

Feb 27, 89 11:11

DATE: 2/24/89

TO: Bob Ogradowski
FROM: Sherry Van Duyn

Subj: Initial Sampling Results from Site 4, Fire Fighting
Training Area

The following list is from Dames & Moore's Preliminary Evaluation of Chemical Analysis Results for Site 4:

The occurrence of oil and grease in groundwater is anomalous, because no oil and grease were found in overlying site soils and oil and grease was found in the background well (MW4-1). This could mean that the source of this contamination is upgradient of Site 4. Such sources may include upgradient spills or leaking underground storage tanks.

Although not unexpected, surface waters in the ponds contain oil and grease, as well as some volatile and semivolatile organic compounds.

Site soils contain a variety of contaminants. Lead levels are elevated at various locations, but are not extremely high and could be reflective of natural conditions. Low levels of polynuclear aromatic hydrocarbons in some samples are probably related to the presence of combustion ash from site activities or fill materials. The finding of methylene chloride, acetone, toluene and bis(2-ethylhexyl)phthalate in several samples is most likely the result of laboratory-introduced contamination (these are the most common lab contaminants), although we do not yet have data from laboratory method blanks to verify this.

In the library searches, the Site 4 soils and surface waters in the ponds appear to contain a number of semivolatiles, including a number of alkanes indicative of hydrocarbon fuel usage. This is not unexpected at a site of this type. It is interesting to note, however, that few library search compounds were detected in the Site 4 wells, in spite of the finding of oil and grease in these wells. The second round of groundwater sampling will assist in confirming the presence or absence of this contamination.

The following list is a preliminary summary of the positive analytical results:

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Depths

- A 1.5 - 3 feet
- B 3.5 - 5 feet

Wells

- max depth approx. 20 feet deep

soils
from
borings
from
wells

	VQA (LIBRARY SEARCH)	BNA	BNA	O&G DL=0.05ppm	LEAD (ug/g or ppm)
WB4-2A		x		*	135 / (DL=5.7)
-2B		x		*	56.2 / (5.56)
-3A		x		*	31 / (5.88)
-3B		x		*	34.5 / (5.66)
-4A		x	480 ppb pyrene (DL=382)	*	251 / (5.79)
-4B		x		*	10.4 / (5.72)
MW4-1		f		49.7 ppm	(0.38ppb Hg) DL=0.2
-2		f		237.6 ppm	
-3		f		134.3 ppm	
-4		f		85.3 ppm	
SW4-1		f			7.78 (a)
-1X		f			
-2		x			38.0 (a)
-3	x	x	2600ppb 2-methylnaphthalene	86853 ppm	
-4		x		19.8 ppm	6.73(a)

				Lead (DL=0.5)
BO4-1A	Background	x		46.6
-1AX		x		58.8
-1B		x	490 ppb/DL=330 fluoranthene 570 ppb/DL=330 pyrene 870 ppb/DL=330 benzo (g, h, i) perylene	99.8
-2A	Checks on infiltration of contam. surface runoff	x		32.7
-2B		x		22.3
-3A		x		28.7
-3B		x		9.47
-4A		x		35.7
-4B		x		12.8
-5A		x		16.0
-5B		x	5700 ppb/DL=3300 naphthalene 21,000 ppb/DL=3300 2-methylnaphthalene	25.3
-6A	x		22.8	
-6B			8.99	
-7A			33.6	
-7B			25.9	
			1000 ppb/DL=330 phenanthrene 530 ppb/DL=330 fluoranthene 870 ppb/DL=330 pyrene	
-8A		x		9.2
-8B		x		7.54

Checks
ON
Heavy
Contam.
in vicinity
of drum
storage
area &
lagoons.

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2353/(342) The number in () is the detection limit. The first number is the concentration in the sample.

(a) Detection limit = 5.0 ppm, the other lead samples have a detection limit in () or is 0.5 ppm. In addition, the detection limits need to be corrected for moisture content, and this will be done by the lab.

DL= DETECTION LIMIT Note: the detection limits need to be corrected for moisture content by the lab.

f This means that very few semivolatiles or volatiles showed up in the library search.

x This means that many semivolatiles or volatiles showed up in the library search.

BNA Base neutral analysis (Semivolatiles)

VOA Volatile Organics Analysis

O&G Oil and Grease analysis

* These samples holding times were exceeded and will be reanalyzed at the labs expense in March.

-1X Denotes replicate sample (field duplicate)

See the attached map for location of borings, monitoring wells and surface water samples.

If you have any questions please contact me.



See Sections 2.2.2 (pages 2-6, 2-8) and
2.3.2 (pages 2-12 - 2-14) of
the Work Plan.

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REPRODUCED AT GOVERNMENT EXPENSE

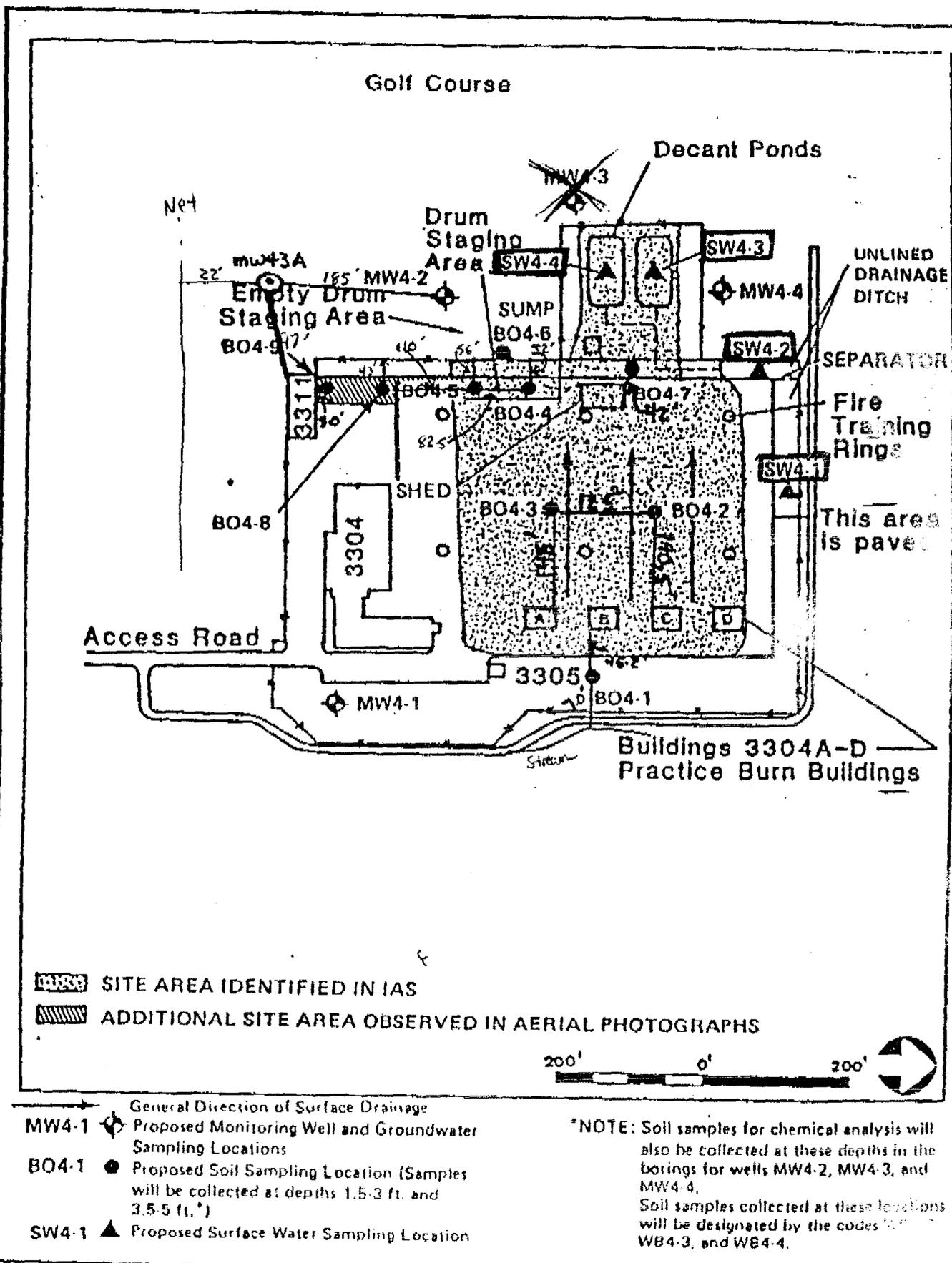


FIGURE 2-2
PROPOSED MONITORING WELL AND
SAMPLING LOCATIONS



REMEDIAL INVESTIGATION
NAVAL TRAINING CENTER