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NSB KINGS BAY
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U S NAVY RESPONSES TO GEORGIA DEPARTMENT OF NATURAL RESOURCES
COMMENTS ON SEMI-ANNUAL AND QUARTERLY CORRECTIVE ACTION REPORTS FOR
SITE 11 NSB KINGS BAY GA
9/27/2010
U S NAVY



31547-000
50.03.00.0003

23 June 1993

Commanding Officer
Southern Division
Naval Facilities Engineering Command
P.O. Box 10068
North Charleston, SC 29411-0068

ATTN: Ed Lohr
Code 1868

Subject: Naval Submarine Base, Kings Bay, GA
Contract Task Order No. 041
Prime Contract N62467-89-D-0317
USGS Comments Regarding Slug Test Data
and Well Top of Casing Elevations

Dear Mr. Lohr:

We are in receipt of the fax you sent yesterday regarding the USGS comments on the slug tests and top of casing (TOC) elevations. We agree that a meeting in Atlanta to resolve the slug test discrepancy is appropriate. We discussed 1 July 1993 as the date. Kurt Sichelstiel and I have made arrangements to travel that date, and will meet you at the Atlanta airport.

I have reviewed the TOC information published in Technical Memorandum No. 1 for the three sites, the TOC elevations submitted by Privett and Associates, and the TOC elevations used to derive the water level elevations published in Technical memoranda Nos. 1 through 5 and the RFI Reports. USGS mentions that three wells have discrepancies of greater than .07 feet and that one well did not have the TOC elevation published. I would like to address each of these issues in succession.

Monitor Well KBA-5-1

The TOC elevation published in Technical Memorandum No. 1, Appendix A "Boring Logs" was incorrectly published. The TOC elevation for KBA-5-1 supplied by Privett and Associates is 22.07 feet Mean Low Water (MLW). The top of concrete pad elevation is 19.08 feet MLW. The elevation shown in the boring log is the top of concrete pad. The elevation of the TOC used to derive the water table elevation for the six groundwater monitoring events was 22.07 feet MLW. The elevation used for water table elevation is within .01 feet of the USGS value. The value shown on the boring log will be corrected in the RFI report for this site.

ABB Environmental Services Inc.

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Monitor Well KBA-5-2

The TOC elevation published in Technical Memorandum No. 1, Appendix A "Boring Logs" was indicated as 19.63 feet MLW. Because of the font used for the creation of the logs, the number 6 could be easily misinterpreted as 8. The TOC elevation supplied by Privett and Associates is 19.63 feet and was the elevation used to derive the water table elevations for the six monitoring events. This elevation is within .01 feet of the USGS elevation indicated in their summary table.

Monitor Well KBA-11-2

The TOC elevation published in Technical Memorandum No. 1, Appendix A "Boring Logs" was published as 34.92 feet MLW. The TOC elevation supplied by Privett and Associates was 34.92 feet MLW. The elevation of the TOC used to derive the water table elevation for the six groundwater monitoring events was 34.92 feet MLW. The TOC elevation provided by USGS is 35.98 feet MLW. We have contacted Privett and Associates regarding this discrepancy. They have informed us that their field books indicated a TOC elevation of 35.94 feet MLW. The new value for the TOC elevation is within .04 feet of the USGS value. The drawings and information provided to ABB-ES was incorrect. Due to this error, ABB-ES is re-evaluating the groundwater contour maps for the 5 technical memoranda and the RFI report. We will forward our evaluation of the impact of this error within the next few days. We have enclosed a copy of Privett and Associates response to the USGS summary. We also have developed a Corrective Action Memorandum that specifically addresses this error and Quality Assurance actions to minimize errors of this nature in the future. This memorandum is also enclosed.

Monitor Well KBA-11-8

The TOC elevation was not published in Technical Memorandum No. 1, Appendix A "Boring Logs". The TOC elevation is 38.16 feet MLW as provided by Privett and Associates. This value was used in the groundwater elevation determination. This value is within .05 feet of the value provided by USGS. We will publish this TOC elevation in the RFI report boring logs.

ABB-ES appreciates the USGS pointing out omissions, or areas that could be better clarified in future documents, and an error from our subcontractor. The ABB-ES Kings Bay project team will in the future publish tables within the text that indicate the TOC elevations, top of pad elevations, screened intervals, and field water level measurements from TOC to water level. The ABB-ES Kings Bay project team will also implement a requirement that the field crew use an engineers rule to measure top of pad to:

1. Top of casing;
2. and top of protective casing;

during each water level measurement event. These distances will then be compared to values derived from information provided by the survey subcontractor.

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Our first impression of the impact of the error in water elevation at Site 11, is that it will shift the flow direction slightly toward a more northerly direction (Northwest). We are currently reevaluating this information, and will provide corrected contour maps to you within the next week. If you have any questions regarding this matter, please call me at (615) 531-1922.

Sincerely,

ABB ENVIRONMENTAL SERVICES, INC.

Frank B. Cater, PE
Task Order Manager



Enclosures:

Letter dated 22 June 1993 from Privett and Associates
Corrective Action Memorandum

cc John Garner
Willard Murray
Tony Allen
Rich May
CTO 041 Files



SURVEYORS
&
LAND PLANNERS

PRIVETT & ASSOCIATES, INC.
1320 HIGHWAY 40 EAST
ST. MARYS, GEORGIA 31558

Telephone: 912/882-3738
Fax: 912/882-2729

June 22, 1993

Mr. Frank Cater
ABB Environmental Services, Inc.
1400 Centerpoint Blvd., Suite 158
Knoxville, TN 37932-1968

Re: Disposal Area Sites 5 and 11
NSB, Kings Bay, Ga.

Dear Mr. Cater:

Pursuant to your request, we have completed the comparison of our vertical location of the monitoring wells at the above referenced sites with that of the U.S. Geological Survey data you sent us. We found all comparisons to be within one inch or closer, except for well no. 11-2, for which we had a drafting error. Our map shows elevation 34.92, however the field notes indicated the elevation is 35.94 (35.98 by U.S.G.S.). Please find enclosed two prints of our map revised accordingly.

I trust this satisfactorily resolves the concerns raised by the Navy and I hope our one drafting error did not cause an inconvenience for the project. Please don't hesitate to call if there are further questions.

Very truly yours,
Privett & Associates, Inc.

Park D. Privett, Jr.
Reg. Surveyor No. 4218, GA.

Enclosures

PDP, Jr/cw



Inter-Office Correspondence

23 June 1993

TO: Laura Harris
Kurt Sichelstiel

FROM: Frank Cater *FC*

SUBJECT: Corrective Action
Groundwater Elevation Measurement Procedure

History

On 22 June 1993, it was brought to my attention that an error in the Top of Casing (TOC) elevation of one of the monitor wells at NSB Kings Bay Site 11 had been incorrectly reported to ABB by our subcontractor. The error was a result of a drafting error by the subcontractor. This has created a need for ABB to reevaluate groundwater contours.

Root Cause

There are no checks and balances to survey data that ABB receives from its subcontractors. A reality check for all data received should be in place.

Action

In the future, all well survey information shall be checked by implementing the following procedure.

1. Upon completion of the well, the field crew will use an engineers rule to measure the distance from top of concrete pad to:
 - A. Top of Casing;
 - B. top of protective casing;
 - C. and to ground surface.This data will then be recorded in the field book.
2. During all groundwater monitoring events, the field crew will use an engineers rule to measure the distance from top of concrete pad to:
 - A. Top of Casing;
 - B. and top of protective casing.This data will then be recorded in the field book.
3. Upon receipt of survey maps, the distance from the TOC to the top of concrete pad will be determined. This value will be compared to the field values. If there is a discrepancy of more than 0.1 feet, the survey subcontractor will be requested to verify the survey results.
4. Top of pad elevations supplied by the survey subcontractor will be compared to existing base maps that have contour elevations. The

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Groundwater Elevation Measurement Procedure
Memorandum
NSB Kings Bay, Georgia

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elevation of the top of concrete pad will be compared to the elevation of the ground in the vicinity of the monitor well as a reality check.

5. Reports produced will contain tabulated field measurements, survey information, and evaluations of the information.

This procedure will be implemented immediately. Please advise all personnel in your project teams as appropriate.

cc Ed Lohr
John Garner
Tony Allen
Rich May
Willard Murray
CTO 041 File
CTO 094 File