



April 18, 2011
Project No. 117547-2A

Ms. Kathy Garcia
Project Manager
City of Rancho Cordova
2729 Prospect Park, 2nd Floor
Rancho Cordova, California 95670

Email: KGarcia@cityofranhocordova.org

**Subject: Phase I Environmental Site Assessment
Five Parcels E/SE of Kilgore Road and Trade Center Drive
Rancho Cordova, California**

Dear Ms. Garcia:

Enclosed are two copies of the Phase I Environmental Site Assessment for the above-referenced property. We trust the information presented in this report meets your need at this time.

Kleinfelder provides an executive summary; however, it is recommended that the report be read in its entirety for a comprehensive understanding of the items contained therein.

Kleinfelder appreciates the opportunity to provide these services for the City of Rancho Cordova. Should you require additional information, have any questions regarding this report, or wish to discuss recommendations, please contact Pamela Wee at (916) 366-1701.

Respectfully submitted,

KLEINFELDER, INC.

Carol J. Hall, CHMM, REA I
Senior Professional

Pamela A. Wee, D Env. REA II
Principal Professional

CJH/PAW/aak

117547/SAC11R101
Copyright 2011 Kleinfelder

**PHASE I ENVIRONMENTAL
SITE ASSESSMENT
FIVE PARCELS E/SE OF KILGORE ROAD
AND TRADE CENTER DRIVE
RANCHO CORDOVA, CALIFORNIA**

April 18, 2011

Copyright 2011 Kleinfelder
All Rights Reserved

**ONLY THE CLIENT OR ITS DESIGNATED REPRESENTATIVES MAY USE THIS
DOCUMENT AND ONLY FOR THE SPECIFIC PROJECT FOR WHICH THIS REPORT
WAS PREPARED.**



A Report Prepared for:

Ms. Kathy Garcia
Project Manager
City of Rancho Cordova
2729 Prospect Park, 2nd Floor
Rancho Cordova, California 95670

**PHASE I ENVIRONMENTAL
SITE ASSESSMENT
FIVE PARCELS E/SE OF KILGORE ROAD AND
TRADE CENTER DRIVE
RANCHO CORDOVA, CALIFORNIA**

Kleinfelder Job No. 117547-2A

Prepared by:

Carol J. Hall, REA I
Senior Professional

Reviewed by:

Pamela A. Wee, D Env., REA II
Principal Professional

KLEINFELDER WEST, INC.
3077 Fite Circle
Sacramento, California 95827
(916) 366-1701
(916) 366-7013 facsimile

April 18, 2011

TABLE OF CONTENTS

<u>Chapter</u>		<u>Page</u>
1	EXECUTIVE SUMMARY	1
2	INTRODUCTION	3
	2.1 PURPOSE	3
	2.2 DETAILED SCOPE OF SERVICES	4
	2.3 ADDITIONAL SERVICES	5
	2.4 SIGNIFICANT ASSUMPTIONS	6
	2.5 LIMITATIONS AND EXCEPTIONS	6
	2.6 SPECIAL TERMS AND CONDITIONS	7
3	SITE DESCRIPTION	8
	3.1 LOCATION AND LEGAL DESCRIPTION	8
	3.2 CURRENT/PROPOSED USE OF THE PROPERTY	9
	3.3 DESCRIPTION OF STRUCTURES/IMPROVEMENTS	9
	3.4 CURRENT USES OF ADJOINING PROPERTIES	9
4	RECORDS REVIEW	11
	4.1 STANDARD ENVIRONMENTAL RECORD SOURCES	11
	4.2 RESULTS OF DATABASE SEARCH	12
	4.3 OTHER RECORDS REVIEWED/AGENCIES CONTACTED	19
	4.4 PHYSICAL SETTING SOURCE(S)	21
	4.5 USER PROVIDED INFORMATION	24
	4.5.1 Title Records	25
	4.5.2 Environmental Liens and Usage Limitations	25
	4.5.3 Value Reduction	26
	4.5.4 Other Information/Documents Provided	26
5	HISTORY OF THE SITE	27
	5.1 AERIAL PHOTOGRAPHS	27
	5.1.1 Subject Site	28
	5.1.2 Surrounding Areas	30
	5.2 SANBORN FIRE INSURANCE MAPS	32
	5.3 CITY DIRECTORIES	32
	5.4 HISTORICAL TOPOGRAPHIC MAP REVIEW	33
	5.4.1 Subject Site	33
	5.4.2 Surrounding Areas	34
	5.5 BUILDING DEPARTMENT RECORDS	34
	5.6 PREVIOUS ASSESSMENTS	34
	5.6.1 Bradshaw 8 Sewer Interceptor Project	35
	5.6.2 Kleinfelder's Previous Environmental Assessments	35
6	SITE RECONNAISSANCE	39
	6.1 METHODOLOGY AND LIMITING CONDITIONS	39
	6.2 GENERAL SITE SETTING	39
	6.3 SITE OBSERVATIONS	40

6.4	RESULTS OF SITE RECONNAISSANCE.....	44
7	INTERVIEWS	46
7.1	INTERVIEW WITH OWNER/MANAGER	46
7.2	INTERVIEW WITH OCCUPANTS.....	46
7.3	INTERVIEWS WITH LOCAL GOVERNMENT OFFICIALS	47
7.4	INTERVIEW WITH CLIENT/OTHERS.....	47
8	EVALUATION	48
8.1	BACKGROUND	48
8.2	FINDINGS AND OPINIONS.....	49
8.3	DEVIATIONS AND ADDITIONAL SERVICES.....	55
8.4	CONCLUSIONS.....	55
8.4.1	Data Gaps.....	57
9	REFERENCES	58

TABLES

3-1	Location and Legal Description
3-2	Current/Proposed Uses
3-3	Structures/Improvements
3-4	Adjoining Properties
4-1	Records Review - Search Distance
4-2	Physical Setting
4-3	Regional Geology and Hydrogeology
4-4	Owner/Occupant Information
5-1	Historical Sources
5-2	Historical Aerial Photographs Reviewed
5-3	Hazardous Substances – City Directory Nearby Properties
5-4	Historical Topographic Maps Reviewed
6-1	Site Observations

PLATES

1	Site Location Map
2	Site Map
3	Site Photographs

APPENDICES

- A Qualifications of Environmental Professionals
- B Regulatory Agency Database Report
- C Interview and Regulatory Agency Documentation
- D Historical Research Documentation:
 - Assessors Parcel Map
 - Historical Aerial Photographs
 - Sanborn Map Search Results
 - City Directory Search Results
 - Historical Topographic Maps
- E Additional Client-Provided Information
- F Previous Environmental Site Assessments

1 EXECUTIVE SUMMARY

A Phase I Environmental Site Assessment (ESA) was conducted for the City of Rancho Cordova (client). The subject properties are located between property addresses 2735 Kilgore Road and 2897 Kilgore Road in Rancho Cordova, California. These properties are located in Sacramento County (See Plate 1, Site Location Map). This report was prepared in general accordance with the scope and limitations in the American Society of Testing and Materials (ASTM) International E1527-05 Standard Practice for Environmental Site Assessments: Phase I Process (ASTM E 1527-05) and All Appropriate Inquiry (AAI) standards of the Small Business Liability and Revitalization Act (the "Brownfields Law").

In summary, Kleinfelder's assessment did not reveal evidence of recognized environmental conditions (RECs) with the exception of the following:

Aerojet and Purity Oil Sales/Delta Gunite facilities are responsible for a contaminated groundwater plume that has affected a large portion of Rancho Cordova, including the area around the subject site according to the Environmental Data Resources, Inc. (EDR) Radius Map report. The Aerojet facility is a Superfund site on the National Priority List (NPL). Purity Oil Sales/Delta Gunite is being investigated in association with the Aerojet groundwater contamination plume. United States (US) Geological Survey/Public Water-Supply wells in the vicinity of the site have reported detections of the chlorinated solvents tetrachloroethylene (PCE), trichloroethylene (TCE), and nitrates. While the reported concentrations are less than the Maximum Contaminant Levels established by the US Environmental Protection Agency, the groundwater impact of the Aerojet plume to the subject site is not known and would require groundwater sample collection and laboratory analyses to evaluate. Based on anticipated depth to groundwater of 70 feet below ground surface, construction activity should not be affected if groundwater has been impacted. Also, based on Kleinfelder's understanding of the Department of Toxic Substances Control (DTSC) Management Memo 90-11, "RP-Ownership of Property Over Contaminated Ground Water," the DTSC will not pursue or enforce action solely on the basis of ownership of land overlying contaminated groundwater.

- An unknown substance release was observed from an open plastic container on the northern border near the midpoint of the site. A crystalized material and a liquid material were observed. The area affected by the liquid material was approximately a 20-foot radius around the container, which was on its side. A second open container with similar material that had impacted a smaller area was also observed nearby. An open container with an unknown orange substance was also observed on site. Based on weather conditions (e.g., rain) the open containers have resulted and are likely to result in a release to soil on site. The containers were not labeled; therefore, it is not clear from the site conditions whether the materials are hazardous substances or contain petroleum products. Further assessment of these materials is recommended.
- A large soil mound (approximately 100 foot radius and 20 feet high) and multiple smaller soil piles are located on the southeastern section of the site. The origin of this material and the fill material beneath was not revealed during Kleinfelder's assessment. Therefore, the Limited Phase II Soil Assessment conducted by Kleinfelder in 2004 of the fill material in this area did not reveal evidence of total petroleum hydrocarbons (TPH) purgeable as gasoline, TPH extractable as motor oil, or TPH extractable as diesel. Volatile organic compounds were not detected above laboratory reporting limits. With the exception of arsenic, metals were not detected at concentrations that would warrant further study. Arsenic concentrations were elevated; however, arsenic is a naturally occurring element in the Sacramento area, and the concentrations detected are within typical background levels. Therefore, Kleinfelder did not include a recommendation for additional environmental assessment, removal of the soil piles for disposal, or remediation of the fill material. The area of the site that was covered with soil piles and the larger 20-foot high by 100-foot radius soil mound observed during the site reconnaissance are considerably larger than the potentially affected area evaluated in 2004 by Kleinfelder. Therefore, in Kleinfelder's opinion, additional soil assessment may be required depending on the intended future developed land use.

Findings and opinions regarding the site, deviations, historical environmental conditions, and *de minimus* findings, as applicable, are discussed in Chapter 8. This report is subject to the limitations described in Section 2.5.

2 INTRODUCTION

Kleinfelder conducted a Phase I ESA for the subject site. Kleinfelder understands this report will assist the client in understanding environmental conditions associated with the subject site's past and current use. Kleinfelder performed this Phase I ESA in general accordance with the scope and limitations of ASTM E1527-05, All Appropriate Inquiry (AAI) standards of the Small Business Liability and Revitalization Act (the "Brownfields Law"), and our Consulting Services Agreement with the City of Rancho Cordova (Contract No. CRA 3-2011). Kleinfelder has made minor format modifications to the ASTM Standard's suggested table of contents to assist with clarity and understanding the report findings.

This report describes Kleinfelder's assessment methodology and documents the assessment findings, subject to the limitations presented in Section 2.5 of this report.

2.1 PURPOSE

The purpose of this assessment is to assist the client in evaluating "recognized environmental conditions" at the site. A recognized environmental condition is defined by the ASTM standard as "the presence or likely presence of hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis* are not recognized environmental conditions."

Kleinfelder professionals conducting this site assessment included Carol Hall, REA I, who conducted the site visit, and Pamela Wee, REA II, who provided technical and senior review. Ms. Hall also conducted the interviews for the project. Ms. Hall's and Ms. Wee's resumes are included in Appendix A.

2.2 DETAILED SCOPE OF SERVICES

The following chapters describe Kleinfelder's work scope:

- Chapter 2, **Introduction**, includes a discussion of the purpose/reason for performing the Phase I ESA; additional services requested by the client (e.g., an evaluation of business environmental risk factors associated with the property) as applicable; significant assumptions (e.g., property boundaries if not marked in the field); limitations, exceptions, special terms and conditions (e.g., contractual); and user reliance parameters.
- Chapter 3, **Site Description**, is a compilation of information concerning the site location, legal description (if available), current and proposed use of the subject site, a description of structures and improvements on site at the time of Kleinfelder's assessment, and adjoining property use.
- Chapter 4, **Records Review**, is a compilation of Kleinfelder's review of several databases available from the federal, state, and local regulatory agencies regarding the use, storage, or disposal of hazardous substances within the search distance specified by the ASTM Standard of the subject site and the off-site facilities. Records provided by regulatory agencies are summarized and copies of relevant documents are included in the appendices of this report. Interviews and telephone conversations conducted by Kleinfelder with regulatory agency representatives are also included in Chapter 4. Physical setting sources (including topography, soil, and groundwater conditions) are summarized in this section, as is client-provided information (e.g., title records, environmental liens, specialized knowledge, valuation reduction for environmental issues, and owner, property manager, and occupant information). Other interviews with people knowledgeable about the site (including the client) are included in Chapter 7.
- Chapter 5, **Historical Use of the Site and Adjoining Properties**, summarizes the history of the site and adjoining properties. This site history is based on various sources, which may include: a review of aerial photographs, Sanborn Fire Insurance Maps, city or suburban directories, historical topographic maps, building department records, and the results of previous site assessments.

- Chapter 6, **Site Reconnaissance**, describes Kleinfelder's observations during the site reconnaissance. The methodology used and limiting conditions are described.
- Chapter 7, **Interviews**, is a summary of telephone and personal interviews conducted with "Key Site Managers", as defined by ASTM, that may include the owner/manager of the facility, occupants/tenants, local government officials, and the client. Additional interview sources may be contacted if "Key Site Managers" are not available prior to the production of this report and may include adjacent landowners and people with historical knowledge of the area.
- Chapter 8, **Evaluation**, is a presentation of our findings and opinions regarding the information contained in Chapters 3 through 7, our conclusions regarding the presence of recognized environmental conditions associated with the site, and data gaps or data failures.
- Chapter 9, **References**, is a summary of the resources used to compile this report.

The appendices included with this report contain certain pertinent documentation regarding the subject site. Appendix A contains the statement of qualifications and resumes of environmental professionals (EPs) responsible for the preparation and review of this report. Appendices B, C, and D contain supporting documentation for regulatory database review, agency records review, and historical records review, respectively. Appendix E contains additional information provided by the client. Appendix F contains information from previous assessments, which were not provided by the client.

2.3 ADDITIONAL SERVICES

An evaluation of business environmental risk associated with the subject site was not included in Kleinfelder's proposed scope of work. The scope of this ESA does not incorporate ASTM Standard non-scope considerations, such as asbestos-containing materials, radon, lead-based paint, lead in drinking water, wetlands, regulatory compliance, cultural and historical resources, industrial hygiene, health and safety, ecological resources, endangered species, indoor air quality, and high-voltage power lines.

The client has also requested a preliminary geotechnical evaluation of the subject site, which is being conducted concurrently and will be provided under separate cover.

2.4 SIGNIFICANT ASSUMPTIONS

The subject site is referred to as the "site." Kleinfelder does not guarantee the accuracy of information supplied by its sources but reserves the right to rely on this information in forming a professional opinion regarding the potential for contamination at the site. The site's boundary was assumed to be within the fenced perimeter of the subject parcels.

2.5 LIMITATIONS AND EXCEPTIONS

Phase I ESAs are non-comprehensive by nature and may not identify all environmental problems, and will not eliminate all risk. This report is a qualitative assessment. Kleinfelder offers a range of investigative and engineering services to suit the needs of our clients, including more quantitative investigations. Although risk can never be eliminated, more detailed and extensive investigations yield more information, which may assist the client in the understanding and better management of risks. Since such detailed services involve greater expense, we ask our clients to participate in identifying the level of service, which will provide them with an acceptable level of risk. Please contact the signatories of this report if you would like to discuss this issue of risk further.

Kleinfelder performed this Phase I ESA in general accordance with the scope and limitations in ASTM E 1527-05, and the proposed scope subsequently approved by our client. No warranty, either expressed or implied, is made. Environmental issues not specifically addressed in this report were beyond the scope of our services and not included in our evaluation.

This report should not be relied upon after 180 days from the date of its issuance (ASTM E 1527-05, Section 4.6). This report may be used only by the client and only for the purposes stated within a reasonable time from its issuance, *but in no event later than one year from the date of the report*, provided that the interviews with owners/occupants, environmental lien search, records search, and site reconnaissance were conducted or updated within the prior 180 days. Land or facility use, on-site and off-site conditions, regulations, or other factors may change over time, and additional work may be required with the passage of time. Since site activities and regulations

beyond our control could change at any time after the completion of this report, our observations, findings and opinions can be considered valid only as of the date of the site visit.

Any party other than the client who wishes to use this report shall notify Kleinfelder of such intended use. Based on the intended use of the report, Kleinfelder may require additional work be performed and an updated report be issued. Non-compliance with any of these requirements by the client or any other party will release Kleinfelder from any liability resulting from the use of this report by any unauthorized party, and client will defend, indemnify, and hold harmless Kleinfelder from any claim or liability associated with such unauthorized use or non-compliance.

The information included on graphic representations has been compiled from a variety of sources and is subject to change without notice. Kleinfelder makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. The graphic representations are not intended for use as a land survey product, nor are they designed or intended as a construction design document. The use or misuse of the information contained on the graphic representation is at the sole risk of the party using or misusing the information.

2.6 SPECIAL TERMS AND CONDITIONS

No special terms and conditions in addition to those discussed previously or contained in our proposal (Kleinfelder, No. 113956/SAC11P110, March 24, 2011) were agreed to either by the client or Kleinfelder.

3 SITE DESCRIPTION

The site description is presented in this section and describes the condition of the site at the time of the Phase I ESA. The site location is shown on Plate 1. Tables 3-1 through 3-4 summarize the physical characteristics of the site and adjoining properties.

3.1 LOCATION AND LEGAL DESCRIPTION

The information presented in Table 3-1 describes the physical location and legal description of the site. This information was obtained from review of various maps (such as topographic maps and tax assessor maps), public records at city and/or county offices, interviews, and/or information provided by the client.

**TABLE 3-1
LOCATION AND LEGAL DESCRIPTION**

Parameter	Information/Comments
ADDRESS	No specific address (Sacramento County Assessor)
LOCATION	Five parcels near the southeast corner of the intersection of Kilgore Road and Trade Center Drive, Rancho Cordova, California, within Sacramento County
TOWNSHIP & RANGE	Section 25 of Township 9 North and Range 6 East <i>Carmichael Quadrangle does not list Sections; therefore, the Section was extrapolated based on the standardized quadrangle mapping conventions</i>
ASSESSOR'S PARCEL NO.	072-0260-036-0000 072-0260-037-0000 072-0260-038-0000 072-0260-039-0000 072-0260-040-0000
LEGAL DESCRIPTION	Provided only for parcel 072-0260-037-000 in the Preliminary Title Report (see Appendix E)
ACREAGE	072-0260-036-0000 - 114,127.2 square feet (sq. ft.), 2.62 acres 072-0260-037-0000 - 114,562.8 sq. ft., 2.63 acres 072-0260-038-0000 - 114,127.2 sq. ft., 2.62 acres 072-0260-039-0000 - 117,176.4 sq. ft., 2.69 acres 072-0260-040-0000 - 117,176.4 sq. ft., 2.69 acres Total acreage is 13.25 acres
ZONING/LAND USE	WDAC0A (Public utilities)

3.2 CURRENT/PROPOSED USE OF THE PROPERTY

Land use on site at the time of Kleinfelder’s assessment was for a staging area for equipment, vehicles, soil, and other materials associated with construction activity off site. The surrounding area is primarily commercial properties, with the exception of the vacant property adjacent to the north of the site and the Kilgore Cemetery two parcels south of the site on Kilgore Road. Current and proposed uses are described in Table 3-2.

**TABLE 3-2
CURRENT/PROPOSED USES**

Parameter	General Observations
CURRENT USE	Construction staging
PROPOSED USE	Preparation for site development

3.3 DESCRIPTION OF STRUCTURES/IMPROVEMENTS

Structures and/or improvements observed on site at the time of Kleinfelder’s site reconnaissance are described in Table 3-3.

**TABLE 3-3
STRUCTURES/IMPROVEMENTS**

Parameter	General Observations
STRUCTURES	Temporary storage lockers, no permanent structures
IMPROVEMENTS	Utility markers and storm sewer vaults

3.4 CURRENT USES OF ADJOINING PROPERTIES

Kleinfelder performed a brief drive-by survey of the properties immediately adjoining the subject site on April 6, 2011. A summary of the surrounding properties is presented in Table 3-4. The property is at an angle with respect to nearby streets and other parcels, therefore the north description also includes northwesterly properties, and the west description includes the properties on the west side of Kilgore Road.

**TABLE 3-4
ADJOINING PROPERTIES**

Direction	Land Use Description
NORTH	Vacant property adjacent to the north and northwest along Trade Center Drive, and two warehouse distribution buildings between the site and Trade Center Drive
SOUTH	A commercial office building and area under construction (earth moving operations)
EAST	Commercial office buildings and paved parking areas
WEST	Kilgore Road, then commercial office buildings, and paved parking areas

Hazardous materials and petroleum products were not observed to be stored outside the buildings located adjacent to the subject site. A hose from a water tank on site crossed the vacant property to the north of the site and connected with a fire hydrant on Trade Center Drive. The site appeared to drain onto the adjacent property to the south from a ponded area of the site. The ponding may have been associated with recent rain events. No other environmental conditions were apparent on the adjoining properties at the time of Kleinfelder's site reconnaissance.

4 RECORDS REVIEW

4.1 STANDARD ENVIRONMENTAL RECORD SOURCES

The purpose of the records review is to obtain and review records that would assist in evaluating recognized environmental conditions of potential concern in connection with the subject site and bordering properties.

Federal, state and local regulatory agencies publish databases of businesses and properties that handle hazardous materials or hazardous waste, or are the known location of a release of hazardous substances to soil and/or groundwater. These databases are available for review or purchase at the regulatory agencies, or the information may be obtained through a commercial database service. Kleinfelder contracted with a commercial database service, Environmental Data Resources, Inc. (EDR), of Milford, Connecticut, to perform the government database search for listings within the appropriate ASTM minimum search distance to the site. The EDR database search distances are summarized on Table 4-1. A description of the types of information contained in each of the databases reviewed and the agency responsible for compiling the data is also included in the EDR Radius Report in Appendix B. Mapped locations are also included in the EDR Radius Report in Appendix B. A list of acronyms for the individual databases is presented in the Executive Summary section of the EDR Radius Report.

**TABLE 4-1
RECORDS REVIEW - SEARCH DISTANCE**

FEDERAL	DISTANCE
United States Environmental Protection Agency (US EPA) National Priority List (NPL)	1 mile
Comprehensive Environmental Response Compensation Liability Information System (CERCLIS)	½ mile
CERCLIS-NFRAP (No Further Remedial Action Planned)	Site and adjoining
Resource Conservation Recovery Act (RCRA)-CORRACTS Treatment, Storage, or Disposal Facility (TSDF)	1 mile
RCRA-non CORRACTS TSD	½ mile

**TABLE 4-1 (Continued)
RECORDS REVIEW-SEARCH DISTANCE**

FEDERAL	DISTANCE
RCRA-GEN/FINDS	Site and adjoining
Emergency Response Notification System (ERNS)	Site
US Engineering Controls, US Institutional Controls	Site
STATE/LOCAL	DISTANCE
CLEANERS	¼ mile
Historical CORTESE (formerly Hazardous Waste Substances)	½ mile
Landfills (SWAT/SWF/LF)	½ mile
Leaking Underground Storage Tank (LUST)	½ mile
Site Mitigation and Brownfields Reuse Program Database	½ mile
Spills, Leaks, Investigations, and Clean-up (SLIC)	½ mile
Toxic Chemical Release Inventory System (TRIS)	½ mile
Waste Discharge System (CA WDS)	½ mile
Cal-Sites, Bond Expenditure Plan (BEP), Annual Work Plan (AWP), RESPONSE, ENVIROSTOR	1 mile
Solid Waste Information System (SWIS)	½ mile
Deed Restriction Listing (DEED)	Site
Environmental Liens	Site
Aboveground Storage Tank	Site and adjoining
California Hazardous Materials Information System (CHMIRS)	Site and adjoining
Facility Index System (FINDS)	Site and adjoining
Hazardous Waste Information System (HAZNET, formerly Hazardous Waste Information System)	Site and adjoining
UST, CA FID UST, HIST UST, SWEEPS UST	Site and adjoining
Local Agency Databases – Sacramento County Contaminated Sites (SCCS) Hazardous Materials Inventory List (Sacramento ML)	Variable ½ mile Site

4.2 RESULTS OF DATABASE SEARCH

The following sections contain information on the results of EDR's record search. Listed search distances are those specified in the ASTM standard.

The site has no address according to the Sacramento County Assessors Office; however, there was a listing that, based on the reported address, may be associated with the subject site as follows:

- **No listing** at 2873 Kilgore Road may be an address for the subject site based on the current adjacent parcel addresses to the north and south of 2735 Kilgore Road and 2897 Kilgore Road. The property at 2873 Kilgore Road was listed on the CHMIRS database for a release of 700,000 gallons of sewage material at a Sacramento Regional County Sanitation District (SRCSD) construction site in December 2005. A temporary interceptor plug reportedly failed at the construction site. The sewage was reportedly contained by the SRCSD. Sacramento County Environmental Management Department (SCEMD) was involved, and there was no subsequent hazardous substance release or incident report associated with this location. Based on the content of the database, this listing is not expected to have an adverse impact on the site.
- **Bradshaw Interceptor Section 8** at 2873 Kilgore Road may also be associated with the subject site. This facility was listed on the HAZNET database as a generator of organic waste solids, which were disposed off site at a landfill. The Bradshaw Interceptor construction reportedly crossed the subject site. This listing indicates that the organic waste solids generated were properly reported and disposed off site, and does not include evidence of a release or unauthorized disposal. Therefore, this listing is not anticipated to adversely affect the site.
- **Impact Coatings, Inc.**, at 2751 Kilgore Road may also be associated with the subject site based on the address. This facility is included on the RCRA-Small Quantity Generator (SQG), FINDS, and Sacramento County ML as a small quantity generator of an unreported material. The status is inactive, therefore, this listing is not likely to affect the site status.

Eighteen (18) facilities within the specified ASTM search radius were listed on the EDR Radius Map Report. These facilities have not been closed with "no further action required" nor is there a similar status indicating additional assessment is not required (e.g., CERCLIS NFRAP listing). Facilities with continuing site investigation or assessment, which were evaluated for this report, are as follows:

- **Aerojet General Corporation (Aerojet)** is responsible for a contaminated groundwater plume that has affected a portion of Rancho Cordova that includes the subject site, according to the EDR map detail. The Aerojet General Corporation was listed on the RCRA-TSDF, NPL, CERCLIS, CORRACTS, historical underground storage tank and hazardous material/waste generator databases. The ENVIROSTOR database provided the following history: *“The site was utilized from approximately 1956 to 1972 for the assembly and testing of rocket systems and components. The site consisted of seven areas, six utilized as test areas and one area serving for engineering and administration (now known as ‘Security Park’). Several other areas have been identified at the site including landfills, propellant burn areas and a rice hull burn area. During the processes involved in cleaning tested materials and maintaining test areas, numerous solvents, including chlorinated solvents, were utilized. Fuels utilized in testing included RP-1, hydrazine, ammonium perchlorate, and liquid hydrogen/oxygen. Releases to soil, surface water and groundwater of chlorinated solvents and fuels were detected during the Preliminary Endangerment Assessment (PEA).”* Aerojet is one of the priority cleanup sites under the Superfund program. The EDR Radius Map Report contains more than 250 pages of details describing the history, actions taken, and actions remaining to remedy the impact to soil and groundwater from Aerojet. A related facility, the U.S. Air Force Plant #70, is also being investigated in conjunction with the Aerojet investigation. Information obtained from previous assessments performed in the area show there are monitoring wells located in the vicinity of the subject site that were developed to track the contaminant plume. Constituents detected include: 1,1,2-trichloroethylene (TCE), polychlorinated biphenyls (PCBs), and tetrachloroethene (PCE). Therefore, based on the locations of monitoring wells in relation to the subject site, groundwater beneath the subject site may have been impacted by this facility. The groundwater impact of the Aerojet plume to the subject site is not known and would require groundwater sample collection and laboratory analyses for further evaluation.
- **Safety Kleen Systems, Inc.**, at 2576 Mercantile Drive, approximately one mile northeast of the site, was listed on the federal RCRA CORRACTS and non-CORRACTS TSD lists based on its status as a handler engaged in the treatment, storage, or disposal of hazardous waste. The facility was also listed

on the ENVIROSTOR database. The facility was permitted but then was closed. Tanks were reportedly removed. A Remedial Feasibility Investigation (RFI) was conducted because of the State of California, Department of Toxic Substances Control's (DTSC's) concern with potential groundwater impacts. The potential for this facility to have impacted groundwater is pending review of documents required by a Consent Decree.

- **Purity Oil Sales/Delta Gunitite** at White Rock Road and Kilgore Road (less than one-half mile south of the site) is listed on several databases including the California Bond Expenditure Plan (BEP), Annual Workplan (AWP), SLIC, and Cal-Sites (e.g., databases where the State of California Department of Toxic Substances Control has oversight). The facility is a former waste oil recycling facility, septic tank disposal area, and a Class III landfill. There are no remaining structures at the facility. Soil and groundwater were affected by various chemicals, metals, and petroleum hydrocarbons. This facility is being investigated in association with the Aerojet groundwater plume (see above). Groundwater flow at this facility is reportedly in an east-west direction, which is cross gradient to the subject site; however, the Purity Oil facility has reportedly impacted a large area. Therefore, based on the potentially large impact area, and possible link with the Aerojet groundwater plume, contamination from this facility may have impacted the subject site.
- **USAF Mather** is a large former military base located approximately one mile south/southwest of the site and is listed on multiple federal databases including the DOD database. The ENVISTOR database provided the following history: *"Mather Air Force Base (AFB) was established in 1918 and encompasses 5,718 acres. The Base's industrial activities included vehicle, aircraft and weapons maintenance. Mather AFB was officially closed in 1993. A total of 89 potentially contaminated sites have been identified. These sites include landfills, fire training areas, fuel spill areas, fuel storage areas, sewage treatment areas, firing ranges, drainage areas and an area associated with the Base dry cleaning facility. Soil and groundwater are contaminated with volatile organic compounds (VOCs), mainly trichloroethylene (TCE) and tetrachloroethylene (PCE), and hydrocarbons associated with fuels. The facility was divided into six Operable Units (OUs). In October 1989, the U.S. Air Force, EPA and DTSC entered into a Federal Facilities Agreement (FFA) for Mather AFB. The FFA allows for state*

oversight at contaminated sites.” Kleinfelder archives from previous investigations in this area indicate there are two core PCE and TCE plumes (Northeast Plume, NEP) with varying concentrations. These plume areas are more than one mile south of the subject area and the groundwater gradient is reportedly in a south/southeasterly direction, which is away from the subject site. Based on the distance and anticipated groundwater gradient, the listing is not expected to have an adverse impact on groundwater at the site.

- **BP #01921** at 11079 Folsom Boulevard was listed on the LUST and Sacramento CS database with open remediation. This facility is located approximately one-quarter mile north-northwest of the site. Further review of the Geotracker database revealed that the case for this facility was closed on March 8, 2011.
- **Pep Boys #112** at 10899 Folsom Boulevard was listed on the LUST and Sacramento CS databases with open site assessment case status. This facility is located approximately one-quarter mile west-northwest of the site. Waste oil from a 550-gallon underground storage tank impacted soil at approximately 8 feet below ground surface in 1997. No cleanup actions were reported. Based on the incident date (13 years ago), if there was a regional impact, the file would likely have sampling information and a cleanup action would be under consideration. Therefore, this facility is not likely to have adversely affected the site.
- **Vulcan Materials Company** at 3101 Kilgore Road was listed on the SLIC database with an open but inactive status. This facility is located approximately one-half mile south of the site. A diesel release in 2002 reportedly affected other groundwater. A site assessment was conducted in 2002, but further information was not provided in the Geotracker record for this site. Other groundwater was reportedly affected. Based on information readily available, distance, and case status, this facility does not appear to have an adverse impact to the site.
- **Olympia Oil** at 2732 Citrus Road, within one-quarter mile east-northeast of the site, was listed on the Sacramento County CS list. The case was closed by the CVRWQCB on October 19, 2010 according to the Geotracker database listing. Therefore, based on case status no further assessment is required.

- **Wayside Lumber Company** at 11277 Trade Center Drive, one-half mile north-northeast of the site, is listed on the Sacramento County CS list. A “no further action” letter was prepared by the CVRWQCB dated August 31, 2010, for this facility. Therefore, based on reported case status, no further assessment is required.
- **JOMED Inc.**, at 2870 Kilgore Road is located adjacent and west of the site, across Kilgore Road, and was listed on the HAZNET database as a generator of small quantities of organic solid and liquid materials. Materials are either recycled or disposed off site at a landfill. Based on the content of the database and no violations reported on local, state or federal databases, the JOMED facility is not expected to have had an adverse impact on the site.
- **Kilgore Cemetery Restoration Project** is located approximately 100 feet south of the site and was listed on the National Pollution Discharge Elimination System (NPDES) and Sacramento County ML databases. Further review of the database listing indicates that the discharge address is located at 2729 Prospect Park Drive, which is several blocks to the west of the site. The discharge is, therefore, not likely to have affected the subject site.
- **Johnson & Johnson Interventional EMS** at 2890 Kilgore Road, adjacent and across Kilgore Road to the west, was listed on the RCRA-SQG, FINDS, Sacramento County ML, and HAZNET databases. The facility reportedly is a small quantity generator of laboratory waste chemicals and other inorganic solids. No violations were reported. Although there are currently no underground storage tanks reported for this facility, there is a mention of a January 20, 1993, underground tank test. Therefore, it is not clear whether there was a tank, that has since been removed or there was a tank that was abandoned in place. There is no record of this facility in the Geotracker database, which includes facilities with DTSC or CVRWQCB oversight. The proximity of this former tank relative to the subject site, and lack of records documenting removal or regulatory oversight, indicates additional investigation of the status of the tank may be warranted depending on the future land use proposed on site. There is not sufficient information available to elevate this facility status to be considered a REC.

- **Volcano Therapeutics Inc.**, at 2870 Kilgore Road is located adjacent to the site across Kilgore Road to the west. The facility was listed on the Sacramento County ML and HAZNET databases. The facility reportedly generates organic and halogenated materials, which are disposed by incineration, treatment, and/or disposal off site. Spills or other violations were not reported. This listed facility is not anticipated to adversely affect the site.
- **RSF Electronics** at 2880 Gold Tailings Court is located adjacent to the east of the site. The facility was listed on the Sacramento County ML database. The type of hazardous material handled or stored was not reported. There were no violations or other listings. Therefore, additional investigation into this property is not likely to reveal evidence of a release of a hazardous substance.
- **McKesson Data Center** at 11000 Trade Center Drive is located southwest of the site and is listed on the LUST, CA FID UST, SWEEPS, HAZNET, Sacramento County ML and CS databases. Soil contamination and potential impact to groundwater was discovered during the removal/replacement of a 12,000-gallon diesel underground storage tank. This facility is undergoing current groundwater monitoring with the Central Valley Regional Water Quality Control Board (CVRWQCB). This facility is approximately 200 lineal feet southwest and down gradient of the site. The monitoring well locations depicted on the Geotracker database indicate the contamination is localized on the southeast corner of the McKesson Data Center property, approximately 800 feet southwest of the site. According to the most current data report prepared by Stratus Environmental (January 21, 2010), "*...petroleum hydrocarbon impact to the subsurface does not appear to be extensive. Contaminant concentrations in soil are relatively low, with the majority of the impact detected in soil situated immediately below the base of the UST cavity. Petroleum hydrocarbon impact to soil does not appear to extend to the depth of first encountered groundwater...*" Therefore, this facility is not likely to have adversely affected the subject site.

There was one DRYCLEANERS listed facilities within a one-half mile radius of the site, Comtek Computer Systems, Inc., at 2750 Mercantile Drive. This facility was a related business but not a dry cleaning business.

Sites not plotted by EDR due to poor or inadequate address information are referred to as orphan sites. The orphan summary/unmapped sites report was reviewed to assess the potential for off-site properties to pose a REC to the site. Based on the review, these orphan sites appear to be on other database listings already discussed above, outside of the ASTM search distances, and/or located hydrogeologically down- or cross-gradient relative to the subject site and, therefore, do not represent a REC to the site.

4.3 OTHER RECORDS REVIEWED/AGENCIES CONTACTED

The following additional sources of environmental records were reviewed during this Phase I ESA for the purposes of meeting the ASTM standard. Local regulatory agencies were contacted for reasonably ascertainable and practically reviewable documentation regarding RECs present at the subject site and adjoining facilities. Interview documentation is included in Appendix C. Interviews with local regulatory agency representatives are included in Section 7. The following agencies were contacted for documentation:

-Sacramento Metropolitan Air Quality District
-Sacramento County Agricultural Commissioner's Office
-Sacramento County Building Department
-Sacramento County Environmental Management Department (SCEMD)
-Sacramento Metropolitan Fire District (SMFD)
-State Department of Water Resources/Central Valley Regional Water Quality Control Board (DWR/CVRWQCB), for the Geotracker database, see also Section 4.2
-State Division of Oil, Gas, and Geothermal Resources
-State Department of Toxic Substances Control (DTSC), for the Envirostor database, see also Section 4.2
-State Fire Marshal, Pipeline Safety Office
-Golden State Water District
-Sacramento Municipal Utilities District

The Sacramento County Agricultural Commissioner's Office was not contacted because the site has not been used for agriculture since at least 1961. Archived pesticide use records at the Commissioner's Office are limited to the previous four years. There is no

site address, therefore SMAQMD and building department records were not reviewable. The Sacramento Metropolitan Fire District was not contacted because it does not search files by APNs. Generally, hazardous material spill incidents and responses by the SMFD are duplicative of records maintained by the SCEMD.

The DTSC and the CVRWQCB were not contacted because information about the potential impacts to regional groundwater from the Aerojet, Purity Oil/Delta Gunit, and other nearby facilities are described in the EDR Radius Map Report. Also, DTSC Management Memo 90-11, "RP – Ownership of Property Over Contaminated Ground Water" has been reviewed and is included in Appendix C. According to DTSC Management Memo 90-11, the site owner is not subject to pursuit or enforcement action by DTSC solely on the basis of ownership of land overlying contaminated groundwater. Public databases for these agencies were reviewed as needed (Geotracker and Envirostor) for off-site facilities and are discussed in Section 4.2.

The Sacramento Municipal Utility District (SMUD) was not contacted because there were no transformers or other electrical equipment observed on site. The Department of Conservation, Division of Oil, Gas and Geothermal Resources was not contacted because information concerning oil and gas fields was obtained from published maps available for download on their internet web site (www.consrv.ca.gov). Map findings are discussed in Table 4-2.

Information/responses from the agencies contacted is presented below:

Sacramento County Environmental Management Department (SCEMD)

Kleinfelder contacted the SCEMD for additional information regarding the site. The SCEMD includes Environmental Health, Hazardous Materials, and Water Protection. The databases searched by SCEMD staff include Hazardous Materials Business Plans and Storage, Underground Storage Tanks, Above Ground Storage Tanks, Incident Response, HazMat Land Use, Septic Systems, and Toxic Site Cleanup. SCEMD staff, Ms. Susan Genovese, reported no files for the site.

State of California, Office of the State Fire Marshal (OSFM), Pipeline Safety Office

Kleinfelder requested a search of records for gas pipelines in the vicinity of the subject site. A correspondence from OSFM indicated that jurisdictional pipelines carrying a

refined product (gasoline, jet fuel, gas oil) are not located in the vicinity of the site (Kilgore Road/Trade Center).

Golden State Water District

The site is located within the Golden State Water Company District service area. A copy of the 2008 Water Quality Report was obtained from the Water District's internet site. In summary, the report did not state that water quality meets all federal and state drinking water standards. However, review of the Cordova Water System – Source Water Quality table did not reveal exceedances for Primary Maximum Contaminant Levels (MCL) for turbidity, inorganic constituents (including perchlorate), volatile organic constituents (including tetrachloroethylene and trichloroethylene), and radioactive constituents. Secondary MCL exceedance for aluminum, iron, and manganese are based on aesthetic reasons and do not have associated health concerns.

4.4 PHYSICAL SETTING SOURCE(S)

Table 4-2 presents information about the physical setting of the site. This information was obtained from published maps. A geotechnical baseline report for the Bradshaw Interceptor Section 8, which crosses the subject site, was provided by the City of Rancho Cordova for Kleinfelder to review. A preliminary geotechnical evaluation of the subject site will be provided under separate cover.

**TABLE 4-2
PHYSICAL SETTING**

Data	Source	General Information
USGS TOPOGRAPHIC QUADRANGLE	Carmichael State Quadrangle, 7.5 Minute Series (Topographic), 1975	The subject site is located at an approximate elevation of 110 feet above mean sea level (MSL), and the topographic relief slopes to the west. The site was depicted with no defined land use. There were no wells or structures depicted on the site. There was an approximately 20-foot topographic elevation change noted on site near the middle of the property. Gravel pits were depicted along the eastern site boundary. Land use in the vicinity of the site was depicted as primarily urban commercial and residential to the north of Folsom Boulevard and dredge tailings with some commercial land use to the south of Folsom Boulevard. Mathew Kilgore Cemetery is depicted adjacent to the south of the gravel pit and the site.

**TABLE 4-2
PHYSICAL SETTING**

Data	Source	General Information
GEOLOGIC MAP	California Department of Conservation, 1977; California Division of Mines and Geology, 1981	The subject site lies on the north central margin of the Great Valley Geomorphic Province in north central California. Alluvium, lake, playa, and terrace deposits that were mostly marine and unconsolidated and semi-consolidated were depicted on the map.
SOIL TYPE	Soil Survey of Sacramento County, Sheet 7, and http://websoilsurvey.nrcs.usda.gov	<p>Three map units correspond to the subject site. The Soil Survey description of these soil types are included in Appendix D. In summary:</p> <p>228 - Urban land-Natomas complex map unit consists of 0 to 2 percent slopes, and pits. The Urban Land-Natomas complex map unit is about 45 percent Urban land and 40 percent Natomas soil and slopes have been shaped for urban uses. The Natomas soil is described as very deep, well-drained soil in high areas on low terraces. It formed in alluvium derived from mixed rock sources. Permeability is moderately slow. Runoff is slow. Urban land consists of areas covered by impervious surfaces or structures.</p> <p>190 - The Pits map unit consists of sand, gravel and clay pits and rock quarries. Slopes are complex. Areas are highly disturbed and vary in natural drainage, permeability, erosion hazard, and runoff.</p> <p>246 - The Xerorthents, dredge tailings-urban land complex map unit is in areas of leveled dredge tailings. Slopes have been shaped for urban uses. The Xerorthents are very deep and are considered to be excessively drained. They formed in material that has a high content of gravel and cobbles derived from mixed rock sources. Permeability is moderately rapid to very rapid.</p>
OIL AND GAS FIELDS	DOMS map at http://www.consrv.ca.gov/dog/maps/Pages/index_map.aspx	Oil and gas fields were not depicted on the DOGGR online mapping system (DOMS) map.

Information about the regional geology is presented on Table 4-3. This information was obtained from published data and maps, interviews with public agencies, and/or from previous investigations conducted by Kleinfelder in the vicinity of the site.

**TABLE 4-3
REGIONAL GEOLOGY AND HYDROGEOLOGY**

PHYSICAL PARAMETER	Information/Comments
REGIONAL GEOMORPHIC PROVINCE	<p>The site is located in the Great Valley Geomorphic Province in Central California. This province was formed by the filling of a large structural trough or downwarp of the underlying bedrock. The trough is situated between the Sierra Nevada Mountains on the east and the Coast and Cascade Ranges on the west. The trough, which underlies the valley, is asymmetrical with the greatest depth of sediments along the western margin. The sediments that fill the trough originated as erosional debris from the adjacent mountains and foothills.</p> <p>The site is located within the northern one-third of the Great Valley, which is known as the Sacramento Valley. The Sacramento Valley is characterized by deep accumulations of Cretaceous to Quaternary Age sediments. Total thickness of these sediments is in the order of thousands of feet. The majority of the native sediments in the area consist of Pliocene to Holocene continental rocks and deposits consisting of a heterogeneous mix of generally poor sorted clay, silt, sand, and some gravel. The valley geomorphology includes dissected uplands, low alluvial plains and fans, river floodplains and channels, and overflow lands and lake bottoms.</p>
DEPTH TO REGIONAL GROUNDWATER (Source: Spring 2007, Sacramento County Department of Public Works)	<p>The groundwater surface elevation was depicted at approximately 40 feet above MSL. Therefore, based on a ground surface elevation of approximately 110 feet above MSL (with the exception of the 20 foot change in topography within the site – i.e., soil mound), the depth to groundwater is estimated at about 70 feet below ground surface. General groundwater depth may be influenced by local pumping, rainfall, and irrigation patterns.</p>
DIRECTION OF ANTICIPATED FLOW ¹ (Source: Spring 2007, Sacramento County Department of Public Works)	<p>The estimated direction of groundwater flow is to the west; however, the flow direction is likely variable due to the proximity of the site to the American River.</p>

**TABLE 4-3
REGIONAL GEOLOGY AND HYDROGEOLOGY**

PHYSICAL PARAMETER	Information/Comments
REGIONAL GROUNDWATER QUALITY PROBLEMS (Source: EDR Radius Report [e.g., regional impact from former Aerojet facility, and Geocheck™ Physical Setting Source Summary])	Regional groundwater quality problems and regional impairments to water quality were revealed during Kleinfelder's assessment. Groundwater contamination associated with the Aerojet listing, discussed above in Section 4.3, is within the city of Rancho Cordova but could be considered a regional-scale groundwater quality problem. Nearby Federal USGS/Public water-supply (PWS) wells reported detections of the chlorinated solvents tetrachloroethylene (PCE), trichloroethylene (TCE), nitrates, etc. that may be attributable to Aerojet and other historical military sites in the vicinity
WATER SUPPLY (Source: EDR, Inc. Geocheck™ Physical Setting Source Summary)	The Federal USGS/Public water-supply (PWS) reported 15 wells within a one-mile radius of the site. The California state database reported 8 wells. Groundwater level measurements (not applicable) and information for the PWS, USGS, and state wells can be found beginning on page A-7 of the EDR Report. Groundwater flow direction was not mapped by EDR.
FLOOD ZONE DESIGNATION (Source: EDR Radius Report, Geocheck™ Physical Setting Source Summary)	According to the EDR regulatory agency database search report, the subject site is not located within the 100-year flood zone, nor within a 500-year flood zone (0602620210D).

¹ Groundwater flow direction is based on regional information sources. Site-specific conditions may vary due to a variety of factors including geologic anomalies, utilities, nearby pumping wells (if present), and other developments.

4.5 USER PROVIDED INFORMATION

According to the client, the purpose for performing this Phase I ESA is to satisfy the requirements for Brownfields redevelopment of the property. Information regarding the current owner/occupant is listed in Table 4-4.

**TABLE 4-4
OWNER/OCCUPANT INFORMATION**

Entity	Name
OWNER	Kilgore Business Park General Partnership (2005 for 072-0260-037-0000)
PROPERTY MANAGER	None listed
OCCUPANT	Construction contractor working on the US Highway 50 improvement project

Interviews of key individuals (“Key Site Managers” as defined by ASTM) are provided in Section 7, if provided by the client. The following section presents additional information provided by the client.

4.5.1 Title Records

A Preliminary Title Report dated January 11, 2005, was provided to Kleinfelder for review prior to production of this report for parcel 072-0260-037-000 (see Appendix E). A Chain-of-Title report was not provided for Kleinfelder to review and include in this Phase I ESA. These documents may provide information about land including ownership and other interests in the land, easements, and liens. Not all liens, defects, and encumbrances affecting title to the land may be included on the Preliminary Title Report. In summary, the Preliminary Title Report revealed the following information:

- The estate or interest in the land was vested in fee to Kilgore Business Park General Partnership.
- Easements for utilities, water, and roadways were included; however, the parcel descriptions and maps did not clearly correlate to the subject site, with limited exceptions.

4.5.2 Environmental Liens and Usage Limitations

According to information provided in EDR regulatory agency database search report (EDR, 2011), there are no liens listed in the United States Environmental Protection Agency’s (US EPA’s) Federal Superfund Liens List, and no known recorded land use

environmental deed restrictions pertaining to the subject site listed in the state liens database. The client did not provide information about current limitations on either activity or use of the subject site from independent title document review.

4.5.3 Value Reduction

As part of the ASTM E 1527-05 process, information must be gathered regarding the prospective purchase price of the property relative to the fair market value of the subject site. If there appears to be a value reduction, that reduction must be identified with respect to whether the difference could be attributed to environmental degradation of the property. The client stated in a questionnaire response (see Appendix E) that, in their opinion, the offered price of the property has not been reduced below comparable properties because of to environmental conditions associated with the property.

4.5.4 Other Information/Documents Provided

The client provided the preliminary title report and Client Questionnaire. The City of Rancho Cordova also provided information about the Bradshaw 8 Sewer Interceptor Project, which is summarized under Previous Assessments in Section 5.6.1 of this report. Each of these documents provided by the City of Rancho Cordova are included in Appendix E.

5 HISTORY OF THE SITE

The history of the site was researched to identify obvious uses. Historical land use was researched to the first developed use, or back to 1940, whichever is earlier or readily available. Table 5-1 summarizes the availability of information reviewed during this assessment.

**TABLE 5-1
HISTORICAL SOURCES**

	Years reviewed	Availability
AERIAL PHOTOGRAPHS	1937, 1948, 1952, 1961, 1971, 1981, 1993, 1998, 2005	The EDR Aerial Photo Decade Package
SANBORN FIRE INSURANCE MAPS	Not Available	Certified Sanborn Map Report, EDR, Inc.
CITY DIRECTORIES	1976, 1982, 1989, 1997, 2008	The EDR-City Directory Abstract
HISTORICAL TOPOGRAPHIC MAP REPORT	1893, 1902, 1954, 1967, 1975	EDR Historical Topographic Map Report
BUILDING DEPARTMENT	Not Available	Sacramento Building Department
PREVIOUS ASSESSMENT(S)	2004	Kleinfelder, Inc.

5.1 AERIAL PHOTOGRAPHS

A review of historical aerial photography may indicate past activities at a site that were not otherwise documented or observed during the site visit. The effectiveness of this technique depends on the scale and quality of the photographs and the available coverage. Aerial photographs were obtained from several historical photograph collections through EDR. Aerial photographs covering 68 years were available during the time frame that this report was being prepared. A tabulation of the aerial photographs reviewed is presented in Table 5-2. Copies of the reviewed aerial photographs are included in Appendix D.

**TABLE 5-2
HISTORICAL AERIAL PHOTOGRAPHS REVIEWED**

Date	Approximate Scale	Type	Source	Quality
1937	1 inch = 555 feet	Black and White Monoscopic	Laval	Good
1948	1 inch = 655 feet	Black and White Monoscopic	United States Geological Survey (USGS)	Lightened/ Fair
1952	1 inch = 555 feet	Black and White Monoscopic	Pacific Air	Good
1961	1 inch = 555 feet	Black and White Monoscopic	Cartwright	Good
1971	1 inch = 333 feet	Black and White Monoscopic	Cartwright	Good
1981	1 inch = 333 feet	Black and White Monoscopic	Cartwright	Good
1993	1 inch = 666 feet	Black and White Monoscopic	USGS	Blurry
1998	1 inch = 666 feet	Black and White Monoscopic	USGS	Good
2005	1 inch = 604 feet	Color Monoscopic	EDR	Good

Note: Aerial photographs only provide information on indications of land use, and no conclusions regarding the release of hazardous substances or petroleum products can be drawn from the review of photographs alone.

The site boundaries were approximated during the early years, because either the photograph scale or clarity of physical features were not always readily apparent. The Kilgore Cemetery was apparent from 1937 to present and was used as a general reference point to approximate the subject site location.

5.1.1 Subject Site

1937 The subject site is depicted as open space. Discernable rows indicative of agricultural land use or uniform coloration indicative of a grain crop are not apparent. The terrain does not appear level; however, stereoscopic imagery was not readily available to support this finding. A dirt roadway extends from Folsom Boulevard in an irregular manner toward the Kilgore Cemetery, which is located two parcels southeast of the site. It is not clear whether the roadway forms the western site boundary in 1937 (Kilgore Road) or if the site begins farther east.

- 1948 The site is relatively level along with many other properties in the area. There is a uniform coloration, suggesting the possibility of land use for a grain crop on site. The roadway from Folsom Boulevard to the cemetery is straightened and tree lined in 1947. The roadway closely resembles the path of Kilgore Road today.
- 1952 The subject site is a part of a large field used for a row crop. The row pattern does not completely extend onto all areas of the subject site, which may be a factor of when the photograph was taken (i.e., the site was not yet plowed) or may indicate an area with an elevation change that did not make it a good location for agricultural use. With these exceptions, the site is relatively the same as depicted on the 1947 aerial photograph.
- 1961 The subject site is a part of a gravel mining operation. Mining equipment is apparent with conveyor lines extending onto the site from the adjacent parcel to the south of the site. Evidence of agricultural land use is no longer apparent.
- 1971 The site continues to be heavily disturbed but the mining equipment and conveyor are no longer apparent. A feature that may be a ponded area is apparent near the west side of the site, and soil piles or changes in soil conditions are apparent throughout the site. An oval darkened area is apparent to the east of the trees along Kilgore Road that may be an area of dense vegetation or a trench with water.
- 1981 The site is heavily disturbed. Dirt roadways cross the site to areas that may be soil piles.
- 1993 Kilgore Road along the site's western border is paved. The site remains disturbed, but the clarity of the photograph prevents description of features, with the exception that the oval darkened feature apparent in 1971 is no longer apparent and trees were planted along the southern border.
- 1998 The 1998 aerial photograph is relatively similar to the 1993 aerial photograph, with the exception that the site appears to be more uniform terrain.
- 2005 The site has again been disturbed. Lightened and darkened areas with criss-cross trails and equipment or vehicles are apparent.

5.1.2 Surrounding Areas

- 1937 The Kilgore Cemetery is located two parcels south of the site and is apparent on the 1937 aerial photograph with trees surrounding it. There is a dirt access road to the cemetery from Folsom Boulevard approximately 2,000 feet to the north-northwest. This roadway is in the general location of Kilgore Road. The area between Folsom Boulevard and the site is open space, as was the area adjacent to the east of the site. There are numerous farms apparent to the west and south of the site with row crops, orchards, and irrigated crops.
- 1948 The site is a portion of a large open field that appears to have been spared from the dredge mining that was apparent throughout the area beginning approximately 500 feet south of Folsom Boulevard. This open field area may have been used for a grain crop based on the uniformity of shading. Kilgore cemetery is apparent to the south of the site with trees lining the perimeter. Adjacent to the west of the cemetery, a small parcel continues to be used for an orchard with areas to the south of the cemetery and orchard apparent as dredge tailings. The roadway connecting Folsom Boulevard to the cemetery is straightened.
- 1952 The larger parcel described in 1948, which includes the subject site, is used for a row crop. With this exception, the surrounding area continues to be substantially similar to the 1948 aerial photograph.
- 1961 The larger parcel described in 1948 does not appear to be used for agriculture. Two commercial-size structures are located on the east side of Kilgore Road just south of Folsom Boulevard. A gravel mining operation is apparent on the adjacent parcel to the south of the site that has conveyors that extend north to the site. Dirt roadways criss-cross for access to the mining location, and changes to elevation are apparent.
- 1971 Numerous soil piles are located around the site. Commercial development continues from Folsom Boulevard south along Kilgore Road to include the properties adjacent to the north of the site. Based on the irregular positions of vehicles parked around the structure at the southeast corner of the intersection of Folsom Boulevard and Kilgore Road, this facility may have been a wrecking

yard or scrap yard. The equipment from the gravel mining operation is no longer apparent adjacent to the south of the site.

- 1981 The linear black anomaly on the aerial photograph is not likely to be depicting a land use feature and is assumed to be an error in the photograph. Most of the dredge tailings south of the site are leveled, and there are dirt roadways suggesting future development of the area. The property that resembled a scrap yard in 1971 is in less disarray and appeared as a commercial structure with parking around the perimeter.
- 1993 Much of the area around the subject site is used for commercial development. Trade Center Drive is apparent to the northwest of the site. The two commercial structures remain adjacent to the north of the site, and a commercial structure is located adjacent to the south of the site along Kilgore Road. Topographic irregularities are apparent in the undeveloped areas around the site to the north of Kilgore Road.
- 1998 The two commercial-size structures located adjacent to the north of the site are no longer apparent. There is no remaining evidence (e.g., disturbed soil) of the former structures. There is a commercial structure adjacent to the northeast corner of the site and a smaller commercial structure near the southeast corner of the site.
- 2005 There are irregularities on the parcel adjacent to the north of the site along Kilgore Road (e.g., linear feature that may be evidence of buried utility installation and soil piles). The surrounding area is almost entirely built up with commercial structures.

Based on a review of historical aerial photographs, a potential environmental condition was observed on site that suggests evidence of a REC for the site. The site was formerly used for a gravel mining operation, and a portion of a conveyor was located on site that likely used hydraulic fluids. Therefore, fill dirt is likely to have originated from grading of nearby properties or from another source to fill the gravel pit. Interview sources with historical knowledge of the operations conducted were not available to clarify where the material originated from. Additional analyses relative to this historical finding is summarized in Chapter 8, Evaluation.

5.2 SANBORN FIRE INSURANCE MAPS

Sanborn Fire Insurance Maps provide historical land use information for some metropolitan areas and small established towns. Kleinfelder requested a search of Sanborn Fire Insurance Maps by EDR. Sanborn Fire Insurance Maps were not available for the subject site (see Appendix D).

5.3 CITY DIRECTORIES

City directories provide information regarding property occupants by address. These directories were reviewed by EDR and are summarized in a report contained in Appendix D. The review was conducted in approximately 5-year increments. In summary, the subject property was not listed in the city directories.

Adjoining properties were identified as 2735 Kilgore Road and 2897 Kilgore Road. Astie R S Plumbing was listed at 2735 Kilgore Road in 1976 and 1982. Quality Med Adjunct was listed at 2897 Kilgore Road in 1997, and multiple tenants were listed in 2008. The 2008 tenants at 2897 Kilgore Road included Business Park Child Care Center, Parknet CA, and Ticketmaster. The medical business may have stored or handled hazardous materials. This former business and other former businesses in the vicinity of the site that are considered likely to have stored or handled hazardous substances or petroleum products are described on Table 5-3.

**TABLE 5-3
HAZARDOUS SUBSTANCES - CITY DIRECTORY NEARBY PROPERTIES**

Address	Business Name	Hazardous Substance	Year Reported
2897 Kilgore Road	Quality Med Adjunct	Medical Supplies	1997
2721 Kilgore Road	Foreign Motor Parts	Fuel Oil and Grease	1976
2725 Kilgore Road	Ralphs Towing Service	Fuel Oil and Grease	1989
2749 Kilgore Road	Stefanick Welding and Steel	Metals Compressed Gas	1982
	Metal Research Company	Metals	1976

The EDR Radius Map Report and material handling practices apparent on aerial photographs were reviewed to evaluate whether these businesses are considered likely to have had a hazardous substance release that could affect the subject site.

5.4 HISTORICAL TOPOGRAPHIC MAP REVIEW

Kleinfelder obtained information regarding historical topographic maps of the site vicinity from EDR. The topographic maps reviewed for this assessment are listed in Table 5-3. Copies of the maps are included in Appendix D.

**TABLE 5-4
HISTORICAL TOPOGRAPHIC MAPS REVIEWED**

Year	Quadrangle	Series	Scale
1893	Sacramento	30 minute	1:125,000
1902	Fair Oaks	15 minute	1:62,500
1954	Fair Oaks	15 minute	1:62,500
1954	Carmichael	7.5 minute	1:24,000
1967	Carmichael	7.5 minute	1:24,000

5.4.1 Subject Site

1893 No structures or other features are depicted on site. The site is depicted as within the Cornell area.

1902 No structures or other features were depicted on site. The area name is changed to Soudan.

1954 The site remains undeveloped. The site is depicted at 110 feet above mean sea level with relatively level terrain.

1967 The gravel pit apparent on site on the aerial photograph is depicted at a location further to the east with only a portion of the western extreme of the gravel pit on site. There is a small area of the site with a change in elevation of 20 feet depicted. The area is between the gravel pit and Kilgore Road.

1975 The site is depicted as relatively unchanged from the 1967 topographic map.

5.4.2 Surrounding Areas

- 1893 The Sacramento & Placerville Railroad line is apparent approximately one-half mile to the north of the site. A roadway matching the footprint of Kilgore Road is apparent, although unlabeled.
- 1902 The railroad name changed to Southern Pacific Railroad, Placerville Branch. There are structures on the west side of Kilgore Road near the railroad tracks, but there is no development apparent to the south and near the area of the subject site.
- 1954 Kilgore Cemetery and the dredge tailings apparent on aerial photographs to the south of the site are depicted. An orchard is across Kilgore Road to the west of the cemetery. One of the two structures near the railroad is a school site.
- 1967 A gravel pit is depicted north of the Kilgore Cemetery with significant changes to elevation. As depicted, the gravel pit does not extend to Kilgore Road. Additional structures are apparent that appear to be commercial sized on the east side of Kilgore Road. One of the structures may be located adjacent to the site.
- 1975 The area of the site remains relatively unchanged from the 1967 topographic map. The gravel pit and cemetery remain.

5.5 BUILDING DEPARTMENT RECORDS

There is no site address, therefore building department records were not reviewable.

5.6 PREVIOUS ASSESSMENTS

Previous assessments were conducted for the site in association with the Bradshaw 8 sewer interceptor construction project, which bisects the site. In addition, Kleinfelder conducted a prior Phase I ESA and a Limited Phase II Soil Assessment for areas that included the subject site.

5.6.1 Bradshaw 8 Sewer Interceptor Project

Information relative to the subject site for the Bradshaw 8 Sewer Interceptor Project was extracted from electronic data provided to Kleinfelder by the City of Rancho Cordova. Copies of relevant information are included in Appendix E. Documents include:

- A memorandum from Environmental Science Associates, Ray Weiss to Mike Watson at Montgomery Watson Harza (MWH) dated March 27, 2003, describing environmental constraints for the Kilgore/Business Park – B Alignment Options
- Groundwater data from the SRCSD Bradshaw Interceptor Section 8, Conformed Geotechnical Baseline Report, Volume IV of IV dated October 2004
- Recorded easements dated January 21, 2005, and related maps prepared in 2004 by Cooper, Thorne & Associates for the Kilgore Business Park APNs 072-0260-036, 037, 038, 039, and 040 for sewer shallow borings
- A construction staging area and easement information sheet (Sheet 6 of 21 Sheets, G5) prepared by MWH for SRCSD, dated September 2006

The memorandum described hazardous materials constraints for the Purity Oil Sales/Delta Gunnite facility, Olympian Fueling Station, Vulcan Materials Company, and a Sprint facility. Updated information about the first three businesses is provided in Chapter 4.0 of this report. The soil contamination was cleaned up at the Sprint facility by 2003 and, therefore, does not pose an ongoing concern.

Groundwater data in a 2004 MWH Conformed Geotechnical Baseline Report described depth to water at between 48 and 76 feet below ground surface at the Kilgore Cemetery property (2 parcels south of the site).

The location of recorded easements for the project through the site were depicted on the remaining documents.

5.6.2 Kleinfelder's Previous Environmental Assessments

Kleinfelder conducted two prior assessments, which included one or more of the parcels of this Phase I ESA report.

- A Phase I ESA for the subject property and adjacent properties to the south along the east side of Kilgore Road (Kleinfelder, Phase 1 ESA, Mathew Kilgore Cemetery and Surrounding Properties, Rancho Cordova, California, 48977-1/SAC4R405, September 24, 2004)
- A Limited Phase II Soil Assessment for one of the parcels (APN 072-0260-037-0000) included in the current assessment (Kleinfelder, Report of Findings for Phase II Soil Assessment, 2897 Kilgore Road, Rancho Cordova, California, 48977-3/SAC5R007, January 7, 2005)

Phase I ESA (2004)

Three of the facilities within the ASTM search radius of the subject site boundary reported were found likely to have adversely affected the subject site due to releases of hazardous substances to groundwater, as follows:

- Aerojet General Corporation, Hwy 50 and Aerojet Road
- Wayside Lumber Co., 11277 Trade Center Drive
- Purity Oil Sales – Delta Gunite, White Rock Road/Kilgore Road

Two of these facilities continue to have the potential to affect groundwater beneath the subject site (see discussions in Chapter 4.0).

The history of the site was reviewed to identify obvious uses of the site. Historical records were readily available, which covered various years between 1949 and 1996. Historical land use included a gravel mine pit from at least 1959 through 1986 based on aerial photographs and historical topographic maps. In summary:

- The subject site appeared to be used as a gravel quarry beginning sometime between 1949 and 1959. It appeared that backfill may have begun in the early 1980s, and by 1987 the gravel pits on site appeared filled. The source of the fill material was not revealed during Kleinfelder's assessment.

- There was no record of site development, structures, water features, or other features on site (e.g., wells, electrical power lines, etc.) revealed through review of historical documents.

A representative from Kleinfelder conducted a site reconnaissance to assess and photograph present site conditions. The following site observations were made:

- “Two white, poly, 5-gallon buckets were observed on the northern end of the subject site. These buckets appeared to have contained a black viscous liquid resembling motor oil. Both buckets were tipped on their sides on exposed soil and a black stain approximately 10 feet in diameter was observed beneath the buckets.”
- “Soil piles were observed on site. The origination of the soil was not obvious based on field conditions or revealed during Kleinfelder’s assessment. Obvious hazardous substances or petroleum products or other indications of contamination (e.g. stressed vegetation) were not observed.”

Kleinfelder interviewed the former property owner, Mr. Tony Geremia, on September 2, 2004. Information provided by Mr. Geremia did not suggest the potential presence of environmental conditions on the subject site with the exception of the following:

- Soil piles containing debris (dirt, rock, cement, etc.) from swimming pool construction were located on parcel 072-0260-037-0000, according to Mr. Geremia. Construction debris was placed at the location of sand and gravel pits formerly on the property. The debris piles were described as about 4 feet in depth. Additional information was provided following submittal of the Phase I ESA (i.e., see Limited Phase II Soil Assessment discussion below). If hazardous materials are encountered during a subsurface investigation or site grading, then additional assessment may be required.

Limited Phase II Soil Assessment

This report described the December 15, 2004, soil sampling activities for the portion of the subject site located on parcel 072-0260-037-0000. Based on information received from Mr. Tony Geremia, the property owner in 2004, the soil piles on site were from swimming pool construction activities. It was "Kleinfelder's understanding that a 'pit' may have been excavated to 20 feet deep to allow for placement of the dirt, rock, cement, etc. The undulating piles were approximately 4 feet above ground surface. Soil borings were advanced to depths ranging from 10 to 25 feet below ground surface." (Note: at each location drill rig refusal was encountered due to gravel and cobbles.) Based on the site map provided with the report, borings referenced as B-5 and B-6 were located within the property boundary of Kleinfelder's current Phase I ESA research. Reported results were as follows:

Total petroleum hydrocarbons (TPH) purgeable as gasoline, TPH extractable as motor oil, and TPH extractable as diesel were not detected above laboratory reporting limits. Volatile organic compounds were not detected above laboratory reporting limits. With the exception of arsenic, metals were not detected at concentrations that would warrant further study. Arsenic concentrations were elevated; however, arsenic is a naturally occurring element in the Sacramento area and the concentrations detected were within typical background levels. Therefore, Kleinfelder did not recommend additional environmental assessment, removal of the soil piles for disposal, or remediation of the fill material.

6 SITE RECONNAISSANCE

Kleinfelder's assessment activities included a site reconnaissance. This section summarizes the findings from the site reconnaissance.

6.1 METHODOLOGY AND LIMITING CONDITIONS

Ms. Carol Hall, REA I and Ms. Pamela Wee, REA II of Kleinfelder performed a site reconnaissance on April 6, 2011. The site reconnaissance included a visual inspection of the site to assist in identifying the presence or likely presence of hazardous substances or petroleum hydrocarbons under conditions that indicate an existing release, a past release, or threat of release into structures, soil, groundwater, or surface water at the site (RECs). Observations of readily apparent environmental conditions are summarized in Table 6-1, and color photographs of the site are presented on Plate 3. Plate 2, "Site Map" depicts the approximate site boundaries and site features observed.

The weather was sunny and warm at the time of the site visit. The site was being used for construction staging, however, there were no restrictions to overall site access. Kleinfelder representatives did not obtain entry into the several storage lockers on site. The eastern section of the site had dense grasses that obscured observation of soil conditions. Also, there were several ponded areas on site from recent rain events. The sides and top of the soil mound on the southeast corner of the site had dense grasses and weeds that obscured observation and limited accessibility.

6.2 GENERAL SITE SETTING

The subject site at the time of the site visit was used for construction staging by DeSilva Gates and Diversified Concrete Cutting (i.e., labeled trucks and water tank observed on site). The materials were used for construction activity currently occurring along US Highway 50 to the north of the site, according to one of the workmen on site.

6.3 SITE OBSERVATIONS

Site observations are further described in Table 6-1.

**TABLE 6-1
SITE OBSERVATIONS**

General Observations	Remarks	Observed	Not Observed
Current use	Construction staging for highway project	X	
Current use likely to indicate RECs	Potential hazardous substance release on the northern site border near the midpoint Soil mound and soil piles from unknown sources	X	
Past use			X
Past use likely to indicate RECs			X
Structures	Temporary trailers and storage lockers were on site; however, there were no permanent structures.		X
Roads	Dirt roadways for vehicle traffic on site	X	
Topography of site and surrounding area	Relatively level with the exception of areas with soil piles and the large (approximately 20-foot tall and more than 100-foot radius) soil mound on the southeast corner of the site	X	
Interior and exterior observations or environmental conditions that may involve the use, storage, disposal or generation of hazardous substances or petroleum products.		Observed	Not Observed
Aboveground storage tank (AST)	Elevated water tank with hose that was connected via the adjacent vacant field to a fire hydrant along Trade Center Drive	X	

**TABLE 6-1 (Continued)
SITE OBSERVATIONS**

Interior and exterior observations or environmental conditions that may involve the use, storage, disposal or generation of hazardous substances or petroleum products.		Observed	Not Observed
Air emissions			X
Asbestos and lead			X
Below grade vaults	Sacramento Regional County Sanitation District (SRCSD) manhole near the middle of the site	X	
Burned or buried debris			X
Chemical storage	An antifreeze 5-gallon container, paint containers, adhesive containers, batteries, and 5-gallon plastic pail and drums with unknown content	X	
Chemical mixing areas			X
Discolored soil or water	<i>De minimis</i> staining likely from vehicles parked on site – limited to the first one inch of soil and approximately 1- to 2-foot radius	X	
Ditches, streams			X
Drains and piping (e.g. floor drains, floor trenches, bay drains, sand traps, grease traps)			X
Drums	Drums were used to store equipment/materials	X	
Electrical or hydraulic equipment (polychlorinated biphenyls [PCBs])			X
Fill dirt from an unknown source	The source of the fill dirt in soil piles and a large mound on the southeast corner of the site was not readily apparent	X	

**TABLE 6-1 (Continued)
SITE OBSERVATIONS**

Interior and exterior observations or environmental conditions that may involve the use, storage, disposal or generation of hazardous substances or petroleum products.		Observed	Not Observed
Fill dirt from a known source			X
Hazardous chemical and petroleum products in connection with <i>known</i> use	Batteries on site are likely associated with vehicles on site Antifreeze also likely used for vehicles on site Adhesive and paint containers in bins on site	X	
Hazardous chemical and petroleum products in connection with <i>unknown</i> use			X
Non-hazardous containers with contents	Plastic couplers, cones, and other construction-related materials	X	
Hazardous waste storage			X
Heating and cooling system and fuel source			X
Industrial waste treatment equipment			X
Loading and unloading areas	Areas for loading and unloading soil that is for current use at the southwest corner of the site	X	
Odors	Vehicle exhaust from operating vehicles on site	X	
Pits, ponds, or lagoons	Ponded water in several locations near the middle of the site and along the southwest fenceline (i.e., water apparent on both sides of the fence)	X	
Pools of liquid			X
Process waste water			X

**TABLE 6-1 (Continued)
SITE OBSERVATIONS**

Interior and exterior observations or environmental conditions that may involve the use, storage, disposal or generation of hazardous substances or petroleum products.		Observed	Not Observed
Sanitary sewer system	Pipeline bisects the site, and a SRCSD manhole is apparent near the center of the site and flags are posted crossing the site	X	
Septic system (e.g. tank and leach fields)			X
Soil piles	Numerous soil piles; some were old, based on abundant vegetation cover, others appeared to be more recent as there was limited vegetation, and still others were used for construction (e.g., southwest corner of the site)	X	
Solid waste/evidence of Unauthorized Dumping	Concrete debris and metal debris was apparent in soil piles surrounding the soil mound and there were two dumpsters on site: one with empty containers and wrapping and the other was closed.	X	
Stained pavement, soil or concrete	<i>De minimis</i> staining likely from vehicles parked on site – limited to the first one inch of soil and approximately 1- to 2-foot radius.	X	
Stains or corrosion (interior, non-water)			X
Storm drains/catch basins			X
Stressed vegetation	Areas on site had stressed vegetation, which may have resulted from long-term cover with equipment or containers, or other reasons.	X	
Sumps and clarifiers			X

**TABLE 6-1 (Continued)
SITE OBSERVATIONS**

Interior and exterior observations or environmental conditions that may involve the use, storage, disposal or generation of hazardous substances or petroleum products.		Observed	Not Observed
Surface water	Ponded water in several locations near the middle of the site and along the southwest fenceline (i.e., water apparent on both sides of the fence)	X	
Underground storage tank(s) (including heating oil tanks)			X
Unidentified substance containers	An opened white bucket containing an unknown orange substance A white crystallized material was apparent inside two garbage can sized containers. A liquid material appeared to have been released to soil around these containers.	X	
Waste water discharge			X
Water supplies (<i>potable and process</i>)	Elevated water tank on site	X	
Wells (<i>irrigation, monitoring, or domestic</i>)			X
Wells (<i>dry</i>)			X
Wells (<i>oil and gas</i>)			X

6.4 RESULTS OF SITE RECONNAISSANCE

Evidence of discolored aboveground or underground tanks containing hazardous substances or petroleum products, pits or lagoons, oil and gas wells, and water wells were not observed at the site during the site reconnaissance. Hazardous substances containers were observed on site: antifreeze in a 5-gallon closed container, 1-gallon empty paint containers, and adhesive containers. Two areas were observed near the midpoint of the site along the northern border with a release of a material that may be a

hazardous substance (i.e., crystalline material and liquid). Batteries observed on site should be stored in secondary containment to prevent an accidental release. A plastic opened white container with an unknown orange material was also observed. Also, the origin of the large soil mound and soil piles surrounding the mound were not readily apparent. Concrete and metal debris were apparent on the surface of the soil piles and soil mound.

7 INTERVIEWS

The names of Key Site Managers were provided to Kleinfelder by the City of Rancho Cordova. Key Site Managers are contacted to obtain current and historical environmental information concerning the subject site. Kleinfelder contacted and interviewed Mr. Joe Chinn, Assistant City Manager, City of Rancho Cordova. The following sections highlight information revealed during the interviews.

7.1 INTERVIEW WITH OWNER/MANAGER

A site contact name for the site owner corporation, Kilgore Business Park General Partnership, associated with the parcel on the southeast corner of the site (APN 072-0280-037-0000) in 2005 (see Section 4.5 of this report) was not provided by the City of Rancho Cordova. The preliminary title report provided by the City of Rancho Cordova was not current; therefore, the current ownership of the site is not clear.

Kleinfelder contacted Mr. Joe Chinn, City of Rancho Cordova, Assistant City Manager, for further clarification of ownership and information about the origin of the soil mound on the southeast corner of the property. According to a telephone response on April 18th to Ms. Hall, no one knows specifically where the soil mound at the southeast corner of the site originated. It is assumed to have come from various sources. The City of Rancho Cordova has allowed DeSilva Gates to use the site for a staging area for construction activity for the past year, but he was not sure if the soil was from their operations or another. Mr. Chinn was going to inquire further. If additional information is obtained following production of this report, Kleinfelder will supplement this report with an addendum letter.

7.2 INTERVIEW WITH OCCUPANTS

Construction staging vehicles and equipment are associated with US Highway 50 corridor improvement according to a worker at the site from De Silva Gates Construction at the time of Kleinfelder's site reconnaissance on April 6, 2011.

7.3 INTERVIEWS WITH LOCAL GOVERNMENT OFFICIALS

Local government officials were interviewed to obtain further information about environmental enforcement actions pending or ongoing at the site and adjacent facilities, or relevant permits (e.g., building, air quality, well abandonment, etc.) for the site and adjoining facilities.

7.4 INTERVIEW WITH CLIENT/OTHERS

Additional information was not received from the client or others. Kleinfelder attempted to contact Mr. Tony Geremia, the prior landowner of the site at Geremia Pools, (916) 914-7800. According to Katie Roth, Geremia Pools, Mr. Tony Geremia is deceased and the property is no longer under their control. She was not aware of any remaining employees that would have historical information about the site.

8 EVALUATION

Kleinfelder performed this ESA of the subject site in general conformance with the scope and limitations of ASTM Standard Practice E1527-05. The following sections describe Kleinfelder's findings and provide general background information about the site. Findings include RECs, historical RECs, and notation of *de minimus* quantities, as applicable to the site. Business environmental risk issues are discussed in Section 8.3, Deviations. In summary, Kleinfelder's assessment revealed the following information about the site:

8.1 BACKGROUND

The subject site does not have a specific address. The site consists of five parcels near the southeast corner of the intersection of Kilgore Road and Trade Center Drive, Rancho Cordova, California, within Sacramento County. Assessor Parcel Numbers (APNs) associated with the site include: 072-0260-036-0000, 072-0260-037-0000, 072-0260-038-0000, 072-0260-039-0000, 072-0260-040-0000. The total acreage is approximately 13.25 acres. Land use on site at the time of Kleinfelder's assessment was for a staging area for equipment, vehicles, soil, and other materials associated with construction activity off site. The City of Rancho Cordova plans to develop the subject site.

The site is located at approximately 110 feet above MSL and the topographic relief slopes to the west. Soil units mapped on site include Urban land – Natomas complex, which consists of 0 to 2 percent slopes and pits; the Pits map unit, which consists of sand, gravel and clay pits, and rock quarries with complex slopes; and Xerothents, dredge tailings-urban land complex map unit, which is in areas of leveled dredge tailings having high gravel and cobbles derived from mixed rock sources.

There were no water wells, or oil and gas fields/wells reported on site. Groundwater is anticipated at approximately 70 feet below ground surface based on regional topography and the Sacramento Department of Public Works maps of groundwater in Sacramento County. Groundwater data in a 2004 MWH Conformed Geotechnical Baseline Report described depth to water at between 48 and 76 feet below ground

surface at the Kilgore Cemetery property (2 parcels south of the site). While the anticipated direction of groundwater is to the west, general groundwater conditions may be influenced by the proximity of the site to the American River, and pumping from nearby public and monitoring wells.

Regional groundwater quality problems and regional impairments to water quality were revealed during Kleinfelder's assessment. Groundwater contamination associated with the Aerojet listing, discussed in Section 4.3, is within the City of Rancho Cordova but could be considered a regional-scale groundwater quality problem. Nearby Federal USGS/Public water-supply (PWS) wells reported detections of the chlorinated solvents tetrachloroethylene (PCE), trichloroethylene (TCE), and nitrates that may be attributable to Aerojet and other historic military sites in the vicinity. A copy of the 2008 Water Quality Report was obtained from the Golden State Water District's internet site. In summary, the report did not state that water quality meets all federal and state drinking water standards. However, review of the Cordova Water System – Source Water Quality table did not reveal exceedances for Primary Maximum Contaminant Levels (MCL) for turbidity, inorganic constituents (including perchlorate), volatile organic constituents (including tetrachloroethylene and trichloroethylene), and radioactive constituents. Secondary MCL exceedance for aluminum, iron, and manganese are based on aesthetic reasons and do not have associated health concerns. The subject site is not located within the 100-year flood zone according to the EDR Radius Report.

8.2 FINDINGS AND OPINIONS

Kleinfelder contracted with a commercial database service, Environmental Data Resources, Inc. (EDR) to review the federal, state, and local regulatory agency lists for references to the site and listings within the appropriate ASTM Standard minimum search distance of the site. In addition, regulatory agencies were contacted to provide additional information about the site and surrounding area, including the local water district, county building department, county environmental management department, and several state agencies.

The site does not have a physical address according to the Sacramento County Assessor's office; however, there were listings for properties in the EDR report that were for addresses between the two adjacent property addresses. Therefore, Kleinfelder has assumed that the addresses are relevant to the subject site. There

were three listings: two for 2873 Kilgore Road and one for 2751 Kilgore Road. A release of 700,000 gallons of sewage material during construction activities on site by the Sacramento Regional County Sanitation District (SRCSD) was reported, following failure of a temporary interceptor plug. Sacramento County Environmental Management Department (SCEMD) provided oversight of the incident, and no further action was reportedly required. The second entry for 2873 Kilgore Road referenced the SRCSD Bradshaw Intersceptor Section 8 project. Organic waste solids were disposed off site at a landfill. Therefore, there does not appear to be ongoing investigation of the SRCSD involvement on site. The third listing for Impact Coatings at 2751 Kilgore Road was for an inactive business that was formerly a small quantity generator of hazardous materials (i.e., listed on the Sacramento County ML). Based on the inactive status and no reported releases of a hazardous material/waste or petroleum product, further investigation is not required.

Regulatory agencies contacted included the SCEMD and the State of California Office of the State Fire Marshal. The Geotracker and Envirostor databases maintained by the State of California agencies were also reviewed. None of these agencies had a record of an incident on site.

Offsite, there were eighteen (18) facilities listed within the ASTM standard search distance, which were listed in one or more databases. Based on Kleinfelder's evaluation, the following four (4) facilities may have adversely affected the subject site:

- Aerojet, Safety Kleen Systems, Inc., and Purity Oil Sales/Delta Gunite facilities are either known or suspected to be responsible parties for a contaminated groundwater plume that has affected a large portion of Rancho Cordova, including the area around the subject site according to the EDR Radius Map report. The Aerojet facility is a Superfund site on the National Priority List (NPL). Purity Oil Sales/Delta Gunite is being investigated in association with the Aerojet groundwater contamination plume. United States (US) Geological Survey/Public Water Supply wells in the vicinity of the site have reported detections of the chlorinated solvents trichloroethylene (TCE), and nitrates. While the reported concentrations are less than the Maximum Contaminant Levels established by the US Environmental Protection Agency, the groundwater impact of the Aerojet plume to the subject site is not known and would require groundwater sample collection and laboratory analyses to evaluate. Based on anticipated depth to

groundwater of 70 feet below ground surface, construction activity should not be affected if groundwater has been impacted. Also, based on Kleinfelder's understanding of the Department of Toxic Substances Control (DTSC) Management Memo 90-11, "RP-Ownership of Property Over Contaminated Ground Water," the DTSC will not pursue or enforce action solely on the basis of ownership of land overlying contaminated groundwater.

- Johnson & Johnson Interventional EMS at 2890 Kilgore Road, adjacent and across Kilgore Road to the west, was listed on the RCRA-SQG, FINDS, Sacramento County ML, and HAZNET databases. The facility reportedly is a small quantity generator of laboratory waste chemicals and other inorganic solids. No violations were reported. Although there are currently no underground storage tanks reported for this facility, there is a mention of a January 20, 1993, underground tank test. Therefore, it is not clear whether there was a tank, that has since been removed or there was a tank that was abandoned in place. There is no record of this facility in the Geotracker database, which includes facilities with DTSC or CVRWQCB oversight. The proximity of this former tank relative to the subject site, and lack of records documenting removal or regulatory oversight, indicates additional investigation of the status of the tank may be warranted depending on the future land use proposed on site. There is not sufficient information available to elevate this facility status to be considered a REC.

The history of the site was reviewed to identify obvious uses of the site from the present to the first developed use, or back to 1940, whichever is earlier, from readily available resources. Available sources date to 1893 and include aerial photographs, local city directories, historical topographic maps, preliminary title records, information from previous assessments, and information provided by the client. City directories did not reveal businesses that have ongoing reported enforcement activities according to EDR's review of regulatory databases.

A preliminary title report dated January 11, 2005 was provided to Kleinfelder for review prior to production of this report for parcel 072-0260-037-000 (see Appendix E). In summary, the preliminary title report revealed that the estate or interest in the land was vested in fee to Kilgore Business Park General Partnership, and there were easements

for utilities, water, and roadways; however, the parcel descriptions and maps did not clearly correlate to the subject site, with limited exceptions. The preliminary title report provided by the City of Rancho Cordova was not current; therefore, the current ownership of the site is not clear.

According to information provided in the EDR regulatory agency database search report (EDR, 2011), there are no liens listed in the US EPA's Federal Superfund Liens List, and no known recorded land-use environmental deed restrictions pertaining to the subject site listed in the state liens database. The client did not provide information about current limitations on either activity or use of the subject site from independent title document review. The client stated in a questionnaire response (see Appendix E) that, in their opinion, the offered price of the property has not been reduced below comparable properties due to environmental conditions associated with the property.

The City of Rancho Cordova also provided information about the Bradshaw 8 Sewer Interceptor Project (see discussion above under EDR report summary).

Aerial photographs provide information on indications of land use, and no conclusions may be drawn from photographs alone. However, Kleinfelder's review of available aerial photographs revealed signs of prior land use on site for a gravel pit. The site boundaries were approximated during the early years, because either the photograph scale or clarity of physical features were not always readily apparent. The Kilgore Cemetery was apparent from 1937 to present and was used as a general reference point to approximate the subject site location.

The first developed land use was apparent on aerial photography from 1948, which suggested agricultural use for a grain crop. Agricultural land use for a row crop was apparent on the 1952 aerial photograph. According to a prior Kleinfelder Phase I ESA (Kleinfelder, 2004), the subject site was a part of a gravel mining operation that began prior to 1959. Mining equipment and a conveyor line extended onto the site from the adjacent parcel to the south of the site. There was no remaining agricultural land use on site by 1961. A historical topographic map depicted mining activity on site in 1967. Mining equipment was removed by 1971, but the site appeared to be heavily disturbed until at least 1993 according to aerial photography. Ponded water was apparent on some aerial photographs. Soil disturbances were apparent on site as late as the 2005 aerial photograph. The site's former land use for a gravel mining operation with mining

equipment on site suggests evidence of a REC for the site although there is no regulatory action pending. Hydraulic fluids were likely associated with former mining operations. Laws and regulations for the mining industry were not as restrictive or protective of the environment in the 1960s as they are currently.

Groundwater data in a previous site assessment for the Bradshaw Interceptor project "Conformed Geotechnical Baseline Report" (MWH, 2004), described depth to water at between 48 and 76 feet below ground surface at the Kilgore Cemetery property (2 parcels south of the site). A Limited Phase II Soil Assessment was conducted by Kleinfelder (Kleinfelder, 2004) for which soil sampling activity was conducted for the portion of the subject site located on parcel APN 072-0260-037-0000. There were no total petroleum hydrocarbons (TPH) purgeable as gasoline, TPH extractable as motor oil, or TPH extractable as diesel detected above laboratory reporting limits. Volatile organic compounds were not detected above laboratory reporting limits. With the exception of arsenic, metals were not detected at concentrations that would warrant further study. Arsenic concentrations were elevated; however, arsenic is a naturally occurring element in the Sacramento area and the concentrations detected were within typical background levels. Therefore, Kleinfelder did not recommend additional environmental assessment, removal of the soil piles for disposal, or remediation of the fill material.

A previous site reconnaissance by Kleinfelder in 2004 revealed two white, poly 5-gallon buckets on the northern section of the subject site. These buckets appeared to have contained a black viscous liquid resembling motor oil. Both buckets were tipped on their sides on exposed soil, and a black stain approximately 10 feet in diameter was observed beneath the buckets. The stain was not apparent at the time of Kleinfelder's site visit conducted for this report (April 6, 2011).

The previous Kleinfelder Phase I ESA also reported soil piles apparent on site. The origin of the soil was not obvious based on field conditions or revealed during Kleinfelder's assessment. Obvious hazardous substances or petroleum products or other indications of contamination (e.g., stressed vegetation) were not observed. Based on information received previously by Kleinfelder from Mr. Tony Geremia, the property owner in 2004, the soil piles on site were from swimming pool construction activities. It was "Kleinfelder's understanding that a pit may have been excavated up to 20 feet deep to allow for placement of the dirt, rock, cement, etc. The undulating piles

at that time were approximately 4 feet above ground surface.” Kleinfelder attempted to contact Mr. Geremia to follow-up on this prior interview, and learned that Mr. Geremia is deceased. Others currently employed at Geremia Pools did not have information about the site.

Kleinfelder’s site reconnaissance revealed current use likely to indicate RECs as follows:

- A potentially hazardous substance release was observed on the northern site border near the midpoint. A white crystallized material was apparent inside two garbage can size containers. A liquid material appeared to have been released to soil around these containers.
- A large soil mound (approximately 100-feet in diameter and 20-feet high) and soil piles (20 to 30 feet in diameter and 3 to 8 feet high) were present. The origin of the fill dirt in soil piles and a large mound on the southeast corner of the site was not readily apparent. Concrete debris and metal debris were apparent in soil piles and on the soil mound.
- An unknown substance was observed in a partially filled, white 5-gallon container without a lid or other cover present.

Hazardous substances containers were observed on site: antifreeze in a 5-gallon closed container, 1-gallon empty paint containers, and adhesive containers. Although there were no releases apparent, the method of storage was not in accordance with good management practices. For example, batteries were observed stored on the ground and not in secondary containment or with protection from soil or water.

Evidence of discolored aboveground or underground tanks containing hazardous substances or petroleum products, pits or lagoons, oil and gas wells, and water wells were not observed at the site during the site reconnaissance. The SRCSD storm drain was apparent near the midpoint of the site. Ponded water was apparent throughout the site.

A contact name for the site owner corporation, Kilgore Business Park General Partnership, associated with the parcel on the southeast corner of the site (APN 072-

0280-037-0000) in 2005 (see Section 4.5 of this report), was not provided by the City of Rancho Cordova. Kleinfelder contacted Mr. Joe Chinn, City of Rancho Cordova, Assistant City Manager, for further clarification of ownership and information about the origin of the soil mound on the southeast corner of the property. A response to Kleinfelder's telephone request on April 15, 2011 was not received prior to production of this report. If clarification is received, Kleinfelder can provide an addendum to this report with the new information.

Construction staging for vehicles and equipment observed on site are associated with the Highway 50 corridor improvements according to a worker at the site from De Silva Gates Construction at the time of Kleinfelder's site reconnaissance on April 6, 2011.

8.3 DEVIATIONS AND ADDITIONAL SERVICES

An evaluation of business environmental risk associated with the parcels was not included in Kleinfelder's scope of services. The ESA does not incorporate non-scope considerations, such as asbestos-containing materials testing, radon, lead-based paint testing, lead in drinking water testing, wetlands, regulatory compliance, cultural and historical resources, industrial hygiene, health and safety, ecological resources, endangered species, indoor air quality, and high voltage power lines.

8.4 CONCLUSIONS

We have performed a Phase I ESA in conformance with the scope of work required by ASTM Standard Practice E 1527-05 and our Proposal Number 113956/SAC11P086 dated March 1, 2011, for the property located at 10701 Folsom Boulevard and 10708 Alicante Way, Rancho Cordova, California. Any exceptions to, or deviations from, this practice are described in Section 8.3 of this report. This assessment has revealed no evidence of RECs in connection with the site, except for the following:

- Aerojet, Safety Kleen Systems, Inc., and Purity Oil Sales/Delta Gunite facilities are either known or suspected to be responsible parties for a contaminated groundwater plume that has affected a large portion of Rancho Cordova, including the area around the subject site according to the EDR Radius Map report. The Aerojet facility is a Superfund site on the National Priority List (NPL). Purity Oil Sales/Delta Gunite is being investigated in association with the Aerojet

groundwater contamination plume. Federal United States Geological Survey/Public Water-Supply wells in the vicinity of the site have reported detections of the chlorinated solvents trichloroethylene (TCE), and nitrates. While the reported concentrations are less than the Maximum Contaminant Levels established by the US Environmental Protection Agency, the groundwater impact of the Aerojet plume to the subject site is not known and would require groundwater sample collection and laboratory analyses to evaluate. Based on anticipated depth to groundwater of 70 feet below ground surface, construction activities should not be affected if groundwater has been impacted. Also, based on Kleinfelder's understanding of the Department of Toxic Substances Control (DTSC) Management Memo 90-11, "RP-Ownership of Property Over Contaminated Ground Water," the DTSC will not pursue or enforce action solely on the basis of ownership of land overlying contaminated groundwater.

- An unknown substance release was observed from an open plastic container on the northern site border near the midpoint of the site. A crystalized material and a liquid material were observed. The area affected by the liquid material was approximately a 20-foot radius from the container, which was on its side. A second open container with similar material that had impacted a smaller area was also observed nearby. An open container with an unknown orange substance was also observed on site. Based on weather conditions (e.g., rain) the open containers have resulted, and are likely to result, in a release to soil on site. The containers were not labeled; therefore, it is not clear from the site conditions whether the materials are hazardous substances or contain petroleum products. Further assessment of these materials is recommended.
- A large soil mound and multiple soil piles are located on the southeastern section of the site. The origin of these materials and the fill material beneath them was not revealed during Kleinfelder's assessment. A prior assessment of the fill material in this area did not reveal evidence of Total petroleum hydrocarbons (TPH) purgeable as gasoline, TPH extractable as motor oil, and TPH extractable as diesel. Volatile organic compounds were not detected above laboratory reporting limits. With the exception of arsenic, the metals were not detected at concentrations that would warrant further study. Arsenic concentrations were elevated; however, arsenic is a naturally occurring element in the Sacramento area and the concentrations detected are within typical

background levels. Therefore, the Limited Phase II Soil Assessment conducted by Kleinfelder in 2004 did not include a recommendation for additional environmental assessment, removal of the soil piles for disposal, or remediation of the fill material. The areas of the site that were covered with soil piles and the large 20-foot high by 100-foot radius soil mound are considerably bigger than the potentially affected area evaluated in 2004 by Kleinfelder. Therefore, in Kleinfelder's opinion, additional soil assessment may be required depending on the intended future developed land use.

8.4.1 Data Gaps

Although Kleinfelder attempted to obtain reasonably ascertainable information regarding the site, some information was either not received or not readily available at the time of preparation of this report. Therefore, consistent with ASTM Standard Practice E 1527-05, the following data failure (data gaps) have been identified:

- Kleinfelder contacted Mr. Joe Chinn, City of Rancho Cordova, Assistant City Manager, for further clarification of ownership and information about the origin of the soil mound on the southeast corner of the property. Mr. Chinn was not able to provide clarification and was going to make further inquiry of City of Rancho Cordova personnel.

Based on a review of the data gaps presented above, it is Kleinfelder's opinion that the data failure is likely to have affected the evaluation of RECs at the site. Prior limited soil investigation was associated with soil piles approximately 4 feet high. Currently the soil mound is significantly larger at approximately 20 feet high with an approximately 100-foot radius.

9 REFERENCES

- ASTM, 2005. E1527-05 Standard Practice for Environmental Site Assessments: Phase I Process
- California Division of Mines and Geology, 1981. Geologic Map of the Sacramento Quadrangle, California. Wagner, D.L., Jennings, C.W., Bedrossian, T.L., and Bortugno, E.J., Regional Geologic Map 1A, Scale 1:250,000
- Environmental Data Resources (EDR), EDR Radius Map with GeoCheck®, Rancho Cordova #1, Rancho Cordova, California, Inquiry Number: 3022224.2s, March 24, 2011
- Environmental Data Resources, EDR Historical Topographic Map Report, Rancho Cordova #1, Rancho Cordova, California, Inquiry Number: 3022224.4, March 24, 2011
- Environmental Data Resources, EDR Aerial Photo Decade Package, Rancho Cordova #1, Rancho Cordova, California, Inquiry Number: 3022224.5s, March 29, 2011
- Environmental Science Associates, Environmental Constraints for the Kilgore/Business Park – B Alignment Options, Memorandum from Ray Weiss to Mike Watson at Montgomery Watson Harza (MWH), March 27, 2003
- Geologic Map of California, State of California Department of Conservation 1977; (Scale: 1 inch = 12 miles)
- Kleinfelder, Phase 1 ESA, Matthew Kilgore Cemetery and Surrounding Properties, Rancho Cordova, California, 48977-1/SAC4R405, September 24, 2004)
- Kleinfelder, Report of Findings for Phase II Soil Assessment, 2897 Kilgore Road, Rancho Cordova, California, 48977-3/SAC5R007, January 7, 2005)
- SRCSA, Bradshaw Interceptor Section 8, Conformed Geotechnical Baseline Report, Volume IV of IV, October 2004

United States Department of Agriculture (USDA), Brief Soil Descriptions of Sacramento
County, California, Soil Conservation Service publication, issued December 11,
2007

Additional sources may be referenced separately in the report text.