# **EIR** APPENDICES

# **Appendix F – Hazards Reports**

Earth Systems Pacific (ESP). Report of Phase I Environmental Site Assessment and Limited Phase II Soil Testing, Santana Ranch, Fairview Road, Hollister, California. August 2009.

Phase I Appendices on CD

Kleinfelder, Inc. Natural Gas Pipeline Risk Analysis. July 23, 2008.

Risk Analysis Appendices on CD

# 

August, 2009

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August 5, 2009

File No. SH-11082-EA

Mr. Brian Curtis Stonecreek Properties, LLC 1851 Airway Drive, Suite E Hollister, CA 95023

Subject:

Report of Phase I Environmental Site Assessment and

Limited Phase II Soil Testing

Project:

Santana Ranch

APNs 025-037-1,2,7,9 and 025-100-1

Fairview Road Hollister, California

Dear Mr. Curtis:

As you requested, Earth Systems Pacific (ESP) has completed this Phase I Environmental Site Assessment (ESA) and Limited Phase II Soil Testing of the site referenced above. This report was prepared for your exclusive use. It was prepared to stand as a whole and no part should be excerpted or used in exclusion of any other part. Thank you for this opportunity to be of service. If you have any questions regarding this report, or the information contained herein, please contact this office at your convenience. I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in §312.10 of 40 CFR 312. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312. This report completes the scope of services outlined in our proposal.

Respectfully Submitted,

EARTH SYSTEMS PACIFIC

Brett Faust, PG 7025, CEG 2386

Senior Geologist

Distribution: Ston

Stonecreek Properties, LLC, Attn: Mr. Brian Curtis (6)

BRETT D. FAUST No. 2386 CERTIFIED ENGINEERING

GEOLOGIST

OF CALL

Document No. 0908.508.PSA



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#### INTRODUCTION

### 1.1 Project Information

This report presents the findings of the Phase I Environmental Site Assessment (ESA) and Limited Phase II Soil Testing conducted by Earth Systems Pacific (ESP) for the proposed Santana Ranch residential development located east of Fairview Road in Hollister, California. The site encompasses approximately 300-acres and is in rural residential, agricultural and rangeland use. This project was performed in conjunction property acquisition.

# 1.2 Purpose and Scope of Work

The purpose of an ESA is to evaluate the potential for the presence of soil or groundwater contamination that may be present because of the past use, handling, storage, or disposal of hazardous materials or petroleum products on or near the property. The scope of work for this evaluation is based on the United States Environmental Protection Agency Final All Appropriate Inquiry Rule (2006) (US EPA AAI); and, the ASTM Standard E-1527-05, Standard Practice for Environmental Site Assessments, and consisted of the tasks listed below.

Site Reconnaissance: This involved: (A) a visual reconnaissance of the site, noting physical evidence of potential contamination or possible sources of contamination; (B) interviews with persons familiar with the site (if possible) regarding present and past site usage; and (C) observation of adjacent properties to identify readily observable visual evidence of possible impacts to the subject site. Significant on-site features were photographed to document current conditions. Selected site photographs are presented in Appendix B.

<u>Site History Investigation</u>: The history of the site was investigated regarding past land use at and near the site, specifically as it relates to the storage, production, use, or disposal of hazardous materials. The sources of information for this evaluation are listed in the references section of this report, and may include the following categories of information (note that each category is utilized at the discretion of Environmental Professional (EP) until sufficient historical data is obtained):

- Aerial photographs
- Topographic maps
- Regional Wildcat Oil maps
- Fire insurance maps
- Land title information
- Local street directories
- Zoning/land use records
- Personnel interviews
- Engineering and institutional controls, such as deed restrictions and restrictive zoning to a radius of ½ mile, if contained in publicly available lists/registries



- Tribal records of the subject property and adjoining properties (if tribal land)
- Local government records such as building department files
- Environmental cleanup liens

Regulatory Agency Record Review: Many regulatory agencies compile information concerning sites that generate, store, use, and/or release hazardous materials. This information can be accessed by reviewing lists published by the regulatory agencies. A report listing known sites that generate, store, use, and/or have released hazardous materials was obtained from a firm that specializes in maintaining a database of this type of information. A copy of the agency database search report is presented in Appendix D, and is discussed in Section 5. The search radius for this review was in general accordance with the US EPA AAI and ASTM standard E-1527-05. In addition, selected government agencies were contacted to request information they may have regarding environmental conditions at or near the site.

<u>Limited Phase II Soil Testing</u>: Due to the current and historic agricultural use of 21111 Fairview Road to grow an orchard, we tested three shallow soil samples collected from the field areas and an additional sample in the area of the ranch buildings on the parcel where it is likely that pesticides were mixed with water. The samples were individually tested for organochlorine pesticides.

During the course of this assessment, evidence of a former gas station building at 2201 Fairview Road was revealed. Several above ground storage tanks were also present near the building. To screen for potential petroleum hydrocarbon soil contamination, four borings were drilled near the building and tanks to collect soil samples for laboratory testing. The samples were tested for total petroleum hydrocarbons as gasoline, diesel and motor oil. The samples were also tested for the fuel compounds benzene, toluene, ethylbenzene and xylenes, and the fuel additive MTBE.

Report Preparation: This report was prepared to present our findings, conclusions, and recommendations.

Work on this project was performed under the direct supervision of an Environmental Professional (EP), in accordance with the US EPA AAI and ASTM E-1527-05 requirements. Mr. Brett Faust (PG, CEG) was the lead EP, the project manager, conducted the site reconnaissance, historical review, agency database review and soil sampling. A qualifications statement is presented in Appendix G.

### 1.3 Exclusions and Data Gaps

Testing the air, groundwater or building materials for the presence of hazardous constituents was beyond the scope of this evaluation.

The US EPA AAI and ASTM standard E1527-05 require that gaps in the data used in evaluating the site be identified. Data gaps encountered in this project, and their significance to the project, are summarized below.

- Land title information was not obtained, and therefore was not reviewed. Because of the availability of other data sources, the lack of title information is not considered to be significant.
- A search of environmental liens for the property was not performed. Because the site was not historically used for manufacturing or industrial use, this data gap is not considered significant.

Further investigations regarding the data gaps do not appear warranted.

#### 1.4 Limitations and Reliance

This report has been prepared for the exclusive use of Stonecreek Properties, LLC. The conclusions and recommendations rendered in this report are opinions based on readily available information obtained to date within the scope of the work authorized by the client. The scope of work for this project was developed to address the needs of the client as part of property acquisition and may not meet the needs of other users. Copies may be made only by Earth Systems Pacific, the client, and his authorized agents for use exclusively on the subject project. Any other use is subject to federal copyright laws and the written approval of Earth Systems Pacific. Any other use of or reliance on the information and opinions contained in this report without the written authorization of ESP is at the sole risk of the user.

It should be noted that any level of assessment cannot ascertain that a property is completely free of chemical or toxic substances. We believe the scope of work has been appropriate to allow the client to make an informed business decision.

The results contained in this report are based upon the information acquired during the assessment, including information obtained from third parties. ESP makes no claim as to the accuracy of the information obtained from others. In addition, it is possible that variations exist beyond or between points explored during the course of the assessment, and that changes in conditions can occur due to the works of man, contaminant migration, variations in rainfall, temperature, and/or other factors not apparent at the time of field work.

The services performed by ESP have been conducted in a manner consistent with the level of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the site vicinity. No warranty, express or implied, is offered.

#### 2.0 GENERAL SITE INFORMATION

### 2.1 Size, Location, and Name

The site consists of a rectangular, approximately 300-acre site located east of Fairview Road in the Hollister area of San Benito County, California. The location of the site is shown on a Vicinity Map in Appendix A.

#### 2.2 Site Identification

The site is identified as Santana Ranch in San Benito County, California, APNs 25-37-001, 002, 007, 009 and 25-100-001.

#### 2.3 Site Boundaries

The site is bounded by Fairview Road on the west with agricultural and rangelands elsewhere. A California Department of Forestry fire station and San Benito County Water District pump station are present as separate parcel insets within the site boundaries and are not included in this assessment (see Vicinity Map in Appendix A).

# 2.4 Current Development

The northern section of the site is occupied by two residences and an orchard. The remainder of the site is open rangeland used for grazing and hay crops. A Pacific Gas and Electric (PG&E) pipeline crosses diagonally through the central northeastern section of the site.

#### 2.5 Site Topography

Site topography consists of a subdued north-trending ridge on the middle of the site with evenly sloping areas on its western flank and rolling hummocky terrain on the east. Based on the Tres Pinos, California, 7½-minute topographic quadrangle (U.S. Geological Survey, 1971) elevations on the site range from about 520 feet at the southeast site corner to 360 feet at the northwest corner.

#### 2.6 Surface Water Bodies

There are no perennial surface water bodies on the site. Based on our review of aerial photographs covering the site, there are some ephemeral ponds in the hummocky terrain on the eastern section of the site. A tributary to Santa Ana Creek is present east of the site and flows northwestward. At its nearest point it is about 1,000 feet to the northeast.

## 2.7 Geology and Hydrogeology

The site is located within the geologically complex Coast Ranges Geomorphic Province of Central coastal California. Discontinuous northwest-southeast trending mountain ranges, valleys and

faults formed by tectonic, mountain-building processes characterize the province. The predominant structural feature in the Coast Ranges is the San Andreas fault, which is the structural boundary between two tectonic plates: the Pacific Plate to the southwest of the fault and the North American Plate northeast of the fault zone. The San Andreas fault juxtaposes Jurassic-Cretaceous age Franciscan Complex basement rocks on the northeast against Salinian metamorphic and plutonic rocks of Paleozoic age on the southwest. Basement rocks on either side of the San Andreas are overlain by younger late Cretaceous to Tertiary, and Quaternary age marine and terrestrial sedimentary rocks with volcanic rocks locally present (Hall, 1991). The site lies approximately two miles northeast of the Calveras fault and about six miles northeast of the San Andreas fault. Other nearby faults include the Quien Sabe, Sargent and Zayante-Vergeles faults.

Based on Majmundar (1994), the site is underlain by Holocene to Pleistocene-age older alluvial deposits. These deposits are described as floodplain deposits consisting of unconsolidated to semi-consolidated sand, gravel, silt and clay.

Based on San Benito County Water District (2008), depth to groundwater in the site vicinity is on the order of 80 to 100 feet and flows northwestward.

#### 3.0 SITE RECONNAISSANCE

#### 3.1 On-Site Observations

On July 1, 2009, a geologist from Earth Systems Pacific performed a reconnaissance of the subject site. The intent of the reconnaissance was to identify possible sources or visual evidence of contamination from the use, storage or handling of hazardous materials on or adjacent to the subject site. Two residences and associated outbuildings are present on the northern section of the site. The residence at 2111 Fairview Road was occupied and present in the orchard area along with a barn. The other residence at 2201 Fairview Road is vacant and boarded closed. Several dilapidated sheds, automobiles and a small concrete structure were present in the vicinity of the boarded residence. The concrete structure was identified as a "gas station" on a State of California Department of Parks and Recreation Building, Structure and Object Record (see Appendix C). There were no obvious structures or other man-made features on the remainder of the site. Site Maps are presented in Appendix A and photographs taken at the time of our reconnaissance are included in Appendix B.

### Transformers, Capacitors and Switches

A pole mounted electrical transformer is present at the north edge of the orchard near the occupied residence. The transformer appeared to be in good condition and there was no evidence that it has leaked. There was no label as to the contents of the transformer.

# Storage Tanks, Sumps, Drains, Drums, Containers, and Debris

#### 2111 Fairview Road (occupied residence)

An occupied residence and barn were present at 2111 Fairview Road. An active trailer-mounted diesel storage tank was present north of the barn where there was also a minor amount of soil staining. Small quantities of petroleum products used for yard care equipment were stored at the residence garage and barn. Tractors and farm machinery were also stored in and near the barn. A free-form concrete slab was present on the ground between the residence and barn. It appears the slab is used for as a platform for equipment cleaning. The building compound was well kept and there was only a minor amount of debris observed in this area. An orchard trimming burn pile was present in the orchard northeast of the compound. The pile contained orchard trimmings and other wooden debris. No sumps were observed at this address.

# 2201 Fairview Road (vacant residence)

A vacant boarded residence and several dilapidated sheds were present at 2201 Fairview Road. Several apparently empty fuel storage tanks with capacities of approximately 250 to 500 gallons and numerous five-gallon buckets and several 55-gallon drums were scattered at the rear of the house. Some of the buckets were labeled to contain petroleum products such as kerosene and motor oil. There were no obvious labels on the drums, though some were visibly empty. One of the sheds also contained a large amount of household refuse. What appears to be a septic pit was present at the front of the house and covered with plywood. No sumps were observed at this address.

#### Wells

Wells were observed at 2111 Fairview Road and in the area of a windmill. According to EDR's Radius Map Report with GeoCheck (see Appendix C), there are five registered wells within one mile of the approximate center of the site, none of which are present on the site.

#### Vegetation, Fill Soil, and Surface Staining

Aside from the orchard at the northern end of the site, vegetation consisted of grasses and cut hay. Fruit and ornamental trees were also present at 2111 and 2201 Fairview Road. A minor amount of ground surface staining was present beneath the trailer-mounted tank at 2111 Fairview Road and in the areas where vehicles and farm machinery were parked. Somewhat more significant amounts of ground surface staining was present in the area of the buckets at 2201 Fairview Road.

#### Asbestos and Lead

Asbestos and lead-containing building material surveys were not conducted for this site.



### 3.2 Site Vicinity Observations

The site vicinity consisted of high-density residential developments west of Fairview Road. Rural residential, agricultural and range land were present elsewhere in the site vicinity. No evidence was observed that the site has been adversely affected by activities on properties adjacent to the site.

#### 4.0 HISTORICAL INFORMATION

Information regarding the history of the site was obtained from various sources, as listed in the references section of this report. The results of this research are summarized below.

## 4.1 Aerial Photographs

Earth Systems Pacific reviewed eight aerial photographs available through Environmental Data Resources, Inc (EDR) showing the site and vicinity. The photographs were taken in 1939, 1949, 1959, 1973, 1981, 1987, 1998, and 2005. The summaries of our review are presented below.

### <u>1939</u>

Fairview, Hillcrest and Sunnyslope Roads are present, and structures are present on the northern and southern sections of the site. Two buildings that appear to be sheds area present in the area of the current San Benito County Water District pumping station and a small structure that may be the concrete "gas station" building is present in the area of 2201 Fairview Road. What appears to be a barn and smaller outbuildings are present in the area of a windmill shown on the 1955 topographic map (see following section). The alignment of the gas pipeline is also visible. Elsewhere on the site, the northern most section is in hay production and the remainder appears to be rangeland. A small circular object, which may be a livestock trough, is present at the southern site boundary. The surrounding areas are in use to grow orchards, hay or are fallow.

## <u>1949</u>

The structures near the windmill area absent and additional structures are present at 2201 Fairview Road. The middle two-thirds of the site and northwest site corner are in hay production. What appears to be the livestock trough has been relocated several hundred feet to the north. Elsewhere, the site and surrounding areas appear similar to the 1939 photograph.

#### 1959

The residence at 2111 Fairview Road is present. The central third of the site is in hay production. The northernmost section of the site is not shown in the photograph. The entire site is used to grow an orchard. Elsewhere, the site and surrounding areas appear similar to the 1949 photograph.

### 1973 (low resolution)

Structures are present at the Fairview Road residences and what appears to be a pond is present immediately northeast of the 2111 Fairview Road residence. The southern half of the site is used to grow hay. The northern site boundary is not included in the photograph. A water tank is present outside the southeast site corner.

### 1981

The California Department of Forestry building compound is present. The entire site appears to be used to grow hay. What appears to be a ranch building compound is present outside the northern site boundary. Elsewhere, the site and adjacent areas appear similar to the 1973 photograph.

#### 1987 (low resolution)

The west half of the orchard at 2111 Fairview is present. A rectangular building is present at the San Benito County Water District pump station. All but the northern and northeastern sections of the site appear to be used to grow hay. Elsewhere, the site and adjacent areas appear similar to the 1981 photograph.

#### 1998

The orchard extends farther to the east. Most other areas of the site appear to be used to grow hay. High-density residential development is present opposite the site on Fairview Road. Elsewhere, the site and adjacent areas appear similar to the 1987 photograph.

#### 2005

The residences at 2111 and 2201 Fairview Road are still present and the orchard spans the width of the site. The rectangular building at the pump station is absent and a new larger building is now present. There appears to be small scattered ponds on the eastern

hummocky sections of the site. Two water tanks are now present outside the southeast site corner. Elsewhere, the site and adjacent areas appear similar to the 1998 photograph.

### 4.2 Topographic Maps

We reviewed two historic topographic maps of the Hollister 15-minute quadrangle and two maps of the Tres Pinos 7.5-minute quadrangle produced by the U.S. Geological Survey and provided by EDR. The 15-minute maps are dated 1921 and 1955. The 7.5-minute maps were produced in 1955 and 1971. The summaries of our review are presented below.

### 1921 (Hollister 15-Minute Quadrangle)

Fairview, Hillcrest and Sunnyslope roads are depicted. Structures are depicted in the area of the windmill and San Benito County Water District pump station. A road leading to the east from Fairview Road is shown at the southern site boundary. A north-trending creek is shown through middile of the site. There is no indicated land use depicted on or adjacent to the site.

# 1955 (Hollister 15-Minute Quadrangle)

Structures are shown in the area of the windmill and at 2111 and 2201 Fairview Road. The pipeline that crosses the site is shown. The north-trending creek and road at the southern boundary are not shown. Orchards are depicted west of Fairview Road. There is no indicated land use depicted on the site.

#### 1955 (Tres Pinos 7.5-Minute Quadrangle)

The windmill and structures at the Fairview residences are shown. The pipeline is also shown. Orchards are shown west of Fairview Road. There is no indicated land use depicted on the site.

# 1971 (Tres Pinos 7.5-Minute Quadrangle)

The site and adjacent areas are depicted similar to the 1955 map.

# 4.3 Regional Wildcat Oil Maps

The California Department of Conservation's Division of Oil and Gas Regional Wildcat Map #W3-8, dated June 10, 1986, for San Benito and Monterey Counties was reviewed for information regarding historic oil-well drilling activities near the site. The nearest well is located approximately 1 mile to the north and was drilled in 19 to a total depth of 2,911 feet.

# 4.4 Fire Insurance Maps

From 1887 until present, the Sanborn Company compiled detailed maps used for fire insurance purposes that depicted buildings and other structures in urban areas throughout portions of the United States and Canada. Sanborn maps can provide valuable information regarding historical usage of a particular building. Sanborn maps for the site and vicinity were requested from EDR. They indicated that Sanborn Fire Insurance maps are not available for the site.

#### 4.5 Local Street Directories

We reviewed a City Directory Abstract prepared by EDR for 2111 and 2201 Fairview Road and adjoining properties. The directories were reviewed for the years 1965 through 1997, non inclusive of all years.

A residence is listed at 2111 Fairview Road in the 1997 directory search. There was no listing for 2201 Fairview Road. Adjoining addres listings consisted of a fire station at 1979 Fairview Road, Little Haven Preschool at 2210 Fairview Road and residences at 2320, 2357 and 2380 Fairview Road for the years searched. Additionally, 2203 Fairview Road was listed as being under construction in the 1987 directory.

# 4.6 Zoning/Land Use Records

The site is zoned for residential and agricultural use.

#### 4.7 Recorded Land Title and Deed Information

A copy of the title was not provided prior to publication of this report.

#### 4.8 Environmental Cleanup Liens

A search of Environmental Cleanup Liens for a property was not conducted.

#### 4.9 Previous Phase I Environmental Assessment

We reviewed a copy of a Phase I Environmental Site Assessment report prepared by Kleinfelder, Inc., and dated May 19, 1997, and provided by the client. The report is titled Lands of Thompson, Guerra, Hawkins and Hill, Hollister, California. The report recommendations are summarized below:

Debris near the east side of the north residence (2201 Fairview Road) should be removed. Also, an apparent septic tank be removed and soil samples collected for analysis.

The windmill should be removed and the associated well properly abandoned in accordance with State and County Requirements.

Testing should be performed in connection with pesticide use during construction if unusual odors or discolored soils are encountered.

Painted surfaces may contain lead. Areas exhibiting peeling should be properly removed and disposed of prior to demolition of site structures. Also, structures should be inspected for asbestos containing building materials prior to demolition.

#### 4.10 State of California Parks and Recreation Records

We reviewed a Building, Structure, and Object Record for 2201 Fairview Road obtained from PMC, firm preparing an Environmental Impact Report for the project. The record indicates that there is a "Gas Station" building to the rear of the residence. A copy of the record is presented in Appendix C.

#### 5.0 AGENCY DATABASE SEARCH REPORT

To facilitate the regulatory agency review, Earth Systems Pacific requested a database search from Environmental Data Resources, Inc. (EDR). EDR conducted a search of 79 governmental databases and an EDR proprietary database for manufactured gas plants in order to identify environmental violations, use and storage of hazardous materials, or reported loss of hazardous materials at the subject site and at sites within approximate 1-mile from the site boundaries. A copy of EDR's report is presented in Appendix D. A summary of the report findings is presented below.

- The site addresses, 2111 and 2201 Fairview Road are not listed in the database report.
- Three facilities were identified within approximately 1 mile of the site in the database report and are listed below.
  - O Hollister Forest Fire Station (EDR Map ID A1, A2 and A3), the facility address, 1979 Fairview Road, is located adjacent to the site. Registered underground and aboveground fuel storage tanks are indicated to be present at the facility. The EDR report does not indicate any violations or release of hazardous materials at the facility.
  - O United Defense (EDR Map ID 4), is located at 900 John Smith Road and is approximately 0.5 mile to the southeast. The facility is used to test munitions and field test military vehicles and their weapon systems. The EDR report does not indicate that the facility has manufacturing capabilities. The EDR report does indicate that a preliminary assessment for "soil only" contamination is underway. The report also indicates that the potential contaminant of concern is perchlorate.
  - PG&E Hollister Maintenance Station (Map ID 3) located at 1980 Santa Ana Road approximately 3,700 feet northeast of the site. The EDR report indicates that in 1987,



62.2 tons of contaminated soil was shown on a manifest. A site screening was performed and no further action was recommended.

The database search report has an additional 14 listings categorized as unmapped, due to vague address listings or the inability of the automated search system to identify the location of the release site. These facilities do not appear to pose a concern for the site due to the distance, direction, status, or nature of the issue at these sites.

### 6.0 INTERVIEWS, GENERAL RESEARCH, AND PRIOR REPORTS

### 6.1 Current and Prospective Owner/Occupants/Operators

According to San Benito County Assessor records APNs 25-37-001 and 002 are owned by Mr. Frank Guerra and 25-100-001 is owned by Mr. George Anderson. We were informed by the assessor's office that APNs 25-37-007 and 009 are no longer valid. We attempted to contact Mr. Frank Guerra by telephone and have not received a response as of the date of this report. Contact information for Mr. George Anderson was not available at the time of this report. No other persons or site contacts were identified for an interview.

### 6.2 Owners/Occupants of Neighboring Properties

The US EPA recommends that interviews with persons on adjoining properties be conducted for properties that are "abandoned." The site is not considered to be abandoned and interviews of owners/occupants of neighboring properties were not conducted.

### 6.3 San Benito County Department of Environmental Health

We also requested to review San Benito County Public Health Division hazardous material records for the site. There where no records for the site.

#### 6.4 Pacific Gas and Electric

We contacted Pacific Gas and Electric concerning the gas pipeline that crosses the site. Mr. Vincent Whitmer said that the pipeline carries natural gas, that it is inspected every 10 years and that he was not aware of any past pipeline leaks.

### 7.0 LIMITED PHASE II SOIL TESTING

Limited Phase II soil testing was conducted due to past and present agricultural use of the portion of the site at 2111 Fairview Road used site to grow orchard crops. We also performed Limited Phase II testing in connection with a gas station building identified during the course of this assessment and located at 2201 Fairview Road. The purpose of our Phase II assessment was to evaluate the presence of chlorinated pesticides in shallow soils on the portions of the site used to

grow an orchard and to screen soils for petroleum hydrocarbons in the area of the gas station building and above ground storage tanks at 2201 Fairview Road.

#### 7.1 Field Methods

#### 2111 Fairview Road

On July 23, 2009, an Earth Systems Pacific geologist collected four shallow soil samples (S-1 thru S-4) at the locations shown on the 2111 Site and Soil Sample Location Map in Appendix A. The samples were collected in new stainless steel sleeves using hand-operated sampling equipment from depths of about ½ foot. Immediately upon collection, the sample ends were covered with Teflon sheeting, capped and placed in a field cooler with ice. The samples were then transferred to McCampbell Analytical Inc., a State-certified laboratory in Pittsburg, California, for testing.

#### 2201 Fairview Road

On July 22, 2009, an Earth Systems Pacific geologist, assisted by a drilling contractor, collected soil samples at four boring locations (B-1 through B-4) shown on the 2201 Site and Soil Sample Location Map in Appendix A. Soil samples for screening purposes were collected at an approximate vertical interval of every five feet to maximum depths of between 11 and 21 feet using a split-spoon sampler. The samples were screened in the field using a photoionization detector and the soil types were logged in general accordance with the Unified Soil Classification System. A soil sample from the bottom of each boring was packaged in a new stainless steel sleeve for laboratory testing. The packaged sample ends were covered with Teflon sheeting, capped and placed in a field cooler with ice. The samples were then transferred to McCampbell Analytical Inc., a State-certified laboratory in Pittsburg, California, for testing.

Soil types encountered consisted of clayey sand (SC) present to approximate depths of between 13.5 and 15.5 feet. The underlying soils consisted of silty sand (SM) and silty-clay (CL-ML). No detected PID readings or petroleum hydrocarbon odors were present in any of the samples. Copies of the boring logs are presented in Appendix E.

# 7.2 Laboratory Results

#### 2111 Fairview Road

The samples were individually tested for organochlorine pesticides using EPA Method 8081B. Copies of the laboratory report and chain-of-custody documentation are included in Appendix F.

A trace amount of DDE (0.0031 parts per million) was detected in sample S-2. Sample S-2 was collected where we deemed it most likely that pesticides were mixed with water. No

chlorinated pesticides were detected in the other samples. The DDE concentration is below USEPA Preliminary Remediation Goals (PRGs) and California Human Health Screening Levels (CHHSLs) thresholds for residential settings.

#### 2201 Fairview Road

The samples were individually tested for total petroleum hydrocarbons as gasoline, diesel and motor oil; the fuel compounds benzene, toluene, ethylbenzene, xylenes (BTEX); and the fuel additive MTBE using EPA Methods 8021B and 8015Bm. Copies of the laboratory report and chain-of-custody documentation are included in Appendix F.

There were no petroleum hydrocarbons as gasoline, diesel or motor oil, BTEX fuel compounds or MTBE detected in any of the samples tested.

#### 8.0 SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This report presents the findings of the Phase I Environmental Site Assessment (ESA) and Limited Phase II soil testing conducted by Earth Systems Pacific (ESP) for the proposed Santana Ranch residential development located east of Fairview Road in Hollister, California. The site is identified as San Benito County APNs 25-37-001, 002, 007, 009 and 25-100-001. The purpose of this assessment was to evaluate the potential for the presence of soil or groundwater contamination related to the past use, handling, storage, or disposal of hazardous materials or petroleum products on or near the subject property. The scope of work for this Phase I evaluation included a reconnaissance of the site and vicinity, a review of the history of the site, and a review of information obtained from regulatory agencies regarding the use, storage, generation, or release of hazardous materials on the site or in the site vicinity. The Limited Phase II evaluation included soil testing for pesticides and petroleum hydrocarbons. Based on this review, ESP presents the following summary and conclusions:

- The northern section of the site is occupied by two residences, an orchard and a windmill.
   The remainder of the site is open rangeland used for grazing and hay crops. A Pacific Gas and Electric (PG&E) pipeline crosses diagonally through the central northeastern section of the site.
- 2. The site vicinity consisted of high-density residential developments west of Fairview Road. Rural residential, agricultural and range land were present elsewhere in the site vicinity. No evidence was observed that the site has been adversely affected by activities on properties adjacent to the site.
- 3. The site was not identified in the agency database review. Three facilities were identified in the surrounding area. Based on their status, distance, and the nature of the issues at the two other facilities identified in EDR's report, these facilities do not appear to pose a risk to the subject site.



- 4. The trace amount of DDE detected in shallow soil at 2111 Fairview Road is below US EPA and California EPA screening thresholds for residential settings. Further testing or evaluation of soil for chlorinated pesticides at the site is not recommended.
- 5. Petroleum hydrocarbons were not detected in soil samples collected from four borings drilled in the area of the gas station building and cluster of above ground storage tanks at 2201 Fairview Road. Further testing or evaluation of soil for petroleum hydrocarbons in connection with the gas station building and above ground storage tanks is not recommended.
- 6. If not planned for use in connection with development of Santana Ranch, the well at 2111 Fairview Road should be destroyed in accordance with San Benito County Water District standards. Additionally, efforts should be made to locate and destroy a possible well in the area of the former windmill.
- 7. Based upon the site reconnaissance, historical review, regulatory records review, and other information discussed in this report, this ESA identified no obvious evidence of recognized environmental conditions, other than ground surface staining in the area of numerous five-gallon buckets at 2201 Fairview Road and near a trailer-mounted storage tank at 2111 Fairview Road. We recommend that the buckets and drums be removed from 2201 Fairview Road and disposed of in a proper fashion. We also recommend that the stained soil be removed and disposed in a similar way and that our office be contacted and/or that samples should be collected for laboratory testing if soil staining is present at depths greater than about one foot. Samples for laboratory testing should also be collected from beneath septic tanks or pits that are removed or destroyed for site development if unusual odors or staining are present in those areas.

End of text



#### REFERENCES

American Society for Testing and Materials (ASTM) Standard E1527, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessments, November 2005.

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Majmundar, H.H., 1994, Landslide Hazards in the Hollister Area, San Benito County, California, Landslide Hazards Identification Map 30, DMG Open-File Report 94-02, 1:24,000 scale (3 sheets-Relative Landslide Susceptibility, Landslides and Related Features and Geologic Map (after Dibblee et al.)).

San Benito County Water District, 2008, Annual Groundwater Report for Water Year 2008, by Todd Engineers.



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Mr. Jim Weaver Pacific Rim Planning Group 206 Morrissey Boulevard Santa Cruz, CA 95062

Subject:

Natural Gas Pipeline Risk Analysis Proposed Santana Ranch School Site Near Hillcrest and Fairview Roads Hollister, California

Dear Mr. Weaver:

Kleinfelder has prepared a natural gas pipeline risk analysis for the proposed Santana Ranch school site located east of Fairview Road between Hillcrest Road and Sunnyslope Road in Hollister, California. The approach, methods, and results of this risk analysis are documented in this letter report.

California Code of Regulations (CCR), Title 5, Section 14010(h) stipulates that: "(A school) site shall not be located ... within 1500 feet of the easement of an above ground or underground pipeline that can pose a safety hazard as determined by a risk analysis study, conducted by a competent professional, which may include certification from a local public utility commission."

Pacific Gas & Electric (PG&E) operates two natural gas pipelines (300A and 300B) located in an easement running diagonally east (NW to SE) of Fairview Road between Hillcrest Road and Sunnyslope Road and within approximately 512 to 550 feet of the boundary of the proposed new school site (Figure 1). Both pipelines are 34-inch (diameter) steel gas transmission pipelines operated at a pressure of 620 psi, and have maximum allowable pressures of 715 psi. The pipelines have manual shut-off valves located approximately 2.7 miles northwest (Sally Street at 4<sup>th</sup> Street) of the proposed site. The easement for the two natural gas lines is regularly patrolled by PG&E and monitored for visual signs of damage. A cathodic protection system is in place which provides corrosion protection to the line. For transmission line 300A built in 1950,

PG&E reports two incidents; a leak in 1951 (pin hole in weld) and a dig-in in 1954. PG&E states that transmission line 300B built in 1954 has no history of incidents. At this time, the Hollister Fire Department (HFD) has no records of local incidents on this pipeline. The HFD has not kept records of natural gas pipeline incidents to date and has not been involved in any local pipeline incidents.

The purpose of the pipeline risk analysis protocol in URS (2007) "is to estimate a numerical value for the safety risk of a gas or hazardous liquid pipeline failure within 1,500 feet of any site proposed for school development and for comparison of the estimated risk with criteria recommended by CDE." The "numerical value for the safety risk" is called the "individual risk criterion." The protocol addresses explosion and fire hazards that may be associated with a pipeline failure and CDE has established a de minimus fatality individual risk criterion of one in one million (1 x 10<sup>-6</sup>) as appropriate for a school site. Therefore, with regard to the proximity of a proposed school site to a pressurized hazardous materials pipeline, the risk of a fatality among the school population (faculty, staff, and students) as a result of a pipeline fire or explosion must be less than one in one million. For locations where the individual risk criterion exceeds one in one million, a more refined analysis may be performed to incorporate more site-specific information and fewer default assumptions, or mitigation measures, including re-location of the school, construction of berms or blast walls, or other engineering control measure may be recommended.

# **METHODS**

Kleinfelder performed the natural gas pipeline risk analyses using the most recent protocol for such analyses prepared under the direction of the California Department of Education (CDE) (URS 2007). The protocol provides a method to quantify the individual risk criterion based, in part, on the distance between a hazardous materials pipeline and an actual or proposed school site, the diameter of the pipeline, the operating pressure, the material transported (e.g., natural gas, liquid petroleum), and the actual or estimated population of the school.

Pipeline specifications, including location, diameter, and operating pressure were obtained from the pipeline owner, PG&E. Information about the proposed school, including location, layout, and estimated population was obtained from the Hollister School District.

### RESULTS

For both natural gas pipelines, the individual risk criterion calculated using the CDE protocol is less than one in one million (Attachments 2-5). The sum of the individual risk criteria is also less than one in one million. Therefore, measures to mitigate hazards that may be associated with natural gas pipeline fires or explosions are not necessary.

#### CONCLUSIONS

Based on the foregoing risk analysis of the natural gas pipelines in accordance with the approved CDE protocol (URS 2007), the estimated individual risk criterion for a natural gas pipeline explosion or fire is less than one in one million, and is not expected to affect the proposed school site. Mitigation of a natural gas pipeline failure, therefore, is not necessary per the identified CDE protocol.

If you have any questions or need additional information, please contact the undersigned at 425-562-4200.

Sincerely,

KLEINFELDER WEST, INC.

Ted Etheridge, PE Staff Engineer

Scott D. Dwyer, PKD, DABT

Home

Program Manager, Risk Analysis & Toxicology

cc:

Addressee (6)

#### ATTACHMENTS:

Figure 1 –

Gas Transmission Lines 300A, 300B Near Hillcrest and Fairview

Roads, Hollister CA

Attachment 1 – PG&E Questionnaire For Natural Gas Pipeline Risk Analysis Study

Attachment 2 - CDOE Forms 1-3 for 34 inch Natural Gas Pipeline (300A)

Attachment 3 - Protocol Output for 34-inch Natural Gas Pipeline (300A)

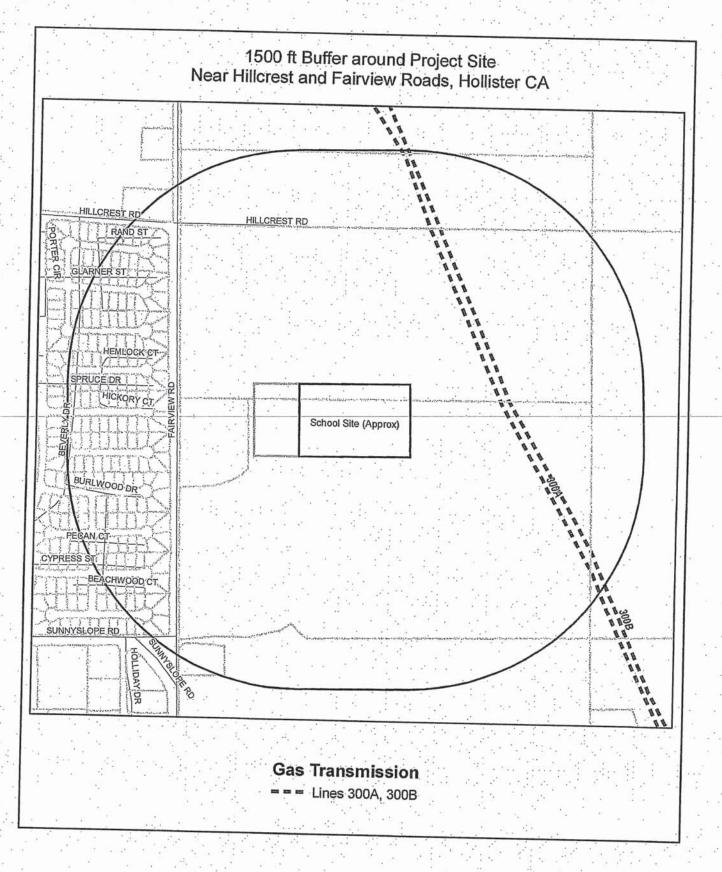
Attachment 4 - CDOE Forms 1-3 for 34 inch Natural Gas Pipeline (300B)

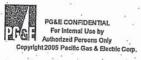
Attachment 5 - Protocol Output for 34-inch Natural Gas Pipeline (300B)

#### REFERENCE

URS. 2007. Guidance Protocol for School Site Pipeline Risk Analysis. Prepared for the California Department of Education, Sacramento, California.

# FIGURE 1





California Gas Transmission
Gas System Maintenance and Technical Support
Geographic Information Services



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