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TRANSMITTAL AND RESPONSE TO COMMENTS FOR RCRA FACILITY INVESTIGATION REPORT ADDENDUM AREA OF CONCERN 723 (AOC 723) ZONE E CNC CHARLESTON SC
5/9/2003
CH2M HILL

AOC 723 Zone E
RtC on RFA/RFI Report Addendum

CH2MHILL TRANSMITTAL

To: Mr. David Scaturo
South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management
2600 Bull Street
Columbia, SC 29201

From: Dean Williamson/CH2M-Jones

Date: Oct. 10, 2003

Re: CH2M-Jones' Responses to Comments by SCDHEC regarding the *RFA/RFI Report Addendum, AOC 723, Zone E, Revision 0* – Originally Submitted on May 9, 2003

We Are Sending You:

X	**Attached**	Under separate cover via	
	Shop Drawings	Documents	Tracings
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	Copy of letter	Other:	

Quantity	Description
2	CH2M-Jones' Responses to Comments by SCDHEC regarding the *RFA/RFI Report Addendum, AOC 723, Zone E, Revision 0* – Originally Submitted on May 9, 2003

If material received is not as listed, please notify us at once.

Copy To:

Dann Spariosu/USEPA, w/att
Rob Harrell/Navy, w/att
Gary Foster/CH2M HILL, w/att

Hydrogeology Comments Prepared by Jo Cherie Overcash

Section 3.3.2 Proposed Groundwater Sampling

In November 2002, recently installed shallow and deep monitoring wells E563GW004/04D at AOC 563 detected trichloroethene at 71.3 micrograms per liter (µg/L) and 1,700 µg/L respectively. These wells are inside Building 177, upgradient of AOC 563 and downgradient of AOC 723. In the Workplan for AOC 723, the Navy states that the purpose of the proposed E723GW001/01D well pair is to determine if a source of groundwater contamination exists between AOC 563 and newly identified AOC 723.

According to Figure B-1 entitled Shallow Groundwater Elevation Contours (Nov 2002) and Figure B-2 entitled Deep Groundwater Elevation Contours, shallow groundwater flow in this area of the Base is to the northeast while deep groundwater flow is to the east/southeast. The direction of groundwater flow and the proposed well locations were discussed during the June 10, 2003, teleconference. In response, the Navy revised the location of the proposed deep monitoring well. Shallow monitoring well E723GW001 and deep monitoring well E723GW01D must be installed in the locations depicted on referenced Figure 1 facsimiled on June 26, 2003. Note that facsimiled Figure 1 entitled *Zone L DPT Borings near Bldg 177 and Revised Deep Well Location, for AOC 723* should replace the Workplan Figure 3-3 entitled *Locations of Proposed and Existing Monitoring Wells*. Also note that proposed deep monitoring well E723GW01D has been relocated to be downgradient of existing monitoring well E563GW004.

The installation of additional groundwater sampling locations downgradient of AOC 723 can be postponed until after review of the surface and subsurface soil data. If surface and/or subsurface soil data indicate that there has been a release from AOC 723, then the Navy must propose to install additional groundwater monitoring wells hydraulically downgradient of the unit. Based on the contours depicted on referenced Figure B-2, the installation of a deep downgradient monitoring well may be warranted south of Building 177 eastward along Pipefitter Street.

CH2M-Jones Response:

Surface and subsurface soil data from the July 2003 soil sampling event do not indicate a release into soil of chlorinated VOCs that are the primary contaminants of potential concern at AOC 723. Based on a telephone conversation between Jerry Stamps/SCDHEC and Sam Naik/CH2M-Jones on September 24, 2003, no additional monitoring wells are currently proposed to be installed as part of the RFI. It was agreed that the need for additional monitoring wells will be evaluated after the analytical results of groundwater samples from monitoring wells E723GW001 and E723GW01D are examined.

In order to obtain a clearer view of groundwater quality and to aid in determining a potential/possible source of contamination in this Area of the Base, the Navy should collect and analyze groundwater samples from nearby existing wells. Monitoring well pair E569GW005/05D is installed directly west of Building 177 adjacent to AOC 723 and appears to provide shallow and deep upgradient groundwater data. This well pair was sampled in March 2002 for the first time. Groundwater samples were analyzed for VOCs only. No parameters of concern were identified. Groundwater samples should be collected from these wells during this AOC 723 investigation and analysis must be for all the RFI parameters: VOCs, SVOCs, and metals.

Groundwater samples should also be collected from existing monitoring well pair E563GW004/04D where trichloroethene has been detected. These newly installed wells were sampled for the first time in November 2002. The Navy should determine the concentration of VOCs in these wells as part of this AOC 723 investigation.

CH2M-Jones Response:

We agree to collect the additional groundwater samples requested from well pairs E569GW005/ E569GW05D, and E563GW004/E563GW04D. These wells will be sampled along with new wells E723GW001 and E723GW01D for VOCs, SVOCs, and metals.

In Conclusion

- Replace the Workplan Figure 3-3 entitled *Locations of Proposed and Existing Monitoring Wells* with facsimiled Figure 1 entitled *Zone L DPT Borings near Bldg 177 and Revised Deep Well Location, for AOC 723.*

CH2M-Jones Response:

Replacement Figure 3-3 is attached.

- The Navy must install the shallow monitoring well E723GW001 and deep monitoring well E723GW01D in the locations depicted on facsimiled Figure 1.

  CH2M-Jones Response:

  These wells have been installed at these locations during September 2003.

- The Navy should base the need for a deep groundwater monitoring well south of Building 177 eastward along Pipefitter Street on surface and subsurface soil data. Additional shallow monitoring wells may also be warranted due to groundwater flow.

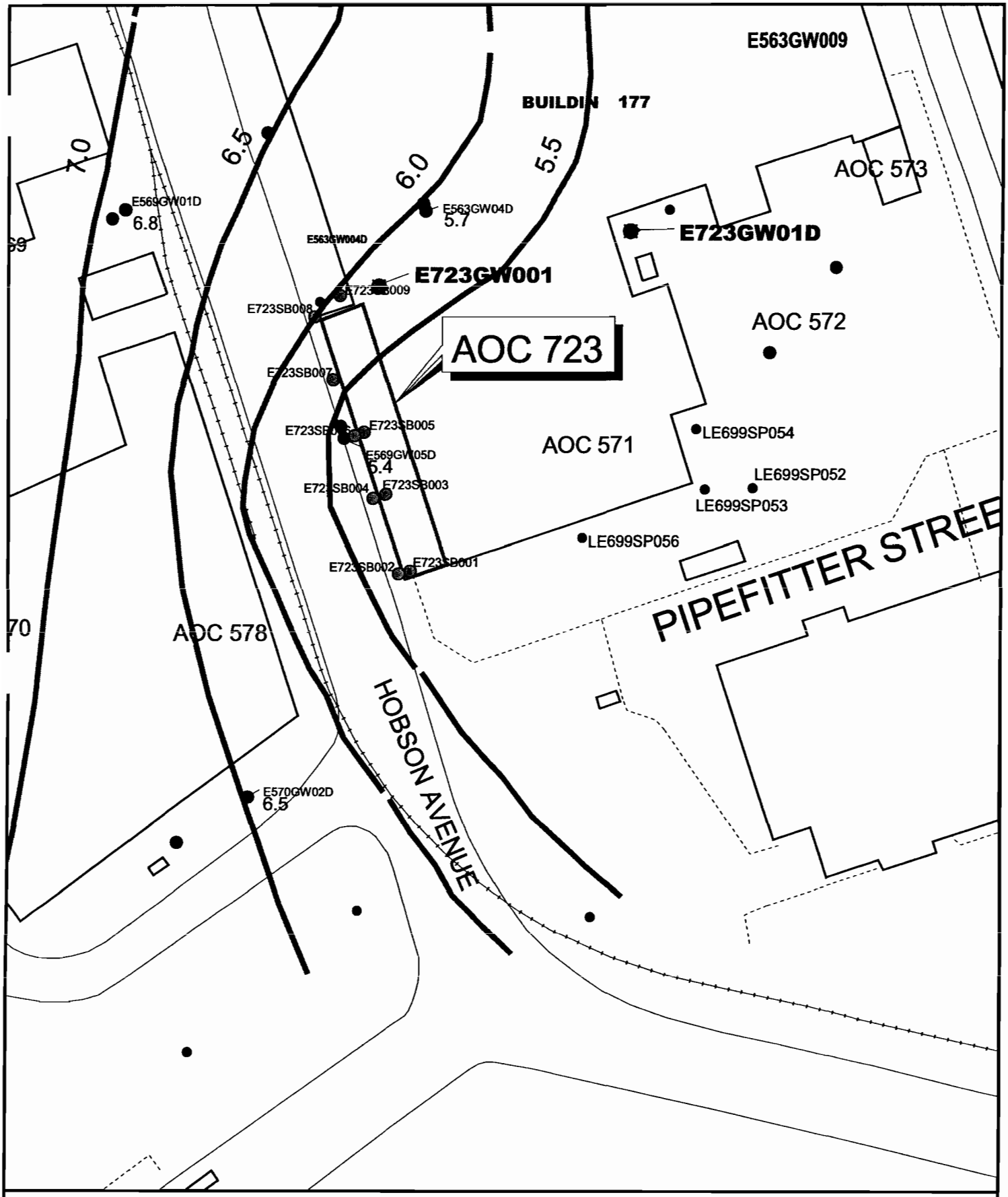
  CH2M-Jones Response:

  As mentioned previously in these responses, the need for additional monitoring wells will be evaluated after the analytical results of groundwater samples from monitoring wells E723GW001 and E723GW01D are examined.

- Groundwater samples must be collected from the proposed wells and from existing well pairs E563GW004/04D and E569GW005/05D. Samples must be analyzed for VOCs, SVOCs and metals.

  CH2M-Jones Response:

  Agreed. Groundwater samples will be collected from these wells and analyzed for VOCs, SVOCs, and metals.



Figur 3-3
Locations of Proposed and Existing Monitoring Wells
AOC 723 Area, Zone E
Charleston Naval Complex

CH2MHILL

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