



PROJECT NOTE NO.		PROJECT NO.	
M60050.001019 MCAS EL TORO SSIC # 5090.3		PN-0145-37 CLE-C01-01F145-I2-0031	01-F145-H6 <i>M 60050.001019</i>
CONFIRMATION OF:	CONFERENCE X	DATE HELD	14 May 1992
	TELECOM	DATE ISSUED	15 June 1992
	OTHER	RECORDED BY	John Dolegowski/CH2M HILL
		PLACE	Santa Ana
SUBJECT	Meeting with Regulatory Agencies Marine Corps Air Station El Toro Orange County, California Remedial Investigation/Feasibility Study Phase I		

PARTICIPANTS: (\* DENOTES PART-TIME ATTENDANCE)

See last page

ACTION REQ'D. BY	ITEM
	<p>Representatives of Marine Corps Air Station (MCAS) El Toro; Naval Facilities Engineering Command-Southwest Division (SOUTHWESTDIV); Orange County Water District (OCWD); CH2M HILL; and the regulatory agencies, U.S. Environmental Protection Agency (EPA), California Department of Toxic Substances Control (DTSC), and California Regional Water Quality Control Board (RWQCB), met at CH2M HILL's Santa Ana office at 0800 on 14 May 1992. These meeting minutes (prepared by CH2M HILL and reviewed by SOUTHWESTDIV) provide a summary of the major points of discussion, significant decisions reached during the meeting, and a list of action items.</p> <p>The major topic of discussion of the meeting was the proposed changes to the 28 Feb 1991 Draft Final Sampling and Analysis Plan (SAP). CH2M HILL made a presentation of the proposed changes in the morning session adhering to the following approximate format:</p> <ul style="list-style-type: none"> <li>o General Issues and Approach</li> <li>o Recap of OU-1 Changes</li> <li>o General and Specific OU-2 and OU-3 Changes</li> </ul> <p>The proposed changes were discussed in greater detail in the afternoon session.</p> <p><b>SUMMARY OF ACTION ITEMS</b></p> <ul style="list-style-type: none"> <li>o CH2M HILL will provide cost estimates of performing seismic studies to determine the bedrock contour at Site 17, Communication Station Landfill.</li> <li>o SOUTHWESTDIV will schedule a separate meeting with OCWD to resolve the issue of monitoring of MCAS wells.</li> </ul>

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- o CH2M HILL will provide OCWD a map showing the proposed locations of OU-1 wells.

**SUMMARY OF DECISIONS REACHED**

- o General concensus was reached on changes to monitoring wells and deeper soil borings (i.e., deep borings, angle borings and 25-foot borings). Site-specific issues and comments are presented below.
- o Elimination of a site from further sampling and elimination of an analytical group from future sampling events will be made by committee.

**UPCOMING MEETINGS/OPEN HOUSE**

- o The next Technical Review Committee Meeting is scheduled for 02 June.
- o The next Managers' Meeting is postponed from 11 June to 18 June in order to coincide with planned community relations activities.
- o An environmental "Open House" will be held at MCAS El Toro on 19 June for on-Station personnel and 20 June for the public (the media is invited on both days).

**INTRODUCTORY NOTES**

Andy Piszkin/SOUTHWESTDIV kicked off the meeting at 0815. He emphasized the importance of reaching concensus on the changes to monitoring wells and deeper soil borings; such concensus is necessary in order not to delay the drilling program. Proposed changes to shallow soil borings and surface soil samples are of secondary importance for the meeting. He urged the regulatory agencies to consider the proposed changes as a total package, and not to focus on individual changes.

The regulatory agencies took recess to caucus between 0825 and 0840.

Desi Chandler/SOUTHWESTDIV was introduced to the regulatory agencies after the presentation.

**DISCUSSION OF PROPOSED CHANGES TO SAMPLING AND ANALYSIS PLAN**

John Dolegowski/CH2M HILL started the presentation by stating the goal of revising the SAP was to focus the sampling while maintaining the scope generally the same. Any reduction of monitoring wells and deeper soil borings proposed was based on technical reasons as well as cost considerations; such proposed reductions were balanced by an increase in soil samples, analyses, and the possibility of reserving the wells later on in the Phase I drilling program for purposes such as plume chasing. A statistically-based approach was adopted for selection of shallow boring and surface soil sample locations. Three samples were assigned to each stratum defined. He then turned the floor over to Chuck Elliott/CH2M HILL and Yueh Chuang/CH2M HILL.

General issues and comments relating to more than one site are provided below. Site-specific issues and comments are presented under headings for each site. These

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meeting notes should refer to the revised Table 4-2 of the SAP, and the summary handout of the proposed changes.

**General**

As a general issue, C. Elliott emphasized that the dashed lines shown on the aerial photograph maps denoting the site boundaries really should be thought of as denoting areas of concern. Appropriate site boundaries will be defined as more information is gathered.

During the presentation, Kenneth Williams/RWQCB expressed his concerns, at several occasions, that the proposed changes to the SAP appear to be based solely on cost considerations. He felt cost savings is the Navy's tantamount objective and fears for the erosion of stated objectives of the RI/FS. Manny Alonzo/DTSC also expressed his concerns that cost savings achieved should be balanced against missed opportunities. His primary example pointed to the proposal of not converting all deep borings to monitoring wells. The cost savings from not installing well casings should be evaluated against not being able to take groundwater samples. After the presentation, K. Williams reiterated his concerns and indicated the need to separate the potential savings into two pots of money, one to be designated for achieving the objectives of the investigation. He feared that the potential cost savings will be dissipated before the work is actually completed. Larry Nuzum/SOUTHWESTDIV indicated that the attempt was made to reallocate resources, and a cost analysis will show the impact of the proposed changes. A. Piszkin cautioned that the overall program has increased in scope with the proposed changes. John Hamill/EPA inquired whether the Navy is still working under the same contractual constraints which encumbered the acquisition of funding for the current Phase I scope of work. L. Nuzum answered to the affirmative. J. Dolegowski asked about the mechanism to deal with the potential cost overrun. L. Nuzum stated that the Navy will ultimately provide the additional funding in order to finish the work.

The afternoon session began with discussions of the stated objectives of the Phase I work. K. Williams asked the Navy what the objectives are. A. Piszkin replied that the objectives are three-fold: 1) to define the extent of the regional VOC groundwater contamination and determine the potential source areas, 2) to refine the list of compounds of concern (COCs) for the Phase II investigation, and 3) to provide a preliminary risk assessment. J. Hamill indicated that Phase I will likely partially achieve the first objective, but he expressed his doubts about achieving the last two objectives. K. Williams stated the Phase I investigation can achieve the first objective, but concurred with J. Hamill on his assessment of the second and third objectives. Y. Chuang disagreed with J. Hamill and K. William's assessment on the second two objectives by emphasizing that Phase I merely seeks to refine the list of COCs but not to eliminate all sampling, and to perform a preliminary but not final risk assessment. L. Nuzum indicated the Navy will institute the Data Quality Objectives (DQO) process and that should address some of the agencies' concerns. Both L. Nuzum and A. Piszkin indicated that a fourth objective of Phase I should be: 4) to obtain the necessary foundation for the DQO process for the Phase II investigation. All parties agreed that the DQO process will better define the objectives, and assess whether the objectives of the investigations have been achieved.

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Discussions then turned to the appropriateness of using the statistical approach in Phase I to locate shallow borings and surface soil samples. C. Elliott explained the inferences that can be drawn by using the statistical method and argued in favor of its application. Sylvia Ross/CH2M HILL indicated that a specific level of confidence can be attached to randomly selected samples which would then form the basis for additional work. J. Hamill stated that he recollects the Navy originally argued against using the statistical approach because of the large number of samples that would be required during Phase I. He indicated that the SAP was approved without the use of the statistical method. C. Elliott disagreed with J. Hamill's statement and pointed to Section 6.4.2 of the approved SAP, which presented the random soil sampling methodology.

M. Alonzo expressed his concerns that the Navy's potential inability to obtain funding in a timely manner will impact the schedule adversely. He inquired about the lag time necessary for funding requests for Phase II work. L. Nuzum stated that he has already turned in an estimate. M. Alonzo then inquired about the basis of the estimate especially considering the fact that drilling has not commenced yet. W. Lee replied that as with any program manager, L. Nuzum would revise the budgetary analyses based on new information on a quarterly basis, and more often if necessary. However, he cautioned that there is an overall budgetary ceiling for RI/FS investigations. K. Williams then reiterated his stance by advocating the use of judgmental sampling since samples cannot be collected from every stained area identified. He felt the Navy is being too optimistic and should realize not all the Phase I objectives can be achieved with the current scope; there may be a need for Phase III investigations. He even suggested performing a smaller suite of analysis on a judgmental basis in order to optimize available funds. A. Piszkin stated that regardless of the sampling approach taken, no one single party will unilaterally either eliminate a site from further sampling, or eliminate an analytical group in future sampling events.

Due to the lack of time, it was agreed to postpone the discussions of the shallow borings and surface soil samples until the next Managers' Meeting in order that discussions can be shifted to focus on wells and deeper soil borings. However, before the end of the meeting, J. Dolegowski solicited the regulatory agencies' position(s) on soil sampling. K. Williams felt that possibly defining more strata but taking less samples per stratum, in conjunction with judgmental sampling, would be the appropriate approach. J. Hamill indicated that statistically valid sampling is an unachievable goal during Phase I. Sebastian Tindall/SAIC expressed his objections to the statistical approach presented in the SAP. He recounted his version of the events which led to the "conditional" approval of the SAP, and reiterated that the statistical approach was not supposed to be applied until Phase II. C. Elliott stated that S. Tindall and the agencies pushed the Navy to use the statistical approach, and now the Navy is being accused of promoting this approach.

S. Tindall indicated that there are insufficient funds to collect the required number of samples and that the Navy should proceed by possibly adopting an alternative statistical approach from that described in the SAP. S. Tindall described the alternative method. Y. Chuang commented that it is not inconsistent with the Navy's approach; extra methodologies have been developed but not presented during the meeting. All parties agreed to continue the discussions at the next meeting.

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**OU-1**

Changes from the last Managers' Meeting held on 24 April:

- o A complete five-well cluster will be constructed near the Laguna Freeway (Highway 133). The existing deep well and shallow well are likely to be destroyed when the proposed extension is completed
- o Two of the Marshburn Channel wells will be relocated because of the construction of the Foothill Freeway
- o The furthest downgradient cluster well (at Irvine Center Drive and Culver Drive) will be relocated further west on Irvine Center Drive
- o The cluster well located upgradient of Tank 398 will be relocated to accommodate the needs of the Tank 398 study, and minimize interference with Station operations

K. Williams indicated the relocation of the cluster well upgradient of Tank 398 would help the investigation at the site. He thought an upgradient source may exist. J. Dolegowski expressed his concerns about encountering floating product; the presence of petroleum product would render the well cluster useless to the RI/FS. K. Williams asked whether the current location really serves the purpose of assessing the contamination due to Agua Chinon Wash, and whether both purposes could be served. C. Elliott was uncertain that both purposes can be served adequately with the same well cluster. K. Williams suggested that if the shallowest well can be drilled first, even if floating product is encountered, only one well would be consumed under the RI/FS budget. A. Piszkin mentioned that close coordination with Air Operations personnel would be required. J. Hamill stated that the well should not be relocated to accommodate the Tank 398 study if relocating the cluster well detracts from the needs of the RI/FS.

**OU-2**

Site 2 - Magazine Road Landfill

The revised Table 4-2 showed eight surface soil samples; there should be four shallow soil borings and four surface soil samples.

J. Dolegowski informed the agencies that depending on the results of the ecological risk assessment on several proposed endangered species, the drilling activities may be affected. There are like concerns at Sites 1 and 17.

Site 3 - Original Landfill

The deep boring will be converted into a monitoring well.

K. Williams felt it necessary to determine the nature of contamination within the landfill, both in the vadose zone and groundwater; the deep boring should therefore be completed as a well. He also expressed concerns about not being able to collect

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surface soil samples. Y. Chuang reminded him that the site facilities and waste staging area are situated on top of the landfill. The surface soil samples will have to be collected from exposed areas of the landfill.

Site 5 - Perimeter Road Landfill

No significant issues or comments.

Site 10 - Petroleum Disposal Area

An additional monitoring well will be located west of the concrete apron.

K. Williams felt it necessary to have an extra well which will serve as a downgradient well for both Sites 10 and 22. L. Nuzum originally suggested the southwest downgradient well for Site 10 be relocated more to the west.

Site 17 - Communication Station Landfill

One downgradient well will be located with the help of seismic surveys.

K. Williams felt one of the downgradient wells should be placed based on the bedrock contours as determined using seismic surveys. He was not convinced the assumed groundwater flow direction is necessarily correct. C. Elliott felt the well is redundant because Site 3 wells can be drilled in sequence to provide adequate indications of the flow direction and gradient. Agreement cannot be reached on the effect of bedrock contour on groundwater flow. However, it was finally agreed that CH2M HILL would provide cost estimates to perform seismic surveys. For the purposes of Phase I scoping, the well was included.

**OU-3**

Site 1 - Explosive Ordnance Disposal Range

The upgradient well will be moved out of the canyon and an appropriate location will be selected in order to use it as an overall upgradient well for the regional groundwater investigation.

K. Williams felt an overall upgradient OU-1 well is necessary. J. Dolegowski and C. Elliott disagreed. They argued that regardless of whether the upgradient well showed contamination or not, cleanup would still occur at the source areas and the VOC plume.

Site 4 - Ferrocene Spill Area

The deep boring will be relocated from the drainage ditch north to the stained area. It will be completed as a monitoring well.

Y. Chuang argued the deep boring should be eliminated because of the small volume and nature of the ferrocene spill. K. Williams wanted to relocate the deep boring to determine if other sources of contamination has affected the subsurface, especially

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knowing the high potential of other spills and leaks in the test cell compound. Y. Chuang felt that the site is listed because of the ferrocene spill and not the test cell compound. Therefore, by rationalizing the need to sample sites because of new information is equivalent to adding to the current scope of Phase I; the question then remains: why this particular site and not some other site identified by the aerial photography analysis as likely candidate sites? S. Tindall concurred, in general, with the argument.

Site 6 - Drop Tank Drainage Area No. 1

No significant issues or comments.

Site 7 - Drop Tank Drainage Area No. 2

An additional monitoring well will be placed between Buildings 296 and 297.

K. Williams felt a downgradient well is needed because of the relatively large distance between the two deep borings/monitoring wells located at the north and east portions of the site, and the downgradient well located southwest of Building 297. He suggested that the additional well be drilled after the groundwater flow direction at the site is better defined.

Site 8 - DRMO Storage Yard

An additional 25-foot boring will be placed in the trash pile near the center of the Storage Yard.

K. Williams felt the deeper soil boring is necessary to determine potential contamination vertically knowing that the trash pile was observed to be present in all the aerial photographs, therefore over a span of greater than 40 years.

Site 9 - Crash Crew Pit No. 1

No significant issues or comments.

Site 11 - Transformer Storage Area

No significant issues or comments.

Site 12 - Sludge Drying Beds

No significant issues or comments.

Site 13 - Oil Change Area

No significant issues or comments.

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Site 14 - Battery Acid Disposal Area

K. Williams and S. Tindall felt the 25-foot boring should not be eliminated. Y. Chuang stated that the boring was eliminated based on the extremely high likelihood of striking underground utilities. He stated that both utility maps obtained from the Station, and geophysical surveys confirmed the existence of buried utilities. In the end, it was agreed the boring will not be drilled.

S. Tindall inquired about the true location of the site; there is a discrepancy between the SAP and the aerial photography analysis. Y. Chuang replied that the second document misidentified the actual location of the site of concern.

Sites 15 - Suspended Fuel Tanks

No significant issues or comments.

Site 16 - Crash Crew Pit No. 2

One 25-foot boring will be eliminated and the deep boring/monitoring well will be relocated to replace the eliminated 25-foot boring.

J. Dolegowski felt the density of deep boring and 25-foot borings at the site is too great. He suggested relocating the deep boring from the middle of the three pits to replace the eliminated 25-foot boring. The proposed changes were agreed upon only when the 25-foot boring was assigned to Site 19 (see below).

Site 19 - ACER Site

The deep boring will be completed as a monitoring well. An additional 25-foot boring will be placed in the new north parcel of the site.

K. Williams felt the deep boring should be converted into a well because of the large volume (15,000 gallons) of JP-5 fuel spilled. Y. Chuang disagreed and inquired whether a monitoring well is appropriate considering remediation is likely to be pump-and-treat; he felt, if anything, an extraction well would better serve the purpose. S. Ross and J. Dolegowski then argued for eliminating one of the downgradient wells. K. Williams disagreed by citing the possibility that one downgradient well may miss the plume.

K. Williams suggested that this site would be a prime example of where the Navy can focus the sampling to a narrow suite of analytes because the known contamination is caused by the JP-5 spill. Y. Chuang agreed and suggested the analyses be confined to Total Petroleum Hydrocarbons, Total Fuel Hydrocarbons, Volatile Organics and Organic Lead. M. Alonzo objected to not analyzing for all Metals and eliminating Semivolatile Organics. It was agreed that the Navy may propose a subset of the analytical requirements for discussion at a later date.

K. Williams felt a 25-foot soil boring is necessary in the newly created north parcel of the site. C. Elliott and Y. Chuang disagreed and stated that there is no evidence releases occurred in the area; only remnants of the fuel bladder revetments and fuel

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bladders were seen in the aerial photographs. They argued that shallow borings would be sufficient in the area during Phase I. It was finally decided that the 25-foot boring eliminated from Site 16 would instead be assigned to the new area at Site 19.

Site 20 - Hobby Shop

Y. Chuang stated that the area west of the compound is riddled with underground storage tanks and buried utilities. There are very few areas to locate the downgradient well. K. Williams, J. Hamill and S. Tindall were all interested in the former/current location(s) of the solvent tanks discussed in the SAP. K. Williams suggested, depending on the findings, the deep boring should be moved into the central shop area. C. Elliott agreed to locating the deep boring based on a site reconnaissance. Therefore, the downgradient well may be relocated depending on the assessment.

Site 21 - Materials Management Group

Y. Chuang stated the deep boring cannot be located directly over the only "possible" stain area identified on the aerial photographs because of buried utilities. Since there are no other documented releases at the site, one downgradient well can be eliminated with the proper placement of the deep boring and one downgradient well.

Site 22 - Tactical Air Fuel Dispensing System (TAFDS)

See comments for Site 10.

**Additional Pesticides and Herbicides Analyses**

A handout summarizing the Navy's position on additional pesticides and herbicides analyses was provided to the regulatory agencies at the end of the meeting (attached).

**OCWD IRVINE DESALTER PROJECT AND MCAS WELLS**

Roy Herndon/OCWD introduced two unresolved issues: 1) licensing and easements for construction of the Desalter Project wells, and 2) monitoring and purchase of MCAS wells. He indicated that OCWD is still waiting to reach agreement with the Station before obtaining the necessary licenses and easements to start construction of the Desalter Project extraction wells. He also indicated there is talk that OCWD will maintain ownership of the MCAS wells. Although OCWD will continue to perform quarterly monitoring, R. Herndon inquired whether the Station will take over such monitoring in the future.

W. Lee stated that the Station will come to a quick resolution on the Desalter Project. However, the assumption of responsibility for the MCAS wells is another issue. M. Alonzo mentioned that the issue of the Navy purchasing the wells has been around for quite some time. He indicated if resolution is not reached in a timely manner, it will be an issue during future negotiations. The other regulatory agencies were in general agreement with M. Alonzo on the perceived delay in the Navy assuming responsibility for the MCAS wells. A. Piszkin stated that the Navy is currently evaluating the purchase of the wells. However, a future meeting will have to be set up to discuss the possibility of the Navy assuming monitoring of the wells.

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Desi Chandler/Code 1812.DC  
Yueh Chuang/CH2M HILL  
John Dolegowski/CH2M HILL  
Chuck Elliott/CH2M HILL  
John Hamill/U.S. EPA  
Roy Herndon/OCWD  
Wayne Lee/MCAS El Toro  
Chrisa Mitchell/MCAS El Toro  
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Andy Piszkin/Code 1812.AP  
Sylvia Ross/CH2M HILL

Gary Stewart/RWQCB-SAR  
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File - PMO  
File - CTO Notebook/PMO  
File - PAS  
File - CTO Notebook/PAS  
File - CH2M HILL

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