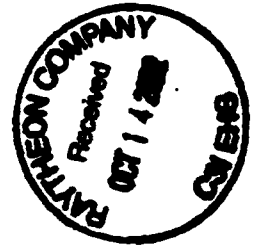




COMMONWEALTH OF MASSACHUSETTS
 EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 Metropolitan Boston – Northeast Regional Office

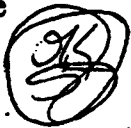



JANE M. SWIFT
 Governor

BOB DURAND
 Secretary

LAUREN A. LISS
 Commissioner

MEMORANDUM FOR THE RECORD

To: Baldwin Pond Site Discovery file
 Thru: Stephen Johnson, Section Chief 
 From: Larry Immerman, Environmental Analyst 
 Subject: WAYLAND-Baldwin Pond Wellfield
 October 2, 2002 DEP Meeting with Raytheon
 RTN: 3-13574

Date: October 08, 2002

Introduction

During the summer 2002, Environmental Resources Management, Inc. (ERM) and other contractors hired by Raytheon Corporation (Raytheon) conducted sub-surface assessment activities at the former Raytheon facility located at 430 Boston Post Road as a continuation of their site investigation work regarding the documented release(s) of oils and hazardous materials at the facility. Two separate lots owned by Russell's Gardening Center located approximately 100 feet to the southwest of 430 Boston Post Road were also included in the investigation. Raytheon requested to meet with Department of Environmental Protection (DEP) personnel in order to present some of their latest findings prior to a public involvement meeting at the Town of Wayland scheduled for October 03, 2002.

October 02, 2002 DEP Meeting

On October 02, 2002, personnel with Raytheon, ERM, and the Town of Wayland met at DEP's Northeast Regional Office to present an overview of Raytheon's latest site assessment work. The following personnel were at attendance:

- | | |
|------------------|---|
| Mr. Edwin Madera | Raytheon – Sr. Environmental Technologist, Restoration Projects |
| Mr. Ron Slager | Raytheon - Manager, Restoration Projects |

This information is available in alternate format. Call April McCabe, ADA Coordinator at 1-617-556-1171.
 205A Lowell St. Wilmington, MA 01887 • Phone (978) 661-7800 • Fax (978) 661-7816 • TTD# (978) 661-7879

DEP on the World Wide Web: <http://www.mass.gov/dep>

Printed on Recycled Paper

Mr. Bob Luhrs	Raytheon-Corporate Liaison, LSP
Mr. Andrew Irwin	Town Of Wayland - Conservation Commission, LSP
Mr. Brian Monahan	Town Of Wayland - Conservation Administrator
Mr. Donald Hollander	Town Of Wayland, Water Superintendent
Ms. Linda Segal	Town Of Wayland, Selectman
Mr. Joe Fiacco	ERM, Project Manager
Mr. Stephen Johnson	DEP, Section Chief
Mr. Larry Immerman	DEP, Environmental Analyst

Mr. Joe Fiacco was the principal speaker at the meeting, and presented an overview of preliminary data obtained from Raytheon's summer 2002 assessment work. The majority of the sub-surface work which included soil, groundwater, and wetlands sampling was completed at various locations and depths within the 430 Boston Post Road property bounds, with a smaller portion of the work focused just off of the southern property line to a distance of approximately 200 feet to the southwest. Mr. Fiacco divided the 430 Boston Post Road property into four sections as eastern, southern, western, and northern, and presented the data for each section in that order. Data obtained during the summer 2002 assessment work at the eastern, southern, and western portions of the site appeared to provide additional support to previous assessment information reported for these areas. In brief:

Eastern and Southern Portions of the Property: elevated levels of chlorinated volatile organic compounds (VOCs) including (1,1,1)-trichloroethane (TCA), tetrachloroethene (PCE), trichloroethene (TCE), and their associated break-down products continue to be identified in groundwater at the eastern and southern portions of the property. Information contained in previously filed reports at DEP indicate that an area between the northern side of Building #4 and southern side of Building #3 (also referred to as the courtyard area), and areas just off of the southwestern corner of Building #6 and southern side of Building #5, have been identified by Raytheon as the principal source locations of the historic chlorinated VOC groundwater contamination at this portion of the site. In addition, based on sub-surface data obtained during past assessment work, Raytheon identified the presence of a dense silt layer at approximately 15 to 60 feet below grade across the site, and determined that this dense layer has helped to retard vertical advancement of chlorinated VOCs to bedrock depths. Raytheon's 2002 assessment work continued to define the contamination within these silt layers. VOCs and semi-VOCs associated with a petroleum release have also been identified in the courtyard area and have been attributed to an historic #6 fuel oil release. Finally, contaminant migration has been determined to be traveling in a southerly and southeasterly direction from sources located at the eastern portion of the property and to the southwest and west from source areas at the southern portion of the property.

Western Portion of the Property: During the 2002 assessment work, elevated levels of arsenic were identified in soil at the western portion of the site. The arsenic concentrations averaged approximately 6.0 milligrams per kilogram (mg/kg), with the exception of one sampling location (B-313) which reported arsenic at 36 mg/kg, and above its applicable MCP soil standard of 30 mg/kg. Raytheon does not have any specific information on the source to the arsenic contamination with respect to their past operations, but offered one possible explanation that the arsenic contamination may be attributable to the past filling of this area by soils from unknown, off-site locations.

Northern Portion of the Property: Raytheon expended a large portion of their summer, 2002 assessment work at the northern portion of the property, primarily in response to DEP/SD's findings of a similar chlorinated VOC signature in groundwater sampled at abutting Town Conservation land and nearby Town land used for community gardening located approximately 1000 feet to the north of the facility's northern property line. The work conducted by Raytheon at the northern portion of the 430

WAYLAND-Raytheon Site
October 02, 202 DEP Meeting

Boston Post Road property is of primary interest to DEP/SD and its efforts in determining a source of the chlorinated VOC contamination at the Town's Baldwin Pond supply well located approximately 3000 feet to the north of the facility's northern property line. Raytheon installed 18 soil borings, 21 Waterloo®-type profilers and/or cone penetrometer technology (CPT), and a monitoring well triplet (MW-1) to analyze soil and groundwater for VOCs. Results of the water profiling identified TCE as high as 17 milligrams per liter (mg/l) at B-241. Four other profiler locations (B-229, B-230, B-232, and B-240), also reported TCE at low mg/l concentrations. Cis-DCE was also identified in groundwater at low mg/l levels at profiler locations B-230, B-232, and B-240. The highest levels were identified near the monitoring well MW-TP-3 area. TCE, DCE and the additional VOCs vinyl chloride, (1,1)-dichloroethene, (1,1)-dichloroethane, and PCE were identified in groundwater sampled by the profiler at a number of locations at microgram per liter (ug/l) concentrations. It was the opinion of Raytheon that the part per million levels of TCE and cis-DCE identified during the profiling were indicative of a source area of the chlorinated VOCs at the northern portion of the property.

Future Work Proposed by Raytheon: Raytheon stated during the meeting that they would install nine monitoring wells at locations within the northern portion of the property, and that two of the nine monitoring wells would be installed to the top of bedrock as a continuation of the chlorinated VOC assessment work at the northern portion of the site. Raytheon also asked DEP how to submit future work pertaining to the chlorinated VOC investigation at the northern portion of the property while continuing with the site cleanup (under the site's historic tracking numbers 3-13574, 3-14042, and 3-19482). According to DEP's Sites Database, RTN's 3-13574, 3-14042, and 3-19482 are all listed as of October 10, 2001 as Phase III status in the MCP pipeline and are all linked as one site under 3-13574. Originally, 3-13574 pertained to a 120 day release condition of benzene, naphthalene, PCE, TCE, and (1,1)-dichloroethene to soil and groundwater at the site. RTN 3-14042 pertained to a release of PCBs in soil at the MW-TP-3 area of the site, and 3-19482 pertained to Raytheon's on-going eco-evaluation associated with the release and subsequent impact of PCBs and chromium at the wetlands area. DEP has received a Response Action Outcome (RAO) for RTN 3-13302 on June 08, 1999, regarding the #6 fuel oil release from an underground storage tank located off of the courtyard. Raytheon projected that it would take approximately one year to bring the northern portion of the site investigation up to speed with the remainder of the site. Finally, in regards to the PCB soil cleanup at the site, Raytheon proposed a final cleanup level of approximately 2.0 mg/kg in an effort to minimize the disruption of wetlands acreage. Raytheon also stated that they have contracted ENTRX Corporation to address wetlands disruption issues at the site. Stephen Johnson stated DEP would look into any precedents DEP may have developed in the past associated with PCB pollution at wetlands, such as the General Electric sites in the western part of the State.

cc: James Persky/DEP NERO/BRP WS
Superintendent Donald Hollander, Baldwin Pond Facility, 101 Old Sudbury Road, Wayland,
MA 01778
Brian Monahan, Conservation Administrator, Town Hall, 41 Cochituate Road, Wayland, MA
01778
Andrew Irwin, Irwin Engineers, Inc., 5 Washington Street, Natick, MA 01760
Town Of Wayland - Public Repository, Wayland Public Library, Ms. Louise Brown, 5
Concord Road, Wayland, MA 01778
Town Of Wayland - Public Repository, Board Of Health, Town Hall, 41 Cochituate Road,
Wayland, MA 01778
Mr. Edwin Madera, Environmental Restoration Program, Raytheon Company, 1001 Boston
Post Road, Mail Stop-1-2-1567, Marlborough, MA 01752-3789