

## 3.12 Hazardous Materials

The following section summarizes the results of the Phase I Environmental Site Assessments (Geomatrix, 2007a; Geomatrix, 2007b) and the Phase II Environmental Investigation Reports (**Appendix K**) prepared for the project site. The purpose of the Phase I and Phase II analysis was to identify environmental conditions and hazardous materials that may pose a material risk to human health or to the environment, or affect the proposed use of the project site.

### 3.12.1 Records Search

Regulatory agency records were searched in an effort to identify any current or historical hazardous materials involvement on the project site and/or adjacent properties. The regulatory agency database review was accomplished by using the services of a computerized search firm, *Environmental Data Resources, Inc.* (EDR). EDR uses a geographical information system to plot locations of past and/or current hazardous materials involvement. The databases searched by the EDR report are summarized in **Table 3.12-1**.

TABLE 3.12-1  
DATABASES SEARCHED IN PROJECT AREA ASSESSMENT

Database	Type of Record	Agency
NPL	National Priority List (Superfund). The NPL is a subset of CERCLIS and identifies sites for priority cleanup under the Superfund Program	USEPA
CERCLIS	Comprehensive Environmental Response Compensation and Liability Information System maintained by EPA to record hazardous waste sites reported by states, municipalities, private companies and private persons	USEPA
ENG CONTROLS	Listing of sites with engineering controls in place	
INST CONTROLS	Listing of sites with institutional controls in place	
CONSENT	Major legal settlements that establish responsibility and standards for cleanup at NPL sites	U.S. District Courts
RODS	Record of Decision documents mandate a permanent remedy at an NPL site containing technical and health information to aid the cleanup	
HIST CAL-SITES	Contains both known and potential hazardous substance sites. No longer updates and replaced by ENVIROSTOR	Department of Toxic Substance Control (DTSC)
SWF/LF	The Solid Waste Facilities/Landfill Sites is an inventory of solid waste disposal facilities or landfills	Integrated Waste Management Board
CORTESE	Public drinking water wells with detectable concentrations of constituents, hazardous substances sites selected for remedial action and other release sites	State
LUST	Leaking Underground Storage Tanks database	Regional Water Quality Control Board (RWQCB)
CA SLIC	Spills, leaks and industrial cleanup sites	RWQCB
UST	Active underground storage tanks	Various
HIST UST	Historical UST registered database	Various
SWEEPS	Statewide Environmental Evaluation and Planning System is a UST database which is no longer updated or maintained	State
DEED	Recorded land use restrictions	DTSC
ENVIROSTOR	Sites that have known contamination or sites for which there may be reasons to investigate further	DTSC

SOURCE: Geomatrix, 2007a

Based on the records search, the MGM Brakes Assembly Plant located to the southwest had the greatest potential to affect the environmental conditions of the project site. Environmental conditions associated with the other facilities reviewed from the database results do not appear to have adversely affected environmental conditions on the project site because they are either sufficiently distant from it, groundwater flows down or cross gradient of it, or they have obtained regulatory closure (Geomatrix, 2007a). The MGM Brakes Assembly Plant is discussed further below, under Neighboring Site Conditions.

### 3.12.2 Project Site Conditions

For the purposes of this analysis, the project site was divided into two areas. The Amonos Site contains the four parcels west of the railroad tracks, while the Sirrah Site contains the two parcels east of the railroad tracks. The individual parcels on the two Sites have also been number sequentially; these include Parcels #1 (APN 116-310-039), #2 (APN 116-310-040), #3 (APN 116-310-035) and #4 (APN 116-310-020) on the Amonos Site and Parcels #5 (116-310-079) and #6 (116-310-005) on the Sirrah Site.

The Phase I reports define Recognized Environmental Conditions (RECs) as:

“the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a threat to public health or the environment that generally would not be the subject of an enforcement action if brought to the attention of appropriate government agencies” (Geomatrix, 2007).

#### Amonos Site

Certain historical uses of the Amonos Site were not considered RECs on the basis of visual observation. Site reconnaissance indicated no evidence of environmental impact to on-site soils or vegetation, and certain historical activities involving chemicals (such as activities inside the barn) are considered *de minimis* because the floor is intact and the chemicals stored there are handled appropriately and stored with secondary containment.

Potential RECs associated with historical uses of the site include the following:

- The Amonos Site is located down gradient of the MGM Brakes Assembly Plant. Concentrations of chlorinated solvents, and their associated breakdown products, are present in groundwater beneath the MGM facility. Groundwater has moved preferentially in the backfill of a sewer that runs along the southern side of Parcel #3 and Parcel #4 and then northward up Lile Lane. A recent investigation indicates that shallow bedrock underlying Parcel #1 does not appear to be impacted by activities at the MGM Brake Assembly Plant. The status of deeper groundwater within bedrock is unknown.
- One 350-gallon aboveground gasoline storage tank was previously located on exposed soil northwest of the barn on Parcel #1. No staining or distressed vegetation was observed in the area. The date of the removal of the tank is unknown.

- Lubricating Oils, batteries and tractor tires were formerly located on exposed soil adjacent to the barn at the northern ranch site. The materials were removed prior to the previous owner purchasing Parcels #2 and #3.
- Small amounts of oils and fuel were noted to the rear of the southwestern-most residence on Parcel #1, apparently for the use of an off-road vehicle. Chemicals were stored in a wooden cabinet within the central portion of the barn.
- Three 500-gallon aboveground fuel storage tanks were previously located on exposed soil at the northern ranch site on Parcel #2. No staining or distressed vegetation was observed in the area. The tanks were removed in the mid-1980s.
- As a former plum and grape farm, pesticides, including lime, sulfur, and “winter oil” were applied within the central portion of the Hayes Property until the 1980s. There may be residual pesticides in the area and around the ranch site, where the chemicals were stored.
- As a former plum and grape farm, pesticides, including lime, sulfur, and “winter oil” were applied within the central portion of Parcels #2 and #3 until the 1980s. There may be residual pesticides in the area and around the ranch site, where the chemicals were stored.
- Diesel-impacted groundwater is present in the vicinity of the former Louisiana Pacific Truck Shop located southeast of the intersection of Asti Road and Santana Drive. The impact appears to extend to Coyote Creek along the southern boundary of Parcel #3, where low levels of TPHd have been detected.

### ***Parcel #1 (APN 116-310-039)***

Parcel #1 is located at 208 Lile Lane in Cloverdale, CA between Highway 101 to the west and the Russian River floodplain to the east. The parcel is bordered on the north by Porterfield Creek, on the east by Lile Lane, on the west by Asti Road and on the south by Parcel #2. Parcel #1 is also dissected by Lile Lane. The parcel was owned by the Lile family from 1901 until it was sold to Amonos, LLC.

Geomatrix conducted a site visit on October 12, 2007. Parcel #1 consists mainly of undeveloped ranch land, but is also occupied by three houses and a large barn. The three homes are currently rented as residences. A small chemical storage area was noted to the rear of the westernmost residence on the southern side of Lile Lane. Minor staining was noted in the area, which appeared to be used for maintenance of an off-road vehicle. Each of the homes is equipped with a propane tank.

The barn is currently being used for a construction contracting business, but was originally used to support a dairy farm from approximately 1930 until 1954. The barn is approximately 5,000 square feet and has a paved floor and wooden walls and roof. The contracting business has been operating for approximately a year and a half and is used for vehicle maintenance and staging construction projects. The ground surface in the vehicle maintenance and staging area was stained and cracks were noted in the concrete floor. An open top drain pan was noted containing a significant amount of waste oil. There was a hazardous materials storage area inside the barn immediately north of the main entrance. The storage area had a standing secondary containment system with drums stored on a grate above the containment. Stored liquids in the area included hydraulic oils, lubricating oils and motor oil. A cabinet is used to store a small volume (i.e., less than 5-gallons) of paint and cleaners. Chemicals also were stored in a 20-foot metal cargo container located outside of the main entrance to the barn. The container contained two 55-gallon drums of gasoline and several

car batteries as well as a spill kit drum. There was a significant amount of equipment and machinery stored outside of the barn, including a bulldozer and a large water tanker. During the assessment, the bulldozer bucket was holding a supplemental diesel fuel tank designed to be installed in a pickup truck bed. Another fuel tank was being stored on the roof of the cargo container. Two one-gallon cans of lubricating oil were noted on open ground along the western wall of the barn; there was no evidence of a release (Geomatrix, 2007).

Occasionally, the northeastern portion of the parcel was used to store large trucks. There was no evidence of underground storage tanks noted at the site. Other than the recently installed monitoring tower associated with the assessment, no wells were noted at the parcel (Geomatrix, 2007).

***Parcels #2 (116-310-040), #3 (116-310-035) and #4 (116-310-020)***

Parcels #2 and #3 consist of two adjacent properties. The northern parcel is located at 250 Lile Lane and the southern parcel is located at 496 Lile Lane. The properties are bordered by Asti Road on the west, Coyote Creek on the south, the Ruiz Property on the southeast, Lile Lane on the east, and the Lile Property on the north. The parcels are currently occupied by three rental houses and a horse ranch.

Parcels #2 and #3 were historically used as a plum and wine grape farm and as grazing land for sheep until the 1980s. The central portion of the property was planted with plums and grapes. A Phase I revealed a recognized environmental condition associated with chlorinated solvents in the runoff from the MGM Brakes Assembly Plant. Shallow bedrock underlying the Lile Property does not appear to be impacted by activities at the MGM Brake Assembly Plant, but the status of deeper groundwater within bedrock is unknown (Geomatrix, 2007). The EDR report did not find any sites in its search of environmental records on the Parcels #2 and #3.

Geomatrix conducted a site visit to Parcels #2 and #3 in July and August, 2007. The parcels have three homesteads used as single family residences. A horse ranch is also located on the parcels. The northern ranch site also has a wooden barn, used to support the horse ranch and an open-faced wooden garage. The materials stored in the barn were limited to supplies for the horses, including hay and various grooming products. Stored in an adjacent room were several old appliances and a drum with unknown contents. No staining was seen around the drum. In the garage, there was a scrap car and several empty paint cans. There was no sign of staining or stressed vegetation. Previously the garage area was used to store and maintain farm vehicles. Only minor repairs were performed on site, while major repairs were performed off-site. There were two aboveground fuel storage tanks located south of the garage on open soil, including an approximately 500-gallon diesel tank and an approximately 500-gallon gasoline tank. No staining was observed (Geomatrix, 2007).

Parcel #4 is located at 585 Santana Drive. It is located to the south of the southeast corner of Parcel #3. The property is bordered by a rural residential property to the west, Coyote Creek to the south and further south by Santana Drive and A&M Enterprises, railroad tracks to the east, and Lile Lane and the Hayes Properties to the north. Parcel #4 is occupied by a single residence from which a fencing business is operated.

Parcel #4 was owned by the previous owners for approximately two years and prior to that by Bruce Reuser for an unspecified amount of time. Past property usage was not revealed in the Phase I, but Mr. Reuser had advised the Ruiz's to not drink water from the nearby well.

A single residence sits in the northern portion of Parcel #4 and has a stand alone garage. Southeast of the house is a large tent structure. A small storage unit is at the eastern end of the tent and is used to store tools and small amounts of chemicals including lubricants and paints. There was no sign of spillage or dumping. A can of paint thinner was left open-topped on the pavement within the tent area. A significant amount of debris was found on the southeastern portion of the site, including various pieces of machinery. Numerous bags of trash were seen on the southwestern corner of the gravel area. Several empty five-gallon paint cans were noted near the southeastern corner of the site adjacent to the creek (Geomatrix, 2007).

A small decaying shed is located along the western boundary of the site. There are also several old cars and trucks that are stored in this area on open ground. There was no evidence of staining or stressed vegetation. There was no evidence of any aboveground or underground storage tanks.

### ***Soil and Groundwater Investigation***

For the Phase II analysis, 15 borings were drilled ranging from 50 feet to 90 feet in depth, and 9 monitoring wells were installed ranging from 20 feet to 93 feet below ground surface (bgs). Soil, rock, and/or groundwater samples were collected from the borings and groundwater wells. These activities were conducted from September 24, 2007 through May 23, 2008, in six separate mobilizations. The Phase II Investigation involved the review and evaluation of previous Phase I studies and soil and groundwater sampling and analysis work, which was conducted to assess the potential impacts to soil and groundwater on the western portion of the project site.

To facilitate the evaluation of the analytical results of the soil and groundwater samples collected at the Amonos site, the data were compared using the San Francisco Regional Water Quality Control Board (SFRWQCB) Environmental Screening Levels (ESLs; SFRWQCB, 2008) as the primary screening values for soil and groundwater. The ESLs that were used reflect both a residential and an industrial/commercial land use scenario and consider groundwater where groundwater is a current or potential source of drinking water.

The ESLs are considered to be conservative. Under most circumstances, and within the limitations described, the presence of a chemical in soil, soil gas, or groundwater at concentrations below the corresponding ESL can be assumed to not pose a significant, long term (chronic) threat to human health and the environment. Additional evaluation will generally be necessary at sites where a chemical is present at concentrations above the corresponding ESL. Active remediation may or may not be required depending on site specific conditions and considerations. The presence of a chemical at concentrations in excess of an ESL does not necessarily indicate that adverse impacts to human health or the environment are occurring; this simply indicates that a potential for adverse risk may exist and that additional evaluation is warranted (SFRWQCB, 2008).

Concentrations of metals in the soil and groundwater appear to be indicative of naturally-occurring background levels, although there are a few instances of metals concentrations exceeding residential and commercial/industrial ESLs. Considering the geologic environment, especially in the northern Coast Ranges region, it is not uncommon for background metals to exceed ESLs. Of the elevated metals concentrations detected, the results do not appear to suggest a surface contaminant source or a more widespread soil and groundwater contamination issue. Diesel and motor oil range hydrocarbons were identified at low concentrations in some shallow surface and deep soil samples throughout the site. The detected diesel and motor oil concentrations could be a result of a) residual, localized surface spills/applications from farming practices or farm vehicles, b) proximity to State Route 101, or c) false positives due to the sampling and analytical methodology. Nevertheless, the low concentrations of diesel and motor oil are below the commercial/industrial ESLs for soil and no findings indicate that the presence of diesel and motor oil in the soil represents problematic, wide spread site contamination. TPH and VOCs and pesticides did not exceed relevant ESLs in soil or groundwater monitoring-well samples.<sup>1</sup> Available information and data reviewed for this site does not suggest that ongoing or historical site uses have caused significant soil or groundwater contamination on the site.

## **Sirrah Site**

### ***Parcels #5 (116-310-079) and #6 (116-310-005)***

Parcels #5 and #6 consist of two adjacent properties. The northern parcel is located at 225 Lile Lane and the southern parcel is located at 505 Lile Lane. The properties are surrounded by Kelly Road and the Russian River to the east, City of Cloverdale wastewater treatment facilities to the north, the railroad and Parcels #1-4 to the west and agricultural land to the south. These parcels have historically been used as vineyards.

### ***Soil and Groundwater Investigation***

Soil samples were collected from 14, 1.5-foot deep, hand-augered soil borings. Boring locations were randomly selected throughout the Sirrah Property to obtain a representative sampling of the soil conditions. Sample collection from shallow borings is appropriate for evaluation of soil conditions in agricultural settings where the primary concern is the bioaccumulation of chlorinated pesticides, metals, and nitrates. Surface water samples were collected from the Russian River near Santana Drive. Groundwater samples were collected from three agricultural production wells on different portions of the Sirrah Site. The field investigation and sampling program conducted for the Phase II was appropriate given the past and present use of the property as a vineyard. Available information and data reviewed for the Sirrah Property indicates that historical and ongoing site uses have not resulted in notable soil or groundwater contamination on the Sirrah Property.

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<sup>1</sup> The Phase II identified total petroleum hydrocarbons (TPH) as diesel and motor oil that exceeded the detection limit and the corresponding ESLs in several “grab” water samples obtained from open borings during monitoring well installation. Results of “grab” groundwater samples often do not represent actual groundwater conditions and can be inherently unreliable. The uncertainty with “grab” samples stems from several factors including the difficulty in isolating specific groundwater flow zones, cross-contamination during sampling, false positives due to foreign matter in sample, and impacts to groundwater from drilling equipment. For this reason, the Phase II investigation relied on the analytical results of TPH in water samples collected from the completed and developed monitoring wells located at nine representative locations on the site. Diesel and motor oil was not detected in the groundwater obtained from monitoring wells.

Concentrations of metals in the soil, surface water (Russian River) and groundwater appear to be characteristic of naturally-occurring background levels, although there are a few instances of metals concentrations exceeding the ESLs. As discussed for the Amonos Site, it is not uncommon for background metals to exceed ESLs in this region. Overall, the metals detected do not suggest a surface contaminant source or a more widespread soil and groundwater contamination issue.

The total coliform detected in the property groundwater wells may indicate that the groundwater and surface water at the Sirrah Property is impacted by the upstream and adjacent City of Cloverdale Wastewater Treatment Facility. Other sources of total coliform include faulty well seals that do not isolate the screened zone of the well from surface infiltration. The presence of total coliform, however, is not considered an impediment to development of the Sirrah Property because if a potable water system is developed, the EPA would require that the production well and water treatment system be designed to treat and eliminate concentrations of total coliform in the potable water supply.

Detections of residual pesticides at very low concentrations in the soil and low levels of degraded diesel do not represent an ongoing impact to soil and groundwater and the levels are well below the ESL screening criteria used to protect human health and the environment. Nitrates and pesticide concentrations detected in soils do not indicate significant residual soil contamination by agricultural fertilizers, herbicides, or pesticides. Available information and data reviewed for this site does not suggest that ongoing or historical site uses have caused significant soil or groundwater contamination on the site (**Appendix K**).

### 3.12.3 Neighboring Site Conditions

The environmental impact to the project site from the MGM Brake facility is negligible. A release of industrial solvents occurred at the MGM Brake facility located southwest and across Highway 101 from the project site many years ago and the plume has migrated off site. The MGM Brake site is currently under regulatory clean up oversight by the Regional Water Quality Control Board (RWQCB), which is requiring continued monitoring and remediation activities. Although there is reported concentrations of VOCs in the groundwater flowing through backfill of an offsite sewer main, the impact to groundwater appears minor, localized within the backfill, and contained within the identified preferential flow paths. Investigation results indicate that VOCs from the MGM site have not migrated onto the project site above the relevant ESLs. Groundwater monitoring and reporting for VOCs at the MGM site and in monitoring wells located off-site and down-gradient is required by the RWQCB and is currently ongoing. Soil and groundwater contamination does not appear to present a significant issue at the project site (**Appendix K**).

### 3.12.4 References

ESA, 2008. Phase II Environmental Investigation Report. Amonos Site, Cloverdale, California. December 2008. San Francisco, California.

ESA, 2009. Phase II Environmental Investigation Report. Sirrah Property, Cloverdale, California. January 2009. San Francisco, California.

Geomatrix, 2007. Phase I Environmental Assessments for the Hayes & Ruiz and Lile Properties.

San Francisco, Regional Water Quality Control Board, 2008. Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final – November 2007 (Revised May 2008).