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MEMORANDUM

TO: Grant Trigger, RACER
Dave Favero, RACER

REF. NO.: 17303

FROM: Beth Landale, CRA 
Amandeep Bains, CRA/sp/133D

DATE: November 2, 2011

RE: PAOC 18 In-Situ Waste Characterization Event
Willow Run Company Vehicle Operations Area
Ypsilanti, Michigan

INTRODUCTION

This memorandum summarizes the scope of work to complete the in-situ waste characterization activities within Potential Area of Concern (PAOC) 18, which is located on the southern bank of Tyler Pond at the Willow Run Company Vehicle Operations (CVO) property in Ypsilanti, Michigan (Site).

BACKGROUND

During Site investigations conducted by CRA in 2002 and 2003, stained soils were observed along the southern bank of Tyler Pond. DNAPL was discovered in PAOC 18, approximately 35 lateral feet south of Tyler Pond, during an investigation completed in April and May 2004. The primary constituents in the DNAPL are trichloroethylene (TCE) and polychlorinated biphenyls (PCBs). In October 2004 a sheet pile wall was installed to prevent DNAPL from migrating into Tyler Pond. Delineation of the extent of DNAPL and a refuse layer (expected source of DNAPL) were completed in 2004 and 2005. The buried refuse included drums, scrap steel, paint sludge, glass and wood. Groundwater results from PAOC 18 indicate that the groundwater is impacted with chlorinated volatile organic compounds (VOCs).

Remediation activities are scheduled to be completed in 2012. The purpose of this investigation is to characterize the soils prior to the remedy activities to obtain refined contractor costs for remedy selection.

PROPOSED ACTIVITY

The scope of work includes collecting composite soil samples within PAOC 18 for waste characterization analysis. PAOC 18 has been divided into six areas as shown on Figure 1. A total of 24 soil borings, ISB-1 through ISB-24, will be completed. Soil borings will be completed into the confining clay layer (approximately 20 feet below ground surface (bgs)) using a geoprobe. Soil samples will be collected from the 0-5 feet bgs interval, 5-10 feet bgs interval, 10-15 feet bgs interval, and 15-20 feet bgs interval. Samples will be composited for each interval within each area. Soil borings closest to Tyler Pond (ISB-13, ISB-14, and ISB-17 through ISB-20) will be completed to 5 feet bgs as the confining clay layer is at approximately 5 feet near the edge of the pond. Therefore, a sample will only be collected from the 0-5 feet bgs interval from

these borings. Soil borings near the bottom of the bank will be completed using a hand auger/hand probe equipment, as necessary due to access and safety considerations. Table 1 presents the waste characterization sampling program.

Samples will be collected and analyzed for toxicity characteristic leachate procedure (TCLP) volatile organic compounds (VOCs), TCLP semi-volatile organic compounds (SVOCs), TCLP metals, and total PCBs.

Waste generated from this investigation will be containerized in 55-gallon drums and staged on-Site for proper disposal.

TABLE 1

SAMPLING PROGRAM
PAOC 18 IN-SITU WASTE SAMPLING
WILLOW RUN COMPANY VEHICLE OPERATIONS AREA
YPSILANTI, MICHIGAN

Soil Boring	Approximate Depth of Clay (feet bgs)	Sample Intervals (feet bgs)			
		0-5	5-10	10-15	15-20
Area 1					
ISB-01	19	x	x	x	x
ISB-02	17	x	x	x	x
ISB-03	15	x	x	x	x
ISB-04	15	x	x	x	x
Composite Sample #		Composite Sample # 1	Composite Sample # 2	Composite Sample # 3	Composite Sample # 4
Area 2					
ISB-05	14	x	x	x	x
ISB-06	15	x	x	x	x
ISB-07	14	x	x	x	x
ISB-08	14	x	x	x	x
Composite Sample #		Composite Sample # 5	Composite Sample # 6	Composite Sample # 7	Composite Sample # 8
Area 3					
ISB-09	15	x	x	x	x
ISB-10	15	x	x	x	x
ISB-11	17	x	x	x	x
ISB-12	16	x	x	x	x
Composite Sample #		Composite Sample #9	Composite Sample #10	Composite Sample #11	Composite Sample #12
Area 4					
ISB-13	5	x	-	-	-
ISB-14	4	x	-	-	-
Composite Sample #		Composite Sample #13	N/A	N/A	N/A
ISB-15	17	x	x	x	x
ISB-16	14	x	x	x	x
Composite Sample #		Composite Sample #14	Composite Sample #15	Composite Sample #16	Composite Sample #17
Area 5					
ISB-17	3	x	-	-	-
ISB-18	5	x	-	-	-
ISB-19	2	x	-	-	-
ISB-20	5	x	-	-	-
Composite Sample #		Composite Sample #18	N/A	N/A	N/A
Area 6					
ISB-21	13	x	x	x	x
ISB-22	15	x	x	x	x
ISB-23	17	x	x	x	x
ISB-24	17	x	x	x	x
Composite Sample #		Composite Sample #19	Composite Sample #20	Composite Sample #21	Composite Sample #22

Notes:

ISB In-Situ Soil Borings
bgs below ground surface