SKINNER LANDFILL WORK GROUP

July 09, 2001

Scott Hanson
EPA Project Coordinator
United States Environmental Protection Agency
Region V, C-14J
77 W. Jackson Blvd.
Chicago, IL 60604

Subject: June 2001 Progress Report
Skinner Landfill
West Chester, Ohio

This status report for June 2001 was prepared by the Skinner Landfill Group (SLG), as required by the Consent Decree entered by the United States District Court on April 2, 2001 for the Skinner Landfill in West Chester, Ohio.

June 2001 Construction Activities:

- Continued placement of sub-grade fill on south side of landfill
- Completed slurry wall construction and began construction of Interceptor Trench # 1.
- All slurry/bentonite CQA testing met specifications.
- Completed implementation of Tank & Drum Sampling Plan. Report submitted to SLG for review and approval.
- Relocated large shovel from construction site.
- Excavated two areas outside of landfill and consolidated into landfill. Confirmation soil samples were taken and we are awaiting the analytical data.
- Sub-grade shaping continued with selected waste grading.
- Former Groundwater Monitoring Well 21 was located and abandoned. Well Abandonment Record can be found in Attachment 8.
- Proterra's excavator for the slurry trench had four hydraulic oil leaks. A summary of these leaks and the corrective action taken by Proterra can found in Attachment 6.
- A slurry wall breach occurred on June 7 when an unknown drainage pipe was encountered.
- The letter detailing this event and the actions taken can be found in Attachment 7.
- Commenced installation of the landfill cap piezometers per the Groundwater Waste Monitoring Plan.

Regulatory Submittals/Approvals

- Submitted revised sub-grade grading plan to US EPA. Revised plan was approved by USEPA on June 27, 2001.

Community Outreach Activities

On June 20, 2001 a meeting was held at the Earth Tech construction trailer. Attendees included West Chester Assistant Fire Chief Tony Goller, Scott Hanson - US EPA, Ben Baker - Skinner Landfill Technical Committee, and several representatives from Earth Tech. The purpose of this meeting was to review site activities and progress on the implementation of the final cover and groundwater collection system. Assistant Fire Chief Goller updates the West Chester Trustee and Township officials on the progress of the work at the site and of any upcoming activities that have potential to impact the community. The Assistant Fire Chief visits the site several times throughout the week to keep informed on site activities. A copy of the meeting summary Chief Goller prepared and submitted to West Chester officials after the meeting can be found in Attachment 5.

A meeting has been scheduled with the West Chester Board of Trustees on August 21, 2001 to provide a status update

on the implementation of the RD/RA.

Current Issues

- Ray Skinner continues to raise issues. They are being appropriately addressed as construction continues.
- Cut/Fill and topsoil quantity analysis is on going to insure that enough soils are available on-site for the project.

Field Sampling Plan Activities

Three sampling events occurred during May.

- June 27-28, 2001 - Soil confirmation samples of the off-site areas excavated
- June 1, 2001 - Surface water run-off sampled
- June 13, 2001 - Surface water sampling was done

The results of the April 17, 2001 surface water sampling results have been validated. These results are summarized in Attachment 1.

The results of the May sampling events have been received and are undergoing data validation.

Sampling planned within the next six weeks is:
- Surface water sampling scheduled for July 16, 2001
- Surface water run-off sampling if a rain event > 0.1 inch occurs and run-off occurs
- Depending upon the results of the soil excavation confirmation sampling additional soil samples may be taken.

Additional details on the implementation of the Field Sampling Plan can also be found in Attachment 1.

Construction photo documentation of various site activities is on going. See Attachment 2 for selected photos showing various activities being conducted within this reporting period.

Weekly Construction Quality Assurance Reports can be found in Attachment 3.

Submittals Received

See Table 1 for a list of submittals received and approved by the Engineer.

See Attachment 4 for selected results of Construction Quality Assurance Testing Results for sub-grade placement and slurry trench installation. All CQA testing meet specifications.

Planned Activities:

Activities planned over the next six weeks include:

- Complete installation of interceptor trenches
- Continue removal of general fill from various borrow area with the site
- Continue shaping of waste to receive general fill
- Complete placement of general fill and sub-grade grading
- Commence installation of cap components.
- Complete the installation of landfill piezometers

- Continue construction layout by surveyors
- Sampling per Field Sampling Plan schedule
- Project meeting scheduled for July 18, 2001.
- Receive and validate and submit results of Tank & Drum sampling and initiate disposal of material.

If you have questions regarding the status of activities associated with the Site, please contact Ben Baker at (517) 636-0787

Sincerely,

Ben Baker, Chairman
Skinner Landfill Technical Committee
c/o The Dow Chemical Company
Ashman Center
9008 Bldg
4520 E. Ashman
Midland, MI 48674
(517) 636-0787

Attachments:

1. Field Sampling Plan Summary
2. Photo Documentation
3. Weekly CQA Reports
4. Selected Construction Quality Assurance Testing Results
5. June 20, 2001 Project Meeting Summary
6. Report for Hydraulic Oil Releases
7. Report for Slurry Wall Breach
8. Water Well Sealing Report

cc Chuck Mellon, Ohio EPA
Chuck Terwilliger, SLG Steering Committee
Michael O'Callaghan, Shumaker, Loop & Kendrick, LLP
Ron Roelker, Earth Tech
Rick Warwick, Earth Tech

TABLE 1

SUBMITTAL NUMBER	DESCRIPTION OF SUBMITTAL
005 Revised	• Bio-Polymer Work Plan • Quality Control • Waste Disposal Plan
008 Revised	Proterra Certificate of Insurance
020	• Specifications, Installation Guidelines & QC for CETCO Bentomat DN • Specifications, Installation and Handling for Skaps Industries TN 220-2-7-1, Geocomposite for Drainage Layer and Gas Vent Layer *(with exceptions noted)* • Specifications and Manufacturing QC for Agru America's 60 mil textured LLDPE Geomembrane *(with exceptions noted)* • Mid America Lining Company Qualifications as installer and QA/QC
021	Agu America geomembrane certifications (Specification Section 02406 Paragraph 1.02 A, 4,5,7, & 12.
023	Driscopipe Data Sheets for HDPE Pipe
024	Ashai America Type 56 Butterfly Valve Data Sheets
025	Apco Flapper Swing Check Valve Data Sheets

Attachment 1

Field Sampling Plan Summary

SKINNER LANDFILL REMEDIAL ACTION
FIELD SAMPLING PLAN
MONTHLY REPORT

REPORTING PERIOD: June 1, 2001 through June 29, 2001

TEST CONDUCTED:

- Surface water and surface water run-off sampling conducted (see table below)
- Soil excavation confirmation sampling

TESTING TO BE CONDUCTED WITHIN THE NEXT SIX WEEKS:

- Surface water sampling (scheduled for 7/16/01)
- Surface water run-off sampling (if greater than 0.10" rainfall event and run-off present)
- Additional soil excavation confirmation sampling (depending on results of initial sampling)

	MONTH					
MEDIA	April	May	June	July	August	September
soil			6/27,28/01			
surface water	4/17/01	5/17,18/01	6/13/01			
surface water run-off	NS	5/8/01	6/1/01			
groundwater						
biological		5/31/01				

NS – Not Sampled (no rainfall event of greater than 0.10")

SUMMARY OF ANALYTICAL RESULTS

The final laboratory analytical results of the April 17, 2001 surface water sampling results have been validated, the results are summarized on the following page. The final laboratory analytical results of the May 8, 2001 surface water run-off and May 17 and 18, 2001 surface water sampling events have been received and are being validated.

The final bio-monitoring results have been obtained and a bio-monitoring report is being prepared.

	SAMPLE LOCATION				
CONSTITUENT	SK-CSW50-100	SK-CSW51-100	SK-CSW52-100	SK-CSW53-100	**TRIGGER LEVELS**
metals					
antimony	4.8 b	<3.2	<3.2	<3.2	60.0
arsenic	**15.7**	**17.2**	**17.3**	**21.7**	10.0
barium	37.6 b	36.7 b	38.2 b	38.7 b	1,00.0
beryllium	<0.1	0.1 b	<0.1	<0.1	5.0
chromium	0.9 b	<0.5	<0.5	<0.5	11.0
copper	1.6 b	1.1 b	1.6 b	1.4 b	25.0
iron	144	123	190	85.0 b	5,000.0
silver	0.8 b	0.5 b	0.7 b	0.4 b	10.0
zinc	21.3	15.8 b	19.5 b	15.7 b	86.0
semi-volatiles					
di-n-butylphthalate	1.7 b j	2.44 j b	1.82 b j	1.81j b	190.0
bis (2-ethylhexyl) phthalate	<10.0	<10.0	<10.0	10.6 b	49.0
volatiles					
chlorobenzene	<10.0	1.0 j	<10.0	<10.0	26.0

all results reported in parts per billion (ppb)
b – constituent is found in the associated blank as well as in the sample
j – constituent detected below the reporting limit, but above the method detection limit

Attachment 2

Photo Documentation

Photo 1. Abandonment of Monitor Well GW-21 near top of landfill.

Photo 2. Construction of Slurry Wall near Station 7+00.

Photo 3. Field QA/QC testing of bentonite-water mixture (slurry).

Photo 4. Field QA/QC testing (slump) of slurry-soil mixture.

Photo 5. Pug mill for bentonite-water slurry mixture.

Photo 6. Waste placement near the northwest corner of the landfill. Decon pad is shown at right background.

Photo 7. Construction of Interceptor Tench #1.

Photo 8. Construction of Interceptor Tench #1.

Attachment 3

Weekly CQA Reports

SKINNER LANDFILL REMEDIAL ACTION
CONSTRUCTION QUALITY ASSURANCE
WEEKLY PROGRESS MEETING REPORT

MEETING DATE: Monday, June 5, 2001

ATTENDEES: R. Roelker, J. Guenther

Current Construction Progress (work completed last week):

Continued slurry wall construction. Made minor site drainage improvements. Heavy rain occurring last week.

Planned Activities (for this week):

Continue slurry wall construction. Begin grading cap at northeast lobe. Install eastern silt fence. Move Ray's shovel.

Current Issues (cumulative):

Cut/fill quantity analysis.
Shallow rock at North Borrow Area.
Possible topsoil shortage. (to be measured in the field for estimate).
Ray Skinner indicated possible mustard gas containers buried at northwest corner of landfill.
Possible slurry wall construction on Saturdays.
Discolored water encountered at southeast corner of site (analysis in progress).
Monitor well GW-21 located and needs to be abandoned.

Issues Resolved:

CQA Activities:

Slurry/soil-bentonite CQA testing results all passing.
Proctor results from North Borrow Area received from geotech lab.

Design Issues (cumulative):

Fence realignment to allow through access to bridge and gate for west landfill entrance.
Upgrade creek erosion protection from stations 5+00 to 7+00.
No new issues.

Other Items

Hydraulic oil spill in slurry trench at two locations. Less than 5 gallons, absorbed and containerized.

SKINNER LANDFILL REMEDIAL ACTION
CONSTRUCTION QUALITY ASSURANCE
WEEKLY PROGRESS MEETING REPORT

MEETING DATE: Monday, June 13, 2001

ATTENDEES: R. Roelker, J. Guenther

Current Construction Progress (work completed last week):

Continued slurry wall construction. Waste regrading in progress.

Planned Activities (for this week):

Continue slurry wall construction. Continue waste regrading.

Current Issues (cumulative until resolved):

Cut/fill quantity analysis (regrading plan under development).
Shallow rock at North Borrow Area. (regrading plan under development).
Possible topsoil shortage. (to be measured in the field for estimate).
Ray Skinner indicated possible mustard gas containers buried at northwest corner of landfill.
Discolored water encountered at southeast corner of site (analysis in progress).

Issues Resolved:

Monitor well GW-21 abandoned in accordance with FSP.

CQA Activities:

Slurry/soil-bentonite CQA testing results all passing. Refusal in rock occurring before 2 ft key at some locations along the soil-bentonite slurry trench.

Design Issues (cumulative):

Fence realignment to allow through access to bridge and gate for west landfill entrance.
Upgrade creek erosion protection from stations 5+00 to 7+00.
No new issues.

Other Items

Scott Hansen visited adjacent property owner on June 12, 2001.
Monthly surface water sampling to be conducted this week.
Slurry breach occurred at Station 7+90 (and contained) on June 7, 2001.
Regrading plan submitted to USEPA on June 8, 2001.

SKINNER LANDFILL REMEDIAL ACTION
CONSTRUCTION QUALITY ASSURANCE
WEEKLY PROGRESS MEETING REPORT

MEETING DATE: Monday, June 18, 2001

ATTENDEES: R. Roelker, J. Guenther

Current Construction Progress (work completed last week):

Continued slurry wall construction. Waste regrading in progress.

Planned Activities (for this week):

Complete slurry wall construction. Complete 90% of waste regrading. Begin leg one of interceptor trench. Excavated small contaminated soil area next week.

Current Issues (cumulative until resolved):

Cut/fill quantity analysis (regrading plan under development).
Shallow rock at North Borrow Area. (regrading plan under development).
Possible topsoil shortage. (to be measured in the field for estimate).
Ray Skinner indicated possible mustard gas containers buried at northwest corner of landfill.
Discolored water encountered at southeast corner of site (analysis in progress).
Ray does not want us to disturb soil at the larger contaminated soil area.

Issues Resolved:

Ray's shovel moved out of proposed construction area.

CQA Activities:

Slurry/soil-bentonite CQA testing results all passing.
As-built survey of slurry wall to be conducted this week.

Design Issues (cumulative):

Fence realignment to allow through access to bridge and gate for west landfill entrance.
Upgrade creek erosion protection from stations 5+00 to 7+00.
No new issues.

Other Items

Jim Bradford of BCDES visited site to look at MH#9 on June 13, 2001.
Piezometer installation atop cap area planned for next week.

SKINNER LANDFILL REMEDIAL ACTION
CONSTRUCTION QUALITY ASSURANCE
WEEKLY PROGRESS MEETING REPORT

MEETING DATE: Wednesday, June 27, 2001

ATTENDEES: R. Roelker, J. Guenther, A. Benson

Current Construction Progress (work completed last week):

Completed slurry wall construction. Completed 95% of waste regrading. Began construction of Interceptor Trench #1.

Planned Activities (for this week):

Complete Interceptor Trench #1, Begin #2. Place subgrade at north and east areas of landfill. Complete access road construction. Complete soil relocation of Area BP-01/BP-02 and Area GW-38. Begin installation of landfill cap piezometers. Install cap passive gas vents.

Current Issues (cumulative until resolved):

Cut/fill quantity analysis (regrading plan under review).
Shallow rock at North Borrow Area. (regrading plan under review).
Possible topsoil shortage. (4,500 CY as measured, 9,000 CY needed).
Ray Skinner indicated possible mustard gas containers buried at northwest corner of landfill.

Issues Resolved:

Discolored water encountered at southeast corner of site found to be inert.
Ray OK with excavation of Area BP-01/BP-02.

CQA Activities:

Slurry/soil-bentonite CQA testing results all passed.
Interceptor Trench CQA test results all passing. Design elevations verified by RPO.
Compaction tests being conducted on subgrade placement.
Geosynthetic conformance test samples to be obtained after arrive of material rolls to the site next week.

Design Issues (cumulative):

Fence realignment to allow through access to bridge and gate for west landfill entrance.
Upgrade creek erosion protection from stations 5+00 to 7+00.
No new issues.

Other Items

Backfill compaction specs reduced at Area GW-38 (approved by Engineer).
Confirmation soil samples to be obtained from Area BP-01/BP-02 and Area GW-38.

Attachment 4

Selected Construction Quality Assurance Testing Results

EARTH TECH

Daily Summary of Site Activities

Site: Skinner Landfill Project No.: 38335

Date: 6/15/01 Time Work Began: 0700 Time Work Ended: 6:00

Staff:	Type	No.	Organization	Hours
Jason Gwethen, Mitch Collins, Jana Tuttle,			ET	
Aaron Denson, Mike Sherron, Alex Scott			ET	
Roger Roberts, Terry Leathers, Brian Marsh			ET	
Pro Terra, Geo-Solutions				

Equipment:	Present	Utilized (Y/N)
1 D65, Rubber tire, 1 backhoe	(ET)	yes
1 PC 300, 1 water truck, 1 D-6, 2 offroads	(rented)	yes
Pro-Terra's equipment		yes

Work Completed: Air monitoring on top while waste being graded and relocated, slurry trench dug to last station (will clean out trench and backfill on Monday, erosion control (berms, silt fence, straw bales maintained for weekend off, slurry backfill visible to 12+20, slurry center line marked for as-built up to ~~11+50~~ AB 12+00

Comments:

Future Plans: clay cap to be installed next week
piezometers on top to be installed soon

Prepared By: Aaron Denson

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GEO-SOLUTIONS/PRO-TERRA

SKINNER LANDFILL
WEST CHESTER, OH

SLURRY EXCAVATION

SLURRY TRENCH

DAILY QC RESULTS

DATE: 6/15/01

INSPECTOR: B. George
Geo-Solutions

WIDTH: 24 inches

DATE	STATION	FINAL RECORD DEPTH FROM PLATFORM FT	PANEL LENGTH FT	PANEL AREA EXCAVATED SF	DAILY SF	AVG. SF PER DAY	SF EXCAVATED TO DATE
5/29/01	3+65	0	Lead-In	0			
5/29/01	3+75	10	Lead-In	0			
5/29/01	3+78	14.5	Lead-In	0			
5/29/01	3+80	16	10	30.5			
5/29/01	3+90	16	10	160			
5/29/01	4+00	15.5	10	157.5			
5/29/01	4+10	15.5	10	155			
5/29/01	4+20	15.5	10	155			
5/29/01	4+30	14.5	10	150			
5/29/01	4+40	14.5	10	145			
5/29/01	4+50	14.5	10	145			
5/29/01	4+60	15.5	10	150	1248		1248
5/30/01	4+70	16	10	157.5			
5/30/01	4+80	16.5	10	162.5			
5/30/01	4+90	16	10	162.5			
5/30/01	5+00	16	10	160			
5/30/01	5+10	17	10	165			
5/30/01	5+20	17	10	170			
5/30/01	5+30	17	10	170			
5/30/01	5+40	17	10	170			
5/30/01	5+50	17.5	10	172.5			
5/30/01	5+60	21	10	192.5			
5/30/01	5+70	22	10	215			
5/30/01	5+80	22	10	220	2117.5	1683	3365.5
5/31/01	5+90	22	10	220			
5/31/01	6+00	22	10	220			
5/31/01	6+10	22	10	220	660	1342	4025
6/2/01	6+20	25	10	235			
6/2/01	6+30	25	10	250			
6/2/01	6+40	23	10	240	725	1188	4750
6/4/01	6+50	21.5	10	222.5			
6/4/01	6+60	23	10	222.5			
6/4/01	6+70	22.5	10	227.5			
6/4/01	6+80	22.5	10	225	897	1130	5648
6/5/01	6+90	21.5	10	220			
6/5/01	7+00	21.5	10	215			
6/5/01	7+10	21.5	10	215	650	1049	6298
6/6/01	7+20	23	10	222.5	223	932	6521
6/7/01	7+30	23	10	230			

GEO-SOLUTIONS/PRO-TERRA

SKINNER LANDFILL
WEST CHESTER, OH

SLURRY EXCAVATION

SLURRY TRENCH

DAILY QC RESULTS

DATE: 6/15/01

INSPECTOR: B. George
Geo-Solutions

WIDTH: 24 inches

DATE	STATION	FINAL RECORD DEPTH FROM PLATFORM FT	PANEL LENGTH FT	PANEL AREA EXCAVATED SF	DAILY SF	AVG. SF PER DAY	SF EXCAVATED TO DATE
6/12/01	11+30	25	10	253	1839	1155	13863
6/13/01	11+40	26.6	10	258			
6/13/01	11+50	32.6	10	296			
6/13/01	11+60	35	10	338			
6/13/01	11+70	34	10	345			
6/13/01	11+80	33.4	10	337			
6/13/01	11+90	33.6	10	335			
6/13/01	12+00	33.4	10	335	2244	1239	16107
6/14/01	12+10	33	10	332			
6/14/01	12+20	33	10	330			
6/14/01	12+30	31.9	10	324.5			
6/14/01	12+40	31.6	10	317.5			
6/14/01	12+50	30.6	10	311			
6/14/01	12+60	29.3	10	299.5			
6/14/01	12+70	28	10	286.5	2201	1308	18308
6/15/01	12+80	27.6	10	278			
6/15/01	12+90	27.3	10	274.5			
6/15/01	13+00	28	10	276.5			
6/15/01	13+10	28.3	10	281.5			
6/15/01	13+20	24.3	10	263			
6/15/01	13+30	25	10	246.5			
6/15/01	13+40	25	10	250			
6/15/01	13+50	20.5	10	227.5			
6/15/01	13+52	20.5	2	41	2139	1363	20448

COMMENTS:

SIGNED: _____
Contractor's QC Supervisor

SIGNED: _____
Owner's Representative

GEO-SOLUTIONS/PRO-TERRA

SKINNER LANDFILL
WEST CHESTER, OH

SLURRY EXCAVATION

SLURRY TRENCH

DAILY QC RESULTS

DATE: 6/15/01

INSPECTOR: B. George
Geo-Solutions

WIDTH: 24 inches

DATE	STATION	FINAL RECORD DEPTH FROM PLATFORM FT	PANEL LENGTH FT	PANEL AREA EXCAVATED SF	DAILY SF	AVG. SF PER DAY	SF EXCAVATED TO DATE
6/7/01	7+40	22.5	10	227.5			
6/7/01	7+50	21	10	217.5			
6/7/01	7+60	19.5	10	202.5			
6/7/01	7+70	19	10	192.5		948	7591
6/8/01	7+80	18.5	10	187.5			
6/8/01	7+90	16	10	172.5			
6/8/01	8+00	15.5	10	157.5			
6/8/01	8+10	13	10	142.5			
6/8/01	8+20	11.5	10	122.5			
6/8/01	8+30	12.5	10	120			
6/8/01	8+40	12.5	10	125			
6/8/01	8+50	12.5	10	125			
6/8/01	8+60	12.5	10	125			
6/8/01	8+70	12.5	10	125	1402	999	8993
6/9/01	8+80	12.6	10	125.5			
6/9/01	8+90	12	10	123			
6/9/01	9+00	11	10	115			
6/9/01	9+10	11	10	110			
6/9/01	9+20	11.5	10	112.5			
6/9/01	9+30	11.6	10	115.5			
6/9/01	9+40	11	10	113			
6/9/01	9+50	12.6	10	118			
6/9/01	9+60	13	10	128			
6/9/01	9+70	13	10	130	1190	1018	10183
6/11/01	9+80	13	10	130			
6/11/01	9+90	12.6	10	128			
6/11/01	10+00	18.3	10	154.5			
6/11/01	10+10	20.5	10	194			
6/11/01	10+20	21.5	10	210			
6/11/01	10+30	24.8	10	231.5			
6/11/01	10+40	26	10	254			
6/11/01	10+50	28	10	270			
6/11/01	10+60	25.8	10	269	1841	1093	12024
6/12/01	10+70	27.8	10	268			
6/12/01	10+80	27	10	274			
6/12/01	10+90	26.4	10	267			
6/12/01	11+00	26.4	10	264			
6/12/01	11+10	25.3	10	258.5			
6/12/01	11+20	25.6	10	254.5			

GEO-SOLUTIONS/PRO-TERRA

SKINNER LANDFILL
WEST CHESTER, OH

BACKFILL SLOPE

DAILY QC RESULTS

DATE: 06/15/01 INSPECTOR: B. George

BACKFILL SLOPE MEASUREMENTS (EVERY 10 FEET)

AM		PM	
STATION NO.	DEPTH	STATION NO.	DEPTH
11+40	0	11+40	0
11+50	1.5	11+50	0
11+60	9.5	11+60	0
11+70	12.5	11+70	0
11+80	15	11+80	0
11+90	16.5	11+90	0
12+00	19	12+00	0
12+10	19.5	12+10	0
12+20	21	12+20	0
12+30	23	12+30	0
12+40	25	12+40	0
12+50	26.5	12+50	0
12+60	27.5	12+60	3
12+70	28	12+70	11.5
		12+80	13.5
		12+90	16
		13+00	17.5
		13+10	21
		13+20	24.5
		13+30	25
		13+40	25
		13+50	20.5
		13+52	20.3

COMMENTS:

SIGNED: _____
CONTRACTOR'S QC

GEO-SOLUTIONS/PRO-TERRA

SKINNER LANDFILL
WEST CHESTER, OH

FRESH SLURRY

DAILY QC RESULTS

DATE: 06/15/01

INSPECTOR: B. George
Geo-Solutions

FRESH SLURRY: **VISCOSITY (4 TIME PER SHIFT) MINIMUM 40 SECONDS**

TIME:	RESULT:	
N/A		SECONDS

DENSITY: (2 TIME PER SHIFT) MINIMUM 64 PCF

TIME:	RESULT:	
		PCF

FILTRATE LOSS (Once per Truckload) <30 CC IN 30 MINUTES

TIME:	9:30	RESULT: 13	CC
DATE:	6/5/01		

Ph: (1 TIME PER SHIFT)

TIME:	RESULT:

Number of 50# bags bentonite mixed this date for slurry	0
Number of 50# bags bentonite mixed to date for slurry	205
Number of 100# bags bentonite mixed to date for slurry	960

COMMENTS:
No slurry was mixed this shift.

SIGNED: _____
Contractor's QC Supervisor

SIGNED: _____
Owner's Representative

GEO-SOLUTIONS/PRO-TERRA

SKINNER LANDFILL
WEST CHESTER, OH

TRENCH SLURRY

DAILY QC RESULTS

INSPECTOR: B. George
Geo-Solutions

DATE: 06/15/01

TRENCH SLURRY: **VISCOSITY (2 TIMES PER SHIFT) MINIMUM 40 SECONDS**

FIRST SAMPLING				SECOND SAMPLING			
TIME:	8:20			TIME:	13:30		
STATION	12+80	RESULT: 63	SEC.	STATION	13+00	RESULT: 83	SEC.
SAMPLE DEPTH:	Bottom			SAMPLE DEPTH:	Bottom		

DENSITY: (2 TIMES PER SHIFT) 84-93 PCF

FIRST SAMPLING				SECOND SAMPLING			
TIME:	8:20			TIME:	13:30		
STATION	12+80	RESULT: 85.5	PCF	STATION	13+00	RESULT: 89.5	PCF
SAMPLE DEPTH:	Bottom			SAMPLE DEPTH:	Bottom		

COMMENTS:

SIGNED: _____
Contractor's QC Supervisor

SIGNED: _____
Owner's Representative

GEO-SOLUTIONS/PRO-TERRA

SKINNER LANDFILL
WEST CHESTER, OH

S-B BACKFILL

DAILY QC RESULTS

DATE: 06/15/01 INSPECTOR: B. George

SLUMP: (3-6 in) (1 per shift)

STATION	TIME:	RESULT:	
11+60	9:45	3	INCHES

UNIT WEIGHT: (2 per shift)

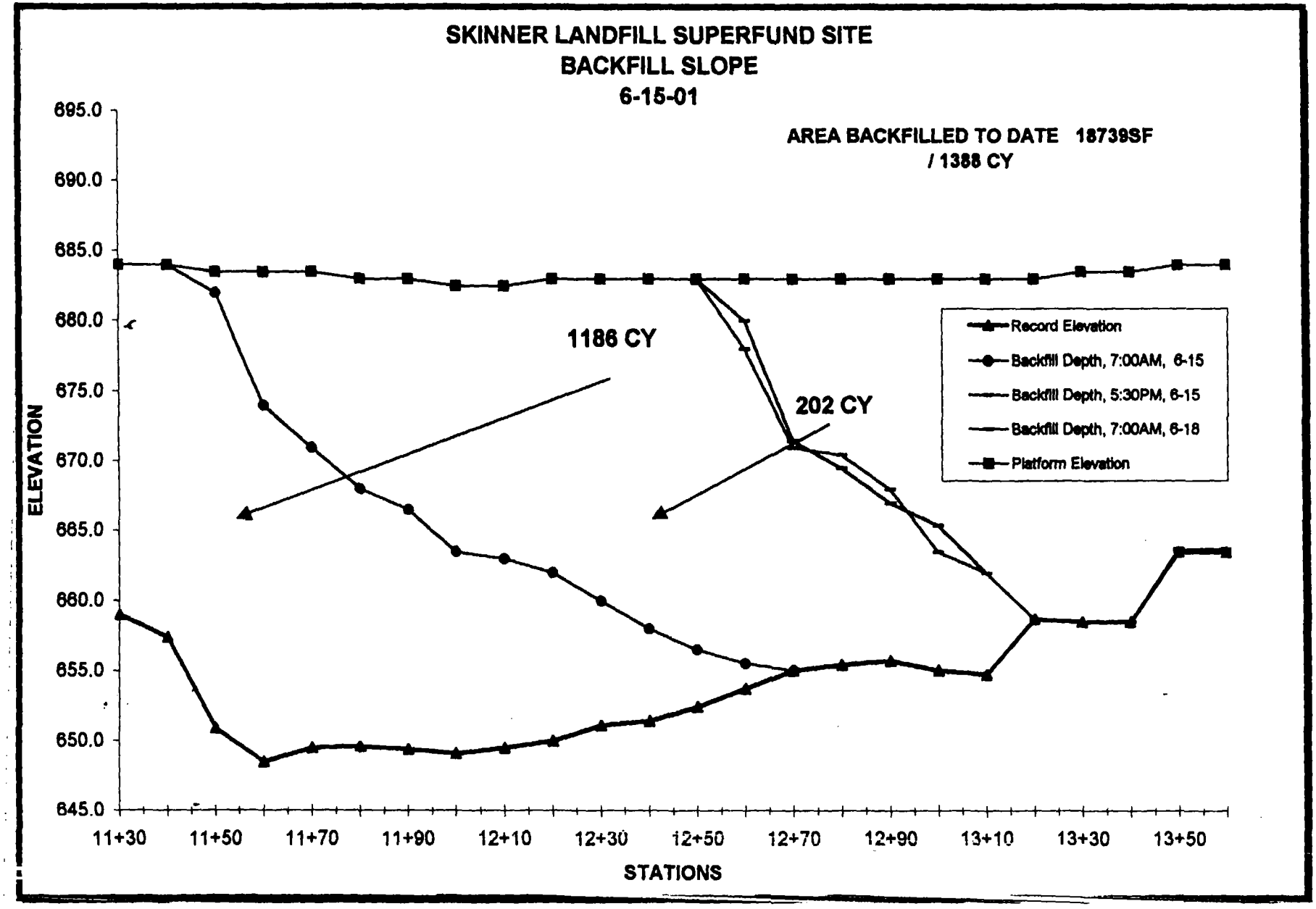
STATION	TIME:	RESULT:	
11+60	9:45	127	PCF
12+10	13:45	123	

COMMENTS:

Backfill sample # 8 was collected at sta. 11+60, for testing off site.

SIGNED: _____
Contractor's QC Supervisor

SIGNED: _____
Owner's Representative


SKINNER LANDFILL SUPERFUND SITE
BACKFILL SLOPE
6-15-01
AREA BACKFILLED TO DATE 18739SF
/ 1388 CY
1186 CY
202 CY
Record Elevation
Backfill Depth, 7:00AM, 6-15
Backfill Depth, 5:30PM, 6-15
Backfill Depth, 7:00AM, 6-18
Platform Elevation
ELEVATION
695.0
690.0
685.0
680.0
675.0
670.0
665.0
660.0
655.0
650.0
645.0
11+30
11+50
11+70
11+90
12+10
12+30
12+50
12+70
12+90
13+10
13+30
13+50
STATIONS

GEO-SOLUTIONS/REMTECH

Skinner Landfill Superfund Site
West Chester, OH

DAILY BACKFILL SLOPE AND AREA DATA
DATE: 6/15/01

STATION	RECORD EL	BACKFILL DEPTH 7:00AM 15-Jun EL	BACKFILL DEPTH 5:30PM 15-Jun EL	BACKFILL DEPTH 7:00AM 18-Jun EL	PLATFORM EL	RECORD DEPTH FT	BACKFILL DEPTH 7:00AM 15-Jun FT	BACKFILL DEPTH 5:30PM 15-Jun FT	BACKFILL DEPTH 7:00AM 18-Jun FT	TOTAL BACKFILL AREA 7:00AM AM SF	TOTAL BACKFILL AREA 5:30PM PM SF	TOTAL BACKFILL AREA 7:00AM AM SF
11+20	658.9	684.5	684.5	684.5	684.5	25.6	0	0	0	254.5	254.5	254.5
11+30	659.0	684.0	684.0	684.0	684	25	0	0	0	253	253	253
11+40	657.4	684.0	684.0	684.0	684	26.6	0	0	0	258	258	258
11+50	650.9	682.0	683.5	683.5	683.5	32.6	1.5	0	0	288.5	296	296
11+60	648.5	674.0	683.5	683.5	683.5	35	9.5	0	0	283	338	338
11+70	649.5	671.0	683.5	683.5	683.5	34	12.5	0	0	235	345	345
11+80	649.6	668.0	683.0	683.0	683	33.4	15	0	0	199.5	337	337
11+90	649.4	666.5	683.0	683.0	683	33.6	16.5	0	0	177.5	335	335
12+00	649.1	663.5	682.5	682.5	682.5	33.4	19	0	0	157.5	335	335
12+10	649.5	663.0	682.5	682.5	682.5	33	19.5	0	0	139.5	332	332
12+20	650.0	662.0	683.0	683.0	683	33	21	0	0	127.5	330	330
12+30	651.1	660.0	683.0	683.0	683	31.9	23	0	0	104.5	324.5	324.5
12+40	651.4	658.0	683.0	683.0	683	31.6	25	0	0	77.5	317.5	317.5
12+50	652.4	656.5	683.0	683.0	683	30.6	26.5	0	0	53.5	311	311
12+60	653.7	655.5	680.0	678.0	683	29.3	27.5	3	5	29.5	284.5	274.5
12+70	655.0	655.0	671.5	671.0	683	28	28	11.5	12	9	214	201.5
12+80	655.4		669.5	670.5	683	27.6		13.5	12.5		153	186.5
12+90	655.7		667.0	668.0	683	27.3		16	15		127	137
13+00	655.0		665.4	663.5	683	28		17.6	19.5		108.5	104
13+10	654.7		662.0	662.0	683	28.3		21	21		88.5	79
13+20	658.7		658.7	658.7	683	24.3		24.3	24.3		36.5	36.5
13+30	658.5		658.5	658.5	683.5	25		25	25		0	0
13+40	658.5		658.5	658.5	683.5	25		25	25		0	0
13+50	663.5		663.7	663.5	684	20.5		20.3	20.5		1	0
13+52	663.5		663.7	663.5	684	20.5		20.3	20.5		2	0
										16008 SF	18742 SF	18015 SF
										1186 CY	1388 CY	1356 CY

201 PENN CENTER BLVD. - SUITE 401 - PITTSBURGH, PA 15235
PHONE: 412-825-5164 - FAX: 412-825-5127

GEO-SOLUTIONS/REMTECH

Skinner Landfill Superfund Site
West Chester, OH

DAILY BACKFILL SLOPE AND AREA DATA
DATE: 6/15/01

STATION	RECORD EL	BACKFILL DEPTH 7:00AM 15-Jun EL	BACKFILL DEPTH 5:30PM 15-Jun EL	BACKFILL DEPTH 7:00AM 18-Jun EL	PLATFORM EL	RECORD DEPTH FT	BACKFILL DEPTH 7:00AM 15-Jun FT	BACKFILL DEPTH 5:30PM 15-Jun FT	BACKFILL DEPTH 7:00AM 18-Jun FT	TOTAL BACKFILL AREA 7:00AM AM SF	TOTAL BACKFILL AREA 5:30PM PM SF	TOT BACK LL ARE A. 7:00 M AM SI
11+30	659.0	684.0	684.0	684.0	684	25	0	0	0	253	253	25
11+40	657.4	684.0	684.0	684.0	684	26.6	0	0	0	258	258	25
11+50	650.9	683.5	683.5	683.5	683.5	32.6	0	0	0	296	296	29
11+60	648.5	683.5	683.5	683.5	683.5	35	0	0	0	338	338	33
11+70	649.5	683.5	683.5	683.5	683.5	34	0	0	0	345	345	34
11+80	649.6	683.0	683.0	683.0	683	33.4	0	0	0	337	337	33
11+90	649.4	683.0	683.0	683.0	683	33.6	0	0	0	335	335	33
12+00	649.1	682.5	682.5	682.5	682.5	33.4	0	0	0	335	335	33
12+10	649.5	682.5	682.5	682.5	682.5	33	0	0	0	332	332	33
12+20	650.0	683.0	683.0	683.0	683	33	0	0	0	330	330	33
12+30	651.1	683.0	683.0	683.0	683	31.9	0	0	0	324.5	324.5	324.5
12+40	651.4	683.0	683.0	683.0	683	31.6	0	0	0	317.5	317.5	317.5
12+50	652.4	683.0	683.0	683.0	683	30.6	0	0	0	311	311	311
12+60	653.7	678.0	683.0	683.0	683	29.3	5	0	0	274.5	299.5	29 .5
12+70	655.0	671.0	683.0	683.0	683	28	12	0	0	201.5	286.5	28 .5
12+80	655.4	670.5	683.0	683.0	683	27.6	12.5	0	0	155.5	278	278
12+90	655.7	668.0	683.0	683.0	683	27.3	15	0	0	137	274.5	27 .5
13+00	655.0	663.5	683.0	683.0	683	28	19.5	0	0	104	276.5	2 6.5
13+10	654.7	662.0	683.0	683.0	683	28.3	21	0	0	79	281.5	28 .5
13+20	658.7	658.7	683.0	683.0	683	24.3	24.3	0	0	36.5	263	263
13+30	658.5	658.5	683.5	683.5	683.5	25	25	0	0	0	246.5	246.5
13+40	658.5	658.5	683.5	683.5	683.5	25	25	0	0	0	250	250
13+50	663.5	663.5	684.0	684.0	684	20.5	20.5	0	0	0	227.5	227.5
13+52	663.5	663.5	684.0	684.0	684	20.5	20.5	0	0	0	205	205
										18715 SF	20448 SF	20448 SF
										1386 CY	1515 CY	1515 CY

201 PENN CENTER BLVD. - SUITE 401 - PITTSBURGH, PA 15235
PHONE: 412-825-5184 - FAX: 412-825-5127

EARTH TECH

Daily Summary of Site Activities

Site: Skinner Landfill Project No.: 38335

Date: 6/27/01 Time Work Began: 0700 Time Work Ended: 7:30

Staff:	Type	No.	Organization	Hours
Jason Guenther, Mitch Collins, John Tuttle,			ET	
Aaron Benson, Mike Sherron, Alex Scott,			ET	
Roger Roberts, Brian Marsh, Ken Fuller,			ET	
Terry Ledford, Jenny Dunard			ET	
Pro Terra crew, 600 solutions				

Equipment:	Present	Utilized (Y/N)
1 D65, 1 rubber tire, 1 backhoe, 1 tool trailer		yes
1 PC 300, 1 D65, 1 water truck, 2 offroads		yes
Pro Terra's equipment		yes

Work Completed: access road compacted/completed with french drain on upward side, 12" lift/cap added on NW corner for subgrade - compaction tested by Alt + Witzig, PCB area BP01/BP02 nearly dug out, F.T. #1 complete - set up for start of F.T. #2

Comments: 12" subgrade being met, compaction with sheepsfoot roller is meeting the required 90% compaction - no tests have failed

Future Plans: sample PCB area BP01/BP02, continue adding 12" lifts, start on F.T. #2

Prepared By: Aaron Benson

Geo-Solutions/Pro-Terra

SKINNER LANDFILL
WEST CHESTER, OH

SLURRY EXCAVATION

BIO-POLYMER SLURRY TRENCH

DAILY QC RESULTS

DATE: 6/27/01

INSPECTOR: B. George
Geo-Solutions

WIDTH: 24 inches

DATE	STATION	FINAL RECORD DEPTH FROM	PANEL LENGTH	PANEL AREA EXCAVATED	DAILY SF	AVG. SF PER DAY	SF EXCAVATED TO DATE
21-Jun	3+95	5	0	Lead-In			
21-Jun	3+90	5	5	Lead-In			
21-Jun	3+85	10	5	Lead-In			
21-Jun	3+79	13.5	6	70.5			
21-Jun	3+75	13.5	4	54			
21-Jun	3+70	10	5	58.75			
21-Jun	360	9.5	10	97.5			
21-Jun	3+50	9.5	10	95			
21-Jun	3+40	9.6	10	95.5			
21-Jun	3+30	9.5	10	95.5			
21-Jun	3+20	9.6	10	95.5			
21-Jun	3+10	10	10	98			
21-Jun	3+00	9.5	10	97.5	857.5		857.5
22-Jun	2+90	9.5	10	95			
22-Jun	2+80	9.5	10	95			
22-Jun	2+70	9	10	92.5			
22-Jun	2+60	9	10	90			
22-Jun	2+50	9	10	90	462.5	660	1320
23-Jun	2+40	9	10	90			
23-Jun	2+30	9	10	90			
23-Jun	2+20	9	10	90			
23-Jun	2+10	9	10	90			
23-Jun	2+00	9	10	90			
23-Jun	1+90	9	10	90	541	620	1861
25-Jun	1+80	9	10	90			
25-Jun	1+70	9	10	90			
25-Jun	1+60	9	10	90			
25-Jun	1+50	9.5	10	92.5			
25-Jun	1+40	9.5	10	95			
25-Jun	1+30	9.5	10	95			
25-Jun	1+20	9.5	10	95	647.5	701	2508.5
26-Jun	1+10	10	10	97.5			
26-Jun	1+00	10	10	100			
26-Jun	0+90	10.5	10	102.5			
26-Jun	0+80	10.5	10	105			
26-Jun	0+70	10.5	10	105			
26-Jun	0+60	10.7	10	106			
26-Jun	0+50	11	10	108.5	724.5	647	3233
27-Jun	0+40	11.5	10	112.5			
27-Jun	0+30	11.8	10	116.5			
27-Jun	0+20	11.8	10	118			
27-Jun	0+10	12	10	119			
27-Jun	0+00	12.5	10	122.5	586	637	3819

COMMENTS:

Geo-textile fabric was installed from sta. 0+50 to sta. 0+00.

Trench was backfilled with gravel medium, to grades, through sta. 0+00.

Interceptor well was installed at sta. 3+79, observation wells were installed at sta. 3+20, 2+20, 1+20. And 0+20.

SIGNED: _____
Contractor's QC Supervisor

SIGNED: _____
Owner's Representative

Geo-Solutions/Pro-Terra

SKINNER LANDFILL
WEST CHESTER, OH

BACKFILL SLOPE

DAILY QC RESULTS

DATE: 6/27/01

Inspector: B. George
Geo-Solutions

BACKFILL SLOPE MEASUREMENTS (EVERY 10 FEET)

AM		PM	
STATION NO.	DEPTH	STATION NO.	DEPTH
0+70	0	0+70	0
0+60	10	0+60	0
0+50	11	0+50	0
		0+40	0
		0+30	0
		0+20	0
		0+10	0
		0+00	0

COMMENTS:

SIGNED: _____
Contractor's QC Supervisor

SIGNED: _____
Owner's Representative

Geo-Solutions/Pro-Terra

SKINNER LANDFILL
WEST CHESTER, OH

BIO-POLYMER PLANT SLURRY

DAILY QC RESULTS

DATE: 6/27/01

INSPECTOR: B. George
Geo-Solutions

Plant Mixed Slurry

Date	Time (hrs.)	Polymer (5-gals.)	Density (lbs./c.f.)	Viscosity (MF sec)	pH	Comments
27-Jun	10:00		63	50	8	
	13:30		63	52	8	
	14:30		63	52	8	
	15:30	2	63	50	8	

Number of 5 gal. pails of polymer mixed for slurry this shift. 2
Number of 5 gal. pails of polymer mixed for slurry to date.. 42

COMMENTS:

SIGNED: _____ SIGNED: _____

Geo-Solutions/Pro-Terra

SKINNER LANDFILL
WEST CHESTER, OH

BIO-POLYMER
TRENCH SLURRY

DAILY QC RESULTS

DATE: 6/27/01

Inspector: B. George
Geo-Solutions

Trench Slurry (4 times per shift)

Time	Station No.	Depth	Viscosity	pH	Density	Comment
7:45	0+20	Bottom	28	8	63	

COMMENTS:
One trench sample was collected this shift.

SIGNED: _____
Contractor's QC Supervisor

SIGNED: _____
Owner's Representative

EARTH TECH

Field Density Test Report
(Nuclear Density Test)

Date: 6-27-01 Project: Skinner Landfill Page ___ of ___

Daily Report No.: ___ Project No.: ___

Technician: MARK Computer Entry: ___ Computer Backcheck: ___

Test Number	Retest Ref. No.	Location and Description	North Coordinate	East Coordinate	Elevation (Ft.)	Soil Description	Probe Depth (Inches)	Wet Density (Pcf)	Dry Density (Pcf)	Moisture (Pcf)	Moisture (%)	Proctor (Pcf)	% Compaction
1		G-W / 38				Br SA Cl	8"	/	128.6	/	11.9	129.1	99.6
2		Section (9)	491850	1432550		"	"	/	126.9	/	12.4	"	98.2
3		" (9)	491900	1432600		"	"	133.9	124.6	11.7	11.8	"	96.5

Comments: ___

Alt & Witzig Engineering, Inc.
10178 International Boulevard - Cincinnati, Ohio 45246
(513) 874-9494 - Fax (513) 874-9452

REPORT OF FIELD COMPACTION TESTS

Projec : Skinner Landf.ll
Client: Earth Tech
Date: 6-27-01 Day: Wednesday
Technician Mark
Weather/Temp.: Sunny 70°S-80°S

Compaction Specifications: 90%
Compaction Equip. Used: pullbehind sheep
Description of Fill Material: Br SA Cl w/6
Source of Material:

Test No.	Grade/Elev.	Soil ID Number	Maximum Lab Dry Density	Moisture Content	In Place Dry Density	Percent Compaction	Comments
1	Grade	2SC	129.1	11.9	128.6	99.6	A
2	"			12.4	126.9	98.2	A
3	"			11.8	124.6	96.5	A
4							
5							
6							
7							
8							

Test No.	Test Location
1	G-W / 38
2	E 1432550 N 491850
3	E 1432600 N 491980
4	
5	
6	
7	
8	

Attach sketch if locations are unclear.

Densities Shown: Lbs. Per cubic foot
Moisture Content: Percent of dry weight
Percent Compaction: Based on maximum dry density obtained on sample indicated by soil ID number.

(*)A = Test Results Comply with Specifications
B = Recompaction Required
C = Test is After Recompaction

Attachment 5

June 20, 2001 Project Meeting Summary

Baker, Ben (BF)

From: Wyrick [PWyrick@westchesteroh.org]
Sent: Wednesday, June 20, 2001 2:34 PM
To: turnerwr@butlercountyohio.org; DNoonan@ctmt.com; jta@fuse.net; melissacic@fuse.net; vickicic@fuse.net; Kathleen.Klink@lakotaonline.com; larry.glass@lakotaonline.com; mick.krieger@mail.house.gov; taco_99@msn.com; dmccabe@one.net; Lindenschmidt@prodigy.net; catherine@stoker.org; Korrer Amy; Rice; Murphy; Zerkle; James Detherage; Gully; Denise Huffman; John Bruce; Carter; Herzog; Wyrick; Fitzgerald; Huxsoll; Melissa Koehler; Michelle Morgan; Maryann Santel; Rahtz; William; Scott Campbell; Pendergrass; Vicki Hutchinson; Paily.Eapen@wheaton.edu; dovewong@yahoo.com
Cc: Baker, Ben (BF); Tony Goller
Subject: Fwd: Skinner Monthly Meeting

Skinner Monthly Meeting

Please see attached document from Assist. Fire Chief Tony Goller on the Skinner Site meeting which took place today. (6/20/01) Also,
Mr. Ben Baker of the Skinner Group accepted our invitation to come to a Trustees meeting to give an update of the project. He will attend the Tues., August 21st meeting and will be addressing the board during the beginning of the meeting (shortly after 7:00 p.m.)

Baker, Ben (BF)

From: Tony Goller [Tgoller@westchesteroh.org]
Sent: Wednesday, June 20, 2001 1:13 PM
To: Dan hegeman; Bill Borneman; James Detherage; Daniel Hegeman; Doug Morath; Santel; Edward Mayer; Jeff Elder; Mark Brate; Michael Hoell; Mike Mays; Paul Kreiner; Randall Hanifen; Rodney Parrett; Rick Prinz
Cc: Wyrick
Subject: Skinner Monthly Meeting

6/20/01 11:00am

Work presently being done on shaping of cap with a trac hoe. moving some dirt.

Slurry wall/trench was completed last Friday. Wall is keyed into bedrock in all areas.

Will be digging up dirt for waste consolidation from driveway area (southwest of site) next Weds. 6/27. Should take 3 or so days to complete.

Interseptor trench should start this afternoon, weather permitting.

Some grading has been done for surface water drainage.

Drum sampling has been done and a draft report on data and recommended actions should be to Ben Baker by weeks end. Very little liquid was found. That liquid will be put into one drum and shipped off site for proper disposal, as it stands now. Other drums were non-hazardous solids from previous soil work on the site.

They will start working Saturday's effective this Saturday 6/23 7:00-3:30 to get interseptor trench completed.

Earth Tech has been working with Jim Bradford from BC Env. Services on the sewer tap. Hopefully a mid-July tie in.

Ben Baker will be at the Trustee Mtg. Aug. 21st for a site up-date.

The liner for the cap should be scheduled to be delivered in July. 14-20 trucks. Will let us know when date is closer and confirmed.

Earth Tech is working on the final grading plan to be submitted and approved by USEPA.

No contaminates have been detected above any action levels up to this point.

One injury on site was a back strain, pulling construction fence out of mud and strained back.

Mid-American Company will be doing the cap.

Approximately 17 workers have been at the site daily.

Five (5) Pizometer (2" Plastic pipe) wells are to be installed on top of the site next Tues. 6/26 to monitor the ground water levels vs the waste levels.

Next Mtg July 18 11:00am.

Attachment 6

Report for Hydraulic Oil Releases

SKINNER LANDFILL WORK GROUP

July 6, 2001

Mr. Scott K. Hansen
Remedial Project Manager
USEPA - Region 5
77 West Jackson Boulevard
Chicago, IL 60804-3590

RE: Report for Hydraulic Oil Releases
Groundwater Interceptor System
Skinner Landfill, West Chester, Ohio

Dear Mr. Hansen:

The following releases of hydraulic oil occurred along and during the slurry wall trench construction:

Date	Location
May 31, 2001	Station 6+00
June 5, 2001	Station 7+00
June 6, 2001	Station 7+00 to 7+20
June 7, 2001	Station 7+40

Each release was less than 1 gallon. In all cases, the oil was removed using oil sorbant pads. The sorbant pads were drummed and removed from the site. We have contacted our subcontractor concerning these releases and they have responded with the attached letter. The contingency plan was not activated since the quantity released was less than that required to be reported under the *Ohio EPA Petroleum Contaminated Sites Guidance Document for Emergency Response Actions*, dated July, 1997.

Should you have any questions, please contact me at (517) 636-0787.

Sincerely,

Ben Baker
Skinner Landfill Work Group
Technical Coordinator

LETTER OF TRANSMITTAL

Transmittal # 01

EARTH TECH
A TYCO INTERNATIONAL LTD COMPANY

VIA ☐ REGULAR MAIL ☐ FEDERAL EXPRESS ☐ FAX ☐ E-MAIL

Wilder, KY 41076
Phone: (859) 442-2300
Fax (859) 442-2306

DATE: June 14, 2001	JOB/PROJECT: Skinner Landfill West Chester, OH 38335.05
ATTENTION: Ron Roelker	
SUBJECT: Hydraulic Line Breakage PC-400	

WE ARE SENDING YOU:

☒ ***Attached***

☒ Copy of letter ☐ Change order

☐ Flow sheets ☐ P & ID

☐ Shop drawings ☐ Plans ☐ Other

☐ **Under *separate cover via the following items:***

☐ Prints ☐ Specifications

☐ Samples

Item Number	Number of Copies	Document Type	Description
1	1	Copy	Proterra's Corrective Action Plan for Line Breakage

THESE ARE TRANSMITTED as checked below:

☒ For approval

☐ For your use

☒ As requested

☐ For review & comment

☐ FOR BIDS DUE

☐ Approved as submitted

☐ Approved as noted

☐ Returned for corrections

☐ other: _____

☐ Resubmit copies for approval

☐ Resubmit copies for distribution

☐ Return corrected prints

☐ Prints Returned After Loan to Us

REMARKS:

Ron: Let me know if these actions meet with your approval.

Widening the trench at the top should minimize line scraping.

COPIES TO:

SENT BY/SIGNED: Rick Warwick

Engineer's Approval:

PRO-TERRA
ENVIRONMENTAL CONTRACTING PROFESSIONALS
Environmental Solutions for Today's Business

COLUMBUS • CINCINNATI
2000 Integrity Drive South
Columbus, Ohio 43209
614-443-3737
FAX 614-443-4139

EMERGENCY 24-HOUR
1-8-PROTERRA-4
(1-877-683-7724)

www.proterra-ec.com

June 13, 2001

Earth Tech
200 Vine Street
Wilder, Kentucky 41076

Attn: Mr. Rick Warwick, Project Director

Re: Skinner Landfill GWI System
West Chester, Ohio

Gentlemen:

Pro-Terra understands the concern you have over the breaking of hydraulic lines on the boom of the Komatsu PC 400 Excavator being used for trenching. We share your concerns about environmental impacts and impacts on the quality of the bentonite slurry. Furthermore, we also have productivity and economic impacts that direct us to take action to avoid similar breaks in the future.

The hydraulic oil has no impact on the performance of the slurry. The slurry has a relatively high density, higher than that of water, therefore when a release of hydraulic oil occurs, the hydraulic oil rises to the surface. The hydraulic oil will not mix with the slurry or create any type of reaction. There should be no concern for the performance of the final product, which is the soil/bentonite mixture used as trench backfill.

The amount of hydraulic oil spilled has been and should be below the 25 gallon volume which is reportable. Environmental clean up of any spill will be accomplished. We have an ample supply of absorbents on-site for emergency cleanup of any hydrocarbon spill. Subsequent to sit clean up, absorbents and hydrocarbons will be properly disposed of.

We have taken several preventative measures to limit the likelihood of a future break:

Replacement of all steel and high pressure hydraulic lines on the stick from the boom knuckle down to the bucket cylinder. Additional

brackets which affix the hydraulic lines to the stick have been added to help avoid snagging the lines on the trench walls.

The problem area for potential breaks appears to be at the knuckle connection between the boom and stick due to the two foot wide bucket being used. The slenderness of the trench creates the tendency for the boom knuckle and hoses to rub against the side of the trench when digging at depths greater than 18 feet. We will employ one of two methods to slightly widen the trench out to minimize rubbing the side walls. Side cutters have been attached to the bucket which in effect widens the trench 6 to 8 inches. We can also dig the trench wider in the upper portion of the trench down to the depth of the knuckle.

We hope that our actions have satisfactorily addressed your concerns. We have taken what we consider to be reasonable measures to avoid future breaks in the hydraulic lines. Due to the nature of digging in the blind below the surface of the slurry, we cannot fully guarantee that no more breaks will occur.

Should there be any questions concerning this matter, please contact this writer at your earliest convenience.

Sincerely,
PRO-TERRA ENVIRONMENTAL CONTRACTING COMPANY

Michael J. Ciammaichella

Michael J. Ciammaichella, PE
General Manager

cc: File
Job
Bob N.

Attachment 7

Report for Slurry Wall Breach

SKINNER LANDFILL WORK GROUP

July 6, 2001

Mr. Scott K. Hansen
Remedial Project Manager
USEPA - Region 5
77 West Jackson Boulevard
Chicago, IL 60804-3590

RE: Report for Slurry Wall Breach (June 7, 2001)
Groundwater Interceptor System
Skinner Landfill, West Chester, Ohio

Dear Mr. Hansen:

On June 7, 2001 at about 6:15 PM a previously unknown drainage pipe was encountered at Station 7+90 while excavating for construction of the slurry wall as shown on the attached Figure 1 and Photo 1. The 15-inch diameter metal pipe was found to be about 3 ft below grade, 25 ft long and daylighted between the fence and the East Fork Mill Creek. No evidence of the pipe was found on the west side of the slurry trench.

Remedial measures consisted of constructing a bermed containment area on the down-gradient side of the pipe and placing silt fence between the containment area and creek as shown on Photo 2. Slurry was then mixed with soil and moved to a dry-out area (Photo 3). Several days after drying, the slurry-soil mixture was placed in the landfill. The pipe was pulled completely out and also was placed in the landfill. The excavation was then backfilled with cohesive soils. The containment area was also restored to original grades.

A nominal amount of slurry reached the edge of the creek (Photo 4), causing some temporary muddy water along the bank. Muddy water was not observed downstream of the breach area. The contingency plan was not activated since the material was non-hazardous non-petroleum substance.

Should you have any questions, please contact me at (517) 636-0787.

Sincerely,

Ben Baker
Skinner Landfill Work Group
Technical Coordinator

EARTH TECH

A tyco INTERNATIONAL LTD COMPANY

CALCULATION SHEET

PAGE 1 OF 1

PROJECT NO. _____

CLIENT SCWG

SUBJECT Slurry Breach

PROJECT Skinner Landfill (6-7-2001)

Prepared by RFR Date 7-5-1

Reviewed by _____ Date _____

Approved by _____ Date _____

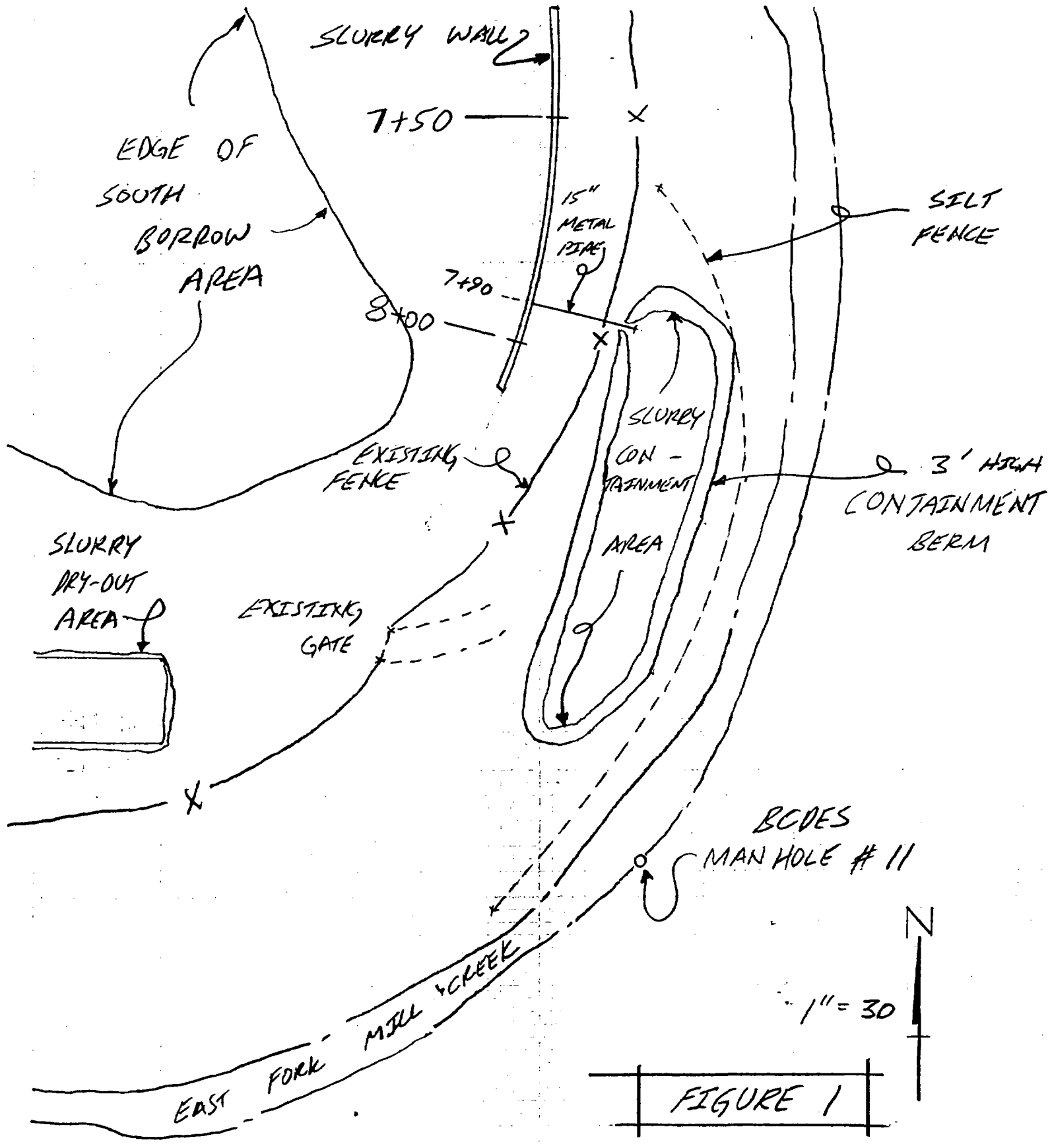


FIGURE 1

Rev. 3/99

SCALE: 10 sq./in

SKINNER LANDFILL SUPERFUND SITE
REMEDIAL ACTION
SLURRY WALL BREACH REPORT

Photo 1
This photo shows the slurry trench looking toward the east. The 15-inch metal pipe is at Station 7+90 on the right side of the trench. The pipe has an invert elev. about 4 ft. below grade and extents about 25 ft. and daylights on the other side of the fence.
The pipe was encountered in the late afternoon and caused slurry to drain near the edge of the East Fork of the Mill Creek.
The slurry was contained using earthen dikes and silt fence as shown on the next photo.

SKINNER LANDFILL SUPERFUND SITE
REMEDIAL ACTION
SLURRY WALL BREACH REPORT

Photo 2
Slurry containment area is shown at right foreground.
Silt fence is also shown at left.
Butler County Manhole #11 shown in left background.

SKINNER LANDFILL SUPERFUND SITE
REMEDIAL ACTION
SLURRY WALL BREACH REPORT

Photo 3
Slurry dry-out area shown at right foreground.

SKINNER LANDFILL SUPERFUND SITE
REMEDIAL ACTION
SLURRY WALL BREACH REPORT

Photo 4
Nominal amount of slurry which reached the edge of the creek.

Attachment 8

MW - 21 Well Abandonment Record

DNR 7810.96

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Water
1939 Fountain Square Drive
Columbus, Ohio 43224-9971
Voice: (614) 265-6739 Fax: (614) 447-9503

0121121

skinner GW-21

LOCATION

County Butler Township Union Section/Lot Number 22
Owner/Builder Skinner Landfill
Circle One or Both

Address of Well Location 8730 (Number) Cincinnati - Dayton Road (Street Name)

City West Chester Zip Code +4 45069

0.1 miles North (n, e, s, w) of West Chester Road (nearest intersection)

Property Location Description on the East (n, e, s, w) side of Cincinnati - Dayton Road (road name)

Location of Well in State Plane coordinates, if available N ☐ S ☐ E_X 1432155.[ ] +/- [ ] (ft. or m) N_Y 491450.[ ] +/- [ ] (ft. or m)

Elevation of Well 748.50 +/- [ ] (ft. or m) Datum Plain: ☐ NAD27 ☐ NAD83

Source of Coordinates: ☐ GPS ☐ Survey ☒ Other Construction plans

ORIGINAL WELL ~~ODNR Well Log Number~~ N/A GW-21 Copy attached? Yes or (No) (circle one)

MEASURED CONSTRUCTION DETAILS

Date of measurements 6/4/01

Depth of Well 29.59 feet Static Water Level 24.52 (well full of rust-colored mud)
Size of Casing 2 inch diameter Length of casing 19.59 feet
Well Condition well in good condition, bentonite seal intact

SEALING PROCEDURE

Method of Placement grout tremied (through augers) into open borehole

				Sealing Material	Volume
Placement:	From 30 feet	To 0.0 feet		Bentonite/Cement	7.50-lb. bags
	From	To			
	From	To			

Was Casing Removed? (Yes) or No (circle one)

Condition of Casing Casing in good condition
Perforations: From 19.95 feet To 29.95 feet
From To

Date Sealing Performed 6/4/01
Reason(s) for Sealing Well no longer needed

CONTRACTOR

Name Bowser-Morner ODH Registration # 1631
Address 4516 Taylorsville Road
City/State/Zip Dayton, OH 45424

Signature Patrick Hayes
I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05 (B) (9), Ohio Revised Code - file within 30 days after completion of sealing.
ORIGINAL COPY TO - ODNR, DIVISION OF WATER, 1939 FOUNTAIN SQ. DRIVE, COLS., OHIO 43224
Blue - Customer's copy Pink - Driller's copy Green - Local Health Dept. copy