



August 1, 2001

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AUG 07 2001

Mr. Don Hwang
Hazardous Materials Specialist
Alameda County Health Care Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Subject: *Sensitive Receptor Survey Report*
Chevron Service Station #9-9708
5910 MacArthur Boulevard, Oakland, California.

Dear Mr. Hwang,

At the request of Chevron Products Company (Chevron), Delta Environmental Consultants, Inc. (Delta), has prepared this sensitive receptor survey report for the above referenced site. As proposed in Delta's Interim Corrective Action Plan (ICAP) dated June 30, 2000, a search of Department of Water Resources (DWR) files for domestic, municipal, or irrigation supply wells was conducted within 2,000-feet of the subject site (Figure 1). Eight well sites were identified from the DWR search. Four of the eight sites were listed as active wells. Two of the well sites were listed as cathodic protection, one listed as monitoring wells, and the fourth listed as an irrigation supply well. The irrigation supply well is located approximately 1,600 feet southeast of the site (cross-gradient). An inventory of wells identified within 2000-feet of the subject site are presented in Table 1.

On December 19, 2000, Delta conducted a survey of potential sensitive receptors on-site and in the vicinity of the site. This portion of the survey consisted of locating domestic or municipal supply wells, identifying vapor receptors such as basements, locating and verifying depth of utility vaults and corridors, and locating the nearest surface water bodies. No domestic or municipal supply wells, or basements were identified within the search area.

Thirteen minor utility vaults were identified ranging in depth between surface grade and 3 feet below surface grade (bsg). Minor utility vaults are described as storm drain inlets, electrical boxes, irrigation boxes, sewer clean-outs, water valve boxes, etc. Major utilities identified were water, sanitary sewer, storm drain, gas, and electrical lines. Based on depth to groundwater from 9.43 to 13.06 feet beneath the site, several utility trenches could act as pathways for dissolved and vapor phase petroleum hydrocarbons. Potential pathways are sanitary sewer (8 to 9 feet bsg) and storm drain (10 to 11 feet bsg). The storm drain is a 6'x12' concrete box that underlies the site. It is aligned beneath the northern dispenser island on a heading southwest across MacArthur Boulevard. Locations of utilities and their depths and diameters are shown on Figures 2 and 3.

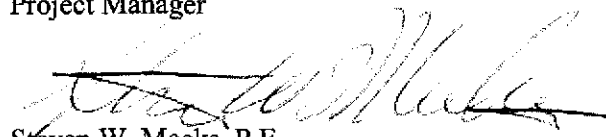
Mr. Don Hwang
Alameda County Health Care Services
August 1, 2001
Page 2

The nearest surface water body identified is an unnamed reservoir located approximately 2,500-foot northeast (upgradient) of the subject site¹. An unnamed creek also identified during the December 19, 2000, site survey is located approximately 1,000-foot south of the subject site. This creek is not shown on the Oakland East Quadrangle. If you have questions, please call me at (916) 536-2612.

Sincerely,
Delta Environmental Consultants, Inc.



Todd A. Del Frate
Project Manager



Steven W. Meeks, P.E.
Project Manager
California Registered Civil Engineer No. C057461



TAD (Lrp002.9708.doc)

Attachments: Table 1 Inventory of Water Wells Within 2,000-Feet
Figure 1 Water Well Locations Within 2000-Feet
Figure 2 Site Vicinity Map
Figure 3 Utility Map

cc: Tom Bauhs – Chevron Products Company

¹ Oakland East Quadrangle, California, 7.5 Minute Series Topographic, Photorevised 1980

TABLE 1

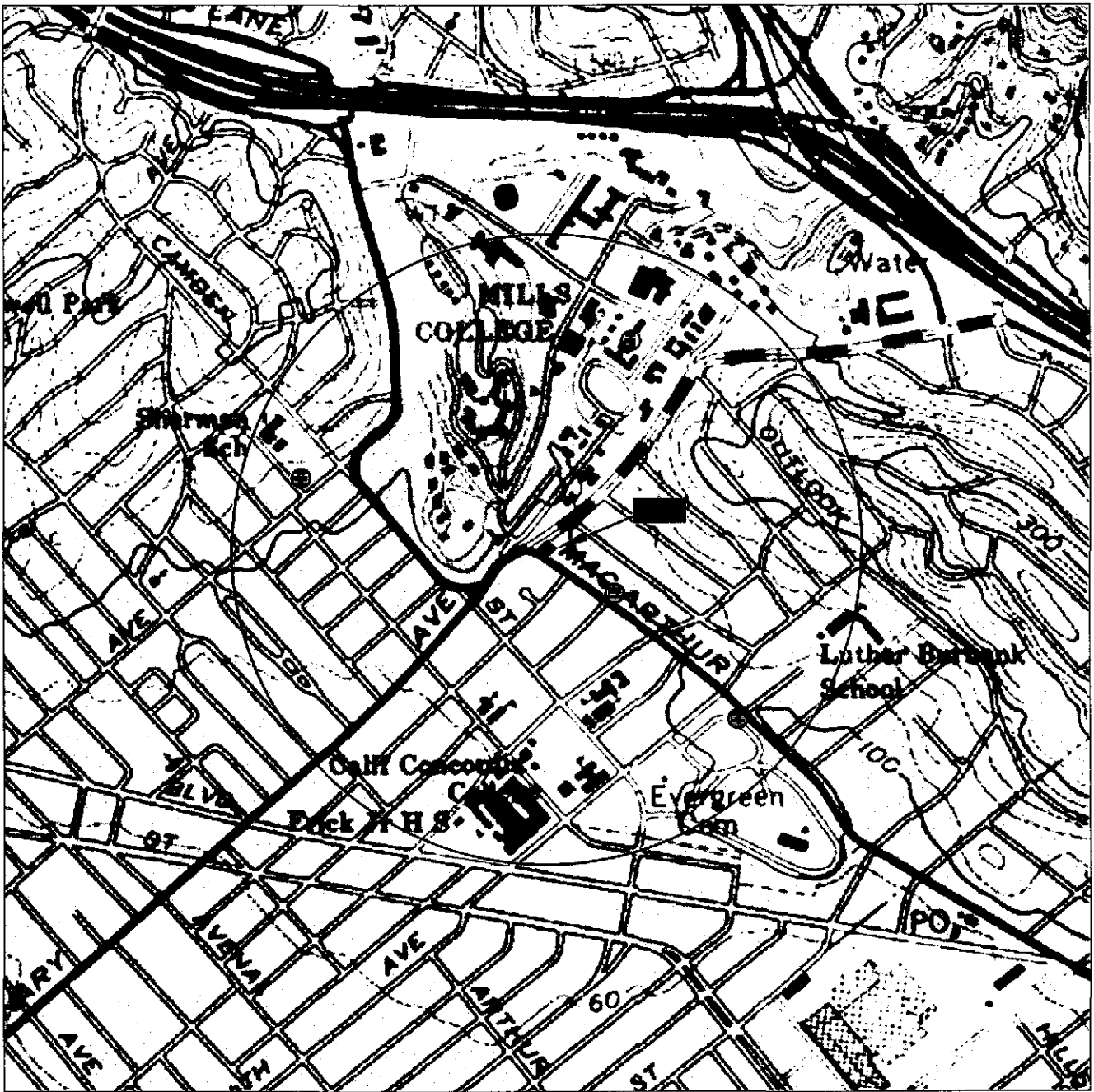
INVENTORY OF WATER WELLS WITHIN 2,000 FEET OF SITE

Chevron Facility No. 9-9708
 5910 MacArthur Boulevard
 Oakland, California

Site Map Location	DWR Well I.D.	Well Location/DWR Location	Date Drilled	Well Type	Total Depth (ft)	Screened Interval(s) (ft)	Sanitary Seal?	Well Status	Notes
1	02S-03W-03P	Mills College, 5000 MacArthur, Mills Hall/Toyon Meadow	06/04/91	Monitoring (MW-1,2,3)	23.5', 20', 18.5'	9-23.5, 10-20, 8.5-18.5,	Yes	Active	Mills College former tank pit
2	02S-03W-09A	S/W Corner of 55th Avenue and Brann Avenue	03/13/91	Cathodic Protection	120'	90-120	Unknown	Active	PG&E Well
3	02S-03W-10C	4801 Oakport Street	05/25/74	Cathodic Protection	120	None	Yes	Active	PG&E Well
4	02S-03W-10G	Evergreen Cemetary, SE along MacArthur 200' then SW 60'	10/08/53	Irrigation	440'	127-437'	No	Active	Cemetary
N/A	02S-03W-03?	Mills College	04/11/30	Unknown	324'	228-258 294-324	Unknown	Destroyed	Mills College
N/A	02S-03W-03N	Mills College Job on 64th Avenue	Unknown	Unknown	330'	Unknown	Unknown	Destroyed	Mills College
N/A	02S-03W-03?	Kiva Well, Mills College	Unknown	Unknown	354'	Varies (25-237)	Unknown	Destroyed	Mills College
N/A	02S-03W-03?	Mills College, Oakland Well	Unknown	Unknown	352'	24-100, 322-352	Unknown	Destroyed	Mills College

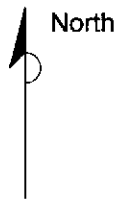
CNL = Could not Locate in the field

Destroyed = Well was determined to have been destroyed



R.3.W.

GENERAL NOTES:
 BASE MAP FROM U.S.G.S.
 OAKLAND EAST, CA
 7.5 MINUTE TOPOGRAPHIC
 PHOTOREVISED 1983



LEGEND:
 ① WATER WELL LOCATION



SCALE



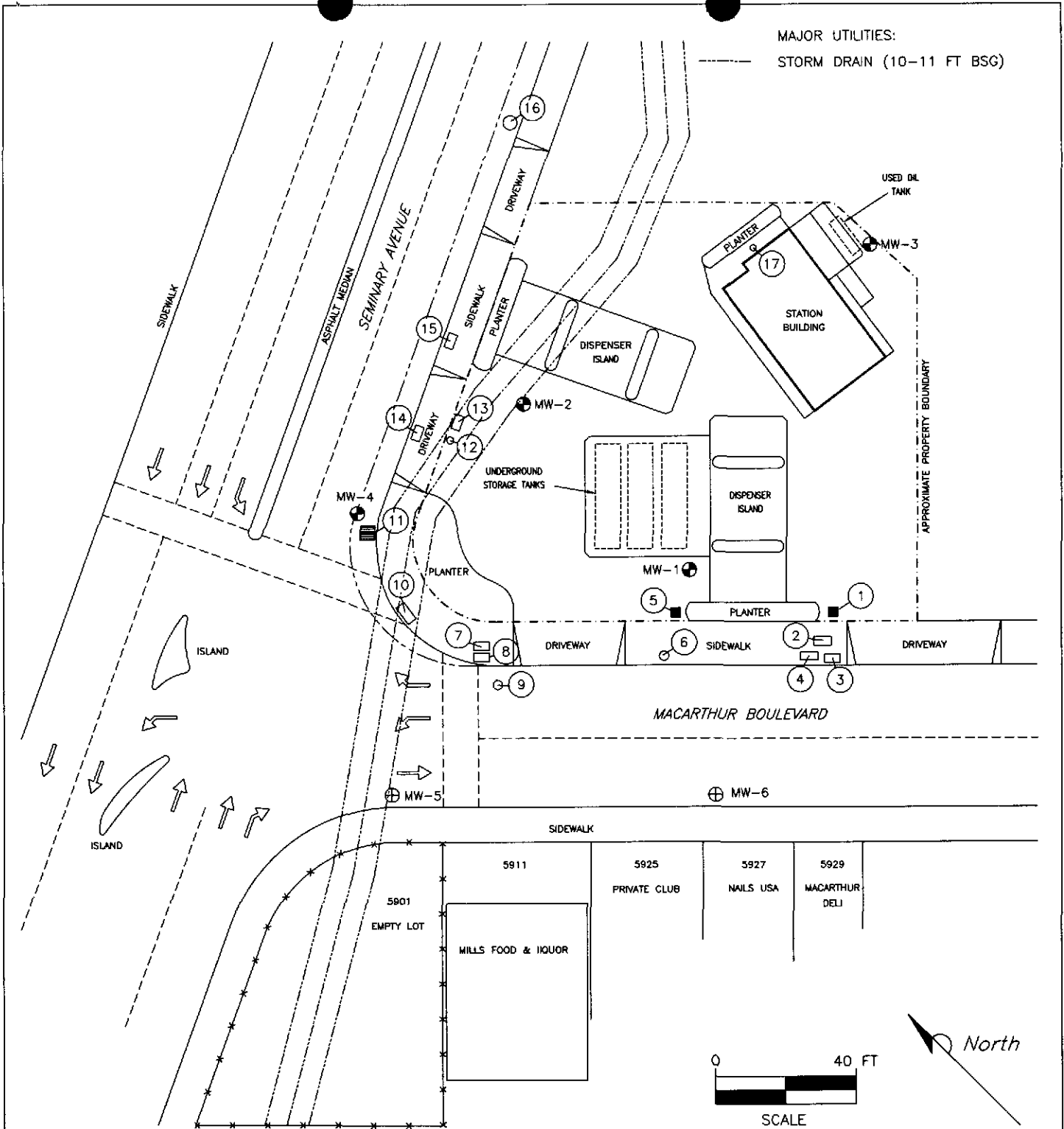
QUADRANGLE LOCATION

FIGURE 1
 WATER WELL LOCATIONS WITHIN 2000' RADIUS
 CHEVRON SERVICE STATION NO. 9-9708
 5910 MACARTHUR BOULEVARD
 OAKLAND, CA

PROJECT NO. DG99-708	DRAWN BY TLA 8/1/01
FILE NO. DG99708A	PREPARED BY TLA
REVISION NO. 2	REVIEWED BY



MAJOR UTILITIES:
 - - - - - STORM DRAIN (10-11 FT BSG)



LEGEND:

- ⊕ MW-1 MONITORING WELL LOCATION
- ⊕ MW-5 PROPOSED MONITORING WELL LOCATION

VAULT NUMBER	VAULT DESCRIPTION	VAULT NUMBER	VAULT DESCRIPTION
1	STORM DRAIN	10	TRAFFIC
2	ELECTRICAL	11	STORM DRAIN
3	ELECTRICAL	12	WATER VALVE
4	TRAFFIC	13	PG&E
5	STROM SRAIN	14	WATER METER
6	SEWER	15	TRAFFIC
7	TRAFFIC	16	SEWER
8	TRAFFIC	17	SEWER CLEANOUT
9	WATER		

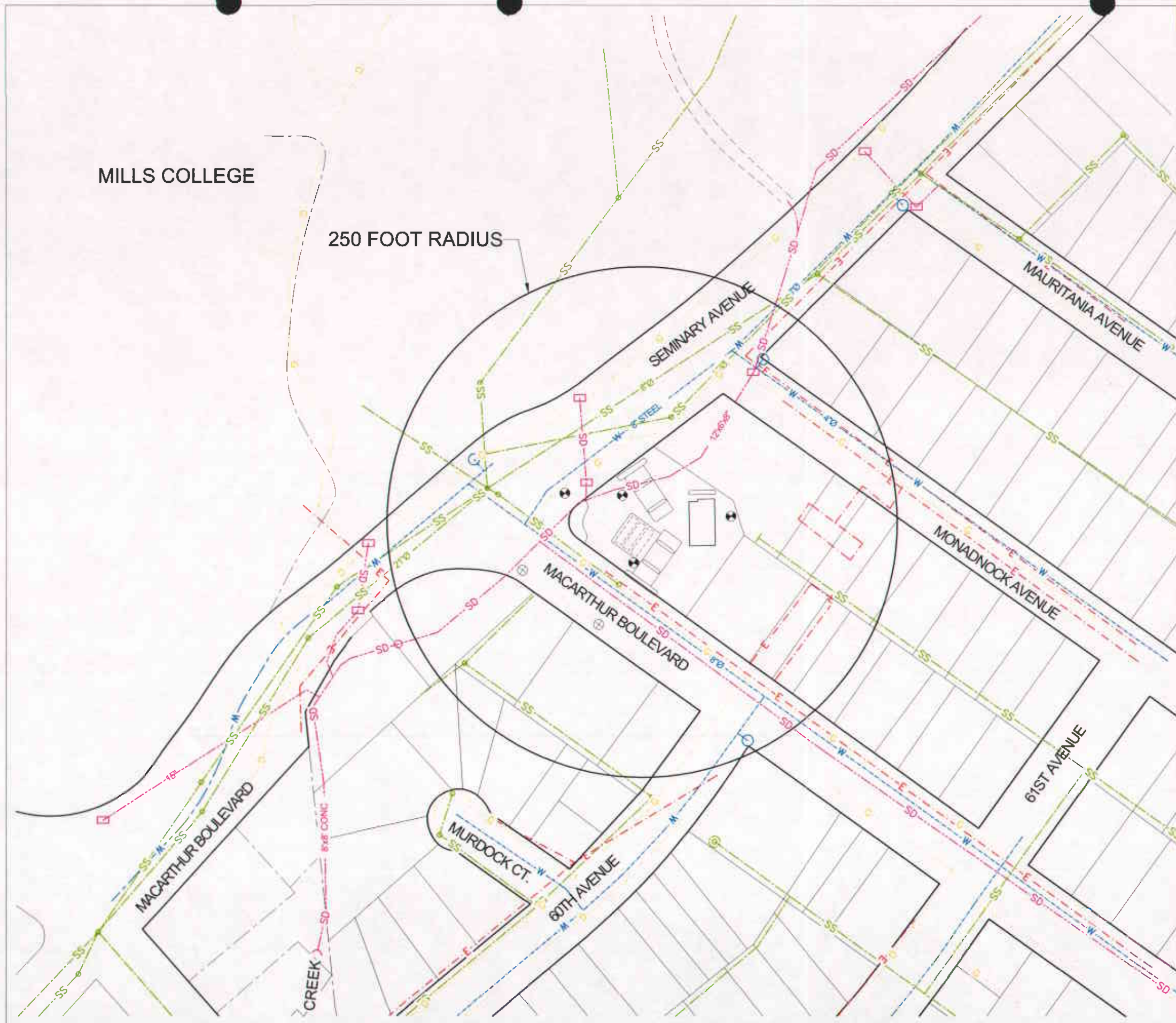
FIGURE 2

SITE VICINITY MAP

CHEVRON SERVICE STATION NO. 9-9708
 5910 MACARTHUR BOULEVARD
 OAKLAND, CA.

PROJECT NO. DG99-708	DRAWN BY TLA 1/15/01
FILE NO. 9-9708-2	PREPARED BY TLA
REVISION NO. 3	REVIEWED BY





MILLS COLLEGE

250 FOOT RADIUS

UTILITY LINES

- W WATER (1-2 FEET BGS)
- SS SANITARY SEWER (8-9 FT BGS)
- SD STORM DRAIN (10-11 FT BGS)
- G GAS
- E ELECTRICAL

- MONITORING WELL LOCATION
- ⊕ PROPOSED MONITORING WELL LOCATION
- FIRE HYDRANT
- SEWER MANHOLE
- STORM DRAIN INLET

North

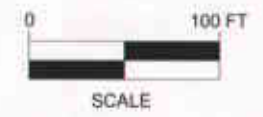


FIGURE 3
UTILITY MAP
CHEVRON STATION NO. 9-9708
5910 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

PROJECT NO. DG99-708	DRAWN BY TLA 6/15/01
FILE NO. 9-9708-1	PREPARED BY TAD
REVISION NO. 2	REVIEWED BY

Delta
Environmental
Consultants, Inc.