

**Eureka Smelter Site  
Removal Assessment Report  
Eureka, Eureka County, Nevada**

**March 2013**

**Prepared for:**

**U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 9**  
75 Hawthorne Street  
San Francisco, California 94105

**Prepared by:**

**ECOLOGY AND ENVIRONMENT, INC.**  
**Superfund Technical Assessment and Response Team**  
1940 Webster Street, Suite 100  
Oakland, California 94612

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## List of Abbreviations and Acronyms

|                |  |
|----------------|--|
| bgs            | below ground surface                             |
| BLM            | U.S. Bureau of Land Management                   |
| CSPs           | consolidated slag piles                          |
| DQOs           | Data Quality Objectives                          |
| E & E          | Ecology and Environment, Inc.                    |
| ERS            | Emergency Response Section                       |
| ESSL           | evaluated site-specific screening level          |
| FOSC           | Federal On-Scene Coordinator                     |
| FP             | Fundamental Parameter                            |
| GIS            | Geographical Information System                  |
| GPS            | Global Positioning System                        |
| INAA           | Instrumental Neutron Activation Analysis         |
| NDEP           | Nevada Division of Environmental Protection      |
| NERL           | National Exposure Research Laboratory            |
| NIST           | National Institute of Standards and Technology   |
| mg/kg          | milligrams per kilogram                          |
| PST            | Pacific Strike Team                              |
| QA             | Quality Assurance                                |
| QC             | Quality Control                                  |
| R <sup>2</sup> | Coefficient of Determination                     |
| SAP            | Sampling and Analysis Plan                       |
| SSL            | Soil Screening Level                             |
| SOP            | Standard Operating Procedure                     |
| SRM            | Standard Reference Material                      |
| START          | Superfund Technical Assessment and Response Team |
| TDD            | Technical Directive Document                     |
| U.S. EPA       | United States Environmental Protection Agency    |
| XRF            | X-Ray Fluorescence                               |

# 1 Introduction

The United States Environmental Protection Agency (U.S. EPA) Region 9 Emergency Response Section (ERS) tasked Ecology and Environment, Inc.'s (E & E's) Superfund Technical Assessment and Response Team (START) to support a U.S. EPA-funded removal assessment of potential lead and arsenic contamination in the Town of Eureka located in Eureka County, Nevada. The assessment activities were conducted under E & E's U.S. EPA Region 9 START Contract number EP-S5-08-01, under Technical Direction Document (TDD) number TO2-09-12-04-0002.

The U.S. EPA's concern regarding lead and arsenic contamination on public and private properties within the Town of Eureka, Nevada, stems from the fact that the town was a historical center for lead smelting activities, and several large consolidated slag piles (CSPs) are located within the town limits. According to historical documents, many of the public and private properties within Eureka are located on or in close proximity to former smelter and mill sites.

While there have been no previous formal environmental investigations within the Town of Eureka prior to this U.S. EPA-funded removal assessment, in the spring of 2012, the Nevada Division of Environmental Protection (NDEP) and U.S. EPA personnel conducted an informal screening survey during which 38 shallow surface soil samples were collected from publically accessible locations. Results from this survey provided evidence that arsenic and lead concentrations in surface soils exceeded the U.S. EPA's Region 9 Regional Screening Levels (RSLs) for both the residential and industrial scenarios. In order to identify whether or not potential human health or environmental impacts are present in the Town of Eureka from elevated concentrations of arsenic and lead in soils, the U.S. EPA Region 9 ERS, in coordination with the NDEP, determined that additional environmental data collection was required.

Data collected during this removal assessment will be used by the U.S. EPA Region 9 ERS to determine whether environmental hazards are present in Eureka that may pose an "imminent and substantial endangerment to human health or the environment". As appropriate, the U.S. EPA will use this assessment data to evaluate the potential for a removal action at the site and identify alternatives to mitigate environmental hazards that meet endangerment criteria.

This removal assessment was performed in accordance with the site-specific Sampling and Analysis Plan (SAP) and Data Quality Objectives (DQOs) developed by the U.S. EPA and START as part of the project planning phase. The SAP, titled *Sampling and Analysis Plan, Eureka Smelter Sites Assessment Eureka, Eureka County, Nevada*, E & E, September 2012, is available under a separate cover.

The specific actions performed during this removal assessment included:

- Collection of composite surface and shallow subsurface (2 to 12 inches) soil samples from residential and public properties;
- Collection of discrete point surface soil samples from developed residential and public properties;

- Collection of discrete point surface soil samples from unpaved roadways and undeveloped residential properties;
- Collection of discrete point surface soil samples from locations within a 1-mile radius around the Town of Eureka;
- Collection of discrete point surface sediment samples from Eureka's creek;
- Collection of discrete point surface water samples from Eureka's creek;
- Collection of discrete point surface and shallow subsurface soil samples from background locations;
- Field X-ray fluorescence (XRF) analysis by U.S. EPA Method 6200 of all collected soil samples to determine the arsenic and lead concentrations;
- Identification of soil sample locations where field XRF concentrations exceed the site-specific Soil Screening Levels (SSLs) of 60 milligrams per kilogram (mg/kg) for arsenic, and 400 mg/kg for lead;
- Submittal of 20 percent of all soil samples to the U.S. EPA Region 9 Laboratory for arsenic and lead determinations by U.S. EPA Method 6010B;
- Submittal of 44 soil samples to the U.S. EPA Region 9 Laboratory for determination of antimony, barium, beryllium, cadmium, chromium, cobalt, copper, molybdenum, nickel, selenium, silver, thallium, vanadium and zinc by U.S. EPA Method 6010B;
- Submittal of 40 soil samples to the U.S. EPA Region 9 Laboratory for bio-accessibility extraction procedure U.S. EPA 9200.2-86 and arsenic and lead concentration determination by U.S. EPA Method 6010B;
- Submittal of six surface soil samples to the U.S. EPA National Exposure Research laboratory for bioavailability study and mineralogy studies;
- Linear regression analysis between data sets generated by the field XRF sample analysis (U.S. EPA method 6200), and data produced by U.S. EPA Region 9 Laboratory sample analysis (U.S. EPA Method 6010B) to confirm the accuracy and precision of arsenic and lead soil concentrations detected in the field; and
- Documentation of all sampling locations and their associated arsenic and lead concentrations at limits above and below the site-specific SSLs.

## 2 Site Background

### 2.1 Site Location

The Town of Eureka (Eureka) is an unincorporated community located in Eureka County, Nevada. The town occupies approximately 480 acres of land in the southern part of Eureka County, within Diamond Valley, at an elevation of approximately 6,900 feet above sea level. The geographical coordinates for the approximate center of Eureka are 39° 30' 45" Latitude North and 115° 57' 39" Longitude West. A regional site location map is provided as Figure 1.

The major focus of this assessment was soil sampling at commercial, residential and public properties located in Eureka, Nevada. A secondary focus was on areas outside of town, including background soil locations and downwind surface soil locations. Soil and water samples were also collected from an intermittent stream that flows through town.

The locations of the areas investigated as part of this study are shown in Figures 2-A, 2-B and 2-C.

### 2.2 Site Description

Eureka is situated in a historical mining district with at least seven known former ore milling and smelter operations located throughout the town. Most of the town's residential, commercial and public properties are situated in a valley and low-lying hills on either side of U.S. Highway 50. Eureka is bisected by U.S. Highway 50 and a narrow intermittent creek, which are oriented north-south through the town. The school district properties in Eureka are primarily situated in the hills to the west of U.S. Highway 50. The residential properties in Eureka are situated in the hills west of the highway and along the valley floor east of the highway. The historical wind direction through the town, as documented by the Western Regional Climate Center based on Eureka Airport data, is predominately from the south to the north (Figure 3). The area directly to the north is hilly terrain that opens into a broad alluvial plain. The creek flows from the south through the town and on into the alluvial plain. There is a large open-pit mining operation located approximately 1 mile north-northwest of the town.

There are two significantly sized CSPs located on both the north and south ends of town, and several smaller CSPs have been identified at other locations around Eureka (refer to Figure 2-A and 2-C for locations). Based on a review of Eureka County Tax Assessor parcel information and historical land maps, there are more than 400 residential, public, and commercial parcels in Eureka that are either on, adjacent to, or in close proximity to the sites of the former ore smelters and milling operations.

Included among the identified parcels are Eureka School District parcels (refer to Figure 2-B and 2-C for locations), which include the following facilities:

- The Eureka High School is situated on a parcel that encompasses a total of approximately 45 acres, of which approximately 10 acres appear utilized by the high school and are covered with structures or paved surfaces; the remaining 35 acres consist of undeveloped land.

## 2. Site Background

- The Eureka School District Athletic Complex encompasses a total of approximately 12.4 acres, of which approximately 5 acres are covered by structures and recently constructed synthetic surface sports fields. The remaining 7.4 areas consist of unpaved parking areas and undeveloped land.
- The Eureka Elementary School property consists of three parcels that encompass approximately 6.8 acres, of which 3.5 acres are school structures, concrete surfaces, asphalt paving or other landscape areas. The remaining 3.3 acres are a large fenced playground and play fields.
- The Former Eureka School property encompasses a total of 2.9 acres on a parcel located east of the Eureka High School facility, and consists of a vacant school building, gymnasium facility, play field, small playground, and two residential structures.

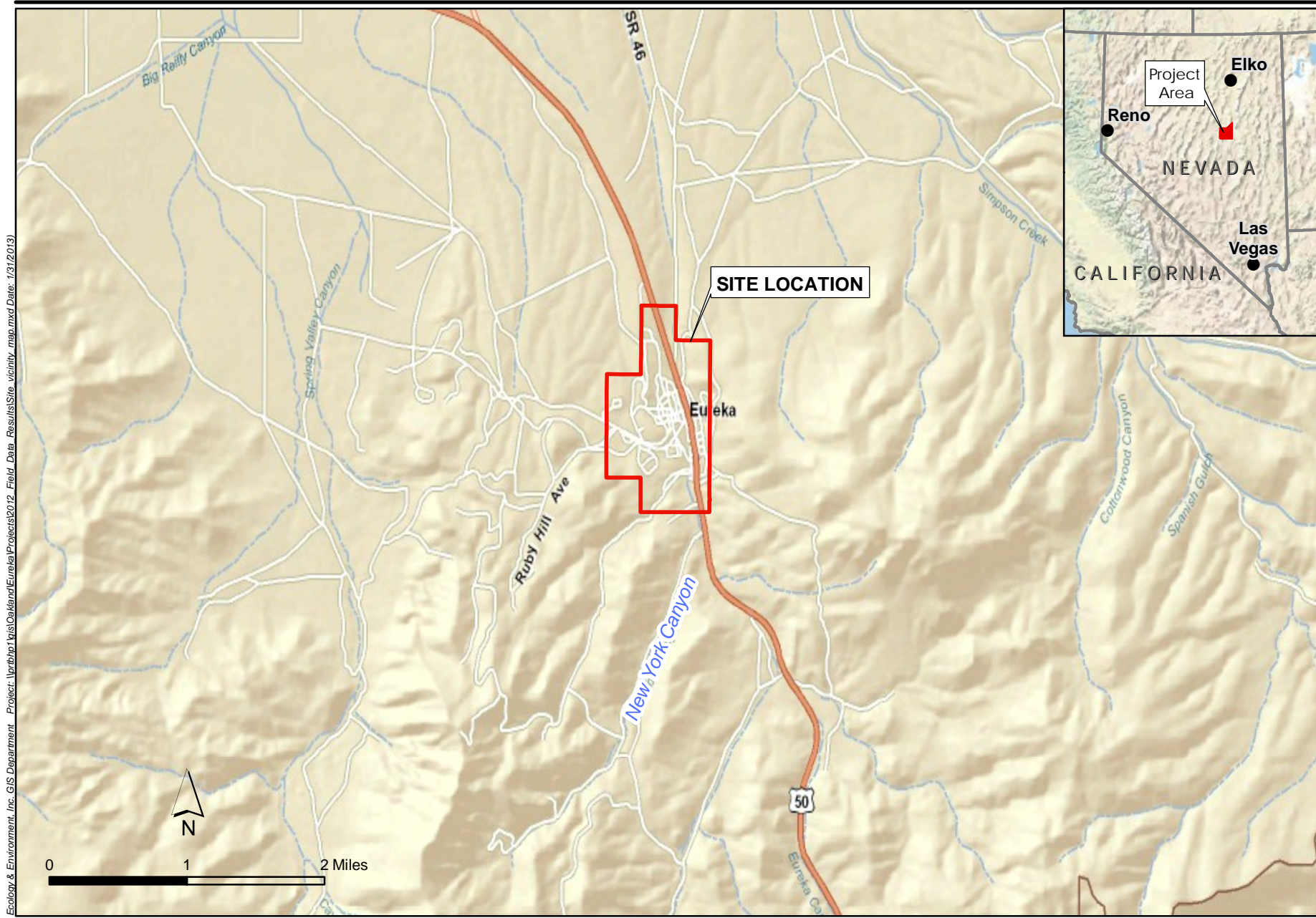
### 2.3 Site History

According to information obtained from the United States Bureau of Land Management (BLM) document *A Historic View of the BLM Shosone-Eureka Resource Area, Nevada, Technical Report 7* (BLM, 1991), between 1866 and 1910, mining for geological deposits of silver and lead took place in the Ruby Hill area, which is located approximately 2 miles west of Eureka. During this period, over one million tons of ore was extracted from Ruby Hill, primarily by the Eureka Consolidated Mining Company and Richmond Consolidated Mining Company. The ore mined from Ruby Hill was then transported via railcar to various milling and smelter operations historically located throughout Eureka. The following historical ore milling and smelter operations were identified in Eureka and are shown on Figures 2-A, 2-B, and 2-C:

- Lemon Mill
- McCoys Mill
- Eureka Consolidated Smelter
- Matamoras Smelter
- Hoosac Smelter
- Atlas Smelter
- Richmond Company Smelter
- Jackson Smelter
- Silver West Smelter
- Lemon Mill
- McCoys Mill
- Taylor Mill

As a result of ore processing at these former mills and smelter sites, waste product known as slag was produced and consolidated into a number of separate piles located throughout Eureka. The two large CSPs (Eureka Company and Richmond Company) are located along U.S. Highway 50 on the north and south ends of Eureka and several smaller slag piles (Atlas and Matamoras) are shown on Figures 2-A, 2-B, and 2-C.

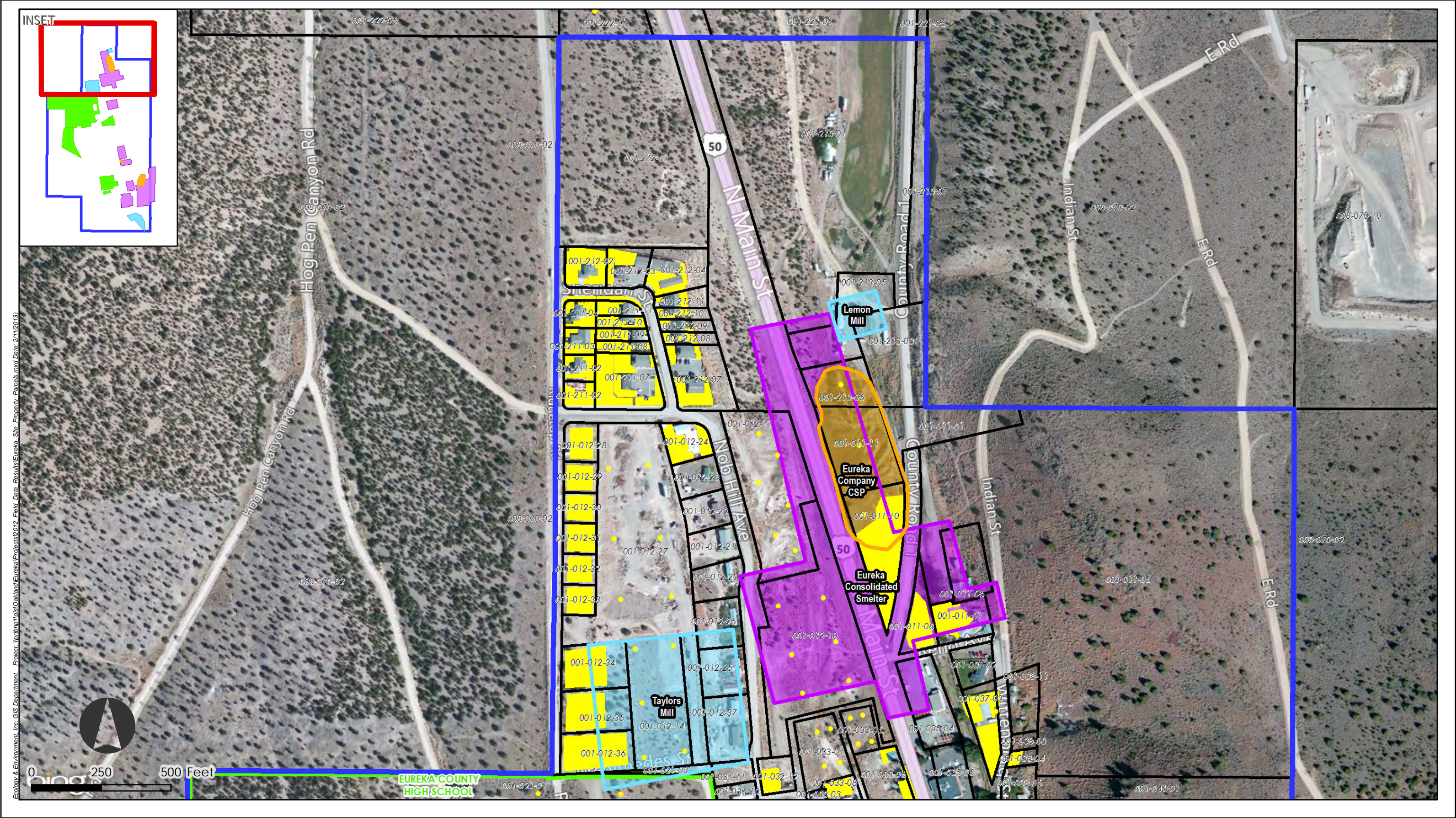





Ecology & Environment, Inc. GIS Department Project: \p\rbp1\gis\Oakland\Eureka\Projects\2012 Field Data Results\Site vicinity map.mxd Date: 1/31/2013

Figure 1  
**Site Location Map**  
**Eureka Smelter Sites**  
Eureka, Eureka County, Nevada





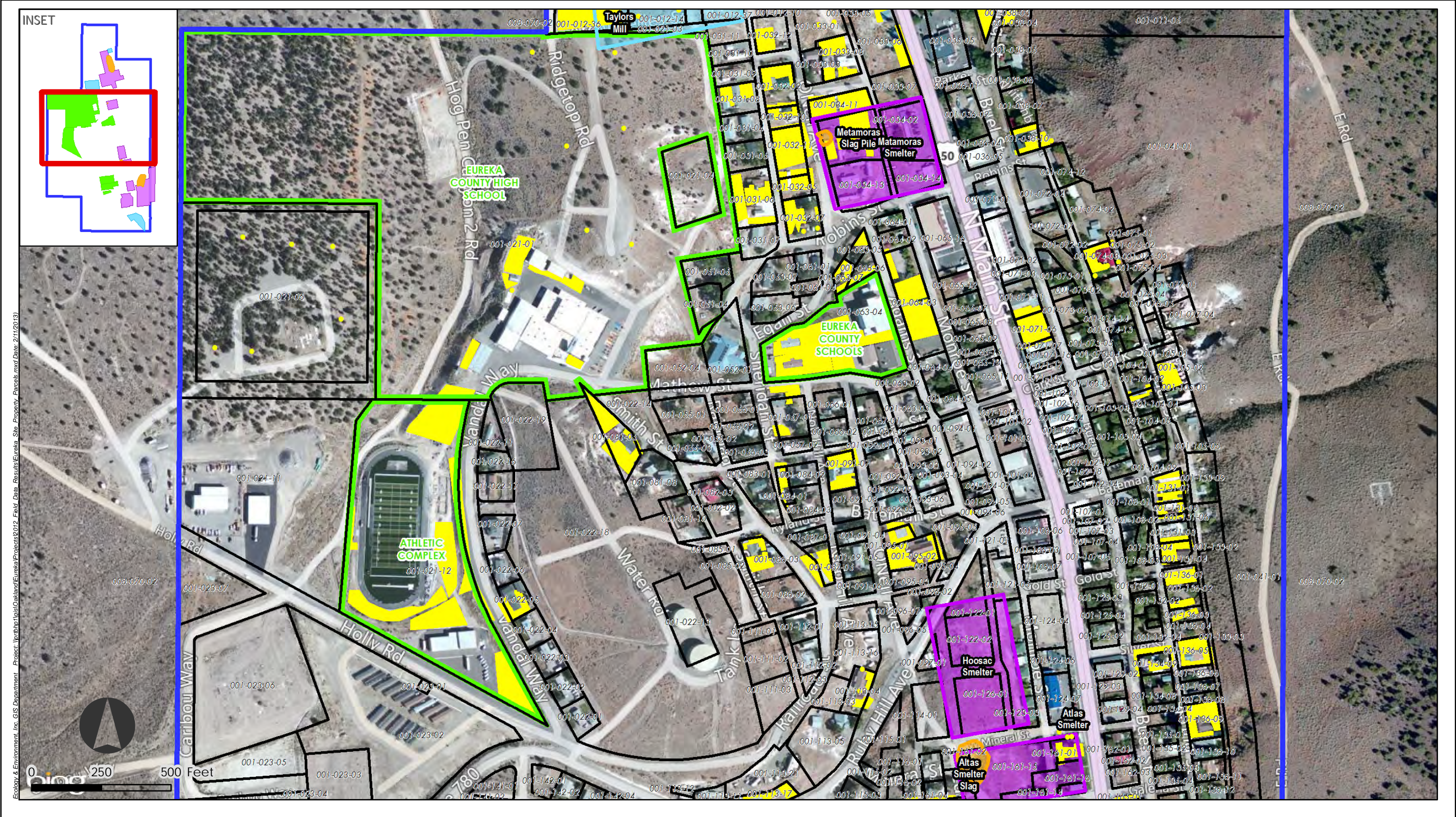



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Figure 2-A  
Property Parcels in Eureka, Nevada - North  
Eureka Smelters Sites  
Eureka, Eureka County, Nevada

|   |                              |
|---|------------------------------|
| Sampled Area                                | Project Boundary             |
| Eureka County School District Property      | Historical Facilities        |
| Parcel Boundary and Assessors Parcel Number | Mill Facility                |
|   | Consolidated Slag Pile (CSP) |
|   | Smelter Site                 |







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Figure 2-B  
Property Parcels in Eureka, Nevada - Central  
Eureka Smelters Sites  
Eureka, Eureka County, Nevada

Sampled Area  
Eureka County School District Property  
Parcel Boundary and Assessors Parcel Number  
Project Boundary  
Historical Facilities  
Mill Facility  
Consolidated Slag Pile (CSP)  
Smelter Site



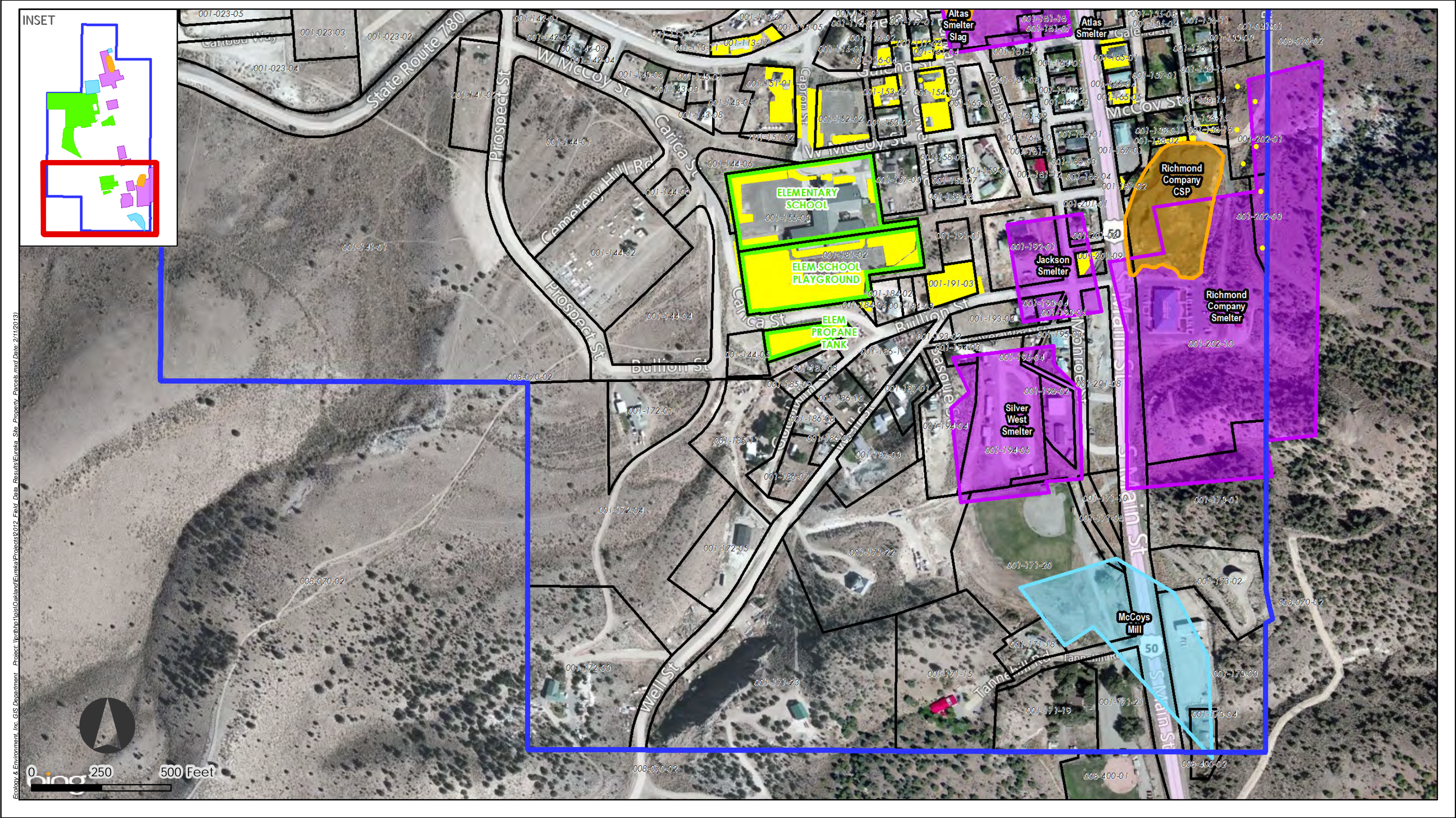
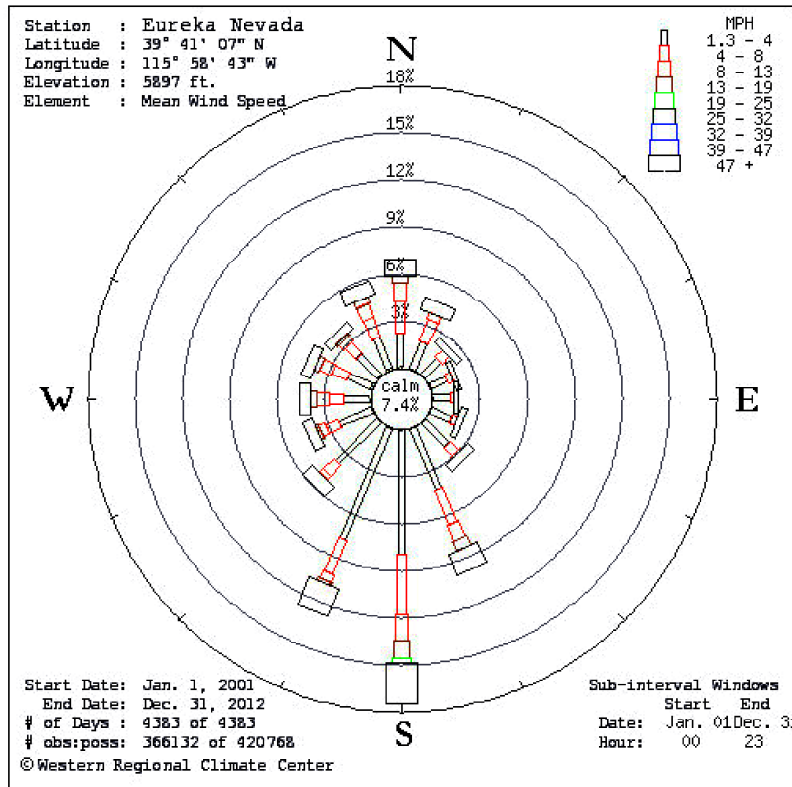


Figure 2-C  
Property Parcels in Eureka, Nevada - South  
Eureka Smelters Sites  
Eureka, Eureka County, Nevada





## Eureka Nevada - Wind Frequency Table (percentage)

Latitude : 39° 41' 07" N  
Longitude : 115° 58' 43" W  
Elevation : 5897 ft.  
Element :

Start Date : Jan. 1, 2001  
End Date : Dec. 31, 2012  
# of Days : 4383 of 4383  
# obs : poss : 366132 of 420768

Sub Interval Windows  
Start End  
Date Jan. 01 Dec. 31  
Hour 00 23

(Greater than or equal to initial interval value and Less than ending interval value.)

| Range (mph) | N   | NNE | NE  | ENE | E   | ESE | SE  | SSE | S    | SSW  | SW  | WSW | W   | WNW | NW  | NNW | Total |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|-----|-----|-----|-------|
| 1.3 - 4     | 2.2 | 1.8 | 1.4 | 1.1 | 1.1 | 1.4 | 2.1 | 4.2 | 7.9  | 7.7  | 3.7 | 2.2 | 1.6 | 1.6 | 1.8 | 2.1 | 44.1  |
| 4 - 8       | 1.9 | 1.5 | 0.6 | 0.3 | 0.2 | 0.4 | 0.8 | 2.4 | 3.8  | 2.3  | 0.9 | 0.8 | 1.0 | 1.0 | 0.9 | 1.3 | 20.2  |
| 8 - 13      | 1.3 | 0.4 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 1.1 | 1.7  | 0.5  | 0.3 | 0.4 | 0.8 | 0.8 | 0.4 | 0.9 | 9.0   |
| 13 - 19     | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 1.2  | 0.2  | 0.1 | 0.2 | 0.4 | 0.3 | 0.2 | 0.4 | 4.2   |
| 19 - 25     | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.3  | 0.0  | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.8   |
| 25 - 32     | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1   |
| 32 - 39     | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 39 - 47     | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 47 -        | 1.1 | 0.8 | 0.4 | 0.3 | 0.3 | 0.4 | 0.6 | 1.4 | 2.6  | 1.9  | 0.9 | 0.7 | 0.7 | 0.7 | 0.6 | 0.9 | 14.2  |
| Total(%)    | 6.9 | 4.6 | 2.6 | 1.8 | 1.7 | 2.2 | 3.7 | 9.9 | 17.5 | 12.7 | 6.0 | 4.4 | 4.6 | 4.5 | 3.9 | 5.7 | 92.6  |

Figure 3  
**Predominant Wind Direction for Eureka, Nevada**  
Eureka Smelters Sites  
Eureka, Eureka County, Nevada

It has been reported in the book *Nevada Ghost Towns and Mining Camps* by Stanley Paher, 1970, Nevada Publications that, due to the extensive amount of historical ore processing operations in Eureka, air pollution led to health problems among residents and former smelter workers during the time frame when the smelters were in operation. Indications that air pollution killed vegetation in and around Eureka is also presented in the book, where on page 181, there is the following statement: "On the outskirts of town, 16 smelters with a daily capacity of 745 tons treated ore from over fifty producing mines. Furnaces poured forth dense clouds of black smoke which constantly rolled over the town and deposited soot, scales and black dust everywhere, giving the town a somewhat somber aspect and killing vegetation. The "Pittsburgh of the West," Eureka was indeed the foremost smelting district in the entire West."

There were also several historical flood events, including a major flood event of the intermittent creek in 1874 that reportedly washed out much of the town and smelter facilities (NSJ 1874). The intermittent creek in Eureka flows from south to north and eventually discharges to the flat, alluvial plain located approximately 5 miles north of Eureka.

## **2.4 Previous Investigations**

In 1978, the United States Department of the Interior Geological Survey collected 593 soil samples that identified a 3-kilometer by 6-kilometer area within the Eureka mining district (Figures 4A-1 through 4A-3 and 4B-1 through 4B-3) where residual lead and arsenic concentrations from historic smelting operations exceeded background levels,. The data were published in a 1978 report titled *Geochemical Analyses of Rock and Soil Samples, Eureka Mining District and Vicinity, Eureka and White Pine Counties* and discussed in a 2004 U.S. Geological Survey publication, *Hydrogeochemical Studies of Historical Mining Areas in the Humboldt River Basin and Adjacent Areas, Northern Nevada*.

In the spring of 2012, U.S. EPA and NDEP personnel collected 38 surface soil samples from publically accessible locations around Eureka for lead and arsenic analysis. The analytical laboratory results from these 38 surface soil samples indicated that 10 samples had lead concentrations below 400 mg/kg, 20 samples had lead concentrations between 400 mg/kg and 5,000 mg/kg, and eight samples had lead concentrations above 5,000 mg/kg. The lead concentrations in samples ranged from 44 mg/kg to 45,000 mg/kg (Figures 5-1 through 5-3). The highest lead soil concentrations were detected in samples from the CSPs located on both the north and south ends of Eureka, and at former smelter site locations. The sample results for arsenic showed a distribution similar to lead. The analytical laboratory results for arsenic indicated that five samples had arsenic concentrations below 60 mg/kg, 23 samples had arsenic concentrations between 60 mg/kg and 600 mg/kg, and 10 samples had arsenic concentrations above 600 mg/kg. The arsenic concentrations in samples ranged from 10 mg/kg to 6,700 mg/kg (Figures 5-1 through 5-3).



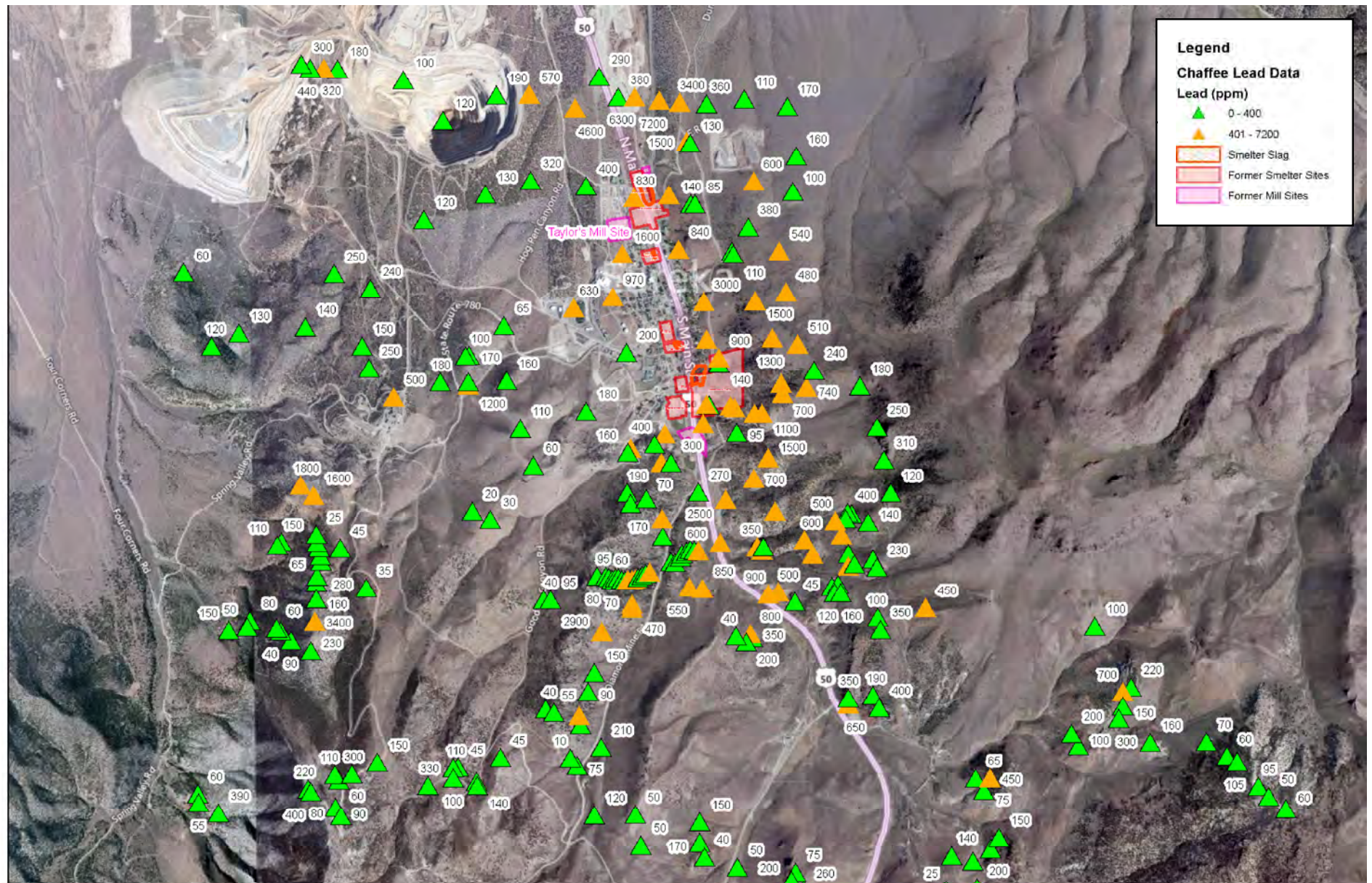


Figure 4A-1  
Eureka District with Historic  
Sampling Data for Lead-North  
Eureka Smelters Sites  
Eureka, Eureka County, Nevada





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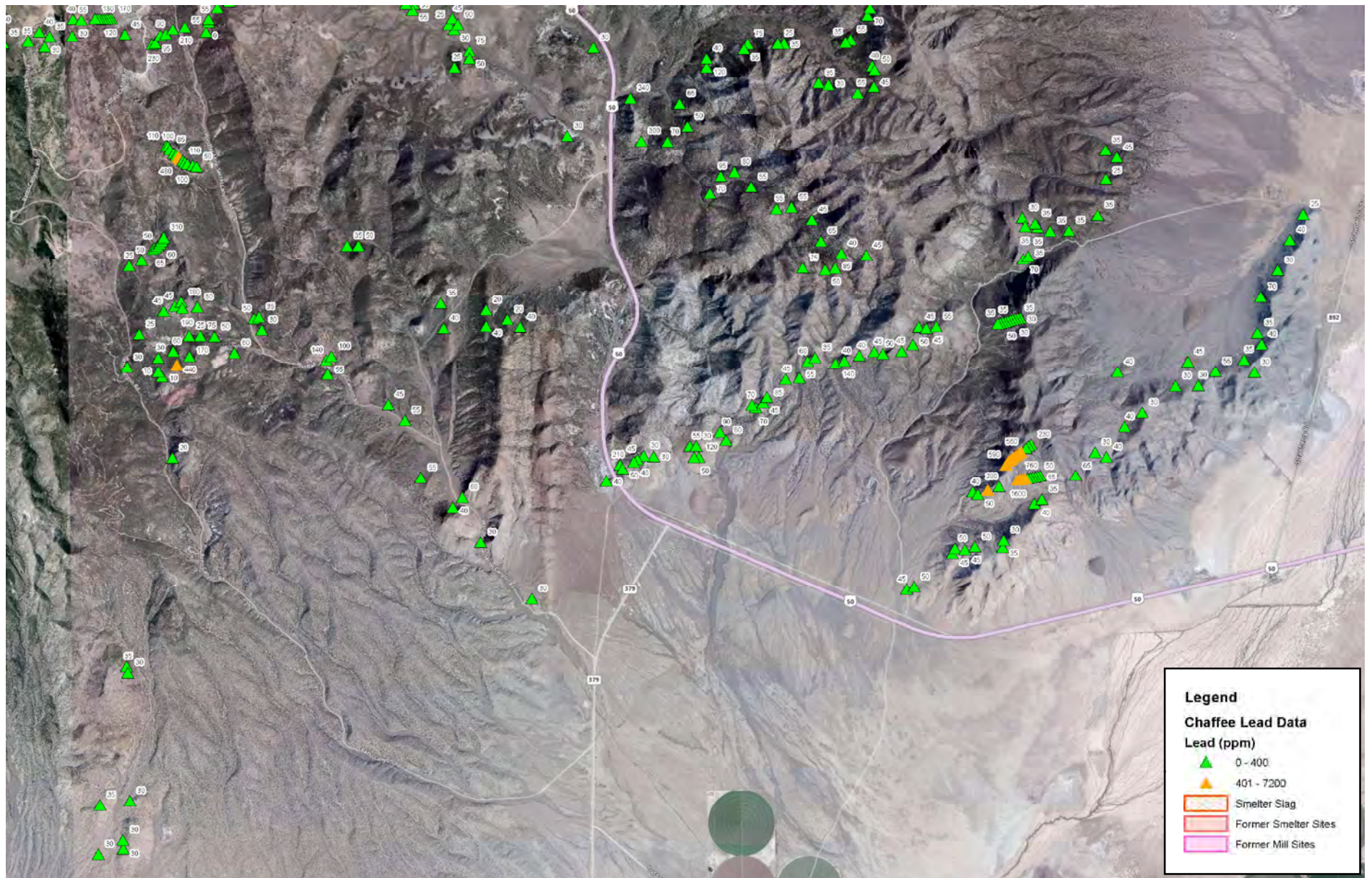


Figure 4A-3  
Eureka District with Historic Sampling  
Data for Lead-South  
Eureka Smelters Sites  
Eureka, Eureka County, Nevada



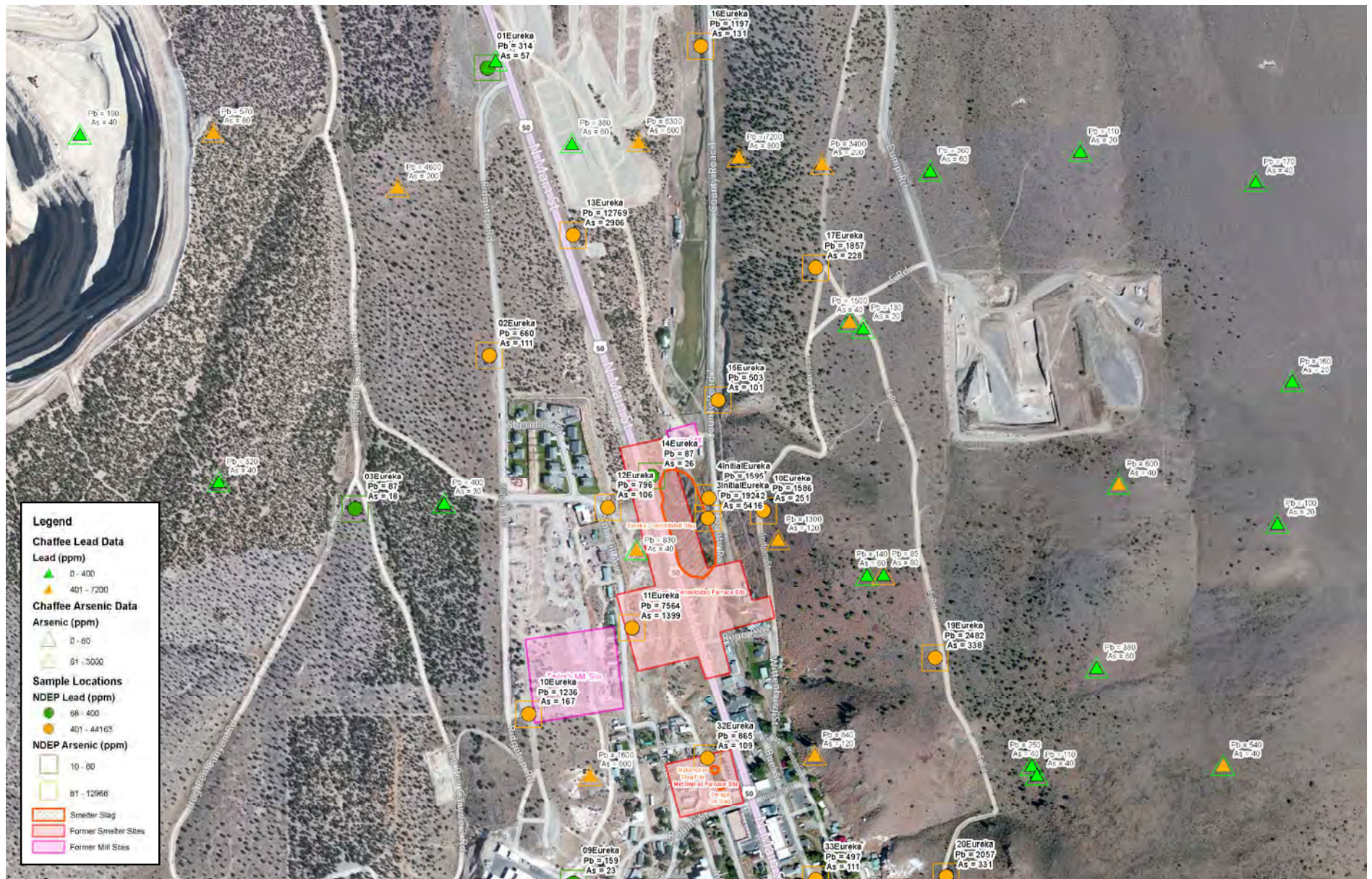


Figure 4B-1  
Eureka Area with Historic Sampling  
Data For Lead and Arsenic-North  
Eureka Smelters Sites  
Eureka, Eureka County, Nevada



Ecology & Environment, Inc. GIS Department Project: Northridge/Oakland/Eureka Projects 2012 Field Data Results/Eureka 4B-2 Non-GIS Historic Lead Samples Central.mxd Date: 3/13/2013



Figure 4B-2  
Eureka Area with Historic Sampling  
Data For Lead and Arsenic-Central  
Eureka Smelters Sites  
Eureka, Eureka County, Nevada



Ecology & Environment, Inc. GIS Department Project: Northridge/Oakland/Eureka/Projects2012 Field Data Results/Figure 4B-3 Non-GIS HistoricLeadSamples\_South.mxd Date: 3/13/2013

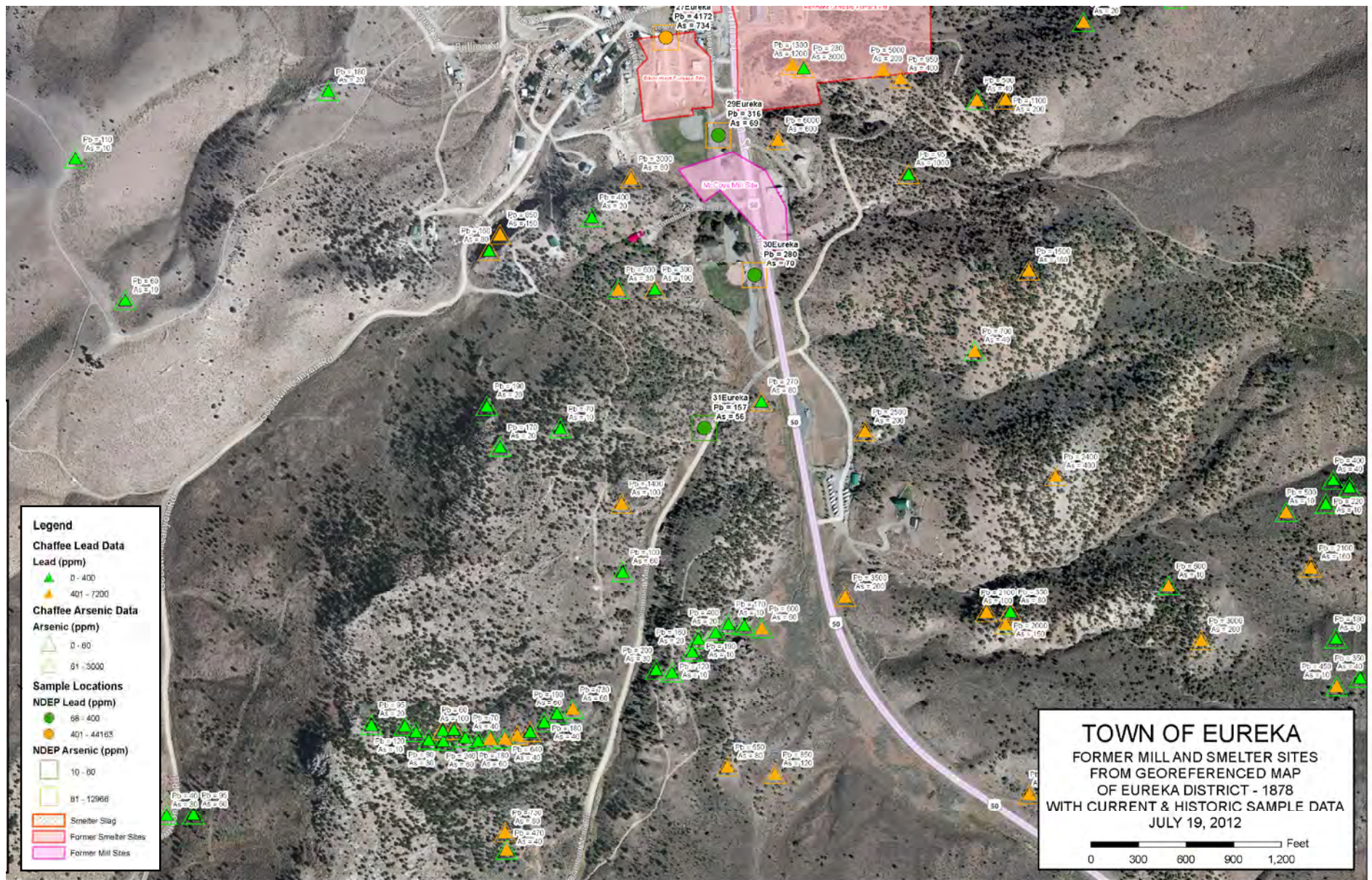


Figure 4B-3

Eureka Area with Historic Sampling  
Data For Lead and Arsenic-South  
Eureka Smelters Sites  
Eureka, Eureka County, Nevada



Ecology & Environment, Inc. GIS Department Project: Northridge/Oakland/Eureka/Projects2012 Field Data Results/Figure 5-1 NonGIS Spring Sampling Data North.mxd Date: 3/13/2013

| Analysis Results by US EPA Method 6010 |               |            |
|--|---------------|------------|
| Sample Number                          | Arsenic mg/kg | Lead mg/kg |
| Eureka01                               | 64            | 310        |
| Eureka02                               | 140           | 610        |
| Eureka03                               | 20            | 73         |
| Eureka04                               | 120           | 690        |
| Eureka05                               | 13            | 44         |
| Eureka06                               | 330           | 1,900      |
| Eureka07                               | 350           | 1,900      |
| Eureka08                               | 87            | 480        |
| Eureka09                               | 26            | 120        |
| Eureka10                               | 210           | 1,200      |
| Eureka11                               | 1,800         | 7,900      |
| Eureka12                               | 170           | 800        |
| Eureka13                               | 2800          | 13000      |
| Eureka14                               | 39            | 98         |
| Eureka15                               | 130           | 530        |
| Eureka16                               | 200           | 1,100      |
| Eureka17                               | 300           | 1,700      |
| Eureka18                               | 370           | 1,600      |
| Eureka19                               | 450           | 2,500      |
| Eureka20                               | 430           | 2,100      |
| Eureka21                               | 1,500         | 6,600      |
| Eureka22                               | 570           | 2,200      |
| Eureka23                               | 790           | 4,300      |
| Eureka24                               | 1,500         | 8,100      |
| Eureka25                               | 2900          | 17000      |
| Eureka26                               | 260           | 1,300      |
| Eureka27                               | 990           | 4,100      |
| Eureka28                               | 74            | 340        |
| Eureka29                               | 73            | 290        |
| Eureka30                               | 89            | 260        |
| Eureka31                               | 72            | 170        |
| Eureka32                               | 180           | 990        |
| Eureka34                               | 47            | 240        |
| 1InitialEureka                         | 12000         | 45000      |
| 2InitialEureka                         | 6700          | 32000      |
| 3InitialEureka                         | 6100          | 24000      |
| 4InitialEureka                         | 500           | 1900       |

**Legend**

- Sample Locations
- Eureka Town or County Property
- Bureau of Land Management
- Smelter Slag
- Former Smelter Sites
- Former Mill Sites

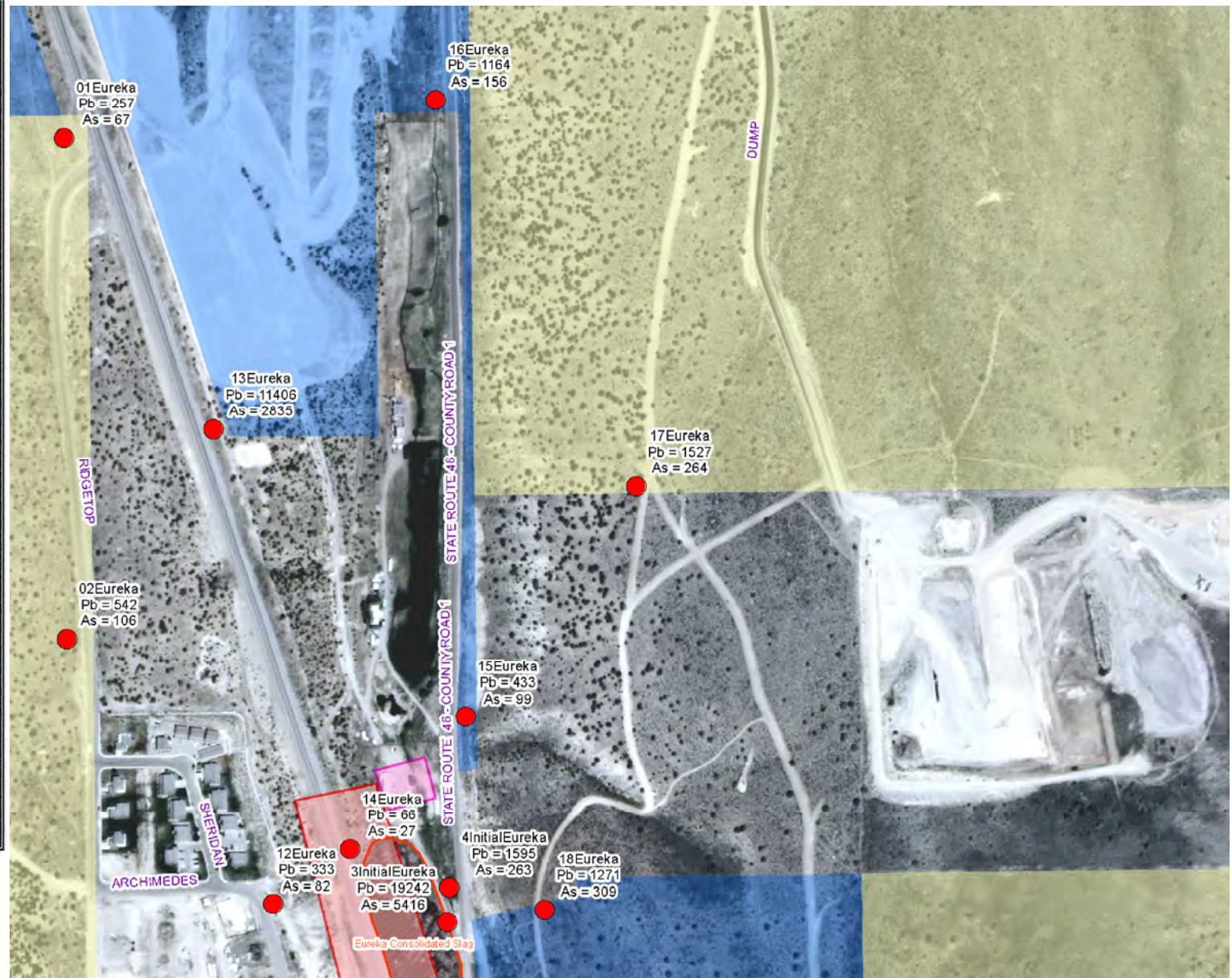


Figure 5-1  
Spring 2012 Sampling Data Map-North  
Eureka Smelters Sites  
Eureka, Eureka County, Nevada



| Analysis Results by US EPA Method 6010 |                  |               |
|--|------------------|---------------|
| Sample Number                          | Arsenic<br>mg/kg | Lead<br>mg/kg |
| Eureka01                               | 64               | 310           |
| Eureka02                               | 140              | 610           |
| Eureka03                               | 20               | 73            |
| Eureka04                               | 120              | 690           |
| Eureka05                               | 13               | 44            |
| Eureka06                               | 330              | 1,900         |
| Eureka07                               | 350              | 1,900         |
| Eureka08                               | 87               | 480           |
| Eureka09                               | 26               | 120           |
| Eureka10                               | 210              | 1,200         |
| Eureka11                               | 1,800            | 7,900         |
| Eureka12                               | 170              | 800           |
| Eureka13                               | 2800             | 13000         |
| Eureka14                               | 39               | 98            |
| Eureka15                               | 130              | 530           |
| Eureka16                               | 200              | 1,100         |
| Eureka17                               | 300              | 1,700         |
| Eureka18                               | 370              | 1,600         |
| Eureka19                               | 450              | 2,500         |
| Eureka20                               | 430              | 2,100         |
| Eureka21                               | 1,500            | 6,600         |
| Eureka22                               | 570              | 2,200         |
| Eureka23                               | 790              | 4,300         |
| Eureka24                               | 1,500            | 8,100         |
| Eureka25                               | 2900             | 17000         |
| Eureka26                               | 260              | 1,300         |
| Eureka27                               | 990              | 4,100         |
| Eureka28                               | 74               | 340           |
| Eureka29                               | 73               | 290           |
| Eureka30                               | 89               | 260           |
| Eureka31                               | 72               | 170           |
| Eureka32                               | 180              | 990           |
| Eureka34                               | 47               | 240           |
| 1InitialEureka                         | 12000            | 45000         |
| 2InitialEureka                         | 6700             | 32000         |
| 3InitialEureka                         | 6100             | 24000         |
| 4InitialEureka                         | 500              | 1900          |

**Legend**

- Sample Locations
- Eureka Town or County Property
- Bureau of Land Management
- Smelter Slag
- Former Smelter Sites
- Former Mill Sites

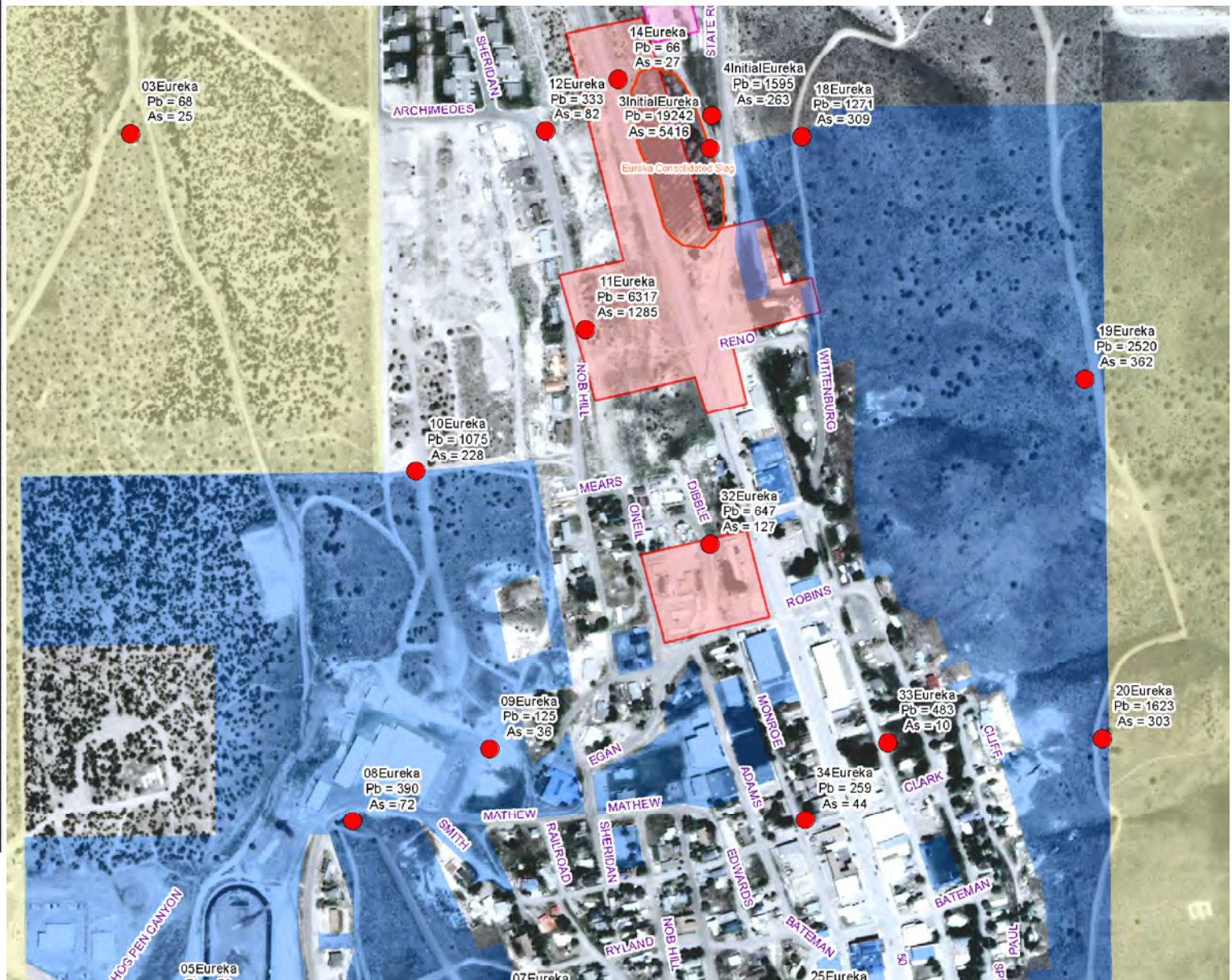


Figure 5-2  
Spring 2012 Sampling Data Map-Central  
Eureka Smelters Sites  
Eureka, Eureka County, Nevada



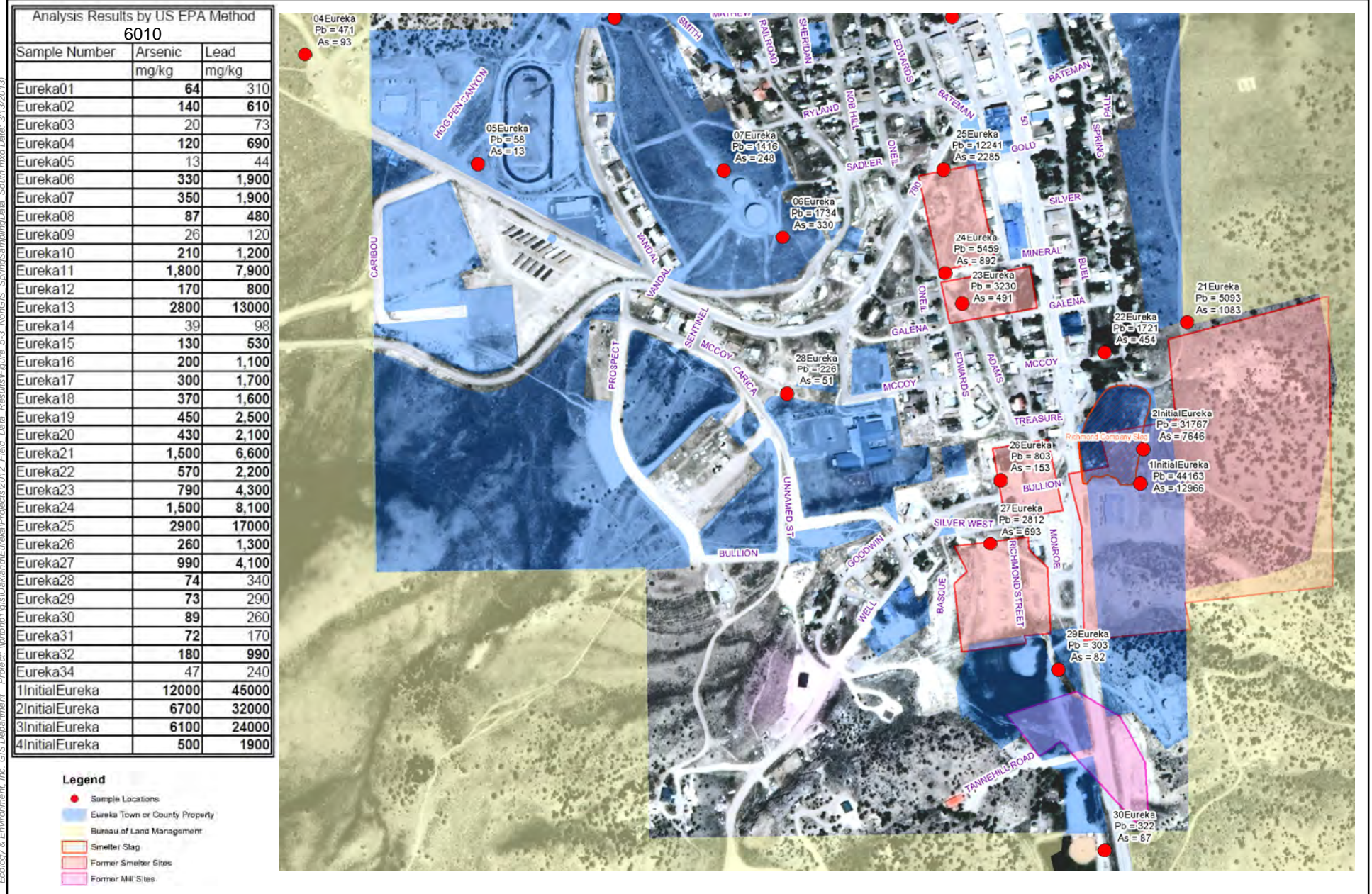


Figure 5-3  
Spring 2012 Sampling Data Map-South  
Eureka Smelters Sites  
Eureka, Eureka County, Nevada



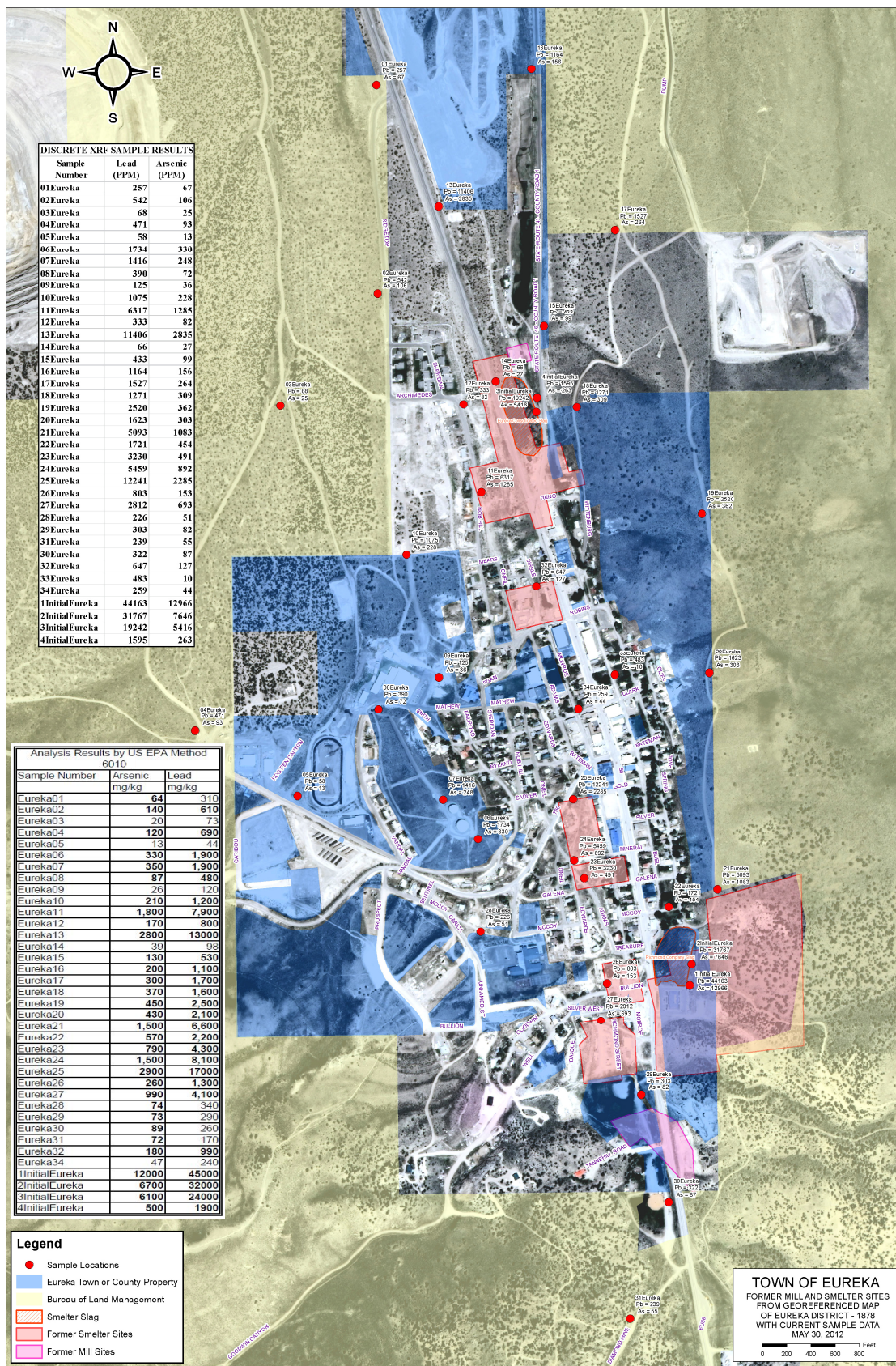


Figure 5  
Spring 2012 Sampling Data Map  
Eureka Smelters Sites  
Eureka, Eureka County, Nevada



## 3 Field Assessment

The field assessment phase of the project was performed between October 15 and October 26, 2012, under the authority of U.S. EPA Federal On-Scene Coordinator (FOSC) Tom Dunkelman. During the field assessment, on-site personnel included FOSC Tom Dunkelman and Fred Stroud of the U.S. EPA Environmental Response Team, NDEP personnel, three START members, and four United States Coast Guard Pacific Strike Team (PST) members. In general, one START member performed XRF sample analysis in the designated field laboratory, two PST members performed XRF sample preparation, and two START members, two PST members, and the U.S. EPA and NDEP representatives performed sample collection activity. In addition to sample collection and analysis, one START member collected geo-spatial sampling data, relevant parcel information, resident information, and photographic documentation with a field tablet computer, digital camera and Global Positioning System (GPS) unit. All field data were then compiled into the U.S. EPA's SCRIBE database. The specific field assessment tasks are discussed in the following sections. Photographic documentation of the field assessment activity is provided under Appendix A.

### 3.1 START Field Assessment Activities

The START followed all pre-determined standard operating procedures (SOPs) as outlined in the site-specific SAP (E & E, 2012) for sample collection and documentation procedures during the field assessment phase of this project, unless otherwise specified below. The following deviations from the SAP (E & E 2012) resulted from changes made during the field assessment in response to field observations and conditions:

- At the direction of the FOSC, compositing of samples was performed in the field at the time of collection and not at the designated field laboratory.
- Since the samples were being composited in the field, the XRF analysis of individual aliquots, which was described in Section 4.2 of the SAP, was not done.
- Access to the Eureka County-owned playing fields was not granted; therefore, the playing fields were not sampled.
- Only 36 of the 47 proposed air dispersion sampling locations could be safely accessed and were sampled. The remaining 11 air dispersion sampling locations were located on steep hillsides that had no safe access and were not sampled at the direction of the FOSC.
- At the direction of the FOSC, unpaved roadways were only sampled at the 0 to 2 inch below ground surface (bgs) interval and not also sampled at the 2 to 6 inch bgs interval as indicated in the SAP.
- The SAP indicated that field duplicate samples would be generated by separating the original field sample into two sample containers. Due to time constraints, separation of field duplicate samples was performed during the sample preparation process.
- At the direction of the FOSC, background soil sampling was conducted at five separate locations consisting of 18 discrete sample points and four composite sample areas, as opposed to collecting samples from 20 discrete sample points from one background location as indicated in the SAP.

### **3.1.1 Property Sampling**

Between October 16 and October 26, 2012, surface and shallow subsurface soil samples were collected from residential and public properties located throughout Eureka where access was granted by the owner to the U.S. EPA and NDEP. A total of 268 decision units from 106 individual residential and public properties were sampled during this removal assessment. The decision units for each of the properties are presented in Figures 7-1 through 7-105 in Appendix B. For the purpose of this removal assessment, residential properties included any property that contains single and/or multi-family dwellings and vacant lots with the potential for residential construction; public properties include any Eureka School District or County-owned property and unpaved access road right-of-ways. Prior to conducting sampling activity at a property, access permission was obtained by the U.S. EPA and NDEP for each property sampled. Once a property was cleared for sampling and analysis, a visual inspection of the property was then performed by the U.S. EPA, NDEP, and START to determine the appropriate sampling decision units.

Residential properties were generally divided into front yard, back yard, side yard, and driveway sampling decision units. Composite samples were then collected from each decision unit identified at the subject property. In general, composite soil samples collected from residential decision units consisted of five homogenized discrete sample aliquots of equal volume (five-point composite soil sample). A five-point composite soil sample was collected from each identified residential sampling decision unit at depths from 0 to 2 inches bgs, 2 to 6 inches bgs, and 6 to 12 inches bgs.

Additionally, for some properties, unique, discrete sampling locations were also identified. Examples of areas that were selected for discrete sampling include play areas, pet areas and garden areas. Those locations were sampled at a single location at each depth interval. Discrete point sampling locations at residential properties were sampled at depths from 0 to 2 inches bgs, 2 to 6 inches bgs, and 6 to 12 inches bgs.

Public properties were generally divided into multiple sampling decision units that largely covered the entire property area. In general, composite soil samples collected from public property decision units consisted of five homogenized discrete sample aliquots of equal volume (five-point composite soil sample). A five-point composite sample was collected from each identified sampling decision unit at depths from 0 to 2 inches bgs and 2 to 6 inches bgs. Additionally, discrete point sampling locations were identified at various large public properties (e.g., large vacant lots) in order to evaluate contaminant distributions throughout the property. Discrete point sampling locations at public properties were sampled at depths from 0 to 2 inches bgs and 2 to 6 inches bgs.

The location and boundary of the each residential and public property composite decision unit was documented directly on field computer tablets by using geographic information systems (GIS) software. The mid-point coordinates for each property decision unit was recorded with a GPS unit. Discrete point sampling locations were also documented on the field computer tablets and recorded with a GPS unit. The properties sampled are shown on Figures 2-A, 2-B and 2-C and in Appendix B, Figures 6 and 7.

**3.1.2 Unnamed Creek Sampling**

On October 24, 2012, surface and shallow subsurface sediment samples and surface water samples were collected from the unnamed creek that transects Eureka. Sediment samples were collected from locations upstream and downstream from the two large CSPs. A total of three discrete point surface water samples and 45 discrete point surface and shallow subsurface sediment samples were collected from Eureka's creek. Discrete point sediment samples were collected from depths of 0 to 2 inches bgs, 2 to 6 inches bgs, and 6 to 12 inches bgs. Discrete point surface water samples were collected from three downstream locations because surface water was not flowing throughout the entire length of the creek. Each discrete point sediment and surface water sampling location collected from the creek was documented on the field computer tablet and recorded with a GPS unit. The creek sampling locations are shown in Appendix B, Figure 8.

**3.1.3 Air Dispersion Sampling**

On October 25, 2012, discrete point surface and shallow subsurface soil samples were collected from undeveloped BLM properties located within a 1-mile radius around Eureka to determine the extent of lead and arsenic present in area soil. A total of 72 discrete point samples were collected from 36 locations on BLM properties. Discrete point samples were collected from depths of 0 to 2 inches bgs and 2 to 6 inches bgs. Each discrete point sampling location collected from BLM property was documented on the field computer tablet and recorded with a GPS unit. The air dispersion sampling locations are shown in Appendix B, Figure 9.

**3.1.4 Roadway Sampling**

On October 26, 2012, five-point composite soil samples were collected from unpaved roadways in Eureka. A total of eight five-point composite samples were collected from unpaved roadways, and one five-point composite sample was collected from a road base material stockpile. Five-point composite samples were only collected at a depth of 0 to 2 inches bgs. Each five-point composite roadway sampling location was documented on the field computer tablet and recorded with a GPS unit. The roadway sampling locations are shown in Appendix B, Figure 10.

**3.1.5 Background Sampling**

On October 26, 2012, discrete point and five-point composite background soil samples were collected from three undeveloped rural areas located greater than 1 mile from Eureka and at two residential properties located 12 miles north of Eureka. A total of 54 discrete point background samples and 12 five-point composite background samples were collected. Discrete point and five-point composite background soil samples were collected from depths of 0 to 2 inches bgs, 2 to 6 inches bgs, and 6 to 12 inches bgs. Each discrete point and five-point composite background sampling location was documented on the field computer tablet and recorded with a GPS unit. The background sampling locations are shown in Appendix B, Figure 11.

**3.1.6 Sample Collection and Preparation**

A total of 1,131 unique soil samples were collected in the field and prepared for XRF analysis during this removal assessment. An additional 121 field duplicate samples, and 62 preparation duplicate samples were collected and prepared for analysis as part of the removal assessment quality assurance/quality control (QA/QC) program.

All surface and shallow subsurface soil samples were collected by sample teams wearing clean nitrile gloves using a decontaminated stainless-steel hand auger or trowel. The soil samples were then placed into an individually labeled clean plastic zip-lock bag. Each sample was given a unique sample identifier that was documented in a hand-written field log and within the GIS software file via the field computer tablet. Groups of samples were delivered to the field laboratory several times each day. Samples received at the field laboratory were then immediately recorded in a sample receipt log.

Prior to sample preparation, samples were assigned an analysis identification number that was recorded in the sample preparation log. Soil and sediment samples were homogenized in the zip-lock sample bag by kneading, crushing, and shaking the soil for approximately one minute. After homogenization, the samples were transferred into individually labeled drying pans and then dried free of moisture in an oven. Dried samples were then passed through a 250 micron (#60) mesh sieve to remove large particles. The dried and sieved sample was transferred into a new pre-labeled polyethylene cup and covered with Mylar<sup>®</sup> film. After sample preparation, all samples were then subjected to field XRF analysis (see Section 3.2). All non-dedicated sample handling devices (i.e., trowels, sieves) were decontaminated after each use according to E & E SOP #3.15, as listed in the SAP. Water samples were collected in pre-cleaned and nitric acid pre-preserved 500-milliliter plastic bottles and then stored at 4 degrees Celsius until submitted to the U.S. EPA regional laboratory for metals analysis.

### **3.2 XRF Analysis Procedures**

During the field assessment phase, a total of 1,320 soil samples (including field and preparation duplicate samples) were analyzed using three separate Innov-X field portable XRF units. Including analysis duplicates a total of 1,427 analyses were completed. Sample analysis and QA/QC procedures with the XRF units were performed in accordance with the manufacturer guidance, U.S. EPA SW-846 Method 6200, and the project SAP (E & E 2012).

Before operation of the XRF each day, the utilized XRF units were allowed the manufacturer-recommended warm up time of 25-30 minutes. The XRF units were then subjected to an initial calibration that included energy calibration and resolution check prior to analysis and at least once during sample analysis. A calibration check with a National Institute of Standards and Technology (NIST)-certified standard reference material (SRM) and a site-specific analysis standard was then performed prior to sample analysis. The site-specific analysis standard used as the daily XRF calibration check standard was obtained from soils collected from the site in early 2012.

A blank source control standard was analyzed to determine instrument performance and referenced as BLANK when analyzed. In addition to instrument performance checks, sand blank samples were prepared and analyzed by XRF daily to monitor for cross-contamination. Sand blank samples were ground with a mortar and pestle and then prepared by following the same preparation method and using the same sample preparation equipment as for site soil samples.

One out of every 20 samples was selected for preparation duplicate analysis. Preparation duplicates were collected by splitting a single site sample after homogenization and sieving occurred and then preparing two separate sample aliquots for XRF analysis. Preparation duplicates were labeled and recorded with a “PD” following the corresponding sample identifier

for identification. One out of every 20 samples was selected and analyzed twice in a row on the same XRF instrument (analysis duplicate). In addition, one out of every 20 samples was analyzed on a second XRF instrument.

The energy calibration and resolution check analysis, SRM sample analysis, blank source control sample analysis, and sand blank sample analysis used for XRF calibration, performance, and quality control are discussed under Section 4.1 (Field XRF Data Quality Control) of this report.

All XRF sample analyses were performed within a designated field laboratory with the XRF in the intrusive mode with a 180-second count time for measurement. Each sample was analyzed one time, and the corresponding arsenic and mercury concentrations were recorded in the site XRF logbook. Following XRF analysis each sample was evaluated based upon the arsenic and lead concentrations versus the site SSL and either prepared for laboratory analysis or archived.

### **3.3 Bioavailability Sample Preparation**

For the supplemental bioavailability study, six samples were prepared from 12 of the composite samples that were collected from six residential properties. The criteria for selection of the samples used for the bioavailability composite samples included the following:

- The composited samples needed to be of a mass of 2 kilograms or more;
- The samples needed to have an arsenic concentration of greater than 300 mg/kg;
- The samples were collected from an occupied residential property; and
- The samples were collected from either the 0 to 2 inch bgs interval or the 2 to 6 inches bgs interval.

Information on the 12 samples selected for compositing is presented in Table 1.

**Table 1 Sample Composites for Bioavailability Study**  
Eureka Smelter Sites Removal Assessment

Project No. EE-002693-2177

TDD No. TO2-09-12-04-0002

| Original Sample ID Number  | Bioavailability Composite Sample ID Number | Parcel APN | XRF Lead Concentration (mg/kg) | XRF Arsenic Concentration (mg/kg) |
|--|--|------------|--------------------------------|-----------------------------------|
| 107403-S01-2   | 107403-C                                   | 001-074-03 | 4,000                          | 680                               |
| 107403-S02-2   |  |            |                                |                                   |
| 111703-S01-2   | 111703-C                                   | 001-117-03 | 3,700                          | 730                               |
| 111703-S03-2   |  |            |                                |                                   |
| 113603-S01-2   | 113603-C                                   | 001-136-03 | 3,400                          | 690                               |
| 113603-S02-2   |  |            |                                |                                   |
| 113609-S01-2   | 113609-C                                   | 001-136-09 | 4,200                          | 750                               |
| 113609-S03-2   |  |            |                                |                                   |
| 115401-S01-2   | 115401-C                                   | 001-154-03 | 3,500                          | 730                               |
| 115401-S03-2   |  |            |                                |                                   |
| 116101-S01-2   | 116101-C                                   | 001-161-01 | 7,800                          | 1700                              |
| 116101-S02-2   |  |            |                                |                                   |
| Notes:<br>APN = Assessors Parcel Number<br>mg/kg = milligrams per kilogram<br>XRF = X-Ray Fluorescence |  |            |                                |                                   |

## 4 Analytical Results

During this removal assessment, three surface water samples, 730 composite soil samples, and 432 discrete soil samples were collected from 108 residential and public land parcels, seven unpaved roadways, one road material stockpile, four miles of creek bed and 5,000 acres of BLM land surrounding Eureka, and subjected to field XRF analysis. Since most property parcels were divided into multiple decision units, there were a total of 268 decision units. Sample location maps with results from field XRF analysis are presented in Appendix B. A compact disk with digital versions of contamination and iso-concentration maps that represent the detected arsenic and lead concentrations throughout Eureka are included under Appendix B. The field XRF analytical results are presented under Appendix C. The samples can be further divided as follows:

- A total of 710 composite samples and 229 discrete samples for a total of 939 unique soil samples were collected from property parcel locations in the town of Eureka.
- A total of 45 unique and discrete sediment samples and three unique and discrete surface water samples were collected from Eureka's creek bed.
- A total of 72 unique and discrete soil samples were collected from a 1-mile wide perimeter outside the town of Eureka.
- A total of eight unique composite samples and one stockpile composite sample were collected from unpaved roadways in the town of Eureka.
- A total of 54 unique discrete samples and 12 unique composite samples (from two residential properties in Diamond Valley) were collected from background locations.

Of the 1,131 total soil samples subjected to field XRF analysis, 254 were submitted to the U.S. EPA Region 9 Laboratory in Richmond, California for confirmation analysis of arsenic and lead concentrations by U.S. EPA Method 6010B. Of these, 44 randomly selected soil samples were also analyzed for 14 additional metals by U.S. EPA Region 9 Laboratory. Forty of the 254 soil samples were submitted to the laboratory based upon their elevated arsenic and lead concentrations identified during field XRF analysis for additional extraction using bio-accessibility extraction procedure U.S. EPA 9200.2-86 followed by analyses for total arsenic and lead concentration by U.S. EPA Method 6010B.

Three surface water samples and a duplicate water sample were submitted to U.S. EPA Region 9 Laboratory for analysis of arsenic and lead and 15 additional metals by U.S. EPA Method 6010B. Ten equipment rinsate blank samples, which were collected daily during soil sampling activity, were submitted to U.S. EPA Region 9 Laboratory for analysis of arsenic and lead concentrations by U.S. EPA Method 6010B. In addition, six specially prepared composite soil samples (Table 1) were submitted to the U.S. EPA National Exposure Research Laboratory in Research Triangle Park, North Carolina, for a bioavailability study (i.e., an oral bioavailability of arsenic and lead in mice). The analytical data for this bioavailability study was not completed by the laboratory at the time of this reporting.

A complete summary of the laboratory analytical data is provided under Appendix D. The laboratory data validation reports are provided under Appendix E.

## **4.1 Analytical Data QA/QC**

During this removal assessment, efforts were made to ensure that the quality of all data generated through field XRF and laboratory analyses met the appropriate U.S. EPA-established data criteria. A discussion of the field XRF and laboratory analysis data QA/QC efforts is provided below.

### **4.1.1 QA/QC of Field XRF Data**

To provide QA/QC during the field analytical effort, U.S. EPA SW-846 Method 6200 was adhered to during XRF sample analysis. Each sample was homogenized, dried, sieved and placed into appropriate XRF analysis containers. Two types of duplicates were handled during the preparation: field duplicates and preparation duplicates. Field duplicates were splits of the original sample that were dried and sieved separately. The resultant sample had a unique sample identification number. Preparation duplicates were splits of dried and sieved samples separated into two XRF samples. The preparation duplicate sample pairs shared a single sample identification number. Each generated processed sample was assigned an analysis identification number and was analyzed as an independent sample.

To determine whether the XRF instrument was within resolution and stability tolerances, an energy calibration check was run with a pure manganese element standard at the beginning of each day as the first XRF analysis, and at any time in which the instrument detected that the characteristic x-ray lines were shifting. To check the accuracy and document the precision of the each of the XRF instruments used and to assess the stability and consistency of analyses for the analytes of concern (arsenic and lead), a site-specific SRM and a NIST SRM-2702 sample were analyzed at the beginning and end of each work day. The site-specific SRM was additionally analyzed after each set of 10 site samples. Instrument blank samples were also analyzed at the beginning and end of each work day and after every 10<sup>th</sup> sample.

The average measured concentrations of arsenic and lead for the NIST SRM sample analyzed during this assessment were within 10 percent of the NIST low-level SRM documented concentration and considered acceptable for QA/QC purposes. The average measured concentrations of arsenic and lead for the site-specific SRM sample analyzed during this assessment were within 10 percent for lead and 35 percent for arsenic when compared to laboratory analysis concentrations and considered acceptable for QA/QC purposes.

Two types of blank samples were analyzed to provide QC for XRF analysis: instrument blanks and method blanks:

- An instrument blank sample was used to verify that no contamination existed on the probe window during XRF analysis. The instrument blank sample was analyzed at the beginning of each day, after each set of 10 site samples, and at the end of each work day. No arsenic or lead concentrations above the method detection limits were found during instrument blank sample analyses.
- Method blank samples were used to monitor for sample preparation-induced contaminants or interferences. Method blank samples were obtained from “clean” silica sand. Each method blank sample was prepared by following the same preparation procedure and equipment as the site soil samples. Method blank samples were analyzed



after each set day. No arsenic or lead concentrations above the method detection limits were found during method blank sample analyses.

A detection limit study was conducted using the low concentration site-specific SRM to determine the reliable method detection limits of each utilized XRF instrument. The study was performed by analyzing the site-specific SRM seven separate times with the XRF and calculating the average. The calculated XRF method detection limit for both arsenic and lead was determined to be 10 mg/kg. The precision of the XRF analyses was also documented using duplicate analyses. Acceptable precision with duplicates analyses was documented on all three XRF instruments used. The analysis precision between two instruments was also documented and found acceptable. A summary of the field XRF QA/QC data is presented under Appendix F.

#### **4.1.2 QA/QC of Laboratory Data**

A total of 254 soil samples, including field duplicates, and three surface water samples with a surface water duplicate were analyzed by the U.S. EPA Region 9 Laboratory for arsenic and lead by USEPA Method 6010B Inductively Coupled Plasma-Atomic Emission Spectrometry. Additionally 10 daily equipment rinsate blanks were analyzed by the U.S. EPA Region 9 Laboratory for arsenic and lead by USEPA Method 6010B. The data validation and laboratory analysis summary reports are provided under Appendix E. Forty-four of the 253 samples also were analyzed using U.S. EPA Method 6010B to determine the concentration of 14 additional metals. An additional four water samples were also analyzed for arsenic, lead, and 15 additional metals. Forty of the 254 samples were extracted using a bio-accessibility extraction procedure followed by analyses for total arsenic and lead concentration by U.S. EPA Method 6010B.

To provide QA/QC of the laboratory-generated data, all laboratory analytical results were provided by the U.S. EPA Region 9 Laboratory with Tier 1 data validation. A START chemist then conducted Tier 2 data validation for all laboratory-generated data in accordance with the EPA guidance *Quality Assurance/Quality Control Guidance for Removal Activities, Sampling QA/QC Plan and Data Validation Procedures* (EPA/540/G-90/004 OSWER Directive 9360.4-01) April 1990 (U.S. EPA, 1990). Tier 2 data validation included evaluation of criteria such as laboratory QA/QC summaries, holding times, and matrix-related recoveries. Data qualifiers were applied by START according to the *U.S. EPA CLP National Functional Guidelines for Inorganic Data Review* (OSWER 9240.1-45, EPA 540-R-04-004) October 2004 (U.S. EPA, October 2004). All data were found to be acceptable for use as definitive data. Arsenic and lead concentrations were not detected above the laboratory reporting limits within any of the daily equipment rinsate blanks and were considered acceptable for QA/QC purposes.

### **4.2 XRF and Laboratory Data Correlation**

The U.S. EPA SW-846 field XRF Method 6200 suggests that a minimum of 5 to 10 percent of the XRF-analyzed samples be submitted to an analytical laboratory for confirmation analysis to verify the quality of the generated XRF data. During this assessment, approximately 20 percent of the XRF-analyzed samples were submitted for confirmation laboratory analysis.

#### **4.2.1 Arsenic Data Correlation**

Linear regression analysis between field XRF and laboratory results for arsenic from 253 of the 254 soil samples submitted to the laboratory generated a final coefficient of determination ( $R^2$ ) value of 0.9681 and slope value of 1.154. The concentration results from one sample with an

## 4. Analytical Results

extremely high concentration of arsenic were considered an outlier and were not used in the comparison. Based on the strong positive correlation of 0.9681 between XRF and laboratory results, the XRF data generated for arsenic concentrations during this assessment exceed the U.S. EPA criteria for use as screening level data ( $R^2=0.7$ ). Based upon the calculated slope of 1.154, the XRF concentrations for arsenic are documented as exhibiting a low bias. Since the slope is within 20 percent of a 1:1 slope, the documented biases are acceptable and usable without adjustment. Linear regression analysis between field XRF and laboratory results for arsenic concentrations around the SSL of 60 mg/kg indicate that the correlation remains acceptable for use as screening level data ( $R^2=0.7737$ ), but the slope increased to 1.2722. Such a slope suggests that to eliminate decision error, an action level of 60 mg/kg would need to be adjusted to 47 mg/kg if XRF arsenic data were used for final decision-making. The field XRF and laboratory analysis data correlation summary is provided under Appendix G.

### 4.2.2 Lead Data Correlation

Linear regression analysis between field XRF and laboratory results for lead from 254 soil samples submitted to the laboratory generated a final  $R^2$  value of 0.9908 and slope value of 1.0798. Based on the strong positive correlation of 0.9908 between XRF and laboratory results, the XRF data generated for lead concentrations during this assessment exceed the U.S. EPA criteria for use as screening level data ( $R^2=0.7$ ). Based upon the calculated slope of 1.0798, the XRF concentrations for lead are documented as exhibiting a slightly low bias. Since the slope is within 20 percent of a 1:1 slope, the documented biases are acceptable and usable without adjustment. Linear regression analysis between field XRF and laboratory results for lead concentrations around the SSL of 400 mg/kg indicate that the correlation remains acceptable ( $R^2=0.9454$ ) with a slope of 0.9885, which suggest that the SSL value of 400 mg/kg for XRF lead data is appropriate. The field XRF and laboratory analysis data correlation summary is provided under Appendix G.

## 4.3 Discussion of Results

Data collected during this removal assessment were evaluated to determine if surface and shallow subsurface soils in Eureka contain arsenic and lead at concentrations that exceed the U.S. EPA site-specific SSLs of 60 mg/kg for arsenic and 400 mg/kg for lead (U.S. EPA, 2012a). The collected surface and shallow surface soil concentration data were also compared to values of 10-times the SSL for arsenic (600 mg/kg) and 7.5-times the SSL for lead (3,000 mg/kg). For convenience, the two elevated comparison values will be referred to as the elevated site-specific Soil Screening Level (ESSL). **It should be noted that both the SSLs and ESSLs for arsenic and lead are preliminary goals and do not necessarily constitute levels that would drive cleanup actions.**

Data for surface water samples collected during this removal assessment were compared to the U.S. EPA site-specific SSLs of 10 micrograms per liter (ug/L) for arsenic and 15 ug/L for lead (U.S. EPA, 2012a).

### 4.3.1 Eureka School District Property Results

A total of 92 composite soil samples and 24 discrete soil samples were collected from nine Eureka School District properties at 55 decision units and subjected to XRF analysis. Eureka School District properties with residential use are discussed in Section 4.3.2. Of the 116

## **4. Analytical Results**

analyzed soil samples, 48 samples exceeded the SSL for either arsenic and/or lead. Only three samples had concentrations that were above the ESSL for either arsenic and/or lead.

From 46 of the 55 decision units, 46 composite surface soil samples were collected at 0 to 2 inches bgs, 46 composite shallow subsurface soil samples were collected at 2 to 6 inches bgs, and no shallow subsurface soil samples were collected at 6 to 12 inches bgs. From 9 of the 55 decision units, nine discrete surface soil samples were collected at 0 to 2 inches bgs, nine discrete shallow subsurface soil samples were collected at 2 to 6 inches bgs, and six discrete subsurface soil samples were collected at 6 to 12 inches bgs.

No contamination exceeding the SSLs was found at the property parcel where the Elementary School building is situated. Only one area at the Eureka School District Athletic Complex was found to exceed the SSLs. However, five areas on the High School facility had contamination that exceeded the SSLs.

Additionally, the SSL was exceeded in 17 of the 18 samples collected from the undeveloped area of School District property north of the High School facility. There were two samples from that undeveloped area that also exceeded the ESSLs. All the samples from the Eureka County School District property where propane storage tanks are situated were above the arsenic SSL. The data for the Eureka County School District properties is presented in Table 2 in Appendix C. The data is graphically presented in Figure 6-1 through 6-8 in Appendix B.

In general, the majority of samples collected at the Elementary School facility and Eureka School District Athletic Complex were below the SSLs. These properties were both developed fairly recently, and it is believed that a significant amount of cut and fill activities were conducted, explaining the fact that most sample results were below the SSLs. On developed portions of the High School property, the majority of the samples were just above the SSL for arsenic, but few samples were above the SSL for lead. At the former school property, sample results for the playground and play fields west of the building were generally below SSLs for the surface area but just above the SSL for soil between 2 and 6 inches bgs in two areas, whereas locations in the areas to the north and south of the building and in the grassy areas to the east of the building significantly exceeded the SSLs.

### **4.3.2 Town of Eureka Residential and Public Property Results**

A total of 609 unique composite soil samples and 205 unique discrete soil samples were collected from private and public properties and subjected to XRF analysis; a total of 97 Eureka parcels and two sub-divided parcels, consisting of 275 decision units, were sampled. Approximately 70 percent of the 814 analyzed unique soil samples exceeded the SSL for either arsenic or lead. Only 14 of the 99 sampled private and public properties from the town of Eureka have areas or samples that did not exceed the SSLs for either arsenic or lead. There were 149 samples on 31 sampled parcel properties that exceeded the ESSL for either arsenic or lead. Eighteen of the 31 parcels that exceeded ESSL were residential properties with some type of residential structure present.

From 205 of the 275 decision units, 205 composite surface soil samples were collected at 0 to 2 inches bgs, 204 composite shallow subsurface soil samples were collected at 2 to 6 inches bgs, and 200 composite shallow subsurface soil samples were collected at 6 to 12 inches bgs. From

## 4. Analytical Results

70 of the 275 decision units, 70 discrete surface soil samples were collected at 0 to 2 inches bgs, 63 discrete shallow subsurface soil samples were collected at 2 to 6 inches bgs, and 62 discrete subsurface soil samples were collected at 6 to 12 inches bgs.

The sampled property locations with lead and arsenic concentration data are graphically presented in Appendix H, Figures 12, 13, 14 and 15. The data for each property parcel is presented in tables in Appendix C. The table data in Appendix C also include the square footage of each decision unit and an estimate of the cubic yards of soil above the SSL for each decision unit.

In general, the majority of residential properties in established town areas had significant concentrations of both arsenic and lead. The median lead concentration was 990 mg/kg, the mean lead concentration was 1,880 mg/kg, and the estimated average lead concentration using a 95 percent Upper Confidence Limit (95%UCL) was calculated to be 2,476 mg/kg. The median arsenic concentration was 150 mg/kg, the mean arsenic concentration was 327 mg/kg, and the estimated average arsenic concentration using 95%UCL was calculated to be 457 mg/kg.

In contrast, lead and arsenic data from the newer Eureka residential developments (properties north of Archimedes along Sheridan Street and Ridgetop Road at the north end of town) were generally below SSLs for most of the samples. The median lead concentration was 69 mg/kg, the mean lead concentration was 86 mg/kg, and the estimated average lead concentration using a 95%UCL was calculated to be 93 mg/kg. The median arsenic concentration was 28 mg/kg, the mean arsenic concentration was 32 mg/kg, and the estimated average arsenic concentration using 95%UCL was calculated to be 34 mg/kg. The significant difference between the established residential areas and the new residential developments is likely indicative of cut and fill activities that occurred during construction of these newer properties.

The sampling data maps and estimated iso-concentration maps of lead and arsenic in Appendix B show actual and estimated areas of lead and arsenic concentrations in soil above background levels. Concentrations of lead and arsenic above the SSL appears throughout the town on undeveloped and established properties, with newly developed properties significantly less contaminated. Areas downwind of and near historical smelter operations and around slag piles appear to have significantly higher lead and arsenic concentrations than other town areas. The sample populations (in percent) based on level of contamination are:

|   | Lead   | Arsenic |
|---|--------|---------|
| Percentage of samples collected from parcels that are more than 10 times the SSL (600 mg/kg for arsenic or 3,000 mg/kg for lead). | 10.3 % | 7.6 %   |
| Percentage of samples collected from parcels that are between the SSL and 10 times the SSL.                                       | 49.3 % | 57.1 %  |
| Percentage of samples collected from parcels that are less than SSL.  | 40.4 % | 35.3 %  |

### 4.3.3 Unnamed Creek Results

A total of 45 unique discrete location sediment samples were collected from 15 decision units along the unnamed creek that runs south to north through Eureka. Each location was sampled at

## 4. Analytical Results

three depth intervals. A total of 15 discrete surface sediment samples were collected at the 0 to 2 inch bgs interval, 15 discrete shallow subsurface sediment samples were collected from the 2 to 6 inch bgs interval, and 15 discrete subsurface sediment samples were collected at the 6 to 12 inch bgs interval.

Elevated concentrations of both arsenic and lead were found nearby and downgradient of the two CSPs located at each end of the town. The lead concentrations in downgradient sediments ranged from 290 mg/kg to 3,300 mg/kg. The arsenic concentrations in downstream sediment ranged from 44 mg/kg to 540 mg/kg. By contrast, the upgradient sediment ranged from 25 mg/kg to 81 mg/kg for lead and 13 mg/kg to 1,100 mg/kg for arsenic.

In general, arsenic and lead concentrations upgradient of both CSPs were significantly lower than concentrations downgradient. Average downgradient arsenic and lead concentrations were 300 to 400 percent higher than upgradient concentrations.

Three discrete surface water samples were also collected from three decision units along the unnamed creek. The lead concentrations in the surface water samples ranged from 4.6 ug/L to 260 ug/L. The arsenic concentration in surface water samples ranged from 100 ug/L to 210 ug/L. All three surface water samples collected from the creek exceeded the 10 ug/L SSL for arsenic, and one sample collected from the creek also exceeded the 15 ug/L SSL for lead. The analytical data and graphic representation for both water and sediment samples are presented in Appendix C, Table 4 and Appendix B, Figures 8.

### 4.3.4 Air Dispersion Results

A total of 72 unique soil samples were collected from 36 locations on undeveloped property around the perimeter of the town to evaluate the distribution of lead and arsenic concentrations expected to be a result of air dispersion deposition. Each location was sampled at two depth intervals. The air dispersion sampling area was sampled as a single decision unit with 36 discrete surface soil samples collected at the 0 to 2 inch bgs interval and 36 discrete shallow subsurface soil samples collected from the 2 to 6 inch bgs interval. The analytical data and graphic representation for the analyzed samples are presented in Appendix C, Table 5 and Appendix B, Figure 9.

Elevated concentrations of lead or arsenic above the SSL were found at 25 of the 36 sampled locations. Elevated concentrations of lead or arsenic above ESSL were found at 5 of the 36 sampled locations. The lead concentrations at all sample locations showed significantly greater lead concentrations for the samples collected from the 0 to 2 inch interval compared with samples collected from the 2 to 6 inch interval. The average lead concentration at the 0 to 2 inch interval ranged from two to three times the average lead concentration of the 2 to 6 inch interval.

The arsenic concentrations at sample locations that were also significantly greater than the arsenic SSL showed significantly greater arsenic concentrations for the samples collected from the 0 to 2 inch interval compared with samples collected from the 2 to 6 inch interval. The average arsenic concentrations at the 0 to 2 inch interval in these locations were two times the average arsenic concentration of the 2 to 6 inch interval.



## **4. Analytical Results**

The lead concentrations in shallow soil ranged from 65 mg/kg to 15,500 mg/kg. The arsenic concentrations in shallow soil ranged from 12 mg/kg to 13,150 mg/kg. By contrast, the underlying soil ranged from 24 mg/kg to 5,500 mg/kg for lead and 13 mg/kg to 1,100 mg/kg for arsenic. The distribution of sampling locations with elevated lead and arsenic concentrations is significantly greater to the north and northeast of historical lead ore processing operations. Likewise, the distribution of elevated lead and arsenic concentrations is significantly greater at sampling locations that are closest to the historical lead ore processing locations.

The distribution of elevated lead and arsenic concentrations, the relatively higher surface contaminant concentrations over sub-surface concentrations, and the predominant wind direction suggests that aerial deposition, likely from historical smelting operations, is the source of the documented contamination for this study area.

### **4.3.5 Unpaved Roadway Results**

A total of nine composite samples of roadway materials were collected from unpaved public roads within the town. One of the samples was from a roadway material stockpile. All samples were from the 0 to 2 inch bgs interval. Two of the nine locations had arsenic or lead concentrations that exceeded the SSL. The lead concentrations ranged from 32 mg/kg to 410 mg/kg and the arsenic concentrations ranged from 17 mg/kg to 80 mg/kg. The analytical data and graphic representation for analyzed samples are presented in Appendix C, Table 6 and Appendix B, Figure 10.

In general, the unpaved roadways were significantly less contaminated with lead and arsenic than the typical soil in the area. Roadbed materials are likely sourced from locations not in the immediate area.

### **4.3.6 Background Results**

A total of 54 unique soil samples were collected from three areas on undeveloped property at locations greater than 3 miles south and north of the perimeter of the town. Each area had six discrete sampling locations that were sampled at three depth intervals. The analytical data and graphic representation is presented in Appendix C, Table 7 and Appendix B, Figure 11. All samples had lead concentrations well below the SSL for lead. One sample location had arsenic concentrations above the SSL for each interval. All other samples had arsenic concentration below the SSL for arsenic.

A total of 12 composite soil samples were collected from two occupied residential properties in Diamond Valley at locations approximately 12 miles north of the perimeter of the town. Two samples at each of three depth intervals were collected at each property. The analytical data and graphic representation are also presented in Appendix C, Table 3 and Appendix B, Figure 6. All samples had lead and arsenic concentrations well below the SSLs.

The background lead concentrations ranged from 20 mg/kg to 246 mg/kg for the 0 to 2 inch bgs interval, 21 mg/kg to 136 mg/kg for the 2 to 6 inch bgs interval, and 12 mg/kg to 61 mg/kg for the 6 to 12 inch bgs interval. The arsenic concentrations ranged from non-detection to 120 mg/kg for the 0 to 2 inch bgs interval, non-detection to 89 mg/kg for the 2 to 6 inch bgs interval, and non-detection to 85 mg/kg for the 6 to 12 inch bgs interval.

From the background data, the average concentration for discrete samples was calculated to be 52 mg/kg for lead and 19 mg/kg for arsenic. The background concentrations based upon composite samples from the Diamond Valley properties was calculated as 27.5 mg/kg for lead and 12 mg/kg for arsenic. The median lead concentration for all background samples was 37 mg/kg, the mean lead concentration was 47 mg/kg, and the estimated average lead concentration using the 95%UCL was calculated to be 52 mg/kg. The median arsenic concentration for all background samples was 14 mg/kg, the mean arsenic concentration was 25 mg/kg, and the estimated average arsenic concentration using 95%UCL was calculated to be 38 mg/kg.

#### **4.3.7 Bio-accessibility Study Results**

In order to estimate the bioavailability percentage of lead and arsenic in soil samples collected from Eureka, a cross-section of 43 soil samples were selected and analyzed using bio-accessibility extraction procedure U.S. EPA 9200.2-86. Of the selected 43 soil samples, 65 percent were from residential properties, 26 percent were from vacant or undeveloped properties, seven percent were from commercial properties, and two percent from the northern CSP. These samples had initial arsenic concentrations that ranged from 58 mg/kg to 21,000 mg/kg and initial lead concentrations that ranged from 120 mg/kg to 27,000 mg/kg.

The average bio-accessibility value for lead for all samples was approximately 75 percent, and the average bio-accessibility value for residential properties only was also approximately 75 percent. The average bio-accessibility value for arsenic was approximately 40 percent and the average bio-accessibility value for residential properties only was also approximately 40 percent. The default bioavailability assumption for lead and arsenic in soil used by the U.S. EPA for risk assessment calculations is 60 percent. The analytical data table is presented in Appendix C, Table 8.

#### **4.3.8 Metals Survey**

The data for selected samples that were analyzed for antimony, barium, beryllium, cadmium, chromium, cobalt, copper, molybdenum, nickel, selenium, silver, thallium, vanadium and zinc to supplement the lead and arsenic data are presented in Appendix C, Table 9. The lead and arsenic concentration ranges for the selected samples was 43 mg/kg to 12,000 mg/kg for lead and 23 mg/kg to 2,400 mg/kg for arsenic. The concentration range for each determined metal is as follows:

- Antimony concentrations ranged from less than 2 mg/kg to 180 mg/kg; the residential RSL for antimony is 31 mg/kg.
- Barium concentrations ranged from 99 mg/kg to 680 mg/kg; the residential RSL for barium is 1,500 mg/kg.
- Beryllium concentrations ranged from 0.67 mg/kg to 1.4 mg/kg; the residential RSL for beryllium is 160 mg/kg.
- Cadmium concentrations ranged from 0.54 mg/kg to 76 mg/kg; the residential RSL for cadmium is 70 mg/kg.
- Chromium concentrations ranged from 5.9 mg/kg to 17 mg/kg; the residential RSL for chromium is 38 mg/kg.
- Cobalt concentrations ranged from 2.2 mg/kg to 6.7 mg/kg; the residential RSL for cobalt is 23 mg/kg.

#### **4. Analytical Results**

- Copper concentrations ranged from 9.8 mg/kg to 190 mg/kg; the residential RSL for copper is 3,100 mg/kg.
- Molybdenum concentrations ranged from less than 2.5 mg/kg to 280 mg/kg; the residential RSL for molybdenum is 390 mg/kg.
- Nickel concentrations ranged from 5.2 mg/kg to 14 mg/kg; the residential RSL for nickel is 1,500 mg/kg.
- Selenium concentrations ranged from less than 2.0 mg/kg to 2.4 mg/kg; the residential RSL for selenium is 390 mg/kg.
- Silver concentrations ranged from less than 0.5 mg/kg to 26 mg/kg; the residential RSL for silver is 390 mg/kg.
- Thallium concentrations ranged from less than 2.5 mg/kg to tentative estimated concentration of 2.9J mg/kg; the residential RSL for silver is 390 mg/kg
- Vanadium concentrations ranged from 19 mg/kg to 87 mg/kg; the residential RSL for vanadium is 390 mg/kg.
- Zinc concentrations ranged from 64 mg/kg to 2,000 mg/kg; the residential RSL for zinc is 23,000 mg/kg.

The following general conclusions can be made from a review of the survey data.

- Antimony was at concentrations above the U.S. EPA residential RSL in 10 of the 44 samples.
- Samples that exceeded the ESSL for either arsenic or lead, also exceeded the U.S. EPA residential RSL for antimony.
- The antimony concentration in background soil samples had a mean concentration of 10 mg/kg.
- Other than thallium and arsenic, metal concentrations in background samples were well below the U.S. EPA residential RSLs.
- Cadmium was at concentrations above the U.S. EPA residential RSL in 1 of the 44 samples.
- No sample was above the U.S. EPA non-residential RSL for antimony or cadmium.
- Thallium in soil typically has a method detection limit that is above the U.S. EPA residential RSL. The method detection limit at U.S. EPA regional laboratory was 2.5 mg/kg with a laboratory quantitation limit of 5.0 mg/kg, both values of which are also above the U.S. EPA residential RSL of 1.0 mg/kg. No sample result were reported that were above the laboratory's quantitation limit.

All other metals, other than arsenic and lead, were at concentrations below the U.S. EPA residential RSLs. All samples with antimony or cadmium concentrations above the U.S. EPA residential RSL also had lead and arsenic at concentrations significantly above the RSLs.



**4.3.9 Bioavailability Study**

The conclusions from the bioavailability study of six prepared composite soil samples that were submitted to the U.S. EPA National Exposure Research Laboratory (NERL) in Research Triangle Park, North Carolina, for an oral bioavailability study of arsenic and lead in mice will not be available until late March 2013. As part of the bioavailability in mice study, the soil samples will be extracted at NERL by EPA Method 3051A and analyzed by EPA Method 6020 Inductively Coupled Plasma-Mass Spectrometry. Additionally, each soil sample was analyzed by Instrumental Neutron Activation Analysis (INAA) to determine the concentration of total arsenic in the samples. The resultant mouse tissues from each soil feeding assay will also be analyzed by INAA for arsenic and lead.

The soil was also in vitro extracted and analyzed for arsenic by NERL and will additionally undergo speciation analysis at Argonne National Laboratory in Chicago, Illinois.

**4.3.10 Data Gaps**

As shown in the Town of Eureka sampling data maps presented in Appendix B and Appendix H, only about 20 percent of the properties in the town were sampled. Since one of the principle mechanisms for the deposition of contamination is air dispersion, it is reasonable to assume that similar lead and arsenic concentrations above the SSLs would be found throughout the town. An estimation of the deposition of lead and arsenic based on interpolation of existing data is illustrated in two iso-concentration maps for the Town of Eureka presented in Appendix H (Figures 16 and 17).

Based upon the existing data and data interpolation, additional assessment of remaining properties appears to be the necessary in order to fully document the extent and magnitude of the arsenic and lead contamination.

## 5 Conclusions

From October 15 through October 26, 2012, the U.S. EPA and START conducted removal assessment sampling throughout Eureka, Nevada. A total of 1,131 unique samples were collected.

During and following the field work, the 1,131 unique field samples, 6 special composite samples, 121 field duplicates and 62 preparation duplicates were analyzed by XRF. A total of 283 soil samples were submitted to the U.S. EPA Region 9 Laboratory in Richmond, California, for confirmation analysis by U.S. EPA Method 6010B. Forty soil samples were additionally extracted using a bio-accessibility extraction procedure followed by analyses using U.S. EPA Method 6010B. Six specially prepared composite soil samples were submitted to the U.S. EPA NERL in Research Triangle Park, North Carolina, for a bioavailability and speciation study. The results of the NERL studies were not available at the time this report was written but will be provided in a future addendum to the report.

The data collected from this removal assessment will be used by the U.S. EPA Region 9 ERS to determine whether environmental hazards are present in Eureka that may pose an “imminent and substantial endangerment to human health or the environment.” As appropriate, the U.S. EPA will use this assessment data to evaluate the potential for a removal action at the site and identify alternatives to mitigate environmental hazards that meet endangerment criteria. Data collected during this removal assessment were evaluated to determine if surface and shallow subsurface soils in Eureka contain arsenic and lead at concentrations that exceed the U.S. EPA site-specific SSLs of 60 mg/kg for arsenic and 400 mg/kg for lead (U.S. EPA, 2012a). The collected surface and shallow surface soil concentration data were also compared to ESSLs, which were values 10 times the SSL for arsenic (600 mg/kg) and 7.5 times the SSL for lead (3,000 mg/kg). **It should be noted that both the SSLs and ESSLs for arsenic and lead are preliminary goals and do not necessarily constitute levels that would drive cleanup actions.**

In summary, a total of 92 of the 109 sampled residential and public properties contained soils with arsenic and/or lead concentrations that exceeded their respective U.S. EPA SSLs. A total of 18 residential occupied properties and portions of two Eureka County School District-owned properties contained soils with arsenic and/or lead concentrations above the ESSLs

The conclusions reached from the results of this removal assessment are provided below.

- The data collected during this removal assessment indicate that arsenic and lead concentrations exceed their respective U.S. EPA SSLs protective of human health in surface soils (0 to 6 inches) throughout much of the Town of Eureka.
- In general, the majority of sampled residential properties in established town areas had significant concentrations of both arsenic and lead. The mean lead concentration was 1,880 mg/kg, and the mean arsenic concentration was 327 mg/kg.
- In general, the majority of samples collected at the Elementary School facility and Eureka School District Athletic Complex were below the U.S. EPA SSLs. These properties were both developed fairly recently, and it is believed that a significant amount of cut and fill

## **5. Conclusion**

activities were conducted, explaining the fact that most sample results were below the SSLs. The samples from High School facility generally just exceeded the SSL for arsenic, but few samples exceeded the SSL for lead. The higher concentrations of arsenic and lead that were found throughout much of the Town of Eureka were not present at the High School facility.

- Other Eureka County School District-owned properties had areas where the SSLs for both arsenic and lead were exceeded. Several properties contained soils with arsenic and/or lead concentrations above the ESSLs. These properties had arsenic and lead concentrations similar to sampled residential properties in established town areas.
- Elevated concentrations of both arsenic and lead in creek sediments were found nearby and downgradient of the two CSPs located at each end of the town. Arsenic and lead concentrations upgradient of both CSPs were significantly lower than concentrations downgradient. The average downgradient arsenic and lead concentrations were 300 to 400 percent higher than upgradient concentrations, which is likely attributable to the CSPs.
- In the undeveloped area surrounding the Town of Eureka, the lead and arsenic concentrations in shallow soils were significantly greater than the concentrations in the underlying soil. The distribution of elevated lead and arsenic concentrations were significantly greater to the north and northeast of historical lead ore processing operations and at locations closest to the historical lead ore processing locations. The distribution of elevated lead and arsenic concentrations, the relatively higher surface contaminant concentrations compared to subsurface concentrations, and the predominant wind direction suggest that aerial deposition, likely from historical smelting operations, is the source of the documented contamination for this study area.

## 6 Report References

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U.S. EPA, 2012, *Recommendations for Default Value for Relative Bioavailability of Arsenic in Soil* (OSWER 9200.1-113), December

***Appendix A:***  
***Photographic Documentation***

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## ***Appendix B:*** **Figures**

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**Figures 6  
(1 through 8)     Eureka School District Maps**

**Figures 7  
(1 through 105)     Parcel Property Maps**

**Figure 8             Creek Sampling Map**

**Figure 9             Air Dispersion Map**

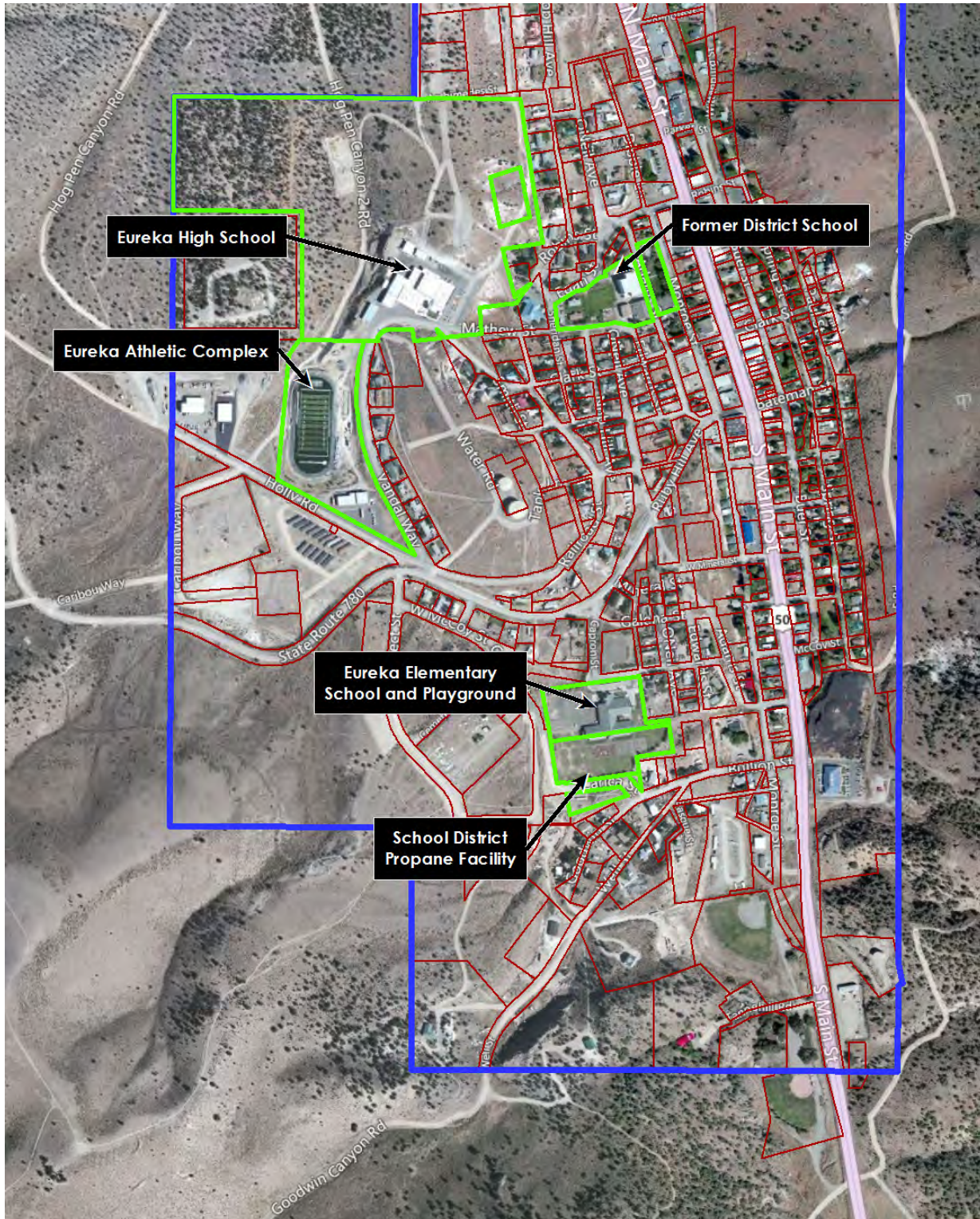
**Figure 10            Roadway Sampling Map**

**Figure 11            Background Sampling Map**

**Figure 16A           Town of Eureka Iso-Concentration Map for Arsenic**

**Figure 17A           Town of Eureka Iso-Concentration Map for Lead**





### Legend

- Project Site
- Parcel Boundary
- Eureka County School District Property

0 500 1,000  
Feet



Figure 6-1  
Sampled Eureka School District  
Property Over view Map  
Eureka Smelters Sites  
Eureka, Eureka County, Nevada



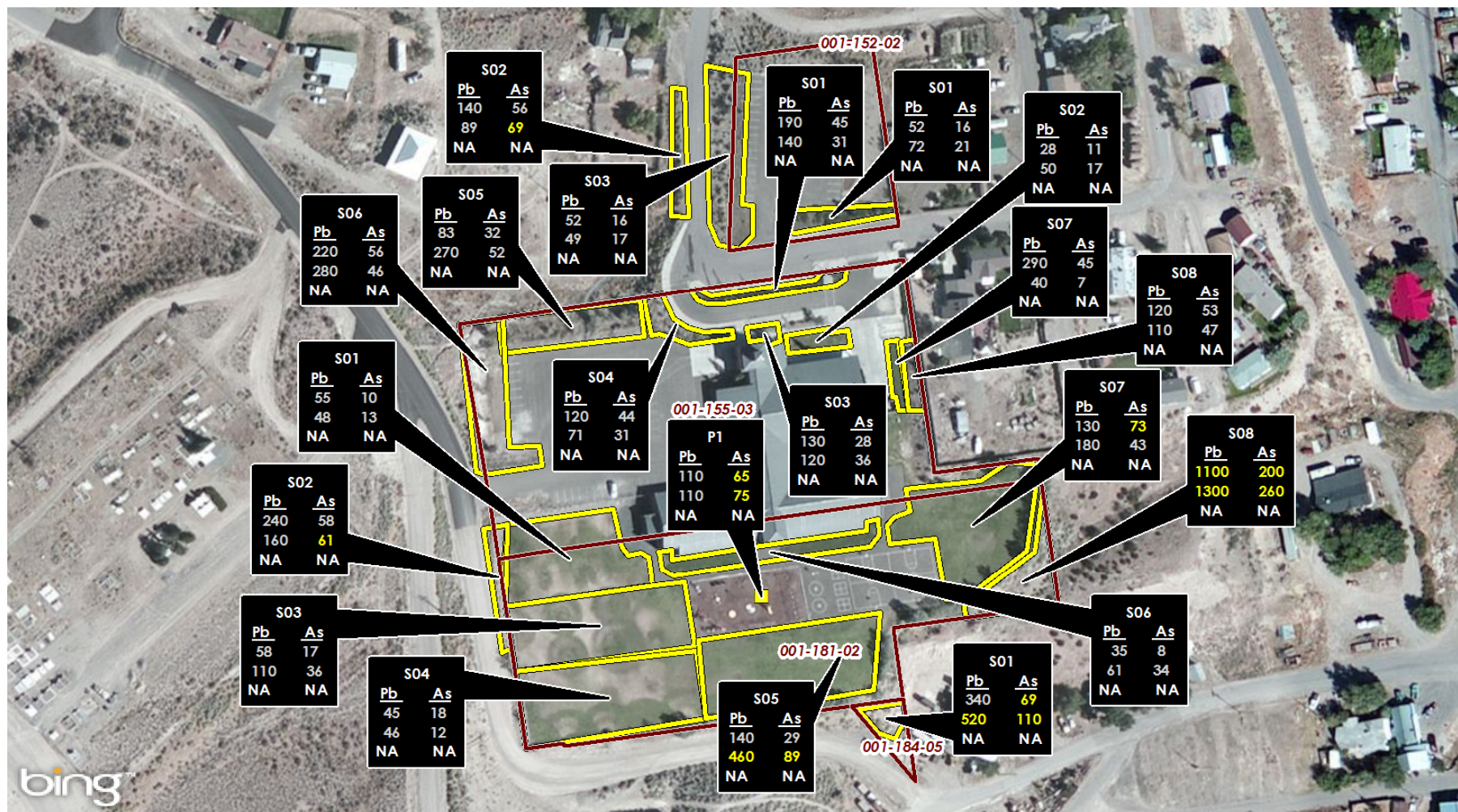
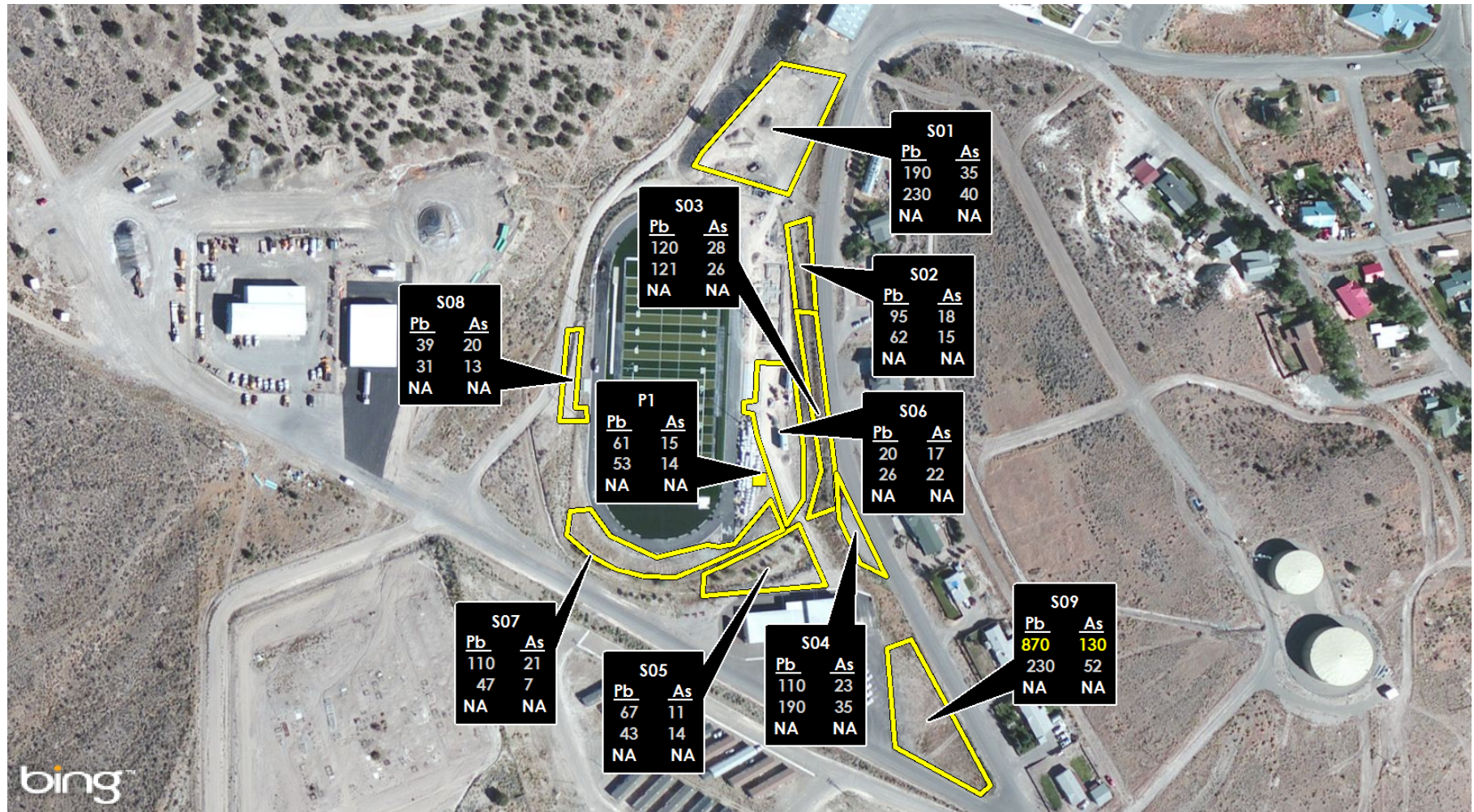


Figure 6-2

**Parcel Property Sampling Locations**  
APN: 001-155-03, 001-181-02, 001-152-02, 001-184-05  
431 W MCCOY STREET  
Eureka Smelters Sites, Eureka County, Nevada





### Legend

- Composite Sampling Area
- Discrete Sampling Location

"P" samples are point samples  
 "S" samples are composite samples  
 Pb: Lead Concentration  
 As: Arsenic Concentration  
 NA indicates that a sample was not collected

### Label Key:

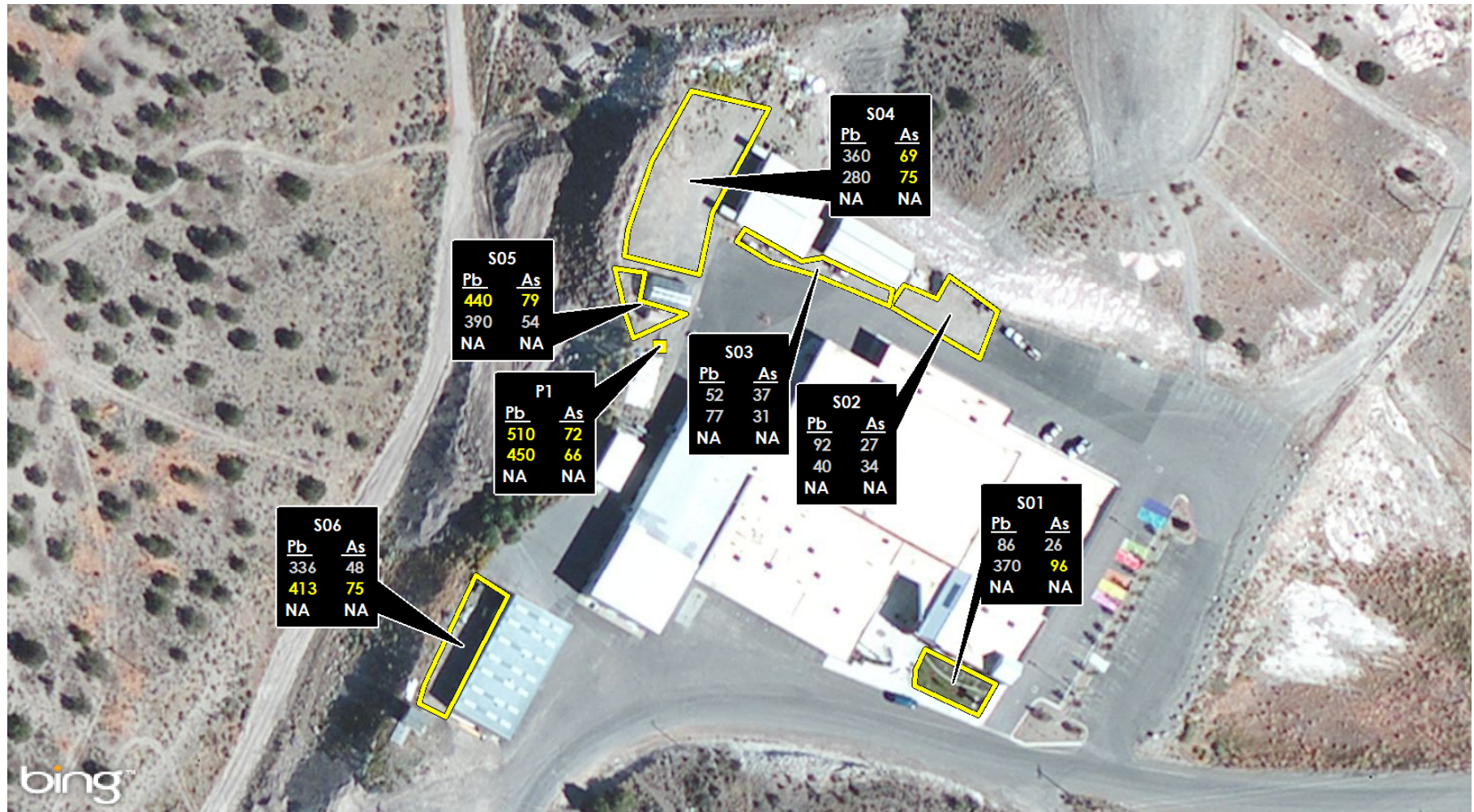
| Pb  | SAMPLE ID | As  |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| > 3,000 (mg/kg)                      | > 600 (mg/kg)                           |





### Legend

- Composite Sampling Area
- Discrete Sampling Location

"P" samples are point samples  
 "S" samples are composite samples  
 Pb: Lead Concentration  
 As: Arsenic Concentration  
 NA indicates that a sample was not collected

### Label Key:

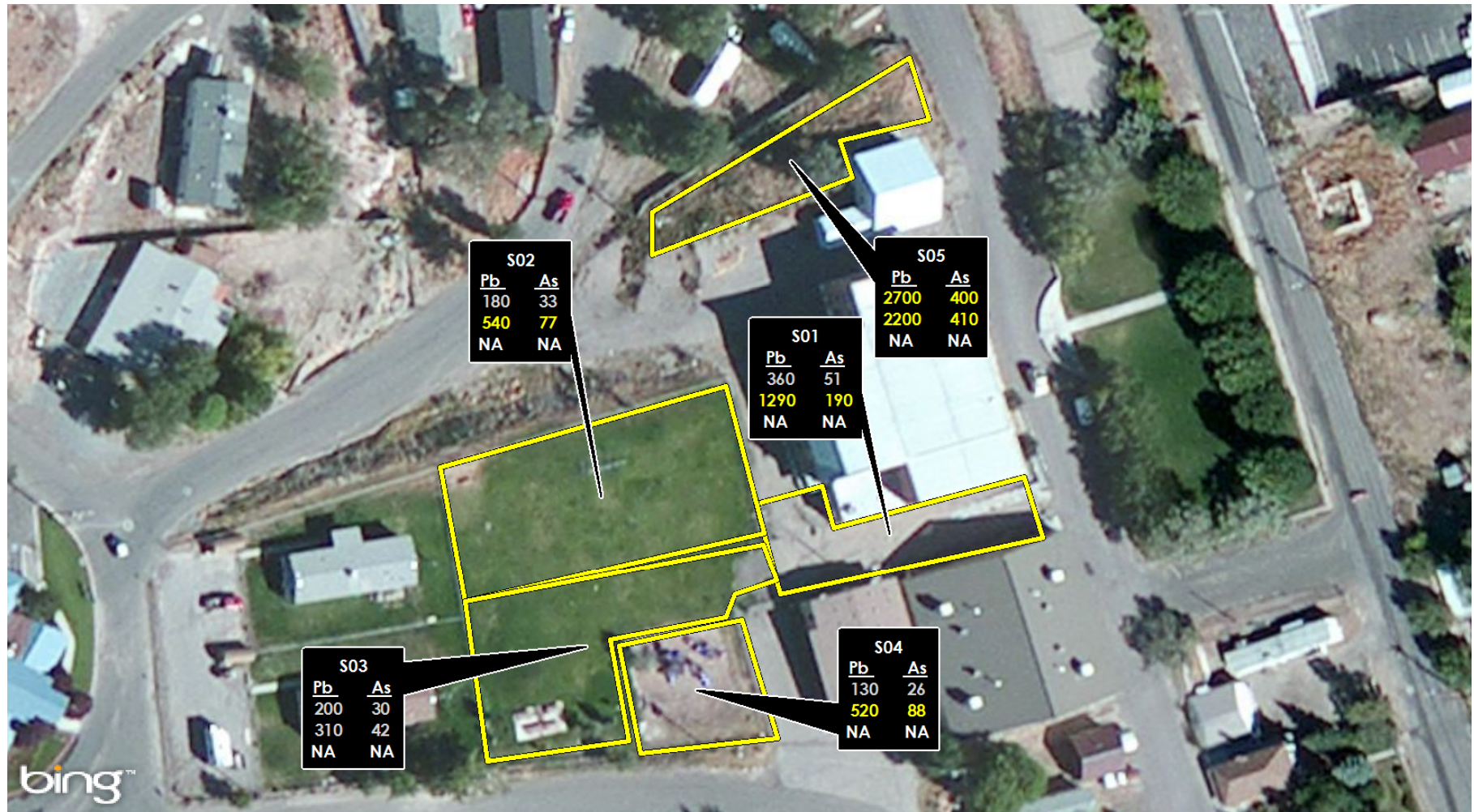
| Pb  | SAMPLE ID | As  |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| > 3,000 (mg/kg)                      | > 600 (mg/kg)                           |





### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

### Label Key:

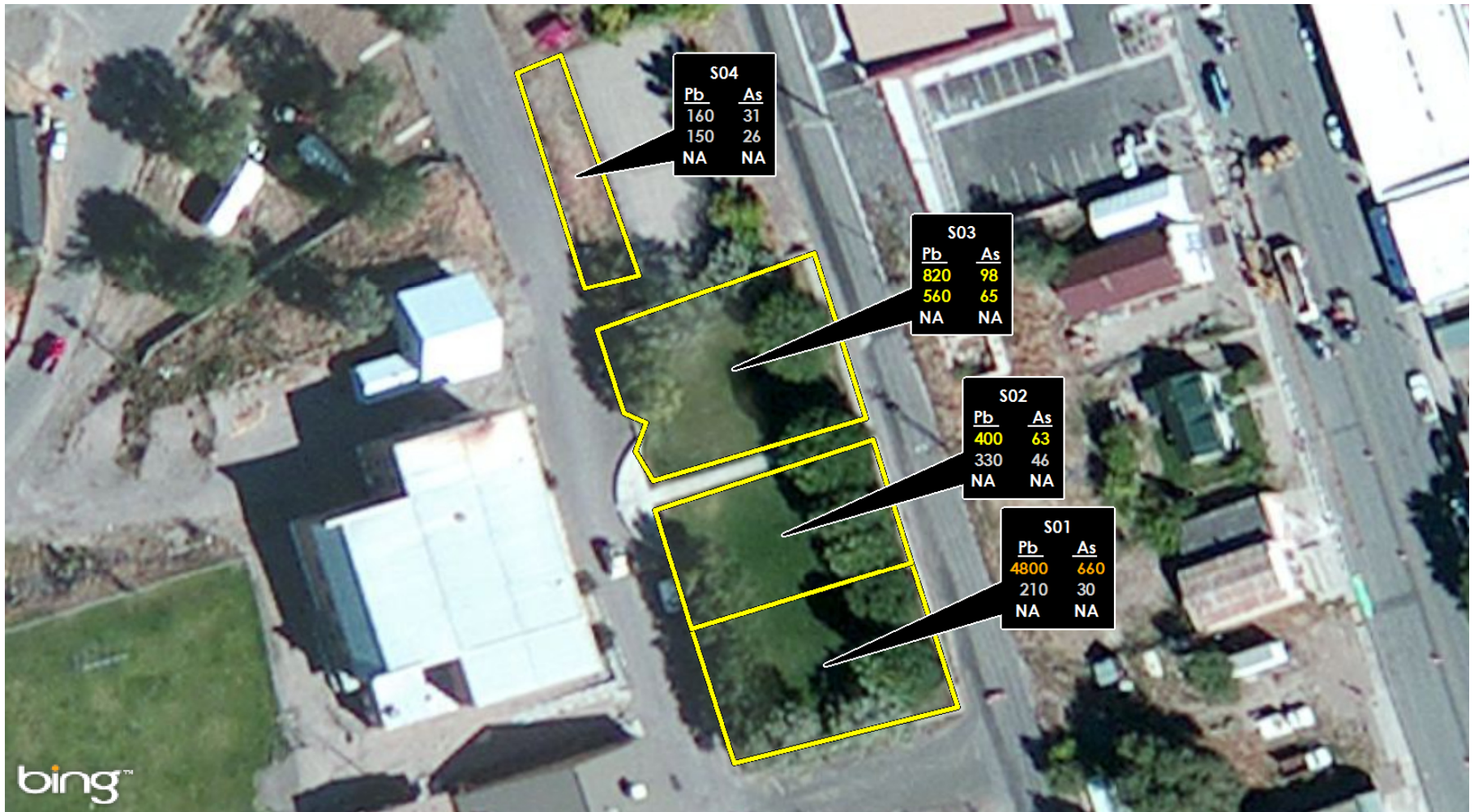
| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| > 3,000 (mg/kg)                      | > 600 (mg/kg)                           |





#### Legend

Composite Sampling Area

"P" samples are point samples  
 "S" samples are composite samples  
 Pb: Lead Concentration  
 As: Arsenic Concentration  
 NA indicates that a sample was not collected

#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| > 3,000 (mg/kg)                      | > 600 (mg/kg)                           |



### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

### Label Key:

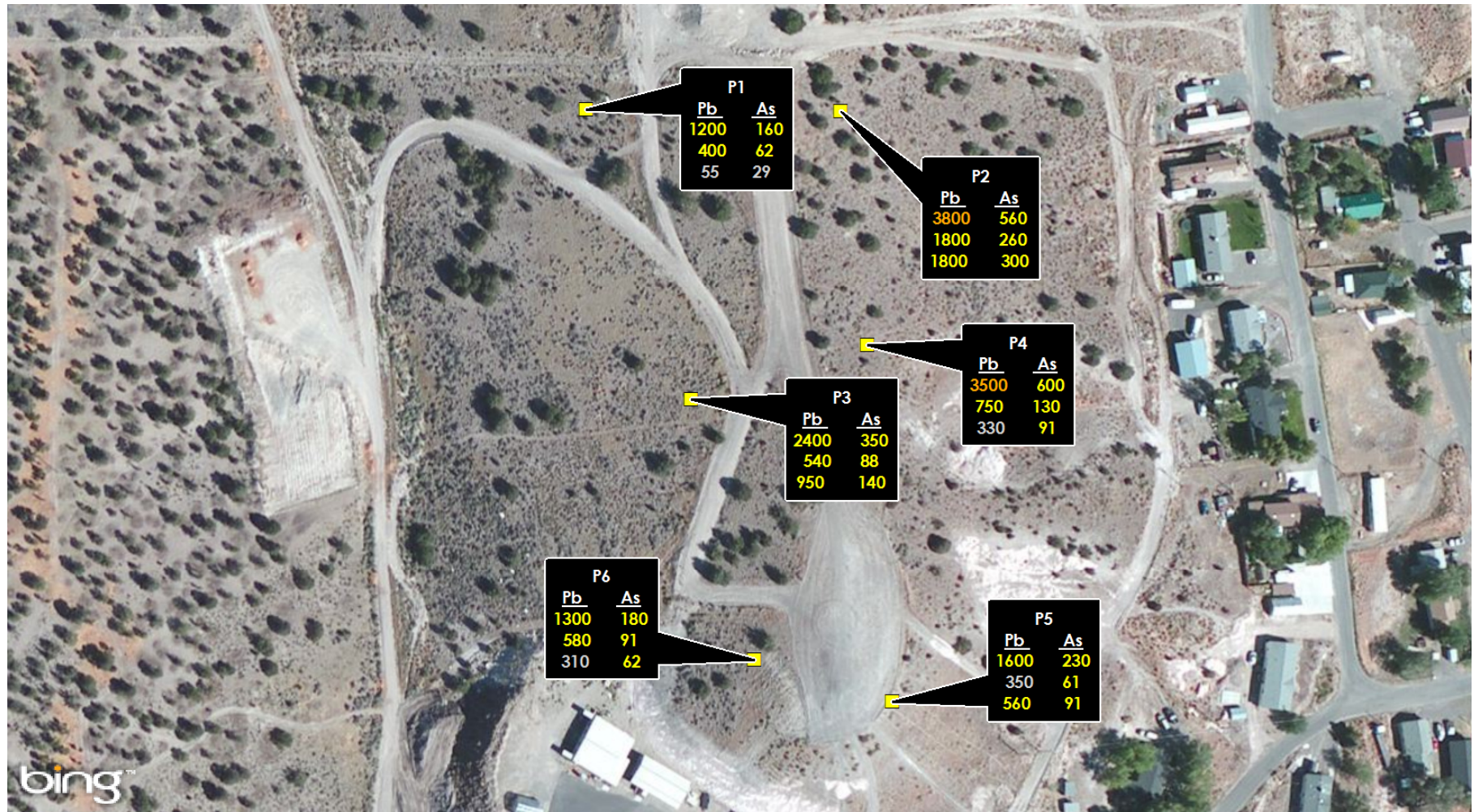
| <u>Pb</u>   | <u>SAMPLE ID</u> | <u>As</u>   |
|---|------------------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |                  | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |                  | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |                  | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| > 3,000 (mg/kg)                      | > 600 (mg/kg)                           |





### Legend

■ Discrete Sampling Location

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

### Label Key:

| Pb  | SAMPLE ID | As  |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |



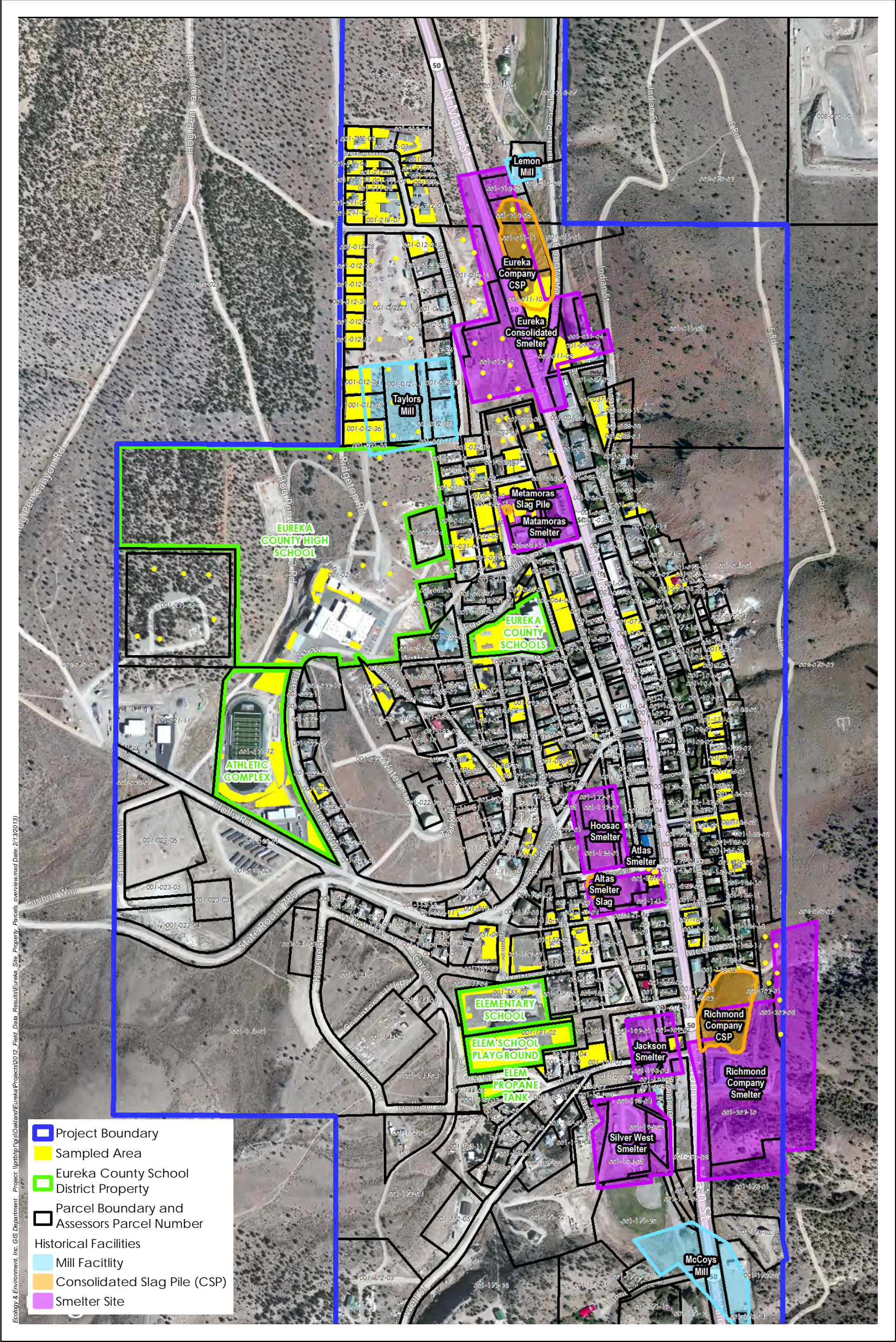


Figure 7  
Property Parcels in Eureka, Nevada  
Eureka Smelters Sites  
Eureka, Eureka County, Nevada





#### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
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| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |

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**Legend**

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

**Label Key:**

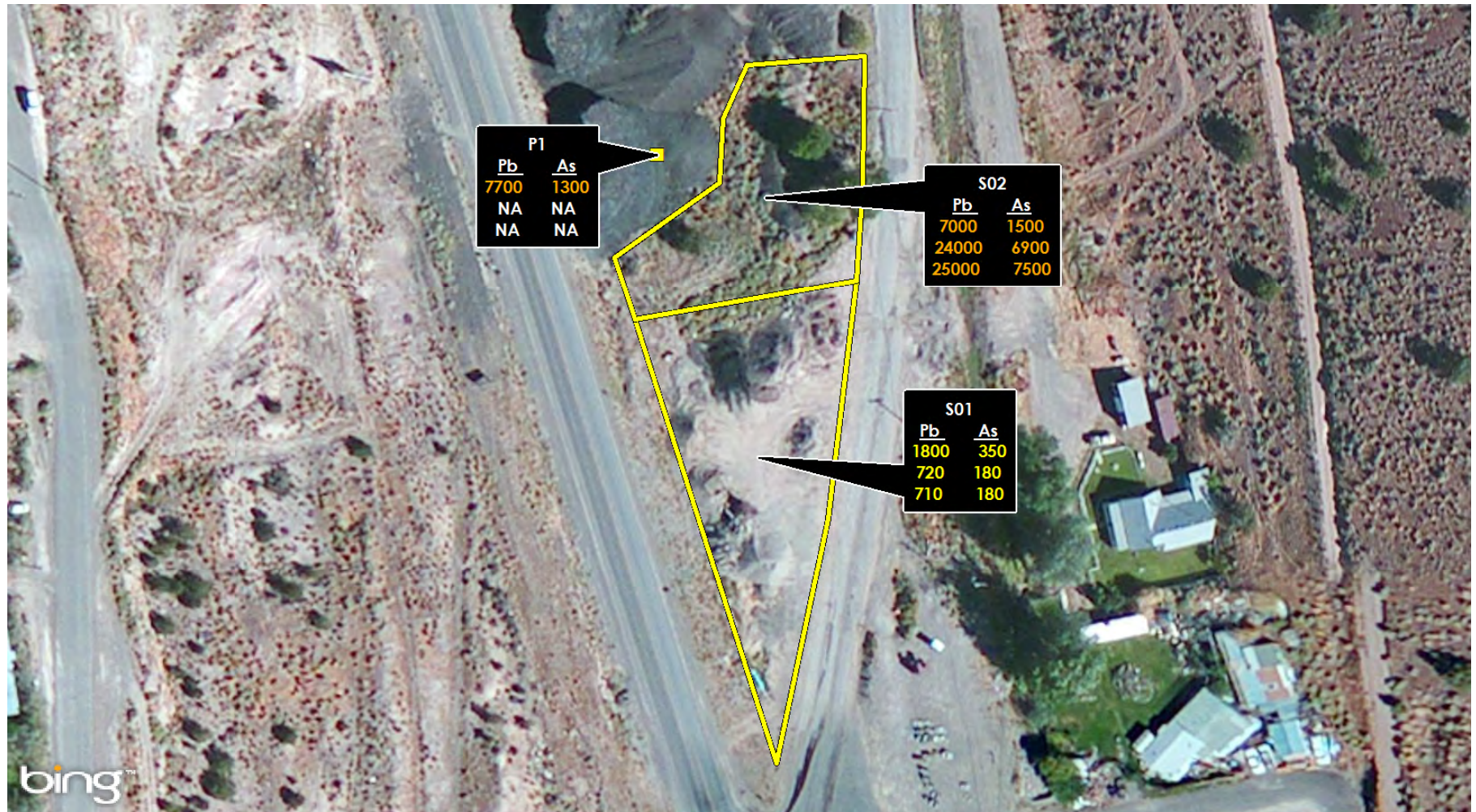
| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

**Font Color Scheme Key:**

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |





### Legend

- Composite Sampling Area
- Discrete Sampling Location

"P" samples are point samples  
 "S" samples are composite samples  
 Pb: Lead Concentration  
 As: Arsenic Concentration  
 NA indicates that a sample was not collected

### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |





#### Legend

■ Discrete Sampling Location

"P" samples are point samples  
 "S" samples are composite samples  
 Pb: Lead Concentration  
 As: Arsenic Concentration  
 NA indicates that a sample was not collected

#### Label Key:

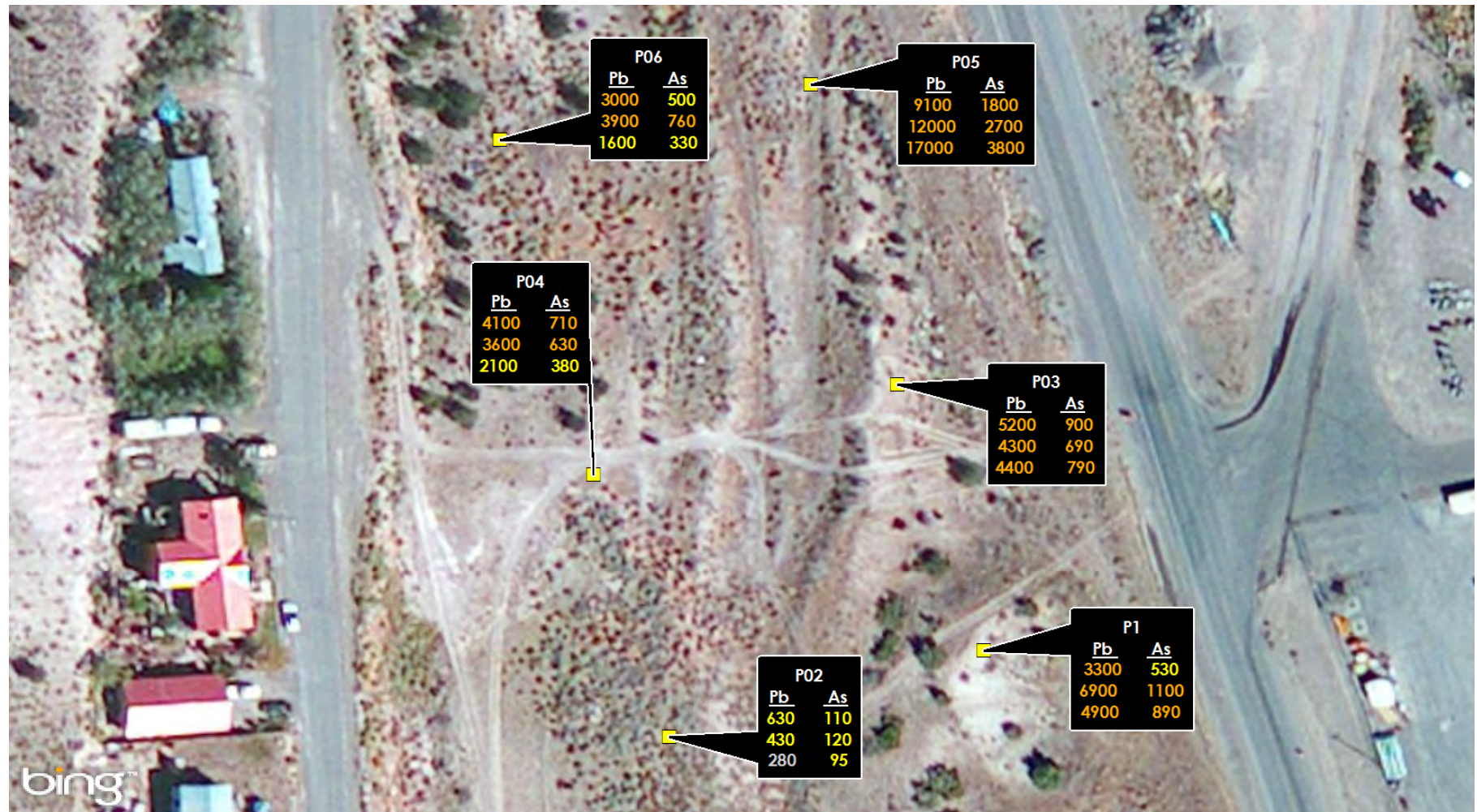
| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |





# Legend

■ Discrete Sampling Location

"P" samples are point samples  
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Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

## Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

## Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |





### Legend

■ Discrete Sampling Location

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

### Label Key:

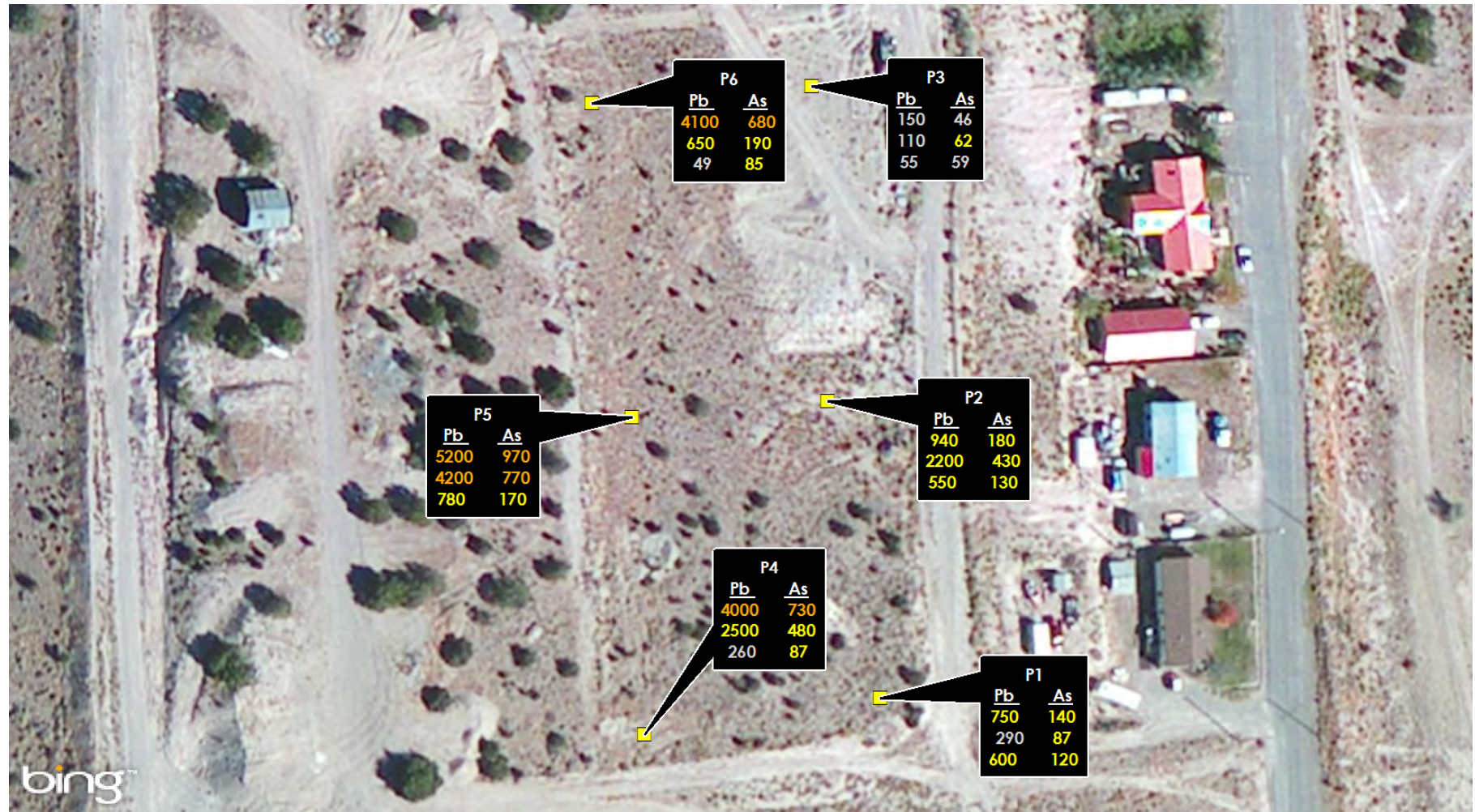
| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |





### Legend

■ Discrete Sampling Location

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |



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#### Legend

Composite Sampling Area

"P" samples are point samples  
 "S" samples are composite samples  
 Pb: Lead Concentration  
 As: Arsenic Concentration  
 NA indicates that a sample was not collected

#### Label Key:

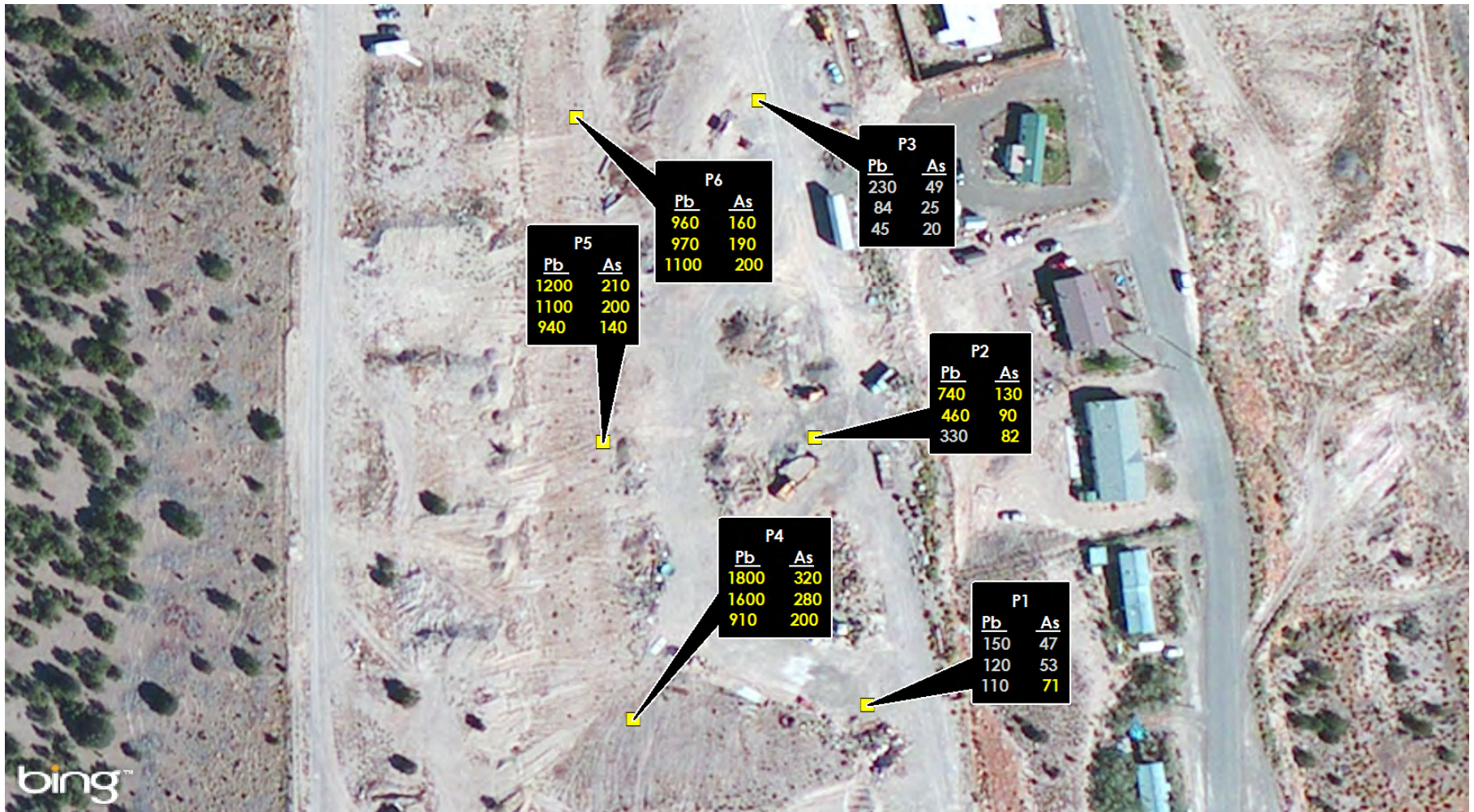
| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |





### Legend

■ Discrete Sampling Location

### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| > 3,000 (mg/kg)                      | > 600 (mg/kg)                           |

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

Figure 7-9

## Parcel Property Sampling Locations

APN: 001-012-27

550 SHERIDAN STREET

Eureka Smelters Sites, Eureka County, Nevada





### Legend

Composite Sampling Area

"P" samples are point samples  
 "S" samples are composite samples  
 Pb: Lead Concentration  
 As: Arsenic Concentration  
 NA indicates that a sample was not collected

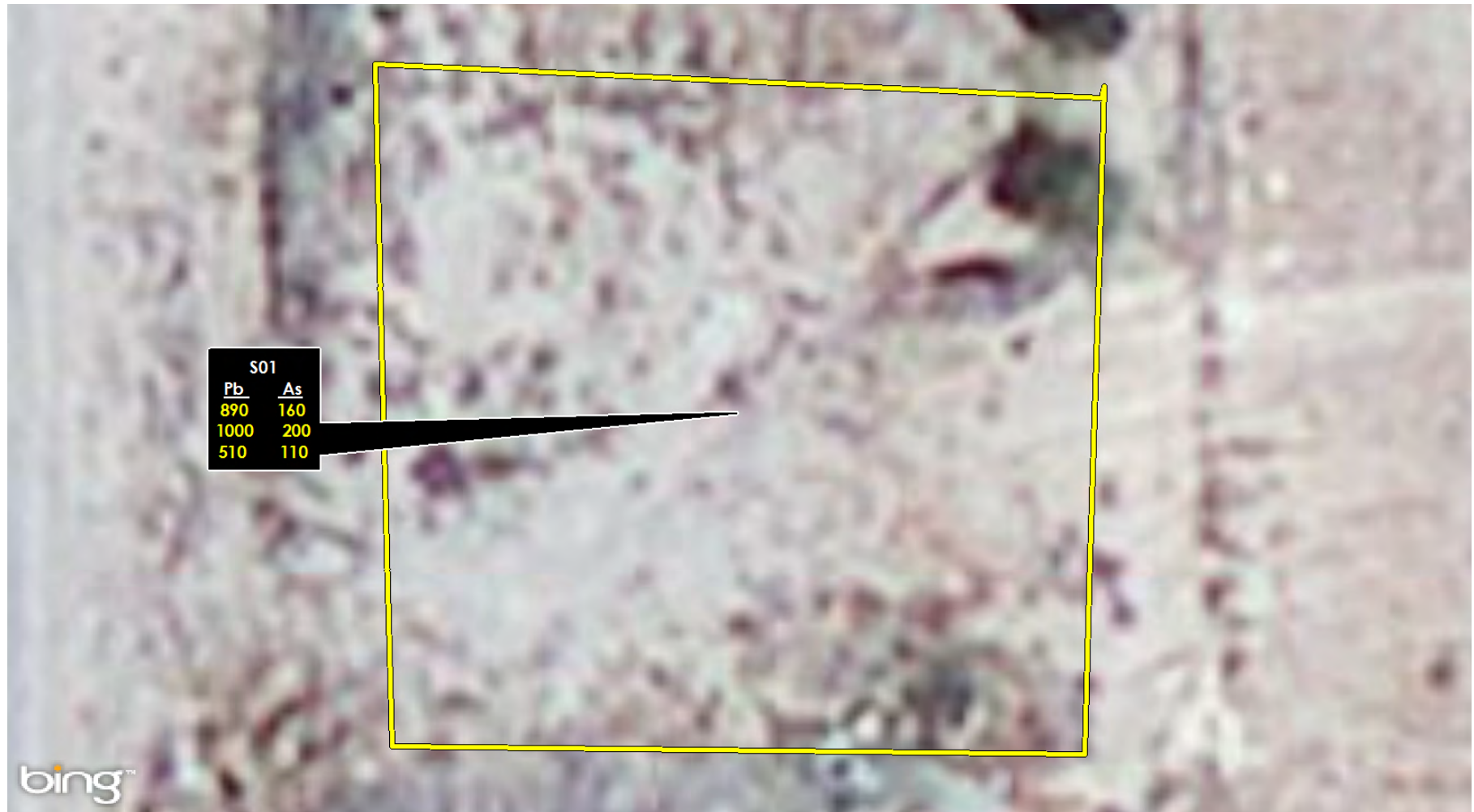
### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| > 3,000 (mg/kg)                      | > 600 (mg/kg)                           |



#### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

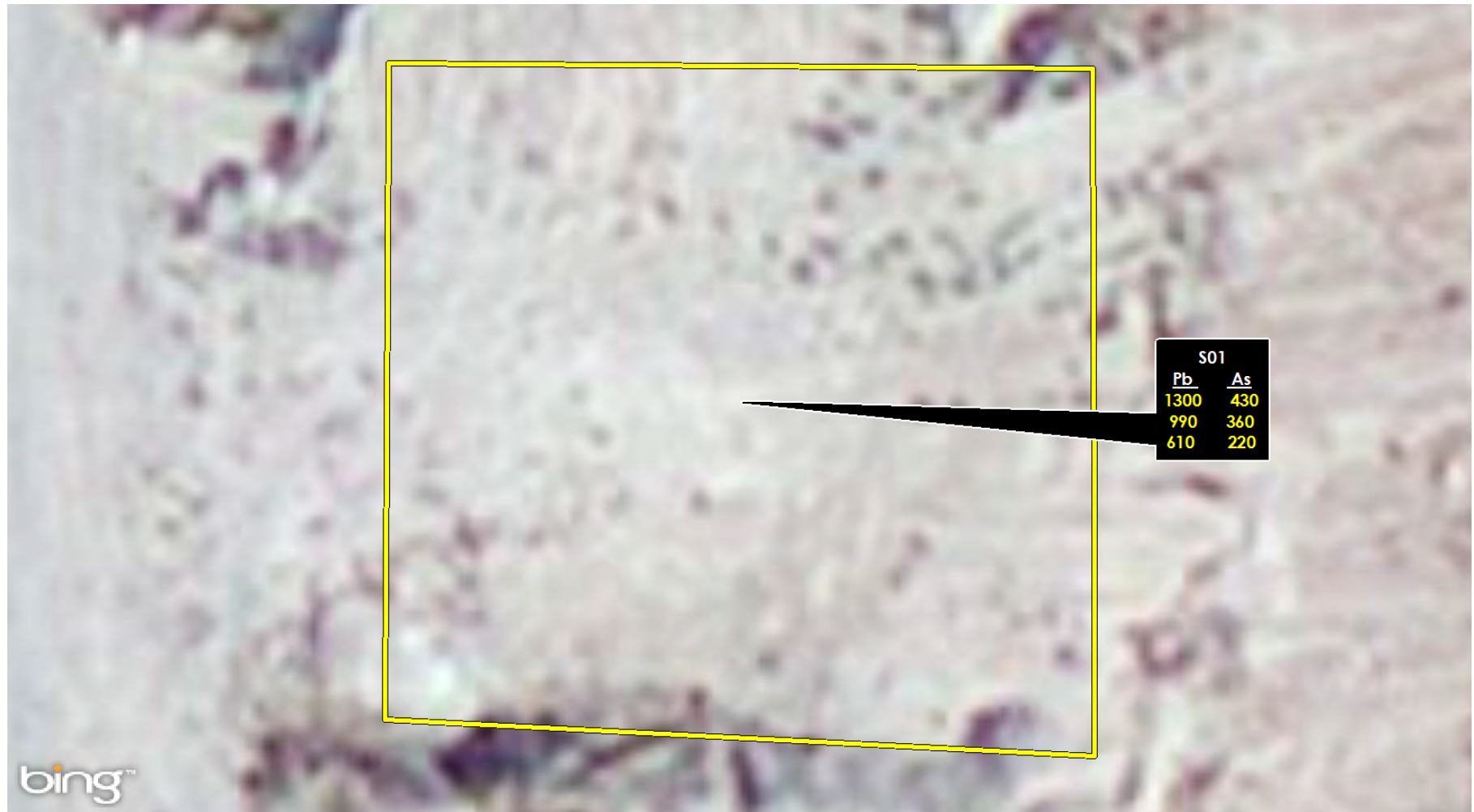
Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |



Ecology & Environment, Inc. GIS Department Project: Northrop 101sOakland/Eureka/Projects2012 Field Data Results/Parcel Map Series.mxd Date: 3/11/2013



#### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

#### Label Key:

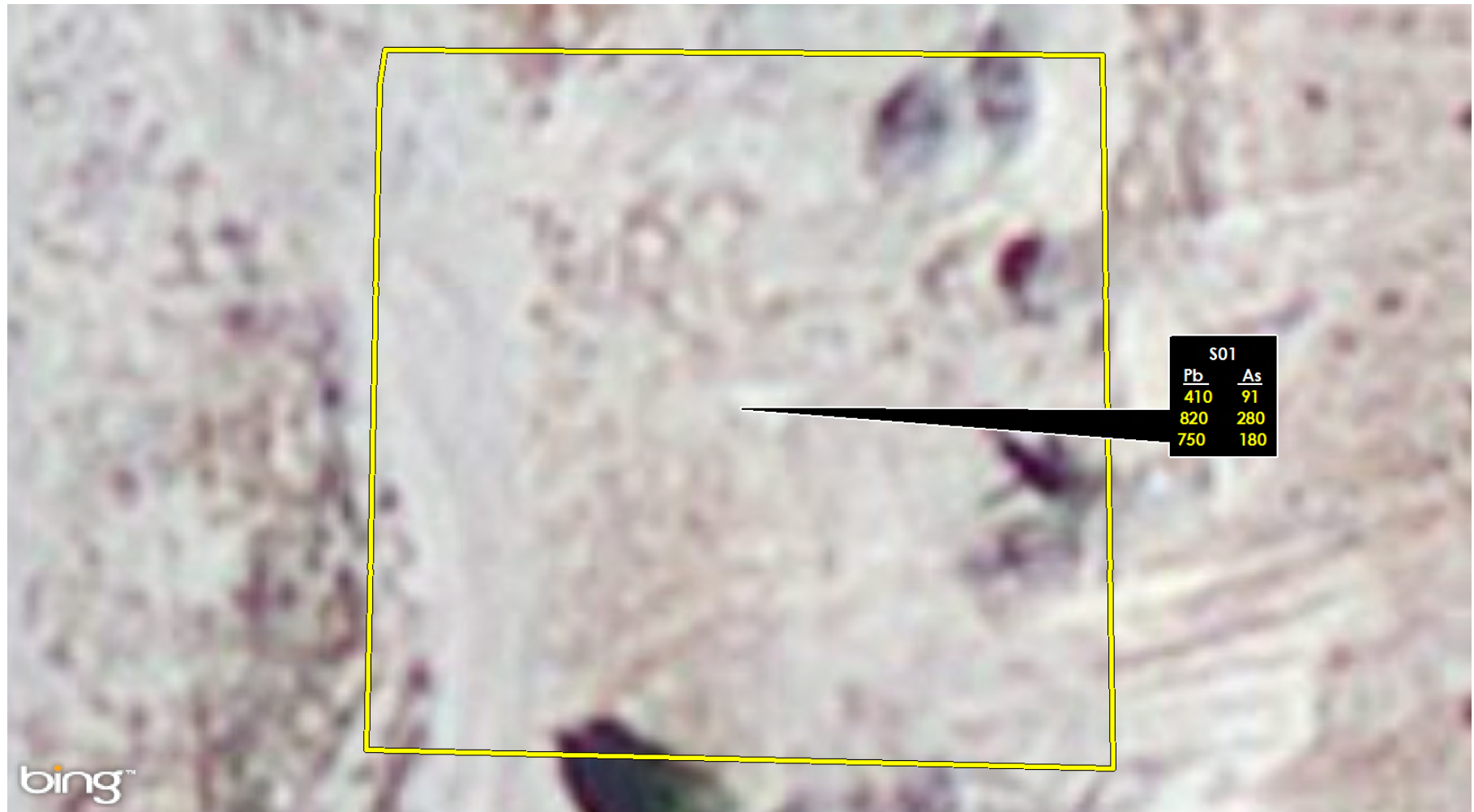
| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |

Ecology & Environment, Inc. GIS Department Project: Northrop 100s/Oakland/Eureka/Projects/2012 Field Data Results/Parcel Map Series.mxd Date: 3/11/2013



#### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

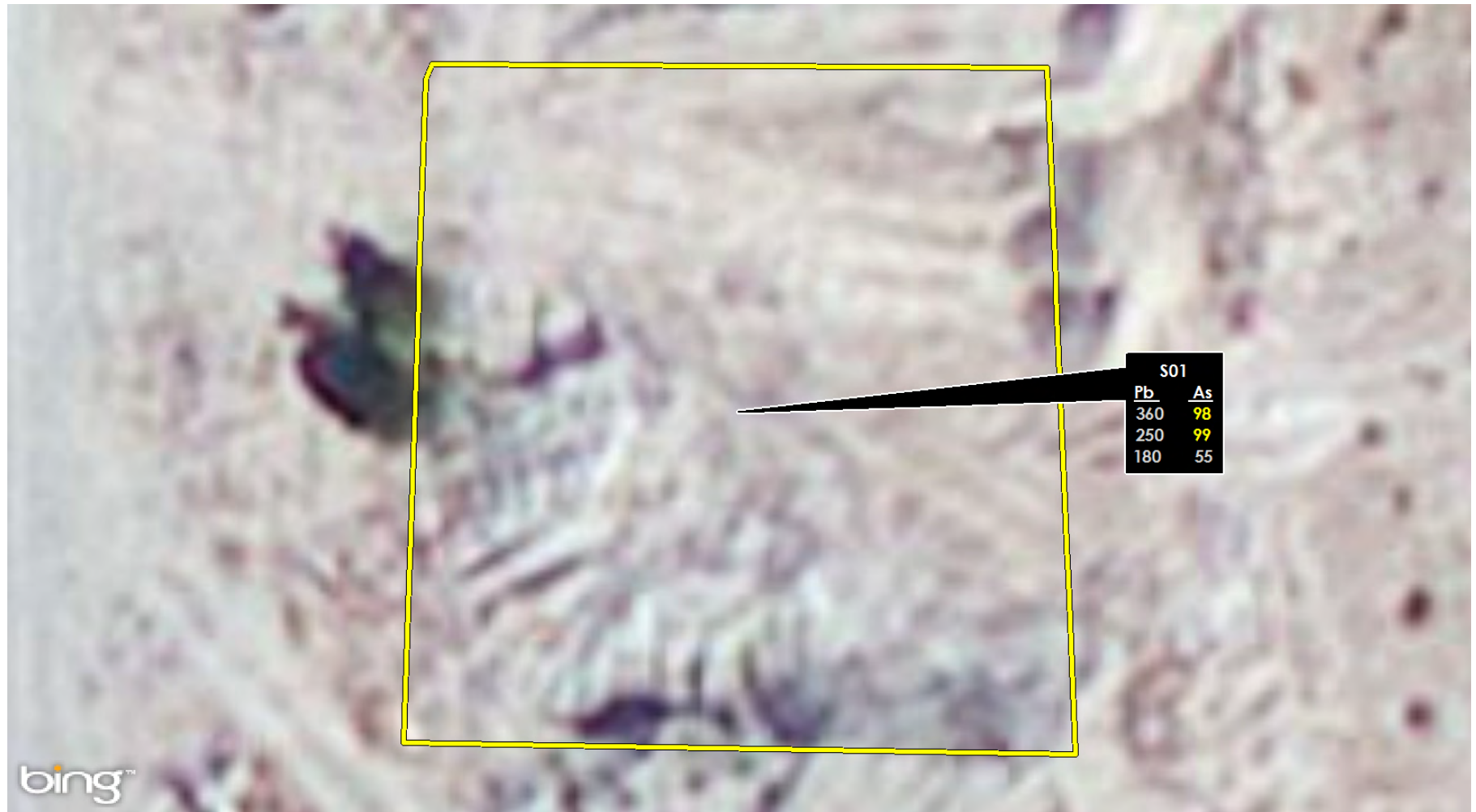
Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
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Ecology & Environment, Inc. GIS Department Project: Northrop 101s/Oakland/Eureka/Projects/2012 Field Data Results/Parcel Map Series.mxd Date: 3/11/2013



#### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

#### Label Key:

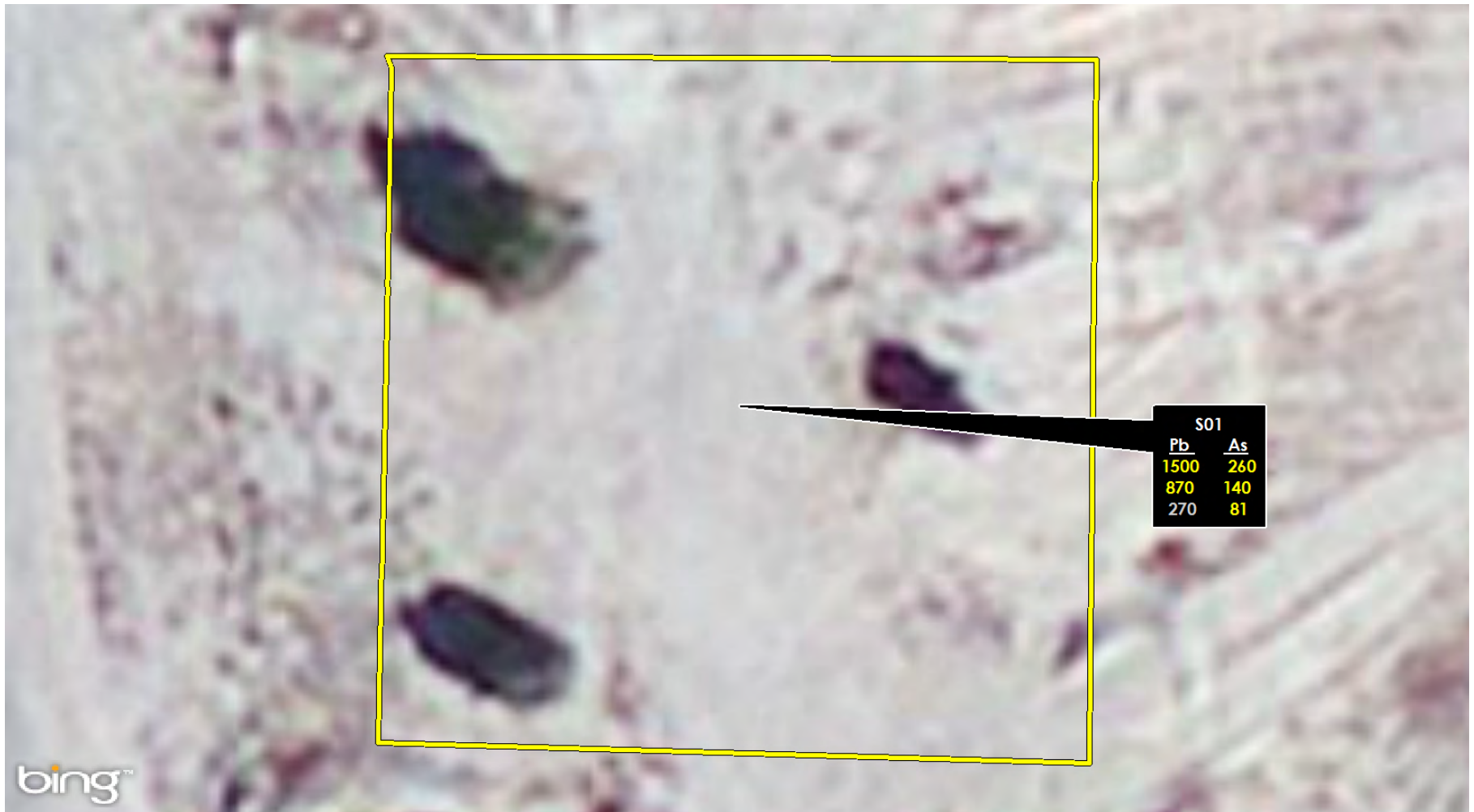
| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| > 3,000 (mg/kg)                      | > 600 (mg/kg)                           |

Ecology & Environment, Inc. GIS Department Project: Northrop 140sOakland/Eureka/Projects2012 Field Data Results/Parcel Map Series.mxd Date: 3/11/2013



#### Legend

Composite Sampling Area

"P" samples are point samples  
 "S" samples are composite samples  
 Pb: Lead Concentration  
 As: Arsenic Concentration  
 NA indicates that a sample was not collected

#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |



Ecology & Environment, Inc. GIS Department Project: Northrop 100sOakland/Eureka/Projects/2012\_Field\_Data\_Results/Parcel\_Map\_Series.mxd Date: 3/11/2013



#### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| > 3,000 (mg/kg)                      | > 600 (mg/kg)                           |

Ecology & Environment, Inc. GIS Department Project: Northrop 100sOakland/Eureka/Projects2012 Field Data Results/Parcel Map Series.mxd Date: 3/11/2013



### Legend

Composite Sampling Area

"P" samples are point samples  
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Pb: Lead Concentration  
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### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |





#### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
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#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

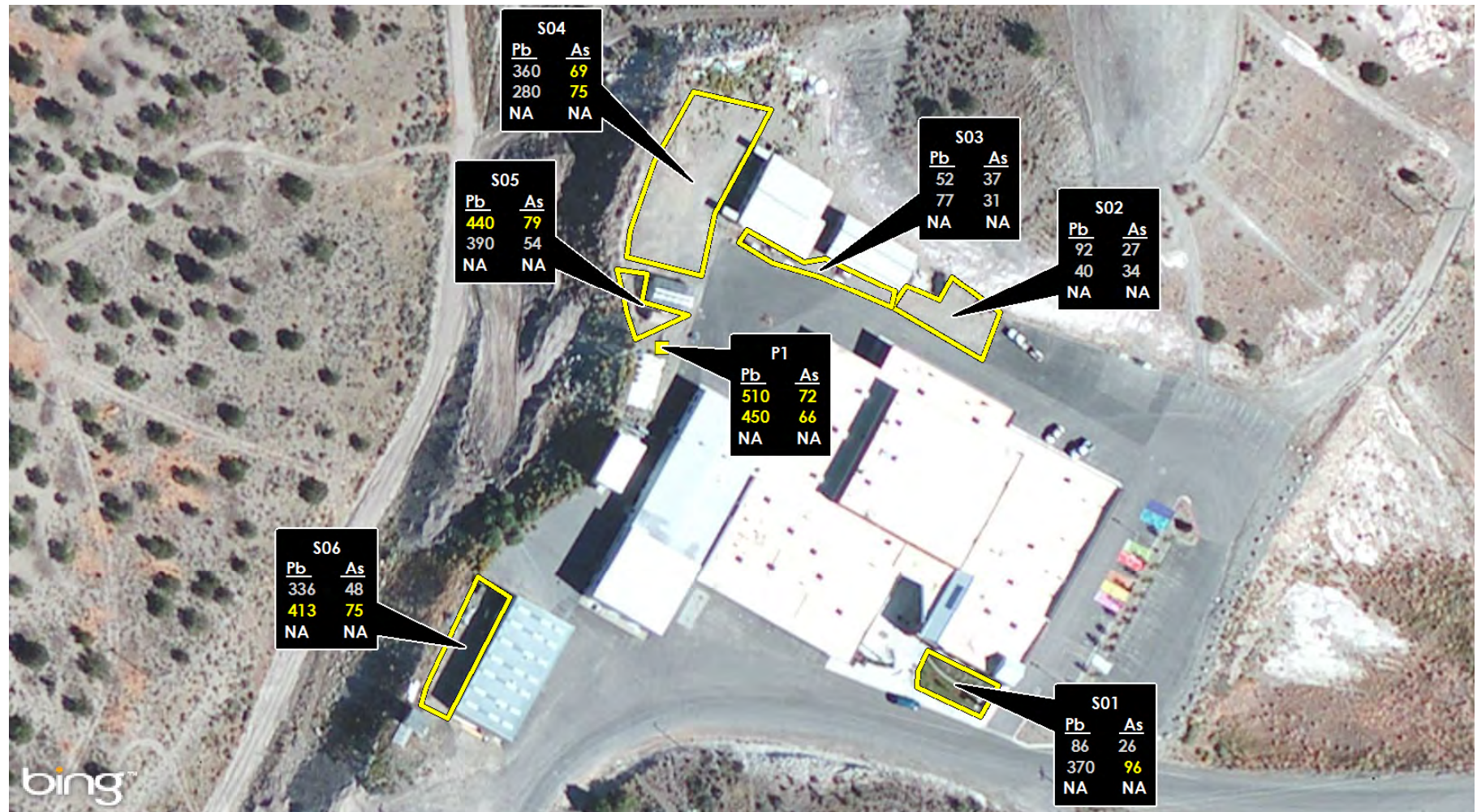
Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |



Ecology & Environment, Inc. GIS Department Project: Northrop 100sOakland/Eureka/Projects2012 Field Data Results/Parcel Map Series.mxd Date: 3/11/2013



### Legend

- Composite Sampling Area
- Discrete Sampling Location

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

### Label Key:

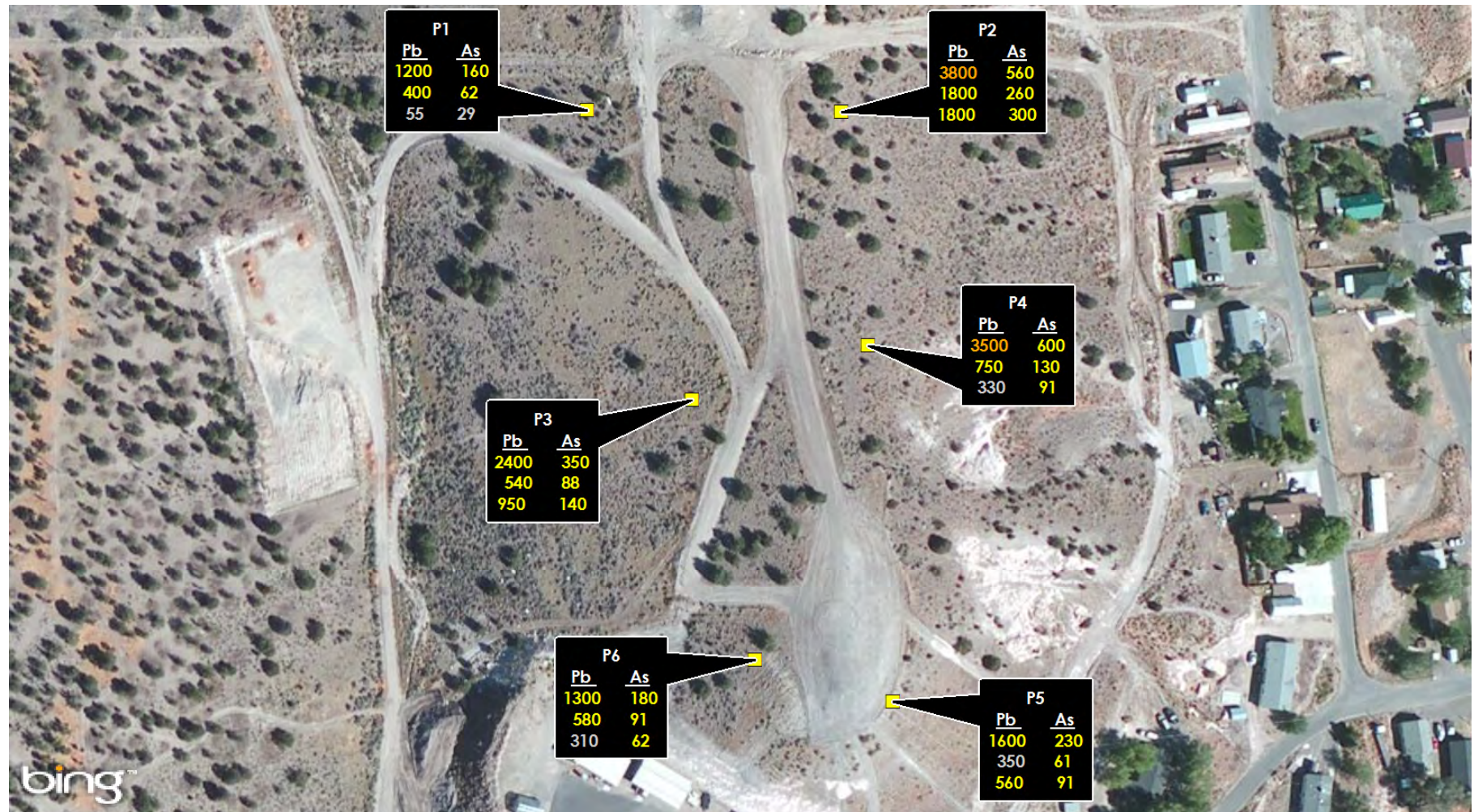
| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |





### Legend

■ Discrete Sampling Location

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

### Label Key:

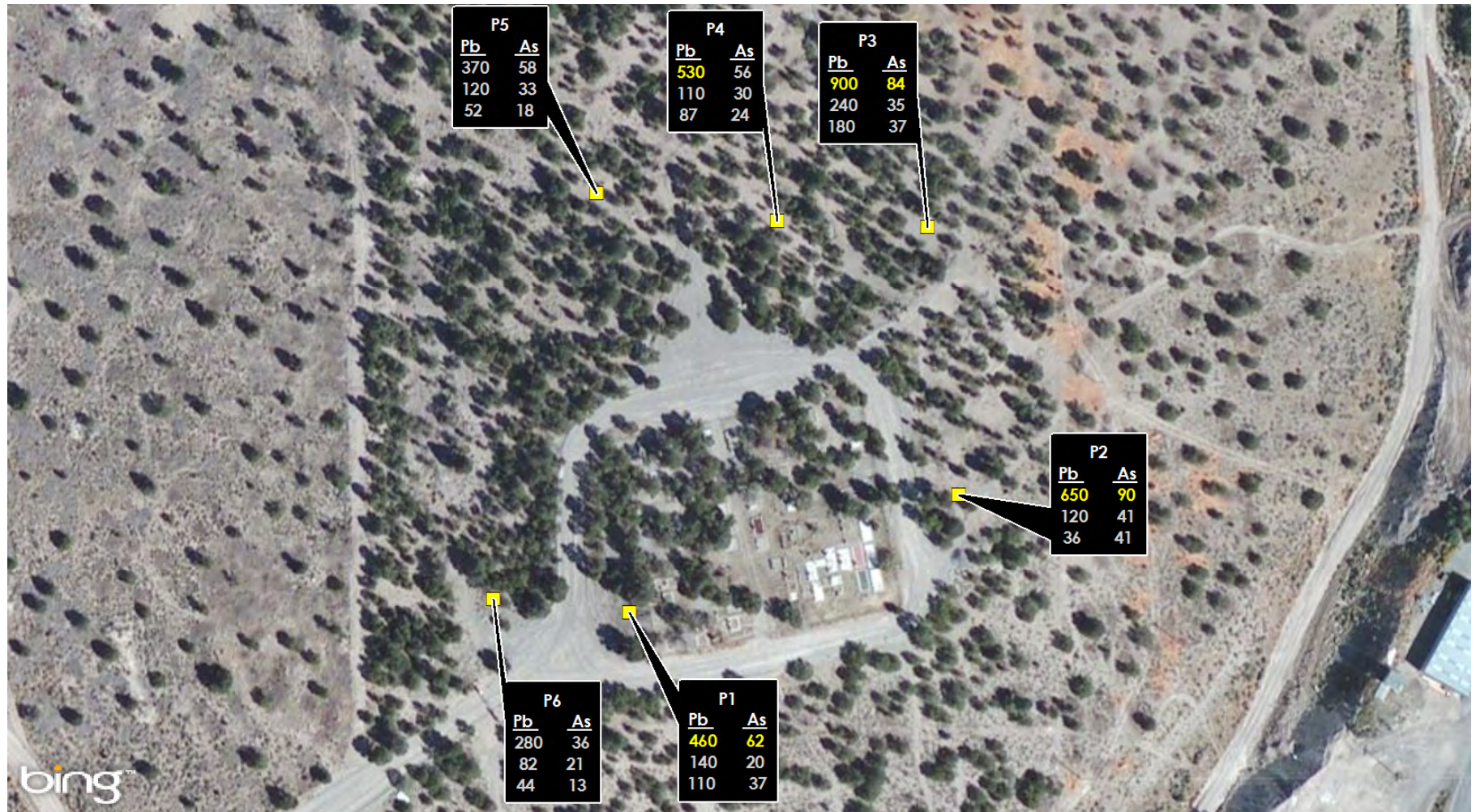
| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |





#### Legend

■ Discrete Sampling Location

"P" samples are point samples  
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Pb: Lead Concentration  
As: Arsenic Concentration  
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#### Label Key:

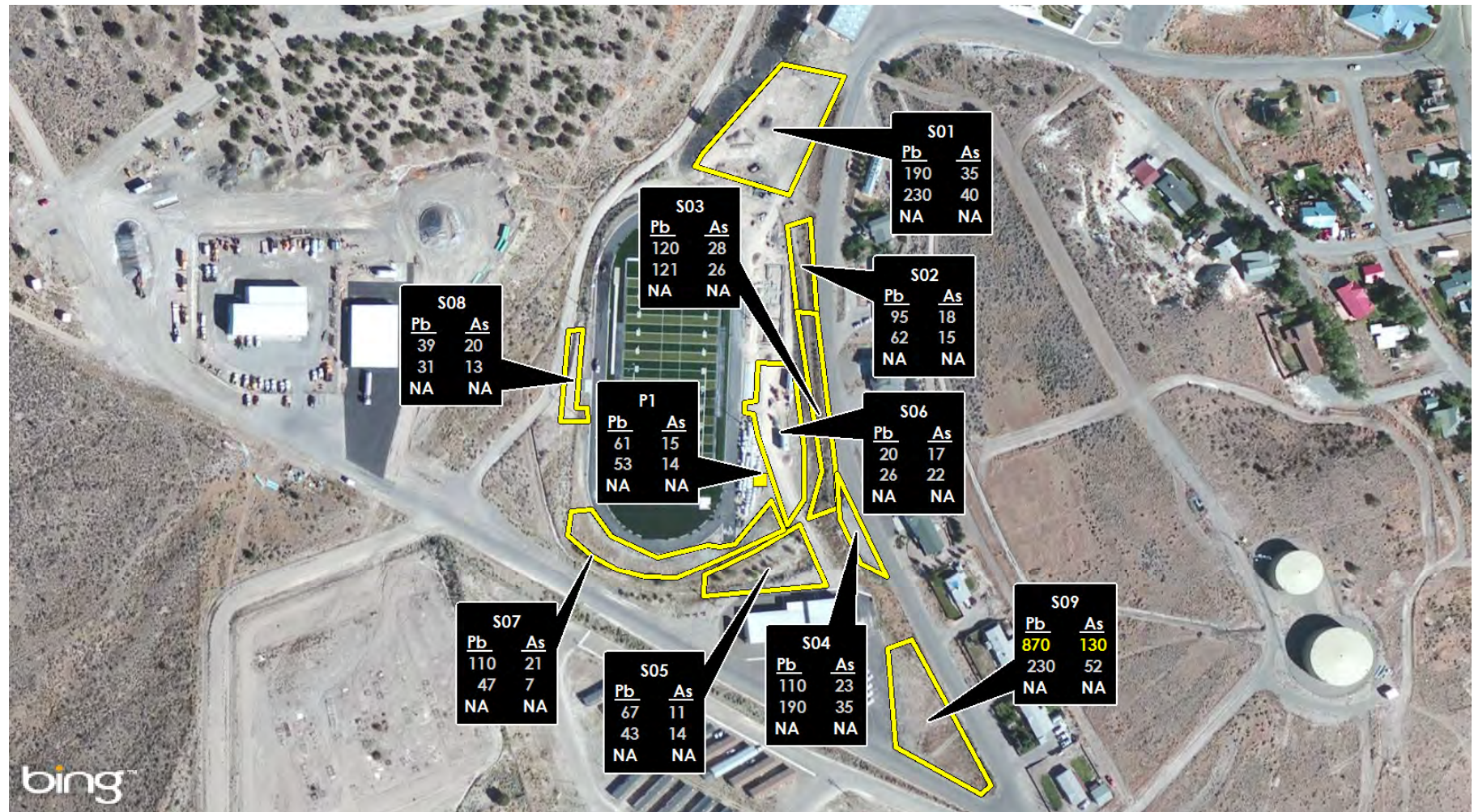
| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| > 3,000 (mg/kg)                      | > 600 (mg/kg)                           |





### Legend

- Composite Sampling Area
- Discrete Sampling Location

"P" samples are point samples  
 "S" samples are composite samples  
 Pb: Lead Concentration  
 As: Arsenic Concentration  
 NA indicates that a sample was not collected

### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

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| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| > 3,000 (mg/kg)                      | > 600 (mg/kg)                           |



Ecology & Environment, Inc. GIS Department Project: Northrop 100sOakland/Eureka/Projects2012 Field Data Results/Parcel Map Series.mxd Date: 3/11/2013



#### Legend

 Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

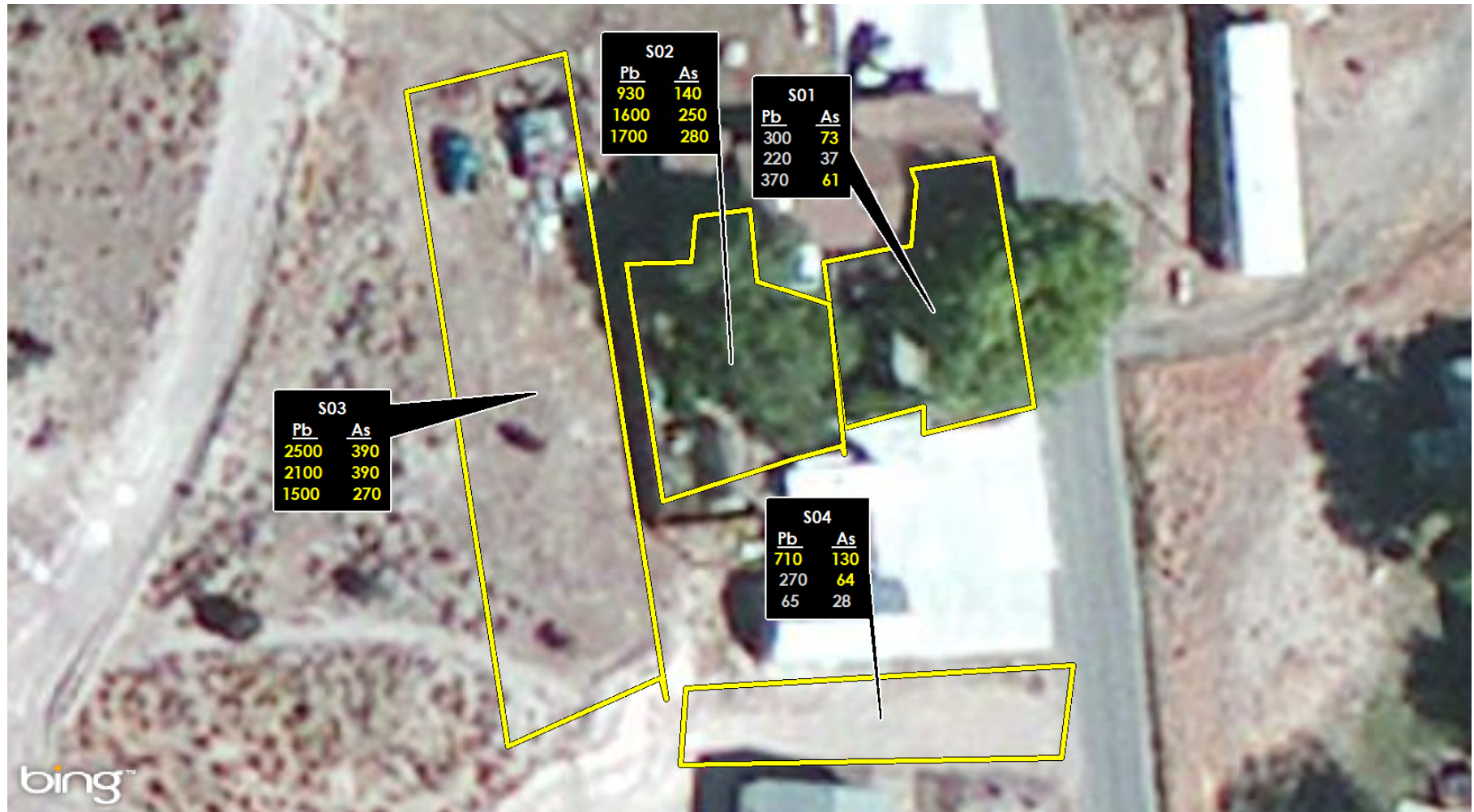
Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |



Ecology & Environment, Inc. GIS Department Project: Northrop 1101sOakland/Eureka/Projects2012 Field Data Results/Parcel Map Series.mxd Date: 3/11/2013



#### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

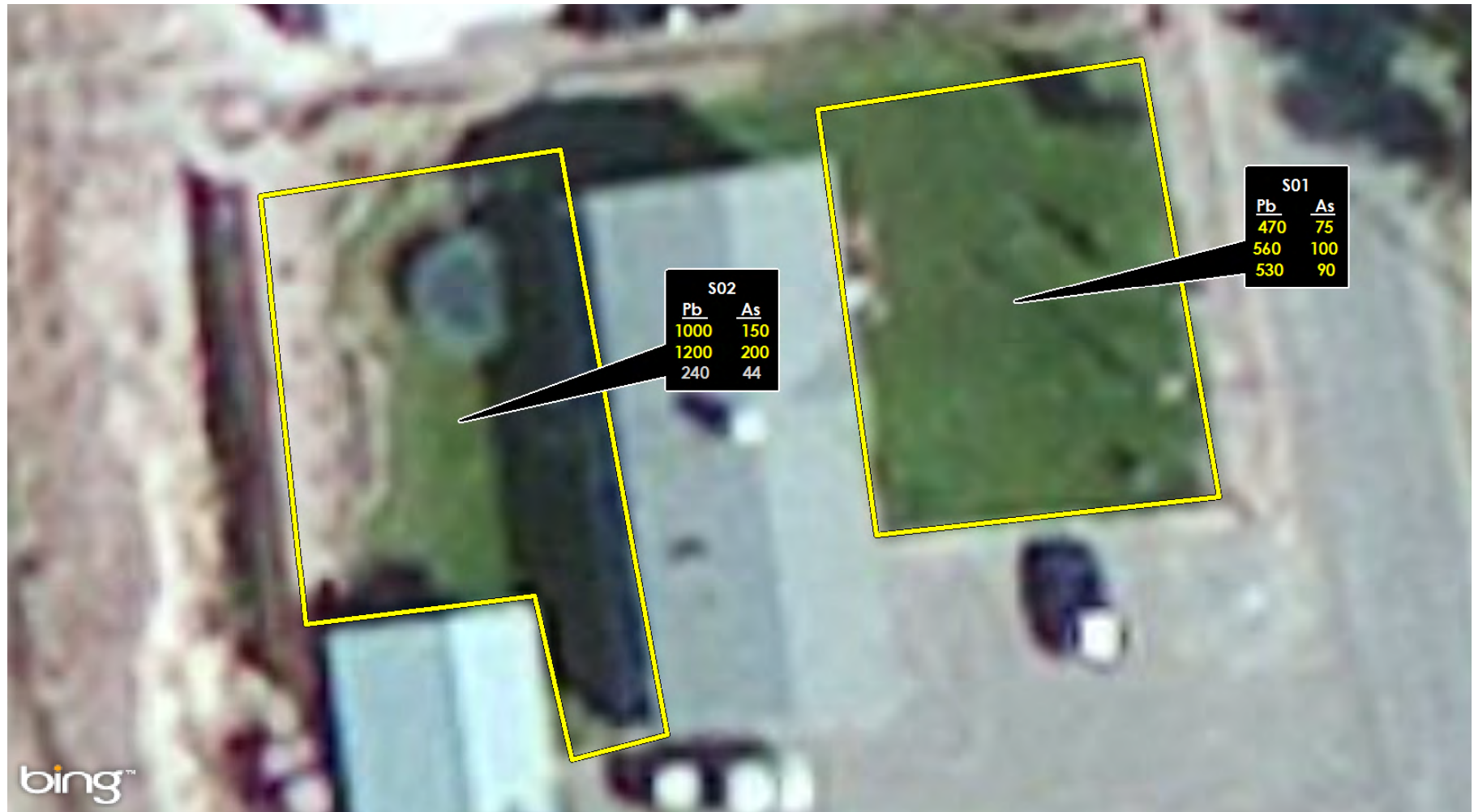
#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

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| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
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| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
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#### Legend

Composite Sampling Area

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| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

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| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
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| >3,000 (mg/kg)                       | >600 (mg/kg)                            |



Ecology & Environment, Inc. GIS Department Project: Northrop 140sOakland/Eureka/Projects2012 Field Data Results/Parcel Map Series.mxd Date: 3/11/2013



#### Legend

 Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

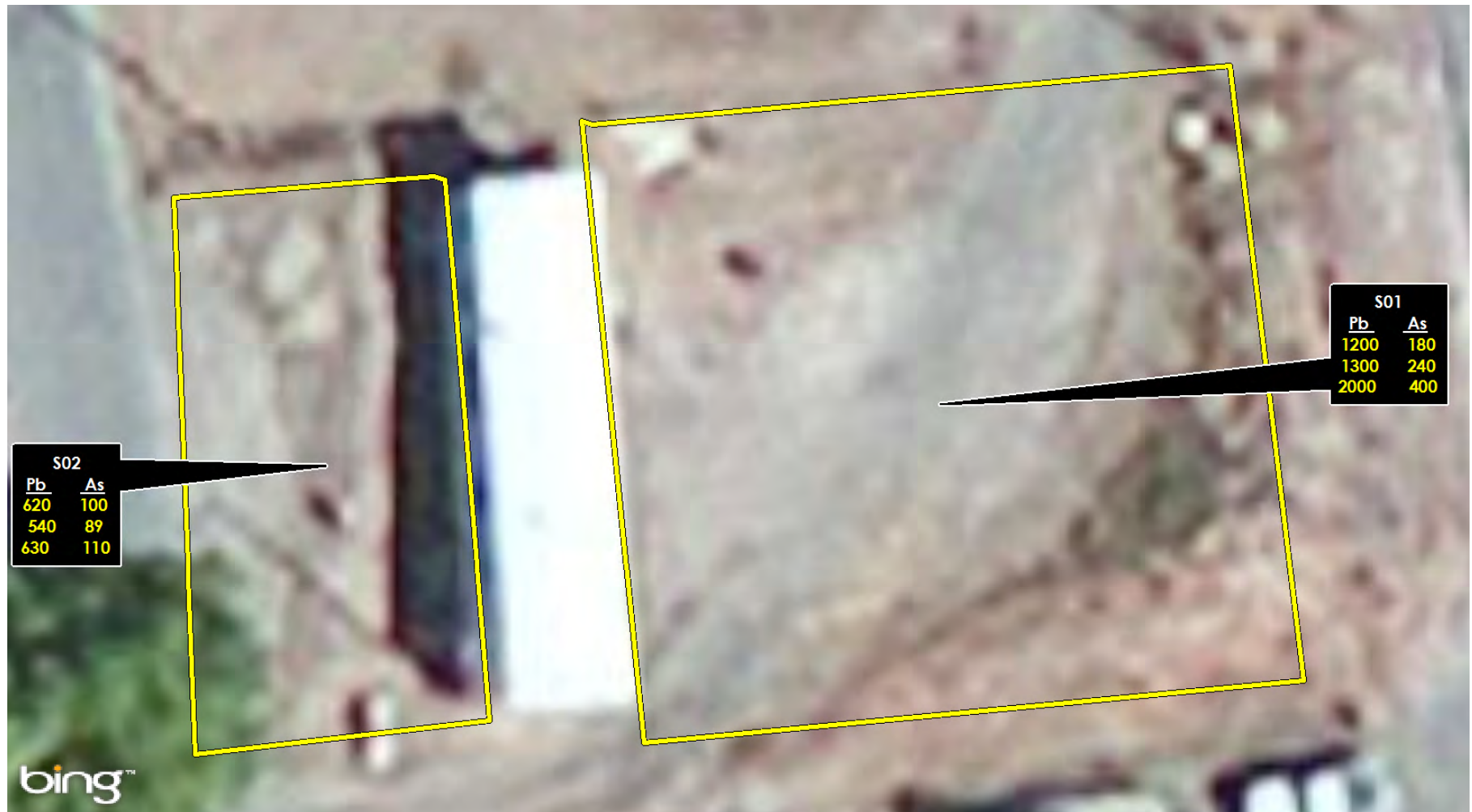
#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

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| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
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#### Legend

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| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
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| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

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| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
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| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |





#### Legend

- Composite Sampling Area
- Discrete Sampling Location

"P" samples are point samples  
 "S" samples are composite samples  
 Pb: Lead Concentration  
 As: Arsenic Concentration  
 NA indicates that a sample was not collected

#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

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#### Legend

- Composite Sampling Area
- Discrete Sampling Location

"P" samples are point samples  
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| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
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| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |





### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

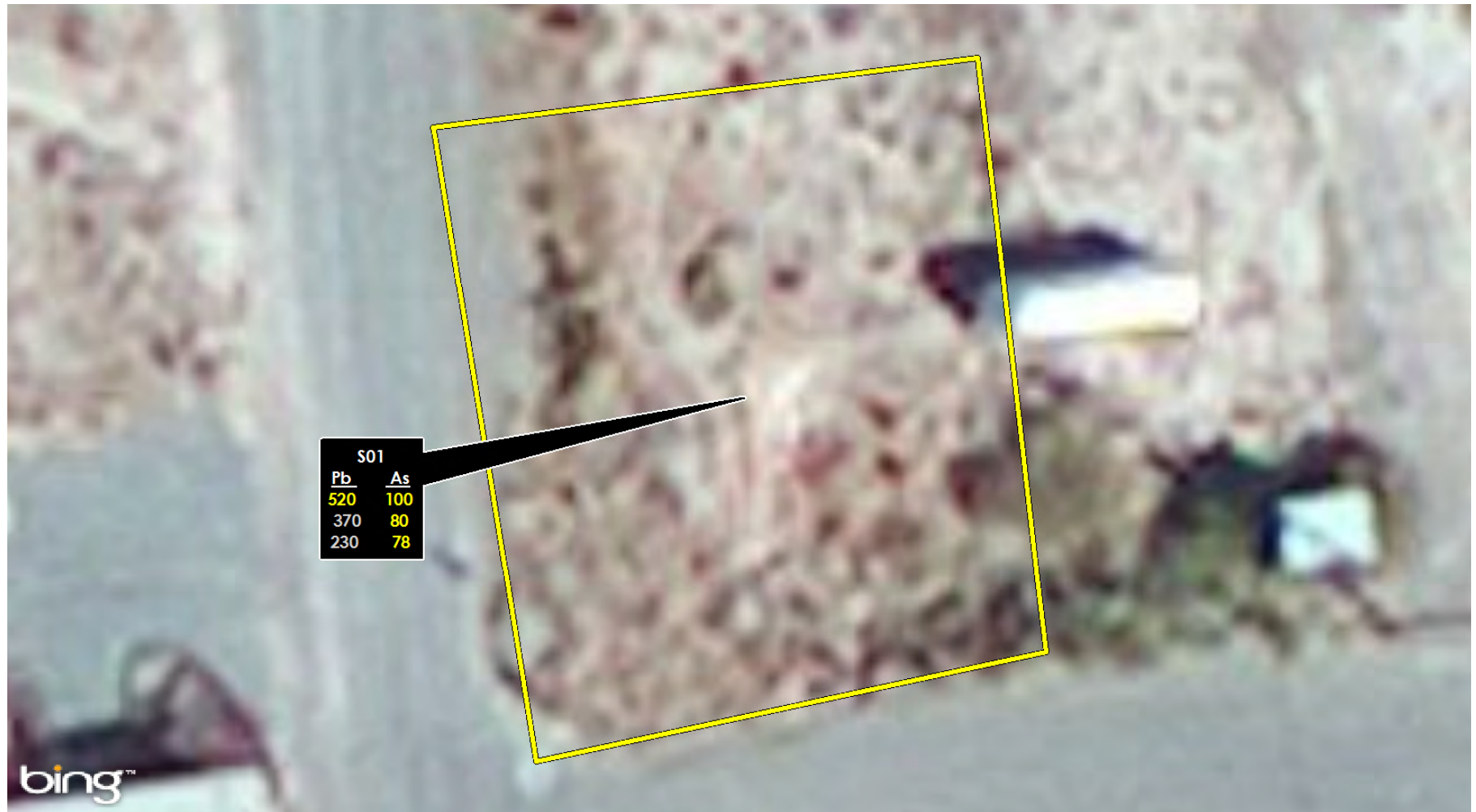
### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
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| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |



#### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

#### Label Key:

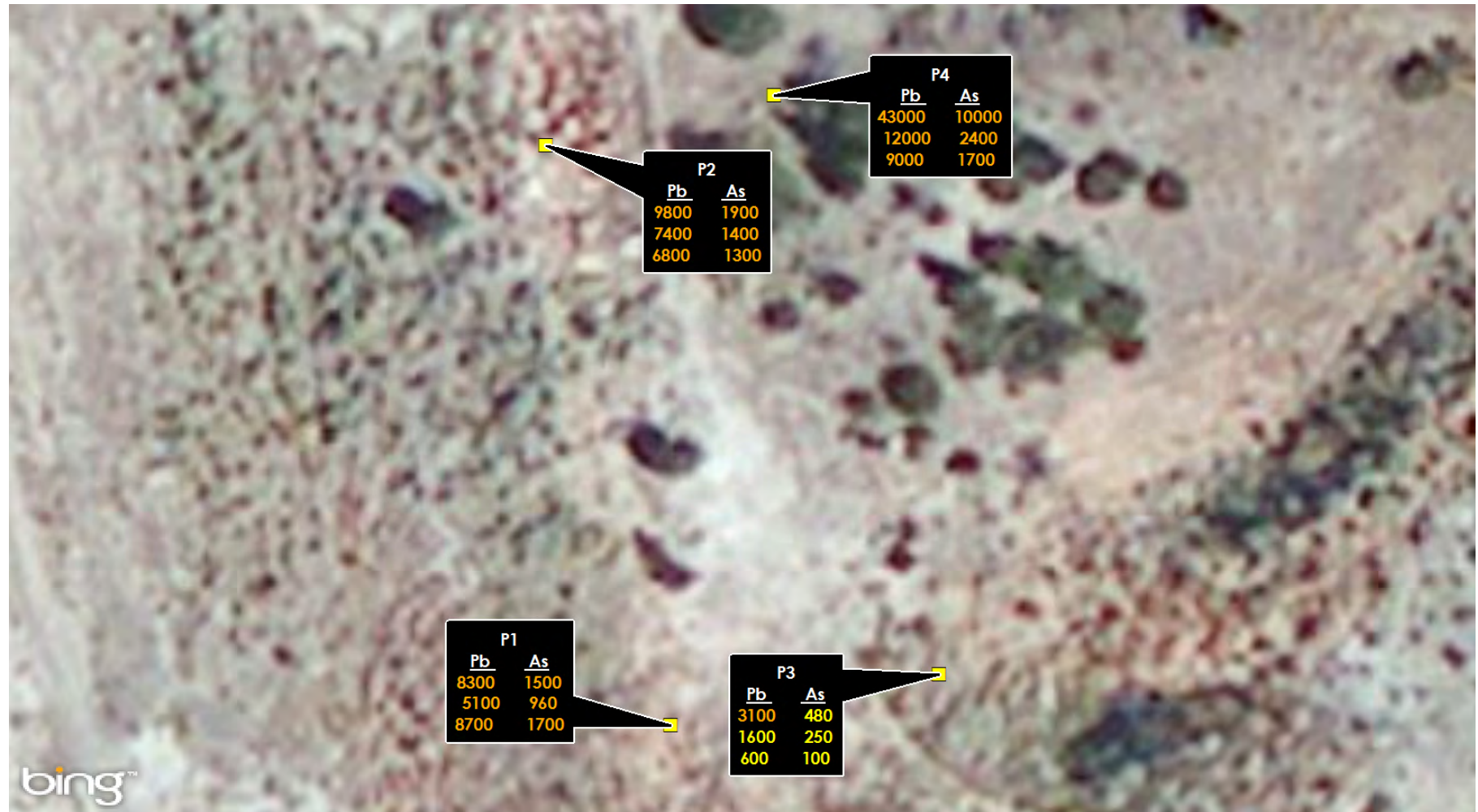
| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |





### Legend

■ Discrete Sampling Location

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
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| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

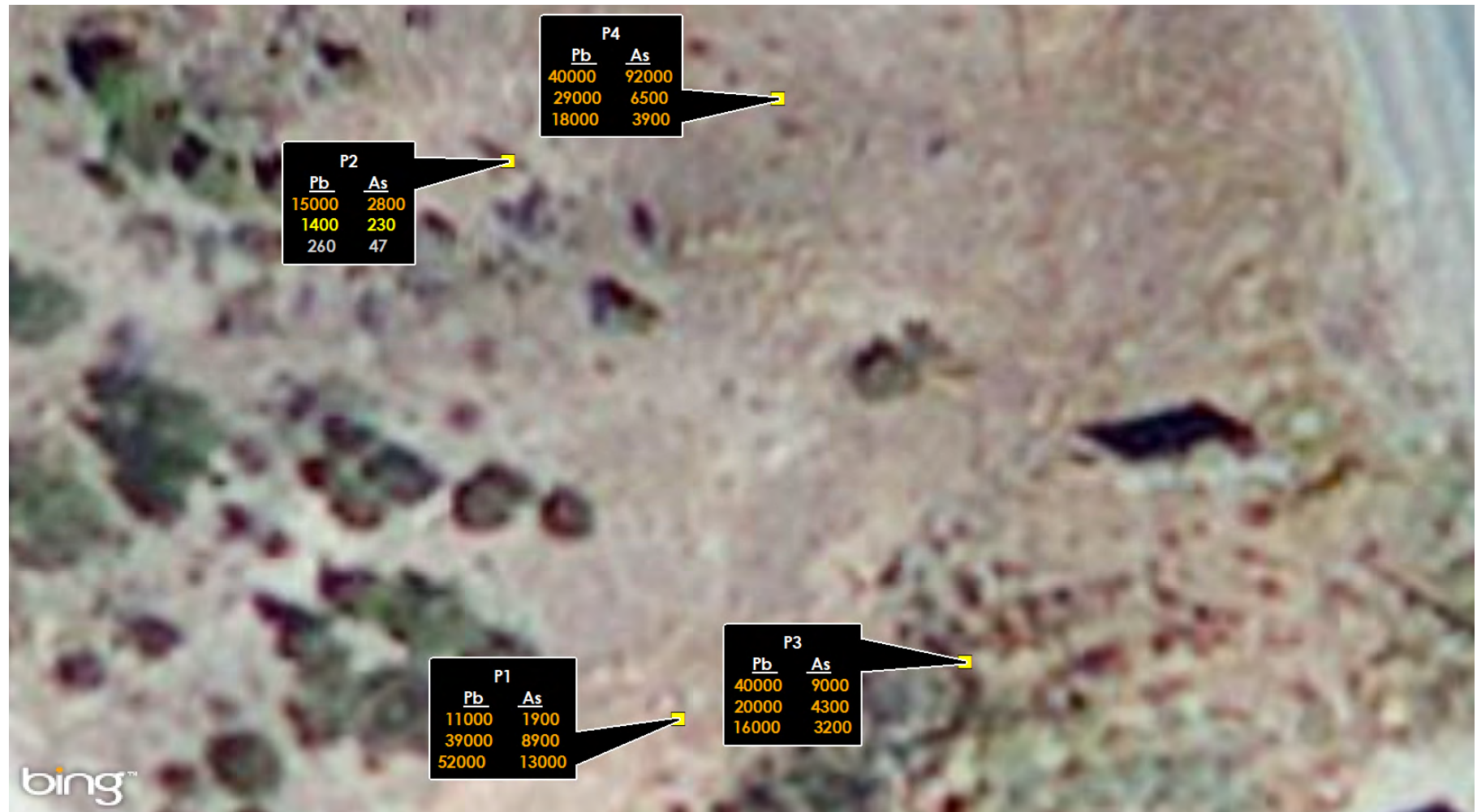
Figure 7-31

## Parcel Property Sampling Locations

APN: 001-033-01

491 N O'NEIL AVENUE

Eureka Smelters Sites, Eureka County, Nevada



### Legend

■ Discrete Sampling Location

"P" samples are point samples  
 "S" samples are composite samples  
 Pb: Lead Concentration  
 As: Arsenic Concentration  
 NA indicates that a sample was not collected

### Label Key:

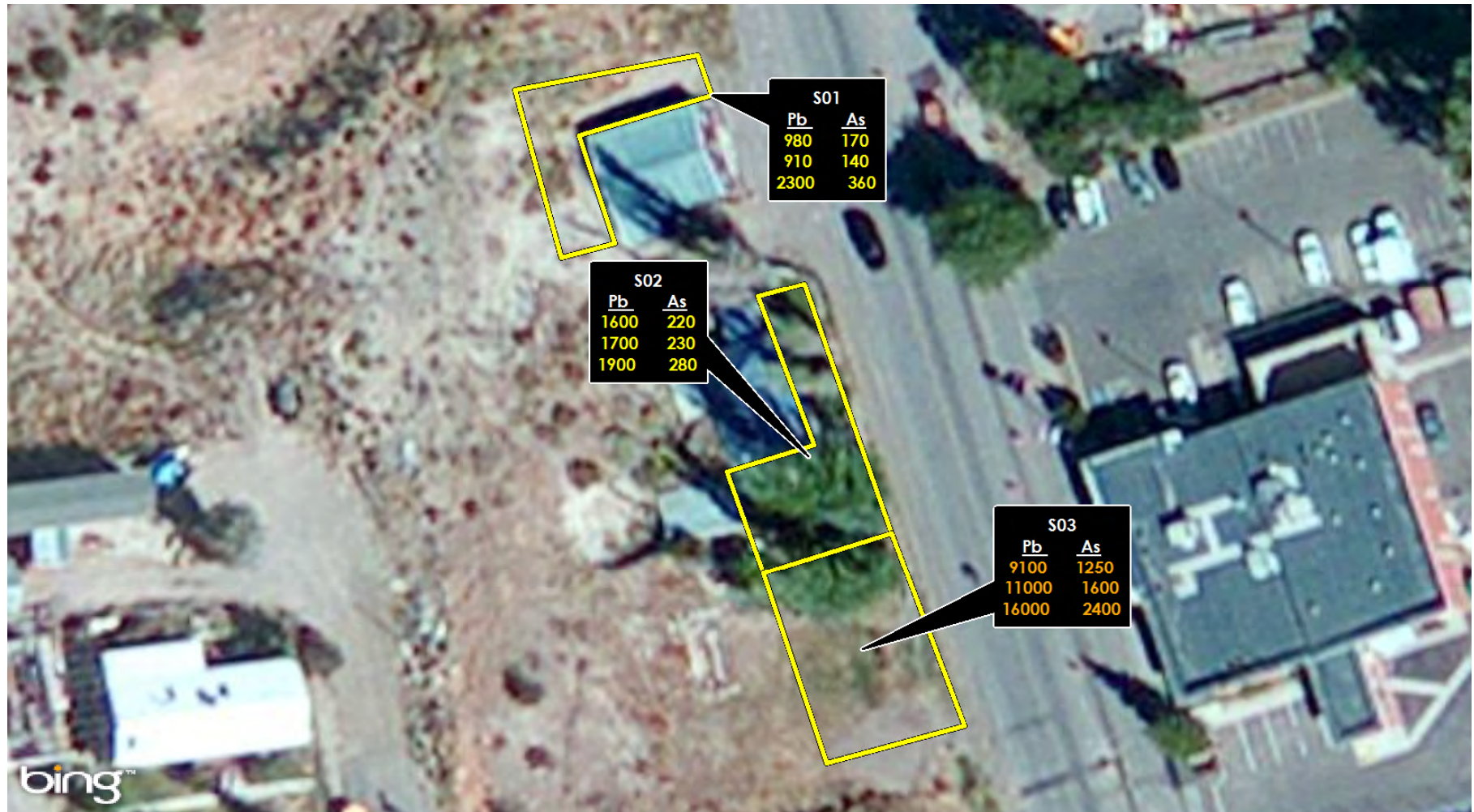
| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |





#### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

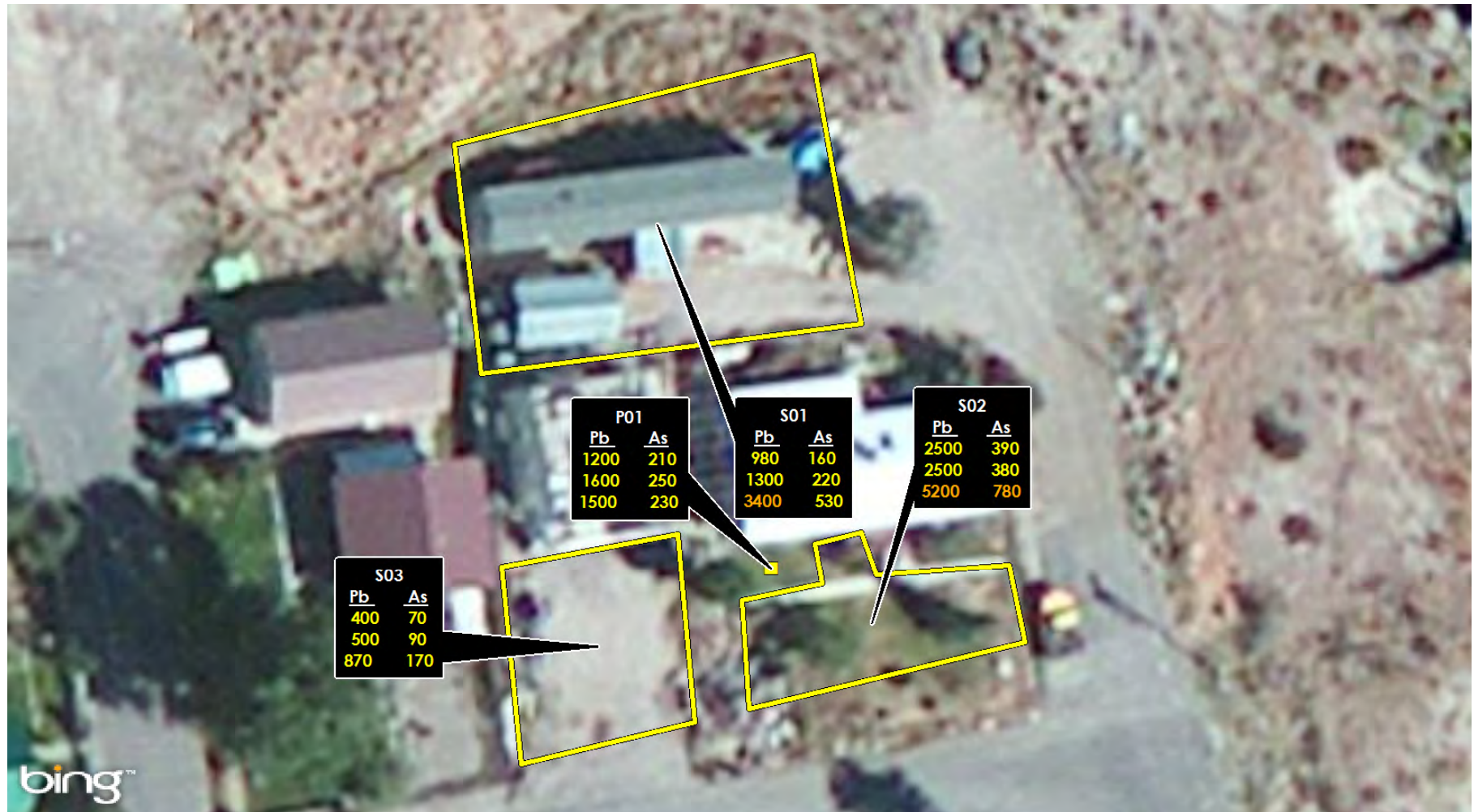
Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
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| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |



Ecology & Environment, Inc. GIS Department Project: Northrop 140sOakland/Eureka/Projects/2012 Field Data Results/Parcel Map Series.mxd Date: 3/11/2013



#### Legend

- Composite Sampling Area
- Discrete Sampling Location

"P" samples are point samples  
 "S" samples are composite samples  
 Pb: Lead Concentration  
 As: Arsenic Concentration  
 NA indicates that a sample was not collected

#### Label Key:

| Pb  | SAMPLE ID | As  |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
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 Composite Sampling Area

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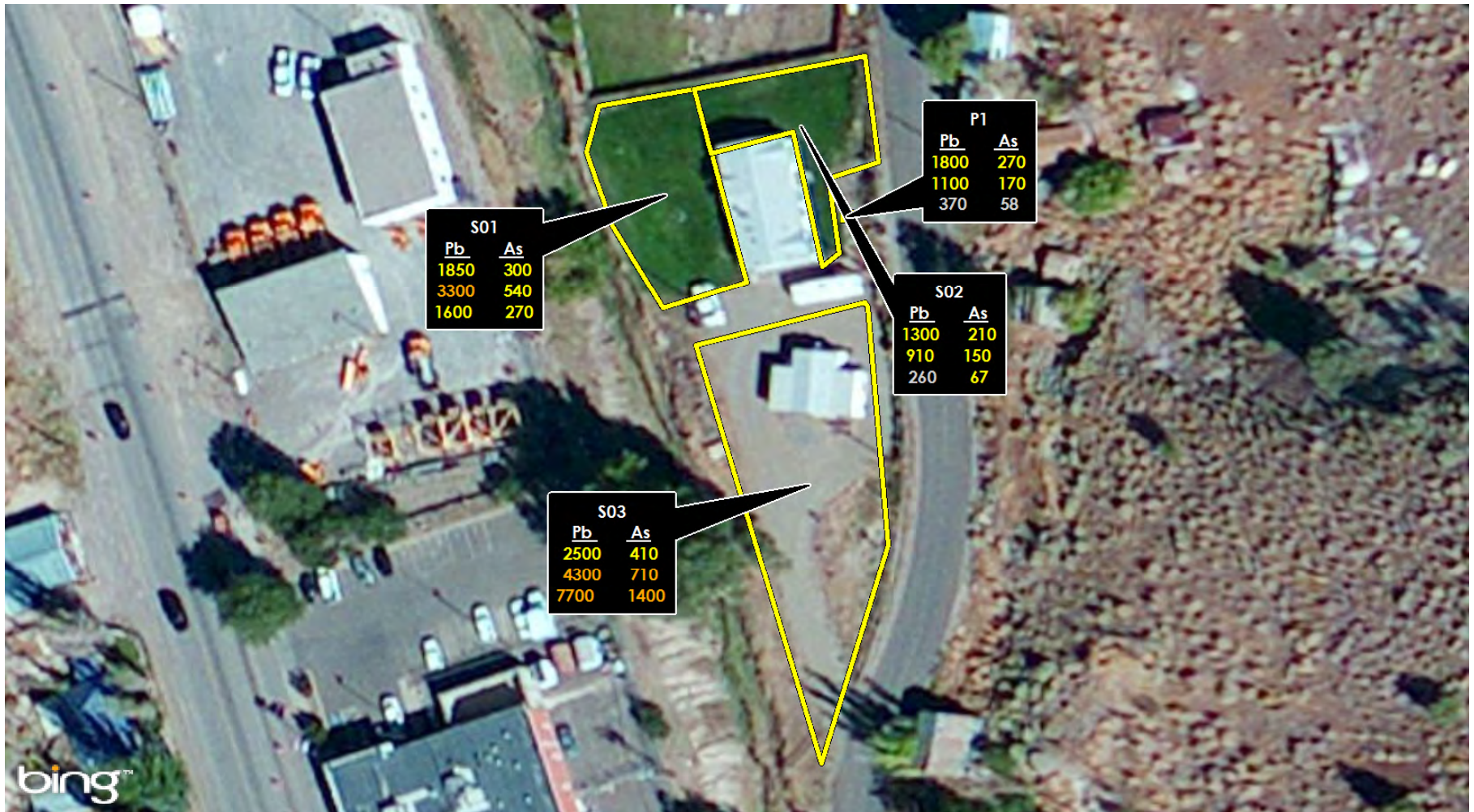
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Ecology & Environment, Inc. GIS Department Project: Northbay 101sOakland/Eureka/Projects2012 Field Data Results/Parcel Map Series.mxd Date: 3/11/2013



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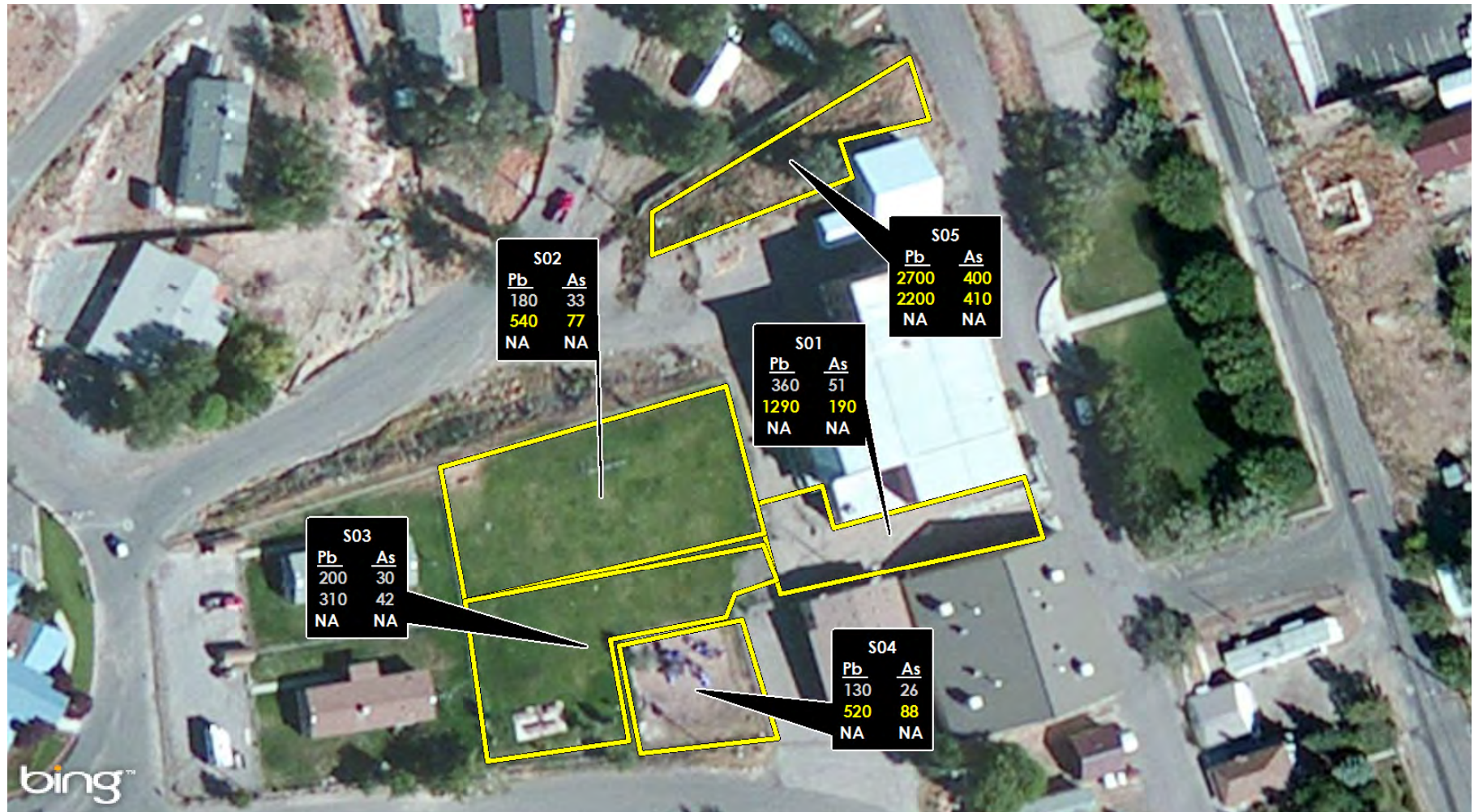
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Ecology & Environment, Inc. GIS Department Project: Northrop 101s/Oakland/Eureka/Projects/2012 Field Data Results/Parcel Map Series.mxd Date: 3/11/2013



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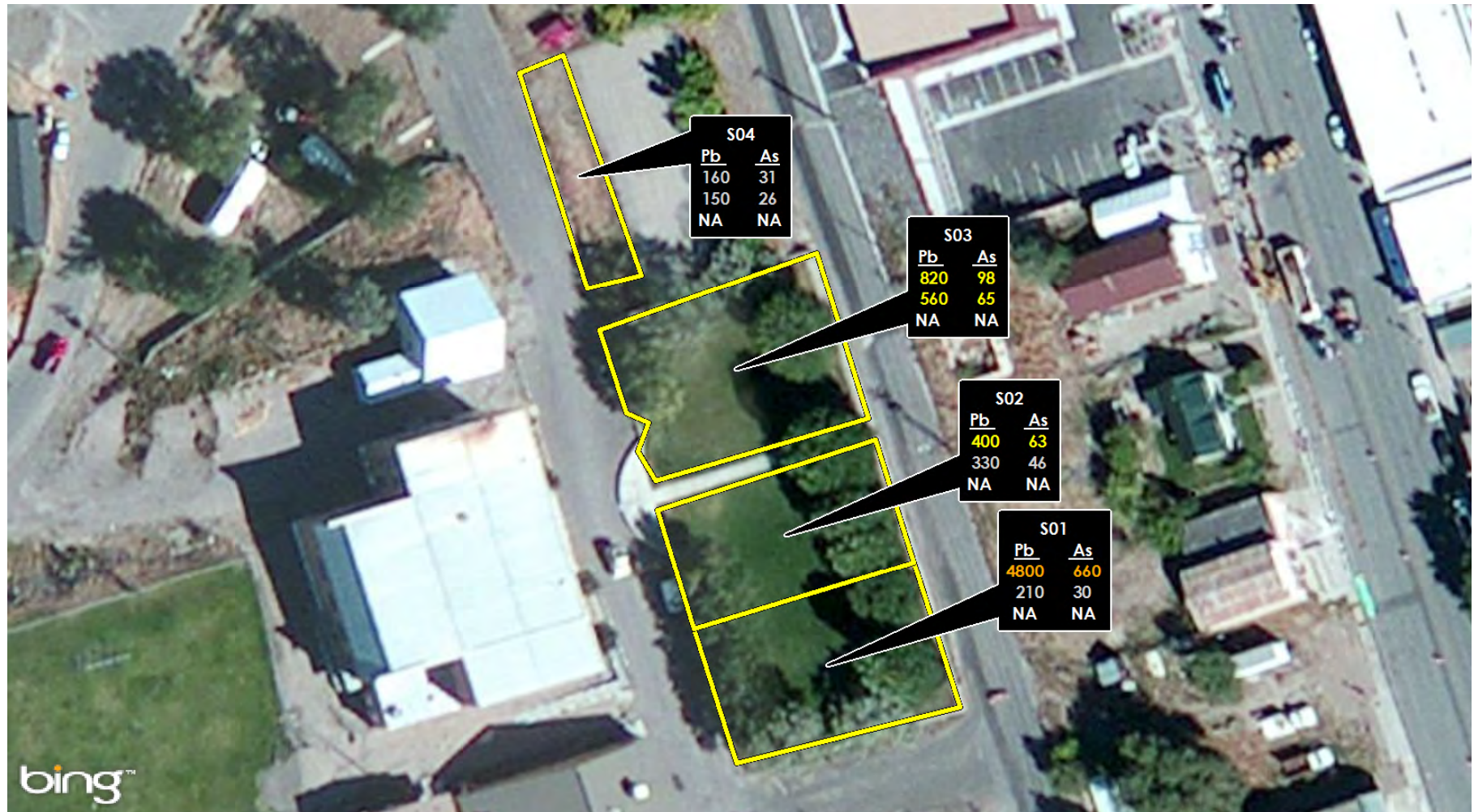
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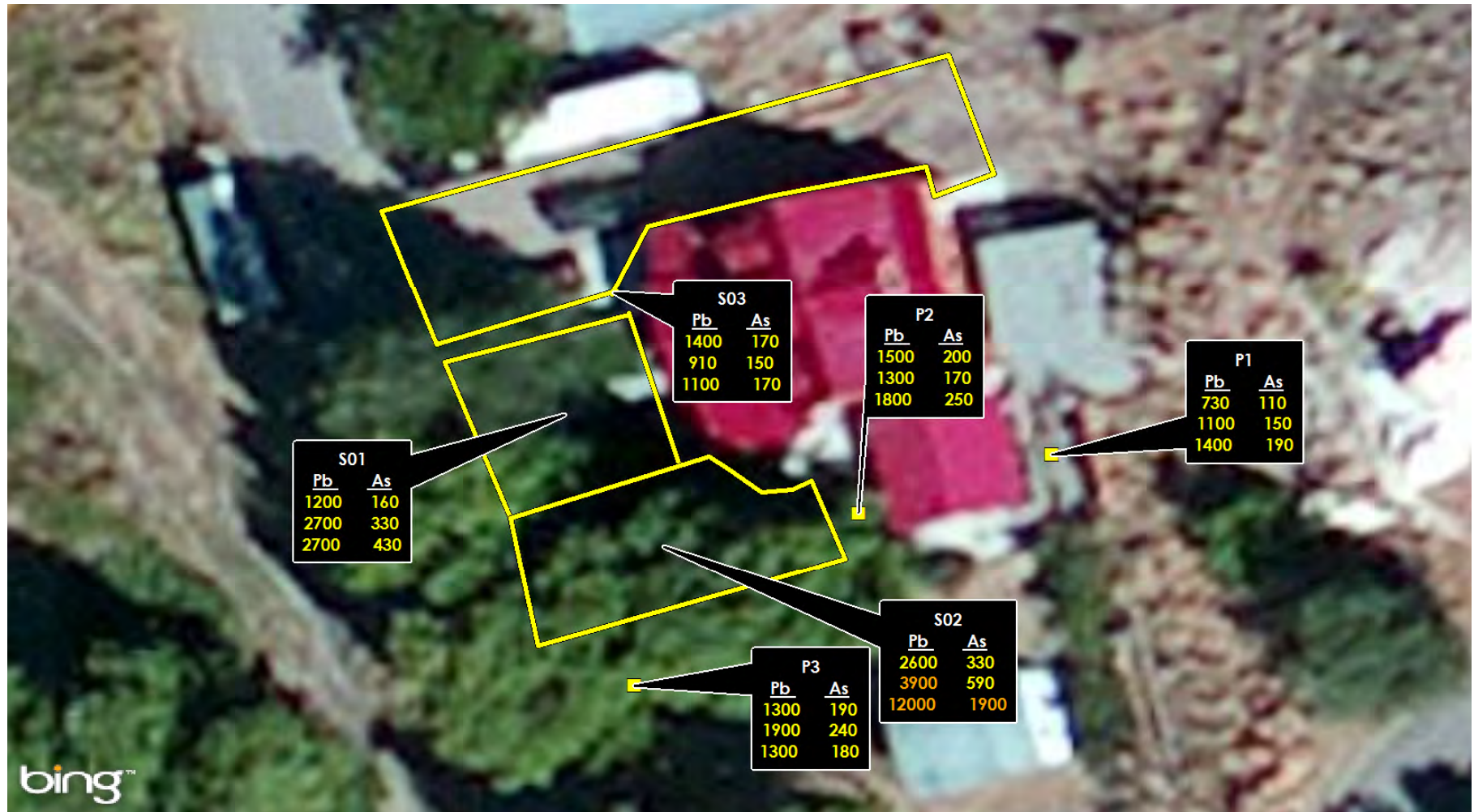
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Ecology & Environment, Inc. GIS Department Project: Northrop 100sOakland/Eureka/Projects2012 Field Data Results/Parcel Map Series.mxd Date: 3/11/2013



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Ecology & Environment, Inc. GIS Department Project: Northrop 140sOakland/Eureka/Projects2012 Field Data Results/Parcel Map Series.mxd Date: 3/11/2013



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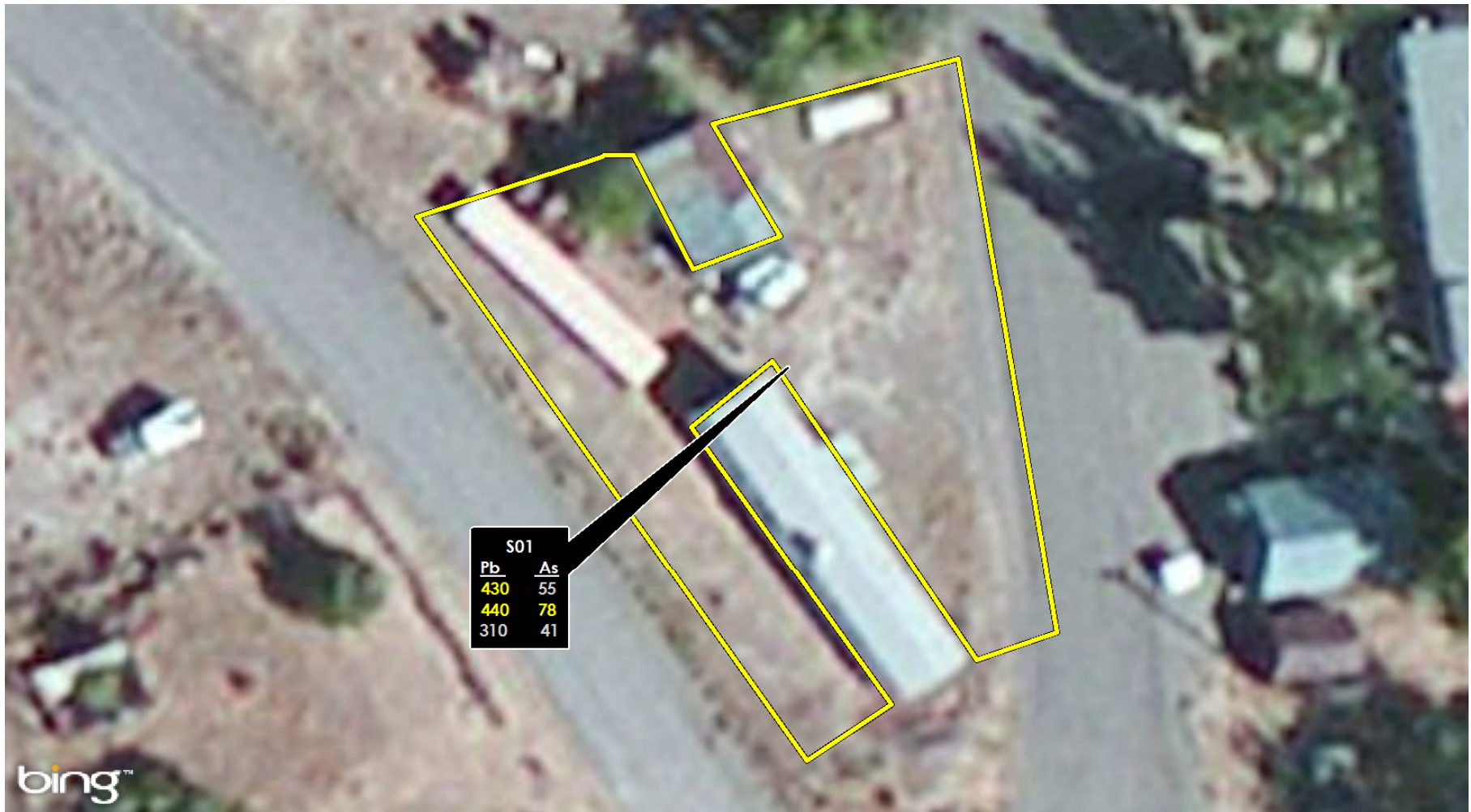
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Ecology & Environment, Inc. GIS Department Project: Northrop 101s/Oakland/Eureka/Projects/2012 Field Data Results/Parcel Map Series.mxd Date: 3/11/2013



### Legend

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Ecology & Environment, Inc. GIS Department Project: Northrop 100sOakland/Eureka/Projects2012 Field Data Results/Parcel Map Series.mxd Date: 3/11/2013



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| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| > 3,000 (mg/kg)                      | > 600 (mg/kg)                           |



#### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |





#### Legend

Composite Sampling Area

"P" samples are point samples  
 "S" samples are composite samples  
 Pb: Lead Concentration  
 As: Arsenic Concentration  
 NA indicates that a sample was not collected

#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |



#### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| > 3,000 (mg/kg)                      | > 600 (mg/kg)                           |





### Legend

- Composite Sampling Area
- Discrete Sampling Location

"P" samples are point samples  
 "S" samples are composite samples  
 Pb: Lead Concentration  
 As: Arsenic Concentration  
 NA indicates that a sample was not collected

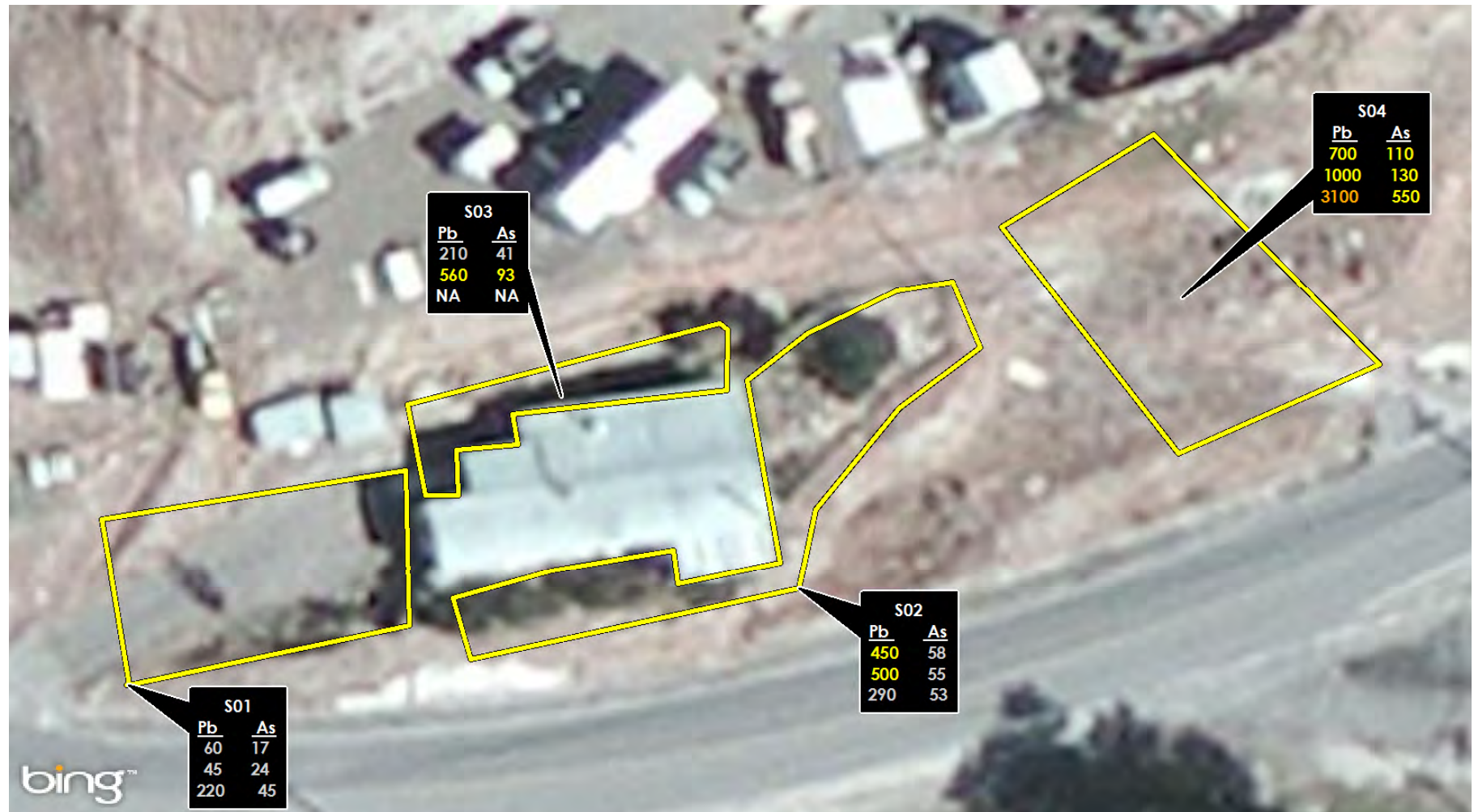
### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |



#### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |





#### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |

Ecology & Environment, Inc. GIS Department Project: Northrop 101sOakland/Eureka/Projects2012 Field Data Results/Parcel Map Series.mxd Date: 3/11/2013



#### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

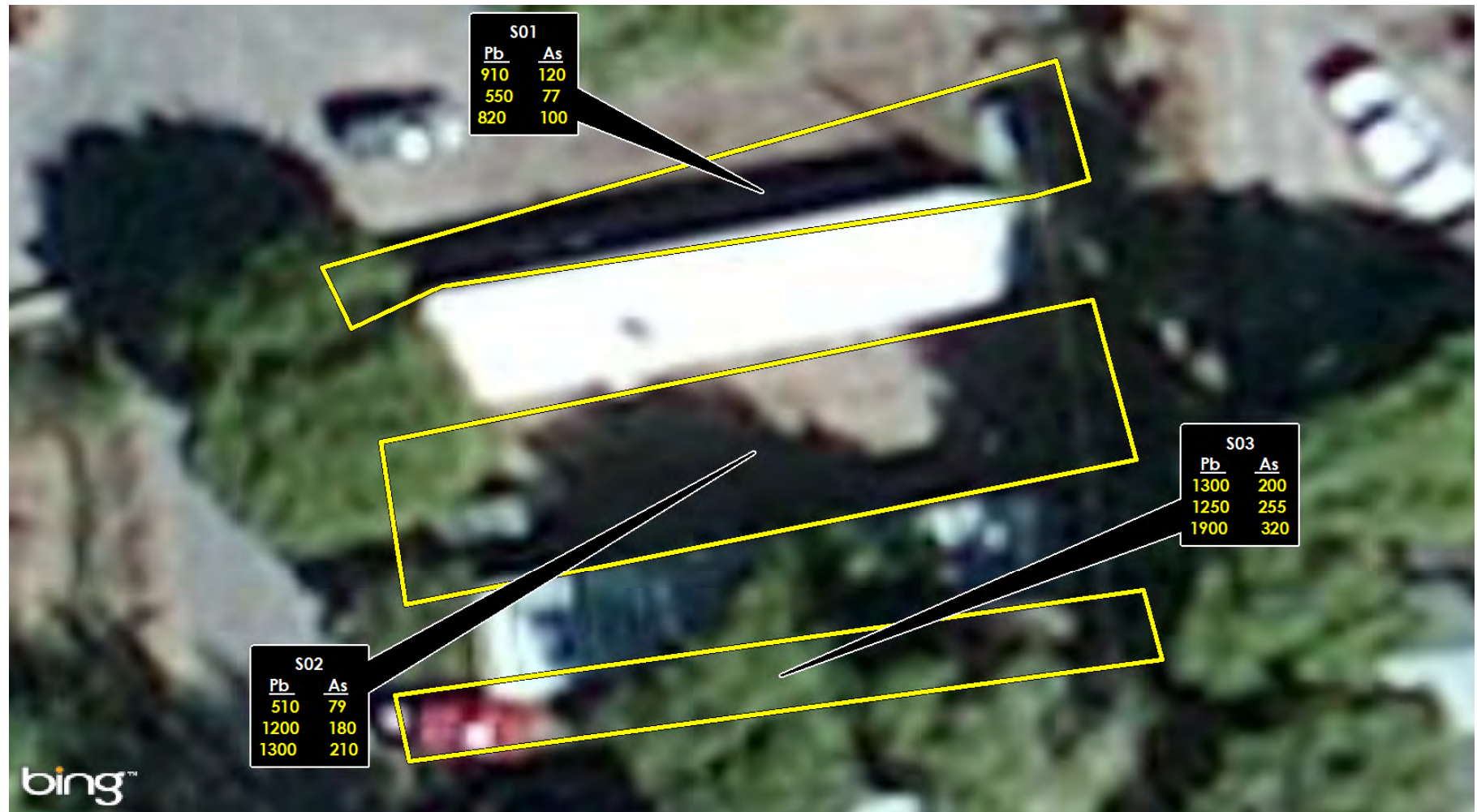
Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |



Ecology & Environment, Inc. GIS Department Project: Northrop 1101sOakland/Eureka/Projects/2012 Field Data Results/Parcel Map Series.mxd Date: 3/11/2013



#### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |



#### Legend

 Composite Sampling Area

"P" samples are point samples  
 "S" samples are composite samples  
 Pb: Lead Concentration  
 As: Arsenic Concentration  
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#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |





#### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
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#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |

Ecology & Environment, Inc. GIS Department Project: Northbay 101sOakland/Eureka/Projects2012 Field Data Results/Parcel Map Series.mxd Date: 3/11/2013



#### Legend

 Composite Sampling Area






"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration  | Arsenic (As) Test Results Concentration  |
|---|--|
| < 400 (mg/kg)        | < 60 (mg/kg)      |
| 400 - 3,000 (mg/kg)  | 60 - 600 (mg/kg)  |
| >3,000 (mg/kg)       | >600 (mg/kg)      |





#### Legend

- Composite Sampling Area
- Discrete Sampling Location

"P" samples are point samples  
 "S" samples are composite samples  
 Pb: Lead Concentration  
 As: Arsenic Concentration  
 NA indicates that a sample was not collected

#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |



#### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
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As: Arsenic Concentration  
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| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

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#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
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| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |



Ecology & Environment, Inc. GIS Department Project: Northrop 161sOakland/Eureka/Projects2012 Field Data Results/Parcel Map Series.mxd Date: 3/11/2013



#### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

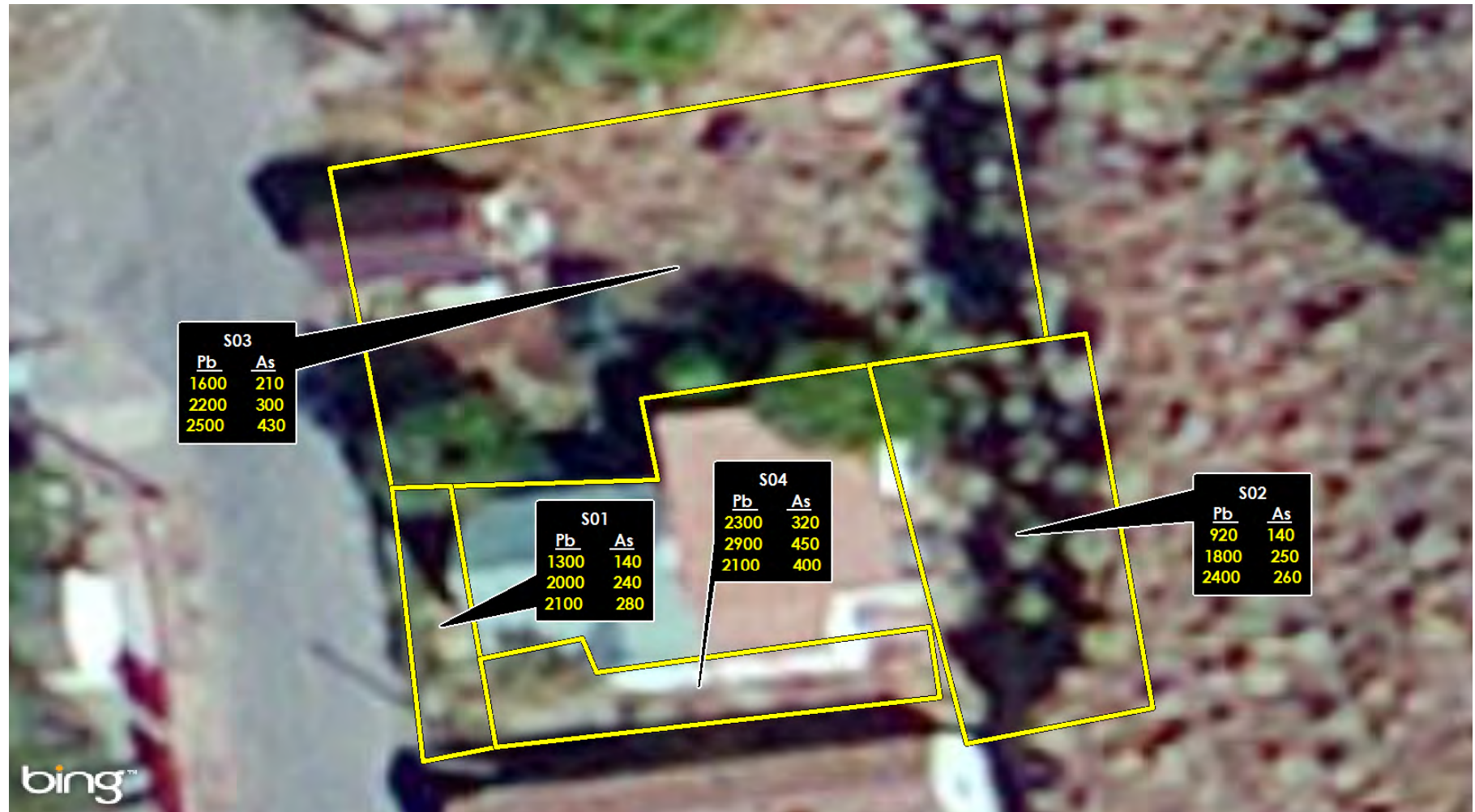
#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
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#### Legend

Composite Sampling Area

"P" samples are point samples  
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| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
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| > 3,000 (mg/kg)                      | > 600 (mg/kg)                           |



Ecology & Environment, Inc. GIS Department Project: Northrop 101sOakland/Eureka/Projects2012 Field Data Results/Parcel Map Series.mxd Date: 3/11/2013



#### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
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| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
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| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
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| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
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Composite Sampling Area

"P" samples are point samples  
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As: Arsenic Concentration  
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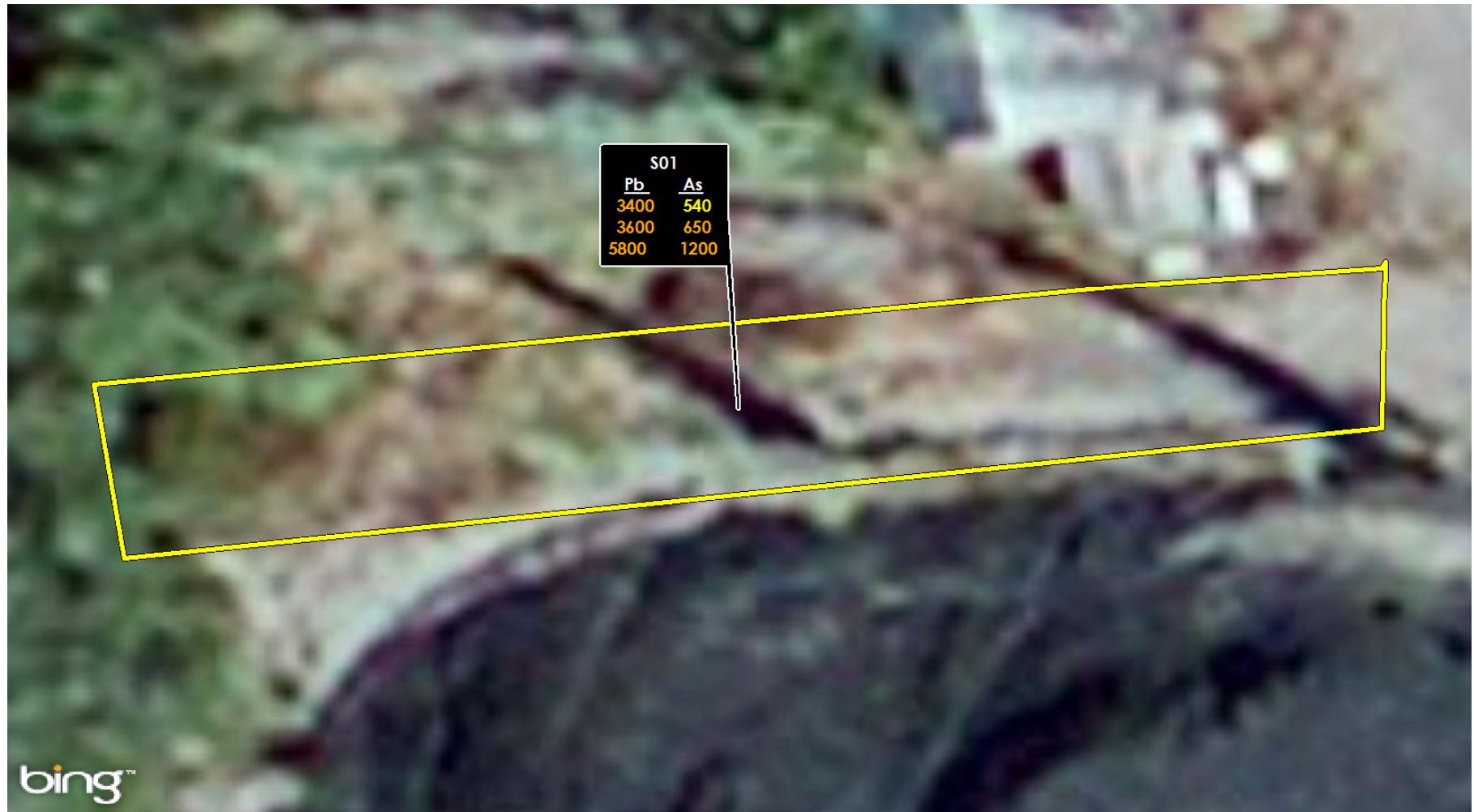
| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

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| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
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#### Legend

 Composite Sampling Area







"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

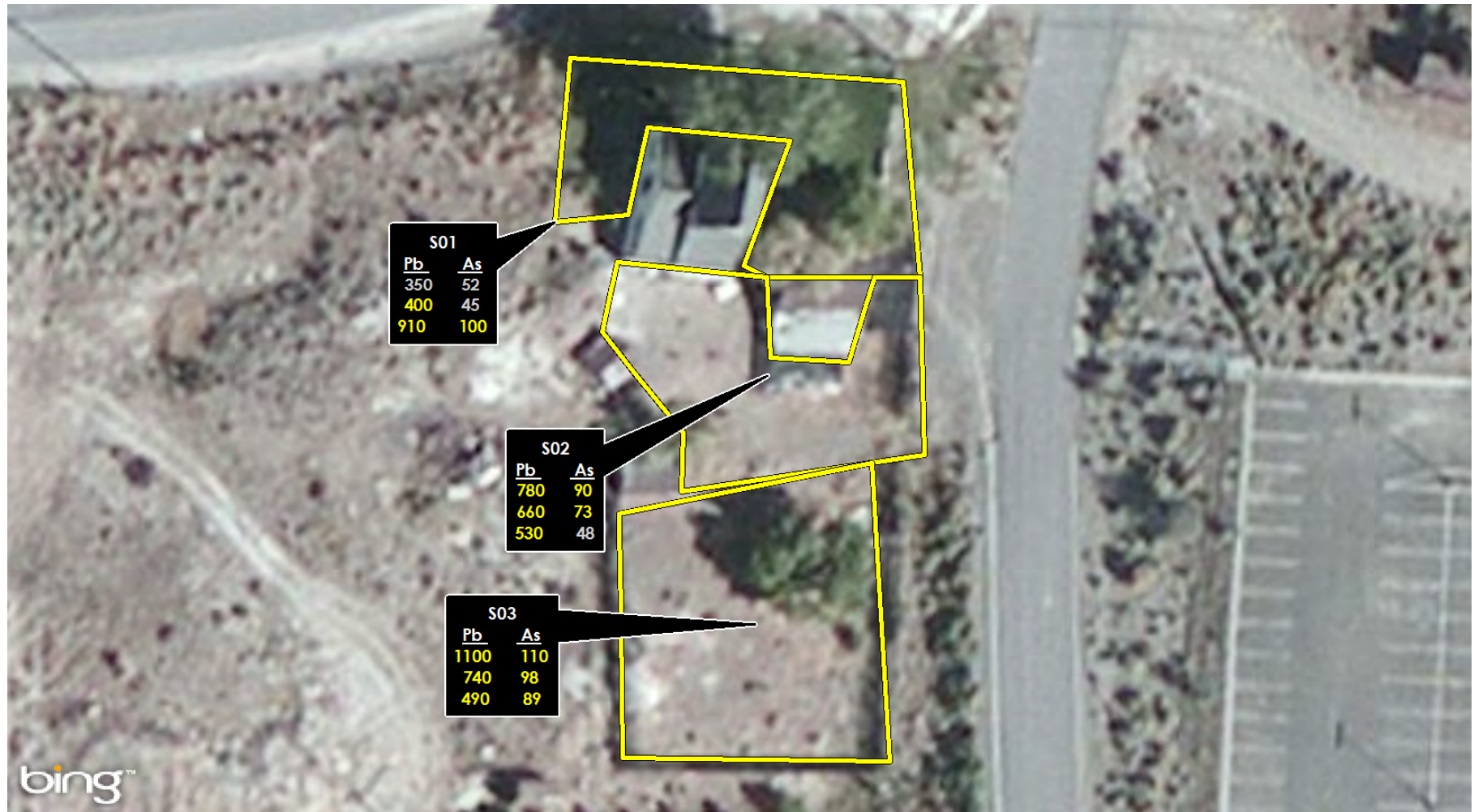
#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

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| Lead (Pb) Test Results Concentration  | Arsenic (As) Test Results Concentration  |
|---|--|
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#### Legend

Composite Sampling Area

"P" samples are point samples  
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#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
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| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |



Ecology & Environment, Inc. GIS Department Project: Northrop 1405 Oakland/Eureka/Projects/2012 Field Data Results/Parcel Map Series.mxd Date: 3/11/2013



#### Legend

- Composite Sampling Area
- Discrete Sampling Location

"P" samples are point samples  
 "S" samples are composite samples  
 Pb: Lead Concentration  
 As: Arsenic Concentration  
 NA indicates that a sample was not collected

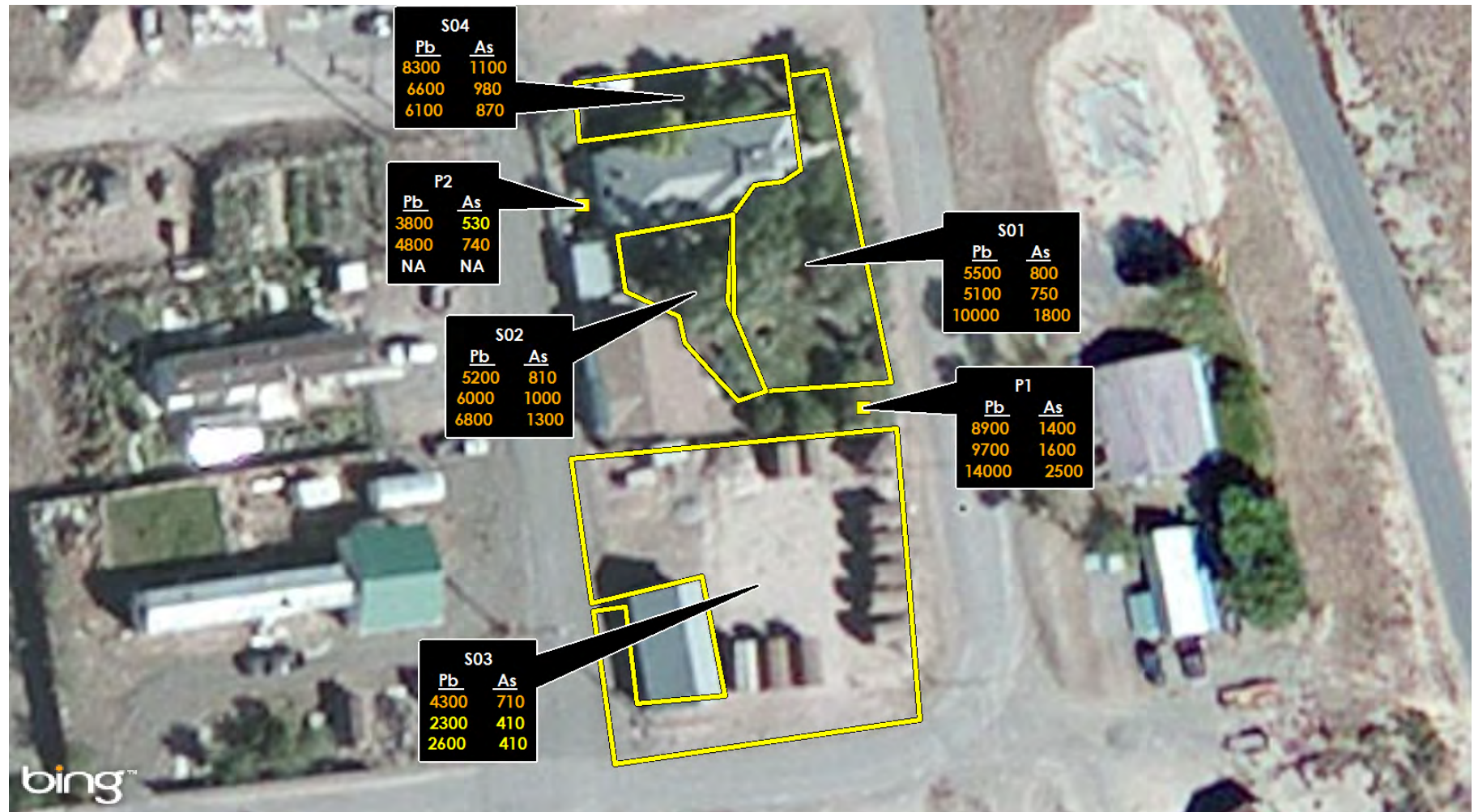
#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
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| >3,000 (mg/kg)                       | >600 (mg/kg)                            |



#### Legend

- Composite Sampling Area
- Discrete Sampling Location

"P" samples are point samples  
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 Pb: Lead Concentration  
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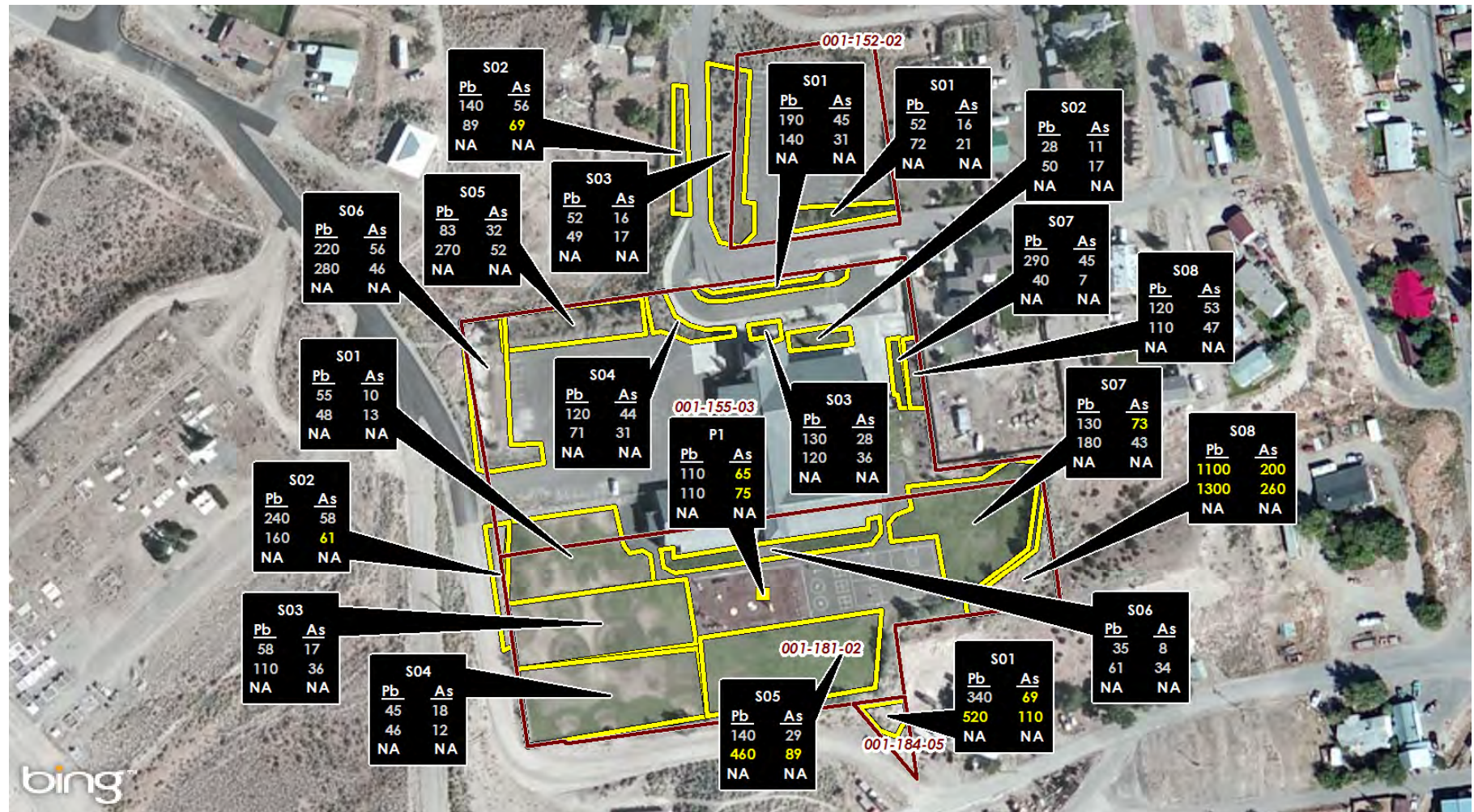
| Pb  | SAMPLE ID | As  |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)





### Legend

- Composite Sampling Area
- Discrete Sampling Location
- APN Boundary

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

### Label Key:

| Pb  | SAMPLE ID | As  |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |

Figure 7-75

## Parcel Property Sampling Locations

APN: 001-155-03, 001-181-02, 001-152-02, 001-184-05

431 W MCCOY STREET

Eureka Smelters Sites, Eureka County, Nevada





#### Legend

- Composite Sampling Area
- Discrete Sampling Location

"P" samples are point samples  
 "S" samples are composite samples  
 Pb: Lead Concentration  
 As: Arsenic Concentration  
 NA indicates that a sample was not collected

#### Label Key:

| Pb  | SAMPLE ID | As  |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)





### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |

Ecology & Environment, Inc. GIS Department Project: Northrop 100s Oakland/Eureka/Projects/2012 Field Data Results/Parcel Map Series.mxd Date: 3/11/2013



#### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |





#### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

#### Label Key:

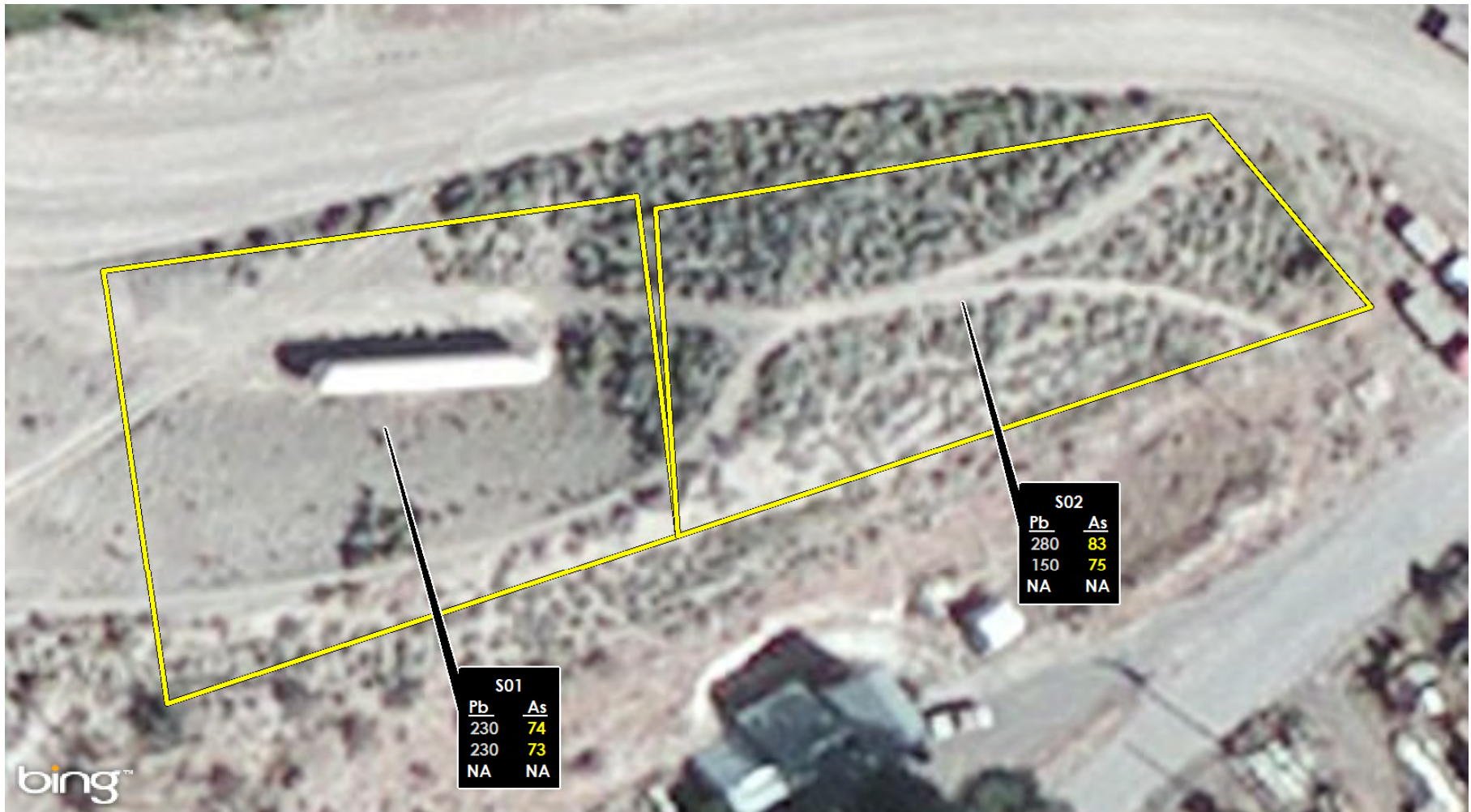
| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| > 3,000 (mg/kg)                      | > 600 (mg/kg)                           |

Ecology & Environment, Inc. GIS Department Project: Northrop 101sOakland/Eureka/Projects2012 Field Data Results/Parcel Map Series.mxd Date: 3/11/2013



#### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

#### Label Key:

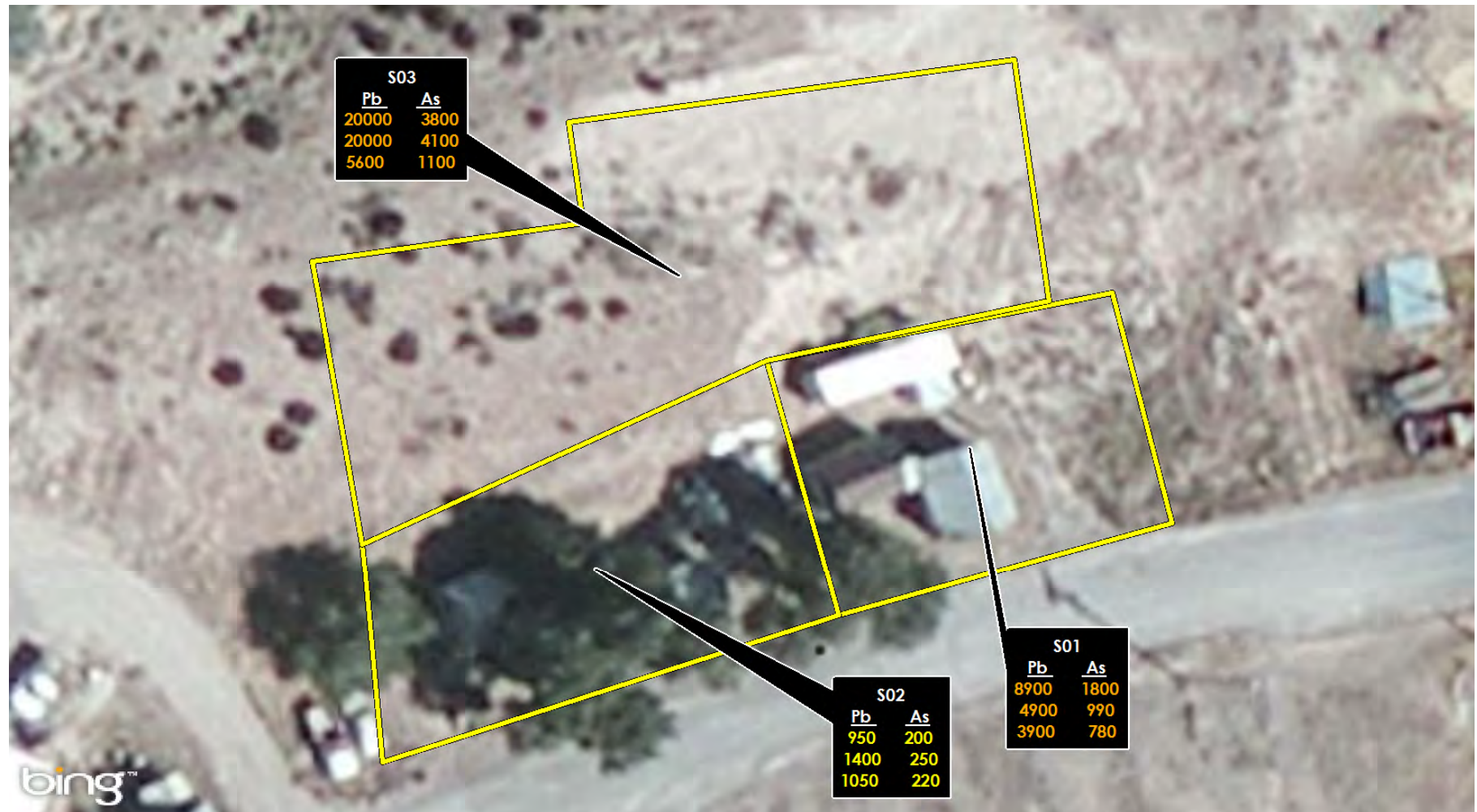
| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |





#### Legend

 Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |



#### Legend

- Composite Sampling Area
- Discrete Sampling Location

"P" samples are point samples  
 "S" samples are composite samples  
 Pb: Lead Concentration  
 As: Arsenic Concentration  
 NA indicates that a sample was not collected

#### Label Key:

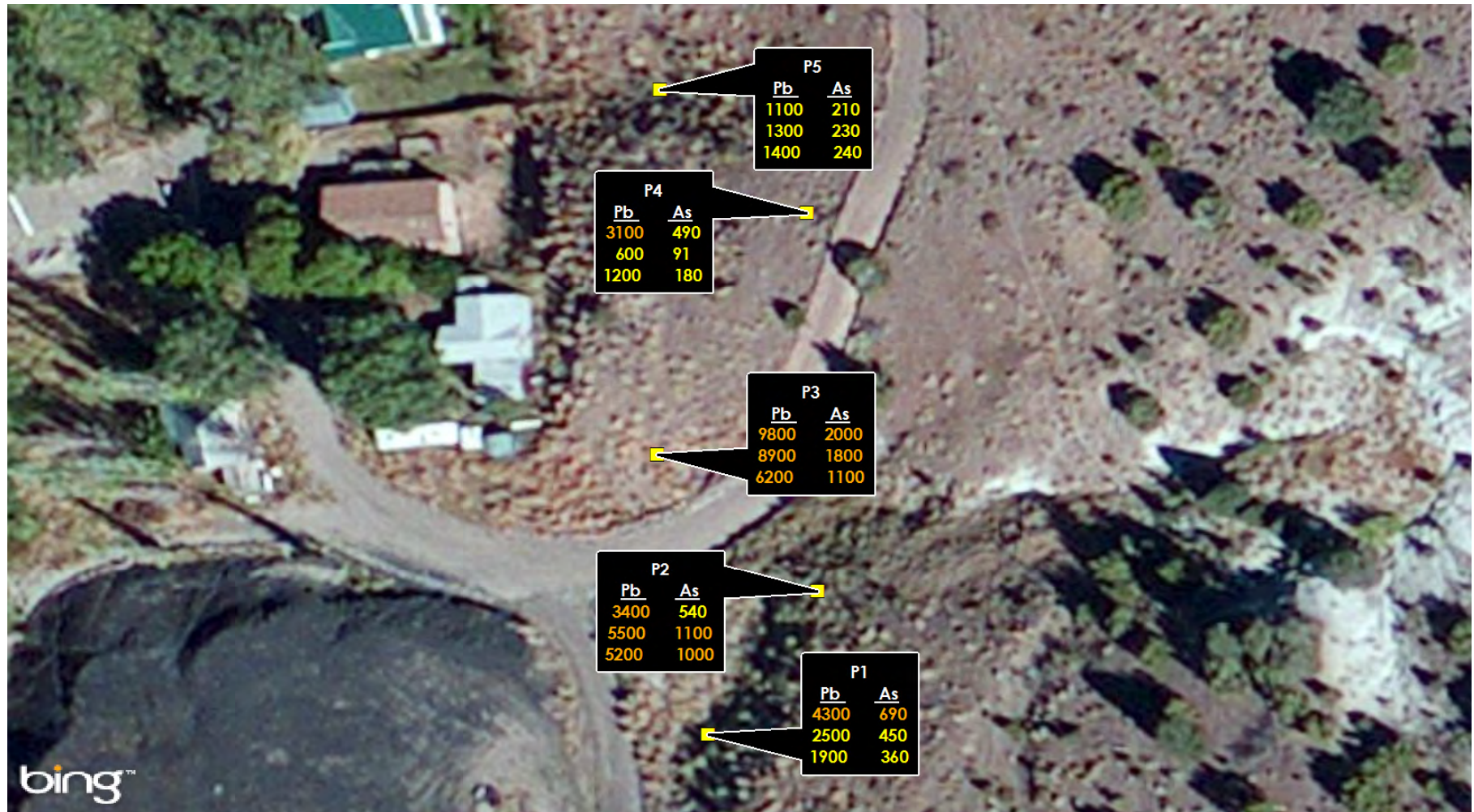
| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |





#### Legend

■ Discrete Sampling Location

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |





#### Legend

■ Discrete Sampling Location

#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)



Ecology & Environment, Inc. GIS Department Project: Northrop 100sOakland/Eureka/Projects2012 Field Data Results/Parcel Map Series.mxd Date: 3/11/2013



#### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |



#### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

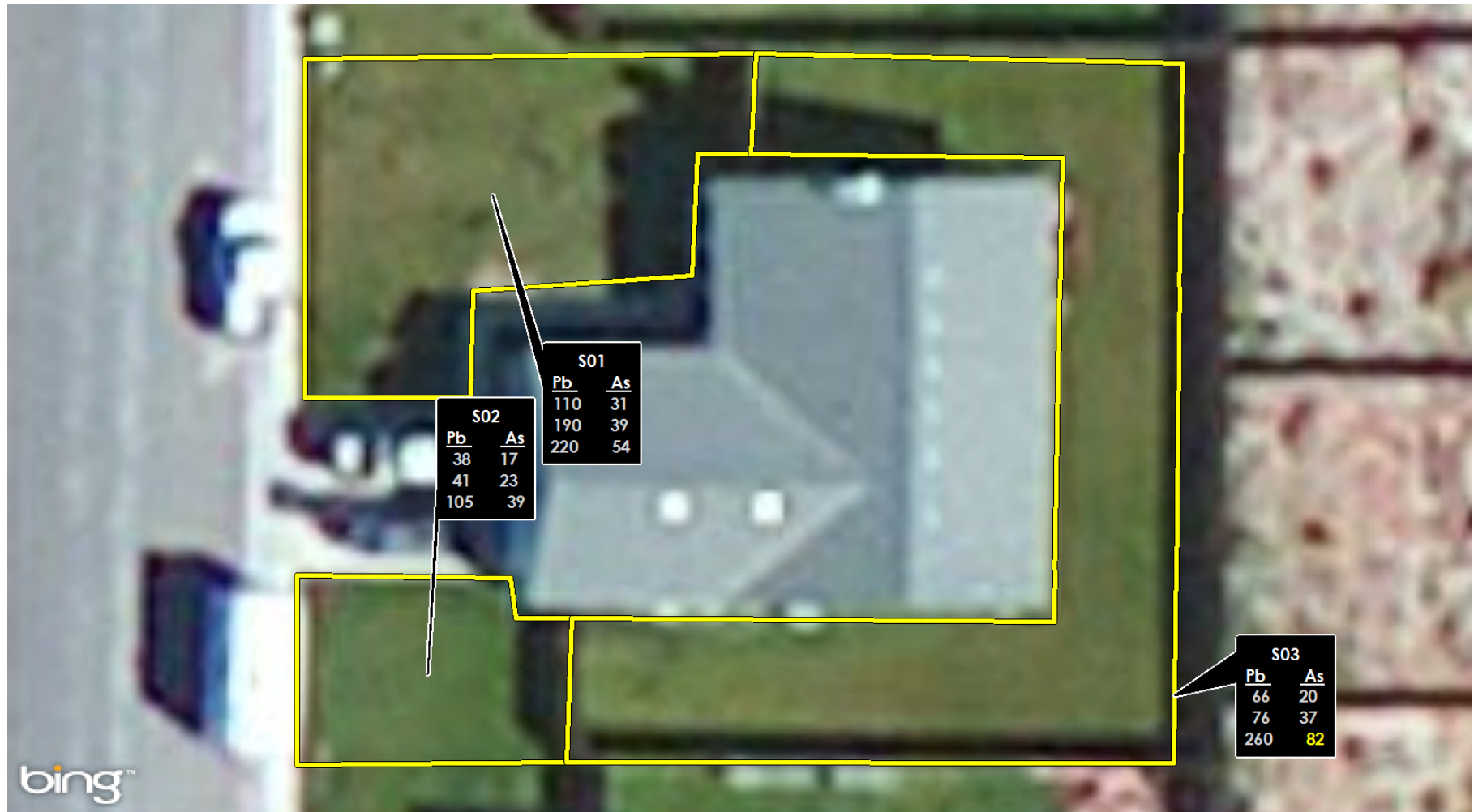
Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |



Ecology & Environment, Inc. GIS Department Project: Northrop 1101sOakland/Eureka/Projects2012 Field Data Results/Parcel Map Series.mxd Date: 3/11/2013



#### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

#### Label Key:

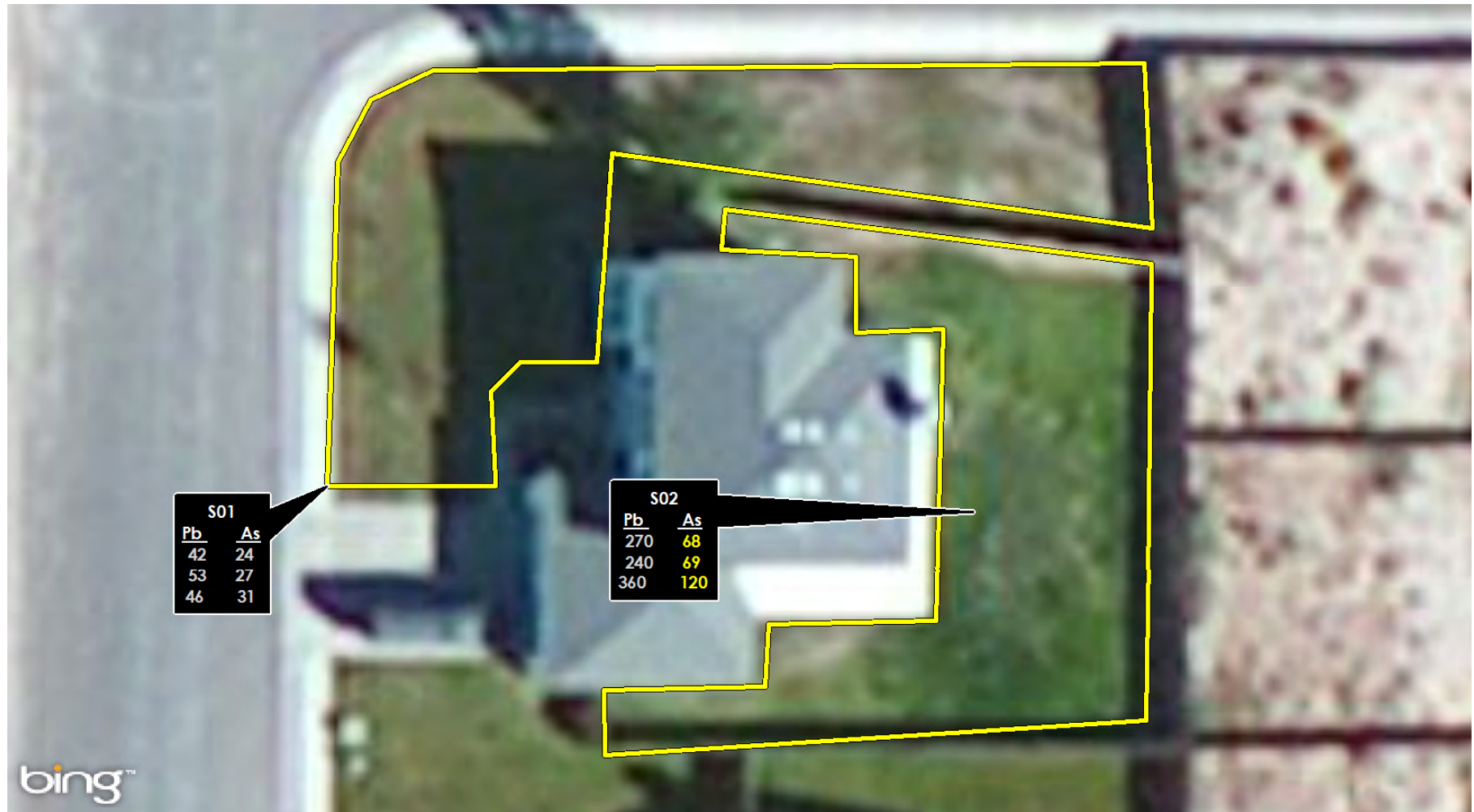
| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |

Ecology & Environment, Inc. GIS Department Project: Northrop 101sOakland/Eureka/Projects2012 Field Data Results/Parcel Map Series.mxd Date: 3/11/2013



#### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

#### Label Key:

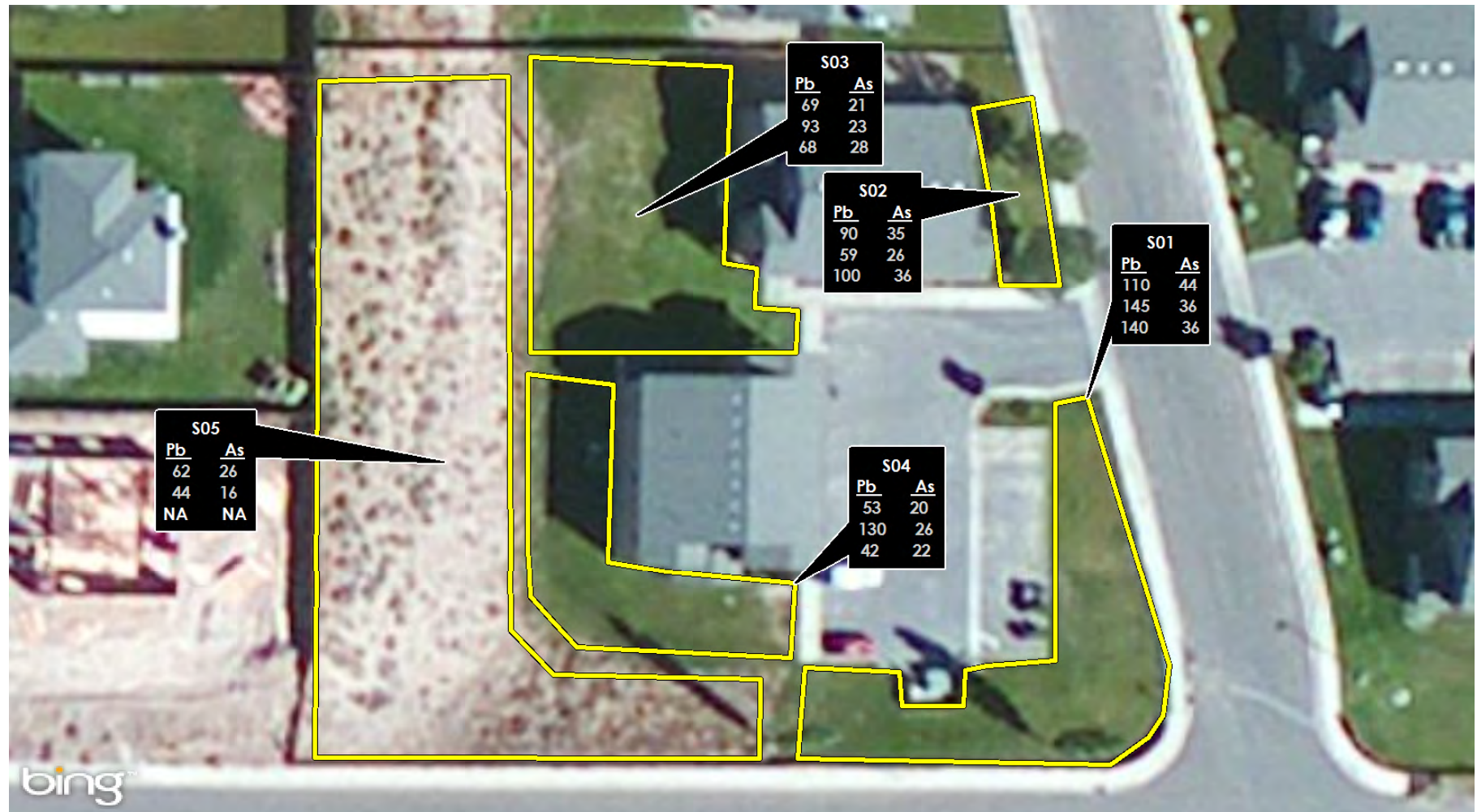
| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| > 3,000 (mg/kg)                      | > 600 (mg/kg)                           |





#### Legend

Composite Sampling Area

"P" samples are point samples  
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Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

#### Label Key:

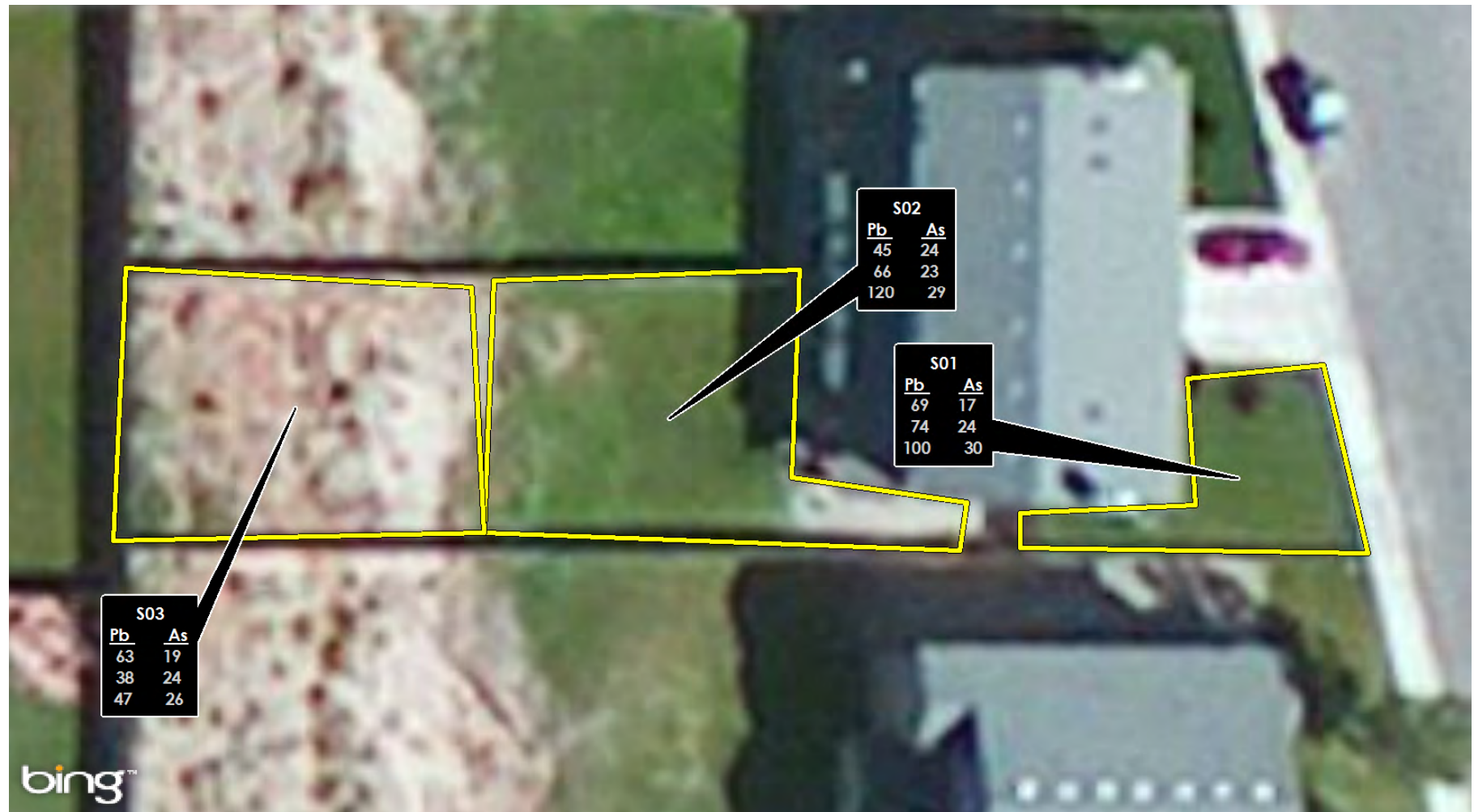
| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |

Ecology & Environment, Inc. GIS Department Project: Northrop 101sOakland/Eureka/Projects/2012 Field Data Results/Parcel Map Series.mxd Date: 3/11/2013



### Legend

Composite Sampling Area

"P" samples are point samples  
 "S" samples are composite samples  
 Pb: Lead Concentration  
 As: Arsenic Concentration  
 NA indicates that a sample was not collected

### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

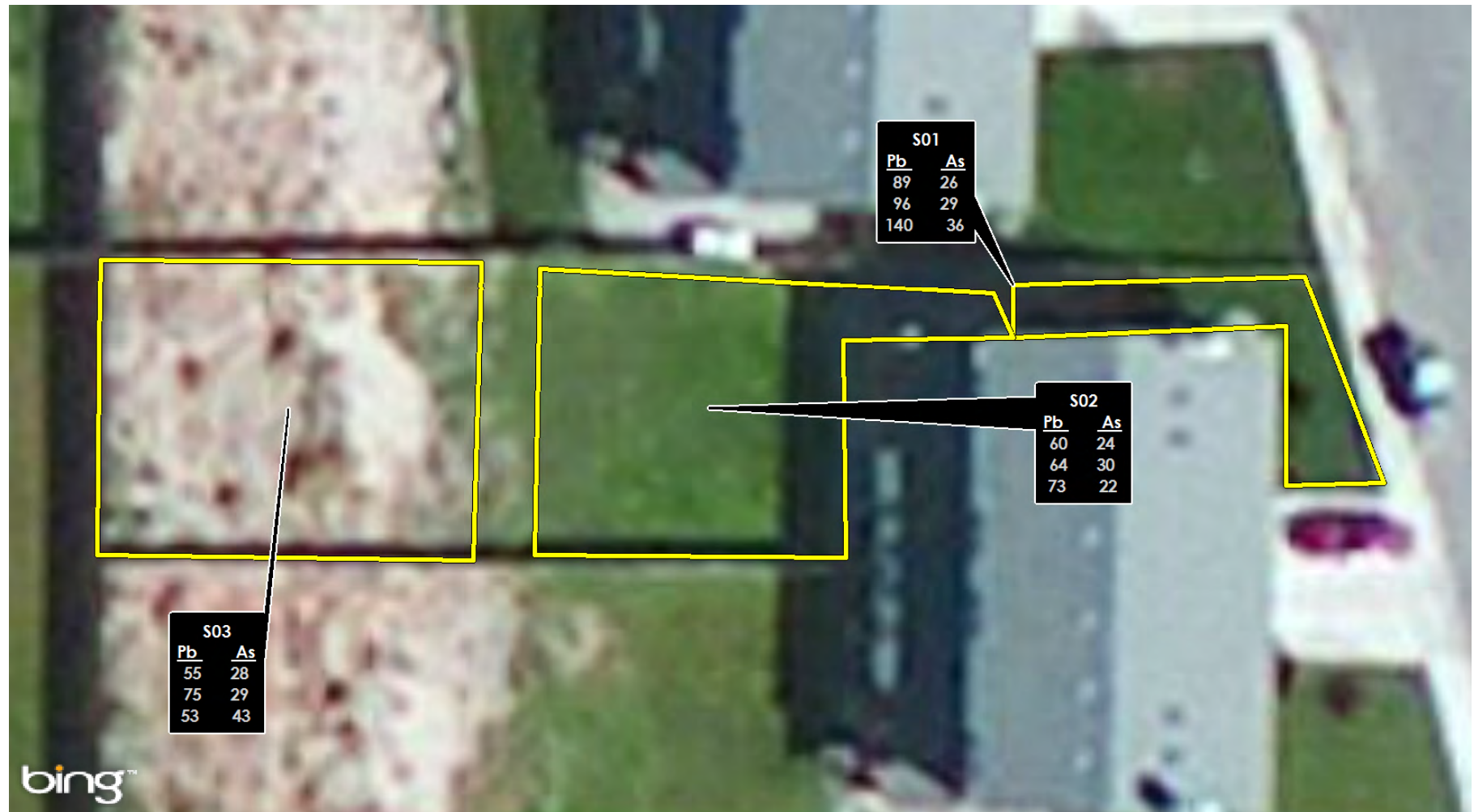
### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)



Ecology & Environment, Inc. GIS Department Project: Northbay 101sOakland/Eureka/Projects2012 Field Data Results/Parcel Map Series.mxd Date: 3/11/2013



#### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

#### Label Key:

| Pb  | SAMPLE ID | As  |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| > 3,000 (mg/kg)                      | > 600 (mg/kg)                           |



#### Legend

- Composite Sampling Area
- Discrete Sampling Location

"P" samples are point samples  
 "S" samples are composite samples  
 Pb: Lead Concentration  
 As: Arsenic Concentration  
 NA indicates that a sample was not collected

#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| > 3,000 (mg/kg)                      | > 600 (mg/kg)                           |



Ecology & Environment, Inc. GIS Department Project: Northrop 11015 Oakland/Eureka/Projects/2012 Field Data Results/Parcel Map Series.mxd Date: 3/11/2013



#### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |

Ecology & Environment, Inc. GIS Department Project: Northrop 101s/Oakland/Eureka/Projects/2012 Field Data Results/Parcel Map Series.mxd Date: 3/11/2013



#### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

#### Label Key:

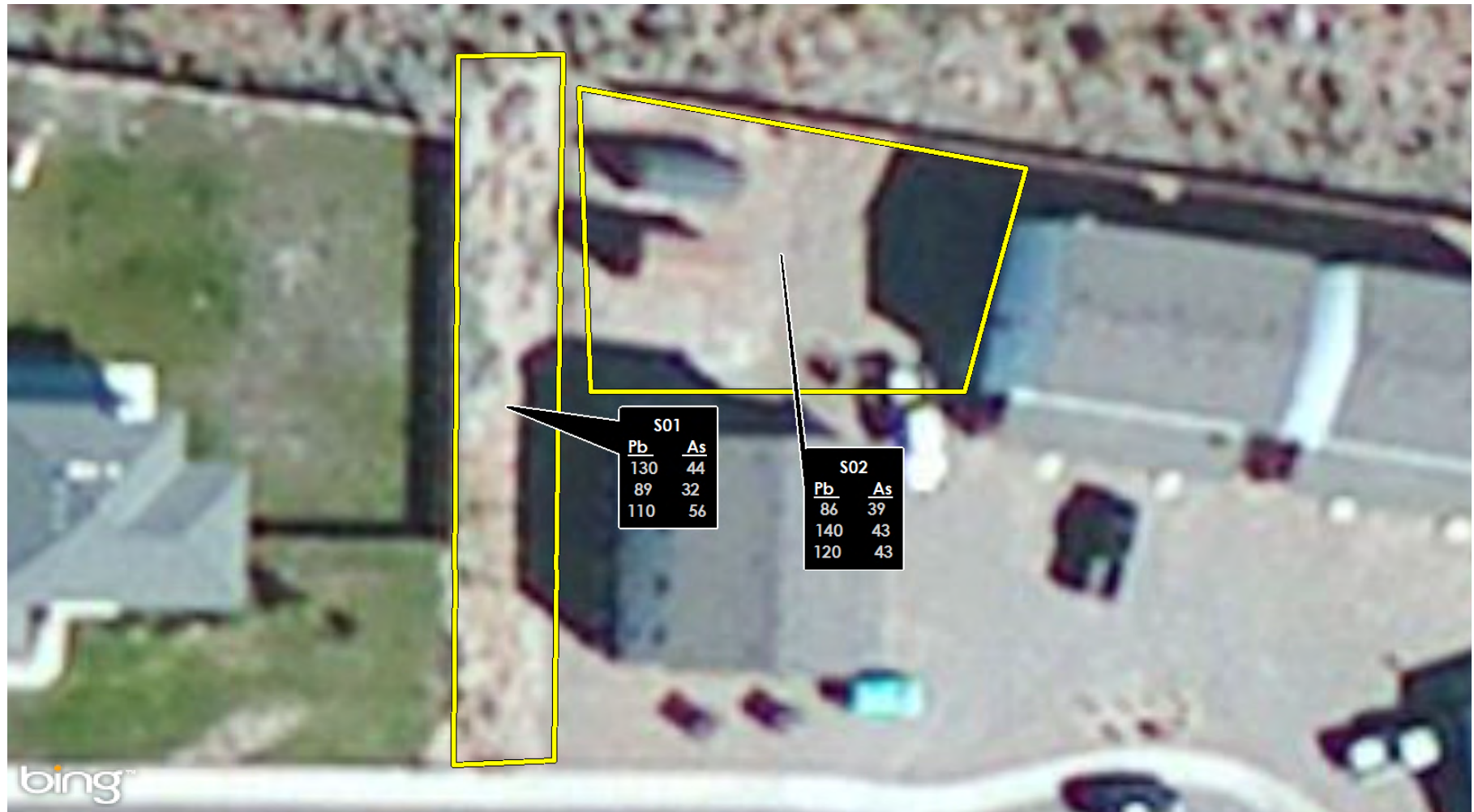
| Pb  | SAMPLE ID | As  |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |





#### Legend

Composite Sampling Area

"P" samples are point samples  
 "S" samples are composite samples  
 Pb: Lead Concentration  
 As: Arsenic Concentration  
 NA indicates that a sample was not collected

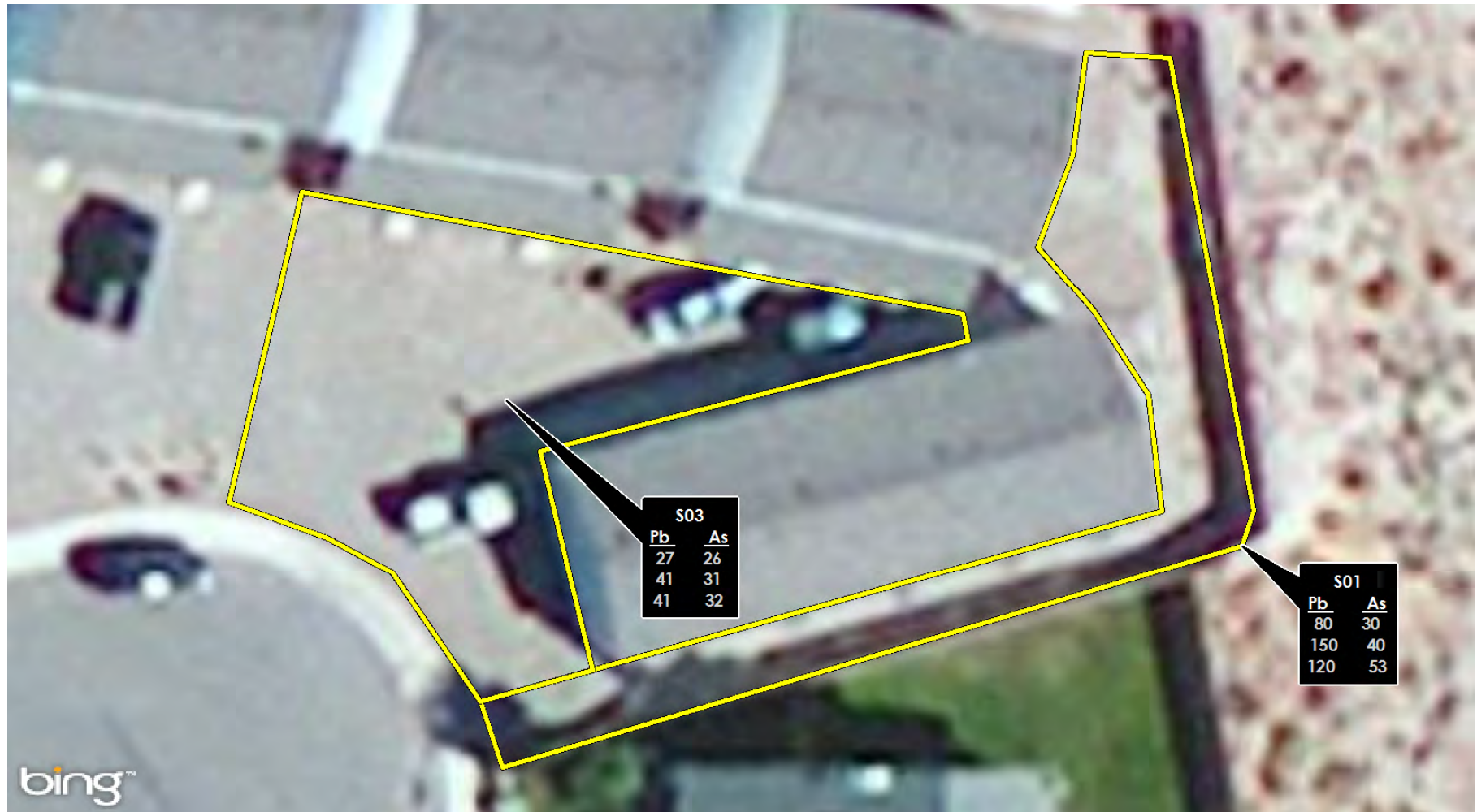
#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| > 3,000 (mg/kg)                      | > 600 (mg/kg)                           |



### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

### Label Key:

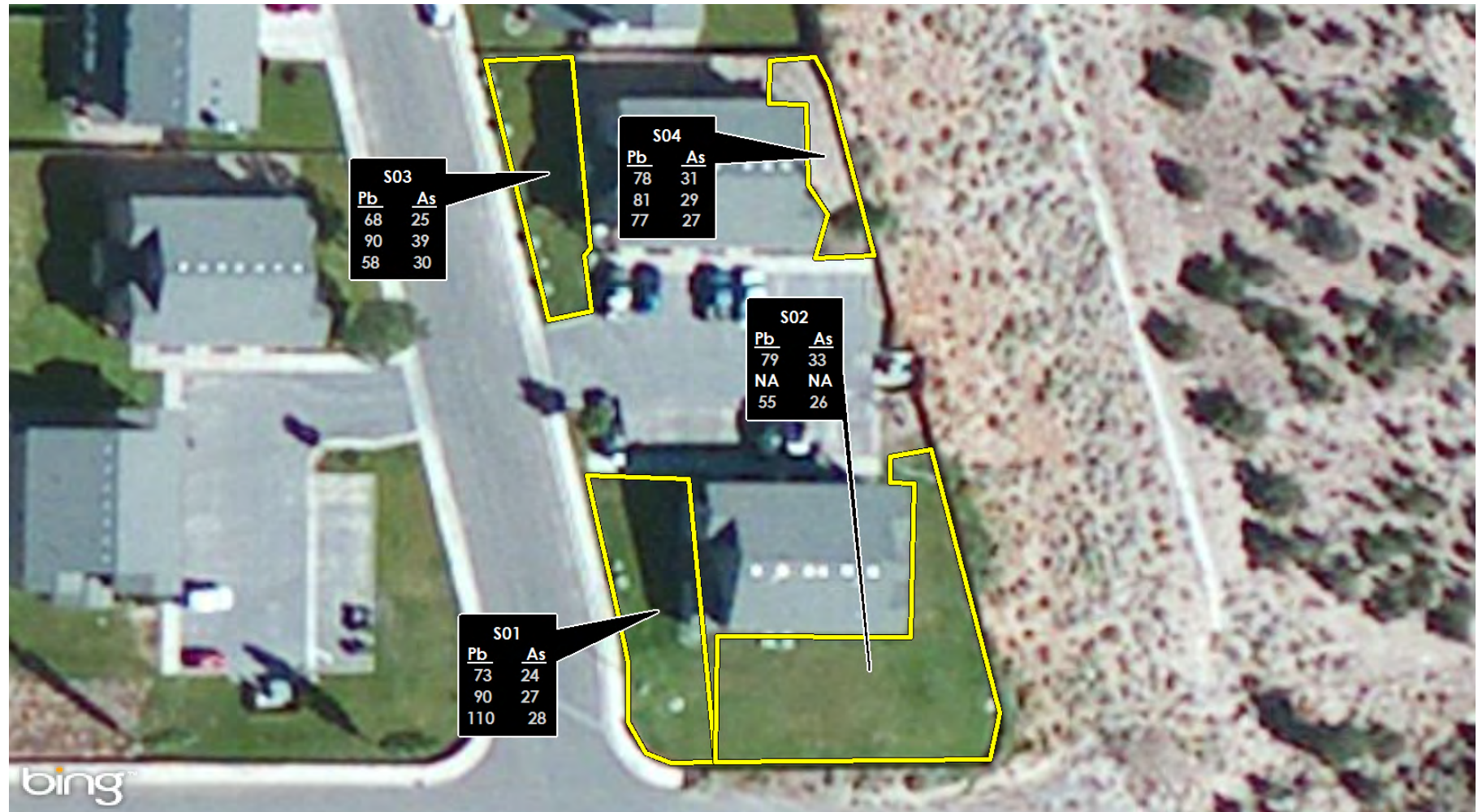
| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| > 3,000 (mg/kg)                      | > 600 (mg/kg)                           |





### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

### Label Key:

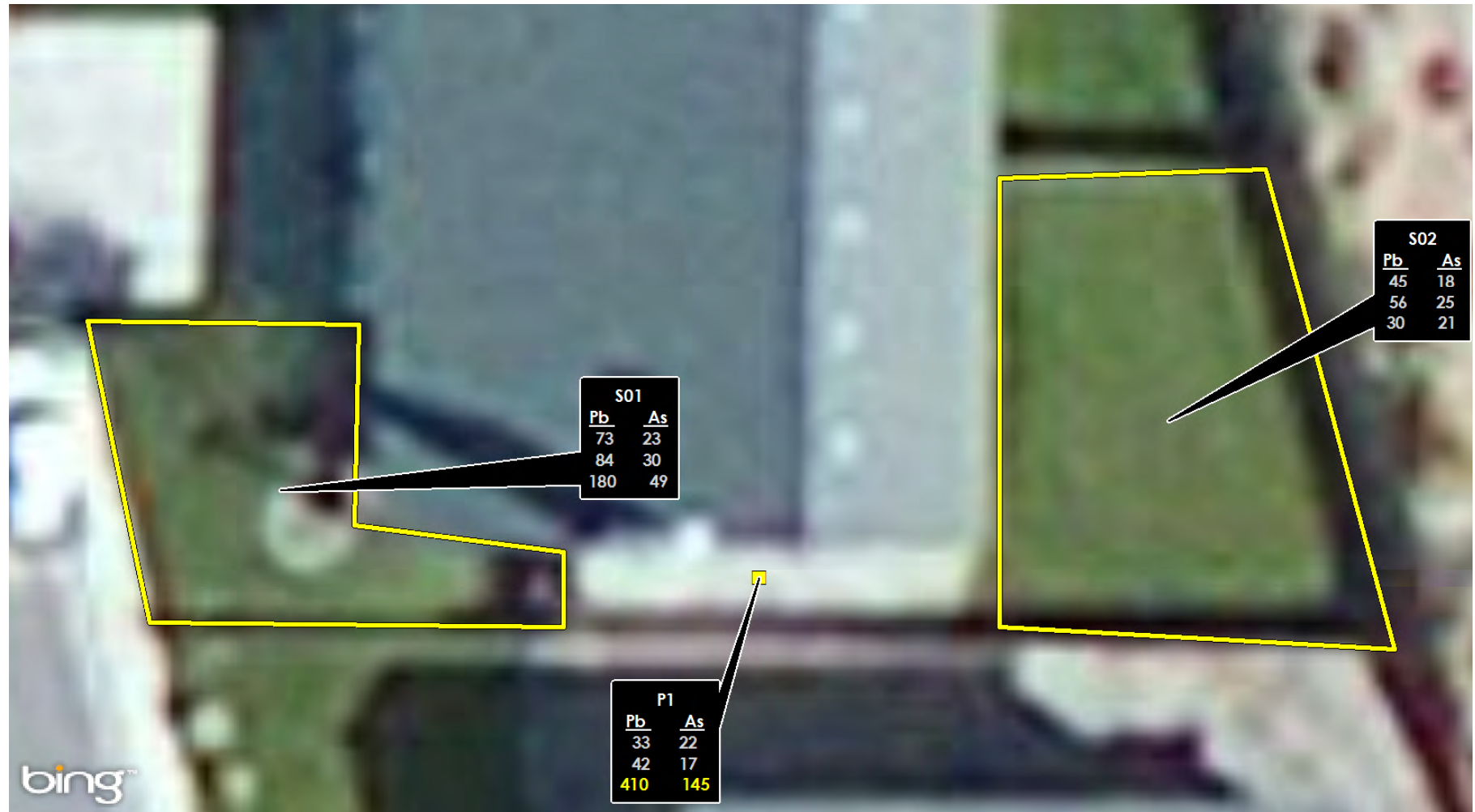
| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

Ecology & Environment, Inc. GIS Department Project: Northrop 1101sOakland/Eureka/Projects2012 Field Data Results/Parcel Map Series.mxd Date: 3/11/2013



### Legend

- Composite Sampling Area
- Discrete Sampling Location

"P" samples are point samples  
 "S" samples are composite samples  
 Pb: Lead Concentration  
 As: Arsenic Concentration  
 NA indicates that a sample was not collected

### Label Key:

| Pb  | SAMPLE ID | As  |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

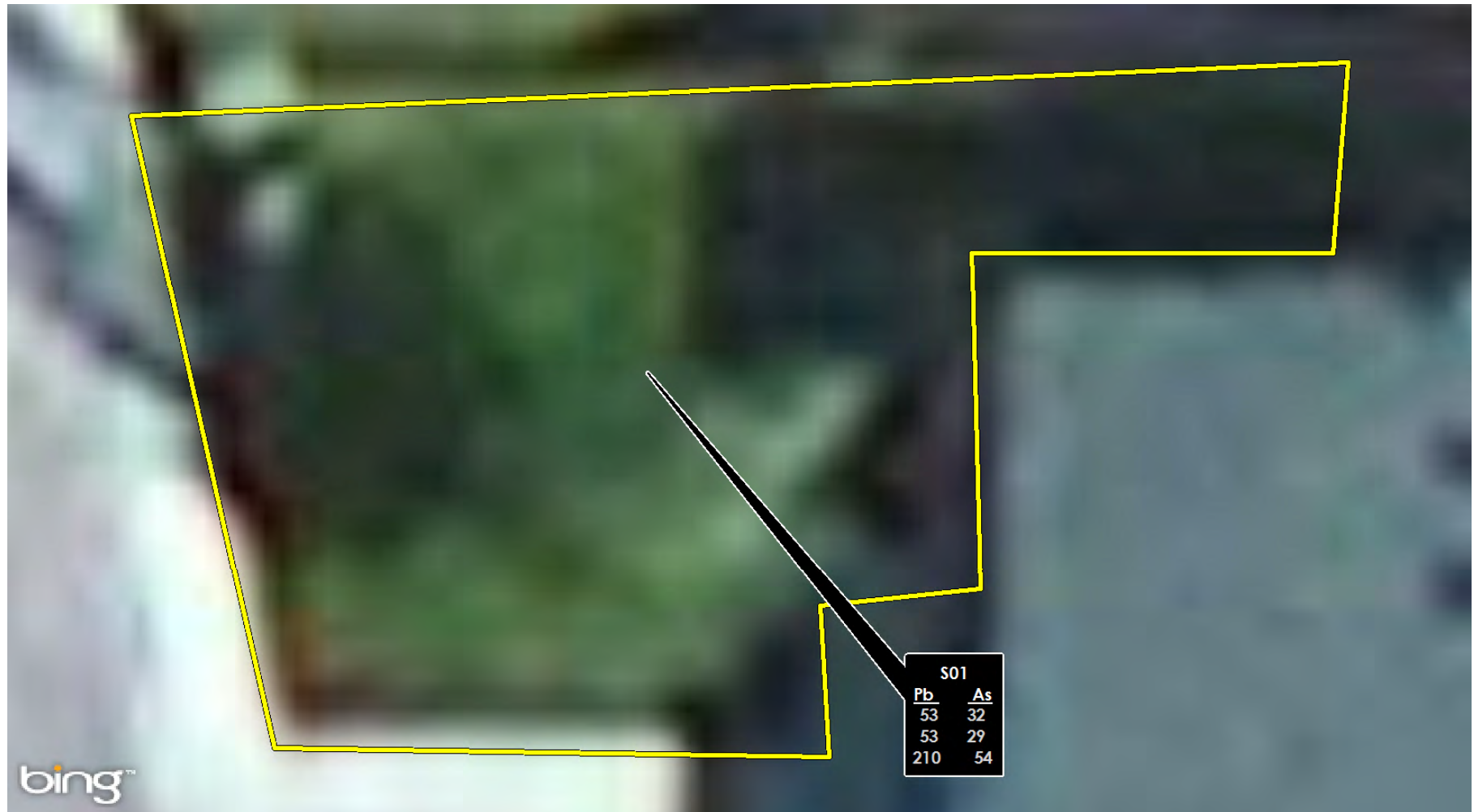
### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)



Ecology & Environment, Inc. GIS Department Project: Northrop 101s/Oakland/Eureka/Projects/2012\_Field\_Data\_Results/Parcel\_Map\_Series.mxd Date: 3/11/2013



#### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

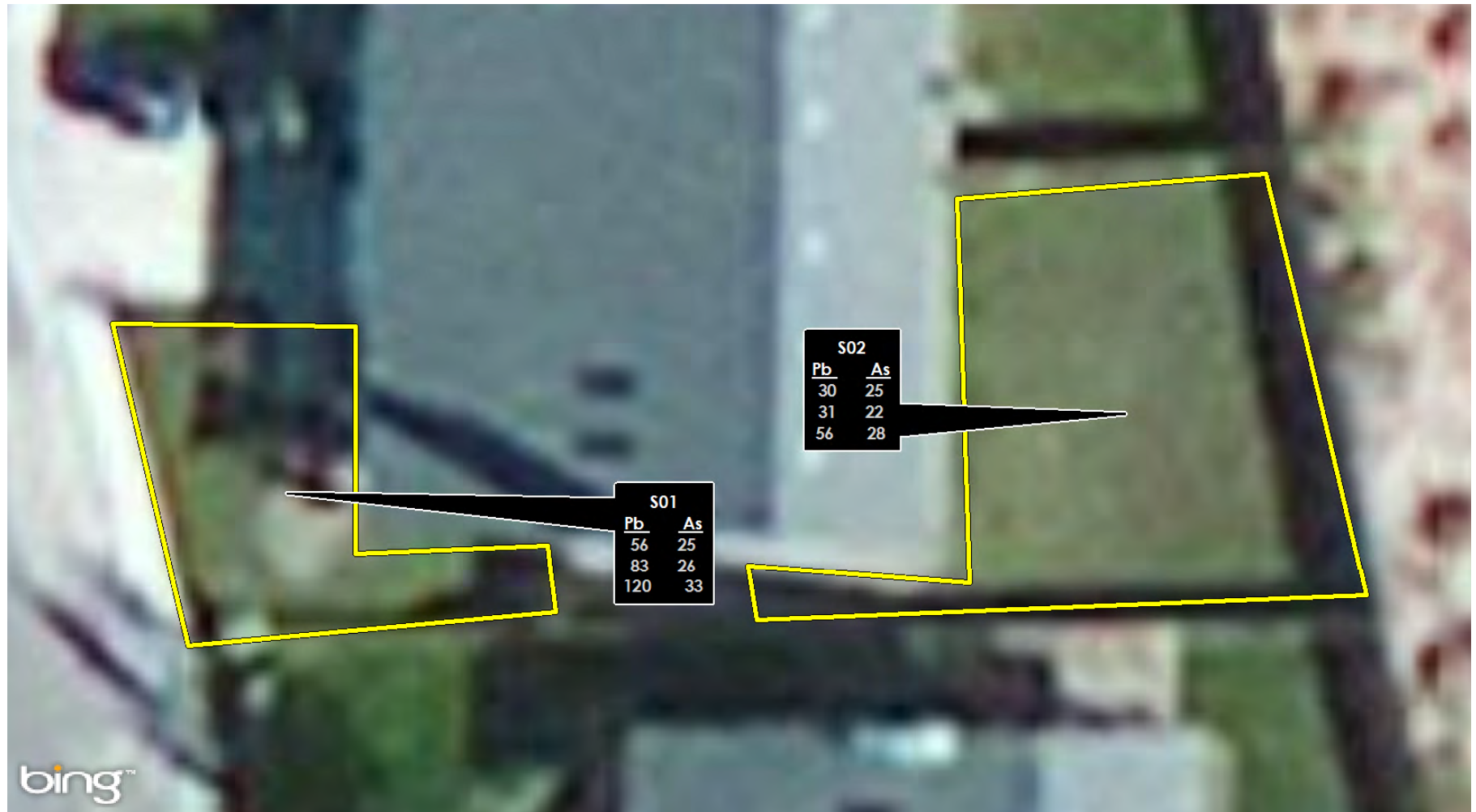
#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| > 3,000 (mg/kg)                      | > 600 (mg/kg)                           |



#### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

#### Label Key:

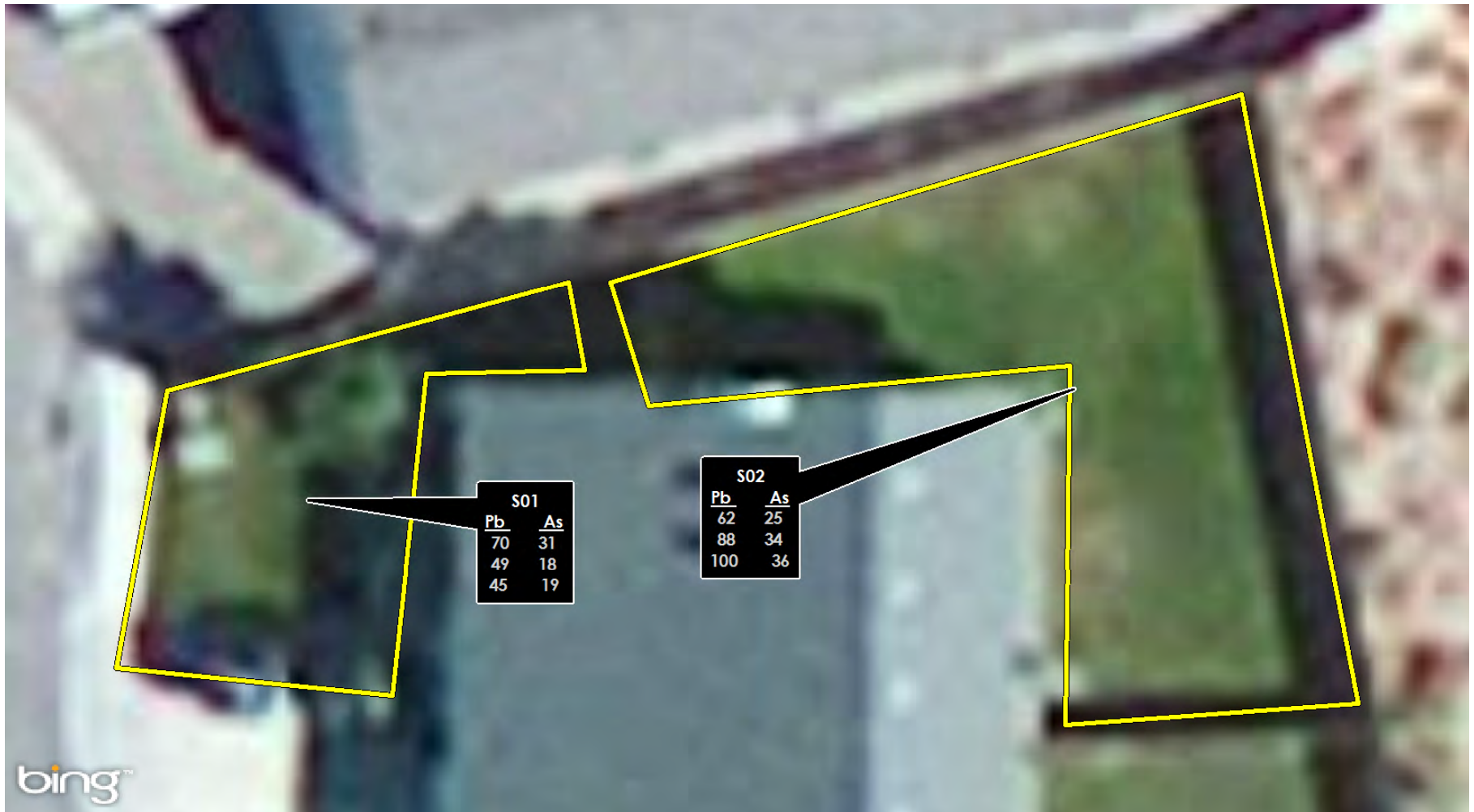
| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| > 3,000 (mg/kg)                      | > 600 (mg/kg)                           |





#### Legend

Composite Sampling Area

"P" samples are point samples  
 "S" samples are composite samples  
 Pb: Lead Concentration  
 As: Arsenic Concentration  
 NA indicates that a sample was not collected

#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |

Ecology & Environment, Inc. GIS Department - Project: Northrop 140sOakland/Eureka/Projects2012 - Field Data - Results/Parcel Map - Series.mxd Date: 3/11/2013



#### Legend

■ Discrete Sampling Location

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

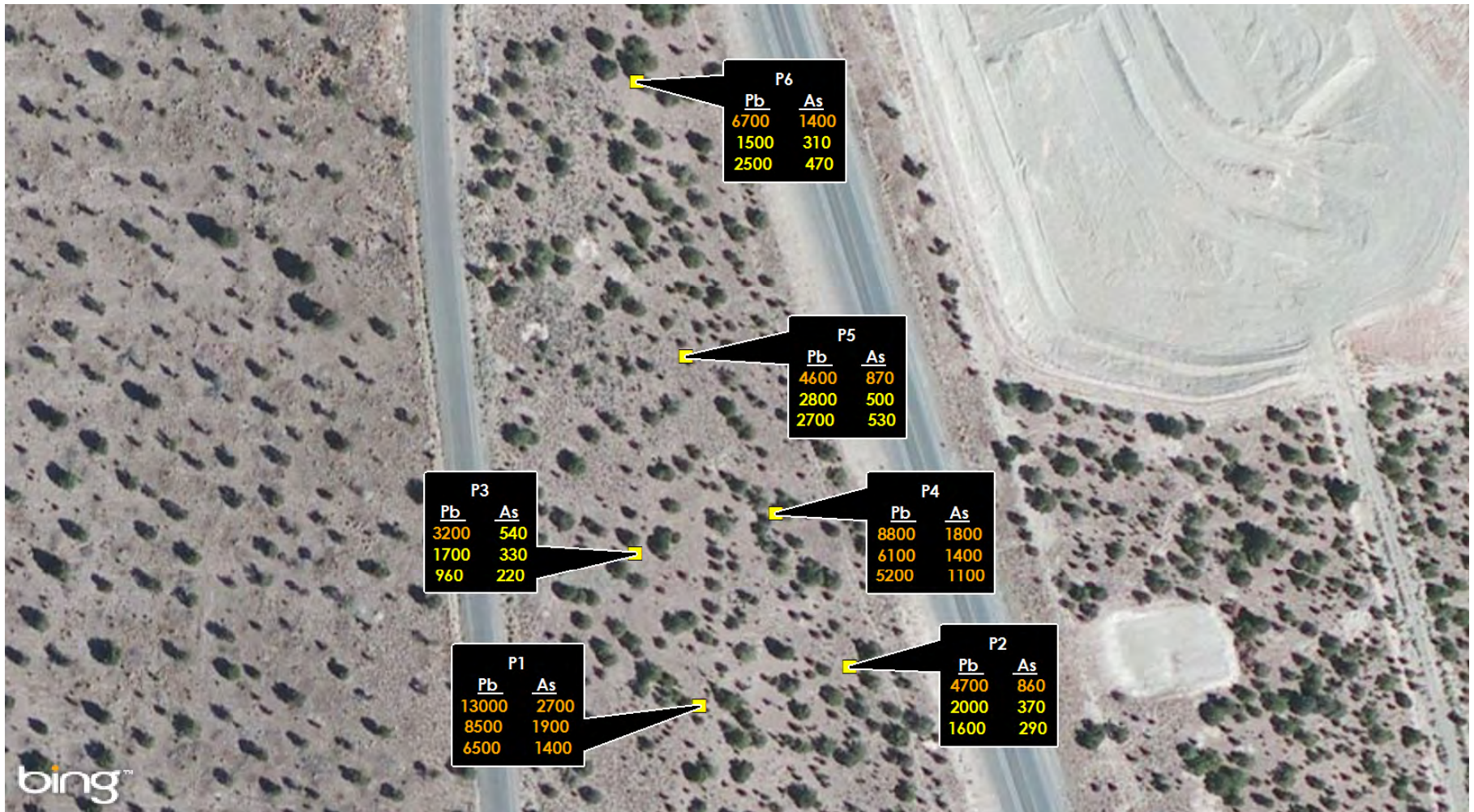
Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |



Ecology & Environment, Inc. GIS Department Project: Northrop 101sOakland/Eureka/Projects/2012 Field Data Results/Parcel Map Series.mxd Date: 3/11/2013



#### Legend

■ Discrete Sampling Location

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)



Ecology & Environment, Inc. GIS Department - Project: Northbay 100sOakland/Eureka/Projects2012 Field Data Results/Parcel Map Series.mxd Date: 3/11/2013



#### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

#### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

#### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |





### Legend

Composite Sampling Area

"P" samples are point samples  
"S" samples are composite samples  
Pb: Lead Concentration  
As: Arsenic Concentration  
NA indicates that a sample was not collected

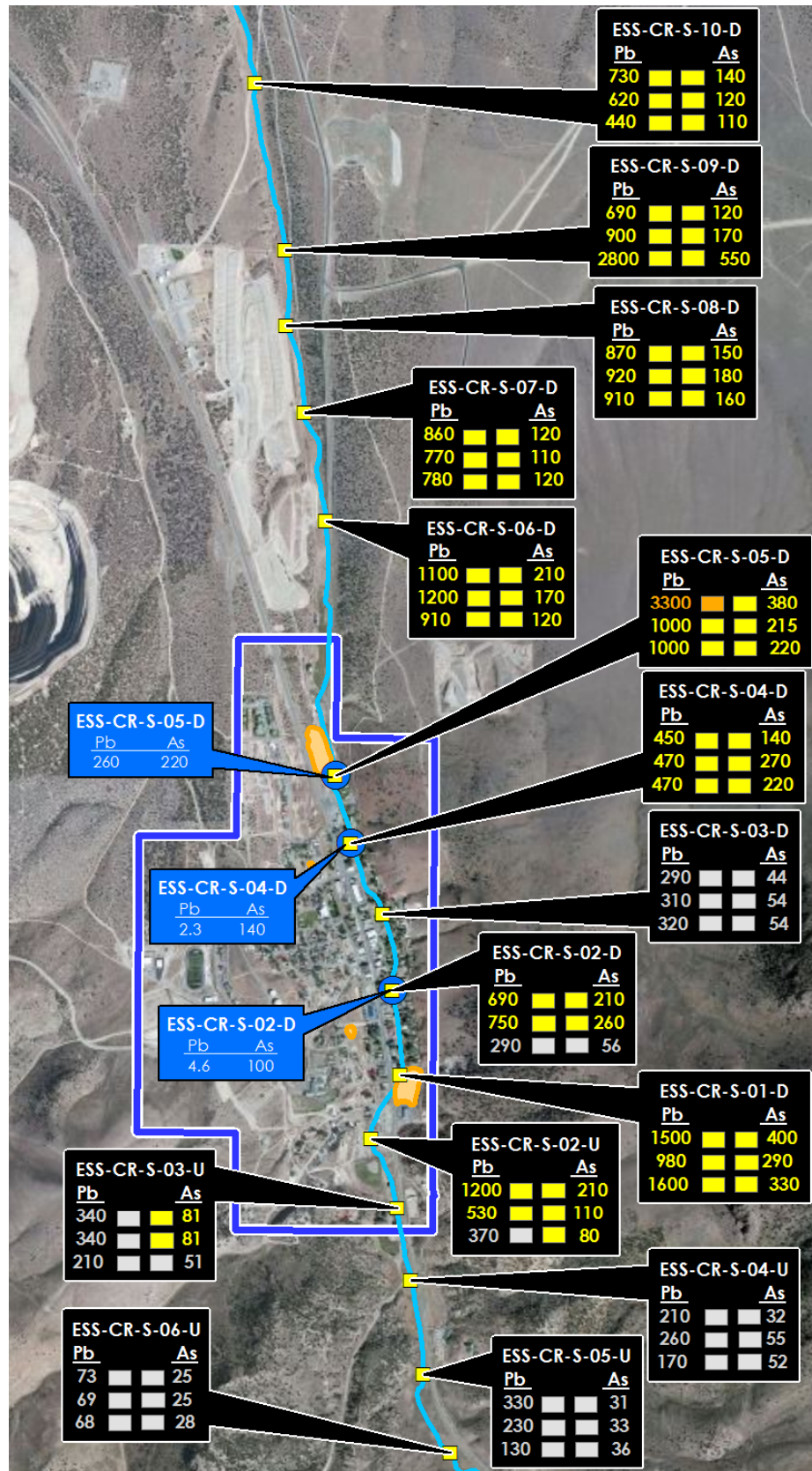
### Label Key:

| <u>Pb</u>   | SAMPLE ID | <u>As</u>   |
|---|-----------|---|
| # mg/kg, Sample taken at a depth of 0 - 2 inches  |           | # mg/kg, Sample taken at a depth of 0 - 2 inches  |
| # mg/kg, Sample taken at a depth of 2 - 6 inches  |           | # mg/kg, Sample taken at a depth of 2 - 6 inches  |
| # mg/kg, Sample taken at a depth of 6 - 12 inches |           | # mg/kg, Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| >3,000 (mg/kg)                       | >600 (mg/kg)                            |



### Legend

- Project Site
- Slag Pile
- Creek Bed
- Soil Sample Location
- Water Sample Location

### Soil Sample Labeling Key:

| SAMPLE ID   |   |
|---|---|
| Lead test results   | Arsenic test results  |
| ESS-CR-S-XX-X-0<br>Sample taken at a depth of 0 - 2 inches  | ESS-CR-S-XX-X-0<br>Sample taken at a depth of 0 - 2 inches  |
| ESS-CR-S-XX-X-2<br>Sample taken at a depth of 2 - 6 inches  | ESS-CR-S-XX-X-2<br>Sample taken at a depth of 2 - 6 inches  |
| ESS-CR-S-XX-X-6<br>Sample taken at a depth of 6 - 12 inches | ESS-CR-S-XX-X-6<br>Sample taken at a depth of 6 - 12 inches |

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

### Color Scheme Key:

**Lead (Pb) Test Results Concentration**

- < 400 (mg/kg)
- 400 - 3,000 (mg/kg)
- >3,000 (mg/kg)

**Arsenic (As) Test Results Concentration**

- < 60 (mg/kg)
- 60 - 600 (mg/kg)
- >600 (mg/kg)

### Water Sampling Key:

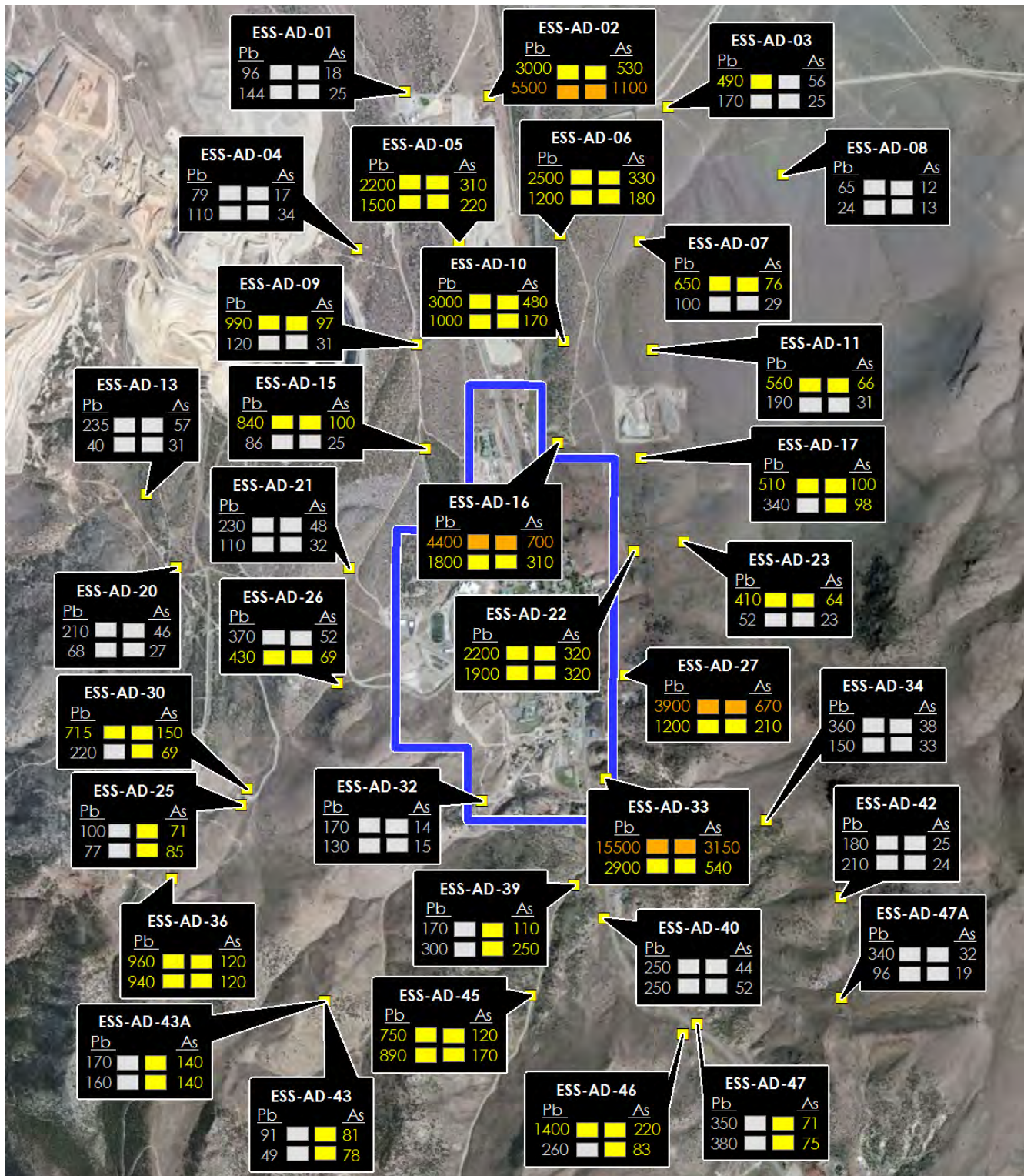
| SAMPLE ID         |                      |
|-------------------|----------------------|
| Lead test results | Arsenic test results |
| ### ug/L          | ### ug/L             |

0 1,000 2,000  
Feet



Figure 8  
**Creek Sampling Locations**  
Eureka Smelters Sites  
Eureka, Eureka County, Nevada





### Legend

Project Site

Soil Sample Location

Levels of lead and arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

### Soil Sample Labeling Key:

| SAMPLE ID                               |   |
|---|---|
| Lead test results                       | Arsenic test results                    |
| ESS-AD-XX-0                             | ESS-AD-XX-0                             |
| Sample taken at a depth of 0 - 2 inches | Sample taken at a depth of 0 - 2 inches |
| ESS-AD-XX-2                             | ESS-AD-XX-2                             |
| Sample taken at a depth of 2 - 6 inches | Sample taken at a depth of 2 - 6 inches |

### Color Scheme Key:

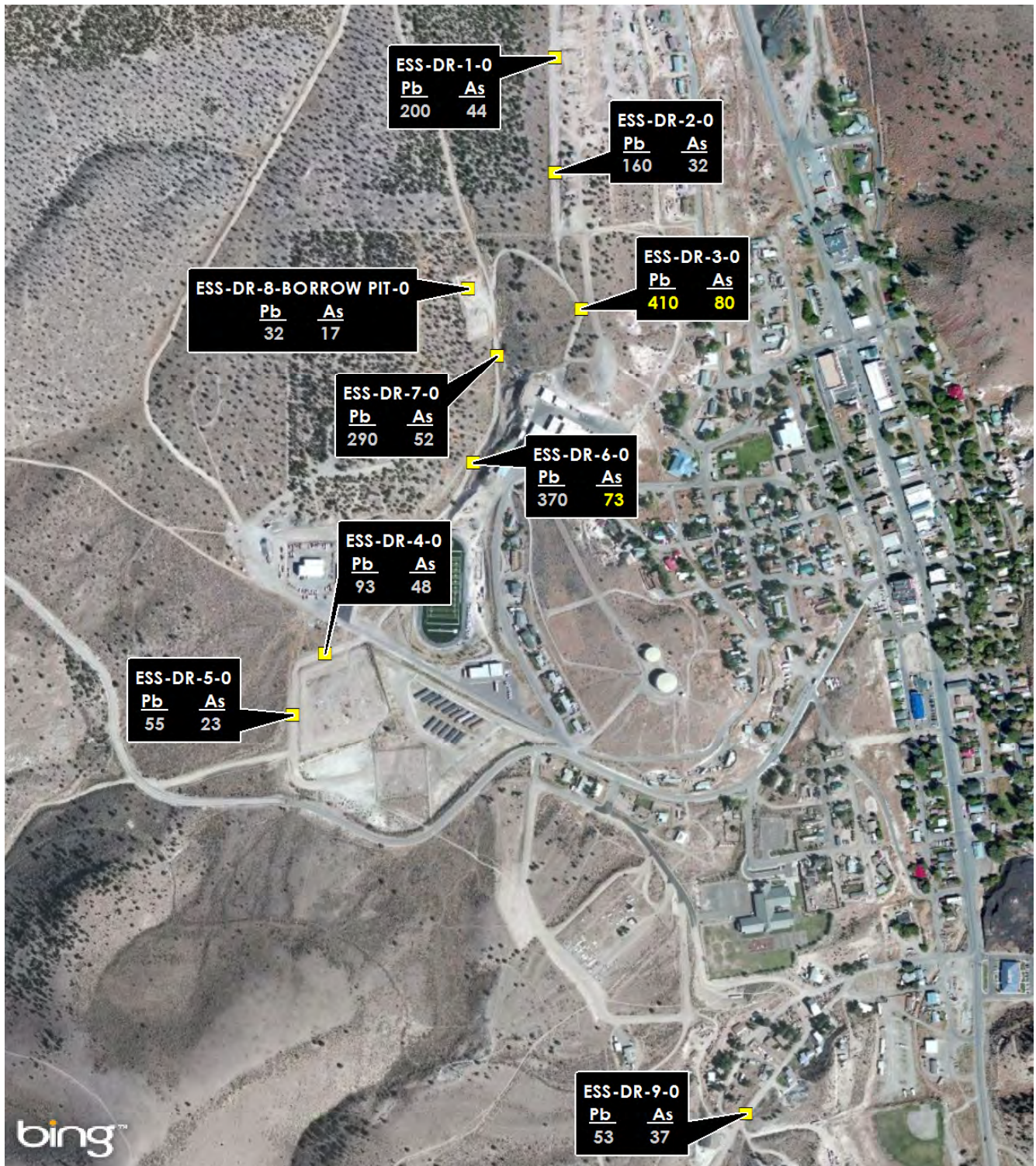
| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| > 3,000 (mg/kg)                      | > 600 (mg/kg)                           |

Figure 9

## Air Dispersion Sampling Locations

Eureka Smelters Sites  
Eureka, Eureka County, Nevada





### Legend



Composite Sampling Area

"P" samples are point samples

"S" samples are composite samples

Pb: Lead Concentration

As: Arsenic Concentration

NA indicates that a sample was not collected  
Levels of lead and arsenic in soil are measured  
in units of milligrams per kilogram (mg/kg)

### Label Key:

| SAMPLE ID             |                       |
|-----------------------|-----------------------|
| Pb                    | As                    |
| # mg/kg,              | # mg/kg,              |
| Sample taken at a     | Sample taken at a     |
| depth of 0 - 2 inches | depth of 0 - 2 inches |

### Font Color Scheme Key:

| Lead (Pb) Test Results Concentration | Arsenic (As) Test Results Concentration |
|--------------------------------------|---|
| < 400 (mg/kg)                        | < 60 (mg/kg)                            |
| 400 - 3,000 (mg/kg)                  | 60 - 600 (mg/kg)                        |
| > 3,000 (mg/kg)                      | > 600 (mg/kg)                           |



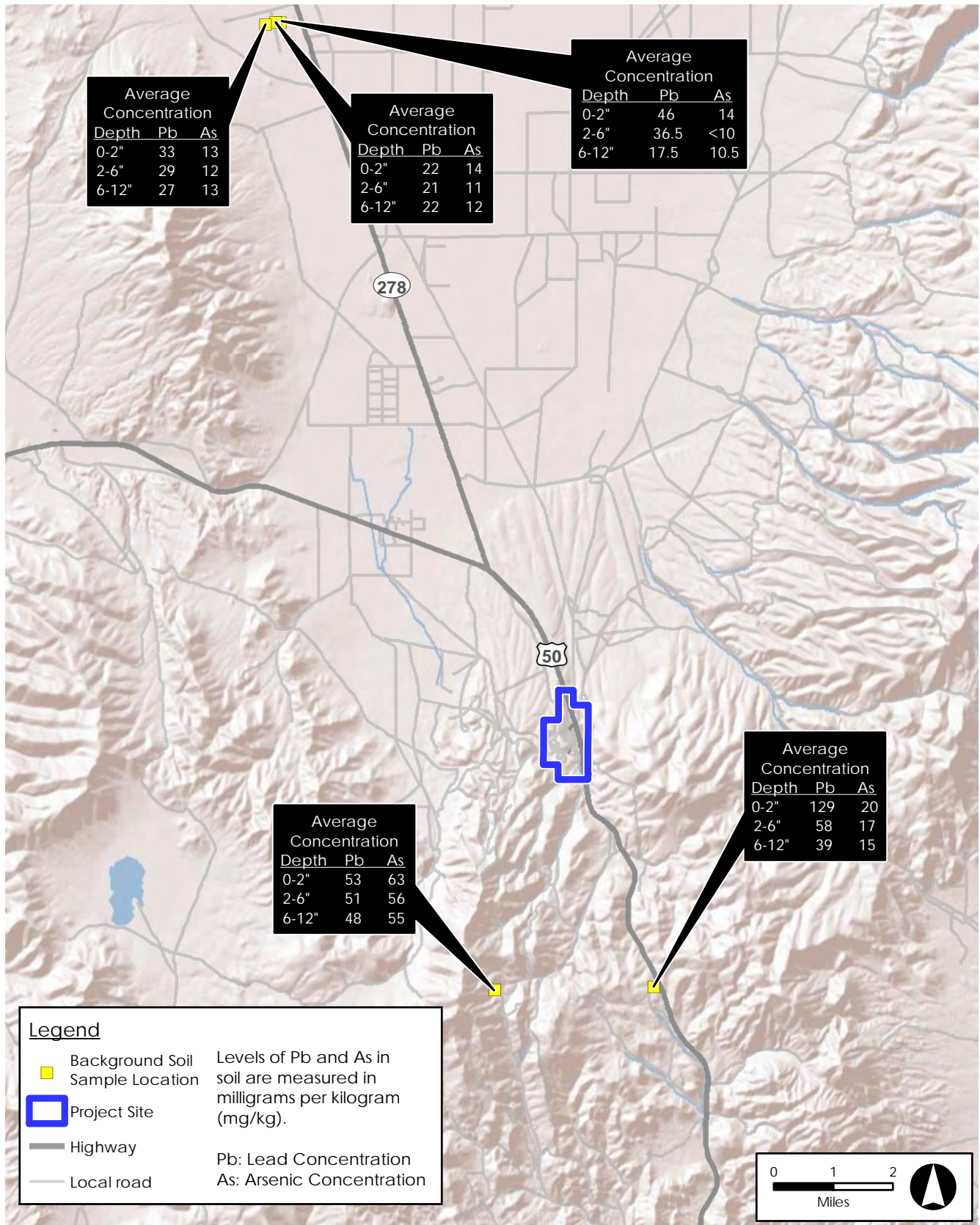
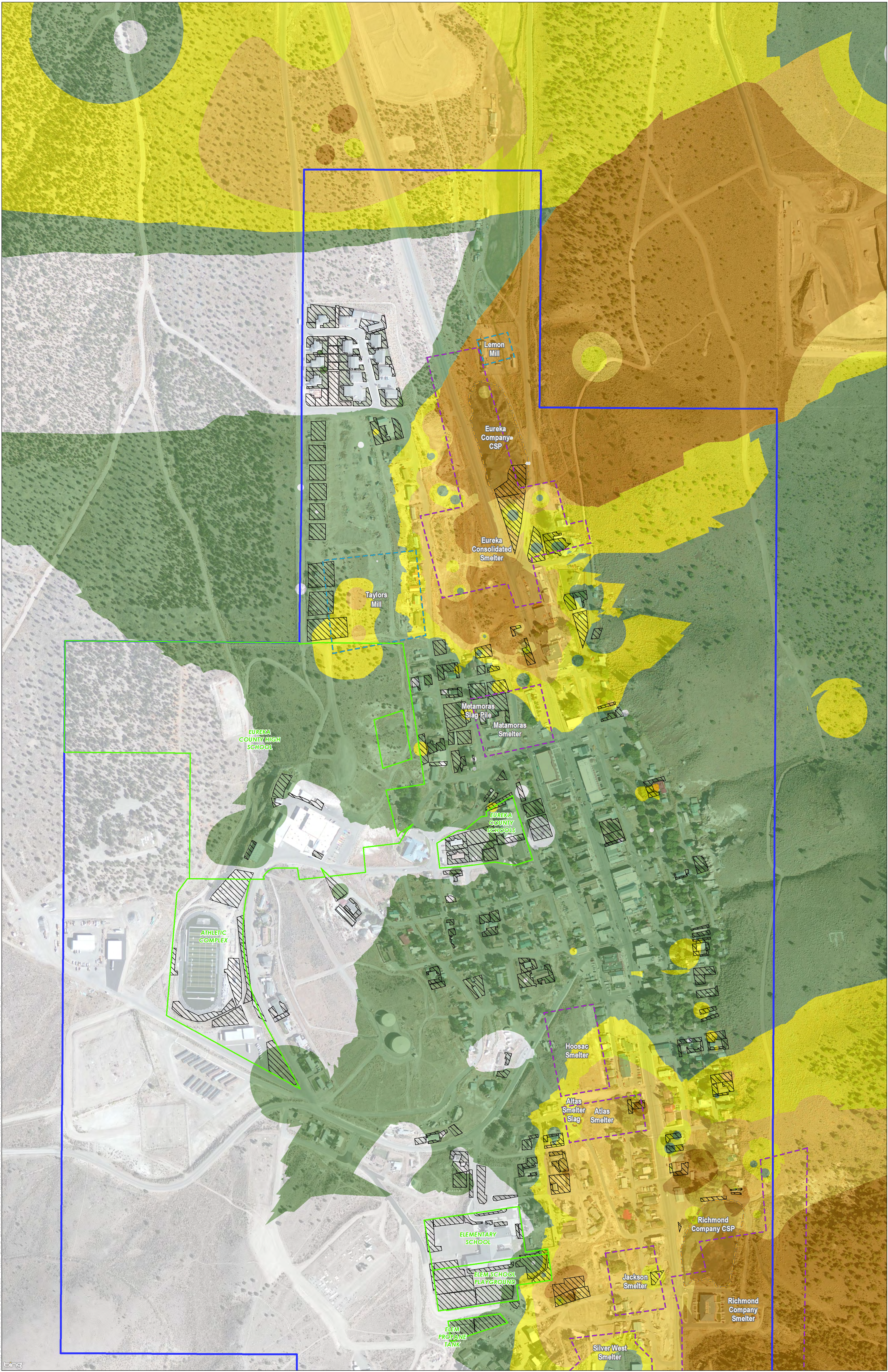


Figure 11  
Background Sampling Locations  
Eureka Smelters Sites  
Eureka, Eureka County, Nevada





Legend

- Arsenic Concentration (mg/kg)

  - Non detect to 60
  - 60 to 300
  - 300 to 600
  - 600 to 1,200
  - greater than 1,200
- Historical Facilities

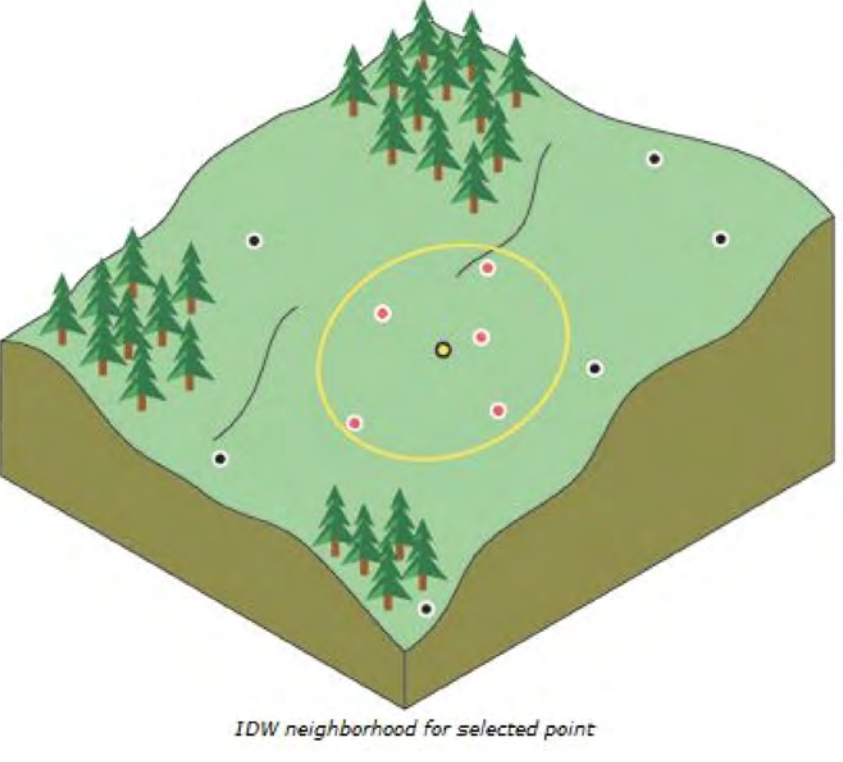
  - Historic Mill Facility
  - Historic Smelter Site
  - Consolidated Slag Pile (CSP)
- Project Site

  - Eureka County School District Property
  - Sampled Areas
- Levels of arsenic in soil are measured in units of milligrams per kilogram (mg/kg)

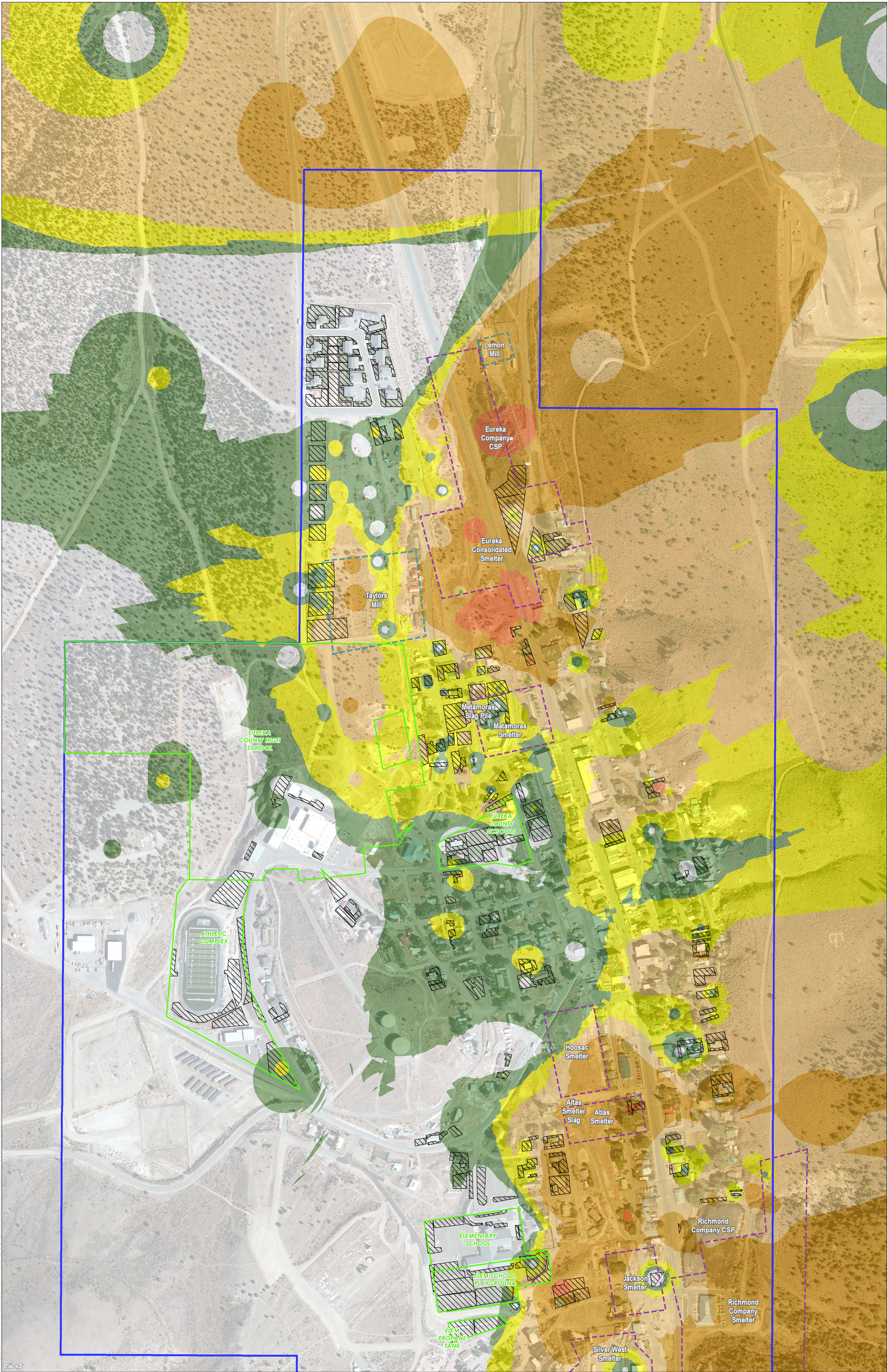
Surface Creation: GIS Analysis

ESRI ArcGIS v10.1 Inverse distance weighted (IDW) interpolation determines cell values using a linearly weighted combination of a set of sample points. The weight is a function of inverse distance. The surface being interpolated should be that of a locationally dependent variable. This method assumes that the variable being mapped decreases in influence with distance from its sampled location.

For each surface/contour map created for Eureka Pb or As levels, the nearest 12 concentration values were used.







Legend

- Lead Concentration (mg/kg)

  - Non detect to 400
  - 400 to 800
  - 800 to 1,500
  - 1,500 to 3,000
  - 3,000 to 10,000
  - greater than 10,000
- Historical Facilities

  - Historic Mill Facility
  - Historic Smelter Site
  - Consolidated Slag Pile (CSP)
- Project Site

  - Eureka County School District Property
  - Sampled Areas
- Levels of lead in soil are measured in units of milligrams per kilogram (mg/kg)

Surface Creation: GIS Analysis

ESRI ArcGIS v10.1 Inverse distance weighted (IDW) interpolation determines cell values using a linearly weighted combination of a set of sample points. The weight is a function of inverse distance. The surface being interpolated should be that of a locationally dependent variable. This method assumes that the variable being mapped decreases in influence with distance from its sampled location.

For each surface/contour map created for Eureka Pb or As levels, the nearest 12 concentration values were used.

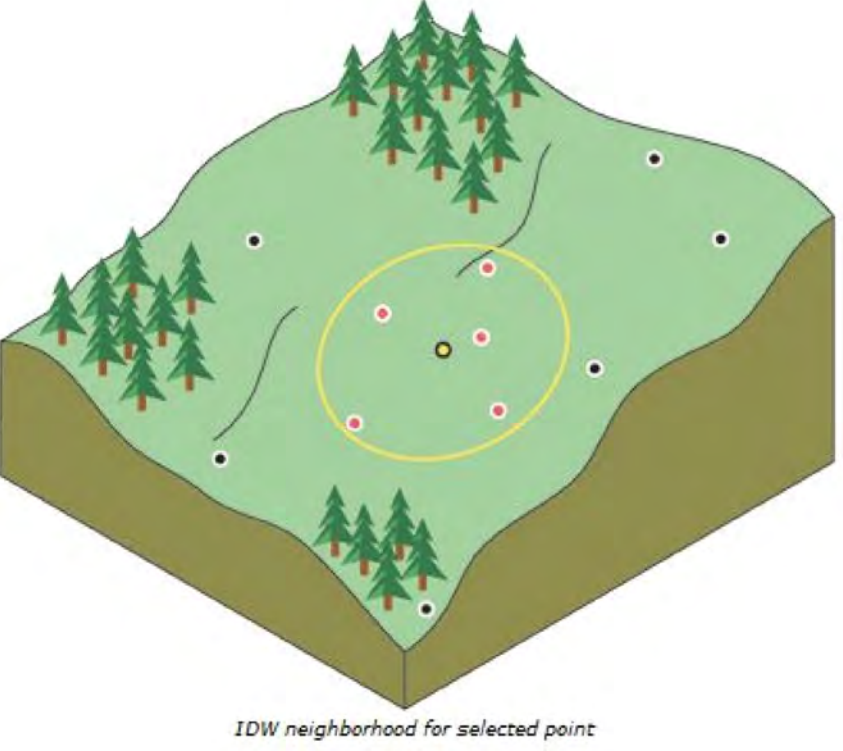


Figure 17-A  
Town of Eureka  
Iso-Concentration Map  
For Lead



***Appendix C:  
Data  
Summary Tables***

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**Table 2 Eureka School District Property Sampling Data**

**Table 3 (1 through 100) Eureka Residential Property Sampling Data**

**Table 4 Creek Sampling Data**

**Table 5 Air Dispersion Sampling Data**

**Table 6 Unpaved Roadway Sampling Data**

**Table 7 Background Sampling Data**

**Table 8 In Vitro Bioaccessibility Assay Calculated Results**

**Table 9 Metal Survey Data**



**Table 2 Eureka School District Property Sampling Data  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>                  | <b>Decision Unit or Sample Location</b>          | <b>Depth Interval</b>   | <b>START XRF Lead Results (mg/kg) dry weight</b>          | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|--|---|---|---|
| <b>Eureka High School Facility (APN: 001-021-01)</b> |  |   |   |   |
| ESS-102101-P1-0                                      | P1   | 0 to 2 inches   | <b>510</b>  | <b>72</b>   |
| ESS-102101-P1-2                                      | P1   | 2 to 6 inches   | <b>450</b>  | <b>66</b>   |
| ESS-102101-S01-0                                     | S01  | 0 to 2 inches   | 86  | 26  |
| ESS-102101-S01-2                                     | S01  | 2 to 6 inches   | 370   | <b>96</b>   |
| ESS-102101-S02-0                                     | S02  | 0 to 2 inches   | 92  | 27  |
| ESS-102101-S02-2                                     | S02  | 2 to 6 inches   | 40  | 34  |
| ESS-102101-S03-0                                     | S03  | 0 to 2 inches   | 52  | 37  |
| ESS-102101-S03-2                                     | S03  | 2 to 6 inches   | 77  | 31  |
| ESS-102101-S04-0                                     | S04  | 0 to 2 inches   | 360   | <b>69</b>   |
| ESS-102101-S04-2                                     | S04  | 2 to 6 inches   | 280   | <b>75</b>   |
| ESS-102101-S05-0                                     | S05  | 0 to 2 inches   | <b>440</b>  | <b>79</b>   |
| ESS-102101-S05-2                                     | S05  | 2 to 6 inches   | 390   | 54  |
| ESS-102112-S06-0                                     | S06  | 0 to 2 inches   | 336   | 48  |
| ESS-102101-S06-2                                     | S06  | 2 to 6 inches   | <b>410</b>  | <b>75</b>   |
| <b>Undeveloped Area (APN: 001-021-01)</b>            |  |   |   |   |
| ESS-NDEP-94-P1-0                                     | P1   | 0 to 2 inches   | <b>1,200</b>  | <b>160</b>  |
| ESS-NDEP-94-P1-2                                     | P1   | 2 to 6 inches   | <b>400</b>  | <b>62</b>   |
| ESS-NDEP-94-P1-6                                     | P1   | 6 to 12 inches  | 55  | 29  |
| ESS-NDEP-94-P2-0                                     | P2   | 0 to 2 inches   | <b>3,800</b>  | <b>560</b>  |
| ESS-NDEP-94-P2-2                                     | P2   | 2 to 6 inches   | <b>1,800</b>  | <b>260</b>  |
| ESS-NDEP-94-P2-6                                     | P2   | 6 to 12 inches  | <b>1,800</b>  | <b>300</b>  |
| ESS-NDEP-94-P3-0                                     | P3   | 0 to 2 inches   | <b>2,400</b>  | <b>350</b>  |
| ESS-NDEP-94-P3-2                                     | P3   | 2 to 6 inches   | <b>540</b>  | <b>88</b>   |
| ESS-NDEP-94-P3-6                                     | P3   | 6 to 12 inches  | <b>950</b>  | <b>140</b>  |
| ESS-NDEP-94-P4-0                                     | P4   | 0 to 2 inches   | <b>3,500</b>  | <b>600</b>  |
| ESS-NDEP-94-P4-2                                     | P4   | 2 to 6 inches   | <b>750</b>  | <b>130</b>  |
| ESS-NDEP-94-P4-6                                     | P4   | 6 to 12 inches  | <b>330</b>  | <b>91</b>   |
| ESS-NDEP-94-P5-0                                     | P5   | 0 to 2 inches   | <b>1,600</b>  | <b>230</b>  |
| ESS-NDEP-94-P5-2                                     | P5   | 2 to 6 inches   | <b>350</b>  | <b>61</b>   |
| ESS-NDEP-94-P5-6                                     | P5   | 6 to 12 inches  | <b>560</b>  | <b>91</b>   |
| ESS-NDEP-94-P6-0                                     | P6   | 0 to 2 inches   | <b>1,300</b>  | <b>180</b>  |
| ESS-NDEP-94-P6-2                                     | P6   | 2 to 6 inches   | <b>580</b>  | <b>91</b>   |
| ESS-NDEP-94-P6-6                                     | P6   | 6 to 12 inches  | 310   | <b>62</b>   |
| <b>Decision Unit or Sample Location</b>              | <b>Square Feet of Arsenic and Lead Over SSL*</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |   |
| P1   | NA   | 1   | NA  |   |
| S01  | 1,611  | 1   | 60  |   |
| S02  | 2,548  | 0   | 0   |   |
| S03  | 1,492  | 0   | 0   |   |
| S04  | 8,160  | 1   | 302   |   |
| S05  | 1,156  | 0.5   | 21  |   |
| S06  | 2,847  | 1   | 105   |   |
| Undeveloped area                                     | 1,700,000  | 1   | 62,963  |   |

**Table 2 Eureka School District Property Sampling Data  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>                              | <b>Decision Unit or Sample Location</b>          | <b>Depth Interval</b>   | <b>START XRF Lead Results (mg/kg) dry weight</b>          | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|--|---|---|---|
| <b>Eureka School District Athletic Complex (APN: 001-021-12)</b> |  |   |   |   |
| ESS-102112-P1-0  | P1   | 0 to 2 inches   | 61  | 15  |
| ESS-102112-P1-2  | P1   | 2 to 6 inches   | 53  | 14  |
| ESS-102112-S01-0   | S01  | 0 to 2 inches   | 190   | 35  |
| ESS-102112-S01-2   | S01  | 2 to 6 inches   | 230   | 40  |
| ESS-102112-S02-0   | S02  | 0 to 2 inches   | 95  | 18  |
| ESS-102112-S02-2   | S02  | 2 to 6 inches   | 62  | 15  |
| ESS-102112-S03-0   | S03  | 0 to 2 inches   | 120   | 28  |
| ESS-102112-S03-2   | S03  | 2 to 6 inches   | 120   | 26  |
| ESS-102112-S04-0   | S04  | 0 to 2 inches   | 110   | 23  |
| ESS-102112-S04-2   | S04  | 2 to 6 inches   | 190   | 35  |
| ESS-102112-S05-0   | S05  | 0 to 2 inches   | 67  | 11  |
| ESS-102112-S05-2   | S05  | 2 to 6 inches   | 43  | 14  |
| ESS-102112-S06-0   | S06  | 0 to 2 inches   | 20  | 17  |
| ESS-102112-S06-2   | S06  | 2 to 6 inches   | 26  | 22  |
| ESS-102112-S07-0   | S07  | 0 to 2 inches   | 110   | 21  |
| ESS-102112-S07-2   | S07  | 2 to 6 inches   | 47  | 7   |
| ESS-102112-S08-0   | S08  | 0 to 2 inches   | 39  | 20  |
| ESS-102112-S08-2   | S08  | 2 to 6 inches   | 31  | 13  |
| ESS-102112-S09-0   | S09  | 0 to 2 inches   | <b>870</b>  | <b>130</b>  |
| ESS-102112-S09-2   | S09  | 2 to 6 inches   | 230   | 52  |
| <b>Decision Unit or Sample Location</b>                          | <b>Square Feet of Arsenic and Lead Over SSL*</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |   |
| P1   | NA   | 0   | 0   |   |
| S01  | 27,907   | 0   | 0   |   |
| S02  | 5,253  | 0   | 0   |   |
| S03  | 9,225  | 0   | 0   |   |
| S04  | 3,831  | 0   | 0   |   |
| S05  | 12,996   | 0   | 0   |   |
| S06  | 15,358   | 0   | 0   |   |
| S07  | 14,190   | 0   | 0   |   |
| S08  | 3,927  | 0   | 0   |   |
| S09  | 19,733   | 0.5   | 365   |   |



| <b>Table 2 Eureka School District Property Sampling Data</b><br><b>Eureka Smelter Sites</b><br><b>Assessment</b><br><b>Eureka, Eureka County, Nevada</b> |  |   |   |   |
|--|--|---|---|---|
| <b>Project No. EE-002693-2177</b>  |  |   | <b>TDD No. TO2-09-12-04-0002</b>                          |   |
| <b>Sample Identification Number</b>  | <b>Decision Unit or Sample Location</b>          | <b>Depth Interval</b>   | <b>START XRF Lead Results (mg/kg) dry weight</b>          | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
| <b>Eureka School District Owned Property (APN: 001-152-02)</b>   |  |   |   |   |
| <b>Elementary School Parking</b>   |  |   |   |   |
| ESS-115202-S01-0   | S01  | 0 to 2 inches   | 52  | 16  |
| ESS-115202-S01-2   | S01  | 2 to 6 inches   | 72  | 21  |
| ESS-115202-S02-0   | S02  | 0 to 2 inches   | 140   | 56  |
| ESS-115202-S02-2   | S02  | 2 to 6 inches   | 89  | 69  |
| ESS-115202-S03-0   | S03  | 0 to 2 inches   | 52  | 16  |
| ESS-115202-S03-2   | S03  | 2 to 6 inches   | 49  | 17  |
| <b>Eureka School District Owned Property (APN: 001-184-05)</b>   |  |   |   |   |
| <b>Elementary School Property</b>  |  |   |   |   |
| ESS-118405-S01-0   | S01  | 0 to 2 inches   | 340   | 69  |
| ESS-118405-S01-2   | S01  | 2 to 6 inches   | 520   | 110   |
| <b>Eureka School District Owned Property (APN: 001-155-03)</b>   |  |   |   |   |
| <b>Elementary School Facility</b>  |  |   |   |   |
| ESS-115503-S01-0   | S01  | 0 to 2 inches   | 190   | 45  |
| ESS-115503-S01-2   | S01  | 2 to 6 inches   | 140   | 31  |
| ESS-115503-S02-0   | S02  | 0 to 2 inches   | 28  | 11  |
| ESS-115503-S02-2   | S02  | 2 to 6 inches   | 50  | 17  |
| ESS-115503-S03-0   | S03  | 0 to 2 inches   | 130   | 28  |
| ESS-115503-S03-2   | S03  | 2 to 6 inches   | 120   | 36  |
| ESS-115503-S04-0   | S04  | 0 to 2 inches   | 120   | 44  |
| ESS-115503-S04-2   | S04  | 2 to 6 inches   | 71  | 31  |
| ESS-115503-S05-0   | S05  | 0 to 2 inches   | 83  | 32  |
| ESS-115503-S05-2   | S05  | 2 to 6 inches   | 270   | 52  |
| ESS-115503-S06-0   | S06  | 0 to 2 inches   | 220   | 56  |
| ESS-115503-S06-2   | S06  | 2 to 6 inches   | 280   | 46  |
| ESS-115503-S07-0   | S07  | 0 to 2 inches   | 290   | 45  |
| ESS-115503-S07-2   | S07  | 2 to 6 inches   | 40  | 7   |
| ESS-115503-S08-0   | S08  | 0 to 2 inches   | 120   | 53  |
| ESS-115503-S08-2   | S08  | 2 to 6 inches   | 110   | 47  |
| <b>Decision Unit or Sample Location</b>  | <b>Square Feet of Arsenic and Lead Over SSL*</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |   |
| 115202-S01   | 2,705  | 0   | 0   |   |
| 115202-S02   | 2,733  | 1   | 101   |   |
| 115202-S03   | 9,558  | 0   | 0   |   |
| 118405-S01   | 1,465  | 1   | 54  |   |
| 115503-S01   | 2,705  | 0   | 0   |   |
| 115503-S02   | 1,590  | 0   | 0   |   |
| 115503-S03   | 724  | 0   | 0   |   |
| 115503-S04   | 2,350  | 0   | 0   |   |
| 115503-S05   | 7,344  | 0   | 0   |   |
| 115503-S06   | 9,314  | 0   | 0   |   |
| 115503-S07   | 1,230  | 0   | 0   |   |
| 115503-S08   | 1,522  | 0   | 0   |   |

| <b>Table 2 Eureka School District Property Sampling Data</b><br><b>Eureka Smelter Sites</b><br><b>Assessment</b><br><b>Eureka, Eureka County, Nevada</b> |  |   |   |   |
|--|--|---|---|---|
| <b>Project No. EE-002693-2177</b>  |  |   | <b>TDD No. TO2-09-12-04-0002</b>                          |   |
| <b>Sample Identification Number</b>  | <b>Decision Unit or Sample Location</b>          | <b>Depth Interval</b>   | <b>START XRF Lead Results (mg/kg) dry weight</b>          | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
| <b>Eureka School District Owned Property (APN: 001-181-02)</b><br><b>Elementary School Playing Field</b>   |  |   |   |   |
| ESS-118102-P1-0  | P1   | 0 to 2 inches   | 110   | 65  |
| ESS-118102-P1-2  | P1   | 2 to 6 inches   | 110   | 75  |
| ESS-118102-S01-0   | S01  | 0 to 2 inches   | 55  | 10  |
| ESS-118102-S01-2   | S01  | 2 to 6 inches   | 48  | 13  |
| ESS-118102-S02-0   | S02  | 0 to 2 inches   | 240   | 58  |
| ESS-118102-S02-2   | S02  | 2 to 6 inches   | 160   | 61  |
| ESS-118102-S03-0   | S03  | 0 to 2 inches   | 58  | 17  |
| ESS-118102-S03-2   | S03  | 2 to 6 inches   | 110   | 36  |
| ESS-118102-S04-0   | S04  | 0 to 2 inches   | 45  | 18  |
| ESS-118102-S04-2   | S04  | 2 to 6 inches   | 46  | 12  |
| ESS-118102-S05-0   | S05  | 0 to 2 inches   | 140   | 29  |
| ESS-118102-S05-2   | S05  | 2 to 6 inches   | 460   | 89  |
| ESS-118102-S06-0   | S06  | 0 to 2 inches   | 35  | 8   |
| ESS-118102-S06-2   | S06  | 2 to 6 inches   | 61  | 34  |
| ESS-118102-S07-0   | S07  | 0 to 2 inches   | 130   | 73  |
| ESS-118102-S07-2   | S07  | 2 to 6 inches   | 180   | 43  |
| ESS-118102-S08-0   | S08  | 0 to 2 inches   | 1,100   | 200   |
| ESS-118102-S08-2   | S08  | 2 to 6 inches   | 1,300   | 260   |
| <b>Eureka School District Owned Property (APN: 001-183-02)</b><br><b>Propane Storage</b>   |  |   |   |   |
| ESS-118302-S01-0   | S01  | 0 to 2 inches   | 230   | 74  |
| ESS-118302-S01-2   | S01  | 2 to 6 inches   | 230   | 73  |
| ESS-118302-S02-0   | S02  | 0 to 2 inches   | 280   | 83  |
| ESS-118302-S02-2   | S02  | 2 to 6 inches   | 150   | 75  |
| <b>Decision Unit or Sample Location</b>  | <b>Square Feet of Arsenic and Lead Over SSL*</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |   |
| 118102-P1  | NA   | 1   | NA  |   |
| 118102-S01   | 14,718   | 0   | 0   |   |
| 118102-S02   | 2,617  | 1   | 97  |   |
| 118102-S03   | 16,872   | 0   | 0   |   |
| 118102-S04   | 18,807   | 0   | 0   |   |
| 118102-S05   | 19,208   | 1   | 711   |   |
| 118102-S06   | 5,334  | 0   | 0   |   |
| 118102-S07   | 16,996   | 0.5   | 315   |   |
| 118102-S08   | 5,742  | 1   | 213   |   |
| 118302-S01   | 14,331   | 1   | 531   |   |
| 118302-S02   | 12,129   | 1   | 449   |   |



| Table 2 Eureka Schoool District Property Sampling Data<br>Eureka Smelter Sites<br>Assessment<br>Eureka, Eureka County, Nevada  |   |  |  |  |
|--|---|--|--|--|
| Project No. EE-002693-2177   |   |  | TDD No. TO2-09-12-04-0002                          |  |
| Sample Identification Number   | Decision Unit or Sample Location          | Depth Interval   | START XRF Lead Results (mg/kg) dry weight          | START XRF Arsenic Results (mg/kg) dry weight |
| Eureka School District Owned Property (APN: 001-063-04)<br>Former School Location  |   |  |  |  |
| ESS-106304-S01-0   | S01                                       | 0 to 2 inches  | 360  | 51   |
| ESS-106304-S01-2   | S01                                       | 2 to 6 inches  | 1,290  | 190  |
| ESS-106304-S02-0   | S02                                       | 0 to 2 inches  | 180  | 33   |
| ESS-106304-S02-2   | S02                                       | 2 to 6 inches  | 540  | 77   |
| ESS-106304-S03-0   | S03                                       | 0 to 2 inches  | 200  | 30   |
| ESS-106304-S03-2   | S03                                       | 2 to 6 inches  | 310  | 42   |
| ESS-106304-S04-0   | S04                                       | 0 to 2 inches  | 130  | 26   |
| ESS-106304-S04-2   | S04                                       | 2 to 6 inches  | 520  | 88   |
| ESS-106304-S05-0   | S05                                       | 0 to 2 inches  | 2,700  | 400  |
| ESS-106304-S05-2   | S05                                       | 2 to 6 inches  | 2,200  | 410  |
| Eureka School District Owned Property (APN: 001-064-03)<br>Park Land   |   |  |  |  |
| ESS-106403-S01-0   | S01                                       | 0 to 2 inches  | 4,800  | 660  |
| ESS-106403-S01-2   | S01                                       | 2 to 6 inches  | 210  | 30   |
| ESS-106403-S02-0   | S02                                       | 0 to 2 inches  | 400  | 63   |
| ESS-106403-S02-2   | S02                                       | 2 to 6 inches  | 330  | 46   |
| ESS-106403-S03-0   | S03                                       | 0 to 2 inches  | 820  | 98   |
| ESS-106403-S03-2   | S03                                       | 2 to 6 inches  | 560  | 65   |
| ESS-106403-S04-0   | S04                                       | 0 to 2 inches  | 160  | 31   |
| ESS-106403-S04-2   | S04                                       | 2 to 6 inches  | 150  | 26   |
| Decision Unit or Sample Location   | Square Feet of Arsenic and Lead Over SSL* | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |  |
| 106304-S01   | 5,517                                     | 1  | 204  |  |
| 106304-S02   | 13,165                                    | 1  | 488  |  |
| 106304-S03   | 9,987                                     | 0  | 0  |  |
| 106304-S04   | 4,645                                     | 1  | 172  |  |
| 106304-S05   | 4,978                                     | 1  | 184  |  |
| 106403-S01   | 7,308                                     | 0.5  | 135  |  |
| 106403-S02   | 6,299                                     | 0.5  | 117  |  |
| 106403-S03   | 8,192                                     | 1  | 303  |  |
| 106403-S04   | 2,551                                     | 0  | 0  |  |
| <div>Notes:</div> <div>mg/kg = milligrams per kilogram</div> <div>START = Superfund Technical Assessment and Response Team</div> <div>XRF = X-Ray Fluorescence</div> <div>APN = Assessor's Parcel Number</div> <div>SSL = Site Screening Level; the SSL for arsenic by XRF is 60 mg/kg and for lead by XRF is 400 mg/kg</div> <div>NA = Sample was not analyzed or the size of the area associated with the locations is not known.</div> <div>Bold = Above the SSL</div> <div>Bold, underlined and italics = Above 600 mg/kg for arsenic by XRF and 3,000 mg/kg for lead</div> <div>* The square footage for grid sample locations of undeveloped properties are estimates based upon the square footage of the property divided by the number of sample locations.</div> <div>** Depth of arsenic and lead over the SSL are for a removal volume estimate which assumes the removal action level is 60 mg/kg for arsenic by XRF and 400 mg/kg for lead by XRF. Depth is based upon documented arsenic and lead concentrations over the SSL. Arsenic and lead concentrations over the SSL at 0 to 2 inches is considered contaminated to 0.5 feet. arsenic and lead concentrations over the SSL at 2 inches or more is considered contaminated to 1 foot.</div> |   |  |  |  |
| Ecology and Environment Inc. 2013  |   |  |  |  |

**Table 3 Eureka Residential Property Sampling Data  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>               | <b>Decision Unit or Sample Location</b> | <b>Depth Interval</b> | <b>START XRF Lead Results (mg/kg) dry weight</b> | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|---|---|-----------------------|--|---|
| <b>400 South Edwards Street (APN: 001-154-01)</b> |   |                       |  |   |
| ESS-115401-P1-0                                   | P1                                      | 0 to 2 inches         | <u><b>8,900</b></u>                              | <u><b>1,400</b></u>                                 |
| ESS-115401-P1-2                                   | P1                                      | 2 to 6 inches         | <u><b>9,700</b></u>                              | <u><b>1,600</b></u>                                 |
| ESS-115401-P1-6                                   | P1                                      | 6 to 12 inches        | <u><b>14,000</b></u>                             | <u><b>2,500</b></u>                                 |
| ESS-115401-P2-0                                   | P2                                      | 0 to 2 inches         | <u><b>3,800</b></u>                              | <u><b>530</b></u>                                   |
| ESS-115401-P2-2                                   | P2                                      | 2 to 6 inches         | <u><b>4,800</b></u>                              | <u><b>740</b></u>                                   |
| ESS-115401-P2-2                                   | P2                                      | 6 to 12 inches        | <b>NA</b>  | <b>NA</b>   |
| ESS-115401-S01-0                                  | S01                                     | 0 to 2 inches         | <u><b>5,500</b></u>                              | <u><b>800</b></u>                                   |
| ESS-115401-S01-2                                  | S01                                     | 2 to 6 inches         | <u><b>5,100</b></u>                              | <u><b>750</b></u>                                   |
| ESS-115401-S01-6                                  | S01                                     | 6 to 12 inches        | <u><b>10,000</b></u>                             | <u><b>1,800</b></u>                                 |
| ESS-115401-S02-0                                  | S02                                     | 0 to 2 inches         | <u><b>5,200</b></u>                              | <u><b>810</b></u>                                   |
| ESS-115401-S02-2                                  | S02                                     | 2 to 6 inches         | <u><b>6,000</b></u>                              | <u><b>1,000</b></u>                                 |
| ESS-115401-S02-6                                  | S02                                     | 6 to 12 inches        | <u><b>6,800</b></u>                              | <u><b>1,300</b></u>                                 |
| ESS-115401-S03-0                                  | S03                                     | 0 to 2 inches         | <u><b>4,300</b></u>                              | <u><b>710</b></u>                                   |
| ESS-115401-S03-2                                  | S03                                     | 2 to 6 inches         | <u><b>2,300</b></u>                              | <u><b>410</b></u>                                   |
| ESS-115401-S03-6                                  | S03                                     | 6 to 12 inches        | <u><b>2,600</b></u>                              | <u><b>410</b></u>                                   |
| ESS-115401-S04-0                                  | S04                                     | 0 to 2 inches         | <u><b>8,300</b></u>                              | <u><b>1,100</b></u>                                 |
| ESS-115401-S04-2                                  | S04                                     | 2 to 6 inches         | <u><b>6,600</b></u>                              | <u><b>980</b></u>                                   |
| ESS-115401-S04-6                                  | S04                                     | 6 to 12 inches        | <u><b>6,100</b></u>                              | <u><b>870</b></u>                                   |

| <b>Decision Unit or Sample Location</b> | <b>Square Feet of Arsenic and Lead Over SSL *</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |
|---|---|---|---|
| P1                                      | NA  | 1   | NA  |
| P2                                      | NA  | 1   | NA  |
| S01                                     | 3,726   | 1   | 138   |
| S02                                     | 1,593   | 1   | 59  |
| S03                                     | 10,025  | 1   | 371   |
| S04                                     | 1,465   | 1   | 54  |

**Notes:**

mg/kg = milligrams per kilogram

START = Superfund Technical Assessment and Response Team

XRF = X-Ray Fluorescence

APN = Assessor's Parcel Number

SSL = Site Screening Level; the SSL for arsenic by XRF is 60 mg/kg and for lead by XRF is 400 mg/kg

NA = Sample was not analyzed or the size of the area associated with the locations is not known.

Bold = Above the SSL

Bold, underlined and italics = Above 600 mg/kg for arsenic by XRF and 3,000 mg/kg for lead

\* The square footage for grid sample locations of undeveloped properties are estimates based upon the square footage of the property divided by the number of sample locations.

\*\* Depth of arsenic and lead over the SSL are for a removal volume estimate which assumes the removal action level is 60 mg/kg for arsenic by XRF and 400 mg/kg for lead by XRF. Depth is based upon documented arsenic and lead concentrations over the SSL. Arsenic and lead concentrations over the SSL at 0 to 2 inches is considered contaminated to 0.5 feet. arsenic and lead concentrations over the SSL at 2 inches or more is considered contaminated to 1 foot.



**Table 3 Eureka Residential Property Sampling Data  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>      | <b>Decision Unit or Sample Location</b>       | <b>Depth Interval</b>                            | <b>START XRF Lead Results (mg/kg) dry weight</b>       | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|---|--|--|---|
| <b>100 Reno Avenue (APN: 001-011-07)</b> |   |  |  |   |
| ESS-101107-S01-0                         | S01   | 0 to 2 inches                                    | <b>1,600</b>   | <b>440</b>  |
| ESS-101107-S01-2                         | S01   | 2 to 6 inches                                    | <b>1,700</b>   | <b>370</b>  |
| ESS-101107-S01-6                         | S01   | 6 to 12 inches                                   | <b><u>7,700</u></b>                                    | <b><u>1,600</u></b>                                 |
| ESS-101107-S02-0                         | S02   | 0 to 2 inches                                    | <b>1,500</b>   | <b>270</b>  |
| ESS-101107-S02-2                         | S02   | 2 to 6 inches                                    | <b>2,300</b>   | <b>400</b>  |
| ESS-101107-S02-6                         | S02   | 6 to 12 inches                                   | <b>1,600</b>   | <b>310</b>  |
| <b>Decision Unit or Sample Location</b>  | <b>Square Feet of Contamination Over SSL*</b> | <b>Estimated Depth of Contamination (feet)**</b> | <b>Estimated Cubic Yards of Contamination Over SSL</b> |   |
| S01                                      | 3,010   | 1  | 111  |   |
| S02                                      | 8,968   | 1  | 332  |   |

**Notes:**

mg/kg = milligrams per kilogram

START = Superfund Technical Assessment and Response Team

XRF = X-Ray Fluorescence

APN = Assessor's Parcel Number

SSL = Site Screening Level; the SSL for arsenic by XRF is 60 mg/kg and for lead by XRF is 400 mg/kg

NA = Sample was not analyzed or the size of the area associated with the locations is not known.

Bold = Above the SSL

Bold, underlined and italics = Above 600 mg/kg for arsenic by XRF and 3,000 mg/kg for lead

\* The square footage for grid sample locations of undeveloped properties are estimates based upon the square footage of the property divided by the number of sample locations.

\*\* Depth of arsenic and lead over the SSL are for a removal volume estimate which assumes the removal action level is 60 mg/kg for arsenic by XRF and 400 mg/kg for lead by XRF. Depth is based upon documented arsenic and lead concentrations over the SSL. Arsenic and lead concentrations over the SSL at 0 to 2 inches is considered contaminated to 0.5 feet. arsenic and lead concentrations over the SSL at 2 inches or more is considered contaminated to 1 foot.

Ecology and Environment Inc. 2013

**Table 3 Eureka Residential Property Sampling Data  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>           | <b>Decision Unit or Sample Location</b> | <b>Depth Interval</b> | <b>START XRF Lead Results (mg/kg) dry weight</b> | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|---|---|-----------------------|--|---|
| <b>501 Country Road 101 (APN: 001-011-08)</b> |   |                       |  |   |
| ESS-101108-S01-0                              | S01                                     | 0 to 2 inches         | 230  | 55  |
| ESS-101108-S01-2                              | S01                                     | 2 to 6 inches         | <b>1,000</b>                                     | <b>220</b>  |
| ESS-101108-S01-6                              | S01                                     | 6 to 12 inches        | <b>640</b>                                       | <b>150</b>  |

| <b>Decision Unit or Sample Location</b> | <b>Square Feet of Arsenic and Lead Over SSL *</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |
|---|---|---|---|
| S01                                     | 12,400  | 1   | 459   |

**Notes:**

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Bold, underlined and italics = Above 600 mg/kg for arsenic by XRF and 3,000 mg/kg for lead

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\*\* Depth of arsenic and lead over the SSL are for a removal volume estimate which assumes the removal action level is 60 mg/kg for arsenic by XRF and 400 mg/kg for lead by XRF. Depth is based upon documented arsenic and lead concentrations over the SSL. Arsenic and lead concentrations over the SSL at 0 to 2 inches is considered contaminated to 0.5 feet. Arsenic and lead concentrations over the SSL at 2 inches or more is considered contaminated to 1 foot.

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Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>     | <b>Decision Unit or Sample Location</b> | <b>Depth Interval</b> | <b>START XRF Lead Results (mg/kg) dry weight</b> | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|---|---|-----------------------|--|---|
| <b>701 South Main (APN: 001-202-01)</b> |   |                       |  |   |
| ESS-120201-P1-0                         | P1                                      | 0 to 2 inches         | <u><b>4,300</b></u>                              | <u><b>690</b></u>                                   |
| ESS-120201-P1-2                         | P1                                      | 2 to 6 inches         | <u><b>2,500</b></u>                              | <u><b>450</b></u>                                   |
| ESS-120201-P1-6                         | P1                                      | 6 to 12 inches        | <u><b>1,900</b></u>                              | <u><b>360</b></u>                                   |
| ESS-120201-P2-0                         | P2                                      | 0 to 2 inches         | <u><b>3,400</b></u>                              | <u><b>540</b></u>                                   |
| ESS-120201-P2-2                         | P2                                      | 2 to 6 inches         | <u><b>5,500</b></u>                              | <u><b>1,100</b></u>                                 |
| ESS-120201-P2-6                         | P2                                      | 6 to 12 inches        | <u><b>5,200</b></u>                              | <u><b>1,000</b></u>                                 |
| ESS-120201-P3-0                         | P3                                      | 0 to 2 inches         | <u><b>9,800</b></u>                              | <u><b>2,000</b></u>                                 |
| ESS-120201-P3-2                         | P3                                      | 2 to 6 inches         | <u><b>8,900</b></u>                              | <u><b>1,800</b></u>                                 |
| ESS-120201-P3-6                         | P3                                      | 6 to 12 inches        | <u><b>6,200</b></u>                              | <u><b>1,100</b></u>                                 |
| ESS-120201-P4-0                         | P4                                      | 0 to 2 inches         | <u><b>3,100</b></u>                              | <u><b>490</b></u>                                   |
| ESS-120201-P4-2                         | P4                                      | 2 to 6 inches         | <u><b>600</b></u>                                | <u><b>91</b></u>                                    |
| ESS-120201-P4-6                         | P4                                      | 6 to 12 inches        | <u><b>1,200</b></u>                              | <u><b>180</b></u>                                   |
| ESS-120201-P5-0                         | P5                                      | 0 to 2 inches         | <u><b>1,100</b></u>                              | <u><b>210</b></u>                                   |
| ESS-120201-P5-2                         | P5                                      | 2 to 6 inches         | <u><b>1,300</b></u>                              | <u><b>230</b></u>                                   |
| ESS-120201-P5-6                         | P5                                      | 6 to 12 inches        | <u><b>1,400</b></u>                              | <u><b>240</b></u>                                   |

| <b>Decision Unit or Sample Location</b> | <b>Square Feet of Contamination Over SSL*</b> | <b>Estimated Depth of Contamination (feet)**</b> | <b>Estimated Cubic Yards of Contamination Over SSL</b> |
|---|---|--|--|
| P1                                      | 9,655   | 1  | 358  |
| P2                                      | 9,655   | 1  | 358  |
| P3                                      | 9,655   | 1  | 358  |
| P4                                      | 9,655   | 1  | 358  |
| P5                                      | 9,655   | 1  | 358  |

**Notes:**

mg/kg = milligrams per kilogram

START = Superfund Technical Assessment and Response Team

XRF = X-Ray Fluorescence

APN = Assessor's Parcel Number

SSL = Site Screening Level; the SSL for arsenic by XRF is 60 mg/kg and for lead by XRF is 400 mg/kg

NA = Sample was not analyzed or the size of the area associated with the locations is not known.

Bold = Above the SSL

Bold, underlined and italics = Above 600 mg/kg for arsenic by XRF and 3,000 mg/kg for lead

\* The square footage for grid sample locations of undeveloped properties are estimates based upon the square footage of the property divided by the number of sample locations.

\*\* Depth of arsenic and lead over the SSL are for a removal volume estimate which assumes the removal action level is 60 mg/kg for arsenic by XRF and 400 mg/kg for lead by XRF. Depth is based upon documented arsenic and lead concentrations over the SSL. Arsenic and lead concentrations over the SSL at 0 to 2 inches is considered contaminated to 0.5 feet. Arsenic and lead concentrations over the SSL at 2 inches or more is considered contaminated to 1 foot.

Ecology and Environment Inc. 2013

**Table 3 Eureka Residential Property Sampling Data  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>            | <b>Decision Unit or Sample Location</b> | <b>Depth Interval</b> | <b>START XRF Lead Results (mg/kg) dry weight</b> | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|---|-----------------------|--|---|
| <b>500 North Main Street (APN: 001-012-10)</b> |   |                       |  |   |
| ESS-101210-P1-0                                | P1                                      | 0 to 2 inches         | <u><b>3,300</b></u>                              | <b>530</b>  |
| ESS-101210-P1-2                                | P1                                      | 2 to 6 inches         | <u><b>6,900</b></u>                              | <u><b>1,100</b></u>                                 |
| ESS-101210-P1-6                                | P1                                      | 6 to 12 inches        | <u><b>4,900</b></u>                              | <u><b>890</b></u>                                   |
| ESS-101210-P2-0                                | P2                                      | 0 to 2 inches         | <b>630</b>                                       | <b>110</b>  |
| ESS-101210-P2-2                                | P2                                      | 2 to 6 inches         | <b>430</b>                                       | <b>120</b>  |
| ESS-101210-P2-6                                | P2                                      | 6 to 12 inches        | <b>280</b>                                       | <b>95</b>   |
| ESS-101210-P3-0                                | P3                                      | 0 to 2 inches         | <u><b>5,200</b></u>                              | <u><b>900</b></u>                                   |
| ESS-101210-P3-2                                | P3                                      | 2 to 6 inches         | <u><b>4,300</b></u>                              | <u><b>690</b></u>                                   |
| ESS-101210-P3-6                                | P3                                      | 6 to 12 inches        | <u><b>4,400</b></u>                              | <u><b>790</b></u>                                   |
| ESS-101210-P4-0                                | P4                                      | 0 to 2 inches         | <u><b>4,100</b></u>                              | <u><b>710</b></u>                                   |
| ESS-101210-P4-2                                | P4                                      | 2 to 6 inches         | <u><b>3,600</b></u>                              | <u><b>630</b></u>                                   |
| ESS-101210-P4-6                                | P4                                      | 6 to 12 inches        | <b>2,100</b>                                     | <b>380</b>  |
| ESS-101210-P5-0                                | P5                                      | 0 to 2 inches         | <u><b>9,100</b></u>                              | <u><b>1,800</b></u>                                 |
| ESS-101210-P5-2                                | P5                                      | 2 to 6 inches         | <u><b>12,000</b></u>                             | <u><b>2,700</b></u>                                 |
| ESS-101210-P5-6                                | P5                                      | 6 to 12 inches        | <u><b>17,000</b></u>                             | <b>3,800</b>  |
| ESS-101210-P6-0                                | P6                                      | 0 to 2 inches         | <u><b>3,000</b></u>                              | <b>500</b>  |
| ESS-101210-P6-2                                | P6                                      | 2 to 6 inches         | <u><b>3,900</b></u>                              | <u><b>760</b></u>                                   |
| ESS-101210-P6-6                                | P6                                      | 6 to 12 inches        | <b>1,600</b>                                     | <b>330</b>  |

| <b>Decision Unit or Sample Location</b> | <b>Square Feet of Arsenic and Lead Over SSL *</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |
|---|---|---|---|
| P1                                      | 35,138  | 1   | 1,301   |
| P2                                      | 35,138  | 1   | 1,301   |
| P3                                      | 35,138  | 1   | 1,301   |
| P4                                      | 35,138  | 1   | 1,301   |
| P5                                      | 35,138  | 1   | 1,301   |
| P6                                      | 35,138  | 1   | 1,301   |

**Notes:**

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**Table 3 Eureka Residential Property Sampling Data  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number                     | Decision Unit or Sample Location | Depth Interval | START XRF Lead Results (mg/kg) dry weight | START XRF Arsenic Results (mg/kg) dry weight |
|--|----------------------------------|----------------|---|--|
| <b>330 North O'Neil Avenue (APN: 001-032-11)</b> |                                  |                |   |  |
| ESS-103211-S01-0                                 | S01                              | 0 to 2 inches  | <b>1,300</b>                              | <b>200</b>                                   |
| ESS-103211-S01-2                                 | S01                              | 2 to 6 inches  | <u><b>3,000</b></u>                       | <b>540</b>                                   |
| ESS-103211-S01-6                                 | S01                              | 6 to 12 inches | <u><b>3,100</b></u>                       | <b>520</b>                                   |
| ESS-103211-S02-0                                 | S02                              | 0 to 2 inches  | <b>2,100</b>                              | <b>290</b>                                   |
| ESS-103211-S02-2                                 | S02                              | 2 to 6 inches  | <b>1,900</b>                              | <b>330</b>                                   |
| ESS-103211-S02-6                                 | S02                              | 6 to 12 inches | <b>850</b>                                | <b>130</b>                                   |
| ESS-103211-S03-0                                 | S03                              | 0 to 2 inches  | <b>1,100</b>                              | <b>170</b>                                   |
| ESS-103211-S03-2                                 | S03                              | 2 to 6 inches  | <b>1,200</b>                              | <b>170</b>                                   |
| ESS-103211-S03-6                                 | S03                              | 6 to 12 inches | <b>930</b>                                | <b>130</b>                                   |

| Decision Unit or Sample Location | Square Feet of Arsenic and Lead Over SSL * | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |
|----------------------------------|--|--|--|
| S01                              | 2,480                                      | 1  | 92   |
| S02                              | 7,635                                      | 1  | 283  |
| S03                              | 8,018                                      | 1  | 297  |

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**Table 3 Eureka Residential Property Sampling Data Sampling Data  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>          | <b>Decision Unit or Sample Location</b> | <b>Depth Interval</b> | <b>START XRF Lead Results (mg/kg) dry weight</b> | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|---|-----------------------|--|---|
| <b>500 Sheridan Street (APN: 001-012-14)</b> |   |                       |  |   |
| ESS-101214-P1-0                              | P1                                      | 0 to 2 inches         | <b>750</b>                                       | <b>140</b>  |
| ESS-101214-P1-2                              | P1                                      | 2 to 6 inches         | 290  | <b>87</b>   |
| ESS-101214-P1-6                              | P1                                      | 6 to 12 inches        | <b>600</b>                                       | <b>120</b>  |
| ESS-101214-P2-0                              | P2                                      | 0 to 2 inches         | <b>940</b>                                       | <b>180</b>  |
| ESS-101214-P2-2                              | P2                                      | 2 to 6 inches         | <b>2,200</b>                                     | <b>430</b>  |
| ESS-101214-P2-6                              | P2                                      | 6 to 12 inches        | <b>550</b>                                       | <b>130</b>  |
| ESS-101214-P3-0                              | P3                                      | 0 to 2 inches         | 150  | 46  |
| ESS-101214-P3-2                              | P3                                      | 2 to 6 inches         | 110  | <b>62</b>   |
| ESS-101214-P3-6                              | P3                                      | 6 to 12 inches        | 55   | 59  |
| ESS-101214-P4-0                              | P4                                      | 0 to 2 inches         | <b>4,000</b>                                     | <b>730</b>  |
| ESS-101214-P4-2                              | P4                                      | 2 to 6 inches         | <b>2,500</b>                                     | <b>480</b>  |
| ESS-101214-P4-6                              | P4                                      | 6 to 12 inches        | 260  | <b>87</b>   |
| ESS-101214-P5-0                              | P5                                      | 0 to 2 inches         | <b>5,200</b>                                     | <b>970</b>  |
| ESS-101214-P5-2                              | P5                                      | 2 to 6 inches         | <b>4,200</b>                                     | <b>770</b>  |
| ESS-101214-P5-6                              | P5                                      | 6 to 12 inches        | <b>780</b>                                       | <b>170</b>  |
| ESS-101214-P6-0                              | P6                                      | 0 to 2 inches         | <b>4,100</b>                                     | <b>680</b>  |
| ESS-101214-P6-2                              | P6                                      | 2 to 6 inches         | <b>650</b>                                       | <b>190</b>  |
| ESS-101214-P6-6                              | P6                                      | 6 to 12 inches        | 49   | <b>85</b>   |

| <b>Decision Unit or Sample Location</b> | <b>Square Feet of Arsenic and Lead Over SSL *</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |
|---|---|---|---|
| P1                                      | 14,284  | 1   | 529   |
| P2                                      | 14,284  | 1   | 529   |
| P3                                      | 14,284  | 1   | 529   |
| P4                                      | 14,284  | 1   | 529   |
| P5                                      | 14,284  | 1   | 529   |
| P6                                      | 14,284  | 1   | 529   |

**Notes:**

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APN = Assessor's Parcel Number

SSL = Site Screening Level; the SSL for arsenic by XRF is 60 mg/kg and for lead by XRF is 400 mg/kg

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**Table 3 Eureka Residential Property Sampling Data  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>          | <b>Decision Unit or Sample Location</b> | <b>Depth Interval</b> | <b>START XRF Lead Results (mg/kg) dry weight</b> | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|---|-----------------------|--|---|
| <b>580 Nob Hill Avenue (APN: 001-012-24)</b> |   |                       |  |   |
| ESS-101224-S01-0                             | S01                                     | 0 to 2 inches         | <b>820</b>                                       | <b>170</b>  |
| ESS-101224-S01-2                             | S01                                     | 2 to 6 inches         | <b>410</b>                                       | <b>80</b>   |
| ESS-101224-S01-6                             | S01                                     | 6 to 12 inches        | <b>890</b>                                       | <b>180</b>  |
| ESS-101224-S02-0                             | S02                                     | 0 to 2 inches         | 300  | <b>78</b>   |
| ESS-101224-S02-2                             | S02                                     | 2 to 6 inches         | 340  | <b>76</b>   |
| ESS-101224-S02-6                             | S02                                     | 6 to 12 inches        | <b>540</b>                                       | <b>150</b>  |
| ESS-101224-S03-0                             | S03                                     | 0 to 2 inches         | <b>1,600</b>                                     | <b>410</b>  |
| ESS-101224-S03-2                             | S03                                     | 2 to 6 inches         | <b>1,900</b>                                     | <b>440</b>  |
| ESS-101224-S03-6                             | S03                                     | 6 to 12 inches        | <b>1,100</b>                                     | <b>350</b>  |

| <b>Decision Unit or Sample Location</b> | <b>Square Feet of Contamination Over SSL*</b> | <b>Estimated Depth of Contamination (feet)**</b> | <b>Estimated Cubic Yards of Contamination Over SSL</b> |
|---|---|--|--|
| S01                                     | 4,234   | 1  | 157  |
| S02                                     | 2,911   | 1  | 108  |
| S03                                     | 5,869   | 1  | 217  |

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\*\* Depth of arsenic and lead over the SSL are for a removal volume estimate which assumes the removal action level is 60 mg/kg for arsenic by XRF and 400 mg/kg for lead by XRF. Depth is based upon documented arsenic and lead concentrations over the SSL. Arsenic and lead concentrations over the SSL at 0 to 2 inches is considered contaminated to 0.5 feet. arsenic and lead concentrations over the SSL at 2 inches or more is considered contaminated to 1 foot.

**Table 3 Eureka Residential Property Sampling Data Sampling Data  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>          | <b>Decision Unit or Sample Location</b> | <b>Depth Interval</b> | <b>START XRF Lead Results (mg/kg) dry weight</b> | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|---|-----------------------|--|---|
| <b>370 Nob Hill Avenue (APN: 001-031-06)</b> |   |                       |  |   |
| ESS-103106-S01-0                             | S01                                     | 0 to 2 inches         | 300  | <b>73</b>   |
| ESS-103106-S01-2                             | S01                                     | 2 to 6 inches         | 220  | 37  |
| ESS-103106-S01-6                             | S01                                     | 6 to 12 inches        | 370  | <b>61</b>   |
| ESS-103106-S02-0                             | S02                                     | 0 to 2 inches         | <b>930</b>                                       | <b>140</b>  |
| ESS-103106-S02-2                             | S02                                     | 2 to 6 inches         | <b>1,600</b>                                     | <b>250</b>  |
| ESS-103106-S02-6                             | S02                                     | 6 to 12 inches        | <b>1,700</b>                                     | <b>280</b>  |
| ESS-103106-S03-0                             | S03                                     | 0 to 2 inches         | <b>2,500</b>                                     | <b>390</b>  |
| ESS-103106-S03-2                             | S03                                     | 2 to 6 inches         | <b>2,100</b>                                     | <b>390</b>  |
| ESS-103106-S03-6                             | S03                                     | 6 to 12 inches        | <b>1,500</b>                                     | <b>270</b>  |
| ESS-103106-S04-0                             | S04                                     | 0 to 2 inches         | <b>710</b>                                       | <b>130</b>  |
| ESS-103106-S04-2                             | S04                                     | 2 to 6 inches         | 270  | <b>64</b>   |
| ESS-103106-S04-6                             | S04                                     | 6 to 12 inches        | 65   | 28  |

| <b>Decision Unit or Sample Location</b> | <b>Square Feet of Arsenic and Lead Over SSL*</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |
|---|--|---|---|
| S01                                     | 2,486  | 1   | 92  |
| S02                                     | 2,626  | 1   | 97  |
| S03                                     | 6,670  | 1   | 247   |
| S04                                     | 2,050  | 1   | 76  |

**Notes:**

mg/kg = milligrams per kilogram

START = Superfund Technical Assessment and Response Team

XRF = X-Ray Fluorescence

APN = Assessor's Parcel Number

SSL = Site Screening Level; the SSL for arsenic by XRF is 60 mg/kg and for lead by XRF is 400 mg/kg

NA = Sample was not analyzed or the size of the area associated with the locations is not known.

Bold = Above the SSL

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\* The square footage for grid sample locations of undeveloped properties are estimates based upon the square footage of the property divided by the number of sample locations.

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**Table 3 Eureka Residential Property Sampling Data  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>              | <b>Decision Unit or Sample Location</b> | <b>Depth Interval</b> | <b>START XRF Lead Results (mg/kg) dry weight</b> | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|---|-----------------------|--|---|
| <b>330 North O'Neil Avenue (APN: 001-032-07)</b> |   |                       |  |   |
| ESS-103207-P1-0                                  | P1                                      | 0 to 2 inches         | <b><u>3,400</u></b>                              | <b>470</b>  |
| ESS-103207-P1-2                                  | P1                                      | 2 to 6 inches         | <b>1,800</b>                                     | <b>250</b>  |
| ESS-103207-P1-6                                  | P1                                      | 6 to 12 inches        | <b>1,300</b>                                     | <b>210</b>  |
| ESS-103207-P2-0                                  | P2                                      | 0 to 2 inches         | 200  | <b>47</b>   |
| ESS-103207-P2-2                                  | P2                                      | 2 to 6 inches         | 270  | <b>43</b>   |
| ESS-103207-P2-6                                  | P2                                      | 6 to 12 inches        | 250  | <b>50</b>   |
| ESS-103207-S01-0                                 | S01                                     | 0 to 2 inches         | <b>1,400</b>                                     | <b>130</b>  |
| ESS-103207-S01-2                                 | S01                                     | 2 to 6 inches         | <b>660</b>                                       | <b>91</b>   |
| ESS-103207-S01-6                                 | S01                                     | 6 to 12 inches        | <b>650</b>                                       | <b>94</b>   |
| ESS-103207-S02-0                                 | S02                                     | 0 to 2 inches         | 240  | <b>44</b>   |
| ESS-103207-S02-2                                 | S02                                     | 2 to 6 inches         | 170  | <b>48</b>   |
| ESS-103207-S02-6                                 | S02                                     | 6 to 12 inches        | 120  | <b>110</b>  |
| ESS-103207-S03-0                                 | S03                                     | 0 to 2 inches         | <b>1,700</b>                                     | <b>280</b>  |
| ESS-103207-S03-2                                 | S03                                     | 2 to 6 inches         | <b>1,100</b>                                     | <b>220</b>  |
| ESS-103207-S03-6                                 | S03                                     | 6 to 12 inches        | <b>1,300</b>                                     | <b>270</b>  |

| <b>Decision Unit or Sample Location</b> | <b>Square Feet of Arsenic and Lead Over SSL *</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |
|---|---|---|---|
| P1                                      | NA  | 1   | NA  |
| P2                                      | NA  | 1   | NA  |
| S01                                     | 1,620   | 1   | 60  |
| S02                                     | 388   | 1   | 14  |
| S03                                     | 4,544   | 1   | 168   |

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\* The square footage for grid sample locations of undeveloped properties are estimates based upon the square footage of the property divided by the number of sample locations.

\*\* Depth of arsenic and lead over the SSL are for a removal volume estimate which assumes the removal action level is 60 mg/kg for arsenic by XRF and 400 mg/kg for lead by XRF. Depth is based upon documented arsenic and lead concentrations over the SSL. Arsenic and lead concentrations over the SSL at 0 to 2 inches is considered contaminated to 0.5 feet. Arsenic and lead concentrations over the SSL at 2 inches or more is considered contaminated to 1 foot.

**Table 3 Eureka Residential Property Sampling Data Sampling Data**  
**Eureka Smelter Sites**  
**Assessment**  
**Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>      | <b>Decision Unit or Sample Location</b>       | <b>Depth Interval</b>                            | <b>START XRF Lead Results (mg/kg) dry weight</b>       | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|---|--|--|---|
| <b>450 Dibble Lane (APN: 001-033-08)</b> |   |  |  |   |
| ESS-103308-P01-1                         | P1  | 0 to 2 inches                                    | <b>1,200</b>   | <b>210</b>  |
| ESS-103308-P01-2                         | P1  | 2 to 6 inches                                    | <b>1,600</b>   | <b>250</b>  |
| ESS-103308-P01-6                         | P1  | 6 to 12 inches                                   | <b>1,500</b>   | <b>230</b>  |
| ESS-103308-S01-0                         | S01   | 0 to 2 inches                                    | <b>980</b>   | <b>160</b>  |
| ESS-103308-S01-2                         | S01   | 2 to 6 inches                                    | <b>1,300</b>   | <b>220</b>  |
| ESS-103308-S01-6                         | S01   | 6 to 12 inches                                   | <b>3,400</b>   | <b>530</b>  |
| ESS-103308-S02-0                         | S02   | 0 to 2 inches                                    | <b>2,500</b>   | <b>390</b>  |
| ESS-103308-S02-2                         | S02   | 2 to 6 inches                                    | <b>2,500</b>   | <b>380</b>  |
| ESS-103308-S02-6                         | S02   | 6 to 12 inches                                   | <b>5,200</b>   | <b>780</b>  |
| ESS-103308-S03-0                         | S03   | 0 to 2 inches                                    | <b>400</b>   | <b>70</b>   |
| ESS-103308-S03-2                         | S03   | 2 to 6 inches                                    | <b>500</b>   | <b>90</b>   |
| ESS-103308-S03-6                         | S03   | 6 to 12 inches                                   | <b>870</b>   | <b>170</b>  |
| <b>Decision Unit or Sample Location</b>  | <b>Square Feet of Contamination Over SSL*</b> | <b>Estimated Depth of Contamination (feet)**</b> | <b>Estimated Cubic Yards of Contamination Over SSL</b> |   |
| P1                                       | NA  | 1  | NA   |   |
| S01                                      | 5,480   | 1  | 203  |   |
| S02                                      | 1,685   | 1  | 62   |   |
| S03                                      | 1,998   | 1  | 74   |   |

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Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>           | <b>Decision Unit or Sample Location</b>           | <b>Depth Interval</b>   | <b>START XRF Lead Results (mg/kg) dry weight</b>          | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|---|---|---|---|---|
| <b>500 Country Road 101 (APN: 001-011-10)</b> |   |   |   |   |
| ESS-101110-P1-0                               | P1  | 0 to 2 inches   | <b><i>7,700</i></b>                                       | <b><i>1,300</i></b>                                 |
| ESS-101110-S01-0                              | S01   | 0 to 2 inches   | <b><i>1,800</i></b>                                       | <b><i>350</i></b>                                   |
| ESS-101110-S01-2                              | S01   | 2 to 6 inches   | <b><i>720</i></b>   | <b><i>180</i></b>                                   |
| ESS-101110-S01-6                              | S01   | 6 to 12 inches  | <b><i>710</i></b>   | <b><i>180</i></b>                                   |
| ESS-101110-S02-0                              | S02   | 0 to 2 inches   | <b><i>7,000</i></b>                                       | <b><i>1,500</i></b>                                 |
| ESS-101110-S02-2                              | S02   | 2 to 6 inches   | <b><i>24,000</i></b>                                      | <b><i>6,900</i></b>                                 |
| ESS-101110-S02-6                              | S02   | 6 to 12 inches  | <b><i>25,000</i></b>                                      | <b><i>7,500</i></b>                                 |
| <b>Decision Unit or Sample Location</b>       | <b>Square Feet of Arsenic and Lead Over SSL *</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |   |
| P1  | NA  | 0.5   | NA  |   |
| S01   | 27,220  | 1   | 1,008   |   |
| S02   | 20,519  | 1   | 760   |   |

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Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>            | <b>Decision Unit or Sample Location</b>        | <b>Depth Interval</b>                             | <b>START XRF Lead Results (mg/kg) dry weight</b>       | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|--|---|--|---|
| <b>600 North Main Street (APN: 001-213-06)</b> |  |   |  |   |
| ESS-121306-P1-0                                | P1   | 0 to 2 inches                                     | <u><b>3,600</b></u>                                    | <u><b>690</b></u>                                   |
| <b>Decision Unit or Sample Location</b>        | <b>Square Feet of Contamination Over SSL *</b> | <b>Estimated Depth of Contamination (feet) **</b> | <b>Estimated Cubic Yards of Contamination Over SSL</b> |   |
| P1   | NA   | 1   | NA   |   |

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Assessment  
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**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>              | <b>Decision Unit or Sample Location</b>           | <b>Depth Interval</b>   | <b>START XRF Lead Results (mg/kg) dry weight</b>          | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|---|---|---|---|
| <b>400 South O'Neil Avenue (APN: 001-153-02)</b> |   |   |   |   |
| ESS-115302-Grab-1                                | Grab  | 0 to 2 inches   | 36  | 16  |
| ESS-115302-S01-0                                 | S01   | 0 to 2 inches   | <b>740</b>  | <b>130</b>  |
| ESS-115302-S01-2                                 | S01   | 2 to 6 inches   | <b>1,100</b>  | <b>160</b>  |
| ESS-115302-S01-6                                 | S01   | 6 to 12 inches  | <b>500</b>  | <b>110</b>  |
| ESS-115302-S02-0                                 | S02   | 2 to 6 inches   | <b>690</b>  | <b>110</b>  |
| ESS-115302-S02-2                                 | S02   | 6 to 12 inches  | <b>1,200</b>  | <b>110</b>  |
| ESS-115302-S02-6                                 | S02   | 0 to 2 inches   | <b>930</b>  | <b>140</b>  |
| ESS-115302-S03-0                                 | S03   | 2 to 6 inches   | <b>700</b>  | <b>100</b>  |
| ESS-115302-S03-2                                 | S03   | 6 to 12 inches  | <b>2,300</b>  | <b>370</b>  |
| ESS-115302-S03-6                                 | S03   | 0 to 2 inches   | <b><u>4,400</u></b>                                       | <b><u>800</u></b>                                   |
| ESS-115302-S04-0                                 | S04   | 2 to 6 inches   | <b>980</b>  | <b>100</b>  |
| ESS-115302-S04-2                                 | S04   | 6 to 12 inches  | <b>1,900</b>  | <b>170</b>  |
| ESS-115302-S04-6                                 | S04   | 0 to 2 inches   | <b>560</b>  | <b>78</b>   |
| <b>Decision Unit or Sample Location</b>          | <b>Square Feet of Arsenic and Lead Over SSL *</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |   |
| Grab   | NA  | 0   | 0   |   |
| S01  | 646   | 1   | 24  |   |
| S02  | 758   | 1   | 28  |   |
| S03  | 2,909   | 1   | 108   |   |
| S04  | 1,824   | 1   | 68  |   |

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**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>         | <b>Decision Unit or Sample Location</b>       | <b>Depth Interval</b>                            | <b>START XRF Lead Results (mg/kg) dry weight</b>       | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|---|---|--|--|---|
| <b>West of Highway 50 (APN: 001-222-01)</b> |   |  |  |   |
| ESS-122201-P1-0                             | P1  | 0 to 2 inches                                    | <b><u>13,000</u></b>                                   | <b><u>2,700</u></b>                                 |
| ESS-122201-P1-2                             | P1  | 2 to 6 inches                                    | <b><u>8,500</u></b>                                    | <b><u>1,900</u></b>                                 |
| ESS-122201-P1-6                             | P1  | 6 to 12 inches                                   | <b><u>6,500</u></b>                                    | <b><u>1,400</u></b>                                 |
| ESS-122201-P2-0                             | P2  | 0 to 2 inches                                    | <b><u>4,700</u></b>                                    | <b><u>860</u></b>                                   |
| ESS-122201-P2-2                             | P2  | 2 to 6 inches                                    | <b><u>2,000</u></b>                                    | <b><u>370</u></b>                                   |
| ESS-122201-P2-6                             | P2  | 6 to 12 inches                                   | <b><u>1,600</u></b>                                    | <b><u>290</u></b>                                   |
| ESS-122201-P3-0                             | P3  | 0 to 2 inches                                    | <b><u>3,200</u></b>                                    | <b><u>540</u></b>                                   |
| ESS-122201-P3-2                             | P3  | 2 to 6 inches                                    | <b><u>1,700</u></b>                                    | <b><u>330</u></b>                                   |
| ESS-122201-P3-6                             | P3  | 6 to 12 inches                                   | <b><u>960</u></b>                                      | <b><u>220</u></b>                                   |
| ESS-122201-P4-0                             | P4  | 0 to 2 inches                                    | <b><u>8,800</u></b>                                    | <b><u>1,800</u></b>                                 |
| ESS-122201-P4-2                             | P4  | 2 to 6 inches                                    | <b><u>6,100</u></b>                                    | <b><u>1,400</u></b>                                 |
| ESS-122201-P4-6                             | P4  | 6 to 12 inches                                   | <b><u>5,200</u></b>                                    | <b><u>1,100</u></b>                                 |
| ESS-122201-P5-0                             | P5  | 0 to 2 inches                                    | <b><u>4,600</u></b>                                    | <b><u>870</u></b>                                   |
| ESS-122201-P5-2                             | P5  | 2 to 6 inches                                    | <b><u>2,800</u></b>                                    | <b><u>500</u></b>                                   |
| ESS-122201-P5-6                             | P5  | 6 to 12 inches                                   | <b><u>2,700</u></b>                                    | <b><u>530</u></b>                                   |
| ESS-122201-P6-0                             | P6  | 0 to 2 inches                                    | <b><u>6,700</u></b>                                    | <b><u>1,400</u></b>                                 |
| ESS-122201-P6-2                             | P6  | 2 to 6 inches                                    | <b><u>1,500</u></b>                                    | <b><u>310</u></b>                                   |
| ESS-122201-P6-6                             | P6  | 6 to 12 inches                                   | <b><u>2,500</u></b>                                    | <b><u>470</u></b>                                   |
| <b>Decision Unit or Sample Location</b>     | <b>Square Feet of Contamination Over SSL*</b> | <b>Estimated Depth of Contamination (feet)**</b> | <b>Estimated Cubic Yards of Contamination Over SSL</b> |   |
| P1  | 29,500  | 1  | 1,093  |   |
| P2  | 29,500  | 1  | 1,093  |   |
| P3  | 29,500  | 1  | 1,093  |   |
| P4  | 29,500  | 1  | 1,093  |   |
| P5  | 29,500  | 1  | 1,093  |   |
| P6  | 29,500  | 1  | 1,093  |   |

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**Table 3 Eureka Residential Property Sampling Data  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>              | <b>Decision Unit or Sample Location</b> | <b>Depth Interval</b> | <b>START XRF Lead Results (mg/kg) dry weight</b> | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|---|-----------------------|--|---|
| <b>181 North Spring Street (APN: 001-074-03)</b> |   |                       |  |   |
| ESS-107403-P1-0                                  | P1                                      | 0 to 2 inches         | <b>730</b>                                       | <b>110</b>  |
| ESS-107403-P1-2                                  | P1                                      | 2 to 6 inches         | <b>1,100</b>                                     | <b>150</b>  |
| ESS-107403-P1-6                                  | P1                                      | 6 to 12 inches        | <b>1,400</b>                                     | <b>190</b>  |
| ESS-107403-P2-0                                  | P2                                      | 0 to 2 inches         | <b>1,500</b>                                     | <b>200</b>  |
| ESS-107403-P2-2                                  | P2                                      | 2 to 6 inches         | <b>1,300</b>                                     | <b>170</b>  |
| ESS-107403-P2-6                                  | P2                                      | 6 to 12 inches        | <b>1,800</b>                                     | <b>250</b>  |
| ESS-107403-P3-0                                  | P3                                      | 0 to 2 inches         | <b>1,300</b>                                     | <b>190</b>  |
| ESS-107403-P3-2                                  | P3                                      | 2 to 6 inches         | <b>1,900</b>                                     | <b>240</b>  |
| ESS-107403-P3-6                                  | P3                                      | 6 to 12 inches        | <b>1,300</b>                                     | <b>180</b>  |
| ESS-107403-S01-0                                 | S01                                     | 0 to 2 inches         | <b>1,200</b>                                     | <b>160</b>  |
| ESS-107403-S01-2                                 | S01                                     | 2 to 6 inches         | <b>2,700</b>                                     | <b>330</b>  |
| ESS-107403-S01-6                                 | S01                                     | 6 to 12 inches        | <b>2,700</b>                                     | <b>430</b>  |
| ESS-107403-S02-0                                 | S02                                     | 0 to 2 inches         | <b>2,600</b>                                     | <b>330</b>  |
| ESS-107403-S02-2                                 | S02                                     | 2 to 6 inches         | <b>3,900</b>                                     | <b>590</b>  |
| ESS-107403-S02-6                                 | S02                                     | 6 to 12 inches        | <b>12,000</b>                                    | <b>1,900</b>  |
| ESS-107403-S03-0                                 | S03                                     | 0 to 2 inches         | <b>1,400</b>                                     | <b>170</b>  |
| ESS-107403-S03-2                                 | S03                                     | 2 to 6 inches         | <b>910</b>                                       | <b>150</b>  |
| ESS-107403-S03-6                                 | S03                                     | 6 to 12 inches        | <b>1,100</b>                                     | <b>170</b>  |

| <b>Decision Unit or Sample Location</b> | <b>Square Feet of Arsenic and Lead Over SSL*</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |
|---|--|---|---|
| P1                                      | NA   | 1   | NA  |
| P2                                      | NA   | 1   | NA  |
| P3                                      | NA   | 1   | NA  |
| S01                                     | 1,244  | 1   | 46  |
| S02                                     | 1,556  | 1   | 58  |
| S03                                     | 2,738  | 1   | 101   |

**Notes:**

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**Table 3 Eureka Residential Property Sampling Data  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>          | <b>Decision Unit or Sample Location</b>           | <b>Depth Interval</b>   | <b>START XRF Lead Results (mg/kg) dry weight</b>          | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|---|---|---|---|
| <b>440 Nob Hill Avenue (APN: 001-031-08)</b> |   |   |   |   |
| ESS-103108-S01-0                             | S01   | 0 to 2 inches   | <b>470</b>  | <b>75</b>   |
| ESS-103108-S01-2                             | S01   | 2 to 6 inches   | <b>560</b>  | <b>100</b>  |
| ESS-103108-S01-6                             | S01   | 6 to 12 inches  | <b>530</b>  | <b>90</b>   |
| ESS-103108-S02-0                             | S02   | 0 to 2 inches   | <b>1,000</b>  | <b>150</b>  |
| ESS-103108-S02-2                             | S02   | 2 to 6 inches   | <b>1,200</b>  | <b>200</b>  |
| ESS-103108-S02-6                             | S02   | 6 to 12 inches  | 240   | 44  |
| <b>Decision Unit or Sample Location</b>      | <b>Square Feet of Arsenic and Lead Over SSL *</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |   |
| S01  | 2,222   | 1   | 82  |   |
| S02  | 2,358   | 1   | 87  |   |

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Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

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| <b>Sample Identification Number</b>        | <b>Decision Unit or Sample Location</b> | <b>Depth Interval</b> | <b>START XRF Lead Results (mg/kg) dry weight</b> | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|---|-----------------------|--|---|
| <b>581 Ridgetop Road (APN: 001-012-28)</b> |   |                       |  |   |
| ESS-101228-S01-0                           | S01                                     | 0 to 2 inches         | <b>800</b>                                       | <b>180</b>  |
| ESS-101228-S01-2                           | S01                                     | 2 to 6 inches         | <b>1,100</b>                                     | <b>290</b>  |
| ESS-101228-S01-6                           | S01                                     | 6 to 12 inches        | <b>720</b>                                       | <b>160</b>  |

| <b>Decision Unit or Sample Location</b> | <b>Square Feet of Arsenic and Lead Over SSL *</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |
|---|---|---|---|
| S01                                     | 8,615   | 1   | 319   |

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**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>          | <b>Decision Unit or Sample Location</b>          | <b>Depth Interval</b>   | <b>START XRF Lead Results (mg/kg) dry weight</b>          | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|--|---|---|---|
| <b>600 Sheridan Street (APN: 001-211-07)</b> |  |   |   |   |
| ESS-121107-S01-0                             | S01  | 0 to 2 inches   | 110   | 44  |
| ESS-121107-S01-2                             | S01  | 2 to 6 inches   | 145   | 36  |
| ESS-121107-S01-6                             | S01  | 6 to 12 inches  | 140   | 36  |
| ESS-121107-S02-0                             | S02  | 0 to 2 inches   | 90  | 35  |
| ESS-121107-S02-2                             | S02  | 2 to 6 inches   | 59  | 26  |
| ESS-121107-S02-6                             | S02  | 6 to 12 inches  | 100   | 36  |
| ESS-121107-S03-0                             | S03  | 0 to 2 inches   | 69  | 21  |
| ESS-121107-S03-2                             | S03  | 2 to 6 inches   | 93  | 23  |
| ESS-121107-S03-6                             | S03  | 6 to 12 inches  | 68  | 28  |
| ESS-121107-S04-0                             | S04  | 0 to 2 inches   | 53  | 20  |
| ESS-121107-S04-2                             | S04  | 2 to 6 inches   | 130   | 26  |
| ESS-121107-S04-6                             | S04  | 6 to 12 inches  | 42  | 22  |
| ESS-121107-S05-0                             | S05  | 0 to 2 inches   | 62  | 26  |
| ESS-121107-S05-2                             | S05  | 2 to 6 inches   | 44  | 16  |
| Not Sampled                                  | S05  | 6 to 12 inches  | -   | -   |
| <b>Decision Unit or Sample Location</b>      | <b>Square Feet of Arsenic and Lead Over SSL*</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |   |
| S01  | 4,076  | 0   | 0   |   |
| S02  | 850  | 0   | 0   |   |
| S03  | 4,924  | 0   | 0   |   |
| S04  | 2,833  | 0   | 0   |   |
| S05  | 12,208   | 0   | 0   |   |

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**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>            | <b>Decision Unit or Sample Location</b>       | <b>Depth Interval</b>                            | <b>START XRF Lead Results (mg/kg) dry weight</b>       | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|---|--|--|---|
| <b>560 North Main Street (APN: 001-012-11)</b> |   |  |  |   |
| ESS-101211-P1-0                                | P1  | 0 to 2 inches                                    | <b>2,400</b>   | <b>520</b>  |
| ESS-101211-P1-2                                | P1  | 2 to 6 inches                                    | <b>600</b>   | <b>140</b>  |
| ESS-101211-P1-6                                | P1  | 6 to 12 inches                                   | <b>2,000</b>   | <b>430</b>  |
| ESS-101211-P2-0                                | P2  | 0 to 2 inches                                    | <b>120</b>   | <b>71</b>   |
| ESS-101211-P2-2                                | P2  | 2 to 6 inches                                    | <b>145</b>   | <b>78</b>   |
| ESS-101211-P2-6                                | P2  | 6 to 12 inches                                   | <b>79</b>  | <b>79</b>   |
| ESS-101211-P3-0                                | P3  | 0 to 2 inches                                    | <b>1,900</b>   | <b>680</b>  |
| ESS-101211-P3-2                                | P3  | 2 to 6 inches                                    | <b><u>8,400</u></b>                                    | <b><u>3,300</u></b>                                 |
| ESS-101211-P3-6                                | P3  | 6 to 12 inches                                   | <b><u>7,400</u></b>                                    | <b><u>3,000</u></b>                                 |
| ESS-101211-P4-0                                | P4  | 0 to 2 inches                                    | <b>950</b>   | <b>190</b>  |
| ESS-101211-P4-2                                | P4  | 2 to 6 inches                                    | <b>610</b>   | <b>130</b>  |
| ESS-101211-P4-6                                | P4  | 6 to 12 inches                                   | <b>640</b>   | <b>120</b>  |
| ESS-101211-P5-0                                | P5  | 0 to 2 inches                                    | <b><u>7,800</u></b>                                    | <b><u>1,600</u></b>                                 |
| ESS-101211-P5-2                                | P5  | 2 to 6 inches                                    | <b><u>3,900</u></b>                                    | <b><u>800</u></b>                                   |
| ESS-101211-P5-6                                | P5  | 6 to 12 inches                                   | <b><u>3,300</u></b>                                    | <b><u>640</u></b>                                   |
| ESS-101211-P6-0                                | P6  | 0 to 2 inches                                    | <b>1,100</b>   | <b>200</b>  |
| ESS-101211-P6-2                                | P6  | 2 to 6 inches                                    | <b>1,500</b>   | <b>320</b>  |
| ESS-101211-P6-6                                | P6  | 6 to 12 inches                                   | <b>2,600</b>   | <b>510</b>  |
| <b>Decision Unit or Sample Location</b>        | <b>Square Feet of Contamination Over SSL*</b> | <b>Estimated Depth of Contamination (feet)**</b> | <b>Estimated Cubic Yards of Contamination Over SSL</b> |   |
| P1   | 27,385  | 1  | 1,014  |   |
| P2   | 27,385  | 1  | 1,014  |   |
| P3   | 27,385  | 1  | 1,014  |   |
| P4   | 27,385  | 1  | 1,014  |   |
| P5   | 27,385  | 1  | 1,014  |   |
| P6   | 27,385  | 1  | 1,014  |   |

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Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Decision Unit or Sample Location               | Square Feet of Arsenic and Lead Over SSL* | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |
|--|---|--|--|
| <b>420 North Main Street (APN: 001-033-06)</b> |   |  |  |
| ESS-103306-S01-0                               | S01                                       | 0 to 2 inches  | <b>980</b>   |
| ESS-103306-S01-2                               | S01                                       | 2 to 6 inches  | <b>910</b>   |
| ESS-103306-S01-6                               | S01                                       | 6 to 12 inches   | <b>2,300</b>                                       |
| ESS-103306-S02-0                               | S02                                       | 0 to 2 inches  | <b>1,600</b>                                       |
| ESS-103306-S02-2                               | S02                                       | 2 to 6 inches  | <b>1,700</b>                                       |
| ESS-103306-S02-6                               | S02                                       | 6 to 12 inches   | <b>1,900</b>                                       |
| ESS-103306-S03-0                               | S03                                       | 0 to 2 inches  | <b>9,100</b>                                       |
| ESS-103306-S03-2                               | S03                                       | 2 to 6 inches  | <b>11,000</b>                                      |
| ESS-103306-S03-6                               | S03                                       | 6 to 12 inches   | <b>16,000</b>                                      |
| Decision Unit or Sample Location               | Square Feet of Contamination Over SSL*    | Estimated Depth of Contamination (feet) **             | Estimated Cubic Yards of Contamination Over SSL    |
| S01  | 1,557                                     | 1  | 58   |
| S02  | 2,159                                     | 1  | 80   |
| S03  | 2,812                                     | 1  | 104  |

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| <b>Sample Identification Number</b>          | <b>Decision Unit or Sample Location</b> | <b>Depth Interval</b> | <b>START XRF Lead Results (mg/kg) dry weight</b> | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|---|-----------------------|--|---|
| <b>550 Sheridan Street (APN: 001-012-27)</b> |   |                       |  |   |
| ESS-101227-P1-0                              | P1                                      | 0 to 2 inches         | 150  | 47  |
| ESS-101227-P1-2                              | P1                                      | 2 to 6 inches         | 120  | 53  |
| ESS-101227-P1-6                              | P1                                      | 6 to 12 inches        | 110  | 71  |
| ESS-101227-P2-0                              | P2                                      | 0 to 2 inches         | <b>740</b>                                       | <b>130</b>  |
| ESS-101227-P2-2                              | P2                                      | 2 to 6 inches         | <b>460</b>                                       | <b>90</b>   |
| ESS-101227-P2-6                              | P2                                      | 6 to 12 inches        | 330  | <b>82</b>   |
| ESS-101227-P3-0                              | P3                                      | 0 to 2 inches         | 230  | 49  |
| ESS-101227-P3-2                              | P3                                      | 2 to 6 inches         | 84   | 25  |
| ESS-101227-P3-6                              | P3                                      | 6 to 12 inches        | 45   | 20  |
| ESS-101227-P4-0                              | P4                                      | 0 to 2 inches         | <b>1,800</b>                                     | <b>320</b>  |
| ESS-101227-P4-2                              | P4                                      | 2 to 6 inches         | <b>1,600</b>                                     | <b>280</b>  |
| ESS-101227-P4-6                              | P4                                      | 6 to 12 inches        | <b>910</b>                                       | <b>200</b>  |
| ESS-101227-P5-0                              | P5                                      | 0 to 2 inches         | <b>1,200</b>                                     | <b>210</b>  |
| ESS-101227-P5-2                              | P5                                      | 2 to 6 inches         | <b>1,100</b>                                     | <b>200</b>  |
| ESS-101227-P5-6                              | P5                                      | 6 to 12 inches        | <b>940</b>                                       | <b>140</b>  |
| ESS-101227-P6-0                              | P6                                      | 0 to 2 inches         | <b>960</b>                                       | <b>160</b>  |
| ESS-101227-P6-2                              | P6                                      | 2 to 6 inches         | <b>970</b>                                       | <b>190</b>  |
| ESS-101227-P6-6                              | P6                                      | 6 to 12 inches        | <b>1,100</b>                                     | <b>200</b>  |

| <b>Decision Unit or Sample Location</b> | <b>Square Feet of Arsenic and Lead Over SSL *</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |
|---|---|---|---|
| P1                                      | 41,121  | 1   | 1,523   |
| P2                                      | 41,121  | 1   | 1,523   |
| P3                                      | 41,121  | 0   | 0   |
| P4                                      | 41,121  | 1   | 1,523   |
| P5                                      | 41,121  | 1   | 1,523   |
| P6                                      | 41,121  | 1   | 1,523   |

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APN = Assessor's Parcel Number

SSL = Site Screening Level; the SSL for arsenic by XRF is 60 mg/kg and for lead by XRF is 400 mg/kg

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Bold = Above the SSL

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\* The square footage for grid sample locations of undeveloped properties are estimates based upon the square footage of the property divided by the number of sample locations.

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Ecology and Environment Inc. 2013



**Table 3 Eureka Residential Property Sampling Data  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>     | <b>Decision Unit or Sample Location</b>           | <b>Depth Interval</b>   | <b>START XRF Lead Results (mg/kg) dry weight</b>          | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|---|---|---|---|---|
| <b>51 Vandal Way (APN: 001-022-05)</b>  |   |   |   |   |
| ESS-102205-S01-0                        | S01   | 0 to 2 inches   | 57  | 12  |
| ESS-102205-S01-2                        | S01   | 2 to 6 inches   | 50  | 23  |
| ESS-102205-S01-6                        | S01   | 6 to 12 inches  | 80  | 16  |
| ESS-102205-S02-0                        | S02   | 0 to 2 inches   | <b>440</b>  | 21  |
| ESS-102205-S02-2                        | S02   | 2 to 6 inches   | 230   | 38  |
| ESS-102205-S02-6                        | S02   | 6 to 12 inches  | 110   | 24  |
| ESS-102205-S03-0                        | S03   | 0 to 2 inches   | 220   | 34  |
| ESS-102205-S03-2                        | S03   | 2 to 6 inches   | 74  | 16  |
| ESS-102205-S03-6                        | S03   | 6 to 12 inches  | 97  | 15  |
| <b>Decision Unit or Sample Location</b> | <b>Square Feet of Arsenic and Lead Over SSL *</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |   |
| S01                                     | 1,904   | 0   | 0   |   |
| S02                                     | 1,197   | 0.5   | 22  |   |
| S03                                     | 2,136   | 0   | 0   |   |

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Assessment  
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**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number                     | Decision Unit or Sample Location           | Depth Interval   | START XRF Lead Results (mg/kg) dry weight          | START XRF Arsenic Results (mg/kg) dry weight |
|--|--|--|--|--|
| <b>491 North O'Neil Avenue (APN: 001-033-01)</b> |  |  |  |  |
| ESS-103301-P1-0                                  | P1   | 0 to 2 inches  | <b><u>8,300</u></b>                                | <b><u>1,500</u></b>                          |
| ESS-103301-P1-2                                  | P1   | 2 to 6 inches  | <b><u>5,100</u></b>                                | <b><u>960</u></b>                            |
| ESS-103301-P1-6                                  | P1   | 6 to 12 inches   | <b><u>8,700</u></b>                                | <b><u>1,700</u></b>                          |
| ESS-103301-P2-0                                  | P2   | 0 to 2 inches  | <b><u>9,800</u></b>                                | <b><u>1,900</u></b>                          |
| ESS-103301-P2-2                                  | P2   | 2 to 6 inches  | <b><u>7,400</u></b>                                | <b><u>1,400</u></b>                          |
| ESS-103301-P2-6                                  | P2   | 6 to 12 inches   | <b><u>6,800</u></b>                                | <b><u>1,300</u></b>                          |
| ESS-103301-P3-0                                  | P3   | 0 to 2 inches  | <b><u>3,100</u></b>                                | <b><u>480</u></b>                            |
| ESS-103301-P3-2                                  | P3   | 2 to 6 inches  | <b><u>1,600</u></b>                                | <b><u>250</u></b>                            |
| ESS-103301-P3-6                                  | P3   | 6 to 12 inches   | <b><u>600</u></b>                                  | <b><u>100</u></b>                            |
| ESS-103301-P4-0                                  | P4   | 0 to 2 inches  | <b><u>43,000</u></b>                               | <b><u>10,000</u></b>                         |
| ESS-103301-P4-2                                  | P4   | 2 to 6 inches  | <b><u>12,000</u></b>                               | <b><u>2,400</u></b>                          |
| ESS-103301-P4-6                                  | P4   | 6 to 12 inches   | <b><u>9,000</u></b>                                | <b><u>1,700</u></b>                          |
| Decision Unit or Sample Location                 | Square Feet of Arsenic and Lead Over SSL * | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |  |
| P1   | 9,757                                      | 1  | 361  |  |
| P2   | 9,757                                      | 1  | 361  |  |
| P3   | 9,757                                      | 1  | 361  |  |
| P4   | 9,757                                      | 1  | 361  |  |

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Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>              | <b>Decision Unit or Sample Location</b> | <b>Depth Interval</b> | <b>START XRF Lead Results (mg/kg) dry weight</b> | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|---|-----------------------|--|---|
| <b>400 North O'Neil Avenue (APN: 001-032-10)</b> |   |                       |  |   |
| ESS-103210-P1-0                                  | P1                                      | 0 to 2 inches         | <b>1,300</b>                                     | <b>210</b>  |
| ESS-103210-P1-2                                  | P1                                      | 2 to 6 inches         | <b>1,500</b>                                     | <b>250</b>  |
| ESS-103210-P1-6                                  | P1                                      | 6 to 12 inches        | <b>1,100</b>                                     | <b>160</b>  |
| ESS-103210-S01-0                                 | S01                                     | 0 to 2 inches         | <b>1,000</b>                                     | <b>160</b>  |
| ESS-103210-S01-2                                 | S01                                     | 2 to 6 inches         | <b>780</b>                                       | <b>110</b>  |
| ESS-103210-S01-6                                 | S01                                     | 6 to 12 inches        | <b>1,600</b>                                     | <b>260</b>  |
| ESS-103210-S02-0                                 | S02                                     | 0 to 2 inches         | <b>470</b>                                       | <b>210</b>  |
| ESS-103210-S02-2                                 | S02                                     | 2 to 6 inches         | <b>460</b>                                       | <b>68</b>   |
| ESS-103210-S02-6                                 | S02                                     | 6 to 12 inches        | <b>36</b>  | <b>18</b>   |
| ESS-103210-S03-0                                 | S03                                     | 0 to 2 inches         | <b>1,200</b>                                     | <b>190</b>  |
| ESS-103210-S03-2                                 | S03                                     | 2 to 6 inches         | <b>710</b>                                       | <b>160</b>  |
| ESS-103210-S03-6                                 | S03                                     | 6 to 12 inches        | <b>1,200</b>                                     | <b>200</b>  |
| ESS-103210-S04-0                                 | S04                                     | 0 to 2 inches         | <b>720</b>                                       | <b>97</b>   |
| ESS-103210-S04-2                                 | S04                                     | 2 to 6 inches         | <b>970</b>                                       | <b>160</b>  |
| ESS-103210-S04-6                                 | S04                                     | 6 to 12 inches        | <b>1,300</b>                                     | <b>200</b>  |

| <b>Decision Unit or Sample Location</b> | <b>Square Feet of Arsenic and Lead Over SSL*</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |
|---|--|---|---|
| P1                                      | NA   | 1   | NA  |
| S01                                     | 1,164  | 1   | 43  |
| S02                                     | 1,526  | 1   | 57  |
| S03                                     | 644  | 1   | 24  |
| S04                                     | 401  | 1   | 15  |

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Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>            | <b>Decision Unit or Sample Location</b> | <b>Depth Interval</b> | <b>START XRF Lead Results (mg/kg) dry weight</b> | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|---|-----------------------|--|---|
| <b>470 Wittenburg Street (APN: 001-037-03)</b> |   |                       |  |   |
| ESS-103703-P1-0                                | P1                                      | 0 to 2 inches         | <b>1,800</b>                                     | <b>270</b>  |
| ESS-103703-P1-2                                | P1                                      | 2 to 6 inches         | <b>1,100</b>                                     | <b>170</b>  |
| ESS-103703-P1-6                                | P1                                      | 6 to 12 inches        | <b>370</b>                                       | <b>58</b>   |
| ESS-103703-S01-0                               | S01                                     | 0 to 2 inches         | <b>1,850</b>                                     | <b>300</b>  |
| ESS-103703-S01-2                               | S01                                     | 2 to 6 inches         | <b><u>3,300</u></b>                              | <b>540</b>  |
| ESS-103703-S01-6                               | S01                                     | 6 to 12 inches        | <b>1,600</b>                                     | <b>270</b>  |
| ESS-103703-S02-0                               | S02                                     | 0 to 2 inches         | <b>1,300</b>                                     | <b>210</b>  |
| ESS-103703-S02-2                               | S02                                     | 2 to 6 inches         | <b>910</b>                                       | <b>150</b>  |
| ESS-103703-S02-6                               | S02                                     | 6 to 12 inches        | <b>260</b>                                       | <b>67</b>   |
| ESS-103703-S03-0                               | S03                                     | 0 to 2 inches         | <b>2,500</b>                                     | <b>410</b>  |
| ESS-103703-S03-2                               | S03                                     | 2 to 6 inches         | <b><u>4,300</u></b>                              | <b><u>710</u></b>                                   |
| ESS-103703-S03-6                               | S03                                     | 6 to 12 inches        | <b><u>7,700</u></b>                              | <b><u>1,400</u></b>                                 |

| <b>Decision Unit or Sample Location</b> | <b>Square Feet of Arsenic and Lead Over SSL *</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |
|---|---|---|---|
| P1                                      | NA  | 1   | NA  |
| S01                                     | 4,634   | 1   | 172   |
| S02                                     | 3,361   | 1   | 124   |
| S03                                     | 10,109  | 1   | 374   |

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Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>           | <b>Decision Unit or Sample Location</b>          | <b>Depth Interval</b>   | <b>START XRF Lead Results (mg/kg) dry weight</b>          | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|---|--|---|---|---|
| <b>580 Country Road 101 (APN: 001-011-11)</b> |  |   |   |   |
| ESS-101111-P1-0                               | P1   | 0 to 2 inches   | <u><b>27,000</b></u>                                      | <u><b>25,000</b></u>                                |
| <b>Decision Unit or Sample Location</b>       | <b>Square Feet of Arsenic and Lead Over SSL*</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |   |
| P1  | NA   | 1   | NA  |   |

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| <b>Sample Identification Number</b>             | <b>Decision Unit or Sample Location</b>           | <b>Depth Interval</b>   | <b>START XRF Lead Results (mg/kg) dry weight</b>          | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|---|---|---|---|---|
| <b>151 East Silver Street (APN: 001-134-09)</b> |   |   |   |   |
| ESS-113409-P1-0                                 | P1  | 0 to 2 inches   | 21  | 20  |
| ESS-113409-S01-0                                | S01   | 0 to 2 inches   | 150   | 57  |
| ESS-113409-S01-2                                | S01   | 2 to 6 inches   | 150   | 42  |
| ESS-113409-S01-6                                | S01   | 6 to 12 inches  | 81  | 32  |
| ESS-113409-S02-0                                | S02   | 0 to 2 inches   | 160   | 43  |
| ESS-113409-S02-2                                | S02   | 2 to 6 inches   | <b>470</b>  | <b>97</b>   |
| ESS-113409-S02-6                                | S02   | 6 to 12 inches  | 370   | <b>84</b>   |
| ESS-113409-S03-0                                | S03   | 0 to 2 inches   | 210   | <b>60</b>   |
| ESS-113409-S03-2                                | S03   | 2 to 6 inches   | 380   | <b>100</b>  |
| ESS-113409-S03-6                                | S03   | 6 to 12 inches  | <b>890</b>  | <b>130</b>  |
| ESS-113409-S04-0                                | S04   | 0 to 2 inches   | 250   | 57  |
| ESS-113409-S04-2                                | S04   | 2 to 6 inches   | <b>440</b>  | <b>90</b>   |
| ESS-113409-S04-6                                | S04   | 6 to 12 inches  | 360   | <b>73</b>   |
| <b>Decision Unit or Sample Location</b>         | <b>Square Feet of Arsenic and Lead Over SSL *</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |   |
| P1  | NA  | 0   | 0   |   |
| S01   | 2,937   | 0   | 0   |   |
| S02   | 1,503   | 1   | 56  |   |
| S03   | 966   | 1   | 36  |   |
| S04   | 651   | 1   | 24  |   |

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| <b>Sample Identification Number</b>        | <b>Decision Unit or Sample Location</b>           | <b>Depth Interval</b>   | <b>START XRF Lead Results (mg/kg) dry weight</b>          | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|---|---|---|---|
| <b>401 O'Neil Avenue (APN: 001-033-11)</b> |   |   |   |   |
| ESS-103311-S01-0                           | S01   | 0 to 2 inches   | <b>760</b>  | <b>110</b>  |
| ESS-103311-S01-2                           | S01   | 2 to 6 inches   | <b>680</b>  | <b>130</b>  |
| ESS-103311-S01-6                           | S01   | 6 to 12 inches  | <b>2,000</b>  | <b>370</b>  |
| ESS-103311-S02-0                           | S02   | 0 to 2 inches   | <b>900</b>  | <b>130</b>  |
| ESS-103311-S02-2                           | S02   | 2 to 6 inches   | <b>1,200</b>  | <b>190</b>  |
| ESS-103311-S02-6                           | S02   | 6 to 12 inches  | <b>2,300</b>  | <b>390</b>  |
| <b>Decision Unit or Sample Location</b>    | <b>Square Feet of Arsenic and Lead Over SSL *</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |   |
| S01  | 8,355   | 1   | 309   |   |
| S02  | 7,558   | 1   | 280   |   |

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| <b>Sample Identification Number</b>        | <b>Decision Unit or Sample Location</b> | <b>Depth Interval</b> | <b>START XRF Lead Results (mg/kg) dry weight</b> | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|---|-----------------------|--|---|
| <b>571 Ridgetop Road (APN: 001-012-29)</b> |   |                       |  |   |
| ESS-101229-S01-0                           | S01                                     | 0 to 2 inches         | <b>890</b>                                       | <b>160</b>  |
| ESS-101229-S01-2                           | S01                                     | 2 to 6 inches         | <b>1,000</b>                                     | <b>200</b>  |
| ESS-101229-S01-6                           | S01                                     | 6 to 12 inches        | <b>510</b>                                       | <b>110</b>  |

| <b>Decision Unit or Sample Location</b> | <b>Square Feet of Arsenic and Lead Over SSL *</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |
|---|---|---|---|
| S01                                     | 7,847   | 1   | 291   |

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APN = Assessor's Parcel Number

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Ecology and Environment Inc. 2013



**Table 3 Eureka Residential Property Sampling Data  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>              | <b>Decision Unit or Sample Location</b> | <b>Depth Interval</b> | <b>START XRF Lead Results (mg/kg) dry weight</b> | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|---|-----------------------|--|---|
| <b>371 North O'Neil Avenue (APN: 001-034-12)</b> |   |                       |  |   |
| ESS-103412-S01-0                                 | S01                                     | 0 to 2 inches         | 310  | 97  |
| ESS-103412-S01-2                                 | S01                                     | 2 to 6 inches         | 770  | 110   |
| ESS-103412-S01-6                                 | S01                                     | 6 to 12 inches        | 840  | 150   |
| ESS-103412-S02-0                                 | S02                                     | 0 to 2 inches         | 310  | 35  |
| ESS-103412-S02-2                                 | S02                                     | 2 to 6 inches         | 82   | 15  |
| ESS-103412-S02-6                                 | S02                                     | 6 to 12 inches        | 78   | 31  |
| ESS-103412-S03-0                                 | S03                                     | 0 to 2 inches         | 190  | 60  |
| ESS-103412-S03-2                                 | S03                                     | 2 to 6 inches         | 160  | 34  |
| ESS-103412-S03-6                                 | S03                                     | 6 to 12 inches        | 490  | 65  |

| <b>Decision Unit or Sample Location</b> | <b>Square Feet of Arsenic and Lead Over SSL*</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |
|---|--|---|---|
| S01                                     | 1,449  | 1   | 54  |
| S02                                     | 1,900  | 0   | 0   |
| S03                                     | 12,063   | 1   | 447   |

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Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>            | <b>Decision Unit or Sample Location</b>           | <b>Depth Interval</b>   | <b>START XRF Lead Results (mg/kg) dry weight</b>          | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|---|---|---|---|
| <b>300 South Main Street (APN: 001-161-01)</b> |   |   |   |   |
| ESS-116101-P1-0                                | P1  | 0 to 2 inches   | <b>1,700</b>  | <b>250</b>  |
| ESS-116101-P1-2                                | P1  | 2 to 6 inches   | <b><u>4,100</u></b>                                       | <b><u>600</u></b>                                   |
| ESS-116101-P1-6                                | P1  | 6 to 12 inches  | <b><u>4,700</u></b>                                       | <b><u>700</u></b>                                   |
| ESS-116101-P2-0                                | P2  | 0 to 2 inches   | <b>1,000</b>  | <b>160</b>  |
| ESS-116101-P2-2                                | P2  | 2 to 6 inches   | <b>900</b>  | <b>150</b>  |
| ESS-116101-P2-6                                | P2  | 6 to 12 inches  | <b>2,700</b>  | <b>400</b>  |
| ESS-116101-P3-0                                | P3  | 0 to 2 inches   | <b>2,200</b>  | <b>340</b>  |
| ESS-116101-P3-2                                | P3  | 2 to 6 inches   | <b><u>4,600</u></b>                                       | <b><u>640</u></b>                                   |
| ESS-116101-P3-6                                | P3  | 6 to 12 inches  | <b><u>5,100</u></b>                                       | <b><u>730</u></b>                                   |
| ESS-116101-S01-0                               | S01   | 0 to 2 inches   | <b><u>5,200</u></b>                                       | <b><u>720</u></b>                                   |
| ESS-116101-S01-2                               | S01   | 2 to 6 inches   | <b><u>10,500</u></b>                                      | <b><u>1,700</u></b>                                 |
| ESS-116101-S01-6                               | S01   | 6 to 12 inches  | <b><u>11,500</u></b>                                      | <b><u>2,100</u></b>                                 |
| ESS-116101-S02-0                               | S02   | 0 to 2 inches   | <b>2,000</b>  | <b>300</b>  |
| ESS-116101-S02-2                               | S02   | 2 to 6 inches   | <b><u>5,400</u></b>                                       | <b><u>930</u></b>                                   |
| ESS-116101-S02-6                               | S02   | 6 to 12 inches  | <b><u>12,500</u></b>                                      | <b><u>2,200</u></b>                                 |
| <b>Decision Unit or Sample Location</b>        | <b>Square Feet of Arsenic and Lead Over SSL *</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |   |
| P1   | NA  | 1   | NA  |   |
| P2   | NA  | 1   | NA  |   |
| P3   | NA  | 1   | NA  |   |
| S01  | 2,771   | 1   | 103   |   |
| S02  | 1,648   | 1   | 61  |   |

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**Table 3 Eureka Residential Property Sampling Data  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>              | <b>Decision Unit or Sample Location</b>           | <b>Depth Interval</b>   | <b>START XRF Lead Results (mg/kg) dry weight</b>          | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|---|---|---|---|
| <b>450 North O'Neil Avenue (APN: 001-032-02)</b> |   |   |   |   |
| ESS-103202-S01-0                                 | S01   | 0 to 2 inches   | <b>1,400</b>  | <b>230</b>  |
| ESS-103202-S01-2                                 | S01   | 2 to 6 inches   | <b>1,900</b>  | <b>360</b>  |
| ESS-103202-S01-6                                 | S01   | 6 to 12 inches  | <b>2,400</b>  | <b>380</b>  |
| ESS-103202-S02-0                                 | S02   | 0 to 2 inches   | <b>1,200</b>  | <b>180</b>  |
| ESS-103202-S02-2                                 | S02   | 2 to 6 inches   | <b>2,000</b>  | <b>350</b>  |
| ESS-103202-S02-6                                 | S02   | 6 to 12 inches  | <b>1,600</b>  | <b>260</b>  |
| ESS-103202-S03-0                                 | S03   | 0 to 2 inches   | <b>1,100</b>  | <b>160</b>  |
| ESS-103202-S03-2                                 | S03   | 2 to 6 inches   | <b>1,100</b>  | <b>160</b>  |
| ESS-103202-S03-6                                 | S03   | 6 to 12 inches  | <b>1,100</b>  | <b>160</b>  |
| <b>Decision Unit or Sample Location</b>          | <b>Square Feet of Arsenic and Lead Over SSL *</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |   |
| S01  | 1,448   | 1   | 54  |   |
| S02  | 2,765   | 1   | 102   |   |
| S03  | 2,921   | 1   | 108   |   |

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Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>            | <b>Decision Unit or Sample Location</b> | <b>Depth Interval</b> | <b>START XRF Lead Results (mg/kg) dry weight</b> | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|---|-----------------------|--|---|
| <b>400 North Main Avenue (APN: 001-033-05)</b> |   |                       |  |   |
| ESS-103305-P1-0                                | P1                                      | 0 to 2 inches         | <u><b>11,000</b></u>                             | <u><b>1,900</b></u>                                 |
| ESS-103305-P1-2                                | P1                                      | 2 to 6 inches         | <u><b>39,000</b></u>                             | <u><b>8,900</b></u>                                 |
| ESS-103305-P1-6                                | P1                                      | 6 to 12 inches        | <u><b>52,000</b></u>                             | <u><b>13,000</b></u>                                |
| ESS-103305-P2-0                                | P2                                      | 0 to 2 inches         | <u><b>15,000</b></u>                             | <u><b>2,800</b></u>                                 |
| ESS-103305-P2-2                                | P2                                      | 2 to 6 inches         | <u><b>1,400</b></u>                              | <u><b>230</b></u>                                   |
| ESS-103305-P2-6                                | P2                                      | 6 to 12 inches        | <u><b>260</b></u>                                | <u><b>47</b></u>                                    |
| ESS-103305-P3-0                                | P3                                      | 0 to 2 inches         | <u><b>40,000</b></u>                             | <u><b>9,000</b></u>                                 |
| ESS-103305-P3-2                                | P3                                      | 2 to 6 inches         | <u><b>20,000</b></u>                             | <u><b>4,300</b></u>                                 |
| ESS-103305-P3-6                                | P3                                      | 6 to 12 inches        | <u><b>16,000</b></u>                             | <u><b>3,200</b></u>                                 |
| ESS-103305-P4-0                                | P4                                      | 0 to 2 inches         | <u><b>40,000</b></u>                             | <u><b>9,200</b></u>                                 |
| ESS-103305-P4-2                                | P4                                      | 2 to 6 inches         | <u><b>29,000</b></u>                             | <u><b>6,500</b></u>                                 |
| ESS-103305-P4-6                                | P4                                      | 6 to 12 inches        | <u><b>18,000</b></u>                             | <u><b>3,900</b></u>                                 |

| <b>Decision Unit or Sample Location</b> | <b>Square Feet of Arsenic and Lead Over SSL *</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |
|---|---|---|---|
| P1                                      | 3,952   | 1   | 146   |
| P2                                      | 3,952   | 1   | 146   |
| P3                                      | 3,952   | 1   | 146   |
| P4                                      | 3,952   | 1   | 146   |

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Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>              | <b>Decision Unit or Sample Location</b> | <b>Depth Interval</b> | <b>START XRF Lead Results (mg/kg) dry weight</b> | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|---|-----------------------|--|---|
| <b>100 East Robbins Street (APN: 001-038-10)</b> |   |                       |  |   |
| ESS-103810-P1-0                                  | P1                                      | 0 to 2 inches         | 140  | 25  |
| ESS-103810-P1-2                                  | P1                                      | 2 to 6 inches         | 310  | 50  |
| ESS-103810-P1-6                                  | P1                                      | 6 to 12 inches        | 290  | 55  |
| ESS-103810-S01-0                                 | S01                                     | 0 to 2 inches         | <b>480</b>                                       | <b>77</b>   |
| ESS-103810-S01-2                                 | S01                                     | 2 to 6 inches         | <b>450</b>                                       | <b>69</b>   |
| ESS-103810-S01-6                                 | S01                                     | 6 to 12 inches        | 270  | 48  |
| ESS-103810-S02-0                                 | S02                                     | 0 to 2 inches         | <b>730</b>                                       | <b>130</b>  |
| ESS-103810-S02-2                                 | S02                                     | 2 to 6 inches         | <b><i>4,500</i></b>                              | <b><i>720</i></b>                                   |
| ESS-103810-S02-6                                 | S02                                     | 6 to 12 inches        | <b><i>3,300</i></b>                              | <b><i>490</i></b>                                   |
| ESS-103810-S03-0                                 | S03                                     | 0 to 2 inches         | 380  | <b>64</b>   |
| ESS-103810-S03-2                                 | S03                                     | 2 to 6 inches         | <b>1,400</b>                                     | <b>260</b>  |
| ESS-103810-S03-6                                 | S03                                     | 6 to 12 inches        | <b>1,900</b>                                     | <b>330</b>  |

| <b>Decision Unit or Sample Location</b> | <b>Square Feet of Arsenic and Lead Over SSL *</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |
|---|---|---|---|
| P1                                      | NA  | 0   | 0   |
| S01                                     | 1,839   | 1   | 68  |
| S02                                     | 1,365   | 1   | 51  |
| S03                                     | 1,688   | 1   | 63  |

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Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number               | Decision Unit or Sample Location          | Depth Interval   | START XRF Lead Results (mg/kg) dry weight          | START XRF Arsenic Results (mg/kg) dry weight |
|--|---|--|--|--|
| <b>561 Ridgetop Road (APN: 001-012-30)</b> |   |  |  |  |
| ESS-101230-S01-0                           | S01                                       | 0 to 2 inches  | <b>1,300</b>                                       | <b>430</b>                                   |
| ESS-101230-S01-2                           | S01                                       | 2 to 6 inches  | <b>990</b>   | <b>360</b>                                   |
| ESS-101230-S01-6                           | S01                                       | 6 to 12 inches   | <b>610</b>   | <b>220</b>                                   |
| Decision Unit or Sample Location           | Square Feet of Arsenic and Lead Over SSL* | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |  |
| S01  | 7,835                                     | 1  | 290  |  |

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Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>        | <b>Decision Unit or Sample Location</b>          | <b>Depth Interval</b>   | <b>START XRF Lead Results (mg/kg) dry weight</b>          | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|--|---|---|---|
| <b>531 Ridgetop Road (APN: 001-012-33)</b> |  |   |   |   |
| ESS-101233-S01-0                           | S01  | 0 to 2 inches   | <b>1,500</b>  | <b>260</b>  |
| ESS-101233-S01-2                           | S01  | 2 to 6 inches   | <b>870</b>  | <b>140</b>  |
| ESS-101233-S01-6                           | S01  | 6 to 12 inches  | 270   | <b>81</b>   |
| <b>Decision Unit or Sample Location</b>    | <b>Square Feet of Arsenic and Lead Over SSL*</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |   |
| S01  | 8,120  | 1   | 301   |   |

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**Assessment**  
**Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number               | Decision Unit or Sample Location           | Depth Interval   | START XRF Lead Results (mg/kg) dry weight          | START XRF Arsenic Results (mg/kg) dry weight |
|--|--|--|--|--|
| <b>501 Ridgetop Road (APN: 001-012-36)</b> |  |  |  |  |
| ESS-101236-S01-0                           | S01  | 0 to 2 inches  | <b>660</b>   | <b>150</b>                                   |
| ESS-101236-S01-2                           | S01  | 2 to 6 inches  | <b>1,700</b>                                       | <b>330</b>                                   |
| ESS-101236-S01-6                           | S01  | 6 to 12 inches   | <b><u>3,000</u></b>                                | <b>570</b>                                   |
| Decision Unit or Sample Location           | Square Feet of Arsenic and Lead Over SSL * | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |  |
| S01  | 25,677                                     | 1  | 951  |  |

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\*\* Depth of arsenic and lead over the SSL are for a removal volume estimate which assumes the removal action level is 60 mg/kg for arsenic by XRF and 400 mg/kg for lead by XRF. Depth is based upon documented arsenic and lead concentrations over the SSL. Arsenic and lead concentrations over the SSL at 0 to 2 inches is considered contaminated to 0.5 feet. Arsenic and lead concentrations over the SSL at 2 inches or more is considered contaminated to 1 foot.

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**Table 3 Eureka Residential Property Sampling Data  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number                     | Decision Unit or Sample Location | Depth Interval | START XRF Lead Results (mg/kg) dry weight | START XRF Arsenic Results (mg/kg) dry weight |
|--|----------------------------------|----------------|---|--|
| <b>450 North O'Neil Avenue (APN: 001-032-05)</b> |                                  |                |   |  |
| ESS-103205-S01-0                                 | S01                              | 0 to 2 inches  | <b>1,200</b>                              | <b>180</b>                                   |
| ESS-103205-S01-2                                 | S01                              | 2 to 6 inches  | <b>1,300</b>                              | <b>240</b>                                   |
| ESS-103205-S01-6                                 | S01                              | 6 to 12 inches | <b>2,000</b>                              | <b>400</b>                                   |
| ESS-103205-S02-0                                 | S02                              | 0 to 2 inches  | <b>620</b>                                | <b>100</b>                                   |
| ESS-103205-S02-2                                 | S02                              | 2 to 6 inches  | <b>540</b>                                | <b>89</b>                                    |
| ESS-103205-S02-6                                 | S02                              | 6 to 12 inches | <b>630</b>                                | <b>110</b>                                   |

| Decision Unit or Sample Location | Square Feet of Arsenic and Lead Over SSL* | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |
|----------------------------------|---|--|--|
| S01                              | 5,652                                     | 1  | 209  |
| S02                              | 2,178                                     | 1  | 81   |

**Notes:**

mg/kg = milligrams per kilogram

START = Superfund Technical Assessment and Response Team

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**Table 3 Eureka Residential Property Sampling Data**  
**Eureka Smelter Sites**  
**Assessment**  
**Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number                 | Decision Unit or Sample Location          | Depth Interval   | START XRF Lead Results (mg/kg) dry weight          | START XRF Arsenic Results (mg/kg) dry weight |
|--|---|--|--|--|
| <b>120 Nob Hill Avenue (APN: 001-057-01)</b> |   |  |  |  |
| ESS-105701-S01-0                             | S01                                       | 0 to 2 inches  | <b>650</b>   | <b>70</b>                                    |
| ESS-105701-S01-2                             | S01                                       | 2 to 6 inches  | <b>450</b>   | <b>54</b>                                    |
| ESS-105701-S01-6                             | S01                                       | 6 to 12 inches   | <b>710</b>   | <b>97</b>                                    |
| ESS-105701-S02-0                             | S02                                       | 0 to 2 inches  | 170  | 19   |
| ESS-105701-S02-2                             | S02                                       | 2 to 6 inches  | <b>610</b>   | <b>84</b>                                    |
| ESS-105701-S02-6                             | S02                                       | 6 to 12 inches   | <b>1,800</b>                                       | <b>280</b>                                   |
| ESS-105701-S03-0                             | S03                                       | 0 to 2 inches  | 230  | 43   |
| ESS-105701-S03-2                             | S03                                       | 2 to 6 inches  | 380  | <b>59</b>                                    |
| ESS-105701-S03-6                             | S03                                       | 6 to 12 inches   | <b>560</b>   | <b>94</b>                                    |
| Decision Unit or Sample Location             | Square Feet of Arsenic and Lead Over SSL* | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |  |
| S01  | 1,815                                     | 1  | 67   |  |
| S02  | 1,171                                     | 1  | 43   |  |
| S03  | 2,061                                     | 1  | 76   |  |

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Ecology and Environment Inc. 2013



**Table 3 Eureka Residential Property Sampling Data  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>      | <b>Decision Unit or Sample Location</b>          | <b>Depth Interval</b>   | <b>START XRF Lead Results (mg/kg) dry weight</b>          | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|--|---|---|---|
| <b>355 Egan Street (APN: 001-063-05)</b> |  |   |   |   |
| ESS-106305-S01-0                         | S01  | 0 to 2 inches   | <b>1,300</b>  | <b>180</b>  |
| ESS-106305-S01-2                         | S01  | 2 to 6 inches   | <b>1,100</b>  | <b>160</b>  |
| ESS-106305-S01-6                         | S01  | 6 to 12 inches  | <b>960</b>  | <b>140</b>  |
| <b>Decision Unit or Sample Location</b>  | <b>Square Feet of Arsenic and Lead Over SSL*</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |   |
| S01                                      | 1,735  | 1   | 64  |   |

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**Table 3 Eureka Residential Property Sampling Data**  
**Eureka Smelter Sites**  
**Assessment**  
**Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number             | Decision Unit or Sample Location          | Depth Interval   | START XRF Lead Results (mg/kg) dry weight          | START XRF Arsenic Results (mg/kg) dry weight |
|--|---|--|--|--|
| <b>357 Egan Street (APN: 001-063-07)</b> |   |  |  |  |
| ESS-106307-S01-0                         | S01                                       | 0 to 2 inches  | 280  | <b>54</b>                                    |
| ESS-106307-S01-2                         | S01                                       | 2 to 6 inches  | <b>590</b>   | <b>88</b>                                    |
| ESS-106307-S01-6                         | S01                                       | 6 to 12 inches   | 355  | <b>57</b>                                    |
| ESS-106307-S02-0                         | S02                                       | 0 to 2 inches  | <b>890</b>   | <b>110</b>                                   |
| ESS-106307-S02-2                         | S02                                       | 2 to 6 inches  | <b>1500</b>  | <b>220</b>                                   |
| ESS-106307-S02-6                         | S02                                       | 6 to 12 inches   | <b>1400</b>  | <b>150</b>                                   |
| Decision Unit or Sample Location         | Square Feet of Arsenic and Lead Over SSL* | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |  |
| S01                                      | 1,327                                     | 1  | 49   |  |
| S02                                      | 1,116                                     | 1  | 41   |  |

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**Table 3 Eureka Residential Property Sampling Data  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number                   | Decision Unit or Sample Location | Depth Interval | START XRF Lead Results (mg/kg) dry weight | START XRF Arsenic Results (mg/kg) dry weight |
|--|----------------------------------|----------------|---|--|
| <b>541 West Clark Street (APN: 001-084-01)</b> |                                  |                |   |  |
| ESS-108401-S01-0                               | S01                              | 0 to 2 inches  | <b>1,000</b>                              | <b>100</b>                                   |
| ESS-108401-S01-2                               | S01                              | 2 to 6 inches  | <b>1,400</b>                              | <b>160</b>                                   |
| ESS-108401-S01-6                               | S01                              | 6 to 12 inches | <b>1,400</b>                              | <b>170</b>                                   |
| ESS-108401-S02-0                               | S02                              | 0 to 2 inches  | <b>810</b>                                | <b>110</b>                                   |
| ESS-108401-S02-2                               | S02                              | 2 to 6 inches  | <b>1,000</b>                              | <b>145</b>                                   |
| ESS-108401-S02-6                               | S02                              | 6 to 12 inches | <b>1,200</b>                              | <b>170</b>                                   |
| ESS-108401-S03-0                               | S03                              | 0 to 2 inches  | <b>530</b>                                | <b>73</b>                                    |
| ESS-108401-S03-2                               | S03                              | 2 to 6 inches  | <b>500</b>                                | <b>76</b>                                    |
| ESS-108401-S03-6                               | S03                              | 6 to 12 inches | <b>570</b>                                | <b>100</b>                                   |

| Decision Unit or Sample Location | Square Feet of Arsenic and Lead Over SSL* | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |
|----------------------------------|---|--|--|
| S01                              | 922                                       | 1  | 34   |
| S02                              | 1,368                                     | 1  | 51   |
| S03                              | 483                                       | 1  | 18   |

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**Table 3 Eureka Residential Property Sampling Data  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number                     | Decision Unit or Sample Location          | Depth Interval   | START XRF Lead Results (mg/kg) dry weight          | START XRF Arsenic Results (mg/kg) dry weight |
|--|---|--|--|--|
| <b>371 West Bateman Street (APN: 001-095-01)</b> |   |  |  |  |
| ESS-109501-S01-0                                 | S01                                       | 0 to 2 inches  | <b>1,100</b>                                       | <b>150</b>                                   |
| ESS-109501-S01-2                                 | S01                                       | 2 to 6 inches  | <b>1,300</b>                                       | <b>170</b>                                   |
| ESS-109501-S01-6                                 | S01                                       | 6 to 12 inches   | <b>1,400</b>                                       | <b>200</b>                                   |
| ESS-109501-S02-0                                 | S02                                       | 0 to 2 inches  | <b>820</b>   | <b>110</b>                                   |
| ESS-109501-S02-2                                 | S02                                       | 2 to 6 inches  | <b>1,300</b>                                       | <b>200</b>                                   |
| ESS-109501-S02-6                                 | S02                                       | 6 to 12 inches   | <b>960</b>   | <b>180</b>                                   |
| ESS-109501-S03-0                                 | S03                                       | 0 to 2 inches  | <b>960</b>   | <b>140</b>                                   |
| ESS-109501-S03-2                                 | S03                                       | 2 to 6 inches  | <b>1,300</b>                                       | <b>140</b>                                   |
| ESS-109501-S03-6                                 | S03                                       | 6 to 12 inches   | <b>1,400</b>                                       | <b>200</b>                                   |
| Decision Unit or Sample Location                 | Square Feet of Arsenic and Lead Over SSL* | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |  |
| S01  | 1,341                                     | 1  | 50   |  |
| S02  | 1,444                                     | 1  | 53   |  |
| S03  | 1,906                                     | 1  | 71   |  |

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Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number                  | Decision Unit or Sample Location          | Depth Interval   | START XRF Lead Results (mg/kg) dry weight          | START XRF Arsenic Results (mg/kg) dry weight |
|---|---|--|--|--|
| <b>61 North Paul Street (APN: 001-105-02)</b> |   |  |  |  |
| ESS-110502-S01-0                              | S01                                       | 0 to 2 inches  | <b>470</b>   | <b>65</b>                                    |
| ESS-110502-S01-2                              | S01                                       | 2 to 6 inches  | <b>1,500</b>                                       | <b>190</b>                                   |
| ESS-110502-S01-6                              | S01                                       | 6 to 12 inches   | <b>850</b>   | <b>110</b>                                   |
| Decision Unit or Sample Location              | Square Feet of Arsenic and Lead Over SSL* | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |  |
| S01   | 5,624                                     | 1  | 208  |  |

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Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number                  | Decision Unit or Sample Location          | Depth Interval   | START XRF Lead Results (mg/kg) dry weight          | START XRF Arsenic Results (mg/kg) dry weight |
|---|---|--|--|--|
| <b>410 Ruby Hill Avenue (APN: 001-113-04)</b> |   |  |  |  |
| ESS-111304-P1-0                               | P1  | 0 to 2 inches  | 150  | 36   |
| ESS-111304-P1-2                               | P1  | 2 to 6 inches  | 130  | 34   |
| ESS-111304-P1-6                               | P1  | 6 to 12 inches   | 130  | 29   |
| ESS-111304-P2-0                               | P2  | 0 to 2 inches  | 110  | 21   |
| ESS-111304-S01-0                              | S01                                       | 0 to 2 inches  | 72   | 20   |
| ESS-111304-S01-2                              | S01                                       | 2 to 6 inches  | 50   | 20   |
| ESS-111304-S01-6                              | S01                                       | 6 to 12 inches   | 47   | 18   |
| ESS-111304-S02-0                              | S02                                       | 0 to 2 inches  | 210  | 30   |
| ESS-111304-S02-2                              | S02                                       | 2 to 6 inches  | <b>430</b>   | <b>59</b>                                    |
| ESS-111304-S02-6                              | S02                                       | 6 to 12 inches   | <b>820</b>   | <b>120</b>                                   |
| Decision Unit or Sample Location              | Square Feet of Arsenic and Lead Over SSL* | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |  |
| P1  | NA  | 0  | 0  |  |
| P2  | NA  | 0  | 0  |  |
| S01   | 1,685                                     | 0  | 0  |  |
| S02   | 2,104                                     | 1  | 78   |  |

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Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number                  | Decision Unit or Sample Location | Depth Interval | START XRF Lead Results (mg/kg) dry weight | START XRF Arsenic Results (mg/kg) dry weight |
|---|----------------------------------|----------------|---|--|
| <b>620 Ruby Hill Avenue (APN: 001-113-17)</b> |                                  |                |   |  |
| ESS-111317-S01-0                              | S01                              | 0 to 2 inches  | 60  | 17   |
| ESS-111317-S01-2                              | S01                              | 2 to 6 inches  | 45  | 24   |
| ESS-111317-S01-6                              | S01                              | 6 to 12 inches | 220                                       | 45   |
| ESS-111317-S02-0                              | S02                              | 0 to 2 inches  | <b>450</b>                                | <b>58</b>                                    |
| ESS-111317-S02-2                              | S02                              | 2 to 6 inches  | <b>500</b>                                | <b>55</b>                                    |
| ESS-111317-S02-6                              | S02                              | 6 to 12 inches | 290                                       | <b>53</b>                                    |
| ESS-111317-S03-0                              | S03                              | 0 to 2 inches  | 210                                       | 41   |
| ESS-111317-S03-2                              | S03                              | 2 to 6 inches  | <b>560</b>                                | <b>93</b>                                    |
| No Sample                                     | S03                              | 6 to 12 inches | -   | -  |
| ESS-111317-S04-0                              | S04                              | 0 to 2 inches  | <b>700</b>                                | <b>110</b>                                   |
| ESS-111317-S04-2                              | S04                              | 2 to 6 inches  | <b>1,000</b>                              | <b>130</b>                                   |
| ESS-111317-S04-6                              | S04                              | 6 to 12 inches | <b><u>3,100</u></b>                       | <b>550</b>                                   |

| Decision Unit or Sample Location | Square Feet of Arsenic and Lead Over SSL * | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |
|----------------------------------|--|--|--|
| S01                              | 2,080                                      | 0  | 0  |
| S02                              | 2,122                                      | 1  | 79   |
| S03                              | 817  | 1  | 30   |
| S04                              | 2,555                                      | 1  | 95   |

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\*\* Depth of arsenic and lead over the SSL are for a removal volume estimate which assumes the removal action level is 60 mg/kg for arsenic by XRF and 400 mg/kg for lead by XRF. Depth is based upon documented arsenic and lead concentrations over the SSL. Arsenic and lead concentrations over the SSL at 0 to 2 inches is considered contaminated to 0.5 feet. arsenic and lead concentrations over the SSL at 2 inches or more is considered contaminated to 1 foot.

Ecology and Environment Inc. 2013

**Table 3 Eureka Residential Property Sampling Data**  
**Eureka Smelter Sites**  
**Assessment**  
**Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number                    | Decision Unit or Sample Location          | Depth Interval   | START XRF Lead Results (mg/kg) dry weight          | START XRF Arsenic Results (mg/kg) dry weight |
|---|---|--|--|--|
| <b>31 South Spring Street (APN: 001-131-05)</b> |   |  |  |  |
| ESS-113105-S01-0                                | S01                                       | 0 to 2 inches  | <b>1,150</b>                                       | <b>150</b>                                   |
| ESS-113105-S01-2                                | S01                                       | 2 to 6 inches  | <b>1,200</b>                                       | <b>180</b>                                   |
| ESS-113105-S01-6                                | S01                                       | 6 to 12 inches   | <b><i>4,100</i></b>                                | <b><i>610</i></b>                            |
| ESS-113105-S02-0                                | S02                                       | 0 to 2 inches  | <b>1,500</b>                                       | <b>220</b>                                   |
| ESS-113105-S02-2                                | S02                                       | 2 to 6 inches  | 360  | 55   |
| ESS-113105-S02-6                                | S02                                       | 6 to 12 inches   | <b>570</b>   | <b>83</b>                                    |
| ESS-113105-S03-0                                | S03                                       | 0 to 2 inches  | <b>1,900</b>                                       | <b>250</b>                                   |
| ESS-113105-S03-2                                | S03                                       | 2 to 6 inches  | <b>2,600</b>                                       | <b>330</b>                                   |
| ESS-113105-S03-6                                | S03                                       | 6 to 12 inches   | <b>2,200</b>                                       | <b>350</b>                                   |
| Decision Unit or Sample Location                | Square Feet of Arsenic and Lead Over SSL* | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |  |
| S01   | 814                                       | 1  | 30   |  |
| S02   | 800                                       | 1  | 30   |  |
| S03   | 717                                       | 1  | 27   |  |

**Notes:**

mg/kg = milligrams per kilogram

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XRF = X-Ray Fluorescence

APN = Assessor's Parcel Number

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Bold = Above the SSL

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**Table 3 Eureka Residential Property Sampling Data**  
**Eureka Smelter Sites**  
**Assessment**  
**Eureka, Eureka County, Nevada**

Project No. EE-002693-2177

TDD No. TO2-09-12-04-0002

| Sample Identification Number                     | Decision Unit or Sample Location | Depth Interval | START XRF Lead Results (mg/kg) dry weight | START XRF Arsenic Results (mg/kg) dry weight |
|--|----------------------------------|----------------|---|--|
| <b>551 South Spring Street (APN: 001-136-16)</b> |                                  |                |   |  |
| ESS-113616-S01-0                                 | S01                              | 0 to 2 inches  | <b>1,200</b>                              | <b>160</b>                                   |
| ESS-113616-S01-2                                 | S01                              | 2 to 6 inches  | <b>500</b>                                | <b>82</b>                                    |
| ESS-113616-S01-6                                 | S01                              | 6 to 12 inches | <b>1,500</b>                              | <b>240</b>                                   |
| ESS-113616-S02-0                                 | S02                              | 0 to 2 inches  | <b><u>16,000</u></b>                      | <b><u>3,400</u></b>                          |
| ESS-113616-S02-2                                 | S02                              | 2 to 6 inches  | 160                                       | 29   |
| ESS-113616-S02-6                                 | S02                              | 6 to 12 inches | <b>420</b>                                | <b>100</b>                                   |

| Decision Unit or Sample Location | Square Feet of Arsenic and Lead Over SSL* | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |
|----------------------------------|---|--|--|
| S01                              | 468                                       | 1  | 17   |
| S02                              | 530                                       | 1  | 20   |

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**Table 3 Eureka Residential Property Sampling Data**  
**Eureka Smelter Sites**  
**Assessment**  
**Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number                   | Decision Unit or Sample Location          | Depth Interval   | START XRF Lead Results (mg/kg) dry weight          | START XRF Arsenic Results (mg/kg) dry weight |
|--|---|--|--|--|
| <b>701 South Main Street (APN: 001-202-03)</b> |   |  |  |  |
| ESS-120203-P1-0                                | P1  | 0 to 2 inches  | <u><b>5,500</b></u>                                | <u><b>840</b></u>                            |
| ESS-120203-P1-2                                | P1  | 2 to 6 inches  | <u><b>2,200</b></u>                                | <u><b>290</b></u>                            |
| ESS-120203-P1-6                                | P1  | 6 to 12 inches   | <u><b>3,500</b></u>                                | <u><b>560</b></u>                            |
| ESS-120203-P2-0                                | P2  | 0 to 2 inches  | <u><b>9,300</b></u>                                | <u><b>1,700</b></u>                          |
| ESS-120203-P2-2                                | P2  | 2 to 6 inches  | <u><b>8,500</b></u>                                | <u><b>1,600</b></u>                          |
| ESS-120203-P2-6                                | P2  | 6 to 12 inches   | <u><b>3,700</b></u>                                | <u><b>680</b></u>                            |
| Decision Unit or Sample Location               | Square Feet of Arsenic and Lead Over SSL* | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |  |
| P01  | NA  | 1  | NA   |  |
| P02  | NA  | 1  | NA   |  |

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**Table 3 Eureka Residential Property Sampling Data  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>        | <b>Decision Unit or Sample Location</b> | <b>Depth Interval</b> | <b>START XRF Lead Results (mg/kg) dry weight</b> | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|---|-----------------------|--|---|
| <b>611 Ridgetop Road (APN: 001-211-02)</b> |   |                       |  |   |
| ESS-121102-S01-0                           | S01                                     | 0 to 2 inches         | 34   | 21  |
| ESS-121102-S01-2                           | S01                                     | 2 to 6 inches         | 39   | 21  |
| ESS-121102-S01-6                           | S01                                     | 6 to 12 inches        | 103  | 28  |
| ESS-121102-S02-0                           | S02                                     | 0 to 2 inches         | 34   | 16  |
| ESS-121102-S02-2                           | S02                                     | 2 to 6 inches         | 36   | 18  |
| ESS-121102-S02-6                           | S02                                     | 6 to 12 inches        | 32   | 19  |
| ESS-121102-S03-0                           | S03                                     | 0 to 2 inches         | 52   | 17  |
| ESS-121102-S03-2                           | S03                                     | 2 to 6 inches         | 43   | 21  |
| ESS-121102-S03-6                           | S03                                     | 6 to 12 inches        | 100  | 37  |

| <b>Decision Unit or Sample Location</b> | <b>Square Feet of Arsenic and Lead Over SSL*</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |
|---|--|---|---|
| S01                                     | 1,930  | 0   | 0   |
| S02                                     | 325  | 0   | 0   |
| S03                                     | 4,955  | 0   | 0   |

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**Table 3 Eureka Residential Property Sampling Data**  
**Eureka Smelter Sites**  
**Assessment**  
**Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number               | Decision Unit or Sample Location          | Depth Interval   | START XRF Lead Results (mg/kg) dry weight          | START XRF Arsenic Results (mg/kg) dry weight |
|--|---|--|--|--|
| <b>631 Ridgetop Road (APN: 001-211-04)</b> |   |  |  |  |
| ESS-121104-S01-0                           | S01                                       | 0 to 2 inches  | 42   | 24   |
| ESS-121104-S01-2                           | S01                                       | 2 to 6 inches  | 53   | 27   |
| ESS-121104-S01-6                           | S01                                       | 6 to 12 inches   | 46   | 31   |
| ESS-121104-S02-0                           | S02                                       | 0 to 2 inches  | 270  | <b>68</b>                                    |
| ESS-121104-S02-2                           | S02                                       | 2 to 6 inches  | 240  | <b>69</b>                                    |
| ESS-121104-S02-6                           | S02                                       | 6 to 12 inches   | 360  | <b>120</b>                                   |
| Decision Unit or Sample Location           | Square Feet of Arsenic and Lead Over SSL* | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |  |
| S01  | 3,413                                     | 0  | 0  |  |
| S02  | 2,993                                     | 1  | 111  |  |

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**Table 3 Eureka Residential Property Sampling Data**  
**Eureka Smelter Sites**  
**Assessment**  
**Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number                 | Decision Unit or Sample Location | Depth Interval | START XRF Lead Results (mg/kg) dry weight | START XRF Arsenic Results (mg/kg) dry weight |
|--|----------------------------------|----------------|---|--|
| <b>626 Sheridan Street (APN: 001-211-09)</b> |                                  |                |   |  |
| ESS-121109-S01-0                             | S01                              | 0 to 2 inches  | 89  | 26   |
| ESS-121109-S01-2                             | S01                              | 2 to 6 inches  | 96  | 29   |
| ESS-121109-S01-6                             | S01                              | 6 to 12 inches | 140                                       | 36   |
| ESS-121109-S02-0                             | S02                              | 0 to 2 inches  | 60  | 24   |
| ESS-121109-S02-2                             | S02                              | 2 to 6 inches  | 64  | 30   |
| ESS-121109-S02-6                             | S02                              | 6 to 12 inches | 73  | 22   |
| ESS-121109-S03-0                             | S03                              | 0 to 2 inches  | 55  | 28   |
| ESS-121109-S03-2                             | S03                              | 2 to 6 inches  | 75  | 29   |
| ESS-121109-S03-6                             | S03                              | 6 to 12 inches | 53  | 43   |

| Decision Unit or Sample Location | Square Feet of Arsenic and Lead Over SSL* | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |
|----------------------------------|---|--|--|
| S01                              | 545                                       | 0  | 0  |
| S02                              | 1,964                                     | 0  | 0  |
| S03                              | 2,347                                     | 0  | 0  |

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Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>        | <b>Decision Unit or Sample Location</b>          | <b>Depth Interval</b>   | <b>START XRF Lead Results (mg/kg) dry weight</b>          | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|--|---|---|---|
| <b>551 Ridgetop Road (APN: 001-012-31)</b> |  |   |   |   |
| ESS-101231-S01-0                           | S01  | 0 to 2 inches   | <b>410</b>  | <b>91</b>   |
| ESS-101231-S01-2                           | S01  | 2 to 6 inches   | <b>820</b>  | <b>280</b>  |
| ESS-101231-S01-6                           | S01  | 6 to 12 inches  | <b>750</b>  | <b>180</b>  |
| <b>Decision Unit or Sample Location</b>    | <b>Square Feet of Arsenic and Lead Over SSL*</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |   |
| S01  | 8,555  | 1   | 317   |   |

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**Eureka Smelter Sites**  
**Assessment**  
**Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>        | <b>Decision Unit or Sample Location</b>          | <b>Depth Interval</b>   | <b>START XRF Lead Results (mg/kg) dry weight</b>          | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|--|---|---|---|
| <b>521 Ridgetop Road (APN: 001-012-34)</b> |  |   |   |   |
| ESS-101234-S01-0                           | S01  | 0 to 2 inches   | <b>530</b>  | <b>93</b>   |
| ESS-101234-S01-2                           | S01  | 2 to 6 inches   | <b>420</b>  | <b>84</b>   |
| ESS-101234-S01-6                           | S01  | 6 to 12 inches  | 96  | <b>74</b>   |
| <b>Decision Unit or Sample Location</b>    | <b>Square Feet of Arsenic and Lead Over SSL*</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |   |
| S01  | 19,463   | 1   | 721   |   |

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Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number                     | Decision Unit or Sample Location | Depth Interval | START XRF Lead Results (mg/kg) dry weight | START XRF Arsenic Results (mg/kg) dry weight |
|--|----------------------------------|----------------|---|--|
| <b>470 North O'Neil Avenue (APN: 001-032-12)</b> |                                  |                |   |  |
| ESS-103212-S01-0                                 | S01                              | 0 to 2 inches  | <b>520</b>                                | <b>100</b>                                   |
| ESS-103212-S01-2                                 | S01                              | 2 to 6 inches  | 370                                       | <b>80</b>                                    |
| ESS-103212-S01-6                                 | S01                              | 6 to 12 inches | 230                                       | <b>78</b>                                    |

| Decision Unit or Sample Location | Square Feet of Arsenic and Lead Over SSL* | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |
|----------------------------------|---|--|--|
| S01                              | 5,464                                     | 1  | 202  |

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Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number                                | Decision Unit or Sample Location          | Depth Interval   | START XRF Lead Results (mg/kg) dry weight          | START XRF Arsenic Results (mg/kg) dry weight |
|---|---|--|--|--|
| <b>200 North Adams Street, North Unit (APN: 001-063-04)</b> |   |  |  |  |
| ESS-106304-S06-0  | S06                                       | 0 to 2 inches  | 330  | <b>56</b>                                    |
| ESS-106304-S06-2  | S06                                       | 2 to 6 inches  | 240  | 38   |
| ESS-106304-S07-0  | S07                                       | 0 to 2 inches  | 120  | 29   |
| ESS-106304-S07-2  | S07                                       | 2 to 6 inches  | 88   | 23   |
| Decision Unit or Sample Location                            | Square Feet of Arsenic and Lead Over SSL* | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |  |
| S06   | 3,127                                     | 0.5  | 58   |  |
| S07   | 3,498                                     | 0  | 0  |  |

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\* The square footage for grid sample locations of undeveloped properties are estimates based upon the square footage of the property divided by the number of sample locations.

\*\* Depth of arsenic and lead over the SSL are for a removal volume estimate which assumes the removal action level is 60 mg/kg for arsenic by XRF and 400 mg/kg for lead by XRF. Depth is based upon documented arsenic and lead concentrations over the SSL. Arsenic and lead concentrations over the SSL at 0 to 2 inches is considered contaminated to 0.5 feet. arsenic and lead concentrations over the SSL at 2 inches or more is considered contaminated to 1 foot.

Ecology and Environment Inc. 2013

**Table 3 Eureka Residential Property Sampling Data**  
**Eureka Smelter Sites**  
**Assessment**  
**Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number                   | Decision Unit or Sample Location          | Depth Interval   | START XRF Lead Results (mg/kg) dry weight          | START XRF Arsenic Results (mg/kg) dry weight |
|--|---|--|--|--|
| <b>151 North Main Street (APN: 001-071-06)</b> |   |  |  |  |
| ESS-107106-S01-0                               | S01                                       | 0 to 2 inches  | 180  | 50   |
| ESS-107106-S01-2                               | S01                                       | 2 to 6 inches  | 970  | 120  |
| ESS-107106-S01-6                               | S01                                       | 6 to 12 inches   | 2,200  | 340  |
| ESS-107106-S02-0                               | S02                                       | 0 to 2 inches  | 1,200  | 150  |
| ESS-107106-S02-2                               | S02                                       | 2 to 6 inches  | 1,700  | 200  |
| ESS-107106-S02-6                               | S02                                       | 6 to 12 inches   | 1,000  | 120  |
| ESS-107106-S03-0                               | S03                                       | 0 to 2 inches  | 670  | 84   |
| ESS-107106-S03-2                               | S03                                       | 2 to 6 inches  | 3,100  | 350  |
| ESS-107106-S03-6                               | S03                                       | 6 to 12 inches   | 2,400  | 260  |
| Decision Unit or Sample Location               | Square Feet of Arsenic and Lead Over SSL* | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |  |
| S01  | 1,973                                     | 1  | 73   |  |
| S02  | 5,098                                     | 1  | 189  |  |
| S03  | 7,652                                     | 1  | 283  |  |

**Notes:**

mg/kg = milligrams per kilogram

START = Superfund Technical Assessment and Response Team

XRF = X-Ray Fluorescence

APN = Assessor's Parcel Number

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Bold, underlined and italics = Above 600 mg/kg for arsenic by XRF and 3,000 mg/kg for lead

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Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>         | <b>Decision Unit or Sample Location</b>          | <b>Depth Interval</b>   | <b>START XRF Lead Results (mg/kg) dry weight</b>          | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|---|--|---|---|---|
| <b>50 Nob Hill Avenue (APN: 001-087-05)</b> |  |   |   |   |
| ESS-108705-S01-0                            | S01  | 0 to 2 inches   | <b>430</b>  | <b>55</b>   |
| ESS-108705-S01-2                            | S01  | 2 to 6 inches   | <b>440</b>  | <b>78</b>   |
| ESS-108705-S01-6                            | S01  | 6 to 12 inches  | 310   | 41  |
| <b>Decision Unit or Sample Location</b>     | <b>Square Feet of Arsenic and Lead Over SSL*</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |   |
| S01   | 7,749  | 1   | 287   |   |

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Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number                     | Decision Unit or Sample Location | Depth Interval | START XRF Lead Results (mg/kg) dry weight | START XRF Arsenic Results (mg/kg) dry weight |
|--|----------------------------------|----------------|---|--|
| <b>380 South O'Neil Avenue (APN: 001-116-04)</b> |                                  |                |   |  |
| ESS-111604-S01-0                                 | S01                              | 0 to 2 inches  | 320                                       | <b>77</b>                                    |
| ESS-111604-S01-2                                 | S01                              | 2 to 6 inches  | <b>1,600</b>                              | <b>220</b>                                   |
| ESS-111604-S01-6                                 | S01                              | 6 to 12 inches | <b>990</b>                                | <b>190</b>                                   |
| ESS-111604-S02-0                                 | S02                              | 0 to 2 inches  | <b>580</b>                                | <b>85</b>                                    |
| ESS-111604-S02-2                                 | S02                              | 2 to 6 inches  | <b>960</b>                                | <b>140</b>                                   |
| ESS-111604-S02-6                                 | S02                              | 6 to 12 inches | <b>1,700</b>                              | <b>250</b>                                   |

| Decision Unit or Sample Location | Square Feet of Arsenic and Lead Over SSL* | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |
|----------------------------------|---|--|--|
| S01                              | 872                                       | 1  | 32   |
| S02                              | 2,875                                     | 1  | 106  |

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Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>         | <b>Decision Unit or Sample Location</b>          | <b>Depth Interval</b>   | <b>START XRF Lead Results (mg/kg) dry weight</b>          | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|---|--|---|---|---|
| <b>60 Railroad Street (APN: 001-086-03)</b> |  |   |   |   |
| ESS-108603-S01-0                            | S01  | 0 to 2 inches   | <b>670</b>  | <b>69</b>   |
| ESS-108603-S01-2                            | S01  | 2 to 6 inches   | <b>800</b>  | <b>85</b>   |
| ESS-108603-S01-6                            | S01  | 6 to 12 inches  | <b>570</b>  | <b>80</b>   |
| ESS-108603-S02-0                            | S02  | 0 to 2 inches   | <b>900</b>  | <b>75</b>   |
| ESS-108603-S02-2                            | S02  | 2 to 6 inches   | <b>610</b>  | <b>83</b>   |
| ESS-108603-S02-6                            | S02  | 6 to 12 inches  | <b>850</b>  | <b>130</b>  |
| ESS-108603-S03-0                            | S03  | 0 to 2 inches   | <b>470</b>  | <b>55</b>   |
| ESS-108603-S03-2                            | S03  | 2 to 6 inches   | 380   | <b>50</b>   |
| ESS-108603-S03-6                            | S03  | 6 to 12 inches  | <b>540</b>  | <b>120</b>  |
| <b>Decision Unit or Sample Location</b>     | <b>Square Feet of Arsenic and Lead Over SSL*</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |   |
| S01   | 1,925  | 1   | 71  |   |
| S02   | 1,506  | 1   | 56  |   |
| S03   | 2,426  | 1   | 90  |   |

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Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number                     | Decision Unit or Sample Location          | Depth Interval   | START XRF Lead Results (mg/kg) dry weight          | START XRF Arsenic Results (mg/kg) dry weight |
|--|---|--|--|--|
| <b>351 West Bateman Street (APN: 001-095-02)</b> |   |  |  |  |
| ESS-109502-S01-0                                 | S01                                       | 0 to 2 inches  | <b>660</b>   | <b>120</b>                                   |
| ESS-109502-S01-2                                 | S01                                       | 2 to 6 inches  | 300  | <b>70</b>                                    |
| ESS-109502-S01-6                                 | S01                                       | 6 to 12 inches   | <b>2,200</b>                                       | <b>370</b>                                   |
| ESS-109502-S02-0                                 | S02                                       | 0 to 2 inches  | <b>550</b>   | <b>74</b>                                    |
| ESS-109502-S02-2                                 | S02                                       | 2 to 6 inches  | <b>410</b>   | <b>47</b>                                    |
| ESS-109502-S02-6                                 | S02                                       | 6 to 12 inches   | <b>710</b>   | <b>83</b>                                    |
| ESS-109502-S03-0                                 | S03                                       | 0 to 2 inches  | 190  | <b>50</b>                                    |
| ESS-109502-S03-2                                 | S03                                       | 2 to 6 inches  | 110  | <b>48</b>                                    |
| ESS-109502-S03-6                                 | S03                                       | 6 to 12 inches   | 120  | <b>51</b>                                    |
| Decision Unit or Sample Location                 | Square Feet of Arsenic and Lead Over SSL* | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |  |
| S01  | 1,500                                     | 1  | 56   |  |
| S02  | 2,745                                     | 1  | 102  |  |
| S03  | 6,267                                     | 1  | 232  |  |

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Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>              | <b>Decision Unit or Sample Location</b>          | <b>Depth Interval</b>   | <b>START XRF Lead Results (mg/kg) dry weight</b>          | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|--|---|---|---|
| <b>101 South Spring Street (APN: 001-136-01)</b> |  |   |   |   |
| ESS-113601-S01-0                                 | S01  | 0 to 2 inches   | 220   | <b>64</b>   |
| ESS-113601-S01-2                                 | S01  | 2 to 6 inches   | <b>620</b>  | <b>96</b>   |
| ESS-113601-S01-6                                 | S01  | 6 to 12 inches  | <b>790</b>  | <b>110</b>  |
| <b>Decision Unit or Sample Location</b>          | <b>Square Feet of Arsenic and Lead Over SSL*</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |   |
| S01  | 5,179  | 1   | 192   |   |

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Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number                      | Decision Unit or Sample Location          | Depth Interval   | START XRF Lead Results (mg/kg) dry weight          | START XRF Arsenic Results (mg/kg) dry weight |
|---|---|--|--|--|
| <b>380 South Edwards Street (APN: 001-117-03)</b> |   |  |  |  |
| ESS-111703-S01-0                                  | S01                                       | 0 to 2 inches  | <b>1,600</b>                                       | <b>200</b>                                   |
| ESS-111703-S01-2                                  | S01                                       | 2 to 6 inches  | <b>4,800</b>                                       | <b>760</b>                                   |
| ESS-111703-S01-6                                  | S01                                       | 6 to 12 inches   | <b>2,900</b>                                       | <b>430</b>                                   |
| ESS-111703-S02-0                                  | S02                                       | 0 to 2 inches  | <b>2,800</b>                                       | <b>390</b>                                   |
| ESS-111703-S02-2                                  | S02                                       | 2 to 6 inches  | <b>800</b>   | <b>130</b>                                   |
| ESS-111703-S02-6                                  | S02                                       | 6 to 12 inches   | <b>520</b>   | <b>100</b>                                   |
| ESS-111703-S03-0                                  | S03                                       | 0 to 2 inches  | <b>2,200</b>                                       | <b>350</b>                                   |
| ESS-111703-S03-2                                  | S03                                       | 2 to 6 inches  | <b>4,800</b>                                       | <b>710</b>                                   |
| ESS-111703-S03-6                                  | S03                                       | 6 to 12 inches   | <b>2,600</b>                                       | <b>360</b>                                   |
| Decision Unit or Sample Location                  | Square Feet of Arsenic and Lead Over SSL* | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |  |
| S01   | 2,278                                     | 1  | 84   |  |
| S02   | 1,482                                     | 1  | 55   |  |
| S03   | 1,329                                     | 1  | 49   |  |

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\* The square footage for grid sample locations of undeveloped properties are estimates based upon the square footage of the property divided by the number of sample locations.

\*\* Depth of contamination for a removal estimate assuming the removal action level is 60 mg/kg for arsenic by XRF and 400 mg/kg for lead by XRF. Depth is based upon documented contamination.

Contamination at 0 to 2 inches is considered contaminated to 0.5 feet. Contamination at 2 inches or more is considered contaminated to 1 foot.

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Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>              | <b>Decision Unit or Sample Location</b>          | <b>Depth Interval</b>   | <b>START XRF Lead Results (mg/kg) dry weight</b>          | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|--|---|---|---|
| <b>201 South Spring Street (APN: 001-136-05)</b> |  |   |   |   |
| ESS-113605-S01-0                                 | S01  | 0 to 2 inches   | <b>1,300</b>  | <b>140</b>  |
| ESS-113605-S01-2                                 | S01  | 2 to 6 inches   | <b>2,000</b>  | <b>240</b>  |
| ESS-113605-S01-6                                 | S01  | 6 to 12 inches  | <b>2,100</b>  | <b>280</b>  |
| ESS-113605-S02-0                                 | S02  | 0 to 2 inches   | <b>920</b>  | <b>140</b>  |
| ESS-113605-S02-2                                 | S02  | 2 to 6 inches   | <b>1,800</b>  | <b>250</b>  |
| ESS-113605-S02-6                                 | S02  | 6 to 12 inches  | <b>2,400</b>  | <b>260</b>  |
| ESS-113605-S03-0                                 | S03  | 0 to 2 inches   | <b>1,600</b>  | <b>210</b>  |
| ESS-113605-S03-2                                 | S03  | 2 to 6 inches   | <b>2,200</b>  | <b>300</b>  |
| ESS-113605-S03-6                                 | S03  | 6 to 12 inches  | <b>2,500</b>  | <b>430</b>  |
| ESS-113605-S04-0                                 | S04  | 0 to 2 inches   | <b>2,300</b>  | <b>320</b>  |
| ESS-113605-S04-2                                 | S04  | 2 to 6 inches   | <b>2,900</b>  | <b>450</b>  |
| ESS-113605-S04-6                                 | S04  | 6 to 12 inches  | <b>2,100</b>  | <b>400</b>  |
| <b>Decision Unit or Sample Location</b>          | <b>Square Feet of Arsenic and Lead Over SSL*</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |   |
| S01  | 429  | 1   | 16  |   |
| S02  | 1,896  | 1   | 70  |   |
| S03  | 4,969  | 1   | 184   |   |
| S04  | 796  | 1   | 29  |   |

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Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number                  | Decision Unit or Sample Location          | Depth Interval   | START XRF Lead Results (mg/kg) dry weight          | START XRF Arsenic Results (mg/kg) dry weight |
|---|---|--|--|--|
| <b>501 Ruby Hill Avenue (APN: 001-151-01)</b> |   |  |  |  |
| ESS-115101-S01-0                              | S01                                       | 0 to 2 inches  | 350  | 52   |
| ESS-115101-S01-2                              | S01                                       | 2 to 6 inches  | 400  | 45   |
| ESS-115101-S01-6                              | S01                                       | 6 to 12 inches   | 910  | 100  |
| ESS-115101-S02-0                              | S02                                       | 0 to 2 inches  | 780  | 90   |
| ESS-115101-S02-2                              | S02                                       | 2 to 6 inches  | 660  | 73   |
| ESS-115101-S02-6                              | S02                                       | 6 to 12 inches   | 530  | 48   |
| ESS-115101-S03-0                              | S03                                       | 0 to 2 inches  | 1,100  | 110  |
| ESS-115101-S03-2                              | S03                                       | 2 to 6 inches  | 740  | 98   |
| ESS-115101-S03-6                              | S03                                       | 6 to 12 inches   | 490  | 89   |
| Decision Unit or Sample Location              | Square Feet of Arsenic and Lead Over SSL* | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |  |
| S01   | 4,114                                     | 1  | 152  |  |
| S02   | 4,056                                     | 1  | 150  |  |
| S03   | 5,921                                     | 1  | 219  |  |

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NA = Sample was not analyzed or the size of the area associated with the locations is not known.

Bold = Above the SSL

Bold, underlined and italics = Above 600 mg/kg for arsenic by XRF and 3,000 mg/kg for lead

\* The square footage for grid sample locations of undeveloped properties are estimates based upon the square footage of the property divided by the number of sample locations.

\*\* Depth of arsenic and lead over the SSL are for a removal volume estimate which assumes the removal action level is 60 mg/kg for arsenic by XRF and 400 mg/kg for lead by XRF. Depth is based upon documented arsenic and lead concentrations over the SSL. Arsenic and lead concentrations over the SSL at 0 to 2 inches is considered contaminated to 0.5 feet. Arsenic and lead concentrations over the SSL at 2 inches or more is considered contaminated to 1 foot.

Ecology and Environment Inc. 2013



**Table 3 Eureka Residential Property Sampling Data  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number                   | Decision Unit or Sample Location          | Depth Interval   | START XRF Lead Results (mg/kg) dry weight          | START XRF Arsenic Results (mg/kg) dry weight |
|--|---|--|--|--|
| <b>491 South Main Street (APN: 001-165-05)</b> |   |  |  |  |
| ESS-116505-S01-0                               | S01                                       | 0 to 2 inches  | 340  | 63   |
| ESS-116505-S01-2                               | S01                                       | 2 to 6 inches  | <b>1,700</b>                                       | <b>280</b>                                   |
| ESS-116505-S01-6                               | S01                                       | 6 to 12 inches   | <b><u>3,000</u></b>                                | <b>520</b>                                   |
| ESS-116505-S02-0                               | S02                                       | 0 to 2 inches  | <b>580</b>   | <b>110</b>                                   |
| ESS-116505-S02-2                               | S02                                       | 2 to 6 inches  | <b>870</b>   | <b>140</b>                                   |
| ESS-116505-S02-6                               | S02                                       | 6 to 12 inches   | <b><u>20,500</u></b>                               | <b><u>3,900</u></b>                          |
| Decision Unit or Sample Location               | Square Feet of Arsenic and Lead Over SSL* | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |  |
| S01  | 703                                       | 1  | 26   |  |
| S02  | 3,301                                     | 1  | 122  |  |

**Notes:**

mg/kg = milligrams per kilogram

START = Superfund Technical Assessment and Response Team

XRF = X-Ray Fluorescence

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Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>        | <b>Decision Unit or Sample Location</b>           | <b>Depth Interval</b>   | <b>START XRF Lead Results (mg/kg) dry weight</b>          | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|---|---|---|---|
| <b>601 Ridgetop Road (APN: 001-211-01)</b> |   |   |   |   |
| ESS-121101-S01-0                           | S01   | 0 to 2 inches   | 114   | 38  |
| ESS-121101-S01-2                           | S01   | 2 to 6 inches   | 95  | <b>47</b>   |
| ESS-121101-S01-6                           | S01   | 6 to 12 inches  | 51  | 31  |
| ESS-121101-S02-0                           | S02   | 0 to 2 inches   | 63  | 28  |
| ESS-121101-S02-2                           | S02   | 2 to 6 inches   | 61  | 24  |
| ESS-121101-S02-6                           | S02   | 6 to 12 inches  | 24  | 20  |
| <b>Decision Unit or Sample Location</b>    | <b>Square Feet of Arsenic and Lead Over SSL *</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |   |
| S01  | 3,228   | 1   | 120   |   |
| S02  | 4,943   | 0   | 0   |   |

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**Table 3 Eureka Residential Property Sampling Data**  
**Eureka Smelter Sites**  
**Assessment**  
**Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number               | Decision Unit or Sample Location | Depth Interval | START XRF Lead Results (mg/kg) dry weight | START XRF Arsenic Results (mg/kg) dry weight |
|--|----------------------------------|----------------|---|--|
| <b>621 Ridgetop Road (APN: 001-211-03)</b> |                                  |                |   |  |
| ESS-121103-S01-0                           | S01                              | 0 to 2 inches  | 110                                       | 31   |
| ESS-121103-S01-2                           | S01                              | 2 to 6 inches  | 190                                       | 39   |
| ESS-121103-S01-6                           | S01                              | 6 to 12 inches | 220                                       | <b>54</b>                                    |
| ESS-121103-S02-0                           | S02                              | 0 to 2 inches  | 38  | 17   |
| ESS-121103-S02-2                           | S01                              | 2 to 6 inches  | 41  | 23   |
| ESS-121103-S02-6                           | S02                              | 6 to 12 inches | 105                                       | 39   |
| ESS-121103-S03-0                           | S03                              | 0 to 2 inches  | 66  | 20   |
| ESS-121103-S03-2                           | S03                              | 2 to 6 inches  | 76  | 37   |
| ESS-121103-S03-6                           | S03                              | 6 to 12 inches | 260                                       | <b>82</b>                                    |

| Decision Unit or Sample Location | Square Feet of Arsenic and Lead Over SSL * | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |
|----------------------------------|--|--|--|
| S01                              | 2,023                                      | 1  | 75   |
| S02                              | 867  | 0  | 0  |
| S03                              | 3,295                                      | 1  | 122  |

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**Eureka Smelter Sites**  
**Assessment**  
**Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number                 | Decision Unit or Sample Location           | Depth Interval   | START XRF Lead Results (mg/kg) dry weight          | START XRF Arsenic Results (mg/kg) dry weight |
|--|--|--|--|--|
| <b>631 Sheridan Street (APN: 001-212-10)</b> |  |  |  |  |
| ESS-121210-S01-0                             | S01  | 0 to 2 inches  | 56   | 25   |
| ESS-121210-S01-2                             | S01  | 2 to 6 inches  | 83   | 26   |
| ESS-121210-S01-6                             | S01  | 6 to 12 inches   | 120  | 33   |
| ESS-121210-S02-0                             | S02  | 0 to 2 inches  | 30   | 25   |
| ESS-121210-S02-2                             | S02  | 2 to 6 inches  | 31   | 22   |
| ESS-121210-S02-6                             | S02  | 6 to 12 inches   | 56   | 28   |
| Decision Unit or Sample Location             | Square Feet of Arsenic and Lead Over SSL * | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |  |
| S01  | 729  | 0  | 0  |  |
| S02  | 1,461                                      | 0  | 0  |  |

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\* The square footage for grid sample locations of undeveloped properties are estimates based upon the square footage of the property divided by the number of sample locations.

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Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number                 | Decision Unit or Sample Location | Depth Interval | START XRF Lead Results (mg/kg) dry weight | START XRF Arsenic Results (mg/kg) dry weight |
|--|----------------------------------|----------------|---|--|
| <b>621 Sheridan Street (APN: 001-212-08)</b> |                                  |                |   |  |
| ESS-121208-P1-0                              | P1                               | 0 to 2 inches  | 33  | 22   |
| ESS-121208-P1-2                              | P1                               | 2 to 6 inches  | 42  | 17   |
| ESS-121208-P1-6                              | P1                               | 6 to 12 inches | <b>410</b>                                | <b>145</b>                                   |
| ESS-121208-S01-0                             | S01                              | 0 to 2 inches  | 73  | 23   |
| ESS-121208-S01-2                             | S01                              | 2 to 6 inches  | 84  | 30   |
| ESS-121208-S01-6                             | S01                              | 6 to 12 inches | 180                                       | <b>49</b>                                    |
| ESS-121208-S02-0                             | S02                              | 0 to 2 inches  | 45  | 18   |
| ESS-121208-S02-2                             | S02                              | 2 to 6 inches  | 56  | 25   |
| ESS-121208-S02-6                             | S02                              | 6 to 12 inches | 30  | 21   |

| Decision Unit or Sample Location | Square Feet of Arsenic and Lead Over SSL* | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |
|----------------------------------|---|--|--|
| P1                               | NA  | 1  | NA   |
| S01                              | 743                                       | 1  | 28   |
| S02                              | 1,271                                     | 0  | 0  |

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\*\* Depth of arsenic and lead over the SSL are for a removal volume estimate which assumes the removal action level is 60 mg/kg for arsenic by XRF and 400 mg/kg for lead by XRF. Depth is based upon documented arsenic and lead concentrations over the SSL. Arsenic and lead concentrations over the SSL at 0 to 2 inches is considered contaminated to 0.5 feet. Arsenic and lead concentrations over the SSL at 2 inches or more is considered contaminated to 1 foot.

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Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number               | Decision Unit or Sample Location | Depth Interval | START XRF Lead Results (mg/kg) dry weight | START XRF Arsenic Results (mg/kg) dry weight |
|--|----------------------------------|----------------|---|--|
| <b>541 Ridgetop Road (APN: 001-012-32)</b> |                                  |                |   |  |
| ESS-101232-S01-0                           | S01                              | 0 to 2 inches  | 360                                       | <b>98</b>                                    |
| ESS-101232-S01-2                           | S01                              | 2 to 6 inches  | 250                                       | <b>99</b>                                    |
| ESS-101232-S01-6                           | S01                              | 6 to 12 inches | 180                                       | <b>55</b>                                    |

| Decision Unit or Sample Location | Square Feet of Arsenic and Lead Over SSL* | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |
|----------------------------------|---|--|--|
| S01                              | <b>7,277</b>                              | <b>1</b>   | <b>270</b>   |

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\* The square footage for grid sample locations of undeveloped properties are estimates based upon the square footage of the property divided by the number of sample locations.

\*\* Depth of contamination for a removal estimate assuming the removal action level is 60 mg/kg for arsenic by XRF and 400 mg/kg for lead by XRF. Depth is based upon documented contamination.

Contamination at 0 to 2 inches is considered contaminated to 0.5 feet. Contamination at 2 inches or more is considered contaminated to 1 foot.

Ecology and Environment Inc. 2013



**Table 3 Eureka Residential Property Sampling Data**  
**Eureka Smelter Sites**  
**Assessment**  
**Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number               | Decision Unit or Sample Location          | Depth Interval   | START XRF Lead Results (mg/kg) dry weight          | START XRF Arsenic Results (mg/kg) dry weight |
|--|---|--|--|--|
| <b>511 Ridgetop Road (APN: 001-012-35)</b> |   |  |  |  |
| ESS-101235-S01-0                           | S01                                       | 0 to 2 inches  | <b>700</b>   | <b>130</b>                                   |
| ESS-101235-S01-2                           | S01                                       | 2 to 6 inches  | <b>620</b>   | <b>150</b>                                   |
| ESS-101235-S01-6                           | S01                                       | 6 to 12 inches   | <b>520</b>   | <b>110</b>                                   |
| Decision Unit or Sample Location           | Square Feet of Arsenic and Lead Over SSL* | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |  |
| S01  | 17,280                                    | 1  | 640  |  |

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**Eureka Smelter Sites**  
**Assessment**  
**Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number                   | Decision Unit or Sample Location          | Depth Interval   | START XRF Lead Results (mg/kg) dry weight          | START XRF Arsenic Results (mg/kg) dry weight |
|--|---|--|--|--|
| <b>470 Wittenburg Street (APN: 001-038-04)</b> |   |  |  |  |
| ESS-103804-S01-0                               | S01                                       | 0 to 2 inches  | <b>1,000</b>                                       | <b>170</b>                                   |
| ESS-103804-S01-2                               | S01                                       | 2 to 6 inches  | <b>800</b>   | <b>32</b>                                    |
| ESS-103804-S01-6                               | S01                                       | 6 to 12 inches   | <b>680</b>   | <b>120</b>                                   |
| Decision Unit or Sample Location               | Square Feet of Arsenic and Lead Over SSL* | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |  |
| S01  | 2,481                                     | 1  | 92   |  |

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| Sample Identification Number                                | Decision Unit or Sample Location          | Depth Interval   | START XRF Lead Results (mg/kg) dry weight          | START XRF Arsenic Results (mg/kg) dry weight |
|---|---|--|--|--|
| <b>200 North Adams Street, South Unit (APN: 001-063-04)</b> |   |  |  |  |
| ESS-106304-S08-0  | S08                                       | 0 to 2 inches  | 230  | 37   |
| ESS-106304-S08-2  | S08                                       | 2 to 6 inches  | 92   | 17   |
| ESS-106304-S08-6  | S08                                       | 6 to 12 inches   | 120  | 33   |
| ESS-106304-S09-0  | S09                                       | 0 to 2 inches  | 250  | <b>71</b>                                    |
| ESS-106304-S09-2  | S09                                       | 2 to 6 inches  | 210  | 40   |
| ESS-106304-S09-6  | S09                                       | 6 to 12 inches   | <b>1,000</b>                                       | <b>190</b>                                   |
| Decision Unit or Sample Location                            | Square Feet of Arsenic and Lead Over SSL* | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |  |
| S08   | 2,819                                     | 0  | 0  |  |
| S09   | 3,937                                     | 1  | 146  |  |

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| Sample Identification Number             | Decision Unit or Sample Location | Depth Interval | START XRF Lead Results (mg/kg) dry weight | START XRF Arsenic Results (mg/kg) dry weight |
|--|----------------------------------|----------------|---|--|
| <b>100 SmithStreet (APN: 001-081-05)</b> |                                  |                |   |  |
| ESS-108105-S01-0                         | S01                              | 0 to 2 inches  | <b>590</b>                                | <b>67</b>                                    |
| ESS-108105-S01-2                         | S01                              | 2 to 6 inches  | 350                                       | <b>62</b>                                    |
| ESS-108105-S01-6                         | S01                              | 6 to 12 inches | 180                                       | 33   |
| ESS-108105-S02-0                         | S02                              | 0 to 2 inches  | 94  | 21   |
| ESS-108105-S02-2                         | S02                              | 2 to 6 inches  | 86  | 18   |
| ESS-108105-S02-6                         | S02                              | 6 to 12 inches | 120                                       | 30   |
| ESS-108105-S03-0                         | S03                              | 0 to 2 inches  | 260                                       | 38   |
| ESS-108105-S03-2                         | S03                              | 2 to 6 inches  | 240                                       | 31   |
| ESS-108105-S03-6                         | S03                              | 6 to 12 inches | 220                                       | 32   |

| Decision Unit or Sample Location | Square Feet of Arsenic and Lead Over SSL * | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |
|----------------------------------|--|--|--|
| S01                              | 7,614                                      | 1  | 282  |
| S02                              | 3,228                                      | 0  | 0  |
| S03                              | 5,117                                      | 0  | 0  |

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**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number            | Decision Unit or Sample Location          | Depth Interval   | START XRF Lead Results (mg/kg) dry weight          | START XRF Arsenic Results (mg/kg) dry weight |
|---|---|--|--|--|
| <b>21 North Adams (APN: 001-094-05)</b> |   |  |  |  |
| ESS-109405-P1-0                         | P1  | 0 to 2 inches  | 280  | 44   |
| ESS-109405-P1-2                         | P1  | 2 to 6 inches  | <b>1,200</b>                                       | <b>83</b>                                    |
| ESS-109405-P1-6                         | P1  | 6 to 12 inches   | <b>2,400</b>                                       | <b>310</b>                                   |
| Decision Unit or Sample Location        | Square Feet of Arsenic and Lead Over SSL* | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |  |
| P1                                      | NA  | 1  | NA   |  |

**Notes:**

mg/kg = milligrams per kilogram

START = Superfund Technical Assessment and Response Team

XRF = X-Ray Fluorescence

APN = Assessor's Parcel Number

SSL = Site Screening Level; the SSL for arsenic by XRF is 60 mg/kg and for lead by XRF is 400 mg/kg

NA = Sample was not analyzed or the size of the area associated with the locations is not known.

Bold = Above the SSL

Bold, underlined and italics = Above 600 mg/kg for arsenic by XRF and 3,000 mg/kg for lead

\* The square footage for grid sample locations of undeveloped properties are estimates based upon the square footage of the property divided by the number of sample locations.

\*\* Depth of arsenic and lead over the SSL are for a removal volume estimate which assumes the removal action level is 60 mg/kg for arsenic by XRF and 400 mg/kg for lead by XRF. Depth is based upon documented arsenic and lead concentrations over the SSL. Arsenic and lead concentrations over the SSL at 0 to 2 inches is considered contaminated to 0.5 feet. arsenic and lead concentrations over the SSL at 2 inches or more is considered contaminated to 1 foot.

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**Table 3 Eureka Residential Property Sampling Data**  
**Eureka Smelter Sites**  
**Assessment**  
**Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>             | <b>Decision Unit or Sample Location</b>          | <b>Depth Interval</b>   | <b>START XRF Lead Results (mg/kg) dry weight</b>          | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|---|--|---|---|---|
| <b>81 South Spring Street (APN: 001-131-04)</b> |  |   |   |   |
| ESS-113104-S01-0                                | S01  | 0 to 2 inches   | <b>1,900</b>  | <b>300</b>  |
| ESS-113104-S01-2                                | S01  | 2 to 6 inches   | <b>1,700</b>  | <b>250</b>  |
| ESS-113104-S01-6                                | S01  | 6 to 12 inches  | <b>2,500</b>  | <b>390</b>  |
| ESS-113104-S02-0                                | S02  | 0 to 2 inches   | <b>2,100</b>  | <b>300</b>  |
| ESS-113104-S02-2                                | S02  | 2 to 6 inches   | <b>730</b>  | <b>140</b>  |
| ESS-113104-S02-6                                | S02  | 6 to 12 inches  | <b>1,200</b>  | <b>210</b>  |
| <b>Decision Unit or Sample Location</b>         | <b>Square Feet of Arsenic and Lead Over SSL*</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |   |
| S01   | 2,920  | 1   | 108   |   |
| S02   | 4,783  | 1   | 177   |   |

**Notes:**

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**Table 3 Eureka Residential Property Sampling Data**  
**Eureka Smelter Sites**  
**Assessment**  
**Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number                    | Decision Unit or Sample Location          | Depth Interval   | START XRF Lead Results (mg/kg) dry weight          | START XRF Arsenic Results (mg/kg) dry weight |
|---|---|--|--|--|
| <b>80 North O'Neil Avenue (APN: 001-091-07)</b> |   |  |  |  |
| ESS-109107-S01-0                                | S01                                       | 0 to 2 inches  | 370  | 36   |
| ESS-109107-S01-2                                | S01                                       | 2 to 6 inches  | <b>1,700</b>                                       | <b>300</b>                                   |
| ESS-109107-S01-6                                | S01                                       | 6 to 12 inches   | <b>1,000</b>                                       | <b>150</b>                                   |
| ESS-109107-S02-0                                | S02                                       | 0 to 2 inches  | <b>630</b>   | <b>75</b>                                    |
| ESS-109107-S02-2                                | S02                                       | 2 to 6 inches  | <b>1,100</b>                                       | <b>170</b>                                   |
| ESS-109107-S02-6                                | S02                                       | 6 to 12 inches   | <b>610</b>   | <b>82</b>                                    |
| ESS-109107-S03-0                                | S03                                       | 0 to 2 inches  | <b>640</b>   | <b>89</b>                                    |
| ESS-109107-S03-2                                | S03                                       | 2 to 6 inches  | 210  | 35   |
| ESS-109107-S03-6                                | S03                                       | 6 to 12 inches   | <b>1,600</b>                                       | <b>230</b>                                   |
| Decision Unit or Sample Location                | Square Feet of Arsenic and Lead Over SSL* | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |  |
| S01   | 3,101                                     | 1  | 115  |  |
| S02   | 3,252                                     | 1  | 120  |  |
| S03   | 2,691                                     | 1  | 100  |  |

**Notes:**

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Bold = Above the SSL

Bold, underlined and italics = Above 600 mg/kg for arsenic by XRF and 3,000 mg/kg for lead

\* The square footage for grid sample locations of undeveloped properties are estimates based upon the square footage of the property divided by the number of sample locations.

\*\* Depth of arsenic and lead over the SSL are for a removal volume estimate which assumes the removal action level is 60 mg/kg for arsenic by XRF and 400 mg/kg for lead by XRF. Depth is based upon documented arsenic and lead concentrations over the SSL. Arsenic and lead concentrations over the SSL at 0 to 2 inches is considered contaminated to 0.5 feet. arsenic and lead concentrations over the SSL at 2 inches or more is considered contaminated to 1 foot.

Ecology and Environment Inc. 2013

**Table 3 Eureka Residential Property Sampling Data  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number                    | Decision Unit or Sample Location          | Depth Interval   | START XRF Lead Results (mg/kg) dry weight          | START XRF Arsenic Results (mg/kg) dry weight |
|---|---|--|--|--|
| <b>70 North Spring Street (APN: 001-104-03)</b> |   |  |  |  |
| ESS-110403-S01-0                                | S01                                       | 0 to 2 inches  | <b>510</b>   | <b>62</b>                                    |
| ESS-110403-S01-2                                | S01                                       | 2 to 6 inches  | <b>540</b>   | <b>69</b>                                    |
| ESS-110403-S01-6                                | S01                                       | 6 to 12 inches   | <b>1,800</b>                                       | <b>170</b>                                   |
| ESS-110403-S02-0                                | S02                                       | 0 to 2 inches  | <b>1,000</b>                                       | <b>120</b>                                   |
| ESS-110403-S02-2                                | S02                                       | 2 to 6 inches  | <b>1,000</b>                                       | <b>86</b>                                    |
| ESS-110403-S02-6                                | S02                                       | 6 to 12 inches   | 57   | 9  |
| ESS-110403-S03-0                                | S03                                       | 0 to 2 inches  | <b>550</b>   | <b>79</b>                                    |
| ESS-110403-S03-2                                | S03                                       | 2 to 6 inches  | 220  | 31   |
| ESS-110403-S03-6                                | S03                                       | 6 to 12 inches   | 340  | 45   |
| Decision Unit or Sample Location                | Square Feet of Arsenic and Lead Over SSL* | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |  |
| S01   | 169                                       | 1  | 6  |  |
| S02   | 446                                       | 1  | 17   |  |
| S03   | 633                                       | 0.5  | 12   |  |

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Ecology and Environment Inc. 2013



**Table 3 Eureka Residential Property Sampling Data  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number                   | Decision Unit or Sample Location          | Depth Interval   | START XRF Lead Results (mg/kg) dry weight          | START XRF Arsenic Results (mg/kg) dry weight |
|--|---|--|--|--|
| <b>595 South Main Street (APN: 001-167-02)</b> |   |  |  |  |
| ESS-116702-S01-0                               | S01                                       | 0 to 2 inches  | <b>1,000</b>                                       | <b>170</b>                                   |
| ESS-116702-S01-2                               | S01                                       | 2 to 6 inches  | <b><u>6,200</u></b>                                | <b><u>790</u></b>                            |
| ESS-116702-S01-6                               | S01                                       | 6 to 12 inches   | <b><u>5,100</u></b>                                | <b><u>620</u></b>                            |
| Decision Unit or Sample Location               | Square Feet of Arsenic and Lead Over SSL* | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |  |
| S01  | 445                                       | 1  | 16   |  |

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**Table 3 Eureka Residential Property Sampling Data  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number                    | Decision Unit or Sample Location          | Depth Interval   | START XRF Lead Results (mg/kg) dry weight          | START XRF Arsenic Results (mg/kg) dry weight |
|---|---|--|--|--|
| <b>11 South Spring Street (APN: 001-131-01)</b> |   |  |  |  |
| ESS-113101-S01-0                                | S01                                       | 0 to 2 inches  | <b>910</b>   | <b>120</b>                                   |
| ESS-113101-S01-2                                | S01                                       | 2 to 6 inches  | <b>550</b>   | <b>77</b>                                    |
| ESS-113101-S01-6                                | S01                                       | 6 to 12 inches   | <b>820</b>   | <b>100</b>                                   |
| ESS-113101-S02-0                                | S02                                       | 0 to 2 inches  | <b>510</b>   | <b>79</b>                                    |
| ESS-113101-S02-2                                | S02                                       | 2 to 6 inches  | <b>1,200</b>                                       | <b>180</b>                                   |
| ESS-113101-S02-6                                | S02                                       | 6 to 12 inches   | <b>1,300</b>                                       | <b>210</b>                                   |
| ESS-113101-S03-0                                | S03                                       | 0 to 2 inches  | <b>1,300</b>                                       | <b>200</b>                                   |
| ESS-113101-S03-2                                | S03                                       | 2 to 6 inches  | <b>1,250</b>                                       | <b>255</b>                                   |
| ESS-113101-S03-6                                | S03                                       | 6 to 12 inches   | <b>1,900</b>                                       | <b>320</b>                                   |
| Decision Unit or Sample Location                | Square Feet of Arsenic and Lead Over SSL* | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |  |
| S01   | 1,165                                     | 1  | 43   |  |
| S02   | 2,172                                     | 1  | 80   |  |
| S03   | 931                                       | 1  | 34   |  |

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**Table 3 Eureka Residential Property Sampling Data**  
**Eureka Smelter Sites**  
**Assessment**  
**Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number                     | Decision Unit or Sample Location          | Depth Interval   | START XRF Lead Results (mg/kg) dry weight          | START XRF Arsenic Results (mg/kg) dry weight |
|--|---|--|--|--|
| <b>331 South Spring Street (APN: 001-136-09)</b> |   |  |  |  |
| ESS-113609-S01-0                                 | S01                                       | 0 to 2 inches  | <u><b>4,000</b></u>                                | <u><b>600</b></u>                            |
| ESS-113609-S01-2                                 | S01                                       | 2 to 6 inches  | <u><b>5,500</b></u>                                | <u><b>800</b></u>                            |
| ESS-113609-S01-6                                 | S01                                       | 6 to 12 inches   | <u><b>5,300</b></u>                                | <u><b>700</b></u>                            |
| ESS-113609-S02-0                                 | S02                                       | 0 to 2 inches  | <u><b>1,900</b></u>                                | <u><b>310</b></u>                            |
| ESS-113609-S02-2                                 | S02                                       | 2 to 6 inches  | <u><b>3,000</b></u>                                | <u><b>370</b></u>                            |
| ESS-113609-S02-6                                 | S02                                       | 6 to 12 inches   | <u><b>3,500</b></u>                                | <u><b>600</b></u>                            |
| ESS-113609-S03-0                                 | S03                                       | 0 to 2 inches  | <u><b>4,800</b></u>                                | <u><b>850</b></u>                            |
| ESS-113609-S03-2                                 | S03                                       | 2 to 6 inches  | <u><b>5,400</b></u>                                | <u><b>890</b></u>                            |
| ESS-113609-S03-6                                 | S03                                       | 6 to 12 inches   | <u><b>6,300</b></u>                                | <u><b>1,100</b></u>                          |
| ESS-113609-S04-0                                 | S04                                       | 0 to 2 inches  | <u><b>1,800</b></u>                                | <u><b>250</b></u>                            |
| ESS-113609-S04-2                                 | S04                                       | 2 to 6 inches  | <u><b>1,600</b></u>                                | <u><b>250</b></u>                            |
| ESS-113609-S04-6                                 | S04                                       | 6 to 12 inches   | <u><b>2,400</b></u>                                | <u><b>410</b></u>                            |
| Decision Unit or Sample Location                 | Square Feet of Arsenic and Lead Over SSL* | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |  |
| S01  | 1,630                                     | 1  | 60   |  |
| S02  | 2,435                                     | 1  | 90   |  |
| S03  | 5,710                                     | 1  | 211  |  |
| S04  | 942                                       | 1  | 35   |  |

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Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number                | Decision Unit or Sample Location           | Depth Interval   | START XRF Lead Results (mg/kg) dry weight          | START XRF Arsenic Results (mg/kg) dry weight |
|---|--|--|--|--|
| <b>200 Bullion Street (APN: 001-191-03)</b> |  |  |  |  |
| ESS-119103-S01-0                            | S01  | 0 to 2 inches  | <u><b>8,900</b></u>                                | <u><b>1,800</b></u>                          |
| ESS-119103-S01-2                            | S01  | 2 to 6 inches  | <u><b>4,900</b></u>                                | <u><b>990</b></u>                            |
| ESS-119103-S01-6                            | S01  | 6 to 12 inches   | <u><b>3,900</b></u>                                | <u><b>780</b></u>                            |
| ESS-119103-S02-0                            | S02  | 0 to 2 inches  | <u><b>950</b></u>                                  | <u><b>200</b></u>                            |
| ESS-119103-S02-2                            | S02  | 2 to 6 inches  | <u><b>1,400</b></u>                                | <u><b>250</b></u>                            |
| ESS-119103-S02-6                            | S02  | 6 to 12 inches   | <u><b>1,050</b></u>                                | <u><b>220</b></u>                            |
| ESS-119103-S03-0                            | S03  | 0 to 2 inches  | <u><b>20,000</b></u>                               | <u><b>3,800</b></u>                          |
| ESS-119103-S03-2                            | S03  | 2 to 6 inches  | <u><b>20,000</b></u>                               | <u><b>4,100</b></u>                          |
| ESS-119103-S03-6                            | S03  | 6 to 12 inches   | <u><b>5,600</b></u>                                | <u><b>1,100</b></u>                          |
| Decision Unit or Sample Location            | Square Feet of Arsenic and Lead Over SSL * | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |  |
| S01   | 5,281                                      | 1  | 196  |  |
| S02   | 6,615                                      | 1  | 245  |  |
| S03   | 11,289                                     | 1  | 418  |  |

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**Table 3 Eureka Residential Property Sampling Data**  
**Eureka Smelter Sites**  
**Assessment**  
**Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number                   | Decision Unit or Sample Location | Depth Interval | START XRF Lead Results (mg/kg) dry weight | START XRF Arsenic Results (mg/kg) dry weight |
|--|----------------------------------|----------------|---|--|
| <b>401 South Main Street (APN: 001-165-01)</b> |                                  |                |   |  |
| ESS-116501-S01-0                               | S01                              | 0 to 2 inches  | <b>1,600</b>                              | <b>230</b>                                   |
| ESS-116501-S01-2                               | S01                              | 2 to 6 inches  | <b>2,400</b>                              | <b>310</b>                                   |
| ESS-116501-S01-6                               | S01                              | 6 to 12 inches | <b>800</b>                                | <b>150</b>                                   |
| ESS-116501-S02-0                               | S02                              | 0 to 2 inches  | <b>600</b>                                | <b>91</b>                                    |
| ESS-116501-S02-2                               | S02                              | 2 to 6 inches  | <b>3,600</b>                              | <b>580</b>                                   |
| ESS-116501-S02-6                               | S02                              | 6 to 12 inches | <b>3,300</b>                              | <b>520</b>                                   |

| Decision Unit or Sample Location | Square Feet of Arsenic and Lead Over SSL* | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |
|----------------------------------|---|--|--|
| S01                              | 2,665                                     | 1  | 99   |
| S02                              | 3,090                                     | 1  | 114  |

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Bold, underlined and italics = Above 600 mg/kg for arsenic by XRF and 3,000 mg/kg for lead

\* The square footage for grid sample locations of undeveloped properties are estimates based upon the square footage of the property divided by the number of sample locations.

\*\* Depth of arsenic and lead over the SSL are for a removal volume estimate which assumes the removal action level is 60 mg/kg for arsenic by XRF and 400 mg/kg for lead by XRF. Depth is based upon documented arsenic and lead concentrations over the SSL. Arsenic and lead concentrations over the SSL at 0 to 2 inches is considered contaminated to 0.5 feet. Arsenic and lead concentrations over the SSL at 2 inches or more is considered contaminated to 1 foot.

**Table 3 Eureka Residential Property Sampling Data  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>     | <b>Decision Unit or Sample Location</b>           | <b>Depth Interval</b>   | <b>START XRF Lead Results (mg/kg) dry weight</b>          | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|---|---|---|---|---|
| <b>651 Sheridan (APN: 001-212-03)</b>   |   |   |   |   |
| ESS-121203-S01-0                        | S01   | 0 to 2 inches   | 130   | 44  |
| ESS-121203-S01-2                        | S01   | 2 to 6 inches   | 89  | 32  |
| ESS-121203-S01-6                        | S01   | 6 to 12 inches  | 110   | <b>56</b>   |
| ESS-121203-S02-0                        | S02   | 0 to 2 inches   | 86  | 39  |
| ESS-121203-S02-2                        | S02   | 2 to 6 inches   | 140   | 43  |
| ESS-121203-S02-6                        | S02   | 6 to 12 inches  | 120   | 43  |
| <b>Decision Unit or Sample Location</b> | <b>Square Feet of Arsenic and Lead Over SSL *</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |   |
| S01                                     | 2,263   | 1   | 84  |   |
| S02                                     | 3,399   | 0   | 0   |   |

**Notes:**

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Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number                 | Decision Unit or Sample Location | Depth Interval | START XRF Lead Results (mg/kg) dry weight | START XRF Arsenic Results (mg/kg) dry weight |
|--|----------------------------------|----------------|---|--|
| <b>636 Sheridan Street (APN: 001-211-11)</b> |                                  |                |   |  |
| ESS-121111-S01-0                             | S01                              | 0 to 2 inches  | 46  | 23   |
| ESS-121111-S01-2                             | S01                              | 2 to 6 inches  | 54  | 23   |
| ESS-121111-S01-6                             | S01                              | 6 to 12 inches | 80  | 27   |
| ESS-121111-S02-0                             | S02                              | 0 to 2 inches  | 93  | 41   |
| ESS-121111-S02-2                             | S02                              | 2 to 6 inches  | 100                                       | 30   |
| ESS-121111-S02-6                             | S02                              | 6 to 12 inches | 100                                       | 30   |
| ESS-121111-S03-0                             | S03                              | 0 to 2 inches  | 82  | 20   |
| ESS-121111-S03-2                             | S03                              | 2 to 6 inches  | 110                                       | 40   |
| ESS-121111-S03-6                             | S03                              | 6 to 12 inches | 200                                       | <b>54</b>                                    |

| Decision Unit or Sample Location | Square Feet of Arsenic and Lead Over SSL* | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |
|----------------------------------|---|--|--|
| S01                              | 1,034                                     | 0  | 0  |
| S02                              | 1,305                                     | 0  | 0  |
| S03                              | 3,184                                     | 1  | 118  |

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Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number                 | Decision Unit or Sample Location           | Depth Interval   | START XRF Lead Results (mg/kg) dry weight          | START XRF Arsenic Results (mg/kg) dry weight |
|--|--|--|--|--|
| <b>637 Sheridan Street (APN: 001-212-11)</b> |  |  |  |  |
| ESS-121211-S01-0                             | S01  | 0 to 2 inches  | 70   | 31   |
| ESS-121211-S01-2                             | S01  | 2 to 6 inches  | 49   | 18   |
| ESS-121211-S01-6                             | S01  | 6 to 12 inches   | 45   | 19   |
| ESS-121211-S02-0                             | S02  | 0 to 2 inches  | 62   | 25   |
| ESS-121211-S02-2                             | S02  | 2 to 6 inches  | 88   | 34   |
| ESS-121211-S02-6                             | S02  | 6 to 12 inches   | 100  | 36   |
| Decision Unit or Sample Location             | Square Feet of Arsenic and Lead Over SSL * | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |  |
| S01  | 911  | 0  | 0  |  |
| S02  | 2,013                                      | 0  | 0  |  |

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**Table 3 Eureka Residential Property Sampling Data  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>             | <b>Decision Unit or Sample Location</b>          | <b>Depth Interval</b>   | <b>START XRF Lead Results (mg/kg) dry weight</b>          | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|---|--|---|---|---|
| <b>41 South Spring Street (APN: 001-131-06)</b> |  |   |   |   |
| ESS-113106-S01-0                                | S01  | 0 to 2 inches   | <b>2,500</b>  | <b>410</b>  |
| ESS-113106-S01-2                                | S01  | 2 to 6 inches   | <b>2,700</b>  | <b>390</b>  |
| ESS-113106-S01-6                                | S01  | 6 to 12 inches  | <b><u>3,500</u></b>                                       | <b><u>620</u></b>                                   |
| ESS-113106-S02-0                                | S02  | 0 to 2 inches   | <b><u>4,000</u></b>                                       | <b><u>690</u></b>                                   |
| ESS-113106-S02-2                                | S02  | 2 to 6 inches   | <b><u>3,300</u></b>                                       | <b><u>620</u></b>                                   |
| ESS-113106-S02-6                                | S02  | 6 to 12 inches  | <b>1,000</b>  | <b>170</b>  |
| <b>Decision Unit or Sample Location</b>         | <b>Square Feet of Arsenic and Lead Over SSL*</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |   |
| S01   | 704  | 1   | 26  |   |
| S02   | 580  | 1   | 21  |   |

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**Table 3 Eureka Residential Property Sampling Data  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>          | <b>Decision Unit or Sample Location</b> | <b>Depth Interval</b> | <b>START XRF Lead Results (mg/kg) dry weight</b> | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|---|-----------------------|--|---|
| <b>621 Sheridan Street (APN: 001-212-09)</b> |   |                       |  |   |
| ESS-121209-S01-0                             | S01                                     | 0 to 2 inches         | 53   | 32  |
| ESS-121209-S01-2                             | S01                                     | 2 to 6 inches         | 53   | 29  |
| ESS-121209-S01-6                             | S01                                     | 6 to 12 inches        | 210  | 54  |

| <b>Decision Unit or Sample Location</b> | <b>Square Feet of Arsenic and Lead Over SSL*</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |
|---|--|---|---|
| S01                                     | 1,277  | 0   | 0   |

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**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>              | <b>Decision Unit or Sample Location</b>          | <b>Depth Interval</b>   | <b>START XRF Lead Results (mg/kg) dry weight</b>          | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|--|---|---|---|
| <b>161 South Spring Street (APN: 001-136-03)</b> |  |   |   |   |
| ESS-113603-S01-0                                 | S01  | 0 to 2 inches   | <b>970</b>  | <b>150</b>  |
| ESS-113603-S01-2                                 | S01  | 2 to 6 inches   | <b><u>5,800</u></b>                                       | <b><u>950</u></b>                                   |
| ESS-113603-S01-6                                 | S01  | 6 to 12 inches  | <b><u>10,000</u></b>                                      | <b><u>2,100</u></b>                                 |
| ESS-113603-S02-0                                 | S02  | 0 to 2 inches   | <b><u>3,700</u></b>                                       | <b>590</b>  |
| ESS-113603-S02-2                                 | S02  | 2 to 6 inches   | <b>2,900</b>  | <b>440</b>  |
| ESS-113603-S02-6                                 | S02  | 6 to 12 inches  | <b><u>3,000</u></b>                                       | <b>490</b>  |
| <b>Decision Unit or Sample Location</b>          | <b>Square Feet of Arsenic and Lead Over SSL*</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |   |
| S01  | 1,672  | 1   | 62  |   |
| S02  | 2,101  | 1   | 78  |   |

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Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>         | <b>Decision Unit or Sample Location</b>          | <b>Depth Interval</b>   | <b>START XRF Lead Results (mg/kg) dry weight</b>          | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|---|--|---|---|---|
| <b>330 Bullion Street (APN: 001-181-05)</b> |  |   |   |   |
| ESS-118405-S01-0                            | S01  | 0 to 2 inches   | 340   | <b>69</b>   |
| ESS-118405-S01-2                            | S01  | 2 to 6 inches   | <b>520</b>  | <b>110</b>  |
| Not Sampled                                 | S01  | 6 to 12 inches  | -   | -   |
| <b>Decision Unit or Sample Location</b>     | <b>Square Feet of Arsenic and Lead Over SSL*</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |   |
| S01   | 1,465  | 1   | 54  |   |

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| <b>Sample Identification Number</b>          | <b>Decision Unit or Sample Location</b>          | <b>Depth Interval</b>   | <b>START XRF Lead Results (mg/kg) dry weight</b>          | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|--|---|---|---|
| <b>630 Sheridan Street (APN: 001-211-10)</b> |  |   |   |   |
| ESS-121110-P1-0                              | P1   | 0 to 2 inches   | 44  | 11  |
| ESS-121110-S01-0                             | S01  | 0 to 2 inches   | 69  | 28  |
| ESS-121110-S01-2                             | S01  | 2 to 6 inches   | 69  | 26  |
| ESS-121110-S01-6                             | S01  | 6 to 12 inches  | 46  | 26  |
| ESS-121110-S02-0                             | S02  | 0 to 2 inches   | 67  | 22  |
| ESS-121110-S02-2                             | S02  | 2 to 6 inches   | 140   | 30  |
| ESS-121110-S02-6                             | S02  | 6 to 12 inches  | 52  | 22  |
| ESS-121110-S03-0                             | S03  | 0 to 2 inches   | 56  | 22  |
| ESS-121110-S03-2                             | S03  | 2 to 6 inches   | 34  | 33  |
| ESS-121110-S03-6                             | S03  | 6 to 12 inches  | 59  | 33  |
| <b>Decision Unit or Sample Location</b>      | <b>Square Feet of Arsenic and Lead Over SSL*</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |   |
| P1   | NA   | 0   | 0   |   |
| S01  | 964  | 0   | 0   |   |
| S02  | 1,113  | 0   | 0   |   |
| S03  | 2,207  | 0   | 0   |   |

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| <b>Sample Identification Number</b>          | <b>Decision Unit or Sample Location</b>          | <b>Depth Interval</b>   | <b>START XRF Lead Results (mg/kg) dry weight</b>          | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|--|---|---|---|
| <b>601 Sheridan Street (APN: 001-212-07)</b> |  |   |   |   |
| ESS-121207-S01-0                             | S01  | 0 to 2 inches   | 73  | 24  |
| ESS-121207-S01-2                             | S01  | 2 to 6 inches   | 90  | 27  |
| ESS-121207-S01-6                             | S01  | 6 to 12 inches  | 110   | 28  |
| ESS-121207-S02-0                             | S02  | 0 to 2 inches   | 79  | 33  |
| Not Sampled                                  | S02  | 2 to 6 inches   | -   | -   |
| ESS-121207-S02-6                             | S02  | 6 to 12 inches  | 55  | 26  |
| ESS-121207-S03-0                             | S03  | 0 to 2 inches   | 68  | 25  |
| ESS-121207-S03-2                             | S03  | 2 to 6 inches   | 90  | 39  |
| ESS-121207-S03-6                             | S03  | 6 to 12 inches  | 58  | 30  |
| ESS-121207-S04-0                             | S04  | 0 to 2 inches   | 78  | 31  |
| ESS-121207-S04-2                             | S04  | 2 to 6 inches   | 81  | 29  |
| ESS-121207-S04-6                             | S04  | 6 to 12 inches  | 77  | 27  |
| <b>Decision Unit or Sample Location</b>      | <b>Square Feet of Arsenic and Lead Over SSL*</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |   |
| S01  | 2,650  | 0   | 0   |   |
| S02  | 4,702  | 0   | 0   |   |
| S03  | 1,879  | 0   | 0   |   |
| S04  | 975  | 0   | 0   |   |

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Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number                 | Decision Unit or Sample Location | Depth Interval | START XRF Lead Results (mg/kg) dry weight | START XRF Arsenic Results (mg/kg) dry weight |
|--|----------------------------------|----------------|---|--|
| <b>620 Sheridan Street (APN: 001-211-08)</b> |                                  |                |   |  |
| ESS-121108-S01-0                             | S01                              | 0 to 2 inches  | 69  | 17   |
| ESS-121108-S01-2                             | S01                              | 2 to 6 inches  | 74  | 24   |
| ESS-121108-S01-6                             | S01                              | 6 to 12 inches | 100                                       | 30   |
| ESS-121108-S02-0                             | S02                              | 0 to 2 inches  | 45  | 24   |
| ESS-121108-S02-2                             | S02                              | 2 to 6 inches  | 66  | 23   |
| ESS-121108-S02-6                             | S02                              | 6 to 12 inches | 120                                       | 29   |
| ESS-121108-S03-0                             | S03                              | 0 to 2 inches  | 63  | 19   |
| ESS-121108-S03-2                             | S03                              | 2 to 6 inches  | 38  | 24   |
| ESS-121108-S03-6                             | S03                              | 6 to 12 inches | 47  | 26   |

| Decision Unit or Sample Location | Square Feet of Arsenic and Lead Over SSL* | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |
|----------------------------------|---|--|--|
| S01                              | 896                                       | 0  | 0  |
| S02                              | 2,337                                     | 0  | 0  |
| S03                              | 2,397                                     | 0  | 0  |

**Notes:**

mg/kg = milligrams per kilogram

START = Superfund Technical Assessment and Response Team

XRF = X-Ray Fluorescence

APN = Assessor's Parcel Number

SSL = Site Screening Level; the SSL for arsenic by XRF is 60 mg/kg and for lead by XRF is 400 mg/kg

NA = Sample was not analyzed or the size of the area associated with the locations is not known.

Bold = Above the SSL

Bold, underlined and italics = Above 600 mg/kg for arsenic by XRF and 3,000 mg/kg for lead

\* The square footage for grid sample locations of undeveloped properties are estimates based upon the square footage of the property divided by the number of sample locations.

\*\* Depth of arsenic and lead over the SSL are for a removal volume estimate which assumes the removal action level is 60 mg/kg for arsenic by XRF and 400 mg/kg for lead by XRF. Depth is based upon documented arsenic and lead concentrations over the SSL. Arsenic and lead concentrations over the SSL at 0 to 2 inches is considered contaminated to 0.5 feet. arsenic and lead concentrations over the SSL at 2 inches or more is considered contaminated to 1 foot.

**Table 3 Eureka Residential Property Sampling Data  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>            | <b>Decision Unit or Sample Location</b>          | <b>Depth Interval</b>   | <b>START XRF Lead Results (mg/kg) dry weight</b>          | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|--|---|---|---|
| <b>650 South Main Street (APN: 001-201-09)</b> |  |   |   |   |
| ESS-120109-Grab-0                              | Grab   | 0 to 2 inches   | 210   | 44  |
| ESS-120109-Grab-2                              | Grab   | 2 to 6 inches   | 18  | 16  |
| ESS-120109-S01-0                               | S01  | 0 to 2 inches   | 350   | <b>74</b>   |
| ESS-120109-S01-2                               | S01  | 2 to 6 inches   | <b>2,000</b>  | <b>360</b>  |
| ESS-120109-S01-6                               | S01  | 6 to 12 inches  | <b>2,400</b>  | <b>460</b>  |
| <b>Decision Unit or Sample Location</b>        | <b>Square Feet of Arsenic and Lead Over SSL*</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |   |
| Grab   | NA   | 0   | 0   |   |
| S01  | 3,257  | 1   | 121   |   |

**Notes:**

mg/kg = milligrams per kilogram

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XRF = X-Ray Fluorescence

APN = Assessor's Parcel Number

SSL = Site Screening Level; the SSL for arsenic by XRF is 60 mg/kg and for lead by XRF is 400 mg/kg

NA = Sample was not analyzed or the size of the area associated with the locations is not known.

Bold = Above the SSL

Bold, underlined and italics = Above 600 mg/kg for arsenic by XRF and 3,000 mg/kg for lead

\* The square footage for grid sample locations of undeveloped properties are estimates based upon the square footage of the property divided by the number of sample locations.

\*\* Depth of arsenic and lead over the SSL are for a removal volume estimate which assumes the removal action level is 60 mg/kg for arsenic by XRF and 400 mg/kg for lead by XRF. Depth is based upon documented arsenic and lead concentrations over the SSL. Arsenic and lead concentrations over the SSL at 0 to 2 inches is considered contaminated to 0.5 feet. arsenic and lead concentrations over the SSL at 2 inches or more is considered contaminated to 1 foot.

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**Table 3 Eureka Residential Property Sampling Data  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>     | <b>Decision Unit or Sample Location</b>          | <b>Depth Interval</b>   | <b>START XRF Lead Results (mg/kg) dry weight</b>          | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|---|--|---|---|---|
| <b>641 Sheridan (APN: 001-212-04)</b>   |  |   |   |   |
| ESS-121204-S01-0                        | S01  | 0 to 2 inches   | 80  | 30  |
| ESS-121204-S01-2                        | S01  | 2 to 6 inches   | 150   | 40  |
| ESS-121204-S01-6                        | S01  | 6 to 12 inches  | 120   | 53  |
| ESS-121204-S03-0                        | S03  | 0 to 2 inches   | 27  | 26  |
| ESS-121204-S03-2                        | S03  | 2 to 6 inches   | 41  | 31  |
| ESS-121204-S03-6                        | S03  | 6 to 12 inches  | 41  | 32  |
| <b>Decision Unit or Sample Location</b> | <b>Square Feet of Arsenic and Lead Over SSL*</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |   |
| S01                                     | 2,212  | 0   | 0   |   |
| S03                                     | 3,712  | 0   | 0   |   |

**Notes:**

mg/kg = milligrams per kilogram

START = Superfund Technical Assessment and Response Team

XRF = X-Ray Fluorescence

APN = Assessor's Parcel Number

SSL = Site Screening Level; the SSL for arsenic by XRF is 60 mg/kg and for lead by XRF is 400 mg/kg

NA = Sample was not analyzed or the size of the area associated with the locations is not known.

Bold = Above the SSL

Bold, underlined and italics = Above 600 mg/kg for arsenic by XRF and 3,000 mg/kg for lead

\* The square footage for grid sample locations of undeveloped properties are estimates based upon the square footage of the property divided by the number of sample locations.

\*\* Depth of arsenic and lead over the SSL are for a removal volume estimate which assumes the removal action level is 60 mg/kg for arsenic by XRF and 400 mg/kg for lead by XRF. Depth is based upon documented arsenic and lead concentrations over the SSL. Arsenic and lead concentrations over the SSL at 0 to 2 inches is considered contaminated to 0.5 feet. arsenic and lead concentrations over the SSL at 2 inches or more is considered contaminated to 1 foot.

**Table 3 Eureka Residential Property Sampling Data**  
**Eureka Smelter Sites**  
**Assessment**  
**Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number                 | Decision Unit or Sample Location | Depth Interval | START XRF Lead Results (mg/kg) dry weight | START XRF Arsenic Results (mg/kg) dry weight |
|--|----------------------------------|----------------|---|--|
| <b>661 Sheridan Street (APN: 001-212-02)</b> |                                  |                |   |  |
| ESS-121202-S01-0                             | S01                              | 0 to 2 inches  | 29  | 19   |
| ESS-121202-S01-2                             | S01                              | 2 to 6 inches  | 29  | 17   |
| ESS-121202-S01-6                             | S01                              | 6 to 12 inches | 30  | 16   |
| ESS-121202-S02-0                             | S02                              | 0 to 2 inches  | 43  | 22   |
| ESS-121202-S02-2                             | S02                              | 2 to 6 inches  | 110                                       | 36   |
| ESS-121202-S02-6                             | S02                              | 6 to 12 inches | 98  | 32   |
| ESS-121202-S03-0                             | S03                              | 0 to 2 inches  | 93  | 49   |
| ESS-121202-S03-2                             | S03                              | 2 to 6 inches  | 130                                       | 51   |
| ESS-121202-S03-6                             | S03                              | 6 to 12 inches | 200                                       | 56   |

| Decision Unit or Sample Location | Square Feet of Arsenic and Lead Over SSL* | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |
|----------------------------------|---|--|--|
| S01                              | 1,491                                     | 0  | 0  |
| S02                              | 2,491                                     | 0  | 0  |
| S03                              | 10,888                                    | 0  | 0  |

**Notes:**

mg/kg = milligrams per kilogram

START = Superfund Technical Assessment and Response Team

XRF = X-Ray Fluorescence

APN = Assessor's Parcel Number

SSL = Site Screening Level; the SSL for arsenic by XRF is 60 mg/kg and for lead by XRF is 400 mg/kg

NA = Sample was not analyzed or the size of the area associated with the locations is not known.

Bold = Above the SSL

Bold, underlined and italics = Above 600 mg/kg for arsenic by XRF and 3,000 mg/kg for lead

\* The square footage for grid sample locations of undeveloped properties are estimates based upon the square footage of the property divided by the number of sample locations.

\*\* Depth of arsenic and lead over the SSL are for a removal volume estimate which assumes the removal action level is 60 mg/kg for arsenic by XRF and 400 mg/kg for lead by XRF. Depth is based upon documented arsenic and lead concentrations over the SSL. Arsenic and lead concentrations over the SSL at 0 to 2 inches is considered contaminated to 0.5 feet. arsenic and lead concentrations over the SSL at 2 inches or more is considered contaminated to 1 foot.



**Table 3 Eureka Residential Property Sampling Data**  
**Eureka Smelter Sites**  
**Assessment**  
**Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Identification Number   | Decision Unit or Sample Location           | Depth Interval   | START XRF Lead Results (mg/kg) dry weight          | START XRF Arsenic Results (mg/kg) dry weight |
|--|--|--|--|--|
| <b>411 West 10th Street (APN: 007-400-21)</b><br><b>Diamond Valley</b> |  |  |  |  |
| ESS-740021-S01-0   | S01  | 0 to 2 inches  | 69   | 18   |
| ESS-740021-S01-2   | S01  | 2 to 6 inches  | 45   | 0  |
| ESS-740021-S01-6   | S01  | 6 to 12 inches   | 12   | 10   |
| ESS-740021-S02-0   | S02  | 0 to 2 inches  | 23   | 10   |
| ESS-740021-S02-2   | S02  | 2 to 6 inches  | 28   | 14   |
| ESS-740021-S02-6   | S02  | 6 to 12 inches   | 23   | 11   |
| Decision Unit or Sample Location                                       | Square Feet of Arsenic and Lead Over SSL * | Estimated Depth of Arsenic and Lead Over SSL (feet) ** | Estimated Cubic Yards of Arsenic and Lead Over SSL |  |
| S01  | 7,850                                      | 0  | 0  |  |
| S02  | 5,217                                      | 0  | 0  |  |

**Notes:**

mg/kg = milligrams per kilogram

START = Superfund Technical Assessment and Response Team

XRF = X-Ray Fluorescence

APN = Assessor's Parcel Number

SSL = Site Screening Level; the SSL for arsenic by XRF is 60 mg/kg and for lead by XRF is 400 mg/kg

NA = Sample was not analyzed or the size of the area associated with the locations is not known.

Bold = Above the SSL

Bold, underlined and italics = Above 600 mg/kg for arsenic by XRF and 3,000 mg/kg for lead

\* The square footage for grid sample locations of undeveloped properties are estimates based upon the square footage of the property divided by the number of sample locations.

\*\* Depth of arsenic and lead over the SSL are for a removal volume estimate which assumes the removal action level is 60 mg/kg for arsenic by XRF and 400 mg/kg for lead by XRF. Depth is based upon documented arsenic and lead concentrations over the SSL. Arsenic and lead concentrations over the SSL at 0 to 2 inches is considered contaminated to 0.5 feet. Arsenic and lead concentrations over the SSL at 2 inches or more is considered contaminated to 1 foot.

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**Table 3 Eureka Residential Property Sampling Data  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Identification Number</b>                              | <b>Decision Unit or Sample Location</b>           | <b>Depth Interval</b>   | <b>START XRF Lead Results (mg/kg) dry weight</b>          | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|--|---|---|---|---|
| <b>401 West 10th Street (APN: 007-400-22)<br/>Diamond Valley</b> |   |   |   |   |
| ESS-740022-S01-0   | S01   | 0 to 2 inches   | 20  | 13  |
| ESS-740022-S01-2   | S01   | 2 to 6 inches   | 21  | 11  |
| ESS-740022-S01-6   | S01   | 6 to 12 inches  | 22  | 12  |
| ESS-740022-S02-0   | S02   | 0 to 2 inches   | 24  | 15  |
| ESS-740022-S02-2   | S02   | 2 to 6 inches   | 22  | 12  |
| ESS-740022-S02-6   | S02   | 6 to 12 inches  | 21  | 11  |
| <b>Decision Unit or Sample Location</b>                          | <b>Square Feet of Arsenic and Lead Over SSL *</b> | <b>Estimated Depth of Arsenic and Lead Over SSL (feet) **</b> | <b>Estimated Cubic Yards of Arsenic and Lead Over SSL</b> |   |
| S01  | 8,520   | 0   | 0   |   |
| S02  | 3,138   | 0   | 0   |   |

**Notes:**

mg/kg = milligrams per kilogram

START = Superfund Technical Assessment and Response Team

XRF = X-Ray Fluorescence

APN = Assessor's Parcel Number

SSL = Site Screening Level; the SSL for arsenic by XRF is 60 mg/kg and for lead by XRF is 400 mg/kg

NA = Sample was not analyzed or the size of the area associated with the locations is not known.

Bold = Above the SSL

Bold, underlined and italics = Above 600 mg/kg for arsenic by XRF and 3,000 mg/kg for lead

\* The square footage for grid sample locations of undeveloped properties are estimates based upon the square footage of the property divided by the number of sample locations.

\*\* Depth of arsenic and lead over the SSL are for a removal volume estimate which assumes the removal action level is 60 mg/kg for arsenic by XRF and 400 mg/kg for lead by XRF. Depth is based upon documented arsenic and lead concentrations over the SSL. Arsenic and lead concentrations over the SSL at 0 to 2 inches is considered contaminated to 0.5 feet. Arsenic and lead concentrations over the SSL at 2 inches or more is considered contaminated to 1 foot.

Ecology and Environment Inc. 2013



**Table 4 Eureka Creek Sampling Data  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sediment Sample Number</b>                                 | <b>Location</b>                    | <b>Depth Interval</b> | <b>START XRF Lead Results (mg/kg) dry weight</b> | <b>START XRF Arsenic Results (mg/kg) dry weight</b> |
|---|------------------------------------|-----------------------|--|---|
| ESS-CR-S-10-D-0   | 5,000 feet downstream of north CSP | 0 to 2 inches         | <b>730</b>                                       | <b>140</b>  |
| ESS-CR-S-10-D-2   | 5,000 feet downstream of north CSP | 2 to 6 inches         | <b>620</b>                                       | <b>120</b>  |
| ESS-CR-S-10-D-6   | 5,000 feet downstream of north CSP | 6 to 12 inches        | <b>440</b>                                       | <b>110</b>  |
| ESS-CR-S-09-D-0   | 4,000 feet downstream of north CSP | 0 to 2 inches         | <b>690</b>                                       | <b>120</b>  |
| ESS-CR-S-09-D-2   | 4,000 feet downstream of north CSP | 2 to 6 inches         | <b>900</b>                                       | <b>170</b>  |
| ESS-CR-S-09-D-6   | 4,000 feet downstream of north CSP | 6 to 12 inches        | <b>2,800</b>                                     | <b>550</b>  |
| ESS-CR-S-08-D-0   | 3,000 feet downstream of north CSP | 0 to 2 inches         | <b>870</b>                                       | <b>150</b>  |
| ESS-CR-S-08-D-2   | 3,000 feet downstream of north CSP | 2 to 6 inches         | <b>920</b>                                       | <b>180</b>  |
| ESS-CR-S-08-D-6   | 3,000 feet downstream of north CSP | 6 to 12 inches        | <b>910</b>                                       | <b>160</b>  |
| ESS-CR-S-07-D-0   | 2,000 feet downstream of north CSP | 0 to 2 inches         | <b>860</b>                                       | <b>120</b>  |
| ESS-CR-S-07-D-2   | 2,000 feet downstream of north CSP | 2 to 6 inches         | <b>770</b>                                       | <b>110</b>  |
| ESS-CR-S-07-D-6   | 2,000 feet downstream of north CSP | 6 to 12 inches        | <b>780</b>                                       | <b>120</b>  |
| ESS-CR-S-06-D-0   | 1,000 feet downstream of north CSP | 0 to 2 inches         | <b>1,100</b>                                     | <b>210</b>  |
| ESS-CR-S-06-D-2   | 1,000 feet downstream of north CSP | 2 to 6 inches         | <b>1,200</b>                                     | <b>170</b>  |
| ESS-CR-S-06-D-6   | 1,000 feet downstream of north CSP | 6 to 12 inches        | <b>910</b>                                       | <b>120</b>  |
| ESS-CR-S-05-D-0   | At north CSP                       | 0 to 2 inches         | <b>3,300</b>                                     | <b>380</b>  |
| ESS-CR-S-05-D-2   | At north CSP                       | 2 to 6 inches         | <b>1,000</b>                                     | <b>215</b>  |
| ESS-CR-S-05-D-6   | At north CSP                       | 6 to 12 inches        | <b>1,000</b>                                     | <b>220</b>  |
| ESS-CR-S-04-D-0   | 1,000 feet upstream of north CSP   | 0 to 2 inches         | <b>450</b>                                       | <b>140</b>  |
| ESS-CR-S-04-D-2   | 1,000 feet upstream of north CSP   | 2 to 6 inches         | <b>470</b>                                       | <b>270</b>  |
| ESS-CR-S-04-D-6   | 1,000 feet upstream of north CSP   | 6 to 12 inches        | <b>470</b>                                       | <b>220</b>  |
| ESS-CR-S-03-D-0   | 2,000 feet downstream of south CSP | 0 to 2 inches         | 290  | 44  |
| ESS-CR-S-03-D-2   | 2,000 feet downstream of south CSP | 2 to 6 inches         | 310  | 54  |
| ESS-CR-S-03-D-6   | 2,000 feet downstream of south CSP | 6 to 12 inches        | 320  | 54  |
| ESS-CR-S-02-D-0   | 1,000 feet downstream of south CSP | 0 to 2 inches         | <b>690</b>                                       | <b>210</b>  |
| ESS-CR-S-02-D-2   | 1,000 feet downstream of south CSP | 2 to 6 inches         | <b>750</b>                                       | <b>260</b>  |
| ESS-CR-S-02-D-6   | 1,000 feet downstream of south CSP | 6 to 12 inches        | 290  | 56  |
| ESS-CR-S-01-D-0   | At the south CSP                   | 0 to 2 inches         | <b>1,500</b>                                     | <b>400</b>  |
| ESS-CR-S-01-D-2   | At the south CSP                   | 2 to 6 inches         | <b>980</b>                                       | <b>290</b>  |
| ESS-CR-S-01-D-6   | At the south CSP                   | 6 to 12 inches        | <b>1,600</b>                                     | <b>330</b>  |
| ESS-CR-S-02-U-0   | 400 feet southwest of CSP*         | 0 to 2 inches         | <b>1,200</b>                                     | <b>210</b>  |
| ESS-CR-S-02-U-2   | 400 feet southwest of CSP*         | 2 to 6 inches         | <b>530</b>                                       | <b>110</b>  |
| ESS-CR-S-02-U-6   | 400 feet southwest of CSP*         | 6 to 12 inches        | 370  | 110   |
| <b>Average downstream concentrations</b>                      |                                    |                       | <b>910</b>                                       | <b>186</b>  |
| <b>Average concentrations within a 1,000 feet of the CSPs</b> |                                    |                       | <b>1,429</b>                                     | <b>328</b>  |
| ESS-CR-S-03-U-0   | 2,000 feet upstream of south CSP   | 0 to 2 inches         | 340  | <b>81</b>   |
| ESS-CR-S-03-U-2   | 2,000 feet upstream of south CSP   | 2 to 6 inches         | 340  | <b>81</b>   |
| ESS-CR-S-03-U-6   | 2,000 feet upstream of south CSP   | 6 to 12 inches        | 210  | 51  |
| ESS-CR-S-04-U-0   | 3,000 feet upstream of south CSP   | 0 to 2 inches         | 210  | 32  |
| ESS-CR-S-04-U-2   | 3,000 feet upstream of south CSP   | 2 to 6 inches         | 260  | 55  |
| ESS-CR-S-04-U-6   | 3,000 feet upstream of south CSP   | 6 to 12 inches        | 170  | 52  |
| ESS-CR-S-05-U-0   | 4,000 feet upstream of south CSP   | 0 to 2 inches         | 330  | 31  |
| ESS-CR-S-05-U-2   | 4,000 feet upstream of south CSP   | 2 to 6 inches         | 230  | 33  |
| ESS-CR-S-05-U-6   | 4,000 feet upstream of south CSP   | 6 to 12 inches        | 130  | 36  |
| ESS-CR-S-06-U-0   | 5,000 feet upstream of south CSP   | 0 to 2 inches         | 69   | 25  |
| ESS-CR-S-06-U-2   | 5,000 feet upstream of south CSP   | 2 to 6 inches         | 68   | 28  |
| ESS-CR-S-06-U-6   | 5,000 feet upstream of south CSP   | 6 to 12 inches        | 73   | 25  |
| <b>Average upstream concentrations</b>                        |                                    |                       | <b>203</b>                                       | <b>44</b>   |
| <b>Surface Water Sample Number</b>                            | <b>Location</b>                    | <b>Matrix</b>         | <b>Lead Results (ug/L)</b>                       | <b>Arsenic Results (ug/L)</b>                       |
| ESS-CR-W-05-D   | At north CSP                       | Water                 | <b>260J</b>                                      | <b>220J</b>   |
| ESS-CR-W-04-D   | 1,000 feet upstream of north CSP   | Water                 | 2.3J   | <b>140J</b>   |
| ESS-CR-W-02-D   | 1,000 feet downstream of south CSP | Water                 | 4.6J   | <b>100J</b>   |

**Notes:**

mg/kg = milligrams per kilogram

ug/L = micrograms per liter

START = Superfund Technical Assessment and Response Team

XRF = X-Ray Fluorescence

APN = Assessor's Parcel Number

SSL = Site Screening Level - Water: 15 ug/L for lead and 10 ug/L for Arsenic, Soil: 400 mg/kg for lead by XRF and 60 mg/kg for arsenic by XRF

Bold = Above the SSL

Bold, underlined and italics = Above 600 mg/kg for arsenic by XRF and 3,000 mg/kg for lead

CSP = Consolidated Slag Piles

\* = Location appears to down slope of south CSP.

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**Table 5 Air Dispersion Sampling Data  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Number                | START XRF Lead Results (mg/kg, dry weight) from 0 to 2 inches bgs | START XRF Arsenic Results (mg/kg, dry weight) form 0 to 2 inches bgs | General Direction | Sample Number                | START XRF Lead Results (mg/kg, dry weight) from 2 to 6 inches bgs | START XRF Arsenic Results (mg/kg, dry weight) from 2 to 6 inches bgs | % Difference Lead | % Difference Arsenic |
|------------------------------|---|--|-------------------|------------------------------|---|--|-------------------|----------------------|
| ESS-AD-33-0                  | <u>15,500</u>   | <u>3,150</u>   | South East        | ESS-AD-33-2                  | <b>2,900</b>  | <b>540</b>   | 534%              | 583%                 |
| ESS-AD-2-0                   | <u>5,100</u>  | <u>1,000</u>   | North             | ESS-AD-2-2                   | <u>5,500</u>  | <u>1,100</u>   | 93%               | 91%                  |
| ESS-AD-16-0                  | <u>4,400</u>  | <u>700</u>   | North             | ESS-AD-16-2                  | <b>1,800</b>  | <b>310</b>   | 244%              | 226%                 |
| ESS-AD-27-0                  | <u>3,900</u>  | <u>670</u>   | North             | ESS-AD-27-2                  | <b>1,200</b>  | <b>210</b>   | 325%              | 319%                 |
| ESS-AD-10-0                  | <u>3,000</u>  | <u>480</u>   | North             | ESS-AD-10-2                  | <b>1,000</b>  | <b>170</b>   | 300%              | 282%                 |
| ESS-AD-6-0                   | <b>2,500</b>  | <b>330</b>   | North             | ESS-AD-6-2                   | <b>1,200</b>  | <b>180</b>   | 208%              | 183%                 |
| ESS-AD-22-0                  | <b>2,200</b>  | <b>320</b>   | East              | ESS-AD-22-2                  | <b>1,900</b>  | <b>320</b>   | 116%              | 100%                 |
| ESS-AD-5-0                   | <b>2,200</b>  | <b>310</b>   | North             | ESS-AD-5-2                   | <b>1,500</b>  | <b>220</b>   | 147%              | 141%                 |
| ESS-AD-46-0                  | <b>1,400</b>  | <b>220</b>   | South             | ESS-AD-46-2                  | 260   | <b>83</b>  | 538%              | 265%                 |
| ESS-AD-9-0                   | <b>990</b>  | <b>97</b>  | North             | ESS-AD-9-2                   | 120   | 31   | 825%              | 313%                 |
| ESS-AD-36-0                  | <b>960</b>  | <b>120</b>   | South West        | ESS-AD-36-2                  | <b>940</b>  | <b>120</b>   | 102%              | 100%                 |
| ESS-AD-15-0                  | <b>840</b>  | <b>100</b>   | North West        | ESS-AD-15-2                  | 86  | 25   | 977%              | 400%                 |
| ESS-AD-45-0                  | <b>750</b>  | <b>120</b>   | South             | ESS-AD-45-2                  | <b>890</b>  | <b>170</b>   | 84%               | 71%                  |
| ESS-AD-30-0                  | <b>715</b>  | <b>150</b>   | South West        | ESS-AD-30-2                  | 220   | <b>69</b>  | 325%              | 217%                 |
| ESS-AD-7-0                   | <b>650</b>  | <b>76</b>  | North             | ESS-AD-7-2                   | 100   | 29   | 650%              | 262%                 |
| ESS-AD-11-0                  | <b>560</b>  | <b>66</b>  | North East        | ESS-AD-11-2                  | 190   | 31   | 295%              | 213%                 |
| ESS-AD-17-0                  | <b>510</b>  | <b>100</b>   | North East        | ESS-AD-17-2                  | 340   | <b>98</b>  | 150%              | 102%                 |
| ESS-AD-3-0                   | <b>490</b>  | 56   | North             | ESS-AD-3-2                   | 170   | 25   | 288%              | 224%                 |
| ESS-AD-23-0                  | <b>410</b>  | <b>64</b>  | East              | ESS-AD-23-2                  | 52  | 23   | 788%              | 278%                 |
| ESS-AD-26-0                  | 370   | 52   | West              | ESS-AD-26-2                  | <b>430</b>  | <b>69</b>  | 86%               | 75%                  |
| ESS-AD-47-0                  | 350   | <b>71</b>  | South             | ESS-AD-47-2                  | 380   | <b>75</b>  | 92%               | 95%                  |
| ESS-AD-39-0                  | 170   | <b>110</b>   | South             | ESS-AD-39-2                  | 300   | <b>250</b>   | 57%               | 44%                  |
| ESS-AD-43A-0                 | 170   | <b>140</b>   | South West        | ESS-AD-43A-2                 | 160   | <b>140</b>   | 106%              | 100%                 |
| ESS-AD-25-0                  | 100   | <b>71</b>  | South West        | ESS-AD-25-2                  | 77  | <b>85</b>  | 130%              | 84%                  |
| ESS-AD-43-0                  | 91  | <b>81</b>  | South             | ESS-AD-43-2                  | 49  | <b>78</b>  | 186%              | 104%                 |
| <b>Mean Values Above SSL</b> | <b>821</b>  | <b>133</b>   |                   | <b>Mean Values Above SSL</b> | <b>468</b>  | <b>106</b>   | 175%              | 125%                 |
| ESS-AD-34-0                  | 360   | 38   | South East        | ESS-AD-34-2                  | 150   | 33   | 240%              | 115%                 |
| ESS-AD-47A-0                 | 340   | 32   | South             | ESS-AD-47A-2                 | 96  | 19   | 354%              | 168%                 |
| ESS-AD-40-0                  | 250   | 44   | South             | ESS-AD-40-2                  | 250   | 52   | 100%              | 85%                  |
| ESS-AD-13-0                  | 235   | 57   | West              | ESS-AD-13-2                  | 40  | 31   | 588%              | 184%                 |
| ESS-AD-21-0                  | 230   | 48   | West              | ESS-AD-21-2                  | 110   | 32   | 209%              | 150%                 |
| ESS-AD-20-0                  | 210   | 46   | West              | ESS-AD-20-2                  | 68  | 27   | 309%              | 170%                 |
| ESS-AD-42-0                  | 180   | 25   | South East        | ESS-AD-42-2                  | 210   | 24   | 86%               | 104%                 |
| ESS-AD-32-0                  | 170   | 14   | South             | ESS-AD-32-2                  | 130   | 15   | 131%              | 93%                  |
| ESS-AD-1-0                   | 96  | 18   | North             | ESS-AD-1-2                   | 144   | 25   | 67%               | 72%                  |
| ESS-AD-4-0                   | 79  | 17   | North West        | ESS-AD-4-2                   | 110   | 34   | 72%               | 50%                  |
| ESS-AD-8-0                   | 65  | 12   | North East        | ESS-AD-8-2                   | 24  | 13   | 271%              | 92%                  |
| <b>Mean Values Below SSL</b> | 201   | 32   |                   | <b>Mean Values Below SSL</b> | 121   | 28   | 166%              | 115%                 |
| <b>Mean For All Samples</b>  | <b>1,404</b>  | <b>250</b>   |                   | <b>Mean For All Samples</b>  | <b>642</b>  | <b>132</b>   | 280%              | 171%                 |

**Notes:**

mg/kg = milligrams per kilogram

bgs = below ground surface

START = Superfund Technical Assessment and Response Team

XRF = X-Ray Fluorescence

SSL = Site Screening Level; the SSL for arsenic by XRF is 60 mg/kg and for lead by XRF is 400 mg/kg

Bold = Above the SSL

Bold, underlined and italics = Above 600 mg/kg for arsenic by XRF and 3,000 mg/kg for lead

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**Table 6 Unpaved Roadway Sampling  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Number</b>  | <b>Depth Interval</b> | <b>XRF Lead Results (mg/kg) dry weight</b> | <b>XRF Arsenic Results (mg/kg) dry weight</b> |
|-----------------------|-----------------------|--|---|
| ESS-DR-1-0            | 0 to 2 inches         | 200  | 44  |
| ESS-DR-2-0            | 0 to 2 inches         | 160  | 32  |
| ESS-DR-3-0            | 0 to 2 inches         | <b>410</b>                                 | <b>80</b>                                     |
| ESS-DR-4-0            | 0 to 2 inches         | 93   | 48  |
| ESS-DR-5-0            | 0 to 2 inches         | 55   | 23  |
| ESS-DR-6-0            | 0 to 2 inches         | 370  | <b>73</b>                                     |
| ESS-DR-7-0            | 0 to 2 inches         | 290  | 52  |
| ESS-DR-8-BORROW PIT-0 | 0 to 2 inches         | 32   | 17  |
| ESS-DR-9-0            | 0 to 2 inches         | 53   | 37  |
| <b>Average</b>        |                       | <b>185</b>                                 | <b>45</b>                                     |

**Notes:**

mg/kg = milligrams per kilogram

START = Superfund Technical Assessment and Response Team

XRF = X-Ray Fluorescence

SSL = Site Screening Level - 400 mg/kg for lead by XRF and 60 mg/kg for arsenic by XRF

Bold = Above the SSL

Ecology and Environment Inc. 2013

**Table 7 Background Sampling Locations  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| Sample Number    | Depth Interval       | XRF Lead Results (mg/kg) dry weight | XRF Arsenic Results (mg/kg) dry weight | Sample Number    | Depth Interval       | XRF Lead Results (mg/kg) dry weight | XRF Arsenic Results (mg/kg) dry weight | Sample Number    | Depth Interval        | XRF Lead Results (mg/kg) dry weight | XRF Arsenic Results (mg/kg) dry weight |
|------------------|----------------------|-------------------------------------|--|------------------|----------------------|-------------------------------------|--|------------------|-----------------------|-------------------------------------|--|
| ESS-BKG-B1-0     | 0 to 2 inches        | 42                                  | < 10                                   | ESS-BKG-B1-2     | 2 to 6 inches        | 35                                  | < 10                                   | ESS-BKG-B1-6     | 6 to 12 inches        | 37                                  | < 10                                   |
| ESS-BKG-B2-0     | 0 to 2 inches        | 246                                 | 28                                     | ESS-BKG-B2-2     | 2 to 6 inches        | 136                                 | 22                                     | ESS-BKG-B2-6     | 6 to 12 inches        | 52                                  | 15                                     |
| ESS-BKG-B3-0     | 0 to 2 inches        | 210                                 | 30                                     | ESS-BKG-B3-2     | 2 to 6 inches        | 53                                  | 20                                     | ESS-BKG-B3-6     | 6 to 12 inches        | 43                                  | 19                                     |
| ESS-BKG-B4-0     | 0 to 2 inches        | 47                                  | 12                                     | ESS-BKG-B4-2     | 2 to 6 inches        | 37                                  | 14                                     | ESS-BKG-B4-6     | 6 to 12 inches        | 34                                  | 18                                     |
| ESS-BKG-B5-0     | 0 to 2 inches        | 120                                 | 11                                     | ESS-BKG-B5-2     | 2 to 6 inches        | 36                                  | 14                                     | ESS-BKG-B5-6     | 6 to 12 inches        | 41                                  | 15                                     |
| ESS-BKG-B6-0     | 0 to 2 inches        | 110                                 | 20                                     | ESS-BKG-B6-2     | 2 to 6 inches        | 49                                  | 15                                     | ESS-BKG-B6-6     | 6 to 12 inches        | 28                                  | 10                                     |
| <b>Average</b>   | <b>0 to 2 inches</b> | 129                                 | 20                                     | <b>Average</b>   | <b>2 to 6 inches</b> | 58                                  | 17                                     | <b>Average</b>   | <b>6 to 12 inches</b> | 39                                  | 15                                     |
| ESS-BG-7-0       | 0 to 2 inches        | 30                                  | 55                                     | ESS-BG-7-2       | 2 to 6 inches        | 30                                  | 55                                     | ESS-BG-7-6       | 6 to 12 inches        | 30                                  | 55                                     |
| ESS-BG-8-0       | 0 to 2 inches        | 42                                  | 46                                     | ESS-BG-8-2       | 2 to 6 inches        | 52                                  | 58                                     | ESS-BG-8-6       | 6 to 12 inches        | 50                                  | 59                                     |
| ESS-BG-9-0       | 0 to 2 inches        | 57                                  | 56                                     | ESS-BG-9-2       | 2 to 6 inches        | 59                                  | 53                                     | ESS-BG-9-6       | 6 to 12 inches        | 44                                  | 55                                     |
| ESS-BG-10-0      | 0 to 2 inches        | 38                                  | 47                                     | ESS-BG-10-2      | 2 to 6 inches        | 30                                  | 40                                     | ESS-BG-10-6      | 6 to 12 inches        | 47                                  | 39                                     |
| ESS-BG-11-0      | 0 to 2 inches        | 67                                  | 53                                     | ESS-BG-11-2      | 2 to 6 inches        | 67                                  | 40                                     | ESS-BG-11-6      | 6 to 12 inches        | 61                                  | 36                                     |
| ESS-BG-12-0      | 0 to 2 inches        | 84                                  | <b>120</b>                             | ESS-BG-12-2      | 2 to 6 inches        | 69                                  | <b>89</b>                              | ESS-BG-12-6      | 6 to 12 inches        | 55                                  | <b>85</b>                              |
| <b>Average</b>   | <b>0 to 2 inches</b> | 53                                  | <b>63</b>                              | <b>Average</b>   | <b>2 to 6 inches</b> | 51                                  | 56                                     | <b>Average</b>   | <b>6 to 12 inches</b> | 48                                  | 55                                     |
| ESS-BKG-01-0     | 0 to 2 inches        | 37                                  | 14                                     | ESS-BKG-01-2     | 2 to 6 inches        | 30                                  | 12                                     | ESS-BKG-01-6     | 6 to 12 inches        | 20                                  | 13                                     |
| ESS-BKG-02-0     | 0 to 2 inches        | 30                                  | 14                                     | ESS-BKG-02-2     | 2 to 6 inches        | 30                                  | 12                                     | ESS-BKG-02-6     | 6 to 12 inches        | 24                                  | 13                                     |
| ESS-BKG-03-0     | 0 to 2 inches        | 28                                  | 15                                     | ESS-BKG-03-2     | 2 to 6 inches        | 28                                  | 14                                     | ESS-BKG-03-6     | 6 to 12 inches        | 37                                  | 14                                     |
| ESS-BKG-04-0     | 0 to 2 inches        | 37                                  | 11                                     | ESS-BKG-04-2     | 2 to 6 inches        | 31                                  | 9                                      | ESS-BKG-04-6     | 6 to 12 inches        | 35                                  | 12                                     |
| ESS-BKG -5-0     | 0 to 2 inches        | 39                                  | 8                                      | ESS-BKG -5-2     | 2 to 6 inches        | 30                                  | 12                                     | ESS-BKG -5-6     | 6 to 12 inches        | 24                                  | < 10                                   |
| ESS-BKG -6-0     | 0 to 2 inches        | 28                                  | 14                                     | ESS-BKG -6-2     | 2 to 6 inches        | 24                                  | 11                                     | ESS-BKG -6-6     | 6 to 12 inches        | 19                                  | 14                                     |
| <b>Average</b>   | <b>0 to 2 inches</b> | 33                                  | 13                                     | <b>Average</b>   | <b>2 to 6 inches</b> | 29                                  | 12                                     | <b>Average</b>   | <b>6 to 12 inches</b> | 27                                  | 13                                     |
| ESS-740021-S01-0 | 0 to 2 inches        | 69                                  | 18                                     | ESS-740021-S01-2 | 2 to 6 inches        | 45                                  | 0                                      | ESS-740021-S01-6 | 6 to 12 inches        | 12                                  | 10                                     |
| ESS-740021-S02-0 | 0 to 2 inches        | 23                                  | 10                                     | ESS-740021-S02-2 | 2 to 6 inches        | 28                                  | 14                                     | ESS-740021-S02-6 | 6 to 12 inches        | 23                                  | 11                                     |
| <b>Average</b>   | <b>0 to 2 inches</b> | 46                                  | 14                                     | <b>Average</b>   | <b>2 to 6 inches</b> | 36.5                                | <10                                    | <b>Average</b>   | <b>6 to 12 inches</b> | 17.5                                | 10.5                                   |
| ESS-740022-S01-0 | 0 to 2 inches        | 20                                  | 13                                     | ESS-740022-S01-2 | 2 to 6 inches        | 21                                  | 11                                     | ESS-740022-S01-6 | 6 to 12 inches        | 22                                  | 12                                     |
| ESS-740022-S02-0 | 0 to 2 inches        | 24                                  | 15                                     | ESS-740022-S02-2 | 2 to 6 inches        | 21                                  | 11                                     | ESS-740022-S02-6 | 6 to 12 inches        | 22                                  | 12                                     |
| <b>Average</b>   | <b>0 to 2 inches</b> | 22                                  | 14                                     | <b>Average</b>   | <b>2 to 6 inches</b> | 21                                  | 11                                     | <b>Average</b>   | <b>6 to 12 inches</b> | 22                                  | 12                                     |

**Notes:**

mg/kg = milligrams per kilogram

START = Superfund Technical Assessment and Response Team

XRF = X-Ray Fluorescence

SSL = Site Screening Level - 400 mg/kg for lead by XRF and 60 mg/kg for arsenic by XRF

Bold = Above the SSL



**Table 8**  
**In Vitro Bio-Accessibility Assay Calculated Results**  
**By U.S. EPA Region 9 Laboratory**  
**Eureka Smelter Sites Assessment**  
**Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>APN</b>              | <b>Property Type</b>         | <b>Percent Bio-Accessible for Arsenic</b> | <b>Percent Bio-Accessible for Lead</b> |
|-------------------------|------------------------------|---|--|
| 001-012-30              | vacant lot                   | 62  | 88                                     |
| 001-012-30              | vacant lot                   | 59  | 83                                     |
| 001-136-09              | vacant lot                   | 55  | 94                                     |
| 001-012-11              | vacant lot                   | 48  | 84                                     |
| 001-012-36              | vacant lot                   | 39  | 78                                     |
| 001-012-29              | vacant lot                   | 38  | 78                                     |
| 001-138-02              | undeveloped near CSP         | 40  | 83                                     |
| 001-202-01              | undeveloped                  | 49  | 70                                     |
| 001-136-09              | undeveloped                  | 47  | 86                                     |
| Air Dispersion Location | undeveloped                  | 45  | 75                                     |
| 001-012-10              | undeveloped                  | 43  | 68                                     |
| 001-032-12              | undeveloped                  | 34  | 71                                     |
| 001-033-01              | undeveloped                  | 33  | 62                                     |
| 001-074-03              | residence                    | 52  | 87                                     |
| 001-136-05              | residence                    | 51  | 88                                     |
| 001-136-09              | residence                    | 46  | 88                                     |
| 001-117-03              | residence                    | 46  | 72                                     |
| 001-136-03              | residence                    | 45  | 88                                     |
| 001-086-03              | residence                    | 45  | 85                                     |
| 001-032-07              | residence                    | 44  | 71                                     |
| 001-117-03              | residence                    | 43  | 81                                     |
| 001-031-06              | residence                    | 41  | 81                                     |
| 001-154-01              | residence/ Bed and Breakfast | 41  | 78                                     |
| 001-136-05              | residence                    | 41  | 86                                     |
| 001-161-01              | residence                    | 40  | 77                                     |
| 001-136-16              | residence                    | 39  | 72                                     |
| 001-074-03              | residence                    | 36  | 75                                     |
| 001-191-03              | residence                    | 36  | 65                                     |
| 001-161-01              | residence                    | 36  | 71                                     |
| 001-191-03              | residence                    | 35  | 63                                     |
| 001-191-03              | residence                    | 32  | 55                                     |
| 001-165-05              | residence                    | 32  | 76                                     |
| 001-136-03              | residence                    | 32  | 86                                     |
| 001-136-04              | residence                    | 31  | 78                                     |
| 001-136-16              | residence                    | 31  | 65                                     |
| 001-136-16              | residence                    | 30  | 57                                     |
| 001-095-02              | residence                    | 26  | 71                                     |
| 001-011-11              | CSP                          | 32  | 66                                     |
| 001-202-04              | commercial                   | 43  | 70                                     |
| 001-033-06              | commercial                   | 39  | 72                                     |
| 001-202-03              | commercial                   | 37  | 72                                     |
| 001-154-01              | residence/ Bed and Breakfast | 36  | 62                                     |
| 001-154-01              | residence/ Bed and Breakfast | 55 *                                      | 173 *                                  |
| Average                 |                              | 41  | 76                                     |

**Notes:**

USEPA = United State Environmental Protection Agency

XRF = X-Ray Fluorescence

APN = Assessor's Parcel Number

SSL = Site Screening Level - Water: 15 ug/L for lead and 10 ug/L for Arsenic, Soil: 400 mg/kg for lead by XRF and 60 mg/kg for arsenic by XRF

Bold = Above the SSL

CSP = Consolidated Slag Piles

\* = Data was excluded from the evaluation since the lead value was an unrealistic outlier.

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**Table 9 Metals Survey Data  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada  
(mg/kg)**

Project No. EE-002693-2177

TDD No. TO2-09-12-04-0002

| Sample                     | APN        | Type of Property             | Arsenic      | Lead          | Antimony    | Barium | Beryllium | Cadmium   | Chromium | Cobalt | Copper | Molybdenum | Nickel | Selenium | Silver | Thallium | Vanadium | Zinc   |
|----------------------------|------------|------------------------------|--------------|---------------|-------------|--------|-----------|-----------|----------|--------|--------|------------|--------|----------|--------|----------|----------|--------|
| Benchmark* Residential     |            |                              | 60           | 400           | 31          | 1,500  | 160       | 70        | 38       | 23     | 3,100  | 390        | 1,500  | 390      | 390    | 1        | 390      | 23,000 |
| Benchmark* Non-Residential |            |                              | 60           | 800           | 410         | 19,000 | 2,000     | 800       | 38       | 300    | 41,000 | 5,100      | 20,000 | 5,100    | 5,100  | 10       | 5,200    | 31,000 |
| Quantitation Limit         |            |                              | 2            | 3             | 2           | 5      | 0.1       | 0.5       | 1        | 2      | 4      | 2.5        | 5      | 2        | 0.5    | 5        | 2        | 8      |
| ESS-120201-P3-0            | 001-202-01 | Undeveloped                  | <b>2,400</b> | <b>12,000</b> | <b>140J</b> | 300    | 0.87      | <b>76</b> | 13       | 6.7    | 140    | 39         | 6.8    | < 2      | 26     | < 5      | 87       | 1,600  |
| ESS-115401-P1-2            | 001-154-01 | Residence/ Bed and Breakfast | <b>1,900</b> | <b>10,000</b> | <b>110J</b> | 530    | 0.74      | 45        | 17       | 2.2    | 190J   | 280        | 10     | 2.4      | 23     | < 5      | 31       | 2,000  |
| ESS-R-14 (116101-C)        | 001-161-01 | Residence                    | <b>1,700</b> | <b>7,800</b>  | <b>180J</b> | 410    | 0.73      | 32        | 13       | 4.4    | 140    | 61         | 9.7    | < 2      | 24     | < 5      | 31       | 1,700  |
| ESS-94-P2-0                | 001-021-01 | Undeveloped                  | <b>750</b>   | <b>3,900</b>  | <b>50J</b>  | 340    | 1.1       | 25        | 14       | 5.8    | 61     | 24         | 10     | < 2      | 10     | < 5      | 44       | 780    |
| ESS-R-12 (113609-C)        | 001-136-09 | Residence                    | <b>750</b>   | <b>4,200</b>  | <b>51J</b>  | 340    | 0.88      | 27        | 11       | 4.1    | 76     | 36         | 7.3    | < 2      | 11     | < 5      | 31       | 880    |
| ESS-R-10 (111703-C)        | 001-117-03 | Residence                    | <b>730</b>   | <b>3,700</b>  | <b>53J</b>  | 430    | 0.86      | 21        | 13       | 4.8    | 80     | 94         | 10     | < 2      | 9.4    | < 5      | 31       | 920    |
| ESS-R-13 (115401-C)        | 001-154-01 | Residence/ Bed and Breakfast | <b>730</b>   | <b>3,500</b>  | <b>48J</b>  | 340    | 0.82      | 18        | 13       | 5      | 80     | 100        | 11     | < 2      | 8.7    | < 5      | 33       | 870    |
| ESS-R-11 (113603-C)        | 001-136-03 | Residence                    | <b>690</b>   | <b>3,400</b>  | <b>45J</b>  | 420    | 0.88      | 25        | 15       | 5.5    | 68     | 12         | 13     | < 2      | 9.5    | < 5      | 44       | 750    |
| ESS-R-09 (107403-C)        | 001-074-03 | Residence                    | <b>680</b>   | <b>4,000</b>  | <b>47J</b>  | 230    | 0.67      | 20        | 12       | 4.5    | 61     | 9.3        | 6.2    | < 2      | 12     | < 5      | 36       | 690    |
| ESS-101211-P1-0            | 001-012-11 | Undeveloped                  | <b>640</b>   | <b>2,400</b>  | <b>55J</b>  | 220    | 1.3       | 16        | 6.9      | 3.2    | 69     | 10         | 6.3    | < 2      | 7.4    | < 5      | 25       | 820    |
| ESS-103106-S03-2           | 001-031-06 | Residence                    | <b>500</b>   | <b>2,300</b>  | 20J         | 270    | 0.96      | 11        | 26       | 3      | 42     | 14         | 8.3    | < 2      | 6.4    | < 5      | 23       | 450    |
| ESS-111703-S02-6           | 001-117-03 | Residence                    | <b>470</b>   | <b>2,000</b>  | 21J         | 330    | 0.71      | 11        | 12       | 3      | 46     | 28         | 11     | < 2      | 6.7    | < 5      | 25       | 490    |
| ESS-113104-S02-2           | 001-131-04 | Residence                    | <b>180</b>   | <b>810</b>    | 8.1J        | 390    | 0.85      | 5.1       | 13       | 3.5    | 27     | 6.7        | 13     | < 2      | 2.8    | < 5      | 30       | 240    |
| ESS-102101-P1-2            | 001-021-01 | High School                  | <b>180</b>   | <b>840</b>    | 7.3J        | 570    | 1.8       | 4         | 14       | 4.8    | 36     | 4.7J       | 14     | < 2      | 3      | 2.9J**   | 37       | 330    |
| ESS-113101-S01-6           | 001-113-01 | Residence                    | <b>160</b>   | <b>840</b>    | 8.9J        | 260    | 0.71      | 4.9       | 13       | 3      | 32     | 9.3        | 9.4    | < 2      | 2.5    | < 5      | 26       | 270    |
| ESS-101224-S02-2           | 001-012-24 | Residence                    | <b>110</b>   | 320           | 4.8J        | 450    | 0.71      | 3.3       | 11       | 3.4    | 17     | 2.6J       | 12     | < 2      | 1.2    | < 5      | 36       | 160    |
| ESS-118102-S02-0           | 001-181-02 | Elementary School            | <b>100</b>   | 270           | 7J          | 250    | 0.93      | 1.4       | 6.4      | 2.4    | 15     | 3.8J       | 6.9    | < 2      | 1.3    | < 5      | 21       | 160    |
| ESS-111317-S02-2           | 001-113-17 | Residence                    | <b>94</b>    | <b>500</b>    | 6.2J        | 280    | 1.2       | 2.2       | 9.7      | 2.5    | 21     | 5.5        | 8.2    | < 2      | 1.8    | < 5      | 21       | 250    |
| ESS-105701-S03-2           | 001-057-01 | Residence                    | <b>88</b>    | 380           | 5.9J        | 400    | 0.91      | 2.5       | 10       | 3.4    | 23     | 3.5        | 11     | < 2      | 1.7    | < 5      | 27       | 170    |
| ESS-115101S02-6            | 001-151-01 | Residence                    | <b>87</b>    | <b>520</b>    | 5.2J        | 190    | 2.1       | 2.8       | 5.9      | 1.4J   | 28     | 9.6        | 5.2    | < 2      | 1.8    | < 5      | 12       | 230    |
| ESS-108705-S01-0           | 001-087-05 | Residence                    | <b>85</b>    | <b>440</b>    | 6.1J        | 300    | 1.4       | 2.2       | 7.6      | 2      | 18     | 5.6        | 7.4    | < 2      | 1.5    | < 5      | 22       | 140    |
| ESS-108603-S03-2           | 001-086-03 | Residence                    | <b>82</b>    | 390           | 5.8J        | 170    | 1.5       | 2.3       | 9.3      | 2.5    | 14     | 3.8J       | 7.8    | < 2      | 1.4    | < 5      | 19       | 120    |
| ESS-CR-S-05-U-5002         | Creek      | Upstream Creek bed           | <b>76</b>    | 220           | 14J         | 300    | 0.67      | 2.2       | 12       | 4.3    | 22     | < 2.5      | 12     | 2        | 1.4    | 2.6J**   | 32       | 250    |
| ESS-118102-S07-2           | 001-181-02 | Elementary School            | <b>69</b>    | 200           | 5.4J        | 210    | 0.75      | 1.5       | 10       | 2.8    | 19     | 8.4        | 11     | < 2      | 1      | < 5      | 28       | 120    |



**Table 9 Metals Survey Data  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada  
(mg/kg)**

Project No. EE-002693-2177

TDD No. TO2-09-12-04-0002

| Sample           | APN        | Type of Property   | Arsenic | Lead | Antimony | Barium | Beryllium | Cadmium | Chromium | Cobalt | Copper | Molybdenum | Nickel | Selenium | Silver | Thallium | Vanadium | Zinc |
|------------------|------------|--------------------|---------|------|----------|--------|-----------|---------|----------|--------|--------|------------|--------|----------|--------|----------|----------|------|
| ESS-111317-S01-6 | 001-113-17 | Residence          | 67      | 230  | 4J       | 680    | 0.79      | 1.2     | 17       | 2.5    | 15     | 4.3J       | 14     | < 2      | 1.1    | < 5      | 28       | 110  |
| ESS-109502-S03-0 | 001-095-02 | Residence          | 66      | 190  | 4.5J     | 710    | 0.81      | 1.5     | 11       | 3.3    | 19     | 2.7J       | 12     | < 2      | 1.1    | < 5      | 32       | 130  |
| ESS-CR-S-03-D-2  | Creek      | Upstream Creek bed | 66      | 290  | 6.5J     | 400    | 0.6       | 1.7     | 8.3      | 2.9    | 18     | 3.5J       | 8      | < 2      | 1.1    | < 5      | 24       | 190  |
| ESS-DR-01        | Road       | Dirt Road          | 63      | 210  | 6.1J     | 620    | 0.83      | 1.7     | 10       | 4.4    | 15     | 2.8J       | 9.7    | < 3      | 0.82J  | < 5      | 34       | 120  |
| ESS-101227-P3-0  | 001-012-27 | Undeveloped        | 60      | 210  | 2.5J     | 280    | 0.82      | 2.5     | 11       | 3.7    | 16     | < 2.5      | 12     | < 2      | 0.96J  | < 5      | 33       | 100  |
| ESS-101214-P5-2  | 001-012-14 | Undeveloped        | 59      | 49   | ND       | 99     | 0.81      | 0.54    | 7.2      | 3.4    | 9.8    | < 2.5      | 7.4    | < 2      | 0.71J  | < 5      | 23       | 64   |
| ESS-121202-S03-2 | 001-212-02 | Residence          | 58      | 120  | 1.6J     | 490    | 0.81      | 1.5     | 11       | 3.4    | 16     | < 2.5      | 11     | < 2      | 0.77J  | < 5      | 31       | 110  |
| ESS-102112-S01-2 | 001-021-12 | Athletic Facility  | 58      | 210  | 3.2J     | 430    | 1         | 1       | 10       | 3.4    | 18     | < 2.5      | 12     | < 2      | 1.1    | < 5      | 30       | 100  |
| ESS-111703-S03-0 | 001-117-03 | Residence          | 57      | 120  | 2.3J     | 450    | 0.82      | 1.5     | 11       | 3.8    | 16     | < 2.5      | 12     | < 2      | 0.78J  | 2.6J**   | 31       | 100  |
| ESS-113409-S01-0 | 001-134-09 | Residence          | 55      | 130  | 2.1J     | 260    | 0.8       | 1.3     | 8.8      | 3.4    | 15     | < 2.5      | 10     | < 2      | 0.83J  | < 5      | 31       | 100  |
| ESS-121109-S03-6 | 001-211-09 | Residence          | 54      | 45   | 1.8J     | 510    | 0.77      | 0.7     | 10       | 3.3    | 13     | < 2.5      | 11     | < 2      | 0.63J  | 2.9J**   | 30       | 79   |
| ESS-BG-9-2       | Background | Undeveloped        | 54      | 43   | 10J      | 250    | 1.4       | 0.77    | 17       | 9.3    | 28     | 6.6        | 22     | < 2      | < 0.5  | < 5      | 47       | 110  |
| ESS-121203-S01-0 | 001-212-03 | Residence          | 51      | 110  | 1.9J     | 450    | 0.82      | 1.4     | 9.6      | 3.5    | 17     | < 2.5      | 11     | < 2      | 0.71J  | < 5      | 28       | 89   |
| ESS-106307-S01-0 | 001-063-07 | Residence          | 49      | 240  | 5.5J     | 310    | 0.56      | 1.8     | 9.4      | 3.1    | 20     | < 2.5      | 8.4    | < 2      | 0.88J  | < 5      | 26       | 170  |
| ESS-103207-S02-0 | 001-032-07 | Residence          | 48      | 190  | 4.1J     | 360    | 0.92      | 1.7     | 15       | 6      | 20     | < 2.5      | 13     | < 2      | 0.84J  | < 5      | 32       | 140  |
| ESS-115503-S04-0 | 001-155-03 | Elementary School  | 40      | 110  | 3.3J     | 210    | 0.51      | 1.2     | 8.3      | 2.2    | 16     | 4.6J       | 8.7    | < 2      | 0.7J   | < 5      | 19       | 110  |
| ESS-102205-S02-0 | 001-022-05 | Residence          | 36      | 480  | 2.8J     | 540    | 0.76      | 1.6     | 10       | 3.3    | 31     | 2.9J       | 11     | < 2      | 1.4    | < 5      | 31       | 340  |
| ESS-121109-S02-2 | 001-211-09 | Residence          | 30      | 60   | 2.2J     | 600    | 0.8       | 0.88    | 14       | 4.6    | 16     | < 2.5      | 12     | < 2      | < 0.5  | < 5      | 35       | 90   |
| ESS-103-P5-5002  | 001-021-06 | Undeveloped        | 28      | 92   | 3.4J     | 200    | 0.97      | 1       | 14       | 5.4    | 17     | < 2.5      | 9.8    | < 2      | 0.66J  | < 5      | 39       | 110  |
| ESS-103412-S02-2 | 001-034-12 | Residence          | 23      | 63   | ND       | 210    | 1.2       | 0.63    | 7.3      | 2.8    | 12     | < 2.5      | 8.4    | < 2      | 0.65J  | < 5      | 20       | 80   |

Notes:

mg/kg = milligrams per kilogram

START = Superfund Technical Assessment and Response Team

\* Benchmarks are U.S. EPA Regional Screening Level for soil except for arsenic. The benchmark for arsenic is the SSL.

APN = Assessor's Parcel Number

SSL = Site Screening Level; the SSL for arsenic by XRF is 60 mg/kg and for lead by XRF is 400 mg/kg

NA = Sample was not analyzed or the size of the area associated with the locations is not known.

Bold = Above the benchmark.

J = Value is estimated.

J\*\* = The estimated value is below the quantitation/ reporting limit. By definition the reported values indicates the sample concentration of this analyte to be greater than zero but less than the quantitation/ reporting limit.

***Appendix D:***  
***Confirmatory Laboratory Data***  
***Summary Tables***

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**Table D-1 Laboratory Data Summary  
With XRF Result  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Number</b> | <b>U.S. EPA<br/>Richmond<br/>Laboratory Lead<br/>Results by EPA<br/>Method 6010C<br/>(mg/kg)<br/>sieved/cup</b> | <b>START XRF<br/>Lead Results<br/>(mg/kg)<br/>sieved/cup</b> | <b>Sample Number</b> | <b>U.S. EPA<br/>Richmond<br/>Laboratory<br/>Arsenic Results<br/>by EPA Method<br/>6010C (mg/kg)<br/>sieved/cup</b> | <b>START XRF<br/>Arsenic Results<br/>(mg/kg)<br/>sieved/cup</b> |
|----------------------|---|--|----------------------|--|---|
| ESS-101111-P1-0      | <u>27,000</u>   | <u>27,000</u>  | ESS-101111-P1-0      | <u>21,000</u>  | <u>25,000</u>   |
| ESS-113616-S02-5000  | <u>24,000</u>   | <u>23,000</u>  | ESS-113616-S02-5000  | <u>5,300</u>   | <u>5,700</u>  |
| ESS-119103-S03-0     | <u>23,000</u>   | <u>20,000</u>  | ESS-119103-S03-0     | <u>4,800</u>   | <u>3,800</u>  |
| ESS-113616-S02-0     | <u>18,000</u>   | <u>16,000</u>  | ESS-113616-S02-0     | <u>4,100</u>   | <u>3,400</u>  |
| ESS-103306-S03-2     | <u>13,000</u>   | <u>11,000</u>  | ESS-103306-S03-2     | <u>2,200</u>   | <u>1,600</u>  |
| ESS-119103-S01-0     | <u>12,000</u>   | <u>8,900</u>   | ESS-119103-S01-0     | <u>2,800</u>   | <u>1,800</u>  |
| ESS-120201-P3-0      | <u>12,000</u>   | <u>9,800</u>   | ESS-120201-P3-0      | <u>2,400</u>   | <u>2,000</u>  |
| ESS-116101-S01-5006  | <u>10,000</u>   | <u>9,000</u>   | ESS-116101-S01-5006  | <u>2,300</u>   | <u>1,700</u>  |
| ESS-115401-P1-2      | <u>10,000</u>   | <u>9,700</u>   | ESS-115401-P1-2      | <u>1,900</u>   | <u>1,600</u>  |
| ESS-1011210-P1-2     | <u>9,900</u>  | <u>6,900</u>   | ESS-1011210-P1-2     | <u>1,900</u>   | <u>1,100</u>  |
| ESS-116101-C         | <u>7,800</u>  | <u>7600</u>  | ESS-116101-C         | <u>1,700</u>   | <u>1,300</u>  |
| ESS-113609-S03-6     | <u>6,000</u>  | <u>6,300</u>   | ESS-113609-S03-6     | <u>1,200</u>   | <u>1,100</u>  |
| ESS-119103-S01-2     | <u>5,900</u>  | <u>4,900</u>   | ESS-119103-S01-2     | <u>1,400</u>   | <u>990</u>  |
| ESS-103301-P1-2      | <u>5,900</u>  | <u>5,100</u>   | ESS-103301-P1-2      | <u>1,200</u>   | <u>960</u>  |
| ESS-120203-P1-0      | <u>5,900</u>  | <u>5,500</u>   | ESS-120203-P1-0      | <u>1,100</u>   | <u>840</u>  |
| ESS-113609-S01-6     | <u>5,100</u>  | <u>5,300</u>   | ESS-113609-S01-6     | <u>830</u>   | <u>700</u>  |
| ESS-111703-S01-2     | <u>4,600</u>  | <u>4,800</u>   | ESS-111703-S01-2     | <u>970</u>   | <u>760</u>  |
| ESS-113609-C         | <u>4,200</u>  | <u>4300</u>  | ESS-113609-C         | <u>750</u>   | <u>610</u>  |
| ESS-113802-S01-2     | <u>4,000</u>  | <u>3,600</u>   | ESS-113802-S01-2     | <u>890</u>   | <u>650</u>  |
| ESS-107403-C         | <u>4,000</u>  | <u>3900</u>  | ESS-107403-C         | <u>680</u>   | <u>560</u>  |
| ESS-115401-S03-0     | <u>3,900</u>  | <u>4,300</u>   | ESS-115401-S03-0     | <u>910</u>   | <u>710</u>  |
| ESS-113106-S01-6     | <u>3,700</u>  | <u>3,500</u>   | ESS-113106-S01-6     | <u>830</u>   | <u>620</u>  |
| ESS-111703-C         | <u>3,700</u>  | <u>3700</u>  | ESS-111703-C         | <u>730</u>   | <u>590</u>  |
| ESS-113603-S02-0     | <u>3,500</u>  | <u>3,700</u>   | ESS-113603-S02-0     | <u>740</u>   | <u>590</u>  |
| ESS-115401-C         | <u>3,500</u>  | <u>3400</u>  | ESS-115401-C         | <u>730</u>   | <u>500</u>  |
| ESS-113603-C         | <u>3,400</u>  | <u>3300</u>  | ESS-113603-C         | <u>690</u>   | <u>500</u>  |
| ESS-103211-S01-6     | <u>3,300</u>  | <u>3,100</u>   | ESS-103211-S01-6     | <u>790</u>   | <u>520</u>  |
| ESS-AD-2-0           | <u>3,300</u>  | <u>3,000</u>   | ESS-AD-2-0           | <u>640</u>   | <u>530</u>  |
| ESS-110403-S02-0     | <u>2,900</u>  | <u>2,600</u>   | ESS-110403-S02-0     | <u>520</u>   | <u>330</u>  |
| ESS-103207-S03-2     | <u>2,500</u>  | <u>2,400</u>   | ESS-103207-S03-2     | <u>560</u>   | <u>460</u>  |
| ESS-1011210-P1-2     | <u>2,400</u>  | <u>2,400</u>   | ESS-101210-S01-6     | <u>77</u>  | <u>81</u>   |
| ESS-103106-S03-2     | <u>2,300</u>  | <u>2,100</u>   | ESS-103106-S03-2     | <u>500</u>   | <u>390</u>  |
| ESS-113609-S04-6     | <u>2,300</u>  | <u>2,400</u>   | ESS-113609-S04-6     | <u>460</u>   | <u>410</u>  |
| ESS-113605-S03-2     | <u>2,300</u>  | <u>2,200</u>   | ESS-113605-S03-2     | <u>440</u>   | <u>300</u>  |
| ESS-113604-S03-2     | <u>2,000</u>  | <u>1,900</u>   | ESS-113604-S03-2     | <u>470</u>   | <u>320</u>  |
| ESS-103207-S03-0     | <u>2,000</u>  | <u>1,700</u>   | ESS-103207-S03-0     | <u>430</u>   | <u>280</u>  |
| ESS-103236-S01-2     | <u>1,900</u>  | <u>1,700</u>   | ESS-103236-S01-2     | <u>510</u>   | <u>330</u>  |
| ESS-107403-P3-2      | <u>1,900</u>  | <u>1,900</u>   | ESS-107403-P3-2      | <u>350</u>   | <u>240</u>  |
| ESS-103202-S02-6     | <u>1,600</u>  | <u>1,600</u>   | ESS-103202-S02-6     | <u>350</u>   | <u>260</u>  |
| ESS-111703-S01-0     | <u>1,600</u>  | <u>1,600</u>   | ESS-111703-S01-0     | <u>290</u>   | <u>200</u>  |
| ESS-101227-P4-2      | <u>1,500</u>  | <u>1,600</u>   | ESS-101227-P4-2      | <u>340</u>   | <u>280</u>  |
| ESS-103308-S01-2     | <u>1,300</u>  | <u>1,300</u>   | ESS-103308-S01-2     | <u>290</u>   | <u>220</u>  |
| ESS-107403-S01-0     | <u>1,300</u>  | <u>1,200</u>   | ESS-107403-S01-0     | <u>220</u>   | <u>160</u>  |
| ESS-103230-S01-0     | <u>1,200</u>  | <u>1,300</u>   | ESS-103230-S01-0     | <u>490</u>   | <u>430</u>  |
| ESS-116702-S01-6     | <u>1,200</u>  | <u>1,000</u>   | ESS-116702-S01-6     | <u>300</u>   | <u>170</u>  |
| ESS-109501-S01-0     | <u>1,200</u>  | <u>1,100</u>   | ESS-109501-S01-0     | <u>230</u>   | <u>150</u>  |

**Table D-1 Laboratory Data Summary  
With XRF Result  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Number</b> | <b>U.S. EPA<br/>Richmond<br/>Laboratory Lead<br/>Results by EPA<br/>Method 6010C<br/>(mg/kg)<br/>sieved/cup</b> | <b>START XRF<br/>Lead Results<br/>(mg/kg)<br/>sieved/cup</b> | <b>Sample Number</b> | <b>U.S. EPA<br/>Richmond<br/>Laboratory<br/>Arsenic Results<br/>by EPA Method<br/>6010C (mg/kg)<br/>sieved/cup</b> | <b>START XRF<br/>Arsenic Results<br/>(mg/kg)<br/>sieved/cup</b> |
|----------------------|---|--|----------------------|--|---|
| ESS-NDEP-94-P6-0     | 1,200   | 1,300  | ESS-NDEP-94-P6-0     | 210  | 180   |
| ESS-103108-S02-2     | 1,100   | 1,200  | ESS-103108-S02-2     | 250  | 200   |
| ESS-113101-S02-5002  | 1,100   | 1,100  | ESS-113101-S02-5002  | 250  | 180   |
| ESS-103311-S01-5002  | 1,000   | 1,000  | ESS-103311-S01-5002  | 200  | 160   |
| ESS-103308-S01-0     | 950   | 980  | ESS-103308-S01-0     | 220  | 160   |
| ESS-103230-S01-2     | 920   | 990  | ESS-103230-S01-2     | 420  | 360   |
| ESS-103229-S01-2     | 910   | 1,000  | ESS-103229-S01-2     | 220  | 200   |
| ESS-103804-S01-2     | 860   | 800  | ESS-103804-S01-2     | 180  | 110   |
| ESS-103233-S01-2     | 850   | 870  | ESS-103233-S01-2     | 180  | 140   |
| ESS-113101-S01-0     | 850   | 910  | ESS-113101-S01-0     | 140  | 120   |
| ESS-102101-P1-2      | 840   | 450  | ESS-102101-P1-2      | 180  | 75  |
| ESS-113101-S01-6     | 840   | 820  | ESS-113101-S01-6     | 160  | 100   |
| ESS-103703-S02-5006  | 800   | 640  | ESS-103703-S02-5006  | 160  | 110   |
| ESS-113104-S02-5002  | 770   | 740  | ESS-113104-S02-5002  | 170  | 140   |
| ESS-103810-S02-0     | 760   | 730  | ESS-103810-S02-0     | 170  | 130   |
| ESS-107106-S03-0     | 740   | 670  | ESS-107106-S03-0     | 120  | 84  |
| ESS-103228-S01-0     | 730   | 800  | ESS-103228-S01-0     | 190  | 180   |
| ESS-108603-S01-0     | 690   | 670  | ESS-108603-S01-0     | 72   | 69  |
| ESS-103235-S01-2     | 640   | 620  | ESS-103235-S01-2     | 170  | 150   |
| ESS-115302-S03-0     | 630   | 700  | ESS-115302-S03-0     | 140  | 100   |
| ESS-109107-S02-6     | 630   | 610  | ESS-109107-S02-6     | 130  | 82  |
| ESS-108603-S01-5002  | 620   | 630  | ESS-108603-S01-5002  | 87   | 73  |
| ESS-103205-S02-0     | 600   | 620  | ESS-103205-S02-0     | 140  | 100   |
| ESS-102101-P1-5000   | 570   | 500  | ESS-102101-P1-5000   | 110  | 60  |
| ESS-110403-S01-2     | 560   | 540  | ESS-110403-S01-2     | 99   | 69  |
| ESS-108401-S03-6     | 530   | 570  | ESS-108401-S03-6     | 100  | 100   |
| ESS-106304-S04-2     | 530   | 520  | ESS-106304-S04-2     | 95   | 88  |
| ESS-106403-S03-2     | 530   | 560  | ESS-106403-S03-2     | 79   | 65  |
| ESS-115101-S02-6     | 520   | 530  | ESS-115101-S02-6     | 87   | 48  |
| ESS-108603-S03-0     | 510   | 470  | ESS-108603-S03-0     | 91   | 55  |
| ESS-111317-S02-2     | 500   | 500  | ESS-111317-S02-2     | 94   | 55  |
| ESS-110403-S01-0     | 500   | 510  | ESS-110403-S01-0     | 89   | 62  |
| ESS-111317-S02-0     | 490   | 450  | ESS-111317-S02-0     | 95   | 58  |
| ESS-102205-S02-0     | 480   | 440  | ESS-102205-S02-0     | 36   | 21  |
| ESS-103412-S03-6     | 470   | 490  | ESS-103412-S03-6     | 110  | 65  |
| ESS-NDEP103-P4-0     | 470   | 530  | ESS-NDEP103-P4-0     | 81   | 56  |
| ESS-AD-3-0           | 460   | 490  | ESS-AD-3-0           | 57   | 56  |
| ESS-103810-S01-2     | 450   | 450  | ESS-103810-S01-2     | 98   | 69  |
| ESS-103210-S02-2     | 440   | 460  | ESS-103210-S02-2     | 87   | 68  |
| ESS-108705-S01-0     | 440   | 430  | ESS-108705-S01-0     | 85   | 55  |
| ESS-103703-P1-6      | 430   | 370  | ESS-103703-P1-6      | 100  | 58  |
| ESS-103231-S01-0     | 420   | 410  | ESS-103231-S01-0     | 110  | 91  |
| ESS-111304-S02-2     | 420   | 430  | ESS-111304-S02-2     | 85   | 59  |
| ESS-105701-S01-2     | 420   | 450  | ESS-105701-S01-2     | 74   | 54  |
| ESS-109502-S02-2     | 420   | 410  | ESS-109502-S02-2     | 62   | 47  |



**Table D-1 Laboratory Data Summary  
With XRF Result  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Number</b> | <b>U.S. EPA<br/>Richmond<br/>Laboratory Lead<br/>Results by EPA<br/>Method 6010C<br/>(mg/kg)<br/>sieved/cup</b> | <b>START XRF<br/>Lead Results<br/>(mg/kg)<br/>sieved/cup</b> | <b>Sample Number</b> | <b>U.S. EPA<br/>Richmond<br/>Laboratory<br/>Arsenic Results<br/>by EPA Method<br/>6010C (mg/kg)<br/>sieved/cup</b> | <b>START XRF<br/>Arsenic Results<br/>(mg/kg)<br/>sieved/cup</b> |
|----------------------|---|--|----------------------|--|---|
| ESS-116505-S01-0     | 400   | 340  | ESS-116505-S01-0     | 110  | 63  |
| ESS-102101-S04-0     | 400   | 360  | ESS-102101-S04-0     | 99   | 69  |
| ESS-103810-S03-0     | 400   | 380  | ESS-103810-S03-0     | 88   | 64  |
| ESS-103207-S01-0     | 400   | 450  | ESS-103207-S01-0     | 73   | 59  |
| ESS-108603-S03-2     | 390   | 380  | ESS-108603-S03-2     | 82   | 50  |
| ESS-103234-S01-2     | 380   | 420  | ESS-103234-S01-2     | 89   | 84  |
| ESS-105701-S03-2     | 380   | 380  | ESS-105701-S03-2     | 88   | 59  |
| ESS-NDEP103-P5-0     | 380   | 370  | ESS-NDEP103-P5-0     | 76   | 58  |
| ESS-106403-S02-0     | 380   | 400  | ESS-106403-S02-0     | 73   | 63  |
| ESS-116505-S02-5002  | 380   | 400  | ESS-116505-S02-5002  | 65   | 60  |
| ESS-NDEP103-P1-0     | 380   | 460  | ESS-NDEP103-P1-0     | 63   | 62  |
| ESS-115101-S01-2     | 380   | 400  | ESS-115101-S01-2     | 57   | 45  |
| ESS-103224-S01-2     | 370   | 410  | ESS-103224-S01-2     | 99   | 80  |
| ESS-106304-S01-0     | 370   | 360  | ESS-106304-S01-0     | 64   | 51  |
| ESS-AD-26-0          | 360   | 370  | ESS-AD-26-0          | 70   | 52  |
| ESS-108705-S01-6     | 360   | 310  | ESS-108705-S01-6     | 61   | 41  |
| ESS-118405-S01-0     | 350   | 340  | ESS-118405-S01-0     | 110  | 69  |
| ESS-113105-S02-2     | 340   | 360  | ESS-113105-S02-2     | 66   | 55  |
| ESS-115101-S01-0     | 340   | 350  | ESS-115101-S01-0     | 56   | 52  |
| ESS-106307-S01-6     | 330   | 355  | ESS-106307-S01-6     | 70   | 57  |
| ESS-106304-S06-0     | 330   | 330  | ESS-106304-S06-0     | 65   | 56  |
| ESS-110403-S03-6     | 330   | 340  | ESS-110403-S03-6     | 64   | 45  |
| ESS-103224-S02-2     | 320   | 340  | ESS-103224-S02-2     | 110  | 76  |
| ESS-DR-7-0           | 320   | 290  | ESS-DR-7-0           | 80   | 52  |
| ESS-103810-P1-2      | 320   | 310  | ESS-103810-P1-2      | 79   | 50  |
| ESS-109405-P1-0      | 320   | 280  | ESS-109405-P1-0      | 73   | 44  |
| ESS-CR-S-02-U-6      | 310   | 370  | ESS-CR-S-02-U-6      | 81   | 80  |
| ESS-103810-P1-6      | 310   | 290  | ESS-103810-P1-6      | 75   | 55  |
| ESS-106304-S03-2     | 300   | 310  | ESS-106304-S03-2     | 49   | 42  |
| ESS-111604-S01-6     | 290   | 320  | ESS-111604-S01-6     | 84   | 77  |
| ESS-CR-S-03-D-2      | 290   | 310  | ESS-CR-S-03-D-2      | 66   | 54  |
| ESS-106403-S02-2     | 290   | 330  | ESS-106403-S02-2     | 60   | 46  |
| ESS-103305-P2-6      | 280   | 260  | ESS-103305-P2-6      | 79   | 47  |
| ESS-102112-S06-0     | 280   | 336  | ESS-102112-S06-0     | 78   | 48  |
| ESS-111317-S02-6     | 280   | 290  | ESS-111317-S02-6     | 66   | 53  |
| ESS-115503-S07-0     | 280   | 290  | ESS-115503-S07-0     | 66   | 45  |
| ESS-115503-S05-2     | 280   | 270  | ESS-115503-S05-2     | 64   | 52  |
| ESS-CR-S-03-D-5002   | 280   | 310  | ESS-CR-S-03-D-5002   | 62   | 47  |
| ESS-118102-S02-0     | 270   | 240  | ESS-118102-S02-0     | 100  | 58  |
| ESS-106304-S06-5002  | 270   | 280  | ESS-106304-S06-5002  | 56   | 46  |
| ESS-103106-S04-2     | 260   | 270  | ESS-103106-S04-2     | 87   | 64  |
| ESS-113409-S04-0     | 260   | 250  | ESS-113409-S04-0     | 78   | 57  |
| ESS-CR-S-03-D-0      | 260   | 290  | ESS-CR-S-03-D-0      | 62   | 44  |
| ESS-CR-S-03-D-6      | 250   | 320  | ESS-CR-S-03-D-6      | 65   | 54  |
| ESS-103810-S01-6     | 250   | 270  | ESS-103810-S01-6     | 62   | 48  |

**Table D-1 Laboratory Data Summary  
With XRF Result  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Number</b> | <b>U.S. EPA<br/>Richmond<br/>Laboratory Lead<br/>Results by EPA<br/>Method 6010C<br/>(mg/kg)<br/>sieved/cup</b> | <b>START XRF<br/>Lead Results<br/>(mg/kg)<br/>sieved/cup</b> | <b>Sample Number</b> | <b>U.S. EPA<br/>Richmond<br/>Laboratory<br/>Arsenic Results<br/>by EPA Method<br/>6010C (mg/kg)<br/>sieved/cup</b> | <b>START XRF<br/>Arsenic Results<br/>(mg/kg)<br/>sieved/cup</b> |
|----------------------|---|--|----------------------|--|---|
| ESS-103207-P2-2      | 250   | 270  | ESS-103207-P2-2      | 54   | 43  |
| ESS-103703-S02-6     | 240   | 260  | ESS-103703-S02-6     | <b>90</b>  | <b>67</b>   |
| ESS-106307-S01-0     | 240   | 280  | ESS-106307-S01-0     | 49   | 54  |
| ESS-111317-S01-6     | 230   | 220  | ESS-111317-S01-6     | <b>67</b>  | 45  |
| ESS-102112-S01-5000  | 230   | 240  | ESS-102112-S01-5000  | 58   | 48  |
| ESS-103207-P2-6      | 230   | 250  | ESS-103207-P2-6      | 52   | 50  |
| ESS-101210-S01-6     | 220   | 270  | ESS-101211-P1-0      | <b>640</b>   | <b>520</b>  |
| ESS-113601-S01-0     | 220   | 220  | ESS-113601-S01-0     | <b>79</b>  | <b>64</b>   |
| ESS-CR-S-03-U-5002   | 220   | 240  | ESS-CR-S-03-U-5002   | <b>76</b>  | 57  |
| ESS-121104-S02-0     | 220   | 270  | ESS-121104-S02-0     | <b>74</b>  | <b>68</b>   |
| ESS-CR-S-02-D-6      | 220   | 290  | ESS-CR-S-02-D-6      | 58   | 56  |
| ESS-111317-S03-0     | 220   | 210  | ESS-111317-S03-0     | 53   | 41  |
| ESS-121104-S02-2     | 210   | 240  | ESS-121104-S02-2     | <b>79</b>  | <b>69</b>   |
| ESS-DR-1-0           | 210   | 200  | ESS-DR-1-0           | <b>63</b>  | 44  |
| ESS-101227-P3-0      | 210   | 230  | ESS-101227-P3-0      | <b>60</b>  | 49  |
| ESS-102112-S09-2     | 210   | 230  | ESS-102112-S09-2     | 59   | 52  |
| ESS-102112-S01-2     | 210   | 230  | ESS-102112-S01-2     | 58   | 40  |
| ESS-115503-S06-0     | 210   | 220  | ESS-115503-S06-0     | 55   | 56  |
| ESS-105701-S03-0     | 210   | 230  | ESS-105701-S03-0     | 54   | 43  |
| ESS-AD-40-2          | 210   | 250  | ESS-AD-40-2          | 49   | 52  |
| ESS-113409-S03-0     | 200   | 210  | ESS-113409-S03-0     | <b>71</b>  | <b>60</b>   |
| ESS-118102-S07-2     | 200   | 180  | ESS-118102-S07-2     | <b>69</b>  | 43  |
| ESS-AD-13-0          | 200   | 235  | ESS-AD-13-0          | <b>65</b>  | 57  |
| ESS-103108-S02-6     | 200   | 240  | ESS-103108-S02-6     | 54   | 44  |
| ESS-120109-Grab-1    | 200   | 210  | ESS-120109-Grab-1    | 53   | 44  |
| ESS-109502-S03-0     | 190   | 190  | ESS-109502-S03-0     | <b>66</b>  | 50  |
| ESS-121103-S01-6     | 190   | 220  | ESS-121103-S01-6     | <b>61</b>  | 54  |
| ESS-106304-S09-2     | 190   | 210  | ESS-106304-S09-2     | 57   | 40  |
| ESS-103207-S02-0     | 190   | 240  | ESS-103207-S02-0     | 48   | 44  |
| ESS-103207-P2-0      | 190   | 200  | ESS-103207-P2-0      | 39   | 47  |
| ESS-103212-S01-6     | 180   | 230  | ESS-103212-S01-6     | <b>76</b>  | <b>78</b>   |
| ESS-118102-S02-2     | 180   | 160  | ESS-118102-S02-2     | <b>71</b>  | <b>61</b>   |
| ESS-CR-S-04-U-2      | 180   | 260  | ESS-CR-S-04-U-2      | 56   | 55  |
| ESS-CR-S-03-U-6      | 180   | 210  | ESS-CR-S-03-U-6      | 55   | 51  |
| ESS-115503-S01-0     | 180   | 190  | ESS-115503-S01-0     | 52   | 45  |
| ESS-121107-S01-2     | 180   | 230  | ESS-121107-S01-2     | 47   | 46  |
| ESS-AD-21-0          | 180   | 230  | ESS-AD-21-0          | 44   | 48  |
| ESS-121202-S03-6     | 170   | 200  | ESS-121202-S03-6     | <b>77</b>  | 56  |
| ESS-121111-S03-6     | 170   | 200  | ESS-121111-S03-6     | <b>70</b>  | 54  |
| ESS-107106-S01-0     | 170   | 180  | ESS-107106-S01-0     | <b>66</b>  | 50  |
| ESS-121209-S01-6     | 170   | 210  | ESS-121209-S01-6     | 56   | 54  |
| ESS-103412-S03-0     | 170   | 190  | ESS-103412-S03-0     | 55   | <b>60</b>   |
| ESS-AD-20-0          | 170   | 210  | ESS-AD-20-0          | 53   | 46  |
| ESS-CR-S-04-U-6      | 150   | 170  | ESS-CR-S-04-U-6      | 55   | 52  |
| ESS-103207-S02-2     | 150   | 170  | ESS-103207-S02-2     | 53   | 48  |
| ESS-121208-S01-6     | 150   | 180  | ESS-121208-S01-6     | 52   | 49  |



**Table D-1 Laboratory Data Summary  
With XRF Result  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Number</b> | <b>U.S. EPA<br/>Richmond<br/>Laboratory Lead<br/>Results by EPA<br/>Method 6010C<br/>(mg/kg)<br/>sieved/cup</b> | <b>START XRF<br/>Lead Results<br/>(mg/kg)<br/>sieved/cup</b> | <b>Sample Number</b> | <b>U.S. EPA<br/>Richmond<br/>Laboratory<br/>Arsenic Results<br/>by EPA Method<br/>6010C (mg/kg)<br/>sieved/cup</b> | <b>START XRF<br/>Arsenic Results<br/>(mg/kg)<br/>sieved/cup</b> |
|----------------------|---|--|----------------------|--|---|
| ESS-113409-S02-0     | 150   | 160  | ESS-113409-S02-0     | 51   | 43  |
| ESS-106403-S04-0     | 150   | 160  | ESS-106403-S04-0     | 43   | 31  |
| ESS-115503-S03-0     | 130   | 140  | ESS-115503-S03-0     | <b>82</b>  | 56  |
| ESS-101214-P3-0      | 130   | 150  | ESS-101214-P3-0      | <b>60</b>  | 46  |
| ESS-113409-S01-2     | 130   | 150  | ESS-113409-S01-2     | 58   | 42  |
| ESS-113409-S01-5006  | 130   | 160  | ESS-113409-S01-5006  | 57   | 45  |
| ESS-113409-S01-0     | 130   | 150  | ESS-113409-S01-0     | 55   | 57  |
| ESS-101227-P1-0      | 130   | 150  | ESS-101227-P1-0      | 54   | 47  |
| ESS-118302-S02-5002  | 120   | 120  | ESS-118302-S02-5002  | <b>98</b>  | <b>68</b>   |
| ESS-121202-S03-2     | 120   | 130  | ESS-121202-S03-2     | 58   | 51  |
| ESS-121204-S01-2     | 120   | 150  | ESS-121204-S01-2     | 58   | 40  |
| ESS-121203-S02-2     | 120   | 140  | ESS-121203-S02-2     | 57   | 43  |
| ESS-118102-P1-0      | 110   | 110  | ESS-118102-P1-0      | <b>86</b>  | <b>65</b>   |
| ESS-115503-S08-0     | 110   | 120  | ESS-115503-S08-0     | 71   | 53  |
| ESS-109502-S03-6     | 110   | 120  | ESS-109502-S03-6     | 58   | 51  |
| ESS-121203-S01-0     | 110   | 130  | ESS-121203-S01-0     | 51   | 44  |
| ESS-115202-S04-0     | 110   | 120  | ESS-115202-S04-0     | 40   | 44  |
| ESS-111304-P1-6      | 110   | 130  | ESS-111304-P1-6      | 31   | 29  |
| ESS-115503-S08-2     | 100   | 110  | ESS-115503-S08-2     | <b>66</b>  | 47  |
| ESS-101227-P1-2      | 100   | 120  | ESS-101227-P1-2      | <b>61</b>  | 53  |
| ESS-109502-S03-2     | 100   | 110  | ESS-109502-S03-2     | 56   | 48  |
| ESS-121203-S02-6     | 100   | 120  | ESS-121203-S02-6     | 52   | 43  |
| ESS-121107-S01-0     | 99  | 110  | ESS-121107-S01-0     | 48   | 44  |
| ESS-121111-S03-2     | 99  | 110  | ESS-121111-S03-2     | 48   | 40  |
| ESS-121204-S01-6     | 96  | 120  | ESS-121204-S01-6     | 54   | 53  |
| ESS-121203-S01-6     | 96  | 110  | ESS-121203-S01-6     | 50   | 56  |
| ESS-NDEP103-P5-5002  | 92  | 100  | ESS-NDEP103-P5-5002  | 28   | 23  |
| ESS-101214-P3-2      | 91  | 110  | ESS-101214-P3-2      | 59   | <b>62</b>   |
| ESS-121210-S01-6     | 89  | 120  | ESS-121210-S01-6     | 45   | 33  |
| ESS-NDEP103-P2-2     | 88  | 120  | ESS-NDEP103-P2-2     | 43   | 41  |
| ESS-115202-S03-2     | 84  | 89   | ESS-115202-S03-2     | <b>91</b>  | <b>69</b>   |
| ESS-121211-S02-6     | 84  | 100  | ESS-121211-S02-6     | 40   | 36  |
| ESS-121107-S02-5000  | 82  | 100  | ESS-121107-S02-5000  | 32   | 34  |
| ESS-121111-S02-0     | 81  | 93   | ESS-121111-S02-0     | 48   | 41  |
| ESS-AD-9-2           | 81  | 120  | ESS-AD-9-2           | 23   | 31  |
| ESS-121202-S03-0     | 77  | 93   | ESS-121202-S03-0     | 48   | 49  |
| ESS-108105-S02-0     | 69  | 94   | ESS-108105-S02-0     | 20   | 21  |
| ESS-121109-S03-5002  | 66  | 74   | ESS-121109-S03-5002  | <b>63</b>  | 52  |
| ESS-121207-S02-0     | 65  | 79   | ESS-121207-S02-0     | 36   | 33  |
| ESS-121204-S01-0     | 64  | 80   | ESS-121204-S01-0     | 38   | 30  |
| ESS-103412-S02-2     | 63  | 82   | ESS-103412-S02-2     | 23   | 15  |
| ESS-BG-11-0          | 62  | 61   | ESS-BG-11-0          | 48   | 36  |
| ESS-111304-S01-0     | 62  | 72   | ESS-111304-S01-0     | 18   | 20  |
| ESS-121101-S01-2     | 60  | 95   | ESS-121101-S01-2     | 44   | 47  |
| ESS-121109-S02-2     | 60  | 120  | ESS-121109-S02-2     | 30   | 26  |
| ESS-103232-S01-6     | 59  | 180  | ESS-103232-S01-6     | <b>80</b>  | 55  |
| ESS-BG-11-6          | 55  | 30   | ESS-BG-11-6          | 44   | 55  |

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With XRF Result  
Eureka Smelter Sites  
Assessment  
Eureka, Eureka County, Nevada**

**Project No. EE-002693-2177**

**TDD No. TO2-09-12-04-0002**

| <b>Sample Number</b> | <b>U.S. EPA<br/>Richmond<br/>Laboratory Lead<br/>Results by EPA<br/>Method 6010C<br/>(mg/kg)<br/>sieved/cup</b> | <b>START XRF<br/>Lead Results<br/>(mg/kg)<br/>sieved/cup</b> | <b>Sample Number</b> | <b>U.S. EPA<br/>Richmond<br/>Laboratory<br/>Arsenic Results<br/>by EPA Method<br/>6010C (mg/kg)<br/>sieved/cup</b> | <b>START XRF<br/>Arsenic Results<br/>(mg/kg)<br/>sieved/cup</b> |
|----------------------|---|--|----------------------|--|---|
| ESS-121110-S01-2     | 55  | 69   | ESS-121110-S01-2     | 27   | 26  |
| ESS-101214-P3-6      | 49  | 55   | ESS-101214-P3-6      | 59   | 59  |
| ESS-121207-S03-6     | 48  | 58   | ESS-121207-S03-6     | 30   | 30  |
| ESS-121109-S03-6     | 45  | 53   | ESS-121109-S03-6     | 54   | 43  |
| ESS-BG-9-0           | 44  | 59   | ESS-BG-9-0           | 55   | 53  |
| ESS-121111-S01-2     | 44  | 54   | ESS-121111-S01-2     | 25   | 23  |
| ESS-DR-4-0           | 42  | 93   | ESS-DR-4-0           | 31   | 48  |
| ESS-121108-S03-0     | 39  | 63   | ESS-121108-S03-0     | 29   | 19  |
| ESS-121108-S02-0     | 38  | 45   | ESS-121108-S02-0     | 25   | 24  |
| ESS-121102-S03-0     | 38  | 52   | ESS-121102-S03-0     | 13   | 17  |
| ESS-BG-10-0          | 33  | 38   | ESS-BG-10-0          | 59   | 47  |
| ESS-NDEP103-P2-6     | 32  | 36   | ESS-NDEP103-P2-6     | 42   | 41  |
| ESS-740021-S01-2     | 31  | 45   | ESS-740021-S01-2     | 13   | 0   |
| ESS-121103-S01-2     | 28  | 41   | ESS-121103-S01-2     | 24   | 23  |
| ESS-B-7-6            | 25  | 57   | ESS-B-7-6            | <b>65</b>  | 56  |
| ESS-121208-P1-2      | 25  | 42   | ESS-121208-P1-2      | 14   | 17  |
| ESS-115503-S07-2     | 24  | 40   | ESS-115503-S07-2     | 11   | 7   |
| ESS-BG-8-0           | 23  | 67   | ESS-BG-8-0           | 45   | 53  |
| ESS-101233-S01-7     | 20  | 30   | ESS-101233-S01-7     | 23   | 25  |
| ESS-103210-S02-6     | 19  | 36   | ESS-103210-S02-6     | 17   | 18  |
| ESS-BKG-B5-2         | 15  | 36   | ESS-BKG-B5-2         | 12   | 14  |
| ESS-740022-S01-2     | 14  | 21   | ESS-740022-S01-2     | 8  | 11  |
| ESS-BKG -3-2         | 14  | 28   | ESS-BKG -3-2         | 8  | 14  |
| ESS-BKG-BKG-02-6     | 11  | 24   | ESS-BKG-BKG-02-6     | 9  | 13  |
| ESS-BKG-B1-0         | 7   | 42   | ESS-BKG-B1-0         | 2  | 0   |

**Notes:**

mg/kg = milligrams per kilogram

U.S. EPA = United States Environmental Protection Agency

START = Superfund Technical Assessment and Response Team

XRF = X-Ray Fluorescence

SSL = Site Screening Level; the SSL for arsenic by XRF is 60 mg/kg and for lead by XRF is 400 mg/kg

Bold = Above the SSL

Bold, underlined and italics = Above 600 mg/kg for arsenic by XRF and 3,000 mg/kg for lead

Ecology and Environment Inc. 2013



***Appendix E:***  
**Laboratory Analysis**  
**and Data Validation**  
**Reports**

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***Appendix F:***  
**XRF Analysis**  
**QA/QC Summary**

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# Field Duplicates

| Sample Number       | START XRF Lead<br>Results (mg/kg)<br>dry wt. | START XRF<br>Arsenic<br>Results (mg/kg)<br>dry wt. | Lead RPD | Arsenic RPD | Average<br>Lead | average<br>Arsenic |
|---------------------|--|--|----------|-------------|-----------------|--------------------|
| ESS-119103-S03-0    | 20000  | 3800   | 92%      | 92%         | 13,700          | 2,600              |
| ESS-119103-S03-5000 | 7400   | 1400   | 92%      | 92%         |                 |                    |
| ESS-116105-S02-2    | 870  | 140  | 74%      | 80%         | 635             | 100                |
| ESS-116105-S02-5002 | 400  | 60   | 74%      | 80%         |                 |                    |
| ESS-120203-P2-2     | 8500   | 1600   | 72%      | 77%         | 6,250           | 1,155              |
| ESS-120203-P2-5002  | 4000   | 710  | 72%      | 77%         |                 |                    |
| ESS-NDEP-94-P6-5006 | 860  | 130  | 94%      | 71%         | 585             | 96                 |
| ESS-NDEP-94-P6-6    | 310  | 62   | 94%      | 71%         |                 |                    |
| ESS-AD-2-5000       | 5100   | 1000   | 52%      | 61%         | 4,050           | 765                |
| ESS-AD-2-0          | 3000   | 530  | 52%      | 61%         |                 |                    |
| ESS-121209-S01-6    | 210  | 54   | 98%      | 57%         | 141             | 42                 |
| ESS-121101-S01-5006 | 72   | 30   | 98%      | 57%         |                 |                    |
| ESS-113616-S02-5000 | 23000  | 5900   | 36%      | 54%         | 19,500          | 4,650              |
| ESS-113616-S02-0    | 16000  | 3400   | 36%      | 54%         |                 |                    |
| ESS-102112-S07-2    | 47   | 7  | 35%      | 53%         | 40              | 10                 |
| ESS-102112-S07-5002 | 33   | 12   | 35%      | 53%         |                 |                    |
| ESS-121202-S02-2    | 110  | 36   | 63%      | 53%         | 84              | 29                 |
| ESS-121202-S02-5002 | 57   | 21   | 63%      | 53%         |                 |                    |
| ESS-103306-S02-5000 | 2800   | 370  | 55%      | 51%         | 2,200           | 295                |
| ESS-103306-S02-0    | 1600   | 220  | 55%      | 51%         |                 |                    |
| ESS-103703-S02-5006 | 640  | 110  | 84%      | 49%         | 450             | 89                 |
| ESS-103703-S02-6    | 260  | 67   | 84%      | 49%         |                 |                    |
| ESS-110502-S01-5006 | 1200   | 180  | 34%      | 48%         | 1,025           | 145                |
| ESS-110502-S01-6    | 850  | 110  | 34%      | 48%         |                 |                    |
| ESS-115401-S01-6    | 10000  | 1800   | 38%      | 48%         | 8,400           | 1,450              |
| ESS-115401-S01-5006 | 6800   | 1100   | 38%      | 48%         |                 |                    |
| ESS-121102-S02-5002 | 83   | 28   | 79%      | 43%         | 60              | 23                 |
| ESS-121102-S02-2    | 36   | 18   | 79%      | 43%         |                 |                    |
| ESS-105701-S02-5002 | 880  | 130  | 36%      | 43%         | 745             | 107                |
| ESS-105701-S02-2    | 610  | 84   | 36%      | 43%         |                 |                    |
| ESS-101224-S01-5002 | 550  | 120  | 29%      | 40%         | 480             | 100                |
| ESS-101224-S01-2    | 410  | 80   | 29%      | 40%         |                 |                    |
| ESS-120201-P5-6     | 1400   | 240  | 43%      | 40%         | 1,150           | 200                |
| ESS-120201-P5-5006  | 900  | 160  | 43%      | 40%         |                 |                    |
| ESS-107403-P3-5006  | 1800   | 260  | 32%      | 36%         | 1,550           | 220                |
| ESS-107403-P3-6     | 1300   | 180  | 32%      | 36%         |                 |                    |
| ESS-103305-P3-5006  | 22000  | 4600   | 32%      | 36%         | 19,000          | 3,900              |
| ESS-103305-P3-6     | 16000  | 3200   | 32%      | 36%         |                 |                    |
| ESS-NDEP103-P5-2    | 120  | 33   | 18%      | 36%         | 110             | 28                 |
| ESS-NDEP103-P5-5002 | 100  | 23   | 18%      | 36%         |                 |                    |
| ESS-740021-S02-5000 | 29   | 7  | 23%      | 35%         | 26              | 9                  |
| ESS-740021-S02-0    | 23   | 10   | 23%      | 35%         |                 |                    |
| ESS-CR-S-03-U-2     | 340  | 81   | 34%      | 35%         | 290             | 69                 |
| ESS-CR-S-03-U-5002  | 240  | 57   | 34%      | 35%         |                 |                    |
| ESS-113409-S01-5006 | 160  | 45   | 66%      | 34%         | 121             | 39                 |
| ESS-113409-S01-6    | 81   | 32   | 66%      | 34%         |                 |                    |
| ESS-115401-S02-5002 | 8000   | 1400   | 29%      | 33%         | 7,000           | 1,200              |
| ESS-115401-S02-2    | 6000   | 1000   | 29%      | 33%         |                 |                    |
| ESS-110403-S02-5002 | 1100   | 120  | 10%      | 33%         | 1,050           | 103                |
| ESS-110403-S02-2    | 1000   | 86   | 10%      | 33%         |                 |                    |
| ESS-109502-S03-0    | 190  | 50   | 30%      | 33%         | 165             | 43                 |
| ESS-109502-S03-5000 | 140  | 36   | 30%      | 33%         |                 |                    |
| ESS-102112-S01-5000 | 240  | 48   | 23%      | 31%         | 215             | 42                 |
| ESS-102112-S01-0    | 190  | 35   | 23%      | 31%         |                 |                    |
| ESS-107106-S02-0    | 1200   | 150  | 9%       | 31%         | 1,150           | 130                |
| ESS-107106-S02-5000 | 1100   | 110  | 9%       | 31%         |                 |                    |
| ESS-BKG-B6-2        | 49   | 15   | 11%      | 31%         | 47              | 13                 |
| ESS-BKG-B6-5002     | 44   | 11   | 11%      | 31%         |                 |                    |
| ESS-103205-S02-5002 | 600  | 120  | 11%      | 30%         | 570             | 105                |
| ESS-103205-S02-2    | 540  | 89   | 11%      | 30%         |                 |                    |

# Field Duplicates

| Sample Number       | START XRF Lead<br>Results (mg/kg)<br>dry wt. | START XRF<br>Arsenic<br>Results (mg/kg)<br>dry wt. | Lead RPD | Arsenic RPD | Average<br>Lead | average<br>Arsenic |
|---------------------|--|--|----------|-------------|-----------------|--------------------|
| ESS-115401-S04-0    | <u>8300</u>                                  | <u>1100</u>  | 14%      | 29%         | <u>7,750</u>    | <u>961</u>         |
| ESS-115401-S04-5000 | <u>7200</u>                                  | <u>822</u>   | 14%      | 29%         |                 |                    |
| ESS-121107-S03-6    | 65   | 21   | 18%      | 29%         | 60              | 25                 |
| ESS-121107-S03-5006 | 54   | 28   | 18%      | 29%         |                 |                    |
| ESS-113106-S02-5000 | <u>5100</u>                                  | <u>920</u>   | 24%      | 29%         | <u>4,550</u>    | <u>805</u>         |
| ESS-113106-S02-0    | <u>4000</u>                                  | <u>690</u>   | 24%      | 29%         |                 |                    |
| ESS-BKG-BKG-02-2    | 30   | 12   | 26%      | 29%         | 27              | 14                 |
| ESS-BKG-BKG-02-5002 | 23   | 16   | 26%      | 29%         |                 |                    |
| ESS-NDEP103-P3-0    | <u>900</u>                                   | <u>84</u>  | 12%      | 27%         | <u>850</u>      | 97                 |
| ESS-NDEP103-P3-5000 | <u>800</u>                                   | <u>110</u>   | 12%      | 27%         |                 |                    |
| ESS-106304-S04-0    | 130  | 26   | 30%      | 26%         | 113             | 23                 |
| ESS-106304-S04-5000 | 96   | 20   | 30%      | 26%         |                 |                    |
| ESS-120201-P1-5000  | <u>5100</u>                                  | <u>890</u>   | 17%      | 25%         | <u>4,700</u>    | <u>790</u>         |
| ESS-120201-P1-0     | <u>4300</u>                                  | <u>690</u>   | 17%      | 25%         |                 |                    |
| ESS-107403-S02-0    | <u>2600</u>                                  | <u>330</u>   | 17%      | 24%         | <u>2,400</u>    | <u>295</u>         |
| ESS-107403-S02-5000 | <u>2200</u>                                  | <u>260</u>   | 17%      | 24%         |                 |                    |
| ESS-121107-S05-2    | 44   | 16   | 10%      | 22%         | 42              | 18                 |
| ESS-121107-S05-5002 | 40   | 20   | 10%      | 22%         |                 |                    |
| ESS-106307-S01-2    | <u>590</u>                                   | <u>88</u>  | 9%       | 21%         | <u>565</u>      | <u>80</u>          |
| ESS-106307-S01-5002 | <u>540</u>                                   | <u>71</u>  | 9%       | 21%         |                 |                    |
| ESS-103212-S01-5006 | 240  | <u>63</u>  | 4%       | 21%         | 235             | <u>71</u>          |
| ESS-103212-S01-6    | 230  | <u>78</u>  | 4%       | 21%         |                 |                    |
| ESS-107403-S03-5006 | <u>1250</u>                                  | <u>210</u>   | 13%      | 21%         | <u>1,175</u>    | <u>190</u>         |
| ESS-107403-S03-6    | <u>1100</u>                                  | <u>170</u>   | 13%      | 21%         |                 |                    |
| ESS-109501-S01-5002 | <u>1500</u>                                  | <u>210</u>   | 14%      | 21%         | <u>1,400</u>    | <u>190</u>         |
| ESS-109501-S01-2    | <u>1300</u>                                  | <u>170</u>   | 14%      | 21%         |                 |                    |
| ESS-121208-S02-5006 | 36   | 17   | 18%      | 21%         | 33              | 19                 |
| ESS-121208-S02-6    | 30   | 21   | 18%      | 21%         |                 |                    |
| ESS-116101-S01-6    | <u>11500</u>                                 | <u>2100</u>  | 24%      | 21%         | <u>10,250</u>   | <u>1,900</u>       |
| ESS-116101-S01-5006 | <u>9000</u>                                  | <u>1700</u>  | 24%      | 21%         |                 |                    |
| ESS-122201-P2-2     | <u>2000</u>                                  | <u>370</u>   | 11%      | 21%         | <u>1,900</u>    | <u>335</u>         |
| ESS-122201-P2-5002  | <u>1800</u>                                  | <u>300</u>   | 11%      | 21%         |                 |                    |
| ESS-103311-S01-5002 | <u>1000</u>                                  | <u>160</u>   | 38%      | 21%         | <u>840</u>      | <u>145</u>         |
| ESS-103311-S01-2    | <u>680</u>                                   | <u>130</u>   | 38%      | 21%         |                 |                    |
| ESS-AD-25-5000      | 220  | <u>87</u>  | 75%      | 20%         | 160             | <u>79</u>          |
| ESS-AD-25-0         | 100  | <u>71</u>  | 75%      | 20%         |                 |                    |
| ESS-113616-S01-5002 | <u>580</u>                                   | <u>100</u>   | 15%      | 20%         | <u>540</u>      | <u>91</u>          |
| ESS-113616-S01-2    | <u>500</u>                                   | <u>82</u>  | 15%      | 20%         |                 |                    |
| ESS-106304-S06-5002 | 280  | 46   | 15%      | 19%         | 260             | 42                 |
| ESS-106304-S06-2    | 240  | 38   | 15%      | 19%         |                 |                    |
| ESS-106304-S05-2    | <u>2200</u>                                  | <u>410</u>   | 10%      | 19%         | <u>2,100</u>    | <u>375</u>         |
| ESS-106304-S05-5002 | <u>2000</u>                                  | <u>340</u>   | 10%      | 19%         |                 |                    |
| ESS-103106-S03-5002 | <u>3000</u>                                  | <u>470</u>   | 35%      | 19%         | <u>2,550</u>    | <u>430</u>         |
| ESS-103106-S03-2    | <u>2100</u>                                  | <u>390</u>   | 35%      | 19%         |                 |                    |
| ESS-AD-15-5000      | <u>850</u>                                   | <u>120</u>   | 1%       | 18%         | <u>845</u>      | <u>110</u>         |
| ESS-AD-15-0         | <u>840</u>                                   | <u>100</u>   | 1%       | 18%         |                 |                    |
| ESS-102101-P1-0     | <u>510</u>                                   | <u>72</u>  | 2%       | 18%         | <u>505</u>      | <u>66</u>          |
| ESS-102101-P1-5000  | <u>500</u>                                   | <u>60</u>  | 2%       | 18%         |                 |                    |
| ESS-106305-S01-0    | <u>1300</u>                                  | <u>180</u>   | 17%      | 18%         | <u>1,200</u>    | <u>165</u>         |
| ESS-106305-S01-5000 | <u>1100</u>                                  | <u>150</u>   | 17%      | 18%         |                 |                    |
| ESS-AD-9-2          | 120  | 31   | 20%      | 18%         | 109             | 29                 |
| ESS-AD-9-5002       | 98   | 26   | 20%      | 18%         |                 |                    |
| ESS-121110-S03-0    | 56   | 22   | 0%       | 17%         | 56              | 24                 |
| ESS-121110-S03-5000 | 56   | 26   | 0%       | 17%         |                 |                    |
| ESS-109107-S03-5000 | 300  | 41   | 35%      | 16%         | 255             | 38                 |
| ESS-109107-S03-2    | 210  | 35   | 35%      | 16%         |                 |                    |
| ESS-BKG-B4-0        | 47   | 12   | 4%       | 15%         | 46              | 13                 |
| ESS-BKG-B4-5000     | 45   | 14   | 4%       | 15%         |                 |                    |
| ESS-121211-S01-5002 | 60   | 21   | 20%      | 15%         | 55              | 20                 |
| ESS-121211-S01-2    | 49   | 18   | 20%      | 15%         |                 |                    |
| ESS-CR-S-09-D-5000  | <u>870</u>                                   | <u>140</u>   | 23%      | 15%         | <u>780</u>      | <u>130</u>         |
| ESS-CR-S-09-D-0     | <u>690</u>                                   | <u>120</u>   | 23%      | 15%         |                 |                    |
| ESS-108603-S01-2    | <u>800</u>                                   | <u>85</u>  | 24%      | 15%         | <u>715</u>      | <u>79</u>          |
| ESS-108603-S01-5002 | <u>630</u>                                   | <u>73</u>  | 24%      | 15%         |                 |                    |
| ESS-102101-S03-5002 | 78   | 36   | 1%       | 15%         | 78              | 34                 |



### Field Duplicates

| Sample Number       | START XRF Lead<br>Results (mg/kg)<br>dry wt. | START XRF<br>Arsenic<br>Results (mg/kg)<br>dry wt. | Lead RPD | Arsenic RPD | Average<br>Lead | average<br>Arsenic |
|---------------------|--|--|----------|-------------|-----------------|--------------------|
| ESS-102101-S03-2    | 77   | 31   | 1%       | 15%         |                 |                    |
| ESS-113105-S01-0    | 1150   | 150  | 17%      | 14%         | 1,060           | 140                |
| ESS-113105-S01-5000 | 970  | 130  | 17%      | 14%         |                 |                    |
| ESS-CR-S-03-D-2     | 310  | 54   | 0%       | 14%         | 310             | 51                 |
| ESS-CR-S-03-D-5002  | 310  | 47   | 0%       | 14%         |                 |                    |
| ESS-101232-S01-5000 | 380  | 86   | 5%       | 13%         | 370             | 92                 |
| ESS-101232-S01-0    | 360  | 98   | 5%       | 13%         |                 |                    |
| ESS-118102-S05-5000 | 190  | 33   | 30%      | 13%         | 165             | 31                 |
| ESS-118102-S05-0    | 140  | 29   | 30%      | 13%         |                 |                    |
| ESS-101228-S01-5006 | 740  | 180  | 3%       | 12%         | 730             | 170                |
| ESS-101228-S01-6    | 720  | 160  | 3%       | 12%         |                 |                    |
| ESS-AD-20-5002      | 71   | 24   | 4%       | 12%         | 70              | 26                 |
| ESS-AD-20-2         | 68   | 27   | 4%       | 12%         |                 |                    |
| ESS-NDEP-94-P1-5000 | 1400   | 180  | 15%      | 12%         | 1,300           | 170                |
| ESS-NDEP-94-P1-0    | 1200   | 160  | 15%      | 12%         |                 |                    |
| ESS-AD-47A-5002     | 110  | 17   | 14%      | 11%         | 103             | 18                 |
| ESS-AD-47A-2        | 96   | 19   | 14%      | 11%         |                 |                    |
| ESS-111304-S02-5000 | 250  | 32   | 17%      | 10%         | 230             | 31                 |
| ESS-111304-S02-0    | 210  | 29   | 17%      | 10%         |                 |                    |
| ESS-118302-S02-2    | 150  | 75   | 22%      | 10%         | 135             | 72                 |
| ESS-118302-S02-5002 | 120  | 68   | 22%      | 10%         |                 |                    |
| ESS-113616-S02-5006 | 510  | 110  | 19%      | 10%         | 465             | 105                |
| ESS-113616-S02-6    | 420  | 100  | 19%      | 10%         |                 |                    |
| ESS-103412-S01-2    | 770  | 110  | 8%       | 9%          | 740             | 115                |
| ESS-103412-S01-5002 | 710  | 120  | 8%       | 9%          |                 |                    |
| ESS-BKG -6-5002     | 27   | 12   | 12%      | 9%          | 26              | 12                 |
| ESS-BKG -6-2        | 24   | 11   | 12%      | 9%          |                 |                    |
| ESS-115101-S03-5006 | 540  | 97   | 10%      | 9%          | 515             | 93                 |
| ESS-115101-S03-6    | 490  | 89   | 10%      | 9%          |                 |                    |
| ESS-115202-S03-2    | 89   | 69   | 13%      | 8%          | 84              | 72                 |
| ESS-115202-S03-5002 | 78   | 75   | 13%      | 8%          |                 |                    |
| ESS-103810-S03-0    | 380  | 64   | 11%      | 8%          | 360             | 62                 |
| ESS-103810-S03-5000 | 340  | 59   | 11%      | 8%          |                 |                    |
| ESS-121107-S04-2    | 130  | 26   | 31%      | 8%          | 113             | 25                 |
| ESS-121107-S04-5002 | 95   | 24   | 31%      | 8%          |                 |                    |
| ESS-115503-S03-5000 | 140  | 30   | 7%       | 7%          | 135             | 29                 |
| ESS-115503-S03-0    | 130  | 28   | 7%       | 7%          |                 |                    |
| ESS-BKG-B5-5006     | 47   | 14   | 14%      | 7%          | 44              | 15                 |
| ESS-BKG-B5-6        | 41   | 15   | 14%      | 7%          |                 |                    |
| ESS-101210-P6-2     | 3900   | 760  | 3%       | 7%          | 3,850           | 735                |
| ESS-101210-P6-5002  | 3800   | 710  | 3%       | 7%          |                 |                    |
| ESS-113601-S01-2    | 620  | 96   | 21%      | 6%          | 560             | 93                 |
| ESS-113601-S01-5002 | 500  | 90   | 21%      | 6%          |                 |                    |
| ESS-AD-45-5002      | 900  | 160  | 1%       | 6%          | 895             | 165                |
| ESS-AD-45-2         | 890  | 170  | 1%       | 6%          |                 |                    |
| ESS-DR-5002-0       | 170  | 34   | 6%       | 6%          | 165             | 33                 |
| ESS-DR-2-0          | 160  | 32   | 6%       | 6%          |                 |                    |
| ESS-121109-S03-2    | 75   | 49   | 1%       | 6%          | 75              | 51                 |
| ESS-121109-S03-5002 | 74   | 52   | 1%       | 6%          |                 |                    |
| ESS-101110-S01-0    | 1800   | 350  | 12%      | 6%          | 1,700           | 340                |
| ESS-101110-S01-5000 | 1600   | 330  | 12%      | 6%          |                 |                    |
| ESS-1011210-P5-0    | 9100   | 1800   | 8%       | 6%          | 8,750           | 1,750              |
| ESS-1011210-P5-5000 | 8400   | 1700   | 8%       | 6%          |                 |                    |
| ESS-106304-S09-6    | 1000   | 190  | 11%      | 5%          | 950             | 185                |
| ESS-106304-S09-5006 | 900  | 180  | 11%      | 5%          |                 |                    |
| ESS-115302-S03-5006 | 4600   | 760  | 4%       | 5%          | 4,500           | 780                |
| ESS-115302-S03-6    | 4400   | 800  | 4%       | 5%          |                 |                    |
| ESS-111604-S01-2    | 1600   | 220  | 6%       | 4%          | 1,550           | 225                |
| ESS-111604-S01-5002 | 1500   | 230  | 6%       | 4%          |                 |                    |
| ESS-102205-S01-2    | 50   | 23   | 22%      | 4%          | 45              | 23                 |
| ESS-102205-S01-5002 | 40   | 22   | 22%      | 4%          |                 |                    |
| ESS-108401-S03-2    | 500  | 76   | 11%      | 4%          | 475             | 75                 |
| ESS-108401-S03-5002 | 450  | 73   | 11%      | 4%          |                 |                    |
| ESS-101227-P3-5002  | 84   | 26   | 0%       | 4%          | 84              | 26                 |
| ESS-101227-P3-2     | 84   | 25   | 0%       | 4%          |                 |                    |

# Field Duplicates

| Sample Number       | START XRF Lead<br>Results (mg/kg)<br>dry wt. | START XRF<br>Arsenic<br>Results (mg/kg)<br>dry wt. | Lead RPD | Arsenic RPD | Average<br>Lead | average<br>Arsenic |
|---------------------|--|--|----------|-------------|-----------------|--------------------|
| ESS-103202-S02-5006 | <u>1700</u>                                  | <u>250</u>   | 6%       | 4%          | <u>1,650</u>    | <u>255</u>         |
| ESS-103202-S02-6    | <u>1600</u>                                  | <u>260</u>   | 6%       | 4%          |                 |                    |
| ESS-B-7-5006        | 33   | <u>57</u>  | 10%      | 4%          | 32              | <u>56</u>          |
| ESS-B-7-6           | 30   | <u>55</u>  | 10%      | 4%          |                 |                    |
| ESS-108105-S03-6    | 220  | 32   | 0%       | 3%          | 220             | 32                 |
| ESS-108105-S03-5006 | 220  | 31   | 0%       | 3%          |                 |                    |
| ESS-121107-S02-5000 | 100  | 34   | 11%      | 3%          | 95              | 35                 |
| ESS-121107-S02-0    | 90   | 35   | 11%      | 3%          |                 |                    |
| ESS-102205-S03-5000 | 335  | 35   | 41%      | 3%          | 278             | 35                 |
| ESS-102205-S03-0    | 220  | 34   | 41%      | 3%          |                 |                    |
| ESS-109502-S01-5002 | 400  | <u>72</u>  | 29%      | 3%          | 350             | <u>71</u>          |
| ESS-109502-S01-2    | 300  | <u>70</u>  | 29%      | 3%          |                 |                    |
| ESS-1011210-P1-6    | <u>4900</u>                                  | <u>890</u>   | 2%       | 2%          | <u>4,850</u>    | <u>880</u>         |
| ESS-1011210-P1-5006 | <u>4800</u>                                  | <u>870</u>   | 2%       | 2%          |                 |                    |
| ESS-AD-40-5000      | 260  | 45   | 4%       | 2%          | 255             | 45                 |
| ESS-AD-40-0         | 250  | 44   | 4%       | 2%          |                 |                    |
| ESS-115503-S08-0    | 120  | <u>53</u>  | 23%      | 2%          | 108             | <u>54</u>          |
| ESS-115503-S08-5000 | 95   | <u>54</u>  | 23%      | 2%          |                 |                    |
| ESS-101211-P2-6     | 79   | <u>79</u>  | 3%       | 1%          | 78              | <u>79</u>          |
| ESS-101211-P2-5006  | 77   | <u>78</u>  | 3%       | 1%          |                 |                    |
| ESS-111703-S01-0    | <u>1600</u>                                  | <u>200</u>   | 0%       | 0%          | <u>1,600</u>    | <u>200</u>         |
| ESS-111703-S01-5000 | <u>1600</u>                                  | <u>200</u>   | 0%       | 0%          |                 |                    |
| ESS-AD-30-2         | 220  | <u>69</u>  | 0%       | 0%          | 220             | <u>69</u>          |
| ESS-AD-30-5002      | 220  | <u>69</u>  | 0%       | 0%          |                 |                    |
| ESS-BKG -5-6        | 24   | <10  | 0%       | 0%          | 24              | <10                |
| ESS-BKG -5-5006     | 24   | 9  | 0%       | 0%          |                 |                    |
| ESS-113104-S02-5002 | <u>740</u>                                   | <u>140</u>   | 1%       | 0%          | <u>735</u>      | <u>140</u>         |
| ESS-113104-S02-2    | <u>730</u>                                   | <u>140</u>   | 1%       | 0%          |                 |                    |
| ESS-121110-S01-5000 | 70   | 28   | 1%       | 0%          | 70              | 28                 |
| ESS-121110-S01-0    | 69   | 28   | 1%       | 0%          |                 |                    |
| ESS-121207-S02-0    | 79   | 33   | 3%       | 0%          | 78              | 33                 |
| ESS-121207-S02-5000 | 77   | 33   | 3%       | 0%          |                 |                    |
| ESS-101211-P5-0     | <u>7800</u>                                  | <u>1600</u>  | 3%       | 0%          | <u>7,700</u>    | <u>1,600</u>       |
| ESS-101211-P5-5000  | <u>7600</u>                                  | <u>1600</u>  | 3%       | 0%          |                 |                    |
| ESS-103207-P1-5000  | <u>3500</u>                                  | <u>470</u>   | 3%       | 0%          | <u>3,450</u>    | <u>470</u>         |
| ESS-103207-P1-0     | <u>3400</u>                                  | <u>470</u>   | 3%       | 0%          |                 |                    |
| ESS-740022-S02-6    | 26   | 13   | 4%       | 0%          | 26              | 13                 |
| ESS-740022-S02-5006 | 25   | 13   | 4%       | 0%          |                 |                    |
| ESS-103211-S03-6    | <u>930</u>                                   | <u>130</u>   | 4%       | 0%          | <u>910</u>      | <u>130</u>         |
| ESS-103211-S03-5006 | <u>890</u>                                   | <u>130</u>   | 4%       | 0%          |                 |                    |
| ESS-AD-5-0          | <u>2200</u>                                  | <u>310</u>   | 5%       | 0%          | <u>2,150</u>    | <u>310</u>         |
| ESS-AD-5-5000       | <u>2100</u>                                  | <u>310</u>   | 5%       | 0%          |                 |                    |
| ESS-121203-S01-0    | 130  | 44   | 8%       | 0%          | 125             | 44                 |
| ESS-121203-S01-5000 | 120  | 44   | 8%       | 0%          |                 |                    |
| ESS-113101-S02-2    | <u>1200</u>                                  | <u>180</u>   | 9%       | 0%          | <u>1,150</u>    | <u>180</u>         |
| ESS-113101-S02-5002 | <u>1100</u>                                  | <u>180</u>   | 9%       | 0%          |                 |                    |
| ESS-CR-S-06-D-5006  | <u>1000</u>                                  | <u>120</u>   | 9%       | 0%          | <u>955</u>      | <u>120</u>         |
| ESS-CR-S-06-D-6     | <u>910</u>                                   | <u>120</u>   | 9%       | 0%          |                 |                    |
| ESS-113605-S03-2    | <u>2200</u>                                  | <u>300</u>   | 10%      | 0%          | <u>2,100</u>    | <u>300</u>         |
| ESS-113605-S03-5002 | <u>2000</u>                                  | <u>300</u>   | 10%      | 0%          |                 |                    |
| ESS-121207-S03-5006 | 64   | 30   | 10%      | 0%          | 61              | 30                 |
| ESS-121207-S03-6    | 58   | 30   | 10%      | 0%          |                 |                    |
|                     |  | Average  | 21%      | 20%         |                 |                    |



## Prep Duplicate

| Lab Number   | START XRF<br>Lead Results<br>(mg/kg) dry wt. | START XRF<br>Arsenic Results<br>(mg/kg) dry wt. | Lead RPD | Arsenic RPD | Average Lead  | average<br>Arsenic |
|--------------|--|---|----------|-------------|---------------|--------------------|
| 202-S02-6    | 1623   | 264   | 4.7%     | 3.7%        | <u>1.662</u>  | <u>269</u>         |
|              | 1701   | 274   | 4.7%     | 3.7%        |               |                    |
| 202-S02-5006 | 1696   | 288   | 4.6%     | 14.2%       | <u>1.736</u>  | <u>310</u>         |
|              | 1775   | 332   | 4.6%     | 14.2%       |               |                    |
| 106-S03-6    | 1480   | 268   | 4.9%     | 7.4%        | <u>1.518</u>  | <u>259</u>         |
|              | 1555   | 249   | 4.9%     | 7.4%        |               |                    |
| 233-S01-0    | 1506   | 256   | 2.5%     | 6.9%        | <u>1.525</u>  | <u>248</u>         |
| 233-S01-0-PD | 1544   | 239   | 2.5%     | 6.9%        |               |                    |
| 232-S01-0    | 185  | 80  | 1.1%     | 17.7%       | <u>186</u>    | <u>74</u>          |
| 232-S01-0-PD | 187  | 67  | 1.1%     | 17.7%       |               |                    |
| 234-S01-2    | 416  | 77  | 0.7%     | 8.7%        | <u>418</u>    | <u>81</u>          |
| 234-S01-2-PD | 419  | 84  | 0.7%     | 8.7%        |               |                    |
| C-5          | 628  | 106   | 0.8%     | 13.1%       | <u>626</u>    | <u>100</u>         |
| C-5-PD       | 623  | 93  | 0.8%     | 13.1%       |               |                    |
| C-25         | 2317   | 391   | 2.3%     | 1.3%        | <u>2.344</u>  | <u>394</u>         |
| C-25-PD      | 2371   | 396   | 2.3%     | 1.3%        |               |                    |
| D-63         | 1202   | 209   | 2.5%     | 3.4%        | <u>1.187</u>  | <u>206</u>         |
| D-63-PD      | 1172   | 202   | 2.5%     | 3.4%        |               |                    |
| D-86         | 215  | 64  | 3.7%     | 6.5%        | <u>219</u>    | <u>62</u>          |
| D-86-PD      | 223  | 60  | 3.7%     | 6.5%        |               |                    |
| E-63         | 984  | 175   | 4.5%     | 8.3%        | <u>963</u>    | <u>168</u>         |
| E-63-PD      | 941  | 161   | 4.5%     | 8.3%        |               |                    |
| D-101        | 58   | 9   | 9.0%     | 28.6%       | <u>56</u>     | <u>11</u>          |
| D-101-PD     | 53   | 12  | 9.0%     | 28.6%       |               |                    |
| D-96         | 726  | 128   | 6.3%     | 11.8%       | <u>750</u>    | <u>136</u>         |
| D-96-PD      | 773  | 144   | 6.3%     | 11.8%       |               |                    |
| E-37         | 20543  | 3852  | 5.0%     | 9.1%        | <u>21.069</u> | <u>4.036</u>       |
| E-37-PD      | 21595  | 4220  | 5.0%     | 9.1%        |               |                    |
| F-53         | 7210   | 822   | 0.1%     | 2.4%        | <u>7.215</u>  | <u>832</u>         |
| F-53-PD      | 7219   | 842   | 0.1%     | 2.4%        |               |                    |
| F-35         | 1799   | 270   | 1.2%     | 0.4%        | <u>1.788</u>  | <u>270</u>         |
| F-35-PD      | 1777   | 269   | 1.2%     | 0.4%        |               |                    |
| F-28         | 2230   | 262   | 2.2%     | 15.5%       | <u>2.206</u>  | <u>284</u>         |
| F-28-PD      | 2182   | 306   | 2.2%     | 15.5%       |               |                    |
| F-03         | 1805   | 253   | 9.2%     | 20.0%       | <u>1.726</u>  | <u>230</u>         |
| F-03-PD      | 1646   | 207   | 9.2%     | 20.0%       |               |                    |
| G-17         | 644  | 106   | 2.6%     | 9.9%        | <u>653</u>    | <u>101</u>         |
| G-17-PD      | 661  | 96  | 2.6%     | 9.9%        |               |                    |
| G-10         | 206  | 30  | 4.5%     | 23.5%       | <u>202</u>    | <u>34</u>          |
| G-10-PD      | 197  | 38  | 4.5%     | 23.5%       |               |                    |
| G-37         | 241  | 59  | 0.8%     | 3.4%        | <u>240</u>    | <u>58</u>          |
| G-37-PD      | 239  | 57  | 0.8%     | 3.4%        |               |                    |
| G-27         | 195  | 48  | 21.6%    | 23.3%       | <u>176</u>    | <u>43</u>          |
| G-27-PD      | 157  | 38  | 21.6%    | 23.3%       |               |                    |
| H-10         | 1916   | 338   | 0.4%     | 9.0%        | <u>1.920</u>  | <u>324</u>         |
| H-10-PD      | 1923   | 309   | 0.4%     | 9.0%        |               |                    |
| G-75         | 777  | 90  | 0.1%     | 14.3%       | <u>778</u>    | <u>84</u>          |
| G-75-PD      | 778  | 78  | 0.1%     | 14.3%       |               |                    |
| H-40         | 205  | 29  | 6.1%     | 3.4%        | <u>212</u>    | <u>30</u>          |
| H-40-PD      | 218  | 30  | 6.1%     | 3.4%        |               |                    |
| H-19         | 1197   | 250   | 7.8%     | 3.5%        | <u>1.246</u>  | <u>255</u>         |
| H-19-PD      | 1294   | 259   | 7.8%     | 3.5%        |               |                    |
| I-49         | 56   | 21  | 0.0%     | 4.7%        | <u>56</u>     | <u>22</u>          |
| I-49-PD      | 56   | 22  | 0.0%     | 4.7%        |               |                    |
| I-02         | 42   | 19  | 13.3%    | 11.1%       | <u>45</u>     | <u>18</u>          |
| I-02-PD      | 48   | 17  | 13.3%    | 11.1%       |               |                    |
| I-57         | 50   | 29  | 13.1%    | 10.9%       | <u>54</u>     | <u>28</u>          |
| I-57-PD      | 57   | 26  | 13.1%    | 10.9%       |               |                    |
| I-18         | 52   | 38  | 1.9%     | 23.3%       | <u>53</u>     | <u>43</u>          |
| I-18-PD      | 53   | 48  | 1.9%     | 23.3%       |               |                    |

### Prep Duplicate

| Lab Number | START XRF<br>Lead Results<br>(mg/kg) dry wt. | START XRF<br>Arsenic Results<br>(mg/kg) dry wt. | Lead RPD | Arsenic RPD | Average Lead  | average<br>Arsenic |
|------------|--|---|----------|-------------|---------------|--------------------|
| J-44       | 118  | 28  | 6.1%     | 15.4%       | <u>115</u>    | <u>26</u>          |
| J-44-PD    | 111  | 24  | 6.1%     | 15.4%       |               |                    |
| J-27       | 485  | 75  | 16.8%    | 27.3%       | <u>448</u>    | <u>66</u>          |
| J-27-PD    | 410  | 57  | 16.8%    | 27.3%       |               |                    |
| J-10       | 29   | 15  | 15.9%    | 6.9%        | <u>32</u>     | <u>15</u>          |
| J-10-PD    | 34   | 14  | 15.9%    | 6.9%        |               |                    |
| J-49       | 237  | 52  | 5.3%     | 16.7%       | <u>244</u>    | <u>48</u>          |
| J-49-PD    | 250  | 44  | 5.3%     | 16.7%       |               |                    |
| K-45       | 63   | 31  | 1.6%     | 6.7%        | <u>64</u>     | <u>30</u>          |
| K-45-PD    | 64   | 29  | 1.6%     | 6.7%        |               |                    |
| K-20       | 54   | 31  | 23.0%    | 38.5%       | <u>61</u>     | <u>26</u>          |
| K-25-PD    | 68   | 21  | 23.0%    | 38.5%       |               |                    |
| L-110      | 10682  | 1913  | 1.3%     | 1.1%        | <u>10,755</u> | <u>1,903</u>       |
| L-110-PD   | 10827  | 1892  | 1.3%     | 1.1%        |               |                    |
| L-90       | 1739   | 226   | 1.4%     | 3.1%        | <u>1,727</u>  | <u>230</u>         |
| L-90-PD    | 1715   | 233   | 1.4%     | 3.1%        |               |                    |
| L-53       | 915  | 217   | 9.2%     | 5.8%        | <u>959</u>    | <u>224</u>         |
| L-53-PD    | 1003   | 230   | 9.2%     | 5.8%        |               |                    |
| L-46       | 261  | 34  | 0.4%     | 18.7%       | <u>261</u>    | <u>38</u>          |
| L-46-PD    | 260  | 41  | 0.4%     | 18.7%       |               |                    |
| L-01       | 8948   | 1244  | 2.9%     | 3.6%        | <u>9,079</u>  | <u>1,267</u>       |
| L-01-PD    | 9209   | 1289  | 2.9%     | 3.6%        |               |                    |
| L-28       | 922  | 116   | 7.5%     | 10.9%       | <u>889</u>    | <u>110</u>         |
| L-28-PD    | 855  | 104   | 7.5%     | 10.9%       |               |                    |
| M-22       | 65   | 29  | 8.8%     | 7.1%        | <u>68</u>     | <u>28</u>          |
| M-22-PD    | 71   | 27  | 8.8%     | 7.1%        |               |                    |
| M-48       | 1017   | 214   | 1.4%     | 1.4%        | <u>1,010</u>  | <u>216</u>         |
| M-48-PD    | 1003   | 217   | 1.4%     | 1.4%        |               |                    |
| M-93       | 39   | 10  | 10.8%    | 51.9%       | <u>37</u>     | <u>14</u>          |
| M-93-PD    | 35   | 17  | 10.8%    | 51.9%       |               |                    |
| M-07       | 1650   | 308   | 28.3%    | 27.2%       | <u>1,922</u>  | <u>357</u>         |
| M-07-PD    | 2193   | 405   | 28.3%    | 27.2%       |               |                    |
| M-40       | 718  | 148   | 2.7%     | 9.9%        | <u>728</u>    | <u>141</u>         |
| M-40-PD    | 738  | 134   | 2.7%     | 9.9%        |               |                    |
| M-82       | 28   | 19  | 35.3%    | 17.1%       | <u>34</u>     | <u>18</u>          |
| M-82-PD    | 40   | 16  | 35.3%    | 17.1%       |               |                    |
| M-117      | 949  | 141   | 0.0%     | 3.5%        | <u>949</u>    | <u>144</u>         |
| M-117-PD   | 949  | 146   | 0.0%     | 3.5%        |               |                    |
| N-56       | 59   | 53  | 0.0%     | 1.9%        | <u>59</u>     | <u>53</u>          |
| N-56-PD    | 59   | 52  | 0.0%     | 1.9%        |               |                    |
| N-77       | 40   | 47  | 10.5%    | 2.2%        | <u>38</u>     | <u>47</u>          |
| N-77-PD    | 36   | 46  | 10.5%    | 2.2%        |               |                    |
| N-28       | 31   | 15  | 3.2%     | 18.2%       | <u>32</u>     | <u>17</u>          |
| N-28-PD    | 32   | 18  | 3.2%     | 18.2%       |               |                    |
| N-08       | 281  | 35  | 0.4%     | 2.8%        | <u>281</u>    | <u>36</u>          |
| N-08-PD    | 280  | 36  | 0.4%     | 2.8%        |               |                    |
| N-78       | 28   | 39  | 10.2%    | 2.5%        | <u>30</u>     | <u>40</u>          |
| N-78-PD    | 31   | 40  | 10.2%    | 2.5%        |               |                    |
| Q-50       | 728  | 161   | 3.9%     | 9.1%        | <u>714</u>    | <u>154</u>         |
| Q-50-PD    | 700  | 147   | 3.9%     | 9.1%        |               |                    |
| Q-13       | 2693   | 527   | 0.9%     | 0.8%        | <u>2,682</u>  | <u>529</u>         |
| Q-13-PD    | 2670   | 531   | 0.9%     | 0.8%        |               |                    |
| P-52       | 3974   | 699   | 6.0%     | 3.1%        | <u>4,098</u>  | <u>710</u>         |
| P-52-PD    | 4221   | 721   | 6.0%     | 3.1%        |               |                    |
| Q-70       | 893  | 164   | 2.0%     | 3.7%        | <u>902</u>    | <u>161</u>         |
| Q-70-PD    | 911  | 158   | 2.0%     | 3.7%        |               |                    |
| Q-32       | 240  | 56  | 5.1%     | 3.5%        | <u>234</u>    | <u>57</u>          |
| Q-32-PD    | 228  | 58  | 5.1%     | 3.5%        |               |                    |
| P-8        | 1675   | 334   | 0.2%     | 19.9%       | <u>1,674</u>  | <u>371</u>         |
| P-8-PD     | 1672   | 408   | 0.2%     | 19.9%       |               |                    |
| P-39       | 2327   | 491   | 6.4%     | 11.7%       | <u>2,404</u>  | <u>522</u>         |
| P-39-PD    | 2481   | 552   | 6.4%     | 11.7%       |               |                    |
| P-18       | 5202   | 893   | 0.4%     | 2.7%        | <u>5,214</u>  | <u>905</u>         |
| P-18-PD    | 5225   | 917   | 0.4%     | 2.7%        |               |                    |
|            |  | Average   | 6%       | 11%         |               |                    |



### Instrument Duplicates

| Sample Number | START XRF<br>Lead Results<br>(mg/kg) dry<br>wt. | START XRF<br>Arsenic<br>Results<br>(mg/kg) dry<br>wt. | Lead<br>RPD | Arsenic<br>RPD | Average<br>Lead | average<br>Arsenic |
|---------------|---|---|-------------|----------------|-----------------|--------------------|
| 108-S01-0     | 465   | 75  | 2.0%        | 8.3%           | <u>461</u>      | <u>72</u>          |
|               | 456   | 69  | 2.0%        | 8.3%           |                 |                    |
| 224-S01-6     | 885   | 184   | 2.3%        | 9.7%           | <u>875</u>      | <u>176</u>         |
|               | 865   | 167   | 2.3%        | 9.7%           |                 |                    |
| 106-S01-5006  | 373   | 61  | 3.7%        | 5.0%           | <u>380</u>      | <u>60</u>          |
|               | 387   | 58  | 3.7%        | 5.0%           |                 |                    |
| 412-S01-2     | 765   | 105   | 1.2%        | 7.3%           | <u>761</u>      | <u>109</u>         |
|               | 756   | 113   | 1.2%        | 7.3%           |                 |                    |
| 235-S01-2     | 621   | 154   | 3.8%        | 8.1%           | <u>633</u>      | <u>148</u>         |
|               | 645   | 142   | 3.8%        | 8.1%           |                 |                    |
| 412-S02-2     | 79  | 27  | 5.2%        | 23.0%          | <u>77</u>       | <u>31</u>          |
|               | 75  | 34  | 5.2%        | 23.0%          |                 |                    |
| C-64          | 327   | 82  | 0.6%        | 2.5%           | <u>326</u>      | <u>81</u>          |
|               | 325   | 80  | 0.6%        | 2.5%           |                 |                    |
| C-31          | 55  | 59  | 5.6%        | 1.7%           | <u>54</u>       | <u>60</u>          |
|               | 52  | 60  | 5.6%        | 1.7%           |                 |                    |
| C-53          | 1471  | 247   | 0.3%        | 8.2%           | <u>1,469</u>    | <u>258</u>         |
|               | 1466  | 268   | 0.3%        | 8.2%           |                 |                    |
| D-1           | 4053  | 685   | 25.9%       | 11.1%          | <u>3,588</u>    | <u>649</u>         |
|               | 3123  | 613   | 25.9%       | 11.1%          |                 |                    |
| D-20          | 377   | 109   | 2.9%        | 8.6%           | <u>383</u>      | <u>105</u>         |
|               | 388   | 100   | 2.9%        | 8.6%           |                 |                    |
| C-43          | 780   | 166   | 4.4%        | 12.1%          | <u>798</u>      | <u>157</u>         |
|               | 815   | 147   | 4.4%        | 12.1%          |                 |                    |
| D-16          | 145   | 41  | 1.4%        | 2.4%           | <u>146</u>      | <u>42</u>          |
|               | 147   | 42  | 1.4%        | 2.4%           |                 |                    |
| D-48          | 445   | 17  | 0.2%        | 38.1%          | <u>445</u>      | <u>21</u>          |
|               | 444   | 25  | 0.2%        | 38.1%          |                 |                    |
| D-62          | 1514  | 211   | 0.7%        | 8.2%           | <u>1,519</u>    | <u>220</u>         |
|               | 1524  | 229   | 0.7%        | 8.2%           |                 |                    |
| D-45          | 337   | 35  | 1.2%        | 0.0%           | <u>335</u>      | <u>35</u>          |
|               | 333   | 35  | 1.2%        | 0.0%           |                 |                    |
| E-07          | 2687  | 405   | 2.2%        | 9.3%           | <u>2,718</u>    | <u>387</u>         |
|               | 2748  | 369   | 2.2%        | 9.3%           |                 |                    |
| E-10          | 5220  | 720   | 0.4%        | 3.5%           | <u>5,231</u>    | <u>708</u>         |
|               | 5241  | 695   | 0.4%        | 3.5%           |                 |                    |
| E-42          | 612   | 96  | 1.5%        | 31.3%          | <u>608</u>      | <u>83</u>          |
|               | 603   | 70  | 1.5%        | 31.3%          |                 |                    |
| E-12          | 11568   | 2146  | 0.6%        | 0.0%           | <u>11,534</u>   | <u>2,147</u>       |
|               | 11499   | 2147  | 0.6%        | 0.0%           |                 |                    |
| E-61          | 832   | 112   | 1.7%        | 2.6%           | <u>825</u>      | <u>114</u>         |
|               | 818   | 115   | 1.7%        | 2.6%           |                 |                    |
| E-81          | 134   | 25  | 6.5%        | 4.1%           | <u>139</u>      | <u>25</u>          |
|               | 143   | 24  | 6.5%        | 4.1%           |                 |                    |
| F-72          | 2707  | 401   | 3.7%        | 5.6%           | <u>2,658</u>    | <u>413</u>         |
|               | 2608  | 424   | 3.7%        | 5.6%           |                 |                    |
| F-70          | 7990  | 1397  | 2.3%        | 2.6%           | <u>7,901</u>    | <u>1,379</u>       |
|               | 7811  | 1361  | 2.3%        | 2.6%           |                 |                    |
| F-09          | 1291  | 183   | 0.5%        | 1.7%           | <u>1,294</u>    | <u>182</u>         |
|               | 1297  | 180   | 0.5%        | 1.7%           |                 |                    |
| F-29          | 3959  | 600   | 5.0%        | 13.5%          | <u>3,863</u>    | <u>562</u>         |
|               | 3766  | 524   | 5.0%        | 13.5%          |                 |                    |
| G-71          | 97  | 55  | 4.2%        | 5.6%           | <u>95</u>       | <u>54</u>          |
|               | 93  | 52  | 4.2%        | 5.6%           |                 |                    |
| G-43          | 71  | 23  | 2.8%        | 24.4%          | <u>72</u>       | <u>21</u>          |
|               | 73  | 18  | 2.8%        | 24.4%          |                 |                    |
| G-36          | 108   | 67  | 4.5%        | 7.8%           | <u>111</u>      | <u>65</u>          |
|               | 113   | 62  | 4.5%        | 7.8%           |                 |                    |
| G-68          | 27  | 12  | 3.6%        | 28.6%          | <u>28</u>       | <u>11</u>          |
|               | 28  | 9   | 3.6%        | 28.6%          |                 |                    |

### Instrument Duplicates

| Sample Number | START XRF<br>Lead Results<br>(mg/kg) dry<br>wt. | START XRF<br>Arsenic<br>Results<br>(mg/kg) dry<br>wt. | Lead<br>RPD | Arsenic<br>RPD | Average<br>Lead | average<br>Arsenic |
|---------------|---|---|-------------|----------------|-----------------|--------------------|
| H-25          | 1157  | 106   | 0.9%        | 7.3%           | <u>1,162</u>    | <u>110</u>         |
|               | 1167  | 114   | 0.9%        | 7.3%           |                 |                    |
| H-63          | 80  | 26  | 0.0%        | 3.8%           | <u>80</u>       | <u>27</u>          |
|               | 80  | 27  | 0.0%        | 3.8%           |                 |                    |
| I-39          | 115   | 46  | 7.5%        | 14.0%          | <u>120</u>      | <u>43</u>          |
|               | 124   | 40  | 7.5%        | 14.0%          |                 |                    |
| I-80          | 374   | 61  | 1.1%        | 6.8%           | <u>376</u>      | <u>59</u>          |
|               | 378   | 57  | 1.1%        | 6.8%           |                 |                    |
| I-42          | 44  | 22  | 4.7%        | 4.7%           | <u>43</u>       | <u>22</u>          |
|               | 42  | 21  | 4.7%        | 4.7%           |                 |                    |
| J-21          | 67  | 11  | 7.8%        | 16.7%          | <u>65</u>       | <u>12</u>          |
|               | 62  | 13  | 7.8%        | 16.7%          |                 |                    |
| J-34          | 40  | 36  | 0.0%        | 11.8%          | <u>40</u>       | <u>34</u>          |
|               | 40  | 32  | 0.0%        | 11.8%          |                 |                    |
| K-15          | 207   | 53  | 2.4%        | 3.7%           | <u>210</u>      | <u>54</u>          |
|               | 212   | 55  | 2.4%        | 3.7%           |                 |                    |
| K-51          | 57  | 20  | 0.0%        | 4.9%           | <u>57</u>       | <u>21</u>          |
|               | 57  | 21  | 0.0%        | 4.9%           |                 |                    |
| K-56          | 55  | 26  | 5.6%        | 3.8%           | <u>54</u>       | <u>27</u>          |
|               | 52  | 27  | 5.6%        | 3.8%           |                 |                    |
| K-39          | 91  | 33  | 4.5%        | 12.9%          | <u>89</u>       | <u>31</u>          |
|               | 87  | 29  | 4.5%        | 12.9%          |                 |                    |
| L-100         | 1066  | 213   | 3.3%        | 7.7%           | <u>1,049</u>    | <u>222</u>         |
|               | 1031  | 230   | 3.3%        | 7.7%           |                 |                    |
| L-104         | 2256  | 289   | 4.2%        | 1.4%           | <u>2,210</u>    | <u>291</u>         |
|               | 2163  | 293   | 4.2%        | 1.4%           |                 |                    |
| L-80          | 1015  | 142   | 0.9%        | 4.8%           | <u>1,011</u>    | <u>146</u>         |
|               | 1006  | 149   | 0.9%        | 4.8%           |                 |                    |
| L-81          | 1189  | 167   | 1.6%        | 0.0%           | <u>1,180</u>    | <u>167</u>         |
|               | 1170  | 167   | 1.6%        | 0.0%           |                 |                    |
| L-27          | 360   | 56  | 2.8%        | 3.5%           | <u>355</u>      | <u>57</u>          |
|               | 350   | 58  | 2.8%        | 3.5%           |                 |                    |
| L-41          | 7627  | 1492  | 5.2%        | 11.6%          | <u>7,436</u>    | <u>1,410</u>       |
|               | 7244  | 1328  | 5.2%        | 11.6%          |                 |                    |
| M-39          | 212   | 49  | 0.5%        | 5.9%           | <u>213</u>      | <u>51</u>          |
|               | 213   | 52  | 0.5%        | 5.9%           |                 |                    |
| M-77          | 49  | 20  | 13.3%       | 5.1%           | <u>53</u>       | <u>20</u>          |
|               | 56  | 19  | 13.3%       | 5.1%           |                 |                    |
| M-81          | 37  | 14  | 14.5%       | 15.4%          | <u>35</u>       | <u>13</u>          |
|               | 32  | 12  | 14.5%       | 15.4%          |                 |                    |
| M-32          | 175   | 51  | 4.7%        | 3.8%           | <u>171</u>      | <u>52</u>          |
|               | 167   | 53  | 4.7%        | 3.8%           |                 |                    |
| N-11          | 646   | 89  | 0.2%        | 2.2%           | <u>647</u>      | <u>90</u>          |
|               | 647   | 91  | 0.2%        | 2.2%           |                 |                    |
| N-64          | 29  | 11  | 41.7%       | 0.0%           | <u>24</u>       | <u>11</u>          |
|               | 19  | 11  | 41.7%       | 0.0%           |                 |                    |
| N-98          | 165   | 25  | 4.3%        | 4.1%           | <u>162</u>      | <u>25</u>          |
|               | 158   | 24  | 4.3%        | 4.1%           |                 |                    |
| N-64          | 20  | 14  | 0.0%        | 24.0%          | <u>20</u>       | <u>13</u>          |
|               | 20  | 11  | 0.0%        | 24.0%          |                 |                    |
| M-104         | 3880  | 547   | 2.5%        | 6.4%           | <u>3,832</u>    | <u>565</u>         |
|               | 3784  | 583   | 2.5%        | 6.4%           |                 |                    |
| N-80          | 69  | 18  | 11.0%       | 11.8%          | <u>73</u>       | <u>17</u>          |
|               | 77  | 16  | 11.0%       | 11.8%          |                 |                    |
| N-69          | 26  | 8   | 16.7%       | 22.2%          | <u>24</u>       | <u>9</u>           |
|               | 22  | 10  | 16.7%       | 22.2%          |                 |                    |
| Q-19          | 2450  | 330   | 0.4%        | 5.3%           | <u>2,455</u>    | <u>322</u>         |
|               | 2460  | 313   | 0.4%        | 5.3%           |                 |                    |
| P-30          | 8660  | 3410  | 5.3%        | 4.6%           | <u>8,435</u>    | <u>3,334</u>       |
|               | 8210  | 3257  | 5.3%        | 4.6%           |                 |                    |
| Q-54          | 129   | 14  | 4.8%        | 6.9%           | <u>126</u>      | <u>15</u>          |
|               | 123   | 15  | 4.8%        | 6.9%           |                 |                    |
| P-21          | 152   | 80  | 8.9%        | 6.5%           | <u>146</u>      | <u>78</u>          |
|               | 139   | 75  | 8.9%        | 6.5%           |                 |                    |
|               |   | Average   | 5%          | 9%             |                 |                    |



### Cross Instrument Duplicates

| START XRF<br>Lead Results<br>(mg/kg) dry wt. | START XRF<br>Arsenic Results<br>(mg/kg) dry wt. | Lead RPD | Arsenic<br>RPD | Average<br>Lead | average<br>Arsenic |
|--|---|----------|----------------|-----------------|--------------------|
| 879  | 183   | 3.6%     | 21.8%          | <u>864</u>      | <u>165</u>         |
| 848  | 147   | 3.6%     | 21.8%          |                 |                    |
| 374  | 101   | 0.0%     | 23.2%          | <u>374</u>      | <u>91</u>          |
| 374  | 80  | 0.0%     | 23.2%          |                 |                    |
| 5288   | 896   | 2.1%     | 14.1%          | <u>5,232</u>    | <u>837</u>         |
| 5176   | 778   | 2.1%     | 14.1%          |                 |                    |
| 289  | 62  | 3.1%     | 3.3%           | <u>294</u>      | <u>61</u>          |
| 298  | 60  | 3.1%     | 3.3%           |                 |                    |
| 76   | 67  | 84.4%    | 0.0%           | <u>132</u>      | <u>67</u>          |
| 187  | 67  | 84.4%    | 0.0%           |                 |                    |
| 355  | 54  | 16.1%    | 29.9%          | <u>329</u>      | <u>64</u>          |
| 302  | 73  | 16.1%    | 29.9%          |                 |                    |
| 222  | 37  | 4.8%     | 29.9%          | <u>228</u>      | <u>44</u>          |
| 233  | 50  | 4.8%     | 29.9%          |                 |                    |
| 3105   | 523   | 1.4%     | 10.3%          | <u>3,127</u>    | <u>552</u>         |
| 3149   | 580   | 1.4%     | 10.3%          |                 |                    |
| 2317   | 391   | 3.8%     | 2.9%           | <u>2,362</u>    | <u>386</u>         |
| 2406   | 380   | 3.8%     | 2.9%           |                 |                    |
| 4077   | 679   | 2.4%     | 9.8%           | <u>4,127</u>    | <u>714</u>         |
| 4176   | 749   | 2.4%     | 9.8%           |                 |                    |
| 110  | 62  | 0.0%     | 13.8%          | <u>110</u>      | <u>58</u>          |
| 110  | 54  | 0.0%     | 13.8%          |                 |                    |
| 595  | 116   | 2.3%     | 25.2%          | <u>602</u>      | <u>103</u>         |
| 609  | 90  | 2.3%     | 25.2%          |                 |                    |
| 6239   | 1049  | 2.7%     | 7.5%           | <u>6,324</u>    | <u>1,090</u>       |
| 6408   | 1131  | 2.7%     | 7.5%           |                 |                    |
| 317  | 64  | 1.6%     | 17.1%          | <u>320</u>      | <u>70</u>          |
| 322  | 76  | 1.6%     | 17.1%          |                 |                    |
| 21   | 20  | 28.6%    | 50.0%          | <u>25</u>       | <u>16</u>          |
| 28   | 12  | 28.6%    | 50.0%          |                 |                    |
| 4053   | 685   | 4.7%     | 5.2%           | <u>3,961</u>    | <u>668</u>         |
| 3868   | 650   | 4.7%     | 5.2%           |                 |                    |
| 40   | 22  | 18.2%    | 58.8%          | <u>44</u>       | <u>17</u>          |
| 48   | 12  | 18.2%    | 58.8%          |                 |                    |
| 58   | 9   | 5.3%     | 11.8%          | <u>57</u>       | <u>9</u>           |
| 55   | 8   | 5.3%     | 11.8%          |                 |                    |
| 475  | 54  | 2.6%     | 3.6%           | <u>469</u>      | <u>55</u>          |
| 463  | 56  | 2.6%     | 3.6%           |                 |                    |
| 209  | 35  | 1.0%     | 2.9%           | <u>208</u>      | <u>35</u>          |
| 207  | 34  | 1.0%     | 2.9%           |                 |                    |
| 3333   | 487   | 0.3%     | 0.8%           | <u>3,339</u>    | <u>489</u>         |
| 3344   | 491   | 0.3%     | 0.8%           |                 |                    |
| 120  | 36  | 31.6%    | 0.0%           | <u>143</u>      | <u>36</u>          |
| 165  | 36  | 31.6%    | 0.0%           |                 |                    |
| 1308   | 174   | 4.2%     | 0.0%           | <u>1,336</u>    | <u>174</u>         |
| 1364   | 174   | 4.2%     | 0.0%           |                 |                    |
| 3959   | 600   | 1.8%     | 2.9%           | <u>3,925</u>    | <u>592</u>         |
| 3890   | 583   | 1.8%     | 2.9%           |                 |                    |
| 507  | 62  | 0.4%     | 10.7%          | <u>508</u>      | <u>66</u>          |
| 509  | 69  | 0.4%     | 10.7%          |                 |                    |
| 556  | 65  | 2.0%     | 9.7%           | <u>551</u>      | <u>62</u>          |
| 545  | 59  | 2.0%     | 9.7%           |                 |                    |
| 262  | 52  | 11.5%    | 36.4%          | <u>278</u>      | <u>44</u>          |
| 294  | 36  | 11.5%    | 36.4%          |                 |                    |
| 1910   | 338   | 2.9%     | 18.4%          | <u>1,939</u>    | <u>310</u>         |
| 1967   | 281   | 2.9%     | 18.4%          |                 |                    |
| 263  | 82  | 5.5%     | 0.0%           | <u>256</u>      | <u>82</u>          |
| 249  | 82  | 5.5%     | 0.0%           |                 |                    |
| 409  | 145   | 6.8%     | 7.9%           | <u>424</u>      | <u>140</u>         |
| 438  | 134   | 6.8%     | 7.9%           |                 |                    |

### Cross Instrument Duplicates

| START XRF<br>Lead Results<br>(mg/kg) dry wt. | START XRF<br>Arsenic Results<br>(mg/kg) dry wt. | Lead RPD | Arsenic<br>RPD | Average<br>Lead | average<br>Arsenic |
|--|---|----------|----------------|-----------------|--------------------|
| 39455  | 9190  | 2.8%     | 3.1%           | <u>38,906</u>   | <u>9,049</u>       |
| 38356  | 8907  | 2.8%     | 3.1%           |                 |                    |
| 11456  | 1600  | 0.1%     | 0.3%           | <u>11,450</u>   | <u>1,603</u>       |
| 11444  | 1605  | 0.1%     | 0.3%           |                 |                    |
| 1238   | 212   | 5.4%     | 1.4%           | <u>1,206</u>    | <u>214</u>         |
| 1173   | 215   | 5.4%     | 1.4%           |                 |                    |
| 1650   | 308   | 19.8%    | 19.1%          | <u>1,831</u>    | <u>341</u>         |
| 2012   | 373   | 19.8%    | 19.1%          |                 |                    |
| 2193   | 405   | 2.4%     | 8.8%           | <u>2,220</u>    | <u>388</u>         |
| 2246   | 371   | 2.4%     | 8.8%           |                 |                    |
| 3518   | 602   | 0.7%     | 1.0%           | <u>3,506</u>    | <u>605</u>         |
| 3493   | 608   | 0.7%     | 1.0%           |                 |                    |
| 31   | 15  | 3.2%     | 18.2%          | <u>32</u>       | <u>17</u>          |
| 32   | 18  | 3.2%     | 18.2%          |                 |                    |
| 69   | 89  | 6.0%     | 10.6%          | <u>67</u>       | <u>94</u>          |
| 65   | 99  | 6.0%     | 10.6%          |                 |                    |
| 1296   | 176   | 1.4%     | 2.2%           | <u>1,305</u>    | <u>178</u>         |
| 1314   | 180   | 1.4%     | 2.2%           |                 |                    |
| 14977  | 3000  | 6.1%     | 10.1%          | <u>15,447</u>   | <u>3,160</u>       |
| 15917  | 3320  | 6.1%     | 10.1%          |                 |                    |
| 430  | 69  | 2.5%     | 4.4%           | <u>436</u>      | <u>68</u>          |
| 441  | 66  | 2.5%     | 4.4%           |                 |                    |
| 165  | 155   | 2.4%     | 17.5%          | <u>167</u>      | <u>143</u>         |
| 169  | 130   | 2.4%     | 17.5%          |                 |                    |
| 64   | 12  | 1.6%     | 8.7%           | <u>65</u>       | <u>12</u>          |
| 65   | 11  | 1.6%     | 8.7%           |                 |                    |
| 27443  | 24860   | 11.2%    | 16.7%          | <u>25,986</u>   | <u>22,947</u>      |
| 24528  | 21033   | 11.2%    | 16.7%          |                 |                    |
| 642  | 118   | 2.2%     | 16.3%          | <u>649</u>      | <u>129</u>         |
| 656  | 139   | 2.2%     | 16.3%          |                 |                    |
| Average                                      |   | 7%       | 13%            |                 |                    |



### Site Specific Calibration check

| Date       | EM-8 Lead 510<br>(mg/kg) | EM-8 Arsenic 91<br>mg/kg | % Difference<br>Lead | % Difference<br>Arsenic |
|------------|--------------------------|--------------------------|----------------------|-------------------------|
| 11/6/2012  | 504                      | 75                       | -1%                  | -18%                    |
| 11/6/2012  | 505                      | 75                       | -1%                  | -18%                    |
| 11/6/2012  | 497                      | 66                       | -3%                  | -27%                    |
| 11/7/2012  | 492                      | 68                       | -4%                  | -25%                    |
| 11/7/2012  | 486                      | 69                       | -5%                  | -24%                    |
| 11/7/2012  | 508                      | 65                       | 0%                   | -29%                    |
| 11/7/2012  | 512                      | 77                       | 0%                   | -15%                    |
| 11/7/2012  | 488                      | 74                       | -4%                  | -19%                    |
| 11/7/2012  | 506                      | 78                       | -1%                  | -14%                    |
| 11/7/2012  | 507                      | 79                       | -1%                  | -13%                    |
| 11/7/2012  | 512                      | 69                       | 0%                   | -24%                    |
| 11/7/2012  | 496                      | 65                       | -3%                  | -29%                    |
| 11/7/2012  | 487                      | 72                       | -5%                  | -21%                    |
| 11/7/2012  | 497                      | 60                       | -3%                  | -34%                    |
| 11/7/2012  | 497                      | 70                       | -3%                  | -23%                    |
| 11/8/2012  | 494                      | 73                       | -3%                  | -20%                    |
| 11/8/2012  | 499                      | 63                       | -2%                  | -31%                    |
| 11/8/2012  | 487                      | 66                       | -5%                  | -27%                    |
| 11/8/2012  | 491                      | 61                       | -4%                  | -33%                    |
| 11/8/2012  | 500                      | 67                       | -2%                  | -26%                    |
| 11/8/2012  | 499                      | 67                       | -2%                  | -26%                    |
| 11/8/2012  | 511                      | 64                       | 0%                   | -30%                    |
| 11/8/2012  | 507                      | 70                       | -1%                  | -23%                    |
| 11/8/2012  | 493                      | 78                       | -3%                  | -14%                    |
| 11/8/2012  | 511                      | 67                       | 0%                   | -26%                    |
| 11/8/2012  | 506                      | 74                       | -1%                  | -19%                    |
| 11/8/2012  | 496                      | 66                       | -3%                  | -27%                    |
| 11/8/2012  | 505                      | 70                       | -1%                  | -23%                    |
| 11/8/2012  | 485                      | 76                       | -5%                  | -16%                    |
| 11/13/2012 | 508                      | 61                       | 0%                   | -33%                    |
| 11/13/2012 | 495                      | 69                       | -3%                  | -24%                    |
| 11/13/2012 | 483                      | 63                       | -5%                  | -31%                    |
| 11/13/2012 | 494                      | 62                       | -3%                  | -32%                    |
| 11/13/2012 | 486                      | 65                       | -5%                  | -29%                    |
| 11/13/2012 | 510                      | 62                       | 0%                   | -32%                    |
| 11/13/2012 | 507                      | 70                       | -1%                  | -23%                    |
| 11/13/2012 | 476                      | 77                       | -7%                  | -15%                    |
| 11/13/2012 | 498                      | 68                       | -2%                  | -25%                    |
| 11/13/2012 | 486                      | 70                       | -5%                  | -23%                    |
| 11/14/2012 | 489                      | 70                       | -4%                  | -23%                    |
| 11/14/2012 | 502                      | 60                       | -2%                  | -34%                    |
| 11/14/2012 | 495                      | 72                       | -3%                  | -21%                    |
| 11/14/2012 | 483                      | 73                       | -5%                  | -20%                    |
| 11/14/2012 | 502                      | 78                       | -2%                  | -14%                    |
| 11/14/2012 | 497                      | 62                       | -3%                  | -32%                    |
| 11/14/2012 | 494                      | 71                       | -3%                  | -22%                    |
| 11/14/2012 | 494                      | 67                       | -3%                  | -26%                    |
| 11/14/2012 | 504                      | 71                       | -1%                  | -22%                    |
| Average    | 502.3                    | 68.1                     | -2%                  | -25%                    |
| Std Dev    | 12.87                    | 8.50                     |                      |                         |

### NIST Calibration check

| Date       | NIST Lead<br>133<br>(mg/kg) | NIST<br>Arsenic<br>45 mg/kg | % Difference<br>Lead | % Difference<br>Arsenic |
|------------|-----------------------------|-----------------------------|----------------------|-------------------------|
| 10/16/2012 | 121                         | 69                          | 9%                   | 53%                     |
| 10/16/2012 | 121                         | 47                          | 9%                   | 4%                      |
| 10/17/2012 | 134                         | 37                          | 1%                   | 18%                     |
| 10/17/2012 | 123                         | 44                          | 8%                   | 2%                      |
| 10/17/2012 | 125                         | 63                          | 6%                   | 40%                     |
| 10/17/2012 | 127                         | 70                          | 5%                   | 56%                     |
| 10/18/2012 | 120                         | 64                          | 10%                  | 42%                     |
| 10/18/2012 | 132                         | 38                          | 1%                   | 16%                     |
| 10/19/2012 | 121                         | 42                          | 9%                   | 7%                      |
| 10/19/2012 | 137                         | 41                          | 3%                   | 9%                      |
| 10/19/2012 | 133                         | 66                          | 0%                   | 47%                     |
| 10/20/2012 | 125                         | 49                          | 6%                   | 9%                      |
| 10/20/2012 | 129                         | 38                          | 3%                   | 16%                     |
| 10/22/2012 | 136                         | 43                          | 2%                   | 4%                      |
| 10/22/2012 | 127                         | 39                          | 5%                   | 13%                     |
| 10/23/2012 | 127                         | 39                          | 5%                   | 13%                     |
| 10/23/2012 | 134                         | 45                          | 1%                   | 0%                      |
| 10/24/2012 | 128                         | 37                          | 4%                   | 18%                     |
| 10/24/2012 | 135                         | 48                          | 2%                   | 7%                      |
| 10/25/2012 | 128                         | 37                          | 4%                   | 18%                     |
| 10/25/2012 | 130                         | 48                          | 2%                   | 7%                      |
| 10/26/2012 | 135                         | 45                          | 2%                   | 0%                      |
| 10/26/2012 | 132                         | 44                          | 1%                   | 2%                      |
| 10/26/2012 | 134                         | 45                          | 1%                   | 0%                      |
| 10/26/2012 | 128                         | 44                          | 4%                   | 2%                      |
| 11/5/2012  | 130                         | 44                          | 2%                   | 2%                      |
| 11/5/2012  | 127                         | 42                          | 5%                   | 7%                      |
| 11/5/2012  | 139                         | 39                          | 5%                   | 13%                     |
| 11/5/2012  | 134                         | 45                          | 1%                   | 0%                      |
| 11/6/2012  | 123                         | 44                          | 8%                   | 2%                      |
| 11/6/2012  | 133                         | 43                          | 0%                   | 4%                      |
| 11/6/2012  | 128                         | 44                          | 4%                   | 2%                      |
| 11/6/2012  | 130                         | 41                          | 2%                   | 9%                      |
| 11/7/2012  | 131                         | 46                          | 2%                   | 2%                      |
| 11/7/2012  | 139                         | 41                          | 5%                   | 9%                      |
| 11/7/2012  | 131                         | 38                          | 2%                   | 16%                     |
| 11/7/2012  | 124                         | 48                          | 7%                   | 7%                      |
| 11/8/2012  | 137                         | 42                          | 3%                   | 7%                      |
| 11/8/2012  | 139                         | 41                          | 5%                   | 9%                      |
| 11/8/2012  | 134                         | 44                          | 1%                   | 2%                      |
| 11/8/2012  | 127                         | 36                          | 5%                   | 20%                     |
| 11/13/2012 | 141                         | 36                          | 6%                   | 20%                     |
| 11/13/2012 | 135                         | 40                          | 2%                   | 11%                     |
| 11/13/2012 | 128                         | 48                          | 4%                   | 7%                      |
| 11/13/2012 | 130                         | 44                          | 2%                   | 2%                      |
| 11/14/2012 | 131                         | 37                          | 2%                   | 18%                     |
| 11/14/2012 | 152                         | 54                          | 14%                  | 20%                     |
| 11/14/2012 | 132                         | 37                          | 1%                   | 18%                     |
| 11/14/2012 | 129                         | 43                          | 3%                   | 4%                      |
| Average    | 130.7                       | 44.9                        | 2%                   | 0%                      |
| Std Dev    | 6.0                         | 8.3                         |                      |                         |

### MDL Study

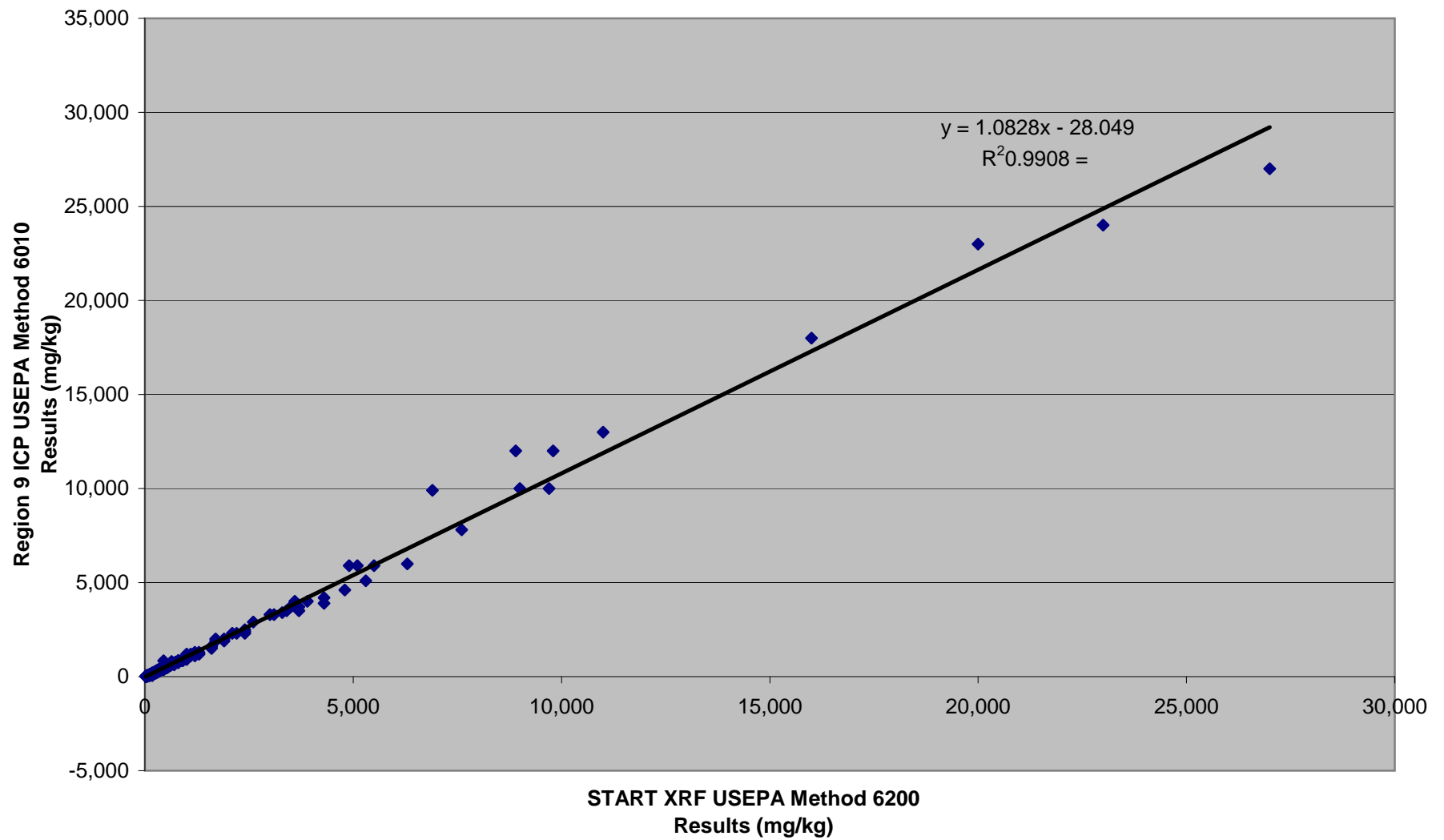
| Instrument<br>Serial # | Lead mg/kg  | Arsenic<br>mg/kg |
|------------------------|-------------|------------------|
| 11197                  | 30          | 8                |
|                        | 33          | 10               |
|                        | 33          | 9                |
|                        | 30          | 12               |
|                        | 31          | 10               |
|                        | 32          | 10               |
|                        | 34          | 9                |
| std dev                | 1.573591585 | 1.253566341      |
| MDL                    | 5           | 4                |
|                        |             |                  |
| 954                    | 31          | 9                |
|                        | 25          | 14               |
|                        | 26          | 17               |
|                        | 32          | 9                |
|                        | 28          | 12               |
|                        | 23          | 14               |
|                        | 29          | 11               |
| std dev                | 3.251373336 | 2.927700219      |
| MDL                    | 10          | 9                |
|                        |             |                  |
|                        | 30          | 8                |
|                        | 33          | 10               |
|                        | 33          | 9                |
|                        | 30          | 12               |
|                        | 31          | 10               |
| std dev                | 32          | 10               |
|                        | 34          | 9                |
|                        | 31          | 9                |
|                        | 25          | 14               |
|                        | 26          | 17               |
|                        | 32          | 9                |
|                        | 28          | 12               |
|                        | 23          | 14               |
|                        | 29          | 11               |
| std dev                | 3.262339213 | 2.541955637      |
| MDL                    | 10          | 8                |



***Appendix G:***  
**XRF and**  
**Laboratory Data**  
**Correlation**

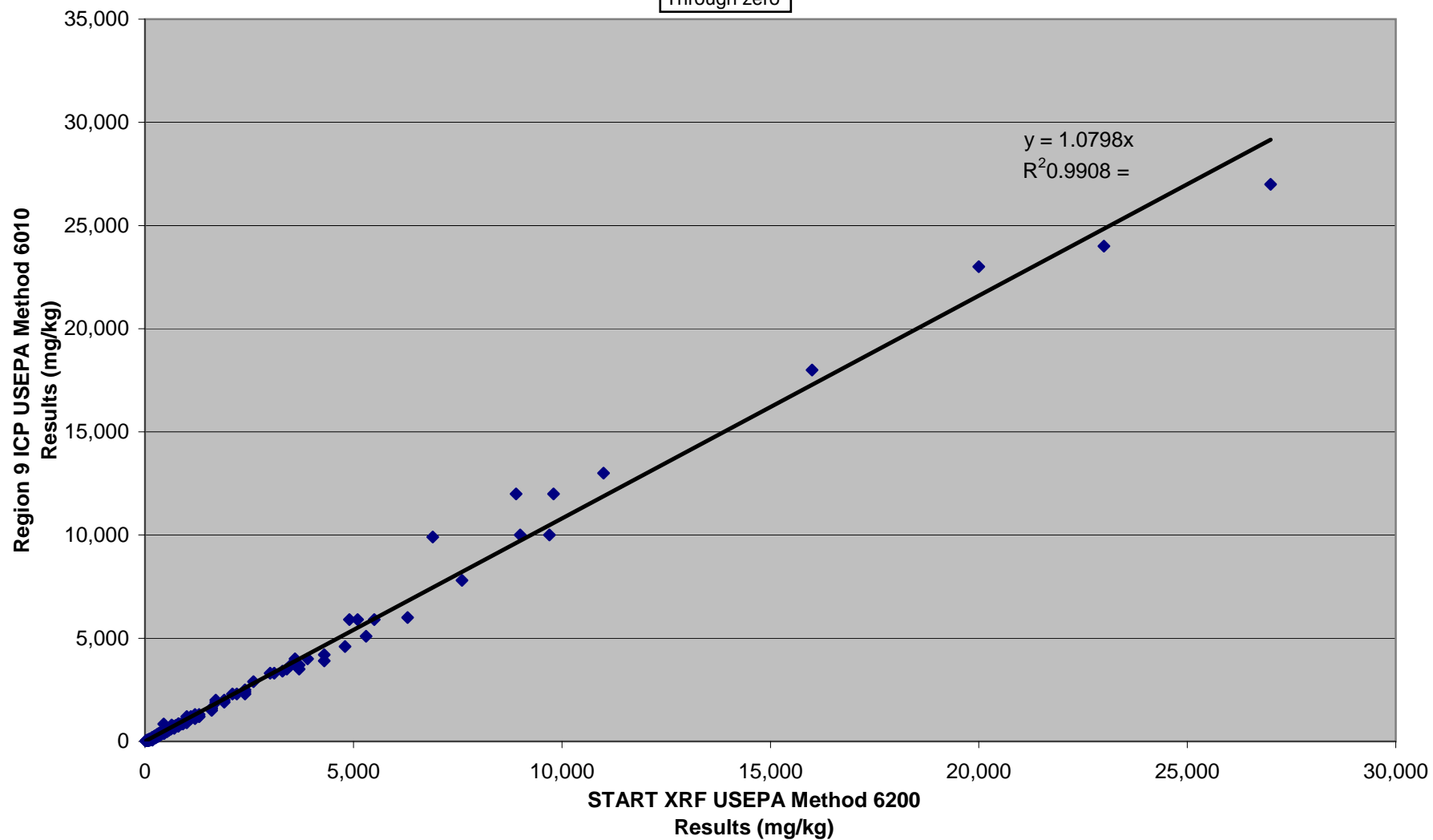
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**XRF/ICP  
Lead  
Data Correlation**



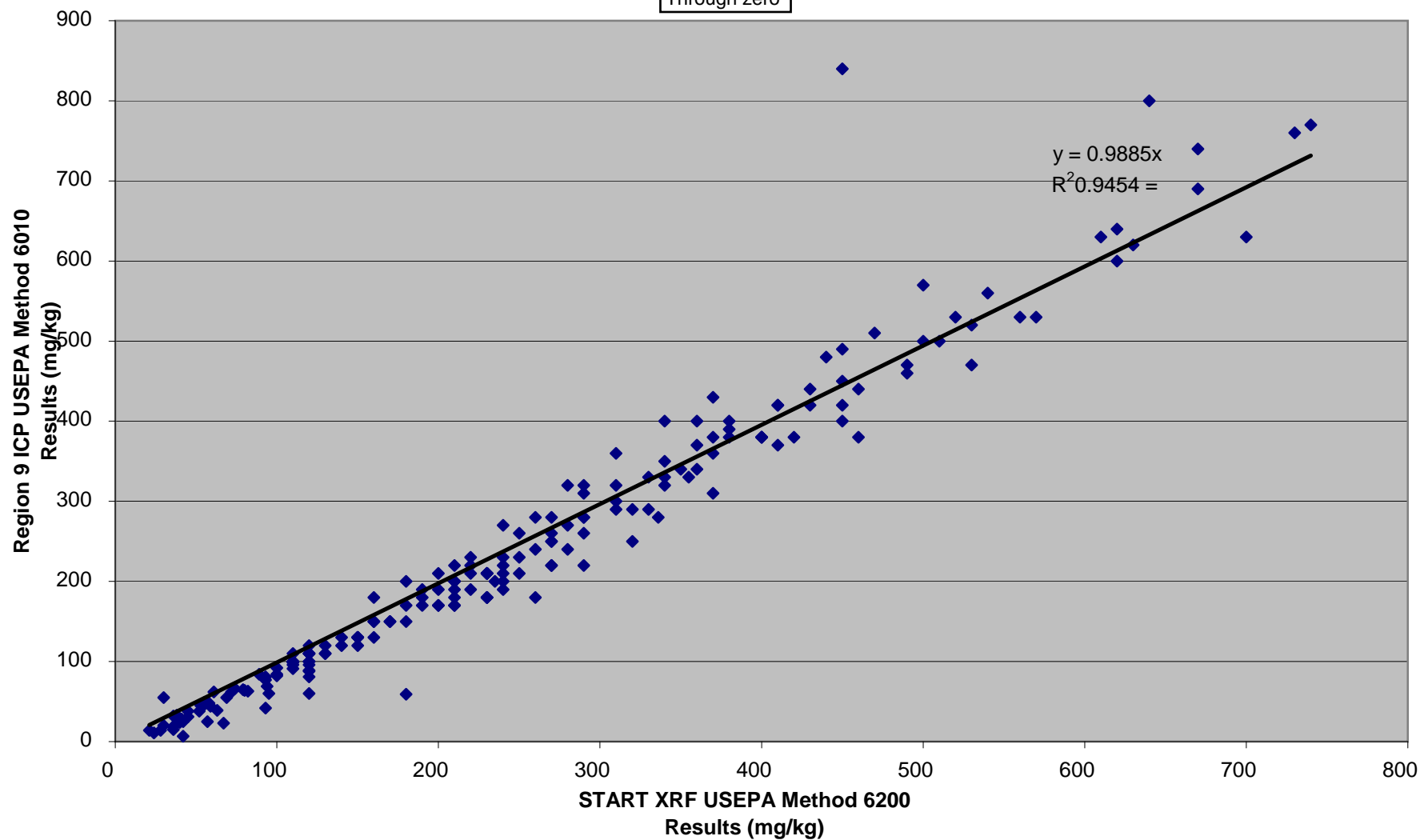


**XRF/ICP  
Lead  
Data Correlation**  
Through zero



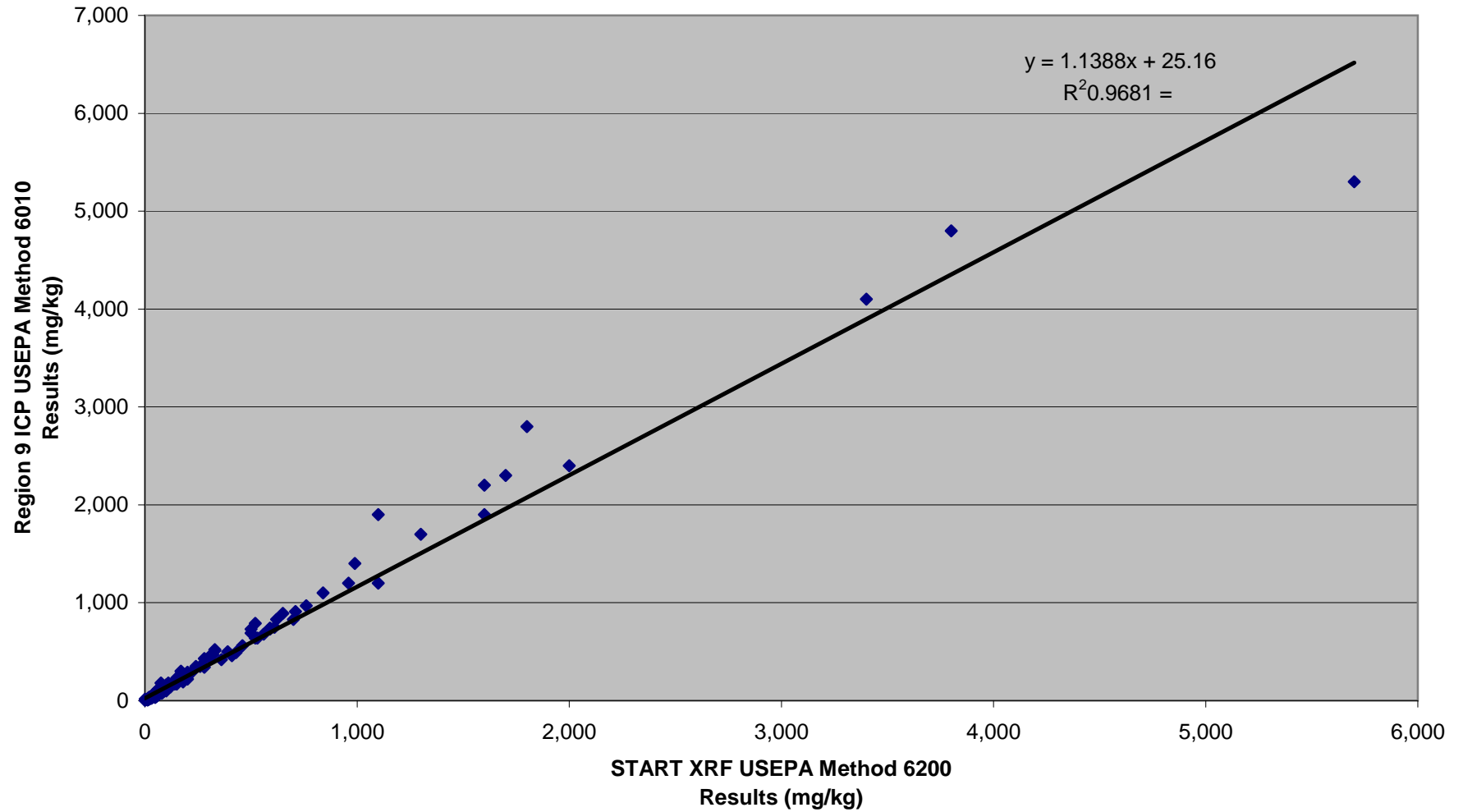
**XRF/ICP  
Lead around the SSL  
Data Correlation**

Through zero



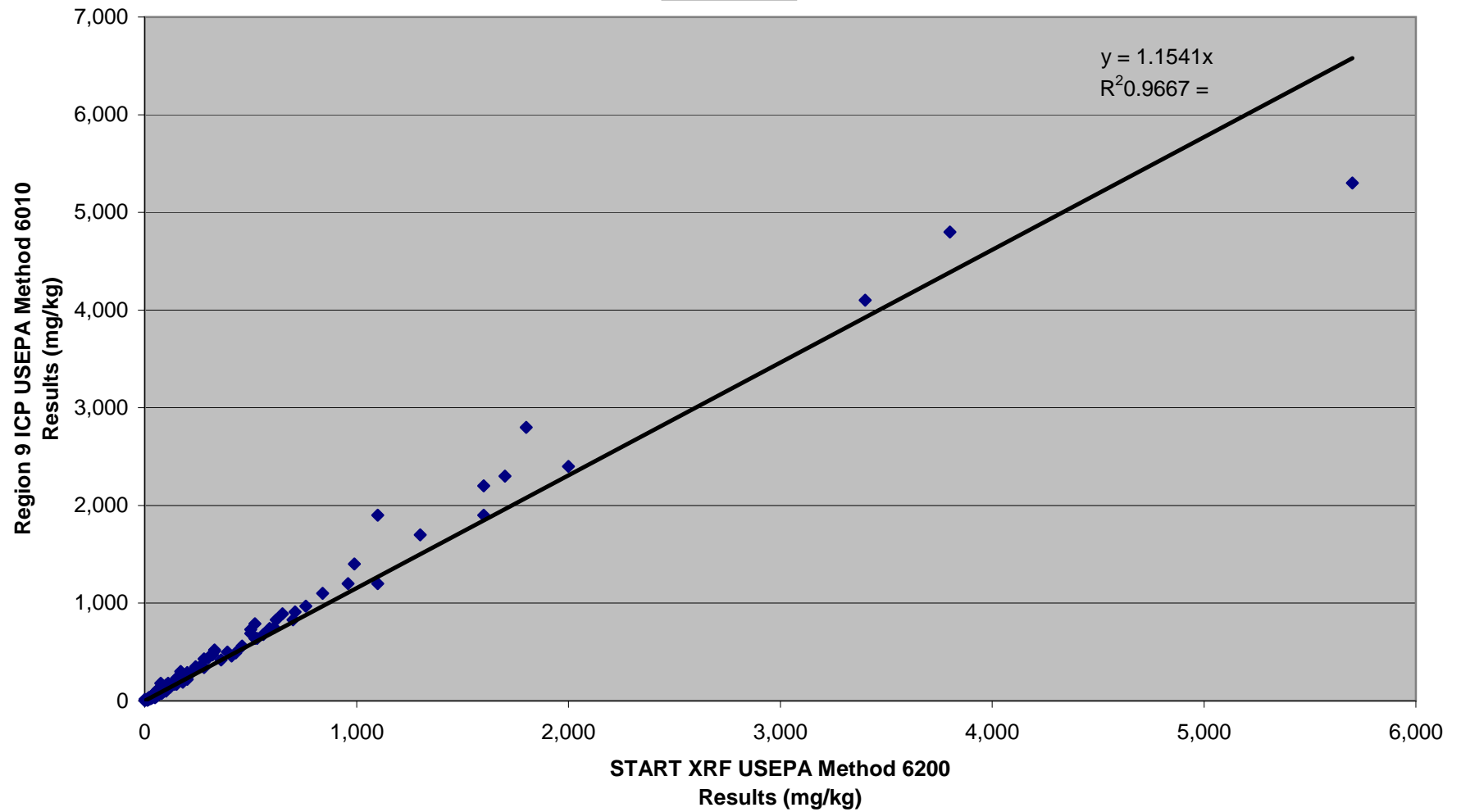


**XRF/ICP  
Arsenic  
Data Correlation**



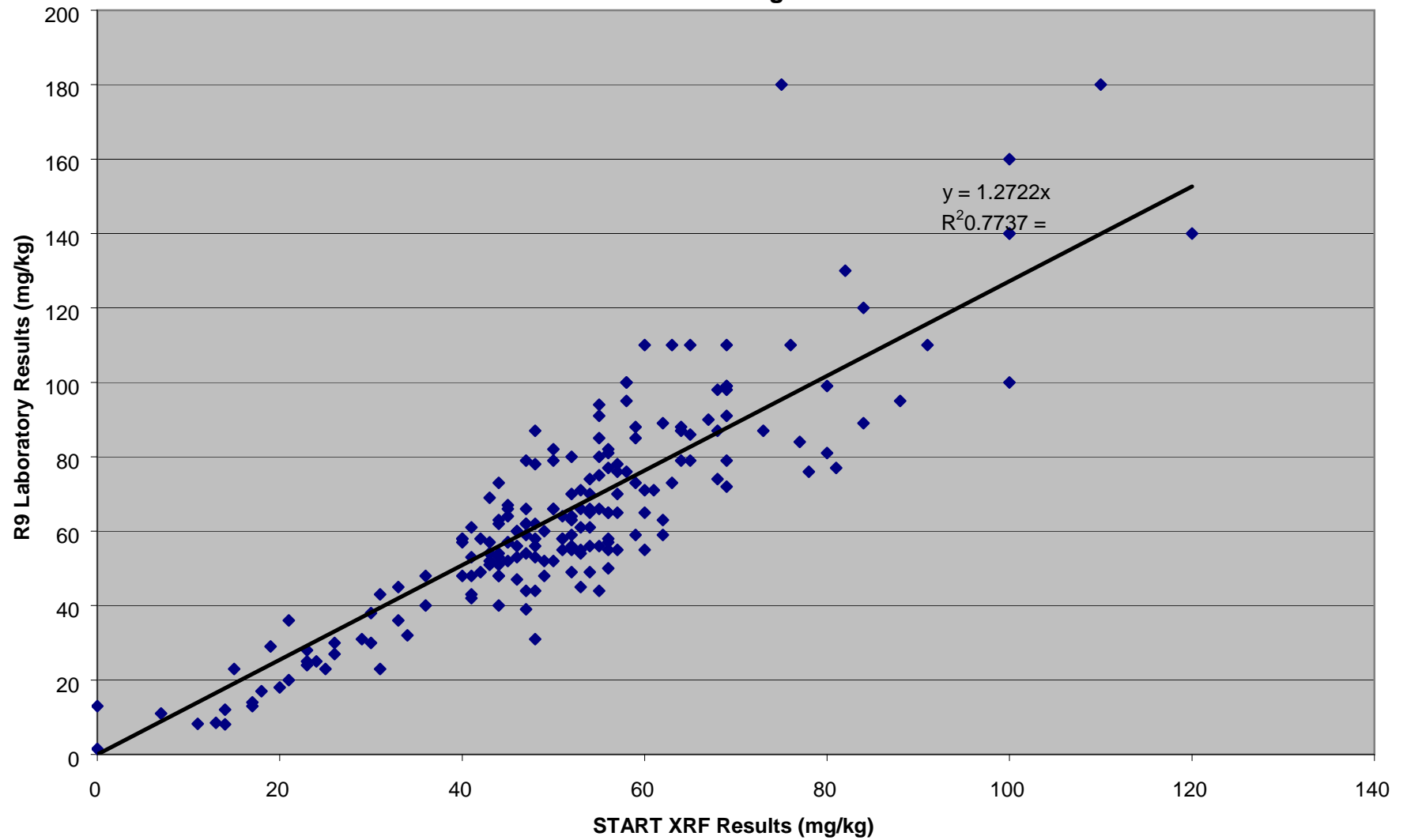
**XRF/ICP  
Arsenic  
Data Correlation**

Through zero





**XRF/ICP**  
**Arsenic around the SSL**  
**Data Correlation Through Zero**



## ***Appendix H:*** **Poster Sized Maps**

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|                   |   |
|-------------------|---|
| <b>Figure 12</b>  | <b>Town of Eureka Contamination Location Map (0 to 2 inches)</b>  |
| <b>Figure 13</b>  | <b>Town of Eureka Contamination Location Map (2 to 6 inches)</b>  |
| <b>Figure 14</b>  | <b>Town of Eureka Contamination Location Map (6 to 12 inches)</b> |
| <b>Figure 15</b>  | <b>Town of Eureka Elevated Contamination Location Map</b>         |
| <b>Figure 16B</b> | <b>Town of Eureka Iso-Concentration Map for Arsenic</b>           |
| <b>Figure 17B</b> | <b>Town of Eureka Iso-Concentration Map for Lead</b>              |