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Alameda County Environmental Health

Closure Plan for Area of Concern #8
Former Hanson Aggregates Radum Facility
3000 Busch Road, Pleasanton, California
(ACEH Case RO0002952 and
Geotracker ID SL0600101555)

July 10, 2009 001-09567-08

Prepared for: Lehigh Hanson West Region 12667 Alcosta Boulevard, Suite 400 San Ramon, California 94583

Prepared by: LFR Inc., an ARCADIS Company 1900 Powell Street, 12th Floor Emeryville, California 94608



July 10, 2009

Mr. John Rigter Livermore-Pleasanton Fire Department 3560 Nevada Street Pleasanton, CA 94566

Mr. Jerry Wickham Alameda County Health Care Services Environmental Health Services 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502-6577

Subject: Closure Plan for Area of Concern #8, Former Hanson Aggregates Radum Facility, 3000 Busch Road, Pleasanton, California (ACEH Case #RO0002952 and Geotracker Global ID #SL0600101555)

Dear Mr. Rigter and Mr. Wickham:

The attached Closure Plan was prepared by LFR Inc. (LFR) on behalf of Lehigh Hanson West Region (formerly Hanson Aggregates West Region) for Area Of Concern #8 (AOC #8) of the former Hanson Aggregates Radum Facility located at 3000 Busch Road, Pleasanton, California. This closure plan is being submitted to the Livermore-Pleasanton Fire Department to document that no surface features or structures were located historically in this area and that no closure activities are necessary or planned to take place. This closure plan also contains a summary of subsurface conditions that have been investigated under the purview of the Alameda County Environmental Health Department.

I certify under penalty of law that this document and all attachments are prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have any questions or comments concerning this Closure Plan, please call me at (925) 244-6584 or Katrin Schliewen of LFR at (510) 652-4500.

Closure Plan for Area of Concern #8, Former Hanson Aggregates Radum Facility, 3000 Busch Road, Pleasanton, California (ACEH Case #RO0002952 and Geotracker Global ID #SL0600101555) July 10, 2009
Page 2

Sincerely,

Lee W. Cover

Environmental Manager

Hanson Aggregates Northern California

Lee W. an

Attachment



- 2 -

CONTENTS

CE	RTIFICATIONS	iii
1.0	INTRODUCTION	1
2.0	BACKGROUND	1
	2.1 Site Description and History	1
	2.2 Regulatory Determinations	2
	2.3 Closure Plan for AOC #8	3
3.0	SUMMARY OF SUBSURFACE INVESTIGATIONS	4
4.0	LIMITATIONS	4
5.0	REFERENCES	6
FIC	GURES	
	1 Site Location Map	
,	2 Property Showing Areas of Concern	
í	3 Area of Concern #8, Site Plan and Sample Location Map	
AP	PENDIX	

Aerial Photographs

CERTIFICATIONS

LFR Inc. has prepared this Closure Plan for Area of Concern #8 of the Former Hanson Aggregates Radum Facility, 3000 Busch Road, Pleasanton, California, on behalf of Lehigh Hanson West Region in a manner consistent with the level of care and skill ordinarily exercised by professional geologists and environmental scientists. This report was prepared under the technical direction of the undersigned California Professional Geologists.



July 10, 2009

Katrin M. Schliewen, P.G.

Date

Senior Hydrogeologist

California Professional Geologist No. 7808

July 10, 2009

Ron Goloubow, P.G.

Date

Senior Associate Geologist

California Professional Geologist No. 8655

1.0 INTRODUCTION

This closure plan was prepared on behalf of Lehigh Hanson West Region ("Hanson") for Area of Concern #8 (AOC #8), located within the Radum property at 3000 Busch Road, Pleasanton, California ("the Site").

At Hanson's request, LFR has prepared this closure report for AOC #8 for submittal to the Livermore-Pleasanton Fire Department (LPFD), which is the Certified Unified Public Agency (CUPA) for this Site and as such is responsible for oversight of the closure of surface features at the Site. It should be noted that the LPFD did not request a closure plan for AOC #8, and no surface features exist at the Site. However, Hanson elected to submit this closure plan to provide the LPFD with all relevant information regarding areas for which Hanson is responsible. A closure plan for AOC #1 and surrounding areas was previously submitted to the LPFD on June 19, 2009 (LFR 2009e).

This closure plan contains the following information:

- Section 2.0 presents background information, including a description of historical activities (supported by aerial photographs) to show that no additional closure activities are necessary.
- Section 3.0 presents a summary of subsurface environmental conditions and of investigations conducted to date under the purview of Alameda County Environmental Health (ACEH), and current regulatory determinations.
- Section 4.0 defines LFR's professional limitations.
- Section 5.0 provides a reference list of primary documents related to environmental investigations conducted at the Site and throughout the Radum property to date.

2.0 BACKGROUND

2.1 Site Description and History

The Radum property is a former aggregate mining facility of approximately 1,050 acres located partly within the city limits of Pleasanton, California, and partly within an unincorporated area of Alameda County (Figure 1). As described in the Phase I Environmental Site Assessment (ESA) by ENV America Inc. (ENV; ENV 2006a), mining of sand and gravel in the Livermore-Amador Valley began prior to 1900. Mining operations for aggregate resources at the Radum property began in approximately 1938 by Kaiser Sand and Gravel. Hanson purchased the Radum property in 1991 and continued mining operations until 2001 when mining was discontinued due to lack of available aggregate materials.

Reportedly, as sections of the property were mined out, the former mining pits were used for storage and/or as disposal ponds for water (from dewatering of new pits) and fine-grained sediments (silt and sand) washed out of the aggregate material. In addition, some mining pits likely were backfilled with debris and mine waste, as is evident from debris encountered during drilling at the Site (see Section 3.0). Approximately two-thirds of the property now include large ponds or lakes, namely Lake I, Lake H, and Cope Pond, created during historical aggregate mining operations (Figure 2). The remaining approximately 320 acres of the property (approximately the southern third) is developable land. During 2007, the majority of the property was transferred to Legacy Partners ("Legacy") as part of a real estate transaction. Hanson retained ownership of an approximately 15-acre parcel located in the southwestern corner of the property (Parcel 1; AOC #1), and also retained the responsibility for the characterization of petroleum hydrocarbon-affected soil and groundwater beneath AOC #8 (further discussed in Section 3.0).

2.2 Regulatory Determinations

ACEH has been the lead oversight agency for subsurface environmental conditions through the Radum property and at the Site. Numerous environmental investigations have been conducted at the Radum property and at the Site under the purview of ACEH, such as Phase I reviews, Phase II investigations (including collecting samples from surface features and drilling to collect depth-discrete soil and grab groundwater samples), and the installation of groundwater monitoring wells for groundwater monitoring over time.

In early 2008, the ACEH informed Hanson that the LPFD is the CUPA for this Site, and as such is responsible for oversight of the closure of surface features at the Site. On July 18, 2008, Hanson conducted an extensive site inspection of AOCs #1, #2, and #3 (Figure 2) and held a technical meeting with the LPFD, ACEH, and LFR, to review current conditions and evaluate the effort necessary to conduct final closure of the Site. During the site walk, the LPFD requested closure plans be submitted for specific features planned for closure at the Site within AOCs #1, #2, and #3. No site walk was conducted for AOC #8 because no features existed at the Site or required removal for closure. Although the LPFD has not provided Hanson with a letter formally requesting closure plans be prepared, based on discussions during the July 18, 2008 meeting Hanson has submitted a closure plan for the AOC #1, #2, and #3 areas (LFR 2009c).

Because Hanson retained responsibilities regarding environmental conditions in AOC #8, this closure plan was prepared and is being submitted to the LPFD to document the historical uses of the Site and current environmental conditions, and confirm that no closure activities for surface features are necessary.

2.3 Closure Plan for AOC #8

This closure plan for AOC #8 documents that no surface features or structures were located historically at the Site and that no closure activities are necessary or planned to take place. A series of eight historical aerial photographs spanning from 1939 to 1998 are provided in Appendix A (originally included in ENV's Phase I ESA; ENV 2006a). For reference, the approximate location of AOC #8 is shown on each aerial photograph. A review of the aerial photograph shows the following activities within AOC #8:

- 1939: agriculture land
- 1950: aggregate mine pit filled with water and along the western edge the ground surface appears graded prior to mining
- 1958: aggregate mine pit filled with water
- 1965: aggregate mine pit filled with water
- 1974: aggregate mine pit filled with sediment
- 1982: aggregate mine pit filled with sediment; water and vegetation visible on the surface
- 1993: aggregate mine pit filled with sediment; evidence of vehicular tracks on the surface
- 1998: aggregate mine pit filled with sediment; evidence of vehicular tracks and vegetation on the surface
- Current conditions (no aerial photograph available): soil surface with vehicular tracks, mounds of soil, and vegetation on the surface

The only mining activities that took place at AOC #8 include aggregate extraction and the filling of the resulting pits with water and/or sediment. No other mining activities (such as asphalt or concrete production, equipment storage or maintenance, and fuel oil storage or usage) are known to have occurred historically at the Site. Based on results from subsurface investigations conducted throughout the property and especially at the Site, and based on personal communications with Hanson representatives, it is believed that historical mine pits may have been used for periodic disposal of waste materials, including, for example, waste from the hot mix asphalt processing operations. As described in Section 3.0, evidence of asphalt materials at depth were encountered during drilling at the Site.

Based on the historical site uses and activities, and on current conditions at the Site, no closure activities are necessary or planned to be conducted at the Site. The following section describes the subsurface conditions and work completed under the purview of ACEH.

3.0 SUMMARY OF SUBSURFACE INVESTIGATIONS

Several subsurface investigations have been conducted to date throughout the Radum property and at the Site by various consultants (see references listed in Section 5.0). At the Site, subsurface investigations have been conducted by ENV on behalf of Legacy and by LFR on behalf of Hanson. The first subsurface investigation conducted at the Site consisted of a single temporary soil boring (soil boring SS-123) advanced in 2007 as part of due diligence activities that included soil borings located in a random grid pattern through the Radum property. No surface indications of potentially affected surface or subsurface soil were observed at the Site. However, analytical results for depth-discrete soil samples collected from soil boring SS-123 from approximately 2 to 40 feet below ground surface contained petroleum hydrocarbon concentrations that were greater than San Francisco Bay Regional Water Quality Control Board (RWQCB) Environmental Screening Levels.

Both ENV and LFR conducted additional phases of investigations with step-out soil boring locations to collect additional soil and grab groundwater samples to characterize the nature and extent of the potentially affected soil and groundwater. All investigations were conducted based on ACEH-approved scopes of work. Results from the various subsurface investigations indicated that the source of contamination likely was asphalt material placed in former mining pits, that the material was relatively immobile, and that the extent of affected soil was limited laterally and vertically. Because of the nature and extent of contamination, LFR concluded that the Site was sufficiently characterized and no remediation activities were necessary (LFR 2008d).

After the Site was sufficiently characterized, LFR installed two groundwater monitoring wells (one shallow and one deep) in May 2008 and initiated quarterly groundwater monitoring to evaluate groundwater quality beneath the Site. Attempts were made to install additional groundwater monitoring wells, but insufficient groundwater was encountered in other locations. As approved by ACEH, four quarterly groundwater monitoring events were completed (ACEH 2008f). Results from the groundwater monitoring indicated that groundwater beneath the Site has not been significantly affected and LFR recommended that groundwater monitoring cease and that the two groundwater monitoring wells be properly abandoned (LFR 2009d). A response from ACEH is pending.

4.0 LIMITATIONS

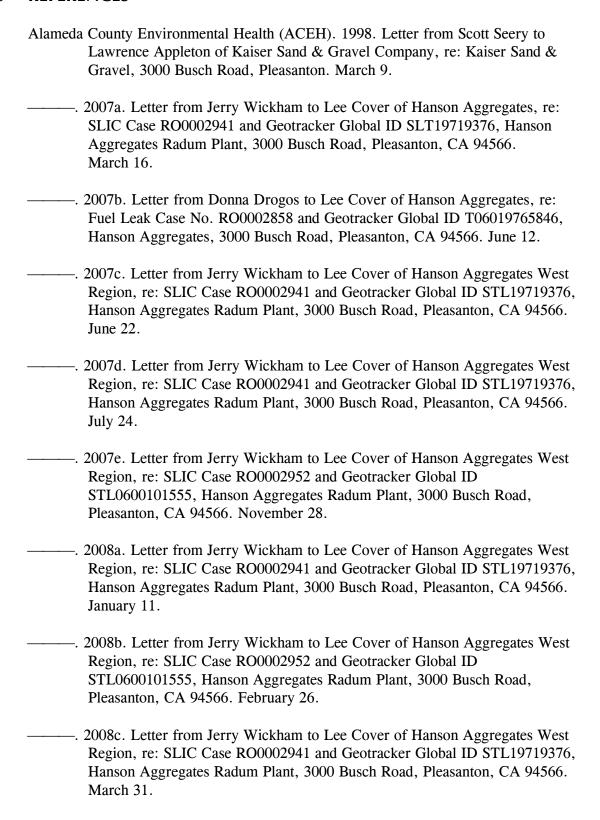
The opinions and recommendations presented in this report are based upon the scope of services, information obtained through the performance of the services, and the schedule as agreed upon by LFR and the party for whom this report was originally prepared. This report is an instrument of professional service and was prepared in accordance with the generally accepted standards and level of skill and care under similar conditions and circumstances established by the environmental consulting industry. No representation, warranty, or guarantee, expressed or implied, is intended

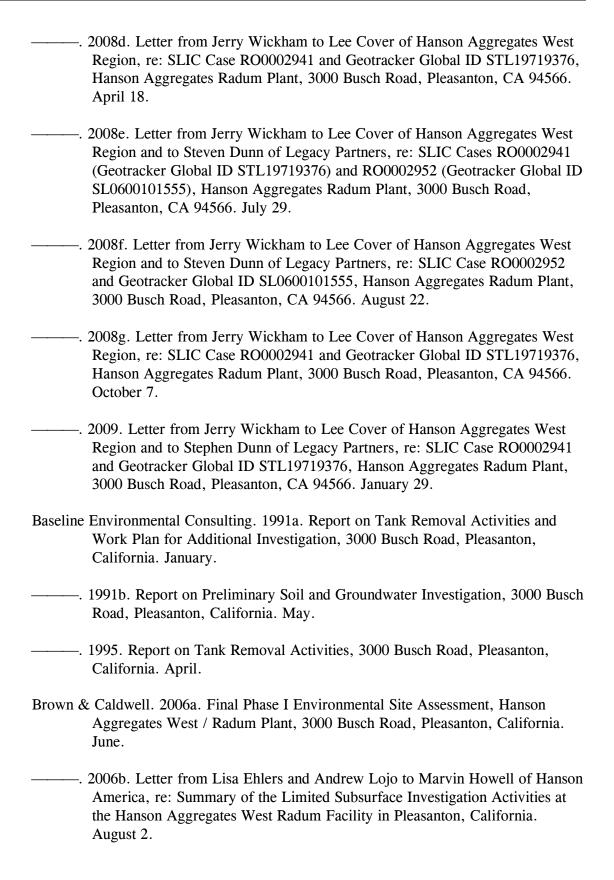
or given. To the extent that LFR relied upon any information prepared by other parties not under contract to LFR, LFR makes no representation as to the accuracy or completeness of such information. This report is expressly for the sole and exclusive use of the party for whom this report was originally prepared for a particular purpose. Only the party for whom this report was originally prepared and/or other specifically named parties have the right to make use of and rely upon this report. Reuse of this report or any portion thereof for other than its intended purpose, or if modified, or if used by third parties, shall be at the user's sole risk.

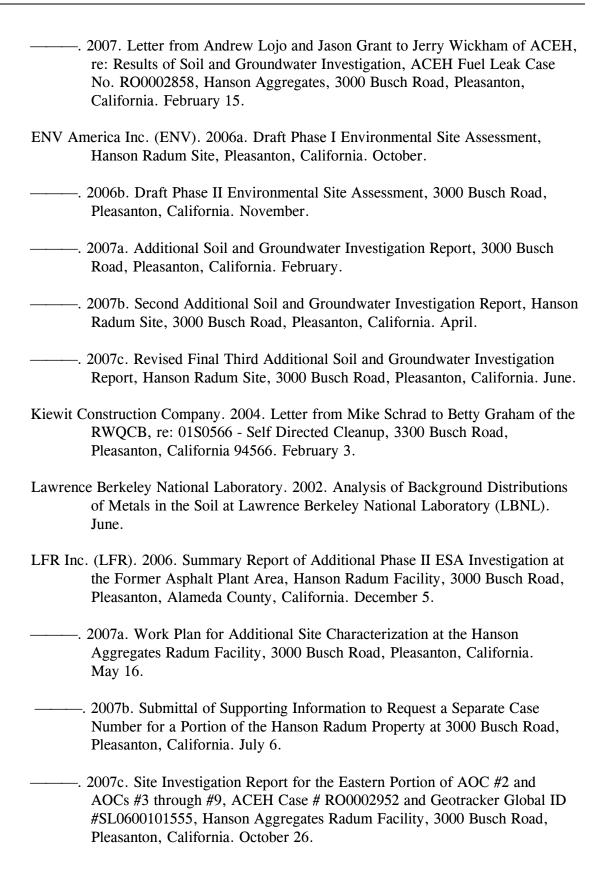
Results of any investigations or testing and any findings presented in this report apply solely to conditions existing at the time when LFR's investigative work was performed. It must be recognized that any such investigative or testing activities are inherently limited and do not represent a conclusive or complete characterization. Conditions in other parts of the Site may vary from those at the locations where data were collected. LFR's ability to interpret investigation results is related to the availability of the data and the extent of the investigation activities. As such, 100 percent confidence in environmental investigation conclusions cannot reasonably be achieved.

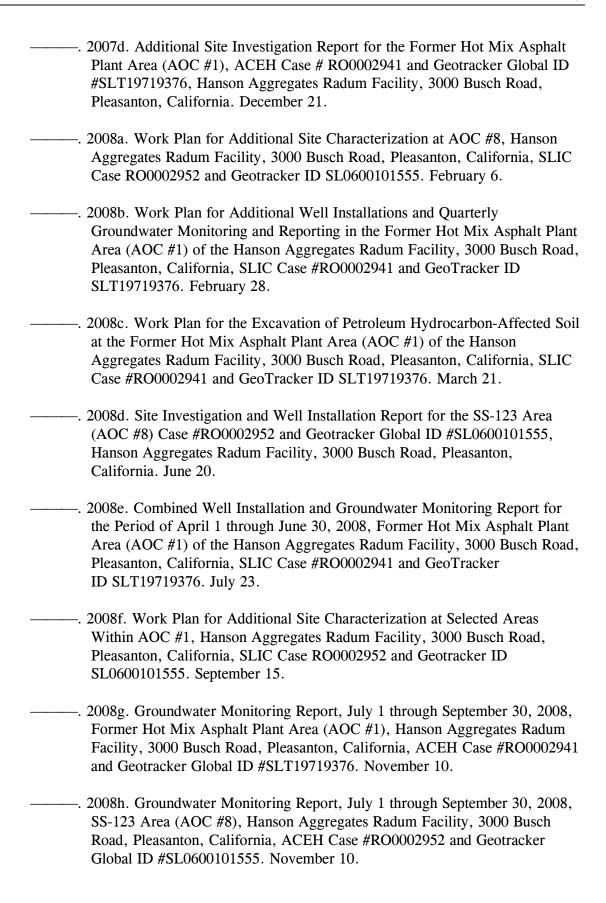
LFR, therefore, does not provide any guarantees, certifications, or warranties regarding any conclusions regarding environmental contamination of any such property. Furthermore, nothing contained in this document shall relieve any other party of its responsibility to abide by contract documents and applicable laws, codes, regulations, or standards.

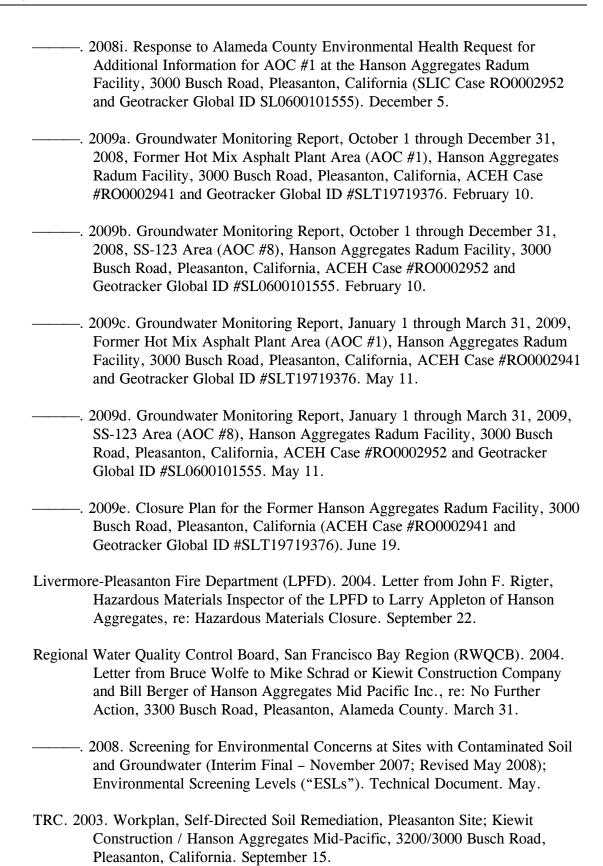
5.0 REFERENCES

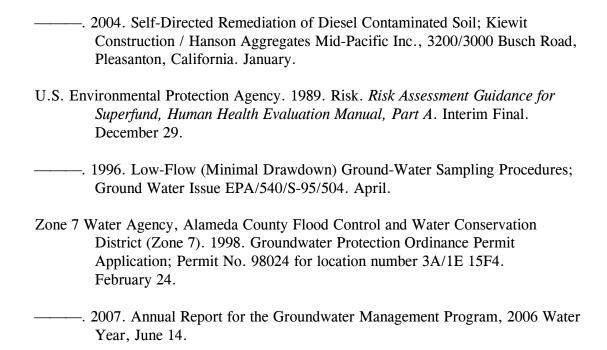


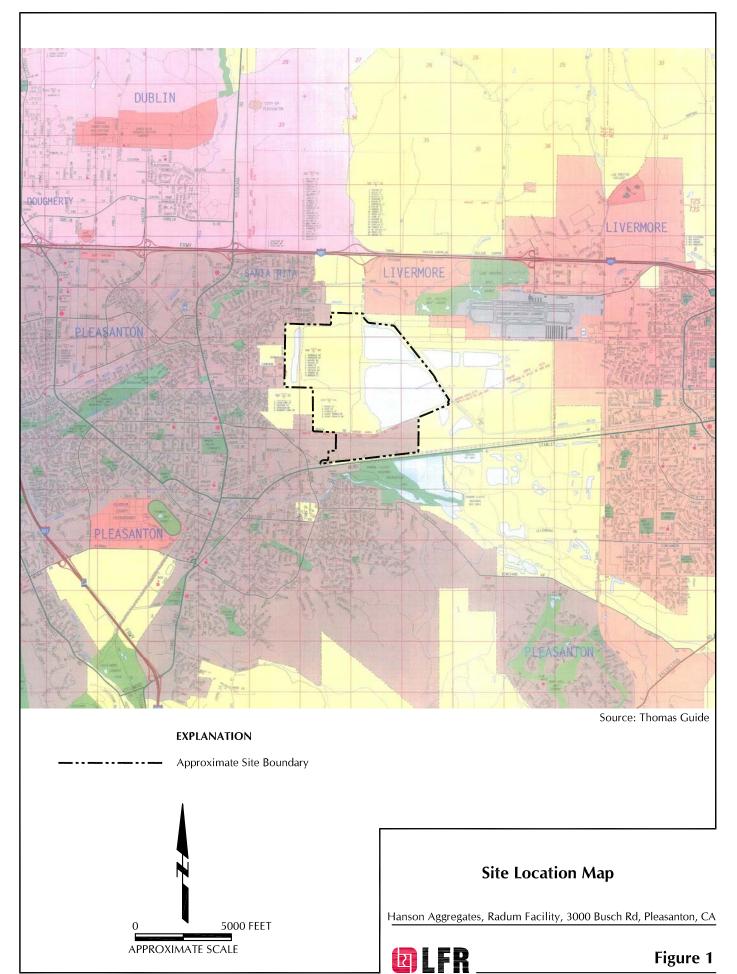


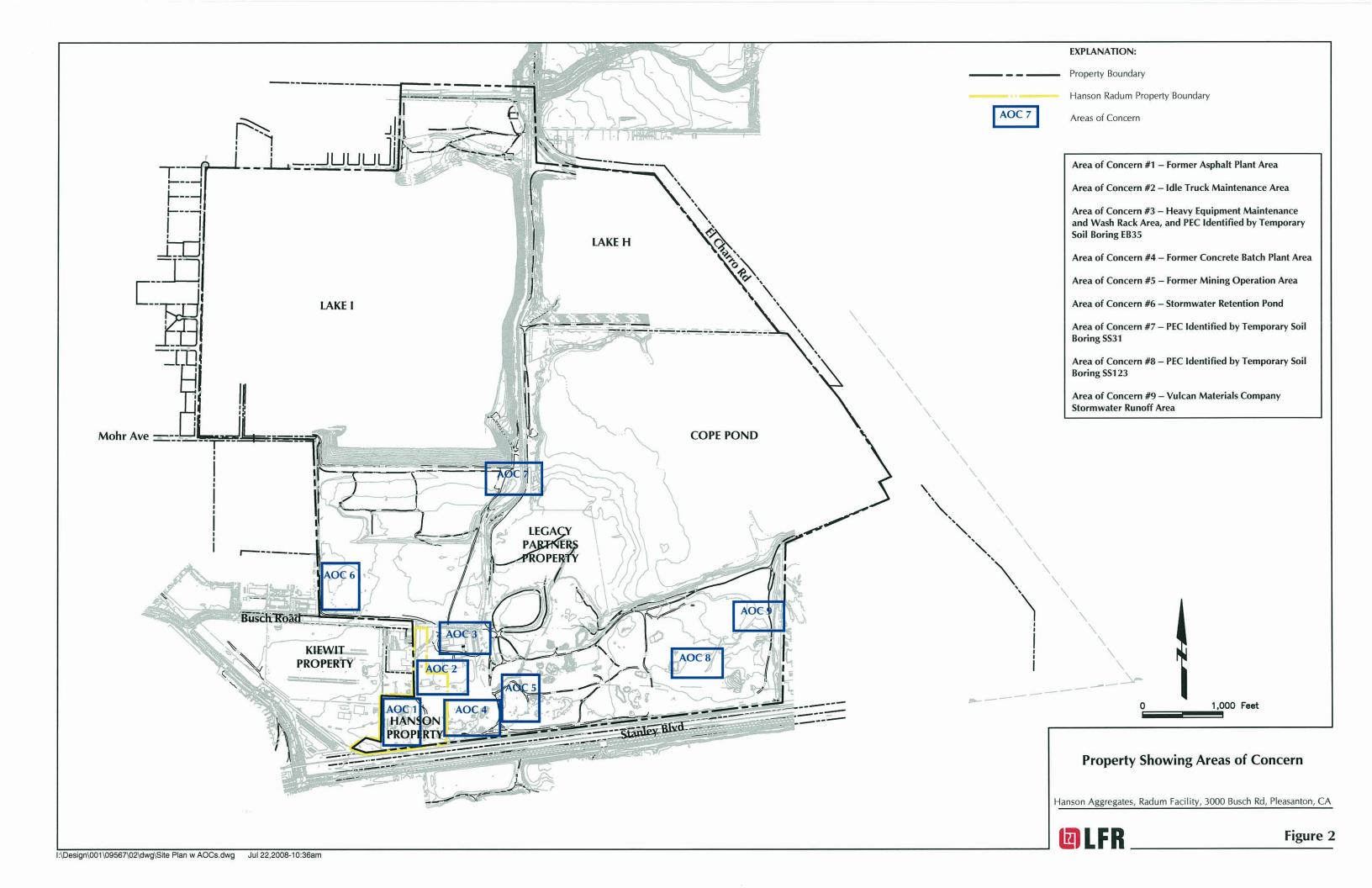


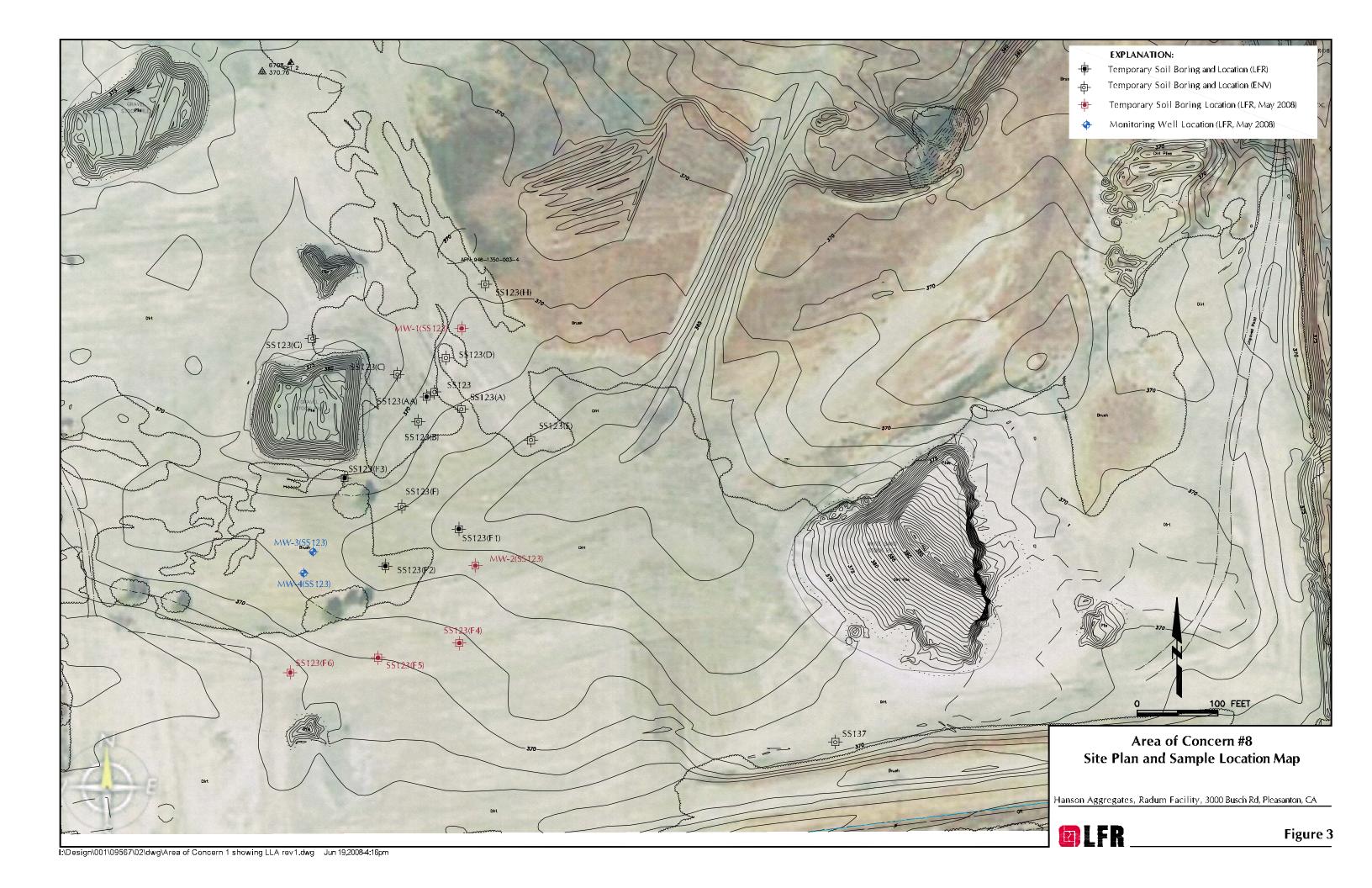












APPENDIX A

Aerial Photographs



