

Viacom Inc.
11 Stanwix Street
Pittsburgh, PA 15222

Dorothy M. Alke
(412) 642-2562



April 28, 2004

To: DISTRIBUTION

Re: **Sarber Sinkhole Investigation Summary**
Neal's Landfill, Bloomington, Monroe County, Indiana

Background

This letter report summarizes the activities associated with the cleanout, inspection, backfilling and restoration of the sinkhole and immediately surrounding areas on the Sarber property southeast of Neal's Landfill. The purpose of the initial cleanout and inspection work was to confirm or disprove the presence of an entrance at the bottom of the sinkhole for entry and exploration by an entry team at a later date. The sinkhole had been previously dye-traced and shown to be connected to the Northwest Spring System at Neal's Landfill.

The Sarber property is located on the south side of S.R. 48 roughly opposite the southeast corner of the Neal's Landfill site. A sinkhole filled with brush, trees, trash and debris is located a few hundred feet south of the Sarber residence on the east side of a gravel drive. It was reported that Mrs. Sarber's grandfather and an uncle entered the sinkhole sometime back in the 1930s. They reportedly entered through a near vertical shaft at the mouth of the sink and observed a flowing underground stream at or near the base of the shaft, some 40 feet below the ground surface. From there they were supposedly able to walk some distance along the stream. Later, after the entry and brief exploration, they reportedly blocked the entrance to the sinkhole with a white stove or refrigerator and covered it with trash and brush.

The initial cleanout and inspection involved the joint efforts of several parties including Viacom, PSARA Technologies, the USEPA, Earth Tech, the Monroe County Health Department, and the Monroe County Solid Waste Management District. As part of the effort, arrangements had to be made for disposal of the household and general trash/debris removed from the mouth of the sinkhole. The Monroe County Solid Waste Management District provided a roll-off container for trash and debris disposal at no cost to the project.

Initial Cleanout and Inspection

Following the notification of Mrs. Sarber (who had provided us her consent to explore this sinkhole) and the Monroe County Planning Department on March 26, the initial cleanout and inspection was performed on March 29, 2004. Participants included representatives of Viacom, PSARA Technologies, Reed & Sons Construction Co. and Earth Tech. All work was performed in accordance with Improvement Location (grading) Permit #03-IG-022 (see Attachment 1) issued by the Monroe County Planning Department.

A brief tailgate safety meeting was held prior to the start of work. A copy of the form is provided as Attachment 2.

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A trackhoe with a bucket/grapple attachment was delivered to the site at about 11:00 a.m. on March 29, 2004. Shortly thereafter, PSARA was notified that the roll-off to be provided by the Monroe County Solid Waste Management District would not be delivered that day for reasons beyond its control.

Starting shortly after arrival, the trackhoe began the removal of trash and solid debris, as well as brush and logs in various stages of decomposition. The trash and debris were stockpiled on the north side of the sinkhole, while the brush and logs were stockpiled to the east. Shortly after noon, John Bassett of Earth Tech arrived to observe the progress of the work. Later that afternoon, PSARA erected orange construction fence between the work area and the adjacent access road to delineate the work area.

By mid-afternoon, the excavation at the presumed mouth of the sinkhole began to encounter natural soil and occasional small pieces of cut quarry stone at depths of 10 to 12 feet from the ground surface. By later that afternoon the excavation had bottomed out on bedrock at a depth of 19 to 20 feet below the ground surface. No evidence of an entrance and no sign of any "white good" blocking the mouth to any entrance were observed. Moreover, had any such entrance been observed at that depth, it would have been necessary to greatly expand the excavation in order to stabilize the excavated soil slopes and allow for safe entry. **Given this fact, and the lack of any evidence of an entrance, it was agreed by all parties present (Viacom, PSARA, Earth Tech) that the excavation and search for an entrance would be terminated.**

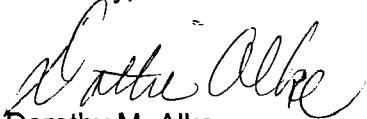
Sinkhole Closure and Site Restoration

At 9:00 a.m. on Tuesday March 30, the roll-off from the Monroe County Solid Waste Management District arrived at the work site. Due to light to moderate rain that commenced about the same time, the roll-off delivery truck had difficulty getting back out of the area adjacent to the sinkhole. For this reason, a second roll-off box was cancelled in favor of tri-axle haul trucks that could be loaded while on the adjacent access road. Representatives of the Monroe County Solid Waste Management District agreed to notify the landfill to accept trucked waste from the job site at no cost to the project. A total of approximately 60.5 tons of residential debris and debris mixed with soil were hauled via roll-off and tri-axle truck to the Monroe County Landfill for disposal. Copies of the landfill load tickets are provided in Attachment 3.

Following the removal of the waste, the area around the sinkhole and where the roll-off had been located was graded using the trackhoe. Trees and brush that had been removed from the sinkhole area and stockpiled were then placed back over the sinkhole area. **No further investigation activities are planned at this sinkhole.** Photos from the investigation are shown in Attachment 4.

If you have questions regarding this report, please contact Mike McCann or Richard McCandless at (812) 335-0424.

Sincerely,



Dorothy M. Alke
Director, Bloomington Project
BP:04-0033

Attachments

ATTACHMENT 1

Improvement Location Permit
Application # 03-IG-022
Monroe County Planning Department

Sarber Sinkhole Investigation
Neal's Landfill, Bloomington, Monroe County, Indiana

Improvement Location Permit

Application # 03-IG-022

Name: Monroe County Health Dept. Type of Permit: Grading Purpose of Permit: removal of debris from sinkhole

Project Address	7481 W. SR 48
Township	Van Buren
Section	4
Subdivision	n/a
Lot Number	n/a
Zoning	AG/RR
Constraints	(SEE BELOW)
Date of Issuance	12-09-2003
Reviewed by:	Mary Ogle

NOTE: This Improvement Location Permit pertains only to the attached plans and the specific use proposed, exactly as submitted and reviewed. This permit does not constitute the issuance of any other required permit nor exempt the property from compliance with any other requirements. All site improvements shall be implemented in accordance with the site plans as approved before a Land Use Certificate and/or a Certificate of Occupancy can be issued.

LAND USE CERTIFICATE:

If your permit request falls into any of the following categories, a Certificate of Occupancy may be withheld until a *Land Use Certificate* has been issued by the Planning Department:

- Commercial or Industrial development
- Multi-family residential development
- Subdivision or Planned Unit Developments

The attached plans have been reviewed for compliance with applicable provisions of Chapters 800- 833 of the Monroe County Zoning Ordinance, of the Monroe County Code, and conformance with the terms of any approvals which have been granted under the authority of the Zoning Ordinance or the Subdivision Control Ordinance. The plans comply:

_____ as submitted

with modifications as follows

NOTE:

This Grading Permit is being issued with restrictions legally imposed by the Monroe County Zoning Ordinance. All grading and erosion control activities must be done in accordance with approved sinkhole investigation plans. This is the responsibility of the property owner. Periodic inspections may be made to insure compliance. Please contact this department when site is complete for a final inspection. Erosion control must be installed to reduce disturbance in the sinkhole conservation area.

LAND USE CERTIFICATE REQUIRED: Yes No

ATTACHMENT 2

Tailgate Safety Meeting Form

Sarber Sinkhole Investigation
Neal's Landfill, Bloomington, Monroe County, Indiana

TAILGATE SAFETY MEETING

Date: 3/29/04, 3/30/04 Time: 09:00
Client: VACOM, INC. Job Number: 3040057
Site Location: SARDEC SINK
Type of Work: PEBBLES REMOVAL FROM SINKHOLE

SAFETY TOPICS PRESENTED

Chemical Hazards: POTENTIAL FOR CONTAINERS OF HOUSEHOLD TYPE CHEMICALS
SPLASH FROM CHEMICAL CONTAINERS
Physical Hazards: SLIPS, TRIPS, FALLS, SHARP OBJECTS, KICKOUTS, PINCH POINTS,
FALLING LIMBS, VIBES, TWINE, FENCING
Protective Clothing: HARDHAT, SAFETY GLASSES, STEEL TOE - STEEL SHANK BOOTS
Equipment Safety Procedures: STAY CLEAR OF SWING RADIUS, VISUAL CONFIRMATION
BEFORE OPERATION, BEFORE CONTAINERS AREA
Emergency Procedures: CALL 911

Hospital: Bloomington Hospital Phone Number: 911
Location: 2nd STREET
Fire Department: 911
Police Department: 911

Other: PCARA office 335 0424
VACOM - Pittsburgh (412) 642 2562

ATTENDEES

Name (Printed)	Signature
<u>CHRIS NUGENT</u>	<u>Chris Nugent</u>
<u>Richard McConless</u>	<u>Richard McConless</u>
<u>Tom White</u>	<u>Tom White</u>
<u>MIKE MCCOY</u>	<u>Mike McCoy</u>

Meeting conducted by:
R. Carl Kitchener
Name (Printed)

Signature

ATTACHMENT 3

Monroe County Landfill Load Tickets

Sarber Sinkhole Investigation
Neal's Landfill, Bloomington, Monroe County, Indiana

7481 W. St Rd 48
04-040

Monroe County Landfill
7740 N. Fish Road
Bloomington, IN 47408
(812) 349-2864

Ticket: 39826

3/30/2004 11:52:28 AM

Truck:

Operator: Diana

Customer ID: ILL ILLEGAL DUMP

Time/Date In: 3/30/2004 11:48:07 AM

Material ID: 3 No Charge Trash

PO Number: None

Gross: 41340 Lbs/Units
Tare: 19990 Lbs/Units
Net: 21350 Lbs/Units
Net Tons: 10.675 Tons/Units

Price per Ton/Unit: \$0.00

Total Charge: \$0.00

Transaction Type: No Charge

Signature

[Signature]
I Certify that this waste is from
Monroe County, Indiana

Check No. _____

7481^{W.} St Rd 48
04-040

Monroe County Landfill
7740 N. Fish Road
Bloomington, IN 47408
(812) 349-2864

Ticket: 39216

3/30/2004 10:35:29 AM

Truck:

Operator: Diana

Customer ID: ILL ILLEGAL DUMP

Time/Date In: 3/30/2004 10:31:03 AM

Material ID: 3 No Charge Trash

PO Number: None

Gross: 36840 Lbs/Units
Tare: 19960 Lbs/Units
Net: 16880 Lbs/Units
Net Tons: 8.44 Tons/Units

Price per Ton/Unit: \$0.00

Total Charge: \$0.00

Transaction Type: No Charge

Signature

[Signature]
I Certify that this waste is from
Monroe County, Indiana

Check No. _____

7481 W St Rd 48
04-040

Monroe County Landfill
7740 N. Fish Road
Bloomington, IN 47408
(812) 349-2864

Ticket: 39237

3/30/2004 1:18:51 PM

Truck:

Operator:

Diana

Customer ID: ILL ILLEGAL DUMP
Material ID: 3 No Charge Trash
PO Number: None

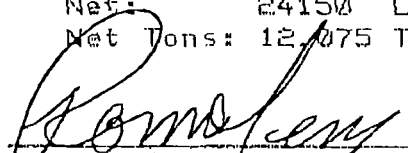
Time/Date In:

3/30/2004 1:13:51 PM

Gross: 44000 Lbs/Units
Tare: 19850 Lbs/Units
Net: 24150 Lbs/Units
Net Tons: 12.075 Tons/Units

Price per Ton/Unit: \$0.00
Total Charge: \$0.00
Transaction Type: No Charge

Signature


I Certify that this waste is from
Monroe County, Indiana

Check No. _____

7481 St Rd 48
04-040

Monroe County Landfill
7740 N. Fish Road
Bloomington, IN 47408
(812) 349-2864

Ticket: 39252

3/30/2004 2:36:33 PM

Truck:

Operator:

Diana

Customer ID: ILL ILLEGAL DUMP
Material ID: 3 No Charge Trash
PO Number: None

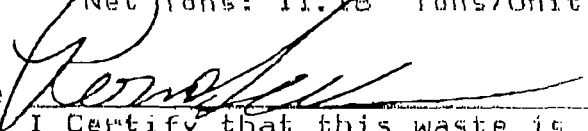
Time/Date In:

3/30/2004 2:29:46 PM

Gross: 42520 Lbs/Units
Tare: 20160 Lbs/Units
Net: 22360 Lbs/Units
Net Tons: 11.18 Tons/Units

Price per Ton/Unit: \$0.00
Total Charge: \$0.00
Transaction Type: No Charge

Signature


I Certify that this waste is from
Monroe County, Indiana

Check No. _____

7481 W. St Rd 48

04-040

Monroe County Landfill
7740 N. Fish Road
Bloomington, IN 47408
(812) 349-2864

Ticket: 39255

3/30/2004 3:04:16 PM

Truck: 30T39

Operator:

Diana

Customer ID: ILL ILLEGAL DUMP

Time/Date In:

3/30/2004 3:04:16 PM

Material ID: 3 No Charge Trash

PO Number: None

Gross: 66700 Lbs/Units

Tare: 34380 Lbs/Units

Net: 32320 Lbs/Units

Net Tons: 16.16 Tons/Units

Price per Ton/Unit: \$0.00

Total Charge: \$0.00

Transaction Type: No Charge

Signature

Jm - DK

I Certify that this waste is from
Monroe County, Indiana

Check No. _____

7481 W St Rd
#48

04-040

Monroe County Landfill
7740 N. Fish Road
Bloomington, IN 47408
(812) 349-2864

Ticket: 39258

3/30/2004 3:12:04 PM

Truck:

Operator:

Diana

Customer ID: ILL ILLEGAL DUMP

Time/Date In:

3/30/2004 3:12:04 PM

Material ID: 3T No Charge Tires

PO Number: None

Gross: 2 Lbs/Units

Tare: 0 Lbs/Units

Net: 2 Lbs/Units

Net Tons: 2.0 Tons/Units

Price per Ton/Unit: \$0.00

Total Charge: \$0.00

Transaction Type: No Charge

Signature

Jm - DK

I Certify that this waste is from
Monroe County, Indiana

Check No. _____

ATTACHMENT 4

Photographs

Sarber Sinkhole Investigation
Neal's Landfill, Bloomington, Monroe County, Indiana









