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Harding Lawson Associates

MAY 15 1996



May 15, 1996

35241.2.1

Ms. Sherrel D. Henry
United States Environmental Protection Agency
Section II
Emergency and Remedial Response Division
290 Broadway
New York, New York 10007-1866

Additional Requested Information
Proposed Site Activities
Phase II Remedial Investigation Work Plan
Island Chemical Company, St. Croix, U.S. Virgin Islands

Dear Ms. Henry:

Harding Lawson Associates (HLA) is submitting this letter, on behalf of Island Chemical Company (ICC), to provide additional information related to proposed site activities as requested in your correspondence dated April 18, 1996 and May 2, 1996.

In January 1995, one boring (SBB1) was installed in the AST area (Area B) to investigate soil quality in the area. Volatile organic compounds were detected in soil samples collected from boring SBB1.

A soil sampling program will be conducted to investigate the lateral and vertical extent of impact to soil near boring SBB1 in the AST area. The surficial extent of impact in Area B will be evaluated by collecting and analyzing 12 surface soil samples as proposed in Figure 1. Surface soil samples will be collected using decontaminated stainless steel hand augers. Samples will be collected from the 18- to 24-inch interval below ground surface. Samples will be placed directly into laboratory-prepared sample containers. Additional sample volume will be collected into resealable plastic bags and screened in the field using a PID according to procedures described in the previously approved FSP (HLA,8/94).

The vertical extent of impact in Area B will be evaluated by collecting and analyzing selected soil samples from four borings (Figure 1). Up to two additional borings may be installed based on photoionization detector (PID) results and observations from the surface and subsurface sampling. Proposed locations for the four borings are presented in Figure 1. Continuous split spoon samples will be collected from the surface to the water table at each boring location. Samples will be placed directly into laboratory-prepared sample containers. Additional sample volume will be collected into resealable plastic bags and screened in the field using a PID according to procedures described in the previously approved FSP. Procedures for sample handling, management, and shipping are described in the FSP and QAPP (HLA, 8/94). Two samples will be analyzed from each boring, one from directly above the water table and one from the interval with the highest PID reading. Soil samples will be analyzed for target compound list (TCL) volatile organic compounds (VOCs).

The surface soil sample or soil boring with the highest VOC concentrations, based on solely on PID readings, will be assumed to correspond to the most highly concentrated source of groundwater contamination, if any, in subsurface soils. Unless this area coincides with the location of MW-1, ICC proposes to install a second monitoring well in this area. Consequently, either MW-1 or the new monitoring well (MW-6), if installed, will provide water quality information directly beneath the area of highest soil contamination. This should adequately characterize the magnitude of contamination associated with the AST area. If this concentration is shown to be below levels that would pose a threat to human health or the environment, further delineation of chemicals in groundwater in this area will not be necessary.

Ms. Henry
USEPA
May 15, 1996
Page 2

Harding Lawson Associates

With EPA approval, planned monitoring well MW-2 was not completed during the January 1995 field program. As discussed with EPA, an area of low permeability was encountered above the water table in SBC1. The possibility that well installation might provide a conduit for contaminants to reach groundwater was a concern at the time. However, analytical results of soil samples collected from SBC1 indicated that soils above the water table in this area were not contaminated. Therefore, MW-2 will be installed in Area C, as specified in the Phase I Work Plan. This well will be used to evaluate groundwater at the center of the site and to provide additional water level control data.

The well(s) will be installed and developed as described in the FSP. Development water will be placed in 55-gallon drums and staged onsite pending disposal. Groundwater samples collected from the proposed monitoring well (MW-2) will be analyzed for TCL VOCs, TCL SVOCs, TCL Pesticides, TCL PCBs, Pyridine, and TAL Inorganics (total and dissolved). Groundwater samples collected from the proposed monitoring well(MW-6), if installed, will be analyzed for TCL VOCs.

The location and elevation of MW-2 and MW-6 (if installed) will be surveyed as specified in the Phase I Work Plan. The horizontal position will be surveyed with respect to the Puerto Rican/Virgin Islands plane coordinate system (North American Datum of 1983, or NAD 83) and existing monitoring wells to the nearest tenth of a foot. The well location will be converted from plane coordinates to latitude and longitude. The conversion shall be performed to an accuracy of one hundredth of a second of latitude and longitude.

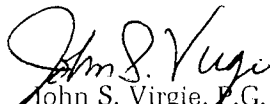
The vertical position of each well will be surveyed with respect to Mean Sea Level (MSL) to the nearest hundredth of a foot. Well elevations to be surveyed include the top of inner casing, top of outer casing, and adjacent ground surface. The location of the inner casing elevation measurement will be permanently marked for future water level measurements.

Upon receipt of the analytical data, a data summary report will be prepared and forwarded to the EPA.

Please call either of the undersigned if you have any questions.

Yours very truly,

HARDING LAWSON ASSOCIATES


John S. Virgie, P.G.
Senior Geologist


Edward A. Nemecek, R.G., CPG
Principal Hydrogeologist
Regional Geosciences Manager

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This document was prepared for the sole use of the ICC and the regulatory agencies involved with the project, the only intended beneficiaries of our work. No other parties should rely on the information contained herein without the prior written consent of HLA.

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ROUTE 66
MELVIN EVANS HIGHWAY



- | | |
|---|---|
| A | LABORATORY & WAREHOUSE BUILDING |
| B | ABOVEGROUND TANK FARM |
| C | FORMER PROCESS PIT |
| D | LOADING DOCK AND FORMER
LAB PIT & DRAIN AREA |
| E | SOIL BENEATH CONCRETE PAD |
| F | CONCRETE STORAGE PAD |

LEGEND

- | | |
|--|---|
|  | PROPOSED SURFACE SOIL SAMPLING LOCATION |
|  | PROPOSED SURFACE SOIL AND SOIL BORING LOCATION |
|  | PROPOSED MW-2 LOCATION |
| ● SB02 | EXISTING SOIL BORING |
|  SB02/MW3 | EXISTING SOIL BORING/MONITORING WELL |
|  | INLET |
|  | EXISTING ABOVEGROUND STORAGE TANK |
|  | TANK PAD-FORMER ABOVEGROUND STORAGE TANK LOCATION |

0 50 100 150 FT.

FOR ILLUSTRATION PURPOSES ONLY

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PROPOSED SURFACE SOIL
AND SOIL BORING LOCATIONS

ISLAND CHEMICAL COMPANY
ST. CROIX, U.S. VIRGIN ISLANDS

FIGURE
1

SOURCE:
PROPOSED ICC SOIL SAMPLING LOCATIONS BY ENVIRO-SCIENCES, INC. DATED: 6/19/86 AND
SITE MAP, VI CHEMICAL, ST. CROIX, U.S.V.I. BY NUS CORPORATION DOCUMENT 02-9101-04-SI, UNDATED

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APPROVED	FILE	DATE
<i>[Signature]</i>	35241801	5/14/96