

42501 Albrae Street Fremont, California 94538 Phone: (510) 440-3300 FAX: (510) 651-2233

LIMITED RECORDS SEARCH FOR

UNOCAL STATION NO. 5367 500 Bancroft Avenue San Leandro, California

PROJECT NO. 87091.6C JANUARY 1993

1/20/93



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> January 20, 1993 RESNA Job No. 87091.6C

Mr. Bob Boust Unocal Corporation 2000 Crow Canyon Place, Suite 400 San Ramon, California 94583

SUBJECT: Limited Records Search for Unocal Station No. 5367, 500 Bancroft Avenue, San Leandro, California.

Dear Mr. Boust:

TASK 1.0 INTRODUCTION

On September 11, 1992 to October 9, 1992, a representative of RESNA Industries, Inc. conducted research on off-site properties and utility corridors in the vicinity of Unocal Station No. 5367 (see Plate 1). The purpose was 1) to assess the potential for an off-site source of hydrocarbon contamination and 2) to evaluate utility corridors which may provide corridors for migration of hydrocarbons from the site. The study included 1) visiting the site to visually assess any underground utilities near the Unocal site, 2) obtaining information from the various agencies listed in Appendix A, and 3) reviewing aerial photographs to characterize present and past use of surrounding properties.



TASK 2.0 SCOPE OF WORK

The proposed scope of work consisted of the following;

- Visit the properties to evaluate the potential for hydrocarbon sources on the property surrounding off-site monitoring well MW-8 and the two adjoining properties and for any indications of water supply wells that may exist on the two city blocks which contain MW-8 and MW-6 (see Plate 2);
- Interview neighborhood residents for information regarding water supply wells in the vicinity;
- Evaluate Alameda County Department of Water Resources' records for information regarding water supply wells in the vicinity;
- Review RESNA and Applied GeoSystems job files for information regarding water supply wells in the vicinity;
- Evaluate records held by the assessor's office for ownership information;
- Evaluate records held by the City of San Leandro Building Department;
- Evaluate Sanborn Insurance Company maps for the block;
- Evaluate historic aerial photographs of the block;
- Evaluate San Leandro Fire Department Record for information regarding UST's in the vicinity;

TASK 3.0 FIELD SEARCH

A field search was conducted by a representative of RESNA on September 11 and 18, 1992 in order to assess any potential hydrocarbon sources on the property associated with MW-8 and to evaluate the potential water supply wells that may exist on the two city blocks associated with MW-6 and MW-8.



3.1 Hydrocarbon Sources

Based on the field search conducted by a RESNA Geologist, there were no potential sources for hydrocarbons observed on the property associated with MW-8 or either of the two surrounding properties. MW-8 is on property that is currently occupied by an apartment building that has apparently been present since the 1950's.

3.2 Water Supply Wells

The field search and interview of the available neighborhood residents indicated that four wells exist on the block containing wells MW-6 and MW-8. Their reputed locations and uses follow (see Plate 4);

	LOCATION	DEPTH	USE
1.	544 Dowling Boulevard	N/A	N/A
2.	531 Dowling Boulevard	<30	irrigation
3.	515 Dowling Boulevard	N/A	N/A (handle broken, possibly indicating non-use)
4.	545 Victoria Court	N/A	N/A

The second and third wells listed were visually observed by a RESNA geologist. The second well was in the back yard of the house, was approximately 1½ to 2 inches in diameter and had no yield when turned on, possibly indicating either no power to the pump, a broken pump, or groundwater elevation below the pump. Groundwater is believed to be approximately 33 feet below grade in this area. There was no product odor. The third well was behind a hedge in the front yard of the property, had a broken handle, and may not be used.

3.3 Other Observations

Upon assessment of the site vicinity, five underground utilities were observed that could provide lateral hydrocarbon migration from the site. The utilities are shown in Plate 2 and include;

missing



- 1) Two six-inch East Bay Municipal Utility District water lines that run down either side of Bancroft Avenue at an approximate depth exceeding six feet,
- 2) A four-inch East Bay Municipal Utility District water line that runs down the approximate center of Dowling Boulevard at an unknown depth;
- A storm water drainage line running off-center down Bancroft Avenue (depth noted on Plate 2) with two surface drainage catchers, one on Dowling Boulevard in front of the site and one on Bancroft in front of the site; and
- A sanitary line that has three pertinent branches: a) one slightly off-center down Dowling Boulevard, b) one directly south of the Unocal Station and across Bancroft Avenue, continuing through the residential area on the west side of the street, and 3) one down the west side of Bancroft Avenue, starting in front of APN 76-288-9 and joining the main line running south of the site.

The sanitary line may be important when considering the lateral lines connecting the buildings to the main line. Though these connecting lines are not shown on the map, the staff at the City of San Leandro Public Works Department assured RESNA of their presence. There is a lateral line connecting each of the buildings on Bancroft Avenue the main line running down the center of the street. Given the shallow gradient of groundwater flow at the site (.002 to .003) and the slope of the main line down the street to the south, this could provide a corridor for lateral migration of hydrocarbons in a cross gradient direction.

TASK 4.0 EVALUATION OF WATER SUPPLY WELLS

4.1 RESNA and AGS File Search

A RESNA staff geologist reviewed RESNA and Applied GeoSystems (AGS) job files for information regarding water supply wells that may exist on the two city blocks which contain MW-6 and MW-8. A review of the public records of the Alameda County Department of Public Works and a field search to locate wells within a half-mile radius of the site were performed in 1990. The findings were included in the Supplemental Subsurface Investigation by AGS in August 1990 (AGS Job No. 87091.4, August 10, 1990). The results from the record search included eleven wells; one being used at the time for cathodic protection, nine for irrigation, and the use of one well was unknown at the time. With the exception of one irrigation well, all of the wells were found in the recent Water Well





Record Search. Four wells were located during the AGS field search. The status of the four wells was unknown at the time of the AGS report, but they may represent the four wells observed during the present RESNA field search.

4.2 Water Well Record Search

A representative of RESNA conducted a file search with the Alameda County Department of Water Resources for water supply wells within a half-mile radius of the site. Twenty-one such wells were revealed during this search. Eleven of these wells are used for irrigation, six for groundwater monitoring, two for geotechnical information, one for cathodic protection, and one has been destroyed. Approximate locations of the twenty-one wells found are shown on Plate 1 along with the four wells located during the field search. The locations, dates installed, surface elevations, total depths, depths to water, and uses as available are listed in Table 1.

TASK 5.0 OWNERSHIP INFORMATION

The site is owned by Unocal Corporation and is located at 500 Bancroft Avenue, San Leandro, California, 94577, on the southeast corner of Dowling Boulevard and Bancroft Avenue. The Assessor's parcel number (APN) for the site is 76-296-1-1 (Page-Book-Parcel).

5.1 Surrounding Property Ownership

Land ownership and parcel information for properties immediately downgradient from the site was obtained through records at the Alameda County Assessor's Office. The information is summarized below (see Plate 2 for a graphical representation of the following data);

ADDRESS	PARCEL NUMBER	PROPERTY OWNER		
505 Bancroft Avenue	76-288-9	Durkin, James H. & Mary J. 2518 Lakeview Drive, San Leandro CA 94577		
511 Bancroft Avenue	76-288-10-1	Purves, Claudine & David S. 2051 Tampa Avenue, Oakland, CA 94611		
519 Bancroft Avenue	76-288-10-2	Christensen, Frances & Gudmundsen, Jane H. 437 Bancroft Avenue, San Leandro CA 94577		



ADDRESS	PARCEL NUMBER	PROPERTY OWNER
520 Bancroft Avenue	76-296-36	Five Hundred Twenty Bancroft 142 Joaquin, San Leandro, CA 94577
525 Bancroft Avenue	76-288-11	Hoopes, Eric & Mary A. 22455 Maple Court #100, Hayward, CA 94541

5.2 Land Use

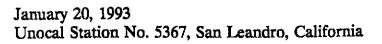
5.2.1 Existing Land Use

Field reconnaissance and a review of records held by the City of San Leandro Building Department confirmed that the site is an operating service station, occupying the southeast corner of the intersection of Bancroft Avenue and Dowling Boulevard. Across Dowling Boulevard to the north and to the northwest are residential homes. Across Bancroft Avenue, to the west of the site is a residential home that has been converted to a doctor's office. South of this are four apartment buildings and a Safeway Supermarket. Behind the station, to the east, and next to the station to the south are two more apartment buildings.

5.2.2 Historical Land Use

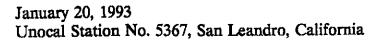
Descriptions of historical land use are based on a review of aerial photographs from Pacific Aerial Surveys (a division of Hammon, Jensen, Wallen, and Associates) and a review of Sanborn Insurance Company Maps for the area. The review included historical aerial photographs dating back to 1947 and Sanborn maps dating back to 1917. A listing of photos and maps reviewed is included in Appendix A. Pertinent data obtained from this review is summarized below (see Plate 2 for key features):

Photo/Map Date	Comments		
1917	Sanborn map shows private dwellings at locations 1 (Unocal Station No. 5367), 2, 7, and 9. The remaining locations are vacant lots.		





Photo/Map Date	Comments		
1928	Sanborn map shows private dwellings at locations 1, 2, 3, 6, 7, and 9. Lots 4 and 5 are vacant.		
April 24, 1947	Photo shows intersection at it's present condition with only buildings 1, 2, 3 and 5. Buildings 1 and 2 appear to be small houses and buildings 3 and 5 seem to be similar to their present configuration.		
1950	Sanborn map shows private dwellings at locations 1, 2, 3, and 8. Locations 6, 7, and 9 are apartment buildings and lot 5 is a Doctor's office. Lot 4 is vacant.		
October 2, 1953	Photo shows first appearance of buildings 6, 7, 8 and 10, all of which were vacant in the previous photo. Building 8 is a small house in this photo.		
July 7, 1959	Photo shows first appearance of building 4, which was a vacant lot in the previous photo.		
July 25, 1963	Photo show buildings 2 and 8 have changed to apartment buildings.		
1968	Sanborn map shows private dwellings at locations 3 and 4. Locations 2, 5, 6, 7, 8, and 9 are apartment buildings, location 5 is a Doctor's office, and location 1 is a filling station.		
May 2, 1969	Photo confirms that the building at location 1 has changed from a residence to the present Unocal station.		





Photo/Map Date	Comments		
May 18, 1971	Photo shows building 9 has changed from a small building to the Safeway that currently occupies the site.		
April 30, 1988	Photo shows the small tank pad on the Unocal site was changed to a larger one (from A to B in Plate 2). This is interpreted to indicate the tank pull and replacement that took place in 1987 according to RESNA records.		

Aerial photos from 1988, 1985, and 1963, as well as an enlargement (to 1" = 100') of the most recent photo (1990), have been ordered from Pacific Aerial Survey for our records. The enlargement of the present condition of the site vicinity is included with parcel numbers of neighboring properties as Plate 2.

TASK 6.0 UNDERGROUND STORAGE TANKS

RESNA conducted a review of the San Leandro Fire Department records and found no evidence regarding any underground storage tanks at any of the properties surrounding MW-8. There was a Chevron Station at 600 Dutton Boulevard, on the northeast corner of Dutton Boulevard and Bancroft Avenue (see Plate 4). A newly constructed, empty office building currently occupies this site. To assess the status of the former gas station, a list of Registered Storage Tanks within a half-mile radius of the Unocal site was ordered through Agency Information Consultants, Inc. (AIC, Inc.). A review of the report indicated shows no evidence of any registered underground storage tanks within a half-mile radius of Unocal Station No. 5367. This suggests that if there was an underground storage tank at 600 Dutton Boulevard, it was removed prior to issuance of the report from AIC (September 25, 1992). While this is a possible off-site source for hydrocarbons, contaminants would had to have migrated cross gradient about 800 feet, through silty clays to contaminate Unocal monitoring well MW-8.



This report concludes the scope of work outlined in the RESNA Proposal for Select Activities at Unocal Station No. 5367, 500 Bancroft Avenue, San Leandro, California. If you have any questions regarding this report, please do not hesitate to call.

Sincerely,

RESNA Industries, Inc.

they Into

Sheryl Fontaine Staff Geologist

SF/GP/lr

Gary Pischke, C.E.G. 1501

a. T. I.C.

Project Manager



APPENDIX A

REFERENCES



LIST OF AGENCIES

The following agencies were utilized during RESNA's Limited Records Search for Unocal Station No. 5367, 500 Bancroft Avenue, San Leandro, California:

- Agency Information Consultant's, Inc.
- Alameda County Assessor's Office
- California Department of Water Resources
- City of San Leandro Building Department
- City of San Leandro Fire Department
- Pacific Aerial Photos
- Sanborn Insurance Map Company

PACIFIC AERIAL PHOTOGRAPHS

The following Pacific Aerial Photographs were reviewed during the Limited Records Search;

FILM	I.D.	LINE	FRAME	SCALE	DATE	
AV	3845**	13	34	1: 12000	06/12/90	
AV	3268*	7	37	1: 12000	03/30/88	
AV	2640*	8	34	1: 12000	05/15/85	
AV	2300	7	32	1: 12000	06/21/83	
AV	1750	7	35	1: 12000	09/06/79	
ΑV	1377	7	37	1: 12000	07/07/77	
AV	1100	8	36	1: 12000	04/18/73	
AV	995	6	34	1: 12000	05/18/71	
AV	902	8	31	1: 12000	05/02/69	
AV	710	10	31	1: 36000	04/20/66	
AV	337*	8	42	1: 9600	07/07/59	
AV	119	16	12	1: 10000	10/02/53	
AV	11	5	23	1: 20000	03/24/47	

* Copy of Photo ordered for files

** Enlargement (to 1: 100) of Photo ordered for files



SANBORN INSURANCE MAPS

The following Sanborn Insurance Maps were reviewed during the Limited Records Search:

Year of Map

1917

1928

1950

1968