

**ETS** ENVIRONMENTAL  
ENVIRONMENT & TECHNOLOGY SERVICES

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September 5, 1996

Ms. Susan L. Hugo, Senior Hazardous Materials Specialist  
Alameda County Health Care Services  
1131 Harbor Bay Parkway,  
Alameda, CA 94502-6577

Subject: Groundwater Elevation Measurement On July 30, 1996  
5800 Christie Avenue, Emeryville, California

Dear Ms. Hugo:

As per your request in the letter of July 18, 1996, ETS was retained by Croley & Herring Investment Company to conduct groundwater elevation measurements from each monitoring well at 5800 Christie Avenue, Emeryville, California.

On July 30, 1996, an ETS engineer measured the groundwater levels from all the monitoring wells at the subjective address and 5818 Shellmound Street for Lathrop Construction. Engineering Associates performed the elevation survey on August 17, 1996(see attached report).

Table 1 summarizes the groundwater elevation for each of the monitoring wells, Figure 1 is the general site map for groundwater monitoring well locations and the groundwater flow directions on July 30, 1996.

The groundwater flow directions of the subject property and neighbor Lathrop properties were both approximately heading to south southeast with hydraulic gradients of 0.0288 and 0.0176 feet per horizontal foot, respectively. It indicated that the subject property was located at down gradient of groundwater flow from Lathrop property. Groundwater flow directions were determined by three points method and the chosen points were within the contaminated plume. For the subject property, EW-1, MW-4, and C-3 were chosen to determine groundwater hydraulic and C-1, C-2, and C-3 were chosen for Lathrop property. Attachment is the surveyor's report.

Please contact me if you have any question about this summary.

Sincerely,

A handwritten signature in black ink, appearing to read 'Walter W. Loo', with a long horizontal flourish extending to the right.

Walter W. Loo, RG CEG CHG  
President

CC: Mr. Dick Herring, Croley and Herring Investment Company  
Miss. Christine Noma, Wendel, Rosen, Black & Dean, LLP

**TABLE 1**

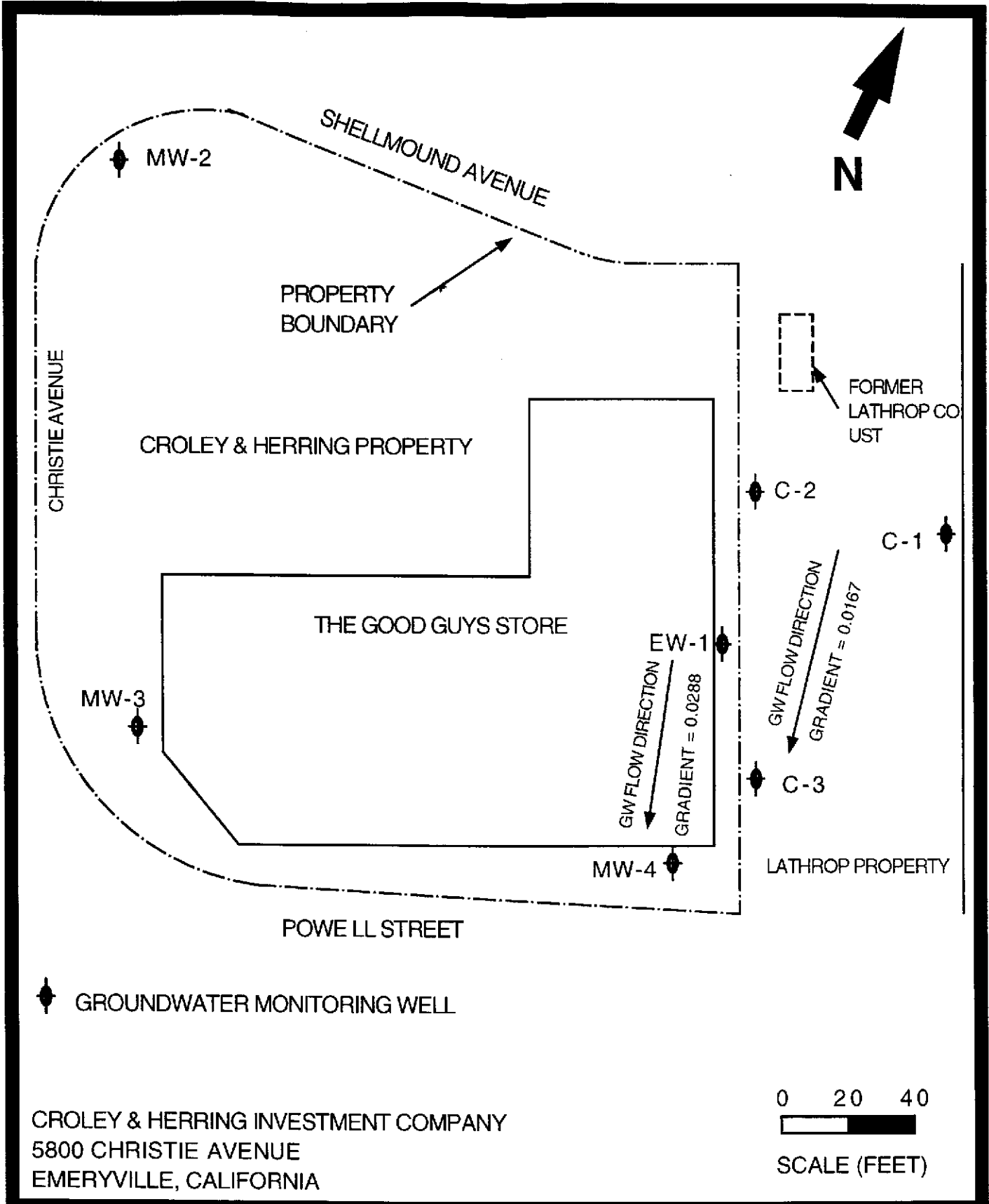
**SUMMARY OF GROUNDWATER ELEVATION  
5800 CHRISTIE AVENUE,  
EMERYVILLE, CALIFORNIA  
(July 30, 1996)**

<b>WELL ID.</b>	<b>T.O.C.E.</b>	<b>W.T.T.O.C.</b>	<b>G.W.E.</b>
EW-1	9.16'	6.30'	2.86'
MW-2	7.41'	4.74'	2.67'
MW-3	8.53'	5.60'	2.93'
MW-4	7.62'	6.71'	0.91'
C-1	8.71'	5.88'	2.83
C-2	7.92'	5.14'	2.78'
C-3	7.92'	6.21'	1.71'

**T.O.C.E. : TOP OF CASING ELEVATION**

**W.T.T.O.C. : WATER TABLE TO TOP OF CASING**

**G.W.E. : GROUNDWATER ELEVATION**



CROLEY & HERRING INVESTMENT COMPANY  
 5800 CHRISTIE AVENUE  
 EMERYVILLE, CALIFORNIA

0 20 40  
 SCALE (FEET)

**ETS**

ENVIRONMENT & TECHNOLOGY SERVICES

FIGURE 1

GW FLOW DIRECTION (7/30/96)

August 17, 1996

**CROWLEY & HERRING Investment Company**

353 Beacon Ridge Lane  
Walnut Creek, California  
94596

Attention: **Mr. Richard Herring**

Re: Elevations of Monitoring Well Casings - 5800 Christy Avenue  
Our Project Number **93-783**

Dear **Mr. Herring**:

Thank you for the opportunity to meet at the project site and your assistance in locating and measuring each of the seven wells at the Good Guy's site and the neighboring property (5813 Shellmound).

Based upon our measurements, the following information has been determined

<b>WELL</b>	<b>ELEVATION</b>
EW1	9.16
MW2	7.41
MW3	8.53
MW4	7.62
C-1	8.71
C-2	7.92
C-3	7.92

The following information should be noted regarding this data:

- 1) All elevations are based upon the East Bay Municipal Utilities District monument located on the Easterly side of the railroad tracks at the rear of 1501 Shellmound. (Set into the loading dock). This Disk has the published elevation of 11 82 USC&GS datum.
- 2) At each well, a painted mark was placed on the top of the PVC well casing. The elevation was taken at this point. Because the casings may not be cut on a level plane, there may be a variation in the elevation of the casing and a true elevation reading will only be reproduced by

**Mr. Richard Herring**  
5800 Christy Avenue

August 17, 1996  
Page two of two

## Well Elevations

relating all measurements to this painted mark.

3) It was noted that there is a difference of approximately 1/2" between the measurements taken during this reading and those taken in 1993. It is likely that this is because of either recent construction or casing variations noted in #2.

Should you have any questions or wish further information, please do not hesitate to call.

Respectfully submitted,

**GILBERT E. HAYES**

GH:cb

*NOTE: This document has been generated and faxed directly by computer. As such it contains no original signature. Verification of the authenticity of this document can be obtained by calling Engineering Associates @ 510 - 655- 7969 during normal business hours.*