SOIL QUALITY EVALUATION AND DELINEATION
FORMER ORE MILL SITE
29 ACRE PARCEL
NORTH LA CHOLLA AND SPEEDWAY
TUCSON, PIMA COUNTY, ARIZONA

Kleinfelder Project No.: 74053

Prepared for:

City of Tucson Environmental Services
100 North Stone Avenue, 2nd Floor
PO Box 27210
Tucson, Arizona 85726-7210

Prepared by:

KLEINFELDER, INC.
2015 North Forbes Boulevard, Suite 103
Tucson, Arizona 85745

November 28, 2006

November 28, 2006
File No.: 74053

Ms. Alison Jones, Environmental Manager
City of Tucson Environmental Services
100 North Stone Avenue, 2nd Floor
PO Box 27210
Tucson, Arizona 85726-7210

SUBJECT: Soil Quality Evaluation and Delineation
Former Ore Mill Site – 29 Acre Parcel
North La Cholla and Speedway Boulevards
Tucson, Pima County, Arizona

Dear Ms. Jones:

Kleinfelder, Inc. (Kleinfelder) is pleased to submit this Soil Quality Evaluation and Delineation report to City of Tucson Environmental Services for the above-referenced property (site) in Tucson, Arizona.

Forty-eight soil samples were submitted to Aerotech Environmental Laboratories (Aerotech) for total metals and tungsten analyses using Environmental Protection Agency (EPA) Test Methods 6010B and 7471A.

Ninety-three samples were analyzed in situ for elemental concentrations of arsenic, cadmium, and lead using a portable X-Ray Fluorescence (XRF) instrument in accordance with Method 6200. In addition, eight XRF confirmation samples were submitted to Aerotech for total metals analyses using EPA Test Methods 6010B and 7471A.

We appreciate the opportunity to provide professional consulting services for this project. Should you have any questions or if we may be of some additional service, please contact the undersigned at (520) 628-7769.

Sincerely,

KLEINFELDER, INC.

Rick D. Smith, CPG
Project Professional

for Rafael Hernandez

Scott Merry, PhD, PE
Senior Professional

KLEINFELDER 2015 North Forbes Blvd., Suite 103, Tucson, AZ 85745 (520) 628-7769 (520) 628-7835 fax

TABLE OF CONTENTS

SECTION		PAGE
1.	INTRODUCTION	1
2.	PROJECT BACKGROUND	2
3.	PROJECT OBJECTIVES	4
3.1.	Purpose and Scope	4
3.2.	Data Quality	4
4.	HISTORICAL REVIEW	7
4.1.	Aerial Photographs	7
4.2.	Historical Topographic Maps	7
5.	FIELD ACTIVITIES	8
5.1.	Soil Sampling and XRF Survey	8
5.2.	Sample Analyses Summary - Laboratory	8
5.3.	Sample Analyses Summary - XRF Survey	9
5.4.	Geiger Counter Survey	9
5.5.	Sample Containers and Preservation	10
5.6.	Site Restoration	10
5.7.	Equipment Decontamination	10
5.8.	Sample Identification and Labeling	11
5.9.	Sample Packaging and Shipping	11
5.10.	Field Duplicates (QC Samples)	11
6.	ANALYTICAL LABORATORY ANALYSES	13
6.1.	Analytical Results – Soil Remediation Levels	13
7.	CONCLUSIONS	14
7.1.	Soil Remediation Levels	14
7.2.	Additional Site Characterization	14
8.	LIMITATIONS	16
8.1.	Limitations	16

FIGURES

Figure 1 – Vicinity Map
Figure 2 – Laboratory and XRF Sample Locations
Figure 3 – Lead Concentrations in Soil Samples
Figure 3a – Lead Concentrations in Soil Samples
Figure 4 – Arsenic Concentrations in Soil Samples
Figure 4a – Arsenic Concentrations in Soil Samples
Figure 5 – Cadmium Concentrations in Soil Samples
Figure 5a – Cadmium Concentrations in Soil Samples

TABLE OF CONTENTS (con't.)

TABLES

Table 1 – RCRA Metals and Tungsten Concentrations
Table 2 – Arsenic, Cadmium, and Lead Concentrations by X-Ray Fluorescence
Table 3 – Grid Confirmation Samples for Arsenic, Cadmium, and Lead Concentrations

APPENDICES

Appendix A – Site Photographs
Appendix B - EDR Historical Topographic Map Report
Appendix C - Laboratory Reports and Chain-of-Custody Documentation
Appendix D – Laboratory Level III Data Package

1. INTRODUCTION

Kleinfelder Inc. (Kleinfelder) was retained by City of Tucson Environmental Services (COT-ES) to conduct soil quality evaluation and delineation work at a former ore mill site located west of Silverbell Road and north of Speedway Boulevard in Tucson, Pima County, Arizona. The legal description of the area is SW ¼ of Section 3, Township 14 South, Range 13 East. The scope of work for this project was outlined in Kleinfelder's *Soil Quality Evaluation and Delineation* proposal dated September 13, 2006. The intent of this assessment was to delineate the horizontal extent of the known impacted area(s) and identify other areas that may have elevated metals concentrations in soil. This assessment evaluated shallow soil samples for the presence of metal concentrations in comparison to Arizona Department of Environmental Quality (ADEQ) Residential Soil Remediation Levels (RSRLs). SRLs are remediation standards that were established by ADEQ to be protective of human health and the environment, and are consistent with United States Environmental Protection Agency (U.S. EPA) and Region 9 EPA risk-based screening levels. Residential SRLs are the most conservative of the SRLs and are applied at sites where a higher degree of protection is desired; i.e.: residential areas, schools, parks, and day care centers. This report references ADEQ RSRLs and summarizes the field activities, results, and conclusions of both laboratory and in situ XRF analyses associated with the soil sampling.

2. PROJECT BACKGROUND

The property is located on the north side of Speedway Boulevard between Greasewood and Silverbell Roads near the proposed extension of La Cholla Boulevard (Figure 1). Based on information provided by the COT-ES, the City intends to improve the 29-acre property for use as an open space park. Historically, an ore mill operated on a portion of the property to process tungsten ore during World War II (Desert Archaeology Inc, 2006. "History of the Ore Mill Site, AZ AA:16:376 (ASM), Tucson, Pima County, Arizona" July). The physical above-grade structures and equipment for the ore mill no longer exist. Two concrete features (possible settling basins) and the concrete footings for a former structure that contained at least four rooms are present. Apparent remnants of ore piles are located between a concrete slab and a small pit next to the footings. In addition, a circular slab for a former water tank and a small brick foundation are present at the site. Possible ore fragments (dark gravel) are present on each side of the dirt road south of the mill. Site photographs are included as Appendix A.

In 2006, City of Tucson Parks and Recreation Department began considering the property for use as an open space park with walking trails and interpretative signage. In July 2006, the City contracted Kleinfelder to collect 18 soil samples from the area around the former ore mill. Kleinfelder presented the sampling results in a *Limited Phase II Assessment* report dated August 30, 2006. Additional laboratory analyses on 5 of the 18 samples were presented in an *Addendum to Limited Phase II Assessment* report dated September 25, 2006. Laboratory test results from the initial Limited Phase II Assessment indicated that 15 of the 18 soil samples analyzed exceeded ADEQ RSRLs of 400 mg/kg and 10 mg/Kg for lead and arsenic, respectively. Two soil samples exceeded the ADEQ RSRL of 38 mg/Kg for cadmium. Concentrations of barium, chromium, selenium, silver, and mercury were not detected at or above the RSRLs.

Based on this information, the City promptly posted warning signs at the property, conducted community outreach though public meetings, erected a fence to isolate the area around the former ore mill, and authorized additional site work to further delineate the impacted areas.

3. PROJECT OBJECTIVES

3.1. Purpose and Scope

The purpose of this work was to further define the horizontal extent of elevated metals concentrations in soils around the former ore mill, and to identify other areas on the 29-acre site and the wash to the north of the site, that may have been impacted by former operations at the ore mill. COT-ES staff met with area residents prior to determining sample locations to find out which areas of the site are routinely used by the community. As a result, a portion of this assessment focused on walking paths, roads, and Anklam Wash. This assessment also focused on areas of visible remnant ore, anomalous (non-native) material, and areas within and around the recently installed fence. An XRF grid survey was conducted to evaluate the remaining area of the 29-acre site. The results of this work were evaluated relative to ADEQ RSRLs. The scope of work included:

- Health and Safety Plan;
- Historical Review;
- Soil Sampling;
- Laboratory Analyses of Soil Samples;
- XRF Survey; and
- Geiger Counter Survey.

3.2. Data Quality

Kleinfelder implemented the procedures outlined in our proposal to provide that the data collected was of known and documented quality and useful for decision-making purposes. In accomplishing these goals, data collected during the project was definitive data. Definitive data measures chemical analysis (inorganic parameters) using U.S. EPA procedures and produces information that can be used in risk assessments, site characterizations, and remedial alternative evaluations.

Soil samples were submitted to Aerotech Environmental Laboratories (Aerotech) for chemical analyses. Aerotech analyzed the samples for arsenic, barium, cadmium, chromium, lead, selenium, silver, mercury, and tungsten. Aerotech is certified by the State of Arizona, and has an in-house program for data reduction, validation, and reporting. The reliability and credibility of analytical laboratory results is corroborated by the inclusion of a program of scheduled replicate analyses and analyses of standard or spiked samples. Regularly scheduled analyses of known duplicates, standards, and spiked samples are a routine aspect of data reduction, validation, and reporting procedures. Validation of data requires that appropriate quality assurance and quality control (QA/QC) procedures be followed, and that adequate documentation be included for all data generated both in the laboratory and in the field. Professionals trained in data validation procedures review this information, "flag" data with qualifiers when QA/QC criteria are not met, and prepare the data validation report. Validation reports are then used as sources of data quality indicators, which are used to conduct a data quality assessment relative to the pre-established data quality objectives. The QA/QC documentation provided in conjunction with the sample results allows for the evaluation of the following indicators of data quality: integrity and stability of the samples; instrument performance during sample analysis; possibility of sample contamination; identification and quantification of analytes; analytical precision; and analytical accuracy. A Level III Data Package was provided by Aerotech for approximately 10 percent of the samples submitted for laboratory analyses. This package consists of the laboratory's QA/QC data used to validate the accuracy of the test results (Appendix D).

Two field duplicate samples (labeled SD-1 for S-28 and SD-2 for S-66) were collected and submitted to Aerotech for QA/QC purposes.

The XRF survey consisted of 36 grid points. Eight confirmation samples were collected and submitted to Aerotech for chemical analyses. Laboratory confirmation samples were collected from grid points having a range of XRF responses. Confirmation samples were collected from ground surface to 0.3 feet below ground surface (bgs)

from grid points C-4, C-3, D-3, E-4, D-6, A-6, A-3, and B-2 to support the findings from the XRF survey (Table 2 and Table 3).

4. HISTORICAL REVIEW

4.1. Aerial Photographs

Kleinfelder reviewed historical aerial photographs at Cooper Aerial Surveys Co. located in Tucson, Arizona. Aerial photographs reviewed included those from 1936 and 1953. Site features were not visible due to the quality and scale of the 1936 photograph. The 1953 aerial photograph showed the site to be similar to present day, with only the concrete footings visible. A house was visible on the property east of the former mill. The dirt roads or trails appeared traveled and the vegetation around the former ore mill appeared to have been mowed.

4.2. Historical Topographic Maps

Kleinfelder reviewed the 1968, 1975, 1992, and 1996 U.S.G.S. Tucson, Arizona 7.5-minute topographic maps as well as a 1957 U.S.G.S. Tucson, Arizona 15-minute topographic map and a 1901 U.S.G.S. Tucson, Arizona 30-minute topographic map. The 1901 topographic map was not detailed enough to distinguish whether any buildings or structures were located on the subject property. The former house at the ore mill appears to be visible on the 1957 map. The topographic maps do not depict the structures or features at the former ore mill site. Copies of the historical topographic maps reviewed are included in this report as Appendix B.

5. FIELD ACTIVITIES

5.1. Soil Sampling and XRF Survey

Prior to sample collection, each sample location to be submitted for laboratory analyses was marked with a numbered pin flag in accordance with locations proposed in the workplan and in conversations with COT-ES. For the XRF survey, a 200-foot grid was established across the site. Each grid point was marked with a wooden stake and numbered. The coordinates for each laboratory sample location, along with the coordinates for the XRF grid and non-grid (judgmental) sample locations were recorded using a hand-held global positioning system (GPS) unit (Figure 2). These data were paired with analytical test results from this investigation, the results of the XRF survey, and analytical test results from the initial 18 samples (August 2006) to prepare plots showing concentrations of lead, arsenic, and cadmium (Figures 3 through 5a).

5.2. Sample Analyses Summary - Laboratory

Forty-eight soil samples (designated as S-19 through S-66) were collected at the site for laboratory analyses. A stainless steel hand spade was used to loosen the surface and collect the samples. The samples were collected from ground surface to 0.5 feet bgs. Ten samples were collected from the along the fence line, within the fence at regularly spaced intervals; four samples were collected from the trail that extends north to south along the west property boundary; six samples were collected from the trail that extends from the northeast corner to the southwest corner of the property; 12 samples were collected from Anklam Wash outside of the fenced area; two samples were collected along the ridge east of the ore mill from anomalous material that included debris and soil that appeared to be non-native; eight samples were collected downgradient of the ore mill from the south shelf of Anklam Wash and delta area; and six discretionary samples were collected based on visual observations.

The soil samples were submitted to Aerotech for analysis. The samples were analyzed for arsenic, barium, cadmium, chromium, lead, selenium, silver, mercury and tungsten by U.S. EPA Methods 6010B and 7471A.

5.3. Sample Analyses Summary - XRF Survey

Thirty-six grid points (200-foot spacing) were evaluated in situ using a portable XRF instrument. For delineation, 57 additional (non-grid) sample points were also evaluated using the XRF instrument. The XRF sample points were prepared by lightly brushing the ground surface to remove vegetation in the form of sticks, grass, and leaves. Larger gravel was brushed aside to create a smooth surface for the XRF. The XRF instrument was placed in direct contact with the soil at each sample location for approximately 30 seconds. The XRF grid survey was conducted to collect data from the overall site to evaluate concentrations of arsenic, cadmium, and lead. The purpose of the additional non-grid samples was to cost-effectively refine the delineation of the impacted areas by increasing the number of data points.

Kleinfelder used an Innov-X Systems 4000, Environmental Metals in Soil Analyzer, to conduct the XRF survey. The surface soil was field screened for concentrations of arsenic, cadmium, and lead in accordance with Method 6200 – Field Portable X-Ray Fluorescence Spectrometry for the Determination of Elemental Concentrations in Soil and Sediment. Prior to each use, the analyzer was standardized in the field according to the manufacturers instructions.

5.4. Geiger Counter Survey

Kleinfelder used a Ludlum Model 2221, Potable Scaler Ratemeter to survey the areas of visible remnant ore for radiation as well as the surrounding area within close proximity to the former ore mill. No readings above background (120-140 counts per minute) were detected from the remnant ore or the surrounding area. This survey was conducted as a safety measure since the composition or source area of the ore that was milled at the site was not provided in any of the previous documentation for the site.

5.5. Sample Containers and Preservation

Due to the hard, rocky soil, non-discrete soil samples were collected using a stainless steel hand spade and then immediately transferred to laboratory certified glass jars. The glass jars were sealed with lids and stored in boxes prior to use. The soil samples were collected, handled, and transferred to the laboratory in accordance with standard industry protocols and chain-of-custody documentation.

5.6. Site Restoration

Kleinfelder backfilled each sample location with cuttings and replaced the pin flag or stake for future reference.

5.7. Equipment Decontamination

During sampling activities, field personnel performed appropriate decontamination measures to reduce sample contamination between samples. Decontamination procedures were consistent with those outlined in "Test Methods for Evaluating Solid Waste-Physical/Chemical Methods" (U.S. EPA SW-846, 3rd ed.).

Field personnel decontaminated the sampling equipment used in the collection of samples before and after each sample. Kleinfelder personnel wore new, disposable gloves while decontaminating sampling equipment and tools. Decontaminated sampling equipment was not placed on the ground or other contaminated surfaces between sampling locations.

The decontamination procedures were as follows:

- pre-rinse with purified municipal water to dislodge soil or waste sample remains;
- wash in water with approximately 0.01% laboratory grade non-phosphate detergent (e.g. Liqu-Nox®);
- rinse with purified municipal water; and
- rinse with water from the approved water supply (distilled or reagent grade water).

5.8. Sample Identification and Labeling

An identification number was assigned to each sample. Labels bearing job designation, time, sample depth interval, sample ID, date sampled, and the initials of the sampler were affixed to the containers of the collected samples.

5.9. Sample Packaging and Shipping

Samples were transported under strict chain-of-custody protocol after sample collection to the laboratory for analyses. The samples were enclosed in a plastic bag and stored in a cooler maintained at 4°C ± 2°C. Field personnel used the following procedures when packing and transporting samples to the laboratory:

- Samples placed in waterproof, plastic ice chests.
- Attached a label to the top of container that identified the name of the project and Kleinfelder as the contact for the samples.
- Packaged wet ice in plastic bags and placed a "layer" of bags at the bottom of the ice chest.
- Packaged soil samples in individual plastic bags prior to placement in the ice chest.
- Put paperwork (chain-of-custody record, etc.) in a waterproof plastic bag and taped it to the inside lid of the ice chest.
- Taped the container shut with fiber-reinforced tape.
- Hand delivered the ice chest and samples to the contract laboratory.

5.10. Field Duplicates (QC Samples)

Two field duplicate samples were collected and submitted to Aerotech for quality assurance/quality control (QA/QC) purposes (Labeled SD-1 for S-28 and SD-2 for S-66). Duplicate samples provide quality control information for the measurement system including sample acquisition, homogeneity, handling, shipping, storage, preparation, and analysis. The duplicate samples were analyzed for the same parameters as the

primary samples, and were submitted to the primary laboratory. Reported results for the duplicate analysis ranged from 65 to 100 percent of parent sample.

6. ANALYTICAL LABORATORY ANALYSES

6.1. Analytical Results – Soil Remediation Levels

Twelve of the 48 soil samples collected and submitted for laboratory analyses exceeded the ADEQ RSRL of 400 mg/Kg for lead. Concentrations of lead ranged from 9.8 mg/Kg in S-51 and S-53 to 22,000 mg/Kg in S-47. Nine soil of the 48 samples exceeded the ADEQ RSRL of 10 mg/Kg for arsenic. Concentrations of arsenic ranged from <5.0 mg/Kg to 450 mg/Kg in S-39. Cadmium was detected at concentrations below the ADEQ RSRL of 38 mg/Kg in all 48 samples analyzed by the laboratory. Concentrations of cadmium ranged from <0.50 mg/Kg to 24 mg/Kg in S-38. Concentrations of barium, chromium, selenium, silver, and mercury were not detected at or above the RSRLs.

Ninety-three surface samples were field screened in situ using a portable XRF instrument. Thirty-seven samples exceeded the ADEQ RSRL of 400 mg/Kg for lead. Concentrations of lead ranged from <14 mg/Kg in JS-25 to 9,003 mg/Kg in JS-29. Six samples exceeded the ADEQ RSRL of 10 mg/Kg for arsenic. Concentrations of arsenic ranged from <12.0 mg/Kg in C-6 to 1,271 mg/Kg in JSa-41. Three samples exceeded the ADEQ RSRL of 38 mg/Kg for cadmium. Concentrations of cadmium ranged from non detect to 122 mg/Kg at JS-31. Since the detection limit of the XRF instrument (for field screening) is typically greater than RSRLs, direct comparison of XRF results with RSRLs is not practical at low concentrations. However, XRF data are useful for field screening and delineating higher (detectable) concentrations, and are routinely supported by laboratory confirmation sampling.

Laboratory test results from confirmation sampling were consistent with the XRF field screening data, with XRF results being conservative. Table 3 – Grid Confirmation Samples for Arsenic, Cadmium, and Lead Concentrations, compares laboratory results with XRF responses for eight samples that were analyzed using both methods. Because the detection limits for XRF analyses are higher than those for laboratory methods, direct comparisons are impractical at low or non-detect concentrations.

7. CONCLUSIONS

7.1. Soil Remediation Levels

The surface area with concentrations at or above the ADEQ RSRL of 400 mg/Kg for lead is approximately 2 acres, which encompasses the former ore mill remains and immediate periphery (Figure 3). In addition, two isolated areas (S-47 and S-48) were identified as exceeding the ADEQ RSRL of 400 mg/Kg for lead. Samples S-47 and S-48 were collected from anomalous non-native material located east of the former ore mill. The combined surface area for these two areas is approximately 1,000 square feet. These areas contain broken glass, pottery fragments, and building debris, and do not appear to be related to ore mill operations.

Concentrations of arsenic and cadmium at or above the ADEQ RSRLs of 10 and 38 mg/Kg, respectively, exist within the apparent horizontal confines of the area impacted with lead (Figure 4 and 5). In addition, arsenic was detected in sample S-52 at 11 mg/Kg, which exceeded the ADEQ RSRL of 10 mg/Kg. Sample S-52 was collected from the trail along the west property boundary (Figure 4). Based on the low concentrations at S-52, it is likely that the arsenic is naturally occurring.

Laboratory analytical results are included as Table 1 and XRF survey results are included as Table 2. Laboratory analytical results from the confirmation sampling are included as Table 3. Concentration maps for lead, arsenic, and cadmium are presented as Figures 3 through 5a, and show areas at the site with concentrations that exceed ADEQ RSRLs.

7.2. Additional Site Characterization

COT-ES is planning additional sample collection and analysis to characterize the vertical extent of the impacted soils in the vicinity of the former ore processing facility, and the vertical and horizontal extent of the three isolated areas identified outside of the

former ore mill. Provisions for preventing access to soil having elevated lead concentrations outside the fence are being made at this time.

8. LIMITATIONS

8.1. Limitations

This report was prepared in accordance with the scope of work described in Kleinfelder's proposal to COT-ES, dated September 13, 2006. The work conducted by Kleinfelder is limited to the services explicitly stated and agreed to in the proposal and no warranty, either expressed or implied, is made.

The information provided by Kleinfelder may be used by COT-ES and their affiliates for the purposes stated, within a reasonable time from its issuance. The scope of services performed during this investigation may not be appropriate for other users, and any use or re-use of this document or the findings presented herein are at the sole risk of said user. This report is intended for use in its entirety. No excerpts may be taken to be representative of the findings of this assessment. Land or facility use, on and off-site conditions, regulations, or other factors may change over time, and additional work may be required with the passage of time. Any party other than the COT-ES and their affiliates who would like to rely on this report must notify Kleinfelder of such intended use and comply with Kleinfelder's standard third-party reliance requirements, up to and including performance of additional site work. Non-compliance with any of these requirements by the client or anyone else will release Kleinfelder from any liability resulting from the use of this report by any unauthorized party and client agrees to defend, indemnify, and hold Kleinfelder harmless from any claim or liability associated with such unauthorized use or non-compliance.

The services performed by Kleinfelder were conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in Arizona. The property owner is solely responsible for notifying governmental agencies, if required, and the public at large, of the existence, release, treatment or disposal of any hazardous materials observed at the project site, either before, during, or after performance of Kleinfelder's services.

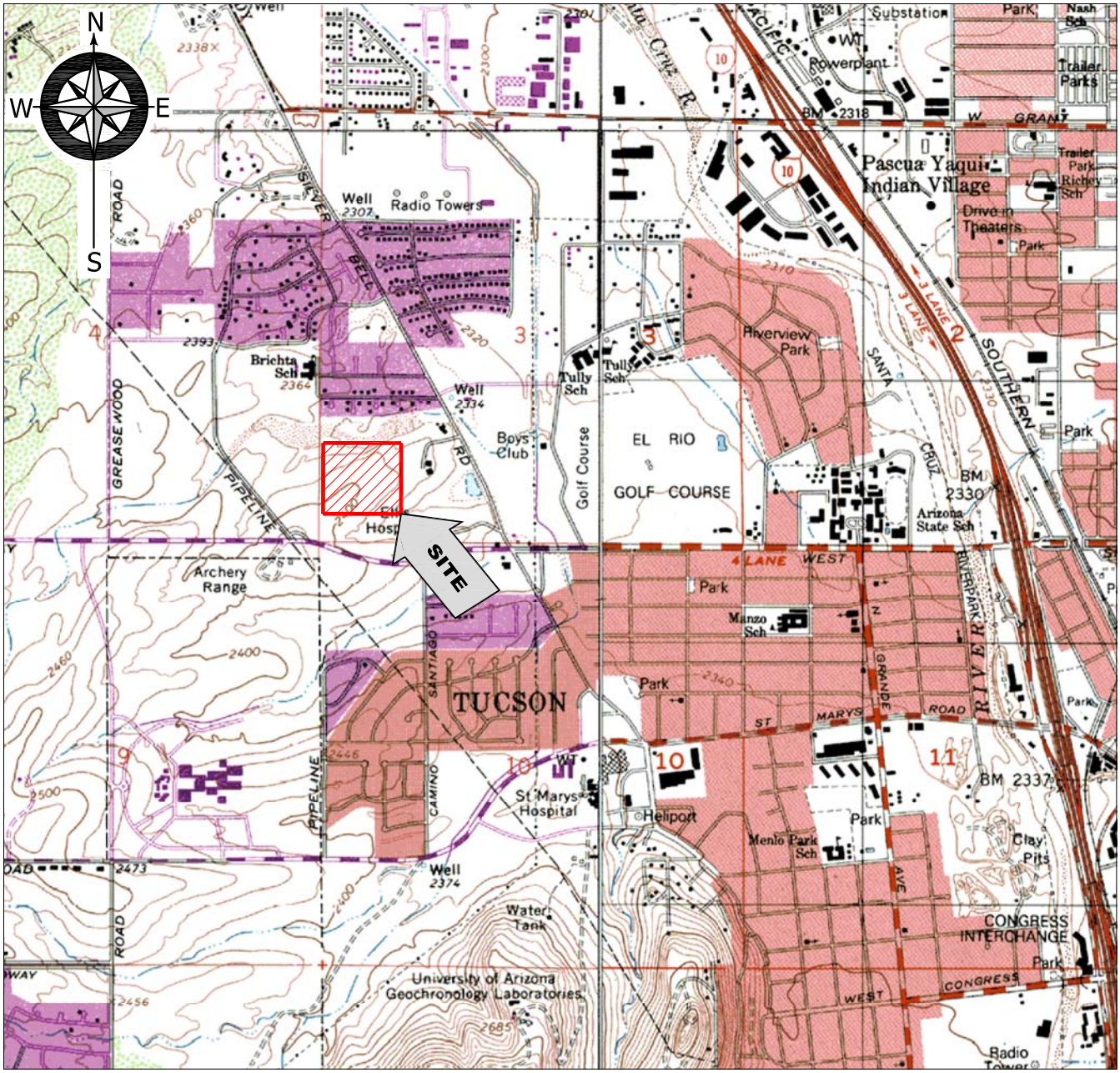
Kleinfelder assumes no responsibility or liability for any claim, loss of property value, damage, or injury which results from pre-existing hazardous materials being encountered or present on the project site, or from the discovery of such hazardous materials.

The discussion and conclusions presented in this report are based on the following:

- laboratory results provided by Aerotech Environmental Laboratories;
- field observations by Kleinfelder personnel;
- information provided by COT-ES; and
- an understanding of the regulations of the State of Arizona.

It is possible that variations in subsurface conditions could exist beyond the points explored in this investigation due to site subsurface conditions that influence the limit and selection of exploration points. Also, changes in conditions could occur at some time in the future due to variations in rainfall, temperature, regional water usage, or other factors.

FIGURES



Taken from: USGS Topographic Map, Tucson Arizona (1952, Photorevise 1982)

LEGEND:

: Approximate Site Location

0 2000' 4000'

SCALE IN FEET
1" = 2000'

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KLEINFELDER

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VICINITY MAP

SOIL QUALITY EVALUATION AND DELINEATION
FORMER ORE MILL SITE - 29 ACRE PARCEL
N. LA CHOLLA AND SPEEDWAY
TUCSON, PIMA COUNTY, ARIZONA

DRAWN BY:	SAG
REVISED BY:	SAG
CHECKED BY:	RS
FIGURE	1

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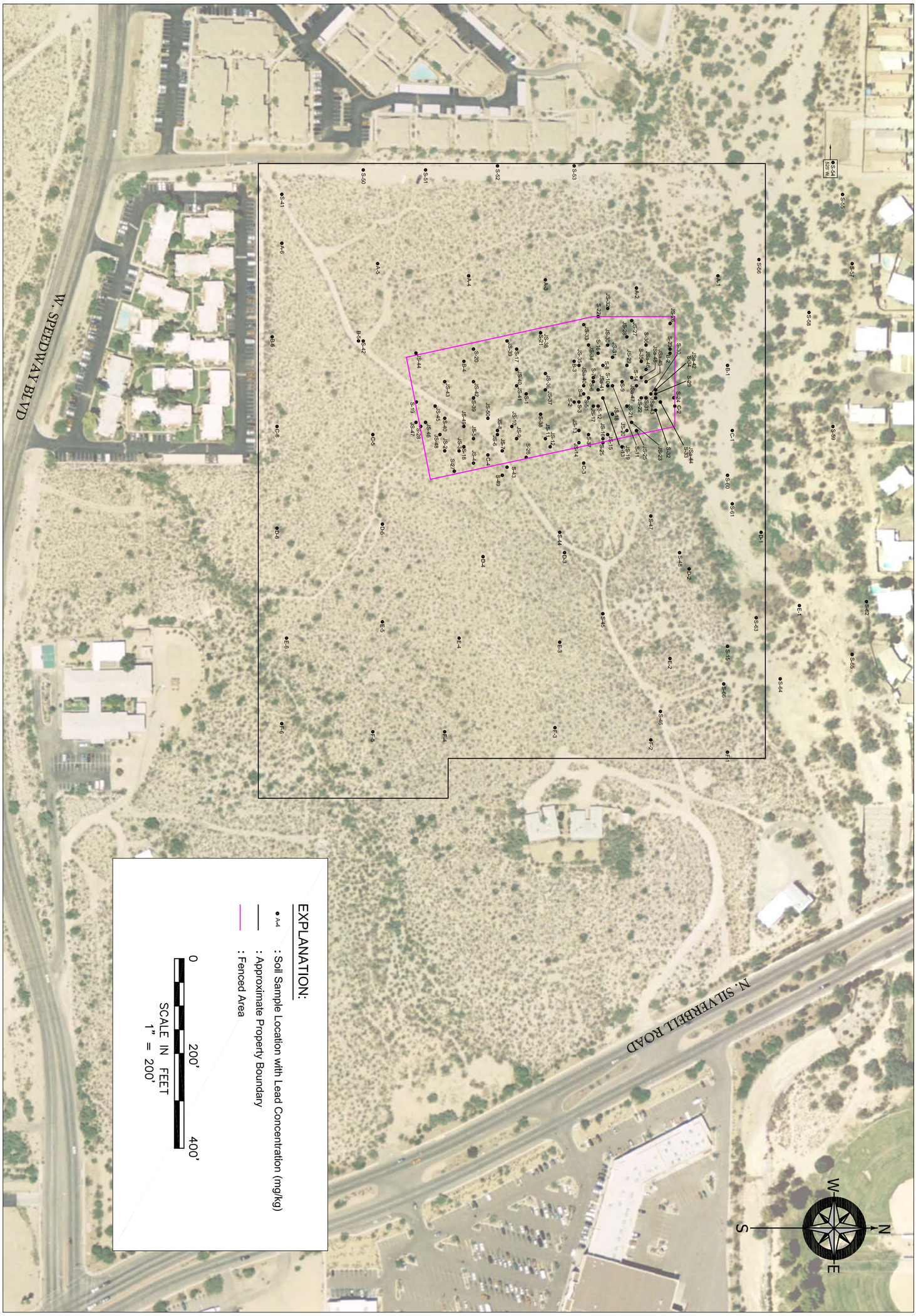
CAD FILE: L:\2006\Projects\74053\November 06 Figures\ LAYOUT: Sample Location



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DRAWN BY: SAG	**Soil Sample Locations**	KLEINFELDER	FIGURE
REVISED BY: SAG			
CHECKED BY: RS	Soil Quality Evaluation and Delineation Former Ore Mill Site - 29 Acre Parcel North La Cholla and Speedway Tucson, Pima County, Arizona	1335 WEST AUTO DRIVE TEMPE, AZ 85284 PH. (480) 763-1200 FAX. (480) 763-1212 www.kleinfelder.com	**2**
DATE: Nov. 2006 / APPROVED BY:	PROJECT NO. 74053 / FILE NAME: 74053-Samples.dwg		

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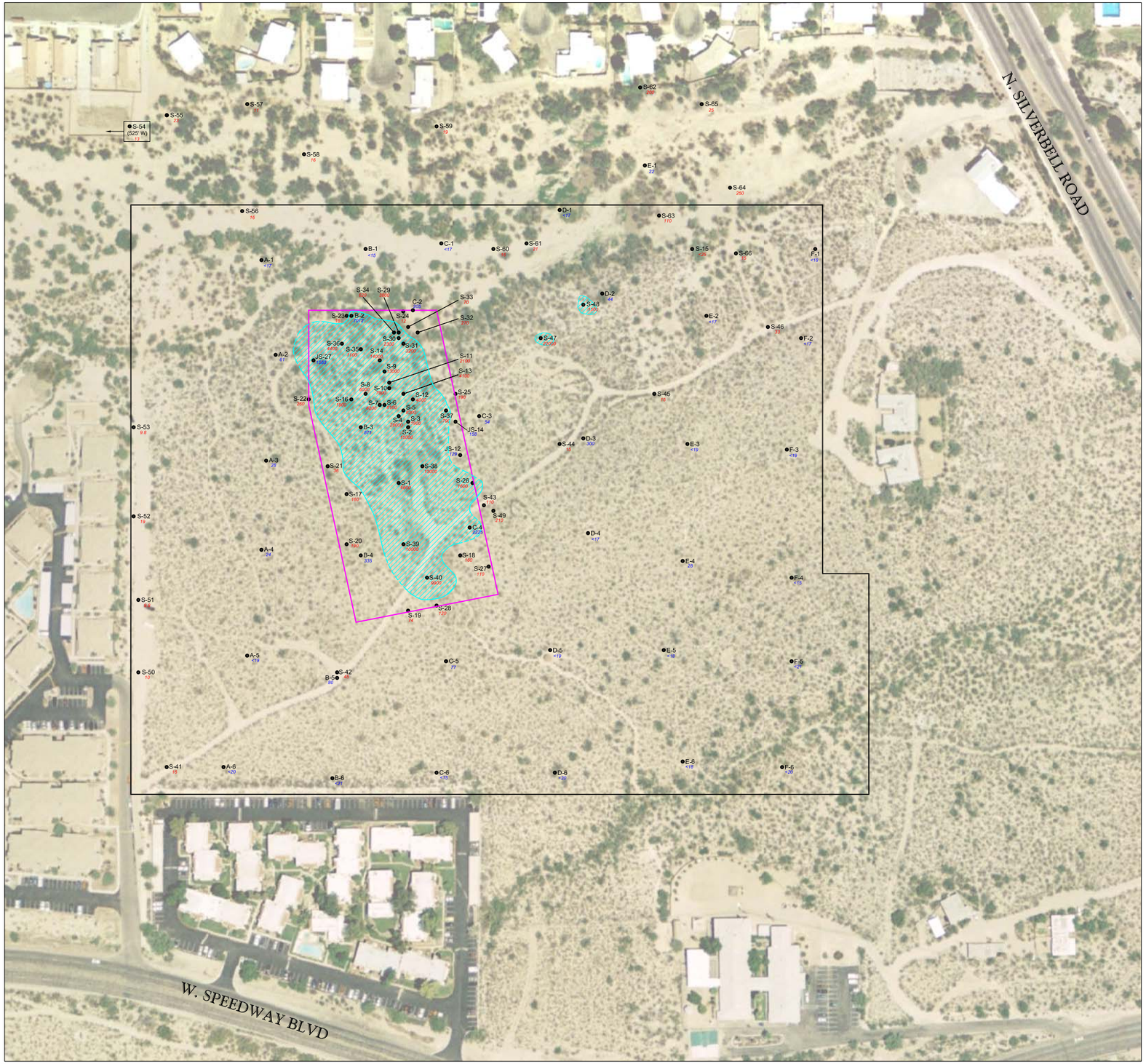

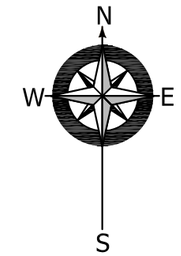

EXPLANATION:

- A-4 24 : Soil Sample Location with Lead Concentration (mg/kg)
- : Soil Samples > 400 mg/kg Lead
- : Approximate Property Boundary
- : Fenced Area

Notes:
Soil samples tested by Laboratory Methods are posted in Red
Soil samples tested by XRF Methods are posted in Blue

0 200' 400'
SCALE IN FEET
1" = 200'

FIGURE 3

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Lead Concentrations in Soil Samples > 400 mg/kg

Soil Quality Evaluation and Delineation
Former Ore Mill Site - 29 Acre Parcel
North La Cholla and Speedway
Tucson, Pima County, Arizona

PROJECT NO. 74053
FILE NAME: 74053-Conc.dwg

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DATE: Nov. 2006

CAD FILE: L:\2006\Projects\74053\November 06 Figures\ LAYOUT: Lead-3
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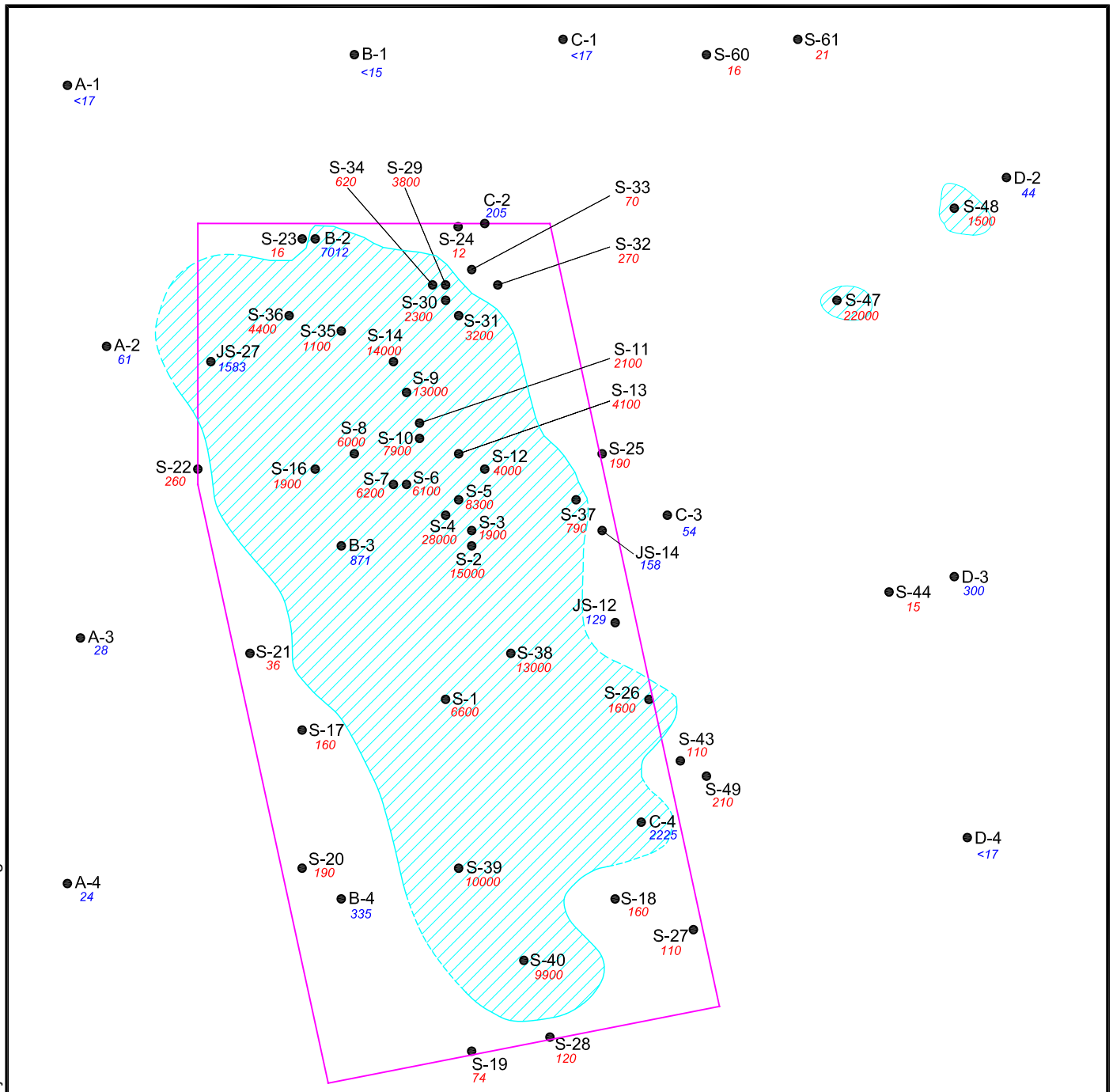

EXPLANATION:

A-4 24 : Soil Sample Location with Lead Concentration (mg/kg)

: Soil Samples > 400 mg/kg Lead

: Fenced Area

0 100' 200'

SCALE IN FEET
1" = 100'

Notes:
Soil samples tested by Laboratory Methods are posted in Red
Soil samples tested by XRF Methods are posted in Blue

CAD FILE: L:\2006\Projects\74053\November 06 Figures\ LAYOUT: Lead-3a

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Lead Concentrations in Soil Samples ≥ 400 mg/kg

Soil Quality Evaluation and Delineation
Former Ore Mill Site - 29 Acre Parcel
North La Cholla and Speedway
Tucson, Pima County, Arizona

DRAWN BY:	SAG
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CHECKED BY:	RS
FIGURE	3a

DRAWN: Nov. 2006	APPROVED BY: _____	PROJECT NO. 74053	FILE NAME:74053-Conc.dwg

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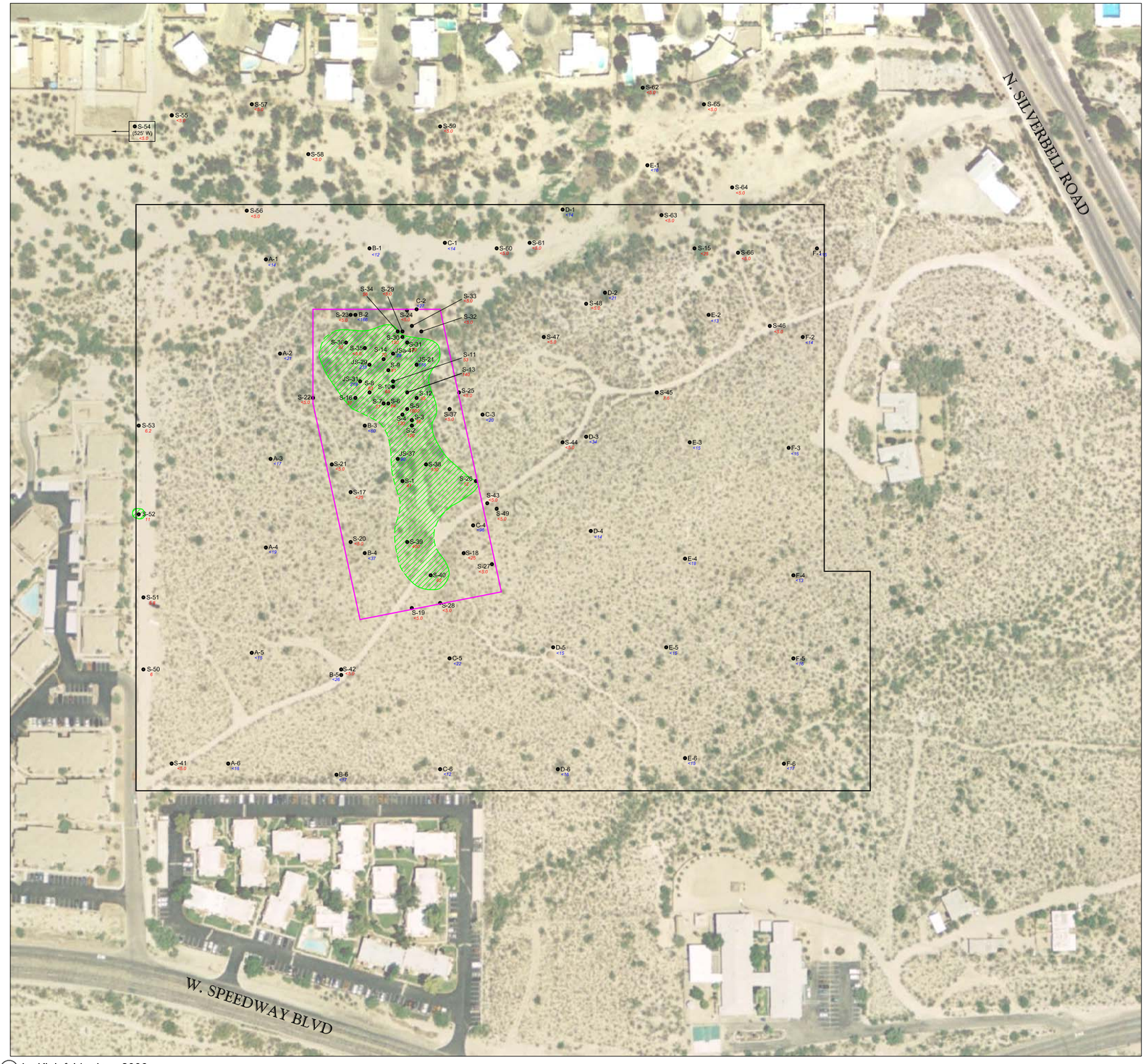

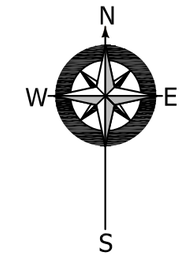

EXPLANATION:

- A-4 <19 : Soil Sample Location with Arsenic Concentration (mg/kg)
- : Soil Samples > 10 mg/kg Lead
- : Approximate Property Boundary
- : Fenced Area

Notes:
Soil samples tested by Laboratory Methods are posted in Red
Soil samples tested by XRF Methods are posted in Blue

0 200' 400'
SCALE IN FEET
1" = 200'

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FIGURE 4

KLEINFELDER
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PLOTTED: 28 Nov 2006, 10:03am, sguedamour

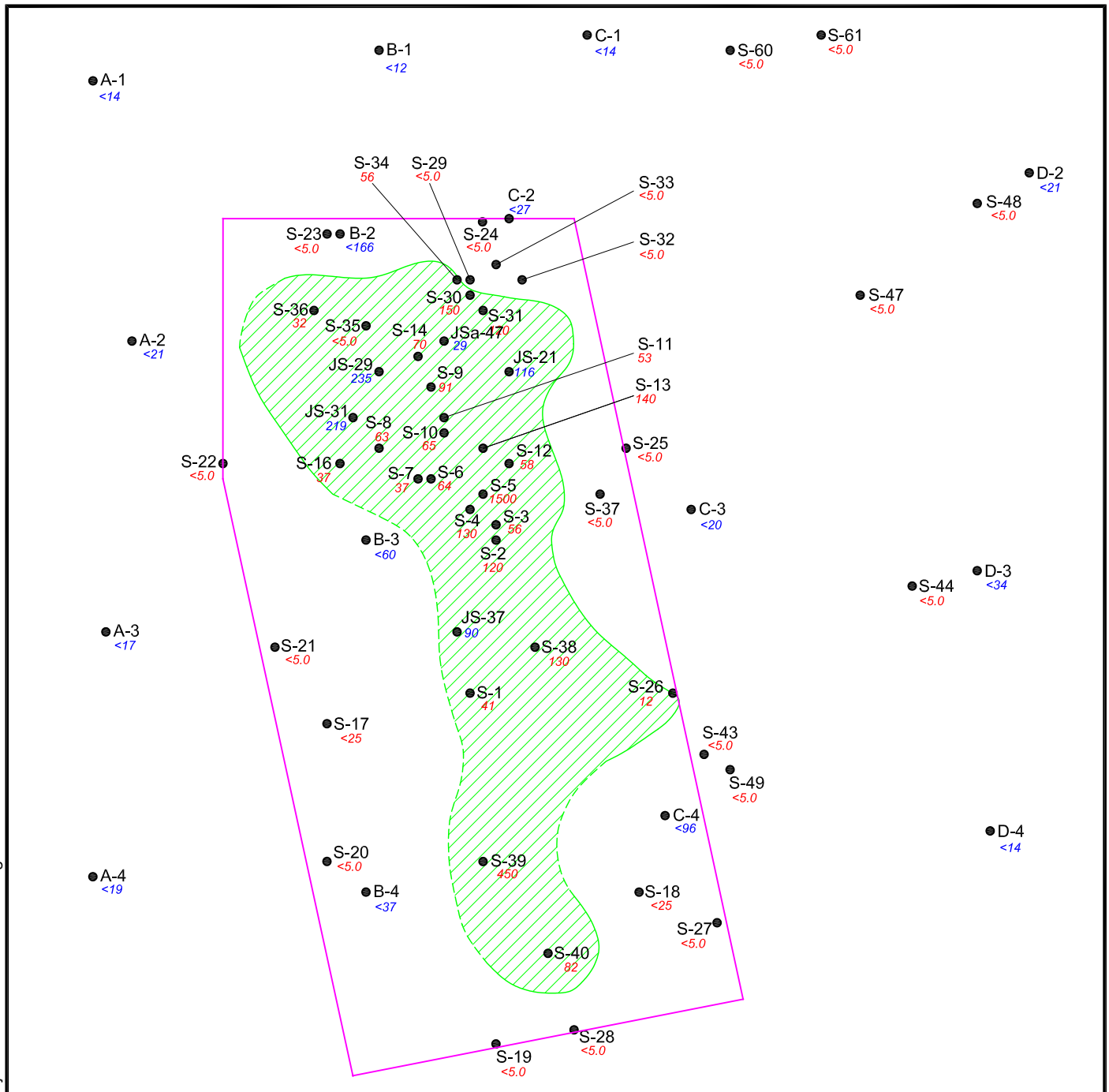
Arsenic Concentrations in Soil Samples

Soil Quality Evaluation and Delineation
Former Ore Mill Site - 29 Acre Parcel
North La Cholla and Speedway
Tucson, Pima County, Arizona

PROJECT NO. 74053
FILE NAME: 74053-Conc.dwg

DRAWN BY: SAG
REVISED BY: SAG
CHECKED BY: RS
APPROVED BY:
DATE: Nov. 2006

CAD FILE: L:\2006\Projects\74053\November 06 Figures\ LAYOUT: Arsenic-4
ATTACHED XREFS: L:\2006



EXPLANATION:

A-4 <19 : Soil Sample Location with Arsenic Concentration (mg/kg)

: Soil Samples > 10 mg/kg Arsenic

: Fenced Area

Notes:
Soil samples tested by Laboratory Methods are posted in Red
Soil samples tested by XRF Methods are posted in Blue

CAD FILE: L:\2006\Projects\74053\November 06 Figures\ LAYOUT: Arsenic-4a

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Arsenic Concentrations in Soil Samples ≥ 10 mg/kg

Soil Quality Evaluation and Delineation
Former Ore Mill Site - 29 Acre Parcel
North La Cholla and Speedway
Tucson, Pima County, Arizona

DRAWN BY:	SAG
REVISED BY:	SAG
CHECKED BY:	RS
FIGURE	4a

DRAWN: Nov. 2006 | APPROVED BY: _____ | PROJECT NO. 74053 | FILE NAME: 74053-Conc.dwg

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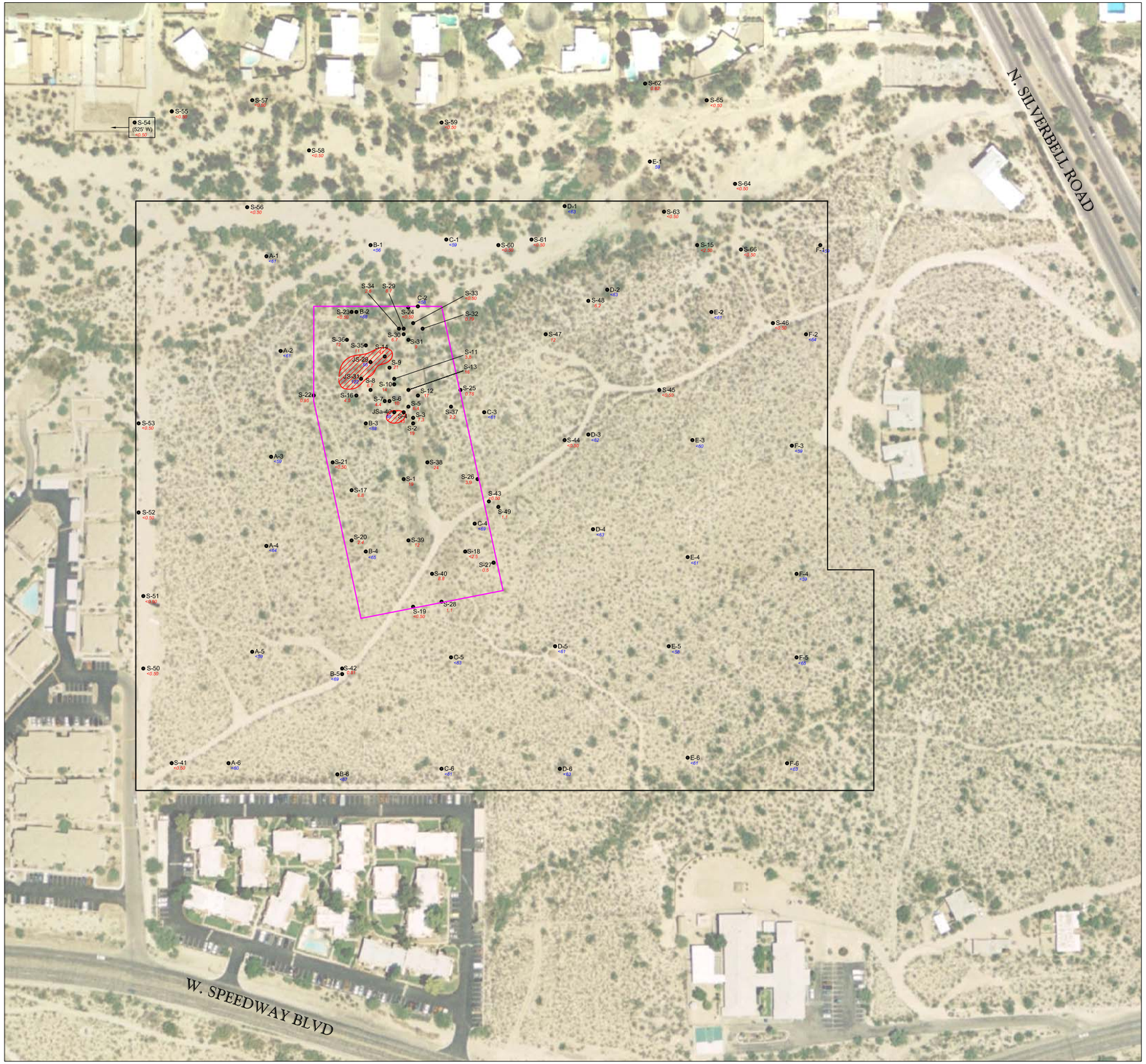

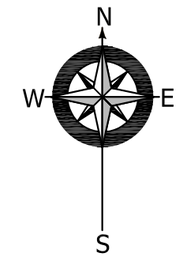

EXPLANATION:

- A-4 <64 : Soil Sample Location with Cadmium Concentration (mg/kg)
- : Soil Samples > 38 mg/kg Lead
- : Approximate Property Boundary
- : Fenced Area

Notes:
Soil samples tested by Laboratory Methods are posted in Red
Soil samples tested by XRF Methods are posted in Blue

0 200' 400'
SCALE IN FEET
1" = 200'

FIGURE 5

KLEINFELDER
1335 WEST AUTO DRIVE
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PLOTTED: 28 Nov 2006, 10:06am, sguedamour

Cadmium Concentrations in Soil Samples

Soil Quality Evaluation and Delineation
Former Ore Mill Site - 29 Acre Parcel
North La Cholla and Speedway
Tucson, Pima County, Arizona

PROJECT NO. 74053
FILE NAME: 74053-Conc.dwg

DRAWN BY: SAG
REVISED BY: SAG
CHECKED BY: RS
APPROVED BY:
DATE: Nov. 2006

CAD FILE: L:\2006\Projects\74053\November 06 Figures\ LAYOUT: Cadmium-5
ATTACHED XREFS: L:\2006

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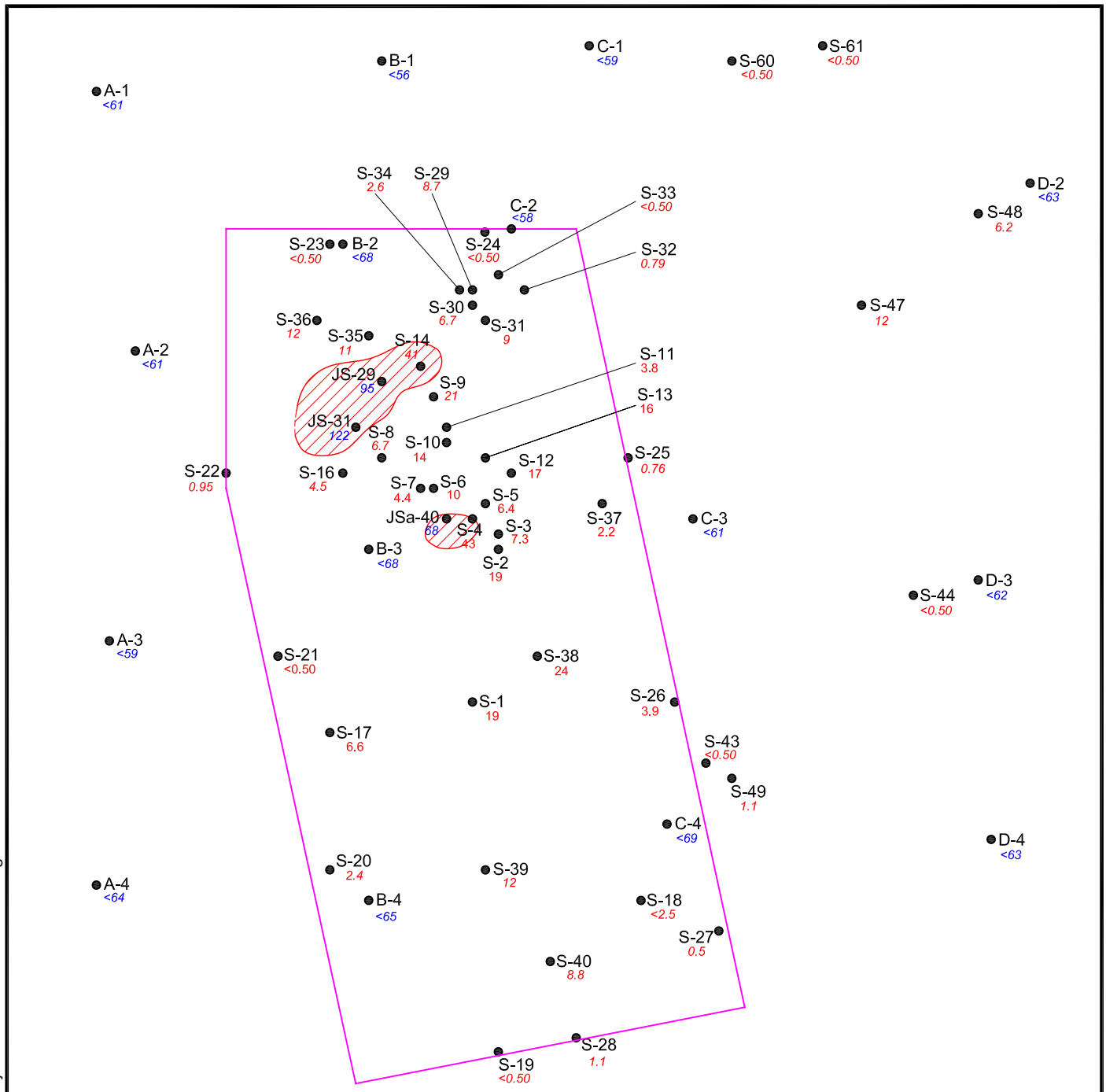

EXPLANATION:

A-4 <64 : Soil Sample Location with Cadmium Concentration (mg/kg)

: Soil Samples > 38 mg/kg Cadmium

: Fenced Area

0 100' 200'

SCALE IN FEET
1" = 100'

Notes:
Soil samples tested by Laboratory Methods are posted in Red
Soil samples tested by XRF Methods are posted in Blue

CAD FILE: L:\2006\Projects\74053\November 06 Figures\ LAYOUT: Cadmium-5a

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Cadmium Concentrations in Soil Samples ≥ 38 mg/kg

Soil Quality Evaluation and Delineation
Former Ore Mill Site - 29 Acre Parcel
North La Cholla and Speedway
Tucson, Pima County, Arizona

DRAWN BY: SAG
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CHECKED BY: RS
FIGURE **5a**

DRAWN: Nov. 2006 | APPROVED BY:_____ | PROJECT NO. 74053 | FILE NAME:74053-Conc.dwg

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TABLES

TABLE 1
Total RCRA Metals and Tungsten Concentrations
Arsenic, Cadmium, and Lead Concentrations by TCLP
Former Ore Mill Site
Date Sampled: August 31, 2006 and September 21-22, 2006

Sample ID	Depth (ft. bgs)	Total Arsenic (mg/Kg)	TCLP Arsenic (mg/L)	Total Barium (mg/Kg)	Total Cadmium (mg/Kg)	TCLP Cadmium (mg/L)	Total Chromium (mg/Kg)	Total Lead (mg/Kg)	TCLP Lead (mg/L)	Total Selenium (mg/Kg)	Total Silver (mg/Kg)	Total Mercury (mg/Kg)	Total Tungsten (mg/Kg)
S-1-0.5-1.0	0.5-1.0	**41**	---	94	19	---	5.3	**6,600**	---	<5.0	2.6	0.40	680
S-2-0.5-1.0	0.5-1.0	**120**	---	92	19	---	7.3	**15,000**	---	<5.0	4.1	0.24	670
S-3-0.5-1.0	0.5-1.0	**56**	---	130	7.3	---	2.9	**1,900**	---	<5.0	<2.5	0.25	680
S-4-0.5-1.0	0.5-1.0	**130**	<0.50	76	**43**	**1.2**	17	**28,000**	**36**	<5.0	3.7	0.52	850
S-5-0.5-1.0	0.5-1.0	**1,500**	<0.50	110	6.4	<0.25	6.8	**8,300**	**59**	<5.0	48	4.0	<50
S-6-0.5-1.0	0.5-1.0	**64**	---	86	10	---	20	**6,100**	---	<25	<12	0.14	600
S-7-0.5-1.0	0.5-1.0	**37**	---	80	4.4	---	13	**6,200**	---	<25	<12	0.19	580
S-8-0.5-0.8	0.5-0.8	**63**	---	100	6.7	---	25	**6,000**	---	<25	<12	0.34	1,000
S-9-0.5-1.0	0.5-1.0	**91**	<0.50	160	21	<0.25	42	**13,000**	**10**	48	16	0.71	4,200
S-10-0.5-1.0	0.5-1.0	**65**	---	110	14	---	20	**7,900**	---	<25	<12	0.43	1,200
S-11-0.5-1.0	0.5-1.0	**53**	---	150	3.8	---	12	**2,100**	---	<25	<12	<0.10	1,100
S-12-0.5-1.0	0.5-1.0	**58**	---	100	17	---	19	**4,000**	---	<25	<12	0.23	2,100
S-13-0.5-1.0	0.5-1.0	**140**	<0.50	130	16	<0.25	34	**4,100**	3.4	<25	<12	0.23	640
S-14-0.5-1.0	0.5-1.0	**70**	<0.50	90	**41**	0.54	23	**14,000**	**30**	<25	<12	0.25	740
S-15-0.5-1.0	0.5-1.0	**<25**	---	280	<2.5	---	11	<25	---	<25	<12	<0.10	<50
S-16-0.5-1.0	0.5-1.0	**37**	---	260	4.5	---	34	**1,900**	---	68	<12	<0.10	6,100
S-17-0.5-1.0	0.5-1.0	**<25**	---	120	6.6	---	11	160	---	<25	<12	<0.10	480
S-18-0.5-1.0	0.5-1.0	**<25**	---	92	<2.5	---	11	160	---	<25	<12	<0.10	100
S-19	0-0.5	<5.0	---	82	<0.50	---	2.5	74	---	<5.0	<2.5	<0.10	180
S-20	0-0.5	<5.0	---	82	2.4	---	2.6	190	---	<5.0	<2.5	<0.10	340
S-21	0-0.5	<5.0	---	97	<0.50	---	2.4	36	---	<5.0	<2.5	<0.10	5.0
S-22	0-0.5	<5.0	---	120	0.95	---	2.7	260	---	<5.0	<2.5	<0.10	600
S-23	0-0.5	<5.0	---	150	<0.50	---	2.1	16	---	<5.0	<2.5	<0.10	<5.0
S-24	0-0.5	<5.0	---	63	<0.50	---	<2.0	12	---	<5.0	<2.5	<0.10	<5.0
S-25	0-0.5	<5.0	---	85	0.76	---	2.8	190	---	<5.0	<2.5	<0.10	86

TABLE 1
Total RCRA Metals and Tungsten Concentrations
Arsenic, Cadmium, and Lead Concentrations by TCLP
Former Ore Mill Site
Date Sampled: August 31, 2006 and September 21-22, 2006

Sample ID	Depth (ft. bgs)	Total Arsenic (mg/Kg)	TCLP Arsenic (mg/L)	Total Barium (mg/Kg)	Total Cadmium (mg/Kg)	TCLP Cadmium (mg/L)	Total Chromium (mg/Kg)	Total Lead (mg/Kg)	TCLP Lead (mg/L)	Total Selenium (mg/Kg)	Total Silver (mg/Kg)	Total Mercury (mg/Kg)	Total Tungsten (mg/Kg)
S-26	0-0.5	**12**	---	150	3.9	---	3.1	**1600**	---	<5.0	<2.5	<0.10	200
S-27	0-0.5	<5.0	---	78	0.50	---	3.1	110	---	<5.0	<2.5	<0.10	48
S-28	0-0.5	<5.0	---	93	1.1	---	3.3	120	---	<5.0	<2.5	<0.10	280
SD-1 (S-28)	0-0.5	<5.0	---	100	1.2	---	2.8	140	---	<5.0	<2.5	<0.10	320
S-29	0-0.5	<5.0	---	260	8.7	---	2.4	**3800**	---	<5.0	<2.5	0.20	400
S-30	0-0.5	**150**	---	110	6.7	---	2.6	**2300**	---	<5.0	8.0	0.23	430
S-31	0-0.5	**120**	---	82	9.0	---	<2.0	**3200**	---	<5.0	6.4	0.85	410
S-32	0-0.5	<5.0	---	70	0.79	---	<2.0	270	---	<5.0	<2.5	<0.10	18
S-33	0-0.5	<5.0	---	86	<0.50	---	<2.0	70	---	<5.0	<2.5	<0.10	6.2
S-34	0-0.5	**56**	---	150	2.6	---	2.7	**620**	---	<5.0	<2.5	0.12	140
S-35	0-0.5	<5.0	---	320	11	---	3.3	**1100**	---	<5.0	<2.5	0.14	680
S-36	0-0.5	**32**	---	86	12	---	4.5	**4400**	---	<5.0	<2.5	<0.10	640
S-37	0-0.5	<5.0	---	54	2.2	---	2.6	**790**	---	<5.0	<2.5	0.18	220
S-38	0-0.5	**130**	---	150	24	---	15	**13000**	---	<5.0	3.8	0.30	240
S-39	0-0.5	**450**	---	85	12	---	18	**10000**	---	<5.0	16	0.94	80
S-40	0-0.5	**82**	---	97	8.8	---	16	**9900**	---	<5.0	<2.5	<0.10	240
S-41	0-0.5	<5.0	---	99	<0.50	---	8.6	16	---	<5.0	<2.5	<0.10	<5.0
S-42	0-0.5	<5.0	---	87	0.81	---	5.6	45	---	<5.0	<2.5	<0.10	150
S-43	0-0.5	<5.0	---	88	<0.50	---	8.6	110	---	<5.0	<2.5	<0.10	<5.0
S-44	0-0.5	<5.0	---	120	<0.50	---	7.6	15	---	<5.0	<2.5	<0.10	<5.0
S-45	0-0.5	7.6	---	140	<0.50	---	7.6	15	---	7.1	<2.5	<0.10	<5.0
S-46	0-0.5	<5.0	---	96	<0.50	---	7.9	33	---	<5.0	<2.5	<0.10	<5.0
S-47	0-0.5	<5.0	---	1100	12	---	110	**22000**	---	<5.0	4.3	0.66	<5.0

TABLE 1
Total RCRA Metals and Tungsten Concentrations
Arsenic, Cadmium, and Lead Concentrations by TCLP
Former Ore Mill Site
Date Sampled: August 31, 2006 and September 21-22, 2006

Sample ID	Depth (ft. bgs)	Total Arsenic (mg/Kg)	TCLP Arsenic (mg/L)	Total Barium (mg/Kg)	Total Cadmium (mg/Kg)	TCLP Cadmium (mg/L)	Total Chromium (mg/Kg)	Total Lead (mg/Kg)	TCLP Lead (mg/L)	Total Selenium (mg/Kg)	Total Silver (mg/Kg)	Total Mercury (mg/Kg)	Total Tungsten (mg/Kg)
S-48	0-0.5	<5.0	---	680	6.2	---	52	**1500**	---	<5.0	<2.5	0.52	<5.0
S-49	0-0.5	<5.0	---	85	1.1	---	11	210	---	<5.0	<2.5	<0.10	21
S-50	0-0.5	6.0	---	170	<0.50	---	3.6	10	---	<5.0	<2.5	<0.10	<5.0
S-51	0-0.5	5.8	---	130	<0.50	---	3.8	9.8	---	<5.0	<2.5	<0.10	<5.0
S-52	0-0.5	**11**	---	210	<0.50	---	5.4	19	---	6.6	<2.5	<0.10	<5.0
S-53	0-0.5	6.2	---	220	<0.50	---	5.0	9.8	---	6.1	<2.5	<0.10	<5.0
S-54	0-0.5	<5.0	---	82	<0.50	---	<2.0	13	---	<5.0	<2.5	<0.10	<5.0
S-55	0-0.5	<5.0	---	110	<0.50	---	8.4	23	---	<5.0	<2.5	<0.10	<5.0
S-56	0-0.5	<5.0	---	74	<0.50	---	2.6	16	---	<5.0	<2.5	<0.10	<5.0
S-57	0-0.5	<5.0	---	59	<0.50	---	<2.0	11	---	<5.0	<2.5	<0.10	<5.0
S-58	0-0.5	<5.0	---	92	<0.50	---	<2.0	16	---	<5.0	<2.5	<0.10	<5.0
S-59	0-0.5	<5.0	---	86	<0.50	---	<2.0	19	---	<5.0	<2.5	<0.10	<5.0
S-60	0-0.5	<5.0	---	94	<0.50	---	<2.0	16	---	<5.0	<2.5	<0.10	<5.0
S-61	0-0.5	<5.0	---	100	<0.50	---	<2.0	21	---	<5.0	<2.5	<0.10	<5.0
S-62	0-0.5	<5.0	---	91	0.62	---	6.0	200	---	<5.0	<2.5	<0.10	<5.0
S-63	0-0.5	<5.0	---	82	<0.50	---	5.2	110	---	<5.0	<2.5	<0.10	<5.0
S-64	0-0.5	<5.0	---	54	<0.50	---	7.2	250	---	<5.0	<2.5	<0.10	<5.0
S-65	0-0.5	<5.0	---	74	<0.50	---	<2.0	25	---	<5.0	<2.5	<0.10	<5.0
S-66	0-0.5	<5.0	---	82	<0.50	---	<2.0	15	---	<5.0	<2.5	<0.10	<5.0
SD-2 (S-66)	0-0.5	<5.0	---	80	<0.50	---	<2.0	23	---	<5.0	<2.5	<0.10	<5.0
RSRL		10	-	5,300	38	-	2,100	400	-	380	380	6.7*	NE
NRSRL		10	-	110,000	850	-	4,500	2,000	-	8,500	8,500	180*	NE
TCLP		-	5.0	-	-	1.0	-	-	5.0	-	-	-	-

TABLE 1
Total RCRA Metals and Tungsten Concentrations
Arsenic, Cadmium, and Lead Concentrations by TCLP
Former Ore Mill Site
Date Sampled: August 31, 2006 and September 21-22, 2006

NOTES

mg/Kg (ppm)	=	milligrams per kilogram or parts per million
mg/L (ppm)	=	milligrams per liter or parts per million
ft. bgs	=	feet below ground surface
RSRL	=	Residential Soil Remediation Level
NRSRL	=	Non-residential Soil Remediation Level
TCLP	=	Toxicity Characteristic Leaching Procedure, 40 CFR 261.24 Standards
Bold	=	Exceeds RSRL
NE	=	Not Established
---	=	Not Analyzed
S	=	Surface sample
*	=	RSRL and NRSRL for elemental mercury

TABLE 2
Arsenic, Cadmium, and Lead Concentrations by X-Ray Fluorescence (XRF)
Former Ore Mill Site
Grid Samples and Judgemental Samples

Sample ID (Lab Conf.)	Date of Survey	Total Arsenic (mg/Kg)	Total Cadmium (mg/Kg)	Total Lead (mg/Kg)
A-6	10/05/06	<16	<60	<20
B-6	10/05/06	<17	<67	<21
C-6	10/05/06	<12	<61	<15
D-6	10/05/06	<16	<63	<20
E-6	10/05/06	<15	<61	<18
F-6	10/05/06	<17	<63	<20
F-5	10/05/06	<16	<65	<21
E-5	10/05/06	<15	<58	<18
D-5	10/05/06	<15	<61	<19
C-5	10/05/06	<22	<63	77
B-5	10/05/06	<26	<69	80
A-5	10/05/06	<15	<59	<19
A-4	10/05/06	<19	<64	24
B-4	10/05/06	<37	<65	335
C-4	10/05/06	<96	<69	**2225**
D-4	10/05/06	<14	<63	<17
E-4	10/05/06	<18	<61	28
F-4	10/05/06	<13	<59	<15
F-3	10/05/06	<15	<59	<19
E-3	10/05/06	<15	<60	<19
D-3	10/05/06	<34	<62	300
C-3	10/05/06	<20	<61	54
B-3	10/05/06	<60	<68	**871**
A-3	10/05/06	<17	<59	28
A-2	10/05/06	<21	<61	61
B-2	10/05/06	<166	<68	**7012**
C-2	10/05/06	<27	<58	205
D-2	10/05/06	<21	<63	44
E-2	10/05/06	<13	<61	<17
F-2	10/05/06	<14	<64	<17
F-1	10/05/06	<15	<59	<18
E-1	10/05/06	<16	<59	22
D-1	10/05/06	<14	<63	<17
C-1	10/05/06	<14	<59	<17
B-1	10/05/06	<12	<56	<15
A-1	10/05/06	<14	<61	<17
JSa-40	10/05/06	<126	**68**	**4049**
JSa-41	10/05/06	**1271**	<67	**5942**
JSa-42	10/05/06	<117	<65	**3811**

TABLE 2
Arsenic, Cadmium, and Lead Concentrations by X-Ray Fluorescence (XRF)
Former Ore Mill Site
Grid Samples and Judgemental Samples

Sample ID (Lab Conf.)	Date of Survey	Total Arsenic (mg/Kg)	Total Cadmium (mg/Kg)	Total Lead (mg/Kg)
JSa-43	10/05/06	<15	<58	<18
JSa-44	10/05/06	<13	<59	<16
JSa-45	10/05/06	<137	<66	**5009**
JSa-46	10/05/06	<54	<60	**861**
JSa-47	10/05/06	**29**	<58	165
JSa-48	10/05/06	<18	<59	52
JS-2	10/10/06	<26	<61	122
JS-3	10/10/06	<75	<71	**1268**
JS-4	10/10/06	<58	<62	**1070**
JS-5	10/10/06	<81	<59	**2243**
JS-6	10/10/06	<68	<60	**1448**
JS-7	10/10/06	<77	<60	**1912**
JS-8	10/10/06	<140	<67	**5392**
JS-9	10/10/06	<116	<106	**1532**
JS-10	10/10/06	<46	<60	**639**
JS-11	10/10/06	<50	<61	**711**
JS-12	10/10/06	<25	<61	129
JS-13	10/10/06	<40	<59	**499**
JS-14	10/10/06	<25	<57	158
JS-15	10/10/06	<41	<63	**436**
JS-16	10/10/06	<28	<58	230
JS-17	10/10/06	<76	<60	**1856**
JS-18	10/10/06	<32	<59	260
JS-19	10/10/06	<29	<60	195
JS-20	10/10/06	<34	<63	265
JS-21	10/10/06	**116**	<60	**2784**
JS-22	10/10/06	<110	<167	**3380**
JS-23	10/10/06	<38	<57	**459**
JS-25	10/10/06	<12	<57	<14
JS-26	10/10/06	<30	<56	266
JS-27	10/10/06	<77	<66	**1583**
JS-28	10/10/06	<109	<62	**3561**
JS-29	10/10/06	**235**	**95**	**9003**
JS-30	10/10/06	<147	<68	**5586**
JS-31	10/10/06	**219**	**122**	**4962**
JS-32	10/10/06	<34	<57	349
JS-33	10/10/06	<25	<57	152
JS-34	10/10/06	<73	<63	**1642**
JS-35	10/10/06	<58	<60	**1031**
JS-36	10/10/06	<56	<61	**908**

TABLE 2
Arsenic, Cadmium, and Lead Concentrations by X-Ray Fluorescence (XRF)
Former Ore Mill Site
Grid Samples and Judgemental Samples

Sample ID (Lab Conf.)	Date of Survey	Total Arsenic (mg/Kg)	Total Cadmium (mg/Kg)	Total Lead (mg/Kg)
JS-37	10/10/06	**90**	<68	**1559**
JS-38	10/10/06	<13	<61	<16
JS-39	10/10/06	<24	<60	127
JS-40	10/10/06	<27	<60	176
JS-41	10/10/06	<121	<60	**3905**
JS-42	10/10/06	<30	<60	225
JS-43	10/10/06	<22	<61	61
JS-44	10/10/06	<23	<62	71
JS-45	10/10/06	<19	<63	43
JS-46	10/10/06	<152	<70	**5509**
JS-47	10/10/06	<44	<62	229
JS-48	10/10/06	<45	<60	**575**
JS-49	10/10/06	<153	<71	**5766**
JS-50	10/10/06	<82	<64	**1918**
RSRL		10	38	400
NRSL		10	850	2,000

NOTES

Only positive XRF Results are used for RSRL comparison.

mg/Kg (ppm) = milligrams per kilogram or parts per million
RSRL = Residential Soil Remediation Level
NRSRL = Non-residential Soil Remediation Level
Bold = Exceeds RSRL
A-6 = Grid sample
JSa = Judgemental sample (for delineation)
JS = Judgemental sample (for delineation)

TABLE 3
Grid Confirmation Samples for Arsenic, Cadmium, and Lead Concentrations
Former Ore Mill Site
Date Sampled: October 10, 2006

Grid Point	XRF Arsenic (mg/Kg)	Laboratory Arsenic (mg/Kg)	Ratio XRF/Lab	XRF Cadmium (mg/Kg)	Laboratory Cadmium (mg/Kg)	Ratio XRF/Lab	XRF Lead (mg/Kg)	Laboratory Lead (mg/Kg)	Ratio XRF/Lab
C-4	<96	<5.0	NA	<69	3.8	NA	2,225	2,000	1.11
C-3	<20	<5.0	NA	<61	<0.50	NA	54	100	0.54
D-3	<34	<5.0	NA	<62	<0.50	NA	300	110	2.7
E-4	<18	<5.0	NA	<61	<0.50	NA	28	32	0.87
D-6	<16	<5.0	NA	<63	<0.50	NA	<20	14	NA
A-6	<16	<5.0	NA	<60	<0.50	NA	<20	14	NA
A-3	<17	<5.0	NA	<59	<0.50	NA	38	34	1.11
B-2	<166	66	NA	<68	21	NA	7,012	9,000	0.77

NOTES

Values > 1 = indicate conservative XRF results.
Values < 1 = indicate non-conservative XRF results.
mg/Kg (ppm) = milligrams per kilogram or parts per million
NA = a ratio cannot be calculated because either the or both the XRF and laboratory samples had results less than the PQL.

APPENDIX A

Site Photographs

Photograph 1: View looking northwest across the former Ore Mill site. The concrete footings are visible in the background, with (dark colored) remnant ore visible right center in the photograph.

Photograph 2: View of looking northwest toward the former Ore Mill.

Photograph 3: View of pin flag where sample S-1 was collected. The dark colored gravel appears to be remnant ore.

Photograph 4: View looking south across the pit area where S-2 and S-3 were collected. The dark colored gravel appears to be remnant ore.

Photograph 5: View of ore or slag where S-4 and S-5 where collected. This area contains elevated concentrations of lead, arsenic, and cadmium.

Photograph 6: Photograph of concrete footings or foundations for the equipment at the former Ore Mill. The pin flags mark sample locations S-6 and S-7.

Photograph 7: Photograph of concrete footings or foundations for the equipment at the former Ore Mill. The pin flags mark sample locations S-9, S-10, and S-11.

Photograph 8: Photograph of pin flag for sample location S-12.

Photograph 9: Photographs shows the pin flag where sample S-14 was collected. This area located north of the concrete footings contains elevated concentrations of lead.

Photograph 10: View of the brick foundation where sample S-16 was collected.

Photograph 11: View of looking northeast toward the former Ore Mill, showing the pin flag for sample S-17. This area did not contain elevated concentration of lead.

Photograph 12: View of looking northwest toward the former Ore Mill, showing the pin flag for sample S-18. This area did not contain elevated concentration of lead.

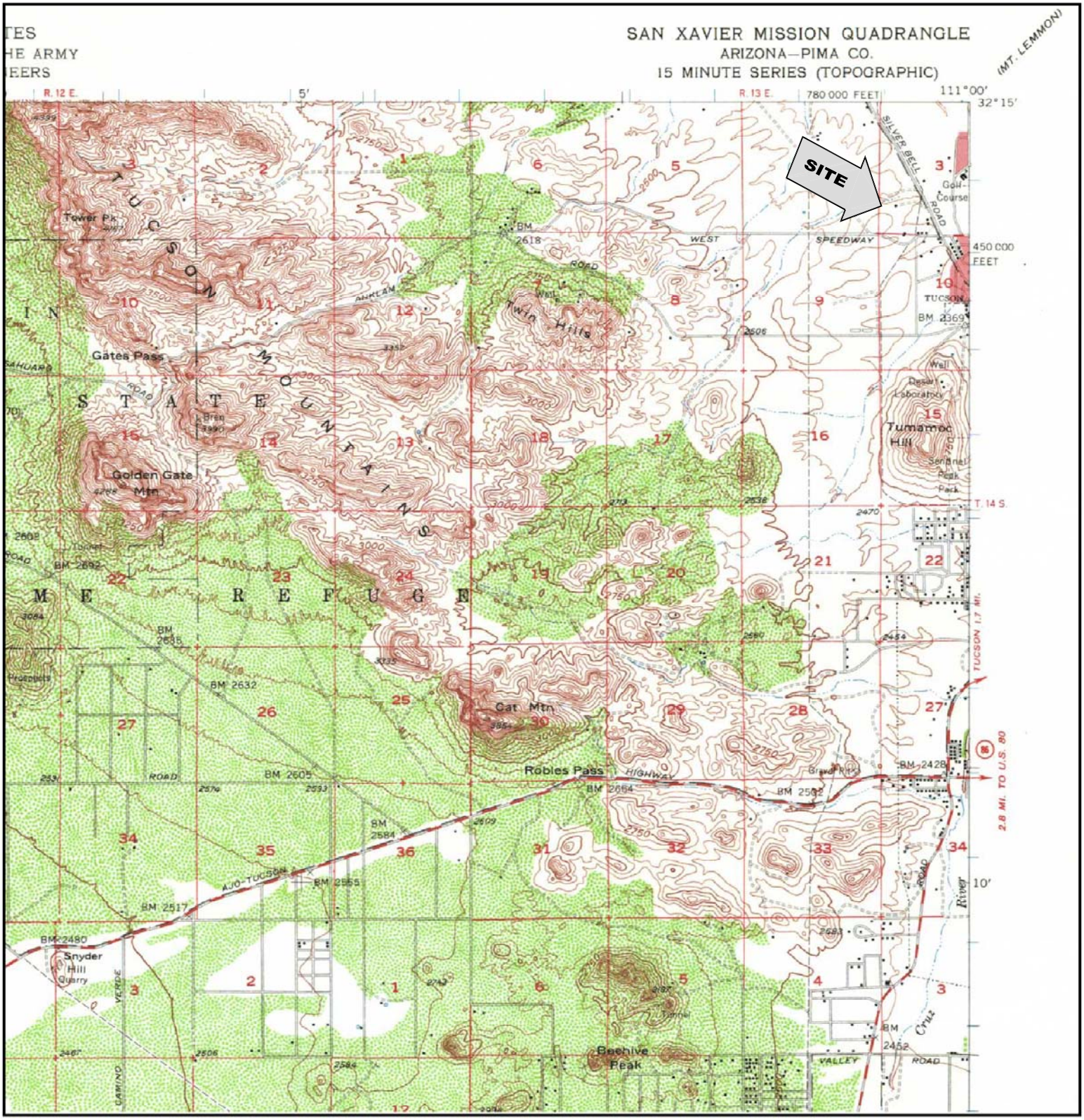
Photograph 13: View looking northeast toward the site. Photograph shows the fence and entrance gate installed around the former Ore Mill site.

Photograph 14: Photograph of the warning sign posted on the locked gate.

APPENDIX B

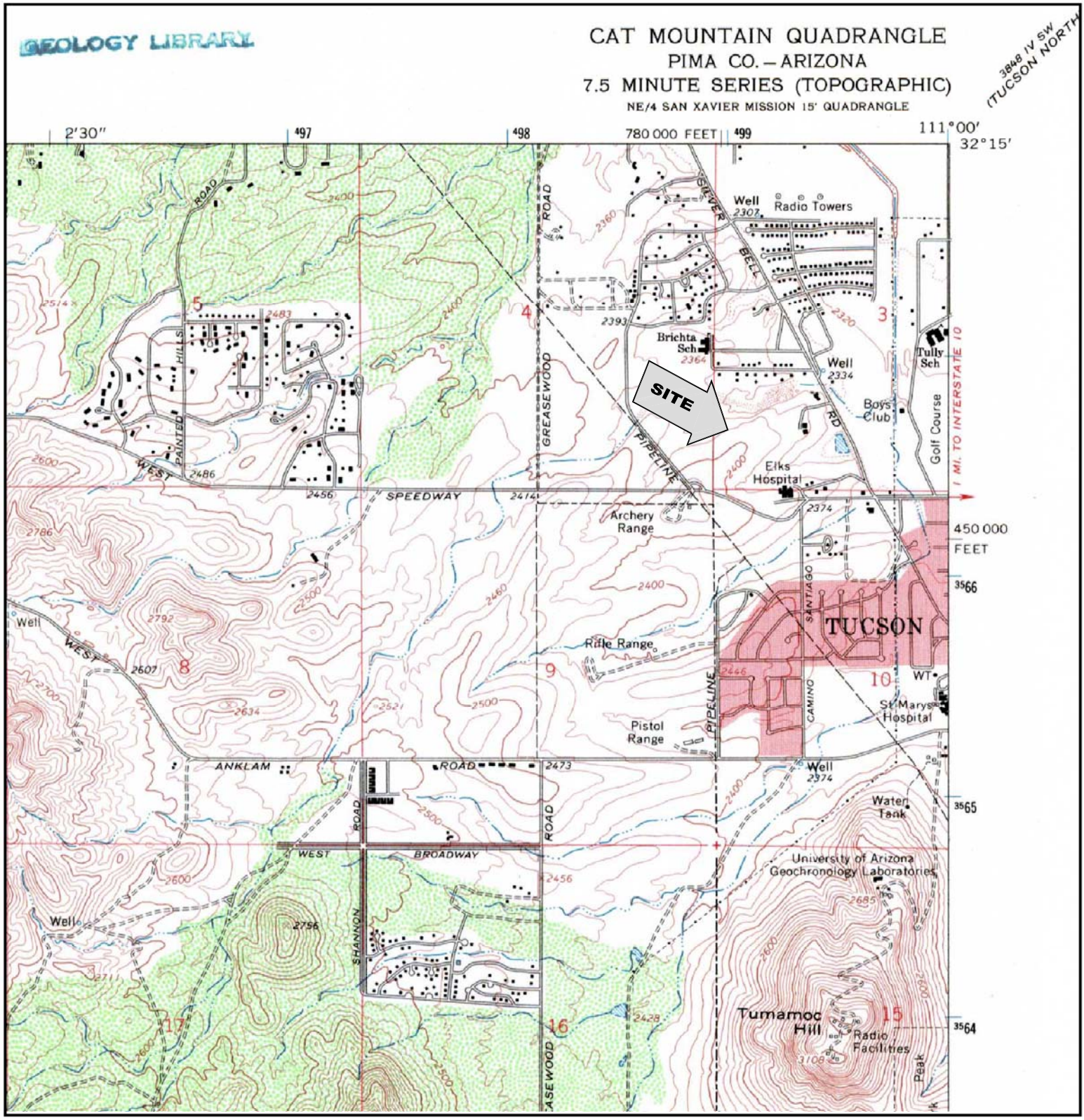
EDR Historical Topographic Map Report

Historical Topographic Map



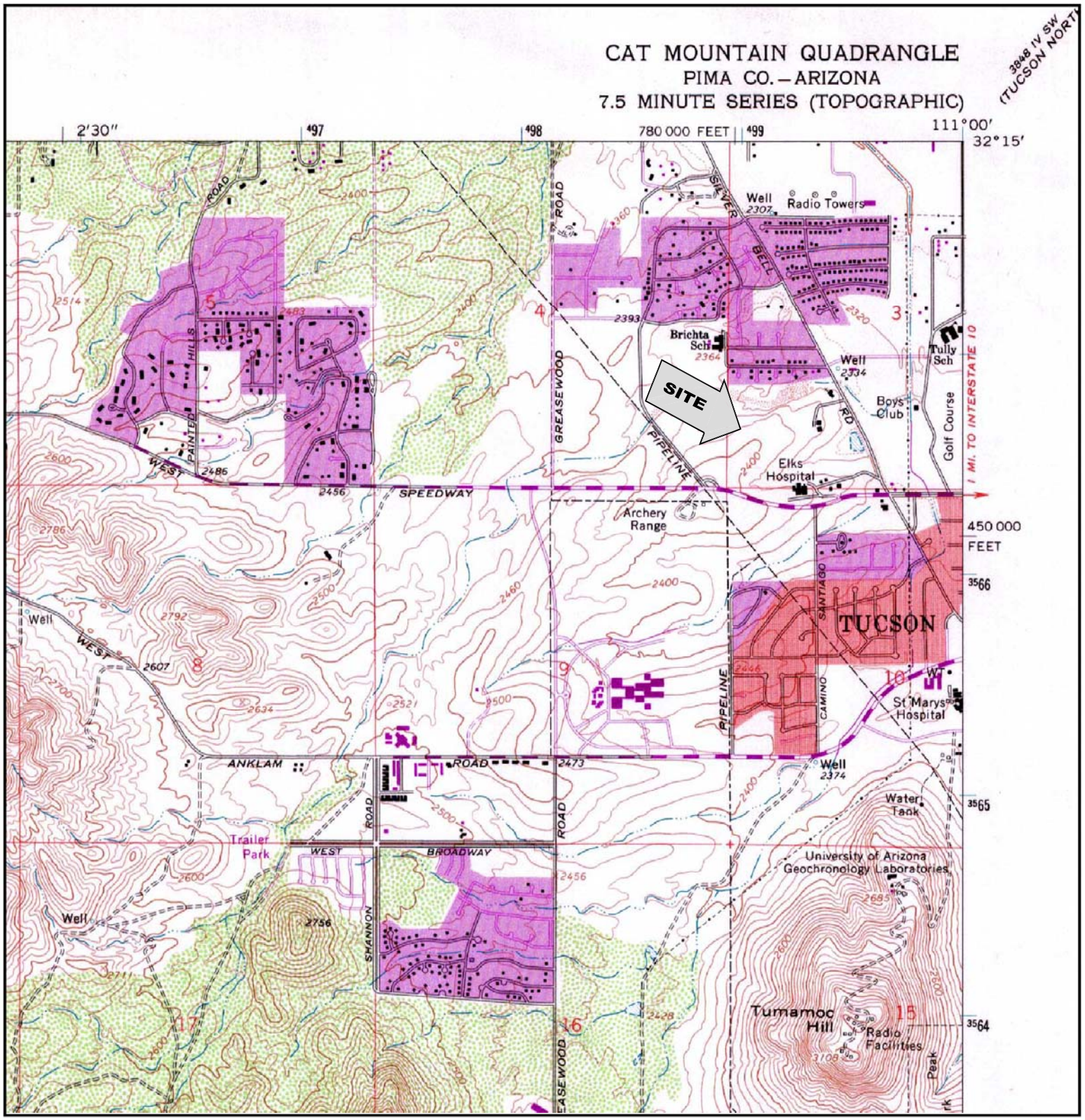
N	TARGET QUAD NAME: San Xavier Mission, AZ MAP YEAR: 1957 SERIES: 15 SCALE: 1:62,500	SITE NAME: City of Tucson Ore Mill ADDRESS: Silverbell and Speedway Tucson, AZ 85745 LAT/LONG: 32.2371 / 111.0087	CLIENT: Kleinfelder, Inc. CONTACT: Rick Smith INQUIRY #: 1734728.1 RESEARCH DATE: 08/15/2006

Historical Topographic Map



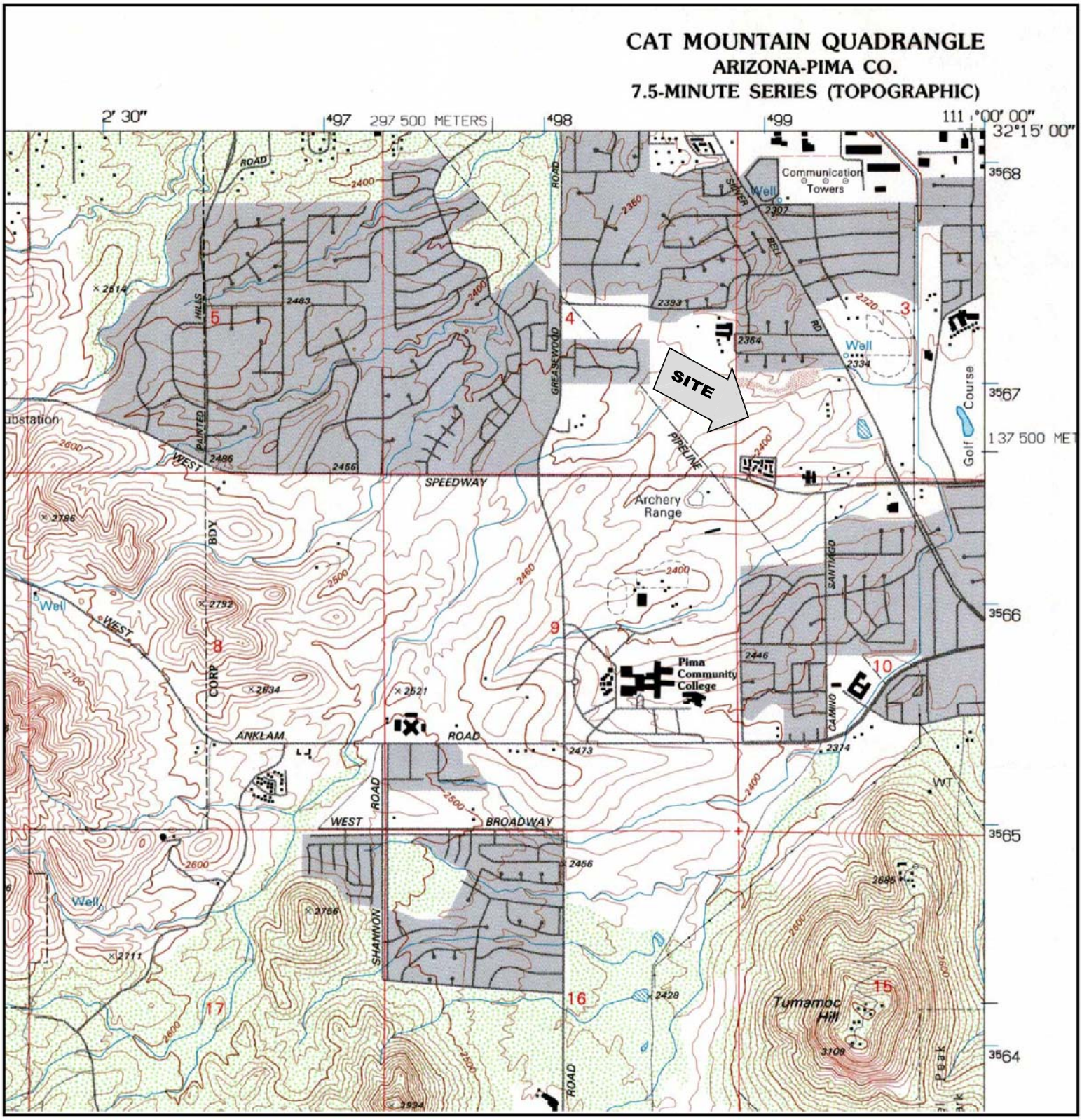
N	TARGET QUAD NAME: Cat Mountain, AZ MAP YEAR: 1968 SERIES: 7.5 SCALE: 1:24,000	SITE NAME: City of Tucson Ore Mill ADDRESS: Silverbell and Speedway Tucson, AZ 85745 LAT/LONG: 32.2371 / 111.0087	CLIENT: Kleinfelder, Inc. CONTACT: Rick Smith INQUIRY #: 1734728.1 RESEARCH DATE: 08/15/2006

Historical Topographic Map



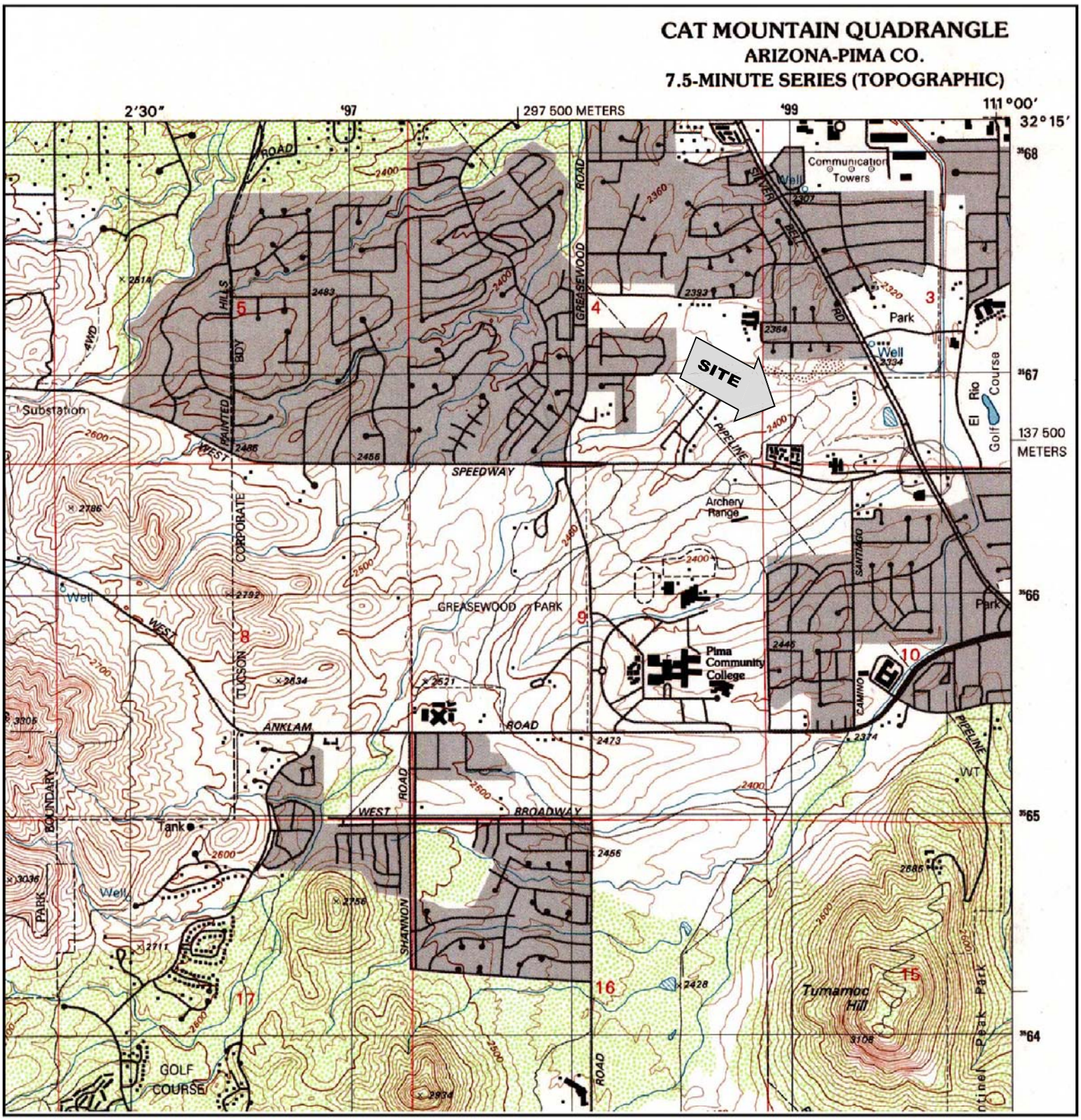
N	TARGET QUAD NAME: Cat Mountain, AZ MAP YEAR: 1975 PHOTO REVISED: 1968 SERIES: 7.5 SCALE: 1:24,000	SITE NAME: City of Tucson Ore Mill ADDRESS: Silverbell and Speedway Tucson, AZ 85745 LAT/LONG: 32.2371 / 111.0087	CLIENT: Kleinfelder, Inc. CONTACT: Rick Smith INQUIRY #: 1734728.1 RESEARCH DATE: 08/15/2006

Historical Topographic Map



N	TARGET QUAD NAME: Cat Mountain, AZ MAP YEAR: 1992 SERIES: 7.5 SCALE: 1:24,000	SITE NAME: City of Tucson Ore Mill ADDRESS: Silverbell and Speedway Tucson, AZ 85745 LAT/LONG: 32.2371 / 111.0087	CLIENT: Kleinfelder, Inc. CONTACT: Rick Smith INQUIRY #: 1734728.1 RESEARCH DATE: 08/15/2006

Historical Topographic Map



N	TARGET QUAD NAME: Cat Mountain, AZ MAP YEAR: 1996 SERIES: 7.5 SCALE: 1:24,000	SITE NAME: City of Tucson Ore Mill ADDRESS: Silverbell and Speedway Tucson, AZ 85745 LAT/LONG: 32.2371 / 111.0087	CLIENT: Kleinfelder, Inc. CONTACT: Rick Smith INQUIRY #: 1734728.1 RESEARCH DATE: 08/15/2006