

40-8903



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August 15, 2003

Mr. Mark Purcell
Remedial Project Manager
EPA-Region 6
1445 Ross Avenue
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Dallas, TX 75202

RE: New Mexico Environment Department inspection visit with Mr. Anton Allensworth-Cannaday, Milan, New Mexico

Dear Mark:

The New Mexico Environment Department (NMED) received a telephone call from Mr. Anton Allensworth-Cannaday on August 5, 2003. Mr. Allensworth-Cannaday requested NMED's assistance in determining whether remedial action for the Homestake Mining Company (HMC) mill site in Milan, NM (CERCLIS no. NMD007860935) was causing structural dislocations to his home, which is located on Lot 1/Tract 1 in the Murray Acres subdivision.

Mr. David L. Mayerson and Mr. Jeff Sanders of NMED visited with Mr. Allensworth-Cannaday at his home on August 7, 2003, and provide the following documentation from our inspection and interview with the owner.

Mr. Allensworth-Cannaday's approximately 1800 square foot home originally was built in 1959 or the early 1960s with pitched roof and frame/stucco construction (see Figure 1 and Figure 2). The house is comprised of an original portion, which has a crawl space (n. b., NMED did not inspect this crawl space), and a later addition, which includes the current family and utility rooms and is built on a slab. The house is elongated east/west, with the front of the house facing to the south. There are two currently-disused wells in the back yard (i.e., north side) of the property. The well nearest to the house is located approximately 20 feet to the north; NMED believes that this well is designated as "ACW" by HMC (Figure 3). Mr. Allensworth-Cannaday asserts that, when he acquired the home in 1996, this well was being used by HMC for injection. He further asserts that, at this time, the area around the well was noticeably elevated, and wet with abundant vegetative growth. Mr. Allensworth-Cannaday states that he contacted HMC in 1998 or 1999 to request discontinuation of the injection activities and also to seek information about the remedial action. The second well is located approximately 30 feet further north of well ACW—on the north side of a pump shed, and once was used as the residential supply, according to Mr. Allensworth-Cannaday. NMED personnel believe that this well is designated as "AW" by HMC (Figure 4).

Both wells are constructed with 6-inch diameter steel casing. Well ACW currently is covered by a bolted steel plate. NMED personnel removed this plate to insert a water level probe; the well was dry and measured at 20

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feet of total depth. HMC's document *Ground-Water Monitoring and Performance Review for Homestake's Grants Project* (Hydro-Engineering, LLC, March 2002) shows that this well was originally 325 feet deep. Mr. Allensworth-Cannaday stated that he was not aware of any plugging operation on this well at the time that injection was discontinued at his request. Well AW was covered with a standard steel pump weatherhead; however the pump has been removed from this well. NMED measured this well to be 153 feet deep, with a water level at 135 feet. The measured total depth of this well corresponds favorably with the 156 feet reported in the above-cited reference.

Mr. Allensworth-Cannaday showed NMED personnel a crack in the concrete apron on the back (i. e., north side) of the house (Figure 5). This crack is oriented approximately north/south, in approximate alignment with well ACW and is approximately ¼ inch in width. The crack is visible into the wall stucco up to the house's eave. This crack is located approximately 5 feet to the east of the inferred seam between the original house structure and the addition to the house. Some dislocation of the roof line was noted, but may be related to the seam of the house addition.

No evidence of the crack was noted on the interior of the house; however Mr. Allensworth-Cannaday stated that he had repaired interior cracks on several occasions.

On the front (i. e., south side) of the house, NMED noted that the concrete porch apron along the original house structure was tilted downward to the north by about 1½ inches, causing exposure of the uncolored stucco undercoat along the wall seam (Figure 6 and Figure 7).

Mr. Allensworth-Cannaday stated that all of these dislocations suddenly appeared shortly after HMC had discontinued injection into well ACW.

NMED personnel also observed that the northwestern corner of Mr. Allensworth-Cannaday's property was very damp and lushly-vegetated in comparison to the rest of the property. Mr. Allensworth-Cannaday stated that he had been allowing the inflow of irrigation water from his neighbor's property into this area.

NMED has spoken to Mr. Al Cox (HMC) to request that he contact, and subsequently arrange to visit, Mr. Allensworth-Cannaday about his property concerns, and also to inform him about the status and process of HMC's ongoing remedial effort. NMED believes that the following assertions by the owner may be mitigating factors that could indicate the need for HMC to provide Mr. Allensworth-Cannaday with an independent structural engineering inspection of house to determine the cause of the observed structural dislocations:

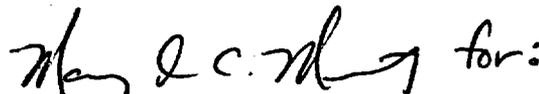
1. The area around well ACW, which is in relatively close proximity to the house, was elevated, damp and highly-vegetated at the time it was used for injection. These observations might indicate leakage to the surface of injected water. Such leakage, if it occurred, may have caused swelling of near-subsurface clays and/or soil liquefaction, contributing to foundation dislocation. The crack on the back side of the house aligns fairly closely to this well, and involves both the house itself as well as a concrete apron that appears to be unconnected to the structure.
2. The observed structural dislocations occurred subsequent to cessation of HMC's injection activities.

NMED appreciates the efforts that HMC has made in public outreach, as part of its overall remedial activities, and expects that this matter can be addressed in the same fashion. We request that HMC keep NMED informed of the resolution of this matter. Please contact us if you should have any questions.

Sincerely,



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Mr. Al Cox, HMC

Mr. William von Till, NRC

**NMED/GWQB/SOS August 2003 read file
HMC 2003 correspondence file**

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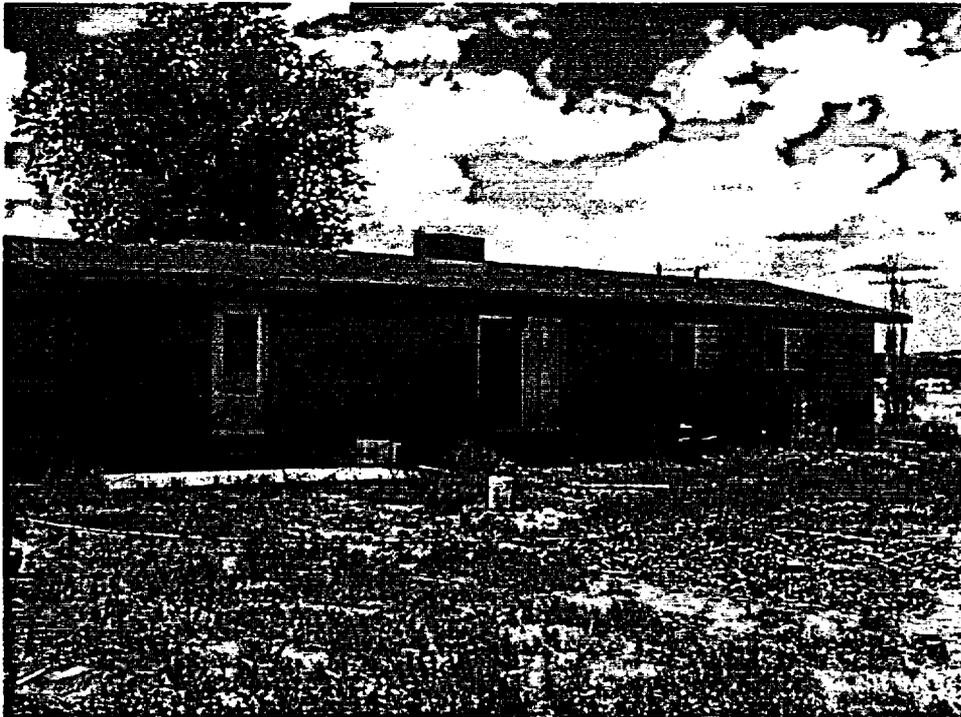
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Figure 1: General view of front side (i.e., southern side) of Mr. Allensworth-Cannaday's house



Figure 2: General view of back side (i. e., northern side) of Mr. Allensworth-Cannaday's house



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Figure 3: Well ACW



Figure 4: Well AW



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Figure 5: Crack in concrete apron on back (i. e., north) side of Mr. Allensworth-Cannaday's house

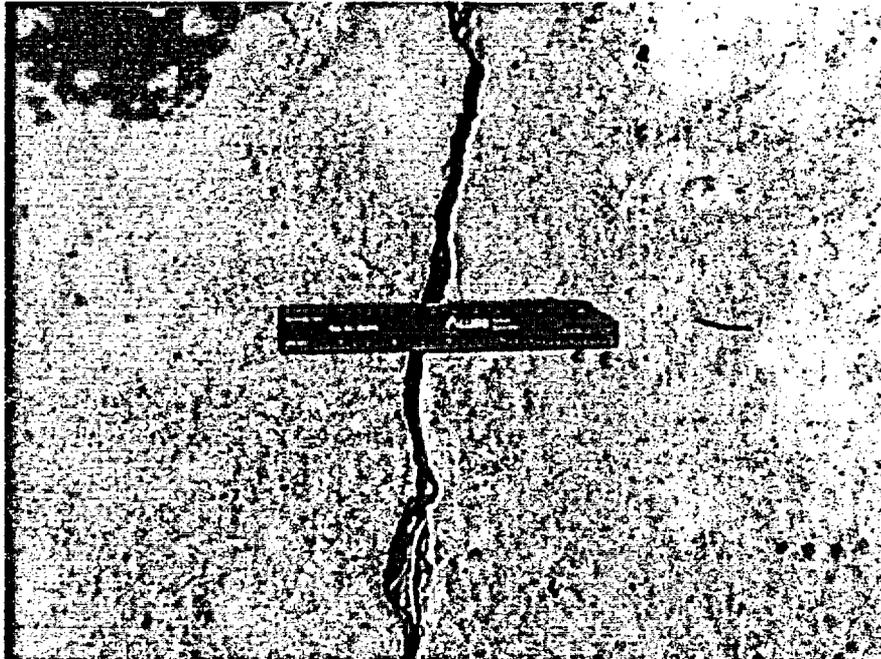


Figure 6: View of concrete porch apron at house wall juncture on front side (i. e., south) of house



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Figure 7: View of concrete porch apron on front side (i. e., south) showing dislocation hinge

