



## MEMORANDUM

**DATE:** September 9, 2013

**TO:** Stephen Bushey PE, Fay, Spofford & Thorndike  
Phineas Sprague, Jr., New Yard, LLC  
Robert Flight, New Yard, LLC

**FROM:** Jedd Steinglass LSP, Credere  
Rip Patten PE, Credere

**CC:** File

**PROJECT NO.** 12001139

**SUBJECT:** Canal Landing/New Yard LLC:  
Comments on Conditions of Approval Compliance - VRAP

This document has been prepared to provide information pertaining to the status of the above-referenced development project with respect to the Maine Department of Environmental Protection (DEP) Voluntary Response Action Program (VRAP). This information was requested by Mr. William Needleman, Senior Planner with the City of Portland, Maine in a Memorandum dated August 28, 2013, addressed to Stephen Bushey, PE of Fay, Spofford & Thorndike.

Only portions of the property associated with the development of Canal Landing that are owned by the Unital Group (Unital) are currently enrolled in the Maine DEP VRAP. Based on our understanding of the scope of Phase 1A of the Canal Landing redevelopment project, all work will be completed on land that was recently acquired by New Yard, LLC from Pan Am Railways. Therefore, this Phase 1A work is not currently subject to Maine DEP VRAP review or approval.

It is important to note that, regardless of current VRAP applicability, Credere Associates, LLC (Credere) has completed a review of environmental conditions that may be encountered during Phase 1A work at this property. Credere then utilized the available information to prepare a Soil Management Plan (SMP) that will be utilized to minimize potential risk of harm to human health and the environment during Phase 1A of the development project. This SMP has been provided to New Yard, LLC and all contractors associated with Phase 1A work. A copy of this SMP is also attached to this memorandum.

If you have any questions or would like further clarification on this document please do not hesitate to contact me at (207) 828-1272 extension 12 or at [jsteinglass@credere.com](mailto:jsteinglass@credere.com).

**Attachment A**

**August 19, 2013, Soil Management Plan**





# CREDERE ASSOCIATES, LLC

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Phone: 207-828-1272  
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August 19, 2013

Revision 0

Mr. Phineus Sprague, Jr.  
New Yard, LLC  
40 West Commercial Street  
Portland, Maine 04101

**RE: Initial Soil Management Plan**  
Boatyard Redevelopment  
40 West Commercial Street, Portland, Maine

Dear Mr. Sprague:

The following document describes methods and procedures to be used during initial boatyard redevelopment activities at the New Yard, LLC property located at 40 West Commercial Street in Portland, Maine. Specifically, this Soil Management Plan (SMP) applies to shallow (less than 3 feet below existing grade) subsurface work to be completed on the New Yard, LLC property that was previously owned by Pan Am Railways. This area is hereinafter referred to as “the Site.”

It is important to note that no quantitative information is available concerning environmental conditions at the Site. As such, the activities and practices described below were developed based solely on available environmental data that has been collected from adjacent properties. Using the professional judgment of Credere Associates, LLC, these activities and practices may be used to reasonably fulfill the applicable regulatory requirements and to manage potential risk to human and environmental receptors associated with on-Site soil that has been impacted by concentrations of oil and/or hazardous substances. However, if conditions encountered at the Site are determined to be inconsistent with those assumed during the preparation of the Soil Management Plan (SMP), work must cease immediately until an adequate assessment may be performed by Credere.

Included in this initial SMP are:

1. A description of assumed soil conditions.
2. A listing of proper work practices, stockpiling procedures, and protective equipment for use during initial construction activities.
3. The methods to be used for the proper transport and disposal of excess soil that may be generated during redevelopment.

## 1. BACKGROUND

Based on available information, portions of the Site are known to have been operated as a manufactured gas plant (MGP) that converted coal into coal gas and for railroad operations. This industrial usage spanned from at least 1850 to approximately 1980. Further, railroad operations have continued to the present day along certain areas of the Site.

According to previously completed environmental investigations, soil at properties located adjacent to the Site has been impacted by concentrations of oil and/or hazardous materials. Specifically, soil located in close proximity to the Site contains concentrations of, metals, petroleum, volatile organic compounds (VOC), and polycyclic aromatic hydrocarbons (PAH). As no on-Site environmental data is available, Credere has utilized the maximum contaminant concentrations at the adjacent property to establish a conservative estimate of expected Site conditions. In accordance with this methodology, maximum expected contaminant concentrations are summarized below:



**Table 1 - Estimated Maximum Contaminant Concentrations\***

Analytical Group	Analyte	Maximum Concentration (mg/kg except as noted)
Volatile Organic Compounds (VOC)	Benzene	360
	2 Butanone (MEK)	79
	Endosulfan II	0.034
	Endosulfan Sulfate	0.23
	Beta-BHC	0.016
	Delta-BHC	0.27
	Endosulfan I	0.14
	Styrene	240
	1,2,4-Trimethylbenzene	270
	n-Butylbenzene	8.9
	Carbon disulfide	6.9
	1,3,5-Trimethylbenzene	8.3
	Ethylbenzene	320
	Isopropylbenzene	26
	n-Propylbenzene	29
	Naphthalene	610
	Total Xylenes	850
p-Isopropyltoluene	8.4	
Toluene	620	
Polycyclic Aromatic Hydrocarbons (PAH)	2-Methylnaphthalene	910
	1-Methylnaphthalene	810
	Acenaphthene	62
	Acenaphthylene	280
	Anthracene	98
	Benzo(g,h,i)perylene	190
	Benzo(a)pyrene	160
	Benzo(b)fluoranthene	520
	Benzo(k)fluoranthene	250
	Benzo(a)anthracene	240
	Chrysene	310
	Dibenz(a,h)anthracene	62
	Fluoranthene	470
	Fluorene	280
	Indeno(1,2,3-cd)pyrene	260
	Naphthalene	1,400
	Phenanthrene	770
	Pyrene	500
	Dibenzofuran	34
Carbazole	9.2	
Bis(2-Ethylhexyl)Phthalate	4.2	
RCRA 8 Metals	Arsenic	37.7
	Barium	44.8
	Cadmium	0.394
	Chromium	28.3
	Lead	90.6
	Mercury	1.03
	Selenium	0.5
	Silver	0.02
Corrosivity	pH	2.6 to 7.5 (standard units)
Cyanide	Total Cyanide	5,400
Petroleum Hydrocarbons	TPH	Not Tested

\* Maximum estimated Site concentrations are based on environmental data collected from adjacent properties as reported in a March 14, 2013 Final Pre-Design Investigation Report prepared by AMEC Environmental and Infrastructure. Only detected compounds as reported in this document are included in Table 1. **Additional currently unknown contaminants may exist at the Site.**



## **2. APPLICABILITY**

This SMP applies to shallow (less than 3 feet below existing grade) subsurface work to be completed on the New Yard, LLC property that was previously owned by Pan Am Railways. This may include the disconnection/abandonment or installation of utilities, soil excavation conducted to adjust elevation grades to meet design plans/specifications or to install structurally suitable sub-grade materials, or for the installation of new Site features such as fences, utility poles, and floating slab foundations.

## **3. SOIL MANAGEMENT PLAN**

The following section provides procedures for the excavation, re-use, storage, and disposal of excess soil generated during construction activities at the Site.

### **3.1 Soil Excavation and Dust Control**

Wet suppression shall be used during excavation to provide temporary control of dust. Several applications per day may be necessary to control dust depending upon weather conditions and work activity. Wet suppression will be applied on a routine basis as necessary to control dust. At a minimum, wet suppression shall be applied to excavated material, stockpiles, haul roads, and exposed soils and dirt. Water runoff generated by dust control will be retained and disposed of in accordance with the requirements of the appropriate regulatory agencies.

All equipment used during excavation activities shall be properly cleaned and decontaminated prior to being transported off-Site.

### **3.2 On-Site Reuse of Excavated Material**

If the on-Site reuse of excavated soil is possible considering the scope and requirements of the construction effort, the applicable material will be handled within the provisions of this SMP. However, reasonable efforts will be made to preserve the consistency of the location and depth of re-used excavated material within the original excavation to avoid the degradation of less contaminated materials.

For example, backfilling should be conducted such that fill materials are replaced in areas of similar re-worked and urban soil, versus backfilling fill materials in areas of native, undisturbed soil. This may be practically executed by placing shallow subsurface soil at similar shallow depths, and placing native materials at deeper points during backfilling.

### **3.3 Soil Stockpiling and Storage**

Soil excavated from the Site may be temporarily stored or removed following disposal criteria analysis and acceptance at an appropriate receiving facility. Soil stored at the Site will be placed atop 20-mil polyethylene sheeting and covered by 10-mil or 20-mil polyethylene sheeting. Berms shall be constructed around the edges of the stockpiles, the base shall be sloped to create leachate collection points, and storm water runoff will be diverted away from any soil stockpile or storage area when feasible.



Alternatively, soil may be temporarily stored within secure, water resistant, DOT-approved steel drums or bulk containers. All stockpiled or containerized soil will be stored within a secure area of the Site and properly labeled to minimize potential contact. In addition, all soil stockpiled or otherwise stored at the Site will be inspected daily for tears, holes, or other failures in the polyethylene sheeting or storage container.

### **3.4 Disposal Criteria Testing**

Under no circumstance shall soil that has been generated at the Site be removed or transported to any other property or facility without adequate disposal criteria testing and written approval of the Environmental Professional (Credere). If excess soil is generated at the Site, Credere will collect representative soil samples from the excess material for analysis by an independent, Maine-certified laboratory. At a minimum, and in accordance with disposal facility requirements, laboratory criteria will include the following analyses:

- Total petroleum hydrocarbons (TPH)
- VOC
- Semi-volatile organic compounds (SVOC)
- Polychlorinated biphenyls (PCB)
- Total RCRA 8 Metals
- pH
- Ignitibility, conductivity, and reactivity (sulfide and cyanide)

Following the results of the above analyses, an appropriate disposal or recycling method will be selected.

### **3.5 Soil Transport and Recycling / Disposal**

Based on available data, excess soil that may be generated at the Site meets the definition of a Special Waste as described at 38 M.R.S.A. Section 1303-C(34). If appropriately characterized soil is shipped off-Site for recycling or disposal, all generated Special Waste material shall be transported under a Maine DEP Waste Manifest. Prior to shipment, an appropriate recycling or processing application must be submitted and facility acceptance must be obtained and presented to Credere. Under no circumstance shall soil that has been generated at the Site be removed or transported to any other property or facility without written approval of Credere.

### **3.6 General Health and safety Plan**

The following serves as guidelines for health and safety procedures to be employed during general construction activities at the Site. These guidelines shall be supplemented by a Site-specific health and safety plan that will be prepared by each individual contractor that is performing work at the Site.



## **Training**

Based on estimated Site conditions, any individual worker who will be exposed or potentially exposed to soil located within the limits of the Site for more than 40-hours shall maintain appropriate Occupational Safety and Health Administration (OSHA) 40-hour Hazardous Waste Operations and Emergency Response training per 29 CFR 1910.120.

Based on previous environmental assessments completed at the Site, the expected contaminants of concern in soil include metals, petroleum, VOC, and PAH. The primary route for contact with impacted materials at the Site is dermal absorption. Secondary routes include inhalation, accidental ingestion, and injection through broken skin. As such, the utilization of basic personal protective equipment (PPE) will minimize the potential for exposure while conducting construction activities at the Site.

## **Personal Protective Equipment**

Based on an evaluation of the anticipated potential hazards, a personal protection level of D has been designated for all personnel working within the construction area at the Site. Specific level D PPE to be used at the Site is as follows:

- Steel toe work boots with latex over boots, as required
- Safety glasses with side shields
- Work gloves
- Nitrile inner gloves
- Hard Hat
- Coveralls

If, based on field screening techniques and/or the professional judgment of the contractor and/or Credere, it is determined that level C or higher PPE is required, work must stop until Site conditions risks can be reassessed.

## **General Operating Procedures**

In addition to the above basic health and safety guidelines, the succeeding procedures will be followed during activities conducted at the Site which create the potential for exposure to impacted soil:

1. The Site shall be surveyed and cleared by DigSafe.
2. All equipment used during excavation activities shall be properly cleaned and all loose soil shall be removed prior to off-Site transport.
3. Any indication of conditions more hazardous than those anticipated, or the observation of circumstances which would render the above basic health and safety procedures

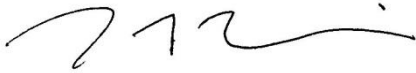




inappropriate, shall result in the evacuation of the work area and a reassessment of health and safety procedures by the contractor and/or Credere.

If there are any questions, please contact the undersigned.

Sincerely,  
Credere Associates, LLC



Jedd S. Steinglass, L.S.P.  
Senior Project Manager



Rip Patten, P.E., L.S.P., LEED-AP  
Vice President

