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Los Alamos

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

memorandum

TO: Larry Maassen, EM-13, MS M992

DATE: May 1, 1992

THRU: Ron Conrad, EM-8, MS K490 *rc*

MAIL STOP/TELEPHONE: K490/7-0815

FROM: Phil Fresquez, EM-8 *PF*

SYMBOL: EM-8:92-1136

SUBJECT: **FINAL CLOSURE SAMPLING BELOW FORMER WASTE OIL SURFACE
IMPOUNDMENT TSL-125 LOCATED AT TA-35**

On March 9, 1992, the New Mexico Environment Department (NMED) submitted to the Department of Energy (DOE) a Notice of Deficiency regarding the TA-35 Building 125 Surface Impoundment Closure Plan (NM0890010515). As part of a clean closure demonstration, a request was made to show that releases from surface impoundment TSL-125 to the surrounding area (or to surface waters) were below health based levels. The purpose of this memorandum, therefore, is to describe a sampling and analyses plan for the characterization of an area down gradient from surface impoundment TSL-125.

Seven sampling points were systematically located down an erosion channel from TSL-125 to a drainage channel in Ten Site Canyon with NMED personnel on April 16, 1992 (Figure 1). Two additional sampling points were located in the drainage channel up gradient and down gradient of TSL-125. All soil samples will be collected and processed according to the protocol described in SW-846. Standard Operating Procedure's that will be followed include: 1.01.02 Field Orientation Checklist, training; 1.02 Sampling Containers and Preservation; 1.04 Sample Control and Documentation; 1.05 Quality Assurance/Quality Control; 2.03 Protective Equipment; 2.07 Equipment Decontamination; 2.16 Screening Soil Samples for Alpha Emitters; and 6.09 Spade and Scoop Method. Sampling team members will include myself (Project manager), Richard Romero (sampler and safety and health officer) and Consuelo Montoya (QA/QC specialist). Level D Personal Protection Equipment will be worn.

At each sampling point soil surface samples will be collected with a Teflon scoop, placed into the appropriate containers, labeled, sealed with chain-of-custody tape, double bagged into Ziplock plastic containers, and transported in a locked



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ice chest at 4°C. One replicate soil sample, one trip blank and one field blank will also be collected. The chemical constituents of concern and the sample containers they will be placed in area as follows:

Hazardous Substance List (HSL) metals....500-mL Nalgene bottle

Volatile Organic Compounds (VOC).....two 40-mL glass vials

Semivolatile Organic Compounds (SVOC)....250-mL wide mouth glass jar with a Teflon line lid.

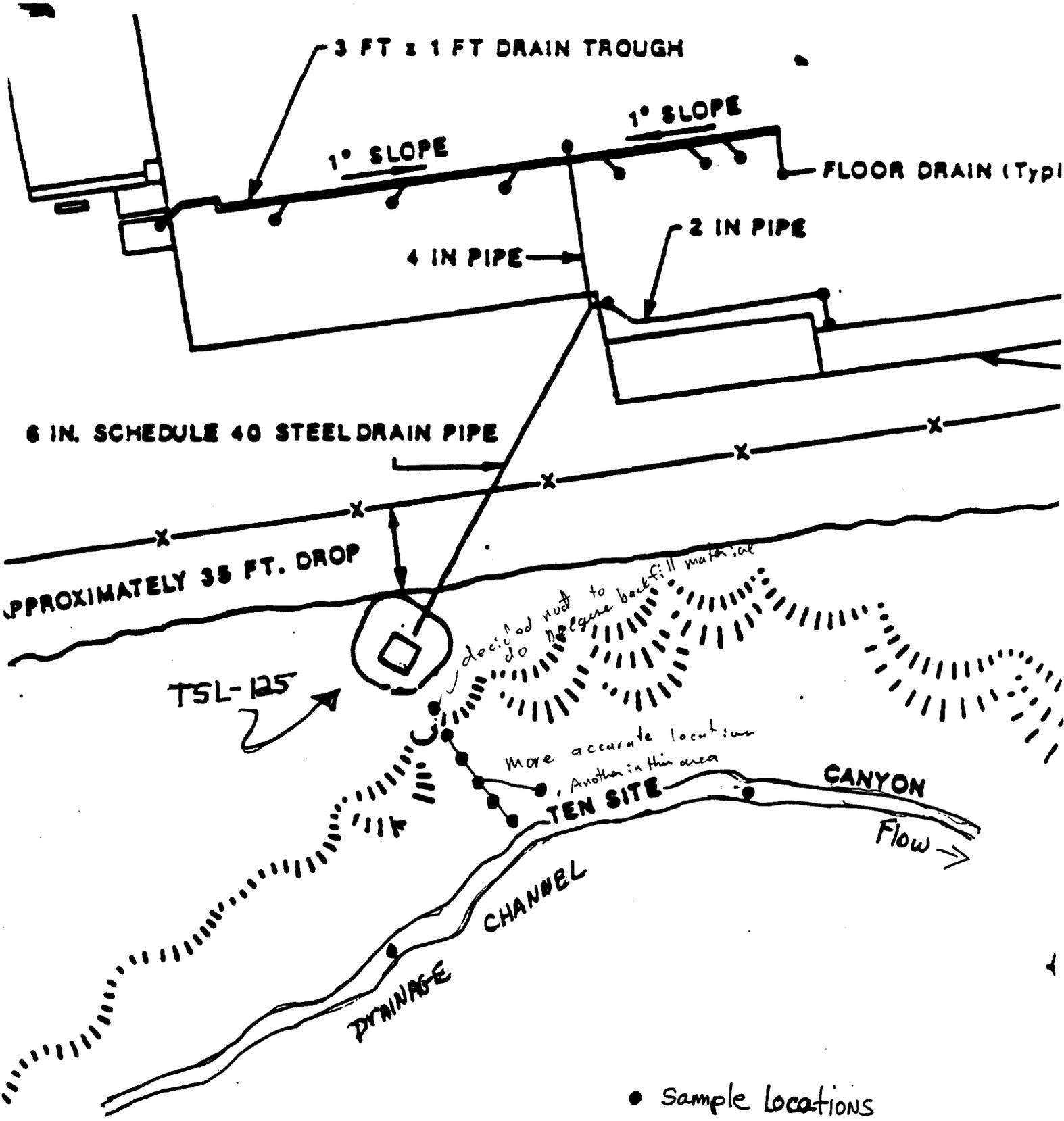
Polychlorinated biphenyl compounds (PCB).40-mL amber glass vial

Total Petroleum Hydrocarbons (TPH's)....40-mL amber glass vial

Samples will be screened by EM-8 for gross alpha, beta and gamma radioactivity before they are submitted with chain-of-custody documentation to the Environmental Chemistry Group (EM-9) for analysis. Samples will be analyzed in accordance to EM-9's Quality Assurance for Health and Environmental Chemistry (LANL report LA-11637-MS).

All sample locations will be surveyed (by the New Mexico State Plane coordinate system) for future reference. Similarly, all records associated with this sampling effort will be filed to the ER records processing facility at the conclusion of the study. These records will include (1) the approved sampling plan (along with review comments), (2) chain-of-custody forms, (3) raw data, and (4) a report summarizing sampling activities.

Fig. 1



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TO: Larry Maassen, EM-13 (ER), K481
DATE: February 24, 1992
FROM: Jerry Umphres *JU*
MAIL STOP/TELEPHONE: E525/7-2383
SYMBOL: CLS-DO:92-1065
SUBJECT: **CHEMICAL USAGE IN BLDG. 125, TA-35**

On March 31, 1991, Alice Barr and Barb Graves of EM-8, visited me for the purpose of establishing the time that Antares laser operations were being conducted in building 125 at TA-35 and what chemicals were used prior to the closure and removal of the oil lagoon on the south side of building 125.

I assisted them as much as was possible, however, there were some questions asked that I either did not remember all the details or was not directly involved in that portion of the operation. Since that time, I have been able to track down some of the personnel that was involved in the operations of the laser systems for information on the dyes and I have confirmed some of the dates that were in question. I hope the following information will be of use to you.

1. Antares operations were suspended in September of 1985.
2. Antares was decommissioned and disassembled starting in May of 1986.
3. Laser dyes were brought into the building in November of 1986, after Antares operations had ceased but before the "lagoon" was removed.
4. The laser dyes that were introduced into the building and used in the basement on the "Bright Source" experiment were: DODCI and Rhodamine 6G.

The best I can determine these were the only dyes that were in the building during the time period in question.

If I can be of further help, please feel free to call.

JU:sl

Cy: CLS-DO file