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11 JAN 1991

Mr. Mark Malinowski
California Department of Health Services
Toxic Substances Control Division
Region 2
700 Heinz Avenue, Building F, Suite 200
Berkeley, CA 94710

Mr. Malinowski:

Enclosed is the Monthly Progress Report for the month of December on the Remedial Investigation/Feasibility Study at the Naval Air Station, Alameda. Also enclosed is a Preliminary Schedule on the Solid Waste Assessment Test (SWAT) at the two landfills.

Thank you for your continued guidance and involvement in the IR program. Please direct any questions to Commander, Western Division, Naval Facilities Engineering Command (Attn: Ms. Bella G. Dizon, Code 1813BD, (415) 244-2551 or 2564).

Sincerely,

Original signed by:
RICHARD SERAYDARIAN
Head, Installation Restoration Section

Encl:

- (1) RI/FS Monthly Progress Report at NAS Alameda, December 1990
- (2) Preliminary Schedule for SWAT Investigation

Copy to: (w/ encl)

NAS Alameda (Attn: Randy Cate)

COMNAVBASE San Francisco (Attn: Randy Friedman)

Regional Water Quality Control Board (Attn: Rico Duazo)

National Oceanic & Atmospheric Administration (Attn: Chip Demarest)

Bay Area Air Quality Management District (Attn: Scott Lutz/Brian Jennison)

Department of the Interior (Attn: William C. Allan)

Blind copy to: (w/ encl)

1813, 1813BD, 1813EG, Admin. Record

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INSTALLATION RESTORATION PROGRAM, NAS ALAMEDA
 REMEDIAL INVESTIGATION/FEASIBILITY STUDY, PHASE 5 (SWAT), CTO-0085
 MONTHLY STATUS REPORT
 DECEMBER 1990

1. Progress During the Reporting Period:

- Electricity and water have been hooked up to the trailer.
- All ground water monitoring wells planned for CTO-0085 were installed in December. These include:

<u>Location</u>	<u>Shallow Well</u>	<u>Deep Well</u>	<u>Drums per location</u>
M10	M10a	M10b	20
M103	M103a	M103b	21
M105	M105a	M105b	21
M108	M108a	M108b	23
M12	M12a	M12b	26
M14	M14a	M14b	21

No Merritt Sand was encountered at locations M10 and M103. Soil samples were collected from above the water table in borings M103a, M105a, M108a. These three samples were sent to ATI, Inc., for laboratory analyses. Soil cuttings from the borings were placed in 132 drums and the drums were transported to the storage area.

- The following ground water monitoring wells were developed:

<u>Well</u>	<u>Gallons of Water Recovered</u>	<u>Number of Drums</u>
M105a	380	7
M105b	10	1
M12a	305	6
M12b	131	3

Development water was placed in 17 drums. The drums were transported to the storage area. No water samples for laboratory analyses were collected from the drums.

2. **Reports and Meetings:**

- **None**

3. **Problems Encountered and Resolutions:**

- **The trailer/staging area has not yet been graded. A request has been put into the Navy to have this area graded.**
- **It was proposed in the work plan that 3 hours would be required to develop the shallow wells and 4 hours would be required to develop the deep wells. Based on the wells developed to date, this effort was underestimated. In order to achieve low turbidity, one full day of development will be required for each well. Due to the abundance of fine silt at the landfills, ground water recovered from the monitoring wells will not be totally silt-free.**
- **One 5-gallon bucket of sand and 10 gallons of water were initially recovered during the development of well M105B. Some of the sand was identified as filter pack material. Development of M105B has not been completed. If more sand is recovered during continued development, the well may have to be abandoned and redrilled.**

4. **Reports Scheduled for January Submittal:**

- **No reports are scheduled for submittal during January 1990.**

5. **Planned Field Activities for January 1991:**

- **All ground water monitoring wells installed for CTO-0085 are scheduled to be developed and surveyed before the end of January 1991. Surveying has been subcontracted to John Koch of Oakland, California.**

INSTALLATION RESTORATION PROGRAM, NAS ALAMEDA
WELL DECOMMISSIONING, 1943-1956 DISPOSAL AREA AND WEST BEACH LANDFILL
CTO 0095
MONTHLY STATUS REPORT
DECEMBER 1990

1. Progress During the Reporting Period:

- In order to determine the appropriate well abandonment method, the Navy requested that a hydrogeological study be performed for the 1943-1956 Disposal Area and the West Beach Landfill. The well abandonment method will be based on which aquifer the existing ground water monitoring wells penetrate.

A library search for existing hydrogeological data was conducted. This information combined with boring logs from Canonie and J. M. Montgomery were used to interpret hydrogeologic conditions below the landfills. Results of the study show that the Bay Mud aquitard does not continuously underlay the landfills. Additionally, what has been called the Bay Mud in the past includes permeable sand as well as impermeable clay. It is very probable that the fill material, the Bay Mud Sand, and the Merritt Sand are hydraulically connected, and that there is only one aquifer below the landfills. The study will be completed after water level information from the monitoring wells installed during CTO-0085 has been collected and reviewed.

- Based on work performed to date, all existing ground water monitoring wells that have been located do not extend below the Bay Mud. The following table identifies the monitoring wells that were located and the formations penetrated.

<u>Monitoring well¹</u>	<u>FORMATIONS PENETRATED</u>				
	<u>Depth</u>	<u>Fill</u>	<u>Bay Mud Aquitard</u>	<u>Bay Mud Sand</u>	<u>Merritt Sand</u>
Wahler Associates 1	25	x	x	NP	NP
Wahler Associates 2	18	x	x	NP	NP
Wahler Associates 3	21	x	x	NP	NP
Wahler Associates 4	29	x	x	NP	U2
Wahler Associates 5	24	x	x	NP	NP
Harding Lawson 20GW	9	x	U2	NP	U2
Unknown 26	15	x	U3	U4	U4
Unknown 27	10	x	U4	U4	U4

<u>Monitoring well¹</u>	<u>Depth</u>	<u>Fill</u>	<u>Bay Mud Aquitard</u>	<u>Bay Mud Sand</u>	<u>Merritt Sand</u>
Unknown 28	7	x	U4	U4	U4
Unknown 29	9	x	U4	U4	U4
Unknown 30	8	x	U3	U4	U4
Unknown 31	8	x	U3	U4	U4
Unknown 34	15	x	U3	U4	U4
Unknown 35	15	x	U4	U4	U4
Unknown 36	10	x	U4	U4	U4
Unknown 37	14	x	U4	U4	U4
Unknown 38	11	x	U4	U4	U3
Unknown 39	18	x	U4	U4	U3

Footnotes 1: Wells are identified by contractor followed by well number. Wells where information is not available are listed as "Unknown" followed by a sequential number.

NP: Not Penetrated

U2: The formation probably does not exist at this location.

U3: It is unknown if this formation has been penetrated, but it is probable that the formation does not exist at this location.

U4: It is unknown, but improbable, that the formation has been penetrated.

2. **Reports and Meetings:**

- None

3. **Problems Encountered and Resolutions:**

- None

4. **Reports Scheduled for January Submittal:**

- A Field Work Plan, with a Health and Safety Plan, will be prepared.

5. **Planned Activities for January 1990:**

- A meeting, if needed, including personnel from the Navy, Department of Health Services, and PRC, will be scheduled. The purpose of the meeting will be to discuss the hydrogeology of the site, past well construction methods, and proposed well abandonment methods. Depending on approval of the work plan, well

abandonment permits will be obtained. A subcontractor, to abandon the wells, may be procured by the end of January or the beginning of February.

INSTALLATION RESTORATION PROGRAM
MONTHLY STATUS REPORT
DECEMBER 1990
PHASES 1 AND 2A

1. Progress During the Reporting Period

- o The results of the laboratory analyses on water samples from Yard D-13 (Wells MWD13-3 and MWD13-4) and Oil Refinery (Well MW-1(B-14)) were received during this period and submitted with Oil Refinery and Yard D-13 analytical results. Samples from Yard D-13 were analyzed for both total petroleum hydrocarbons (TPH) and total organic carbon (TOC). Samples from the Oil Refinery were analyzed for the same chemical groups and/or constituents listed in the Sampling Plan, Volume 1, Remedial Investigation/Feasibility Study Work Plan for NAS Alameda. Several reports documenting the results of Phase 2A field and laboratory activities were prepared during this period, as presented under Item No. 2. Phase 2A field activities for December 1990 are summarized in Table 1. The field activity status for December 1990 and projected field activities for January 1991 are provided on Tables 2 and 3, respectively.

Removals:

- o None

2. Meetings and Reports

- o No meetings were held during December 1991.
- o The following reports were submitted during December 1990:

<u>Report</u>	<u>Date of Submittal</u>
Phase 2A Analytical Results for Site 9, Building 410	December 3, 1990
Phase 2A Analytical Results for Site 13, Oil Refinery	December 4, 1990
Phase 2A Analytical Results for Site 10, Building 530	December 5, 1990
Phase 2A Analytical Results for Site 19, Yard D-13	December 5, 1990
Phase 1 and 2A Replicate Soil Sample Numbers	December 13, 1990
Phase 1 and 2A Guides to Analytical Results	December 14, 1990
Phase 2A Ground Water Levels	December 27, 1990

3. Problems Encountered and Resolutions:

- o None

4. Reports Scheduled for December Submittal:

- o Phase 2A Soil Gas Survey Results for Area 97 and Building 547

TABLE 1

PHASE 2A FIELD ACTIVITIES FOR DECEMBER 1990
NAS ALAMEDA RI/FS

Site Name	Soil Gas Surveying	Surface Soil Sampling	Soil Borings	Well Installation	Well Development	Well Sampling	Surveying	Waste Barrel Handling	Ground Water Levels
Building 360	-	-	-	-	-	-	-	-	-
Building 547	-	-	-	-	-	-	-	-	-
Yard D-13	-	-	-	-	-	-	-	-	-
Building 410	-	-	-	-	-	-	-	-	-
Building 530	-	-	-	-	-	-	-	-	-
Oil Refinery	-	-	-	-	-	-	-	-	-
Cans C-2 Area	-	-	-	-	-	-	-	-	-
Area 97	-	-	-	-	-	-	-	-	-

Notes:

1. "-" denotes no activity.
2. "x" denotes activity.

TABLE 2

STATUS OF PHASE 2A FIELD ACTIVITIES AS OF DECEMBER 31, 1990
 NAS ALAMEDA RI/FS

<u>Site Name</u>	<u>Soil Gas Survey</u>		<u>Surface Soil Sampling</u>		<u>Soil Borings</u>		<u>Well Installation</u>	
	<u>Planned</u>	<u>Completed</u>	<u>Planned</u>	<u>Completed</u>	<u>Planned</u>	<u>Completed</u>	<u>Planned</u>	<u>Completed</u>
Building 360	0	0	30	0	5	5	4	4
Building 547	72	62	0	0	5	5	5	5
Yard D-13	0	0	0	0	12	12	4	4
Building 410	0	0	0	0	5	5	4	4
Building 530	0	0	0	0	0	0	3	3
Oil Refinery	0	0	0	0	22	22	5	5
Cans C-2 Area	0	0	55	55	6	6	3	3
Area 97	137	121	0	0	0	0	3	3
Total	209	183	85	55	55	55	31	31

TABLE 2

STATUS OF PHASE 2A FIELD ACTIVITIES AS OF DECEMBER 31, 1990
 NAS ALAMEDA RI/FS
 (Continued)

Site Name	Water Sampling		Surveying		Ground Water Levels	
	Planned	Completed	Planned	Completed	Planned	Completed
Building 360	4	4	9	9	4	4
Building 547	5	5	72	72	5	5
Yard D-13	4	4	16	16	4	4
Building 410	4	4	9	9	4	4
Building 530	3	3	3	3	3	3
Oil Refinery	5	6	27	27	6	6
Cans C-2 Area	4	3	64	64	3	3
Area 97	3	3	124	124	3	3
Total	32	32	324	324	32	32

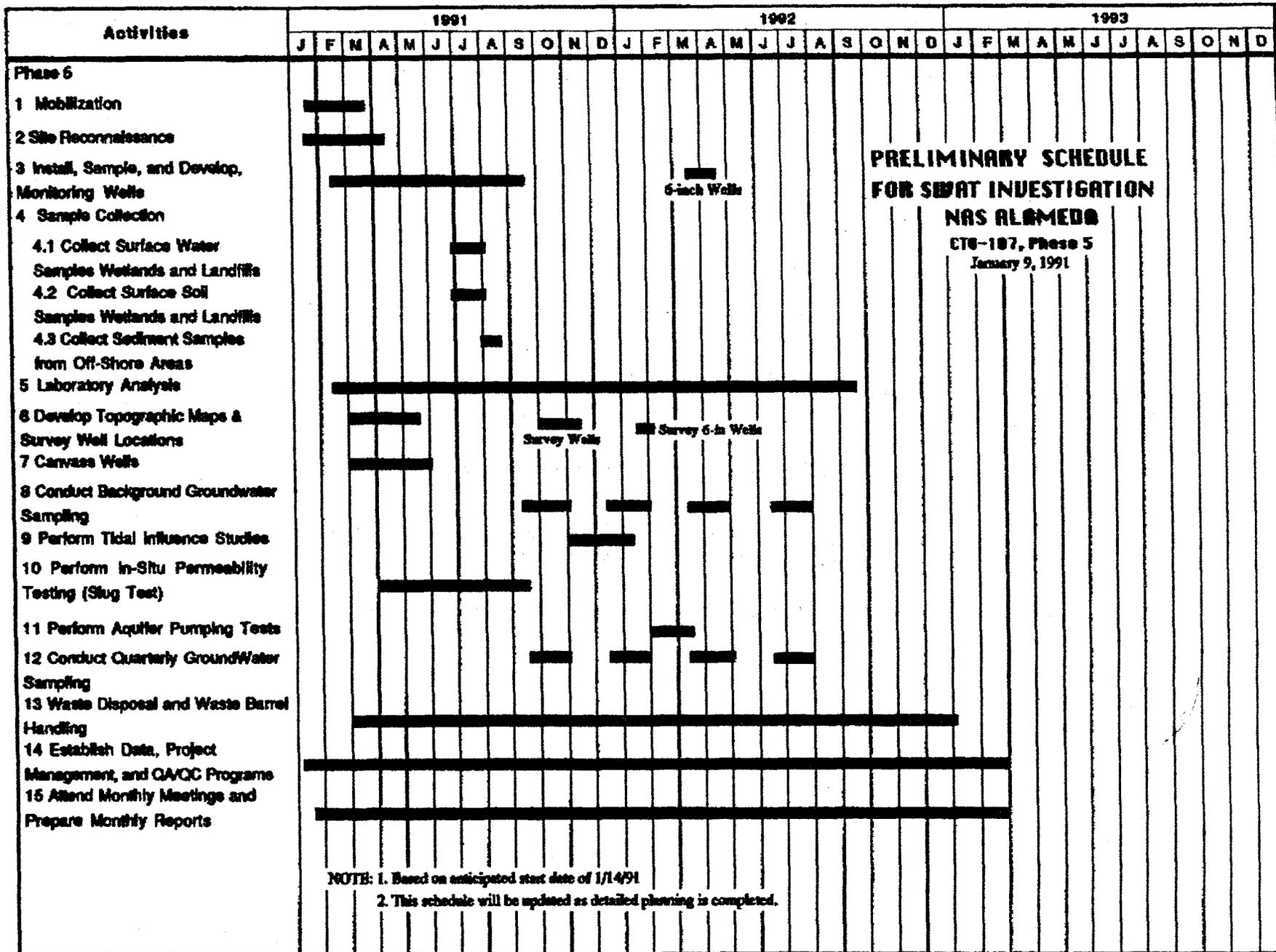
Notes:

1. Surveying includes soil gas survey points, surface sampling points, borings, and monitoring wells.
2. Sixty-two soil gas survey points were only completed at Building 547 during the Phase 2A field work to cover the planned grid area shown in Volume 1, NAS Alameda RI/FS Sampling Plan. Only 121 points were completed at Area 97 because of existing buildings along the grid lines.
3. The proposed thirty surface soil samples from the crawlspace underneath Building 360 have not been collected because sampling locations are undergoing redesignation.
4. An existing monitoring well at the Cans C-2 Area was not sampled because of the lack of background information on the well. Existing monitoring well, B-14 (MW-1), installed by a previous contractor at the Oil Refinery site, was sampled on October 16, 1990, in substitution for the existing Cans C-2 well. The ground water level was also measured at MW-1.

TABLE 3

PROJECTED FIELD ACTIVITIES FOR JANUARY 1991
NAS ALAMEDA RI/FS

- o Hazardous waste labelling of Phase 1 waste barrels at the Pistol Range Area, (1943 to 1956 Disposal Area).
- o Placement of Phase 2A waste barrels on wooden pallets and hazardous waste labelling at Building 547 storage area.



**PRELIMINARY SCHEDULE
FOR SBRAT INVESTIGATION**

NAS ALAMEDA

CTG-187, Phase 5

January 9, 1991

6-inch Wells

Survey Wells

Survey 6-in Wells

