

December 9, 2010

Ms. Susan Pelz, P.E.
Program Manager, Solid Waste
Department of Environmental Protection
13051 North Telecom Parkway
Temple Terrace, Florida 33637-0926

Dept. Of Environmental Protection

DEC 10 2010

Southwest District

**Re: Phase I Hot Spot Issue
Status and Proposed Response Plan
Central County Solid Waste Disposal Facility
Sarasota County, Florida**

Dear Susan:

Submitted on behalf of Sarasota County Solid Waste, the purpose of this letter is to summarize the status of observed excessive temperature (Hot Spot) in the landfilled waste mass within the southwest portion of the south side slope of Phase I, approximately 35 feet southwest of Gas Well (GW) – 26, Central County Solid Waste Disposal Complex (CCSWDC), Sarasota County, Florida. Provided below is a summary of events since the first observation of the Hot Spot, actions taken to assess the temperature and lateral extent of the Hot Spot, a plan to accelerate the cooling of the Hot Spot, and a summary of potential repairs to the landfill gas (LFG) piping within the subject area.

STATUS OF HOT SPOT

On November 12, 2010, Sarasota County (County) staff investigated the cause of a LFG system shut down on the previous day. During the re-start attempts, County staff observed significant vacuum in the stand pipe west and adjacent to the end of the 18-inch HDPE header pipe, located approximately 35 feet southwest of GW-26. Based on County staff's description, there was significant vacuum and shortly thereafter, excessive heat emanating from the stand pipe. County staff shut down the blower system and called HDR Engineering, Inc. (HDR) staff to discuss the issue.

During the afternoon on November 12, 2010, HDR staff visited the site to assess the apparent Hot Spot. The steel, 6-inch diameter stand pipe, adjacent to the west end of the 18-inch LFG header pipe, was hot toward the bottom of the pipe. In addition, after digging down several inches below grade, the soil felt hot. Smoke or fumes were not apparent or visible within the area. The area was saturated with water from an on-site water tanker to assist in the cooling process. In addition, clayey sand was placed over the existing soil cover within the subject area to further minimize the potential for oxygen intrusion into the waste mass.

Based on the above observations, County and HDR staff developed a plan to assess the temperature and lateral extent of the Hot Spot. On November 23, 2010, a geoprobe was used to install ten, 2-inch diameter steel pipes into the waste mass for use in assessing the temperature and lateral extent of the Hot Spot. As shown on Figure 1 and attached photographs, the pipes were installed using an inner ring and outer ring approach. The inner ring probes (probes SW-1 through SW-6) were installed within 10 feet of the stand pipe. The outer ring probes (probes SW-7 through SW-10) were installed within approximately 25 feet of the stand pipe. Thermocouple wires were installed in each of the temperature probes and GW-26. An electronic thermometer was provided to connect to each thermocouple wire for observing the temperature in each of the installed temperature probes and GW-26.

As shown on the attached table, the temperature in the inner circle probes (probes SW-1 through SW-6) on December 7, 2010, ranged from 160 to 204 degrees F. The temperature within the outer circle probes (probes SW-7 through SW-10) on December 7, 2010, ranged from 98 to 132 degree F. The temperature in GW-26 on this same date was 135 degrees F. Based on the temperature data recorded thus far, it appears that the Hot Spot (temperature greater than 150 degrees F) is limited to the inner circle probes, SW-1 through SW-6, which is slowly cooling, and is not laterally expanding.

At this time, the cause of the Hot Spot cannot be stated with certainty. Gas well-26 has been closed since the gas system was first put into operation in June 2010 given temperature readings above 130 degrees F concentrations. However, given that the working face was and continues to be adjacent to this area and that a layer of mulch was recently placed in the subject area for erosion control, the decomposition of the mulch coupled with oxygen intrusion from the working face may have resulted in the observed Hot Spot. Although the Hot Spot area has exhibited temperatures above that of typical waste mass temperatures, there is no evidence or data (e.g., smoke, fumes, significant settlement) at this time that would indicate the presence of a landfill fire. As such, the local fire department has not been contacted. If a landfill fire was evident, the local fire department would have been contacted in accordance with the site's Permit, Part C., 1., j.

PROPOSED RESPONSE PLAN

The proposed response plan for lowering the temperature within the Hot Spot to an acceptable and safe range (e.g., 150 degrees F) and to investigate if damage to the LFG system has occurred is provided below.

Accelerate the Cooling of the Hot Spot

Based on the temperature probe data, it appears that the lateral extent of the Hot Spot is limited to an approximate 15 to 20-foot radius around the stand pipe. To accelerate the cooling process within this area, HDR recommends that the soil recently placed in the stand pipe be jetted out using a hose from a water tank truck. Once the soil has been

evacuated, fill the stand pipe with about 1 gallon of Class A aqueous film forming foam (AFFF) and fill the rest of the stand pipe with water. The AFFF will infiltrate the waste mass more readily and minimize the potential for increasing the decomposition rate/heat value of the waste. Over several days, continue to keep the stand pipe full of AFFF/water, replacing the PVC cap once the stand pipe has been re-filled. Continue to monitor the temperature probes on a daily basis. Once the temperature in all the probes have been lowered to less than 150 degrees F, HDR believes that the County can then carefully excavate the soil to inspect the LFG system. The temperature of the excavated area should be closely monitored to ensure that the excavation is not exacerbating the Hot Spot Area.

Inspection of the LFG Piping and Appurtenances

Once the temperatures in the probes are lower than 150 degrees F, the LFG system within the area of the Hot Spot will need to be uncovered for inspection. Provided below is HDR's recommended approach for uncovering and inspecting the LFG system, including contingency measures.

- Create a soil berm around the entire area to be excavated for minimizing water runoff and the spread of a potential fire.
- Have a water truck standing by for use in saturating the area and/or to extinguish a fire should it occur.
- Have a dump truck or off-road dump truck and excavator on standby to excavate potential small "hot" areas of waste. If waste is hot, excavate the waste, place in dump truck, and haul to the designated hot load areas as provided for in the site's Operation Plan. Dump and spread the hot load within the designated hot load area to allow the waste to cool. A containment area may be required to ensure that runoff of leachate is not conveyed to the stormwater system. The treatment of all hot loads should be in accordance with the site's Operation Plan.
- Once the pipe is uncovered, inspect the piping to assess the damage. Make notes of the approximate linear feet of piping that was damaged. Take photographs for preparing a photo record of the excavation, damage (if any), and repairs.
- Once the LFG pipe has been inspected and it appears that hot waste is not present, fill the excavation with soil.
- Have a contractor on site during the excavation and inspection of the LFG system to make any needed repairs to the LFG system.
- Once the LFG system has been repaired (if required) and backfilled, re-activate the LFG system along the south side slope. Adjustments to all LFG wells will be

required to minimize the potential for oxygen intrusion and maximize LFG extraction. Do not open GW-26 at this time. HDR recommends that GW-26 not be opened until the installation of the remaining LFG system has been completed which is scheduled for construction next year

- Continue to monitor the temperature in all LFG wells along the south side slope on a daily basis for two weeks to be certain that no other Hot Spots have developed, including closed GW-26.
- Prepare documentation for recording the activities of the implemented response plan.

ADDITIONAL DISCUSSION

As shown in Table 1, it appears that the Hot Spot is slowly cooling. The County wishes to implement the above Response Plan as soon as possible in order to further decrease temperatures in the subject area as well as to assess, inspect, and if required, repair the LFG piping and appurtenances. As such, the County requests that FDEP approve the above Response Plan as soon as possible so that the County can commence implementing the Response Plan.

Please call me at 813-270-8058 or Ms. Lois Rose of Sarasota County at 941-861-1589 if you have any questions or require additional information.

Sincerely,
HDR ENGINEERING, INC.

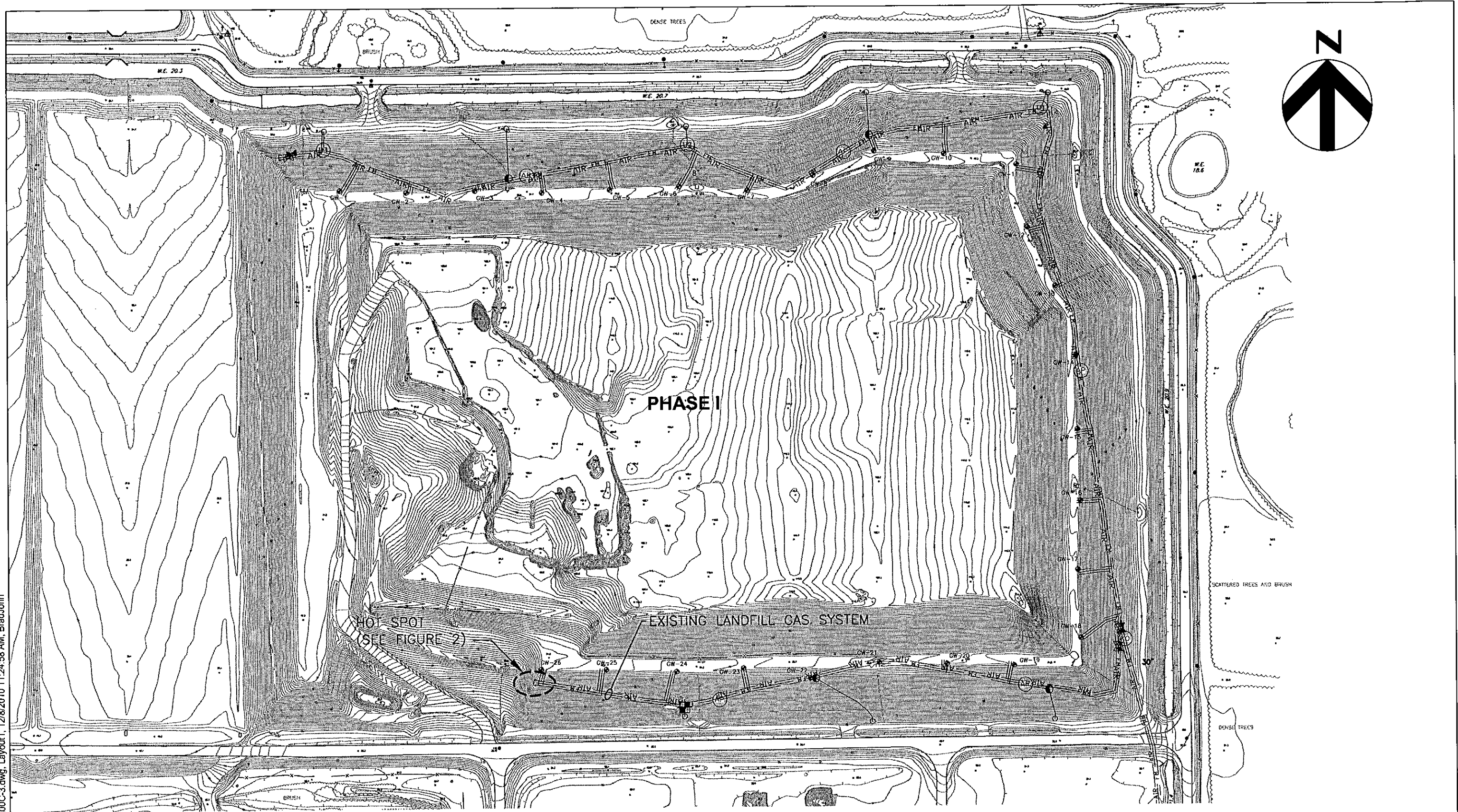


Richard A. Siemering
Solid Waste Section Manager

Attachments

cc: Lois Rose, Sarasota County
Gary Bennett, Sarasota County

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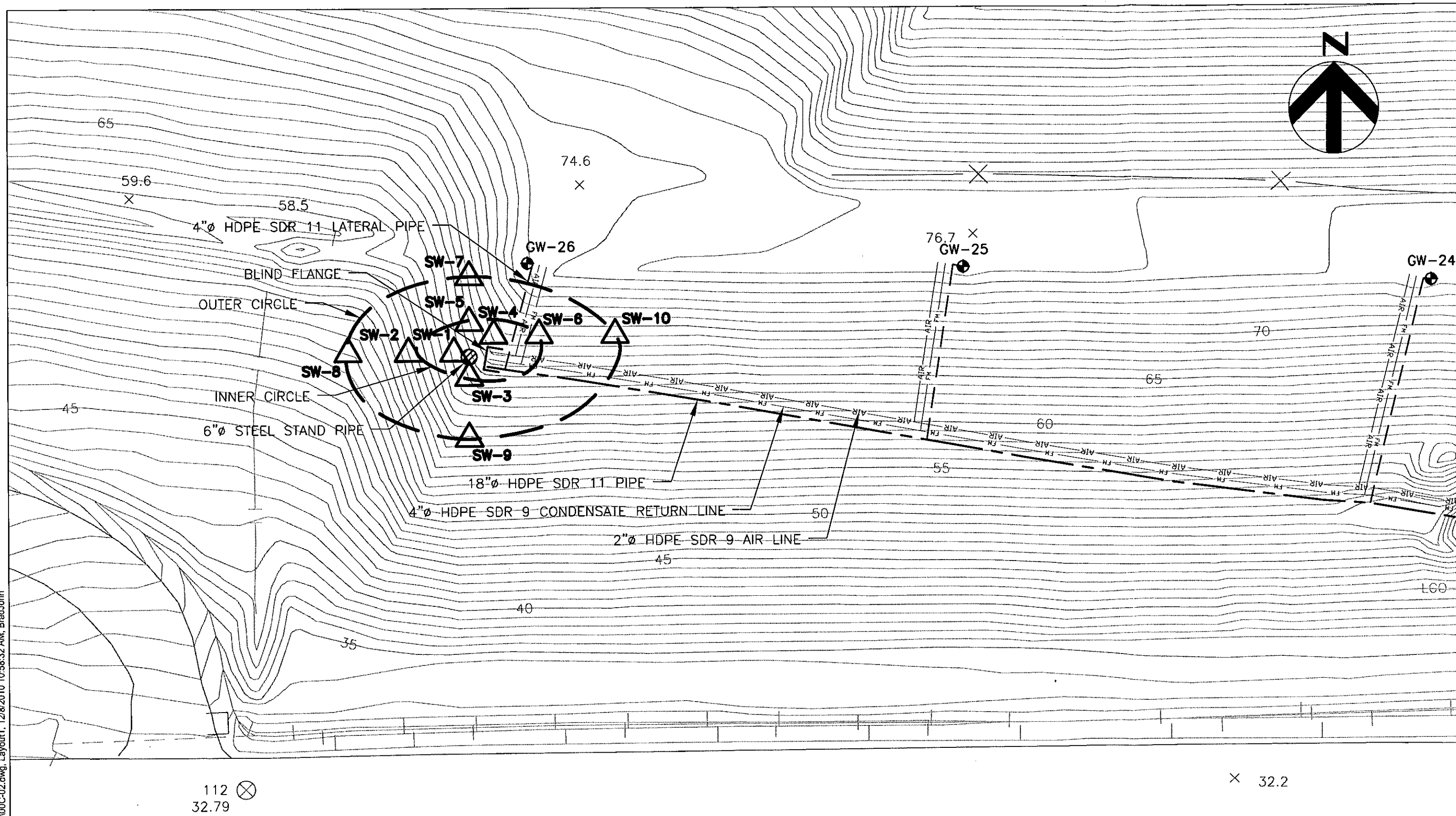


PROJECT TITLE	TEMPERATURE MONITORING PROBES
SHEET TITLE	SARASOTA COUNTY CENTRAL COUNTY SOLID WASTE DISPOSAL COMPLEX

PROJECT NUMBER	131412
PROJECT MANAGER	R. SIEMERING
DATE	DECEMBER 2010

SCALE	1"=200'
FILENAME	00C-03.DWG
FIGURE	1

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PROJECT TITLE	TEMPERATURE MONITORING PROBES
SHEET TITLE	SARASOTA COUNTY CENTRAL COUNTY SOLID WASTE DISPOSAL COMPLEX

PROJECT NUMBER	131412
PROJECT MANAGER	R. SIEMERING
DATE	NOVEMBER 2010

SCALE	1"=30'
FILENAME	00C-02.DWG
FIGURE	2

TABLE 1. TEMPERATURE PROBE DATA
PHASE I LANDFILL HOT SPOT
CCSWDC - SARASOTA COUNTY

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