

# Hammer Consulting Services Observation Report



## GENERAL INFORMATION

SITE NAME: <u>Bridgeton Landfill</u>	CLIENT: <u>Missouri DNR</u>	DATE: <u>08/22/12</u>
ADDRESS: <u>Saint Charles Rock Rd, Bridgeton, MO</u>	IMPACTS: <u>St Louis International Airport</u>	REPORT NO. <u>1</u>
STATUS: <u>Closed Facility</u>	<u>St. Rams Training Facility, Commercial,</u>	PAGE <u>1 of 3</u>
	<u>Industrial and Residential areas</u>	<b>HIGH</b>

## WEATHER CONDITIONS

SKIES <u>Sunny / Lt Breeze</u>	TEMPERATURE: <u>85</u> F	WINDS: <u>5 mph</u>	PRECIPITATION: <u>None - Dry Period</u>
	BP: <u>30.06</u> in Hg	DIRECTION: <u>E</u>	FUEL COVER TYPE: <u>Grass and HDPE</u>
			FUEL CONDITION: <u>Dry - Ignitable</u>

## SUMMARY OF ACTIVITIES/REMARKS

8/22/2012 - Conducted a briefing with Missouri Dept. Natural Resources (MDNR) staff before the site meeting.

Arrived at the facility for a site visit. Met with the landfill operators and their consultants along with MDNR and its consultants. The facility operators provided a brief on the current conditions and issues. The facility discussed odor issues.

The facility has expended significant amount of resources in 60 days to abate the odor.

Flare station has been upgraded. Facility is producing hydrogen gas in the %range.

Republic made significant upgrades in 60 days to the landfill engineering controls, including additional soil cover, FML, gas extraction wells, leachate sumps, etc. See attachment from Republic.

## Observations

SSE = Smoldering Subsurface Event

Performed a site visit and observed site conditions. Based upon the field observations, Bridgeton Landfill is experiencing two distinct areas of subsidence. The first area is called the west bowl (Northwest corner of the solid waste facility) and the second area is called the east bowl (Southeast corner of the solid waste facility).

Additional geomembrane has been installed to control odors.

Settlement areas have increased and gas temperatures are increasing to temperatures over 200F.

The SSE is moving towards the radioactive cell. Rate of spread is unknown but the based on visual signs the SSE is moving.

Republic has established an aggressive field monitoring program to detect fissures and maintain the soil cover. Only two fissures were noted by myself during the site visit. Other DNR consultants noted other fissures; however, the number of fissures were down.

Cover maintenance during this site visit was noticeably improved.

## Odors

Odors were significantly reduced. Only one odor present: sweet typical landfill smoldering event odor.

This odor was noticeably better (less pungent) from the previous site visit in June 14, 2012.

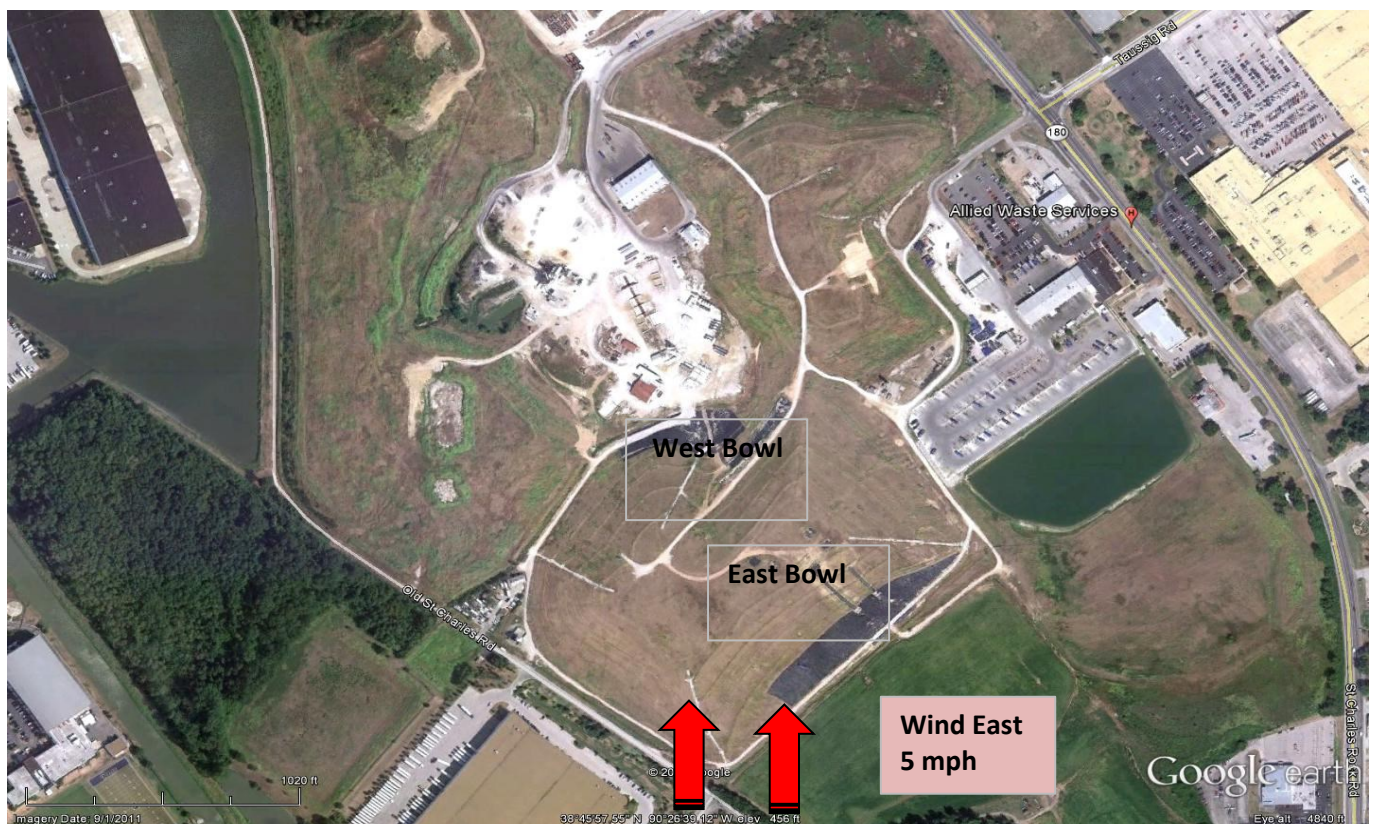
Republic

Provided insight to Republic's environmental technician on the location and type of fissures he should expect.

DNR

SSE and reaction is pointing towards a metal oxide issue (Al Dross). Recommended MDNR examine all special waste manifest for metal oxides and/or fly ash wastes.

**Facility Aerial Photograph (Source: Google Earth 9/1/2011)**




General odor direction noted.





Photo 1: Bridgeton Landfill, St. Louis Area, Missouri, Todd Thalhamer, August 22, 2012.  
Photos shows the area of the east bowl settlement and additional cover construction.

SIGNATURE/PRINTED NAME:  P.E. No C055197 DATE: 8/22/2012

Todd Thalhamer