ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

August 8, 2013

Ms. Tina Lau
Lehigh Hanson West Region
12667 Alcosta Blvd.
San Ramon, CA 94583
(*Sent via E-mail to: Tina.Lau@heidelbergcement.com*)

Subject: Case File Review for Fuel Leak Case No. RO0000207 and GeoTracker Global ID T0600102092, Mission Valley Rock and Asphalt, 7999 Athenour Way, Sunol, CA 94586

Dear Ms. Lau:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file for the above-referenced site including the recently submitted documents entitled, "*Covenant and Environmental Restriction on Property,"* dated May 14, 2013 (Covenant) and "*Soil and Groundwater Site Management Plan,"* dated May 14, 2013 (SMP). Both documents were submitted on your behalf by ARCADIS. The covenant will be recorded with the deed for the property. The SMP describes restrictions and procedures for managing residual contamination.

Based on our review, both the Covenant and SMP require some modifications and clarifications. Therefore, we request that you address the technical comments below and submitted revised versions of the Covenant and SMP no later than October 4, 2013.

TECHNICAL COMMENTS ON COVENANT

1. **Modifications to Covenant and Environmental Restriction on Property.** We have provided a strikeout version of the Covenant that includes specific requested modifications to the Covenant as an attachment to this correspondence. An electronic version of the requested modifications will also be provided.

2. **Exhibit A of Covenant and Environmental Restriction on Property.** A site plan by itself with proposed boundaries will not be sufficient to define the Burdened Property. ACEH is willing to consider applying the Covenant and Environmental Restriction to a portion of the property parcel. However, Exhibit A must include a legal description of the area that defines the Burdened Property. Please include the legal description in the revised Covenant requested below.

TECHNICAL COMMENTS ON SMP

3. **Site Management Plan.** We have provided a strikeout version of the SMP that includes specific requested modifications to the SMP as an attachment to this correspondence. An electronic version of the requested modifications will also be provided. If you do not receive an electronic copy, please request one by sending an email to jerry.wickham@acgov.org

4. **Reference to Site and Burdened Property.** For consistency with the Covenant, we recommend that the area on Figure 2 that is subject to conditions of the SMP be referred to only as the Burdened Property. In the current version of the SMP, the term Site is currently used to refer to both the Burdened Property and other areas of the facility. The use of a single term throughout the document will make the SMP clearer. We have made this modification in the strikeout version discussed in technical comment 3.

TECHNICAL REPORT REQUEST

Please upload technical reports to the ACEH ftp site (Attention: Jerry Wickham), and to the State Water Resources Control Board's GeoTracker website according to the following schedule and file-naming convention:

- **October 4, 2013** – Draft Final Site Management Plan
  File to be named: SITE_MANAGE_R_yyyy-mm-dd RO207

- **October 4, 2013** – Draft Final Covenant and Environmental Restriction on Property
  File to be named: DEED_L_yyyy-mm-dd RO207

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

If you have any questions, please call me at (510) 567-6721 or send me an electronic mail message at donna.drogos@acgov.org. Case files can be reviewed online at the following website: http://www.acgov.org/aceh/index.htm.

Sincerely,

Digitally signed by Jerry Wickham
DN: cn=Jerry Wickham, o=Alameda County Environmental Health, ou, email=jerry.wickham@acgov.org, c=US
Date: 2013.08.08 16:07:54 -07'00'

Jerry Wickham, California PG 3766, CEG 1177, and CHG 297
Senior Hazardous Materials Specialist

Attachments: Strikeout Changes to Draft Covenant and Environmental Restriction on Property
Strikeout Changes to Draft SMP
Responsible Party(ies) Legal Requirements/Obligations

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Colleen Winey (QIC 8021), Zone 7 Water Agency, 100 North Canyons Pkwy, Livermore, CA 94551 (*Sent via E-mail to: cwiney@zone7water.com*)

Ron Goloubow, ARCADIS, 1900 Powell Street, 12th Floor, Emeryville, CA 94608-1827 (*Sent via E-mail to: Ron.Goloubow@arcadis-us.com*)

Fred Stanin, Malcolm Pirnie, 1900 Powell Street, Suite 1180, Emeryville, CA 94608-1827 (*Sent via E-mail to: fstanin@pirnie.com*)

Jennifer Nyman, Malcolm Pirnie, 1900 Powell Street, Suite 1180, Emeryville, CA 94608-1827 (*Sent via E-mail to: jnyman@pirnie.com*)

Tona Henninger, Alameda County Planning Department (*Sent via E-mail to: tona.henninger@acgov.org*)

Brooks Loeffler, (*Sent via E-mail to: brooksnsue@yahoo.com*)

Donna Drogos, ACEH (*Sent via E-mail to: donna.drogos@acgov.org*)
Jerry Wickham, ACEH (*Sent via E-mail to: jerry.wickham@acgov.org*)

GeoTracker, eFile

Recording Requested By:

~~[CURRENT OWNER]~~

Hanson Aggregates Mid-Pacific, Inc.
12667 Alcosta Blvd Suite 400
San Ramon, CA 94583

When Recorded, Mail To:
Ariu Levi, Director
Alameda County Environmental Health Services
1131 Harbor Bay Parkway
Alameda, California 94502

COVENANT AND ENVIRONMENTAL RESTRICTION
ON PROPERTY

~~[NAME OF SITE and ADDRESS OF PROPERTY]~~

MISSION VALLEY ROCK AND ASPHALT PLANT
7999 ATHENOUR WAY
SUNOL, CALIFORNIA

This Covenant and Environmental Restriction on Property (this "Covenant") is made as of the ____ day of _____, 20__ by ~~[CURRENT OWNER/S]~~Hanson Aggregates Mid-Pacific, Inc. ("Covenantor") who is the Owner of record of that certain property situated at ~~(address)~~ 7999 Athenour Way (the Mission Valley Rock and Asphalt Plant), in the ~~City of _____~~, ~~Sunol,~~ County of ~~_____~~, Alameda, State of California~~, which is~~. A portion of the asphalt plant at the Mission Valley Rock and Asphalt Plant, more particularly described~~described~~~~illustrated~~ in Exhibit A attached hereto, and incorporated herein by this reference (such portion hereinafter referred to as the "Burdened Property"), for the benefit of the Alameda County Environmental Health Services (the "County"), with reference to the following facts:

A. The ~~Burdened Property~~soil and groundwater underlying ~~portions of~~ the ~~property~~Burdened Property contains hazardous materials~~.~~ and is subject to the Soil and Groundwater Site Management Plan (SMP). The SMP is included as Exhibit B attached hereto and incorporated herein by this reference and provides the following information regarding the Burdened Property:

1. Operational background
2. Summary of remedial actions and current environmental conditions

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3. Summary of human health risks
4. Institutional controls
5. Specific controls on the use of groundwater
6. Requirement for ACEH notification and approval of subsurface activities that will encounter residual contamination
7. Requirement for a health and safety plan for all subsurface work
8. Protocols for excavation, grading and management of excavated materials
9. Periodic inspection
10. Contingency plan for discovery of unknown features of environmental concern

B. Contamination of the Burdened Property. Soil at the Burdened Property was contaminated by ~~[BRIEFLY DESCRIBE OPERATIONS THAT CAUSED CONTAMINATION] conducted by _____~~ releases of fuel from underground storage tanks (USTs) and/or the operation of the Burdened Property as an asphalt batch plant that was owned and operated by the Mission Valley Rock Company, since the 1950s. These operations resulted in contamination of ~~[SOIL AND/OR GROUNDWATER]~~ soil and groundwater with ~~[INORGANIC AND/OR ORGANIC]~~organic chemicals including _____~~, diesel range total~~ petroleum hydrocarbons ~~(TPHd)~~ and methyl-tert-butyl ether (MTBE) detected in soil and groundwater samples which constitute hazardous materials as that term is defined in Health & Safety Code Section 25260. ~~[BRIEFLY DESCRIBE REMEDIATION AND CONTROLS IMPLEMENTED].~~

Several investigations have been conducted since 1996. ~~As described in detail in the SMP, a successful pilot test of air sparging was conducted pursuant to the request of the Alameda County Health Services (ACEH).~~ A full-scale air injection system was ~~then~~ installed in March 2009 and operated from April 6, 2009 to July 15, 2010 to enhance the natural biodegradation of petroleum hydrocarbons in groundwater in the vicinity of well cluster MW-9. The results of groundwater monitoring conducted until September 2010 indicated that the air injection system had been effective in reducing concentrations of petroleum constituents in groundwater in the area of well cluster MW-9 and that residual petroleum constituents in groundwater are present within the various vertical portions of the aquifer north of the asphalt plant, in the vicinity of the cluster of former gasoline and diesel USTs. Subsequent further investigations found residual highly weathered diesel in light non-aqueous phase liquid (LNAPL) in the subsurface. The results of investigation suggested the nature of the LNAPL is a highly-weathered diesel with limited transmissivity (i.e., not mobile). ~~and is expected to further decrease with time and remain where it is currently located. The former USTs are considered the source of these residual concentrations and there is no indication of an ongoing source of contamination in the subsurface. Furthermore, the site characterization data indicate that the residual contamination is degrading by natural attenuation mechanisms.~~

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C. Exposure Pathways. The ~~residual concentrations of~~ contaminants addressed in this Covenant are present in ~~[SOIL AND/OR GROUNDWATER] on~~soil and groundwater in the subsurface at the Burdened Property. Without the mitigation measures which have been

performed ~~on~~at the Burdened Property and following the procedures provided in the SMP, exposure to these contaminants could take place via ~~[LIST AS APPROPRIATE: IN PLACE CONTACT, SURFACE WATER RUNOFF, AND WIND DISPERSAL, RESULTING IN DERMAL CONTACT, INHALATION, OR INGESTION BY HUMANS, ETC.].~~ ingestion, inhalation, or dermal contact with soil; inhalation of ambient air; and ingestion, inhalation, or dermal contact with groundwater. Releases from the former USTs and historical operations have resulted in residual concentrations of petroleum constituents in soil, soil gas, and groundwater that could result in a risk to human health. Potential receptors include workers and visitors, including contractors.

The risk of public exposure to the contaminants has been substantially lessened by the remediation and controls described herein and the SMP.

D. Adjacent Land Uses and Population Potentially Affected. The Burdened Property is used for ~~commercial and is adjacent to [LIST AS APPROPRIATE: INDUSTRIAL, COMMERCIAL, RESIDENTIAL]~~industrial land uses and is adjacent to commercial, industrial, and agricultural land uses.

E. Full and voluntary disclosure to the County of the presence of hazardous materials on the Burdened Property has been made and extensive sampling of the Burdened Property has been conducted.

F. Covenantor desires and intends that in order to benefit the County, and to protect the present and future public health and safety, the Burdened Property shall be used in such a manner as to avoid potential harm to persons or property that may result from hazardous materials that may have been deposited on portions of the Burdened Property.

ARTICLE I
GENERAL PROVISIONS

1.1 Provisions to Run with the Land. This Covenant sets forth protective provisions, covenants, conditions and restrictions (collectively referred to as "Restrictions") upon and subject to which the Burdened Property and every portion thereof shall be improved, held, used, occupied, leased, sold, hypothecated, encumbered, and/or conveyed. The restrictions set forth in Article III are reasonably necessary to protect present and future human health and safety or the environment as a result of the presence on the land of hazardous materials. Each and all of the Restrictions shall run with the land, and pass with each and every portion of the Burdened Property, and shall apply to, inure to the benefit of, and bind the respective successors in interest thereof, for the benefit of the County and all Owners and Occupants. Each and all of the Restrictions are imposed upon the entire Burdened Property unless expressly stated as applicable to a specific portion of the Burdened Property. Each and all of the Restrictions run with the land pursuant to section 1471 of the Civil Code. Each and all of the Restrictions are enforceable by the County.

1.2 Concurrence of Owners and Lessees Presumed. All purchasers, lessees, or possessors of

any portion of the Burdened Property shall be deemed by their purchase, leasing, or possession of such Burdened Property, to be in accord with the foregoing and to agree for and among themselves, their heirs, successors, and assignees, and the agents, employees, and lessees of such owners, heirs, successors, and assignees, that the Restrictions as herein established must be adhered to for the benefit of the County and the Owners and Occupants of the Burdened Property and that the interest of the Owners and Occupants of the Burdened Property shall be subject to the Restrictions contained herein.

1.3 Incorporation into Deeds and Leases. Covenantor desires and covenants that the Restrictions set out herein shall be incorporated in and attached to each and all deeds and leases of any portion of the Burdened Property. Recordation of this Covenant shall be deemed binding on all successors, assigns, and lessees, regardless of whether a copy of this Covenant and Agreement has been attached to or incorporated into any given deed or lease.

1.4 Purpose. It is the purpose of this instrument to convey to the County real property rights, which will run with the land, to facilitate the remediation of past environmental contamination and to protect human health and the environment by reducing the risk of exposure to residual hazardous materials.

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ARTICLE II
DEFINITIONS

2.1 County. "County" shall mean the Alameda County Environmental Health Services and shall include its successor agencies, if any.

2.2 Improvements. "Improvements" shall mean all buildings, roads, driveways, regradings, and paved parking areas, constructed or placed upon any portion of the Burdened Property.

2.3 Occupants. "Occupants" shall mean Owners and those persons entitled by ownership, leasehold, or other legal relationship to the exclusive right to use and/or occupy all or any portion of the Burdened Property.

2.4 Owner or Owners. "Owner" or "Owners" shall mean the Covenantor and/or its successors in interest, who hold title to all or any portion of the Burdened Property.

ARTICLE III
DEVELOPMENT, USE AND CONVEYANCE OF THE BURDENED PROPERTY

3.1 Restrictions on Development and Use. Covenantor promises to restrict the use of the Burdened Property as follows:

~~[INCLUDE THE FOLLOWING PROVISIONS, A-I, IF APPROPRIATE]:~~

a. Development of the Burdened Property shall be restricted to industrial, commercial or office space;

b. No residence for human habitation shall be permitted on the Burdened Property;

c. No hospitals shall be permitted on the Burdened Property;

d. No schools for persons under 21 years of age shall be permitted on the Burdened Property;

e. No day care centers for children or day care centers for Senior Citizens shall be permitted on the Burdened Property;

f. No Owners or Occupants of the Property or any portion thereof shall conduct any excavation work on the Property, unless expressly permitted in writing by the County~~. Or~~ and in accordance with the SMP. Any contaminated soils brought to the surface by grading, excavation, trenching, or backfilling shall be managed by Covenantor or his agent, or successor owners or occupants, in ~~in~~ accordance with the SMP and all applicable provisions of local, state and federal law;

~~g. All uses and development of the Burdened Property shall be consistent with any~~

~~applicable County Cleanup Order or Risk Management Plan, each of which is hereby incorporated by reference including future amendments thereto. All uses and development shall preserve the integrity of any cap, any remedial measures taken or remedial equipment installed, and any groundwater monitoring system installed on the Burdened Property pursuant to the requirements of the County, unless otherwise expressly permitted in writing by the County.~~

~~h~~

g. All uses and development of the Burdened Property shall be consistent with the SMP which is hereby incorporated by reference.

h. No Owners or Occupants of the Burdened Property or any portion thereof shall drill, bore, ~~-~~otherwise construct, or use a well for the purpose of extracting water for any use, including but not limited to domestic, potable, irrigation, or industrial uses~~any use, including but not limited to, domestic, potable, or industrial uses~~~~human consumption~~, unless expressly permitted in writing by the County. Further restrictions for well installation are described in the ~~; or in writing by~~accordance with ~~the County~~SMP.

~~i. The Owner shall notify the County of each of the following: (1) The type, cause, location and date of any disturbance to any cap, any remedial measures taken or remedial equipment installed, and of the groundwater monitoring system installed on the Burdened Property pursuant to the requirements of the County, which could affect the ability of such cap or remedial measures, remedial equipment, or monitoring system to perform their respective functions and (2) the type and date of repair of such disturbance. Notification to the County shall be made by registered mail within ten (10) working days of both the discovery of such disturbance and the completion of repairs;~~

~~j~~i~~h~~. The Covenantor agrees that the County, and/or any persons acting pursuant to County cleanup orders, shall have reasonable access to the Burdened Property for the purposes of inspection, surveillance, maintenance, or monitoring, as provided for in Division 7 of the Water Code.

~~k~~i~~j~~. No Owner or Occupant of the Burdened Property shall act in any manner that will aggravate or contribute to the existing environmental conditions of the Burdened Property. All use and development of the Burdened Property shall preserve the integrity of any capped areas.

~~l~~j~~k~~. No Owner or User of the Burdened Property shall grow fruits or vegetables for consumption using site soils. Gardening on the Burdened Property shall only be permitted using imported soil within raised beds that do not allow direct contact between plant roots and the underlying site soil.

3.2 Enforcement. Failure of an Owner or Occupant to comply with any of the restrictions, as set forth in paragraph 3.1, shall be grounds for the County, by reason of this Covenant, to have the authority to require that the Owner modify or remove any Improvements constructed in violation of that paragraph. Violation of the Covenant shall be grounds for the County to file civil actions against the Owner as provided by law.

3.3 Notice in Agreements. After the date of recordation hereof, all Owners and Occupants shall execute a written instrument which shall accompany all purchase agreements or leases relating to the property. Any such instrument shall contain the following statement:

> The land described herein contains hazardous materials in soils and in the ground water under the property, and is subject to a deed restriction dated as of _____, 20__, and recorded on _____, 20__, in the Official Records of _____ County, California, as Document No. _____, which Covenant and Restriction imposes certain covenants, conditions, and restrictions on usage of the property described herein. This statement is not a declaration that a hazard exists.

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ARTICLE IV
VARIANCE AND TERMINATION

4.1 Variance. Any Owner or, with the Owner's consent, any Occupant of the Burdened Property or any portion thereof may apply to the County for a written variance from the provisions of this Covenant.

4.2 Termination. Any Owner or, with the Owner's consent, any Occupant of the Burdened Property or a portion thereof may apply to the County for a termination of the Restrictions as they apply to all or any portion of the Burdened Property.

4.3 Term. Unless terminated in accordance with paragraph 4.2 above, by law or otherwise, this Covenant shall continue in effect in perpetuity.

ARTICLE V
MISCELLANEOUS

5.1 No Dedication Intended. Nothing set forth herein shall be construed to be a gift or dedication, or offer of a gift or dedication, of the Burdened Property or any portion thereof to the general public.

5.2 Notices. Whenever any person gives or serves any notice, demand, or other communication with respect to this Covenant, each such notice, demand, or other communication shall be in writing and shall be deemed effective (1) when delivered, if personally delivered to the person being served or official of a government agency being served, or (2) three (3) business days after deposit in the mail if mailed by United States mail, postage paid certified, return receipt requested:

If To: "Covenantor"
~~[Owners name and address]~~

Environmental Manager
Lehigh Hanson West Region
12667 Alcosta Blvd Suite 400
San Ramon, CA 94583

If To: "County"
Alameda County Environmental Health Services
Attention: Director
1131 Harbor Bay Parkway
Alameda, California 94502

5.3 Partial Invalidity. If any portion of the Restrictions or terms set forth herein is

determined to be invalid for any reason, the remaining portion shall remain in full force and effect as if such portion had not been included herein.

5.4 Article Headings. Headings at the beginning of each numbered article of this Covenant are solely for the convenience of the parties and are not a part of the Covenant.

5.5 Recordation. This instrument shall be executed by the Covenantor and by the Director of Environmental Health Services. This instrument shall be recorded by the Covenantor in the County of _____ within ten (10) days of the date of execution.

5.6 References. All references to Code sections include successor provisions.

5.7 Construction. Any general rule of construction to the contrary notwithstanding, this instrument shall be liberally construed in favor of the Covenant to effect the purpose of this instrument and the policy and purpose of the Water Code. If any provision of this instrument is found to be ambiguous, an interpretation consistent with the purpose of this instrument that would render the provision valid shall be favored over any interpretation that would render it invalid.

IN WITNESS WHEREOF, the parties execute this Covenant as of the date set forth above.
Covenantor: _____

By: _____
Title: _____
Date: _____

Agency: Alameda County
Environmental Health Services

By:_____

Title: Director
Date:_____

STATE OF CALIFORNIA, COUNTY OF _____

On _____, before me _____, Notary Public, personally appeared

_____,

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is /are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

_____
Notary Public in and for said
County and State

STATE OF CALIFORNIA, COUNTY OF _____

On _____, before me _____, Notary Public, personally appeared

_____,

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is /are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

_____
Notary Public in and for said
County and State

EXHIBIT A

LEGAL DESCRIPTION OF PROPERTY AND~~LEGAL DESCRIPTION OF PROPERTY~~SITE PLAN

PLEASE ADD LEGAL DESCRIPTION OF THE AREA TO BE RESTRICTED

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EXHIBIT B

SOIL AND GROUNDWATER SITE MANAGEMENT PLAN

ARCADIS
Infrastructure · Water · Environment · Buildings

Imagine the result

Lehigh Hanson West Region

Soil and Groundwater Site Management Plan

Hanson Aggregates Mission Valley Rock Facility, 7999 Athenour Way
Sunol, Alameda County, California
(SLIC Case #RO0000207 and GeoTracker ID T0600102092)

May 14, 2013

ARCADIS

Caitlin Bell, P.E.
Staff Environmental Engineer

Ron Goloubow, P.G.
Principal Geologist
California Professional Geologist (8655)

Soil and Groundwater Site Management Plan

Mission Valley Rock and Asphalt Plant, 7999 Athenour Way, Sunol, California

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

Prepared by:
ARCADIS U.S., Inc.
2000 Powell Street, 7th Floor
Emeryville, California 94608
Tel 510.652.4500
Fax 510.652.4906
www.arcadis-us.com

Our Ref.:
EM009480.0016

Date:
May 14, 2013

ARCADIS

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ARCADIS

Table of Contents

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Appendices

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1. Introduction

On behalf of Lehigh Hanson West Region (Hanson), ARCADIS U.S., Inc. (ARCADIS) is submitting this Soil and Groundwater Site Management Plan (SMP) to prevent future exposure to residual contamination that remains in place following the completion of site investigation and cleanup activities at the ~~in response to comments received from Alameda County Environmental Health Services (ACEH) in a letter dated March 13, 2013 regarding the report entitled "Investigation to Assess Non-Aqueous Phase Liquid", dated February 1, 2013 (ARCADIS 2013), that was prepared for the~~ Mission Valley Rock and Asphalt Plant located at 7999 Athenour Way in Sunol, California (Figure 1). The portion of the facility that is subject to the SMP ~~(the Site)~~ is illustrated on Figure 2 and will be referred to in the remainder of this SMP as the Burdened Property. This SMP is incorporated by reference into a Covenant and Environmental Restriction on Property, which has been recorded for the Burdened Property. The SMP~~is report~~ includes the following information, per the request of the ACEH in the letter dated March 13, 2013:

1. Site background
2. Summary of remedial actions and current environmental conditions
3. Summary of human health risks
4. Institutional controls
5. Specific controls on the use of groundwater at the ~~Site~~Burdened Property
6. Requirement for ACEH notification and approval of subsurface activities that will encounter residual contamination
7. Requirement for a health and safety plan for all subsurface work
8. Protocols for excavation, grading, and management of excavated materials
9. Periodic inspection
10. Contingency plan for discovery of unknown features of environmental concern

The objective of this SMP is to provide a mechanism for continued protection of the health and safety of future Site workers and visitors due to residual contamination remaining in soil and groundwater within the Burdened Property~~during and following site construction and/or mining activities that might occur within the general area~~ (Figure 2). ~~where past unauthorized releases of liquid fuel hydrocarbons (gasoline and~~

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~~diesel) occurred, were investigated, and were remediated; residual fuel hydrocarbons in soil and groundwater~~.

1.1. Soil and Groundwater Site Management Plan Organization

The remainder of this SMP is organized as follows:

- Section 2 provides a summary of the Site background, geology, hydrogeology, environmental conditions, and historical investigations and remedial actions.
- Section 3 provides a review of the human health risks at the ~~Site~~Burdened Property.
- Section 4 provides the summary of the institutional controls being employed at the ~~Site~~Burdened Property.
- Section 5 is the management plan for soil and groundwater including notification requirements, health and safety considerations, groundwater use controls, guidance for soil management, inspection requirements, contingency plan for discovery of unknown features of environmental concern, record keeping requirements, and availability of the SMP.
- Section 6 provides cited references.

2. Site Background

The Burdened Property ~~Site~~ is located within the 588-acre Mission Valley Rock Facility previously owned by Mission Valley Rock (MVR) Company since the 1950s. Hanson purchased the property in early 2005 but retained the business and legal entity of MVR. The facility is currently operated as a sand and gravel quarry with an asphalt manufacturing facility and a ready mix concrete plant. Additionally, various areas throughout the facility~~property~~ are leased for industrial, agricultural, and storage purposes. The Burdened Property, which is the portion of the facility subject to this SMP, has been impacted by unauthorized releases of petroleum hydrocarbons from gasoline and diesel fuel underground storage tank systems.

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2.1. Geology and Hydrogeology

Sediments beneath the Site consist of approximately 5 to 20 feet of relatively low-permeability silts, clays, and clayey gravels overlying approximately 20 to 30 feet of relatively permeable fine- to coarse-grained gravels, that are considered to be the predominant water-bearing stratum. The Livermore Formation encountered at approximately 30 to 40 feet below ground surface (bgs) underlies these shallower water-bearing strata and appears to be somewhat less permeable than the overlying strata due to increased fines content.

The depth to groundwater beneath the Site typically ranges from 2 to 6 feet bgs. Groundwater flow conditions in the vicinity of the Site are influenced by low-permeability features, such as the former gravel pits filled with relatively less permeable, finer-grained sediment, and by groundwater removal from adjacent former mining pits. The local flow direction generally has been to the south, southeast, and east, as measured in site groundwater monitoring wells since approximately 1998 (Figures 3 through 5). Historically, the groundwater table likely fluctuated significantly as nearby aggregate mining pits were advanced, dewatered, and then filled with water and silt.

2.2. Environmental Conditions and Chemicals of Concern

The asphalt plant has been in operation since approximately 1980. Operations from 1980 to 1996 included two 10,000-gallon diesel fuel underground storage tanks (USTs) and one 2,000-gallon gasoline UST used to fuel company vehicles (Figure 2), all of which were removed in June 1996.

A fourth UST (10,000-gallon diesel; designated “D-4”) was located in the southeastern portion of the ~~Site~~Burdened Property and apparently was partially buried (Figure 2). UST D-4 reportedly was abandoned and removed and is not believed to have released significant quantities of petroleum hydrocarbons to the environment. A fifth UST (diesel, approximately 8,000 to 10,000 gallons) may have been located in the southern portion of the ~~Site~~Burdened Property, approximately beneath the two existing 25,000-gallon asphalt cement aboveground storage tanks (ASTs). Per an unverified account of a former Site worker, this fifth UST was used for a few years before being abandoned in place (likely filled with concrete) during the 1970s, before the asphalt plant was built. No other USTs or ASTs are reported to have existed at the ~~Site~~Burdened Property since approximately 1970. The chemicals of concern are those related to diesel and gasoline stored in the area shown in Figure 2.The existing 25,000-gallon ASTs contain asphalt cement and are not considered a potential source of the diesel-range organic

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compounds that haves been detected in groundwater samples collected from the SiteBurdened Property (Figure 2).

2.3. Investigations and Remedial Activities

Remedial actions were initiated at the SiteBurdened Property when the two 10,000-gallon diesel fuel USTs and one 2,000-gallon gasoline UST were removed in June 1996 by Tank Protect Engineering (1997). Impacted soil and groundwater were found during the UST removal. The USTs were found to be in good condition with no holes evident, although a ¼-inch-diameter hole was observed in one of the fuel lines. Several subsurface investigations have been completed by past consultants from 1996 through the present in the vicinity of the asphalt plant (Tank Protect Engineering 1997).

Several investigations have been completed at the SiteBurdened Property since 1996. The scope of these investigations included the analysis of soil and grab groundwater samples collected during the advancement of approximately 18 soil borings, and the installation and monitoring of 27 groundwater monitoring wells (currently there are 26 groundwater monitoring wells; former well MW-2 was abandoned in 2005). Groundwater monitoring wells MW-1 through MW-8 were installed as single, double, or triple completion wells where one or more wells are completed in a single boring. Well clusters MW-9 through MW-12 were installed during April and May 2006 as groups of single completion wells with well screens at three different depths. Groundwater monitoring wells at the SiteBurdened Property are designated based on their well screen depths as shallow ("S", screened approximately from 5 to 10 feet bgs), deep ("D", screened approximately between 15 and 25 feet bgs), and Livermore Formation ("LF", screened approximately from 35 to 40 feet bgs and believed to be approximately within the top 5 to 10 feet of the Livermore Formation). A summary of the construction details for each groundwater monitoring well installed, including latitudinal and longitudinal location of each well or well cluster, is included for ease of future identification of the areas of residual soil and groundwater impacts (Table 1).

The soil data collected in the vicinity of the asphalt plant indicate the presence of low concentrations (less than 1,400 milligrams per kilogram [mg/kg]) of petroleum-related constituents, specifically diesel-range total petroleum hydrocarbons (TPHd), near the former USTs (Figure 6 and Appendix A). Residual soil impacts are located in similar areas to residual groundwater impacts, as discussed below.

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2.3.1.Remedial Action

Based on the results of previous investigations and groundwater monitoring conducted at the ~~Site~~Burdened Property, ACEH concurred with LFR Inc. (LFR) in an April 27, 2007 letter that no additional characterization investigations are necessary for this Site. ACEH requested that a scope of work be submitted to implement pilot testing of the LFR proposed remedial alternative for affected groundwater in the vicinity of well cluster MW-9 (ACEH 2007a). LFR submitted a work plan on August 3, 2007 describing the scope of work to perform a pilot study to test the effectiveness of injecting air to enhance the natural biodegradation in the vicinity of well cluster MW-9 (LFR 2007b). The pilot test work plan was approved by ACEH on August 30, 2007 (ACEH 2007b), and LFR conducted the pilot test in January and February 2008.

As described in the Air Sparge Pilot Test Completion Report (LFR 2008a), results of the pilot test indicated that effective delivery of oxygen into groundwater to approximately 45 feet bgs (into the "S", "D," and "LF" groundwater depth intervals) can be achieved using a conventional air injection approach. Increases in microbial populations, oxidation-reduction potential (ORP), and dissolved oxygen (DO) concentrations, and decreases in total petroleum hydrocarbons (TPH) and TPH-related compound concentrations observed during and/or after the pilot test indicated that oxygen injection created conditions that enhanced biodegradation in the source area.

Based on the successful results of the pilot test, LFR submitted a work plan on October 3, 2008 (LFR 2008b) proposing the adoption of air injection as the remedial approach in the vicinity of monitoring well MW-9 and adoption of a monitored natural attenuation (MNA) approach for the remainder of affected groundwater. MNA was proposed as an effective remedial approach because historical groundwater data indicated attenuation mechanisms were effective at stabilizing the migration of the affected groundwater and resulted in decreasing trends in the majority of the plume. These remedial approaches were approved by ACEH in a letter dated October 24, 2008 (ACEH 2008).

A full-scale air injection system was installed in March 2009. The air injection system consisted of an air compressor and associated piping to inject compressed air through a series of regulators, filters, valves, flow meters, hoses, and eventually through the screened intervals of injection wells OXY-1D and OXY-1LF. These two wells were constructed with wells screens located somewhat deeper than well screens for wells MW-9D and MW-9LF, respectively. The air injection system was started on April 6, 2009 and operated until July 15, 2010.

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~~2.3.1.~~2.3.2 Groundwater Monitoring

As requested by ACEH, groundwater monitoring of select wells located in the vicinity of the air injection system was conducted on a quarterly basis to monitor the performance of the air injection system. Semi-annual groundwater monitoring of all ~~Site~~Burdened Property wells was conducted until September 2010. The area extent of residual petroleum hydrocarbons in groundwater in September 2010 is shown on ~~Based on the results of the periodic groundwater monitoring it was concluded that the location of residual petroleum constituents in groundwater within the various vertical portions of the aquifer is generally located north of the asphalt plant, in the vicinity of the cluster of former gasoline and diesel USTs (~~Figures 7 through 9~~)~~.

Light non-aqueous phase liquid (LNAPL) was measured in groundwater monitoring wells MW-2, MW-2S, MW-2D, MW-3, MW-9D, and MW-11D (ARCADIS 2011; ARCADIS 2012; ARCADIS 2013). LNAPL thicknesses in those wells ranged from a non-measureable sheen (less than 0.01 foot) to approximately 4 feet (well MW-2 in January 1999). However, data collected through 2010 indicated LNAPL thicknesses decreased significantly over time, and an appreciable measurable amount of LNAPL had not been measured in any wells at the ~~Site~~Burdened Property between 2002 and 2010 (ARCADIS 2011).

In response to comments provided by ACEH in a June 21, 2012 letter (and as part of the regulatory case closure process) a water level elevation survey was conducted at the ~~Site~~Burdened Property in May 2012 (ARCADIS 2012). During that water level elevation survey, approximately 0.61-foot of LNAPL was measured in well MW-11D. In addition, during two previous water level measurement events on December 24, 2010 and September 27, 2010 a “petroleum hydrocarbon-like liquid,” was observed on the water level probe; however, LNAPL thickness was not measured using an interface probe (ARCADIS 2011). As a result of the measurement of the LNAPL at well MW-11D, in a letter dated June 21, 2012 the ACEH requested an additional investigation to assess the vertical extent of the LNAPL and the properties of the LNAPL.

~~2.3.2.~~2.3.3 LNAPL Investigation

From December 2012 through January 2013, ARCADIS conducted a series of investigations to determine the characteristics of the LNAPL in MW-11D, including a bail down test to determine the transmissivity of the LNAPL, characterization of a sample of the LNAPL, and a cone penetrometer test/laser induced fluorescence

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(CPT/LIF) investigation to determine the vertical extent of the LNAPL in the vicinity of monitoring well MW-11D (ARCADIS 2013). The results of these activities suggested the nature of the LNAPL is a highly-weathered diesel with limited transmissivity (i.e., not mobile). Based on the high degree of microbial degradation identified within the LNAPL, it was concluded that the original release of LNAPL occurred in the distant past. The anticipated source of the LNAPL is the former USTs; there is no indication that there is an ongoing source of LNAPL at the ~~Site~~Burdened Property. The mass of residual LNAPL remaining in the subsurface is expected to decrease with time and remain within the area it currently occupies; the residual LNAPL within the subsurface is likely immobile based on its age and the results of the bail down test. Therefore, it is not anticipated that the LNAPL will move laterally within the subsurface to impact other areas of the ~~Site~~Burdened Property.

The results of the LIF investigation indicate the vertical extent of potentially petroleum-impacted soil within this area is approximately 18 feet thick. The screen interval of monitoring well MW-11D lies within this vertical interval; therefore, it is not anticipated that LNAPL within MW-11D will move vertically to impact a new area. The integrity of monitoring well MW-11D remains intact so further migration of LNAPL through cracks or other imperfections in the well construction of MW-11D is not anticipated.

~~3.~~3 Summary of Human Health Risks

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The following is a summary of the potential human health risks associated with the residual petroleum concentrations in the vadose zone soil, soil gas, and groundwater at the ~~Site~~Burdened Property. There are several potential exposure pathways (LFR 2007a). These include ingestion, inhalation, or dermal contact with soil; inhalation of ambient air; and ingestion, inhalation, or dermal contact with groundwater. For a potential exposure pathway to be considered a complete exposure pathway there must be a source of chemical concentrations above thresholds for risk to human health, a media through which contamination moves, and a receptor that comes into contact with the media.

The former USTs and historical operations have resulted in residual concentrations of petroleum constituents in three media: soil, soil gas, and groundwater. Potential receptors include Site workers and Site visitors, including contractors. Based on current routine Site activities that do not involve subsurface excavation, there are no completed pathways for a Site worker or visitor in the area outlined in Figure 2 to contact with any of the media identified above. However, there is a potential for future exposure to residual contamination f~~F~~or human receptors involved in excavation or

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construction activities ~~involving soil removal, there are no complete pathways for contaminated groundwater and soil gas but potentially completed pathways for contaminated soil~~. Section 5 of this SMP identifies management protocols to minimize potential exposure.

~~3.1.~~3.3 Soil

Petroleum-affected vadose zone soil is generally located in the vicinity of the former USTs and asphalt plant (Figure 6). During historical investigation activities, petroleum-related constituents were detected in soil samples collected within the vadose zone (taken as the top 5 feet of soil) at concentrations ranging from 0.0043 mg/kg benzene at the soil boring associated with monitoring wells MW-5S and MW-5D to 1,400 mg/kg TPHd at soil boring TB-6. These values represent the highest concentrations of petroleum constituents detected within the top 5 feet of soil. Many of these detected values were above the applicable 2013 Tier 1 Environmental Screening Levels (ESLs) put forth by the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) for commercial land use soils that are less than 3 meters bgs in an area where the groundwater is considered a current or potential drinking water source.

Potential exposure pathways for Site workers and Site visitors or contractors to shallow soil contamination include ingestion, inhalation, or dermal contact of affected media. Based on routine Site operations and the institutional controls described in Section 4 below, these potential exposure pathways are not anticipated to be completed. Section 4 and Section 5 of this SMP detail the actions to be taken to prevent~~eliminate~~ human exposure to petroleum-related constituents in soil while performing routine and infrequent subsurface activities at the ~~Site~~Burdened Property.

~~3.2.~~3.4 Soil Gas

Based on the analytical results for soil gas samples collected between February 2008 and December 2010 (LFR 2010), historical concentrations of petroleum constituents in soil gas ranged from 6 micrograms per cubic meter ($\mu g/m^3$) of toluene in SG-3 to 550,000 $\mu g/m^3$ of gasoline-range total petroleum hydrocarbons (TPHg) in samples collected from soil gas point SG-4. These concentrations were detected during the air injection pilot study, as well as during operation of the full air injection system. There were no soil gas concentrations detected above the applicable 2013 Tier 1 ESLs to screen for vapor intrusion concerns for commercial/industrial land use (Table 2). The protocols detailed in Section 4 and Section 5 for management of affected soil are also designed to detect and eliminate human exposure to petroleum-related constituents in

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soil gas while performing routine and infrequent subsurface activities at the ~~Site~~Burdened Property.

~~3.3.~~3.5 Groundwater

Petroleum-affected groundwater is generally located in the vicinity of the former USTs (Figures 7 through 9). The horizontal extent of groundwater impacts varies with vertical depth, with the largest extent within the deeper aquifer zone and the smallest extent within the Livermore Formation. TPHg detected in groundwater samples collected in September 2010 ranged from 50 micrograms per liter (µg/L) at monitoring well MW-2D to 13,000 µg/L at monitoring well MW-7D (see Figure 8). Similarly, TPHd detected in groundwater samples collected in the most recent groundwater sampling event (September 2010) ranged from 51 µg/L at monitoring well MW-5D to 47,000 µg/L at monitoring well MW-11D (see Figure 8). Lastly, methyl-tert-butyl ether (MTBE) detected in groundwater samples collected in September 2010 ranged from 0.61 µg/L at monitoring well MW-12LF to 110 µg/L at monitoring well MW-11LF. Many of these groundwater concentrations of TPHg, TPHd, and MTBE were detected above the applicable Tier 1 ESLs for groundwater that is a current or potential drinking water source. These ESLs for TPHg, TPHd, and MTBE are 100 µg/L, 100 µg/L, and 5 µg/L, respectively.

Potential exposure pathways for Site workers and Site visitors or contractors include ingestion, inhalation, or dermal contact of the affected groundwater. Based on the current land use, routine Site operations, current water supply sources, and the institutional controls described below, these potential exposure pathways are not considered complete. Section 4 and Section 5 of this SMP detail the actions to be taken to eliminate human exposure to petroleum-related constituents in groundwater when performing routine and infrequent subsurface activities. The extent of impacted groundwater has been demonstrated to be stable in size and is anticipated to remain within the area identified in Figure 2.

~~4.~~4 Summary of Institutional Controls

Institutional controls include administrative and legal controls to limit human contact with residual contamination in soil and groundwater remaining within the Burdened Propterty ~~area~~ identified on Figure 2. A~~s requested by the ACEH, a~~ Covenant and Environmental Restriction on Property (Covenant) has been recorded for the Burdened Property which is ~~is required for the remaining impacted soil and groundwater~~ identified on Figure 2. The~~is~~ Covenant and this SMP~~will~~ limit the land use within ~~at~~ the

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area identified in Figure 2 to industrial, commercial, or office space. However, notification and approval by ACEH is required prior to excavation or subsurface disturbance during construction. A~~While a~~gricultural use of the land to grow any type of food for human consumption is not allowed. However ~~will be limited by the Covenant~~, use of the land for cattle grazing, or other livestock grazing, is permitted. This is due to the limited root depth necessary for grass growth and the associated limited human interaction with the impacted soils. No residence or human habitation, hospital, school for persons under 21 years of age, day care centers for children or seniors, or gardening will be permitted under the Covenant.

The Covenant and this SMP ~~will~~ also restrict the use of groundwater at the ~~Site~~Burdened Property. No water supply wells are to be installed within the Burdened Property unless approved in writing by ACEH. ~~Groundwater at the Site will not be developed as a drinking water source. Due to the nature of mining operations, provision for use of groundwater at the Site for industrial purpos~~purpose Furthermore, water wells are not to be installed ~~es will be allowed. However, use of groundwater for industrial purposes will not be allowed~~ within 1,000 feet in any direction from the area outlined as the Burdened Property~~area of identified~~ on Figure 2. Water supply wells may be installed at the Mission Valley Rock facility at a distance of more than 1,000 feet from the Burdened Property without prior approval of ACEH. ~~If an industrial groundwater supply well is installed at the Site, the horizontal and vertical location of the groundwater extraction point will be situated so as not to capture petroleum-affected groundwater from the impacted area. For example, a future industrial groundwater supply well may be located hydraulically upgradient from the identified impacted area, screened at a depth below the documented petroleum impacts, or located on a different portion of the Site where the extraction radius of influence will not capture the impacted groundwater~~.

Additionally, ~~any~~ activities that cause a disturbance to soil or groundwater within the Burdened Property are not be conducted without the approval of ACEH~~area illustrated on Figure 2 shall be made known to the ACEH~~ and are to be performed in accordance with the requirements set forth in this SMP. ~~The existence of, and content of, this SMP will be included in the Covenant in an effort to communicate the information contained herein to those individuals who may perform subsurface activities that will encounter residual contamination.~~

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~~5.~~5 Soil and Groundwater Site Management Plan

The following specifies the general procedures for notifications and approvals, health and safety requirements, and handling, moving, storing, and reusing or disposing of soil and groundwater that may be encountered during routine or infrequent subsurface activities conducted at the Burdened Property.~~Site within the area illustrated on Figure 2~~. Activities that may cause soil or groundwater disturbance at the ~~Site~~Burdened Property include, but are not limited to, the following:

- grading,
- removing/installing underground utilities and utility pipeline repair activities,
- installing foundations,
- mining operations,
- and performing other construction activities.

~~5.1.~~5.3 Notification and Approval Requirements

Prior to the commencement of subsurface activities listed above that are proposed to take place within the area illustrated on Figure 2, a work plan detailing the scope of the activities and compliance with this SMP will be prepared and submitted to the ACEH for review and approval. After approval is obtained from ACEH the subsurface activities at the ~~Site~~Burdened Property may be initiated.

~~5.2.~~5.4 Health and Safety Requirements

Subsurface activities that may involve contact with impacted soil or groundwater at the ~~Site~~Burdened Property within the area illustrated on Figure 2 are subject to the provisions specified in this SMP. Personnel at the ~~Site~~Burdened Property who handle, or have the potential to come in contact with, potentially contaminated soil or groundwater shall have the appropriate health and safety training and wear the appropriate personal protective equipment.

Subsurface activities conducted at the ~~Site~~Burdened Property within the area illustrated on Figure 2 must be in compliance with applicable rules and regulations governed by the California Division of Occupational Safety and Health (Cal/OSHA), even if not

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expressly noted in this SMP. A project-specific health and safety plan shall be prepared prior to initiating subsurface construction work at the ~~Site~~Burdened Property.

~~5.3.~~5.5 Groundwater Use Controls

Residual concentrations of petroleum-related compounds remain within the groundwater at the ~~Site~~Burdened Property. As shown~~Based~~ on Figures 7 through 9, remaining concentrations are present at various magnitudes at different depths. During current standard operations, Site workers or contractors are not expected to encounter impacted groundwater. ~~Additional groundwater use controls will be implemented to limit potential human exposure to impacted groundwater. Specifically, the Covenant will explicitly state that groundwater within the area identified on Figure 2 will not be developed for human consumption. This will adequately eliminate the potential for human ingestion of groundwater, as well as dermal contact and inhalation of vapors from groundwater.~~

Current water usage at the facility is primarily for dust control and aggregate washing. The water is comprised primarily of recycled wash water and collected storm water run-off. As needed, the recycled water system is supplemented with water pumped from containment ponds approximately 2,200 feet north of the area outlined in Figure 2.

Water supply wells are not to be installed within the Burdened Property unless approved in writing by ACEH. ~~Should Hanson want to install a w~~Water supply wells for industrial/mining uses may be installed outside the Burdened Property at the MVR facility provided they meet the following conditions: ~~at the Site the following parameters regarding the location and depth of the well would be required:~~

- The water supply well will be located a minimum of approximately 1,000 feet away (in all directions) from the perimeter of the Burdened Property~~area~~ illustrated on Figure 2.
- The minimum depth of the seal of an industrial water supply well must be located 50 feet bgs per the guidance from the Department of Water Resources California Well Standards.

~~5.4.~~5.6 Potential Future Mining Development

Per the nature of mining operations at the facility, there is the potential to mine the Burdened Property~~area~~ illustrated on Figure 2 in the future. Prior to initiating mining

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activities, a plan describing the scope of activities and compliance with the SMP is to be submitted to ACEH for review and approval. ~~In the event that the entirety of the area identified in Figure 2, or any part of that area, becomes part of mining operations that result in the excavation of subsurface materials (soil or groundwater), the procedures in Section 5.5. will be followed to limit the potential for Site workers to be exposed to petroleum constituents as well as to determine appropriate handling and disposal methods.~~

~~5.5.~~5.7 Soil and Groundwater Management During Subsurface Activities

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Subsurface activities that may occur ~~at the Site~~ within ~~the~~ the Burdened Property~~impacted area~~ identified in Figure 2 include soil or groundwater removal as part of potential future mining operations, and infrequent subsurface intrusions, such as accessing underground utilities. The soil and groundwater management protocols detailed in this section will be followed during these types of subsurface activities~~, but are not needed during current routine mining operations that are being conducted in other areas of the facility beyond the area shown on Figure 2~~. The protocols described herein may be modified as appropriate if additional site characterization is performed prior to initiation of potential future mining operations or subsurface intrusions. The SMP applies to the Burdened Property but does not apply to mining activities conducted elsewhere on the MVR facility.

~~5.5.1.~~5.7.2 Soil Management Procedures

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Within the Burdened Property~~area~~ shown on Figure 2, excavated soil will be inspected for visual/olfactory evidence of impacts. If potentially-impacted soil (e.g., soil exhibiting discoloration, oily liquids, a petroleum odor, or other signs of contamination from petroleum fuels) is observed, the following actions shall be taken:

- Stockpile potentially-impacted soil separately on polyethylene sheeting and in accordance with this SMP;
- Screen the stockpiled potentially-impacted soil with a photoionization detector (PID), if appropriate;
- Characterize the stockpiled soils as specified below, and appropriately dispose of stockpiled soil at an appropriately licensed facility or suitable end use (e.g., reuse on a portion of the facility); and,
- Document and report the discovery of the apparently impacted soil as required to the appropriate jurisdictional agency.

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Potentially-impacted soil generated from excavation activities will be stockpiled on-site. The stockpiles will be placed on, and covered with, polyethylene sheeting to provide separation and to prevent off-site soil migration due to wind and water erosion. In addition, a berm made of hay bales or another accepted material will be placed around each stockpile to limit potential runoff from the stockpile.

Dust control measures will be used during excavation activities such that no visible dust migration is observed. Typically, misting with water can be used to control dust emissions. Mitigation procedures to prevent wind erosion of an active stockpile will include applying sufficient water, or other accepted material, to keep the soil slightly damp, but not so much water to create runoff from oversaturation. Stockpiles will not be piled excessively high to further prevent airborne transport of stockpiled material.

Should odor issues be identified by Site workers or contractors during subsurface activities, personnel shall have appropriate health and safety training, wear the appropriate personal protective equipment, and field instruments shall be used to screen for the presence of VOCs within the breathing zone as appropriate. Should the detected concentrations of specific VOCs identified as part of a health and safety plan exceed the identified action levels, subsurface activities will be stopped and the mitigation measures identified within the health and safety plan will be performed.

Soils will be adequately sampled and characterized/profiled per the disposal facility requirements in the event that off-site disposal is selected as the method of final disposition of the soils. ~~These typically conform to the sampling frequencies provided in the California Department of Toxic Substances Control (DTSC) *Information Advisory – Clean Import Fill Material* (DTSC 2001) as follows:~~

- ~~Up to 1,000 cubic yards – one (1) sample per 250 cubic yards~~
- ~~1,000 to 5,000 cubic yards – four (4) samples for the first 1,000 cubic yards plus one (1) sample for each additional 500 cubic yards~~
- ~~Greater than 5,000 cubic yards – 12 samples for the first 5,000 cubic yards plus one (1) sample for each additional 1,000 cubic yards~~

Soils identified for transportation and off-site disposal should be profiled, either in-place or from the stockpile.

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~~5.5.2.~~5.7.3 Groundwater Management Procedures

If groundwater is encountered during subsurface activities, or if dewatering is necessary, the following procedures should be followed. Field instruments shall be used to screen for the presence of volatile organic compounds (VOCs) within the breathing zone of Site workers and contractors. Groundwater produced during dewatering activities may be treated to remove sediment and/or dissolved fuel hydrocarbons and related constituents and discharged to a sanitary sewer in accordance with applicable permits from the appropriate regulatory agencies. Alternatively, groundwater may be collected, removed from the ~~Site~~Burdened Property, and disposed of appropriately. Both potential means of disposal may require collection and analysis of the groundwater for petroleum-related constituents to ensure compliance with the applicable permits. Groundwater shall not be used for dust control, either during routine operations or infrequent activities, unless groundwater analyses indicate concentrations of petroleum-related constituents are below analytical laboratory reporting limits.

~~5.6.~~5.8 Contingency Plan

This section describes the protocols to be followed in the event that unknown areas of affected soil, groundwater and/or underground structures are identified at the facility. These protocols will be followed by all involved parties, including Hanson and other entities, such as a contractor or qualified consultant, designated or certified by Hanson.

Unknown conditions (e.g., suspected affected soil) that may trigger contingency monitoring procedures during Site activities include, but are not limited to, those listed below. Discovery of any of these conditions could require either alternative or additional measures to protect human health and the environment:

- Oily, shiny, or saturated soil or free product;
- Soil with a strong chemical odor;
- Discovery of objects of environmental concern such as USTs and associated piping or buried drums;
- Discovery of potentially-hazardous debris (e.g., automobile tires, asbestos-containing pipes, and transite pipes);

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- Discovery of hazardous storage areas; and
- Other conditions that vary materially from those documented during previous investigations.

If suspected affected soil is detected during subsurface activities, the following procedures shall be followed:

- All field activities that may potentially disturb the suspected affected soil must be immediately stopped and the area around the suspected affect soil vacated.
- If an emergency situation arises such that emergency services are needed, call 911 and follow the emergency procedures given in the health and safety plan, including notification of the appropriate Hanson employees.
- Any equipment and clothing that comes in contact with the suspected or known affected soil must be decontaminated as specified in the health and safety plan.
- If stockpiling is necessary, stockpiles will be placed on polyethylene sheeting and covered at the end of each work day.

During the subsurface activities conducted at the ~~Site~~Burdened Property, it is possible that USTs, sumps, or other underground structures that were not identified during previous investigations will be discovered. For example, a UST may be unearthed during grading and site excavation. Other subsurface structures might not have features that extend above the excavated surface and could be unearthed when construction equipment comes into contact with them. The remainder of this section outlines the measures that govern identification and removal of USTs, and appropriate measures for addressing other underground structures encountered during development.

Chapter 6.7 of the California Health and Safety Code contains the specific requirements for removing and remediating affected soil associated with a leaking UST (LUST). The county within which the UST is encountered is responsible for local oversight and oversees the removal of USTs. Environmental investigations and responses required following removal of the UST will be conducted under the direction of the ACEH and in accordance with the specific provisions delineated in Chapter 6.7 of the California Health and Safety Code. Additionally, the Alameda County Fire

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Department will be notified in the event that a LUST or appurtenant piping is discovered at the ~~Site~~Burdened Property.

For other subsurface structures that may have been related to former use and storage of chemicals, such as underground vaults and sumps, the following procedures will be implemented to determine the proper disposition of the encountered structure.

The structure will be inspected to assess whether it contains any indication of chemical residuals or free liquids, other than water. A qualified individual will make this assessment in the field using visual or olfactory evidence, or field monitoring equipment (e.g., PID). If there is no indication, based on visual observation, odor, or field air monitoring equipment, of chemical impact within the vault or sump, then removal of the structure is not necessary for environmental reasons, but may be prudent for other reasons.

If a sump or vault contains liquids that appear to contain chemicals, based on visual observations, odor, or field air monitoring equipment, then the following steps shall be taken:

- The potentially chemical-containing liquids will be sampled and analyzed for profiling purposes.
- The chemical will be characterized and the appropriate response action will be determined. If appropriate, the liquids will be properly removed and disposed.
- A report will be prepared documenting response activities for submittal to the Alameda County Fire Department and ACEH.

If LNAPL is encountered, the horizontal and vertical extent will be assessed, the chemical characterized, and the soil managed in a manner approved by ACEH.

~~5.7.~~5.9 Record Keeping, Inspections, and Reporting

Record keeping and inspection procedures to monitor compliance with this SMP shall be the responsibility of the party performing the work (i.e., Hanson or contractors). During intrusive subsurface work in the area identified in Figure 2 in which there is potential exposure to contaminated soil, soil vapor and/or groundwater, a daily log will be maintained to provide detailed documentation of work activities until potential contamination is removed or contained.

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Additionally, Hanson will perform an annual inspection of the ~~Site~~Burdened Property to ensure compliance with this SMP. The items to be inspected will be developed by Hanson as part of their existing inspection processes. The results of the annual inspection will be communicated via letter to the ACEH. At this time, any upcoming plans for land use or operational changes that may initiate the protocols set forth herein will also be communicated to the ACEH.

~~5.8.~~5.10 Soil and Groundwater Site Management Plan Availability

The location of affected soil and groundwater remaining at the ~~Site~~Burdened Property will be communicated to Site workers and contractors through this SMP. The existence of this SMP will be documented as part of a Covenant to be recorded with the deed for the property. Additionally, this SMP will be provided to the current property owner for distribution to Site workers or contractors performing intrusive subsurface work.

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ARCADIS

Tables

ARCADIS

Figures

Attachment 1

Responsible Party(ies) Legal Requirements/Obligations

REPORT/DATA REQUESTS

These reports/data are being requested pursuant to Division 7 of the California Water Code (Water Quality), Chapter 6.7 of Division 20 of the California Health and Safety Code (Underground Storage of Hazardous Substances), and Chapter 16 of Division 3 of Title 23 of the California Code of Regulations (Underground Storage Tank Regulations).

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (Local Oversight Program [LOP] for unauthorized releases from petroleum Underground Storage Tanks [USTs], and Site Cleanup Program [SCP] for unauthorized releases of non-petroleum hazardous substances) require submission of reports in electronic format pursuant to Chapter 3 of Division 7, Sections 13195 and 13197.5 of the California Water Code, and Chapter 30, Articles 1 and 2, Sections 3890 to 3895 of Division 3 of Title 23 of the California Code of Regulations (23 CCR). Instructions for submission of electronic documents to the ACEH FTP site are provided on the attached "Electronic Report Upload Instructions."

Submission of reports to the ACEH FTP site is in addition to requirements for electronic submittal of information (ESI) to the State Water Resources Control Board's (SWRCB) Geotracker website. In April 2001, the SWRCB adopted 23 CCR, Division 3, Chapter 16, Article 12, Sections 2729 and 2729.1 (Electronic Submission of Laboratory Data for UST Reports). Article 12 required electronic submittal of analytical laboratory data submitted in a report to a regulatory agency (effective September 1, 2001), and surveyed locations (latitude, longitude and elevation) of groundwater monitoring wells (effective January 1, 2002) in Electronic Deliverable Format (EDF) to Geotracker. Article 12 was subsequently repealed in 2004 and replaced with Article 30 (Electronic Submittal of Information) which expanded the ESI requirements to include electronic submittal of any report or data required by a regulatory agency from a cleanup site. The expanded ESI submittal requirements for petroleum UST sites subject to the requirements of 23 CCR, Division, 3, Chapter 16, Article 11, became effective December 16, 2004. All other electronic submittals required pursuant to Chapter 30 became effective January 1, 2005. Please visit the SWRCB website for more information on these requirements. (http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/)

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 7835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, late reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

Alameda County Environmental Cleanup Oversight Programs (LOP and SCP)	**REVISION DATE:** July 25, 2012
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	**SUBJECT:** Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (petroleum UST and SCP) require submission of all reports in electronic form to the county's FTP site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as **a single Portable Document Format (PDF) with no password protection**.
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document**. Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted**.
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

  RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

1) Obtain User Name and Password
   a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
      i) Send an e-mail to .loptoxic@acgov.org
   b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses**, and the **Case Numbers (RO# available in Geotracker) you will be posting for**.

2) Upload Files to the ftp Site
   a) Using Internet Explorer (IE4+), go to ://alcoftp1.acgov.org
      (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
   b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
   c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
   d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
   e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.

3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
   a) Send email to .loptoxic@acgov.org notify us that you have placed a report on our ftp site.
   b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
   c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
   d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.