCPs EPA 8081	Lead EPA 6010	Container Arsenic EPA 6010	Sample Type	Time	Date Sampled	Sample ID	
Client Project #: 707/9.01.001.003 EDF #:	FDF #:	ent アス		7/9 394/	 	Collector: Batch #:	¤ č			ngs@NV5.com	eidi.cummi	Heidi Cummings, heidi.cummings@NV5.com	-	Project Manager:
<u> </u>	Schoo	11/12/2019 me: Hamilton Union High School	11/12/2019 amilton Unio	11/12 Hamilto	lame:	Date: Project Na	D P D				, CA 95928	ırt, Ste 40, Chico	NV5 48 Bellarmine Court, Ste 40, Chico, CA 95928	Client: Address:

949-297-5020

Chain of Custody Record

Page 3 of 4

HHS3D-2 HHS3D-2-FR EB-1 Client: Relinquished by: (signature) Relinquished by: (signature) Sample disposal Instructions: Relinquished by: (signature) PMT-E6D-2 PMT-E6D-0-CI PMT-E6D-0 HHS8D-2 Project Manager: Address: HIS6D-2 HHS5D-2 HHS4D-2 HHS2D-2 HHS1D-2 1HS7D-2 HS5D-2-CI Sample ID NV5 530-894-2487 48 Bellarmine Court, Ste 40, Chico, CA 95928 Heidi Cummings, heidi.cummings@NV5.com Disposal @ \$2.00 each 11-13-19 Date Sampled 11/11/2019 11/11/2019 11/11/2019 11/11/2019 11/11/2019 11/11/2019 11/11/2019 1//1/2019 1/11/2019 1/11/2019 1/11/2019 1/11/2019 1/11/2019 1/11/2019 Date / Time Date / Time 1126 Date / Time 8:27 1600 Fax: 0915 0830 1018 1500 1515 1330 1225 1130 1055 1045 1030 Time 1530 1505 1015 (380) Received by: (signature) Sample Type 530-894-2437 Received by: (signature) Received by: (signature) SOIL SOIL SOIL SOIL SOIL SOIL SOIL SOIL SOIL ≶ POLY/AMBER/VOA Return to client 8 oz jar Container Type PCBS EAP 8082 112K11 Arsenic EPA 6010 Date / Time Date / Time Date / Time Pickup ead EPA 6010 8:27 Collector: Project Name: Hamilton Union High School Date: OCPs EPA 8081 Batch #: TPH CARBON CHAIN EPA 8260/8015 Title 22 Metals EPA HJC/CWB Total # of containes
Chain of Custody seals (YN/NA
Seals intack? YN/NA Turn around time: Received good condition/cold 7193941 11/11/2019 Client Project #: 70779.01.001.003 5 day EDF#: 8222 20 00 00 12 18 28 Laboratory ID # 370 Comments/Preservative Please return H&K/NV5 ice chests Method 8081 report Chlordane and pho tended Technical Chlordane Notes 5 Total # of containers

949-297-5020

Chain of Custody Record

Relinquished by: (signature) Client: Sample disposal Instructions: Disposal @ \$2.00 each Relinquished by: (signature) Relinquished by: (signature), DD6D-0 DD5D-0 DD4D-0-FR DD4D-0 DD3D-0 DD2D-0-CL DD2D-0 DD1D-0 Project Manager: Phone: Address: DD7D-0 Sample ID NV5 48 Bellarmine Court, Ste 40, Chico, CA 95928 530-894-2487 remmen Heidi Cummings, heidi.cummings@NV5.com **Date Sampled** 11:13:19 8:27 Date / Time 11/11/2019 11/11/2019 11/11/2019 1/11/2019 1/11/2019 11/11/2019 1/11/2019 1/11/2019 1/11/2019 Date / Time 1219 Date / Time Tax: 1435 1425 1345 Time 1500 1415 1410 1405 1350 1340 Received by: (signature) Received by: (signature Sample Type Received by: (signature) 530-894-2437 SOIL SOIL SOL SOIL SOIL SOIL SOIL SOIL SOL Return to client 8 oz jar Container Type PCBS EAP 8082 11/2/9 Arsenic EPA 6010 8:27 Date / Time Date / Time Date / Time Pickup ead EPA 6010 Date: OCPs EPA 8081 Collector: Batch #: Project Name: Hamilton Union High School TPH CARBON CHAIN EPA 8260/8015 Title 22 Metals EPA HJC/CWB Total # of containers
Chain of Custody spall YJN/NA
Seals intact? YJN/NA Turn around time: Received good condition/cold 1193941 11/11/2019 Client Project #: 70779.01.001.003 5 day EDF#: 81 44 43 8 49 2 2 充 42 Laboratory ID # 37.20 2000 Comments/Preservative Please return H&K/NV5 ice chests Method 8081 report Chlordane and Technical Chlordane Notes Total # of containers



SAMPLE RECEIVING REVIEW SHEET

Batch/Work Order #:	11939	41	*.			
Client Name:	HOLDREGE	\$ KULL - CHICO	Project:	-4	AMILTON UNIO	n High School
Delivered by:	☐ Client	SunStar Courier	⊠ GSO	☐ FedEx	Other	
If Courier, Received by:			Date/Time C Received:	. <u></u>		
Lab Received by:		MANY	Date/Time L Received:	ab 	11.13.19 / 8	127
Total number of coolers re	ceived: 2	Thermometer ID	: <u>sc-i</u>	C	Calibration due	e:_ <u>6/27/20</u>
Temperature: Cooler #1	2.5 °C	+/- the CF (+ 1.2°C)	= 3.7	°C correc	ted temperature	
Temperature: Cooler #2	<i>1,8</i> °C	+/- the CF (+ 1.2°C)	= 3.0	°C correct	ted temperature	
Temperature: Cooler #3	°C	+/- the CF (+ 1.2°C)	=	°C correct	ted temperature	·
Temperature criteria = ≤ (no frozen containers)	6°C	Within cri	teria?	⊠Yes	□No	
If NO:						
Samples received	on ice?	∐Yes		□No → Complete	e Non-Confor	mance Sheet
If on ice, samples collected?	received same	e day ☐Yes →	Acceptable	\square No \rightarrow	e Non-Confor	
Custody seals intact on coo	oler/sample			Yes		N/A
Sample containers intact				Yes	□No*	
Sample labels match Chair	n of Custody 1	Ds	,	Yes	□No*	
Total number of containers	s received ma	tch COC	¥	Yes	□No*	,
Proper containers received	for analyses	requested on COC		Yes	□No*	
Proper preservative indicate	ted on COC/c	ontainers for analyses	requested	Yes	□No* □1	N/A
Complete shipment receive containers, labels, volumes holding times				Yes	□No*	
* Complete Non-Conformance	e Receiving Sl	neet if checked Coo	ler/Sample Rev	view - Initials	and date:	11.13.19
Comments:						4.1.38E-4.1



WORK ORDER

T193941

Client: NV5 **Project Manager:** Jeff Lee

Project: Hamilton Union High School **Project Number:** 70779.01.001.003

Report To:

NV5

Heidi Cummings

48 Bellarmine Ct, Suite 40

Chico, CA 95928

Date Due: 11/20/19 17:00 (5 day TAT)

Received By: Sunny Lounethone Logged In By: Sunny Lounethone Date Received: 11/13/19 08:27 Date Logged In: 11/13/19 09:50

Samples Received at:

Custody Seals

3°C

Yes Received On Ice Yes

Containers Intact Yes COC/Labels Agree Yes Preservation Confin

TAT Due **Expires Comments Analysis** T193941-01 A1D-0 [Soil] Sampled 11/12/19 08:30 (GMT-08:00) Pacific Time (US 6010 Individual Metals 11/20/19 15:00 05/10/20 08:30 As and Pb only T193941-02 B1D-0 [Soil] Sampled 11/12/19 08:40 (GMT-08:00) Pacific Time (US

[NO ANALYSES]

T193941-03 C1D-0 [Soil] Sampled 11/12/19 08:50 (GMT-08:00) Pacific Time (US

6010 Individual Metals

11/20/19 15:00

05/10/20 08:50 5

As and Pb only

T193941-04 C1D-0-CL [Soil] Sampled 11/12/19 09:00 (GMT-08:00) Pacific Time

(US &

6010 Individual Metals

11/20/19 15:00

05/10/20 09:00

As and Pb only

T193941-05 D1D-0 [Soil] Sampled 11/12/19 09:05 (GMT-08:00) Pacific Time (US

[NO ANALYSES]

T193941-06 ABCD1C-0 [Soil] Sampled 11/12/19 00:00 (GMT-08:00) Pacific

COMPOSITE 4:1 (A1D-0, B1D-0, C1D-0, D1D-0)

Time (US &

8081 Pesticides

11/20/19 15:00

5 11/26/19 00:00

T193941-07 A2D-0 [Soil] Sampled 11/12/19 09:20 (GMT-08:00) Pacific Time (US

[NO ANALYSES]



WORK ORDER

T193941

Client: NV5 Project Manager: Jeff Lee

Project: Hamilton Union High School Project Number: 70779.01.001.003

Analysis Due TAT Expires Comments

T193941-08 A2D-0FR [Soil] Sampled 11/12/19 09:21 (GMT-08:00) Pacific Time

(US &

[NO ANALYSES]

T193941-09 B2D-0 [Soil] Sampled 11/12/19 09:35 (GMT-08:00) Pacific Time (US

&

[NO ANALYSES]

T193941-10 B-2D-0-FR [Soil] Sampled 11/12/19 09:36 (GMT-08:00) Pacific

Time (US &

[NO ANALYSES]

T193941-11 C2D-0 [Soil] Sampled 11/12/19 09:50 (GMT-08:00) Pacific Time (US

&

[NO ANALYSES]

T193941-12 C-2D-0-FR [Soil] Sampled 11/12/19 09:51 (GMT-08:00) Pacific

Time (US &

[NO ANALYSES]

T193941-13 D2D-0 [Soil] Sampled 11/12/19 10:05 (GMT-08:00) Pacific Time (US

&

[NO ANALYSES]

T193941-14 D-2D-0-FR [Soil] Sampled 11/12/19 10:06 (GMT-08:00) Pacific

Time (US &

[NO ANALYSES]

T193941-15 ABCD2C-0 [Soil] Sampled 11/12/19 00:00 (GMT-08:00) Pacific

COMPOSITE 4:1 (A2D-0, B2D-0, C2D-0, D2D-0)

Time (US &

8081 Pesticides

11/20/19 15:00

11/26/19 00:00

T193941-16 ABCD2C-0-FR [Soil] Sampled 11/12/19 00:00 (GMT-08:00) Pacific COMPOSITE 4:1 (A2D-0-FR, B2D-0-FR, C2D-0-FR, D2D-0-FR)

5

Time (US & 8081 Pesticides

11/20/19 15:00

11/26/19 00:00

T193941-17 A3D-0 [Soil] Sampled 11/12/19 10:15 (GMT-08:00) Pacific Time (US

&

[NO ANALYSES]

T193941-18 B3D-0 [Soil] Sampled 11/12/19 10:25 (GMT-08:00) Pacific Time (US

&

6010 Individual Metals 11/20/19 15:00 5 05/10/20 10:25 As and Pb only



WORK ORDER

T193941

Client: NV5 Project Manager: Jeff Lee

Project: Hamilton Union High School Project Number: 70779.01.001.003

Froject: Hamilton Union High			Froject Number:	/0//9.01.001.003
Analysis	Due	TAT	Expires	Comments
T193941-19 B3D-0-FR [Soil] (US &	Sampled 11/12/19 1	10:26 (GMT	Γ-08:00) Pacific Tim	ne
6010 Individual Metals	11/20/19 15:00	5	05/10/20 10:26	As and Pb only
T193941-20 C3D-0 [Soil] Sa & [NO ANALYSES]	mpled 11/12/19 10:4	0 (GMT-08	:00) Pacific Time (U	US
T193941-21 D3D-0 [Soil] Sa &	mpled 11/12/19 11:00	0 (GMT-08	:00) Pacific Time (U	J S
6010 Individual Metals	11/20/19 15:00	5	05/10/20 11:00	As and Pb only
T193941-22 ABCD3C-0 [Soi Time (US &	l] Sampled 11/12/19	00:00 (GM	T-08:00) Pacific	COMPOSITE 4:1 (A3D-0, B3D-0, C3D-0, D3D-0)
8081 Pesticides	11/20/19 15:00	5	11/26/19 00:00	
T193941-23 A4D-0 [Soil] Sa & [NO ANALYSES] T193941-24 B4D-0 [Soil] Sa & [NO ANALYSES]				
T193941-25 C4D-0 [Soil] Sa & [NO ANALYSES]	mpled 11/12/19 11:30	0 (GMT-08	:00) Pacific Time (U	JS
T193941-26 D4D-0 [Soil] Sa & [NO ANALYSES]	mpled 11/12/19 11:40	0 (GMT-08	:00) Pacific Time (U	US
T193941-27 ABCD4C-0 [Soi Time (US &	l] Sampled 11/12/19	00:00 (GM	T-08:00) Pacific	COMPOSITE 4:1 (A4D-0, B4D-0, C4D-0, D4D-0)
8081 Pesticides	11/20/19 15:00	5	11/26/19 00:00	
T193941-28 HHS1D-2 [Soil] (US &	Sampled 11/11/19 0	8:30 (GMT	-08:00) Pacific Time	e
6010 Individual Metals	11/20/19 15:00	5	05/09/20 08:30	As and Pb only
T193941-29 HHS2D-2 [Soil] (US &	Sampled 11/11/19 0	9:15 (GMT	-08:00) Pacific Time	e
6010 Individual Metals	11/20/19 15:00	5	05/09/20 09:15	As and Pb only



WORK ORDER

T193941

Client: NV5 Project Manager: Jeff Lee

Project: Hamilton Union High School Project Number: 70779.01.001.003

Analysis	Due	TAT	Expires	Comments
T193941-30 HHS3D-2 [Soil] (US &	Sampled 11/11/19 1	0:15 (GMT	-08:00) Pacific Tin	ne
6010 Individual Metals	11/20/19 15:00	5	05/09/20 10:15	As and Pb only
T193941-31 HHS3D-2-FR [S Time (US &	Soil] Sampled 11/11/2	19 10:18 (G	MT-08:00) Pacific	
6010 Individual Metals	11/20/19 15:00	5	05/09/20 10:18	As and Pb only
T193941-32 HHS4D-2 [Soil] (US &	Sampled 11/11/19 1	0:30 (GMT	'-08:00) Pacific Tin	ne
6010 Individual Metals	11/20/19 15:00	5	05/09/20 10:30	As and Pb only
T193941-33 HHS5D-2 [Soil] (US &	Sampled 11/11/19 1	0:45 (GMT	-08:00) Pacific Tin	ne
6010 Individual Metals	11/20/19 15:00	5	05/09/20 10:45	As and Pb only
T193941-34 HHS5D-2-CL [S Time (US &	Soil] Sampled 11/11/1	19 10:55 (G	MT-08:00) Pacific	
6010 Individual Metals	11/20/19 15:00	5	05/09/20 10:55	As and Pb only
T193941-35 HHS6D-2 [Soil] (US &	Sampled 11/11/19 1	1:30 (GMT	-08:00) Pacific Tin	ne
6010 Individual Metals	11/20/19 15:00	5	05/09/20 11:30	As and Pb only
T193941-36 HHS7D-2 [Soil] (US &	Sampled 11/11/19 13	2:25 (GMT	'-08:00) Pacific Tin	ne
6010 Individual Metals	11/20/19 15:00	5	05/09/20 12:25	As and Pb only
T193941-37 HHS8D-2 [Soil] (US &	Sampled 11/11/19 1:	3:30 (GMT	'-08:00) Pacific Tin	ne
6010 Individual Metals	11/20/19 15:00	5	05/09/20 13:30	As and Pb only
T193941-38 PMT-E6D-0 [So Time (US &	oil] Sampled 11/11/19) 15:05 (GN	ЛТ-08:00) Pacific	
8082 PCB	11/20/19 15:00	5	11/25/19 15:05	
T193941-39 PMT-E6D-0-CL Time (US &	[Soil] Sampled 11/1	1/19 15:15	(GMT-08:00) Paci	fic
8082 PCB	11/20/19 15:00	5	11/25/19 15:15	
T193941-40 PMT-E6D-2 [So Time (US &	oil] Sampled 11/11/19) 15:30 (GN	/IT-08:00) Pacific	
8082 PCB	11/20/19 15:00	5	11/25/19 15:30	



WORK ORDER

T193941

Client: NV5 Project Manager: Jeff Lee

Project: Hamilton Union High School Project Number: 70779.01.001.003

Analysis	Due	TAT	Expires	Comments					
T193941-41 EB-1 [Wate (US &	r] Sampled 11/11/19 15:0	00 (GMT-0	98:00) Pacific Time						
6010 Title 22	11/20/19 15:00	5	05/09/20 15:00						
8015 TPH-CC LLvL	11/20/19 15:00	5	11/25/19 15:00						
8081 Pesticides	11/20/19 15:00	5	11/18/19 15:00						
T193941-42 DD1D-0 [So (US &	oil] Sampled 11/11/19 13:	40 (GMT-	08:00) Pacific Time	,					
6010 Title 22	11/20/19 15:00	5	05/09/20 13:40						
8015 Carbon Chain	11/20/19 15:00	5	11/25/19 13:40						
8081 Pesticides	11/20/19 15:00	5	11/25/19 13:40						
T193941-43 DD2D-0 [So (US &	oil] Sampled 11/11/19 13:	45 (GMT-	08:00) Pacific Time						
6010 Title 22	11/20/19 15:00	5	05/09/20 13:45						
8015 Carbon Chain	11/20/19 15:00	5	11/25/19 13:45						
8081 Pesticides	11/20/19 15:00	5	11/25/19 13:45						
T193941-44 DD2D-0-CL Time (US &	[Soil] Sampled 11/11/19	13:50 (GN	MT-08:00) Pacific						
6010 Title 22	11/20/19 15:00	5	05/09/20 13:50						
8015 Carbon Chain	11/20/19 15:00	5	11/25/19 13:50						
8081 Pesticides	11/20/19 15:00	5	11/25/19 13:50						
T193941-45 DD3D-0 [Soil] Sampled 11/11/19 14:05 (GMT-08:00) Pacific Time (US &									
6010 Title 22	11/20/19 15:00	5	05/09/20 14:05						
8015 Carbon Chain	11/20/19 15:00	5	11/25/19 14:05						
8081 Pesticides	11/20/19 15:00	5	11/25/19 14:05						
T193941-46 DD4D-0 [So (US &	oil] Sampled 11/11/19 14:	10 (GMT-	08:00) Pacific Time	•					
6010 Title 22	11/20/19 15:00	5	05/09/20 14:10						
8015 Carbon Chain	11/20/19 15:00	5	11/25/19 14:10						
8081 Pesticides	11/20/19 15:00	5	11/25/19 14:10						
T193941-47 DD4D-0-FR	[Soil] Sampled 11/11/19	14:15 (GN	MT-08:00) Pacific						
Time (US &									
6010 Title 22	11/20/19 15:00	5	05/09/20 14:15						
•	11/20/19 15:00 11/20/19 15:00	5 5	05/09/20 14:15 11/25/19 14:15						



WORK ORDER

T193941

Client: NV5 Project Manager: Jeff Lee

Project: Hamilton Union High School Project Number: 70779.01.001.003

Analysis	Due	ТАТ	Expires	Comments
T193941-48 DD5D-0 [Soil (US &	[] Sampled 11/11/19 14:	25 (GMT-(08:00) Pacific Time	
6010 Title 22	11/20/19 15:00	5	05/09/20 14:25	
8015 Carbon Chain	11/20/19 15:00	5	11/25/19 14:25	
8081 Pesticides	11/20/19 15:00	5	11/25/19 14:25	
T193941-49 DD6D-0 [Soil (US & 6010 Title 22	11/20/19 15:00	5	05/09/20 14:35	
8015 Carbon Chain	11/20/19 15:00	5	11/25/19 14:35	
8081 Pesticides	11/20/19 15:00	5	11/25/19 14:35	
T193941-50 DD7D-0 [Soil (US &	l] Sampled 11/11/19 15:	00 (GMT-(08:00) Pacific Time	
6010 Title 22	11/20/19 15:00	5	05/09/20 15:00	
8015 Carbon Chain	11/20/19 15:00	5	11/25/19 15:00	
8081 Pesticides	11/20/19 15:00	5	11/25/19 15:00	

Analysis groups included in	this work order	
6010 Title 22		
subgroup 6010B T22	7470/71 Hg	

Reviewed By

Date



11 December 2019

Heidi Cummings NV5 48 Bellarmine Ct, Suite 40 Chico, CA 95928

RE: Hamilton Union High School

Enclosed are the results of analyses for samples received by the laboratory on 11/15/19 08:34. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jeff Lee

Project Manager



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:27

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
C5D-0	T193979-05	Soil	11/12/19 13:00	11/15/19 08:34
ABCD5C-0	T193979-09	Soil	11/12/19 00:00	11/15/19 08:34
ABCD5C-0-CL	T193979-10	Soil	11/12/19 00:00	11/15/19 08:34
ABCD6C-0	T193979-15	Soil	11/12/19 00:00	11/15/19 08:34
A7D-0	T193979-16	Soil	11/12/19 14:45	11/15/19 08:34
A7D-0-CL	T193979-18	Soil	11/12/19 14:55	11/15/19 08:34
D7D-0	T193979-23	Soil	11/12/19 15:30	11/15/19 08:34
D7D-0-FR	T193979-24	Soil	11/12/19 15:31	11/15/19 08:34
ABCD7C-0	T193979-25	Soil	11/12/19 00:00	11/15/19 08:34
ABCD7C-0-FR	T193979-26	Soil	11/12/19 00:00	11/15/19 08:34
C8D-0	T193979-29	Soil	11/12/19 16:05	11/15/19 08:34
ABCD8C-0	T193979-31	Soil	11/12/19 00:00	11/15/19 08:34

This report has been revised to report Arsenic under EPA 6020 instead of EPA 6010 to provide the lowest MDL value possible. JL 12/11/19

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:27

DETECTIONS SUMMARY

Sample ID:	C5D-0	Labora	atory ID:	T193979-05		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		5.10	3.00	mg/kg	EPA 6010b	
Arsenic		4.1	0.25	mg/kg	6020 ICP-MS	
Sample ID:	ABCD5C-0	Labora	atory ID:	T193979-09		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
4,4′-DDE		6.6	5.0	ug/kg	EPA 8081A	
Sample ID:	ABCD5C-0-CL	Labora	atory ID:	T193979-10		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
4,4'-DDE		7.0	5.0	ug/kg	EPA 8081A	
Sample ID:	ABCD6C-0	Labora	atory ID:	T193979-15		
			Reporting			_
Analyte		Result	Limit	Units	Method	Notes
4,4′-DDE		4.1	5.0	ug/kg	EPA 8081A	J
Sample ID:	A7D-0	Labora	atory ID:	T193979-16		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		5.35	3.00	mg/kg	EPA 6010b	
Arsenic		5.9	0.25	mg/kg	6020 ICP-MS	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:27

A7D-0-CL	Labora	tory ID:	T193979-18		
		Reporting			
	Result	Limit	Units	Method	Notes
	5.35	3.00	mg/kg	EPA 6010b	
	5.7	0.25	mg/kg	6020 ICP-MS	
D7D-0	Labora	tory ID:	T193979-23		
		Reporting			
	Result	Limit	Units	Method	Notes
	5.75	3.00	mg/kg	EPA 6010b	
	6.4	0.25	mg/kg	6020 ICP-MS	
D7D-0-FR	Labora	tory ID:	T193979-24		
		Reporting			
	Result	Limit	Units	Method	Notes
	5.61	3.00	mg/kg	EPA 6010b	
	5.2	0.25	mg/kg	6020 ICP-MS	
ABCD7C-0	Labora	tory ID:	T193979-25		
		Reporting			
	Result	Limit	Units	Method	Notes
	3.6	5.0	ug/kg	EPA 8081A	J
ABCD7C-0-FR	Labora	tory ID:	T193979-26		
		•			
	Result	Limit	Units	Method	Notes
	3.0	5.0	ug/kg	EPA 8081A	J
C8D-0		tory ID:	T193979-29		
C8D-0		tory ID:	T193979-29		
C8D-0		tory ID: Reporting Limit	T193979-29 Units	Method	Notes
C8D-0	Labora	Reporting		Method EPA 6010b	Notes
	D7D-0 D7D-0-FR	Result 5.35 5.7	Name	Result Limit Units 5.35 3.00 mg/kg 5.7 0.25 mg/kg D7D-0 Laboratry ID: T193979-23 Result Limit Units 5.75 3.00 mg/kg Result Limit Units 5.75 3.00 mg/kg 6.4 0.25 mg/kg 6.4 0.25 mg/kg Besult Limit Units Februirg Result Limit Units 5.61 3.00 mg/kg 5.2 0.25 mg/kg 5.2 0.25 mg/kg ABCD7C-0 Laboratry ID: T193979-25 ABCD7C-0 Laboratry ID: T193979-25 ABCD7C-0 Laboratry ID: T193979-26 ABCD7C-0 Laboratry ID: T193979-26 ABCD7C-0-FR Laboratry ID: T193979-26	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:27

Sample ID:	ABCD8C-0	Laboratory ID:		T193979-31		
		Reporti	ing			
Analyte		Result Lin	nit	Units	Method	Notes
4,4'-DDE		4.8	5.0	ug/kg	EPA 8081A	J

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:27

C5D-0 T193979-05(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Metals by EPA 6010B										
Lead	5.10	0.967	3.00	mg/kg	1	9111532	11/15/19	11/18/19	EPA 6010b	
Metals by EPA 6020 Method										
Arsenic	4.1	0.0025	0.25	mg/kg	1	9121019	12/10/19	12/10/19	6020 ICP-MS	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:27

ABCD5C-0 T193979-09(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorie	es, Inc.					
Organochlorine Pesticides by EPA M	Iethod 8081A									
alpha-BHC	ND	0.56	5.0	ug/kg	1	9111517	11/15/19	11/18/19	EPA 8081A	
gamma-BHC (Lindane)	ND	0.96	5.0	"	"	"	**	"	**	
beta-BHC	ND	1.4	5.0	"	"	"	**	"	"	
delta-BHC	ND	0.64	5.0	"	"	"	"	"	"	
Heptachlor	ND	0.59	5.0	"	"	"	"	"	"	
Aldrin	ND	0.66	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	0.98	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	0.93	5.0	**	"	"	Ħ	"	"	
alpha-Chlordane	ND	0.83	5.0	**	"	"	Ħ	'n	"	
Endosulfan I	ND	0.81	5.0	**	"	"	Ħ	Ħ	"	
4,4′-DDE	6.6	0.78	5.0	**	"	**	u	Ħ	"	
Dieldrin	ND	1.1	5.0	**	17	"	Ħ	Ħ	11	
Endrin	ND	1.1	5.0	"	"	"	"	"	"	
4,4′-DDD	ND	1.2	5.0	"	"	"	"	"	"	
Endosulfan II	ND	1.1	5.0	"	"	"	"	"	"	
4,4′-DDT	ND	0.80	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	1.7	5.0	**	"	"	"	"	"	
Endosulfan sulfate	ND	0.61	5.0	**	"	"	Ħ	"	"	
Methoxychlor	ND	0.40	5.0	11	"	"	Ħ	"	"	
Endrin ketone	ND	1.3	5.0	11	"	"	Ħ	"	"	
Toxaphene	ND	5.8	20	**	"	"	Ħ	"	"	
Chlordane (tech)	ND	5.0	50	**	**	"	Ħ	Ħ	11	
Chlordane (Total)	ND		5.0	**	"	n	Ħ	n	"	
Surrogate: Tetrachloro-meta-xylene			103 %	35	140	#	"	"	"	
Surrogate: Decachlorobiphenyl			109 %	35	140	"	"	"	"	

SunStar Laboratories, Inc.

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:27

ABCD5C-0-CL T193979-10(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Organochlorine Pesticides by EPA M	1ethod 8081A									
alpha-BHC	ND	0.56	5.0	ug/kg	1	9111517	11/15/19	11/18/19	EPA 8081A	
gamma-BHC (Lindane)	ND	0.96	5.0	"	"	"	**	**	**	
beta-BHC	ND	1.4	5.0	"	"	"	"	"	**	
delta-BHC	ND	0.64	5.0	"	"	"	"	"	"	
Heptachlor	ND	0.59	5.0	"	"	"	"	"	"	
Aldrin	ND	0.66	5.0	11	Ħ	n	"	17	"	
Heptachlor epoxide	ND	0.98	5.0	11	Ħ	n	"	17	"	
gamma-Chlordane	ND	0.93	5.0	11	"	"	"	"	11	
alpha-Chlordane	ND	0.83	5.0	11	"	"	"	"	11	
Endosulfan I	ND	0.81	5.0	11	"	"	"	"	11	
4,4′-DDE	7.0	0.78	5.0	"	n	**	**	**	**	
Dieldrin	ND	1.1	5.0	**	"	"	"	"	"	
Endrin	ND	1.1	5.0	"	"	"	"	"	**	
4,4′-DDD	ND	1.2	5.0	"	"	"	"	"	"	
Endosulfan II	ND	1.1	5.0	"	"	"	"	"	"	
4,4′-DDT	ND	0.80	5.0	11	"	"	"	"	11	
Endrin aldehyde	ND	1.7	5.0	11	"	"	"	"	"	
Endosulfan sulfate	ND	0.61	5.0	11	n	n	"	11	"	
Methoxychlor	ND	0.40	5.0	11	n	"	"	11	"	
Endrin ketone	ND	1.3	5.0	11	n	"	"	**	11	
Toxaphene	ND	5.8	20	**	n	n	**	**	11	
Chlordane (tech)	ND	5.0	50	"	n	n	**	Ħ	11	
Chlordane (Total)	ND		5.0	11	· ·	n	"	"	11	
Surrogate: Tetrachloro-meta-xylene			89.0 %	35-	140	"	"	"	"	
Surrogate: Decachlorobiphenyl			113 %	35-	140	"	"	"	"	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:27

ABCD6C-0 T193979-15(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Organochlorine Pesticides by EPA M	Method 8081A									
alpha-BHC	ND	0.56	5.0	ug/kg	1	9111517	11/15/19	11/18/19	EPA 8081A	
gamma-BHC (Lindane)	ND	0.96	5.0	"	**	"	"	"	"	
beta-BHC	ND	1.4	5.0	"	"	"	"	"	"	
delta-BHC	ND	0.64	5.0	"	"	"	"	"	"	
Heptachlor	ND	0.59	5.0	"	17	"	"	"	"	
Aldrin	ND	0.66	5.0	"	17	n	"	"	"	
Heptachlor epoxide	ND	0.98	5.0	"	17	n	"	"	"	
gamma-Chlordane	ND	0.93	5.0	"	17	"	"	"	"	
alpha-Chlordane	ND	0.83	5.0	"	"	"	17	**	"	
Endosulfan I	ND	0.81	5.0	"	"	"	17	**	"	
4,4′-DDE	4.1	0.78	5.0	"	"	**	11	**	"	
Dieldrin	ND	1.1	5.0	"	**	"	"	"	**	
Endrin	ND	1.1	5.0	"	17	"	"	"	**	
4,4′-DDD	ND	1.2	5.0	"	17	"	"	"	"	
Endosulfan II	ND	1.1	5.0	"	17	"	"	"	"	
4,4′-DDT	ND	0.80	5.0	"	17	n	"	"	"	
Endrin aldehyde	ND	1.7	5.0	"	17	"	17	"	"	
Endosulfan sulfate	ND	0.61	5.0	"	17	"	"	"	"	
Methoxychlor	ND	0.40	5.0	"	17	"	"	"	"	
Endrin ketone	ND	1.3	5.0	n	"	"	11	**	"	
Toxaphene	ND	5.8	20	n	"	"	11	Ħ	"	
Chlordane (tech)	ND	5.0	50	n	"	"	**	Ħ	"	
Chlordane (Total)	ND		5.0	"	Ħ	"	"	Ħ	#	
Surrogate: Tetrachloro-meta-xylene			85.9 %	35-	140	"	"	"	"	
Surrogate: Decachlorobiphenyl			93.9 %	35-	140	"	"	"	"	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:27

A7D-0 T193979-16(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Metals by EPA 6010B										
Lead	5.35	0.967	3.00	mg/kg	1	9111532	11/15/19	11/18/19	EPA 6010b	
Metals by EPA 6020 Method										
Arsenic	5.9	0.0025	0.25	mg/kg	1	9121019	12/10/19	12/10/19	6020 ICP-MS	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:27

A7D-0-CL T193979-18(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Metals by EPA 6010B										
Lead	5.35	0.967	3.00	mg/kg	1	9111532	11/15/19	11/18/19	EPA 6010b	
Metals by EPA 6020 Method										
Arsenic	5.7	0.0025	0.25	mg/kg	1	9121019	12/10/19	12/10/19	6020 ICP-MS	•

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:27

D7D-0 T193979-23(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratori	es, Inc.					
Metals by EPA 6010B										
Lead	5.75	0.967	3.00	mg/kg	1	9112523	11/25/19	11/26/19	EPA 6010b	
Metals by EPA 6020 Method										
Arsenic	6.4	0.0025	0.25	mg/kg	1	9121019	12/10/19	12/10/19	6020 ICP-MS	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:27

D7D-0-FR T193979-24(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Metals by EPA 6010B										
Lead	5.61	0.967	3.00	mg/kg	1	9111532	11/15/19	11/18/19	EPA 6010b	
Metals by EPA 6020 Method										
Arsenic	5.2	0.0025	0.25	mg/kg	1	9121019	12/10/19	12/10/19	6020 ICP-MS	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:27

ABCD7C-0 T193979-25(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Organochlorine Pesticides by EPA M	Method 8081A									
alpha-BHC	ND	0.56	5.0	ug/kg	1	9111517	11/15/19	11/18/19	EPA 8081A	
gamma-BHC (Lindane)	ND	0.96	5.0	"	"	**	**	**	"	
beta-BHC	ND	1.4	5.0	"	"	"	"	"	"	
delta-BHC	ND	0.64	5.0	"	Ħ	"	"	"	"	
Heptachlor	ND	0.59	5.0	"	"	"	**	"	**	
Aldrin	ND	0.66	5.0	"	"	"	**	"	11	
Heptachlor epoxide	ND	0.98	5.0	"	"	"	**	"	11	
gamma-Chlordane	ND	0.93	5.0	"	"	"	**	"	11	
alpha-Chlordane	ND	0.83	5.0	"	"	"	**	"	11	
Endosulfan I	ND	0.81	5.0	"	"	"	**	"	11	
4,4'-DDE	3.6	0.78	5.0	"	"	"	**	"	**	J
Dieldrin	ND	1.1	5.0	"	n	**	**	**	"	
Endrin	ND	1.1	5.0	11	n	**	**	**	"	
4,4'-DDD	ND	1.2	5.0	"	n	"	Ħ	**	"	
Endosulfan II	ND	1.1	5.0	"	Ħ	"	"	"	"	
4,4'-DDT	ND	0.80	5.0	"	n	"	"	"	"	
Endrin aldehyde	ND	1.7	5.0	"	n	"	"	"	"	
Endosulfan sulfate	ND	0.61	5.0	"	n	"	"	"	"	
Methoxychlor	ND	0.40	5.0	"	"	"	"	"	"	
Endrin ketone	ND	1.3	5.0	"	"	"	**	"	"	
Toxaphene	ND	5.8	20	"	"	"	**	"	"	
Chlordane (tech)	ND	5.0	50	"	"	"	**	**	**	
Chlordane (Total)	ND		5.0	"	· ·	11	**	**	"	
Surrogate: Tetrachloro-meta-xylene			56.1 %	35-	140	"	"	"	"	
Surrogate: Decachlorobiphenyl			95.3 %	35-	140	"	"	"	"	

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The results in this report apply to the samples analyzed in accordance with the chain of



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:27

ABCD7C-0-FR T193979-26(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Organochlorine Pesticides by EPA M	Tethod 8081A									
alpha-BHC	ND	0.56	5.0	ug/kg	1	9111517	11/15/19	11/18/19	EPA 8081A	
gamma-BHC (Lindane)	ND	0.96	5.0	"	"	**	"	"	"	
beta-BHC	ND	1.4	5.0	"	"	"	"	"	**	
delta-BHC	ND	0.64	5.0	"	"	"	"	"	**	
Heptachlor	ND	0.59	5.0	"	"	"	"	"	**	
Aldrin	ND	0.66	5.0	"	"	"	"	"	11	
Heptachlor epoxide	ND	0.98	5.0	"	"	"	"	"	11	
gamma-Chlordane	ND	0.93	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	0.83	5.0	"	"	"	"	"	"	
Endosulfan I	ND	0.81	5.0	"	"	"	"	"	"	
4,4′-DDE	3.0	0.78	5.0	"	"	"	**	"	"	
Dieldrin	ND	1.1	5.0	"	**	**	"	"	"	
Endrin	ND	1.1	5.0	11	Ħ	"	**	**	"	
4,4´-DDD	ND	1.2	5.0	11	**	"	**	**	"	
Endosulfan II	ND	1.1	5.0	11	**	"	11	11	"	
4,4'-DDT	ND	0.80	5.0	"	u	"	"	"	"	
Endrin aldehyde	ND	1.7	5.0	"	u	"	"	"	"	
Endosulfan sulfate	ND	0.61	5.0	"	u	"	"	"	"	
Methoxychlor	ND	0.40	5.0	"	u	"	"	"	11	
Endrin ketone	ND	1.3	5.0	"	u	"	"	"	11	
Toxaphene	ND	5.8	20	"	u	"	"	**	**	
Chlordane (tech)	ND	5.0	50	"	u	"	"	**	**	
Chlordane (Total)	ND		5.0	"	tt.	"	**	tt	11	
Surrogate: Tetrachloro-meta-xylene			43.3 %	35-	140	"	"	"	"	
Surrogate: Decachlorobiphenyl			83.0 %	35-	140	"	"	"	"	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:27

C8D-0 T193979-29(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Metals by EPA 6010B										
Lead	4.95	0.879	2.73	mg/kg	1	9111532	11/15/19	11/18/19	EPA 6010b	
Metals by EPA 6020 Method										
Arsenic	5.5	0.0025	0.25	mg/kg	1	9121019	12/10/19	12/10/19	6020 ICP-MS	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:27

ABCD8C-0 T193979-31(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Organochlorine Pesticides by EPA M	Method 8081A									
alpha-BHC	ND	0.56	5.0	ug/kg	1	9111517	11/15/19	11/18/19	EPA 8081A	
gamma-BHC (Lindane)	ND	0.96	5.0	"	"	**	**	**	"	
beta-BHC	ND	1.4	5.0	"	"	"	"	"	"	
delta-BHC	ND	0.64	5.0	"	n	"	"	"	"	
Heptachlor	ND	0.59	5.0	"	"	"	"	**	"	
Aldrin	ND	0.66	5.0	**	"	"	"	**	"	
Heptachlor epoxide	ND	0.98	5.0	11	"	"	"	**	**	
gamma-Chlordane	ND	0.93	5.0	11	"	"	"	**	**	
alpha-Chlordane	ND	0.83	5.0	11	"	"	"	**	**	
Endosulfan I	ND	0.81	5.0	11	"	"	"	**	**	
4,4′-DDE	4.8	0.78	5.0	**	"	**	**	**	**	
Dieldrin	ND	1.1	5.0	"	"	"	"	**	"	
Endrin	ND	1.1	5.0	"	"	"	"	**	"	
4,4′-DDD	ND	1.2	5.0	"	"	"	"	**	"	
Endosulfan II	ND	1.1	5.0	"	"	"	"	**	"	
4,4′-DDT	ND	0.80	5.0	**	"	"	"	**	"	
Endrin aldehyde	ND	1.7	5.0	**	"	"	"	**	"	
Endosulfan sulfate	ND	0.61	5.0	11	"	"	"	**	**	
Methoxychlor	ND	0.40	5.0	11	"	"	"	**	**	
Endrin ketone	ND	1.3	5.0	11	n	"	"	**	"	
Toxaphene	ND	5.8	20	11	n	"	**	**	"	
Chlordane (tech)	ND	5.0	50	**	n	"	**	**	**	
Chlordane (Total)	ND		5.0	**	n	"	"	Ħ	**	
Surrogate: Tetrachloro-meta-xylene			45.3 %	35-	140	"	"	"	"	
Surrogate: Decachlorobiphenyl			84.8 %	35	140	"	"	"	"	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:27

Metals by EPA 6010B - Quality Control SunStar Laboratories, Inc.

Analysia	Damlt	MDI	Reporting	I Inite	Spike	Source	9/ DEC	%REC	DDD	RPD	Notes
Analyte	Result	MDL	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 9111532 - EPA 3050B											
Blank (9111532-BLK1)					Prepared:	11/15/19 A	nalyzed: 11	/18/19			
Arsenic	ND	0.800	5.00	mg/kg							
Lead	ND	0.967	3.00	17							
LCS (9111532-BS1)					Prepared:	11/15/19 A	nalyzed: 11	/18/19			
Arsenic	97.4	0.800	5.00	mg/kg	100		97.4	75-125			
Lead	99.5	0.967	3.00	**	100		99.5	75-125			
Matrix Spike (9111532-MS1)		Source:	T193974-24		Prepared:	11/15/19 A	nalyzed: 11	/18/19			
Arsenic	73.0	0.800	5.00	mg/kg	99.0		73.7	75-125			QM-05
Lead	76.9	0.967	3.00	**	99.0		77.7	75-125			QM-05
Matrix Spike Dup (9111532-MSD1)		Source:	Т193974-24		Prepared:	11/15/19 A	nalyzed: 11	/18/19			
Arsenic	66.9	0.800	5.00	mg/kg	93.5		71.6	75-125	8.64	20	QM-05
Lead	68.9	0.967	3.00	**	93.5		73.8	75-125	11.0	20	QM-05
Batch 9112523 - EPA 3050B											
Blank (9112523-BLK1)					Prepared:	11/25/19 A	nalyzed: 11	/26/19			
Arsenic	2.89	0.800	5.00	mg/kg							J
Lead	ND	0.967	3.00	**							
LCS (9112523-BS1)					Prepared:	11/25/19 A	nalyzed: 11	/26/19			
Arsenic	95.8	0.800	5.00	mg/kg	100		95.8	75-125			
Lead	95.7	0.967	3.00	**	100		95.7	75-125			
Matrix Spike (9112523-MS1)		Source:	T193979-23		Prepared:	11/25/19 A	nalyzed: 11	/26/19			
Arsenic	61.3	0.800	5.00	mg/kg	93.5	ND	65.6	75-125			QM-05
Lead	59.0	0.967	3.00	17	93.5	5.75	57.0	75-125			QM-05

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:27

Metals by EPA 6010B - Quality Control

SunStar Laboratories, Inc.

			Reporting		Spike	Source		%REC		RPD	
Analyte	Result	MDL	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 9112523 - EPA 3050B

Matrix Spike Dup (9112523-MSD1)		Source: T	193979-23		Prepared: 1	1/25/19 Aı	nalyzed: 11	/26/19			
Arsenic	70.4	0.800	5.00	mg/kg	100	ND	70.4	75-125	13.7	20	QM-05
Lead	68.6	0.967	3.00	17	100	5.75	62.8	75-125	14.9	20	QM-05

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:27

Metals by EPA 6020 Method - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9121019 - EPA 3050B											
Blank (9121019-BLK1)					Prepared &	Analyzed:	12/10/19			-	
Arsenic	ND	0.0025	0.25	mg/kg							
Thallium	ND	0.099	0.25	"							
LCS (9121019-BS1)					Prepared &	Analyzed:	12/10/19				
Arsenic	25.9	0.0025	0.25	mg/kg	25.0		104	80-120			
Matrix Spike (9121019-MS1)		Source:	Г193941-46		Prepared &	Analyzed:	12/10/19				
Arsenic	30.7	0.0025	0.25	mg/kg	24.8	5.81	101	75-125			
Matrix Spike Dup (9121019-MSD1)		Source:	Г193941-46		Prepared &	: Analyzed:	12/10/19				
Arsenic	29.1	0.0025	0.25	mg/kg	24.8	5.81	94.1	75-125	5.46	20	

SunStar Laboratories, Inc.



Batch 9111517 - EPA 3550 ECD/GCMS

25712 Commercentre Drive Lake Forest, California 92630 949.297.5020 Phone 949.297.5027 Fax

NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:27

Organochlorine Pesticides by EPA Method 8081A - Quality Control

SunStar Laboratories, Inc.

			Reporting		Spike	Source		%REC		RPD	
Analyte	Result	MDL	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Blank (9111517-BLK1)			Prepared: 11/15/19 Analyzed: 11/18/19								
Surrogate: Tetrachloro-meta-xylene	9.16			ug/kg	10.1	90.6	35-140				
Surrogate: Decachlorobiphenyl	14.3			"	10.1	141	35-140	S-GC			
alpha-BHC	ND	0.56	5.0	**							
gamma-BHC (Lindane)	ND	0.96	5.0	"							
beta-BHC	ND	1.4	5.0	n							
delta-BHC	ND	0.64	5.0	n							
Heptachlor	ND	0.59	5.0	"							
Aldrin	ND	0.66	5.0	"							
Heptachlor epoxide	ND	0.98	5.0	"							
gamma-Chlordane	ND	0.93	5.0	"							
alpha-Chlordane	ND	0.83	5.0	"							
Endosulfan I	ND	0.81	5.0	**							
4,4'-DDE	ND	0.78	5.0	**							
Dieldrin	ND	1.1	5.0	**							
Endrin	ND	1.1	5.0	**							
4,4′-DDD	ND	1.2	5.0	**							
Endosulfan II	ND	1.1	5.0	"							
4,4′-DDT	ND	0.80	5.0	"							
Endrin aldehyde	ND	1.7	5.0	"							
Endosulfan sulfate	ND	0.61	5.0	**							
Methoxychlor	ND	0.40	5.0	**							
Endrin ketone	ND	1.3	5.0	u u							
Toxaphene	ND	5.8	20	u							

SunStar Laboratories, Inc.

Surrogate: Tetrachloro-meta-xylene

Chlordane (tech)

Chlordane (Total)

LCS (9111517-BS1)

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

35-140

99.2

Prepared: 11/15/19 Analyzed: 11/19/19

ND

ND

10.0

5.0

50

5.0

ug/kg



Analyte

25712 Commercentre Drive Lake Forest, California 92630 949.297.5020 Phone 949.297.5027 Fax

RPD

Limit

Notes

%REC

Limits

RPD

NV5 Project: Hamilton Union High School

MDL

Result

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:27

Reporting

Limit

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Units

SunStar Laboratories, Inc.

Spike

Level

Source

Result

%REC

Batch 9111517 - EPA 3550 ECD/G	CMS									
LCS (9111517-BS1)					Prepared: 11/15/	19 Analyzed: 11	/19/19			
Surrogate: Decachlorobiphenyl	11.0		1	ug/kg	10.1	109	35-140			
gamma-BHC (Lindane)	43.0	0.96	5.0	17	40.4	106	40-120			
Heptachlor	43.2	0.59	5.0	**	40.4	107	40-120			
Aldrin	39.1	0.66	5.0	**	40.4	96.8	40-120			
Dieldrin	43.4	1.1	5.0	**	40.4	108	40-120			
Endrin	43.8	1.1	5.0	"	40.4	109	40-120			
4,4′-DDT	41.7	0.80	5.0	**	40.4	103	33-147			
LCS Dup (9111517-BSD1)				-	Prepared: 11/15/	19 Analyzed: 11	/19/19			
Surrogate: Tetrachloro-meta-xylene	8.92		1	ug/kg	10.1	88.4	35-140			
Surrogate: Decachlorobiphenyl	12.1			"	10.1	120	35-140			
gamma-BHC (Lindane)	41.5	0.96	5.0	Ħ	40.4	103	40-120	3.54	30	
Heptachlor	42.8	0.59	5.0	**	40.4	106	40-120	0.838	30	
Aldrin	40.0	0.66	5.0	"	40.4	98.9	40-120	2.19	30	
Dieldrin	46.2	1.1	5.0	n	40.4	114	40-120	6.26	30	
Endrin	46.6	1.1	5.0	"	40.4	115	40-120	6.06	30	
4,4′-DDT	45.5	0.80	5.0	**	40.4	113	33-147	8.74	30	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:27

Notes and Definitions

S-GC Surrogate recovery outside of established control limits. The data was accepted based on valid recovery of the remaining surrogate(s).

QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS was within

acceptance criteria. The data is acceptable as no negative impact on data is expected.

J Detected but below the Standard Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the Method Detection Limit (MDL)

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

SunStar Laboratories, Inc.

Chain of Custody Record

Page 1 of 40

B6D-0 B5D-0-CL Relinquished by: (signature) Relinquished by: (signature) D5D-0 B5D-0 A5D-0 Relinquished by: (signature) C5D-0-CL ABCD6C-0 D5D-0-CL C5D-0 <u> A5D-0-CL</u> Project Manager: Phone: Address: Client Sample ID 530-894-2487 48 Bellarmine Court, Ste 40, Chico, CA 95928 **N**55 4 Heidi Cummings, heidi.cummings@NV5.com 11.15 19 Date Sampled 11/12/2019 11/12/2019 11/12/2019 11/12/2019 11/12/2019 11/12/2019 11/12/2019 11/12/2019 1/12/2019 1/12/2019 11/12/2019 1/12/2019 1/12/2019 11/14/19 Date / Time Date / Time Date / Time 8:34 1475 1410 1220 1355 4245 1230 9770 520 Time 330 22° 2 300 8 Received by: (signature) 530-894-2437 Received by: (signature) Received by: (signature) Sample Type SOIL SOIL SOIL SOIL SOIL SOIL SOL SOIL SOIL SOIL SOIL SOIL SOIL 650 8 oz jar Container 11.15.19 Arsenic EPA 6010 11/14/19 ead EPA 6010 Date / Time Date / Time Date / Time 8:34 OCPs EPA 8081 Batch #: Collector: HJC/CWB Project Name: Hamilton Union High School 1600 Lab to prepare ABCD5C-0 as 4:1 composite of A5D-0, B5D-0, C5D-0 and D5D-0 Lab to prepare ABCD5C-0-CL as 4:1 composite of A5D-0-CL, B5D-0-CL, C5D-0-CL and D5D-0-10 Lab to prepare ABCD5C-0 as 4:1 composite of A5D-0, B5D-0, C5D-0 and D5D-0 Total # of containers
Chain of Custody seals �/N/NA
Seals intact? �/N/NA Turn around time: Received good condition/cold 1/14/2019 Client Project #: 70779.01.001.003 5 day EDF#: 80 2.83 38 202 ۷ 20 12 20 204 0 ũ Laboratory ID # Comments/Preservative Method 8081 report Chlordane and Technical Chlordane Please return H&K/NV5 ice chests

Total # of containers

Return to client

Pickup

Notes

Sample disposal Instructions:

Disposal @ \$2.00 each

Lake Forest, CA 92630 25712 Commercentre Dr SunStar Laboratories 949-297-5020

Client

48 Bellarmine Court, Ste 40, Chico, CA 95928

Chain of Custody Record

Page 1 of 10

Project Name: Hamilton Union High School

11/14/2019

D6D-0 ABCD6C-0 0-09 0-09 0-09 A6D-0 CSD-0 B5D-0 0-030 Phone: Relinquished by: (signature) Relinquished by: (signature) Relinquished by: (signature) CSD-0-CL B5D-0-01 A50-0-CL Project Manager: D5D-0-C1 A5D-0 Sample ID 530-894-2487 Heidi Cummings, heidi.cummings@NV5.com 1115-19 8:39 Date / Time Date Sampled 11/12/2019 11/12/2019 11/12/2019 11/12/2019 11/12/2019 11/12/2019 11/12/2019 11/12/2019 11/12/2019 1/12/2019 1/12/2019 1/12/2019 61/4/11 1/12/2019 Date / Time Date / Time Tax: 1355 S 4. C. M. 1777 1410 1220 220 230 Time (~) (~) 0 8 50 530-894-2437 Recoved by: (signature) Received by: (signature) Received by: (signature) SOIL 000 8 oz jar 9 oz jar 8 oz jar 8 oz jar Container Type 11.15-19 Arsenic EPA 6010 1411111 Lead EPA 6010 Date / Time Date / Time Date / Time OCPs EPA 8081 Collector: HJC/CWB Batch #: 1600 Lab to prepare ABCD#C-0 as 4:1 composite of ASD-0, B\$D-0, C\$D-0 and D\$D-0 Lab to prepare ABCD5C-0-CL as 4:1 composite of A5D-0-CL, B5D-0-CL, C5D-0-CL and D5D-0-Lab to prepare ABCD5C-0 as 4:1 composite of ASD-0, B5D-0, C5D-0 and D5D-0 Total # of containers
Chain of Custody spale WINA
Seals intact? YTNNA Turn around time: Received good condition/cold Client Project #: 70779.01.001.003 5 day 282 80 06 20 83 84 8 .aboratory ID # Comments/Preservative Method 8081 report Chlordane and Technical Chlordane Please return H&K/NV5 ice chests St. A. Notes Total # of containers

700

9

Return to client

Sample disposal Instructions: Disposal @ \$2.00 each

Plckup

Page 2 of 36

B7D-0-FR A7D-<u>0-FR</u> A7D-<u>0-CL</u> C7D-0 Sample disposal Instructions: Disposal @ \$2.00 each Relinquished by: (signature) Relinguished by: (signature) Relinquished by; (signature) D7D-0-FR C7D-<u>0-FR</u> A7D-0 Project Manager: Phone: <u>0</u>-07 Address: Client: Sample ID 48 Bellarmine Court, Ste 40, Chico, CA 95928 530-894-2487 650 Heidi Cummings, heidi.cummings@NV5.com 11.15.19 Date Sampled 11/12/2019 11/12/2019 1/12/2019 1//12/2019 1/12/2019 1/12/2019 1/12/2019 1/12/2019 1/12/2019 11/14/16 Date / Time Date / Time Date / Time 15:8 1530 600 1506 Jas. 127 Received by: (signature) Received by: (signature) Received by: (signature) 530-894-2437 Sample Type SOIL SOIL SOIL SOL SOIL SOIL SOIL Ö Return to client 8 oz jar Container 8 oz jar 8 oz jar Type 11.15.14 Arsenic EPA 6010 14/16 1600 ead EPA 6010 Date / Time Date / Time Date / Time 8:34 Pickup OCPs EPA 8081 Date: Batch #: Collector: HJC/CWB Project Name: Hamilton Union High School Lab to prepare ABCD7C-0-as 4:1 composite of A7D-0, B7D-0, C7D-0 and D7D-0 25
Lab to prepare ABCD7C-0-FR as 4:1 composite of A7D-0-FR, B7D-0-FR, C7D-0-FR and D7D-0 25 Total # of containers
Chain of Custody seals WillINA
Seals intact? WINNA Turn around time: Received good condition/cold 11/14/2019 Client Project #: 70779.01.001.003 5 day EDF#: 24 22 8 1/2 I ā ₽ Laboratory ID # Comments/Preservative Method 8081 report Chlordane and Technical Chlordane Please return H&K/NV5 ice chests Notes Total # of

1 () () ()

SunStar Laboratories 25712 Commercentre Dr Lake Forest, CA 92630 949-297-5020

Chain of Custody Record

1193979

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A8D-0 C8D-0 Client: Relinquished by: (signature) D8D-0 Address: Sample disposal Instructions: Disposal @ \$2.00 each Relinguished by: (signature) Relinquished by; (signature) Project Manager: Phone: Sample ID S N 530-894-2487 48 Bellarmine Court, Ste 40, Chico, CA 95928 Heidi Cummings, heidi.cummings@NV5.com 11-15-19 8:34 Date / Time Date Sampled 11/12/2019 11/12/2019 1/12/2019 1/12/2019 11/14/16 Date / Time Date / Time 1600 1545 1555 1605 Time 530-894-2437 Received by: (signature) Received by: (signature) Sample Type Received by: (signature) SOIL SOIL SOIL SOIL Return to client 8 oz jar 8 oz jar 8 oz jar 8 oz jar Container Type Arsenic EPA 6010 11/14/16 ead EPA 6010 Date / Time Date / Time Date / Time Pickup OCPs EPA 8081 8:34 Date: Batch #: Collector: Project Name: Hamilton Union High School 1600 ab to prepare ABCD8C-0 as 4:1 composite of A8D-0, B8D-0, C8D-0 and D8D-0 Total # of containers
Chain of Custody seals WNNA
Seals intact! WNNA HJC/CWB Turn around time: Received good condition/cold 11/14/2019 Client Project #: 70779.01.001.003 5 day EDF#: 8 282 .aboratory ID# Comments/Preservative Method 8081 report Chlordane and Technical Chlordane Please return H&K/NV5 ice chests Notes Total # of containers

<u>w</u>



SAMPLE RECEIVING REVIEW SHEET

Batch/Work Order #:	7/93979		•		A section of the sect	
Client Name:	NV5		Project:	H	AMILTON UNION	w High School
Delivered by:	Client	SunStar Courier	⊠GSO	☐ FedEx	Other	
If Courier, Received by			Date/Time Co Received:	ourier 		
Lab Received by:	San	υγ	Date/Time La Received:		11-15-19 / 8	:34
Total number of coolers r	eceived: t	Thermometer ID): <u>sc-1</u>	C	Calibration due	: 6/27/20
Temperature: Cooler #1	1.6 °C+/-	the CF (+ 1.2°C)	= 2.8	°C correct	ted temperature	
Temperature: Cooler #2	°C +/-	the CF (+ 1.2°C)	· 	°C correct	ted temperature	
Temperature: Cooler #3	°C +/-	the CF (+ 1.2°C)	· = :	°C correct	ted temperature	
Temperature criteria = : (no frozen containers)	≤6°C	Within cr	iteria?	⊠ Yes	□No	
If NO: Samples received If on ice, samples collected?	•	□Yes →	Acceptable	\square No \rightarrow	e Non-Conforn e Non-Conforn	
Custody seals intact on co	oler/sample			Yes	□No* □N	I/A
Sample containers intact				⊠ Yes	□No*	
Sample labels match Chair	in of Custody IDs			Yes	□No*	e de la compania del compania del compania de la compania del la compania de la compania del la compania d
Total number of container	rs received match	COC		¥Yes	□No*	
Proper containers received	d for analyses requ	uested on COC		Yes	□No*	
Proper preservative indica	ated on COC/cont	ainers for analyses	requested	□Yes	□No* ⊠N	I/A
Complete shipment receive containers, labels, volume holding times				Yes Yes	□No*	
* Complete Non-Conformar	ace Receiving Sheet	f checked Coo	oler/Sample Rev	iew - Initials	and date:	11-15-19
Comments:					· · · · · · · · · · · · · · · · · · ·	
					•	

Printed: 11/15/2019 11:55:30AM



WORK ORDER

T193979

Client: NV5 Project Manager: Jeff Lee

Project: Hamilton Union High School Project Number: 70779.01.001.003

Report To:

NV5

Heidi Cummings

48 Bellarmine Ct, Suite 40

Chico, CA 95928

Date Due: 11/22/19 17:00 (5 day TAT)

Received By: Sunny Lounethone
Logged In By: Sunny Lounethone

Date Received: 11/15/19 08:34 Date Logged In: 11/15/19 11:17

Samples Received at: 2.8°C

Custody Seals Yes Received On Ice Yes

COC/Labels Agree Yes
Preservation Confir No

Analysis Due TAT Expires Comments

T193979-01 A5D-0 [Soil] Sampled 11/12/19 12:20 (GMT-08:00) Pacific Time (US &

[NO ANALYSES]

T193979-02 A5D-0-CL [Soil] Sampled 11/12/19 12:30 (GMT-08:00) Pacific Time

(US &

[NO ANALYSES]

T193979-03 B5D-0 [Soil] Sampled 11/12/19 12:45 (GMT-08:00) Pacific Time (US

[NO ANALYSES]

T193979-04 B5D-0-CL [Soil] Sampled 11/12/19 12:50 (GMT-08:00) Pacific Time

(US &

[NO ANALYSES]

T193979-05 C5D-0 [Soil] Sampled 11/12/19 13:00 (GMT-08:00) Pacific Time (US

æ

6010 Individual Metals 11/22/19 15:00 5 05/10/20 13:00 As and Pb only

T193979-06 C5D-0-CL [Soil] Sampled 11/12/19 13:10 (GMT-08:00) Pacific Time

(US &

[NO ANALYSES]

T193979-07 D5D-0 [Soil] Sampled 11/12/19 13:25 (GMT-08:00) Pacific Time (US

&

[NO ANALYSES]

Printed: 11/15/2019 11:55:30AM



6010 Individual Metals

11/22/19 15:00

WORK ORDER

T193979

Client: NV5 Project Manager: Jeff Lee

Project: Hamilton Union High School Project Number: 70779.01.001.003 **Analysis TAT Expires Comments** Due T193979-08 D5D-0-CL [Soil] Sampled 11/12/19 13:30 (GMT-08:00) Pacific Time (US & [NO ANALYSES] T193979-09 ABCD5C-0 [Soil] Sampled 11/12/19 00:00 (GMT-08:00) Pacific **COMPOSITE 4:1 (A5D-0, B5D-0, C5D-0, D5D-0)** Time (US & 8081 Pesticides 11/22/19 15:00 5 11/26/19 00:00 Chlorodane and Technical Chlorodane T193979-10 ABCD5C-0-CL [Soil] Sampled 11/12/19 00:00 (GMT-08:00) Pacific COMPOSITE 4:1 (A5D-0-CL, B5D-0-CL, C5D-0-CL, D5D-0-CL) Time (US & 8081 Pesticides 11/22/19 15:00 11/26/19 00:00 Chlorodane and Technical Chlorodane T193979-11 A6D-0 [Soil] Sampled 11/12/19 13:55 (GMT-08:00) Pacific Time (US [NO ANALYSES] T193979-12 B6D-0 [Soil] Sampled 11/12/19 14:10 (GMT-08:00) Pacific Time (US [NO ANALYSES] T193979-13 C6D-0 [Soil] Sampled 11/12/19 14:20 (GMT-08:00) Pacific Time (US [NO ANALYSES] T193979-14 D6D-0 [Soil] Sampled 11/12/19 14:35 (GMT-08:00) Pacific Time (US [NO ANALYSES] T193979-15 ABCD6C-0 [Soil] Sampled 11/12/19 00:00 (GMT-08:00) Pacific **COMPOSITE 4:1 (A6D-0, B6D-0, C6D-0, D6D-0)** Time (US & 8081 Pesticides Chlorodane and Technical Chlorodane 11/22/19 15:00 11/26/19 00:00 T193979-16 A7D-0 [Soil] Sampled 11/12/19 14:45 (GMT-08:00) Pacific Time (US 6010 Individual Metals 11/22/19 15:00 05/10/20 14:45 As and Pb only 5 T193979-17 A7D-0-FR [Soil] Sampled 11/12/19 14:46 (GMT-08:00) Pacific Time (US & [NO ANALYSES] T193979-18 A7D-0-CL [Soil] Sampled 11/12/19 14:55 (GMT-08:00) Pacific Time (US &

05/10/20 14:55

As and Pb only

Printed: 11/15/2019 11:55:30AM



WORK ORDER

T193979

Client: NV5 **Project Manager: Jeff Lee**

Project: Hamilton Union High School Project Number: 70779.01.001.003

Analysis TAT Expires Comments Due

T193979-19 B7D-0 [Soil] Sampled 11/12/19 15:05 (GMT-08:00) Pacific Time (US

[NO ANALYSES]

T193979-20 B7D-0-FR [Soil] Sampled 11/12/19 15:06 (GMT-08:00) Pacific Time

(US &

[NO ANALYSES]

T193979-21 C7D-0 [Soil] Sampled 11/12/19 15:15 (GMT-08:00) Pacific Time (US

[NO ANALYSES]

T193979-22 C7D-0-FR [Soil] Sampled 11/12/19 15:16 (GMT-08:00) Pacific Time

(US &

[NO ANALYSES]

T193979-23 D7D-0 [Soil] Sampled 11/12/19 15:30 (GMT-08:00) Pacific Time (US

[NO ANALYSES]

T193979-24 D7D-0-FR [Soil] Sampled 11/12/19 15:31 (GMT-08:00) Pacific Time

(US &

6010 Individual Metals 11/22/19 15:00 05/10/20 15:31 5 As and Pb only

T193979-25 ABCD7C-0 [Soil] Sampled 11/12/19 00:00 (GMT-08:00) Pacific COMPOSITE 4:1 (A7D-0, B7D-0, C7D-0, D7D-0)

Time (US &

8081 Pesticides 11/22/19 15:00 11/26/19 00:00 5 Chlorodane and Technical Chlorodane

T193979-26 ABCD7C-0-FR [Soil] Sampled 11/12/19 00:00 (GMT-08:00) Pacific COMPOSITE 4:1 (A7D-0-FR, B7D-0-FR, C7D-0-FR, D7D-0-FR)

Time (US &

8081 Pesticides Chlorodane and Technical Chlorodane 11/22/19 15:00 11/26/19 00:00

T193979-27 A8D-0 [Soil] Sampled 11/12/19 15:45 (GMT-08:00) Pacific Time (US

[NO ANALYSES]

T193979-28 B8D-0 [Soil] Sampled 11/12/19 15:55 (GMT-08:00) Pacific Time (US

[NO ANALYSES]

T193979-29 C8D-0 [Soil] Sampled 11/12/19 16:05 (GMT-08:00) Pacific Time (US

&

6010 Individual Metals 11/22/19 15:00 05/10/20 16:05 As and Pb only





WORK ORDER

T193979

Client: NV5 Project Manager: Jeff Lee

Project: Hamilton Union High School Project Number: 70779.01.001.003

Analysis Due TAT Expires Comments

T193979-30 D8D-0 [Soil] Sampled 11/12/19 16:15 (GMT-08:00) Pacific Time (US

&

[NO ANALYSES]

T193979-31 ABCD8C-0 [Soil] Sampled 11/12/19 00:00 (GMT-08:00) Pacific COMPOSITE 4:1 (A8D-0, B8D-0, C8D-0, D8D-0)

Time (US &

8081 Pesticides 11/22/19 15:00 5 11/26/19 00:00 Chlorodane and Technical Chlorodane

Reviewed By Date Page 4 of 4



11 December 2019

Heidi Cummings NV5 48 Bellarmine Ct, Suite 40 Chico, CA 95928

RE: Hamilton Union High School

Enclosed are the results of analyses for samples received by the laboratory on 11/15/19 08:34. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jeff Lee

Project Manager



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:32

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
E2D-0	T193981-03	Soil	11/13/19 09:25	11/15/19 08:34
EF1EF2C-0	T193981-05	Soil	11/13/19 00:00	11/15/19 08:34
F3D-0	T193981-08	Soil	11/13/19 10:00	11/15/19 08:34
F3D-0-FR	T193981-10	Soil	11/13/19 10:01	11/15/19 08:34
EF3EF4C-0	T193981-15	Soil	11/13/19 00:00	11/15/19 08:34
EF3EF4C-0-CL	T193981-16	Soil	11/13/19 00:00	11/15/19 08:34
E5D-0	T193981-17	Soil	11/13/19 11:30	11/15/19 08:34
EFGH5C-0	T193981-21	Soil	11/13/19 00:00	11/15/19 08:34
H6D-0	T193981-25	Soil	11/13/19 13:10	11/15/19 08:34
EFGH6C-0	T193981-26	Soil	11/13/19 00:00	11/15/19 08:34
EB-2	T193981-27	Water	11/13/19 15:00	11/15/19 08:34
EB-3	T193981-28	Water	11/13/19 15:00	11/15/19 08:34
F7D-0	T193981-30	Soil	11/13/19 13:30	11/15/19 08:34
EFGH7C-0	T193981-33	Soil	11/13/19 00:00	11/15/19 08:34
H8D-0	T193981-40	Soil	11/13/19 15:25	11/15/19 08:34
EFGH8C-0	T193981-42	Soil	11/13/19 00:00	11/15/19 08:34
EFGH8C-0-CL	T193981-43	Soil	11/13/19 00:00	11/15/19 08:34

This report has been revised to report Arsenic under EPA 6020 instead of EPA 6010 to provide the lowest MDL value possible. JL 12/11/19

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:32

DETECTIONS SUMMARY

Result	Sample ID:	E2D-0	Labor	atory ID:	T193981-03		
Lead 4.92 3.00 mg/kg EPA 6010b 6020 ICP-MS 1.00				Reporting			
Arsenic A.9 0.25 mg/kg 6020 ICP-MS	Analyte		Result	Limit	Units	Method	Notes
Sample ID: EF1EF2C-0 Laboratory ID: T193981-05	Lead		4.92	3.00	mg/kg	EPA 6010b	
Result Limit Units Method Notes	Arsenic		4.9	0.25	mg/kg	6020 ICP-MS	
Analyte 4,4'-DDE Result 9,0 Limit 1000 1000 1000 1000 1000 1000 1000 10	Sample ID:	EF1EF2C-0	Labor	atory ID:	T193981-05		
Sample ID: F3D-0 Laboratory ID: T193981-08 FA 8081A Notes Analyte Lead Arsenic 5.46 3.00 mg/kg EPA 6010b Notes Arsenic 5.5 0.23 mg/kg 6020 ICP-MS Sample ID: F3D-0-FR Laboratory ID: T193981-10 T193981-10 Analyte Lead Analyte Lead Arsenic 5.42 2.73 mg/kg EPA 6010b Notes Arsenic 5.42 2.73 mg/kg EPA 6010b Notes Sample ID: EF3EF4C-0 Laboratory ID: T193981-15 T193981-15 T193981-15				Reporting			
Sample ID: F3D-0 Laboraty ID: T193981-08 T193981-08 Reporting Reporting Result Limit Units Method Notes Notes Analyte Lead 5.46 3.00 mg/kg EPA 6010b Per PA 6010b	Analyte		Result	Limit	Units	Method	Notes
Reporting Result Limit Units Method Notes	4,4′-DDE		9.0	5.0	ug/kg	EPA 8081A	
Analyte Result Limit Units Method Notes Lead 5.46 3.00 mg/kg EPA 6010b FA 6010b FA 6020 ICP-MS	Sample ID:	F3D-0	Labor	atory ID:	T193981-08		
Analyte Result Limit Units Method Notes Lead 5.46 3.00 mg/kg EPA 6010b FA 6010b FA 6020 ICP-MS				Reporting			
Arsenic 5.5 0.23 mg/kg 6020 ICP-MS Sample ID: F3D-0-FR Laboratory ID: T193981-10 Reporting Analyte Result Limit Units Method Notes Lead 5.42 2.73 mg/kg EPA 6010b Arsenic 5.4 0.23 mg/kg 6020 ICP-MS Sample ID: EF3EF4C-0 Laboratory ID: T193981-15 Reporting Result Limit Units Method Notes	Analyte		Result		Units	Method	Notes
Sample ID: F3D-0-FR Laboratory ID: T193981-10 Reporting Analyte Result Limit Units Method Notes Lead 5.42 2.73 mg/kg EPA 6010b Arsenic 5.4 0.23 mg/kg 6020 ICP-MS Sample ID: EF3EF4C-0 Laboratory ID: T193981-15 T193981-15 Analyte Result Limit Units Method Notes	Lead		5.46	3.00	mg/kg	EPA 6010b	
Reporting Result Limit Units Method Notes	Arsenic		5.5	0.23	mg/kg	6020 ICP-MS	
Analyte Result Limit Units Method Notes Lead 5.42 2.73 mg/kg EPA 6010b Arsenic 5.4 0.23 mg/kg 6020 ICP-MS Sample ID: EF3EF4C-0 Laboratory ID: T193981-15 Reporting Analyte Result Limit Units Method Notes	Sample ID:	F3D-0-FR	Labor	atory ID:	T193981-10		
Analyte Result Limit Units Method Notes Lead 5.42 2.73 mg/kg EPA 6010b Arsenic 5.4 0.23 mg/kg 6020 ICP-MS Sample ID: EF3EF4C-0 Laboratory ID: T193981-15 Reporting Analyte Result Limit Units Method Notes				Reporting			
Sample ID: EF3EF4C-0 Laboratory ID: T193981-15 T193	Analyte		Result		Units	Method	Notes
Sample ID: EF3EF4C-0 Laboratory ID: T193981-15 Reporting Analyte Result Limit Units Method Notes	Lead		5.42	2.73	mg/kg	EPA 6010b	
Reporting Analyte Result Limit Units Method Notes	Arsenic		5.4	0.23	mg/kg	6020 ICP-MS	
Analyte Result Limit Units Method Notes	Sample ID:	EF3EF4C-0	Labor	atory ID:	T193981-15		
Analyte Result Limit Units Method Notes				Reporting			
4,4'-DDE 8.2 5.0 ug/kg EPA 8081A	Analyte		Result		Units	Method	Notes
	4,4′-DDE		8.2	5.0	ug/kg	EPA 8081A	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:32

Sample ID:	EF3EF4C-0-CL	Laborat	Laboratory ID:			
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
4,4′-DDE		11	5.0	ug/kg	EPA 8081A	
Sample ID:	E5D-0	Labora	tory ID:	T193981-17		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		5.67	3.00	mg/kg	EPA 6010b	
Arsenic		6.0	0.25	mg/kg	6020 ICP-MS	
Sample ID:	EFGH5C-0	Labora	tory ID:	T193981-21		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
4,4′-DDE		7.7	5.0	ug/kg	EPA 8081A	
Sample ID:	H6D-0	Labora	tory ID:	T193981-25		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		5.90	3.00	mg/kg	EPA 6010b	
Arsenic		5.6	0.25	mg/kg	6020 ICP-MS	
Sample ID:	EFGH6C-0	Labora	tory ID:	T193981-26		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
4,4′-DDE		8.5	5.0	ug/kg	EPA 8081A	
Sample ID:	EB-2	Laborat	tory ID:	T193981-27		
Sample ID:	EB-2	Laborat	tory ID:	T193981-27		
Sample ID: Analyte	EB-2	Labora Result	-	T193981-27 Units	Method	Notes

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:32

Sample ID: EB-3 Laboratory ID: T193981-28

No Results Detected

Sample ID:	F7D-0	Labora	tory ID:	T193981-30		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		5.17	3.00	mg/kg	EPA 6010b	
Arsenic		4.7	0.25	mg/kg	6020 ICP-MS	
Sample ID:	EFGH7C-0	Labora	itory ID:	T193981-33		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
4,4′-DDE		8.3	5.0	ug/kg	EPA 8081A	
Sample ID:	H8D-0	Labora	ntory ID:	T193981-40		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		5.84	3.00	mg/kg	EPA 6010b	
Arsenic		5.8	0.25	mg/kg	6020 ICP-MS	
Sample ID:	EFGH8C-0	Labora	itory ID:	T193981-42		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
4,4′-DDE		6.6	5.0	ug/kg	EPA 8081A	
Sample ID:	EFGH8C-0-CL	Labora	itory ID:	T193981-43		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
4,4'-DDE		5.3	5.0	ug/kg	EPA 8081A	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:32

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:32

E2D-0 T193981-03(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Metals by EPA 6010B										
Lead	4.92	0.967	3.00	mg/kg	1	9111532	11/15/19	11/18/19	EPA 6010b	
Metals by EPA 6020 Method										
Arsenic	4.9	0.0025	0.25	mg/kg	1	9121019	12/10/19	12/10/19	6020 ICP-MS	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:32

EF1EF2C-0 T193981-05(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Organochlorine Pesticides by EPA	Method 8081A									
alpha-BHC	ND	0.56	5.0	ug/kg	1	9111517	11/15/19	11/18/19	EPA 8081A	
gamma-BHC (Lindane)	ND	0.96	5.0	"	n	"	"	"	"	
beta-BHC	ND	1.4	5.0	"	n	"	"	"	"	
delta-BHC	ND	0.64	5.0	"	"	"	"	"	n	
Heptachlor	ND	0.59	5.0	"	"	"	n	"	n	
Aldrin	ND	0.66	5.0	"	"	n	"	"	"	
Heptachlor epoxide	ND	0.98	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	0.93	5.0	"	"	"	"	"	11	
alpha-Chlordane	ND	0.83	5.0	"	"	"	"	"	11	
Endosulfan I	ND	0.81	5.0	11	"	"	"	"	11	
4,4′-DDE	9.0	0.78	5.0	11	n	Ħ	**	"	11	
Dieldrin	ND	1.1	5.0	"	"	"	"	"	"	
Endrin	ND	1.1	5.0	"	"	"	"	"	n	
4,4'-DDD	ND	1.2	5.0	"	"	"	"	"	n	
Endosulfan II	ND	1.1	5.0	"	"	"	"	"	11	
4,4'-DDT	ND	0.80	5.0	"	"	n	"	"	"	
Endrin aldehyde	ND	1.7	5.0	"	"	n	"	"	"	
Endosulfan sulfate	ND	0.61	5.0	"	"	"	"	"	"	
Methoxychlor	ND	0.40	5.0	"	"	"	"	"	"	
Endrin ketone	ND	1.3	5.0	**	**	"	"	"	11	
Toxaphene	ND	5.8	20	11	"	"	**	"	11	
Chlordane (tech)	ND	5.0	50	**	n	"	**	**	**	
Chlordane (Total)	ND		5.0	11	n	**	"	n	11	
Surrogate: Tetrachloro-meta-xylene			55.5 %	35	140	"	"	"	"	
Surrogate: Decachlorobiphenyl			101 %	35-	140	"	"	"	"	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:32

F3D-0 T193981-08(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Metals by EPA 6010B										
Lead	5.46	0.967	3.00	mg/kg	1	9111532	11/15/19	11/18/19	EPA 6010b	
Metals by EPA 6020 Method										
Arsenic	5.5	0.0023	0.23	mg/kg	1	9121019	12/10/19	12/10/19	6020 ICP-MS	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:32

F3D-0-FR T193981-10(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratori	es, Inc.					
Metals by EPA 6010B										
Lead	5.42	0.879	2.73	mg/kg	1	9111532	11/15/19	11/18/19	EPA 6010b	
Metals by EPA 6020 Method										
Arsenic	5.4	0.0023	0.23	mg/kg	1	9121019	12/10/19	12/10/19	6020 ICP-MS	

SunStar Laboratories, Inc.

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:32

EF3EF4C-0 T193981-15(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Organochlorine Pesticides by EPA	Method 8081A									
alpha-BHC	ND	0.56	5.0	ug/kg	1	9111517	11/15/19	11/18/19	EPA 8081A	
gamma-BHC (Lindane)	ND	0.96	5.0	"	"	"	"	"	**	
beta-BHC	ND	1.4	5.0	"	"	"	"	"	"	
delta-BHC	ND	0.64	5.0	"	"	"	"	"	"	
Heptachlor	ND	0.59	5.0	"	"	"	"	"	"	
Aldrin	ND	0.66	5.0	11	"	n	"	"	"	
Heptachlor epoxide	ND	0.98	5.0	11	"	"	"	"	"	
gamma-Chlordane	ND	0.93	5.0	11	"	"	"	"	"	
alpha-Chlordane	ND	0.83	5.0	11	"	"	"	"	"	
Endosulfan I	ND	0.81	5.0	"	n	"	17	**	"	
4,4′-DDE	8.2	0.78	5.0	"	n	**	11	**	"	
Dieldrin	ND	1.1	5.0	**	"	"	"	"	**	
Endrin	ND	1.1	5.0	**	**	"	"	"	**	
4,4′-DDD	ND	1.2	5.0	**	n	"	17	**	"	
Endosulfan II	ND	1.1	5.0	**	ıı	n	17	11	"	
4,4′-DDT	ND	0.80	5.0	**	ıı	"	17	**	"	
Endrin aldehyde	ND	1.7	5.0	"	n	"	17	**	"	
Endosulfan sulfate	ND	0.61	5.0	"	n	"	11	11	"	
Methoxychlor	ND	0.40	5.0	"	n	"	11	**	"	
Endrin ketone	ND	1.3	5.0	"	n	"	"	**	"	
Toxaphene	ND	5.8	20	"	n	"	"	**	"	
Chlordane (tech)	ND	5.0	50	"	"	"	"	**	"	
Chlordane (Total)	ND		5.0	"	n	11	Ħ	n	"	
Surrogate: Tetrachloro-meta-xylene			53.7 %	35	140	"	"	#	"	
Surrogate: Decachlorobiphenyl			96.4 %	35-	140	"	"	"	"	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:32

EF3EF4C-0-CL T193981-16(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Organochlorine Pesticides by EPA	Method 8081A									
alpha-BHC	ND	0.56	5.0	ug/kg	1	9111517	11/15/19	11/18/19	EPA 8081A	
gamma-BHC (Lindane)	ND	0.96	5.0	"	"	"	"	**	"	
beta-BHC	ND	1.4	5.0	"	"	"	"	"	"	
delta-BHC	ND	0.64	5.0	"	n	"	"	"	"	
Heptachlor	ND	0.59	5.0	"	n	"	"	"	"	
Aldrin	ND	0.66	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	0.98	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	0.93	5.0	"	"	"	"	"	**	
alpha-Chlordane	ND	0.83	5.0	"	"	"	"	"	**	
Endosulfan I	ND	0.81	5.0	**	"	"	"	"	**	
4,4′-DDE	11	0.78	5.0	**	"	"	"	"	"	
Dieldrin	ND	1.1	5.0	"	n	"	"	"	"	
Endrin	ND	1.1	5.0	"	n	"	"	"	"	
4,4′-DDD	ND	1.2	5.0	"	"	"	"	"	"	
Endosulfan II	ND	1.1	5.0	"	"	"	"	"	"	
4,4′-DDT	ND	0.80	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	1.7	5.0	**	"	"	"	"	"	
Endosulfan sulfate	ND	0.61	5.0	**	"	"	"	"	"	
Methoxychlor	ND	0.40	5.0	11	"	n	"	"	"	
Endrin ketone	ND	1.3	5.0	11	"	"	"	"	"	
Toxaphene	ND	5.8	20	**	"	"	"	**	"	
Chlordane (tech)	ND	5.0	50	**	"	"	"	"	**	
Chlordane (Total)	ND		5.0	11	n	n	"	"	Ħ	
Surrogate: Tetrachloro-meta-xylene			82.7 %	35-	140	"	"	"	"	
Surrogate: Decachlorobiphenyl			85.1 %	35	140	"	"	"	"	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:32

E5D-0

T193981-17(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Metals by EPA 6010B										
Lead	5.67	0.967	3.00	mg/kg	1	9111532	11/15/19	11/18/19	EPA 6010b	
Metals by EPA 6020 Method										
Arsenic	6.0	0.0025	0.25	mg/kg	1	9121019	12/10/19	12/10/19	6020 ICP-MS	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:32

EFGH5C-0 T193981-21(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Organochlorine Pesticides by EPA M	1ethod 8081A									
alpha-BHC	ND	0.56	5.0	ug/kg	1	9111517	11/15/19	11/18/19	EPA 8081A	
gamma-BHC (Lindane)	ND	0.96	5.0	"	"	"	**	**	**	
beta-BHC	ND	1.4	5.0	"	"	"	**	**	**	
delta-BHC	ND	0.64	5.0	"	"	"	**	**	"	
Heptachlor	ND	0.59	5.0	"	"	"	**	**	"	
Aldrin	ND	0.66	5.0	"	"	"	**	**	11	
Heptachlor epoxide	ND	0.98	5.0	"	"	"	**	**	11	
gamma-Chlordane	ND	0.93	5.0	"	"	"	**	**	11	
alpha-Chlordane	ND	0.83	5.0	"	"	"	**	**	11	
Endosulfan I	ND	0.81	5.0	"	"	"	**	**	11	
4,4′-DDE	7.7	0.78	5.0	"	n	**	**	**	**	
Dieldrin	ND	1.1	5.0	"	"	"	**	**	**	
Endrin	ND	1.1	5.0	"	"	"	**	**	**	
4,4′-DDD	ND	1.2	5.0	**	"	"	**	**	11	
Endosulfan II	ND	1.1	5.0	"	"	"	**	**	"	
4,4'-DDT	ND	0.80	5.0	"	"	"	**	**	11	
Endrin aldehyde	ND	1.7	5.0	"	"	"	**	**	11	
Endosulfan sulfate	ND	0.61	5.0	"	"	"	**	**	11	
Methoxychlor	ND	0.40	5.0	"	n	"	**	**	"	
Endrin ketone	ND	1.3	5.0	"	n	n	**	**	11	
Toxaphene	ND	5.8	20	"	n	"	**	**	11	
Chlordane (tech)	ND	5.0	50	"	n	"	**	**	11	
Chlordane (Total)	ND		5.0	"	"	"	**	**	**	
Surrogate: Tetrachloro-meta-xylene			68.6 %	35	140	"	н	"	"	
Surrogate: Decachlorobiphenyl			97.8 %	35	140	"	"	"	"	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:32

H6D-0 T193981-25(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Metals by EPA 6010B										
Lead	5.90	0.967	3.00	mg/kg	1	9111532	11/15/19	11/18/19	EPA 6010b	
Metals by EPA 6020 Method										
Arsenic	5.6	0.0025	0.25	mg/kg	1	9121019	12/10/19	12/10/19	6020 ICP-MS	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:32

EFGH6C-0 T193981-26(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Organochlorine Pesticides by EPA	Method 8081A									
alpha-BHC	ND	0.56	5.0	ug/kg	1	9111517	11/15/19	11/18/19	EPA 8081A	
gamma-BHC (Lindane)	ND	0.96	5.0	"	"	"	**	"	"	
beta-BHC	ND	1.4	5.0	"	TT TT	"	**	**	11	
delta-BHC	ND	0.64	5.0	"	Ħ	"	"	**	11	
Heptachlor	ND	0.59	5.0	"	n	"	"	"	n	
Aldrin	ND	0.66	5.0	"	n	"	"	"	n	
Heptachlor epoxide	ND	0.98	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	0.93	5.0	"	'n	"	"	"	n	
alpha-Chlordane	ND	0.83	5.0	"	"	"	**	"	**	
Endosulfan I	ND	0.81	5.0	"	"	"	**	"	**	
4,4'-DDE	8.5	0.78	5.0	**	"	**	**	"	**	
Dieldrin	ND	1.1	5.0	**	"	"	**	**	"	
Endrin	ND	1.1	5.0	"	"	"	"	"	n	
4,4'-DDD	ND	1.2	5.0	"	n	"	"	"	n	
Endosulfan II	ND	1.1	5.0	"	"	"	"	"	n	
4,4'-DDT	ND	0.80	5.0	"	n	"	"	"	n	
Endrin aldehyde	ND	1.7	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	0.61	5.0	"	"	"	**	"	"	
Methoxychlor	ND	0.40	5.0	"	"	"	**	"	"	
Endrin ketone	ND	1.3	5.0	"	"	"	**	"	"	
Toxaphene	ND	5.8	20	"	"	"	**	**	"	
Chlordane (tech)	ND	5.0	50	**	n	"	**	Ħ	11	
Chlordane (Total)	ND		5.0	"	"	"	Ħ	Ħ	"	
Surrogate: Tetrachloro-meta-xylene			65.5 %	35-	140	"	"	"	"	
Surrogate: Decachlorobiphenyl			93.1 %	35-	140	"	"	"	"	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:32

EB-2 T193981-27(Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorie	es, Inc.					
Metals by EPA 6010B										
Antimony	ND	17	50	ug/l	1	9111527	11/15/19	11/19/19	EPA 6010b	
Silver	ND	24	50	**	**	n	Ħ	**	11	
Arsenic	ND	17	50	"	**	"	"	**	11	
Barium	ND	13	50	"	**	"	"	**	"	
Beryllium	ND	18	50	"	11	"	17	11	"	
Cadmium	ND	21	50	"	**	"	11	**	"	
Chromium	ND	21	50	"	**	"	11	**	11	
Cobalt	ND	14	50	"	**	"	11	**	11	
Copper	ND	20	50	"	**	"	"	"	11	
Lead	ND	17	50	"	**	"	**	**	11	
Molybdenum	ND	14	50	"	**	n	**	**	11	
Nickel	ND	14	50	**	**	"	"	"	11	
Selenium	ND	19	50	**	**	n	**	Ħ	11	
Thallium	ND	16	50	**	**	n	"	Ħ	11	
Vanadium	ND	20	50	**	**	"	"	**	11	
Zine	ND	17	50	**	**	"	n	**	**	
Cold Vapor Extraction EPA 74	70/7471									
Mercury	0.022	0.022	0.50	ug/l	1	9111529	11/15/19	11/20/19	EPA 7470A Water	
Organochlorine Pesticides by I	EPA Method 8081A									
alpha-BHC	ND	0.04	1.00	ug/l	1	9111825	11/18/19	11/19/19	EPA 8081A	
gamma-BHC (Lindane)	ND	0.03	1.00	"	**	"	"	"	"	
beta-BHC	ND	0.05	1.00	"	**	"	"	"	"	
delta-BHC	ND	0.02	1.00	"	"	"	"	"	"	
Heptachlor	ND	0.04	1.00	n	"	"	"	"	"	
Aldrin	ND	0.02	1.00	"	"	"	"	"	"	
Heptachlor epoxide	ND	0.04	1.00	"	"	"	"	"	"	
gamma-Chlordane	ND	0.05	1.00	"	**	n	"	**	11	
alpha-Chlordane	ND	0.03	1.00	"	**	n	"	Ħ	11	
Endosulfan I	ND	0.02	1.00	**	**	n	**	n	11	
4,4'-DDE	ND	0.04	1.00	**	**	n	Ħ	n	11	
Dieldrin	ND	0.03	1.00	**	**	**	"	"	**	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:32

EB-2 T193981-27(Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorie	es, Inc.					
Organochlorine Pesticides by EPA	Method 8081A									
Endrin	ND	0.04	1.00	ug/l	1	9111825	11/18/19	11/19/19	EPA 8081A	
4,4'-DDD	ND	0.03	1.00	"	**	"	**	**	"	
Endosulfan II	ND	0.04	1.00	"	**	"	**	**	**	
4,4'-DDT	ND	0.06	1.00	"	**	"	**	"	11	
Endrin aldehyde	ND	0.02	1.00	"	**	"	**	"	11	
Endosulfan sulfate	ND	0.05	1.00	"	"	n	11	"	**	
Methoxychlor	ND	0.03	1.00	"	"	"	**	"	11	
Endrin ketone	ND	0.05	1.00	"	n	"	**	11	"	
Chlordane (tech)	ND	1.00	10.0	"	n	"	**	**	"	
Toxaphene	ND	5.79	20.0	"	Ħ	n	"	Ħ	11	
Surrogate: Tetrachloro-meta-xylene	ene 78.5 % 35-140		140	"	"	"	"			
Surrogate: Decachlorobinhenvl			85.6 %	35	140	"	"	"	"	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:32

EB-3 T193981-28(Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Metals by EPA 6010B										
Antimony	ND	17	50	ug/l	1	9111527	11/15/19	11/19/19	EPA 6010b	
Silver	ND	24	50	**	**	"	**	**	11	
Arsenic	ND	17	50	**	**	"	**	**	11	
Barium	ND	13	50	"	"	"	**	"	"	
Beryllium	ND	18	50	11	"	"	**	**	"	
Cadmium	ND	21	50	11	17	11	**	**	"	
Chromium	ND	21	50	11	17	11	**	**	"	
Cobalt	ND	14	50	"	17	"	**	11	11	
Copper	ND	20	50	"	"	"	**	"	11	
Lead	ND	17	50	"	"	"	**	"	11	
Molybdenum	ND	14	50	"	"	"	**	"	**	
Nickel	ND	14	50	"	"	"	**	**	"	
Selenium	ND	19	50	"	"	"	**	**	"	
Гhallium	ND	16	50	"	"	"	**	**	"	
Vanadium	ND	20	50	**	"	"	**	**	**	
Zinc	ND	17	50	"	**	"	**	**	**	
Cold Vapor Extraction EPA 74	70/7471									
Mercury	ND	0.022	0.50	ug/l	1	9111529	11/15/19	11/20/19	EPA 7470A Water	
Organochlorine Pesticides by F	EPA Method 8081A									
alpha-BHC	ND	0.04	1.00	ug/l	1	9111825	11/18/19	11/19/19	EPA 8081A	
gamma-BHC (Lindane)	ND	0.03	1.00	11	**	"	17	***	"	
oeta-BHC	ND	0.05	1.00	**	17	11	**	11	"	
lelta-BHC	ND	0.02	1.00	**	17	11	**	11	"	
Heptachlor	ND	0.04	1.00	"	17	"	**	Ħ	11	
Aldrin	ND	0.02	1.00	"	**	"	**	"	11	
Heptachlor epoxide	ND	0.04	1.00	"	"	"	"	"	"	
amma-Chlordane	ND	0.05	1.00	"	"	"	**	**	"	
alpha-Chlordane	ND	0.03	1.00	"	**	n	**	**	11	
Endosulfan I	ND	0.02	1.00	"	"	"	**	**	"	
1,4'-DDE	ND	0.04	1.00	**	"	"	**	**	**	
1,1 000										

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:32

EB-3 T193981-28(Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratories	s, Inc.					
Organochlorine Pesticides by EPA	Method 8081A									
Endrin	ND	0.04	1.00	ug/l	1	9111825	11/18/19	11/19/19	EPA 8081A	
4,4′-DDD	ND	0.03	1.00	**	"	"	**	**	"	
Endosulfan II	ND	0.04	1.00	**	"	"	**	**	"	
4,4′-DDT	ND	0.06	1.00	"	17	"	**	**	"	
Endrin aldehyde	ND	0.02	1.00	"	17	"	11	**	"	
Endosulfan sulfate	ND	0.05	1.00	"	17	n	11	11	"	
Methoxychlor	ND	0.03	1.00	"	17	"	11	11	"	
Endrin ketone	ND	0.05	1.00	"	17	"	11	**	"	
Chlordane (tech)	ND	1.00	10.0	"	17	"	11	**	"	
Toxaphene	ND	5.79	20.0	"	11	"	**	11	11	
Surrogate: Tetrachloro-meta-xylene			75.5 %	35-1-	40	"	"	"	"	
Surrogate: Decachlorobiphenyl			85.8 %	35-1-	40	"	"	"	"	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:32

F7D-0 T193981-30(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Metals by EPA 6010B										
Lead	5.17	0.967	3.00	mg/kg	1	9111532	11/15/19	11/18/19	EPA 6010b	
Metals by EPA 6020 Method										
Arsenic	4.7	0.0025	0.25	mg/kg	1	9121019	12/10/19	12/10/19	6020 ICP-MS	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:32

EFGH7C-0 T193981-33(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Organochlorine Pesticides by EPA N	Method 8081A									
alpha-BHC	ND	0.56	5.0	ug/kg	1	9111517	11/15/19	11/18/19	EPA 8081A	
gamma-BHC (Lindane)	ND	0.96	5.0	"	"	"	**	ti	**	
beta-BHC	ND	1.4	5.0	"	"	"	"	"	"	
delta-BHC	ND	0.64	5.0	"	"	"	"	"	"	
Heptachlor	ND	0.59	5.0	"	"	"	"	"	"	
Aldrin	ND	0.66	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	0.98	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	0.93	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	0.83	5.0	"	"	"	"	"	"	
Endosulfan I	ND	0.81	5.0	"	"	"	"	"	"	
4,4′-DDE	8.3	0.78	5.0	"	"	"	**	n	"	
Dieldrin	ND	1.1	5.0	"	T T	n	Ħ	Ħ	11	
Endrin	ND	1.1	5.0	"	TT TT	**	**	Ħ	11	
4,4′-DDD	ND	1.2	5.0	"	ıı	11	11	Ħ	11	
Endosulfan II	ND	1.1	5.0	"	ıı	11	11	Ħ	11	
4,4′-DDT	ND	0.80	5.0	"	n	11	11	Ħ	11	
Endrin aldehyde	ND	1.7	5.0	"	n	11	11	Ħ	11	
Endosulfan sulfate	ND	0.61	5.0	"	n	"	**	Ħ	11	
Methoxychlor	ND	0.40	5.0	"	'n	"	**	Ħ	11	
Endrin ketone	ND	1.3	5.0	"	n	11	**	**	11	
Гохарhепе	ND	5.8	20	"	"	"	**	"	"	
Chlordane (tech)	ND	5.0	50	"	"	"	**	"	"	
Chlordane (Total)	ND		5.0	**	"	"	**	"	11	
Surrogate: Tetrachloro-meta-xylene			54.5 %	35-	140	"	"	"	"	
Surrogate: Decachlorobiphenyl			81.4 %	35-	140	"	"	"	"	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:32

H8D-0 T193981-40(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratorio	es, Inc.					
Metals by EPA 6010B										
Lead	5.84	0.967	3.00	mg/kg	1	9111532	11/15/19	11/18/19	EPA 6010b	
Metals by EPA 6020 Method										
Arsenic	5.8	0.0025	0.25	mg/kg	1	9121019	12/10/19	12/10/19	6020 ICP-MS	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:32

EFGH8C-0 T193981-42(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar La	<u>aboratorie</u>	s, Inc.					
Organochlorine Pesticides by EPA M	lethod 8081A									
alpha-BHC	ND	0.56	5.0	ug/kg	1	9111517	11/15/19	11/18/19	EPA 8081A	
gamma-BHC (Lindane)	ND	0.96	5.0	"	**	"	"	"	"	
beta-BHC	ND	1.4	5.0	"	**	"	"	"	"	
delta-BHC	ND	0.64	5.0	"	**	"	"	"	"	
Heptachlor	ND	0.59	5.0	"	**	"	"	"	"	
Aldrin	ND	0.66	5.0	n	tr	"	TT TT	"	n n	
Heptachlor epoxide	ND	0.98	5.0	n	**	11	TT TT	n	"	
gamma-Chlordane	ND	0.93	5.0	n	**	11	"	n	"	
alpha-Chlordane	ND	0.83	5.0	n	**	11	**	n	"	
Endosulfan I	ND	0.81	5.0	"	**	"	**	Ħ	"	
1,4'-DDE	6.6	0.78	5.0	"	**	Ħ	**	Ħ	"	
Dieldrin	ND	1.1	5.0	"	**	"	"	"	"	
Endrin	ND	1.1	5.0	"	**	**	"	"	n	
1,4′-DDD	ND	1.2	5.0	"	***	11	"	n	"	
Endosulfan II	ND	1.1	5.0	"	17	11	"	n	"	
4,4'-DDT	ND	0.80	5.0	"	17	11	"	n	"	
Endrin aldehyde	ND	1.7	5.0	"	11	"	"	Ħ	"	
Endosulfan sulfate	ND	0.61	5.0	"	11	n	TI TI	n	"	
Methoxychlor	ND	0.40	5.0	"	**	"	"	Ħ	"	
Endrin ketone	ND	1.3	5.0	"	"	"	"	"	"	
oxaphene	ND	5.8	20	"	**	"	"	"	11	
Chlordane (tech)	ND	5.0	50	"	**	"	"	"	n	
Chlordane (Total)	ND		5.0	**	Ħ	11	Ħ	Ħ	11	
urrogate: Tetrachloro-meta-xylene			82.1 %	35-1	140	"	"	"	"	
urrogate: Decachlorobiphenyl			104 %	35-1	140	"	"	"	"	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:32

EFGH8C-0-CL T193981-43(Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
			SunStar L	aboratori	es, Inc.					
Organochlorine Pesticides by EPA M	Iethod 8081A									
alpha-BHC	ND	0.56	5.0	ug/kg	1	9111517	11/15/19	11/18/19	EPA 8081A	
gamma-BHC (Lindane)	ND	0.96	5.0	"	"	"	**	**	"	
beta-BHC	ND	1.4	5.0	"	"	"	"	**	"	
delta-BHC	ND	0.64	5.0	"	"	"	"	"	"	
Heptachlor	ND	0.59	5.0	"	"	"	"	"	"	
Aldrin	ND	0.66	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	0.98	5.0	"	"	"	**	**	"	
gamma-Chlordane	ND	0.93	5.0	"	"	"	**	**	"	
alpha-Chlordane	ND	0.83	5.0	"	"	"	**	"	"	
Endosulfan I	ND	0.81	5.0	"	"	"	**	**	"	
4,4′-DDE	5.3	0.78	5.0	"	"	**	**	**	"	
Dieldrin	ND	1.1	5.0	"	n	"	Ħ	Ħ	**	
Endrin	ND	1.1	5.0	"	"	"	"	"	"	
4,4′-DDD	ND	1.2	5.0	"	"	"	"	**	"	
Endosulfan II	ND	1.1	5.0	"	"	"	**	**	"	
4,4′-DDT	ND	0.80	5.0	"	"	"	**	**	"	
Endrin aldehyde	ND	1.7	5.0	"	"	"	**	**	"	
Endosulfan sulfate	ND	0.61	5.0	"	"	"	**	"	"	
Methoxychlor	ND	0.40	5.0	**	"	"	**	**	"	
Endrin ketone	ND	1.3	5.0	**	**	"	**	**	"	
Toxaphene	ND	5.8	20	**	**	"	**	**	"	
Chlordane (tech)	ND	5.0	50	**	"	"	**	**	**	
Chlordane (Total)	ND		5.0	**	"	"	**	Ħ	"	
Surrogate: Tetrachloro-meta-xylene			63.0 %	35-	140	"	"	"	"	
Surrogate: Decachlorobiphenyl			90.1 %	35-	140	"	"	"	"	

SunStar Laboratories, Inc.

Coffice



25712 Commercentre Drive Lake Forest, California 92630 949.297.5020 Phone 949.297.5027 Fax

RPD

%REC

Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported: Chico CA, 95928 12/11/19 09:32 Project Manager: Heidi Cummings

Reporting

Metals by EPA 6010B - Quality Control SunStar Laboratories, Inc.

Spike

Source

			Reporting		Spike	Source		/orce		KI D	
Analyte	Result	MDL	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 9111527 - EPA 3010A											
Blank (9111527-BLK1)					Prepared: 1	11/15/19 Aı	nalyzed: 11	19/19			
Antimony	ND	17	50	ug/l							
Silver	ND	24	50	"							
Arsenic	ND	17	50	"							
Barium	ND	13	50	"							
Beryllium	ND	18	50	"							
Cadmium	ND	21	50	"							
Chromium	ND	21	50	"							
Cobalt	ND	14	50	"							
Copper	ND	20	50	"							
Lead	ND	17	50	"							
Molybdenum	ND	14	50	"							
Nickel	ND	14	50	"							
Selenium	ND	19	50	"							
Thallium	ND	16	50	"							
Vanadium	ND	20	50	"							
Zinc	ND	17	50	"							
LCS (9111527-BS1)					Prepared: 1	11/15/19 Aı	nalyzed: 11	19/19			
Arsenic	525	17	50	ug/l	500		105	75-125			
Barium	538	13	50	"	500		108	75-125			
Cadmium	543	21	50	"	500		109	75-125			
Chromium	539	21	50	"	500		108	75-125			
Lead	525	17	50	**	500		105	75-125			

SunStar Laboratories, Inc.

Batch 9111532 - EPA 3050B

ND

ND

0.800

0.967

5.00

3.00

mg/kg

Blank (9111532-BLK1)

Arsenic

Lead

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Prepared: 11/15/19 Analyzed: 11/18/19



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:32

$Metals\ by\ EPA\ 6010B-Quality\ Control$

SunStar Laboratories, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9111532 - EPA 3050B											
LCS (9111532-BS1)					Prepared: 1	11/15/19 Ar	nalyzed: 11	/18/19			
Arsenic	97.4	0.800	5.00	mg/kg	100		97.4	75-125			
Lead	99.5	0.967	3.00	17	100		99.5	75-125			
Matrix Spike (9111532-MS1)		Source: T	193974-24		Prepared: 1	11/15/19 Ar	nalyzed: 11	/18/19			
Arsenic	73.0	0.800	5.00	mg/kg	99.0		73.7	75-125			QM-05
Lead	76.9	0.967	3.00	"	99.0		77.7	75-125			QM-05
Matrix Spike Dup (9111532-MSD1)		Source: T	193974-24		Prepared: 1	11/15/19 Ar	nalyzed: 11	/18/19			
Arsenic	66.9	0.800	5.00	mg/kg	93.5		71.6	75-125	8.64	20	QM-05

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:32

$Metals\ by\ EPA\ 6020\ Method\ -\ Quality\ Control$

SunStar Laboratories, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9121019 - EPA 3050B											
Blank (9121019-BLK1)					Prepared &	Analyzed:	12/10/19				
Arsenic	ND	0.0025	0.25	mg/kg							
Thallium	ND	0.099	0.25	"							
LCS (9121019-BS1)					Prepared &	: Analyzed:	12/10/19				
Arsenic	25.9	0.0025	0.25	mg/kg	25.0		104	80-120			
Matrix Spike (9121019-MS1)		Source: T	193941-46		Prepared &	Analyzed:	12/10/19				
Arsenic	30.7	0.0025	0.25	mg/kg	24.8	5.81	101	75-125			
Matrix Spike Dup (9121019-MSD1)		Source: T	193941-46		Prepared &	Analyzed:	12/10/19				
Arsenic	29.1	0.0025	0.25	mg/kg	24.8	5.81	94.1	75-125	5.46	20	

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:32

Cold Vapor Extraction EPA 7470/7471 - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9111529 - EPA 7470A Water											
Blank (9111529-BLK1)					Prepared: 1	1/15/19 Aı	nalyzed: 11	/20/19			
Mercury	ND	0.022	0.50	ug/l							
LCS (9111529-BS1)					Prepared: 1	1/15/19 Aı	nalyzed: 11	/20/19			
Mercury	4.42	0.022	0.50	ug/l	5.00		88.5	80-120			
Matrix Spike (9111529-MS1)		Source: T	193981-27		Prepared: 1	1/15/19 Aı	nalyzed: 11	/20/19			
Mercury	4.10	0.022	0.50	ug/l	5.00	ND	81.9	75-125			
Matrix Spike Dup (9111529-MSD1)		Source: T	193981-27		Prepared: 1	1/15/19 Aı	nalyzed: 11	/20/19			
Mercury	4.22	0.022	0.50	ug/l	5.00	ND	84.4	75-125	2.91	20	

SunStar Laboratories, Inc.

custody document. This analy



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:32

Organochlorine Pesticides by EPA Method 8081A - Quality Control

SunStar Laboratories, Inc.

			Reporting		Spike	Source		%REC		RPD	
Analyte	Result	MDL	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Ratch 9111517 - EPA 3550 ECD/G	CMS										

Blank (9111517-BLK1)					Prepared: 11/15/	19 Analyzed: 11	/18/19	
Surrogate: Tetrachloro-meta-xylene	9.16			ug/kg	10.1	90.6	35-140	
Surrogate: Decachlorobiphenyl	14.3			"	10.1	141	35-140	S-GO
alpha-BHC	ND	0.56	5.0	17				
gamma-BHC (Lindane)	ND	0.96	5.0	17				
beta-BHC	ND	1.4	5.0	17				
delta-BHC	ND	0.64	5.0	n				
Heptachlor	ND	0.59	5.0	n				
Aldrin	ND	0.66	5.0	"				
Heptachlor epoxide	ND	0.98	5.0	"				
gamma-Chlordane	ND	0.93	5.0	"				
alpha-Chlordane	ND	0.83	5.0	17				
Endosulfan I	ND	0.81	5.0	"				
4,4′-DDE	ND	0.78	5.0	**				
Dieldrin	ND	1.1	5.0	17				
Endrin	ND	1.1	5.0	17				
4,4′-DDD	ND	1.2	5.0	**				
Endosulfan II	ND	1.1	5.0	17				
4,4'-DDT	ND	0.80	5.0	17				
Endrin aldehyde	ND	1.7	5.0	"				
Endosulfan sulfate	ND	0.61	5.0	17				
Methoxychlor	ND	0.40	5.0	"				
Endrin ketone	ND	1.3	5.0	n				
Toxaphene	ND	5.8	20	n				
Chlordane (tech)	ND	5.0	50	n				
Chlordane (Total)	ND		5.0	"				
LCS (9111517-BS1)					Prepared: 11/15/	19 Analyzed: 11	/19/19	
Surrogate: Tetrachloro-meta-xylene	10.0			ug/kg	10.1	99.2	35-140	

SunStar Laboratories, Inc.



RPD

%REC

NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:32

Reporting

Organochlorine Pesticides by EPA Method 8081A - Quality Control

SunStar Laboratories, Inc.

Spike

Source

			Keporting		Spike	Source		70KEC		KFD	
Analyte	Result	MDL	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 9111517 - EPA 3550 ECD/G	CMS										
LCS (9111517-BS1)					Prepared:	11/15/19 Ar	nalyzed: 11	/19/19			
Surrogate: Decachlorobiphenyl	11.0			ug/kg	10.1		109	35-140			
gamma-BHC (Lindane)	43.0	0.96	5.0	n	40.4		106	40-120			
Heptachlor	43.2	0.59	5.0	"	40.4		107	40-120			
Aldrin	39.1	0.66	5.0	**	40.4		96.8	40-120			
Dieldrin	43.4	1.1	5.0	**	40.4		108	40-120			
Endrin	43.8	1.1	5.0	"	40.4		109	40-120			
4,4′-DDT	41.7	0.80	5.0	"	40.4		103	33-147			
LCS Dup (9111517-BSD1)					Prepared:	11/15/19 Ar	nalyzed: 11	/19/19			
Surrogate: Tetrachloro-meta-xylene	8.92			ug/kg	10.1		88.4	35-140			
Surrogate: Decachlorobiphenyl	12.1			"	10.1		120	35-140			
gamma-BHC (Lindane)	41.5	0.96	5.0	"	40.4		103	40-120	3.54	30	
Heptachlor	42.8	0.59	5.0	"	40.4		106	40-120	0.838	30	
Aldrin	40.0	0.66	5.0	**	40.4		98.9	40-120	2.19	30	
Dieldrin	46.2	1.1	5.0	"	40.4		114	40-120	6.26	30	
Endrin	46.6	1.1	5.0	"	40.4		115	40-120	6.06	30	
4,4′-DDT	45.5	0.80	5.0	"	40.4		113	33-147	8.74	30	
Batch 9111825 - EPA 3510C GCM	S/ECD										
Blank (9111825-BLK1)					Prepared:	11/18/19 Ar	nalyzed: 11	/19/19			
Surrogate: Tetrachloro-meta-xylene	0.823			ug/l	1.00		82.3	35-140			
Surrogate: Decachlorobiphenyl	0.965			"	1.00		96.5	35-140			
alpha-BHC	ND	0.04	1.00	"							
gamma-BHC (Lindane)	ND	0.03	1.00	"							
beta-BHC	ND	0.05	1.00	n							
delta-BHC	ND	0.02	1.00	"							
Heptachlor	ND	0.04	1.00	"							

SunStar Laboratories, Inc.

ND

0.02

1.00

Aldrin



Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported: Chico CA, 95928 12/11/19 09:32 Project Manager: Heidi Cummings

Organochlorine Pesticides by EPA Method 8081A - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9111825 - EPA 3510C GCM	S/ECD										
Blank (9111825-BLK1)					Prepared: 1	11/18/19 Ar	nalyzed: 11	/19/19			
Heptachlor epoxide	ND	0.04	1.00	ug/l	•		_ •				
gamma-Chlordane	ND	0.05	1.00	"							
alpha-Chlordane	ND	0.03	1.00	"							
Endosulfan I	ND	0.02	1.00	"							
4,4′-DDE	ND	0.04	1.00	"							
Dieldrin	ND	0.03	1.00	"							
Endrin	ND	0.04	1.00	"							
4,4´-DDD	ND	0.03	1.00	"							
Endosulfan II	ND	0.04	1.00	"							
4,4′-DDT	ND	0.06	1.00	"							
Endrin aldehyde	ND	0.02	1.00	**							
Endosulfan sulfate	ND	0.05	1.00	**							
Methoxychlor	ND	0.03	1.00	**							
Endrin ketone	ND	0.05	1.00	**							
Chlordane (tech)	ND	1.00	10.0	**							
Toxaphene	ND	5.79	20.0	"							
LCS (9111825-BS1)					Prepared: 1	11/18/19 Ar	nalyzed: 11	/19/19			
Surrogate: Tetrachloro-meta-xylene	0.737			ug/l	1.00		73.7	35-140			
Surrogate: Decachlorobiphenyl	0.928			"	1.00		92.8	35-140			
gamma-BHC (Lindane)	3.79	0.03	1.00	"	4.00		94.6	40-120			
Heptachlor	3.79	0.04	1.00	"	4.00		94.7	40-120			
Aldrin	3.41	0.02	1.00	"	4.00		85.2	40-120			
Dieldrin	4.05	0.03	1.00	"	4.00		101	40-120			
Endrin	4.24	0.04	1.00	"	4.00		106	40-120			
4,4′-DDT	4.15	0.06	1.00	"	4.00		104	40-120			
LCS Dup (9111825-BSD1)					Prepared: 1	11/18/19 Ar	nalyzed: 11	/19/19			
Surrogate: Tetrachloro-meta-xylene	0.866			ug/l	1.00		86.6	35-140			

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:32

Organochlorine Pesticides by EPA Method 8081A - Quality Control

SunStar Laboratories, Inc.

			Reporting		Spike	Source		%REC		RPD	
Analyte	Result	MDL	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 9111825 - EPA 3510C GCMS/ECD

LCS Dup (9111825-BSD1)					Prepared: 11/18/	19 Analyzed: 11.	/19/19		
Surrogate: Decachlorobiphenyl	0.978			ug/l	1.00	97.8	35-140		
gamma-BHC (Lindane)	4.28	0.03	1.00	Ħ	4.00	107	40-120	12.2	20
Heptachlor	4.26	0.04	1.00	n	4.00	106	40-120	11.7	20
Aldrin	3.96	0.02	1.00	"	4.00	99.0	40-120	15.0	20
Dieldrin	4.45	0.03	1.00	n	4.00	111	40-120	9.33	20
Endrin	4.59	0.04	1.00	"	4.00	115	40-120	7.84	20
4,4'-DDT	4.42	0.06	1.00	Ħ	4.00	110	40-120	6.31	20

SunStar Laboratories, Inc.



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 12/11/19 09:32

Notes and Definitions

S-GC Surrogate recovery outside of established control limits. The data was accepted based on valid recovery of the remaining surrogate(s).

QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS was within

acceptance criteria. The data is acceptable as no negative impact on data is expected.

J Detected but below the Standard Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the Method Detection Limit (MDL)

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

SunStar Laboratories, Inc.

Chain of Custody Record

Page # of 1/

949-297-5020 E1D-0 F3D-0-CL F3D-0-FR Client: E3D-0 F2D-0 E2D-0 F1D-0 Project Manager: Phone: Address: Relinquished by: (signature) Relinquished by: (signature) Relinquished by; (signature) E4D-0-CL F3D-0 E3D-0-CL Sample disposal Instructions: ... Disposal @ \$2.00 each F4D-0-CL Sample ID 530-894-2487 48 Bellarmine Court, Ste 40, Chico, CA 95928 350 Heidi Cummings, heidi cummings@NV5.com Date Sampled 11/13/2019 11/13/2019 11/13/2019 11/13/2019 11/13/2019 1//13/2019 1/13/2019 1/13/2019 1/13/2019 1/13/2019 1/13/2019 1/13/2019 1/13/2019 11/14/19 Date / Time Date / Time Date / Time 8:34 Fax: 1600 0940 S たか の 1035 000 025 000 00 ~ 0 √ 530-894-2437 Received by: (signature) 650Sample Type Received by: (signature) Received by: (signature) SOIL SOIL SOL SOIL SOIL SOIL SOIL SOIL SOIL SOIL SOIL Return to client 8 oz jar Container Arsenic EPA 6010 1.1619 11/14/19 Date / Time / 14// 9 / 16 00 Date / Time Date / Time OCPs EPA 8081 8:34 Date: Project Name: Hamilton Union High School Batch #: Collector: HJC/CWB Lab to prepare EF3EF4C-0 as 4:1 composite of E3D-0, F3D-0, E4D-0 and F4D-0 Lab to prepare EF1EF2C-0 as 4:1 composite of E1D-0, F1D-0, E2D-0 and F2D-0 Total # of containers
Chain of Custody seals (N/NA
Seals intact? (DN/NA Turn around time: Received good condition/cold 7193981 Client Project #: 70779.01.001.003 5 day EPF# 2 8 2 32 ũ 2 06 2 6 Laboratory ID # Comments/Preservative Method 8081 report Chlordane and Please return H&K/NV5 ice chests Technical Chlordane Notes ゆら B Total # of

SunStar Laboratories 25712 Commercentre Dr Lake Forest, CA 92630

Chain of Custody Record

Page A of A

949-297-5020 G6D-0 Client: EB-2 E6D-0 G5D-0 Address: F6D-0 H5D-0 F5D-0 E5D-0 Project Manager: Relinquished by: (signature) Sample disposal Instructions: Relinquished by: (signature) Relingµished by: (signature) Sample ID NV5 530-894-2487 48 Bellarmine Court, Ste 40, Chico, CA 95928 650 Heidi Cummings, heidi.cummings@NV5.com Disposal @ \$2.00 each Date Sampled 11/13/2019 11/13/2019 11/13/2019 11/13/2019 11/13/2019 11.15.19 11/12/2019 11/13/2019 11/13/2019 11/13/2019 1/13/2019 Date / Time Date / Time 11/14/19 Date / Time 8:3 TaX: 1500 1500 1310 Time 230 1240 252 130 1600 1210 スパー 1140 Sample Type 530-894-2437 Received by: (signature) Received by: (signature Received by: (signature) Water Water SOIL SOIL SOIL 650 Return to client Amber, plastic Amber, plastic 8 oz jar Container Type 1579 Arsenic EPA 6010 1/14/10 ead EPA 6010 Date / Time Date / Time Date / Time OCPs EPA 8081 Pickup 8:34 Batch #: Project Name: Hamilton Union High School Title 22 Metals Collector: Date: 1600 Lab to prepare EFGH5C-0 as 4:1 composite of E5D-0, F5D-0, G5D-0 and H5D-0 Lab to prepare EFGH6C-0 as 4:1 composite of E6D-0, F6D-0, G6D-0 and H6D-0 Lab to prepare EF3EF4C-0-CL as 4:1 composite of E3D-0-CL, F3D-0-CL, E4D-0-CL and F4D-0 HJC/CWB Total # of containers
Chain of Custody seals (UNINA
Seals intact? (UNINA Turn around time: Received good condition/cold #1938- 79398) EDF #: 11/14/2019 Client Project #: Ġ day 22 120 22 20 2000 Laboratory ID # Comments/Preservative 70779.01.001.003 Method 8081 report Chlordane and Please return H&K/NV5 ice chests Technical Chlordane Notes Total # of Ê

Chain of Custody Record

	5 day	Turn around time:	Turn arou	Time	Date / Time	1/15:	(signature)	Received by: (signature) Return to clic	ne each	11.15:19	650 11.15-19 5:34 Relinquished by: (signature) Date / Time Sample disposal Instructions: Disposal @ \$2.00 each	Relinquisi Sample dis
Please return H&K/NV5 ice chests	on/cold	Received good condition/cold	Receive	ime	Date / Time		: (signature)	Received by:		ate/	Relinquished by: (signature)	Relinquist
Method 8081 report Chlordane and	NA NA	Chain of Custody seals WN/NA	Chain of (11me 1600) 4	////// [/////	: (signature)	Received by: 650	Time	Date / Tin	Relinquished by: (signature)	Relinquist
repare EFGH8C-0-CL as 4:1 composite of E8D-0-CL, F8D-0-CL; G8D-0-CL and F8D-0-CL	4:1 composite	H8C-0-CL as	repare EFC	ab to p		35						
repare EFGH8C-0 as 4:1 composite of EXU-u, FXU-u, GXU-u and FXU-u	composite of I	3H8C-0 as 4:1	repare EFC	Lab to p	×	() ()					The second secon	
	1 1/4			3,00		79	8 oz jar	SOIL	-15735-	11/13/2019		H8D-0-CI
	40	in the second	1. 2. 2.	1 77		×	8 oz jar	SOIL	18-25	11/13/2019		0-C8H
	<i>w</i> 2				te Justi J		8 oz jar	SOIL	01-51	11/13/2019	and the second s	G85-0-CI
The second secon	320		ATT.				8 oz jar	SOIL	00.81	11/13/2019		1 60 G
	37			1	eğaz 1	1	8 oz jar	SOIL	1445	11/13/2019		-87-0-CI
	22				100	_	8 oz jar	SOIL	-1435	11/13/2019		E8D-0
	38		4: 		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		8 oz jar	SOIL	1425	11/13/2019		E8D-0-CL
The state of the s	34						8 oz jar	SOIL	1415	11/13/2019		F8D-0
composite of E7D-0, F7D-0, G/D-0 and H/D-0 33	composite of t	epare EFGH7C-0 as 4:1	repare EFC	Lab to p	×		grade in production			and the second s		
	32		artino des articos de		4		8 oz jar	SOIL	1400	11/13/2019	American contract of the contr	0-07H
	72						8 oz jar	SOIL	1345	11/13/2019		GZD-0
	30	Y				×	8 oz jar	SOIL	1330	11/13/2019	a comment of the comm	F7D-0
*	2 1/2				35		8 oz jar	SOIL	1320	11/13/2019		E7D-0
Comments/Preservative	B La	the second section of the		*	0	Li.	Туре	Sample Type	Time	Date Sampled	Sample ID	
	abora				CPs I	Ĭ.	Container					
	ntory II			# 1 m	EPA 80	EPA 60 A 6010	· .					
) #				81	10			1.4			
		18/	7/43981	Baicn #:				ings@NV5.c	ejdi.cumm	Heidi Cummings, heidi.cummings@NV5.com		Project Manager:
Client Project #: 70779.01.001.003	nt Project #:	VB Clier	HJC/CWB	Collector:			37	530-894-2437	Fax:		530-894-2487	Phone:
7	me: Hamilton Union High School	ilton Union	me: Ham	Project Na	73 [·		8	, CA 9592	t, Ste 40, Chica	NV5 48 Bellarmine Court, Ste 40, Chico, CA 95928	Client:
		1/1/2010		<u>.</u>	·				ļ.		020	949-297-5020



SAMPLE RECEIVING REVIEW SHEET

Batch/Work Order #:	1193981		1		in the second se	
Client Name:	NV5		Project:	HA	MILTON UNION	HIGH SCHOOL
Delivered by:	Client S	SunStar Courier	⊠GSO	☐ FedEx	Other	
If Courier, Received by:			Date/Time Co Received:	ourier		
Lab Received by:	Sunn	<u> </u>	Date/Time La Received:	ab 	11-15-19	8:34
Total number of coolers re	eceived:	Thermometer ID): <u>sc-l</u>	C	Calibration due	:_6/27/20_
Temperature: Cooler #1	1.3 °C +/− t	he CF (+ 1.2°C)	= 2.5	°C correct	ted temperature	
Temperature: Cooler #2	°C +/- t	he CF (+ 1.2°C)	<u></u>	°C correct	ted temperature	
Temperature: Cooler #3	°C +/- t	he CF (+ 1.2°C)		°C correct	ted temperature	
Temperature criteria = ≤ (no frozen containers)	€6°C	Within cr	iteria?	ĭXYes	□No	
If NO: Samples received If on ice, samples		∐Yes '	Acceptable	No →	e Non-Conform	
collected? Custody seals intact on coo	oler/sample			Complete Yes	e Non-Conform	
Sample containers intact	olon sample			⊠Yes		/ A
Sample labels match Chair	n of Custody IDs			Yes	□No*	
Total number of containers	s received match C	COC		Yes	□No*	
Proper containers received	for analyses reque	ested on COC		⊠Yes	□No*	
Proper preservative indicate	ted on COC/contai	iners for analyses	requested	□Yes	□No* \\\ \(\)\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	/ A
Complete shipment receive containers, labels, volumes holding times	_			Yes	□No*	
* Complete Non-Conformance	ce Receiving Sheet i	f checked Coo	ler/Sample Rev	iew - Initials	and date: \$2 /	11.15-19
Comments:	•		· · · · · · · · · · · · · · · · · · ·	<u> </u>		
	······································					

Printed: 11/15/2019 2:08:50PM



WORK ORDER

T193981

Client: NV5 **Project Manager:** Jeff Lee

Project: Hamilton Union High School **Project Number:** 70779.01.001.003

Report To:

NV5

Heidi Cummings

48 Bellarmine Ct, Suite 40

Chico, CA 95928

Date Due:

11/22/19 17:00 (5 day TAT)

Received By:

Sunny Lounethone

Logged In By:

Sunny Lounethone

Date Received:

11/15/19 08:34

Date Logged In:

11/15/19 11:57

Samples Received at:

Custody Seals

Yes

Received On Ice Yes

2.5°C

Containers Intact Yes COC/Labels Agree Yes Preservation Confin

TAT Due **Expires Comments Analysis**

T193981-01 E1D-0 [Soil] Sampled 11/13/19 08:50 (GMT-08:00) Pacific Time (US

[NO ANALYSES]

T193981-02 F1D-0 [Soil] Sampled 11/13/19 09:00 (GMT-08:00) Pacific Time (US

[NO ANALYSES]

T193981-03 E2D-0 [Soil] Sampled 11/13/19 09:25 (GMT-08:00) Pacific Time (US

6010 Individual Metals

11/22/19 15:00

05/11/20 09:25 5

As and Pb only

T193981-04 F2D-0 [Soil] Sampled 11/13/19 09:15 (GMT-08:00) Pacific Time (US

[NO ANALYSES]

T193981-05 EF1EF2C-0 [Soil] Sampled 11/13/19 00:00 (GMT-08:00) Pacific

COMPOSITE 4:1 (E1D-0, F1D-0, E2D-0, F2D-0)

Time (US &

8081 Pesticides

11/22/19 15:00

11/27/19 00:00

5

T193981-06 E3D-0 [Soil] Sampled 11/13/19 09:40 (GMT-08:00) Pacific Time (US

[NO ANALYSES]

T193981-07 E3D-0-CL [Soil] Sampled 11/13/19 09:45 (GMT-08:00) Pacific Time

(US &

[NO ANALYSES]

Printed: 11/15/2019 2:08:50PM



WORK ORDER

T193981

Client: NV5 Project Manager: Jeff Lee

Project: Hamilton Union High School Project Number: 70779.01.001.003

Analysis Due TAT **Expires Comments** T193981-08 F3D-0 [Soil] Sampled 11/13/19 10:00 (GMT-08:00) Pacific Time (US 11/22/19 15:00 05/11/20 10:00 6010 Individual Metals As and Pb only T193981-09 F3D-0-CL [Soil] Sampled 11/13/19 10:05 (GMT-08:00) Pacific Time (US & [NO ANALYSES] T193981-10 F3D-0-FR [Soil] Sampled 11/13/19 10:01 (GMT-08:00) Pacific Time (US & 6010 Individual Metals 11/22/19 15:00 05/11/20 10:01 As and Pb only T193981-11 E4D-0 [Soil] Sampled 11/13/19 10:50 (GMT-08:00) Pacific Time (US [NO ANALYSES] T193981-12 E4D-0-CL [Soil] Sampled 11/13/19 11:05 (GMT-08:00) Pacific Time (US & [NO ANALYSES] T193981-13 F4D-0 [Soil] Sampled 11/13/19 10:25 (GMT-08:00) Pacific Time (US [NO ANALYSES] T193981-14 F4D-0-CL [Soil] Sampled 11/13/19 10:35 (GMT-08:00) Pacific Time (US & [NO ANALYSES] T193981-15 EF3EF4C-0 [Soil] Sampled 11/13/19 00:00 (GMT-08:00) Pacific **COMPOSITE 4:1 (E3D-0, F3D-0, E4D-0, F4D-0)** Time (US & 8081 Pesticides 11/22/19 15:00 11/27/19 00:00 T193981-16 EF3EF4C-0-CL [Soil] Sampled 11/13/19 00:00 (GMT-08:00) Pacific COMPOSITE 4:1 (E3D-0-CL, F3D-0-CL, E4D-0-CL, F4D-0-CL) Time (US & 8081 Pesticides 11/22/19 15:00 5 11/27/19 00:00 T193981-17 E5D-0 [Soil] Sampled 11/13/19 11:30 (GMT-08:00) Pacific Time (US

1173761-17 E3D-0 [30II] Sampled 11/13/17 11.30 (GM1-00.00) 1 acide 1 line (US

•

6010 Individual Metals 11/22/19 15:00 5 05/11/20 11:30 As and Pb only

T193981-18 F5D-0 [Soil] Sampled 11/13/19 11:40 (GMT-08:00) Pacific Time (US

&

[NO ANALYSES]

Printed: 11/15/2019 2:08:50PM



6010 Title 22

8081 Pesticides

WORK ORDER

T193981

Client: NV5 **Project Manager: Jeff Lee**

11/22/19 15:00

11/22/19 15:00

5

5

05/11/20 15:00 11/20/19 15:00

Project: Hamilton Union High School **Project Number:** 70779.01.001.003

Analysis Due TAT **Expires Comments** T193981-19 G5D-0 [Soil] Sampled 11/13/19 11:55 (GMT-08:00) Pacific Time (US [NO ANALYSES] T193981-20 H5D-0 [Soil] Sampled 11/13/19 12:10 (GMT-08:00) Pacific Time (US [NO ANALYSES] T193981-21 EFGH5C-0 [Soil] Sampled 11/13/19 00:00 (GMT-08:00) Pacific **COMPOSITE 4:1 (E5D-0, F5D-0, G5D-0, H5D-0)** Time (US & 8081 Pesticides 11/22/19 15:00 11/27/19 00:00 T193981-22 E6D-0 [Soil] Sampled 11/13/19 12:30 (GMT-08:00) Pacific Time (US [NO ANALYSES] T193981-23 F6D-0 [Soil] Sampled 11/13/19 12:40 (GMT-08:00) Pacific Time (US [NO ANALYSES] T193981-24 G6D-0 [Soil] Sampled 11/13/19 12:55 (GMT-08:00) Pacific Time (US [NO ANALYSES] T193981-25 H6D-0 [Soil] Sampled 11/13/19 13:10 (GMT-08:00) Pacific Time (US 6010 Individual Metals 11/22/19 15:00 05/11/20 13:10 As and Pb only 5 T193981-26 EFGH6C-0 [Soil] Sampled 11/13/19 00:00 (GMT-08:00) Pacific **COMPOSITE 4:1 (E6D-0, F6D-0, G6D-0, H6D-0)** Time (US & 8081 Pesticides 11/22/19 15:00 11/27/19 00:00 T193981-27 EB-2 [Water] Sampled 11/13/19 15:00 (GMT-08:00) Pacific Time (US & 6010 Title 22 11/22/19 15:00 5 05/11/20 15:00 8081 Pesticides 11/22/19 15:00 5 11/20/19 15:00 T193981-28 EB-3 [Water] Sampled 11/13/19 15:00 (GMT-08:00) Pacific Time (US &





WORK ORDER

T193981

Client: NV5 Project Manager: Jeff Lee

Project: Hamilton Union High School Project Number: 70779.01.001.003

Analysis Due TAT Expires Comments

T193981-29 E7D-0 [Soil] Sampled 11/13/19 13:20 (GMT-08:00) Pacific Time (US

&

[NO ANALYSES]

T193981-30 F7D-0 [Soil] Sampled 11/13/19 13:30 (GMT-08:00) Pacific Time (US

&

6010 Individual Metals 11/22/19 15:00 5 05/11/20 13:30 As and Pb only

T193981-31 G7D-0 [Soil] Sampled 11/13/19 13:45 (GMT-08:00) Pacific Time (US

&

[NO ANALYSES]

T193981-32 H7D-0 [Soil] Sampled 11/13/19 14:00 (GMT-08:00) Pacific Time (US

&

[NO ANALYSES]

T193981-33 EFGH7C-0 [Soil] Sampled 11/13/19 00:00 (GMT-08:00) Pacific

COMPOSITE 4:1 (E7D-0, F7D-0, G7D-0, H7D-0)

Time (US &

8081 Pesticides 11/22/19 15:00

5 11/27/19 00:00

T193981-34 E8D-0 [Soil] Sampled 11/13/19 14:15 (GMT-08:00) Pacific Time (US

&

[NO ANALYSES]

T193981-35 E8D-0-CL [Soil] Sampled 11/13/19 14:25 (GMT-08:00) Pacific Time

(US &

[NO ANALYSES]

T193981-36 F8D-0 [Soil] Sampled 11/13/19 14:35 (GMT-08:00) Pacific Time (US

&

[NO ANALYSES]

T193981-37 F8D-0-CL [Soil] Sampled 11/13/19 14:45 (GMT-08:00) Pacific Time

(US &

[NO ANALYSES]

T193981-38 G8D-0 [Soil] Sampled 11/13/19 15:00 (GMT-08:00) Pacific Time (US

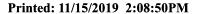
&

[NO ANALYSES]

T193981-39 G8D-0-CL [Soil] Sampled 11/13/19 15:10 (GMT-08:00) Pacific Time

(US &

[NO ANALYSES]





WORK ORDER

T193981

Expires

Comments

Client: NV5 Project Manager: Jeff Lee

Project: Hamilton Union High School Project Number: 70779.01.001.003

TAT

T193981-40 H8D-0 [Soil] Sampled 11/13/19 15:25 (GMT-08:00) Pacific Time (US & 6010 Individual Metals 11/22/19 15:00 5 05/11/20 15:25 As and Pb only

T193981-41 H8D-0-CL [Soil] Sampled 11/13/19 15:35 (GMT-08:00) Pacific Time

T193981-41 H8D-0-CL [Soil] Sampled 11/13/19 15:35 (GMT-08:00) Pacific Time (US &

Due

[NO ANALYSES]

Analysis

T193981-42 EFGH8C-0 [Soil] Sampled 11/13/19 00:00 (GMT-08:00) Pacific COMPOSITE 4:1 (E8D-0, F8D-0, G8D-0, H8D-0)

Time (US &

8081 Pesticides

8081 Pesticides 11/22/19 15:00 5 11/27/19 00:00

11/22/19 15:00

T193981-43 EFGH8C-0-CL [Soil] Sampled 11/13/19 00:00 (GMT-08:00) Pacific COMPOSITE 4:1 (E8D-0-CL, F8D-0-CL, G8D-0-CL, H8D-0-CL)

5

11/27/19 00:00

Time (US & H8D-0-CL)

Analysis groups included in this work order

6010 Title 22

subgroup 6010B T22 7470/71 Hg

Reviewed By Date Page 5 of 5





26 November 2019

Heidi Cummings NV5 48 Bellarmine Ct, Suite 40 Chico, CA 95928

RE: Hamilton Union High School

Enclosed are the results of analyses for samples received by the laboratory on 11/20/19 08:42. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jeff Lee

Project Manager



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.02 **Reported:**Chico CA, 95928 Project Manager: Heidi Cummings 11/26/19 09:54

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AW-1	T194029-01	Water	11/19/19 14:40	11/20/19 08:42

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jeff Lee, Project Manager Page 1 of 6



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.02 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/26/19 09:54

DETECTIONS SUMMARY

Sample ID: AW-1 Laboratory ID: T194029-01

No Results Detected

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jeff Lee, Project Manager Page 2 of 6



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.02 **Reported:**Chico CA, 95928 Project Manager: Heidi Cummings 11/26/19 09:54

AW-1 T194029-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar La	iborator	ies, Inc.					
Organochlorine Pesticides by EPA Met	thod 8081A								
alpha-BHC	ND	1.00	ug/l	1	9112032	11/20/19	11/25/19	EPA 8081A	
gamma-BHC (Lindane)	ND	1.00	"	11	TI .	n	II.	n	
beta-BHC	ND	1.00	"	11	TT.	n	II.	n	
delta-BHC	ND	1.00	"	11	n	n	II.	n	
Heptachlor	ND	1.00	"	11	n	n	II.	n	
Aldrin	ND	1.00	"	11	n	n	II.	n	
Heptachlor epoxide	ND	1.00	"	11	n	n	II.	n	
gamma-Chlordane	ND	1.00	"	11	n	n	II	n	
alpha-Chlordane	ND	1.00	"	11	n	Ħ	II	n	
Endosulfan I	ND	1.00	"	11	n	Ħ	II	n	
4,4′-DDE	ND	1.00	"	11	n	Ħ	IF	n	
Dieldrin	ND	1.00	"	11	n	Ħ	If	n	
Endrin	ND	1.00	"	11	n	Ħ	If	n	
4,4′-DDD	ND	1.00	"	11	n	Ħ	11	n	
Endosulfan II	ND	1.00	"	"	n	Ħ	IF	n	
4,4'-DDT	ND	1.00	"	"	Ħ	Ħ	IF	n	
Endrin aldehyde	ND	1.00	"	"	Ħ	Ħ	IF	TT .	
Endosulfan sulfate	ND	1.00	"	"	n	Ħ	IF	TT .	
Methoxychlor	ND	1.00	"	"	"	"	II.	"	
Endrin ketone	ND	1.00	"	"	"	"	11	"	
Toxaphene	ND	20.0	**	n	n	Ħ	IF	Ħ	
Surrogate: Tetrachloro-meta-xylene		80.3 %	35-	-140	"	"	n	n .	
Surrogate: Decachlorobiphenyl		99.7 %	35-	-140	"	"	"	"	

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jeff Lee, Project Manager Page 3 of 6



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.02 **Reported:**Chico CA, 95928 Project Manager: Heidi Cummings 11/26/19 09:54

Organochlorine Pesticides by EPA Method 8081A - Quality Control

SunStar Laboratories, Inc.

Analyte Result Limit Units Level Result %REC Limits RPD Lim		Reporting		Spike	Source		%REC		RPD	
	Analyte Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Blank (9112032-BLK1)				Prepared: 11/20/2	19 Analyzed: 11	/25/19
alpha-BHC	ND	1.00	ug/l			
gamma-BHC (Lindane)	ND	1.00	"			
beta-BHC	ND	1.00	"			
delta-BHC	ND	1.00	"			
Heptachlor	ND	1.00	"			
Aldrin	ND	1.00	"			
Heptachlor epoxide	ND	1.00	"			
gamma-Chlordane	ND	1.00	"			
alpha-Chlordane	ND	1.00	"			
Endosulfan I	ND	1.00	"			
4,4′-DDE	ND	1.00	"			
Dieldrin	ND	1.00	"			
Endrin	ND	1.00	"			
4,4′-DDD	ND	1.00	"			
Endosulfan II	ND	1.00	"			
4,4′-DDT	ND	1.00	"			
Endrin aldehyde	ND	1.00	"			
Endosulfan sulfate	ND	1.00	"			
Methoxychlor	ND	1.00	"			
Endrin ketone	ND	1.00	"			
Toxaphene	ND	20.0	11			
Surrogate: Tetrachloro-meta-xylene	ND		"	1.00	85.3	35-140
Surrogate: Decachlorobiphenyl	0.907		"	1.00	90.7	35-140
LCS (9112032-BS1)				Prepared: 11/20/	19 Analyzed: 11	/25/19
gamma-BHC (Lindane)	3.33	1.00	ug/l	4.00	83.3	40-120
Heptachlor	3.43	1.00	"	4.00	85.8	40-120
Aldrin	3.11	1.00	"	4.00	77.7	40-120
Dieldrin	3.61	1.00	"	4.00	90.2	40-120
Endrin	3.73	1.00	"	4.00	93.2	40-120
4,4′-DDT	3.80	1.00	11	4.00	95.1	40-120
Surrogate: Tetrachloro-meta-xylene	0.828		"	1.00	82.8	35-140
Surrogate: Decachlorobiphenyl	0.993		"	1.00	99.3	35-140

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jeff Lee, Project Manager Page 4 of 6



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.02 **Reported:**Chico CA, 95928 Project Manager: Heidi Cummings 11/26/19 09:54

Organochlorine Pesticides by EPA Method 8081A - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9112032 - EPA 3510C GCMS/ECD										
LCS Dup (9112032-BSD1)				Prepared: 1	1/20/19 Aı	nalyzed: 11/	25/19			
gamma-BHC (Lindane)	3.21	1.00	ug/l	4.00		80.3	40-120	3.72	20	
Heptachlor	3.23	1.00	"	4.00		80.8	40-120	5.97	20	
Aldrin	2.91	1.00	"	4.00		72.8	40-120	6.51	20	
Dieldrin	3.39	1.00	"	4.00		84.8	40-120	6.11	20	
Endrin	3.50	1.00	"	4.00		87.4	40-120	6.45	20	
4,4'-DDT	3.53	1.00	"	4.00		88.3	40-120	7.43	20	
Surrogate: Tetrachloro-meta-xylene	0.769		"	1.00		76.9	35-140			
Surrogate: Decachlorobiphenyl	0.963		"	1.00		96.3	35-140			

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jeff Lee, Project Manager Page 5 of 6



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.02 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/26/19 09:54

Notes and Definitions

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jeff Lee, Project Manager Page 6 of 6

Chain of Custody Record

25712 Commercentre Drive, Lake Forest, CA 92630 949-297-5020

Sample disposal Instructions: Disp		Relinquished by: (signature)	(5,50	Relinquished by: (signature)	And Comming	Relinquished by: (signature)															AW-1	Sample ID	Client: NV5 Address: 48 BULLANT Phone: 530 -894-248 Project Manager: HEO) C
Disposal @ \$2.00 each		Ţij.	11-20-19	-⊇1	5 111919/	Date / Time															111919	Date Sampled	mint of
¥			₹ * * * * * * * * * *		1600				_												140	Time	SH UD Fax530- Fe A
Return to client		Received by		Received by	G80	Received by																Sample Type	(H)C0,
client		Received by: (signature)	1	Received by: (signature)		Received by: (signature)			·												TL. AMBE	Container Type	10 (HILL, CA 99728 20-874-2457 Reid: Cumming Cares, com
				Ì													L		L		_	8260	<u>5</u>
Pickup			7		119				-								_		_		:	8260 + OXY	6
0		Date / Time	20-19	Date /	B	Date / Time			-					1		9-0						8260 BTEX, OXY only	
1		/Tim	8	/ Time	1	/Tim	Н	-		Ц			·				-		-	_		8270	Date: Project N Collecto Batch #:
		Ф	24.3	Ф	B	Ф	Н		_		_			_	_	-	├-	H	-	_	-	8021 BTEX 8015M (gasoline)	Date: 106 Project Name: Collector: Callector: Callecto
. [크				$\frac{C}{C}$		Н		_	-		_				-	\vdash		╀	-	H	8015M (diesel)	HP and E
	ırn a		Receiv		hain		-							_	-	\vdash	-		╁	 	\vdash	8015M Ext./Carbon Chain	10000
	roun		ived		of C		Н							_					-	H		6010/7000 Title 22 Metals	
	Turn around time: 5 day		ved good condition/cold	Seals intact?	Chain of Custody seals NN/NA	Total # of containers				-						T			T	T	Г	6020 ICP-MS Metals	MAN HOD
i	ᄩ		con	intac	y sea	# of						Г			Г		Τ				X	OCPs 8081	K.A
	De)	dition	\ \@_	<u>@</u>	conta																	
4	2		/cold	ANA	ANA	iners																	5
			2.4%		~						-						r				0	Laboratory ID #	Page: Hulling Page: Client F
CC 179870					Please Ketoni LOTUNE	Notes Notes																Comments/Preservative	Page: 1 Of 1 N High School Client Project # 70779.02
	•				A						Г		Γ			Γ	Γ		Γ		-	Total # of containers	



SAMPLE RECEIVING REVIEW SHEET

Batch/Work Order #:	T194029					
Client Name:	NV5	Project:	lamilton Union High School			
Delivered by:	Client SunStar Courie	r ☑GSO [FedEx Other			
If Courier, Received by:		Date/Time Co Received:				
Lab Received by:	Travis	Date/Time La Received:	b 11-20-19 8-42			
Total number of coolers re	eceived: Thermometer II	D: 5C-1	Calibration due : 6/27/20			
Temperature: Cooler #1	°C +/- the CF (+ 1.2°C)	= 2.4	°C corrected temperature			
Temperature: Cooler #2	°C +/- the CF (+ 1.2°C)	=	°C corrected temperature			
Temperature: Cooler #3	°C +/- the CF (+ 1.2°C)	· <u> </u>	°C corrected temperature			
Temperature criteria = ≤ 6°C Within criteria? Yes □No						
If NO: Samples received	raceived some day	• Acceptable	□No → Complete Non-Conformance Sheet □No → Complete Non-Conformance Sheet			
Custody seals intact on co						
Custody scals intact off co	ooler/sample		✓Yes □No* □N/A			
Sample containers intact	poler/sample		✓Yes □No* □N/A ✓Yes □No*			
Sample containers intact	in of Custody IDs		Yes No*			
Sample containers intact Sample labels match Cha Total number of container	in of Custody IDs		✓Yes □No*			
Sample containers intact Sample labels match Cha Total number of container Proper containers received	in of Custody IDs	s requested	Yes □No* Yes □No* Yes □No*			
Sample containers intact Sample labels match Cha Total number of container Proper containers receive Proper preservative indica Complete shipment receive	in of Custody IDs rs received match COC d for analyses requested on COC	emperatures,	 ✓Yes □No* ✓Yes □No* ✓Yes □No* 			
Sample containers intact Sample labels match Char Total number of container Proper containers received Proper preservative indicates Complete shipment receive containers, labels, volume holding times	in of Custody IDs rs received match COC d for analyses requested on COC ated on COC/containers for analyse ved in good condition with correct tes preservatives and within method	emperatures, specified	<pre>✓Yes □No*</pre> ✓Yes □No* ✓Yes □No* ✓Yes □No* □Yes □No* □Yes □No*			
Sample containers intact Sample labels match Char Total number of container Proper containers received Proper preservative indicates Complete shipment receive containers, labels, volume holding times	in of Custody IDs rs received match COC d for analyses requested on COC ated on COC/containers for analyse ved in good condition with correct tes preservatives and within method	emperatures, specified	<pre> ✓Yes □No* ✓Yes □No* ✓Yes □No* □Yes □No* □Yes □No* ✓Yes □No*</pre>			
Sample containers intact Sample labels match Char Total number of container Proper containers receive Proper preservative indicated Complete shipment receive containers, labels, volume holding times * Complete Non-Conforman	in of Custody IDs rs received match COC d for analyses requested on COC ated on COC/containers for analyse ved in good condition with correct tes preservatives and within method	emperatures, specified	<pre> ✓Yes □No* ✓Yes □No* ✓Yes □No* □Yes □No* □Yes □No* ✓Yes □No*</pre>			





WORK ORDER

T194029

Client:NV5Project Manager:Jeff LeeProject:Hamilton Union High SchoolProject Number:70779.02

Report To:

NV5

Heidi Cummings

48 Bellarmine Ct, Suite 40

Chico, CA 95928

Date Due: 11/27/19 17:00 (5 day TAT)

Received By: Travis Berner
Logged In By: Travis Berner

Date Received:

11/20/19 08:42

Date Logged In:

11/20/19 09:25

Samples Received at: 2.4°C

Custody Seals Yes Received On Ice Yes

COC/Labels Agree Yes
Preservation Confir No

Analysis Due TAT Expires Comments

T194029-01 AW-1 [Water] Sampled 11/19/19 14:40 (GMT-08:00) Pacific Time

(US &

8081 Pesticides 11/27/19 15:00 5 11/26/19 14:40

Reviewed By

Date





27 November 2019

Heidi Cummings NV5 48 Bellarmine Ct, Suite 40 Chico, CA 95928

RE: Hamilton Union High School

Enclosed are the results of analyses for samples received by the laboratory on 11/13/19 08:27. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jeff Lee

Project Manager



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
A1D-0	T193941-01	Soil	11/12/19 08:30	11/13/19 08:27
C1D-0	T193941-03	Soil	11/12/19 08:50	11/13/19 08:27
C1D-0-CL	T193941-04	Soil	11/12/19 09:00	11/13/19 08:27
ABCD1C-0	T193941-06	Soil	11/12/19 00:00	11/13/19 08:27
ABCD2C-0	T193941-15	Soil	11/12/19 00:00	11/13/19 08:27
ABCD2C-0-FR	T193941-16	Soil	11/12/19 00:00	11/13/19 08:27
B3D-0	T193941-18	Soil	11/12/19 10:25	11/13/19 08:27
B3D-0-FR	T193941-19	Soil	11/12/19 10:26	11/13/19 08:27
D3D-0	T193941-21	Soil	11/12/19 11:00	11/13/19 08:27
ABCD3C-0	T193941-22	Soil	11/12/19 00:00	11/13/19 08:27
ABCD4C-0	T193941-27	Soil	11/12/19 00:00	11/13/19 08:27
HHS1D-2	T193941-28	Soil	11/11/19 08:30	11/13/19 08:27
HHS2D-2	T193941-29	Soil	11/11/19 09:15	11/13/19 08:27
HHS3D-2	T193941-30	Soil	11/11/19 10:15	11/13/19 08:27
HHS3D-2-FR	T193941-31	Soil	11/11/19 10:18	11/13/19 08:27
HHS4D-2	T193941-32	Soil	11/11/19 10:30	11/13/19 08:27
HHS5D-2	T193941-33	Soil	11/11/19 10:45	11/13/19 08:27
HHS5D-2-CL	T193941-34	Soil	11/11/19 10:55	11/13/19 08:27
HHS6D-2	T193941-35	Soil	11/11/19 11:30	11/13/19 08:27
HHS7D-2	T193941-36	Soil	11/11/19 12:25	11/13/19 08:27
HHS8D-2	T193941-37	Soil	11/11/19 13:30	11/13/19 08:27
PMT-E6D-0	T193941-38	Soil	11/11/19 15:05	11/13/19 08:27
PMT-E6D-0-CL	T193941-39	Soil	11/11/19 15:15	11/13/19 08:27
PMT-E6D-2	T193941-40	Soil	11/11/19 15:30	11/13/19 08:27
EB-1	T193941-41	Water	11/11/19 15:00	11/13/19 08:27
DD1D-0	T193941-42	Soil	11/11/19 13:40	11/13/19 08:27

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Jeff Lee, Project Manager Page 1 of 66



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
DD2D-0	T193941-43	Soil	11/11/19 13:45	11/13/19 08:27
DD2D-0-CL	T193941-44	Soil	11/11/19 13:50	11/13/19 08:27
DD3D-0	T193941-45	Soil	11/11/19 14:05	11/13/19 08:27
DD4D-0	T193941-46	Soil	11/11/19 14:10	11/13/19 08:27
DD4D-0-FR	T193941-47	Soil	11/11/19 14:15	11/13/19 08:27
DD5D-0	T193941-48	Soil	11/11/19 14:25	11/13/19 08:27
DD6D-0	T193941-49	Soil	11/11/19 14:35	11/13/19 08:27
DD7D-0	T193941-50	Soil	11/11/19 15:00	11/13/19 08:27

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Jeff Lee, Project Manager Page 2 of 66



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

DETECTIONS SUMMARY

Sample ID:	A1D-0	Laborat	ory ID:	T193941-01		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		4.47	3.00	mg/kg	EPA 6010b	
Sample ID:	C1D-0	Laborat	ory ID:	T193941-03		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		4.33	3.00	mg/kg	EPA 6010b	
Sample ID:	C1D-0-CL	Laborat	Laboratory ID:			
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		4.72	3.00	mg/kg	EPA 6010b	
Sample ID:	ABCD1C-0	Laborat	ory ID:	T193941-06		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
4,4′-DDE		12	5.0	ug/kg	EPA 8081A	
Sample ID:	ABCD2C-0	Laborat	ory ID:	T193941-15		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
4,4′-DDE		11	5.0	ug/kg	EPA 8081A	
Sample ID:	ABCD2C-0-FR	Laborat	ory ID:	T193941-16		
Sample ID:	ABCD2C-0-FR	Laborat	ory ID:	T193941-16		
Sample ID:	ABCD2C-0-FR	Laborat Result		T193941-16 Units	Method	Notes
·	ABCD2C-0-FR		Reporting		Method EPA 8081A	Notes

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Jeff Lee, Project Manager

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25712 Commercentre Drive Lake Forest, California 92630 949.297.5020 Phone 949.297.5027 Fax

NV5 Project: Hamilton Union High School
48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

Sample ID:	B3D-0	Labor	atory ID:	T193941-18		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		4.67	3.00	mg/kg	EPA 6010b	
Sample ID:	B3D-0-FR	Labor	atory ID:	T193941-19		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		4.28	3.00	mg/kg	EPA 6010b	
Sample ID:	D3D-0	Lahor	atory ID:	T193941-21		
Sample 1D.	<u> </u>	Labor	·	1193941-21		
A 14-		D14	Reporting	TI ***	M-41 J	N I - 4
Analyte		Result 4.54	Limit 3.00	Units	Method	Notes
Lead		4.54	3.00	mg/kg	EPA 6010b	
Sample ID:	ABCD3C-0	Labor	atory ID:	T193941-22		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
4,4′-DDE		9.8	5.0	ug/kg	EPA 8081A	
Sample ID:	ABCD4C-0	Labor	atory ID:	T193941-27		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
4,4′-DDE		7.6	5.0	ug/kg	EPA 8081A	
C1- ID-	THICLD 2			T102041 00		
Sample ID:	HHS1D-2	Labor	atory ID:	T193941-28		
		Th. 1-	Reporting	WT +4	M.d. J	NT /
Analyte		Result	Limit	Units	Method	Notes
Lead		4.32	3.00	mg/kg	EPA 6010b	
Sample ID:	HHS2D-2	Labor	atory ID:	T193941-29		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		4.35	3.00	mg/kg	EPA 6010b	

Jeff Lee, Project Manager

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NV5 Project: Hamilton Union High School
48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

Sample ID:	HHS3D-2	Labor	atory ID:	T193941-30		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		4.07	3.00	mg/kg	EPA 6010b	
Sample ID:	HHS3D-2-FR	Labor	atory ID:	T193941-31		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		3.74	3.00	mg/kg	EPA 6010b	
Sample ID:	HHS4D-2	Labor	atory ID:	T193941-32		
'			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		3.97	3.00	mg/kg	EPA 6010b	
Sample ID:	HHS5D-2	Lahor	atory ID:	T193941-33		
	1111000 2	Lubbi	-	1193911 33		_
Analyte		Result	Reporting Limit	Units	Method	Notes
Lead		3.72	3.00	mg/kg	EPA 6010b	Notes
Lead		3.12	5.00	mg/kg	LINOTO	
Sample ID:	HHS5D-2-CL	Lahor	atory ID:	T193941-34		
Sumple 12.	IIIISSD Z CE	Labor	-	1173741-34		
Analyte		Result	Reporting Limit	Units	Method	Notes
Lead		4.07	3.00	mg/kg	EPA 6010b	Notes
Doug		4.07	3.00	mg/kg	Elitiootoo	
C 1 TD	HHIGOD A					
Sample ID:	HHS6D-2	Labor	atory ID:	T193941-35		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		4.08	3.00	mg/kg	EPA 6010b	
Sample ID:	HHS7D-2	Labor	atory ID:	T193941-36		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		3.80	3.00	mg/kg	EPA 6010b	

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Jeff Lee, Project Manager

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

Sample ID: HHS8D-2 Laboratory ID: T193941-37

Reporting

 Result
 Limit
 Units
 Method
 Notes

 4.22
 3.00
 mg/kg
 EPA 6010b

Sample ID: PMT-E6D-0 Laboratory ID: T193941-38

No Results Detected

Analyte

Lead

Sample ID: PMT-E6D-0-CL Laboratory ID: T193941-39

No Results Detected

Sample ID: PMT-E6D-2 Laboratory ID: T193941-40

No Results Detected

Sample ID: EB-1 Laboratory ID: T193941-41

No Results Detected

Sample ID: DD1D-0 Laboratory ID: T193941-42

		Reporting			
Analyte	Result	Limit	Units	Method	Notes
C29-C40 (MORO)	17	10	mg/kg	EPA 8015B	
Barium	70	1.0	mg/kg	EPA 6010b	
Chromium	40	2.0	mg/kg	EPA 6010b	
Cobalt	9.7	2.0	mg/kg	EPA 6010b	
Copper	23	1.0	mg/kg	EPA 6010b	
Lead	4.5	3.0	mg/kg	EPA 6010b	
Nickel	59	2.0	mg/kg	EPA 6010b	

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Jeff Lee, Project Manager Page 6 of 66



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

Sample ID:	DD1D-0	Labora	tory ID:	T193941-42		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Vanadium		28	5.0	mg/kg	EPA 6010b	
Zinc		52	1.0	mg/kg	EPA 6010b	
4,4′-DDE		9.3	5.0	ug/kg	EPA 8081A	
Sample ID:	DD2D-0	Labora	tory ID:	T193941-43		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
C29-C40 (MO	RO)	17	10	mg/kg	EPA 8015B	
Barium		65	1.0	mg/kg	EPA 6010b	
Chromium		40	2.0	mg/kg	EPA 6010b	
Cobalt		9.2	2.0	mg/kg	EPA 6010b	
Copper		22	1.0	mg/kg	EPA 6010b	
Lead		4.7	3.0	mg/kg	EPA 6010b	
Nickel		56	2.0	mg/kg	EPA 6010b	
Vanadium		27	5.0	mg/kg	EPA 6010b	
Zinc		52	1.0	mg/kg	EPA 6010b	
4,4′-DDE		11	5.0	ug/kg	EPA 8081A	
Sample ID:	DD2D-0-CL	Labora	tory ID:	T193941-44		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
C29-C40 (MO	RO)	25	10	mg/kg	EPA 8015B	
Barium		65	0.91	mg/kg	EPA 6010b	
Chromium		37	1.8	mg/kg	EPA 6010b	
Cobalt		8.7	1.8	mg/kg	EPA 6010b	
Copper		21	0.91	mg/kg	EPA 6010b	
Lead		4.5	2.7	mg/kg	EPA 6010b	
Nickel		54	1.8	mg/kg	EPA 6010b	
Vanadium		26	4.5	mg/kg	EPA 6010b	
		52	0.91	mg/kg	EPA 6010b	
Zinc		5 2			Billooloo	

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Jeff Lee, Project Manager

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

Sample ID: DD3D-0	Labora	tory ID:	T193941-45		
		Reporting			
Analyte	Result	Limit	Units	Method	Notes
C29-C40 (MORO)	16	10	mg/kg	EPA 8015B	
Barium	62	1.0	mg/kg	EPA 6010b	
Chromium	35	2.0	mg/kg	EPA 6010b	
Cobalt	8.4	2.0	mg/kg	EPA 6010b	
Copper	20	1.0	mg/kg	EPA 6010b	
Lead	4.8	3.0	mg/kg	EPA 6010b	
Nickel	50	2.0	mg/kg	EPA 6010b	
Vanadium	25	5.0	mg/kg	EPA 6010b	
Zinc	51	1.0	mg/kg	EPA 6010b	
4,4′-DDE	21	5.0	ug/kg	EPA 8081A	
Sample ID: DD4D-0	Labora	itory ID:	T193941-46		
		Reporting			
Analyte	Result	Limit	Units	Method	Notes
C29-C40 (MORO)	30	10	mg/kg	EPA 8015B	
Barium	65	1.0	mg/kg	EPA 6010b	
Chromium	35	2.0	mg/kg	EPA 6010b	
Cobalt	9.1	2.0	mg/kg	EPA 6010b	
Copper	21	1.0	mg/kg	EPA 6010b	
Lead	5.2	3.0	mg/kg	EPA 6010b	
Nickel	52	2.0	mg/kg	EPA 6010b	
Vanadium	26	5.0	mg/kg	EPA 6010b	
Zinc	51	1.0	mg/kg	EPA 6010b	
4,4′-DDE	40	5.0	ug/kg	EPA 8081A	
Sample ID: DD4D-0-FR	Labora	itory ID:	T193941-47		
		Reporting			
Analyte	Result	Limit	Units	Method	Notes
C29-C40 (MORO)	33	10	mg/kg	EPA 8015B	
Barium	64	1.0	mg/kg	EPA 6010b	
Chromium	35	2.0	mg/kg	EPA 6010b	
Cobalt	8.8	2.0	mg/kg	EPA 6010b	
Copper	21	1.0	mg/kg	EPA 6010b	
Lead	5.5	3.0	mg/kg	EPA 6010b	
Nickel	51	2.0	mg/kg	EPA 6010b	

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Jeff Lee, Project Manager

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

Sample ID:	DD4D-0-FR	Laboratory ID:		T193941-47		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Vanadium		25	5.0	mg/kg	EPA 6010b	
Zinc		56	1.0	mg/kg	EPA 6010b	
4,4'-DDE		36	5.0	ug/kg	EPA 8081A	
Sample ID: DD5D-0		Laborat	tory ID:	T193941-48		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
C29-C40 (N	MORO)	26	10	mg/kg	EPA 8015B	
Barium		190	4.0	mg/kg	EPA 6010b	RE-01
Chromium		41	2.0	mg/kg	EPA 6010b	
Cobalt		9.8	2.0	mg/kg	EPA 6010b	
Copper		26	1.0	mg/kg	EPA 6010b	
Lead		6.4	3.0	mg/kg	EPA 6010b	
Nickel		59	2.0	mg/kg	EPA 6010b	
Vanadium		30	5.0	mg/kg	EPA 6010b	
Zinc		77	1.0	mg/kg	EPA 6010b	
Sample ID:	DD5D-0	Laborat	tory ID:	T193941-48RE	1	

No Results Detected

Sample ID: DD6D-0	Laborato	ry ID:	T193941-49		
		Reporting			
Analyte	Result	Limit	Units	Method	Notes
C13-C28 (DRO)	11	10	mg/kg	EPA 8015B	
C29-C40 (MORO)	48	10	mg/kg	EPA 8015B	
Barium	200	4.0	mg/kg	EPA 6010b	RE-01
Chromium	40	2.0	mg/kg	EPA 6010b	
Cobalt	9.6	2.0	mg/kg	EPA 6010b	
Copper	25	1.0	mg/kg	EPA 6010b	
Lead	6.5	3.0	mg/kg	EPA 6010b	
Nickel	57	2.0	mg/kg	EPA 6010b	
Vanadium	29	5.0	mg/kg	EPA 6010b	

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Jeff Lee, Project Manager Page 9 of 66



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

Sample ID: DD6D-0	Laboratory ID:		T193941-49		
		Reporting			
Analyte	Result	Limit	Units	Method	Notes
Zinc	81	1.0	mg/kg	EPA 6010b	
4,4'-DDE	14	5.0	ug/kg	EPA 8081A	
Sample ID: DD7D-0	Laborat	Laboratory ID: T1			
		Reporting			
Analyte	Result	Limit	Units	Method	Notes
C13-C28 (DRO)	10	10	mg/kg	EPA 8015B	
C29-C40 (MORO)	35	10	mg/kg	EPA 8015B	
Barium	190	4.0	mg/kg	EPA 6010b	RE-01
Chromium	38	2.0	mg/kg	EPA 6010b	
Cobalt	9.4	2.0	mg/kg	EPA 6010b	
Copper	22	1.0	mg/kg	EPA 6010b	
Lead	4.9	3.0	mg/kg	EPA 6010b	
Nickel	57	2.0	mg/kg	EPA 6010b	
Vanadium	28	5.0	mg/kg	EPA 6010b	
Zinc	58	1.0	mg/kg	EPA 6010b	
4,4'-DDE	43	5.0	ug/kg	EPA 8081A	

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Jeff Lee, Project Manager

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

A1D-0 T193941-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes	
SunStar Laboratories, Inc.										
Metals by EPA 6010B										
Arsenic	ND	5.00	mg/kg	1	9111360	11/13/19	11/14/19	EPA 6010b		
Lead	4.47	3.00	"	"	**	"	"	**		

SunStar Laboratories, Inc.

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Jeff Lee, Project Manager Page 11 of 66



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

C1D-0 T193941-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes	
SunStar Laboratories, Inc.										
Metals by EPA 6010B										
Arsenic	ND	5.00	mg/kg	1	9111360	11/13/19	11/14/19	EPA 6010b		
Lead	4.33	3.00	**	"	**	"	11	**		

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Jeff Lee, Project Manager Page 12 of 66



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

C1D-0-CL T193941-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Metals by EPA 6010B									
Arsenic	ND	5.00	mg/kg	1	9111360	11/13/19	11/14/19	EPA 6010b	
Lead	4.72	3.00	**	"	**	"	"	"	

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Jeff Lee, Project Manager Page 13 of 66



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

ABCD1C-0 T193941-06 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Organochlorine Pesticides by EPA Me	thod 8081A								
alpha-BHC	ND	5.0	ug/kg	1	9111350	11/13/19	11/14/19	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	**	**	II .	"	
beta-BHC	ND	5.0	"	"	"	**	11	"	
delta-BHC	ND	5.0	"	"	"	**	11	"	
Heptachlor	ND	5.0	"	"	u	**	"	"	
Aldrin	ND	5.0	"	"	**	**	"	**	
Heptachlor epoxide	ND	5.0	"	11	Ħ	n		Ħ	
gamma-Chlordane	ND	5.0	"	"	**	**	**	**	
alpha-Chlordane	ND	5.0	"	n	Ħ	n	H .	TT .	
Endosulfan I	ND	5.0	"	"	Ħ	n	"	TT .	
4,4'-DDE	12	5.0	"	"	Ħ	**	"	TT .	
Dieldrin	ND	5.0	"	"	**	**	"	11	
Endrin	ND	5.0	"	"	**	**	"	11	
4,4´-DDD	ND	5.0	"	11	Ħ	n	n n	Ħ	
Endosulfan II	ND	5.0	"	n	Ħ	**	H .	Ħ	
4,4'-DDT	ND	5.0	"	n	Ħ	**	11	tt .	
Endrin aldehyde	ND	5.0	"	n	Ħ	n		TT .	
Endosulfan sulfate	ND	5.0	"	n	Ħ	n		TT .	
Methoxychlor	ND	5.0	"	"	**	**	"	"	
Endrin ketone	ND	5.0	"	"	**	**	"	"	
Toxaphene	ND	20	"	"	"	"	"	"	
Chlordane (tech)	ND	50	"	"	"	"	"	"	
Chlordane (Total)	ND	5.0	"	"	"	"	п	"	
Surrogate: Tetrachloro-meta-xylene		126 %	35-	140	"	"	"	n.	
Surrogate: Decachlorobiphenyl		107 %	35-	140	"	"	"	"	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

ABCD2C-0 T193941-15 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Organochlorine Pesticides by EPA Me	thod 8081A								
alpha-BHC	ND	5.0	ug/kg	1	9111350	11/13/19	11/14/19	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	11	"	**	11	"	
beta-BHC	ND	5.0	"	"	"	**	"	n	
delta-BHC	ND	5.0	"	"	"	**	"	n	
Heptachlor	ND	5.0	"	"	"	Ħ	**	Ħ	
Aldrin	ND	5.0	"	"	**	**	m	17	
Heptachlor epoxide	ND	5.0	"	"	**	**	**	17	
gamma-Chlordane	ND	5.0	"	"	**	**	**	17	
alpha-Chlordane	ND	5.0	"	n	**	ti .	H .	Ħ	
Endosulfan I	ND	5.0	"	"	**	ti .		Ħ	
4,4'-DDE	11	5.0	"	"	**	**	"	Ħ	
Dieldrin	ND	5.0	"	"	"	**	"	17	
Endrin	ND	5.0	"	"	"	**	**	17	
4,4´-DDD	ND	5.0	"	"	**	**	m	17	
Endosulfan II	ND	5.0	"	n	**	Ħ	H .	tt	
4,4'-DDT	ND	5.0	"	n	**	Ħ		Ħ	
Endrin aldehyde	ND	5.0	"	n	**	Ħ	H .	Ħ	
Endosulfan sulfate	ND	5.0	"	n	**	**	H .	Ħ	
Methoxychlor	ND	5.0	"	"	**	**	"	**	
Endrin ketone	ND	5.0	"	"	"	**	"	"	
Toxaphene	ND	20	"	"	"	"	"	"	
Chlordane (tech)	ND	50	"	"	"	"	"	"	
Chlordane (Total)	ND	5.0	"	"	"	"	н	"	
Surrogate: Tetrachloro-meta-xylene		118 %	35-	140	"	"	"	"	
Surrogate: Decachlorobiphenyl		128 %	35-	140	"	"	"	"	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

ABCD2C-0-FR T193941-16 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Organochlorine Pesticides by EPA Me	thod 8081A								
alpha-BHC	ND	5.0	ug/kg	1	9111350	11/13/19	11/14/19	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	**	11	"	
beta-BHC	ND	5.0	"	"	"	**	"	n	
delta-BHC	ND	5.0	"	"	"	**	"	n	
Heptachlor	ND	5.0	"	"	"	Ħ	**	Ħ	
Aldrin	ND	5.0	"	"	**	**	m	17	
Heptachlor epoxide	ND	5.0	"	"	**	**	**	17	
gamma-Chlordane	ND	5.0	"	"	**	**	**	17	
alpha-Chlordane	ND	5.0	"	n n	**	ti .	H .	Ħ	
Endosulfan I	ND	5.0	"	"	**	ti .		Ħ	
4,4'-DDE	8.7	5.0	"	"	**	**	"	Ħ	
Dieldrin	ND	5.0	"	11	"	**	"	17	
Endrin	ND	5.0	"	11	"	**	**	17	
4,4´-DDD	ND	5.0	"	11	**	**	m	17	
Endosulfan II	ND	5.0	"	n	**	Ħ	H .	tt	
4,4'-DDT	ND	5.0	"	n	**	Ħ		Ħ	
Endrin aldehyde	ND	5.0	"	n	**	ti .	H .	Ħ	
Endosulfan sulfate	ND	5.0	"	n	**	ti .	H .	Ħ	
Methoxychlor	ND	5.0	"	"	**	**	"	**	
Endrin ketone	ND	5.0	"	"	"	**	"	"	
Toxaphene	ND	20	"	"	"	"	"	"	
Chlordane (tech)	ND	50	"	"	"	"	"	"	
Chlordane (Total)	ND	5.0	"	"	"	"	н	"	
Surrogate: Tetrachloro-meta-xylene		119 %	35-	140	"	"	"	"	
Surrogate: Decachlorobiphenyl		77.6 %	35-	140	"	"	"	"	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

B3D-0

T193941-18 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar La	aborator	ies, Inc.					
Metals by EPA 6010B									
Arsenic	ND	5.00	mg/kg	1	9111360	11/13/19	11/14/19	EPA 6010b	
Lead	4.67	3.00	"	"	**	"	"	'n	

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Jeff Lee, Project Manager Page 17 of 66



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

B3D-0-FR T193941-19 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	ies, Inc.					
Metals by EPA 6010B									
Arsenic	ND	5.00	mg/kg	1	9111360	11/13/19	11/14/19	EPA 6010b	
Lead	4.28	3.00	"	"	**	u u	n .	**	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

D3D-0 T193941-21 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Metals by EPA 6010B									
Arsenic	ND	5.00	mg/kg	1	9111360	11/13/19	11/14/19	EPA 6010b	
Lead	4.54	3.00	"	n	11	n	11	"	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

ABCD3C-0 T193941-22 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Organochlorine Pesticides by EPA Meth	od 8081A								
alpha-BHC	ND	5.0	ug/kg	1	9111350	11/13/19	11/14/19	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	**	11	**	"	"	"	
beta-BHC	ND	5.0	**	11	**	"	"	"	
delta-BHC	ND	5.0	**	11	**	**	"	"	
Heptachlor	ND	5.0	"	"	**	"	"	n	
Aldrin	ND	5.0	"	"	**	"	"	n	
Heptachlor epoxide	ND	5.0	**	"	**	"	"	n	
gamma-Chlordane	ND	5.0	**	"	**	"	"	n	
alpha-Chlordane	ND	5.0	**	"	**	"	"	n	
Endosulfan I	ND	5.0	**	"	**	"	"	n	
4,4′-DDE	9.8	5.0	**	"	**	"	"	n	
Dieldrin	ND	5.0	**	11	**	"	"	"	
Endrin	ND	5.0	**	11	**	**	"	"	
4,4'-DDD	ND	5.0	**	"	**	**	"	"	
Endosulfan II	ND	5.0	**	"	**	**	"	"	
4,4'-DDT	ND	5.0	**	"	**	**	"	"	
Endrin aldehyde	ND	5.0	**	"	**	**	"	"	
Endosulfan sulfate	ND	5.0	**	"	**	"	"	n	
Methoxychlor	ND	5.0	**	"	**	"	"	n	
Endrin ketone	ND	5.0	**	"	**	"	"	n	
Toxaphene	ND	20	"	"	**	"	"	n	
Chlordane (tech)	ND	50	"	"	**	"	n	n	
Chlordane (Total)	ND	5.0	"	"	17	"	n	n	
Surrogate: Tetrachloro-meta-xylene	<u> </u>	120 %	35-	140	"	n	"	"	
Surrogate: Decachlorobiphenyl		67.0 %	35-	140	"	"	"	"	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

ABCD4C-0 T193941-27 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Organochlorine Pesticides by EPA Me	ethod 8081A								
alpha-BHC	ND	5.0	ug/kg	1	9111350	11/13/19	11/14/19	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	n	
beta-BHC	ND	5.0	"	"	"	"	"	17	
delta-BHC	ND	5.0	"	"	"	**	"	17	
Heptachlor	ND	5.0	"	n	"	Ħ	"	11	
Aldrin	ND	5.0	"	n	**	**	**	tt	
Heptachlor epoxide	ND	5.0	"	n	**	**	**	tt	
gamma-Chlordane	ND	5.0	"	n	**	**	11	Ħ	
alpha-Chlordane	ND	5.0	**	"	"	**	11	**	
Endosulfan I	ND	5.0	**	"	"	**	"	**	
4,4'-DDE	7.6	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	17	**	"	Ħ	
Endrin	ND	5.0	"	11	**	**	11	Ħ	
4,4′-DDD	ND	5.0	**	"	"	**	11	**	
Endosulfan II	ND	5.0	"	"	"	**	11	**	
4,4´-DDT	ND	5.0	"	11	"	**	11	Ħ	
Endrin aldehyde	ND	5.0	**	"	"	**	11	**	
Endosulfan sulfate	ND	5.0	**	"	"	**	11	**	
Methoxychlor	ND	5.0	**	"	"	**	"	**	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	20	"	"	"	"	"	"	
Chlordane (tech)	ND	50	"	"	"	"	"	"	
Chlordane (Total)	ND	5.0	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		116 %	35-	140	"	"	"	"	
Surrogate: Decachlorobiphenyl		74.3 %	35-	140	"	"	"	"	

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Jeff Lee, Project Manager Page 21 of 66



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

HHS1D-2 T193941-28 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aborator	ies, Inc.					
Metals by EPA 6010B									
Arsenic	ND	5.00	mg/kg	1	9111360	11/13/19	11/14/19	EPA 6010b	
Lead	4.32	3.00	"	"	**	n	H	n	

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Jeff Lee, Project Manager Page 22 of 66



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

HHS2D-2 T193941-29 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	ies, Inc.					
Metals by EPA 6010B									
Arsenic	ND	5.00	mg/kg	1	9111360	11/13/19	11/14/19	EPA 6010b	
Lead	4.35	3.00	"	"	"	"	11	"	

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Jeff Lee, Project Manager Page 23 of 66



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

HHS3D-2 T193941-30 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar La	aboratori	es, Inc.					
Metals by EPA 6010B									
Arsenic	ND	5.00	mg/kg	1	9111360	11/13/19	11/14/19	EPA 6010b	
Lead	4.07	3.00	**	"	**	"	11	"	

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Jeff Lee, Project Manager Page 24 of 66



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

HHS3D-2-FR T193941-31 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Metals by EPA 6010B									
Arsenic	ND	5.00	mg/kg	1	9111360	11/13/19	11/14/19	EPA 6010b	
Lead	3.74	3.00	"	n	"	**	n	"	

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Jeff Lee, Project Manager Page 25 of 66



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

HHS4D-2 T193941-32 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Metals by EPA 6010B									
Arsenic	ND	5.00	mg/kg	1	9111360	11/13/19	11/14/19	EPA 6010b	
Lead	3.97	3.00	"	"	**	**	n	"	

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Jeff Lee, Project Manager Page 26 of 66



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

HHS5D-2 T193941-33 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Metals by EPA 6010B									
Arsenic	ND	5.00	mg/kg	1	9111360	11/13/19	11/14/19	EPA 6010b	
Lead	3.72	3.00	"	"	"	u u	11	"	

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Jeff Lee, Project Manager Page 27 of 66



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

HHS5D-2-CL T193941-34 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar La	aboratori	es, Inc.					
Metals by EPA 6010B									
Arsenic	ND	5.00	mg/kg	1	9111360	11/13/19	11/14/19	EPA 6010b	
Lead	4.07	3.00	**	"	**	**	H.	**	

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Jeff Lee, Project Manager Page 28 of 66



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

HHS6D-2 T193941-35 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Metals by EPA 6010B									
Arsenic	ND	5.00	mg/kg	1	9111360	11/13/19	11/14/19	EPA 6010b	
Lead	4.08	3.00	"	"	**	u u	n .	"	

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Jeff Lee, Project Manager Page 29 of 66



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

HHS7D-2 T193941-36 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Metals by EPA 6010B									
Arsenic	ND	5.00	mg/kg	1	9111360	11/13/19	11/14/19	EPA 6010b	
Lead	3.80	3.00	"	**	**	**	m	17	

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Jeff Lee, Project Manager Page 30 of 66



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

HHS8D-2 T193941-37 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	ies, Inc.					
Metals by EPA 6010B									
Arsenic	ND	5.00	mg/kg	1	9111360	11/13/19	11/14/19	EPA 6010b	
Lead	4.22	3.00	"	"	**	u u	n .	"	

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Jeff Lee, Project Manager Page 31 of 66



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

PMT-E6D-0 T193941-38 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Polychlorinated Biphenyls by EPA Mo	ethod 8082								
PCB-1016	ND	10	ug/kg	1	9111415	11/14/19	11/14/19	EPA 8082	
PCB-1221	ND	10	**	**	n	**	11	**	
PCB-1232	ND	10	**	"	n	**	11	TT .	
PCB-1242	ND	10	"	"	n	**	11	TT .	
PCB-1248	ND	10	"	"	n	**	11	TT .	
PCB-1254	ND	10	**	"	n	**	11	**	
PCB-1260	ND	10	11	**	u	**	II	Ü	
Surrogate: Tetrachloro-meta-xylene		76.8 %	35-1	40	"	"	"	"	
Surrogate: Decachlorobiphenyl		75.2 %	35-1	40	"	"	"	"	

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Jeff Lee, Project Manager Page 32 of 66



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

PMT-E6D-0-CL T193941-39 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Polychlorinated Biphenyls by EPA Method	8082								
PCB-1016	ND	10	ug/kg	1	9111415	11/14/19	11/14/19	EPA 8082	
PCB-1221	ND	10	"	**	**	**	11	**	
PCB-1232	ND	10	"	**	**	**	II .	17	
PCB-1242	ND	10	"	**	**	**	II.	17	
PCB-1248	ND	10	**	**	n	n	II .	**	
PCB-1254	ND	10	m .	"	**	**	11	tt.	
PCB-1260	ND	10	**	**	**	**	II.	**	
Surrogate: Tetrachloro-meta-xylene		88.1 %	35-1	140	"	"	"	"	
Surrogate: Decachlorobiphenyl		102 %	35-1	140	"	"	"	"	

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Jeff Lee, Project Manager

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

PMT-E6D-2 T193941-40 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Polychlorinated Biphenyls by EPA Mo	ethod 8082								
PCB-1016	ND	10	ug/kg	1	9111415	11/14/19	11/14/19	EPA 8082	
PCB-1221	ND	10	"	n	17	17	11	Ħ	
PCB-1232	ND	10	"	"	**	**	ıı	17	
PCB-1242	ND	10	"	n	**	**	II	Ħ	
PCB-1248	ND	10	11	n	"	**	11	Ħ	
PCB-1254	ND	10	11	"	**	**	II	Ħ	
PCB-1260	ND	10	"	"	**	**	II	Ħ	
Surrogate: Tetrachloro-meta-xylene		87.3 %	35	140	"	"	"	"	
Surrogate: Decachlorobiphenyl		119 %	35	140	n	n	"	"	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

EB-1 T193941-41 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar La	aboratori	es, Inc.					
Extractable Petroleum Hydrocarbons l	oy 8015B								
C6-C12 (GRO)	ND	50	ug/l	1	9111347	11/13/19	11/14/19	EPA 8015B	
C13-C28 (DRO)	ND	50	**	n	"	"	"	Ħ	
C29-C40 (MORO)	ND	100	**	n	"	"	"	Ħ	
Surrogate: p-Terphenyl		115 %	65-	135	"	"	"	n .	
Metals by EPA 6010B									
Antimony	ND	50	ug/l	1	9111354	11/13/19	11/15/19	EPA 6010b	
Silver	ND	50	**	n	**	Ħ	H .	Ħ	
Arsenic	ND	50	**	n	**	Ħ	H .	Ħ	
Barium	ND	50	**	"	**	**	II	Ħ	
Beryllium	ND	50	**	"	**	n	11/15/19	Ħ	
Cadmium	ND	50	**	"	"	n	11/15/19	Ħ	
Chromium	ND	50	**	"	"	n	"	Ħ	
Cobalt	ND	50	**	"	"	n	"	Ħ	
Copper	ND	50	**	11	"	"	"	Ħ	
Lead	ND	50	**	11	"	"	"	Ħ	
Molybdenum	ND	50	**	11	"	"	"	Ħ	
Nickel	ND	50	"	11	"	"	"	**	
Selenium	ND	50	**	"	"	"	"	**	
Thallium	ND	50	**	"	"	**	"	**	
Vanadium	ND	50	**	"	"	**	"	**	
Zinc	ND	50	**	"	**	**	"	u	
Cold Vapor Extraction EPA 7470/7471									
Mercury	ND	0.50	ug/l	1	9111355	11/13/19	11/15/19	EPA 7470A Water	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

EB-1 T193941-41 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar La	aboratori	ies, Inc.					
Organochlorine Pesticides by EPA Me	ethod 8081A								
alpha-BHC	ND	1.00	ug/l	1	9111344	11/13/19	11/13/19	EPA 8081A	
gamma-BHC (Lindane)	ND	1.00	"	"	**	Ħ	II .	"	
beta-BHC	ND	1.00	"	11	**	**	"	"	
delta-BHC	ND	1.00	"	11	**	**	"	"	
Heptachlor	ND	1.00	"	"	**	"	"	"	
Aldrin	ND	1.00	"	"	**	**	"	n	
Heptachlor epoxide	ND	1.00	"	"	**	**	"	n	
gamma-Chlordane	ND	1.00	"	"	**	**	"	n	
alpha-Chlordane	ND	1.00	"	"	**	**	"	n	
Endosulfan I	ND	1.00	"	"	**	**	"	n	
4,4'-DDE	ND	1.00	"	"	**	**	"	Ħ	
Dieldrin	ND	1.00	"	"	**	**	"	n	
Endrin	ND	1.00	"	"	**	***	"	n	
4,4′-DDD	ND	1.00	"	"	17	17	"	n	
Endosulfan II	ND	1.00	"	"	**	***	"	n	
4,4'-DDT	ND	1.00	"	n	**	**	"	Ħ	
Endrin aldehyde	ND	1.00	"	"	11	11	"	Ħ	
Endosulfan sulfate	ND	1.00	"	"	**	**	"	Ħ	
Methoxychlor	ND	1.00	"	"	**	**	"	Ħ	
Endrin ketone	ND	1.00	"	n	**	**	"	Ħ	
Chlordane (tech)	ND	10.0	"	n	**	**	"	Ħ	
Toxaphene	ND	20.0	"	n	**	**	11	Ħ	
Surrogate: Tetrachloro-meta-xylene		61.2 %	35-	140	"	"	"	"	
Surrogate: Decachlorobiphenyl		77.7 %	35-	140	"	"	"	n	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

DD1D-0 T193941-42 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Extractable Petroleum Hydrocarbo	ons by 8015B								
C6-C12 (GRO)	ND	10	mg/kg	1	9111411	11/14/19	11/15/19	EPA 8015B	
C13-C28 (DRO)	ND	10	**	"	"	"	"	"	
C29-C40 (MORO)	17	10	**	"	**	"	"	"	
Surrogate: p-Terphenyl		106 %	65-1	135	"	н	"	"	
Metals by EPA 6010B									
Antimony	ND	3.0	mg/kg	1	9111418	11/14/19	11/15/19	EPA 6010b	
Silver	ND	2.0	**	"	"	n	"	"	
Arsenic	ND	5.0	**	"	"	"	"	"	
Barium	70	1.0	**	**	**	"	n	"	
Beryllium	ND	1.0	**	"	**	**	11/15/19	**	
Cadmium	ND	2.0	**	"	**	**	11/15/19	**	
Chromium	40	2.0	**	"	**	"	"	**	
Cobalt	9.7	2.0	**	"	"	"	"	"	
Copper	23	1.0	**	"	**	**	H	**	
Lead	4.5	3.0	**	"	**	11	II	**	
Molybdenum	ND	5.0	**	**	**	**	H	Ħ	
Nickel	59	2.0	**	"	**	n	H	tt	
Selenium	ND	5.0	**	**	**	**	11	Ħ	
Thallium	ND	2.0	**	"	**	11	11	**	
Vanadium	28	5.0	**	"	"	"	"	"	
Zinc	52	1.0	**	"	**	**	"	**	
Cold Vapor Extraction EPA 7470/7	471								
Mercury	ND	0.10	mg/kg	1	9111422	11/14/19	11/15/19	EPA 7471A Soil	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

DD1D-0 T193941-42 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Organochlorine Pesticides by EPA Me	thod 8081A								
alpha-BHC	ND	5.0	ug/kg	1	9111350	11/13/19	11/14/19	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	11	**	"	11	"	
beta-BHC	ND	5.0	"	"	**	"	n	n	
delta-BHC	ND	5.0	"	"	**	"	n	n	
Heptachlor	ND	5.0	"	"	**	"	n	n	
Aldrin	ND	5.0	"	"	**	**	n	17	
Heptachlor epoxide	ND	5.0	"	"	**	**	H	17	
gamma-Chlordane	ND	5.0	"	"	**	**	n	17	
alpha-Chlordane	ND	5.0	"	"	**	**	H .	17	
Endosulfan I	ND	5.0	"	"	**	**	n	17	
4,4'-DDE	9.3	5.0	"	"	**	**	H	17	
Dieldrin	ND	5.0	"	"	**	"	n	n	
Endrin	ND	5.0	"	"	**	"	n	n	
4,4´-DDD	ND	5.0	"	"	**	"	n .	n	
Endosulfan II	ND	5.0	"	"	**	"	n .	n	
4,4´-DDT	ND	5.0	"	"	**	"	H .	n	
Endrin aldehyde	ND	5.0	"	"	**	"	H .	n	
Endosulfan sulfate	ND	5.0	"	"	**	**	H .	17	
Methoxychlor	ND	5.0	"	"	**	**	n	17	
Endrin ketone	ND	5.0	"	"	**	**	H	17	
Toxaphene	ND	20	"	"	**	**	II	17	
Chlordane (tech)	ND	50	"	"	**	11	II	17	
Chlordane (Total)	ND	5.0	"	"	**	11	H .	17	
Surrogate: Tetrachloro-meta-xylene		120 %	35-	140	"	n	"	"	
Surrogate: Decachlorobiphenyl		96.6 %	35-	140	"	"	"	"	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

DD2D-0 T193941-43 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratorio	es, Inc.					
Extractable Petroleum Hydrocarbons b	y 8015B								
C6-C12 (GRO)	ND	10	mg/kg	1	9111411	11/14/19	11/15/19	EPA 8015B	
C13-C28 (DRO)	ND	10	**	"	**	"	"	"	
C29-C40 (MORO)	17	10	"	"	**	"	"	"	
Surrogate: p-Terphenyl		111 %	65-1	35	"	"	"	n	
Metals by EPA 6010B									
Antimony	ND	3.0	mg/kg	1	9111418	11/14/19	11/15/19	EPA 6010b	
Silver	ND	2.0	**	"	11	"	II	Ħ	
Arsenic	ND	5.0	**	"	"	"	"	Ħ	
Barium	65	1.0	**	"	**	"	"	"	
Beryllium	ND	1.0	**	"	**	"	11	**	
Cadmium	ND	2.0	**	"	**	"	"	**	
Chromium	40	2.0	**	"	**	"	"	"	
Cobalt	9.2	2.0	**	"	"	"	"	"	
Copper	22	1.0	**	"	**	"	11	**	
Lead	4.7	3.0	**	"	**	"	II	Ħ	
Molybdenum	ND	5.0	**	"	**	· ·	H	tt	
Nickel	56	2.0	**	"	**	n	H	tt	
Selenium	ND	5.0	**	"	**	17	11	17	
<u> Fhallium</u>	ND	2.0	**	"	**	"	11	Ħ	
Vanadium	27	5.0	**	"	"	"	"	"	
Zinc	52	1.0	**	"	**	"	"	**	
Cold Vapor Extraction EPA 7470/7471									
Mercury	ND	0.10	mg/kg	1	9111422	11/14/19	11/15/19	EPA 7471A Soil	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
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DD2D-0 T193941-43 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Organochlorine Pesticides by EPA Me	thod 8081A								
alpha-BHC	ND	5.0	ug/kg	1	9111350	11/13/19	11/14/19	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	11	**	"	"	"	
beta-BHC	ND	5.0	"	"	**	"	"	n	
delta-BHC	ND	5.0	"	"	**	"	"	n	
Heptachlor	ND	5.0	"	"	**	"	"	n	
Aldrin	ND	5.0	"	"	**	**	"	n	
Heptachlor epoxide	ND	5.0	"	"	**	**	"	n	
gamma-Chlordane	ND	5.0	"	"	**	**	"	n	
alpha-Chlordane	ND	5.0	"	n	**	**	11	n	
Endosulfan I	ND	5.0	"	"	**	**	"	TT .	
4,4'-DDE	11	5.0	"	"	**	**	"	TT .	
Dieldrin	ND	5.0	"	"	**	"	"	n	
Endrin	ND	5.0	"	"	**	**	"	n	
4,4´-DDD	ND	5.0	"	"	**	**	"	n	
Endosulfan II	ND	5.0	"	"	**	**	"	n	
4,4´-DDT	ND	5.0	"	"	**	**	"	n	
Endrin aldehyde	ND	5.0	"	n	**	**	11	n	
Endosulfan sulfate	ND	5.0	"	n	**	**	11	n	
Methoxychlor	ND	5.0	"	"	**	**	"	n	
Endrin ketone	ND	5.0	"	"	**	**	"	TT .	
Toxaphene	ND	20	"	"	"	"	"	"	
Chlordane (tech)	ND	50	"	"	"	n	II.	17	
Chlordane (Total)	ND	5.0	"	"	"	n	II.	17	
Surrogate: Tetrachloro-meta-xylene		112 %	35-	140	11	"	"	"	
Surrogate: Decachlorobiphenyl		69.0 %	35-	140	"	"	"	"	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

DD2D-0-CL T193941-44 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
_		SunStar L	aboratori	es, Inc.					
Extractable Petroleum Hydrocarbons by 80)15B								
C6-C12 (GRO)	ND	10	mg/kg	1	9111411	11/14/19	11/15/19	EPA 8015B	
C13-C28 (DRO)	ND	10	"	"	**	11	II	"	
C29-C40 (MORO)	25	10	**	"	**	**	"	"	
Surrogate: p-Terphenyl		111 %	65-1	35	"	"	"	"	
Metals by EPA 6010B									
Antimony	ND	2.7	mg/kg	1	9111418	11/14/19	11/15/19	EPA 6010b	
Silver	ND	1.8	"	"	17	17	n	11	
Arsenic	ND	4.5	**	"	**	**	H	"	
Barium	65	0.91	**	"	"	"	"	"	
Beryllium	ND	0.91	**	"	**	n	11/15/19	**	
Cadmium	ND	1.8	**	"	**	**	11/15/19	**	
Chromium	37	1.8	**	"	**	**	"	**	
Cobalt	8.7	1.8	**	"	"	"	"	"	
Copper	21	0.91	**	"	**	n	H.	**	
Lead	4.5	2.7	**	"	**	**	"	11	
Molybdenum	ND	4.5	"	**	**	**	H	Ħ	
Nickel	54	1.8	**	"	**	n	H.	**	
Selenium	ND	4.5	**	"	**	**	11	11	
Thallium	ND	1.8	"	"	**	**	11	"	
Vanadium	26	4.5	"	"	"	"	"	"	
Zinc	52	0.91	**	**	**	**	"	"	
Cold Vapor Extraction EPA 7470/7471									
Mercury	ND	0.10	mg/kg	1	9111422	11/14/19	11/15/19	EPA 7471A Soil	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

DD2D-0-CL T193941-44 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Organochlorine Pesticides by EPA Me	thod 8081A								
alpha-BHC	ND	5.0	ug/kg	1	9111350	11/13/19	11/14/19	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	11	**	**	11	"	
beta-BHC	ND	5.0	"	11	**	**	11	"	
delta-BHC	ND	5.0	"	11	**	**	11	"	
Heptachlor	ND	5.0	"	"	**	**	"	n	
Aldrin	ND	5.0	"	"	**	**	m	17	
Heptachlor epoxide	ND	5.0	"	"	**	**	**	17	
gamma-Chlordane	ND	5.0	"	"	**	**	**	17	
alpha-Chlordane	ND	5.0	"	"	**	**	**	17	
Endosulfan I	ND	5.0	"	"	**	**	H .	17	
4,4'-DDE	12	5.0	"	"	**	**	II	17	
Dieldrin	ND	5.0	"	"	**	**	"	n	
Endrin	ND	5.0	"	"	**	**	"	n	
4,4´-DDD	ND	5.0	"	"	**	Ħ	**	Ħ	
Endosulfan II	ND	5.0	"	"	**	**	m	17	
4,4'-DDT	ND	5.0	"	"	**	**	**	17	
Endrin aldehyde	ND	5.0	"	"	**	**	**	17	
Endosulfan sulfate	ND	5.0	"	"	**	**	**	17	
Methoxychlor	ND	5.0	"	"	n	Ħ	H .	tt	
Endrin ketone	ND	5.0	"	n	**	Ħ	II .	tt	
Toxaphene	ND	20	"	"	**	Ħ	II .	Ħ	
Chlordane (tech)	ND	50	"	"	"	"	II .	Ħ	
Chlordane (Total)	ND	5.0	"	n	11	11	II .	Ħ	
Surrogate: Tetrachloro-meta-xylene		106 %	35-	140	"	"	"	"	
Surrogate: Decachlorobiphenyl		57.7 %	35-	140	"	"	"	"	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

DD3D-0 T193941-45 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratorie	es, Inc.					
Extractable Petroleum Hydrocarbons b	oy 8015B								
C6-C12 (GRO)	ND	10	mg/kg	1	9111411	11/14/19	11/15/19	EPA 8015B	
C13-C28 (DRO)	ND	10	"	"	"	"	II .	Ħ	
C29-C40 (MORO)	16	10	m .	11	11	n	II	Ħ	
Surrogate: p-Terphenyl		96.0 %	65-1	35	"	n	"	"	
Metals by EPA 6010B									
Antimony	ND	3.0	mg/kg	1	9111418	11/14/19	11/15/19	EPA 6010b	
Silver	ND	2.0	"	"	17	n	II .	Ħ	
Arsenic	ND	5.0	"	"	"	"	"	Ħ	
Barium	62	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	**	**	**	"	**	
Cadmium	ND	2.0	"	**	"	**	"	**	
Chromium	35	2.0	"	"	"	"	"	**	
Cobalt	8.4	2.0	"	"	"	"	"	**	
Copper	20	1.0	"	**	"	**	"	**	
Lead	4.8	3.0	"	"	17	**	H	Ħ	
Molybdenum	ND	5.0	"	**	**	Ħ	II	Ħ	
Nickel	50	2.0	"	**	**	Ħ	H .	tt	
Selenium	ND	5.0	"	"	17	**	n	Ħ	
Thallium	ND	2.0	"	"	"	"	II .	Ħ	
Vanadium	25	5.0	"	"	"	"	"	**	
Zinc	51	1.0	"	**	**	**	"	"	
Cold Vapor Extraction EPA 7470/7471									
Mercury	ND	0.10	mg/kg	1	9111422	11/14/19	11/15/19	EPA 7471A Soil	

SunStar Laboratories, Inc.

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

DD3D-0 T193941-45 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar La	aboratori	es, Inc.					
Organochlorine Pesticides by EPA Method 80	081A								
alpha-BHC	ND	5.0	ug/kg	1	9111350	11/13/19	11/14/19	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	**	"	"	u	n	**	
delta-BHC	ND	5.0	**	"	"	u	n	n	
Heptachlor	ND	5.0	**	"	"	Ħ	n	n	
Aldrin	ND	5.0	**	"	"	**	n .	n	
Heptachlor epoxide	ND	5.0	**	**	"	Ħ	n	n	
gamma-Chlordane	ND	5.0	**	**	"	Ħ	n .	n	
alpha-Chlordane	ND	5.0	**	**	**	**	ıı	n	
Endosulfan I	ND	5.0	**	"	**	Ħ	II	n	
4,4'-DDE	21	5.0	**	"	"	11	II	n	
Dieldrin	ND	5.0	**	"	"	u	n	n	
Endrin	ND	5.0	**	"	"	u	n	n	
4,4´-DDD	ND	5.0	**	"	"	**	n	n	
Endosulfan II	ND	5.0	**	"	"	**	n .	n	
4,4´-DDT	ND	5.0	**	**	"	**	II .	n	
Endrin aldehyde	ND	5.0	**	**	"	**	ıı	n	
Endosulfan sulfate	ND	5.0	**	"	**	Ħ	H	n	
Methoxychlor	ND	5.0	**	"	**	Ħ	II	n	
Endrin ketone	ND	5.0	**	"	Ħ	Ħ	II	n	
Toxaphene	ND	20	**	"	Ħ	Ħ	II	TI .	
Chlordane (tech)	ND	50	**	"	Ħ	Ħ	II	TI .	
Chlordane (Total)	ND	5.0	**	"	Ħ	Ħ	II	n	
Surrogate: Tetrachloro-meta-xylene		117 %	35-1	140	"	"	"	n .	
Surrogate: Decachlorobiphenyl		112 %	35-1		"	"	"	"	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

DD4D-0 T193941-46 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Extractable Petroleum Hydrocarbo	ons by 8015B								
C6-C12 (GRO)	ND	10	mg/kg	1	9111411	11/14/19	11/15/19	EPA 8015B	
C13-C28 (DRO)	ND	10	"	"	"	"	H.	"	
C29-C40 (MORO)	30	10	"	"	"	"	n	"	
Surrogate: p-Terphenyl		114 %	65-1	!35	"	"	"	"	
Metals by EPA 6010B									
Antimony	ND	3.0	mg/kg	1	9111418	11/14/19	11/15/19	EPA 6010b	
Silver	ND	2.0	"	n	"	"	п	"	
Arsenic	ND	5.0	"	n	"	"	н	"	
Barium	65	1.0	"	**	"	"	n	"	
Beryllium	ND	1.0	"	"	"	"	н	**	
Cadmium	ND	2.0	**	"	"	"	"	**	
Chromium	35	2.0	"	**	"	**	"	**	
Cobalt	9.1	2.0	"	"	"	"	и	"	
Copper	21	1.0	"	**	**	TT TT	11	tt	
Lead	5.2	3.0	"	**	**	17	"	Ħ	
Molybdenum	ND	5.0	"	**	"	"	II .	Ħ	
Nickel	52	2.0	"	**	**	TT TT	11	tt	
Selenium	ND	5.0	"	**	"	"	n .	Ħ	
Thallium	ND	2.0	"	**	**	"	"	Ħ	
Vanadium	26	5.0	"	"	"	"	и	**	
Zine	51	1.0	"	"	n	tt	"	"	
Cold Vapor Extraction EPA 7470/7	471								
Mercury	ND	0.10	mg/kg	1	9111422	11/14/19	11/15/19	EPA 7471A Soil	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

DD4D-0 T193941-46 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Organochlorine Pesticides by EPA Met	hod 8081A								
alpha-BHC	ND	5.0	ug/kg	1	9111350	11/13/19	11/14/19	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	11	**	"	11	"	
beta-BHC	ND	5.0	"	11	**	"	11	"	
delta-BHC	ND	5.0	"	11	**	**	11	"	
Heptachlor	ND	5.0	"	"	**	"	H.	n	
Aldrin	ND	5.0	"	"	**	"	H.	n	
Heptachlor epoxide	ND	5.0	"	"	**	"	II	n	
gamma-Chlordane	ND	5.0	"	"	**	"	II	n	
alpha-Chlordane	ND	5.0	"	"	**	"	H	n	
Endosulfan I	ND	5.0	"	"	**	**	**	Ħ	
4,4'-DDE	40	5.0	"	"	**	"	**	n	
Dieldrin	ND	5.0	"	11	**	"	11	"	
Endrin	ND	5.0	"	11	**	**	11	"	
4,4'-DDD	ND	5.0	"	"	**	**	11	"	
Endosulfan II	ND	5.0	"	"	**	**	11	"	
4,4'-DDT	ND	5.0	"	"	**	**	11	"	
Endrin aldehyde	ND	5.0	"	"	**	**	11	"	
Endosulfan sulfate	ND	5.0	"	"	**	"	**	n	
Methoxychlor	ND	5.0	"	"	**	"	**	n	
Endrin ketone	ND	5.0	"	"	**	"	**	n	
Toxaphene	ND	20	"	"	**	"	"	n	
Chlordane (tech)	ND	50	"	"	**	"	m .	n	
Chlordane (Total)	ND	5.0	"	"	17	"	n	n	
Surrogate: Tetrachloro-meta-xylene		116 %	35-	140	"	n	"	"	
Surrogate: Decachlorobiphenyl		89.6 %	35-	140	"	"	"	"	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

DD4D-0-FR T193941-47 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratorio	es, Inc.					
Extractable Petroleum Hydrocarbons by 80)15B								
C6-C12 (GRO)	ND	10	mg/kg	1	9111411	11/14/19	11/15/19	EPA 8015B	
C13-C28 (DRO)	ND	10	**	"	**	**	H	**	
C29-C40 (MORO)	33	10	**	"	Ħ	Ħ	II	Ħ	
Surrogate: p-Terphenyl		112 %	65-1	35	n	"	"	"	
Metals by EPA 6010B									
Antimony	ND	3.0	mg/kg	1	9111418	11/14/19	11/15/19	EPA 6010b	
Silver	ND	2.0	**	"	**	**	11	Ħ	
Arsenic	ND	5.0	**	"	**	17	W	Ħ	
Barium	64	1.0	**	"	**	11	II .	"	
Beryllium	ND	1.0	**	**	**	**	11/15/19	**	
Cadmium	ND	2.0	**	**	**	**	11/15/19	**	
Chromium	35	2.0	"	"	n	Ħ	H	**	
Cobalt	8.8	2.0	**	"	**	11	n	Ħ	
Copper	21	1.0	**	**	**	**	**	Ħ	
Lead	5.5	3.0	**	"	**	**	11	Ħ	
Molybdenum	ND	5.0	**	"	**	tt	11	**	
Nickel	51	2.0	**	"	**	**	11	"	
Selenium	ND	5.0	**	"	"	"	11	"	
Thallium	ND	2.0	**	"	**	11	n	Ħ	
Vanadium	25	5.0	"	"	**	Ħ	11	**	
Zinc	56	1.0	**	"	**	**	"	"	
Cold Vapor Extraction EPA 7470/7471									
Mercury	ND	0.10	mg/kg	1	9111422	11/14/19	11/15/19	EPA 7471A Soil	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

DD4D-0-FR T193941-47 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Organochlorine Pesticides by EPA Me	ethod 8081A								
alpha-BHC	ND	5.0	ug/kg	1	9111350	11/13/19	11/14/19	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	n	
beta-BHC	ND	5.0	"	"	"	"	"	Ħ	
delta-BHC	ND	5.0	"	"	"	"	"	Ħ	
Heptachlor	ND	5.0	"	n	"	n	"	Ħ	
Aldrin	ND	5.0	"	n	**	n	**	Ħ	
Heptachlor epoxide	ND	5.0	"	n	**	v	**	Ħ	
gamma-Chlordane	ND	5.0	"	n	**	v	11	Ħ	
alpha-Chlordane	ND	5.0	"	n	**	v	11	Ħ	
Endosulfan I	ND	5.0	"	n	**	v	"	Ħ	
4,4′-DDE	36	5.0	"	"	**	**	"	Ħ	
Dieldrin	ND	5.0	"	"	"	"	"	n	
Endrin	ND	5.0	"	"	"	"	"	Ħ	
4,4´-DDD	ND	5.0	"	n	**	n	"	Ħ	
Endosulfan II	ND	5.0	"	n	**	n	**	Ħ	
4,4´-DDT	ND	5.0	"	n	**	n	**	Ħ	
Endrin aldehyde	ND	5.0	"	n	**	v	11	Ħ	
Endosulfan sulfate	ND	5.0	"	n	**	v	11	Ħ	
Methoxychlor	ND	5.0	**	"	"	"	"	**	
Endrin ketone	ND	5.0	"	"	"	"	"	**	
Toxaphene	ND	20	"	"	"	"	"	"	
Chlordane (tech)	ND	50	"	"	"	"	"	"	
Chlordane (Total)	ND	5.0	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		114 %	35-	140	"	"	"	"	
Surrogate: Decachlorobiphenyl		81.8 %	35-	140	"	"	"	"	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

DD5D-0 T193941-48 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratorio	es, Inc.					
Extractable Petroleum Hydrocarb	ons by 8015B								
C6-C12 (GRO)	ND	10	mg/kg	1	9111411	11/14/19	11/15/19	EPA 8015B	_
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	26	10	"	11	**	n	11	Ħ	
Surrogate: p-Terphenyl		111 %	65-1	'35	"	"	"	"	
Metals by EPA 6010B									
Antimony	ND	3.0	mg/kg	1	9111418	11/14/19	11/15/19	EPA 6010b	
Silver	ND	2.0	"	"	"	n	"	n	
Arsenic	ND	5.0	"	"	"	"	"	"	
Barium	190	4.0	**	4	"	"	11/15/19	"	RE-01
Beryllium	ND	1.0	**	1	**	Ħ	11/15/19	**	
Cadmium	ND	2.0	**	**	Ħ	Ħ	H	**	
Chromium	41	2.0	**	**	**	"	"	**	
Cobalt	9.8	2.0	**	"	**	"	11	"	
Copper	26	1.0	**	**	**	**	H	**	
Lead	6.4	3.0	**	"	"	"	W	11	
Molybdenum	ND	5.0	**	**	"	"	W	**	
Nickel	59	2.0	**	**	**	**	H	**	
Selenium	ND	5.0	**	"	"	"	W	11	
Гhallium	ND	2.0	**	"	**	**	H	11	
Vanadium	30	5.0	**	"	**	"	11	**	
Zinc	77	1.0	**	11	**	**	"	ti .	
Cold Vapor Extraction EPA 7470/7	7471								
Mercury	ND	0.10	mg/kg	1	9111422	11/14/19	11/15/19	EPA 7471A Soil	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

DD5D-0 T193941-48RE1 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Organochlorine Pesticides by EPA Method	l 8081A								
alpha-BHC	ND	5.0	ug/kg	1	9112036	11/20/19	11/26/19	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	n	**	**	11	**	
beta-BHC	ND	5.0	"	n	**	**	11	**	
delta-BHC	ND	5.0	"	n	**	**	11	**	
Heptachlor	ND	5.0	"	"	**	**	"	**	
Aldrin	ND	5.0	"	"	**	**	"	**	
Heptachlor epoxide	ND	5.0	**	"	**	**	II	tt	
gamma-Chlordane	ND	5.0	**	"	**	Ħ	II	17	
alpha-Chlordane	ND	5.0	"	"	**	Ħ	H	**	
Endosulfan I	ND	5.0	"	"	**	Ħ	II	17	
4,4′-DDE	ND	5.0	"	"	11	**	If	17	
Dieldrin	ND	5.0	"	"	17	**	II	17	
Endrin	ND	5.0	"	"	**	"	"	17	
4,4′-DDD	ND	5.0	**	"	"	"	"	"	
Endosulfan II	ND	5.0	**	"	"	"	"	"	
4,4′-DDT	ND	5.0	**	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	n	**	**	11	**	
Endosulfan sulfate	ND	5.0	**	"	**	**	11	"	
Methoxychlor	ND	5.0	"	"	**	**	11	"	
Endrin ketone	ND	5.0	"	"	**	**	11	"	
Toxaphene	ND	20	tt.	11	**	**	n	"	
Surrogate: Tetrachloro-meta-xylene		109 %	35-	140	"	"	"	"	
Surrogate: Decachlorobiphenyl		104 %	35-	140	"	"	"	"	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

DD6D-0 T193941-49 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratorio	es, Inc.					
Extractable Petroleum Hydrocarbons by 8	8015B								
C6-C12 (GRO)	ND	10	mg/kg	1	9111411	11/14/19	11/15/19	EPA 8015B	
C13-C28 (DRO)	11	10	"	"	**	Ħ	11	**	
C29-C40 (MORO)	48	10	**	**	**	Ħ	H	Ħ	
Surrogate: p-Terphenyl		117 %	65-1	35	"	"	"	"	
Metals by EPA 6010B									
Antimony	ND	3.0	mg/kg	1	9111418	11/14/19	11/15/19	EPA 6010b	
Silver	ND	2.0	**	**	**	**	11/15/19	Ħ	
Arsenic	ND	5.0	**	**	**	**	11/15/19	Ħ	
Barium	200	4.0	**	4	**	**	11/15/19	**	RE-01
Beryllium	ND	1.0	**	1	**	11	11/15/19	Ħ	
Cadmium	ND	2.0	**	**	**	11	11/15/19	11	
Chromium	40	2.0	**	"	11	11	11/15/19	"	
Cobalt	9.6	2.0	**	"	**	Ħ	11/15/19	**	
Copper	25	1.0	**	11	**	11	11/15/19	Ħ	
Lead	6.5	3.0	**	"	"	**	11/15/19	**	
Molybdenum	ND	5.0	**	"	"	"	11	**	
Nickel	57	2.0	**	11	"	"	11/15/19	11	
Selenium	ND	5.0	**	"	"	**	11/15/19	**	
Thallium	ND	2.0	**	**	**	**	**	Ħ	
Vanadium	29	5.0	**	"	**	Ħ	11/15/19	**	
Zinc	81	1.0	**	"	ti.	11	n	u u	
Cold Vapor Extraction EPA 7470/7471									
Mercury	ND	0.10	mg/kg	1	9111422	11/14/19	11/15/19	EPA 7471A Soil	

SunStar Laboratories, Inc.

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

DD6D-0 T193941-49 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar La	aboratori	es, Inc.					
Organochlorine Pesticides by EPA Method 8	081A								
alpha-BHC	ND	5.0	ug/kg	1	9111350	11/13/19	11/14/19	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	u	n	11	
delta-BHC	ND	5.0	"	"	"	u	n	**	
Heptachlor	ND	5.0	"	"	"	Ħ	n	**	
Aldrin	ND	5.0	**	"	"	**	n .	11	
Heptachlor epoxide	ND	5.0	**	**	"	Ħ	n	**	
gamma-Chlordane	ND	5.0	**	**	"	Ħ	n .	**	
alpha-Chlordane	ND	5.0	**	**	**	**	ıı	11	
Endosulfan I	ND	5.0	"	"	**	Ħ	II	11	
4,4'-DDE	14	5.0	"	"	"	11	II	17	
Dieldrin	ND	5.0	**	"	"	u	n	**	
Endrin	ND	5.0	**	"	"	u	n	**	
4,4´-DDD	ND	5.0	**	"	"	**	n	11	
Endosulfan II	ND	5.0	**	"	"	**	n .	11	
4,4´-DDT	ND	5.0	**	**	"	**	II .	11	
Endrin aldehyde	ND	5.0	**	**	"	**	ıı	11	
Endosulfan sulfate	ND	5.0	"	"	**	Ħ	H	**	
Methoxychlor	ND	5.0	"	"	**	Ħ	II	11	
Endrin ketone	ND	5.0	"	"	Ħ	Ħ	II	n	
Toxaphene	ND	20	"	"	Ħ	Ħ	II	n	
Chlordane (tech)	ND	50	"	"	Ħ	Ħ	II	TT.	
Chlordane (Total)	ND	5.0	"	"	Ħ	Ħ	II	11	
Surrogate: Tetrachloro-meta-xylene		116 %	35-1	140	"	"	"	"	
Surrogate: Decachlorobiphenyl		106 %	35-1		"	"	"	#	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

DD7D-0 T193941-50 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratorio	es, Inc.					
Extractable Petroleum Hydrocarbons by 8	8015B								
C6-C12 (GRO)	ND	10	mg/kg	1	9111411	11/14/19	11/15/19	EPA 8015B	
C13-C28 (DRO)	10	10	"	"	**	11	11	n	
C29-C40 (MORO)	35	10	"	**	**	Ħ	II .	11	
Surrogate: p-Terphenyl		119 %	65-1	35	"	"	"	"	
Metals by EPA 6010B									
Antimony	ND	3.0	mg/kg	1	9111418	11/14/19	11/15/19	EPA 6010b	
Silver	ND	2.0	"	"	**	**	"	11	
Arsenic	ND	5.0	"	"	**	**	II .	11	
Barium	190	4.0	n	4	**	**	11/15/19	tt.	RE-01
Beryllium	ND	1.0	"	1	**	**	11/15/19	11	
Cadmium	ND	2.0	"	"	**	**	11/15/19	11	
Chromium	38	2.0	"	"	11	"	11	ti .	
Cobalt	9.4	2.0	"	"	**	Ħ	"	**	
Copper	22	1.0	"	"	**	11	n .	11	
Lead	4.9	3.0	"	"	"	**	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
Nickel	57	2.0	**	"	"	**	"	**	
Selenium	ND	5.0	"	"	"	**	"	"	
Thallium	ND	2.0	**	"	**	**	"	**	
Vanadium	28	5.0	"	"	**	n	11	**	
Zinc	58	1.0	**	"	ti.	"	"	n	
Cold Vapor Extraction EPA 7470/7471									
Mercury	ND	0.10	mg/kg	1	9111422	11/14/19	11/15/19	EPA 7471A Soil	

SunStar Laboratories, Inc.

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

DD7D-0 T193941-50 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Organochlorine Pesticides by EPA Metho	od 8081A								
alpha-BHC	ND	5.0	ug/kg	1	9111350	11/13/19	11/14/19	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	**	11	**	**	11	"	
beta-BHC	ND	5.0	"	"	**	**	11	n	
delta-BHC	ND	5.0	"	"	**	**	H.	n	
Heptachlor	ND	5.0	"	"	**	**	H.	n	
Aldrin	ND	5.0	"	"	**	**	H	n	
Heptachlor epoxide	ND	5.0	**	"	**	**	**	n	
gamma-Chlordane	ND	5.0	**	"	**	**	H .	n	
alpha-Chlordane	ND	5.0	**	"	**	**	**	n	
Endosulfan I	ND	5.0	**	"	**	**	**	n	
4,4'-DDE	43	5.0	**	"	**	**	H .	n	
Dieldrin	ND	5.0	"	"	**	**	H.	n	
Endrin	ND	5.0	"	"	**	**	11	n	
4,4´-DDD	ND	5.0	"	"	**	**	H.	n	
Endosulfan II	ND	5.0	"	"	**	**	H.	n	
4,4´-DDT	ND	5.0	**	"	**	**	II	n	
Endrin aldehyde	ND	5.0	**	"	**	**	II	n	
Endosulfan sulfate	ND	5.0	**	"	**	**	**	n	
Methoxychlor	ND	5.0	**	"	**	**	**	n	
Endrin ketone	ND	5.0	**	"	**	**	H .	n	
Toxaphene	ND	20	**	"	17	**	II	n	
Chlordane (tech)	ND	50	**	"	17	11	II .	n	
Chlordane (Total)	ND	5.0	**	"	11	**	II .	n	
Surrogate: Tetrachloro-meta-xylene		126 %	35-	140	"	"	"	"	
Surrogate: Decachlorobiphenyl		96.3 %	35-	140	"	"	"	"	

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jeff Lee, Project Manager Page 54 of 66



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

Extractable Petroleum Hydrocarbons by 8015B - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9111347 - EPA 3510C GC										
Blank (9111347-BLK1)				Prepared: 1	1/13/19 Aı	nalyzed: 11	/14/19			
C6-C12 (GRO)	ND	50	ug/l			<u> </u>				
C13-C28 (DRO)	ND	50	IF							
C29-C40 (MORO)	ND	100	11							
Surrogate: p-Terphenyl	5900		"	4000		147	65-135			S-1.
LCS (9111347-BS1)				Prepared: 1	11/13/19 Aı	nalyzed: 11	/14/19			
C13-C28 (DRO)	19400	50	ug/l	20000		97.0	75-125			
Surrogate: p-Terphenyl	4670		n	4000		117	65-135			
LCS Dup (9111347-BSD1)				Prepared: 1	11/13/19 Aı	nalyzed: 11	/14/19			
C13-C28 (DRO)	19100	50	ug/l	20000		95.3	75-125	1.76	20	
Surrogate: p-Terphenyl	4820		"	4000		121	65-135			
Batch 9111411 - EPA 3550B GC										
Blank (9111411-BLK1)				Prepared: 1	11/14/19 Aı	nalyzed: 11	/15/19			
C6-C12 (GRO)	ND	10	mg/kg							
C13-C28 (DRO)	ND	10	"							
C29-C40 (MORO)	ND	10	11							
Surrogate: p-Terphenyl	112		"	101		111	65-135			
LCS (9111411-BS1)				Prepared: 1	1/14/19 Aı	nalyzed: 11	/15/19			
C13-C28 (DRO)	510	10	mg/kg	505		102	75-125			
Surrogate: p-Terphenyl	114		"	101		113	65-135			
LCS Dup (9111411-BSD1)				Prepared: 1	11/14/19 Aı	nalyzed: 11	/15/19			
C13-C28 (DRO)	500	10	mg/kg	505		99.7	75-125	1.88	20	
Surrogate: p-Terphenyl	110		"	101		109	65-135			

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jeff Lee, Project Manager Page 55 of 66



RPD

%REC

NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

Reporting

Metals by EPA 6010B - Quality Control

SunStar Laboratories, Inc.

Spike

Source

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 9111354 - EPA 3010A										
Blank (9111354-BLK1)				Prepared: 1	11/13/19 A i	nalyzed: 11	/14/19			
Antimony	ND	50	ug/l							
Silver	ND	50	"							
Arsenic	ND	50	11							
Barium	ND	50	"							
Beryllium	ND	50	"							
Cadmium	ND	50	"							
Chromium	ND	50	"							
Cobalt	ND	50	"							
Copper	ND	50	"							
Lead	ND	50	"							
Molybdenum	ND	50	"							
Nickel	ND	50	"							
Selenium	ND	50	"							
Thallium	ND	50	"							
Vanadium	ND	50	"							
Zinc	ND	50	"							
LCS (9111354-BS1)				Prepared: 1	11/13/19 A	nalyzed: 11	/14/19			
Arsenic	503	50	ug/l	500		101	75-125			
Barium	511	50	"	500		102	75-125			
Cadmium	512	50	"	500		102	75-125			
Chromium	513	50	"	500		103	75-125			
Lead	509	50	"	500		102	75-125			
Matrix Spike (9111354-MS1)	Sourc	e: T193930-	01	Prepared: 1	11/13/19 A	nalyzed: 11	/14/19			
Arsenic	528	50	ug/l	500	ND	106	75-125			_
Barium	662	50	11	500	170	98.4	75-125			QM-0:
Cadmium	505	50	11	500	ND	101	75-125			
Chromium	507	50	11	500	ND	101	75-125			
Lead	494	50	n	500	ND	98.8	75-125			

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jeff Lee, Project Manager Page 56 of 66



RPD

%REC

NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

Reporting

Metals by EPA 6010B - Quality Control

SunStar Laboratories, Inc.

Spike

Source

		Reporting		Spike	Source		%REC		KPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 9111354 - EPA 3010A										
Matrix Spike Dup (9111354-MSD1)	Sou	rce: T193930-	01	Prepared:	11/13/19 A	nalyzed: 11	/14/19			
Arsenic	529	50	ug/l	500	ND	106	75-125	0.209	20	
Barium	656	50	11	500	170	97.3	75-125	0.860	20	QM-0
Cadmium	498	50	11	500	ND	99.7	75-125	1.23	20	
Chromium	501	50	11	500	ND	100	75-125	1.28	20	
Lead	496	50	"	500	ND	99.1	75-125	0.352	20	
Batch 9111360 - EPA 3050B										
Blank (9111360-BLK1)				Prepared:	11/13/19 A	nalyzed: 11	/14/19			
Antimony	ND	3.00	mg/kg							
Arsenic	ND	5.00	"							
Barium	ND	1.00	"							
Beryllium	ND	1.00	11							
Cadmium	ND	2.00	11							
Chromium	ND	2.00	11							
Cobalt	ND	2.00	11							
Copper	ND	1.00	11							
Lead	ND	3.00	11							
Molybdenum	ND	5.00	II							
Nickel	ND	2.00	11							
Selenium	ND	5.00	11							
Silver	ND	2.00	If							
Thallium	ND	2.00	If							
Vanadium	ND	5.00	m							
Zinc	ND	1.00	"							
LCS (9111360-BS1)				Prepared:	11/13/19 A i	nalyzed: 11	/14/19			
Arsenic	101	5.00	mg/kg	100		101	75-125			
Barium	102	1.00	II	100		102	75-125			
Cadmium	101	2.00	II .	100		101	75-125			
Chromium	102	2.00	III	100		102	75-125			
Lead	101	3.00	"	100		101	75-125			

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jeff Lee, Project Manager Page 57 of 66



RPD

%REC

Source

Spike

NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

Reporting

Metals by EPA 6010B - Quality Control

SunStar Laboratories, Inc.

					%REC	Limits	RPD	Limit	Notes
Sourc	e: T193921-	01	Prepared: 1	1/13/19 Aı	nalyzed: 11	/14/19			
57.2	5.00	mg/kg	97.1	ND	58.9	75-125			QM-05
125	1.00	"	97.1	41.9	85.8	75-125			QM-05
56.6	2.00	"	97.1	0.155	58.1	75-125			QM-05
62.6	2.00	"	97.1	3.62	60.8	75-125			QM-05
55.7	3.00	IF	97.1	1.02	56.3	75-125			QM-05
Sourc	e: T193921-	01	Prepared: 1	1/13/19 Aı	nalyzed: 11	/14/19			
62.0	5.00	mg/kg	97.1	ND	63.9	75-125	8.08	20	QM-05
133	1.00	"	97.1	41.9	93.4	75-125	5.71	20	QM-05
58.5	2.00	"	97.1	0.155	60.1	75-125	3.36	20	QM-05
65.0	2.00	"	97.1	3.62	63.3	75-125	3.82	20	QM-05
59.5	3.00	"	97.1	1.02	60.3	75-125	6.65	20	QM-05
	57.2 125 56.6 62.6 55.7 Source 62.0 133 58.5 65.0	57.2 5.00 125 1.00 56.6 2.00 62.6 2.00 55.7 3.00 Source: T193921- 62.0 5.00 133 1.00 58.5 2.00 65.0 2.00	125 1.00 " 56.6 2.00 " 62.6 2.00 " 55.7 3.00 " Source: T193921-01 62.0 5.00 mg/kg 133 1.00 " 58.5 2.00 " 65.0 2.00 "	57.2 5.00 mg/kg 97.1 125 1.00 " 97.1 56.6 2.00 " 97.1 62.6 2.00 " 97.1 55.7 3.00 " 97.1 Source: T193921-01 Prepared: 1 62.0 5.00 mg/kg 97.1 133 1.00 " 97.1 58.5 2.00 " 97.1 65.0 2.00 " 97.1	57.2 5.00 mg/kg 97.1 ND 125 1.00 " 97.1 41.9 56.6 2.00 " 97.1 0.155 62.6 2.00 " 97.1 3.62 55.7 3.00 " 97.1 1.02 Source: T193921-01 Prepared: 11/13/19 Ar 62.0 5.00 mg/kg 97.1 ND 133 1.00 " 97.1 41.9 58.5 2.00 " 97.1 0.155 65.0 2.00 " 97.1 3.62	57.2 5.00 mg/kg 97.1 ND 58.9 125 1.00 " 97.1 41.9 85.8 56.6 2.00 " 97.1 0.155 58.1 62.6 2.00 " 97.1 3.62 60.8 55.7 3.00 " 97.1 1.02 56.3 Source: T193921-01 Prepared: 11/13/19 Analyzed: 11 62.0 5.00 mg/kg 97.1 ND 63.9 133 1.00 " 97.1 41.9 93.4 58.5 2.00 " 97.1 0.155 60.1 65.0 2.00 " 97.1 3.62 63.3	57.2 5.00 mg/kg 97.1 ND 58.9 75-125 125 1.00 " 97.1 41.9 85.8 75-125 56.6 2.00 " 97.1 0.155 58.1 75-125 62.6 2.00 " 97.1 3.62 60.8 75-125 55.7 3.00 " 97.1 1.02 56.3 75-125 Source: T193921-01 Prepared: 11/13/19 Analyzed: 11/14/19 62.0 5.00 mg/kg 97.1 ND 63.9 75-125 133 1.00 " 97.1 41.9 93.4 75-125 58.5 2.00 " 97.1 0.155 60.1 75-125 65.0 2.00 " 97.1 3.62 63.3 75-125	57.2 5.00 mg/kg 97.1 ND 58.9 75-125 125 1.00 " 97.1 41.9 85.8 75-125 56.6 2.00 " 97.1 0.155 58.1 75-125 62.6 2.00 " 97.1 3.62 60.8 75-125 55.7 3.00 " 97.1 1.02 56.3 75-125 Source: T193921-01 Prepared: 11/13/19 Analyzed: 11/14/19 62.0 5.00 mg/kg 97.1 ND 63.9 75-125 8.08 133 1.00 " 97.1 41.9 93.4 75-125 5.71 58.5 2.00 " 97.1 0.155 60.1 75-125 3.36 65.0 2.00 " 97.1 3.62 63.3 75-125 3.82	57.2 5.00 mg/kg 97.1 ND 58.9 75-125 125 1.00 " 97.1 41.9 85.8 75-125 56.6 2.00 " 97.1 0.155 58.1 75-125 62.6 2.00 " 97.1 3.62 60.8 75-125 55.7 3.00 " 97.1 1.02 56.3 75-125 Source: T193921-01 Prepared: 11/13/19 Analyzed: 11/14/19 62.0 5.00 mg/kg 97.1 ND 63.9 75-125 8.08 20 133 1.00 " 97.1 41.9 93.4 75-125 5.71 20 58.5 2.00 " 97.1 0.155 60.1 75-125 3.36 20 65.0 2.00 " 97.1 3.62 63.3 75-125 3.82 20

Batch 9111418 - EPA 3050B

Blank (9111418-BLK1)				Prepared: 11/14/19 Analyzed: 11/15/19
Antimony	ND	3.0	mg/kg	
Silver	ND	2.0		
Arsenic	ND	5.0		
Barium	ND	1.0		
Beryllium	ND	1.0		
Cadmium	ND	2.0	11	
Chromium	ND	2.0	11	
Cobalt	ND	2.0	11	
Copper	ND	1.0	"	
ead	ND	3.0	**	
Molybdenum	ND	5.0		
Nickel	ND	2.0	11	
Selenium	ND	5.0	11	
Thallium	ND	2.0	11	
Vanadium	ND	5.0	11	
Cinc	ND	1.0	11	

SunStar Laboratories, Inc.

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

Metals by EPA 6010B - Quality Control

SunStar Laboratories, Inc.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 9111418 - EPA 3050B										
LCS (9111418-BS1)				Prepared:	11/14/19 A i	nalyzed: 11	/15/19			
Arsenic	94.2	5.0	mg/kg	100		94.2	75-125			
Barium	94.4	1.0	"	100		94.4	75-125			
Cadmium	94.0	2.0	"	100		94.0	75-125			
Chromium	94.1	2.0	11	100		94.1	75-125			
Lead	94.8	3.0	11	100		94.8	75-125			
Matrix Spike (9111418-MS1)	Source	e: T193941-	42	Prepared:	11/14/19 A	nalyzed: 11	/15/19			
Arsenic	51.2	5.0	mg/kg	96.2	ND	53.2	75-125			QM-0
Barium	119	1.0	11	96.2	69.9	50.8	75-125			QM-0
Cadmium	49.8	2.0	11	96.2	0.532	51.2	75-125			QM-0
Chromium	92.4	2.0	11	96.2	40.3	54.2	75-125			QM-0
Lead	52.2	3.0	"	96.2	4.54	49.6	75-125			QM-0
Matrix Spike Dup (9111418-MSD1)	Sourc	e: T193941-	42	Prepared:	11/14/19 A	nalyzed: 11	/15/19			
Arsenic	55.3	5.0	mg/kg	98.0	ND	56.4	75-125	7.78	20	QM-0
Barium	121	1.0	"	98.0	69.9	52.3	75-125	2.05	20	QM-0
Cadmium	52.5	2.0	"	98.0	0.532	53.0	75-125	5.28	20	QM-0
Chromium	94.5	2.0	"	98.0	40.3	55.2	75-125	2.21	20	QM-0
Lead	55.7	3.0	"	98.0	4.54	52.1	75-125	6.34	20	QM-0

SunStar Laboratories, Inc.

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Jeff Lee, Project Manager Page 59 of 66



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

Cold Vapor Extraction EPA 7470/7471 - Quality Control

SunStar Laboratories, Inc.

	D. I	Reporting	TT 14	Spike	Source	0/PEC	%REC	nnn	RPD	27.4
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 9111355 - EPA 7470A Water										
Blank (9111355-BLK1)				Prepared: 1	11/13/19 A	nalyzed: 11	/15/19			
Mercury	ND	0.50	ug/l							
LCS (9111355-BS1)				Prepared: 1	11/13/19 A	nalyzed: 11	/15/19			
Mercury	4.71	0.50	ug/l	5.00		94.2	80-120			
Matrix Spike (9111355-MS1)	Sour	rce: T193930-	01	Prepared: 1	11/13/19 A	nalyzed: 11	/15/19			
Mercury	4.60	0.50	ug/l	5.00	ND	92.0	75-125	·	·	·
Matrix Spike Dup (9111355-MSD1)	Sour	rce: T193930-	01	Prepared: 1	11/13/19 A	nalyzed: 11	/15/19			
Mercury	4.56	0.50	ug/l	5.00	ND	91.1	75-125	0.939	20	
Batch 9111422 - EPA 7471A Soil										
Blank (9111422-BLK1)				Prepared: 1	11/14/19 A	nalyzed: 11	/15/19			
Mercury	ND	0.10	mg/kg							
LCS (9111422-BS1)				Prepared: 1	11/14/19 A	nalyzed: 11	/15/19			
Mercury	0.418	0.10	mg/kg	0.410		102	80-120			
Matrix Spike (9111422-MS1)	Sour	rce: T193921-	01	Prepared: 1	11/14/19 A	nalyzed: 11	/15/19			
Mercury	0.434	0.10	mg/kg	0.410	ND	106	75-125			
Matrix Spike Dup (9111422-MSD1)	Sour	rce: T193921-	01	Prepared: 1	11/14/19 A	nalyzed: 11	/15/19			
Mercury	0.415	0.10	mg/kg	0.397	ND	105	75-125	4.42	20	

SunStar Laboratories, Inc.

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Jeff Lee, Project Manager Page 60 of 66



RPD

%REC

NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

Reporting

$Organochlorine\ Pesticides\ by\ EPA\ Method\ 8081A-Quality\ Control$

SunStar Laboratories, Inc.

Spike

Source

		Reporting		Spike	Bource		/OKEC		KI D	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Note
Batch 9111344 - EPA 3510C GCMS/E	CCD									
Blank (9111344-BLK1)				Prepared &	ż Analyzed:	11/13/19				
alpha-BHC	ND	1.00	ug/l							
gamma-BHC (Lindane)	ND	1.00	It							
beta-BHC	ND	1.00	It							
delta-BHC	ND	1.00	It							
Heptachlor	ND	1.00	11							
Aldrin	ND	1.00	11							
Heptachlor epoxide	ND	1.00	11							
gamma-Chlordane	ND	1.00	11							
alpha-Chlordane	ND	1.00	11							
Endosulfan I	ND	1.00	11							
4,4′-DDE	ND	1.00	11							
Dieldrin	ND	1.00	11							
Endrin	ND	1.00	11							
4,4'-DDD	ND	1.00	11							
Endosulfan II	ND	1.00	11							
4,4'-DDT	ND	1.00	11							
Endrin aldehyde	ND	1.00	11							
Endosulfan sulfate	ND	1.00	11							
Methoxychlor	ND	1.00	11							
Endrin ketone	ND	1.00	11							
Chlordane (tech)	ND	10.0	11							
Toxaphene	ND	20.0	**							
Surrogate: Tetrachloro-meta-xylene	ND		"	1.00		69.0	35-140			
Surrogate: Decachlorobiphenyl	0.836		"	1.00		83.6	35-140			
LCS (9111344-BS1)				Prepared &	t Analyzed:	11/13/19				
gamma-BHC (Lindane)	4.01	1.00	ug/l	4.00		100	40-120			
Heptachlor	4.14	1.00	11	4.00		103	40-120			
Aldrin	3.66	1.00	11	4.00		91.4	40-120			
Dieldrin	4.03	1.00	11	4.00		101	40-120			
Endrin	4.21	1.00	"	4.00		105	40-120			
4,4′-DDT	4.15	1.00	**	4.00		104	40-120			
Surrogate: Tetrachloro-meta-xylene	0.805		"	1.00		80.5	35-140			
Surrogate: Decachlorobiphenyl	0.876		"	1.00		87.6	35-140			

SunStar Laboratories, Inc.

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Jeff Lee, Project Manager Page 61 of 66



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported: Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

Organochlorine Pesticides by EPA Method 8081A - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9111344 - EPA 3510C GCMS/ECD										
LCS Dup (9111344-BSD1)				Prepared &	z Analyzed:	11/13/19				
gamma-BHC (Lindane)	4.49	1.00	ug/l	4.00		112	40-120	11.3	20	
Heptachlor	4.56	1.00	"	4.00		114	40-120	9.72	20	
Aldrin	3.79	1.00	"	4.00		94.7	40-120	3.55	20	
Dieldrin	4.26	1.00	"	4.00		106	40-120	5.36	20	
Endrin	4.36	1.00	II	4.00		109	40-120	3.45	20	
4,4'-DDT	4.29	1.00	"	4.00		107	40-120	3.25	20	
Surrogate: Tetrachloro-meta-xylene	0.892		"	1.00		89.2	35-140			
Surrogate: Decachlorobiphenyl	0.793		"	1.00		79.3	35-140			

Blank (9111350-BLK1)				Prepared: 11/13	/19 Analyzed: 11	/14/19	
alpha-BHC	ND	5.0	ug/kg				
gamma-BHC (Lindane)	ND	5.0	"				
beta-BHC	ND	5.0	H				
delta-BHC	ND	5.0	11				
Heptachlor	ND	5.0	11				
Aldrin	ND	5.0	11				
Heptachlor epoxide	ND	5.0	11				
gamma-Chlordane	ND	5.0	H .				
alpha-Chlordane	ND	5.0	II .				
Endosulfan I	ND	5.0	II .				
4,4′-DDE	ND	5.0	m				
Dieldrin	ND	5.0	III				
Endrin	ND	5.0	H .				
4,4′-DDD	ND	5.0	H .				
Endosulfan II	ND	5.0	m				
4,4′-DDT	ND	5.0	II .				
Endrin aldehyde	ND	5.0	n				
Endosulfan sulfate	ND	5.0	H				
Methoxychlor	ND	5.0	II				
Endrin ketone	ND	5.0	11				
Toxaphene	ND	20	11				
Chlordane (tech)	ND	50	11				
Chlordane (Total)	ND	5.0	H				
Surrogate: Tetrachloro-meta-xylene	12.5		"	10.1	124	35-140	

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jeff Lee, Project Manager Page 62 of 66



RPD

%REC

NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

Reporting

Organochlorine Pesticides by EPA Method 8081A - Quality Control

SunStar Laboratories, Inc.

Spike

Source

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 9111350 - EPA 3550 ECD/GCMS										
Blank (9111350-BLK1)				Prepared:	11/13/19 Aı	nalyzed: 11	/14/19			
Surrogate: Decachlorobiphenyl	13.2		ug/kg	10.1		131	35-140			
LCS (9111350-BS1)				Prepared:	11/13/19 Aı	nalyzed: 11	/14/19			
gamma-BHC (Lindane)	59.1	5.0	ug/kg	40.4		146	40-120			QM-12
Heptachlor	61.0	5.0	11	40.4		151	40-120			QM-12
Aldrin	54.1	5.0	**	40.4		134	40-120			QM-12
Dieldrin	58.9	5.0	**	40.4		146	40-120			QM-12
Endrin	60.4	5.0	**	40.4		149	40-120			QM-12
4,4'-DDT	53.5	5.0	11	40.4		132	33-147			
Surrogate: Tetrachloro-meta-xylene	13.0		"	10.1		128	35-140			
Surrogate: Decachlorobiphenyl	10.6		"	10.1		105	35-140			
LCS Dup (9111350-BSD1)	Prepared: 11/13/19 Analyzed: 11/14/19									
gamma-BHC (Lindane)	51.6	5.0	ug/kg	40.4		128	40-120	13.6	30	QM-12
Heptachlor	53.6	5.0	"	40.4		133	40-120	12.9	30	QM-12
Aldrin	47.1	5.0	**	40.4		117	40-120	13.8	30	QM-12
Dieldrin	52.2	5.0	**	40.4		129	40-120	12.0	30	QM-12
Endrin	53.1	5.0	**	40.4		132	40-120	12.8	30	QM-12
4,4′-DDT	48.4	5.0	11	40.4		120	33-147	9.93	30	
Surrogate: Tetrachloro-meta-xylene	11.6		"	10.1		115	35-140			
Surrogate: Decachlorobiphenyl	10.5		"	10.1		104	35-140			

Batch 9112036 - EPA 3550 ECD/GCMS

alpha-BHC ND 5.0 ug/kg gamma-BHC (Lindane) ND 5.0 " beta-BHC ND 5.0 " delta-BHC ND 5.0 " Heptachlor ND 5.0 " Aldrin ND 5.0 " Heptachlor epoxide ND 5.0 "
ND 5.0
ND 5.0
Heptachlor ND 5.0 " Aldrin ND 5.0 "
Aldrin ND 5.0 "
Heptachlor epoxide ND 5.0 "
gamma-Chlordane ND 5.0 "
alpha-Chlordane ND 5.0 "
Endosulfan I ND 5.0 "
4,4'-DDE ND 5.0 "

SunStar Laboratories, Inc.

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Jeff Lee, Project Manager Page 63 of 66



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

Organochlorine Pesticides by EPA Method 8081A - Quality Control

SunStar Laboratories, Inc.

	.	Reporting		Spike	Source	0/7-~	%REC	n	RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 9112036 - EPA 3550 ECD/GCMS										
Blank (9112036-BLK1)				Prepared:	11/20/19 Ar	nalyzed: 11	/26/19			
Dieldrin	ND	5.0	ug/kg							
Endrin	ND	5.0	**							
4,4'-DDD	ND	5.0	"							
Endosulfan II	ND	5.0	"							
4,4'-DDT	ND	5.0	11							
Endrin aldehyde	ND	5.0	IT							
Endosulfan sulfate	ND	5.0	11							
Methoxychlor	ND	5.0	11							
Endrin ketone	ND	5.0	11							
Toxaphene	ND	20	H							
Surrogate: Tetrachloro-meta-xylene	11.5		"	10.0		115	35-140			
Surrogate: Decachlorobiphenyl	11.6		"	10.0		116	35-140			QM-14
LCS (9112036-BS1)				Prepared:	11/20/19 Ar	nalyzed: 11	/26/19			
gamma-BHC (Lindane)	48.8	5.0	ug/kg	40.0		122	40-120			QM-14
Heptachlor	53.3	5.0	"	40.0		133	40-120			QM-14
Aldrin	43.0	5.0	"	40.0		107	40-120			
Dieldrin	47.8	5.0	11	40.0		119	40-120			
Endrin	53.2	5.0	11	40.0		133	40-120			QM-14
4,4'-DDT	72.6	5.0	H	40.0		182	33-147			QM-14
Surrogate: Tetrachloro-meta-xylene	11.5		"	10.0		115	35-140			
Surrogate: Decachlorobiphenyl	11.2		"	10.0		112	35-140			
LCS Dup (9112036-BSD1)				Prepared:	11/20/19 Ar	nalyzed: 11	/26/19			
gamma-BHC (Lindane)	51.1	5.0	ug/kg	40.0		128	40-120	4.69	30	QM-14
Heptachlor	54.3	5.0	"	40.0		136	40-120	1.87	30	QM-14
Aldrin	44.4	5.0	**	40.0		111	40-120	3.22	30	
Dieldrin	49.5	5.0	**	40.0		124	40-120	3.55	30	QM-14
Endrin	54.2	5.0	11	40.0		136	40-120	1.86	30	QM-14
4,4'-DDT	70.1	5.0	11	40.0		175	33-147	3.53	30	QM-14
Surrogate: Tetrachloro-meta-xylene	11.9		"	10.0		119	35-140			
Surrogate: Decachlorobiphenyl	12.1		"	10.0		121	35-140			

SunStar Laboratories, Inc.

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Jeff Lee, Project Manager Page 64 of 66



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported: Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

Polychlorinated Biphenyls by EPA Method 8082 - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9111415 - EPA 3550 ECD/GCMS										
Blank (9111415-BLK1)				Prepared &	k Analyzed:	11/14/19				
PCB-1016	ND	10	ug/kg							
PCB-1221	ND	10	"							
PCB-1232	ND	10	"							
PCB-1242	ND	10	"							
PCB-1248	ND	10	"							
PCB-1254	ND	10	"							
PCB-1260	ND	10	"							
Surrogate: Tetrachloro-meta-xylene	9.41		"	10.0		94.1	35-140			
Surrogate: Decachlorobiphenyl	10.1		"	10.0		101	35-140			
LCS (9111415-BS1)				Prepared 8	k Analyzed:	11/14/19				
PCB-1016	97.0	10	ug/kg	100		97.0	40-130			
PCB-1260	98.0	10	"	100		98.0	40-130			
Surrogate: Tetrachloro-meta-xylene	8.88		"	10.0		88.8	35-140			
Surrogate: Decachlorobiphenyl	9.93		"	10.0		99.3	35-140			
LCS Dup (9111415-BSD1)				Prepared &	ż Analyzed:	11/14/19				
PCB-1016	92.6	10	ug/kg	100		92.6	40-130	4.59	30	
PCB-1260	91.2	10	"	100		91.2	40-130	7.24	30	
Surrogate: Tetrachloro-meta-xylene	8.98		"	10.0		89.8	35-140			
Surrogate: Decachlorobiphenyl	9.79		"	10.0		97.9	35-140			

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jeff Lee, Project Manager Page 65 of 66



Relative Percent Difference

RPD

25712 Commercentre Drive Lake Forest, California 92630 949.297.5020 Phone 949.297.5027 Fax

NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 11:23

Notes and Definitions

S-13	Surrogate recovery outside of established control limits. The data was accepted based on valid recovery of surrogates in client samples and remaining QC including CCV.
RE-01	Sample contained analytes with concentrations above calibration limits and was rerun at a dilution.
QM-14	The LCS and LCSD were above acceptance criteria. The method blank and sample were ND for the analyte in question. The CCV was within acceptance criteria. No negative impact on data is expected.
QM-12	The % recovery for this analyte was above acceptance criteria in the LCS and/or LCSD. The MB and sample(s) were ND for the analyte. The CCV(s) was within acceptance criteria. No negative impact on data is expected.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS was within acceptance criteria. The data is acceptable as no negative impact on data is expected.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jeff Lee, Project Manager

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Chain of Custody Record

Page 1 of 4

_								Pickup	<u>י</u>	$\lceil \rceil$	Return to client		each	Disposal @ \$2.00 each	sample disposal Instructions: [
	00		5 day	time:	rn around time:	Turn			er og er.						
	S. C.						į	Date / Time	Date		: (signature)	Received by: (signature)	Э	Date / Time	Relinquished by: (signature)
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	-						8.27		11-13-19		N N		8.19 8:27	650 11.13
	Please return H&K/NV5 ice chests		eceived good condition/cold	od cond	yved go	Rece		y/Time	Date'/		: (signature)	Received by: (signature)	Т	Date / Time	Relinquished by: (signature)/
	Method 8081 report Chlordane and		Chain of Custody seals YN/NA Seals intact? Y/N/NA	tody sex) of Cus Seals in	Chair		11:60	1/2/9/	1		680	1600	11/219/	id hummeney
	Notes		ing(S)	Total # of contains	Total #	·	•)/Time	Date /		: (signature)	Received by: (signature)	īme ¹	Date / Tir	Relinquished by: (signature)
16	Lab to prepare ABCD2C-0-FR as 4:1 composite of A2D-0-FR, B2D-0-FR, C2D-0-FR and D2D-0-FR	osite of	4:1 compc	-0-FR as	BCD2C	epare /	ab to p	<u>×</u>						11/12/2019	ABCD2C-0-FR
15	Lab to prepare ABCD2C-0 as 4:1 composite of A2D-0, B2D-0, C2D-0 and D2D-0	site of /	:1 compos	C-0 as 4	ABCD2	repare	ab to p		×					11/12/2019	ABCD2C-0
		14		-			_				8 oz jar	SOIL	1006	11/12/2019)-2D-0-FR
		13					_				8 oz jar	SOIL	1005	11/12/2019)2D-0
		7							- 1		8 oz jar	SOIL	0951	11/12/2019	C-2D-0-FR
		"									8 oz jar	SOIL	0950	11/12/2019	C2D-0
		0)									8 oz jar	SOIL	0936	11/12/2019	3-2D-0-FR
-		09						·			8 oz jar	SOIL	0935	11/12/2019	32D-0
		\$									8 oz jar	SOIL	0921	11/12/2019	\2D-0-FR
	i	07						_	Lay'		8 oz jar	SOIL	0920	11/12/2019	\2D-0
	re ABCD1C-0 as 4:1 composite of A1D-0, B1D-0, C1D-0 and D1D-0	site of ,	:1 compos	C-0 as 4	ABCD1		Lab to prepa		×		8 oz jar	SOIL		11/12/2019	ABCD1C-0
	1	8		1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00							8 oz jar	SOIL	0905	11/12/2019	01D-0
	1	104							X	X	8 oz jar	SOIL	0900	11/12/2019	C1D-0-CL
	1	03							×	×	8 oz jar	SOIL	0850	11/12/2019	31D-0
	1	02							in the second		8 oz jar	SOIL	0840	11/12/2019	31D-0
		0							×	×	8 oz jar	SOIL	0830	11/12/2019	11D-0
	Comments/Preservative	Laboratory ID #							Lead EPA 6010 OCPs EPA 8081	Arsenic EPA 6010	Container Type	Sample Type	Time	Date Sampled	Sample ID
	Client Project #: 70779.01.001.003 EDF #:	roject #: EDF #:	lient Proj		JC/CWB	A PIC	Collector: Batch #:	Coll	in the second		37 ∞m	530-894-2437 ings@NV5.con	Fax: eidi.cumm	87 Fax: 530-894-2437 Heidi Cummings, heidi.cummings@NV5.com	Phone: 530-894-2487 Project Manager: Heic
	I C	Schoo	Date: 11/12/2019 Project Name: Hamilton Union High School	11/12/2019 amilton Unic	11/12 lamilto	ıme: F	ect Na	Date: Proje	ा है। इस्केट्ड न				o, CA 9592	ит, Ste 40, Chic	Address: 48 Bellarmine Court, Ste 40, Chico, CA 95928
				•)	-						

Chain of Custody Record

Page 2 of 4

C4D-0 B4D-0 Client: Sample disposal Instructions: Disposal @ \$2.00 each D3D-0 Relinquished by: (signature) Relinquished by: (signature) Relinquished by: (signature) ABCD4C-0 A4D-0 ABCD3C-0 C3D-0 B3D-0-FR B3D-0 A3D-0 Project Manager: Address: D4D-0 Sample ID NV5 530-894-2487 48 Bellarmine Court, Ste 40, Chico, CA 95928 11.13.19 Heidi Cummings, heidi.cummings@NV5.com Date Sampled 11/12/2019 11/12/2019 11/12/2019 11/12/2019 11/12/2019 11/12/2019 11/12/2019 1/12/2019 1/12/2019 1/12/2019 1/12/2019 8:27 Date / Time Date / Time 111219/1600 Date / Time Fax: 1025 Time 1140 1130 1120 1110 1040 1026 1015 1100 Received by: (signature) Received by: (signature) Received by: (signature) 530-894-2437 Sample Type 680 SOIL 8 oz jar Container 8 oz jar 8 oz jar 8 oz jar Type 11.13.19 8:27 Arsenic EPA 6010 111219/1600 ead EPA 6010 Date / Time Date / Time Date / Time Pickup OCPs EPA 8081 Batch #: Collector: Project Name: Hamilton Union High School Date: Lab to prepare ABCD4C-0 as 4:1 composite of A4D-0, B4D-0, C4D-0 and D4D-0 27 Lab to prepare ABCD3C-0 as 4:1 composite of A3D-0, B3D-0, C3D-0 and D3D-0 22 HJC/CWB Total # of containers
Chain of Custody spaid YIM/NA
Seals intact?Y/M/NA Turn around time: Received good condition/cold 7193941 11/12/2019 Client Project #: 70779.01.001.003 5 day EDF#: 22 23 4 22 8 7 Z Laboratory ID # 20.00 Comments/Preservative Tre Charles Method 8081 report Chlordane and Please return H&K/NV5 ice chests Technical Chlordane Notes Total # of containers

Return to client

949-297-5020

Chain of Custody Record

Page 3 of 4

HHS3D-2 HHS3D-2-FR EB-1 Client: Relinquished by: (signature) Relinquished by: (signature) Sample disposal Instructions: Relinquished by: (signature) PMT-E6D-2 PMT-E6D-0-CI PMT-E6D-0 HHS8D-2 Project Manager: Address: HIS6D-2 HHS5D-2 HHS4D-2 HHS2D-2 HHS1D-2 1HS7D-2 HS5D-2-CI Sample ID NV5 530-894-2487 48 Bellarmine Court, Ste 40, Chico, CA 95928 Heidi Cummings, heidi.cummings@NV5.com Disposal @ \$2.00 each 11-13-19 Date Sampled 11/11/2019 11/11/2019 11/11/2019 11/11/2019 11/11/2019 11/11/2019 11/11/2019 1//1/2019 1/11/2019 1/11/2019 1/11/2019 1/11/2019 1/11/2019 1/11/2019 Date / Time Date / Time 1126 Date / Time 8:27 1600 Fax: 0915 0830 1018 1500 1515 1330 1225 1130 1055 1045 1030 Time 1530 1505 1015 (280) Received by: (signature) Sample Type 530-894-2437 Received by: (signature) Received by: (signature) SOIL SOIL SOIL SOIL SOIL SOIL SOIL SOIL SOIL ≶ POLY/AMBER/VOA Return to client 8 oz jar Container Type PCBS EAP 8082 112K11 Arsenic EPA 6010 Date / Time Date / Time Date / Time Pickup ead EPA 6010 8:27 Collector: Project Name: Hamilton Union High School Date: OCPs EPA 8081 Batch #: TPH CARBON CHAIN EPA 8260/8015 Title 22 Metals EPA HJC/CWB Total # of containes
Chain of Custody seals (YN/NA
Seals intack? YN/NA Turn around time: Received good condition/cold 7193941 11/11/2019 Client Project #: 70779.01.001.003 5 day EDF#: 8222 20 00 00 12 18 28 Laboratory ID # 370 Comments/Preservative Please return H&K/NV5 ice chests Method 8081 report Chlordane and pro tende Technical Chlordane Notes 5 Total # of containers

949-297-5020

Chain of Custody Record

Relinquished by: (signature) Client: Sample disposal Instructions: Disposal @ \$2.00 each Relinquished by: (signature) Relinquished by: (signature), DD6D-0 DD5D-0 DD4D-0-FR DD4D-0 DD3D-0 DD2D-0-CL DD2D-0 DD1D-0 Project Manager: Phone: Address: DD7D-0 Sample ID NV5 48 Bellarmine Court, Ste 40, Chico, CA 95928 530-894-2487 remmen Heidi Cummings, heidi.cummings@NV5.com **Date Sampled** 11:13:19 8:27 Date / Time 11/11/2019 11/11/2019 11/11/2019 1/11/2019 1/11/2019 11/11/2019 1/11/2019 1/11/2019 1/11/2019 Date / Time 1219 Date / Time Tax: 1435 1425 1345 Time 1500 1415 1410 1405 1350 1340 Received by: (signature) Received by: (signature Sample Type Received by: (signature) 530-894-2437 SOIL SOIL SOL SOIL SOIL SOIL SOIL SOIL SOL Return to client 8 oz jar Container Type PCBS EAP 8082 11/2/9 Arsenic EPA 6010 8:27 Date / Time Date / Time Date / Time Pickup ead EPA 6010 Date: OCPs EPA 8081 Collector: Batch #: Project Name: Hamilton Union High School TPH CARBON CHAIN EPA 8260/8015 Title 22 Metals EPA HJC/CWB Total # of containers
Chain of Custody spall YM/NA
Seals intact? YM/NA Turn around time: Received good condition/cold 1193941 11/11/2019 Client Project #: 70779.01.001.003 5 day EDF#: 81 44 43 8 49 2 2 充 42 Laboratory ID # 37.20 2000 Comments/Preservative Please return H&K/NV5 ice chests Method 8081 report Chlordane and Technical Chlordane Notes Total # of containers



SAMPLE RECEIVING REVIEW SHEET

Batch/Work Order #:	11939	41	*.			
Client Name:	HOLDREGE	\$ KULL - CHICO	Project:	-4	AMILTON UNIO	n High School
Delivered by:	☐ Client	SunStar Courier	⊠ GSO	☐ FedEx	Other	
If Courier, Received by:			Date/Time C Received:	. <u></u>		
Lab Received by:		MANY	Date/Time L Received:	ab 	11.13.19 / 8	127
Total number of coolers re	ceived: 2	Thermometer ID	: <u>sc-i</u>	C	Calibration due	e:_ <u>6/27/20</u>
Temperature: Cooler #1	2.5 °C	+/- the CF (+ 1.2°C)	= 3.7	°C correc	ted temperature	
Temperature: Cooler #2	<i>1,8</i> °C	+/- the CF (+ 1.2°C)	= 3.0	°C correct	ted temperature	
Temperature: Cooler #3	°C	+/- the CF (+ 1.2°C)	=	°C correct	ted temperature	
Temperature criteria = ≤ (no frozen containers)	6°C	Within cri	teria?	⊠Yes	□No	
If NO:						
Samples received	on ice?	∐Yes		□No → Complete	e Non-Confor	mance Sheet
If on ice, samples collected?	received same	e day ☐Yes →	Acceptable	\square No \rightarrow	e Non-Confor	
Custody seals intact on coo	oler/sample			Yes		N/A
Sample containers intact				Yes	□No*	
Sample labels match Chair	n of Custody 1	Ds	,	Yes	□No*	
Total number of containers	s received ma	tch COC		Yes	□No*	,
Proper containers received	for analyses	requested on COC		⊠Yes	□No*	
Proper preservative indicate	ted on COC/c	ontainers for analyses	requested	∑Yes	□No* □1	N/A
Complete shipment receive containers, labels, volumes holding times				Yes	□No*	
* Complete Non-Conformance	e Receiving Sl	neet if checked Coo	ler/Sample Rev	view - Initials	and date:	11.13.19
Comments:						4.1.138E-1.1

Printed: 11/13/2019 11:11:06AM



WORK ORDER

T193941

Client: NV5 **Project Manager:** Jeff Lee

Project: Hamilton Union High School **Project Number:** 70779.01.001.003

Report To:

NV5

Heidi Cummings

48 Bellarmine Ct, Suite 40

Chico, CA 95928

Date Due: 11/20/19 17:00 (5 day TAT)

Received By: Sunny Lounethone Logged In By: Sunny Lounethone Date Received: 11/13/19 08:27 Date Logged In: 11/13/19 09:50

Samples Received at:

Custody Seals

3°C

Yes Received On Ice Yes

Containers Intact Yes COC/Labels Agree Yes Preservation Confin

TAT Due **Expires Comments Analysis** T193941-01 A1D-0 [Soil] Sampled 11/12/19 08:30 (GMT-08:00) Pacific Time (US 6010 Individual Metals 11/20/19 15:00 05/10/20 08:30 As and Pb only T193941-02 B1D-0 [Soil] Sampled 11/12/19 08:40 (GMT-08:00) Pacific Time (US

[NO ANALYSES]

T193941-03 C1D-0 [Soil] Sampled 11/12/19 08:50 (GMT-08:00) Pacific Time (US

6010 Individual Metals

11/20/19 15:00

05/10/20 08:50 5

As and Pb only

T193941-04 C1D-0-CL [Soil] Sampled 11/12/19 09:00 (GMT-08:00) Pacific Time

(US &

6010 Individual Metals

11/20/19 15:00

05/10/20 09:00

As and Pb only

T193941-05 D1D-0 [Soil] Sampled 11/12/19 09:05 (GMT-08:00) Pacific Time (US

[NO ANALYSES]

T193941-06 ABCD1C-0 [Soil] Sampled 11/12/19 00:00 (GMT-08:00) Pacific

COMPOSITE 4:1 (A1D-0, B1D-0, C1D-0, D1D-0)

Time (US &

8081 Pesticides

11/20/19 15:00

5 11/26/19 00:00

T193941-07 A2D-0 [Soil] Sampled 11/12/19 09:20 (GMT-08:00) Pacific Time (US

[NO ANALYSES]

Printed: 11/13/2019 11:11:06AM



WORK ORDER

T193941

Client: NV5 **Project Manager:** Jeff Lee

Project: Hamilton Union High School Project Number: 70779.01.001.003

Analysis Due TAT **Expires Comments**

T193941-08 A2D-0FR [Soil] Sampled 11/12/19 09:21 (GMT-08:00) Pacific Time

(US &

[NO ANALYSES]

T193941-09 B2D-0 [Soil] Sampled 11/12/19 09:35 (GMT-08:00) Pacific Time (US

[NO ANALYSES]

T193941-10 B-2D-0-FR [Soil] Sampled 11/12/19 09:36 (GMT-08:00) Pacific

Time (US &

[NO ANALYSES]

T193941-11 C2D-0 [Soil] Sampled 11/12/19 09:50 (GMT-08:00) Pacific Time (US

[NO ANALYSES]

T193941-12 C-2D-0-FR [Soil] Sampled 11/12/19 09:51 (GMT-08:00) Pacific

Time (US &

[NO ANALYSES]

T193941-13 D2D-0 [Soil] Sampled 11/12/19 10:05 (GMT-08:00) Pacific Time (US

[NO ANALYSES]

T193941-14 D-2D-0-FR [Soil] Sampled 11/12/19 10:06 (GMT-08:00) Pacific

Time (US &

[NO ANALYSES]

T193941-15 ABCD2C-0 [Soil] Sampled 11/12/19 00:00 (GMT-08:00) Pacific **COMPOSITE 4:1 (A2D-0, B2D-0, C2D-0, D2D-0)**

Time (US &

8081 Pesticides 11/20/19 15:00 11/26/19 00:00

T193941-16 ABCD2C-0-FR [Soil] Sampled 11/12/19 00:00 (GMT-08:00) Pacific COMPOSITE 4:1 (A2D-0-FR, B2D-0-FR, C2D-0-FR, **D2D-0-FR**)

Time (US &

8081 Pesticides 11/20/19 15:00 5 11/26/19 00:00

T193941-17 A3D-0 [Soil] Sampled 11/12/19 10:15 (GMT-08:00) Pacific Time (US

[NO ANALYSES]

T193941-18 B3D-0 [Soil] Sampled 11/12/19 10:25 (GMT-08:00) Pacific Time (US

&

6010 Individual Metals 11/20/19 15:00 05/10/20 10:25 As and Pb only

Printed: 11/13/2019 11:11:06AM



WORK ORDER

T193941

Client: NV5 Project Manager: Jeff Lee

Project: Hamilton Union High School Project Number: 70779.01.001.003

Froject: Hamilton Union High	- School		Froject Number:	/0//9.01.001.003		
Analysis	Due	TAT	Expires	Comments		
T193941-19 B3D-0-FR [Soil] (US &	Sampled 11/12/19 1	10:26 (GMT	Γ-08:00) Pacific Tim	ne		
6010 Individual Metals	11/20/19 15:00	5	05/10/20 10:26	As and Pb only		
T193941-20 C3D-0 [Soil] Sa & [NO ANALYSES]	mpled 11/12/19 10:4	0 (GMT-08	:00) Pacific Time (U	US		
T193941-21 D3D-0 [Soil] Sa &	mpled 11/12/19 11:00	0 (GMT-08	:00) Pacific Time (U	J S		
6010 Individual Metals	11/20/19 15:00	5	05/10/20 11:00	As and Pb only		
T193941-22 ABCD3C-0 [Soi Time (US &	l] Sampled 11/12/19	00:00 (GM	T-08:00) Pacific	COMPOSITE 4:1 (A3D-0, B3D-0, C3D-0, D3D-0)		
8081 Pesticides	11/20/19 15:00	5	11/26/19 00:00			
T193941-23 A4D-0 [Soil] Sa & [NO ANALYSES] T193941-24 B4D-0 [Soil] Sa & [NO ANALYSES]						
T193941-25 C4D-0 [Soil] Sa & [NO ANALYSES]	mpled 11/12/19 11:30	0 (GMT-08	:00) Pacific Time (U	JS		
T193941-26 D4D-0 [Soil] Sa & [NO ANALYSES]	mpled 11/12/19 11:40	0 (GMT-08	:00) Pacific Time (U	US		
T193941-27 ABCD4C-0 [Soi Time (US &	l] Sampled 11/12/19	00:00 (GM	T-08:00) Pacific	COMPOSITE 4:1 (A4D-0, B4D-0, C4D-0, D4D-0)		
8081 Pesticides	11/20/19 15:00	5	11/26/19 00:00			
T193941-28 HHS1D-2 [Soil] (US &	Sampled 11/11/19 0	8:30 (GMT	-08:00) Pacific Time	e		
6010 Individual Metals	11/20/19 15:00	5	05/09/20 08:30	As and Pb only		
T193941-29 HHS2D-2 [Soil] (US &	Sampled 11/11/19 0	9:15 (GMT	-08:00) Pacific Time	e		
6010 Individual Metals	11/20/19 15:00	5	05/09/20 09:15	As and Pb only		

Printed: 11/13/2019 11:11:06AM



WORK ORDER

T193941

Client: NV5 Project Manager: Jeff Lee

Project: Hamilton Union High School Project Number: 70779.01.001.003

Analysis	Due	TAT	Expires	Comments
T193941-30 HHS3D-2 [Soil] (US &	Sampled 11/11/19 1	0:15 (GMT	-08:00) Pacific Tin	ne
6010 Individual Metals	11/20/19 15:00	5	05/09/20 10:15	As and Pb only
T193941-31 HHS3D-2-FR [S Time (US &	Soil] Sampled 11/11/2	19 10:18 (G	MT-08:00) Pacific	
6010 Individual Metals	11/20/19 15:00	5	05/09/20 10:18	As and Pb only
T193941-32 HHS4D-2 [Soil] (US &	Sampled 11/11/19 1	0:30 (GMT	'-08:00) Pacific Tin	ne
6010 Individual Metals	11/20/19 15:00	5	05/09/20 10:30	As and Pb only
T193941-33 HHS5D-2 [Soil] (US &	Sampled 11/11/19 1	0:45 (GMT	-08:00) Pacific Tin	ne
6010 Individual Metals	11/20/19 15:00	5	05/09/20 10:45	As and Pb only
T193941-34 HHS5D-2-CL [S Time (US &	Soil] Sampled 11/11/1	19 10:55 (G	MT-08:00) Pacific	
6010 Individual Metals	11/20/19 15:00	5	05/09/20 10:55	As and Pb only
T193941-35 HHS6D-2 [Soil] (US &	Sampled 11/11/19 1	1:30 (GMT	-08:00) Pacific Tin	ne
6010 Individual Metals	11/20/19 15:00	5	05/09/20 11:30	As and Pb only
T193941-36 HHS7D-2 [Soil] (US &	Sampled 11/11/19 1	2:25 (GMT	'-08:00) Pacific Tin	ne
6010 Individual Metals	11/20/19 15:00	5	05/09/20 12:25	As and Pb only
T193941-37 HHS8D-2 [Soil] (US &	Sampled 11/11/19 1:	3:30 (GMT	'-08:00) Pacific Tin	ne
6010 Individual Metals	11/20/19 15:00	5	05/09/20 13:30	As and Pb only
T193941-38 PMT-E6D-0 [So Time (US &	oil] Sampled 11/11/19) 15:05 (GN	ЛТ-08:00) Pacific	
8082 PCB	11/20/19 15:00	5	11/25/19 15:05	
T193941-39 PMT-E6D-0-CL Time (US &	[Soil] Sampled 11/1	1/19 15:15	(GMT-08:00) Paci	fic
8082 PCB	11/20/19 15:00	5	11/25/19 15:15	
T193941-40 PMT-E6D-2 [So Time (US &	oil] Sampled 11/11/19) 15:30 (GN	/IT-08:00) Pacific	
8082 PCB	11/20/19 15:00	5	11/25/19 15:30	

Printed: 11/13/2019 11:11:06AM



WORK ORDER

T193941

Client: NV5 Project Manager: Jeff Lee

Project: Hamilton Union High School Project Number: 70779.01.001.003

Analysis	Due	TAT	Expires	Comments
T193941-41 EB-1 [Wate (US &	r] Sampled 11/11/19 15:0	00 (GMT-0	98:00) Pacific Time	
6010 Title 22	11/20/19 15:00	5	05/09/20 15:00	
8015 TPH-CC LLvL	11/20/19 15:00	5	11/25/19 15:00	
8081 Pesticides	11/20/19 15:00	5	11/18/19 15:00	
T193941-42 DD1D-0 [So (US &	oil] Sampled 11/11/19 13:	40 (GMT-	08:00) Pacific Time	,
6010 Title 22	11/20/19 15:00	5	05/09/20 13:40	
8015 Carbon Chain	11/20/19 15:00	5	11/25/19 13:40	
8081 Pesticides	11/20/19 15:00	5	11/25/19 13:40	
T193941-43 DD2D-0 [So (US &	oil] Sampled 11/11/19 13:	45 (GMT-	08:00) Pacific Time	
6010 Title 22	11/20/19 15:00	5	05/09/20 13:45	
8015 Carbon Chain	11/20/19 15:00	5	11/25/19 13:45	
8081 Pesticides	11/20/19 15:00	5	11/25/19 13:45	
T193941-44 DD2D-0-CL Time (US &	[Soil] Sampled 11/11/19	13:50 (GN	MT-08:00) Pacific	
6010 Title 22	11/20/19 15:00	5	05/09/20 13:50	
8015 Carbon Chain	11/20/19 15:00	5	11/25/19 13:50	
8081 Pesticides	11/20/19 15:00	5	11/25/19 13:50	
T193941-45 DD3D-0 [So (US &	oil] Sampled 11/11/19 14:	05 (GMT-	08:00) Pacific Time	•
6010 Title 22	11/20/19 15:00	5	05/09/20 14:05	
8015 Carbon Chain	11/20/19 15:00	5	11/25/19 14:05	
8081 Pesticides	11/20/19 15:00	5	11/25/19 14:05	
T193941-46 DD4D-0 [So (US &	oil] Sampled 11/11/19 14:	10 (GMT-	08:00) Pacific Time	•
6010 Title 22	11/20/19 15:00	5	05/09/20 14:10	
8015 Carbon Chain	11/20/19 15:00	5	11/25/19 14:10	
8081 Pesticides	11/20/19 15:00	5	11/25/19 14:10	
T193941-47 DD4D-0-FR	[Soil] Sampled 11/11/19	14:15 (GN	MT-08:00) Pacific	
Time (US &				
6010 Title 22	11/20/19 15:00	5	05/09/20 14:15	
•	11/20/19 15:00 11/20/19 15:00	5 5	05/09/20 14:15 11/25/19 14:15	



WORK ORDER

T193941

Client: NV5 Project Manager: Jeff Lee

Project: Hamilton Union High School Project Number: 70779.01.001.003

Analysis	Due	ТАТ	Expires	Comments
T193941-48 DD5D-0 [Soil (US &	[] Sampled 11/11/19 14:	25 (GMT-(08:00) Pacific Time	
6010 Title 22	11/20/19 15:00	5	05/09/20 14:25	
8015 Carbon Chain	11/20/19 15:00	5	11/25/19 14:25	
8081 Pesticides	11/20/19 15:00	5	11/25/19 14:25	
T193941-49 DD6D-0 [Soil (US & 6010 Title 22	11/20/19 15:00	5	05/09/20 14:35	
8015 Carbon Chain	11/20/19 15:00	5	11/25/19 14:35	
8081 Pesticides	11/20/19 15:00	5	11/25/19 14:35	
T193941-50 DD7D-0 [Soil (US &	l] Sampled 11/11/19 15:	00 (GMT-(08:00) Pacific Time	
6010 Title 22	11/20/19 15:00	5	05/09/20 15:00	
8015 Carbon Chain	11/20/19 15:00	5	11/25/19 15:00	
8081 Pesticides	11/20/19 15:00	5	11/25/19 15:00	

Analysis groups included in	this work order	
6010 Title 22		
subgroup 6010B T22	7470/71 Hg	

Reviewed By

Date





27 November 2019

Heidi Cummings NV5 48 Bellarmine Ct, Suite 40 Chico, CA 95928

RE: Hamilton Union High School

Enclosed are the results of analyses for samples received by the laboratory on 11/15/19 08:34. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jeff Lee

Project Manager



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 09:57

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
C5D-0	T193979-05	Soil	11/12/19 13:00	11/15/19 08:34
ABCD5C-0	T193979-09	Soil	11/12/19 00:00	11/15/19 08:34
ABCD5C-0-CL	T193979-10	Soil	11/12/19 00:00	11/15/19 08:34
ABCD6C-0	T193979-15	Soil	11/12/19 00:00	11/15/19 08:34
A7D-0	T193979-16	Soil	11/12/19 14:45	11/15/19 08:34
A7D-0-CL	T193979-18	Soil	11/12/19 14:55	11/15/19 08:34
D7D-0	T193979-23	Soil	11/12/19 15:30	11/15/19 08:34
D7D-0-FR	T193979-24	Soil	11/12/19 15:31	11/15/19 08:34
ABCD7C-0	T193979-25	Soil	11/12/19 00:00	11/15/19 08:34
ABCD7C-0-FR	T193979-26	Soil	11/12/19 00:00	11/15/19 08:34
C8D-0	T193979-29	Soil	11/12/19 16:05	11/15/19 08:34
ABCD8C-0	T193979-31	Soil	11/12/19 00:00	11/15/19 08:34

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The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jeff Lee, Project Manager Page 1 of 21



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 09:57

DETECTIONS SUMMARY

Sample ID:	C5D-0	Laboratory ID:		T193979-05		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		5.10	3.00	mg/kg	EPA 6010b	
Sample ID:	ABCD5C-0	Labora	tory ID:	T193979-09		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
4,4′-DDE		0.0066	0.0050	mg/kg	EPA 8081A	
Sample ID:	ABCD5C-0-CL	Labora	tory ID:	T193979-10		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
4,4′-DDE		0.0070	0.0050	mg/kg	EPA 8081A	
Sample ID:	ABCD6C-0	Labora	tory ID:	T193979-15		

No Results Detected

Sample ID:	A7D-0	Lab	Laboratory ID:			
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		5.35	3.00	mg/kg	EPA 6010b	
Sample ID:	A7D-0-CL	Lab	oratory ID:	T193979-18		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		5.35	3.00	mg/kg	EPA 6010b	

SunStar Laboratories, Inc.

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Jeff Lee, Project Manager Page 2 of 21



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 09:57

Sample ID:	D7D-0	Laboratory ID:		T193979-23		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		5.75	3.00	mg/kg	EPA 6010b	
Sample ID:	D7D-0-FR	Laborat	ory ID:	T193979-24		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		5.61	3.00	mg/kg	EPA 6010b	

No Results Detected

Sample ID: ABCD7C-0-FR Laboratory ID: T193979-26

No Results Detected

Sample ID:	C8D-0	Laboratory ID:	T193979-29			
		Reporti	ng			
Analyte		Result Lir	nit	Units	Method	Notes
Lead		4.95 2	73	mg/kg	EPA 6010b	
Sample ID:	ABCD8C-0	Laboratory ID:		T193979-31		

No Results Detected

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jeff Lee, Project Manager Page 3 of 21



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 09:57

C5D-0

T193979-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aborator	ies, Inc.					
Metals by EPA 6010B									
Arsenic	ND	5.00	mg/kg	1	9111532	11/15/19	11/18/19	EPA 6010b	
Lead	5.10	3.00	"	"	"	"	"	TI TI	

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jeff Lee, Project Manager

Page 4 of 21



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 09:57

ABCD5C-0 T193979-09 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Organochlorine Pesticides by EPA M	lethod 8081A								
alpha-BHC	ND	0.0050	mg/kg	1	9111517	11/15/19	11/18/19	EPA 8081A	
gamma-BHC (Lindane)	ND	0.0050	"	"	**	**	11	"	
beta-BHC	ND	0.0050	"	"	**	**	"	n	
delta-BHC	ND	0.0050	"	**	**	**	n	n	
Heptachlor	ND	0.0050	"	**	**	**	n .	n	
Aldrin	ND	0.0050	"	**	**	**	n	n	
Heptachlor epoxide	ND	0.0050	"	**	**	**	H .	n	
gamma-Chlordane	ND	0.0050	"	**	**	**	n	n	
alpha-Chlordane	ND	0.0050	"	**	**	**	H .	n	
Endosulfan I	ND	0.0050	"	**	**	**	n	n	
4,4'-DDE	0.0066	0.0050	"	**	**	**	H	n	
Dieldrin	ND	0.0050	"	"	"	**	"	n	
Endrin	ND	0.0050	"	**	**	**	n	n	
4,4′-DDD	ND	0.0050	"	**	**	**	n .	n	
Endosulfan II	ND	0.0050	"	**	**	**	n .	n	
4,4'-DDT	ND	0.0050	"	**	**	**	H .	n	
Endrin aldehyde	ND	0.0050	"	**	**	**	n	n	
Endosulfan sulfate	ND	0.0050	"	**	**	**	H	n	
Methoxychlor	ND	0.0050	"	**	**	**	H	n	
Endrin ketone	ND	0.0050	"	**	**	**	H	n	
Toxaphene	ND	0.020	"	**	**	**	11	n	
Chlordane (tech)	ND	0.050	"	"	17	11	II	n	
Chlordane (Total)	ND	0.0050	"	"	11	**	H .	n	
Surrogate: Tetrachloro-meta-xylene		103 %	35	140	"	"	"	"	
Surrogate: Decachlorobiphenyl		109 %	35-	140	"	"	"	"	

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jeff Lee, Project Manager Page 5 of 21



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 09:57

ABCD5C-0-CL T193979-10 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	ies, Inc.					
Organochlorine Pesticides by EPA M	ethod 8081A								
alpha-BHC	ND	0.0050	mg/kg	1	9111517	11/15/19	11/18/19	EPA 8081A	
gamma-BHC (Lindane)	ND	0.0050	"	"	**	17	H	"	
beta-BHC	ND	0.0050	"	"	**	17	H	"	
delta-BHC	ND	0.0050	"	"	**	"	11	"	
Heptachlor	ND	0.0050	"	"	**	"	11	n	
Aldrin	ND	0.0050	n	"	"	"	11	n	
Heptachlor epoxide	ND	0.0050	n	"	"	"	II	n	
gamma-Chlordane	ND	0.0050	"	"	"	"	II	Ħ	
alpha-Chlordane	ND	0.0050	"	"	**	**	**	17	
Endosulfan I	ND	0.0050	"	"	**	**	**	17	
4,4'-DDE	0.0070	0.0050	"	"	**	**	11	Ħ	
Dieldrin	ND	0.0050	"	"	"	"	H	Ħ	
Endrin	ND	0.0050	"	"	"	"	H .	17	
4,4´-DDD	ND	0.0050	"	"	**	"	H .	17	
Endosulfan II	ND	0.0050	"	"	**	"	H .	17	
4,4´-DDT	ND	0.0050	"	n	**	ti .	n	tt	
Endrin aldehyde	ND	0.0050	"	n	**	**	H	tt	
Endosulfan sulfate	ND	0.0050	"	n	**	**	H	Ħ	
Methoxychlor	ND	0.0050	"	n	**	**		Ħ	
Endrin ketone	ND	0.0050	"	"	**	11	H.	tt	
Toxaphene	ND	0.020	"	"	"	n	"	Ħ	
Chlordane (tech)	ND	0.050	"	"	"	"	11	"	
Chlordane (Total)	ND	0.0050	"	11	Ħ	11	II	tt.	
Surrogate: Tetrachloro-meta-xylene		89.0 %	35-	140	"	"	"	"	
Surrogate: Decachlorobiphenyl		113 %	35-	140	"	"	"	"	

SunStar Laboratories, Inc.

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Jeff Lee, Project Manager Page 6 of 21



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 09:57

ABCD6C-0 T193979-15 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Analyte	Result	Liint	Units	Dilution	Daten	Frepareu	Allalyzeu	Wellod	Notes
		SunStar L	aboratori	es, Inc.					
Organochlorine Pesticides by EPA Method	8081A								
alpha-BHC	ND	0.0050	mg/kg	1	9111517	11/15/19	11/18/19	EPA 8081A	
gamma-BHC (Lindane)	ND	0.0050	"	"	**	**	H.	n	
beta-BHC	ND	0.0050	"	**	**	**	H.	n	
delta-BHC	ND	0.0050	"	**	**	**	H.	n	
Heptachlor	ND	0.0050	"	**	**	**	H .	Ħ	
Aldrin	ND	0.0050	"	**	**	**	H .	Ħ	
Heptachlor epoxide	ND	0.0050	"	**	**	**	H .	Ħ	
gamma-Chlordane	ND	0.0050	"	**	**	**	H .	Ħ	
alpha-Chlordane	ND	0.0050	"	**	**	**	H .	Ħ	
Endosulfan I	ND	0.0050	"	**	**	Ħ	H	Ħ	
4,4′-DDE	ND	0.0050	"	**	**	**	H	Ħ	
Dieldrin	ND	0.0050	"	**	11	11	11	Ħ	
Endrin	ND	0.0050	"	"	11	ti .	11	Ħ	
4,4'-DDD	ND	0.0050	"	n	11	11	11	Ħ	
Endosulfan II	ND	0.0050	"	"	11	Ħ	H	Ħ	
4,4'-DDT	ND	0.0050	"	"	11	Ħ	H	Ħ	
Endrin aldehyde	ND	0.0050	"	"	**	**	11	Ħ	
Endosulfan sulfate	ND	0.0050	"	"	**	**	11	Ħ	
Methoxychlor	ND	0.0050	"	"	**	**	11	**	
Endrin ketone	ND	0.0050	**	"	**	**	11	**	
Toxaphene	ND	0.020	**	"	**	**	11	**	
Chlordane (tech)	ND	0.050	**	"	**	**	11	**	
Chlordane (Total)	ND	0.0050	**	"	**	**	"	**	
Surrogate: Tetrachloro-meta-xylene		85.9 %	35	140	"	"	"	"	
Surrogate: Decachlorobiphenyl		93.9 %	35-	140	"	"	"	"	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 09:57

A7D-0 T193979-16 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Metals by EPA 6010B									
Arsenic	ND	5.00	mg/kg	1	9111532	11/15/19	11/18/19	EPA 6010b	
Lead	5.35	3.00	"	"	**	u	n .	"	

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Jeff Lee, Project Manager Page 8 of 21



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 09:57

A7D-0-CL T193979-18 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Metals by EPA 6010B									
Arsenic	ND	5.00	mg/kg	1	9111532	11/15/19	11/18/19	EPA 6010b	
Lead	5.35	3.00	"	"	**	u	n .	"	

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Jeff Lee, Project Manager Page 9 of 21



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 09:57

D7D-0 T193979-23 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Metals by EPA 6010B									
Arsenic	ND	5.00	mg/kg	1	9112523	11/25/19	11/26/19	EPA 6010b	
Lead	5.75	3.00	"	"	n	u	n .	"	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 09:57

D7D-0-FR T193979-24 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Metals by EPA 6010B									
Arsenic	ND	5.00	mg/kg	1	9111532	11/15/19	11/18/19	EPA 6010b	
Lead	5.61	3.00	"	"	**	u	11	**	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 09:57

ABCD7C-0 T193979-25 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Organochlorine Pesticides by EPA Me	ethod 8081A								
alpha-BHC	ND	0.0050	mg/kg	1	9111517	11/15/19	11/18/19	EPA 8081A	
gamma-BHC (Lindane)	ND	0.0050	"	"	**	**	11	11	
beta-BHC	ND	0.0050	"	"	"	"	n	Ħ	
delta-BHC	ND	0.0050	"	"	"	"	n	Ħ	
Heptachlor	ND	0.0050	"	n	**	**	11	**	
Aldrin	ND	0.0050	"	n	**	**	11	**	
Heptachlor epoxide	ND	0.0050	"	n	**	**	11	**	
gamma-Chlordane	ND	0.0050	"	"	"	**	11	**	
alpha-Chlordane	ND	0.0050	"	"	"	"	**	**	
Endosulfan I	ND	0.0050	"	"	"	"	"	**	
4,4'-DDE	ND	0.0050	"	"	"	"	"	"	
Dieldrin	ND	0.0050	"	"	"	"	"	"	
Endrin	ND	0.0050	"	"	"	"	"	"	
4,4'-DDD	ND	0.0050	"	"	"	"	"	"	
Endosulfan II	ND	0.0050	"	"	"	"	"	"	
4,4'-DDT	ND	0.0050	"	"	"	"	"	"	
Endrin aldehyde	ND	0.0050	"	"	"	"	"	"	
Endosulfan sulfate	ND	0.0050	"	"	"	"	"	"	
Methoxychlor	ND	0.0050	"	"	"	"	"	"	
Endrin ketone	ND	0.0050	"	"	"	"	n	"	
Toxaphene	ND	0.020	"	"	"	"	H	**	
Chlordane (tech)	ND	0.050	"	"	"	"	H .	**	
Chlordane (Total)	ND	0.0050	"	"	"	"	H	**	
Surrogate: Tetrachloro-meta-xylene		56.1 %	35-	140	"	"	"	"	
Surrogate: Decachlorobiphenyl		95.3 %	35-	140	"	"	"	"	
Surrogate: Decachlorobiphenyl		95.3 %	35-	140	"	n .	"	"	

SunStar Laboratories, Inc.

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
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ABCD7C-0-FR T193979-26 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
L		SunStar L	aboratori	ies. Inc.		-	•		
Organochlorine Pesticides by EPA Me	ethod 8081A								
alpha-BHC	ND	0.0050	mg/kg	1	9111517	11/15/19	11/18/19	EPA 8081A	
gamma-BHC (Lindane)	ND	0.0050	"	"	n	"	11	Ħ	
beta-BHC	ND	0.0050	"	"	"	**	n	Ħ	
delta-BHC	ND	0.0050	"	"	tt.	"	n	"	
Heptachlor	ND	0.0050	"	n	tt.	"	n	"	
Aldrin	ND	0.0050	"	"	**	"	"	**	
Heptachlor epoxide	ND	0.0050	"	"	**	"	"	**	
gamma-Chlordane	ND	0.0050	"	"	**	"	"	**	
alpha-Chlordane	ND	0.0050	"	"	"	"	"	· ·	
Endosulfan I	ND	0.0050	n	"	"	"	"	**	
4,4′-DDE	ND	0.0050	n	"	"	"	"	**	
Dieldrin	ND	0.0050	n	"	"	"	"	"	
Endrin	ND	0.0050	n	"	"	"	"	"	
4,4′-DDD	ND	0.0050	n	"	"	"	"	"	
Endosulfan II	ND	0.0050	"	"	"	"	"	"	
4,4′-DDT	ND	0.0050	n	"	"	"	"	"	
Endrin aldehyde	ND	0.0050	n	"	"	"	"	"	
Endosulfan sulfate	ND	0.0050	n	"	"	"	"	"	
Methoxychlor	ND	0.0050	n	"	"	"	"	"	
Endrin ketone	ND	0.0050	n	"	"	"	"	**	
Toxaphene	ND	0.020	n	"	"	"	"	**	
Chlordane (tech)	ND	0.050	"	"	"	n	"	**	
Chlordane (Total)	ND	0.0050	"	"	n	n	"	**	
Surrogate: Tetrachloro-meta-xylene		43.3 %	35-	140	"	"	"	"	
Surrogate: Decachlorobiphenyl		83.0 %	35-	140	"	"	"	"	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 09:57

C8D-0

T193979-29 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar La	aboratori	es, Inc.					
Metals by EPA 6010B									
Arsenic	ND	4.55	mg/kg	1	9111532	11/15/19	11/18/19	EPA 6010b	
Lead	4.95	2.73	**	11	17	11	ıı	11	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 09:57

ABCD8C-0 T193979-31 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar La	aboratori	es, Inc.					
Organochlorine Pesticides by EPA Method	1 8081A								
alpha-BHC	ND	0.0050	mg/kg	1	9111517	11/15/19	11/18/19	EPA 8081A	
gamma-BHC (Lindane)	ND	0.0050	**	11	Ħ	Ħ	II .	u.	
beta-BHC	ND	0.0050	"	"	"	"	"	"	
delta-BHC	ND	0.0050	"	"	"	"	"	"	
Heptachlor	ND	0.0050	"	"	"	"	"	"	
Aldrin	ND	0.0050	"	"	**	**	"	"	
Heptachlor epoxide	ND	0.0050	"	**	"	Ħ	"	**	
gamma-Chlordane	ND	0.0050	**	**	"	Ħ	"	**	
alpha-Chlordane	ND	0.0050	**	**	"	**	"	**	
Endosulfan I	ND	0.0050	**	**	**	**	n .	**	
4,4′-DDE	ND	0.0050	**	**	**	**	"	**	
Dieldrin	ND	0.0050	**	"	.,	"	n	**	
Endrin	ND	0.0050	**	"	.,,	17	n	11	
4,4′-DDD	ND	0.0050	**	"	17	17	n	11	
Endosulfan II	ND	0.0050	"	"	17	17	II .	11	
4,4′-DDT	ND	0.0050	**	"	17	11	n .	11	
Endrin aldehyde	ND	0.0050	**	"	17	11	n	11	
Endosulfan sulfate	ND	0.0050	**	"	17	11	n	11	
Methoxychlor	ND	0.0050	**	"	**	**	n	11	
Endrin ketone	ND	0.0050	"	**	**	Ħ	II	11	
Toxaphene	ND	0.020	**	11	n	Ħ	11	tt.	
Chlordane (tech)	ND	0.050	**	11	n	Ħ	11	tt.	
Chlordane (Total)	ND	0.0050	**	**	Ħ	**	"	**	
Surrogate: Tetrachloro-meta-xylene		45.3 %	35-1	140	"	"	"	n	
Surrogate: Decachlorobiphenyl		84.8 %	35-1	140	"	"	"	"	

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Analyte

25712 Commercentre Drive Lake Forest, California 92630 949.297.5020 Phone 949.297.5027 Fax

RPD

Limit

Notes

QM-05

QM-05

NV5 Project: Hamilton Union High School

Result

82.1

76.9

2.00

3.00

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 09:57

Reporting

Limit

Metals by EPA 6010B - Quality Control

SunStar Laboratories, Inc.

Units

Spike

Level

Source

Result

%REC

%REC

Limits

RPD

Blank (9111532-BLK1)				Prepared: 11/15	/19 Analyzed: 11	/18/19	
Antimony	ND	3.00	mg/kg				
Arsenic	ND	5.00	"				
Barium	ND	1.00	"				
Beryllium	ND	1.00	"				
Cadmium	ND	2.00	"				
Chromium	ND	2.00	"				
Cobalt	ND	2.00					
Copper	ND	1.00	11				
Lead	ND	3.00	11				
Molybdenum	ND	5.00	11				
Nickel	ND	2.00	11				
Selenium	ND	5.00	**				
Silver	ND	2.00	"				
Thallium	ND	2.00					
Vanadium	ND	5.00					
Zinc	ND	1.00	H				
LCS (9111532-BS1)				Prepared: 11/15	/19 Analyzed: 11	/18/19	
Arsenic	97.4	5.00	mg/kg	100	97.4	75-125	
Barium	98.5	1.00	H	100	98.5	75-125	
Cadmium	98.5	2.00		100	98.5	75-125	
Chromium	98.3	2.00	**	100	98.3	75-125	
Lead	99.5	3.00	11	100	99.5	75-125	
Matrix Spike (9111532-MS1)	Source	e: T193974-	24	Prepared: 11/15	/19 Analyzed: 11	/18/19	
Arsenic	73.0	5.00	mg/kg	99.0	73.7	75-125	QM-0:
Barium	114	1.00	**	99.0	115	75-125	QM-0.
Cadmium	70.4	2.00	11	99.0	71.1	75-125	QM-0

SunStar Laboratories, Inc.

Chromium

Lead

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82.9

77.7

75-125

75-125

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99.0

99.0



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 09:57

Metals by EPA 6010B - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Analyte	Result	Limit	Omts	Level	Kesuit	70KEU	Limits	KLD	rimit	notes
Batch 9111532 - EPA 3050B										
Matrix Spike Dup (9111532-MSD1)	Sou	rce: T193974-	24	Prepared: 1	11/15/19 Aı	nalyzed: 11.	/18/19			
Arsenic	66.9	5.00	mg/kg	93.5		71.6	75-125	8.64	20	QM-0
Barium	96.5	1.00	11	93.5		103	75-125	16.7	20	QM-0
Cadmium	63.8	2.00	11	93.5		68.2	75-125	9.89	20	QM-0
Chromium	72.8	2.00	"	93.5		77.9	75-125	11.9	20	QM-0
Lead	68.9	3.00	11	93.5		73.8	75-125	11.0	20	QM-0
Batch 9112523 - EPA 3050B										
Blank (9112523-BLK1)				Prepared: 1	11/25/19 Aı	nalyzed: 11.	/26/19			
Antimony	ND	3.00	mg/kg							
Arsenic	ND	5.00	"							
Barium	ND	1.00	"							
Beryllium	ND	1.00	11							
Cadmium	ND	2.00	11							
Chromium	ND	2.00	"							
Cobalt	ND	2.00	"							
Copper	ND	1.00	"							
Lead	ND	3.00	"							
Molybdenum	ND	5.00	"							
Nickel	ND	2.00	"							
Selenium	ND	5.00	"							
Silver	ND	2.00	"							
Thallium	ND	2.00	"							
Vanadium	ND	5.00	11							
Zinc	ND	1.00	II							
Aluminum	ND	10.0	11							
Manganese	ND	10.0	"							
Iron	ND	10.0	"							

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 09:57

Metals by EPA 6010B - Quality Control

SunStar Laboratories, Inc.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 9112523 - EPA 3050B										
LCS (9112523-BS1)				Prepared:	11/25/19 A	nalyzed: 11	/26/19			
Arsenic	95.8	5.00	mg/kg	100		95.8	75-125			
Barium	95.8	1.00	"	100		95.8	75-125			
Cadmium	95.7	2.00	11	100		95.7	75-125			
Chromium	95.5	2.00	11	100		95.5	75-125			
Lead	95.7	3.00	11	100		95.7	75-125			
Matrix Spike (9112523-MS1)	Source: T193979-23			Prepared:	11/25/19 A	nalyzed: 11				
Arsenic	61.3	5.00	mg/kg	93.5	ND	65.6	75-125			QM-0
Barium	140	1.00	11	93.5		149	75-125			QM-0
Cadmium	57.4	2.00	11	93.5		61.5	75-125			QM-0
Chromium	106	2.00	11	93.5		113	75-125			QM-0
Lead	59.0	3.00	11	93.5	5.75	57.0	75-125			QM-0
Matrix Spike Dup (9112523-MSD1)	Source: T193979-23			Prepared: 11/25/19 Analyzed: 11/26/19						
Arsenic	70.4	5.00	mg/kg	100	ND	70.4	75-125	13.7	20	QM-0
Barium	156	1.00	"	100		156	75-125	11.4	20	QM-0
Cadmium	66.6	2.00	"	100		66.6	75-125	14.7	20	QM-0
Chromium	121	2.00	"	100		121	75-125	13.4	20	QM-0
Lead	68.6	3.00	11	100	5.75	62.8	75-125	14.9	20	QM-0

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RPD

%REC

NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 09:57

Reporting

Organochlorine Pesticides by EPA Method 8081A - Quality Control

SunStar Laboratories, Inc.

Spike

Source

0/DEC

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 9111517 - EPA 3550 ECD/GCM	S									
Blank (9111517-BLK1)	Prepared: 11/15/19 Analyzed: 11/18/19									
alpha-BHC	ND	0.0050	mg/kg							
gamma-BHC (Lindane)	ND	0.0050	11							
beta-BHC	ND	0.0050	11							
delta-BHC	ND	0.0050	11							
Heptachlor	ND	0.0050	11							
Aldrin	ND	0.0050	"							
Heptachlor epoxide	ND	0.0050	11							
gamma-Chlordane	ND	0.0050								
alpha-Chlordane	ND	0.0050								
Endosulfan I	ND	0.0050	11							
4,4′-DDE	ND	0.0050	11							
Dieldrin	ND	0.0050	It							
Endrin	ND	0.0050	It							
4,4'-DDD	ND	0.0050	11							
Endosulfan II	ND	0.0050	11							
4,4′-DDT	ND	0.0050	11							
Endrin aldehyde	ND	0.0050	11							
Endosulfan sulfate	ND	0.0050	11							
Methoxychlor	ND	0.0050	11							
Endrin ketone	ND	0.0050	It							
Toxaphene	ND	0.020	"							
Chlordane (tech)	ND	0.050	"							
Chlordane (Total)	ND	0.0050	11							
Surrogate: Tetrachloro-meta-xylene	0.00916		"	0.0101		90.6	35-140			
Surrogate: Decachlorobiphenyl	0.0143		"	0.0101		141	35-140			S-GC
LCS (9111517-BS1)	Prepared: 11/15/19 Analyzed: 11/19/19									
gamma-BHC (Lindane)	0.0430	0.0050	mg/kg	0.0404		106	40-120			
Heptachlor	0.0432	0.0050	II.	0.0404		107	40-120			
Aldrin	0.0391	0.0050	11	0.0404		96.8	40-120			
Dieldrin	0.0434	0.0050	11	0.0404		108	40-120			
Endrin	0.0438	0.0050	**	0.0404		109	40-120			
4,4'-DDT	0.0417	0.0050	11	0.0404		103	33-147			
Surrogate: Tetrachloro-meta-xylene	0.0100		"	0.0101		99.2	35-140			
Surrogate: Decachlorobiphenyl	0.0110		"	0.0101		109	35-140			

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 09:57

Organochlorine Pesticides by EPA Method 8081A - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9111517 - EPA 3550 ECD/GCMS										
LCS Dup (9111517-BSD1)				Prepared: 1	1/15/19 Aı	nalyzed: 11.	/19/19			
gamma-BHC (Lindane)	0.0415	0.0050	mg/kg	0.0404		103	40-120	3.54	30	
Heptachlor	0.0428	0.0050	11	0.0404		106	40-120	0.838	30	
Aldrin	0.0400	0.0050	H.	0.0404		98.9	40-120	2.19	30	
Dieldrin	0.0462	0.0050	11	0.0404		114	40-120	6.26	30	
Endrin	0.0466	0.0050	"	0.0404		115	40-120	6.06	30	
4,4'-DDT	0.0455	0.0050	IF	0.0404		113	33-147	8.74	30	
Surrogate: Tetrachloro-meta-xylene	0.00892		"	0.0101		88.4	35-140			
Surrogate: Decachlorobiphenyl	0.0121		"	0.0101		120	35-140			

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/27/19 09:57

Notes and Definitions

S-GC Surrogate recovery outside of established control limits. The data was accepted based on valid recovery of the remaining surrogate(s).

QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS was within

acceptance criteria. The data is acceptable as no negative impact on data is expected.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jeff Lee, Project Manager Page 21 of 21

Chain of Custody Record

Page 1 of 40

B6D-0 B5D-0-CL Relinquished by: (signature) Relinquished by: (signature) D5D-0 B5D-0 A5D-0 Relinquished by: (signature) C5D-0-CL ABCD6C-0 D65-0 D5D-0-CL C5D-0 <u> A5D-0-CL</u> Project Manager: Phone: Address: Client Sample ID 530-894-2487 48 Bellarmine Court, Ste 40, Chico, CA 95928 **N**55 4 Heidi Cummings, heidi.cummings@NV5.com 11.15 19 Date Sampled 11/12/2019 11/12/2019 11/12/2019 11/12/2019 11/12/2019 11/12/2019 11/12/2019 11/12/2019 11/12/2019 1/12/2019 11/12/2019 1/12/2019 1/12/2019 11/14/19 Date / Time Date / Time Date / Time 8:34 1475 1410 1220 1355 4245 1230 9770 520 Time 330 22° 2 300 8 Received by: (signature) 530-894-2437 Received by: (signature) Received by: (signature) Sample Type SOIL SOIL SOIL SOIL SOIL SOIL SOL SOIL SOIL SOIL SOIL SOIL SOIL 650 8 oz jar Container 11.15.19 Arsenic EPA 6010 11/14/19 ead EPA 6010 Date / Time Date / Time Date / Time 8:34 OCPs EPA 8081 Batch #: Collector: HJC/CWB Project Name: Hamilton Union High School 1600 Lab to prepare ABCD5C-0 as 4:1 composite of A5D-0, B5D-0, C5D-0 and D5D-0 Lab to prepare ABCD5C-0-CL as 4:1 composite of A5D-0-CL, B5D-0-CL, C5D-0-CL and D5D-0-10 Lab to prepare ABCD5C-0 as 4:1 composite of A5D-0, B5D-0, C5D-0 and D5D-0 Total # of containers
Chain of Custody seals �/N/NA
Seals intact? �/N/NA Turn around time: Received good condition/cold 1/14/2019 Client Project #: 70779.01.001.003 5 day EDF#: 80 2.83 38 202 ۷ 20 12 20 204 0 ũ Laboratory ID # Comments/Preservative Method 8081 report Chlordane and Technical Chlordane Please return H&K/NV5 ice chests

Total # of containers

Return to client

Pickup

Notes

Sample disposal Instructions:

Disposal @ \$2.00 each

Lake Forest, CA 92630 25712 Commercentre Dr SunStar Laboratories 949-297-5020

Client

48 Bellarmine Court, Ste 40, Chico, CA 95928

Chain of Custody Record

Page 1 of 10

Project Name: Hamilton Union High School

11/14/2019

D6D-0 ABCD6C-0 0-09 0-09 0-09 A6D-0 CSD-0 B5D-0 0-030 Phone: Relinquished by: (signature) Relinquished by: (signature) Relinquished by: (signature) CSD-0-CL B5D-0-01 A50-0-CL Project Manager: D5D-0-C1 A5D-0 Sample ID 530-894-2487 Heidi Cummings, heidi.cummings@NV5.com 1115-19 8:39 Date / Time Date Sampled 11/12/2019 11/12/2019 11/12/2019 11/12/2019 11/12/2019 11/12/2019 11/12/2019 11/12/2019 11/12/2019 1/12/2019 1/12/2019 1/12/2019 61/4/11 1/12/2019 Date / Time Date / Time Tax: 1355 S 4. C. M. 1777 1410 1220 220 230 Time (~) (~) 0 8 50 530-894-2437 Recoved by: (signature) Received by: (signature) Received by: (signature) SOIL 000 8 oz jar 9 oz jar 8 oz jar 8 oz jar Container Type 11.15-19 Arsenic EPA 6010 14/10/11/11 Lead EPA 6010 Date / Time Date / Time Date / Time OCPs EPA 8081 Collector: HJC/CWB Batch #: 1600 Lab to prepare ABCD#C-0 as 4:1 composite of ASD-0, B\$D-0, C\$D-0 and D\$D-0 Lab to prepare ABCD5C-0-CL as 4:1 composite of A5D-0-CL, B5D-0-CL, C5D-0-CL and D5D-0-Lab to prepare ABCD5C-0 as 4:1 composite of ASD-0, B5D-0, C5D-0 and D5D-0 Total # of containers
Chain of Custody spale WINA
Seals intact? YTNNA Turn around time: Received good condition/cold Client Project #: 70779.01.001.003 5 day 282 80 06 20 83 84 B .aboratory ID # Comments/Preservative Method 8081 report Chlordane and Technical Chlordane Please return H&K/NV5 ice chests St. A. Notes Total # of containers

700

9

Return to client

Sample disposal Instructions: Disposal @ \$2.00 each

Plckup

Page 2 of 36

B7D-0-FR A7D-<u>0-FR</u> A7D-<u>0-CL</u> C7D-0 Sample disposal Instructions: Disposal @ \$2.00 each Relinquished by: (signature) Relinguished by: (signature) Relinquished by; (signature) D7D-0-FR C7D-<u>0-FR</u> A7D-0 Project Manager: Phone: <u>0</u>-07 Address: Client: Sample ID 48 Bellarmine Court, Ste 40, Chico, CA 95928 530-894-2487 650 Heidi Cummings, heidi.cummings@NV5.com 11.15.19 Date Sampled 11/12/2019 11/12/2019 1/12/2019 1//12/2019 1/12/2019 1/12/2019 1/12/2019 1/12/2019 1/12/2019 11/14/16 Date / Time Date / Time Date / Time 15:8 1530 600 1506 Jas. 127 Received by: (signature) Received by: (signature) Received by: (signature) 530-894-2437 Sample Type SOIL SOIL SOIL SOL SOIL SOIL SOIL Ö Return to client 8 oz jar Container 8 oz jar 8 oz jar Type 11.15.14 Arsenic EPA 6010 14116 1600 ead EPA 6010 Date / Time Date / Time Date / Time 8:34 Pickup OCPs EPA 8081 Date: Batch #: Collector: HJC/CWB Project Name: Hamilton Union High School Lab to prepare ABCD7C-0-as 4:1 composite of A7D-0, B7D-0, C7D-0 and D7D-0 25
Lab to prepare ABCD7C-0-FR as 4:1 composite of A7D-0-FR, B7D-0-FR, C7D-0-FR and D7D-0 25 Total # of containers
Chain of Custody seals WillINA
Seals intact? WINNA Turn around time: Received good condition/cold 11/14/2019 Client Project #: 70779.01.001.003 5 day EDF#: 24 22 8 1/2 I ā ₽ Laboratory ID # Comments/Preservative Method 8081 report Chlordane and Technical Chlordane Please return H&K/NV5 ice chests Notes Total # of

1 () () ()

SunStar Laboratories 25712 Commercentre Dr Lake Forest, CA 92630 949-297-5020

Chain of Custody Record

1193979

ス Pagest ofイ

A8D-0 C8D-0 Client: Relinquished by: (signature) D8D-0 Address: Sample disposal Instructions: Disposal @ \$2.00 each Relinguished by: (signature) Relinquished by; (signature) Project Manager: Phone: Sample ID S N 530-894-2487 48 Bellarmine Court, Ste 40, Chico, CA 95928 Heidi Cummings, heidi.cummings@NV5.com 11-15-19 8:34 Date / Time Date Sampled 11/12/2019 11/12/2019 1/12/2019 1/12/2019 11/14/16 Date / Time Date / Time 1600 1545 1555 1605 Time 530-894-2437 Received by: (signature) Received by: (signature) Sample Type Received by: (signature) SOIL SOIL SOIL SOIL Return to client 8 oz jar 8 oz jar 8 oz jar 8 oz jar Container Type Arsenic EPA 6010 11/14/16 ead EPA 6010 Date / Time Date / Time Date / Time Pickup OCPs EPA 8081 8:34 Date: Batch #: Collector: Project Name: Hamilton Union High School 1600 ab to prepare ABCD8C-0 as 4:1 composite of A8D-0, B8D-0, C8D-0 and D8D-0 Total # of containers
Chain of Custody seals WNNA
Seals intact! WNNA HJC/CWB Turn around time: Received good condition/cold 11/14/2019 Client Project #: 70779.01.001.003 5 day EDF#: 8 282 .aboratory ID# Comments/Preservative Method 8081 report Chlordane and Technical Chlordane Please return H&K/NV5 ice chests Notes Total # of containers

<u>w</u>



SAMPLE RECEIVING REVIEW SHEET

Batch/Work Order #: 7/93979			•		A section of the sect	
Client Name:	NV5		Project:	H	AMILTON UNION	w High School
Delivered by:	Client	SunStar Courier	⊠GSO	☐ FedEx	Other	
If Courier, Received by			Date/Time Co Received:	ourier		
Lab Received by:	San	υγ	Date/Time La Received:		11-15-19 / 8	:34
Total number of coolers r	eceived: t	Thermometer ID): <u>sc-1</u>	C	Calibration due	: 6/27/20
Temperature: Cooler #1	1.6 °C+/-	the CF (+ 1.2°C)	= 2.8	°C correct	ted temperature	
Temperature: Cooler #2	°C +/-	the CF (+ 1.2°C)	· 	°C correct	ted temperature	
Temperature: Cooler #3	°C +/-	the CF (+ 1.2°C)	· = :	°C correct	ted temperature	
Temperature criteria = : (no frozen containers)	≤6°C	Within cr	iteria?	⊠ Yes	□No	
If NO: Samples received If on ice, samples collected?	•	□Yes →	Acceptable	\square No \rightarrow	e Non-Conforn e Non-Conforn	
Custody seals intact on co	oler/sample			Yes	□No* □N	I/A
Sample containers intact				⊠ Yes	□No*	
Sample labels match Chair	in of Custody IDs			Yes	□No*	e de la compania del compania del compania de la compania del la compania de la compania del la compania d
Total number of container	rs received match	COC		¥Yes	□No*	
Proper containers received	d for analyses requ	uested on COC		Yes	□No*	
Proper preservative indica	ated on COC/cont	ainers for analyses	requested	□Yes	□No* ⊠N	I/A
Complete shipment receive containers, labels, volume holding times				Yes Yes	□No*	
* Complete Non-Conformar	ace Receiving Sheet	f checked Coo	oler/Sample Rev	iew - Initials	and date:	11-15-19
Comments:					· · · · · · · · · · · · · · · · · · ·	
					•	

Printed: 11/15/2019 11:55:30AM



WORK ORDER

T193979

Client: NV5 Project Manager: Jeff Lee

Project: Hamilton Union High School Project Number: 70779.01.001.003

Report To:

NV5

Heidi Cummings

48 Bellarmine Ct, Suite 40

Chico, CA 95928

Date Due: 11/22/19 17:00 (5 day TAT)

Received By: Sunny Lounethone
Logged In By: Sunny Lounethone

Date Received: 11/15/19 08:34 Date Logged In: 11/15/19 11:17

Samples Received at: 2.8°C

Custody Seals Yes Received On Ice Yes

COC/Labels Agree Yes
Preservation Confir No

Analysis Due TAT Expires Comments

T193979-01 A5D-0 [Soil] Sampled 11/12/19 12:20 (GMT-08:00) Pacific Time (US &

[NO ANALYSES]

T193979-02 A5D-0-CL [Soil] Sampled 11/12/19 12:30 (GMT-08:00) Pacific Time

(US &

[NO ANALYSES]

T193979-03 B5D-0 [Soil] Sampled 11/12/19 12:45 (GMT-08:00) Pacific Time (US

[NO ANALYSES]

T193979-04 B5D-0-CL [Soil] Sampled 11/12/19 12:50 (GMT-08:00) Pacific Time

(US &

[NO ANALYSES]

T193979-05 C5D-0 [Soil] Sampled 11/12/19 13:00 (GMT-08:00) Pacific Time (US

æ

6010 Individual Metals 11/22/19 15:00 5 05/10/20 13:00 As and Pb only

T193979-06 C5D-0-CL [Soil] Sampled 11/12/19 13:10 (GMT-08:00) Pacific Time

(US &

[NO ANALYSES]

T193979-07 D5D-0 [Soil] Sampled 11/12/19 13:25 (GMT-08:00) Pacific Time (US

&

[NO ANALYSES]

Printed: 11/15/2019 11:55:30AM



6010 Individual Metals

11/22/19 15:00

WORK ORDER

T193979

Client: NV5 Project Manager: Jeff Lee

Project: Hamilton Union High School Project Number: 70779.01.001.003 **Analysis** TAT **Expires Comments** Due T193979-08 D5D-0-CL [Soil] Sampled 11/12/19 13:30 (GMT-08:00) Pacific Time (US & [NO ANALYSES] T193979-09 ABCD5C-0 [Soil] Sampled 11/12/19 00:00 (GMT-08:00) Pacific **COMPOSITE 4:1 (A5D-0, B5D-0, C5D-0, D5D-0)** Time (US & 8081 Pesticides 11/22/19 15:00 5 11/26/19 00:00 Chlorodane and Technical Chlorodane T193979-10 ABCD5C-0-CL [Soil] Sampled 11/12/19 00:00 (GMT-08:00) Pacific COMPOSITE 4:1 (A5D-0-CL, B5D-0-CL, C5D-0-CL, D5D-0-CL) Time (US & 8081 Pesticides 11/22/19 15:00 11/26/19 00:00 Chlorodane and Technical Chlorodane T193979-11 A6D-0 [Soil] Sampled 11/12/19 13:55 (GMT-08:00) Pacific Time (US [NO ANALYSES] T193979-12 B6D-0 [Soil] Sampled 11/12/19 14:10 (GMT-08:00) Pacific Time (US [NO ANALYSES] T193979-13 C6D-0 [Soil] Sampled 11/12/19 14:20 (GMT-08:00) Pacific Time (US [NO ANALYSES] T193979-14 D6D-0 [Soil] Sampled 11/12/19 14:35 (GMT-08:00) Pacific Time (US [NO ANALYSES] T193979-15 ABCD6C-0 [Soil] Sampled 11/12/19 00:00 (GMT-08:00) Pacific **COMPOSITE 4:1 (A6D-0, B6D-0, C6D-0, D6D-0)** Time (US & 8081 Pesticides Chlorodane and Technical Chlorodane 11/22/19 15:00 11/26/19 00:00 T193979-16 A7D-0 [Soil] Sampled 11/12/19 14:45 (GMT-08:00) Pacific Time (US 6010 Individual Metals 11/22/19 15:00 05/10/20 14:45 As and Pb only 5 T193979-17 A7D-0-FR [Soil] Sampled 11/12/19 14:46 (GMT-08:00) Pacific Time (US & [NO ANALYSES] T193979-18 A7D-0-CL [Soil] Sampled 11/12/19 14:55 (GMT-08:00) Pacific Time (US &

05/10/20 14:55

As and Pb only

Printed: 11/15/2019 11:55:30AM



WORK ORDER

T193979

Client: NV5 **Project Manager: Jeff Lee**

Project: Hamilton Union High School Project Number: 70779.01.001.003

Analysis TAT **Expires Comments** Due

T193979-19 B7D-0 [Soil] Sampled 11/12/19 15:05 (GMT-08:00) Pacific Time (US

[NO ANALYSES]

T193979-20 B7D-0-FR [Soil] Sampled 11/12/19 15:06 (GMT-08:00) Pacific Time

(US &

[NO ANALYSES]

T193979-21 C7D-0 [Soil] Sampled 11/12/19 15:15 (GMT-08:00) Pacific Time (US

[NO ANALYSES]

T193979-22 C7D-0-FR [Soil] Sampled 11/12/19 15:16 (GMT-08:00) Pacific Time

(US &

[NO ANALYSES]

T193979-23 D7D-0 [Soil] Sampled 11/12/19 15:30 (GMT-08:00) Pacific Time (US

[NO ANALYSES]

T193979-24 D7D-0-FR [Soil] Sampled 11/12/19 15:31 (GMT-08:00) Pacific Time

(US &

6010 Individual Metals 11/22/19 15:00 05/10/20 15:31 5 As and Pb only

T193979-25 ABCD7C-0 [Soil] Sampled 11/12/19 00:00 (GMT-08:00) Pacific COMPOSITE 4:1 (A7D-0, B7D-0, C7D-0, D7D-0)

Time (US &

8081 Pesticides 11/22/19 15:00 11/26/19 00:00 5 Chlorodane and Technical Chlorodane

T193979-26 ABCD7C-0-FR [Soil] Sampled 11/12/19 00:00 (GMT-08:00) Pacific COMPOSITE 4:1 (A7D-0-FR, B7D-0-FR, C7D-0-FR, D7D-0-FR)

Time (US &

8081 Pesticides Chlorodane and Technical Chlorodane 11/22/19 15:00 11/26/19 00:00

T193979-27 A8D-0 [Soil] Sampled 11/12/19 15:45 (GMT-08:00) Pacific Time (US

[NO ANALYSES]

T193979-28 B8D-0 [Soil] Sampled 11/12/19 15:55 (GMT-08:00) Pacific Time (US

[NO ANALYSES]

T193979-29 C8D-0 [Soil] Sampled 11/12/19 16:05 (GMT-08:00) Pacific Time (US

&

6010 Individual Metals 11/22/19 15:00 05/10/20 16:05 As and Pb only





WORK ORDER

T193979

Client: NV5 Project Manager: Jeff Lee

Project: Hamilton Union High School Project Number: 70779.01.001.003

Analysis Due TAT Expires Comments

T193979-30 D8D-0 [Soil] Sampled 11/12/19 16:15 (GMT-08:00) Pacific Time (US

&

[NO ANALYSES]

T193979-31 ABCD8C-0 [Soil] Sampled 11/12/19 00:00 (GMT-08:00) Pacific COMPOSITE 4:1 (A8D-0, B8D-0, C8D-0, D8D-0)

Time (US &

8081 Pesticides 11/22/19 15:00 5 11/26/19 00:00 Chlorodane and Technical Chlorodane

Reviewed By Date Page 4 of 4





21 November 2019

Heidi Cummings NV5 48 Bellarmine Ct, Suite 40 Chico, CA 95928

RE: Hamilton Union High School

Enclosed are the results of analyses for samples received by the laboratory on 11/15/19 08:34. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jeff Lee

Project Manager



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/21/19 09:25

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
E2D-0	T193981-03	Soil	11/13/19 09:25	11/15/19 08:34
EF1EF2C-0	T193981-05	Soil	11/13/19 00:00	11/15/19 08:34
F3D-0	T193981-08	Soil	11/13/19 10:00	11/15/19 08:34
F3D-0-FR	T193981-10	Soil	11/13/19 10:01	11/15/19 08:34
EF3EF4C-0	T193981-15	Soil	11/13/19 00:00	11/15/19 08:34
EF3EF4C-0-CL	T193981-16	Soil	11/13/19 00:00	11/15/19 08:34
E5D-0	T193981-17	Soil	11/13/19 11:30	11/15/19 08:34
EFGH5C-0	T193981-21	Soil	11/13/19 00:00	11/15/19 08:34
H6D-0	T193981-25	Soil	11/13/19 13:10	11/15/19 08:34
EFGH6C-0	T193981-26	Soil	11/13/19 00:00	11/15/19 08:34
EB-2	T193981-27	Water	11/13/19 15:00	11/15/19 08:34
EB-3	T193981-28	Water	11/13/19 15:00	11/15/19 08:34
F7D-0	T193981-30	Soil	11/13/19 13:30	11/15/19 08:34
EFGH7C-0	T193981-33	Soil	11/13/19 00:00	11/15/19 08:34
H8D-0	T193981-40	Soil	11/13/19 15:25	11/15/19 08:34
EFGH8C-0	T193981-42	Soil	11/13/19 00:00	11/15/19 08:34
EFGH8C-0-CL	T193981-43	Soil	11/13/19 00:00	11/15/19 08:34

SunStar Laboratories, Inc.

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Jeff Lee, Project Manager Page 1 of 30



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/21/19 09:25

DETECTIONS SUMMARY

Sample ID:	E2D-0	Labor	atory ID:	T193981-03		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		4.92	3.00	mg/kg	EPA 6010b	
Sample ID:	EF1EF2C-0	Labor	atory ID:	T193981-05		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
4,4'-DDE		9.0	5.0	ug/kg	EPA 8081A	
Sample ID:	F3D-0	Labora	atory ID:	T193981-08		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		5.46	3.00	mg/kg	EPA 6010b	
Sample ID:	F3D-0-FR	Labora	atory ID:	T193981-10		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		5.42	2.73	mg/kg	EPA 6010b	
Sample ID:	EF3EF4C-0	Labor	atory ID:	T193981-15		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
•		1145411				
4,4′-DDE		8.2	5.0	ug/kg	EPA 8081A	
=				ug/kg	EPA 8081A	
=	EF3EF4C-0-CL	8.2		ug/kg T193981-16	EPA 8081A	
4,4′-DDE	EF3EF4C-0-CL	8.2	5.0		EPA 8081A	_
4,4′-DDE	EF3EF4C-0-CL	8.2	5.0 atory ID:		EPA 8081A Method	Notes
4,4'-DDE Sample ID:	EF3EF4C-0-CL	8.2 Labor	5.0 atory ID: Reporting	T193981-16		Notes

SunStar Laboratories, Inc.

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Jeff Lee, Project Manager Page 2 of 30



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/21/19 09:25

Sample ID:	E5D-0	Labo	ratory ID:	T193981-17		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		5.67	3.00	mg/kg	EPA 6010b	
Sample ID:	EFGH5C-0	Labo	ratory ID:	T193981-21		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
4,4′-DDE		7.7	5.0	ug/kg	EPA 8081A	
Sample ID:	H6D-0	Labo	ratory ID:	T193981-25		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		5.90	3.00	mg/kg	EPA 6010b	
Sample ID:	EFGH6C-0	Laha	water ID:	T102001 26		
Sample 1D.	Erunoc-v	Labo	ratory ID:	T193981-26		
		. .	Reporting	A.		••
Analyte		Result	Limit	Units	Method	Notes
4,4′-DDE		8.5	5.0	ug/kg	EPA 8081A	
Sample ID:	EB-2	Labo	ratory ID:	T193981-27		
				<u> </u>		
No Results De	etected					

No Results Detected

EB-3

Sample ID:

Sample ID:	F7D-0	Labo	ratory ID:	T193981-30		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		5.17	3.00	mg/kg	EPA 6010b	

Laboratory ID:

SunStar Laboratories, Inc.

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T193981-28

Jeff Lee, Project Manager Page 3 of 30



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/21/19 09:25

Sample ID:	EFGH7C-0	Labora	atory ID:	T193981-33		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
4,4´-DDE		8.3	5.0	ug/kg	EPA 8081A	
Sample ID:	H8D-0	Labora	atory ID:	T193981-40		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
Lead		5.84	3.00	mg/kg	EPA 6010b	
Sample ID:	EFGH8C-0	Labora	atory ID:	T193981-42		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes
4,4'-DDE		6.6	5.0	ug/kg	EPA 8081A	
Sample ID:	EFGH8C-0-CL	Labora	atory ID:	T193981-43		
			Reporting			
Analyte		Result	Limit	Units	Method	Notes

SunStar Laboratories, Inc.

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Jeff Lee, Project Manager

Page 4 of 30



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/21/19 09:25

E2D-0 T193981-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Metals by EPA 6010B									
Arsenic	ND	5.00	mg/kg	1	9111532	11/15/19	11/18/19	EPA 6010b	
Lead	4 92	3.00	**	"	**	**		**	

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jeff Lee, Project Manager Page 5 of 30



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/21/19 09:25

EF1EF2C-0 T193981-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Organochlorine Pesticides by EPA Me	thod 8081A								
alpha-BHC	ND	5.0	ug/kg	1	9111517	11/15/19	11/18/19	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	11	"	**	"	"	
beta-BHC	ND	5.0	"	"	"	**	"	n	
delta-BHC	ND	5.0	"	"	"	**	"	n	
Heptachlor	ND	5.0	"	"	"	Ħ	"	Ħ	
Aldrin	ND	5.0	"	"	**	**	"	17	
Heptachlor epoxide	ND	5.0	"	"	**	**	"	17	
gamma-Chlordane	ND	5.0	"	"	**	**	"	17	
alpha-Chlordane	ND	5.0	"	n	**	**	"	Ħ	
Endosulfan I	ND	5.0	"	"	**	ti .	"	Ħ	
4,4'-DDE	9.0	5.0	"	"	**	**	"	Ħ	
Dieldrin	ND	5.0	"	"	"	**	"	17	
Endrin	ND	5.0	"	"	"	**	"	17	
4,4´-DDD	ND	5.0	"	"	**	**	"	17	
Endosulfan II	ND	5.0	"	n	**	Ħ	"	tt	
4,4'-DDT	ND	5.0	"	n	**	Ħ	"	Ħ	
Endrin aldehyde	ND	5.0	"	n	**	ti .	11	Ħ	
Endosulfan sulfate	ND	5.0	"	n	**	ti .	"	Ħ	
Methoxychlor	ND	5.0	"	"	**	**	"	**	
Endrin ketone	ND	5.0	"	"	**	**	"	"	
Toxaphene	ND	20	"	"	"	"	"	"	
Chlordane (tech)	ND	50	"	"	"	"	"	"	
Chlordane (Total)	ND	5.0	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		55.5 %	35-	140	"	"	"	"	
Surrogate: Decachlorobiphenyl		101 %	35-	140	"	"	"	"	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/21/19 09:25

F3D-0 T193981-08 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Metals by EPA 6010B									
Arsenic	ND	5.00	mg/kg	1	9111532	11/15/19	11/18/19	EPA 6010b	
Lead	5.46	3.00	"	"	**	"	11	"	

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Jeff Lee, Project Manager Page 7 of 30



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/21/19 09:25

F3D-0-FR T193981-10 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Metals by EPA 6010B									
Arsenic	ND	4.55	mg/kg	1	9111532	11/15/19	11/18/19	EPA 6010b	
Lead	5.42	2.73	**	"	**	"	11	**	

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Jeff Lee, Project Manager Page 8 of 30



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/21/19 09:25

EF3EF4C-0 T193981-15 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Organochlorine Pesticides by EPA Me	ethod 8081A								
alpha-BHC	ND	5.0	ug/kg	1	9111517	11/15/19	11/18/19	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	n	
beta-BHC	ND	5.0	"	"	"	"	"	Ħ	
delta-BHC	ND	5.0	"	"	"	"	"	Ħ	
Heptachlor	ND	5.0	"	n	"	n	n n	Ħ	
Aldrin	ND	5.0	"	n	**	n	H .	tt	
Heptachlor epoxide	ND	5.0	"	n	**	v	11	tt	
gamma-Chlordane	ND	5.0	"	11	"	"	11	**	
alpha-Chlordane	ND	5.0	**	"	"	"	11	**	
Endosulfan I	ND	5.0	**	"	"	"	"	**	
4,4'-DDE	8.2	5.0	"	"	"	"	"	**	
Dieldrin	ND	5.0	"	"	17	**	H .	**	
Endrin	ND	5.0	"	11	**	**	11	**	
4,4′-DDD	ND	5.0	"	"	"	"	11	**	
Endosulfan II	ND	5.0	**	"	"	"	11	**	
4,4´-DDT	ND	5.0	"	11	"	**	11	**	
Endrin aldehyde	ND	5.0	**	"	"	"	11	tt.	
Endosulfan sulfate	ND	5.0	**	"	"	"	11	tt.	
Methoxychlor	ND	5.0	**	"	"	"	"	**	
Endrin ketone	ND	5.0	"	"	"	**	"	**	
Toxaphene	ND	20	"	"	"	**	"	"	
Chlordane (tech)	ND	50	"	"	"	**	"	"	
Chlordane (Total)	ND	5.0	"	"	"	"	n .	"	
Surrogate: Tetrachloro-meta-xylene		53.7 %	35-	140	"	"	"	n .	
Surrogate: Decachlorobiphenyl		96.4 %	35-	140	"	"	"	"	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/21/19 09:25

EF3EF4C-0-CL T193981-16 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Organochlorine Pesticides by EPA Me	thod 8081A								
alpha-BHC	ND	5.0	ug/kg	1	9111517	11/15/19	11/18/19	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	11	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	n	
delta-BHC	ND	5.0	"	"	"	"	"	n	
Heptachlor	ND	5.0	"	"	"	**	"	Ħ	
Aldrin	ND	5.0	"	"	**	**	"	17	
Heptachlor epoxide	ND	5.0	"	"	**	**	"	17	
gamma-Chlordane	ND	5.0	"	"	**	**	"	17	
alpha-Chlordane	ND	5.0	"	n	**	**	11	Ħ	
Endosulfan I	ND	5.0	"	"	**	**	"	Ħ	
4,4'-DDE	11	5.0	"	"	**	**	"	Ħ	
Dieldrin	ND	5.0	"	"	"	"	"	17	
Endrin	ND	5.0	"	"	"	**	"	17	
4,4´-DDD	ND	5.0	"	"	**	**	"	17	
Endosulfan II	ND	5.0	"	n	**	**	**	tt	
4,4'-DDT	ND	5.0	"	n	**	**	**	Ħ	
Endrin aldehyde	ND	5.0	"	n	**	**	11	Ħ	
Endosulfan sulfate	ND	5.0	"	n	**	**	11	Ħ	
Methoxychlor	ND	5.0	"	"	**	**	"	Ħ	
Endrin ketone	ND	5.0	"	"	**	**	"	Ħ	
Toxaphene	ND	20	"	"	"	n	II.	Ħ	
Chlordane (tech)	ND	50	"	"	"	n	II.	Ħ	
Chlordane (Total)	ND	5.0	"	"	"	n	II.	Ħ	
Surrogate: Tetrachloro-meta-xylene		82.7 %	35-	140	"	"	"	"	
Surrogate: Decachlorobiphenyl		85.1 %	35-	140	"	"	"	"	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/21/19 09:25

E5D-0

T193981-17 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	ies, Inc.					
Metals by EPA 6010B									
Arsenic	ND	5.00	mg/kg	1	9111532	11/15/19	11/18/19	EPA 6010b	
Lead	5.67	3.00	**	n	**	**	n	"	

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Jeff Lee, Project Manager Page 11 of 30



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/21/19 09:25

EFGH5C-0 T193981-21 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Organochlorine Pesticides by EPA Me	thod 8081A								
alpha-BHC	ND	5.0	ug/kg	1	9111517	11/15/19	11/18/19	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	11	**	"	11	"	
beta-BHC	ND	5.0	"	"	**	"	11	n	
delta-BHC	ND	5.0	"	"	**	"	H.	n	
Heptachlor	ND	5.0	"	"	**	**	H	Ħ	
Aldrin	ND	5.0	"	"	**	**	H .	17	
Heptachlor epoxide	ND	5.0	"	"	**	**	**	17	
gamma-Chlordane	ND	5.0	"	"	**	**	H .	17	
alpha-Chlordane	ND	5.0	"	n	**	**	H	Ħ	
Endosulfan I	ND	5.0	"	"	**	**		Ħ	
4,4'-DDE	7.7	5.0	"	"	**	**	11	Ħ	
Dieldrin	ND	5.0	"	"	**	"	H .	17	
Endrin	ND	5.0	"	"	**	**	H .	17	
4,4´-DDD	ND	5.0	"	"	**	**	H .	17	
Endosulfan II	ND	5.0	"	n	**	**	11	tt	
4,4'-DDT	ND	5.0	"	n	**	**	11	Ħ	
Endrin aldehyde	ND	5.0	"	n	**	**	11	Ħ	
Endosulfan sulfate	ND	5.0	"	n	**	**	H	Ħ	
Methoxychlor	ND	5.0	"	"	**	**	11	**	
Endrin ketone	ND	5.0	"	"	**	**	11	"	
Toxaphene	ND	20	"	"	"	"		"	
Chlordane (tech)	ND	50	"	"	"	"	11	"	
Chlordane (Total)	ND	5.0	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		68.6 %	35-	140	11	"	"	"	
Surrogate: Decachlorobiphenyl		97.8 %	35-	140	"	"	"	"	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/21/19 09:25

H6D-0

T193981-25 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aborator	ies, Inc.					
Metals by EPA 6010B									
Arsenic	ND	5.00	mg/kg	1	9111532	11/15/19	11/18/19	EPA 6010b	
Lead	5.90	3.00	"	"	**	17	H	11	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/21/19 09:25

EFGH6C-0 T193981-26 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	ies, Inc.					<u> </u>
Organochlorine Pesticides by EPA M	ethod 8081A								
alpha-BHC	ND	5.0	ug/kg	1	9111517	11/15/19	11/18/19	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	H.	Ħ	
beta-BHC	ND	5.0	•	"	"	"	11	Ħ	
delta-BHC	ND	5.0	п	"	"	"	H.	Ħ	
Heptachlor	ND	5.0	u	"	"	"	H.	Ħ	
Aldrin	ND	5.0	n	"	"	"	H.	Ħ	
Heptachlor epoxide	ND	5.0	n	"	"	"	II	**	
gamma-Chlordane	ND	5.0	"	"	"	"	II	**	
alpha-Chlordane	ND	5.0	"	"	"	"	H	**	
Endosulfan I	ND	5.0	"	"	"	**	**	11	
4,4'-DDE	8.5	5.0	"	"	"	**	**	11	
Dieldrin	ND	5.0	**	"	"	"	11	"	
Endrin	ND	5.0	**	"	**	"	11	"	
4,4´-DDD	ND	5.0	u	"	"	"	H.	Ħ	
Endosulfan II	ND	5.0	u	"	"	"	H.	Ħ	
4,4′-DDT	ND	5.0	n	"	"	"	H.	**	
Endrin aldehyde	ND	5.0	"	"	"	"	H.	**	
Endosulfan sulfate	ND	5.0	"	"	"	**	**	**	
Methoxychlor	ND	5.0	"	"	"	**	"	**	
Endrin ketone	ND	5.0	"	**	**	"	**	11	
Toxaphene	ND	20	**	"	**	**	H .	11	
Chlordane (tech)	ND	50	**	"	**	**	***	11	
Chlordane (Total)	ND	5.0	"	"	11	"	II .	"	
Surrogate: Tetrachloro-meta-xylene		65.5 %	35-	140	"	n	"	"	
Surrogate: Decachlorobiphenyl		93.1 %	35-	140	"	"	"	"	

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Jeff Lee, Project Manager Page 14 of 30



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/21/19 09:25

EB-2 T193981-27 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
		SunStar La	aboratori	es, Inc.					
Metals by EPA 6010B									
Antimony	ND	50	ug/l	1	9111527	11/15/19	11/19/19	EPA 6010b	
Silver	ND	50	**	11	**	**	n	n	
Arsenic	ND	50	**	11	**	**	n	n	
Barium	ND	50	"	11	**	**	n	Ħ	
Beryllium	ND	50	**	"	**	**	11	**	
Cadmium	ND	50	**	"	**	**	11	**	
Chromium	ND	50	**	"	**	**	11	**	
Cobalt	ND	50	**	"	**	**	"	"	
Copper	ND	50	**	"	**	**	11	"	
Lead	ND	50	**	"	**	**	"	"	
Molybdenum	ND	50	**	**	**	**	"	"	
Nickel	ND	50	**	**	**	**	n .	"	
Selenium	ND	50	**	**	**	**	n .	"	
Thallium	ND	50	**	11	***	**	n .	"	
Vanadium	ND	50	**	"	**	**	n .	"	
Zinc	ND	50	"	"	11	"	n	u,	
Cold Vapor Extraction EPA 7470/7	471								
Mercury	ND	0.50	ug/l	1	9111529	11/15/19	11/20/19	EPA 7470A Water	
Organochlorine Pesticides by EPA	Method 8081A								
alpha-BHC	ND	1.00	ug/l	1	9111825	11/18/19	11/19/19	EPA 8081A	
gamma-BHC (Lindane)	ND	1.00	**	"	**	**	"	n	
beta-BHC	ND	1.00	**	"	**	**	"	n	
delta-BHC	ND	1.00	"	11	**	**	**	n	
Heptachlor	ND	1.00	**	11	**	**	**	n	
Aldrin	ND	1.00	**	11	Ħ	n	m	Ħ	
Heptachlor epoxide	ND	1.00	**	**	**	**	"	n	
gamma-Chlordane	ND	1.00	**	"	**	**	11	Ħ	
alpha-Chlordane	ND	1.00	**	"	**	**	"	**	
Endosulfan I	ND	1.00	**	"	**	**	"	"	
4,4′-DDE	ND	1.00	**	**	**	**	11	,,	

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/21/19 09:25

EB-2 T193981-27 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar La	aboratori	es, Inc.					
Organochlorine Pesticides by EPA Me	thod 8081A								
Dieldrin	ND	1.00	ug/l	1	9111825	11/18/19	11/19/19	EPA 8081A	
Endrin	ND	1.00	"	11	**	"	n	11	
4,4´-DDD	ND	1.00	"	11	**	**	"	11	
Endosulfan II	ND	1.00	"	**	"	"	"	11	
4,4'-DDT	ND	1.00	**	**	**	"	"	11	
Endrin aldehyde	ND	1.00	**	**	**	**	"	**	
Endosulfan sulfate	ND	1.00	**	**	**	**	"	**	
Methoxychlor	ND	1.00	**	**	**	**	"	**	
Endrin ketone	ND	1.00	**	**	**	**	"	**	
Toxaphene	ND	20.0	**	**	**	**	"	**	
Chlordane (tech)	ND	10.0	**	11	**	**	II .	**	
Surrogate: Tetrachloro-meta-xylene		78.5 %	35-	140	"	"	"	rr .	
Surrogate: Decachlorobiphenyl		85.6 %	35-	140	"	"	"	IF.	

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Jeff Lee, Project Manager Page 16 of 30



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/21/19 09:25

EB-3 T193981-28 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
		SunStar La	aboratori	es. Inc.					
Metals by EPA 6010B		~anothi Di		,					
Antimony	ND	50	ug/l	1	9111527	11/15/19	11/19/19	EPA 6010b	
Silver	ND ND	50	ug/i	1 "	9111327	11/13/19	11/19/19	EFA 00100	
Arsenic	ND ND	50	"	11	**	11	ıı .	"	
Barium	ND ND	50	"	**	**	11	ıı .	"	
Beryllium	ND ND	50	"	**	**	11	ıı .	"	
Cadmium	ND ND	50	"	**	**	11	ıı .	"	
Caumum Chromium	ND ND	50	"	**	**	11	ıı .	"	
Cobalt	ND ND	50	"	"	**	11	11	"	
Copper	ND ND	50	"	"	**	11	11	"	
Copper Lead	ND ND	50	"	"	**	"	"	"	
Molybdenum	ND ND	50	"	,,	"	"			
Nickel	ND ND	50	"	,,	"	"			
Nickei Selenium	ND ND	50	"	"		,,		"	
Thallium	ND ND	50	"	"	"	"			
Vanadium	ND ND	50	"	"	"	"		"	
Zinc	ND ND	50	"	"	"	"		"	
Ziiic	ND	30							
Cold Vapor Extraction EPA 7470/7	471								
Mercury	ND	0.50	ug/l	1	9111529	11/15/19	11/20/19	EPA 7470A Water	
Organochlorine Pesticides by EPA	Method 8081A								
alpha-BHC	ND	1.00	ug/l	1	9111825	11/18/19	11/19/19	EPA 8081A	
gamma-BHC (Lindane)	ND	1.00	"	**	**	Ħ	n.	"	
beta-BHC	ND	1.00	"	**	**	u	n.	"	
delta-BHC	ND	1.00	"	**	**	**	n	TI .	
Heptachlor	ND	1.00	"	**	**	**	n	TI .	
Aldrin	ND	1.00	"	**	**	**	ıı	**	
Heptachlor epoxide	ND	1.00	"	**	**	Ħ	ıı	**	
gamma-Chlordane	ND	1.00	"	"	**	Ħ	11	TT .	
alpha-Chlordane	ND	1.00	"	"	**	Ħ	11	TT .	
Endosulfan I	ND	1.00	"	**	**	"	"	"	
4,4′-DDE	ND	1.00	**	**	11	**	"	**	

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Jeff Lee, Project Manager Page 17 of 30



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/21/19 09:25

EB-3 T193981-28 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar La	aboratori	es, Inc.					
Organochlorine Pesticides by EPA Me	thod 8081A								
Dieldrin	ND	1.00	ug/l	1	9111825	11/18/19	11/19/19	EPA 8081A	
Endrin	ND	1.00	**	11	**	"	n	11	
4,4′-DDD	ND	1.00	**	11	**	**	"	11	
Endosulfan II	ND	1.00	"	**	**	"	"	11	
4,4'-DDT	ND	1.00	"	**	**	"	"	11	
Endrin aldehyde	ND	1.00	**	**	**	**	"	**	
Endosulfan sulfate	ND	1.00	**	**	**	**	"	**	
Methoxychlor	ND	1.00	**	**	**	**	"	**	
Endrin ketone	ND	1.00	**	**	**	**	"	**	
Toxaphene	ND	20.0	**	**	**	**	"	**	
Chlordane (tech)	ND	10.0	**	11	**	**	II .	**	
Surrogate: Tetrachloro-meta-xylene		75.5 %	35-	140	"	"	"	rr .	
Surrogate: Decachlorobiphenyl		85.8 %	35-	140	"	"	"	IF.	

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Jeff Lee, Project Manager Page 18 of 30



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/21/19 09:25

F7D-0 T193981-30 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar La	aboratori	es, Inc.					
Metals by EPA 6010B									
Arsenic	ND	5.00	mg/kg	1	9111532	11/15/19	11/18/19	EPA 6010b	
Lead	5.17	3.00	**	"	**	u u	n .	"	

SunStar Laboratories, Inc.

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Jeff Lee, Project Manager Page 19 of 30



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/21/19 09:25

EFGH7C-0 T193981-33 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Organochlorine Pesticides by EPA Me	thod 8081A								
alpha-BHC	ND	5.0	ug/kg	1	9111517	11/15/19	11/18/19	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	11	"	"	11	"	
beta-BHC	ND	5.0	"	"	"	"	H.	n	
delta-BHC	ND	5.0	"	"	"	"	H.	n	
Heptachlor	ND	5.0	"	"	"	"	H	Ħ	
Aldrin	ND	5.0	"	"	**	"	H .	17	
Heptachlor epoxide	ND	5.0	"	"	**	**	H .	17	
gamma-Chlordane	ND	5.0	"	"	**	**	H .	17	
alpha-Chlordane	ND	5.0	"	n	**	**	H	Ħ	
Endosulfan I	ND	5.0	"	"	**	**		Ħ	
4,4'-DDE	8.3	5.0	"	"	**	**	11	Ħ	
Dieldrin	ND	5.0	"	"	"	"	H .	17	
Endrin	ND	5.0	"	"	"	"	H .	17	
4,4´-DDD	ND	5.0	"	"	"	"	H .	17	
Endosulfan II	ND	5.0	"	n	**	**	H	tt	
4,4'-DDT	ND	5.0	"	n	**	**	11	Ħ	
Endrin aldehyde	ND	5.0	"	n	**	**	H	Ħ	
Endosulfan sulfate	ND	5.0	"	n	**	**	H	Ħ	
Methoxychlor	ND	5.0	"	"	"	"	11	**	
Endrin ketone	ND	5.0	"	"	"	"	11	"	
Toxaphene	ND	20	"	"	"	"		"	
Chlordane (tech)	ND	50	"	"	"	"	11	"	
Chlordane (Total)	ND	5.0	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		54.5 %	35-	140	"	п	"	"	
Surrogate: Decachlorobiphenyl		81.4 %	35-	140	"	"	"	"	

SunStar Laboratories, Inc.

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Jeff Lee, Project Manager Page 20 of 30



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/21/19 09:25

H8D-0

T193981-40 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar La	aboratori	es, Inc.					
Metals by EPA 6010B									
Arsenic	ND	5.00	mg/kg	1	9111532	11/15/19	11/18/19	EPA 6010b	
Lead	5.84	3.00	"	**	"	ti .	n	"	

SunStar Laboratories, Inc.

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Jeff Lee, Project Manager Page 21 of 30



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/21/19 09:25

EFGH8C-0 T193981-42 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratori	es, Inc.					
Organochlorine Pesticides by EPA Me	thod 8081A								
alpha-BHC	ND	5.0	ug/kg	1	9111517	11/15/19	11/18/19	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	n	
beta-BHC	ND	5.0	"	"	"	"	"	Ħ	
delta-BHC	ND	5.0	"	"	"	**	"	Ħ	
Heptachlor	ND	5.0	"	"	"	Ħ	n n	Ħ	
Aldrin	ND	5.0	"	n	**	**	H .	**	
Heptachlor epoxide	ND	5.0	"	n	**	**	11	**	
gamma-Chlordane	ND	5.0	"	"	"	**	11	**	
alpha-Chlordane	ND	5.0	**	"	"	**	11	**	
Endosulfan I	ND	5.0	**	"	"	**	"	**	
4,4′-DDE	6.6	5.0	"	"	"	"	"	**	
Dieldrin	ND	5.0	"	n	17	**	H .	**	
Endrin	ND	5.0	"	"	**	**	11	**	
4,4′-DDD	ND	5.0	**	11	"	**	11	**	
Endosulfan II	ND	5.0	"	"	"	**	11	**	
4,4′-DDT	ND	5.0	"	"	"	**	11	**	
Endrin aldehyde	ND	5.0	**	"	"	**	11	tt.	
Endosulfan sulfate	ND	5.0	**	"	"	**	11	**	
Methoxychlor	ND	5.0	"	"	"	"	"	**	
Endrin ketone	ND	5.0	"	"	"	"	"	**	
Toxaphene	ND	20	"	"	"	"	"	"	
Chlordane (tech)	ND	50	"	"	"	"	"	"	
Chlordane (Total)	ND	5.0	"	"	"	"	n .	"	
Surrogate: Tetrachloro-meta-xylene		82.1 %	35-	140	"	"	"	n .	
Surrogate: Decachlorobiphenyl		104 %	35-	140	"	"	"	"	

SunStar Laboratories, Inc.

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NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/21/19 09:25

EFGH8C-0-CL T193981-43 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
,						<u>-</u>			
		SunStar L	aboratori	ies, Inc.					
Organochlorine Pesticides by EPA Me	ethod 8081A								
alpha-BHC	ND	5.0	ug/kg	1	9111517	11/15/19	11/18/19	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	11	"	
beta-BHC	ND	5.0	**	"	"	"	11	"	
delta-BHC	ND	5.0	•	"	"	"	11	"	
Heptachlor	ND	5.0	u	"	"	"	H.	Ħ	
Aldrin	ND	5.0	u	"	"	"	H.	Ħ	
Heptachlor epoxide	ND	5.0	**	"	**	**	H .	Ħ	
gamma-Chlordane	ND	5.0	**	"	**	**	H .	Ħ	
alpha-Chlordane	ND	5.0	"	"	v	**	H	**	
Endosulfan I	ND	5.0	"	"	u	**		**	
4,4'-DDE	5.3	5.0	**	"	"	"	11	"	
Dieldrin	ND	5.0	"	"	"	"	n	**	
Endrin	ND	5.0	"	"	"	"	n	**	
4,4´-DDD	ND	5.0	"	"	n	**	H	**	
Endosulfan II	ND	5.0	"	"	n	**	H	**	
4,4'-DDT	ND	5.0	***	11	"	**	11	**	
Endrin aldehyde	ND	5.0	***	11	"	**	11	**	
Endosulfan sulfate	ND	5.0	***	11	"	"	11	**	
Methoxychlor	ND	5.0	**	"	"	"	**	**	
Endrin ketone	ND	5.0	"	"	"	"	"	**	
Toxaphene	ND	20	"	"	"	"	"	"	
Chlordane (tech)	ND	50	"	"	**	"	11	"	
Chlordane (Total)	ND	5.0		"	17	17	II	Ħ	
Surrogate: Tetrachloro-meta-xylene		63.0 %	35-	140	"	"	"	"	
Surrogate: Decachlorobiphenyl		90.1 %	35-	140	"	"	"	"	

SunStar Laboratories, Inc.

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Jeff Lee, Project Manager Page 23 of 30



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/21/19 09:25

Metals by EPA 6010B - Quality Control

SunStar Laboratories, Inc.

		Donostina		Spike	Course		%REC		DDD	
		Reporting		эріке	Source		70KEC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

|--|

Plank (0111527 PI V1)				Prepared: 11/15/	10 Apalyzadi 11	/10/10	
Blank (9111527-BLK1)) ID			riepaieu. 11/15/	19 Allalyzeu. 11	/19/19	
Antimony	ND	50	ug/l				
Silver	ND	50	11				
Arsenic	ND	50	11				
Barium	ND	50	11				
Beryllium	ND	50	11				
Cadmium	ND	50	11				
Chromium	ND	50	11				
Cobalt	ND	50	11				
Copper	ND	50	11				
Lead	ND	50	11				
Molybdenum	ND	50	11				
Nickel	ND	50	11				
Selenium	ND	50	11				
Thallium	ND	50	11				
Vanadium	ND	50	11				
Zinc	ND	50	11				
LCS (9111527-BS1)				Prepared: 11/15/	19 Analyzed: 11	/19/19	
Arsenic	525	50	ug/l	500	105	75-125	
Barium	538	50	11	500	108	75-125	
Cadmium	543	50	11	500	109	75-125	
Chromium	539	50	11	500	108	75-125	
Lead	525	50	11	500	105	75-125	

Batch 9111532 - EPA 3050B

ık (9111532-BLK1)				Prepared: 11/15/19 Analyzed: 11/18/19
mony	ND	3.00	mg/kg	· · · · · · · · · · · · · · · · · · ·
nic	ND	5.00	11	
n	ND	1.00	"	
ium	ND	1.00	11	
ium	ND	2.00	11	
ium	ND	2.00	11	
t	ND	2.00	11	
er	ND	1.00	11	
	ND	3.00		

SunStar Laboratories, Inc.

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Jeff Lee, Project Manager Page 24 of 30



RPD

%REC

NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/21/19 09:25

Reporting

Metals by EPA 6010B - Quality Control

SunStar Laboratories, Inc.

Spike

Source

		reporting		Spine	Staree		/orce		IG D					
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes				
Batch 9111532 - EPA 3050B														
Blank (9111532-BLK1)				Prepared:	11/15/19 Aı	nalyzed: 11	/18/19							
Molybdenum	ND	5.00	mg/kg											
Nickel	ND	2.00	"											
Selenium	ND	5.00	"											
Silver	ND	2.00	"											
Thallium	ND	2.00	"											
Vanadium	ND	5.00	"											
Zine	ND	1.00	"											
LCS (9111532-BS1)				Prepared:	11/15/19 Aı	nalyzed: 11	/18/19							
Arsenic	97.4	5.00	mg/kg	100		97.4	75-125							
Barium	98.5	1.00	11	100		98.5	75-125							
Cadmium	98.5	2.00	"	100		98.5	75-125							
Chromium	98.3	2.00	"	100		98.3	75-125							
Lead	99.5	3.00	"	100		99.5	75-125							
Matrix Spike (9111532-MS1)	Sourc	e: T193974-	24	Prepared:	11/15/19 Aı	nalyzed: 11	ed: 11/18/19							
Arsenic	73.0	5.00	mg/kg	99.0		73.7	75-125			QM-0				
Barium	114	1.00	"	99.0		115	75-125			QM-0				
Cadmium	70.4	2.00	"	99.0		71.1	75-125			QM-0				
Chromium	82.1	2.00	"	99.0		82.9	75-125			QM-0				
Lead	76.9	3.00	"	99.0		77.7	75-125			QM-0				
Matrix Spike Dup (9111532-MSD1)	Source	e: T193974-	24	Prepared:	11/15/19 Aı	nalyzed: 11	/18/19							
Arsenic	66.9	5.00	mg/kg	93.5		71.6	75-125	8.64	20	QM-0				
Barium	96.5	1.00	"	93.5		103	75-125	16.7	20	QM-0				
Cadmium	63.8	2.00	"	93.5		68.2	75-125	9.89	20	QM-0				
Chromium	72.8	2.00	11	93.5		77.9	75-125	11.9	20	QM-0				
Lead	68.9	3.00		93.5		73.8	75-125	11.0	20	QM-0				

SunStar Laboratories, Inc.

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Jeff Lee, Project Manager Page 25 of 30



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/21/19 09:25

Cold Vapor Extraction EPA 7470/7471 - Quality Control

SunStar Laboratories, Inc.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 9111529 - EPA 7470A Water										
Blank (9111529-BLK1)				Prepared: 1	1/15/19 Aı	nalyzed: 11.	/20/19			
Mercury	ND	0.50	ug/l							
LCS (9111529-BS1)				Prepared: 1	1/15/19 Aı	nalyzed: 11.	/20/19			
Mercury	4.42	0.50	ug/l	5.00		88.5	80-120			
Matrix Spike (9111529-MS1)	Sour	rce: T193981-2	27	Prepared: 11/15/19 Analyzed: 11/20/19						
Mercury	4.10	0.50	ug/l	5.00	ND	81.9	75-125			
Matrix Spike Dup (9111529-MSD1)	Soui	rce: T193981-2	27	Prepared: 1	1/15/19 Aı	nalyzed: 11.	/20/19			
Mercury	4.22	0.50	ug/l	5.00	ND	84.4	75-125	2.91	20	

SunStar Laboratories, Inc.

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Jeff Lee, Project Manager Page 26 of 30



RPD

NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/21/19 09:25

Reporting

${\bf Organochlorine\ Pesticides\ by\ EPA\ Method\ 8081A-Quality\ Control}$

SunStar Laboratories, Inc.

Spike

Source

%REC

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 9111517 - EPA 3550 ECD/GCMS										
Blank (9111517-BLK1)				Prepared: 1	11/15/19 A	nalyzed: 11/	18/19			
alpha-BHC	ND	5.0	ug/kg							
gamma-BHC (Lindane)	ND	5.0	"							
beta-BHC	ND	5.0	"							
delta-BHC	ND	5.0	"							
Heptachlor	ND	5.0	"							
Aldrin	ND	5.0	"							
Heptachlor epoxide	ND	5.0	"							
gamma-Chlordane	ND	5.0	"							
alpha-Chlordane	ND	5.0	"							
Endosulfan I	ND	5.0	"							
4,4'-DDE	ND	5.0	"							
Dieldrin	ND	5.0								
Endrin	ND	5.0	"							
4,4′-DDD	ND	5.0	"							
Endosulfan II	ND	5.0	"							
4,4'-DDT	ND	5.0	"							
Endrin aldehyde	ND	5.0								
Endosulfan sulfate	ND	5.0								
Methoxychlor	ND	5.0								
Endrin ketone	ND	5.0								
Toxaphene	ND	20	"							
Chlordane (tech)	ND	50	"							
Chlordane (Total)	ND	5.0	"							
Surrogate: Tetrachloro-meta-xylene	9.16		"	10.1		90.6	35-140			
Surrogate: Decachlorobiphenyl	14.3		"	10.1		141	35-140			S-GC
LCS (9111517-BS1)				Prepared: 1	11/15/19 A	nalyzed: 11/	19/19			
gamma-BHC (Lindane)	43.0	5.0	ug/kg	40.4		106	40-120			
Heptachlor	43.2	5.0	"	40.4		107	40-120			
Aldrin	39.1	5.0		40.4		96.8	40-120			
Dieldrin	43.4	5.0	**	40.4		108	40-120			
Endrin	43.8	5.0	"	40.4		109	40-120			
4,4'-DDT	41.7	5.0	"	40.4		103	33-147			
Surrogate: Tetrachloro-meta-xylene	10.0		"	10.1		99.2	35-140			
Surrogate: Decachlorobiphenyl	11.0		"	10.1		109	35-140			

SunStar Laboratories, Inc.

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Jeff Lee, Project Manager Page 27 of 30



RPD

NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported: Chico CA, 95928 Project Manager: Heidi Cummings 11/21/19 09:25

Reporting

Organochlorine Pesticides by EPA Method 8081A - Quality Control

SunStar Laboratories, Inc.

Source

Spike

%REC

		1 0		1						
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 9111517 - EPA 3550 ECD/GC	MS									
LCS Dup (9111517-BSD1)				Prepared:	11/15/19 A	nalyzed: 11	/19/19			
gamma-BHC (Lindane)	41.5	5.0	ug/kg	40.4		103	40-120	3.54	30	
Heptachlor	42.8	5.0	"	40.4		106	40-120	0.838	30	
Aldrin	40.0	5.0	"	40.4		98.9	40-120	2.19	30	
Dieldrin	46.2	5.0	"	40.4		114	40-120	6.26	30	
Endrin	46.6	5.0	"	40.4		115	40-120	6.06	30	
4,4′-DDT	45.5	5.0	"	40.4		113	33-147	8.74	30	
Surrogate: Tetrachloro-meta-xylene	8.92		"	10.1		88.4	35-140			
Surrogate: Decachlorobiphenyl	12.1		"	10.1		120	35-140			

Ratch 9111825 - EPA 3510C CCMS/ECD

Blank (9111825-BLK1)				Prepared: 11/18/	19 Analyzed: 11	/19/19	
alpha-BHC	ND	1.00	ug/l				
gamma-BHC (Lindane)	ND	1.00	11				
beta-BHC	ND	1.00	11				
delta-BHC	ND	1.00	11				
Heptachlor	ND	1.00	11				
Aldrin	ND	1.00	11				
Heptachlor epoxide	ND	1.00	11				
gamma-Chlordane	ND	1.00	11				
alpha-Chlordane	ND	1.00	11				
Endosulfan I	ND	1.00	11				
4,4'-DDE	ND	1.00	11				
Dieldrin	ND	1.00	11				
Endrin	ND	1.00	11				
4,4′-DDD	ND	1.00	11				
Endosulfan II	ND	1.00	11				
4,4'-DDT	ND	1.00	11				
Endrin aldehyde	ND	1.00	11				
Endosulfan sulfate	ND	1.00	11				
Methoxychlor	ND	1.00	"				
Endrin ketone	ND	1.00	"				
Chlordane (tech)	ND	10.0	"				
Toxaphene	ND	20.0	11				
Surrogate: Tetrachloro-meta-xylene	ND		"	1.00	82.3	35-140	
Surrogate: Decachlorobiphenyl	0.965		"	1.00	96.5	35-140	

SunStar Laboratories, Inc.

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Jeff Lee, Project Manager Page 28 of 30



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/21/19 09:25

${\bf Organochlorine\ Pesticides\ by\ EPA\ Method\ 8081A-Quality\ Control}$

SunStar Laboratories, Inc.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 9111825 - EPA 3510C GCMS/ECD										
LCS (9111825-BS1)				Prepared: 1	1/18/19 Aı	nalyzed: 11.	/19/19			
gamma-BHC (Lindane)	3.79	1.00	ug/l	4.00		94.6	40-120			
Heptachlor	3.79	1.00	11	4.00		94.7	40-120			
Aldrin	3.41	1.00	11	4.00		85.2	40-120			
Dieldrin	4.05	1.00	11	4.00		101	40-120			
Endrin	4.24	1.00	11	4.00		106	40-120			
4,4′-DDT	4.15	1.00	11	4.00		104	40-120			
Surrogate: Tetrachloro-meta-xylene	0.737		"	1.00		73.7	35-140			
Surrogate: Decachlorobiphenyl	0.928		"	1.00		92.8	35-140			
LCS Dup (9111825-BSD1)				Prepared: 1	1/18/19 Aı	nalyzed: 11.	/19/19			
gamma-BHC (Lindane)	4.28	1.00	ug/l	4.00		107	40-120	12.2	20	
Heptachlor	4.26	1.00	11	4.00		106	40-120	11.7	20	
Aldrin	3.96	1.00	11	4.00		99.0	40-120	15.0	20	
Dieldrin	4.45	1.00	11	4.00		111	40-120	9.33	20	
Endrin	4.59	1.00	11	4.00		115	40-120	7.84	20	
4,4′-DDT	4.42	1.00	11	4.00		110	40-120	6.31	20	
Surrogate: Tetrachloro-meta-xylene	0.866		"	1.00		86.6	35-140			
Surrogate: Decachlorobiphenyl	0.978		"	1.00		97.8	35-140			

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jeff Lee, Project Manager Page 29 of 30



NV5 Project: Hamilton Union High School

48 Bellarmine Ct, Suite 40 Project Number: 70779.01.001.003 Reported:
Chico CA, 95928 Project Manager: Heidi Cummings 11/21/19 09:25

Notes and Definitions

S-GC Surrogate recovery outside of established control limits. The data was accepted based on valid recovery of the remaining surrogate(s).

QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS was within

acceptance criteria. The data is acceptable as no negative impact on data is expected.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jeff Lee, Project Manager Page 30 of 30

Chain of Custody Record

Page # of 1/

949-297-5020 E1D-0 F3D-0-CL F3D-0-FR Client: E3D-0 F2D-0 E2D-0 F1D-0 Project Manager: Phone: Address: Relinquished by: (signature) Relinquished by: (signature) Relinquished by; (signature) E4D-0-CL F3D-0 E3D-0-CL Sample disposal Instructions: ... Disposal @ \$2.00 each F4D-0-CL Sample ID 530-894-2487 48 Bellarmine Court, Ste 40, Chico, CA 95928 350 Heidi Cummings, heidi cummings@NV5.com Date Sampled 11/13/2019 11/13/2019 11/13/2019 11/13/2019 11/13/2019 1//13/2019 1/13/2019 1/13/2019 1/13/2019 1/13/2019 1/13/2019 1/13/2019 1/13/2019 11/14/19 Date / Time Date / Time Date / Time 8:34 Fax: 1600 0940 S たか の 1035 000 025 000 00 ~ 0 √ 530-894-2437 Received by: (signature) 650Sample Type Received by: (signature) Received by: (signature) SOIL SOIL SOL SOIL SOIL SOIL SOIL SOIL SOIL SOIL SOIL Return to client 8 oz jar Container Arsenic EPA 6010 1.1619 11/14/19 Date / Time / 14// 9 / 16 00 Date / Time Date / Time OCPs EPA 8081 8:34 Date: Project Name: Hamilton Union High School Batch #: Collector: HJC/CWB Lab to prepare EF3EF4C-0 as 4:1 composite of E3D-0, F3D-0, E4D-0 and F4D-0 Lab to prepare EF1EF2C-0 as 4:1 composite of E1D-0, F1D-0, E2D-0 and F2D-0 Total # of containers
Chain of Custody seals (N/NA
Seals intact? (DN/NA Turn around time: Received good condition/cold 7193981 Client Project #: 70779.01.001.003 5 day EPF# 2 8 2 32 ũ 2 06 2 6 Laboratory ID # Comments/Preservative Method 8081 report Chlordane and Please return H&K/NV5 ice chests Technical Chlordane Notes ф 15 B Total # of

SunStar Laboratories 25712 Commercentre Dr Lake Forest, CA 92630

Chain of Custody Record

Page A of A

949-297-5020 G6D-0 Client: EB-2 E6D-0 G5D-0 Address: F6D-0 H5D-0 F5D-0 E5D-0 Project Manager: Relinquished by: (signature) Sample disposal Instructions: Relinquished by: (signature) Relingµished by: (signature) Sample ID NV5 530-894-2487 48 Bellarmine Court, Ste 40, Chico, CA 95928 650 Heidi Cummings, heidi.cummings@NV5.com Disposal @ \$2.00 each Date Sampled 11/13/2019 11/13/2019 11/13/2019 11/13/2019 11/13/2019 11.15.19 11/12/2019 11/13/2019 11/13/2019 11/13/2019 1/13/2019 Date / Time Date / Time 11/14/19 Date / Time 8:3 TaX: 1500 1500 1310 Time 230 1240 252 130 1600 1210 スパー 1140 Sample Type 530-894-2437 Received by: (signature) Received by: (signature Received by: (signature) Water Water SOIL SOIL SOIL 650 Return to client Amber, plastic Amber, plastic 8 oz jar Container Type 1579 Arsenic EPA 6010 1/14/10 ead EPA 6010 Date / Time Date / Time Date / Time OCPs EPA 8081 Pickup 8:34 Batch #: Project Name: Hamilton Union High School Title 22 Metals Collector: Date: 1600 Lab to prepare EFGH5C-0 as 4:1 composite of E5D-0, F5D-0, G5D-0 and H5D-0 Lab to prepare EFGH6C-0 as 4:1 composite of E6D-0, F6D-0, G6D-0 and H6D-0 Lab to prepare EF3EF4C-0-CL as 4:1 composite of E3D-0-CL, F3D-0-CL, E4D-0-CL and F4D-0 HJC/CWB Total # of containers
Chain of Custody seals (UNINA
Seals intact? (UNINA Turn around time: Received good condition/cold #1938- 79398) EDF #: 11/14/2019 Client Project #: Ġ day 22 120 22 20 2000 Laboratory ID # Comments/Preservative 70779.01.001.003 Method 8081 report Chlordane and Please return H&K/NV5 ice chests Technical Chlordane Notes Total # of Ê

Chain of Custody Record

	5 day	Turn around time:	Turn arou	Time	Date / Time	1/15:	(signature)	Received by: (signature) Return to clic	ne each	11.15:19	650 11.15-19 5:34 Relinquished by: (signature) Date / Time Sample disposal Instructions: Disposal @ \$2.00 each	Relinquisi Sample dis
Please return H&K/NV5 ice chests	on/cold	Received good condition/cold	Receive	ime	Date / Time		: (signature)	Received by:		ate/	Relinquished by: (signature)	Relinquist
Method 8081 report Chlordane and	NA NA	Chain of Custody seals WN/NA	Chain of (11me 1600) 4	////// [/////	: (signature)	Received by: 650	Time	Date / Tin	Relinquished by: (signature)	Relinquist
repare EFGH8C-0-CL as 4:1 composite of E8D-0-CL, F8D-0-CL; G8D-0-CL and F8D-0-CL	4:1 composite	H8C-0-CL as	repare EFC	ab to p		35						
repare EFGH8C-0 as 4:1 composite of EXU-u, FXU-u, GXU-u and FXU-u	composite of I	3H8C-0 as 4:1	repare EFC	Lab to p	×	e ²					The second secon	
	1 1/4			3,00		79	8 oz jar	SOIL	-15735-	11/13/2019		H8D-0-CI
	40	in the second	1. 2. 2.	1 77		×	8 oz jar	SOIL	18-25	11/13/2019		0-C8H
	<i>w</i> 2				te Justi J		8 oz jar	SOIL	01-51	11/13/2019	and the second s	G85-0-CI
The second secon	320		A T				8 oz jar	SOIL	00.81	11/13/2019		1 60 G
	37			1	eğaz 1	1	8 oz jar	SOIL	1445	11/13/2019		-87-0-CI
	22				100	_	8 oz jar	SOIL	-1435	11/13/2019		- C83 -0-C83
	38		4: 		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		8 oz jar	SOIL	1425	11/13/2019		E8D-0-CL
The state of the s	34						8 oz jar	SOIL	1415	11/13/2019		F8D-0
composite of E7D-0, F7D-0, G/D-0 and H/D-0 33	composite of t	epare EFGH7C-0 as 4:1	repare EFC	Lab to p	×		graph and a			and the second s		
	32		artino des articos de		4		8 oz jar	SOIL	1400	11/13/2019	American contract of the contr	0-07H
	72						8 oz jar	SOIL	1345	11/13/2019		GZD-0
	30	Y				×	8 oz jar	SOIL	1330	11/13/2019	a comment of the comm	F7D-0
*	2 1/2				35		8 oz jar	SOIL	1320	11/13/2019		E7D-0
Comments/Preservative	B La	the second section of the		*	0	Li.	Туре	Sample Type	Time	Date Sampled	Sample ID	
	abora				CPs I	Ĭ.	Container					
	ntory II			# 1 m	EPA 80	EPA 60 A 6010	· .					
) #				81	10			1.4			
		18/	7/43981	Baicn #:				ings@NV5.c	ejdi.cumm	Heidi Cummings, heidi.cummings@NV5.com		Project Manager:
Client Project #: 70779.01.001.003	nt Project #:	VB Clier	HJC/CWB	Collector:			37	530-894-2437	Fax:		530-894-2487	Phone:
7	me: Hamilton Union High School	ilton Union	me: Ham	Project Na	73 [·		8	, CA 9592	t, Ste 40, Chica	NV5 48 Bellarmine Court, Ste 40, Chico, CA 95928	Client:
		1/1/2010		<u>.</u>	·				ļ.		020	949-297-5020



SAMPLE RECEIVING REVIEW SHEET

Batch/Work Order #:	1193981		1		in the second se	
Client Name:	NV5		Project:	HA	MILTON UNION	HIGH SCHOOL
Delivered by:	Client S	SunStar Courier	⊠GSO	☐ FedEx	Other	
If Courier, Received by:			Date/Time Co Received:	ourier		
Lab Received by:	Sann	<u> </u>	Date/Time La Received:	ab 	11-15-19	8:34
Total number of coolers re	eceived:	Thermometer ID): <u>sc-l</u>	C	Calibration due	:_6/27/20_
Temperature: Cooler #1	1.3 °C +/− t	he CF (+ 1.2°C)	= 2.5	°C correct	ted temperature	
Temperature: Cooler #2	°C +/- t	he CF (+ 1.2°C)	<u></u>	°C correct	ted temperature	
Temperature: Cooler #3	°C +/- t	he CF (+ 1.2°C)		°C correct	ted temperature	
Temperature criteria = ≤ (no frozen containers)	€6°C	Within cr	iteria?	ĭ∑Yes	□No	
If NO: Samples received If on ice, samples		∐Yes '	Acceptable	No →	e Non-Conform	
collected? Custody seals intact on coo	oler/sample			Complete Yes	e Non-Conform	
Sample containers intact	olon sample			⊠Yes		/ A
Sample labels match Chair	n of Custody IDs			Yes	□No*	
Total number of containers	s received match C	COC		Yes	□No*	
Proper containers received	for analyses reque	ested on COC		⊠Yes	□No*	
Proper preservative indicate	ted on COC/contai	iners for analyses	requested	□Yes	□No* \\ \(\omega\)N	/ A
Complete shipment receive containers, labels, volumes holding times	_			Yes	□No*	
* Complete Non-Conformance	ce Receiving Sheet i	f checked Coo	ler/Sample Rev	iew - Initials	and date:	11.15-19
Comments:	•		· · · · · · · · · · · · · · · · · · ·	<u> </u>		
	······································					

Printed: 11/15/2019 2:08:50PM



WORK ORDER

T193981

Client: NV5 **Project Manager:** Jeff Lee

Project: Hamilton Union High School **Project Number:** 70779.01.001.003

Report To:

NV5

Heidi Cummings

48 Bellarmine Ct, Suite 40

Chico, CA 95928

Date Due:

11/22/19 17:00 (5 day TAT)

Received By:

Sunny Lounethone

Logged In By:

Sunny Lounethone

Date Received:

11/15/19 08:34

Date Logged In:

11/15/19 11:57

Samples Received at:

Custody Seals

Yes

Received On Ice Yes

2.5°C

Containers Intact Yes COC/Labels Agree Yes Preservation Confin

TAT Due **Expires Comments Analysis**

T193981-01 E1D-0 [Soil] Sampled 11/13/19 08:50 (GMT-08:00) Pacific Time (US

[NO ANALYSES]

T193981-02 F1D-0 [Soil] Sampled 11/13/19 09:00 (GMT-08:00) Pacific Time (US

[NO ANALYSES]

T193981-03 E2D-0 [Soil] Sampled 11/13/19 09:25 (GMT-08:00) Pacific Time (US

6010 Individual Metals

11/22/19 15:00

05/11/20 09:25 5

As and Pb only

T193981-04 F2D-0 [Soil] Sampled 11/13/19 09:15 (GMT-08:00) Pacific Time (US

[NO ANALYSES]

T193981-05 EF1EF2C-0 [Soil] Sampled 11/13/19 00:00 (GMT-08:00) Pacific

COMPOSITE 4:1 (E1D-0, F1D-0, E2D-0, F2D-0)

Time (US &

8081 Pesticides

11/22/19 15:00

11/27/19 00:00

5

T193981-06 E3D-0 [Soil] Sampled 11/13/19 09:40 (GMT-08:00) Pacific Time (US

[NO ANALYSES]

T193981-07 E3D-0-CL [Soil] Sampled 11/13/19 09:45 (GMT-08:00) Pacific Time

(US &

[NO ANALYSES]

Printed: 11/15/2019 2:08:50PM



WORK ORDER

T193981

Client: NV5 Project Manager: Jeff Lee

Project: Hamilton Union High School Project Number: 70779.01.001.003

Analysis Due TAT **Expires Comments** T193981-08 F3D-0 [Soil] Sampled 11/13/19 10:00 (GMT-08:00) Pacific Time (US 11/22/19 15:00 05/11/20 10:00 6010 Individual Metals As and Pb only T193981-09 F3D-0-CL [Soil] Sampled 11/13/19 10:05 (GMT-08:00) Pacific Time (US & [NO ANALYSES] T193981-10 F3D-0-FR [Soil] Sampled 11/13/19 10:01 (GMT-08:00) Pacific Time (US & 6010 Individual Metals 11/22/19 15:00 05/11/20 10:01 As and Pb only T193981-11 E4D-0 [Soil] Sampled 11/13/19 10:50 (GMT-08:00) Pacific Time (US [NO ANALYSES] T193981-12 E4D-0-CL [Soil] Sampled 11/13/19 11:05 (GMT-08:00) Pacific Time (US & [NO ANALYSES] T193981-13 F4D-0 [Soil] Sampled 11/13/19 10:25 (GMT-08:00) Pacific Time (US [NO ANALYSES] T193981-14 F4D-0-CL [Soil] Sampled 11/13/19 10:35 (GMT-08:00) Pacific Time (US & [NO ANALYSES] T193981-15 EF3EF4C-0 [Soil] Sampled 11/13/19 00:00 (GMT-08:00) Pacific **COMPOSITE 4:1 (E3D-0, F3D-0, E4D-0, F4D-0)** Time (US & 8081 Pesticides 11/22/19 15:00 11/27/19 00:00 T193981-16 EF3EF4C-0-CL [Soil] Sampled 11/13/19 00:00 (GMT-08:00) Pacific COMPOSITE 4:1 (E3D-0-CL, F3D-0-CL, E4D-0-CL, F4D-0-CL) Time (US & 8081 Pesticides 11/22/19 15:00 5 11/27/19 00:00 T193981-17 E5D-0 [Soil] Sampled 11/13/19 11:30 (GMT-08:00) Pacific Time (US

1173761-17 E3D-0 [30II] Sampled 11/13/17 11.30 (GM1-00.00) Facine Time (US

•

6010 Individual Metals 11/22/19 15:00 5 05/11/20 11:30 As and Pb only

T193981-18 F5D-0 [Soil] Sampled 11/13/19 11:40 (GMT-08:00) Pacific Time (US

&

[NO ANALYSES]

Printed: 11/15/2019 2:08:50PM



6010 Title 22

8081 Pesticides

WORK ORDER

T193981

Client: NV5 **Project Manager: Jeff Lee**

11/22/19 15:00

11/22/19 15:00

5

5

05/11/20 15:00 11/20/19 15:00

Project: Hamilton Union High School Project Number: 70779.01.001.003

Analysis Due **TAT Expires Comments** T193981-19 G5D-0 [Soil] Sampled 11/13/19 11:55 (GMT-08:00) Pacific Time (US [NO ANALYSES] T193981-20 H5D-0 [Soil] Sampled 11/13/19 12:10 (GMT-08:00) Pacific Time (US [NO ANALYSES] T193981-21 EFGH5C-0 [Soil] Sampled 11/13/19 00:00 (GMT-08:00) Pacific **COMPOSITE 4:1 (E5D-0, F5D-0, G5D-0, H5D-0)** Time (US & 8081 Pesticides 11/22/19 15:00 11/27/19 00:00 T193981-22 E6D-0 [Soil] Sampled 11/13/19 12:30 (GMT-08:00) Pacific Time (US [NO ANALYSES] T193981-23 F6D-0 [Soil] Sampled 11/13/19 12:40 (GMT-08:00) Pacific Time (US [NO ANALYSES] T193981-24 G6D-0 [Soil] Sampled 11/13/19 12:55 (GMT-08:00) Pacific Time (US [NO ANALYSES] T193981-25 H6D-0 [Soil] Sampled 11/13/19 13:10 (GMT-08:00) Pacific Time (US 6010 Individual Metals 11/22/19 15:00 05/11/20 13:10 As and Pb only 5 T193981-26 EFGH6C-0 [Soil] Sampled 11/13/19 00:00 (GMT-08:00) Pacific **COMPOSITE 4:1 (E6D-0, F6D-0, G6D-0, H6D-0)** Time (US & 8081 Pesticides 11/22/19 15:00 11/27/19 00:00 T193981-27 EB-2 [Water] Sampled 11/13/19 15:00 (GMT-08:00) Pacific Time (US & 6010 Title 22 11/22/19 15:00 5 05/11/20 15:00 8081 Pesticides 11/22/19 15:00 5 11/20/19 15:00 T193981-28 EB-3 [Water] Sampled 11/13/19 15:00 (GMT-08:00) Pacific Time (US &





WORK ORDER

T193981

Client: NV5 Project Manager: Jeff Lee

Project: Hamilton Union High School Project Number: 70779.01.001.003

Analysis Due TAT Expires Comments

T193981-29 E7D-0 [Soil] Sampled 11/13/19 13:20 (GMT-08:00) Pacific Time (US

&

[NO ANALYSES]

T193981-30 F7D-0 [Soil] Sampled 11/13/19 13:30 (GMT-08:00) Pacific Time (US

&

6010 Individual Metals 11/22/19 15:00 5 05/11/20 13:30 As and Pb only

T193981-31 G7D-0 [Soil] Sampled 11/13/19 13:45 (GMT-08:00) Pacific Time (US

&

[NO ANALYSES]

T193981-32 H7D-0 [Soil] Sampled 11/13/19 14:00 (GMT-08:00) Pacific Time (US

&

[NO ANALYSES]

T193981-33 EFGH7C-0 [Soil] Sampled 11/13/19 00:00 (GMT-08:00) Pacific

COMPOSITE 4:1 (E7D-0, F7D-0, G7D-0, H7D-0)

Time (US &

8081 Pesticides

11/22/19 15:00

5 11/27/19 00:00

T193981-34 E8D-0 [Soil] Sampled 11/13/19 14:15 (GMT-08:00) Pacific Time (US

&

[NO ANALYSES]

T193981-35 E8D-0-CL [Soil] Sampled 11/13/19 14:25 (GMT-08:00) Pacific Time (US &

OBC

[NO ANALYSES]

T193981-36 F8D-0 [Soil] Sampled 11/13/19 14:35 (GMT-08:00) Pacific Time (US

&

[NO ANALYSES]

T193981-37 F8D-0-CL [Soil] Sampled 11/13/19 14:45 (GMT-08:00) Pacific Time

(US &

[NO ANALYSES]

T193981-38 G8D-0 [Soil] Sampled 11/13/19 15:00 (GMT-08:00) Pacific Time (US

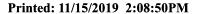
&

[NO ANALYSES]

T193981-39 G8D-0-CL [Soil] Sampled 11/13/19 15:10 (GMT-08:00) Pacific Time

(US &

[NO ANALYSES]





WORK ORDER

T193981

Expires

Comments

Client: NV5 **Project Manager: Jeff Lee**

Project: Hamilton Union High School **Project Number:** 70779.01.001.003

TAT

T193981-40 H8D-0 [Soil] Sampled 11/13/19 15:25 (GMT-08:00) Pacific Time (US 6010 Individual Metals 11/22/19 15:00 05/11/20 15:25 As and Pb only

T193981-41 H8D-0-CL [Soil] Sampled 11/13/19 15:35 (GMT-08:00) Pacific Time (US &

Due

[NO ANALYSES]

Analysis

T193981-42 EFGH8C-0 [Soil] Sampled 11/13/19 00:00 (GMT-08:00) Pacific

COMPOSITE 4:1 (E8D-0, F8D-0, G8D-0, H8D-0)

Time (US &

8081 Pesticides

8081 Pesticides 11/22/19 15:00

11/27/19 00:00

11/27/19 00:00

T193981-43 EFGH8C-0-CL [Soil] Sampled 11/13/19 00:00 (GMT-08:00) Pacific COMPOSITE 4:1 (E8D-0-CL, F8D-0-CL, G8D-0-CL, H8D-0-CL)

5

Time (US &

11/22/19 15:00

Analysis groups included in this work order

6010 Title 22

subgroup 6010B T22 7470/71 Hg

Reviewed By Date Page 5 of 5

APPENDIX C

Data Quality Assessment

DATA QUALITY ASSESSMENT

Quality assurance and quality control (QA/QC) measures were incorporated into the Preliminary Endangerment Assessment (PEA) to monitor field and laboratory procedures and make sure that data of a known quality were produced. The QA/QC measures included analysis of QA/QC samples and internal laboratory QA/QC procedures and data evaluation. In addition, field standard operating procedures were followed to ensure that sample integrity was maintained.

QA/QC samples included field replicates and co-located samples. Analytical results for the PEA QA/QC samples are presented in the laboratory reports contained in Appendix B. Field and laboratory replicate analyses are discussed below in the section on Accuracy and Precision.

Internal laboratory QA/QC procedures were implemented in accordance with the requirements of each analytical method and as specified in the United States Environmental Protection Agency (USEPA) document SW-846, *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*. Internal laboratory QA/QC methods included method blanks, surrogates, matrix spike and matrix spike duplicates (MS/MSD), laboratory control samples (LCS) and LCS duplicates (LCSD), and instrument calibration checks, as specified by the analytical method.

Laboratory data sets, including QA/QC samples, were evaluated to make sure that data are of an acceptable quality for use in the PEA. The data evaluation was based upon data quality indicators including accuracy, precision, method detection and reporting limits (MDLs and RLs), completeness, representativeness and comparability. The evaluation was conducted in general accordance with guidelines set forth in the USEPA National Functional Guidelines.

Results of the data evaluation indicate that the data generated are of acceptable quality for use in the PEA and screening level human health risk assessment (HHRA). None of the data were unusable based on the data evaluation, except the original data for arsenic. A summary of the data evaluation is presented below.

DATA REVIEW AND VALIDATION

Field personnel were responsible for following NV5's sampling and documentation procedures to facilitate the collection of defensible and justifiable data. Responsibilities for data review and validation are outlined below:

- Field data review and validation was performed by Craig Bourne, a qualified environmental professional, and was overseen by Heidi Cummings, the project manager.
- Laboratory data review and validation were performed by a chemist or laboratory analyst as
 described in the laboratory quality assurance programs, as summarized in the laboratory
 reports (Appendix B). Data failing to meet the laboratory acceptance criteria were flagged
 with a qualifier identifying the associated problem in the laboratory report.
- Secondary validation for field data and review of laboratory quality control reports was performed by the project manager.

ACCURACY AND PRECISION

Accuracy and precision were evaluated by assessing laboratory hold times, internal laboratory QA/QC results and field duplicate analyses. Results are as follows:

- SunStar Work Order 193941f: Samples DD5D-0, DD6D-0, and DD7D-0 contained analytes
 above calibration limits and were rerun at a dilution. Reporting limits for OCPs in sample
 DD5D-0 were raised to account for dilution necessary due to high levels of interfering
 compounds and/or matrix effect. Surrogate recovery was outside of established control
 limits. The data was accepted based on valid recovery of surrogates in client samples and
 remaining QC including continuing calibration verification (CCV).
- SunStar Work Order 193979f: Surrogate recovery was outside of established control limits. The data was accepted based on valid recovery of the remaining surrogate(s).
- SunStar Work Order 193981f: Surrogate recovery was outside of established control limits. The data was accepted based on valid recovery of the remaining surrogate(s).
- SunStar Work Order 194029f: No qualifiers.

These flags do not signify a negative impact on data usability.

The relative percent difference was calculated to assess the variance between the normal field samples and their corresponding field replicate and/or co-located samples. A concentration equal to one half the reporting limit was used for those samples that were reported as not detected. Only normal and replicate or co-located samples with detections were evaluated. The relative percent difference was calculated using the following formula:

Relative Percent Difference (RPD) =
$$\frac{\left(|x-y|\right)}{\left(|x+y|/2\right)}$$
 (1)

Where:

x = concentration of normal sample

y = concentration of QA/QC sample

Sample Name	Analyte	Result	Detection Limit	Reporting Limit	Units	Sample Type	Relative Percent Difference
USEPA Method 6	010B & 6020						
A7D-0	Arsenic	5.9	0.0025	0.25	mg/kg	NS	
A7D-0-CL	Arsenic	5.7	0.0025	0.25	mg/kg	CL	3.4
A7D-0	Lead	5.35	0.01	3	mg/kg	NS	
A7D-0-CL	Lead	5.35	0.01	3	mg/kg	CL	0.0
B3D-0	Arsenic	5.3	0.0025	0.25	mg/kg	NS	
B3D-0-FR	Arsenic	5.0	0.0025	0.25	mg/kg	FR	5.8
B3D-0	Lead	4.67	0.01	3	mg/kg	NS	
B3D-0-FR	Lead	4.28	0.01	3	mg/kg	FR	8.7
C1D-0	Arsenic	4.7	0.0025	0.25	mg/kg	NS	

Sample Name	Analyte	Result	Detection Limit	Reporting Limit	Units	Sample Type	Relative Percent Difference
USEPA Method 6		continued					
C1D-0-CL	Arsenic	4.8	0.0025	0.25	mg/kg	CL	2.1
C1D-0	Lead	4.33	0.01	3	mg/kg	NS	
C1D-0-CL	Lead	4.72	0.01	3	mg/kg	CL	8.6
D7D-0	Arsenic	6.4	0.0025	0.25	mg/kg	NS	
D7D-0-FR	Arsenic	5.2	0.0025	0.25	mg/kg	FR	20.7
D7D-0	Lead	5.75	0.01	3	mg/kg	NS	
D7D-0-FR	Lead	5.61	0.01	3	mg/kg	FR	2.5
F3D-0	Arsenic	5.5	0.0025	0.25	mg/kg	NS	
F3D-0-FR	Arsenic	5.4	0.0025	0.25	mg/kg	FR	1.8
F3D-0	Lead	5.46	0.01	3	mg/kg	NS	
F3D-0-FR	Lead	5.42	0.01	3	mg/kg	FR	0.7
HHS3D-2	Arsenic	4.7	0.0025	0.25	mg/kg	NS	
HHS3D-2-FR	Arsenic	5.2	0.0025	0.25	mg/kg	FR	10.1
HHS3D-2	Lead	4.07	0.01	3	mg/kg	NS	
HHS3D-2-FR	Lead	3.74	0.01	3	mg/kg	FR	8.5
HHS5D-2	Arsenic	4.7	0.0025	0.25	mg/kg	NS	
HHS5D-2-CL	Arsenic	4.6	0.0025	0.25	mg/kg	CL	2.2
HHS5D-2	Lead	3.72	0.01	3	mg/kg	NS	
HHS5D-2-CL	Lead	4.07	0.01	3	mg/kg	CL	9.0
DD2D-0	Arsenic	5.3	0.0025	0.25	mg/kg	NS	
DD2D-0-CL	Arsenic	4.8	0.0025	0.25	mg/kg	CL	9.9
DD2D-0	Barium	65	0.3	1	mg/kg	NS	
DD2D-0-CL	Barium	65	0.3	1	mg/kg	CL	0.0
DD2D-0	Cadmium	0.51J	0.1	2	mg/kg	NS	
DD2D-0-CL	Cadmium	0.48J	0.1	2	mg/kg	CL	6.1
DD2D-0	Chromium	40	0.1	2	mg/kg	NS	
DD2D-0-CL	Chromium	37	0.1	2	mg/kg	CL	7.8
DD2D-0	Cobalt	9.2	0.2	2	mg/kg	NS	
DD2D-0-CL	Cobalt	8.7	0.2	2	mg/kg	CL	5.6
DD2D-0	Copper	22	0.2	1	mg/kg	NS	
DD2D-0-CL	Copper	21	0.2	1	mg/kg	CL	4.7
DD2D-0	Lead	4.7	1	3	mg/kg	NS	
DD2D-0-CL	Lead	4.5	1	3	mg/kg	CL	4.3
DD2D-0	Nickel	56	0.3	2	mg/kg	NS	
DD2D-0-CL	Nickel	54	0.3	2	mg/kg	CL	3.6
DD2D-0	Vanadium	27	0.3	5	mg/kg	NS	
DD2D-0-CL	Vanadium	26	0.3	5	mg/kg	CL	3.8

Cample Name	Analysis	Doorth	Detection	Reporting	Hoite	Sample	Relative Percent
Sample Name USEPA Method 60	Analyte	Result	Limit	Limit	Units	Туре	Difference
DD2D-0	Zinc	52	0.1	1	mg/kg	NS	
DD2D-0-CL	Zinc	52	0.1	1	mg/kg	CL	0.0
DD2D-0-CL DD4D-0	Arsenic	5.8	0.0025	0.25		NS NS	0.0
DD4D-0	Arsenic	5.5	0.0025	0.25	mg/kg	FR	5.3
DD4D-0-FK DD4D-0		65	0.0025		mg/kg		5.5
	Barium			1	mg/kg	NS	1.6
DD4D-0-FR	Barium	64	0.3	1	mg/kg	FR	1.6
DD4D-0	Cadmium	0.50J	0.1	2	mg/kg	NS	4.4
DD4D-0-FR	Cadmium	0.48J	0.1	2	mg/kg	FR	4.1
DD4D-0	Chromium	35	0.1	2	mg/kg	NS	0.0
DD4D-0-FR	Chromium	35	0.1	2	mg/kg	FR	0.0
DD4D-0	Cobalt	9.1	0.2	2	mg/kg	NS 	
DD4D-0-FR	Cobalt	8.8	0.2	2	mg/kg	FR	3.4
DD4D-0	Copper	21	0.2	1	mg/kg	NS 	
DD4D-0-FR	Copper	21	0.2	1	mg/kg	FR	0.0
DD4D-0	Lead	5.2	1	3	mg/kg	NS	
DD4D-0-FR	Lead	5.5	1	3	mg/kg	FR	5.6
DD4D-0	Nickel	52	0.3	2	mg/kg	NS	
DD4D-0-FR	Nickel	51	0.3	2	mg/kg	FR	1.9
DD4D-0	Vanadium	26	0.3	5	mg/kg	NS	
DD4D-0-FR	Vanadium	25	0.3	5	mg/kg	FR	3.9
DD4D-0	Zinc	51	0.1	1	mg/kg	NS	
DD4D-0-FR	Zinc	56	0.1	1	mg/kg	FR	9.3
USEPA Method 80	015B						
DD2D-0	DRO	2.9J	1.6	10	mg/kg	NS	
DD2D-0-CL	DRO	5.4J	1.6	10	mg/kg	CL	60.2
DD2D-0	MORO	17	4.2	10	mg/kg	NS	
DD2D-0-CL	MORO	25	4.2	10	mg/kg	CL	38.1
DD4D-0	DRO	5.6J	1.6	10	mg/kg	NS	
DD4D-0-FR	DRO	5.2J	1.6	10	mg/kg	FR	7.4
DD4D-0	MORO	30	4.2	10	mg/kg	NS	
DD4D-0-FR	MORO	33	4.2	10	mg/kg	FR	9.5
USEPA Method 80	081A						
ABCD2C-0	4,4´-DDE	11	1.5	5	μg/kg	NS	
ABCD2C-0-FR	4,4 -DDE	8.7	1.5	5	μg/kg	FR	23.4
ABCD5C-0	4,4´-DDE	6.6	1.5	5	μg/kg	NS	
ABCD5C-0-CL	4,4´-DDE	7.0	1.5	5	μg/kg	CL	5.9
ABCD7C-0	4,4´-DDE	ND	1.5	5	μg/kg	NS	

Sample Name	Analyte	Result	Detection Limit	Reporting Limit	Units	Sample Type	Relative Percent Difference
USEPA Method 80	081A (Conclud	led)					
ABCD7C-0-FR	4,4´-DDE	ND	1.5	5	μg/kg	FR	0.0
EF3EF4C-0	4,4´-DDE	8.2	1.5	5	μg/kg	NS	
EF3EF4C-0-CL	4,4´-DDE	11	1.5	5	μg/kg	CL	29.2
EFGH8C-0	4,4´-DDE	6.6	1.5	5	μg/kg	NS	
EFGH8C-0-CL	4,4´-DDE	5.3	1.5	5	μg/kg	CL	21.8
DD2D-0	4,4´-DDE	11	1.5	5	μg/kg	NS	
DD2D-0-CL	4,4´-DDE	12	1.5	5	μg/kg	CL	8.7
DD4D-0	4,4´-DDE	40	1.5	5	μg/kg	NS	
DD4D-0-FR	4,4´-DDE	36	1.5	5	μg/kg	FR	10.5

USEPA = United States Environmental Protection Agency

mg/kg = milligram per kilogram

ND = Not detected

μg/kg = micrograms per kilogram

J = estimated value; between method detection limit and reporting limit

Sample Type:

NS = normal sample

CL = co-located

FR = field replicate

High RPD values calculated for field replicate and co-located sample pairs are representative of the heterogeneous contaminant distribution in soil at the site.

Thus, the overall precision is generally considered acceptable, with the understanding that variability exists within small distances (co-located samples) and within small sample quantities (field replicate samples).

EVALUATION OF BLANKS

Equipment blank analysis provides an indication of whether contamination was introduced into the PEA sample set. One equipment blank sample was collected during each day of soil sampling. On November 11, 2019, the equipment blank (EB-1) was analyzed for Title 22 Metals by USEPA Methods 6010B and 7470A, OCPs by USEPA Method 8081A and TPH by USEPA Method 8015B. No analytes were detected in the sample at concentrations greater than their respective MDLs. On November 12 and 13, 2019, the equipment blanks (EB-2 and EB-3) were analyzed for Title 22 Metals by USEPA Methods 6010B and 7470A and for OCPs by USEPA Method 8081A. No analytes were detected in the samples at concentrations greater than their respective MDLs. Based on the equipment blank results there is low potential for cross contamination due to insufficient equipment decontamination.

SENSITIVITY

Laboratory analytical methods were selected so that the laboratory method detection limits were less than the applicable regulatory screening criteria (i.e. the DTSC-SLs and USEPA RSLs), and thus are acceptable for use in the PEA screening evaluation.

Total arsenic in soil was originally analyzed using EPA Method 6010B with a practical quantitation limit (PQL; also referred to as reporting limit, or RL) of 5 mg/kg. The PQL did not meet the project data quality objectives, and therefore the EPA 6010B data were rejected, and the analysis was repeated using EPA Method 6020 with a PQL of 0.25 mg/kg.

COMPLETENESS

Completeness is an evaluation of the sampling results with respect to usable versus rejected data. No data was rejected based on the data evaluation. The data set completeness is therefore considered satisfactory for all analyses.

REPRESENTATIVENESS AND COMPARABILITY

Representativeness expresses the degree to which sample data accurately and precisely represent the characteristics of a population, variations in parameters at a sampling point, or an environmental condition that they are intended to represent. NV5 and the contract laboratories addressed the representativeness of data by consistent application of established field and laboratory procedures.

Sample holding times were verified and chain-of-custody forms were checked for completeness. Temperature of samples was measured upon receipt by the laboratory, when applicable. Laboratory blank samples were evaluated for the presence of contaminants. No significant discrepancies were identified.

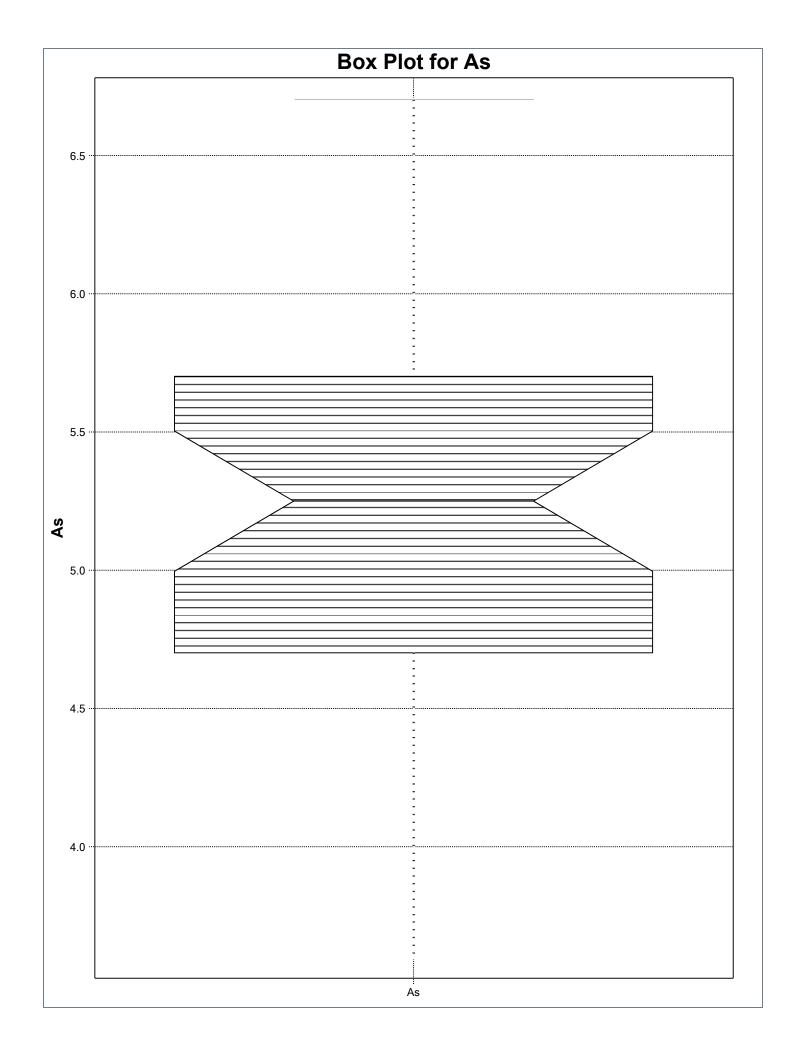
The comparability objective determines whether analytical conditions are sufficiently uniform for each analytical run to ensure that all reported data will be consistent. Comparability is addressed by using similar analytical methods from one investigation to the next.

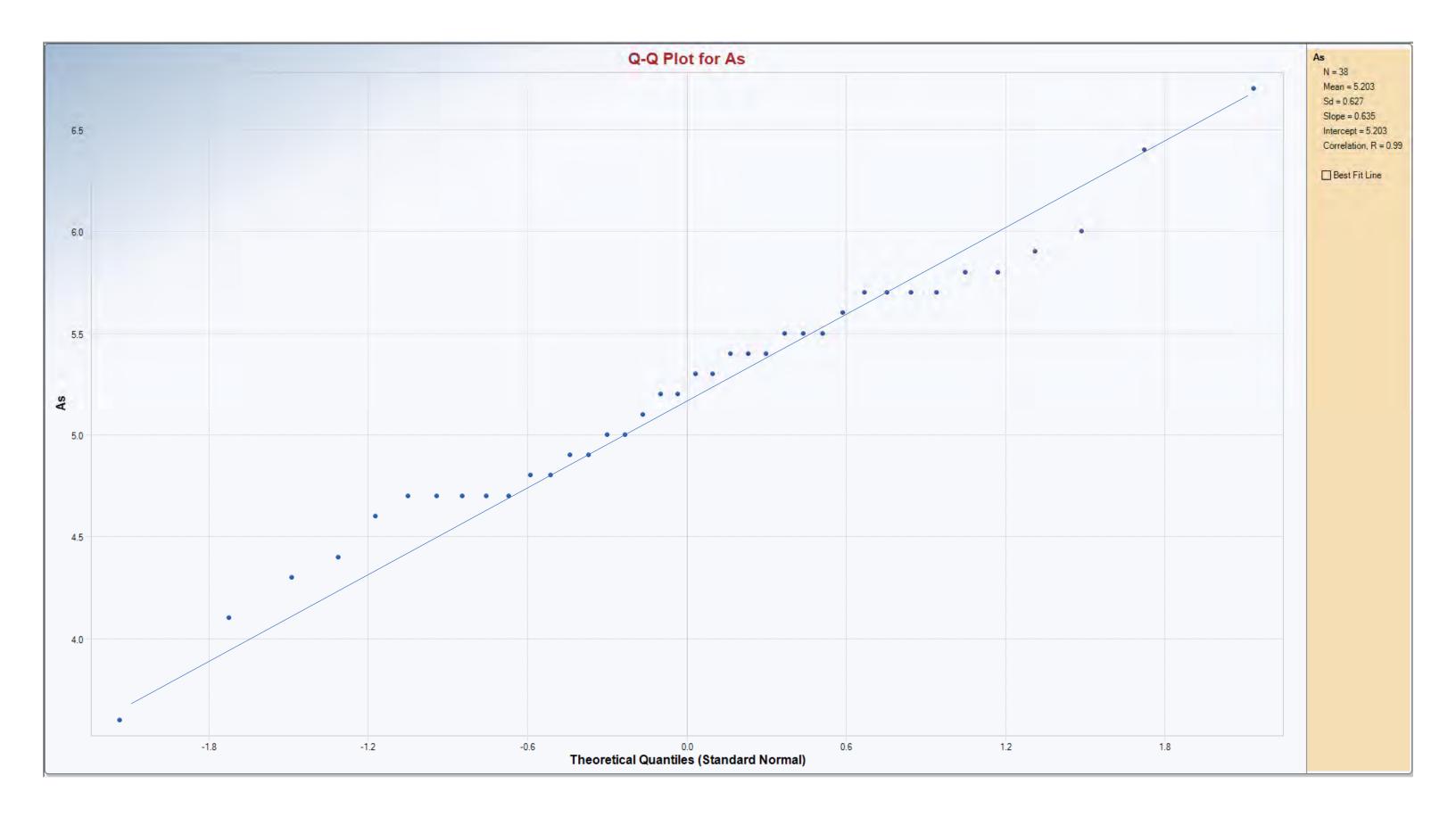
Representativeness and comparability for the samples are addressed by the correct implementation of procedures set forth in the DTSC approved Work Plan (NV5, 2019). The sampling and analysis were conducted in general accordance with the Work Plan.

APPENDIX D

Summary Statistics

	As	
1	AS	5.4
2		5.9
3		5.7
4		5.3
5		5.5
6		4.7
7		4.7
8		4.0
9		5.5
10		
11		4.7
12		6.4
13		5.2
14		4.9
15		6
16		5.5
17		5.4
18		4.7
19		5.6
20		5.8
21		5
22		5.4
23		4.7
24		5.2
25		3.6
26		4.7
27		4.6
28		5.1
29		4.9
30		5.7
31		4.4
32		5.3
33		4.8
34		4.3
35		5.8
36		5.5
37		6.7
38		5.7
39		5.7





	Α	В	С	D	E	F	G	Н	1	1	J	K	T L
1			-		Outlier Tests	s for Selecte	d Uncensore	d Variables					
2			User Selec	ted Options									
3	Dat	e/Time of Co	mputation	ProUCL 5.1	1/29/2020 7:	43:35 PM							
				From File	WorkSheet.:	xls							
4			Ful	l Precision	OFF								
5													
6													
7			P	osner's Outli	or Tost for A	•							
8													
9													
10				F 000									
11			Mean	5.203									
12			d Deviation	0.627									
13			nber of data	38									
14	Numb	er of suspec	ted outliers	1									
15													
16				Potential	Obs.	Test	Critical	Critical					
17	#	Mean	sd	outlier	Number	value	value (5%)	value (1%)					
18	1	5.203	0.618	3.6	24	2.592	3.01	3.36					
19							1	1					
20	For 5% Sign	ificance Leve	el, there is n	o Potential O	utlier					ı			
21													
22	For 1% Sign	ificance Leve	el, there is n	o Potential O	utlier								
	2												
23													

	A B C	D E	F	G H I J K	L								
1	<u> </u>	Background Statistics for	Uncensore	d Full Data Sets									
2	User Selected Options												
3	Date/Time of Computation	ProUCL 5.11/29/2020 7:4	14:24 PM										
4	From File	WorkSheet.xls											
5	Full Precision	OFF											
6	Confidence Coefficient	95%											
7	Coverage	95%											
8	New or Future K Observations	1											
9	Number of Bootstrap Operations	2000											
10													
11	As												
12													
13	General Statistics												
14	Total	Number of Observations	38	Number of Distinct Observations	21								
15		Minimum	3.6	First Quartile	4.725								
16		Second Largest	6.4	Median	5.25								
17		Maximum	6.7	Third Quartile	5.675								
18		Mean	5.203	SD	0.627								
19		Coefficient of Variation	0.12	Skewness	-0.0883								
20	Mean of logged Data 1.642 SD of logged Data 0.124												
21													
22													
23	Tole	rance Factor K (For UTL)	2.132	d2max (for USL)	2.846								
24													
25				GOF Test									
26		Shapiro Wilk Test Statistic	0.987	Shapiro Wilk GOF Test									
27	5% S	hapiro Wilk Critical Value	0.938	Data appear Normal at 5% Significance Level									
28		Lilliefors Test Statistic	0.0797	Lilliefors GOF Test									
29	5	% Lilliefors Critical Value	0.142	Data appear Normal at 5% Significance Level									
30		Data appea	r Normal at	5% Significance Level									
31													
32	2=0/.			uming Normal Distribution									
33	95%	UTL with 95% Coverage	6.539	90% Percentile (z)	6.006								
34		95% UPL (t)	6.274	95% Percentile (z)	6.233								
35		95% USL	6.986	99% Percentile (z)	6.66								
36			0	COE Took									
37		A D Tast Outlier		Anderson Darling Commo COE Test									
38		A-D Test Statistic	0.305 0.746	Anderson-Darling Gamma GOF Test	oo Lovel								
39		5% A-D Critical Value K-S Test Statistic	0.746	Detected data appear Gamma Distributed at 5% Significan Kolmogorov-Smirnov Gamma GOF Test	ce Level								
40		5% K-S Critical Value	0.0845	Detected data appear Gamma Distributed at 5% Significan	ce Lovel								
41				tributed at 5% Significance Level	ce revei								
42		perecien nata appear		unbated at 0 /0 Olyminicalitie Level									
43			Gamma	Statistics									
44		k hat (MLE)	68.81	k star (bias corrected MLE)	63.4								
45		k nat (IVILE)	ا ö.ŏu	k star (blas corrected MLE)	03.4								

	A	В	С	D	E	F	G	Н	I I J K I	1			
46	^		C		at (MLE)	0.0756	G	- 11	Theta star (bias corrected MLE)	0.0821			
47				nu h	at (MLE)	5230			nu star (bias corrected)	4818			
48			N	ILE Mean (bias co	orrected)	5.203			MLE Sd (bias corrected)	0.653			
49													
50				Back	ground St	tatistics Assı	uming Gamm	a Distribution	on				
51		95% Wilso	on Hilferty (V	VH) Approx. Gam	nma UPL	6.338			90% Percentile	6.056			
52		95% Hawki	ins Wixley (H	HW) Approx. Gam	nma UPL	6.347			95% Percentile	6.322			
53	9!	5% WH Appr	ox. Gamma	UTL with 95% C	Coverage	6.649			99% Percentile	6.842			
54	9!	5% HW Appr	ox. Gamma	UTL with 95% C	Coverage	6.666							
55				95%	WH USL	7.198			95% HW USL	7.231			
56									-				
57						Lognorma	I GOF Test						
58			(Shapiro Wilk Test	Statistic	0.976		Sha	piro Wilk Lognormal GOF Test				
59			5% S	Shapiro Wilk Critic	al Value	0.938		Data appe	ar Lognormal at 5% Significance Level				
60				Lilliefors Test	Statistic	0.091		Li	illiefors Lognormal GOF Test				
61			į	5% Lilliefors Critic	al Value	0.142		Data appe	ar Lognormal at 5% Significance Level				
62				Dat	a appear	Lognormal	at 5% Signific	ance Leve	I				
63													
64				Backgr	ound Sta	itistics assur	ming Lognormal Distribution						
65			95%	UTL with 95% C	Coverage	6.721			90% Percentile (z)	6.051			
66				95%	6 UPL (t)	6.379			95% Percentile (z)	6.329			
67				g	5% USL	7.341			99% Percentile (z)	6.885			
68													
69				-			Free Backgro		tics				
70				D	ata appe	ar Normal at	5% Significa	nce Level					
71													
72				-			Background	Threshold					
73				Order of S					95% UTL with 95% Coverage	6.7			
74		Αţ	pprox, f used	I to compute achi	eved CC	2			onfidence Coefficient achieved by UTL	0.858			
75							Approxim		e Size needed to achieve specified CC	59			
76	9	5% Percentil	le Bootstrap	UTL with 95% C				95% BC	CA Bootstrap UTL with 95% Coverage	6.7			
77					5% UPL	6.415			90% Percentile	5.83			
78				90% Chebys		7.107			95% Percentile	6.06			
79				95% Chebys		7.97			99% Percentile	6.589			
80				g	95% USL	6.7							
81		N	(116:				(DT)						
82				-			•	•	n the sample size starts exceeding 20.				
83		I heretore	e, one may u			•		•	background data set free of outliers				
84		-	be use of 110	and consists o									
85									e negatives provided the data				
86		re	presents a b	ackground data s	et and w	nen many o	nsite observa	uoris need	to be compared with the BTV.				
87													

П	A B C	D E	F	GHIJK	L									
1	-	UCL Statist	ics for Unce	nsored Full Data Sets										
2														
3	User Selected Options	3												
4	Date/Time of Computation	ProUCL 5.11/29/2020 7:4	4:45 PM											
5	From File	WorkSheet.xls												
6	Full Precision	OFF												
7	Confidence Coefficient	95%												
8	Number of Bootstrap Operations	2000												
9														
10														
11	As													
12														
13			General	Statistics										
14	Tota	I Number of Observations	38	Number of Distinct Observations	21									
15				Number of Missing Observations	0									
16		Minimum	3.6	Mean	5.203									
17		Maximum	6.7	Median	5.25									
18		SD	0.627	Std. Error of Mean	0.102									
19		Coefficient of Variation	0.12	Skewness	-0.0883									
20		Normal GOF Test												
21														
22		Shapiro Wilk Test Statistic	0.987	Shapiro Wilk GOF Test										
23	5% S	Shapiro Wilk Critical Value	0.938	Data appear Normal at 5% Significance Level										
24		Lilliefors Test Statistic	0.0797	Lilliefors GOF Test										
25		5% Lilliefors Critical Value	0.142	Data appear Normal at 5% Significance Level										
26		рата арреа	r Normai at	5% Significance Level										
27		Λοο	umina Nom	nal Distribution										
28	05% N/	ormal UCL	ulling North	95% UCLs (Adjusted for Skewness)										
29	9370 NO	95% Student's-t UCL	5.374	95% Adjusted CLT UCL (Chen-1995)	5.368									
30		93 % Student S-t OCL	3.374	95% Modified-t UCL (Johnson-1978)	5.374									
31				3370 INIOGINECTE (3011113011-1370)	3.374									
32			Gamma (GOF Test										
33		A-D Test Statistic	0.305	Anderson-Darling Gamma GOF Test										
34		5% A-D Critical Value	0.746	Detected data appear Gamma Distributed at 5% Significance	ce Level									
35		K-S Test Statistic	0.0845	Kolmogorov-Smirnov Gamma GOF Test										
36		5% K-S Critical Value	0.143	Detected data appear Gamma Distributed at 5% Significance	ce Level									
37				tributed at 5% Significance Level										
38				<u> </u>										
39 40			Gamma	Statistics										
40		k hat (MLE)	68.81	k star (bias corrected MLE)	63.4									
42		Theta hat (MLE)	0.0756	0.0756 Theta star (bias corrected MLE)										
43		nu hat (MLE)	5230	nu star (bias corrected)	4818									
44	M	LE Mean (bias corrected)	5.203	MLE Sd (bias corrected)	0.653									
45		·		Approximate Chi Square Value (0.05)	4658									
70				· · · · · · · · · · · · · · · · · · ·										

	A B C D E	F	G H I J K	L								
46	Adjusted Level of Significance	0.0434	Adjusted Chi Square Value	4651								
47												
48	Ass	uming Gam	ma Distribution									
49	95% Approximate Gamma UCL (use when n>=50))	5.382	95% Adjusted Gamma UCL (use when n<50)	5.389								
50												
51		Lognormal	GOF Test									
52	Shapiro Wilk Test Statistic	0.976	Shapiro Wilk Lognormal GOF Test									
53	5% Shapiro Wilk Critical Value	0.938	Data appear Lognormal at 5% Significance Level									
54	Lilliefors Test Statistic	0.091	Lilliefors Lognormal GOF Test									
55	5% Lilliefors Critical Value	0.142	Data appear Lognormal at 5% Significance Level									
56	Data appear	Lognormal a	at 5% Significance Level									
57												
58		Lognorma										
59	Minimum of Logged Data	1.281	Mean of logged Data	1.642								
60	Maximum of Logged Data	1.902	SD of logged Data	0.124								
61												
62			rmal Distribution									
63	95% H-UCL 5.388 90% Chebyshev (MVUE) UCL 5.5											
64	95% Chebyshev (MVUE) UCL	5.659	97.5% Chebyshev (MVUE) UCL	5.857								
65	99% Chebyshev (MVUE) UCL	6.244										
66												
67	-		ion Free UCL Statistics									
68	Data appear to follow a L	Discernible L	istribution at 5% Significance Level									
69	Name	Di	distinction From UOI o									
70	•		ribution Free UCLs	E 074								
71	95% CLT UCL	5.37	95% Jackknife UCL	5.374								
72	95% Standard Bootstrap UCL 95% Hall's Bootstrap UCL	5.368	95% Bootstrap-t UCL 95% Percentile Bootstrap UCL	5.377								
73	95% BCA Bootstrap UCL	5.374	95% Percentile Bootstrap OCL	5.301								
74	90% Chebyshev(Mean, Sd) UCL	5.508	95% Chebyshev(Mean, Sd) UCL	5.646								
75	97.5% Chebyshev(Mean, Sd) UCL	5.837	99% Chebyshev(Mean, Sd) UCL	6.214								
76	37.3% Chebyshev(Mean, 3u) OCL	0.007	33 /o Chebyshev(iviedh, 3u) UCL	0.214								
77		Suggested	LICL to Use									
78	95% Student's-t UCL	5.374	001.0 000									
79	30 / 0 Gladerit 3-1 OCL	3.074										
80	Note: Suggestions regarding the selection of a 95%	UCL are pr	rovided to help the user to select the most appropriate 95% UCL.									
81			ta size, data distribution, and skewness.									
82		•	nulation studies summarized in Singh, Maichle, and Lee (2006).									
83			ts; for additional insight the user may want to consult a statisticial	n.								
84	,		,									
85	Note: For highly negatively-skewed data. confide	ence limits (e	e.g., Chen, Johnson, Lognormal, and Gamma) may not be									
86		<u> </u>	e adjustments for positvely skewed data sets.									
87		,/	• • • •									
88												

APPENDIX E

Risk Assessment

Table E1. Toxicity Values

Hamilton Union High School Expansion Hamilton City, Glenn County, California

		RfDo (r	mg/kg-day)	Rf	Di (mg/kg-d	ay)	SFo (n	SFo (mg/kg-day) ⁻¹ SFi (mg/kg-day) ⁻¹			/) ⁻¹	
Analyte	CAS No.	value	source	RfCi (mg/m³)	source	value	value	source	IUR (ug/m ³) ⁻¹	source	value	ABS
Arsenic, inorganic	7440-38-2	3.5E-06	OEHHA	1.5E-05	OEHHA	3.8E-06	9.5E+00	OEHHA PHG	4.3E-03	IRIS	1.7E+01	0.03
Barium	7440-39-3	2.0E-01	IRIS	5.0E-04	HEAST	1.3E-04			-	1		0.01
Cadmium	7440-43-9	1.0E-03	IRIS	1.0E-05	ATSDR	2.5E-06			4.2E-03	OEHHA	1.7E+01	0.001
Chromium (III), insoluble salts	16065-83-1	1.5E+00	IRIS			1				-		0.01
Cobalt	7440-48-4	3.0E-04	PPRTV	6.0E-06	PPRTV	1.5E-06			9.0E-03	PPRTV	3.6E+01	0.01
Copper	7440-50-8	4.0E-02	HEAST			1				1		0.01
Lead and compounds	7439-92-1			Lead is	s evaluated	using the L	_eadSprea	d 8 model (DTS	SC, 2011 Se	ept)		
Mercury, elemental	7439-97-6	1.6E-04	OEHHA	3.0E-05	OEHHA	7.5E-06						0.01
Nickel, soluble salts	7440-02-0	1.1E-02	OEHHA	1.4E-05	OEHHA	3.5E-06			2.6E-04	OEHHA	1.0E+00	0.01
Vanadium and compounds	7440-62-2	5.0E-03	RSL	1.0E-04	ATSDR	2.5E-05				-		0.01
Zinc and compounds	7440-66-6	3.0E-01	IRIS			1				-		0.01
4,4-DDE	72-55-9	3.0.E-04	PPRTV	1.2.E-03	R(PPRTV)	3.0E-04	3.4.E-01	IRIS	9.7.E-05	OEHHA	3.9E-01	0.05

Notes:

ABS = dermal absorption fraction (PEA Guidance Manual, Appendix A, Table 2)

ATSDR = Agency for Toxic Substances and Disease Registry

Conversions per Supplemental Guidance to RAGS: Region 4 Bulletins Human Health Risk Assessment (US EPA, November 1995), with updated body weight (DTSC, 2014)

HEAST = US EPA Office of Research and Development, Health Effects Assessment Summary Tables

IRIS = US EPA Integrated Risk Information System (http://www.epa.gov/iris/)

IUR = inhalation unit risk

OEHHA = CalEPA Office of Environmental Health Hazard Assessment

PPRTV = Provisional Peer Reviewed Toxicity Values, US EPA OSWER Office of Superfund Remediation Technology Inovation (OSRTI)

R = extrapolated from an oral toxicity value

RfCi = reference concentration for inhalation exposure

RfDi = reference dose for chronic inhalation exposure: RfDi [mg/kg-day] = RfCi [mg/m³] * (20 m³/day) * (80 kg)⁻¹

RfDo = reference dose for chronic oral exposure

RSL = USEPA Region IX RSL user guide Section 5: Value is based on IRIS oral RfD for Vanadium Pentoxide, factoring out the molecular weight (MW) of the oxide ion.

SFi = cancer slope factor for inhalation exposure: SFi [(mg/kg-day)⁻¹] = IUR [(ug/m³)⁻¹] * (10^3ug/mg) * (80 kg) * $(20 \text{m}^3/\text{day})$ ⁻¹.

SFo = cancer slope factor for oral exposure

^{*} Appendix PPRTV Screen (see USEPA FAQ #27, http://www.epa.gov/region9/superfund/prg/)

Table E2 - Summary of Risk/Hazard Calculations for Standard Exposure Scenario (Unrestricted Land Use), Entire Site, All Detected Constituents

Hamilton Union High School Expansion

Hamilton City, Glenn County, California

Analyte	EPC Source	RfDo (mg/kg-day)	RfDi (mg/kg-day)	Sfo (mg/kg- day) ⁻¹	Sfi (mg/kg- day) ⁻¹	ABS	Cs (mg/kg)	Ca (mg/m ³)	Hazard _{soil}	Hazard _{air}	Hazard, soil + air	Risk _{soil}	Risk _{air}	Risk, soil + air
Arsenic	Max Detect	3.5E-06	3.8E-06	9.5E+00	1.7E+01	0.03	6.7	4.93E-09	1.68E+01	8.40E-04	1.68E+01	6.18E-05	1.04E-08	6.18E-05
Barium	Max Detect	2.0E-01	1.3E-04			0.01	200	1.47E-07	1.32E-02	7.52E-04	1.39E-02			0.00E+00
Cadmium	Max Detect	1.0E-03	2.5E-06	-	1.7E+01	0.00	0.57	4.19E-10	7.31E-03	1.07E-04	7.42E-03		8.68E-10	8.68E-10
Chromium	Max Detect	1.5E+00		-		0.01	41	3.01E-08	3.60E-04		3.60E-04			0.00E+00
Cobalt	Max Detect	3.0E-04	1.5E-06		3.6E+01	0.01	9.8	7.21E-09	4.30E-01	3.07E-03	4.33E-01		3.20E-08	3.20E-08
Copper	Max Detect	4.0E-02				0.01	26	1.91E-08	8.55E-03		8.55E-03			0.00E+00
Mercury	Max Detect	1.6E-04	7.5E-06			0.01	0.036	2.65E-11	2.96E-03	3.27E-02	3.56E-02			0.00E+00
Nickel	Max Detect	1.1E-02	3.5E-06	-	1.0E+00	0.01	59	4.34E-08	7.06E-02	7.92E-03	7.85E-02		5.56E-09	5.56E-09
Vanadium	Max Detect	5.0E-03	2.5E-05			0.01	30	2.21E-08	7.89E-02	5.64E-04	7.95E-02			0.00E+00
Zinc	Max Detect	3.0E-01				0.01	81	5.96E-08	3.55E-03		3.55E-03			0.00E+00
4,4-DDE	Max Detect	3.0E-04	3.0E-04	3.4E-01	3.9E-01	0.05	4.3E-05	3.16E-14	1.37E-06	6.74E-11	1.37E-06	1.52E-11	1.51E-15	1.52E-11
TOTAL									1.74E+01	4.59E-02	1.7E+01	6.18E-05	4.89E-08	6.2E-05

Hazard Index excluding arsenic: 6.6E-01

Arsenic Hazard Quotient: 1.7.E+01

Risk excluding Arsenic:

Arsenic Risk:

3.8E-08

6.2E-05

Notes:

1 Cadmium hazard evaluated per HHRA Note 3 (DTSC, 2016) considering 26-year adult exposure

ABS = dermal absorption fraction (PEA Guidance Manual, Appendix A, Table 2)

Ca $[mg/m^3]$ = air concentration = Cs [mg/kg] * $(PEF [m^3/kg])^{-1}$

Cs [mg/kg] = soil concentration

ND = not detected

NL = not listed in reviewed toxicological data sources

RfDo = reference dose for chronic oral exposure

RfDi = reference dose for chronic inhalation exposure

Sfo = standard oral slope factor

Sfi = standard inhalation slope factor

UCL = upper confidence limit

001 appor 0011114011100 1111111			
<u>Parameter</u> <u>\</u>	/alue, child	Value, adult Units	Reference
ATc, averaging time (carcinoge	70	70 yr	HERO HHRA Note No. 1 (DTSC, 2014)
ATnc, averaging time (non-car	6	20 yr	HERO HHRA Note No. 1 (DTSC, 2014)
EFs, exposure frequency (ingε	350	350 days/yr	HERO HHRA Note No. 1 (DTSC, 2014)
EFd, exposure frequency (derr	350	100 days/yr	PEA Guidance Manual
EFi, exposure frequency (inhal	350	350 days/yr	HERO HHRA Note No. 1 (DTSC, 2014)
ED, exposure duration	6	20 yr	HERO HHRA Note No. 1 (DTSC, 2014)
ET, exposure time	24	24 hr/day	HERO HHRA Note No. 3 (DTSC, 2016)
IRs, soil ingestion rate	200	100 mg/day	HERO HHRA Note No. 1 (DTSC, 2014)
IRa, inhalation rate	10	20 m³/day	HERO HHRA Note No. 1 (DTSC, 2014)
BW, body weight	15	80 kg	HERO HHRA Note No. 1 (DTSC, 2014)
SA, exposed skin surface area	2,900	6,032 cm ²	HERO HHRA Note No. 1 (DTSC, 2014)
AF, adherance factor	0.2	0.07 mg/cm ²	HERO HHRA Note No. 1 (DTSC, 2014)
PEF, particulate emission factor	1.360E+09	1.360E+09 m ³ /kg	HERO HHRA Note No. 1 (DTSC, 2014)
DEA Cuidonos Manuel - Prolimi	non Endone	serment Assessment C	uidenee Manuel (DTCC June 1000)

PEA Guidance Manual = Preliminary Endangermant Assessment Guidance Manual (DTSC, June 1999)

Human-Exposure-Based Screening Numbers Developed to Aid Estimation of Cleanup Costs for Contaminated Soil (OEHHA, November 2004, revised January 2005)

HERO Human Health Risk Assessment Note No. 1, Recommended DTSC Default Exposure Factors for Use in Risk Assessment, DTSC, September 30, 2014.

LEAD RISK ASSESSMENT SPREADSHEET 8 CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL

Click here for ABBREVIATED INSTRUCTIONS FOR LEADSPREAD 8

INPUT	
MEDIUM	LEVEL
Lead in Soil/Dust (ug/g)	5.9
Respirable Dust (ug/m³)	1.5

EXPOSURE PARAMETERS				
	units	children		
Days per week	days/wk	7		
Geometric Standard Deviation		1.6		
Blood lead level of concern (ug/dl)		1		
Skin area, residential	cm ²	2900		
Soil adherence	ug/cm ²	200		
Dermal uptake constant	(ug/dl)/(ug/day)	0.0001		
Soil ingestion	mg/day	100		
Soil ingestion, pica	mg/day	200		
Ingestion constant	(ug/dl)/(ug/day)	0.16		
Bioavailability	unitless	0.44		

m³/day

(ug/dl)/(ug/day)

6.8 0.192

OUTPUT					
Percentile Estimate of Blood Pb (ug/dl)					
	50th	90th	95th	98th	99th
BLOOD Pb, CHILD	0.0	0.1	0.1	0.1	0.1
BLOOD Pb, PICA CHILD	0.1	0.2	0.2	0.2	0.2

PATHWAYS						
CHILDREN	typical			with pica		
	Pathway contribution			Pathw	ay cont	ribution
Pathway	PEF	ug/dl	percent	PEF	ug/dl	percent
Soil Contact	5.8E-5	0.00	1%		0.00	0%
Soil Ingestion	7.0E-3	0.04	99%	1.4E-2	0.08	100%
Inhalation	2.0E-6	0.00	0%	·	0.00	0%

Click here for REFERENCES

Breathing rate

Inhalation constant

MODIFIED VERSION OF USEPA ADULT LEAD MODEL

CALCULATIONS OF BLOOD LEAD CONCENTRATIONS (PbBs) AND PRELMIINARY REMEDIATION GOAL (PRG)

EDIT RED CELL

Variable	Description of Variable	Units	
PbS	Soil lead concentration	ug/g or ppm	5.9
R _{fetal/maternal}	Fetal/maternal PbB ratio		0.9
BKSF	Biokinetic Slope Factor	ug/dL per ug/day	0.4
GSD _i	Geometric standard deviation PbB		1.8
PbB ₀	Baseline PbB	ug/dL	0.0
IR_S	Soil ingestion rate (including soil-derived indoor dust)	g/day	0.050
AF _{S, D}	Absorption fraction (same for soil and dust)		0.12
EF _{S, D}	Exposure frequency (same for soil and dust)	days/yr	250
AT _{S, D}	Averaging time (same for soil and dust)	days/yr	365
PbB _{adult}	PbB of adult worker, geometric mean	ug/dL	0.0
PbB _{fetal, 0.90}	90th percentile PbB among fetuses of adult workers	ug/dL	0.0
PbB _t	Target PbB level of concern (e.g., 10 ug/dL)	ug/dL	1.0
$P(PbB_{fetal} > PbB_{t})$	Probability that fetal PbB > PbB _t , assuming lognormal distribution	%	0.0%

PRG90 318

Click here for REFERENCES