DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Self Initiated Inspection

N268848988

FACILITY: Advanced DisposalServices Arbor Hills Landfill Inc		**SRN / ID:** N2688
LOCATION: 10690 W. SIX MILE RD, NORTHVILLE		**DISTRICT:** Jackson
CITY: NORTHVILLE		**COUNTY:** WASHTENAW
CONTACT:		**ACTIVITY DATE:** 05/30/2019
STAFF: Mike Kovalchick	**COMPLIANCE STATUS:** Non Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: Visit to test CAIRPOL H2S sensor and find location for its placement.		
RESOLVED COMPLAINTS:		

On May 30, 2019, I conducted unannounced compliance inspection of Advanced Disposal Services (ADS) Arbor Hills landfill located in Northville, Michigan (Washtenaw County) at 10690 6 Mile Road. The purpose of this inspection was to determine the facility's compliance status with applicable federal and state air pollution regulations, particularly Michigan Act 451, Part 55, Air Pollution Control Act and administrative rules, conditions of the ADS's Renewable Operating Permit (ROP) number MI-ROP-N2688-2011a and Permit to Install (PTI) permits 19-17B and 79-17. The inspection was also conducted to support on-going EGLE efforts at negotiating a proposed Consent Order with ADS to resolve previously identified violations.

I went out to the landfill this morning to meeting with Mark Johnson to discussion our upcoming efforts at doing some CAIRPOL and potentially Summa canister monitoring near the landfill. I was at the landfill between 9:30 and 11:15. Prior to arrival, I checked for odors. Only some light gas odors noted near the flag on Napier with a nearly calm to perhaps a light West wind. I noted that the active face was at least 20 feet higher since my prior visit on April 25th. Here are some highlights from my discussions with him and from the landfill visit:

We went to the proposed location for the Cairpol sensor on the east side of Napier. The access road had a gate on it but it wasn't locked. We proceeded to where the fenced in building was located. Mark did not have a key to fence but was pretty sure that a key was available back at the office. The location appears to be perfect for our purposes either just outside the fenced in area or inside. See attached photos. We have mentioned to access this location at anytime and promised to notify Mark whenever we go out there. If a key is available, we will need to stop by to pick up the key prior to accessing the Cairpol. Overall, Mark is very pleased with our monitoring plan and thinks that it is a good thing.

We visited TS-01. (See attached photo.) Fairly quickly, Mark was able to determine something was wrong. It was determined that they were working on a lift station directly below TS-01 this morning. They were replacing a pump on this lift station. Prior to starting work, they shutoff the airflow to the TS-01 sump pump. (This project started this morning.) As a result, the pump wasn't pumping. Mark noted that recently, the sump pump has been able to keep up with the liquid flowing into TS-01 due to overall improved air pressure at the landfill which has improved performance of the TS-01 pump. Nevertheless, there was only low levels of water in the containment area beyond TS-01 and it appeared to be mostly muddy storm water compared to the jet black, hot bubbly water last time. (I could seem steam coming off the frac tanks below but was too far away to detect odors from them.)

Intense/nauseating H2S odors were noted near TS-01. However, there was no odors coming from TS-01 itself which was very odd. After a few minutes of searching, Mark was able to find the source. (See attached photo.) It was from a small area of no vegetation with some black sulfide stains on the ground. It was directly adjacent to a shutoff valve pole associated with TS-01 and clearly had been there for quite awhile. I first deployed my little cheap methane detector; it alarmed and it pegged the instrument from multiple holes at 10,000 ppm +. I deployed the Jerome and detected H2S at a rather unhealthy 23 parts per million. (Only a few feet away it was drastically lower.) I then turned the Cairpol on and walked around TS-01 (holding it in my hand) for a few minutes being careful not to get to close in order to avoid saturating the sensor. I turned it off after leaving the area and just before getting back into the truck. See attached spreadsheet of the data it recorded. It detected levels up to 700 parts per billion. It appears the Cairpol is operating as expected.

Marked mentioned that they had contractor onsite this week finally starting to install the new pumps. As of now, one new pump has been installed with 41 more to go. They will be ordering at least another 25 shortly. The first round of pumps should be installed and turned on in the very near future unless more weather delays.

Air pressure is now turned on at the top of the Hill. They are getting 90" to 120" of pressure. The have a new air supply configuration. I think a new compressor station/shack is now located near the location of the old

temporary flare and another existing compressor near the flare blower building along with a portable diesel backup next to it. The new one supplies air to AHW, the existing one to AHE and some of AHW. Despite a recent problem with the existing compressor, the added air pressure has generally increased the pumping rate of the existing pumps including the leachate riser pumps.

They replaced a 250 foot section of the leachate forced main line in the vicinity of the main leachate tanks. This was the section that they were unable to jet blast out previously. About hour after they replaced, it immediately clogged up again for an unknown reason. They currently have some sort of bypass setup around this line.

The planned DTE outage of the Fortistar plant went okay. However, initially there was programming problems with the blower system. There was a 4 hour period when they were only drawing about 30" of vacuum on the landfill before fixing the problem. He said all the flares worked fine included the yet to be refurbished 2 enclosed flares. The blowers were able to generate a record gas flow of 10,500 scfm through the flares and they were a little concerned that the blowers were blowing/pulling too hard which could start to pull excess oxygen in.

Mark feel much better about the part of the elevated temperature event that was linked to the subsidence area. He feels fairly strongly now that the subsidence event was caused by a leaky air line that provided enough oxygen to start a subsurface fire. It appears that the fire was put out by the addition of the dirt and a nearby gas wells shows dropping air temperatures and he believes much lower CO although it appears that they were in the process of sampling it again. He says he feels more confident that ETLF event was caused by the EQ waste which the received for a 3 year period ending in 2017. They are in the process of documenting exactly how much of this waste they accepted and were it was placed.

He says he will be providing me with the leachate sample data for TS-01.

Mark says there is little gas odor noted on the Northside of the landfill near the subsidence area. I noted a very large pile of dirt had been placed just to the East of it. (See attached.) Mark says as soon as the weather dries up some, they will start to grade this pile of dirt in preparation for the possible new geo-liner.

Image 1(Killed vegetation) : Killed vegetation methane/H2S.

Image 2(New CAIRPOL site) : New CAIRPOL site looking west towards landfill.

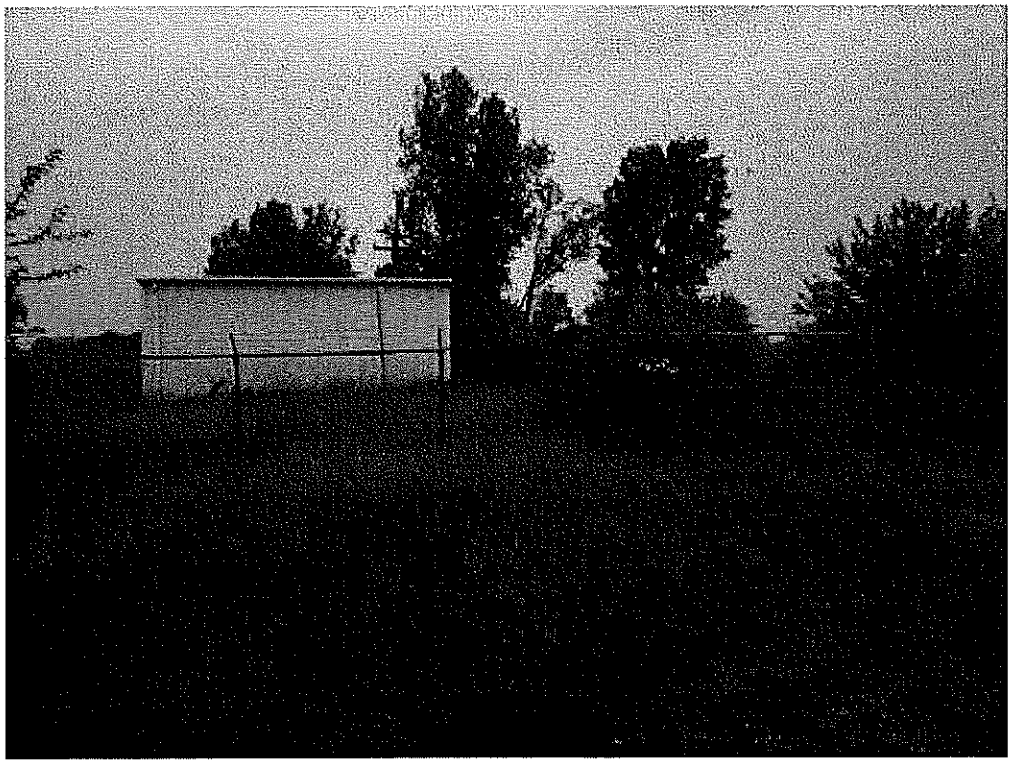

Image 3(New CAIRPOL site) : New CAIRPOL site.

Image 4(North slope) : North slope.

Image 5(TS-01) : TS-01 sump ponds.

NAME M. Kovalchick DATE 10/14/19 SUPERVISOR