Exhibit D: Phase I Environmental Site Assessment

Phase I Environmental Site Assessment

REPORT DATE: November 9, 2022

PROPERTY INFORMATION:
133-070-001; 133-070-002; 133-070-004; 133-070-005; 121-090-028; 133-020-004; 133-020- 001; 133-080-003; 133-080-009; and 133-080-013
Lassen County, Lassen County, California 96136

PROJECT INFORMATION:
AEI Project No. 470890
Site Assessment Date: November 4, 2022

PREPARED FOR:
Pristine Sun Corp
1 W Barrett Avenue
Richmond, California 94801

PREPARED BY:
AEI Consultants - Corporate Headquarters
2500 Camino Diablo
Walnut Creek, California 94597

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November 9, 2022

Troy Helming
Pristine Sun Corp
1 W Barrett Avenue
Richmond, California 94801

Subject: **Phase I Environmental Site Assessment**
133-070-001; 133-070-002; 133-070-004; 133-070-005; 121-090-028;
133-020-004; 133-020- 001; 133-080-003; 133-080-009; and 133-080-013
Lassen County, California 96136
AEI Project No. 470890

Dear Troy Helming:

AEI Consultants is pleased to provide the *Phase I Environmental Site Assessment* of the above referenced property. This assessment was authorized and performed in accordance with the scope of services engaged.

We appreciate the opportunity to provide services to you. If you have any questions concerning this report, or if we can assist you in any other matter, please contact me at (310) 798-4255 or jjohns@aeiconsultants.com.

Sincerely,

Jennifer Johns
Vice President
AEI Consultants

PROJECT SUMMARY

, Lassen County, Lassen County, California 96136
AEI Project No. 470890

Report Section		REC	CREC	HREC	OEC	Recommended Action
1.0	Introduction					None
2.0	Site and Vicinity Description					None
3.0	Historical Records Review				✔	None
4.0	Regulatory Agency Records Review				✔	None
5.0	Regulatory Database Records Review					None
6.0	Interviews and User Provided Information					None
7.0	Site Reconnaissance				✔	None
8.1	Asbestos-Containing Building Materials					None
8.2	Lead-Based Paint					None
8.3	Naturally-Occurring Radon					None
8.4	Suspect Mold or Microbial Growth Conditions					None

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REPORT VIABILITY

Site Visit	November 4, 2022
Regulatory Database Review	October 28, 2022
Interview(s)	Property Owner: N/A Key Site Manager: November 4, 2022
EP Declaration	November 9, 2022
Report Viability per ASTM E1527-21	April 26, 2023

The dates listed are required for Users who are using the report in connection with CERCLA liability protections. The User may have their own criteria when the report is being used for business risk purposes, and not CERCLA liability protections.

EXECUTIVE SUMMARY

AEI Consultants (AEI) was retained by Pristine Sun Corp to conduct a Phase I ESA in conformance with AEI's contract and the scope and limitations of ASTM Standard Practice E1527-13 and E1527-21 and the EPA Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), for the property located in 133-070-001; 133-070-002; 133-070-004; 133-070-005; 121-090-028; 133-020-004; 133-020- 001; 133-080-003; 133-080-009; and 133-080-013, Lassen County, Lassen County, California (the "subject property"). Any exceptions to, or deletions from, this practice are described in Sections 1.4, 1.5, and 1.6 of this report.

Pertinent subject property information is noted below:

Property Information	
Site Address(es)	Lassen County, Lassen County, California 96136
Property ID (APN or Block/Lot)	133-070-001; 133-070-002; 133-070-004; 133-070-005; 121-090-028; 133-020-004; 133-020- 001; 133-080-003; 133-080-009; and 133-080-013
Location	Approximately 20 miles southeast of the intersection of State Route 395 and Wendell Road
Property Type	Renewable Energy (wind, solar)
Site and Building Information	
Approximate Site Acreage/Source	2,700/Client provided
Number of Buildings	N/A
Building Construction Date(s)/Source	N/A
Building Square Footage (SF)/Source	N/A
Number of Floors/Stories	N/A
Additional Improvements	N/A
Current On-site Operations/Use	Undeveloped land
Current Use of Hazardous Substances	None identified
Regulatory Information	
Regulatory Database Listing(s)	Seismic - CA

A chronological summary of historical subject property information is as follows:

Date Range	Subject Property Description and Occupancy (Historical Addresses)	Source(s)
Prior to 1951	Unknown use/Data failure; refer to Section 1.6.1	Aerial photographs, topographic maps
1951-1988	Undeveloped land with a natural hot spring	Aerial photographs, topographic maps
1988-Present	Undeveloped land with several features associated with the hot springs geothermal power development are located on the subject property including several hot water conveyance pipes and a concrete vault.	Aerial photographs, topographic maps, site observations

The immediately surrounding properties consist of the following:

Direction	Tenant/Use (Address)	Regulatory Database Listing(s)
North	Undeveloped and rural residential	None identified
Northeast	Amedee Hot Springs, Wendell Road and undeveloped	Yes; refer to Section 5.1
East	Amedee Hot Springs, Wendell Road and undeveloped	Yes; refer to Section 5.1
South	Sierra Army Depot, aka Amedee Army Airfield	Yes; refer to Section 5.1

Direction	Tenant/Use (Address)	Regulatory Database Listing(s)
West	Honey Lake and Honey Lake State Wildlife Area	None identified

FINDINGS AND OPINIONS

Significant Data Gap(s) is defined by the current ASTM Standard E1527 as a data gap that affects the ability of the environmental professional to identify a recognized environmental condition.

AEI did not identify significant data gaps which affected our ability to identify RECs.

Recognized Environmental Condition (REC) is defined by the current ASTM Standard E1527 as the (1) the presence of hazardous substances or petroleum products in, on, or at the subject property due to a release to the environment; (2) the likely presence of hazardous substances or petroleum products in, on, or at the subject property due to a release or likely release to the environment; or (3) the presence of hazardous substances or petroleum products in, on, or at the subject property under conditions that pose a material threat of a future release to the environment.

- AEI did not identify evidence of RECs during the course of this assessment.

Controlled Recognized Environmental Condition (CREC) is defined by the ASTM Standard E1527 as a recognized environmental condition affecting the subject property that has been addressed to the satisfaction of the applicable regulatory authority or authorities with hazardous substances or petroleum products allowed to remain in place subject to implementation of required controls (for example, activity and use limitations or other property use limitations).

- AEI did not identify evidence of CRECs during the course of this assessment.

Historical Recognized Environmental Condition (HREC) is defined by the ASTM Standard E1527 as a previous release of hazardous substances or petroleum products affecting the subject property that has been addressed to the satisfaction of the applicable regulatory authority or authorities and meeting unrestricted use criteria established by the applicable regulatory authority or authorities without subjecting the subject property to any controls (for example, activity and use limitations or other property use limitations).

- AEI did not identify evidence of HRECs during the course of this assessment.

Other Environmental Considerations (OEC) warrant discussion, but do not qualify as RECs as defined by the current ASTM Standard E1527. These include, but are not limited to, de minimis conditions and/or environmental considerations such as the presence of ACMs, LBP, radon, mold, and lead in drinking water, which can affect the liabilities and financial obligations of the client, the health and safety of site occupants, and the value and marketability of the subject property. A de minimis condition is defined by the ASTM Standard as a condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

- There is an above-ground pipe that originates at the adjacent Amedee Geothermal Power Plant and connects to a sub-grade concrete vault located on the subject property. The pipe is associated with an actively venting geothermal hot spring on the subject property. The hot spring is contained within an open sub-grade concrete vault and what appears to be a pressure control valve or geothermal well head inside the vault. Significant seepage and venting of the hot spring was occurring outside and along the perimeter of the concrete vault. There was no active discharge from the pipe onto the subject property during the site reconnaissance. Based on the natural-occurring element of the hot springs and lack of hazardous substances involved with the wellhead on the property, this feature is not expected to represent a significant environmental concern.
- An approximately 50 foot long linear shaped length of stressed vegetation was observed on the subject property. The stressed vegetation is was located between the subject property venting hot spring and a small narrow drainage and an associated hot water discharge pipe protruding through bank of the drainage. Since the discharge pipe is present underneath the soil, it presumably causes the soil to become warm. The vegetation is likely stressed due to temperature variations on the soil. The presence of the stressed vegetation and associated piping is considered a *de minimus condition* and not expected to represent a significant environmental concern.
- According to observed signage and information obtained from the NPMS Public Map Viewer, a subterranean natural gas pipeline that is owned and operated by Tuscarora Gas crosses the furthest southeast corner of the subject property in a southeast to northwest direction, as shown on Figure 2. No stressed vegetation or olfactory indications of a release were observed in these areas of the subject property during AEI's reconnaissance and no records of past releases or violations associated with this pipeline were identified within the regulatory database and on the NPMS Public Map Viewer. Releases from this pipeline (other than those caused by a third party) would be the responsibility of the operator. In addition, due to its contents, the natural gas pipeline is not expected to represent a potential threat to soil or groundwater conditions at the subject property. Based on this information, the pipeline does not appear to represent a significant environmental concern to the subject property at this time. Prior to any groundbreaking activities within the vicinity of the pipeline, the pipeline operator and the national one-call center, 811, should be contacted.
- According to available information, an unnamed railroad alignment crossed the subject property. Additionally, the Union/Southern Pacific Railroad tracks historically crossed the southeast corner of the subject property. Railroad tracks and spurs represent environmental concerns due to the historical application of oils containing PCBs, herbicides, and arsenic for pest and weed control, as well as the potential presence of creosote on the rail ties, and the historical common practice of using coal cinders

for track fill material. However, it is likely that any potential herbicide concentrations have degraded over time, as the railroad tracks have not been used since at least 1951. Any potential PCB or arsenic concentrations resulting from the railroad tracks and/or spur(s) would be confined to the near subsurface sediments and would not present a significant environmental health and safety concern to the occupants or the underlying groundwater. However, in the event this area of the subject property is redeveloped for residential use, soil sampling may be warranted.

CONCLUSIONS

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Standard Practice E1527-13 and E1527-21, of 133-070-001; 133-070-002; 133-070-004; 133-070-005; 121-090-028; 133-020-004; 133-020- 001; 133-080-003; 133-080-009; and 133-080-013, Lassen County, Lassen County, California, the *subject property*. Any exceptions to, or deletions from, this practice are described in Sections 1.4, 1.5, and 1.6 of this report.

This assessment has revealed no evidence of recognized environmental conditions, controlled recognized environmental conditions, or significant data gaps in connection with the subject property.

RECOMMENDATIONS

AEI recommends no further investigation for the subject property at this time.

1.0 INTRODUCTION

This report documents the methods and findings of the Phase I Environmental Site Assessment performed in conformance with AEI's contract and scope and limitations of ASTM Standard Practice E1527-13 and E1527-21 and the EPA Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), for the property located at 133-070-001; 133-070-002; 133-070-004; 133-070-005; 121-090-028; 133-020-004; 133-020- 001; 133-080-003; 133-080-009; and 133-080-013, Lassen County, Lassen County, California (Appendix A: Figures and Appendix B: Property Photographs).

1.1 Scope of Work

The purpose of the Phase I ESA is to assist the client in identifying potential RECs, in accordance with the most current ASTM E1527 Standard associated with the presence of any hazardous substances or petroleum products, their use, storage, and disposal at and in the vicinity of the subject property. Property assessment activities focused on: 1) a review of federal, state, tribal, and local databases that identify and describe underground fuel tank sites, leaking underground fuel tank sites, hazardous waste generation sites, and hazardous waste storage and disposal facility sites within the ASTM approximate minimum search distance; 2) a property and surrounding site reconnaissance, and interviews with the past and present owners and current occupants and operators to identify potential environmental contamination; and 3) a review of historical sources to help ascertain previous land use at the site and in the surrounding area.

1.2 Additional Services

Other Environmental Considerations such as ACMs, LBP, lead in drinking water, radon, mold, and wetlands can result in business environmental risks for property owners which may disrupt current or planned operations or cash flow and are generally beyond the scope of a Phase I assessment as defined by the current ASTM Standard E1527. Based upon the agreed-on scope of services this ESA did not include subsurface or other invasive assessments, business environmental risks, or other services not specifically identified and discussed herein.

1.3 Significant Assumptions

The following assumptions are made by AEI in this report. AEI relied on information derived from secondary sources including governmental agencies, the client, designated representatives of the client, property contact, property owner, property owner representatives, computer databases, and personal interviews. AEI has reviewed and evaluated the thoroughness and reliability of the information derived from secondary sources including government agencies, the client, designated representatives of the client, property contact, property owner, property owner representatives, computer databases, or personal interviews. It appears that all information obtained from outside sources and reviewed for this assessment is thorough and reliable. However, AEI cannot guarantee the thoroughness or reliability of this information.

Groundwater flow, unless otherwise specified by on-site well data or well data from the subject property or nearby sites, is inferred from contour information depicted on the USGS topographic maps. AEI assumes the property has been correctly and accurately identified by the client, designated representative of the client, property contact, property owner, and property owner's representatives.

1.4 LIMITATIONS

Property conditions, as well as local, state, tribal, and federal regulations can change significantly over time. Therefore, the recommendations and conclusions presented as a result of this assessment apply strictly to the environmental regulations and property conditions existing at the time the assessment was performed. Available information has been analyzed using currently accepted assessment techniques and it is believed that the inferences made are reasonably representative of the property. AEI makes no warranty, expressed or implied, except that the services have been performed in accordance with generally accepted environmental property assessment practices applicable at the time and location of the assessment.

Considerations identified by ASTM as beyond the scope of a Phase I ESA that may affect business environmental risk at a given property include the following: ACMs, radon, LBP, lead in drinking water, wetlands, regulatory compliance, cultural and historical resources, industrial hygiene, health and safety, ecological resources, endangered species, indoor air quality, mold, and high voltage lines. These environmental issues or conditions may warrant assessment based on the type of the property transaction; however, they are considered non-scope issues under the current ASTM Standard E1527.

If requested by the client, these non-scope issues are discussed herein. Otherwise, the purpose of this assessment is solely to satisfy one of the requirements for qualification of the innocent landowner defense, contiguous property owner or bona fide prospective purchaser under CERCLA. The current ASTM Standard E1527 and the United States EPA Standards and Practices for All Appropriate Inquiries (40 CFR Part 312) constitute the "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice" as defined in:

1. 42 U.S.C. § 9601(35)(B), referenced in the current ASTM Standard E1527.
2. Sections 101(35)(B) (ii) and (iii) of CERCLA and referenced in the EPA Standards and Practices for All Appropriate Inquiries (40 CFR Part 312).
3. 42 U.S.C. § 9601(40) and 42 U.S.C. § 9607(q).

The Phase I Environmental Site Assessment is not, and should not be construed as, a warranty or guarantee about the presence or absence of environmental contaminants that may affect the property. Neither is the assessment intended to assure clear title to the property in question. The sole purpose of assessment into property title records is to ascertain a historical basis of prior land use. All findings, conclusions, and recommendations stated in this report are based upon facts, circumstances, and industry-accepted procedures for such services as they existed at the time this report was prepared (i.e., federal, state, and local laws, rules, regulations, market conditions, economic conditions, political climate, and other applicable matters). All findings, conclusions, and recommendations stated in this report are based on the data and information provided, current subject property use, and observations and conditions that existed on the date and time of the property reconnaissance.

Responses received from local, state, or federal agencies or other secondary sources of information after the issuance of this report may change certain facts, findings, conclusions, or circumstances to the report. A change in any fact, circumstance, or industry-accepted procedure upon which this report was based may adversely affect the findings, conclusions, and recommendations expressed in this report.

AEI's limited radon screening, if included, is intended to provide a preliminary screening to evaluate the potential presence of elevated radon concentrations at the site. The proposed scope is not intended to define the full extent of the presence of radon at the subject property. As such, the results should be used for lending purposes only. The recommendations and conclusions presented as a result of the limited preliminary radon screening apply strictly to the property conditions existing at the time the sampling was performed. The sample analytical results are only valid for the time, place, and condition of the site at the time of collection and AEI does not warrant that the results will be repeatable or are representative of past or future conditions.

1.5 Limiting Conditions/Deviations

The performance of this assessment was limited by the following:

- While additional assessments may have been conducted on the subject property, these documents must be provided for AEI's review in order for the information to be summarized/included in this report. Please refer to Section 6.3 for a summary of previous reports and other documentation provided to AEI during this assessment.
- The User did not complete the ASTM User Questionnaire or provide the User information to AEI. AEI assumes that qualification for the LLPs is being established by the User in documentation outside of this assessment.
- The subject property owners were not interviewed during this assessment. Based on information obtained from other sources, including the key site manager, this limiting condition is not expected to alter the overall findings of this assessment.
- Due to the wet conditions and snow covering the ground during the site reconnaissance, limited areas of the subject property were observed. Primarily the southwest portion of the property was difficult to access and therefore could not be directly observed. Due to the nature of use of the subject property, this limitation is not expected to significantly alter the findings of this assessment.
- Due to the size of the subject property, AEI performed a reconnaissance of the property utilizing a field technique of traversing the site in an attempt to provide an overlapping field of view. Due to the size of the property and the vegetation present on site, isolated areas of the site may have not been accessible for direct observation during AEI's field reconnaissance. Based on the nature of use, this limitation is not expected to significantly alter the findings of this assessment.
- The Lassen County Building Department, was contacted for information on the subject property in order to identify historical tenants/use, property development, and/ or hazardous substance/petroleum product handling. Due to the time frame of this assessment, records were not available for review. However, based on the quality of information obtained from other sources this limitation is not expected to significantly alter the findings of this assessment.

1.6 Data Failure and Data Gaps

According to the current ASTM Standard E1527, data gaps occur when the Environmental Professional is unable to obtain information required by the Standard, despite good faith efforts to gather such information. Pursuant to the current ASTM Standard E1527, only significant data gaps, defined as those that affect the ability of the Environmental Professional to identify RECs, need to be documented.

Data failure is one type of data gap. According to the current ASTM Standard E1527, data failure occurs when all of the standard historical sources that are reasonably ascertainable and likely to be useful have been reviewed and yet the objectives have not been met. Pursuant to the current ASTM Standard E1527, historical sources are required to document property use back to the property's first developed use or back to 1940, whichever is earlier, or periods of five years or greater.

1.6.1 Data Failure

The following data failure was identified during the course of this assessment:

Data Failure	The earliest historical resource obtained during this assessment was an aerial image from 1951 indicating that the subject property was rural and undeveloped. The lack of historical sources dating back to 1940 represents historical data source failure. However, as it is assumed that the subject property would have previously been rural and undeveloped, this data failure is not expected to significantly alter the findings of this assessment.
Information/Sources Consulted	Aerial photographs, agency records, interviews

Data Failure	Historical sources were not obtained at five-year intervals dating back to 1940. AEI was not able to track the history of the subject property between the years 1954 and 1969 as none of the historical sources utilized as part of this assessment covered this time period. In the 1954 topographic map, the subject property is rural and undeveloped. In the 1969 aerial image the subject property is also rural and undeveloped. Thus, it is assumed that during this time period the subject property would have been rural, undeveloped, open space. Therefore, this data failure is not expected to significantly alter the findings of this assessment.
Information/Sources Consulted	Aerial photographs, topographic maps, interviews

1.6.2 Significant Data Gaps

AEI did not identify significant data gaps which affected our ability to identify RECs.

1.7 Reliance

All reports, both verbal and written, are for the benefit of Pristine Sun Corp. This report has no other purpose and may not be relied upon by any other person or entity without the written consent of AEI. Either verbally or in writing, third parties may come into possession of this report or all or part of the information generated as a result of this work. In the absence of a written agreement with AEI granting such rights, no third parties shall have rights of recourse or recovery whatsoever under any course of action against AEI, its officers, employees, vendors, successors or assigns. Reliance is provided in accordance with AEI's contract and Terms and Conditions executed by Pristine Sun Corp on October 18, 2022. The limitation of liability defined in the Terms and Conditions is the aggregate limit of AEI's liability to the client and all relying parties.

2.0 SITE AND VICINITY DESCRIPTION

2.1 Site Location and Description

Property Information	
Site Address(es)	Lassen County, Lassen County, California 96136
Property ID (APN or Block/Lot)	133-070-001; 133-070-002; 133-070-004; 133-070-005; 121-090-028; 133-020-004; 133-020- 001; 133-080-003; 133-080-009; and 133-080-013
Location	Approximately 20 miles southeast of the intersection of State Route 395 and Wendell Road
Property Type	Renewable Energy (wind, solar)
Site and Building Information	
Approximate Site Acreage/Source	2,700/Client provided
Number of Buildings	N/A
Building Construction Date(s)/Source	N/A
Building Square Footage (SF)/Source	N/A
Number of Floors/Stories	N/A
Additional Improvements	N/A
Current On-site Operations/Use	Undeveloped land
Current Use of Hazardous Substances	None identified
Regulatory Information	
Regulatory Database Listing(s)	Seismic - CA

2.2 On-Site Utilities

The subject property is currently vacant land or lacks structures. Consequently, there are no on-site heating or cooling systems, or potable water or sewage disposal/treatment services.

2.3 Site and Vicinity Characteristics

The subject property is located in an undeveloped area of Lassen County, California. The immediately surrounding properties consist of the following:

Direction	Tenant/Use (Address)	Regulatory Database Listing(s)
North	Undeveloped and rural residential	None identified
Northeast	Amedee Hot Springs, Wendell Road and undeveloped	Yes; refer to Section 5.1
East	Amedee Hot Springs, Wendell Road and undeveloped	Yes; refer to Section 5.1
South	Sierra Army Depot, aka Amedee Army Airfield	Yes; refer to Section 5.1
West	Honey Lake and Honey Lake State Wildlife Area	None identified

2.4 Physical Setting

Geologic Unit: Description/Source	Generalized Rock Types (Q): Marine and nonmarine (continental) sedimentary rocks from the Pleistocene-Holocene. Described as alluvium, lake, playa, and terrace deposits; unconsolidated and semi-consolidated. Mostly nonmarine, but includes marine deposits near the coast./USGS and United States Department of the Interior
Soil Series: Description/Source	**Epot-Playas: Very fie sandy loam, loam, and clay loam (33.8% of subject property):** Described as a well drained soil that forms on lake terraces and toe slopes with a depth to water table greater than 80 inches below ground surface (bgs).

	Herjum loamy sand (17.5% of subject property): Described as a moderately well drained soil that forms on lake terraces and toe slopes with a depth to water table at 48-60 inches bgs. **Calneva silt loam (12% of subject property):** Described as a well drained to moderately well drained soil that occurs on lake terraces and toe slopes with a depth to water table at 80 inches bgs. **Yobe silt loam (11.6% of subject property):** Described as a somewhat poorly drained soil that forms on lake terraces and toe slopes with a depth to water table at 36 to 60 inches bgs. **Lieberman fine sandy loam (6.8% of subject property):** Described as a well drained soil that forms on lake terraces and toe slopes with a depth to water table at more than 80 inches bgs. **Saddlerock peat (6.4% of subject property):** Described as a poorly drained soil that forms on flood plains and toe slopes with depth to water table at 0 inches bgs. **Bobert sandy loam (6.1% of subject property):** Described as a well drained soil that forms on lake terraces and footslopes with depth to water table at greater than 80 inches bgs. **Mazume fine sandy loam (5.7% of subject property):** Described as a well drained soil that forms on lake terraces and tow slopes with a depth to water table at more than 80 inches bgs/USDA Soil Survey
Groundwater Flow Direction/Source	West to southwest/2019 Annual Groundwater Monitoring Report for the Sierra Army Depot
Estimated Depth to Groundwater/Source	22.96-38.28 feet bgs/2019 Annual Groundwater Monitoring Report for the Old Popping Furnace and Upper Burning Ground Corrective Action Management Units, Sierra Army Depot, March 2020
Surface waters on the subject property or adjoining sites	Yes, wetlands and small, narrow drainages on both subject property and adjacent properties
Additional notes	None

Note: Groundwater flow direction can be influenced locally and regionally by the presence of local wetland features, surface topography, recharge and discharge areas, horizontal and vertical inconsistencies in the types and location of subsurface soils, and proximity to water pumping wells. Depth and gradient of the water table can change seasonally in response to variation in precipitation and recharge, and over time, in response to urban development such as storm water controls, impervious surfaces, pumping wells, cleanup activities, dewatering, seawater intrusion barrier projects near the coast, and other factors.

3.0 HISTORICAL RECORDS REVIEW

Reasonably ascertainable standard historical sources as outlined in the current ASTM Standard E1527 were used to determine previous uses and occupancies of the subject property that are likely to have led to RECs in connection with the subject property. A chronological summary of historical data found, including but not limited to aerial photographs, historical city directories, Sanborn fire insurance maps, and agency records, is as follows:

Date Range	Subject Property Description and Occupancy (Historical Addresses)	Source(s)
Prior to 1951	Unknown use/Data failure; refer to Section 1.6.1	Aerial photographs, topographic maps
1951-1988	Undeveloped land with a natural hot spring	Aerial photographs, topographic maps
1988-Present	Undeveloped land with several features associated with the hot springs geothermal power development are located on the subject property including several hot water conveyance pipes and a concrete vault.	Aerial photographs, topographic maps, site observations

According to available information, an unnamed railroad alignment crossed the subject property. Additionally, the Union/Southern Pacific Railroad tracks historically crossed the southeast corner of the subject property. Railroad tracks and spurs represent environmental concerns due to the historical application of oils containing PCBs, herbicides, and arsenic for pest and weed control, as well as the potential presence of creosote on the rail ties, and the historical common practice of using coal cinders for track fill material. However, it is likely that any potential herbicide concentrations have degraded over time, as the railroad tracks have not been used since at least 1951. Any potential PCB or arsenic concentrations resulting from the railroad tracks and/or spur(s) would be confined to the near subsurface sediments and would not present a significant environmental health and safety concern to the occupants or the underlying groundwater. However, in the event this area of the subject property is redeveloped for residential use, soil sampling may be warranted.

Several hot springs are located on both the subject property and one of the adjacent properties to the east. The springs were originally referred to as Lower Hot Springs. In the 1880s they were also known as Brubeck Springs, for the owner of the property, L.W. Brubeck. The name was changed to Amedee with the establishment of the town. A unique feature of the springs was a geyser. In 1854, Lt. E.G. Beckwith, during his exploration of a transcontinental railroad route visited the hot springs and noted that the geyser consisted of a column of water twenty inches in diameter. Amos Lane, bartender and inventor, devised a clock to measure spurts of the geyser that rose and fell at intervals of 38 seconds. At times the geyser would shoot as high as eight feet. The geyser ceased to exist in May 1893, as the ground around the springs cracked and allowed the steam to escape.

The hot springs became a focal point in the town of Amedee. The springs were heralded for their curative properties and the first public bathhouse opened in 1892. In 1900, Arthur Holland appeared on the scene to transform Amedee into a health resort. Holland dubbed his enterprise the “Karlsbad of America,” a bold attempt to associate it with the famed Czech resort. Holland’s venture never materialized in the grandeur he desired and he abandoned the project within a years’ time. The bathhouses, like the town, slowly deteriorated into oblivion. In 1984, Matti Ripatti and California Hydro Systems recognized the geothermal potential of the

springs. They applied to the Lassen County Planning Department for a permit to construct a geothermal plant there. The permit was granted and in 1988 the power plant was constructed just east of the subject property.

Several features associated with the hot springs development are located on the subject property including several hot water conveyance pipes and a concrete vault. One of the pipes connects to a small drainage on the subject property. The presence of these features are noteworthy, however, they are not considered to represent a significant environmental concern since the geothermal power plant does not store and/or generate hazardous materials.

If available, copies of historical sources are provided in Appendix D.

3.1 Aerial Photographs

AEI reviewed aerial photographs of the subject property and surrounding area. A search was made of the Envirosite Corp collection of aerial photographs. Aerial photographs were reviewed for the following years (1951-2022 (non-inclusive)):

Year(s)	Subject Property Description	Adjoining Site Descriptions
1951 1954 1969 1972	Undeveloped. Several unimproved roads cross the subject property. A drainage ditch is visible crossing the property diagonally from the northeast to southwest. Additionally, an abandoned railroad alignment crosses the far southeast corner of the property in a northwest to southeast direction	NORTH: No coverage EAST: Roadway and the abandoned Union/ Southern Pacific Railroad followed by undeveloped land SOUTH: Amedee Army Airfield (Sierra Army Depot) WEST: Honey Lake
1981 1989 1998 2010 2022	No significant changes	NORTH: Undeveloped EAST: No significant changes SOUTH: No significant changes WEST: No significant changes

Subject property:

- No potential environmental concerns identified

Adjoining Site(s):

- Refer to Section 3.0 and 5.1

3.2 Sanborn Fire Insurance Maps

Sanborn Fire Insurance maps were developed in the late 1800s and early 1900s for use as an assessment tool for fire insurance rates in urbanized areas. A search was made of the Seattle Public Library's online collection collection of Sanborn Fire Insurance maps.

Sanborn map coverage was not available for the subject property.

3.3 City Directories

According to available information, the subject property has never been developed, no physical address has been provided to or identified by AEI during the course of this assessment. Based on the lack of physical address, no listings were identified for the subject property.

3.4 Historical Topographic Maps

A search of historical topographic maps was conducted for the subject property utilizing Envirosite Corp. Historical topographic maps were reviewed for the years 1954-2021 (non-inclusive). Topographic maps were reviewed for the following years:

Year(s)	Subject Property Description	Adjoining Site Descriptions
1954 1988	Several hot springs are mapped in the central portion of the subject property. An abandoned drainage ditch/levee is visible crossing the property diagonally from the northeast to southwest along with several unimproved roads which are crossing the subject property. Additionally, an abandoned railroad alignment crosses the property in a southeast to northwest direction and the old Southern Pacific Railroad (SPRR) crosses a small portion of the subject property in the southeast corner	NORTH: Undeveloped land EAST: Several unimproved roads and the old railroad alignment that crosses the subject property are present. A feature labelled Pearson Massacre (Site) was noted; which occurred in 1868. Several hot springs labelled Amedee Hot Springs are visible. SOUTH: Undeveloped land and Amedee Flight Strip WEST: Honey Lake
2012 2015 2018 2021	Several small water bodies, wetlands (2018 & 2021) and hot springs are noted. The 2015 image shows the old SPRR crossing the southeast corner	NORTH: No features depicted EAST: No significant changes SOUTH: Sierra Army Depot WEST: No significant changes

Subject property:

- No potential environmental concerns identified

Adjoining Site(s):

- Refer to Section 3.0 and 5.1

3.5 Chain of Title

Based on the quality of information obtained from other sources, a chain of title search was not performed as part of this assessment.

3.6 Other Historical Sources

On November 3, 2022, AEI researched online information related to the Amedee Hot Springs which is located on the adjacent property to the east. The springs were originally referred to as Lower Hot Springs. In the 1880s they were also known as Brubeck Springs, for the owner of the property, L.W. Brubeck. The name was changed to Amedee with the establishment of the town. A unique feature of the springs was a geyser. In 1854, Lt. E.G. Beckwith, during his exploration of a transcontinental railroad route visited the hot springs and noted that the geyser consisted of a column of water twenty inches in diameter. The geyser was quite an attraction when the town was established. Amos Lane, bartender and inventor, devised a clock

to measure spurts of the geyser that rose and fell at intervals of 38 seconds. At times the geyser would shoot as high as eight feet. The geyser ceased to exist in May 1893, as the ground around the springs cracked and allowed the steam to escape.

The hot springs became a focal point in the town of Amedee. The springs were heralded for their curative properties and the first public bathhouse opened in 1892. In 1900, Arthur Holland appeared on the scene to transform Amedee into a health resort. Holland dubbed his enterprise the "Karlsbad of America," a bold attempt to associate it with the famed Czech resort. Holland's venture never materialized in the grandeur he desired and he abandoned the project within a years' time. The bathhouses, like the town, slowly deteriorated into oblivion.

In 1984, Matti Ripatti and California Hydro Systems recognized the geothermal potential of the springs. They applied to the Lassen County Planning Department for a permit to construct a geothermal plant there. The permit was granted and in 1988 the power plant was constructed east of the subject property.

4.0 REGULATORY AGENCY RECORDS REVIEW

Local and state agencies, such as environmental health departments, fire prevention bureaus, and building and planning departments are contacted to identify any current or previous reports of hazardous substance use, storage, and/or unauthorized releases that may have impacted the subject property. In addition, information pertaining to AULs, defined as legal or physical restrictions, or limitations on the use of, or access to, a site or facility, is requested.

4.1 Local Environmental Health Department and/or State Environmental Agency

Agency	Date Contacted	Method of Contact	Name & Title of Contact	Agency Response
Lassen County Environmental Health (LCEH)	October 28, 2022	Email & telephone	N/A	No records on file

4.2 Fire Department

4.3 Building Department

Agency	Date Contacted	Method of Contact	Name & Title of Contact	Agency Response
Lassen County Building Department (LCBD)	October 28, 2022	Email & telephone	N/A	Response pending, refer to Section 1.5

4.4 Planning Department

Agency	Date Contacted	Method of Contact	Name & Title of Contact	Agency Response
Lassen County Planning Department (LCBD)	October 28, 2022	Email & telephone	N/A	Response pending, refer to Section 1.5

4.5 Assessor's Office

Agency	Date Contacted	Method of Contact	Name & Title of Contact	Agency Response
Lassen County Assessor's Office	October 28, 2022	Online	N/A	Information obtained is discussed below

Records Summary

APN	133-070-001; 133-070-002; 133-070-004; 133-070-005; 121-090-028; 133-020-004; 133-020- 001; 133-080-003; 133-080-009; and 133-080-013
Acreage	2,700 acres
Construction Date	N/A
Building Square Footage	N/A
Current Owner	Hays Ranch and multiple private owners
Additional Information	N/A

4.6 Other Agencies Searched

Agency	Date Contacted	Method of Contact	Name & Title of Contact	Agency Response
CA State Water Resources Control Board (SWRCB) GeoTracker	October 31, 2022	Online	N/A	No records on file
SWRCB GeoTracker Historical Hazardous Substance Storage Information	October 31, 2022	Online	N/A	No records on file
CA Department of Toxic Substances Control (DTSC) Hazardous Waste Tracking System (HWTS)	October 31, 2022	Online	N/A	No records on file
CA DTSC EnviroStor	October 31, 2022	Online	N/A	No records on file
CalEPA Regulated Site Portal	November 2, 2022	Online	N/A	No records on file
Lassen County Air Quality Management District (AQMD)	November 2, 2022	Online	N/A	A facility search could not be conducted because there is no subject property address

No other agencies were contacted during the course of this assessment.

4.7 Oil and Gas Wells

Agency	Date Referenced	Resource	Oil or gas wells located within 500 feet of the subject property
Geologic Energy Management Division (CalGEM)	October 28, 2022	CalGEM Map	Information obtained is discussed below

The CalGEM database identified one geothermal well within the subject property and several more on the adjacent property to the east. The planned uses of the subject property as a solar farm doesn't involve mass grading or intrusive construction methods such as deep excavations. Solar array construction involves pile driving metal posts into the ground at depths that would be considered shallow. As such, the subject property location within an oil field is not considered a significant environmental risk.

4.8 Oil and Gas Pipelines

Agency	Date Referenced	Resource	Pipelines located within 500 feet of the subject property
National Pipeline Mapping System (NPMS)	October 28, 2022	NPMS Public Map Viewer	Information obtained is discussed below

According to observed signage and information obtained from the NPMS Public Map Viewer, a subterranean natural gas pipeline that is owned and operated by Tuscarora Gas crosses the furthest southeast corner of the subject property in a southeast to northwest direction, as shown on Figure 2. No stressed vegetation or olfactory indications of a release were observed in these areas of the subject property during AEI's reconnaissance and no records of past releases or violations associated with this pipeline were identified within the regulatory database and on the NPMS Public Map Viewer. Releases from this pipeline (other than those caused by a third party) would be the responsibility of the operator. In addition, due to its contents, the natural gas pipeline is not expected to represent a potential threat to soil or groundwater

conditions at the subject property. Based on this information, the pipeline does not appear to represent a significant environmental concern to the subject property at this time. Prior to any groundbreaking activities within the vicinity of the pipeline, the pipeline operator and the national one-call center, 811, should be contacted.

4.9 State Environmental Superliens

In accordance with our approved scope of services, AEI did not assess whether the subject property is subject to any state environmental superliens.

4.10 State Property Transfer Laws

In accordance with our approved scope of services, AEI did not assess whether the subject property is subject to any state property transfer laws.

5.0 REGULATORY DATABASE RECORDS REVIEW

AEI contracted Envirosite Corp to conduct a search of publicly available information from federal, state, tribal, and local databases containing known and suspected sites of environmental contamination and sites of potential environmental significance. Data gathered during the current regulatory database search is compiled by Envirosite Corp into one regulatory database report. Location information for listed sites is designated using geocoded information provided by federal, state, or local agencies and commonly used mapping databases with the exception of "Orphan" sites. Due to poor or inadequate address information, Orphan sites are identified but not geocoded/mapped by Envirosite Corp, rather, information is provided based upon vicinity zip codes, city name, and state. The minimum search distance from the federal and state environmental records database listings specified in the current ASTM Standard E1527 is included in Section 5.1. A copy of the regulatory database report, which includes detailed descriptions of the databases noted below as well as the total number of sites identified, is included in Appendix C of this report.

In determining if a listed site is a potential environmental concern to the subject property, AEI generally applies the following criteria to classify the site as lower potential environmental concern: 1) the site only holds an operating permit (which does not imply a release), 2) the site's distance from, and/or topographic position relative to, the subject property, and/or 3) the site has recently been granted "No Further Action" by the appropriate regulatory agency.

Regulatory database listings associated with the subject property, adjoining site(s) and/or nearby sites of concern that were determined to warrant additional discussion are identified and further discussed in Section 5.1.

5.1 RECORDS SUMMARY

Database	Search Distance (Miles)	Subject Property	Adjoining Site(s)	Other Nearby Sites of Concern
Federal NPL (Superfund) sites	1.0			
Federal Delisted NPL sites	0.5			
Federal CERCLA removals/orders sites	0.5			
Federal CERCLA sites with NFRAP	0.5			
Federal RCRA facilities undergoing Corrective Action	1.0			
Federal RCRA TSD facilities	0.5			
Federal RCRA generators (LQG, SQG, VSQG)	SP/ADJ			
Federal RCRA NonGen/NLR sites	SP/ADJ			
Federal IC/EC sites	SP			
Federal ERNS sites	SP			
State- and tribal "Superfund" equivalent sites	1.0			
State- and tribal hazardous waste facilities	0.5			
State/Tribal landfill and solid waste disposal facilities	0.5			
State/Tribal leaking storage tanks	0.5			
State/Tribal registered storage tanks	SP/ADJ			
State/Tribal voluntary cleanup sites	0.5			

Database	Search Distance (Miles)	Subject Property	Adjoining Site(s)	Other Nearby Sites of Concern
State/Tribal EC/IC registries	SP			
State/Tribal brownfield sites	0.5			
Orphans	N/A			
Additional Environmental Record lists	SP/ADJ	✔	✔	

Facility Name	Amedee Fault
Address	N/A
Distance & Direction	Subject Property
Hydrologic Position	N/A
Databases Listed	Seismic - CA
Comments	The Amedee Fault is present on the subject property. The planned uses of the subject property involves construction of a solar array; which should not be impacted by the Amedee Fault or the hot springs present on the subject property. Based on the naturally occurring element of fault lines, this listing is not expected to represent a significant environmental concern to the subject property.

Facility Name	Amedee Geothermal Power Plant, Amedee Hot Springs
Address	Susanville, CA (no address)
Distance & Direction	Adjoining to the east
Hydrologic Position	Upgradient
Databases Listed	CALEPA Sites-CA, NPDES-CA, CIWQS (2x)
Comments	The property is listed on the CALEPA database for National Pollutant Discharge Elimination System (NPDES) wastewater and stormwater discharge. Several violation were noted for stormwater and wastewater. An industrial water quality permit was identified in relation to this property with the State Water Resources Control Board for water well drilling under Waste Discharge ID 6A188410000. This activity is considered a low threat to water quality and minimal or no treatment is of wastewater is required. Another permit was noted for stormwater discharge. The permit was opened in July 2014 and the facility is listed as a Power Plant. Stormwater permits regulate discharges from municipal separate storm sewer systems, construction activities, industrial activities and those designated by EPA due to water quality impacts. Based on the lack of a documented release and a low threat to water quality, the review of regulatory agency files for this site was not deemed necessary, and the site is not expected to represent a significant environmental concern.

Facility Name	Sierra Army Depot
Address	No address
Distance & Direction	Adjoining to the direction
Hydrologic Position	Cross/down-gradient
Databases Listed	DOD Military Cleanup Site
Comments	AEI reviewed files for the Sierra Army Depot (SIAD) that were available on GeoTracker and EnviroStor. According to the site history on EnviroStor, SIAD encompasses 37,060 acres and is located in Honey Lake Valley which lies along the Nevada-California Boundary, approximately 50 miles north of Reno, Nevada. Built in 1942, the Depot's mission was the receipt, storage, surveillance, maintenance, and the issuance of munitions, and strategic, critical, and obligated war reserve material. Upon completion of the extensive Igloo Storage

Area, the Sierra Ordnance Depot mission expanded to include storage of ammunition and explosives. In 1954, the function of receiving, storing, and issuing guided missiles and propellant fuels was added. During the Vietnam War, SIAD was also used as a vehicle maintenance facility. Until recently the mission of SIAD was the receipt, storage, issue and maintenance of equipment and components for operational and project stocks; and demilitarization of conventional ammunition. In July of 1995, Congress and the President finalized the 1995 Base Realignment and Closure (BRAC 95) list of base closures and realignments. SIAD, as part of the BRAC 95 realignment, has undergone transformation of missions and is in the process of releasing property for reuse. Tracking of the SIAD parcels identified for reuse under BRAC 95 is covered under a separate site named "Sierra Army Depot - Herlong and Honey Lake". An Enforceable Agreement between DTSC, the RWQCB and SIAD was signed in July 1991 to establish a process and schedule for conducting the site cleanup.

Historic activities include weapons storage, testing, and treatment/disposal, pesticide mixing, vehicle maintenance, waste disposal in landfills. Twenty-three contaminated areas have been identified on the Depot. Hazardous wastes include explosives, solvents, waste oil, paint thinners, and heavy metals. Environmental assessment began at SIAD in 1979. Interim actions or final actions have been taken or are underway at many of the sites. In 2005, the Army began evaluations of closed and inactive ranges under the Military Munitions Response Program.

The majority of the cleanup activities occurred on the main base, which is far removed from the subject property and lies approximately two miles in a cross/ down gradient position with respect to groundwater flow.

Files reviewed on GeoTracker indicate the following. In June 2006, two onsite Corrective Action Management Units (CAMUs) were constructed at SIAD to manage contaminated soil from the Old Popping Furnace (OPF) and Upper Burning Ground (UBG) areas. The locations of the OPF CAMU and UBG CAMU are shown in . A groundwater monitoring program is in place to monitor for potential releases of metal contaminants from the CAMUs. The groundwater monitoring program includes routine sampling of groundwater quality upgradient and downgradient of the CAMUs. This report presents the results of the 2019 annual groundwater monitoring event conducted in June 2019.

Groundwater monitoring for the OPF and UBG CAMUs has been performed on an annual, rather than quarterly, basis since June 2008. As discussed in the RD/RA Plan, Arcadis requested this reduction in monitoring frequency based on the consistency of results obtained during the baseline sampling period (May 2005 through March 2006) and six subsequent quarterly groundwater monitoring events (June 2006 through September 2007) completed following CAMU construction. The Department of Toxic Substances Control (DTSC) approved the change in a letter dated November 13, 2008 (DTSC 2008).

The groundwater elevation contours shown in the attached 2019 Annual Groundwater Monitoring Report for the Old Popping Furnace and Upper Burning Ground Corrective Action Management Units (see appendix). The data suggest a southwesterly groundwater flow direction. This interpretation of local groundwater flow direction is consistent with regional groundwater flow at SIAD, which is perpendicular to the regional topography and predominantly to the southwest toward Honey Lake.

The following is a summary of the laboratory analytical results for the 2019 annual groundwater monitoring event at the OPF CAMU area. Note that the laboratory reporting limits (RLs) for antimony, arsenic, and lead were elevated due to matrix interference issues.

Antimony was not detected at concentrations exceeding the laboratory RL (10 µg/L) in samples collected from the OPF CAMU monitoring wells during the 2019 annual groundwater monitoring event. This is consistent with concentrations observed during the baseline sampling period (May 2005 through March 2006), which ranged from non-detect to 14.5 micrograms per liter (µg/L). Furthermore, the 2019 antimony results for the pre-CAMU wells (i.e., wells LBG-5-MW, OPF-PZ-04, and OPF-PZ-05 that existed and were sampled prior to the baseline sampling period) were consistent with the results from the remedial investigation sampling, which ranged from non-detect to 1.1 µg/L (Arcadis 2004).

Arsenic was detected in each of the five OPF CAMU wells sampled during the 2019 annual groundwater monitoring event at concentrations ranging from 1,350 J µg/L (LBG-5-MW) to 3,620 J µg/L (OPF-PZ-07). This is generally consistent with concentrations observed during the baseline sampling period (May 2005 through March 2006), which ranged up to 3,290 µg/L. The 2019 arsenic results for the pre- CAMU wells (LBG-5-MW, OPF-PZ-04, and OPF-PZ-05) were consistent with prior results from the remedial investigation sampling, which ranged up to 3,600 µg/L (Arcadis 2004).

Lead was not detected at concentrations exceeding the laboratory RL (10 µg/L) in samples collected from the OPF CAMU monitoring wells during the 2019 annual groundwater monitoring event. This is consistent with the baseline sampling period (May 2005 through March 2006) results, which indicated that lead was non-detect or detected at low concentrations less than 1 µg/L. Furthermore, the 2019 lead results for the pre-CAMU wells (LBG-05-MW, OPF-PZ-04, and OPF-PZ-05) were consistent with the results from the remedial investigation sampling, which ranged from non-detect to 0.95 µg/L (Arcadis 2004).

In general, the most recent (2019) data are comparable to historical groundwater monitoring results for the OPF CAMU area. These data, as well as the groundwater flow direction data, indicate that metals concentrations in groundwater in the OPF CAMU area are relatively stable and no contaminants are being released.

Historically, groundwater antimony, lead, and arsenic results have also been compared to California drinking water maximum contaminant levels (MCLs; Title 22, California Code of Regulations, Section 64431), or the regulatory action level in the case of lead, as points of reference. In general, antimony and lead concentrations in groundwater have been less than the MCL of 6 µg/L for antimony and the regulatory action level of 15 µg/L for lead, respectively. Historically, arsenic concentrations in groundwater in the OPF CAMU area have been greater than the current California MCL of 10 µg/L, which is consistent with the remedial investigation finding that OPF CAMU area groundwater contains naturally occurring levels of arsenic exceeding the California MCL (Arcadis 2004). Elevated arsenic concentrations detected in groundwater in the OPF CAMU area are reflective of background conditions and non-anthropogenic sources (Arcadis 2010).

The following is a summary of the laboratory analytical results for the 2019 annual groundwater monitoring event at the UBG CAMU area.

Arsenic was detected in two of the four UBG CAMU monitoring wells sampled during the 2019 annual groundwater monitoring event at concentrations of 2.2 J µg/L (UBG-03-MWA) and 5.5 J µg/L (UBG-08R- MWA). In comparison, arsenic concentrations observed during the baseline sampling period (May 2005 through March 2006) ranged from 1.6 to 20.5 µg/L.

Total Chromium was detected in one of the four UBG CAMU monitoring wells sampled during the 2019 annual groundwater monitoring event at a concentration of 4.9 µg/L (UBG-08R-MWA). In comparison, total chromium concentrations observed during the baseline sampling period (May 2005 through March 2006) ranged from non-detect to 47.9 µg/L.

Lead was not detected at concentrations exceeding the laboratory RL (2 µg/L) in samples collected from the UBG CAMU monitoring wells during the 2019 annual groundwater monitoring event. This is consistent with the baseline sampling period (May 2005 through March 2006) results, which indicated that lead was generally non-detect.

In general, the most recent (2019) data are comparable to historical groundwater monitoring results for the UBG CAMU area. These data, as well as the groundwater flow direction data, indicate that metals concentrations in groundwater in the UBG CAMU area are stable and no contaminants are being released. As a point of comparison, the recent detections of arsenic and total chromium in groundwater are less than the California MCLs of 10 µg/L and 50 µg/L, respectively. Lead concentrations have typically been non-detect and less than the regulatory action level of 15 µg/L.

Based on the results and conclusions of the 2019 Annual Groundwater Monitoring Report for the Old Popping Furnace and Upper Burning Ground Corrective Action Management Units indicating groundwater concentrations are stable and no contaminants are being released and both sites are located beyond two-miles in a cross gradient position with respect to groundwater flow. Given the intervening distance and groundwater flow, the SIAD is not considered to represent a significant environmental concern.

5.2 Vapor Migration

AEI reviewed reasonably ascertainable information for the subject and nearby properties, including a regulatory database, files for nearby release sites, and/or historical documentation, to determine if potential vapor-phase migration concerns may be present which could impact the subject property.

AEI did not identify significant on-site concerns and/or regulated listings from nearby sites which suggest that a vapor-phase migration concern currently exists at the subject property.

6.0 INTERVIEWS AND USER PROVIDED INFORMATION

6.1 INTERVIEWS

Pursuant to the current ASTM Standard E1527, the following interviews were performed during this assessment in order to obtain information indicating RECs in connection with the subject property.

6.1.1 OWNER AND KEY SITE MANAGER

Relation to Property	Name	Date Interviewed	Method of Contact	Year First Associated w/ Property	Notes
Owner	Hays Ranch and private owners	N/A	N/A	N/A	Contact information not provided; refer to Section 1.5
Key Site Manager	Marsha Converse	November 4, 2022	Email	2021	Interviewed; see Interview Summary table below

INTERVIEW SUMMARY

Question	Owner (Representative) Response/ Comment	Key Site Manager Response/ Comment
Do you have any knowledge of USTs, clarifiers or oil/water separators, sumps, or other subsurface features?	N/A	No
Do you have any knowledge of previous environmental investigations conducted on site?	N/A	No
Do you have any knowledge of current or past industrial operations and/or other operations which would involve the use of hazardous substances and/or petroleum products?	N/A	No
Are you aware of any known plans for site redevelopment or change in site use?	N/A	No
Are you aware of any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, at, or from the subject property?	N/A	No
Are you aware of any pending, threatened or past administrative proceedings relevant to hazardous substances or petroleum products in, on, at, or from the subject property?	N/A	No
Are you aware of any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products?	N/A	No
Are you aware of any incidents of flooding, leaks, or other water intrusion, and/or complaints related to indoor air quality?	N/A	No

6.1.2 PAST OWNERS, OPERATORS, AND OCCUPANTS

AEI did not attempt to interview past owners, operators, and occupants of the subject property because information from these sources would likely be duplicative of information already obtained from other sources.

6.1.3 Interview with Others

Information obtained during interviews with local government officials is incorporated into the appropriate segments of this report.

6.2 User Provided Information

User provided information is intended to help identify the possibility of RECs in connection with the subject property. According to the current ASTM Standard E1527 and the EPA Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), certain items should be researched by the prospective landowner or grantee, and the results of such inquiries may be provided to the Environmental Professional. The responsibility for qualifying for LLPs by conducting the inquiries ultimately rests with the User, and providing the information to the Environmental Professional would be prudent if such information is available.

The User did not complete the ASTM User Questionnaire or provide the User information to AEI. AEI assumes that qualification for the LLPs is being established by the User in documentation outside of this assessment.

Question	Response/ Comment
1. Environmental liens that are filed or recorded against the property (40 CFR 312.25) Did a search of recorded land title records (or judicial records where appropriate) identify any environmental liens filed or recorded against the property under federal, tribal, state or local law?	Information not provided
2. Activity and use limitations that are in place on the property or that have been filed or recorded against the property (40 CFR 312.26(a)(1)(v) and vi)). Did a search of recorded land title records (or judicial records where appropriate) identify any AULs, such as engineering controls, land use restrictions or institutional controls that are in place at the property and/or have been filed or recorded against the property under federal, tribal, state or local law?	Information not provided
3. Specialized knowledge or experience of the person seeking to qualify for the LLP (40 CFR 312.28). Do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?	Information not provided
4. Relationship of the purchase price to the fair market value of the property if it were not contaminated (40 CFR 312.29). Does the purchase price being paid for this property reasonably reflect the fair market value of the property? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?	Information not provided
5. Commonly known or reasonably ascertainable information about the property (40 CFR 312.30). Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example: (a) Do you know the past uses of the property? (b) Do you know of specific chemicals that are present or once were present at the	Information not provided

Question	Response/ Comment
property? (c) Do you know of spills or other chemical releases that have taken place at the property? (d) Do you know of any environmental cleanups that have taken place at the property?	
6. The degree of obviousness of the presence or likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31). Based on your knowledge and experience related to the property, are there any obvious indicators that point to the presence or likely presence of contamination at the property?	Information not provided

6.3 Previous Reports and Other Provided Documentation

No prior reports or other relevant documentation in association with the subject property was made available to AEI during the course of this assessment.

6.4 Environmental Lien Search

In accordance with our approved scope of services, an environmental lien search was not performed as part of this assessment.

7.0 SITE RECONNAISSANCE

Site Reconnaissance Date	November 4, 2022
AEI Site Assessor(s)	Peter J Connelly Jr
Property Escort(s)/ Relationship(s) to Property	None provided
Units/Areas Observed	Subject property perimeter and some interior locations
Area(s) not accessed and reason(s)	Refer to Section 1.5 for discussion of limiting condition(s)
Other Physical Constraints	Refer to Section 1.5 for discussion of limiting condition(s)
General Observations	The subject is partially covered with a native shrub vegetation, the remainder is bare ground with some grazing of cattle ongoing.

Reconnaissance Findings Summary

Feature	Observed on Subject Property (see Section 7.1)	Observed on Adjoining Property (see Section 7.2)
Regulated Hazardous Substances/Wastes and/or Petroleum Products in Connection with Property Use		
Aboveground/Underground Hazardous Substance or Petroleum Product Storage Tanks (ASTs/USTs)		✔
Hazardous Substance and Petroleum Product Containers Not in Connection with Property Use		
Unidentified Substance Containers		✔
Electrical or Mechanical Equipment Likely to Contain Fluids	✔	
Interior Stains or Corrosion		
Strong, Pungent, or Noxious Odors		
Pools of Liquid		
Drains, Sumps, and Clarifiers		
Pits, Ponds, and Lagoons	✔	✔
Stained Soil or Pavement		
Stressed Vegetation	✔	
Solid Waste Disposal or Evidence of Fill Materials		
Waste Water Discharges		
Wells		
Septic Systems or Cesspools		
Other	✔	✔

7.1 SUBJECT PROPERTY RECONNAISSANCE FINDINGS

During the site reconnaissance, AEI observed the items listed in the above Reconnaissance Findings Summary table, which are further discussed below.

7.1.1 ELECTRICAL OR MECHANICAL EQUIPMENT LIKELY TO CONTAIN FLUIDS

Toxic PCBs were commonly used historically in electrical equipment such as transformers, fluorescent lamp ballasts, and capacitors. According to United States EPA regulation 40 CFR Part 761, there are three categories for classifying such equipment: <50 ppm of PCBs is considered "Non-PCB"; between 50 and 500 ppm is considered "PCB-Contaminated"; and >500 ppm is considered "PCB-Containing." Pursuant to 15 U.S.C. 2605(e)(2)(A), the manufacture, process, or distribution in commerce or use of any polychlorinated biphenyl in any manner other than in a totally enclosed manner was prohibited after January 1, 1977.

Transformers

Type	Quantity	Owner	Presumed Date of Installation	Spills or Stains Observed (Yes/ No)	Non-PCB Label (Yes/ No)
Pad-Mounted	One	Amedee Geothermal Power Plant	1988	No	No

The management of potential PCB-containing transformers is the responsibility of the local utility or the transformer owner. Actual material samples need to be collected to determine if transformers are PCB-containing.

Transformers installed prior to 1977 may be PCB containing while transformers installed after 1977 are unlikely to be PCB containing. Federal Regulations (40 CFR 761 Subpart G) require any release of material containing >50 ppm PCB and occurring after May 4, 1987, be cleaned up by the transformer owner following the United States EPA's PCB spill cleanup policy.

AEI did not observe evidence of spills, staining, or leaks on or around the transformer. Based on the good condition of the equipment, the transformer is not expected to represent a significant environmental concern.

7.1.2 Pits, Ponds, and Lagoons

The subject property hot springs have created small ponds as well as narrow drainages that flow towards Honey Lake and associated wetlands. There are no hazardous materials associated with the hot springs, as such, the presence of these features is not considered a significant environmental concern.

7.1.3 Stressed Vegetation

An approximately 50 foot long linear shaped length of surface vegetation appeared to be distressed on the subject property. The stressed vegetation is located between the subject property venting hot spring and a small narrow drainage and an associated sub-grade hot water discharge pipe located on the bank of the drainage. The discharge pipe is presumably causes the soil to become warm. The vegetation is likely stressed due to temperature variations on the soil. Based on the nature of use, the presence of stressed vegetation in the vicinity of the venting hot spring does not represent a significant environmental concern.

7.1.4 Other

An abandoned railroad alignment crosses the subject property in a southeast to northwest direction. Railroad tracks and spurs represent environmental concerns due to the historical application of oils containing PCBs, herbicides, and arsenic for pest and weed control, as well as the potential presence of creosote on the rail ties, and the historical common practice of using coal cinders for track fill material. However, it is likely that any potential herbicide concentrations have degraded over time, as the railroad tracks do not appear to have been used since at least 1954. Any potential PCB or arsenic concentrations resulting from the railroad tracks would be confined to the near subsurface sediments and would not present a significant environmental health and safety concern to the building occupants or the underlying groundwater. However, in the event this area of the subject property is redeveloped for residential use, soil sampling may be warranted.

There is an above-ground pipe that originates at the adjacent Amedee Geothermal Power Plant and connects to a sub-grade concrete vault located on the subject property. The pipe is associated with an actively venting geothermal hot spring on the subject property. The hot spring is contained within an open sub-grade concrete vault and what appears to be a pressure control valve or geothermal well head inside the vault. Significant seepage and venting of the hot spring was occurring outside and along the perimeter of the concrete vault. It appears the vault and associated valve/well head are not functioning at designed. There was no active discharge from the pipe onto the subject property during the site reconnaissance.

7.2 Adjoining Property Reconnaissance Findings

During the site reconnaissance, AEI observed the items listed in the above Reconnaissance Findings Summary table, which are further discussed below.

7.2.1 Aboveground/Underground Hazardous Substance or Petroleum Product Storage Tanks (ASTs/USTs)

A propane AST was observed on the adjoining site to the east, at the geothermal power plant. Should an accidental release of propane occur, the liquid would immediately evaporate upon contact with ambient air. Due to the nature of this material, the AST is not expected to represent a significant environmental concern.

7.2.2 Unidentified Substance Containers

Several 55-gallon drums were observed to be present at the geothermal power plant. Direct visual observation was not possible. Based on a lack of hazardous materials records for the site, its does not pose an environmental threat to the subject property.

7.2.3 Pits, Ponds, and Lagoons

The adjacent hot springs have created small ponds as well as narrow drainages that flow towards Honey Lake and associated wetlands. There are no hazardous materials associated with the hot springs, as such, the presence of these features is not considered a significant environmental concern.

7.2.4 Other

An abandoned railroad crosses the adjacent property to the south and crosses the subject property. Railroad tracks and spurs represent environmental concerns due to the historical application of oils containing PCBs, herbicides, and arsenic for pest and weed control, as well as the potential presence of creosote on the rail ties, and the historical common practice of using coal cinders for track fill material. Concentrations of these constituents of concern resulting from the railroad right-of-way would likely be confined to the near subsurface sediments and would not present a significant environmental health and safety concern to the occupants of the subject property or the underlying groundwater.

8.0 NON-ASTM SERVICES

8.1 Asbestos-Containing Building Materials

The subject property is currently vacant land or lacks structures. Consequently, no building components containing suspect asbestos containing materials were identified during the site inspection.

8.2 Lead-Based Paint

The subject property is currently vacant land or lacks structures. Consequently, AEI did not observe building components likely to contain suspect LBP during the site reconnaissance.

8.3 Naturally-Occurring Radon

Radon is a naturally-occurring, odorless, and invisible gas. Natural radon levels vary and are closely related to geologic formations. Radon may enter buildings through basement sumps or other openings.

The United States EPA has prepared a map to assist National, State, and local organizations to target their resources and to implement radon-resistant building codes. The map divides the country into three radon zones, with Zone 1 being those areas with the average predicted indoor radon concentration in residential dwellings exceeding the EPA Action Limit of 4.0 pCi/L. It is important to note that the EPA has found homes with elevated levels of radon in all three zones, and the EPA recommends site specific testing to determine radon levels at a specific location. However, the map does give a valuable indication of the propensity of radon gas accumulation in structures.

Radon sampling was not requested as part of this assessment. According to the US EPA, the radon zone level for the area is Zone 3, which has a predicted average indoor screening level less than 2.0 pCi/L, below the action level of 4.0 pCi/L set forth by the US EPA.

8.4 Suspect Mold or Microbial Growth Conditions

The subject property is currently vacant land or lacks structures. Consequently, mold was not addressed as part of this assessment.

According to a review of the regulatory database report and online sources, the Sierra Army Depot (SIAD) is located adjacent to the subject property and in a cross/down gradient position relative to subject property. According to the DOD, PFAS are currently being investigated at this facility. Environmental assessment began at SIAD in 1979. Interim actions or final actions have been taken or are underway at many of the sites. In 2005, the Army began evaluations of closed and inactive ranges under the Military Munitions Reponse Program. The majority of the cleanup activities occurred on the main base which lies approximately two miles in a cross/down gradient position with respect to groundwater flow.

PFAS are not currently classified by CERCLA as a hazardous substance and thus the potential presence of PFAS does not represent a REC at this time. However, the report User should be aware that regulatory criteria and classifications are subject to change. If the groundwater beneath the subject property is slated for beneficial uses, additional investigations may be deemed warranted at that time. However, the subject property does not currently utilize groundwater beneath the subject property for beneficial uses.

As such, additional investigations do not appear warranted at this time.

9.0 SIGNATURE OF ENVIRONMENTAL PROFESSIONALS

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in § 312.10 of 40 CFR Part 312.

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

Prepared By:

Peter J Connelly Jr
Associate Consultant

Reviewed By:

Taylor Strickland
Senior Author

10.0 REFERENCES

Item	Date(s)	Source
Soils Information	October 2022	USDA Web Soil Survey http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx
Topographic Map	2021	USGS, Wendel, CA
Depth to Groundwater Information	October 30, 2022	2019 Annual Groundwater Monitoring Report for the Old Popping Furnace and Upper Burning Ground Corrective Action Management Units, Sierra Army Depot, March 2020
Aerial Photographs	1951-2022 (non-inclusive)	Envirosite Corp
Historical Topographic Maps	1954-2021 (non-inclusive)	Envirosite Corp
Other Historical Sources	Accessed October, 2022	https://tipurdy.org/amedee-hot-springs/
Environmental Health Department	October 28, 2022	Lassen County Environmental Health
Building Department	October 28, 2022	Lassen County Building Department
Planning Department	October 28, 2022	Lassen County Planning Department
Assessor's Information and Parcel Map	October 28, 2022	Lassen County
Other Agencies Searched	October 31, 2022	SWRCB GeoTracker, DTSC HWTS, and DTSC EnviroStor, Lassen County AQMD
Oil and Gas Wells	October 28, 2022	Geologic Energy Management Division
Oil and Gas Pipelines	October 28, 2022	NPMS Public Map Viewer https://www.npms.phmsa.dot.gov/PublicViewer/composite.jsf
Regulatory Database Report	October 28, 2022	Envirosite Corp
Interview with Owner	N/A	Hays Ranch
Interview with Key Site Manager	November 4, 2022	Marsha Converse
Radon Zone Information	2016	US EPA Map of Radon Zones https://www.epa.gov/radon

APPENDIX A

FIGURES

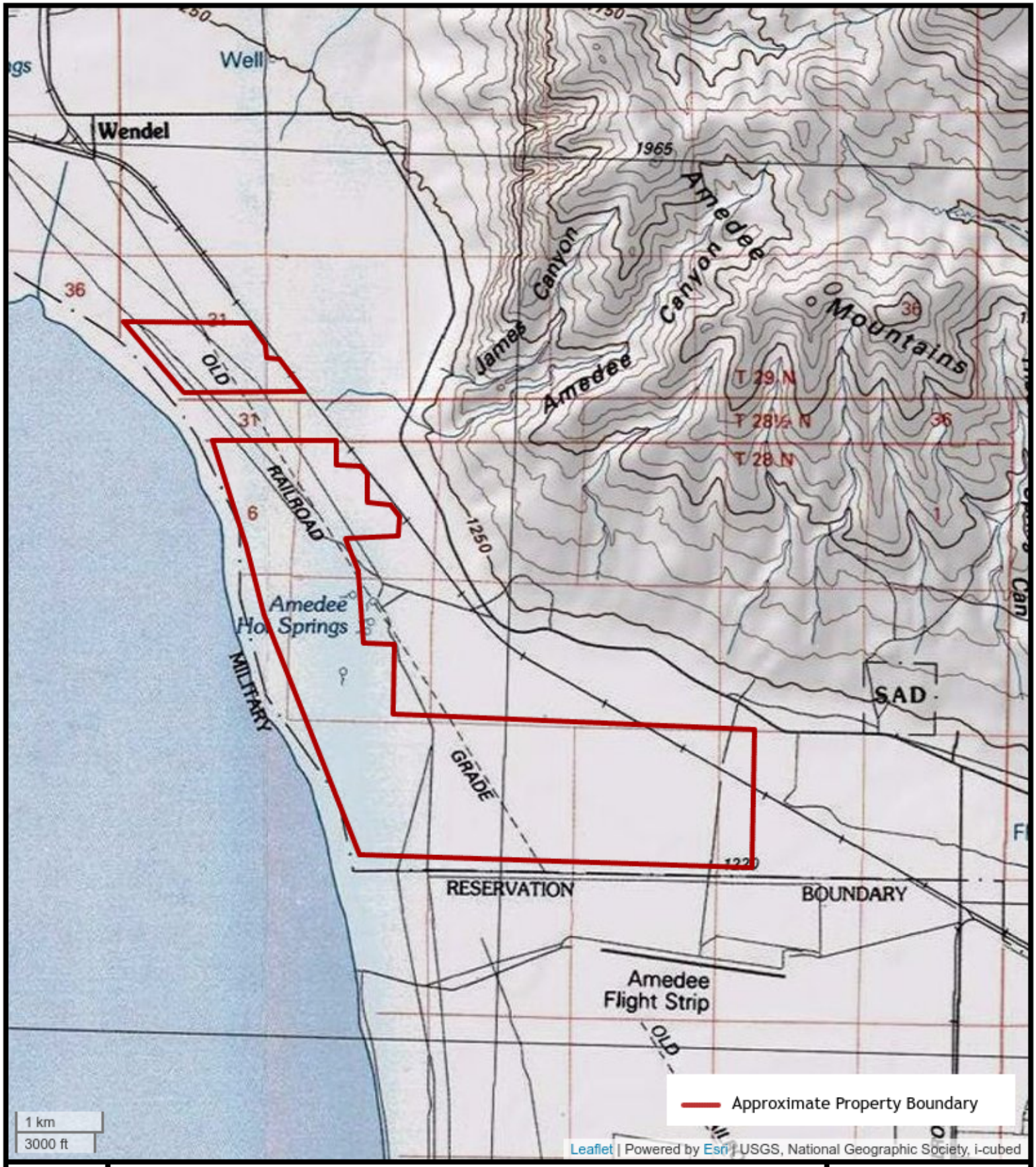

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FIGURE 1: TOPOGRAPHIC MAP

, Lassen County, California 96136

AEI Project Number: 470890

AEI

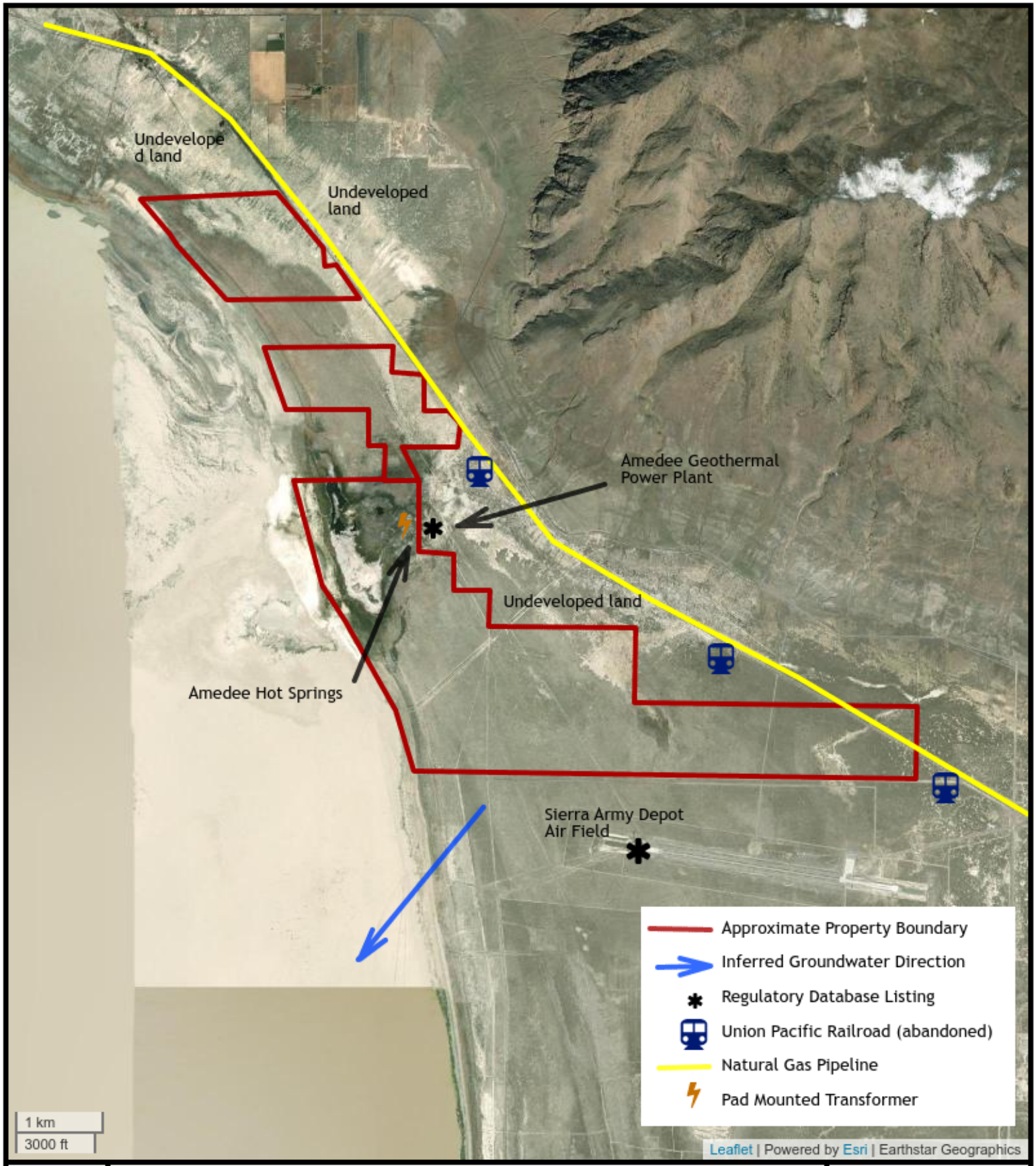

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FIGURE 2: SITE MAP

, Lassen County, California 96136

AEI Project Number: 470890

AEI

APPENDIX B

PROPERTY PHOTOGRAPHS

1. Image showing the old railroad alignment/Amedee Road near the northeast property boundary facing north

2. Approximate northern property boundary facing west; taken from the abandoned Union Pacific Railroad alignment.

3. Approximate northeast corner of subject property as seen from the abandoned Union Pacific Railroad alignment, facing south southeast

4. Middle portion of subject property along the east border facing south

5. Presumed property marker along the east border of subject property facing southwest

6. Southern portion of subject property facing west

7. South property overview with Honey Lake on the horizon

8. Image showing snow covered areas of subject property facing south with the Amedee Hot Springs and Amedee Geothermal Power Plant on the horizon

9. Amedee Hot Springs located on the subject property

10. Amedee Geothermal Power Plant on the adjacent property to the east

11. Staged 55-gallon drums

12. Presumed propane AST located on the Amedee Geothermal Power Plant site

13. Piping as it enters the subject property from the adjacent geothermal power plant

14. Presumed collection/discharge pipe on the subject property

15. Closeup of venting hot spring and piping with pad mounted transformer in the background (subject property)

16. Venting and seeping hot springs within a concrete vault on subject property

17. Stressed vegetation originating from the venting hot spring

18. Stressed vegetation and discharge pipe on subject property

19. Hot water discharge pipe from previous image

20. Off-site natural gas pipeline markers off Amedee Road, east of the Amadee Hot Springs

21. Wetlands located on subject property next to Amedee Hot Springs

22. Adjacent undeveloped property and abandoned railroad to the northwest

23. Adjacent undeveloped property to the north northeast taken facing northeast

24. Adjacent undeveloped property to the east as seen from the abandoned railroad alignment.

25. Sierra Army Depot adjacent to the south of subject property

26. Gated access to Sierra Army Depot

27. Sierra Army Depot

APPENDIX C

REGULATORY DATABASE

Government Records Report | 2022

Order Number: 79531
Report Generated: 10/21/2022

Project Name: Lassen Solar
Project Number: 470890

Lassen Solar

Lassen County, CA

with Envirosite Atlas

Contact us at:
(866) 211-2028
envirositecorp.com

Table of Contents

2022

Envirosite Corporation has conducted a search of all reasonably ascertainable records in accordance with EPA's AAI (40 CFR Part 312) requirements and the ASTM E-1527-21 Environmental Site Assessments standard.

SUBJECT PROPERTY INFORMATION:

ADDRESS:

Lassen Solar

Lassen County, CA

COORDINATES:

Latitude (North):	40.302808 - 40°18'10.1"
Longitude (West):	-120.179525 - -120°10'46.3"
Universal Transverse Mercator:	Zone 10N
UTM X (Meters):	739704.04
UTM Y (Meters):	4465184.74
State Plane Coordinates:	0401 - California Zone 1 (US Survey Feet)
X Coordinate (Feet):	7069368.077 E
Y Coordinate (Feet):	1998868.074 N

ELEVATION:

Elevation:	4032 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH SUBJECT PROPERTY:

Subject Property Map: 40120-C2 Wendel, CA
Most Recent Revision: 2018

MAP ID	SITE NAME	ADDRESS	DATABASE(S)	RELATIVE ELEVATION	DIRECTION / DISTANCE
A1	Amedee fault	40.309794, -120.192929	SEISMIC - CA		SP
A2	Amedee fault	40.303225, -120.195143	SEISMIC - CA		SP
3	Amedee fault	40.296242, -120.199117	SEISMIC - CA		SP
4	Amedee fault	40.294388, -120.200912	SEISMIC - CA		SP
5	Eagle Lake Field Office	40.559529, -120.047282	FEDLAND		SP
6	Sierra Army Depot	40.152047, -120.076734	DOD	N/R	SE / 0.009 mi., 50 ft.
7	AMEDEE GEOTHERMAL POWER PLANT	AMEDEE HOT SPRINGS	CALEPA SITES - CA, CIWQS - CA, CIWQS 2 - CA...	Lower	W / 0.068 mi., 362 ft.
8	Pumeroy	40.28518, -120.13323	MINES USGS	Lower	ESE / 0.209 mi., 1104 ft.
9	Eagle Lake Field Office	40.334334, -120.209398	FEDLAND	N/R	NW / 0.244 mi., 1291 ft.
10	N R	40.319172, -120.183004	HIGH FIRE - CA	N/R	NW / 0.267 mi., 1413 ft.
11	N R	40.294523, -120.158781	FIRE AREAS - CA	N/R	ESE / 0.322 mi., 1698 ft.
12	RUSH	40.92326, -119.916025	FIRE AREAS - CA	N/R	NNW / 0.346 mi., 1826...
13	Amedee fault	40.318759, -120.189764	SEISMIC - CA	N/R	NNW / 0.403 mi., 2127...

SUBJECT PROPERTY SEARCH RESULTS:

The subject property was identified in the following records. For more information on this property, see Map Findings section on page 26.

SITE	DATABASE(S)	EPA ID
Amedee fault 40.309794, -120.192929 CA	SEISMIC - CA	N/R
Amedee fault 40.303225, -120.195143 CA	SEISMIC - CA	N/R
Amedee fault 40.296242, -120.199117 CA	SEISMIC - CA	N/R
Amedee fault 40.294388, -120.200912 CA	SEISMIC - CA	N/R
Eagle Lake Field Office 40.559529, -120.047282 CA	FEDLAND	N/R

SEARCH RESULTS:

OTHER ASCERTAINABLE RECORDS

DOD: Department of Defense sites from the Protected Areas Database (PAD-US) **1 SITE FOUND WITHIN 1 MILE**

EQUAL/HIGHER ELEVATION

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
6	Sierra Army Depot	40.152047, -120.076734	SE / 0.009 mi., 50 ft.	*28*

FEDLAND: Federal Lands from the Protected Areas Database (PAD-US) **2 SITES FOUND WITHIN 1 MILE**

EQUAL/HIGHER ELEVATION

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
9	Eagle Lake Field Office	40.334334, -120.209398	NW / 0.244 mi., 1291 ft.	*37*

MINES USGS: Listing of all active mines and mineral plants in 2003 **1 SITE FOUND WITHIN .25 MILE**

LOWER ELEVATION

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
8	Pumeroy	40.28518, -120.13323	ESE / 0.209 mi., 1104 ft.	*36*

CALEPA SITES - CA: CalEPA Regulated Sites from the Certified Unified Program Agencies (CUPA). **1 SITE FOUND WITHIN .25 MILE**

LOWER ELEVATION

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
7	*AMEDEE GEOTHERMAL POWER PLANT*	*AMEDEE HOT SPRINGS*	*W / 0.068 mi., 362 ft.*	*29*

FIRE AREAS - CA: The multi-agency statewide database of fire perimeters. **2 SITES FOUND WITHIN 1 MILE**

EQUAL/HIGHER ELEVATION

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
11	N/R	40.294523, -120.158781	ESE / 0.322 mi., 1698 ft.	*38*
12	RUSH	40.92326, -119.916025	NNW / 0.346 mi., 1826 ft.	*38*

OTHER ASCERTAINABLE RECORDS *(cont.)*

HIGH FIRE - CA: Fire hazard severity zones mapped as areas of significant fire hazards on the basis of fuels terrain weather and other factors **1 SITE FOUND WITHIN 1 MILE**

EQUAL/HIGHER ELEVATION

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
10	N/R	40.319172, -120.183004	NW / 0.267 mi., 1413 ft.	*38*

OTHER

SEISMIC - CA: Earthquake Zones of Required Investigation. Shows the location of both Seismic Hazard Zones and Earthquake Fault Zones **5 SITES FOUND WITHIN 1 MILE**

EQUAL/HIGHER ELEVATION

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
13	Amedee fault	40.318759, -120.189764	NNW / 0.403 mi., 2127 ft.	*39*

No unmappable sites reported.

DATABASE(S) WITH NO MAPPED SITES:

FEDERAL RCRA NON-CORRACTS TSD FACILITIES LIST

ARCHIVED RCRA TSDF	Archived Resource Conservation and Recovery Act: Treatment Storage and Disposal Facilities
RCRA_TSDF	Resource Conservation and Recovery Act: Treatment Storage and Disposal Facilities

FEDERAL, STATE, AND TRIBAL REGISTERED STORAGE TANK LISTS

AST PBS	ASTs at Bulk Petroleum Terminals
EPA UST	EPA UST Finder database
FEMA UST	FEMA Underground Storage Tanks
HIST INDIAN UST R6	Historical Underground Storage Tanks on Indian Land in EPA Region 6
HIST INDIAN UST R7	Historical Underground Storage Tanks on Indian Land in EPA Region 7
INDIAN UST R1	Underground Storage Tanks on Indian Land in EPA Region 1
INDIAN UST R10	Underground Storage Tanks on Indian Land in EPA Region 10
INDIAN UST R2	Underground Storage Tanks on Indian Land in EPA Region 2
INDIAN UST R4	Underground Storage Tanks on Indian Land in EPA Region 4
INDIAN UST R5	Underground Storage Tanks on Indian Land in EPA Region 5
INDIAN UST R6	Underground Storage Tanks on Indian Land in EPA Region 6
INDIAN UST R7	Underground Storage Tanks on Indian Land in EPA Region 7
INDIAN UST R8	Underground Storage Tanks on Indian Land in EPA Region 8
INDIAN UST R9	Underground Storage Tanks on Indian Land in EPA Region 9
AST - CA	Aboveground storage tanks
AST_KERN COUNTY - CA	Kern County Aboveground Storage Tanks Facilites
AST_ORANGE COUNTY - CA	Orange County Aboveground Storage Tanks
AST_PLACER COUNTY - CA	Placer County Aboveground Storage Tanks
AST_YOLO COUNTY - CA	Yolo County Above Ground Storage Tanks
CLOSED UST_VENTURA COUNTY - CA	Ventura County Closed Underground Storage Tanks
FID UST - CA	Facility Inventory Database
HIST AST - CA	Historical Aboveground Storage Tanks
HIST UST - CA	Historical Underground Storage Tanks
HIST UST_EL SEGUNDO CITY - CA	Historical City of El Segundo Underground Storage Tanks
HIST UST_KERN COUNTY - CA	Historical Kern County Underground Storage Tanks
HIST UST_SUTTER COUNTY - CA	Historical Sutter County Underground Storage Tank List
TANKS_CONTRA COSTA COUNTY - CA	Contra Costa County Aboveground Storage Tanks
UST - CA	Underground Storage Tanks
UST_ALAMEDA COUNTY - CA	Alameda County Underground Storage Tanks
UST_CITY OF LONG BEACH - CA	City of Long Beach Underground Storage Tanks
UST_CITY OF TORRANCE - CA	City of Torrance Underground Storage Tanks

FEDERAL, STATE, AND TRIBAL REGISTERED STORAGE TANK LISTS *(cont.)*

UST_EL SEGUNDO CITY - CA	City of El Segundo Underground Storage Tanks
UST_KERN COUNTY - CA	Kern County Underground Storage Tanks
UST_MARIN COUNTY - CA	Marin County Underground Storage Tanks
UST_MENDOCINO COUNTY - CA	Mendocino County Underground Storage Tanks
UST_NAPA COUNTY - CA	Underground storage tank sites located in Napa county.
UST_ORANGE COUNTY - CA	Orange County Underground Storage Tanks
UST_PLACER COUNTY - CA	Placer County Underground Storage Tanks
UST_RIVERSIDE COUNTY - CA	Riverside County Underground Storage Tanks
UST_SAN FRANCISCO COUNTY - CA	San Francisco County Underground Storage Tanks
UST_SAN JOAQUIN COUNTY - CA	San Joaquin County Underground Storage Tanks
UST_SANTA CLARA COUNTY - CA	Santa Clara County Underground Storage Tanks
UST_SOLANO COUNTY - CA	Solano County Underground Storage Tanks
UST_SUTTER COUNTY - CA	Sutter County Underground Storage Tanks
UST_YOLO COUNTY - CA	Yolo County Underground Storage Tanks

FEDERAL CERCLIS LIST

CERCLIS NFRAP	Comprehensive Environmental Response Compensation and Liability Act No Further Remedial Action Planned
CERCLIS-HIST	Comprehensive Environmental Response Compensation and Liability Act
EPA SAA	EPA Superfund Alternative Approach
FEDERAL FACILITY	Federal Facility sites
SEMS_8R_ACTIVE SITES	Sites on SEMS Active Site Inventory
SEMS_8R_ARCHIVED SITES	Sites on SEMS Archived Site Inventory

FEDERAL RCRA CORRACTS FACILITIES LIST

CORRACTS	Hazardous Waste Corrective Action
HIST CORRACTS 2	Historical Hazardous Waste Corrective Action

FEDERAL DELISTED NPL SITE LIST

DELISTED NPL	Delisted National Priority List
DELISTED PROPOSED NPL	Delisted proposed National Priority List
SEMS_DELETED NPL	Sites Deleted from National Priorities List

FEDERAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS

EPA LF MOP	EPA Landfill Methane Outreach Project Database

FEDERAL, STATE, AND TRIBAL LEAKING STORAGE TANK LISTS

EPA LUST	EPA LUST
HIST INDIAN LUST R4	Historical Leaking Underground Storage Tanks on Indian Land in EPA Region 4
HIST INDIAN LUST R8	Historical Leaking Underground Storage Tanks on Indian Land in EPA Region 8
INDIAN LUST R1	Leaking Underground Storage Tanks on Indian Land in EPA Region 1
INDIAN LUST R10	Leaking Underground Storage Tanks on Indian Land in EPA Region 10
INDIAN LUST R2	Leaking Underground Storage Tanks on Indian Land in EPA Region 2
INDIAN LUST R4	Leaking Underground Storage Tanks on Indian Land in EPA Region 4
INDIAN LUST R5	Leaking Underground Storage Tanks on Indian Land in EPA Region 5
INDIAN LUST R6	Leaking Underground Storage Tanks on Indian Land in EPA Region 6
INDIAN LUST R7	Leaking Underground Storage Tanks on Indian Land in EPA Region 7
INDIAN LUST R8	Leaking Underground Storage Tanks on Indian Land in EPA Region 8
INDIAN LUST R9	Leaking Underground Storage Tanks on Indian Land in EPA Region 9
HIST LUST_SONOMA COUNTY - CA	Historical Sonoma County Leaking Underground Storage Tanks
LUFT_ALAMEDA COUNTY - CA	Alameda County Leaking Underground Fuel Tanks
LUST ORANGE COUNTY - CA	Orange County Leaking Underground Storage Tanks
LUST REG 1 - CA	Region 1 Leaking Underground Storage Tanks
LUST REG 2 - CA	Region 2 Leaking Underground Storage Tanks
LUST REG 3 - CA	Region 3 Leaking Underground Storage Tanks
LUST REG 4 - CA	Region 4 Leaking Underground Storage Tanks
LUST REG 5 - CA	Region 5 Leaking Underground Storage Tanks

FEDERAL, STATE, AND TRIBAL LEAKING STORAGE TANK LISTS *(cont.)*

LUST REG 6 - CA	Region 6 Leaking Underground Storage Tanks
LUST REG 7 - CA	Region 7 Leaking Underground Storage Tanks
LUST REG 8 - CA	Region 8 Leaking Underground Storage Tanks
LUST REG 9 - CA	Region 9 Leaking Underground Storage Tanks
LUST_HAZMAT_YOLO COUNTY - CA	Yolo County Leaking Underground Storage tanks
LUST_KERN COUNTY - CA	Kern County leaking underground tank sites
LUST_RIVERSIDE COUNTY - CA	Riverside County Leaking Underground Storage Tanks
LUST_SAN FRANCISCO COUNTY - CA	listing of leaking underground storage tanks
LUST_SAN MATEO COUNTY - CA	San Mateo County Leaking Underground Storage Tanks
LUST_SOLANO COUNTY - CA	Solano County Leaking Underground Storage Tanks
LUST_SONOMA COUNTY - CA	Sonoma County Leaking Underground Storage Tanks
LUST_SUTTER COUNTY - CA	Sutter County Leaking Underground Storage Tanks
LUST_VENTURA COUNTY - CA	Ventura County Leaking Underground Storage Tanks
SLIC REG 1 - CA	Spills Leaks Investigation & Cleanup Program
SLIC REG 2 - CA	Spills Leaks Investigation & Cleanup Program
SLIC REG 3 - CA	Spills Leaks Investigation & Cleanup Program
SLIC REG 4 - CA	Spills Leaks Investigation & Cleanup Program
SLIC REG 5 - CA	Spills Leaks Investigation & Cleanup Program
SLIC REG 6 - CA	Spills Leaks Investigation & Cleanup Program
SLIC REG 7 - CA	Spills Leaks Investigation & Cleanup Program
SLIC REG 8 - CA	Spills Leaks Investigation & Cleanup Program
SLIC REG 9 - CA	Spills Leaks Investigation & Cleanup Program
SLIC_ALAMEDA COUNTY - CA	Alameda County Spills Leaks Investigation & Cleanup

FEDERAL ERNS LIST

ERNS	Emergency Response Notification System

FEDERAL INSTITUTIONAL CONTROLS / ENGINEERING CONTROLS REGISTRIES

FED E C	Engineering Controls
FED I C	Institutional Controls
RCRA IC_EC	RCRA sites with Institutional and Engineering Controls

FEDERAL RCRA GENERATORS LIST

HIST RCRA_CESQG	Historical Resource Conservation and Recovery Act_Conditionally Exempt Small Quantity Generators
HIST RCRA_LQG	Historical Resource Conservation and Recovery Act_ Large Quantity Generators
HIST RCRA_NONGEN	Historical Resource Conservation and Recovery Act_Non Generators
HIST RCRA_SQG	Historical Resource Conservation and Recovery Act_Small Quantity Generators
RCRA_LQG	Resource Conservation and Recovery Act_ Large Quantity Generators
RCRA_NONGEN	Resource Conservation and Recovery Act_Non Generators
RCRA_SQG	Resource Conservation and Recovery Act_Small Quantity Generators
RCRA_VSQG	Resource Conservation and Recovery Act_Very Small Quantity Generator

FEDERAL NPL SITE LIST

NPL	National Priority List
NPL EPA R1 GIS	GIS for EPA Region 1 NPL
NPL EPA R3 GIS	GIS for EPA Region 3 NPL
NPL EPA R6 GIS	GIS for EPA Region 6 NPL
NPL EPA R8 GIS	GIS for EPA Region 8 NPL
NPL EPA R9 GIS	GIS for EPA Region 9 NPL
PART NPL	Part National Priority List
PROPOSED NPL	Proposed National Priority List
SEMS_FINAL NPL	Sites included on the Final National Priorities List
SEMS_PROPOSED NPL	Sites Proposed to be Added to the National Priorities List

STATE- AND TRIBAL - EQUIVALENT CERCLIS

ENVIROSTOR - CA	EnviroStor Database

STATE- AND TRIBAL - EQUIVALENT CERCLIS *(cont.)*

HIST TOXIC PITS - CA	Historical Toxic Pits Cleanup Act
OIL & GAS CLEANUP - CA	SWRCB Oil & Gas Cleanup Sites
SWRCB CLEANUP - CA	SWRCB Cleanup Program
SWRCB NON_CASE - CA	SWRCB Non-Case Sites
TOXIC PITS - CA	Toxic Pits Cleanup Act

STATE- AND TRIBAL - EQUIVALENT NPL

HIST RESPONSE - CA	Historical State Response Sites
RESPONSE - CA	State Response Sites

STATE AND TRIBAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS

HIST SWF/LF - CA	Historical Solid Waste Information System
SWF/LF - CA	Solid Waste Information System

STATE RCRA GENERATORS LIST

HWG - CA	State Hazardous Waste Generators
HWG_YOLO COUNTY - CA	State Hazardous Waste Generators

STATE AND TRIBAL BROWNFIELD SITES

TRIBAL BROWNFIELDS	Tribal Brownfields

STATE AND TRIBAL VOLUNTARY CLEANUP SITES

VCP - CA	Voluntary Cleanup Program sites

LOCAL BROWNFIELD LISTS

BROWNFIELDS-ACRES	EPA ACRES Brownfields
FED BROWNFIELDS	Federal Brownfields

LOCAL LISTS OF HAZARDOUS WASTE / CONTAMINATED SITES

FED CDL	DOJ Clandestine Drug Labs
US HIST CDL	Historical Clandestine Drug Labs
CALARP_KERN COUNTY - CA	HazMat Chemical Facility List
CASE LIST_SAN DIEGO COUNTY - CA	San Diego County Environmental Case List
CDL - CA	Meth and Clandestine Drug Labs
CORRECTIVE ACTION_RIVERSIDE COUNTY - CA	Riverside County Corrective Action Sites
CS_NAPA COUNTY - CA	Contaminated Sites
CS_PLACER COUNTY - CA	Placer County Cleanup Sites
SCH - CA	School Property Evaluation Program
SITE LIST_CONTRA COSTA COUNTY - CA	Contra Costa County Sites List
TOXIC SITE_SACRAMENTO COUNTY - CA	Sacramento County Toxic Site Cleanup list

RECORDS OF EMERGENCY RELEASE REPORTS

HMIRS (DOT)	Hazardous Materials Information Reporting Systems
CHMIRS - CA	California Hazardous Material Incident Report System
HIST CHMIRS - CA	California Hazardous Material Incident Report System
INDUSTRIAL CLEANUP_ORANGE COUNTY - CA	Petroleum and non-petroleum industrial spills
SML_LOS ANGELES COUNTY - CA	Los Angeles County Emergency Response session spills

LOCAL LAND RECORDS

LIENS 2	CERCLA Lien Information
DEED - CA	Deeds
HIST LIENS - CA	Historical Liens
LIENS - CA	Liens

LOCAL LISTS OF LANDFILL / SOLID WASTE DISPOSAL SITES

HIST INDIAN ODI R8	Historical Open Dump Inventory
INDIAN ODI R8	Open Dump Inventory
ODI	Open Dump Inventory
TRIBAL ODI	Indian Open Dump Inventory Sites

LOCAL LISTS OF LANDFILL / SOLID WASTE DISPOSAL SITES *(cont.)*

HAULERS - CA	Tire Haulers
LF_SAN DIEGO COUNTY - CA	San Diego County Landfills
SWF_LOS ANGELES COUNTY - CA	Los Angeles County solid waste facilities
SWRCY - CA	Recyclers

OTHER ASCERTAINABLE RECORDS

AFS	Air Facility Systems
ALT FUELING	Alternative Fueling Stations
ARENAS	ARENAS
ARENAS 2	ARENAS (additional)
BRS	Biennial Reporting Systems
CDC HAZDAT	Hazardous Substance Release and Health Effects Information
CHURCHES	CHURCHES
COAL ASH DOE	Coal Ash: Department of Energy
COAL ASH EPA	Coal Ash: Environmental Protection Agency
COAL GAS	Coal Gas Plants
COLLEGES	COLLEGES
COLLEGES 2	COLLEGES 2
CONSENT (DECREES)	Superfund Consent Decree
CORRECTIVE ACTIONS_2020	Wastes - Hazardous Waste - Corrective Action
DAYCARE	DAYCARE
DEBRIS EPA LF	EPA Disaster Debris Landfill Sites
DEBRIS EPA SWRCY	EPA Disaster Debris Recovery Sites
DOT OPS	Department of Transportation Office of Pipeline Safety
ECHO	EPA Enforcement and Compliance History Online
ENOI	Electronic Notice of Intent
EPA FUELS	EPA Fuels Registration, Reporting, and Compliance List
EPA OSC	EPA On-Site Coordinator
EPA WATCH	EPA Watch List
FA HWF	Financial Assurance for Hazardous Waste Facilities
FRS	Facility Index Systems
FTTS	FIFRA/TSCA Tracking System
FTTS INSP	FIFRA/TSCA Tracking System: Inspections
FUDS	Formerly Used Defense Sites
GOV MANSIONS	Governors Mansions
HIST AFS	Historical Air Facility Systems
HIST AFS 2	Historical Air Facility Systems
HIST DOD	Department of Defense historical sites
HIST LEAD_SMELTER	Historical Lead Smelter Sites
HIST MLTS	Historical Material Licensing Tracking Systems
HIST PCB TRANS	Historical Polychlorinated Biphenyl (PCB) Facilities
HIST PCS ENF	Historical Enforced Permit Compliance Facilities
HIST PCS FACILITY	Historical Permit Compliance Facilities
HIST SSTS	Historical Section 7 Tracking Systems
HOSPITALS	HOSPITALS
HWC DOCKET	Hazardous Waste Compliance Docket
ICIS	Integrated Compliance Information System
INACTIVE PCS	Inactive Permit Compliance Facilities
INDIAN RESERVATION	American Indian Lands
LUCIS	Land Use Control Information Systems
LUCIS 2	Land Use Control Information Systems 2
MANIFEST EPA	EPA Hazardous Waste Manifests
MINE OPERATIONS	Mines list from USGS
MINES	Mines
MLTS	Material Licensing Tracking Systems
NPL AOC	Areas related to NPL remediation sites
NPL LIENS	National Priority List Liens
NURSING HOMES	NURSING HOMES

OTHER ASCERTAINABLE RECORDS *(cont.)*

OSHA	Occupational Safety & Health Administration
PADS	PCB Activity Database Systems
PCB TRANSFORMER	Polychlorinated Biphenyl (PCB) Waste
PCS ENF	Enforced Permit Compliance Facilities
PCS FACILITY	Permit Compliance Facilities
PFAS NPL	PFAS NPL Sites
PFAS TRIS	PFAS TRIS Sites
PFAS UCMR3	PFAS UCMR Samples
PRISONS	PRISONS
RAATS	RCRA Administrative Action Tracking Systems
RADINFO	Radiation Information Systems
RMP	Risk Management Plans
ROD	Record of Decision
SCHOOLS PRIVATE	SCHOOLS PRIVATE
SCHOOLS PUBLIC	SCHOOLS PUBLIC
SCRD DRYCLEANERS	SCRD Drycleaners
SEMS_SMELTER	Sites on SEMS Potential Smelter Activity
SSTS	Section 7 Tracking Systems
STORMWATER	Storm Water Permits
TOSCA-PLANT	Toxic Substance Control Act: Plants
TRIS	Toxic Release Inventory Systems
UMTRA	Uranium Mill Tailing Sites
VAPOR	EPA Vapor Intrusion
AOC_SAN GABRIEL VALLEY - CA	San Gabriel Valley Superfund
BOND EXPENDITURE PLAN - CA	Bond Expenditure Plan
BP HW OUT_VENTURA COUNTY - CA	Ventura County Business Plan Hazardous Waste Producers and Operating Underground Tanks
BUSINESS INVENTORY_SAN MATEO COUNTY - CA	San Mateo County List of Underground Storage Tanks, Hazardous Materials, Business Plans, and Hazardous Waste Generators
CIWQS - CA	California Integrated Water Quality System
CIWQS 2 - CA	California Integrated Water Quality System
CORTESE - CA	The Hazardous Waste and Substances Sites List
CUPA_BUTTE COUNTY - CA	Butte County Certified Unified Program Agency
CUPA_FRESNO COUNTY - CA	Fresno County Certified Unified Program Agency
CUPA_PLACER COUNTY - CA	CUPA County Certified Unified Program Agency
DAYCARE - CA	Daycares
DRYCLEANERS - CA	Drycleaners
DRYCLEANERS_AMADOR COUNTY - CA	Amador County Drycleaners
DRYCLEANERS_ANTELOPE VALLEY - CA	Antelope Valley Drycleaners
DRYCLEANERS_BAY AREA - CA	Bay Area Drycleaners
DRYCLEANERS_BUTTE COUNTY - CA	Butte County Drycleaners
DRYCLEANERS_CALAVERAS COUNTY - CA	Calaveras County Drycleaners
DRYCLEANERS_COLUSA COUNTY - CA	Colusa County Drycleaners
DRYCLEANERS_EASTERN KERN COUNTY - CA	Eastern Kern County Drycleaners
DRYCLEANERS_EL DORADO COUNTY - CA	El Dorado County Drycleaners
DRYCLEANERS_FEATHER RIVER - CA	Feather River Drycleaners
DRYCLEANERS_GLENN COUNTY - CA	Glenn County Drycleaners
DRYCLEANERS_GREAT BASIN UNIFIED - CA	Great Basin Unified Drycleaners
DRYCLEANERS_IMPERIAL COUNTY - CA	Imperial County Drycleaners
DRYCLEANERS_LAKE COUNTY - CA	Lake County Drycleaners
DRYCLEANERS_LASSEN COUNTY - CA	Lassen County Drycleaners
DRYCLEANERS_MENDOCINO COUNTY - CA	Mendocino County Drycleaners
DRYCLEANERS_MOJAVE DESERT - CA	Mojave Desert Drycleaners
DRYCLEANERS_MONTEREY BAY - CA	Monterey Bay Drycleaners
DRYCLEANERS_NORTH COAST UNIFIED - CA	North Coast Unified Drycleaners
DRYCLEANERS_NORTHERN SIERRA - CA	Northern Sierra Drycleaners
DRYCLEANERS_NORTHERN SONOMA COUNTY - CA	Northern Sonoma County Drycleaners

OTHER ASCERTAINABLE RECORDS *(cont.)*

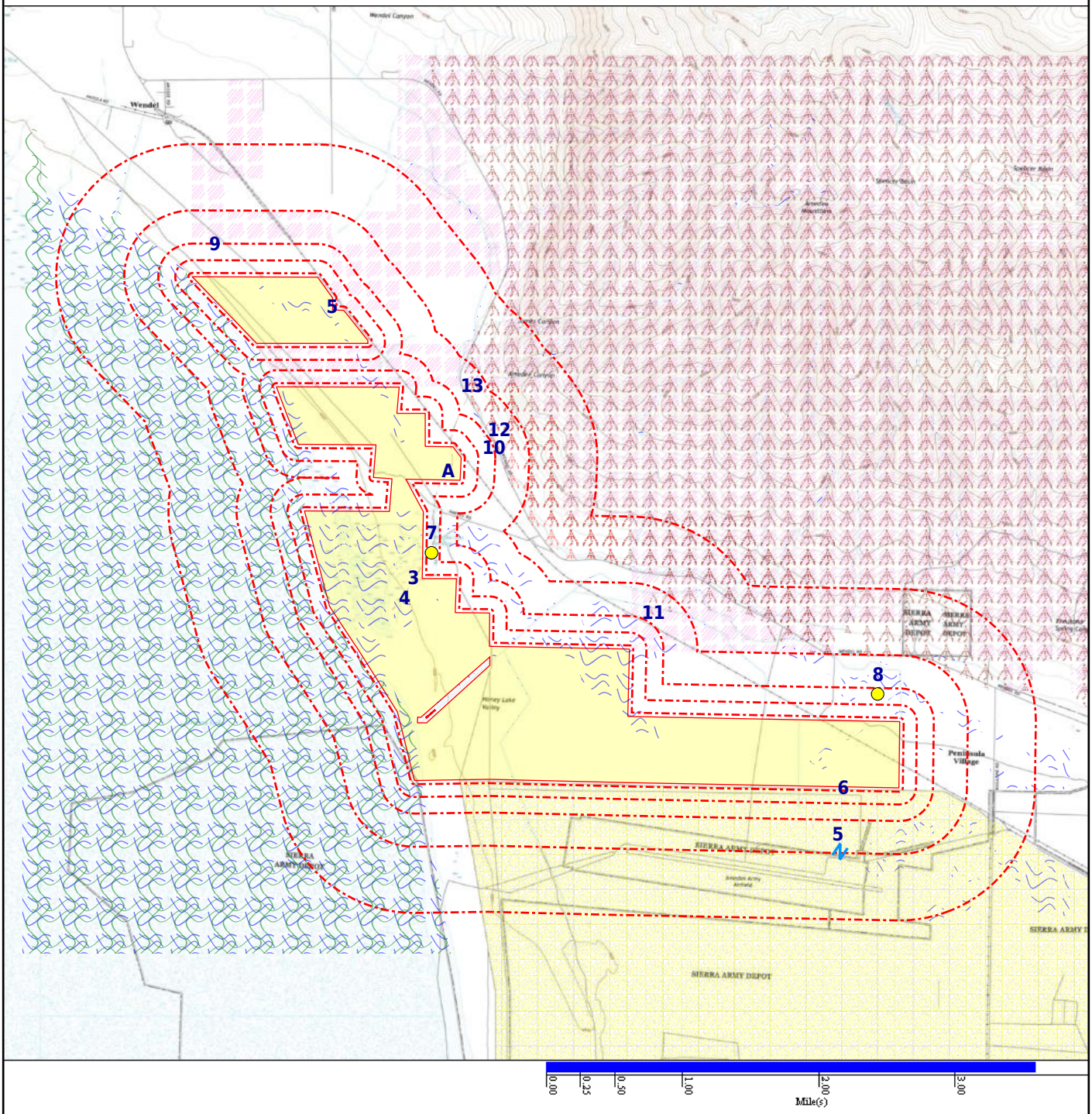
DRYCLEANERS_PLACER COUNTY - CA	Placer County Drycleaners
DRYCLEANERS_SACRAMENTO COUNTY - CA	Sacramento County Drycleaners
DRYCLEANERS_SAN DIEGO COUNTY - CA	San Diego County Drycleaners
DRYCLEANERS_SAN JOAQUIN VALLEY - CA	San Joaquin Valley Drycleaners
DRYCLEANERS_SAN LUIS OBISPO - CA	San Luis Obispo Drycleaners
DRYCLEANERS_SANTA BARBARA COUNTY - CA	Santa Barbara Drycleaners
DRYCLEANERS_SHASTA COUNTY - CA	Shasta County Drycleaner
DRYCLEANERS_SISKIYOU COUNTY - CA	Siskiyou County Drycleaners
DRYCLEANERS_SOUTH COAST - CA	South Coast Drycleaners
DRYCLEANERS_TEHAMA COUNTY - CA	Tehama County Drycleaners
DRYCLEANERS_TUOLUMNE COUNTY - CA	Tuolumne County Drycleaners
DRYCLEANERS_VENTURA COUNTY - CA	Ventura County Drycleaners
DRYCLEANERS_YOLO-SOLANO COUNTIES - CA	Yolo and Solano Counties Drycleaners
EMI - CA	Emissions Inventory Data
FA - CA	Financial Assurance
FA 2 - CA	Financial Assurance for Solid Waste Facilities
GCC_SANTA CLARA VALLEY - CA	Santa Clara Valley Groundwater Contamination Cleanups
HAZMAT INCIDENT_CONTRA COSTA COUNTY - CA	Contra Costa County Hazardous Materials Incident list
HAZMAT_CITY OF SAN JOSE - CA	City of San Jose Hazardous Material Facilities
HAZMAT_SACRAMENTO COUNTY - CA	Sacramento County Master Hazardous Materials Facility list
HAZMAT_SAN BERNARDINO COUNTY - CA	San Bernardino County Hazardous Material Permits
HAZMAT_SAN DIEGO COUNTY - CA	Hazardous Materials Management Division Database
HAZMAT_SANTA CLARA COUNTY - CA	Santa Clara County Hazardous Material Facilities
HAZNET - CA	Hazardous Waste Manifests
HAZWASTE_ORANGE COUNTY - CA	Orange County hazardous waste facilities
HIST CORTESE - CA	The Historical Hazardous Waste and Substances Sites List
HIST HAZNET - CA	Historical Hazardous Waste Manifests
HIST HMS_LOS ANGELES COUNTY - CA	Historical Los Angeles County Street Number List
HIST HWP - CA	Historical EnviroStor Permitted Facilities
HIST LDS - CA	Historical Land Disposal Sites
HIST MCS - CA	Historical Military Cleanup Sites
HIST NFA - CA	Historical No Further Action Sites
HIST SOLVENTS_SANTA CLARA CO - CA	Santa Clara County Historic Solvent Cases
HMS_LOS ANGELES COUNTY - CA	Los Angeles County Street Number List
HWM COMMERCIAL FACILITIES - CA	Hazardous Waste Management Commercial Facilities
HWP - CA	EnviroStor Permitted Facilities
HWT - CA	Hazardous Waste Transporters
LDS - CA	Land Disposal Sites
LOP_SANTA CLARA COUNTY - CA	Santa Clara County Local Oversight Program
MCS - CA	Military Cleanup Sites
MWMP - CA	Medical Waste Management Program
MWMP 2 - CA	Medical Waste Management Program
NFA - CA	No Further Action Sites
NFE - CA	Unconfirmed contaminated properties
NPDES - CA	State Wastewater and NPDES Permits
PERCHLORATE 2 - CA	Perchlorate contaminted sites
PFAS - CA	PFAS Site Listing
PFAS DOD - CA	PFAS Site Listing
PFAS GAMA - CA	PFAS GAMA Well Sampling
PROPOSITION 65 - CA	Proposition 65 Records
RFR - CA	Regulated Facility Report
SITES INVENTORY_VENTURA COUNTY - CA	Ventura County Inventory of Closed Illegal Abandoned and Inactive Sites
SMU_SANTA BARBARA COUNTY - CA	Site Mitigation Unit Sites
SWAT - CA	SWAT Reports Summary Data
VCCP_VENTURA COUNTY - CA	Ventura County County Cleanup Program

OTHER ASCERTAINABLE RECORDS *(cont.)*

WDR - CA	Waste Discharge Requirement Sites
WDS - CA	Waste Discharge System
WILDLANDS - CA	Preserves List
WIP - CA	Well Investigation Program

SUBJECT NAME: Lassen Solar
ADDRESS: Lassen County, CA
LAT/LONG: 40.302808 / -120.179525

PREPARED FOR: AEI Consultants
ORDER #: 79531
REPORT DATE: October 21, 2022



- Subject Property
- CDC HAZDAT (No Data)
- Federal Lands
- Fire Hazard Zone
- NWI
- Equal/Higher Elevation
- Department of Defense
- FEMA FloodZone 100
- Historical DOD (No Data)
- Seismic
- Lower Elevation
- DFIRM Floodzone 100
- FEMA FloodZone 500 (No Data)
- Indian Reservation (No Data)
- Area Of Concern (No Data)
- DFIRM Floodzone 500 (No Data)
- Fire Areas
- National Priority List (No Data)

SUBJECT NAME: Lassen Solar
ADDRESS: Lassen County, CA
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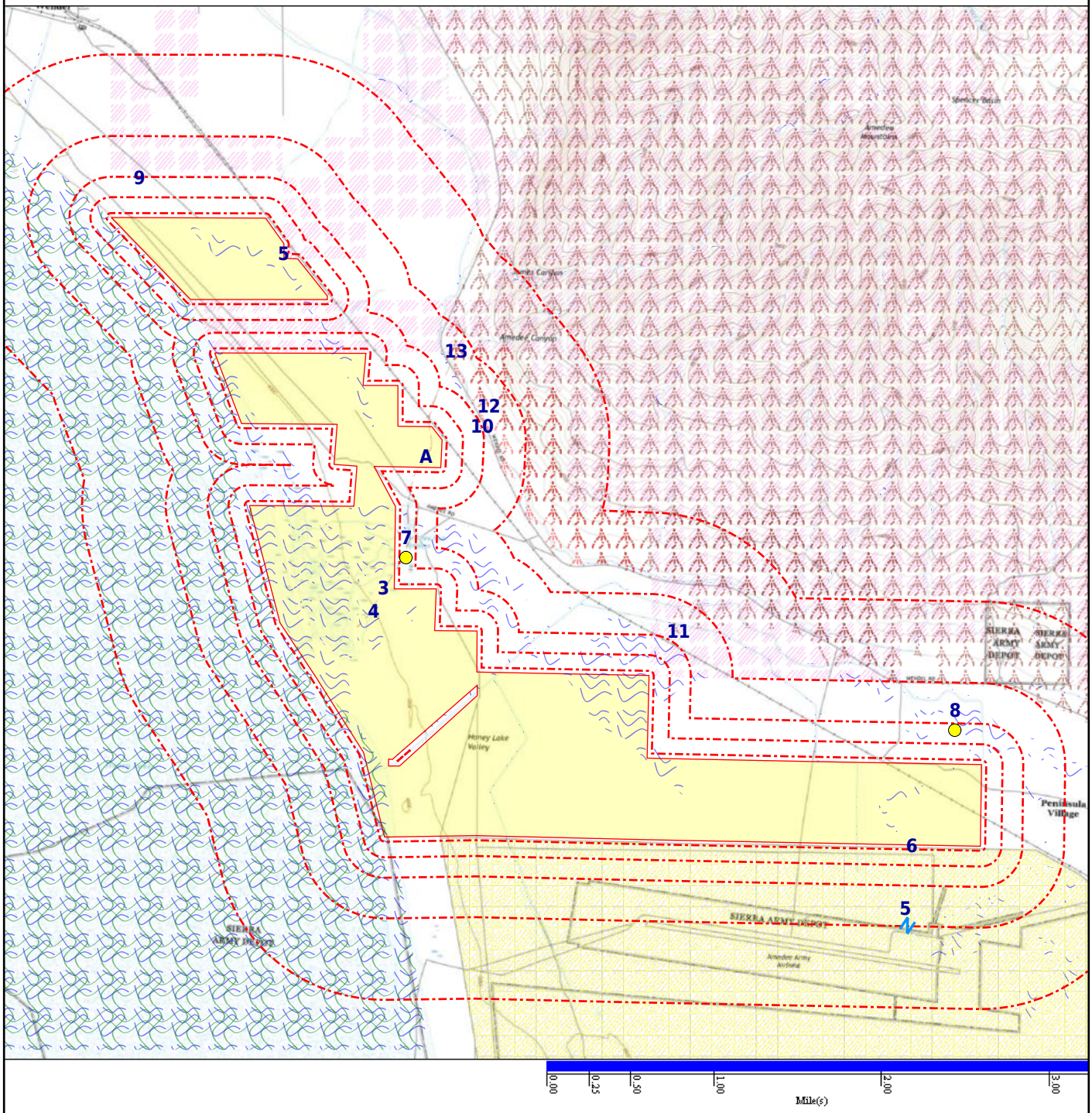

- Subject Property
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- Department of Defense
- FEMA FloodZone 100
- Historical DOD (No Data)
- Seismic
- Lower Elevation
- DFIRM Floodzone 100
- FEMA FloodZone 500 (No Data)
- Indian Reservation (No Data)
- Area Of Concern (No Data)
- DFIRM Floodzone 500 (No Data)
- Fire Areas
- National Priority List (No Data)

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	>1	TOTAL MAPPED
FEDERAL RCRA NON-CORRACTS TSD FACILITIES LIST								
ARCHIVED RCRA TSDF		0.500	0	0	0	--	--	0
RCRA_TSDF		0.500	0	0	0	--	--	0
FEDERAL, STATE, AND TRIBAL REGISTERED STORAGE TANK LISTS								
AST PBS		0.250	0	0	--	--	--	0
EPA UST		0.250	0	0	--	--	--	0
FEMA UST		0.250	0	0	--	--	--	0
HIST INDIAN UST R6		0.250	0	0	--	--	--	0
HIST INDIAN UST R7		0.250	0	0	--	--	--	0
INDIAN UST R1		0.250	0	0	--	--	--	0
INDIAN UST R10		0.250	0	0	--	--	--	0
INDIAN UST R2		0.250	0	0	--	--	--	0
INDIAN UST R4		0.250	0	0	--	--	--	0
INDIAN UST R5		0.250	0	0	--	--	--	0
INDIAN UST R6		0.250	0	0	--	--	--	0
INDIAN UST R7		0.250	0	0	--	--	--	0
INDIAN UST R8		0.250	0	0	--	--	--	0
INDIAN UST R9		0.250	0	0	--	--	--	0
AST - CA		0.250	0	0	--	--	--	0
AST_KERN COUNTY - CA		0.250	0	0	--	--	--	0
AST_ORANGE COUNTY - CA		0.250	0	0	--	--	--	0
AST_PLACER COUNTY - CA		0.250	0	0	--	--	--	0
AST_YOLO COUNTY - CA		0.250	0	0	--	--	--	0
CLOSED UST_VENTURA COUNTY - CA		0.250	0	0	--	--	--	0
FID UST - CA		0.250	0	0	--	--	--	0
HIST AST - CA		0.250	0	0	--	--	--	0
HIST UST - CA		0.250	0	0	--	--	--	0
HIST UST_EL SEGUNDO CITY - CA		0.250	0	0	--	--	--	0
HIST UST_KERN COUNTY - CA		0.250	0	0	--	--	--	0
HIST UST_SUTTER COUNTY - CA		0.250	0	0	--	--	--	0
TANKS_CONTRA COSTA COUNTY - CA		0.250	0	0	--	--	--	0
UST - CA		0.250	0	0	--	--	--	0
UST_ALAMEDA COUNTY - CA		0.250	0	0	--	--	--	0
UST_CITY OF LONG BEACH - CA		0.250	0	0	--	--	--	0
UST_CITY OF TORRANCE - CA		0.250	0	0	--	--	--	0
UST_EL SEGUNDO CITY - CA		0.250	0	0	--	--	--	0

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	>1	TOTAL MAPPED
FEDERAL, STATE, AND TRIBAL REGISTERED STORAGE TANK LISTS *(cont.)*								
UST_KERN COUNTY - CA		0.250	0	0	--	--	--	0
UST_MARIN COUNTY - CA		0.250	0	0	--	--	--	0
UST_MENDOCINO COUNTY - CA		0.250	0	0	--	--	--	0
UST_NAPA COUNTY - CA		0.250	0	0	--	--	--	0
UST_ORANGE COUNTY - CA		0.250	0	0	--	--	--	0
UST_PLACER COUNTY - CA		0.250	0	0	--	--	--	0
UST_RIVERSIDE COUNTY - CA		0.250	0	0	--	--	--	0
UST_SAN FRANCISCO COUNTY - CA		0.250	0	0	--	--	--	0
UST_SAN JOAQUIN COUNTY - CA		0.250	0	0	--	--	--	0
UST_SANTA CLARA COUNTY - CA		0.250	0	0	--	--	--	0
UST_SOLANO COUNTY - CA		0.250	0	0	--	--	--	0
UST_SUTTER COUNTY - CA		0.250	0	0	--	--	--	0
UST_YOLO COUNTY - CA		0.250	0	0	--	--	--	0
FEDERAL CERCLIS LIST								
CERCLIS NFRAP		0.500	0	0	0	--	--	0
CERCLIS-HIST		0.500	0	0	0	--	--	0
EPA SAA		0.500	0	0	0	--	--	0
FEDERAL FACILITY		1.000	0	0	0	0	--	0
SEMS_8R_ACTIVE SITES		0.500	0	0	0	--	--	0
SEMS_8R_ARCHIVED SITES		0.500	0	0	0	--	--	0
FEDERAL RCRA CORRACTS FACILITIES LIST								
CORRACTS		1.000	0	0	0	0	--	0
HIST CORRACTS 2		1.000	0	0	0	0	--	0
FEDERAL DELISTED NPL SITE LIST								
DELISTED NPL		1.000	0	0	0	0	--	0
DELISTED PROPOSED NPL		1.000	0	0	0	0	--	0
SEMS_DELETED NPL		1.000	0	0	0	0	--	0
FEDERAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS								
EPA LF MOP		0.500	0	0	0	--	--	0
FEDERAL, STATE, AND TRIBAL LEAKING STORAGE TANK LISTS								
EPA LUST		0.500	0	0	0	--	--	0
HIST INDIAN LUST R4		0.500	0	0	0	--	--	0
HIST INDIAN LUST R8		0.500	0	0	0	--	--	0

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	>1	TOTAL MAPPED
FEDERAL, STATE, AND TRIBAL LEAKING STORAGE TANK LISTS *(cont.)*								
INDIAN LUST R1		0.500	0	0	0	--	--	0
INDIAN LUST R10		0.500	0	0	0	--	--	0
INDIAN LUST R2		0.500	0	0	0	--	--	0
INDIAN LUST R4		0.500	0	0	0	--	--	0
INDIAN LUST R5		0.500	0	0	0	--	--	0
INDIAN LUST R6		0.500	0	0	0	--	--	0
INDIAN LUST R7		0.500	0	0	0	--	--	0
INDIAN LUST R8		0.500	0	0	0	--	--	0
INDIAN LUST R9		0.500	0	0	0	--	--	0
HIST LUST_SONOMA COUNTY - CA		0.500	0	0	0	--	--	0
LUFT_ALAMEDA COUNTY - CA		0.500	0	0	0	--	--	0
LUST ORANGE COUNTY - CA		0.500	0	0	0	--	--	0
LUST REG 1 - CA		0.500	0	0	0	--	--	0
LUST REG 2 - CA		0.500	0	0	0	--	--	0
LUST REG 3 - CA		0.500	0	0	0	--	--	0
LUST REG 4 - CA		0.500	0	0	0	--	--	0
LUST REG 5 - CA		0.500	0	0	0	--	--	0
LUST REG 6 - CA		0.500	0	0	0	--	--	0
LUST REG 7 - CA		0.500	0	0	0	--	--	0
LUST REG 8 - CA		0.500	0	0	0	--	--	0
LUST REG 9 - CA		0.500	0	0	0	--	--	0
LUST_HAZMAT_YOLO COUNTY - CA		0.500	0	0	0	--	--	0
LUST_KERN COUNTY - CA		0.500	0	0	0	--	--	0
LUST_RIVERSIDE COUNTY - CA		0.500	0	0	0	--	--	0
LUST_SAN FRANCISCO COUNTY - CA		0.500	0	0	0	--	--	0
LUST_SAN MATEO COUNTY - CA		0.500	0	0	0	--	--	0
LUST_SOLANO COUNTY - CA		0.500	0	0	0	--	--	0
LUST_SONOMA COUNTY - CA		0.500	0	0	0	--	--	0
LUST_SUTTER COUNTY - CA		0.500	0	0	0	--	--	0
LUST_VENTURA COUNTY - CA		0.500	0	0	0	--	--	0
SLIC REG 1 - CA		0.500	0	0	0	--	--	0
SLIC REG 2 - CA		0.500	0	0	0	--	--	0
SLIC REG 3 - CA		0.500	0	0	0	--	--	0
SLIC REG 4 - CA		0.500	0	0	0	--	--	0
SLIC REG 5 - CA		0.500	0	0	0	--	--	0

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	>1	TOTAL MAPPED
FEDERAL, STATE, AND TRIBAL LEAKING STORAGE TANK LISTS *(cont.)*								
SLIC REG 6 - CA		0.500	0	0	0	--	--	0
SLIC REG 7 - CA		0.500	0	0	0	--	--	0
SLIC REG 8 - CA		0.500	0	0	0	--	--	0
SLIC REG 9 - CA		0.500	0	0	0	--	--	0
SLIC_ALAMEDA COUNTY - CA		0.500	0	0	0	--	--	0
FEDERAL ERNS LIST								
ERNS		SP	0	--	--	--	--	0
FEDERAL INSTITUTIONAL CONTROLS / ENGINEERING CONTROLS REGISTRIES								
FED E C		0.500	0	0	0	--	--	0
FED I C		0.500	0	0	0	--	--	0
RCRA IC_EC		0.250	0	0	--	--	--	0
FEDERAL RCRA GENERATORS LIST								
HIST RCRA_CESQG		0.250	0	0	--	--	--	0
HIST RCRA_LQG		0.250	0	0	--	--	--	0
HIST RCRA_NONGEN		0.250	0	0	--	--	--	0
HIST RCRA_SQG		0.250	0	0	--	--	--	0
RCRA_LQG		0.250	0	0	--	--	--	0
RCRA_NONGEN		0.250	0	0	--	--	--	0
RCRA_SQG		0.250	0	0	--	--	--	0
RCRA_VSQG		0.250	0	0	--	--	--	0
FEDERAL NPL SITE LIST								
NPL		1.000	0	0	0	0	--	0
NPL EPA R1 GIS		1.000	0	0	0	0	--	0
NPL EPA R3 GIS		1.000	0	0	0	0	--	0
NPL EPA R6 GIS		1.000	0	0	0	0	--	0
NPL EPA R8 GIS		1.000	0	0	0	0	--	0
NPL EPA R9 GIS		1.000	0	0	0	0	--	0
PART NPL		1.000	0	0	0	0	--	0
PROPOSED NPL		1.000	0	0	0	0	--	0
SEMS_FINAL NPL		1.000	0	0	0	0	--	0
SEMS_PROPOSED NPL		1.000	0	0	0	0	--	0
STATE- AND TRIBAL - EQUIVALENT CERCLIS								
ENVIROSTOR - CA		1.000	0	0	0	0	--	0
HIST TOXIC PITS - CA		1.000	0	0	0	0	--	0

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	>1	TOTAL MAPPED
STATE- AND TRIBAL - EQUIVALENT CERCLIS *(cont.)*								
OIL & GAS CLEANUP - CA		0.500	0	0	0	--	--	0
SWRCB CLEANUP - CA		0.500	0	0	0	--	--	0
SWRCB NON_CASE - CA		0.500	0	0	0	--	--	0
TOXIC PITS - CA		1.000	0	0	0	0	--	0
STATE- AND TRIBAL - EQUIVALENT NPL								
HIST RESPONSE - CA		1.000	0	0	0	0	--	0
RESPONSE - CA		1.000	0	0	0	0	--	0
STATE AND TRIBAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS								
HIST SWF/LF - CA		0.500	0	0	0	--	--	0
SWF/LF - CA		0.500	0	0	0	--	--	0
STATE RCRA GENERATORS LIST								
HWG - CA		0.250	0	0	--	--	--	0
HWG_YOLO COUNTY - CA		0.250	0	0	--	--	--	0
STATE AND TRIBAL BROWNFIELD SITES								
TRIBAL BROWNFIELDS		0.500	0	0	0	--	--	0
STATE AND TRIBAL VOLUNTARY CLEANUP SITES								
VCP - CA		0.500	0	0	0	--	--	0
LOCAL BROWNFIELD LISTS								
BROWNFIELDS-ACRES		0.500	0	0	0	--	--	0
FED BROWNFIELDS		0.500	0	0	0	--	--	0
LOCAL LISTS OF HAZARDOUS WASTE / CONTAMINATED SITES								
FED CDL		SP	0	--	--	--	--	0
US HIST CDL		SP	0	--	--	--	--	0
CALARP_KERN COUNTY - CA		0.250	0	0	--	--	--	0
CASE LIST_SAN DIEGO COUNTY - CA		0.500	0	0	0	--	--	0
CDL - CA		SP	0	--	--	--	--	0
CORRECTIVE ACTION_RIVERSIDE COUNTY - CA		0.500	0	0	0	--	--	0
CS_NAPA COUNTY - CA		0.500	0	0	0	--	--	0
CS_PLACER COUNTY - CA		1.000	0	0	0	0	--	0
SCH - CA		0.250	0	0	--	--	--	0
SITE LIST_CONTRA COSTA COUNTY - CA		0.250	0	0	--	--	--	0

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	>1	TOTAL MAPPED
LOCAL LISTS OF HAZARDOUS WASTE / CONTAMINATED SITES *(cont.)*								
TOXIC SITE_SACRAMENTO COUNTY - CA		1.000	0	0	0	0	--	0
RECORDS OF EMERGENCY RELEASE REPORTS								
HMIRS (DOT)		SP	0	--	--	--	--	0
CHMIRS - CA		SP	0	--	--	--	--	0
HIST CHMIRS - CA		SP	0	--	--	--	--	0
INDUSTRIAL CLEANUP_ORANGE COUNTY - CA		0.125	0	--	--	--	--	0
SML_LOS ANGELES COUNTY - CA		0.125	0	--	--	--	--	0
LOCAL LAND RECORDS								
LIENS 2		SP	0	--	--	--	--	0
DEED - CA		0.500	0	0	0	--	--	0
HIST LIENS - CA		SP	0	--	--	--	--	0
LIENS - CA		SP	0	--	--	--	--	0
LOCAL LISTS OF LANDFILL / SOLID WASTE DISPOSAL SITES								
HIST INDIAN ODI R8		0.500	0	0	0	--	--	0
INDIAN ODI R8		0.500	0	0	0	--	--	0
ODI		0.500	0	0	0	--	--	0
TRIBAL ODI		0.500	0	0	0	--	--	0
HAULERS - CA		0.500	0	0	0	--	--	0
LF_SAN DIEGO COUNTY - CA		0.500	0	0	0	--	--	0
SWF_LOS ANGELES COUNTY - CA		0.500	0	0	0	--	--	0
SWRCY - CA		0.500	0	0	0	--	--	0
OTHER ASCERTAINABLE RECORDS								
AFS		SP	0	--	--	--	--	0
ALT FUELING		0.250	0	0	--	--	--	0
ARENAS		SP	0	--	--	--	--	0
ARENAS 2		SP	0	--	--	--	--	0
BRS		SP	0	--	--	--	--	0
CDC HAZDAT		1.000	0	0	0	0	--	0
CHURCHES		SP	0	--	--	--	--	0
COAL ASH DOE		0.500	0	0	0	--	--	0
COAL ASH EPA		0.500	0	0	0	--	--	0
COAL GAS		1.000	0	0	0	0	--	0
COLLEGES		SP	0	--	--	--	--	0

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	>1	TOTAL MAPPED
OTHER ASCERTAINABLE RECORDS *(cont.)*								
COLLEGES 2		SP	0	--	--	--	--	0
CONSENT (DECREES)		1.000	0	0	0	0	--	0
CORRECTIVE ACTIONS_2020		0.500	0	0	0	--	--	0
DAYCARE		SP	0	--	--	--	--	0
DEBRIS EPA LF		0.500	0	0	0	--	--	0
DEBRIS EPA SWRCY		0.500	0	0	0	--	--	0
DOD		1.000	1	0	0	0	--	1
DOT OPS		SP	0	--	--	--	--	0
ECHO		SP	0	--	--	--	--	0
ENOI		SP	0	--	--	--	--	0
EPA FUELS		SP	0	--	--	--	--	0
EPA OSC		0.125	0	--	--	--	--	0
EPA WATCH		SP	0	--	--	--	--	0
FA HWF		SP	0	--	--	--	--	0
FEDLAND	X	1.000	0	1	0	0	--	2
FRS		SP	0	--	--	--	--	0
FTTS		SP	0	--	--	--	--	0
FTTS INSP		SP	0	--	--	--	--	0
FUDS		1.000	0	0	0	0	--	0
GOV MANSIONS		SP	0	--	--	--	--	0
HIST AFS		SP	0	--	--	--	--	0
HIST AFS 2		SP	0	--	--	--	--	0
HIST DOD		1.000	0	0	0	0	--	0
HIST LEAD_SMELTER		SP	0	--	--	--	--	0
HIST MLTS		SP	0	--	--	--	--	0
HIST PCB TRANS		SP	0	--	--	--	--	0
HIST PCS ENF		SP	0	--	--	--	--	0
HIST PCS FACILITY		SP	0	--	--	--	--	0
HIST SSTS		SP	0	--	--	--	--	0
HOSPITALS		SP	0	--	--	--	--	0
HWC DOCKET		SP	0	--	--	--	--	0
ICIS		SP	0	--	--	--	--	0
INACTIVE PCS		SP	0	--	--	--	--	0
INDIAN RESERVATION		1.000	0	0	0	0	--	0
LUCIS		0.500	0	0	0	--	--	0
LUCIS 2		0.500	0	0	0	--	--	0

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	>1	TOTAL MAPPED
OTHER ASCERTAINABLE RECORDS *(cont.)*								
MANIFEST EPA		0.250	0	0	--	--	--	0
MINE OPERATIONS		0.250	0	0	--	--	--	0
MINES		0.250	0	0	--	--	--	0
MINES USGS		0.250	0	1	--	--	--	1
MLTS		SP	0	--	--	--	--	0
NPL AOC		1.000	0	0	0	0	--	0
NPL LIENS		SP	0	--	--	--	--	0
NURSING HOMES		SP	0	--	--	--	--	0
OSHA		SP	0	--	--	--	--	0
PADS		SP	0	--	--	--	--	0
PCB TRANSFORMER		SP	0	--	--	--	--	0
PCS ENF		SP	0	--	--	--	--	0
PCS FACILITY		SP	0	--	--	--	--	0
PFAS NPL		0.500	0	0	0	--	--	0
PFAS TRIS		0.500	0	0	0	--	--	0
PFAS UCMR3		0.500	0	0	0	--	--	0
PRISONS		SP	0	--	--	--	--	0
RAATS		SP	0	--	--	--	--	0
RADINFO		SP	0	--	--	--	--	0
RMP		0.250	0	0	--	--	--	0
ROD		1.000	0	0	0	0	--	0
SCHOOLS PRIVATE		SP	0	--	--	--	--	0
SCHOOLS PUBLIC		SP	0	--	--	--	--	0
SCRD DRYCLEANERS		0.250	0	0	--	--	--	0
SEMS_SMELTER		SP	0	--	--	--	--	0
SSTS		SP	0	--	--	--	--	0
STORMWATER		SP	0	--	--	--	--	0
TOSCA-PLANT		SP	0	--	--	--	--	0
TRIS		SP	0	--	--	--	--	0
UMTRA		0.500	0	0	0	--	--	0
VAPOR		0.500	0	0	0	--	--	0
AOC_SAN GABRIEL VALLEY - CA		1.000	0	0	0	0	--	0
BOND EXPENDITURE PLAN - CA		1.000	0	0	0	0	--	0
BP HW OUT_VENTURA COUNTY - CA		0.250	0	0	--	--	--	0
BUSINESS INVENTORY_SAN MATEO COUNTY - CA		0.250	0	0	--	--	--	0

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	>1	TOTAL MAPPED
OTHER ASCERTAINABLE RECORDS *(cont.)*								
CALEPA SITES - CA		0.250	1	0	--	--	--	1
CIWQS - CA		SP	0	--	--	--	--	0
CIWQS 2 - CA		SP	0	--	--	--	--	0
CORTESE - CA		0.500	0	0	0	--	--	0
CUPA_BUTTE COUNTY - CA		0.250	0	0	--	--	--	0
CUPA_FRESNO COUNTY - CA		0.250	0	0	--	--	--	0
CUPA_PLACER COUNTY - CA		0.250	0	0	--	--	--	0
DAYCARE - CA		SP	0	--	--	--	--	0
DRYCLEANERS - CA		0.250	0	0	--	--	--	0
DRYCLEANERS_AMADOR COUNTY - CA		0.250	0	0	--	--	--	0
DRYCLEANERS_ANTELOPE VALLEY - CA		0.250	0	0	--	--	--	0
DRYCLEANERS_BAY AREA - CA		0.250	0	0	--	--	--	0
DRYCLEANERS_BUTTE COUNTY - CA		0.250	0	0	--	--	--	0
DRYCLEANERS_CALAVERAS COUNTY - CA		0.250	0	0	--	--	--	0
DRYCLEANERS_COLUSA COUNTY - CA		0.250	0	0	--	--	--	0
DRYCLEANERS_EASTERN KERN COUNTY - CA		0.250	0	0	--	--	--	0
DRYCLEANERS_EL DORADO COUNTY - CA		0.250	0	0	--	--	--	0
DRYCLEANERS_FEATHER RIVER - CA		0.250	0	0	--	--	--	0
DRYCLEANERS_GLENN COUNTY - CA		0.250	0	0	--	--	--	0
DRYCLEANERS_GREAT BASIN UNIFIED - CA		0.250	0	0	--	--	--	0
DRYCLEANERS_IMPERIAL COUNTY - CA		0.250	0	0	--	--	--	0
DRYCLEANERS_LAKE COUNTY - CA		0.250	0	0	--	--	--	0
DRYCLEANERS_LASSEN COUNTY - CA		0.250	0	0	--	--	--	0
DRYCLEANERS_MENDOCINO COUNTY - CA		0.250	0	0	--	--	--	0
DRYCLEANERS_MOJAVE DESERT - CA		0.250	0	0	--	--	--	0
DRYCLEANERS_MONTEREY BAY - CA		0.250	0	0	--	--	--	0

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	>1	TOTAL MAPPED
OTHER ASCERTAINABLE RECORDS *(cont.)*								
DRYCLEANERS_NORTH COAST UNIFIED - CA		0.250	0	0	--	--	--	0
DRYCLEANERS_NORTHERN SIERRA - CA		0.250	0	0	--	--	--	0
DRYCLEANERS_NORTHERN SONOMA COUNTY - CA		0.250	0	0	--	--	--	0
DRYCLEANERS_PLACER COUNTY - CA		0.250	0	0	--	--	--	0
DRYCLEANERS_SACRAMENTO COUNTY - CA		0.250	0	0	--	--	--	0
DRYCLEANERS_SAN DIEGO COUNTY - CA		0.250	0	0	--	--	--	0
DRYCLEANERS_SAN JOAQUIN VALLEY - CA		0.250	0	0	--	--	--	0
DRYCLEANERS_SAN LUIS OBISPO - CA		0.250	0	0	--	--	--	0
DRYCLEANERS_SANTA BARBARA COUNTY - CA		0.250	0	0	--	--	--	0
DRYCLEANERS_SHASTA COUNTY - CA		0.250	0	0	--	--	--	0
DRYCLEANERS_SISKIYOU COUNTY - CA		0.250	0	0	--	--	--	0
DRYCLEANERS_SOUTH COAST - CA		0.250	0	0	--	--	--	0
DRYCLEANERS_TEHAMA COUNTY - CA		0.250	0	0	--	--	--	0
DRYCLEANERS_TUOLUMNE COUNTY - CA		0.250	0	0	--	--	--	0
DRYCLEANERS_VENTURA COUNTY - CA		0.250	0	0	--	--	--	0
DRYCLEANERS_YOLO-SOLANO COUNTIES - CA		0.250	0	0	--	--	--	0
EMI - CA		SP	0	--	--	--	--	0
FA - CA		SP	0	--	--	--	--	0
FA 2 - CA		SP	0	--	--	--	--	0
FIRE AREAS - CA		1.000	0	0	2	0	--	2
GCC_SANTA CLARA VALLEY - CA		0.500	0	0	0	--	--	0
HAZMAT INCIDENT_CONTRA COSTA COUNTY - CA		0.250	0	0	--	--	--	0
HAZMAT_CITY OF SAN JOSE - CA		0.250	0	0	--	--	--	0
HAZMAT_SACRAMENTO COUNTY - CA		0.250	0	0	--	--	--	0
HAZMAT_SAN BERNARDINO COUNTY - CA		0.250	0	0	--	--	--	0

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	>1	TOTAL MAPPED
OTHER ASCERTAINABLE RECORDS *(cont.)*								
HAZMAT_SAN DIEGO COUNTY - CA		0.250	0	0	--	--	--	0
HAZMAT_SANTA CLARA COUNTY - CA		0.250	0	0	--	--	--	0
HAZNET - CA		0.250	0	0	--	--	--	0
HAZWASTE_ORANGE COUNTY - CA		0.500	0	0	0	--	--	0
HIGH FIRE - CA		1.000	0	0	1	0	--	1
HIST CORTESE - CA		0.500	0	0	0	--	--	0
HIST HAZNET - CA		0.250	0	0	--	--	--	0
HIST HMS_LOS ANGELES COUNTY - CA		0.250	0	0	--	--	--	0
HIST HWP - CA		1.000	0	0	0	0	--	0
HIST LDS - CA		0.500	0	0	0	--	--	0
HIST MCS - CA		1.000	0	0	0	0	--	0
HIST NFA - CA		0.500	0	0	0	--	--	0
HIST SOLVENTS_SANTA CLARA CO - CA		0.250	0	0	--	--	--	0
HMS_LOS ANGELES COUNTY - CA		0.250	0	0	--	--	--	0
HWM COMMERCIAL FACILITIES - CA		0.250	0	0	--	--	--	0
HWP - CA		1.000	0	0	0	0	--	0
HWT - CA		0.250	0	0	--	--	--	0
LDS - CA		0.500	0	0	0	--	--	0
LOP_SANTA CLARA COUNTY - CA		0.500	0	0	0	--	--	0
MCS - CA		1.000	0	0	0	0	--	0
MWMP - CA		0.250	0	0	--	--	--	0
MWMP 2 - CA		0.250	0	0	--	--	--	0
NFA - CA		0.500	0	0	0	--	--	0
NFE - CA		0.500	0	0	0	--	--	0
NPDES - CA		SP	0	--	--	--	--	0
PERCHLORATE 2 - CA		0.500	0	0	0	--	--	0
PFAS - CA		0.500	0	0	0	--	--	0
PFAS DOD - CA		0.500	0	0	0	--	--	0
PFAS GAMA - CA		0.500	0	0	0	--	--	0
PROPOSITION 65 - CA		1.000	0	0	0	0	--	0
RFR - CA		SP	0	--	--	--	--	0
SITES INVENTORY_VENTURA COUNTY - CA		1.000	0	0	0	0	--	0

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	>1	TOTAL MAPPED
OTHER ASCERTAINABLE RECORDS *(cont.)*								
SMU_SANTA BARBARA COUNTY - CA		1.000	0	0	0	0	--	0
SWAT - CA		SP	0	--	--	--	--	0
VCCP_VENTURA COUNTY - CA		0.500	0	0	0	--	--	0
WDR - CA		SP	0	--	--	--	--	0
WDS - CA		SP	0	--	--	--	--	0
WILDLANDS - CA		1.000	0	0	0	0	--	0
WIP - CA		0.250	0	0	--	--	--	0
OTHER								
SEISMIC - CA	X	1.000	0	0	1	0	--	5

Map Id: A1
Direction:
Distance:
Elevation:
Relative:

Site Name : Amedee fault
40.309794, -120.192929
CA

Database(s) : [SEISMIC - CA]

Envirosite ID: 31158387
EPA ID: N/R

SEISMIC - CA

Fault ID :	423
Fault Age :	HOL
Fault Source :	Bryant, et al (1993)
Zone Name :	Amedee fault
Line Type :	solid
Line Value :	1
JEN ID :	513
Section Number :	N/R
Section Name :	N/R
Date :	N/R
Rule ID :	7
Shape Length :	1055.11738608

Map Id: A2
Direction:
Distance:
Elevation:
Relative:

Site Name : Amedee fault
40.303225, -120.195143
CA

Database(s) : [SEISMIC - CA]

Envirosite ID: 31158109
EPA ID: N/R

SEISMIC - CA

Fault ID :	423
Fault Age :	HIS
Fault Source :	Bryant, et al (1993)
Zone Name :	Amedee fault
Line Type :	solid
Line Value :	1
JEN ID :	513
Section Number :	N/R
Section Name :	N/R
Date :	N/R
Rule ID :	47
Shape Length :	773.969980852

Map Id: 3
Direction:
Distance:
Elevation:
Relative:

Site Name : Amedee fault
40.296242, -120.199117
CA

Database(s) : [SEISMIC - CA]

Envirosite ID: 31159060
EPA ID: N/R

SEISMIC - CA

Fault ID :	423
Fault Age :	HIS
Fault Source :	Bryant, et al (1993)

Map Id: 3
Direction:
Distance:
Elevation:
Relative:

Site Name : Amedee fault
40.296242, -120.199117
CA

Database(s) : [SEISMIC - CA] ***(cont.)***

Envirosite ID: 31159060
EPA ID: N/R

SEISMIC - CA ***(cont.)***

Zone Name :	Amedee fault
Line Type :	solid
Line Value :	1
JEN ID :	513
Section Number :	N/R
Section Name :	N/R
Date :	N/R
Rule ID :	7
Shape Length :	866.505413958

Map Id: 4
Direction:
Distance:
Elevation:
Relative:

Site Name : Amedee fault
40.294388, -120.200912
CA

Database(s) : [SEISMIC - CA]

Envirosite ID: 31159061
EPA ID: N/R

SEISMIC - CA

Fault ID :	423
Fault Age :	HIS
Fault Source :	Bryant, et al (1993)
Zone Name :	Amedee fault
Line Type :	solid
Line Value :	1
JEN ID :	513
Section Number :	N/R
Section Name :	N/R
Date :	N/R
Rule ID :	7
Shape Length :	257.805789819

Map Id: 5
Direction:
Distance:
Elevation:
Relative:

Site Name : Eagle Lake Field Office
40.559529, -120.047282
CA

Database(s) : [FEDLAND]

Envirosite ID: 50091031
EPA ID: N/R

FEDLAND

Facility Name :	Eagle Lake Field Office
Facility Address :	CA
Source Date :	2021-06-11
Category :	Fee

Map Id: 5
Direction:
Distance:
Elevation:
Relative:

Site Name : Eagle Lake Field Office
40.559529, -120.047282
CA

Database(s) : [FEDLAND] ***(cont.)***

Envirosite ID: 50091031
EPA ID: N/R

FEDLAND ***(cont.)***

Loc Name :	Eagle Lake Field Office
Owner Name :	BLM
Local Owner :	N/R
Owner Type :	FED
Manager Type :	FED
Manager Name :	BLM
Local Manager :	BLM
Designation Type :	PUB
Local Designation :	N/R
GIS Acres :	699767
Source Protected Area ID :	N/R
WDPA Site :	0
Public Access :	OA
Access Source :	GAP - Default
GAP Status Date :	2021
GAP Status :	3
GAP Status Source :	GAP - Default
IUCN Category Date :	2021
IUCN Category :	Other Conservation Area
IUCN Category Source :	GAP - Default
Date of Establishment :	N/R
Access Date :	2021
Easement Holder :	N/R
Easement Holder Type :	N/R
Comments :	N/R
Last Date in Agency List :	2022-08-02

Map Id: 6
Direction: SE
Distance: 0.009 mi., 50 ft.
Elevation: N/R
Relative: N/R

Site Name : Sierra Army Depot
40.152047, -120.076734
CA

Database(s) : [DOD]

Envirosite ID: 50099800
EPA ID: N/R

DOD

Facility Name :	Sierra Army Depot
Facility Address :	CA
Source Date :	2021-01-07
Category :	Proclamation
Unit Name :	Sierra Army Depot
Owner Name :	Designation
Local Owner :	N/R
Owner Type :	Designation
Manager Type :	Federal
Manager Name :	Department of Defense
Local Manager :	Army Active
Designation Type :	Military Land
Local Designation :	N/R
GIS Acres :	29910

Map Id: 6
Direction: SE
Distance: 0.009 mi., 50 ft.
Elevation: N/R
Relative: N/R

Site Name : Sierra Army Depot
40.152047, -120.076734
CA

Database(s) : [DOD] ***(cont.)***

Envirosite ID: 50099800
EPA ID: N/R

DOD ***(cont.)***

Source Protected Area ID :	N/R
WDPA Site :	0
Public Access :	N/R
Public Access Source :	GAP - Default
GAP Status Date :	2021
GAP Status :	4 - no known mandate for biodiversity protection
GAP Status Source :	GAP - Default
IUCN Category Date :	2021
IUCN Category :	Unassigned
IUCN Category Source :	GAP - Default
Date of Establishment :	N/R
Public Access Date :	2021
Area Rptd :	N/R
Conflict :	N/R
Duration :	N/R
Security :	N/R
Easement Holder :	N/R
Easement Holder Type :	N/R
Stacked :	N/R
Co Held :	N/R
Term :	N/R
Prot Lvl :	N/R
Pri Con Fo :	N/R
Permanence :	N/R
NS Full :	N/R
Management Plan :	N/R
Fish Rstr :	N/R
Prot Foc :	N/R
Constancy :	N/R
Vessel :	N/R
Anchor :	N/R
Comments :	N/R
Last Date in Agency List :	2022-08-03

Map Id: 7
Direction: W
Distance: 0.068 mi., 362 ft.
Elevation: 4006 ft.
Relative: Lower

Site Name : AMEDEE GEOTHERMAL POWER PLANT
AMEDEE HOT SPRINGS
SUSANVILLE | Susanville, CA 96130

Database(s) : [CALEPA SITES - CA, CIWQS - CA, CIWQS 2 - CA, FRS, NPDES - CA, RFR - CA]

Envirosite ID: 250395
EPA ID: N/R

CALEPA SITES - CA

Facility Name :	AMEDEE GEOTHERMAL POWER PLANT
Facility Address :	AMEDEE HOT SPRINGS, SUSANVILLE, 96130
Site ID :	348618
EI ID :	205435
EI Description :	NPDES Wastewater and Stormwater

Map Id: 7
Direction: W
Distance: 0.068 mi., 362 ft.
Elevation: 4006 ft.
Relative: Lower

Site Name : AMEDEE GEOTHERMAL POWER PLANT
AMEDEE HOT SPRINGS
SUSANVILLE | Susanville, CA 96130

Database(s) : [CALEPA SITES - CA, CIWQS - CA, CIWQS 2 - CA, FRS, NPDES - CA, RFR - CA] ***(cont.)***

Envirosite ID: 250395
EPA ID: N/R

CALEPA SITES - CA ***(cont.)***

Latitude :	40.300569
Longitude :	-120.195392
Agency Hyperlink :	Click here for hyperlink provided by the agency.
Last Date in Agency List :	2022-09-27

CIWQS - CA

Facility Name :	AMEDEE GEOTHERMAL POWER PLANT
Facility Address :	AMEDEE HOT SPRINGS, SUSANVILLE, CA 96130
County :	LASSEN
Place ID :	205435
Agency Name :	AMEDEE GEOTHERMAL VENTURE I
Last Date in Agency List :	2022-09-20

CIWQS 2 - CA

Facility Name :	Amedee Geothermal Power Plant
Facility Address :	Amedee Hot Springs, Susanville, 96130
County :	Lassen
Facility ID :	205435
WDID :	N/R
Facility Type :	Industrial
Region :	6A
Place Type :	Utility
Place Subtype :	Power Plant
Ageny Name :	N/R
Agency Type :	N/R
Number of Agencies :	N/R
Status Date :	N/R
Status :	N/R
Status Enrollee :	N/R
Individual/General :	N/R
Fee Code :	N/R
Staff Assigned :	N/R
Number of Staff Assigned :	N/R
Supervisor :	N/R
Number of Supervisor :	N/R
Number of Amendments :	0
Number of Reg Measures :	N/R
Baseline Flow :	N/R
Population (MS4)/Acres :	N/R
Reclamation :	N/R
CAFO Type :	N/R
CAFO Subtype :	N/R
CAFO Population :	N/R
Onsite :	N/R
Quality Assurance :	N/R
RCRA Flag :	N
Total MMP Violations Number :	0
Total Number of Violations :	1
Total Number of Inspections :	0

Map Id: 7
Direction: W
Distance: 0.068 mi., 362 ft.
Elevation: 4006 ft.
Relative: Lower

Site Name : AMEDEE GEOTHERMAL POWER PLANT
AMEDEE HOT SPRINGS
SUSANVILLE | Susanville, CA 96130

Database(s) : [CALEPA SITES - CA, CIWQS - CA, CIWQS 2 - CA, FRS, NPDES - CA, RFR - CA] ***(cont.)***

Envirosite ID: 250395
EPA ID: N/R

CIWQS 2 - CA ***(cont.)***

Date of Most Recent Completed Inspection:	N/R
Date of Most Recent Received Report :	N/R
Total Number of Final (A+H) Enforcement Actions:	1
Most Recent Effective Date of Enf Action (A+H):	2017-10-10
Program :	NPDMINING
Program Category :	NPDESWW
Number of Programs :	N/R
Complexity :	N/R
Pretreatment :	N/R
Facility Waste Type :	N/R
Reg Measure ID :	N/R
Reg Measure Type :	N/R
Reg Measure Title :	N/R
Reg Measure Description :	N/R
SIC 1 :	1781 - Water Well Drilling
SIC 2 :	-
SIC 3 :	-
Latitude :	40.3
Longitude :	-120.2
Last Date in Agency List :	2022-07-13

Facility ID :	205435
WDID :	N/R
Facility Type :	Industrial
Region :	6A
Place Type :	Utility
Place Subtype :	Power Plant
Ageny Name :	N/R
Agency Type :	N/R
Number of Agencies :	N/R
Status Date :	N/R
Status :	N/R
Status Enrollee :	N/R
Individual/General :	N/R
Fee Code :	N/R
Staff Assigned :	N/R
Number of Staff Assigned :	N/R
Supervisor :	N/R
Number of Supervisor :	N/R
Number of Amendments :	0
Number of Reg Measures :	N/R
Baseline Flow :	N/R
Population (MS4)/Acres :	N/R
Reclamation :	N/R
CAFO Type :	N/R
CAFO Subtype :	N/R
CAFO Population :	N/R
Onsite :	N/R
Quality Assurance :	N/R
RCRA Flag :	N
Total MMP Violations Number :	0

Map Id: 7
Direction: W
Distance: 0.068 mi., 362 ft.
Elevation: 4006 ft.
Relative: Lower

Site Name : AMEDEE GEOTHERMAL POWER PLANT
AMEDEE HOT SPRINGS
SUSANVILLE | Susanville, CA 96130

Database(s) : [CALEPA SITES - CA, CIWQS - CA, CIWQS 2 - CA, FRS, NPDES - CA, RFR - CA] ***(cont.)***

Envirosite ID: 250395
EPA ID: N/R

CIWQS 2 - CA ***(cont.)***

Total Number of Violations :	1
Total Number of Inspections :	0
Date of Most Recent Completed Inspection:	N/R
Date of Most Recent Received Report :	N/R
Total Number of Final (A+H) Enforcement Actions:	1
Most Recent Effective Date of Enf Action (A+H):	2016-08-16
Program :	NPDINDSML
Program Category :	NPDESWW
Number of Programs :	N/R
Complexity :	N/R
Pretreatment :	N/R
Facility Waste Type :	N/R
Reg Measure ID :	N/R
Reg Measure Type :	N/R
Reg Measure Title :	N/R
Reg Measure Description :	N/R
SIC 1 :	1781 - Water Well Drilling
SIC 2 :	-
SIC 3 :	-
Latitude :	40.3
Longitude :	-120.2
Last Date in Agency List :	2022-07-13

Facility ID :	205435
WDID :	6A188410000
Facility Type :	Industrial
Region :	6A
Place Type :	Utility
Place Subtype :	Power Plant
Ageny Name :	Amedee Geothermal Venture I
Agency Type :	Privately-Owned Business
Number of Agencies :	1
Status Date :	2014-07-30
Status :	Historical
Status Enrollee :	N
Individual/General :	I
Fee Code :	60 - Minimal or no treatment to meet limits Category 3
Staff Assigned :	N/R
Number of Staff Assigned :	N/R
Supervisor :	N/R
Number of Supervisor :	N/R
Number of Amendments :	0
Number of Reg Measures :	1
Baseline Flow :	5.6
Population (MS4)/Acres :	N/R
Reclamation :	N - No
CAFO Type :	N/R
CAFO Subtype :	N/R
CAFO Population :	N/R
Onsite :	N/R
Quality Assurance :	N/R

Map Id: 7
Direction: W
Distance: 0.068 mi., 362 ft.
Elevation: 4006 ft.
Relative: Lower

Site Name : AMEDEE GEOTHERMAL POWER PLANT
AMEDEE HOT SPRINGS
SUSANVILLE | Susanville, CA 96130

Database(s) : [CALEPA SITES - CA, CIWQS - CA, CIWQS 2 - CA, FRS, NPDES - CA, RFR - CA] ***(cont.)***

Envirosite ID: 250395
EPA ID: N/R

CIWQS 2 - CA ***(cont.)***

RCRA Flag :	N
Total MMP Violations Number :	0
Total Number of Violations :	5
Total Number of Inspections :	3
Date of Most Recent Completed Inspection:	2014-01-29
Date of Most Recent Received Report :	2011-06-29
Total Number of Final (A+H) Enforcement Actions:	0
Most Recent Effective Date of Enf Action (A+H):	N/R
Program :	NPDMUNILRG
Program Category :	NPDESWW
Number of Programs :	1
Complexity :	C
Pretreatment :	N - POTW does not have EPA approved pretreatment prog.
Facility Waste Type :	Process waste, NEC
Reg Measure ID :	361770
Reg Measure Type :	NPDES Permits
Reg Measure Title :	NPDES R6T-2009-0007AMEDEE GEOTHERMAL VENTURE I
Reg Measure Description :	N/R
SIC 1 :	1781 - Water Well Drilling
SIC 2 :	-
SIC 3 :	-
Latitude :	40.3
Longitude :	-120.2
Last Date in Agency List :	2022-07-13

Facility ID :	205435
WDID :	6A188410000
Facility Type :	Industrial
Region :	6A
Place Type :	Utility
Place Subtype :	Power Plant
Ageny Name :	Amedee Geothermal Venture I
Agency Type :	Privately-Owned Business
Number of Agencies :	1
Status Date :	2014-07-30
Status :	Active
Status Enrollee :	N
Individual/General :	I
Fee Code :	60 - Minimal or no treatment to meet limits Category 3
Staff Assigned :	N/R
Number of Staff Assigned :	N/R
Supervisor :	N/R
Number of Supervisor :	N/R
Number of Amendments :	0
Number of Reg Measures :	6
Baseline Flow :	5.6
Population (MS4)/Acres :	N/R
Reclamation :	N - No
CAFO Type :	N/R
CAFO Subtype :	N/R
CAFO Population :	N/R

Map Id: 7
Direction: W
Distance: 0.068 mi., 362 ft.
Elevation: 4006 ft.
Relative: Lower

Site Name : AMEDEE GEOTHERMAL POWER PLANT
AMEDEE HOT SPRINGS
SUSANVILLE | Susanville, CA 96130

Database(s) : [CALEPA SITES - CA, CIWQS - CA, CIWQS 2 - CA, FRS, NPDES - CA, RFR - CA] ***(cont.)***

Envirosite ID: 250395
EPA ID: N/R

CIWQS 2 - CA ***(cont.)***

Onsite :	N/R
Quality Assurance :	N/R
RCRA Flag :	N
Total MMP Violations Number :	0
Total Number of Violations :	6
Total Number of Inspections :	13
Date of Most Recent Completed Inspection:	2021-05-26
Date of Most Recent Received Report :	2022-06-08
Total Number of Final (A+H) Enforcement Actions:	4
Most Recent Effective Date of Enf Action (A+H):	2008-07-28
Program :	NPDESWW
Program Category :	NPDESWW
Number of Programs :	1
Complexity :	C
Pretreatment :	N - POTW does not have EPA approved pretreatment prog.
Facility Waste Type :	Process waste, NEC
Reg Measure ID :	392803
Reg Measure Type :	NPDES Permits
Reg Measure Title :	NPDES R6T-2014-0060 Amedee Geothermal Venture I
Reg Measure Description :	N/R
SIC 1 :	1781 - Water Well Drilling
SIC 2 :	-
SIC 3 :	-
Latitude :	40.3
Longitude :	-120.2
Last Date in Agency List :	2022-07-13

FRS

Facility Name :	AMEDEE GEOTHERMAL POWER PLANT
Facility Address :	AMEDEE HOT SPRINGS, SUSANVILLE, CA 96130
County :	LASSEN

Site Details

Registry ID :	110065817708
FRS Facility URL :	Click here for hyperlink provided by the agency.
Last Date in Agency List :	2022-08-10

Source Description

Source Description :

The California Environmental Protection Agency (CalEPA) has recently implemented a new data warehouse system (nSite). This data warehouse combines and merges facility and site information from five different systems managed within CalEPA. The five systems are: California Environmental Reporting System (CERS), EnviroStor, GeoTracker, California Integrated Water Quality System (CIWQS), and Toxic Release Inventory (TRI).

Map Id: 7
Direction: W
Distance: 0.068 mi., 362 ft.
Elevation: 4006 ft.
Relative: Lower

Site Name : AMEDEE GEOTHERMAL POWER PLANT
AMEDEE HOT SPRINGS
SUSANVILLE | Susanville, CA 96130

Database(s) : [CALEPA SITES - CA, CIWQS - CA, CIWQS 2 - CA, FRS, NPDES - CA, RFR - CA] ***(cont.)***

Envirosite ID: 250395
EPA ID: N/R

FRS ***(cont.)***

FRS Environmental Interest

Source and System ID :	CA-ENVIROVIEW - 348618

NPDES - CA

Facility Name :	Amedee Geothermal Power Plant
Facility Address :	Amedee Hot Springs, Susanville, 96130
County :	Lassen
Effective Date :	2014-07-16
Adoption Date :	2014-07-16
Expiration Date :	2019-07-16
Termination Date :	N/R
Order Number :	R6T-2014-0060
NPDES Number :	CA0103055
WDID :	6A188410000
RM Status :	Active
Reg Meas ID :	392803
Reg Meas Type :	NPDES Permits
Program :	NPDESWW
Facility Place ID :	205435
Region Code :	6A
Discharger ID :	1494
Discharger :	Amedee Geothermal Venture I
Discharger Address :	Po Box 12219, Zephyr Cove, NV 89448
Last Date in Agency List :	2022-08-12

RFR - CA

Facility Name :	Amedee Geothermal Power Plant
Facility Address :	Amedee Hot Springs, Susanville, CA 96130
County :	Lassen
Effective Date :	2014-07-16
Adoption Date :	2014-07-16
Termination Date :	N/R
Expiration/Review Date :	2019-07-16
NPDES Number :	CA0103055
Order Number :	R6T-2014-0060
WDID :	6A188410000
SIC/NAICS :	1781
Program :	NPDESWW, NPDMUNILRG
Regulatory Measure Status :	Active
Regulatory Measure Type :	NPDES Permit
Place/Project Type :	Power Plant
Region :	6T
Design Flow :	5.6
Major/Minor :	Minor
Complexity :	C
TTWQ :	2
Number of Enforcement Actions within Five Years:	1
Number of Violations within Five Years:	1

Map Id: 7
Direction: W
Distance: 0.068 mi., 362 ft.
Elevation: 4006 ft.
Relative: Lower

Site Name : AMEDEE GEOTHERMAL POWER PLANT
AMEDEE HOT SPRINGS
SUSANVILLE | Susanville, CA 96130

Database(s) : [CALEPA SITES - CA, CIWQS - CA, CIWQS 2 - CA, FRS, NPDES - CA, RFR - CA] ***(cont.)***

Envirosite ID: 250395
EPA ID: N/R

RFR - CA ***(cont.)***

Agency :	Amedee Geothermal Venture I
Agency Address :	Po Box 12219, Zephyr Cove, NV 89448
Latitude :	40.3
Longitude :	-120.2
Last Date in Agency List :	2022-08-26

Map Id: 8
Direction: ESE
Distance: 0.209 mi., 1104 ft.
Elevation: 4013 ft.
Relative: Lower

Site Name : Pumeroy
40.28518, -120.13323
CA

Database(s) : [MINES USGS]

Envirosite ID: 43928870
EPA ID: N/R

MINES USGS

Deposit ID :	10236561
MRSD ID :	N/R
MAS ID :	0060350146
Site Name :	Pumeroy
Latitude :	40.28518
Longitude :	-120.13323
Region :	NA
Country :	United States
State :	California
County :	Lassen
Commodity Type :	M
Commodity-Primary :	Gold
Commodity-Secondary :	N/R
Commodity-Others :	N/R
Operations Type :	Placer
Deposit Type :	N/R
Production Size :	N/R
Dev Status :	Occurrence
Ore material :	N/R
Gangue material :	N/R
Other Materials :	N/R
Ore body :	N/R
Work Type :	N/R
Mineral Model :	N/R
Geochem Alteration :	N/R
Concentration :	N/R
Alt Names :	N/R
Ore Character :	N/R
Reporter :	Munts, Steven R.
Host Rock Unit :	N/R
Host Rock Type :	N/R
Adj Rock Unit :	N/R
Adj Rock Type :	N/R
Geol Structure :	N/R
Tectonic Setting :	N/R

Map Id: 8
Direction: ESE
Distance: 0.209 mi., 1104 ft.
Elevation: 4013 ft.
Relative: Lower

Site Name : Pumeroy
40.28518, -120.13323
CA

Database(s) : [MINES USGS] ***(cont.)***

Envirosite ID: 43928870
EPA ID: N/R

MINES USGS ***(cont.)***

References :	U.S. BUREAU OF MINES OPEN-FILE REPORT MLA 22-87, 1987, TABLE 1, NO. 13, P. 35.
Year First Produced :	N/R
Year Last Produced :	N/R
Year Discovered :	N/R
Prod Years :	N/R
Discovery :	N/R
URL :	Click here for hyperlink provided by the agency.
Last Date in Agency List :	2022-08-09

Map Id: 9
Direction: NW
Distance: 0.244 mi., 1291 ft.
Elevation: N/R
Relative: N/R

Site Name : Eagle Lake Field Office
40.334334, -120.209398
CA

Database(s) : [FEDLAND]

Envirosite ID: 50050779
EPA ID: N/R

FEDLAND

Facility Name :	Eagle Lake Field Office
Facility Address :	CA
Source Date :	2021-06-11
Category :	Fee
Loc Name :	Eagle Lake Field Office
Owner Name :	BLM
Local Owner :	N/R
Owner Type :	FED
Manager Type :	FED
Manager Name :	BLM
Local Manager :	BLM
Designation Type :	PUB
Local Designation :	N/R
GIS Acres :	699767
Source Protected Area ID :	N/R
WDPA Site :	0
Public Access :	OA
Access Source :	GAP - Default
GAP Status Date :	2021
GAP Status :	3
GAP Status Source :	GAP - Default
IUCN Category Date :	2021
IUCN Category :	Other Conservation Area
IUCN Category Source :	GAP - Default
Date of Establishment :	N/R
Access Date :	2021
Easement Holder :	N/R
Easement Holder Type :	N/R
Comments :	N/R
Last Date in Agency List :	2022-08-02

Map Id: 10
Direction: NW
Distance: 0.267 mi., 1413 ft.
Elevation: N/R
Relative: N/R

Site Name : N/R
40.319172, -120.183004
CA
Database(s) : [HIGH FIRE - CA]

Envirosite ID: 24279190
EPA ID: N/R

HIGH FIRE - CA

State Responsibility Areas :	Yes
Haz Code :	1
Haz Class :	Moderate

Map Id: 11
Direction: ESE
Distance: 0.322 mi., 1698 ft.
Elevation: N/R
Relative: N/R

Site Name : N/R
40.294523, -120.158781
CA
Database(s) : [FIRE AREAS - CA]

Envirosite ID: 43315002
EPA ID: N/R

FIRE AREAS - CA

Year :	1985
Alarm Date :	N/R
Containment Date :	N/R
Fire Number :	0000D242
Fire Name :	N/R
Agency :	BLM
Unit ID :	NOD
INC Number :	00000000
Cause :	14
Estimated Area Cosumed Report :	0.0
GIS Acres :	599.911
Collection Method :	8
Objective :	1
Comments :	N/R
Last Date in Agency List :	2022-10-06

Map Id: 12
Direction: NNW
Distance: 0.346 mi., 1826 ft.
Elevation: N/R
Relative: N/R

Site Name : RUSH
40.92326, -119.916025
CA
Database(s) : [FIRE AREAS - CA]

Envirosite ID: 43304216
EPA ID: N/R

FIRE AREAS - CA

Year :	2012
Alarm Date :	2012-08-12
Containment Date :	2012-10-22
Fire Number :	N/R
Fire Name :	RUSH
Agency :	BLM
Unit ID :	NOD
INC Number :	00003490
Cause :	1

Map Id: 12
Direction: NNW
Distance: 0.346 mi., 1826 ft.
Elevation: N/R
Relative: N/R

Site Name : RUSH
40.92326, -119.916025
CA

Database(s) : [FIRE AREAS - CA] ***(cont.)***

Envirosite ID: 43304216
EPA ID: N/R

FIRE AREAS - CA ***(cont.)***

Estimated Area Cosumed Report :	315577.0
GIS Acres :	315512
Collection Method :	3
Objective :	1
Comments :	N/R
Last Date in Agency List :	2022-10-06

Map Id: 13
Direction: NNW
Distance: 0.403 mi., 2127 ft.
Elevation: N/R
Relative: N/R

Site Name : Amedee fault
40.318759, -120.189764
CA

Database(s) : [SEISMIC - CA]

Envirosite ID: 31159058
EPA ID: N/R

SEISMIC - CA

Fault ID :	423
Fault Age :	QT
Fault Source :	Grose, et al (1991)
Zone Name :	Amedee fault
Line Type :	dotted
Line Value :	3
JEN ID :	513
Section Number :	N/R
Section Name :	N/R
Date :	N/R
Rule ID :	8
Shape Length :	3982.14779041

No unmappable sites reported.

FEDERAL RCRA NON-CORRACTS TSD FACILITIES LIST

ARCHIVED RCRA TSDF: Resource Conservation and Recovery Act hazardous waste transportation storage disposal and treatment facilities

Agency Version Date: 09/19/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 12/15/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 09/19/2022

RCRA_TSDF: Resource Conservation and Recovery Act hazardous waste transportation storage disposal and treatment facilities

Agency Version Date: 09/19/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 12/15/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 09/19/2022

FEDERAL, STATE, AND TRIBAL REGISTERED STORAGE TANK LISTS

AST PBS: Bulk petroleum terminals with a total bulk storage capacity of 50,000 barrels or more.

Agency Version Date: 08/11/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 11/07/2022
Agency: Department of Homeland Security
Agency Contact: 202-853-5361
Most Recent Contact: 08/11/2022

EPA UST: Facilities listed in the EPA UST Finder database

Agency Version Date: 07/25/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 10/21/2022
Agency: EPA
Agency Contact: (202) 566-1667
Most Recent Contact: 07/25/2022

FEMA UST: FEMA underground storage tank listing

Agency Version Date: 09/16/2022
Agency Update Frequency: Varies
Planned Next Contact: 12/13/2022
Agency: FEMA
Agency Contact: 202-212-5283
Most Recent Contact: 09/16/2022

HIST INDIAN UST R6: Historical Underground Storage Tanks on Indian Land in EPA Region 6

Agency Version Date: 12/03/2021
Agency Update Frequency: Semi Annually
Planned Next Contact: 11/16/2022
Agency: U.S. Environmental Protection Agency Region 6
Agency Contact: 855-246-3642
Most Recent Contact: 08/22/2022

HIST INDIAN UST R7: Historical Underground Storage Tanks on Indian Land in EPA Region 7

Agency Version Date: 08/10/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 11/03/2022
Agency: U.S. Environmental Protection Agency Region 7
Agency Contact: 855-246-3642
Most Recent Contact: 08/08/2022

INDIAN UST R1: Underground Storage Tanks on Indian Land in EPA Region 1

Agency Version Date: 10/10/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/05/2023
Agency: U.S. Environmental Protection Agency Region 1
Agency Contact: 855-246-3642
Most Recent Contact: 10/10/2022

INDIAN UST R10: Underground Storage Tanks on Indian Land in EPA Region 10

Agency Version Date: 08/08/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 11/03/2022
Agency: U.S. Environmental Protection Agency Region 10
Agency Contact: 855-246-3642
Most Recent Contact: 08/08/2022

FEDERAL, STATE, AND TRIBAL REGISTERED STORAGE TANK LISTS (cont.)

INDIAN UST R2: Underground Storage Tanks on Indian Land in EPA Region 2

Agency Version Date: 12/07/2016
Agency Update Frequency: Quarterly
Planned Next Contact: 01/06/2023
Agency: U.S. Environmental Protection Agency Region 2
Agency Contact: 855-246-3642
Most Recent Contact: 10/11/2022

INDIAN UST R4: Underground Storage Tanks on Indian Land in EPA Region 4

Agency Version Date: 08/08/2022
Agency Update Frequency: Semi Annually
Planned Next Contact: 11/03/2022
Agency: U.S. Environmental Protection Agency Region 4
Agency Contact: 855-246-3642
Most Recent Contact: 08/08/2022

INDIAN UST R5: Underground Storage Tanks on Indian Land in EPA Region 5

Agency Version Date: 07/25/2022
Agency Update Frequency: Varies
Planned Next Contact: 01/17/2023
Agency: U.S. Environmental Protection Agency Region 5
Agency Contact: 855-246-3642
Most Recent Contact: 10/21/2022

INDIAN UST R6: Underground Storage Tanks on Indian Land in EPA Region 6

Agency Version Date: 08/23/2022
Agency Update Frequency: Semi Annually
Planned Next Contact: 11/18/2022
Agency: U.S. Environmental Protection Agency Region 6
Agency Contact: 855-246-3642
Most Recent Contact: 08/23/2022

INDIAN UST R7: Underground Storage Tanks on Indian Land in EPA Region 7

Agency Version Date: 07/25/2022
Agency Update Frequency: Varies
Planned Next Contact: 01/17/2023
Agency: U.S. Environmental Protection Agency Region 7
Agency Contact: 855-246-3642
Most Recent Contact: 10/21/2022

INDIAN UST R8: Underground Storage Tanks on Indian Land in EPA Region 8

Agency Version Date: 10/06/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/02/2023
Agency: U.S. Environmental Protection Agency Region 8
Agency Contact: 855-246-3642
Most Recent Contact: 10/06/2022

INDIAN UST R9: Underground Storage Tanks on Indian Land in EPA Region 9

Agency Version Date: 10/06/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/02/2023
Agency: U.S. Environmental Protection Agency Region 9
Agency Contact: 855-246-3642
Most Recent Contact: 10/06/2022

AST - CA: Listing of tank facilities that are subject to the California Aboveground Petroleum Storage Act

Agency Version Date: 06/23/2022
Agency Update Frequency: No update
Planned Next Contact: 12/15/2022
Agency: California Environmental Protection Agency Unified Program Section
Agency Contact: 916-327-5092
Most Recent Contact: 09/19/2022

AST_KERN COUNTY - CA: Kern County aboveground storage tank sites

Agency Version Date: 09/09/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 12/07/2022
Agency: Kern County Environment Health Division
Agency Contact: 661-862-8774
Most Recent Contact: 09/09/2022

AST_ORANGE COUNTY - CA: Orange county aboveground storage tanks

Agency Version Date: 08/11/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 11/07/2022
Agency: Orange County Health Care Agency
Agency Contact: 714-433-6000
Most Recent Contact: 08/11/2022

FEDERAL, STATE, AND TRIBAL REGISTERED STORAGE TANK LISTS (cont.)

AST_PLACER COUNTY - CA: Placer county aboveground storage tank sites

Agency Version Date: 07/18/2022
Agency Update Frequency: Semi Annually
Planned Next Contact: 01/10/2023
Agency: Placer County Environmental Health
Agency Contact: 530-745-2350
Most Recent Contact: 10/14/2022

AST_YOLO COUNTY - CA: Yolo county above ground storage tank sites listing

Agency Version Date: 07/25/2022
Agency Update Frequency: Annually
Planned Next Contact: 01/16/2023
Agency: Yolo County Environmental Health
Agency Contact: 530-666-8646
Most Recent Contact: 10/20/2022

CLOSED UST_VENTURA COUNTY - CA: Ventura County closed underground storage tank site listing

Agency Version Date: 04/29/2022
Agency Update Frequency: Varies
Planned Next Contact: 10/24/2022
Agency: Environmental Health Division
Agency Contact: 805-654-2815
Most Recent Contact: 07/28/2022

FID UST - CA: The State Water Resource Control Board's Facility Inventory Database underground storage tank locations listing

Agency Version Date: 08/24/2022
Agency Update Frequency: Varies
Planned Next Contact: 11/21/2022
Agency: California Environmental Protection Agency
Agency Contact: 916-341-5791
Most Recent Contact: 08/24/2022

HIST AST - CA: Historical listing of tank facilities that are subject to the California Aboveground Petroleum Storage Act

Agency Version Date: 07/19/2019
Agency Update Frequency: Quarterly
Planned Next Contact: 12/22/2022
Agency: California Environmental Protection Agency Unified Program Section
Agency Contact: 916-327-5092
Most Recent Contact: 09/26/2022

HIST UST - CA: Historical UST listing

Agency Version Date: 12/23/2021
Agency Update Frequency: Varies
Planned Next Contact: 12/08/2022
Agency: State Water Resources Control Board
Agency Contact: 916-341-5791
Most Recent Contact: 09/12/2022

HIST UST_EL SEGUNDO CITY - CA: List of City of El Segundo Underground Storage Tanks that are no longer in current agency list.

Agency Version Date: 01/29/2018
Agency Update Frequency: Annually
Planned Next Contact: 12/09/2022
Agency: City of El Segundo Fire Department
Agency Contact: 310-524-2242
Most Recent Contact: 09/13/2022

HIST UST_KERN COUNTY - CA: List of Kern County underground storage tank records that is no longer in current agency list.

Agency Version Date: 11/28/2018
Agency Update Frequency: Annually
Planned Next Contact: 11/21/2022
Agency: Kern County Environment Health Division
Agency Contact: 661-862-8774
Most Recent Contact: 08/25/2022

HIST UST_SUTTER COUNTY - CA: List of Sutter County Underground Storage Tank records that are no longer in current agency list.

Agency Version Date: 10/22/2018
Agency Update Frequency: Annually
Planned Next Contact: 12/22/2022
Agency: Sutter County Department of Agriculture
Agency Contact: 530-822-7400
Most Recent Contact: 09/26/2022

FEDERAL, STATE, AND TRIBAL REGISTERED STORAGE TANK LISTS (cont.)

TANKS_CONTRA COSTA COUNTY - CA: Listing of aboveground storage tanks in Contra Costa County

Agency Version Date: 08/01/2022
Agency Update Frequency: Varies
Planned Next Contact: 10/27/2022
Agency: Contra Costa Health Services Department
Agency Contact: 925-335-3200
Most Recent Contact: 08/01/2022

UST - CA: Listing of active underground storage tank facilities

Agency Version Date: 08/24/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 11/21/2022
Agency: CA Gov geotracker state water resources control board
Agency Contact: N/R
Most Recent Contact: 08/24/2022

UST_ALAMEDA COUNTY - CA: Alameda County Underground Storage Tank sites

Agency Version Date: 03/03/2022
Agency Update Frequency: Varies
Planned Next Contact: 11/18/2022
Agency: CA Gov geotracker state water resources control board
Agency Contact: 916-341-5791
Most Recent Contact: 08/24/2022

UST_CITY OF LONG BEACH - CA: City of Long Beach underground storage tank sites

Agency Version Date: 06/29/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 10/31/2022
Agency: City of Long Beach Fire Department
Agency Contact: 562-570-6782
Most Recent Contact: 08/02/2022

UST_CITY OF TORRANCE - CA: City of Torrance underground storage tank sites

Agency Version Date: 04/22/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/16/2023
Agency: City of Torrance Fire Department
Agency Contact: 310-618-2872
Most Recent Contact: 10/18/2022

UST_EL SEGUNDO CITY - CA: City of El Segundo Underground Storage Tanks

Agency Version Date: 01/29/2018
Agency Update Frequency: Annually
Planned Next Contact: 12/16/2022
Agency: City of El Segundo Fire Department
Agency Contact: 310-524-2242
Most Recent Contact: 09/21/2022

UST_KERN COUNTY - CA: Kern County underground storage tank sites

Agency Version Date: 09/09/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 12/07/2022
Agency: Kern County Environment Health Division
Agency Contact: 661-862-8774
Most Recent Contact: 09/09/2022

UST_MARIN COUNTY - CA: Marin county underground storage tank sites

Agency Version Date: 08/04/2018
Agency Update Frequency: Semi Annually
Planned Next Contact: 10/27/2022
Agency: Marin County Department of Public Works
Agency Contact: 415-473-5051
Most Recent Contact: 07/29/2022

UST_MENDOCINO COUNTY - CA: A listing of underground storage tank locations in Mendocino County

Agency Version Date: 03/03/2022
Agency Update Frequency: Varies
Planned Next Contact: 11/18/2022
Agency: CA Gov geotracker state water resources control board
Agency Contact: 916-341-5791
Most Recent Contact: 08/24/2022

UST_NAPA COUNTY - CA: Underground storage tank sites located in Napa county.

Agency Version Date: 03/03/2022
Agency Update Frequency: Varies
Planned Next Contact: 11/18/2022
Agency: CA Gov geotracker state water resources control board
Agency Contact: 916-341-5791
Most Recent Contact: 08/24/2022

FEDERAL, STATE, AND TRIBAL REGISTERED STORAGE TANK LISTS (cont.)

UST_ORANGE COUNTY - CA: Orange county underground storage tanks

Agency Version Date: 08/05/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 11/01/2022
Agency: Orange County Health Care Agency
Agency Contact: 714-433-6000
Most Recent Contact: 08/05/2022

UST_PLACER COUNTY - CA: Placer county underground storage tank sites

Agency Version Date: 07/18/2022
Agency Update Frequency: Semi Annually
Planned Next Contact: 01/10/2023
Agency: Placer County Environmental Health
Agency Contact: 530-745-2350
Most Recent Contact: 10/14/2022

UST_RIVERSIDE COUNTY - CA: Riverside county underground storage tank sites

Agency Version Date: 03/03/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 11/18/2022
Agency: CA Gov geotracker state water resources control board
Agency Contact: N/R
Most Recent Contact: 08/24/2022

UST_SAN FRANCISCO COUNTY - CA: San Francisco county Underground storage tank sites listing

Agency Version Date: 08/19/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 11/16/2022
Agency: San Francisco Department of Public Health
Agency Contact: N/R
Most Recent Contact: 08/18/2022

UST_SAN JOAQUIN COUNTY - CA: San Joaquin County Underground storage tank sites listing

Agency Version Date: 03/03/2022
Agency Update Frequency: Semi Annually
Planned Next Contact: 11/18/2022
Agency: CA Gov geotracker state water resources control board
Agency Contact: 916-341-5791
Most Recent Contact: 08/24/2022

UST_SANTA CLARA COUNTY - CA: Santa Clara County Underground storage tank sites listing.

Agency Version Date: 09/19/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 12/15/2022
Agency: Department of Environmental Health
Agency Contact: N/R
Most Recent Contact: 09/19/2022

UST_SOLANO COUNTY - CA: Solano county underground storage tank listing

Agency Version Date: 03/03/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 11/18/2022
Agency: CA Gov geotracker state water resources control board
Agency Contact: N/R
Most Recent Contact: 08/24/2022

UST_SUTTER COUNTY - CA: Sutter county underground storage tank listing

Agency Version Date: 10/13/2022
Agency Update Frequency: Semi Annually
Planned Next Contact: 01/11/2023
Agency: Sutter County Department of Agriculture
Agency Contact: 530-822-7400
Most Recent Contact: 10/13/2022

UST_YOLO COUNTY - CA: Yolo county underground storage tank sites listing

Agency Version Date: 07/29/2022
Agency Update Frequency: Annually
Planned Next Contact: 10/27/2022
Agency: Yolo County Environmental Health
Agency Contact: 530-666-8646
Most Recent Contact: 07/29/2022

FEDERAL CERCLIS LIST

CERCLIS NFRAP: The CERCLIS sites with No Further Remedial Action Planned from the CERCLIS program database. The Environmental Protection Agency decommissioned the CERCLIS data in 2014. The last update was November 12, 2013.

Agency Version Date: 07/22/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/13/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 800-424-9346
Most Recent Contact: 10/18/2022

CERCLIS-HIST: The CERCLIS program database contains information on the assessment and remediation of federal hazardous waste sites. The Environmental Protection Agency decommissioned the CERCLIS data in 2014. The last update was November 12, 2013.

Agency Version Date: 07/22/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/13/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 800-424-9346
Most Recent Contact: 10/18/2022

EPA SAA: Listing of Sites with Superfund Alternative Approach Agreements.

Agency Version Date: 11/01/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 01/17/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 800-424-9346
Most Recent Contact: 10/19/2022

FEDERAL FACILITY: Sites where Federal Facilities Restoration and Reuse Office (FFRRO) arranged cleanup for Base Closure and Property Transfer at Federal Facilities

Agency Version Date: 07/22/2022
Agency Update Frequency: Varies
Planned Next Contact: 01/13/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8712
Most Recent Contact: 10/18/2022

SEMS_8R_ACTIVE SITES: The Active Site Inventory Report displays site and location information at active SEMS sites. An active site is one at which site assessment, removal, remedial, enforcement, cost recovery, or oversight activities are being planned or conducted. NPL sites include latitude and longitude information. For non-NPL sites, a brief site status is provided.

Agency Version Date: 07/22/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/13/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 10/18/2022

SEMS_8R_ARCHIVED SITES: The Archived Site Inventory displays site and location information at sites archived from SEMS. An archived site is one at which EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program at this time.

Agency Version Date: 07/22/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/13/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 10/18/2022

FEDERAL RCRA CORRACTS FACILITIES LIST

CORRACTS: List of facilities where Resource Conservation and Recovery Act Corrective Action Program used to investigate and remediate hazardous releases

Agency Version Date: 09/19/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 12/15/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-1667
Most Recent Contact: 09/19/2022

HIST CORRACTS 2: List of facilities where Resource Conservation and Recovery Act Corrective Action Program used to investigate and remediate hazardous releases that are no longer in current agency list.

Agency Version Date: 10/12/2018
Agency Update Frequency: Annually
Planned Next Contact: 11/14/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-1667
Most Recent Contact: 08/17/2022

FEDERAL DELISTED NPL SITE LIST

DELISTED NPL: National Priority List of sites that were delisted and no longer require action

Agency Version Date: 07/22/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/13/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 10/18/2022

DELISTED PROPOSED NPL: Sites that have been delisted from the proposed National Priority List

Agency Version Date: 07/22/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/13/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 10/18/2022

SEMS_DELETED NPL: All Deleted National Priority List Sties

Agency Version Date: 07/22/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/13/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 10/18/2022

FEDERAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS

EPA LF MOP: Sites in the EPA Landfill Methane Outreach Program

Agency Version Date: 09/16/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 12/13/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 09/16/2022

FEDERAL, STATE, AND TRIBAL LEAKING STORAGE TANK LISTS

EPA LUST: Releases listed in the EPA UST Finder database

Agency Version Date: 07/25/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 10/21/2022
Agency: EPA
Agency Contact: (202) 566-1667
Most Recent Contact: 07/25/2022

HIST INDIAN LUST R4: Historical Leaking Underground Storage Tanks on Indian Land in EPA Region 4

Agency Version Date: 08/23/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 11/03/2022
Agency: U.S. Environmental Protection Agency Region 4
Agency Contact: 855-246-3642
Most Recent Contact: 08/08/2022

HIST INDIAN LUST R8: Historical Leaking Underground Storage Tanks on Indian Land in EPA Region 8

Agency Version Date: 08/16/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 10/26/2022
Agency: U.S. Environmental Protection Agency Region 8
Agency Contact: 855-246-3642
Most Recent Contact: 07/29/2022

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land in EPA Region 1

Agency Version Date: 07/14/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/05/2023
Agency: U.S. Environmental Protection Agency Region 1
Agency Contact: 855-246-3642
Most Recent Contact: 10/10/2022

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land in EPA Region 10

Agency Version Date: 08/08/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 11/03/2022
Agency: U.S. Environmental Protection Agency Region 10
Agency Contact: 855-246-3642
Most Recent Contact: 08/08/2022

FEDERAL, STATE, AND TRIBAL LEAKING STORAGE TANK LISTS (cont.)

INDIAN LUST R2: Leaking Underground Storage Tanks on Indian Land in EPA Region 2

Agency Version Date: 12/07/2016
Agency Update Frequency: Quarterly
Planned Next Contact: 01/06/2023
Agency: U.S. Environmental Protection Agency Region 2
Agency Contact: 855-246-3642
Most Recent Contact: 10/11/2022

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land in EPA Region 4

Agency Version Date: 08/08/2022
Agency Update Frequency: Semi Annually
Planned Next Contact: 11/03/2022
Agency: U.S. Environmental Protection Agency Region 4
Agency Contact: 855-246-3642
Most Recent Contact: 08/08/2022

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land in EPA Region 5

Agency Version Date: 07/25/2022
Agency Update Frequency: Varies
Planned Next Contact: 01/17/2023
Agency: U.S. Environmental Protection Agency Region 5
Agency Contact: 855-246-3642
Most Recent Contact: 10/21/2022

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land in EPA Region 6

Agency Version Date: 07/28/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 10/24/2022
Agency: U.S. Environmental Protection Agency Region 6
Agency Contact: 855-246-3642
Most Recent Contact: 07/28/2022

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land in EPA Region 7

Agency Version Date: 07/25/2022
Agency Update Frequency: Varies
Planned Next Contact: 01/17/2023
Agency: U.S. Environmental Protection Agency Region 7
Agency Contact: 855-246-3642
Most Recent Contact: 10/21/2022

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land in EPA Region 8

Agency Version Date: 07/29/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 10/25/2022
Agency: U.S. Environmental Protection Agency Region 8
Agency Contact: 855-246-3642
Most Recent Contact: 07/29/2022

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land in EPA Region 9

Agency Version Date: 10/06/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/02/2023
Agency: U.S. Environmental Protection Agency Region 9
Agency Contact: 855-246-3642
Most Recent Contact: 10/06/2022

HIST LUST_SONOMA COUNTY - CA: List of Sonoma County leaking underground storage tank sites that is no longer in current agency list.

Agency Version Date: 08/23/2018
Agency Update Frequency: Annually
Planned Next Contact: 12/16/2022
Agency: CA Gov geotracker state water resources control board
Agency Contact: 916-341-5791
Most Recent Contact: 09/21/2022

LUFT_ALAMEDA COUNTY - CA: Listing of Alameda County leaking underground fuel tank sites

Agency Version Date: 11/18/2018
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 11/07/2022
Agency: Alameda County Environmental Health Services
Agency Contact: 510-567-6721
Most Recent Contact: 08/11/2022

LUST ORANGE COUNTY - CA: Orange county leaking underground storage tanks

Agency Version Date: 07/29/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 01/06/2023
Agency: Orange County Health Care Agency
Agency Contact: 714-433-6000
Most Recent Contact: 10/10/2022

FEDERAL, STATE, AND TRIBAL LEAKING STORAGE TANK LISTS (cont.)

LUST REG 1 - CA: Leaking underground storage tanks in Region 1: Del Norte Glenn Humboldt Lake Marin Mendocino Modoc Siskiyou Sonoma andTrinity counties.

Agency Version Date: 10/14/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/10/2023
Agency: State Water Resources Control Board
Agency Contact: 916-341-5791
Most Recent Contact: 10/14/2022

LUST REG 2 - CA: Leaking underground storage tanks in Region 2: Alameda Contra Costa San Francisco Santa Clara (north of Morgan Hill) San Mateo Marin Sonoma Napa Solano counties

Agency Version Date: 10/14/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/10/2023
Agency: State Water Resources Control Board
Agency Contact: 916-341-5791
Most Recent Contact: 10/14/2022

LUST REG 3 - CA: Leaking underground storage tanks in Region 3: Santa Clara (south of Morgan Hill) San Mateo (southern part) Santa Cruz SanBenito Monterey Kern (some parts) San Luis Obispo Santa Barbara Ventura(northern part) counties

Agency Version Date: 10/14/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/10/2023
Agency: State Water Resources Control Board
Agency Contact: 916-341-5791
Most Recent Contact: 10/14/2022

LUST REG 4 - CA: Leaking underground storage tanks in Region 4: Los Angeles Ventura counties (Small parts of Kern and Santa Barbara counties).

Agency Version Date: 10/14/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/10/2023
Agency: State Water Resources Control Board
Agency Contact: 916-341-5791
Most Recent Contact: 10/14/2022

LUST REG 5 - CA: Leaking underground storage tanks in Region 5: Modoc Shasta Lassen Plumas Butte Glen Colusa Lake Sutter Yuba Sierra Nevada Placer Yolo Napa (Northeast) Solano (West) Sacramento El Dorado Amador Calaveras San Joaquin Contra Costa (East) Stanislaus Toulumne Merced Mariposa Madera Kings Fresno Tulare Kern (Very small portions of San Benito and SanLuis Obispo) counties

Agency Version Date: 10/14/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/10/2023
Agency: State Water Resources Control Board
Agency Contact: 916-341-5791
Most Recent Contact: 10/14/2022

LUST REG 6 - CA: Leaking underground storage tanks in Region 6: Modoc (East) Lassen (East side and Eagle Lake) Sierra Nevada Placer El Dorado Alpine Mono Inyo Kern (East) San Bernardino Los Angeles (Northeast corner) counties

Agency Version Date: 10/14/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/10/2023
Agency: State Water Resources Control Board
Agency Contact: 916-341-5791
Most Recent Contact: 10/14/2022

LUST REG 7 - CA: Leaking underground storage tanks in Region 7: Imperial San Bernardino Riverside and San Diego counties.

Agency Version Date: 10/14/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/10/2023
Agency: State Water Resources Control Board
Agency Contact: 916-341-5791
Most Recent Contact: 10/14/2022

LUST REG 8 - CA: Leaking underground storage tanks in Region 8: Orange Riverside San Bernardino counties.

Agency Version Date: 10/14/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/10/2023
Agency: State Water Resources Control Board
Agency Contact: 916-341-5791
Most Recent Contact: 10/14/2022

FEDERAL, STATE, AND TRIBAL LEAKING STORAGE TANK LISTS (cont.)

LUST REG 9 - CA: Leaking underground storage tanks in Region 9: San Diego Imperial Riverside counties.

Agency Version Date: 10/14/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/10/2023
Agency: State Water Resources Control Board
Agency Contact: 916-341-5791
Most Recent Contact: 10/14/2022

LUST_HAZMAT_YOLO COUNTY - CA: Yolo county leaking underground storage tank sites listing

Agency Version Date: 07/15/2022
Agency Update Frequency: Varies
Planned Next Contact: 01/11/2023
Agency: Yolo County Environmental Health
Agency Contact: 530-666-8646
Most Recent Contact: 10/13/2022

LUST_KERN COUNTY - CA: Kern County leaking underground tank sites

Agency Version Date: 07/15/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/09/2023
Agency: CA Gov geotracker state water resources control bo
Agency Contact: 916-341-5791
Most Recent Contact: 10/13/2022

LUST_RIVERSIDE COUNTY - CA: Riverside county leaking underground storage tank sites

Agency Version Date: 07/15/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/09/2023
Agency: CA Gov geotracker state water resources control board
Agency Contact: 916-341-5791
Most Recent Contact: 10/13/2022

LUST_SAN FRANCISCO COUNTY - CA: A listing of leaking underground storage tank sites located in San Francisco county.

Agency Version Date: 07/15/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/09/2023
Agency: CA Gov geotracker state water resources control board
Agency Contact: 916-341-5791
Most Recent Contact: 10/13/2022

LUST_SAN MATEO COUNTY - CA: San Mateo county leaking underground storage tank listing

Agency Version Date: 07/15/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/09/2023
Agency: CA Gov geotracker state water resources control board
Agency Contact: 916-341-5791
Most Recent Contact: 10/13/2022

LUST_SOLANO COUNTY - CA: Solano county leaking underground storage tank listing

Agency Version Date: 07/15/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/09/2023
Agency: CA Gov geotracker state water resources control board
Agency Contact: 916-341-5791
Most Recent Contact: 10/13/2022

LUST_SONOMA COUNTY - CA: Sonoma county leaking underground storage tank sites listing

Agency Version Date: 07/15/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/09/2023
Agency: CA Gov geotracker state water resources control board
Agency Contact: 916-341-5791
Most Recent Contact: 10/13/2022

LUST_SUTTER COUNTY - CA: Sutter County Leaking Underground Storage Tanks

Agency Version Date: 07/15/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/09/2023
Agency: CA Gov geotracker state water resources control board
Agency Contact: 916-341-5791
Most Recent Contact: 10/13/2022

LUST_VENTURA COUNTY - CA: Ventura County leaking underground storage tank site listing

Agency Version Date: 07/15/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/09/2023
Agency: CA Gov geotracker state water resources control board
Agency Contact: 916-341-5791
Most Recent Contact: 10/13/2022

FEDERAL, STATE, AND TRIBAL LEAKING STORAGE TANK LISTS (cont.)

SLIC REG 1 - CA: List of Region 1 sites from GeoTracker Site Cleanup Program (formerly known as SLIC) database.

Agency Version Date: 10/14/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/10/2023
Agency: State Water Resources Control Board
Agency Contact: 916-341-5791
Most Recent Contact: 10/14/2022

SLIC REG 2 - CA: List of Region 2 sites from GeoTracker Site Cleanup Program (formerly known as SLIC) database.

Agency Version Date: 10/14/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/10/2023
Agency: State Water Resources Control Board
Agency Contact: 916-341-5791
Most Recent Contact: 10/14/2022

SLIC REG 3 - CA: List of Region 3 sites from GeoTracker Site Cleanup Program (formerly known as SLIC) database.

Agency Version Date: 10/14/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/10/2023
Agency: State Water Resources Control Board
Agency Contact: 916-341-5791
Most Recent Contact: 10/14/2022

SLIC REG 4 - CA: List of Region 4 sites from GeoTracker Site Cleanup Program (formerly known as SLIC) database.

Agency Version Date: 10/14/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/10/2023
Agency: State Water Resources Control Board
Agency Contact: 916-341-5791
Most Recent Contact: 10/14/2022

SLIC REG 5 - CA: List of Region 5 sites from GeoTracker Site Cleanup Program (formerly known as SLIC) database.

Agency Version Date: 10/14/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/10/2023
Agency: State Water Resources Control Board
Agency Contact: 916-341-5791
Most Recent Contact: 10/14/2022

SLIC REG 6 - CA: List of Region 6 sites from GeoTracker Site Cleanup Program (formerly known as SLIC) database that is no longer in current agency list.

Agency Version Date: 10/14/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/10/2023
Agency: State Water Resources Control Board
Agency Contact: 916-341-5791
Most Recent Contact: 10/14/2022

SLIC REG 7 - CA: List of Region 7 sites from GeoTracker Site Cleanup Program (formerly known as SLIC) database.

Agency Version Date: 10/14/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/10/2023
Agency: State Water Resources Control Board
Agency Contact: 916-341-5791
Most Recent Contact: 10/14/2022

SLIC REG 8 - CA: List of Region 8 sites from GeoTracker Site Cleanup Program (formerly known as SLIC) database.

Agency Version Date: 10/14/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/10/2023
Agency: State Water Resources Control Board
Agency Contact: 916-341-5791
Most Recent Contact: 10/14/2022

SLIC REG 9 - CA: List of Region 9 sites from GeoTracker Site Cleanup Program (formerly known as SLIC) database that is no longer in current agency list.

Agency Version Date: 10/14/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/10/2023
Agency: State Water Resources Control Board
Agency Contact: 916-341-5791
Most Recent Contact: 10/14/2022

FEDERAL, STATE, AND TRIBAL LEAKING STORAGE TANK LISTS (cont.)

SLIC_ALAMEDA COUNTY - CA: Listing of spills leaks investigation & cleanup sites

Agency Version Date: 01/16/2019
Agency Update Frequency: Quarterly
Planned Next Contact: 01/17/2023
Agency: Alameda County Environmental Health Services
Agency Contact: 510-567-6721
Most Recent Contact: 10/21/2022

FEDERAL ERNS LIST

ERNS: Emergency Response Notification System records of reported spills

Agency Version Date: 10/13/2022
Agency Update Frequency: Annually
Planned Next Contact: 01/09/2023
Agency: National Response Center United States Coast Guard
Agency Contact: N/R
Most Recent Contact: 10/13/2022

FEDERAL INSTITUTIONAL CONTROLS / ENGINEERING CONTROLS REGISTRIES

FED E C: Federal listing of remediation sites with engineering controls

Agency Version Date: 08/16/2022
Agency Update Frequency: Varies
Planned Next Contact: 11/11/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 800-424-9346
Most Recent Contact: 08/16/2022

FED I C: Federal listing of remediation sites with institutional controls

Agency Version Date: 08/16/2022
Agency Update Frequency: Varies
Planned Next Contact: 11/11/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 800-424-9346
Most Recent Contact: 08/16/2022

RCRA IC_EC: Sites with institutional or engineering controls related to Resource Conservation and Recovery Act

Agency Version Date: 07/29/2022
Agency Update Frequency: Varies
Planned Next Contact: 10/25/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 07/29/2022

FEDERAL RCRA GENERATORS LIST

HIST RCRA_CESQG: List of Resource Conservation and Recovery Act licensed conditionally exempt small quantity generators that are no longer in current agency list.

Agency Version Date: 10/12/2018
Agency Update Frequency: Annually
Planned Next Contact: 11/14/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 08/17/2022

HIST RCRA_LQG: List of Resource Conservation and Recovery Act licensed large quantity generators that are no longer in current agency list.

Agency Version Date: 10/12/2018
Agency Update Frequency: Annually
Planned Next Contact: 11/14/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 08/17/2022

HIST RCRA_NONGEN: List of Resource Conservation and Recovery Act licensed non-generators that are no longer in current agency list.

Agency Version Date: 10/12/2018
Agency Update Frequency: Annually
Planned Next Contact: 11/14/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 08/17/2022

FEDERAL RCRA GENERATORS LIST (cont.)

HIST RCRA_SQG: List of Resource Conservation and Recovery Act licensed small quantity generators that are no longer in current agency list.

Agency Version Date: 10/12/2018
Agency Update Frequency: Annually
Planned Next Contact: 11/14/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 08/17/2022

RCRA_LQG: Resource Conservation and Recovery Act listing of licensed large quantity generators

Agency Version Date: 09/19/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 12/15/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 09/19/2022

RCRA_NONGEN: Resource Conservation and Recovery Act listing of licensed non-generators

Agency Version Date: 09/19/2022
Agency Update Frequency: Varies
Planned Next Contact: 12/15/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 09/19/2022

RCRA_SQG: Resource Conservation and Recovery Act listing of licensed small quantity generators

Agency Version Date: 09/19/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 12/15/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 09/19/2022

RCRA_VSQG: Resource Conservation and Recovery Act listing of licensed very small quantity generators.

Agency Version Date: 09/19/2022
Agency Update Frequency: Varies
Planned Next Contact: 12/15/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 09/19/2022

FEDERAL NPL SITE LIST

NPL: List of priority contaminated sites among identified releases or threatened releases of hazardous substances pollutants or contaminants nationally

Agency Version Date: 07/22/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/13/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 10/18/2022

NPL EPA R1 GIS: Geospatial data for the Environmental Protection Agency Region 1 National Priority List subject to environmental regulation

Agency Version Date: 07/22/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/13/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-2132
Most Recent Contact: 10/18/2022

NPL EPA R3 GIS: Geospatial data for the Environmental Protection Agency Region 3 National Priority List subject to environmental regulation

Agency Version Date: 07/22/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/13/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-2132
Most Recent Contact: 10/18/2022

NPL EPA R6 GIS: Geospatial data for the Environmental Protection Agency Region 6 National Priority List subject to environmental regulation

Agency Version Date: 07/22/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/13/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-2132
Most Recent Contact: 10/18/2022

FEDERAL NPL SITE LIST (cont.)

NPL EPA R8 GIS: Geospatial data for the Environmental Protection Agency Region 8 National Priority List subject to environmental regulation

Agency Version Date: 07/22/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/13/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-2132
Most Recent Contact: 10/18/2022

NPL EPA R9 GIS: Geospatial data for the Environmental Protection Agency Region 9 National Priority List subject to environmental regulation

Agency Version Date: 07/22/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/13/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-2132
Most Recent Contact: 10/18/2022

PART NPL: Sites that are a part of an National Priority List site referred to as the parent site

Agency Version Date: 07/22/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/13/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 10/18/2022

PROPOSED NPL: Sites that have been proposed for the National Priority List

Agency Version Date: 07/22/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/13/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 10/18/2022

SEMS_FINAL NPL: All Included National Priority List Sites

Agency Version Date: 07/22/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/13/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 10/18/2022

SEMS_PROPOSED NPL: All Proposed National Priority List Sites

Agency Version Date: 07/22/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/13/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 10/18/2022

STATE- AND TRIBAL - EQUIVALENT CERCLIS

ENVIROSTOR - CA: Department of Toxic Substances Controls

Agency Version Date: 09/12/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 12/08/2022
Agency: Department of Toxic Substances Control
Agency Contact: 916-327-1077
Most Recent Contact: 09/12/2022

HIST TOXIC PITS - CA: Listing of Toxic Pit Cleanup Act sites that are no longer in current agency list.

Agency Version Date: 10/12/2018
Agency Update Frequency: Quarterly
Planned Next Contact: 12/23/2022
Agency: State Water Resources Control Board
Agency Contact: 916-341-5810
Most Recent Contact: 09/27/2022

OIL & GAS CLEANUP - CA: List of SWRCB Oil & Gas Cleanup Sites from GeoTracker Site Cleanup Program database.

Agency Version Date: 10/14/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/10/2023
Agency: California Regional Water Quality Control Board
Agency Contact: 916-341-5791
Most Recent Contact: 10/14/2022

STATE- AND TRIBAL - EQUIVALENT CERCLIS (cont.)

SWRCB CLEANUP - CA: List of SWRCB Cleanups from Geotracker including CAF, Sampling Points, and Projects.

Agency Version Date: 10/14/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/10/2023
Agency: California Regional Water Quality Control Board
Agency Contact: 916-341-5791
Most Recent Contact: 10/14/2022

SWRCB NON_CASE - CA: List of SWRCB Non-Case sites from GeoTracker Site Cleanup Program database.

Agency Version Date: 10/14/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/10/2023
Agency: California Regional Water Quality Control Board
Agency Contact: 916-341-5791
Most Recent Contact: 10/14/2022

TOXIC PITS - CA: Listing of Toxic Pit Cleanup Act sites

Agency Version Date: 07/04/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 12/26/2022
Agency: State Water Resources Control Board
Agency Contact: 916-341-5810
Most Recent Contact: 09/28/2022

STATE- AND TRIBAL - EQUIVALENT NPL

HIST RESPONSE - CA: List of state response sites with confirmed releases and potential high risk that are no longer in current agency list.

Agency Version Date: 10/17/2017
Agency Update Frequency: Annually
Planned Next Contact: 11/03/2022
Agency: Department of Toxic Substances Control
Agency Contact: 916-327-1077
Most Recent Contact: 08/08/2022

RESPONSE - CA: State response sites with confirmed releases and potential high risk

Agency Version Date: 09/12/2022
Agency Update Frequency: Annually
Planned Next Contact: 12/08/2022
Agency: Department of Toxic Substances Control
Agency Contact: 916-327-1077
Most Recent Contact: 09/12/2022

STATE AND TRIBAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS

HIST SWF/LF - CA: List of Solid Waste Information System's solid waste facilities and landfills that is no longer in current agency list.

Agency Version Date: 03/05/2018
Agency Update Frequency: Annually
Planned Next Contact: 10/31/2022
Agency: Department of Resources Recycling and Recovery
Agency Contact: 916-341-6066
Most Recent Contact: 08/04/2022

SWF/LF - CA: Solid Waste Information System's facility listing of solid waste facilities and landfills

Agency Version Date: 09/01/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 11/28/2022
Agency: Department of Resources Recycling and Recovery
Agency Contact: 916-341-6066
Most Recent Contact: 09/01/2022

STATE RCRA GENERATORS LIST

HWG - CA: Hazardous waste generator listing

Agency Version Date: 09/05/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 12/01/2022
Agency: Department of Toxic Substances Control
Agency Contact: N/R
Most Recent Contact: 09/05/2022

STATE RCRA GENERATORS LIST (cont.)

HWG_YOLO COUNTY - CA: Listing of permitted hazardous waste generators

Agency Version Date: 07/15/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/11/2023
Agency: Yolo County Environmental Health
Agency Contact: 530-666-8646
Most Recent Contact: 10/13/2022

STATE AND TRIBAL BROWNFIELD SITES

TRIBAL BROWNFIELDS: Tribal brownfield remediation site listing

Agency Version Date: 12/10/2017
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 12/02/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 09/05/2022

STATE AND TRIBAL VOLUNTARY CLEANUP SITES

VCP - CA: Voluntary Cleanup Program remediation sites listing

Agency Version Date: 09/12/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 12/08/2022
Agency: Department of Toxic Substances Control
Agency Contact: 916-322-2861
Most Recent Contact: 09/12/2022

LOCAL BROWNFIELD LISTS

BROWNFIELDS-ACRES: EPA Brownfields Assessment, Cleanup and Redevelopment Exchange System.

Agency Version Date: 09/01/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 11/28/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 09/01/2022

FED BROWNFIELDS: Federal brownfield remediation sites

Agency Version Date: 01/24/2022
Agency Update Frequency: Semi Annually
Planned Next Contact: 01/09/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 10/13/2022

LOCAL LISTS OF HAZARDOUS WASTE / CONTAMINATED SITES

FED CDL: The U.S. Department of Justice listing of clandestine drug lab locations

Agency Version Date: 10/03/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 12/29/2022
Agency: U.S. Department of Justice
Agency Contact: 202-307-7610
Most Recent Contact: 10/03/2022

US HIST CDL: The U.S. Department of Justice historical listing of clandestine drug lab locations

Agency Version Date: 08/05/2019
Agency Update Frequency: Quarterly
Planned Next Contact: 11/07/2022
Agency: U.S. Department of Justice
Agency Contact: 202-307-7610
Most Recent Contact: 08/11/2022

CALARP_KERN COUNTY - CA: Kern County hazardous material permitted facilities

Agency Version Date: 08/18/2022
Agency Update Frequency: Varies
Planned Next Contact: 11/14/2022
Agency: County of Kern Public Health Services Department
Agency Contact: 661-862-8740
Most Recent Contact: 08/18/2022

LOCAL LISTS OF HAZARDOUS WASTE / CONTAMINATED SITES (cont.)

CASE LIST_SAN DIEGO COUNTY - CA: San Diego county listing of hazardous chemical releases

Agency Version Date: 10/14/2022
Agency Update Frequency: Varies
Planned Next Contact: 01/10/2023
Agency: County of San Diego Department of Environmental Health
Agency Contact: 619-338-2259
Most Recent Contact: 10/14/2022

CDL - CA: Listing of Meth and clandestine drug labs maintained by the Department of Toxic Substances Control

Agency Version Date: 07/30/2020
Agency Update Frequency: Varies
Planned Next Contact: 12/23/2022
Agency: Department of Toxic Substances Control
Agency Contact: 916-322-2861
Most Recent Contact: 09/27/2022

CORRECTIVE ACTION_RIVERSIDE COUNTY - CA: Riverside county corrective action sites list

Agency Version Date: 11/14/2017
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 11/30/2022
Agency: Riverside County Environmental Health
Agency Contact: 888-722-4234
Most Recent Contact: 09/05/2022

CS_NAPA COUNTY - CA: Napa county listing of Contaminated sites

Agency Version Date: 07/22/2022
Agency Update Frequency: Varies
Planned Next Contact: 01/13/2023
Agency: Napa County Department of Environmental Management
Agency Contact: 707-253-4471
Most Recent Contact: 10/18/2022

CS_PLACER COUNTY - CA: Placer county cleanup sites listing

Agency Version Date: 07/18/2022
Agency Update Frequency: Semi Annually
Planned Next Contact: 01/10/2023
Agency: Placer County Environmental Health
Agency Contact: 530-745-2350
Most Recent Contact: 10/14/2022

SCH - CA: Listing of possible hazardous material contamination sites on existing school properties

Agency Version Date: 07/19/2022
Agency Update Frequency: Varies
Planned Next Contact: 01/10/2023
Agency: Department of Toxic Substances Control
Agency Contact: 916-322-2861
Most Recent Contact: 10/14/2022

SITE LIST_CONTRA COSTA COUNTY - CA: Listing of underground tank hazardous waste generator and business plan sites in Contra Costa County

Agency Version Date: 08/01/2022
Agency Update Frequency: Varies
Planned Next Contact: 10/28/2022
Agency: Contra Costa Health Services Department
Agency Contact: 925-335-3200
Most Recent Contact: 08/01/2022

TOXIC SITE_SACRAMENTO COUNTY - CA: Sacramento County listing of historical sites where unauthorized releases of potentially hazardous materials have occurred

Agency Version Date: 08/24/2021
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 11/03/2022
Agency: Sacramento County Environmental Management
Agency Contact: 916-875-8550
Most Recent Contact: 08/08/2022

RECORDS OF EMERGENCY RELEASE REPORTS

HMIRS (DOT): Hazardous Material spills reported by the Department of Transportation

Agency Version Date: 09/09/2022
Agency Update Frequency: Varies
Planned Next Contact: 12/06/2022
Agency: U.S. Department of Transportation
Agency Contact: (202) 366-4996
Most Recent Contact: 09/09/2022

RECORDS OF EMERGENCY RELEASE REPORTS (cont.)

CHMIRS - CA: California Hazardous Material Incident Reporting System's reported accidental hazardous material incidents releases or spills

Agency Version Date: 09/29/2022
Agency Update Frequency: Varies
Planned Next Contact: 12/27/2022
Agency: California Emergency Management Agency
Agency Contact: 916-845-8275
Most Recent Contact: 09/29/2022

HIST CHMIRS - CA: California Hazardous Material Incident Reporting System's reported accidental hazardous material incidents releases or spills

Agency Version Date: 04/06/2017
Agency Update Frequency: Quarterly
Planned Next Contact: 10/31/2022
Agency: California Emergency Management Agency
Agency Contact: 916-845-8275
Most Recent Contact: 08/04/2022

INDUSTRIAL CLEANUP_ORANGE COUNTY - CA: Petroleum and non-petroleum industrial spills

Agency Version Date: 05/23/2022
Agency Update Frequency: Annually
Planned Next Contact: 11/14/2022
Agency: Orange County Health Care Agency
Agency Contact: 714-433-6000
Most Recent Contact: 08/18/2022

SML_LOS ANGELES COUNTY - CA: Listing of all Emergency Response session spills

Agency Version Date: 07/12/2017
Agency Update Frequency: Quarterly
Planned Next Contact: 01/09/2023
Agency: Los Angeles Department of Public Health
Agency Contact: 323-890-7808
Most Recent Contact: 10/13/2022

LOCAL LAND RECORDS

LIENS 2: Comprehensive Environmental Response Compensation and Liability Act sites with liens

Agency Version Date: 05/11/2017
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 12/05/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 800-424-9346
Most Recent Contact: 09/07/2022

DEED - CA: The Department of Toxic Substances Control's listing of property locations with Deed restrictions

Agency Version Date: 07/21/2022
Agency Update Frequency: Semi Annually
Planned Next Contact: 01/12/2023
Agency: Department of Toxic Substances Control
Agency Contact: 916-341-5791
Most Recent Contact: 10/17/2022

HIST LIENS - CA: The Department of Toxic Substances Control's listing of property locations with environmental liens that is no longer in current agency list.

Agency Version Date: 12/04/2018
Agency Update Frequency: Annually
Planned Next Contact: 10/27/2022
Agency: Department of Toxic Substances Control
Agency Contact: 916-322-2861
Most Recent Contact: 08/02/2022

LIENS - CA: The Department of Toxic Substances Control's listing of property locations with environmental liens

Agency Version Date: 09/01/2022
Agency Update Frequency: Varies
Planned Next Contact: 11/28/2022
Agency: Department of Toxic Substances Control
Agency Contact: 916-322-2861
Most Recent Contact: 09/01/2022

LOCAL LISTS OF LANDFILL / SOLID WASTE DISPOSAL SITES

HIST INDIAN ODI R8: List of Region 8 Indian land open dump inventory sites maintained within the STARS program that is no longer in current agency list.

Agency Version Date: 11/12/2018
Agency Update Frequency: Annually
Planned Next Contact: 12/23/2022
Agency: Indian Health Service
Agency Contact: 855-246-3642
Most Recent Contact: 09/28/2022

INDIAN ODI R8: Region 8 Indian land open dump inventory sites maintained within the STARS program

Agency Version Date: 07/21/2022
Agency Update Frequency: Varies
Planned Next Contact: 01/12/2023
Agency: Indian Health Service
Agency Contact: 855-246-3642
Most Recent Contact: 10/17/2022

ODI: Open dump inventory sites

Agency Version Date: 10/03/2017
Agency Update Frequency: No Update
Planned Next Contact: 11/01/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 08/05/2022

TRIBAL ODI: Indian land open dump inventory for all regions

Agency Version Date: 08/15/2022
Agency Update Frequency: Varies
Planned Next Contact: 11/11/2022
Agency: Indian Health Service
Agency Contact: 301-443-3593
Most Recent Contact: 08/15/2022

HAULERS - CA: Waste Tire Manifest Program Hauler Registration listing

Agency Version Date: 09/15/2022
Agency Update Frequency: Varies
Planned Next Contact: 12/12/2022
Agency: California Department of Resources Recycling and Recovery (CalRecycle)
Agency Contact: 916-341-6066
Most Recent Contact: 09/15/2022

LF_SAN DIEGO COUNTY - CA: San Diego county landfill listing

Agency Version Date: 07/20/2022
Agency Update Frequency: Varies
Planned Next Contact: 01/16/2023
Agency: County of San Diego Department of Environmental Health
Agency Contact: 858-694-2801
Most Recent Contact: 10/18/2022

SWF_LOS ANGELES COUNTY - CA: Listing of Los Angeles County solid waste facilities

Agency Version Date: 05/20/2022
Agency Update Frequency: Varies
Planned Next Contact: 11/11/2022
Agency: LA County Department of Public Works
Agency Contact: 800-320-1771
Most Recent Contact: 08/16/2022

SWRCY - CA: Listing of facilities which perform recycled material processing activities

Agency Version Date: 08/08/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 11/03/2022
Agency: California Department of Resources Recycling and Recovery (CalRecycle)
Agency Contact: 916-341-6066
Most Recent Contact: 08/08/2022

OTHER ASCERTAINABLE RECORDS

AFS: Air Facility Systems Quarterly Extract

Agency Version Date: 07/25/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/16/2023
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 10/20/2022

OTHER ASCERTAINABLE RECORDS (cont.)

ALT FUELING: Alternative Fueling Stations by fuel type.

Agency Version Date: 09/16/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 12/13/2022
Agency: U.S. Department of Energy
Agency Contact: N/R
Most Recent Contact: 09/16/2022

ARENAS: List of Arenas and Sport Venues

Agency Version Date: 08/09/2022
Agency Update Frequency: Varies
Planned Next Contact: 11/04/2022
Agency: DHS Homeland Infrastructure Foundation
Agency Contact: N/R
Most Recent Contact: 08/09/2022

ARENAS 2: List of Convention Centers and Fairgrounds

Agency Version Date: 08/09/2022
Agency Update Frequency: Varies
Planned Next Contact: 11/04/2022
Agency: DHS Homeland Infrastructure Foundation
Agency Contact: N/R
Most Recent Contact: 08/09/2022

BRS: Reporting of hazardous waste generation and management from large quantity generators

Agency Version Date: 09/19/2022
Agency Update Frequency: Biennial
Planned Next Contact: 12/15/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 09/19/2022

CDC HAZDAT: The Agency for Toxic Substances and Disease Registry's Hazardous Substance Release/Health Effects Database.

Agency Version Date: 07/22/2022
Agency Update Frequency: Varies
Planned Next Contact: 01/13/2023
Agency: Agency for Toxic Substances and Disease Registry
Agency Contact: 770-488-6399
Most Recent Contact: 10/18/2022

CHURCHES: List of places of worship

Agency Version Date: 08/11/2022
Agency Update Frequency: Varies
Planned Next Contact: 11/07/2022
Agency: DHS Homeland Infrastructure Foundation
Agency Contact: N/R
Most Recent Contact: 08/11/2022

COAL ASH DOE: List of existing and planned generators with 1 megawatt or greater of combined capacity that are utilizing coal ash impoundments.

Agency Version Date: 09/05/2022
Agency Update Frequency: Varies
Planned Next Contact: 12/01/2022
Agency: Department of Energy
Agency Contact: (202) 586-8800
Most Recent Contact: 09/05/2022

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

Agency Version Date: 02/18/2021
Agency Update Frequency: Varies
Planned Next Contact: 10/24/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 07/28/2022

COAL GAS: Manufactured Gas Plant locations

Agency Version Date: 09/27/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 12/23/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 09/27/2022

COLLEGES: List of major Universities & Colleges

Agency Version Date: 10/07/2022
Agency Update Frequency: Varies
Planned Next Contact: 01/05/2023
Agency: DHS Homeland Infrastructure Foundation
Agency Contact: N/R
Most Recent Contact: 10/07/2022

OTHER ASCERTAINABLE RECORDS (cont.)

COLLEGES 2: List of Universities & Colleges

Agency Version Date: 10/10/2022
Agency Update Frequency: Varies
Planned Next Contact: 01/06/2023
Agency: DHS Homeland Infrastructure Foundation
Agency Contact: N/R
Most Recent Contact: 10/10/2022

CONSENT (DECREES): Legal decisions regarding responsibility for Superfund locations

Agency Version Date: 07/22/2022
Agency Update Frequency: Varies
Planned Next Contact: 01/13/2023
Agency: Environmental Protection Agency
Agency Contact: (800) 424-9346
Most Recent Contact: 10/18/2022

CORRECTIVE ACTIONS_2020: In 2009 the EPA created the 2020 Corrective Action Baseline list of contaminated or potentially contaminated sites with a cleanup goal to complete 95% by the year 2020. The names on the list indicate the facility owners who may or may not have caused the contamination.

Agency Version Date: 12/21/2018
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 01/06/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: N/R
Most Recent Contact: 10/11/2022

DAYCARE: List of Daycare facilities

Agency Version Date: 10/07/2022
Agency Update Frequency: Varies
Planned Next Contact: 01/03/2023
Agency: DHS Homeland Infrastructure Foundation
Agency Contact: N/R
Most Recent Contact: 10/07/2022

DEBRIS EPA LF: EPA list of designated landfill facilities for the safe disposal of disaster debris.

Agency Version Date: 10/04/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 12/29/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 10/04/2022

DEBRIS EPA SWRCY: EPA list of facilities for the safe recovery, recycling, and disposal of disaster debris.

Agency Version Date: 10/04/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 12/29/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 10/04/2022

DOD: Department of Defense sites from the Protected Areas Database (PAD-US)

Agency Version Date: 07/22/2022
Agency Update Frequency: Varies
Planned Next Contact: 01/13/2023
Agency: United States Geologic Survey (USGS)
Agency Contact: 1-888-275-8747
Most Recent Contact: 10/18/2022

DOT OPS: Incident Data Report

Agency Version Date: 08/08/2022
Agency Update Frequency: Varies
Planned Next Contact: 11/03/2022
Agency: U.S. Department of Transportation
Agency Contact: (202) 366-4996
Most Recent Contact: 08/08/2022

ECHO: ECHO is EPA Enforcement and Compliance History Online website to search for facilities in your community to assess their compliance with environmental regulations related to CAA, CWA, RCRA, & SDWA.

Agency Version Date: 09/12/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 12/09/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-1667
Most Recent Contact: 09/12/2022

OTHER ASCERTAINABLE RECORDS (cont.)

ENOI: The Electronic Notice of Intent (eNOI) database contains construction sites and industrial facilities that submit permit requests to EPA for Construction General Permits (CGP) and Multi-Sector General Permits (MSGP).

Agency Version Date: 03/19/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 11/24/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 08/29/2022

EPA FUELS: List of companies and facilities registered to participate in EPA Fuel Programs under Title 40 CFR Part 80.

Agency Version Date: 07/28/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 10/24/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: (202) 564-2307
Most Recent Contact: 07/28/2022

EPA OSC: Listing of oil spills and hazardous substance release sites requiring EPA On-Site Coordinators.

Agency Version Date: 06/13/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 12/02/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: (202) 564-2307
Most Recent Contact: 09/06/2022

EPA WATCH: The EPA Watch List was used to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. EPA maintained the lists from 2011 - 2013.

Agency Version Date: 02/09/2018
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 12/05/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: (202) 564-2307
Most Recent Contact: 09/07/2022

FA HWF: Hazardous Waste Facilities with Financial Assurance

Agency Version Date: 09/26/2022
Agency Update Frequency: Varies
Planned Next Contact: 12/22/2022
Agency: Environmental Protection Agency
Agency Contact: (800) 424-9346
Most Recent Contact: 09/26/2022

FEDLAND: Federal Lands from the Protected Areas Database (PAD-US)

Agency Version Date: 07/22/2022
Agency Update Frequency: Varies
Planned Next Contact: 01/13/2023
Agency: United States Geologic Survey (USGS)
Agency Contact: 1-888-275-8747
Most Recent Contact: 10/18/2022

FRS: Facility Registry Systems

Agency Version Date: 08/02/2022
Agency Update Frequency: Varies
Planned Next Contact: 10/28/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 08/02/2022

FTTS: Tracking of administrative and enforcement activities related to FIFRA/TSCA

Agency Version Date: 04/06/2013
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 12/19/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 564-2280
Most Recent Contact: 09/22/2022

FTTS INSP: Tracking of inspections related to FIFRA/TSCA

Agency Version Date: 05/08/2017
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 12/12/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 564-2280
Most Recent Contact: 09/15/2022

OTHER ASCERTAINABLE RECORDS (cont.)

FUDS: Defense sites that require cleanup

Agency Version Date: 08/01/2022
Agency Update Frequency: Varies
Planned Next Contact: 10/27/2022
Agency: US Army Corps of Engineering
Agency Contact: (202) 761-0011
Most Recent Contact: 08/01/2022

GOV MANSIONS: List of Governors Mansions

Agency Version Date: 08/09/2022
Agency Update Frequency: Varies
Planned Next Contact: 11/04/2022
Agency: DHS Homeland Infrastructure Foundation
Agency Contact: N/R
Most Recent Contact: 08/09/2022

HIST AFS: List of Air Facility Systems Quarterly Extract that are no longer in current agency list.

Agency Version Date: 09/05/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 12/02/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 09/05/2022

HIST AFS 2: List of Air Facility Systems Quarterly Extract that are no longer in current agency list.

Agency Version Date: 11/26/2018
Agency Update Frequency: Quarterly
Planned Next Contact: 01/02/2023
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 10/06/2022

HIST DOD: Department of Defense historical sites

Agency Version Date: 07/22/2022
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 01/13/2023
Agency: Environmental Protection Agency
Agency Contact: (800) 424-9346
Most Recent Contact: 10/18/2022

HIST LEAD_SMELTER: List of former lead smelter sites that is no longer in current agency list.

Agency Version Date: 12/12/2018
Agency Update Frequency: Annually
Planned Next Contact: 12/19/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 09/22/2022

HIST MLTS: List of sites in possession/use of radioactive materials regulated by NRC that is no longer in current agency list.

Agency Version Date: 07/13/2016
Agency Update Frequency: Annually
Planned Next Contact: 12/28/2022
Agency: Nuclear Regulatory Commission
Agency Contact: (800) 397-4209
Most Recent Contact: 10/03/2022

HIST PCB TRANS: List of PCB Disposal Facilities that are no longer in current agency list.

Agency Version Date: 01/18/2018
Agency Update Frequency: No Update
Planned Next Contact: 10/24/2022
Agency: Environmental Protection Agency
Agency Contact: (703) 308-8404
Most Recent Contact: 07/28/2022

HIST PCS ENF: List of permitted facilities to discharge wastewater (Federal equivalent to NPDES) that are no longer in current agency list.

Agency Version Date: 12/08/2018
Agency Update Frequency: Annually
Planned Next Contact: 11/07/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 564-6582
Most Recent Contact: 08/11/2022

OTHER ASCERTAINABLE RECORDS (cont.)

HIST PCS FACILITY: List of Permitted facilities to discharge wastewater (Federal equivalent to NPDES) that are no longer in current agency list.

Agency Version Date: 12/18/2018
Agency Update Frequency: Annually
Planned Next Contact: 11/07/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 564-6582
Most Recent Contact: 08/11/2022

HIST SSTS: List of tracking of facilities who produce pesticides and their quantity that are no longer in current agency list.

Agency Version Date: 02/13/2019
Agency Update Frequency: Annually
Planned Next Contact: 10/26/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 07/29/2022

HOSPITALS: List of major Hospitals

Agency Version Date: 10/07/2022
Agency Update Frequency: Varies
Planned Next Contact: 01/05/2023
Agency: DHS Homeland Infrastructure Foundation
Agency Contact: N/R
Most Recent Contact: 10/07/2022

HWC DOCKET: Listing of Federal facilities which are managing or have managed hazardous waste; or have had a release of hazardous waste.

Agency Version Date: 05/03/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 10/25/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: (202) 564-2307
Most Recent Contact: 07/29/2022

ICIS: Comprised of all Federal Administrative and Judicial enforcement information [intended to replace PCS] by tracking enforcement and compliance information (also contains what used to be known as FFTS)

Agency Version Date: 09/16/2022
Agency Update Frequency: Varies
Planned Next Contact: 12/13/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 09/16/2022

INACTIVE PCS: Inactive Permitted facilities to discharge wastewater

Agency Version Date: 09/16/2022
Agency Update Frequency: Varies
Planned Next Contact: 12/13/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 564-6582
Most Recent Contact: 09/16/2022

INDIAN RESERVATION: American Indian Lands from the Protected Areas Database (PAD-US)

Agency Version Date: 07/22/2022
Agency Update Frequency: Varies
Planned Next Contact: 01/13/2023
Agency: United States Geologic Survey (USGS)
Agency Contact: 1-888-275-8747
Most Recent Contact: 10/18/2022

LUCIS: Land Use Control Information Systems

Agency Version Date: 09/14/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 12/12/2022
Agency: Department of the Navy: BRAC PMO
Agency Contact: (619) 532-0900
Most Recent Contact: 09/14/2022

LUCIS 2: Land Use Control Information Systems

Agency Version Date: 01/17/2018
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 10/24/2022
Agency: Department of the Navy: BRAC PMO
Agency Contact: (619) 532-0900
Most Recent Contact: 07/28/2022

OTHER ASCERTAINABLE RECORDS (cont.)

MANIFEST EPA: EPA Hazardous Waste Electronic Manifest System (e-Manifest)

Agency Version Date: 08/02/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 10/28/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 08/02/2022

MINE OPERATIONS: Mine plants and operations for commodities monitored by the National Minerals Information Center of the USGS

Agency Version Date: 08/05/2022
Agency Update Frequency: Varies
Planned Next Contact: 11/01/2022
Agency: USGS Mineral Resources Program
Agency Contact: (703) 648-5953
Most Recent Contact: 08/05/2022

MINES: Mines Master Index Files

Agency Version Date: 09/19/2022
Agency Update Frequency: Varies
Planned Next Contact: 12/15/2022
Agency: Department of Labor
Agency Contact: (202) 693-9400
Most Recent Contact: 09/19/2022

MINES USGS: Listing of all active mines and mineral plants in 2003

Agency Version Date: 08/05/2022
Agency Update Frequency: Varies
Planned Next Contact: 11/01/2022
Agency: USGS Mineral Resources Program
Agency Contact: (703) 648-5953
Most Recent Contact: 08/05/2022

MLTS: Sites in possession/use of radioactive materials regulated by NRC

Agency Version Date: 07/15/2022
Agency Update Frequency: Varies
Planned Next Contact: 01/11/2023
Agency: Nuclear Regulatory Commission
Agency Contact: (800) 397-4209
Most Recent Contact: 10/13/2022

NPL AOC: Areas of Concern related to NPL remediation sites

Agency Version Date: 07/22/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/13/2023
Agency: Environmental Protection Agency
Agency Contact: N/R
Most Recent Contact: 10/18/2022

NPL LIENS: National Priority List of sites with Liens

Agency Version Date: 07/22/2022
Agency Update Frequency: Varies
Planned Next Contact: 01/13/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 10/18/2022

NURSING HOMES: List of Nursing Homes

Agency Version Date: 10/06/2022
Agency Update Frequency: Varies
Planned Next Contact: 01/02/2023
Agency: DHS Homeland Infrastructure Foundation
Agency Contact: N/R
Most Recent Contact: 10/06/2022

OSHA: OSHA's listing of inspections violations and fatality information

Agency Version Date: 06/20/2022
Agency Update Frequency: Varies
Planned Next Contact: 12/12/2022
Agency: Occupational Safety & Health Administration
Agency Contact: 800-321-6742
Most Recent Contact: 09/15/2022

PADS: Listing of generators transporters commercial store/ brokers and disposers of PCB

Agency Version Date: 07/22/2022
Agency Update Frequency: Varies
Planned Next Contact: 01/13/2023
Agency: Environmental Protection Agency
Agency Contact: (703) 308-8404
Most Recent Contact: 10/18/2022

OTHER ASCERTAINABLE RECORDS (cont.)

PCB TRANSFORMER: Disposal and Storage of Polychlorinated Biphenyl (PCB) Waste

Agency Version Date: 08/05/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 11/01/2022
Agency: Environmental Protection Agency
Agency Contact: (703) 308-8404
Most Recent Contact: 08/05/2022

PCS ENF: Permitted facilities to discharge wastewater (Federal equivalent to NPDES)

Agency Version Date: 09/16/2022
Agency Update Frequency: Varies
Planned Next Contact: 12/13/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 564-6582
Most Recent Contact: 09/16/2022

PCS FACILITY: Permitted facilities to discharge wastewater (Federal equivalent to NPDES)

Agency Version Date: 09/16/2022
Agency Update Frequency: Varies
Planned Next Contact: 12/13/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 564-6582
Most Recent Contact: 09/16/2022

PFAS NPL: List of NPL sites with PFAS or PFOA contamination

Agency Version Date: 07/26/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/12/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 10/17/2022

PFAS TRIS: List of TRIS sites where PFAS or PFOA are used/manufactured/ treated/ transported/released.

Agency Version Date: 09/16/2022
Agency Update Frequency: Varies
Planned Next Contact: 12/13/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 09/16/2022

PFAS UCMR3: List of PWS wells sampled for Unregulated Contaminant Monitoring Rule (UCMR)

Agency Version Date: 06/02/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 11/24/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 08/29/2022

PRISONS: List of Prison facilities

Agency Version Date: 09/02/2022
Agency Update Frequency: Varies
Planned Next Contact: 11/29/2022
Agency: DHS Homeland Infrastructure Foundation
Agency Contact: N/R
Most Recent Contact: 09/02/2022

RAATS: Listing of major violators with enforcement actions issued under RCRA. Includes administrative and civil actions filed by the EPA. This dataset is no longer maintained.

Agency Version Date: 09/23/2019
Agency Update Frequency: Varies
Planned Next Contact: 01/04/2023
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 10/10/2022

RADINFO: EPA regulated facilities with radiation and radioactive materials

Agency Version Date: 08/01/2019
Agency Update Frequency: Varies
Planned Next Contact: 12/22/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 09/26/2022

RMP: Facilities producing/handling/ process/ distribute/ store specific chemicals report plans required by the Clean Air Act

Agency Version Date: 04/01/2022
Agency Update Frequency: Monthly
Planned Next Contact: 12/21/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 564-2534
Most Recent Contact: 09/23/2022

OTHER ASCERTAINABLE RECORDS (cont.)

ROD: Permanent remedy at an NPL site

Agency Version Date: 07/22/2022
Agency Update Frequency: Varies
Planned Next Contact: 01/13/2023
Agency: Environmental Protection Agency
Agency Contact: (800) 424-9346
Most Recent Contact: 10/18/2022

SCHOOLS PRIVATE: List of Private Schools

Agency Version Date: 10/07/2022
Agency Update Frequency: Varies
Planned Next Contact: 01/05/2023
Agency: DHS Homeland Infrastructure Foundation
Agency Contact: N/R
Most Recent Contact: 10/07/2022

SCHOOLS PUBLIC: List of Public Schools

Agency Version Date: 10/07/2022
Agency Update Frequency: Varies
Planned Next Contact: 01/05/2023
Agency: DHS Homeland Infrastructure Foundation
Agency Contact: N/R
Most Recent Contact: 10/07/2022

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners

Agency Version Date: 08/23/2022
Agency Update Frequency: No Update
Planned Next Contact: 11/18/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 08/23/2022

SEMS_SMELTER: This report includes sites that have smelting-related, or potentially smelting-related, indicators in the SEMS database. The report includes information on the site location as well as contaminants of concern.

Agency Version Date: 07/22/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/13/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 10/18/2022

SSTS: Tracking of facilities who produce pesticides and their quantity

Agency Version Date: 08/29/2022
Agency Update Frequency: Annually
Planned Next Contact: 11/24/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 08/29/2022

STORMWATER: Permitted storm water sites

Agency Version Date: 09/09/2022
Agency Update Frequency: Varies
Planned Next Contact: 12/06/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 09/09/2022

TOSCA-PLANT: Plants controlled by the Toxic Substance Control Act

Agency Version Date: 09/05/2022
Agency Update Frequency: Varies
Planned Next Contact: 12/01/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 09/05/2022

TRIS: Information regarding toxic chemicals that are being used/manufactured/ treated/ transported/released into the environment

Agency Version Date: 09/16/2022
Agency Update Frequency: Varies
Planned Next Contact: 12/13/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 09/16/2022

OTHER ASCERTAINABLE RECORDS (cont.)

UMTRA: Uranium Recovery Sites

Agency Version Date: 06/21/2022
Agency Update Frequency: Varies
Planned Next Contact: 12/13/2022
Agency: United States Nuclear Regulatory Commission
Agency Contact: (301) 415-8200
Most Recent Contact: 09/16/2022

VAPOR: EPA Vapor Intrusion Database

Agency Version Date: 03/19/2021
Agency Update Frequency: Varies
Planned Next Contact: 11/25/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 08/30/2022

AOC_SAN GABRIEL VALLEY - CA: San Gabriel Valley Superfund sites

Agency Version Date: 07/22/2022
Agency Update Frequency: Varies
Planned Next Contact: 01/13/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 415-972-3181
Most Recent Contact: 10/18/2022

BOND EXPENDITURE PLAN - CA: Hazardous Substance Cleanup Bond Act of 1984 Article 7.5 of Health and Safety Code 25385 listing of orphan sites

Agency Version Date: 09/12/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 12/08/2022
Agency: Department of Toxic Substance Control
Agency Contact: 916-322-2861
Most Recent Contact: 09/12/2022

BP HW OUT_VENTURA COUNTY - CA: Ventura County Business Plan Hazardous Waste Producers and Operating Underground Tanks

Agency Version Date: 08/02/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 10/28/2022
Agency: Ventura County Environmental Health Division
Agency Contact: 805-654-2815
Most Recent Contact: 08/02/2022

BUSINESS INVENTORY_SAN MATEO COUNTY - CA: San Mateo County listing of underground storage tanks, hazardous materials, business plans, and hazardous waste generators

Agency Version Date: 09/26/2022
Agency Update Frequency: Annually
Planned Next Contact: 12/22/2022
Agency: San Mateo County Environmental Health Services Division
Agency Contact: 650-372-6200
Most Recent Contact: 09/26/2022

CALEPA SITES - CA: CalEPA Regulated Sites from the Certified Unified Program Agencies (CUPA).

Agency Version Date: 09/20/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 12/16/2022
Agency: California Environmental Protection Agency Unified Program Section
Agency Contact: 916-327-5092
Most Recent Contact: 09/20/2022

CIWQS - CA: California Integrated Water Quality System database facilities listing which includes owner information, violations, inspections, and other regulatory matters

Agency Version Date: 09/05/2022
Agency Update Frequency: Varies
Planned Next Contact: 12/01/2022
Agency: CA State Water Resources Control Board
Agency Contact: 916-341-5791
Most Recent Contact: 09/05/2022

CIWQS 2 - CA: California Integrated Water Quality System database facilities listing which includer owner information violations inspections and other regulatory matters

Agency Version Date: 07/04/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 12/26/2022
Agency: CA State Water Resources Control Board
Agency Contact: 916-341-5791
Most Recent Contact: 09/28/2022

OTHER ASCERTAINABLE RECORDS (cont.)

CORTESE - CA: Compliance document used in providing information about the location of hazardous material release sites utilized by the state local agencies and developers

Agency Version Date: 09/12/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 12/08/2022
Agency: Department of Toxic Substance Control
Agency Contact: 916-322-2861
Most Recent Contact: 09/12/2022

CUPA_BUTTE COUNTY - CA: Listing of the Butte County Certified Unified Program Agency`s hazardous material program sites

Agency Version Date: 03/19/2018
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 11/14/2022
Agency: Butte County Environmental Health
Agency Contact: 530.538.7281
Most Recent Contact: 08/17/2022

CUPA_FRESNO COUNTY - CA: Listing of the Fresno County Certified Unified Program Agency's hazardous material program sites

Agency Version Date: 09/16/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 12/13/2022
Agency: Fresno County Department of Public Health
Agency Contact: 559-600-3271
Most Recent Contact: 09/16/2022

CUPA_PLACER COUNTY - CA: Listing of the Placer County Certified Unified Program Agency's hazardous material program sites

Agency Version Date: 07/18/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/10/2023
Agency: Placer County Environmental Health
Agency Contact: 530-745-2350
Most Recent Contact: 10/14/2022

DAYCARE - CA: List of daycare locations

Agency Version Date: 07/13/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/03/2023
Agency: California Department of Social Services
Agency Contact: 916-651-6040
Most Recent Contact: 10/07/2022

DRYCLEANERS - CA: Listing of drycleaning facilities

Agency Version Date: 09/09/2014
Agency Update Frequency: Quarterly
Planned Next Contact: 12/06/2022
Agency: California EPA Air Resources Board
Agency Contact: 916-324-3013
Most Recent Contact: 09/09/2022

DRYCLEANERS_AMADOR COUNTY - CA: Listing of drycleaning facilities in Amador County

Agency Version Date: 11/02/2016
Agency Update Frequency: Varies
Planned Next Contact: 11/28/2022
Agency: Amador County APCD
Agency Contact: (209) 223-6439
Most Recent Contact: 08/30/2022

DRYCLEANERS_ANTELOPE VALLEY - CA: Listing of drycleaning facilities in Antelope Valley

Agency Version Date: 08/03/2022
Agency Update Frequency: Varies
Planned Next Contact: 11/01/2022
Agency: Antelope Valley AQMD
Agency Contact: 661-723-8070
Most Recent Contact: 08/03/2022

DRYCLEANERS_BAY AREA - CA: Listing of drycleaning facilities in Bay Area

Agency Version Date: 07/01/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 12/08/2022
Agency: Bay Area AQMD
Agency Contact: 415-749-4784
Most Recent Contact: 09/12/2022

DRYCLEANERS_BUTTE COUNTY - CA: Listing of drycleaning facilities in Butte County

Agency Version Date: 04/20/2022
Agency Update Frequency: Semi Annually
Planned Next Contact: 01/12/2023
Agency: Butte County AQMD
Agency Contact: 530-332-9400 ext. 107
Most Recent Contact: 10/14/2022

OTHER ASCERTAINABLE RECORDS (cont.)

DRYCLEANERS_CALAVERAS COUNTY - CA: Listing of drycleaning facilities in Calaveras County

Agency Version Date: 07/14/2022
Agency Update Frequency: Varies
Planned Next Contact: 01/10/2023
Agency: Calaveras County APCD
Agency Contact: 209-754-6504
Most Recent Contact: 10/12/2022

DRYCLEANERS_COLUSA COUNTY - CA: Listing of drycleaning facilities in Colusa County

Agency Version Date: 09/08/2014
Agency Update Frequency: Quarterly
Planned Next Contact: 01/13/2023
Agency: Colusa County APCD
Agency Contact: 530-458-0590
Most Recent Contact: 10/17/2022

DRYCLEANERS_EASTERN KERN COUNTY - CA: Listing of drycleaning facilities in Eastern Kern County

Agency Version Date: 10/17/2022
Agency Update Frequency: Varies
Planned Next Contact: 01/13/2023
Agency: Eastern Kern County APCD
Agency Contact: 661-862-5250
Most Recent Contact: 10/17/2022

DRYCLEANERS_EL DORADO COUNTY - CA: Listing of drycleaning facilities in El Dorado County

Agency Version Date: 03/18/2016
Agency Update Frequency: Varies
Planned Next Contact: 01/13/2023
Agency: El Dorado County AQMD
Agency Contact: 530-621-7503
Most Recent Contact: 10/17/2022

DRYCLEANERS_FEATHER RIVER - CA: Listing of drycleaning facilities in Feather River

Agency Version Date: 09/24/2021
Agency Update Frequency: Varies
Planned Next Contact: 12/08/2022
Agency: Feather River AQMD
Agency Contact: 530-634-7659 ext. 205
Most Recent Contact: 09/12/2022

DRYCLEANERS_GLENN COUNTY - CA: Listing of drycleaning facilities in Glenn County

Agency Version Date: 10/29/2012
Agency Update Frequency: Varies
Planned Next Contact: 11/02/2022
Agency: Glenn County APCD
Agency Contact: 530-934-6500
Most Recent Contact: 08/04/2022

DRYCLEANERS_GREAT BASIN UNIFIED - CA: Listing of drycleaning facilities in the Great Basin Unified region

Agency Version Date: 09/09/2014
Agency Update Frequency: Varies
Planned Next Contact: 12/21/2022
Agency: Great Basin Unified APCD
Agency Contact: 760-872-8211 ext. 228
Most Recent Contact: 09/23/2022

DRYCLEANERS_IMPERIAL COUNTY - CA: Listing of drycleaning facilities in Imperial County

Agency Version Date: 10/29/2021
Agency Update Frequency: Annually
Planned Next Contact: 01/13/2023
Agency: Imperial County APCD
Agency Contact: 760-482-4606
Most Recent Contact: 10/17/2022

DRYCLEANERS_LAKE COUNTY - CA: Listing of drycleaning facilities in Lake County

Agency Version Date: 07/14/2022
Agency Update Frequency: Varies
Planned Next Contact: 01/10/2023
Agency: Lake County AQMD
Agency Contact: 707-263-7000
Most Recent Contact: 10/12/2022

DRYCLEANERS_LASSEN COUNTY - CA: Listing of drycleaning facilities in Lassen County

Agency Version Date: 05/16/2013
Agency Update Frequency: Varies
Planned Next Contact: 10/31/2022
Agency: Lassen County APCD
Agency Contact: 530-257-1045
Most Recent Contact: 08/02/2022

OTHER ASCERTAINABLE RECORDS (cont.)

DRYCLEANERS_MENDOCINO COUNTY - CA: Listing of drycleaning facilities in Mendocino County

Agency Version Date: 08/24/2016
Agency Update Frequency: Varies
Planned Next Contact: 12/30/2022
Agency: Mendocino County AQMD
Agency Contact: 707-463-4354
Most Recent Contact: 10/05/2022

DRYCLEANERS_MOJAVE DESERT - CA: Listing of drycleaning facilities in the Mojave Desert region

Agency Version Date: 08/03/2022
Agency Update Frequency: Varies
Planned Next Contact: 11/01/2022
Agency: Mojave Desert AQMD
Agency Contact: 661-723-8070
Most Recent Contact: 08/03/2022

DRYCLEANERS_MONTEREY BAY - CA: Listing of drycleaning facilities in the Monterey Bay region

Agency Version Date: 08/31/2022
Agency Update Frequency: Varies
Planned Next Contact: 11/29/2022
Agency: Monterey Bay Unified APCD
Agency Contact: 831-647-9418 ext.240
Most Recent Contact: 08/31/2022

DRYCLEANERS_NORTH COAST UNIFIED - CA: Listing of drycleaning facilities in the North Coast region

Agency Version Date: 09/21/2022
Agency Update Frequency: Varies
Planned Next Contact: 12/19/2022
Agency: North Coast Unified AQMD
Agency Contact: 707-443-3093 ext. 111
Most Recent Contact: 09/21/2022

DRYCLEANERS_NORTHERN SIERRA - CA: Listing of drycleaning facilities in the Northern Sierra region

Agency Version Date: 09/08/2014
Agency Update Frequency: No Update
Planned Next Contact: 11/18/2022
Agency: Northern Sierra AQMD
Agency Contact: 530-274-9360 ext. 106
Most Recent Contact: 08/24/2022

DRYCLEANERS_NORTHERN SONOMA COUNTY - CA: Listing of drycleaning facilities in Northern Sonoma County

Agency Version Date: 06/01/2018
Agency Update Frequency: Varies
Planned Next Contact: 11/03/2022
Agency: Northern Sonoma County APCD
Agency Contact: 707-433-5911
Most Recent Contact: 08/05/2022

DRYCLEANERS_PLACER COUNTY - CA: Listing of drycleaning facilities in Placer County

Agency Version Date: 05/02/2018
Agency Update Frequency: Quarterly
Planned Next Contact: 11/08/2022
Agency: Placer County APCD
Agency Contact: 530-745-2324
Most Recent Contact: 08/12/2022

DRYCLEANERS_SACRAMENTO COUNTY - CA: Listing of drycleaning facilities in Sacramento County

Agency Version Date: 06/06/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 11/29/2022
Agency: Sacramento Metro AQMD
Agency Contact: 916-874-4817
Most Recent Contact: 09/01/2022

DRYCLEANERS_SAN DIEGO COUNTY - CA: Listing of drycleaning facilities in San Diego County

Agency Version Date: 05/20/2019
Agency Update Frequency: Varies
Planned Next Contact: 11/03/2022
Agency: San Diego County APCD
Agency Contact: 858-586-2618
Most Recent Contact: 08/05/2022

DRYCLEANERS_SAN JOAQUIN VALLEY - CA: Listing of drycleaning facilities in the San Joaquin Valley

Agency Version Date: 07/27/2022
Agency Update Frequency: Varies
Planned Next Contact: 10/24/2022
Agency: San Joaquin Valley APCD
Agency Contact: 559-230-5936
Most Recent Contact: 07/27/2022

OTHER ASCERTAINABLE RECORDS (cont.)

DRYCLEANERS_SAN LUIS OBISPO - CA: Listing of drycleaning facilities in the San Luis Obispo region

Agency Version Date: 08/11/2022
Agency Update Frequency: Varies
Planned Next Contact: 11/04/2022
Agency: San Luis Obispo County APCD
Agency Contact: 805-781-5912
Most Recent Contact: 08/08/2022

DRYCLEANERS_SANTA BARBARA COUNTY - CA: Listing of drycleaning facilities in Santa Barbara County

Agency Version Date: 08/20/2021
Agency Update Frequency: Varies
Planned Next Contact: 10/31/2022
Agency: Santa Barbara County APCD
Agency Contact: 805-961-8867
Most Recent Contact: 08/04/2022

DRYCLEANERS_SHASTA COUNTY - CA: Listing of drycleaning facilities in Shasta County

Agency Version Date: 02/12/2021
Agency Update Frequency: Varies
Planned Next Contact: 01/13/2023
Agency: Shasta County AQMD
Agency Contact: 530-225-5674
Most Recent Contact: 10/17/2022

DRYCLEANERS_SISKIYOU COUNTY - CA: Listing of drycleaning facilities in Siskiyou County

Agency Version Date: 09/08/2014
Agency Update Frequency: Varies
Planned Next Contact: 01/04/2023
Agency: Siskiyou County APCD
Agency Contact: N/R
Most Recent Contact: 10/06/2022

DRYCLEANERS_SOUTH COAST - CA: Listing of drycleaning facilities in the South Coast region

Agency Version Date: 08/12/2022
Agency Update Frequency: Varies
Planned Next Contact: 11/08/2022
Agency: South Coast AQMD
Agency Contact: 909-396-2000
Most Recent Contact: 08/10/2022

DRYCLEANERS_TEHAMA COUNTY - CA: Listing of drycleaning facilities in Tehama County

Agency Version Date: 08/19/2022
Agency Update Frequency: Varies
Planned Next Contact: 11/15/2022
Agency: Tehama County APCD
Agency Contact: 530-527-3717 ext.100
Most Recent Contact: 08/17/2022

DRYCLEANERS_TUOLUMNE COUNTY - CA: Listing of drycleaning facilities in Tuolumne County

Agency Version Date: 09/21/2020
Agency Update Frequency: Varies
Planned Next Contact: 11/18/2022
Agency: Tuolumne County APCD
Agency Contact: 209-533-6678
Most Recent Contact: 08/24/2022

DRYCLEANERS_VENTURA COUNTY - CA: Listing of drycleaning facilities in Ventura County

Agency Version Date: 07/19/2022
Agency Update Frequency: Varies
Planned Next Contact: 01/13/2023
Agency: Ventura County APCD
Agency Contact: 805-645-1405
Most Recent Contact: 10/17/2022

DRYCLEANERS_YOLO-SOLANO COUNTIES - CA: Listing of drycleaning facilities in Yolo and Solano Counties

Agency Version Date: 08/11/2022
Agency Update Frequency: Varies
Planned Next Contact: 11/07/2022
Agency: Yolo-Solano AQMD
Agency Contact: 530-757-3664
Most Recent Contact: 08/09/2022

EMI - CA: An estimation of air pollution for a listing of air permitted facilities

Agency Version Date: 08/29/2022
Agency Update Frequency: Varies
Planned Next Contact: 11/25/2022
Agency: California Air Resources Board
Agency Contact: 916-327-6251
Most Recent Contact: 08/29/2022

OTHER ASCERTAINABLE RECORDS (cont.)

FA - CA: Listing of the Department of Toxic Substance Control's Financial Assurance report sites and facilities

Agency Version Date: 07/15/2022
Agency Update Frequency: Varies
Planned Next Contact: 01/11/2023
Agency: Department of Toxic Substance Control
Agency Contact: 916-322-2861
Most Recent Contact: 10/13/2022

FA 2 - CA: Financial Assurance Information for solid waste facilities

Agency Version Date: 07/08/2022
Agency Update Frequency: Varies
Planned Next Contact: 01/04/2023
Agency: Department of Environment & Natural Resources
Agency Contact: 916-341-6066
Most Recent Contact: 10/06/2022

FIRE AREAS - CA: The multi-agency statewide database of fire perimeters.

Agency Version Date: 09/26/2022
Agency Update Frequency: No Update
Planned Next Contact: 12/22/2022
Agency: California Department of Forestry and Fire Protection
Agency Contact: 916-445-4302
Most Recent Contact: 09/26/2022

GCC_SANTA CLARA VALLEY - CA: Santa Clara Valley groundwater contamination cleanups listing

Agency Version Date: 08/11/2022
Agency Update Frequency: Varies
Planned Next Contact: 11/07/2022
Agency: CA State Water Resources Control Board
Agency Contact: 916-341-5791
Most Recent Contact: 08/11/2022

HAZMAT INCIDENT_CONTRA COSTA COUNTY - CA: Listing of hazardous material incident sites since 1993 in Contra Costa County

Agency Version Date: 07/29/2022
Agency Update Frequency: Varies
Planned Next Contact: 10/27/2022
Agency: Contra Costa Health Services Department
Agency Contact: 925-335-3200
Most Recent Contact: 07/29/2022

HAZMAT_CITY OF SAN JOSE - CA: City of San Jose hazardous material facilities listing

Agency Version Date: 01/05/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 12/08/2022
Agency: Santa Clara County Department of Environmental Health
Agency Contact: 408-918-1951
Most Recent Contact: 09/12/2022

HAZMAT_SACRAMENTO COUNTY - CA: Sacramento county hazardous material facilities listing

Agency Version Date: 08/04/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 10/31/2022
Agency: Sacramento County Environmental Management
Agency Contact: 916-875-8550
Most Recent Contact: 08/04/2022

HAZMAT_SAN BERNARDINO COUNTY - CA: San Bernardino county listing of hazardous material permitted facilities

Agency Version Date: 07/27/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 10/25/2022
Agency: San Bernardino County Fire Department Hazardous Materials Division
Agency Contact: 909-386-8419
Most Recent Contact: 07/27/2022

HAZMAT_SAN DIEGO COUNTY - CA: San Diego county listing of hazardous material permitted facilities

Agency Version Date: 08/01/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 10/26/2022
Agency: Hazardous Materials Management Division
Agency Contact: 858-505-6700
Most Recent Contact: 08/01/2022

HAZMAT_SANTA CLARA COUNTY - CA: Santa Clara county hazardous material facilities listing

Agency Version Date: 08/11/2022
Agency Update Frequency: Annually
Planned Next Contact: 11/07/2022
Agency: Santa Clara Department of Environmental Health
Agency Contact: 408-918-3428
Most Recent Contact: 08/09/2022

OTHER ASCERTAINABLE RECORDS (cont.)

HAZNET - CA: Listing of hazardous waste manifests from when hazardous waste is transported from generators to permitted recycling treatment storage or disposal facilities by registered hazardous waste transporters

Agency Version Date: 04/05/2021
Agency Update Frequency: Annually
Planned Next Contact: 12/06/2022
Agency: California Environmental Protection Agency
Agency Contact: 916-341-5791
Most Recent Contact: 09/09/2022

HAZWASTE_ORANGE COUNTY - CA: Orange County hazardous waste facilities

Agency Version Date: 08/02/2022
Agency Update Frequency: Annually
Planned Next Contact: 10/28/2022
Agency: Orange County Health Care Agency
Agency Contact: 714-433-6000
Most Recent Contact: 08/02/2022

HIGH FIRE - CA: Fire hazard severity zones mapped as areas of significant fire hazards on the basis of fuels terrain weather and other factors

Agency Version Date: 03/22/2021
Agency Update Frequency: No update
Planned Next Contact: 11/22/2022
Agency: California Department of Forestry and Fire Protection
Agency Contact: 916-445-4302
Most Recent Contact: 08/26/2022

HIST CORTESE - CA: The historical compliance document used in providing information about the location of hazardous material release sites utilized by the state local agencies and developers

Agency Version Date: 07/28/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 10/24/2022
Agency: Department of Toxic Substance Control
Agency Contact: 916-322-2861
Most Recent Contact: 07/28/2022

HIST HAZNET - CA: List of hazardous waste manifests from when hazardous waste is transported from generators to permitted recycling treatment storage or disposal facilities by registered hazardous waste transporters that are no longer in current agency list.

Agency Version Date: 10/10/2018
Agency Update Frequency: Annually
Planned Next Contact: 11/07/2022
Agency: California Environmental Protection Agency
Agency Contact: 916-341-5791
Most Recent Contact: 08/11/2022

HIST HMS_LOS ANGELES COUNTY - CA: List of Los Angeles county industrial waste and underground storage tank sites that are no longer in current agency list.

Agency Version Date: 09/05/2022
Agency Update Frequency: Annually
Planned Next Contact: 12/02/2022
Agency: County of Los Angeles Department of Public Works
Agency Contact: 626-458-3518
Most Recent Contact: 09/05/2022

HIST HWP - CA: List of the Department of Toxic Substance Control's hazardous waste transporters and corrective action that are no longer in current agency list.

Agency Version Date: 01/18/2019
Agency Update Frequency: Annually
Planned Next Contact: 01/09/2023
Agency: Department of Toxic Substance Control
Agency Contact: 916-322-2861
Most Recent Contact: 10/13/2022

HIST LDS - CA: List of areas of land on or in which hazardous waste is placed or the largest area in which there is significant likelihood of mixing hazardous waste constituents in the same area that are no longer in current agency list.

Agency Version Date: 05/20/2018
Agency Update Frequency: Annually
Planned Next Contact: 11/11/2022
Agency: State Water Qualilty Control Board
Agency Contact: 916-341-5791
Most Recent Contact: 08/16/2022

OTHER ASCERTAINABLE RECORDS (cont.)

HIST MCS - CA: List of the State Water Resources Control Boards investigation and remediation of water quality issues at military facilities that is no longer in current agency list.

Agency Version Date: 09/24/2018
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 12/02/2022
Agency: State Water Resources Control Board
Agency Contact: 916-341-5791
Most Recent Contact: 09/05/2022

HIST NFA - CA: Historical No further action cleanup sites listing

Agency Version Date: 02/21/2019
Agency Update Frequency: Quarterly
Planned Next Contact: 10/31/2022
Agency: Department of Toxic Substances Control
Agency Contact: 916-322-2861
Most Recent Contact: 08/04/2022

HIST SOLVENTS_SANTA CLARA CO - CA: List of Santa Clara County Historic Solvent Case Files

Agency Version Date: 08/17/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 11/14/2022
Agency: Santa Clara Valley Water District
Agency Contact: (408) 630-2694
Most Recent Contact: 08/17/2022

HMS_LOS ANGELES COUNTY - CA: Listing of Los Angeles county industrial waste and underground storage tank sites

Agency Version Date: 09/09/2022
Agency Update Frequency: Monthly
Planned Next Contact: 12/07/2022
Agency: County of Los Angeles Department of Public Works
Agency Contact: 626-458-3518
Most Recent Contact: 09/09/2022

HWM COMMERCIAL FACILITIES - CA: Listing of all commercial hazardous waste permitted off-site transfer recycling treatment storage and disposal facilities

Agency Version Date: 10/10/2022
Agency Update Frequency: Varies
Planned Next Contact: 01/04/2023
Agency: Department of Toxic Substance Control
Agency Contact: 916-322-5308
Most Recent Contact: 10/10/2022

HWP - CA: Facility listing of the Department of Toxic Substance Control's hazardous waste transporters and corrective action

Agency Version Date: 07/21/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/12/2023
Agency: Department of Toxic Substance Control
Agency Contact: 916-322-2861
Most Recent Contact: 10/17/2022

HWT - CA: Listing of registered hazardous waste transporters

Agency Version Date: 07/28/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 10/24/2022
Agency: Department of Toxic Substance Control
Agency Contact: 916-322-2861
Most Recent Contact: 07/28/2022

LDS - CA: List of Land Disposal Cleanup Sites from Geotracker

Agency Version Date: 10/14/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/10/2023
Agency: State Water Resources Control Board
Agency Contact: 916-341-5791
Most Recent Contact: 10/14/2022

LOP_SANTA CLARA COUNTY - CA: Santa Clara county leaking underground storage tank sites

Agency Version Date: 07/21/2017
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 01/04/2023
Agency: Department of Environmental Health
Agency Contact: 408-280-6479
Most Recent Contact: 10/10/2022

OTHER ASCERTAINABLE RECORDS (cont.)

MCS - CA: List of Military Cleanup Sites from Geotracker

Agency Version Date: 10/14/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/10/2023
Agency: State Water Resources Control Board
Agency Contact: 916-341-5791
Most Recent Contact: 10/14/2022

MWMP - CA: Listing of treatment and transfer stations that properly handle and dispose of medical waste that are permitted and inspected by the Medical Waste Management Program

Agency Version Date: 01/28/2022
Agency Update Frequency: Varies
Planned Next Contact: 01/16/2023
Agency: California-Health Human Services Department of Public Health
Agency Contact: 916-449-5661
Most Recent Contact: 10/20/2022

MWMP 2 - CA: Listing of facilities that generate permitted medical waste and are inspected by the Medical Waste Management Program

Agency Version Date: 01/13/2012
Agency Update Frequency: Quarterly
Planned Next Contact: 01/05/2023
Agency: California-Health Human Services Department of Public Health
Agency Contact: 916-449-5661
Most Recent Contact: 10/07/2022

NFA - CA: No further action cleanup sites listing

Agency Version Date: 09/12/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 12/08/2022
Agency: Department of Toxic Substances Control
Agency Contact: 916-322-2861
Most Recent Contact: 09/12/2022

NFE - CA: Unconfirmed contaminated properties listing

Agency Version Date: 09/09/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 12/06/2022
Agency: Department of Toxic Substances Control
Agency Contact: 916-322-2861
Most Recent Contact: 09/09/2022

NPDES - CA: Listing of facilities with wastewater and NPDES permits including stormwater

Agency Version Date: 08/11/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 11/07/2022
Agency: State Water Resources Control Board
Agency Contact: 916-341-5810
Most Recent Contact: 08/11/2022

PERCHLORATE 2 - CA: Listing of contaminated sites where the primary known chemical is perchlorate

Agency Version Date: 09/09/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 12/06/2022
Agency: Department of Toxic Substances Control
Agency Contact: 916-322-2861
Most Recent Contact: 09/09/2022

PFAS - CA: List of PFAS sites and areas of interest

Agency Version Date: 09/26/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 12/22/2022
Agency: California State Water Resources Control Board
Agency Contact: N/R
Most Recent Contact: 09/26/2022

PFAS DOD - CA: List of DoD facilities conducting PFAS investigations

Agency Version Date: 09/26/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 12/22/2022
Agency: California State Water Resources Control Board
Agency Contact: N/R
Most Recent Contact: 09/26/2022

OTHER ASCERTAINABLE RECORDS (cont.)

PFAS GAMA - CA: PFOS & PFAS GAMA Well Sampling program

Agency Version Date: 09/22/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 12/19/2022
Agency: California State Water Resources Control Board
Agency Contact: N/R
Most Recent Contact: 09/22/2022

PROPOSITION 65 - CA: Listing of Proposition 65 enforcement reporting notice sites in accordance with "The Safe Drinking Water and Toxic Enforcement Act of 1986"

Agency Version Date: 06/11/2021
Agency Update Frequency: No update
Planned Next Contact: 11/18/2022
Agency: State of California Department of JusticeOffice of the Attorney General
Agency Contact: 510-873-6321
Most Recent Contact: 08/23/2022

RFR - CA: State Water Resources Control Board Regulated Facility Report database listing which includes program agency type and their permit status

Agency Version Date: 08/25/2022
Agency Update Frequency: Varies
Planned Next Contact: 11/21/2022
Agency: CA State Water Resources Control Board
Agency Contact: 916-341-5810
Most Recent Contact: 08/25/2022

SITES INVENTORY_VENTURA COUNTY - CA: Listing of Ventura County inventory of closed illegal abandoned and inactive sites

Agency Version Date: 05/14/2021
Agency Update Frequency: Annually
Planned Next Contact: 10/24/2022
Agency: Environmental Health Division
Agency Contact: 805-654-2815
Most Recent Contact: 07/28/2022

SMU_SANTA BARBARA COUNTY - CA: Site Mitigation Unit site assessment and corrective actions at properties in Santa Barbara County

Agency Version Date: 09/20/2022
Agency Update Frequency: Varies
Planned Next Contact: 12/16/2022
Agency: Santa Barbara County APCD
Agency Contact: (805) 681-4900
Most Recent Contact: 09/20/2022

SWAT - CA: The SWAT Reports Summary Data and the Waste Management Unit Database were published by State Water Resources Control Board staff and the Regional Water Quality Control Boards for tracking and inventory of waste management units.

Agency Version Date: 08/08/2015
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 11/07/2022
Agency: Department of Ecology
Agency Contact: 916-322-2861
Most Recent Contact: 08/11/2022

VCCP_VENTURA COUNTY - CA: Listing of Ventura County cleanup program sites

Agency Version Date: 07/22/2022
Agency Update Frequency: Annually
Planned Next Contact: 01/16/2023
Agency: Environmental Health Division
Agency Contact: 805-654-2815
Most Recent Contact: 10/20/2022

WDR - CA: List of Waste Discharge Requirement Sites.

Agency Version Date: 09/09/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 12/06/2022
Agency: State Water Resources Control Board
Agency Contact: N/R
Most Recent Contact: 09/09/2022

WDS - CA: Listing of waste discharge system reporting facilities

Agency Version Date: 10/07/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 01/05/2023
Agency: State Water Resources Control Board
Agency Contact: 916-341-5810
Most Recent Contact: 10/07/2022

OTHER ASCERTAINABLE RECORDS (cont.)

WILDLANDS - CA: The Wildlands Conservancy listing of preserves in California

Agency Version Date: 08/08/2022
Agency Update Frequency: Varies
Planned Next Contact: 11/03/2022

Agency: The Wildlands Conservancy
Agency Contact: 909-797-8507
Most Recent Contact: 08/08/2022

WIP - CA: Listing of Well Investigation Program cases in the San Gabriel and San Fernando Valley area

Agency Version Date: 07/01/2009
Agency Update Frequency: Varies
Planned Next Contact: 10/27/2022

Agency: Los Angeles Water Quality Control Board
Agency Contact: 916-341-5810
Most Recent Contact: 08/02/2022

OTHER

SEISMIC - CA: Earthquake Zones of Required Investigation. Shows the location of both Seismic Hazard Zones and Earthquake Fault Zones

Agency Version Date: 07/12/2022
Agency Update Frequency: Varies
Planned Next Contact: 01/05/2023

Agency: State of California Department of Conservation
Agency Contact: 916-324-7299
Most Recent Contact: 10/07/2022

SUBJECT PROPERTY ADDRESS:

Lassen Solar

Lassen County, CA

SUBJECT PROPERTY COORDINATES:

Latitude(North):	40.302808 - 40°18'10.1"
Longitude(West):	-120.179525 - -120°10'46.3"
Universal Transverse Mercator:	Zone 10N
UTM X (Meters):	739704.04
UTM Y (Meters):	4465184.74
State Plane Coordinates:	0401 - California Zone 1 (US Survey Feet)
X Coordinate (Feet):	7069368.077 E
Y Coordinate (Feet):	1998868.074 N

ELEVATION:

Elevation:	4032 ft. above sea level

USGS TOPOGRAPHIC MAP:

Subject Property Map:	40120-C2 Wendel, CA
Most Recent Revision:	2018

GEOHYDROLOGY DATA:

SUBJECT PROPERTY TOPOGRAPHY:

Topographic Gradient: North

DFIRM FLOOD ZONE:

	DFIRM Flood
Subject Property County:	Electronic Data:
LASSEN	Yes - refer to the PROPERTY PROXIMITY MAP and AREA MAP
Flood Plain Panel at Subject Property:	06035C2300D (Eff. date 9/3/2010)
Additional Panels in search area:	06035C2325D (Eff. date 9/3/2010)

FEMA FLOOD ZONE:

	FEMA Flood
Subject Property County:	Electronic Data:
LASSEN	Yes - refer to the PROPERTY PROXIMITY MAP and AREA MAP
Flood Plain Panel at Subject Property:	0600921000B 0600921025B 0600921150B
Additional Panels in search area:	0600921125B

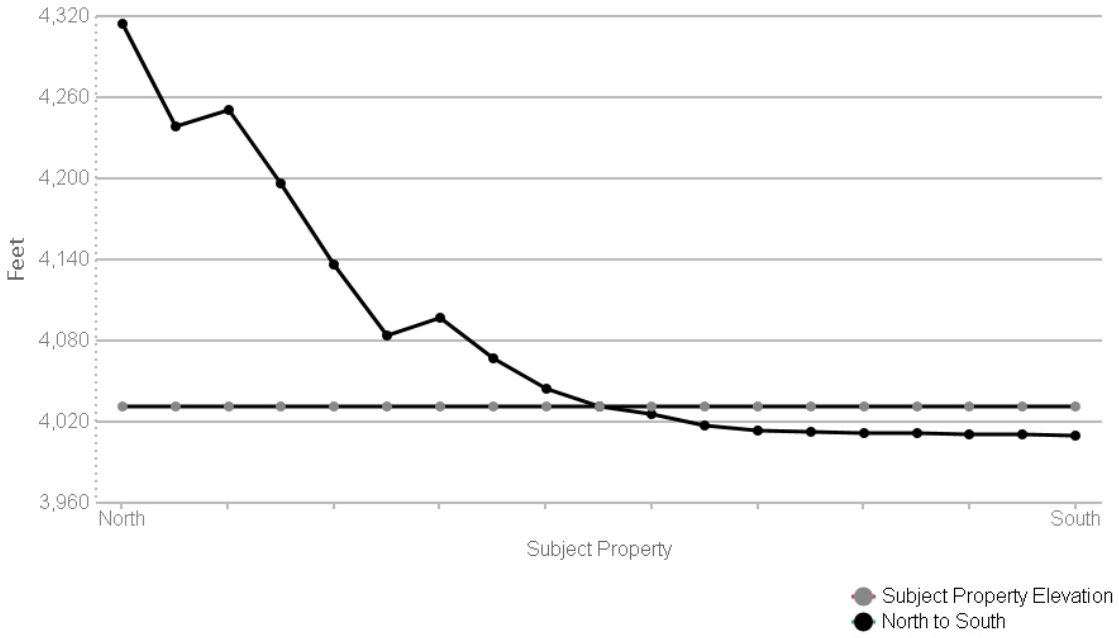
NATIONAL WETLAND INVENTORY:

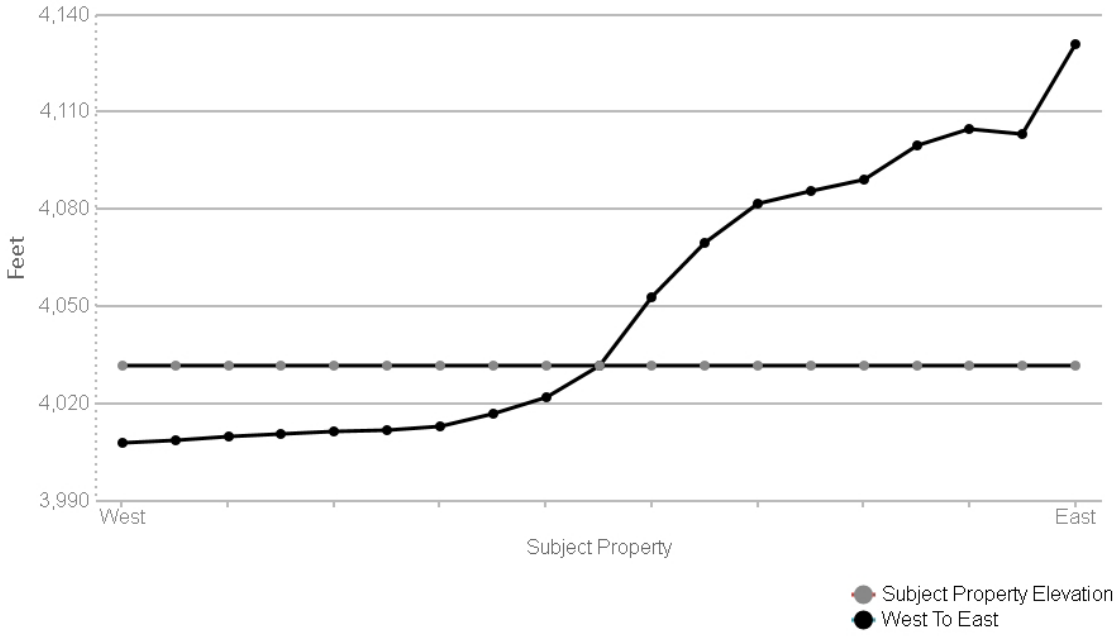
	NWI Electronic
NWI Quad at Subject Property:	Data Coverage:
Wendel	Yes - refer to the Geological Findings Map

LITHOSTRATIGRAPHIC INFORMATION:

ROCK STRATIGRAPHIC UNIT:		GEOLOGIC AGE IDENTIFICATION
Era:	Cenozoic	Category: 4 Q Quaternary
System:	Quaternary	
Series:	Quaternary	
Code:	Q	

SURROUNDING ELEVATION PROFILES:





SOIL COMPOSITION IN GENERAL AREA OF SUBJECT PROPERTY:

Not Searched

WATER AGENCY DATA:

WATER AGENCY SEARCH DISTANCES:

DATABASE:	SEARCH DISTANCE (MILES):
NWIS	1.000
OIL & GAS WELLS - CA	1.000
PWS	1.000
WELLS - GAMA - CA	0.000

DISTANCE TO NEAREST:	DISTANCE:
NWIS	0.505 mi / 2664 ft
OIL & GAS WELLS - CA	N/A
PWS	N/A
WELLS - GAMA - CA	N/A

FEDERAL WATER AGENCY DATA SUMMARY:

MAP ID:	WELL ID:	LOCATION FROM SP:
5	401604120081601	1/2 - 1 Mile SE

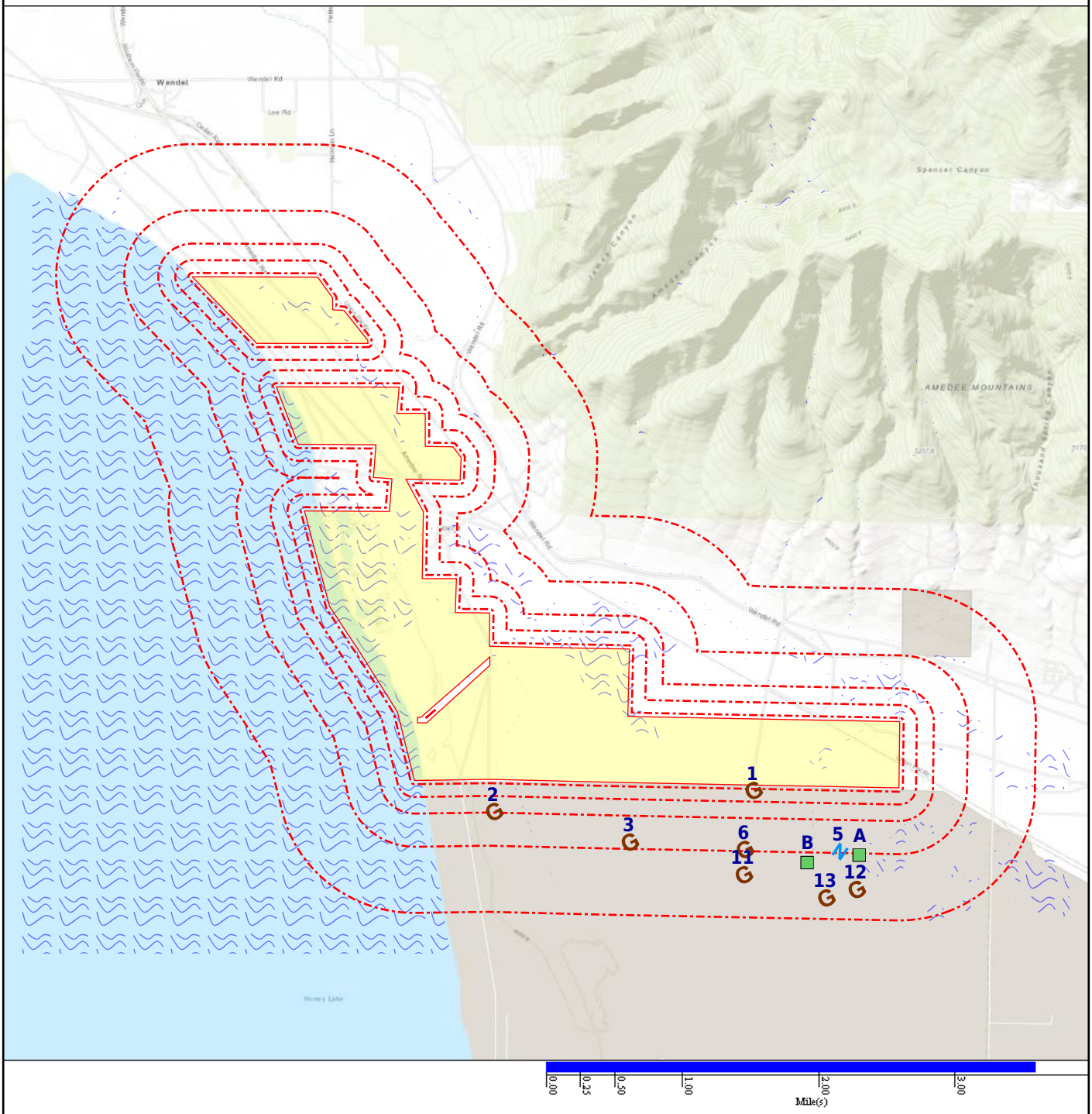
Note: PWS System location is not always the same as well location.

STATE/LOCAL WATER AGENCY DATA SUMMARY:

MAP ID:	WELL ID:	LOCATION FROM SP:
No Wells Found	N/R	N/R

SUBJECT NAME: Lassen Solar
ADDRESS: Lassen County, CA
LAT/LONG: 40.302808 / -120.179525

PREPARED FOR: AEI Consultants
ORDER #: 79531
REPORT DATE: October 21, 2022



Subject Property
Geological Site
Basins (No Data)
NWI
DAMS (No Data)
NWIS
Geologic Cluster
Oil & Gas Wells (No Data)

Map Id: 1
Direction: SE
Distance: 0.051 mi., 269 ft.
Elevation: 4009 ft.
Relative: Lower

Site Name : CATENARY
40.274433, -120.150797
HERLONG, CA

Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 807766
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2013-01-10
Action :	Add
FAA Study Number :	N/R
OBS Number :	06-024263
Obstacle Type :	CATENARY
City Name :	HERLONG
State Identifier :	CA
Country Identifier :	USA
Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00032
Above Mean Sea Level Height (Feet) :	04041
Horizontal Accuracy :	+-20'
Vertical Accuracy :	+-3'
Latitude :	40 16 27.96N
Longitude :	120 09 02.87W

Map Id: 2
Direction: SSW
Distance: 0.256 mi., 1352 ft.
Elevation: 4004 ft.
Relative: Lower

Site Name : CATENARY
40.272078, -120.186933
HERLONG, CA

Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 804005
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2013-01-10
Action :	Add
FAA Study Number :	N/R
OBS Number :	06-024257
Obstacle Type :	CATENARY
City Name :	HERLONG
State Identifier :	CA
Country Identifier :	USA
Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00041
Above Mean Sea Level Height (Feet) :	04044
Horizontal Accuracy :	+-20'
Vertical Accuracy :	+-3'
Latitude :	40 16 19.48N
Longitude :	120 11 12.96W

Map Id: 3
Direction: SSE
Distance: 0.463 mi., 2446 ft.
Elevation: 4004 ft.
Relative: Lower

Site Name : POLE
40.268731, -120.168117
HERLONG, CA

Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 805681
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2013-01-10
Action :	Add
FAA Study Number :	N/R
OBS Number :	06-024269
Obstacle Type :	POLE
City Name :	HERLONG
State Identifier :	CA
Country Identifier :	USA
Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00021
Above Mean Sea Level Height (Feet) :	04025
Horizontal Accuracy :	+-20'
Vertical Accuracy :	+-3'
Latitude :	40 16 07.43N
Longitude :	120 10 05.22W

Map Id: A4
Direction: SE
Distance: 0.475 mi., 2507 ft.
Elevation: 4011 ft.
Relative: Lower

Site Name : TOWER
40.268069, -120.136083
TUSAYAN, CA

Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 819645
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2013-01-22
Action :	Add
FAA Study Number :	N/R
OBS Number :	06-024331
Obstacle Type :	TOWER
City Name :	TUSAYAN
State Identifier :	CA
Country Identifier :	USA
Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00047
Above Mean Sea Level Height (Feet) :	04057
Horizontal Accuracy :	+-20'
Vertical Accuracy :	+-3'
Latitude :	40 16 05.05N
Longitude :	120 08 09.90W

Map Id: 5
Direction: SE
Distance: 0.505 mi., 2664 ft.
Elevation: 4011 ft.
Relative: Lower

Site Name : 401604120081601
40.267681, -120.13882
CA

Database(s) : [NWIS]

Envirosite ID: 40109409
EPA ID: N/R

NWIS

Site Identification Number :	401604120081601
Site Type :	Well
Station Name :	097 N28 E16 23DAB 1 USA Sierra Army Depot 11
Agency :	U.S. Geological Survey
District :	N/R
State :	CA
County :	Lassen County
Country :	USA
Land Net Location :	NWNESES23 T28N R16E M
Name of Location Map :	DOYLE, CA
Scale of Location Map :	62500
Altitude of Gage/Land Surface :	4004.1
Method Altitude Determined :	Level or other surveyed method.
Altitude Accuracy :	1
Altitude Datum :	National Geodetic Vertical Datum of 1929
Hydrologic Unit :	Honey-Eagle Lakes
Drainage Basin :	N/R
Topographic Setting :	Valley flat
Flags for the Type of Data Collected:	NNNNNNNNNNNNNNNNNNNNNNNNNNNNNO
Flags for Instruments at Site :	NNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Date of First Construction :	N/R
Date Site Established or Inventoried:	1987-03-25
Drainage Area :	N/R
Contributing Drainage Area :	N/R
Data Reliability :	Data have been checked by the reporting agency.
Data-Other GW Files :	YYYYNYNN
National Aquifer :	N/R
Local Aquifer :	N/R
Local Aquifer Type :	N/R
Well Depth :	230.
Hole Depth :	N/R
Source of Depth Data :	S
Project Number :	473214400
Real-Time Data Flag :	0
Peak-Streamflow Data Begin Date :	N/R
Peak-Streamflow Data End Date :	N/R
Peak-Streamflow Data Count :	0
Water-Quality Data Begin Date :	N/R
Water-Quality Data End Date :	N/R
Water-Quality Data Count :	0
Field Water-Level Measurements Begin Date:	1987-03-25
Field Water-level Measurements End Date:	1989-03-20
Field Water-Level Measurements Count:	23
Site-Visit Data Begin Date :	N/R
Site-Visit Data End Date :	N/R
Site-Visit Data Count :	0
Latitude :	40.267681
Longitude :	-120.13882
Last Date in Agency List :	2022-08-15

Map Id: 6
Direction: SE
Distance: 0.506 mi., 2671 ft.
Elevation: 4006 ft.
Relative: Lower

Site Name : NAVAID
40.267867, -120.151972
HERLONG, CA

Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 811702
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2013-01-10
Action :	Add
FAA Study Number :	N/R
OBS Number :	06-024259
Obstacle Type :	NAVAID
City Name :	HERLONG
State Identifier :	CA
Country Identifier :	USA
Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00026
Above Mean Sea Level Height (Feet) :	04032
Horizontal Accuracy :	+-20'
Vertical Accuracy :	+-3'
Latitude :	40 16 04.32N
Longitude :	120 09 07.10W

Map Id: A7
Direction: SE
Distance: 0.512 mi., 2704 ft.
Elevation: 4011 ft.
Relative: Lower

Site Name : POLE
40.267514, -120.135117
TUSAYAN, CA

Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 805802
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2013-01-22
Action :	Add
FAA Study Number :	N/R
OBS Number :	06-024332
Obstacle Type :	POLE
City Name :	TUSAYAN
State Identifier :	CA
Country Identifier :	USA
Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00026
Above Mean Sea Level Height (Feet) :	04037
Horizontal Accuracy :	+-20'
Vertical Accuracy :	+-3'
Latitude :	40 16 03.05N
Longitude :	120 08 06.42W

Map Id: A8
Direction: SE
Distance: 0.538 mi., 2843 ft.
Elevation: 4011 ft.
Relative: Lower

Site Name : BLDG
40.267153, -120.136303
HERLONG, CA

Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 809878
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2013-01-10
Action :	Add
FAA Study Number :	N/R
OBS Number :	06-024258
Obstacle Type :	BLDG
City Name :	HERLONG
State Identifier :	CA
Country Identifier :	USA
Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00037
Above Mean Sea Level Height (Feet) :	04048
Horizontal Accuracy :	+-20'
Vertical Accuracy :	+-3'
Latitude :	40 16 01.75N
Longitude :	120 08 10.69W

Map Id: B9
Direction: SE
Distance: 0.549 mi., 2899 ft.
Elevation: 4010 ft.
Relative: Lower

Site Name : POLE
40.267108, -120.143422
HERLONG, CA

Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 816598
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2013-01-10
Action :	Add
FAA Study Number :	N/R
OBS Number :	06-024267
Obstacle Type :	POLE
City Name :	HERLONG
State Identifier :	CA
Country Identifier :	USA
Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00046
Above Mean Sea Level Height (Feet) :	04056
Horizontal Accuracy :	+-20'
Vertical Accuracy :	+-3'
Latitude :	40 16 01.59N
Longitude :	120 08 36.32W

Map Id: B10
Direction: SE
Distance: 0.600 mi., 3170 ft.
Elevation: 4010 ft.
Relative: Lower

Site Name : GEN UTIL
40.266353, -120.142653
HERLONG, CA

Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 804772
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2013-01-10
Action :	Add
FAA Study Number :	N/R
OBS Number :	06-024266
Obstacle Type :	GEN UTIL
City Name :	HERLONG
State Identifier :	CA
Country Identifier :	USA
Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00030
Above Mean Sea Level Height (Feet) :	04040
Horizontal Accuracy :	+-20'
Vertical Accuracy :	+-3'
Latitude :	40 15 58.87N
Longitude :	120 08 33.55W

Map Id: 11
Direction: SE
Distance: 0.691 mi., 3651 ft.
Elevation: 4006 ft.
Relative: Lower

Site Name : POLE
40.265183, -120.152147
HERLONG, CA

Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 815912
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2013-01-10
Action :	Add
FAA Study Number :	N/R
OBS Number :	06-024268
Obstacle Type :	POLE
City Name :	HERLONG
State Identifier :	CA
Country Identifier :	USA
Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00025
Above Mean Sea Level Height (Feet) :	04030
Horizontal Accuracy :	+-20'
Vertical Accuracy :	+-3'
Latitude :	40 15 54.66N
Longitude :	120 09 07.73W

Map Id: 12
Direction: SE
Distance: 0.790 mi., 4170 ft.
Elevation: 4010 ft.
Relative: Lower

Site Name : POLE
40.263519, -120.136536
HERLONG, CA

Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 816203
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2013-01-10
Action :	Add
FAA Study Number :	N/R
OBS Number :	06-024265
Obstacle Type :	POLE
City Name :	HERLONG
State Identifier :	CA
Country Identifier :	USA
Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00015
Above Mean Sea Level Height (Feet) :	04025
Horizontal Accuracy :	+-20'
Vertical Accuracy :	+-3'
Latitude :	40 15 48.67N
Longitude :	120 08 11.53W

Map Id: 13
Direction: SE
Distance: 0.858 mi., 4531 ft.
Elevation: 4010 ft.
Relative: Lower

Site Name : GEN UTIL
40.262592, -120.140614
TUSAYAN, CA

Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 815726
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2013-01-22
Action :	Add
FAA Study Number :	N/R
OBS Number :	06-024330
Obstacle Type :	GEN UTIL
City Name :	TUSAYAN
State Identifier :	CA
Country Identifier :	USA
Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00027
Above Mean Sea Level Height (Feet) :	04037
Horizontal Accuracy :	+-20'
Vertical Accuracy :	+-3'
Latitude :	40 15 45.33N
Longitude :	120 08 26.21W

RADON DATA:

STATE SOURCE: CA

Radon Test Results:

Zip:	Total Sites:	Cnt >=4 pCi/L:	Pct >= 4 pCi/L:	Max Result (pCi/L):
96113	1	0	0	1.3

FEDERAL AREA RADON INFORMATION FOR: 96113

NUMBER OF SAMPLE SITES: 1

Area:	Average Activity:	% <4 pCi/L:	% 4-20 pCi/L:	% >20 pCi/L:
first floor	1.3 pCi/L	100%	0%	0%

FEDERAL EPA RADON ZONE FOR LASSEN COUNTY: Zone = 3

Note: Zone 1 indoor average level > 4 pCI/L

: Zone 2 indoor average level > = 2 pCI/L and <= 4 pCI/L

: Zone 3 indoor average < 2 pCI/L

HIST PWS ENF
Historical Public Water Supply locations with Enforcement Violations
Environmental Protection Agency
(800) 426-4791
List of Safe Drinking Water Information Systems (SDWIS) with enforcement violations that are no longer in current agency list.

NWIS
National Water Information Systems
United States Geological Society
(703) 648-5953
Information on all water resources for the United States. This database contains all current and historical data for the nation.

PWS
Public Water Supply
Environmental Protection Agency
(800) 426-4791
Safe drinking water information Systems

PWS ENF
Public Water Supply locations with Enforcement Violations
Environmental Protection Agency
(800) 426-4791
Safe drinking water information Systems with enforcememnt violations

WELLS - GAMA - CA
California Groundwater Ambient Monitoring Assessment
State Water Resources Control Board
916-341-5791
Brings together datasets from California state agencies including: Public Health Water Resources and Pesticide Regulation as well as from the US Geological Survey Lawrence Livermore National Laboratory and the Water Boards. It shows results for untreated raw water in different types of wells for naturally-occurring and man-made chemicals.

FLOOD Q3
Flood data
Environmental Protection Agency
(202) 566-1667
Q3 Flood Data

HYDROLOGIC UNIT
Hydrologic Unit Maps
USGS
The United States Geological Survey created a hierarchical system of hydrologic units originally called regions, sub-regions, accounting units, and cataloging units. Each unit was assigned a unique Hydrologic Unit Code (HUC). As first implemented the system had 21 regions, 221 subregions, 378 accounting units, and 2,264 cataloging units. Over time the system was changed and expanded. As of 2010 there are six levels in the hierarchy, represented by hydrologic unit codes from 2 to 12 digits long, called regions, subregions, basins, subbasins, watersheds, and subwatersheds. The table below describes the system's hydrologic unit levels and their characteristics, along with example names and codes.

WETLANDS NWI
National Wetland Inventory
U.S. Fish and Wildlife Service
(703) 358-2171
Wetland Inventory for the United States

USGS GEOLOGIC AGE
USGS Digital Data Series DDS
Natural Resources Conservation Service: U.S. Department of Agriculture
(202) 690-4985
USGS Digital Data Series DDS: Geologic Age and Rock Stratigraphic Unit

DAMS - CA
California Dam Inundation Maps
Department of Water Resources
916-845-8275
Dam inundation maps show the maximum extent of damage of a flood wave from a dam failure

OIL & GAS WELLS - CA
Oil and Gas Well Data
State of California Department of Conservation
916-327-1042
Oil and gas well locations and detail for all 6 districts

RADON
National Radon Database
U.S. Environmental Protection Agency
215-814-2469
A study of the EPA/State Residential Radon Survey and the National Residential Radon Survey.

RADON - CA
Radon tested locations in California
California Department of Health Services
(916) 449-5674
A table of long term and short term indoor radon measurments

RADON EPA
RADON EPA
U.S. Environmental Protection Agency
215-814-2469
EPA list of Radon zones

AIRPORT FACILITIES
Airport landing facilities
Federal Aviation Administration
(866) 835-5322
Airport landing facilities

BASINS
Better Assessment Science Integrating point & Non-point Sources
U.S. Environmental Protection Agency
855-246-3642
Integrated geographical information system national watershed data and environmental assessment known as Better Assessment Science Integrating point & Non-point Sources

DIGITAL OBSTACLE
Obstacles of interest to aviation users
Federal Aviation Administration
855-379-6518
The Digital Obstacle File describes all known obstacles of interest to aviation users in the U.S. with limited coverage of the Pacific the Caribbean Canada and Mexico. The obstacles are assigned unique numerical identifiers; accuracy codes and listed in order of ascending latitude within each state or area by FAA Region.

EPICENTERS
National Geographical Data Center
National Geographical Data Center
303-497-6826
List of recent and historic earthquakes and information.

FLOOD DFIRM
National Flood Hazard Layer Database
Federal Emergency Management Agency
The National Flood Hazard Layer Database (NFHL) is a computer database that contains the flood hazard map information from FEMAs Flood Map Modernization program. These map data are from Digital Flood Insurance Rate Map (DFIRM) databases and Letters of Map Revision.

APPENDIX D

HISTORICAL SOURCES

Historical Topographic Map Report | 2022

Order Number: 79531
Report Generated: 10/21/2022

Project Name: Lassen Solar
Project Number: 470890

Lassen Solar

Lassen County, CA

Contact us at:
(866) 211-2028
envirositecorp.com

Envirosite's Historical Topographic Map Report is designed to assist in evaluating a subject property resulting from past activities. Envirosite's Historical Topographic Map Report includes a search of USGS historical topographic maps, dating back to the early 1900s.

TOPOGRAPHIC MAPS FOUND:

	Map Name:	Year:	Revision Year:	Scale:
1.	Wendel	1954	N/R	1 : 62500
2.	Wendel	1988	N/R	1 : 24000
3.	Wendel	2012	N/R	1 : 24000
4.	Wendel	2015	N/R	1 : 24000
5.	Wendel	2018	N/R	1 : 24000
6.	Wendel	2021	N/R	1 : 24000

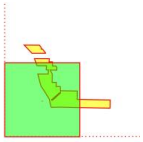
The USGS 7.5 minute series includes scales 1:24,000 / 1:25,000 / 1:31,680. The USGS 15 minute series includes scales 1:48,000 / 1:62,500 / 1:63,360. The USGS 30x60 minute series scale is 1:100,000.

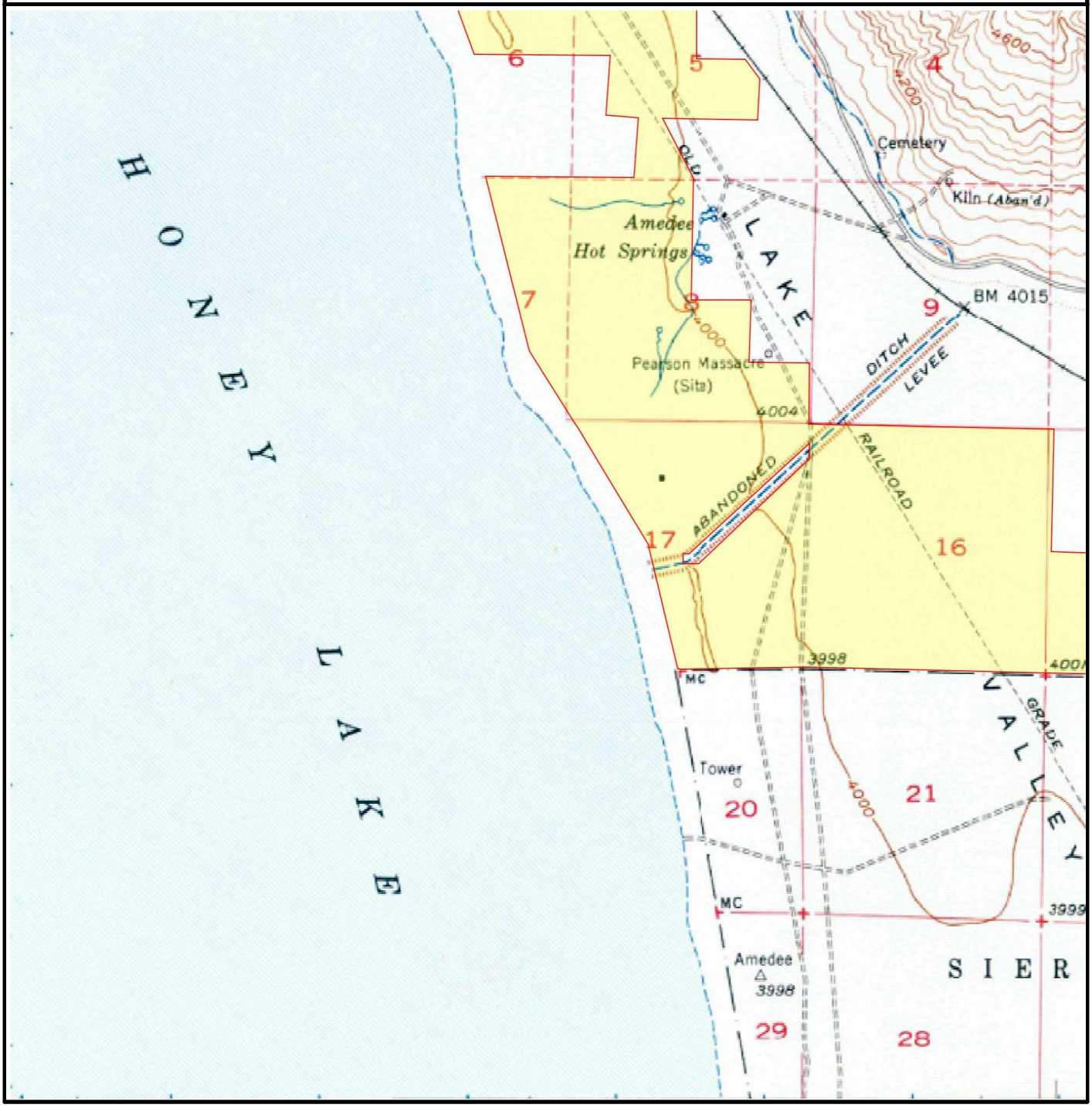
SUBJECT NAME: Lassen Solar
ADDRESS: Lassen County, CA
LAT/LONG: 40.302808 / -120.179525

PREPARED FOR: AEI Consultants
ORDER #: 79531
REPORT DATE: 10/21/2022

SUBJECT QUAD:

MAP NAME:	Wendel	MAP YEAR:	1954	REVISION YEAR:	N/R
SCALE:	1 : 62500	Part	1		



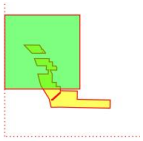


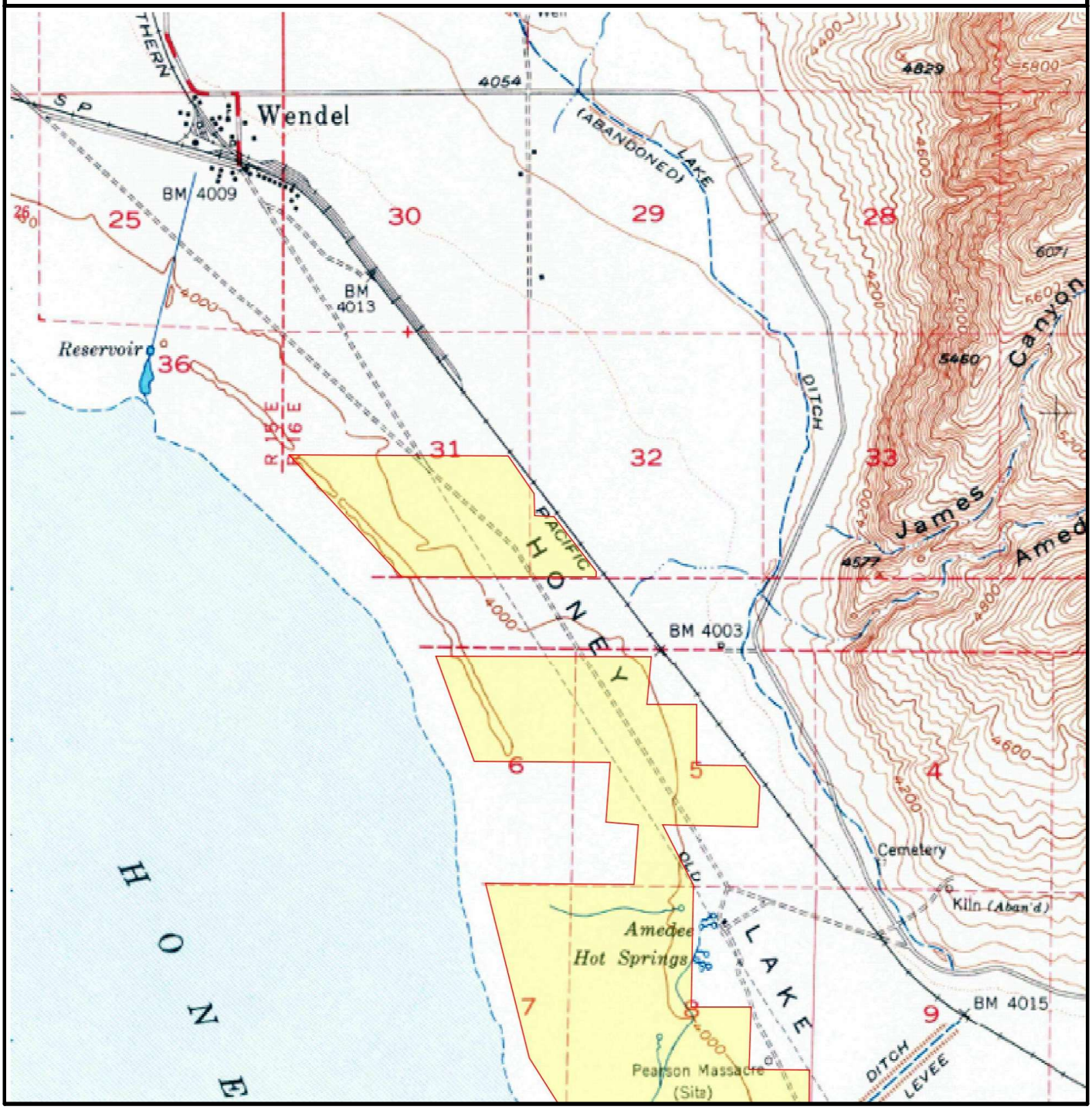
SUBJECT NAME: Lassen Solar
ADDRESS: Lassen County, CA
LAT/LONG: 40.302808 / -120.179525

PREPARED FOR: AEI Consultants
ORDER #: 79531
REPORT DATE: 10/21/2022

SUBJECT QUAD:

MAP NAME:	Wendel	MAP YEAR:	1954	REVISION YEAR:	N/R
SCALE:	1 : 62500	Part	2		



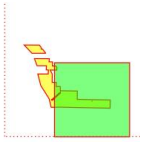


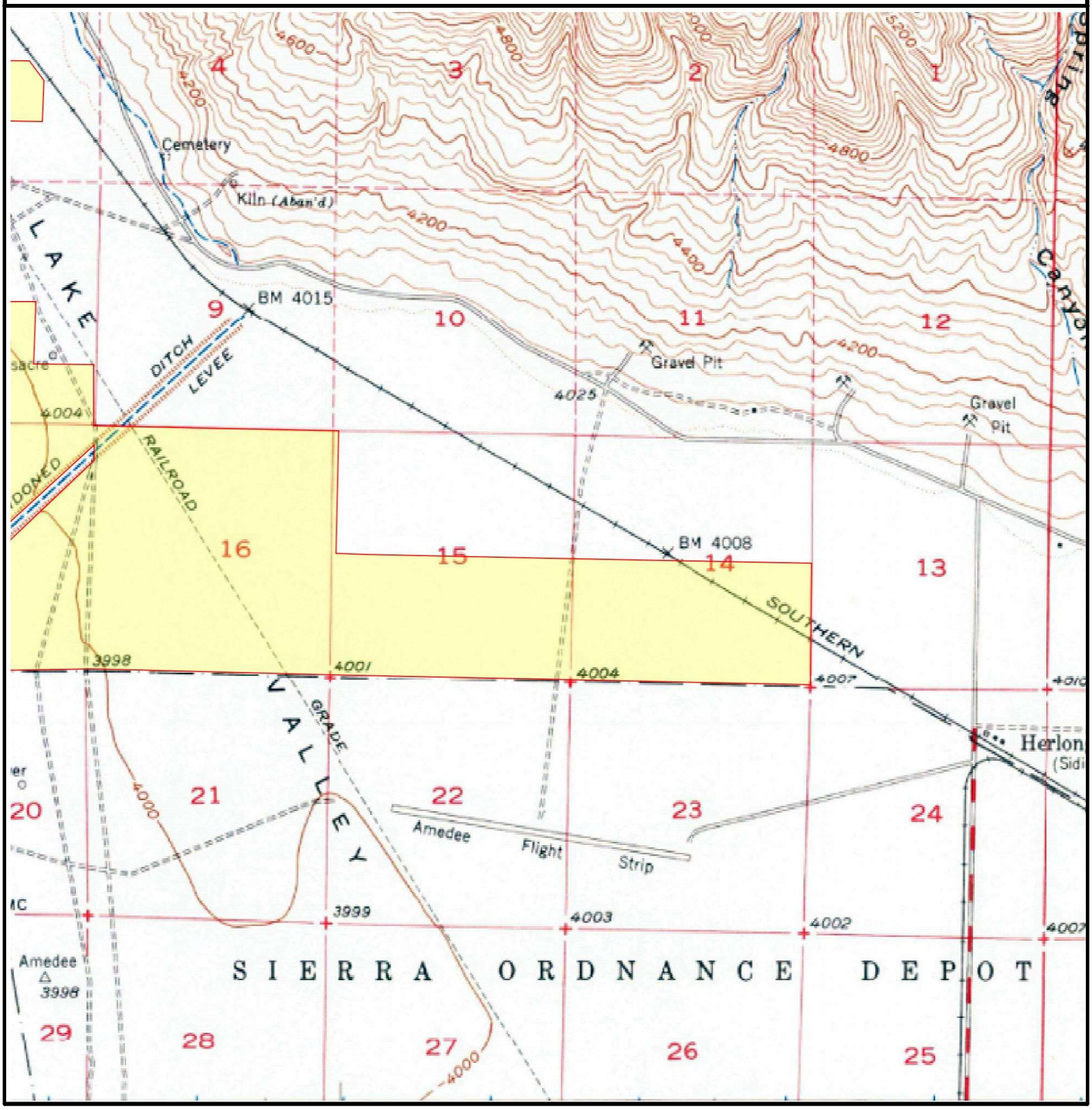
SUBJECT NAME: Lassen Solar
ADDRESS: Lassen County, CA
LAT/LONG: 40.302808 / -120.179525

PREPARED FOR: AEI Consultants
ORDER #: 79531
REPORT DATE: 10/21/2022

SUBJECT QUAD:

MAP NAME:	Wendel	MAP YEAR:	1954	REVISION YEAR:	N/R
SCALE:	1 : 62500	Part	3		



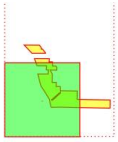


SUBJECT NAME: Lassen Solar
ADDRESS: Lassen County, CA
LAT/LONG: 40.302808 / -120.179525

PREPARED FOR: AEI Consultants
ORDER #: 79531
REPORT DATE: 10/21/2022

SUBJECT QUAD:

MAP NAME:	Wendel	MAP YEAR:	1988	REVISION YEAR:	N/R
SCALE:	1 : 24000	Part	1		

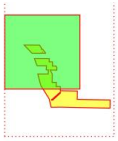


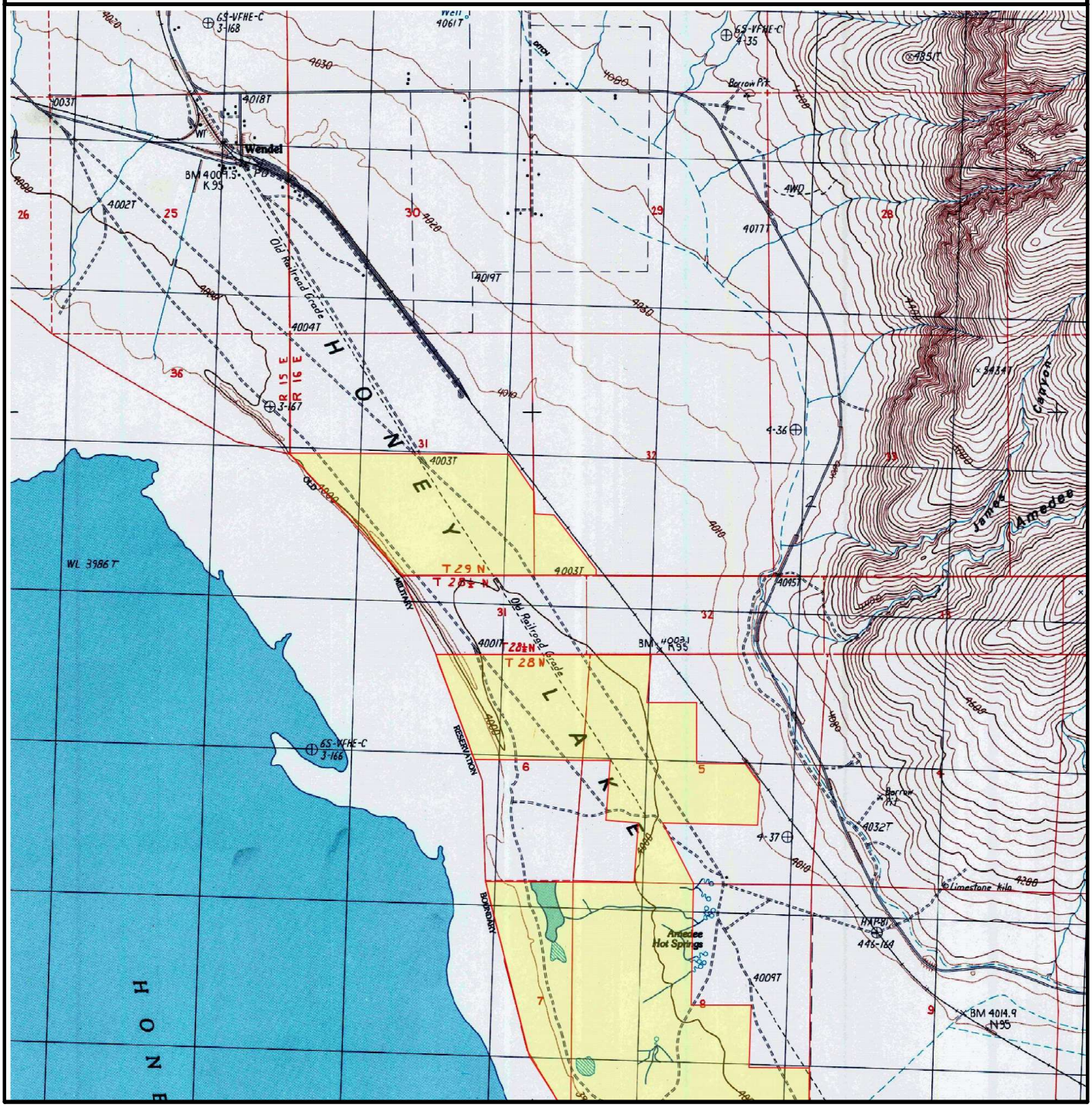
SUBJECT NAME: Lassen Solar
ADDRESS: Lassen County, CA
LAT/LONG: 40.302808 / -120.179525

PREPARED FOR: AEI Consultants
ORDER #: 79531
REPORT DATE: 10/21/2022

SUBJECT QUAD:

MAP NAME:	Wendel	MAP YEAR:	1988	REVISION YEAR:	N/R
SCALE:	1 : 24000	Part	2		



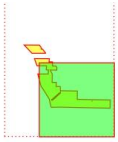


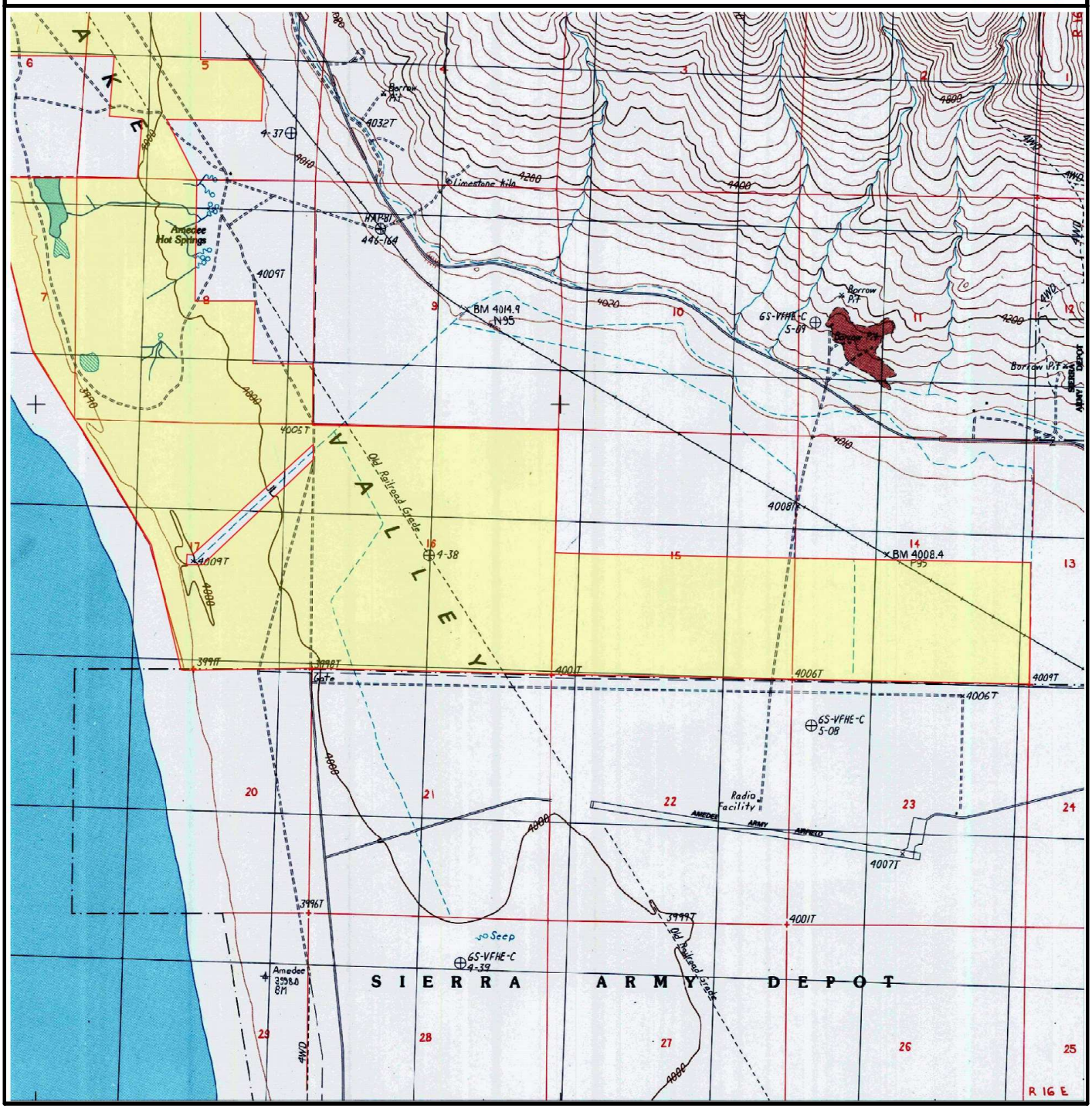
SUBJECT NAME: Lassen Solar
ADDRESS: Lassen County, CA
LAT/LONG: 40.302808 / -120.179525

PREPARED FOR: AEI Consultants
ORDER #: 79531
REPORT DATE: 10/21/2022

SUBJECT QUAD:

MAP NAME:	Wendel	MAP YEAR:	1988	REVISION YEAR:	N/R
SCALE:	1 : 24000	Part	3		



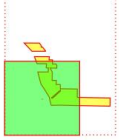


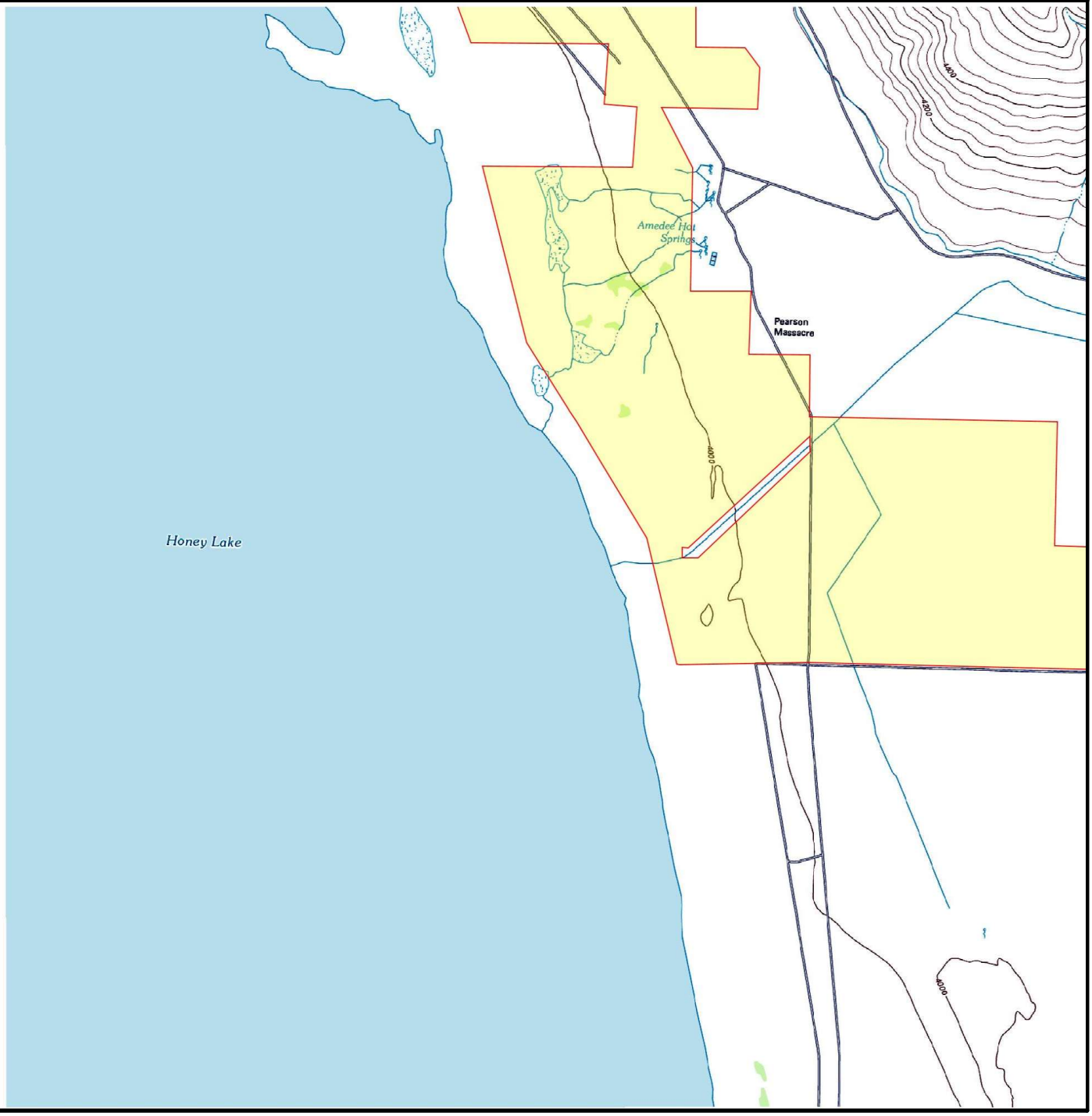
SUBJECT NAME: Lassen Solar
ADDRESS: Lassen County, CA
LAT/LONG: 40.302808 / -120.179525

PREPARED FOR: AEI Consultants
ORDER #: 79531
REPORT DATE: 10/21/2022

SUBJECT QUAD:

MAP NAME:	Wendel	MAP YEAR:	2012	REVISION YEAR:	N/R
SCALE:	1 : 24000	Part	1		



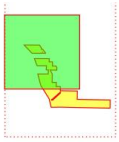


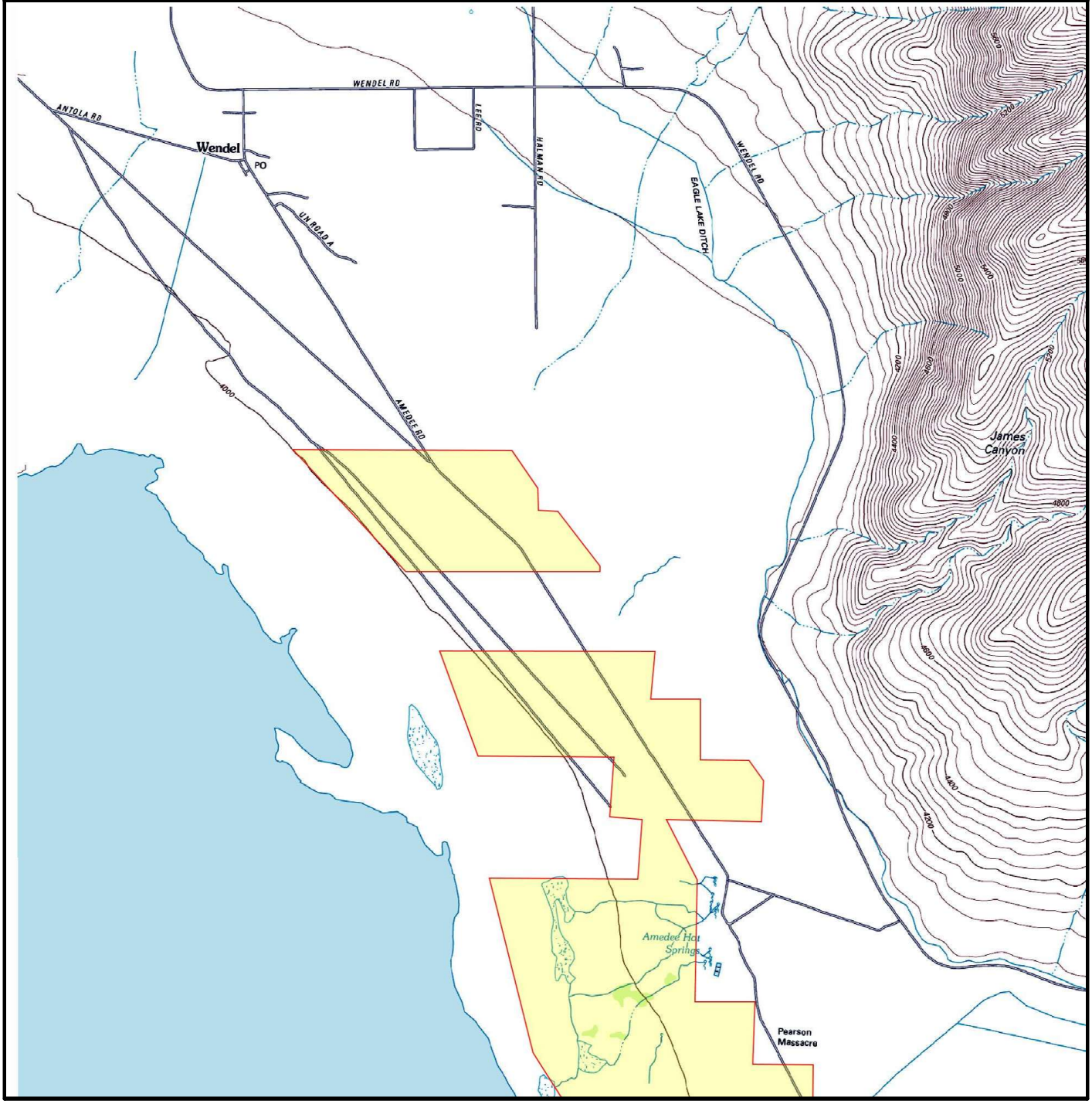
SUBJECT NAME: Lassen Solar
ADDRESS: Lassen County, CA
LAT/LONG: 40.302808 / -120.179525

PREPARED FOR: AEI Consultants
ORDER #: 79531
REPORT DATE: 10/21/2022

SUBJECT QUAD:

MAP NAME:	Wendel	MAP YEAR:	2012	REVISION YEAR:	N/R
SCALE:	1 : 24000	Part	2		



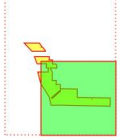


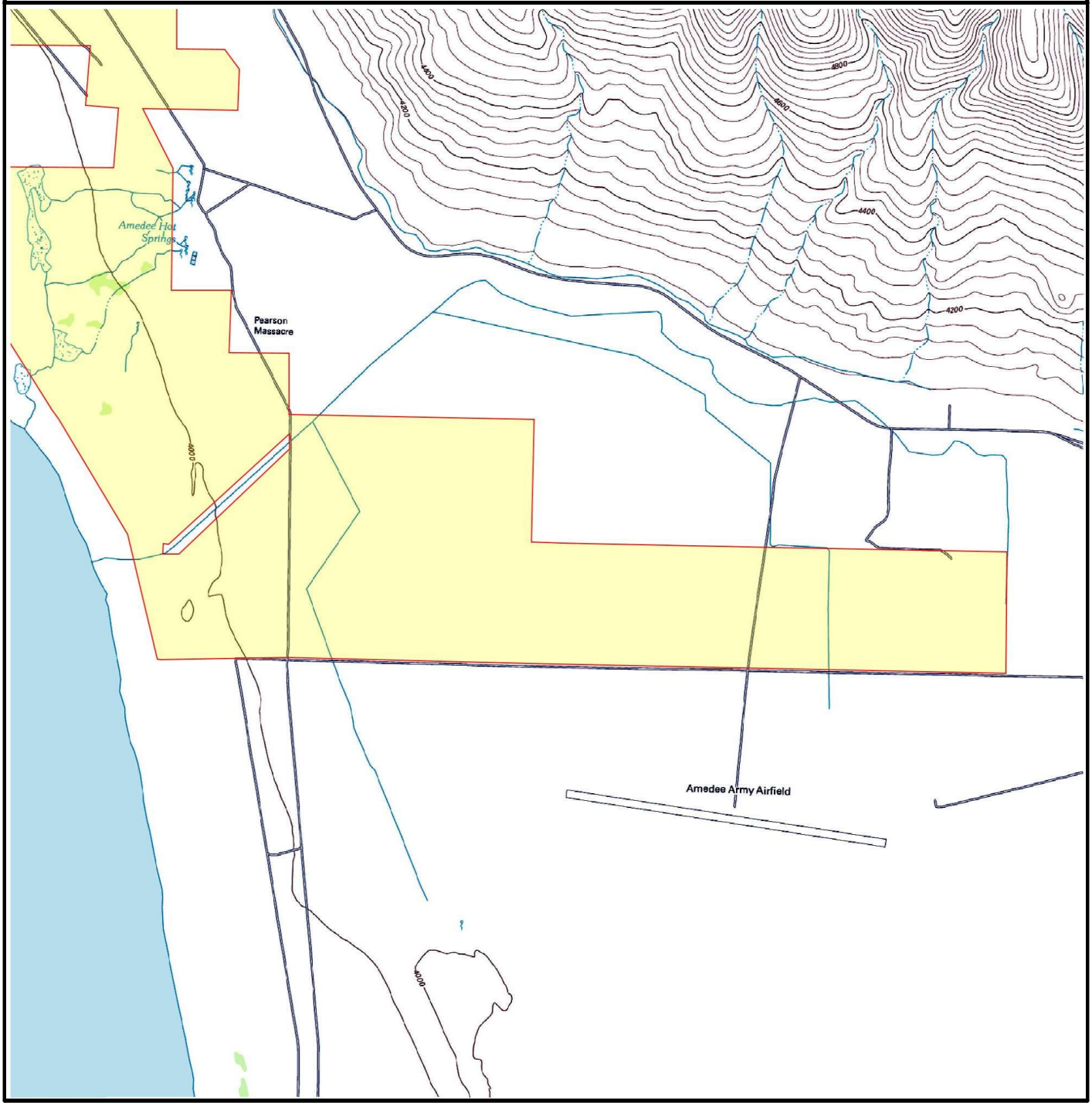
SUBJECT NAME: Lassen Solar
ADDRESS: Lassen County, CA
LAT/LONG: 40.302808 / -120.179525

PREPARED FOR: AEI Consultants
ORDER #: 79531
REPORT DATE: 10/21/2022

SUBJECT QUAD:

MAP NAME:	Wendel	MAP YEAR:	2012	REVISION YEAR:	N/R
SCALE:	1 : 24000	Part	3		



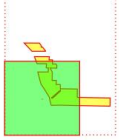


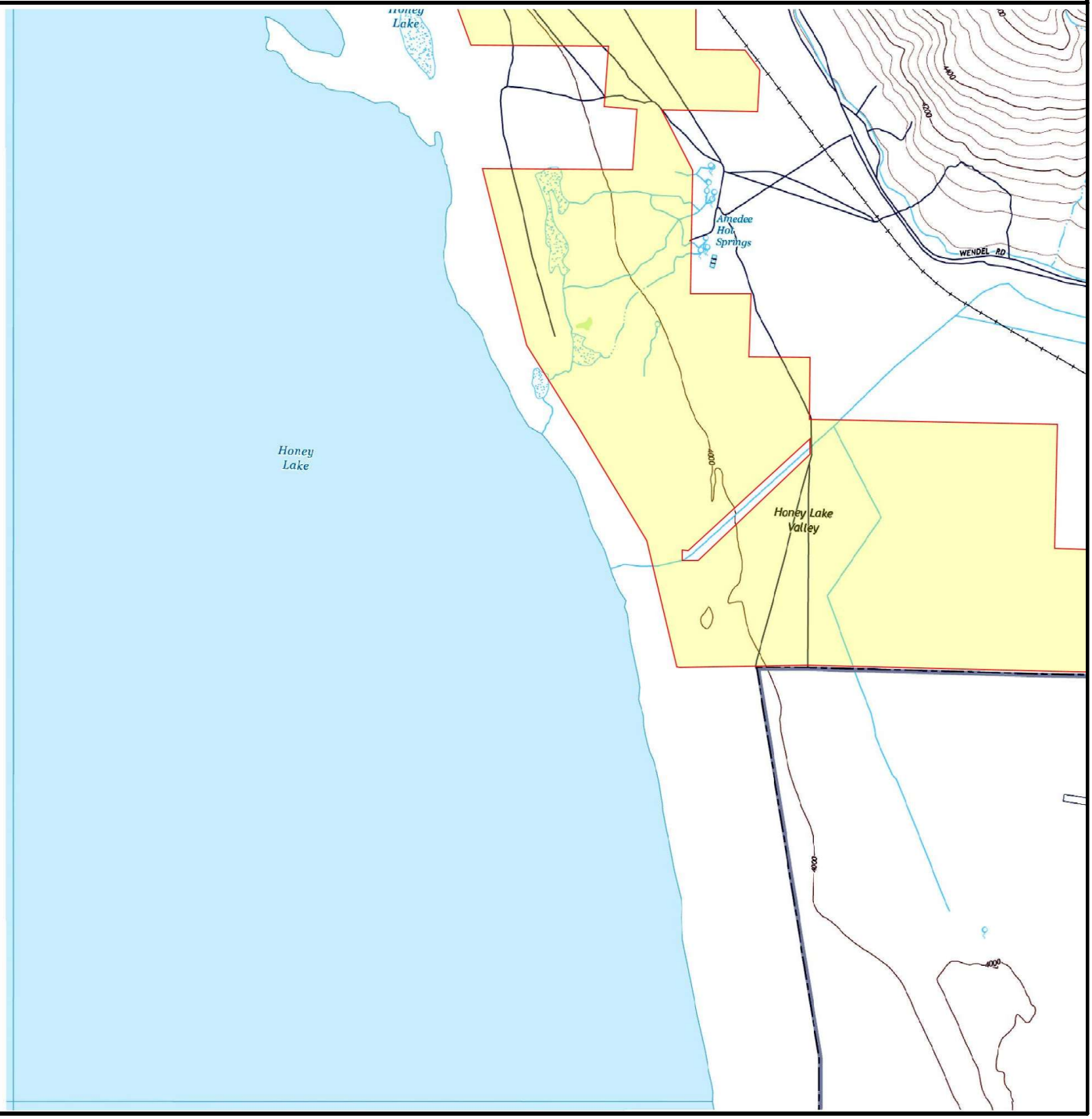
SUBJECT NAME: Lassen Solar
ADDRESS: Lassen County, CA
LAT/LONG: 40.302808 / -120.179525

PREPARED FOR: AEI Consultants
ORDER #: 79531
REPORT DATE: 10/21/2022

SUBJECT QUAD:

MAP NAME:	Wendel	MAP YEAR:	2015	REVISION YEAR:	N/R
SCALE:	1 : 24000	Part	1		



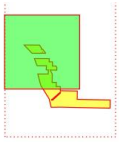


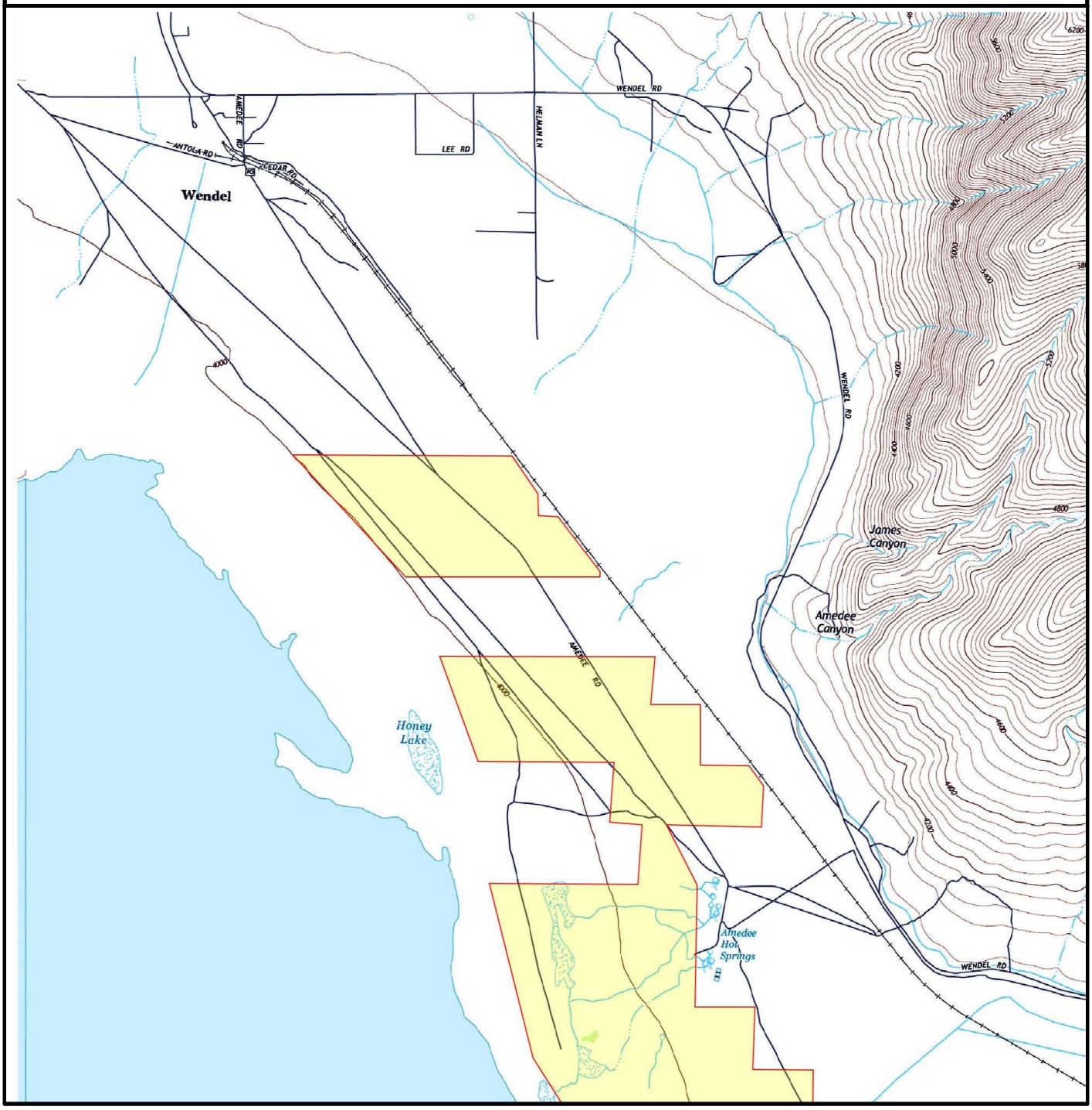
SUBJECT NAME: Lassen Solar
ADDRESS: Lassen County, CA
LAT/LONG: 40.302808 / -120.179525

PREPARED FOR: AEI Consultants
ORDER #: 79531
REPORT DATE: 10/21/2022

SUBJECT QUAD:

MAP NAME:	Wendel	MAP YEAR:	2015	REVISION YEAR:	N/R
SCALE:	1 : 24000	Part	2		



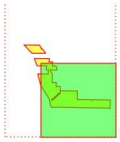


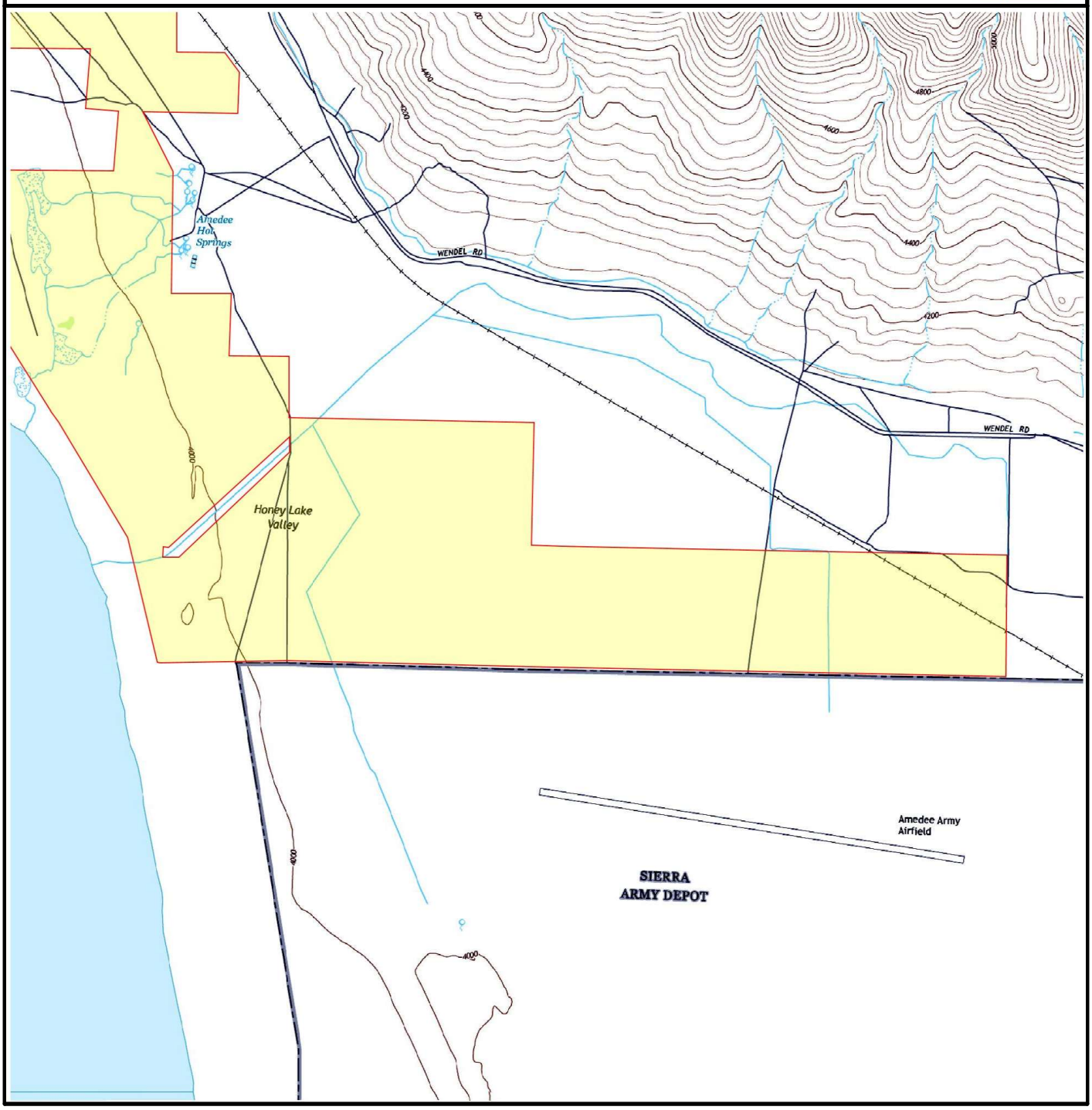
SUBJECT NAME: Lassen Solar
ADDRESS: Lassen County, CA
LAT/LONG: 40.302808 / -120.179525

PREPARED FOR: AEI Consultants
ORDER #: 79531
REPORT DATE: 10/21/2022

SUBJECT QUAD:

MAP NAME:	Wendel	MAP YEAR:	2015	REVISION YEAR:	N/R
SCALE:	1 : 24000	Part	3		



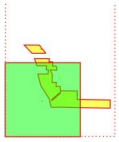


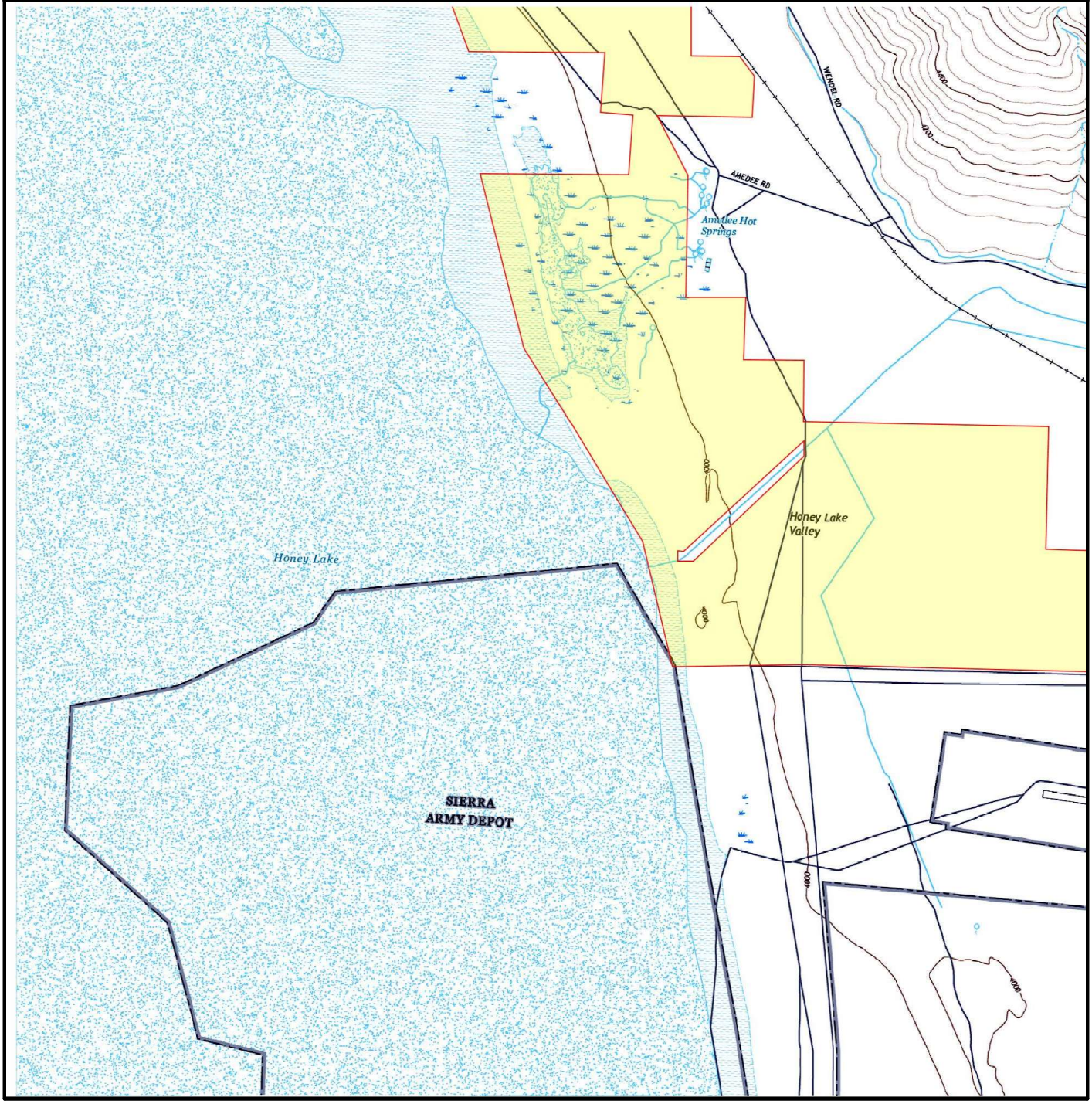
SUBJECT NAME: Lassen Solar
ADDRESS: Lassen County, CA
LAT/LONG: 40.302808 / -120.179525

PREPARED FOR: AEI Consultants
ORDER #: 79531
REPORT DATE: 10/21/2022

SUBJECT QUAD:

MAP NAME:	Wendel	MAP YEAR:	2018	REVISION YEAR:	N/R
SCALE:	1 : 24000	Part	1		



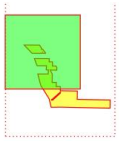


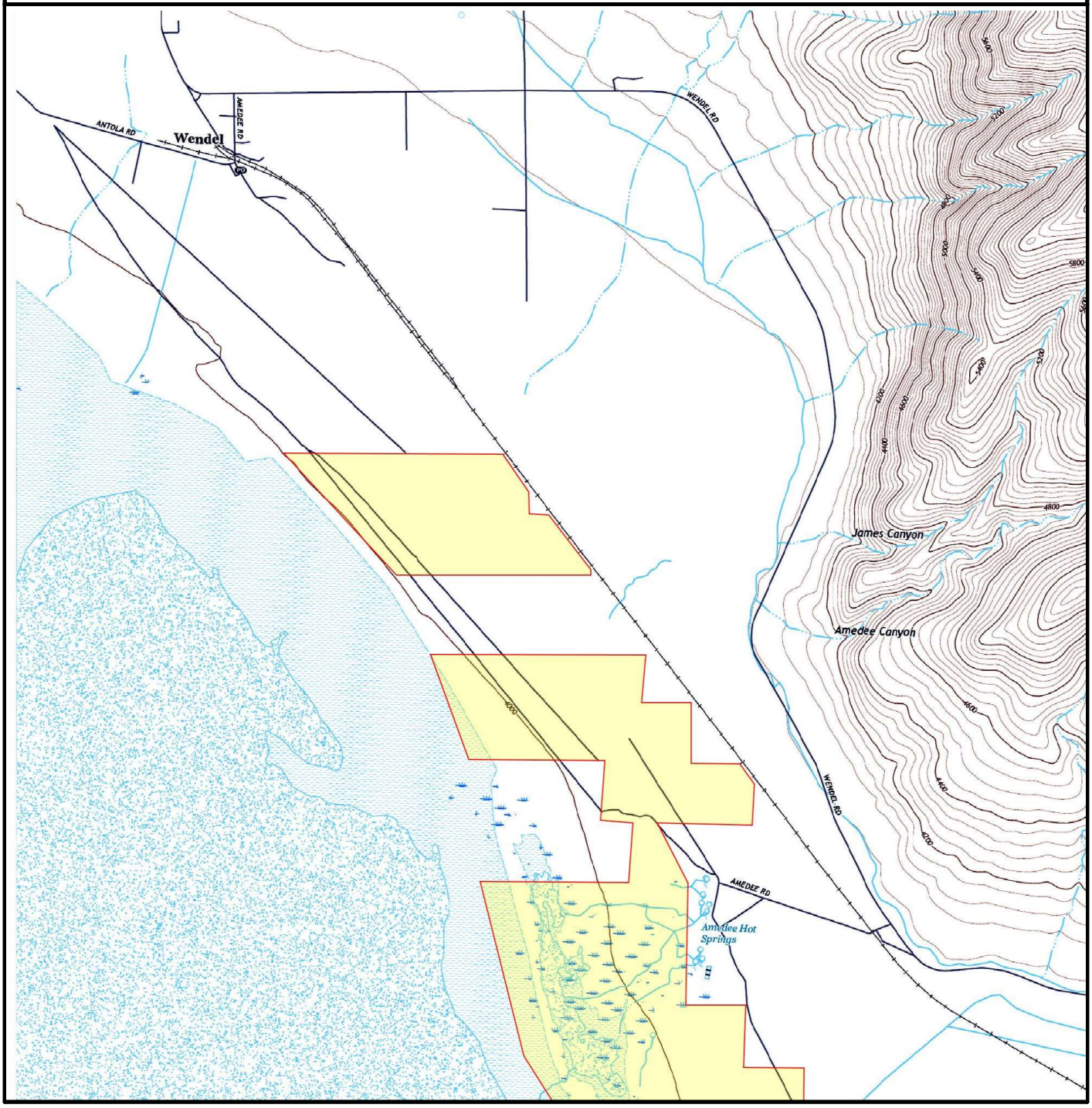
SUBJECT NAME: Lassen Solar
ADDRESS: Lassen County, CA
LAT/LONG: 40.302808 / -120.179525

PREPARED FOR: AEI Consultants
ORDER #: 79531
REPORT DATE: 10/21/2022

SUBJECT QUAD:

MAP NAME:	Wendel	MAP YEAR:	2018	REVISION YEAR:	N/R
SCALE:	1 : 24000	Part	2		



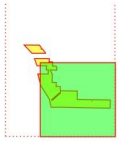


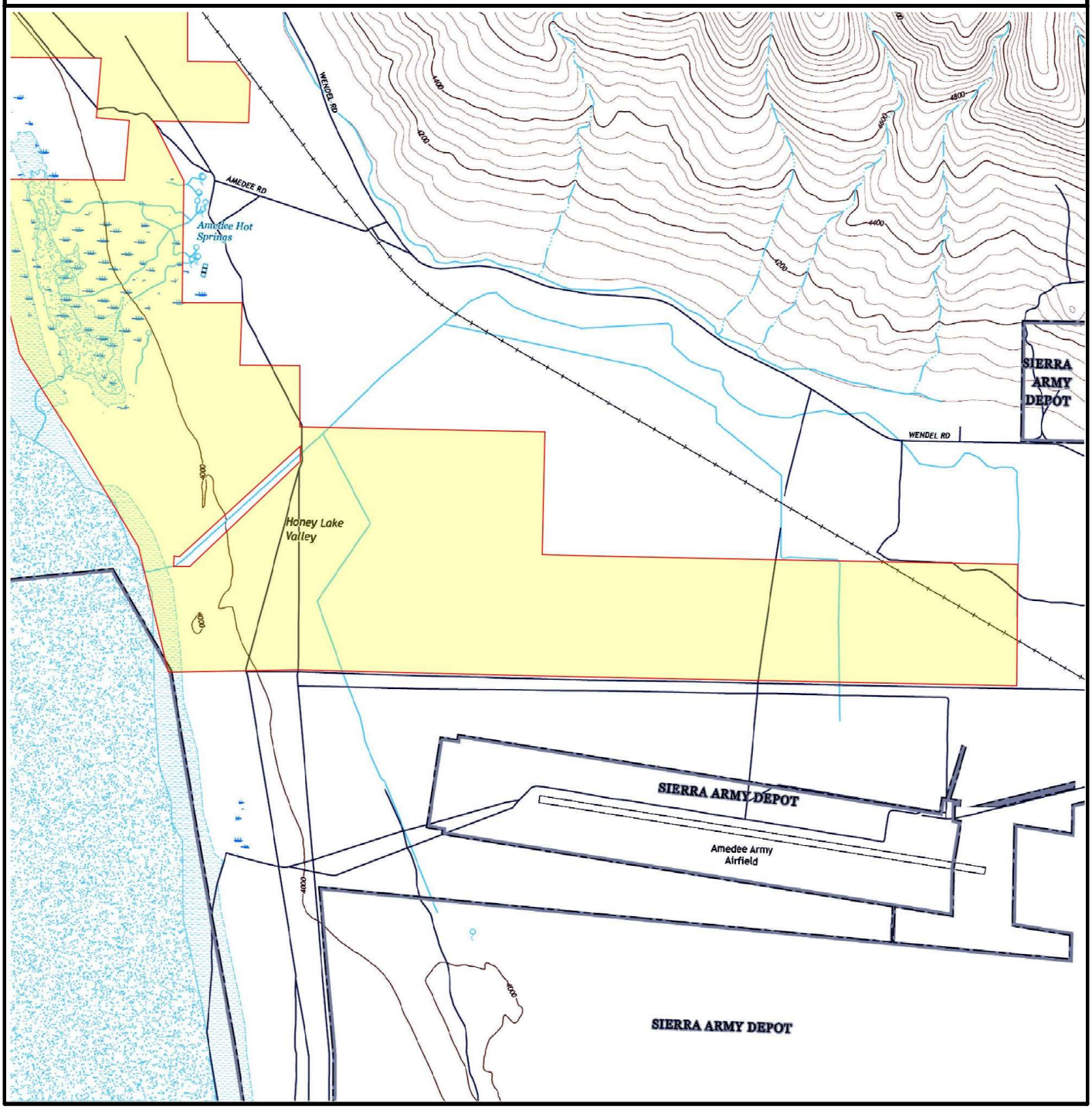
SUBJECT NAME: Lassen Solar
ADDRESS: Lassen County, CA
LAT/LONG: 40.302808 / -120.179525

PREPARED FOR: AEI Consultants
ORDER #: 79531
REPORT DATE: 10/21/2022

SUBJECT QUAD:

MAP NAME:	Wendel	MAP YEAR:	2018	REVISION YEAR:	N/R
SCALE:	1 : 24000	Part	3		



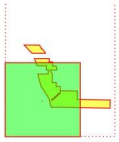


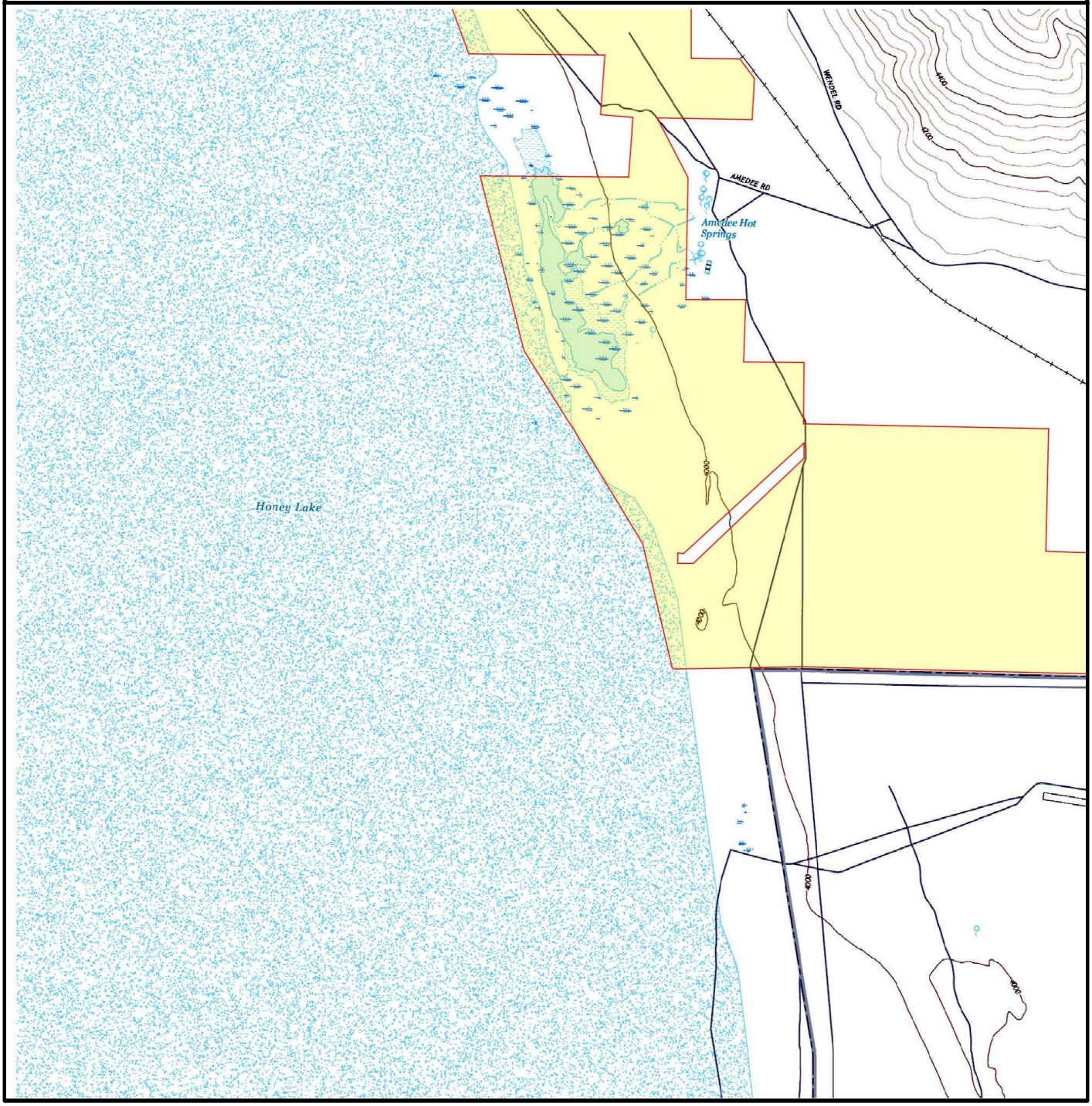
SUBJECT NAME: Lassen Solar
ADDRESS: Lassen County, CA
LAT/LONG: 40.302808 / -120.179525

PREPARED FOR: AEI Consultants
ORDER #: 79531
REPORT DATE: 10/21/2022

SUBJECT QUAD:

MAP NAME:	Wendel	MAP YEAR:	2021	REVISION YEAR:	N/R
SCALE:	1 : 24000	Part	1		



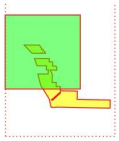


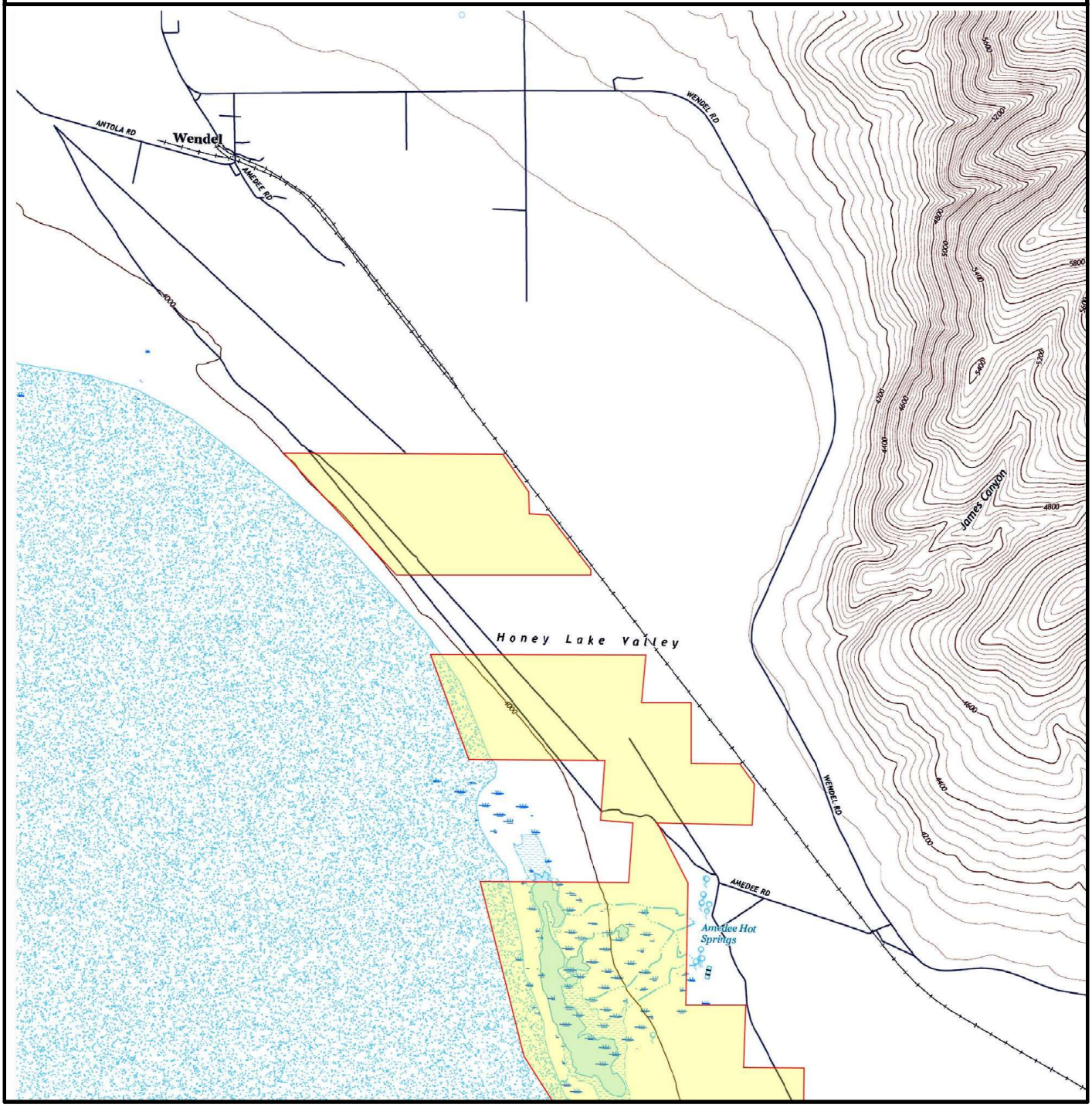
SUBJECT NAME: Lassen Solar
ADDRESS: Lassen County, CA
LAT/LONG: 40.302808 / -120.179525

PREPARED FOR: AEI Consultants
ORDER #: 79531
REPORT DATE: 10/21/2022

SUBJECT QUAD:

MAP NAME:	Wendel	MAP YEAR:	2021	REVISION YEAR:	N/R
SCALE:	1 : 24000	Part	2		



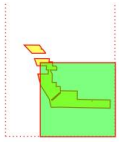


SUBJECT NAME: Lassen Solar
ADDRESS: Lassen County, CA
LAT/LONG: 40.302808 / -120.179525

PREPARED FOR: AEI Consultants
ORDER #: 79531
REPORT DATE: 10/21/2022

SUBJECT QUAD:

MAP NAME:	Wendel	MAP YEAR:	2021	REVISION YEAR:	N/R
SCALE:	1 : 24000	Part	3		



Legend

Approximate Property Boundary

N

AERIAL PHOTOGRAPH - 2022

Lassen County, CA

Project Number: [470890]

AEI

Historical Aerial Photo Report | 2022

GIS Ready Format

Order Number: 79531

Report Generated: 10/27/2022

Project Name: Lassen Solar

Project Number: 470890

Lassen Solar

Lassen County, CA

Contact us at:
(866) 211-2028
envirositecorp.com

Envirosite's Historical Aerial Photo Report is designed to assist in evaluating a subject property resulting from past activities. Envirosite's Historical Aerial Photo Report includes a search of available historical aerial photographs, dating back to the 1930s, or earliest available photographs.

ENVIROSITE SEARCHED SOURCES

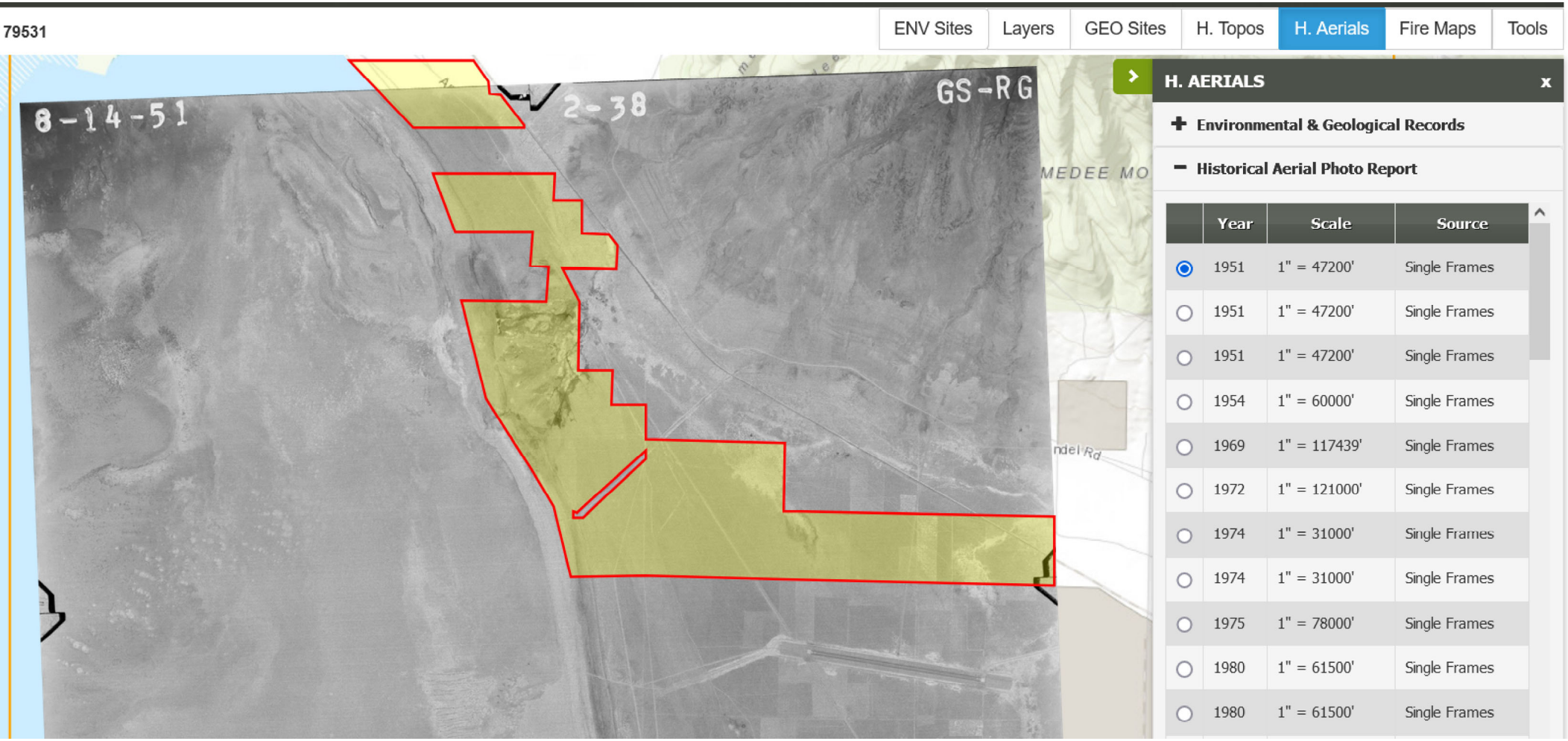
SUBJECT PROPERTY:

Lassen Solar

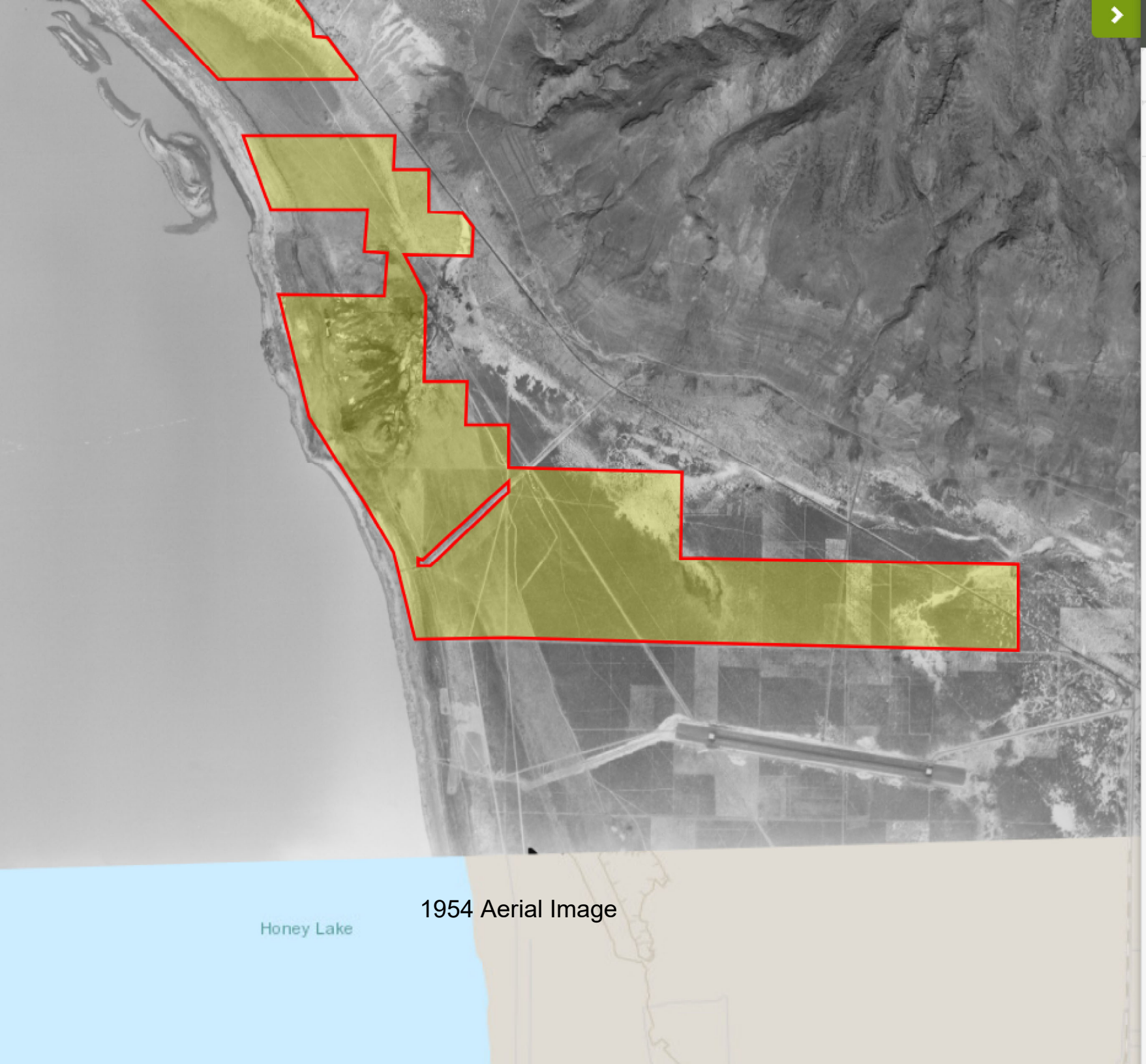
Lassen County, CA

YEAR:	SCALE:	NUMBER OF PHOTO(S):	SOURCE:
1951	1:47,200	6	Single Frames
1954	1:60,000	1	Single Frames
1969	1:117,439	1	Single Frames
1972	1:121,000	1	Single Frames
1974	1:31,000	2	Single Frames
1975	1:78,000	1	Single Frames
1980	1:61,500	2	Single Frames
1981	1:58,000	1	NHAP
1984	1:24,000	4	Single Frames
1989	1:40,000	3	NAPP
1990	1:40,000	3	NAPP
1993	1:24,000	3	DOQ
1998	1:40,000	3	NAPP
2000	1:24,000	2	Single Frames
2000	1:24,000	2	Single Frames
2005	1:24,000	3	NAIP
2009	1:24,000	3	NAIP
2010	1:24,000	3	NAIP
2012	1:24,000	3	NAIP
2016	1:24,000	3	NAIP
2018	1:24,000	3	NAIP
2020	1:24,000	3	NAIP

YEAR:	***DOWNLOAD LINK(S):***
1951	Click here to download maps
1954	Click here to download maps
1969	Click here to download maps
1972	Click here to download maps
1974	Click here to download maps
1975	Click here to download maps
1980	Click here to download maps
1981	Click here to download maps
1984	Click here to download maps
1989	Click here to download maps
1990	Click here to download maps
1993	Click here to download maps
1998	Click here to download maps
2000	Click here to download maps
2000	Click here to download maps
2005	Click here to download maps
2009	Click here to download maps
2010	Click here to download maps
2012	Click here to download maps
2016	Click here to download maps
2018	Click here to download maps
2020	Click here to download maps



1951 Aerial Image



1954 Aerial Image

H. AERIALS

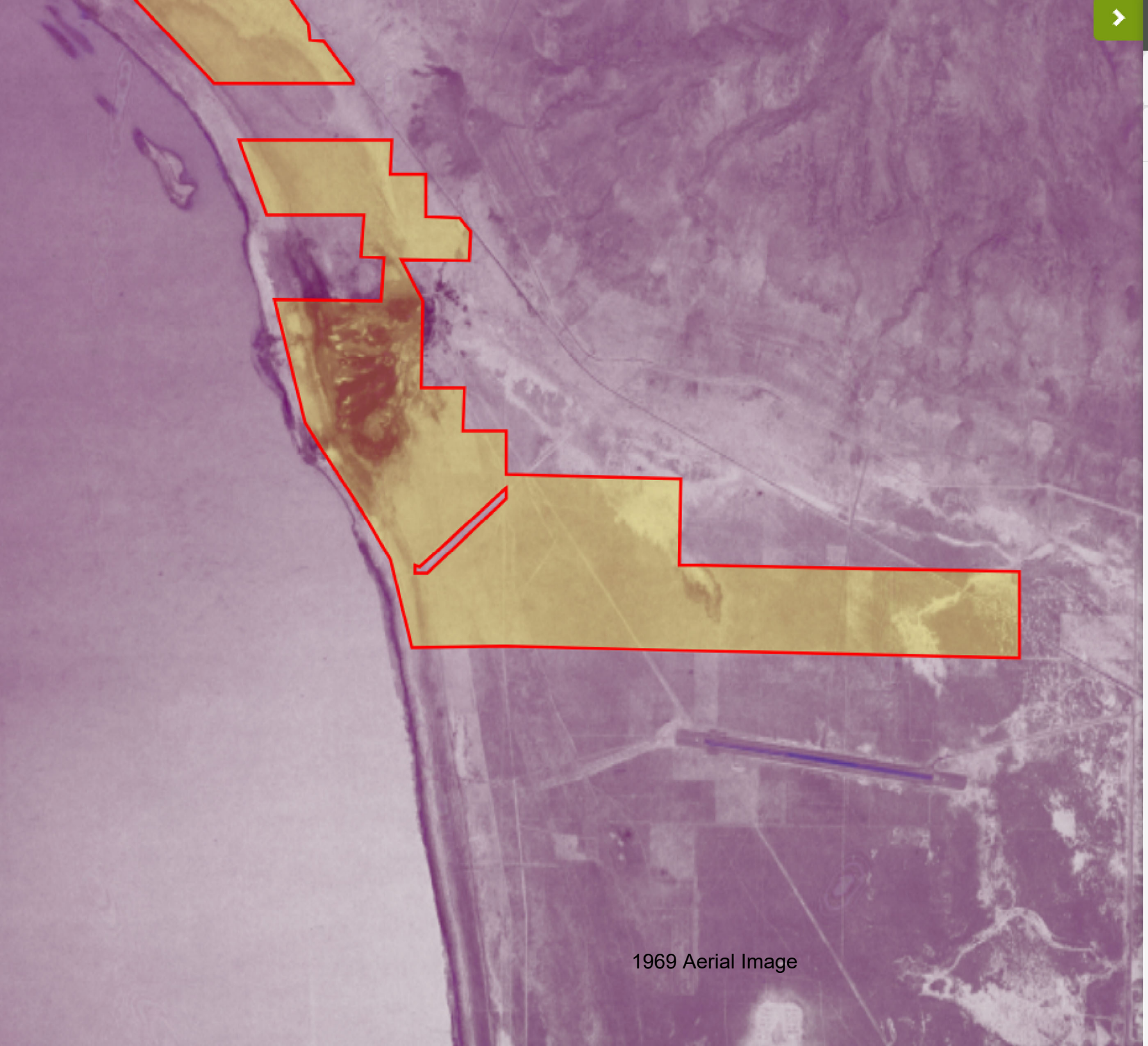
+ Environmental & Ge

− Historical Aerial Ph

	Year	Scal
○	1951	1" = 4720
○	1951	1" = 4720
○	1951	1" = 4720
◉	1954	1" = 6000
○	1969	1" = 1174
○	1972	1" = 1210
○	1974	1" = 3100
○	1974	1" = 3100
○	1975	1" = 7800
○	1980	1" = 6150
○	1980	1" = 6150
○	1981	1" = 5800
○	1984	1" = 2400

<<Previous

Next>>



1969 Aerial Image

H. AERIALS

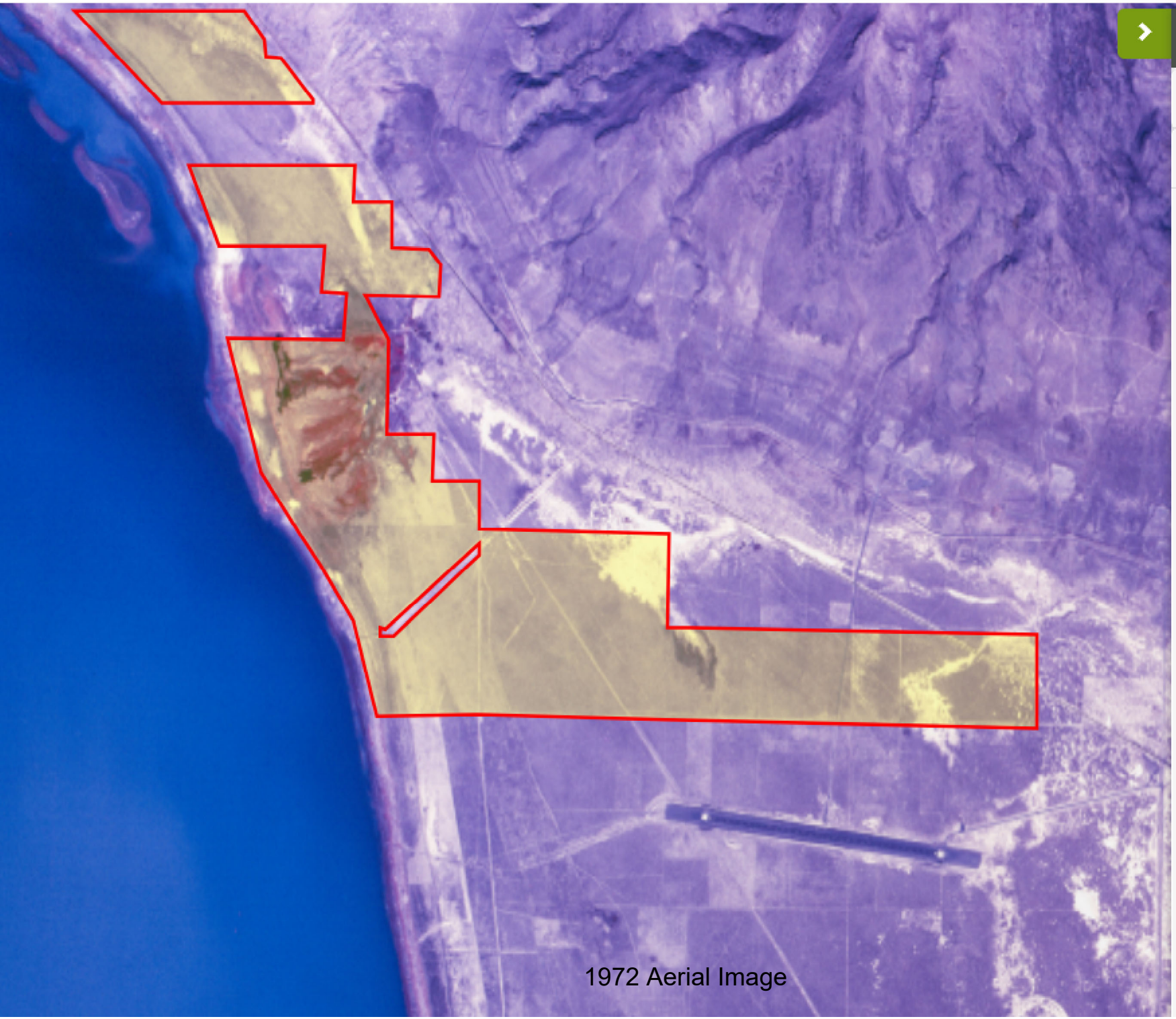
+ Environmental &

− Historical Aerial

	Year	S
○	1951	1" = 4
○	1951	1" = 4
○	1951	1" = 4
○	1954	1" = 6
◉	1969	1" = 1
○	1972	1" = 1
○	1974	1" = 3
○	1974	1" = 3
○	1975	1" = 7
○	1980	1" = 6
○	1980	1" = 6
○	1981	1" = 5
○	1984	1" = 2

<<Previous

Next>>



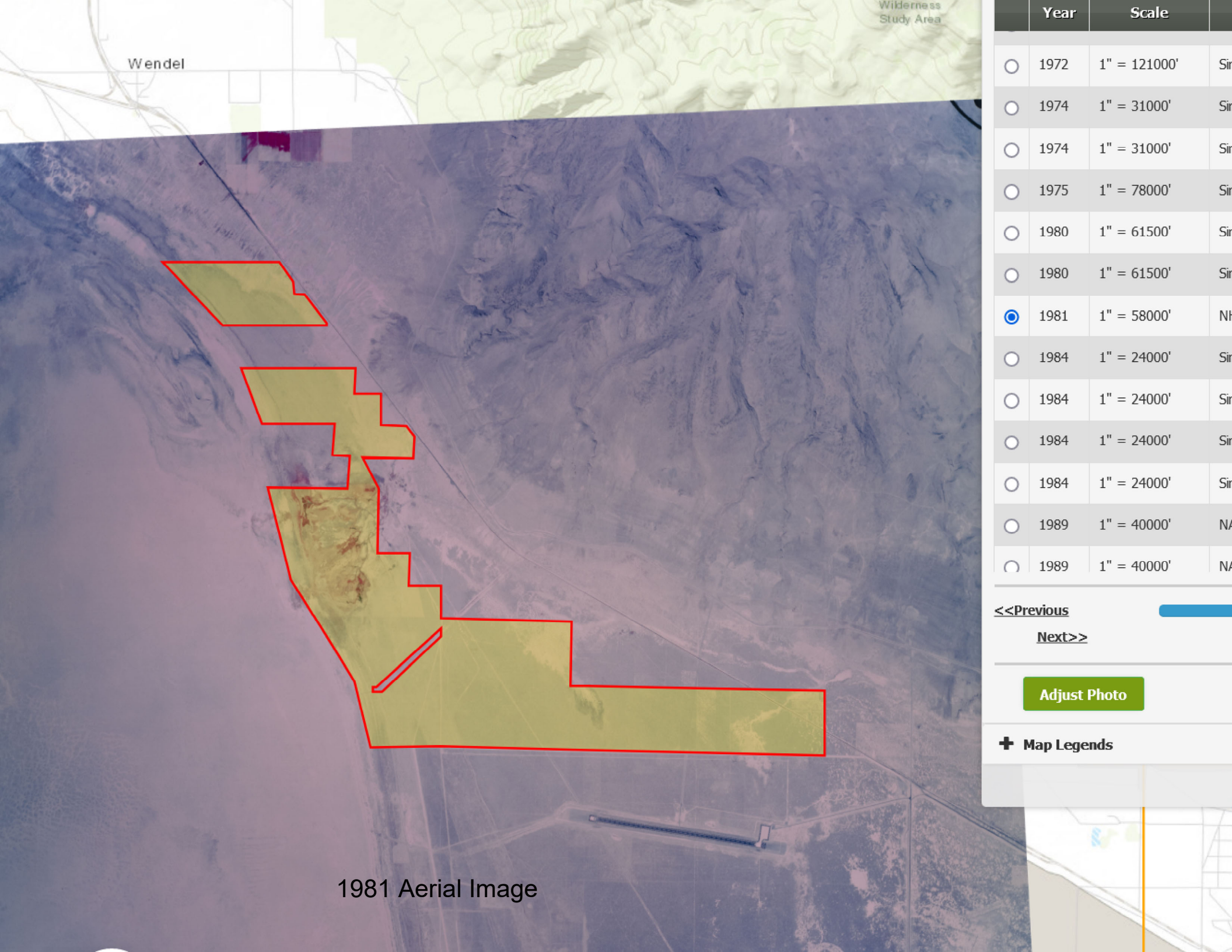
1972 Aerial Image

H. AERIALS

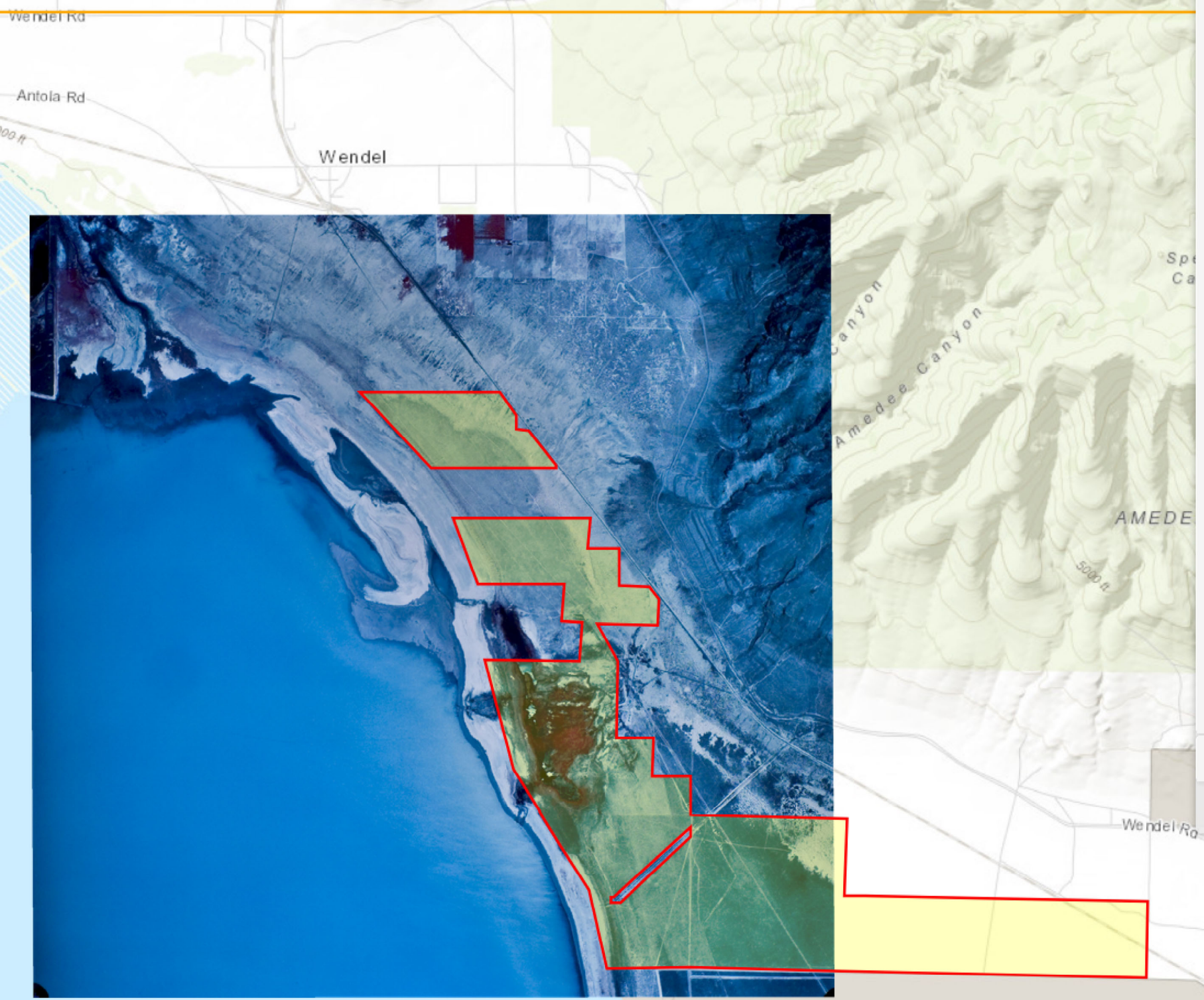
+ Environmental & G

− Historical Aerial Pl

	Year	Sca
○	1951	1" = 472
○	1951	1" = 472
○	1951	1" = 472
○	1954	1" = 600
○	1969	1" = 117
◉	1972	1" = 121
○	1974	1" = 310
○	1974	1" = 310
○	1975	1" = 780
○	1980	1" = 615
○	1980	1" = 615
○	1981	1" = 580



1981 Aerial Image



○	1989	1" = 4000
○	1990	1" = 4000
○	1990	1" = 4000
○	1990	1" = 4000
○	1993	1" = 2400
○	1993	1" = 2400
○	1993	1" = 2400
○	1998	1" = 4000
○	1998	1" = 4000
○	1998	1" = 4000
○	2000	1" = 2400

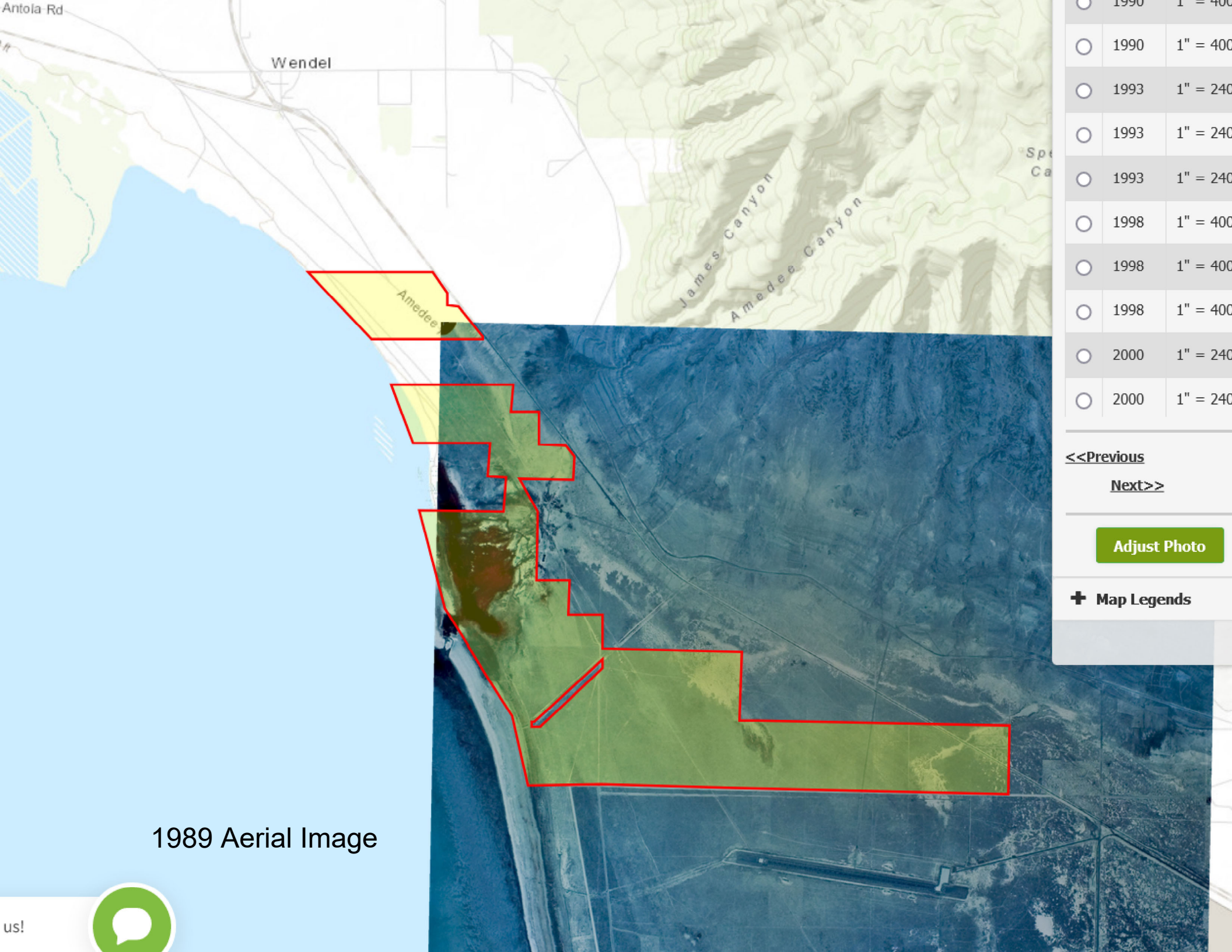
<<Previous

Next>>

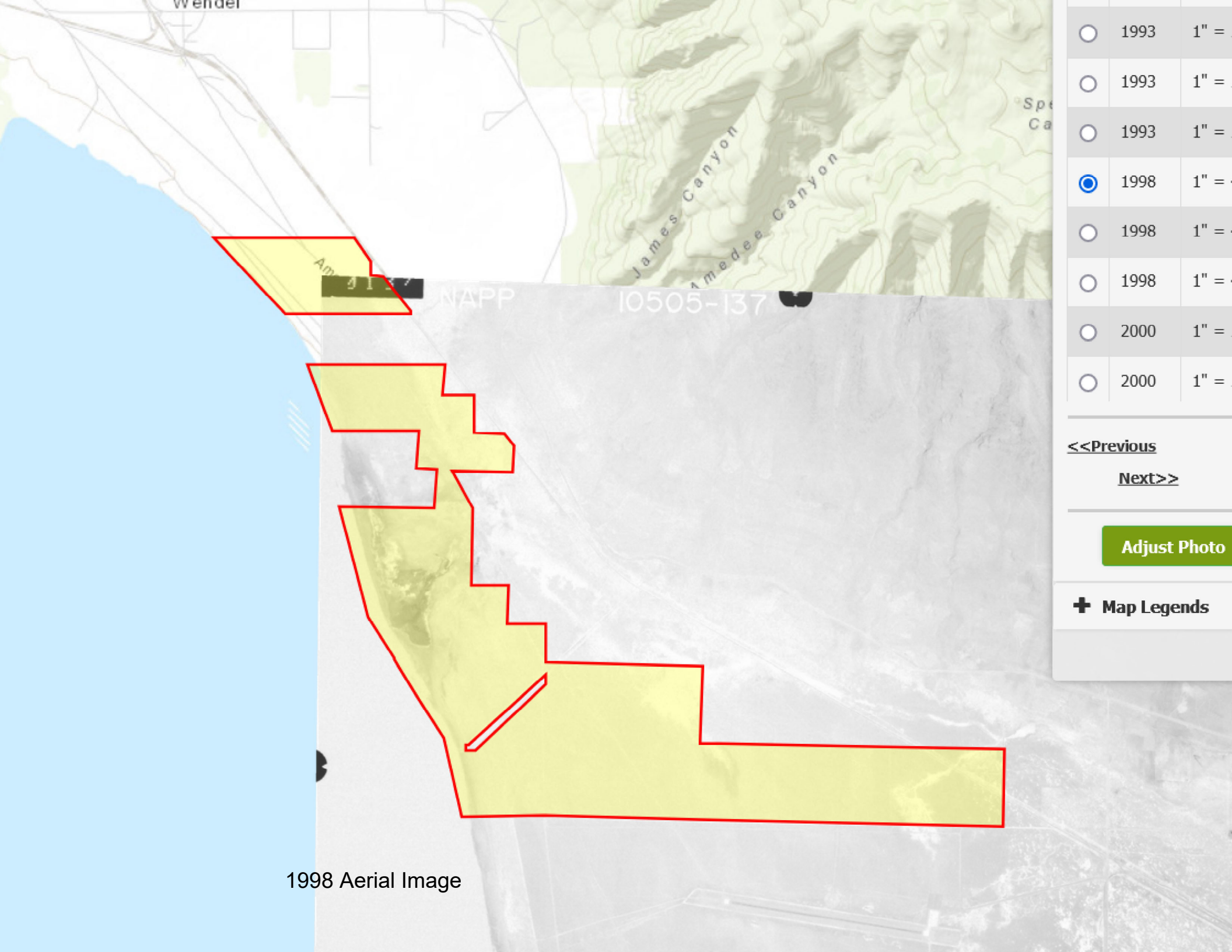
Adjust Photo

✚ Map Legends

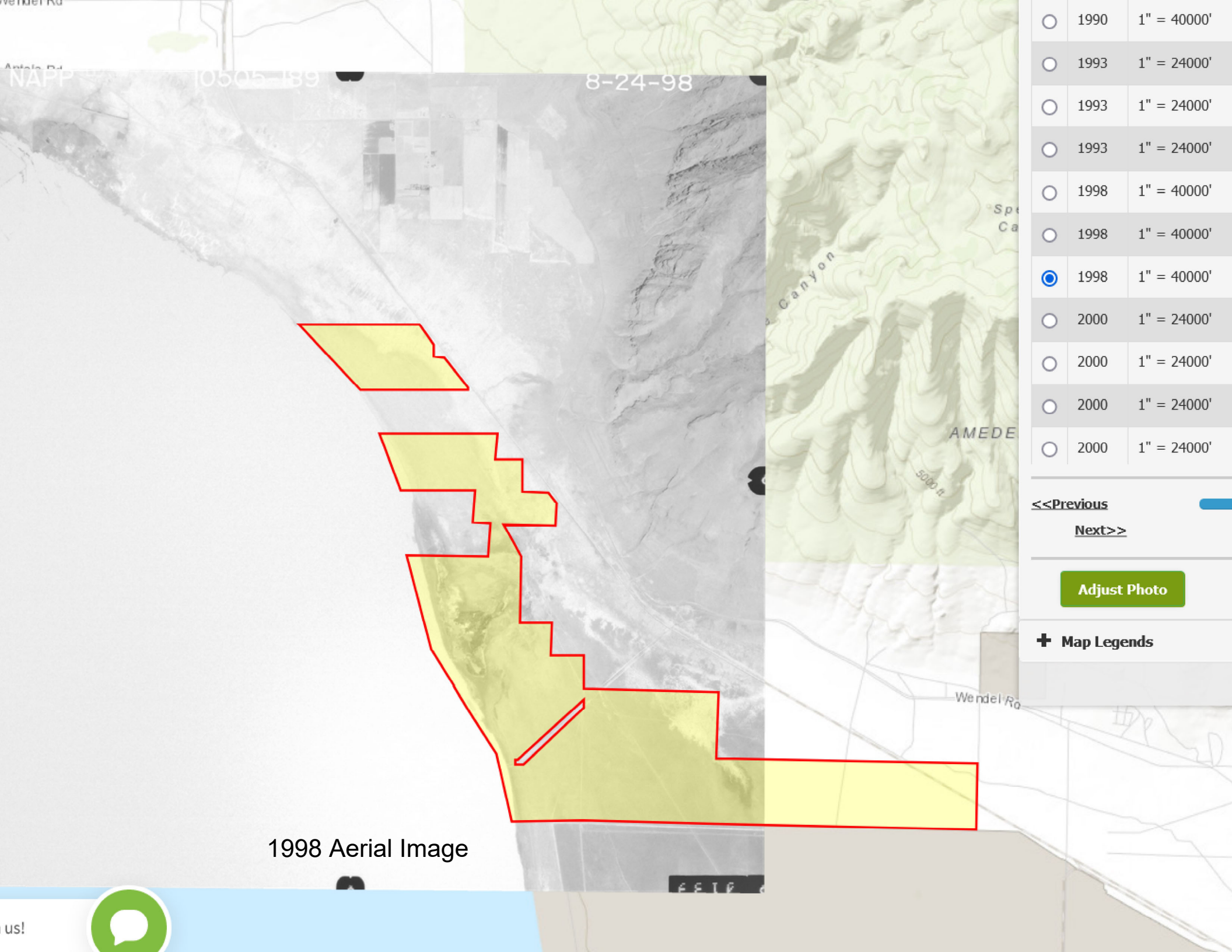
1989 Aerial Image



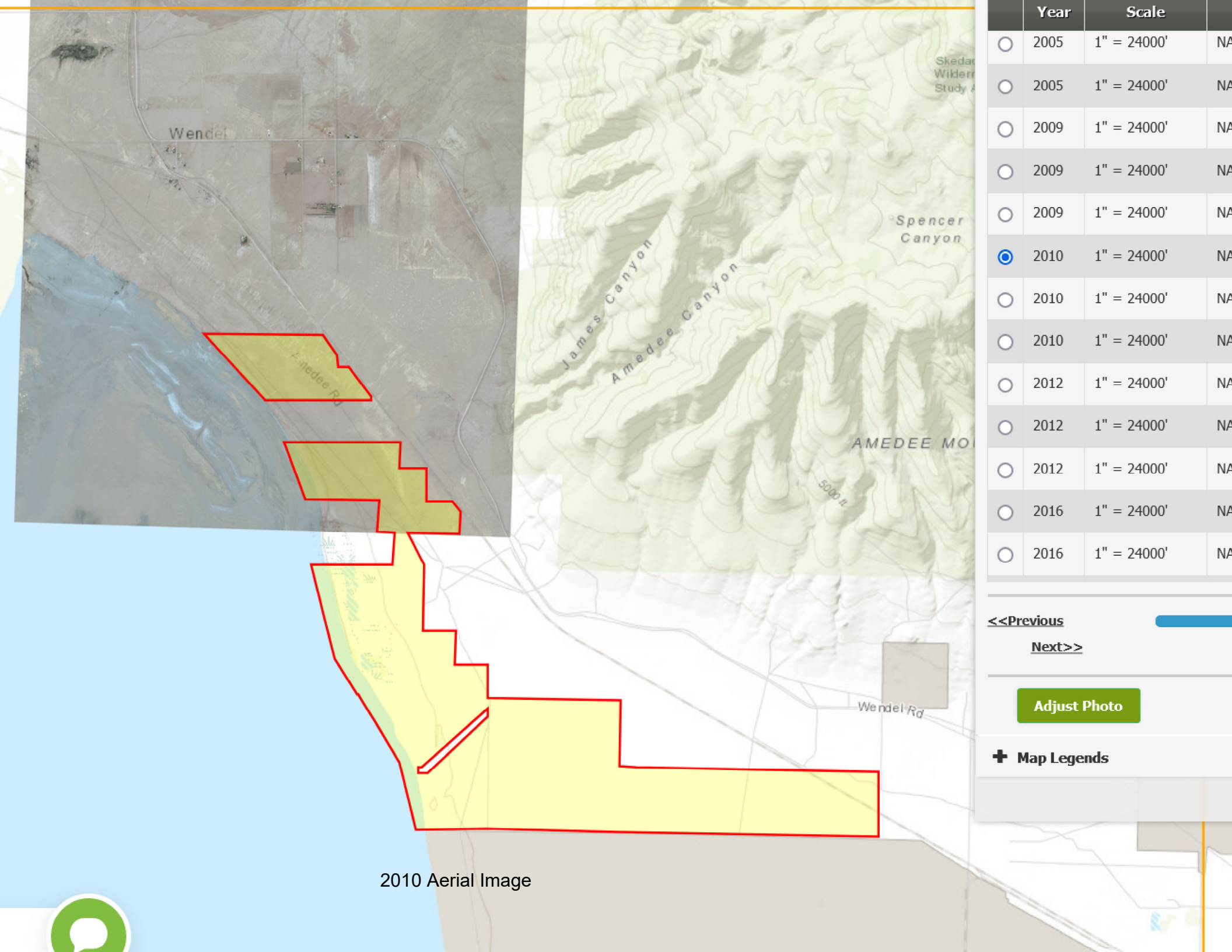
1989 Aerial Image



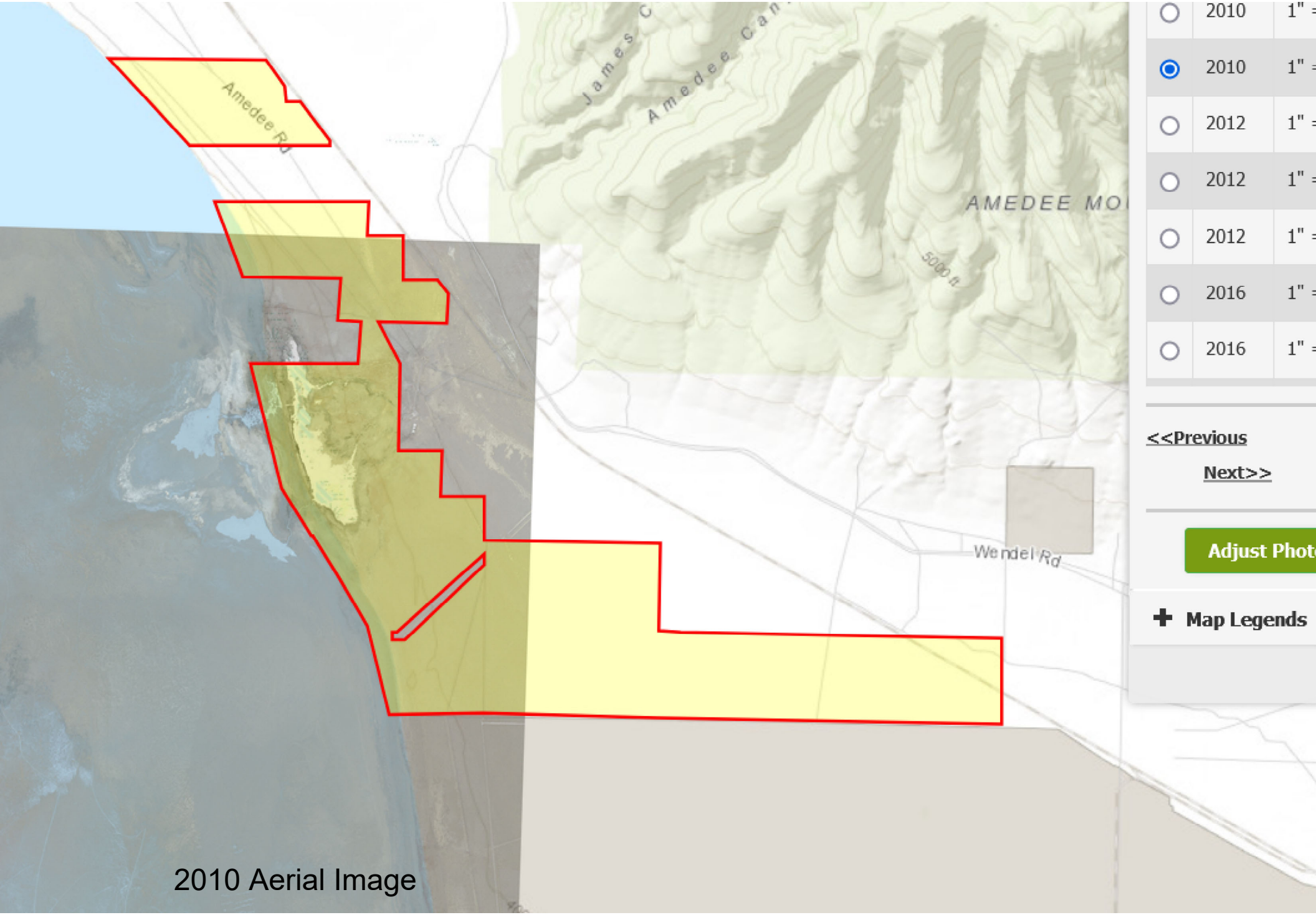
1998 Aerial Image

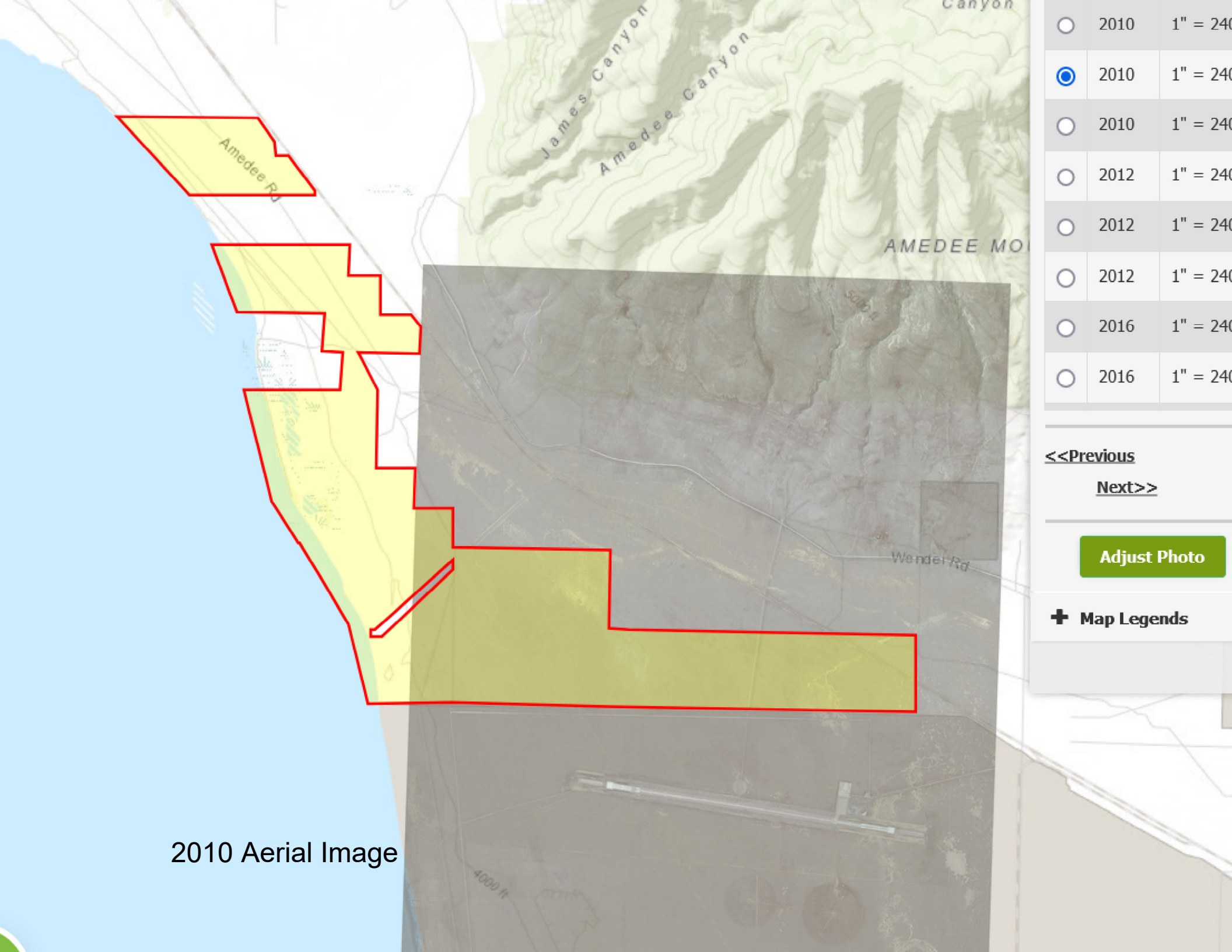


1998 Aerial Image



2010 Aerial Image


Amedee Rd
James C
Amedee Can
AMEDEE MO
5000 ft
Wendel Rd
2010 Aerial Image
2010
2010
2012
2012
2012
2016
2016
<<Previous
Next>>
Adjust Phot
Map Legends



2010 Aerial Image

Legend

Approximate Property Boundary

N

AERIAL PHOTOGRAPH - 2022

Lassen County, CA

Project Number: [470890]

AEI

APPENDIX E

REGULATORY AGENCY RECORDS

LASSEN COUNTY
Health and Social Services Department

ADMINISTRATION • 1445 Paul Bunyan Road • Susanville, CA 96130 • (530) 251-8128

■ **ENVIRONMENTAL HEALTH/ PUBLIC HEALTH**
1445 Paul Bunyan Road
Susanville, CA 96130
(530) 251-8528/Fax 251-2668

☐ Community Social Services
Lassen Works
720 Richmond Road
Susanville, CA 96130
(530) 251-8152

☐ PUBLIC GUARDIAN
720-A Richmond Rd.
Susanville, CA 96130
(530) 251-8337

☐ Behavioral Health
555 Hospital Lane
Susanville, CA 96130
(530) 251-8108 / 8112

☐ Veterans Services Office
1205 Main Street
Susanville, CA 96130
(530) 251-8192

CALIFORNIA PUBLIC RECORDS ACT REQUEST

Date:_____

Name of Individual and/or Company Requesting Records: _____
Address: _____
City: _____State: _____ Zip: _____
Phone:_____ Fax:_____ Email:_____

Please complete one copy of this form for each Public Records Act request. Mail, fax, or e-mail the form. You will be advised as to whether or not we have records subject to release within 10 calendar days of receipt of the request. There will be a $0.10 per page charge, and you will be notified of the cost in advance of copies being made.

REQUEST FOR RECORDS PERTAINING TO:
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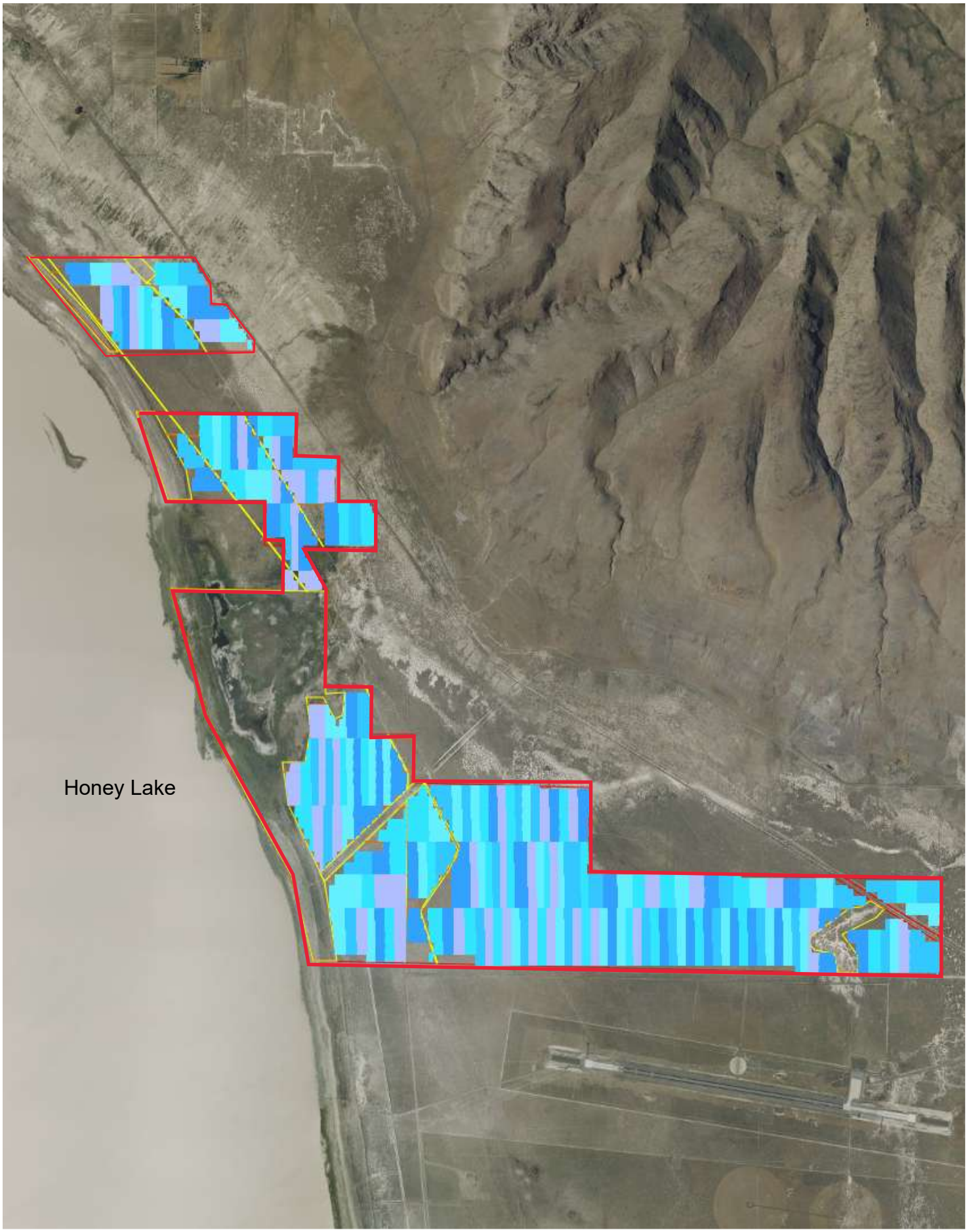
Large Layout Map



Yana Garcia
Secretary for
Environmental Protection

Department of Toxic Substances Control

Meredith Williams, Ph.D., Director
1001 "I" Street
P.O. Box 806
Sacramento, California 95812-0806

Gavin Newsom
Governor

Facility Search Results

Selection Criteria:

Facility:
Search on: Physical Address
City: Wendel
Zip: 96136
County: LASSEN
Status: Active and Inactive
Sort Direction: asc
Sorted By: EPA ID
Records Found: 17

EPA ID Number	Name	Address	City	Zip
CAC000039255	1X SOUTHERN PACIFIC	WENDEL S.P.R.R. YARD	WENDEL	961360000
CAC000203613	1X H L POWER CO.	723-125 WENDEL ROAD	WENDEL	961360000
CAC001028048	HONEY LAKE WILD AREA - FISH & GAME DEPT	728 - 600 FISH & GAME ROAD	WENDEL	961360000
CAC002317233	HONEY LAKE WILD AREA - FISH & GAME DEPT	728 - 600 FISH & GAME ROAD	WENDEL	961360000
CAC002374151	HONEY LAKE WILDLIFE AREA - DFG	728-600 FISH & GAME RD	WENDEL	961360000
CAC002557450	DEPT OF FISH & GAME	728-600 FISH & GAME RD	WENDEL	96136
CAC002601611	JAY DOW	726-200 MAPES LN	WENDEL	961369602
CAC002654895	UNION PACIFIC RAILROAD	LAT 40.348 21N LONG 120.23258W	WENDEL	96136
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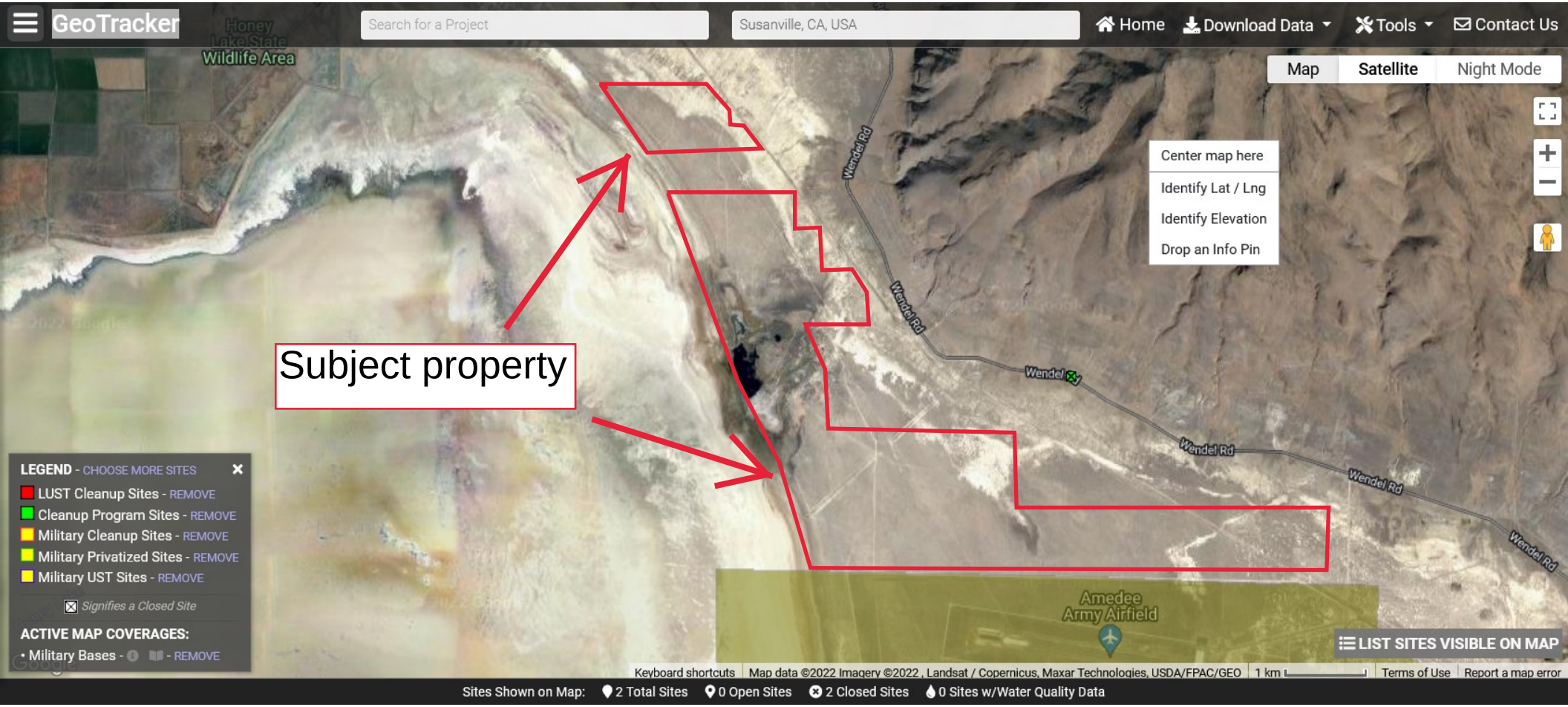
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Susanville, CA, USA
Home
Download Data
Tools
Contact Us
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Satellite
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Identify Lat / Lng
Identify Elevation
Drop an Info Pin
Subject property
Wendel Rd
Amedee Army Airfield
LEGEND - CHOOSE MORE SITES
LUST Cleanup Sites - REMOVE
Cleanup Program Sites - REMOVE
Military Cleanup Sites - REMOVE
Military Privatized Sites - REMOVE
Military UST Sites - REMOVE
Signifies a Closed Site
ACTIVE MAP COVERAGES:
• Military Bases - REMOVE
LIST SITES VISIBLE ON MAP
Keyboard shortcuts
Map data ©2022 Imagery ©2022 , Landsat / Copernicus, Maxar Technologies, USDA/FPAC/GEO
1 km
Terms of Use
Report a map error
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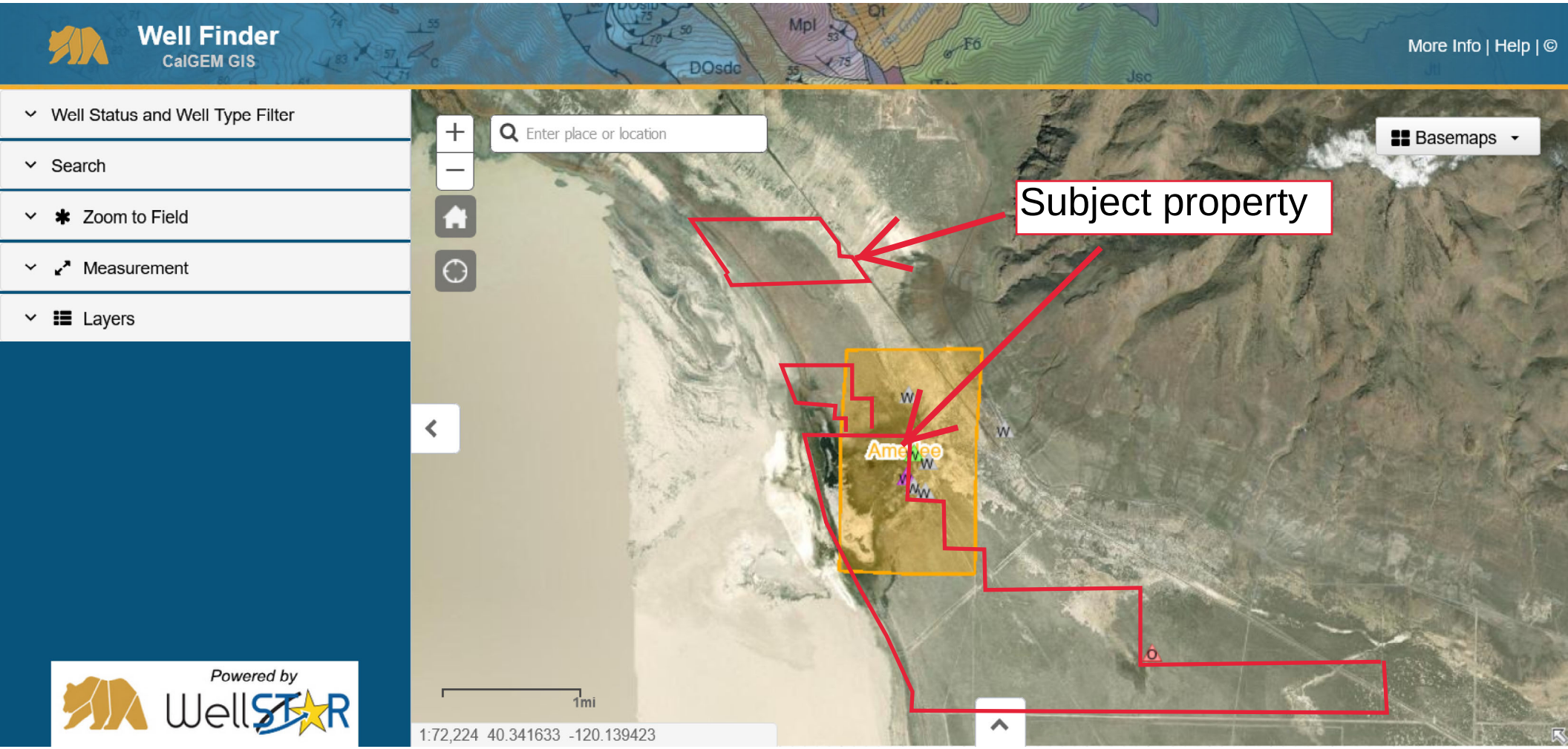
2 Closed Sites
0 Sites w/Water Quality Data

APPENDIX F

OTHER SUPPORTING DOCUMENTATION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CalGEM GIS
More Info | Help | ©
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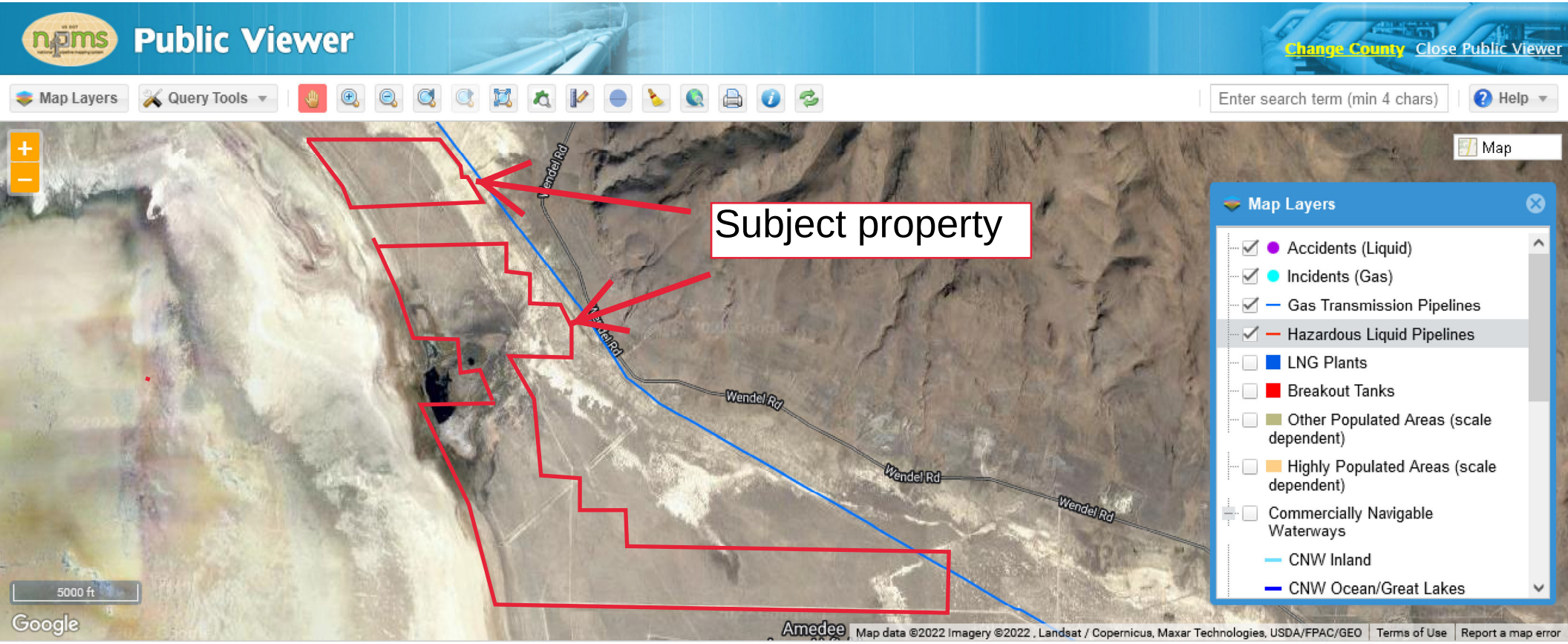
WellSTAR



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PIKA ARCADIS a joint venture

U.S. ARMY ENVIRONMENTAL COMMAND

2019 ANNUAL GROUNDWATER MONITORING REPORT FOR THE OLD POPPING FURNACE AND UPPER BURNING GROUND CORRECTIVE ACTION MANAGEMENT UNITS

Sierra Army Depot, California

Environmental Remediation Multiple Award Contract W91ZLK-13-D-0009

Task Order 0014

March 2020

Hoa Voscott, PE

Project Manager

2019 ANNUAL GROUNDWATER MONITORING REPORT FOR THE OPF AND UBG CORRECTIVE ACTION MANAGMENET UNITS

Sierra Army Depot, California
Environmental Remediation Multiple Award Contract W91ZLK-13-D-0009, Task Order 0014

Prepared for:

U.S. Army Environmental Command

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Date:

March 2020

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ACRONYMS AND ABBREVIATIONS

Arcadis	Arcadis U.S., Inc.
bgs	below ground surface
CAMU	Corrective Action Management Unit
COC	chain-of-custody
DTSC	Department of Toxic Substances Control
ERIS	Environmental Restoration Information System
JV	Joint Venture
MCL	maximum contaminant level
msl	mean sea level
OPF	Old Popping Furnace
QC	quality control
QCC	quality control criteria
RD/RA Plan	Remedial Design/Remedial Action and Post Monitoring Maintenance Plan
RL	reporting limit
RPD	relative percent difference
SIAD	Sierra Army Depot
UBG	Upper Burning Ground
USEPA	United States Environmental Protection Agency
µg/L	micrograms per liter

1 INTRODUCTION

This 2019 Annual Groundwater Monitoring Report for the Old Popping Furnace (OPF) and Upper Burning Ground (UBG) Corrective Action Management Units (CAMUs) was prepared by the PIKA-Arcadis Joint Venture (JV) for the Sierra Army Depot (SIAD) in Herlong, California under the Guaranteed Fixed Price Remediation Performance-Based Contract W91ZLK-13-0009. This work was performed in accordance with the groundwater monitoring program requirements outlined in Appendix E of the Final Three Sites Remedial Design/Remedial Action and Post Monitoring Maintenance Plan (RD/RA Plan; Arcadis U.S., Inc. [Arcadis] 2006).

1.1 Purpose

In June 2006, two onsite CAMUs were constructed at SIAD to manage contaminated soil from the OPF and UBG CAMU areas. The locations of the OPF CAMU and UBG CAMU are shown in **Figure 1.1**. A groundwater monitoring program is in place to monitor for potential releases of metal contaminants from the CAMUs. The groundwater monitoring program includes routine sampling of groundwater quality upgradient and downgradient of the CAMUs. This report presents the results of the 2019 annual groundwater monitoring event conducted in June 2019.

Groundwater monitoring for the OPF and UBG CAMUs has been performed on an annual, rather than quarterly, basis since June 2008. As discussed in the RD/RA Plan, Arcadis requested this reduction in monitoring frequency based on the consistency of results obtained during the baseline sampling period (May 2005 through March 2006) and six subsequent quarterly groundwater monitoring events (June 2006 through September 2007) completed following CAMU construction. The Department of Toxic Substances Control (DTSC) approved the change in a letter dated November 13, 2008 (DTSC 2008).

1.2 Report Organization

Organization of this report is as follows. Section 2 summarizes the groundwater monitoring program and associated data management tasks. Section 3 presents the groundwater monitoring results, including groundwater elevations and laboratory analytical results. Section 4 summarizes activities planned for the next reporting period, and Section 5 lists the references used in the production of this report.

2 GROUNDWATER MONITORING PROGRAM

The OPF and UBG CAMU groundwater monitoring programs are described in Section 2.1, and data management tasks are presented in Section 2.2.

2.1 Groundwater Monitoring Program

The groundwater monitoring program, as specified in the RD/RA Plan (Arcadis 2006), includes the following:

- Groundwater elevation measurement at six wells in the vicinity of the OPF CAMU (see **Figure 2.1** and **Table 2.1**) and seven wells in the vicinity of the UBG CAMU (see **Figure 2.2** and **Table 2.1**);
- Groundwater sample collection and field parameter measurement at five wells in the vicinity of the OPF CAMU (LBG-5-MW, OPF-PZ-04, OPF-PZ-05, OPF-PZ-06, and OPF-PZ-07) and four wells in the vicinity of the UBG CAMU (UBG-03-MWA, UBG-08R-MWA, UBG-09-MWA, and UBG-10-MWA); and
- Disposal of investigation-derived waste.

Groundwater samples collected from the OPF CAMU wells are analyzed for dissolved lead, dissolved arsenic, and dissolved antimony, while groundwater samples collected from the UBG CAMU wells are analyzed for dissolved lead, dissolved arsenic, and dissolved total chromium (**Table 2.1**). Field forms for the 2019 annual groundwater monitoring activities are provided in **Appendix A**.

2.2 Data Management

Data management consists of laboratory reporting and data review as described in Sections 2.2.1 and 2.2.2, respectively, and as specified in the Quality Assurance Project Plan (Harding Lawson Associates 1997).

2.2.1 Laboratory Reporting Review

The following activities were performed to assess the suitability of analytical results to support groundwater monitoring decisions:

- Laboratory reports and chain-of-custody (COC) documentation were reviewed to check for errors and omissions;
- Laboratory reports were checked for correct reporting limits and units; and
- Reported results were compared with historical results and anomalies were noted, if present.

COC documents are provided in **Appendix B**. Laboratory results for the groundwater sample analyses are available in electronic format compatible with the Environmental Restoration Information System (ERIS), and the certified analytical reports are provided in **Appendix C**. Correction and dilution factors were incorporated into the final analytical values before final storage in the ERIS database, and raw data

were rounded to the correct number of significant figures only after calculations and manipulations were completed.

2.2.2 Data Review

The analytical laboratory provided sample data packages of sufficient quality and completeness to allow for data review in accordance with program requirements. The data packages for this project included:

- A comprehensive sample delivery group narrative describing the analytical procedures used and the quality control (QC) results reported;
- Sample result summary forms for each sample in the delivery group; and
- QC summary forms appropriate to the analytical technique used.

Data review consisted of quality control criteria (QCC) review, which provided sufficient information to assess control of laboratory analytical methods and quality of the reported data. The following items were included in the QCC review:

- Data packages were evaluated for completeness;
- Laboratory case narratives were checked for anomalies and QC acceptance criteria exceedances;
- Extraction and analysis holding times were confirmed;
- Laboratory method blank and trip blank results were assessed: detected analytes, their respective concentrations, and any associated sample impacts were noted;
- Matrix spike and matrix spike duplicate sample recoveries and relative percent differences (RPDs);
- Laboratory control sample and laboratory control sample duplicate recoveries and RPDs;
- Field and laboratory duplicate sample RPDs;
- Serial dilution percent differences;
- Sample dilutions and reporting limits;
- Calibrations;
- Case narratives; and
- Reported results were compared with historical results, and any anomalies were noted.

Data were evaluated according to procedures consistent with the United States Environmental Protection Agency (USEPA) Contract Laboratory Program National Functional Guidelines for Inorganics Data Review (2004). The data review report is provided as **Appendix D**. No data quality issues affecting the sampling results were observed with the following exception:

- Sample OPF-04-PZ was used in the serial dilution analyses for metals. The analyte arsenic exhibited a percent difference that exceeded the control limit in the serial dilution analysis. Therefore, all arsenic results associated with the analytical batch were qualified as estimated.

Values qualified as estimated (“J”) or estimated non-detect (“UJ”) are considered usable with qualification to indicate quantitative uncertainty with the results. Based on the data review, all other results are considered valid and usable without qualification.

3 GROUNDWATER MONITORING RESULTS

The groundwater elevation and laboratory analytical results for the 2019 annual groundwater monitoring event are summarized in Sections 3.1 and 3.2, respectively.

3.1 Groundwater Elevations

Table 3.1 summarizes the depth-to-water measurements and groundwater elevations with respect to mean sea level (msl). The individual groundwater monitoring wells are constructed with screen lengths ranging from 15 to 30 feet. The UBG and OPF CAMU wells are screened at depths of up to approximately 150 feet below ground surface (bgs) and 40 feet bgs, respectively.

Groundwater elevation measurements for the 2019 annual groundwater monitoring event were conducted at the OPF and UGB CAMU areas on June 6, 2019. Field forms are included in **Appendix A**. Groundwater elevations in the OPF CAMU wells ranged from 3,984.56 feet msl (OPF-PZ-07) to 3,989.18 feet msl (LBG-5-MW), and groundwater elevations in the UBG CAMU wells ranged from 4,003.93 feet msl (UBG-02-MWA) to 4,035.96 feet msl (UBG-07-MWA). **Figure 3.1** and **Figure 3.2** are groundwater potentiometric surface maps for the OPF and UBG CAMU areas, respectively.

The groundwater elevation contours shown in **Figure 3.1** and **Figure 3.2** suggest a southwesterly groundwater flow direction. This interpretation of local groundwater flow direction is consistent with regional groundwater flow at SIAD, which is perpendicular to the regional topography and predominantly to the southwest toward Honey Lake.

3.2 Laboratory Analytical Results

During the 2019 annual groundwater monitoring event, groundwater samples were collected from five wells in the vicinity of the OPF CAMU (LBG-5-MW, OPF-PZ-04, OPF-PZ-05, OPF-PZ-06, and OPF-PZ-07) and four wells in the vicinity of the UBG CAMU (UBG-03-MWA, UBG-08R-MWA, UBG-09-MWA, and UBG-10-MWA). The groundwater samples were analyzed for dissolved arsenic, dissolved lead, and either dissolved antimony (for the OPF CAMU area wells) or dissolved total chromium (for the UBG CAMU area wells) using USEPA Method 6020A. The laboratory results are summarized in Sections 3.2.1 and 3.2.2, and in **Table 3.2**. Plots of metal concentration trends in the sampled monitoring wells are provided in **Appendix E**.

3.2.1 Old Popping Furnace CAMU

The following is a summary of the laboratory analytical results for the 2019 annual groundwater monitoring event at the OPF CAMU area. Note that the laboratory reporting limits (RLs) for antimony, arsenic, and lead were elevated due to matrix interference issues.

Antimony was not detected at concentrations exceeding the laboratory RL (10 µg/L) in samples collected from the OPF CAMU monitoring wells during the 2019 annual groundwater monitoring event. This is consistent with concentrations observed during the baseline sampling period (May 2005 through March 2006), which ranged from non-detect to 14.5 micrograms per liter (µg/L; **Table 3.2**). Furthermore, the 2019 antimony results for the pre-CAMU wells (i.e., wells LBG-5-MW, OPF-PZ-04, and OPF-PZ-05 that

existed and were sampled prior to the baseline sampling period) were consistent with the results from the remedial investigation sampling, which ranged from non-detect to 1.1 µg/L (Arcadis 2004).

Arsenic was detected in each of the five OPF CAMU wells sampled during the 2019 annual groundwater monitoring event at concentrations ranging from 1,350 J µg/L (LBG-5-MW) to 3,620 J µg/L (OPF-PZ-07). This is generally consistent with concentrations observed during the baseline sampling period (May 2005 through March 2006), which ranged up to 3,290 µg/L (**Table 3.2**). The 2019 arsenic results for the pre-CAMU wells (LBG-5-MW, OPF-PZ-04, and OPF-PZ-05) were consistent with prior results from the remedial investigation sampling, which ranged up to 3,600 µg/L (Arcadis 2004).

Lead was not detected at concentrations exceeding the laboratory RL (10 µg/L) in samples collected from the OPF CAMU monitoring wells during the 2019 annual groundwater monitoring event. This is consistent with the baseline sampling period (May 2005 through March 2006) results, which indicated that lead was non-detect or detected at low concentrations less than 1 µg/L (**Table 3.2**). Furthermore, the 2019 lead results for the pre-CAMU wells (LBG-05-MW, OPF-PZ-04, and OPF-PZ-05) were consistent with the results from the remedial investigation sampling, which ranged from non-detect to 0.95 µg/L (Arcadis 2004).

In general, the most recent (2019) data are comparable to historical groundwater monitoring results for the OPF CAMU area. These data, as well as the groundwater flow direction data, indicate that metals concentrations in groundwater in the OPF CAMU area are relatively stable and no contaminants are being released.

Historically, groundwater antimony, lead, and arsenic results have also been compared to California drinking water maximum contaminant levels (MCLs; Title 22, California Code of Regulations, Section 64431), or the regulatory action level in the case of lead, as points of reference. In general, antimony and lead concentrations in groundwater have been less than the MCL of 6 µg/L for antimony and the regulatory action level of 15 µg/L for lead, respectively. Historically, arsenic concentrations in groundwater in the OPF CAMU area have been greater than the current California MCL of 10 µg/L, which is consistent with the remedial investigation finding that OPF CAMU area groundwater contains naturally occurring levels of arsenic exceeding the California MCL (Arcadis 2004). Elevated arsenic concentrations detected in groundwater in the OPF CAMU area are reflective of background conditions and non-anthropogenic sources (Arcadis 2010).

3.2.2 Upper Burning Ground CAMU

The following is a summary of the laboratory analytical results for the 2019 annual groundwater monitoring event at the UBG CAMU area.

Arsenic was detected in two of the four UBG CAMU monitoring wells sampled during the 2019 annual groundwater monitoring event at concentrations of 2.2 J µg/L (UBG-03-MWA) and 5.5 J µg/L (UBG-08R-MWA). In comparison, arsenic concentrations observed during the baseline sampling period (May 2005 through March 2006) ranged from 1.6 to 20.5 µg/L (**Table 3.2**).

Total Chromium was detected in one of the four UBG CAMU monitoring wells sampled during the 2019 annual groundwater monitoring event at a concentration of 4.9 µg/L (UBG-08R-MWA). In comparison, total chromium concentrations observed during the baseline sampling period (May 2005 through March 2006) ranged from non-detect to 47.9 µg/L (**Table 3.2**).

Lead was not detected at concentrations exceeding the laboratory RL (2 µg/L) in samples collected from the UBG CAMU monitoring wells during the 2019 annual groundwater monitoring event. This is consistent with the baseline sampling period (May 2005 through March 2006) results, which indicated that lead was generally non-detect (**Table 3.2**).

In general, the most recent (2019) data are comparable to historical groundwater monitoring results for the UBG CAMU area. These data, as well as the groundwater flow direction data, indicate that metals concentrations in groundwater in the UBG CAMU area are stable and no contaminants are being released.

As a point of comparison, the recent detections of arsenic and total chromium in groundwater are less than the California MCLs of 10 µg/L and 50 µg/L, respectively. Lead concentrations have typically been non-detect and less than the regulatory action level of 15 µg/L.

4 ACTIVITIES PLANNED FOR THE NEXT REPORTING PERIOD

The next groundwater monitoring event for the OPF and UBG CAMUs will be conducted in the second quarter of 2020 for the 2020 annual period. The report documenting the monitoring results will be submitted within three months following the end of the 2020 annual period (i.e., by March 31, 2021). Optimizations to the groundwater monitoring program will be evaluated prior to the next groundwater monitoring event, and any proposed changes will be submitted to the regulatory agencies for concurrence prior to implementation.

5 REFERENCES

Arcadis. 2004. Final Old Popping Furnace Remedial Investigation and Feasibility Study, Sierra Army Depot, Lassen County, California. April 9.

_____. 2006. Final Three Sites Remedial Design/Remedial Action and Post Monitoring Maintenance Plan, Sierra Army Depot, Lassen County, California. February 13.

_____. 2010. Monitoring Well Placement Rationale and Natural Occurrence of Arsenic in Groundwater, Military Munitions Response Program, Sierra Army Depot, Herlong, California. July 26.

DTSC. 2008. Letter to Ms. Susan Holliday at Sierra Army Depot regarding “Fifth and Sixth Quarterly Groundwater Monitoring Report for the Old Popping Furnace and Upper Burning Ground Corrective Action Management Units, Sierra Army Depot, Herlong, California.” November 13.

Harding Lawson Associates. 1997. Draft Final Quality Assurance Project Plan, Total Environmental Program Support, Sierra Army Depot, Lassen County, California. April.

USEPA. 2004. USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review. October.

TABLES

Table 2.1: Summary of Wells in the Monitoring Network
2019 Annual Groundwater Monitoring Report
Old Popping Furnace and Upper Burning Ground Corrective Action Management Units
Sierra Army Depot, Herlong, California

Well ID	Sample Collection Date	Field Parameters	Groundwater Analyses
Old Popping Furnace Corrective Action Management Unit Monitoring Wells			
OPF-PZ-04	6/6/2019	✓	A
OPF-PZ-05	6/6/2019	✓	A
OPF-PZ-06	6/6/2019	✓	A
OPF-PZ-07	6/6/2019	✓	A
LBG-5-MW	6/6/2019	✓	A
LBG-4-MW	---	---	---
Upper Burning Ground Corrective Action Management Unit Monitoring Wells			
UBG-03-MWA	6/6/2019	✓	B
UBG-08R-MWA	6/6/2019	✓	B
UBG-09-MWA	6/6/2019	✓	B
UBG-10-MWA	6/6/2019	✓	B
UBG-02-MWA	---	---	---
UBG-04-MWA	---	---	---
UBG-07-MWA	---	---	---

Notes:

---	Indicates not applicable/analyzed
✓	Depth to water, pH, specific conductance, temperature
A	Dissolved lead, dissolved arsenic, and dissolved antimony (USEPA Method 6020)
B	Dissolved lead, dissolved arsenic, and dissolved total chromium (USEPA Method 6020)
USEPA	United States Environmental Protection Agency

Table 3.1: Summary of Groundwater Elevations
2019 Annual Groundwater Monitoring Report
Old Popping Furnace and Upper Burning Ground Corrective Action Management Units
Sierra Army Depot
Herlong, California

Well ID	Date of Depth to Water Measurement	Top of Casing Elevation (feet msl)	Depth to Water (feet below TOC)	Groundwater Elevation (feet msl)
Old Popping Furnace Corrective Action Management Unit Monitoring Wells				
LBG-4-MW	7/6/2005	4008.22	19.06	3989.16
LBG-4-MW	11/22/2005	4008.22	19.06	3989.16
LBG-4-MW	3/29/2006	4008.22	19.2	3989.02
LBG-4-MW	7/8/2006	4008.22	19.10	3989.12
LBG-4-MW	9/28/2006	4008.22	19.29	3988.93
LBG-4-MW	12/27/2006	4008.22	19.21	3989.01
LBG-4-MW	3/21/2007	4008.22	19.51	3988.71
LBG-4-MW	6/12/2007	4008.22	---	---
LBG-4-MW	9/28/2007	4008.22	19.37	3988.85
LBG-4-MW	6/23/2008	4008.22	19.62	3988.60
LBG-4-MW	6/24/2009	4008.22	19.85	3988.37
LBG-4-MW	6/30/2010	4008.22	20.03	3988.19
LBG-4-MW	7/25/2011	4007.57	20.30	3987.27
LBG-4-MW	10/24/2012	4007.57	20.66	3986.91
LBG-4-MW	10/24/2013	4007.57	21.09	3986.48
LBG-4-MW	3/30/2015	4007.57	20.75	3986.82
LBG-4-MW	10/18/2016	4007.57	21.31	3986.26
LBG-4-MW	4/10/2018	4007.57	20.99	3986.58
LBG-4-MW	6/6/2019	4007.57	20.62	3986.95
LBG-5-MW	5/18/2005	4008.40	17.13	3991.27
LBG-5-MW	7/6/2005	4008.40	17.11	3991.29
LBG-5-MW	11/22/2005	4008.40	17.30	3991.10
LBG-5-MW	3/29/2006	4008.40	17.10	3991.30
LBG-5-MW	7/8/2006	4008.40	17.00	3991.40
LBG-5-MW	9/28/2006	4008.40	17.30	3991.10
LBG-5-MW	12/27/2006	4008.40	17.60	3990.80
LBG-5-MW	3/21/2007	4008.40	17.58	3990.82
LBG-5-MW	6/12/2007	4008.40	17.62	3990.78
LBG-5-MW	9/28/2007	4008.40	17.63	3990.77
LBG-5-MW	6/24/2008	4008.40	17.97	3990.43
LBG-5-MW	6/24/2009	4008.40	18.31	3990.09
LBG-5-MW	6/30/2010	4008.40	18.70	3989.70
LBG-5-MW	7/25/2011	4007.24	18.50	3988.74
LBG-5-MW	10/24/2012	4007.24	19.40	3987.84
LBG-5-MW	10/24/2013	4007.24	19.63	3987.61
LBG-5-MW	3/30/2015	4007.24	19.94	3987.30
LBG-5-MW	10/18/2016	4007.24	20.34	3986.90
LBG-5-MW	6/23/2017	4007.24	19.01	3988.23
LBG-5-MW	4/10/2018	4007.24	18.51	3988.73
LBG-5-MW	6/6/2019	4007.24	18.06	3989.18

Table 3.1: Summary of Groundwater Elevations
2019 Annual Groundwater Monitoring Report
Old Popping Furnace and Upper Burning Ground Corrective Action Management Units
Sierra Army Depot
Herlong, California

Well ID	Date of Depth to Water Measurement	Top of Casing Elevation (feet msl)	Depth to Water (feet below TOC)	Groundwater Elevation (feet msl)
OPF-PZ-04	5/18/2005	4009.24	20.60	3988.64
OPF-PZ-04	7/6/2005	4009.24	20.69	3988.55
OPF-PZ-04	11/23/2005	4009.24	20.65	3988.59
OPF-PZ-04	3/29/2006	4009.24	20.65	3988.59
OPF-PZ-04	7/8/2006	4009.24	20.11	3989.13
OPF-PZ-04	9/28/2006	4009.24	20.52	3988.72
OPF-PZ-04	12/27/2006	4009.24	20.95	3988.29
OPF-PZ-04	3/21/2007	4009.24	20.77	3988.47
OPF-PZ-04	6/12/2007	4009.24	20.81	3988.43
OPF-PZ-04	9/28/2007	4009.24	20.75	3988.49
OPF-PZ-04	6/23/2008	4009.24	20.96	3988.28
OPF-PZ-04	6/24/2009	4009.24	21.20	3988.04
OPF-PZ-04	6/30/2010	4009.24	21.31	3987.93
OPF-PZ-04	7/25/2011	4005.67	21.65	3984.02
OPF-PZ-04	10/24/2012	4005.67	21.94	3983.73
OPF-PZ-04	10/24/2013	4005.67	22.00	3983.67
OPF-PZ-04	3/30/2015	4005.67	22.28	3983.39
OPF-PZ-04	10/18/2016	4005.67	22.56	3983.11
OPF-PZ-04	6/23/2017	4005.67	21.09	3984.58
OPF-PZ-04	4/10/2018	4005.67	20.68	3984.99
OPF-PZ-04	6/6/2019	4005.67	19.71	3985.96
OPF-PZ-05	5/18/2005	4009.99	20.00	3989.99
OPF-PZ-05	7/6/2005	4009.99	20.05	3989.94
OPF-PZ-05	11/22/2005	4009.99	20.10	3989.89
OPF-PZ-05	3/29/2006	4009.99	20.17	3989.82
OPF-PZ-05	7/8/2006	4009.99	20.14	3989.85
OPF-PZ-05	9/28/2006	4009.99	20.16	3989.83
OPF-PZ-05	12/27/2006	4009.99	20.20	3989.79
OPF-PZ-05	3/21/2007	4009.99	20.40	3989.59
OPF-PZ-05	6/12/2007	4009.99	20.41	3989.58
OPF-PZ-05	9/28/2007	4009.99	20.35	3989.64
OPF-PZ-05	6/23/2008	4009.99	20.55	3989.44
OPF-PZ-05	6/24/2009	4009.99	20.87	3989.12
OPF-PZ-05	6/30/2010	4009.99	21.15	3988.84
OPF-PZ-05	7/25/2011	4006.34	21.33	3985.01
OPF-PZ-05	10/24/2012	4006.34	21.68	3984.66
OPF-PZ-05	10/24/2013	4006.34	21.79	3984.55
OPF-PZ-05	3/30/2015	4006.34	22.10	3984.24
OPF-PZ-05	10/18/2016	4006.34	22.39	3983.95
OPF-PZ-05	6/23/2017	4006.34	20.47	3985.87
OPF-PZ-05	4/10/2018	4006.34	20.52	3985.82
OPF-PZ-05	6/6/2019	4006.34	19.79	3986.55

Table 3.1: Summary of Groundwater Elevations
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Well ID	Date of Depth to Water Measurement	Top of Casing Elevation (feet msl)	Depth to Water (feet below TOC)	Groundwater Elevation (feet msl)
OPF-PZ-06	5/18/2005	4006.54	21.85	3984.69
OPF-PZ-06	7/6/2005	4006.54	21.90	3984.64
OPF-PZ-06	11/23/2005	4006.54	21.93	3984.61
OPF-PZ-06	3/29/2006	4006.54	21.97	3984.57
OPF-PZ-06	7/8/2006	4006.54	21.95	3984.59
OPF-PZ-06	9/28/2006	4006.54	21.94	3984.60
OPF-PZ-06	12/27/2006	4006.54	22.25	3984.29
OPF-PZ-06	3/21/2007	4006.54	22.02	3984.52
OPF-PZ-06	6/12/2007	4006.54	22.05	3984.49
OPF-PZ-06	9/28/2007	4006.54	22.05	3984.49
OPF-PZ-06	6/23/2008	4006.54	22.20	3984.34
OPF-PZ-06	6/24/2009	4006.54	22.38	3984.16
OPF-PZ-06	6/30/2010	4006.54	22.60	3983.94
OPF-PZ-06	7/25/2011	4006.45	22.77	3983.68
OPF-PZ-06	10/24/2012	4006.45	23.10	3983.35
OPF-PZ-06	10/24/2013	4006.45	23.13	3983.32
OPF-PZ-06	3/30/2015	4006.45	23.36	3983.09
OPF-PZ-06	10/18/2016	4006.45	23.60	3982.85
OPF-PZ-06	6/23/2017	4006.45	21.73	3984.72
OPF-PZ-06	4/10/2018	4006.45	22.20	3984.25
OPF-PZ-06	6/6/2019	4006.45	21.61	3984.84
OPF-PZ-07	5/18/2005	4006.26	21.68	3984.58
OPF-PZ-07	7/6/2005	4006.26	21.80	3984.46
OPF-PZ-07	11/23/2005	4006.26	21.79	3984.47
OPF-PZ-07	3/29/2006	4006.26	21.81	3984.45
OPF-PZ-07	7/8/2006	4006.26	21.82	3984.44
OPF-PZ-07	9/28/2006	4006.26	21.87	3984.39
OPF-PZ-07	12/27/2006	4006.26	22.15	3984.11
OPF-PZ-07	3/21/2007	4006.26	21.92	3984.34
OPF-PZ-07	6/12/2007	4006.26	21.95	3984.31
OPF-PZ-07	9/28/2007	4006.26	21.90	3984.36
OPF-PZ-07	6/23/2008	4006.26	22.07	3984.19
OPF-PZ-07	6/24/2009	4006.26	22.25	3984.01
OPF-PZ-07	6/30/2010	4006.26	22.45	3983.81
OPF-PZ-07	7/25/2011	4006.17	22.61	3983.56
OPF-PZ-07	10/24/2012	4006.17	22.81	3983.36
OPF-PZ-07	10/24/2013	4006.17	22.97	3983.20
OPF-PZ-07	3/30/2015	4006.17	23.17	3983.00
OPF-PZ-07	10/18/2016	4006.17	23.42	3982.75
OPF-PZ-07	6/23/2017	4006.17	21.85	3984.32
OPF-PZ-07	4/10/2018	4006.17	22.27	3983.90
OPF-PZ-07	6/6/2019	4006.17	21.61	3984.56

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Well ID	Date of Depth to Water Measurement	Top of Casing Elevation (feet msl)	Depth to Water (feet below TOC)	Groundwater Elevation (feet msl)
Upper Burning Ground Corrective Action Management Unit Monitoring Wells				
UBG-02-MWA	7/6/2005	4033.45	28.70	4004.75
UBG-02-MWA	11/22/2005	4033.45	29.87	4003.58
UBG-02-MWA	4/6/2006	4033.45	29.85	4003.60
UBG-02-MWA	7/8/2006	4033.45	28.00	4005.45
UBG-02-MWA	9/29/2006	4033.45	30.18	4003.27
UBG-02-MWA	12/30/2006	4033.45	29.10	4004.35
UBG-02-MWA	3/20/2007	4033.45	28.52	4004.93
UBG-02-MWA	6/12/2007	4033.45	---	---
UBG-02-MWA	9/28/2007	4033.45	31.02	4002.43
UBG-02-MWA	6/24/2008	4033.45	29.62	4003.83
UBG-02-MWA	6/26/2009	4033.45	30.43	4003.02
UBG-02-MWA	6/30/2010	4033.45	30.22	4003.23
UBG-02-MWA	7/25/2011	4033.44	30.71	4002.73
UBG-02-MWA	10/23/2012	4033.44	32.56	4000.88
UBG-02-MWA	10/25/2013	4033.44	32.65	4000.79
UBG-02-MWA	3/19/2015	4033.44	31.19	4002.25
UBG-02-MWA	4/10/2018	4033.44	30.15	4003.29
UBG-02-MWA	6/6/2019	4033.44	29.51	4003.93
UBG-03-MWA	5/12/2005	4102.04	77.37	4024.67
UBG-03-MWA	7/6/2005	4102.04	77.35	4024.69
UBG-03-MWA	11/23/2005	4102.04	77.53	4024.51
UBG-03-MWA	4/6/2006	4102.04	79.17	4022.87
UBG-03-MWA	7/8/2006	4102.04	77.31	4024.73
UBG-03-MWA	9/29/2006	4102.04	77.25	4024.79
UBG-03-MWA	12/30/2006	4102.04	77.51	4024.53
UBG-03-MWA	3/20/2007	4102.04	77.00	4025.04
UBG-03-MWA	6/11/2007	4102.04	77.00	4025.04
UBG-03-MWA	9/28/2007	4102.04	77.08	4024.96
UBG-03-MWA	6/24/2008	4102.04	77.11	4024.93
UBG-03-MWA	6/26/2009	4102.04	77.12	4024.92
UBG-03-MWA	6/30/2010	4102.04	77.00	4025.04
UBG-03-MWA	7/25/2011	4102.74	77.00	4025.74
UBG-03-MWA	10/23/2012	4102.74	77.21	4025.53
UBG-03-MWA	10/25/2013	4102.74	77.35	4025.39
UBG-03-MWA	3/19/2015	4102.74	77.63	4025.11
UBG-03-MWA	10/20/2016	4102.74	77.78	4024.96
UBG-03-MWA	6/30/2017	4102.74	77.60	4025.14
UBG-03-MWA	4/10/2018	4102.74	77.42	4025.32
UBG-03-MWA	6/6/2019	4102.74	77.25	4025.49

Table 3.1: Summary of Groundwater Elevations
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Well ID	Date of Depth to Water Measurement	Top of Casing Elevation (feet msl)	Depth to Water (feet below TOC)	Groundwater Elevation (feet msl)
UBG-04-MWA	7/6/2005	4068.16	34.4	4033.76
UBG-04-MWA	11/22/2005	4068.16	34.88	4033.28
UBG-04-MWA	4/6/2006	4068.16	36.24	4031.92
UBG-04-MWA	7/8/2006	4068.16	33.21	4034.95
UBG-04-MWA	9/29/2006	4068.16	32.41	4035.75
UBG-04-MWA	12/30/2006	4068.16	32.18	4035.98
UBG-04-MWA	3/20/2007	4068.16	32.32	4035.84
UBG-04-MWA	6/11/2007	4068.16	---	---
UBG-04-MWA	9/28/2007	4068.16	32.61	4035.55
UBG-04-MWA	6/24/2008	4068.16	33.30	4034.86
UBG-04-MWA	6/26/2009	4068.16	34.72	4033.44
UBG-04-MWA	6/30/2010	4068.16	35.32	4032.84
UBG-04-MWA	7/25/2011	4064.67	35.40	4029.27
UBG-04-MWA	10/23/2012	4064.67	36.22	4028.45
UBG-04-MWA	10/25/2013	4064.67	36.80	4027.87
UBG-04-MWA	3/19/2015	4064.67	38.28	4026.39
UBG-04-MWA	10/20/2016	4064.67	39.05	4025.62
UBG-04-MWA	4/10/2018	4064.67	37.04	4027.63
UBG-04-MWA	6/6/2019	4064.67	36.05	4028.62
UBG-07-MWA	7/6/2005	4068.92	28.90	4040.02
UBG-07-MWA	11/23/2005	4068.92	30.25	4038.67
UBG-07-MWA	4/6/2006	4068.92	27.15	4041.77
UBG-07-MWA	7/8/2006	4068.92	22.96	4045.96
UBG-07-MWA	9/29/2006	4068.92	23.38	4045.54
UBG-07-MWA	12/30/2006	4068.92	24.11	4044.81
UBG-07-MWA	3/20/2007	4068.92	24.56	4044.36
UBG-07-MWA	6/11/2007	4068.92	---	---
UBG-07-MWA	9/28/2007	4068.92	26.33	4042.59
UBG-07-MWA	6/24/2008	4068.92	26.10	4042.82
UBG-07-MWA	6/26/2009	4068.92	29.61	4039.31
UBG-07-MWA	6/30/2010	4068.92	31.44	4037.48
UBG-07-MWA	7/25/2011	4062.47	28.02	4034.45
UBG-07-MWA	10/23/2012	4062.47	31.43	4031.04
UBG-07-MWA	10/25/2013	4062.47	---	---
UBG-07-MWA	3/19/2015	4062.47	35.00	4027.47
UBG-07-MWA	10/20/2016	4062.47	36.63	4025.84
UBG-07-MWA	4/10/2018	4062.47	30.82	4031.65
UBG-07-MWA	6/6/2019	4062.47	26.51	4035.96

Table 3.1: Summary of Groundwater Elevations
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Old Popping Furnace and Upper Burning Ground Corrective Action Management Units
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Well ID	Date of Depth to Water Measurement	Top of Casing Elevation (feet msl)	Depth to Water (feet below TOC)	Groundwater Elevation (feet msl)
UBG-08-MWA	7/6/2005	4172.12	138.10	4034.02
UBG-08-MWA	7/6/2005	4172.12	138.10	4034.02
UBG-08-MWA	11/23/2005	4172.12	Dry - abandoned May 2006.	
UBG-08-MWA	4/6/2006	4172.12	Dry - abandoned May 2006.	
UBG-08R-MWA *	7/8/2006	4174.42	142.55	4031.87
UBG-08R-MWA	9/28/2006	4174.42	142.51	4031.91
UBG-08R-MWA	9/29/2006	4174.42	142.15	4032.27
UBG-08R-MWA	3/20/2007	4174.42	141.60	4032.82
UBG-08R-MWA	6/11/2007	4174.42	142.40	4032.02
UBG-08R-MWA	9/27/2007	4174.42	142.43	4031.99
UBG-08R-MWA	6/24/2008	4174.42	142.61	4031.81
UBG-08R-MWA	6/26/2009	4174.42	142.08	4032.34
UBG-08R-MWA	6/30/2010	4174.42	141.95	4032.47
UBG-08R-MWA	7/25/2011	4174.40	141.90	4032.50
UBG-08R-MWA	10/23/2012	4174.40	142.32	4032.08
UBG-08R-MWA	10/25/2013	4174.40	142.53	4031.87
UBG-08R-MWA	3/19/2015	4174.40	142.56	4031.84
UBG-08R-MWA	10/20/2016	4174.40	142.49	4031.91
UBG-08R-MWA	6/30/2017	4174.40	142.06	4032.34
UBG-08R-MWA	4/10/2018	4174.40	141.33	4033.07
UBG-08R-MWA	6/6/2019	4174.40	141.15	4033.25
UBG-09-MWA	5/12/2005	4151.15	116.63	4034.52
UBG-09-MWA	7/6/2005	4151.15	116.66	4034.49
UBG-09-MWA	11/23/2005	4151.15	116.74	4034.41
UBG-09-MWA	4/6/2006	4151.15	118.65	4032.50
UBG-09-MWA	7/8/2006	4151.15	116.25	4034.90
UBG-09-MWA	9/29/2006	4151.15	115.81	4035.34
UBG-09-MWA	12/30/2006	4151.15	116.02	4035.13
UBG-09-MWA	3/20/2007	4151.15	115.40	4035.75
UBG-09-MWA	6/11/2007	4151.15	115.03	4036.12
UBG-09-MWA	9/27/2008	4151.15	115.00	4036.15
UBG-09-MWA	6/24/2008	4151.15	115.25	4035.90
UBG-09-MWA	6/26/2009	4151.15	115.55	4035.60
UBG-09-MWA	6/30/2010	4151.15	115.68	4035.47
UBG-09-MWA	7/25/2011	4151.12	116.08	4035.04
UBG-09-MWA	10/23/2012	4151.12	115.19	4035.93
UBG-09-MWA	10/25/2013	4151.12	116.55	4034.57
UBG-09-MWA	3/19/2015	4151.12	117.20	4033.92
UBG-09-MWA	10/20/2016	4151.12	117.69	4033.43
UBG-09-MWA	6/30/2017	4151.12	117.39	4033.73
UBG-09-MWA	4/10/2018	4151.12	116.91	4034.21
UBG-09-MWA	6/6/2019	4151.12	116.39	4034.73

Table 3.1: Summary of Groundwater Elevations
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Old Popping Furnace and Upper Burning Ground Corrective Action Management Units
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Well ID	Date of Depth to Water Measurement	Top of Casing Elevation (feet msl)	Depth to Water (feet below TOC)	Groundwater Elevation (feet msl)
UBG-10-MWA	7/8/2006	4155.09	123.05	4032.04
UBG-10-MWA	9/29/2006	4155.09	123.00	4032.09
UBG-10-MWA	12/30/2006	4155.09	122.68	4032.41
UBG-10-MWA	3/20/2007	4155.09	122.27	4032.82
UBG-10-MWA	6/11/2007	4155.09	122.82	4032.27
UBG-10-MWA	9/28/2007	4155.09	122.81	4032.28
UBG-10-MWA	6/24/2008	4155.09	123.03	4032.06
UBG-10-MWA	6/26/2009	4155.09	122.61	4032.48
UBG-10-MWA	6/30/2010	4155.09	122.47	4032.62
UBG-10-MWA	7/25/2011	4155.06	122.45	4032.61
UBG-10-MWA	10/23/2012	4155.06	122.80	4032.26
UBG-10-MWA	10/25/2013	4155.06	123.05	4032.01
UBG-10-MWA	3/19/2015	4155.06	123.15	4031.91
UBG-10-MWA	10/20/2016	4155.06	123.15	4031.91
UBG-10-MWA	6/30/2017	4155.06	122.63	4032.43
UBG-10-MWA	4/10/2018	4155.06	122.05	4033.01
UBG-10-MWA	6/6/2019	4155.06	121.84	4033.22

Notes:

In May 2005 and June 2007, groundwater elevation measurements were collected only at sampled wells.

Top of casing elevations were surveyed in March 2011 by NST Engineering, Inc.

* - replacement monitoring well installed May 2006.

msl - mean sea level

TOC - top of casing

--- - measurement not available

Table 3.2: Summary of Analytical Results
2019 Annual Groundwater Monitoring Report
Old Popping Furnace and Upper Burning Ground
Corrective Action Management Units
Sierra Army Depot

Sample Location	Sample Date	Dissolved Antimony (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Total Chromium (µg/L)	Dissolved Lead (µg/L)	pH (SI units)	Specific Conductance (µS/cm)	Temperature (degrees Celsius)
MCL (µg/L)		6	10	50	15	---	---	---
Old Popping Furnace Corrective Action Management Unit Monitoring Wells								
LBG-5-MW	18-May-05	<2.6	2,320	---	<2.2	7.89	62,800	13.3
	30-Aug-05	0.99	1,470	---	0.31	---	---	---
	22-Nov-05	1.3	1,570	---	0.023 B	7.99	62,300	13.3
	29-Mar-06	1.50	1,680	---	<1	---	---	---
	23-Jun-06	1.1	1,570	---	0.037 B	8.36	56,500	14.9
	28-Sep-06	<10	1,630	---	<10	7.98	65,200	14.2
	27-Dec-06	1.9 J	1,630	---	<1 J/U	---	---	---
	21-Mar-07	1.1 J	1,570	---	<1	---	---	---
	12-Jun-07	1.6 J	1,630 /J	---	4.4 J	---	---	---
	28-Sep-07	1.0 J	1,640	---	1.5 J	---	---	---
	24-Jun-08	<1 J/UB	1,430	---	<1 /UJ	---	---	---
	24-Jun-09	<1.1 /UB	1,450	---	<1 J/UB	---	---	---
	30-Jun-10	<50	1,700	---	<25	8.38	53,200	15.2
	25-Jul-11	<30	1,560	---	<50	8.15	42,300	20.1
	24-Oct-12	<30	958	---	<50	8.36	46,600	12.6
	24-Oct-13	<6.0	1,460	---	<10	8.01	50,170	13.7
	30-Mar-15	<30	1,800	---	<50	7.74	52,072	14.6
	18-Oct-16	<30	1,490	---	<25	7.73	51,394	13.9
	23-Jun-17	<30	1,660	---	<25	8.04	55,822	17.5
	10-Apr-18	<20	1,400	---	<20	6.03	45,890	13.3
	06-Jun-19	**<10**	**1,350 J**	**---**	**<10**	**7.57**	**51,271**	**16.0**
OPF-PZ-04	18-May-05	<2.6	2,830	---	<2.2	8.03	62,300	13.7
	29-Aug-05	0.79	1,810	---	0.19	8.12	62,500	16.6
	23-Nov-05	<1	1,930	---	0.055 B	8.09	61,800	13.3
	08-Feb-06	---	---	---	---	8.19	61,400	12.4
	29-Mar-06	0.995 B	2,140	---	0.0528 B	8.2	62,700	12.2
	23-Jun-06	0.76 B	2,050	---	0.213 B	8.49	55,600	16.2
	28-Sep-06	<10	2,040	---	<10	8.13	63,800	14.9
	27-Dec-06	0.75 J	2,100	---	<1 J/U	8.31	63,800	11.5
	21-Mar-07	0.5 J	1,990	---	<1	---	---	---
	12-Jun-07	0.55 J	1,980 /J	---	2.4 J	---	---	---
	12-Jun-07	0.53 J	2,060 /J	---	2.4 J	---	---	---
	28-Sep-07	0.47 J	2,130	---	0.8 J	---	---	---
	23-Jun-08	<1 J/UB	1,820	---	<1 J/UB	---	---	---
	23-Jun-08	<1 J/UB	1,960	---	<1 J/UB	---	---	---
	24-Jun-09	<1 J/UB	1,980	---	<1	---	---	---
	30-Jun-10	<50	2,260	---	<25	7.34	53,600	16.0
	25-Jul-11	<30	2,210	---	<50	8.25	41,900	21.3
	24-Oct-12	<30	2,440	---	<50	8.44	46,300	12.0
	24-Oct-13	<6.0	2,300	---	<10	8.14	52,339	15.2
	30-Mar-15	<30	2,640	---	<50	8.02	52,874	15.4
	18-Oct-16	<30	2,750	--	<25	8.11	51,832	14.2
	23-Jun-17	<6.0	409	---	<25	7.86	34,067	16.8
	10-Apr-18	<20	2,740	---	<20	6.16	44,381	12.9
	06-Jun-19	**<10**	**3,010 J**	**---**	**<10**	**7.95**	**49,989**	**16.4**
OPF-PZ-05	18-May-05	<2.6	3,210	---	<2.2	8.15	46,000	13.7
	30-Aug-05	0.78	2,090	---	0.41	8.19	47,600	15.3
	22-Nov-05	<1	2,480	---	0.099 B	8.23	45,300	13.4
	29-Mar-06	1.09	2,700	---	<1	8.26	46,700	12.1
	23-Jun-06	0.68 B	2,410	---	0.061 B	8.49	40,500	18.8
	28-Sep-06	<10	2,770	---	<10	8.17	45,800	15.0
	27-Dec-06	0.78 J	3,040	---	<1 J/U	8.41	46,700	12.1
	21-Mar-07	0.87 J	3,180	---	0.023 J	---	---	---
	12-Jun-07	0.85 J	3,020 /J	---	2.3 J	---	---	---
	28-Sep-07	0.55 J	1,730	---	0.98 J	---	---	---
	23-Jun-08	<1 J/UB	952	---	<1 J/UB	---	---	---
	24-Jun-09	<1 J/UB	1,740	---	<1 J/UB	---	---	---

Table 3.2: Summary of Analytical Results
2019 Annual Groundwater Monitoring Report
Old Popping Furnace and Upper Burning Ground
Corrective Action Management Units
Sierra Army Depot

Sample Location	Sample Date	Dissolved Antimony (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Total Chromium (µg/L)	Dissolved Lead (µg/L)	pH (SI units)	Specific Conductance (µS/cm)	Temperature (degrees Celsius)
MCL (µg/L)		6	10	50	15	---	---	---
OPF-PZ-05	30-Jun-10	<50	1,160	---	<25	8.16	46,400	18.2
(continued)	25-Jul-11	<30	1,290	---	<50	8.16	31,600	19.6
	24-Oct-12	<30	1,700	---	<50	8.58	36,300	10.9
	24-Oct-13	<6.0	1,130	---	<10	7.97	40,834	14.4
	30-Mar-15	<30	1,710	---	<50	8.06	37,967	16.9
	18-Oct-16	<30	1,190	--	<25	8.02	39,797	13.9
	23-Jun-17	<30	1,190	---	<25	8.06	50,782	17.1
	10-Apr-18	<20	1,150	---	<20	6.06	35,692	13.6
	06-Jun-19	**<10**	**1,620 J**	**---**	**<10**	**7.51**	**46,368**	**17.0**
OPF-PZ-06	18-May-05	<2.6	1,910	---	<2.2	8.07	53,400	13.8
	31-Aug-05	0.11	1,430	---	0.19	8.15	54,200	13.7
	23-Nov-05	<1	1,510	---	0.013 B	8.11	53,300	13.1
	29-Mar-06	0.556 B	1,680	---	<1	8.18	54,300	12.1
	23-Jun-06	0.31 B	1,480	---	0.248 B	8.40	48,300	17.5
	28-Sep-06	---	1,600	---	---	8.07	55,800	15.0
	27-Dec-06	<1 J/U	1,590	---	<1 J/U	8.29	56,100	10.8
	27-Dec-06	<1	1,600	---	<1 J/U	---	---	---
	21-Mar-07	<5	1,550	---	<1	---	---	---
	12-Jun-07	<5	1,590 /J	---	2.5 J	---	---	---
	28-Sep-07	<5	1,630	---	0.73 J	---	---	---
	23-Jun-08	<1	1,420	---	<1 J/UB	---	---	---
	24-Jun-09	<1 J/UB	1,550	---	<1 J/UB	---	---	---
	30-Jun-10	<50	1,820	---	<25	8.35	49,900	18.1
	25-Jul-11	<30	1,710	---	<50	8.25	36,400	19.3
	24-Oct-12	<30	1,840	---	<50	8.24	41,900	13.2
	24-Oct-13	<6.0	1,670	---	<10	8.11	45,942	15.4
	30-Mar-15	<30	2,150	---	<50	8.06	46,531	14.9
	18-Oct-16	<30	1,950	--	<25	7.69	45,669	13.8
	23-Jun-17	<30	1,930	---	<25	8.19	56,065	21.6
	10-Apr-18	<20	1,800	---	<20	6.14	41,319	13.4
	06-Jun-19	**<10**	**1,720 J**	**---**	**<10**	**7.78**	**45,122**	**15.4**
OPF-PZ-07	18-May-05	---	---	---	---	8.16	62,500	13.7
	19-May-05	14.5	3,290	---	<2.2	---	---	---
	30-Aug-05	1.3	2,240	---	0.4	8.25	62,300	17.3
	23-Nov-05	2.7	2,290	---	0.223 B	8.28	62,000	12.9
	29-Mar-06	1.65	2,800	---	<1	8.38	63,000	11.7
	23-Jun-06	1.4	2,500	---	0.078 B	8.63	55,800	16.7
	28-Sep-06	<10	2,580	---	<10	8.25	64,000	15.0
	27-Dec-06	1.4 J	2,590	---	<1 J/U	8.49	64,500	11.2
	21-Mar-07	1.3 Y	2,580	---	<1	---	---	---
	12-Jun-07	1.3 J	2,600 /J	---	3.5 J	---	---	---
	28-Sep-07	1.2 J	2,640	---	1.1 J	---	---	---
	23-Jun-08	<1.3 /UB	2,580	---	<1 J/UB	---	---	---
	24-Jun-09	<1.3 /UB	2,390	---	<1	---	---	---
	30-Jun-10	<50	2,950	---	<25	8.56	53,300	16.6
	25-Jul-11	<30	2,720	---	<50	8.47	40,000	18.7
	24-Oct-12	<30	3,070	---	<50	7.69	44,800	13.4
	24-Oct-13	<6.0	2,770	---	<10	8.34	48,029	14.5
	30-Mar-15	<30	3,380	---	<50	8.22	49,349	15.6
	18-Oct-16	<30	3,170	--	<25	7.17	48,674	14.9
	23-Jun-17	<6.0	3,640	---	<25	8.09	47,216	16.3
	10-Apr-18	<20	3,250	---	<20	6.21	36,381	13.5
	06-Jun-19	**<10**	**3,620 J**	**---**	**<10**	**8.17**	**33,741**	**16.4**

Table 3.2: Summary of Analytical Results
2019 Annual Groundwater Monitoring Report
Old Popping Furnace and Upper Burning Ground
Corrective Action Management Units
Sierra Army Depot

Sample Location	Sample Date	Dissolved Antimony (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Total Chromium (µg/L)	Dissolved Lead (µg/L)	pH (SI units)	Specific Conductance (µS/cm)	Temperature (degrees Celsius)
MCL (µg/L)		6	10	50	15	---	---	---
Upper Burning Ground Corrective Action Management Unit Monitoring Wells								
UBG-03-MWA	12-May-05	3.6	4.3	0.72	<2.2	6.67	433	18.8
	29-Aug-05	---	1.6	0.08	<1	6.53	436	20.2
	23-Nov-05	---	4.3	0.73 B	0.135 B	6.74	431	18.3
	27-Feb-06	---	2.2	0.30 B	0.02 B	6.27	427	15.5
	22-Jun-06	---	2.2	0.21 B	0.326 B	6.67	395	20.8
	29-Sep-06	---	2.2	<1	<1	6.35	452	22.0
	29-Sep-06	---	2.1	<1	<1	---	---	---
	30-Dec-06	---	2.1	<5 J/U	<1 J/U	6.20	467	17.1
	20-Mar-07	---	2.3	<5	<1	---	---	---
	20-Mar-07	---	2.3	<5	<1	---	---	---
	11-Jun-07	---	3.3	<1 /U	<1 /U	---	---	---
	28-Sep-07	---	2.2	0.25 J	0.045 J	---	---	---
	24-Jun-08	---	2.1	<5	<1 J/UB	---	---	---
	26-Jun-09	---	2.8	<1 J/UB	<1 J/UB	---	---	---
	30-Jun-10	---	<10	<5.0	<5.0	7.07	400	18.9
	25-Jul-11	---	<10	<10	<10	7.20	431	19.6
	23-Oct-12	---	<10	<10	<10	7.41	340	16.0
	24-Oct-13	---	<10	<10	<10	7.08	388	18.5
	19-Mar-15	---	<10	<10	<10	7.37	370	18.2
	20-Oct-16	--	<10	<10	<5	7.77	412.5	18.3
	30-Jun-17	---	<10	<10	<5.0	7.71	450.0	20.3
	10-Apr-18	---	2.2	<2.0	<2.0	6.90	375.7	18.1
	06-Jun-19	**---**	**2.2 J**	**<2.0**	**<2.0**	**7.08**	**393.4**	**19.9**
UBG-05-MWA	12-May-05	---	9.3	0.7	<2.2	7.04	542	16.0
	29-Aug-05	---	5.5	0.17	<1	6.78	553	18.2
	27-Dec-06	---	---	---	---	8.23	65,900	11.8
	22-May-08	0.168 J	5.1	0.333 J	0.0917 J	---	---	---
UBG-08R-MWA	23-Jun-06	---	5.9	4.6	0.39 B	8.05	348	20.2
	29-Sep-06	---	4.6	3.2	0.027 J	7.37	365	20.5
	30-Dec-06	---	4.5	4.9 J	<1 J/U	7.37	380	18.7
	20-Mar-07	---	5.2	4.1 J	<1	---	---	---
	11-Jun-07	---	5.1	4.7	<1 /U	---	---	---
	27-Sep-07	---	6.4	4.6	0.052 J	---	---	---
	27-Sep-07	---	6.3	4.6	0.036 J	---	---	---
	24-Jun-08	---	6.3	3.6 J	<1 J/UB	---	---	---
	26-Jun-09	---	5.3	4.6	<1 J/UB	---	---	---
	30-Jun-10	---	<10	<5.0	<5.0	7.88	284	20.0
	25-Jul-11	---	<10	<10	<10	8.04	312	20.5
	23-Oct-12	---	<10	<10	<10	7.81	256	17.8
	24-Oct-13	---	<10	<10	<10	8.09	266	18.8
	19-Mar-15	---	<10	<10	<10	7.73	292.7	19.4
	20-Oct-16	--	<10	<10	<5	8.16	296.8	19.9
	30-Jun-17	---	<10	<10	<5.0	7.82	339 .0	21
	10-Apr-18	---	6.9	4.7	<2.0	6.15	270.8	16.6
	06-Jun-19	**---**	**5.5 J**	**4.9**	**<2.0**	**7.45**	**291.1**	**19.8**
UBG-09-MWA	12-May-05	---	20.5	47.9	<2.2	7.46	1,287	19.4
	29-Aug-05	---	10.6	1.3	0.08	6.95	489	20.9
	23-Nov-05	---	1.9	0.36 B	0.114 B	6.92	428	17.6
	27-Feb-06	---	2.9	0.42 B	0.09 B	6.36	411	16.6
	22-Jun-06	---	1.8	0.26 B	0.146 B	6.67	370	21.1
	29-Sep-06	---	1.8	<1	0.14 J	6.37	453	20.4
	30-Dec-06	---	2.6	<5	<1 J/U	6.40	474	15.2
	20-Mar-07	---	2.1	<5	<1	---	---	---
	11-Jun-07	---	3.5	<1 /U	<1 /U	---	---	---
	27-Sep-07	---	0.99 J	0.091 J	0.16 J	---	---	---
	24-Jun-08	---	2.8	<5	<1 J/UB	---	---	---

Table 3.2: Summary of Analytical Results
2019 Annual Groundwater Monitoring Report
Old Popping Furnace and Upper Burning Ground
Corrective Action Management Units
Sierra Army Depot

Sample Location	Sample Date	Dissolved Antimony (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Total Chromium (µg/L)	Dissolved Lead (µg/L)	pH (SI units)	Specific Conductance (µS/cm)	Temperature (degrees Celsius)
MCL (µg/L)		6	10	50	15	---	---	---
UBG-09-MWA	26-Jun-09	---	2.4	<1 J/UB	<1 J/UB	---	---	---
(continued)	26-Jun-09	---	2.4	<1 J/UB	<1 J/UB	---	---	---
	30-Jun-10	---	<10	<5.0	<5.0	7.18	363	20.8
	25-Jul-11	---	<10	<10	<10	7.56	357	20.5
	23-Oct-12	---	<10	<10	<10	7.37	307	18.1
	24-Oct-13	---	<10	<10	<10	7.01	350	19.6
	19-Mar-15	---	<10	<10	<10	6.84	337.9	18.5
	20-Oct-16	--	<10	<10	<5	7.61	359.9	18.3
	30-Jun-17	---	<10	<10	<5.0	7.77	408 .0	22.4
	10-Apr-18	---	<2.0	<2.0	<2.0	6.23	329.0	18.5
	06-Jun-19	**---**	**<2.0 UJ**	**<2.0**	**<2.0**	**6.89**	**346.9**	**19.1**
UBG-10-MWA	23-Jun-06	---	2.1	0.17 B	0.155 B	7.35	408	22.0
	29-Sep-06	---	1.3	<1	0.013 J	7.04	524	20.3
	30-Dec-06	---	1.1	<5	<1 J/U	7.06	550	15.4
	20-Mar-07	---	0.93 J	<5	0.025 J	---	---	---
	11-Jun-07	---	1.1	<1 /U	<1 /U	---	---	---
	28-Sep-07	---	0.55 J	0.073 J	0.04 J	---	---	---
	24-Jun-08	---	<1 J/UB	<5	<1 J/UB	---	---	---
	26-Jun-09	---	<1 J/UB	<1 J/UB	<1 J/UB	---	---	---
	30-Jun-10	---	<10	<5.0	<5.0	7.57	469	19.6
	25-Jul-11	---	<10	<10	<10	7.64	500	20.3
	23-Oct-12	---	<10	<10	<10	7.72	397	17.2
	24-Oct-13	---	<10	<10	<10	7.77	449	18.4
	19-Mar-15	---	<10	<10	<10	7.15	444.6	17.4
	20-Oct-16	--	<10	<10	<5	7.16	475.2	18.3
	30-Jun-17	---	<10	<10	<5.0	7.75	537.0	21.4
	10-Apr-18	---	<2.0	<2.0	<2.0	5.84	430.4	18.4
	06-Jun-19	**---**	**<2.0 UJ**	**<2.0**	**<2.0**	**7.31**	**454.4**	**19.5**

Notes:

* UBG-05-MWA was part of the initial monitoring well network proposed in the Draft RD/RA Plan and was, therefore, sampled in May and August 2005. well was not sampled further, as it was removed from the monitoring well network (and replaced by UBG-10-MWA) per the Draft Final and Final RD/RA Plan.

** UBG-08R-MWA was installed in May 2006 to replace UBG-08-MWA, which was dry and could not be sampled.

*** UBG-10-MWA was installed (in May 2006) downgradient of the Upper Burning Ground corrective action management unit to replace UBG-05-MWA in the monitoring well network, which was not properly located for downgradient monitoring.

Entries in bold are for the 2019 annual monitoring period.

< - analyte was not detected at the RL shown

--- - not analyzed or not available

B - analyte was detected in the associated blank as well as the sample.

J - estimated value

MCL - maximum contaminant level

MDL - method detection limit

RL - reporting limit

SI - international system of units

U - analyte considered non-detect at the listed value

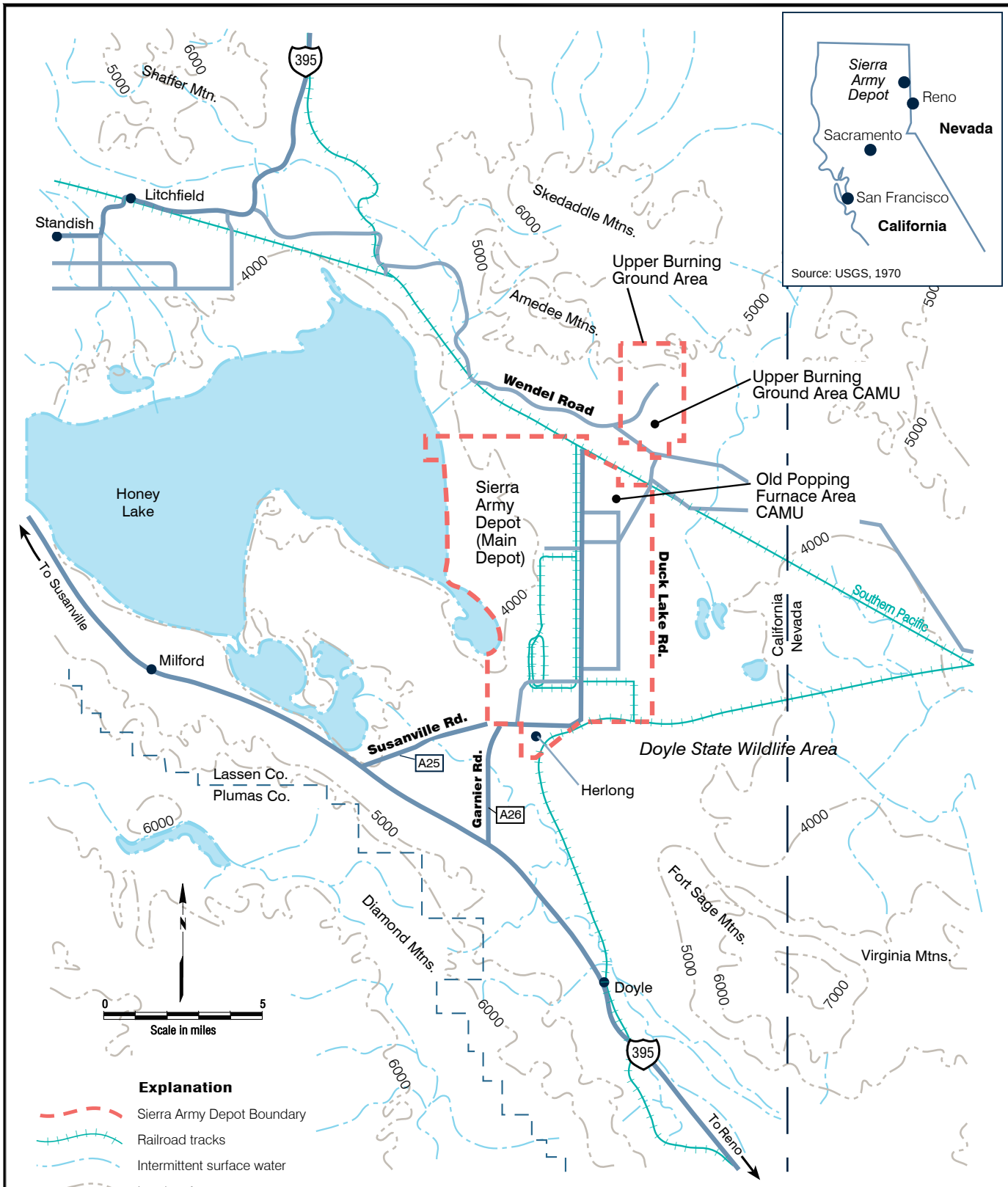
UB - analyte considered non-detect at the listed value due to associated blank contamination

UJ - analyte was not detected above the RL; however, the RL is approximate and may or may not represent the actual limit of detection

µg/L - micrograms per liter

µS/cm - micro-Siemens per centimeter

FIGURES



SIERRA ARMY DEPOT
HERLONG, CALIFORNIA
2019 ANNUAL GROUNDWATER MONITORING REPORT

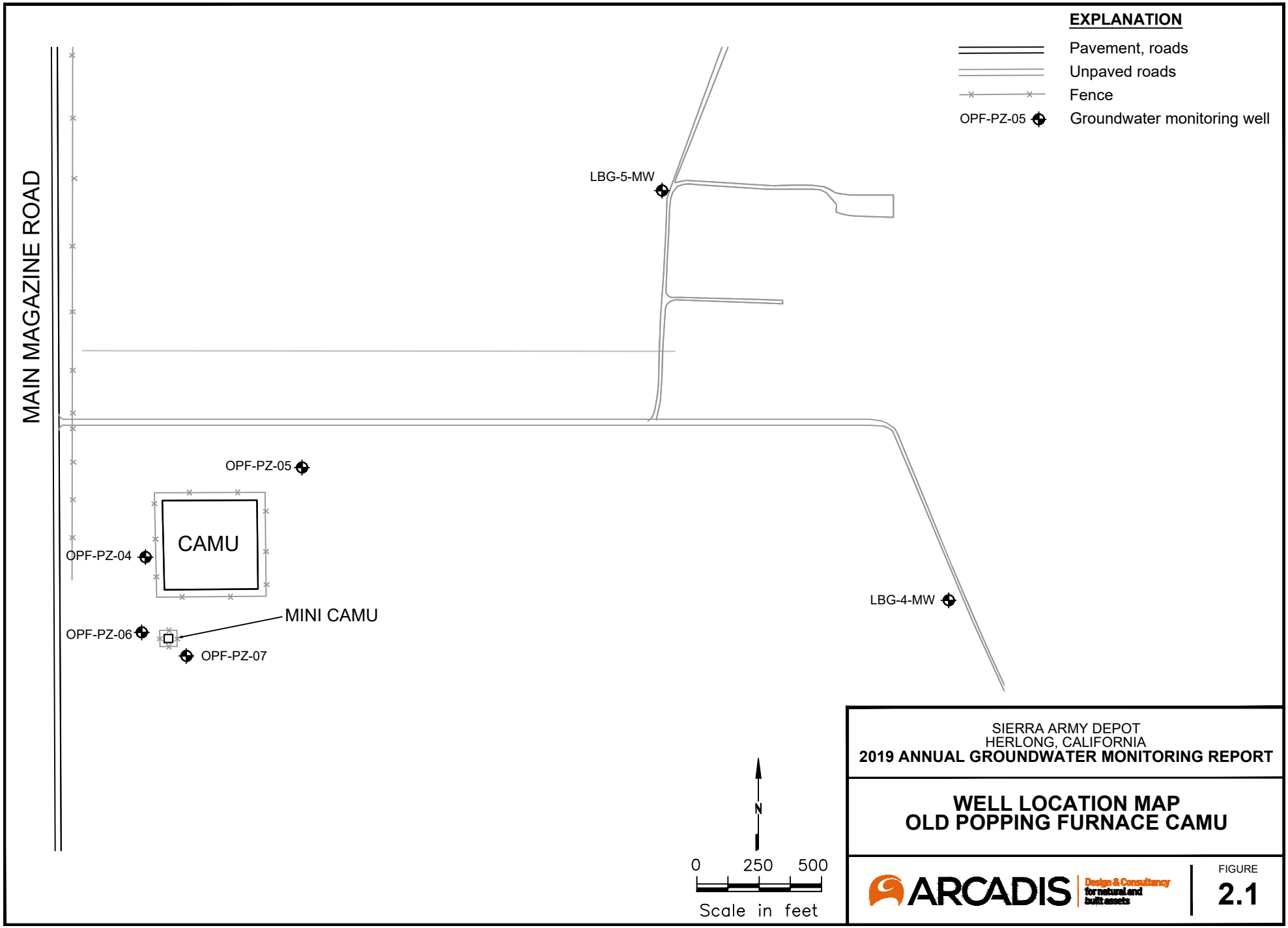
SITE LOCATION MAP
CORRECTIVE ACTION MANAGEMENT UNITS

ARCADIS Design & Consultancy for natural and built assets

FIGURE
1.1

G:\ENVCAD\Emeryville\ACT\EM00SIAD0000306NB3\DWG\EM00SIAD0003 V01.ai

CITY:(Reqd) DIV/GROUP:(Reqd) DB:(Reqd) LD:(Opt) PIC:(Opt) PM:(Reqd) TM:(Opt) LYR:(Opt)ON=*;OFF=*REF*
C:\BIM\OneDrive - ARCADIS\BIM 360 Docs\US ARMY ENVIRONMENTAL COMMAND\Sierra Army Depot\2019\30007638\06NA2.C OPF UBG\01-DWG\OPFUBG 2019 Figure 2.1.dwg LAYOUT: 2.1 SAVED: 11/20/2019 12:06 PM ACADVER: 23.0S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 11/20/2019 12:06 PM BY: MURESAN, ELENA



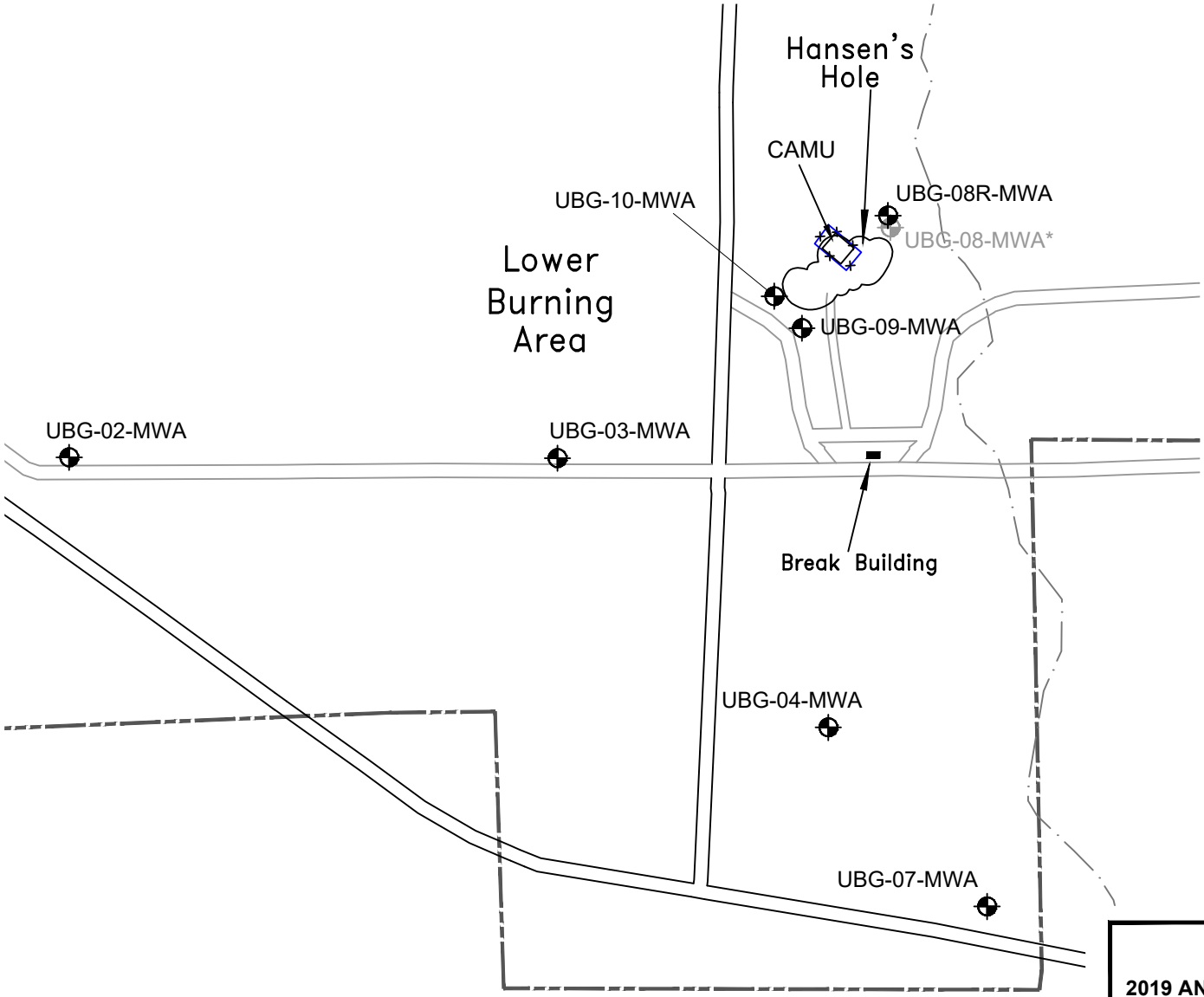
SIERRA ARMY DEPOT
HERLONG, CALIFORNIA
2019 ANNUAL GROUNDWATER MONITORING REPORT

WELL LOCATION MAP
OLD POPPING FURNACE CAMU

ARCADIS Design & Consultancy for natural and built assets

FIGURE
2.1

CITY:(Reqd) DIV/GROUP:(Reqd) DB:(Reqd) LD:(Opt) PIC:(Opt) PM:(Reqd) TM:(Opt) LYR:(Opt)ON=*;OFF=*REF*
C:\BIM\OneDrive - ARCADIS\BIM 360 Docs\US ARMY ENVIRONMENTAL COMMAND\Sierra Army Depot\2019\30007638\06NA2.C OPF UBG\01-DWG\OPFUBG 2019 Figure 2.2.dwg LAYOUT: 2.2 SAVED: 11/20/2019 12:03 PM ACADVER: 23.0S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 11/20/2019 12:03 PM BY: MURESAN, ELENA



Explanation

- Paved Road
- Dirt Road
- Fence
- Intermittent Stream
- Existing Groundwater Monitoring Well
- * UBG-08-MWA abandoned and replaced by UBG-08R-MWA in May 2006

N

0 800
Scale in feet

Source: Harding ESE, April 2001, Draft Final UBG Follow-On RI Report.

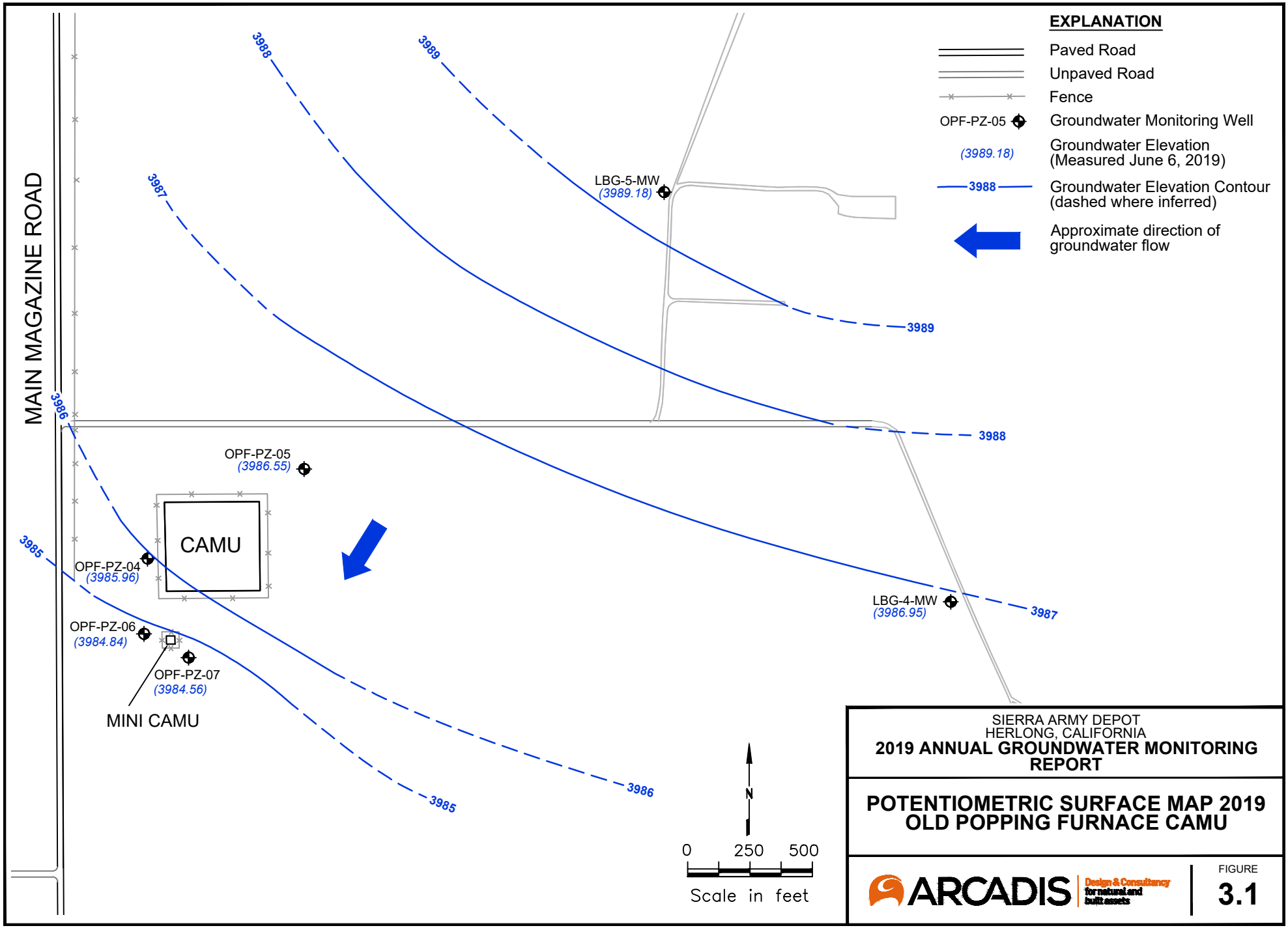
SIERRA ARMY DEPOT
HERLONG, CALIFORNIA
2019 ANNUAL GROUNDWATER MONITORING REPORT

WELL LOCATION MAP
UPPER BURNING GROUND CAMU

ARCADIS Design & Consultancy for natural and built assets

FIGURE
2.2

CITY: CONCORD, CA DIV/GROUP: ENVCAD DB: A.REYES
C:\BIM\OneDrive - ARCADIS\BIM 360 Docs\US ARMY ENVIRONMENTAL COMMAND\Sierra Army Depot\2019\30007638\06NA2.C OPF UBG\01-DWG\OPFUBG 2019 Figure 3.1.dwg LAYOUT: 3.1 SAVED: 11/22/2019 9:53 AM ACADVER: 23.0S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 11/22/2019 9:53 AM BY: MURESAN, ELENA

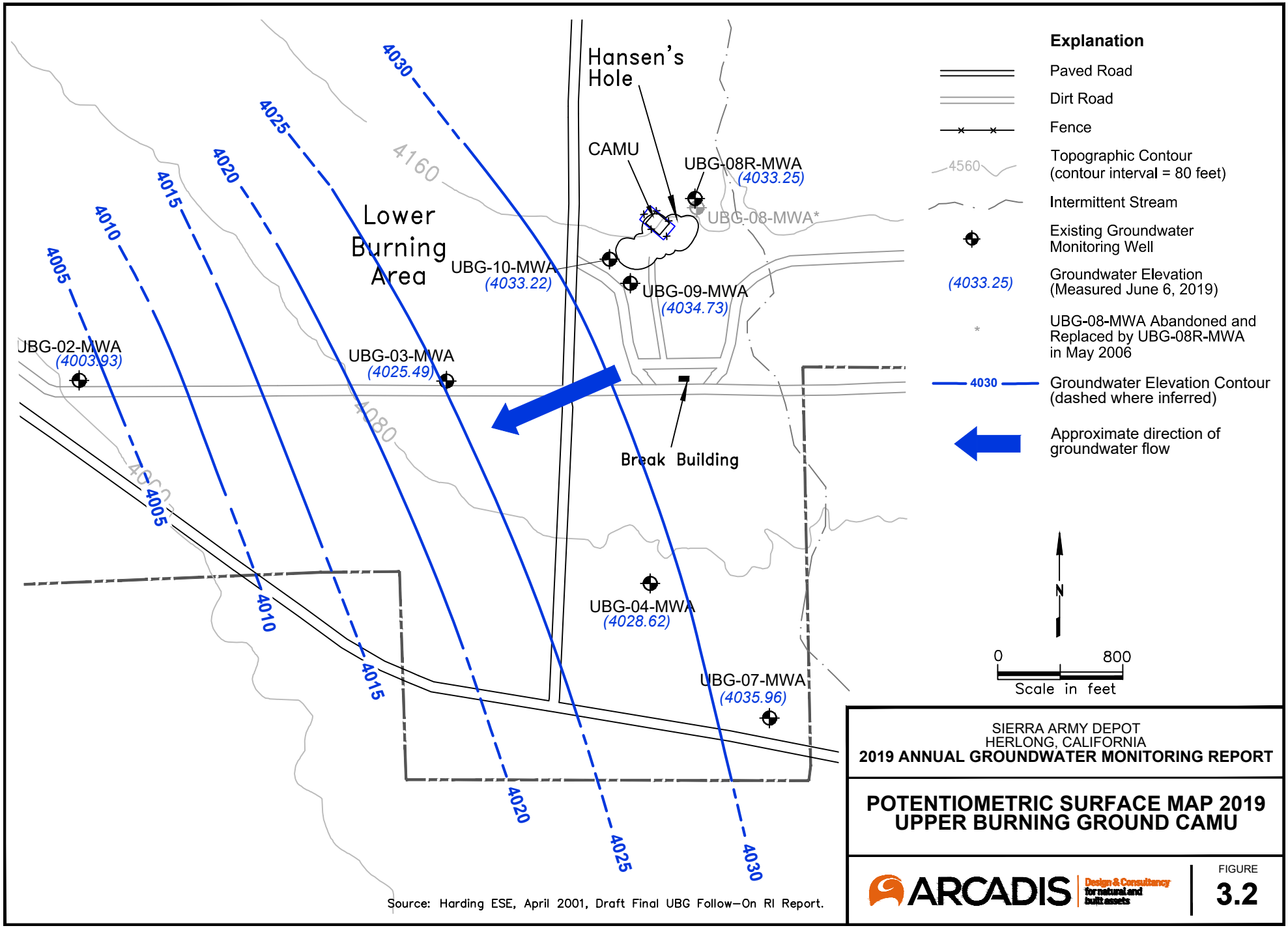


SIERRA ARMY DEPOT
HERLONG, CALIFORNIA
2019 ANNUAL GROUNDWATER MONITORING REPORT

POTENTIOMETRIC SURFACE MAP 2019
OLD POPPING FURNACE CAMU

ARCADIS Design & Consultancy for natural and built assets

FIGURE
3.1



Source: Harding ESE, April 2001, Draft Final UBG Follow-On RI Report.

SIERRA ARMY DEPOT
HERLONG, CALIFORNIA
2019 ANNUAL GROUNDWATER MONITORING REPORT

POTENTIOMETRIC SURFACE MAP 2019
UPPER BURNING GROUND CAMU

ARCADIS Design & Consultancy for natural and built assets

FIGURE
3.2

APPENDIX A

Groundwater Sampling Field Forms

RECORD OF WATER LEVEL MEASUREMENTS

Tools used (circle one): Interface Probe DTW Meter	Project Name: SIAD	Date: 6-6-19
	Location: **Herlong, California**	Job No.: C100SIAD.0001
		ARCADIS Personnel: **GC**

	Well Number	Time Measured	Depth to Product (DTP) (feet)	Depth to Water (DTW) (feet)	Depth to Bottom (DTB) (feet)	Product Thickness = DTW - DTP (feet)	Remarks:
	OPF-04 PZ	1644	—	19.71		—	
	OPF-05 PZ	1500	—	19.79		—	
	OPF-06-PZ	1610	—	21.61		—	
	OPF-07-PZ	1535	—	21.61		—	
	LBG-05 MW	1420	—	18.06		—	
DTW Only	LBG-04 MW	1721	—	20.62		—	

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Groundwater Sampling Form

Project Number: CI00SIAD.0000
Date: 6-6-19
Weather: Windy, WARM

Task:
Well ID: OPF-04-PZ
Sampled By: G.Clift
Recorded By: G.Clift
Coded Duplicate No.: None

Instrument Identification

	PID	Water Quality Meter(s)
Model	None	YSI Pro Series
Serial #:	—	13E10095

Purging Information

Casing Material: PVC
Casing Diameter: 2
Total Depth:
Depth to Water: 19.71
Water Column:
Gallons/Foot: .16
Gallons in Well:

Purge Technique (circle one): (Low-Flow) Remove 3 Well Volumes Bail Dry
Purge Equipment (circle one): Submersible Centrifugal Bladder Peristaltic Bailer
Screen Interval: From: To: Waterra
Pump Intake Setting:
Volumes to be Purged: 1.5
Total Volume Purged: 1.5
Pump on: 1645 Off: 1715

Well Casing Volumes (gal/ft): (2" = 0.16) 3" = 0.37 3½" = 0.50 4" = 0.65 6" = 1.46

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Flow Rate (LPM)	Volume Purged (G)	DTW (ft btoc)	Turbidity (~~NTUs~~ Visual)	ORP (mV)	pH (SI Units)	Spec Cond (µmhos/cm) uS/cM	Temp (°C)	DO (mg/L)	Comments color
1645	0	.5	.10	19.71	low	34.1	7.95	49029	15.9	1.45	Clear
1649	4	.5	.25	19.71	low	34.8	7.95	49742	15.9	1.62	Clear
1653	8	.5	.50	19.74	low	34.4	7.94	49831	16.2	1.69	Clear
1657	12	.5	.75	19.75	low	35.3	7.95	49974	16.2	1.70	Clear
1701	16	.5	1.0	19.76	low	35.8	7.94	49979	16.3	1.66	Clear
1705	20	.5	1.25	19.77	low	36.1	7.95	49989	16.4	1.72	Clear

Observations During Sampling
Well Condition: Good
Color: Clear
Odor: None

Purge Water Disposal: Drum
Turbidity(qualitative): low
Other (OVA, HNU,etc.): None

Sample ID: OPF-04-PZ
Samples Analyzed Fo See COC

Sample Date & Time: 6-6-19 1710

ARCADIS

Groundwater Sampling Form

Project Number: CI00SIAD.0000
Date: 6-6-19
Weather: windy

Task:
Well ID: OPF-06-PZ
Sampled By: G.Clift
Recorded By: G.Clift
Coded Duplicate No.: None

Instrument Identification

	PID	Water Quality Meter(s)
Model	None	YSI Pro Series
Serial #:	—	13E10095

Purging Information

Casing Material: PVC
Casing Diameter: 2
Total Depth:
Depth to Water: 21.61
Water Column:
Gallons/Foot: .16
Gallons in Well:

Purge Technique (circle one): Low-Flow Remove 3 Well Volumes Bail Dry
Purge Equipment (circle one): Submersible Centrifugal Bladder Peristaltic Bailer
Screen Interval: From: To: Waterra
Pump Intake Setting:
Volumes to be Purged: 1.5
Total Volume Purged: 1.5
Pump on: 1610 Off: 1640

Well Casing Volumes (gal/ft): 2" = 0.16 3" = 0.37 3½" = 0.50 4" = 0.65 6" = 1.46

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Flow Rate (LPM)	Volume Purged (G)	DTW (ft btoc)	Turbidity ~~(NTUs)~~ visual	ORP (mV)	pH (SI Units)	Spec Cond (µmhos/cm) us/cm	Temp (°C)	DO (mg/L)	Comments Color
1610	0	.5	.10	21.61	low	36.8	7.82	45145	15.5	.95	Clear
1614	4	.5	.25	21.62	low	-4.7	7.81	45062	15.5	.99	Clear
1618	8	.5	.50	21.64	low	-5.2	7.81	44991	15.4	1.13	Clear
1622	12	.5	.75	21.64	low	-6.4	7.80	44994	15.4	1.14	Clear
1626	16	.5	1.0	21.65	low	-7.6	7.80	45082	15.4	1.14	Clear
1630	20	.5	1.25	21.66	low	-9.7	7.78	45122	15.4	1.16	Clear

Observations During Sampling
Well Condition: Good
Color: Clear
Odor: None

Purge Water Disposal: DRUM
Turbidity(qualitative): low
Other (OVA, HNU,etc.): None

Sample ID: OPF-06-PZ
Sample Date & Time: 6-6-19 1635
Samples Analyzed Fo See COC

ARCADIS

Groundwater Sampling Form

Project Number: CI00SIAD.0000
Date: 6-6-19
Weather: Windy, warm

Task:
Well ID: OPF-07-PZ
Sampled By: G.Clift
Recorded By: G.Clift
Coded Duplicate No.: None

Instrument Identification

	PID	Water Quality Meter(s)
Model	None	YSI Pro Series
Serial #:	—	13E10095

Purging Information

Casing Material: PVC
Casing Diameter: 2
Total Depth:
Depth to Water: 21.61
Water Column:
Gallons/Foot: .16
Gallons in Well:

Purge Technique (circle one): (Low-Flow) Remove 3 Well Volumes Bail Dry
Purge Equipment (circle one): Submersible Centrifugal Bladder Peristaltic Bailer
Screen Interval: From: To: Waterra
Pump Intake Setting:
Volumes to be Purged: 1.5
Total Volume Purged: 1.5
Pump on: 1536 Off: 1605

Well Casing Volumes (gal/ft): (2" = 0.16) 3" = 0.37 3 1/2" = 0.50 4" = 0.65 6" = 1.46

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Flow Rate (LPM)	Volume Purged (G)	DTW (ft btoc)	Turbidity (~~NTUs~~) Visual	ORP (mV)	pH (SI Units)	Spec Cond (µmhos/cm)	Temp (°C)	DO (mg/L)	Comments Color
1536	0	.5	.10	21.61	low	78.7	8.14	34266	16.2	1.17	clear
1540	4	.5	.25	21.63	low	74.2	8.14	34104	16.1	1.21	Clear
1544	8	.5	.50	21.64	low	70.1	8.16	33860	16.3	1.30	Clear
1548	12	.5	.75	21.64	low	67.3	8.16	33797	16.3	1.33	Clear
1552	16	.5	1.0	21.65	low	66.1	8.16	33750	16.4	1.30	Clear
1554	20	.5	1.25	21.66	low	66.5	8.17	33741	16.4	1.35	Clear

Observations During Sampling
Well Condition: Good
Color: Clear
Odor: None

Purge Water Disposal: Drum
Turbidity(qualitative): low
Other (OVA, HNU,etc.): None

Sample ID: OPF-07-PZ
Samples Analyzed Fo See COC

Sample Date & Time: 6-6-19 1600

ARCADIS

Groundwater Sampling Form

Project Number: CI00SIAD.0000
Date: 6-6-19
Weather: Windy, warm

Task:
Well ID: OPF-05-PZ
Sampled By: G.Clift
Recorded By: G.Clift
Coded Duplicate No.: None

Instrument Identification

	PID	Water Quality Meter(s)
Model	None	YSI Pro Series
Serial #:	—	13E10095

Purging Information

Casing Material: PVC
Casing Diameter: 2
Total Depth:
Depth to Water: 19.79
Water Column:
Gallons/Foot: .16
Gallons in Well:

Purge Technique (circle one): Low-Flow Remove 3 Well Volumes Bail Dry
Purge Equipment (circle one): Submersible Centrifugal Bladder Peristaltic Bailer
Screen Interval: From: To: Waterra
Pump Intake Setting:
Volumes to be Purged: 1.5
Total Volume Purged: 1.5
Pump on: 1502 Off: 1530

Well Casing Volumes (gal/ft): 2" = 0.16 3" = 0.37 3 1/2" = 0.50 4" = 0.65 6" = 1.46

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Flow Rate (LPM)	Volume Purged (G)	DTW (ft btoc)	Turbidity (~~NTUs~~ Visual)	ORP (mV)	pH (SI Units)	Spec Cond (µmhos/cm) uS/cm	Temp (°C)	DO (mg/L)	Comments Color
1502	0	.5	.10	19.79	low	99.6	7.54	46279	18.1	1.70	Clear
1506	4	.5	.25	19.81	low	97.3	7.54	46312	17.6	1.41	Clear
1510	8	.5	.50	19.82	low	96.9	7.53	46329	17.3	1.32	Clear
1514	12	.5	.75	19.84	low	96.6	7.52	46345	17.0	1.23	Clear
1518	16	.5	1.0	1985	low	96.1	7.52	46352	17.0	1.21	Clear
1522	20	.5	1.25	1986	low	95.8	7.51	46368	17.0	1.18	Clear

Observations During Sampling
Well Condition: Good
Color: Clear
Odor: None

Purge Water Disposal: DRUM
Turbidity(qualitative): low
Other (OVA, HNU,etc.): None

Sample ID: OPF-05-PZ
Sample Date & Time: 6-6-19 1525
Samples Analyzed Fo See COC

ARCADIS

Groundwater Sampling Form

Project Number: CI00SIAD.0000
Date: 6-6-19
Weather: Windy, Warm

Task:
Well ID: LBG-05-MW
Sampled By: G.Clift
Recorded By: G.Clift
Coded Duplicate No.: None

Instrument Identification

	PID	Water Quality Meter(s)
Model	None	YSI Pro Series
Serial #:	—	13E10095

Purging Information

Casing Material: PVC
Casing Diameter: 4
Total Depth:
Depth to Water: 18.06
Water Column:
Gallons/Foot: .65
Gallons in Well:

Purge Technique (circle one): (Low-Flow) Remove 3 Well Volumes Bail Dry
Purge Equipment (circle one): Submersible Centrifugal Bladder Peristaltic Bailer
Screen Interval: From: To: Waterra
Pump Intake Setting:
Volumes to be Purged: 1.5
Total Volume Purged: 1.5
Pump on: 1425 Off: 1455

Well Casing Volumes (gal/ft): 2" = 0.16 3" = 0.37 3½" = 0.50 (4" = 0.65) 6" = 1.46

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Flow Rate (LPM)	Volume Purged (G)	DTW (ft btoc)	Turbidity (~~NTUs~~) Visual	ORP (mV)	pH (SI Units)	Spec Cond (µmhos/cm) US/CM	Temp (°C)	DO (mg/L)	Comments Color
1425	0	.5	.10	18.06	low	136.0	7.57	51044	16.8	1.47	Clear
1429	4	.5	.25	18.06	low	130.4	7.60	50831	16.0	1.10	Clear
1433	8	.5	.50	18.06	low	127.3	7.62	50546	15.9	.98	Clear
1437	12	.5	.75	18.07	low	125.7	7.63	51424	15.7	.92	Clear
1441	16	.5	1.0	18.07	low	122.1	7.60	51390	15.8	.88	Clear
1445	20	.5	1.25	18.06	low	121.0	7.57	51271	16.0	.89	Clear

Observations During Sampling
Well Condition: Good
Color: Clear
Odor: None

Purge Water Disposal: Drum
Turbidity(qualitative): low
Other (OVA, HNU,etc.): None

Sample ID: LBG-05-MW
Sample Date & Time: 6-6-19 1450
Samples Analyzed Fo See COC

RECORD OF WATER LEVEL MEASUREMENTS

Tools used (circle one): Interface Probe DTW Meter

Project Name: SIAD

Location: **Herlong, California**

Date: 6-6-19

Job No.: C100SIAD.0001

ARCADIS Personnel: **GC**

	Well Number	Time Measured	Depth to Product (DTP) (feet)	Depth to Water (DTW) (feet)	Depth to Bottom (DTB) (feet)	Product Thickness = DTW - DTP (feet)	Remarks:
S	UBG-03MWA	1021	—	77.25		—	
S	UBG-08RMWA	1025	—	141.15		—	
S	UBG-09MWA	1028	—	116.39		—	
S	UBG-10-MWA	1030	—	121.84		—	
	UBG-02-MWA	1016	—	29.51		—	
	UBG-04-MWA	1010	—	36.05		—	
	UBG-07-MWA	1000	—	26.51		—	

ARCADIS

ARCADIS

Groundwater Sampling Form

Project Number: CI00SIAD.0000
Date: 6-6-19
Weather: Windy, Warm

Task:
Sampled By: G.Clift
Recorded By: G.Clift
Coded Duplicate No.: NONE

Well ID: UBG-OBR-MWA

Instrument Identification

	PID	Water Quality Meter(s)
Model	None	YSI Pro Series
Serial #:	—	13E10095

Purging Information

Casing Material: PVC
Casing Diameter: 2
Total Depth:
Depth to Water: 141.15
Water Column:
Gallons/Foot: .16
Gallons in Well:

Purge Technique (circle one): Low-Flow Remove 3 Well Volumes Bail Dry
Purge Equipment (circle one): Submersible Centrifugal Bladder Peristaltic Bailer
Screen Interval: From: To: Waterra
Pump Intake Setting:
Volumes to be Purged: 1.5
Total Volume Purged: 1.5
Pump on: 1340 Off: 1407

Well Casing Volumes (gal/ft): 2" = 0.16 3" = 0.37 3 1/2" = 0.50 4" = 0.65 6" = 1.46

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Flow Rate (LPM)	Volume Purged (G)	DTW (ft btoc)	Turbidity ~~(NTUs)~~ Visual	ORP (mV)	pH (SI Units)	Spec Cond (µmhos/cm)	Temp (°C)	DO (mg/L)	Comments Color
1340	0	.5	.10	141.15	low	95.2	7.34	284.1	19.6	6.48	Clear
1344	4	.5	.25	141.17	low	95.0	7.51	287.4	19.7	5.92	Clear
1348	8	.5	.50	141.17	low	95.0	7.57	288.1	19.8	5.66	Clear
1352	12	.5	.75	141.19	low	95.1	7.44	289.3	19.9	5.57	Clear
1356	16	.5	1.0	141.20	low	94.1	7.46	289.9	19.9	5.52	Clear
1400	20	.5	1.25	141.22	low	93.6	7.45	291.1	19.8	5.49	Clear

Observations During Sampling
Well Condition: Good
Color: Clear
Odor: None

Purge Water Disposal: Drum
Turbidity(qualitative): low
Other (OVA, HNU,etc.): None

Sample ID: UBG-OBR-MWA
Samples Analyzed Fo See COC

Sample Date & Time: 6-6-19 1405

ARCADIS

Groundwater Sampling Form

Project Number: CI00SIAD.0000
Date: 6-6-19
Weather: WARM, WINDY

Task:
Well ID: UBG-09-MWA
Sampled By: G.Clift
Recorded By: G.Clift
Coded Duplicate No.: None

Instrument Identification

	PID	Water Quality Meter(s)
Model	None	YSI Pro Series
Serial #:	—	13E10095

Purging Information

Casing Material: PVC
Casing Diameter: 2
Total Depth:
Depth to Water: 116.39
Water Column:
Gallons/Foot: .16
Gallons in Well:

Purge Technique (circle one): (Low-Flow) Remove 3 Well Volumes Bail Dry
Purge Equipment (circle one): Submersible Centrifugal Bladder Peristaltic Bailer
Screen Interval: From: To: Waterra
Pump Intake Setting:
Volumes to be Purged: 1.5
Total Volume Purged: 1.5
Pump on: 1255 Off: 1325

Well Casing Volumes (gal/ft): (2" = 0.16) 3" = 0.37 3 1/2" = 0.50 4" = 0.65 6" = 1.46

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Flow Rate (LPM)	Volume Purged (G)	DTW (ft btoc)	Turbidity (~~NTUs~~) Visual	ORP (mV)	pH (SI Units)	Spec Cond (µmhos/cm)	Temp (°C)	DO (mg/L)	Comments Color
1255	0	.5	.10	116.34	High	73.8	6.89	379.3	20.7	2.50	BRN
1259	4	.5	.25	116.41	High	74.6	6.92	362.1	19.1	2.27	BRN
13:03	8	.5	.55	116.43	High	74.1	6.96	361.7	19.0	2.10	BRN
13:07	12	.5	.75	116.44	High	75.0	6.96	359.7	18.6	2.01	BRN
13:11	16	.5	1.0	116.45	High	73.1	6.91	349.2	18.7	1.91	BRN
1315	20	.5	1.25	116.46	High	70.6	6.89	346.9	19.1	1.87	BRN

Observations During Sampling
Well Condition: Good
Color: BRN
Odor: None

Purge Water Disposal: Drum
Turbidity(qualitative): High
Other (OVA, HNU,etc.): None

Sample ID: UBG-09-MWA
Samples Analyzed Fo See COC

Sample Date & Time: 6-6-19 1320

ARCADIS

Groundwater Sampling Form

Project Number: CI00SIAD.0000
Date: 6-6-19
Weather: Warm, windy

Task:
Sampled By: G.Clift
Recorded By: G.Clift
Coded Duplicate No.: None

Well ID: UBG-10-MWA

Instrument Identification

	PID	Water Quality Meter(s)
Model	None	YSI Pro Series
Serial #:	—	13E10095

Purging Information

Casing Material: PVC
Casing Diameter: 2
Total Depth:
Depth to Water: 121.84
Water Column:
Gallons/Foot: .16
Gallons in Well:

Purge Technique (circle one): Low-Flow Remove 3 Well Volumes Bail Dry
Purge Equipment (circle one): Submersible Centrifugal Bladder Peristaltic Bailer
Screen Interval: From: To: Waterra
Pump Intake Setting:
Volumes to be Purged: 1.5
Total Volume Purged: 1.5
Pump on: 1210 Off: 1240

Well Casing Volumes (gal/ft): 2" = 0.16 3" = 0.37 3 1/2" = 0.50 4" = 0.65 6" = 1.46

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Flow Rate (LPM)	Volume Purged (G)	DTW (ft btoc)	Turbidity (~~NTUs~~) visual	ORP (mV)	pH (SI Units)	Spec Cond (µmhos/cm)	Temp (°C)	DO (mg/L)	Comments Color
1210	0	.5	.10	121.84	low	99.2	6.98	445.4	19.1	5.06	clear
1214	4	.5	.25	121.86	low	94.1	7.31	443.7	19.3	5.48	clear
1218	8	.5	.50	121.87	low	90.3	7.40	443.1	19.3	5.67	clear
1222	12	.5	.75	121.89	low	87.9	7.37	451.6	19.6	1.71	clear
1226	16	.5	1.0	121.90	low	86.4	7.34	454.2	19.6	1.68	clear
1230	20	.5	1.25	121.90	low	85.2	7.31	454.4	19.5	1.69	clear

Observations During Sampling
Well Condition: Good
Color: Clear
Odor: None

Purge Water Disposal: Drum
Turbidity(qualitative): low
Other (OVA, HNU,etc.): None

Sample ID: UBG-10-MWA
Samples Analyzed Fo See COC

Sample Date & Time: 6-6-19 1235

ARCADIS

Groundwater Sampling Form

Project Number: CI00SIAD.0000
Date: 6-6-19
Weather: WARM

Task:
Well ID: UBG-03-MWA
Sampled By: G.Clift
Recorded By: G.Clift
Coded Duplicate No.: None

Instrument Identification

	PID	Water Quality Meter(s)
Model	None	YSI Pro Series
Serial #:	—	13E10095

Purging Information

Casing Material: PVC
Casing Diameter: 4
Total Depth:
Depth to Water: 77.25
Water Column:
Gallons/Foot: x6.5
Gallons in Well:

Purge Technique (circle one): Low-Flow Remove 3 Well Volumes Bail Dry
Purge Equipment (circle one): Submersible Centrifugal Bladder Peristaltic Bailer
Screen Interval: From: To: Waterra
Pump Intake Setting:
Volumes to be Purged: 1.5
Total Volume Purged: 1.5
Pump on: 1125 Off: 1155

Well Casing Volumes (gal/ft): 2" = 0.16 3" = 0.37 3½" = 0.50 4" = 0.65 6" = 1.46

Field Parameter Measurements Taken During Purging

Time	Minutes Elapsed	Flow Rate (LPM)	Volume Purged (G)	DTW (ft btoc)	Turbidity (~~NTUs~~) Visual	ORP (mV)	pH (SI Units)	Spec Cond (µmhos/cm)	Temp (°C)	DO (mg/L)	Comments Color
1125	0	.5	.10	77.25	low	88.1	7.28	401.2	20.2	6.04	clear
1129	4	.5	.25	77.25	low	87.8	7.20	390.7	20.1	3.91	clear
1133	8	.5	.50	77.26	low	86.5	7.14	391.0	20.0	3.74	clear
1137	12	.5	.75	77.27	low	86.1	7.16	389.9	19.8	3.62	clear
1141	16	.5	1.0	77.27	low	86.4	7.11	392.6	19.9	3.64	clear
1145	20	.5	1.25	77.27	low	86.5	7.08	393.4	19.9	3.67	clear

Observations During Sampling
Well Condition: Good
Color: Clear
Odor: None

Purge Water Disposal: Drum
Turbidity(qualitative): low
Other (OVA, HNU,etc.): None

Sample ID: UBG-03-MWA
Samples Analyzed Fo See COC

Sample Date & Time: 6-6-19 1150

APPENDIX B

Chain-of-Custody Records

SGS North America Inc - Orlando
Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO JOB #: FA64963 PAGE 1 OF 1

Custody Seal 010337

SGS - ORLANDO Quote #	SKIFF #

Client / Reporting Information

Company Name: ArcadIS
Address: on File
City: State: Zip:
Project Contact: Hoa Voscott Email: Hoa.Voscott@arcadis.com
Phone #: 510-928-0037
Sampler(s) Name(s) (Printed)
Sampler 1: GARY CLIFT Sampler 2:

Project Information

Project Name: SIAD
Street
City Hayward State CA
Project # C100SIAD.0001
Fax #
Client Purchase Order # C100SIAD.0001 06NA1

Analytical Information

SGS Orlando Sample #	Field ID / Point of Collection	DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNA	DI WATER	MEOH	Dis. Lead, As, Antimony (*) 6020	Field Filtered									LAB USE ONLY
1	OPF-04-PZ	6-6	1710	GC	GW	1					X					X	X									
2	OPF-05-PZ	6-6	1525	GC	GW	1					X					X	X									
3	OPF-06-PZ	6-6	1635	GC	GW	1					X					X	X									
4	OPF-07-PZ	6-6	1600	GC	GW	1					X					X	X									
5	LBG-05-MW	6-6	1450	GC	GW	1					X					X	X									

Matrix Codes
DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

Turnaround Time (Business days)

10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- COMMERCIAL "A" (RESULTS ONLY)
- COMMERCIAL "B" (RESULTS PLUS QC)
- REDT1 (EPA LEVEL 3)
- FULLT1 (EPA LEVEL 4)
- EDD'S

10 ug/L For Arsenic, 15 ug/L For lead

Comments / Remarks

(*) reporting limits (15ug/L For Lead)
6 ug/L For Antimony Run undiluted
GARY.CLIFT@ArcadIS.com Results to:
EMILY.SHEU@ArcadIS.com

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1 ArcadIS	6-7-19 1600	2 FedEX 8122 1699 0882	3 FY		4 6/8/19 0:5
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6 2-C	7		8

Lab Use Only : Cooler Temperature (s) Celsius (corrected): Temp Blank

http://www.sgs.com/en/terms-and-conditions

ORLD-SMT-0001-03-FORM-COC (4).xls Rev 031318

5.1 5

FA64963: Chain of Custody
Page 1 of 2

SGS North America Inc - Orlando
Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com

FA64964

SGS - ORLANDO JOB # : PAGE 1 OF 1

Custody Seal 010337

SGS - ORLANDO Quote #	SKIFF #

Client / Reporting Information

Company Name: Arcadis DA File
Address:
City: State: Zip:
Project Contact: Hoa Vosco#t Email: Hoa.Vosco#t@Arcadis.com
Phone #: 510-928-0037
Sampler(s) Name(s) (Printed)
Sampler 1: GARY CHIPT Sampler 2:

Project Information

Project Name: SIAD
Street
City Herlong State CA
Project # C1005IAD.0001
Fax #
Client Purchase Order # C1005IAD.0001.06NA1

Analytical Information

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNA	DI WATER	MEOH	DIS. Leg. AS, TOTAL chromium 6020	Field Filtered									LAB USE ONLY
1	UBG-03-MWA	6-6	1150	GC	GW	1					X					X	X									
2	UBG-08R-MWA	6-6	1405	GC	GW	1					X					X	X									
3	UBG-09-MWA	6-6	1320	GC	GW	1					X					X	X									
4	UBG-10-MWA	6-6	1235	GC	GW	1					X					X	X									

Turnaround Time (Business days)

- 10 Day (Business)
- 7 Day
- 5 Day
- 3 Day *RUSH*
- 2 Day *RUSH*
- 1 Day *RUSH*
- Other

Approved By: / Date:

Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [x] EDD'S

Comments / Remarks

Emily.shen@Arcadis.com (Results)
GARY.CHIPT@Arcadis.com
Temp Blank

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1 Arcadis	6.7.19 1600	2 Fed Ex 812216990882	3 FF		4 6/8/19 915
Relinquished by/Affiliation 5	Date Time:	Received By/Affiliation 6	Relinquished By/Affiliation 7	Date Time:	Received By/Affiliation 8

Lab Use Only : Cooler Temperature (s) Celsius (corrected): 2.6

http://www.sgs.com/en/terms-and-conditions

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5.1 5

FA64964: Chain of Custody
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APPENDIX C

Certified Laboratory Analytical Reports

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Arcadis U.S., Inc.

Sierra Army Depot, Herlong, CA

C100SIAD.0001

SGS Job Number: FA64963

Sampling Date: 06/06/19

Report to:

ARCADIS - Emeryville
2000 Powell Street 7th Floor
Emeryville, CA 94608
Hoa.Voscott@arcadis.com; Patty.Ryan@arcadis.com;
Emily.Sheu@arcadis.com
ATTN: Hoa Voscott

Total number of pages in report: **124**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Caitlin Brice, M.S.
General Manager

Client Service contact: Elvin Kumar 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), IL(200063), NC(573), NJ(FL002), NY(12022), SC(96038001) DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177), AK, AR, IA, KY, MA, MS, ND, NH, NV, OK, OR, UT, WA, WV

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SGS North America Inc.

Sample Summary

Arcadis U.S., Inc.

Job No: FA64963

Sierra Army Depot, Herlong, CA
Project No: C100SIAD.0001

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA64963-1F	06/06/19	17:10	GC	06/08/19	AQ	Groundwater Filtered	OPF-04-PZ
FA64963-2F	06/06/19	15:25	GC	06/08/19	AQ	Groundwater Filtered	OPF-05-PZ
FA64963-3F	06/06/19	16:35	GC	06/08/19	AQ	Groundwater Filtered	OPF-06-PZ
FA64963-4F	06/06/19	16:00	GC	06/08/19	AQ	Groundwater Filtered	OPF-07-PZ
FA64963-5F	06/06/19	14:50	GC	06/08/19	AQ	Groundwater Filtered	LBG-05-MW

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Arcadis U.S., Inc. **Job No:** FA64963

Site: Sierra Army Depot, Herlong, CA **Report Date:** 6/19/2019 4:52:37 PM

5 Samples were collected on 06/06/2019 and were received at SGS North America Inc - Orlando on 06/08/2019 properly preserved, at 2.6 Deg. C and intact. These Samples received an SGS Orlando job number of FA64963. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section. Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Metals Analysis By Method SW846 6020A

Matrix: AQ **Batch ID:** MP35666

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA64963-1FDUP, FA64963-1FMS, FA64963-1FMSD, FA64963-1FSDL were used as the QC samples for metals.

Matrix Spike Recovery(s) for Arsenic are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

RPD(s) for Serial Dilution for Arsenic are outside control limits for sample MP35666-SD1. Probable cause is due to sample non-homogeneity.

FA64963-1F for Antimony: Sample dilution required due to difficult matrix.

FA64963-1F for Arsenic: Sample dilution required due to difficult matrix.

FA64963-1F for Lead: Sample dilution required due to difficult matrix.

FA64963-2F for Antimony: Sample dilution required due to difficult matrix.

FA64963-2F for Arsenic: Sample dilution required due to difficult matrix.

FA64963-2F for Lead: Sample dilution required due to difficult matrix.

FA64963-3F for Antimony: Sample dilution required due to difficult matrix.

FA64963-3F for Arsenic: Sample dilution required due to difficult matrix.

FA64963-3F for Lead: Sample dilution required due to difficult matrix.

FA64963-4F for Antimony: Sample dilution required due to difficult matrix.

FA64963-4F for Arsenic: Sample dilution required due to difficult matrix.

FA64963-4F for Lead: Sample dilution required due to difficult matrix.

FA64963-5F for Antimony: Sample dilution required due to difficult matrix.

FA64963-5F for Arsenic: Sample dilution required due to difficult matrix.

FA64963-5F for Lead: Sample dilution required due to difficult matrix.

SGS Orlando certifies that this report meets the project requirements for analytical data produced for the samples as received at SGS Orlando and as stated on the COC. SGS Orlando certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the SGS Orlando Quality Manual except as noted above. This report is to be used in its entirety. SGS Orlando is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

_____

Jenna Kravitz, Client Services *(Signature on File)*

Summary of Hits

Job Number: FA64963
Account: Arcadis U.S., Inc.
Project: Sierra Army Depot, Herlong, CA
Collected: 06/06/19

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
FA64963-1F	**OPF-04-PZ**					
Arsenic [a]		3010	10		ug/l	SW846 6020A
FA64963-2F	**OPF-05-PZ**					
Arsenic [a]		1620	10		ug/l	SW846 6020A
FA64963-3F	**OPF-06-PZ**					
Arsenic [a]		1720	10		ug/l	SW846 6020A
FA64963-4F	**OPF-07-PZ**					
Arsenic [a]		3620	10		ug/l	SW846 6020A
FA64963-5F	**LBG-05-MW**					
Arsenic [a]		1350	10		ug/l	SW846 6020A

(a) Sample dilution required due to difficult matrix.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	OPF-04-PZ		
Lab Sample ID:	FA64963-1F	**Date Sampled:**	06/06/19
Matrix:	AQ - Groundwater Filtered	**Date Received:**	06/08/19
		Percent Solids:	n/a
Project:	Sierra Army Depot, Herlong, CA		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony [a]	< 10	10	ug/l	10	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]
Arsenic [a]	3010	10	ug/l	10	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]
Lead [a]	< 10	10	ug/l	10	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15957
(2) Prep QC Batch: MP35666

(a) Sample dilution required due to difficult matrix.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	OPF-05-PZ		
Lab Sample ID:	FA64963-2F	**Date Sampled:**	06/06/19
Matrix:	AQ - Groundwater Filtered	**Date Received:**	06/08/19
		Percent Solids:	n/a
Project:	Sierra Army Depot, Herlong, CA		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony [a]	< 10	10	ug/l	10	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]
Arsenic [a]	1620	10	ug/l	10	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]
Lead [a]	< 10	10	ug/l	10	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15957
(2) Prep QC Batch: MP35666

(a) Sample dilution required due to difficult matrix.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	OPF-06-PZ		
Lab Sample ID:	FA64963-3F	**Date Sampled:**	06/06/19
Matrix:	AQ - Groundwater Filtered	**Date Received:**	06/08/19
		Percent Solids:	n/a
Project:	Sierra Army Depot, Herlong, CA		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony [a]	< 10	10	ug/l	10	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]
Arsenic [a]	1720	10	ug/l	10	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]
Lead [a]	< 10	10	ug/l	10	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15957
(2) Prep QC Batch: MP35666

(a) Sample dilution required due to difficult matrix.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	OPF-07-PZ		
Lab Sample ID:	FA64963-4F	**Date Sampled:**	06/06/19
Matrix:	AQ - Groundwater Filtered	**Date Received:**	06/08/19
		Percent Solids:	n/a
Project:	Sierra Army Depot, Herlong, CA		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony [a]	< 10	10	ug/l	10	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]
Arsenic [a]	3620	10	ug/l	10	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]
Lead [a]	< 10	10	ug/l	10	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15957
(2) Prep QC Batch: MP35666

(a) Sample dilution required due to difficult matrix.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	LBG-05-MW		
Lab Sample ID:	FA64963-5F	**Date Sampled:**	06/06/19
Matrix:	AQ - Groundwater Filtered	**Date Received:**	06/08/19
		Percent Solids:	n/a
Project:	Sierra Army Depot, Herlong, CA		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony [a]	< 10	10	ug/l	10	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]
Arsenic [a]	1350	10	ug/l	10	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]
Lead [a]	< 10	10	ug/l	10	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15957
(2) Prep QC Batch: MP35666

(a) Sample dilution required due to difficult matrix.

RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

SGS North America Inc - Orlando
Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com

custody seal 010337

SGS - ORLANDO JOB #: FA64963 PAGE 1 OF 1

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: Arcadis
Address: on File
City: State: Zip:
Project Contact: Hoa Voscott Email: Hoa.Voscott@arcadis.com
Phone #: 510-928-0037
Sampler(s) Name(s) (Printed)
Sampler 1: Gary Clift Sampler 2:

Project Information

Project Name: SIAD
Street
City Hayward State CA
Project # C100SIAD.0001
Fax #
Client Purchase Order # C100SIAD.0001 06NA1

Analytical Information

SGS Orlando Sample #	Field ID / Point of Collection	Collection Date	Time	Sampled By:	Matrix	Total # of Bottles	Other	None	HCl	NaOH	HNO3	H2SO4	NaOH+ZNA	DI Water	MeOH	Dis. Lead, As, Antimony (*) 6020	Field Filtered
1	OPF-04-PZ	6-6	1710	GC	GW	1					X					X	X
2	OPF-05-PZ	6-6	1525	GC	GW	1					X					X	X
3	OPF-06-PZ	6-6	1635	GC	GW	1					X					X	X
4	OPF-07-PZ	6-6	1600	GC	GW	1					X					X	X
5	LBG-05-MW	6-6	1450	GC	GW	1					X					X	X

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid

LAB USE ONLY

Turnaround Time (Business days)

10 Day (Business) — Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- COMMERCIAL "A" (RESULTS ONLY)
- COMMERCIAL "B" (RESULTS PLUS QC)
- REDT1 (EPA LEVEL 3)
- FULLT1 (EPA LEVEL 4)
- EDD'S

10 ug/L For Arsenic, 15 ug/L For lead

Comments / Remarks

(*) reporting limits (15ug/L For Lead)
6 ug/L For Antimony Run unfiltered
GARY.CLIFT@Arcadis.com Results to:
Emily.Shen@Arcadis.com

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1 Gary Clift Arcadis	6-7-19 1600	2 FedEx 8122 1699 0882	3 FY		4 6/8/19 915
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6	7		8

Lab Use Only : Cooler Temperature (s) Celsius (corrected): 2.0 Temp Blank

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FA64963: Chain of Custody
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SGS Sample Receipt Summary

Job Number: FA64963 **Client:** ARCADIS **Project:** SIAD

Date / Time Received: 6/8/2019 9:15:00 AM **Delivery Method:** FedEx **Airbill #'s:** 812216990882

Therm ID: IR 1; **Therm CF:** 0.4; **# of Coolers:** 1

Cooler Temps (Raw Measured) °C: Cooler 1: (2.2);

Cooler Temps (Corrected) °C: Cooler 1: (2.6);

Cooler Information	Y	or	N
1. Custody Seals Present	☑		☐
2. Custody Seals Intact	☑		☐
3. Temp criteria achieved	☑		☐
4. Cooler temp verification	IR Gun		
5. Cooler media	Ice (Bag)		

Trip Blank Information	Y	or	N	N/A
1. Trip Blank present / cooler	☐		☐	☑
2. Trip Blank listed on COC	☐		☐	☑
	W	**or**	**S**	**N/A**
3. Type Of TB Received	☐		☐	☑

Sample Information	Y	or	N	N/A
1. Sample labels present on bottles	☑		☐	
2. Samples preserved properly	☑		☐	
3. Sufficient volume/containers recvd for analysis:	☑		☐	
4. Condition of sample	Intact			
5. Sample recvd within HT	☑		☐	
6. Dates/Times/IDs on COC match Sample Label	☑		☐	
7. VOCs have headspace	☐		☐	☑
8. Bottles received for unspecified tests	☐		☑	
9. Compositing instructions clear	☐		☐	☑
10. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☑
11. % Solids Jar received?	☐		☐	☑
12. Residual Chlorine Present?	☐		☐	☑

Misc. Information

Number of Encores: 25-Gram _____ 5-Gram _____ Number of 5035 Field Kits: _____ Number of Lab Filtered Metals: _____

Test Strip Lot #s: pH 0-3 230315 pH 10-12 219813A Other: (Specify) _____ _____

Residual Chlorine Test Strip Lot #: _____

Comments 2 BOTTLES RECEIVED FOR EACH SAMPLE

SM001
Rev. Date 05/24/17

Technician: PETERH Date: 6/8/2019 9:15:00 AM Reviewer: PH Date: 6/8/2019

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Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries
- IDL and Linear Range Summaries

SGS Instrument Runlog
Inorganics Analyses

Login Number: FA64963
Account: ARCCAE - Arcadis U.S., Inc.
Project: Sierra Army Depot, Herlong, CA

File ID: XA061919M1.CSV Date Analyzed: 06/19/19 Methods: SW846 6020A
Analyst: DM Run ID: MA15957
Parameters: Sb,As,Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:24	MA15957-STD1	1		STDA
10:28	MA15957-STD2	1		STDB
10:32	MA15957-STD3	1		STDC
10:36	MA15957-STD4	1		STDD
10:40	MA15957-STD5	1		STDE
10:44	MA15957-STD6	1		STDF
10:48	MA15957-STD7	1		STDG
10:56	MA15957-HSTD1	1		
11:00	MA15957-ICV1	1		
11:04	MA15957-ICB1	1		
11:07	MA15957-CRIA1	1		
11:11	MA15957-ICSA1	1		
11:15	MA15957-ICSAB1	1		
11:23	MA15957-CCV1	1		
11:26	MA15957-CCB1	1		
11:30	MP35666-MB1	2		
11:34	MP35666-B1	2		
11:38	FA64963-1F	10		
11:42	MP35666-D1	10		
11:45	MP35666-SD1	50		
11:49	MP35666-S1	10		
11:53	MP35666-S2	10		
11:57	MP35666-PS1	10		
12:01	FA64963-2F	10		
12:05	FA64963-3F	10		
12:12	MA15957-CCV2	1		
12:16	MA15957-CCB2	1		
12:20	FA64963-4F	10		
12:24	FA64963-5F	10		
----------> Last reportable sample/prep for job FA64963				
12:27	ZZZZZZ	2		
12:31	ZZZZZZ	2		
12:35	ZZZZZZ	2		
12:39	ZZZZZZ	2		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FA64963
Account: ARCCAE - Arcadis U.S., Inc.
Project: Sierra Army Depot, Herlong, CA

File ID: XA061919M1.CSV Date Analyzed: 06/19/19 Methods: SW846 6020A
Analyst: DM Run ID: MA15957
Parameters: Sb,As,Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:43	MA15957-CRIA2	1		
12:46	MA15957-ICSA2	1		
12:50	MA15957-ICSAB2	1		
12:58	MA15957-CCV3	1		
13:01	MA15957-CCB3	1		

----------> Last reportable CCB for job FA64963
Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: FA64963
Account: ARCCAE - Arcadis U.S., Inc.
Project: Sierra Army Depot, Herlong, CA

File ID: XA061919M1.CSV Date Analyzed: 06/19/19 Methods: SW846 6020A
Analyst: DM Run ID: MA15957
Parameters: Sb,As,Pb

Time	Sample Description	Element: Dilution	Sb	As	Pb
10:56	MA15957-HSTD1	1	X	X	X
11:00	MA15957-ICV1	1	X	X	X
11:04	MA15957-ICB1	1	X	X	X
11:07	MA15957-CRIA1	1	X	X	X
11:11	MA15957-ICSA1	1	X	X	X
11:15	MA15957-ICSAB1	1	X	X	X
11:23	MA15957-CCV1	1	X	X	X
11:26	MA15957-CCB1	1	X	X	X
11:30	MP35666-MB1	2	X	X	X
11:34	MP35666-B1	2	X	X	X
11:38	FA64963-1F	10	X	X	X
11:42	MP35666-D1	10	X	X	X
11:45	MP35666-SD1	50	X	X	X
11:49	MP35666-S1	10	X	X	X
11:53	MP35666-S2	10	X	X	X
11:57	MP35666-PS1	10			
12:01	FA64963-2F	10	X	X	X
12:05	FA64963-3F	10	X	X	X
12:12	MA15957-CCV2	1	X	X	X
12:16	MA15957-CCB2	1	X	X	X
12:20	FA64963-4F	10	X	X	X
12:24	FA64963-5F	10	X	X	X
12:27	ZZZZZZ	2			
12:31	ZZZZZZ	2			
12:35	ZZZZZZ	2			
12:39	ZZZZZZ	2			
12:43	MA15957-CRIA2	1	X	X	X
12:46	MA15957-ICSA2	1	X	X	X
12:50	MA15957-ICSAB2	1	X	X	X
12:58	MA15957-CCV3	1	X	X	X
13:01	MA15957-CCB3	1	X	X	X
		Element:	Sb	As	Pb

INTERNAL STANDARD SUMMARY

Login Number: FA64963
Account: ARCCAE - Arcadis U.S., Inc.
Project: Sierra Army Depot, Herlong, CA

File ID: XA061919M1.CSV Date Analyzed: 06/19/19 Methods: SW846 6020A
Analyst: DM Run ID: MA15957
Parameters: Sb,As,Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
10:24	MA15957-STD1	100	100	100	100	100	100	100	100
10:28	MA15957-STD2	103.5	99.8	99.7	100.6	100.7	99.3	99.7	100
10:32	MA15957-STD3	94.4	100	100.4	100.4	100.5	98.8	99.7	100
10:36	MA15957-STD4	78.6	97.1	98.5	98.7	99.2	98.5	98.3	100
10:40	MA15957-STD5	87.4	95.5	95.4	95.3	95.6	96.5	94.7	100
10:44	MA15957-STD6	90.5	94.5	93.6	95.3	94.8	96.3	92.6	100
10:48	MA15957-STD7	86	96.8	94.3	94.2	94.9	96	90.4	100
10:56	MA15957-HSTD1	83.5	95.5	94.3	94.9	94.3	94.8	90.5	100
11:00	MA15957-ICV1	94.7	97.3	96.1	97.3	96	96.5	92.7	100
11:04	MA15957-ICB1	85.3	97.7	97.8	97.8	97.6	97.2	97.5	100
11:07	MA15957-CRIA1	87.7	99.2	96.3	98.5	98.3	97.3	97.8	100
11:11	MA15957-ICSA1	89.1	98.3	96.1	93.7	92	94	84.6	100
11:15	MA15957-ICSAB1	91.2	107.8	102.9	101.3	97	97.9	86.9	100
11:23	MA15957-CCV1	108.8	112.9	110	110.4	105.7	103.5	98.5	100
11:26	MA15957-CCB1	93.3	113.5	111	111.8	105.5	99.1	97.7	100
11:30	MP35666-MB1	100.4	103	101.3	101	96.2	94	91.7	100
11:34	MP35666-B1	79.3	96.4	92.9	92.2	93.6	98.9	92.9	100
11:38	FA64963-1F	81.4	98.4	88.7	89.2	84.3	82.9	69.9 !	100
11:42	MP35666-D1	82.1	108.1	96.7	95.2	89.4	85.7	71.3	100
11:45	MP35666-SD1	98.6	119.9	111.3	111.6	103.7	100.2	88.8	100
11:49	MP35666-S1	74	113.6	98.5	98.7	90.7	87.2	72.3	100
11:53	MP35666-S2	74.7	112.5	98	97.7	89.8	85.4	71.1	100
11:57	MP35666-PS1	No results reported for the elements associated with this internal standard.							
12:01	FA64963-2F	87.4	117.3	101.6	101.1	93.6	88.7	73.9	100
12:05	FA64963-3F	88.4	117.6	102.3	102.2	93.2	87.9	73	100
12:12	MA15957-CCV2	115.1	130.8 !	122.3	122.2	113.6	107	99	100
12:16	MA15957-CCB2	121.4	129.8	123.4	123	115.5	107.1	102.9	100
12:20	FA64963-4F	91.6	116.6	103.2	103.2	92.6	87.6	74.1	100
12:24	FA64963-5F	81.4	113.3	96.9	96.6	89.9	86	70.8	100
12:27	ZZZZZZ	104.6	115.1	108.9	108.1	104.1	101.8	95.3	100
12:31	ZZZZZZ	92.6	116	108.6	109.6	103.2	99.6	93.7	100
12:35	ZZZZZZ	99.7	113.8	107.9	107.6	101.7	98.7	91.7	100
12:39	ZZZZZZ	107.7	115.9	108	108.6	103.3	99.6	92.6	100

INTERNAL STANDARD SUMMARY

Login Number: FA64963
Account: ARCCAE - Arcadis U.S., Inc.
Project: Sierra Army Depot, Herlong, CA

File ID: XA061919M1.CSV Date Analyzed: 06/19/19 Methods: SW846 6020A
Analyst: DM Run ID: MA15957
Parameters: Sb,As,Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
12:43	MA15957-CRIA2	116.5	126.4	121.2	120.1	112	104.2	100.9	100
12:46	MA15957-ICSA2	100.7	118.3	109.7	107.4	98.8	96.3	84.2	100
12:50	MA15957-ICSAB2	101.1	117.9	108.8	106.7	98.1	95.7	83.5	100
12:58	MA15957-CCV3	103.2	121.1	114	114.4	106.2	100	92.8	100
13:01	MA15957-CCB3	115.4	121.7	115.8	117.2	108.8	101.4	98	100

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits	CCV/CCB Limits
Istd#1	Lithium	70-130 %	70-130 %
Istd#2	Scandium	70-130 %	70-130 %
Istd#3	Germanium (72-2)	70-130 %	70-130 %
Istd#4	Germanium (74-2)	70-130 %	70-130 %
Istd#5	Indium	70-130 %	70-130 %
Istd#6	Terbium	70-130 %	70-130 %
Istd#7	Bismuth	70-130 %	70-130 %
Istd#8	Tellurium	70-130 %	70-130 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA64963
Account: ARCCAE - Arcadis U.S., Inc.
Project: Sierra Army Depot, Herlong, CA

File ID: XA061919M1.CSV Date Analyzed: 06/19/19 Methods: SW846 6020A
QC Limits: result < RL Run ID: MA15957 Units: ug/l

Time:			11:04		11:26		12:16		13:01	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	100	4.4								
Antimony	1.0	.1	0.0372	<1.0	0.0268	<1.0	0.0142	<1.0	0.0150	<1.0
Arsenic	1.0	.1	0.0314	<1.0	0.0268	<1.0	0.0391	<1.0	0.0281	<1.0
Barium	1.0	.1								
Beryllium	1.0	.1								
Cadmium	1.0	.1								
Calcium	100	7.2								
Chromium	1.0	.1	anr							
Cobalt	1.0	.1								
Copper	1.0	.1								
Iron	100	7.9								
Lead	1.0	.1	0.0388	<1.0	0.0225	<1.0	0.0151	<1.0	0.0164	<1.0
Magnesium	100	5.2								
Manganese	1.0	.1								
Molybdenum	1.0	.1								
Nickel	1.0	.1								
Potassium	100	6.6								
Selenium	1.0	.11								
Silver	1.0	.1								
Sodium	100	4.8								
Strontium	1.0	.1								
Thallium	1.0	.1								
Tin	1.0	.1								
Titanium	1.0	.3								
Vanadium	1.0	.1								
Zinc	2.0	.29								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA64963
Account: ARCCAE - Arcadis U.S., Inc.
Project: Sierra Army Depot, Herlong, CA

File ID: XA061919M1.CSV Date Analyzed: 06/19/19 Methods: SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA15957 Units: ug/l

Time:		11:00			11:23			12:12	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony	100	96.7	96.7	100	97.6	97.6	100	95.0	95.0
Arsenic	100	95.5	95.5	100	97.2	97.2	100	96.0	96.0
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium	anr								
Cobalt									
Copper									
Iron									
Lead	100	98.3	98.3	100	98.3	98.3	100	97.0	97.0
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA64963
Account: ARCCAE - Arcadis U.S., Inc.
Project: Sierra Army Depot, Herlong, CA

File ID: XA061919M1.CSV Date Analyzed: 06/19/19 Methods: SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA15957 Units: ug/l

Time:		12:58	
Sample ID:	CCV	CCV3	
Metal	True	Results	% Rec
Aluminum			
Antimony	100	97.8	97.8
Arsenic	100	98.2	98.2
Barium			
Beryllium			
Cadmium			
Calcium			
Chromium	anr		
Cobalt			
Copper			
Iron			
Lead	100	99.4	99.4
Magnesium			
Manganese			
Molybdenum			
Nickel			
Potassium			
Selenium			
Silver			
Sodium			
Strontium			
Thallium			
Tin			
Titanium			
Vanadium			
Zinc			

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: FA64963
Account: ARCCAE - Arcadis U.S., Inc.
Project: Sierra Army Depot, Herlong, CA

File ID: XA061919M1.CSV Date Analyzed: 06/19/19 Methods: SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA15957 Units: ug/l

Time:		10:56	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Aluminum			
Antimony	200	197	98.5
Arsenic	200	195	97.5
Barium			
Beryllium			
Cadmium			
Calcium			
Chromium	anr		
Cobalt			
Copper			
Iron			
Lead	200	199	99.5
Magnesium			
Manganese			
Molybdenum			
Nickel			
Potassium			
Selenium			
Silver			
Sodium			
Strontium			
Thallium			
Tin			
Titanium			
Vanadium			
Zinc			

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: FA64963
Account: ARCCAE - Arcadis U.S., Inc.
Project: Sierra Army Depot, Herlong, CA

File ID: XA061919M1.CSV Date Analyzed: 06/19/19 Methods: SW846 6020A
QC Limits: CRI 70-130% CRIA 80-120% Run ID: MA15957 Units: ug/l

Time:			11:07		12:43	
Sample ID:	CRI	CRIA	CRIA1		CRIA2	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100	100				
Antimony	1.0	1.0	0.960	96.0	0.965	96.5
Arsenic	1.0	1.0	0.989	98.9	0.973	97.3
Barium	1.0	1.0				
Beryllium	1.0	1.0				
Cadmium	1.0	1.0				
Calcium	100	100				
Chromium	1.0	1.0	anr			
Cobalt	1.0	1.0				
Copper	1.0	1.0				
Iron	100	100				
Lead	1.0	1.0	1.03	103.0	1.00	100.0
Magnesium	100	100				
Manganese	1.0	1.0				
Molybdenum	1.0	1.0				
Nickel	1.0	1.0				
Potassium	100	100				
Selenium	1.0	1.0				
Silver	1.0	1.0				
Sodium	100	100				
Strontium	1.0	1.0				
Thallium	1.0	1.0				
Tin	1.0	1.0				
Titanium	1.0	1.0				
Vanadium	1.0	1.0				
Zinc	1.0	1.0				

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: FA64963
Account: ARCCAE - Arcadis U.S., Inc.
Project: Sierra Army Depot, Herlong, CA

File ID: XA061919M1.CSV Date Analyzed: 06/19/19 Methods: SW846 6020A
QC Limits: 80 to 120 % Recovery Run ID: MA15957 Units: ug/l

Time:			11:11		11:15		12:46		12:50	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	100000	100000	56200	56.2*	56200	56.2*	56500	56.5*	56500	56.5*
Antimony			0.0486		0.0512		0.0341		0.0348	
Arsenic		20	0.0982		19.4	97.0	0.111		19.4	97.0
Barium			0.0587		0.0597		0.0546		0.0589	
Beryllium			0.0544		0.0480		0.0305		0.0175	
Cadmium		20	0.571		18.4	92.0	0.482		17.7	88.5
Calcium	100000	100000	93800	93.8	93400	93.4	92900	92.9	92900	92.9
Chromium		20	0.236		20.0	100.0	0.236		20.3	101.5
Cobalt		20	0.0319		19.2	96.0	0.0234		19.3	96.5
Copper		20	-0.483		18.1	90.5	-0.479		18.0	90.0
Iron	100000	100000	96400	96.4	98300	98.3	100000	100.0	101000	101.0
Lead			0.0834		0.0748		0.0677		0.0649	
Magnesium	100000	100000	97800	97.8	98100	98.1	99500	99.5	99400	99.4
Manganese		20	0.499		19.7	98.5	0.555		20.1	100.5
Molybdenum	2000	2000	2010	100.5	1990	99.5	1990	99.5	2000	100.0
Nickel		20	0.00917		18.7	93.5	-0.228		18.5	92.5
Potassium	100000	100000	100000	100.0	101000	101.0	103000	103.0	103000	103.0
Selenium			0.198		0.120		0.111		0.0897	
Silver		20	0.0658		17.8	89.0	0.0571		17.2	86.0
Sodium	100000	100000	99100	99.1	100000	100.0	103000	103.0	103000	103.0
Strontium			0.918		0.955		1.02		1.00	
Thallium			0.00974		0.00622		0.00318		0.00248	
Tin			0.134		0.120		0.0990		0.0989	
Titanium	2000	2000	2000	100.0	2010	100.5	1990	99.5	1980	99.0
Vanadium			-0.222		-0.245		-0.155		-0.145	
Zinc		20	-0.0543		18.2	91.0	-0.0103		18.3	91.5

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA64963
Account: ARCCAE - Arcadis U.S., Inc.
Project: Sierra Army Depot, Herlong, CA

QC Batch ID: MP35666
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 06/15/19

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	8.7	22		
Antimony	2.0	.2	.2	0.13	<2.0
Arsenic	2.0	.2	.21	0.17	<2.0
Barium	2.0	.2	.2		
Beryllium	2.0	.2	.2		
Cadmium	2.0	.2	.2		
Calcium	200	14	36		
Chromium	2.0	.2	.2		
Cobalt	2.0	.2	.2		
Copper	2.0	.2	.2		
Iron	200	16	23		
Lead	2.0	.2	.2	0.086	<2.0
Magnesium	200	10	19		
Manganese	2.0	.2	.2		
Molybdenum	2.0	.2	.39		
Nickel	2.0	.2	.2		
Potassium	200	13	75		
Selenium	2.0	.22	.22		
Silver	2.0	.2	.2		
Sodium	200	9.6	24		
Strontium	2.0	.2	.2		
Thallium	2.0	.2	.2		
Tin	2.0	.2	.2		
Titanium	2.0	.61	.88		
Vanadium	2.0	.2	.24		
Zinc	4.0	.58	1.7		

Associated samples MP35666: FA64963-1F, FA64963-2F, FA64963-3F, FA64963-4F, FA64963-5F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA64963
Account: ARCCAE - Arcadis U.S., Inc.
Project: Sierra Army Depot, Herlong, CA

QC Batch ID: MP35666 Methods: SW846 6020A
Matrix Type: AQUEOUS Units: ug/l

Prep Date:			06/15/19					06/15/19	
Metal	FA64963-1F Original	DUP	RPD	QC Limits	FA64963-1F Original	MS	Spikelot MPICPMS1	% Rec	QC Limits
Aluminum									
Antimony	0.0	0.0 (a)	NC	0-20	0.0	193 (a)	200	96.5	80-120
Arsenic	3010	2940 (a)	2.4	0-20	3010	3110 (a)	200	50.0 (b)	80-120
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium	anr								
Cobalt									
Copper									
Iron									
Lead	0.0	0.0 (a)	NC	0-20	0.0	176 (a)	200	88.0	80-120
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

Associated samples MP35666: FA64963-1F, FA64963-2F, FA64963-3F, FA64963-4F, FA64963-5F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Sample dilution required due to difficult matrix.
(b) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA64963
Account: ARCCAE - Arcadis U.S., Inc.
Project: Sierra Army Depot, Herlong, CA

QC Batch ID: MP35666 Methods: SW846 6020A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 06/15/19

Metal	FA64963-1F Original	MSD	Spikelot MPICPMS1	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	0.0	198 (a)	200	99.0	2.6	20
Arsenic	3010	3170 (a)	200	80.0	1.9	20
Barium						
Beryllium						
Cadmium						
Calcium						
Chromium	anr					
Cobalt						
Copper						
Iron						
Lead	0.0	182 (a)	200	91.0	3.4	20
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver						
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP35666: FA64963-1F, FA64963-2F, FA64963-3F, FA64963-4F, FA64963-5F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Sample dilution required due to difficult matrix.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FA64963
Account: ARCCAE - Arcadis U.S., Inc.
Project: Sierra Army Depot, Herlong, CA

QC Batch ID: MP35666
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 06/15/19

Metal	BSP Result	Spikelot MPICPMS1	% Rec	QC Limits
Aluminum				
Antimony	190	200	95.0	80-120
Arsenic	193	200	96.5	80-120
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium	anr			
Cobalt				
Copper				
Iron				
Lead	204	200	102.0	80-120
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP35666: FA64963-1F, FA64963-2F, FA64963-3F, FA64963-4F, FA64963-5F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FA64963
Account: ARCCAE - Arcadis U.S., Inc.
Project: Sierra Army Depot, Herlong, CA

QC Batch ID: MP35666
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 06/15/19

Metal	FA64963-1F Original	SDL 10:50%DIF		QC Limits
Aluminum				
Antimony	0.00	0.00	NC	0-10
Arsenic	3010	2670	11.1*(a)	0-10
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium	anr			
Cobalt				
Copper				
Iron				
Lead	0.00	0.00	NC	0-10
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP35666: FA64963-1F, FA64963-2F, FA64963-3F, FA64963-4F, FA64963-5F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Serial dilution indicates possible matrix interference.

Instrument Detection Limits

Job Number: FA64963
Account: ARCCAE Arcadis U.S., Inc.
Project: Sierra Army Depot, Herlong, CA

Instrument ID: AGICPMS1 **Effective Date:** 05/21/16

Analyte	IDL ug/l
Aluminum	4.35
Antimony	.1
Arsenic	.1
Arsenic	.1
Barium	.1
Beryllium	.1
Boron	.5
Cadmium	.1
Cadmium	.1
Calcium	7.2
Calcium	7.2
Chromium	.1
Chromium	.1
Cobalt	.1
Cobalt	.1
Copper	.1
Copper	.1
Iron	7.9
Iron	7.9
Lead	.1
Magnesium	5.2
Manganese	.1
Manganese	.1
Molybdenum	.1
Nickel	.1
Nickel	.1
Potassium	6.57
Selenium	.11
Selenium	.11
Silver	.1
Sodium	4.8
Strontium	.1
Thallium	.1
Tin	.1
Tin	.1
Titanium	.303
Vanadium	.1
Vanadium	.1
Zinc	.29
Zinc	.29

The above applies to the following instrument runs:
MA15957

Instrument Linear Ranges

Job Number: FA64963
Account: ARCCAE Arcadis U.S., Inc.
Project: Sierra Army Depot, Herlong, CA

Instrument ID: AGICPMS1 **Effective Date:** 05/21/16

Analyte	Linear Range ug/l
Aluminum	100000
Antimony	1000
Arsenic	1000
Arsenic	1000
Barium	1000
Beryllium	1000
Cadmium	1000
Cadmium	1000
Calcium	100000
Calcium	100000
Chromium	1000
Chromium	1000
Cobalt	1000
Cobalt	1000
Copper	1000
Copper	1000
Iron	100000
Iron	100000
Lead	1000
Magnesium	100000
Manganese	1000
Manganese	1000
Molybdenum	1000
Nickel	1000
Nickel	1000
Potassium	100000
Selenium	1000
Selenium	1000
Silver	100
Sodium	100000
Strontium	1000
Thallium	1000
Tin	1000
Tin	1000
Titanium	1000
Vanadium	1000
Vanadium	1000
Zinc	1000
Zinc	1000

The above applies to the following instrument runs:
MA15957

Metals Analysis

Raw Data

Quantitation Report

File Name	001CALB.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 10:16
Sample Name	Blank
Sample Type	CalBlk
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.001	ug/l	132.80	569.34	6.983E-03	Pulse	0.50	3
As			1	0.000	ug/l	-1096.15	13.33	1.633E-04	Pulse	1.00	3
Mo			1	-0.002	ug/l	-57.51	17.33	1.373E-04	Pulse	0.50	3
Pb			1	0.025	ug/l	19.66	1,680.75	7.120E-04	Pulse	1.00	3
Be			1	-0.008	ug/l	0.00	0.00	0.000E+00	Pulse	2.00	3
Ag			1	0.001	ug/l	72.30	72.67	5.784E-04	Pulse	0.50	3
Ba			1	0.006	ug/l	38.19	24.67	2.602E-05	Pulse	0.50	3
Tl			1	0.004	ug/l	23.96	274.00	8.675E-05	Pulse	0.50	3
Sn			1	0.033	ug/l	37.03	501.12	5.281E-04	Pulse	0.30	3
Sr			1	-0.004	ug/l	-346.83	359.34	3.800E-04	Pulse	0.50	3
[Pb]			1	0.025	ug/l	26.78	793.36	3.357E-04	Pulse	0.50	3
Ca			1	0.142	ug/l	974.64	80.67	9.739E-04	Pulse	0.50	3
Ti			1	0.000	ug/l	-10089.21	1.33	1.570E-05	Pulse	0.50	3
Na			1	1.184	ug/l	108.52	13,059.92	1.586E-01	Pulse	1.00	3
Mg			1	0.915	ug/l	69.03	2,874.88	3.490E-02	Pulse	1.00	3
K			1	1.755	ug/l	220.09	21,222.36	2.576E-01	Pulse	1.00	3
V			1	0.008	ug/l	146.16	2,456.83	2.980E-02	Pulse	0.50	3
Mn			1	0.010	ug/l	55.06	210.00	2.577E-03	Pulse	0.50	3
Fe			1	0.241	ug/l	5.49	8,689.98	1.066E-01	Pulse	0.50	3
Co			1	-0.001	ug/l	-83.30	36.00	4.424E-04	Pulse	0.50	3
Ni			1	0.012	ug/l	293.00	1,668.74	2.046E-02	Pulse	0.50	3
Cu			1	0.957	ug/l	47.32	16,413.33	2.008E-01	Pulse	0.50	3
Zn			1	1.778	ug/l	39.38	3,384.65	2.683E-02	Pulse	1.00	3
Cd			1	0.000	ug/l	-351.53	1.33	1.058E-05	Pulse	0.50	3
Al			1	0.469	ug/l	23.04	222.33	2.694E-03	Pulse	1.00	3
Se			1	0.030	ug/l	107.65	16.22	1.289E-04	Pulse	3.00	3
Sb			1	0.001	ug/l	478.18	144.33	1.531E-04	Pulse	1.00	3
Se			1	0.043	ug/l	59.35	9.67	7.688E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,147,978.92	2.74	100.0	Pulse	0.50	3
1	Sc		82,465.70	3.46	100.0	Pulse	0.30	3

Quantitation Report

1	Ge		81,537.81	1.78	100.0	Pulse	0.30	3
1	In		946,374.51	3.83	100.0	Pulse	0.30	3
1	Tb		3,917,602.67	3.73	100.0	Pulse	0.50	3
1	Lu		2,356,647.50	3.78	100.0	Pulse	0.50	3
1	Ge		125,594.09	3.06	100.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		294.45	0.65	100.0	Pulse	0.30	3

Quantitation Report

File Name	002CALB.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 10:20
Sample Name	Blank
Sample Type	CalBlk
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.003	ug/l	224.46	590.68	7.074E-03	Pulse	0.50	3
As			1	0.006	ug/l	108.73	18.33	2.192E-04	Pulse	1.00	3
Mo			1	-0.002	ug/l	-48.96	18.67	1.472E-04	Pulse	0.50	3
Pb			1	0.000	ug/l	3447.94	918.36	3.791E-04	Pulse	1.00	3
Be			1	0.007	ug/l	357.74	0.33	3.897E-06	Pulse	2.00	3
Ag			1	0.000	ug/l	387.70	64.00	5.039E-04	Pulse	0.50	3
Ba			1	0.006	ug/l	56.19	26.00	2.665E-05	Pulse	0.50	3
Tl			1	0.001	ug/l	11.67	82.00	2.558E-05	Pulse	0.50	3
Sn			1	0.003	ug/l	663.32	380.01	3.889E-04	Pulse	0.30	3
Sr			1	0.001	ug/l	889.45	392.67	4.014E-04	Pulse	0.50	3
[Pb]			1	0.002	ug/l	105.58	456.68	1.884E-04	Pulse	0.50	3
Ca			1	-0.945	ug/l	-166.04	67.33	8.061E-04	Pulse	0.50	3
Ti			1	-0.013	ug/l	0.00	0.00	0.000E+00	Pulse	0.50	3
Na			1	0.315	ug/l	207.74	12,805.42	1.530E-01	Pulse	1.00	3
Mg			1	0.670	ug/l	9.97	2,862.88	3.420E-02	Pulse	1.00	3
K			1	1.154	ug/l	167.12	21,422.26	2.560E-01	Pulse	1.00	3
V			1	0.021	ug/l	86.55	2,548.18	3.045E-02	Pulse	0.50	3
Mn			1	0.002	ug/l	265.46	192.00	2.301E-03	Pulse	0.50	3
Fe			1	0.089	ug/l	52.12	8,174.42	9.793E-02	Pulse	0.50	3
Co			1	-0.001	ug/l	-121.69	35.33	4.246E-04	Pulse	0.50	3
Ni			1	-0.048	ug/l	-6.90	1,526.73	1.829E-02	Pulse	0.50	3
Cu			1	-0.014	ug/l	-303.59	8,463.21	1.014E-01	Pulse	0.50	3
Zn			1	0.086	ug/l	230.83	1,540.40	1.210E-02	Pulse	1.00	3
Cd			1	-0.001	ug/l	-87.26	0.67	5.290E-06	Pulse	0.50	3
Al			1	0.138	ug/l	58.25	184.33	2.203E-03	Pulse	1.00	3
Se			1	-0.034	ug/l	-124.78	13.33	1.050E-04	Pulse	3.00	3
Sb			1	0.000	ug/l	-798.57	142.67	1.459E-04	Pulse	1.00	3
Se			1	-0.016	ug/l	-478.60	8.33	6.570E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,206,501.42	1.30	100.0	Pulse	0.50	3
1	Sc		83,714.39	2.31	100.0	Pulse	0.30	3

Quantitation Report

1	Ge		83,493.14	1.35	100.0	Pulse	0.30	3
1	In		977,386.87	0.94	100.0	Pulse	0.30	3
1	Tb		4,008,699.08	0.58	100.0	Pulse	0.50	3
1	Lu		2,423,071.33	1.24	100.0	Pulse	0.50	3
1	Ge		127,103.81	1.46	100.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		302.23	4.46	100.0	Pulse	0.30	3

Quantitation Report

File Name	003CALB.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 10:24
Sample Name	CALSTD-1
Sample Type	CalBlk
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.000	ug/l	---	568.01	6.882E-03	Pulse	0.50	3
As			1	0.000	ug/l	---	13.67	1.648E-04	Pulse	1.00	3
Mo			1	0.000	ug/l	---	29.33	2.314E-04	Pulse	0.50	3
Pb			1	0.000	ug/l	---	913.70	3.785E-04	Pulse	1.00	3
Be			1	0.000	ug/l	---	0.17	2.010E-06	Pulse	2.00	3
Ag			1	0.000	ug/l	---	57.33	4.540E-04	Pulse	0.50	3
Ba			1	0.000	ug/l	---	12.67	1.314E-05	Pulse	0.50	3
Tl			1	0.000	ug/l	---	50.00	1.565E-05	Pulse	0.50	3
Sn			1	0.000	ug/l	---	361.12	3.748E-04	Pulse	0.30	3
Sr			1	0.000	ug/l	---	381.34	3.956E-04	Pulse	0.50	3
[Pb]			1	0.000	ug/l	---	428.01	1.773E-04	Pulse	0.50	3
Ca			1	0.000	ug/l	---	80.00	9.520E-04	Pulse	0.50	3
Ti			1	0.000	ug/l	---	1.33	1.597E-05	Pulse	0.50	3
Na			1	0.000	ug/l	---	12,677.34	1.510E-01	Pulse	1.00	3
Mg			1	0.000	ug/l	---	2,709.19	3.227E-02	Pulse	1.00	3
K			1	0.000	ug/l	---	21,226.37	2.529E-01	Pulse	1.00	3
V			1	0.000	ug/l	---	2,464.83	2.936E-02	Pulse	0.50	3
Mn			1	0.000	ug/l	---	184.67	2.239E-03	Pulse	0.50	3
Fe			1	0.000	ug/l	---	7,661.54	9.283E-02	Pulse	0.50	3
Co			1	0.000	ug/l	---	46.00	5.567E-04	Pulse	0.50	3
Ni			1	0.000	ug/l	---	1,652.74	2.003E-02	Pulse	0.50	3
Cu			1	0.000	ug/l	---	8,487.22	1.028E-01	Pulse	0.50	3
Zn			1	0.000	ug/l	---	1,435.39	1.136E-02	Pulse	1.00	3
Cd			1	0.000	ug/l	---	2.00	1.579E-05	Pulse	0.50	3
Al			1	0.000	ug/l	---	167.67	1.998E-03	Pulse	1.00	3
Se			1	0.000	ug/l	---	14.89	1.177E-04	Pulse	3.00	3
Sb			1	0.000	ug/l	---	142.67	1.481E-04	Pulse	1.00	3
Se			1	0.000	ug/l	---	8.67	6.873E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,194,037.67	1.42	100.0	Pulse	0.50	3
1	Sc		83,942.02	1.15	100.0	Pulse	0.30	3

Quantitation Report

1	Ge		82,572.77	1.52	100.0	Pulse	0.30	3
1	In		963,659.96	0.52	100.0	Pulse	0.30	3
1	Tb		4,011,008.33	1.21	100.0	Pulse	0.50	3
1	Lu		2,413,803.50	0.59	100.0	Pulse	0.50	3
1	Ge		126,404.60	0.99	100.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		316.67	14.74	100.0	Pulse	0.30	3

Quantitation Report

File Name	004CALS.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 10:28
Sample Name	CALSTD-2
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.509	ug/l	2.50	3,583.67	4.355E-02	Pulse	0.50	3
As			1	0.478	ug/l	10.97	364.67	4.434E-03	Pulse	1.00	3
Mo			1	0.490	ug/l	4.33	2,551.52	2.008E-02	Pulse	0.50	3
Pb			1	0.511	ug/l	1.11	17,415.18	7.272E-03	Pulse	1.00	3
Be			1	0.621	ug/l	19.40	14.00	1.670E-04	Pulse	2.00	3
Ag			1	0.512	ug/l	1.36	9,548.49	7.512E-02	Pulse	0.50	3
Ba			1	0.476	ug/l	7.90	1,069.37	1.102E-03	Pulse	0.50	3
Tl			1	0.486	ug/l	1.53	24,523.54	7.705E-03	Pulse	0.50	3
Sn			1	0.596	ug/l	5.08	3,052.49	3.146E-03	Pulse	0.30	3
Sr			1	0.482	ug/l	0.49	2,216.14	2.284E-03	Pulse	0.50	3
[Pb]			1	0.505	ug/l	2.24	8,119.29	3.390E-03	Pulse	0.50	3
Ca			1	46.917	ug/l	6.92	686.68	8.196E-03	Pulse	0.50	3
Ti			1	0.453	ug/l	11.16	48.67	5.801E-04	Pulse	0.50	3
Na			1	47.948	ug/l	4.15	38,167.14	4.556E-01	Pulse	1.00	3
Mg			1	51.205	ug/l	1.12	15,028.30	1.794E-01	Pulse	1.00	3
K			1	51.088	ug/l	3.93	32,647.87	3.897E-01	Pulse	1.00	3
V			1	0.459	ug/l	0.05	4,478.52	5.345E-02	Pulse	0.50	3
Mn			1	0.514	ug/l	4.10	1,572.07	1.911E-02	Pulse	0.50	3
Fe			1	50.137	ug/l	0.34	243,013.31	2.953E+00	Pulse	0.50	3
Co			1	0.505	ug/l	1.20	5,556.15	6.752E-02	Pulse	0.50	3
Ni			1	0.448	ug/l	6.23	2,980.24	3.622E-02	Pulse	0.50	3
Cu			1	-0.170	ug/l	-9.47	7,024.64	8.537E-02	Pulse	0.50	3
Zn			1	-0.149	ug/l	-33.57	1,279.38	1.006E-02	Pulse	1.00	3
Cd			1	0.478	ug/l	3.01	1,160.71	9.132E-03	Pulse	0.50	3
Al			1	30.777	ug/l	1.59	3,993.74	4.765E-02	Pulse	1.00	3
Se			1	0.445	ug/l	17.49	35.89	2.825E-04	Pulse	3.00	3
Sb			1	0.497	ug/l	3.23	3,072.93	3.166E-03	Pulse	1.00	3
Se			1	0.691	ug/l	21.68	25.22	1.983E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,183,114.25	0.92	99.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		83,790.27	1.81	99.8	Pulse	0.30	3
1	Ge		82,292.44	0.79	99.7	Pulse	0.30	3
1	In		970,272.53	0.89	100.7	Pulse	0.30	3
1	Tb		3,981,736.75	0.85	99.3	Pulse	0.50	3
1	Lu		2,394,986.50	0.46	99.2	Pulse	0.50	3
1	Ge		127,112.62	0.91	100.6	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		327.78	22.66	103.5	Pulse	0.30	3

Quantitation Report

File Name	005CALS.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 10:32
Sample Name	CALSTD-3
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.960	ug/l	3.46	6,299.04	7.601E-02	Pulse	0.50	3
As			1	1.017	ug/l	2.77	767.02	9.256E-03	Pulse	1.00	3
Mo			1	0.935	ug/l	2.52	4,832.64	3.809E-02	Pulse	0.50	3
Pb			1	1.029	ug/l	0.51	34,303.90	1.425E-02	Pulse	1.00	3
Be			1	1.085	ug/l	13.01	24.33	2.902E-04	Pulse	2.00	3
Ag			1	1.010	ug/l	1.20	18,746.81	1.478E-01	Pulse	0.50	3
Ba			1	0.977	ug/l	2.87	2,178.81	2.249E-03	Pulse	0.50	3
Tl			1	0.973	ug/l	1.71	49,052.59	1.541E-02	Pulse	0.50	3
Sn			1	1.074	ug/l	5.08	5,200.76	5.368E-03	Pulse	0.30	3
Sr			1	0.954	ug/l	2.94	4,007.11	4.136E-03	Pulse	0.50	3
[Pb]			1	1.019	ug/l	0.54	16,024.84	6.658E-03	Pulse	0.50	3
Ca			1	99.587	ug/l	3.26	1,370.72	1.633E-02	Pulse	0.50	3
Ti			1	1.136	ug/l	7.57	120.00	1.429E-03	Pulse	0.50	3
Na			1	99.472	ug/l	2.00	65,712.96	7.830E-01	Pulse	1.00	3
Mg			1	102.092	ug/l	3.07	27,321.90	3.256E-01	Pulse	1.00	3
K			1	99.780	ug/l	2.78	43,654.29	5.201E-01	Pulse	1.00	3
V			1	0.966	ug/l	2.49	6,723.84	8.010E-02	Pulse	0.50	3
Mn			1	1.041	ug/l	0.46	3,019.58	3.644E-02	Pulse	0.50	3
Fe			1	99.003	ug/l	1.13	475,701.15	5.741E+00	Pulse	0.50	3
Co			1	1.013	ug/l	0.92	11,175.92	1.349E-01	Pulse	0.50	3
Ni			1	0.965	ug/l	2.53	4,551.22	5.492E-02	Pulse	0.50	3
Cu			1	0.351	ug/l	2.32	11,492.11	1.387E-01	Pulse	0.50	3
Zn			1	0.726	ug/l	3.32	2,243.13	1.768E-02	Pulse	1.00	3
Cd			1	1.025	ug/l	0.52	2,483.51	1.957E-02	Pulse	0.50	3
Al			1	56.714	ug/l	2.61	7,228.64	8.613E-02	Pulse	1.00	3
Se			1	1.029	ug/l	8.03	63.22	4.983E-04	Pulse	3.00	3
Sb			1	0.969	ug/l	2.74	5,843.27	6.031E-03	Pulse	1.00	3
Se			1	0.825	ug/l	10.06	28.33	2.233E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,183,685.58	0.88	99.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		83,939.64	1.23	100.0	Pulse	0.30	3
1	Ge		82,865.92	0.54	100.4	Pulse	0.30	3
1	In		968,889.72	0.30	100.5	Pulse	0.30	3
1	Tb		3,962,759.17	0.34	98.8	Pulse	0.50	3
1	Lu		2,406,697.83	0.35	99.7	Pulse	0.50	3
1	Ge		126,874.18	0.16	100.4	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		298.89	18.54	94.4	Pulse	0.30	3

Quantitation Report

File Name	006CALS.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 10:36
Sample Name	CALSTD-4
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	10.237	ug/l	1.60	60,501.32	7.443E-01	Pulse	0.50	3
As			1	10.207	ug/l	2.26	7,427.45	9.137E-02	Pulse	1.00	3
Mo			1	10.001	ug/l	0.94	50,571.81	4.054E-01	Pulse	0.50	3
Pb			1	10.775	ug/l	0.92	345,069.36	1.456E-01	Pulse	1.00	3
Be			1	11.367	ug/l	2.22	246.33	3.021E-03	Pulse	2.00	3
Ag			1	10.568	ug/l	0.80	192,284.89	1.541E+00	Pulse	0.50	3
Ba			1	10.134	ug/l	1.93	22,162.90	2.319E-02	Pulse	0.50	3
Tl			1	10.070	ug/l	1.02	499,885.20	1.593E-01	Pulse	0.50	3
Sn			1	10.183	ug/l	0.80	45,595.21	4.772E-02	Pulse	0.30	3
Sr			1	10.063	ug/l	0.86	38,069.58	3.984E-02	Pulse	0.50	3
[Pb]			1	10.772	ug/l	0.34	162,678.45	6.866E-02	Pulse	0.50	3
Ca			1	1061.374	ug/l	1.75	13,437.29	1.648E-01	Pulse	0.50	3
Ti			1	10.525	ug/l	4.20	1,068.70	1.311E-02	Pulse	0.50	3
Na			1	1054.494	ug/l	1.06	558,456.85	6.850E+00	Pulse	1.00	3
Mg			1	1081.807	ug/l	1.32	255,987.05	3.140E+00	Pulse	1.00	3
K			1	1059.379	ug/l	1.92	251,906.51	3.090E+00	Pulse	1.00	3
V			1	10.315	ug/l	1.36	46,565.94	5.712E-01	Pulse	0.50	3
Mn			1	10.386	ug/l	2.00	27,903.98	3.433E-01	Pulse	0.50	3
Fe			1	1028.573	ug/l	1.72	4,777,298.83	5.877E+01	Pulse	0.50	3
Co			1	10.538	ug/l	1.94	113,608.87	1.398E+00	Pulse	0.50	3
Ni			1	10.527	ug/l	1.79	32,580.66	4.008E-01	Pulse	0.50	3
Cu			1	10.086	ug/l	1.77	92,292.81	1.135E+00	Pulse	0.50	3
Zn			1	10.150	ug/l	0.63	12,441.02	9.972E-02	Pulse	1.00	3
Cd			1	10.484	ug/l	1.55	24,962.80	2.001E-01	Pulse	0.50	3
Al			1	603.786	ug/l	1.69	73,182.12	8.977E-01	Pulse	1.00	3
Se			1	10.245	ug/l	4.20	487.56	3.909E-03	Pulse	3.00	3
Sb			1	10.179	ug/l	1.12	59,216.49	6.197E-02	Pulse	1.00	3
Se			1	11.270	ug/l	5.58	272.00	2.181E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,138,815.75	0.16	98.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		81,527.31	0.46	97.1	Pulse	0.30	3
1	Ge		81,304.93	2.09	98.5	Pulse	0.30	3
1	In		955,581.35	1.02	99.2	Pulse	0.30	3
1	Tb		3,950,697.58	0.38	98.5	Pulse	0.50	3
1	Lu		2,369,444.25	1.34	98.2	Pulse	0.50	3
1	Ge		124,764.91	1.12	98.7	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		248.89	16.75	78.6	Pulse	0.30	3

Quantitation Report

File Name	007CALS.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 10:40
Sample Name	CALSTD-5
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	49.348	ug/l	1.62	280,646.11	3.562E+00	Pulse	0.50	3
As			1	49.597	ug/l	0.87	34,940.43	4.434E-01	Pulse	1.00	3
Mo			1	49.035	ug/l	0.63	239,275.53	1.987E+00	Pulse	0.50	3
Pb			1	50.882	ug/l	0.86	1,607,008.17	6.863E-01	Pulse	1.00	3
Be			1	51.623	ug/l	1.93	1,099.53	1.371E-02	Pulse	2.00	3
Ag			1	50.876	ug/l	1.07	893,462.42	7.418E+00	Pulse	0.50	3
Ba			1	49.597	ug/l	1.34	104,537.17	1.135E-01	Pulse	0.50	3
Tl			1	49.786	ug/l	1.06	2,380,580.58	7.873E-01	Pulse	0.50	3
Sn			1	49.262	ug/l	1.24	211,371.11	2.294E-01	Pulse	0.30	3
Sr			1	48.516	ug/l	0.64	175,581.35	1.906E-01	Pulse	0.50	3
[Pb]			1	51.492	ug/l	0.70	766,867.39	3.275E-01	Pulse	0.50	3
Ca			1	4955.185	ug/l	1.38	61,409.46	7.660E-01	Pulse	0.50	3
Ti			1	48.839	ug/l	2.35	4,871.29	6.077E-02	Pulse	0.50	3
Na			1	5004.142	ug/l	2.38	2,560,230.25	3.194E+01	Pulse	1.00	3
Mg			1	5093.274	ug/l	2.34	1,175,369.33	1.466E+01	Pulse	1.00	3
K			1	4975.728	ug/l	2.32	1,088,371.75	1.358E+01	Pulse	1.00	3
V			1	49.444	ug/l	1.98	210,532.64	2.626E+00	Pulse	0.50	3
Mn			1	49.782	ug/l	1.14	129,000.55	1.637E+00	Pulse	0.50	3
Fe			1	4947.521	ug/l	1.55	22,247,639.33	2.823E+02	Analog	0.50	3
Co			1	49.889	ug/l	1.35	521,243.46	6.615E+00	Pulse	0.50	3
Ni			1	50.143	ug/l	1.20	144,499.91	1.834E+00	Pulse	0.50	3
Cu			1	50.569	ug/l	1.78	416,056.10	5.280E+00	Pulse	0.50	3
Zn			1	50.945	ug/l	1.50	54,779.01	4.548E-01	Pulse	1.00	3
Cd			1	50.567	ug/l	1.22	116,231.14	9.651E-01	Pulse	0.50	3
Al			1	2867.671	ug/l	2.26	341,140.73	4.256E+00	Pulse	1.00	3
Se			1	50.800	ug/l	1.28	2,278.58	1.892E-02	Pulse	3.00	3
Sb			1	49.784	ug/l	1.20	278,743.91	3.025E-01	Pulse	1.00	3
Se			1	50.231	ug/l	1.98	1,142.15	9.483E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,023,737.17	0.98	94.7	Pulse	0.50	3
1	Sc		80,185.19	2.55	95.5	Pulse	0.30	3
1	Ge		78,809.07	1.55	95.4	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		921,483.95	1.45	95.6	Pulse	0.30	3
1	Tb		3,869,725.08	1.57	96.5	Pulse	0.50	3
1	Lu		2,341,528.50	0.99	97.0	Pulse	0.50	3
1	Ge		120,448.58	1.00	95.3	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		276.67	16.87	87.4	Pulse	0.30	3

Quantitation Report

File Name	008CALS.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 10:44
Sample Name	CALSTD-6
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	98.828	ug/l	1.71	550,659.94	7.126E+00	Pulse	0.50	3
As			1	98.731	ug/l	1.71	68,191.03	8.824E-01	Pulse	1.00	3
Mo			1	97.339	ug/l	0.45	474,913.39	3.943E+00	Pulse	0.50	3
Pb			1	100.328	ug/l	0.56	3,167,255.42	1.353E+00	Pulse	1.00	3
Be			1	101.341	ug/l	4.31	2,136.12	2.692E-02	Pulse	2.00	3
Ag			1	99.505	ug/l	0.45	1,747,317.37	1.451E+01	Pulse	0.50	3
Ba			1	99.071	ug/l	0.78	206,965.97	2.266E-01	Pulse	0.50	3
Tl			1	99.342	ug/l	1.19	4,646,352.67	1.571E+00	Pulse	0.50	3
Sn			1	98.454	ug/l	0.71	418,383.73	4.581E-01	Pulse	0.30	3
Sr			1	98.061	ug/l	0.56	351,377.50	3.847E-01	Pulse	0.50	3
[Pb]			1	100.268	ug/l	0.61	1,492,602.13	6.376E-01	Pulse	0.50	3
Ca			1	9847.623	ug/l	1.86	120,719.65	1.521E+00	Pulse	0.50	3
Ti			1	100.387	ug/l	4.13	9,906.53	1.249E-01	Pulse	0.50	3
Na			1	9975.670	ug/l	2.15	5,040,353.17	6.353E+01	Analog	1.00	3
Mg			1	10068.305	ug/l	1.72	2,297,581.58	2.896E+01	Pulse	1.00	3
K			1	9940.560	ug/l	1.73	2,132,472.42	2.687E+01	Pulse	1.00	3
V			1	99.198	ug/l	1.56	415,773.96	5.240E+00	Pulse	0.50	3
Mn			1	99.058	ug/l	1.52	251,549.81	3.255E+00	Pulse	0.50	3
Fe			1	9906.717	ug/l	1.25	43,682,386.67	5.653E+02	Analog	0.50	3
Co			1	99.899	ug/l	1.19	1,023,581.06	1.325E+01	Pulse	0.50	3
Ni			1	100.670	ug/l	0.61	282,958.98	3.661E+00	Pulse	0.50	3
Cu			1	100.830	ug/l	1.24	805,705.92	1.043E+01	Pulse	0.50	3
Zn			1	98.912	ug/l	0.61	105,064.94	8.724E-01	Pulse	1.00	3
Cd			1	99.140	ug/l	0.06	227,871.98	1.892E+00	Pulse	0.50	3
Al			1	5735.411	ug/l	1.27	675,304.00	8.510E+00	Pulse	1.00	3
Se			1	99.101	ug/l	1.71	4,430.51	3.679E-02	Pulse	3.00	3
Sb			1	99.164	ug/l	0.68	550,200.83	6.024E-01	Pulse	1.00	3
Se			1	98.623	ug/l	3.70	2,234.47	1.855E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,957,706.58	0.82	92.6	Pulse	0.50	3
1	Sc		79,365.20	1.91	94.5	Pulse	0.30	3
1	Ge		77,286.13	1.20	93.6	Pulse	0.30	3
1	In		913,303.16	0.89	94.8	Pulse	0.30	3
1	Tb		3,860,960.50	0.35	96.3	Pulse	0.50	3
1	Lu		2,341,055.50	0.88	97.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		120,436.32	0.75	95.3	Pulse	0.30	3
1	Te		2.67	86.60		Pulse	0.50	3
1	Li		286.67	9.52	90.5	Pulse	0.30	3

Quantitation Report

File Name	009CALS.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 10:48
Sample Name	CALSTD-7
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	200.737	ug/l	1.80	1,126,740.71	1.447E+01	Pulse	0.50	3
As			1	200.725	ug/l	2.41	139,702.89	1.794E+00	Pulse	1.00	3
Mo			1	201.572	ug/l	1.75	972,278.44	8.166E+00	Pulse	0.50	3
Pb			1	199.577	ug/l	1.55	6,288,710.00	2.691E+00	Mix	1.00	3
Be			1	198.855	ug/l	3.56	4,288.45	5.282E-02	Pulse	2.00	3
Ag			1	190.777	ug/l	1.14	3,312,139.92	2.782E+01	Pulse	0.50	3
Ba			1	200.559	ug/l	1.77	419,305.26	4.588E-01	Pulse	0.50	3
Tl			1	200.379	ug/l	1.26	9,151,615.33	3.169E+00	Analog	0.50	3
Sn			1	200.947	ug/l	1.61	854,244.71	9.346E-01	Pulse	0.30	3
Sr			1	201.338	ug/l	1.62	721,632.13	7.895E-01	Pulse	0.50	3
[Pb]			1	199.454	ug/l	1.55	2,963,542.33	1.268E+00	Pulse	0.50	3
Ca			1	20084.333	ug/l	3.55	251,830.67	3.102E+00	Pulse	0.50	3
Ti			1	200.070	ug/l	4.20	20,203.09	2.489E-01	Pulse	0.50	3
Na			1	20008.413	ug/l	3.95	10,331,010.33	1.273E+02	Analog	1.00	3
Mg			1	19938.425	ug/l	3.71	4,652,585.00	5.731E+01	Analog	1.00	3
K			1	20032.817	ug/l	3.46	4,376,227.83	5.390E+01	Pulse	1.00	3
V			1	200.524	ug/l	3.52	857,485.96	1.056E+01	Pulse	0.50	3
Mn			1	200.506	ug/l	1.64	513,003.28	6.587E+00	Pulse	0.50	3
Fe			1	20058.337	ug/l	2.02	89,127,816.00	1.144E+03	Analog	0.50	3
Co			1	200.051	ug/l	2.05	2,065,690.79	2.652E+01	Pulse	0.50	3
Ni			1	199.603	ug/l	1.67	563,875.06	7.240E+00	Pulse	0.50	3
Cu			1	199.444	ug/l	1.72	1,598,383.33	2.052E+01	Pulse	0.50	3
Zn			1	200.304	ug/l	1.51	208,975.91	1.755E+00	Pulse	1.00	3
Cd			1	200.264	ug/l	0.97	455,099.79	3.822E+00	Pulse	0.50	3
Al			1	22685.452	ug/l	3.61	2,732,259.33	3.365E+01	Pulse	1.00	3
Se			1	200.238	ug/l	1.66	8,836.93	7.422E-02	Pulse	3.00	3
Sb			1	200.463	ug/l	1.42	1,113,007.75	1.218E+00	Pulse	1.00	3
Se			1	200.567	ug/l	3.05	4,483.64	3.766E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,888,292.50	1.19	90.4	Pulse	0.50	3
1	Sc		81,242.80	3.01	96.8	Pulse	0.30	3
1	Ge		77,898.89	1.65	94.3	Pulse	0.30	3
1	In		914,114.90	1.28	94.9	Pulse	0.30	3
1	Tb		3,851,761.08	1.36	96.0	Pulse	0.50	3
1	Lu		2,337,255.50	1.33	96.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		119,084.76	1.28	94.2	Pulse	0.30	3
1	Te		9.33	32.73		Pulse	0.50	3
1	Li		272.22	6.16	86.0	Pulse	0.30	3

Quantitation Report

File Name	010HSAG.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 10:52
Sample Name	HSTD (Ag)
Sample Type	HSTD _Ag
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	96.704	ug/l	1.01	555,815.71	6.973E+00	Pulse	0.50	3
As			1	95.863	ug/l	0.63	68,299.09	8.568E-01	Pulse	1.00	3
Mo			1	96.690	ug/l	0.17	476,766.89	3.917E+00	Pulse	0.50	3
Pb			1	98.695	ug/l	0.78	3,135,104.33	1.331E+00	Pulse	1.00	3
Be			1	99.021	ug/l	1.80	2,153.45	2.630E-02	Pulse	2.00	3
Ag			1	98.040	ug/l	0.94	1,739,876.21	1.429E+01	Pulse	0.50	3
Ba			1	97.818	ug/l	1.14	206,592.59	2.238E-01	Pulse	0.50	3
Tl			1	98.259	ug/l	0.69	4,630,319.50	1.554E+00	Pulse	0.50	3
Sn			1	99.395	ug/l	0.73	427,028.76	4.625E-01	Pulse	0.30	3
Sr			1	99.836	ug/l	1.15	361,657.43	3.917E-01	Pulse	0.50	3
[Pb]			1	98.882	ug/l	0.52	1,481,165.79	6.288E-01	Pulse	0.50	3
Ca			1	9681.316	ug/l	1.04	122,445.50	1.496E+00	Pulse	0.50	3
Ti			1	100.328	ug/l	0.45	10,218.03	1.248E-01	Pulse	0.50	3
Na			1	9812.282	ug/l	0.19	5,115,534.67	6.249E+01	Analog	1.00	3
Mg			1	9801.875	ug/l	0.02	2,307,821.33	2.819E+01	Pulse	1.00	3
K			1	9763.716	ug/l	0.52	2,161,306.33	2.640E+01	Pulse	1.00	3
V			1	97.423	ug/l	0.38	421,319.16	5.147E+00	Pulse	0.50	3
Mn			1	96.966	ug/l	0.05	254,014.69	3.186E+00	Pulse	0.50	3
Fe			1	9660.979	ug/l	1.30	43,939,908.00	5.512E+02	Analog	0.50	3
Co			1	97.482	ug/l	1.54	1,030,245.02	1.292E+01	Pulse	0.50	3
Ni			1	98.143	ug/l	0.96	284,569.29	3.570E+00	Pulse	0.50	3
Cu			1	98.506	ug/l	1.06	812,110.52	1.019E+01	Pulse	0.50	3
Zn			1	98.626	ug/l	1.10	105,877.36	8.699E-01	Pulse	1.00	3
Cd			1	97.926	ug/l	0.38	227,470.09	1.869E+00	Pulse	0.50	3
Al			1	5568.265	ug/l	0.17	676,393.54	8.262E+00	Pulse	1.00	3
Se			1	97.625	ug/l	1.38	4,411.40	3.624E-02	Pulse	3.00	3
Sb			1	97.634	ug/l	1.19	547,657.98	5.932E-01	Pulse	1.00	3
Se			1	99.256	ug/l	2.50	2,272.47	1.867E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,979,881.67	0.64	93.3	Pulse	0.50	3
1	Sc		81,865.33	0.37	97.5	Pulse	0.30	3
1	Ge		79,716.12	0.78	96.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		923,372.63	1.12	95.8	Pulse	0.30	3
1	Tb		3,881,657.33	0.42	96.8	Pulse	0.50	3
1	Lu		2,355,674.42	0.95	97.6	Pulse	0.50	3
1	Ge		121,715.62	0.51	96.3	Pulse	0.30	3
1	Te		6.00	33.33		Pulse	0.50	3
1	Li		264.45	8.85	83.5	Pulse	0.30	3

Quantitation Report

File Name	011HSTD.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 10:56
Sample Name	HSTD
Sample Type	HSTD
Comment	=std 6
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	198.571	ug/l	2.69	1,113,873.00	1.431E+01	Pulse	0.50	3
As			1	195.256	ug/l	1.63	135,842.83	1.745E+00	Pulse	1.00	3
Mo			1	197.937	ug/l	1.30	961,460.12	8.019E+00	Pulse	0.50	3
Pb			1	198.926	ug/l	0.90	6,181,100.17	2.682E+00	Pulse	1.00	3
Be			1	199.690	ug/l	0.65	4,252.61	5.304E-02	Pulse	2.00	3
Ag			1	173.701	ug/l	1.36	3,036,753.00	2.533E+01	Pulse	0.50	3
Ba			1	196.653	ug/l	0.80	408,598.33	4.498E-01	Pulse	0.50	3
Tl			1	199.947	ug/l	0.75	9,144,382.67	3.162E+00	Analog	0.50	3
Sn			1	201.028	ug/l	1.37	849,293.91	9.350E-01	Pulse	0.30	3
Sr			1	198.566	ug/l	1.12	707,301.44	7.787E-01	Pulse	0.50	3
[Pb]			1	198.818	ug/l	0.46	2,913,113.75	1.264E+00	Pulse	0.50	3
Ca			1	19862.162	ug/l	0.74	245,919.45	3.068E+00	Pulse	0.50	3
Ti			1	200.512	ug/l	1.23	19,995.54	2.494E-01	Pulse	0.50	3
Na			1	20071.692	ug/l	0.71	10,234,391.33	1.277E+02	Analog	1.00	3
Mg			1	19932.953	ug/l	1.08	4,592,967.00	5.729E+01	Pulse	1.00	3
K			1	19975.635	ug/l	0.93	4,308,841.67	5.375E+01	Pulse	1.00	3
V			1	200.268	ug/l	1.27	845,609.90	1.055E+01	Pulse	0.50	3
Mn			1	197.116	ug/l	2.41	504,022.87	6.475E+00	Pulse	0.50	3
Fe			1	19872.374	ug/l	2.23	88,254,280.00	1.134E+03	Analog	0.50	3
Co			1	198.075	ug/l	2.38	2,044,156.29	2.626E+01	Pulse	0.50	3
Ni			1	199.482	ug/l	1.89	563,239.02	7.235E+00	Pulse	0.50	3
Cu			1	200.198	ug/l	2.14	1,603,499.37	2.060E+01	Pulse	0.50	3
Zn			1	196.851	ug/l	0.25	206,845.56	1.725E+00	Pulse	1.00	3
Cd			1	196.331	ug/l	0.69	449,288.79	3.747E+00	Pulse	0.50	3
Al			1	121.855	ug/l	1.63	14,650.70	1.828E-01	Pulse	1.00	3
Se			1	195.692	ug/l	1.36	8,697.20	7.253E-02	Pulse	3.00	3
Sb			1	197.295	ug/l	0.89	1,088,635.25	1.198E+00	Pulse	1.00	3
Se			1	196.687	ug/l	1.15	4,428.96	3.693E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,892,003.92	0.39	90.5	Pulse	0.50	3
1	Sc		80,169.46	0.88	95.5	Pulse	0.30	3
1	Ge		77,865.08	2.17	94.3	Pulse	0.30	3
1	In		908,377.33	0.59	94.3	Pulse	0.30	3
1	Tb		3,803,506.50	0.47	94.8	Pulse	0.50	3
1	Lu		2,304,561.33	0.56	95.5	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		119,913.12	0.78	94.9	Pulse	0.30	3
1	Te		7.33	95.78		Pulse	0.50	3
1	Li		264.45	11.91	83.5	Pulse	0.30	3

Quantitation Report

File Name	012_ICV.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 11:00
Sample Name	ICV
Sample Type	ICV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	96.820	ug/l	0.66	553,906.21	6.981E+00	Pulse	0.50	3
As			1	95.518	ug/l	0.96	67,736.16	8.537E-01	Pulse	1.00	3
Mo			1	96.152	ug/l	0.98	479,032.85	3.895E+00	Pulse	0.50	3
Pb			1	98.276	ug/l	0.24	3,097,073.75	1.325E+00	Pulse	1.00	3
Be			1	98.648	ug/l	1.30	2,141.28	2.621E-02	Pulse	2.00	3
Ag			1	49.890	ug/l	0.51	894,605.04	7.274E+00	Pulse	0.50	3
Ba			1	98.460	ug/l	0.10	208,446.08	2.252E-01	Pulse	0.50	3
Tl			1	97.926	ug/l	0.23	4,586,334.67	1.549E+00	Pulse	0.50	3
Sn			1	108.075	ug/l	0.36	465,386.73	5.028E-01	Pulse	0.30	3
Sr			1	99.401	ug/l	0.48	360,947.70	3.900E-01	Pulse	0.50	3
[Pb]			1	98.770	ug/l	0.26	1,467,736.42	6.281E-01	Pulse	0.50	3
Ca			1	9706.820	ug/l	0.84	122,534.13	1.500E+00	Pulse	0.50	3
Ti			1	97.163	ug/l	2.47	9,876.52	1.209E-01	Pulse	0.50	3
Na			1	9939.578	ug/l	0.56	5,171,730.50	6.330E+01	Analog	1.00	3
Mg			1	10148.050	ug/l	0.62	2,384,635.08	2.918E+01	Pulse	1.00	3
K			1	9693.996	ug/l	0.63	2,141,896.75	2.621E+01	Pulse	1.00	3
V			1	97.390	ug/l	0.70	420,373.60	5.145E+00	Pulse	0.50	3
Mn			1	96.044	ug/l	0.86	250,420.66	3.156E+00	Pulse	0.50	3
Fe			1	9950.377	ug/l	1.09	45,046,285.33	5.678E+02	Analog	0.50	3
Co			1	98.424	ug/l	0.87	1,035,389.33	1.305E+01	Pulse	0.50	3
Ni			1	98.184	ug/l	0.40	283,367.33	3.571E+00	Pulse	0.50	3
Cu			1	99.983	ug/l	0.28	820,355.86	1.034E+01	Pulse	0.50	3
Zn			1	98.274	ug/l	0.13	106,605.02	8.668E-01	Pulse	1.00	3
Cd			1	95.892	ug/l	0.46	225,059.24	1.830E+00	Pulse	0.50	3
Al			1	5914.832	ug/l	0.25	717,105.81	8.776E+00	Pulse	1.00	3
Se			1	97.041	ug/l	0.86	4,430.74	3.603E-02	Pulse	3.00	3
Sb			1	96.659	ug/l	0.19	543,486.73	5.872E-01	Pulse	1.00	3
Se			1	96.879	ug/l	2.44	2,241.46	1.823E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,961,527.58	0.21	92.7	Pulse	0.50	3
1	Sc		81,709.27	0.84	97.3	Pulse	0.30	3
1	Ge		79,343.48	0.31	96.1	Pulse	0.30	3
1	In		925,505.97	0.32	96.0	Pulse	0.30	3
1	Tb		3,872,008.92	0.45	96.5	Pulse	0.50	3
1	Lu		2,336,906.25	0.12	96.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		122,980.38	0.37	97.3	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		300.00	22.96	94.7	Pulse	0.30	3

Quantitation Report

File Name	013_ICB.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 11:04
Sample Name	ICB
Sample Type	ICB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.014	ug/l	95.59	638.68	7.908E-03	Pulse	0.50	3
As			1	0.031	ug/l	18.60	36.00	4.457E-04	Pulse	1.00	3
Mo			1	0.092	ug/l	27.95	487.34	3.954E-03	Pulse	0.50	3
Pb			1	0.039	ug/l	15.52	2,119.47	9.019E-04	Pulse	1.00	3
Be			1	0.113	ug/l	109.77	2.67	3.212E-05	Pulse	2.00	3
Ag			1	0.036	ug/l	2.45	710.02	5.743E-03	Pulse	0.50	3
Ba			1	0.035	ug/l	24.68	88.00	9.349E-05	Pulse	0.50	3
Tl			1	0.037	ug/l	1.23	1,888.78	6.068E-04	Pulse	0.50	3
Sn			1	0.123	ug/l	22.33	890.03	9.465E-04	Pulse	0.30	3
Sr			1	0.004	ug/l	131.42	386.01	4.103E-04	Pulse	0.50	3
[Pb]			1	0.037	ug/l	16.79	966.70	4.114E-04	Pulse	0.50	3
Ca			1	6.330	ug/l	31.09	158.00	1.929E-03	Pulse	0.50	3
Ti			1	0.013	ug/l	82.51	2.67	3.239E-05	Pulse	0.50	3
Na			1	21.695	ug/l	3.44	23,700.64	2.889E-01	Pulse	1.00	3
Mg			1	-4.925	ug/l	-1.87	1,487.39	1.813E-02	Pulse	1.00	3
K			1	5.631	ug/l	14.82	21,982.86	2.680E-01	Pulse	1.00	3
V			1	-0.306	ug/l	-8.91	1,088.70	1.328E-02	Pulse	0.50	3
Mn			1	0.034	ug/l	15.15	272.00	3.369E-03	Pulse	0.50	3
Fe			1	2.535	ug/l	15.14	19,172.85	2.375E-01	Pulse	0.50	3
Co			1	0.027	ug/l	32.92	334.00	4.139E-03	Pulse	0.50	3
Ni			1	-0.166	ug/l	-3.44	1,132.04	1.402E-02	Pulse	0.50	3
Cu			1	-0.136	ug/l	-15.05	7,175.36	8.886E-02	Pulse	0.50	3
Zn			1	1.149	ug/l	7.03	2,639.85	2.136E-02	Pulse	1.00	3
Cd			1	0.028	ug/l	33.40	68.00	5.487E-04	Pulse	0.50	3
Al			1	1.841	ug/l	17.06	388.00	4.729E-03	Pulse	1.00	3
Se			1	0.058	ug/l	120.36	17.22	1.391E-04	Pulse	3.00	3
Sb			1	0.037	ug/l	21.02	351.67	3.740E-04	Pulse	1.00	3
Se			1	0.090	ug/l	98.25	10.56	8.553E-05	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,112,881.17	0.58	97.5	Pulse	0.50	3
1	Sc		82,042.78	1.79	97.7	Pulse	0.30	3
1	Ge		80,752.71	0.50	97.8	Pulse	0.30	3
1	In		940,650.87	0.50	97.6	Pulse	0.30	3
1	Tb		3,899,224.33	0.63	97.2	Pulse	0.50	3
1	Lu		2,350,136.00	0.06	97.4	Pulse	0.50	3
1	Ge		123,609.86	1.68	97.8	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		270.00	3.70	85.3	Pulse	0.30	3

Quantitation Report

File Name	014LCCV.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 11:07
Sample Name	CRIA
Sample Type	CRIA
Comment	=std 2
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.991	ug/l	2.10	6,224.34	7.828E-02	Pulse	0.50	3
As			1	0.989	ug/l	4.79	715.35	8.999E-03	Pulse	1.00	3
Mo			1	1.001	ug/l	1.99	5,076.04	4.077E-02	Pulse	0.50	3
Pb			1	1.027	ug/l	0.44	33,554.10	1.423E-02	Pulse	1.00	3
Be			1	1.400	ug/l	15.57	31.17	3.738E-04	Pulse	2.00	3
Ag			1	1.017	ug/l	2.36	18,515.92	1.487E-01	Pulse	0.50	3
Ba			1	0.960	ug/l	3.84	2,090.80	2.208E-03	Pulse	0.50	3
Tl			1	0.975	ug/l	1.20	48,185.42	1.543E-02	Pulse	0.50	3
Sn			1	1.034	ug/l	5.20	4,904.02	5.180E-03	Pulse	0.30	3
Sr			1	0.942	ug/l	1.20	3,872.41	4.089E-03	Pulse	0.50	3
[Pb]			1	1.035	ug/l	1.27	15,935.44	6.756E-03	Pulse	0.50	3
Ca			1	98.461	ug/l	4.40	1,345.39	1.615E-02	Pulse	0.50	3
Ti			1	1.262	ug/l	7.70	132.00	1.586E-03	Pulse	0.50	3
Na			1	105.172	ug/l	1.79	68,216.92	8.192E-01	Pulse	1.00	3
Mg			1	93.697	ug/l	1.69	25,101.67	3.014E-01	Pulse	1.00	3
K			1	100.153	ug/l	2.27	43,394.08	5.211E-01	Pulse	1.00	3
V			1	0.643	ug/l	3.44	5,258.73	6.314E-02	Pulse	0.50	3
Mn			1	1.104	ug/l	3.57	3,060.25	3.849E-02	Pulse	0.50	3
Fe			1	100.453	ug/l	1.72	462,967.17	5.824E+00	Pulse	0.50	3
Co			1	1.045	ug/l	0.95	11,063.19	1.392E-01	Pulse	0.50	3
Ni			1	0.851	ug/l	6.55	4,040.44	5.082E-02	Pulse	0.50	3
Cu			1	0.388	ug/l	5.39	11,326.02	1.425E-01	Pulse	0.50	3
Zn			1	0.443	ug/l	5.20	1,894.76	1.522E-02	Pulse	1.00	3
Cd			1	0.987	ug/l	3.93	2,347.49	1.885E-02	Pulse	0.50	3
Al			1	56.360	ug/l	2.27	7,128.28	8.561E-02	Pulse	1.00	3
Se			1	0.938	ug/l	11.35	57.89	4.647E-04	Pulse	3.00	3
Sb			1	0.960	ug/l	2.81	5,663.88	5.982E-03	Pulse	1.00	3
Se			1	1.148	ug/l	21.65	35.34	2.839E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,122,981.67	0.56	97.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		83,281.12	1.21	99.2	Pulse	0.30	3
1	Ge		79,505.16	0.71	96.3	Pulse	0.30	3
1	In		946,974.58	0.77	98.3	Pulse	0.30	3
1	Tb		3,903,287.33	0.59	97.3	Pulse	0.50	3
1	Lu		2,358,691.92	0.26	97.7	Pulse	0.50	3
1	Ge		124,522.26	0.68	98.5	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		277.78	11.84	87.7	Pulse	0.30	3

Quantitation Report

File Name	015ICSA.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 11:11
Sample Name	ICSA
Sample Type	ICSA
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.236	ug/l	11.67	1,895.43	2.389E-02	Pulse	0.50	3
As			1	0.098	ug/l	9.38	82.67	1.042E-03	Pulse	1.00	3
Mo			1	2006.843	ug/l	0.47	9,628,750.67	8.130E+01	Analog	0.50	3
Pb			1	0.083	ug/l	2.22	3,458.69	1.502E-03	Pulse	1.00	3
Be			1	0.054	ug/l	92.37	1.33	1.646E-05	Pulse	2.00	3
Ag			1	0.066	ug/l	9.05	1,190.71	1.004E-02	Pulse	0.50	3
Ba			1	0.059	ug/l	0.95	130.67	1.474E-04	Pulse	0.50	3
Tl			1	0.010	ug/l	5.91	458.68	1.697E-04	Pulse	0.50	3
Sn			1	0.134	ug/l	14.69	884.48	9.977E-04	Pulse	0.30	3
Sr			1	0.918	ug/l	9.49	3,541.01	3.995E-03	Pulse	0.50	3
[Pb]			1	0.083	ug/l	10.03	1,619.42	7.034E-04	Pulse	0.50	3
Ca			1	93815.953	ug/l	0.52	1,195,405.71	1.449E+01	Pulse	0.50	3
Ti			1	1995.017	ug/l	0.38	204,822.99	2.482E+00	Pulse	0.50	3
Na			1	99094.932	ug/l	0.29	51,971,577.33	6.297E+02	Analog	1.00	3
Mg			1	97840.183	ug/l	0.15	23,198,329.33	2.811E+02	Analog	1.00	3
K			1	100104.609	ug/l	0.67	22,145,090.00	2.683E+02	Analog	1.00	3
V			1	-0.222	ug/l	-8.68	1,463.39	1.772E-02	Pulse	0.50	3
Mn			1	0.499	ug/l	8.46	1,475.39	1.861E-02	Pulse	0.50	3
Fe			1	96366.666	ug/l	2.00	436,153,824.00	5.498E+03	Analog	0.50	3
Co			1	0.032	ug/l	10.86	379.34	4.786E-03	Pulse	0.50	3
Ni			1	0.009	ug/l	319.36	1,616.07	2.036E-02	Pulse	0.50	3
Cu			1	-0.483	ug/l	-5.19	4,236.49	5.339E-02	Pulse	0.50	3
Zn			1	-0.054	ug/l	-52.17	1,289.38	1.089E-02	Pulse	1.00	3
Cd			1	0.571	ug/l	1.33	1,292.72	1.092E-02	Pulse	0.50	3
Al			1	56191.099	ug/l	0.39	6,879,932.50	8.336E+01	Analog	1.00	3
Se			1	0.198	ug/l	40.72	22.55	1.909E-04	Pulse	3.00	3
Sb			1	0.049	ug/l	6.84	392.67	4.430E-04	Pulse	1.00	3
Se			1	0.187	ug/l	98.60	12.33	1.038E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,702,047.42	0.59	84.6	Pulse	0.50	3
1	Sc		82,529.49	3.46	98.3	Pulse	0.30	3
1	Ge		79,317.67	1.53	96.1	Pulse	0.30	3
1	In		886,284.83	0.50	92.0	Pulse	0.30	3
1	Tb		3,771,379.50	0.80	94.0	Pulse	0.50	3
1	Lu		2,302,340.92	0.51	95.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		118,432.07	2.24	93.7	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		282.23	10.97	89.1	Pulse	0.30	3

Quantitation Report

File Name	016ICSB.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 11:15
Sample Name	ICSAB
Sample Type	ICSAB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	19.991	ug/l	1.38	122,877.14	1.447E+00	Pulse	0.50	3
As			1	19.381	ug/l	2.29	14,720.66	1.734E-01	Pulse	1.00	3
Mo			1	1989.636	ug/l	1.13	10,325,894.67	8.060E+01	Analog	0.50	3
Pb			1	0.075	ug/l	4.13	3,302.99	1.387E-03	Pulse	1.00	3
Be			1	0.048	ug/l	51.00	1.33	1.476E-05	Pulse	2.00	3
Ag			1	17.807	ug/l	0.75	332,668.23	2.597E+00	Pulse	0.50	3
Ba			1	0.060	ug/l	21.46	140.00	1.497E-04	Pulse	0.50	3
Tl			1	0.006	ug/l	8.63	316.67	1.141E-04	Pulse	0.50	3
Sn			1	0.120	ug/l	10.53	871.14	9.317E-04	Pulse	0.30	3
Sr			1	0.955	ug/l	2.80	3,869.07	4.137E-03	Pulse	0.50	3
[Pb]			1	0.078	ug/l	2.10	1,608.08	6.755E-04	Pulse	0.50	3
Ca			1	93446.961	ug/l	0.77	1,306,248.25	1.443E+01	Pulse	0.50	3
Ti			1	2008.237	ug/l	0.93	226,147.20	2.498E+00	Pulse	0.50	3
Na			1	100024.724	ug/l	1.12	57,541,852.00	6.356E+02	Analog	1.00	3
Mg			1	98078.077	ug/l	1.01	25,510,106.67	2.818E+02	Analog	1.00	3
K			1	101154.331	ug/l	0.71	24,547,382.00	2.712E+02	Analog	1.00	3
V			1	-0.245	ug/l	-8.24	1,494.06	1.651E-02	Pulse	0.50	3
Mn			1	19.749	ug/l	2.23	55,266.80	6.508E-01	Pulse	0.50	3
Fe			1	98346.529	ug/l	1.71	476,494,720.00	5.611E+03	Analog	0.50	3
Co			1	19.187	ug/l	1.42	216,091.01	2.544E+00	Pulse	0.50	3
Ni			1	18.715	ug/l	1.81	59,187.90	6.970E-01	Pulse	0.50	3
Cu			1	18.059	ug/l	1.38	165,753.53	1.952E+00	Pulse	0.50	3
Zn			1	18.217	ug/l	1.50	21,771.26	1.699E-01	Pulse	1.00	3
Cd			1	18.415	ug/l	2.05	45,029.19	3.515E-01	Pulse	0.50	3
Al			1	56211.100	ug/l	1.43	7,549,133.67	8.339E+01	Analog	1.00	3
Se			1	0.120	ug/l	95.00	20.78	1.620E-04	Pulse	3.00	3
Sb			1	0.051	ug/l	14.81	429.34	4.590E-04	Pulse	1.00	3
Se			1	0.050	ug/l	60.59	10.00	7.808E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,775,895.58	0.63	86.9	Pulse	0.50	3
1	Sc		90,526.47	1.05	107.8	Pulse	0.30	3
1	Ge		84,928.18	1.11	102.9	Pulse	0.30	3
1	In		935,134.61	0.97	97.0	Pulse	0.30	3
1	Tb		3,928,560.33	0.51	97.9	Pulse	0.50	3
1	Lu		2,380,457.92	0.75	98.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		128,109.04	0.63	101.3	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		288.89	9.33	91.2	Pulse	0.30	3

Quantitation Report

File Name	017CCVA.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 11:19
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	49.195	ug/l	2.25	333,045.75	3.551E+00	Pulse	0.50	3
As			1	47.712	ug/l	1.90	40,010.99	4.265E-01	Pulse	1.00	3
Mo			1	47.728	ug/l	1.23	276,031.77	1.934E+00	Pulse	0.50	3
Pb			1	49.933	ug/l	2.47	1,696,473.67	6.736E-01	Pulse	1.00	3
Be			1	46.947	ug/l	1.12	1,207.87	1.247E-02	Pulse	2.00	3
Ag			1	48.323	ug/l	1.83	1,005,736.96	7.046E+00	Pulse	0.50	3
Ba			1	47.934	ug/l	3.34	115,182.50	1.097E-01	Pulse	0.50	3
Tl			1	48.800	ug/l	2.10	2,500,425.25	7.717E-01	Pulse	0.50	3
Sn			1	48.117	ug/l	3.27	235,384.47	2.241E-01	Pulse	0.30	3
Sr			1	48.889	ug/l	3.27	201,706.96	1.920E-01	Pulse	0.50	3
[Pb]			1	50.235	ug/l	2.82	804,747.50	3.195E-01	Pulse	0.50	3
Ca			1	4891.294	ug/l	3.90	73,184.75	7.562E-01	Pulse	0.50	3
Ti			1	49.324	ug/l	3.43	5,940.92	6.137E-02	Pulse	0.50	3
Na			1	5048.811	ug/l	3.20	3,119,404.75	3.223E+01	Pulse	1.00	3
Mg			1	5001.729	ug/l	3.32	1,393,957.17	1.440E+01	Pulse	1.00	3
K			1	5068.004	ug/l	3.72	1,338,161.84	1.383E+01	Pulse	1.00	3
V			1	48.876	ug/l	3.83	251,319.20	2.597E+00	Pulse	0.50	3
Mn			1	48.626	ug/l	2.63	149,983.43	1.599E+00	Pulse	0.50	3
Fe			1	4941.684	ug/l	1.83	26,454,062.00	2.820E+02	Analog	0.50	3
Co			1	49.309	ug/l	1.81	613,305.06	6.538E+00	Pulse	0.50	3
Ni			1	49.517	ug/l	2.38	169,879.05	1.811E+00	Pulse	0.50	3
Cu			1	49.430	ug/l	2.24	484,361.04	5.164E+00	Pulse	0.50	3
Zn			1	49.440	ug/l	1.73	63,054.78	4.417E-01	Pulse	1.00	3
Cd			1	47.559	ug/l	2.18	129,553.28	9.077E-01	Pulse	0.50	3
Al			1	2798.779	ug/l	3.43	402,068.00	4.154E+00	Pulse	1.00	3
Se			1	49.457	ug/l	2.12	2,629.07	1.842E-02	Pulse	3.00	3
Sb			1	47.936	ug/l	2.53	306,030.03	2.913E-01	Pulse	1.00	3
Se			1	51.219	ug/l	2.60	1,380.05	9.668E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,240,947.50	2.17	101.5	Pulse	0.50	3
1	Sc		96,864.51	3.19	115.4	Pulse	0.30	3
1	Ge		93,827.65	1.95	113.6	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,051,010.55	2.53	109.1	Pulse	0.30	3
1	Tb		4,235,953.75	2.49	105.6	Pulse	0.50	3
1	Lu		2,519,598.25	2.17	104.4	Pulse	0.50	3
1	Ge		142,776.68	2.16	113.0	Pulse	0.30	3
1	Te		2.00	100.00		Pulse	0.50	3
1	Li		398.90	12.54	126.0	Pulse	0.30	3

Quantitation Report

File Name	018_CCV.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 11:23
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	98.985	ug/l	1.18	647,931.06	7.137E+00	Pulse	0.50	3
As			1	97.168	ug/l	0.63	78,846.34	8.685E-01	Pulse	1.00	3
Mo			1	94.938	ug/l	0.81	536,671.27	3.846E+00	Pulse	0.50	3
Pb			1	98.298	ug/l	0.65	3,300,600.17	1.326E+00	Pulse	1.00	3
Be			1	95.546	ug/l	2.19	2,405.14	2.538E-02	Pulse	2.00	3
Ag			1	95.000	ug/l	0.74	1,932,812.92	1.385E+01	Pulse	0.50	3
Ba			1	97.513	ug/l	1.23	227,235.37	2.231E-01	Pulse	0.50	3
Tl			1	98.239	ug/l	0.79	4,885,761.83	1.554E+00	Pulse	0.50	3
Sn			1	99.253	ug/l	0.53	470,507.48	4.618E-01	Pulse	0.30	3
Sr			1	101.325	ug/l	1.47	404,983.90	3.975E-01	Pulse	0.50	3
[Pb]			1	98.723	ug/l	0.75	1,563,092.50	6.278E-01	Pulse	0.50	3
Ca			1	9828.973	ug/l	1.65	143,907.98	1.519E+00	Pulse	0.50	3
Ti			1	100.065	ug/l	3.15	11,796.91	1.245E-01	Pulse	0.50	3
Na			1	10078.268	ug/l	1.72	6,081,871.17	6.418E+01	Analog	1.00	3
Mg			1	9890.637	ug/l	2.05	2,695,549.75	2.845E+01	Pulse	1.00	3
K			1	10081.436	ug/l	1.34	2,582,712.25	2.725E+01	Pulse	1.00	3
V			1	98.093	ug/l	1.65	491,061.66	5.182E+00	Pulse	0.50	3
Mn			1	98.195	ug/l	1.67	292,926.01	3.227E+00	Pulse	0.50	3
Fe			1	9914.451	ug/l	0.88	51,357,188.00	5.657E+02	Analog	0.50	3
Co			1	98.992	ug/l	1.63	1,191,494.08	1.313E+01	Pulse	0.50	3
Ni			1	99.474	ug/l	1.72	328,448.86	3.618E+00	Pulse	0.50	3
Cu			1	99.588	ug/l	1.40	934,939.25	1.030E+01	Pulse	0.50	3
Zn			1	98.558	ug/l	0.25	121,306.91	8.693E-01	Pulse	1.00	3
Cd			1	94.140	ug/l	0.54	250,701.88	1.797E+00	Pulse	0.50	3
Al			1	5605.824	ug/l	1.80	788,258.19	8.318E+00	Pulse	1.00	3
Se			1	96.541	ug/l	0.53	5,001.76	3.584E-02	Pulse	3.00	3
Sb			1	97.580	ug/l	0.84	603,956.00	5.928E-01	Pulse	1.00	3
Se			1	97.595	ug/l	1.11	2,561.95	1.836E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,144,980.08	0.87	98.5	Pulse	0.50	3
1	Sc		94,788.75	2.06	112.9	Pulse	0.30	3
1	Ge		90,792.64	1.43	110.0	Pulse	0.30	3
1	In		1,018,839.96	1.36	105.7	Pulse	0.30	3
1	Tb		4,152,960.33	1.12	103.5	Pulse	0.50	3
1	Lu		2,489,974.17	0.59	103.2	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		139,544.62	1.03	110.4	Pulse	0.30	3
1	Te		8.00	43.30		Pulse	0.50	3
1	Li		344.45	6.87	108.8	Pulse	0.30	3

Quantitation Report

File Name	019_CCB.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 11:26
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.014	ug/l	73.76	723.35	7.888E-03	Pulse	0.50	3
As			1	0.027	ug/l	44.01	37.00	4.038E-04	Pulse	1.00	3
Mo			1	0.138	ug/l	11.21	820.02	5.807E-03	Pulse	0.50	3
Pb			1	0.022	ug/l	8.69	1,624.08	6.818E-04	Pulse	1.00	3
Be			1	0.196	ug/l	13.70	5.17	5.416E-05	Pulse	2.00	3
Ag			1	0.023	ug/l	14.89	538.68	3.805E-03	Pulse	0.50	3
Ba			1	0.023	ug/l	32.09	66.00	6.473E-05	Pulse	0.50	3
Tl			1	0.023	ug/l	1.35	1,184.05	3.794E-04	Pulse	0.50	3
Sn			1	0.084	ug/l	31.50	777.80	7.666E-04	Pulse	0.30	3
Sr			1	0.055	ug/l	15.79	620.01	6.092E-04	Pulse	0.50	3
[Pb]			1	0.024	ug/l	19.53	782.02	3.281E-04	Pulse	0.50	3
Ca			1	8.852	ug/l	23.27	221.33	2.319E-03	Pulse	0.50	3
Ti			1	0.090	ug/l	83.87	12.00	1.273E-04	Pulse	0.50	3
Na			1	49.544	ug/l	4.47	44,400.98	4.658E-01	Pulse	1.00	3
Mg			1	-2.144	ug/l	-8.86	2,489.16	2.612E-02	Pulse	1.00	3
K			1	32.356	ug/l	4.89	32,345.37	3.395E-01	Pulse	1.00	3
V			1	-0.220	ug/l	-6.89	1,695.41	1.780E-02	Pulse	0.50	3
Mn			1	0.125	ug/l	15.56	581.34	6.341E-03	Pulse	0.50	3
Fe			1	5.843	ug/l	9.18	39,067.97	4.262E-01	Pulse	0.50	3
Co			1	0.019	ug/l	29.04	276.67	3.022E-03	Pulse	0.50	3
Ni			1	-0.060	ug/l	-47.03	1,638.08	1.788E-02	Pulse	0.50	3
Cu			1	-0.127	ug/l	-24.11	8,235.12	8.982E-02	Pulse	0.50	3
Zn			1	-0.232	ug/l	-23.53	1,319.38	9.337E-03	Pulse	1.00	3
Cd			1	0.020	ug/l	17.53	56.67	4.009E-04	Pulse	0.50	3
Al			1	1.398	ug/l	11.59	388.34	4.072E-03	Pulse	1.00	3
Se			1	0.113	ug/l	31.92	22.56	1.595E-04	Pulse	3.00	3
Sb			1	0.027	ug/l	7.65	316.00	3.107E-04	Pulse	1.00	3
Se			1	0.073	ug/l	96.75	11.67	8.244E-05	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,120,944.08	1.54	97.7	Pulse	0.50	3
1	Sc		95,282.38	2.40	113.5	Pulse	0.30	3
1	Ge		91,668.13	1.33	111.0	Pulse	0.30	3
1	In		1,016,990.23	2.32	105.5	Pulse	0.30	3
1	Tb		3,973,487.17	1.55	99.1	Pulse	0.50	3
1	Lu		2,381,309.50	1.82	98.7	Pulse	0.50	3
1	Ge		141,370.61	1.50	111.8	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		295.56	10.84	93.3	Pulse	0.30	3

Quantitation Report

File Name	020_MB.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 11:30
Sample Name	MP35666-MB1
Sample Type	MB
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.632	ug/l	8.10	2,478.17	2.965E-02	Pulse	0.50	3
As			1	0.172	ug/l	9.00	78.00	9.331E-04	Pulse	1.00	3
Mo			1	0.268	ug/l	22.44	720.02	5.658E-03	Pulse	0.50	3
Pb			1	0.086	ug/l	3.49	2,145.14	9.606E-04	Pulse	1.00	3
Be			1	0.245	ug/l	26.50	3.00	3.449E-05	Pulse	2.00	3
Ag			1	0.065	ug/l	6.87	664.68	5.209E-03	Pulse	0.50	3
Ba			1	0.094	ug/l	27.87	111.33	1.205E-04	Pulse	0.50	3
Tl			1	0.025	ug/l	6.61	624.68	2.130E-04	Pulse	0.50	3
Sn			1	0.804	ug/l	9.30	2,076.81	2.243E-03	Pulse	0.30	3
Sr			1	0.129	ug/l	28.46	600.01	6.481E-04	Pulse	0.50	3
[Pb]			1	0.083	ug/l	9.57	986.03	4.419E-04	Pulse	0.50	3
Ca			1	41.492	ug/l	17.91	358.00	4.155E-03	Pulse	0.50	3
Ti			1	0.296	ug/l	50.30	17.33	1.998E-04	Pulse	0.50	3
Na			1	96.986	ug/l	4.08	39,674.71	4.591E-01	Pulse	1.00	3
Mg			1	-4.474	ug/l	-5.55	2,236.13	2.585E-02	Pulse	1.00	3
K			1	70.170	ug/l	9.24	29,976.99	3.468E-01	Pulse	1.00	3
V			1	1.401	ug/l	1.90	5,720.86	6.617E-02	Pulse	0.50	3
Mn			1	0.197	ug/l	9.16	458.01	5.480E-03	Pulse	0.50	3
Fe			1	19.438	ug/l	2.44	54,118.93	6.473E-01	Pulse	0.50	3
Co			1	0.031	ug/l	6.94	216.00	2.583E-03	Pulse	0.50	3
Ni			1	0.191	ug/l	15.42	1,964.77	2.349E-02	Pulse	0.50	3
Cu			1	-0.571	ug/l	-11.19	6,150.32	7.357E-02	Pulse	0.50	3
Zn			1	3.373	ug/l	9.55	3,321.96	2.604E-02	Pulse	1.00	3
Cd			1	0.021	ug/l	59.92	27.33	2.124E-04	Pulse	0.50	3
Al			1	5.780	ug/l	4.21	543.34	6.285E-03	Pulse	1.00	3
Se			1	0.360	ug/l	23.10	23.56	1.843E-04	Pulse	3.00	3
Sb			1	0.128	ug/l	8.64	497.34	5.363E-04	Pulse	1.00	3
Se			1	0.388	ug/l	53.42	13.44	1.051E-04	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,929,287.50	2.40	91.7	Pulse	0.50	3
1	Sc		86,482.00	4.06	103.0	Pulse	0.30	3
1	Ge		83,625.05	1.46	101.3	Pulse	0.30	3
1	In		927,314.72	3.05	96.2	Pulse	0.30	3
1	Tb		3,772,108.67	2.96	94.0	Pulse	0.50	3
1	Lu		2,233,111.42	2.46	92.5	Pulse	0.50	3
1	Ge		127,671.89	2.32	101.0	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		317.78	11.31	100.4	Pulse	0.30	3

Quantitation Report

File Name	021_BSP.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 11:34
Sample Name	MP35666-B1
Sample Type	BSP
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	208.253	ug/l	4.91	575,318.44	7.508E+00	Pulse	0.50	3
As			1	192.812	ug/l	5.02	66,028.90	8.617E-01	Pulse	1.00	3
Mo			1	207.544	ug/l	4.91	489,539.67	4.204E+00	Pulse	0.50	3
Pb			1	204.062	ug/l	7.19	3,254,497.42	1.376E+00	Pulse	1.00	3
Be			1	205.381	ug/l	9.95	2,197.95	2.728E-02	Pulse	2.00	3
Ag			1	99.640	ug/l	4.37	846,022.17	7.264E+00	Pulse	0.50	3
Ba			1	201.803	ug/l	6.06	207,720.81	2.308E-01	Pulse	0.50	3
Tl			1	199.703	ug/l	6.11	4,675,702.17	1.579E+00	Pulse	0.50	3
Sn			1	217.036	ug/l	6.75	454,265.68	5.049E-01	Pulse	0.30	3
Sr			1	209.514	ug/l	6.27	369,843.53	4.110E-01	Pulse	0.50	3
[Pb]			1	195.043	ug/l	6.79	1,467,100.54	6.201E-01	Pulse	0.50	3
Ca			1	20222.479	ug/l	7.62	126,003.23	1.562E+00	Pulse	0.50	3
Ti			1	199.930	ug/l	8.55	10,027.26	1.244E-01	Pulse	0.50	3
Na			1	21378.007	ug/l	7.45	5,490,188.83	6.806E+01	Analog	1.00	3
Mg			1	20339.363	ug/l	7.74	2,359,033.50	2.925E+01	Pulse	1.00	3
K			1	20585.060	ug/l	7.68	2,243,806.75	2.782E+01	Pulse	1.00	3
V			1	201.919	ug/l	7.60	430,133.09	5.332E+00	Pulse	0.50	3
Mn			1	210.115	ug/l	5.50	264,508.09	3.452E+00	Pulse	0.50	3
Fe			1	20970.094	ug/l	4.19	45,854,597.33	5.983E+02	Analog	0.50	3
Co			1	207.447	ug/l	4.86	1,053,882.02	1.375E+01	Pulse	0.50	3
Ni			1	208.684	ug/l	4.94	290,754.98	3.794E+00	Pulse	0.50	3
Cu			1	209.140	ug/l	4.75	828,359.50	1.081E+01	Pulse	0.50	3
Zn			1	199.464	ug/l	4.21	102,440.01	8.795E-01	Pulse	1.00	3
Cd			1	204.766	ug/l	4.25	227,570.67	1.954E+00	Pulse	0.50	3
Al			1	11350.333	ug/l	7.86	679,164.77	8.421E+00	Pulse	1.00	3
Se			1	190.464	ug/l	4.99	4,117.33	3.536E-02	Pulse	3.00	3
Sb			1	190.191	ug/l	6.44	519,858.24	5.777E-01	Pulse	1.00	3
Se			1	191.643	ug/l	4.75	2,099.45	1.803E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,968,068.83	5.83	92.9	Pulse	0.50	3
1	Sc		80,954.01	7.10	96.4	Pulse	0.30	3
1	Ge		76,737.52	4.20	92.9	Pulse	0.30	3
1	In		902,125.57	5.97	93.6	Pulse	0.30	3
1	Tb		3,967,080.50	8.68	98.9	Mix	0.50	3
1	Lu		2,373,394.58	7.09	98.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		116,597.63	3.94	92.2	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		251.12	20.10	79.3	Pulse	0.30	3

Quantitation Report

File Name	022SMPL.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 11:38
Sample Name	FA64963-1F
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	11.442	ug/l	3.91	6,533.11	8.930E-02	Pulse	0.50	3
As			1	3007.548	ug/l	4.26	196,639.49	2.688E+00	Pulse	1.00	3
Mo			1	154.642	ug/l	4.46	70,571.21	6.267E-01	Pulse	0.50	3
Pb			1	0.336	ug/l	50.68	1,681.75	8.321E-04	Pulse	1.00	3
Be			1	1.327	ug/l	58.75	3.00	3.727E-05	Pulse	2.00	3
Ag			1	0.578	ug/l	10.35	998.03	8.880E-03	Pulse	0.50	3
Ba			1	10.108	ug/l	9.57	1,883.44	2.325E-03	Pulse	0.50	3
Tl			1	0.542	ug/l	10.44	1,944.79	8.723E-04	Pulse	0.50	3
Sn			1	0.878	ug/l	13.12	635.57	7.830E-04	Pulse	0.30	3
Sr			1	4918.051	ug/l	4.97	1,564,604.58	1.928E+00	Pulse	0.50	3
[Pb]			1	0.319	ug/l	44.39	770.02	3.801E-04	Pulse	0.50	3
Ca			1	43058.902	ug/l	5.33	54,866.30	6.658E-01	Pulse	0.50	3
Ti			1	5.047	ug/l	42.29	54.00	6.438E-04	Pulse	0.50	3
Na			1	19692715.668	ug/l	5.60	1,030,899,413.33	1.251E+04	Analog	1.00	3
Mg			1	193324.831	ug/l	5.70	4,579,578.00	5.557E+01	Mix	1.00	3
K			1	359660.823	ug/l	5.75	7,957,358.00	9.657E+01	Analog	1.00	3
V			1	306.833	ug/l	6.10	135,200.98	1.641E+00	Pulse	0.50	3
Mn			1	49.694	ug/l	3.92	12,102.47	1.654E-01	Pulse	0.50	3
Fe			1	95.759	ug/l	3.52	46,764.00	6.391E-01	Pulse	0.50	3
Co			1	1.129	ug/l	3.72	1,136.70	1.553E-02	Pulse	0.50	3
Ni			1	3.406	ug/l	2.31	2,368.82	3.235E-02	Pulse	0.50	3
Cu			1	16.652	ug/l	6.97	19,988.36	2.733E-01	Pulse	0.50	3
Zn			1	-1.331	ug/l	-14.07	1,149.70	1.020E-02	Pulse	1.00	3
Cd			1	0.258	ug/l	29.13	56.67	5.076E-04	Pulse	0.50	3
Al			1	7.989	ug/l	21.23	262.67	3.183E-03	Pulse	1.00	3
Se			1	13.366	ug/l	11.38	69.11	6.123E-04	Pulse	3.00	3
Sb			1	0.883	ug/l	6.48	555.34	6.843E-04	Pulse	1.00	3
Se			1	277.157	ug/l	1.82	593.12	5.263E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,232,992.58	4.16	69.9	Pulse	0.50	3
1	Sc		82,590.68	6.88	98.4	Pulse	0.30	3
1	Ge		73,221.87	3.87	88.7	Pulse	0.30	3
1	In		812,823.68	5.46	84.3	Pulse	0.30	3
1	Tb		3,323,661.42	5.83	82.9	Pulse	0.50	3
1	Lu		2,035,175.46	6.00	84.3	Pulse	0.50	3
1	Ge		112,752.15	5.23	89.2	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		257.78	21.73	81.4	Pulse	0.30	3

Quantitation Report

File Name	023SMPL.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 11:42
Sample Name	MP35666-D1
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	10.452	ug/l	0.30	6,559.79	8.217E-02	Pulse	0.50	3
As			1	2944.323	ug/l	1.54	210,019.12	2.631E+00	Pulse	1.00	3
Mo			1	151.378	ug/l	3.38	73,770.68	6.135E-01	Pulse	0.50	3
Pb			1	0.076	ug/l	14.35	998.36	4.807E-04	Pulse	1.00	3
Be			1	0.545	ug/l	74.42	1.50	1.649E-05	Pulse	2.00	3
Ag			1	0.385	ug/l	12.78	729.35	6.071E-03	Pulse	0.50	3
Ba			1	9.168	ug/l	3.07	1,817.43	2.110E-03	Pulse	0.50	3
Tl			1	0.143	ug/l	12.17	550.68	2.415E-04	Pulse	0.50	3
Sn			1	0.805	ug/l	5.95	645.57	7.492E-04	Pulse	0.30	3
Sr			1	4842.179	ug/l	3.27	1,634,823.42	1.898E+00	Pulse	0.50	3
[Pb]			1	0.077	ug/l	10.48	470.01	2.264E-04	Pulse	0.50	3
Ca			1	41547.243	ug/l	2.10	58,300.05	6.424E-01	Pulse	0.50	3
Ti			1	1.882	ug/l	12.83	22.67	2.501E-04	Pulse	0.50	3
Na			1	18819331.373	ug/l	3.16	1,084,803,776.00	1.196E+04	Analog	1.00	3
Mg			1	185534.430	ug/l	3.26	4,838,882.67	5.333E+01	Analog	1.00	3
K			1	349848.792	ug/l	2.89	8,524,536.00	9.395E+01	Analog	1.00	3
V			1	292.644	ug/l	3.58	142,125.16	1.566E+00	Pulse	0.50	3
Mn			1	47.392	ug/l	1.68	12,603.45	1.579E-01	Pulse	0.50	3
Fe			1	42.901	ug/l	5.51	26,937.97	3.376E-01	Pulse	0.50	3
Co			1	0.978	ug/l	4.65	1,079.37	1.353E-02	Pulse	0.50	3
Ni			1	3.666	ug/l	15.14	2,656.19	3.329E-02	Pulse	0.50	3
Cu			1	15.469	ug/l	1.06	20,849.93	2.612E-01	Pulse	0.50	3
Zn			1	-2.937	ug/l	-19.68	1,058.03	8.801E-03	Pulse	1.00	3
Cd			1	0.143	ug/l	38.69	34.67	2.894E-04	Pulse	0.50	3
Al			1	-0.374	ug/l	-795.07	176.33	1.943E-03	Pulse	1.00	3
Se			1	10.292	ug/l	16.77	60.00	4.985E-04	Pulse	3.00	3
Sb			1	0.871	ug/l	5.24	583.01	6.770E-04	Pulse	1.00	3
Se			1	266.660	ug/l	2.15	609.46	5.067E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,278,852.67	1.51	71.3	Pulse	0.50	3
1	Sc		90,781.73	2.61	108.1	Pulse	0.30	3
1	Ge		79,830.02	1.56	96.7	Pulse	0.30	3
1	In		861,676.36	2.58	89.4	Pulse	0.30	3
1	Tb		3,439,085.75	2.00	85.7	Pulse	0.50	3
1	Lu		2,076,678.00	2.25	86.0	Pulse	0.50	3
1	Ge		120,316.28	2.29	95.2	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		260.01	28.64	82.1	Pulse	0.30	3

Quantitation Report

File Name	024SMPL.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 11:45
Sample Name	MP35666-SD1
Sample Type	Sample
Comment	
Prep Dilution	50.000
Auto Dilution	N/A
Total Dilution	50.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	9.386	ug/l	6.19	1,874.10	2.040E-02	Pulse	0.50	3
As			1	2672.404	ug/l	1.79	43,888.77	4.778E-01	Pulse	1.00	3
Mo			1	138.137	ug/l	0.92	15,812.70	1.121E-01	Pulse	0.50	3
Pb			1	0.651	ug/l	13.71	1,329.39	5.540E-04	Pulse	1.00	3
Be			1	0.571	ug/l	169.24	0.50	5.045E-06	Pulse	2.00	3
Ag			1	0.491	ug/l	10.44	266.00	1.887E-03	Pulse	0.50	3
Ba			1	12.960	ug/l	3.15	605.34	6.060E-04	Pulse	0.50	3
Tl			1	0.230	ug/l	12.06	250.67	8.847E-05	Pulse	0.50	3
Sn			1	1.251	ug/l	86.06	488.90	4.911E-04	Pulse	0.30	3
Sr			1	4399.971	ug/l	3.12	344,869.32	3.453E-01	Pulse	0.50	3
[Pb]			1	0.770	ug/l	18.31	661.35	2.752E-04	Pulse	0.50	3
Ca			1	41585.705	ug/l	3.77	13,009.00	1.294E-01	Pulse	0.50	3
Ti			1	2.873	ug/l	101.83	8.67	8.745E-05	Pulse	0.50	3
Na			1	17852032.080	ug/l	3.18	228,121,312.00	2.268E+03	Analog	1.00	3
Mg			1	175274.402	ug/l	3.18	1,015,972.11	1.010E+01	Pulse	1.00	3
K			1	318857.816	ug/l	3.21	1,742,944.50	1.733E+01	Pulse	1.00	3
V			1	264.816	ug/l	2.14	30,936.44	3.076E-01	Pulse	0.50	3
Mn			1	43.264	ug/l	3.58	2,815.54	3.065E-02	Pulse	0.50	3
Fe			1	93.453	ug/l	3.98	18,322.66	1.995E-01	Pulse	0.50	3
Co			1	1.086	ug/l	14.31	316.00	3.436E-03	Pulse	0.50	3
Ni			1	-5.607	ug/l	-19.60	1,468.06	1.598E-02	Pulse	0.50	3
Cu			1	81.326	ug/l	26.89	24,751.53	2.693E-01	Pulse	0.50	3
Zn			1	-35.276	ug/l	-2.17	735.35	5.216E-03	Pulse	1.00	3
Cd			1	0.367	ug/l	59.82	22.00	1.558E-04	Pulse	0.50	3
Al			1	28.327	ug/l	21.03	285.67	2.839E-03	Pulse	1.00	3
Se			1	16.991	ug/l	13.32	34.33	2.434E-04	Pulse	3.00	3
Sb			1	0.400	ug/l	22.24	196.33	1.967E-04	Pulse	1.00	3
Se			1	224.273	ug/l	8.49	128.22	9.094E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,836,701.00	2.04	88.8	Pulse	0.50	3
1	Sc		100,624.55	2.81	119.9	Pulse	0.30	3
1	Ge		91,873.46	1.29	111.3	Pulse	0.30	3
1	In		999,311.21	2.89	103.7	Pulse	0.30	3
1	Tb		4,020,331.58	2.29	100.2	Pulse	0.50	3
1	Lu		2,401,480.67	2.55	99.5	Pulse	0.50	3
1	Ge		141,006.77	1.61	111.6	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Te		0.00	---		Pulse	0.50	3
1	Li		312.23	4.45	98.6	Pulse	0.30	3

Quantitation Report

File Name	025SMPL.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 11:49
Sample Name	MP35666-S1
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	214.109	ug/l	1.76	125,961.75	1.549E+00	Pulse	0.50	3
As			1	3108.666	ug/l	2.57	225,865.02	2.778E+00	Pulse	1.00	3
Mo			1	335.760	ug/l	1.51	169,650.37	1.360E+00	Pulse	0.50	3
Pb			1	176.088	ug/l	2.96	504,468.97	2.378E-01	Pulse	1.00	3
Be			1	149.241	ug/l	6.89	378.17	3.966E-03	Pulse	2.00	3
Ag			1	74.298	ug/l	1.58	135,148.21	1.084E+00	Pulse	0.50	3
Ba			1	202.162	ug/l	1.67	40,409.59	4.625E-02	Pulse	0.50	3
Tl			1	198.712	ug/l	1.96	725,234.73	3.143E-01	Pulse	0.50	3
Sn			1	209.516	ug/l	2.52	85,414.84	9.778E-02	Pulse	0.30	3
Sr			1	5019.784	ug/l	2.91	1,718,866.08	1.968E+00	Pulse	0.50	3
[Pb]			1	169.057	ug/l	3.79	228,354.84	1.076E-01	Pulse	0.50	3
Ca			1	59596.764	ug/l	4.57	87,796.74	9.211E-01	Pulse	0.50	3
Ti			1	186.789	ug/l	2.87	2,216.80	2.325E-02	Pulse	0.50	3
Na			1	18242444.386	ug/l	3.35	1,104,883,456.00	1.159E+04	Analog	1.00	3
Mg			1	198179.251	ug/l	3.37	5,430,712.33	5.696E+01	Analog	1.00	3
K			1	358605.480	ug/l	3.59	9,179,644.67	9.629E+01	Analog	1.00	3
V			1	473.240	ug/l	4.25	239,741.89	2.515E+00	Pulse	0.50	3
Mn			1	246.672	ug/l	1.39	66,046.68	8.123E-01	Pulse	0.50	3
Fe			1	19980.712	ug/l	2.51	9,275,055.67	1.141E+02	Analog	0.50	3
Co			1	193.992	ug/l	2.29	209,158.34	2.573E+00	Pulse	0.50	3
Ni			1	187.036	ug/l	2.47	56,632.32	6.966E-01	Pulse	0.50	3
Cu			1	196.684	ug/l	2.11	172,082.68	2.116E+00	Pulse	0.50	3
Zn			1	172.333	ug/l	3.38	20,121.81	1.614E-01	Pulse	1.00	3
Cd			1	162.852	ug/l	1.77	38,759.73	3.108E-01	Pulse	0.50	3
Al			1	10702.103	ug/l	3.85	151,533.98	1.590E+00	Pulse	1.00	3
Se			1	216.828	ug/l	4.41	1,015.03	8.141E-03	Pulse	3.00	3
Sb			1	192.863	ug/l	3.11	102,443.19	1.173E-01	Pulse	1.00	3
Se			1	474.750	ug/l	5.84	1,117.81	8.967E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,308,323.58	1.99	72.3	Pulse	0.50	3
1	Sc		95,390.65	2.58	113.6	Pulse	0.30	3
1	Ge		81,319.44	1.26	98.5	Pulse	0.30	3
1	In		873,836.51	2.29	90.7	Pulse	0.30	3
1	Tb		3,499,115.92	2.62	87.2	Pulse	0.50	3
1	Lu		2,122,829.79	2.86	87.9	Pulse	0.50	3
1	Ge		124,724.77	1.40	98.7	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		234.45	0.82	74.0	Pulse	0.30	3

Quantitation Report

File Name	026SMPL.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 11:53
Sample Name	MP35666-S2
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	220.152	ug/l	3.89	128,767.46	1.593E+00	Pulse	0.50	3
As			1	3168.935	ug/l	4.16	228,943.33	2.832E+00	Pulse	1.00	3
Mo			1	342.175	ug/l	3.48	171,108.98	1.386E+00	Pulse	0.50	3
Pb			1	181.684	ug/l	4.16	506,879.15	2.453E-01	Pulse	1.00	3
Be			1	156.453	ug/l	9.60	391.83	4.158E-03	Pulse	2.00	3
Ag			1	77.194	ug/l	3.01	138,978.82	1.126E+00	Pulse	0.50	3
Ba			1	205.750	ug/l	3.92	40,722.28	4.708E-02	Pulse	0.50	3
Tl			1	203.576	ug/l	2.93	731,066.10	3.220E-01	Pulse	0.50	3
Sn			1	216.539	ug/l	4.01	87,409.66	1.010E-01	Pulse	0.30	3
Sr			1	5112.017	ug/l	4.17	1,733,488.96	2.004E+00	Pulse	0.50	3
[Pb]			1	175.446	ug/l	3.99	230,830.72	1.117E-01	Pulse	0.50	3
Ca			1	60878.615	ug/l	5.64	88,731.61	9.409E-01	Pulse	0.50	3
Ti			1	197.715	ug/l	4.60	2,322.15	2.461E-02	Pulse	0.50	3
Na			1	18599545.488	ug/l	4.68	1,114,600,874.67	1.182E+04	Analog	1.00	3
Mg			1	201955.843	ug/l	4.99	5,475,189.50	5.805E+01	Analog	1.00	3
K			1	367428.424	ug/l	4.83	9,305,468.33	9.865E+01	Analog	1.00	3
V			1	483.245	ug/l	4.17	242,234.32	2.568E+00	Pulse	0.50	3
Mn			1	252.217	ug/l	4.63	67,131.79	8.305E-01	Pulse	0.50	3
Fe			1	20479.681	ug/l	4.37	9,452,225.00	1.169E+02	Analog	0.50	3
Co			1	199.398	ug/l	3.93	213,777.78	2.644E+00	Pulse	0.50	3
Ni			1	191.873	ug/l	4.09	57,728.22	7.141E-01	Pulse	0.50	3
Cu			1	202.428	ug/l	4.81	175,844.27	2.175E+00	Pulse	0.50	3
Zn			1	178.839	ug/l	3.29	20,619.00	1.670E-01	Pulse	1.00	3
Cd			1	166.397	ug/l	4.00	39,192.75	3.176E-01	Pulse	0.50	3
Al			1	11027.042	ug/l	4.65	154,492.64	1.638E+00	Pulse	1.00	3
Se			1	225.035	ug/l	2.69	1,042.48	8.445E-03	Pulse	3.00	3
Sb			1	197.929	ug/l	4.37	104,110.55	1.204E-01	Pulse	1.00	3
Se			1	483.434	ug/l	2.25	1,127.03	9.130E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,271,979.00	2.86	71.1	Pulse	0.50	3
1	Sc		94,441.71	3.87	112.5	Pulse	0.30	3
1	Ge		80,916.91	3.33	98.0	Pulse	0.30	3
1	In		865,798.40	3.38	89.8	Pulse	0.30	3
1	Tb		3,425,201.25	4.07	85.4	Pulse	0.50	3
1	Lu		2,068,558.62	4.08	85.7	Pulse	0.50	3
1	Ge		123,494.93	2.51	97.7	Pulse	0.30	3
1	Te		2.67	114.56		Pulse	0.50	3
1	Li		236.67	5.08	74.7	Pulse	0.30	3

Quantitation Report

File Name	027SMPL.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 11:57
Sample Name	MP35666-PS1
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	21.578	ug/l	1.63	13,546.72	1.623E-01	Pulse	0.50	3
As			1	2957.510	ug/l	1.05	220,580.70	2.643E+00	Pulse	1.00	3
Mo			1	157.204	ug/l	1.01	80,848.92	6.371E-01	Pulse	0.50	3
Pb			1	10.260	ug/l	1.57	29,477.94	1.421E-02	Pulse	1.00	3
Be			1	9.088	ug/l	7.87	23.33	2.434E-04	Pulse	2.00	3
Ag			1	2.382	ug/l	0.87	4,464.55	3.518E-02	Pulse	0.50	3
Ba			1	20.660	ug/l	1.12	4,178.50	4.739E-03	Pulse	0.50	3
Tl			1	11.048	ug/l	0.86	39,872.19	1.749E-02	Pulse	0.50	3
Sn			1	12.421	ug/l	2.28	5,423.05	6.150E-03	Pulse	0.30	3
Sr			1	4870.911	ug/l	0.96	1,683,793.17	1.910E+00	Pulse	0.50	3
[Pb]			1	9.804	ug/l	1.45	13,296.53	6.410E-03	Pulse	0.50	3
Ca			1	43154.236	ug/l	1.92	63,971.46	6.672E-01	Pulse	0.50	3
Ti			1	12.336	ug/l	22.87	148.67	1.551E-03	Pulse	0.50	3
Na			1	18815178.773	ug/l	0.81	1,146,041,344.00	1.195E+04	Analog	1.00	3
Mg			1	186472.416	ug/l	1.00	5,139,074.83	5.360E+01	Analog	1.00	3
K			1	353638.469	ug/l	1.06	9,104,554.00	9.496E+01	Analog	1.00	3
V			1	300.492	ug/l	1.17	154,142.37	1.608E+00	Pulse	0.50	3
Mn			1	57.871	ug/l	2.78	16,045.98	1.923E-01	Pulse	0.50	3
Fe			1	1090.551	ug/l	0.77	526,978.13	6.314E+00	Pulse	0.50	3
Co			1	11.694	ug/l	1.17	12,986.37	1.556E-01	Pulse	0.50	3
Ni			1	11.272	ug/l	1.26	5,074.68	6.080E-02	Pulse	0.50	3
Cu			1	25.000	ug/l	1.38	29,941.15	3.587E-01	Pulse	0.50	3
Zn			1	8.186	ug/l	2.48	2,345.81	1.848E-02	Pulse	1.00	3
Cd			1	9.239	ug/l	4.97	2,239.48	1.765E-02	Pulse	0.50	3
Al			1	621.163	ug/l	2.13	9,026.04	9.414E-02	Pulse	1.00	3
Se			1	22.799	ug/l	1.56	122.00	9.614E-04	Pulse	3.00	3
Sb			1	11.284	ug/l	1.45	6,173.71	7.002E-03	Pulse	1.00	3
Se			1	276.238	ug/l	1.53	665.79	5.246E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,280,111.17	0.18	71.4	Pulse	0.50	3
1	Sc		95,877.29	0.28	114.2	Pulse	0.30	3
1	Ge		83,459.68	0.60	101.1	Pulse	0.30	3
1	In		881,765.00	0.96	91.5	Pulse	0.30	3
1	Tb		3,430,716.92	0.69	85.5	Pulse	0.50	3
1	Lu		2,074,596.50	0.95	85.9	Pulse	0.50	3
1	Ge		126,909.06	0.38	100.4	Pulse	0.30	3
1	Te		2.67	173.21		Pulse	0.50	3
1	Li		302.23	6.08	95.4	Pulse	0.30	3

Quantitation Report

File Name	028SMPL.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 12:01
Sample Name	FA64963-2F
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2.068	ug/l	1.20	1,826.76	2.178E-02	Pulse	0.50	3
As			1	1619.879	ug/l	2.31	121,384.62	1.448E+00	Pulse	1.00	3
Mo			1	478.358	ug/l	1.60	247,680.46	1.938E+00	Pulse	0.50	3
Pb			1	0.090	ug/l	13.41	1,079.04	5.000E-04	Pulse	1.00	3
Be			1	0.173	ug/l	248.86	0.67	6.613E-06	Pulse	2.00	3
Ag			1	0.072	ug/l	14.85	191.33	1.498E-03	Pulse	0.50	3
Ba			1	11.015	ug/l	2.56	2,283.48	2.533E-03	Pulse	0.50	3
Tl			1	0.066	ug/l	8.09	282.00	1.195E-04	Pulse	0.50	3
Sn			1	0.546	ug/l	16.72	566.68	6.286E-04	Pulse	0.30	3
Sr			1	14380.133	ug/l	1.34	5,081,059.33	5.637E+00	Pulse	0.50	3
[Pb]			1	0.109	ug/l	28.58	532.68	2.465E-04	Pulse	0.50	3
Ca			1	267497.574	ug/l	2.20	406,749.28	4.131E+00	Pulse	0.50	3
Ti			1	1.021	ug/l	60.14	14.00	1.429E-04	Pulse	0.50	3
Na			1	14698329.633	ug/l	2.11	919,423,552.00	9.338E+03	Analog	1.00	3
Mg			1	670929.986	ug/l	2.36	18,980,044.00	1.928E+02	Analog	1.00	3
K			1	332722.132	ug/l	2.48	8,797,962.00	8.936E+01	Analog	1.00	3
V			1	59.243	ug/l	3.16	33,527.36	3.405E-01	Pulse	0.50	3
Mn			1	219.329	ug/l	2.21	60,579.13	7.225E-01	Pulse	0.50	3
Fe			1	32.155	ug/l	2.17	23,167.80	2.763E-01	Pulse	0.50	3
Co			1	0.854	ug/l	13.58	996.03	1.188E-02	Pulse	0.50	3
Ni			1	-0.042	ug/l	-298.02	1,667.41	1.988E-02	Pulse	0.50	3
Cu			1	3.704	ug/l	16.36	11,794.29	1.407E-01	Pulse	0.50	3
Zn			1	-5.349	ug/l	-7.99	856.35	6.702E-03	Pulse	1.00	3
Cd			1	0.278	ug/l	17.71	70.00	5.473E-04	Pulse	0.50	3
Al			1	2.966	ug/l	46.28	240.33	2.438E-03	Pulse	1.00	3
Se			1	6.785	ug/l	13.09	47.11	3.688E-04	Pulse	3.00	3
Sb			1	0.233	ug/l	29.41	261.00	2.899E-04	Pulse	1.00	3
Se			1	209.131	ug/l	3.98	509.78	3.988E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,360,288.58	1.33	73.9	Pulse	0.50	3
1	Sc		98,493.12	2.27	117.3	Pulse	0.30	3
1	Ge		83,875.30	2.26	101.6	Pulse	0.30	3
1	In		901,537.98	1.47	93.6	Pulse	0.30	3
1	Tb		3,559,766.33	1.72	88.7	Pulse	0.50	3
1	Lu		2,158,748.75	1.95	89.4	Pulse	0.50	3
1	Ge		127,810.10	0.73	101.1	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Te		0.00	---		Pulse	0.50	3
1	Li		276.67	30.76	87.4	Pulse	0.30	3

Quantitation Report

File Name	029SMPL.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 12:05
Sample Name	FA64963-3F
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.008	ug/l	6.65	1,194.71	1.414E-02	Pulse	0.50	3
As			1	1719.424	ug/l	1.94	129,803.98	1.537E+00	Pulse	1.00	3
Mo			1	20.632	ug/l	1.72	10,822.49	8.381E-02	Pulse	0.50	3
Pb			1	1.384	ug/l	3.92	4,767.34	2.244E-03	Pulse	1.00	3
Be			1	0.305	ug/l	123.22	1.00	1.011E-05	Pulse	2.00	3
Ag			1	0.066	ug/l	29.98	184.00	1.422E-03	Pulse	0.50	3
Ba			1	9.920	ug/l	4.23	2,047.46	2.282E-03	Pulse	0.50	3
Tl			1	0.025	ug/l	12.04	129.33	5.543E-05	Pulse	0.50	3
Sn			1	0.517	ug/l	12.83	552.24	6.152E-04	Pulse	0.30	3
Sr			1	5639.279	ug/l	3.42	1,983,591.58	2.211E+00	Pulse	0.50	3
[Pb]			1	1.485	ug/l	7.17	2,381.51	1.121E-03	Pulse	0.50	3
Ca			1	49721.415	ug/l	3.08	75,832.03	7.686E-01	Pulse	0.50	3
Ti			1	0.689	ug/l	63.13	10.00	1.017E-04	Pulse	0.50	3
Na			1	16222067.510	ug/l	2.37	1,016,850,773.33	1.031E+04	Analog	1.00	3
Mg			1	165746.581	ug/l	2.33	4,701,202.33	4.765E+01	Analog	1.00	3
K			1	314677.832	ug/l	2.33	8,340,179.50	8.453E+01	Analog	1.00	3
V			1	-0.530	ug/l	-32.10	2,622.85	2.658E-02	Pulse	0.50	3
Mn			1	109.094	ug/l	2.54	30,450.46	3.605E-01	Pulse	0.50	3
Fe			1	379.506	ug/l	1.99	190,727.42	2.258E+00	Pulse	0.50	3
Co			1	0.086	ug/l	27.78	143.33	1.694E-03	Pulse	0.50	3
Ni			1	-2.990	ug/l	-3.78	778.69	9.216E-03	Pulse	0.50	3
Cu			1	-3.571	ug/l	-5.84	5,594.16	6.623E-02	Pulse	0.50	3
Zn			1	-6.437	ug/l	-2.38	743.02	5.755E-03	Pulse	1.00	3
Cd			1	0.008	ug/l	101.99	4.00	3.104E-05	Pulse	0.50	3
Al			1	1.460	ug/l	33.58	218.67	2.215E-03	Pulse	1.00	3
Se			1	2.439	ug/l	65.09	26.78	2.079E-04	Pulse	3.00	3
Sb			1	-0.002	ug/l	-723.15	131.67	1.468E-04	Pulse	1.00	3
Se			1	243.824	ug/l	1.45	599.01	4.639E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,333,211.25	1.81	73.0	Pulse	0.50	3
1	Sc		98,698.93	2.06	117.6	Pulse	0.30	3
1	Ge		84,484.03	1.15	102.3	Pulse	0.30	3
1	In		897,717.50	2.26	93.2	Pulse	0.30	3
1	Tb		3,524,664.42	2.03	87.9	Pulse	0.50	3
1	Lu		2,125,613.46	2.76	88.1	Pulse	0.50	3
1	Ge		129,146.99	1.61	102.2	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		280.00	7.43	88.4	Pulse	0.30	3

Quantitation Report

File Name	030CCVA.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 12:08
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	49.775	ug/l	1.24	373,448.54	3.592E+00	Pulse	0.50	3
As			1	47.914	ug/l	0.22	44,529.88	4.283E-01	Pulse	1.00	3
Mo			1	46.185	ug/l	1.00	296,055.62	1.871E+00	Pulse	0.50	3
Pb			1	49.419	ug/l	1.05	1,711,891.88	6.666E-01	Pulse	1.00	3
Be			1	47.905	ug/l	2.37	1,418.88	1.273E-02	Pulse	2.00	3
Ag			1	46.134	ug/l	0.47	1,064,354.71	6.727E+00	Pulse	0.50	3
Ba			1	47.275	ug/l	2.10	121,021.58	1.081E-01	Pulse	0.50	3
Tl			1	48.898	ug/l	1.52	2,516,556.42	7.733E-01	Pulse	0.50	3
Sn			1	47.946	ug/l	1.82	249,881.96	2.233E-01	Pulse	0.30	3
Sr			1	50.857	ug/l	2.42	223,510.14	1.997E-01	Pulse	0.50	3
[Pb]			1	49.320	ug/l	1.22	805,627.77	3.137E-01	Pulse	0.50	3
Ca			1	4901.548	ug/l	2.32	84,476.39	7.577E-01	Pulse	0.50	3
Ti			1	48.218	ug/l	4.59	6,688.50	5.999E-02	Pulse	0.50	3
Na			1	6856.821	ug/l	0.43	4,875,284.17	4.371E+01	Analog	1.00	3
Mg			1	4954.340	ug/l	2.37	1,590,289.12	1.426E+01	Pulse	1.00	3
K			1	5106.048	ug/l	2.10	1,552,748.96	1.393E+01	Pulse	1.00	3
V			1	47.705	ug/l	2.11	282,635.44	2.535E+00	Pulse	0.50	3
Mn			1	49.661	ug/l	1.04	169,766.48	1.633E+00	Pulse	0.50	3
Fe			1	5033.891	ug/l	1.67	29,861,948.67	2.873E+02	Analog	0.50	3
Co			1	49.411	ug/l	1.26	681,053.46	6.551E+00	Pulse	0.50	3
Ni			1	49.581	ug/l	1.09	188,516.48	1.813E+00	Pulse	0.50	3
Cu			1	49.634	ug/l	1.13	538,958.64	5.184E+00	Pulse	0.50	3
Zn			1	49.073	ug/l	1.39	69,383.68	4.385E-01	Pulse	1.00	3
Cd			1	45.396	ug/l	1.15	137,072.94	8.664E-01	Pulse	0.50	3
Al			1	2765.951	ug/l	2.19	457,670.03	4.105E+00	Pulse	1.00	3
Se			1	48.819	ug/l	1.73	2,876.66	1.818E-02	Pulse	3.00	3
Sb			1	47.663	ug/l	1.74	324,144.54	2.896E-01	Pulse	1.00	3
Se			1	49.098	ug/l	0.54	1,467.06	9.271E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,254,880.83	2.05	101.9	Pulse	0.50	3
1	Sc		111,528.12	2.57	132.9	Pulse	0.30	3
1	Ge		103,963.65	1.14	125.9	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,119,365.89	2.03	116.2	Pulse	0.30	3
1	Tb		4,343,518.83	1.52	108.3	Pulse	0.50	3
1	Lu		2,568,223.33	1.38	106.4	Pulse	0.50	3
1	Ge		158,233.22	1.53	125.2	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		356.67	14.69	112.6	Pulse	0.30	3

Quantitation Report

File Name	031_CCV.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 12:12
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	99.729	ug/l	0.56	726,308.21	7.191E+00	Pulse	0.50	3
As			1	95.972	ug/l	0.26	86,644.16	8.578E-01	Pulse	1.00	3
Mo			1	92.666	ug/l	1.53	579,879.87	3.754E+00	Pulse	0.50	3
Pb			1	96.987	ug/l	1.46	3,315,761.83	1.308E+00	Pulse	1.00	3
Be			1	93.701	ug/l	1.08	2,731.85	2.489E-02	Pulse	2.00	3
Ag			1	91.096	ug/l	1.13	2,051,774.67	1.328E+01	Pulse	0.50	3
Ba			1	94.854	ug/l	0.57	237,521.36	2.170E-01	Pulse	0.50	3
Tl			1	97.726	ug/l	0.60	4,888,677.00	1.545E+00	Pulse	0.50	3
Sn			1	97.283	ug/l	0.62	495,539.41	4.527E-01	Pulse	0.30	3
Sr			1	102.786	ug/l	0.71	441,444.85	4.033E-01	Pulse	0.50	3
[Pb]			1	97.502	ug/l	0.58	1,571,943.17	6.200E-01	Pulse	0.50	3
Ca			1	9690.537	ug/l	1.11	164,312.10	1.497E+00	Pulse	0.50	3
Ti			1	97.286	ug/l	2.16	13,281.86	1.210E-01	Pulse	0.50	3
Na			1	11302.110	ug/l	0.20	7,897,225.17	7.195E+01	Analog	1.00	3
Mg			1	9782.181	ug/l	0.93	3,087,725.25	2.813E+01	Pulse	1.00	3
K			1	10010.007	ug/l	0.57	2,970,029.25	2.706E+01	Pulse	1.00	3
V			1	94.974	ug/l	0.69	550,730.69	5.018E+00	Pulse	0.50	3
Mn			1	99.958	ug/l	0.63	331,775.39	3.285E+00	Pulse	0.50	3
Fe			1	10096.116	ug/l	0.58	58,185,494.67	5.761E+02	Analog	0.50	3
Co			1	98.728	ug/l	1.13	1,322,125.33	1.309E+01	Pulse	0.50	3
Ni			1	98.419	ug/l	1.15	361,581.49	3.580E+00	Pulse	0.50	3
Cu			1	98.609	ug/l	0.89	1,030,101.21	1.020E+01	Pulse	0.50	3
Zn			1	97.408	ug/l	1.84	132,731.23	8.593E-01	Pulse	1.00	3
Cd			1	90.072	ug/l	1.12	265,539.69	1.719E+00	Pulse	0.50	3
Al			1	5525.558	ug/l	1.07	899,822.08	8.199E+00	Pulse	1.00	3
Se			1	97.256	ug/l	2.03	5,577.37	3.611E-02	Pulse	3.00	3
Sb			1	95.033	ug/l	1.15	632,012.29	5.774E-01	Pulse	1.00	3
Se			1	98.322	ug/l	2.02	2,857.10	1.850E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,163,337.00	0.91	99.0	Pulse	0.50	3
1	Sc		109,758.30	1.16	130.8	Pulse	0.30	3
1	Ge		101,008.04	0.76	122.3	Pulse	0.30	3
1	In		1,094,721.34	0.85	113.6	Pulse	0.30	3
1	Tb		4,292,450.83	1.44	107.0	Pulse	0.50	3
1	Lu		2,535,493.67	1.40	105.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		154,491.88	1.56	122.2	Pulse	0.30	3
1	Te		7.33	41.66		Pulse	0.50	3
1	Li		364.45	2.94	115.1	Pulse	0.30	3

Quantitation Report

File Name	032_CCB.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 12:16
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.018	ug/l	65.57	832.69	8.178E-03	Pulse	0.50	3
As			1	0.039	ug/l	11.33	52.33	5.142E-04	Pulse	1.00	3
Mo			1	0.071	ug/l	32.67	483.34	3.123E-03	Pulse	0.50	3
Pb			1	0.015	ug/l	30.77	1,469.07	5.818E-04	Pulse	1.00	3
Be			1	0.086	ug/l	83.58	2.67	2.474E-05	Pulse	2.00	3
Ag			1	0.021	ug/l	13.34	546.68	3.514E-03	Pulse	0.50	3
Ba			1	0.017	ug/l	33.50	58.67	5.285E-05	Pulse	0.50	3
Tl			1	0.027	ug/l	3.82	1,472.07	4.479E-04	Pulse	0.50	3
Sn			1	0.081	ug/l	3.00	835.58	7.505E-04	Pulse	0.30	3
Sr			1	0.069	ug/l	6.92	742.69	6.672E-04	Pulse	0.50	3
[Pb]			1	0.012	ug/l	26.00	638.01	2.526E-04	Pulse	0.50	3
Ca			1	6.229	ug/l	30.01	208.67	1.914E-03	Pulse	0.50	3
Ti			1	0.037	ug/l	103.76	6.67	6.184E-05	Pulse	0.50	3
Na			1	967.276	ug/l	2.12	685,912.00	6.296E+00	Pulse	1.00	3
Mg			1	-4.559	ug/l	-4.54	2,089.78	1.918E-02	Pulse	1.00	3
K			1	23.024	ug/l	9.27	34,261.90	3.145E-01	Pulse	1.00	3
V			1	-0.293	ug/l	-3.54	1,522.73	1.397E-02	Pulse	0.50	3
Mn			1	0.124	ug/l	11.88	642.68	6.314E-03	Pulse	0.50	3
Fe			1	1.749	ug/l	10.74	19,624.60	1.926E-01	Pulse	0.50	3
Co			1	0.016	ug/l	30.55	272.00	2.662E-03	Pulse	0.50	3
Ni			1	-0.376	ug/l	-3.19	653.35	6.418E-03	Pulse	0.50	3
Cu			1	-0.130	ug/l	-13.22	9,122.18	8.953E-02	Pulse	0.50	3
Zn			1	-0.263	ug/l	-24.06	1,407.72	9.066E-03	Pulse	1.00	3
Cd			1	0.011	ug/l	26.07	36.67	2.352E-04	Pulse	0.50	3
Al			1	0.480	ug/l	70.46	296.00	2.711E-03	Pulse	1.00	3
Se			1	0.081	ug/l	99.64	23.00	1.477E-04	Pulse	3.00	3
Sb			1	0.014	ug/l	24.04	260.33	2.340E-04	Pulse	1.00	3
Se			1	0.337	ug/l	47.81	20.56	1.319E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,287,500.67	1.98	102.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		108,949.84	2.08	129.8	Pulse	0.30	3
1	Ge		101,883.65	1.91	123.4	Pulse	0.30	3
1	In		1,113,281.87	2.27	115.5	Pulse	0.30	3
1	Tb		4,295,531.83	2.74	107.1	Pulse	0.50	3
1	Lu		2,527,354.17	2.63	104.7	Pulse	0.50	3
1	Ge		155,433.01	2.59	123.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		384.45	6.39	121.4	Pulse	0.30	3

Quantitation Report

File Name	033SMPL.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 12:20
Sample Name	FA64963-4F
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2.197	ug/l	8.49	1,935.43	2.271E-02	Pulse	0.50	3
As			1	3624.173	ug/l	0.50	276,110.75	3.239E+00	Pulse	1.00	3
Mo			1	98.281	ug/l	4.80	51,917.47	3.984E-01	Pulse	0.50	3
Pb			1	0.092	ug/l	19.22	1,057.04	5.027E-04	Pulse	1.00	3
Be			1	1.076	ug/l	34.76	3.00	3.059E-05	Pulse	2.00	3
Ag			1	0.232	ug/l	18.18	502.01	3.839E-03	Pulse	0.50	3
Ba			1	8.017	ug/l	2.76	1,649.42	1.847E-03	Pulse	0.50	3
Tl			1	0.098	ug/l	7.42	404.01	1.710E-04	Pulse	0.50	3
Sn			1	0.663	ug/l	24.17	608.90	6.830E-04	Pulse	0.30	3
Sr			1	2333.436	ug/l	2.69	816,583.08	9.150E-01	Pulse	0.50	3
[Pb]			1	0.108	ug/l	41.18	517.34	2.463E-04	Pulse	0.50	3
Ca			1	20204.931	ug/l	4.14	30,617.18	3.129E-01	Pulse	0.50	3
Ti			1	0.638	ug/l	29.32	9.33	9.532E-05	Pulse	0.50	3
Na			1	11619730.049	ug/l	2.20	722,391,893.33	7.382E+03	Analog	1.00	3
Mg			1	32282.258	ug/l	1.86	910,699.29	9.306E+00	Pulse	1.00	3
K			1	232010.206	ug/l	0.78	6,105,713.33	6.239E+01	Analog	1.00	3
V			1	702.921	ug/l	1.55	364,200.19	3.721E+00	Pulse	0.50	3
Mn			1	0.523	ug/l	11.42	337.33	3.955E-03	Pulse	0.50	3
Fe			1	21.755	ug/l	14.56	18,508.89	2.169E-01	Pulse	0.50	3
Co			1	0.387	ug/l	16.54	484.68	5.687E-03	Pulse	0.50	3
Ni			1	-2.355	ug/l	-23.70	983.36	1.152E-02	Pulse	0.50	3
Cu			1	10.466	ug/l	3.85	17,895.63	2.099E-01	Pulse	0.50	3
Zn			1	-5.963	ug/l	-8.45	804.35	6.167E-03	Pulse	1.00	3
Cd			1	0.122	ug/l	52.21	32.67	2.487E-04	Pulse	0.50	3
Al			1	4.212	ug/l	11.66	256.67	2.623E-03	Pulse	1.00	3
Se			1	8.826	ug/l	13.86	57.89	4.443E-04	Pulse	3.00	3
Sb			1	1.622	ug/l	4.55	1,011.03	1.133E-03	Pulse	1.00	3
Se			1	156.913	ug/l	19.86	391.34	3.010E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,365,577.25	2.78	74.1	Pulse	0.50	3
1	Sc		97,872.68	1.03	116.6	Pulse	0.30	3
1	Ge		85,252.30	1.41	103.2	Pulse	0.30	3
1	In		892,747.84	2.13	92.6	Pulse	0.30	3
1	Tb		3,512,949.50	3.10	87.6	Pulse	0.50	3
1	Lu		2,104,395.21	2.78	87.2	Pulse	0.50	3
1	Ge		130,428.43	2.46	103.2	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Te		0.00	---		Pulse	0.50	3
1	Li		290.00	16.93	91.6	Pulse	0.30	3

Quantitation Report

File Name	034SMPL.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 12:24
Sample Name	FA64963-5F
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.925	ug/l	6.24	1,661.41	2.075E-02	Pulse	0.50	3
As			1	1351.488	ug/l	3.02	96,651.03	1.208E+00	Pulse	1.00	3
Mo			1	659.095	ug/l	0.90	326,060.66	2.670E+00	Pulse	0.50	3
Pb			1	0.253	ug/l	4.81	1,508.74	7.190E-04	Pulse	1.00	3
Be			1	0.460	ug/l	69.42	1.33	1.423E-05	Pulse	2.00	3
Ag			1	0.192	ug/l	6.85	397.34	3.255E-03	Pulse	0.50	3
Ba			1	16.157	ug/l	4.42	3,211.63	3.709E-03	Pulse	0.50	3
Tl			1	0.100	ug/l	13.31	394.01	1.742E-04	Pulse	0.50	3
Sn			1	0.700	ug/l	4.25	606.68	7.000E-04	Pulse	0.30	3
Sr			1	12132.064	ug/l	3.12	4,118,960.00	4.756E+00	Pulse	0.50	3
[Pb]			1	0.240	ug/l	15.70	690.69	3.298E-04	Pulse	0.50	3
Ca			1	125660.030	ug/l	5.04	184,437.95	1.941E+00	Pulse	0.50	3
Ti			1	2.150	ug/l	46.41	26.67	2.834E-04	Pulse	0.50	3
Na			1	18130176.417	ug/l	3.77	1,094,765,184.00	1.152E+04	Analog	1.00	3
Mg			1	630309.695	ug/l	4.14	17,212,008.67	1.811E+02	Analog	1.00	3
K			1	383265.152	ug/l	4.29	9,778,578.00	1.029E+02	Analog	1.00	3
V			1	991.085	ug/l	4.45	497,517.04	5.235E+00	Pulse	0.50	3
Mn			1	32.095	ug/l	2.42	8,613.26	1.076E-01	Pulse	0.50	3
Fe			1	22.022	ug/l	4.03	17,481.21	2.185E-01	Pulse	0.50	3
Co			1	0.385	ug/l	8.49	452.68	5.657E-03	Pulse	0.50	3
Ni			1	-1.728	ug/l	-22.31	1,102.03	1.378E-02	Pulse	0.50	3
Cu			1	3.284	ug/l	11.51	10,915.11	1.364E-01	Pulse	0.50	3
Zn			1	-4.582	ug/l	-6.73	899.69	7.370E-03	Pulse	1.00	3
Cd			1	0.258	ug/l	10.56	62.00	5.074E-04	Pulse	0.50	3
Al			1	0.794	ug/l	159.18	201.00	2.116E-03	Pulse	1.00	3
Se			1	8.014	ug/l	15.63	50.55	4.142E-04	Pulse	3.00	3
Sb			1	0.837	ug/l	6.86	569.01	6.566E-04	Pulse	1.00	3
Se			1	307.731	ug/l	1.26	712.79	5.836E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,262,203.83	2.80	70.8	Pulse	0.50	3
1	Sc		95,139.61	3.88	113.3	Pulse	0.30	3
1	Ge		80,039.64	1.63	96.9	Pulse	0.30	3
1	In		866,673.32	2.99	89.9	Pulse	0.30	3
1	Tb		3,450,131.67	3.76	86.0	Pulse	0.50	3
1	Lu		2,097,666.37	3.82	86.9	Pulse	0.50	3
1	Ge		122,119.42	1.26	96.6	Pulse	0.30	3
1	Te		3.33	91.65		Pulse	0.50	3
1	Li		257.78	7.12	81.4	Pulse	0.30	3

Quantitation Report

File Name	035SMPL.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 12:27
Sample Name	FA64964-1F
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.759	ug/l	2.68	3,078.25	3.423E-02	Pulse	0.50	3
As			1	2.152	ug/l	3.44	880.36	9.781E-03	Pulse	1.00	3
Mo			1	2.095	ug/l	5.31	5,822.26	4.267E-02	Pulse	0.50	3
Pb			1	0.047	ug/l	7.02	1,691.75	6.945E-04	Pulse	1.00	3
Be			1	0.049	ug/l	118.56	0.83	8.494E-06	Pulse	2.00	3
Ag			1	0.019	ug/l	23.95	253.33	1.850E-03	Pulse	0.50	3
Ba			1	59.894	ug/l	2.15	68,712.28	6.851E-02	Pulse	0.50	3
Tl			1	0.003	ug/l	33.91	126.00	4.154E-05	Pulse	0.50	3
Sn			1	0.472	ug/l	6.31	1,475.63	1.472E-03	Pulse	0.30	3
Sr			1	157.116	ug/l	3.06	309,132.44	3.083E-01	Pulse	0.50	3
[Pb]			1	0.052	ug/l	10.26	838.03	3.441E-04	Pulse	0.50	3
Ca			1	15843.613	ug/l	2.64	118,191.74	1.224E+00	Pulse	0.50	3
Ti			1	0.497	ug/l	35.24	31.33	3.251E-04	Pulse	0.50	3
Na			1	71889.102	ug/l	1.09	22,071,400.67	2.285E+02	Analog	1.00	3
Mg			1	7608.799	ug/l	2.21	1,058,484.60	1.096E+01	Pulse	1.00	3
K			1	5850.696	ug/l	1.68	781,047.85	8.087E+00	Pulse	1.00	3
V			1	1.732	ug/l	10.93	7,221.36	7.485E-02	Pulse	0.50	3
Mn			1	0.521	ug/l	3.09	970.70	1.079E-02	Pulse	0.50	3
Fe			1	11.766	ug/l	2.86	38,521.33	4.284E-01	Pulse	0.50	3
Co			1	0.016	ug/l	11.54	142.67	1.585E-03	Pulse	0.50	3
Ni			1	-0.680	ug/l	-3.15	694.68	7.728E-03	Pulse	0.50	3
Cu			1	-0.555	ug/l	-6.49	6,687.85	7.435E-02	Pulse	0.50	3
Zn			1	1.337	ug/l	25.56	2,342.82	1.718E-02	Pulse	1.00	3
Cd			1	0.015	ug/l	17.19	22.00	1.610E-04	Pulse	0.50	3
Al			1	5.518	ug/l	9.56	588.34	6.091E-03	Pulse	1.00	3
Se			1	0.194	ug/l	140.21	20.89	1.535E-04	Pulse	3.00	3
Sb			1	0.073	ug/l	22.17	369.67	3.695E-04	Pulse	1.00	3
Se			1	2.048	ug/l	27.81	35.56	2.606E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,043,723.75	2.53	95.3	Pulse	0.50	3
1	Sc		96,609.25	3.23	115.1	Pulse	0.30	3
1	Ge		89,950.31	2.97	108.9	Pulse	0.30	3
1	In		1,003,426.17	3.66	104.1	Pulse	0.30	3
1	Tb		4,083,860.75	3.32	101.8	Pulse	0.50	3
1	Lu		2,437,188.92	2.66	101.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		136,590.88	2.75	108.1	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		331.12	16.89	104.6	Pulse	0.30	3

Quantitation Report

File Name	036SMPL.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 12:31
Sample Name	FA64964-2F
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	4.866	ug/l	1.26	16,326.86	1.821E-01	Pulse	0.50	3
As			1	5.536	ug/l	0.89	2,232.13	2.490E-02	Pulse	1.00	3
Mo			1	1.022	ug/l	4.45	2,898.24	2.093E-02	Pulse	0.50	3
Pb			1	0.091	ug/l	2.97	2,356.17	9.895E-04	Pulse	1.00	3
Be			1	-0.015	ug/l	0.00	0.00	0.000E+00	Pulse	2.00	3
Ag			1	0.014	ug/l	24.71	202.67	1.466E-03	Pulse	0.50	3
Ba			1	12.733	ug/l	7.02	14,507.85	1.458E-02	Pulse	0.50	3
Tl			1	0.006	ug/l	18.16	193.33	6.466E-05	Pulse	0.50	3
Sn			1	0.443	ug/l	4.50	1,395.62	1.404E-03	Pulse	0.30	3
Sr			1	299.989	ug/l	1.35	585,120.12	5.883E-01	Pulse	0.50	3
[Pb]			1	0.081	ug/l	4.86	1,037.37	4.356E-04	Pulse	0.50	3
Ca			1	29775.759	ug/l	0.47	223,876.88	2.300E+00	Pulse	0.50	3
Ti			1	0.645	ug/l	19.78	40.67	4.172E-04	Pulse	0.50	3
Na			1	22557.971	ug/l	0.39	6,990,867.83	7.181E+01	Analog	1.00	3
Mg			1	12162.392	ug/l	0.72	1,703,855.79	1.750E+01	Pulse	1.00	3
K			1	4753.190	ug/l	0.43	644,262.00	6.618E+00	Pulse	1.00	3
V			1	23.163	ug/l	1.43	62,077.51	6.377E-01	Pulse	0.50	3
Mn			1	0.415	ug/l	4.18	811.35	9.049E-03	Pulse	0.50	3
Fe			1	12.619	ug/l	2.33	40,600.24	4.528E-01	Pulse	0.50	3
Co			1	0.019	ug/l	24.57	164.00	1.831E-03	Pulse	0.50	3
Ni			1	-0.770	ug/l	-2.01	548.01	6.113E-03	Pulse	0.50	3
Cu			1	-0.692	ug/l	-1.91	6,037.63	6.735E-02	Pulse	0.50	3
Zn			1	0.934	ug/l	6.82	2,135.45	1.542E-02	Pulse	1.00	3
Cd			1	0.016	ug/l	59.64	23.33	1.683E-04	Pulse	0.50	3
Al			1	6.738	ug/l	2.16	681.01	6.996E-03	Pulse	1.00	3
Se			1	0.543	ug/l	9.26	30.22	2.182E-04	Pulse	3.00	3
Sb			1	0.085	ug/l	4.12	404.68	4.069E-04	Pulse	1.00	3
Se			1	1.760	ug/l	19.03	32.33	2.337E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,993,344.75	1.92	93.7	Pulse	0.50	3
1	Sc		97,356.65	0.91	116.0	Pulse	0.30	3
1	Ge		89,653.10	1.55	108.6	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		994,719.89	1.55	103.2	Pulse	0.30	3
1	Tb		3,996,105.33	0.92	99.6	Pulse	0.50	3
1	Lu		2,381,066.83	1.02	98.6	Pulse	0.50	3
1	Ge		138,485.32	1.40	109.6	Pulse	0.30	3
1	Te		2.00	173.21		Pulse	0.50	3
1	Li		293.34	20.86	92.6	Pulse	0.30	3

Quantitation Report

File Name	037SMPL.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 12:35
Sample Name	FA64964-3F
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.927	ug/l	4.40	3,583.01	4.026E-02	Pulse	0.50	3
As			1	0.953	ug/l	7.17	394.67	4.424E-03	Pulse	1.00	3
Mo			1	2.076	ug/l	6.55	5,737.56	4.227E-02	Pulse	0.50	3
Pb			1	0.012	ug/l	31.94	1,070.70	4.588E-04	Pulse	1.00	3
Be			1	-0.003	ug/l	-742.07	0.17	1.630E-06	Pulse	2.00	3
Ag			1	0.010	ug/l	2.68	159.33	1.171E-03	Pulse	0.50	3
Ba			1	75.271	ug/l	5.90	84,172.85	8.610E-02	Pulse	0.50	3
Tl			1	0.002	ug/l	45.05	81.33	2.775E-05	Pulse	0.50	3
Sn			1	0.501	ug/l	6.58	1,506.74	1.540E-03	Pulse	0.30	3
Sr			1	378.305	ug/l	5.35	725,331.04	7.418E-01	Pulse	0.50	3
[Pb]			1	0.005	ug/l	100.28	451.34	1.935E-04	Pulse	0.50	3
Ca			1	34836.316	ug/l	5.47	256,328.11	2.690E+00	Pulse	0.50	3
Ti			1	0.710	ug/l	21.85	43.33	4.575E-04	Pulse	0.50	3
Na			1	25433.552	ug/l	5.45	7,711,909.00	8.094E+01	Analog	1.00	3
Mg			1	12422.148	ug/l	5.76	1,702,918.91	1.788E+01	Pulse	1.00	3
K			1	5642.472	ug/l	5.61	744,002.63	7.808E+00	Pulse	1.00	3
V			1	1.552	ug/l	16.17	6,670.50	7.012E-02	Pulse	0.50	3
Mn			1	78.569	ug/l	3.69	114,956.97	1.292E+00	Pulse	0.50	3
Fe			1	152.223	ug/l	4.09	394,471.66	4.435E+00	Pulse	0.50	3
Co			1	0.016	ug/l	19.46	143.33	1.614E-03	Pulse	0.50	3
Ni			1	-0.709	ug/l	-4.92	640.68	7.209E-03	Pulse	0.50	3
Cu			1	-0.254	ug/l	-21.29	7,989.67	8.979E-02	Pulse	0.50	3
Zn			1	35.401	ug/l	4.94	22,466.71	1.654E-01	Pulse	1.00	3
Cd			1	0.006	ug/l	54.74	10.00	7.440E-05	Pulse	0.50	3
Al			1	5.813	ug/l	22.59	599.01	6.310E-03	Pulse	1.00	3
Se			1	0.199	ug/l	104.88	21.00	1.545E-04	Pulse	3.00	3
Sb			1	0.046	ug/l	8.69	280.67	2.868E-04	Pulse	1.00	3
Se			1	0.827	ug/l	37.24	19.78	1.462E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,929,534.83	4.59	91.7	Pulse	0.50	3
1	Sc		95,492.46	6.14	113.8	Pulse	0.30	3
1	Ge		89,055.36	4.56	107.9	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		979,606.11	5.11	101.7	Pulse	0.30	3
1	Tb		3,957,978.92	4.14	98.7	Pulse	0.50	3
1	Lu		2,337,496.83	4.74	96.8	Pulse	0.50	3
1	Ge		135,973.94	4.32	107.6	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		315.56	13.75	99.7	Pulse	0.30	3

Quantitation Report

File Name	038SMPL.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 12:39
Sample Name	FA64964-4F
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.645	ug/l	5.61	2,684.20	3.011E-02	Pulse	0.50	3
As			1	0.859	ug/l	4.54	356.67	4.001E-03	Pulse	1.00	3
Mo			1	3.027	ug/l	3.93	8,440.59	6.153E-02	Pulse	0.50	3
Pb			1	0.026	ug/l	11.39	1,317.05	5.519E-04	Pulse	1.00	3
Be			1	0.127	ug/l	34.93	1.83	1.884E-05	Pulse	2.00	3
Ag			1	0.010	ug/l	25.32	164.67	1.197E-03	Pulse	0.50	3
Ba			1	55.412	ug/l	3.29	63,074.48	6.339E-02	Pulse	0.50	3
Tl			1	0.000	ug/l	542.62	48.67	1.650E-05	Pulse	0.50	3
Sn			1	0.443	ug/l	10.25	1,398.95	1.404E-03	Pulse	0.30	3
Sr			1	489.945	ug/l	3.22	955,856.81	9.606E-01	Pulse	0.50	3
[Pb]			1	0.024	ug/l	18.28	605.34	2.535E-04	Pulse	0.50	3
Ca			1	42135.374	ug/l	3.46	316,367.02	3.254E+00	Pulse	0.50	3
Ti			1	0.350	ug/l	37.15	22.67	2.336E-04	Pulse	0.50	3
Na			1	40230.051	ug/l	3.65	12,439,281.67	1.279E+02	Analog	1.00	3
Mg			1	21217.903	ug/l	3.92	2,966,091.50	3.051E+01	Pulse	1.00	3
K			1	6769.679	ug/l	3.53	905,989.50	9.318E+00	Pulse	1.00	3
V			1	1.891	ug/l	11.00	7,678.20	7.902E-02	Pulse	0.50	3
Mn			1	241.765	ug/l	1.85	354,017.74	3.972E+00	Pulse	0.50	3
Fe			1	36.015	ug/l	2.59	99,831.53	1.120E+00	Pulse	0.50	3
Co			1	0.021	ug/l	15.48	172.67	1.934E-03	Pulse	0.50	3
Ni			1	-0.674	ug/l	-2.74	698.68	7.840E-03	Pulse	0.50	3
Cu			1	-0.779	ug/l	-1.69	5,609.50	6.293E-02	Pulse	0.50	3
Zn			1	1.329	ug/l	2.49	2,353.48	1.714E-02	Pulse	1.00	3
Cd			1	0.003	ug/l	113.74	6.67	4.862E-05	Pulse	0.50	3
Al			1	4.810	ug/l	19.07	540.01	5.566E-03	Pulse	1.00	3
Se			1	0.224	ug/l	35.55	21.89	1.592E-04	Pulse	3.00	3
Sb			1	0.047	ug/l	9.99	291.00	2.920E-04	Pulse	1.00	3
Se			1	0.746	ug/l	21.23	19.00	1.386E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,958,869.25	2.78	92.6	Pulse	0.50	3
1	Sc		97,314.60	3.72	115.9	Pulse	0.30	3
1	Ge		89,149.63	1.79	108.0	Pulse	0.30	3
1	In		995,745.83	3.07	103.3	Pulse	0.30	3
1	Tb		3,995,468.00	3.01	99.6	Pulse	0.50	3
1	Lu		2,387,457.17	3.06	98.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		137,275.07	2.92	108.6	Pulse	0.30	3
1	Te		2.00	100.00		Pulse	0.50	3
1	Li		341.12	8.81	107.7	Pulse	0.30	3

Quantitation Report

File Name	039SMPL.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 12:43
Sample Name	CRIA
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.992	ug/l	2.15	7,838.93	7.836E-02	Pulse	0.50	3
As			1	0.973	ug/l	1.03	886.02	8.856E-03	Pulse	1.00	3
Mo			1	0.939	ug/l	4.05	5,809.59	3.826E-02	Pulse	0.50	3
Pb			1	1.000	ug/l	1.48	34,352.66	1.386E-02	Pulse	1.00	3
Be			1	1.056	ug/l	14.01	30.00	2.824E-04	Pulse	2.00	3
Ag			1	0.980	ug/l	1.40	21,761.42	1.433E-01	Pulse	0.50	3
Ba			1	1.005	ug/l	2.54	2,493.51	2.311E-03	Pulse	0.50	3
Tl			1	0.959	ug/l	0.70	48,924.84	1.518E-02	Pulse	0.50	3
Sn			1	1.027	ug/l	2.43	5,558.65	5.152E-03	Pulse	0.30	3
Sr			1	1.019	ug/l	2.84	4,736.61	4.390E-03	Pulse	0.50	3
[Pb]			1	0.996	ug/l	0.67	16,126.95	6.508E-03	Pulse	0.50	3
Ca			1	102.851	ug/l	3.18	1,786.75	1.683E-02	Pulse	0.50	3
Ti			1	1.018	ug/l	17.74	136.00	1.283E-03	Pulse	0.50	3
Na			1	728.492	ug/l	1.27	507,210.79	4.779E+00	Pulse	1.00	3
Mg			1	99.286	ug/l	1.24	33,694.53	3.175E-01	Pulse	1.00	3
K			1	120.795	ug/l	1.40	61,171.37	5.764E-01	Pulse	1.00	3
V			1	0.739	ug/l	1.46	7,234.70	6.817E-02	Pulse	0.50	3
Mn			1	1.173	ug/l	2.38	4,077.78	4.077E-02	Pulse	0.50	3
Fe			1	99.721	ug/l	0.94	578,395.62	5.782E+00	Pulse	0.50	3
Co			1	1.013	ug/l	2.18	13,490.72	1.349E-01	Pulse	0.50	3
Ni			1	0.661	ug/l	5.90	4,394.51	4.394E-02	Pulse	0.50	3
Cu			1	0.390	ug/l	3.38	14,283.30	1.428E-01	Pulse	0.50	3
Zn			1	0.664	ug/l	6.74	2,602.51	1.714E-02	Pulse	1.00	3
Cd			1	0.949	ug/l	2.89	2,751.55	1.812E-02	Pulse	0.50	3
Al			1	56.332	ug/l	2.68	9,079.73	8.556E-02	Pulse	1.00	3
Se			1	1.101	ug/l	8.46	79.78	5.253E-04	Pulse	3.00	3
Sb			1	0.965	ug/l	1.16	6,484.15	6.010E-03	Pulse	1.00	3
Se			1	1.203	ug/l	18.02	44.67	2.942E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,223,211.50	0.90	100.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		106,132.92	0.92	126.4	Pulse	0.30	3
1	Ge		100,046.34	1.46	121.2	Pulse	0.30	3
1	In		1,078,947.11	0.16	112.0	Pulse	0.30	3
1	Tb		4,180,504.75	1.34	104.2	Pulse	0.50	3
1	Lu		2,478,137.08	1.35	102.7	Pulse	0.50	3
1	Ge		151,860.63	0.45	120.1	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		368.90	7.02	116.5	Pulse	0.30	3

Quantitation Report

File Name	040SMPL.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 12:46
Sample Name	ICSA
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.236	ug/l	3.71	2,160.13	2.386E-02	Pulse	0.50	3
As			1	0.111	ug/l	6.80	105.00	1.159E-03	Pulse	1.00	3
Mo			1	1991.363	ug/l	0.82	10,948,498.67	8.067E+01	Analog	0.50	3
Pb			1	0.068	ug/l	4.35	2,981.60	1.291E-03	Pulse	1.00	3
Be			1	0.031	ug/l	125.65	1.00	1.012E-05	Pulse	2.00	3
Ag			1	0.057	ug/l	3.43	1,191.38	8.777E-03	Pulse	0.50	3
Ba			1	0.055	ug/l	18.60	131.33	1.380E-04	Pulse	0.50	3
Tl			1	0.003	ug/l	14.41	177.33	6.594E-05	Pulse	0.50	3
Sn			1	0.099	ug/l	12.55	795.58	8.352E-04	Pulse	0.30	3
Sr			1	1.024	ug/l	1.32	4,198.49	4.408E-03	Pulse	0.50	3
[Pb]			1	0.071	ug/l	3.96	1,445.40	6.257E-04	Pulse	0.50	3
Ca			1	92875.916	ug/l	1.09	1,423,644.21	1.434E+01	Pulse	0.50	3
Ti			1	1986.330	ug/l	0.98	245,285.94	2.471E+00	Pulse	0.50	3
Na			1	103095.505	ug/l	1.32	65,032,821.33	6.551E+02	Analog	1.00	3
Mg			1	99487.809	ug/l	1.17	28,375,314.00	2.858E+02	Analog	1.00	3
K			1	103283.804	ug/l	0.93	27,484,628.67	2.769E+02	Analog	1.00	3
V			1	-0.155	ug/l	-19.36	2,104.12	2.120E-02	Pulse	0.50	3
Mn			1	0.555	ug/l	4.66	1,853.43	2.047E-02	Pulse	0.50	3
Fe			1	100302.819	ug/l	0.83	518,117,546.67	5.722E+03	Analog	0.50	3
Co			1	0.023	ug/l	7.83	331.33	3.658E-03	Pulse	0.50	3
Ni			1	-0.228	ug/l	-6.54	1,066.70	1.178E-02	Pulse	0.50	3
Cu			1	-0.479	ug/l	-1.58	4,869.96	5.379E-02	Pulse	0.50	3
Zn			1	-0.010	ug/l	-150.82	1,529.40	1.127E-02	Pulse	1.00	3
Cd			1	0.482	ug/l	0.80	1,250.05	9.210E-03	Pulse	0.50	3
Al			1	56454.297	ug/l	1.31	8,313,897.00	8.375E+01	Analog	1.00	3
Se			1	0.111	ug/l	65.49	21.56	1.587E-04	Pulse	3.00	3
Sb			1	0.034	ug/l	9.35	338.33	3.553E-04	Pulse	1.00	3
Se			1	0.084	ug/l	147.75	11.44	8.439E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,688,606.33	0.64	84.2	Pulse	0.50	3
1	Sc		99,279.70	1.03	118.3	Pulse	0.30	3
1	Ge		90,546.17	0.53	109.7	Pulse	0.30	3
1	In		952,517.32	0.61	98.8	Pulse	0.30	3
1	Tb		3,864,124.58	0.57	96.3	Pulse	0.50	3
1	Lu		2,309,909.25	0.59	95.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		135,723.49	0.42	107.4	Pulse	0.30	3
1	Te		2.67	114.56		Pulse	0.50	3
1	Li		318.89	9.71	100.7	Pulse	0.30	3

Quantitation Report

File Name	041SMPL.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 12:50
Sample Name	ICSAB
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	20.336	ug/l	2.31	132,161.70	1.472E+00	Pulse	0.50	3
As			1	19.425	ug/l	2.35	15,601.69	1.737E-01	Pulse	1.00	3
Mo			1	2004.015	ug/l	2.17	10,943,123.00	8.118E+01	Analog	0.50	3
Pb			1	0.065	ug/l	1.42	2,879.58	1.253E-03	Pulse	1.00	3
Be			1	0.017	ug/l	124.24	0.67	6.647E-06	Pulse	2.00	3
Ag			1	17.178	ug/l	2.84	337,634.11	2.505E+00	Pulse	0.50	3
Ba			1	0.059	ug/l	23.78	139.33	1.479E-04	Pulse	0.50	3
Tl			1	0.002	ug/l	50.30	146.00	5.484E-05	Pulse	0.50	3
Sn			1	0.099	ug/l	19.17	787.80	8.346E-04	Pulse	0.30	3
Sr			1	1.004	ug/l	4.23	4,089.12	4.330E-03	Pulse	0.50	3
[Pb]			1	0.071	ug/l	9.70	1,436.73	6.261E-04	Pulse	0.50	3
Ca			1	92855.537	ug/l	3.89	1,418,372.50	1.434E+01	Pulse	0.50	3
Ti			1	1981.878	ug/l	3.34	243,909.10	2.465E+00	Pulse	0.50	3
Na			1	102855.021	ug/l	3.20	64,665,561.33	6.536E+02	Analog	1.00	3
Mg			1	99444.790	ug/l	3.39	28,267,290.00	2.857E+02	Analog	1.00	3
K			1	103117.313	ug/l	3.07	27,349,102.00	2.764E+02	Analog	1.00	3
V			1	-0.145	ug/l	-14.98	2,154.79	2.177E-02	Pulse	0.50	3
Mn			1	20.060	ug/l	2.82	59,350.78	6.610E-01	Pulse	0.50	3
Fe			1	101220.878	ug/l	2.79	518,504,992.00	5.775E+03	Analog	0.50	3
Co			1	19.263	ug/l	2.33	229,381.06	2.554E+00	Pulse	0.50	3
Ni			1	18.518	ug/l	2.35	61,947.88	6.899E-01	Pulse	0.50	3
Cu			1	18.041	ug/l	2.85	175,086.66	1.950E+00	Pulse	0.50	3
Zn			1	18.273	ug/l	2.99	22,971.31	1.704E-01	Pulse	1.00	3
Cd			1	17.736	ug/l	1.72	45,633.34	3.385E-01	Pulse	0.50	3
Al			1	56516.788	ug/l	3.78	8,294,337.67	8.384E+01	Analog	1.00	3
Se			1	0.090	ug/l	54.99	20.33	1.509E-04	Pulse	3.00	3
Sb			1	0.035	ug/l	6.35	339.33	3.593E-04	Pulse	1.00	3
Se			1	0.215	ug/l	47.92	14.67	1.090E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,666,384.83	2.19	83.5	Pulse	0.50	3
1	Sc		99,008.44	3.21	117.9	Pulse	0.30	3
1	Ge		89,825.04	2.09	108.8	Pulse	0.30	3
1	In		945,143.75	2.88	98.1	Pulse	0.30	3
1	Tb		3,836,840.08	2.81	95.7	Pulse	0.50	3
1	Lu		2,297,717.92	2.91	95.2	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		134,846.50	2.50	106.7	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		320.01	14.01	101.1	Pulse	0.30	3

Quantitation Report

File Name	042CCVA.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 12:54
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	50.337	ug/l	1.72	349,518.71	3.633E+00	Pulse	0.50	3
As			1	48.252	ug/l	1.84	41,500.16	4.313E-01	Pulse	1.00	3
Mo			1	46.752	ug/l	2.44	280,063.55	1.894E+00	Pulse	0.50	3
Pb			1	49.713	ug/l	2.57	1,610,318.13	6.706E-01	Pulse	1.00	3
Be			1	46.547	ug/l	1.25	1,269.87	1.237E-02	Pulse	2.00	3
Ag			1	46.397	ug/l	1.33	1,000,444.71	6.765E+00	Pulse	0.50	3
Ba			1	47.981	ug/l	2.05	114,217.74	1.098E-01	Pulse	0.50	3
Tl			1	49.374	ug/l	1.51	2,387,797.00	7.808E-01	Pulse	0.50	3
Sn			1	48.086	ug/l	1.96	233,027.99	2.239E-01	Pulse	0.30	3
Sr			1	50.339	ug/l	1.89	205,727.34	1.977E-01	Pulse	0.50	3
[Pb]			1	49.853	ug/l	2.78	761,432.79	3.171E-01	Pulse	0.50	3
Ca			1	4906.590	ug/l	0.10	77,902.09	7.585E-01	Pulse	0.50	3
Ti			1	48.747	ug/l	2.50	6,227.68	6.065E-02	Pulse	0.50	3
Na			1	5570.630	ug/l	1.43	3,649,586.58	3.554E+01	Pulse	1.00	3
Mg			1	5023.671	ug/l	1.75	1,485,224.46	1.446E+01	Pulse	1.00	3
K			1	5139.459	ug/l	1.61	1,439,338.79	1.402E+01	Pulse	1.00	3
V			1	48.010	ug/l	2.09	261,951.99	2.551E+00	Pulse	0.50	3
Mn			1	49.761	ug/l	1.44	157,438.74	1.636E+00	Pulse	0.50	3
Fe			1	5075.985	ug/l	1.58	27,869,988.00	2.897E+02	Analog	0.50	3
Co			1	49.726	ug/l	1.22	634,370.15	6.593E+00	Pulse	0.50	3
Ni			1	49.426	ug/l	1.64	173,933.74	1.808E+00	Pulse	0.50	3
Cu			1	49.405	ug/l	1.23	496,563.25	5.161E+00	Pulse	0.50	3
Zn			1	48.773	ug/l	2.45	64,457.73	4.359E-01	Pulse	1.00	3
Cd			1	45.503	ug/l	1.59	128,419.04	8.684E-01	Pulse	0.50	3
Al			1	2793.123	ug/l	1.76	425,672.83	4.145E+00	Pulse	1.00	3
Se			1	48.088	ug/l	1.56	2,648.85	1.791E-02	Pulse	3.00	3
Sb			1	48.084	ug/l	1.40	304,074.90	2.922E-01	Pulse	1.00	3
Se			1	48.397	ug/l	2.46	1,351.38	9.140E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,058,567.17	1.65	95.8	Pulse	0.50	3
1	Sc		102,701.78	1.46	122.3	Pulse	0.30	3
1	Ge		96,223.66	1.13	116.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,040,763.88	1.30	108.0	Pulse	0.30	3
1	Tb		4,082,734.50	1.98	101.8	Pulse	0.50	3
1	Lu		2,402,388.33	2.56	99.5	Pulse	0.50	3
1	Ge		147,903.85	1.85	117.0	Pulse	0.30	3
1	Te		2.67	114.56		Pulse	0.50	3
1	Li		352.23	12.06	111.2	Pulse	0.30	3

Quantitation Report

File Name	043_CCV.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 12:58
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	100.462	ug/l	1.91	681,720.87	7.244E+00	Pulse	0.50	3
As			1	98.185	ug/l	2.21	82,593.82	8.776E-01	Pulse	1.00	3
Mo			1	94.175	ug/l	0.82	551,844.94	3.815E+00	Pulse	0.50	3
Pb			1	99.438	ug/l	1.48	3,156,730.50	1.341E+00	Pulse	1.00	3
Be			1	95.954	ug/l	0.94	2,590.33	2.549E-02	Pulse	2.00	3
Ag			1	92.845	ug/l	1.03	1,958,061.46	1.354E+01	Pulse	0.50	3
Ba			1	97.376	ug/l	1.80	227,913.24	2.227E-01	Pulse	0.50	3
Tl			1	99.499	ug/l	1.17	4,662,860.50	1.574E+00	Pulse	0.50	3
Sn			1	99.757	ug/l	2.03	474,927.60	4.642E-01	Pulse	0.30	3
Sr			1	104.082	ug/l	1.14	417,861.09	4.083E-01	Pulse	0.50	3
[Pb]			1	99.548	ug/l	2.13	1,490,048.62	6.330E-01	Pulse	0.50	3
Ca			1	9923.680	ug/l	1.24	155,782.35	1.533E+00	Pulse	0.50	3
Ti			1	100.659	ug/l	2.63	12,722.82	1.252E-01	Pulse	0.50	3
Na			1	10771.734	ug/l	0.98	6,968,795.33	6.858E+01	Analog	1.00	3
Mg			1	9963.916	ug/l	0.88	2,911,790.33	2.866E+01	Pulse	1.00	3
K			1	10269.430	ug/l	0.79	2,820,315.42	2.776E+01	Pulse	1.00	3
V			1	97.349	ug/l	0.83	522,567.08	5.143E+00	Pulse	0.50	3
Mn			1	100.579	ug/l	1.85	311,065.33	3.305E+00	Pulse	0.50	3
Fe			1	10231.246	ug/l	1.84	54,941,538.67	5.838E+02	Analog	0.50	3
Co			1	99.739	ug/l	1.59	1,244,604.71	1.322E+01	Pulse	0.50	3
Ni			1	99.738	ug/l	1.54	341,425.31	3.628E+00	Pulse	0.50	3
Cu			1	99.738	ug/l	1.44	970,759.50	1.031E+01	Pulse	0.50	3
Zn			1	98.608	ug/l	1.21	125,800.90	8.697E-01	Pulse	1.00	3
Cd			1	91.669	ug/l	1.49	253,037.75	1.749E+00	Pulse	0.50	3
Al			1	5616.569	ug/l	1.23	846,802.79	8.334E+00	Pulse	1.00	3
Se			1	96.512	ug/l	0.43	5,183.15	3.583E-02	Pulse	3.00	3
Sb			1	97.779	ug/l	1.49	607,846.14	5.940E-01	Pulse	1.00	3
Se			1	98.392	ug/l	2.17	2,677.41	1.851E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,963,684.75	1.43	92.8	Pulse	0.50	3
1	Sc		101,618.98	1.15	121.1	Pulse	0.30	3
1	Ge		94,130.95	1.43	114.0	Pulse	0.30	3
1	In		1,023,435.62	1.92	106.2	Pulse	0.30	3
1	Tb		4,009,696.67	1.40	100.0	Pulse	0.50	3
1	Lu		2,354,563.50	2.05	97.5	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		144,651.42	1.06	114.4	Pulse	0.30	3
1	Te		3.33	91.65		Pulse	0.50	3
1	Li		326.67	11.04	103.2	Pulse	0.30	3

Quantitation Report

File Name	044_CCB.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 13:01
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.020	ug/l	46.23	795.35	8.321E-03	Pulse	0.50	3
As			1	0.028	ug/l	23.02	39.67	4.155E-04	Pulse	1.00	3
Mo			1	0.134	ug/l	20.57	837.36	5.666E-03	Pulse	0.50	3
Pb			1	0.016	ug/l	24.22	1,430.06	5.989E-04	Pulse	1.00	3
Be			1	0.163	ug/l	42.63	4.67	4.540E-05	Pulse	2.00	3
Ag			1	0.019	ug/l	17.23	477.34	3.218E-03	Pulse	0.50	3
Ba			1	0.016	ug/l	61.76	52.67	4.988E-05	Pulse	0.50	3
Tl			1	0.027	ug/l	5.43	1,386.73	4.434E-04	Pulse	0.50	3
Sn			1	0.096	ug/l	25.57	861.17	8.196E-04	Pulse	0.30	3
Sr			1	0.064	ug/l	18.82	677.35	6.470E-04	Pulse	0.50	3
[Pb]			1	0.013	ug/l	10.29	624.68	2.618E-04	Pulse	0.50	3
Ca			1	7.480	ug/l	14.13	215.33	2.107E-03	Pulse	0.50	3
Ti			1	0.066	ug/l	26.53	10.00	9.823E-05	Pulse	0.50	3
Na			1	428.222	ug/l	0.74	293,339.46	2.871E+00	Pulse	1.00	3
Mg			1	-3.983	ug/l	-19.02	2,131.12	2.083E-02	Pulse	1.00	3
K			1	32.603	ug/l	4.75	34,748.42	3.402E-01	Pulse	1.00	3
V			1	-0.214	ug/l	-3.63	1,854.10	1.814E-02	Pulse	0.50	3
Mn			1	0.116	ug/l	9.92	578.01	6.046E-03	Pulse	0.50	3
Fe			1	5.238	ug/l	13.47	37,462.36	3.916E-01	Pulse	0.50	3
Co			1	0.016	ug/l	21.22	254.67	2.661E-03	Pulse	0.50	3
Ni			1	-0.396	ug/l	-4.36	544.01	5.696E-03	Pulse	0.50	3
Cu			1	-0.107	ug/l	-24.34	8,780.02	9.186E-02	Pulse	0.50	3
Zn			1	-0.264	ug/l	-10.21	1,342.05	9.063E-03	Pulse	1.00	3
Cd			1	0.013	ug/l	13.01	38.67	2.614E-04	Pulse	0.50	3
Al			1	1.555	ug/l	19.73	440.01	4.305E-03	Pulse	1.00	3
Se			1	0.147	ug/l	69.57	25.44	1.722E-04	Pulse	3.00	3
Sb			1	0.015	ug/l	15.89	250.33	2.391E-04	Pulse	1.00	3
Se			1	0.187	ug/l	93.02	15.33	1.038E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,129,405.92	1.96	98.0	Pulse	0.50	3

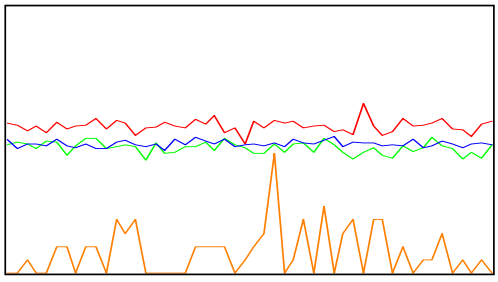
Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		102,158.85	2.41	121.7	Pulse	0.30	3
1	Ge		95,581.65	1.20	115.8	Pulse	0.30	3
1	In		1,048,176.52	2.64	108.8	Pulse	0.30	3
1	Tb		4,065,512.67	2.38	101.4	Pulse	0.50	3
1	Lu		2,384,890.33	2.21	98.8	Pulse	0.50	3
1	Ge		148,118.93	1.75	117.2	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		365.56	20.40	115.4	Pulse	0.30	3

Tune Report

Batch Folder	D:\2019\06-June\xa061919m1.b
Acq. Date-Time	6/19/2019 9:58
Report Comment	06199TUNE
Instrument Name	G3281A JP12151709

[2]



Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)
59	2000	1103	11026.92	5000.00	
89	2000	939	9390.32	5000.00	
205	10000	4845	48449.95	5000.00	
78	20	2			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
205		-	
78		-	

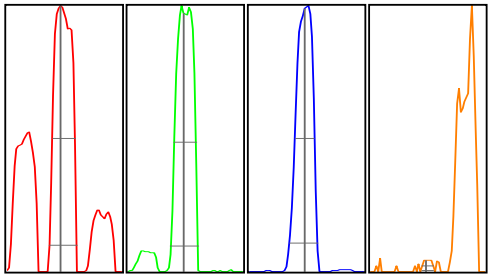
Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	4.24	5.00	
89	4.74	5.00	
205	2.48	5.00	
78	119.67		

Mass	Background (Actual)	Background (Required)	Background (Flag)
59	0.10	2	
89	0.00	2	
205	0.30	2	
78	0.00	5	

Ratio	156/140	0.873 %	
Ratio	70/140	1.715 %	

Integration Time [sec] 0.1 **Sampling Period [sec]** 0.412

Tune Report



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	W-50%	W-10% (Actual)	W-10% (Required)	W-10% (Flag)
59	1127.88	58.95	58.9 - 59.1		0.57	0.689	0.900	
89	921.52	89.00	88.9 - 89.1		0.54	0.678	0.900	
205	4784.61	205.00	204.9 - 205.1		0.49	0.714	0.900	
78	2.25	78.00	-		0.24	0.327		

Integration Time [sec] 0.1 **Acquisition Time [sec]** 29.92 **Y Axis** Linear

Tune Parameters
Plasma Paramters

RF Power	1600 W	Nebulizer Pump	0.10 rps
RF Matching	1.70 V	S/C Temp	2 ℃
Smpl Depth	9.0 mm	Gas Switch	Dilution Gas
Carrier Gas	0.80 L/min	Makeup/Dilution Gas	0.35 L/min
Option Gas	0.0 %		

Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-40 V
Extract 2	-130.0 V	Cell Exit	-70 V
Omega Bias	-65 V	Deflect	2.2 V
Omega Lens	9.5 V	Plate Bias	-60 V

Cell Parameters

Use Gas	true	OctP Bias	-18.0 V
He Flow	5.0 mL/min	OctP RF	190 V
H2 Flow	0.0 mL/min	Energy Discrimination	3.0 V
3rd Gas Flow	0 %		

History

	Sensitivity										
Created Date	Channel 1 Count	Channel 1 Mass	Channel 1 RSD%	Channel 2 Count	Channel 2 Mass	Channel 2 RSD%	Channel 3 Count	Channel 3 Mass	Channel 3 RSD%	Oxide Mass	Oxide Ratio
6/19/2019 9:48 AM	1410.9212	7	3.6818363	10051.879	89	1.789516	7536.5951	205	1.9265648	156/140	2.75 %

History

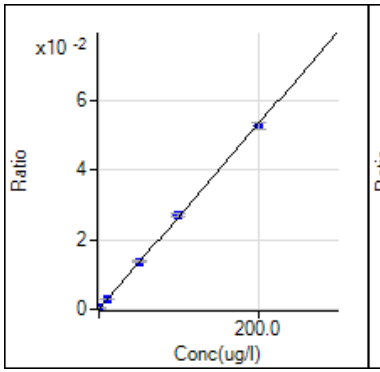
		Background						Resolution/Axi				
Doubly Charged Mass	Doubly Charged Ratio	Channel 1 Count	Channel 1 Mass	Channel 2 Count	Channel 2 Mass	Channel 3 Count	Channel 3 Mass	Channel 1 Mass	Channel 1 Height	Channel 1 W-10%	Channel 2 Mass	Channel 2 Height
70/140	14.37 %	1.8000002	7	2.9500003	89	13.800006	205	7	2184.0004	0.8085851	89	10088.446

History

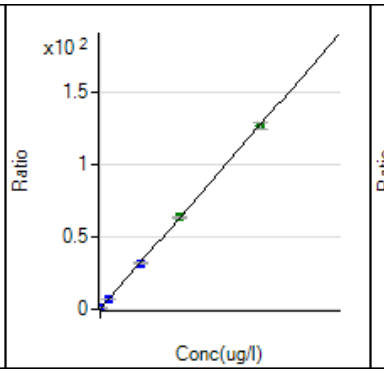
s

Channel 2 W-10%	Channel 3 Mass	Channel 3 Height	Channel 3 W-10%
0.6972413	205	7465.2128	0.7382682

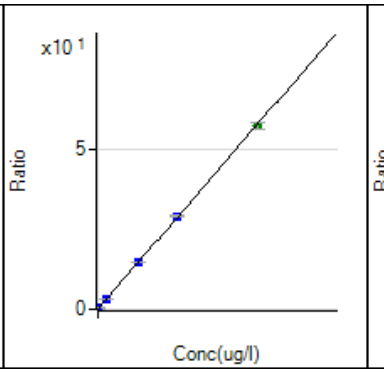
Calibration for D:\2019\06-June\xa061919m1.b\001CALB.d



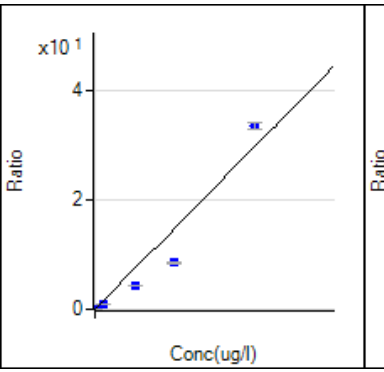
9 Be [2] / ISTD: 45 Sc
y = 2.656E-4 x + 2.010E-6
R 0.9999
DL 0.03933
BEC 0.007568



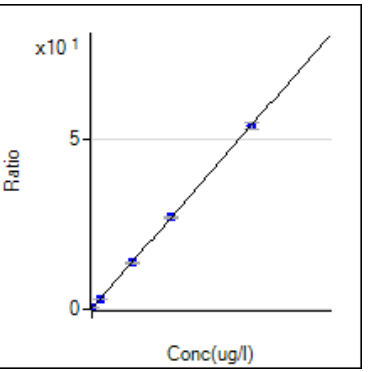
23 Na [2] / ISTD: 45 Sc
y = 6.353E-3 x + 1.510E-1
R 1.0000
DL 0.329
BEC 23.77



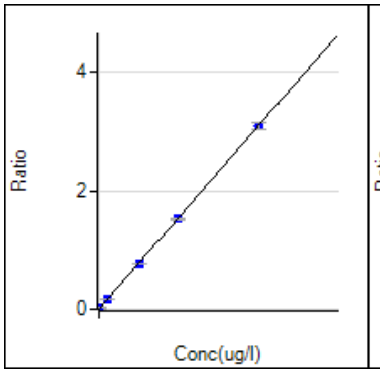
24 Mg [2] / ISTD: 45 Sc
y = 2.873E-3 x + 3.227E-2
R 1.0000
DL 1.176
BEC 11.23



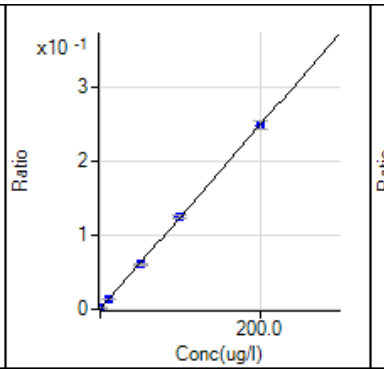
27 Al [2] / ISTD: 45 Sc
y = 1.483E-3 x + 1.998E-3
R 0.9675
DL 0.2375
BEC 1.347



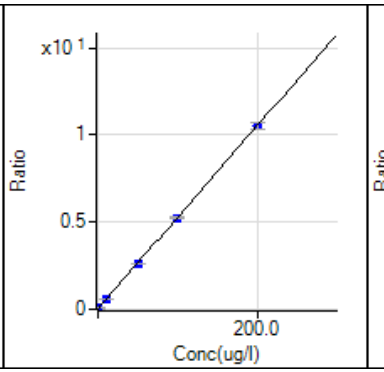
39 K [2] / ISTD: 45 Sc
y = 2.678E-3 x + 2.529E-1
R 1.0000
DL 2.125
BEC 94.43



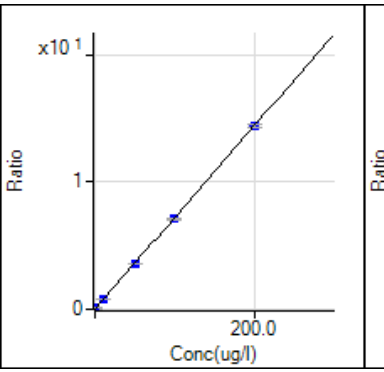
44 Ca [2] / ISTD: 45 Sc
y = 1.544E-4 x + 9.520E-4
R 0.9999
DL 2.829
BEC 6.166



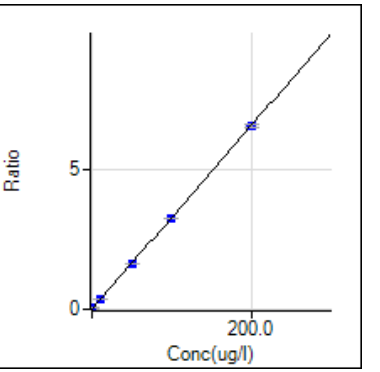
47 Ti [2] / ISTD: 45 Sc
y = 1.244E-3 x + 1.597E-5
R 1.0000
DL 0.03335
BEC 0.01284



51 V [2] / ISTD: 45 Sc
y = 5.253E-2 x + 2.936E-2
R 1.0000
DL 0.04099
BEC 0.559

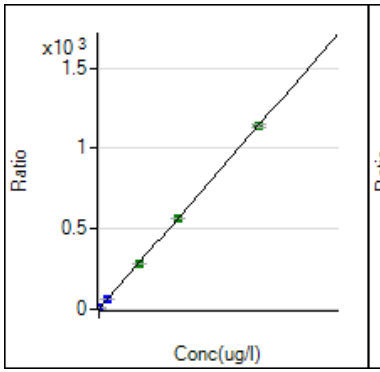


52 Cr [2] / ISTD: 72 Ge
y = 7.203E-2 x + 6.882E-3
R 1.0000
DL 0.01302
BEC 0.09554

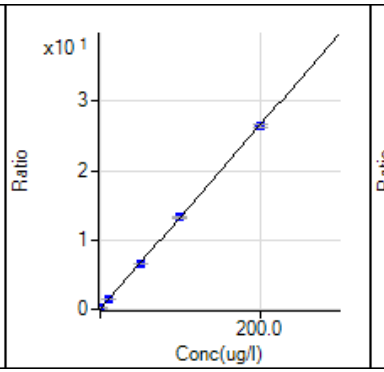


55 Mn [2] / ISTD: 72 Ge
y = 3.284E-2 x + 2.239E-3
R 1.0000
DL 0.02734
BEC 0.06818

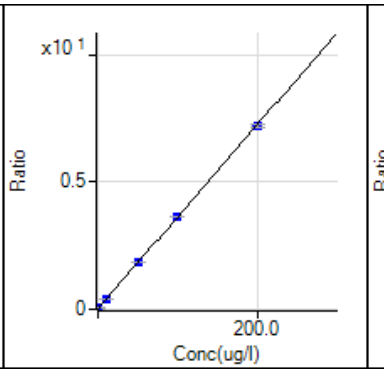
Calibration for D:\2019\06-June\xa061919m1.b\001CALB.d



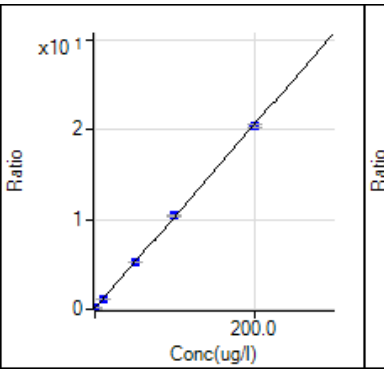
56 Fe [2] / ISTD: 72 Ge
y = 5.705E-2 x + 9.283E-2
R 1.0000
DL 0.2245
BEC 1.627



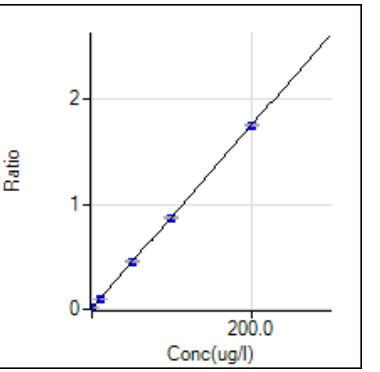
59 Co [2] / ISTD: 72 Ge
y = 1.326E-1 x + 5.567E-4
R 1.0000
DL 0.001909
BEC 0.004199



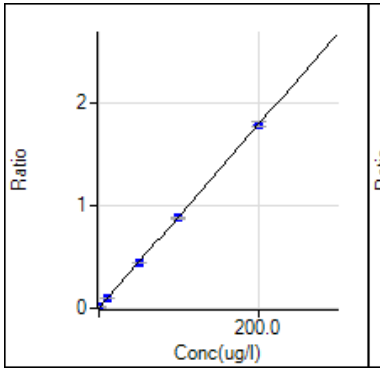
60 Ni [2] / ISTD: 72 Ge
y = 3.617E-2 x + 2.003E-2
R 1.0000
DL 0.1435
BEC 0.5538



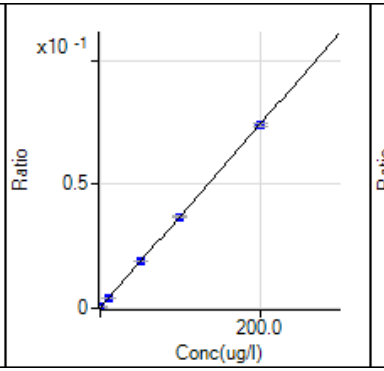
63 Cu [2] / ISTD: 72 Ge
y = 1.024E-1 x + 1.028E-1
R 1.0000
DL 0.0391
BEC 1.004



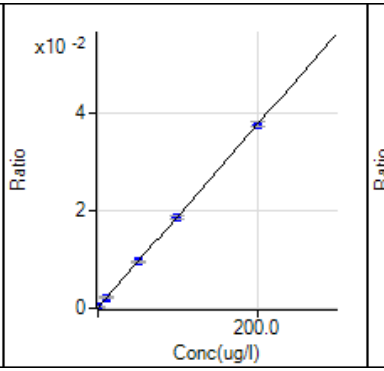
66 Zn [2] / ISTD: 74 Ge
y = 8.705E-3 x + 1.136E-2
R 1.0000
DL 0.2391
BEC 1.305



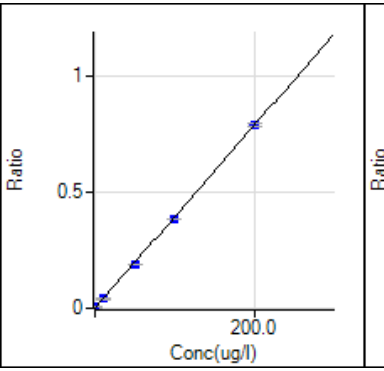
75 As [2] / ISTD: 72 Ge
y = 8.936E-3 x + 1.648E-4
R 1.0000
DL 0.0248
BEC 0.01844



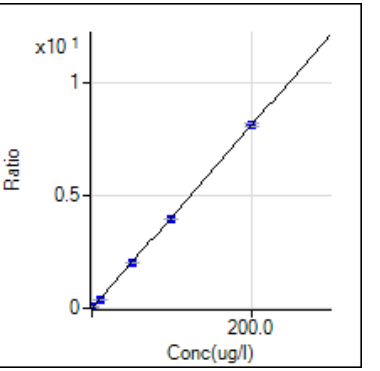
78 Se [2] / ISTD: 74 Ge
y = 3.700E-4 x + 1.177E-4
R 1.0000
DL 0.1715
BEC 0.318



82 Se [2] / ISTD: 74 Ge
y = 1.874E-4 x + 6.873E-5
R 0.9999
DL 0.4148
BEC 0.3667

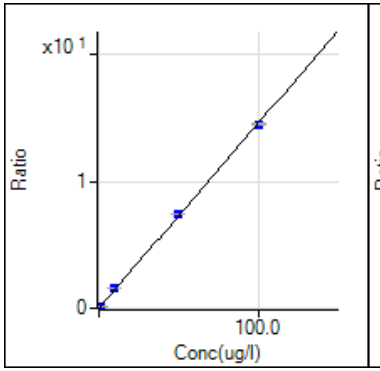


88 Sr [2] / ISTD: 115 In
y = 3.920E-3 x + 3.956E-4
R 0.9999
DL 0.03391
BEC 0.1009



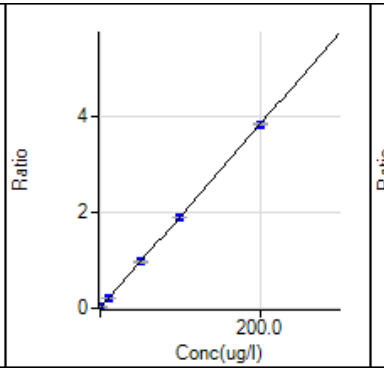
95 Mo [2] / ISTD: 74 Ge
y = 4.051E-2 x + 2.314E-4
R 0.9999
DL 0.007468
BEC 0.005712

Calibration for D:\2019\06-June\xa061919m1.b\001CALB.d



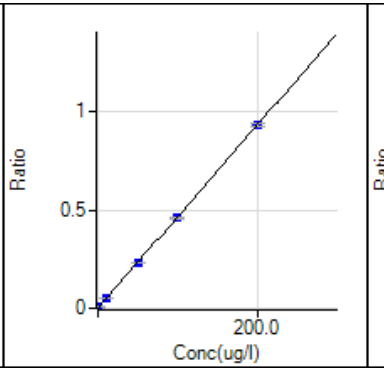
107 Ag [2] / ISTD: 74 Ge
y = 1.458E-1 x + 4.540E-4

R	0.9999
DL	0.001233
BEC	0.003114



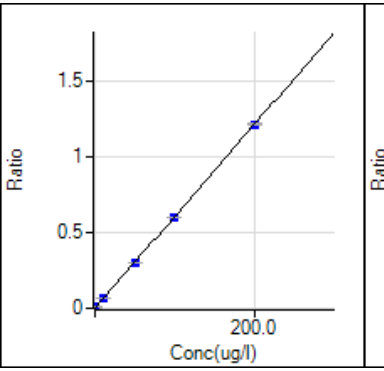
111 Cd [2] / ISTD: 74 Ge
y = 1.908E-2 x + 1.579E-5

R	1.0000
DL	0.004299
BEC	0.0008274



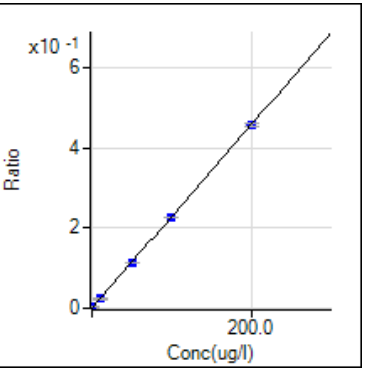
118 Sn [2] / ISTD: 115 In
y = 4.649E-3 x + 3.748E-4

R	0.9999
DL	0.02214
BEC	0.08062



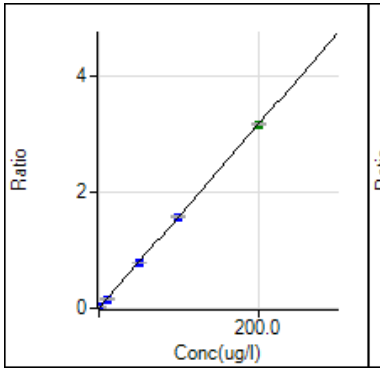
121 Sb [2] / ISTD: 115 In
y = 6.074E-3 x + 1.481E-4

R	1.0000
DL	0.01199
BEC	0.02438



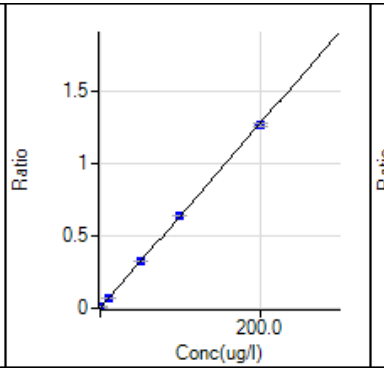
137 Ba [2] / ISTD: 115 In
y = 2.287E-3 x + 1.314E-5

R	1.0000
DL	0.008337
BEC	0.005747



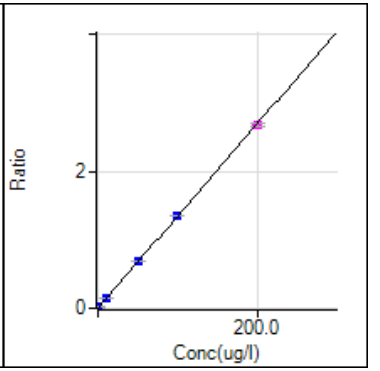
205 Tl [2] / ISTD: 209 Bi
y = 1.581E-2 x + 1.565E-5

R	1.0000
DL	9.029E-05
BEC	0.0009897



206 [Pb] [2] / ISTD: 175 Lu
y = 6.357E-3 x + 1.773E-4

R	1.0000
DL	0.004147
BEC	0.02789



208 Pb [2] / ISTD: 175 Lu
y = 1.348E-2 x + 3.785E-4

R	1.0000
DL	0.001253
BEC	0.02808

HS

SGS Accutest - Orlando **Metals Digestion Log Water**

Method of digestion(circle one): SW846-3010A / SW846-3005A / EPA 200.7 / EPA 200.8 / SM3030C

MP #: 35666

Prep Date/Time (mm/dd/yy 24:00): 06/15/19 1845

HotBlock I.D. 9

Thermometer I.D. 204

Correction Factor (°C) -1

Temperature Observed/Corrected (°C) 92 , 91

pH paper lot# 220416

Volume

Spk. Sol. A	Used(ml)	Pipette #
Acc 1131	0.05	MU 45274
Acc 1108	0.2	MU 15244
MET6388	1.0	MU 15244

Dig. Tube Lot#: MP3238

Added B:

Lot# HNO_3 0000213500 HCL 0000221681

Sample #		Initial Volume(ml)	pH<2	Final Volume(ml)	Comments
Method Blank(MB)		50.0	N/A	50.0	
Spike Blank(SB)			N/A		
Matrix Spike(MS)			✓		
Matrix Spike Dup(MSD)			✓		
Duplicate(DUP)			✓		
1 QC C FA64963-1F	D 2		✓		
2 -2F	1		✓		
3 -3F	1		✓		
4 -4F	2		✓		
5 -5F	1		✓		
6 FA64964-1F	2		✓		
7 -2F	1		✓		
8 -3F	1		✓		
9 -4F	1		✓		
10					
11					
12					
13					
14 06/15/19 IT					
15					
16					
17					
18					
19					
20					
21 E					
22 E					
23 E					
24 E					

Analyst: Date: 06/15/19

QC Review: Date: 6-17-19

A Used for SB, MS, MSD
B For reagent volumes used consult SOP MET 103, current revision
C Parent sample used to prepare MS, MSD, DUP
D Bottle Number
E Additional matrix QC

icpwaterdigestionlog 0916.xls

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The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Arcadis U.S., Inc.

Sierra Army Depot, Herlong, CA

C100SIAD.0001

SGS Job Number: FA64964

Sampling Date: 06/06/19

Report to:

ARCADIS - Emeryville
2000 Powell Street 7th Floor
Emeryville, CA 94608
Hoa.Voscott@arcadis.com; Patty.Ryan@arcadis.com;
Emily.Sheu@arcadis.com
ATTN: Hoa Voscott

Total number of pages in report: **123**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Caitlin Brice, M.S.
General Manager

Client Service contact: Elvin Kumar 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), IL(200063), NC(573), NJ(FL002), NY(12022), SC(96038001) DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177), AK, AR, IA, KY, MA, MS, ND, NH, NV, OK, OR, UT, WA, WV

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SGS North America Inc.

Sample Summary

Arcadis U.S., Inc.

Job No: FA64964

Sierra Army Depot, Herlong, CA
Project No: C100SIAD.0001

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA64964-1F	06/06/19	11:50	GC	06/08/19	AQ	Groundwater Filtered	UBG-03-MWA
FA64964-2F	06/06/19	14:05	GC	06/08/19	AQ	Groundwater Filtered	UBG-08R-MWA
FA64964-3F	06/06/19	13:20	GC	06/08/19	AQ	Groundwater Filtered	UBG-09-MWA
FA64964-4F	06/06/19	12:35	GC	06/08/19	AQ	Groundwater Filtered	UBG-10-MWA

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Arcadis U.S., Inc. **Job No:** FA64964

Site: Sierra Army Depot, Herlong, CA **Report Date:** 6/19/2019 4:53:05 PM

4 Samples were collected on 06/06/2019 and were received at SGS North America Inc - Orlando on 06/08/2019 properly preserved, at 2.6 Deg. C and intact. These Samples received an SGS Orlando job number of FA64964. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section. Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Metals Analysis By Method SW846 6020A

Matrix: AQ **Batch ID:** MP35666

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA64963-1FDUP, FA64963-1FMS, FA64963-1FMSD, FA64963-1FSDL were used as the QC samples for metals.

Matrix Spike Recovery(s) for Arsenic are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

RPD(s) for Serial Dilution for Chromium, Arsenic are outside control limits for sample MP35666-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

MP35666-SD1 for Arsenic: Serial dilution indicates possible matrix interference.

SGS Orlando certifies that this report meets the project requirements for analytical data produced for the samples as received at SGS Orlando and as stated on the COC. SGS Orlando certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the SGS Orlando Quality Manual except as noted above. This report is to be used in its entirety. SGS Orlando is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

_____

Jenna Kravitz, Client Services *(Signature on File)*

Summary of Hits

Job Number: FA64964
Account: Arcadis U.S., Inc.
Project: Sierra Army Depot, Herlong, CA
Collected: 06/06/19

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
FA64964-1F	**UBG-03-MWA**					
Arsenic		2.2	2.0		ug/l	SW846 6020A
FA64964-2F	**UBG-08R-MWA**					
Arsenic		5.5	2.0		ug/l	SW846 6020A
Chromium		4.9	2.0		ug/l	SW846 6020A
FA64964-3F	**UBG-09-MWA**					
No hits reported in this sample.						
FA64964-4F	**UBG-10-MWA**					
No hits reported in this sample.						

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	UBG-03-MWA		
Lab Sample ID:	FA64964-1F	**Date Sampled:**	06/06/19
Matrix:	AQ - Groundwater Filtered	**Date Received:**	06/08/19
		Percent Solids:	n/a
Project:	Sierra Army Depot, Herlong, CA		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	2.2	2.0	ug/l	2	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]
Chromium	< 2.0	2.0	ug/l	2	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]
Lead	< 2.0	2.0	ug/l	2	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15957
(2) Prep QC Batch: MP35666

RL = Reporting Limit

Report of Analysis

Client Sample ID:	UBG-08R-MWA		
Lab Sample ID:	FA64964-2F	**Date Sampled:**	06/06/19
Matrix:	AQ - Groundwater Filtered	**Date Received:**	06/08/19
		Percent Solids:	n/a
Project:	Sierra Army Depot, Herlong, CA		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	5.5	2.0	ug/l	2	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]
Chromium	4.9	2.0	ug/l	2	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]
Lead	< 2.0	2.0	ug/l	2	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15957
(2) Prep QC Batch: MP35666

RL = Reporting Limit

Report of Analysis

Client Sample ID:	UBG-09-MWA		
Lab Sample ID:	FA64964-3F	**Date Sampled:**	06/06/19
Matrix:	AQ - Groundwater Filtered	**Date Received:**	06/08/19
		Percent Solids:	n/a
Project:	Sierra Army Depot, Herlong, CA		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	< 2.0	2.0	ug/l	2	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]
Chromium	< 2.0	2.0	ug/l	2	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]
Lead	< 2.0	2.0	ug/l	2	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15957
(2) Prep QC Batch: MP35666

RL = Reporting Limit

Report of Analysis

Client Sample ID:	UBG-10-MWA		
Lab Sample ID:	FA64964-4F	**Date Sampled:**	06/06/19
Matrix:	AQ - Groundwater Filtered	**Date Received:**	06/08/19
		Percent Solids:	n/a
Project:	Sierra Army Depot, Herlong, CA		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	< 2.0	2.0	ug/l	2	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]
Chromium	< 2.0	2.0	ug/l	2	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]
Lead	< 2.0	2.0	ug/l	2	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15957
(2) Prep QC Batch: MP35666

RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

FA64964

SGS North America Inc - Orlando
Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO JOB # : PAGE 1 OF 1

Custody Seal 010337

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: Arcadis OA File
Address:
City: State: Zip:
Project Contact: Hoa Voscott Email: Hoa.Voscott@Arcadis.com
Phone #: 510-928-0037
Sampler(s) Name(s) (Printed)
Sampler 1: Gary Clift Sampler 2:

Project Information

Project Name: SIAD
Street
City Hemong State CA
Project # C1005IAD.0001
Fax #
Client Purchase Order # C1005IAD.0001.06NA1

Analytical Information

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNA	DI WATER	MEOH	DIS Lead, DS, TOTAL Chromium 6020	Field Filtered	LAB USE ONLY
1	UBG-03-MWA	6-6	1150	GC	GW	1					X					X	X	
2	UBG-08R-MWA	6-6	1405	GC	GW	1					X					X	X	
3	UBG-09-MWA	6-6	1320	GC	GW	1					X					X	X	
4	UBG-16-MWA	6-6	1235	GC	GW	1					X					X	X	

Turnaround Time (Business days)

10 Day (Business)
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Approved By: / Date:
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [x] EDD'S

Comments / Remarks

Emily.shen@Arcadis.com (Results)
Gary.Clift@Arcadis.com
Temp Blank

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1 Arcadis	6.7.19 1600	2 Fed Ex 81221699 0882	3		4 6/8/19 915
Relinquished by/Affiliation 5	Date Time:	Received By/Affiliation 6	Relinquished By/Affiliation 7	Date Time:	Received By/Affiliation 8

Lab Use Only : Cooler Temperature (s) Celsius (corrected): 2.6

http://www.sgs.com/en/terms-and-conditions

ORLD-SMT-0001-03-FORM-COC (4).xls Rev 031318

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FA64964: Chain of Custody
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SGS Sample Receipt Summary

Job Number: FA64964 **Client:** ARCADIS **Project:** SIAD

Date / Time Received: 6/8/2019 9:15:00 AM **Delivery Method:** FedEx **Airbill #'s:** 812216990882

Therm ID: IR 1; **Therm CF:** 0.4; **# of Coolers:** 1

Cooler Temps (Raw Measured) °C: Cooler 1: (2.2);

Cooler Temps (Corrected) °C: Cooler 1: (2.6);

Cooler Information	Y	or	N
1. Custody Seals Present	☑		☐
2. Custody Seals Intact	☑		☐
3. Temp criteria achieved	☑		☐
4. Cooler temp verification	IR Gun		
5. Cooler media	Ice (Bag)		

Trip Blank Information	Y	or	N	N/A
1. Trip Blank present / cooler	☐		☐	☑
2. Trip Blank listed on COC	☐		☐	☑
	W	**or**	**S**	**N/A**
3. Type Of TB Received	☐		☐	☑

Sample Information	Y	or	N	N/A
1. Sample labels present on bottles	☑		☐	
2. Samples preserved properly	☑		☐	
3. Sufficient volume/containers recvd for analysis:	☑		☐	
4. Condition of sample	Intact			
5. Sample recvd within HT	☑		☐	
6. Dates/Times/IDs on COC match Sample Label	☑		☐	
7. VOCs have headspace	☐		☐	☑
8. Bottles received for unspecified tests	☐		☑	
9. Compositing instructions clear	☐		☐	☑
10. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☑
11. % Solids Jar received?	☐		☐	☑
12. Residual Chlorine Present?	☐		☐	☑

Misc. Information

Number of Encores: 25-Gram _____ 5-Gram _____ Number of 5035 Field Kits: _____ Number of Lab Filtered Metals: _____

Test Strip Lot #s: pH 0-3 230315 pH 10-12 219813A Other: (Specify) _____ _____

Residual Chlorine Test Strip Lot #: _____

Comments 2 BOTTLES RECEIVED FOR EACH SAMPLE

SM001
Rev. Date 05/24/17

Technician: PETERH Date: 6/8/2019 9:15:00 AM Reviewer: PH Date: 6/8/2019

FA64964: Chain of Custody
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Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries
- IDL and Linear Range Summaries

SGS Instrument Runlog
Inorganics Analyses

Login Number: FA64964
Account: ARCCAE - Arcadis U.S., Inc.
Project: Sierra Army Depot, Herlong, CA

File ID: XA061919M1.CSV Date Analyzed: 06/19/19 Methods: SW846 6020A
Analyst: DM Run ID: MA15957
Parameters: As,Cr,Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:24	MA15957-STD1	1		STDA
10:28	MA15957-STD2	1		STDB
10:32	MA15957-STD3	1		STDC
10:36	MA15957-STD4	1		STDD
10:40	MA15957-STD5	1		STDE
10:44	MA15957-STD6	1		STDF
10:48	MA15957-STD7	1		STDG
10:56	MA15957-HSTD1	1		
11:00	MA15957-ICV1	1		
11:04	MA15957-ICB1	1		
11:07	MA15957-CRIA1	1		
11:11	MA15957-ICSA1	1		
11:15	MA15957-ICSAB1	1		
11:23	MA15957-CCV1	1		
11:26	MA15957-CCB1	1		
11:30	MP35666-MB1	2		
11:34	MP35666-B1	2		
11:38	FA64963-1F	10		(sample used for QC only; not part of login FA64964)
11:42	MP35666-D1	10		
11:45	MP35666-SD1	50		
11:49	MP35666-S1	10		
11:53	MP35666-S2	10		
11:57	MP35666-PS1	10		
12:01	ZZZZZZ	10		
12:05	ZZZZZZ	10		
12:12	MA15957-CCV2	1		
12:16	MA15957-CCB2	1		
12:20	ZZZZZZ	10		
12:24	ZZZZZZ	10		
12:27	FA64964-1F	2		
12:31	FA64964-2F	2		
12:35	FA64964-3F	2		
12:39	FA64964-4F	2		

----------> Last reportable sample/prep for job FA64964

SGS Instrument Runlog
Inorganics Analyses

Login Number: FA64964
Account: ARCCAE - Arcadis U.S., Inc.
Project: Sierra Army Depot, Herlong, CA

File ID: XA061919M1.CSV Date Analyzed: 06/19/19 Methods: SW846 6020A
Analyst: DM Run ID: MA15957
Parameters: As,Cr,Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:43	MA15957-CRIA2	1		
12:46	MA15957-ICSA2	1		
12:50	MA15957-ICSAB2	1		
12:58	MA15957-CCV3	1		
13:01	MA15957-CCB3	1		

----------> Last reportable CCB for job FA64964
Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: FA64964
Account: ARCCAE - Arcadis U.S., Inc.
Project: Sierra Army Depot, Herlong, CA

File ID: XA061919M1.CSV Date Analyzed: 06/19/19 Methods: SW846 6020A
Analyst: DM Run ID: MA15957
Parameters: As,Cr,Pb

Time	Sample Description	Element: Dilution	As	Cr	Pb	
10:56	MA15957-HSTD1	1	X	X	X	
11:00	MA15957-ICV1	1	X	X	X	
11:04	MA15957-ICB1	1	X	X	X	
11:07	MA15957-CRIA1	1	X	X	X	
11:11	MA15957-ICSA1	1	X	X	X	
11:15	MA15957-ICSAB1	1	X	X	X	
11:23	MA15957-CCV1	1	X	X	X	
11:26	MA15957-CCB1	1	X	X	X	
11:30	MP35666-MB1	2	X	X	X	
11:34	MP35666-B1	2	X	X	X	
11:38	FA64963-1F	10	X		X	(a)
11:42	MP35666-D1	10	X	X	X	
11:45	MP35666-SD1	50	X	X	X	
11:49	MP35666-S1	10	X	X	X	
11:53	MP35666-S2	10	X	X	X	
11:57	MP35666-PS1	10				
12:01	ZZZZZZ	10				
12:05	ZZZZZZ	10				
12:12	MA15957-CCV2	1	X	X	X	
12:16	MA15957-CCB2	1	X	X	X	
12:20	ZZZZZZ	10				
12:24	ZZZZZZ	10				
12:27	FA64964-1F	2	X	X	X	
12:31	FA64964-2F	2	X	X	X	
12:35	FA64964-3F	2	X	X	X	
12:39	FA64964-4F	2	X	X	X	
12:43	MA15957-CRIA2	1	X	X	X	
12:46	MA15957-ICSA2	1	X	X	X	
12:50	MA15957-ICSAB2	1	X	X	X	
12:58	MA15957-CCV3	1	X	X	X	
13:01	MA15957-CCB3	1	X	X	X	

(a) Sample used for QC only; not part of login FA64964.

Element:	As	Cr	Pb

INTERNAL STANDARD SUMMARY

Login Number: FA64964
Account: ARCCAE - Arcadis U.S., Inc.
Project: Sierra Army Depot, Herlong, CA

File ID: XA061919M1.CSV Date Analyzed: 06/19/19 Methods: SW846 6020A
Analyst: DM Run ID: MA15957
Parameters: As,Cr,Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
10:24	MA15957-STD1	100	100	100	100	100	100	100	100
10:28	MA15957-STD2	103.5	99.8	99.7	100.6	100.7	99.3	99.7	100
10:32	MA15957-STD3	94.4	100	100.4	100.4	100.5	98.8	99.7	100
10:36	MA15957-STD4	78.6	97.1	98.5	98.7	99.2	98.5	98.3	100
10:40	MA15957-STD5	87.4	95.5	95.4	95.3	95.6	96.5	94.7	100
10:44	MA15957-STD6	90.5	94.5	93.6	95.3	94.8	96.3	92.6	100
10:48	MA15957-STD7	86	96.8	94.3	94.2	94.9	96	90.4	100
10:56	MA15957-HSTD1	83.5	95.5	94.3	94.9	94.3	94.8	90.5	100
11:00	MA15957-ICV1	94.7	97.3	96.1	97.3	96	96.5	92.7	100
11:04	MA15957-ICB1	85.3	97.7	97.8	97.8	97.6	97.2	97.5	100
11:07	MA15957-CRIA1	87.7	99.2	96.3	98.5	98.3	97.3	97.8	100
11:11	MA15957-ICSA1	89.1	98.3	96.1	93.7	92	94	84.6	100
11:15	MA15957-ICSAB1	91.2	107.8	102.9	101.3	97	97.9	86.9	100
11:23	MA15957-CCV1	108.8	112.9	110	110.4	105.7	103.5	98.5	100
11:26	MA15957-CCB1	93.3	113.5	111	111.8	105.5	99.1	97.7	100
11:30	MP35666-MB1	100.4	103	101.3	101	96.2	94	91.7	100
11:34	MP35666-B1	79.3	96.4	92.9	92.2	93.6	98.9	92.9	100
11:38	FA64963-1F	81.4	98.4	88.7	89.2	84.3	82.9	69.9 !	100
11:42	MP35666-D1	82.1	108.1	96.7	95.2	89.4	85.7	71.3	100
11:45	MP35666-SD1	98.6	119.9	111.3	111.6	103.7	100.2	88.8	100
11:49	MP35666-S1	74	113.6	98.5	98.7	90.7	87.2	72.3	100
11:53	MP35666-S2	74.7	112.5	98	97.7	89.8	85.4	71.1	100
11:57	MP35666-PS1	No results reported for the elements associated with this internal standard.							
12:01	ZZZZZZ	87.4	117.3	101.6	101.1	93.6	88.7	73.9	100
12:05	ZZZZZZ	88.4	117.6	102.3	102.2	93.2	87.9	73	100
12:12	MA15957-CCV2	115.1	130.8 !	122.3	122.2	113.6	107	99	100
12:16	MA15957-CCB2	121.4	129.8	123.4	123	115.5	107.1	102.9	100
12:20	ZZZZZZ	91.6	116.6	103.2	103.2	92.6	87.6	74.1	100
12:24	ZZZZZZ	81.4	113.3	96.9	96.6	89.9	86	70.8	100
12:27	FA64964-1F	104.6	115.1	108.9	108.1	104.1	101.8	95.3	100
12:31	FA64964-2F	92.6	116	108.6	109.6	103.2	99.6	93.7	100
12:35	FA64964-3F	99.7	113.8	107.9	107.6	101.7	98.7	91.7	100
12:39	FA64964-4F	107.7	115.9	108	108.6	103.3	99.6	92.6	100

INTERNAL STANDARD SUMMARY

Login Number: FA64964
Account: ARCCAE - Arcadis U.S., Inc.
Project: Sierra Army Depot, Herlong, CA

File ID: XA061919M1.CSV Date Analyzed: 06/19/19 Methods: SW846 6020A
Analyst: DM Run ID: MA15957
Parameters: As,Cr,Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
12:43	MA15957-CRIA2	116.5	126.4	121.2	120.1	112	104.2	100.9	100
12:46	MA15957-ICSA2	100.7	118.3	109.7	107.4	98.8	96.3	84.2	100
12:50	MA15957-ICSAB2	101.1	117.9	108.8	106.7	98.1	95.7	83.5	100
12:58	MA15957-CCV3	103.2	121.1	114	114.4	106.2	100	92.8	100
13:01	MA15957-CCB3	115.4	121.7	115.8	117.2	108.8	101.4	98	100

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits	CCV/CCB Limits
Istd#1	Lithium	70-130 %	70-130 %
Istd#2	Scandium	70-130 %	70-130 %
Istd#3	Germanium (72-2)	70-130 %	70-130 %
Istd#4	Germanium (74-2)	70-130 %	70-130 %
Istd#5	Indium	70-130 %	70-130 %
Istd#6	Terbium	70-130 %	70-130 %
Istd#7	Bismuth	70-130 %	70-130 %
Istd#8	Tellurium	70-130 %	70-130 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA64964
Account: ARCCAE - Arcadis U.S., Inc.
Project: Sierra Army Depot, Herlong, CA

File ID: XA061919M1.CSV Date Analyzed: 06/19/19 Methods: SW846 6020A
QC Limits: result < RL Run ID: MA15957 Units: ug/l

Time:			11:04		11:26		12:16		13:01	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	100	4.4								
Antimony	1.0	.1	anr							
Arsenic	1.0	.1	0.0314	<1.0	0.0268	<1.0	0.0391	<1.0	0.0281	<1.0
Barium	1.0	.1								
Beryllium	1.0	.1								
Cadmium	1.0	.1								
Calcium	100	7.2								
Chromium	1.0	.1	0.0142	<1.0	0.0140	<1.0	0.0180	<1.0	0.0200	<1.0
Cobalt	1.0	.1								
Copper	1.0	.1								
Iron	100	7.9								
Lead	1.0	.1	0.0388	<1.0	0.0225	<1.0	0.0151	<1.0	0.0164	<1.0
Magnesium	100	5.2								
Manganese	1.0	.1								
Molybdenum	1.0	.1								
Nickel	1.0	.1								
Potassium	100	6.6								
Selenium	1.0	.11								
Silver	1.0	.1								
Sodium	100	4.8								
Strontium	1.0	.1								
Thallium	1.0	.1								
Tin	1.0	.1								
Titanium	1.0	.3								
Vanadium	1.0	.1								
Zinc	2.0	.29								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA64964
Account: ARCCAE - Arcadis U.S., Inc.
Project: Sierra Army Depot, Herlong, CA

File ID: XA061919M1.CSV Date Analyzed: 06/19/19 Methods: SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA15957 Units: ug/l

Time:		11:00			11:23			12:12	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony	anr								
Arsenic	100	95.5	95.5	100	97.2	97.2	100	96.0	96.0
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium	100	96.8	96.8	100	99.0	99.0	100	99.7	99.7
Cobalt									
Copper									
Iron									
Lead	100	98.3	98.3	100	98.3	98.3	100	97.0	97.0
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA64964
Account: ARCCAE - Arcadis U.S., Inc.
Project: Sierra Army Depot, Herlong, CA

File ID: XA061919M1.CSV Date Analyzed: 06/19/19 Methods: SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA15957 Units: ug/l

Time:		12:58	
Sample ID:	CCV	CCV3	
Metal	True	Results	% Rec
Aluminum			
Antimony	anr		
Arsenic	100	98.2	98.2
Barium			
Beryllium			
Cadmium			
Calcium			
Chromium	100	100	100.0
Cobalt			
Copper			
Iron			
Lead	100	99.4	99.4
Magnesium			
Manganese			
Molybdenum			
Nickel			
Potassium			
Selenium			
Silver			
Sodium			
Strontium			
Thallium			
Tin			
Titanium			
Vanadium			
Zinc			

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: FA64964
Account: ARCCAE - Arcadis U.S., Inc.
Project: Sierra Army Depot, Herlong, CA

File ID: XA061919M1.CSV Date Analyzed: 06/19/19 Methods: SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA15957 Units: ug/l

Time:		10:56	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Aluminum			
Antimony	anr		
Arsenic	200	195	97.5
Barium			
Beryllium			
Cadmium			
Calcium			
Chromium	200	199	99.5
Cobalt			
Copper			
Iron			
Lead	200	199	99.5
Magnesium			
Manganese			
Molybdenum			
Nickel			
Potassium			
Selenium			
Silver			
Sodium			
Strontium			
Thallium			
Tin			
Titanium			
Vanadium			
Zinc			

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: FA64964
Account: ARCCAE - Arcadis U.S., Inc.
Project: Sierra Army Depot, Herlong, CA

File ID: XA061919M1.CSV Date Analyzed: 06/19/19 Methods: SW846 6020A
QC Limits: CRI 70-130% CRIA 80-120% Run ID: MA15957 Units: ug/l

Time:			11:07		12:43	
Sample ID:	CRI	CRIA	CRIA1		CRIA2	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100	100				
Antimony	1.0	1.0	anr			
Arsenic	1.0	1.0	0.989	98.9	0.973	97.3
Barium	1.0	1.0				
Beryllium	1.0	1.0				
Cadmium	1.0	1.0				
Calcium	100	100				
Chromium	1.0	1.0	0.991	99.1	0.992	99.2
Cobalt	1.0	1.0				
Copper	1.0	1.0				
Iron	100	100				
Lead	1.0	1.0	1.03	103.0	1.00	100.0
Magnesium	100	100				
Manganese	1.0	1.0				
Molybdenum	1.0	1.0				
Nickel	1.0	1.0				
Potassium	100	100				
Selenium	1.0	1.0				
Silver	1.0	1.0				
Sodium	100	100				
Strontium	1.0	1.0				
Thallium	1.0	1.0				
Tin	1.0	1.0				
Titanium	1.0	1.0				
Vanadium	1.0	1.0				
Zinc	1.0	1.0				

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: FA64964
Account: ARCCAE - Arcadis U.S., Inc.
Project: Sierra Army Depot, Herlong, CA

File ID: XA061919M1.CSV Date Analyzed: 06/19/19 Methods: SW846 6020A
QC Limits: 80 to 120 % Recovery Run ID: MA15957 Units: ug/l

Time:			11:11		11:15		12:46		12:50	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	100000	100000	56200	56.2*	56200	56.2*	56500	56.5*	56500	56.5*
Antimony			0.0486		0.0512		0.0341		0.0348	
Arsenic		20	0.0982		19.4	97.0	0.111		19.4	97.0
Barium			0.0587		0.0597		0.0546		0.0589	
Beryllium			0.0544		0.0480		0.0305		0.0175	
Cadmium		20	0.571		18.4	92.0	0.482		17.7	88.5
Calcium	100000	100000	93800	93.8	93400	93.4	92900	92.9	92900	92.9
Chromium		20	0.236		20.0	100.0	0.236		20.3	101.5
Cobalt		20	0.0319		19.2	96.0	0.0234		19.3	96.5
Copper		20	-0.483		18.1	90.5	-0.479		18.0	90.0
Iron	100000	100000	96400	96.4	98300	98.3	100000	100.0	101000	101.0
Lead			0.0834		0.0748		0.0677		0.0649	
Magnesium	100000	100000	97800	97.8	98100	98.1	99500	99.5	99400	99.4
Manganese		20	0.499		19.7	98.5	0.555		20.1	100.5
Molybdenum	2000	2000	2010	100.5	1990	99.5	1990	99.5	2000	100.0
Nickel		20	0.00917		18.7	93.5	-0.228		18.5	92.5
Potassium	100000	100000	100000	100.0	101000	101.0	103000	103.0	103000	103.0
Selenium			0.198		0.120		0.111		0.0897	
Silver		20	0.0658		17.8	89.0	0.0571		17.2	86.0
Sodium	100000	100000	99100	99.1	100000	100.0	103000	103.0	103000	103.0
Strontium			0.918		0.955		1.02		1.00	
Thallium			0.00974		0.00622		0.00318		0.00248	
Tin			0.134		0.120		0.0990		0.0989	
Titanium	2000	2000	2000	100.0	2010	100.5	1990	99.5	1980	99.0
Vanadium			-0.222		-0.245		-0.155		-0.145	
Zinc		20	-0.0543		18.2	91.0	-0.0103		18.3	91.5

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA64964
Account: ARCCAE - Arcadis U.S., Inc.
Project: Sierra Army Depot, Herlong, CA

QC Batch ID: MP35666
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 06/15/19

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	8.7	22		
Antimony	2.0	.2	.2		
Arsenic	2.0	.2	.21	0.17	<2.0
Barium	2.0	.2	.2		
Beryllium	2.0	.2	.2		
Cadmium	2.0	.2	.2		
Calcium	200	14	36		
Chromium	2.0	.2	.2	0.63	<2.0
Cobalt	2.0	.2	.2		
Copper	2.0	.2	.2		
Iron	200	16	23		
Lead	2.0	.2	.2	0.086	<2.0
Magnesium	200	10	19		
Manganese	2.0	.2	.2		
Molybdenum	2.0	.2	.39		
Nickel	2.0	.2	.2		
Potassium	200	13	75		
Selenium	2.0	.22	.22		
Silver	2.0	.2	.2		
Sodium	200	9.6	24		
Strontium	2.0	.2	.2		
Thallium	2.0	.2	.2		
Tin	2.0	.2	.2		
Titanium	2.0	.61	.88		
Vanadium	2.0	.2	.24		
Zinc	4.0	.58	1.7		

Associated samples MP35666: FA64964-1F, FA64964-2F, FA64964-3F, FA64964-4F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA64964
Account: ARCCAE - Arcadis U.S., Inc.
Project: Sierra Army Depot, Herlong, CA

QC Batch ID: MP35666
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date:			06/15/19					06/15/19	
Metal	FA64963-1F Original	DUP	RPD	QC Limits	FA64963-1F Original	MS	Spikelot MPICPMS1	% Rec	QC Limits
Aluminum									
Antimony	anr								
Arsenic	3010	2940 (a)	2.4	0-20	3010	3110 (a)	200	50.0 (b)	80-120
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium	11.4	10.5 (a)	8.2	0-20	11.4	214 (a)	200	101.3	80-120
Cobalt									
Copper									
Iron									
Lead	0.0	0.0 (a)	NC	0-20	0.0	176 (a)	200	88.0	80-120
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

Associated samples MP35666: FA64964-1F, FA64964-2F, FA64964-3F, FA64964-4F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Sample dilution required due to difficult matrix.
(b) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA64964
Account: ARCCAE - Arcadis U.S., Inc.
Project: Sierra Army Depot, Herlong, CA

QC Batch ID: MP35666
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 06/15/19

Metal	FA64963-1F Original	MSD	Spikelot MPICPMS1	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	anr					
Arsenic	3010	3170 (a)	200	80.0	1.9	20
Barium						
Beryllium						
Cadmium						
Calcium						
Chromium	11.4	220 (a)	200	104.3	2.8	20
Cobalt						
Copper						
Iron						
Lead	0.0	182 (a)	200	91.0	3.4	20
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver						
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP35666: FA64964-1F, FA64964-2F, FA64964-3F, FA64964-4F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Sample dilution required due to difficult matrix.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FA64964
Account: ARCCAE - Arcadis U.S., Inc.
Project: Sierra Army Depot, Herlong, CA

QC Batch ID: MP35666
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 06/15/19

Metal	BSP Result	Spikelot MPICPMS1	% Rec	QC Limits
Aluminum				
Antimony	anr			
Arsenic	193	200	96.5	80-120
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium	208	200	104.0	80-120
Cobalt				
Copper				
Iron				
Lead	204	200	102.0	80-120
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP35666: FA64964-1F, FA64964-2F, FA64964-3F, FA64964-4F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FA64964
Account: ARCCAE - Arcadis U.S., Inc.
Project: Sierra Army Depot, Herlong, CA

QC Batch ID: MP35666
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 06/15/19

Metal	FA64963-1F Original	SDL 10:50%DIF		QC Limits
Aluminum				
Antimony	anr			
Arsenic	3010	2670	11.1*(a)	0-10
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium	11.4	9.39	18.0 (b)	0-10
Cobalt				
Copper				
Iron				
Lead	0.00	0.00	NC	0-10
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP35666: FA64964-1F, FA64964-2F, FA64964-3F, FA64964-4F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Serial dilution indicates possible matrix interference.
(b) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

Instrument Detection Limits

Job Number: FA64964
Account: ARCCAE Arcadis U.S., Inc.
Project: Sierra Army Depot, Herlong, CA

Instrument ID: AGICPMS1 **Effective Date:** 05/21/16

Analyte	IDL ug/l
Aluminum	4.35
Antimony	.1
Arsenic	.1
Arsenic	.1
Barium	.1
Beryllium	.1
Boron	.5
Cadmium	.1
Cadmium	.1
Calcium	7.2
Calcium	7.2
Chromium	.1
Chromium	.1
Cobalt	.1
Cobalt	.1
Copper	.1
Copper	.1
Iron	7.9
Iron	7.9
Lead	.1
Magnesium	5.2
Manganese	.1
Manganese	.1
Molybdenum	.1
Nickel	.1
Nickel	.1
Potassium	6.57
Selenium	.11
Selenium	.11
Silver	.1
Sodium	4.8
Strontium	.1
Thallium	.1
Tin	.1
Tin	.1
Titanium	.303
Vanadium	.1
Vanadium	.1
Zinc	.29
Zinc	.29

The above applies to the following instrument runs:
MA15957

Instrument Linear Ranges

Job Number: FA64964
Account: ARCCAE Arcadis U.S., Inc.
Project: Sierra Army Depot, Herlong, CA

Instrument ID: AGICPMS1 **Effective Date:** 05/21/16

Analyte	Linear Range ug/l
Aluminum	100000
Antimony	1000
Arsenic	1000
Arsenic	1000
Barium	1000
Beryllium	1000
Cadmium	1000
Cadmium	1000
Calcium	100000
Calcium	100000
Chromium	1000
Chromium	1000
Cobalt	1000
Cobalt	1000
Copper	1000
Copper	1000
Iron	100000
Iron	100000
Lead	1000
Magnesium	100000
Manganese	1000
Manganese	1000
Molybdenum	1000
Nickel	1000
Nickel	1000
Potassium	100000
Selenium	1000
Selenium	1000
Silver	100
Sodium	100000
Strontium	1000
Thallium	1000
Tin	1000
Tin	1000
Titanium	1000
Vanadium	1000
Vanadium	1000
Zinc	1000
Zinc	1000

The above applies to the following instrument runs:
MA15957

Metals Analysis

Raw Data

Quantitation Report

File Name	001CALB.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 10:16
Sample Name	Blank
Sample Type	CalBlk
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.001	ug/l	132.80	569.34	6.983E-03	Pulse	0.50	3
As			1	0.000	ug/l	-1096.15	13.33	1.633E-04	Pulse	1.00	3
Mo			1	-0.002	ug/l	-57.51	17.33	1.373E-04	Pulse	0.50	3
Pb			1	0.025	ug/l	19.66	1,680.75	7.120E-04	Pulse	1.00	3
Be			1	-0.008	ug/l	0.00	0.00	0.000E+00	Pulse	2.00	3
Ag			1	0.001	ug/l	72.30	72.67	5.784E-04	Pulse	0.50	3
Ba			1	0.006	ug/l	38.19	24.67	2.602E-05	Pulse	0.50	3
Tl			1	0.004	ug/l	23.96	274.00	8.675E-05	Pulse	0.50	3
Sn			1	0.033	ug/l	37.03	501.12	5.281E-04	Pulse	0.30	3
Sr			1	-0.004	ug/l	-346.83	359.34	3.800E-04	Pulse	0.50	3
[Pb]			1	0.025	ug/l	26.78	793.36	3.357E-04	Pulse	0.50	3
Ca			1	0.142	ug/l	974.64	80.67	9.739E-04	Pulse	0.50	3
Ti			1	0.000	ug/l	-10089.21	1.33	1.570E-05	Pulse	0.50	3
Na			1	1.184	ug/l	108.52	13,059.92	1.586E-01	Pulse	1.00	3
Mg			1	0.915	ug/l	69.03	2,874.88	3.490E-02	Pulse	1.00	3
K			1	1.755	ug/l	220.09	21,222.36	2.576E-01	Pulse	1.00	3
V			1	0.008	ug/l	146.16	2,456.83	2.980E-02	Pulse	0.50	3
Mn			1	0.010	ug/l	55.06	210.00	2.577E-03	Pulse	0.50	3
Fe			1	0.241	ug/l	5.49	8,689.98	1.066E-01	Pulse	0.50	3
Co			1	-0.001	ug/l	-83.30	36.00	4.424E-04	Pulse	0.50	3
Ni			1	0.012	ug/l	293.00	1,668.74	2.046E-02	Pulse	0.50	3
Cu			1	0.957	ug/l	47.32	16,413.33	2.008E-01	Pulse	0.50	3
Zn			1	1.778	ug/l	39.38	3,384.65	2.683E-02	Pulse	1.00	3
Cd			1	0.000	ug/l	-351.53	1.33	1.058E-05	Pulse	0.50	3
Al			1	0.469	ug/l	23.04	222.33	2.694E-03	Pulse	1.00	3
Se			1	0.030	ug/l	107.65	16.22	1.289E-04	Pulse	3.00	3
Sb			1	0.001	ug/l	478.18	144.33	1.531E-04	Pulse	1.00	3
Se			1	0.043	ug/l	59.35	9.67	7.688E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,147,978.92	2.74	100.0	Pulse	0.50	3
1	Sc		82,465.70	3.46	100.0	Pulse	0.30	3

Quantitation Report

1	Ge		81,537.81	1.78	100.0	Pulse	0.30	3
1	In		946,374.51	3.83	100.0	Pulse	0.30	3
1	Tb		3,917,602.67	3.73	100.0	Pulse	0.50	3
1	Lu		2,356,647.50	3.78	100.0	Pulse	0.50	3
1	Ge		125,594.09	3.06	100.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		294.45	0.65	100.0	Pulse	0.30	3

Quantitation Report

File Name	002CALB.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 10:20
Sample Name	Blank
Sample Type	CalBlk
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.003	ug/l	224.46	590.68	7.074E-03	Pulse	0.50	3
As			1	0.006	ug/l	108.73	18.33	2.192E-04	Pulse	1.00	3
Mo			1	-0.002	ug/l	-48.96	18.67	1.472E-04	Pulse	0.50	3
Pb			1	0.000	ug/l	3447.94	918.36	3.791E-04	Pulse	1.00	3
Be			1	0.007	ug/l	357.74	0.33	3.897E-06	Pulse	2.00	3
Ag			1	0.000	ug/l	387.70	64.00	5.039E-04	Pulse	0.50	3
Ba			1	0.006	ug/l	56.19	26.00	2.665E-05	Pulse	0.50	3
Tl			1	0.001	ug/l	11.67	82.00	2.558E-05	Pulse	0.50	3
Sn			1	0.003	ug/l	663.32	380.01	3.889E-04	Pulse	0.30	3
Sr			1	0.001	ug/l	889.45	392.67	4.014E-04	Pulse	0.50	3
[Pb]			1	0.002	ug/l	105.58	456.68	1.884E-04	Pulse	0.50	3
Ca			1	-0.945	ug/l	-166.04	67.33	8.061E-04	Pulse	0.50	3
Ti			1	-0.013	ug/l	0.00	0.00	0.000E+00	Pulse	0.50	3
Na			1	0.315	ug/l	207.74	12,805.42	1.530E-01	Pulse	1.00	3
Mg			1	0.670	ug/l	9.97	2,862.88	3.420E-02	Pulse	1.00	3
K			1	1.154	ug/l	167.12	21,422.26	2.560E-01	Pulse	1.00	3
V			1	0.021	ug/l	86.55	2,548.18	3.045E-02	Pulse	0.50	3
Mn			1	0.002	ug/l	265.46	192.00	2.301E-03	Pulse	0.50	3
Fe			1	0.089	ug/l	52.12	8,174.42	9.793E-02	Pulse	0.50	3
Co			1	-0.001	ug/l	-121.69	35.33	4.246E-04	Pulse	0.50	3
Ni			1	-0.048	ug/l	-6.90	1,526.73	1.829E-02	Pulse	0.50	3
Cu			1	-0.014	ug/l	-303.59	8,463.21	1.014E-01	Pulse	0.50	3
Zn			1	0.086	ug/l	230.83	1,540.40	1.210E-02	Pulse	1.00	3
Cd			1	-0.001	ug/l	-87.26	0.67	5.290E-06	Pulse	0.50	3
Al			1	0.138	ug/l	58.25	184.33	2.203E-03	Pulse	1.00	3
Se			1	-0.034	ug/l	-124.78	13.33	1.050E-04	Pulse	3.00	3
Sb			1	0.000	ug/l	-798.57	142.67	1.459E-04	Pulse	1.00	3
Se			1	-0.016	ug/l	-478.60	8.33	6.570E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,206,501.42	1.30	100.0	Pulse	0.50	3
1	Sc		83,714.39	2.31	100.0	Pulse	0.30	3

Quantitation Report

1	Ge		83,493.14	1.35	100.0	Pulse	0.30	3
1	In		977,386.87	0.94	100.0	Pulse	0.30	3
1	Tb		4,008,699.08	0.58	100.0	Pulse	0.50	3
1	Lu		2,423,071.33	1.24	100.0	Pulse	0.50	3
1	Ge		127,103.81	1.46	100.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		302.23	4.46	100.0	Pulse	0.30	3

Quantitation Report

File Name	003CALB.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 10:24
Sample Name	CALSTD-1
Sample Type	CalBlk
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.000	ug/l	---	568.01	6.882E-03	Pulse	0.50	3
As			1	0.000	ug/l	---	13.67	1.648E-04	Pulse	1.00	3
Mo			1	0.000	ug/l	---	29.33	2.314E-04	Pulse	0.50	3
Pb			1	0.000	ug/l	---	913.70	3.785E-04	Pulse	1.00	3
Be			1	0.000	ug/l	---	0.17	2.010E-06	Pulse	2.00	3
Ag			1	0.000	ug/l	---	57.33	4.540E-04	Pulse	0.50	3
Ba			1	0.000	ug/l	---	12.67	1.314E-05	Pulse	0.50	3
Tl			1	0.000	ug/l	---	50.00	1.565E-05	Pulse	0.50	3
Sn			1	0.000	ug/l	---	361.12	3.748E-04	Pulse	0.30	3
Sr			1	0.000	ug/l	---	381.34	3.956E-04	Pulse	0.50	3
[Pb]			1	0.000	ug/l	---	428.01	1.773E-04	Pulse	0.50	3
Ca			1	0.000	ug/l	---	80.00	9.520E-04	Pulse	0.50	3
Ti			1	0.000	ug/l	---	1.33	1.597E-05	Pulse	0.50	3
Na			1	0.000	ug/l	---	12,677.34	1.510E-01	Pulse	1.00	3
Mg			1	0.000	ug/l	---	2,709.19	3.227E-02	Pulse	1.00	3
K			1	0.000	ug/l	---	21,226.37	2.529E-01	Pulse	1.00	3
V			1	0.000	ug/l	---	2,464.83	2.936E-02	Pulse	0.50	3
Mn			1	0.000	ug/l	---	184.67	2.239E-03	Pulse	0.50	3
Fe			1	0.000	ug/l	---	7,661.54	9.283E-02	Pulse	0.50	3
Co			1	0.000	ug/l	---	46.00	5.567E-04	Pulse	0.50	3
Ni			1	0.000	ug/l	---	1,652.74	2.003E-02	Pulse	0.50	3
Cu			1	0.000	ug/l	---	8,487.22	1.028E-01	Pulse	0.50	3
Zn			1	0.000	ug/l	---	1,435.39	1.136E-02	Pulse	1.00	3
Cd			1	0.000	ug/l	---	2.00	1.579E-05	Pulse	0.50	3
Al			1	0.000	ug/l	---	167.67	1.998E-03	Pulse	1.00	3
Se			1	0.000	ug/l	---	14.89	1.177E-04	Pulse	3.00	3
Sb			1	0.000	ug/l	---	142.67	1.481E-04	Pulse	1.00	3
Se			1	0.000	ug/l	---	8.67	6.873E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,194,037.67	1.42	100.0	Pulse	0.50	3
1	Sc		83,942.02	1.15	100.0	Pulse	0.30	3

Quantitation Report

1	Ge		82,572.77	1.52	100.0	Pulse	0.30	3
1	In		963,659.96	0.52	100.0	Pulse	0.30	3
1	Tb		4,011,008.33	1.21	100.0	Pulse	0.50	3
1	Lu		2,413,803.50	0.59	100.0	Pulse	0.50	3
1	Ge		126,404.60	0.99	100.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		316.67	14.74	100.0	Pulse	0.30	3

Quantitation Report

File Name	004CALS.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 10:28
Sample Name	CALSTD-2
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.509	ug/l	2.50	3,583.67	4.355E-02	Pulse	0.50	3
As			1	0.478	ug/l	10.97	364.67	4.434E-03	Pulse	1.00	3
Mo			1	0.490	ug/l	4.33	2,551.52	2.008E-02	Pulse	0.50	3
Pb			1	0.511	ug/l	1.11	17,415.18	7.272E-03	Pulse	1.00	3
Be			1	0.621	ug/l	19.40	14.00	1.670E-04	Pulse	2.00	3
Ag			1	0.512	ug/l	1.36	9,548.49	7.512E-02	Pulse	0.50	3
Ba			1	0.476	ug/l	7.90	1,069.37	1.102E-03	Pulse	0.50	3
Tl			1	0.486	ug/l	1.53	24,523.54	7.705E-03	Pulse	0.50	3
Sn			1	0.596	ug/l	5.08	3,052.49	3.146E-03	Pulse	0.30	3
Sr			1	0.482	ug/l	0.49	2,216.14	2.284E-03	Pulse	0.50	3
[Pb]			1	0.505	ug/l	2.24	8,119.29	3.390E-03	Pulse	0.50	3
Ca			1	46.917	ug/l	6.92	686.68	8.196E-03	Pulse	0.50	3
Ti			1	0.453	ug/l	11.16	48.67	5.801E-04	Pulse	0.50	3
Na			1	47.948	ug/l	4.15	38,167.14	4.556E-01	Pulse	1.00	3
Mg			1	51.205	ug/l	1.12	15,028.30	1.794E-01	Pulse	1.00	3
K			1	51.088	ug/l	3.93	32,647.87	3.897E-01	Pulse	1.00	3
V			1	0.459	ug/l	0.05	4,478.52	5.345E-02	Pulse	0.50	3
Mn			1	0.514	ug/l	4.10	1,572.07	1.911E-02	Pulse	0.50	3
Fe			1	50.137	ug/l	0.34	243,013.31	2.953E+00	Pulse	0.50	3
Co			1	0.505	ug/l	1.20	5,556.15	6.752E-02	Pulse	0.50	3
Ni			1	0.448	ug/l	6.23	2,980.24	3.622E-02	Pulse	0.50	3
Cu			1	-0.170	ug/l	-9.47	7,024.64	8.537E-02	Pulse	0.50	3
Zn			1	-0.149	ug/l	-33.57	1,279.38	1.006E-02	Pulse	1.00	3
Cd			1	0.478	ug/l	3.01	1,160.71	9.132E-03	Pulse	0.50	3
Al			1	30.777	ug/l	1.59	3,993.74	4.765E-02	Pulse	1.00	3
Se			1	0.445	ug/l	17.49	35.89	2.825E-04	Pulse	3.00	3
Sb			1	0.497	ug/l	3.23	3,072.93	3.166E-03	Pulse	1.00	3
Se			1	0.691	ug/l	21.68	25.22	1.983E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,183,114.25	0.92	99.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		83,790.27	1.81	99.8	Pulse	0.30	3
1	Ge		82,292.44	0.79	99.7	Pulse	0.30	3
1	In		970,272.53	0.89	100.7	Pulse	0.30	3
1	Tb		3,981,736.75	0.85	99.3	Pulse	0.50	3
1	Lu		2,394,986.50	0.46	99.2	Pulse	0.50	3
1	Ge		127,112.62	0.91	100.6	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		327.78	22.66	103.5	Pulse	0.30	3

Quantitation Report

File Name	005CALS.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 10:32
Sample Name	CALSTD-3
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.960	ug/l	3.46	6,299.04	7.601E-02	Pulse	0.50	3
As			1	1.017	ug/l	2.77	767.02	9.256E-03	Pulse	1.00	3
Mo			1	0.935	ug/l	2.52	4,832.64	3.809E-02	Pulse	0.50	3
Pb			1	1.029	ug/l	0.51	34,303.90	1.425E-02	Pulse	1.00	3
Be			1	1.085	ug/l	13.01	24.33	2.902E-04	Pulse	2.00	3
Ag			1	1.010	ug/l	1.20	18,746.81	1.478E-01	Pulse	0.50	3
Ba			1	0.977	ug/l	2.87	2,178.81	2.249E-03	Pulse	0.50	3
Tl			1	0.973	ug/l	1.71	49,052.59	1.541E-02	Pulse	0.50	3
Sn			1	1.074	ug/l	5.08	5,200.76	5.368E-03	Pulse	0.30	3
Sr			1	0.954	ug/l	2.94	4,007.11	4.136E-03	Pulse	0.50	3
[Pb]			1	1.019	ug/l	0.54	16,024.84	6.658E-03	Pulse	0.50	3
Ca			1	99.587	ug/l	3.26	1,370.72	1.633E-02	Pulse	0.50	3
Ti			1	1.136	ug/l	7.57	120.00	1.429E-03	Pulse	0.50	3
Na			1	99.472	ug/l	2.00	65,712.96	7.830E-01	Pulse	1.00	3
Mg			1	102.092	ug/l	3.07	27,321.90	3.256E-01	Pulse	1.00	3
K			1	99.780	ug/l	2.78	43,654.29	5.201E-01	Pulse	1.00	3
V			1	0.966	ug/l	2.49	6,723.84	8.010E-02	Pulse	0.50	3
Mn			1	1.041	ug/l	0.46	3,019.58	3.644E-02	Pulse	0.50	3
Fe			1	99.003	ug/l	1.13	475,701.15	5.741E+00	Pulse	0.50	3
Co			1	1.013	ug/l	0.92	11,175.92	1.349E-01	Pulse	0.50	3
Ni			1	0.965	ug/l	2.53	4,551.22	5.492E-02	Pulse	0.50	3
Cu			1	0.351	ug/l	2.32	11,492.11	1.387E-01	Pulse	0.50	3
Zn			1	0.726	ug/l	3.32	2,243.13	1.768E-02	Pulse	1.00	3
Cd			1	1.025	ug/l	0.52	2,483.51	1.957E-02	Pulse	0.50	3
Al			1	56.714	ug/l	2.61	7,228.64	8.613E-02	Pulse	1.00	3
Se			1	1.029	ug/l	8.03	63.22	4.983E-04	Pulse	3.00	3
Sb			1	0.969	ug/l	2.74	5,843.27	6.031E-03	Pulse	1.00	3
Se			1	0.825	ug/l	10.06	28.33	2.233E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,183,685.58	0.88	99.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		83,939.64	1.23	100.0	Pulse	0.30	3
1	Ge		82,865.92	0.54	100.4	Pulse	0.30	3
1	In		968,889.72	0.30	100.5	Pulse	0.30	3
1	Tb		3,962,759.17	0.34	98.8	Pulse	0.50	3
1	Lu		2,406,697.83	0.35	99.7	Pulse	0.50	3
1	Ge		126,874.18	0.16	100.4	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		298.89	18.54	94.4	Pulse	0.30	3

Quantitation Report

File Name	006CALS.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 10:36
Sample Name	CALSTD-4
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	10.237	ug/l	1.60	60,501.32	7.443E-01	Pulse	0.50	3
As			1	10.207	ug/l	2.26	7,427.45	9.137E-02	Pulse	1.00	3
Mo			1	10.001	ug/l	0.94	50,571.81	4.054E-01	Pulse	0.50	3
Pb			1	10.775	ug/l	0.92	345,069.36	1.456E-01	Pulse	1.00	3
Be			1	11.367	ug/l	2.22	246.33	3.021E-03	Pulse	2.00	3
Ag			1	10.568	ug/l	0.80	192,284.89	1.541E+00	Pulse	0.50	3
Ba			1	10.134	ug/l	1.93	22,162.90	2.319E-02	Pulse	0.50	3
Tl			1	10.070	ug/l	1.02	499,885.20	1.593E-01	Pulse	0.50	3
Sn			1	10.183	ug/l	0.80	45,595.21	4.772E-02	Pulse	0.30	3
Sr			1	10.063	ug/l	0.86	38,069.58	3.984E-02	Pulse	0.50	3
[Pb]			1	10.772	ug/l	0.34	162,678.45	6.866E-02	Pulse	0.50	3
Ca			1	1061.374	ug/l	1.75	13,437.29	1.648E-01	Pulse	0.50	3
Ti			1	10.525	ug/l	4.20	1,068.70	1.311E-02	Pulse	0.50	3
Na			1	1054.494	ug/l	1.06	558,456.85	6.850E+00	Pulse	1.00	3
Mg			1	1081.807	ug/l	1.32	255,987.05	3.140E+00	Pulse	1.00	3
K			1	1059.379	ug/l	1.92	251,906.51	3.090E+00	Pulse	1.00	3
V			1	10.315	ug/l	1.36	46,565.94	5.712E-01	Pulse	0.50	3
Mn			1	10.386	ug/l	2.00	27,903.98	3.433E-01	Pulse	0.50	3
Fe			1	1028.573	ug/l	1.72	4,777,298.83	5.877E+01	Pulse	0.50	3
Co			1	10.538	ug/l	1.94	113,608.87	1.398E+00	Pulse	0.50	3
Ni			1	10.527	ug/l	1.79	32,580.66	4.008E-01	Pulse	0.50	3
Cu			1	10.086	ug/l	1.77	92,292.81	1.135E+00	Pulse	0.50	3
Zn			1	10.150	ug/l	0.63	12,441.02	9.972E-02	Pulse	1.00	3
Cd			1	10.484	ug/l	1.55	24,962.80	2.001E-01	Pulse	0.50	3
Al			1	603.786	ug/l	1.69	73,182.12	8.977E-01	Pulse	1.00	3
Se			1	10.245	ug/l	4.20	487.56	3.909E-03	Pulse	3.00	3
Sb			1	10.179	ug/l	1.12	59,216.49	6.197E-02	Pulse	1.00	3
Se			1	11.270	ug/l	5.58	272.00	2.181E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,138,815.75	0.16	98.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		81,527.31	0.46	97.1	Pulse	0.30	3
1	Ge		81,304.93	2.09	98.5	Pulse	0.30	3
1	In		955,581.35	1.02	99.2	Pulse	0.30	3
1	Tb		3,950,697.58	0.38	98.5	Pulse	0.50	3
1	Lu		2,369,444.25	1.34	98.2	Pulse	0.50	3
1	Ge		124,764.91	1.12	98.7	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		248.89	16.75	78.6	Pulse	0.30	3

Quantitation Report

File Name	007CALS.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 10:40
Sample Name	CALSTD-5
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	49.348	ug/l	1.62	280,646.11	3.562E+00	Pulse	0.50	3
As			1	49.597	ug/l	0.87	34,940.43	4.434E-01	Pulse	1.00	3
Mo			1	49.035	ug/l	0.63	239,275.53	1.987E+00	Pulse	0.50	3
Pb			1	50.882	ug/l	0.86	1,607,008.17	6.863E-01	Pulse	1.00	3
Be			1	51.623	ug/l	1.93	1,099.53	1.371E-02	Pulse	2.00	3
Ag			1	50.876	ug/l	1.07	893,462.42	7.418E+00	Pulse	0.50	3
Ba			1	49.597	ug/l	1.34	104,537.17	1.135E-01	Pulse	0.50	3
Tl			1	49.786	ug/l	1.06	2,380,580.58	7.873E-01	Pulse	0.50	3
Sn			1	49.262	ug/l	1.24	211,371.11	2.294E-01	Pulse	0.30	3
Sr			1	48.516	ug/l	0.64	175,581.35	1.906E-01	Pulse	0.50	3
[Pb]			1	51.492	ug/l	0.70	766,867.39	3.275E-01	Pulse	0.50	3
Ca			1	4955.185	ug/l	1.38	61,409.46	7.660E-01	Pulse	0.50	3
Ti			1	48.839	ug/l	2.35	4,871.29	6.077E-02	Pulse	0.50	3
Na			1	5004.142	ug/l	2.38	2,560,230.25	3.194E+01	Pulse	1.00	3
Mg			1	5093.274	ug/l	2.34	1,175,369.33	1.466E+01	Pulse	1.00	3
K			1	4975.728	ug/l	2.32	1,088,371.75	1.358E+01	Pulse	1.00	3
V			1	49.444	ug/l	1.98	210,532.64	2.626E+00	Pulse	0.50	3
Mn			1	49.782	ug/l	1.14	129,000.55	1.637E+00	Pulse	0.50	3
Fe			1	4947.521	ug/l	1.55	22,247,639.33	2.823E+02	Analog	0.50	3
Co			1	49.889	ug/l	1.35	521,243.46	6.615E+00	Pulse	0.50	3
Ni			1	50.143	ug/l	1.20	144,499.91	1.834E+00	Pulse	0.50	3
Cu			1	50.569	ug/l	1.78	416,056.10	5.280E+00	Pulse	0.50	3
Zn			1	50.945	ug/l	1.50	54,779.01	4.548E-01	Pulse	1.00	3
Cd			1	50.567	ug/l	1.22	116,231.14	9.651E-01	Pulse	0.50	3
Al			1	2867.671	ug/l	2.26	341,140.73	4.256E+00	Pulse	1.00	3
Se			1	50.800	ug/l	1.28	2,278.58	1.892E-02	Pulse	3.00	3
Sb			1	49.784	ug/l	1.20	278,743.91	3.025E-01	Pulse	1.00	3
Se			1	50.231	ug/l	1.98	1,142.15	9.483E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,023,737.17	0.98	94.7	Pulse	0.50	3
1	Sc		80,185.19	2.55	95.5	Pulse	0.30	3
1	Ge		78,809.07	1.55	95.4	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		921,483.95	1.45	95.6	Pulse	0.30	3
1	Tb		3,869,725.08	1.57	96.5	Pulse	0.50	3
1	Lu		2,341,528.50	0.99	97.0	Pulse	0.50	3
1	Ge		120,448.58	1.00	95.3	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		276.67	16.87	87.4	Pulse	0.30	3

Quantitation Report

File Name	008CALS.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 10:44
Sample Name	CALSTD-6
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	98.828	ug/l	1.71	550,659.94	7.126E+00	Pulse	0.50	3
As			1	98.731	ug/l	1.71	68,191.03	8.824E-01	Pulse	1.00	3
Mo			1	97.339	ug/l	0.45	474,913.39	3.943E+00	Pulse	0.50	3
Pb			1	100.328	ug/l	0.56	3,167,255.42	1.353E+00	Pulse	1.00	3
Be			1	101.341	ug/l	4.31	2,136.12	2.692E-02	Pulse	2.00	3
Ag			1	99.505	ug/l	0.45	1,747,317.37	1.451E+01	Pulse	0.50	3
Ba			1	99.071	ug/l	0.78	206,965.97	2.266E-01	Pulse	0.50	3
Tl			1	99.342	ug/l	1.19	4,646,352.67	1.571E+00	Pulse	0.50	3
Sn			1	98.454	ug/l	0.71	418,383.73	4.581E-01	Pulse	0.30	3
Sr			1	98.061	ug/l	0.56	351,377.50	3.847E-01	Pulse	0.50	3
[Pb]			1	100.268	ug/l	0.61	1,492,602.13	6.376E-01	Pulse	0.50	3
Ca			1	9847.623	ug/l	1.86	120,719.65	1.521E+00	Pulse	0.50	3
Ti			1	100.387	ug/l	4.13	9,906.53	1.249E-01	Pulse	0.50	3
Na			1	9975.670	ug/l	2.15	5,040,353.17	6.353E+01	Analog	1.00	3
Mg			1	10068.305	ug/l	1.72	2,297,581.58	2.896E+01	Pulse	1.00	3
K			1	9940.560	ug/l	1.73	2,132,472.42	2.687E+01	Pulse	1.00	3
V			1	99.198	ug/l	1.56	415,773.96	5.240E+00	Pulse	0.50	3
Mn			1	99.058	ug/l	1.52	251,549.81	3.255E+00	Pulse	0.50	3
Fe			1	9906.717	ug/l	1.25	43,682,386.67	5.653E+02	Analog	0.50	3
Co			1	99.899	ug/l	1.19	1,023,581.06	1.325E+01	Pulse	0.50	3
Ni			1	100.670	ug/l	0.61	282,958.98	3.661E+00	Pulse	0.50	3
Cu			1	100.830	ug/l	1.24	805,705.92	1.043E+01	Pulse	0.50	3
Zn			1	98.912	ug/l	0.61	105,064.94	8.724E-01	Pulse	1.00	3
Cd			1	99.140	ug/l	0.06	227,871.98	1.892E+00	Pulse	0.50	3
Al			1	5735.411	ug/l	1.27	675,304.00	8.510E+00	Pulse	1.00	3
Se			1	99.101	ug/l	1.71	4,430.51	3.679E-02	Pulse	3.00	3
Sb			1	99.164	ug/l	0.68	550,200.83	6.024E-01	Pulse	1.00	3
Se			1	98.623	ug/l	3.70	2,234.47	1.855E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,957,706.58	0.82	92.6	Pulse	0.50	3
1	Sc		79,365.20	1.91	94.5	Pulse	0.30	3
1	Ge		77,286.13	1.20	93.6	Pulse	0.30	3
1	In		913,303.16	0.89	94.8	Pulse	0.30	3
1	Tb		3,860,960.50	0.35	96.3	Pulse	0.50	3
1	Lu		2,341,055.50	0.88	97.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		120,436.32	0.75	95.3	Pulse	0.30	3
1	Te		2.67	86.60		Pulse	0.50	3
1	Li		286.67	9.52	90.5	Pulse	0.30	3

Quantitation Report

File Name	009CALS.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 10:48
Sample Name	CALSTD-7
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	200.737	ug/l	1.80	1,126,740.71	1.447E+01	Pulse	0.50	3
As			1	200.725	ug/l	2.41	139,702.89	1.794E+00	Pulse	1.00	3
Mo			1	201.572	ug/l	1.75	972,278.44	8.166E+00	Pulse	0.50	3
Pb			1	199.577	ug/l	1.55	6,288,710.00	2.691E+00	Mix	1.00	3
Be			1	198.855	ug/l	3.56	4,288.45	5.282E-02	Pulse	2.00	3
Ag			1	190.777	ug/l	1.14	3,312,139.92	2.782E+01	Pulse	0.50	3
Ba			1	200.559	ug/l	1.77	419,305.26	4.588E-01	Pulse	0.50	3
Tl			1	200.379	ug/l	1.26	9,151,615.33	3.169E+00	Analog	0.50	3
Sn			1	200.947	ug/l	1.61	854,244.71	9.346E-01	Pulse	0.30	3
Sr			1	201.338	ug/l	1.62	721,632.13	7.895E-01	Pulse	0.50	3
[Pb]			1	199.454	ug/l	1.55	2,963,542.33	1.268E+00	Pulse	0.50	3
Ca			1	20084.333	ug/l	3.55	251,830.67	3.102E+00	Pulse	0.50	3
Ti			1	200.070	ug/l	4.20	20,203.09	2.489E-01	Pulse	0.50	3
Na			1	20008.413	ug/l	3.95	10,331,010.33	1.273E+02	Analog	1.00	3
Mg			1	19938.425	ug/l	3.71	4,652,585.00	5.731E+01	Analog	1.00	3
K			1	20032.817	ug/l	3.46	4,376,227.83	5.390E+01	Pulse	1.00	3
V			1	200.524	ug/l	3.52	857,485.96	1.056E+01	Pulse	0.50	3
Mn			1	200.506	ug/l	1.64	513,003.28	6.587E+00	Pulse	0.50	3
Fe			1	20058.337	ug/l	2.02	89,127,816.00	1.144E+03	Analog	0.50	3
Co			1	200.051	ug/l	2.05	2,065,690.79	2.652E+01	Pulse	0.50	3
Ni			1	199.603	ug/l	1.67	563,875.06	7.240E+00	Pulse	0.50	3
Cu			1	199.444	ug/l	1.72	1,598,383.33	2.052E+01	Pulse	0.50	3
Zn			1	200.304	ug/l	1.51	208,975.91	1.755E+00	Pulse	1.00	3
Cd			1	200.264	ug/l	0.97	455,099.79	3.822E+00	Pulse	0.50	3
Al			1	22685.452	ug/l	3.61	2,732,259.33	3.365E+01	Pulse	1.00	3
Se			1	200.238	ug/l	1.66	8,836.93	7.422E-02	Pulse	3.00	3
Sb			1	200.463	ug/l	1.42	1,113,007.75	1.218E+00	Pulse	1.00	3
Se			1	200.567	ug/l	3.05	4,483.64	3.766E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,888,292.50	1.19	90.4	Pulse	0.50	3
1	Sc		81,242.80	3.01	96.8	Pulse	0.30	3
1	Ge		77,898.89	1.65	94.3	Pulse	0.30	3
1	In		914,114.90	1.28	94.9	Pulse	0.30	3
1	Tb		3,851,761.08	1.36	96.0	Pulse	0.50	3
1	Lu		2,337,255.50	1.33	96.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		119,084.76	1.28	94.2	Pulse	0.30	3
1	Te		9.33	32.73		Pulse	0.50	3
1	Li		272.22	6.16	86.0	Pulse	0.30	3

Quantitation Report

File Name	010HSAG.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 10:52
Sample Name	HSTD (Ag)
Sample Type	HSTD _Ag
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	96.704	ug/l	1.01	555,815.71	6.973E+00	Pulse	0.50	3
As			1	95.863	ug/l	0.63	68,299.09	8.568E-01	Pulse	1.00	3
Mo			1	96.690	ug/l	0.17	476,766.89	3.917E+00	Pulse	0.50	3
Pb			1	98.695	ug/l	0.78	3,135,104.33	1.331E+00	Pulse	1.00	3
Be			1	99.021	ug/l	1.80	2,153.45	2.630E-02	Pulse	2.00	3
Ag			1	98.040	ug/l	0.94	1,739,876.21	1.429E+01	Pulse	0.50	3
Ba			1	97.818	ug/l	1.14	206,592.59	2.238E-01	Pulse	0.50	3
Tl			1	98.259	ug/l	0.69	4,630,319.50	1.554E+00	Pulse	0.50	3
Sn			1	99.395	ug/l	0.73	427,028.76	4.625E-01	Pulse	0.30	3
Sr			1	99.836	ug/l	1.15	361,657.43	3.917E-01	Pulse	0.50	3
[Pb]			1	98.882	ug/l	0.52	1,481,165.79	6.288E-01	Pulse	0.50	3
Ca			1	9681.316	ug/l	1.04	122,445.50	1.496E+00	Pulse	0.50	3
Ti			1	100.328	ug/l	0.45	10,218.03	1.248E-01	Pulse	0.50	3
Na			1	9812.282	ug/l	0.19	5,115,534.67	6.249E+01	Analog	1.00	3
Mg			1	9801.875	ug/l	0.02	2,307,821.33	2.819E+01	Pulse	1.00	3
K			1	9763.716	ug/l	0.52	2,161,306.33	2.640E+01	Pulse	1.00	3
V			1	97.423	ug/l	0.38	421,319.16	5.147E+00	Pulse	0.50	3
Mn			1	96.966	ug/l	0.05	254,014.69	3.186E+00	Pulse	0.50	3
Fe			1	9660.979	ug/l	1.30	43,939,908.00	5.512E+02	Analog	0.50	3
Co			1	97.482	ug/l	1.54	1,030,245.02	1.292E+01	Pulse	0.50	3
Ni			1	98.143	ug/l	0.96	284,569.29	3.570E+00	Pulse	0.50	3
Cu			1	98.506	ug/l	1.06	812,110.52	1.019E+01	Pulse	0.50	3
Zn			1	98.626	ug/l	1.10	105,877.36	8.699E-01	Pulse	1.00	3
Cd			1	97.926	ug/l	0.38	227,470.09	1.869E+00	Pulse	0.50	3
Al			1	5568.265	ug/l	0.17	676,393.54	8.262E+00	Pulse	1.00	3
Se			1	97.625	ug/l	1.38	4,411.40	3.624E-02	Pulse	3.00	3
Sb			1	97.634	ug/l	1.19	547,657.98	5.932E-01	Pulse	1.00	3
Se			1	99.256	ug/l	2.50	2,272.47	1.867E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,979,881.67	0.64	93.3	Pulse	0.50	3
1	Sc		81,865.33	0.37	97.5	Pulse	0.30	3
1	Ge		79,716.12	0.78	96.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		923,372.63	1.12	95.8	Pulse	0.30	3
1	Tb		3,881,657.33	0.42	96.8	Pulse	0.50	3
1	Lu		2,355,674.42	0.95	97.6	Pulse	0.50	3
1	Ge		121,715.62	0.51	96.3	Pulse	0.30	3
1	Te		6.00	33.33		Pulse	0.50	3
1	Li		264.45	8.85	83.5	Pulse	0.30	3

Quantitation Report

File Name	011HSTD.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 10:56
Sample Name	HSTD
Sample Type	HSTD
Comment	=std 6
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	198.571	ug/l	2.69	1,113,873.00	1.431E+01	Pulse	0.50	3
As			1	195.256	ug/l	1.63	135,842.83	1.745E+00	Pulse	1.00	3
Mo			1	197.937	ug/l	1.30	961,460.12	8.019E+00	Pulse	0.50	3
Pb			1	198.926	ug/l	0.90	6,181,100.17	2.682E+00	Pulse	1.00	3
Be			1	199.690	ug/l	0.65	4,252.61	5.304E-02	Pulse	2.00	3
Ag			1	173.701	ug/l	1.36	3,036,753.00	2.533E+01	Pulse	0.50	3
Ba			1	196.653	ug/l	0.80	408,598.33	4.498E-01	Pulse	0.50	3
Tl			1	199.947	ug/l	0.75	9,144,382.67	3.162E+00	Analog	0.50	3
Sn			1	201.028	ug/l	1.37	849,293.91	9.350E-01	Pulse	0.30	3
Sr			1	198.566	ug/l	1.12	707,301.44	7.787E-01	Pulse	0.50	3
[Pb]			1	198.818	ug/l	0.46	2,913,113.75	1.264E+00	Pulse	0.50	3
Ca			1	19862.162	ug/l	0.74	245,919.45	3.068E+00	Pulse	0.50	3
Ti			1	200.512	ug/l	1.23	19,995.54	2.494E-01	Pulse	0.50	3
Na			1	20071.692	ug/l	0.71	10,234,391.33	1.277E+02	Analog	1.00	3
Mg			1	19932.953	ug/l	1.08	4,592,967.00	5.729E+01	Pulse	1.00	3
K			1	19975.635	ug/l	0.93	4,308,841.67	5.375E+01	Pulse	1.00	3
V			1	200.268	ug/l	1.27	845,609.90	1.055E+01	Pulse	0.50	3
Mn			1	197.116	ug/l	2.41	504,022.87	6.475E+00	Pulse	0.50	3
Fe			1	19872.374	ug/l	2.23	88,254,280.00	1.134E+03	Analog	0.50	3
Co			1	198.075	ug/l	2.38	2,044,156.29	2.626E+01	Pulse	0.50	3
Ni			1	199.482	ug/l	1.89	563,239.02	7.235E+00	Pulse	0.50	3
Cu			1	200.198	ug/l	2.14	1,603,499.37	2.060E+01	Pulse	0.50	3
Zn			1	196.851	ug/l	0.25	206,845.56	1.725E+00	Pulse	1.00	3
Cd			1	196.331	ug/l	0.69	449,288.79	3.747E+00	Pulse	0.50	3
Al			1	121.855	ug/l	1.63	14,650.70	1.828E-01	Pulse	1.00	3
Se			1	195.692	ug/l	1.36	8,697.20	7.253E-02	Pulse	3.00	3
Sb			1	197.295	ug/l	0.89	1,088,635.25	1.198E+00	Pulse	1.00	3
Se			1	196.687	ug/l	1.15	4,428.96	3.693E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,892,003.92	0.39	90.5	Pulse	0.50	3
1	Sc		80,169.46	0.88	95.5	Pulse	0.30	3
1	Ge		77,865.08	2.17	94.3	Pulse	0.30	3
1	In		908,377.33	0.59	94.3	Pulse	0.30	3
1	Tb		3,803,506.50	0.47	94.8	Pulse	0.50	3
1	Lu		2,304,561.33	0.56	95.5	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		119,913.12	0.78	94.9	Pulse	0.30	3
1	Te		7.33	95.78		Pulse	0.50	3
1	Li		264.45	11.91	83.5	Pulse	0.30	3

Quantitation Report

File Name	012_ICV.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 11:00
Sample Name	ICV
Sample Type	ICV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	96.820	ug/l	0.66	553,906.21	6.981E+00	Pulse	0.50	3
As			1	95.518	ug/l	0.96	67,736.16	8.537E-01	Pulse	1.00	3
Mo			1	96.152	ug/l	0.98	479,032.85	3.895E+00	Pulse	0.50	3
Pb			1	98.276	ug/l	0.24	3,097,073.75	1.325E+00	Pulse	1.00	3
Be			1	98.648	ug/l	1.30	2,141.28	2.621E-02	Pulse	2.00	3
Ag			1	49.890	ug/l	0.51	894,605.04	7.274E+00	Pulse	0.50	3
Ba			1	98.460	ug/l	0.10	208,446.08	2.252E-01	Pulse	0.50	3
Tl			1	97.926	ug/l	0.23	4,586,334.67	1.549E+00	Pulse	0.50	3
Sn			1	108.075	ug/l	0.36	465,386.73	5.028E-01	Pulse	0.30	3
Sr			1	99.401	ug/l	0.48	360,947.70	3.900E-01	Pulse	0.50	3
[Pb]			1	98.770	ug/l	0.26	1,467,736.42	6.281E-01	Pulse	0.50	3
Ca			1	9706.820	ug/l	0.84	122,534.13	1.500E+00	Pulse	0.50	3
Ti			1	97.163	ug/l	2.47	9,876.52	1.209E-01	Pulse	0.50	3
Na			1	9939.578	ug/l	0.56	5,171,730.50	6.330E+01	Analog	1.00	3
Mg			1	10148.050	ug/l	0.62	2,384,635.08	2.918E+01	Pulse	1.00	3
K			1	9693.996	ug/l	0.63	2,141,896.75	2.621E+01	Pulse	1.00	3
V			1	97.390	ug/l	0.70	420,373.60	5.145E+00	Pulse	0.50	3
Mn			1	96.044	ug/l	0.86	250,420.66	3.156E+00	Pulse	0.50	3
Fe			1	9950.377	ug/l	1.09	45,046,285.33	5.678E+02	Analog	0.50	3
Co			1	98.424	ug/l	0.87	1,035,389.33	1.305E+01	Pulse	0.50	3
Ni			1	98.184	ug/l	0.40	283,367.33	3.571E+00	Pulse	0.50	3
Cu			1	99.983	ug/l	0.28	820,355.86	1.034E+01	Pulse	0.50	3
Zn			1	98.274	ug/l	0.13	106,605.02	8.668E-01	Pulse	1.00	3
Cd			1	95.892	ug/l	0.46	225,059.24	1.830E+00	Pulse	0.50	3
Al			1	5914.832	ug/l	0.25	717,105.81	8.776E+00	Pulse	1.00	3
Se			1	97.041	ug/l	0.86	4,430.74	3.603E-02	Pulse	3.00	3
Sb			1	96.659	ug/l	0.19	543,486.73	5.872E-01	Pulse	1.00	3
Se			1	96.879	ug/l	2.44	2,241.46	1.823E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,961,527.58	0.21	92.7	Pulse	0.50	3
1	Sc		81,709.27	0.84	97.3	Pulse	0.30	3
1	Ge		79,343.48	0.31	96.1	Pulse	0.30	3
1	In		925,505.97	0.32	96.0	Pulse	0.30	3
1	Tb		3,872,008.92	0.45	96.5	Pulse	0.50	3
1	Lu		2,336,906.25	0.12	96.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		122,980.38	0.37	97.3	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		300.00	22.96	94.7	Pulse	0.30	3

Quantitation Report

File Name	013_ICB.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 11:04
Sample Name	ICB
Sample Type	ICB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.014	ug/l	95.59	638.68	7.908E-03	Pulse	0.50	3
As			1	0.031	ug/l	18.60	36.00	4.457E-04	Pulse	1.00	3
Mo			1	0.092	ug/l	27.95	487.34	3.954E-03	Pulse	0.50	3
Pb			1	0.039	ug/l	15.52	2,119.47	9.019E-04	Pulse	1.00	3
Be			1	0.113	ug/l	109.77	2.67	3.212E-05	Pulse	2.00	3
Ag			1	0.036	ug/l	2.45	710.02	5.743E-03	Pulse	0.50	3
Ba			1	0.035	ug/l	24.68	88.00	9.349E-05	Pulse	0.50	3
Tl			1	0.037	ug/l	1.23	1,888.78	6.068E-04	Pulse	0.50	3
Sn			1	0.123	ug/l	22.33	890.03	9.465E-04	Pulse	0.30	3
Sr			1	0.004	ug/l	131.42	386.01	4.103E-04	Pulse	0.50	3
[Pb]			1	0.037	ug/l	16.79	966.70	4.114E-04	Pulse	0.50	3
Ca			1	6.330	ug/l	31.09	158.00	1.929E-03	Pulse	0.50	3
Ti			1	0.013	ug/l	82.51	2.67	3.239E-05	Pulse	0.50	3
Na			1	21.695	ug/l	3.44	23,700.64	2.889E-01	Pulse	1.00	3
Mg			1	-4.925	ug/l	-1.87	1,487.39	1.813E-02	Pulse	1.00	3
K			1	5.631	ug/l	14.82	21,982.86	2.680E-01	Pulse	1.00	3
V			1	-0.306	ug/l	-8.91	1,088.70	1.328E-02	Pulse	0.50	3
Mn			1	0.034	ug/l	15.15	272.00	3.369E-03	Pulse	0.50	3
Fe			1	2.535	ug/l	15.14	19,172.85	2.375E-01	Pulse	0.50	3
Co			1	0.027	ug/l	32.92	334.00	4.139E-03	Pulse	0.50	3
Ni			1	-0.166	ug/l	-3.44	1,132.04	1.402E-02	Pulse	0.50	3
Cu			1	-0.136	ug/l	-15.05	7,175.36	8.886E-02	Pulse	0.50	3
Zn			1	1.149	ug/l	7.03	2,639.85	2.136E-02	Pulse	1.00	3
Cd			1	0.028	ug/l	33.40	68.00	5.487E-04	Pulse	0.50	3
Al			1	1.841	ug/l	17.06	388.00	4.729E-03	Pulse	1.00	3
Se			1	0.058	ug/l	120.36	17.22	1.391E-04	Pulse	3.00	3
Sb			1	0.037	ug/l	21.02	351.67	3.740E-04	Pulse	1.00	3
Se			1	0.090	ug/l	98.25	10.56	8.553E-05	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,112,881.17	0.58	97.5	Pulse	0.50	3
1	Sc		82,042.78	1.79	97.7	Pulse	0.30	3
1	Ge		80,752.71	0.50	97.8	Pulse	0.30	3
1	In		940,650.87	0.50	97.6	Pulse	0.30	3
1	Tb		3,899,224.33	0.63	97.2	Pulse	0.50	3
1	Lu		2,350,136.00	0.06	97.4	Pulse	0.50	3
1	Ge		123,609.86	1.68	97.8	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		270.00	3.70	85.3	Pulse	0.30	3

Quantitation Report

File Name	014LCCV.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 11:07
Sample Name	CRIA
Sample Type	CRIA
Comment	=std 2
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.991	ug/l	2.10	6,224.34	7.828E-02	Pulse	0.50	3
As			1	0.989	ug/l	4.79	715.35	8.999E-03	Pulse	1.00	3
Mo			1	1.001	ug/l	1.99	5,076.04	4.077E-02	Pulse	0.50	3
Pb			1	1.027	ug/l	0.44	33,554.10	1.423E-02	Pulse	1.00	3
Be			1	1.400	ug/l	15.57	31.17	3.738E-04	Pulse	2.00	3
Ag			1	1.017	ug/l	2.36	18,515.92	1.487E-01	Pulse	0.50	3
Ba			1	0.960	ug/l	3.84	2,090.80	2.208E-03	Pulse	0.50	3
Tl			1	0.975	ug/l	1.20	48,185.42	1.543E-02	Pulse	0.50	3
Sn			1	1.034	ug/l	5.20	4,904.02	5.180E-03	Pulse	0.30	3
Sr			1	0.942	ug/l	1.20	3,872.41	4.089E-03	Pulse	0.50	3
[Pb]			1	1.035	ug/l	1.27	15,935.44	6.756E-03	Pulse	0.50	3
Ca			1	98.461	ug/l	4.40	1,345.39	1.615E-02	Pulse	0.50	3
Ti			1	1.262	ug/l	7.70	132.00	1.586E-03	Pulse	0.50	3
Na			1	105.172	ug/l	1.79	68,216.92	8.192E-01	Pulse	1.00	3
Mg			1	93.697	ug/l	1.69	25,101.67	3.014E-01	Pulse	1.00	3
K			1	100.153	ug/l	2.27	43,394.08	5.211E-01	Pulse	1.00	3
V			1	0.643	ug/l	3.44	5,258.73	6.314E-02	Pulse	0.50	3
Mn			1	1.104	ug/l	3.57	3,060.25	3.849E-02	Pulse	0.50	3
Fe			1	100.453	ug/l	1.72	462,967.17	5.824E+00	Pulse	0.50	3
Co			1	1.045	ug/l	0.95	11,063.19	1.392E-01	Pulse	0.50	3
Ni			1	0.851	ug/l	6.55	4,040.44	5.082E-02	Pulse	0.50	3
Cu			1	0.388	ug/l	5.39	11,326.02	1.425E-01	Pulse	0.50	3
Zn			1	0.443	ug/l	5.20	1,894.76	1.522E-02	Pulse	1.00	3
Cd			1	0.987	ug/l	3.93	2,347.49	1.885E-02	Pulse	0.50	3
Al			1	56.360	ug/l	2.27	7,128.28	8.561E-02	Pulse	1.00	3
Se			1	0.938	ug/l	11.35	57.89	4.647E-04	Pulse	3.00	3
Sb			1	0.960	ug/l	2.81	5,663.88	5.982E-03	Pulse	1.00	3
Se			1	1.148	ug/l	21.65	35.34	2.839E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,122,981.67	0.56	97.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		83,281.12	1.21	99.2	Pulse	0.30	3
1	Ge		79,505.16	0.71	96.3	Pulse	0.30	3
1	In		946,974.58	0.77	98.3	Pulse	0.30	3
1	Tb		3,903,287.33	0.59	97.3	Pulse	0.50	3
1	Lu		2,358,691.92	0.26	97.7	Pulse	0.50	3
1	Ge		124,522.26	0.68	98.5	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		277.78	11.84	87.7	Pulse	0.30	3

Quantitation Report

File Name	015ICSA.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 11:11
Sample Name	ICSA
Sample Type	ICSA
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.236	ug/l	11.67	1,895.43	2.389E-02	Pulse	0.50	3
As			1	0.098	ug/l	9.38	82.67	1.042E-03	Pulse	1.00	3
Mo			1	2006.843	ug/l	0.47	9,628,750.67	8.130E+01	Analog	0.50	3
Pb			1	0.083	ug/l	2.22	3,458.69	1.502E-03	Pulse	1.00	3
Be			1	0.054	ug/l	92.37	1.33	1.646E-05	Pulse	2.00	3
Ag			1	0.066	ug/l	9.05	1,190.71	1.004E-02	Pulse	0.50	3
Ba			1	0.059	ug/l	0.95	130.67	1.474E-04	Pulse	0.50	3
Tl			1	0.010	ug/l	5.91	458.68	1.697E-04	Pulse	0.50	3
Sn			1	0.134	ug/l	14.69	884.48	9.977E-04	Pulse	0.30	3
Sr			1	0.918	ug/l	9.49	3,541.01	3.995E-03	Pulse	0.50	3
[Pb]			1	0.083	ug/l	10.03	1,619.42	7.034E-04	Pulse	0.50	3
Ca			1	93815.953	ug/l	0.52	1,195,405.71	1.449E+01	Pulse	0.50	3
Ti			1	1995.017	ug/l	0.38	204,822.99	2.482E+00	Pulse	0.50	3
Na			1	99094.932	ug/l	0.29	51,971,577.33	6.297E+02	Analog	1.00	3
Mg			1	97840.183	ug/l	0.15	23,198,329.33	2.811E+02	Analog	1.00	3
K			1	100104.609	ug/l	0.67	22,145,090.00	2.683E+02	Analog	1.00	3
V			1	-0.222	ug/l	-8.68	1,463.39	1.772E-02	Pulse	0.50	3
Mn			1	0.499	ug/l	8.46	1,475.39	1.861E-02	Pulse	0.50	3
Fe			1	96366.666	ug/l	2.00	436,153,824.00	5.498E+03	Analog	0.50	3
Co			1	0.032	ug/l	10.86	379.34	4.786E-03	Pulse	0.50	3
Ni			1	0.009	ug/l	319.36	1,616.07	2.036E-02	Pulse	0.50	3
Cu			1	-0.483	ug/l	-5.19	4,236.49	5.339E-02	Pulse	0.50	3
Zn			1	-0.054	ug/l	-52.17	1,289.38	1.089E-02	Pulse	1.00	3
Cd			1	0.571	ug/l	1.33	1,292.72	1.092E-02	Pulse	0.50	3
Al			1	56191.099	ug/l	0.39	6,879,932.50	8.336E+01	Analog	1.00	3
Se			1	0.198	ug/l	40.72	22.55	1.909E-04	Pulse	3.00	3
Sb			1	0.049	ug/l	6.84	392.67	4.430E-04	Pulse	1.00	3
Se			1	0.187	ug/l	98.60	12.33	1.038E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,702,047.42	0.59	84.6	Pulse	0.50	3
1	Sc		82,529.49	3.46	98.3	Pulse	0.30	3
1	Ge		79,317.67	1.53	96.1	Pulse	0.30	3
1	In		886,284.83	0.50	92.0	Pulse	0.30	3
1	Tb		3,771,379.50	0.80	94.0	Pulse	0.50	3
1	Lu		2,302,340.92	0.51	95.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		118,432.07	2.24	93.7	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		282.23	10.97	89.1	Pulse	0.30	3

Quantitation Report

File Name	016ICSB.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 11:15
Sample Name	ICSAB
Sample Type	ICSAB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	19.991	ug/l	1.38	122,877.14	1.447E+00	Pulse	0.50	3
As			1	19.381	ug/l	2.29	14,720.66	1.734E-01	Pulse	1.00	3
Mo			1	1989.636	ug/l	1.13	10,325,894.67	8.060E+01	Analog	0.50	3
Pb			1	0.075	ug/l	4.13	3,302.99	1.387E-03	Pulse	1.00	3
Be			1	0.048	ug/l	51.00	1.33	1.476E-05	Pulse	2.00	3
Ag			1	17.807	ug/l	0.75	332,668.23	2.597E+00	Pulse	0.50	3
Ba			1	0.060	ug/l	21.46	140.00	1.497E-04	Pulse	0.50	3
Tl			1	0.006	ug/l	8.63	316.67	1.141E-04	Pulse	0.50	3
Sn			1	0.120	ug/l	10.53	871.14	9.317E-04	Pulse	0.30	3
Sr			1	0.955	ug/l	2.80	3,869.07	4.137E-03	Pulse	0.50	3
[Pb]			1	0.078	ug/l	2.10	1,608.08	6.755E-04	Pulse	0.50	3
Ca			1	93446.961	ug/l	0.77	1,306,248.25	1.443E+01	Pulse	0.50	3
Ti			1	2008.237	ug/l	0.93	226,147.20	2.498E+00	Pulse	0.50	3
Na			1	100024.724	ug/l	1.12	57,541,852.00	6.356E+02	Analog	1.00	3
Mg			1	98078.077	ug/l	1.01	25,510,106.67	2.818E+02	Analog	1.00	3
K			1	101154.331	ug/l	0.71	24,547,382.00	2.712E+02	Analog	1.00	3
V			1	-0.245	ug/l	-8.24	1,494.06	1.651E-02	Pulse	0.50	3
Mn			1	19.749	ug/l	2.23	55,266.80	6.508E-01	Pulse	0.50	3
Fe			1	98346.529	ug/l	1.71	476,494,720.00	5.611E+03	Analog	0.50	3
Co			1	19.187	ug/l	1.42	216,091.01	2.544E+00	Pulse	0.50	3
Ni			1	18.715	ug/l	1.81	59,187.90	6.970E-01	Pulse	0.50	3
Cu			1	18.059	ug/l	1.38	165,753.53	1.952E+00	Pulse	0.50	3
Zn			1	18.217	ug/l	1.50	21,771.26	1.699E-01	Pulse	1.00	3
Cd			1	18.415	ug/l	2.05	45,029.19	3.515E-01	Pulse	0.50	3
Al			1	56211.100	ug/l	1.43	7,549,133.67	8.339E+01	Analog	1.00	3
Se			1	0.120	ug/l	95.00	20.78	1.620E-04	Pulse	3.00	3
Sb			1	0.051	ug/l	14.81	429.34	4.590E-04	Pulse	1.00	3
Se			1	0.050	ug/l	60.59	10.00	7.808E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,775,895.58	0.63	86.9	Pulse	0.50	3
1	Sc		90,526.47	1.05	107.8	Pulse	0.30	3
1	Ge		84,928.18	1.11	102.9	Pulse	0.30	3
1	In		935,134.61	0.97	97.0	Pulse	0.30	3
1	Tb		3,928,560.33	0.51	97.9	Pulse	0.50	3
1	Lu		2,380,457.92	0.75	98.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		128,109.04	0.63	101.3	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		288.89	9.33	91.2	Pulse	0.30	3

Quantitation Report

File Name	017CCVA.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 11:19
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	49.195	ug/l	2.25	333,045.75	3.551E+00	Pulse	0.50	3
As			1	47.712	ug/l	1.90	40,010.99	4.265E-01	Pulse	1.00	3
Mo			1	47.728	ug/l	1.23	276,031.77	1.934E+00	Pulse	0.50	3
Pb			1	49.933	ug/l	2.47	1,696,473.67	6.736E-01	Pulse	1.00	3
Be			1	46.947	ug/l	1.12	1,207.87	1.247E-02	Pulse	2.00	3
Ag			1	48.323	ug/l	1.83	1,005,736.96	7.046E+00	Pulse	0.50	3
Ba			1	47.934	ug/l	3.34	115,182.50	1.097E-01	Pulse	0.50	3
Tl			1	48.800	ug/l	2.10	2,500,425.25	7.717E-01	Pulse	0.50	3
Sn			1	48.117	ug/l	3.27	235,384.47	2.241E-01	Pulse	0.30	3
Sr			1	48.889	ug/l	3.27	201,706.96	1.920E-01	Pulse	0.50	3
[Pb]			1	50.235	ug/l	2.82	804,747.50	3.195E-01	Pulse	0.50	3
Ca			1	4891.294	ug/l	3.90	73,184.75	7.562E-01	Pulse	0.50	3
Ti			1	49.324	ug/l	3.43	5,940.92	6.137E-02	Pulse	0.50	3
Na			1	5048.811	ug/l	3.20	3,119,404.75	3.223E+01	Pulse	1.00	3
Mg			1	5001.729	ug/l	3.32	1,393,957.17	1.440E+01	Pulse	1.00	3
K			1	5068.004	ug/l	3.72	1,338,161.84	1.383E+01	Pulse	1.00	3
V			1	48.876	ug/l	3.83	251,319.20	2.597E+00	Pulse	0.50	3
Mn			1	48.626	ug/l	2.63	149,983.43	1.599E+00	Pulse	0.50	3
Fe			1	4941.684	ug/l	1.83	26,454,062.00	2.820E+02	Analog	0.50	3
Co			1	49.309	ug/l	1.81	613,305.06	6.538E+00	Pulse	0.50	3
Ni			1	49.517	ug/l	2.38	169,879.05	1.811E+00	Pulse	0.50	3
Cu			1	49.430	ug/l	2.24	484,361.04	5.164E+00	Pulse	0.50	3
Zn			1	49.440	ug/l	1.73	63,054.78	4.417E-01	Pulse	1.00	3
Cd			1	47.559	ug/l	2.18	129,553.28	9.077E-01	Pulse	0.50	3
Al			1	2798.779	ug/l	3.43	402,068.00	4.154E+00	Pulse	1.00	3
Se			1	49.457	ug/l	2.12	2,629.07	1.842E-02	Pulse	3.00	3
Sb			1	47.936	ug/l	2.53	306,030.03	2.913E-01	Pulse	1.00	3
Se			1	51.219	ug/l	2.60	1,380.05	9.668E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,240,947.50	2.17	101.5	Pulse	0.50	3
1	Sc		96,864.51	3.19	115.4	Pulse	0.30	3
1	Ge		93,827.65	1.95	113.6	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,051,010.55	2.53	109.1	Pulse	0.30	3
1	Tb		4,235,953.75	2.49	105.6	Pulse	0.50	3
1	Lu		2,519,598.25	2.17	104.4	Pulse	0.50	3
1	Ge		142,776.68	2.16	113.0	Pulse	0.30	3
1	Te		2.00	100.00		Pulse	0.50	3
1	Li		398.90	12.54	126.0	Pulse	0.30	3

Quantitation Report

File Name	018_CCV.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 11:23
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	98.985	ug/l	1.18	647,931.06	7.137E+00	Pulse	0.50	3
As			1	97.168	ug/l	0.63	78,846.34	8.685E-01	Pulse	1.00	3
Mo			1	94.938	ug/l	0.81	536,671.27	3.846E+00	Pulse	0.50	3
Pb			1	98.298	ug/l	0.65	3,300,600.17	1.326E+00	Pulse	1.00	3
Be			1	95.546	ug/l	2.19	2,405.14	2.538E-02	Pulse	2.00	3
Ag			1	95.000	ug/l	0.74	1,932,812.92	1.385E+01	Pulse	0.50	3
Ba			1	97.513	ug/l	1.23	227,235.37	2.231E-01	Pulse	0.50	3
Tl			1	98.239	ug/l	0.79	4,885,761.83	1.554E+00	Pulse	0.50	3
Sn			1	99.253	ug/l	0.53	470,507.48	4.618E-01	Pulse	0.30	3
Sr			1	101.325	ug/l	1.47	404,983.90	3.975E-01	Pulse	0.50	3
[Pb]			1	98.723	ug/l	0.75	1,563,092.50	6.278E-01	Pulse	0.50	3
Ca			1	9828.973	ug/l	1.65	143,907.98	1.519E+00	Pulse	0.50	3
Ti			1	100.065	ug/l	3.15	11,796.91	1.245E-01	Pulse	0.50	3
Na			1	10078.268	ug/l	1.72	6,081,871.17	6.418E+01	Analog	1.00	3
Mg			1	9890.637	ug/l	2.05	2,695,549.75	2.845E+01	Pulse	1.00	3
K			1	10081.436	ug/l	1.34	2,582,712.25	2.725E+01	Pulse	1.00	3
V			1	98.093	ug/l	1.65	491,061.66	5.182E+00	Pulse	0.50	3
Mn			1	98.195	ug/l	1.67	292,926.01	3.227E+00	Pulse	0.50	3
Fe			1	9914.451	ug/l	0.88	51,357,188.00	5.657E+02	Analog	0.50	3
Co			1	98.992	ug/l	1.63	1,191,494.08	1.313E+01	Pulse	0.50	3
Ni			1	99.474	ug/l	1.72	328,448.86	3.618E+00	Pulse	0.50	3
Cu			1	99.588	ug/l	1.40	934,939.25	1.030E+01	Pulse	0.50	3
Zn			1	98.558	ug/l	0.25	121,306.91	8.693E-01	Pulse	1.00	3
Cd			1	94.140	ug/l	0.54	250,701.88	1.797E+00	Pulse	0.50	3
Al			1	5605.824	ug/l	1.80	788,258.19	8.318E+00	Pulse	1.00	3
Se			1	96.541	ug/l	0.53	5,001.76	3.584E-02	Pulse	3.00	3
Sb			1	97.580	ug/l	0.84	603,956.00	5.928E-01	Pulse	1.00	3
Se			1	97.595	ug/l	1.11	2,561.95	1.836E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,144,980.08	0.87	98.5	Pulse	0.50	3
1	Sc		94,788.75	2.06	112.9	Pulse	0.30	3
1	Ge		90,792.64	1.43	110.0	Pulse	0.30	3
1	In		1,018,839.96	1.36	105.7	Pulse	0.30	3
1	Tb		4,152,960.33	1.12	103.5	Pulse	0.50	3
1	Lu		2,489,974.17	0.59	103.2	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		139,544.62	1.03	110.4	Pulse	0.30	3
1	Te		8.00	43.30		Pulse	0.50	3
1	Li		344.45	6.87	108.8	Pulse	0.30	3

Quantitation Report

File Name	019_CCB.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 11:26
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.014	ug/l	73.76	723.35	7.888E-03	Pulse	0.50	3
As			1	0.027	ug/l	44.01	37.00	4.038E-04	Pulse	1.00	3
Mo			1	0.138	ug/l	11.21	820.02	5.807E-03	Pulse	0.50	3
Pb			1	0.022	ug/l	8.69	1,624.08	6.818E-04	Pulse	1.00	3
Be			1	0.196	ug/l	13.70	5.17	5.416E-05	Pulse	2.00	3
Ag			1	0.023	ug/l	14.89	538.68	3.805E-03	Pulse	0.50	3
Ba			1	0.023	ug/l	32.09	66.00	6.473E-05	Pulse	0.50	3
Tl			1	0.023	ug/l	1.35	1,184.05	3.794E-04	Pulse	0.50	3
Sn			1	0.084	ug/l	31.50	777.80	7.666E-04	Pulse	0.30	3
Sr			1	0.055	ug/l	15.79	620.01	6.092E-04	Pulse	0.50	3
[Pb]			1	0.024	ug/l	19.53	782.02	3.281E-04	Pulse	0.50	3
Ca			1	8.852	ug/l	23.27	221.33	2.319E-03	Pulse	0.50	3
Ti			1	0.090	ug/l	83.87	12.00	1.273E-04	Pulse	0.50	3
Na			1	49.544	ug/l	4.47	44,400.98	4.658E-01	Pulse	1.00	3
Mg			1	-2.144	ug/l	-8.86	2,489.16	2.612E-02	Pulse	1.00	3
K			1	32.356	ug/l	4.89	32,345.37	3.395E-01	Pulse	1.00	3
V			1	-0.220	ug/l	-6.89	1,695.41	1.780E-02	Pulse	0.50	3
Mn			1	0.125	ug/l	15.56	581.34	6.341E-03	Pulse	0.50	3
Fe			1	5.843	ug/l	9.18	39,067.97	4.262E-01	Pulse	0.50	3
Co			1	0.019	ug/l	29.04	276.67	3.022E-03	Pulse	0.50	3
Ni			1	-0.060	ug/l	-47.03	1,638.08	1.788E-02	Pulse	0.50	3
Cu			1	-0.127	ug/l	-24.11	8,235.12	8.982E-02	Pulse	0.50	3
Zn			1	-0.232	ug/l	-23.53	1,319.38	9.337E-03	Pulse	1.00	3
Cd			1	0.020	ug/l	17.53	56.67	4.009E-04	Pulse	0.50	3
Al			1	1.398	ug/l	11.59	388.34	4.072E-03	Pulse	1.00	3
Se			1	0.113	ug/l	31.92	22.56	1.595E-04	Pulse	3.00	3
Sb			1	0.027	ug/l	7.65	316.00	3.107E-04	Pulse	1.00	3
Se			1	0.073	ug/l	96.75	11.67	8.244E-05	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,120,944.08	1.54	97.7	Pulse	0.50	3
1	Sc		95,282.38	2.40	113.5	Pulse	0.30	3
1	Ge		91,668.13	1.33	111.0	Pulse	0.30	3
1	In		1,016,990.23	2.32	105.5	Pulse	0.30	3
1	Tb		3,973,487.17	1.55	99.1	Pulse	0.50	3
1	Lu		2,381,309.50	1.82	98.7	Pulse	0.50	3
1	Ge		141,370.61	1.50	111.8	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		295.56	10.84	93.3	Pulse	0.30	3

Quantitation Report

File Name	020_MB.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 11:30
Sample Name	MP35666-MB1
Sample Type	MB
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.632	ug/l	8.10	2,478.17	2.965E-02	Pulse	0.50	3
As			1	0.172	ug/l	9.00	78.00	9.331E-04	Pulse	1.00	3
Mo			1	0.268	ug/l	22.44	720.02	5.658E-03	Pulse	0.50	3
Pb			1	0.086	ug/l	3.49	2,145.14	9.606E-04	Pulse	1.00	3
Be			1	0.245	ug/l	26.50	3.00	3.449E-05	Pulse	2.00	3
Ag			1	0.065	ug/l	6.87	664.68	5.209E-03	Pulse	0.50	3
Ba			1	0.094	ug/l	27.87	111.33	1.205E-04	Pulse	0.50	3
Tl			1	0.025	ug/l	6.61	624.68	2.130E-04	Pulse	0.50	3
Sn			1	0.804	ug/l	9.30	2,076.81	2.243E-03	Pulse	0.30	3
Sr			1	0.129	ug/l	28.46	600.01	6.481E-04	Pulse	0.50	3
[Pb]			1	0.083	ug/l	9.57	986.03	4.419E-04	Pulse	0.50	3
Ca			1	41.492	ug/l	17.91	358.00	4.155E-03	Pulse	0.50	3
Ti			1	0.296	ug/l	50.30	17.33	1.998E-04	Pulse	0.50	3
Na			1	96.986	ug/l	4.08	39,674.71	4.591E-01	Pulse	1.00	3
Mg			1	-4.474	ug/l	-5.55	2,236.13	2.585E-02	Pulse	1.00	3
K			1	70.170	ug/l	9.24	29,976.99	3.468E-01	Pulse	1.00	3
V			1	1.401	ug/l	1.90	5,720.86	6.617E-02	Pulse	0.50	3
Mn			1	0.197	ug/l	9.16	458.01	5.480E-03	Pulse	0.50	3
Fe			1	19.438	ug/l	2.44	54,118.93	6.473E-01	Pulse	0.50	3
Co			1	0.031	ug/l	6.94	216.00	2.583E-03	Pulse	0.50	3
Ni			1	0.191	ug/l	15.42	1,964.77	2.349E-02	Pulse	0.50	3
Cu			1	-0.571	ug/l	-11.19	6,150.32	7.357E-02	Pulse	0.50	3
Zn			1	3.373	ug/l	9.55	3,321.96	2.604E-02	Pulse	1.00	3
Cd			1	0.021	ug/l	59.92	27.33	2.124E-04	Pulse	0.50	3
Al			1	5.780	ug/l	4.21	543.34	6.285E-03	Pulse	1.00	3
Se			1	0.360	ug/l	23.10	23.56	1.843E-04	Pulse	3.00	3
Sb			1	0.128	ug/l	8.64	497.34	5.363E-04	Pulse	1.00	3
Se			1	0.388	ug/l	53.42	13.44	1.051E-04	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,929,287.50	2.40	91.7	Pulse	0.50	3
1	Sc		86,482.00	4.06	103.0	Pulse	0.30	3
1	Ge		83,625.05	1.46	101.3	Pulse	0.30	3
1	In		927,314.72	3.05	96.2	Pulse	0.30	3
1	Tb		3,772,108.67	2.96	94.0	Pulse	0.50	3
1	Lu		2,233,111.42	2.46	92.5	Pulse	0.50	3
1	Ge		127,671.89	2.32	101.0	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		317.78	11.31	100.4	Pulse	0.30	3

Quantitation Report

File Name	021_BSP.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 11:34
Sample Name	MP35666-B1
Sample Type	BSP
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	208.253	ug/l	4.91	575,318.44	7.508E+00	Pulse	0.50	3
As			1	192.812	ug/l	5.02	66,028.90	8.617E-01	Pulse	1.00	3
Mo			1	207.544	ug/l	4.91	489,539.67	4.204E+00	Pulse	0.50	3
Pb			1	204.062	ug/l	7.19	3,254,497.42	1.376E+00	Pulse	1.00	3
Be			1	205.381	ug/l	9.95	2,197.95	2.728E-02	Pulse	2.00	3
Ag			1	99.640	ug/l	4.37	846,022.17	7.264E+00	Pulse	0.50	3
Ba			1	201.803	ug/l	6.06	207,720.81	2.308E-01	Pulse	0.50	3
Tl			1	199.703	ug/l	6.11	4,675,702.17	1.579E+00	Pulse	0.50	3
Sn			1	217.036	ug/l	6.75	454,265.68	5.049E-01	Pulse	0.30	3
Sr			1	209.514	ug/l	6.27	369,843.53	4.110E-01	Pulse	0.50	3
[Pb]			1	195.043	ug/l	6.79	1,467,100.54	6.201E-01	Pulse	0.50	3
Ca			1	20222.479	ug/l	7.62	126,003.23	1.562E+00	Pulse	0.50	3
Ti			1	199.930	ug/l	8.55	10,027.26	1.244E-01	Pulse	0.50	3
Na			1	21378.007	ug/l	7.45	5,490,188.83	6.806E+01	Analog	1.00	3
Mg			1	20339.363	ug/l	7.74	2,359,033.50	2.925E+01	Pulse	1.00	3
K			1	20585.060	ug/l	7.68	2,243,806.75	2.782E+01	Pulse	1.00	3
V			1	201.919	ug/l	7.60	430,133.09	5.332E+00	Pulse	0.50	3
Mn			1	210.115	ug/l	5.50	264,508.09	3.452E+00	Pulse	0.50	3
Fe			1	20970.094	ug/l	4.19	45,854,597.33	5.983E+02	Analog	0.50	3
Co			1	207.447	ug/l	4.86	1,053,882.02	1.375E+01	Pulse	0.50	3
Ni			1	208.684	ug/l	4.94	290,754.98	3.794E+00	Pulse	0.50	3
Cu			1	209.140	ug/l	4.75	828,359.50	1.081E+01	Pulse	0.50	3
Zn			1	199.464	ug/l	4.21	102,440.01	8.795E-01	Pulse	1.00	3
Cd			1	204.766	ug/l	4.25	227,570.67	1.954E+00	Pulse	0.50	3
Al			1	11350.333	ug/l	7.86	679,164.77	8.421E+00	Pulse	1.00	3
Se			1	190.464	ug/l	4.99	4,117.33	3.536E-02	Pulse	3.00	3
Sb			1	190.191	ug/l	6.44	519,858.24	5.777E-01	Pulse	1.00	3
Se			1	191.643	ug/l	4.75	2,099.45	1.803E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,968,068.83	5.83	92.9	Pulse	0.50	3
1	Sc		80,954.01	7.10	96.4	Pulse	0.30	3
1	Ge		76,737.52	4.20	92.9	Pulse	0.30	3
1	In		902,125.57	5.97	93.6	Pulse	0.30	3
1	Tb		3,967,080.50	8.68	98.9	Mix	0.50	3
1	Lu		2,373,394.58	7.09	98.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		116,597.63	3.94	92.2	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		251.12	20.10	79.3	Pulse	0.30	3

Quantitation Report

File Name	022SMPL.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 11:38
Sample Name	FA64963-1F
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	11.442	ug/l	3.91	6,533.11	8.930E-02	Pulse	0.50	3
As			1	3007.548	ug/l	4.26	196,639.49	2.688E+00	Pulse	1.00	3
Mo			1	154.642	ug/l	4.46	70,571.21	6.267E-01	Pulse	0.50	3
Pb			1	0.336	ug/l	50.68	1,681.75	8.321E-04	Pulse	1.00	3
Be			1	1.327	ug/l	58.75	3.00	3.727E-05	Pulse	2.00	3
Ag			1	0.578	ug/l	10.35	998.03	8.880E-03	Pulse	0.50	3
Ba			1	10.108	ug/l	9.57	1,883.44	2.325E-03	Pulse	0.50	3
Tl			1	0.542	ug/l	10.44	1,944.79	8.723E-04	Pulse	0.50	3
Sn			1	0.878	ug/l	13.12	635.57	7.830E-04	Pulse	0.30	3
Sr			1	4918.051	ug/l	4.97	1,564,604.58	1.928E+00	Pulse	0.50	3
[Pb]			1	0.319	ug/l	44.39	770.02	3.801E-04	Pulse	0.50	3
Ca			1	43058.902	ug/l	5.33	54,866.30	6.658E-01	Pulse	0.50	3
Ti			1	5.047	ug/l	42.29	54.00	6.438E-04	Pulse	0.50	3
Na			1	19692715.668	ug/l	5.60	1,030,899,413.33	1.251E+04	Analog	1.00	3
Mg			1	193324.831	ug/l	5.70	4,579,578.00	5.557E+01	Mix	1.00	3
K			1	359660.823	ug/l	5.75	7,957,358.00	9.657E+01	Analog	1.00	3
V			1	306.833	ug/l	6.10	135,200.98	1.641E+00	Pulse	0.50	3
Mn			1	49.694	ug/l	3.92	12,102.47	1.654E-01	Pulse	0.50	3
Fe			1	95.759	ug/l	3.52	46,764.00	6.391E-01	Pulse	0.50	3
Co			1	1.129	ug/l	3.72	1,136.70	1.553E-02	Pulse	0.50	3
Ni			1	3.406	ug/l	2.31	2,368.82	3.235E-02	Pulse	0.50	3
Cu			1	16.652	ug/l	6.97	19,988.36	2.733E-01	Pulse	0.50	3
Zn			1	-1.331	ug/l	-14.07	1,149.70	1.020E-02	Pulse	1.00	3
Cd			1	0.258	ug/l	29.13	56.67	5.076E-04	Pulse	0.50	3
Al			1	7.989	ug/l	21.23	262.67	3.183E-03	Pulse	1.00	3
Se			1	13.366	ug/l	11.38	69.11	6.123E-04	Pulse	3.00	3
Sb			1	0.883	ug/l	6.48	555.34	6.843E-04	Pulse	1.00	3
Se			1	277.157	ug/l	1.82	593.12	5.263E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,232,992.58	4.16	69.9	Pulse	0.50	3
1	Sc		82,590.68	6.88	98.4	Pulse	0.30	3
1	Ge		73,221.87	3.87	88.7	Pulse	0.30	3
1	In		812,823.68	5.46	84.3	Pulse	0.30	3
1	Tb		3,323,661.42	5.83	82.9	Pulse	0.50	3
1	Lu		2,035,175.46	6.00	84.3	Pulse	0.50	3
1	Ge		112,752.15	5.23	89.2	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		257.78	21.73	81.4	Pulse	0.30	3

Quantitation Report

File Name	023SMPL.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 11:42
Sample Name	MP35666-D1
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	10.452	ug/l	0.30	6,559.79	8.217E-02	Pulse	0.50	3
As			1	2944.323	ug/l	1.54	210,019.12	2.631E+00	Pulse	1.00	3
Mo			1	151.378	ug/l	3.38	73,770.68	6.135E-01	Pulse	0.50	3
Pb			1	0.076	ug/l	14.35	998.36	4.807E-04	Pulse	1.00	3
Be			1	0.545	ug/l	74.42	1.50	1.649E-05	Pulse	2.00	3
Ag			1	0.385	ug/l	12.78	729.35	6.071E-03	Pulse	0.50	3
Ba			1	9.168	ug/l	3.07	1,817.43	2.110E-03	Pulse	0.50	3
Tl			1	0.143	ug/l	12.17	550.68	2.415E-04	Pulse	0.50	3
Sn			1	0.805	ug/l	5.95	645.57	7.492E-04	Pulse	0.30	3
Sr			1	4842.179	ug/l	3.27	1,634,823.42	1.898E+00	Pulse	0.50	3
[Pb]			1	0.077	ug/l	10.48	470.01	2.264E-04	Pulse	0.50	3
Ca			1	41547.243	ug/l	2.10	58,300.05	6.424E-01	Pulse	0.50	3
Ti			1	1.882	ug/l	12.83	22.67	2.501E-04	Pulse	0.50	3
Na			1	18819331.373	ug/l	3.16	1,084,803,776.00	1.196E+04	Analog	1.00	3
Mg			1	185534.430	ug/l	3.26	4,838,882.67	5.333E+01	Analog	1.00	3
K			1	349848.792	ug/l	2.89	8,524,536.00	9.395E+01	Analog	1.00	3
V			1	292.644	ug/l	3.58	142,125.16	1.566E+00	Pulse	0.50	3
Mn			1	47.392	ug/l	1.68	12,603.45	1.579E-01	Pulse	0.50	3
Fe			1	42.901	ug/l	5.51	26,937.97	3.376E-01	Pulse	0.50	3
Co			1	0.978	ug/l	4.65	1,079.37	1.353E-02	Pulse	0.50	3
Ni			1	3.666	ug/l	15.14	2,656.19	3.329E-02	Pulse	0.50	3
Cu			1	15.469	ug/l	1.06	20,849.93	2.612E-01	Pulse	0.50	3
Zn			1	-2.937	ug/l	-19.68	1,058.03	8.801E-03	Pulse	1.00	3
Cd			1	0.143	ug/l	38.69	34.67	2.894E-04	Pulse	0.50	3
Al			1	-0.374	ug/l	-795.07	176.33	1.943E-03	Pulse	1.00	3
Se			1	10.292	ug/l	16.77	60.00	4.985E-04	Pulse	3.00	3
Sb			1	0.871	ug/l	5.24	583.01	6.770E-04	Pulse	1.00	3
Se			1	266.660	ug/l	2.15	609.46	5.067E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,278,852.67	1.51	71.3	Pulse	0.50	3
1	Sc		90,781.73	2.61	108.1	Pulse	0.30	3
1	Ge		79,830.02	1.56	96.7	Pulse	0.30	3
1	In		861,676.36	2.58	89.4	Pulse	0.30	3
1	Tb		3,439,085.75	2.00	85.7	Pulse	0.50	3
1	Lu		2,076,678.00	2.25	86.0	Pulse	0.50	3
1	Ge		120,316.28	2.29	95.2	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		260.01	28.64	82.1	Pulse	0.30	3

Quantitation Report

File Name	024SMPL.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 11:45
Sample Name	MP35666-SD1
Sample Type	Sample
Comment	
Prep Dilution	50.000
Auto Dilution	N/A
Total Dilution	50.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	9.386	ug/l	6.19	1,874.10	2.040E-02	Pulse	0.50	3
As			1	2672.404	ug/l	1.79	43,888.77	4.778E-01	Pulse	1.00	3
Mo			1	138.137	ug/l	0.92	15,812.70	1.121E-01	Pulse	0.50	3
Pb			1	0.651	ug/l	13.71	1,329.39	5.540E-04	Pulse	1.00	3
Be			1	0.571	ug/l	169.24	0.50	5.045E-06	Pulse	2.00	3
Ag			1	0.491	ug/l	10.44	266.00	1.887E-03	Pulse	0.50	3
Ba			1	12.960	ug/l	3.15	605.34	6.060E-04	Pulse	0.50	3
Tl			1	0.230	ug/l	12.06	250.67	8.847E-05	Pulse	0.50	3
Sn			1	1.251	ug/l	86.06	488.90	4.911E-04	Pulse	0.30	3
Sr			1	4399.971	ug/l	3.12	344,869.32	3.453E-01	Pulse	0.50	3
[Pb]			1	0.770	ug/l	18.31	661.35	2.752E-04	Pulse	0.50	3
Ca			1	41585.705	ug/l	3.77	13,009.00	1.294E-01	Pulse	0.50	3
Ti			1	2.873	ug/l	101.83	8.67	8.745E-05	Pulse	0.50	3
Na			1	17852032.080	ug/l	3.18	228,121,312.00	2.268E+03	Analog	1.00	3
Mg			1	175274.402	ug/l	3.18	1,015,972.11	1.010E+01	Pulse	1.00	3
K			1	318857.816	ug/l	3.21	1,742,944.50	1.733E+01	Pulse	1.00	3
V			1	264.816	ug/l	2.14	30,936.44	3.076E-01	Pulse	0.50	3
Mn			1	43.264	ug/l	3.58	2,815.54	3.065E-02	Pulse	0.50	3
Fe			1	93.453	ug/l	3.98	18,322.66	1.995E-01	Pulse	0.50	3
Co			1	1.086	ug/l	14.31	316.00	3.436E-03	Pulse	0.50	3
Ni			1	-5.607	ug/l	-19.60	1,468.06	1.598E-02	Pulse	0.50	3
Cu			1	81.326	ug/l	26.89	24,751.53	2.693E-01	Pulse	0.50	3
Zn			1	-35.276	ug/l	-2.17	735.35	5.216E-03	Pulse	1.00	3
Cd			1	0.367	ug/l	59.82	22.00	1.558E-04	Pulse	0.50	3
Al			1	28.327	ug/l	21.03	285.67	2.839E-03	Pulse	1.00	3
Se			1	16.991	ug/l	13.32	34.33	2.434E-04	Pulse	3.00	3
Sb			1	0.400	ug/l	22.24	196.33	1.967E-04	Pulse	1.00	3
Se			1	224.273	ug/l	8.49	128.22	9.094E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,836,701.00	2.04	88.8	Pulse	0.50	3
1	Sc		100,624.55	2.81	119.9	Pulse	0.30	3
1	Ge		91,873.46	1.29	111.3	Pulse	0.30	3
1	In		999,311.21	2.89	103.7	Pulse	0.30	3
1	Tb		4,020,331.58	2.29	100.2	Pulse	0.50	3
1	Lu		2,401,480.67	2.55	99.5	Pulse	0.50	3
1	Ge		141,006.77	1.61	111.6	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Te		0.00	---		Pulse	0.50	3
1	Li		312.23	4.45	98.6	Pulse	0.30	3

Quantitation Report

File Name	025SMPL.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 11:49
Sample Name	MP35666-S1
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	214.109	ug/l	1.76	125,961.75	1.549E+00	Pulse	0.50	3
As			1	3108.666	ug/l	2.57	225,865.02	2.778E+00	Pulse	1.00	3
Mo			1	335.760	ug/l	1.51	169,650.37	1.360E+00	Pulse	0.50	3
Pb			1	176.088	ug/l	2.96	504,468.97	2.378E-01	Pulse	1.00	3
Be			1	149.241	ug/l	6.89	378.17	3.966E-03	Pulse	2.00	3
Ag			1	74.298	ug/l	1.58	135,148.21	1.084E+00	Pulse	0.50	3
Ba			1	202.162	ug/l	1.67	40,409.59	4.625E-02	Pulse	0.50	3
Tl			1	198.712	ug/l	1.96	725,234.73	3.143E-01	Pulse	0.50	3
Sn			1	209.516	ug/l	2.52	85,414.84	9.778E-02	Pulse	0.30	3
Sr			1	5019.784	ug/l	2.91	1,718,866.08	1.968E+00	Pulse	0.50	3
[Pb]			1	169.057	ug/l	3.79	228,354.84	1.076E-01	Pulse	0.50	3
Ca			1	59596.764	ug/l	4.57	87,796.74	9.211E-01	Pulse	0.50	3
Ti			1	186.789	ug/l	2.87	2,216.80	2.325E-02	Pulse	0.50	3
Na			1	18242444.386	ug/l	3.35	1,104,883,456.00	1.159E+04	Analog	1.00	3
Mg			1	198179.251	ug/l	3.37	5,430,712.33	5.696E+01	Analog	1.00	3
K			1	358605.480	ug/l	3.59	9,179,644.67	9.629E+01	Analog	1.00	3
V			1	473.240	ug/l	4.25	239,741.89	2.515E+00	Pulse	0.50	3
Mn			1	246.672	ug/l	1.39	66,046.68	8.123E-01	Pulse	0.50	3
Fe			1	19980.712	ug/l	2.51	9,275,055.67	1.141E+02	Analog	0.50	3
Co			1	193.992	ug/l	2.29	209,158.34	2.573E+00	Pulse	0.50	3
Ni			1	187.036	ug/l	2.47	56,632.32	6.966E-01	Pulse	0.50	3
Cu			1	196.684	ug/l	2.11	172,082.68	2.116E+00	Pulse	0.50	3
Zn			1	172.333	ug/l	3.38	20,121.81	1.614E-01	Pulse	1.00	3
Cd			1	162.852	ug/l	1.77	38,759.73	3.108E-01	Pulse	0.50	3
Al			1	10702.103	ug/l	3.85	151,533.98	1.590E+00	Pulse	1.00	3
Se			1	216.828	ug/l	4.41	1,015.03	8.141E-03	Pulse	3.00	3
Sb			1	192.863	ug/l	3.11	102,443.19	1.173E-01	Pulse	1.00	3
Se			1	474.750	ug/l	5.84	1,117.81	8.967E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,308,323.58	1.99	72.3	Pulse	0.50	3
1	Sc		95,390.65	2.58	113.6	Pulse	0.30	3
1	Ge		81,319.44	1.26	98.5	Pulse	0.30	3
1	In		873,836.51	2.29	90.7	Pulse	0.30	3
1	Tb		3,499,115.92	2.62	87.2	Pulse	0.50	3
1	Lu		2,122,829.79	2.86	87.9	Pulse	0.50	3
1	Ge		124,724.77	1.40	98.7	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		234.45	0.82	74.0	Pulse	0.30	3

Quantitation Report

File Name	026SMPL.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 11:53
Sample Name	MP35666-S2
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	220.152	ug/l	3.89	128,767.46	1.593E+00	Pulse	0.50	3
As			1	3168.935	ug/l	4.16	228,943.33	2.832E+00	Pulse	1.00	3
Mo			1	342.175	ug/l	3.48	171,108.98	1.386E+00	Pulse	0.50	3
Pb			1	181.684	ug/l	4.16	506,879.15	2.453E-01	Pulse	1.00	3
Be			1	156.453	ug/l	9.60	391.83	4.158E-03	Pulse	2.00	3
Ag			1	77.194	ug/l	3.01	138,978.82	1.126E+00	Pulse	0.50	3
Ba			1	205.750	ug/l	3.92	40,722.28	4.708E-02	Pulse	0.50	3
Tl			1	203.576	ug/l	2.93	731,066.10	3.220E-01	Pulse	0.50	3
Sn			1	216.539	ug/l	4.01	87,409.66	1.010E-01	Pulse	0.30	3
Sr			1	5112.017	ug/l	4.17	1,733,488.96	2.004E+00	Pulse	0.50	3
[Pb]			1	175.446	ug/l	3.99	230,830.72	1.117E-01	Pulse	0.50	3
Ca			1	60878.615	ug/l	5.64	88,731.61	9.409E-01	Pulse	0.50	3
Ti			1	197.715	ug/l	4.60	2,322.15	2.461E-02	Pulse	0.50	3
Na			1	18599545.488	ug/l	4.68	1,114,600,874.67	1.182E+04	Analog	1.00	3
Mg			1	201955.843	ug/l	4.99	5,475,189.50	5.805E+01	Analog	1.00	3
K			1	367428.424	ug/l	4.83	9,305,468.33	9.865E+01	Analog	1.00	3
V			1	483.245	ug/l	4.17	242,234.32	2.568E+00	Pulse	0.50	3
Mn			1	252.217	ug/l	4.63	67,131.79	8.305E-01	Pulse	0.50	3
Fe			1	20479.681	ug/l	4.37	9,452,225.00	1.169E+02	Analog	0.50	3
Co			1	199.398	ug/l	3.93	213,777.78	2.644E+00	Pulse	0.50	3
Ni			1	191.873	ug/l	4.09	57,728.22	7.141E-01	Pulse	0.50	3
Cu			1	202.428	ug/l	4.81	175,844.27	2.175E+00	Pulse	0.50	3
Zn			1	178.839	ug/l	3.29	20,619.00	1.670E-01	Pulse	1.00	3
Cd			1	166.397	ug/l	4.00	39,192.75	3.176E-01	Pulse	0.50	3
Al			1	11027.042	ug/l	4.65	154,492.64	1.638E+00	Pulse	1.00	3
Se			1	225.035	ug/l	2.69	1,042.48	8.445E-03	Pulse	3.00	3
Sb			1	197.929	ug/l	4.37	104,110.55	1.204E-01	Pulse	1.00	3
Se			1	483.434	ug/l	2.25	1,127.03	9.130E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,271,979.00	2.86	71.1	Pulse	0.50	3
1	Sc		94,441.71	3.87	112.5	Pulse	0.30	3
1	Ge		80,916.91	3.33	98.0	Pulse	0.30	3
1	In		865,798.40	3.38	89.8	Pulse	0.30	3
1	Tb		3,425,201.25	4.07	85.4	Pulse	0.50	3
1	Lu		2,068,558.62	4.08	85.7	Pulse	0.50	3
1	Ge		123,494.93	2.51	97.7	Pulse	0.30	3
1	Te		2.67	114.56		Pulse	0.50	3
1	Li		236.67	5.08	74.7	Pulse	0.30	3

Quantitation Report

File Name	027SMPL.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 11:57
Sample Name	MP35666-PS1
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	21.578	ug/l	1.63	13,546.72	1.623E-01	Pulse	0.50	3
As			1	2957.510	ug/l	1.05	220,580.70	2.643E+00	Pulse	1.00	3
Mo			1	157.204	ug/l	1.01	80,848.92	6.371E-01	Pulse	0.50	3
Pb			1	10.260	ug/l	1.57	29,477.94	1.421E-02	Pulse	1.00	3
Be			1	9.088	ug/l	7.87	23.33	2.434E-04	Pulse	2.00	3
Ag			1	2.382	ug/l	0.87	4,464.55	3.518E-02	Pulse	0.50	3
Ba			1	20.660	ug/l	1.12	4,178.50	4.739E-03	Pulse	0.50	3
Tl			1	11.048	ug/l	0.86	39,872.19	1.749E-02	Pulse	0.50	3
Sn			1	12.421	ug/l	2.28	5,423.05	6.150E-03	Pulse	0.30	3
Sr			1	4870.911	ug/l	0.96	1,683,793.17	1.910E+00	Pulse	0.50	3
[Pb]			1	9.804	ug/l	1.45	13,296.53	6.410E-03	Pulse	0.50	3
Ca			1	43154.236	ug/l	1.92	63,971.46	6.672E-01	Pulse	0.50	3
Ti			1	12.336	ug/l	22.87	148.67	1.551E-03	Pulse	0.50	3
Na			1	18815178.773	ug/l	0.81	1,146,041,344.00	1.195E+04	Analog	1.00	3
Mg			1	186472.416	ug/l	1.00	5,139,074.83	5.360E+01	Analog	1.00	3
K			1	353638.469	ug/l	1.06	9,104,554.00	9.496E+01	Analog	1.00	3
V			1	300.492	ug/l	1.17	154,142.37	1.608E+00	Pulse	0.50	3
Mn			1	57.871	ug/l	2.78	16,045.98	1.923E-01	Pulse	0.50	3
Fe			1	1090.551	ug/l	0.77	526,978.13	6.314E+00	Pulse	0.50	3
Co			1	11.694	ug/l	1.17	12,986.37	1.556E-01	Pulse	0.50	3
Ni			1	11.272	ug/l	1.26	5,074.68	6.080E-02	Pulse	0.50	3
Cu			1	25.000	ug/l	1.38	29,941.15	3.587E-01	Pulse	0.50	3
Zn			1	8.186	ug/l	2.48	2,345.81	1.848E-02	Pulse	1.00	3
Cd			1	9.239	ug/l	4.97	2,239.48	1.765E-02	Pulse	0.50	3
Al			1	621.163	ug/l	2.13	9,026.04	9.414E-02	Pulse	1.00	3
Se			1	22.799	ug/l	1.56	122.00	9.614E-04	Pulse	3.00	3
Sb			1	11.284	ug/l	1.45	6,173.71	7.002E-03	Pulse	1.00	3
Se			1	276.238	ug/l	1.53	665.79	5.246E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,280,111.17	0.18	71.4	Pulse	0.50	3
1	Sc		95,877.29	0.28	114.2	Pulse	0.30	3
1	Ge		83,459.68	0.60	101.1	Pulse	0.30	3
1	In		881,765.00	0.96	91.5	Pulse	0.30	3
1	Tb		3,430,716.92	0.69	85.5	Pulse	0.50	3
1	Lu		2,074,596.50	0.95	85.9	Pulse	0.50	3
1	Ge		126,909.06	0.38	100.4	Pulse	0.30	3
1	Te		2.67	173.21		Pulse	0.50	3
1	Li		302.23	6.08	95.4	Pulse	0.30	3

Quantitation Report

File Name	028SMPL.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 12:01
Sample Name	FA64963-2F
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2.068	ug/l	1.20	1,826.76	2.178E-02	Pulse	0.50	3
As			1	1619.879	ug/l	2.31	121,384.62	1.448E+00	Pulse	1.00	3
Mo			1	478.358	ug/l	1.60	247,680.46	1.938E+00	Pulse	0.50	3
Pb			1	0.090	ug/l	13.41	1,079.04	5.000E-04	Pulse	1.00	3
Be			1	0.173	ug/l	248.86	0.67	6.613E-06	Pulse	2.00	3
Ag			1	0.072	ug/l	14.85	191.33	1.498E-03	Pulse	0.50	3
Ba			1	11.015	ug/l	2.56	2,283.48	2.533E-03	Pulse	0.50	3
Tl			1	0.066	ug/l	8.09	282.00	1.195E-04	Pulse	0.50	3
Sn			1	0.546	ug/l	16.72	566.68	6.286E-04	Pulse	0.30	3
Sr			1	14380.133	ug/l	1.34	5,081,059.33	5.637E+00	Pulse	0.50	3
[Pb]			1	0.109	ug/l	28.58	532.68	2.465E-04	Pulse	0.50	3
Ca			1	267497.574	ug/l	2.20	406,749.28	4.131E+00	Pulse	0.50	3
Ti			1	1.021	ug/l	60.14	14.00	1.429E-04	Pulse	0.50	3
Na			1	14698329.633	ug/l	2.11	919,423,552.00	9.338E+03	Analog	1.00	3
Mg			1	670929.986	ug/l	2.36	18,980,044.00	1.928E+02	Analog	1.00	3
K			1	332722.132	ug/l	2.48	8,797,962.00	8.936E+01	Analog	1.00	3
V			1	59.243	ug/l	3.16	33,527.36	3.405E-01	Pulse	0.50	3
Mn			1	219.329	ug/l	2.21	60,579.13	7.225E-01	Pulse	0.50	3
Fe			1	32.155	ug/l	2.17	23,167.80	2.763E-01	Pulse	0.50	3
Co			1	0.854	ug/l	13.58	996.03	1.188E-02	Pulse	0.50	3
Ni			1	-0.042	ug/l	-298.02	1,667.41	1.988E-02	Pulse	0.50	3
Cu			1	3.704	ug/l	16.36	11,794.29	1.407E-01	Pulse	0.50	3
Zn			1	-5.349	ug/l	-7.99	856.35	6.702E-03	Pulse	1.00	3
Cd			1	0.278	ug/l	17.71	70.00	5.473E-04	Pulse	0.50	3
Al			1	2.966	ug/l	46.28	240.33	2.438E-03	Pulse	1.00	3
Se			1	6.785	ug/l	13.09	47.11	3.688E-04	Pulse	3.00	3
Sb			1	0.233	ug/l	29.41	261.00	2.899E-04	Pulse	1.00	3
Se			1	209.131	ug/l	3.98	509.78	3.988E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,360,288.58	1.33	73.9	Pulse	0.50	3
1	Sc		98,493.12	2.27	117.3	Pulse	0.30	3
1	Ge		83,875.30	2.26	101.6	Pulse	0.30	3
1	In		901,537.98	1.47	93.6	Pulse	0.30	3
1	Tb		3,559,766.33	1.72	88.7	Pulse	0.50	3
1	Lu		2,158,748.75	1.95	89.4	Pulse	0.50	3
1	Ge		127,810.10	0.73	101.1	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Te		0.00	---		Pulse	0.50	3
1	Li		276.67	30.76	87.4	Pulse	0.30	3

Quantitation Report

File Name	029SMPL.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 12:05
Sample Name	FA64963-3F
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.008	ug/l	6.65	1,194.71	1.414E-02	Pulse	0.50	3
As			1	1719.424	ug/l	1.94	129,803.98	1.537E+00	Pulse	1.00	3
Mo			1	20.632	ug/l	1.72	10,822.49	8.381E-02	Pulse	0.50	3
Pb			1	1.384	ug/l	3.92	4,767.34	2.244E-03	Pulse	1.00	3
Be			1	0.305	ug/l	123.22	1.00	1.011E-05	Pulse	2.00	3
Ag			1	0.066	ug/l	29.98	184.00	1.422E-03	Pulse	0.50	3
Ba			1	9.920	ug/l	4.23	2,047.46	2.282E-03	Pulse	0.50	3
Tl			1	0.025	ug/l	12.04	129.33	5.543E-05	Pulse	0.50	3
Sn			1	0.517	ug/l	12.83	552.24	6.152E-04	Pulse	0.30	3
Sr			1	5639.279	ug/l	3.42	1,983,591.58	2.211E+00	Pulse	0.50	3
[Pb]			1	1.485	ug/l	7.17	2,381.51	1.121E-03	Pulse	0.50	3
Ca			1	49721.415	ug/l	3.08	75,832.03	7.686E-01	Pulse	0.50	3
Ti			1	0.689	ug/l	63.13	10.00	1.017E-04	Pulse	0.50	3
Na			1	16222067.510	ug/l	2.37	1,016,850,773.33	1.031E+04	Analog	1.00	3
Mg			1	165746.581	ug/l	2.33	4,701,202.33	4.765E+01	Analog	1.00	3
K			1	314677.832	ug/l	2.33	8,340,179.50	8.453E+01	Analog	1.00	3
V			1	-0.530	ug/l	-32.10	2,622.85	2.658E-02	Pulse	0.50	3
Mn			1	109.094	ug/l	2.54	30,450.46	3.605E-01	Pulse	0.50	3
Fe			1	379.506	ug/l	1.99	190,727.42	2.258E+00	Pulse	0.50	3
Co			1	0.086	ug/l	27.78	143.33	1.694E-03	Pulse	0.50	3
Ni			1	-2.990	ug/l	-3.78	778.69	9.216E-03	Pulse	0.50	3
Cu			1	-3.571	ug/l	-5.84	5,594.16	6.623E-02	Pulse	0.50	3
Zn			1	-6.437	ug/l	-2.38	743.02	5.755E-03	Pulse	1.00	3
Cd			1	0.008	ug/l	101.99	4.00	3.104E-05	Pulse	0.50	3
Al			1	1.460	ug/l	33.58	218.67	2.215E-03	Pulse	1.00	3
Se			1	2.439	ug/l	65.09	26.78	2.079E-04	Pulse	3.00	3
Sb			1	-0.002	ug/l	-723.15	131.67	1.468E-04	Pulse	1.00	3
Se			1	243.824	ug/l	1.45	599.01	4.639E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,333,211.25	1.81	73.0	Pulse	0.50	3
1	Sc		98,698.93	2.06	117.6	Pulse	0.30	3
1	Ge		84,484.03	1.15	102.3	Pulse	0.30	3
1	In		897,717.50	2.26	93.2	Pulse	0.30	3
1	Tb		3,524,664.42	2.03	87.9	Pulse	0.50	3
1	Lu		2,125,613.46	2.76	88.1	Pulse	0.50	3
1	Ge		129,146.99	1.61	102.2	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		280.00	7.43	88.4	Pulse	0.30	3

Quantitation Report

File Name	030CCVA.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 12:08
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	49.775	ug/l	1.24	373,448.54	3.592E+00	Pulse	0.50	3
As			1	47.914	ug/l	0.22	44,529.88	4.283E-01	Pulse	1.00	3
Mo			1	46.185	ug/l	1.00	296,055.62	1.871E+00	Pulse	0.50	3
Pb			1	49.419	ug/l	1.05	1,711,891.88	6.666E-01	Pulse	1.00	3
Be			1	47.905	ug/l	2.37	1,418.88	1.273E-02	Pulse	2.00	3
Ag			1	46.134	ug/l	0.47	1,064,354.71	6.727E+00	Pulse	0.50	3
Ba			1	47.275	ug/l	2.10	121,021.58	1.081E-01	Pulse	0.50	3
Tl			1	48.898	ug/l	1.52	2,516,556.42	7.733E-01	Pulse	0.50	3
Sn			1	47.946	ug/l	1.82	249,881.96	2.233E-01	Pulse	0.30	3
Sr			1	50.857	ug/l	2.42	223,510.14	1.997E-01	Pulse	0.50	3
[Pb]			1	49.320	ug/l	1.22	805,627.77	3.137E-01	Pulse	0.50	3
Ca			1	4901.548	ug/l	2.32	84,476.39	7.577E-01	Pulse	0.50	3
Ti			1	48.218	ug/l	4.59	6,688.50	5.999E-02	Pulse	0.50	3
Na			1	6856.821	ug/l	0.43	4,875,284.17	4.371E+01	Analog	1.00	3
Mg			1	4954.340	ug/l	2.37	1,590,289.12	1.426E+01	Pulse	1.00	3
K			1	5106.048	ug/l	2.10	1,552,748.96	1.393E+01	Pulse	1.00	3
V			1	47.705	ug/l	2.11	282,635.44	2.535E+00	Pulse	0.50	3
Mn			1	49.661	ug/l	1.04	169,766.48	1.633E+00	Pulse	0.50	3
Fe			1	5033.891	ug/l	1.67	29,861,948.67	2.873E+02	Analog	0.50	3
Co			1	49.411	ug/l	1.26	681,053.46	6.551E+00	Pulse	0.50	3
Ni			1	49.581	ug/l	1.09	188,516.48	1.813E+00	Pulse	0.50	3
Cu			1	49.634	ug/l	1.13	538,958.64	5.184E+00	Pulse	0.50	3
Zn			1	49.073	ug/l	1.39	69,383.68	4.385E-01	Pulse	1.00	3
Cd			1	45.396	ug/l	1.15	137,072.94	8.664E-01	Pulse	0.50	3
Al			1	2765.951	ug/l	2.19	457,670.03	4.105E+00	Pulse	1.00	3
Se			1	48.819	ug/l	1.73	2,876.66	1.818E-02	Pulse	3.00	3
Sb			1	47.663	ug/l	1.74	324,144.54	2.896E-01	Pulse	1.00	3
Se			1	49.098	ug/l	0.54	1,467.06	9.271E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,254,880.83	2.05	101.9	Pulse	0.50	3
1	Sc		111,528.12	2.57	132.9	Pulse	0.30	3
1	Ge		103,963.65	1.14	125.9	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,119,365.89	2.03	116.2	Pulse	0.30	3
1	Tb		4,343,518.83	1.52	108.3	Pulse	0.50	3
1	Lu		2,568,223.33	1.38	106.4	Pulse	0.50	3
1	Ge		158,233.22	1.53	125.2	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		356.67	14.69	112.6	Pulse	0.30	3

Quantitation Report

File Name	031_CCV.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 12:12
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	99.729	ug/l	0.56	726,308.21	7.191E+00	Pulse	0.50	3
As			1	95.972	ug/l	0.26	86,644.16	8.578E-01	Pulse	1.00	3
Mo			1	92.666	ug/l	1.53	579,879.87	3.754E+00	Pulse	0.50	3
Pb			1	96.987	ug/l	1.46	3,315,761.83	1.308E+00	Pulse	1.00	3
Be			1	93.701	ug/l	1.08	2,731.85	2.489E-02	Pulse	2.00	3
Ag			1	91.096	ug/l	1.13	2,051,774.67	1.328E+01	Pulse	0.50	3
Ba			1	94.854	ug/l	0.57	237,521.36	2.170E-01	Pulse	0.50	3
Tl			1	97.726	ug/l	0.60	4,888,677.00	1.545E+00	Pulse	0.50	3
Sn			1	97.283	ug/l	0.62	495,539.41	4.527E-01	Pulse	0.30	3
Sr			1	102.786	ug/l	0.71	441,444.85	4.033E-01	Pulse	0.50	3
[Pb]			1	97.502	ug/l	0.58	1,571,943.17	6.200E-01	Pulse	0.50	3
Ca			1	9690.537	ug/l	1.11	164,312.10	1.497E+00	Pulse	0.50	3
Ti			1	97.286	ug/l	2.16	13,281.86	1.210E-01	Pulse	0.50	3
Na			1	11302.110	ug/l	0.20	7,897,225.17	7.195E+01	Analog	1.00	3
Mg			1	9782.181	ug/l	0.93	3,087,725.25	2.813E+01	Pulse	1.00	3
K			1	10010.007	ug/l	0.57	2,970,029.25	2.706E+01	Pulse	1.00	3
V			1	94.974	ug/l	0.69	550,730.69	5.018E+00	Pulse	0.50	3
Mn			1	99.958	ug/l	0.63	331,775.39	3.285E+00	Pulse	0.50	3
Fe			1	10096.116	ug/l	0.58	58,185,494.67	5.761E+02	Analog	0.50	3
Co			1	98.728	ug/l	1.13	1,322,125.33	1.309E+01	Pulse	0.50	3
Ni			1	98.419	ug/l	1.15	361,581.49	3.580E+00	Pulse	0.50	3
Cu			1	98.609	ug/l	0.89	1,030,101.21	1.020E+01	Pulse	0.50	3
Zn			1	97.408	ug/l	1.84	132,731.23	8.593E-01	Pulse	1.00	3
Cd			1	90.072	ug/l	1.12	265,539.69	1.719E+00	Pulse	0.50	3
Al			1	5525.558	ug/l	1.07	899,822.08	8.199E+00	Pulse	1.00	3
Se			1	97.256	ug/l	2.03	5,577.37	3.611E-02	Pulse	3.00	3
Sb			1	95.033	ug/l	1.15	632,012.29	5.774E-01	Pulse	1.00	3
Se			1	98.322	ug/l	2.02	2,857.10	1.850E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,163,337.00	0.91	99.0	Pulse	0.50	3
1	Sc		109,758.30	1.16	130.8	Pulse	0.30	3
1	Ge		101,008.04	0.76	122.3	Pulse	0.30	3
1	In		1,094,721.34	0.85	113.6	Pulse	0.30	3
1	Tb		4,292,450.83	1.44	107.0	Pulse	0.50	3
1	Lu		2,535,493.67	1.40	105.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		154,491.88	1.56	122.2	Pulse	0.30	3
1	Te		7.33	41.66		Pulse	0.50	3
1	Li		364.45	2.94	115.1	Pulse	0.30	3

Quantitation Report

File Name	032_CCB.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 12:16
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.018	ug/l	65.57	832.69	8.178E-03	Pulse	0.50	3
As			1	0.039	ug/l	11.33	52.33	5.142E-04	Pulse	1.00	3
Mo			1	0.071	ug/l	32.67	483.34	3.123E-03	Pulse	0.50	3
Pb			1	0.015	ug/l	30.77	1,469.07	5.818E-04	Pulse	1.00	3
Be			1	0.086	ug/l	83.58	2.67	2.474E-05	Pulse	2.00	3
Ag			1	0.021	ug/l	13.34	546.68	3.514E-03	Pulse	0.50	3
Ba			1	0.017	ug/l	33.50	58.67	5.285E-05	Pulse	0.50	3
Tl			1	0.027	ug/l	3.82	1,472.07	4.479E-04	Pulse	0.50	3
Sn			1	0.081	ug/l	3.00	835.58	7.505E-04	Pulse	0.30	3
Sr			1	0.069	ug/l	6.92	742.69	6.672E-04	Pulse	0.50	3
[Pb]			1	0.012	ug/l	26.00	638.01	2.526E-04	Pulse	0.50	3
Ca			1	6.229	ug/l	30.01	208.67	1.914E-03	Pulse	0.50	3
Ti			1	0.037	ug/l	103.76	6.67	6.184E-05	Pulse	0.50	3
Na			1	967.276	ug/l	2.12	685,912.00	6.296E+00	Pulse	1.00	3
Mg			1	-4.559	ug/l	-4.54	2,089.78	1.918E-02	Pulse	1.00	3
K			1	23.024	ug/l	9.27	34,261.90	3.145E-01	Pulse	1.00	3
V			1	-0.293	ug/l	-3.54	1,522.73	1.397E-02	Pulse	0.50	3
Mn			1	0.124	ug/l	11.88	642.68	6.314E-03	Pulse	0.50	3
Fe			1	1.749	ug/l	10.74	19,624.60	1.926E-01	Pulse	0.50	3
Co			1	0.016	ug/l	30.55	272.00	2.662E-03	Pulse	0.50	3
Ni			1	-0.376	ug/l	-3.19	653.35	6.418E-03	Pulse	0.50	3
Cu			1	-0.130	ug/l	-13.22	9,122.18	8.953E-02	Pulse	0.50	3
Zn			1	-0.263	ug/l	-24.06	1,407.72	9.066E-03	Pulse	1.00	3
Cd			1	0.011	ug/l	26.07	36.67	2.352E-04	Pulse	0.50	3
Al			1	0.480	ug/l	70.46	296.00	2.711E-03	Pulse	1.00	3
Se			1	0.081	ug/l	99.64	23.00	1.477E-04	Pulse	3.00	3
Sb			1	0.014	ug/l	24.04	260.33	2.340E-04	Pulse	1.00	3
Se			1	0.337	ug/l	47.81	20.56	1.319E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,287,500.67	1.98	102.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		108,949.84	2.08	129.8	Pulse	0.30	3
1	Ge		101,883.65	1.91	123.4	Pulse	0.30	3
1	In		1,113,281.87	2.27	115.5	Pulse	0.30	3
1	Tb		4,295,531.83	2.74	107.1	Pulse	0.50	3
1	Lu		2,527,354.17	2.63	104.7	Pulse	0.50	3
1	Ge		155,433.01	2.59	123.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		384.45	6.39	121.4	Pulse	0.30	3

Quantitation Report

File Name	033SMPL.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 12:20
Sample Name	FA64963-4F
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2.197	ug/l	8.49	1,935.43	2.271E-02	Pulse	0.50	3
As			1	3624.173	ug/l	0.50	276,110.75	3.239E+00	Pulse	1.00	3
Mo			1	98.281	ug/l	4.80	51,917.47	3.984E-01	Pulse	0.50	3
Pb			1	0.092	ug/l	19.22	1,057.04	5.027E-04	Pulse	1.00	3
Be			1	1.076	ug/l	34.76	3.00	3.059E-05	Pulse	2.00	3
Ag			1	0.232	ug/l	18.18	502.01	3.839E-03	Pulse	0.50	3
Ba			1	8.017	ug/l	2.76	1,649.42	1.847E-03	Pulse	0.50	3
Tl			1	0.098	ug/l	7.42	404.01	1.710E-04	Pulse	0.50	3
Sn			1	0.663	ug/l	24.17	608.90	6.830E-04	Pulse	0.30	3
Sr			1	2333.436	ug/l	2.69	816,583.08	9.150E-01	Pulse	0.50	3
[Pb]			1	0.108	ug/l	41.18	517.34	2.463E-04	Pulse	0.50	3
Ca			1	20204.931	ug/l	4.14	30,617.18	3.129E-01	Pulse	0.50	3
Ti			1	0.638	ug/l	29.32	9.33	9.532E-05	Pulse	0.50	3
Na			1	11619730.049	ug/l	2.20	722,391,893.33	7.382E+03	Analog	1.00	3
Mg			1	32282.258	ug/l	1.86	910,699.29	9.306E+00	Pulse	1.00	3
K			1	232010.206	ug/l	0.78	6,105,713.33	6.239E+01	Analog	1.00	3
V			1	702.921	ug/l	1.55	364,200.19	3.721E+00	Pulse	0.50	3
Mn			1	0.523	ug/l	11.42	337.33	3.955E-03	Pulse	0.50	3
Fe			1	21.755	ug/l	14.56	18,508.89	2.169E-01	Pulse	0.50	3
Co			1	0.387	ug/l	16.54	484.68	5.687E-03	Pulse	0.50	3
Ni			1	-2.355	ug/l	-23.70	983.36	1.152E-02	Pulse	0.50	3
Cu			1	10.466	ug/l	3.85	17,895.63	2.099E-01	Pulse	0.50	3
Zn			1	-5.963	ug/l	-8.45	804.35	6.167E-03	Pulse	1.00	3
Cd			1	0.122	ug/l	52.21	32.67	2.487E-04	Pulse	0.50	3
Al			1	4.212	ug/l	11.66	256.67	2.623E-03	Pulse	1.00	3
Se			1	8.826	ug/l	13.86	57.89	4.443E-04	Pulse	3.00	3
Sb			1	1.622	ug/l	4.55	1,011.03	1.133E-03	Pulse	1.00	3
Se			1	156.913	ug/l	19.86	391.34	3.010E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,365,577.25	2.78	74.1	Pulse	0.50	3
1	Sc		97,872.68	1.03	116.6	Pulse	0.30	3
1	Ge		85,252.30	1.41	103.2	Pulse	0.30	3
1	In		892,747.84	2.13	92.6	Pulse	0.30	3
1	Tb		3,512,949.50	3.10	87.6	Pulse	0.50	3
1	Lu		2,104,395.21	2.78	87.2	Pulse	0.50	3
1	Ge		130,428.43	2.46	103.2	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Te		0.00	---		Pulse	0.50	3
1	Li		290.00	16.93	91.6	Pulse	0.30	3

Quantitation Report

File Name	034SMPL.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 12:24
Sample Name	FA64963-5F
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.925	ug/l	6.24	1,661.41	2.075E-02	Pulse	0.50	3
As			1	1351.488	ug/l	3.02	96,651.03	1.208E+00	Pulse	1.00	3
Mo			1	659.095	ug/l	0.90	326,060.66	2.670E+00	Pulse	0.50	3
Pb			1	0.253	ug/l	4.81	1,508.74	7.190E-04	Pulse	1.00	3
Be			1	0.460	ug/l	69.42	1.33	1.423E-05	Pulse	2.00	3
Ag			1	0.192	ug/l	6.85	397.34	3.255E-03	Pulse	0.50	3
Ba			1	16.157	ug/l	4.42	3,211.63	3.709E-03	Pulse	0.50	3
Tl			1	0.100	ug/l	13.31	394.01	1.742E-04	Pulse	0.50	3
Sn			1	0.700	ug/l	4.25	606.68	7.000E-04	Pulse	0.30	3
Sr			1	12132.064	ug/l	3.12	4,118,960.00	4.756E+00	Pulse	0.50	3
[Pb]			1	0.240	ug/l	15.70	690.69	3.298E-04	Pulse	0.50	3
Ca			1	125660.030	ug/l	5.04	184,437.95	1.941E+00	Pulse	0.50	3
Ti			1	2.150	ug/l	46.41	26.67	2.834E-04	Pulse	0.50	3
Na			1	18130176.417	ug/l	3.77	1,094,765,184.00	1.152E+04	Analog	1.00	3
Mg			1	630309.695	ug/l	4.14	17,212,008.67	1.811E+02	Analog	1.00	3
K			1	383265.152	ug/l	4.29	9,778,578.00	1.029E+02	Analog	1.00	3
V			1	991.085	ug/l	4.45	497,517.04	5.235E+00	Pulse	0.50	3
Mn			1	32.095	ug/l	2.42	8,613.26	1.076E-01	Pulse	0.50	3
Fe			1	22.022	ug/l	4.03	17,481.21	2.185E-01	Pulse	0.50	3
Co			1	0.385	ug/l	8.49	452.68	5.657E-03	Pulse	0.50	3
Ni			1	-1.728	ug/l	-22.31	1,102.03	1.378E-02	Pulse	0.50	3
Cu			1	3.284	ug/l	11.51	10,915.11	1.364E-01	Pulse	0.50	3
Zn			1	-4.582	ug/l	-6.73	899.69	7.370E-03	Pulse	1.00	3
Cd			1	0.258	ug/l	10.56	62.00	5.074E-04	Pulse	0.50	3
Al			1	0.794	ug/l	159.18	201.00	2.116E-03	Pulse	1.00	3
Se			1	8.014	ug/l	15.63	50.55	4.142E-04	Pulse	3.00	3
Sb			1	0.837	ug/l	6.86	569.01	6.566E-04	Pulse	1.00	3
Se			1	307.731	ug/l	1.26	712.79	5.836E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,262,203.83	2.80	70.8	Pulse	0.50	3
1	Sc		95,139.61	3.88	113.3	Pulse	0.30	3
1	Ge		80,039.64	1.63	96.9	Pulse	0.30	3
1	In		866,673.32	2.99	89.9	Pulse	0.30	3
1	Tb		3,450,131.67	3.76	86.0	Pulse	0.50	3
1	Lu		2,097,666.37	3.82	86.9	Pulse	0.50	3
1	Ge		122,119.42	1.26	96.6	Pulse	0.30	3
1	Te		3.33	91.65		Pulse	0.50	3
1	Li		257.78	7.12	81.4	Pulse	0.30	3

Quantitation Report

File Name	035SMPL.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 12:27
Sample Name	FA64964-1F
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.759	ug/l	2.68	3,078.25	3.423E-02	Pulse	0.50	3
As			1	2.152	ug/l	3.44	880.36	9.781E-03	Pulse	1.00	3
Mo			1	2.095	ug/l	5.31	5,822.26	4.267E-02	Pulse	0.50	3
Pb			1	0.047	ug/l	7.02	1,691.75	6.945E-04	Pulse	1.00	3
Be			1	0.049	ug/l	118.56	0.83	8.494E-06	Pulse	2.00	3
Ag			1	0.019	ug/l	23.95	253.33	1.850E-03	Pulse	0.50	3
Ba			1	59.894	ug/l	2.15	68,712.28	6.851E-02	Pulse	0.50	3
Tl			1	0.003	ug/l	33.91	126.00	4.154E-05	Pulse	0.50	3
Sn			1	0.472	ug/l	6.31	1,475.63	1.472E-03	Pulse	0.30	3
Sr			1	157.116	ug/l	3.06	309,132.44	3.083E-01	Pulse	0.50	3
[Pb]			1	0.052	ug/l	10.26	838.03	3.441E-04	Pulse	0.50	3
Ca			1	15843.613	ug/l	2.64	118,191.74	1.224E+00	Pulse	0.50	3
Ti			1	0.497	ug/l	35.24	31.33	3.251E-04	Pulse	0.50	3
Na			1	71889.102	ug/l	1.09	22,071,400.67	2.285E+02	Analog	1.00	3
Mg			1	7608.799	ug/l	2.21	1,058,484.60	1.096E+01	Pulse	1.00	3
K			1	5850.696	ug/l	1.68	781,047.85	8.087E+00	Pulse	1.00	3
V			1	1.732	ug/l	10.93	7,221.36	7.485E-02	Pulse	0.50	3
Mn			1	0.521	ug/l	3.09	970.70	1.079E-02	Pulse	0.50	3
Fe			1	11.766	ug/l	2.86	38,521.33	4.284E-01	Pulse	0.50	3
Co			1	0.016	ug/l	11.54	142.67	1.585E-03	Pulse	0.50	3
Ni			1	-0.680	ug/l	-3.15	694.68	7.728E-03	Pulse	0.50	3
Cu			1	-0.555	ug/l	-6.49	6,687.85	7.435E-02	Pulse	0.50	3
Zn			1	1.337	ug/l	25.56	2,342.82	1.718E-02	Pulse	1.00	3
Cd			1	0.015	ug/l	17.19	22.00	1.610E-04	Pulse	0.50	3
Al			1	5.518	ug/l	9.56	588.34	6.091E-03	Pulse	1.00	3
Se			1	0.194	ug/l	140.21	20.89	1.535E-04	Pulse	3.00	3
Sb			1	0.073	ug/l	22.17	369.67	3.695E-04	Pulse	1.00	3
Se			1	2.048	ug/l	27.81	35.56	2.606E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,043,723.75	2.53	95.3	Pulse	0.50	3
1	Sc		96,609.25	3.23	115.1	Pulse	0.30	3
1	Ge		89,950.31	2.97	108.9	Pulse	0.30	3
1	In		1,003,426.17	3.66	104.1	Pulse	0.30	3
1	Tb		4,083,860.75	3.32	101.8	Pulse	0.50	3
1	Lu		2,437,188.92	2.66	101.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		136,590.88	2.75	108.1	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		331.12	16.89	104.6	Pulse	0.30	3

Quantitation Report

File Name	036SMPL.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 12:31
Sample Name	FA64964-2F
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	4.866	ug/l	1.26	16,326.86	1.821E-01	Pulse	0.50	3
As			1	5.536	ug/l	0.89	2,232.13	2.490E-02	Pulse	1.00	3
Mo			1	1.022	ug/l	4.45	2,898.24	2.093E-02	Pulse	0.50	3
Pb			1	0.091	ug/l	2.97	2,356.17	9.895E-04	Pulse	1.00	3
Be			1	-0.015	ug/l	0.00	0.00	0.000E+00	Pulse	2.00	3
Ag			1	0.014	ug/l	24.71	202.67	1.466E-03	Pulse	0.50	3
Ba			1	12.733	ug/l	7.02	14,507.85	1.458E-02	Pulse	0.50	3
Tl			1	0.006	ug/l	18.16	193.33	6.466E-05	Pulse	0.50	3
Sn			1	0.443	ug/l	4.50	1,395.62	1.404E-03	Pulse	0.30	3
Sr			1	299.989	ug/l	1.35	585,120.12	5.883E-01	Pulse	0.50	3
[Pb]			1	0.081	ug/l	4.86	1,037.37	4.356E-04	Pulse	0.50	3
Ca			1	29775.759	ug/l	0.47	223,876.88	2.300E+00	Pulse	0.50	3
Ti			1	0.645	ug/l	19.78	40.67	4.172E-04	Pulse	0.50	3
Na			1	22557.971	ug/l	0.39	6,990,867.83	7.181E+01	Analog	1.00	3
Mg			1	12162.392	ug/l	0.72	1,703,855.79	1.750E+01	Pulse	1.00	3
K			1	4753.190	ug/l	0.43	644,262.00	6.618E+00	Pulse	1.00	3
V			1	23.163	ug/l	1.43	62,077.51	6.377E-01	Pulse	0.50	3
Mn			1	0.415	ug/l	4.18	811.35	9.049E-03	Pulse	0.50	3
Fe			1	12.619	ug/l	2.33	40,600.24	4.528E-01	Pulse	0.50	3
Co			1	0.019	ug/l	24.57	164.00	1.831E-03	Pulse	0.50	3
Ni			1	-0.770	ug/l	-2.01	548.01	6.113E-03	Pulse	0.50	3
Cu			1	-0.692	ug/l	-1.91	6,037.63	6.735E-02	Pulse	0.50	3
Zn			1	0.934	ug/l	6.82	2,135.45	1.542E-02	Pulse	1.00	3
Cd			1	0.016	ug/l	59.64	23.33	1.683E-04	Pulse	0.50	3
Al			1	6.738	ug/l	2.16	681.01	6.996E-03	Pulse	1.00	3
Se			1	0.543	ug/l	9.26	30.22	2.182E-04	Pulse	3.00	3
Sb			1	0.085	ug/l	4.12	404.68	4.069E-04	Pulse	1.00	3
Se			1	1.760	ug/l	19.03	32.33	2.337E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,993,344.75	1.92	93.7	Pulse	0.50	3
1	Sc		97,356.65	0.91	116.0	Pulse	0.30	3
1	Ge		89,653.10	1.55	108.6	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		994,719.89	1.55	103.2	Pulse	0.30	3
1	Tb		3,996,105.33	0.92	99.6	Pulse	0.50	3
1	Lu		2,381,066.83	1.02	98.6	Pulse	0.50	3
1	Ge		138,485.32	1.40	109.6	Pulse	0.30	3
1	Te		2.00	173.21		Pulse	0.50	3
1	Li		293.34	20.86	92.6	Pulse	0.30	3

Quantitation Report

File Name	037SMPL.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 12:35
Sample Name	FA64964-3F
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.927	ug/l	4.40	3,583.01	4.026E-02	Pulse	0.50	3
As			1	0.953	ug/l	7.17	394.67	4.424E-03	Pulse	1.00	3
Mo			1	2.076	ug/l	6.55	5,737.56	4.227E-02	Pulse	0.50	3
Pb			1	0.012	ug/l	31.94	1,070.70	4.588E-04	Pulse	1.00	3
Be			1	-0.003	ug/l	-742.07	0.17	1.630E-06	Pulse	2.00	3
Ag			1	0.010	ug/l	2.68	159.33	1.171E-03	Pulse	0.50	3
Ba			1	75.271	ug/l	5.90	84,172.85	8.610E-02	Pulse	0.50	3
Tl			1	0.002	ug/l	45.05	81.33	2.775E-05	Pulse	0.50	3
Sn			1	0.501	ug/l	6.58	1,506.74	1.540E-03	Pulse	0.30	3
Sr			1	378.305	ug/l	5.35	725,331.04	7.418E-01	Pulse	0.50	3
[Pb]			1	0.005	ug/l	100.28	451.34	1.935E-04	Pulse	0.50	3
Ca			1	34836.316	ug/l	5.47	256,328.11	2.690E+00	Pulse	0.50	3
Ti			1	0.710	ug/l	21.85	43.33	4.575E-04	Pulse	0.50	3
Na			1	25433.552	ug/l	5.45	7,711,909.00	8.094E+01	Analog	1.00	3
Mg			1	12422.148	ug/l	5.76	1,702,918.91	1.788E+01	Pulse	1.00	3
K			1	5642.472	ug/l	5.61	744,002.63	7.808E+00	Pulse	1.00	3
V			1	1.552	ug/l	16.17	6,670.50	7.012E-02	Pulse	0.50	3
Mn			1	78.569	ug/l	3.69	114,956.97	1.292E+00	Pulse	0.50	3
Fe			1	152.223	ug/l	4.09	394,471.66	4.435E+00	Pulse	0.50	3
Co			1	0.016	ug/l	19.46	143.33	1.614E-03	Pulse	0.50	3
Ni			1	-0.709	ug/l	-4.92	640.68	7.209E-03	Pulse	0.50	3
Cu			1	-0.254	ug/l	-21.29	7,989.67	8.979E-02	Pulse	0.50	3
Zn			1	35.401	ug/l	4.94	22,466.71	1.654E-01	Pulse	1.00	3
Cd			1	0.006	ug/l	54.74	10.00	7.440E-05	Pulse	0.50	3
Al			1	5.813	ug/l	22.59	599.01	6.310E-03	Pulse	1.00	3
Se			1	0.199	ug/l	104.88	21.00	1.545E-04	Pulse	3.00	3
Sb			1	0.046	ug/l	8.69	280.67	2.868E-04	Pulse	1.00	3
Se			1	0.827	ug/l	37.24	19.78	1.462E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,929,534.83	4.59	91.7	Pulse	0.50	3
1	Sc		95,492.46	6.14	113.8	Pulse	0.30	3
1	Ge		89,055.36	4.56	107.9	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		979,606.11	5.11	101.7	Pulse	0.30	3
1	Tb		3,957,978.92	4.14	98.7	Pulse	0.50	3
1	Lu		2,337,496.83	4.74	96.8	Pulse	0.50	3
1	Ge		135,973.94	4.32	107.6	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		315.56	13.75	99.7	Pulse	0.30	3

Quantitation Report

File Name	038SMPL.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 12:39
Sample Name	FA64964-4F
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.645	ug/l	5.61	2,684.20	3.011E-02	Pulse	0.50	3
As			1	0.859	ug/l	4.54	356.67	4.001E-03	Pulse	1.00	3
Mo			1	3.027	ug/l	3.93	8,440.59	6.153E-02	Pulse	0.50	3
Pb			1	0.026	ug/l	11.39	1,317.05	5.519E-04	Pulse	1.00	3
Be			1	0.127	ug/l	34.93	1.83	1.884E-05	Pulse	2.00	3
Ag			1	0.010	ug/l	25.32	164.67	1.197E-03	Pulse	0.50	3
Ba			1	55.412	ug/l	3.29	63,074.48	6.339E-02	Pulse	0.50	3
Tl			1	0.000	ug/l	542.62	48.67	1.650E-05	Pulse	0.50	3
Sn			1	0.443	ug/l	10.25	1,398.95	1.404E-03	Pulse	0.30	3
Sr			1	489.945	ug/l	3.22	955,856.81	9.606E-01	Pulse	0.50	3
[Pb]			1	0.024	ug/l	18.28	605.34	2.535E-04	Pulse	0.50	3
Ca			1	42135.374	ug/l	3.46	316,367.02	3.254E+00	Pulse	0.50	3
Ti			1	0.350	ug/l	37.15	22.67	2.336E-04	Pulse	0.50	3
Na			1	40230.051	ug/l	3.65	12,439,281.67	1.279E+02	Analog	1.00	3
Mg			1	21217.903	ug/l	3.92	2,966,091.50	3.051E+01	Pulse	1.00	3
K			1	6769.679	ug/l	3.53	905,989.50	9.318E+00	Pulse	1.00	3
V			1	1.891	ug/l	11.00	7,678.20	7.902E-02	Pulse	0.50	3
Mn			1	241.765	ug/l	1.85	354,017.74	3.972E+00	Pulse	0.50	3
Fe			1	36.015	ug/l	2.59	99,831.53	1.120E+00	Pulse	0.50	3
Co			1	0.021	ug/l	15.48	172.67	1.934E-03	Pulse	0.50	3
Ni			1	-0.674	ug/l	-2.74	698.68	7.840E-03	Pulse	0.50	3
Cu			1	-0.779	ug/l	-1.69	5,609.50	6.293E-02	Pulse	0.50	3
Zn			1	1.329	ug/l	2.49	2,353.48	1.714E-02	Pulse	1.00	3
Cd			1	0.003	ug/l	113.74	6.67	4.862E-05	Pulse	0.50	3
Al			1	4.810	ug/l	19.07	540.01	5.566E-03	Pulse	1.00	3
Se			1	0.224	ug/l	35.55	21.89	1.592E-04	Pulse	3.00	3
Sb			1	0.047	ug/l	9.99	291.00	2.920E-04	Pulse	1.00	3
Se			1	0.746	ug/l	21.23	19.00	1.386E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,958,869.25	2.78	92.6	Pulse	0.50	3
1	Sc		97,314.60	3.72	115.9	Pulse	0.30	3
1	Ge		89,149.63	1.79	108.0	Pulse	0.30	3
1	In		995,745.83	3.07	103.3	Pulse	0.30	3
1	Tb		3,995,468.00	3.01	99.6	Pulse	0.50	3
1	Lu		2,387,457.17	3.06	98.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		137,275.07	2.92	108.6	Pulse	0.30	3
1	Te		2.00	100.00		Pulse	0.50	3
1	Li		341.12	8.81	107.7	Pulse	0.30	3

Quantitation Report

File Name	039SMPL.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 12:43
Sample Name	CRIA
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.992	ug/l	2.15	7,838.93	7.836E-02	Pulse	0.50	3
As			1	0.973	ug/l	1.03	886.02	8.856E-03	Pulse	1.00	3
Mo			1	0.939	ug/l	4.05	5,809.59	3.826E-02	Pulse	0.50	3
Pb			1	1.000	ug/l	1.48	34,352.66	1.386E-02	Pulse	1.00	3
Be			1	1.056	ug/l	14.01	30.00	2.824E-04	Pulse	2.00	3
Ag			1	0.980	ug/l	1.40	21,761.42	1.433E-01	Pulse	0.50	3
Ba			1	1.005	ug/l	2.54	2,493.51	2.311E-03	Pulse	0.50	3
Tl			1	0.959	ug/l	0.70	48,924.84	1.518E-02	Pulse	0.50	3
Sn			1	1.027	ug/l	2.43	5,558.65	5.152E-03	Pulse	0.30	3
Sr			1	1.019	ug/l	2.84	4,736.61	4.390E-03	Pulse	0.50	3
[Pb]			1	0.996	ug/l	0.67	16,126.95	6.508E-03	Pulse	0.50	3
Ca			1	102.851	ug/l	3.18	1,786.75	1.683E-02	Pulse	0.50	3
Ti			1	1.018	ug/l	17.74	136.00	1.283E-03	Pulse	0.50	3
Na			1	728.492	ug/l	1.27	507,210.79	4.779E+00	Pulse	1.00	3
Mg			1	99.286	ug/l	1.24	33,694.53	3.175E-01	Pulse	1.00	3
K			1	120.795	ug/l	1.40	61,171.37	5.764E-01	Pulse	1.00	3
V			1	0.739	ug/l	1.46	7,234.70	6.817E-02	Pulse	0.50	3
Mn			1	1.173	ug/l	2.38	4,077.78	4.077E-02	Pulse	0.50	3
Fe			1	99.721	ug/l	0.94	578,395.62	5.782E+00	Pulse	0.50	3
Co			1	1.013	ug/l	2.18	13,490.72	1.349E-01	Pulse	0.50	3
Ni			1	0.661	ug/l	5.90	4,394.51	4.394E-02	Pulse	0.50	3
Cu			1	0.390	ug/l	3.38	14,283.30	1.428E-01	Pulse	0.50	3
Zn			1	0.664	ug/l	6.74	2,602.51	1.714E-02	Pulse	1.00	3
Cd			1	0.949	ug/l	2.89	2,751.55	1.812E-02	Pulse	0.50	3
Al			1	56.332	ug/l	2.68	9,079.73	8.556E-02	Pulse	1.00	3
Se			1	1.101	ug/l	8.46	79.78	5.253E-04	Pulse	3.00	3
Sb			1	0.965	ug/l	1.16	6,484.15	6.010E-03	Pulse	1.00	3
Se			1	1.203	ug/l	18.02	44.67	2.942E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,223,211.50	0.90	100.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		106,132.92	0.92	126.4	Pulse	0.30	3
1	Ge		100,046.34	1.46	121.2	Pulse	0.30	3
1	In		1,078,947.11	0.16	112.0	Pulse	0.30	3
1	Tb		4,180,504.75	1.34	104.2	Pulse	0.50	3
1	Lu		2,478,137.08	1.35	102.7	Pulse	0.50	3
1	Ge		151,860.63	0.45	120.1	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		368.90	7.02	116.5	Pulse	0.30	3

Quantitation Report

File Name	040SMPL.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 12:46
Sample Name	ICSA
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.236	ug/l	3.71	2,160.13	2.386E-02	Pulse	0.50	3
As			1	0.111	ug/l	6.80	105.00	1.159E-03	Pulse	1.00	3
Mo			1	1991.363	ug/l	0.82	10,948,498.67	8.067E+01	Analog	0.50	3
Pb			1	0.068	ug/l	4.35	2,981.60	1.291E-03	Pulse	1.00	3
Be			1	0.031	ug/l	125.65	1.00	1.012E-05	Pulse	2.00	3
Ag			1	0.057	ug/l	3.43	1,191.38	8.777E-03	Pulse	0.50	3
Ba			1	0.055	ug/l	18.60	131.33	1.380E-04	Pulse	0.50	3
Tl			1	0.003	ug/l	14.41	177.33	6.594E-05	Pulse	0.50	3
Sn			1	0.099	ug/l	12.55	795.58	8.352E-04	Pulse	0.30	3
Sr			1	1.024	ug/l	1.32	4,198.49	4.408E-03	Pulse	0.50	3
[Pb]			1	0.071	ug/l	3.96	1,445.40	6.257E-04	Pulse	0.50	3
Ca			1	92875.916	ug/l	1.09	1,423,644.21	1.434E+01	Pulse	0.50	3
Ti			1	1986.330	ug/l	0.98	245,285.94	2.471E+00	Pulse	0.50	3
Na			1	103095.505	ug/l	1.32	65,032,821.33	6.551E+02	Analog	1.00	3
Mg			1	99487.809	ug/l	1.17	28,375,314.00	2.858E+02	Analog	1.00	3
K			1	103283.804	ug/l	0.93	27,484,628.67	2.769E+02	Analog	1.00	3
V			1	-0.155	ug/l	-19.36	2,104.12	2.120E-02	Pulse	0.50	3
Mn			1	0.555	ug/l	4.66	1,853.43	2.047E-02	Pulse	0.50	3
Fe			1	100302.819	ug/l	0.83	518,117,546.67	5.722E+03	Analog	0.50	3
Co			1	0.023	ug/l	7.83	331.33	3.658E-03	Pulse	0.50	3
Ni			1	-0.228	ug/l	-6.54	1,066.70	1.178E-02	Pulse	0.50	3
Cu			1	-0.479	ug/l	-1.58	4,869.96	5.379E-02	Pulse	0.50	3
Zn			1	-0.010	ug/l	-150.82	1,529.40	1.127E-02	Pulse	1.00	3
Cd			1	0.482	ug/l	0.80	1,250.05	9.210E-03	Pulse	0.50	3
Al			1	56454.297	ug/l	1.31	8,313,897.00	8.375E+01	Analog	1.00	3
Se			1	0.111	ug/l	65.49	21.56	1.587E-04	Pulse	3.00	3
Sb			1	0.034	ug/l	9.35	338.33	3.553E-04	Pulse	1.00	3
Se			1	0.084	ug/l	147.75	11.44	8.439E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,688,606.33	0.64	84.2	Pulse	0.50	3
1	Sc		99,279.70	1.03	118.3	Pulse	0.30	3
1	Ge		90,546.17	0.53	109.7	Pulse	0.30	3
1	In		952,517.32	0.61	98.8	Pulse	0.30	3
1	Tb		3,864,124.58	0.57	96.3	Pulse	0.50	3
1	Lu		2,309,909.25	0.59	95.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		135,723.49	0.42	107.4	Pulse	0.30	3
1	Te		2.67	114.56		Pulse	0.50	3
1	Li		318.89	9.71	100.7	Pulse	0.30	3

Quantitation Report

File Name	041SMPL.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 12:50
Sample Name	ICSAB
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	20.336	ug/l	2.31	132,161.70	1.472E+00	Pulse	0.50	3
As			1	19.425	ug/l	2.35	15,601.69	1.737E-01	Pulse	1.00	3
Mo			1	2004.015	ug/l	2.17	10,943,123.00	8.118E+01	Analog	0.50	3
Pb			1	0.065	ug/l	1.42	2,879.58	1.253E-03	Pulse	1.00	3
Be			1	0.017	ug/l	124.24	0.67	6.647E-06	Pulse	2.00	3
Ag			1	17.178	ug/l	2.84	337,634.11	2.505E+00	Pulse	0.50	3
Ba			1	0.059	ug/l	23.78	139.33	1.479E-04	Pulse	0.50	3
Tl			1	0.002	ug/l	50.30	146.00	5.484E-05	Pulse	0.50	3
Sn			1	0.099	ug/l	19.17	787.80	8.346E-04	Pulse	0.30	3
Sr			1	1.004	ug/l	4.23	4,089.12	4.330E-03	Pulse	0.50	3
[Pb]			1	0.071	ug/l	9.70	1,436.73	6.261E-04	Pulse	0.50	3
Ca			1	92855.537	ug/l	3.89	1,418,372.50	1.434E+01	Pulse	0.50	3
Ti			1	1981.878	ug/l	3.34	243,909.10	2.465E+00	Pulse	0.50	3
Na			1	102855.021	ug/l	3.20	64,665,561.33	6.536E+02	Analog	1.00	3
Mg			1	99444.790	ug/l	3.39	28,267,290.00	2.857E+02	Analog	1.00	3
K			1	103117.313	ug/l	3.07	27,349,102.00	2.764E+02	Analog	1.00	3
V			1	-0.145	ug/l	-14.98	2,154.79	2.177E-02	Pulse	0.50	3
Mn			1	20.060	ug/l	2.82	59,350.78	6.610E-01	Pulse	0.50	3
Fe			1	101220.878	ug/l	2.79	518,504,992.00	5.775E+03	Analog	0.50	3
Co			1	19.263	ug/l	2.33	229,381.06	2.554E+00	Pulse	0.50	3
Ni			1	18.518	ug/l	2.35	61,947.88	6.899E-01	Pulse	0.50	3
Cu			1	18.041	ug/l	2.85	175,086.66	1.950E+00	Pulse	0.50	3
Zn			1	18.273	ug/l	2.99	22,971.31	1.704E-01	Pulse	1.00	3
Cd			1	17.736	ug/l	1.72	45,633.34	3.385E-01	Pulse	0.50	3
Al			1	56516.788	ug/l	3.78	8,294,337.67	8.384E+01	Analog	1.00	3
Se			1	0.090	ug/l	54.99	20.33	1.509E-04	Pulse	3.00	3
Sb			1	0.035	ug/l	6.35	339.33	3.593E-04	Pulse	1.00	3
Se			1	0.215	ug/l	47.92	14.67	1.090E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,666,384.83	2.19	83.5	Pulse	0.50	3
1	Sc		99,008.44	3.21	117.9	Pulse	0.30	3
1	Ge		89,825.04	2.09	108.8	Pulse	0.30	3
1	In		945,143.75	2.88	98.1	Pulse	0.30	3
1	Tb		3,836,840.08	2.81	95.7	Pulse	0.50	3
1	Lu		2,297,717.92	2.91	95.2	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		134,846.50	2.50	106.7	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		320.01	14.01	101.1	Pulse	0.30	3

Quantitation Report

File Name	042CCVA.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 12:54
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	50.337	ug/l	1.72	349,518.71	3.633E+00	Pulse	0.50	3
As			1	48.252	ug/l	1.84	41,500.16	4.313E-01	Pulse	1.00	3
Mo			1	46.752	ug/l	2.44	280,063.55	1.894E+00	Pulse	0.50	3
Pb			1	49.713	ug/l	2.57	1,610,318.13	6.706E-01	Pulse	1.00	3
Be			1	46.547	ug/l	1.25	1,269.87	1.237E-02	Pulse	2.00	3
Ag			1	46.397	ug/l	1.33	1,000,444.71	6.765E+00	Pulse	0.50	3
Ba			1	47.981	ug/l	2.05	114,217.74	1.098E-01	Pulse	0.50	3
Tl			1	49.374	ug/l	1.51	2,387,797.00	7.808E-01	Pulse	0.50	3
Sn			1	48.086	ug/l	1.96	233,027.99	2.239E-01	Pulse	0.30	3
Sr			1	50.339	ug/l	1.89	205,727.34	1.977E-01	Pulse	0.50	3
[Pb]			1	49.853	ug/l	2.78	761,432.79	3.171E-01	Pulse	0.50	3
Ca			1	4906.590	ug/l	0.10	77,902.09	7.585E-01	Pulse	0.50	3
Ti			1	48.747	ug/l	2.50	6,227.68	6.065E-02	Pulse	0.50	3
Na			1	5570.630	ug/l	1.43	3,649,586.58	3.554E+01	Pulse	1.00	3
Mg			1	5023.671	ug/l	1.75	1,485,224.46	1.446E+01	Pulse	1.00	3
K			1	5139.459	ug/l	1.61	1,439,338.79	1.402E+01	Pulse	1.00	3
V			1	48.010	ug/l	2.09	261,951.99	2.551E+00	Pulse	0.50	3
Mn			1	49.761	ug/l	1.44	157,438.74	1.636E+00	Pulse	0.50	3
Fe			1	5075.985	ug/l	1.58	27,869,988.00	2.897E+02	Analog	0.50	3
Co			1	49.726	ug/l	1.22	634,370.15	6.593E+00	Pulse	0.50	3
Ni			1	49.426	ug/l	1.64	173,933.74	1.808E+00	Pulse	0.50	3
Cu			1	49.405	ug/l	1.23	496,563.25	5.161E+00	Pulse	0.50	3
Zn			1	48.773	ug/l	2.45	64,457.73	4.359E-01	Pulse	1.00	3
Cd			1	45.503	ug/l	1.59	128,419.04	8.684E-01	Pulse	0.50	3
Al			1	2793.123	ug/l	1.76	425,672.83	4.145E+00	Pulse	1.00	3
Se			1	48.088	ug/l	1.56	2,648.85	1.791E-02	Pulse	3.00	3
Sb			1	48.084	ug/l	1.40	304,074.90	2.922E-01	Pulse	1.00	3
Se			1	48.397	ug/l	2.46	1,351.38	9.140E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,058,567.17	1.65	95.8	Pulse	0.50	3
1	Sc		102,701.78	1.46	122.3	Pulse	0.30	3
1	Ge		96,223.66	1.13	116.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,040,763.88	1.30	108.0	Pulse	0.30	3
1	Tb		4,082,734.50	1.98	101.8	Pulse	0.50	3
1	Lu		2,402,388.33	2.56	99.5	Pulse	0.50	3
1	Ge		147,903.85	1.85	117.0	Pulse	0.30	3
1	Te		2.67	114.56		Pulse	0.50	3
1	Li		352.23	12.06	111.2	Pulse	0.30	3

Quantitation Report

File Name	043_CCV.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 12:58
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	100.462	ug/l	1.91	681,720.87	7.244E+00	Pulse	0.50	3
As			1	98.185	ug/l	2.21	82,593.82	8.776E-01	Pulse	1.00	3
Mo			1	94.175	ug/l	0.82	551,844.94	3.815E+00	Pulse	0.50	3
Pb			1	99.438	ug/l	1.48	3,156,730.50	1.341E+00	Pulse	1.00	3
Be			1	95.954	ug/l	0.94	2,590.33	2.549E-02	Pulse	2.00	3
Ag			1	92.845	ug/l	1.03	1,958,061.46	1.354E+01	Pulse	0.50	3
Ba			1	97.376	ug/l	1.80	227,913.24	2.227E-01	Pulse	0.50	3
Tl			1	99.499	ug/l	1.17	4,662,860.50	1.574E+00	Pulse	0.50	3
Sn			1	99.757	ug/l	2.03	474,927.60	4.642E-01	Pulse	0.30	3
Sr			1	104.082	ug/l	1.14	417,861.09	4.083E-01	Pulse	0.50	3
[Pb]			1	99.548	ug/l	2.13	1,490,048.62	6.330E-01	Pulse	0.50	3
Ca			1	9923.680	ug/l	1.24	155,782.35	1.533E+00	Pulse	0.50	3
Ti			1	100.659	ug/l	2.63	12,722.82	1.252E-01	Pulse	0.50	3
Na			1	10771.734	ug/l	0.98	6,968,795.33	6.858E+01	Analog	1.00	3
Mg			1	9963.916	ug/l	0.88	2,911,790.33	2.866E+01	Pulse	1.00	3
K			1	10269.430	ug/l	0.79	2,820,315.42	2.776E+01	Pulse	1.00	3
V			1	97.349	ug/l	0.83	522,567.08	5.143E+00	Pulse	0.50	3
Mn			1	100.579	ug/l	1.85	311,065.33	3.305E+00	Pulse	0.50	3
Fe			1	10231.246	ug/l	1.84	54,941,538.67	5.838E+02	Analog	0.50	3
Co			1	99.739	ug/l	1.59	1,244,604.71	1.322E+01	Pulse	0.50	3
Ni			1	99.738	ug/l	1.54	341,425.31	3.628E+00	Pulse	0.50	3
Cu			1	99.738	ug/l	1.44	970,759.50	1.031E+01	Pulse	0.50	3
Zn			1	98.608	ug/l	1.21	125,800.90	8.697E-01	Pulse	1.00	3
Cd			1	91.669	ug/l	1.49	253,037.75	1.749E+00	Pulse	0.50	3
Al			1	5616.569	ug/l	1.23	846,802.79	8.334E+00	Pulse	1.00	3
Se			1	96.512	ug/l	0.43	5,183.15	3.583E-02	Pulse	3.00	3
Sb			1	97.779	ug/l	1.49	607,846.14	5.940E-01	Pulse	1.00	3
Se			1	98.392	ug/l	2.17	2,677.41	1.851E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,963,684.75	1.43	92.8	Pulse	0.50	3
1	Sc		101,618.98	1.15	121.1	Pulse	0.30	3
1	Ge		94,130.95	1.43	114.0	Pulse	0.30	3
1	In		1,023,435.62	1.92	106.2	Pulse	0.30	3
1	Tb		4,009,696.67	1.40	100.0	Pulse	0.50	3
1	Lu		2,354,563.50	2.05	97.5	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		144,651.42	1.06	114.4	Pulse	0.30	3
1	Te		3.33	91.65		Pulse	0.50	3
1	Li		326.67	11.04	103.2	Pulse	0.30	3

Quantitation Report

File Name	044_CCB.d
File Path	D:\2019\06-June\xa061919m1.b
Method File	
Method Path	
Acq Time	6/19/2019 13:01
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/19/2019 12:23
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.020	ug/l	46.23	795.35	8.321E-03	Pulse	0.50	3
As			1	0.028	ug/l	23.02	39.67	4.155E-04	Pulse	1.00	3
Mo			1	0.134	ug/l	20.57	837.36	5.666E-03	Pulse	0.50	3
Pb			1	0.016	ug/l	24.22	1,430.06	5.989E-04	Pulse	1.00	3
Be			1	0.163	ug/l	42.63	4.67	4.540E-05	Pulse	2.00	3
Ag			1	0.019	ug/l	17.23	477.34	3.218E-03	Pulse	0.50	3
Ba			1	0.016	ug/l	61.76	52.67	4.988E-05	Pulse	0.50	3
Tl			1	0.027	ug/l	5.43	1,386.73	4.434E-04	Pulse	0.50	3
Sn			1	0.096	ug/l	25.57	861.17	8.196E-04	Pulse	0.30	3
Sr			1	0.064	ug/l	18.82	677.35	6.470E-04	Pulse	0.50	3
[Pb]			1	0.013	ug/l	10.29	624.68	2.618E-04	Pulse	0.50	3
Ca			1	7.480	ug/l	14.13	215.33	2.107E-03	Pulse	0.50	3
Ti			1	0.066	ug/l	26.53	10.00	9.823E-05	Pulse	0.50	3
Na			1	428.222	ug/l	0.74	293,339.46	2.871E+00	Pulse	1.00	3
Mg			1	-3.983	ug/l	-19.02	2,131.12	2.083E-02	Pulse	1.00	3
K			1	32.603	ug/l	4.75	34,748.42	3.402E-01	Pulse	1.00	3
V			1	-0.214	ug/l	-3.63	1,854.10	1.814E-02	Pulse	0.50	3
Mn			1	0.116	ug/l	9.92	578.01	6.046E-03	Pulse	0.50	3
Fe			1	5.238	ug/l	13.47	37,462.36	3.916E-01	Pulse	0.50	3
Co			1	0.016	ug/l	21.22	254.67	2.661E-03	Pulse	0.50	3
Ni			1	-0.396	ug/l	-4.36	544.01	5.696E-03	Pulse	0.50	3
Cu			1	-0.107	ug/l	-24.34	8,780.02	9.186E-02	Pulse	0.50	3
Zn			1	-0.264	ug/l	-10.21	1,342.05	9.063E-03	Pulse	1.00	3
Cd			1	0.013	ug/l	13.01	38.67	2.614E-04	Pulse	0.50	3
Al			1	1.555	ug/l	19.73	440.01	4.305E-03	Pulse	1.00	3
Se			1	0.147	ug/l	69.57	25.44	1.722E-04	Pulse	3.00	3
Sb			1	0.015	ug/l	15.89	250.33	2.391E-04	Pulse	1.00	3
Se			1	0.187	ug/l	93.02	15.33	1.038E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,129,405.92	1.96	98.0	Pulse	0.50	3

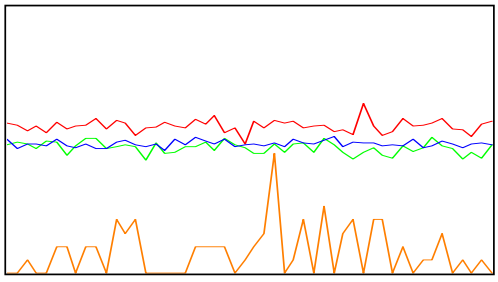
Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		102,158.85	2.41	121.7	Pulse	0.30	3
1	Ge		95,581.65	1.20	115.8	Pulse	0.30	3
1	In		1,048,176.52	2.64	108.8	Pulse	0.30	3
1	Tb		4,065,512.67	2.38	101.4	Pulse	0.50	3
1	Lu		2,384,890.33	2.21	98.8	Pulse	0.50	3
1	Ge		148,118.93	1.75	117.2	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		365.56	20.40	115.4	Pulse	0.30	3

Tune Report

Batch Folder	D:\2019\06-June\xa061919m1.b
Acq. Date-Time	6/19/2019 9:58
Report Comment	06199TUNE
Instrument Name	G3281A JP12151709

[2]



Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)
59	2000	1103	11026.92	5000.00	
89	2000	939	9390.32	5000.00	
205	10000	4845	48449.95	5000.00	
78	20	2			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
205		-	
78		-	

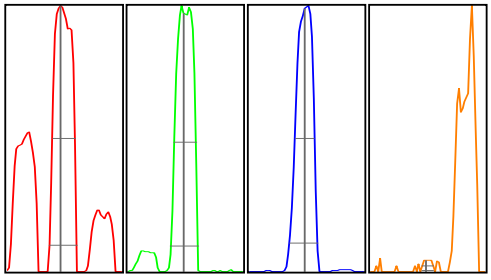
Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	4.24	5.00	
89	4.74	5.00	
205	2.48	5.00	
78	119.67		

Mass	Background (Actual)	Background (Required)	Background (Flag)
59	0.10	2	
89	0.00	2	
205	0.30	2	
78	0.00	5	

Ratio	156/140	0.873 %	
Ratio	70/140	1.715 %	

Integration Time [sec] 0.1 **Sampling Period [sec]** 0.412

Tune Report



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	W-50%	W-10% (Actual)	W-10% (Required)	W-10% (Flag)
59	1127.88	58.95	58.9 - 59.1		0.57	0.689	0.900	
89	921.52	89.00	88.9 - 89.1		0.54	0.678	0.900	
205	4784.61	205.00	204.9 - 205.1		0.49	0.714	0.900	
78	2.25	78.00	-		0.24	0.327		

Integration Time [sec] 0.1 **Acquisition Time [sec]** 29.92 **Y Axis** Linear

Tune Parameters
Plasma Paramters

RF Power	1600 W	Nebulizer Pump	0.10 rps
RF Matching	1.70 V	S/C Temp	2 ℃
Smpl Depth	9.0 mm	Gas Switch	Dilution Gas
Carrier Gas	0.80 L/min	Makeup/Dilution Gas	0.35 L/min
Option Gas	0.0 %		

Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-40 V
Extract 2	-130.0 V	Cell Exit	-70 V
Omega Bias	-65 V	Deflect	2.2 V
Omega Lens	9.5 V	Plate Bias	-60 V

Cell Parameters

Use Gas	true	OctP Bias	-18.0 V
He Flow	5.0 mL/min	OctP RF	190 V
H2 Flow	0.0 mL/min	Energy Discrimination	3.0 V
3rd Gas Flow	0 %		

History

	Sensitivity										
Created Date	Channel 1 Count	Channel 1 Mass	Channel 1 RSD%	Channel 2 Count	Channel 2 Mass	Channel 2 RSD%	Channel 3 Count	Channel 3 Mass	Channel 3 RSD%	Oxide Mass	Oxide Ratio
6/19/2019 9:48 AM	1410.9212	7	3.6818363	10051.879	89	1.789516	7536.5951	205	1.9265648	156/140	2.75 %

History

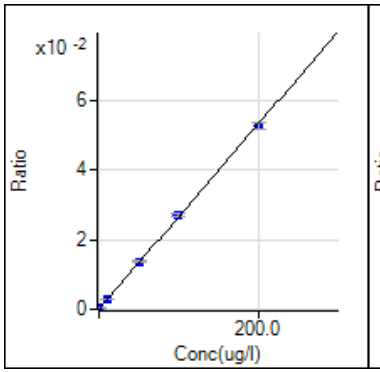
		Background						Resolution/Axi				
Doubly Charged Mass	Doubly Charged Ratio	Channel 1 Count	Channel 1 Mass	Channel 2 Count	Channel 2 Mass	Channel 3 Count	Channel 3 Mass	Channel 1 Mass	Channel 1 Height	Channel 1 W-10%	Channel 2 Mass	Channel 2 Height
70/140	14.37 %	1.8000002	7	2.9500003	89	13.800006	205	7	2184.0004	0.8085851	89	10088.446

History

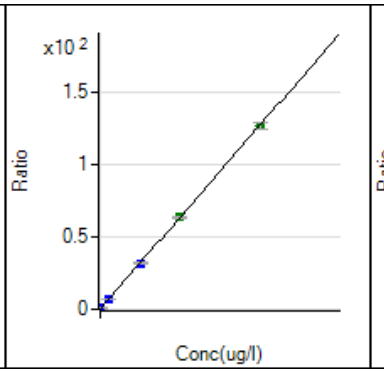
s

Channel 2 W-10%	Channel 3 Mass	Channel 3 Height	Channel 3 W-10%
0.6972413	205	7465.2128	0.7382682

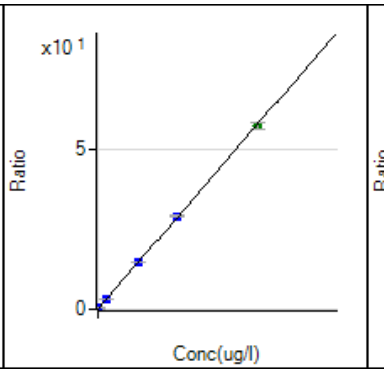
Calibration for D:\2019\06-June\xa061919m1.b\001CALB.d



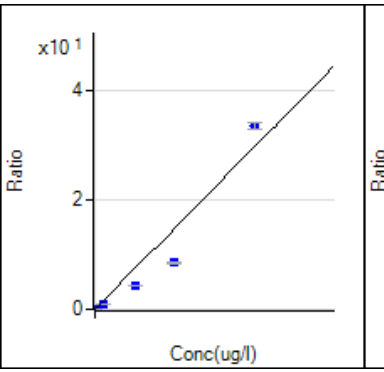
9 Be [2] / ISTD: 45 Sc
y = 2.656E-4 x + 2.010E-6
R 0.9999
DL 0.03933
BEC 0.007568



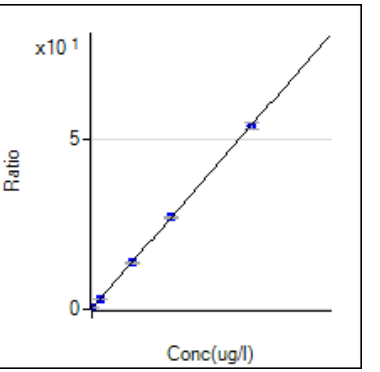
23 Na [2] / ISTD: 45 Sc
y = 6.353E-3 x + 1.510E-1
R 1.0000
DL 0.329
BEC 23.77



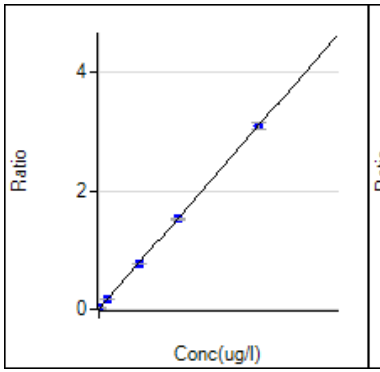
24 Mg [2] / ISTD: 45 Sc
y = 2.873E-3 x + 3.227E-2
R 1.0000
DL 1.176
BEC 11.23



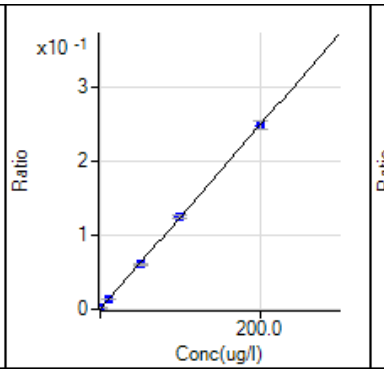
27 Al [2] / ISTD: 45 Sc
y = 1.483E-3 x + 1.998E-3
R 0.9675
DL 0.2375
BEC 1.347



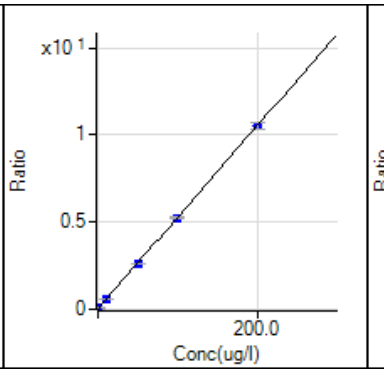
39 K [2] / ISTD: 45 Sc
y = 2.678E-3 x + 2.529E-1
R 1.0000
DL 2.125
BEC 94.43



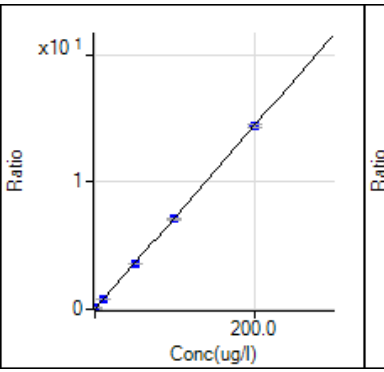
44 Ca [2] / ISTD: 45 Sc
y = 1.544E-4 x + 9.520E-4
R 0.9999
DL 2.829
BEC 6.166



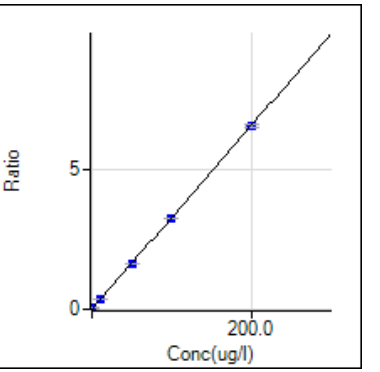
47 Ti [2] / ISTD: 45 Sc
y = 1.244E-3 x + 1.597E-5
R 1.0000
DL 0.03335
BEC 0.01284



51 V [2] / ISTD: 45 Sc
y = 5.253E-2 x + 2.936E-2
R 1.0000
DL 0.04099
BEC 0.559

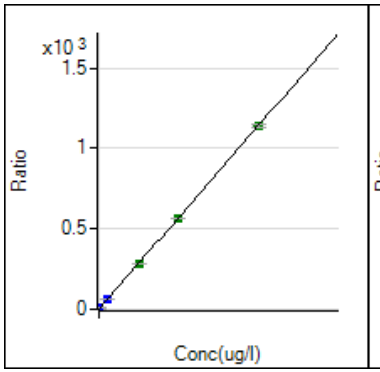


52 Cr [2] / ISTD: 72 Ge
y = 7.203E-2 x + 6.882E-3
R 1.0000
DL 0.01302
BEC 0.09554

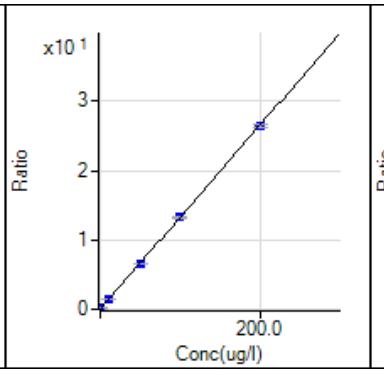


55 Mn [2] / ISTD: 72 Ge
y = 3.284E-2 x + 2.239E-3
R 1.0000
DL 0.02734
BEC 0.06818

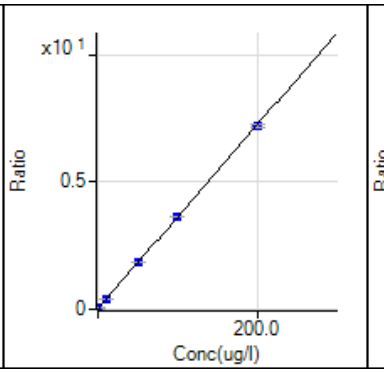
Calibration for D:\2019\06-June\xa061919m1.b\001CALB.d



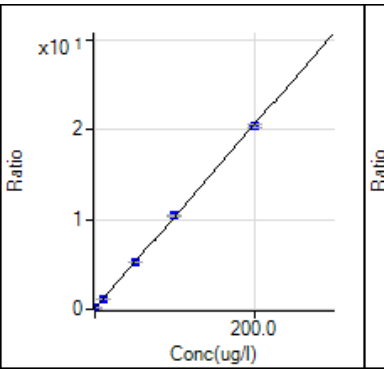
56 Fe [2] / ISTD: 72 Ge
y = 5.705E-2 x + 9.283E-2
R 1.0000
DL 0.2245
BEC 1.627



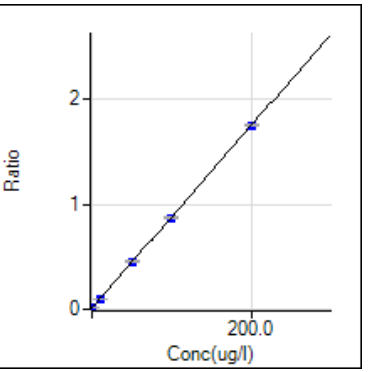
59 Co [2] / ISTD: 72 Ge
y = 1.326E-1 x + 5.567E-4
R 1.0000
DL 0.001909
BEC 0.004199



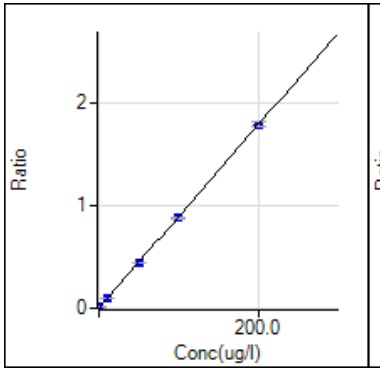
60 Ni [2] / ISTD: 72 Ge
y = 3.617E-2 x + 2.003E-2
R 1.0000
DL 0.1435
BEC 0.5538



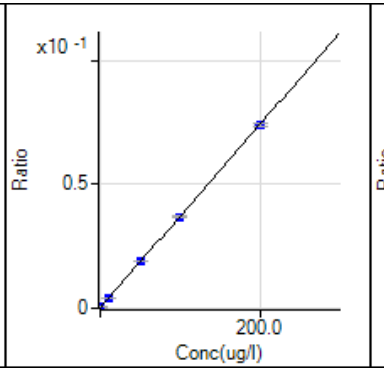
63 Cu [2] / ISTD: 72 Ge
y = 1.024E-1 x + 1.028E-1
R 1.0000
DL 0.0391
BEC 1.004



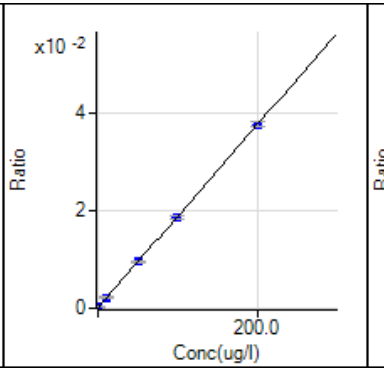
66 Zn [2] / ISTD: 74 Ge
y = 8.705E-3 x + 1.136E-2
R 1.0000
DL 0.2391
BEC 1.305



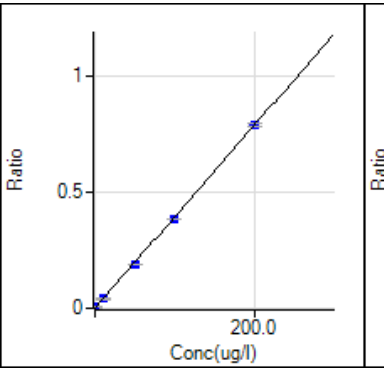
75 As [2] / ISTD: 72 Ge
y = 8.936E-3 x + 1.648E-4
R 1.0000
DL 0.0248
BEC 0.01844



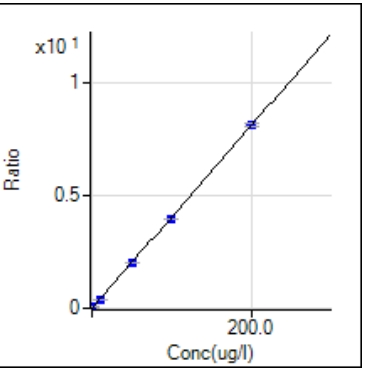
78 Se [2] / ISTD: 74 Ge
y = 3.700E-4 x + 1.177E-4
R 1.0000
DL 0.1715
BEC 0.318



82 Se [2] / ISTD: 74 Ge
y = 1.874E-4 x + 6.873E-5
R 0.9999
DL 0.4148
BEC 0.3667

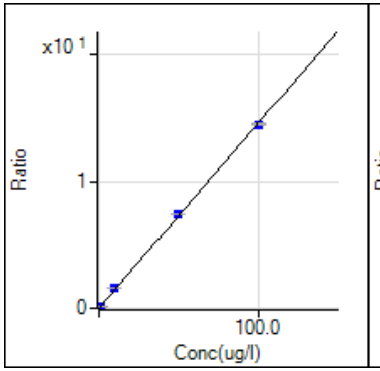


88 Sr [2] / ISTD: 115 In
y = 3.920E-3 x + 3.956E-4
R 0.9999
DL 0.03391
BEC 0.1009



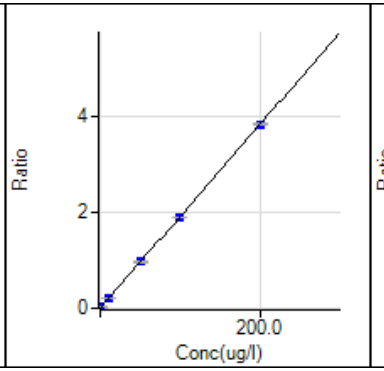
95 Mo [2] / ISTD: 74 Ge
y = 4.051E-2 x + 2.314E-4
R 0.9999
DL 0.007468
BEC 0.005712

Calibration for D:\2019\06-June\xa061919m1.b\001CALB.d



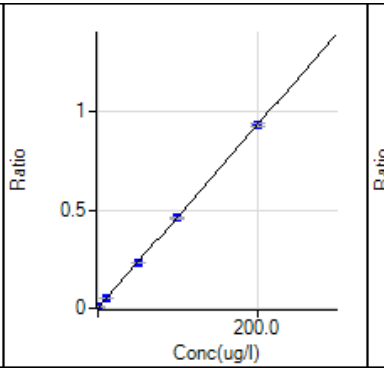
107 Ag [2] / ISTD: 74 Ge
y = 1.458E-1 x + 4.540E-4

R	0.9999
DL	0.001233
BEC	0.003114



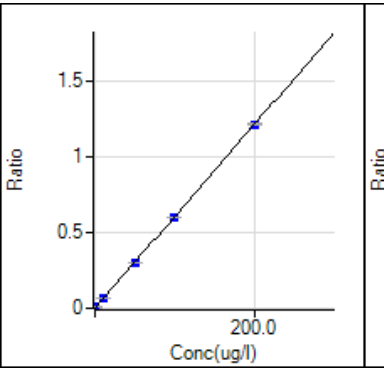
111 Cd [2] / ISTD: 74 Ge
y = 1.908E-2 x + 1.579E-5

R	1.0000
DL	0.004299
BEC	0.0008274



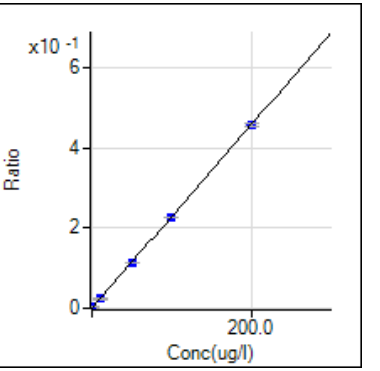
118 Sn [2] / ISTD: 115 In
y = 4.649E-3 x + 3.748E-4

R	0.9999
DL	0.02214
BEC	0.08062



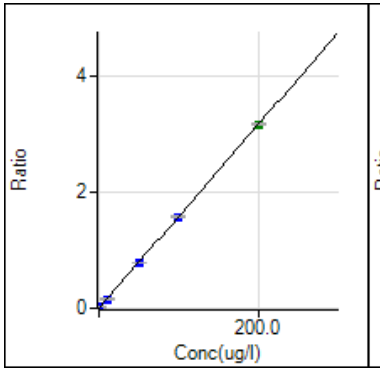
121 Sb [2] / ISTD: 115 In
y = 6.074E-3 x + 1.481E-4

R	1.0000
DL	0.01199
BEC	0.02438



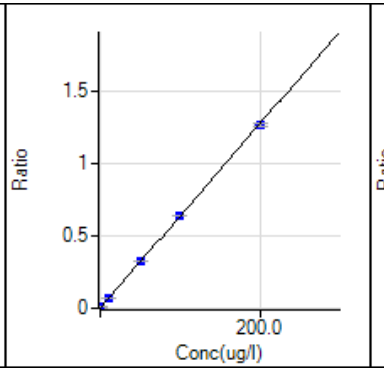
137 Ba [2] / ISTD: 115 In
y = 2.287E-3 x + 1.314E-5

R	1.0000
DL	0.008337
BEC	0.005747



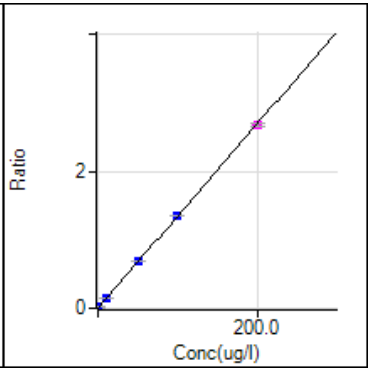
205 Tl [2] / ISTD: 209 Bi
y = 1.581E-2 x + 1.565E-5

R	1.0000
DL	9.029E-05
BEC	0.0009897



206 [Pb] [2] / ISTD: 175 Lu
y = 6.357E-3 x + 1.773E-4

R	1.0000
DL	0.004147
BEC	0.02789



208 Pb [2] / ISTD: 175 Lu
y = 1.348E-2 x + 3.785E-4

R	1.0000
DL	0.001253
BEC	0.02808

HS

SGS Accutest - Orlando **Metals Digestion Log Water**

Method of digestion(circle one): SW846-3010A / SW846-3005A / EPA 200.7 / EPA 200.8 / SM3030C

MP #: 35666

Prep Date/Time (mm/dd/yy 24:00): 06/15/19 1845

HotBlock I.D. 9

Thermometer I.D. 204

Correction Factor (°C) -1

Temperature Observed/Corrected (°C) 92 , 91

pH paper lot# 220416

Volume

Spk. Sol. A	Used(ml)	Pipette #
Acc 1131	0.05	MU 45274
Acc 1108	0.2	MU 15244
MET6388	1.0	MU 15244

Dig. Tube Lot#: MP3238

Added B:

Lot# HNO_3 0000213500 HCL 0000221681

Sample #		Initial Volume(ml)	pH<2	Final Volume(ml)	Comments
Method Blank(MB)		50.0	N/A	50.0	
Spike Blank(SB)			N/A		
Matrix Spike(MS)			✓		
Matrix Spike Dup(MSD)			✓		
Duplicate(DUP)			✓		
1 QC C FA64963-1F	D 2		✓		
2 -2F	1		✓		
3 -3F	1		✓		
4 -4F	2		✓		
5 -5F	1		✓		
6 FA64964-1F	2		✓		
7 -2F	1		✓		
8 -3F	1		✓		
9 -4F	1		✓		
10					
11					
12					
13					
14 06/15/19 IT					
15					
16					
17					
18					
19					
20					
21 E					
22 E					
23 E					
24 E					

Analyst: Date: 06/15/19

QC Review: Date: 6-17-19

A Used for SB, MS, MSD
B For reagent volumes used consult SOP MET 103, current revision
C Parent sample used to prepare MS, MSD, DUP
D Bottle Number
E Additional matrix QC

icpwaterdigestionlog 0916.xls

Rev 09/12/16 DM
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7.2.1

7

APPENDIX D

Data Review Report

Sierra Army Depot

DATA REVIEW

Herlong, California

Metals Analyses

SDGs #: FA64963 and FA64964

Analyses Performed By:
SGS/Accutest Laboratories
Orlando, Florida

Report #: 34747R
Review Level: Tier III
Project: 30007638

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Groups (SDGs) # FA64963 and FA64964 for samples collected in association with the Sierra Army Depot Site in Herlong, California. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data as reported by the laboratory were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody records (COCs). Analyses were performed on the following samples:

SDG	Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis			
						VOC	SVOC	Metals	Misc
FA64963	OPF-04-PZ	FA64963-1	Water	6/6/2019				X	X
	OPF-05-PZ	FA64963-2	Water	6/6/2019				X	X
	OPF-06-PZ	FA64963-3	Water	6/6/2019				X	X
	OPF-07-PZ	FA64963-4	Water	6/6/2019				X	X
	LBG-05-MW	FA64963-5	Water	6/6/2019				X	X
FA64964	UBG-03-MWA	FA64964-1	Water	6/6/2019				X	X
	UBG-08R-MWA	FA64964-2	Water	6/6/2019				X	X
	UBG-09-MWA	FA64964-3	Water	6/6/2019				X	X
	UBG-10-MWA	FA64964-4	Water	6/6/2019				X	X

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of Quality Assurance (QA) or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

INORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 6020A. Data were reviewed in accordance with *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (October 2004).

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was already subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with the USEPA National Functional Guidelines:

- Concentration (C) Qualifiers
  - U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.
  - J The reported value was obtained from a reading less than the reporting limit (RL), but greater than or equal to the method detection limit (MDL).
- Quantitation (Q) Qualifiers
  - E The reported value is estimated due to the presence of interference.
  - N Spiked sample recovery is not within the control limits.
  - * Duplicate analysis is not within the control limits.
- Validation Qualifiers
  - J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.
  - UJ The analyte was not detected above the reporting limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.
  - UB Analyte considered non-detect at the listed value due to associated blank contamination.
  - R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

METALS ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 6020A	Water	180 days from collection to analysis	Cool to < 6 °C; pH < 2 with HNO_3

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e. laboratory method blanks and equipment rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Target analytes were detected in the associated QA blanks; however, the associated sample results were greater than the BAL or were non-detect. Therefore, qualification of the sample results is not required.

3. Calibration

Satisfactory instrument calibration is established to provide that the instrument can produce acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument's continuing performance is satisfactory.

3.1 Initial Calibration

The initial calibration must exhibit a correlation coefficient greater than 0.995. A technical review of the data applies limits to all analytes with no exceptions.

3.2 Continuing Calibration

All target analytes associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (10%).

The correct number and type of standards were analyzed. The correlation coefficient of the initial calibration was greater than 0.995 for all non-ICP analytes and all initial calibration verification standard recoveries were within the control limits.

All initial and continuing calibration verification standards were within the control limits.

3.3 Reporting limit (RL) Check Standard

The RL check standard serves to verify the linearity of calibration of the analysis at the reporting limit. The RL standard is not required for the analysis of aluminum (Al), barium (Ba), calcium (Ca), iron (Fe),

magnesium (Mg), sodium (Na), or potassium (K). The RL check standard must exhibit recoveries between 70-130% (50-150% for antimony (Sb), lead (Pb), and thallium (Tl)).

All analytes associated with RL standard recoveries were within the control limits.

3.4 ICP Interference Check Sample (ICS)

The ICS verifies the laboratory's interelement and background correction factors.

All ICS exhibited recoveries within the control limits.

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) and Laboratory Duplicate Sample Analysis

MS/MSD and laboratory duplicate sample results are used to assess the precision and accuracy of the analytical method.

4.1 Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

All analytes must exhibit recoveries within the established acceptance limits of 75% to 125%. The relative percent difference (RPD) between the MS and MSD results must be no greater than the established acceptance limit of 20%. The MS/MSD control limits do not apply for MS/MSD performed on samples where the analyte's concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory flag will be removed. Sample results associated with MS/MSD exceedances where the parent samples are not site-specific are not qualified.

Sample OPF-04-PZ was used in the MS/MSD analysis. All analytes associated with the MS/MSD analyses exhibited acceptable recoveries and RPDs between the MS and MSD results.

4.2 Laboratory Duplicate Sample Analysis

The laboratory duplicate sample relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to five times the RL. A control limit of 20% for water matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to five times the RL, a control limit of one times the RL is applied to the difference between the results for water matrices.

All analytes associated with the laboratory duplicate sample analyses exhibited RPDs within the control limit.

5. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS analysis must exhibit recoveries between the control limits of 80% and 120%.

All analytes associated with the LCS analyses exhibited recoveries within the control limits.

6. Field Duplicate Sample Analysis

The field duplicate sample analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 35% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to five times the RL, a control limit of two times the RL is applied to the difference between the results for water matrices.

Field duplicate samples were not collected as part of this data set.

7. Serial Dilution (SD) Analysis

The serial dilution analysis is used to assess if a significant physical or chemical interference exists due to sample matrix. Analytes exhibiting concentrations greater than 50 times the MDL in the undiluted sample are evaluated to determine if matrix interference exists. These analytes are required to have less than a 10% difference (%D) between sample results from the undiluted (parent) sample and results associated with the same sample analyzed with a five-fold dilution.

Sample OPF-04-PZ was used in the serial dilution analysis. All analytes associated with the serial dilution analysis exhibited acceptable %Ds except as presented in the following table.

Sample	Analyte	Serial Dilution (%D)
OPF-04-PZ	Arsenic	11 %

The criteria used to evaluate the serial dilution are presented in the following table. In the case of a serial dilution deviation, the sample results are qualified as documented in the table below. The qualifications are applied to all sample results associated with the analytical batch.

Control Limit	Sample Result	Qualification
> UL	Non-detect	UJ
	Detect	J

8. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR METALS

METALS: SW-846 6010C	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Inductively Coupled Plasma - Mass Spectrometry (ICP-MS)					
Tier II Validation					
Holding Times		X		X	
Reporting Limits (units)		X		X	
Blanks					
A. Instrument Blanks		X	X		
B. Method Blanks		X	X		
C. Equipment and/or Field Blanks	X				X
Matrix Spike (MS) Accuracy (%R)		X		X	
Matrix Spike Duplicate (MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate (LCSD) %R	X				X
LCS/LCSD RPD	X				X
Laboratory Duplicate Sample RPD		X		X	
Field Duplicate Sample RPD	X				X
ICP Serial Dilution %D		X	X		
Total vs. Dissolved	X				X
Tier III Validation					
Initial Calibration Verification		X		X	
Continuing Calibration Verification		X		X	
RL Standard Recovery		X		X	
ICP Interference Check		X		X	
ICP-MS Internal Standards		X		X	
Transcription/calculations acceptable		X		X	
Raw Data		X		X	
Reporting limits adjusted to reflect sample dilutions		X		X	

Notes:
%R Percent recovery
RPD Relative percent difference

Validation Performed By: Dennis Dyke

Signature:

Date: December 12, 2019

CHAIN OF CUSTODY AND CORRECTED SAMPLE ANALYSIS DATA SHEETS

SGS North America Inc - Orlando
Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com

custody seal 010337

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Client / Reporting Information

Company Name: Arcadis
Address: on File
City: State: Zip:
Project Contact: Hoa Voscott Email: Hoa.Voscott@arcadis.com
Phone #: 510-928-0037
Sampler(s) Name(s) (Printed)
Sampler 1: Gary Clift Sampler 2:

Project Information

Project Name: SIAD
Street
City Hayward State CA
Project # C100SIAD.0001
Fax #
Client Purchase Order # C100SIAD.0001 06NA1

Analytical Information

SGS Orlando Sample #	Field ID / Point of Collection	Collection Date	Time	Sampled By:	Matrix	Total # of Bottles	Other	None	HCl	NaOH	HNO3	H2SO4	NaOH+ZNA	DI Water	MeOH	Dis. Lead, As, Antimony (*) 6020	Field Filtered
1	OPF-04-PZ	6-6	1710	GC	GW	1					X					X	X
2	OPF-05-PZ	6-6	1525	GC	GW	1					X					X	X
3	OPF-06-PZ	6-6	1635	GC	GW	1					X					X	X
4	OPF-07-PZ	6-6	1600	GC	GW	1					X					X	X
5	LBG-05-MW	6-6	1450	GC	GW	1					X					X	X

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid

LAB USE ONLY

Turnaround Time (Business days)

10 Day (Business) — Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- COMMERCIAL "A" (RESULTS ONLY)
- COMMERCIAL "B" (RESULTS PLUS QC)
- REDT1 (EPA LEVEL 3)
- FULLT1 (EPA LEVEL 4)
- EDD'S

10 ug/L For Arsenic, 15 ug/L For lead

Comments / Remarks

(*) reporting limits (15ug/L For Lead)
6 ug/L For Antimony Run unfiltered
GARY.CLIFT@Arcadis.com Results to:
Emily.Shen@Arcadis.com

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1 Gary Clift Arcadis	6-7-19 1600	2 FedEx 8122 1699 0882	3 FY		4 6/8/19 915
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6	7		8

Lab Use Only : Cooler Temperature (s) Celsius (corrected): 2.0 Temp Blank

http://www.sgs.com/en/terms-and-conditions

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Report of Analysis

Client Sample ID:	OPF-04-PZ		
Lab Sample ID:	FA64963-1F	**Date Sampled:**	06/06/19
Matrix:	AQ - Groundwater Filtered	**Date Received:**	06/08/19
		Percent Solids:	n/a
Project:	Sierra Army Depot, Herlong, CA		

Dissolved Metals Analysis

Analyte	Result		RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony [a]	< 10		10	ug/l	10	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]
Arsenic [a]	3010	J	10	ug/l	10	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]
Lead [a]	< 10		10	ug/l	10	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15957
(2) Prep QC Batch: MP35666

(a) Sample dilution required due to difficult matrix.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	OPF-05-PZ		
Lab Sample ID:	FA64963-2F	**Date Sampled:**	06/06/19
Matrix:	AQ - Groundwater Filtered	**Date Received:**	06/08/19
		Percent Solids:	n/a
Project:	Sierra Army Depot, Herlong, CA		

Dissolved Metals Analysis

Analyte	Result		RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony [a]	< 10		10	ug/l	10	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]
Arsenic [a]	1620	J	10	ug/l	10	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]
Lead [a]	< 10		10	ug/l	10	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15957
(2) Prep QC Batch: MP35666

(a) Sample dilution required due to difficult matrix.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	OPF-06-PZ		
Lab Sample ID:	FA64963-3F	**Date Sampled:**	06/06/19
Matrix:	AQ - Groundwater Filtered	**Date Received:**	06/08/19
		Percent Solids:	n/a
Project:	Sierra Army Depot, Herlong, CA		

Dissolved Metals Analysis

Analyte	Result		RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony [a]	< 10		10	ug/l	10	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]
Arsenic [a]	1720	J	10	ug/l	10	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]
Lead [a]	< 10		10	ug/l	10	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15957
(2) Prep QC Batch: MP35666

(a) Sample dilution required due to difficult matrix.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	OPF-07-PZ		
Lab Sample ID:	FA64963-4F	**Date Sampled:**	06/06/19
Matrix:	AQ - Groundwater Filtered	**Date Received:**	06/08/19
		Percent Solids:	n/a
Project:	Sierra Army Depot, Herlong, CA		

Dissolved Metals Analysis

Analyte	Result		RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony [a]	< 10		10	ug/l	10	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]
Arsenic [a]	3620	J	10	ug/l	10	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]
Lead [a]	< 10		10	ug/l	10	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15957
(2) Prep QC Batch: MP35666

(a) Sample dilution required due to difficult matrix.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	LBG-05-MW		
Lab Sample ID:	FA64963-5F	**Date Sampled:**	06/06/19
Matrix:	AQ - Groundwater Filtered	**Date Received:**	06/08/19
		Percent Solids:	n/a
Project:	Sierra Army Depot, Herlong, CA		

Dissolved Metals Analysis

Analyte	Result		RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony [a]	< 10		10	ug/l	10	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]
Arsenic [a]	1350	J	10	ug/l	10	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]
Lead [a]	< 10		10	ug/l	10	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15957
(2) Prep QC Batch: MP35666

(a) Sample dilution required due to difficult matrix.

RL = Reporting Limit

FA64964

SGS North America Inc - Orlando
Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com

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Custody Seal 010337

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: Arcadis OA File
Address:
City: State: Zip:
Project Contact: Hoa Voscott Email: Hoa.Voscott@Arcadis.com
Phone #: 510-928-0037
Sampler(s) Name(s) (Printed)
Sampler 1: Gary Clift Sampler 2:

Project Information

Project Name: SIAD
Street
City Hemong State CA
Project # C1005IAD.0001
Fax #
Client Purchase Order # C1005IAD.0001.06NA1

Analytical Information

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNA	DI WATER	MEOH	DIS Lead, DS, TOTAL Chromium 6020	Field Filtered	LAB USE ONLY
1	UBG-03-MWA	6-6	1150	GC	GW	1					X					X	X	
2	UBG-08R-MWA	6-6	1405	GC	GW	1					X					X	X	
3	UBG-09-MWA	6-6	1320	GC	GW	1					X					X	X	
4	UBG-16-MWA	6-6	1235	GC	GW	1					X					X	X	

Turnaround Time (Business days)

10 Day (Business)
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Approved By: / Date:
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [x] EDD'S

Comments / Remarks

Emily.shen@Arcadis.com (Results)
Gary.Clift@Arcadis.com
Temp Blank

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1 Arcadis	6.7.19 1600	2 Fed Ex 81221699 0882	3		4 6/8/19 915
Relinquished by/Affiliation 5	Date Time:	Received By/Affiliation 6	Relinquished By/Affiliation 7	Date Time:	Received By/Affiliation 8

Lab Use Only : Cooler Temperature (s) Celsius (corrected): 2.6

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Report of Analysis

Client Sample ID:	UBG-03-MWA		
Lab Sample ID:	FA64964-1F	**Date Sampled:**	06/06/19
Matrix:	AQ - Groundwater Filtered	**Date Received:**	06/08/19
		Percent Solids:	n/a
Project:	Sierra Army Depot, Herlong, CA		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	2.2 J	2.0	ug/l	2	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]
Chromium	< 2.0	2.0	ug/l	2	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]
Lead	< 2.0	2.0	ug/l	2	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15957
(2) Prep QC Batch: MP35666

RL = Reporting Limit

Report of Analysis

Client Sample ID:	UBG-08R-MWA		
Lab Sample ID:	FA64964-2F	**Date Sampled:**	06/06/19
Matrix:	AQ - Groundwater Filtered	**Date Received:**	06/08/19
		Percent Solids:	n/a
Project:	Sierra Army Depot, Herlong, CA		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	5.5 J	2.0	ug/l	2	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]
Chromium	4.9	2.0	ug/l	2	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]
Lead	< 2.0	2.0	ug/l	2	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15957
(2) Prep QC Batch: MP35666

RL = Reporting Limit

Report of Analysis

Client Sample ID:	UBG-09-MWA		
Lab Sample ID:	FA64964-3F	**Date Sampled:**	06/06/19
Matrix:	AQ - Groundwater Filtered	**Date Received:**	06/08/19
		Percent Solids:	n/a
Project:	Sierra Army Depot, Herlong, CA		

Dissolved Metals Analysis

Analyte	Result		RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	< 2.0	UJ	2.0	ug/l	2	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]
Chromium	< 2.0		2.0	ug/l	2	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]
Lead	< 2.0		2.0	ug/l	2	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15957
(2) Prep QC Batch: MP35666

RL = Reporting Limit

Report of Analysis

Client Sample ID:	UBG-10-MWA		
Lab Sample ID:	FA64964-4F	**Date Sampled:**	06/06/19
Matrix:	AQ - Groundwater Filtered	**Date Received:**	06/08/19
		Percent Solids:	n/a
Project:	Sierra Army Depot, Herlong, CA		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	< 2.0 UJ	2.0	ug/l	2	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]
Chromium	< 2.0	2.0	ug/l	2	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]
Lead	< 2.0	2.0	ug/l	2	06/15/19	06/19/19	DM	SW846 6020A [1]	SW846 3010A [2]

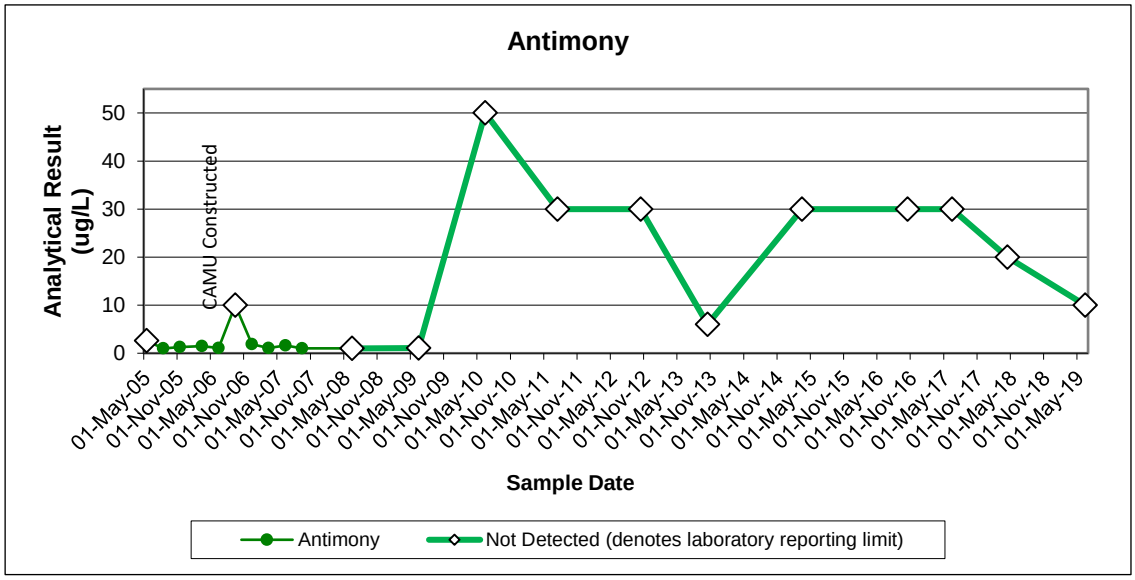
(1) Instrument QC Batch: MA15957
(2) Prep QC Batch: MP35666

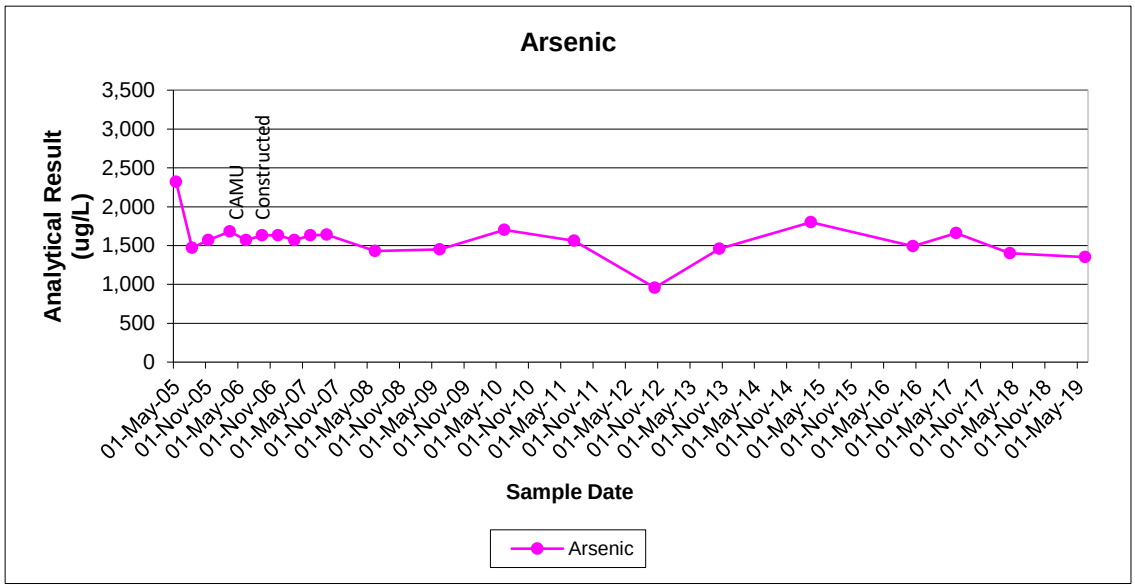
RL = Reporting Limit

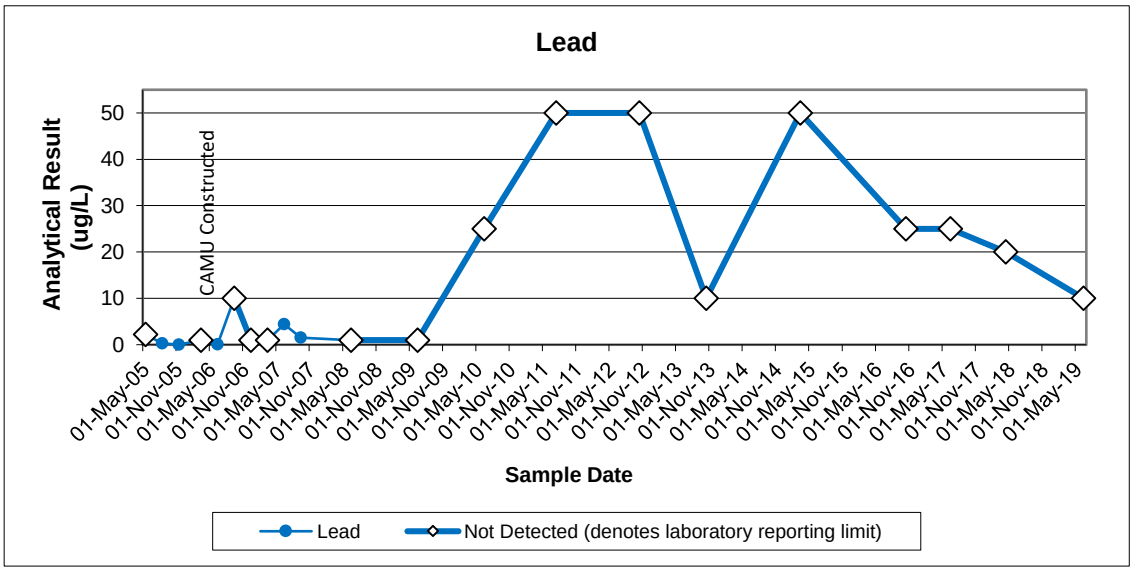
APPENDIX E

Charts of Metal Concentration Trends in Groundwater

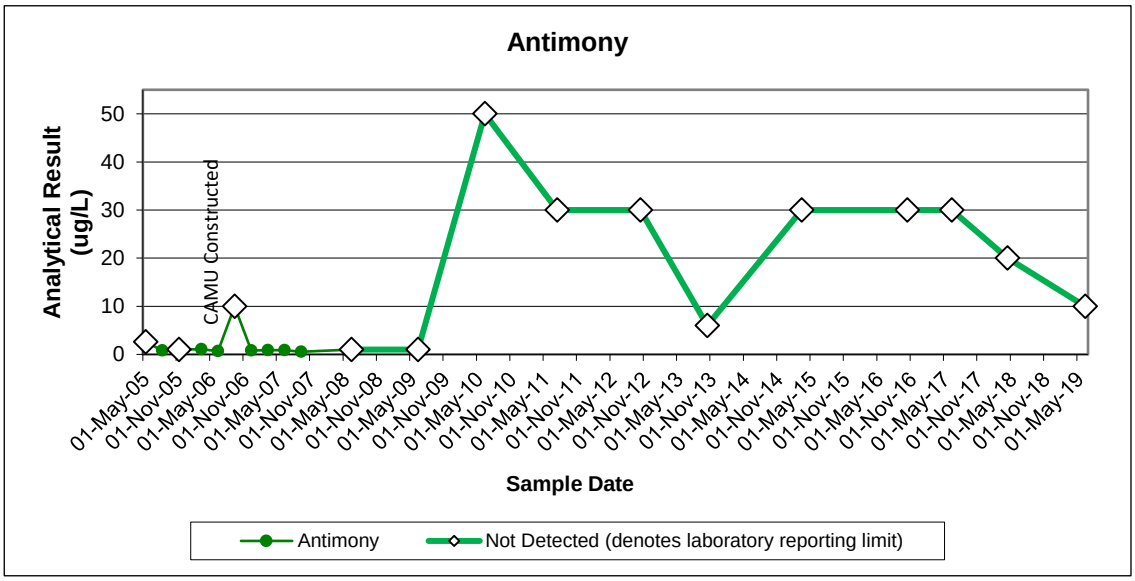
Appendix E
LBG-5-MW Metal Concentration Trends in Groundwater

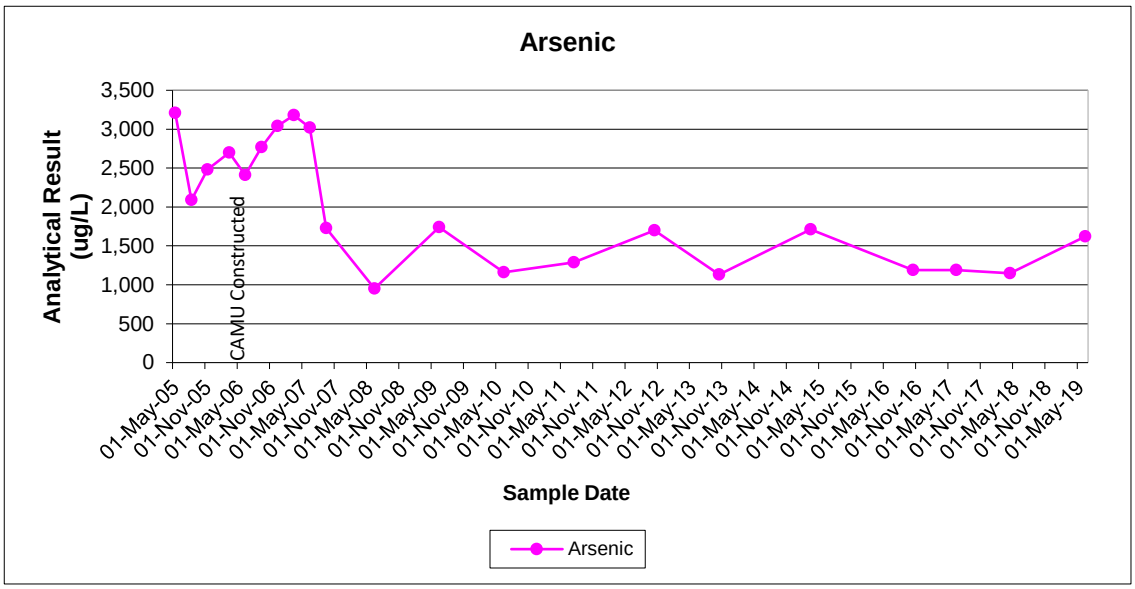


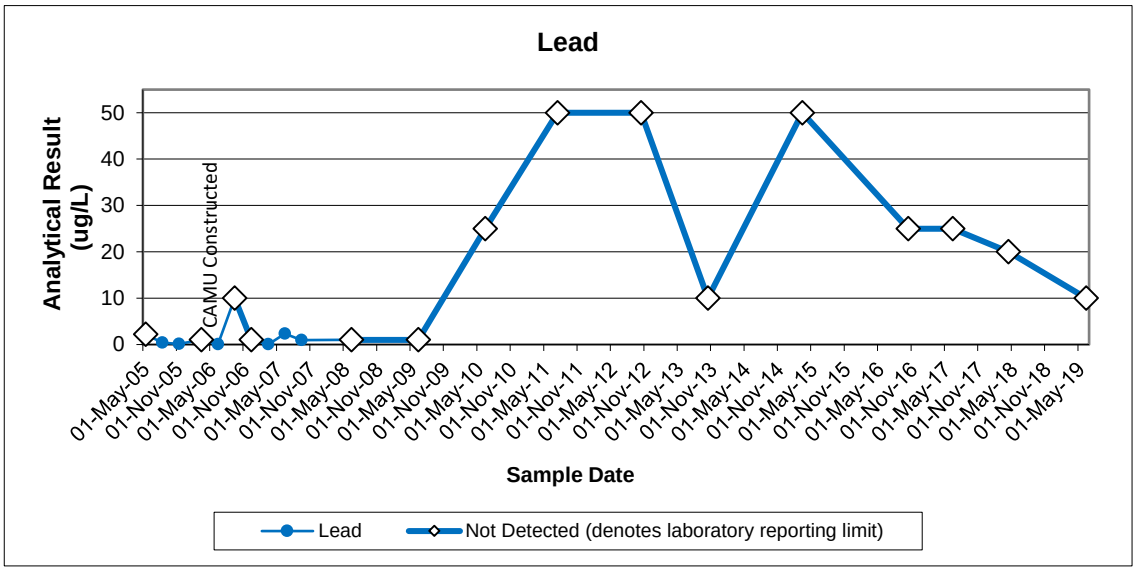




Appendix E
OPF-PZ-05 Metal Concentration Trends in Groundwater







Appendix E
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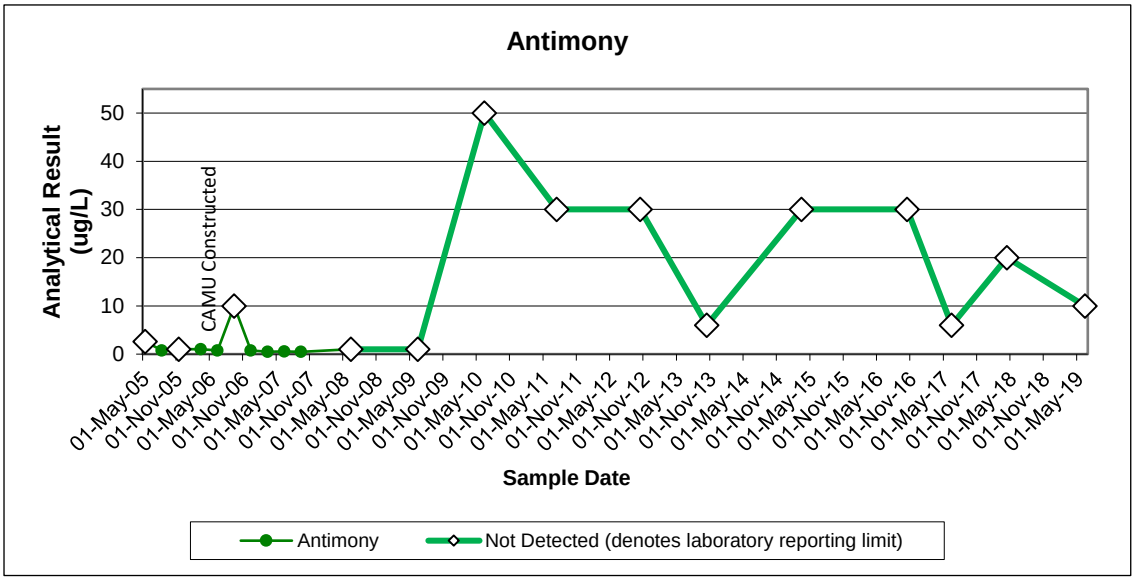
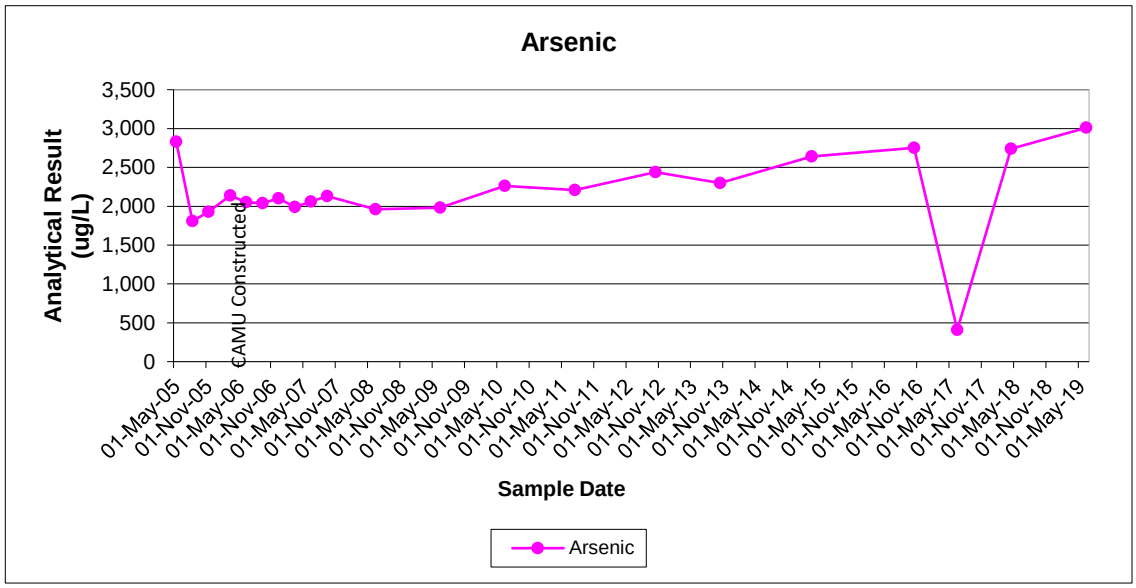
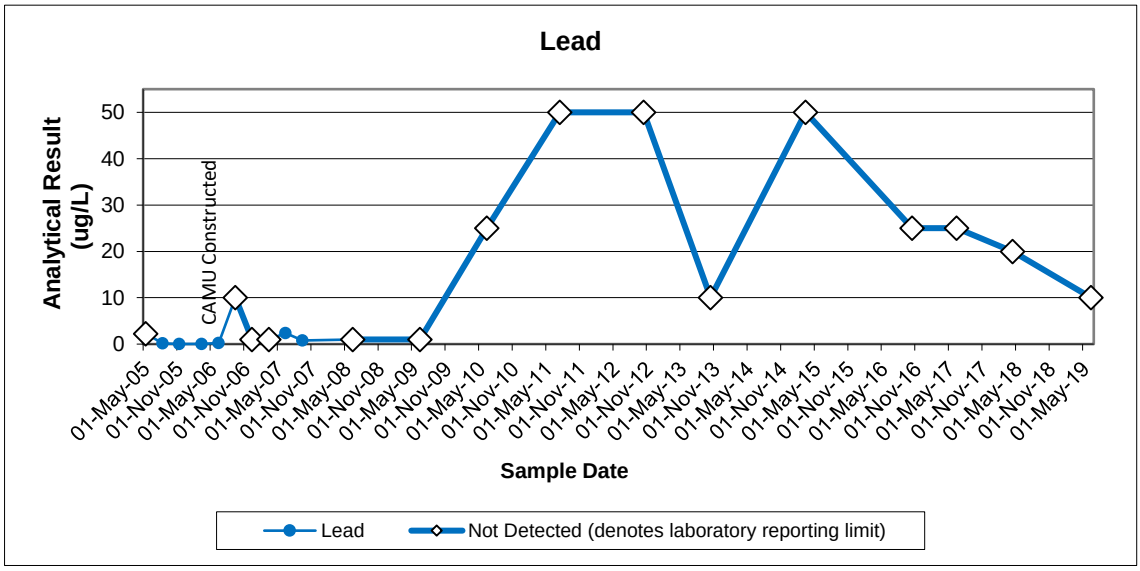
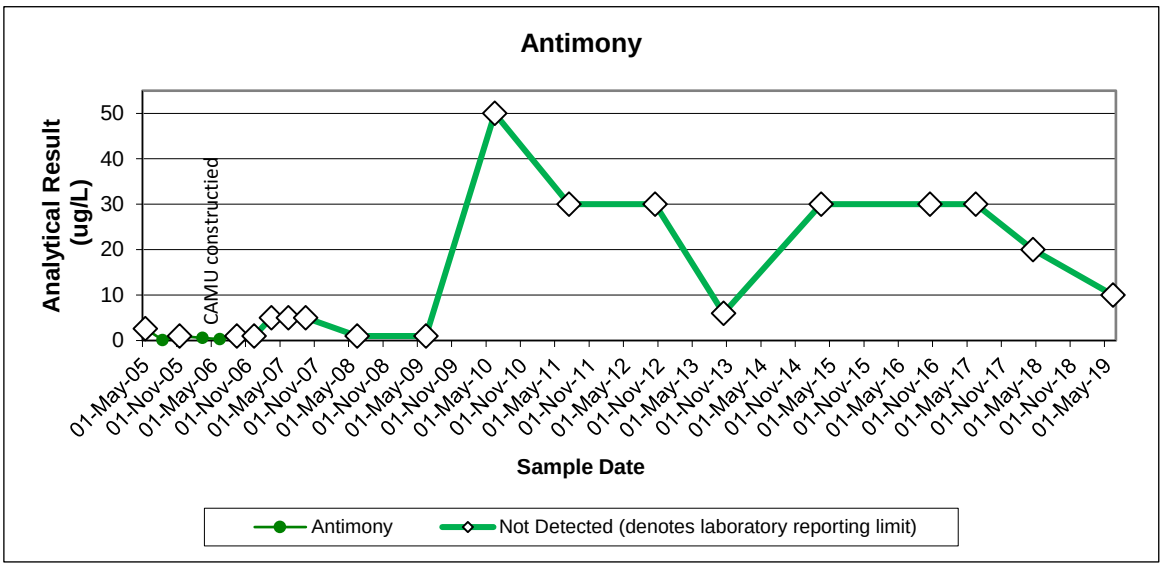
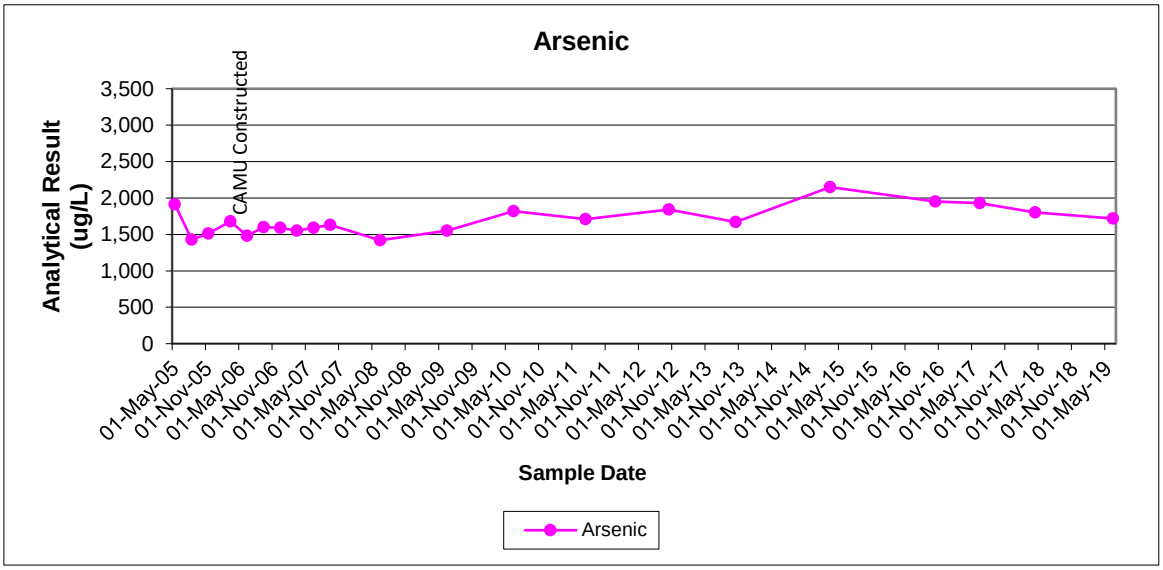


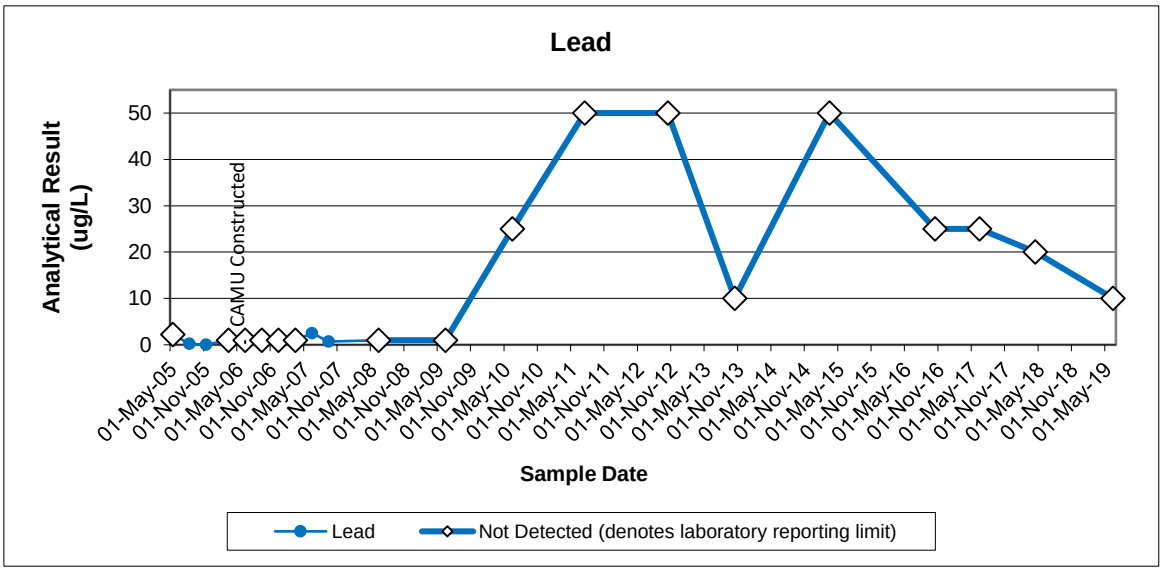




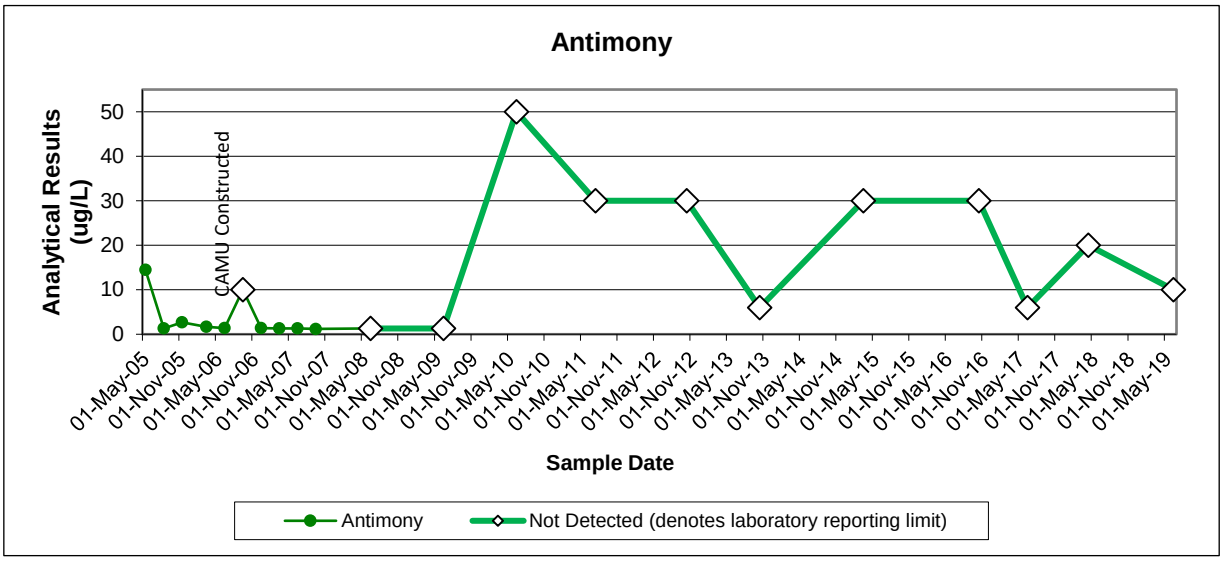
Appendix E
OPF-PZ-06 Metal Concentration Trends in Groundwater

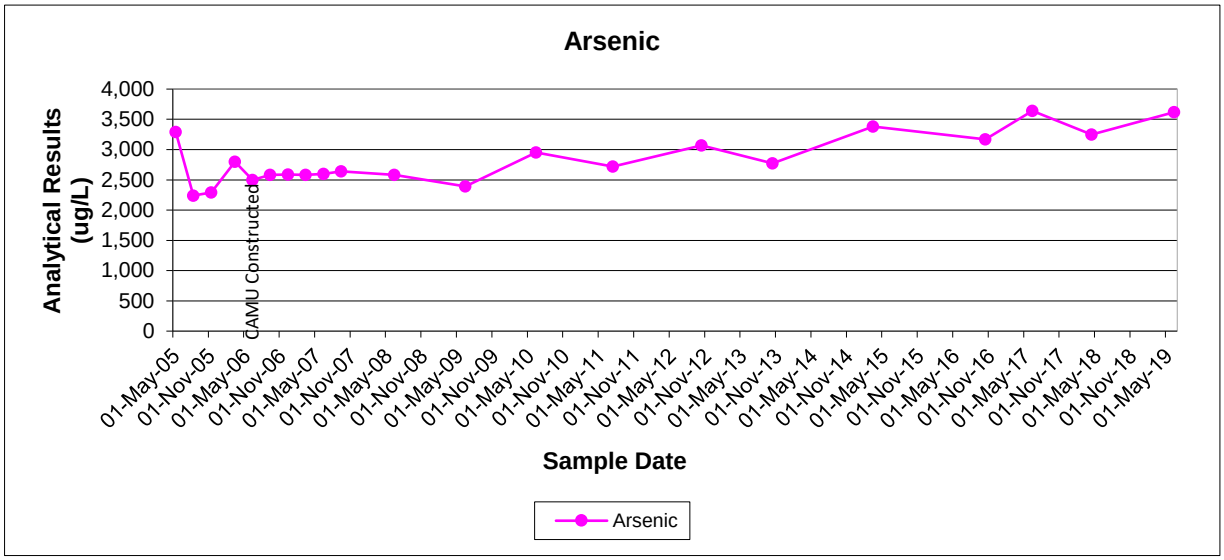


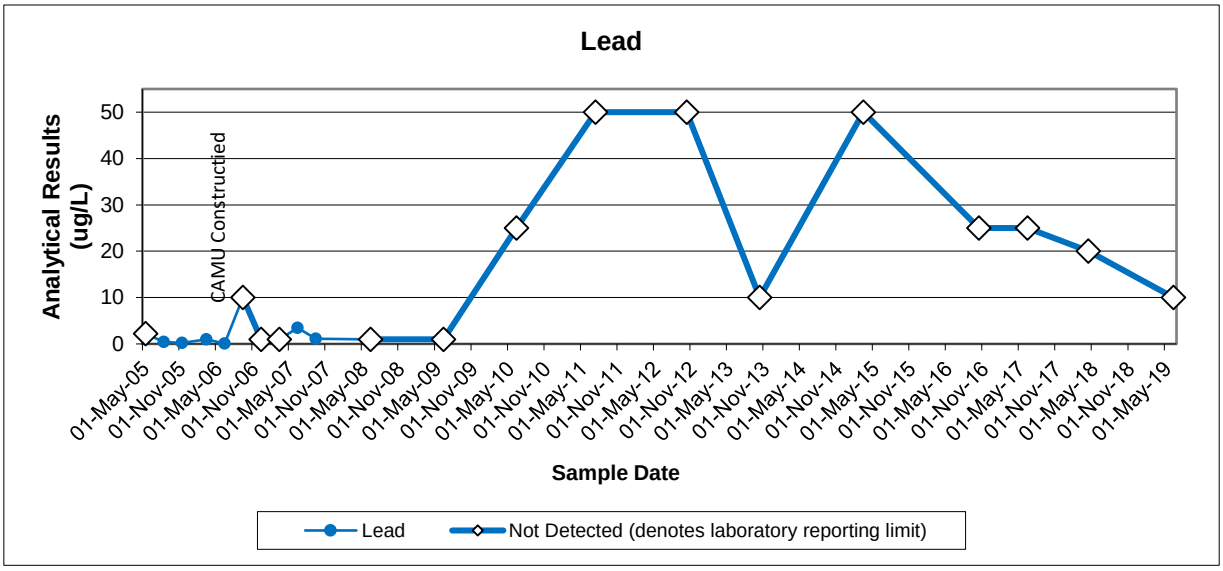




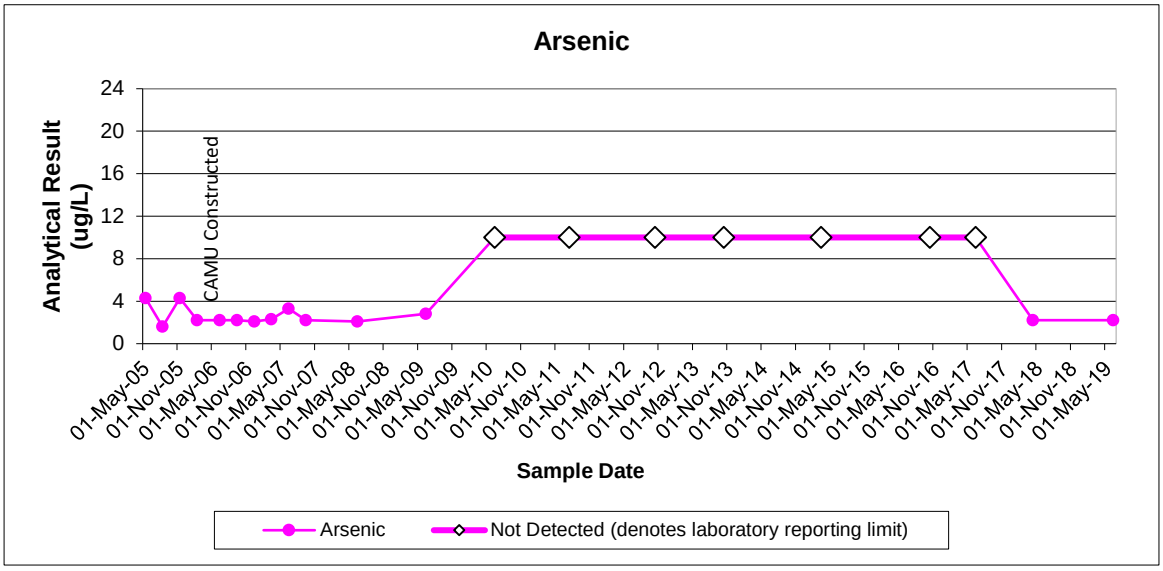
Appendix E
OPF-PZ-07 Metal Concentration Trends in Groundwater

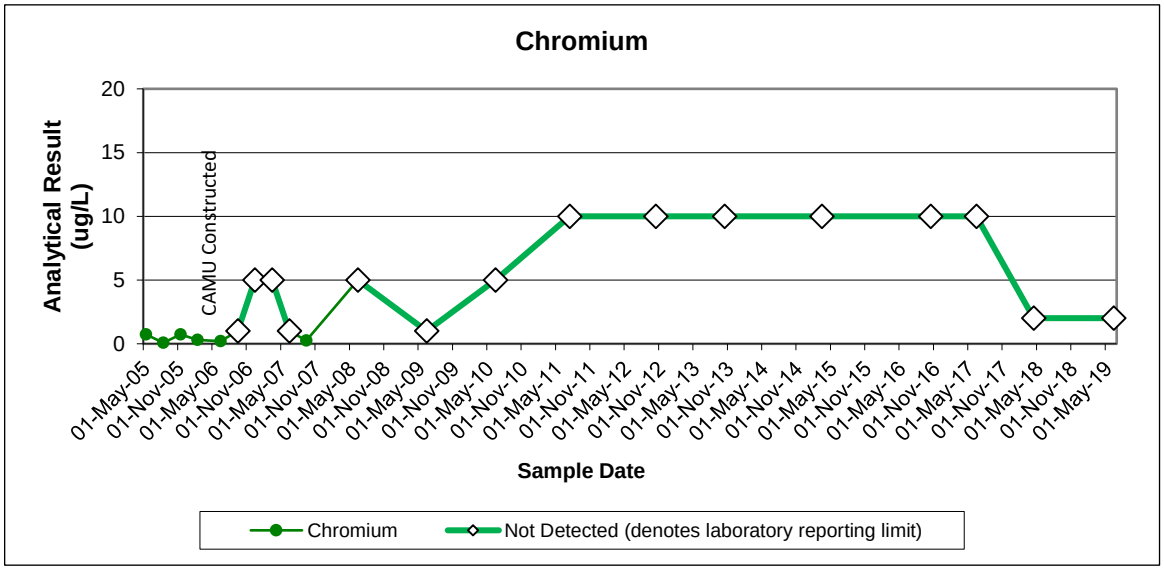


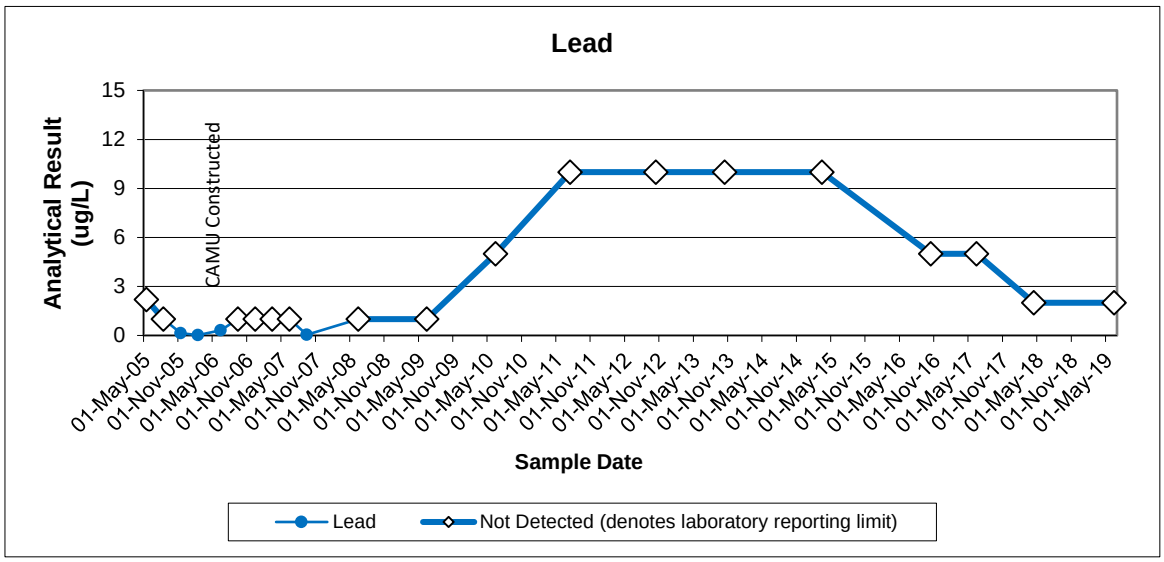




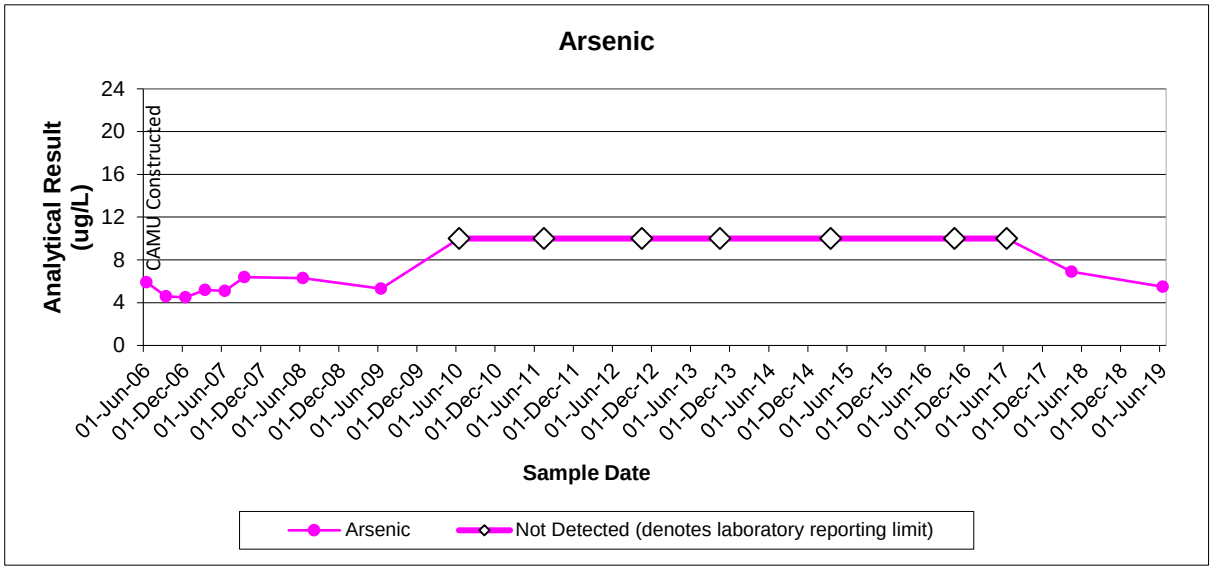
Appendix E
UBG-03-MWA Metal Concentration Trends in Groundwater

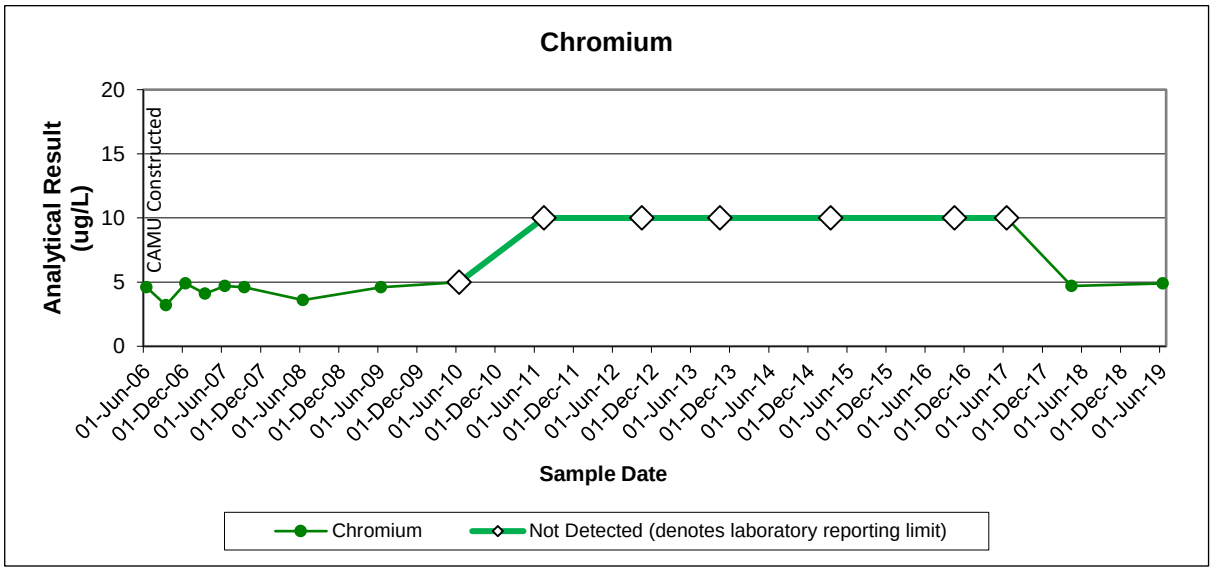


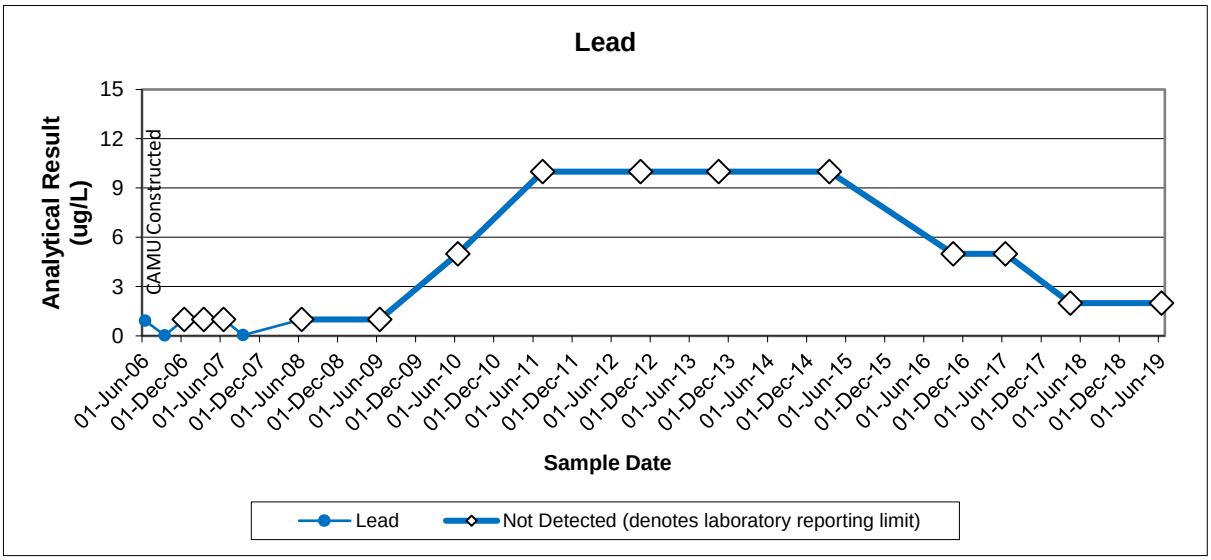




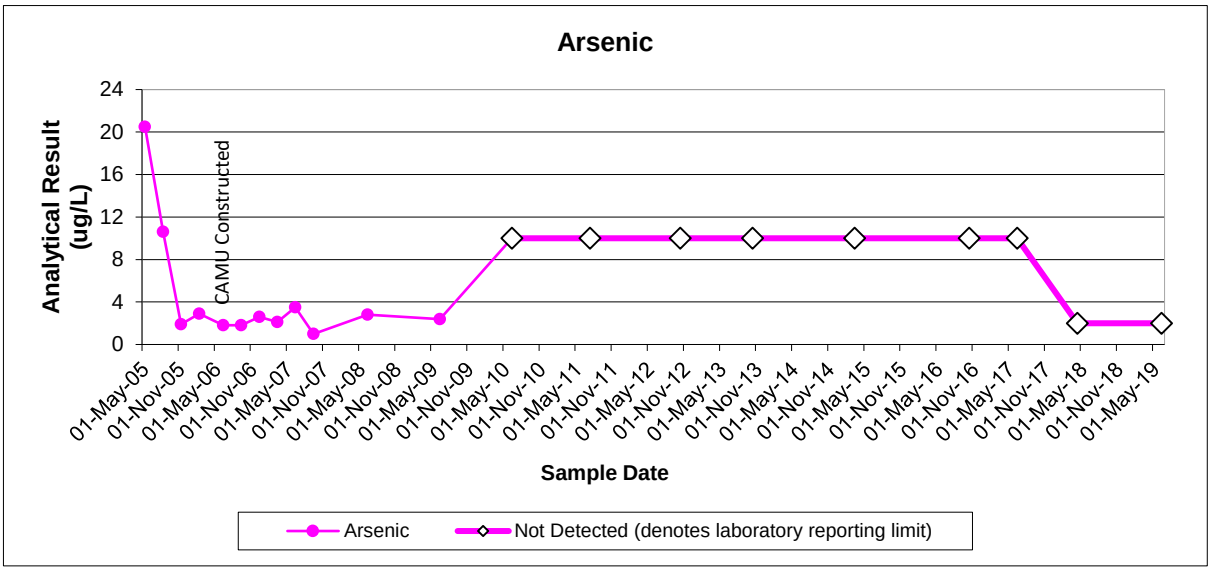
Appendix E
UBG-08R-MWA Metal Concentration Trends in Groundwater

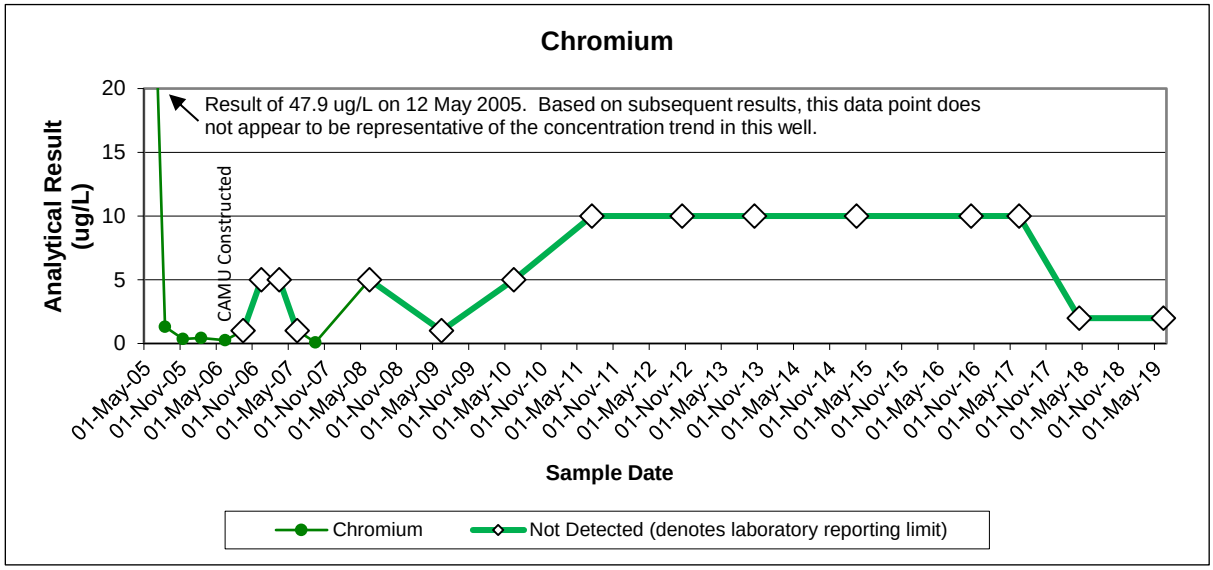


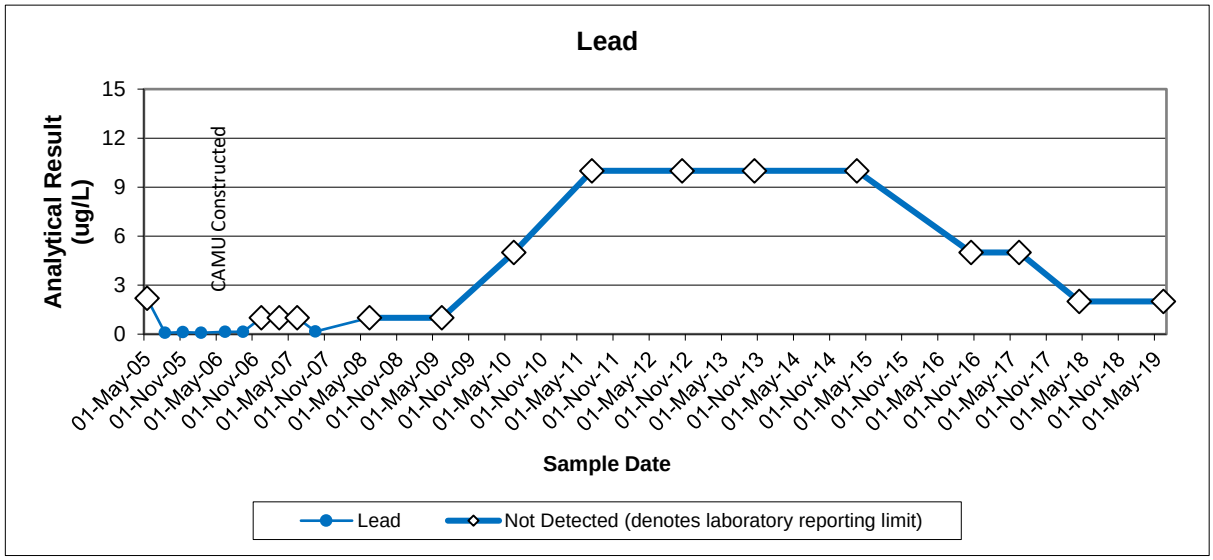




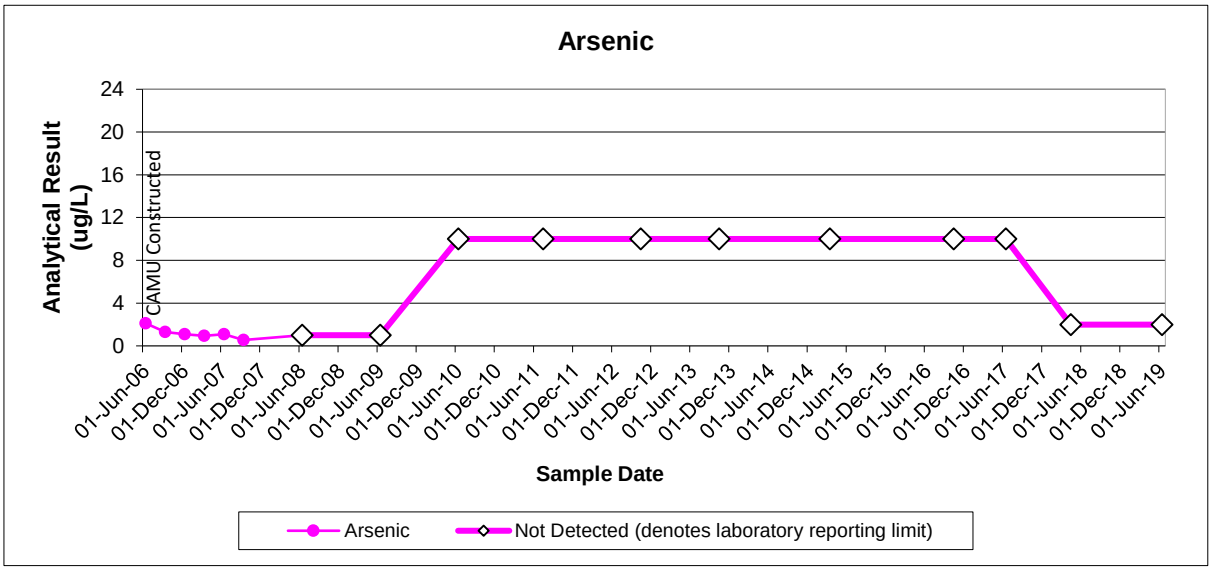
Appendix E
UBG-09-MWA Metal Concentration Trends in Groundwater

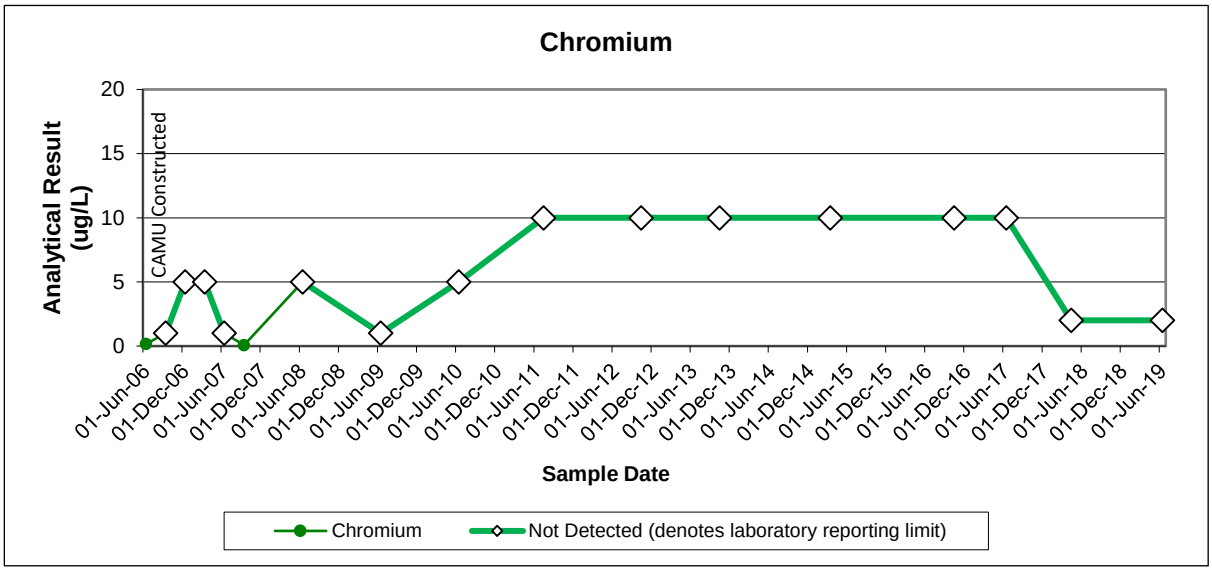


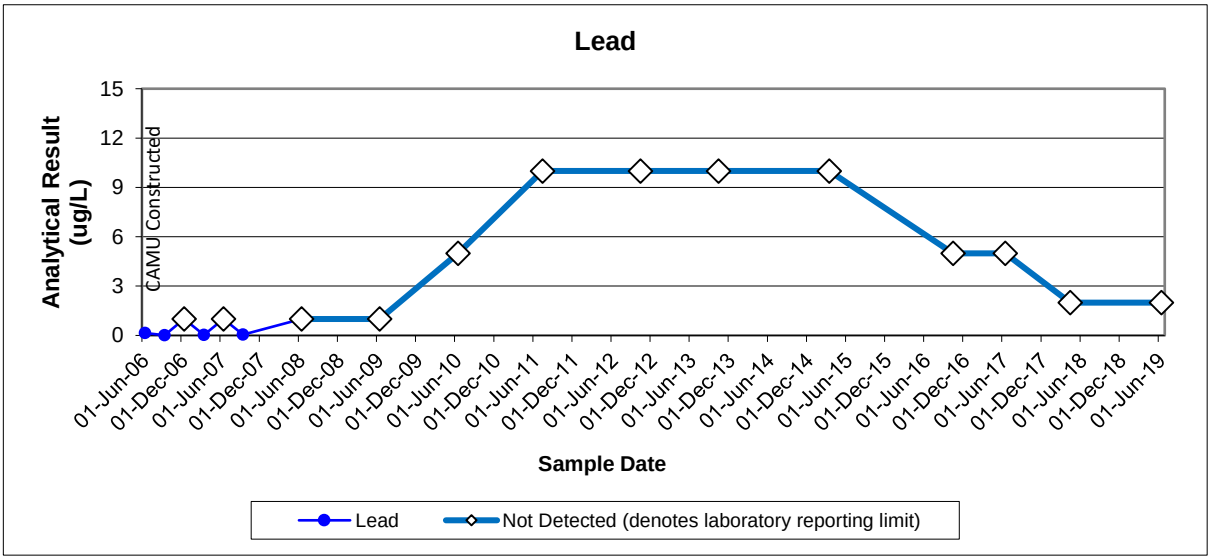




Appendix E
UBG-10-MWA Metal Concentration Trends in Groundwater







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CALIFORNIA - EPA Map of Radon Zones

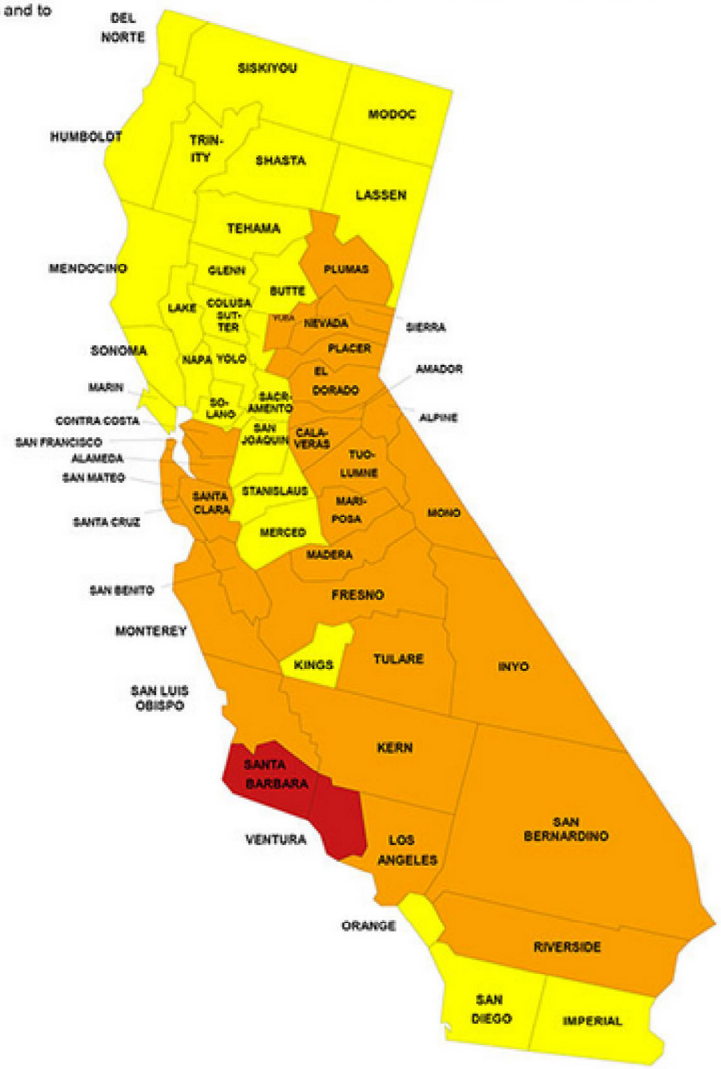
http://www.epa.gov/radon/zonemap.html

The purpose of this map is to assist National, State and local organizations to target their resources and to implement radon-resistant building codes.

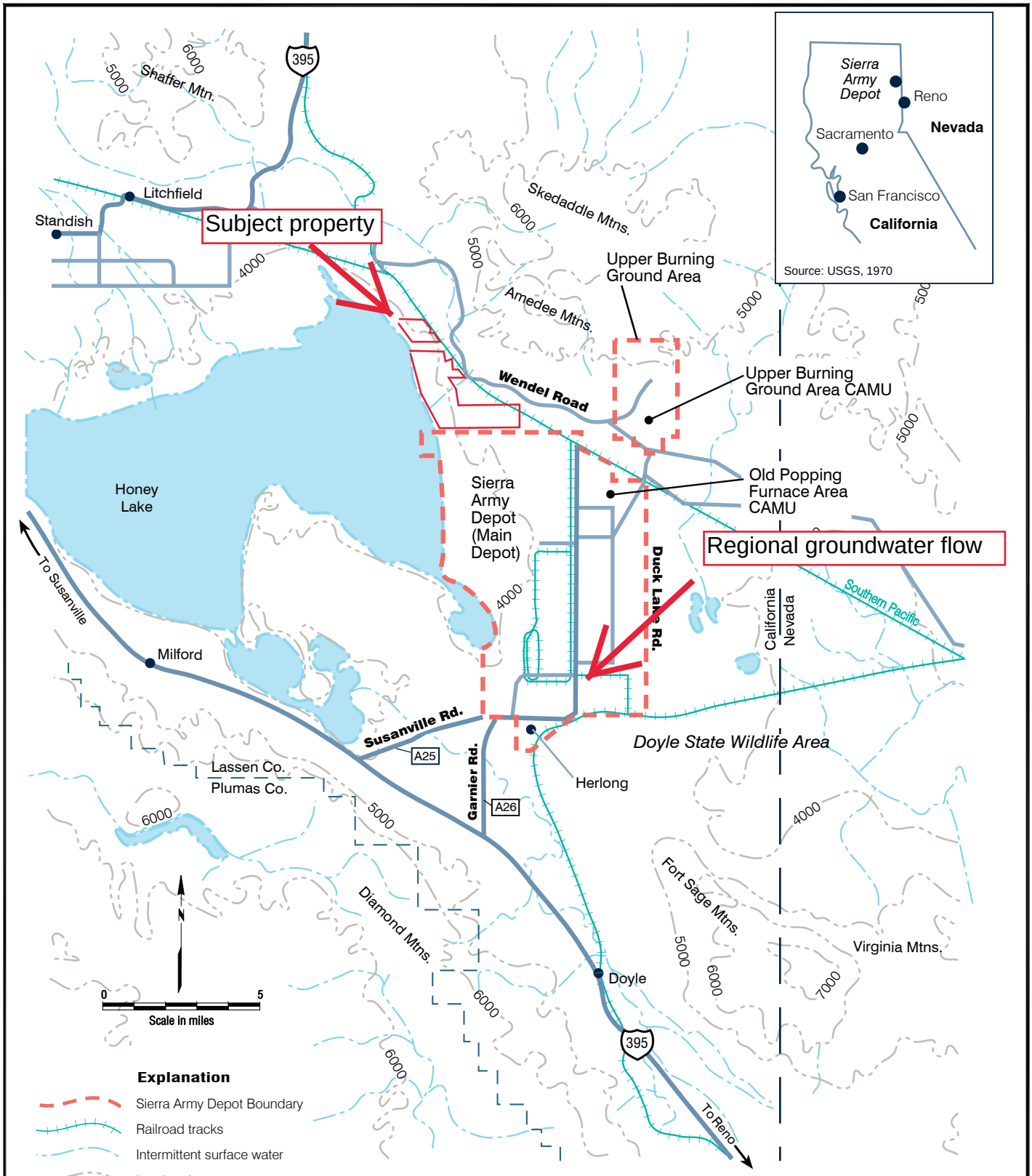
This map is not intended to determine if a home in a given zone should be tested for radon. Homes with elevated levels of radon have been found in all three zones.

All homes should be tested, regardless of zone designation.

IMPORTANT: Consult the publication entitled "Preliminary Geologic Radon Potential Assessment of California" (USGS Open-file Report 93-292-I) before using this map. See http://energy.cr.usgs.gov/radon/grpinfo.html This document contains information on radon potential variations within counties. EPA also recommends that this map be supplemented with any available local data in order to further understand and predict the radon potential of a specific area.



Zone 1 Zone 2 Zone 3



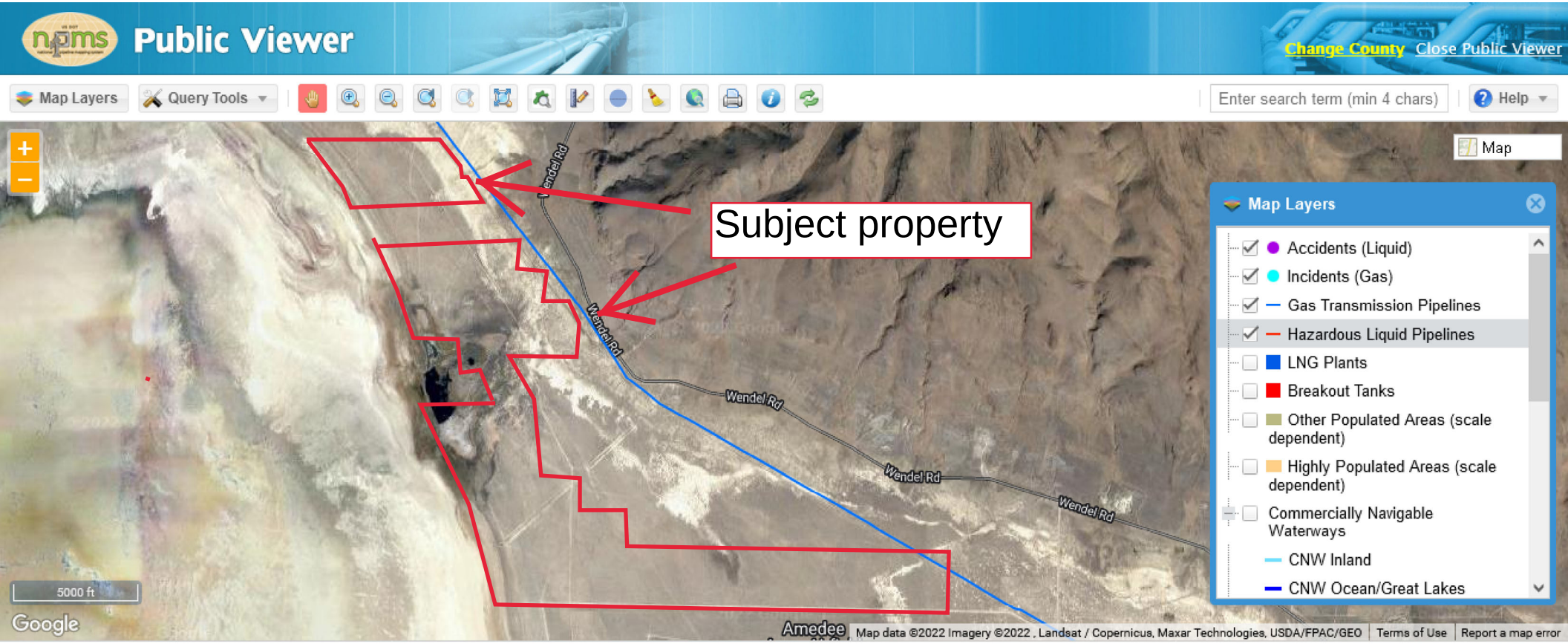
SIERRA ARMY DEPOT
HERLONG, CALIFORNIA
2019 ANNUAL GROUNDWATER MONITORING REPORT

SITE LOCATION MAP
CORRECTIVE ACTION MANAGEMENT UNITS

ARCADIS Design & Consultancy for natural and built assets

FIGURE
1.1

G:\ENVCAD\Emeryville\ACT\EM00SIAD0000306NB3\DWG\EM00SIAD0003 V01.ai



Ready | Zoom Level: 13 of 19 (1:54,168) | (lat,long): 40.324141, -120.119960 | Map Showing Pipelines in: Lassen, CA

APPENDIX G

QUALIFICATIONS

PETER J CONNELLY JR

ASSOCIATE CONSULTANT

EDUCATION

Bachelor of Science Environmental Toxicology, University of California, Davis

CERTIFICATIONS

- Lead Awareness Training
- Asbestos Hazards Training
- OSHA 30-Hour Safety Training
- Hazwoper 8-Hour Supervisor
- Hazwoper 40-Hour
- California Confined Spaces in Construction
- Environmental Compliance Assessment, Training, and Tracking System (ECATS)

SUMMARY OF PROFESSIONAL EXPERIENCE

Mr. Connelly has professional experience in the environmental industry since 2002 and has prepared over 40 Phase I Environmental Site Assessments (ESAs). Additionally, he has experience in environmental permitting compliance, construction management/monitoring including pollution prevention, site health and safety, human health and environmental risk assessment as well as California Environmental Quality Act (CEQA)/National Environmental Policy Act (NEPA) documentation.

PROJECT EXPERIENCE

Project experience for Mr. Connelly includes:

- **Phase I, Amador County, California** – Mr. Connelly prepared the ESA for the Ione Bank of Miwok Indians which was a 212-acre Fee to Trust. The subject property consisted of mixed use residential, open grassland, and light commercial uses. The primary issues involved historical mining waste piles located in an upland area of the site.
- **Phase I, Placer County, California** – Mr. Connelly prepared the ESA for the United Auburn Indian Community of the Auburn Rancheria which was on a 2.3-acre parcel of undeveloped open grassland. The project was in relation to traffic mitigation resulting from impacts of development of a large gaming facility. The subject property was subsequently utilized for the development of a 1.2 mile two lane road and bridge to redirect traffic from a main corridor.
- **Phase I, Richmond, California** – Mr. Connelly prepared the ESA for a private investor for the purchase of vacant industrial land. The due diligence for a feasibility study regarding site development and to identify potential hazardous materials liability were performed. Issues involved past unpermitted hazardous materials involvement in regard to extracting silver from photochemical wastes. A small area of impacted soils was identified onsite and documented in the Phase I ESA.

Taylor Strickland
National Client Manager

EDUCATION

- B.S. – Marine Science/Biology Dual Major, Chemistry Minor, University of Miami

CERTIFICATIONS

- OSHA 40-hour Hazardous Waste Operations and OSHA Supervisor Certified

SUMMARY OF PROFESSIONAL EXPERIENCE

Mr. Strickland has worked in environmental consulting, due diligence, and remediation services since 2006. Mr. Strickland's current responsibilities include ensuring ASTM compliance and satisfaction of client requirements, project coordination, and oversight due diligence work in the Rocky Mountain Region. Work functions involve project development and planning, assisting clients, project oversight and technical writing. His experience includes due diligence investigations, soil and groundwater investigations, and remediation.

PROJECT EXPERIENCE

Project experience for Mr. Strickland includes:

- Working with petroleum related investigations including underground storage tank investigations, monitoring and remediation.
- Monitoring and operation of groundwater treatment systems.
- Oversight and installation of remediation systems, monitoring wells, and the associated sampling.
- Operation and Maintenance of multiple types of remediation systems.
- Due diligence work including database reviews, Phase I, and Phase II site investigations.
- Subsurface investigations involving various chemical releases with the soil and groundwater.

Mr. Strickland has been with AEI since 2012 and provides project management to ensure ASTM compliance and satisfaction of client requirements for Phase I Environmental Site Assessments, Environmental Transaction Analyses, Transaction Screens, and Database Reviews. Mr. Strickland's management and technical experience has allowed AEI's projects to be performed in a cost effective and timely manner to the satisfaction of AEI's clients and regulatory agencies.

APPENDIX H

COMMONLY USED ACRONYMS & ABBREVIATIONS

UNITS

µg/L	Micrograms per Liter	**pCi/L**	PicoCuries per Liter
mg/kg	Milligrams per Kilogram	**ppb**	Parts per Billion
mg/L	Milligrams per Liter	**ppm**	Parts per Million

ABBREVIATIONS AND ACRONYMS

ACM	Asbestos-Containing Material	**NESHAP**	National Emission Standards for Hazardous Air Pollutants
ADJ	Adjacent site	**NFA**	No Further Action
AEI	AEI Consultants	**NFRAP**	No Further Remedial Action Planned
AHERA	Asbestos Hazard Emergency Response Act	**NLR**	No Longer Reporting
APN	Assessor's Parcel Number	**NOV**	Notice of Violation
AST	Aboveground Storage Tank	**NPL**	National Priorities List
AUL	Activity and Use Limitation	**O&M**	Operations and Maintenance
bgs	Below Ground Surface	**OEC**	Other Environmental Considerations
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes	**OSHA**	Occupational Safety and Health Administration
CERCLA	Comprehensive Environmental Response Compensation and Liability Act	**PCB**	Polychlorinated Biphenyl
CERCLIS	Comprehensive Environmental Response Compensation and Liability Information System	**PCE, PERC**	Perchloroethylene, Tetrachloroethylene, Tetrachloroethene
CESQGs	Conditionally Exempt Small Quantity Generators	**RCRA**	Resource Conservation and Recovery Act
COC	Contaminant of Concern	**REC**	Recognized Environmental Condition
CREC	Controlled Recognized Environmental Condition	**RP**	Responsible Party
EC	Engineering Controls	**SDS**	Safety Data Sheet
EDR	Environmental Data Resources, Inc.	**SEMS**	Superfund Enterprise Management System
EPA	Environmental Protection Agency	**SF**	Square Footage/Square Feet
ERIS	Environmental Risk Information Services	**SP**	Subject Property
ERNS	Emergency Response Notification System	**SQG**	Small Quantity Generator
ESA	Environmental Site Assessment	**SWLF**	Solid Waste Landfill
GPR	Ground-Penetrating Radar	**SVOC**	Semi-Volatile Organic Compound
HREC	Historical Recognized Environmental Condition	**TCE**	Trichloroethylene, Trichloroethene
HVAC	Heating, Ventilation and Air Conditioning	**TPH**	Total Petroleum Hydrocarbons
HWS	Hazardous Waste Site	**TPHd**	Total Petroleum Hydrocarbons (diesel range)
IC	Institutional Controls	**TPHg**	Total Petroleum Hydrocarbons (gasoline range)
LBP	Lead-Based Paint	**TPHo**	Total Petroleum Hydrocarbons (oil range)
LCP	Lead-Containing Paint	**TRPH**	Total Recoverable Petroleum Hydrocarbons
LLP	Landowner Liability Protection	**TSDF**	Treatment, Storage, and Disposal Facility
LQG	Large Quantity Generator	**USDA**	United States Department of Agriculture
LUST	Leaking Underground Storage Tank	**USGS**	United States Geological Survey
MCL	Maximum Contaminant Level	**UST**	Underground Storage Tank
MTBE	Methyl Tertiary Butyl Ether	**VCP**	Voluntary Cleanup Program
ND	None Detected	**VOC**	Volatile Organic Compound